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## Improving the Traffic Safety Culture in Kansas

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The University of Kansas



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The safety culture survey and the crash data analysis were able to provide a comparison between the largest issues contributing to traffic safety in Kansas and the types of issues where other states are spending their money. A common thread between the two is the appearance of younger drivers; drivers under the age of 30 made up over a third of drivers in crashes in Kansas, and most of the programs cited by other states have a youth component.

This research will be the foundation upon which the Kansas regional safety coalitions build their traffic safety culture strategies. Additionally, this can be a valuable tool for other states going through a similar local involvement of traffic safety responsibilities or for traffic safety professionals to use as a reference for current traffic safety programs in the United States.

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A Report on Research Sponsored by

## THE KANSAS DEPARTMENT OF TRANSPORTATION TOPEKA, KANSAS

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January 2017

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#### PREFACE

The Kansas Department of Transportation's (KDOT) Kansas Transportation Research and New-Developments (K-TRAN) Research Program funded this research project. It is an ongoing, cooperative and comprehensive research program addressing transportation needs of the state of Kansas utilizing academic and research resources from KDOT, Kansas State University and the University of Kansas. Transportation professionals in KDOT and the universities jointly develop the projects included in the research program.

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#### Abstract

The main objective of this research was to provide guidance to the Kansas Department of Transportation (KDOT) in establishing strategies to improve the traffic safety culture in Kansas. This was done by analyzing crash data with respect to the seven coalition districts in Kansas. A detailed literature review along with a survey of existing conditions in 27 states was carried out. Web research was carried out to determine existing safety culture programs both in the United States and internationally. The applicability of the documented safety culture programs is determined based on the crash analysis of the coalition districts. The summary of the crash statistics and traffic safety culture programs, shown in Appendix C, was presented at the coalition meetings in order to positively impact the state's traffic safety culture by making sure the citizens of Kansas are thinking about safety proactively rather than reactively.

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This research will be the foundation upon which the Kansas regional safety coalitions build their traffic safety culture strategies. Additionally, this can be a valuable tool for other states going through a similar local involvement of traffic safety responsibilities or for traffic safety professionals to use as a reference for current traffic safety programs in the United States.

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#### **Chapter 1: Introduction**

#### **1.1 Problem Statement**

In 2012, 405 people lost their lives in 368 fatal roadway crashes in the state of Kansas (KDOT, 2014). This statistic is not an extreme value for traffic fatalities for a typical year in Kansas or other similar states in the Midwest. The American Automobile Association (AAA) reports that traffic crashes in the United States contribute to injuring more than five persons every minute and killing one person every 12 minutes (AAA Foundation for Traffic Safety, 2006). This is no small matter when considering that the average societal cost of a fatal crash in 2011 was \$4,008,900 and an injury crash was \$82,600 (AASHTO, 2010). These amounts seem even larger when added up; the estimated cost of traffic crashes sum up to approximately 2.3 percent of the United States gross domestic product (GDP; Sleet, Dinh-Zarr, & Dellinger, 2007). Compounding this with the current growth rate in the US, one can expect the state of traffic safety will only become more critical with time.

In the United States, the public accepts traffic crashes as a part of life. This acceptance is not unreasonable considering how often the average person is in a vehicle, riding a bicycle, or walking down the sidewalk. However, whenever travelers interact with the rest of the public on the transportation network, they are at risk of becoming a part of that statistic. This research was conducted to improve the safety of all road users by investigating ways to change how people think about traffic safety.

#### **1.2 Safety Culture Description**

In order to understand the concept of *safety culture* as a whole, one must first understand the notion of a culture. Culture is a tricky thing to describe because, although it may shape a person's views and interactions, people are rarely aware of its effects. The AAA Foundation for Traffic Safety reports that culture encompasses a person's beliefs, attitudes, and values, while also providing the social framework within which people interact: a culture sets societal norms and what is considered acceptable by the general population (Hedlund, 2007). Thus, culture shapes the structure of interpersonal interactions, socially acceptable behaviors, and collective acceptance or rejection of notions such as safety.

Safety culture is defined by McDonald and Ryan (1992) as, "The set of beliefs, norms, attitudes, roles, and social and technical practices that are concerned with minimizing the exposure of employees, managers, customers, and members of the public to conditions considered dangerous or injurious." This definition is traditionally applied to corporate environments to promote safety in the workplace but can be expanded to describe the concept of traffic as well. In terms of traffic, safety culture refers to public beliefs and attitudes that contribute to compliance or noncompliance with traffic safety regulations. Conversely, with the initial definition of safety culture, traffic safety culture includes not employees, managers, and customers, but is more geared towards the general public with inputs from engineers, legislators, law enforcement personnel, and other leaders. The goal of improving the safety culture relating to any workplace or part of life is to increase compliance with the safety practices in place (i.e., increase the social acceptability of safety as a positive concept).

One example of how culture can influence traffic safety is the usage of motorcycle helmets. It is common knowledge in the United States that helmet use can help save motorists' lives and prevent serious brain trauma in the event of a motorcycle crash. That does not, however, mean that all motorcyclists use helmets. Many drivers seek out this kind of vehicle in defiance of safety norms because of its increased risks and exposure to dangerous elements. The culture among motorcycle riders does not necessarily support safety as a positive concept, so many of the riders increase the risks for themselves by not wearing helmets.

Social issues such as this take more than an engineering solution to overcome; there must be changes to the traffic safety culture to affect positive results. In order to do that, decision makers must first identify the barriers to adoption of safety practices. They can then use that base knowledge to brainstorm strategies that will lead to behavioral changes, thus improving the traffic safety culture.

#### 1.3 Research Objective

The primary purpose of this research was to provide guidance to the Kansas Department of Transportation (KDOT) on strategies to improve the traffic safety culture in the coalition districts being formed for this purpose. This will be accomplished through surveying other states' traffic safety culture programs, analyzing Kansas crash data, and compiling a relevant list of strategies to target the top concerns of each Kansas district.

#### **1.4 Organization**

This report is organized into seven chapters. Chapter 1 introduces the concept of safety culture and how it relates to traffic concepts. Chapter 2 details components of a safety culture, existing studies of safety culture, and summarizes results found by implementing safety culture strategies. Chapter 3 describes the methodology of obtaining information on effective traffic safety culture strategies. Chapter 4 summarizes the national traffic safety culture data. Chapter 5 provides a description of each of the regional coalition districts in Kansas, as well the results of an analysis of recent Kansas crash data. Chapter 6 contains detailed information to address the issues cited in Chapter 5's crash data analysis. Finally, Chapter 7 gives a discussion of the data findings, explains how this can be useful for the State of Kansas, and depicts ways that this information can help improve the traffic safety culture on a larger scale.

#### **Chapter 2: Literature Review**

#### 2.1 Background

Safety culture is a fairly new concept to the crash prevention community (both traffic and otherwise), having only been around since the late 1980s (Lee, 1998). The term "safety culture" came about as a result of the Chernobyl disaster in 1986 (Wiegmann, von Thaden, & Gibbons, 2007) as a way to describe the causes of the event. Even before the term's inception, there were many developments in the 1960s that led to the less-than-optimal climate of traffic safety that we experience today. For example, the creation of the Interstate system, advancements of vehicle technology in terms of speed and power, as well as the emergence of compact cars (that may lack – or may be *perceived* to lack – crashworthy elements) all together expanded the transportation network while simultaneously filling it with vehicles with a wider variety of safety attributes than in previous decades (Lonero, 2007). These conditions led to the public creating some irresponsible traffic habits such as speeding or aggressive driving that have trickled down into today's culture.

This review will summarize relevant literature on the concept of safety culture as a whole and more specifically text pertaining to traffic safety culture.

#### 2.2 Components of a Safety Culture

One reason that safety culture has not been widely studied is that it is not something that is easy to change. In order to alter a safety culture, you must bring the problem to the public's attention, educate them, potentially change policies, increase law enforcement, or any combination of these. Safety culture is an issue that requires cooperation and collaboration between stakeholders.

#### 2.2.1 Media

Media is an important tool in changing a traffic safety culture. Media can take the form of ads on television (TV), radio, Public Service Announcements (PSAs), news segments, flyers, billboards, and social media (Facebook, Twitter, etc.). Those do not necessarily have to come from a government entity; many advocacy groups, such as Mothers Against Drunk Driving (MADD), conduct their own media campaigns. The connectivity of our current society, while a problem in terms of distracted driving, can be a useful aid to reach the majority of the population through media. Wilde determined the four factors that impact the effectiveness of media:

- "The source Credibility, expertise, trustworthiness, and similarity to the recipient;
- The content Relation to recipient's views, concrete effectiveness, personally relevant, arousing attention, motivating appeals, [...];
- The channel of communication Rates of exposure, immediacy to targeted behavior; and
- The recipient Opinion leaders or followers, persuadability, reactance,
  [...]" (Lonero, 2007; Wilde, 1993).

The effects of media are not absolute. One cannot guarantee that the media is having the desired effect or even being effective at all. One thing that media can shape is "what we think about" (Lonero, 2007). Putting an issue in the media can cause the public to actively think about the topic being presented and potentially their role in creating or exacerbating the issue.

#### 2.2.2 Education

Education, working hand-in-hand with media, can have a large impact on traffic safety culture. Education is not limited to just school systems; it refers to informing a group of people about a topic they were unaware of, and can extend to schools, community centers, or wherever people are willing to learn. However, this tool as it relates to positively impacting traffic safety culture is primarily used in the nation's school systems. The reason for this is to try to encourage positive association with traffic safety at a young age as a way to integrate safety into the youth driving culture. Education can be effective when relating new and relevant information to a group of people and is less effective on a knowledgeable group (Hedlund, 2007). An example of this is using education to try to change teen drivers' use of cell phones while driving. The problem is that teen drivers are, on the whole, aware of the safety implications of distracted driving so education alone will not effect change. As Lonero stated, "By itself, more concern for road safety will not necessarily improve drivers' behavior on the roads" (Lonero, 2007). This

illustrates how education is great conceptually, but alone may or may not effect change in behaviors.

#### 2.2.3 Legislation

Legislation on the national or local scale is also a good indicator of the state of traffic safety culture in an area. Laws provide the formal rules of the road on which the framework of driver expectations is built. There are several large struggles to consider when changing the legislative culture toward safety, the first of which is lobbying. Lobbying is the process by which a person or group tries to influence legislative decisions to align with their personal agendas. The problem with this is that in the United States, government-affiliated traffic safety professionals are unable to lobby for safer laws. This leaves the decisions to be made by lawmakers who may forgo the traffic safety solutions to support another law instead. Another difficulty with legislative culture is that it is slow moving. It usually takes months to get just one law passed through the legislative system without any complications. That is not to say that it is always that easy; several states have had to take transportation bills to their state legislators many years in a row to get them to pass. Furthermore, because the system is slow moving, the laws surrounding traffic safety reflect the past safety culture, not necessarily the current or upcoming traffic safety issues (Lonero, 2007). The final obstacle in legislative culture is that legislators must consider how safety laws may infringe upon personal liberties and be sensitive to taking away personal choice as it is laid out in the constitution. This is illustrated in the example of mandatory occupant restraint laws: many states do not allow this because it violates an individual's right to choose how to behave.

Although it has limitations, legislative involvement is a crucial part of any safety culture. Without laws, there can be no valid enforcement, no driver expectation, and thus no structure to our safety system.

#### 2.2.4 Law Enforcement

Law enforcement is the final component of a traffic safety culture. Traffic law enforcement encompasses many different types of agencies nationwide: local police, county sheriff, highway patrol, etc. The law enforcement officers in the United States society are typically what keep people from behaving and driving in an unsafe manner. When referring to law enforcement, it should be noted that whether the officers are *physically* there or not does not change the role of law enforcement as a whole because most drivers operate their vehicles as if officers are always there in order to avoid traffic citations. There are many different ways that officers can enforce our traffic laws: generally patrolling an area tends to increase safe driving behaviors, writing traffic citations makes people think twice before violating a traffic law, and video cameras help to keep the public honest when officers are not present (Henriqson, Schuler, van Winsen, & Dekker, 2014).

These components are important in defining and changing a traffic safety culture. It should be noted that any one of these alone would not be terribly effective. Strategies that employ more of these components together will be able to attack gaps in traffic safety culture more effectively.

#### 2.3 Human Factors in Traffic Safety Culture

While there are many things that we know about traffic safety culture and can clearly define, there are also many things that are unclear. One such element is individual behaviors while driving: what causes a driver to disobey the laws created to keep them safe? A summary of reports published for the AAA Foundation for Traffic Safety suggests that anonymity may contribute to noncompliance of traffic regulations (Hedlund, 2007). This report stated that driving is an anonymous act that allows people to behave in a more reckless manner because of the lack of personal accountability to those around them. The report goes further to illustrate the point with the example that typically a person would not cut into a line of people but the same person may feel no remorse about doing it in their vehicle to a line of cars. An accompanying theory is that road users often attribute blame for traffic crashes to others because it makes them feel less vulnerable, a concept called Defensive Attribution Theory (DAT; Smith & Martin, 2007). This process of assigning blame for a hazardous situation allows drivers to believe that a crash was controllable, and therefore preventable. This notion is a standard defense mechanism that most drivers use to rationalize that they will not be in a crash even as they realize that traffic crashes occur. Yet another source, focusing on bicycle traffic safety, indicates that an individual's

involvement with peer groups may shape their safety behaviors. For example, the study found that peer groups with positive perceptions of helmet use are more likely to see compliance with helmet use than those with negative perceptions (Nævestad, Elvebakk, & Bjørnskau, 2014).

While human factors in transportation typically apply to the general public road-using population, here the human factors of transportation professionals must also be examined. The Missouri Department of Transportation (MoDOT) completed a study on work zone safety that indicated that transportation professionals as a group may be blind to some of the safety concerns or general feelings about safety of the public. This study polled both MoDOT employees and public citizens to gauge the safety of Missouri work zones. Overall the results showed that MoDOT employees felt the work zones were completely safe and the public felt less so about it. The study even suggested that knowledge of transportation regulations and guidelines may create a false sense of safety for these professionals that the general public does not experience (Long, Smith, Ng, & Sun, 2014).

#### 2.4 Safety Culture Studies

Transportation safety culture is a broad concept that covers much more than just personal vehicles. It also includes entities such as commercial motor vehicles and transit agencies. A study of the safety culture of commercial motor vehicles in 2007 stated a safety culture was both iterative and reflective: "Within an organization, culture will influence individuals and individuals will define the culture" (Short, Boyle, Shackelford, Inderbitzen, & Bergoffen, 2007). Additionally, the study showed that compliance with safety regulations might be linked to home safety environment more than a work environment because amongst those commercial motor vehicle drivers who wear a seat belt, the top reasons for using a belt were not related to workplace safety (Short et al., 2007). The point made by this research is that strong leaders in the workplace and at home can impact change and increase safety. A similar study was conducted on transit traffic safety culture and it identified the top factors that led to an effective transit safety culture as:

- · Strong leadership, management, and organizational commitment to safety;
- Employee/union shared ownership and participation;

- Effective safety communication;
- Proactive use of safety data, key indicators, and benchmarking;
- · Organizational learning;
- Consistent safety reporting and investigation for prevention;
- Employee recognition and rewards; and
- High level of organizational trust (Roberts et al., 2015).

Many of the above-listed factors include the words "organizational" and "employee;" this applies well to a transit culture that is run by companies but can also be extrapolated to general transportation safety cultures by likening organizational/employee elements to societal ones.

Another group of road users that contribute to the transportation network's safety culture but often get left out are the pedestrians. Pedestrians are some of the most vulnerable users on the road because of lack of protection, visibility, and the auto-dominated culture. In most crashes involving pedestrians, the pedestrian is found to be at fault (Shin, Chen, & Holisko, 2011). There are many high-risk pedestrian population groups such as the elderly, the disabled, minority groups, and children. Children provide an especially difficult scenario for many drivers because they are much smaller and thus harder to see approaching the road (Cheng, 1991). While large cities such as New York and Los Angeles have a relatively developed pedestrian population and corresponding pedestrian safety plan, many other emerging areas have rapidly growing pedestrian populations and lack any kind of pedestrian safety initiative at all (Shin et al., 2011). Pedestrians are and should be considered by decision-makers to be equal road users to vehicles.

#### 2.5 Examples of Cultural Barriers to Improving Safety

The Transportation Research Board (TRB) published a series of reports on traffic safety issues such as seat belt use, impaired driving, etc., and corresponding countermeasures. One such report showed the effectiveness of primary seat belt laws on improving safety (Preusser, Solomon, & Cosgrove, 2005). A primary seat belt law is a law that states that a driver may be stopped and given a citation by an officer strictly for not wearing a seat belt, whereas the secondary seat belt law states that a violator may be given a citation for not wearing a seat belt but cannot be stopped by an officer for that reason alone. When comparing seat belt usage rates

for primary states versus secondary states, the results show that primary seat belt law states averaged 80 percent compliance compared to an average of 67 percent compliance in secondary seat belt law states, which is a large safety differential when considering seat belts reduce the risk of injury by more than 40 percent. Moreover, this report discredited the popular theory among secondary states that a primary seat belt law will provide an opportunity for minorities to be discriminated against by showing that the citation rates were the same across all races (Preusser et al., 2005). Some of these secondary states' legislatures do not necessarily support the culture of mandatory safety and think safety should be a personal choice.

Another report examined the viability of sobriety checkpoints. Fell, Lacey, and Voas (2005) reported that sobriety checkpoints reduced impaired driving fatal crashes by approximately 20 percent, while also improving safety through detection of unbelted drivers, drivers with suspended licenses, contraband, criminals, etc. This method of improving transportation was implemented regularly in only 11 states in the United States despite the opportunities provided for federal funding for this very purpose (Fell et al., 2005). The reason for this is the culture surrounding sobriety checkpoints is negative; the legality of these checkpoints has even been tested in the United States legal system. The public perception is that it will add excess travel time for everyone and show no results when in fact most checkpoints run very efficiently and can save lives.

These are just two out of a countless number of proven measures to improve safety in which not all states participate. The federal government often financially incentivizes states to adopt programs like sobriety checkpoints or ignition interlocks for repeat driving under the influence (DUI) offenders and still states resist (Beirness, 2005). This is due to their culture; the safest traffic systems in the world are that way because safety is a collective responsibility amongst all members of the community, not just the individual. Many citizens view the option to be safe as a personal choice and do not think about the potential impacts of that choice, both for their own well-being and potentially, in the event of a crash, economically for the taxpayer.

#### 2.6 Successful Changes in Traffic Safety Culture

In the United States, changing the traffic safety culture is a relatively new concept. The US has been primarily focused on fixing individual traffic safety elements. These measures have been effective in improving traffic safety but there are still areas where safety needs to be improved. Nations in Europe have been quicker to adopt traffic safety culture solutions.

France specifically has had a drastic change in safety since the turn of the century as a result of changes in traffic safety culture. In 2002, President Chirac was elected and he became the main driving factor in changing the safety culture. Chirac brought the issues of road safety to the forefront of his campaign and continued to stress its importance once elected. With his guidance, France put in place more strict regulations for drivers (particularly relating to speeding and impaired driving), increased enforcement of regulations, and had strong campaigns for these issues. As a result of these efforts, 5 years after Chirac was elected, France saw a reduction of 43 percent in the transportation-related fatality rates (Kim, 2014).

Sweden is another progressive nation that has seen success in implementing a safety culture strategy. Sweden was able to change their traffic safety culture through use of innovative programs rather than political champions as in France. One of the first improvements the Swedish Government made was to drastically lower its legal blood alcohol content (BAC) level for driving to 0.2g/l (or 0.02% as customarily expressed in the US) in 1994, which is still the lowest level in Europe. Also to protect against drunk driving, Sweden implemented Random Breath Testing (RBT); with RBT, police may test a driver's breath with no reasoning or evidence. With rates as high as 380 drivers tested per 1,000, this measure combined with the low BAC reduced alcohol-related fatalities by approximately 20 percent (Kim, 2014). Additionally, the Swedes set more stringent speed limits for all road types with corresponding lower wintertime speed limits to account for more dangerous driving conditions. These speed regulations are a part of Sweden's "Vision Zero" strategy, which is not dissimilar to the United States' Toward Zero Deaths (TZD) program.

#### 2.7 Summary

Although traffic safety culture is a relatively new concept to be implemented in the United States, the literature surrounding it revealed several things:

- Safety culture is comprised of many different components that must be coordinated to ensure effectiveness;
- Many people drive as if it were an anonymous act and blame others for traffic crashes so they feel less vulnerable;
- Culture does not happen only on the roadway. Home life and social groups have a large impact on one's personal safety beliefs, values, and actions;
- Although safety is named as a top priority in the nation, many states do not do what is necessary to make the roads safer due to cultural barriers; and
- Europe has been quicker to adopt traffic safety culture changes and has seen great success in improving safety in countries like France and Sweden.

The above literature facilitated the development of the methodology for this research, which can be found in the following chapter.

#### **Chapter 3: Methodology**

This research was conducted in several phases: a phone survey of state safety engineers, analysis of Kansas crash data, and additional research on traffic safety culture strategies for use in the Regional Safety Coalition Districts in Kansas.

#### 3.1 Safety Culture Survey

In order to best assist KDOT in their efforts to build an effective safety culture program, it was necessary to determine what effective traffic safety culture programs already exist in the US. To understand this, a survey was completed of other state highway agencies in the nation.

The questions for the survey were created with the intention of inspiring each state's highway safety engineer to share successes and shortcomings of current and past traffic safety culture programs. In cooperation with KDOT, a list of questions was created covering topics from public awareness, to education, to policies relating to traffic safety culture. The survey covered recent traffic safety culture trends, communication with the public, and the most critical problems facing traffic safety today.

This survey was primarily conducted with the state highway safety engineers from each state. Contact information for each state was provided by the Federal Highway Administration (FHWA, 2015) and by KDOT. Contact with the states was first attempted by phone to complete the survey and, in cases where that was not possible, follow-up correspondence went out through email.

Results from the individual state surveys were compiled into a master list. This list was sorted by question, where the question was followed by all of the answers from the various states. This was then analyzed in order to determine trends among the answers for each question.

#### 3.2 Analysis of Kansas Crash Data

The next step after the traffic safety culture states survey was to perform analyses of Kansas crash data. These analyses were necessary in order to target the specific issues facing the Kansas districts.

Data for this analysis were provided by KDOT. To be thorough and in order to account for any regression to the mean bias, the analyses included data for 5 years. Using the Microsoft Access Program, queries were created with data for:

- Crash occupants, which already included fields for: driver age, seat belt use, number of occupants, and class of driver's license; and
- General crash information which already included fields for: county, intersection type, crash severity, crash class, alcohol involvement, drug involvement, lighting conditions, speed limit, weather conditions, environmental characteristics, roadway geometrics, day of crash, and number of pedestrians involved.

These queries were then exported into separate spreadsheets. Although the spreadsheets included data categories for the aforementioned fields (which will henceforth be referred to as variables), each spreadsheet contained additional data field categories with less useful information. This information that was deemed not useful was not further manipulated. The variables were represented by names that were pre-determined in the KDOT system. Some names such as "NBR\_OF\_PEDESTRIANS" were self-explanatory when combined with the variable values (the numbers represent the number of pedestrians). Yet other names such as "ACCIDENT\_CLASS\_MHE" needed more explanation from the KDOT staff to determine that the variable was referring to the Most Harmful Event that contributed to the Accident Class (here the numbered values represent what type of crash it is, such as collision with an animal, fixed object, or other vehicles). The variable values that corresponded to other information (such as a number in the "ACCIDENT\_CLASS\_MHE") were determined using the Kansas Motor Vehicle Accident Report Coding Manual, Version 1.0 (KDOT, 2010).

Within the two individual spreadsheets, a new page was created. On this page, a series of pivot tables were created. In building the pivot tables, the variable name was placed in the "Row Label" field and a count of that same variable was placed under the "Values" field. Doing this created a table that was organized by the different values and provided the count for how many of each value there were (i.e., the pivot table for the Number of Pedestrians would have a row for 0, 1, 2, etc., for any number of pedestrians that were involved in any crash in Kansas in the last

five years and next to those values would be the tally of how many crashes involved that many pedestrians).

Next, these count values were converted into percentages. The reason that percentages were more useful for this type of research is that it gives some sort of scope as to how large of an issue one item might be. Using a raw number may not provide as much information as a percentage does, especially since there are large differences in the total crashes that happen in each coalition district. This relates mostly to exposure of the roadway system to the general population driving on it, so in western Kansas the exposure is lower than in eastern Kansas due to the population differences. Additionally, the data were intended to be broken down into coalition districts and using percentages allowed for coalition districts to be compared to each other and the statewide average percentages. If raw numbers were used, it would be more difficult to compare number of a particular type of crash from one coalition district to another coalition district with significantly more crashes. These percentages were determined by dividing each count value by the total number of crashes listed in that spreadsheet. It was also verified that these percentages summed to 100 percent to ensure that there were no data discrepancies and that the pivot tables were providing accurate data.

Once the statewide average percentages were found, the spreadsheet for general crash information was analyzed further. The crashes in this spreadsheet were organized by county number. Each number corresponded to a different county. This spreadsheet organized by counties was then copied into seven identical additional spreadsheets to divide into the seven coalition districts. With the crashes organized numerically by counties, the counties that were not in a particular coalition district (and the corresponding crashes of those counties) were deleted from that coalition district's page.

Once all of the coalition districts had separate spreadsheets (that contained only the crashes from the counties within that coalition district), the same pivot tables as for the statewide averages were created for each coalition district using the same process. These values, like the statewide averages, were also broken down into percentages.

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These coalition district average percentages were then compared to their corresponding statewide average percentages. It was noted where each coalition district's data trends differed from those of the state, and those differences were detailed further in Chapter 5.

#### 3.3 Safety Culture Handout

This section discusses the tasks accomplished in order to develop the safety culture handout included in Appendix C of this report. First, extensive web research was carried out to find existing traffic safety culture programs in the United States and internationally. Department of Transportation websites for several states were individually checked to determine the currently functioning safety culture programs.

A total of 40 traffic safety culture programs were found. These programs were summarized and documented according to the following five categories, namely: occupant protection, impaired/distracted driving, young drivers, pedestrian safety, and general road safety.

Individual cost estimates of each documented traffic safety culture program were calculated. This was initially done by contacting the people in charge of the safety program. Due to the very limited responses received, costs were estimated by establishing the items required for the successful promotion and application of the safety program based on the target audience. Several radio and television companies were contacted to determine advertisement costs. Discount stores were visited in order to determine costs of materials needed for programs, such as t-shirts, key chains, and costumes.

Finally, all this information was documented into a guidebook found in Appendix C in order to help in the determination of safety culture programs by individual district coalitions based on their needs.

### **Chapter 4: Traffic Safety Culture Survey Results**

A traffic safety culture survey was completed by 27 of the 50 states in the US, as shown in Figure 4.1. States that have completed surveys can be found highlighted in green and states without completed surveys are in white. Kansas did not participate in the survey, as the goal was to learn what has been tried in other states.



Figure 4.1: States with Completed Safety Culture Surveys

The complete list of states with completed surveys can be found below:

Arizona	Indiana	Montana	Oregon
Arkansas	Louisiana	Nebraska	Tennessee
Delaware	Maine	Nevada	Texas
Florida	Massachusetts	New Mexico	Utah
Hawaii	Michigan	New York	Washington
Idaho	Minnesota	Ohio	Wisconsin
Illinois	Missouri	Oklahoma	

This chapter contains a summary of the selected questions used in the survey along with any trends or interesting items found in the survey. A complete list of full answers for each question by each state can be found in Appendix B. (It should be noted that not all 27 states answered every question.)

## 4.1 Question 1: How would you describe the state of your organization's internal safety culture?

A common theme among answers for this question was these representatives claiming their offices have complete dedication toward traffic safety. Many states go so far as to mandate certain behaviors of their employees in vehicles such as seat belt use, safe driving behaviors, or no cell phone use. The state of Arizona has its employees sign a "Driving Safely Home" pledge and actively engages state employees in their own safety on the road. Other states such as Massachusetts, Montana, and New York understand the importance of safety in the workplace but have noticed deficiencies in their own internal safety culture.

## 4.2 Question 2: Safety culture trends: what has changed in the last year or two in your state?

Many of the states saw that a recent safety culture trend was the emergence of distracted driving as a serious concern. Three other states cited recent legalization of marijuana as an evolving area in which the consequences are uncertain. Yet other states had the unfortunate trend of increased crashes between vehicles and pedestrians.

#### 4.3 Question 3: What current activities are in place for public awareness?

A high percentage of states responded with public awareness events and programs targeted at seat belt use, impaired driving, and distracted driving.

#### 4.4 Question 4: How do you communicate with the public?

Twenty-three out of the 27 responding states reported that they used some form of social media (i.e., Facebook, Twitter, YouTube, etc.) along with more traditional forms of communication, including: media, websites, text alerts, and billboards. It was unclear from some responses if social media was the main communication mechanism for each state or which one of the social media platforms was used more.

## 4.5 Question 5: Do you provide informational seminars at schools or publish handouts to keep at local schools?

An overwhelming amount of states reported having programs in place for school seminars or had partners that accomplished this with state funding. Many of these programs were targeted at distracted and impaired driving, as that was a problem biased toward younger drivers.

## 4.6 Question 6: What content are you trying to get out and who creates the content?

Seven out of the 27 states cited crash data as the main driver of content that gets pushed out through the states. Content for many of the other states was created through the Strategic Highway Safety Plan (SHSP) and focused on target areas.

#### 4.7 Question 7: Are there any initiatives to change state policies?

Out of the responses, five states cited initiatives to implement a primary seat belt law. The remaining responses showed no real trends, but revealed interesting differences between the states. States such as New York were fairly progressive and did not cite need for improvements. At the time of the survey, Louisiana had an initiative to legally remove 18-year-olds from bars to lower the rates of underage drinking.

# 4.8 Question 8: In light of the recent national push Toward Zero Deaths (TZD) do you sense any sort of urgency as it relates to changing the safety culture in your state?

Eleven of the states that responded answered that their state had adopted the TZD program. Despite having adopted the program, two of those states claimed that the program had not yet made a real impact. New Mexico specifically has *not* embraced the TZD program. The representative stated that since crashes were still sharply rising, it seemed impractical for them to adopt the TZD program because their goals are just to keep crashes from increasing.

## 4.9 Question 9: What in your personal opinion is the most critical safety culture problem?

Many of the states answered something related to the community adopting a sense of shared responsibility for safety or apathy of the public related to the problem. Other states cited lack of funding, distracted driving, or the fast-paced way people lead their lives, meaning that quick fixes are rewarded over taking the time to find the proper solution to a problem.

#### 4.10 Summary

Several trends were revealed through the process of the survey, the most significant of which are summarized below:

- Some states showed the unfortunate trend of increasing pedestrian crashes while the other more common trend is that of an emerging distracted driving problem;
- Most states communicate through traditional means as well as more modern modes of communication such as social media;
- The content that most states push out is primarily data-driven;
- The states that do not have primary seat belt laws use that as a source for initiatives to change state policies; and
- Most states that responded have embraced the TZD plan and use it to shape their goals.

The process of surveying states was a vital component to gathering information about the current state of the nation's traffic safety culture. This step was a primary source for researching programs to be implemented in Kansas as outlined in Chapter 6.

#### **Chapter 5: Kansas Coalition Districts and Crash Analysis**

#### **5.1 About the Coalition Districts**

At the time of this research, in the state of Kansas traffic safety culture was being considered on a smaller scale at the coalition district level. At this level, decisions can be made about traffic safety issues with the confidence provided by accurate knowledge of local traffic safety issues. These coalition districts were planned to be represented by Regional Safety Coalitions, which would provide input regarding traffic safety culture in their respective coalition districts. Before being able to make recommendations for these coalition districts, more information is needed to be considered on the distinguishing factors between the coalition districts.

Kansas was divided geographically into seven coalition districts in coordination with the Kansas Healthcare Coalitions seen in the figure below.



Figure 5.1: Seven Kansas Coalition Districts

It should be noted that these coalition districts differ from the traditional six districts used by the Kansas Department of Transportation. Improving traffic safety culture across Kansas requires buy-in from more professions than transportation; it requires cooperation with local community leaders, medical professionals, emergency responders, and law enforcement officers. Since many of these partners had already come together within the Kansas Healthcare Coalitions, it was more professionally inclusive to use the healthcare districts as opposed to the traditional KDOT districts. The following information refers to the *coalition* districts, not KDOT districts.

#### **5.2 Individual Coalition District Gatherings**

During the course of the project, the research team made three trips to the Northwest Regional Safety Coalition District (also known as the Northwest Kansas Traffic Safety Subcommittee of the Preparedness Healthcare Coalition). Two meetings were held in Hays, Kansas, on May 14, 2015, and April 14, 2016. The third meeting was held in Quinter, Kansas, on July 14, 2016. Additionally, KDOT officials discussed this research at one meeting of the Kansas City-Area Safety Coalition called "Destination Safe" on April 3, 2016. The efforts were made in order to discuss the current safety hazards faced by the coalition and to propose possible safety culture programs to mitigate them. Several aspects of safety were discussed during these gatherings and input from the locals and KDOT officials was used to improve the data analysis. The documented safety culture programs are available in Appendix C.

#### 5.3 Crash Analysis

The crash analyses that were conducted revealed several things about the leading contributors of vehicle crashes in Kansas. It should be noted, however, that the data used for this analysis were comprised of 5 years' worth of *reported* crashes; it is possible that the results may not perfectly represent the state of traffic safety in Kansas due to a lower reporting threshold. The FHWA estimates that nearly 10 million crashes per year go unreported (Rocky Mountain Insurance Information Association, 2015), most of them PDO crashes. For this reason, fatal and injury crashes were the primary subject for analysis. Also, some issues in traffic safety cannot be summarized in terms of crash data such as drowsy driving or distracted driving due to difficulties in law enforcement finding conclusive evidence that these actions happened at a given crash. Since the data span from 2010 to 2014, it accurately minimizes regression to the mean bias, but may not show more emerging recent trends. The way the data were analyzed, the results were not exclusive, which is to say that a crash that contributes to alcohol involvement statistics may or
may not also contribute to other crash statistics. The following are the trends for the state of Kansas's fatal and injury crashes for the years between 2010 and 2014, inclusive.

- 0.6 percent of crashes resulted in fatalities and 22.5 percent of crashes involved injuries of some kind;
- 0.6 percent of crashes occurred in work zones;
- 1.3 percent of crashes involved drugs of some kind;
- 5.5 percent of crashes involved pedestrians;
- 8.7 percent of crashes involved alcohol;
- 17.2 percent of crashes occurred from collisions with fixed objects;
- 36.8 percent of crashes involved drivers under the age of 30 and 14.2 percent of crashes involved drivers over the age of 60;
- 56.1 percent of crashes occurred from collisions with multiple moving vehicles;
- 23.8 percent of crashes occurred at four-way intersections, followed by 6.7 percent at T-intersection crashes and 6.3 percent at interchanges;
- Crashes were more likely to occur on Friday than any other day of the week; and
- The least amount of crashes occurred on Sundays.

The statewide averages for crash information were used as a comparison tool for the coalition districts to find outstanding traits for each of them. Statistics were compared based on percentages rather than raw tallies to account for differences in coalition district population sizes.

#### 5.4 Statewide Averages

Tables 5.1 to 5.11 show the statewide averages for several factors available in the crash database provided by KDOT. Each table shows the classification for a given factor. For example, Table 5.1 shows the various classifications for crash class given that a crash occurred.

Crash Class	
Overturned/Rollover	14.8%
Other Non-collision	1.5%
Collision with	
Moving Vehicle	56.1%
Fixed Object	17.7%
Pedestrian	3.1%
Cyclist	2.2%
Animal	2.1%
Parked Vehicle	2.0%
Other Object	0.4%
Train	0.1%

Table 5.1: Distribution of Crashes Based on Crash Classes

Intersection Type	Percentage of All Crashes that Occurred at a Given Intersection Type	Percentage of All <u>Intersection</u> Crashes that Occurred for a Given Intersection Type
Four-way Intersection	23.8%	62.0%
T-intersection	6.7%	17.5%
Part of Interchange	6.3%	16.4%
Five-way or More Intersection	0.5%	1.3%
Unknown	0.3%	0.8%
Roundabout	0.3%	0.7%
Y-intersection	0.3%	0.7%
L-intersection	0.2%	0.5%
Traffic Circle	0.0%	0.1%
Total	38.4%	100.0%

Driver Age	
<15	4.5%
15 - 19	12.5%
20 - 24	13.8%
25 - 29	10.5%
30 - 34	8.9%
35 - 39	7.5%
40 - 44	7.2%
45 - 49	7.1%
50 - 54	7.3%
55 - 59	6.4%
60 - 64	5.0%
65 - 69	3.4%
70 - 74	2.2%
75 - 79	1.6%
80 - 84	1.2%
85 - 89	0.7%
90 - 94	0.2%
>95	0.0%

Table 5.3: Distribution of Crashes Based on Driver Age

Table 5.4: Distribution of Crashes Based on Weather Conditions

Weather Conditions	
No Adverse Conditions	86.1%
Rain/Mist/Drizzle	7.4%
Snow	2.5%
Strong Wind	0.9%
Freezing Rain	0.9%
Fog	0.6%
Snow and Wind	0.5%
Sleet/Hail	0.4%
Other	0.3%
Rain and Wind	0.2%
Blowing Dust/Sand	0.1%
Smoke	0.0%
Rain and Fog	0.0%
Sleet and Fog	0.0%

Road Character	
Straight and Level	70.4%
Straight on Incline	17.0%
Curved and Level	5.4%
Curved on Incline	4.3%
Straight on Hillcrest	1.9%
Other	0.7%
Curved on Hillcrest	0.3%

# Table 5.5: Distribution of Crashes Based on Geometric Road Characteristics

## Table 5.6: Distribution of Crashes Based on Light Conditions

Light Conditions	
Daylight	68.9%
Dark: With Streetlights	14.4%
Dark: No Lights	11.9%
Dusk	2.6%
Dawn	1.9%
Other	0.3%

## Table 5.7: Distribution of Crashes Based on Speed Limit

Speed Limit	
20 mph	2.4%
25 mph	1.8%
30 mph	21.4%
35 mph	12.2%
40 mph	14.4%
45 mph	7.9%
50 mph	1.4%
55 mph	15.2%
60 mph	4.4%
65 mph	12.8%
70 mph	3.5%
75 mph	2.6%

Occupant Protection	
Seatbelt use	83.6%
Unused seatbelt fatalities	42.9%
Seatbelt use fatalities	32.9%

## Table 5.8: Distribution of Crashes Based on Occupant Protection

## Table 5.9: Distribution of Crashes Based on Impaired/Distracted Driving

Impaired/Distracted Driving	
Alcohol-related fatalities	28.6%
All distractions in vehicle	23.9%
Drug-related fatalities	14.9%
All alcohol-related crashes	8.7%
All drug-related crashes	1.3%
Mobile (Cell) Phones	1.1%

## Table 5.10: Distribution of Crashes Based on Pedestrian Safety

Pedestrian Safety	
Pedestrian Fatalities Only	7.7%
All Pedestrian Crashes	5.8%

# Table 5.11: Distribution of Crashes Based on General Road Safety

General Road Safety	
No adverse weather conditions	86.1%
Rain-related crashes	8.6%
Rain-related fatalities	6.1%
Snow and Sleet crashes	3.4%
Work zone-related crashes	2.7%
Snow and Sleet fatalities	2.2%
Strong wind/smoke/fog	1.9%
Work zone-related fatalities	1.7%

#### 5.5 Northwest Regional Safety Coalition District



Figure 5.2: Northwest Regional Safety Coalition District

Also known as the Northwest Kansas Traffic Safety Subcommittee of the Preparedness Healthcare Coalition, the Northwest Regional Safety Coalition District is made up of 18 counties: Cheyenne, Decatur, Ellis, Graham, Grove, Logan, Ness, Norton, Phillips, Rawlins, Rooks, Rush, Russell, Sherman, Sheridan, Thomas, Trego, and Wallace Counties (Kansas Department of Health and Environment [KDHE], 2012). This coalition district is comprised mainly of high plains used for agriculture (Kansas Geological Survey [KGS], 2008; Kansas Landuse/Landcover Map, 1996). This coalition district had the lowest population at 95,536 in 2010 (Kansas Population by County, 2010), and included such cities as Colby, Hays, Norton, and Oberlin.

This coalition district contained 4.5 percent of Kansas's crashes in the last 5 years, which is to be expected given its low population. Some of the findings from the crash analysis for this coalition district are found below:

- **Speed:** This coalition district showed 30 percent more high speed crashes (posted speeds of 55 miles per hour or greater) than the statewide average;
- **Overturned vehicles:** Overturned vehicle crashes were overrepresented in this region, with 25 percent more overturned-vehicle crashes than the statewide average;
- **Interchange-related crashes:** This coalition district had approximately 6 percent fewer interchange-related crashes than the statewide average;

- Occupant protection: This coalition district had a 10.4 percent higher fatality rate due to unused seatbelts than the state average, making it the third highest coalition district;
- Impaired and distracted driving: This coalition district had 3 percent more crashes than the statewide average due to distractions in the vehicle such as cell phones, electronic devices, and others. The coalition district also had 4.7 percent more alcohol-related crashes (7.5 percent more fatal alcohol-related crashes) than the statewide average, making it the highest rate of alcohol presence in crashes of any coalition district. This coalition district had the highest drug-related fatal and injury crashes, 1.5 percent more than the statewide average;
- Young drivers: This coalition district showed 5 percent more teen crashes than the statewide average, making it the highest in Kansas. The analysis also showed 2 percent higher teen fatal crashes than the statewide average;
- Pedestrian safety: This coalition district showed 2.3 percent lower pedestrian crashes than the statewide average, making it the lowest in all coalition districts; and
- General road safety: This coalition district had the highest snow/sleetrelated crashes, 1.4 percent more than the statewide average. The lowest fatal work zone crashes were noted in this coalition district, 1.7 percent lower than the statewide average.

#### 5.6 Southwest Regional Safety Coalition District



Figure 5.3: Southwest Regional Safety Coalition District

The Southwest Regional Safety Coalition District is made up of 18 counties, including: Clark, Finney, Ford, Grant, Gray, Greeley, Hamilton, Haskell, Hodgeman, Kearny, Lane, Meade, Morton, Scott, Seward, Stanton, Stevens, and Wichita Counties (KDHE, 2012). Much like the Northwest Regional Safety Coalition District, this coalition district contains mostly high plains with agriculture along with river lowlands (KGS, 2008). Also like its northern counterpart, this district has a fairly low population at 148,399 in 2010 (Kansas Population by County, 2010), the majority of whom are located in cities such as Dodge City, Garden City, and Liberal.

The Southwest Regional Safety Coalition District contained 4.6 percent of crashes in Kansas over the last 5 years, not dissimilar from the Northwest Regional Safety Coalition District. Some of the findings from the crash analysis for this coalition district are found below:

- **Overturned vehicles:** This coalition district showed over 16 percent more overturned-vehicle crashes than the statewide average;
- **Interchange-related crashes:** This coalition district had 12 percent fewer crashes at interchanges than the statewide average;
- **Nighttime crashes:** This coalition district showed nearly 10 percent more unlit nighttime crashes than the statewide average;
- Occupant protection: This coalition district had the lowest seatbelt use,
  4.6 percent lower than the statewide average. It had the highest number of

unused seatbelt fatal crashes, 13.6 percent greater than the statewide average;

- **Impaired and distracted driving:** This coalition district had 9 percent more crashes than the statewide average due to distractions from cell phones, electronic devices, and other items, making it the highest amongst the coalition districts. The coalition district also had 4.7 percent more alcohol-related crashes (1.5 percent more fatal alcohol-related crashes) than the statewide average. This coalition district had 0.6 percent more drug-related crashes than the statewide average;
- Young drivers: This coalition district showed 3.7 percent more teen crashes than the statewide average. The analysis also showed 2.3 percent higher teen fatal crashes than the statewide average, making it the highest amongst the coalition districts;
- **Pedestrian safety:** This coalition district showed 0.2 percent lower pedestrian crashes than the statewide average; and
- General road safety: This coalition district showed 0.6 percent more snow/sleet-related crashes than the statewide average. The snow/sleet-related crashes showed 0.9 percent more fatality rate than the statewide average, making it the highest amongst the coalition districts.

### 5.7 North Central Regional Safety Coalition District



Figure 5.4: North Central Regional Safety Coalition District

The North Central Regional Safety Coalition District is made up of 12 counties, including: Clay, Cloud, Dickinson, Ellsworth, Jewell, Lincoln, Mitchell, Osborne, Ottawa, Republic, Smith, and Saline Counties (KDHE, 2012), and is home to the Smoky Hills (KGS, 2008). This coalition district had a population of 131,198 persons in 2010 (Kansas Population by County, 2010). Some of the more populous cities in this coalition district are Abilene, Concordia, and Salina.

The North Central Regional Safety Coalition District was home to 5.0 percent of crashes in Kansas in the last 5 years, just over that of the previous two coalition districts. Some of the findings from the crash analysis for this coalition district are found below:

- **Speed:** This coalition district showed over 11 percent more high-speed crashes (55 miles per hour or higher) than the statewide average;
- **Overturned vehicles:** This coalition district had 9 percent more overturned-vehicle crashes than the statewide average;
- **Interchange-related crashes:** This coalition district had half the amount of interchange crashes as the statewide average;
- **Roadway geometry:** This coalition district had 5 percent more crashes on straight and level roadways than the statewide average;
- Occupant protection: This coalition district showed 1.7 percent lower seatbelt usage than the statewide average. It had the second highest number of fatal crashes with unused seatbelts, 13.4 percent greater than the statewide average;
- **Impaired and distracted driving:** This coalition district had 2.7 percent more crashes than the statewide average due to distractions from cell phones, electronic devices, and other items. The coalition district also had 0.3 percent more alcohol-related crashes (0.9 percent more fatal alcohol-related crashes) than the statewide average;
- Young drivers: This coalition district showed 2.6 percent more teen crashes than the statewide average.

- **Pedestrian safety:** This coalition district showed 0.1 percent lower pedestrian crashes than the statewide average; and
- General road safety: This coalition district showed 0.5 percent more snow/sleet-related crashes than the statewide average. The snow/sleetrelated fatal crashes were 2.2 percent lower than the statewide average, making it the lowest amongst the coalition districts.



#### 5.8 South Central Regional Safety Coalition District

Figure 5.5: South Central Regional Safety Coalition District

The South Central Regional Safety Coalition District is made up of 19 counties including: Barber, Barton, Butler, Comanche, Cowley, Edwards, Harper, Harvey, Kingman, Kiowa, Marion, McPherson, Pawnee, Pratt, Reno, Rice, Sedgwick, Stafford, and Sumner Counties (KDHE, 2012). This is the coalition district with the highest population at 850,780 in 2010 (Kansas Population by County, 2010). This is due in large part to the City of Wichita, which is the largest city in Kansas, along with the smaller cities of El Dorado, Hutchinson, and McPherson.

The South Central Coalition District also had the highest proportion of crashes in Kansas in the last 5 years at 28.9 percent. Some of the findings from the crash analysis for this coalition district are found below:

- **Multi-occupant vehicle crashes:** This coalition district had more crashes with vehicles containing two occupants than one occupant which differs from the statewide trend;
- **Speed:** This coalition district showed nearly 5 percent more lower-speed crashes (less than 55 mph) than the statewide average;
- **Roadway geometry:** This coalition district showed 14 percent more crashes on straight and level roadways than the statewide average;
- Occupant protection: This coalition district showed 0.1 percent more seatbelt usage than the statewide average. It had one of the lowest fatal crash rates with unused seatbelts, 4.5 percent lower than the statewide average;
- **Impaired and distracted driving:** This coalition district had 0.2 percent more crashes than the statewide average due to distractions from cell phones, electronic devices, and other items. The coalition district had 0.6 percent lower alcohol-related crashes than the statewide average;
- Young drivers: This coalition district showed 0.1 percent more teen crashes than the statewide average.
- **Pedestrian safety:** This coalition district showed 0.3 percent more pedestrian crashes than the statewide average; and
- General road safety: This coalition district showed 0.6 percent less snow/sleet-related crashes than the statewide average.

#### 5.9 Northeast Regional Safety Coalition District



Figure 5.6: Northeast Regional Safety Coalition District

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The Northeast Regional Safety Coalition District is made up of 23 counties, including: Anderson, Atchison, Brown, Chase, Coffey, Doniphan, Douglas, Franklin, Geary, Jackson, Jefferson, Linn, Lyon, Marshall, Miami, Morris, Nemaha, Osage, Pottawatomie, Riley, Shawnee, Wabaunsee, and Washington Counties (KDHE, 2012). This coalition district is located in one of the more populous areas of the state with 660,265 residents in 2010 (Kansas Population by County, 2010). Some of the larger cities in this coalition district are Emporia, Lawrence, Manhattan, and Topeka.

The Northeast Regional Safety Coalition District held 24.6 percent of Kansas's crashes from the last 5 years, which is proportional to the high population in this coalition district. Some of the findings from the crash analysis for this coalition district are found below:

- **Multi-occupant vehicle crashes:** This coalition district showed 6 percent fewer crashes that involved vehicle-to-vehicle collisions;
- **Roadway geometry:** This coalition district had more than double the amount of crashes on straight and inclined roadways;
- **Interchange-related crashes:** This coalition district had half as many interchange-related crashes as the statewide average;
  - **Occupant protection:** This coalition district had the second highest seatbelt use, 0.6 percent higher than the statewide average;

- **Impaired and distracted driving:** This coalition district had 0.9 percent more crashes than the statewide average due to distractions from cell phones, electronic devices, and other items. The coalition district also had 0.4 percent more alcohol-related crashes than the statewide average but had the lowest alcohol-related fatal crashes. This coalition district showed 0.2 percent less drug-related crashes than the statewide average;
- Young drivers: This coalition district showed 0.5 percent more teen crashes than the statewide average. The analysis also showed 0.7 percent higher teen fatal crashes than the statewide average;
- Pedestrian safety: This coalition district showed 1.2 percent more pedestrian crashes than the statewide average, making it the highest amongst all coalition districts; and
- General road safety: This coalition district showed 0.4 percent more snow/sleet-related crashes than the statewide average. The snow/sleet-related crashes showed 0.5 percent more fatality rate than the statewide average, making it the second highest amongst the coalition districts.

#### 5.10 Southeast Regional Safety Coalition District



Figure 5.7: Southeast Regional Safety Coalition District

The Southeast Regional Safety Coalition District is made up of 12 counties including: Allen, Bourbon, Chautauqua, Cherokee, Crawford, Elk, Greenwood, Labette, Neosho, Montgomery, Wilson, and Woodson Counties (KDHE, 2012). This coalition district is made up of primarily the Osage Cuestas region (KGS, 2008) that is utilized for crops, livestock grazing, and oil and gas (Kansas Landuse/Landcover Map, 1996). It also had a population of 188,824 in 2010 (Kansas Population by County, 2010) and is home to the cities of Chanute, Independence, Pittsburg, and Yates Center.

The Southeast Regional Safety Coalition District contained 6.8 percent of crashes in Kansas in the last 5 years. Some of the findings from the crash analysis for this coalition district are found below:

- **Speed:** This coalition district showed almost 20 percent more high-speed crashes (55 miles per hour or greater) than the statewide average;
- Animal-related crashes: This coalition district had 7 percent more crashes involving animals than the statewide average;
- **Interchange-related crashes:** There were 12 percent fewer interchange-related crashes in this coalition district than the statewide average;
- Occupant protection: This coalition district showed 2.1 percent lower seatbelt usage than the statewide average;
- **Impaired and distracted driving:** This coalition district had 0.4 percent more crashes than the statewide average due to distractions from cell phones, electronic devices, and other items. The coalition district also had 2.6 percent more alcohol-related crashes than the statewide average. This coalition district showed 0.8 percent more drug-related crashes and 3.7 percent more drug-related fatal crashes than the statewide average, making it the second highest in Kansas;
- Young drivers: This coalition district showed 3 percent more teen crashes than the statewide average, making it the third highest amongst the coalition districts;
- **Pedestrian safety:** This coalition district showed 0.8 percent less pedestrian crashes than the statewide average; and

**General road safety:** This coalition district showed 0.5 percent less snow/sleet-related crashes than the statewide average. The coalition district had the highest number of rain-related fatal crashes, 2.3 percent more than the statewide average.



#### 5.11 Kansas City Regional Safety Coalition District

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Figure 5.8: Kansas City Regional Safety Coalition District

The Kansas City Regional Safety Coalition District is made up of three counties including: Johnson, Leavenworth, and Wyandotte Counties (KDHE, 2012). This coalition district has the second largest population in Kansas at 777,991 persons in 2010 (Kansas Population by County, 2010), and being only three counties, this area also has the highest population density in Kansas. As this coalition district's name would suggest, this area contains the Kansas City metropolitan area, which is where the majority of the population resides, as well as several major interstate highways.

The Kansas City Regional Safety Coalition District contained 25.7 percent of the crashes in Kansas from 2010 to 2014. Some of the findings from the crash analysis for this coalition district are found below:

> Multi-occupant vehicle crashes: This coalition district had more crashes with vehicles containing two occupants than one occupant which differs from the statewide trend;

- **Interchange-related crashes:** This coalition district had almost double the amount of crashes at interchanges than the statewide average;
- **Speed:** This coalition district had over 8 percent more low-speed crashes (less than 55 miles per hour) than the statewide average;
- Occupant protection: This coalition district showed 1.2 percent more seatbelt usage than the statewide average, making it the highest amongst the coalition districts. It also had the lowest number of fatal unused seatbelt crashes;
- **Impaired and distracted driving:** This coalition district had 2.2 percent less crashes than the statewide average due to distractions from cell phones, electronic devices, and other items. The coalition district also had 1.5 percent less alcohol-related crashes but 4.2 percent more fatal alcohol-related crashes than the statewide average. This coalition district showed the highest drug related fatalities, 6.5 percent higher than the statewide average.
- Young drivers: This coalition district showed 2.8 percent less teen crashes than the statewide average, making it the lowest amongst the districts;
- **Pedestrian safety:** This coalition district showed 0.9 percent less pedestrian crashes than the statewide average. However, the coalition district had the highest number of fatal pedestrian crashes in Kansas; and
- General road safety: This coalition district showed 0.2 percent more snow/sleet-related crashes than the statewide average. The coalition district had the highest number of rain-related, 2.5 percent more than the statewide average. The coalition district also had the highest work zone-related crashes, 1.9 percent higher than the statewide average.

#### 5.12 Summary

The process of completing the crash data analysis revealed several things about the condition of safety in the state of Kansas, specifically identifying issues such as: roadway geometry, alcohol involvement, drug involvement, teen drivers, distracted driving, pedestrian crashes, restraint use, crash class, crash severity, and weather/light conditions. It is clear, with more than a third of crashes coming from younger drivers (under the age of 30), that this should be a top concern for all of the regional safety coalitions in Kansas. Alcohol and rain equally contributed to more than 17 percent of the total fatal and injury crashes. There was also a trend of more overturned vehicle crashes in the western part of the state than the eastern portion. It should also be noted that some of the coalition districts with lower populations saw more high-speed crashes, whereas proportionally more low-speed crashes occurred in the coalition district with the highest population.

Additionally, some of the lower population coalition districts had fewer interchange crashes; traditionally there are more highways where there are more people and, as a result, more interchanges. This means that coalition districts with lower populations had a lower exposure to interchanges, which is why there were fewer interchange-related crashes. Another finding is that some of the more prominent and newsworthy traffic issues, such as alcohol-related incidents and unbelted drivers, were underrepresented in the crash data.

In terms of changing safety culture, this is an indication that there are areas that are not prominently reported (i.e., not in the public consciousness) that could provide larger safety benefits if changes to the public's attitudes (safety culture) could be improved. In the next chapter, specific safety culture programs that have been used in Kansas and/or in other states are discussed.

## **Chapter 6: Safety Culture Programs**

This chapter details the programs identified both by the 27 states surveyed in the safety culture survey and through further web research. Extensive web research was conducted to find several national and international safety culture programs. Additional efforts were made to individually contact each safety culture program representative for more details. However, most representatives did not respond to emails or phone calls. It should be noted that this is not a complete list of all state programs; moreover, excellent programs on traffic safety culture are conducted by groups or entities such as Mothers Against Drunk Driving (MADD) or insurance companies that can be valuable. Aspects of each program are described in Appendix C, along with any associated estimated costs, and ultimately were evaluated based on their viability for implementation in the coalition districts of Kansas. Additionally, suggestions are made for how to improve the programs for use in the coalition districts.

The safety culture programs are classified according to the following categories.

#### 6.1 Occupant Protection

This category involves programs that relate to the use of safety equipment such as driver restraint, passenger seatbelts, airbags, and other equipment. The programs listed below and discussed in Appendix C of the report include:

- Buckle Up Montana;
- · Click It or Ticket; and
- Saved by the Belt.

#### 6.2 Impaired and Distracted Driving

This category contains programs that promote safety awareness relating to alcohol use, drug use, cellphone use, and other distractions while operating a motor vehicle. The programs listed below and discussed in Appendix C of the report include:

- · Distracted Driving;
- Drive Sober or Get Pulled Over Campaign;
- Drunk Goggles;

- Make Your Game Plan;
- Plan While You Can;
- Put it Down; and
- Talk, Text, Crash.

#### 6.3 Young Drivers

The "Young Drivers" category consists of programs that promote safety awareness among young/teenage drivers. Several safety aspects are covered, such as benefits of seatbelt use, influence of alcohol, existing traffic laws, influence of drugs, peer enlightenment, safe driving speed, and other driving aspects. The programs listed below and discussed in Appendix C of the report include:

- Battle of the Belt;
- Ford Driving Skills for Life;
- Ghost Out;
- Judgement Day;
- Peer-to-Peer Campaigns;
- Project Extra Mile;
- Seatbelts Are For Everyone (SAFE);
- Sudden Impact;
- Teen Drive with Care;
- Teen Safe Driving; and
- · Zero Teen Fatalities.

#### 6.4 Pedestrian Safety

This category, as the name suggests, contains programs that promote safety awareness for pedestrians. The main safety concern for pedestrians is the ability to be seen by motorists. The programs listed below promote pedestrian safety in schools and other community centers by educating individuals on the causes of pedestrian-motorist crashes. The programs listed below and discussed in Appendix C of the report include:

- Safe Routes to School; and
- See! Be Seen!

#### 6.5 General Road Safety

This category of programs deal with a large variety of safety aspects such as work zone awareness, motorcyclist safety, sharing the road, driving in harsh weather conditions, and motorist laws. The documented programs are listed below and further discussed in Appendix C.

- 123 Safe Days of Summer;
- Advertising Crash Statistics;
- Be Alert, Be Aware Motorcycling Season is Here;
- Ice and Snow Take it Slow;
- Just Drive CEO Challenge;
- Move Over, AZ;
- Operation Lifesaver;
- Pull Aside Stay Alive;
- Ride Smart Florida;
- Share the Road;
- Ticketing Aggressive Cars and Trucks; and
- Work Zone Safety Awareness.

#### 6.6 Summary

Many programs have been adopted by states throughout the nation. Most of these programs are focused on creating a safer youth driving culture, while some others target other traffic safety culture issues such as drunk driving or seat belt use. Although these programs are well thought out and planned in each state, not all of them apply to the issues faced in Kansas. A discussion of these programs and how they relate to the regional safety coalition effort in Kansas is presented in the next chapter.

# **Chapter 7: Findings and Discussion**

Traffic safety culture is a complex component of today's mobility. Changing this type of culture is a more involved process than remedying other traffic issues such as reducing speed limits. It requires cooperation of multiple fields to address necessary legislation, education, and law enforcement. As a relatively newer concept for the transportation profession, states trying to impact traffic safety by changing their traffic safety culture are innovators in the field. Viewing a poor traffic safety culture as part of the problem indicates that decision-makers are able to think more holistically about traffic safety problems instead of pinpointing smaller issues as barriers to traffic safety.

#### 7.1 Publicized versus Data-Driven Issues

The safety culture survey and the crash data analysis were able to provide a comparison between the largest issues contributing to traffic safety in Kansas and the types of issues where other states are spending their money. A common thread between the two is the appearance of younger drivers; drivers under the age of 30 made up over a third of drivers in crashes in Kansas, and most of the programs cited by other states have a youth component.

In the above example of younger drivers, it was found that the research and the data supported the same conclusion; that was not the case for all traffic safety issues. For example, alcohol-related crashes and seat belt use were highly publicized in programs (even combining with the youth component for some programs) but the percentage of crashes that had alcohol involved or included unbelted drivers was very low. That is not necessarily to say that these are not issues. Just because something does not show up in the crash analysis does not mean that these issues are not still prevalent on the road for trips that do not end in crashes. The lack of high proportions of other highly publicized issues reflects that many states may be focusing on reducing their crash severities over reducing their overall crashes.

#### 7.2 Implications for Kansas

Traffic safety culture is a relatively new concept for the state of Kansas. As the regional safety coalitions are being formed in each district, this research will serve to guide them along a

path to safer roads via new traffic safety culture strategies. The coalition districts will be able to access a broad list of safety culture programs that have been successfully implemented in other parts of the nation and are already rated for their applicability in Kansas. This reduces the pressure for coalition districts to brainstorm ideas on their own. Within the first meetings for each coalition, Tables 7.1 and 7.2 can be used to help target potential programs to look into or pursue for issues facing each coalition district.

Program Name	Category
Suddon Impact	Young Drivers
Sudden impact	Distracted Driving
Teen Drive with CARE	Young Drivers
Peer-to-Peer	Young Drivers
Battle of the Belt	Young Drivers
	Seat Belt Use
Advertising Crash Statistics	General Road Safety
Click It or Ticket	Seat Belt Use
Drumh O angles	Young Drivers
Dialik Goggies	Impaired Driving
Chart Out	Young Drivers
Gnost Out	Impaired Driving

Table 7.1: Program Applicability in Kansas: Strong

 Table 7.2: Program Applicability in Kansas: Medium

Program Name	Category
Ford Driving Skills for Life	Young Drivers
Ice and Snow-Take It Slow	General Road Safety
Strive for a Safer Drive	Young Drivers
Zero Teen Fatalities	Young Drivers

For some of the traffic safety issues that are prevalent across the state, it might benefit districts to combine forces and attack the problem with similar solutions. To do this, a program could be implemented on a statewide, rather than district-wide, basis or neighboring districts could choose to work together and implement the same strategy.

#### 7.3 Areas for Future Research

Throughout the course of this research, many interesting topics arose that were beyond the scope of the research; those items are detailed here as areas that could be explored for future research to expand upon this project.

Further development of the crash data provided by KDOT would be beneficial. Although this research was able to distinguish several statewide and coalition district specific-trends, more work remains in this area. Additional research could be conducted on some of the issues such as seat belt use to see if the presence of those elements impacts the likelihood for a severe crash versus one with only property damage. Finally, it would be useful for researchers to be able to break down issues such as alcohol involvement crashes by age to see if underage drinking and driving is more prevalent or results in more severe crashes than legal age drinking and driving by older drivers.

Another area that could be researched further is how a state's participation in a larger multi-state traffic safety coalition would affect their traffic safety culture. One example of this is the MINK coalition that brings together the states of Missouri, Iowa, Nebraska, and Kansas to promote safety in the Missouri River Corridor (MINK Corridor, n.d.). It could be a worthwhile endeavor to study how Kansas's participation in large-scale and small-scale safety cultures work with or against each other.

A final field for further research is determining the effectiveness of this project. Researchers could contact Kansas's regional safety coalitions in 5 or 10 years to determine how they have used this research. Coalitions can specify what was useful and what items would be useful moving forward. Future research could also study the process on how priorities and decisions were made within the coalitions more generally, as a way for Kansas and other states to learn how to improve the process. Along with the effectiveness of this research, investigation could be done as to whether organizing these regional safety coalitions has been successful as a means to mitigate traffic safety culture issues. This research could also compare and contrast to the formation of regional safety districts in other states to see if one has been more effective than the other and to determine what differences led to those results.

#### 7.4 Conclusion

Traffic safety culture is a concept that encompasses the public's beliefs and actions regarding traffic safety; in short, it is the framework on which the transportation network exists. The state of Kansas wants to impact its traffic safety culture in order to put traffic safety in a positive light and make sure its citizens are thinking about it proactively rather than reactively. In order to accomplish this goal, the state has delegated much of the traffic safety responsibility to a regional level. As these coalitions are formed, they will make decisions about specific traffic safety culture, a list of traffic safety culture programs rated on viability for Kansas, and current issues facing their district and the state as a whole.

This research will be the foundation upon which the Kansas regional safety coalitions build their traffic safety culture strategies. Additionally, this can be a valuable tool for other states going through a similar local involvement of traffic safety responsibilities or for traffic safety professionals to use as a reference for current traffic safety programs in the United States.

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# Appendix A: Acronyms

4 Es	Education, Engineering, Enforcement, EMS
BAC	Blood Alcohol Content
CMS (DMS)	Changeable (Dynamic) Message Sign
DAT	Defensive Attribution Theory
DMV	Department of Motor Vehicles
DOT	Department of Transportation
DUI (DWI)(OWI)	Driving Under the Influence (Driving/Operating While Intoxicated)
EMS (EMT)	Emergency Medical Services (Transport)
HSP	Highway Safety Plan
KDOT	Kansas Department of Transportation
MADD	Mothers Against Drunk Driving
MoDOT	Missouri Department of Transportation
MPO	Metropolitan Planning Organization
NHTSA	National Highway Traffic Safety Administration
OSHA	Occupational Safety and Health Administration
PDO	Property Damage Only
PSA	Public Service Announcement
RBT	Random Breath Testing
RSA	Road Safety Audit
RTPO	Regional Transportation Planning Organization
SHSP	Strategic Highway Safety Plan
ТНС	Active compound in Marijuana (Tetrahydrocannabinol)
TZD	Toward Zero Deaths

# Appendix B: Safety Culture Survey Full Answers

0.1 How would you define safety culture?	
	- Safety culture is a way of doing business that keeps roadway Safety as the topmost priority.
Arizona	- Arizona DOT's safety culture is built upon individual as well as
	organizational beliefs, philosophy, knowledge, and experience in
	roadway safety.
Arkansas	- Safety culture is following the laws and rules of safe activity, dealing intelligibly with risky situations.
Delaware	- Safety culture is the amount of energy, effort, commitment, and resources put into managing safety.
Florida	- It is the way people behave on and around the roadway based on their experiences and based on the roadway environment.
	- It is the way we, as safety professionals, develop tools, experience new and innovative concepts, share information, and build programs or implement systematic approaches to designing, engineering, and maintaining roads.
	- Safety culture is the awareness, willingness, and attitude of people to address safety concerns and issues.
Hawaii	- Safety culture is everyone believing that saving lives is a top priority and supporting all worthwhile safety initiatives.
Idaho	- Safety culture is something that has to be impacted from within; It begins with an individual making a commitment to drive safely and to share the commitment with others.
	- This can relate to the structure of laws and legislation as well as personal or community mindsets. It should not be a way of life to accept a certain number of traffic deaths.
Illinois	- No response provided.
Indiana	- Safety culture is comprised of actions and activities relevant to building awareness in the need to act in a manner to improve traffic safety.
	- We need to change the mindset for engineers, maintenance workers, and others that they must only comply with the minimum requirements for safety.
Louisiana	- Safety culture is the integration of highway safety by each member of the DOT into everything they do from top level administration to lower level workers.
Maine	- Safety culture is what the business orientation is for an organization related to safety integration or society's notion of expected behaviors on the road for all users.

Massachusetts	- We view safety culture as how we can shift the way of thinking into integrating safety into the work we do.
	- We want all workers to understand how their job impacts safety.
Michigan	- Safety culture to us means support of management and staff to accomplish the mission of the highway safety office.
Minnesota	- Safety culture is people's attitudes, norms, and beliefs toward traffic safety: their actions and beliefs in terms of how it relates to safety.
Missouri	- Safety culture is a difficult thing to define. We are trying to make sure productivity does not usurp safety in the workplace.
Montana	- A culture where safety is inherent to all activities. A good safety culture is one in which safety is valued and seen as a priority in every activity.
Nebraska	- Safety culture is centered on having a prevention mindset. We should get the public to understand the sense of urgency of the issue.
Nevada	- Safety culture is the complete "buy in" of every one of the need to eliminate fatalities and serious injuries on our roads. Complete buy in will be the only way we will ever reach Zero.
New York	- Traffic safety culture is how people view safety, both for themselves and others.
Ohio	- Safety culture is getting people to incorporate safety into all aspects of transportation planning and maintenance.
Oklahoma	- There is a lot of confusion in the safety community about what the priorities and goals should be; some people put safety above all else and some people who just view safety as a word.
Oregon	- Safety culture is the attitudes and practices of a population, based on what they know, and what they perceive as fact.
	- The culture may or may not be inclined to value safety.
Tennessee	- We need to first understand what is happening on our roadways before we can change the culture surrounding them.
Texas	- The beliefs, attitudes, perceived norms and perceived control of elected officials, transportation professionals and individual citizens as it relates to traffic safety.
Utah	- No response provided.
Washington	- Safety culture is the way people approach safety; their feeling towards safety on the roads.
	- Safety culture is more about the education than engineering.
Wisconsin	- Safety culture is how people view safety and how important it is in their area.

1.0 How would you describe the state of your organization's internal safety culture?	
Arizona	- Every employee at ADOT is urged to sign a "Driving Safely Home" pledge and following that there are monthly emails sent to employees highlighting traffic safety topics such as motorcycle safety, driving in dust storms, work zone safety, etc.
	- Awards are given to Departments for no time lost due to crashes.
Arkansas	- We hold weekly meetings and target those on safety as needed.
	- We are completely dedicated to handling behavioral safety.
Delaware	- We are also committed to improving our data management and traffic records.
Florida	- The State Safety Office is proactive in making management and staff aware of the performance goals of the SHSP on a quarterly basis along with presenting the same information to various groups around FDOT.
	- We use a data-driven approach to problem resolution which allows us to select appropriate countermeasures comprehensively using the 4 Es.
Hawaii	- I think our organization places a higher priority on capacity issues. My office manages the update and monitoring of the SHSP, supports the Highway Safety Office with funding, promotes substantive safety to infrastructure staff, etc.
Idaho	- We are very focused on safety and Towards Zero Deaths. We promote safety by engaging the 4 Es: engineering, education, enforcement, and emergency medical services.
Illinois	- No response provided.
Indiana	- Safety in our office is broken out into different parts such as our Human Resources department handling OSHA compliance and our office promoting traffic safety.
Louisiana	- We deal with safety every day. There are policies we must adhere to in our office: wearing seat belt in state vehicle, cell phone ban while driving, etc. Our office also promotes the safety programs that are both geared towards infrastructure and behavioral changes.
Maine	- Many parts of Maine DOT have a stake in safety and I think all areas take it seriously. There is an increasing emphasis coming from the executive level.
Massachusetts	- We certainly try to promote safety, we just haven't been very successful yet.
	- We try to communicate that safety is not an additional cost but just a matter of integrating safety into their jobs.
Michigan	- We have staff that is dedicated and committed to achieving our mission. We have very stable staff with longevity that keeps turnover low and helps retain continuity of the safety mission.
Minnesota	- No response provided.

Missouri	- We are very geared toward safety in our office. We encourage all employees to speak up in the event of safety concerns and try to foster and environment that promotes safety
	- We also publicize safety videos called "back to basics" for our supervisors to use in their morning meetings.
	- We put together posters that illustrate how safety is important for day to day life such as "Safety Glasses vs. Eye Patch."
	- MDT values and promotes safety in all of its activities.
Montana	- There could be more outreach to individuals to educate them on safety as a goal outside of the workplace though.
Nebraska	- We like to emphasize that everyone be passionate about the issues they are encouraging/trying to change. If those working to change the attitudes and behaviors don't believe in it, then there is little hope that they will be effective.
	- At NDOT, we are working with internal staff to change the mindset to one of always trying to incorporate safety mitigations into all projects.
Nevada	- For example, design standards have changed to include accel/decel and turn pockets on all state roads with posted speeds above 55 mph, edge line and center line rumble strips are now used on all projects, etc.
	- We deal with everything related to traffic infrastructure safety.
New Mexico	- We have had a history of not strategically spending money for our HSP and we are trying to change that.
New York	- We have a great safety culture for our field personnel. We spend a lot of time safety training both in in out of the field.
	- We have pockets of safety brilliance within our organization as well as some areas that need safety improvements.
Ohio	- Our LTAP office is co-located with our safety office and routinely collaborates on developing and administering safety projects.
	- We've also routinely collaborated with our operations and maintenance staffs over the years to implement various projects, raising the level of awareness for incorporating safety into a variety of DOT activities.
Oklahoma	- We prioritize the funds that we have available for the HSP to maximize the safety benefits.
Oregon	- Our office is tasked with improving safety culture as it relates to travel, so the group generally is oriented toward improving safety.
Tennessee	- Safety is a top down approach in Tennessee. When our commissioner goes out to speak to the public he emphasizes that safety is the #1 priority.
	- We have a safety office that all they do is safety related projects, both proactive and reactive projects.

Texas	- TxDOT supports transforming the safety culture to one that places safety as the highest priority.
	- We are striving to reduce highway fatalities and serious injuries on all public roads.
Utah	- No response provided.
Washington	- We have a strong work safety culture; we do regular safety meetings and put a lot of emphasis on looking out for those who work with you and reporting unsafe conditions.
Wisconsin	- In our office we dedicate lots of resources to safety. We have staff members whose jobs are specifically based around safety. We focus a lot on the 4 Es.

2.0 Safety culture trends: what has changed in the last year or two in your state?	
Arizona	- Arizona DOT has updated the SHSP with executive-level direction from the leaders of state agencies as well as federal agencies.
	- The focus is now on reducing fatalities and serious injuries in the identified emphasis areas on all public roads.
Arkansas	- No response provided.
Dolomoro	- In the last year we have had a 25% increase in fatal crashes.
Delawale	- We have also recently had more pedestrian crashes.
Florida	- Acceptance of Marijuana in Florida is becoming more prominent and the bill to legalize it was narrowly defeated in 2014, although medical marijuana is legal.
	- Florida has a high rate of bike crashes and was recently ranked the #1 bike crash state.
Hawaii	- We had a universal seat belt law took effect in 2013 and since we have tackled that we have had a stronger emphasis on distracted and impaired driving.
	- Distracted driving seems to be a large emerging issue. We have had great results in this area, primarily by engaging the private sector.
Idaho	- In Idaho there is the "CEO Challenge" for CEOs to engage their employees in safe driving behaviors in personal and corporate vehicles such as banning cell phone usage.
Illinois	- No response provided.
Indiana	- Texting and driving is an important emerging trend. The tough part about that is that that most of the solutions are legislative and we at the DOT are unable to lobby for the safe solutions we need.
Louisiana	- In Louisiana we have had a big problem with impaired driving and refusal of breathalyzer testing. To combat this we have implemented a "no refusal" program where if they refuse the test then there is always a judge on call to sign warrants for officers to take blood to test for BAC levels.
	- The regional coalitions are gaining traction with improving safety partly because data is better and more reliable now than it used to be.
Maine	- There has been an increased emphasis on management and a new SHSP.
Massachusetts	- There is a trend for design and construction projects to conduct Road Safety Audits if the project is in a crash hotspot. This helps to get a more holistic view of what is going on in an area.
Michigan	- There has been a lot of focus on texting and driving, increasing safety belt compliance rate, as well as motorcycle driver safety.
Minnesota	- No response provided.
Missouri	- No response provided.
Montana	- Driving while under the influence of alcohol has become less and less acceptable in our culture. We have seen stricter impaired driving laws in recent years.
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Nebraska	- No response provided.
Nevada	- We see a shift starting in the public sector where the Zero goal is gaining traction.
New Mexico	- Unfortunately our crash rates seem to be on the rise, especially for pedestrians - likely due to distracted driving.
	- We are focusing a lot more on planning our strategies.
Now Vork	- We have a large pedestrian safety issue.
New TOIK	- We are trying to have transparency with the public and make our data and goals more available to them.
Ohio	- We're seeing a lot more multi-agency collaboration on safety with the advent and strengthening of the SHSP requirements.
Oklahoma	- We have had a trend in our office for implementing lower cost systemic projects such as intersection sign and marking improvements.
Oregon	- The introduction of Marijuana to the list of legally used drugs has triggered much conversation in the public among professionals.
Tennessee	- Our most recent trends are inattentive driving, unrestrained driving, as well as a lot of wrong way entrances onto interstates.
Texas	- Safety has become the number one priority at TxDOT.
Utah	- No response provided.
Washington	- Sadly we have had some serious workplace crashes recently so we are trying to rectify that trend.
w ashington	- We are one of the states that has legalized Marijuana use and we are unsure right now how that legal change will affect our safety culture.
Wissensin	- We have had a pretty strong culture of reducing drinking and driving and over the years we have had good reductions in crashes.
w isconsin	- More recently in the urban portion of the state we have had a problem with wrong-way driving on interchanges.

2.1 What kinds of initiatives does your government have at the state level?	
Arizona	- We work in close cooperation with the Arizona Governor's Office for Highway Safety and other agencies to promote campaigns on work zone safety, seatbelt usage, anti-impaired driving, winter driving safety, summer/heat safety, wildfire awareness, and other initiatives.
	- One of our most well-known campaigns is "Pull Aside - Stay Alive" which is a dust storm safety program.
Arkansas	- No response provided.
Delaware	- No response provided.
Florida	- No response provided.
Hawaii	- No response provided.
Idaho	- Most notably, Idaho has implemented a "Courageous Voices Save Lives" program that engages the community in the safety practice and teaches them ways to speak up and positively impact safety.
Illinois	- Illinois has a "Click-it or Ticket" program, an alcohol awareness program, and others. Many of these are centered around safety during holidays such as: Labor Day, Independence Day, Memorial Day, etc.
<b>T</b> 1'	- Illinois also offers free motorcycle safety training.
Indiana	- No response provided.
Louisiana	Center out of the office of our Research Center, and more.
	- In terms of enforcement we get a lot of good press for our programs relating to teen drivers, seat belt usage, impaired/distracted driving, etc.
Maine	- We have increased installation of centerline rumble strips, good DOT integration into the planning process, and ongoing conversations with the bicycle and pedestrian communities.
Massachusetts	- In terms of safety our initiatives are "in name only" meaning that our agency states safety as the #1 priority but it does not actually guide us towards being safer.
Michigan	- We are unable to lobby our legislature so instead we educate and have campaigns. We do PSAs, attend motorcycle events, support training, etc.
	- We also participate in the national mobilization of the "Click-it or Ticket" program as well as other national programs.
	- At the state level, our main goals are completing the SHSP and increasing traffic safety awareness.
Minnesota	- We have recently completed initial assessments of the improvements we have made in terms of impaired driving, aggressive driving, speeding, etc.
Missouri	- No response provided.
Montana	- No response provided.

Nebraska	- We try to be transparent in what we do and use change agents to try and alter behavior in those who might not see the impacts of safety in their daily lives.
Nevada	- No response provided.
New Mexico	- We oversee MPOs, conduct the "Safe Routes to School" program, we are starting to do bicycle and pedestrian counts on our transportation system, we do our own data management, etc.
New York	- We work closely with the Governor's Traffic Safety Committee to handle NHTSA programs such as seat belt usage programs, impaired and distracted driving programs, work zone safety programs, etc.
INCW IOIR	- We do billboard campaigns for both vehicle and pedestrian users. For example a pedestrian billboard we use is "See, Be Seen" for pedestrian visibility.
Ohio	- We fund Ohio's safety programs at one of the highest levels in the nation and also have an extensive systemic safety program that we have been working on for years.
Oklahoma	- We do mostly systemic projects such as improving safety corridors.
Oragon	- "All Roads Traffic Safety" seems to have raised the greatest level of conversation among internal staff.
Olegon	- We have a long running grant and media program to promote safety statewide.
Tennessee	- We create about 50 projects annually from data driven software and 50 more projects annually that are request driven.
Tennessee	We also do intersection access studies, resurfacing programs, wrong way interchange safety initiatives, etc.
Texas	- We have a campaign for "123 Safe Days of Summer" with the motto "Being Safe Doesn't End at Quitting Time. Make it a Lifestyle."
Texas	- TxDOT is participating in the Traffic Safety Culture Pooled Fund Support Project through the Western Transportation Institute.
Utah	- No response provided.
Washington	- There is an emphasis on trying to minimize distracted driving which is our main concern. We also have programs in place for drinking and driving, seat belt use, etc.
Wisconsin	- No response provided.

3.0 What current activities are in place for public awareness?	
Arizona	- ADOT Provides opportunities for driver education through the Department of Motor Vehicles licensing process with training.
	- ADOT uses DMS (CMS) to notify road users of critical safety messages and for safety campaign use.
	- ADOT makes presentations, offers, workshops, and displays safety booths at in-state conferences and other meetings.
Arkansas	- We have televised campaign promoting work zone safety and the "Click It or Ticket" campaign.
Delaware	- We use paid media (billboards, online ads, TV and radio ads, sidewalk decals, etc.), earned media (press releases, interviews, special interest stories, etc.), and public outreach (we rely on our corporate partners to help get the messages out).
	- FDOT has a Pedestrian and Bicycle Safety Coalition that coordinates communication across governmental agencies.
Florida	- The Coalition's Communications Emphasis Area Team coordinates with partners and stakeholders to develop and implement our plan to improve public awareness of pedestrian and bicycle safety.
	- Materials and resources are developed based on problem identification and are translated into Spanish, Haitian, Creole, etc. based on demographics.
Hawaii	- We have a "Pedestrian Safety Month" in August, promotion of "Drive Sober or Get Pulled Over," "Click-it or Ticket" campaign, etc.
Idaho	- We do have a few public service programs but they are not widely used. On a more location specific basis there are youth based programs to encourage young drivers to start smart driving practices.
Illinois	- No response provided.
Indiana	- No response provided.
	- We work closely with the Highway Safety Commission to further public outreach and awareness
Louisiana	- We participate in their national mobilization efforts such as "Drive Sober or Get Pulled Over"
	- We are currently working to create a Communication Council that will bring together different partners and departments to coordinate campaigns across agencies.
	- Maine has Work Zone safety emphasis, outreach for teen drivers, seat belt usage, impaired driving, distracted driving, etc.
	- Maine DOT also holds an impaired drivers summit and publishes a crash data publication.
Massachusetts	- We are starting a state-wide effort for bicycle and pedestrian safety called "Share the Road." This, like many others is a multi-agency effort to improve safety.

Michigan	- We put on a "Peer-to-Peer" program for high schoolers where the
	students design campaigns to target their peers for highway safety
	matters.
	- We offer motorcycle training and hand out high visibility vests to
	participants.
	- We have a Governor's Traffic Safety Advisor's Commission that is
	made up of many different departments and their job is to coordinate
	highway safety matters.
Minnesota	- We run a lot of campaigns mostly through the Governor's Highway
	Administration.
	- Most of the initiatives go through the division of highway safety; they
Missouri	put out the ads and PSAs.
WIISSOUTT	- There is a Blue-Ribbon Safety Panel which incorporates all
	enforcement agencies to communicate safety concerns with the public.
	- Montana is currently promoting a "Vision Zero" campaign where no
	deaths or serious injuries are acceptable in our state.
	-MDT is working with education, engineering, enforcement, and
Montana	emergency services to influence traffic safety culture.
	-MDT is also working through the Montana Behavior Initiative (MBI) to
	involve students in traffic safety activities.
	- We use different kinds of media to target different key audiences: for
Nebraska	Millennials and younger generations we use social media and for males
Tteorubiku	age 18–34 sports marketing has been found to be very effective.
Nevada	- No response provided
	- In NM we do a lot of campaigns directed at seat belt usage drinking
New Mexico	and driving impaired driving etc
	We have media blitzes throughout the year on all of our major
New York	programs through use of social media billboards PSAs etc
	We are developing a marketing plan for external communication
	- we also recently began using our freeway massage signs and portable
Ohio	- we also recently began using our neeway message signs and portable
	message boards to post traine death mormation and specific safety
	- We fund a motorcycle safety education course provided by the
Oklahoma	Highway Patrol
Okianonia	- We also put out PSAs and campaigns
	- We provide numerous media messages through public channels
Oregon	promoting the most important driving behaviors
Tennessoo	- No response provided
	We have a comprehensive Public Information and Education program
Tevas	that includes paid advertising news media radio TV DSAs billboards
10103	online ads etc
Utoh	- No response provided
Otali	- no response provided.

Washington	- We have several campaigns each year for seat belt use ("Click-It or Ticket"), distracted driving, etc.
	- Those campaigns use advertisements and have accompanying messages on CMS.
Wisconsin	- Our DMV and State Patrol manage and work with NHTSA for public awareness. We have outreach endeavors for impaired driving, young drivers, etc.
	- Wisconsin is developing a cell phone application called "Drive Sober" that will help people realize when they should and shouldn't be driving.

4.0 How do you get information to/from the public?		
Arizona	- ADOT uses media/press releases, website, GovDelivery (safety messages to subscribed members from the public) flyers, video clips, posters, PSAs on statewide TV and radio stations, public events, etc.	
Arkansas	- In Arkansas we use websites, message boards, public meetings, local radio, etc.	
Delaware	- We use media, websites, press statements, letter to the editors, etc.	
Florida	- We use social media, digital media, paid media, outreach and education materials (print and promotional), local and regional events, sports marketing, etc.	
Hawaii	- We use PSAs on television, radio, and in movie theaters, press conferences, proclamations, websites, brochures, etc.	
Idaho	- We communicate through PSAs, community outreach programs, law enforcement liaisons and the Idaho Highway Safety Coalition engages local medical communities and the Department of Health.	
	- We conduct a public opinion survey that we do each year on what the public wants in terms of safety regulations and their thoughts and beliefs on particular issues.	
	- Idaho has an outreach program called the "One-Pager" where we hand out one-page documents with facts and figures about safety to the public as events, fairs, etc.	
Illinois	- Illinois uses ads for TV and radio, the news, social media, our website, etc.	
Indiana	- No response provided.	
Louisiana	- We use social media, websites, our Regional Coalitions serve as a liaison, phone calls, media, email, etc.	
Maine	- We use press statements and our website to get information out and the public will often get information back to us through individual complaints.	
Massachusetts	- We utilize social media and CMS along highways. We utilize NHTSA for media.	
	<ul> <li>The public reaches out to us by calls, emails, social media, etc.</li> <li>We are trying to be proactive in terms of promoting safety before tragic events mandate it.</li> </ul>	
Michigan	- We communicate via website, PSAs, Twitter, Facebook, news releases, radio, etc.	
	- The public is welcome to come to the governor's commission meetings and contact our partners to engage in all aspects of safety.	
Minnesota	- We use our website, Twitter, Facebook, etc.	
	- We hold regional and statewide conferences to reach out to localities to see what their concerns are and how effective we are being.	

Missouri	- Press releases are still our primary method of communication with the
	public but in the last few years we have also amped up our social media
	- Our Traveler Information Map is the best way for the public to get
	information on current road conditions.
Montana	- We use press events and statements, press releases, social media, text
Wontana	alerts, billboards, CMS, radio, TV, etc.
	- We use TV, Print, social media, letters, and our website to reach out to
Nebraska	the public.
	- We get feedback from our community coalitions and other agencies as
	well as phone calls, emails, etc.
Nevada	- We do a lot of web-based communication.
Now Movico	- We have a lot of contact with the MPOs and RTPOs and they do most
INEW MEXICO	of the coordination with the public directly.
Now Vork	- We get a lot of feedback on project specific information but have no
INCW IOIK	organized public data collection.
Ohio	- We use traditional means such as press releases, events and media
Onio	interviews, as well as Facebook and Twitter and freeway and DMS.
Oregon	- We aggressively place and promote through most media, with the
Olegon	exception of text alerts.
Oklahoma	- No response provided.
	- We try to minimize communication with the public. Most public
Tennessee	concerns go through the community relations officers in each region and
	then get fed back to us.
	- We use a variety of tools to communicate with the public such as press
Texas	releases, press conferences, websites, social media, community outreach
10,48	events, health fairs, local events, distributed printed educational
	materials, etc.
Utah	- No response provided.
Washington	- No response provided.
Wisconsin	- We use websites, flyers, social media, communications and safety
	outreach, etc.

4.1 Do you use social media to relate to the public?	
Arizona	- Arizona has more than 65,000 Twitter followers and nearly 13,000 likes on Facebook.
Arkansas	- Yes we use Twitter and Facebook.
Delaware	- Yes we do.
Florida	- Yes, we use Facebook, Twitter, and an alert system called "Alert Today Florida."
Hawaii	- Yes we do.
Idaho	- Yes we do.
Illinois	-Yes: Facebook and Twitter are used for both sending and receiving information
Indiana	- No response provided.
Louisiana	-Yes we do.
Maine	- Yes; a number of state agencies and local law enforcement agencies have active Facebook accounts.
Massachusetts	- Yes we do.
Michigan	- Yes we do.
Minnesota	- Yes we do. Each of our offices has its own social media pages.
Missouri	- Yes we do.
Montana	- Yes we do.
Nebraska	- Yes we do.
Nevada	- No response provided.
New Mexico	- Yes we do.
New York	- Yes we do.
Ohio	- Yes we do.
Oklahoma	- No response provided.
Oregon	-Yes we do.
Tennessee	- No response provided.
Texas	- Yes we do. We use various popular social media sites such as Facebook and Twitter.
Utah	- No response provided.
Washington	- Yes we do.
Wisconsin	- Yes we do.

## 4.2 Who are some of your go-to partners when it comes to promoting transportation safety in your state?

i i	
Arizona	- There are several partners throughout the state promoting transportation safety in Arizona: the Governor's office of Highway Safety, the Arizona Department of Public Safety, the Federal Highway Administration, the National Weather Service, and others participate in various activities with the same goal of Toward Zero Deaths.
Arkansas	- We partner with the Arkansas State Police (ASP) and the Arkansas Department of Health (ADH).
Delaware	- We partner with the Department of Transportation, Delaware State Police, Local Law Enforcement, EMS, Trauma Centers, "Safe Kids Delaware," Corporate Partners, National Guard, Dover Air Base, University of Delaware, etc.
Florida	- We partner with coalition members, state and local agencies, safety advocates, public officials, media partners, etc.
Hawaii	- We partner with the State Department of Health, County Police Departments, FHWA Hawaii Division, County Transportation Departments, County Prosecutors, MADD Hawaii, County Fire Departments, etc.
Idaho	- We work closely with law enforcement, Idaho Highway Safety Coalition, Department of Health, the Medical Community, etc.
Illinois	- No response provided.
Indiana	- Our partners are the Criminal Justice Institute, State Police, Department of Health, Department of Public Safety, Department of Education, MPOs, Federal Highway Administration, etc.
Louisiana	- We partner with the Highway Safety Commission, State Police, our Regional Coalitions, Operation Life Saver, Statewide SHSP implementation team, emphasis area team leaders, MPOs, etc.
Maine	- Our partners are AAA, BMV (for licensing and to show videos and distribute safety materials), tourist visitor centers, TV/newspapers, etc.
Massachusetts	- We partner with the Department of Safety and Public Security, NHTSA, Department of Public Health, Local law enforcement, EMS, etc.
Michigan	- We partner with AAA, Department of Education, Department of Community Health, State Police, Highway Safety and Planning Group, etc.
Minnesota	- We partner with the Governors' Highway Administration for most of our campaign work.
Missouri	- We work closely with the Highway Patrol, Division of Highway Safety, Department of Public Safety, our contractors for construction and design, etc.

Montana	- We work with local law enforcement, Montana Highway Patrol, EMS, Driver's Education, Buckle Up Montana Coalitions, DUI Task Forces, Attorney General's Office, Transportation Planners, Motorcycle
Nebraska	- Our partners are the Omaha Safety Council, Nebraska Safety Council, AAA Nebraska, "Project Extra Mile" (which focuses on underage drinking), Department of Behavioral Health, Department of Health and Human Services, Department of Motor Vehicles, etc.
Nevada	- We work closely with the Office of Traffic Safety, Executive Committee, Technical Working Group, etc.
New Mexico	- We partner with police departments, Driver's Education programs, NHTSA, MPOs, etc.
New York	- We partner with the Governor's Safety Committee, Department of Health, County Traffic Safety Boards, Advocacy Groups, MPOs, etc.
Ohio	- We partner with LTAP, MPOs, law enforcement, Safe Communities, etc.
Oklahoma	- We partner with the Highway Safety Office under the Department of Public Safety, Highway Patrol, etc.
Oregon	- Law enforcement courts, local government, etc.
Tennessee	- We partner with the Governor's Highway Safety Program, maintenance, design, construction, Right-of-way, traffic engineering, local governments, municipalities, roadway superintendents, EMS, police, etc.
Texas	- We often partner with law enforcement agencies, health care providers, non-profit and for-profit organizations, educational institutions, advocacy groups, local to national governments, NHTSA, etc.
Utah	- No response provided.
Washington	- Our usual partners are Traffic Safety Commission, State Highway Patrol, Department of Health, etc.
Wisconsin	- We partner with Department of Public Health, State Patrol, engineers at the DOT, the local Universities, Federal Motor Carrier, EMS agencies, MPOs, etc.

4.3 Do you have a way to get more information to the public (children and adults)?		
Arizona	- We deliver safety presentations to different types of audiences, sharing safety awareness information and materials through the ADOT website.	
Arkansas	- No response provided.	
Delaware	- No response provided.	
Florida	- We primarily use websites to get more info to the public.	
Hawaii	- We primarily use websites to get more info to the public.	
Idaho	- We do go to schools through our partnerships. We are developing a speaking bureau for just this purpose so we can reach schools, clubs, and communities with clear, consistent, well thought-out content with accurate statistics.	
Illinois	- Illinois has a large amount of programs directed at outreach. There are individuals whose job is specifically to put on programs at community centers and schools. Most of these programs are focused on impacting safety for teenage drivers.	
Indiana	- We have recently done some outreach for our strategic highway safety plan to get comments from local leaders and transportation professionals	
	- We are trying to promote the message that driving is a serious task that needs a person's full attention.	
Louisiana	- This is done more at the regional level than at the state as a whole. There are a few statewide programs that target youth culture such as our "Sudden Impact" or "Operation Life Saver" programs.	
	- In Louisiana we don't have great access to the schools from the state level.	
	- We use various websites to get more information to the public.	
Maine	- We also look forward to having basic online crash data available to the public soon.	
Massachusetts	- We do school programs for things like "Safe Routes to School." Additionally we target younger grade-schoolers for our bike and pedestrian programs.	
	- We use English as a Second Language (ESL) as a way to promote safety amongst minorities. For this we find the individual needs of each community and then put together a video of content for them to base their lessons on.	
	- We do this through our "Strive for a Safer Drive" peer to peer program targeted at increased safety for youth drivers.	
Michigan	- There is a program, "Ford Driving Skills for Life," that gets put on by Ford where students get to ride with professional drivers in race cars. The drivers go through simulations where they are made drive like they are drunk, texting, etc. so that the students can see the real dangers.	
Minnesota	- We have our TZD coordinators conduct most of our outreach geared primarily towards adults with the exception of new drivers. Our programs are skewed towards the higher risk crash groups: young males, motorcyclists, and aging drivers.	

Missouri	- We run a "Battle of the Belt" competition for high school students to promote seat belt usage where each school competes to have the highest rate of belt usage.
	- We offer free seminars for installation of car seats, and other safety related concerns.
	- We are also in involved in crash staging with the Highway Patrol for all school levels.
Montana	- We use local coordinators to provide outreach. "Buckle Up Montana" reaches out for matters pertaining to occupant protection. DUI Task Force coordinators work in their local counties.
Nebraska	- We put on seminars through local law enforcement agencies and advocacy groups.
Nevada	- No response provided.
New Mexico	- No response provided.
New York	- We have done a traffic signal mock-up in schools to teach students how to use pedestrian signals.
Ohio	- No response provided.
Oklahoma	- No response provided.
Oregon	- We primarily use websites to get more information to the public.
Tennessee	- Campaigns that go through schools are based out of our Governor's Highway Safety Program.
Texas	- We have several websites and support various outreach efforts and campaigns.
Utah	- No response provided.
Washington	- We can have seminars; we just usually don't very often. We usually have a booth at the state fair where we have information on what we do and our upcoming projects. The state patrol usually has a presence at fairs as well with visual aids.
Wisconsin	- No response provided.

# 5.0 Do you provide informational seminars at schools or publish handouts to keep at local schools?

Arizona	- Arizona is quite judicious on the use of schools to distribute information to the public, in part because of the instructional demands placed upon schools. However, critical information will be distributed through schools for broad-based safety issues.
Arkansas	- No response provided.
Delaware	- Every campaign mobilization comes with flyers and posters that get distributed through our partners.
	- We do have partners that we fund such as the Delaware State Police that go into schools and do programs.
Florida	- Yes we do this, mostly through our programs for "Safe Routes to School," "Teen Drive with Care," and "Hillsborough County Sheriff's Office Teen Outreach."
Hawaii	- Yes; presentations are provided by highway safety funding grantees.
Idaho	- We do create one-page handouts but those are more for community use than to keep at schools.
Illinois	- No response provided.
Indiana	- There is a seminar we hold yearly at Purdue University called "Road School" where counties, local leaders, and consultants get together to collaborate on safety issues
Louisiana	- No response provided.
	- Most of that is handled through the Bureau of Highway Safety.
Maine	- Our SHSP seeks to further engage the Department of Education for programs.
	- We also work with an underage drinking task force that is led by the Office of Substance Abuse to put out educational info.
Massachusetts	- For our bike and pedestrian program we send home printed information with grade schoolers for parents to read.
Michigan	- No response provided.
Minnesota	- We do provide material that can be used in curriculum at schools but often is not.
Montana	- We provide handouts for local school usage. Driver's Education programs use a lot of DOT information for their classes.
Nebraska	- We do not specifically go out and talk to schools and communities because of staff and resource limitations; instead we provide grant funding for agencies to reach out.
Nevada	- We have Consultant staff that goes to the High Schools and provides traffic safety related information separate from the "Zero Teen" program. This outreach uses the "drunk goggles" with the students to target drunk driving concerns.
New Mexico	- No response provided.
New York	- Our programs are pretty limited for that.

Ohio	- We do not do seminars at schools.
Oklahoma	- No response provided.
Oregon	- We provide a host of media targeted at children and parents that are
	distributed through schools and partners that work in schools.
Tennessee	- No response provided.
Texas	- We support and participate in outreach efforts including informational
	presentations, distribution of printed materials, video and audio.
Utah	- No response provided.
Washington	- No response provided.
Wisconsin	- No response provided.

5.1 What kind of resources do you devote towards that outreach?	
Arizona	- Resources and funding for outreach activities come from state as well as federal partners and are coordinated through the ADOT Communications Office.
Arkansas	- No response provided.
Delaware	- No response provided.
Florida	- The "Teen Drive With Care" program is funded by a highway safety grant; the "Safe Routes to School" program is funded by Highway Safety Improvement Funds.
Hawaii	- We use safety funds in the form of grants.
Idaho	- Funds in Illinois are mainly allocated for enforcement. Additional funding goes towards paid media, and safety campaigns.
Illinois	- No response provided.
Indiana	- No response provided.
Louisiana	- No response provided.
Maine	- A major outreach program we are pursuing into schools is having students drive on a simulator that includes distracted and impaired driving scenarios.
Massachusetts	- No response provided.
Michigan	- No response provided.
Minnesota	- All TZD coordinators' salaries are paid for with state safety funds.
Missouri	- No response provided.
Montana	- No response provided.
Nebraska	- No response provided.
Nevada	- We provide about \$2 Million in funding each year towards our "Zero Fatalities" campaign via HSIP funds.
Inevada	- We also provide the Office of Traffic Safety with \$3 Million per year for their grant programs.
New Mexico	- No response provided.
New York	- No response provided.
Ohio	- No response provided.
Oklahoma	- No response provided.
Oregon	- No response provided.
Tennessee	- No response provided.
	- We devote time and efforts towards these outreach events.
Texas	- We do track information usage through staff reporting, performance reporting, professional conferences, as well as our electronic project
Litah	No response provided
Washinster	- No response provided.
w asnington	- No response provided.
W1scons1n	- No response provided.

6.0 What content are you trying to get out and who creates the content?		
Arizona	- We are trying to promote general roadway safety awareness, safety in adverse weather conditions, work zone safety, pedestrian/bike safety, etc.	
	- ADOT Communications creates this content.	
Arkansas	- No response provided.	
Delaware	- All the content is created within the Office of Highway Safety but is run through a Public Relations firm to reach out most effectively to the public.	
Florida	- The content is an data driven.	
Hawaii	- No response provided	
Idaho	- The Office of Highway Safety comes up with the content from our crash data, public surveys and our highway research program.	
Illinois	- The content is created through a collaborative effort and is loosely based on the state's SHSP. It involves participants from the DOT, law enforcement, and Safety Office.	
	- The content is generated from crash data as it applies to a matrix that the Illinois DOT uses.	
Indiana	- The content for our SHSP is primarily driven by crash history analysis. Some of our biggest issues are lane departure crashes, intersection crashes, and other specific issues.	
Louisiana	- Content is driven by data and agreed upon by our partners. We are improving our SHSP to be more strategic with where we spend our money than we have been in the past.	
Maine	- The agencies work cooperatively with each other to share information and make the most collaborative programs possible.	
Massachusetts	- We have an executive committee comprised of the Secretary of Health, Secretary of Public Safety, and Secretary of Transportation that sets the agenda of the SHSP.	
	- Additionally there are committees for each strategy within the plan that are allowed to work independently as long as their focus is within the safety plan.	
Michigan	- No response provided.	
Minnesota	- The content is created by crash data and we usually don't break down our goals into specific areas because we focus on our overall goals instead. These goals are based on our TZD plan.	
Missouri	- No response provided.	
Montana	- No response provided.	
Nebraska	- We try to focus on where we can get the most impact for the least amount of input for our programs, meaning that we do have priority counties for safety. Crash data is the primary source used for creating our hierarchy of need.	

Nevada	- The DOT has a main public outreach consultant team that creates
New Mexico	- No response provided.
New York	- We have content from different sources such as: the DOT creating the work zone safety content and NHTSA and the Governor's Safety Committee create the behavioral safety content.
Ohio	- No response provided.
Oklahoma	- No response provided.
Oregon	- We create content with a contract communications firm, in-house graphic arts shop, and based on NHTSA materials.
	- 50% of our projects are data-driven so crash hotspots create the content there.
Tennessee	- The 50% that is request driven must go through an approval matrix.
Tennessee	- Even when requests don't get approved we try to push information down to a local level to see if they have resources to improve the situation.
Texas	- Our content is based out of the goal of zero injuries and zero fatalities so we try to pursue content that can have the biggest impact on that.
Washington	- The Traffic Safety Commission creates the content. Our program is very data driven.
Wisconsin	- No response provided.

7.0 Do you have any initiatives to change state policies?		
Arizona	- No response provided.	
Arkansas	- We have initiatives to institute a primary seat belt law, a no texting and driving law, and a strict handheld device law for young drivers.	
Delaware	- We do not currently have any initiatives to change state policies.	
Florida	- No response provided.	
Hawaii	- Our initiatives are to increase compliance with: Repeat Offender and Open Container Laws, Universal Helmet Law for Motorcycles, and Truck Bed Law (prohibits persons from riding in the bed of pickup trucks).	
Idaho	<ul> <li>We have an impaired driving task force that is trying to change laws regarding excessive Blood Alcohol levels and ignition interlock on vehicles for repeat offenders.</li> <li>Idabo is trying to achieve a primary seat belt law and mandatory.</li> </ul>	
	helmet law for drivers 18 years and under.	
Illinois	- We have initiatives almost every year to improve state safety laws.	
Indiana	- We are currently in a dispute with NHTSA about the necessary number of hours of community service for repeat DUI offenders.	
Louisiana	<ul> <li>We have strategies to try and take 18 year olds out of our bars, which they can currently legally enter, and to raise the fine for seat belt noncompliance.</li> <li>We are trying to make our child restraint law are more stringent to</li> </ul>	
Maine	<ul> <li>None currently. We are looking into Marijuana/THC limits as neighboring states change their drug laws but this is not an imminent thing.</li> </ul>	
Massachusetts	- The issue of a primary seat belt law comes up each year and one of the issues that we run in to is that we are unable to lobby for safer solutions.	
	- The issue that dissolved the momentum for it was public concern about racial profiling with a primary seat belt law. Despite this, our seatbelt use is up 77%.	
Michigan	- No response provided.	
Minnesota	- We do not try to impact policies from the top down; instead we try to get feedback from the bottom up so that any legislation or policies that get implemented have public support.	
Missouri	- Our current aim is to try to obtain more funding. We do actively support primary seat belt laws and distracted driving laws.	
Montana	- No response provided.	
	- We have an initiative to have a primary seatbelt law.	
Nebraska	- We are a part of a code agency under the governor's office, which limits our power and effectiveness because the governor must sign off on all initiatives.	

Nevada	- We are constantly working on changing existing laws to improve safety
	- For example we are working on passing a primary seat belt law which has failed to even make it to the legislative session recently.
New Mexico	- Our traffic safety bureau has tried a few times to initiate a texting and driving law to no avail.
New York	- Our major initiative is updating our SHSP and creating action plans centered around major issues.
Ohio	- No, we have a very conservative state legislature that has not been interested in primary seat belt laws, etc.
Oklahoma	-There have been a handful of initiatives to get design statues revised such as implementing flashing yellow arrows.
Oregon	- No response provided.
Tennessee	- No response provided.
Texas	- No response provided.
Utah	- No response provided.
Washington	- We did have an initiative for distracted driving that did not pass but we will likely pursue again. We do have a law that prohibits calling and texting but nothing else.
Wisconsin	- We have a significant cross median crash problem in rural areas so we looked at changing policies for making median barriers standard.

7.1 Do you have any recent legislative changes?		
Arizona	- No response provided.	
Arkansas	- We recently initiated our Stepped-Up Statewide Enforcement Plan aimed at drivers violating the texting law.	
Delaware	- Recently we made improvements to our DUI laws that made us fall out of compliance with Federal DUI laws so in the recent legislative session we made changes to correct that.	
Florida	- No response provided.	
Hawaii	- The universal seat belt law went into effect in 2013 and the "Move Over or Get Pulled Over" legislation passed in 2012.	
Idaho	- No response provided.	
Illinois	- We have recently changed our primary seatbelt law to include passengers as well as drivers, lowered some of our standard speed limits, as well as passing distracted driving laws.	
Indiana	- We do now have a primary seatbelt law.	
Louisiana	- Most recently we implemented a primary seat belt law for back seat users.	
Maine	- No response provided.	
Massachusetts	- No response provided.	
Michigan	- Recently our legislature repealed the helmet law to only be necessary for drivers under 21.	
Minnesota	- We have had a lot of success in the last 5 years filling our legislative voids as it relates to traffic safety such as: graduated licensing and seat belt laws.	
Missouri	- No response provided.	
Montana	- Recently our DUI fines and fees were increased.	
	- No we do not.	
Nebraska	- Our motorcycle helmet law comes under attack in the legislature each year due to the large motorcycle lobby and the lack of public understanding of crash consequences.	
	- We were successful in getting "pedestrian safety zones" passed as well as making it illegal to pass or make U-turns in active school zones.	
INEVAUA	- Another recent change was to increase the penalties for hit and run offenses as this type of crash typically involves impairment.	
New Mexico	- No response provided.	
New York	- Most recently, we have passed "Move Over" legislation for emergency vehicles.	
	primary seat belt laws, a mandatory motorcycle helmet law, distracted driving laws, etc.	
Ohio	- No response provided.	

Oklahoma	- There is a law against texting going into effect. We don't know yet how effective it can be because it is hard to make such a law that is enforceable.
Oregon	- No response provided.
Tennessee	- No response provided.
Texas	- We have recently tried to pass laws for texting and driving. Nothing has come of it yet though.
Utah	- No response provided.
Washington	- No response provided.
Wisconsin	- No response provided.

7.2 If the DOT could change the laws, what would they change?		
Arizona	- No response provided.	
Arkansas	- No response provided.	
Delaware	- No response provided.	
Florida	- No response provided.	
Hawaii	- No response provided.	
Idaho	- We would want to change laws to be stricter for distracted driving, strengthen the graduated licensing program as well as be stricter for child restraint laws.	
Illinois	- No response provided.	
Indiana	- No response provided.	
Louisiana	- No response provided.	
Maine	- No response provided.	
Massachusetts	- The DOT would certainly change the laws to have a primary seat belt law.	
Michigan	- No response provided.	
Minnesota	- The DOT would likely want to implement a repeat DWI repeat offender law as well as a mandatory motorcycle helmet law.	
Missouri	- The DOT would likely change the seat belt law; the vast majority of fatalities in this state are unbelted.	
Montana	- MDT supports legislative change toward a primary seat belt law.	
Nebraska	- We would implement a primary seat belt law.	
Nevada	- If we could change one thing right now, it would be the lack of a primary seat belt law.	
New Mexico	- No response provided.	
New York	- We are trying to develop a better graduated licensing program as well as enable use of automated enforcement.	
Ohio	- We would likely implement a primary seat belt law.	
Oklahoma	- No response provided.	
Oregon	- No response provided.	
Tennessee	- No response provided.	
Texas	- The DOT would likely put in place a mandatory motorcycle helmet law for all riders.	
Utah	- No response provided.	
Washington	- We would tighten up the laws regarding distracted driving and perhaps find a way to detect active levels of THC for marijuana.	
	- We would increase severity for drunk driving repeat offenders.	
Wisconsin	- We are also trying to implement a distracted driving law.	

<b>8.0</b> In light of the recent national push Toward Zero Deaths (TZD) do you sense any sort of urgency as it relates to changing the safety culture in your state?		
Arizona	- Yes; it is a continuous process. Arizona's 2014 vision statement for the SHSP is: "Toward Zero Deaths by Reducing Crashes for a Safer Arizona."	
Arkansas	- Yes we are a TZD state but as of now there is no real sense of urgency.	
Delaware	- We are a TZD state and have adopted it for our SHSP and are on track with those goals.	
Florida	- Traffic Safety is a priority at the Florida Department of Transportation. The push towards zero deaths specifically has no impact on our efforts although that is our goal.	
Hawaii	- Not really, however the ultimate goal of our SHSP is TZD.	
Idaho	- Yes, we have totally embraced TZD in Idaho and our whole SHSP is centered around that concept. It is unacceptable to have any fatalities.	
Illinois	- No response provided.	
Indiana	- TZD is the driving force behind initiatives to improve safety in Indiana. We use it as a tool to discuss safety with the public.	
Louisiana	<ul> <li>We do feel the urgency to reduce the number of fatalities at the state level but once you get outside of the safety community the urgency does die down.</li> <li>We are working to promote this goal at our meetings from top level</li> </ul>	
	down.	
Maine	- Not urgency per se but certainly a continuing increase in the degree of attention we put into our plans.	
Massachusetts	- We are technically a TZD state, but so far nothing has come of that. We have hopes that it will soon encourage a sense of urgency for safety.	
Michigan	- Our upper level management pushes TZD and that is what we are working towards but it hasn't impacted the structure or our timeline yet.	
Minnesota	- We fully embrace TZD and it drives most things we do from our goals to our outreach programs.	
Missouri	- We have worked with the Blueprint For Public Safety for a long time to set a target for traffic fatalities. We have met that goal for the last several years and we are ahead of schedule in terms of reducing fatalities.	
Montana	- MDT is supporting the pool-funded effort for Traffic Safety Culture research.	
Nebraska	<ul> <li>We are very fond of the TZD program and would like to see it become a reality.</li> <li>Our citizens sometimes challenge this until they put it into perspective by thinking about their own family.</li> </ul>	
Nevada	- Changing culture will take time and perseverance so I would say there is no urgency. This will be a long fought campaign and we will have to be vigilant and undeterred in our efforts to reach our goal of zero.	

New Mexico	- No we do not. Since our crashes are on the rise it seems impractical to adopt TZD when our goals are just to keep crashes from rising.	
New York	- We have had fairly aggressive goals in the past so we are unsure how TZD will really impact us.	
Ohio	- I wouldn't say there is an urgency per se; we have already put a tremendous amount of resources into safety projects and programs before TZD was initiated and will continue to do so.	
Oklahoma	- No response provided.	
Oregon	- ODOT has worked toward this goal for over 20 years but has not put an end date on the objective.	
	- Urgency would be toward keeping the focus on improving the systems that lead to zero deaths and injuries.	
Tennessee	- We have adopted TZD and are fans of it. We understand that achieving zero deaths is near impossible but the goal of pushing towards zero is a great goal.	
Texas	- No response provided.	
Utah	- No response provided.	
Washington	- We are working with the Western Transportation Institute on the Pooled-Fund Traffic Safety Study.	
Wisconsin	- In our state it seems more of a tagline than a reality; there is not really any urgency here.	

9.0 What in your personal opinion is the most critical safety culture problem?		
Arizona	- There are critical behavioral issues related to traffic fatalities and injuries that are beyond the control of any agency; rather it is a collaborative multidisciplinary challenge. Safety culture is evolving and we strive to enhance our communication, collaboration, and cooperation with statewide stakeholders to make Arizona roadways safer.	
Arkansas	- I think education is the first priority for any safety-related matter. Children should be educated better with respect to the safety considerations and be trained on how to deal with the risks.	
Delaware	- The biggest problem is the nonchalant attitude of the public and how they don't understand the seriousness of their choices on the road.	
	- One fatality is too many; each fatality is a PERSON that has died, not a statistic.	
Florida	- This is a matter of personal responsibility. If more people drove, walked, and biked responsibly, with the safety of others in mind, the magnitude of the problem would reduce considerably.	
Hawaii	- The most crucial problem is passing controversial laws and the inability to enforce all the safety laws in place.	
Idaho	- The community level of acceptance of traffic fatalities. The biggest challenge is getting people to think that traffic fatalities are not a way of life.	
Illinois	- Distracted driving is the largest issue.	
Indiana	- Distracted driving is by far the largest issue. Younger people are chained to their cell phones and don't realize the safety implications of that.	
Louisiana	- The largest issue is lack of awareness and knowledge, i.e. complacency. People don't think about how safety impacts everyday life and the magnitude of the safety problem.	
	- There are also several personal rights issues that cause people to not comply with the safety regulations laid out by the government.	
Maine	- Education is the biggest problem: both for the public so that they endorse the need for safety to make a difference, and for all those within stakeholder organizations to make sure everyone is engaged in the effort.	
Massachusetts	- A lack of integration of safety. If we integrate safety into all the work we do we would have a better safety culture. This includes maintenance, design, policies, etc.	
Michigan	- Funding is our most critical problem. It is a struggle to build a safety plan when you don't know what your level of funding is going to be.	
	- The "Buy America" program also makes it more challenging to do our jobs because many of our projects get held up due to necessity of American-made products.	
Minnesota	- Apathy is the biggest problem; people still view fatalities as a byproduct of a transportation network.	
	- Additionally, many people's receptiveness to innovative traffic safety might infringe on their individual beliefs.	

Missouri	- The largest problem is the rush to do everything quickly. People are too often rewarded for quick fixes. It is the common mindset that it is better to finish a job quickly than set up proper safety situations. This is a mindset that we need to change.	
Montana	- High risk groups are extremely hard to reach out to and behavioral change amongst them is extremely difficult. The most critical problem is changing the norm of those who engage in risky behavior.	
Nebraska	- Lack of clear leadership from the top is the most critical problem and has been for the last 20 years. It is within the power of the governor and other leaders to create a culture of the public accepting safety.	
Nevada	- In my opinion the most critical component to the changing of culture is apathy. People have accepted the high number of fatalities as commonplace and this must change before we will see the culture change.	
New Mexico	- A lot of our issues deal with the fact that New Mexico is a very poor state and as a result our infrastructure, laws, and resulting culture have suffered.	
New York	- The most critical problem is how do we get the public to develop a sense of shared responsibility for safety.	
Ohio	- The largest issue is engaging the public more in the role they play in preventing crashes.	
Oklahoma	- The biggest problem is solutions that put off the appearance of results instead of actual substance. We need to account for regression to the mean to make actual change instead of just appeasing the public.	
Oregon	- We move from one campaign to the next, choosing to focus on sustainability, congestion, eco-friendly solutions, etc., and lose sight of what is really important: making travel completely safe from death and serious injury for all Oregonians.	
Tennessee	- In general the biggest problem is people not abiding by the law including but not limited to seat belt usage, speeding, drinking and driving, etc.	
Texas	- The public lack of knowledge and awareness about traffic safety issues is one of the most critical problems	
	- Additionally, the public's acquiescence to the inevitability of fatal and injury crashes as part of the cost & consequences of modern transportation choices is another serious problem	
	- In general, the public is just not aware of the significance or risks relating to traffic safety.	
Utah	- No response provided.	
Washington	- The public not realizing how serious the issue of traffic safety and how big the magnitude of the problem is, is the most serious issue.	
Wisconsin	- Distracted driving and the overload of information drivers experience in the car is the most critical problem.	

Programs/Campaigns Named in the Survey		
Arizono	- "Driving Safely Home"	
	- "Pull Aside - Stay Alive"	
Arkansas	- "Click It or Ticket"	
Delaware	- No response provided.	
Florida	- "Alert Today Florida"	
	- "Safe Routes to School"	
	- "Teen Drive With Care"	
	- "Hillsborough County Sheriff's Office Teen Outreach"	
Hamali	- "Drive Sober or Get Pulled Over"	
Hawaii	- "Click-It or Ticket"	
	- "CEO Challenge"	
Idaho	- "Courageous Voices Save Lives"	
	- "One-Pager"	
Illinois	- "Click-It or Ticket"	
Indiana	- "Road School"	
	- "Drive Sober or Get Pulled Over"	
Louisiana	- "Sudden Impact"	
	- "Operation Life Saver"	
Maine	- No response provided.	
Massashusatta	- "Share the Road"	
Wassachusetts	- "Safe Routes to School"	
	- "Click-It or Ticket"	
Mishissa	- "Peer-to-Peer"	
whenigan	- "Strive for a Safer Drive"	
	- "Ford Driving Skills for Life"	
Missouri	- "Battle of the Belt"	
	- "Vision Zero"	
Montana	- "Buckle Up Montana"	
	- "Transportation Pooled Fund Program" through the Western Transportation Institute	
Nebraska	- "Project Extra Mile"	
Nevada	- "Zero Teen"	
New Mexico	- "Safe Routes to School"	
New York	- "See Be Seen"	

Ohio	- "Safe Communities"
Oklahoma	- No response provided.
Oregon	- "All Roads Traffic Safety"
Tennessee	- No response provided.
Texas	- "123 Safe Days of Summer"
Utah	- No response provided.
Washington	-"Transportation Pooled Fund Program" through the Western Transportation Institute
	- "Click-It or Ticket"
Wisconsin	- No response provided.

### **Appendix C: Safety Culture Programs Handout**

#### **C.1 Introduction**

Traffic Safety must be a statewide priority, not just state-level priority. Citizens must be provided with a platform to not only express local/regional concerns but to also build a network of safety advocates and set and implement local and regional goals. This can be accomplished through local and regional safety coalitions. Kansas Department of Transportation (KDOT) is partnering with the Kansas Department of Health and Environment's Healthcare Emergency Preparedness Coalitions in order to form traffic safety regional safety coalition subcommittees which are replicable and cover the entire State. This partnership makes sense as traffic safety performance measures, fatalities and serious injuries are a healthcare emergency with over 2,000 traffic-related fatalities or serious injuries within the state on an annual basis.

The number of fatal crashes has fallen in recent years, both in Kansas and the nation. The fatality *rate*, the number of fatalities per mile driven, has also dropped. Part of the credit for the decline belongs to highway departments. They've worked for decades to make roadways safer, installing rumble strips to keep drivers in their lanes and engineering shoulders and adjacent spaces for those who leave them. Part of the credit goes to vehicle manufacturers and their introduction of such advances as air bags, safety belts and anti-lock brakes. Finally, drivers themselves have taken more personal responsibility. More are buckling up and fewer are driving drunk.

Yet this stark fact remains: Between 2010 and 2014 in Kansas, 1,939 people were killed in traffic fatalities in Kansas. In order to further reduce these statistics there needs to be a statewide collaboration between different organizations, including engineers, planners, educators, community leaders, activists, law enforcement and emergency medical services. This will bring a diverse safety expertise to existing driving safety programs and produce ideas for innovative approaches. With this diverse safety expertise, education and safety innovation can help with improving occupant protection, impaired driving, teen driving, and general driving safety.

There is no shortage of ideas on how to address crashes. The challenge for each emphasis area has been to identify realistic strategies for reducing crashes, prioritize those strategies, and

implementing those most likely to help us meet the goal of halving the number of fatal and disabling crashes within a 20-year timeframe. Discussion of the each of the emphasis areas – occupant protection, impaired driving, teen drivers, pedestrian safety, and general road safety – is presented separately.

This guidebook presents a diverse list of programs that could help change the driving safety culture of the state of Kansas and reduce the number of fatalities and injuries in automobile related crashes. Each program has a description, applicability, approximate cost, and resource section. The brochure is broken up into different sections based on the emphasis area. Some programs cost more than others, and may exceed the available budgets of the regional safety coalitions. Despite this, these programs were included in order to generate ideas of what is being done in other places, and each coalition could decide to raise additional funding through sponsorships to fund these larger programs. Alternatively, the coalition could work to implement a scaled-down version of a program that would fit into their available budget.

### C.2 Statewide Averages (2010 to 2014)

CRASH CLASS	
Other Non-Collison	1.5%
Overturned/Rollover	14.8%
Collision With	
Pedestrian	3.1%
Moving vehicle	56.1%
Parked vehicle	2.0%
Train	0.1%
Cyclist	2.2%
Animal	2.1%
Fixed Object	17.7%
Other Object	0.4%
INTERSECTION TYPE	
Four way intersection	65.0%
Five way intersection	1.3%
T-Intersection	16.7%
Y-Intersection	0.6%
L-Intersection	0.5%
Roundabout	0.4%
Traffic Circle	0.1%
Part Of Interchange	14.8%
Other	0.6%
DRIVER AGE	
<15	4.5%
15 - 19	12.5%
20 - 24	13.8%
25 - 29	10.5%
30 - 34	8.9%
35 - 39	7.5%
40 - 44	7.2%
45 - 49	7.1%
50 - 54	7.3%
55 - 59	6.4%
60 - 64	5.0%
>64	9.3%
ROAD CHARACTER	
Straight and level	70.4%
Straight on incline	17.0%
Straight on hillcrest	1.9%
Curved and level	5.4%
Curved on incline	4.3 %
Curved on hillcrest	0.3%
Other	0.7%
LIGHT CONDITIONS	
Daylight	68.9%
Dawn	1.9%
Dusk	2.6%
Dark: with Streetlights	14.4%
Dark: no Lights	11.9%
Other	0.3%

SPEED LIMIT		
20 mph	2.4%	
25 mph	1.8%	
30 mph	21.4%	
35 mph	12.2%	
40 mph	14.4%	
45 mph	7.9%	
50 mph	1.4%	
55 mph	15.2%	
60 mph	4.4%	
65 mph	12.8%	
70 mph	3.5%	
75 mph	2.6%	
<b>OCCUPANT PROTECTION</b>		
Seatbelt use	83.6%	
Seatbelt use fatalities	32.9%	
Unused seatbelt fatalities	42.9%	
<b>IMPAIRED/DISTRACTED D</b>	RIVING	
All distractions in vehicle	23.9%	
Mobile (Cell) Phones	1.1%	
All alcohol-related crashes	8.7%	
All alcohol-related crashes Alcohol-related fatalities	8.7% 28.6%	
All alcohol-related crashes Alcohol-related fatalities All drug-related crashes	8.7% 28.6% 1.3%	
All alcohol-related crashes Alcohol-related fatalities All drug-related crashes Drug-related fatalities	8.7% 28.6% 1.3% 14.9%	
All alcohol-related crashes Alcohol-related fatalities All drug-related crashes Drug-related fatalities <b>PEDESTRIAN SAFETY</b>	8.7% 28.6% 1.3% 14.9%	
All alcohol-related crashes Alcohol-related fatalities All drug-related crashes Drug-related fatalities <b>PEDESTRIAN SAFETY</b> All pedestrian crashes	8.7% 28.6% 1.3% 14.9% 5.8%	
All alcohol-related crashesAlcohol-related fatalitiesAll drug-related crashesDrug-related fatalities <b>PEDESTRIAN SAFETY</b> All pedestrian crashesPedestrian fatalities only	8.7% 28.6% 1.3% 14.9% 5.8% 7.7%	
All alcohol-related crashes Alcohol-related fatalities All drug-related crashes Drug-related fatalities <b>PEDESTRIAN SAFETY</b> All pedestrian crashes Pedestrian fatalities only <b>GENERAL ROAD SAFETY</b>	8.7% 28.6% 1.3% 14.9% 5.8% 7.7%	
All alcohol-related crashes Alcohol-related fatalities All drug-related crashes Drug-related fatalities <b>PEDESTRIAN SAFETY</b> All pedestrian crashes Pedestrian fatalities only <b>GENERAL ROAD SAFETY</b> Snow and Sleet crashes	8.7% 28.6% 1.3% 14.9% 5.8% 7.7% 3.4%	
All alcohol-related crashes Alcohol-related fatalities All drug-related crashes Drug-related fatalities <b>PEDESTRIAN SAFETY</b> All pedestrian crashes Pedestrian fatalities only <b>GENERAL ROAD SAFETY</b> Snow and Sleet crashes Snow and Sleet fatalities	8.7% 28.6% 1.3% 14.9% 5.8% 7.7% 3.4% 2.2%	
All alcohol-related crashes Alcohol-related fatalities All drug-related crashes Drug-related fatalities <b>PEDESTRIAN SAFETY</b> All pedestrian crashes Pedestrian fatalities only <b>GENERAL ROAD SAFETY</b> Snow and Sleet crashes Snow and Sleet fatalities Rain-related crashes	8.7% 28.6% 1.3% 14.9% 5.8% 7.7% 3.4% 2.2% 8.6%	
All alcohol-related crashes Alcohol-related fatalities All drug-related crashes Drug-related fatalities <b>PEDESTRIAN SAFETY</b> All pedestrian crashes Pedestrian fatalities only <b>GENERAL ROAD SAFETY</b> Snow and Sleet crashes Snow and Sleet fatalities Rain-related crashes Rain-related fatalities	8.7% 28.6% 1.3% 14.9% 5.8% 7.7% 3.4% 2.2% 8.6% 6.1%	
All alcohol-related crashes Alcohol-related fatalities All drug-related crashes Drug-related fatalities <b>PEDESTRIAN SAFETY</b> All pedestrian crashes Pedestrian fatalities only <b>GENERAL ROAD SAFETY</b> Snow and Sleet crashes Snow and Sleet fatalities Rain-related crashes Rain-related fatalities No adverse weather conditions	8.7%         28.6%         1.3%         14.9%         5.8%         7.7%         3.4%         2.2%         8.6%         6.1%         86.1%	
All alcohol-related crashes Alcohol-related fatalities All drug-related crashes Drug-related fatalities <b>PEDESTRIAN SAFETY</b> All pedestrian crashes Pedestrian fatalities only <b>GENERAL ROAD SAFETY</b> Snow and Sleet crashes Snow and Sleet fatalities Rain-related crashes Rain-related fatalities No adverse weather conditions Strong wind/smoke/fog	8.7%         28.6%         1.3%         14.9%         5.8%         7.7%         3.4%         2.2%         8.6%         6.1%         86.1%         1.9%	
All alcohol-related crashes Alcohol-related fatalities All drug-related crashes Drug-related fatalities <b>PEDESTRIAN SAFETY</b> All pedestrian crashes Pedestrian fatalities only <b>GENERAL ROAD SAFETY</b> Snow and Sleet crashes Snow and Sleet fatalities Rain-related crashes Rain-related fatalities No adverse weather conditions Strong wind/smoke/fog Work zone-related crashes	8.7%         28.6%         1.3%         14.9%         5.8%         7.7%         3.4%         2.2%         8.6%         6.1%         86.1%         1.9%         2.7%	

#### C.3 Northwest Regional Safety Coalition District



Also known as the Northwest Kansas Traffic Safety Subcommittee of the Preparedness Healthcare Coalition, the Northwest Regional Safety Coalition District is made up of eighteen counties: Cheyenne, Decatur, Ellis, Graham, Grove, Logan, Ness, Norton, Phillips, Rawlins, Rooks, Rush, Russell, Sherman, Sheridan, Thomas, Trego, and Wallace Counties. This district is comprised mainly of high plains used for agriculture (KGS, 2008; Kansas Landuse/Landcover Map, 1996). This coalition district had the lowest population at 95,536 in 2010 (Kansas Population by County, 2010), made up of some of the smaller cities in Kansas including Hays, Norton, Colby, and Oberlin.

The coalition district contained 4.5 percent of Kansas's crashes from 2010 to 2014, which is to be expected given its low population. Some of the findings from the crash analysis for this coalition district are found below:

- **Speed:** This coalition district showed 30 percent more high speed (speeds of 55 miles per hour or greater) than the statewide average;
- **Overturned vehicles:** There were 25 percent more overturned-vehicle crashes than the statewide average;
- **Interchange-related crashes:** This coalition district had approximately 6 percent fewer interchange-related crashes than the statewide average;
- Occupant protection: This coalition district had a 10.4 percent higher fatality rate due to unused seatbelts than the state average, making it the third highest coalition district;

**Impaired and distracted driving:** This coalition district had 3 percent more crashes than the statewide average due to distractions in the vehicle such as cell phones, electronic devices, and others. The coalition district also had 4.7 percent more alcohol-related crashes (7.5 percent more fatal alcohol-related crashes) than the statewide average, making it the highest rate of alcohol presence in crashes of any coalition district. This coalition district had the highest drug-related fatal and injury crashes, 1.5 percent more than the statewide average;

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- Young drivers: This coalition district showed 5 percent more teen crashes than the statewide average, making it the highest in Kansas. The analysis also showed 2 percent higher teen fatal crashes than the statewide average;
- **Pedestrian safety:** This coalition district showed 2.3 percent lower pedestrian crashes than the statewide average, making it the lowest in all coalition districts; and
- General road safety: This coalition district had the highest snow/sleetrelated crashes, 1.4 percent more than the statewide average. The lowest fatal work zone crashes were noted in this coalition district, 1.7 percent lower than the statewide average.

#### C.4 Southwest Regional Safety Coalition District



The Southwest Regional Safety Coalition District is made up eighteen counties including: Clark, Finney, Ford, Grant, Gray, Greeley, Hamilton, Haskell, Hodgeman, Kearny, Lane, Meade, Morton, Scott, Seward, Stanton, Stevens, and Wichita Counties (KDHE, 2012). Much like the Northwest Regional Safety Coalition District, this coalition district contains mostly high plains with agriculture along with river lowlands (KGS, 2008). Also like its northern counterpart, this district has a fairly low population at 148,399 in 2010 (Kansas Population by County, 2010), the majority of whom are located in cities such as Dodge City, Garden City, and Liberal.

The Southwest Regional Safety Coalition District contained 4.6 percent of crashes in Kansas from 2010 to 2014, not dissimilar from the Northwest Regional Safety Coalition District. Some of the findings from the crash analysis for this coalition district are found below:

- **Overturned vehicles:** This coalition district showed over 16 percent more overturned-vehicle crashes than the statewide average;
- **Interchange-related crashes:** This coalition district had 12 percent fewer crashes at interchanges than the statewide average;
- **Nighttime crashes:** This coalition district showed nearly 10 percent more unlit nighttime crashes than the statewide average;
- Occupant protection: This coalition district had the lowest seatbelt use,
   4.6 percent lower than the statewide average. It had the highest number of unused seatbelt fatal crashes, 13.6 percent greater than the statewide average;

**Impaired and distracted driving:** This coalition district had 9 percent more crashes than the statewide average due to distractions from cell phones, electronic devices and others items, making it the highest amongst the coalition districts. The coalition district also had 4.7 percent more alcohol-related crashes (1.5 percent more fatal alcohol-related crashes) than the statewide average. This coalition district had 0.6 percent more drug-related crashes than the statewide average;

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- Young drivers: This coalition district showed 3.7 percent more teen crashes than the statewide average. The analysis also showed 2.3 percent higher teen fatal crashes than the statewide average, making it the highest amongst the coalition districts;
- **Pedestrian safety:** This coalition district showed 0.2 percent lower pedestrian crashes than the statewide average; and
- General road safety: This coalition district showed 0.6 percent more snow/sleet-related crashes than the statewide average. The snow/sleetrelated crashes showed 0.9 percent more fatality rate than the statewide average, making it the highest amongst the coalition districts.
#### C.5 North Central Regional Safety Coalition District



The North Central Regional Safety Coalition District is made up of twelve counties including: Clay, Cloud, Dickinson, Ellsworth, Jewell, Lincoln, Mitchell, Osborne, Ottawa, Republic, Smith, and Saline Counties (KDHE, 2012) and is home to the Smoky Hills (KGS, 2008). This coalition district had a population of 131,198 persons in 2010 (Kansas Population by County, 2010). Some of the more populous cities in this coalition district are Abilene, Concordia, and Salina.

The North Central Regional Safety Coalition District was home to 5.0 percent of crashes in Kansas from 2010 to 2014, just over that of the previous two coalition districts. Some of the findings from the crash analysis for this coalition district are found below:

- **Speed:** This coalition district showed over 11 percent more high-speed crashes (55 miles per hour or higher) than the statewide average;
- **Overturned vehicles:** This coalition district had 9 percent more overturned-vehicle crashes than the statewide average;
- **Interchange-related crashes:** This coalition district had half the amount of interchange crashes as the statewide average;
- **Roadway geometry:** This coalition district had 5 percent more crashes on straight and level roadways than the statewide average;
- **Occupant protection:** This coalition district showed 1.7 percent lower seatbelt usage than the statewide average. It had the second highest number of fatal crashes with unused seatbelts, 13.4 percent greater than the statewide average;

- Impaired and distracted driving: This coalition district had 2.7 percent more crashes than the statewide average due to distractions from cell phones, electronic devices and others items. The coalition district also had 0.3 percent more alcohol-related crashes (0.9 percent more fatal alcoholrelated crashes) than the statewide average;
- Young drivers: This coalition district showed 2.6 percent more teen crashes than the statewide average.
- **Pedestrian safety:** This coalition district showed 0.1 percent lower pedestrian crashes than the statewide average; and
- General road safety: This coalition district showed 0.5 percent more snow/sleet-related crashes than the statewide average. The snow/sleetrelated fatal crashes were 2.2 percent lower than the statewide average, making it the lowest amongst the coalition districts.

#### C.6 South Central Regional Safety Coalition District

The South Central Regional Safety Coalition District is made up of nineteen counties including: Barber, Barton, Butler, Comanche, Cowley, Edwards, Harper, Harvey, Kingman, Kiowa, Marion, McPherson, Pawnee, Pratt, Reno, Rice, Sedgwick, Stafford, and Sumner Counties (KDHE, 2012). This is the coalition district with the highest population at 850,780 in 2010 (Kansas Population by County, 2010). This is due in large part to the City of Wichita, which is the largest city in Kansas, along with the smaller cities of El Dorado, Hutchinson, and McPherson.

The South Central Coalition District also had the highest proportion of crashes in Kansas from 2010 to 2014 at 28.9 percent. Some of the findings from the crash analysis for this coalition district are found below:

- **Multi-occupant vehicle crashes:** This coalition district had more crashes with vehicles containing two occupants than one occupant which differs from the statewide trend;
- **Speed:** This coalition district showed nearly 5 percent more lower-speed crashes (less than 55 mph) than the statewide average;
- **Roadway geometry:** This coalition district showed 14 percent more crashes on straight and level roadways than the statewide average;
- **Occupant protection:** This coalition district showed 0.1 percent more seatbelt usage than the statewide average. It had one of the lowest fatal crashes with unused seatbelts, 4.5 percent lower than the statewide average;

- **Impaired and distracted driving:** This coalition district had 0.2 percent more crashes than the statewide average due to distractions from cell phones, electronic devices and others items. The coalition district had 0.6 percent lower alcohol-related crashes than the statewide average;
- Young drivers: This coalition district showed 0.1 percent more teen crashes than the statewide average.
- **Pedestrian safety:** This coalition district showed 0.3 percent more pedestrian crashes than the statewide average; and
- **General road safety:** This coalition district showed 0.6 percent less snow/sleet-related crashes than the statewide average.

#### C.7 Northeast Regional Safety Coalition District



The Northeast Regional Safety Coalition District is made up of twenty-three counties including: Anderson, Atchison, Brown, Chase, Coffey, Doniphan, Douglas, Franklin, Geary, Jackson, Jefferson, Linn, Lyon, Marshall, Miami, Morris, Nemaha, Osage, Pottawatomie, Riley, Shawnee, Wabaunsee, and Washington Counties (KDHE, 2012). This coalition district is located in one of the more populous areas of the state with 660,265 residents in 2010 (Kansas Population by County, 2010). Some of the larger cities in this coalition district are Emporia, Lawrence, Manhattan, and Topeka.

The Northeast Regional Safety Coalition District held 24.6 percent of Kansas's crashes from 2010 to 2014, which is proportional to the high population in this coalition district. Some of the findings from the crash analysis for this coalition district are found below:

- **Multi-occupant vehicle crashes:** This coalition district showed 6 percent fewer crashes that involved vehicle-to-vehicle collisions;
- **Roadway geometry:** This coalition district had more than double the amount of crashes on straight and inclined roadways;
- **Interchange-related crashes:** This coalition district had half as many interchange-related crashes as the statewide average;
- Occupant protection: This coalition district had the second highest seatbelt use, 0.6 percent higher than the statewide average;
- Impaired and distracted driving: This coalition district had 0.9 percent more crashes than the statewide average due to distractions from cell phones, electronic devices and others items. The coalition district also had

0.4 percent more alcohol-related crashes than the statewide average but had the lowest alcohol-related fatal crashes. This coalition district showed 0.2 percent less drug-related crashes than the statewide average;

- Young drivers: This coalition district showed 0.5 percent more teen crashes than the statewide average. The analysis also showed 0.7 percent higher teen fatal crashes than the statewide average;
- Pedestrian safety: This coalition district showed 1.2 percent more pedestrian crashes than the statewide average, making it the highest amongst all coalition districts; and
- General road safety: This coalition district showed 0.4 percent more snow/sleet-related crashes than the statewide average. The snow/sleetrelated crashes showed 0.5 percent more fatality rate than the statewide average, making it the second highest amongst the coalition districts.

#### C.8 Southeast Regional Safety Coalition District



The Southeast Regional Safety Coalition District is made up of twelve counties including: Allen, Bourbon, Chautauqua, Cherokee, Crawford, Elk, Greenwood, Labette, Neosho, Montgomery, Wilson, and Woodson Counties (KDHE, 2012). This coalition district is made up of primarily the Osage Cuestas region (KGS, 2008) that is utilized for crops, livestock grazing, and oil and gas (Kansas Landuse/Landcover Map, 1996). It also had a population of 188,824 in 2010 (Kansas Population by County, 2010) and is home to the cities of Chanute, Independence, Pittsburg, and Yates Center.

The Southeast Regional Safety Coalition District contained 6.8 percent of crashes in Kansas from 2010 to 2014. Some of the findings from the crash analysis for this coalition district are found below:

- **Speed:** This coalition district showed almost 20 percent more high-speed crashes (55 miles per hour or greater) than the statewide average;
- Animal-related crashes: This coalition district had 7 percent more crashes involving animals than the statewide average;
- **Interchange-related crashes:** There were 12 percent fewer interchange-related crashes in this coalition district than the statewide average;
- Occupant protection: This coalition district showed 2.1 percent lower seatbelt usage than the statewide average;
- **Impaired and distracted driving:** This coalition district had 0.4 percent more crashes than the statewide average due to distractions from cell phones, electronic devices and others items. The coalition district also had

2.6 percent more alcohol-related crashes than the statewide average. This coalition district showed 0.8 percent more drug-related crashes and 3.7 percent more drug-related fatal crashes than the statewide average, making it the second highest in Kansas;

- Young drivers: This coalition district showed 3 percent more teen crashes than the statewide average, making it the third highest amongst the coalition districts;
- **Pedestrian safety:** This coalition district showed 0.8 percent less pedestrian crashes than the statewide average; and
- General road safety: This coalition district showed 0.5 percent less snow/sleet-related crashes than the statewide average. The coalition district had the highest number of rain-related fatal crashes, 2.3 percent more than the statewide average.

#### C.9 Kansas City Regional Safety Coalition District



The Kansas City Regional Safety Coalition District is made up of three counties including: Johnson, Leavenworth, and Wyandotte Counties (KDHE, 2012). This coalition district has the second largest population in Kansas at 777,991 persons in 2010 (Kansas Population by County, 2010), and being only three counties, this area also has the highest population density in Kansas. As this coalition district's name would suggest, this area contains the Kansas City metropolitan area, which is where the majority of the population resides as well as several major interstate highways.

The Kansas City Regional Safety Coalition District contained 25.7 percent of the crashes in Kansas from 2010 to 2014. Some of the findings from the crash analysis for this coalition district are found below:

- **Multi-occupant vehicle crashes:** This coalition district had more crashes with vehicles containing two occupants than one occupant which differs from the statewide trend;
- **Interchange-related crashes:** This coalition district had almost double the amount of crashes at interchanges than the statewide average;
- **Speed:** This coalition district had over 8 percent more low-speed crashes (less than 55 miles per hour) than the statewide average;
- Occupant protection: This coalition district showed 1.2 percent more seatbelt usage than the statewide average, making it the highest amongst the coalition districts. It also had the lowest number of fatal unused seatbelt crashes;

**Impaired and distracted driving:** This coalition district had 2.2 percent less crashes than the statewide average due to distractions from cell phones, electronic devices and others items. The coalition district also had 1.5 percent less alcohol-related crashes but 4.2 percent more fatal alcohol-related crashes than the statewide average. This coalition district showed the highest drug related fatalities, 6.5 percent higher than the statewide average.

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- Young drivers: This coalition district showed 2.8 percent less teen crashes than the statewide average, making it the lowest amongst the districts;
- **Pedestrian safety:** This coalition district showed 0.9 percent less pedestrian crashes than the statewide average. However, the coalition district had the highest number of fatal pedestrian crashes in Kansas; and
- **General road safety:** This coalition district showed 0.2 percent more snow/sleet-related crashes than the statewide average. The coalition district had the highest number of rain-related, 2.5 percent more than the statewide average. The coalition district also had the highest work zone-related crashes, 1.9 percent higher than the statewide average.

### C.10 Occupant Protection

See next page.



### Buckle Up Montana

**Description:** Similar to Click It or Ticket, Buckle Up Montana is a program to increase awareness about the life-saving abilities of a seat belt. The difference is that Montana lacks a primary seat belt law, so the "Ticket" portion does not apply. This campaign is geared not towards enforcement, but mostly public awareness of how serious this issue is in Montana and the potentially deadly consequences of driving unbelted.

**Applicability:** This campaign does not apply to issues in Kansas as much as Click It or Ticket does, due to the current primary seat belt law in effect in Kansas. It does, however, show how a regional coalition could modify an existing state or federal initiative to suit their specific needs.

**Cost:** This campaign is mostly about awareness and media, so the costs would relate to advertisements on TV or radio or printed materials.

**Resources:** Contact Audrey Allums of Montana Department of Transportation at (406) 444-4210 or visit <u>http://buckleup.mt.gov/</u> for more information.

#### **Estimated cost:**

- Radio advertisements\* = 176 per minute (30-second ads twice a day for two months)
- Website = \$2,500 and \$25 per month for hosting
- 50,000 half page flyers = \$1,400

Approximate Cost = \$15,000 (For two months of radio ads and one year of web hosting)



# Click It or Ticket

**Description:** Click It or Ticket is a national campaign focusing on increasing seat belt usage. This campaign uses television and radio advertisements, as well as PSAs to encourage the public to put safety first and "buckle up" when getting in a vehicle. In many of the states, the Click It or Ticket message is accompanied with signs along the road to notify users that it is illegal to drive unbelted.

**Applicability:** This is a program that can be easily implemented in Kansas' regional safety coalitions. Certainly the coalitions should at least utilize the national funding to enforce seat belt use when those opportunities arise. Advertisements for this campaign may be particularly effective when used in combination with televised sporting events and other popular programming.

**Cost:** This national campaign allocates funds for the states to have extra enforcement just to enforce seat belt compliance at different points throughout the year. This enforcement requires no additional costs from states or localities, but running the advertisements and purchasing road signs will contribute to more costs locally.

Resources: For more information visit <u>http://www.texasclickitorticket.com/</u>.

#### **Estimated Cost:**

- Radio advertisements\* = \$176 per minute (30-second ads twice a day for two months)
- Four billboards = \$1,000 per month per billboard
- 50,000 half page flyers = \$1,400

Approximate Cost = \$20,000 (For two months of 4 billboards and radio ads)



### Saved By The Belt

**Description:** "Saved by the Belt" is a Kentucky based program that helps in identifying people who were saved because of using the seat belt. The main goal is to increase public awareness by collecting data on the benefits of driving while properly restrained. The program tries to recognize individuals based on personal experiences involving vehicle crashes, minor road crashes or even child safety seats. Individuals identify themselves on the website and register their name, phone, location and details of the crash. The Kentucky Transportation Cabinet's Office of Highway Safety posts the data obtained from real experiences to the webpage in order to increase public awareness of using the seat belt while driving.

**Applicability:** This program is one of the several programs offered by the Kentucky Transportation Cabinet. It is fairly easy to implement as the people identify themselves. The program is highly beneficial as the people sharing their experiences take the initiative to disclose how the seat belt saved their lives.

**Cost:** The cost of this project is relatively low after the initial webpage development. The basic idea is that individual with personal experiences can share their views on how using the seatbelt has affected their lives. The people wishing to share their experiences visit the website and fill in the necessary information such as name, phone number, crash site, crash city and other crash details.

**Resources:** Contact Michael Schwendau of Kentucky Transportation Cabinet at (502) 564-1438 or visit <u>http://transportation.ky.gov/Highway-Safety/Pages/Saved-by-the-Belt-Survey.aspx</u> for more information.

#### **Estimated Cost:**

- Radio advertisements\* = 176 per minute (30-second ads twice a day for two months)
- Four billboards = \$1,000 per month per billboard
- Website = \$2,500 and \$25 per month for hosting
- 50,000 half page flyers = \$1,400

Approximate Cost = \$23,000 (For two months of four billboards, radio ads, and one year of web hosting)

### C.11 Impaired and Distracted Driving

See next page.



# **Distracted Driving**

**Description:** The "Distracted Driving" campaign, as the name suggests, was started to educate and alert drivers on the impacts of operating a vehicle while being distracted. The individuals identify themselves and share their experience on the website. Individual stories are recreated as a video using the people involved and published to the website where other viewers can watch it. The viewers are provided with an option to take a pledge in order to never drive while being distracted.

**Applicability:** The program is mainly targeted at teen drivers who are more likely to use their cell phones/electronic devices while driving. Teens are encouraged to take the pledge to not use devices while driving. The website also contains a segment for the parents and the community in order to educate their children about distracted driving.

**Cost:** The cost of the program is high. This is because it involves gathering data by individuals identifying themselves on the website. The development of the website can be expensive. Other costs involve the filming and recreating of the crashes experienced by the individuals. All these costs can be expensive and also consume lots of time. However, a lower-cost option could be to simply have individuals share their own experiences by writing their story or by creating their own videos and posting them to the website, so then the only cost would be to maintain the website.

**Resources:** Contact Lori Millen of National Highway Traffic Safety Administration at (202) 366-9742 or visit <u>http://www.distraction.gov/</u> for more information.

#### **Estimated Cost:**

- Radio advertisements\* = 176 per minute (30-second ads twice a day for two months)
- Television ad\*\* = \$1,250 for 10,000 views on a 30-second ad (At 6:30 p.m. once per day)
- Website = \$2,500 and \$25 per month for hosting
- 50,000 half page flyers = \$1,400

Approximate Cost = \$90,000 (For one year of web hosting, and two months of television and radio ads). These costs could be reduced through the creative use of less expensive forms of advertising.

\*Estimate from KBEQ-FM Kansas City. Rates may vary.



# Drive Sober or Get Pulled Over Campaign

**Description:** "Drive Sober or Get Pulled Over" is a national campaign targeted at drunk driving. This includes such media as PSAs, television and radio ads, and billboards. Recently, the most notable contributions from this campaign are the television commercials that depict impaired drivers as being immersed in alcoholic beverages within their car, and that liquid spilling out when the driver rolls down the window for the law enforcement officer that inevitably pulls them over. These ads also depict law enforcement officers as being present, but often unseen, as a way to show that if one drives drunk they will be caught.

**Applicability:** This campaign, as it is, may not be very applicable to the regional safety coalitions of Kansas. Advertisements can be very expensive and this is a one-dimensional program. Since this was designed as a national campaign, coalitions could modify it to be less costly (see additional options below listed under *Cost*) and when the public participation component is included, it could be very successful.

**Cost:** The main cost of implementing this program comes in the form of advertisements; local television ads cost from \$1,250 to \$1,500 for example, whereas radio commercials often cost around \$500 per week. Additionally, posters can be printed to get this campaign message out at a low cost, and this program's web page is already set up to easily share on social media for free. For this program to be fully effective though, the advertisements should be accompanied by increased law enforcement on the issue of drunk driving, which can have significant costs in law enforcement hours.

**Resources:** More information can be found at <u>http://www.nhtsa.gov/drivesober</u>.

#### **Estimated Cost:**

- Radio advertisements\* = 176 per minute (30-second ads twice a day for two months)
- Television ad\*\* = \$1,250 for 10,000 views on a 30-second ad (At 6:30 p.m. once per day)
- Four billboards = \$1,000 per month per billboard
- 50,000 half page flyers = \$1,400

Approximate Cost = \$95,000 (For two months of four billboards, television, and radio ads). These costs could be reduced through the creative use of less expensive forms of advertising.

\*Estimate from KBEQ-FM Kansas City. Rates may vary.



### Drunk Goggles

**Description:** "Drunk" or impaired goggles are removable eyewear that gives the wearer equivalent vision to that of an impaired person. When a person puts on these goggles their vision is distorted and the simplest mechanical tasks become increasingly difficult, as if a person was over the legal blood alcohol content (BAC) limit. Along with "drunk" goggles, several companies, such as Fatal Vision, also make goggles to simulate drugged or drowsy driving.

**Applicability:** Implementing these goggles would be easy in any of the regional safety coalition districts. Any of the coalition districts could invest in several pairs of these for just a few thousand dollars and use them in high schools, at Department of Motor Vehicles (DMVs), or in driver's education courses. Using these goggles is an impactful and memorable way to show drivers how alcohol or drugs affect their functioning and this method can have great success when implemented properly.

**Cost:** These goggles have a relatively low cost of about \$150 per pair.

**Resources:** Many states have already implemented these in high schools and other educational programs. Information for this tool can be found at: <u>http://fatalvision.com/fatal-vision-goggles.html</u>. If you have questions on how to implement these into the schools contact Stephanie Quick of Wichita Public Schools at (316) 973-2260.

#### **Estimated Cost:**

- Two volunteers explaining the effects of alcohol use
- Five goggles at \$150 each from Fatal Vision = \$750

Approximate Cost = \$800



### Make Your Game Plan

**Description:** The "Make your game plan" campaign is similar to the "Plan while you can" campaign. It encourages individuals to have a designated driver if they plan on consuming alcohol especially during the football season. The aim of the campaign is to decrease the number of crashes related to driving under the influence of alcohol on game days. The campaign was started after a 7 percent increase in the number of crashes from 2011 to 2012 during game days of college or professional football teams in Texas. The campaign is promoted by several posters, stickers, online videos, audio broadcasts and information cards.

**Applicability:** The campaign is targeted at all individuals who plan to drive to watch football games. The campaign advises people to have a designated sober friend or take a cab if one intends to drink during a football game. Such a campaign could be modified to target other recurring events that occur in a region where alcohol consumption regularly occurs.

**Cost:** The cost of the program is high. This is because of the several public awareness items and promotions such as posters, information cards, coasters and online videos. However, private sponsors can be obtained to donate/contribute. Also, the program costs could be minimized by scaling down to only include lower-cost methods of advertising.

**Resources:** Contact Media Relations of Texas Department of Transportation at (512) 463-8700 or visit <u>http://www.txdot.gov/driver/sober-safe/football.html</u> for more information.

#### **Estimated Cost:**

- Radio advertisements\* = \$176 per minute (30-second ads twice a day for two months)
- Website = \$2,500 and \$25 per month for hosting
- 50,000 half page flyers = \$1,400

Approximate Cost = \$15,000 (For one year of web hosting and two months of radio ads)



### Plan While You Can

**Description:** The "Plan while you can" program was introduced specifically for the Christmas 2015 and New Year 2016 holiday season in Texas. The program was initiated because of the increased number of alcohol related crashes in Texas during the 2013 and 2014 holiday seasons. The aim of the program is to encourage drivers to plan for their nights of alcohol use by booking/planning a sober ride in advance. The "Plan while you can" campaign promotes the cause by statewide tours, online banners, billboards and descriptive videos. Individuals are encouraged to play an "interactive dodgeball" game during the tours as it replicates and demonstrates the effect of alcohol on the reflexes of a person.

**Applicability:** The program is targeted at all individuals who plan to drive during the holiday season. The program not only provides the option to book sober rides but also offers other solutions such as using mass transit and spending the night. This will help to decrease the fatalities caused due to driving under the influence of alcohol. Such a campaign could be modified to target other recurring holidays or dates where alcohol consumption regularly occurs.

**Cost:** The program could have a high cost. This is because of the high public awareness items and promotions such as billboards, banners, tours and online videos. The mentioned items require both capital and time. The program costs could be minimized by scaling down to only include lower-cost methods of advertising.

**Resources:** Contact Media Relations of Texas Department of Transportation at (512) 463-8700 or visit <u>https://www.txdot.gov/inside-txdot/media-center/psas/drunk-driving/holiday-pass.html</u> for more information.

#### **Estimated Cost:**

- Radio advertisements\* = \$176 per minute (30-second ads twice a day for two months)
- Four billboards = \$1,000 per month per billboard
- Website to book sober rides = \$2,500 and \$25 per month for hosting
- Television ad\*\* = \$1,250 for 10,000 views on a 30-second ad (At 6:30 p.m. once per day)
- 50,000 half page flyers= \$1,400

Approximate Cost = \$98,000 (For two months of four billboards, television, and radio ads and one year of web hosting). These costs could be reduced through the creative use of less expensive forms of advertising.

\*Estimate from KBEQ-FM Kansas City. Rates may vary.



# Put It Down

**Description:** "Put It Down" is a Florida-based program that is aimed at preventing distracted driving. Distracted driving is described as the use of any electronic devices while operating a vehicle. The main purpose is to educate both the drivers and law enforcement officials about the dangers of distracted driving. The Florida crash log allows patrol officers to report the cause of distraction whether inside or outside the vehicle. Internal distractions can be caused by the use of electronic communication or audio devices while driving while external distractions usually occur outside the vehicle such as billboards or sceneries.

**Applicability:** There are state laws that exist to prevent distracted driving. However, they are not easily enforced and this can lead to an increase in fatalities and crashes. The program educates law enforcement, judges, and vehicle drivers about distracted driving.

**Cost:** The cost of the program could be relatively low as it involves increasing the awareness amongst drivers by educating and enforcing laws relating to distracted driving. The cost depends on how the awareness is raised, such as signs, billboards or radio announcements.

**Resources:** Contact Will Grissom of Florida Department of Transportation at (850) 414-4207 or visit <u>http://www.dot.state.fl.us/safety/2A-Programs/Distracted-Driving.shtm</u> for more information.

#### **Estimated Cost:**

- Radio advertisements\* = \$176 per minute (30-second ads twice a day for two months)
- Four billboards = \$1,000 per month per billboard
- Four volunteers to educate individuals and law enforcing officials about distracted driving
- 50,000 half page flyers = \$1,400

Approximate Cost = \$20,000 (For two months of four billboards and radio ads)



# Talk, Text, Crash

**Description:** The "Talk. Text. Crash" safety program was started in 2014. It was started in order to reduce the number of individuals talking or texting while driving in Texas. The program works by publicizing the potential hazards of driving while using cell phones. It was started because of a six percent increase in distracted driving crashes from the year 2013 to 2014. The program uses promotional tools such as billboards, advertising on gas pumps at gas stations, window clings, online videos, educational photos, and audio broadcasts.

**Applicability:** The program is aimed at all users of the road. The aim is to eliminate the usage of cell phones while operating a vehicle.

**Cost:** The cost of the program is high. This is because of all the promotional tools required to emphasize the effects of using a cell phone when driving. However, capital can be raised through charity events, private funding and tours in order to promote awareness.

**Resources:** Contact Media Relations of Texas Department of Transportation at (512) 463-8700 or visit <u>http://www.txdot.gov/driver/share-road/distracted.html</u> for more information.

#### **Estimated Cost:**

- Radio advertisements\* = \$176 per minute (30-second ads twice a day for two months)
- Four billboards = \$1,000 per month per billboard
- 10,000 Promotional keychains at \$0.30 per keychain = \$3000
- 50,000 half page flyers = \$1,400

Approximate Cost = \$23,000 (For two months of four billboards and radio ads)

### C.12 Young Drivers

See next page.



### Battle of the Belt

**Description:** "Battle of the Belt" is a program put on in areas of Missouri where local high schools compete with each other to get the highest rate of usage of seat belts. To determine seat belt usage, a person must monitor the exits of the participating school properties and count drivers who are/are not wearing seat belts. This program takes six weeks that contains two surprise seat belt usage tallies and several weeks of distributing information.

**Applicability:** This is an easy program for all of the Kansas regional safety coalitions to implement. The costs are minimal. A good way to increase teen buy-in to the program is to make it a competition, as this program has done.

**Cost:** This is a lower-cost option to implement. The main cost is the manpower to count seat belt use of all the vehicles leaving the schools, but it may be possible to use volunteers to minimize these costs. To reduce that cost, volunteers or school employees could be used to count vehicles. Additionally, the materials passed out in the schools could be minimized to keep costs down.

**Resources:** Contact Jeff Padgett of Missouri Department of Transportation at (573) 522-6197 or visit the Battle of the Belt website for the rules and more information <u>http://www.modot.org/safety/BOTB\_SafetyBeltCompetitionRules.htm</u>.

#### **Estimated Cost:**

- Volunteers for counting seat belt usage
- · Volunteers to discuss and distribute information regarding seat belt usage
- Flyers and information cards = \$300 per school

Approximate Cost = \$3,000 (For 10 participating schools)



# Ford Driving Skills for Life

**Description:** This is a program put on by Ford Motor Company to teach newly licensed drivers critical skills they would not have learned in a standard driving course. This program has a web-based component that is available to everyone. However, the main parts of the program are the driving events Ford puts on in different areas where teens will get in the car with professional drivers and go through several challenges. The areas that are emphasized in this program are: "hazard recognition, vehicle handling, speed management, and space management." There is an additional component that focuses on distracted and impaired driving that shows teens the real dangers of not focusing solely on the road.

**Applicability:** For most of the Kansas regional safety coalitions, this may not be applicable. This is because the driving events that Ford holds are in major cities across the United States and most cities in Kansas are unlikely to make that list. This could be a possibility, though, for the Kansas City and/or Wichita coalition areas because of the high population and existence of race track facilities. Accomplishing this would probably require meetings with Ford and a potential partnership with KDOT to become one of the event locations.

**Cost:** This is a free program to all teens and parents. It is a national program put on by Ford so the costs are incurred by Ford. However, there may need to be a partnership with the state government and Ford to implement this program, as none of the driving events currently take place in Kansas. Just implementing the online portion of the program would have no cost.

**Resources:** For more information visit their website at <u>https://www.drivingskillsforlife.com/</u>.

Estimated Cost: All costs incurred by Ford (Not available in all cities).



### Ghost Out

**Description:** "Ghost Out" is an awareness program aimed at teenagers in order to portray the traumatic effects of having to lose a friend or loved one in a vehicle crash. The program is conducted at a school. The program lasts five days. The first four days are used to educate teenage drivers about alcohol use, seat belts and other safety related issues. On the fifth day, a guest disguised as the Grim Reaper selects 12 random people to play victims of a car crash. The victims are declared dead and a memorial service is conducted. The program is to enlighten young individuals with information that will assist in decision making when behind the wheel by emphasizing on the alarming consequences of impaired driving.

**Applicability:** This program is designed to increase awareness of the outcomes of driving under the influence of alcohol and other safety measures. The target crowd is teenagers who have just acquired their licenses. The program packs a very emotional and strong experience on the students discouraging them to drive under the influence of alcohol.

**Cost:** The cost of this program is comparatively low, but requires a lot of planning to implementation time (Six weeks). Additional costs are for costumes and coffins. However, these items could be donated or rented for the period.

**Resources:** Contact Michael Schwendau of Kentucky Transportation Cabinet at (502) 564-1438 or visit <u>http://transportation.ky.gov/Highway-Safety/Documents/desc\_ghost\_out.pdf</u> for more information.

#### **Estimated Cost:**

- Grim reaper costume = \$30
- 12 white sheets = \$100
- Two police officers on payroll (Donate hours of their time to educate students)
- Renting a casket = \$500 (Funeral homes can be approached for donations)

Approximate Cost = \$630 per school (If donations are made, \$130)



### Judgement Day

**Description:** "Judgement Day" is a program organized by the Kentucky Transportation Cabinet, aimed at showing teenagers what happens in a courtroom when convicted of driving under the influence of alcohol using judges, attorneys and other officials. It lasts five days with different activities each day relating to the lawsuit and assigned punishments. Guest speakers take turns in-between sessions discussing effects on drugs and alcohol on the human body. Students are required to complete trivia quiz sheets daily regarding the discussion topic enabling them to learn more as the program progresses.

**Applicability:** This program is targeted at young students (teenagers). It is used to provide a full courtroom experience to the students. It educates students on what happens during a trial. It provides an emotional experience to students showing consequences of driving while being impaired and how the law system comes into play based on the type of crime committed. This program can be used for students both below and above the age of 18 years depending on the target audience.

**Cost:** The cost of this program is relatively low, but requires the use of important officials. Provision of t-shirts to the jury and prizes to the winners of the trivia also increases the cost. However, the cost can be reduced significantly if retired judges are used or court judges are willing to donate time for the program as a public service. Other officials such as police officers could also donate their time for a few hours to promote awareness of the effects of driving under the influence.

**Resources:** Contact Michael Schwendau of Kentucky Transportation Cabinet at (502) 564-1438 or visit <u>http://transportation.ky.gov/Highway-Safety/Documents/desc\_judgement\_day.pdf</u> for more information.

### **Estimated Cost:**

- Flyers and information cards = \$300
- Two police officers on payroll (Donate hours of their time to educate students)
- 12 t-shirts for the jury = 100
- Gifts and small prizes = \$100

Approximate Cost = \$500 per school



### Peer-to-Peer Campaigns

**Description:** This is a program offered in Missouri where high school students create campaigns to improve traffic safety that are targeted at their peers: fellow high school students. Students are in a competition to have the best campaign, which the Missouri Department of Transportation actually uses.

**Applicability:** This is a program that could be easily used in the regional safety coalitions of Kansas. Since this is a teens-targeting-teens program, it has the potential to be more effective than an adults-targeting-teens campaign. To be most effective, the program would need to have mandatory participation from all students of a certain grade each year, and could be coupled with a scholarship program/fund to increase interest from students.

**Cost:** The costs of this program are low: time devoted in schools for students to create the campaigns, time to sift through the campaigns and pick a winner. Running the student-created campaign can be as simple as printing large-scale posters to put in all schools and other youth-centered areas. As an alternative, implementation could be expanded to be a larger campaign and put onto billboards or other high-visibility areas.

**Resources:** Contact Jeff Padgett of Missouri Department of Transportation at (573) 522-6197 for more information.

#### **Estimated Cost:**

For implementing winning safety program designed by students

- Two billboards = \$1,000 per month per billboard
- 10,000 11" x 17" flyers = \$1,000

Approximate Cost = \$3,000 (One month of billboard renting)



### Project Extra Mile

**Description:** Project Extra Mile is a statewide effort in Nebraska to prevent underage drinking. It involves a series of partnerships that emphasize: "policy initiatives, enforcement collaborations, education and awareness, media advocacy, and youth leadership." This program is based around the concept that underage drinking is not the sole responsibility of the youth, but rather a community effort to support the culture that underage drinking is unacceptable. This program sponsors regular meetings, holds training and advocacy events, and more.

**Applicability:** This is not likely to be effective as a whole program in Kansas. Certain aspects of the program, such as increased enforcement, or education and awareness can be implemented, but it is too comprehensive to be executed at the regional safety coalition level in Kansas. The underlying message for this campaign should not be ignored though: the responsibility to prevent underage drinking lies with the community, not just the underage persons, and this message could be communicated at the coalition level.

**Cost:** Since this is a fairly comprehensive program, the associated cost is relatively high. This involves changing policies through lobbying, increasing enforcement, and raising awareness, which are all fairly sizeable financial commitments by themselves.

**Resources:** Contact Fred Zwonechek of Nebraska Department of Transportation at (402) 471-2515 or visit <u>http://www.projectextramile.org/</u> for more information.

#### **Estimated Cost:**

For implementing winning safety program designed by students

- Two billboards = \$1,000 per month per billboard
- 10,000 11" x 17" flyers = \$1,000

Approximate Cost = \$3,000 (One month of renting billboards)



# Seatbelts Are For Everyone (SAFE)

**Description:** "Seatbelts Are For Everyone" is a Kansas-based program designed to raise awareness regarding the importance of the use of seatbelts in motor vehicles. It is a peer to peer program that aims at educating teens on motor vehicle related fatalities.

**Applicability:** This program is targeted at teenagers who have just started driving. The program is run by teens in schools within Kansas. The goal is to increase seatbelt use by educating and spreading powerful safety messages during the school year. The program has been very popular and is currently implemented in over 100 high schools across Kansas.

**Cost:** The cost of this project is relatively low because it is run by teens. Most of the cost is incurred in promoting the program through advertising. A website is also required to display statistics about crashes around Kansas.

**Resources:** Contact Robert Eichkorn of KDOT Bureau of Transportation Safety and Technology at (785) 296-3756 or <u>https://www.ktsro.org/safe</u> for more information.

#### **Estimated Cost:**

- Radio advertisements\* = \$176 per minute (30-second ad once a day for two months)
- Website = \$2,500 and \$25 per month for hosting
- 10,000 half page flyers = 400

Approximate Cost = \$18,000 (For one year of web hosting and two months of radio ads)


# Sudden Impact

**Description:** "Sudden Impact" is a program targeted at high school sophomores in Louisiana that shows all of the consequences of driving impaired. The students are put through a seven-hour program on impaired driving, as well as a fatal crash simulation. This program allows students to see the "medical, law enforcement, and victim perspective" on traffic crashes.

**Applicability:** This program could be adapted to fit the needs of the regional safety coalitions in Kansas. To recreate the program as it is in Louisiana, Kansas would need the cooperation of the educational, medical, and law enforcement professions to create the content and devote time to the program. The program can be downsized to include fewer parties, or not include the crash simulation, to save on cost or technical involvement.

**Cost:** The costs for this program are primarily tied up in time devoted by participating partners. This could be a relatively inexpensive option to implement if a partnership can be formed with local law enforcement, medical professionals, and educators to create this program. Additionally, this program could operate with volunteers from these fields. Physical materials are not necessarily needed for this, although visual aids and written material may enhance the program, so the overhead cost has the potential to be very low.

**Resources:** Contact Dan Magri of Louisiana Department of Transportation at (225) 379-1871 or visit their Facebook <u>https://www.facebook.com/SuddenImpactLouisiana/info?tab=page\_info</u> for more information. If you have questions on how to set up one of these events please contact Stephanie Quick of the Wichita Public Schools Safety Services Department at (316) 973-2260 or email her at <u>Squick@usd259.net</u>.

### **Estimated Cost:**

- Two police officers on payroll (Donate hours of their time to educate students)
- 200 Promotional keychains at \$0.30 per keychain = \$60
- 250 half page flyers = 100

Approximate Cost = \$160



# Teen Drive With CARE

**Description:** This is a program that encourages young drivers to drive with Courtesy, Attention, Responsibility, and Experience (CARE), while they are learning to drive within the Graduated Driver's Licensing system in Florida. The program's purpose is not only to educate children to drive safely, but also to educate parents on ways to teach children to drive safely. This program was created by a partnership with the Orlando Regional Medical Center, Department of Motor Vehicles, and the Florida Department of Transportation, and is run through the Orlando Regional Medical Center. Each program is put on by trained medical professionals, lasts approximately 45 minutes, and can be targeted towards either parents or children. This program uses statistics as well as demonstration tools, such as drunk goggles, to emphasize the message that safe driving requires all the elements set forth in CARE.

**Applicability:** This is a program that could be easily implemented in Kansas. It would take willing participation from the medical community and other partners, but the fact that it involves both young drivers and their parents provides a level of redundancy that makes it more likely to succeed than other similar programs. The structure of the Kansas regional safety coalitions is meant to include medical personnel participation, so a program such as this could build off of the strength of the participating groups.

**Cost:** As Florida has implemented it, this program is free to all schools, churches, and other community organizations. The cost would be primarily in time dedicated to create the program and to put it on; there are smaller additional costs, such as any program materials the presenters would want to use (i.e. drunk goggles).

**Resources:** Contact Joseph Santos of Florida Department of Transportation at (850) 414-4097 or visit their website at <u>http://www.flhsmv.gov/teens/parent\_home.html</u>.

### **Estimated Cost:**

- Two police officers on payroll (Donate hours of their time to educate students)
- 200 Promotional keychains at \$0.30 per keychain = \$60
- 250 half page flyers = \$100
- Two drunk goggles at \$150 each from Fatal Vision = \$300

Approximate Cost = \$460 per school



# Teen Safe Driving

**Description:** The "Teen Safe driving" is a Florida-based program started in 2014. As suggested by the name, the program is targeted at education teen drivers about vehicle crashes and road safety. This program can take place at a school or community center. The individuals participate in several different activities and workshops relating to driving choices, road hazards and impacts on life. Its aim is to raise awareness amongst teen drivers on road safety and crashes.

**Applicability:** This program could be easily implemented into schools across the state of Kansas. The aim of the program is to educate teens on several different road hazards. Safe driving workshops and activities are held for teens to participate in and gain knowledge about driving choices and hazards.

**Cost:** The program is hosted by the Teen Leadership Academy. It is partly sponsored by the Florida Department of Transportation. The cost of the program involves different activities requiring qualified professionals and equipment. However, the program is sponsored by several different organizations and hence can be easy to manage or host. The cost can also be reduced if police patrol officers can volunteer their time to promote awareness among teens.

**Resources:** Contact Pete Cohen of Florida Department of Transportation at (850) 414-4026 or visit <u>http://www.dot.state.fl.us/safety/2A-Programs/Teen-Drivers.shtm</u> for more information.

### **Estimated Cost:**

- Two police officers on payroll (Donate hours of their time to educate students)
- 200 Promotional keychains at \$0.30 per keychain = \$60
- 250 half page flyers = \$100
- Two goggles at \$150 each from Fatal Vision = \$300

Approximate Cost = \$460 per school



# Zero Teen Fatalities

**Description:** Zero Teen Fatalities is a program used in Nevada that "seeks to educate young drivers about the importance of being safe behind the wheel." This is a program where young drivers gain points by using social media to create original messages geared to improving traffic safety. The more posts about traffic safety, the more points a contestant gains. Additionally, contestants can gain points by participating in traffic safety events in their area put on by Zero Teen Fatalities. Prizes are distributed monthly and at traffic safety events to the top point contributors.

**Applicability:** This is a program that may or may not be effective in Kansas. This program appears to need a lot of initiative on the part of the young drivers and that can be hard to encourage. If the program was to be publicized in schools and incentivizing prizes were received it could be very successful.

**Cost:** This can be a relatively inexpensive program to implement. The costs incurred by this program would depend mostly on what type of traffic safety events and prizes are used because the social media infrastructure already exists and is free to use.

**Resources:** Contact Ken Mammen of Nevada Department of Transportation at (775) 888-7335 or visit <u>http://zeroteenfatalities.com/program-rules/</u> for more information.

### **Estimated Cost:**

- Two police officers on payroll (Donate hours of their time to educate students)
- Prizes = \$200 per month (Depending on the prizes offered)

Approximate Cost = \$200 per month

### C.13 Pedestrian Safety

See next page.



# Safe Routes to School

**Description:** Safe Routes to School is a national program that allocates funding to build up safe sidewalks and routes for children to walk to school. This program also teaches children about different methods of transportation. It also educates them on proper bicycling and walking safety skills. It is a program targeted at improving pedestrian safety.

**Applicability:** This program would be applicable for higher density cities in Kansas. If an area has many kids that walk to school, this program would be applicable. Coalitions looking to improve sidewalks and educate their students on bicycle and walking safety could use this program.

**Cost:** This program is one that provides funding to help low-income areas with pedestrian projects, but most projects also require additional funding to complete said projects.

**Resources:** For more information visit <u>http://www.saferoutesinfo.org/</u> or visit <u>https://www.ksdot.org/bureaus/burTrafficEng/sztoolbox/Safe\_Routes\_to\_School.asp</u> for more information on funding and implementation.

### **Estimated Cost:**

• Transportation volunteers requested to donate time to educate the students

Approximate cost depends on the type of upgrades proposed to improve safety.



# See! Be Seen!

**Description:** This is a program in effect in New York that is targeted at pedestrian safety. This program is one that emphasizes the importance for pedestrians to pay attention to the road and be visible to other road users. This and other similar messages are placed in visible areas, such as on billboards and street corners.

**Applicability:** This program is probably not applicable to the regional safety coalitions in Kansas because of the small proportion of pedestrians on the roadways. However targeted locations may be found that could benefit from such a program.

**Cost:** The costs of this program are based in mostly advertising on television, radio and on billboards.

**Resources:** Contact Rob Limoges of New York Department of Transportation at (518) 457-2452 or visit <u>https://www.health.ny.gov/prevention/injury\_prevention/pedestrians.htm</u> for more information.

### **Estimated Cost:**

- Radio advertisements\* = \$176 per minute (30-second ad once a day for two months)
- Two billboards = \$1,000 per month per billboard
- 10,000 promotional keychains at \$0.30 per keychain = \$3000

Approximate Cost = \$12,000 (For two months of two billboards and radio ads)

### C.14 General Road Safety

See next page.



# 123 Safe Days of Summer

**Description:** This Texas-based program "emphasizes safety on roadway work sites during the busiest time of the year" meaning summertime. The goal of this program is to reduce the number of workplace crashes by focusing first on safety in the workplace in terms of: seat belts, protective equipment, proper techniques for equipment and heavy lifting, etc. This is a program put on by the Texas Department of Transportation for all traffic work zones.

**Applicability:** This is a smaller-scale program to help improve work zone safety. While local work zones may benefit from a program of this type, overall it may be better suited to a statewide program rather than at the regional level.

**Cost:** The cost of this program involves the cost of any printed materials for display at work zones as well as time spent training or on work sites emphasizing safety.

**Resources:** Contact Meg Moore of Texas Department of Transportation at (512) 416-3135 or look at their pdf file online at <u>ftp://ftp.dot.state.tx.us/pub/txdot-info/pio/tnews/tnews0604.pdf</u> for more information.

### **Estimated Cost:**

- Volunteers helping to promote safety awareness at work zones
- · Safety officers enforcing strict workplace regulations
- Six work zone warning signs = 40 per sign

Approximate Cost = \$240 per work zone



# Advertising Crash Statistics

**Description:** Many states, such as Illinois, have recently taken the approach of making sure the driving population is aware of the seriousness of traffic issues by publicizing traffic statistics. This primarily comes in the form of billboards and changeable message signs around highways. Typically the message includes a tally of traffic deaths that gets updated throughout the year. This type of program targets the general public's view that traffic crashes happen to other people and encourages them to not become a statistic.

**Applicability:** This program could be easily implemented in more urban areas of Kansas. In order to most effectively use changeable message signs and billboards for the program, it would need to be implemented on major highways in order to reach the highest number of drivers. If other ads (such as television or radio) are to be used, there is less of a geographical constraint, meaning that this program could be implemented in rural areas as well.

**Cost:** This program's cost has the potential to be low, as Kansas has already invested in some of the infrastructure (i.e., the changeable message signs) to execute this program. Should a more indepth program be desired, billboards could also be purchased to advertise the message. The benefit of using CMSs is that as traffic statistics change, the signs can be updated to reflect statistics easier than billboards can be. This can also be advertised on television or radio ads or on social media as needed.

**Resources:** For more information visit <u>http://www.wbez.org/series/curious-city/deal-those-traffic-death-highway-signs-106569</u>.

### **Estimated Cost:**

- Radio advertisements\* = 176 per minute (30-second ad once a day for two months)
- Two changeable message signs 100 sf = \$15,000 per unit (Less if KDOT provides the changeable message signs)

Approximate Cost = \$35,000 (For two months of radio ads). However, if KDOT provides the changeable message signs, cost of the program can be reduced to \$5,000.



# Be Alert, Be Aware - Motorcycling Season Is Here

**Description:** "Be Alert, Be Aware – Motorcycling Season is Here" is an awareness program in New York State that promotes motorcyclist safety and responsible riding. Motorists generally have trouble seeing motorcycles and reacting accordingly. This program educates the motorcyclist on topics such as blind spots, reaction times, potholes, irregular riding surfaces, ruts and work zone awareness. It also encourages all motorists to be more alert and drive carefully without violating cyclist and motorcycle right of way.

**Applicability:** This program not only increases the safety by educating the motorists and motorcycle users but also by design, operation and maintenance of New York's roadways. Specific emphasis is put on reducing impaired driving and increasing the motorcycle safety of the roads by educating both novice and experienced riders. Improving safety and educating riders can decrease the likelihood of fatalities on roadways.

**Cost:** The cost of this program is comparatively high compares to others. This is because it involves providing education to both vehicle and motorcycle users. It works hand-in-hand with a New York-funded Motorcycle Safety Program (MSP) in order to widen the outreach. The cost of the program is more due to the need for traffic signs and improving safety on milled pavements and railroad crossings.

**Resources:** Contact Regina Doyle of New York State Department of Transportation at (518) 457-0271 or visit <u>https://www.dot.ny.gov/divisions/operating/oom/transportation-</u>systems/safety-program-technical-operations/motorcycle-safety-awareness for more information.

### **Estimated Cost:**

- Radio advertisements\* = \$176 per minute (30-second ad once a day for two months)
- Educational programs to promote safety = \$500 (Depending on attendance)
- Four billboards = \$1,000 per month per billboard
- 10 safety signs = 40 per sign

Approximate Cost = \$14,000 (For two months of two billboards and radio ads)



# Ice and Snow-Take It Slow

**Description:** The "Ice and Snow-Take it Slow" program offers safety tips to motorists using the roadways during the winter. The harsh weather can have several driving hazards such as snow, snow removal equipment, lack of visibility and ice. The program provides information about the necessary precautions while driving during the winter in order to tackle the above mentioned hazards. This program not only offers safety tips but also provides information of the condition of the roads in Nevada through a hotline (511). The website also lists precaution measures to be followed when snowplowing equipment is encountered. The program is promoted through websites, radio stations and brochures.

**Applicability:** The program is targeted at all motorists using the road during winter weather. Several safety precautions and roadway guidelines are listed and must be followed in order to avoid fatalities. The program encourages individuals to conduct vehicle inspections such as battery checks, lights, radiator, and other items before travelling. Always be prepared for the worst case scenario as it can save your life.

**Cost:** The cost of the program is high. The condition of roads hotline service requires constant updates and might be a bit expensive to maintain and might be better coordinated at a state level. However, it is necessary to keep the motorists updated about possible hazards and maintenance works.

**Resources:** Contact the Public Information Office of Nevada Department of Transportation at (775) 888-7000 or visit

<u>https://www.nevadadot.com/uploadedFiles/NDOT/Traveler\_Info/Safety/WinterDrivingInfo.pdf</u> for more information.

### **Estimated Cost:**

- Website showing conditions of roads = \$2,500 and \$25 per month for hosting
- 50,000 half page flyers = \$1,400
- Two changeable message signs 100 sf = \$15,000 per unit (Less if KDOT provides the changeable message signs)

Approximate Cost = \$34,000 (For one year of web hosting). However, if KDOT provides the changeable message signs, cost of the program can be reduced to \$4,000.



# Just Drive CEO Challenge

**Description:** This is a program in place in Idaho that places the responsibility for traffic safety on the companies that work within the state. The program challenges the leadership for said companies to adopt the program of traffic safety for their employees. The CEOs of each company will sign a pledge stating that they will encourage and incentivize their employees to put safety first in their vehicles both during and outside of standard working hours. This allows for positive press for the companies, lower indirect insurance costs due to safer employees, and theoretically a safer traffic culture.

**Applicability:** This is a fantastic program that would do well in Kansas. Perhaps the program could be renamed and targeted just at companies not CEOs to better suit the Kansas corporate landscape. This could be easily implemented in each one of the seven coalitions and could serve to greatly improve traffic safety. Additionally, once the program is up and running the costs of publicity would be low as participating companies would publicly label themselves as such to boost public image and non-participating companies would have the public appearance of not caring about employee safety. Over time this effort of tying employment with traffic safety could shift the culture of the region.

**Cost:** This program requires initiative from the DOT to create relationships with companies and pay for press to publicize the program. This program could be tailored to focus on specific locations, which could lower the cost.

**Resources:** Contact Brent Jennings of Idaho Department of Transportation at (208) 334-8557 or visit <u>http://www.ktvb.com/story/news/local/outreach/just-drive/2015/04/02/take-the-just-drive-ceo-challenge/70842326/</u> for more information.

### **Estimated Cost:**

- Radio advertisements\* = 176 per minute (30-second ad once a day for two months)
- Television ad\*\* = \$1,250 for 10,000 views on a 30-second ad (At 6:30 p.m. once per day)
- 10,000 half page flyers = 400

Approximate Cost = \$80,000 (For two months of television and radio ads). These costs could be reduced through the creative use of less expensive forms of advertising.

\*Estimate from KBEQ-FM Kansas City. Rates may vary.



# Move Over, AZ

**Description:** "Move Over, AZ" is an Arizona-based program that requires motorists to slow down or move over one lane when a vehicle with flashing lights is encountered. The Move Over law is aimed to protect individuals working on or next to the highway. This program was started as a result of an increased number of deaths of people such as tow truck drivers and highway workers who were struck by vehicles when working on the side of the road.

**Applicability:** The program is designed to protect the lives of individuals working on roadways. The program requires the approaching vehicles to slow down or move a lane in order to prevent crashes. The program encourages people to proceed with caution when approaching a pulled over vehicle or one with flashing lights as there could be objects or people that can enter the travel lane.

**Cost:** The cost of promoting and encouraging people to follow the Move Over law can be significant due to the advertising and signage. This program could be tailored to focus on specific locations such as if a specific work zone is considered in need of safety reminders, which could lower costs.

**Resources:** Contact Richard Weeks of Arizona Department of Transportation at (602) 712-7766 or visit <u>http://www.moveoveraz.org/</u> for more information.

### **Estimated Cost:**

- Radio advertisements\* = 176 per minute (30-second ads twice a day for two months)
- 50,000 half page flyers = \$1,400
- Four billboards = \$1,000 per month per billboard
- One changeable message sign 100 sf = \$15,000 per unit (Less if KDOT provides the changeable message signs)

Approximate Cost = \$35,000 (For two months of four billboards and radio ads). These costs could be reduced through the creative use of less expensive forms of advertising.



# **Operation Lifesaver**

**Description:** This is a program geared towards eliminating traffic crashes associated with atgrade rail crossings. Operation Lifesaver promotes its message through education and increasing public awareness, enforcement, and engineering of safe solutions.

**Applicability:** This could be a good program for areas with a high rate of railroad crashes. While there are rail crashes in Kansas, this is not one of the leading crash causes found in any of the regions studied.

**Cost:** This program's cost come in the form of publicity for the program: advertisements on television and radio, billboards, educational programs, etc. Depending on the level of involvement there could also be increased enforcement costs or even additional infrastructure costs associated with grade separated rail crossings.

**Resources:** Contact Dan Magri of Louisiana Department of Transportation at (225) 379-1871 or visit <u>http://www.laoperationlifesaver.org/about.aspx</u> for more information.

### **Estimated Cost:**

- Radio advertisements\* = \$176 per minute (30-second ads twice a day for two months)
- Educational programs to promote safety = \$300 per session (Depending on attendance)
- 50,000 half page flyers = \$1,400
- 10,000 Promotional keychains at \$0.30 per keychain = \$3,000

Approximate Cost = \$15,000 (For two months of radio ads)



# Pull Aside – Stay Alive

**Description:** Pull Aside Stay Alive is a program in place in Arizona that works to educate drivers on what to do in the event of a dust storm on the roadway. This program urges drivers to pull on the side of the road, as the name suggests, and complete other safety measures when a dust storm begins. This is accomplished through the use of paid media, news stories, and printed media.

**Applicability:** While useful and topical in Arizona, this program has no relevance in Kansas or in its Regional Coalitions. Kansas is not prone to dust storms. However, a similar effort could be geared toward Kansas-related weather, such as what to do during a winter storm, or a severe thunderstorm.

**Cost:** This program's costs come in the form of media which could be significant given a large program or the media could be minimized to keep costs down.

**Resources:** Contact Kohinoor Kar of Arizona Department of Transportation at (602) 712-6857 or visit <u>http://www.pullasidestayalive.org/</u> for more information.

### **Estimated Cost:**

- Radio advertisements\* = 176 per minute (30-second ad)
- Educational programs to promote safety = \$300 per session (Depending on attendance)
- Two changeable message signs 100 sf = \$15,000 per unit (Less if KDOT provides the changeable message signs)

Approximate Cost = \$32,000 (For two months of radio ads). However, if KDOT provides the changeable message signs, cost of the program can be reduced to \$2,000.



# **Ride Smart Florida**

**Description:** "Ride Smart Florida" is a program founded in 2008 in order to raise awareness of the increased number of fatalities between the years of 1997 and 2007. The program is targeted at any individual using motorcycles such as riders, trainers, law enforcement agencies and local governments. Riders interested in education and safety training are welcome to use the website and learn all about motorcycle safety. It is targeted at not only the riders but also for government officials and law enforcement agencies in order to increase awareness of laws governing riders. The Ride Smart Florida also offers promotion merchandise like bumper stickers and items endorsing the cause.

**Applicability:** The program is aimed at all motorcycle riders. Anyone interested in training, education, awareness, protective equipment and safety is welcome to use the Ride Smart Florida website and gain access to all the required information. The riders can attend training classes or contact the operator regarding question with respect to motorcycling in Florida.

**Cost:** The cost of the program was relatively low. The program is available to anyone interested in rider education and training. The program is run from a website and other partners in order to promote motorcycle safety awareness.

**Resources:** Contact Edith Peters of Florida Department of Transportation at (850) 414-4043 or visit <u>http://www.ridesmartflorida.com/</u> for more information.

### **Estimated Cost:**

- Use graduate students/volunteers for data collection to save cost
- Educational programs and flyers to promote safety = \$1,000 per session (Depending on attendance)
- Website = \$2,500 and \$25 per month for hosting

Approximate Cost = \$4,000 (For one year of web hosting)



# Share the Road

**Description:** The "Share the Road" campaign was started in order to promote safe interactions on the road between motorists, pedestrians and cyclists. This program promotes safety by placing ads and billboards encouraging the act of sharing the road. The program has sponsors who place ads, billboards and distribute tip sheets along the road promoting and educating motorists and other road users on the rules of the road. Other ways to promote the act of sharing the road include: bumper stickers, bike safety videos on channels, and free safety books.

**Applicability:** The program is targeted at all individuals who use the road. It encourages and promotes the act of sharing the road among motorists, pedestrians and cyclists. It also helps law enforcement personnel to brush up on the laws governing the road users

**Cost:** This program requires resources in order to install road signs, place TV ads, developing websites, make and distribute promotion goods (bumper stickers, books and tip sheets). The cost can be reduced by using volunteers or students to develop websites and other activities.

**Resources:** Contact Lynn Soporowski of the Kentucky Transportation Cabinet at (502) 564-7183 or Scott Thompson at (502) 258-3160. More information can be found at these two websites <u>http://transportation.ky.gov/share-the-road/Pages/default.aspx</u> or http://www.lexingtonky.gov/index.aspx?page=582.

### **Estimated Cost:**

- Radio advertisements\* = \$176 per minute (30-second ad once a day for two months)
- Flyers and promotional goods = \$1,500
- Website = \$2,500 and \$25 per month for hosting

Approximate Cost = \$10,000 (For two months of radio ads and one year of web hosting)



# **Ticketing Aggressive Cars and Trucks**

**Description:** "Ticketing Aggressive Cars and Trucks" is a Florida-based program that was introduced in 2012. The purpose of the program is to reduce vehicle injuries, crashes and fatalities. The program was started in order to control aggressive driving offenses committed by both car and truck drivers. Aggressive driving is when a vehicle driver commits two or more of the following actions: violation of traffic signals, speeding, improper lane change and other unsafe actions. The truck or car drivers responsible for aggressive driving are issued with tickets associated with the violation committed.

**Applicability:** The program targets aggressive drivers and issues them with violation tickets. It also increases safety awareness using radio broadcasts and road side billboards. Young drivers are also educated in schools and community centers about how to drive and share the road safely.

**Cost:** The cost of the program is relatively high. This is because of the added highway patrol units needed to enforce and issue the tickets. The program also increases the awareness of the vehicle drivers by placing billboards, educating school students about safe driving and broadcasting radio messages on safe driving. Smaller scale versions of this program could be constructed to target specific areas for lower cost.

**Resources:** Contact Pete Cohen of Florida Department of Transportation at (850) 414-4026 or visit <u>http://www.dot.state.fl.us/safety/2A-Programs/Aggressive-Driving.shtm</u> for more information.

### **Estimated Cost:**

- Radio advertisements\* = \$176 per minute (30-second ad once a day for two months)
- Educational programs and flyers to promote safety = \$1,000 per session (Depending on attendance)
- Increased highway patrol = \$30,000 per unit (Four units)

Approximate Cost = \$127,000 (For two months of radio ads and one year of web hosting)



# Work Zone Safety Awareness

**Description:** The "Work Zone Safety Awareness" program was started in order to increase motorist and public awareness about approaching and driving through a work zone. From the crash data obtained, it was noticed that motorists make up for most of the work zone fatalities. Two major causes of crashes near work zones are driver inattention and failure to control vehicle speed. The website of the program gives a few tips on how to drive in a work zone and some of them are: pay attention, be patient, plan ahead, and slow down to the posted speed limit. The program also uses promotional tools such as banners, posters, infographics, online videos and audio broadcasts. The program has a work zone safety awareness week every year usually in March/April where the motive is to educate and raise public awareness about work zones through gatherings and videos.

**Applicability:** The program is aimed at all users of the road who are expected to drive through a work zone. It also applies to the individuals working on the road by promoting safety and employing precautions to be followed when working on the road.

**Cost:** The cost of the program is relatively high. This is because of the funds required for the safety awareness week and the promotional tools mentioned above. Funds can be obtained by private funding from companies to protect their workers. Law enforcement also issues fines of up to \$400 on work zone violations which could be used to increase the awareness.

**Resources:** Contact Media Relations of Texas Department of Transportation at (512) 463-8700 or visit <u>http://www.txdot.gov/driver/share-road/work-zones.html</u> for more information.

### **Estimated Cost:**

- Safety officers and volunteers helping to promote safety awareness at work zones
- Six work zone warning signs = 40 per sign
- Website = \$2,500 and \$25 per month for hosting
- Two billboards = \$1,000 per month per billboard

Approximate Cost = \$7,000 (For one year of web hosting and two months of billboards)

# C.15 Other Programs and Resources

See next page.

# <u>RIDE</u>

**Description:** The RIDE (Risk of Intoxication and Distractions Everywhere) is self-contained PowerPoint presentation for high school students emphasizing the dangers and possible consequences of intoxicated driving, alcohol abuse, and driving distractions. This pre-packaged program consists of three parts and is designed to be presented by local presenters with a personal connection to their local community.

**Resources:** For more information and details about this program visit <u>https://www.ktsro.org/ride</u>. All of the material needed for this program can be found on the website.

# ROADWISE

**Description:** RoadWise is a program for young drivers 14-19, emphasizing the importance of wearing a seat belt, making good decisions behind the wheel and not driving distracted. Participants follow the path they would take at a trauma center after being seriously injured in a car crash by visiting the Emergency Room, Radiology, Intensive Care, and Physical Therapy. Lunch is spent with young people who have sustained a permanent brain or spinal cord injury as a result of a motor-vehicle crash.

**Resources:** For more information about this program please visit https://theresearchfoundationkcorg.presencehost.net/programs/roadwise/.

# CarFit

**Description:** CarFit is an educational program that provides a quick, yet comprehensive review of how well you and your vehicle work together. The program, which was developed by AAA, AARP, and the American Occupational Therapy Association, also provides information and materials on community-specific resources that could enhance your driving safety and increase mobility.

**Resources:** More information including a brochure about CarFit and CarFit Events can be found at <u>https://www.ktsro.org/carfit</u>.

# **Booster To Belts**

**Description:** Booster to Belts is a highly-interactive presentation designed to educate preschoolers through  $2^{nd}$  graders about staying safe while riding in vehicles. This program uses pictures and videos to teach the children not to give in to peer pressure to move to a seat belt before they are ready.

**Resources:** For more information about this program visit <u>https://www.ktsro.org/booster-to-belts</u>.

# Safety Break!

**Description**: Safety Break is a FREE educational curriculum and kit with five lessons covering various aspects of traffic safety and alcohol abuse prevention. Safety Break comes with a notebook and each lesson has objectives, information fact sheets, game instructions, game materials, and a homework assignment. The fact sheets contain information students will need to be able to acquire the most education and enjoyment out of the games.

**Resources:** More information and materials for this program can be found at <u>https://www.ktsro.org/safety-break</u>.

For more information about services, materials and education provided by the state of Kansas please visit the Kansas Traffic Safety Resource Office at https://www.ktsro.org/. This program is part of the Kansas Department of Transportation Bureau of Traffic Safety. Their website provides safety information about car seat usage, teen driving, impaired driving, and elderly driving. It is filled with facts and information to educate and protect Kansans from avoidable injury or death on Kansas roadways. The Kansas Traffic Safety Office can be contacted at (800) 416-2522 or <a href="https://www.ktsro.org">ktsro@dccca.org</a>.

# K-TRAN

# KANSAS TRANSPORTATION RESEARCH AND NEW-DEVELOPMENT PROGRAM





