

Nebraska Strategic Highway Safety Plan Guidance for 2017-2021

Nebraska Interagency Safety Committee



Education
Enforcement
Engineering
EMS



**Toward
Zero
Deaths**

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Dear Fellow Nebraskans:

In accordance with federal law, each state is required to develop and implement a Strategic Highway Safety Plan (SHSP). The plan is data-driven, strategic and targeted, and designed to make significant progress towards Nebraska's goal of slashing fatal and serious injury crashes.

On behalf of the Governor, I submit to you the Nebraska Strategic Highway Safety Plan for 2017-2021. This SHSP builds on the momentum of the two previous plans cutting across the public and private sectors and all levels of government to reach for better results. With input from safety stakeholders across the state, the plan encompasses a wide range of strategies to address both infrastructure and driver behavior concerns.

Coming out of record low highway fatalities in 2011, the 2012-2016 SHSP set a very aggressive goal of continuing that steep decline in the trend line. Unfortunately, the fatality numbers bounced back up and, despite hard work and efforts, the state failed to meet that goal. The 2017-2021 SHSP sets a challenging but attainable goal that could save over 268 lives over the next five years.

I join with the Superintendent of the Nebraska State Patrol and the directors of the Department of Motor Vehicles, Department of Health and Human Services, Nebraska League of Municipalities, and the Nebraska Association of County Officials to invite you to unite with us in implementing the strategies outlined in this SHSP.

Remember, that driving is a serious business. Always stay alert when behind the wheel and help us work toward our ultimate goal of zero deaths on Nebraska roadways.

Please drive safely,

Kyle Schneewis
Director, Nebraska Department of Roads and
Chairman, Nebraska Interagency Safety Committee

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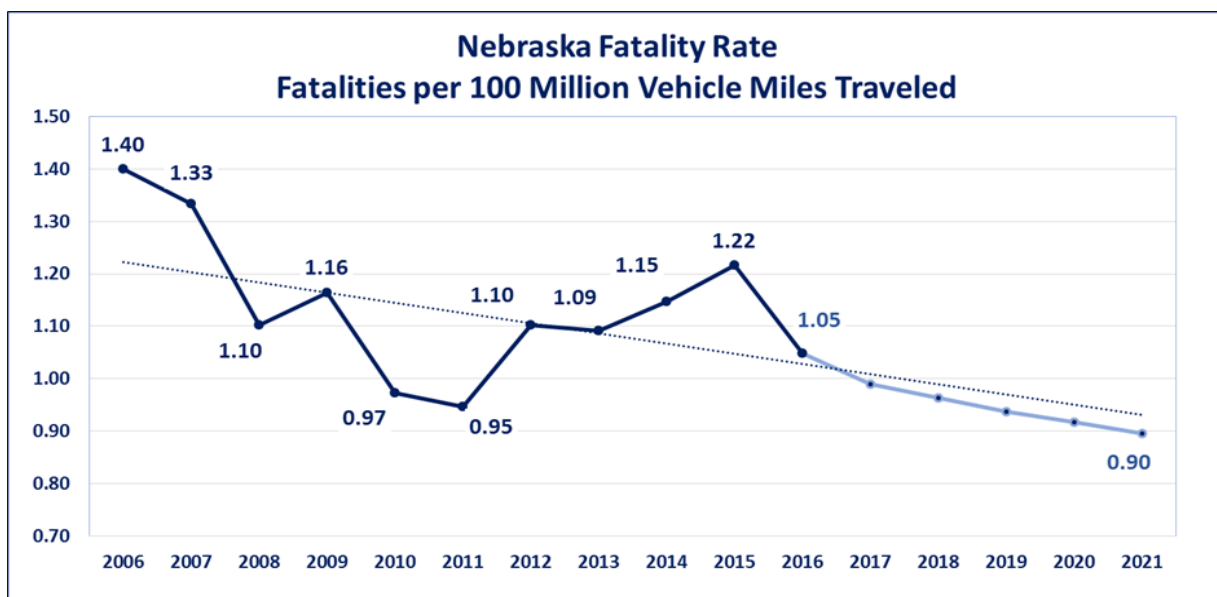
Executive Summary

In 2005, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users of 2005 (SAFETEA-LU) required all States to develop Strategic Highway Safety Plans (SHSP). Subsequent transportation plans, Moving Ahead for Progress in the 21st Century Act (MAP-21) and the current Fixing America’s Surface Transportation (FAST) Act, have carried forward this requirement. The Nebraska SHSP for 2017-2021 complies with that requirement and builds on the success of the first two SHSPs.

This SHSP is presented under the auspices of the Nebraska Interagency Safety Committee (IASC), whose member agencies include the Nebraska Department of Roads, Nebraska State Patrol, Nebraska Department of Motor Vehicles, Nebraska Department of Health & Human Services, Nebraska Local Technical Assistance Program, League of Nebraska Municipalities and the Nebraska Association of County Officials.

After more than a decade of significant reductions in roadway deaths and injuries, National Highway Traffic Safety Administration (NHTSA) reported that in 2014 the national fatality rate declined to 1.08 fatalities per 100 million vehicle miles traveled (VMT), the lowest rate since they began collecting fatality data through the Fatality Analysis Reporting System (FARS) in 1975. In 2015, however, fatalities increased by 7.2%, the largest percentage increase in nearly 50 years. The fatality rate increased by a rate of 3.7% due to a 3.5% increase in VMT.

Nebraska generally followed these national trends, with fatalities beginning to climb in 2012. After hitting a historic low of 181 fatalities and a fatality rate of 0.95 fatalities per 100 million VMT in 2011, the Nebraska fatality toll rose to 246 fatalities in 2015, the highest count since 2007. Figure 1 below shows the Nebraska fatality rates since 2006 and a projected trend line to 2021.



National data retrieved from NHTSA <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812318>

Figure 1

In view of the success of the first SHSP, the IASC set an ambitious goal of 0.5 fatalities per 100 million vehicle miles traveled (VMT) by the end of 2016. The group based this goal on the hope that the fatality rate would continue to decline at the same pace it had during the previous five years. This proved to be an overly optimistic expectation. The IASC has chosen a more achievable goal for the 2017-2021 SHSP. Using a ten-year projected trend line from 2006-2015, that goal is:

To reduce traffic fatalities per 100 million VMT from 1.10 (2011-2015 average fatality rate) to 0.90 fatalities by December 31, 2021. The State's ultimate goal is toward zero deaths.

The IASC estimates that achieving this new goal would save 268 or more lives over the next five years.

Based on the 2016 Safety Stakeholder Survey and 2011-2015 historical crash data, the IASC elected to continue with the same five Critical Emphasis Areas (CEAs) as in the 2012-2016 SHSP. In 2019, the IASC added a sixth CEA, Reducing Older Driver Crashes. The IASC revised the CEA titles to the following:

1. Increasing Seat Belt Usage
2. Reducing Roadway Departure Crashes
3. Reducing Impaired Driving Crashes
4. Reducing Intersection Crashes
5. Reducing Young Driver Crashes
6. Reducing Older Driver Crashes

In preparation for updating the SHSP for the next five-year period starting in 2017, the IASC again reviewed crash data trends from 2011 through 2015 for the five original CEAs, as well as additional areas of concern, using both fatal and serious injury (Types A and B) crash data to better reflect crash trends. The additional areas included older drivers, speed-related crashes, distracted driving crashes, commercial motor vehicle crashes, motorcycle crashes, work zone crashes, and bicycle and pedestrian crashes. Because crash investigators can only code one contributing driving factor per vehicle, it is difficult to capture complete data on distracted driving- and speed-related crashes. The IASC determined that the previous CEAs are still the areas of emphasis with the highest numbers of crashes and with strategies that present the greatest opportunities to reduce fatalities and injuries. In 2019, the IASC identified a rising trend in crashes involving older drivers and added the new CEA. The 2017-2021 SHSP continues to include strategies to address additional areas of concern, and the IASC will continue to monitor crash trends on a yearly basis.

In preparing the 2017-2021 SHSP, the IASC also recognized the importance of safety shareholder input to the success of the plan. Toward this end, the IASC surveyed safety advocates across the state for their input on what emphasis areas they felt were important to include in the plan, as well as suggestions for new strategies to address these areas. The IASC carefully reviewed these recommendations and added appropriate strategies. This report discusses survey results and analysis in Section 2.

The IASC also included strategies for new advances in safety technology to improve roadway safety including intelligent transportation systems (ITS), such as adaptive control signals, bridge anti-icing spray systems, and connected vehicle technology. In the coming years, the NDOR plans to mainstream and integrate ITS strategies into a growing proportion of roadway

construction projects. In addition, as a requirement of the federal Highway Safety Improvement Program (HSIP), the Nebraska Department of Roads (NDOR) has completed an HSIP and the Rail-Highway Crossing Program Expenditures Plan. The expenditures plan is an implementation document for the SHSP. It includes a list of countermeasures and project listings to sustain consistent obligations of HSIP funds to reduce the frequency and severity of crashes on Nebraska roads.

It is important to recognize the achievements of the recently concluded SHSP. In addition to the infrastructure safety projects, the NDOR funded many of the enforcement and public information and education initiatives through the Federal Highway Administration's Highway Safety Improvement Program (HSIP).

- The state participated in five national and five state "Click It or Ticket" mobilizations and an additional five national and five state "You Drink & Drive. You Lose." Impaired Driving Crackdowns. Also utilized during this time were saturation patrols, sobriety checkpoints, underage party patrols, and alcohol license compliance checks.
- The NDOR implemented Phase III of an innovative statewide High Risk Rural Roads Program (HRRRP) safety project to provide horizontal curve signs and posts. 81 of the state's 93 counties participated in one or more of the three phases of the HSIP safety project.
- The NDOR installed over 1,100 miles of edge line rumble strips and almost 1,000 miles of centerline rumble strips/rumble stripes to address lane departure crashes.
- During 2007-2011, the NDOR safety teams approved nearly \$25 million for over 90 safety projects, including \$1.4 million in statewide HRRRP projects.
- The Nebraska EMS/Trauma Program conducted dozens of Emergency Vehicle Operations courses and trained over 700 pre-hospital providers in the six-hour specialized course for ambulance personnel.
- The Nebraska State Patrol (NSP) conducted 300 traffic safety programs reaching approximately 75,000 individuals statewide. These included the introduction of the Patrol's mascot (Trooper Buck L. Up), rollover simulator and seat belt convincer demonstrations, and virtual driving simulators to engage and interact with the public.
- Other notable HSIP projects included the installation of second generation Dynamic Message Signs (DMS) on major highways, pilot Local Road Safety Plans, and Traffic Control Device Packages to facilitate the Traffic Incident Management (TIM) training.

The following is a summary of the highway safety data for the six CEAs from 2012 to 2016. These figures are using 2011-2015 crash data.

- Fatalities increased from 181 in 2011 to 246 in 2015 (35.9%), or a fatality rate of 1.2 per 100 million VMT, exceeding the SHSP's overall goal of 0.5 fatalities per 100 million VMT.
- Serious injuries dropped from 1,556 in 2011 to 1,350 in 2015 (13.2%).
- Seat belt usage rate decreased from 84.2% in 2011 to 79.6% in 2015. This drop in the use rate coincides with federally required redesign of seat belt survey methodology.
- Alcohol-Impaired fatalities increased from 51 in 2011 to 81 in 2015 (58.5%).
- Youth-Involved (ages 16-20) Fatal, A and B Injury Crashes were reduced from 1,417 in 2011 to 1,345 in 2015 (5.1%).
- Seat belt citation convictions decreased from 9,813 in 2011 to 7,130 in 2015 (27.3%).

- Alcohol-Impaired driving arrests dropped from 10,549 in 2011 to 7,136 in 2015 (32.4%).
- Older Drivers-Involved (age 65+) Fatal, A and B Injury Crashes increased 12.3%, from 584 in 2011 to 656 in 2015.
- Intersection-related Fatal, A and B Injury Crashes increased 5.7%, from 2,731 in 2011 to 2,888 in 2015.
- Roadway departure Fatal, A and B Injury Crashes decreased 17%, from 1,816 in 2011 to 1,509 in 2015.

The IASC has also identified crash records as an area of emphasis in this SHSP. With a wide variety of entities depending on timely, accurate, consistent and complete data, the NDOR has completed data system improvements including an upgrade of the current electronic crash reporting system, upgrade and expansion of electronic citations, and the 2015 Traffic Records Assessment. Various NDOR safety committees, as well as the NDOR Highway Safety Office, use crash data to determine where the state will get the best benefit versus cost to identify and evaluate both infrastructure and driver behavior-related projects and activities. NDOR has planned several additional traffic records improvements to occur during this SHSP.

The IASC and a wide variety of safety partners will continue to seek potential safety strategies for new and innovative ways to help achieve the state's overall goal. There are hundreds of potential investment strategies. However, experience suggests that only a few combination of strategies will be the most effective at achieving the stated fatal crash reduction goal.

Additionally, the Nebraska Unicameral passed several highway safety-related pieces of legislation during the 2012-2016. These legislative bills are in Section 1.5.

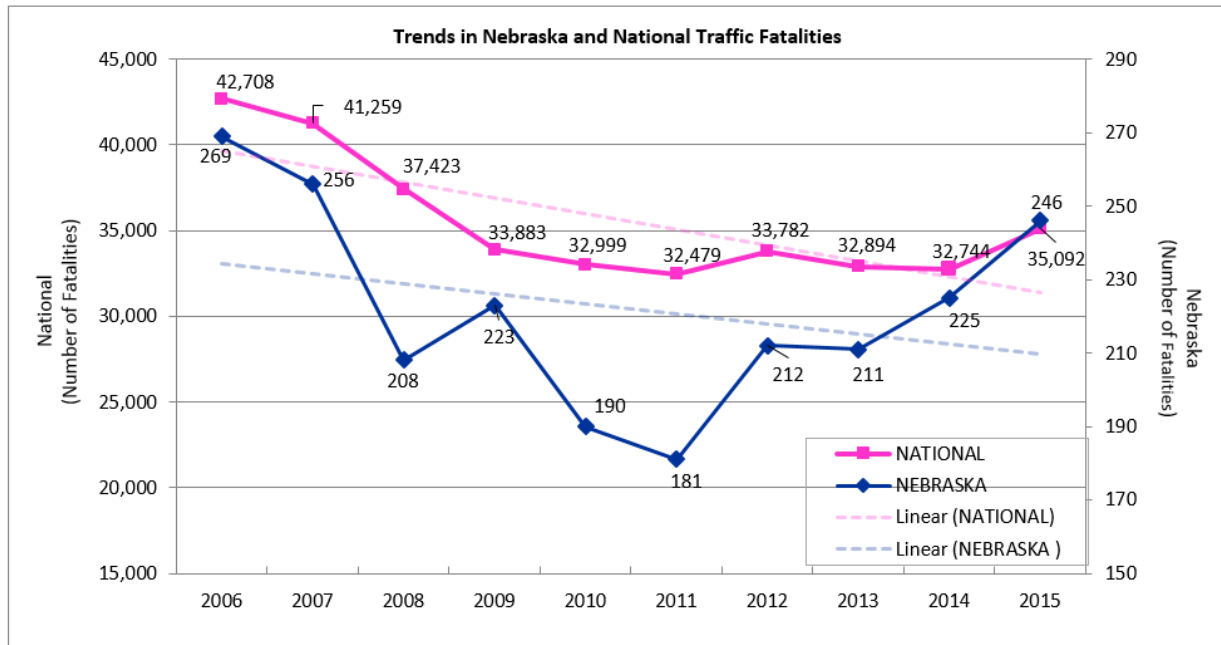
The final component of the Nebraska SHSP will be to provide guidance on where and how to invest safety funds and resources in order to achieve the State's safety goals and to provide proof that the goal is, in fact, attainable.

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1. Introduction and Background

1.1 Highway Safety Trends at the National Level and in Nebraska



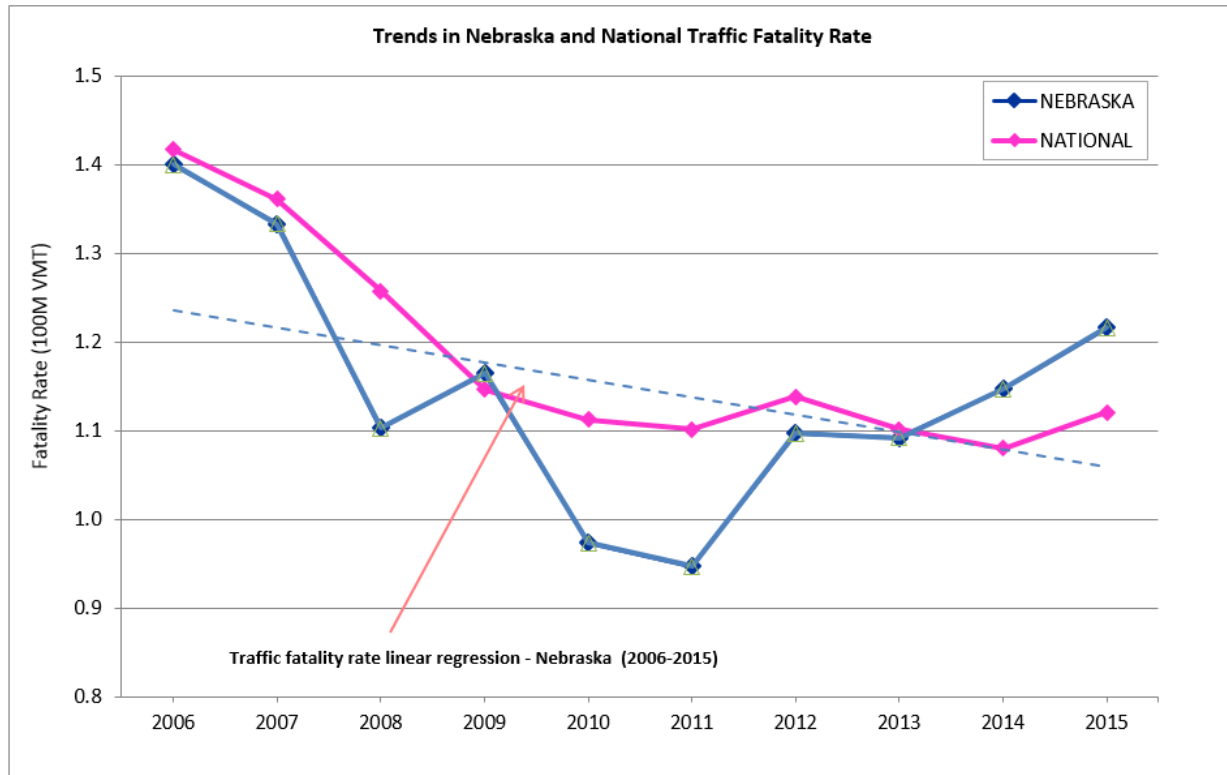
National data retrieved from NHTSA <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812318>
 Nebraska data retrieved from the Nebraska Department of Roads Traffic Engineering Highway Safety – Accident Records Section

Figure 2
 Historic Number of Traffic Fatalities

From a peak in the 1970s, there have been significant reductions in the number of traffic-related fatalities in the U.S. Nebraska experienced a decrease in the number of traffic fatalities similar to the national trend as illustrated in Figure 2. By 2011, the state had a historically low fatality total of 181. Since then, there has been an upward trend to a 2015 high of 246, a 26.4% increase over the past five years. A contributing factor to this fatality increase was the steady rise in vehicle miles traveled (VMT) throughout this period. VMT in Nebraska increased from 11.4 million in 1982 to 20.2 million in 2015, a growth of 77.2%.

Nationally, the number of fatalities has increased significantly from 2011-2015. According to figures from the National Highway Traffic Safety Administration (NHTSA), highway deaths increased to 35,092 in 2015, a 7.2 percent increase from 2010. Americans collectively drove about 3.1 trillion miles in 2015 according to FHWA’s Traffic Volume Trends, an increase of 6.1 percent since 2010.

In the past 10 years, the trend in Nebraska has similarly followed what has been occurring nationally, as illustrated in Figure 3. Nebraska realizes the need to expand on current strategies, implement additional strategies, as well as develop new and innovative strategies to continue the downward trend.



National data retrieved from NHTSA <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812318>
 Nebraska data retrieved from the Nebraska Department of Roads Traffic Engineering Highway Safety – Accident Records Section

Figure 3
 Historic Fatality Crash Rate

1.2 Safety Efforts in Nebraska

Despite impressive improvements in national highway traffic safety since the early 1970’s (a 45% decrease in fatalities and a 75% decrease in fatality rate), traffic-related deaths and injuries continue to impose a massive burden on the residents of Nebraska. Traffic crashes are still one of the leading causes of death and the estimated annual economic cost of the 35,000 crashes that occurred during 2010 is almost \$1.95 billion dollars.

Traffic fatalities in Nebraska fell from a peak of 490 in 1970 to a low of 181 in 2011, but had increased to 246 by the end of 2015. During this time, road travel increased by 80%. National trends prior to 2006 indicated that the rate of reduction in roadway related deaths and injuries had flattened and the number of fatalities had actually risen. This lack of progress in reducing the death toll on our nation’s highways led the American Association of State Highway and Traffic Officials (AASHTO) and the Federal Highway Administration (FHWA) to conclude that a new focus on and approach to traffic safety was necessary to address the documented increase in fatal and life changing injury crashes.

The updated AASHTO SHSP, “A Comprehensive Plan to Substantially Reduce Vehicle-Related Fatalities and Injuries on the Nation’s Highways” (February 2005), outlined 22 key emphasis areas organized into six plan elements: drivers, special users, vehicles, highways, EMS and

management. These key areas served as a starting point to evaluate State data. Additionally, the National Cooperative Highway Research Program (NCHRP) Report 500, “Guidance for Implementation of the AASHTO SHSP,” series of publications and the U.S. Department of Transportation’s publication, “SHSPs: A Champion’s Guide to Saving Lives . . . ,” provided the basis for developing CEAs for the Nebraska 2007-2011 SHSP.

These documents encouraged states to develop their own SHSPs based on the following six guiding principles: 1) comprehensive, 2) systematic, 3) integrated, 4) stakeholder involved, 5) data driven and 6) proactive.

In October 2004, the Nebraska Interagency Safety Committee (IASC), comprised of state, local, and federal agencies with an interest in Nebraska’s road safety programs, formed to begin the process of developing the first SHSP, as well as the two subsequent plans.

There are two parts to the Nebraska IASC. The first is the Leadership Committee that meets on an annual basis and as needed to sponsor and oversee the general direction of the Nebraska SHSP. The Leadership Committee is currently comprised of directors from:

- Nebraska Department of Roads
- Nebraska Department of Motor Vehicles
- Nebraska Department of Health & Human Services
- Nebraska State Patrol
- Nebraska Association of County Officials
- Nebraska League of Municipalities

The second component of the IASC is the Working Committee (IASWC). The Working Committee meets quarterly to give guidance to the development of the SHSP and help with making decisions on technical issues. The members of the Working Committee are currently:

- Nebraska Department of Roads
- Nebraska Department of Motor Vehicles
- Nebraska Department of Health & Human Services, EMS/Trauma
- Nebraska State Patrol
- Nebraska Local Technical Assistance Program
- Federal Highway Administration (federal advisor)
- National Highway Traffic Safety Administration (federal advisor)
- Federal Motor Carrier Safety Administration (federal advisor)

1.3 Nebraska Crash Records System

The Nebraska Department of Roads (NDOR) maintains a sophisticated crash data system which collects, categorizes, and analyzes crashes on all roads in Nebraska. The state revised this system in 2002 to correspond with many of the data elements described in the Model Minimum Uniform Crash Criteria version 1 (MMUCC), a proposed nationwide standard for crash data, and is in the process of upgrading and modernizing the data system to be compliant with the MMUCC 4 guidelines; to include updating and expanding the Police Accident Report (PAR) and driver’s accident report. Implementation of the MMUCC 4 data elements into the crash database will not only bring NDOR’s PAR into 100% compliance with MMUCC 4, but align NDOR’s vehicle crash collection process with the national model; allowing research groups, both internal and external, to combine Nebraska’s vehicle crash data with the national data. NDOR estimates that the

MMUCC 4 upgrade will take three or more years to complete, a substantial investment in both time and money.

The number of crashes reported electronically continues to grow. During 2015, 78% of all reports were received electronically, 44% of them using NDOR's Electronic Accident Form (EAF), and the remaining 34% being received via third party vendors through NDOR's electronic transmittal process. Increased use of electronic reporting should occur when NDOR releases the new Model Minimum Uniform Crash Criteria version 4 (MMUCC) Investigator's crash reporting form in the spring of 2019. Additionally, NDOR is scheduled to release the electronic Driver's reporting portal in the first quarter of 2017. This electronic Driver's vehicle crash reporting system will allow drivers to report vehicle crashes via an electronic process, thus reducing the number of paper Drivers' reports.

The Nebraska Crime Commission (NCC) continues to move ahead with implementing electronic citations to various law enforcement agencies. The NSP has completed rollout of the newest Traffic and Crime Software (TraCS) version to 100% its troopers. The TraCS reporting system is a law enforcement software suite used to capture and record reports generated by an agency's staff during their day-to-day reporting duties. The NDOR has a current HSIP project to create a Nebraska TraCS crash reporting module to allow for direct data transmittal between the TraCS reporting system and the state's vehicle crash database.

E-Citations are fully installed and stable for the Nebraska State Patrol. The NCC is in the process of testing the process of installing TraCS to local agencies. The Lincoln Police Department and Lancaster County Sheriff's Office are working to get a process in place for adding local agencies with seamless implementation. The NCC and NSP are maintaining a list of interested agencies and after this process is completed will begin implementation of these local agencies.

The Nebraska Crime Commission has implemented the Sleuth e-citation application with some agencies submitting e-citations through this application. They are also working with additional agencies who are using Sleuth to implement the e-citation module.

The NSP is in the process of developing an e-crash form in TraCS for the submission of an electronic crash form to NDOR. The NSP will be rolling out the e-crash form to the troopers. The NSP will also offer the e-crash form to local agencies as soon as the implementation is completed for the NSP. The NCC has an e-crash form module available in Sleuth which already in use by several law enforcement agencies. The NCC is working with local law enforcement agencies who are using Sleuth to implement the use of the e-crash form.

Nebraska has maintained a Traffic Records Coordinating Committee (TRCC) since 1994 that identifies and champions traffic records improvements. The TRCC has made major improvements during this time span and has additional projects planned. The TRCC developed the *Nebraska Traffic Safety Information System Strategic Plan*. This Plan is updated annually. The TRCC, along with the NDOR Highway Safety Office (NDOR HSO) and other traffic records system data collectors, custodians, operators, and users participated in a scheduled Traffic Records Assessment in December 2015. Plans for improving the crash records system include upgrading and expanding electronic submittal of crash reports from law enforcement agencies, upgrading the database systems for the crash records and the Department of Motor Vehicles, and providing a means for drivers to report crashes electronically.

NDOR's Drivers' Electronic Vehicle Crash Reporting system has been in development for the past two years and it is scheduled to be released early in 2017. When completed, this system will allow drivers to report vehicle crashes directly to NDOR via a web-based electronic reporting interface. Once fully adopted, it is expected that the error rate within NDOR's crash data base should dramatically decrease due to the removal of the secondary NDOR human data entry element, which must be performed during the current paper based data entry process.

The NDOR uses a Hazardous Location Analysis tool for the identification of high crash intersections, sections, and clusters on the state highway system. The formula to identify significant locations uses crash rate by type and volume of roadway, crash frequency, and crash severity. Although this process excluded local roads because of a lack of traffic volume data, a different procedure is used to analyze local roads. The Nebraska High Risk Rural Roads Program (HRRRP) Team uses local road crash data from all Nebraska counties to determine appropriate local and statewide safety projects.

The FHWA provided Roadway Data Improvement Program (RDIP) technical assistance to the Nebraska Department of Roads (NDOR) in February 2016 with a site visit to deliver the RDIP workshop, facilitate technical transfer sessions on roadway data improvement, and present preliminary findings to NDOR management. The RDIP is a FHWA program developed to assess a State's roadway and traffic data systems for the ability to use, manage and share the data; and to offer recommendations for improving the roadway data. It is intended to help improve the roadway and traffic data the State uses to develop their Strategic Highway Safety Plan (SHSP), which supports the State's Highway Safety Improvement Program (HSIP).

1.4 Highway Safety Conferences

To introduce the 2012-2016 SHSP to safety stakeholders, the IASC hosted a Nebraska Highway Safety Summit on April 5, 2012. As with the previous summits, representatives from the 4 E's – engineering, enforcement, education and emergency – addressed safety efforts and strategies for the five original Critical Emphasis Areas identified in the SHSP. This was the state's sixth highway safety summit, with previous summits held in 2001, 2003, 2005, 2007 and 2009. Over 180 stakeholders attended the one-day Highway Safety Summit, a 25% increase from the previous summit. The morning session included speakers introducing the 2012-2016 plan, as well as the critical emphasis areas. In the afternoon session, attendees participated in one of five facilitated breakout sessions addressing successful current and past safety strategies for each of the five original CEAs, as well as new strategies for the State to implement to reach the overall SHSP goal.

1.5 Legislation

During the years 2012-2016, the Nebraska Unicameral passed the following new legislative bills addressing highway safety:

- August 26, 2011 Required commercial driver's license holders to submit medical certificates to the Department of Motor Vehicles
- January 1, 2012 Enhanced ignition interlock law
- July 19, 2012 Provided bicycles with three feet clearance between bicyclists and passing motorists

- July 1, 2013 Enhanced ignition interlock law (mandatory 45-day license suspension)
- May 27, 2015 Allowed for the sale and consumption of alcohol on pedal-pub vehicles
- July 8, 2015 Enhanced Commercial Learner's Permit/Commercial Driver's License testing requirements
- August 28, 2015 Created new definition and provision for use of auto-cycle vehicles on public roadways
- July 21, 2016 Increased penalties for operating motor vehicles during revocation
- July 21, 2016 Clarified who has the right-of-way when bicycles and pedestrians cross roadways while using a path designed for pedestrians/bikes

1.6 Nebraska Department of Roads

1.6.1 Highway Safety Improvement Program (HSIP)

As a result of SAFETEA-LU, the NDOR implemented two internal teams, in addition to the long-standing Safety Committee, to develop highway safety projects funded through the HSIP. The Safety Committee reviews safety improvement projects submitted by counties and cities, and recommends/develops safety projects for locations identified through the Hazard Location Analysis Program. The Strategic Safety Infrastructure Projects Team reviews major and state-wide projects, such as roundabouts, major intersection improvements, and statewide shoulder and centerline rumble strip projects.

Although MAP-21 eliminated the HRRRP funding category, the NDOR continues to maintain an HRRRP team which identifies and reviews projects on those roads that formerly qualified for HRRRP funding. High risk rural roads include those roadways that 1) have a national functional classification of rural Major or rural Minor Collector or 2) rural local roads which:

- a. Feature roadway characteristics that are associated with specific crash types include, but not limited to: vertical alignment, horizontal alignment, sight distance, intersections, limited or no shoulders, narrow roadway width, and fixed objects along the roadside, or
- b. Have been identified through crash types, field reviews, road safety assessments, or local knowledge and experience.

Projects developed by this team include statewide bridge object markers, horizontal curve signing, and intersection signing.

During 2012-2016, the NDOR safety teams approved over \$108 million for 130 safety projects, including \$4.5 million in statewide HRRRP projects. These projects included:

- Improving safety by modifying intersection geometrics
- Resurfacing bridges and curves with High Friction Surface Treatment
- Replacing outmoded guardrail
- Installing countdown pedestrian signals
- Building roundabouts at high crash intersections
- Restriping highways with more durable marking materials
- Installing centerline and shoulder rumble strips on two-lane highways
- Providing flexible object markers on county road bridges

- Upgrading horizontal curve signing
- Adding anti-icing systems to interstate bridges

In most cases, evaluations of safety projects require an economic analysis to determine whether or not a project was cost-effective. The NDOR uses the benefit/cost (b/c) analysis technique, in which the equivalent uniform annual benefits derived from the project, usually from crash reduction, are compared with the equivalent uniform annual costs. A project with a benefit/cost ratio exceeding 1.0 would be considered cost-effective, with results larger than 1.0 indicating even higher degrees of success.

The following are four examples of successful infrastructure projects that reduced crashes.

Lincoln County – I-80 Bridge across the North Channel Platte River – SE of Brady

This bridge had a history of icy road crashes. Nineteen crashes occurred in the three-year period prior to construction of the project and 17 of them happened under icy conditions. To mitigate the problem, an anti-icing system was built into the bridge as a safety project. In the three years after completion of the project, crashes were reduced by 84.3%, resulting in a benefit/cost ratio of 15.05.

Omaha – Intersection of 108th Street & Old Maple Road - This signalized intersection, located in northwest Omaha, joins 4-lane 108th Street with 2-lane Old Maple Road. Prior to the project neither street had left-turn lanes. The major crash pattern involved northbound traffic on 108th Street colliding with southbound vehicles trying to turn left onto eastbound Old Maple. Because two schools are located just to the east on Old Maple, this is a popular movement. A secondary crash problem involved rear-end collisions on 108th Street. The safety project widened both streets allowing left-turn lanes to be built on all four legs. New signals were added so that indications were above all lanes. Where 30 crashes, including 15 injury crashes, occurred in the three-year period prior to project construction, only 9 crashes, with 2 injuries, happened afterwards. The benefit-cost ratio for the project was 4.90.

Grand Island – US-30 & Engleman Road – Prior to construction of the project, US-30 was a two-lane rural highway, located on the southwest edge of Grand Island, with a speed limit of 55 MPH. Engleman Road was a two-lane north-south county road. The major crash type at this location was the rear-end collision of vehicles on US-30 stopped to turn onto Engleman Road in either direction. Fifteen crashes occurred in the three-year period before construction, including five rear-ends of left-turners and three sideswipes involving vehicles passing left-turners. The safety project put in left-turn lanes in both directions on US-30. Only three crashes occurred in the three years after construction, all property damage only. The benefit-cost ratio for the project was 4.41.

Lincoln – N-2 & 27th Street – This south Lincoln intersection is one of the busiest in the Capital City. In the 3 years before the project was built, 187 crashes were reported. Many of these crashes were left-turn collisions. A project was developed to build dual left-turn lanes on 27th Street in both directions and rebuild the traffic signals appropriately. In the three-year period after the project was completed, crashes decreased by 23%. Left-turn crashes went from 45 down to four. The benefit-cost ratio for this project was 20.04.

In 2014, the NDOR, in conjunction with the multi-agency State Traffic Incident Management (TIM) Program Implementation Committee, implemented an HSIP project to provide first responders with quality training and the proper tools to clear roads faster and safer during traffic incidents.

The traveling public also benefits by first responders providing a consistent statewide approach that meets driver expectations. The training course and device packages are available to fire/EMS departments, law enforcement, emergency management, and public works departments providing vital services to the citizens of Nebraska. Organizations with six members attending a four-hour Strategic Highway Research Program TIM training course receive a \$600 device package that includes two roll-up advance warning signs with stands; five collapsible traffic cones; and six Class 2 safety vests. Since May 2014, Nebraska has trained 78 training instructors and over 40% of first responders, and distributed over 300 traffic control device packages. Training is still high in demand. Nebraska is among the leaders nationwide in the percentage of first responders who have received this training.

Nebraska was one of five initial states that elected to “flex” up to 10% of their HSIP funding as allowed by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). In 2012, MAP-21, the Moving Ahead for Progress in the 21st Century Act, eliminated the flex option. However, the Act allowed states to use HSIP funding for non-infrastructure safety projects. At that time, the NDOR elected to budget \$1 million per fiscal year for non-infrastructure safety projects.

Between 2011 and 2015, the NDOR obligated almost \$8 million for 45 stakeholder projects addressing the driver behavior CEAs of occupant restraint, alcohol-impaired driving and younger drivers. The NDOR HSO participated in funding national and state “Click It or Ticket” mobilizations adding hours of overtime enforcement operations emphasizing seat belt and child restraint law compliance. NDOR also approved grants for “You Drink & Drive. You Lose.” Impaired Driving Crackdowns that utilized saturation patrols, sobriety checkpoints, underage party patrols, and alcohol license compliance checks to address alcohol-impaired driving.

In 2016 with the passing of the Fixing America’s Surface Transportation Act or “FAST Act,” states are no longer allowed to use HSIP funding for behavioral-type projects.

1.6.2 Rural Roads

The NDOR has taken a unique approach in implementing the HRRRP by partnering with the Nebraska Local Technical Assistance Program (LTAP) and the Nebraska Highway Superintendents Association – an affiliate of the Nebraska Association of County Officials, as well as the FHWA, Nebraska Division. Representatives from LTAP and NHTSA meet monthly with NDOR staff and an FHWA advisor to review crash data, develop safety projects, and examine project proposals from counties. Face-to-face communication has helped members understand the challenges and frustrations from each entity’s perspective in addressing mutual safety concerns.

During the 2012-2016 timeframe, the HRRRP team implemented a variety of statewide projects, in addition to individual county projects, that have benefited a large majority of the state’s 93 counties. These projects included:

- County bridge and culvert object markers
- Horizontal curve signing
- Intersection signing

- Railroad advance warning signs and posts
- Railroad crossing/paved highway pavement markings

Although the FAST Transportation Act has eliminated separate funding for rural roads, the HRRRP team continues to meet to identify and implement safety projects in rural areas. With counties often working on very limited budgets, these projects provide counties with the necessary tools and equipment to keep rural roadways safer for the traveling public. Some of the above-listed projects, such as the horizontal curve signing project, have had multiple phases in order to meet the needs of counties and will continue as a priority under the 2017-2021 SHSP.

1.6.3 Traffic Records

Under the authority and direction of the Nebraska Governor, The Governor's Highway Safety Representative (the Director of the Nebraska Department of Roads) established a Nebraska Traffic Records Coordinating Committee (TRCC). This is an ad hoc group of key multi-disciplinary Nebraska highway safety and traffic records system data collectors, operators, and users that have review and authority with respect to Nebraska highway safety data and traffic records systems. This includes responsibility for technology to keep such systems current, TRCC membership, the TRCC Coordinator, and changes in Nebraska's multi-year Strategic Traffic Record System Plan.

NDOR scheduled a NHTSA Traffic Records Assessment in 2015 and the NHTSA concluded the assessment in January 2016.

1.6.4 Safety Technology

The IASC also recognizes the importance of advances in the safety technology to improve roadway safety. During the 2012-2016 time frame, the NDOR implemented a variety of intelligent transportation system (ITS) projects including Dynamic Message Signs (DMS), adaptive control signals, bridge anti-icing spray systems, and connected vehicle technology. Other notable achievements in this area include:

- Creation of a Statewide Operation Center for active traffic management
- Installation of automated ramp closure gates along I-80 from Omaha to Wyoming
- Installation of fiber optics in the Lincoln area of I-80 to improve communications to ITS devices
- Expansion of camera locations available on the NDOR 511 system website to allow travelers to view current road conditions
- Statewide replacement and expansion of DMS sites with hi resolution messaging to improve visibility of messages.
- Friday safety messages on DMS signs across the state with short, easy-to-read messages pertaining to highway safety.

1.7 Department of Motor Vehicles

The Nebraska Department of Motor Vehicles (DMV) is charged with the responsibility for the regulation, enforcement and education of motor vehicle operators and vehicle requirements. The DMV ensures that licensed Nebraska drivers meet the eligibility requirements for operating a motor vehicle and those vehicles are properly titled and registered. In addition to verifying identification and testing for all types of permits and operator licenses, the Driver Licensing

Division provides oversight of driver training schools (adults 18 and over), driver safety courses (teen drivers) and the Motorcycle Safety Program (motorcycle operators). The division also certifies Commercial Driver's License (CDL) Third Party Examiners who administer CDL skills tests to applicants.

- Beginning January 1, 2012, individuals applying for or holding a Nebraska Commercial Driver's License are required to certify to the DMV what type of operation they engage in. Drivers operating across state lines are required to provide the DMV with a current copy of their medical examiner's certificate and keep it current with the DMV. After May 21, 2014, all interstate drivers are required to have their medical examination performed by a certified medical examiner listed on the National Registry of Certified Medical Examiners.
- On July 8, 2015, the DMV Driver Licensing Division implemented the Commercial Learner's Permit and Commercial Driver's License Testing Final Rule. The Rule enhances many of the Commercial Driver's License application and testing requirements with an emphasis on skills testing.
- Electronic drive test tablets were deployed to all driver licensing offices in September of 2016. Driver license examiners use the tablets to score all skills tests (CDL, motorcycle and car). The tablets ensure that proper vehicles are used for testing and calculate whether individuals pass or fail the tests. The GPS feature ensures that driver licensing staff are following approved drive test routes.
- In October 2016, the DMV Driver Licensing Division implemented State to State (S2S). S2S is a verification service for states to electronically check with other participating states to determine if an applicant holds a driver's license or identification card in another jurisdiction. The purpose of S2s is as follows:
 1. Limits a person to one Driver's License (or permit) or identification card.
 2. It enables a state to determine if a person holds a DL/ID in another state.
 3. It enables a state to send a request to another state to terminate a DL/ID.
 4. Verifies Real ID Compliance.
- The DMV Legal Division has been working with the NCC to get Administrative License Revocation (ALR) sworn reports of arrest or refusal of a chemical test and other paperwork related to DUI arrests on the TraCS system. This should be available in January 2017. This will allow officers to swipe the license after an arrest to enter basic information, and allow various forms to be filled out from a single entry of information so that officers do not have to spend time filling various forms out by hand or entering the same information on multiple forms. The system will also do the paperwork for CDL holders who are arrested for being over 0.04 Blood Alcohol Concentration (BAC) or refuse a test.
- The Driver Vehicle Records (DVR) Fraud Unit completed a project with the assistance of the NCC, which incorporated facial images captured during the mug shot process at jails across the state into the facial recognition database. These images are now part of the daily procedures identifying potential fraud in the driver license issuing process.

1.8 Nebraska State Patrol – Enforcement

The Nebraska State Patrol (NSP) regularly participates in national mobilizations designed to reduce highway traffic fatalities including the “Click It or Ticket” mobilizations and “You Drink & Drive. You Lose” impaired driving crackdowns. These mobilizations/crackdowns are scheduled during the year’s busiest travel times which unfortunately equates to increased chances for vehicle crashes. In 2016, over 35,000 patrolling hours were devoted during these campaigns and resulted in over 5,800 speeding citations, 1,041 restraint violations, 190 Driving While Impaired citations, 320 Driving Under Suspension citations, and nearly 90 Minor in Possession of Alcohol citations.

Throughout the year the NSP prioritizes educating individuals on the importance of practicing safe driving habits in order to save lives and reduce injuries as a result of motor vehicle crashes. Approximately 300 traffic safety programs are facilitated to approximately 75,000 individuals statewide. Utilizing innovative resources such as the Patrol’s mascot Trooper Buck L. Up, rollover simulators, seatbelt convincers, and virtual driving simulators enhance the agency’s ability to engage and interact with the public.

1.9 State Patrol – Carrier Enforcement

The NSP Carrier Enforcement Division participated in 15 national commercial vehicle safety initiatives from 2012-2016 under the coordination of the Commercial Vehicle Safety Alliance and the Federal Motor Carrier Safety Administration. In the spring of each year, Operation Air Brake targets large commercial vehicles equipped with air brakes. In this annual single day event, 609 commercial vehicles were checked, with 102 vehicles (16%) being taken out of service. The summer safety initiative is focused on all commercial vehicles, again targeting brake components. Between 2012 and 2016, more than 1864 commercial vehicles were checked and 271 vehicles (14%) were taken out of service for defects related to brake system components. The annual fall enforcement effort is focused on drivers of commercial vehicles, and compliance with federal regulations and state law. Over the five-year period from 2012-2016, 4541 drivers were stopped and checked with violations ranging from log book violations to CDL requirements. In total, more than 7,688 drivers were contacted resulting in 2,699 citations issued. 223 drivers were identified for non-compliance with Federal Regulations and state law and were put out of service as a result.

The Carrier Enforcement Division organizes an annual statewide safety initiative, Metropolitan Aggressive and Prevention Selective (MAPS), which targets areas within the state which exhibit statistically high accident numbers involving commercial vehicles. At least 14 events are conducted each year, and between 2012 and 2016 years approximately 3,549 vehicles were inspected. Of those, 1,275 (36%) were placed out of service due to safety violations. Additionally, more than 159 drivers (4%) were placed out of service, largely due to driver’s license violations.

1.10 Department of Health & Human Services (DHHS) – Emergency Medical Services (EMS)

In the 2012-2016 timeframe, the DHHS/EMS Division participated in following activities:

Traffic Information Management (TIM) training: The DHHS EMS and Trauma Program participated in this program by providing course information and contact information to the emergency medical services in the state.

Emergency Vehicle Operations Courses: Provided classroom didactics and hands-on familiarity with what is involved while operating an emergency vehicle. This information included but is not limited to liability, stress, and uniqueness of operating an emergency vehicle. During 2011-2016, 70 classes were held training 719 in Emergency Vehicle Operator Course.

The National Emergency Medical Services Information System (NEMSIS) Version 3 (V3) is the data reporting standard for EMS. NEMSIS V3 provides a uniform EMS dataset broken into two major sections. The sections are Service Demographics and Emergency Medical Services. All incident and patient care information are standardized including crash and injury information. Of particular focus are the “Automated Collision Notification Data” and “Model Minimum Uniform Crash Criteria (MMUCC)”. The Electronic Nebraska Ambulance Rescue Service Information, a data collection system, is NEMSIS-compliant and included in the Nebraska EMS Data Dictionary.

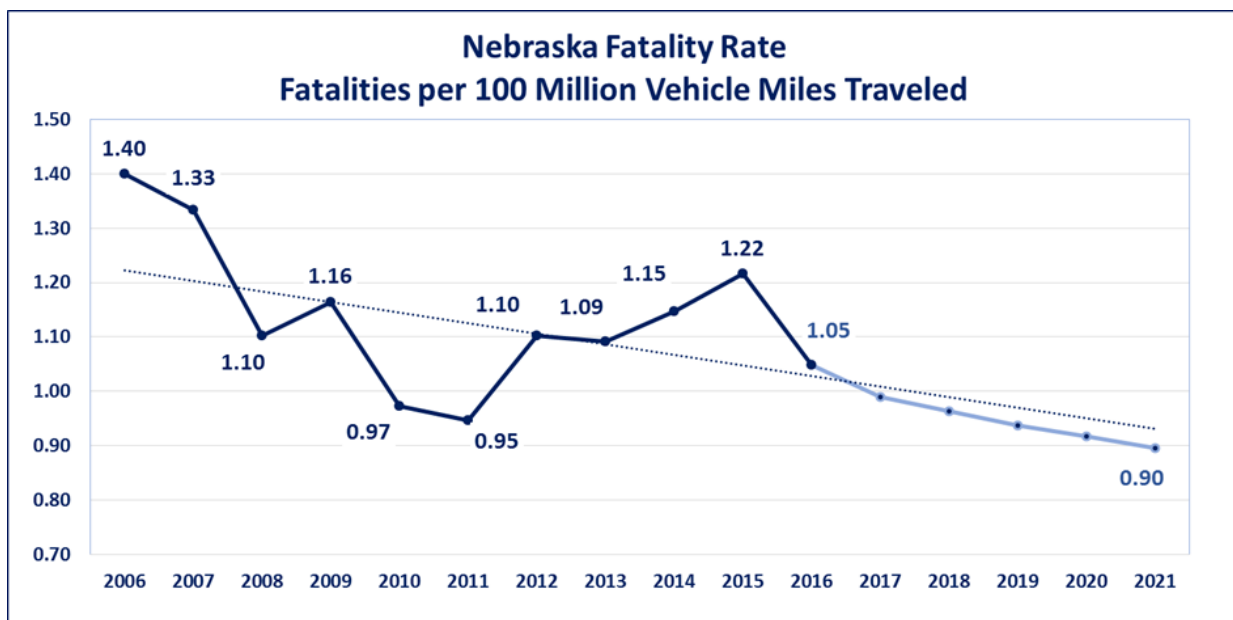
DHHS/EMS has been evaluating possible performance measures within the national EMS Compass Initiative. The EMS Compass is being developed with the ultimate goal of EMS providing effective, high-quality healthcare to patients at a national level. By developing performance measures, the initiative should help EMS Providers, executives, and regulators recognize if they’re achieving those goals. Nebraska will be evaluating these performance measures to determine which measure will best measure the quality and performance of EMS delivery in Nebraska.

Participation in conferences provides the DHHS EMS and Trauma Program the ability to remain current and plan for future needs of EMS incident and patient care documentation. Annually, NEMSIS and ImageTrend, the software vendor for Nebraska, hosts conferences that program staff attend to ensure Nebraska remains current with the software and national standards. This ongoing education maintains the integrity of the database, reporting standards, crash data, and other interested programs for EMS data.

2. 2017-2021 SHSP

2.1 2017-2021 SHSP Goal

In setting the 2012-2016 goal, the Interagency Safety Leadership Committee set an ambitious goal of 0.5 fatalities per 100 million VMT by the end of 2016. This goal was based on significant drops in fatalities in 2010 and 2011 and optimism that the downward trend would continue. However, fatalities rose for the next four years. In setting a more realistic goal for the 2017-2021 SHSP, the Interagency Safety Working Committee (IASWC) used a trend line of fatality rates from 2006-2015 (see Figure 4) to project future fatality rates through 2021. The Leadership Committee then set a more realistic goal to reduce traffic fatalities per 100 million VMT from 1.10 (2011-2015 average fatality rate) to 0.90 fatalities by December 31, 2021. The State’s ultimate goal is toward zero deaths.



Nebraska data retrieved from the Nebraska Department of Roads Traffic Engineering Highway Safety – Accident Records Section

Figure 4

2.2 Process for Updating the 2017-2021 SHSP

In updating the SHSP for the next five-year period starting in 2017, the IASWC reviewed crash data trends from 2011 through 2015 for the five original CEAs. In addition, the group reviews other areas of concern as shown in Figure 5 below. The committee continued to use fatal and serious injury (Types A and B) crash data for their analysis, to better reflect crash trends.

Because crash investigators can only code one driver-contributing factor for each vehicle in a crash, it is difficult to capture complete data on distracted driving- and speed-related crashes. NDOR plans to improve the reliability of this data when it releases its new MMUCC Version 4 compliant crash report.

The IASWC then prepared a summary of fatal, disabling injury and visible injury crashes (2011-2015) to determine if the current CEAs were appropriate, or if crash data supported a change in the five original CEAs. The summary showed that the current CEAs were still appropriate. However, as with the 2012-2016 SHSP, the IASWC included strategies within the original CEAs to address concerns such as distracted driving and speeding. In 2019, the IASC identified a rising trend in crashes involving older drivers and added a new CEA.

Possible Critical Emphasis Areas

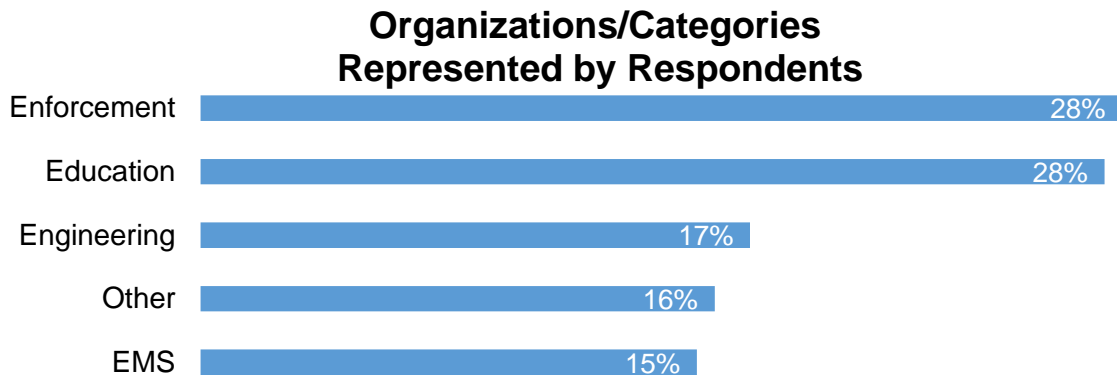
| Potential Critical Emphasis Areas | Total Related Crashes* | | | | |
|-----------------------------------|------------------------|-------|-------|-------|-------|
| | 2011 | 2012 | 2013 | 2014 | 2015 |
| Intersection Safety | 2,731 | 2,670 | 2,608 | 2,614 | 2,897 |
| Seat Belts/Child Restraints | 2,026 | 2,075 | 1,842 | 1,839 | 1,863 |
| Roadway/Lane Departure | 1,815 | 1,766 | 1,624 | 1,577 | 1,509 |
| Young Drivers (under 21) | 1,335 | 1,321 | 1,197 | 1,165 | 1,275 |
| Older Drivers (Over 65) | 584 | 564 | 573 | 616 | 656 |
| Alcohol Impaired Driving | 613 | 657 | 551 | 582 | 568 |
| Distracted Drivers | 454 | 481 | 439 | 474 | 544 |
| Motorcycle | 442 | 456 | 417 | 406 | 371 |
| Commercial Motor Vehicles | 354 | 310 | 263 | 298 | 334 |
| Pedestrians | 231 | 245 | 233 | 232 | 259 |
| Speeding | 361 | 289 | 326 | 339 | 239 |
| Bicycles | 191 | 219 | 188 | 155 | 206 |
| Work Zone Safety | 108 | 142 | 107 | 131 | 131 |
| Fatigued Drivers | 90 | 87 | 81 | 87 | 85 |
| Highway/Rail Crossings | 11 | 10 | 16 | 10 | 5 |

*All figures are fatal, disabling and visible injury crashes, with the exception of Increasing Seat Belt Usage, which is fatal, disabling and visible injuries to unbelted passengers. Source: Nebraska Department of Roads, Traffic Engineering Division, Highway Safety/Accident Records Section

Figure 5

During late June and early July 2016, the IASWC conducted a survey of stakeholders statewide to obtain their input regarding the effectiveness of current strategies intended to address these emphasis areas. Stakeholders were also asked their opinion on Critical Emphasis Areas for the SHSP for 2017-2021. Highlights of the survey are as follows. The final report on the survey is listed in the Appendix.

Of 405 invitations to respond, 187 stakeholders (46%) responded to the survey. Respondents represented one of five categories of organizations as follows:



79% of respondents reported being somewhat to very familiar with the SHSP, while 21% had never heard of the document. About half said that their organization currently uses or refers to the SHSP in safety planning.

Of the strategies for the five original Critical Emphasis Areas included in the 2012-2016 SHSP, respondents were asked which ones are working well to contribute to achieving the goals of reducing fatalities and serious injuries. The overwhelmingly most favorable opinion was for the occupant protection program. Respondents also expressed very favorable opinions for strategies addressing engineering and enforcement, improving intersections, alcohol-impaired drivers, distracted drivers, and younger drivers.

Respondents were asked to choose a maximum of five highway safety areas from a list of 15 listed options where the 2017-2021 SHSP should direct its efforts (see Figure 5). The most frequently chosen options included:

- Distracted drivers
- Alcohol/drug impaired drivers
- Young drivers (under 21)
- Seat belts/child restraints
- Intersection safety

The IASWC then compared the selected categories from the survey with 2011-2015 crash data (see Figures 6 and 7). Since complete crash data on distracted driving is not currently available, the Working Committee selected the five top areas supported by the crash data, which ended up being the same CEAs as in the 2012-2016 SHSP. Although the chart in Figure 5 showed Older Driver having a slightly higher number of total crashes than Alcohol-Impaired Driving in this five-year period, the IASWC felt at the time that many strategies within the other top CEAs address older driver concerns. The IASWC added older driver crashes as a new CEA in 2019 based on continued monitoring of the increasing trend in older driver crashes.

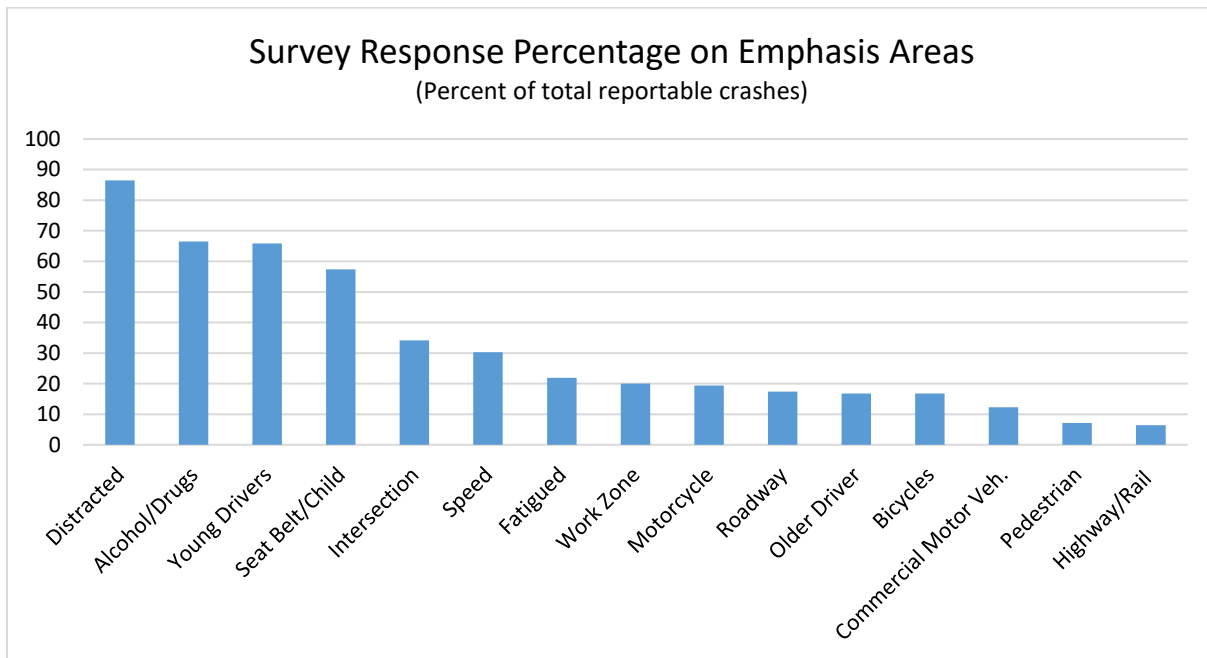


Figure 6

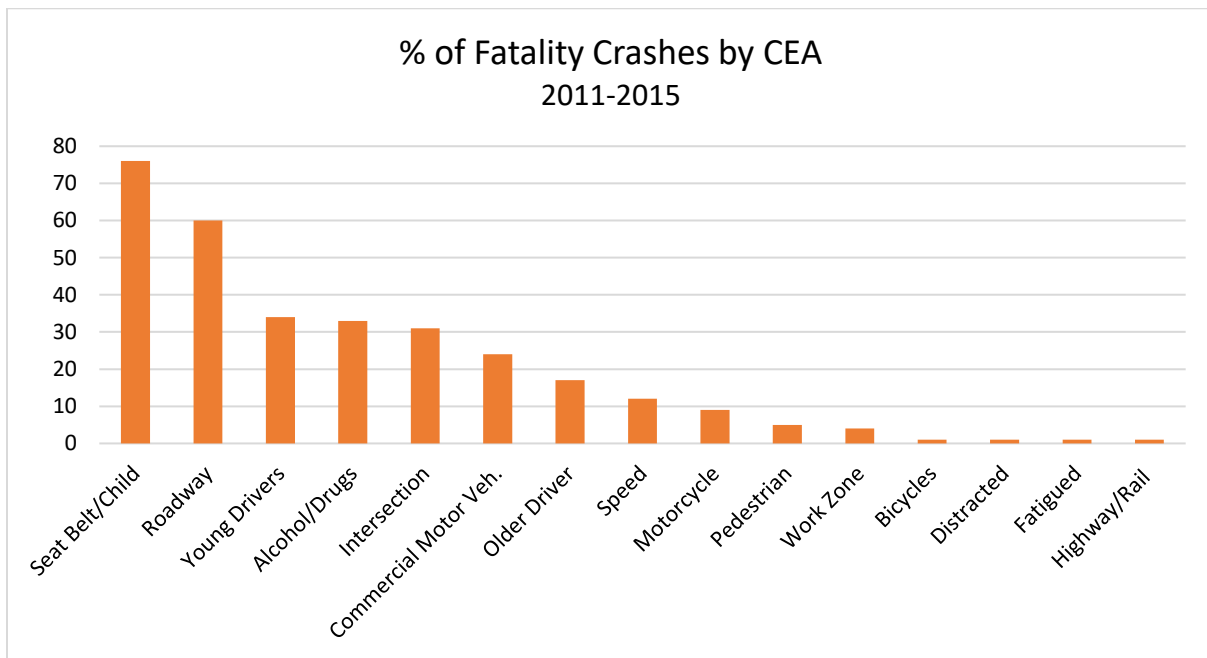


Figure 7

Although the chart in Figure 5 showed Older Driver having a slightly higher number of total crashes than Alcohol-Impaired Driving in this five-year period, our safety stakeholder survey ranked Older Driver emphasis area eleventh in priority. The IASWC felt that many strategies within the other top CEAs address older driver concerns, therefore it was not added to the original CEAs for this plan. The IASWC added older driver crashes as a new CEA in 2019 based on continued monitoring of the increasing trend in older driver crashes.

Guidance in the federal transportation act, MAP-21, requires that, if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65 in a State increases during the most recent two-year period for which data are available, that State shall be required to include, the subsequent Strategic Highway Safety Plan of the State, strategies to address the increases in those rates. As a result, the NDOR will annually monitor crash data for older drivers and pedestrians and advise the IASWC if changes to the SHSP are appropriate.

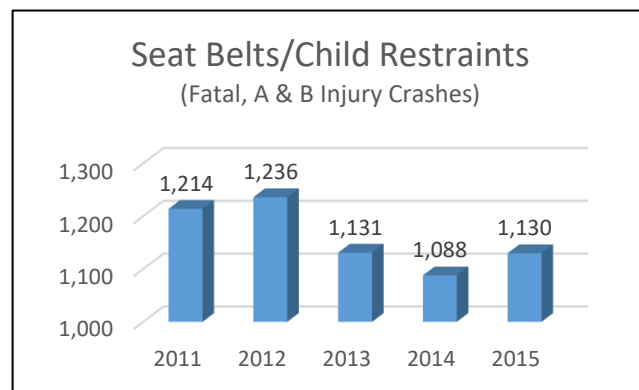
Those who responded to the survey, 86% indicated the 2012-2016 SHSP sufficiently addressed all demographic areas, as well as both rural and urban highway safety concerns. They gave numerous suggestions for added demographic focuses, rural and urban focus concerns and potential policy changes to achieve the goals of the SHSP.

2.3 Crash Summaries for the Six CEAs

In updating the SHSP for the next five-year period starting in 2017, the IASWC reviewed crash data trends from 2011 through 2015 for the five original CEAs. Crash data trends for the sixth CEA, Reducing Older Driver Crashes, was added in 2019. The following charts are based on number of crashes per CEA.

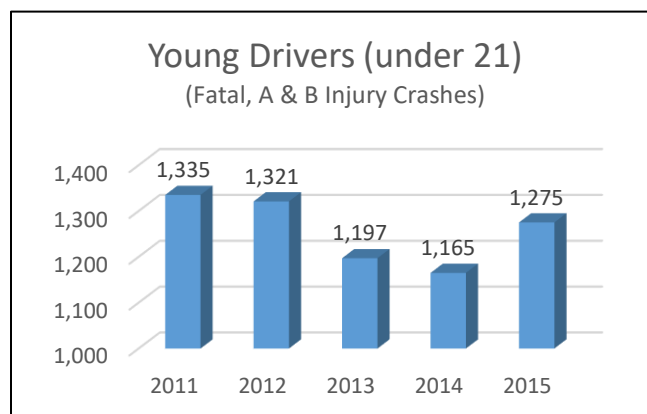
Seat belt usage decreased by 4.6 percentage points from 84.2% in 2011 to 79.6% in 2015. However, this drop in use rate coincides and might be attributable to the federally required redesign of seat belt survey methodology.

Unbelted vehicle occupants accounted for 75% of all vehicle occupant deaths. While 77% of unbelted vehicle occupant fatalities occurred on rural roads.



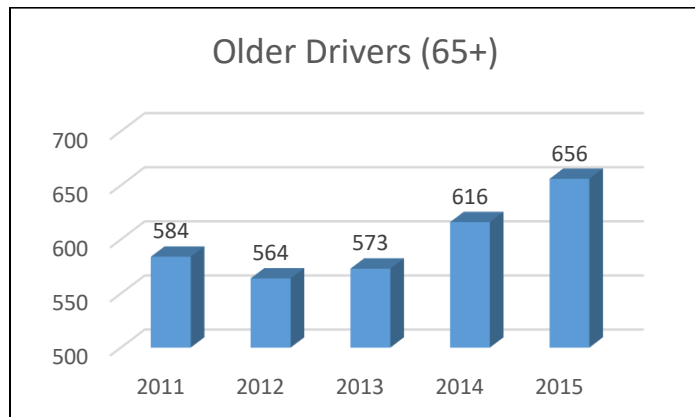
Youth-Involved (age 16 to 20) fatal, A and B injury crashes decreased by 4.5% from 1,335 in 2011 to 1,275 in 2015.

The most common crash types involving a younger driver was the single vehicle run-off-the-road crash (48%), following by right angle collisions (31%).



Older Driver-Involved (age 65+) fatal, A and B injury crashes increased by 12.3% from 584 in 2011 to 656 in 2015.

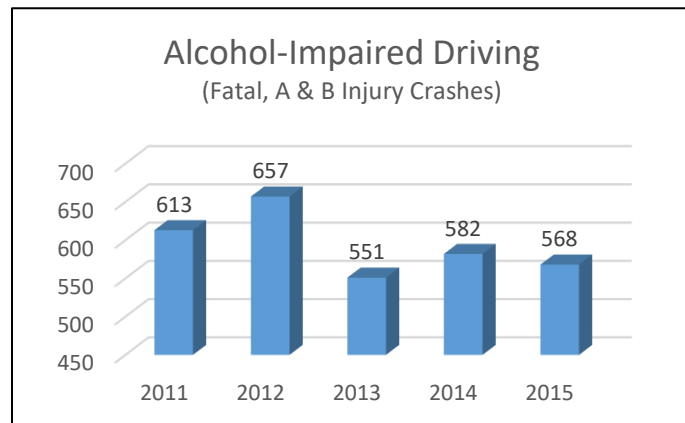
The most common crash types involving an older driver was the right angle collision (31%), followed by single vehicle run-off-the-road crash (24%).



Alcohol-Impaired fatal, A and B injury crashes decreased by 7.3% from 613 in 2011 to 568 in 2015.

Alcohol-Impaired driving arrests dropped by 32.9% from 12,207 in 2011 to 8,199 in 2015.

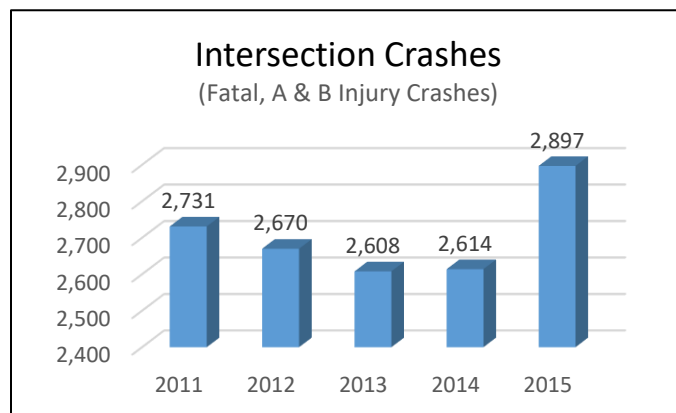
Alcohol impairment accounted for approximately 34% of all traffic fatalities during the five-year period.



Intersection-related fatal, A and B injury crashes increased by 5.4% from 2,731 in 2011 to 2,897 in 2015.

Of the 147 fatal crashes involved a collision at an unsignalized Intersection an additional 45 fatal crashes occurred at a signalized intersection.

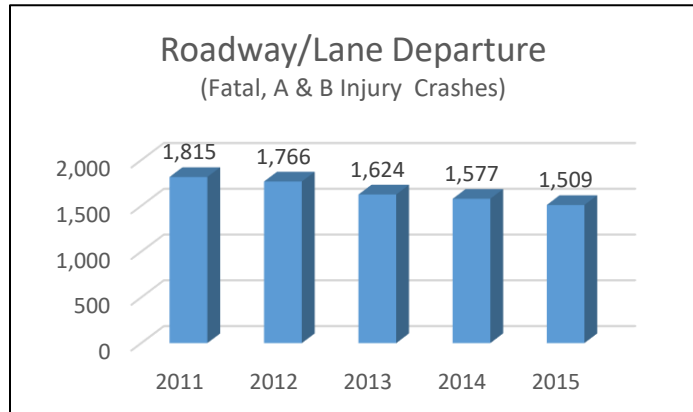
Intersection fatal crashes were primarily in rural areas (170 of 314, 54.1%)



Roadway departure fatal, A and B injury crashes decreased by 15.9% from 1,815 in 2011 to 1,509 in 2015.

Roadway departure fatal crashes were primary in rural areas (439 of 561, 78.3%)

A majority of single vehicle run-off-the-road fatal crashes were overturned vehicles (207 of 561, 36.9%)



In developing the 2017-2021 SHSP, the IASWC updated the following fact sheets employing 2011-2015 crash data for use in revising the plan. These pages are summaries of the characteristics of fatalities associated with the six CEAs.

Fatal Crashes Involving Unbelted Vehicle Occupants

NEBRASKA STRATEGIC HIGHWAY SAFETY PLAN

How Significant is the Problem?

On Nebraska roadways, there were 662 unbelted vehicle occupant fatalities during 2011-2015, which is an average of 132 fatalities per year. This accounts for 62% of all traffic fatalities during the five-year period and 75% of all vehicle occupant fatalities.

During 2011-2015, reported seat belt usage in Nebraska ranged from 84.2% in 2011 to 79.6% in 2015.

What is the Nebraska Goal?

Nebraska's goal is to reduce traffic fatalities per 100 million VMT from 1.10 (2011-2015 average fatality rate) to 0.90 fatalities by December 31, 2021. This is expected to save 54 lives annually. In order to achieve the goal, the number of annual unbelted vehicle occupant fatalities needs to be reduced by approximately 28.

What are the Contributing Factors?

Road and Area Type

- Unbelted vehicle occupant fatalities were more likely to occur in rural areas (509 of 662, 77%).
- Local roads accounted for the greatest number of unbelted fatalities (331 of 662, 50%). U.S. highways and state-numbered highways combined accounted for 42% of unbelted fatalities. Eight percent (55 of 662) of unbelted fatalities were on Interstate routes.

| Jurisdiction Classification | Rural | Urban |
|-----------------------------|-------|-------|
| Interstates | 7% | 1% |
| U.S. Highways | 16% | 5% |
| State Highways | 19% | 2% |
| Local Roads | 35% | 15% |
| Total by Area Type | 77% | 23% |

Location

- 31% (205 of 662) of unbelted vehicle occupant fatalities occurred at an intersection.
- The top 5 counties represent 29% (192 of 662) of unbelted vehicle occupant fatalities in Nebraska.

| Top 5 Counties | Fatal Crashes | Fatalities |
|----------------|---------------|------------|
| Douglas | 76 | 82 (12%) |
| Lancaster | 44 | 47 (7%) |
| Sarpy | 20 | 23 (3%) |
| Scotts Bluff | 19 | 20 (3%) |
| Lincoln | 16 | 20 (3%) |

Crash Type

- 57% (378 of 662) of unbelted fatalities occurred during a single vehicle run-off-the-road (ROR) crash. Overall, single vehicle ROR crashes accounted for 72% (475 of 662) of unbelted fatalities and roadway departure crashes (i.e., ROR plus head-on) accounted for 67% (449 of 662) of unbelted fatalities. Angle crashes were the second most frequent crash type and accounted for 13% (87 of 662) of unbelted fatalities.

| Crash Type | Unbelted Veh. Occ. Fatalities | Total Fatalities |
|----------------------------------|-------------------------------|------------------|
| Single Vehicle: Run-off-the Road | 378 (57%) | 465 (43%) |
| Single Vehicle: Other | 75 (11%) | 115 (11%) |
| Rear End and Sideswipe (Same) | 43 (7%) | 96 (9%) |
| Head-On and Sideswipe (Opposite) | 64 (10%) | 159 (15%) |
| Angle | 87 (13%) | 201 (19%) |
| Left Turn (Leaving) | 15 (2%) | 39 (4%) |

- Of the single vehicle ROR fatalities: 62% were overturn, 7% were in collisions with a ditch or embankment, 12% were in collisions with a tree, utility pole, or sign support.

The Passenger

- Men were 70% (466 of 662) of the unbelted fatalities.
- The drivers, age 25 to 34, had the most unbelted fatalities (138 of 662, 21%). The group with the second highest fatality rate was young adults (age 21 to 34), making up 16% of unbelted fatalities.

| Age Group | Male | Female |
|------------------|------------|-----------|
| ≤ 15 | 15 (2%) | 10 (2%) |
| 16-20 | 53 (8%) | 34 (6%) |
| 21-24 | 70 (12%) | 22 (4%) |
| 25-34 | 95 (14%) | 43 (7%) |
| 35-44 | 52 (8%) | 20 (3%) |
| 45-54 | 61 (9%) | 22 (3%) |
| 55-64 | 55 (8%) | 22 (3%) |
| 65-74 | 32 (4%) | 15 (3%) |
| 75+ | 33 (4%) | 8 (2%) |
| Totals by Gender | 466 (68%) | 196 (32%) |
| Population Total | 662 (100%) | |

- Alcohol was listed as a contributing factor in 40% (262 of 662) of unbelted fatalities.
- 310 (47%) of unbelted fatalities were totally ejected from their vehicles and 45 (7%) were reported as partially ejected.

Role of Seat Belt in Injury Severity

Between 2011 and 2015, 74% of the fatally injured drivers and passengers in vehicles equipped with seat belts were not using them at the time of the crash.

Time of Day & Day of Week

- The highest 3-hour periods for unbelted vehicle occupant fatalities were 3:00 p.m. to 6:00 p.m.) with 15%. The early evening (6:00 p.m. to 9:00 p.m.) hours were next, with 14% of the fatalities. 45% of unbelted fatalities occurred during dark driving conditions (compared to 45% of all fatalities).

| Time of Day | Fatalities | Percentage |
|-------------------|------------|------------|
| Midnight to 02:59 | 83 | 13% |
| 3:00 to 05:59 | 57 | 9% |
| 6:00 to 08:59 | 51 | 8% |
| 9:00 to 11:59 | 64 | 10% |
| 12:00 to 14:59 | 80 | 12% |
| 15:00 to 17:59 | 101 | 15% |
| 18:00 to 20:59 | 90 | 14% |
| 21:00 to 23:59 | 67 | 10% |
| Unknown | 69 | 10% |

- 36% (238 of 662) of unbelted fatalities occurred on Saturday or Sunday. Another 17% of the unbelted fatalities were on Friday.

| Day of Week | Fatalities | Percentage |
|-------------|------------|------------|
| Sunday | 119 | 18% |
| Monday | 80 | 12% |
| Tuesday | 76 | 11% |
| Wednesday | 86 | 13% |
| Thursday | 71 | 11% |
| Friday | 111 | 17% |
| Saturday | 119 | 18% |

Some Existing Safety Activities

- Periodic Statewide Enforcement Operations
- Click It or Ticket Enforcement Mobilizations
- Rollover/Convincer Demonstration Units
- Secondary Seat Belt Law
- Multi-Media Belt Use Campaign
- Child Passenger Protection Program

Fatal Roadway Departure Crashes

NEBRASKA STRATEGIC HIGHWAY SAFETY PLAN

How Significant is the Problem?

On Nebraska roadways, there were 561 fatal crashes during 2011-2015 in which the crash was classified as roadway departure (429 single vehicle run-off-the-road, 74 head-on (HO), and 58 sideswipe opposite direction (SS)). These crashes resulted in a total of 624 fatalities (465 ROR, 93 HO, and 66 SS (Opp.)), which is an average of 125 fatalities per year. This accounts for nearly 58% of all traffic fatalities during the five year period.

What is the Nebraska Goal?

Nebraska's goal is to reduce traffic fatalities per 100 million VMT from 1.10 (2011-2015 average fatality rate) to 0.90 fatalities by December 31, 2021. This is expected to save 54 lives annually. In order to achieve the goal, the number of annual fatalities in roadway departure crashes needs to be reduced by approximately 31.

What are the Contributing Factors?

Road and Area Type

- Roadway departure fatalities were primarily in rural areas (494 of 624, 79%).
- Combining rural and urban roadways, local roads accounted for the greatest number of roadway departure fatalities (290 of 624, 46%). The road type with the second highest number of fatalities was state-numbered highways with 21% (129 of 624).

| Jurisdiction Classification | Rural | Urban |
|-----------------------------|-------|-------|
| Interstates | 10% | 2% |
| U.S. Highways | 17% | 3% |
| State Highways | 16% | 4% |
| Local Roads | 33% | 14% |
| Total by Area Type | 76% | 23% |

Location

- Thirteen percent (84 of 624) of roadway departure fatalities occurred at an intersection.
- The top 5 counties represent 30% (192 of 624) of roadway departure fatalities in Nebraska.

| Top 5 Counties | Fatal Crashes | Fatalities |
|----------------|---------------|------------|
| Douglas | 77 (12%) | 83 (13%) |
| Lancaster | 45 (7%) | 48 (8%) |
| Lincoln | 18 (3%) | 21 (3%) |
| Cass | 17 (3%) | 20 (3%) |
| Dawson | 14 (2%) | 20 (3%) |

Crash Type

- A majority of single vehicle run-off-the-road fatalities were overturned vehicles.

| Run-Off-the-Road Crashes | Fatalities | Percentage |
|--------------------------|------------|------------|
| Overturned | 272 | 44% |
| Tree | 32 | 5% |
| Ditch | 20 | 3% |
| Guardrail | 19 | 3% |
| Fence | 19 | 3% |
| All Single Vehicle ROR | 465 | |

Contributing Factors

- Alcohol was reported as a contributing factor in 43% (269 of 624) of roadway departure fatalities.
- 72% of the vehicle occupant fatalities in roadway departure crashes were individuals not using seat belts. By gender, 72% of males and 71% of females killed were not belted.

Weather

- A majority of roadway departure fatalities were during good weather conditions.

| Weather Conditions | Fatalities | Percentage |
|-------------------------------|------------|------------|
| Clear or Cloudy | 557 | 89% |
| Rain | 13 | 2% |
| Snow | 13 | 2% |
| Sleet, hail, or freezing rain | 9 | 1% |
| Other | 32 | 5% |

Time of Day & Day of Week

- 36% of roadway departure fatalities occurred between 9:00 p.m. and 3:00 a.m. Overall, 50% of roadway departure fatalities occurred in dark driving conditions (compared to 45% of all fatalities).

| Time of Day | Fatalities | Percentage |
|-------------------|------------|------------|
| Midnight to 02:59 | 83 | 13% |
| 3:00 to 05:59 | 52 | 8% |
| 6:00 to 08:59 | 48 | 8% |
| 9:00 to 11:59 | 46 | 7% |
| 12:00 to 14:59 | 87 | 14% |
| 15:00 to 17:59 | 94 | 15% |
| 18:00 to 20:59 | 71 | 11% |
| 21:00 to 23:59 | 71 | 11% |
| Unknown | 72 | 12% |

- 37% (231 of 624) of roadway departure fatalities occurred on Saturday or Sunday. An additional 17% (102 of 624) of these fatalities were on Friday.

| Day of Week | Fatalities | Percentage |
|-------------|------------|------------|
| Sunday | 105 | 17% |
| Monday | 75 | 12% |
| Tuesday | 68 | 11% |
| Wednesday | 75 | 12% |
| Thursday | 73 | 12% |
| Friday | 102 | 16% |
| Saturday | 126 | 20% |

Road Surface Conditions

- A majority of roadway departure fatalities occurred when the road surface was dry.

| Road Surface Conditions | Fatalities | Percentage |
|-------------------------|------------|------------|
| Dry | 519 | 83% |
| Wet or Water | 41 | 7% |
| Snow, Ice or Slush | 49 | 8% |
| Other or Unknown | 15 | 2% |

The Driver

- There were 801 drivers involved in a fatal roadway departure crash. Of these, approximately 72% were male.
- 17% of drivers involved in a fatal roadway departure crash were under the age of 21.

| Age Group | Male | Female | Total Drivers Involved |
|-----------|------|--------|------------------------|
| ≤ 20 | 10% | 7% | 17% |
| 21 – 24 | 10% | 3% | 13% |
| 25 – 34 | 15% | 6% | 21% |
| 35 – 44 | 9% | 3% | 12% |
| 45 – 54 | 11% | 6% | 17% |
| 55 – 64 | 8% | 2% | 10% |
| 65+ | 8% | 3% | 11% |

- The top driver contributing factors for roadway departure crashes were:

| Top Contributing Factors | Number of Drivers |
|--|-------------------|
| Failure to keep in lane or run-off-the-road | 161 |
| Operating vehicle in erratic manner | 55 |
| Driving too fast for conditions | 37 |
| Exceeded authorized speed limit | 29 |
| Over-correcting or over-steering | 26 |
| Swerving or avoiding due to wind, slippery surface, vehicle, object, non-motorist in roadway, etc. | 18 |

Some Existing Safety Activities

- Hardware Inventory and Replacement
- Rural Road Design Training
- Edge Line and Centerline Rumble Strips
- Beveled Edge
- Median Barriers

Fatal Crashes Involving Alcohol Impairment

NEBRASKA STRATEGIC HIGHWAY SAFETY PLAN

How Significant is the Problem?

On Nebraska roadways, there were 341 fatal crashes during 2011-2015 classified as “alcohol-related.” These crashes resulted in 367 fatalities, an average of 73 fatalities per year. This accounts for approximately 34% of all traffic fatalities during the five year period.

What is the Nebraska Goal?

Nebraska’s goal is to reduce traffic fatalities per 100 million VMT from 1.10 (2011-2015 average fatality rate) to 0.90 fatalities by December 31, 2021. This is expected to save 54 lives annually. To achieve the goal, the annual alcohol-impaired fatalities need to be reduced by 18.

What are the Contributing Factors?

Road and Area Type

- Alcohol-impaired fatalities were primarily in rural areas (258 of 367, 70%) and 80% were outside of Omaha and Lincoln.
- Combining rural and urban roadways, local roads accounted for over half of all alcohol-impaired fatalities (200 of 367, 55%). The road type with the second highest number of fatalities was state-numbered highways with 20% (71 of 367). Six percent (22 of 367) of alcohol-impaired fatalities were on Interstate routes.

| Jurisdiction Classification | Rural | Urban |
|-----------------------------|-------|-------|
| Interstates | 4% | 2% |
| U.S. Highways | 14% | 5% |
| State Highways | 17% | 2% |
| Local Roads | 34% | 20% |
| Total by Area Type | 69% | 29% |

Location

- 24% (87 of 367) of alcohol-impaired fatalities occurred at an intersection.

- The top 5 counties contained 37% (136 of 367) of the alcohol-impaired fatalities in Nebraska.

| Top 5 Counties | Fatal Crashes | Fatalities |
|----------------|---------------|------------|
| Douglas | 68 (20%) | 71 (19%) |
| Lancaster | 28 (8%) | 29 (8%) |
| Scotts Bluff | 13 (4%) | 13 (4%) |
| Cass | 10 (3%) | 12 (3%) |
| Gage | 8 (2%) | 11 (3%) |

Crash Type

- More than half of alcohol-impaired fatalities were the result of single vehicle run-off-the-road crashes (235 of 367, 64%). Overall, single vehicle crashes accounted for 82% (302 of 367) of alcohol-impaired fatalities. Angle crashes accounted for 8% of fatalities.

| Crash Type | Alcohol-Related Fatalities | Total Fatalities |
|----------------------------------|----------------------------|------------------|
| Single Vehicle: Run-off-the-Road | 235 (64%) | 465 (43%) |
| Single Vehicle: Other | 37 (10%) | 115 (11%) |
| Rear End and Sideswipe (Same) | 25 (7%) | 96 (9%) |
| Head-On and Sideswipe (Opposite) | 34 (9%) | 159 (15%) |
| Angle | 30 (8%) | 201 (19%) |
| Left Turn (Leaving) | 6 (2%) | 39 (4%) |

- A majority of alcohol-impaired run-off-the-road fatalities were overturned vehicles.

| Run-off-the-Road Crashes | Fatalities | Percentage |
|--------------------------|------------|------------|
| Overturned | 122 | 52% |
| Tree | 42 | 18% |
| Utility Pole | 14 | 6% |
| Fence | 11 | 5% |
| Ditch | 10 | 4% |
| Other | 36 | 15% |
| Total | 235 | |

The Driver

- There were 465 drivers involved in alcohol-impaired fatal crashes. Of these, just over 70% were male.
- 9% of the alcohol-impaired drivers were under the age of 21.

| Age Group | Male | Female | Total |
|-----------|------|--------|-------|
| ≤ 20 | 6% | 3% | 9% |
| 21 – 24 | 13% | 4% | 17% |
| 25 – 34 | 18% | 4% | 22% |
| 35 – 44 | 13% | 3% | 16% |
| 45 – 54 | 11% | 4% | 15% |
| 55 – 64 | 5% | 1% | 6% |
| 65+ | 5% | 1% | 6% |

- Other than alcohol use, the top contributing factors for alcohol-impaired drivers involved in a fatal crash were:

| Top Contributing Factors | Number of Drivers |
|---|-------------------|
| Failure to keep in lane or run-off-the-road | 88 |
| Operating vehicle in erratic manner | 75 |
| Exceeding authorized speed limit | 30 |
| Driving too fast for conditions | 21 |
| Disregarded traffic sign, signals, or road markings | 17 |
| Over-correcting/Over-steering | 17 |
| Failure to yield right of way | 10 |

- 62% of drivers in alcohol-related fatal crashes were not wearing a seat belt. Men represented 78% of the drivers that were unbelted and involved in an alcohol-impaired fatal crash.

The Passenger

- There were 248 vehicle occupant fatalities from alcohol-impaired crashes. Of these, 136 or approximately 55% were unbelted. (Statewide: 51% of occupant fatalities were unbelted.)

Time of Day & Day of Week

- Most alcohol-impaired fatalities occurred between 6:00 p.m. – 6:00 a.m. (251 of 366, 69%). Overall, 70% (253 of 364) of alcohol-impaired fatalities occurred in dark driving conditions (compared to 41% of all fatalities.)

| Time of Day | Fatalities | Percentage |
|-------------------|------------|------------|
| Midnight to 02:59 | 87 | 24% |
| 3:00 to 05:59 | 43 | 12% |
| 6:00 to 08:59 | 9 | 2% |
| 9:00 to 11:59 | 9 | 2% |
| 12:00 to 14:59 | 15 | 4% |
| 15:00 to 17:59 | 34 | 9% |
| 18:00 to 20:59 | 60 | 16% |
| 21:00 to 23:59 | 61 | 17% |
| Unknown | 49 | 13% |

- 47% (171 of 367) of alcohol-impaired fatalities occurred on Saturday or Sunday. An additional 18% (68 of 367) were on Friday.

| Day of Week | Fatalities | Percentage |
|-------------|------------|------------|
| Sunday | 86 | 24% |
| Monday | 32 | 9% |
| Tuesday | 24 | 7% |
| Wednesday | 40 | 11% |
| Thursday | 33 | 9% |
| Friday | 66 | 18% |
| Saturday | 86 | 23% |

Some Existing Safety Activities

- Selective Overtime Enforcement Operations
- Conduct Sobriety Checkpoints (average 2 per month)
- Open Container and Repeat Offender Laws
- Judicial and Prosecution Training
- Drug Recognition Expert Training
- Alcohol Server/Seller Training
- Administrative License Revocation Law
- 0.08 BAC and Zero Tolerance Laws
- Underage Alcohol Enforcement Operations

Fatal Crashes at Intersections

NEBRASKA STRATEGIC HIGHWAY SAFETY PLAN

How Significant is the Problem?

At Nebraska's intersections, there were 314 fatal crashes during 2011-2015, resulting in a total of 350 traffic fatalities, which is an average of 70 fatalities per year. This accounts for approximately 33% of all traffic fatalities during the five year period.

Of these intersection fatalities, 165 fatalities could be identified as occurring at an unsignalized intersection. 47 fatalities were identified at signalized intersections. With the remaining 138 intersection fatalities, the traffic control was not reported with enough detail so that the type of intersection could be identified.

What is the Nebraska Goal?

Nebraska's goal is to reduce traffic fatalities per 100 million VMT from 1.10 (2011-2015 average fatality rate) to 0.90 fatalities by December 31, 2021. This is expected to save 54 lives annually. In order to achieve the goal, the number of annual intersection traffic fatalities needs to be reduced by approximately 18.

What are the Contributing Factors?

Road and Area Type

- Intersection traffic fatalities were primarily in rural areas (204 of 350, 58%).
- Combining rural and urban roadways, local roads accounted for 42% (147 of 350) of intersection traffic fatalities. The road type with the second highest number of fatalities was state-numbered highways with 25% (86 of 350).

| Jurisdiction Classification | Rural | Urban |
|-----------------------------|-------|-------|
| Interstates | 1% | 4% |
| U.S. Highways | 17% | 11% |
| State Highways | 20% | 6% |
| Local Roads | 19% | 22% |

Location

- The top 5 counties represent 51% (180 of 350) of intersection fatalities in Nebraska.

| Top 5 Counties | Fatal Crashes | Fatalities |
|----------------|---------------|------------|
| Douglas | 92 (29%) | 102 (29%) |
| Lancaster | 28 (9%) | 31 (9%) |
| Sarpy | 20 (6%) | 22 (6%) |
| Hall | 12 (4%) | 13 (4%) |
| Platte | 11 (4%) | 12 (3%) |

Crash Type

- 46% (162 of 350) of intersection traffic fatalities occurred as the result of an angle collision. Single vehicle run-off-the-road crashes were the second most frequent crash type and accounted for 20% (70 of 350) of intersection fatalities. For fatalities at signalized intersections, 35% were from angle crashes and 26% were from left-turn crashes. Of the fatalities at unsignalized intersections, 65% were from angle crashes.

| Crash Type | Int. Fatalities | Total Fatalities |
|----------------------------------|-----------------|------------------|
| Single Vehicle: Run-off-the-Road | 70 (20%) | 465 (43%) |
| Single Vehicle: Other | 31 (9%) | 115 (11%) |
| Rear End and Sideswipe (Same) | 31 (9%) | 96 (9%) |
| Head-On and Sideswipe (Opposite) | 17 (5%) | 159 (15%) |
| Angle | 162 (46%) | 201 (19%) |
| Left Turn (Leaving) | 39 (11%) | 39 (4%) |

Weather

- A majority of intersection traffic fatalities were during good weather conditions.

| Weather Conditions | Fatalities | Percentage |
|--------------------|------------|------------|
| Clear or Cloudy | 326 | 93% |
| Rain | 9 | 3% |
| Fog, smog, smoke | 7 | 2% |
| Other or Unknown | 9 | 3% |

Road Surface Conditions

- A majority of intersection fatalities occurred when the road surface was dry.

| Road Surface Conditions | Fatalities | Percentage |
|-------------------------|------------|------------|
| Dry | 308 | 88% |
| Wet | 27 | 8% |
| Snow or Ice | 11 | 3% |
| Other or Unknown | 4 | 1% |

The Driver

- There were 642 drivers involved in fatal intersection crashes. Of these, 74% were male.
- The most involved age group was the 65 year olds and older. Drivers under the age of 21 were the second highest driver age group.

| Age Group | Male | Female | Total |
|-----------|------|--------|-------|
| ≤ 20 | 14% | 5% | 19% |
| 21 – 24 | 7% | 2% | 9% |
| 25 – 34 | 13% | 3% | 16% |
| 35 – 44 | 10% | 3% | 13% |
| 45 – 54 | 10% | 4% | 14% |
| 55 – 64 | 7% | 2% | 9% |
| 65+ | 14% | 6% | 20% |

- The top driver contributing factors for fatal intersection crashes were:

| Top Contributing Factors | Number of Drivers |
|--|-------------------|
| Failure to yield right of way | 132 |
| Disregarded traffic signs, signal, and road markings | 62 |
| Operating vehicle in erratic manner | 10 |
| Inattention | 14 |

Contributing Factors

- Alcohol was reported as a contributing factor in 35% (87 of 350) of intersection traffic fatalities.
- 59% (196 of 350) of the vehicle occupants killed in intersection crashes were not using seat belts. By gender, 82% of males and 18% of females killed were not belted.

Time of Day & Day of Week

- The highest 3-hour period for intersection traffic fatalities was between 5:00 p.m. and 8 p.m. (25%). In fact, 55% (192 of 385) of intersection fatalities occurred between noon and 11:00 p.m. Overall, 34% of intersection fatalities occurred in dark driving conditions (compared to 41% of all fatalities).

| Time of Day | Fatalities | Percentage |
|-------------------|------------|------------|
| Midnight to 02:59 | 28 | 8% |
| 3:00 to 05:59 | 21 | 6% |
| 6:00 to 08:59 | 35 | 10% |
| 9:00 to 11:59 | 34 | 10% |
| 12:00 to 14:59 | 54 | 15% |
| 15:00 to 17:59 | 86 | 25% |
| 18:00 to 20:59 | 52 | 15% |
| 21:00 to 23:59 | 25 | 7% |
| Unknown | 15 | 4% |

- 28% of intersection fatalities occurred on Saturday and Sunday. An additional 17% were on Friday.

| Day of Week | Fatalities | Percentage |
|-------------|------------|------------|
| Sunday | 52 | 15% |
| Monday | 48 | 14% |
| Tuesday | 44 | 13% |
| Wednesday | 53 | 15% |
| Thursday | 47 | 13% |
| Friday | 61 | 17% |
| Saturday | 45 | 13% |

Some Existing Safety Activities

- Red Light Running Enforcement Campaigns
- Roundabouts
- Advance Warning Detection
- Engineering Studies Upon Request by Law Enforcement
- Intersection Improvement Projects
- Adaptive Signal Control Technology

Fatal Crashes Involving Young Drivers

NEBRASKA STRATEGIC HIGHWAY SAFETY PLAN

How Significant is the Problem?

On Nebraska roadways, there were 121 fatal crashes during 2011-2015 in which a young driver (i.e., under the age of 21) was involved. These crashes resulted in a total of 145 traffic fatalities, which is an average of 29 fatalities per year. This accounts for 13% of all traffic fatalities during the five year period.

What is the Nebraska Goal?

Nebraska's goal is to reduce traffic fatalities per 100 million VMT from 1.10 (2011-2015 average fatality rate) to 0.90 fatalities by December 31, 2021. This is expected to save 54 lives annually. In order to achieve the goal, the number of annual fatalities involving young drivers needs to be reduced by approximately 7.

What are the Contributing Factors?

Road and Area Type

- Fatalities where a young driver was involved occurred primarily in rural areas (116 of 145, 80%) and 85% were outside of Omaha and Lincoln.
- Combining rural and urban roadways, almost half of all young driver-involved traffic fatalities (52%) occurred on local roads. The road types with the second highest number of fatalities were U.S. highways (26%) and State-numbered highways (20%). Six percent of young driver-involved fatalities were on interstate routes.

| Jurisdiction Classification | Rural | Urban |
|-----------------------------|-------|-------|
| Interstates | 5% | 2% |
| U.S. Highways | 21% | 5% |
| State Highways | 18% | 2% |
| Local Roads | 35% | 17% |

Location

- 39% (57 of 145) of young driver-involved fatalities occurred at an intersection.
- The top 4 counties represent 37% (53 of 145) of young driver-involved fatalities in Nebraska.

| Top 4 Counties | Fatal Crashes | Fatalities |
|----------------|---------------|------------|
| Douglas | 21 (14%) | 28 (19%) |
| Lancaster | 12 (8%) | 13 (9%) |
| Sarpy | 6 (4%) | 6 (4%) |
| Scotts Bluff | 6 (4%) | 6 (4%) |

Crash Type

- 46% (67 of 145) of young driver-involved fatalities occurred during a single vehicle run-off-the-road crash. Overall, single vehicle crashes made up 48% (58 of 121) of fatal younger driver crashes, and roadway departure crashes (i.e., ROR plus head-on) accounted for 61% (74 of 121). Angle crashes were the second most frequent crash type, resulting in 31% (45 of 145) of fatalities.

| Crash Type | Young Driver Involved Fatalities | Total Fatalities |
|----------------------------------|----------------------------------|------------------|
| Single Vehicle: Run-Off-the-Road | 67 (46%) | 465 (43%) |
| Single Vehicle: Other | 0 (0%) | 115 (11%) |
| Rear End and Sideswipe (Same) | 8 (6%) | 96 (9%) |
| Head-On and Sideswipe (Opposite) | 22 (15%) | 159 (15%) |
| Angle | 45 (31%) | 201 (19%) |
| Left Turn (Leaving) | 3(2%) | 39 (4%) |

- Of the single vehicle run-off-the-road fatalities: 44% were overturn, 4% were a collision with a tree, and 2% were a collision with a highway traffic sign post.

The Driver

- There were 129 young drivers involved in fatal crashes. Of these, approximately two-thirds were male (87 of 129, 67%).
- There is a noticeable increase in the involvement of young drivers at the age of 16.

| Age Group | Male | Female | Total |
|-----------|------|--------|-------|
| 14 | 3% | 0% | 1% |
| 15 | 2% | 2% | 4% |
| 16 | 9% | 4% | 13% |
| 17 | 12% | 9% | 21% |
| 18 | 13% | 6% | 19% |
| 19 | 16% | 10% | 26% |
| 20 | 17% | 2% | 19% |

- The top contributing factors for young drivers involved in a fatal crash were:

| Top Contributing Factors | Number of Drivers |
|---|-------------------|
| Failure to keep in lane or running-off-the-road | 17 |
| Disregarded traffic sign, signals, or road markings | 10 |
| Operating vehicle in erratic manner | 12 |
| Failed to yield right of way | 8 |
| Exceeded authorized speed limit | 8 |

- Of young drivers involved in a fatal crash, 23% (30 of 129) had been alcohol-impaired. Males made up 67% (20 of 30) of the young alcohol-impaired drivers.
- 69% (89 of 129) of young drivers involved in a fatal crash were not wearing seat belts. Of these, males represented 47% of the young unbelted drivers. By comparison, 59% of drivers 21-years or older and involved in a fatal crash were not wearing seat belts.

Time of Day & Day of Week

- Most young driver involved fatalities occurred between 12:00 p.m. – 9:00 p.m. (76 of 145, 52%). Overall, 42% of fatalities where a young driver was involved happened during dark driving conditions (compared to 30% of all fatalities).

| Time of Day | Fatalities | Percentage |
|-------------------|------------|------------|
| Midnight to 02:59 | 16 | 12% |
| 3:00 to 05:59 | 11 | 6% |
| 6:00 to 08:59 | 10 | 6% |
| 9:00 to 11:59 | 9 | 5% |
| 12:00 to 14:59 | 20 | 14% |
| 15:00 to 17:59 | 26 | 19% |
| 18:00 to 20:59 | 30 | 20% |
| 21:00 to 23:59 | 19 | 12% |
| Unknown | 4 | 6% |

- 36% (52 of 145) of young driver-involved fatalities occurred on Saturday or Sunday. An additional 17% of young driver-involved fatalities were on Wednesday.

| Day of Week | Fatalities | Percentage |
|-------------|------------|------------|
| Sunday | 24 | 17% |
| Monday | 14 | 10% |
| Tuesday | 16 | 11% |
| Wednesday | 24 | 17% |
| Thursday | 15 | 10% |
| Friday | 24 | 17% |
| Saturday | 28 | 19% |

Some Existing Safety Activities

- Selective Overtime Enforcement Operations
- Conduct Sobriety Checkpoints (average 2 per month)
- Open Container and Repeat Offender Laws
- Judicial and Prosecution Training
- Drug Recognition Expert Training
- Alcohol Server/Seller Training
- Administrative License Revocation Law
- 0.08 BAC and Zero Tolerance Laws
- Underage Alcohol Enforcement Operations
- Underage Drinking Tip Line
- Teens in the Driver's Seat Program

Fatal Crashes Involving Older Drivers

NEBRASKA STRATEGIC HIGHWAY SAFETY PLAN

How Significant is the Problem?

On Nebraska roadways, 123 fatal crashes during 2011-2015 involved an older driver (i.e., age 65 and older). These crashes resulted in a total of 134 traffic fatalities, which is an average of 27 fatalities per year. This accounts for 12% of all traffic fatalities during the five year period. The population aged 65+ in Nebraska increased 11.7% from 2011-2015 and increased 25.6% from 2011-2019. The crashes involving older drivers continue to increase along with the increasing older population.

What is the Nebraska Goal?

Nebraska's goal is to reduce traffic fatalities per 100 million VMT from 1.10 (2011-2015 average fatality rate) to 0.90 fatalities by December 31, 2021. This is expected to save 54 lives annually. In order to achieve the goal, the number of annual fatalities involving older drivers needs to be reduced by approximately 6.

What are the Contributing Factors?

Road and Area Type

- Fatalities where an older driver was involved occurred primarily in rural areas (94 of 134, 70%) and 86% were outside of Omaha and Lincoln.
- Combining rural and urban roadways, local roads and U.S. highways tied for the most fatalities. Each accounted for 46 of all older drivers involved fatalities (34%). Seven percent of older driver-involved fatalities were on interstate routes.

| Jurisdiction Classification | Rural | Urban |
|-----------------------------|-------|-------|
| Interstates | 4% | 3% |
| U.S. Highways | 24% | 10% |
| State Highways | 21% | 3% |
| Local Roads | 21% | 13% |

Location

- 46% (61 of 134) of older driver-involved fatalities occurred at an intersection.
- The top 5 counties represent 32% (43 of 134) of older driver-involved fatalities in Nebraska.

| Top 4 Counties | Fatal Crashes | Fatalities |
|----------------|---------------|------------|
| Lancaster | 11 (8%) | 12 (9%) |
| Douglas | 11 (8%) | 11 (8%) |
| Custer | 6 (5%) | 8 (6%) |
| Buffalo | 6 (5%) | 6 (5%) |
| Hall | 6 (5%) | 6 (5%) |

Crash Type

- Angle crashes were the most frequent crash type, resulting in 31% (42 of 134) of fatalities. 24% (32 of 134) of older driver-involved fatalities occurred during a single vehicle run-off-the-road crash. Overall, single vehicle crashes made up 28% (38 of 134) of fatal older driver crashes, and roadway departure crashes (i.e., ROR plus head-on) accounted for 48% (64 of 134).

| Crash Type | Older Driver Involved Fatalities | Total Fatalities |
|----------------------------------|----------------------------------|------------------|
| Single Vehicle: Run-Off-the-Road | 32 (24%) | 465 (43%) |
| Single Vehicle: Other | 6 (4%) | 115 (11%) |
| Rear End and Sideswipe (Same) | 14 (10%) | 96 (9%) |
| Head-On and Sideswipe (Opposite) | 32 (24%) | 159 (15%) |
| Angle | 42 (31%) | 201 (19%) |
| Left Turn (Leaving) | 8 (6%) | 39 (4%) |

- Of the single vehicle run-off-the-road fatalities: 47% were overturn, 16% were a collision with a tree, 9% were a collision with a ditch, and 9% were a collision with a fence.

The Driver

- There were 166 older drivers involved in fatal crashes. Of these, approximately three-fourths were male (126 of 166, 76%).
- The involvement of older drivers noticeably decreases as age increases, likely due to fewer total drivers in the older age groups.

| Age Group | Male | Female | Total |
|-----------|------|--------|-------|
| 65-69 | 24% | 7% | 31% |
| 70-74 | 19% | 5% | 24% |
| 75-79 | 10% | 2% | 12% |
| 80-84 | 11% | 5% | 16% |
| 85-89 | 11% | 4% | 15% |
| 90+ | 1% | 1% | 2% |

- The top contributing factors for older drivers involved in a fatal crash were:

| Top Contributing Factors | Number of Drivers |
|---|-------------------|
| Failed to yield right of way | 32 |
| Failure to keep in lane or running-of-the-road | 23 |
| Disregarded traffic sign, signals, or road markings | 8 |

- Of older drivers involved in a fatal crash, 8% (13 of 166) had been alcohol-impaired. Males made up 92% (12 of 13) of the older alcohol-impaired drivers.
- 55% (91 of 166) of older drivers involved in a fatal crash were not wearing seat belts. Of these, males represented 81% of the older unbelted drivers. By comparison, 59% of drivers 21-years or older and involved in a fatal crash were not wearing seat belts.

Time of Day & Day of Week

- Most older driver involved fatalities occurred between 9:00 a.m. – 6:00 p.m. (92 of 134, 69%). Overall, 16% of fatalities where an older driver was involved happened during dark driving conditions (compared to 46% of all fatalities).

| Time of Day | Fatalities | Percentage |
|-------------------|------------|------------|
| Midnight to 02:59 | 0 | 0% |
| 3:00 to 05:59 | 1 | 1% |
| 6:00 to 08:59 | 9 | 7% |
| 9:00 to 11:59 | 25 | 19% |
| 12:00 to 14:59 | 35 | 26% |
| 15:00 to 17:59 | 32 | 24% |
| 18:00 to 20:59 | 13 | 10% |
| 21:00 to 23:59 | 7 | 5% |
| Unknown | 12 | 9% |

- 36% (48 of 134) of older driver-involved fatalities occurred on Thursday or Friday.

| Day of Week | Fatalities | Percentage |
|-------------|------------|------------|
| Sunday | 17 | 13% |
| Monday | 18 | 13% |
| Tuesday | 18 | 13% |
| Wednesday | 17 | 13% |
| Thursday | 19 | 14% |
| Friday | 29 | 22% |
| Saturday | 16 | 12% |

Some Existing Safety Activities

- Roundabouts
- Advance Warning Detection
- Wider Pavement Markings
- Maintaining Minimum Retroreflectivity On Traffic Signs
- Larger Signs And Signals Heads
- Intersection Improvement Projects
- Edge Line and Centerline Rumble Strips
- Beveled Edge
- Median Barriers
- Click It or Ticket Enforcement Mobilizations
- Multi-Media Belt Use Campaign

2.4 HSIP and Safety Performance Management Measures

The FHWA published the Highway Safety Improvement Program (HSIP) and Safety Performance Management Measures (Safety PM) Final Rules in the Federal Register on March 15, 2016. The HSIP Final Rule updates the HSIP regulation under 23 CFR Part 924 to be consistent with MAP-21 and the FAST Act, and clarifies existing program requirements. The Safety PM Final Rule adds Regulations to implement the performance management requirements in 23 U.S.C. 150. The Safety PM rule establishes safety performance measures to carry out the HSIP and to assess serious injuries and traffic fatalities on all public roads. Together, these regulations will improve data, foster transparency and accountability, and allow safety progress to be tracked at the national level.

2.4.1 HSIP Final Rule

The HSIP is a core Federal-aid program with the purpose to achieve a significant reduction in fatalities and serious injuries on all public roads. The HSIP Final Rule contains three major policy changes related to: (1) the HSIP report content and schedule, (2) the Strategic Highway Safety Plan (SHSP) update cycle, and (3) the subset of the model inventory of roadway elements (MIRE), also known as the MIRE fundamental data elements. To comply with the regulation, the IASC will continue to update the Nebraska SHSP on a five-year cycle.

2.4.2 Safety PM Final Rule

The Safety PM Final Rule establishes five performance measures to carry out the HSIP: the five-year rolling averages for: (1) Number of Fatalities, (2) Rate of Fatalities per 100 million VMT, (3) Number of Serious Injuries, (4) Rate of Serious Injuries per 100 million VMT, and (5) Number of Non-motorized Fatalities and Non-motorized Serious Injuries. These safety performance measures are applicable to all public roads regardless of ownership or functional classification. The Safety PM Final Rule also establishes a common national definition for serious injuries.

2.4.3 State Targets

States will establish statewide targets for each of the safety performance measures. These targets will be established annually, beginning in August 2017 for calendar year 2018. For the three common performance measures (number of fatalities, rate of fatalities and number of serious injuries), targets must be identical.

The NDOR will establish safety performance targets for the five performance measures, which NDOR will be included in the State's annual Highway Safety Plan (HSP) and the HSIP Report. The safety performance management target information will be available on the SHSP website. The Department will also coordinate with the metropolitan planning organizations in the state on the establishment of targets. To help facilitate the implementation of the Safety PM Final Rule, the FHWA will conduct a Safety Target Setting Coordination and Training Workshop in Nebraska on May 10, 2017.

2.4.4 Metropolitan Planning Organization (MPO) Targets

MPOs will establish targets for the same five safety performance measures for all public roads in the MPO planning area within 180 days after the State establishes each target. The targets will be established in coordination with the State. The MPO can either agree to support the State Department of Transportation (DOT) target or establish a numerical target specific to the

MPO planning area. MPOs' targets are reported to the State DOT, which must be able to provide the targets to FHWA.

2.4.5 Met or Made Significant Progress Determination

A state is considered to have met or made significant progress toward meeting its safety targets when at least 4 of the 5 targets are met or the outcome for the performance measure is better than the baseline performance the year prior to the target year. Optional urbanized area or non-urbanized area targets will not be evaluated. Each year that FHWA determines a state has not met or made significant progress toward meeting its performance targets, the state will be required to use HSIP funding obligation authority equal to the baseline year HSIP apportionment only for safety projects. States must also develop a HSIP Implementation Plan.

3. Achieving the SHSP Goal

3.1 Identified Deployment Strategies

The IASWC and a wide variety of safety partners will continue to seek potential safety strategies for new and innovative ways to help achieve the state's overall goal. There are hundreds of potential investment strategies. However, experience suggests that only a combination of a few strategies will be the most effective at achieving the stated fatal crash reduction goal.

This section identifies overall programs and plans for various State agencies that provide countermeasures and guidance on where and how to invest safety funds and resources in order to achieve the safety goal and to provide proof that the goal is, in fact, attainable.

Nebraska HSIP Improvement Program

The NDOR utilizes three internal safety teams to develop highway safety projects funded through the HSIP. Each team will evaluate safety projects for their benefit-cost to select projects with higher degrees of success. The NDOR Safety Committee will continue to review safety improvement projects submitted by counties and cities, and recommend/develop safety projects for locations identified through the Hazardous Location Analysis Program. The Strategic Safety Infrastructure Projects Team will review major and statewide projects, such as roundabouts, major intersection improvements, and statewide shoulder and centerline rumble strip projects. The High Risk Rural Roads Team will continue to identify and review projects on non-state highways that formerly qualified for HRRRP funding. The team will continue to focus on statewide projects such as bridge object markers, horizontal curve signing, and intersection signing, as well as individual county projects.

The HSIP Expenditures Plan

The FHWA and the NDOR have collaborated on a list of countermeasures to sustain consistent obligations of federal HSIP funds. Use of these funds helps promote NDOR's strategic goal for safety by developing projects to reduce the frequency and severity of crashes on Nebraska's roads. The strategic plan also supports NDOR's strategic goal of fiscal responsibility by providing the framework for the prudent selection of projects. The plan describes proposed safety countermeasures, as well as a list of proposed projects to implement these counter-measures. The plan also incorporates planned projects and funding for the Rail Highway Crossing Program (RHCP), an integral part of NDOR's Safety Program.

Local Roads Safety Plans

Since 76.4% of traffic fatalities occurred on rural roadways during the 2011-2015 time period, the NDOR, in compliance with the Nebraska SHSP, has been seeking technical assistance in prioritization and deployment of safety countermeasures within various county agencies throughout the State. The intention of these Local Road Safety Plans (LRSP) is to assist counties in identifying corridors that may benefit from systemic, low cost safety improvements. The primary focus is to provide direction to the county in terms of prioritization of roadway safety needs within their county. Whenever possible, members of the "4 E's"; Engineering, Enforcement, Emergency Medical Services and Education; as well as cities in the county, will be encouraged to participate in the development of the LRSP. NDOR believes this plan will assist the county in delivering specific roadway safety projects in accordance with the SHSP. NDOR has begun with three pilot

county locations (Adams, Platte, & Scotts Bluff) in hopes of expanding this program to additional counties in the future.

Highway Safety Office Plan

The annual Nebraska Performance-Based Strategic Traffic Safety Plan (HSP) identifies and prioritizes Nebraska's safety problems contributing to traffic-related fatalities and injuries. The Plan establishes those priority problems and identifies the best opportunities to reduce traffic-related fatalities and injuries. The plan also includes those system support activities necessary to carry out direct impact projects.

In addition to the three driver behavior CEAs in the SHSP (occupant restraint use, young drivers and alcohol impairment), the NDOR HSO has also identified speed-related crashes as a priority emphasis area. Based on an annual evaluation of crash data, the HSO identifies counties for priority consideration for grant awards and project activity. The remaining counties receive consideration for special programs and assistance. Using five-year historical data, the HSO determines measurable targets and objectives. Annual targets are selected based upon expected trends. The HSO awards individual grants based upon the quality of problem identification and the outcome performance expected while implementing strategies and activities.

Nebraska State Patrol – Community Policing Services

The Nebraska State Patrol Community Policing Services is a partnership between law enforcement agencies and the communities they serve. Community Policing focuses on problem identification and solving. Troopers assigned to provide Community Policing Services work closely with schools, businesses, organizations and groups to focus on fatality reduction efforts and crime prevention. The Nebraska State Patrol, utilizes a variety of tools to include the rollover simulator, seat belt convincer, distracted driving simulator as well as an assortment of safety-related programs.

Nebraska Carrier Enforcement Plan

The Carrier Enforcement Division will continue to conduct Metropolitan Aggressive Preventative Selectives (MAPS) during the summer months in identified high accident corridors throughout the state in cooperation with local police and sheriff's departments to target vehicles and drivers who do not normally come through our scale facilities. The Division utilizes social media to leverage technology and disseminate safety messages related to commercial vehicles and awareness of potential hazards to subscribers and news regularly. A new initiative will include partnering with trucking companies and will put a trooper in a commercial vehicle to identify unsafe and distracted driving around the truck. This information will be provided to waiting troopers in marked patrol vehicles who will initiate traffic stops based on those observations.

NCHRP Report 500

For this SHSP, as well as the previous two SHSPs, the IASWC referenced the NCHRP Report 500, "Guidance and Implementation of the AASHTO SHSP." The plan includes strategies and an outline of what is needed to implement each strategy to address each CEA, as well as the 4E's – education, enforcement, and emergency medical services, in addition to the more traditional engineering improvements.

NHTSA – Countermeasures That Work

This reference guide, used by State Highway Safety Offices, identifies effective, evidence-based countermeasures for traffic safety problem areas. These many of the areas the IASWC studied in developing this SHSP. The guide summarizes strategies and countermeasures for the five CEAs in this SHSP, as well as other safety concerns. In addition to major strategies, the guide addresses effectiveness, costs and implementation time. The guide also points to important research summaries and individual studies regarding areas such as alcohol-impaired and drugged driving, seat belts and child restraints, aggressive driving and speeding, distracted and drowsy driving, motorcycle safety, young drivers, older drivers, pedestrians and bicycles.

AASHTO Highway Safety Manual (HSM)

This manual, published in 2010, is provides management, planners, designers, operations and maintenance, and safety analysts with information and tools to develop a safer, more efficient roadway transportation system. The HSM allows for quantitative safety performance evaluation to help the above professionals with decision-making processes to identify possible improvements and their potential impact on safety and predict changes in the crash pattern or severity. This plan also allows agencies to focus on safety improvements with the highest potential for safety improvements in the most cost effective manner.

FHWA Handbook for Designing Roadways for the Aging Population

This reference guide is the 3rd edition, under a new title, of older driver specific design guidance. The handbook describes 51 proven or promising traffic control and design elements for improving safety for aging drivers and pedestrians. This guide explains how planners and designers select treatments and document treatments with supportive evidence.

Links to the some of the above-mentioned documents are available on the NDOR website (see link below).

<http://roads.nebraska.gov/safety/>

3.2 Projections

Using a historic ten-year trend line from 2006-2015, the IASC has adopted a goal to reduce the state's fatality rate to 0.90 fatalities per 100 million VMT by 2021. The IASC estimates that achieving this goal would save 268 or more lives over the next five years.

| | 2017 | 2018 | 2019 | 2020 | 2021 | Total |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|------------|
| Projected at current 1.2 | 246 | 247 | 249 | 251 | 253 | 1,246 |
| Projected Reduction to 0.90 | 203 | 199 | 195 | 192 | 189 | 978 |
| Lives Saved | 43 | 48 | 54 | 59 | 64 | 268 |

Projections assume a 2% annual increase in traffic volume and a projected trend to a fatality rate of 0.90 deaths per hundred million vehicle miles traveled by December 31, 2021.

Figure 8

The process for the 2017-2021 SHSP focuses on using Nebraska's crash records to incorporate strategies most directly linked to the factors contributing to fatal and life changing injury crashes. In addition, the IASWC and a wide variety of safety partners will continue to seek potential safety strategies for new and innovative ways to help achieve the state's overall goal. As a result, the final component of the Nebraska SHSP and the objective of this Chapter will be to provide guidance on how to invest safety funds and resources among the Critical Strategies in order to offer insight on how to achieve the safety goal.

3.3 2017 Highway Safety Conference

On March 21, 2017, the IASC will host a one-day Nebraska Highway Safety Conference at the Nebraska Innovation Campus Conference Center in Lincoln, Nebraska. At the conference, the IASC will introduce the 2017-2021 SHSP and the overall goal for the next five years to safety advocates from across the state. The agenda will also include local and national speakers addressing critical emphasis areas within the SHSP. The IASC will consider comments and suggestions for the SHSP coming out of the conference for possible inclusion in the online document.

3.4 Implementing, Evaluating, Revising, and Reporting on the Nebraska SHSP

To guide implementation of HSIP projects and to maximize safety benefits, the IASWC will annually review fatal and injury crashes to determine if changes or additions to the CEAs in the SHSP are appropriate. If needed, they will forward their recommendations to the IASC's Leadership Committee for their review and approval. Additionally, NDOR will continue to work on implementing the Highway Safety Manual (HSM) methodology. As stated in the Introduction to

the manual, “The HSM introduces a science-based technical approach that takes the guesswork out of safety analyses. The HSM provides tools to conduct quantitative safety analyses, allowing for quantitative evaluation of safety alongside other transportation performance measures such as traffic operations, environmental impacts, and construction costs.”

After the completion of the SHSP, the IASWC will continue to meet regularly to set priorities for and to oversee implementation of the safety program. IASC member agencies will select individual projects to further the goals of the SHSP and assign a responsible agency to each project. This agency will be responsible for implementation of the project, reporting on the progress of the project at future IASWC meetings and, after the project is completed, performing an evaluation of the effectiveness of the project. NDOR will attempt to evaluate all HSIP projects chosen based on actual crash data. Evaluation results should help guide the committee in making future project decisions.

The majority of the CEAs and Critical Strategies identified in the Nebraska 2012-2016 SHSP appear to be relevant for the next five years, although data may show the IASC needs to update some of these strategies after several years. The expectation is that no drastic changes in the highway safety problems identified will happen in the near term. In addition, time will be needed to implement the new projects identified, and to determine their effectiveness. The Interagency Safety Committee will periodically review the crash data to look for new safety initiatives.

The NDOR will report annually to FHWA on the HSIP. This will include types of projects initiated, funds expended, and evaluation results.

4. Key Conclusions

Nebraska's 2017-2021 Strategic Highway Safety Plan was prepared in accordance with the FHWA guidance, using an analytical process driven by crash data. State safety partners representing enforcement, education and emergency services participated in the entire process. The SHSP addresses the following four key items:

Statewide Safety Goal

Using an historic ten-year trend line from 2006-2015, the IASC has adopted a goal to reduce traffic fatalities per 100 million VMT from 1.10 (2011-2015 average fatality rate) to 0.90 fatalities by December 31, 2021. The IASC estimates that achieving this goal will save 268 or more lives over the next five years.

Critical Emphasis Areas (CEAs)

Nebraska used crash records to identify the areas emphasized in the SHSP based on the number of related fatal crashes, the notion being that these CEAs represent the greatest opportunity for successfully reducing the number of serious injury crashes. The IASC then used the same screening process as in the 2012-2016 SHSP that ultimately resulted in the continuation of the same five areas of focus for the 2017-2021 SHSP. In 2019, the IASC identified a rising trend in crashes involving older drivers and added a new CEA. Those CEAs for the SHSP are:

1. Increasing Seat Belt Usage
2. Reducing Roadway Departure Crashes
3. Reducing Impaired Driving Crashes
4. Reducing Intersection Crashes
5. Reducing Young Driver Crashes
6. Reducing Older Driver Crashes

Deployment Strategies

The agencies within the IASC, as well as a wide variety of safety partners, will continue to look for potential new safety strategies and innovative ways to help achieve the state's overall goal of reducing traffic fatalities and serious injuries on Nebraska roadways. Individually and collectively, the agencies within the IASC will focus on projects that address each of the CEAs in a fiscally responsible way. Using crash data whenever possible, agencies will attempt to evaluate safety projects and initiatives on their success in helping reduce traffic fatalities and serious injuries. These plans will provide guidance on where and how to invest safety funds and resources in order to achieve the overall goal of the SHSP.

5. References

List of Acronyms

| | |
|---------|---|
| ALR | Administrative License Revocation |
| ARS | Accident Records System |
| AASHTO | American Association of Highway and Transportation Officials |
| BAC | Blood Alcohol Concentration |
| CAD | Computer Aided Dispatch |
| CDL | Commercial Driver's License |
| CEA | Critical Emphasis Area |
| CODES | Crash Outcome Data Evaluation System |
| DHHS | Nebraska Department of Health and Human Services |
| DMS | Dynamic Message Signs |
| DMV | Nebraska Department of Motor Vehicles |
| DRV | Driver Vehicle Records |
| DUI | Driving under the Influence (of alcohol or drugs) |
| EAF | Electronic Accident Form |
| ED | Emergency Department |
| EMS | Emergency Medical Services |
| ENARSIS | Electronic Nebraska Ambulance Rescue Service Information System |
| ERS | Nebraska's Electronic Registration Systems |
| FARS | Fatality Analysis Reporting System |
| FAST | Fixing America's Surface Transportation (2016) |
| FHWA | Federal Highway Administration |
| GPS | Global Positioning System |
| HPMS | Highway Performance Monitoring System |
| HRRRP | High Risk Rural Roads Program |
| HSI | Highway Safety Information |
| HSIP | Highway Safety Improvement Program |
| HSM | Highway Safety Manual published by AASHTO |
| HSP | Highway Safety Plan |
| IASC | Interagency Safety Committee |
| IASWC | Interagency Safety Working Committee |
| IHI | Integrated Highway Inventory |
| IRP | International Registration Plan |
| ITS | Intelligent Transportation Systems |
| JUSTICE | Nebraska Trial Court's Case Search System |
| LEA | Law Enforcement Agency |
| LRSP | Local Road Safety Plans |
| LTAP | Local Technical Assistance Program |
| MAP-21 | Moving Ahead for Progress in the 21st Century Act |
| MIRE | Model Inventory of Road Elements |
| MMUCC | Model Minimum Uniform Crash Criteria |
| NACO | Nebraska Association of County Officials |
| NCC | Nebraska Crime Commission |
| NCHRP | National Cooperative Highway Research Program |

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|------------|---|
| NCJIS | Nebraska Criminal Justice Information System |
| NDOR | Nebraska Department of Roads |
| NDOR-HSO | Nebraska Department of Roads Highway Safety Office |
| NEMSIS | National Emergency Management System Information System |
| NHA | Nebraska Hospital Association |
| NHSA | Nebraska Highway Superintendents Association |
| NHTSA | National Highway Traffic Safety Administration |
| NISS | Nebraska Injury Surveillance System |
| NSP | Nebraska State Patrol |
| NTRACS | National Trauma Registry-American College of Surgeons |
| OPD | Omaha Police Department |
| PAR | Police Accident Report |
| PDO | Property Damage Only |
| RDIP | Roadway Data Improvement Program |
| RHSP | Railroad Highway Crossing Program |
| S2S | State to State |
| SAFETEA-LU | The Safety, Accountable, Flexible, Efficient Transportation |
| SAS | Statistical Analysis Software |
| SHSP | Strategic Highway Safety Plan |
| TIM | Traffic Incident Management |
| TRA | Traffic Records Assessment |
| TraCS | Traffic and Crime Software |
| TRCC | Traffic Records Coordinating Committee |
| VMT | Vehicle Miles Traveled |