

ARKANSAS STRATEGIC HIGHWAY SAFETY PLAN 2013

Toward Zero Deaths

On the cover: *top—AHTD, I-30 in Saline County; bottom—Texarkana Gazette, used with permission.*

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Arkansas Highway Safety Steering Committee

Arkansas State Highway and Transportation Department (AHTD)

Arkansas Highway Police (AHP), a Division of the AHTD

Arkansas State Police (ASP)

Arkansas Highway Safety Office (HSO), a Division of the ASP

Arkansas Department of Health (ADH)

Arkansas Department of Finance and Administration (DFA)

Arkansas Administrative Office of the Courts (AOC)

Little Rock Police Department

Metroplan

Pulaski County

West Memphis Metropolitan Planning Organization (MPO)

Federal Highway Administration (FHWA)

Federal Motor Carrier Safety Administration (FMCSA)

National Highway Traffic Safety Administration (NHTSA)

Executive Summary

In 2007, the year of the last Strategic Highway Safety Plan (SHSP), 650 people lost their lives on Arkansas roadways. Since then, a number of measures have been implemented to reduce motor vehicle fatalities such as the statewide trauma system, passing of a graduated driver's license law and primary seat belt law, and the installation of over 1,000 miles of rumble strips and over 100 miles of cable median barrier. As a result, the number of roadway fatalities in Arkansas decreased to 551 in 2011, a 15 percent decrease in four years. The fatality rate on Arkansas roadways decreased to 1.67 deaths per 100 million vehicle miles traveled, surpassing the previous goal of 1.8 by 2010.

Despite our accomplishments, Arkansas had the second highest traffic fatality rate in the Nation according to NHTSA in 2010. In 2005, Arkansas had the eighth highest fatality rate.

In 2011, the Arkansas Highway Safety Steering Committee began the process of updating the SHSP. A Safety Summit was convened in July 2012 that brought experts and local professionals together to help shape the plan. It was decided that the focus of the 2013 SHSP should be *Toward Zero Deaths*.

Arkansas' ultimate goal is to strive toward zero fatalities on our roadways. This goal supports the Toward Zero Deaths National Strategy on Highway Safety. To reach this goal, the SHSP identified key safety areas and high payoff strategies with interim goals.

The SHSP is the culmination of joint efforts of various organizations in Arkansas to set the direction of our future collective safety efforts. The SHSP is not limited or focused on one organization or one area of concern. The SHSP is applicable to all organizations that play a part on addressing road safety in Arkansas.

Arkansas can achieve our goals even with a rebound in the Nation's economy and an increase in vehicle miles traveled. According to NHTSA, US fatalities for the first six months of 2012 are nine percent higher than the first six months of 2011. However, fatalities in Arkansas through October 2012 are eight percent lower than the same time period last year. Arkansas is one of 11 states, according to the National Safety Council, that are continuing a downward trend compared to the same time period last year. This is a significant accomplishment, and we must keep the momentum.

Vision and Goals

While progress is being made to reduce fatalities on Arkansas' roadways, it is recognized that one fatality is too many. **To further save lives, it is the vision of the Arkansas Highway Safety Steering Committee that one day there will be zero fatalities on Arkansas' roadways.** The Strategic Highway Safety Plan (SHSP) is an integral part to turn this vision into reality through a multi-organizational approach that utilizes engineering, education, enforcement, and emergency services strategies. This vision and strategy is consistent with the Toward Zero Deaths (TZD) National Strategy on Highway Safety sponsored by the Federal Highway Administration (FHWA), the National Highway Traffic Safety Administration (NHTSA), the American Association of State Highway and Transportation Officials (AASHTO), and the Governors Highway Safety Association (GHSA).

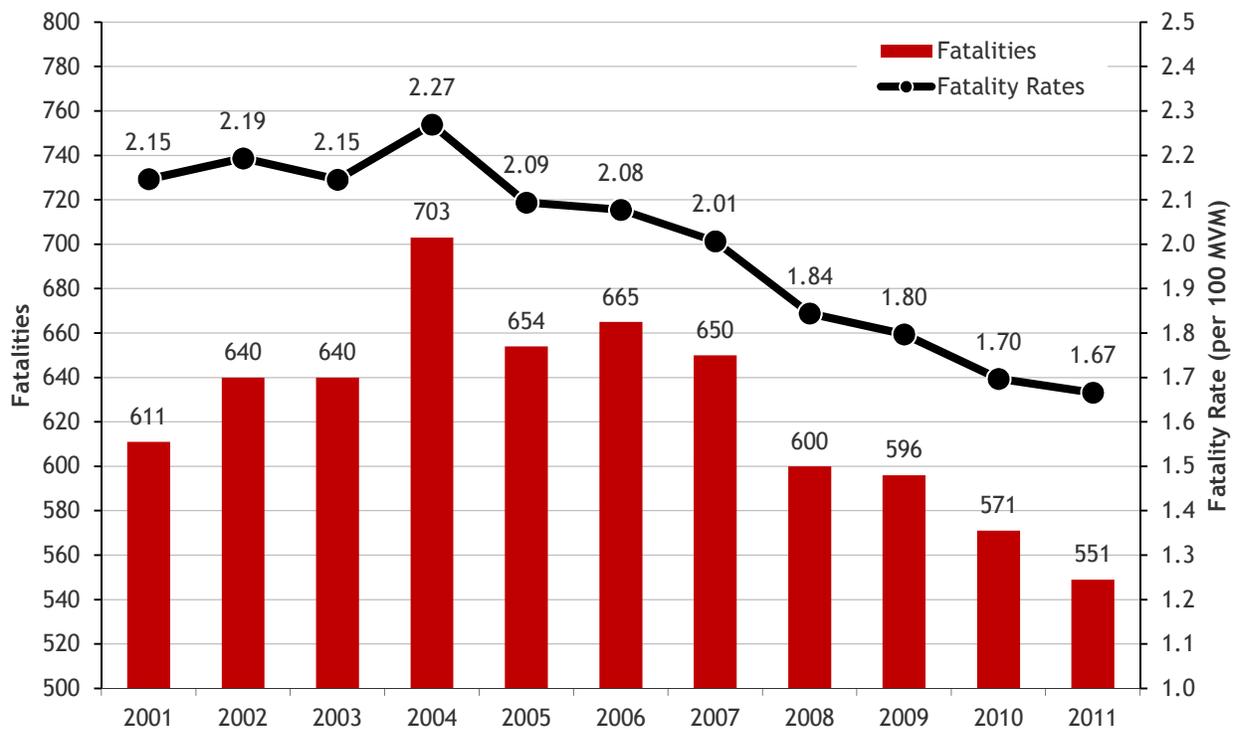
To turn the vision of zero fatalities on Arkansas roadways into reality, it is recognized that interim goals should be established in the near term. **The primary goal of the Strategic Highway Safety Plan is to reduce the annual number of roadway fatalities in Arkansas to 400 or less by 2017.** The secondary goal is to reduce the statewide fatality rate to 1.12 per 100 million vehicle miles (MVM) or less by 2017. This can be achieved through a combination of engineering, education, enforcement, and emergency services strategies in defined emphasis areas. Each emphasis area has individual goals to help meet the primary goal.



Background

In 2007, the Arkansas Highway Safety Steering Committee completed Arkansas' first SHSP as required by 23 U.S.C. 148. According to FHWA, the purpose of the SHSP is to identify key safety needs and guide investment decisions to achieve significant reductions in fatalities and serious injuries on all public roads. The goal of the 2007 SHSP was to reduce the fatality rate on Arkansas' roadways from 2.1 fatalities per 100 MVM traveled in 2005, to 1.8 fatalities per 100 MVM by 2010. **Arkansas achieved this goal. The fatality rate in 2010 was 1.70 fatalities per 100 MVM, a 19 percent decrease.** Preliminary crash data indicates that the trend of roadway fatalities in Arkansas continues to decrease. The fatality rate in 2011 was 1.67 fatalities per 100 MVM. See Figure 1 for historical roadway fatalities and fatality rates in Arkansas.

The Arkansas Highway Safety Steering Committee decided that although addressing serious injuries is important, the focus should ultimately be on fatalities. Further, due to changes in the Arkansas Motor Vehicle Crash Report Guide in January 2007, serious injury statistics prior to 2007 is not comparable to more recent numbers.



Source: FARS data from AR HSO, November 27, 2012

Figure 1. Annual Roadway Fatalities and Fatality Rates in Arkansas

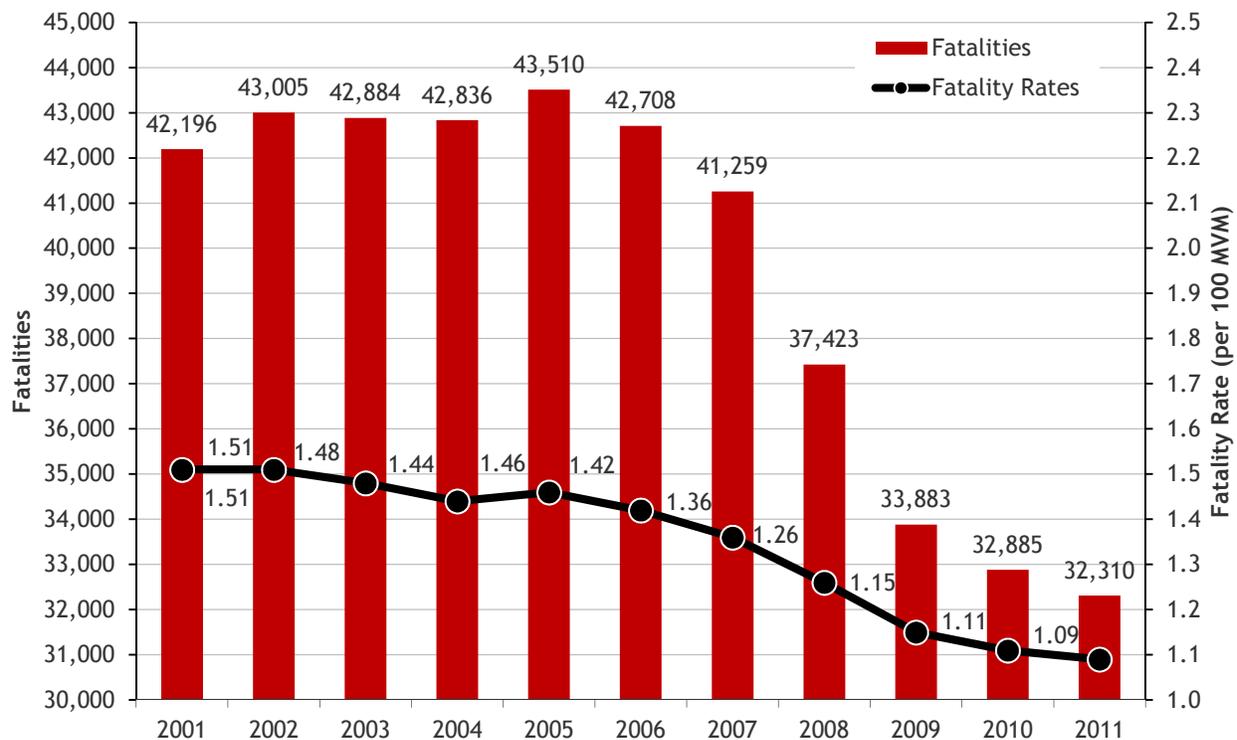
The reasons for the decline in roadway fatalities shown in Figure 1 are varied. Since the completion of the last SHSP in 2007, some of the accomplishments that likely had a significant impact on reducing fatalities include the following.

- In 2008, AHTD added over 1,000 highway miles of shoulder rumble strips. This is in addition to the almost 1,000 highway miles of rumble strips already in place. Further, AHTD developed a Rumble Strips Policy in April 2012 that will increase the installation of rumble strips throughout Arkansas.
- As of October 2012, AHTD has approximately 100 miles of cable median barriers complete or under construction, and approximately 400 more miles scheduled or programmed to be constructed.
- Upgrading signing and striping to new MUTCD standards.
- Act 181 of 2009 was passed that makes

texting while driving a primary offense.

- Acts 197 and 247 of 2009 were passed that places restrictions of cell phone use on young drivers.
- Act 308 of 2009 was passed to make the Seat Belt Law a primary offense.
- Act 393 of 2009 was passed to fund the Statewide Trauma System.
- Act 394 of 2009 was passed that established a graduated licensing system for young drivers.

Despite these accomplishments, however, the fatality rate has declined less than the national average. From 2005 to 2010, the national roadway fatality rate decreased from 1.46 to 1.11 fatalities per 100 MVM, a 24 percent decrease. Arkansas had the eighth highest roadway fatality rate in the nation in 2005; in 2010, Arkansas has the second highest roadway fatality rate according to NHTSA. See Figure 2 for national roadway fatality and fatality rates.



Source: FARS data from NHTSA, including preliminary 2011 data as of May 2012

Figure 2. National Annual Roadway Fatalities and Fatality Rates

To meet the primary goal of the SHSP, the reduction in roadway fatalities in Arkansas must be greater than the recent historical trend. If a linear trend is considered from 2004, the peak of annual roadway fatalities, through 2011 and projected to 2017, the number of fatalities would drop to 427 (a 23 percent decrease compared to 2011). Meeting the primary goal of 400 or fewer annual fatalities by 2017 would require a decrease of 27 percent. See Figure 3.

The secondary goal of 1.12 fatalities per 100 MVM (a 33 percent decrease compared to 2011) was chosen based on the primary goal, and the 35,700 MVM projected by 2017. This compares to 1.20 fatalities per 100 MVM (a 29 percent decrease compared to 2011), given the 2004 through 2011 linear trend projected to 2017. The downward trend in fatality rates is greater than the downward trend for fatalities due to the increase in travel on Arkansas roadways over that same time period. See Figure 4.

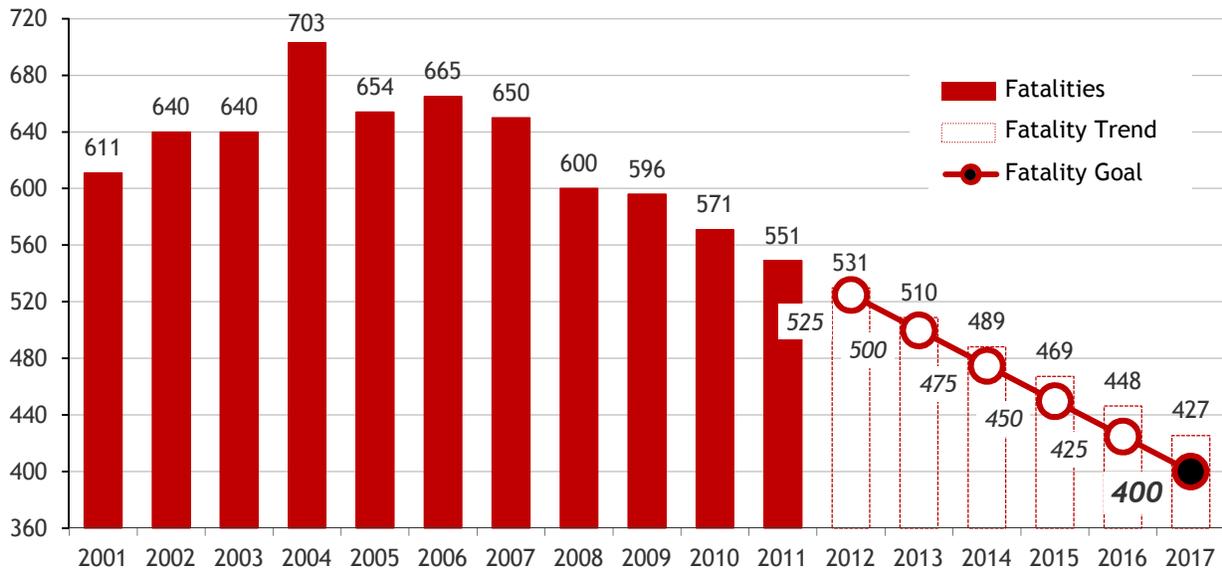


Figure 3. Annual Roadway Fatalities in Arkansas: Trends and Goals

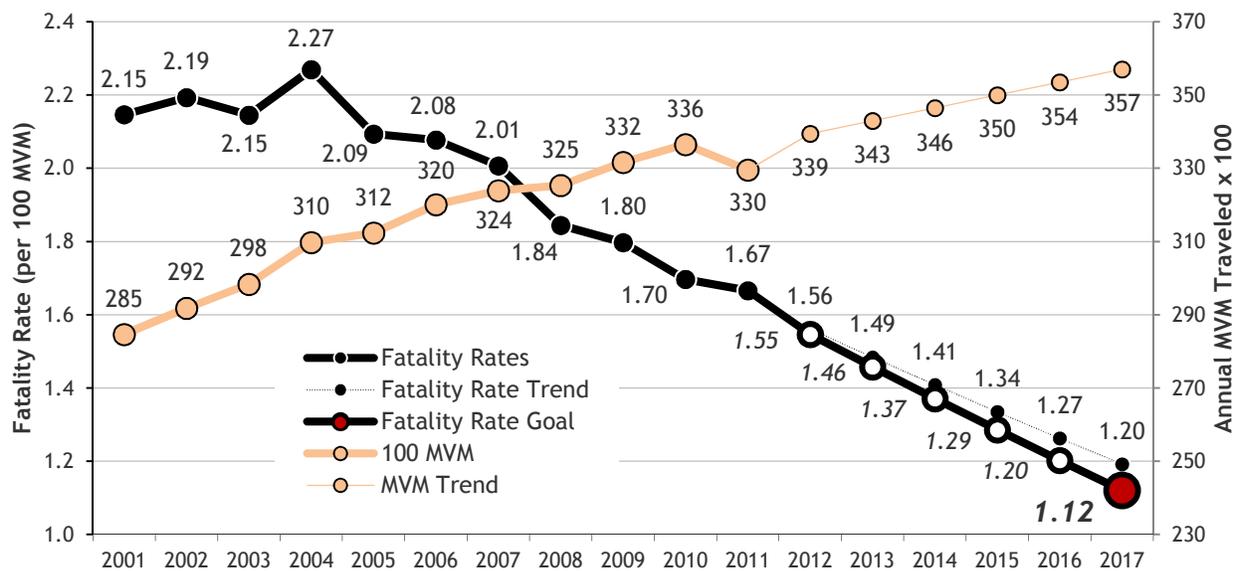


Figure 4. Annual Roadway Fatality Rates in Arkansas: Trends and Goals

Purpose

The SHSP is a data-driven, comprehensive plan that establishes statewide goals, objectives, and key emphasis areas. It integrates the four “E’s”—engineering, education, enforcement, and emergency services—and was developed in coordination with local, state, and federal stakeholders. The intent of the SHSP is to act as a guide to direct the development of specific goals and strategies for organizations in Arkansas to reduce roadway fatalities. It is not intended to replace any existing plans in any organization, but can be used as a guide for other planning documents. It also does not address every safety strategy currently being implemented, but focuses primarily on strategies with the greatest potential to reduce fatalities.

Emphasis Areas

To meet the primary goal by 2017, areas of roadway safety were identified. Since it is recognized that time, resources, and funding are limitations to organizations that can impact roadway safety, the SHSP identified key safety areas where high payoff strategies using the four “E’s” may best reduce the number of roadway fatalities. The SHSP also recognizes other safety areas that have significant impact on roadway safety in Arkansas, but currently have low payoff strategies or are being addressed to such a degree that they only need enhancement. The SHSP is comprised of three groups of safety areas, which are listed below. The number of roadway fatalities for emphasis areas where data is available shown in Figure 5.

Primary Emphasis Areas

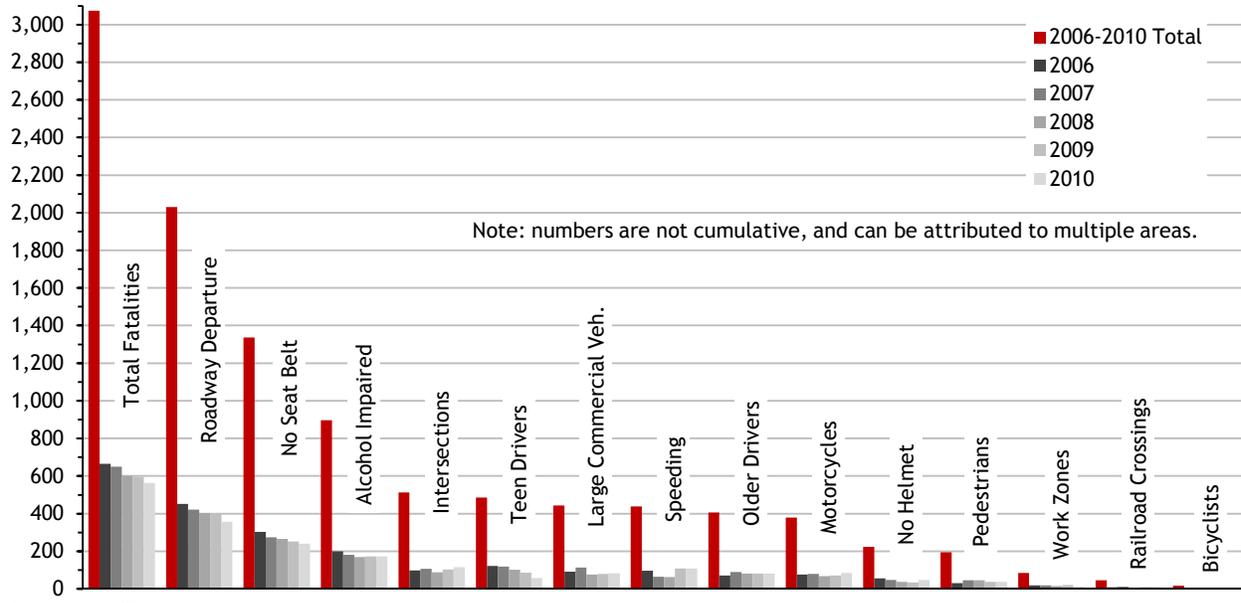
Roadway Departure
Intersections
Impaired Driving
Aggressive Driving
Distracted Driving
Younger Drivers
Safety Restraints
Motorcycles

Secondary Emphasis Areas

Pedestrians
Bicyclists
Older Drivers
Drowsy Driving
Large Commercial Vehicles
Work Zones
Railroad Crossings

Special Emphasis Areas

Emergency Services Capabilities
Traffic Data Systems
Safety Management System



Source: FARS database

Figure 5. Roadway Fatalities by Emphasis Area in Arkansas



Challenge

A roadway departure crash is defined as a non-intersection crash that occurs when a vehicle crosses the edge line, centerline, or otherwise leaves the traveled way. In 2010, 63 percent of all roadway fatalities in Arkansas involved a roadway departure crash, down from 68 percent in 2006 (see Figure 6).

Over 25 percent of roadway departure fatalities involve a vehicle crossing the median or centerline and striking an on-coming vehicle, and over 10 percent involve a vehicle striking a tree. Approximately 40 percent of roadway departure fatalities occur at horizontal curves, and approximately 80 percent of roadway departure fatalities occur in rural areas.

Goal

Reduce the number of annual roadway departure fatalities in Arkansas to 230 or fewer by 2017.

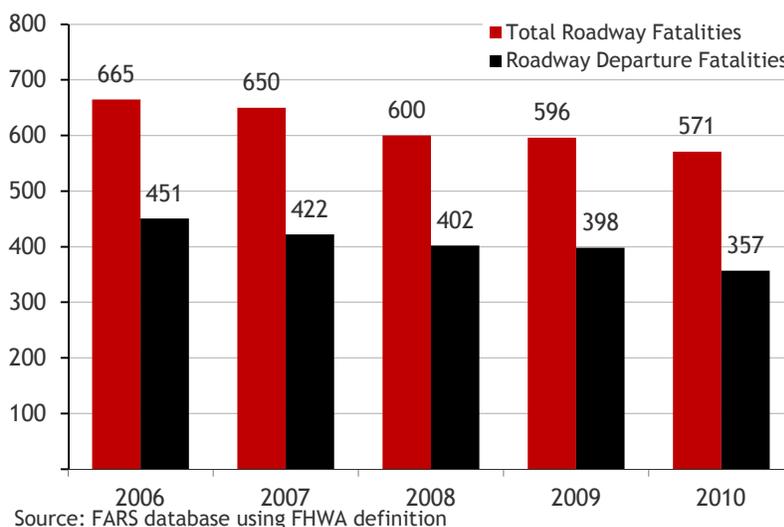


Figure 6. Roadway Departure Fatalities in Arkansas

Strategies

Engineering

- Continue installation of rumble strips as needed.
- Continue installation of cable median barriers.
- Implement low-cost safety measures, particularly at curves, such as enhanced signing and delineation and high-friction pavements.
- Eliminate edge drop-offs by implementing Safety Edge on rural roadway projects where appropriate.
- Provide minor shoulder widening where possible.

Education

- Implement outreach program to local governments to provide information on roadway departure crashes.

Enforcement

- Focus enforcement on corridors with a high number or percent of roadway departure crashes.

Emergency Services

- Continue education to first responders about cable median barriers.

Public Policy/Other

- Implement a multi-disciplinary road safety assessment program to target high crash locations and corridors.



Challenge

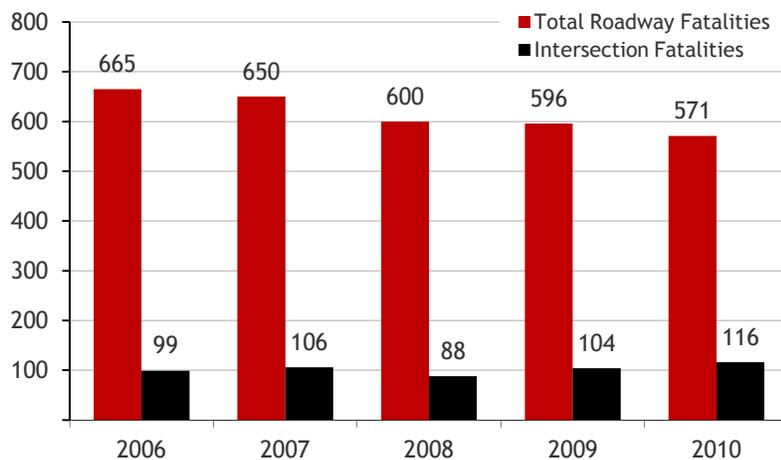
Approximately 20 percent of all roadway fatalities in Arkansas occurred at intersections in 2010, which is up from 15 percent in 2006 (see Figure 7).

Approximately half of all intersection fatalities occur in urban areas, compared to 20 percent of all roadway fatalities that occur in urban areas. Approximately 90 percent of all intersection fatalities occur at un-signalized intersections.

Almost half of all intersection fatalities were the result of angle collisions, virtually all of which involved a vehicle turning left or continuing through the intersection. The second most predominant type of intersection crash resulting in fatalities was single vehicle collisions. Most of these were the result of the driver failing to stop at a T-intersection, or attempting a turning maneuver.

Goal

Reduce the number of annual intersection fatalities in Arkansas to 85 or fewer by 2017.



Source: FARS database

Figure 7. Intersection Fatalities in Arkansas

Strategies

Engineering

- Improve sight distance, visibility, lighting, pavement friction, signing, and other traffic control devices, particularly at un-signalized intersections.
- Implement techniques to reduce left-turning and through movement conflicts, such as median treatments and roundabouts, as appropriate.
- Implement access management strategies as appropriate.
- Install backplates with reflective borders on traffic signal heads as appropriate.
- Install left and right turn lanes as appropriate.

Education

- Implement outreach program to local agencies to provide information on intersection crashes.

Enforcement

- Focus enforcement on intersections with a high number or percent of crashes.

Public Policy/Other

- Implement a multi-disciplinary road safety assessment program to target high crash locations.



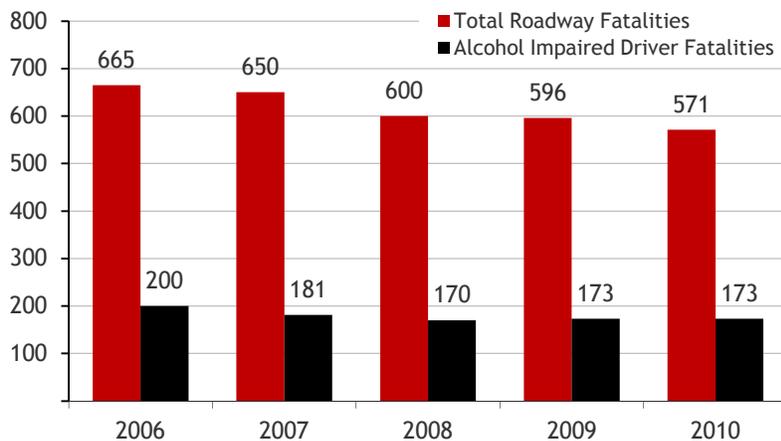
Challenge

Any fatal crash involving a driver with a blood alcohol concentration (BAC) of 0.08 grams per deciliter (g/dL) or higher is considered alcohol impaired. Approximately 31 percent of all roadway fatalities in Arkansas were alcohol impaired driving fatalities in 2010, similar to 2006 (see Figure 8).

Unlike alcohol impaired driving, measuring drug impaired driving is difficult due to the large number of substances, the variety of ways different drugs can impair driving, and the lack of information about many potentially impairing drugs. Due to these differences, there is a lack of consistent criteria regarding what constitutes a drug impaired driver, and thus no widely accepted performance measure is available at this time. However, according to a recent NHTSA report, an estimated 30 percent of all drivers who were killed in 2009 in a motor vehicle crash had some drugs in their system.

Goal

Reduce the number of annual alcohol impaired driving fatalities in Arkansas to 125 or fewer by 2017.



Source: FARS database

Figure 8. Alcohol Impaired Driver Involved Fatalities in AR

Strategies

Education

- Continue public outreach through media and public service announcements as part of nationally sponsored sobriety campaigns.
- Continue education on impaired driving with children and teens.
- Promote designated driver programs.

Enforcement

- Expand the Drug Recognition Expert (DRE) program.
- Provide incentives and recognition to law enforcement officers to encourage increased impairment detection.
- Enhance impaired driving enforcement with a focus on targeting specific corridors.

Emergency Services

- Improve clarification of local protocols regarding blood draws for testing.

Public Policy/Other

- Increased fine or penalty for repeat offenders and refusals.
- Extend look-back period (currently 5 years).
- Clarify existing state law regarding testing.
- Expand and support DWI courts.
- Consider supporting the passage of a federally compliant open-container state law.

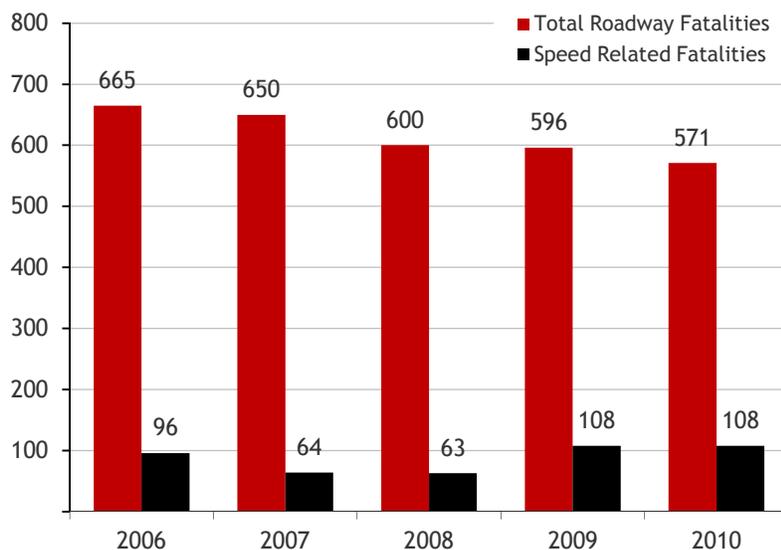


Challenge

As congestion and travel delays in Arkansas continue to increase, aggressive driving has become more common. Aggressive driving can include speeding, driving too fast for conditions, following too close, improper or erratic lane changing, improper passing, and other behaviors. Because speeding or driving too fast for conditions is considered a reliable measure and a common factor in aggressive driving, it is used as a proxy measure since there is no other widely accepted measure for aggressive driving. Approximately 19 percent of all roadway fatalities in Arkansas were aggressive driving related in 2010, up from 14 percent in 2006 (see Figure 9).

Goal

Reduce the number of annual speed related fatalities in Arkansas to 80 or fewer by 2017.



Source: FARS database

Figure 9. Speed Related Fatalities in Arkansas

Strategies

Engineering

- Consider traffic calming techniques as appropriate.

Education

- Promote defensive driving programs.
- Establish an educational program that identifies the dangers of aggressive driving.

Enforcement

- Enhance enforcement of aggressive driving with a focus on targeting specific corridors.

Public Policy/Other

- Support the passage of state law to define and address aggressive driving.

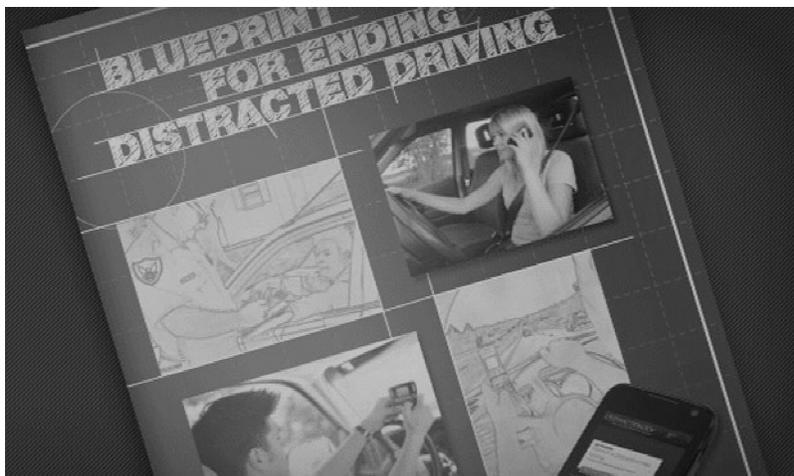


Challenge

Distracted driving is considered as any activity that could divert a person's attention away from the task of driving. Fatalities related to distracted driving, particularly texting, are a growing concern in Arkansas and the US. Although reliable historical data does not currently exist for distracted driving related fatalities, there were 34 fatalities in Arkansas that involved a distracted driver in 2010 (or six percent of all roadway fatalities) according to the Arkansas Highway Safety Office. According to NHTSA, approximately 7 percent of all roadway fatalities in the US in 2010 involved a distracted driver. The actual number of fatalities involving a distracted driver is likely higher due to the difficulty law enforcement has in defining and identifying when distracted driving is a factor in a crash.

Goal

Reduce the number of annual distracted driving fatalities in Arkansas to 30 or fewer by 2017.



Strategies

Engineering

- Continue installation of rumble strips as needed.

Education

- Promote distracted driving awareness and educational campaigns.

Enforcement

- Enhance distracted driving enforcement with a focus on targeting specific corridors.

Public Policy/Other

- Improve the definition of distracted driving in law and the collection of this data by law enforcement.
- Support the ban of hand-held wireless devices for all ages while driving.
- Increase penalties for violators of distracted driving laws.

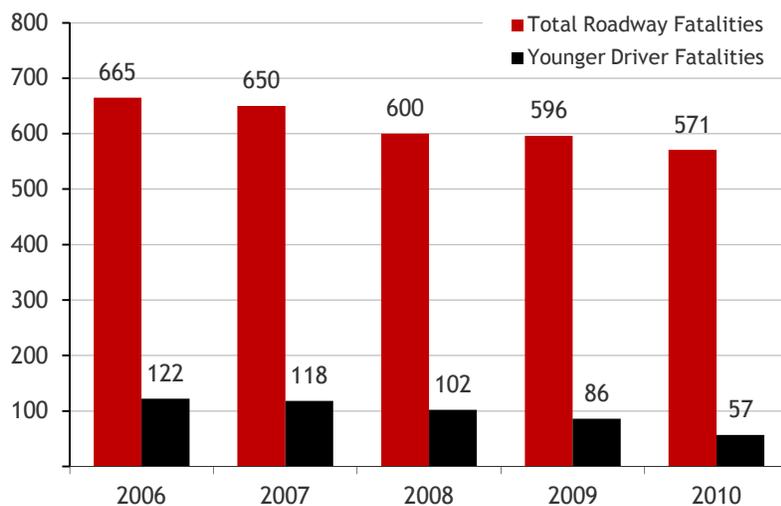


Challenge

Younger drivers (ages 15 to 20) typically account for a disproportionate number of roadway fatalities and crashes. Younger drivers lack driving experience and are more likely to take risks. However, roadway fatalities involving younger drivers have decreased significantly in recent years compared to total roadway fatalities in Arkansas, as shown in Figure 10. Approximately 10 percent of all roadway fatalities in Arkansas involved a younger driver in 2010, down from 18 percent in 2006. Much of the decrease can be attributed to the Graduated Drivers License (GDL) state law that was passed in 2009.

Goal

Reduce the number of annual younger driver fatalities in Arkansas to 40 or fewer by 2017.



Source: FARS database

Figure 10. Younger Driver Fatalities in Arkansas

Strategies

Education

- Support statewide coalitions for safer teen driving.
- Increase awareness of the GDL law and requirements.
- Encourage use of NHTSA standardized driver education criteria.

Enforcement

- Improve and increase enforcement of the GDL law.

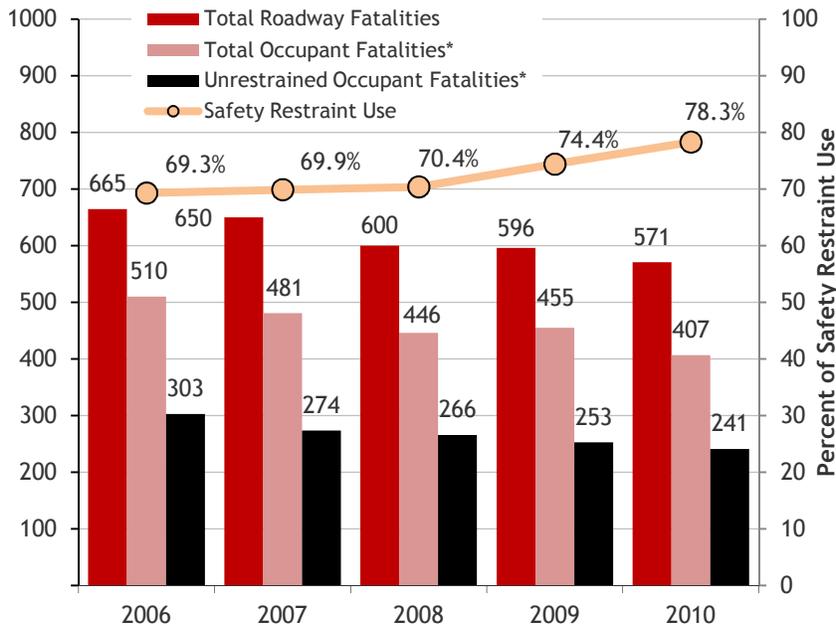


Challenge

Safety restraint use in Arkansas increased to 78 percent in 2010 (and remained unchanged in 2011), compared to 69 percent in 2006. However, 43 percent of all roadway fatalities in 2010 were motor vehicle occupants not wearing a safety restraint (see Figure 11). When compared to only occupants who were killed in passenger vehicles, 60 percent of the fatalities were not wearing a safety restraint.

Goal

Reduce the number of annual unrestrained fatalities in Arkansas to 160 or fewer by 2017.



Source: FARS database, AR HSO, & AR DFA
 *Includes occupants in passenger vehicles only

Figure 11. Unrestrained Occupant Fatalities and Restraint Use in Arkansas

Strategies

Education

- Continue seat belt and child passenger safety education programs.

Enforcement

- Continue the Click It or Ticket Campaign.

Emergency Services

- Improve documentation of passenger restraints.

Public Policy/Other

- Support change in state law to conform to NHTSA child restraint recommendation.
- Support change in state law to an all-inclusive passenger restraint law.



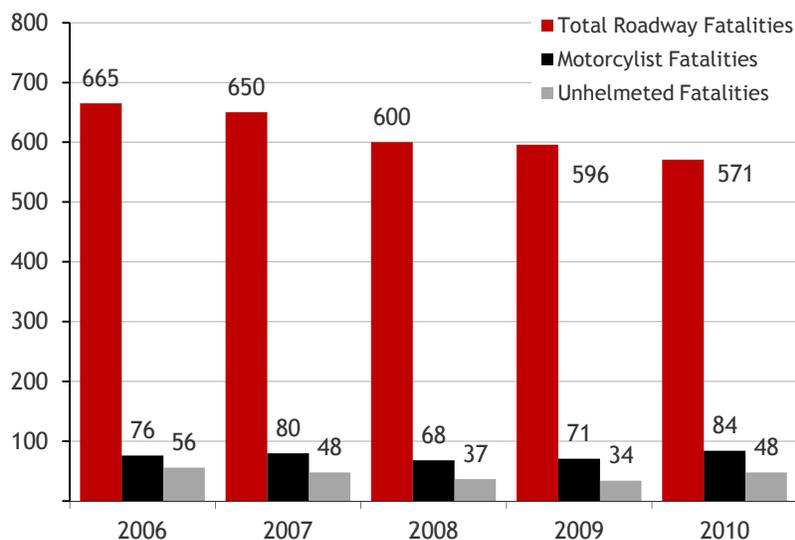
Challenge

Motorcycle crashes are a growing concern in Arkansas. Motorcycle registrations have increased 26 percent from 2006 to 2010. Although only three percent of all vehicles registered in Arkansas were motorcycles in 2010, 15 percent of all roadway fatalities were motorcyclists, up from 11 percent in 2006 (see Figure 12).

A major factor in the severity of a motor crash is helmet use. Arkansas repealed the helmet law in 1999, and now only requires helmets for motorcyclists age 21 or younger. In 2010, over half of all motorcyclist fatalities were not helmeted (see Figure 12).

Goal

Reduce the number of annual motorcycle fatalities in Arkansas to 60 or fewer by 2017.



Source: FARS database & AR HSO

Figure 12. Motorcyclist Fatalities in Arkansas

Strategies

Education

- Increase public awareness of benefits of motorcycle helmet use and high-visibility wear.
- Expand motorcycle safety training.

Enforcement

- Increase testing for impairment of motorcyclists in crashes.

Public Policy/Other

- Support helmet law for all ages.
- Consider fine reductions for helmet users.
- Increase minimum level of liability coverage for non-helmet users.



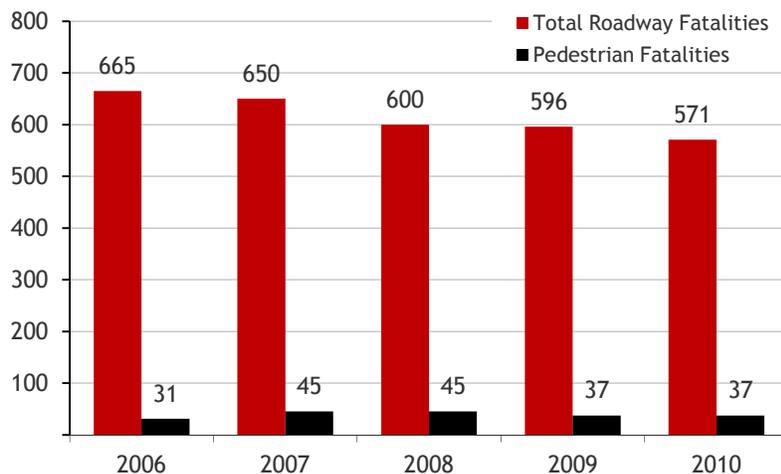
Challenge

Approximately seven percent of all roadway fatalities in Arkansas were pedestrians in 2010, compared to five percent in 2006 (see Figure 13).

Unlike many other emphasis areas, many pedestrian fatalities occur in urban areas. In 2010, nearly half of all pedestrian fatalities on Arkansas roadways occurred in urban areas. About 75 percent of pedestrian fatalities occur at night, which is higher than the 40 percent of total roadway fatalities that occur at night in Arkansas. Over 25 percent of pedestrian fatalities occur on a freeway, ramp, or frontage road. Almost 40 percent of the pedestrian fatalities have a BAC of 0.08 g/dL or greater, which compares to 33 percent nationwide in 2010. Very few pedestrian fatalities occur at marked crossings, and almost all the fatalities involve a pedestrian attempting to cross the roadway.

Goal

Reduce the number of annual pedestrian fatalities on Arkansas roadways to 27 or fewer by 2017.



Source: FARS database

Figure 13. Pedestrian Fatalities in Arkansas

Strategies

Engineering

- Improve lighting in areas that experience pedestrian activity as appropriate.
- Implement access management strategies in urban areas as appropriate.
- Encourage use of pedestrian signing allowed in the MUTCD at marked crosswalks as appropriate.
- Consider High Intensity Activated Crosswalk (HAWK) pedestrian traffic signals as appropriate.
- Implement context sensitive design, including road diets, where appropriate.

Education

- Increase awareness of the risk to pedestrians on high volume/speed roadways resulting from disabled vehicles, law enforcement stops, etc.
- Increase public awareness of the benefits of high-visibility wear.

Enforcement

- Expand targeting enforcement at high pedestrian generators as appropriate.

Public Policy/Other

- Support and implement Transportation Alternatives Program.
- Create a statewide bicycle and pedestrian plan.



Challenge

Arkansas has averaged less than four bicycle fatalities per year on roadways from 2006 through 2010. This makes up less than one percent of all roadway fatalities in Arkansas.

Much like pedestrian fatalities, many bicyclist fatalities occur in urban areas. Of the 17 bicycle fatalities from 2006 through 2010, over half occurred in urban areas and almost half occurred at night. Of those fatal crashes during the daytime, the bicyclist appeared to be mainly at fault in almost all cases. Of those fatal crashes at night, the driver appeared to be mainly at fault in almost all cases. However, many of these fatal crash reports did not report if the bicycle had proper front and rear lighting or reflectors according to state law, nor if the bicyclist wore bright or reflective clothing.

Goal

Reduce the number of annual bicycle fatalities on Arkansas roadways to three or fewer by 2017.



Strategies

Engineering

- Continue to accommodate bicycle use in new roadway construction where appropriate.
- Implement context sensitive design, including road diets, where appropriate.

Education

- Increase education of helmet use and high-visibility wear.
- Increase awareness of state bicycle laws to drivers and bicyclists.

Enforcement

- Increase education of state laws pertaining to bicyclists to law enforcement.

Public Policy/Other

- Support bicycle helmet law for young riders.
- Create a statewide bicycle and pedestrian plan.

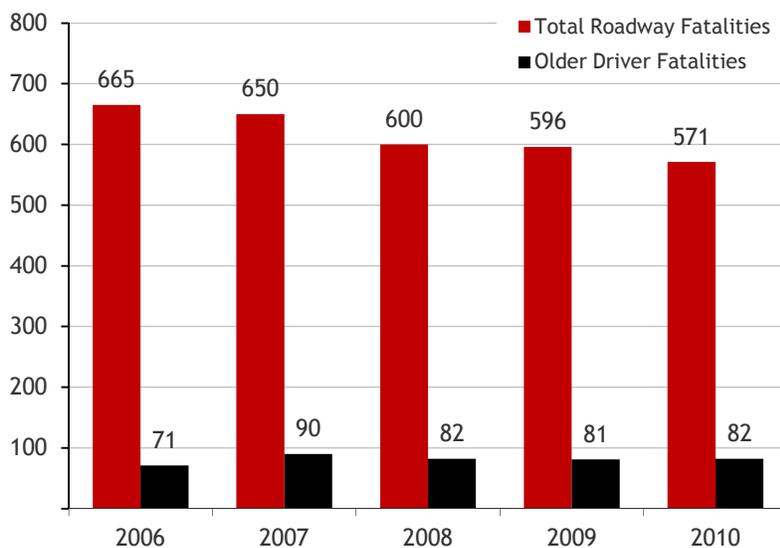


Challenge

According to the US Census Bureau, the number of Arkansans aged 65 or older have increased over 10 percent from 2000 to 2010. This increase is expected to continue into the near future. Approximately 14 percent of all roadway fatalities in Arkansas involved an older driver (aged 65 and older), up from 11 percent in 2006 (see Figure 14).

Goal

Reduce the number of annual older driver fatalities in Arkansas to 60 or fewer by 2017.



Source: FARS database

Figure 14. Older Driver Fatalities in Arkansas

Strategies

Engineering

- Implement strategies, such as improved roadway visibility features, that benefit older drivers as appropriate.
- Implement the updated FHWA Highway Design Handbook for Older Drivers when it is released as appropriate.

Education

- Educate older drivers on the safety risks resulting from reduced driving task performance.
- Educate older drivers on alternative transportation modes available.

Public Policy/Other

- Increase frequency of vision assessments for older drivers.
- Promote the use of restricted drivers licenses for older drivers.

Secondary Emphasis Area: Drowsy Driving**Challenge**

Fatalities related to drowsy or fatigued driving is a growing concern in Arkansas and the US. Unfortunately, fatalities associated with drowsy driving are typically under-reported due to the difficulty of attributing crashes to sleepiness. According to NHTSA, less than five percent of all roadway fatalities are estimated to involve a drowsy driver. Fatal crashes related to drowsy driving are typically roadway departure crashes on rural two-lane roadways, according to the Transportation Research Board (NCHRP Report 500, Volume 14).

Goal

Since determining drowsy driving as a factor in fatal roadway crashes is difficult and unreliable, and because drowsy driving fatalities are likely to be roadway departure, the goal for reducing drowsy driving fatalities will be the same as roadway departure.

Strategies**Engineering**

- Continue installation of rumble strips as needed.
- Continue installation of cable median barriers.

Education

- Promote drowsy driving awareness and educational campaigns.



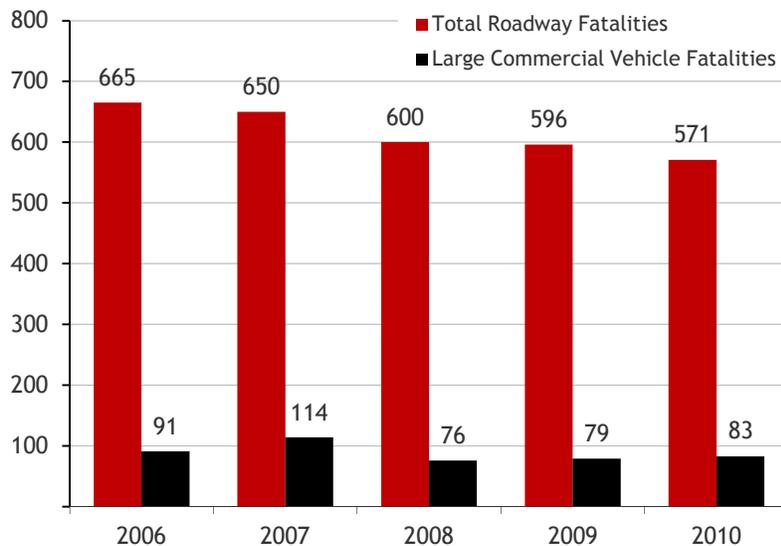


Challenge

Collisions involving a large commercial vehicle and passenger vehicles are more likely to be fatal due to the size differences between the two vehicles. Almost 15 percent of all roadway fatalities in Arkansas involved a large commercial vehicle in 2010 (see Figure 15).

Goal

Reduce the number of annual fatalities involving a large commercial vehicle in Arkansas to 60 or fewer by 2017.



Source: FARS database

Figure 15. Fatalities Involving a Large Commercial Vehicle in Arkansas

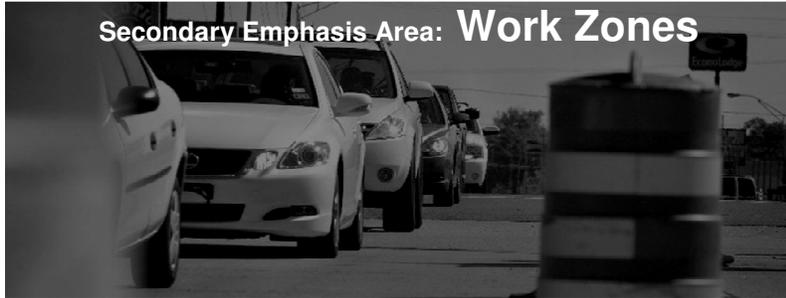
Strategies

Engineering

- Continue installation of cable median barriers, including considerations for higher performance barriers on routes with high number of trucks or truck crashes.

Enforcement

- Increase compliance reviews through roadside inspections.
- Continue to identify truck high crash locations for targeted enforcement.
- Continue to conduct safety audits on commercial motor vehicle carriers.

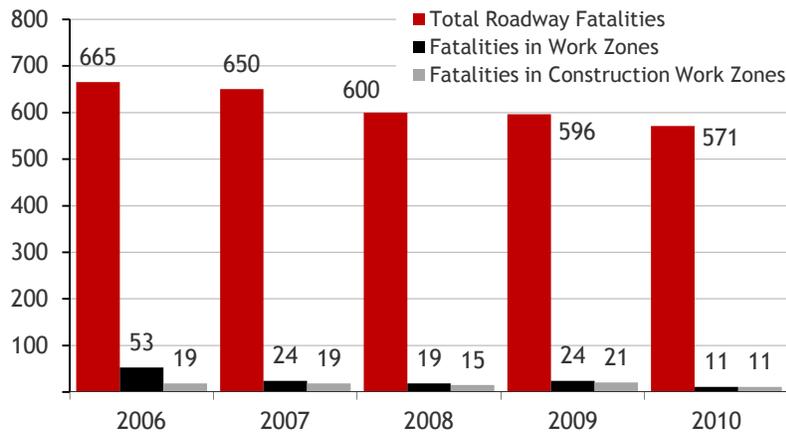


Challenge

Although two percent of roadway fatalities in Arkansas occurred in construction work zones in 2010, the number has come down in recent years (see Figure 16). Much of that is due to fewer work zones compared to 10 years ago, during the Interstate Rehabilitation Program (see Figure 17). Due to recent voter approval, AHTD has begun a new round of highway projects that will result in more work zones in the next 10 years.

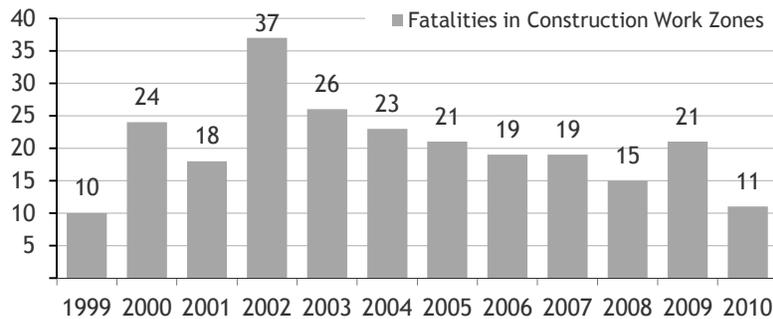
Goal

Reduce the number of annual construction work zone fatalities in Arkansas to 10 or fewer by 2017.



Source: FARS database

Figure 16. Fatalities in Work Zones in Arkansas



Source: FARS database

Figure 17. Fatalities in Construction Work Zones since 1999

Strategies

Engineering

- Implement engineering and contracting methods to reduce the duration of work zones.
- Implement ITS strategies, such as dynamic message signs, where appropriate.
- Implement consistent traffic control strategies due to lane shifts or closures to meet driver expectations.
- Continue implementation and improvement of the AHTD Work Zone Policy.
- Continue work zone training of appropriate personnel.

Education

- Continue to implement public information campaigns for significant work zone projects.

Enforcement

- Continue the use of law enforcement in work zones, particularly on high-speed, high-volume highways, that focus on a “presence” type enforcement near traffic queues.
- Improve how crash reports are noted by law enforcement.
- Continue training of law enforcement regarding work zones.

Emergency Services

- Implement incident management strategies that improve crash scene safety and clearance times.

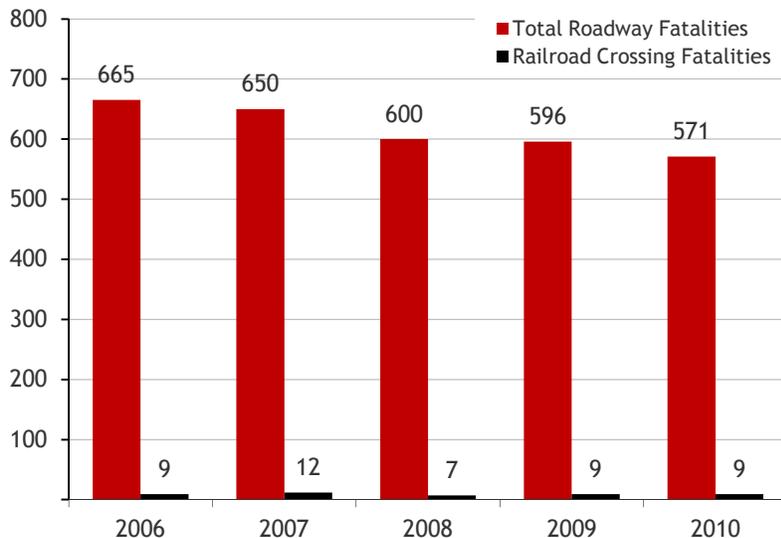


Challenge

Although railroad crossing fatalities represented less than two percent of all roadway fatalities in Arkansas in 2010 (see Figure 18), railroad crossing crashes tend to be more severe. There are almost five thousand public and private railroad grade crossings in Arkansas.

Goal

Reduce the number of annual railroad crossing fatalities in Arkansas to six or fewer by 2017.



Source: FARS database

Figure 18. Railroad Crossing Fatalities in Arkansas

Strategies

Engineering

- Continue to improve safety at existing at-grade railroad crossings by adding lights and gates, improving sight distance, improving signing to current MUTCD standard, improving signal preemption, and other methods.
- Continue to encourage local jurisdictions, through the railroads and the AHTD, to reduce the number of at-grade crossings.

Education

- Continue support of Operation Lifesaver educational efforts.

Enforcement

- Support agencies to enforce laws at railroad crossings.
- Continue support of Operation Lifesaver Grade Crossing Collision Investigation training.



Challenge

According to 2010 data from the Centers for Disease Control and Prevention (CDC), unintentional injury is the leading cause of death in Arkansas between the ages of one and 44. The leading cause of unintentional injury deaths in Arkansas are motor vehicle crashes. Arkansas' injury fatality rate is 30 percent higher than the national average, and 80 percent higher with respect to deaths from motor vehicle crashes. This issue is exacerbated by our state's rural road system, the 10th largest in the nation in 2010 according to FHWA. In addition, Arkansas was cited in a 2008 study by the American College of Surgeons as having the worst system of emergency care in the nation.

In 2009, the Arkansas Legislature passed the Trauma System Act, thereby paving the way for the Arkansas Department of Health to begin building the trauma system. Until then, Arkansas was the only state in the US without a designated trauma center, and one of only three states without a statewide trauma system.

Trauma system implementation has progressed quickly since 2009. Fifty-six hospitals have been designated as trauma centers at various levels, a statewide trauma communications system and call center have been created, protocols have been established to ensure emergency medical services (EMS) transport patients with traumatic injuries to the most appropriate trauma center in the fastest time possible, and injury prevention education are now interwoven into the system.

Goal

Once fully implemented, it is expected that the Trauma System will be a significant factor to reducing all roadway fatalities in Arkansas.

Strategies

Engineering

- Coordinate with EMS regarding allowance of median gaps for construction of median barriers as appropriate.

Education

- Publicize "Move It" and "Move Over" laws.
- Continue to provide quality trauma education on a statewide basis.

Enforcement

- Enforce "Move It" and "Move Over" laws.

Emergency Services

- Develop incident management strategies to improve crash scene safety and to improve clearance times.
- Increase use of the Arkansas Trauma Communications Center.

Special Emphasis Area: Traffic Data Systems



Challenge

The development and collection of crash data, and other data related to roadway safety, is the foundation of a comprehensive system to reduce fatalities in Arkansas. Crash data, in particular, has traditionally been the most challenging to meet the quality and timeliness needs of organizations.

Goal

Through the efforts of the Traffic Records Coordinating Committee (TRCC), projects to improve the State's data systems by eliminating paper, reducing manual data entry, and integrating data are underway. The primary goal will be to improve the timeliness and accuracy of crash and roadway data.



Strategies

Engineering

- Continue to implement crash data location methods and tools.
- Continue to improve roadway inventory database.

Education

- Continue to educate law enforcement agencies on the timeliness and quality of crash data.
- Continue to provide training to local agencies to improve crash location data.

Enforcement

- Require law enforcement agencies to submit the crash reports to ASP within five days as required by state law.

Emergency Services

- Provide access to injury data in coordination with crash data.

Public Policy/Other

- Implement electronic crash database system for all safety partners.
- Revise the state law regarding submitting crash reports to ASP.



Challenge

A comprehensive approach utilizing all organizations that have an impact on road safety is needed to meet the primary goal of the SHSP. The Arkansas Highway Safety Steering Committee must be an integral part of that concept. Traditionally, each organization has had their own safety programs with their own goals and strategies. Although the development of many of these programs has been in coordination with other organizations relevant to roadway safety in Arkansas, there has been no comprehensive approach with common goals and strategies.

Goal

Promote the development and implementation of a safety management system with the Arkansas Highway Safety Steering Committee.

Strategies

Education

- Promote branding of Toward Zero Deaths (TZD) for all appropriate safety programs and campaigns.
- Establish a promotional campaign to raise awareness of TZD.

Public Policy/Other

- Continue to identify key leadership personnel in organizations that impact road safety in Arkansas.
- Adopt and promote aggressive TZD goals in all programs related to road safety in Arkansas.
- Implement the FHWA Implementation Process Model (IPM) and establish Action Plans for each Primary Emphasis Area or, if appropriate, any Secondary Emphasis Area.

