September 2019

Highway Safety Plan
FY 2020
North Carolina

Highway Safety Plan

NATIONAL PRIORITY SAFETY PROGRAM INCENTIVE GRANTS - The State applied for the following incentive grants:

S. 405(b) Occupant Protection: Yes

S. 405(e) Distracted Driving: No

S. 405(c) State Traffic Safety Information System Improvements: Yes

S. 405(f) Motorcyclist Safety Grants: Yes

S. 405(d) Impaired Driving Countermeasures: Yes

S. 405(g) State Graduated Driver Licensing Incentive: No

S. 405(d) Alcohol-Ignition Interlock Law: No

S. 405(h) Nonmotorized Safety: No

S. 405(d) 24-7 Sobriety Programs: No

S. 1906 Racial Profiling Data Collection: No

Highway safety planning process

Data Sources and Processes

Data Sources

GHSP examines several data sources to provide the most complete picture of the major traffic safety problems in North Carolina. The sources of information that informed our problem identification process for FY2020 are described below.

Traffic Crash Data

North Carolina has a centralized source for all traffic data. This data is collected from the Division of Motor Vehicles (DMV) as well as from other NCDOT staff members throughout the state. This data is channeled to the State Traffic Safety Engineer within NCDOT and is readily available to GHSP and, on a more limited basis, the public. In addition to crash data, GHSP has access to North Carolina licensure data (state-wide and by county), registered vehicle data (state-wide and by county), and vehicle miles traveled data.

The National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS) is the primary tool for identifying our state's ongoing concerns and tracking progress on the performance measures established by NHTSA and GHSA. GHSP compares current year FARS data with FARS data from the previous 5-10 years. The FY2020 Highway Safety Plan includes FARS data through 2017—the most recent year available at the time this HSP was prepared.

Crash data are critical for evaluating the effectiveness of highway safety initiatives and establishing targets for future years. For each problem area, the following variables were examined as part of the problem identification process: crash severity (fatal, injury, or property damage only), driver demographics (age, gender, etc), time of day of the crash, vehicle type, and whether the crash occurred on an urban or rural road. Crash data were also examined for each of North Carolina's 100 counties. Counties were ranked based on their relative contributions to specific traffic safety problems in North Carolina, such as alcohol-impaired driving, seat belt non-use and speeding.

Enforcement and Adjudication Data

GHSP conducts highway safety campaigns throughout the year. Law enforcement agencies are asked to report their citation totals from activities conducted during each campaign week. The GHSP Yearly Planning Calendar lists dates for all GHSP campaigns and reporting deadlines. Law enforcement agencies are also asked to report their year-round traffic safety activities, such as seat belt enforcement initiatives, DWI checking stations and saturation patrols. These special enforcement data reports for GHSP campaigns and events are submitted to GHSP through an online reporting system.

The North Carolina Administrative Office of the Courts (AOC) has a centralized database of court interactions, which enables GHSP to obtain accurate and up-to-date data on citations, including the status and disposition of cases.

Census Data

The State Demographics branch of the North Carolina Office of State Budget and Management (OSBM) produces annual population estimates and projections of the population of North Carolina's counties and municipalities that are used in the distribution of state shared revenues to local governments. County population projections, available by age, race and gender, are used for long-range planning on the county level for traffic safety problems in the state.

Seat Belt Use Observational Survey

North Carolina's annual seat belt use survey is conducted each year in June. The last survey for which data is available was conducted in June 2018 at 120 sites in 15 counties across the state. For all sites, trained observers recorded information from stopped or nearly stopped vehicles. Data were collected during rush hours (weekdays 7–9 a.m. or 3:30–6 p.m.), non-rush hours (weekdays 9 a.m.–3:30 p.m.), and on weekends (Saturday or Sunday 7 a.m.–6 p.m.). Data from the annual seat belt use survey is used to track how belt use has changed over time and to identify high-risk populations for seat belt non-use.

In summary, GHSP works in conjunction with a team of partner agencies and uses a variety of data sources to identify specific traffic safety problems facing North Carolina. This information is used to create specific targets addressing each problem area. The target setting process is described below.

Target Setting Process

Many factors were considered when setting performance targets for FY2020. The objective was to set challenging but obtainable targets, while recognizing the ultimate goal of zero deaths from motor vehicle crashes in North Carolina. The target setting process considered:

Trends in crashes and fatalities: As mentioned above, trends in crashes and fatalities in North Carolina were examined for the previous 5-10 years. These trends were used to project crashes and fatalities in future years.

Ceiling/floor effects: As crashes or fatalities become rarer, progress becomes increasingly difficult to achieve. For example, North Carolina has averaged about 15 unhelmeted motorcycle fatalities each year during the past five years, which represents less than 10 percent of all motorcyclist fatalities. It would be difficult to improve upon this very low rate. Rather than spend funds to reduce unhelmeted fatalities even further, resources might be better spent on other problem areas where greater progress is achievable.

The effect of external forces: Traffic crashes and fatalities may be affected by economic factors, gasoline prices and population changes, as well as geographic, topographic and roadway system

factors. These external forces may be beyond the direct control of safety advocates, but still deserve consideration. For example, North Carolina's population has steadily increased during the past decade. The larger population—along with the resulting increase in licensed drivers and registered vehicles—elevates the potential for crashes and fatalities to occur. Other factors such as a growing economy may further boost this effect. To the extent possible, we considered the potential effect of these external forces in setting targets.

Effectiveness of known countermeasures: GHSP also considers whether there are known effective approaches that address a specific problem area. For instance, high-visibility sobriety checkpoints are a proven countermeasure to deter alcohol-impaired driving and to reduce alcohol-related crashes/fatalities. Hence, we set challenging but achievable targets for this problem area. Graduated driver licensing (GDL) is the only proven countermeasure for improving the safety of young drivers. Achieving further reductions in young driver crashes may be challenging given North Carolina's excellent GDL system and the lack of other proven measures. The targets for reducing young driver crashes are therefore somewhat less ambitious than other areas where there are more proven countermeasures for reducing crashes and fatalities.

The FY2020 Highway Safety Plan targets were established after considering the above factors.

Evidence-Based Traffic Safety Enforcement Plan

During FY2020, GHSP will fund a variety of programs, projects and activities with federal transportation funds. These projects are intended to advance the traffic safety targets set forth in this Highway Safety Plan. GHSP focuses on strategies, such as high-visibility sobriety checkpoints, that have been proven effective in reducing motor vehicle crashes, injuries and fatalities.

GHSP has developed policies and procedures to ensure that enforcement resources are used efficiently and effectively to support the goals of North Carolina's highway safety program. North Carolina incorporates an evidence-based approach in its statewide enforcement program through the components described below.

Data-driven Problem Identification

As previously noted, GHSP conducts an extensive problem identification process to develop and implement the most effective plan for the distribution of federal funds. Several data sources are examined to give the most complete picture of the major traffic safety problems in the state. These include, but are not limited to, motor vehicle crash data, enforcement and adjudication data, and seat belt use observational surveys. The problem identification process helps ensure the initiatives implemented address North Carolina's proven crash, fatality and injury problems. This process also provides a basis for funding priorities and provides a benchmark for administering and evaluating the overall highway safety plan.

The data analyses conducted in the problem identification process identifies which drivers or other road users are under- or over-represented in crashes, and shows when (day vs. night, weekday vs. weekend) and where (urban vs. rural roads) crashes are occurring. Driver behaviors associated with crashes and injuries, such as alcohol impairment, speeding and seat belt non-use, are also examined.

GHSP utilizes an in-house review team and input from partners (e.g., Law Enforcement Liaisons) to review project applications and prioritize the applications. The team considers several factors, including the extent of the traffic safety problem in the project area, the project's goals and objectives, whether evidence-based strategies are employed, the project's budget, and the applicant's past performance.

Selection of Evidence-based Countermeasures

To address the problem areas described above and to meet North Carolina's goals for FY2020, GHSP focuses on strategies that are proven effective in reducing motor vehicle crashes, injuries and fatalities, including high-visibility enforcement. To assist in this process, GHSP uses the 9th Edition of NHTSA's Countermeasures that Work (CMTW). CMTW was designed to assist State Highway Safety Offices in selecting evidence-based countermeasures for addressing major highway safety problem areas.

Countermeasures will include high-visibility enforcement of alcohol, speed and occupant protection laws using enforcement checkpoints and saturation patrols. Associated media plans ensure these enforcement efforts are well publicized to the driving public.

Continuous Monitoring

GHSP uses various tracking mechanisms to help GHSP Highway Safety Specialists monitor the progress of each project and to help law enforcement projects remain committed to their stated plans. Each agency receiving grant funding is required to submit quarterly progress reports to ensure the goals and outcomes of each project are met. Projects involving enforcement personnel must report monthly enforcement actions taken, educational programs delivered, and hours worked. During each statewide enforcement campaign, GHSP requires law enforcement agencies with grant funding to report their citation totals online on a weekly basis. GHSP also solicits non-grant funded agencies to participate in these campaigns and report as well. These checkpoint and saturation patrol activity reports include data on the locations and times worked, the number of officers present, and the number of tickets issued. This monitoring allows GHSP to adjust the enforcement plans for each agency in sufficient time to provide the greatest use of resources to address targeted traffic safety problems.

Projects that do not include enforcement personnel must complete quarterly reports to ensure that the project's goals and outcomes are met, and to enable GHSP and project personnel to adjust their tasks and objectives as needed to address problems that might arise.

Processes Participants

Description of Highway Safety Problems

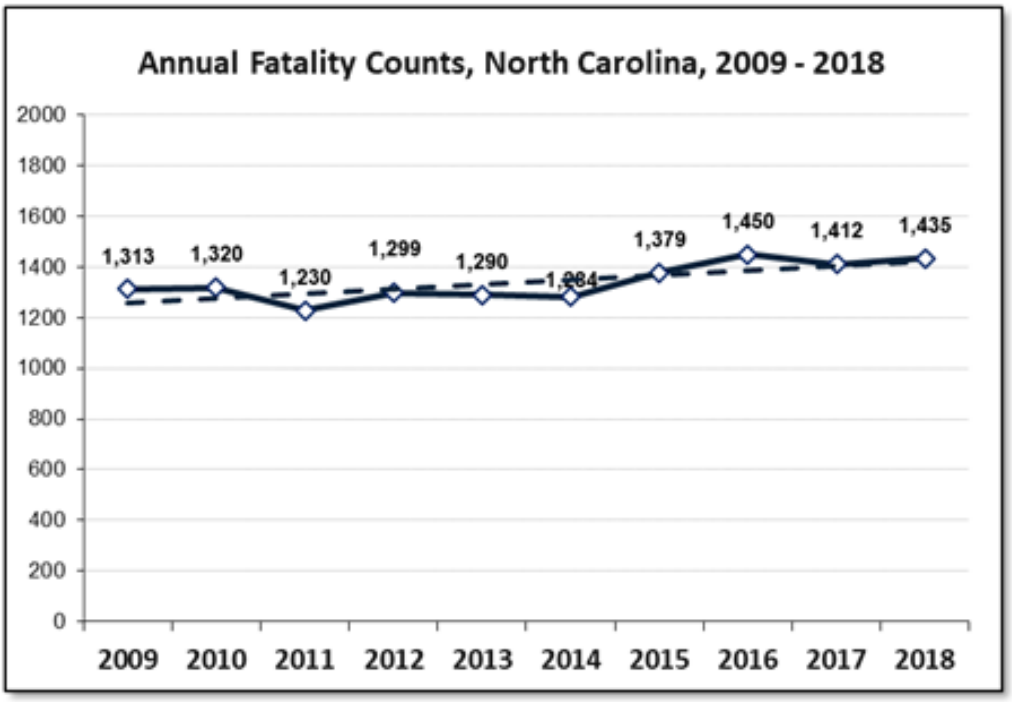
North Carolina is in the southeastern United States and borders four states: Virginia, Tennessee, Georgia and South Carolina. In terms of land area, North Carolina is the 28th largest state with 53,819 square miles. North Carolina has the second largest state highway system in the country. The transportation system includes 106,522 miles of roadway, 1,272 miles of interstate highways and 65,530 miles of rural roads. According to the Federal Highway Administration (FHWA), North Carolina had 7,389,467 licensed drivers in 2017, an increase of 13 percent from 2010. Eighty-six percent of the driving-age population in the state is licensed. FHWA records indicate a total of 8,070,717 registered vehicles in 2017, of which 3,271,128 were privately owned automobiles and 188,843 were privately owned motorcycles.

North Carolina's population officially passed the 10 million mark in 2015. According to the U.S. Census Bureau, North Carolina's population was an estimated 10,383,620 people in 2018, making it the ninth largest state in the U.S. North Carolina is growing rapidly—the state's population has increased 9.8 percent since 2010 and 34 percent since 2000. According to U.S. Census data from 2018, the median age in North Carolina is 37.4 years. Sixteen percent of the state's population is age 65 or older; 22 percent is under age 18. The population is

predominantly white (71 percent) and Black/African American (22 percent). Ten percent is Latino. The median household income in North Carolina is $50,320.

North Carolina has 100 counties. Sixty-six counties have experienced population growth since 2010, and 13 counties experienced double digit population growth. Ten were among the 100 fastest-growing counties in the nation. More than 40 percent of the state's growth since 2010 has occurred in two counties: Wake and Mecklenburg. Meanwhile, 33 of North Carolina's 100 counties have experienced population decline since 2010 including Bertie (-7.0 percent), Washington (-6.8 percent), Edgecombe (-6.0 percent), Hyde (-5.9%), Anson (-5.5 percent), Northampton (--5.4%), Halifax (-4.7 percent), and Martin (-4.5 percent). Many of these counties are in the northeastern part of the state.

Similar to national trends, traffic fatalities declined in North Carolina during 2017. There were 1,412 fatalities resulting from motor vehicle crashes in 2017—a 2.6 percent decrease from the 1,450 fatalities in 2016. According to North Carolina crash data, traffic fatalities rose slightly during 2018, to 1,435 fatalities. (FARS data are not yet available for 2018.) The long-term (10 year) trend suggests a gradual increase in traffic fatalities in North Carolina, as shown in the figure below.



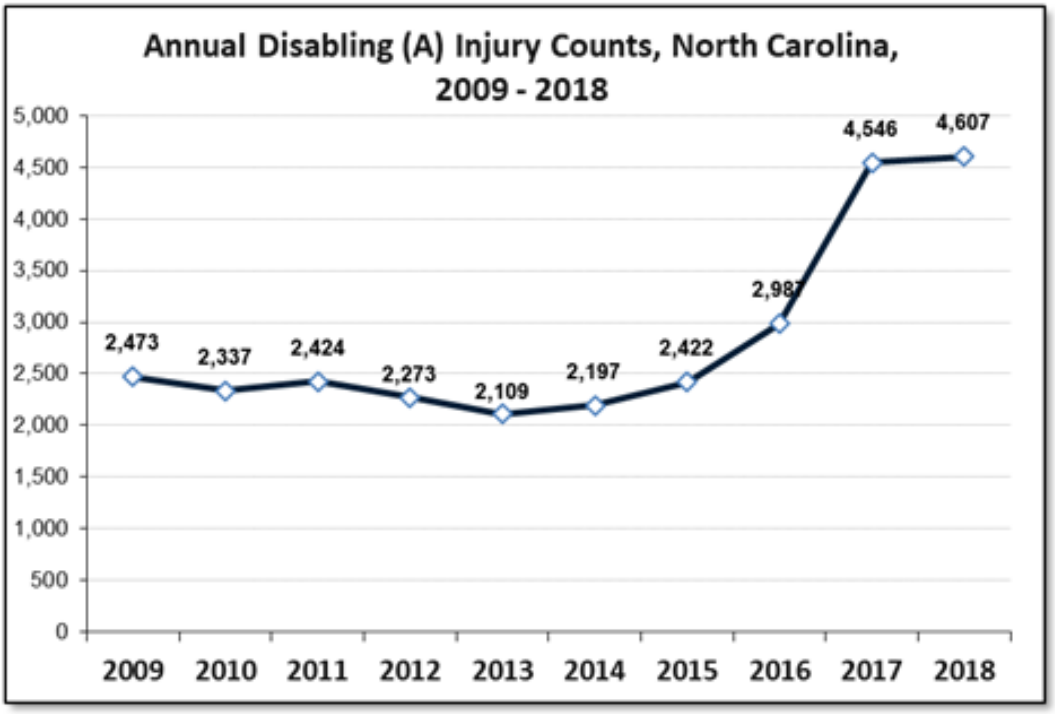
Source: FARS, 2009–2017 and NCDOT Motor Vehicle Crash Data, 2018

The number of disabling (A) injuries have increased each of the past five years in North Carolina. During 2018, there were 4,607 disabling injuries, up 1.3 percent from the 4,546 injuries in 2017. Note that North Carolina changed the definition of disabling (A) injuries during the last quarter of 2016. A substantial portion of the increase in fatalities observed during 2017—and to a lesser extent 2016—can be attributed to the new definition.

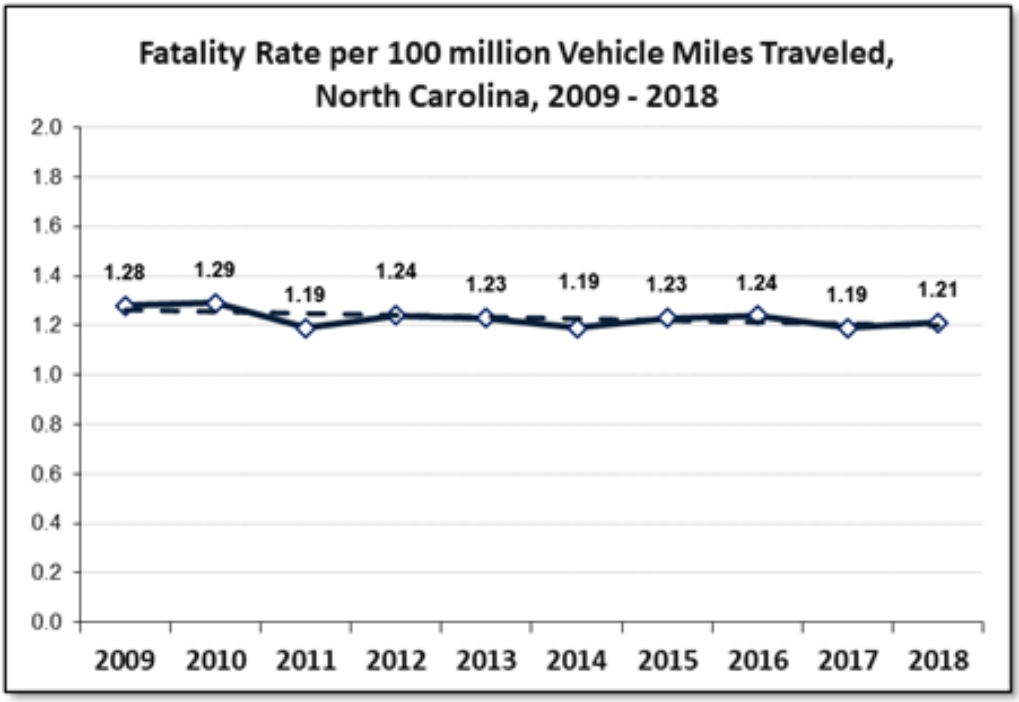
Source: NCDOT Motor Vehicle Crash Data, 2009–2018

Note: Some of the 2016 and 2017 increase is due to a change in the disabling-injury definition during the last three months of 2016.

The fatality rate per vehicle mile traveled (VMT) increased slightly in 2018. There were 1.21 fatalities per 100



million VMT during 2018, compared to 1.19 in 2017. Unlike total fatalities, the long-term trend suggests a gradual decrease in fatalities per VMT, as shown in the figure below.

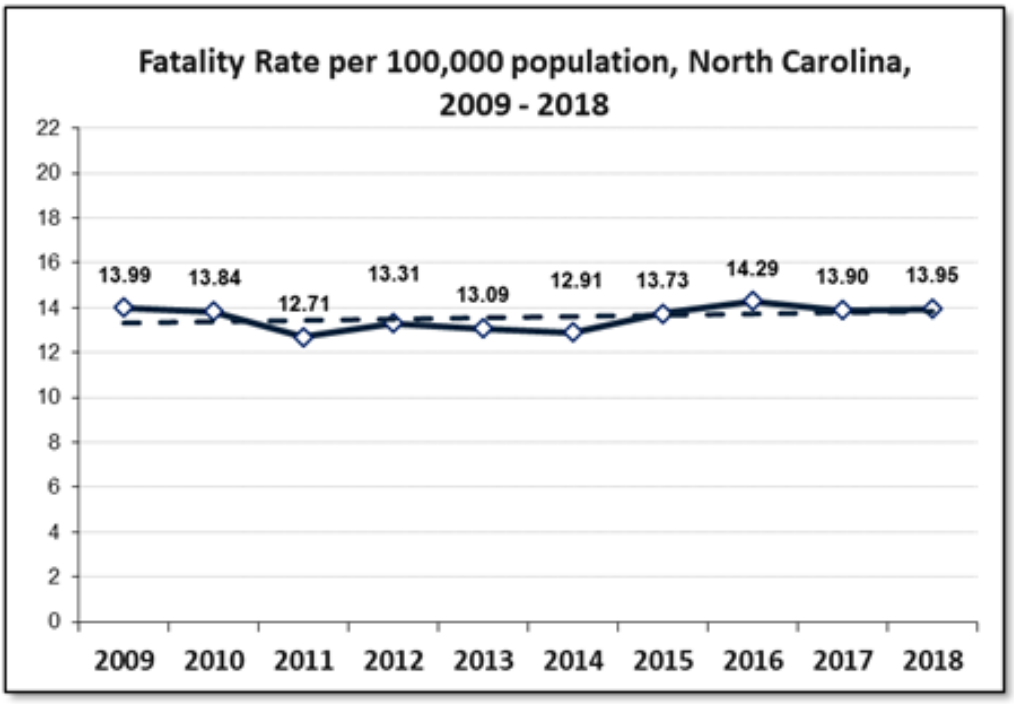


Source: FARS, 2009–2016 and NCDOT Motor Vehicle Crash Data, 2017–2018

Note: The fatality rate for 2017 and 2018 is based on VMT data provided by NCDOT.

As mentioned earlier, North Carolina's population has grown considerably during the last decade. Consequently, it is important to consider fatality rates per capita. The figure below shows fatality rates per 100,000 population in North Carolina from 2009 through 2018. During 2018, the per capita fatality rate increased slightly from 13.90 to 13.95. The long-term trend suggests a slow rise in fatalities per capita.

Source: FARS, 2009–2017, NCDOT Motor Vehicle Crash Data, 2018,



and U.S. Census Bureau

Methods for Project Selection

Enter list of information and data sources consulted.

Enter description of the outcomes from the coordination of the Highway Safety Plan (HSP), data collection, and information systems with the State Strategic Highway Safety Plan (SHSP).

Performance report

Progress towards meeting State performance targets from the previous fiscal year's HSP

Sort Order	Performance measure name	Progress
1	C-1) Number of traffic fatalities (FARS)	Not Met
2	C-2) Number of serious injuries in traffic crashes (State crash data files)	Not Met
3	C-3) Fatalities/VMT (FARS, FHWA)	Not Met
4	C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)	Not Met
5	C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)	Not Met
6	C-6) Number of speeding-related fatalities (FARS)	Not Met

7	C-7) Number of motorcyclist fatalities (FARS)	Met
8	C-8) Number of unhelmeted motorcyclist fatalities (FARS)	Met
9	C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)	Not Met
10	C-10) Number of pedestrian fatalities (FARS)	Not Met
11	C-11) Number of bicyclists fatalities (FARS)	Not Met
12	B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)	Not Met

Performance Measure: C-1) Number of traffic fatalities (FARS)

Progress: Not Met

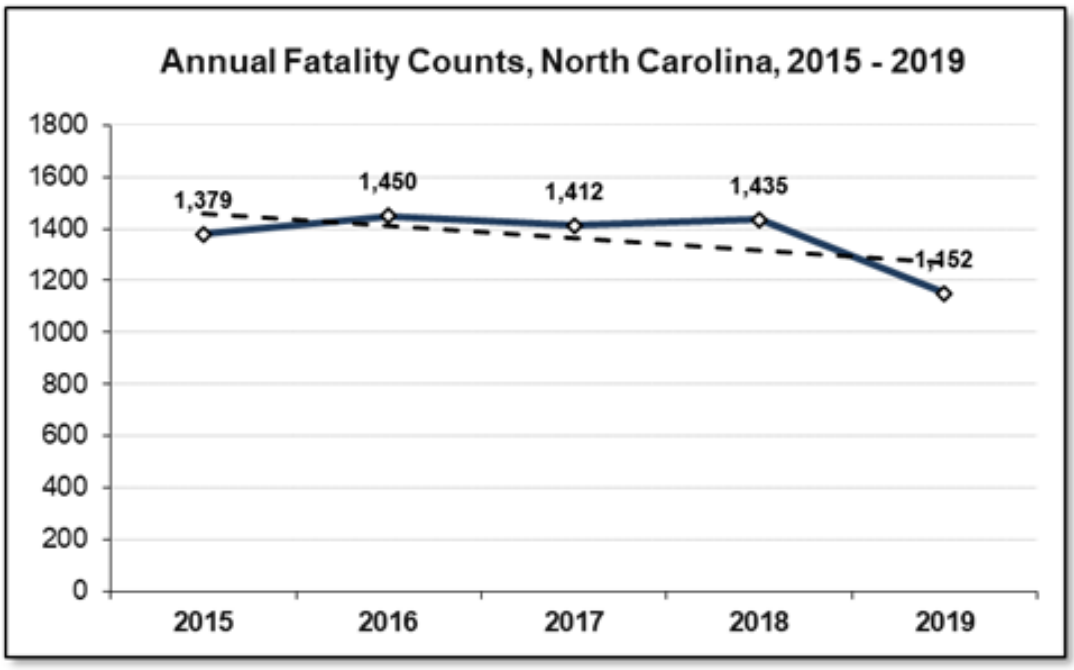
Program-Area-Level Report

Performance measure name	C-1) Number of traffic fatalities (FARS)
Progress	Not met

Enter a program-area-level report on the State's progress towards meeting State performance targets from the previous fiscal year's HSP.

Target: Reduce traffic-related fatalities by 9.38 percent from the 2012-2016 average of 1340.4 to the 2015–2019 average of 1,214.7 by December 31, 2019.

Outcome: Target not achieved. The 2015–2019 average number of traffic fatalities was 1,365.6, a 1.9 percent increase from the 2012–2016 average of 1,340.4.



Source: FARS, 2015–2017 and NCDOT Motor Vehicle Crash Data, 2018–2019. Note that total fatalities in 2019 were extrapolated based on the 288 fatalities during the first three months of the year.

Traffic fatalities declined in North Carolina during 2017 (the most recent year for which FARS data are available). Thirty-eight (38) fewer fatalities occurred during 2017 than 2016, a decrease of 2.6 percent. This is similar to national trends—traffic fatalities decreased by 1.4 percent in the U.S. during 2017. NCDOT Motor Vehicle Crash Data show traffic fatalities in North Carolina increased by 1.6 percent during 2018. However, data from the first three months of 2019 suggest a possible reduction in fatalities.

A number of factors likely contributed to not achieving the 2015–2019 target. The population of North Carolina increased 9.8 percent between 2010 and 2017. Moreover, the number of licensed drivers increased 13 percent and the number of vehicle miles traveled (VMT) rose 16 percent. For these reasons, it is important to consider fatality rates in addition to the total number of fatalities.

GHSP remains committed to further reducing traffic fatalities in our State. GHSP supports a variety of enforcement and educational efforts to decrease motor vehicle crashes and the resulting injuries and fatalities, as described in the Program Areas section of the Highway Safety Plan.

Performance Measure: C-2) Number of serious injuries in traffic crashes (State crash data files)

Progress: Not Met

Program-Area-Level Report

Performance measure name	C-2) Number of serious injuries in traffic crashes (State crash data files)
Progress	Not met

Enter a program-area-level report on the State's progress towards meeting State performance targets from the previous fiscal year's HSP.

Target: Reduce the number of serious injuries by 13.07 percent from the 2013–2017 average of 2,865.2 to the 2015–2019 average of 2,490.6 by December 31, 2019.

Outcome: Target not achieved. The 2015–2019 average number of serious injuries was 3,732, a 56 percent increase from the 2012–2016 average of 2,397.6.

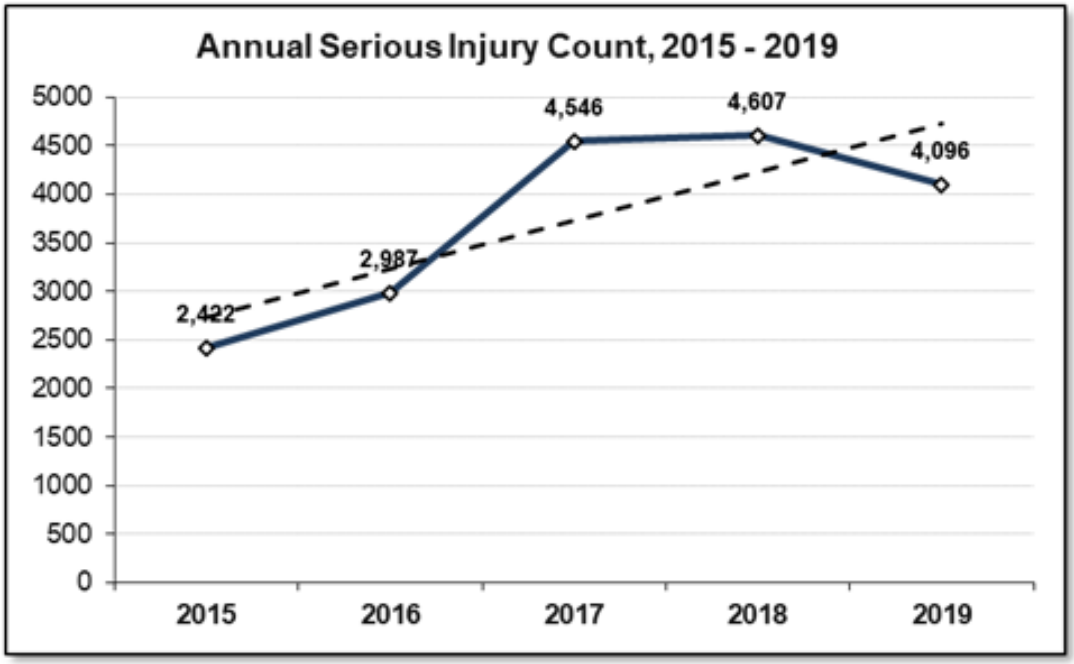
Source: NCDOT Motor Vehicle Crash Data, 2015–2019. Note that serious injuries in 2019 were extrapolated based on the 1,024 serious injuries during the first three months of the year.

NOTE: The definition of "serious injury" was changed during the last 3 months of 2016, likely contributing to the rise in reported injuries.

Unlike fatalities, the number of serious ("disabling") injuries has increased in North Carolina four of the past five years. Sixty-one more serious injuries occurred during 2018 than 2017, an increase of 1.3 percent. Initial data from 2019 suggest serious injuries may be dropping.

It is important to note that North Carolina changed the definition of "serious injury" during the last quarter of 2016. In all likelihood, this had a substantial impact on the rise in serious injuries recorded in 2016 and 2017. The effect of the definition change appears to have stabilized in 2018.

Performance Measure: C-3) Fatalities/VMT (FARS, FHWA)



Progress: Not Met

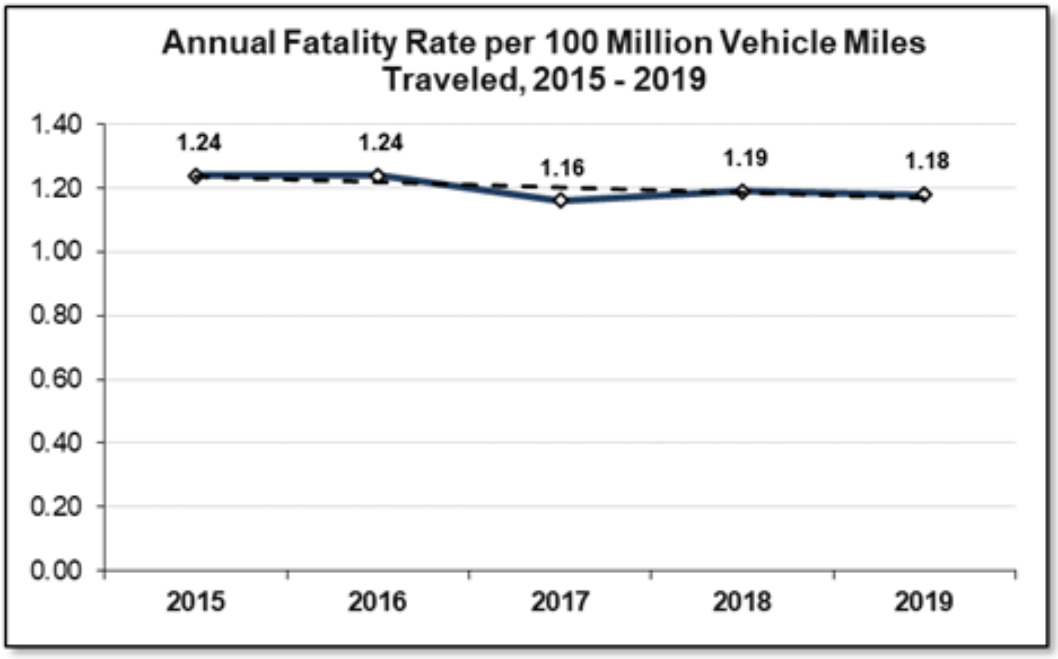
Program-Area-Level Report

Performance measure name	C-3) Fatalities/VMT (FARS/FHWA)
Progress	Not met

Enter a program-area-level report on the State's progress towards meeting State performance targets from the previous fiscal year's HSP.

Target: Reduce the fatality rate per 100 million VMT by 10.65 percent from the 2012–2016 average of 1.227 to the 2015–2019 average of 1.097 by December 31, 2019.

Outcome: Target not achieved. The 2015–2019 average fatality rate per 100 million VMT was 1.204, a 2.0 percent decrease from the 2012–2016 average of 1.227.



Source: FARS, 2015–2016 and NCDOT Motor Vehicle Crash Data, 2017–2018. Note that the 2019 fatality rate was estimated from the previous five-year trend (2014–2018).

North Carolina's annual fatality rate per 100 million VMT is gradually declining. The fatality rate decreased or remained the same during four of the past five years. Although fatalities rose during 2016 and 2018, this was offset by a steady increase in VMT. The fatality rates per 100 million VMT for 2017–2018 are based on state estimates and may be adjusted once this rate is published by NHTSA.

Performance Measure: C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)

Progress: Not Met

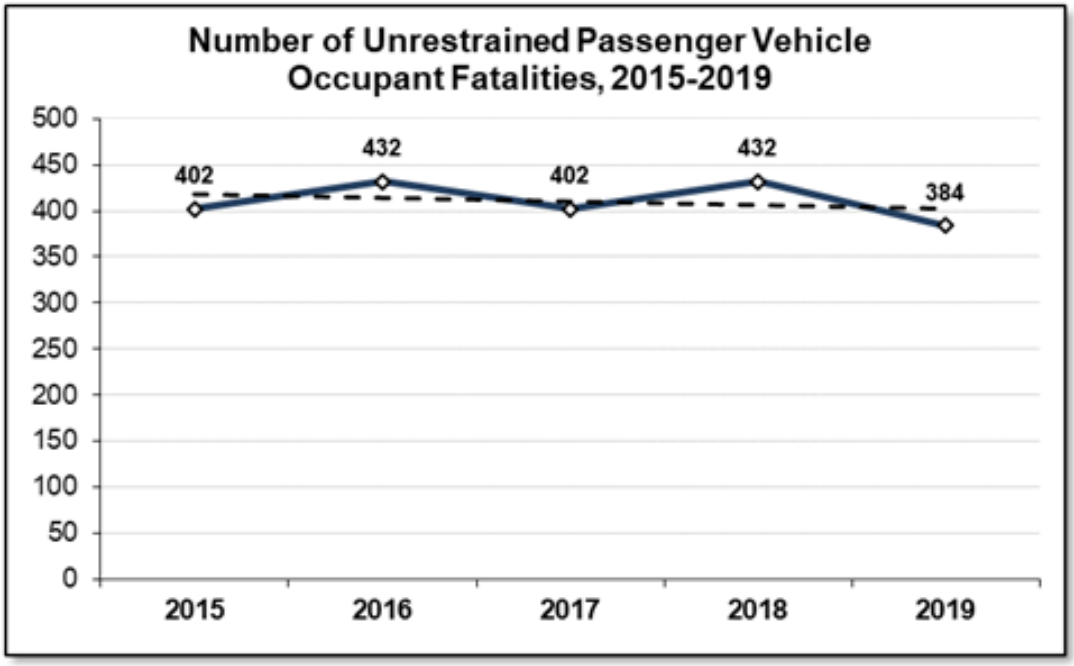
Program-Area-Level Report

Performance measure name	C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)
Progress	Not met

Enter a program-area-level report on the State's progress towards meeting State performance targets from the previous fiscal year's HSP.

Target: Decrease unrestrained passenger vehicle occupant fatalities in all seating positions 15 percent from the 2012–2016 average of 381 to the 2015–2019 average of 324 by December 31, 2019.

Outcome: Target not achieved. The 2015–2019 average number of unrestrained passenger vehicle occupant fatalities was 410, a 7.6 percent increase from the 2012–2016 average of 381.



Source: FARS, 2015–2017 and NCDOT Motor Vehicle Crash Data, 2018–2019. Note that unrestrained fatalities in 2019 were extrapolated based on the 96 unrestrained fatalities during the first three months of the year.

Unrestrained passenger vehicle occupant fatalities have fluctuated over the past five years in North Carolina.

Unrestrained fatalities dropped by 7 percent during 2017 (the last year for which FARS data are available). However, unrestrained fatalities rose again during 2018. Overall, the long-term trend suggests a very gradual decrease in unrestrained fatalities in North Carolina.

An estimated 600 lives are saved each year in North Carolina by passenger restraints. Approximately 100 more lives could be saved each year if all passenger vehicle occupants were properly restrained.

Performance Measure: C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)

Progress: Not Met

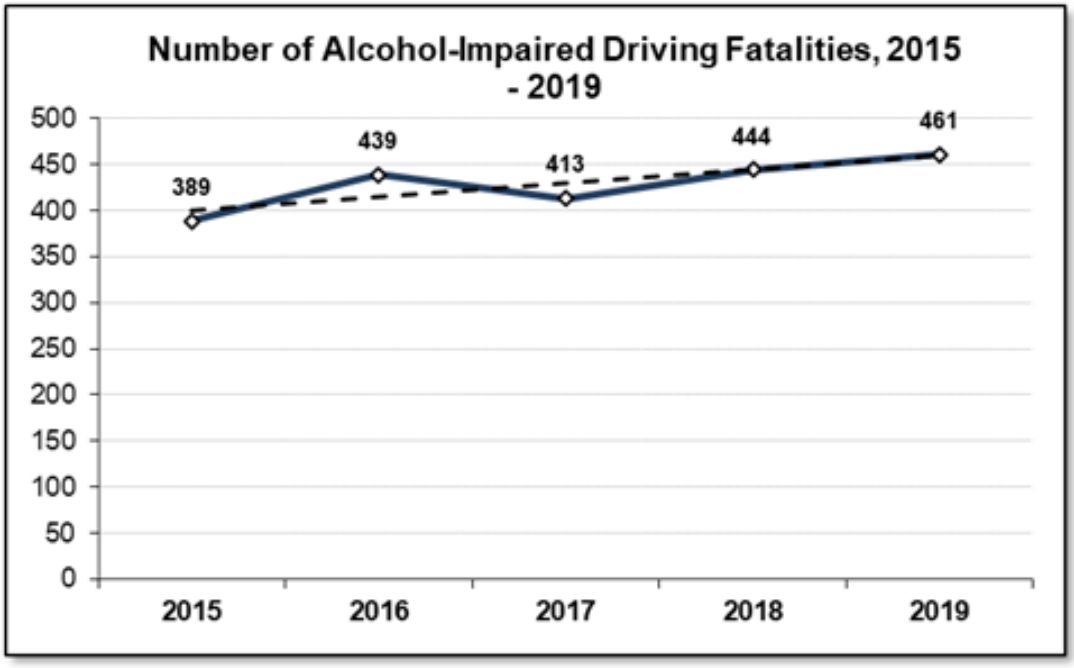
Program-Area-Level Report

Performance measure name	C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)
Progress	Not met

Enter a program-area-level report on the State's progress towards meeting State performance targets from the previous fiscal year's HSP.

Target: Decrease alcohol impaired driving fatalities 10 percent from the 2012–2016 average of 386 to the 2015–2019 average of 347 by December 31, 2019.

Outcome: Target not achieved. The 2015–2019 average number of fatalities involving drivers with a BAC of .08 or above was 429, an 11 percent increase from the 2012–2016 average of 386.



Source: FARS, 2015–2017. Note that 2018 and 2019 fatalities were estimated from the previous five-year trend (2013–2017) using FARS. We were unable to use NCDOT Motor Vehicle Crash Data because FARS and NCDOT have different definitions for an alcohol-impaired driving crash.

Alcohol-impaired driving fatalities dropped by 5.9 percent in 2017 (the most recent year for which FARS data are available). However, the longer-term trend suggests a rise in alcohol-impaired driving fatalities over the past

5 years. During 2017, 29 percent of all fatalities were alcohol-related, down slightly from 30 percent of fatalities in 2016.

North Carolina is very aggressive in the fight to remove impaired drivers from our roadways. GHSP funds a variety of efforts to educate drivers and to enforce the state's impaired driving laws. See the Impaired Driving (Alcohol) and the Motorcycle Safety Program Areas for more details.

Performance Measure: C-6) Number of speeding-related fatalities (FARS)

Progress: Not Met

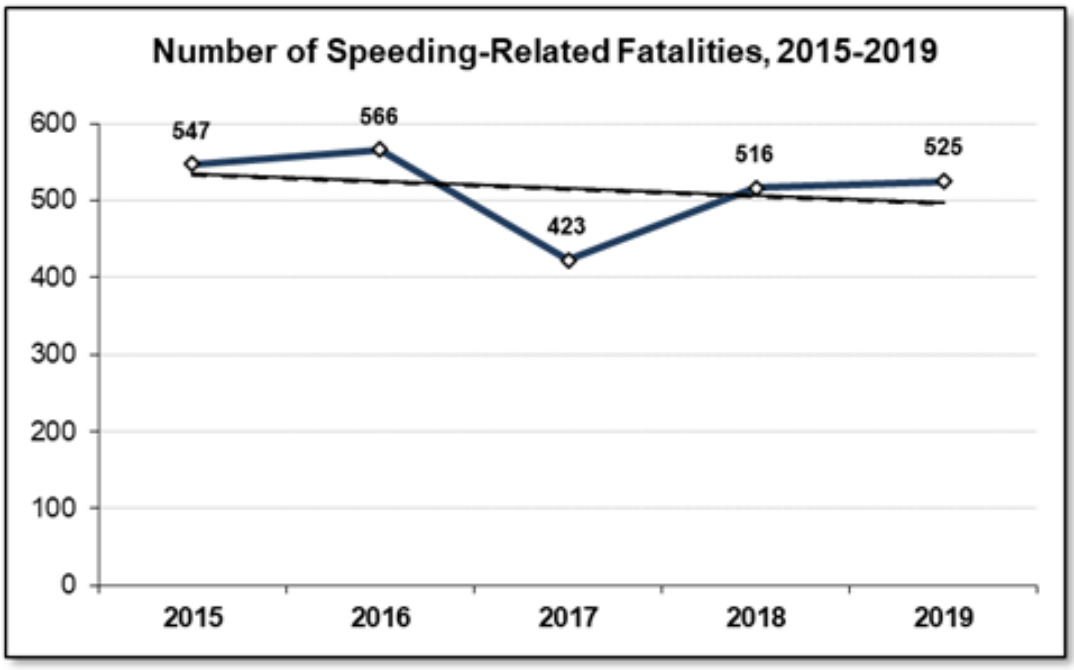
Program-Area-Level Report

Performance measure name	C-6) Number of speeding-related fatalities (FARS)
Progress	Not met

Enter a program-area-level report on the State's progress towards meeting State performance targets from the previous fiscal year's HSP.

Target: Decrease speeding-related fatalities by 5 percent from the 2012–2016 average of 493 to the 2015–2019 average of 468 by December 31, 2019.

Outcome: Target not achieved. The 2015–2019 average number of speeding-related fatalities was 515, a 4 percent increase from the 2012–2016 average of 493.



Source: FARS, 2015–2017. Note that 2018 and 2019 fatalities were estimated from the previous five-year trend (2013–2017) using FARS. We were unable to use NCDOT Motor Vehicle Crash Data because FARS and NCDOT have different definitions for a "speed-related" crash.

There were 423 speed-related fatalities in North Carolina during 2017 (the most recent year for which FARS data are available). This was a decrease of 143 fatalities (25 percent) from the preceding year. Speeding-related fatalities represent approximately 40 percent of all fatalities in North Carolina. Speeding is particularly common among drivers age 16-29, on weekends, among motorcyclists, and among drivers who have been drinking. The

overall trend suggests a gradual decline in speed-related fatalities over the past five years.

GHSP continues to be committed to supporting proven countermeasures to reduce the frequency of speed-related crashes and fatalities. See the Speed Management Program Area for more details.

Performance Measure: C-7) Number of motorcyclist fatalities (FARS)

Progress: Met

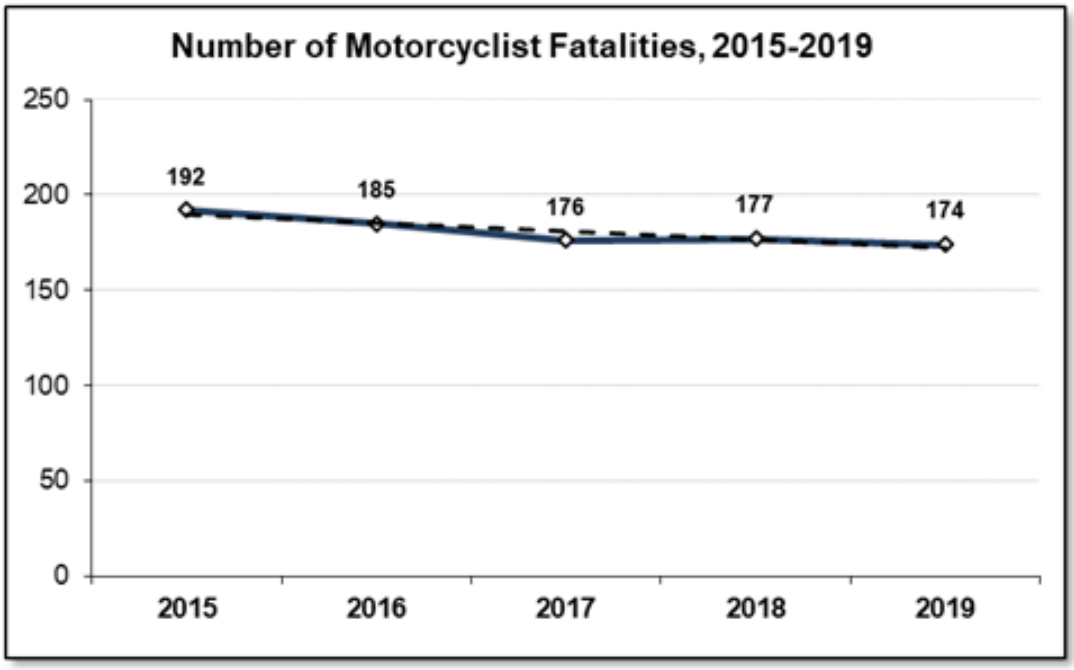
Program-Area-Level Report

Performance measure name	C-7) Number of motorcyclist fatalities (FARS)
Progress	Met

Enter a program-area-level report on the State's progress towards meeting State performance targets from the previous fiscal year's HSP.

Target: Decrease motorcyclist fatalities 5 percent from the 2012–2016 average of 191 to the 2015–2019 average of 181 by December 31, 2019.

Outcome: Target achieved. The 2015–2019 average number of motorcyclist fatalities was 181, a 5 percent decrease from the 2012–2019 average of 191.



Source: FARS, 2015–2017. Note that 2018 and 2019 fatalities were estimated from the previous five-year trend (2013–2017) using FARS. We were unable to use NCDOT Motor Vehicle Crash Data because FARS and NCDOT have different definitions of what constitutes a motorcycle.

During 2017, 176 motorcyclists were killed in crashes in North Carolina, a decrease of 5 percent in comparison with 2016. Motorcyclists accounted for 12.5 percent of all traffic fatalities in 2017, compared to just 6 percent of fatalities in 2000. This is due in large part to the growing popularity of motorcycle riding. There are more riders traveling more miles, resulting in more exposure of motorcyclists to other traffic and potentially dangerous conditions. Additionally, the average age of riders killed in crashes has risen. During 2017, riders age 41 and older accounted for approximately half of all motorcyclist fatalities.

GHSP strongly supports efforts to provide training to help motorcyclists become safe riders. See the Motorcycle Safety Program Area for more details.

Performance Measure: C-8) Number of unhelmeted motorcyclist fatalities (FARS)

Progress: Met

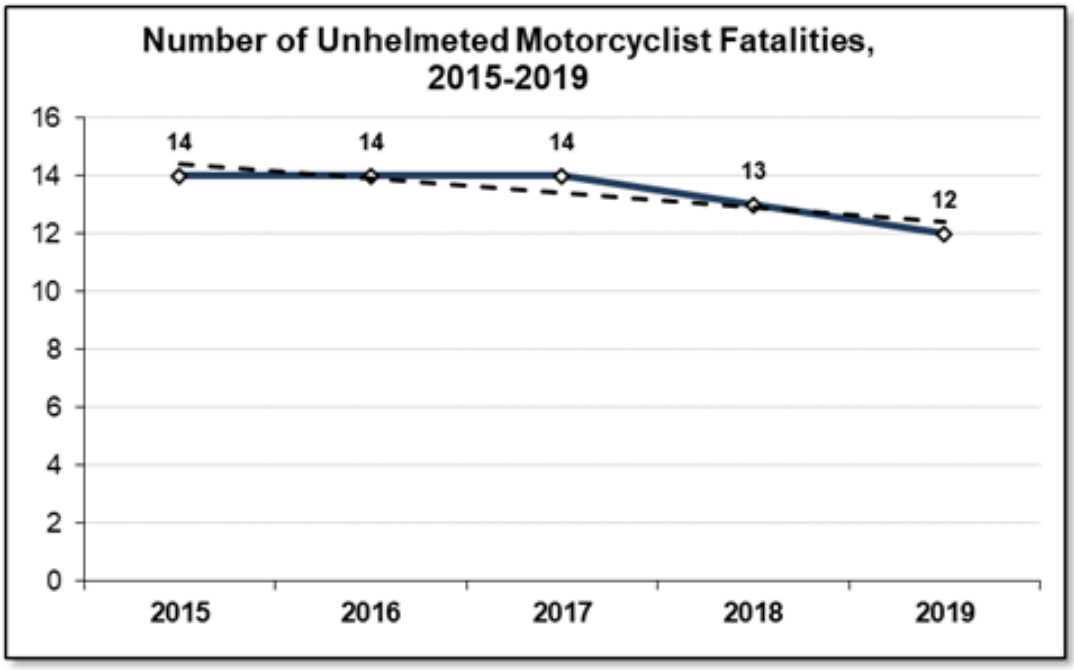
Program-Area-Level Report

Performance measure name	C-8) Number of unhelmeted motorcyclist fatalities (FARS)
Progress	Met

Enter a program-area-level report on the State's progress towards meeting State performance targets from the previous fiscal year's HSP.

Target: Limit the 2015–2019 average number of unhelmeted motorcyclist fatalities to the 2012–2016 average of 17 by December 31, 2019.

Outcome: Target achieved. The 2015–2019 average number of unhelmeted motorcyclist fatalities was 13, below the 2012–2016 average of 17.



Source: FARS, 2015–2017. Note that 2018 and 2019 fatalities were estimated from the previous five-year trend (2013–2017) using FARS. We were unable to use NCDOT Motor Vehicle Crash Data because FARS and NCDOT have different definitions of what constitutes a motorcycle.

North Carolina has a universal helmet law covering all riders. Consequently, the State has a very low number of unhelmeted motorcyclist fatalities each year. During 2017, only 14 unhelmeted motorcyclists were killed in crashes. An estimated 100+ lives in North Carolina are saved each year by motorcycle helmets. Additional lives could be saved if all riders wore helmets.

Performance Measure: C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)

Progress: Not Met

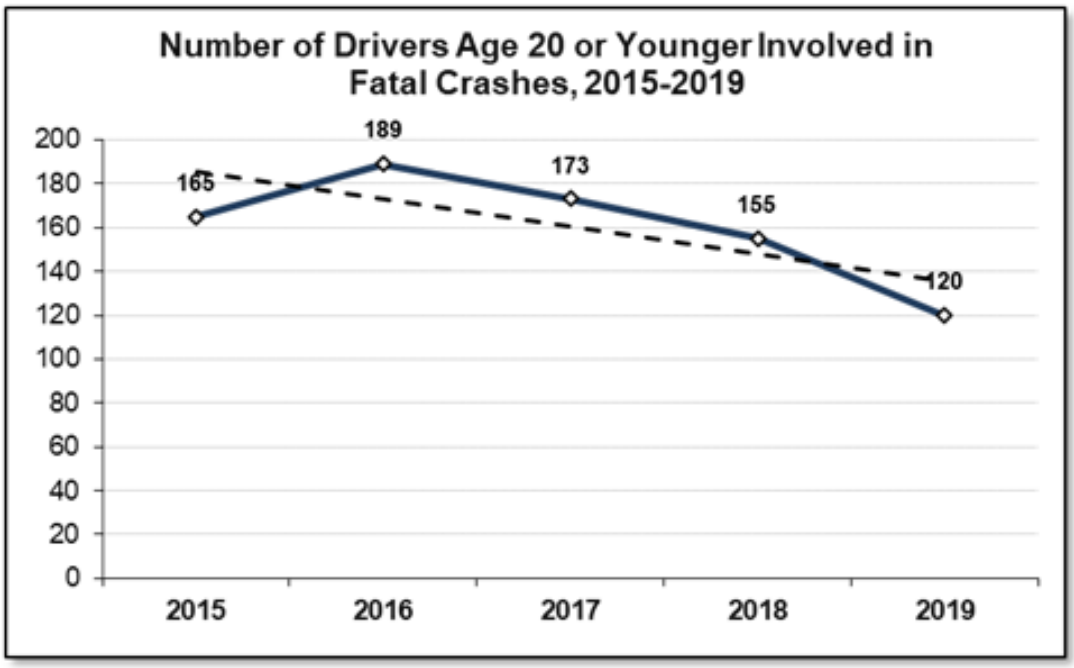
Program-Area-Level Report

Performance measure name	C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)
Progress	Not met

Enter a program-area-level report on the State's progress towards meeting State performance targets from the previous fiscal year's HSP.

Target: Decrease drivers age 20 or younger involved in fatal crashes by 20 percent from the 2012–2016 average of 168 to the 2015–2019 average of 134 by December 31, 2019.

Outcome: Target not achieved. The 2015–2019 average number of young drivers involved in fatal crashes was 160, a 5 percent decrease from the 2012–2016 average of 168.



Source: FARS, 2015–2017 and NCDOT Motor Vehicle Crash Data, 2018–2019. Note that young driver fatal crashes in 2019 were extrapolated based on the 30 fatal crashes during the first three months of the year.

Young driver fatal crashes have declined in North Carolina for each of the past four years. There were 173 fatal crashes involving drivers age 20 or younger in North Carolina during 2017 (the most recent for which FARS data are available). This represents an 8 percent decrease from 2016. NC DOT Motor Vehicle Crash Data for 2018 and 2019 show a continuation of that trend. Young drivers currently account for 8 percent of all drivers involved in fatal crashes in the state.

Motor vehicle crashes are a leading cause of death among teenagers in North Carolina. GHSP is supporting and evaluating several innovative approaches to improving young driver safety. See the Young Drivers Program Area for more details.

Performance Measure: C-10) Number of pedestrian fatalities (FARS)

Progress: Not Met

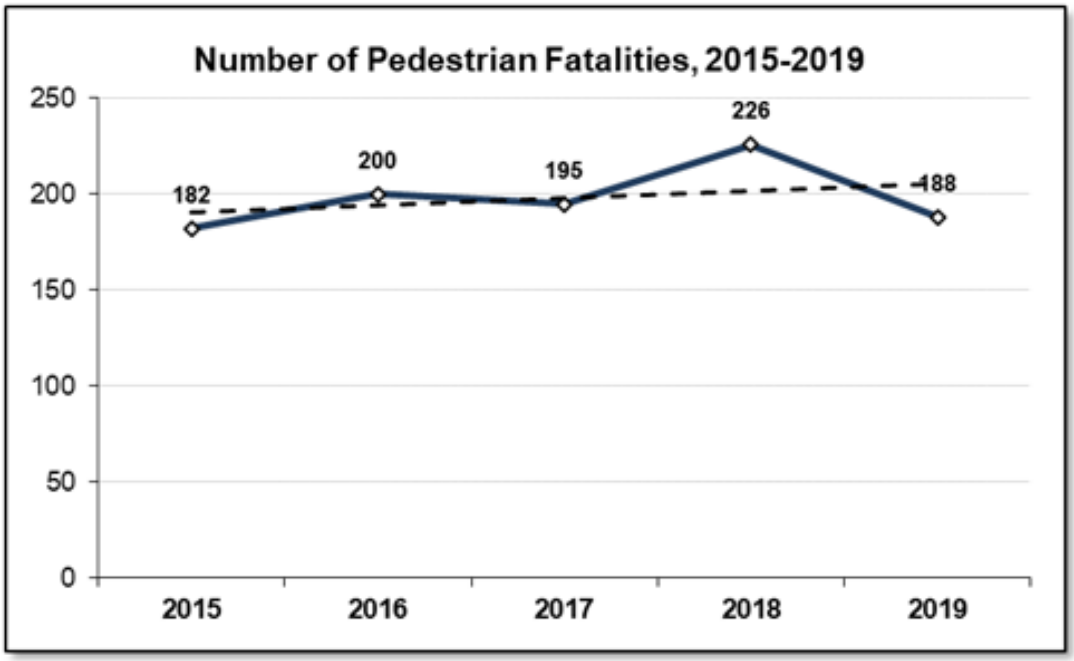
Program-Area-Level Report

Performance measure name	C-10) Number of pedestrian fatalities (FARS)
Progress	Not met

Enter a program-area-level report on the State's progress towards meeting State performance targets from the previous fiscal year's HSP.

Target: Limit the 2015–2019 average number of pedestrian fatalities to the 2012–2016 average of 186 by December 31, 2019.

Outcome: Target not achieved. The 2015–2019 average number of pedestrian fatalities was 198, a 6 percent increase from the 2012–2016 average of 186.



Source: FARS, 2015–2017 and NCDOT Motor Vehicle Crash Data, 2018–2019. Note that pedestrian fatalities in 2019 were extrapolated based on the 47 fatalities during the first three months of the year.

Pedestrian fatalities decreased 2.5 percent in North Carolina during 2017 (the most recent year for which FARS data are available). However, the long-term trend suggests a gradual rise in pedestrian fatalities. Over the past five years, pedestrians have consistently accounted for approximately 15 percent of all traffic fatalities in the state.

Performance Measure: C-11) Number of bicyclists fatalities (FARS)

Progress: Not Met

Program-Area-Level Report

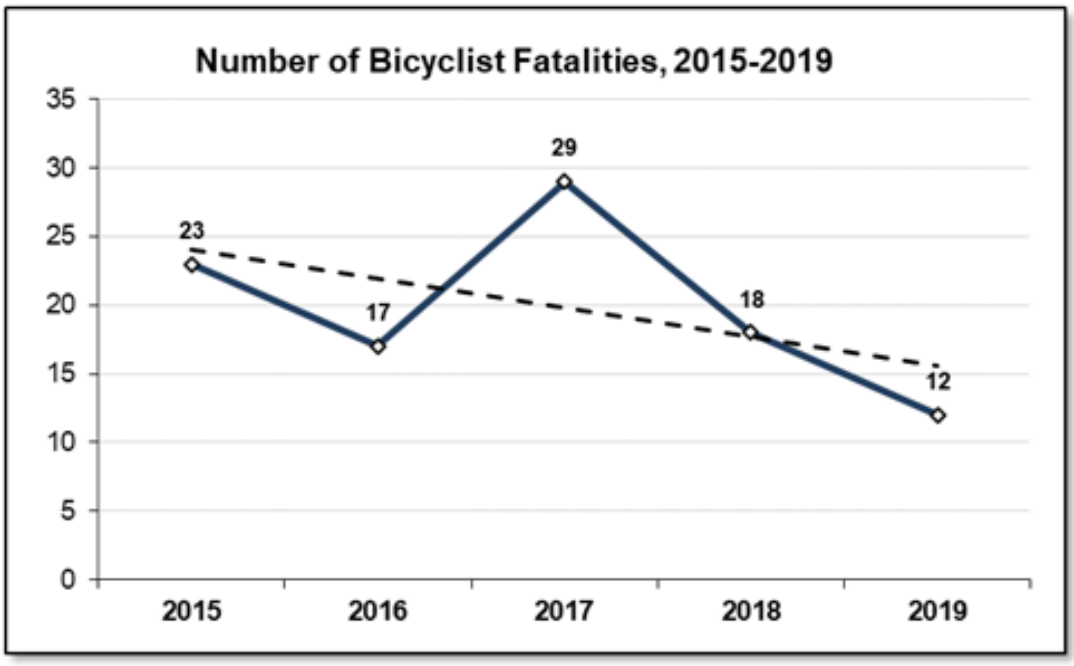
Performance measure name	C-11) Number of bicyclist fatalities (FARS)
Progress	Not met

Enter a program-area-level report on the State's progress towards meeting State performance targets from the previous fiscal year's HSP.

Target: Decrease the number of bicyclist fatalities 15 percent from the 2012–2016 average of 22 to the

2015–2019 average of 19 by December 31, 2019.

Outcome: Target not achieved. The 2015–2019 average number of bicyclist fatalities was 20, a 9 percent decrease from the 2012–2016 annual average of 22.



Source: FARS, 2015–2017 and NCDOT Motor Vehicle Crash Data, 2018–2019. Note that bicyclist fatalities in 2019 were extrapolated based on the three fatalities during the first three months of the year.

The number of bicyclist fatalities in North Carolina is much lower than the number of fatalities involving pedestrians, motorcyclists and other types of road users. Twenty-nine bicyclists were killed in crashes in North Carolina during 2017 (the most recent year for which FARS data are available). This was an increase of 12 fatalities in comparison with 2016. Bicyclist fatalities fluctuate, but the overall trend suggests a gradual decrease in fatalities over the past five years.

Performance Measure: B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)

Progress: Not Met

Program-Area-Level Report

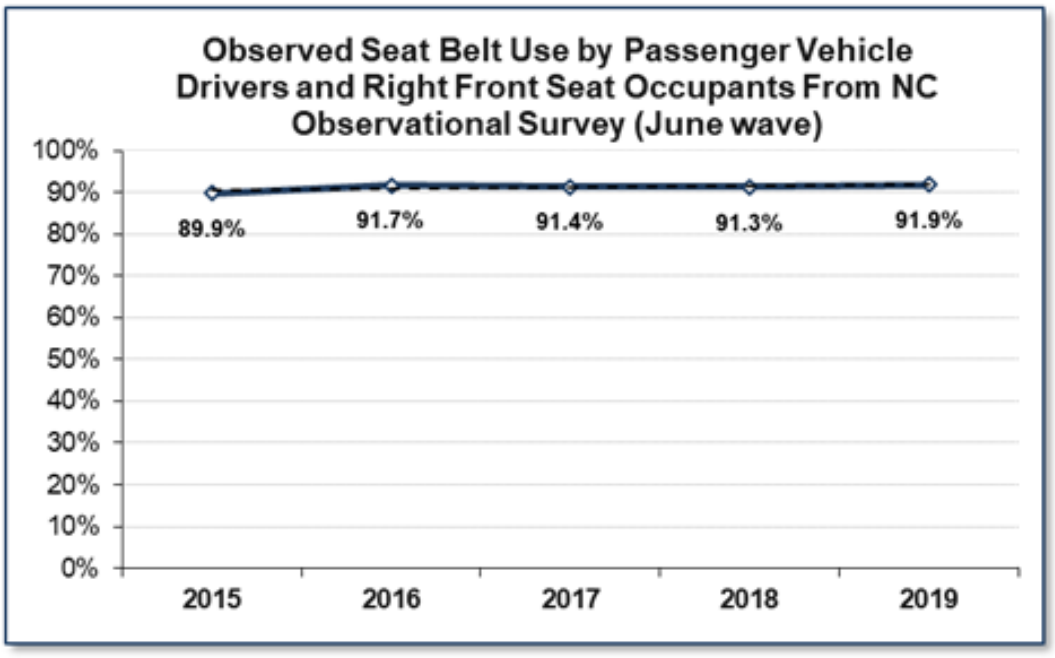
Performance measure name	B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)
Progress	Not met

Enter a program-area-level report on the State's progress towards meeting State performance targets from the previous fiscal year's HSP.

Target: Increase statewide observed seat belt use of front seat outboard occupants in passenger vehicles 3.5 percentage points from the 2012–2016 average usage rate of 89.9 percent to the 2015–2019 average of 93.4 percent by December 31, 2019.

Outcome: Target not achieved. The 2015–2019 average observed seat belt use rate was 91.2 percent, slightly

below the target of 92.6 percent set for 2019.



Source: North Carolina's annual seat belt use survey. Note that belt use in 2019 was estimated from the previous five-year trend (2014–2018). Annual seat belt survey results were not yet available for 2019.

North Carolina's seat belt use rate has been above the 90 percent threshold for all but one of the past five years. Observed seat belt use among outboard occupants in passenger vehicle decreased slightly to 91.3 percent in 2018 (the most recent year for which annual seat belt use survey results are available). Belt use decreased slightly for both drivers (from 91.6 percent to 91.5 percent) and right front-seat passengers (from 91.0 percent to 90.3 percent). Generally, observed seat belt use has changed only slightly the past five years, hovering just over 90 percent.

Increasing seat belt use continues to be one of GHSP's highest priorities. Current GHSP-funded activities are focused on nighttime belt enforcement and child passenger safety. See the Occupant Protection (Adult and Child Passenger Safety) Program Area for more details.

Performance Plan

Sort Order	Performance measure name	Target Period	Target Start Year	Target End Year	Target Value
1	C-1) Number of traffic fatalities (FARS)	5 Year	2016	2020	1,227.8
2	C-2) Number of serious injuries in traffic crashes (State crash data files)	5 Year	2016	2020	2,812.8

3	C-3) Fatalities/VMT (FARS, FHWA)	5 Year	2016	2020	1.084
4	C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)	5 Year	2016	2020	10.0
5	C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)	5 Year	2016	2020	10.0
6	C-6) Number of speeding-related fatalities (FARS)	5 Year	2016	2020	5.00
7	C-7) Number of motorcyclist fatalities (FARS)	5 Year	2016	2020	5.00
8	C-8) Number of unhelmeted motorcyclist fatalities (FARS)	5 Year	2016	2020	0.00
9	C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)	5 Year	2016	2020	10.0
10	C-10) Number of pedestrian fatalities (FARS)	5 Year	2016	2020	5.0
11	C-11) Number of bicyclists fatalities (FARS)	5 Year	2016	2020	10.0

12	B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)	5 Year	2016	2020	93.40
13	Number of core traffic records databases improved (timeliness)	Annual	2020	2020	1.00
14	Number of core traffic records databases improved (accessibility)	Annual	2020	2020	1.00
15	Number of core traffic records databases improved (integration)	Annual	2020	2020	1.00
16	Number of older drives involved in fatal crashes	5 Year	2016	2020	5.00

Performance Measure: C-1) Number of traffic fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-1) Number of traffic fatalities (FARS)-2020	Numeric	1,227.8	5 Year	2016

Performance Target Justification

Number of Traffic Fatalities The FY2020 target for total traffic fatalities was established in coordination with the Strategic Highway Safety Plan (SHSP) developed by the North Carolina Executive Committee for Highway Safety. North Carolina is a Vision Zero state. The working goal of the SHSP plan is to cut fatalities in half based on 2013 figures, reducing the total annual fatalities by 630 by 2030. The target for overall traffic fatalities in the FY2020 Highway Safety Plan matches the target in the SHSP.

Performance Measure: C-2) Number of serious injuries in traffic crashes (State crash data files)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-2) Number of serious injuries in traffic crashes (State crash data files)-2020	Numeric	2,812.8	5 Year	2016

Performance Target Justification

Number of serious injuries in traffic crashes The FY2020 target for serious injuries was established in coordination with the Strategic Highway Safety Plan (SHSP) developed by the North Carolina Executive Committee for Highway Safety. The working goal of the SHSP plan is to cut serious injuries in half based on 2013 figures, reducing the total serious injuries by 1,055 by 2030. The target for serious injuries in the FY2020 Highway Safety Plan matches the target in the SHSP.

Performance Measure: C-3) Fatalities/VMT (FARS, FHWA)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-3) Fatalities/VMT (FARS, FHWA)-2020	Numeric	1.084	5 Year	2016

Performance Target Justification

Fatality rate per 100 million VMT The FY2020 target for the fatality rate per 100 million VMT was established in coordination with the Strategic Highway Safety Plan (SHSP) developed by the North Carolina Executive Committee for Highway Safety (ECHS). The ECHS adopted AASHTO’s goal to reduce the statewide fatality rate to 1.0 fatalities per 100 million VMT. The target for the fatality rate in the FY2020 Highway Safety Plan matches the target in the SHSP.

Performance Measure: C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)-2020	Percentage	10.0	5 Year	2016

Performance Target Justification

Number of Unrestrained Passenger Vehicle Occupant Fatalities The FY2020 target for unrestrained passenger vehicle occupant fatalities is based on 10-year trends in North Carolina. Our objective was to set challenging

but obtainable targets, while recognizing the ultimate goal of zero deaths from motor vehicle crashes. In addition to fatality trends, we considered the effect of external forces (e.g., economic factors), changes in population and VMT, ceiling/floor effects, and the availability and effectiveness of known countermeasures to address the problem area. GHSP funds a variety of efforts to educate drivers and to enforce the state's seat belt and child passenger safety laws.

Performance Measure: C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)-2020	Percentage	10.0	5 Year	2016

Performance Target Justification

Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS) The FY2020 target for alcohol impaired driving fatalities is based on 10-year trends in North Carolina. Our objective was to set challenging but obtainable targets, while recognizing the ultimate goal of zero deaths from motor vehicle crashes. In addition to fatality trends, we considered the effect of external forces (e.g., economic factors), changes in population and VMT, ceiling/floor effects, and the availability and effectiveness of known countermeasures to address the problem area. GHSP funds a variety of efforts to educate drivers and to enforce the state's impaired driving laws. Countermeasures include high visibility enforcement (e.g., Booze It and Lose It), DWI Enforcement Teams, the Traffic Safety Resource Prosecutor program, and DWI treatment courts.

Performance Measure: C-6) Number of speeding-related fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-6) Number of speeding-related fatalities (FARS)-2020	Percentage	5.00	5 Year	2016

Performance Target Justification

Number of speeding-related fatalities (FARS) The FY2020 target for speed-related fatalities is based on 10-year trends in North Carolina. Our objective was to set challenging but obtainable targets, while recognizing the ultimate goal of zero deaths from motor vehicle crashes. In addition to fatality trends, we considered the effect

of external forces (e.g., economic factors), changes in population and VMT, ceiling/floor effects, and the availability and effectiveness of known countermeasures to address the problem area. GHSP is committed to reducing the frequency of speed-related crashes and fatalities. GHSP funds the statewide campaign, “Speed a Little. Lose a Lot,” and funds traffic safety officers to supplement existing traffic safety teams or to create new teams.

Performance Measure: C-7) Number of motorcyclist fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-7) Number of motorcyclist fatalities (FARS)-2020	Percentage	5.00	5 Year	2016

Performance Target Justification

Number of motorcyclist fatalities (FARS) The FY2020 target for motorcyclist fatalities is based on 10-year trends in North Carolina. Our objective was to set challenging but obtainable targets, while recognizing the ultimate goal of zero deaths from motor vehicle crashes. In addition to fatality trends, we considered the effect of external forces (e.g., economic factors), changes in population and VMT, ceiling/floor effects, and the availability and effectiveness of known countermeasures to address the problem area. GHSP supports efforts to provide training to help motorcyclists become safe riders, including “BikeSafe North Carolina.”

Performance Measure: C-8) Number of unhelmeted motorcyclist fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-8) Number of unhelmeted motorcyclist fatalities (FARS)-2020	Percentage	0.00	5 Year	2016

Performance Target Justification

Number of unhelmeted motorcyclist fatalities (FARS) The FY2020 target for unhelmeted motorcyclist fatalities is based on 10-year trends in North Carolina. North Carolina has a universal helmet law covering all riders. Because North Carolina has achieved previous targets, the current target is to limit the number of unhelmeted motorcyclist fatalities to the current low number.

Performance Measure: C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year

C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)-2020	Percentage	10.0	5 Year	2016

Performance Target Justification

Number of drivers age 20 or younger involved in fatal crashes (FARS) The FY2020 target for drivers age 20 or younger involved in fatal crashes is based on 10-year trends in North Carolina. Our objective was to set challenging but obtainable targets, while recognizing the ultimate goal of zero deaths from motor vehicle crashes. In addition to fatality trends, we considered the effect of external forces (e.g., economic factors), changes in population and VMT, ceiling/floor effects, and the availability and effectiveness of known countermeasures to address the problem area. GHSP supports several innovative approaches to improving young driver safety.

Performance Measure: C-10) Number of pedestrian fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-10) Number of pedestrian fatalities (FARS)-2020	Percentage	5.0	5 Year	2016

Performance Target Justification

Number of pedestrian fatalities (FARS) The FY2020 target for pedestrian fatalities is based on 10-year trends in North Carolina. Our objective was to set challenging but obtainable targets, while recognizing the ultimate goal of zero deaths from motor vehicle crashes. In addition to fatality trends, we considered the effect of external forces (e.g., economic factors), changes in population and VMT, ceiling/floor effects, and the availability and effectiveness of known countermeasures to address the problem area. The current target strives to reverse the trend of increasing pedestrian fatalities in North Carolina.

Performance Measure: C-11) Number of bicyclists fatalities (FARS)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
C-11) Number of bicyclists fatalities (FARS)-2020	Percentage	10.0	5 Year	2016

Performance Target Justification

Number of bicyclist fatalities (FARS) The FY2020 target for bicyclist fatalities is based on 10-year trends in North Carolina. Our objective was to set challenging but obtainable targets, while recognizing the ultimate goal of zero deaths from motor vehicle crashes. In addition to fatality trends, we considered the effect of external

forces (e.g., economic factors), changes in population and VMT, ceiling/floor effects, and the availability and effectiveness of known countermeasures to address the problem area.

Performance Measure: B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)-2020	Numeric	93.40	5 Year	2016

Performance Target Justification

Observed seat belt use for passenger vehicles, front seat outboard occupants (survey) The FY2020 target for observed seat belt use is based on 10-year trends in North Carolina. Our objective was to set challenging but obtainable targets, while recognizing the ultimate goal of zero deaths from motor vehicle crashes. In addition to observed trends in seat belt use, we considered the effect of external forces (e.g., economic factors), changes in population and VMT, ceiling/floor effects, and the availability and effectiveness of known countermeasures to address the problem area.

Performance Measure: Number of core traffic records databases improved (timeliness)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
Number of core traffic records databases improved (timeliness)-2020	Numeric	1.00	Annual	2020

Primary performance attribute: Timeliness

Core traffic records data system to be impacted: Citation/Adjudication

Performance Target Justification

GHSP recognizes the importance of traffic safety records being accessible, accurate, complete, timely, and uniform. Traffic record improvements normally require long-term efforts due to the complexity of enhancing, modifying or replacing a database or database components. Traffic records targets are based upon input form the Traffic Records Coordinating Committee, the current Traffic Records Strategic Plan, and recommendations from the latest Traffic Records Assessment.

Performance Measure: Number of core traffic records databases improved (accessibility)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
Number of core traffic records databases improved (accessibility)-2020	Numeric	1.00	Annual	2020

Primary performance attribute: Accessibility

Core traffic records data system to be impacted: Crash

Performance Target Justification

GHSP recognizes the importance of traffic safety records being accessible, accurate, complete, timely, and uniform. Traffic record improvements normally require long-term efforts due to the complexity of enhancing, modifying or replacing a database or database components. Traffic records targets are based upon input form the Traffic Records Coordinating Committee, the current Traffic Records Strategic Plan, and recommendations from the latest Traffic Records Assessment.

Performance Measure: Number of core traffic records databases improved (integration)

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
Number of core traffic records databases improved (integration)-2020	Numeric	1.00	Annual	2020

Primary performance attribute: Integration

Core traffic records data system to be impacted: Emergency Medical Services/Injury Surveillance Systems

Performance Target Justification

GHSP recognizes the importance of traffic safety records being accessible, accurate, complete, timely, and uniform. Traffic record improvements normally require long-term efforts due to the complexity of enhancing, modifying or replacing a database or database components. Traffic records targets are based upon input form the Traffic Records Coordinating Committee, the current Traffic Records Strategic Plan, and recommendations from the latest Traffic Records Assessment.

Performance Measure: Number of older drives involved in fatal crashes

Performance Target details

Performance Target	Target Metric Type	Target Value	Target Period	Target Start Year
Number of older drives involved in fatal crashes-2020	Percentage	5.00	5 Year	2016

Performance Target Justification

Number of Older Drivers Involved in Fatal Crashes The FY2020 target for older driver fatal crashes is based on 10-year trends in North Carolina. Our objective was to set challenging but obtainable targets, while recognizing the ultimate goal of zero deaths from motor vehicle crashes. In addition to fatality trends, we considered the effect of external forces (e.g., economic factors), changes in population and VMT, ceiling/floor effects, and the availability and effectiveness of known countermeasures to address the problem area. The current target strives to reverse the trend of rising older driver fatal crashes in North Carolina.

Certification: State HSP performance targets are identical to the State DOT targets for common performance measures (fatality, fatality rate, and serious injuries) reported in the HSIP annual report, as coordinated through the State SHSP.

I certify: Yes

A-1) Number of seat belt citations issued during grant-funded enforcement activities*

Seat belt citations: 29514

Fiscal Year A-1: 2018

A-2) Number of impaired driving arrests made during grant-funded enforcement activities*

Impaired driving arrests: 9398

Fiscal Year A-2: 2018

A-3) Number of speeding citations issued during grant-funded enforcement activities*

Speeding citations: 121868

Fiscal Year A-3: 2018

Program areas

Program Area: Communications (Media)

Description of Highway Safety Problems

Communications (Media)

The GHSP Communications and Media plan targets two areas of primary concern: occupant protection and alcohol-impaired driving. Young males ages 21-34 are disproportionally affected by crashes involving impairment, not wearing seat belts, or both. Therefore, GHSP has focused many of our media efforts on this demographic and the plan is to continue that focus next year. GHSP is also targeting the 25 counties with the highest impaired driving crash rates and the 25 counties with the lowest seat belt use rates. All campaigns in these areas will include both paid and earned media. To a lesser extent, GHSP also uses paid media to support pedestrian/bicycle

safety and motorcycle safety activities.

According to NHTSA's Countermeasures that Work, high visibility enforcement is one of the most effective approaches for reducing impaired driving and seat belt nonuse. Campaigns such as Click It or Ticket and Booze It & Lose It are designed to identify and cite drivers who are impaired or not wearing seat belts. However, the largest benefit from such campaigns comes from deterring the general driving population from violating traffic safety laws. When drivers believe impaired driving or seat belt nonuse is likely to be detected and violators punished, fewer will engage in these high-risk behaviors. To ensure the general driving population is aware of law enforcement campaigns, they must be highly visible and publicized extensively. North Carolina will also participate in all national impaired driving mobilizations. A North Carolina specific public service announcement will be placed across the State during the holiday campaign (December 2019 – January 2020). Again, media will include outlets such as television, radio, digital media, internet radio, social media and out-of-home elements. Earned media will be gained from kickoff events as well as high visibility checkpoints throughout the campaigns.

In occupant protection, North Carolina will participate in the national Click It or Ticket mobilization in FY20. Media will concentrate on counties and demographic groups which demonstrate low seat belt usage as described under the Occupant Protection program area. Paid media spots will convey an enforcement or social norming message to compliment the national media placement. Media will include outlets such as television, radio, digital media, internet radio, social media and out-of-home elements. Planned campaign kickoffs will precede the mobilizations.

GHSP has used sports marketing to reach our target demographics. Previously, GHSP had commitments from the all major league teams in North Carolina, all major universities, NASCAR, eight of the nine minor league baseball clubs and Live Nation outdoor concert venues. This year, GHSP has focused on intensive marketing at several local venues frequented by this young male demographic. That includes local music festivals, local automobile race tracks, state and local events such as bull riding contests and other local and state sporting events. For instance, GHSP is working closely with the Hopscotch Music Festival, the Internal Bluegrass Festival and the Carolina Rebellion Music Festival to reach young males vulnerable to impaired driving and not using seat belts. For FY2020, we will continue this focus on marketing to this population by continuing our alliances with these groups. Sports and events marketing efforts will continue to focus on occupant protection and impaired driving.

In FY2020, GHSP will also be working with rideshare companies to create marketing

opportunities to reduce instances of impaired driving. Both Uber and Lyft have recently hired marketing contacts in North Carolina and we expect to use those new contacts to form innovative alliances marketed towards young people. GHSP also plans to work with rideshare companies to encourage their customers to use seatbelts while using these services.

GHSP plans in FY2020 to continue strong use of targeted social media that began in FY2019. For instance, GHSP will have targeted paid media on music sharing apps such as Pandora, social media platforms such as Instagram and others, and targeted ads on media tablets/channels such as ESPN, Men's Health magazine and others. We have integrated social media platforms such as Facebook, Instagram and Twitter as part of our daily community and public engagement practices. We anticipate using these resources to build social media buzz around safe-driving initiatives on a continual basis.

Pedestrian and bicycle media efforts will focus on awareness of the Watch for Me campaign. Paid media will include sidewalk stenciling, transit signage and other out-of-home elements.

Motorcycle safety awareness media efforts will include extensive social media, outreach to motorcycle clubs and marketing opportunities in conjunction with selected motorcycle events promoting the training classes offered through the BikeSafeNC program.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)	2020	5 Year	10.0
2020	C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)	2020	5 Year	10.0
2020	C-10) Number of pedestrian fatalities (FARS)	2020	5 Year	5.0

Countermeasure Strategies in Program Area

Countermeasure Strategy
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)

2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)

Countermeasure Strategy: 1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)

Program Area: Communications (Media)

Project Safety Impacts

Linkage Between Program Area

The GHSP Communications and Media intends to focus primary efforts on alcohol-impaired driving and occupant protection. While 2017 resulted in minimal declines in the number of alcohol related fatalities, GHSP must remain intently focused on reducing fatalities in this area. The use of mass media campaigns will afford the opportunity to address recognized specific target populations (young males aged 21-34) who are disproportionately affected by crashes involving impairment. Proposed targets in FY20 include decreasing alcohol-impaired driving fatalities. Effective media campaigns not only deter the general driving public from violating traffic safety laws, effective media campaigns can create the perception that more law enforcement are actively patrolling.

Rationale

Mass media campaigns earn 3 stars in NHTSA's Countermeasures that Work. Research shows that mass media campaigns can reduce alcohol-related crashes by 13% when the campaigns are carefully planned, well-funded, achieve a high level of audience exposure, have high-quality messages that were pre-tested for effectiveness, and are conducted in conjunction with other impaired-driving activities (e.g., Booze It and Lose It).
For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 12	Media
NC GHSP 4	Training and Education - Impaired Driving

Planned Activity: Media

Planned activity number: NC GHSP 12

Primary Countermeasure Strategy ID:

Planned Activity Description

Coordinate with communications partners to ensure effective public service announcements designed to focus on highway safety.

Intended Subrecipients

Countermeasure strategies

Countermeasure Strategy

1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
	FAST Act 405b OP High	405b High Paid Advertising (FAST)			
2018	FAST Act 405b OP High	405b High Occupant Protection (FAST)	$200,000.00	$0.00	
2017	FAST Act 405b OP Low	405b OP Low (FAST)	$46,482.73	$0.00	
2019	FAST Act 405d Impaired Driving Mid	405d Mid Paid/Earned Media (FAST)	$200,000.00	$0.00	
2017	FAST Act 405h Nonmotorized Safety	405h Public Education	$100,000.00	$100,000.00	
2018	FAST Act NHTSA 402	Pedestrian Safety (FAST)	$100,000.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Occupant Protection (FAST)	$319,663.55	$0.00	$0.00
2016	MAP 21 405b Occupant Protection High Belt Use	405b High Occupant Protection (MAP-21)	$83,853.72	$0.00	
	MAP 21 405b Occupant Protection Low Belt Use	405b Low HVE (MAP-21)			
	MAP 21 405d Impaired Driving low	405d Mid BAC Paid/Earned Media (MAP-21)			

	MAP 21 405d Impaired Driving low	405d Mid BAC Paid/Earned Media (MAP-21)			
2016	MAP 21 405d Impaired Driving mid	405d Mid Paid/Earned Media	$800,000.00	$0.00	
	NHTSA 402	Paid Advertising			
	NHTSA 402	Paid Advertising			
2016	NHTSA 402	Occupant Protection	$50,000.00	$0.00	$0.00

Planned Activity: Training and Education - Impaired Driving

Planned activity number: NC GHSP 4

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts focused on impaired driving detection, enforcement, and awareness.

Intended Subrecipients

Subrecipients will include law enforcement agencies and supporting organizations, non-profit organizations focused on traffic safety initiatives, and government agencies focused on traffic safety efforts.

Countermeasure strategies

Countermeasure Strategy
1.1.1 Administrative License Revocation or Suspension (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.5 Integrated Enforcement (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.7.1 Enforcement of Drug Impaired Driving (Chapter 1: Alcohol and Drug Impaired Driving)
9.3.2 Promote Bicycle Helmet Use with Education (Chapter 9 Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Mid	405d Mid Drug and Alcohol Training (FAST)	$326,298.00	$0.00	
2017	FAST Act NHTSA 402	Alcohol (FAST)	$1,059,211.00	$0.00	$827,875.00

2018	FAST Act NHTSA 402	Police Traffic Services (FAST)	$66,050.00	$0.00	$0.00

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Data Entry Management System Licensing Agreement	1	$95,000.00	$95,000.00	$95,000.00	$95,000.00
DRE Web-Based Call-Out System	1	$7,500.00	$7,500.00	$7,500.00	$7,500.00
In-Car Video System	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$35,000.00	$70,000.00

Countermeasure Strategy: 2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)

Program Area: Communications (Media)

Project Safety Impacts

Linkage Between Program Area

The GHSP Communications and Media intends to focus primary efforts on alcohol-impaired driving and occupant protection. While 2017 resulted in minimal declines in the number of alcohol related, GHSP must remain intently focused on reducing fatalities in this area. The use of mass media campaigns will afford the opportunity to address recognized specific target populations (young males aged 21-34) who are disproportionately affected by crashes involving impairment. Proposed targets in FY20 include decreasing alcohol-impaired driving fatalities. Effective media campaigns not only deter the general driving public from violating traffic safety laws, effective media campaigns can create the perception that more law enforcement are actively patrolling.

Rationale

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 12	Media

Planned Activity: Media

Planned activity number: NC GHSP 12

Primary Countermeasure Strategy ID:

Planned Activity Description

Coordinate with communications partners to ensure effective public service announcements designed to focus on highway safety.

Intended Subrecipients

Countermeasure strategies

Countermeasure Strategy
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
	FAST Act 405b OP High	405b High Paid Advertising (FAST)			
2018	FAST Act 405b OP High	405b High Occupant Protection (FAST)	$200,000.00	$0.00	
2017	FAST Act 405b OP Low	405b OP Low (FAST)	$46,482.73	$0.00	
2019	FAST Act 405d Impaired Driving Mid	405d Mid Paid/Earned Media (FAST)	$200,000.00	$0.00	
2017	FAST Act 405h Nonmotorized Safety	405h Public Education	$100,000.00	$100,000.00	
2018	FAST Act NHTSA 402	Pedestrian Safety (FAST)	$100,000.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Occupant Protection (FAST)	$319,663.55	$0.00	$0.00

2016	MAP 21 405b Occupant Protection High Belt Use	405b High Occupant Protection (MAP-21)	$83,853.72	$0.00	
	MAP 21 405b Occupant Protection Low Belt Use	405b Low HVE (MAP-21)			
	MAP 21 405d Impaired Driving low	405d Mid BAC Paid/Earned Media (MAP-21)			
	MAP 21 405d Impaired Driving low	405d Mid BAC Paid/Earned Media (MAP-21)			
2016	MAP 21 405d Impaired Driving mid	405d Mid Paid/Earned Media	$800,000.00	$0.00	
	NHTSA 402	Paid Advertising			
	NHTSA 402	Paid Advertising			
2016	NHTSA 402	Occupant Protection	$50,000.00	$0.00	$0.00

Countermeasure Strategy: 9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)

Program Area: Communications (Media)

Project Safety Impacts

The purpose of Share the Road programs is to increase driver's awareness of bicyclists, as well as improve both bicyclist and driver compliance with relevant traffic laws. The use of media to conduct outreach and further the Share the Road message add immense value. Effective campaigns such as Watch4Me serve to develop messages and delivery methods that are appropriate and effective.

Linkage Between Program Area

North Carolina experienced increases in bicyclists and pedestrian fatalities in 2017. Pedestrian deaths have increased gradually since 2009. Bicyclist fatalities have fluctuated from year to year since 2007. However, as more municipalities make changes to roadways and related infrastructure through the use of designated bicycle lanes, communications and outreach strategies providing Share the Road messages will be instrumental in keeping the cycling and motoring public safe.

Rationale

Share the Road Awareness Campaigns earn one star in NHTSA's Countermeasures that Work. Share the Road

awareness materials can be effective in increasing knowledge and appropriate attitudes.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 12	Media

Planned Activity: Media

Planned activity number: NC GHSP 12

Primary Countermeasure Strategy ID:

Planned Activity Description

Coordinate with communications partners to ensure effective public service announcements designed to focus on highway safety.

Intended Subrecipients

Countermeasure strategies

Countermeasure Strategy
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
	FAST Act 405b OP High	405b High Paid Advertising (FAST)			
2018	FAST Act 405b OP High	405b High Occupant Protection (FAST)	$200,000.00	$0.00	
2017	FAST Act 405b OP Low	405b OP Low (FAST)	$46,482.73	$0.00	
2019	FAST Act 405d Impaired Driving Mid	405d Mid Paid/Earned Media (FAST)	$200,000.00	$0.00	

2017	FAST Act 405h Nonmotorized Safety	405h Public Education	$100,000.00	$100,000.00	
2018	FAST Act NHTSA 402	Pedestrian Safety (FAST)	$100,000.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Occupant Protection (FAST)	$319,663.55	$0.00	$0.00
2016	MAP 21 405b Occupant Protection High Belt Use	405b High Occupant Protection (MAP-21)	$83,853.72	$0.00	
	MAP 21 405b Occupant Protection Low Belt Use	405b Low HVE (MAP-21)			
	MAP 21 405d Impaired Driving low	405d Mid BAC Paid/Earned Media (MAP-21)			
	MAP 21 405d Impaired Driving low	405d Mid BAC Paid/Earned Media (MAP-21)			
2016	MAP 21 405d Impaired Driving mid	405d Mid Paid/Earned Media	$800,000.00	$0.00	
	NHTSA 402	Paid Advertising			
	NHTSA 402	Paid Advertising			
2016	NHTSA 402	Occupant Protection	$50,000.00	$0.00	$0.00

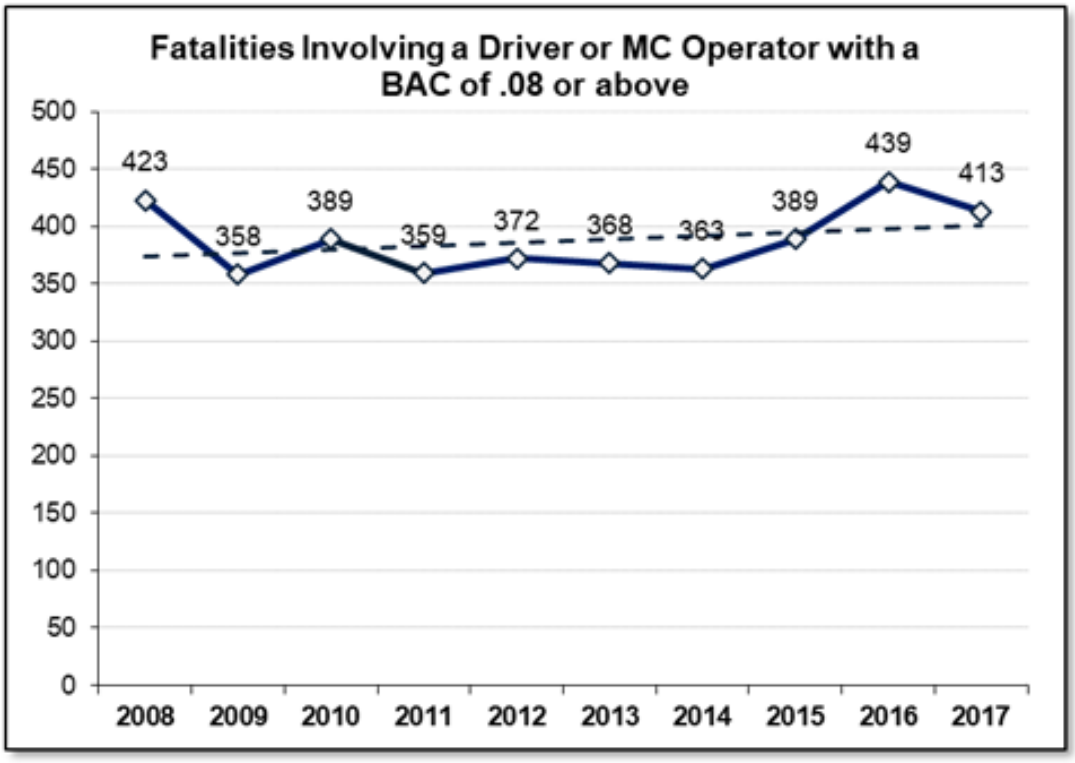
Program Area: Impaired Driving (Drug and Alcohol)

Description of Highway Safety Problems

Impaired Driving (Drugs and Alcohol)

Alcohol-impaired Driving: Crashes, Deaths and Injuries

During 2017, 413 persons were killed in crashes in North Carolina involving a driver or motorcycle operator with a BAC of .08 or above. This was a six percent decrease from the 439 alcohol-involved fatalities in 2016. The long-term trend suggests a slight increase in the number of traffic fatalities involving an impaired driver, as shown in the figure below.



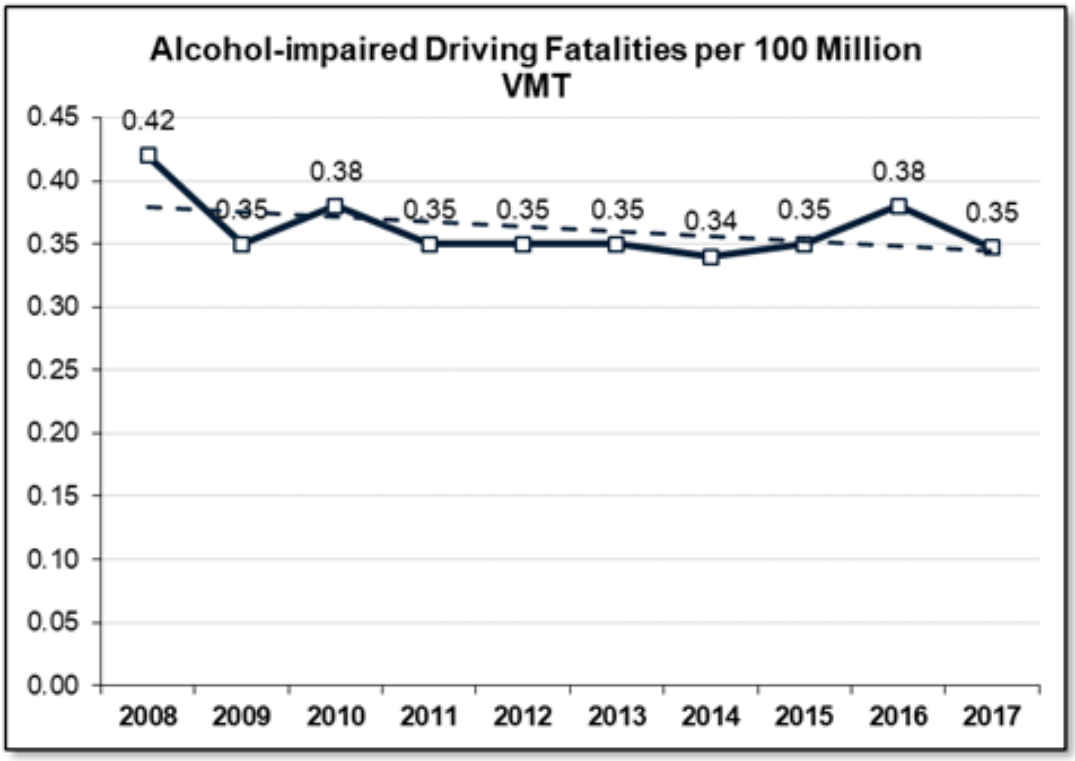
Source: FARS, 2008–2017

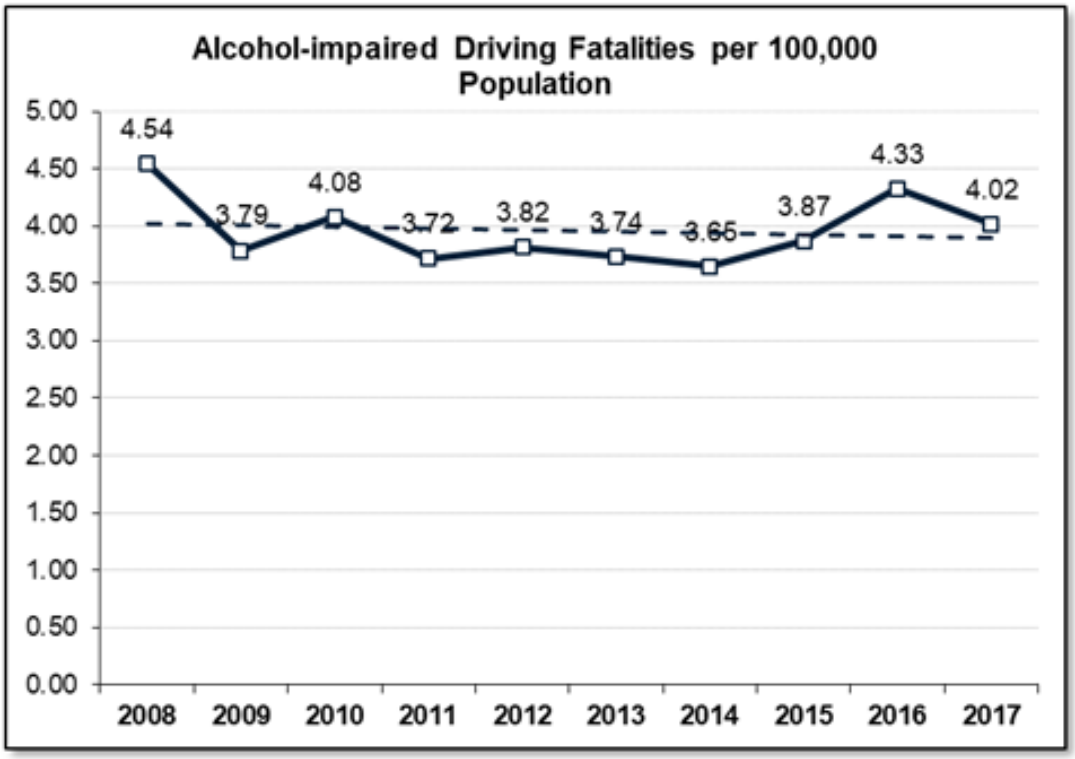
Twenty-nine percent of traffic fatalities in 2017 involved an alcohol-impaired driver. This is similar to previous years. Over the past decade, approximately 28 to 30 percent of fatalities each year involve a driver with a BAC of .08 or above.

During 2017, there were 0.35 alcohol-impaired driving fatalities per 100 million vehicle miles traveled (VMT) in North Carolina. This is somewhat lower than the 0.38 fatalities per 100 million MVT recorded in 2016. The change reflects a decrease in the number of alcohol-impaired driving fatalities accompanied by an increase in VMT. As shown in the figure below, the long-term trend suggests a gradual decrease in alcohol-impaired fatalities per VMT.

Source: FARS, 2008–2017 and FHWA

As mentioned earlier, North Carolina's population has grown rapidly during the past decade. Consequently, it is important to consider fatality rates per capita. The figure below shows alcohol-impaired driving fatalities per 100,000 population in North Carolina from 2008 through 2017. Alcohol-impaired driving fatalities per capita dropped noticeably in 2017. The long-term trend suggests a slight decrease in alcohol-impaired fatalities per capita over the past 10 years.





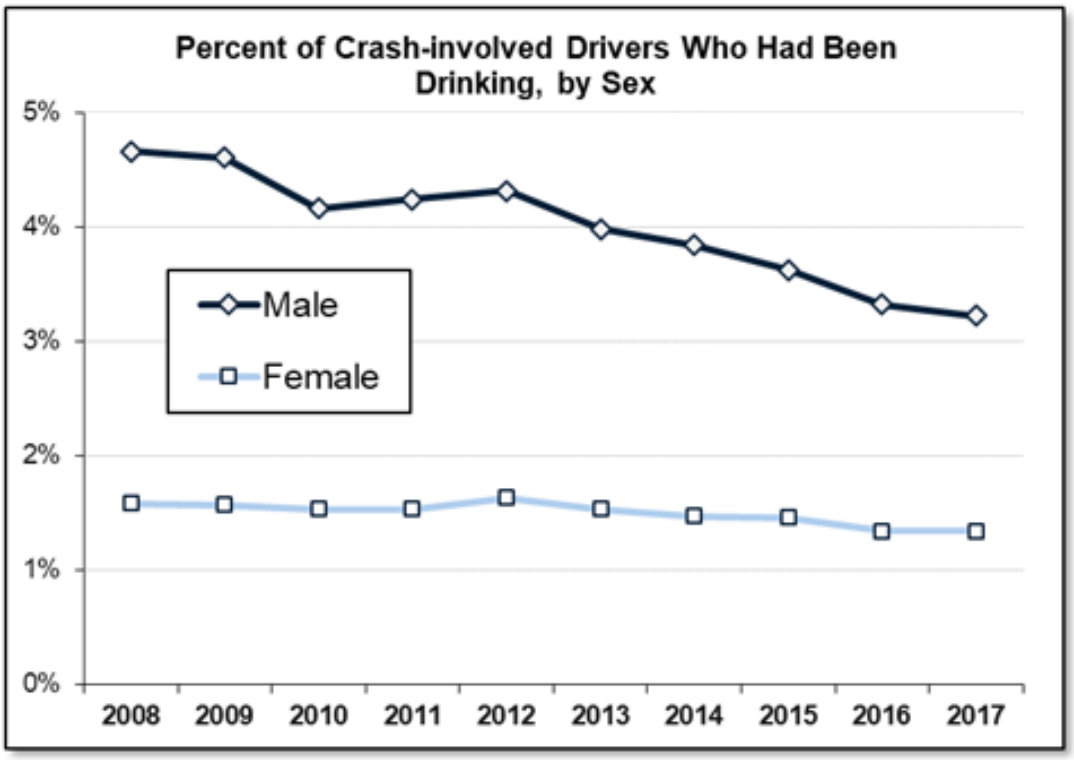
Source: FARS, 2008–2017 and U.S. Census

In addition to the 413 alcohol-impaired driving fatalities in 2017, there were 638 serious (“A”) injuries, 4,546 less severe injuries, and 5,447 property damage only crashes. Alcohol is less often involved in non-fatal crashes. Among all drivers in crashes in North Carolina during 2017, only 2.36 percent had been drinking (based on the judgment of the law enforcement officer who

completed the crash report form). This is a slight drop from 2016, when 2.42 percent of all drivers were judged to have been drinking.

Alcohol involvement is more common among drivers involved in rural crashes (3.5 percent) than urban crashes (1.7 percent). Rural roadways are inherently more dangerous than urban roadways, and they can be particularly difficult to handle if a driver has been drinking.

Additionally, alcohol-involvement in crashes is higher among males than females: 3.2 percent versus 1.3 percent. As shown in the figure below, alcohol-involvement among males has trended downward, especially since 2012. Meanwhile, alcohol-involvement among females has changed very little. This mirrors national trends.

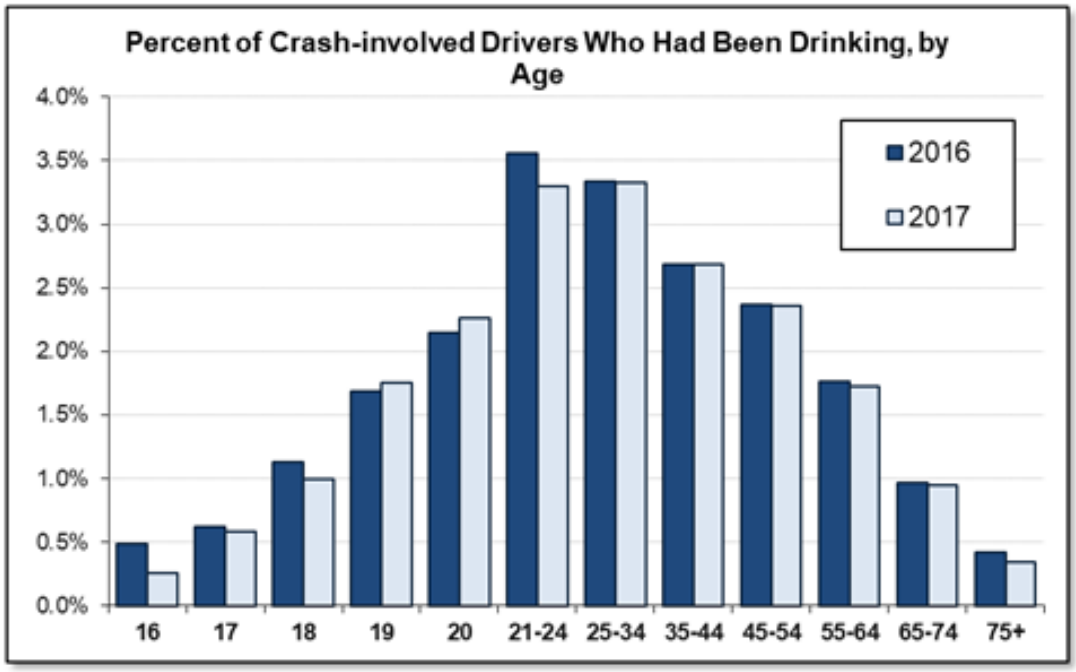


ource: NCDOT Motor Vehicle Crash Data, 2008–2017

Alcohol-involvement also varies substantially by the age of the driver. As shown in the next figure, alcohol involvement is highest among crash-involved drivers between the ages of 21 and 34. Contrary to popular notion, North Carolina's youngest drivers seldom drink and drive. The percent of 16- and 17-year-old crash-involved drivers who had been drinking is comparable to that of drivers age 75 and older. During 2017, alcohol involvement in crashes decreased somewhat for many of the younger age groups.

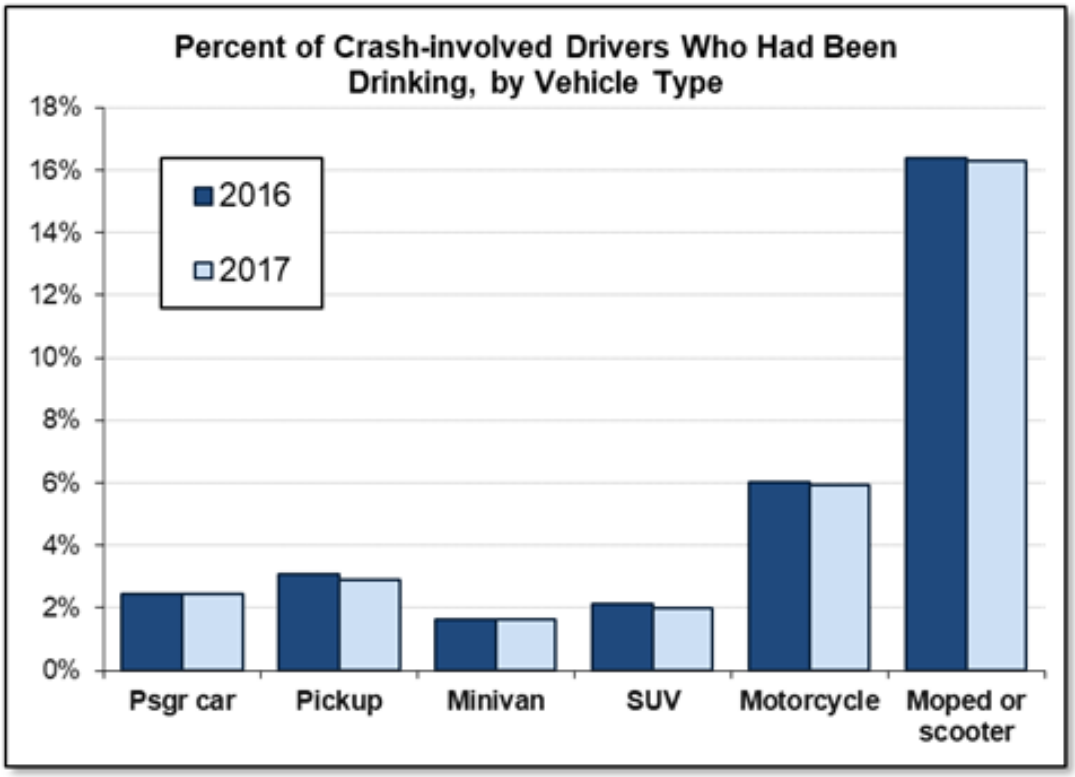
Source: NCDOT Motor Vehicle Crash Data, 2016–2017

Drivers of different vehicle types also vary in their rate of alcohol-involvement in crashes. As shown below, alcohol-involvement in crashes is highest among riders of motorcycles and mopeds/scooters. During 2017, 6.1 percent of motorcycle crashes and 16.4 percent of



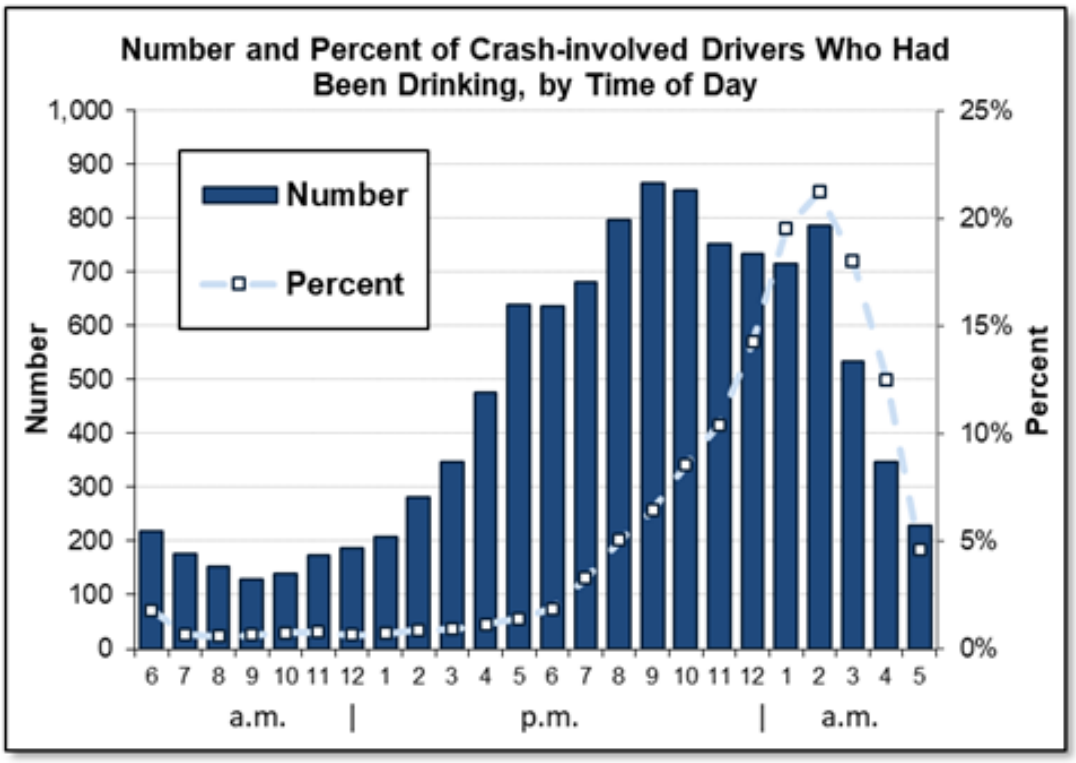
moped/scooter crashes involved a driver who had been drinking. Alcohol-involvement by vehicle type changed little between 2016 and 2017.

Source: NCDOT Motor Vehicle Crash Data, 2016–2017



The figure below shows the number (left axis, blue bars) and percent (right axis, blue line) of crashes involving alcohol by time of day. The number of alcohol-involved crashes peaks between 8 and 11 p.m. During 2017, there were 1,515 crashes involving alcohol between 8:00–10:59 p.m., accounting for six percent of all crashes during those hours of the day. The

highest percent of alcohol-involved crashes occurred at 2 a.m. More than 20% of crashes from 2:00-2:59 a.m. involved alcohol. Overall, both the number and percent of alcohol-involved crashes are relatively high between 8:00 p.m. and 2:59 a.m.



Source: NCDOT Motor Vehicle Crash Data, 2017

North Carolina has 100 counties. The table below shows the 38 counties with the most fatalities in crashes from 2013 to 2017 involving a driver with a BAC of .08 or above. Mecklenburg and Wake counties had the most alcohol-involved fatalities during this period, followed by Guilford, Cumberland, Robeson and Forsyth counties. Altogether, the 38 counties listed in the table accounted for 76 percent of all alcohol-involved fatalities in North Carolina's from 2013 to 2017. The table also shows the alcohol-involved fatality rate per 10,000 population. Many of the counties with the highest per capita rates of alcohol-involved fatalities are in the southeastern part of the state (e.g., Robeson, Columbus, Sampson, Pender and Hoke counties).

Fatalities in Crashes Involving a Driver with a BAC of .08 or Above, 2013–2017

County	Fatalities in alcohol-involved crashes	Fatalities per 10,000 population	% of all alcohol involved fatalities
Mecklenburg	163	1.51	8.19%
Wake	113	1.05	5.68%
Guilford	94	1.78	4.72%
Cumberland	67	2.01	3.37%
Robeson	66	4.98	3.32%
Forsyth	61	1.62	3.07%

Johnston	45	2.29	2.26%
Davidson	42	2.54	2.11%
Durham	39	1.25	1.96%
Onslow	38	1.96	1.91%
Gaston	37	1.68	1.86%
Buncombe	36	1.40	1.81%
Harnett	36	2.71	1.81%
Catawba	35	2.22	1.76%
Iredell	34	1.93	1.71%
Cleveland	32	3.29	1.61%
Nash	32	3.40	1.61%
Union	31	1.34	1.56%
Moore	30	3.08	1.51%
New Hanover	30	1.32	1.51%
Randolph	30	2.09	1.51%
Rowan	29	2.06	1.46%
Wayne	29	2.34	1.46%
Alamance	28	1.72	1.41%
Brunswick	28	2.14	1.41%
Cabarrus	27	1.31	1.36%
Wilson	27	3.31	1.36%
Columbus	26	4.65	1.31%
Pitt	26	1.45	1.31%
Lincoln	25	3.03	1.26%
Sampson	25	3.94	1.26%
Pender	23	3.77	1.16%
Hoke	22	4.07	1.11%
Orange	22	1.52	1.11%
Lee	21	3.48	1.06%
Vance	21	4.75	1.06%
Caldwell	20	2.44	1.01%
Halifax	20	3.90	1.01%

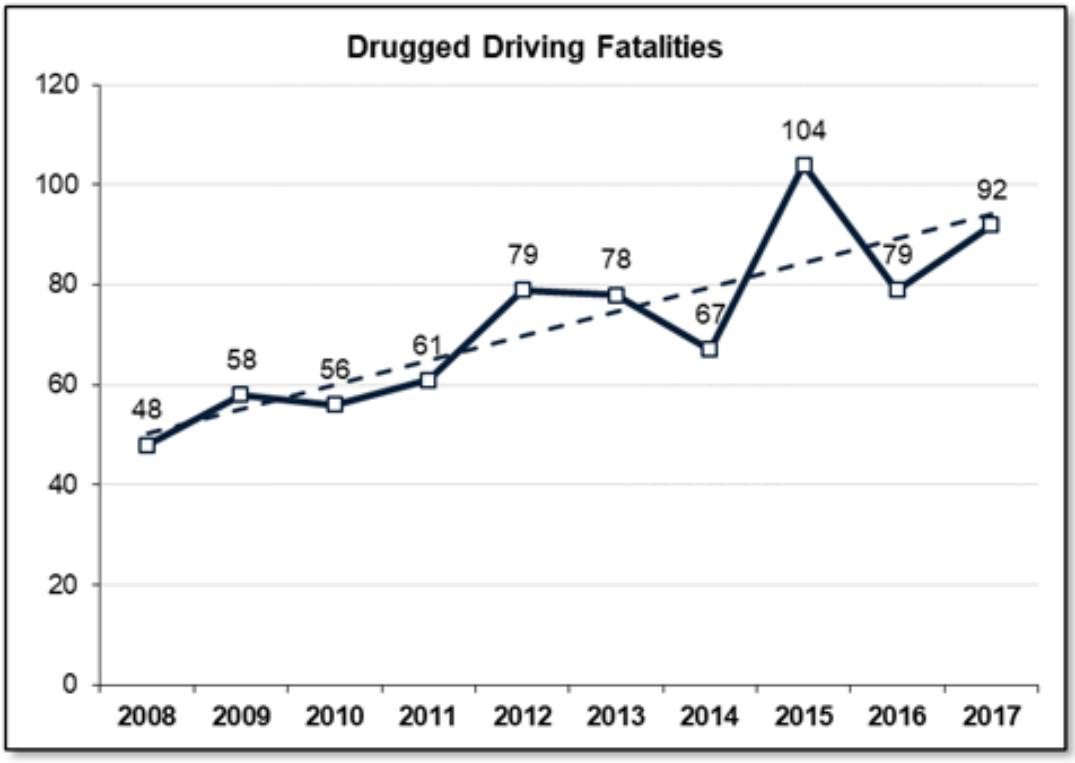
Source: FARS, 2013–2017 and U.S. Census Bureau

Drugged Driving: Crashes, Deaths and Injuries

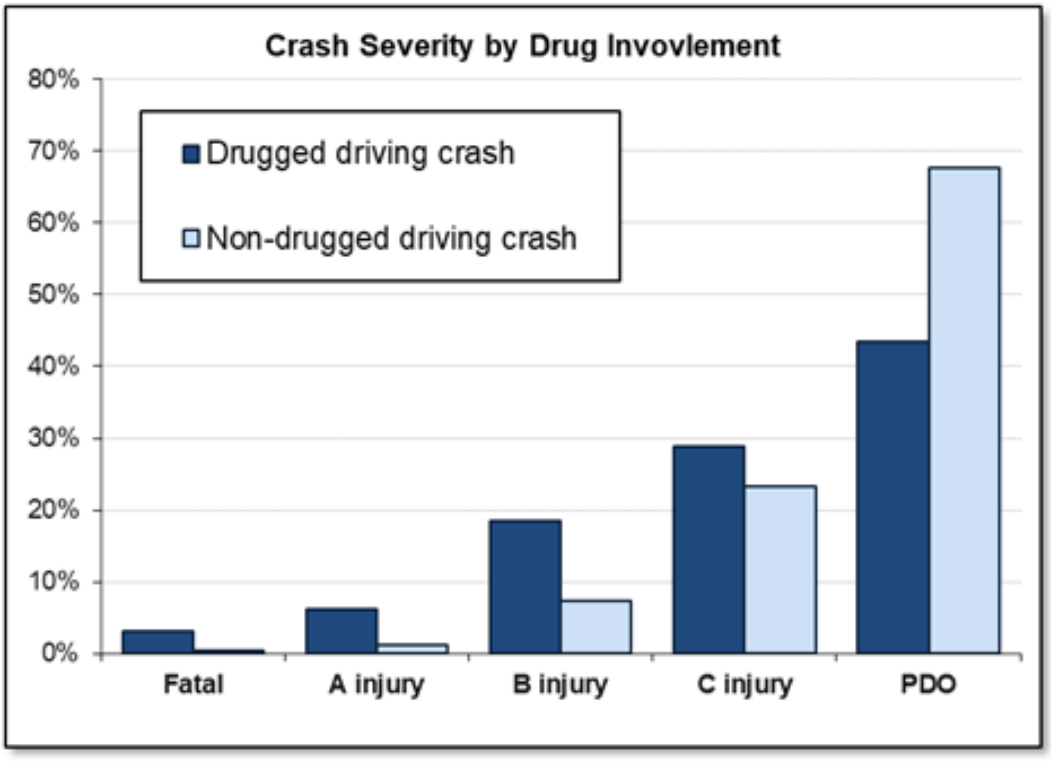
During 2017, there were 92 drugged driving fatalities in North Carolina. These are instances where an officer suspected that at least one driver in the crash was under the influence of a drug other than alcohol. Drugged driving fatalities have grown noticeably in North Carolina over the past decade, as shown in the figure below.

Source: NCDOT Motor Vehicle Crash Data, 2008–2017

In addition to the 92 drugged driving fatalities in 2017, there were 186 serious (“A”) injuries, 1,414 less severe injuries, and 1,299 property damage only crashes. Crashes involving drugged

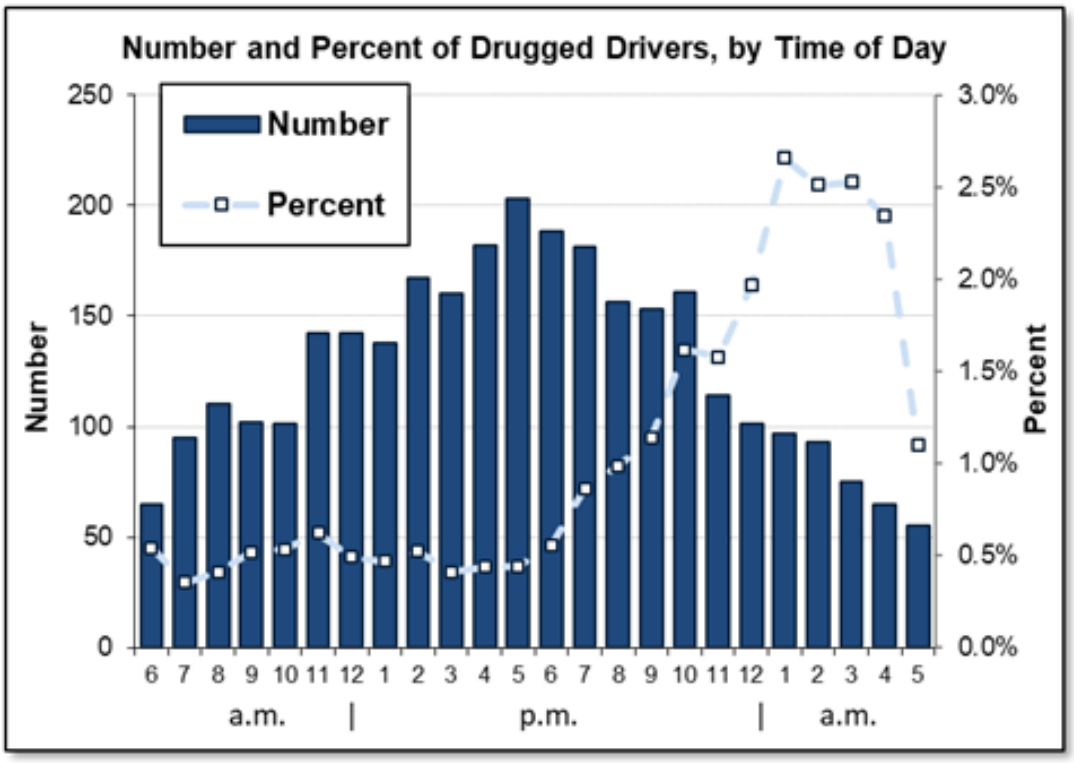


drivers are more likely to involve death or injury compared to non-drugged driving crashes. As shown in the figure below, 3.1 percent of drugged driving crashes in 2017 involved a fatality compared to just 0.4 percent of non-drugged driving crashes. Drug involvement was also over-represented in injury crashes of all severities.



Source: NCDOT Motor Vehicle Crash Data, 2017

Nearly two-thirds (65 percent) of drugged driving crashes in 2017 involved a male driver. Drugged driving crashes are also over-represented on rural roads. Only 36 percent of all crashes in North Carolina occur on rural roads, but more than half (54 percent) of drugged driving crashes are on rural roads. Drugged driving crashes also vary by time of day, as shown in the figure below. The number of drugged driving crashes (left axis, blue bars) is highest in between 2:00 and 10:59 p.m. However, the percent of crashes involving a drugged driver (right axis, blue line) is highest late at night, especially between 1:00–4:59 a.m.



Source: NCDOT Motor Vehicle Crash Data, 2017

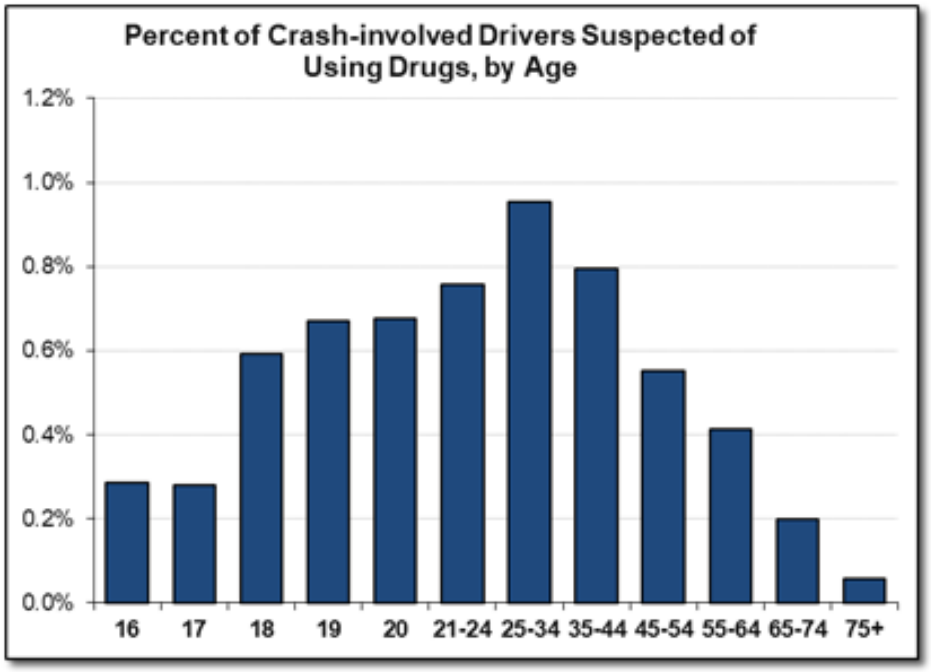
Drugged driving varies by the age of the driver. As shown in the next figure, drugged driving is highest among crash-involved drivers between the ages of 18 and 44. North Carolina's youngest and oldest drivers seldom use drugs and drive.

Source: NCDOT Motor Vehicle Crash Data, 2017

Enforcement Activities for Alcohol- and Drug-Impaired Driving

During 2018, law enforcement agencies in North Carolina conducted five waves of the Booze It & Lose It campaign:

St. Patrick's Day Booze It amp Lose It (March 15-18)
Booze It amp Lose It: Operation Firecracker (June 28-July 8)
Labor Day Booze It amp Lose It (August 23-September 3)
Halloween Booze It amp Lose It (October 25-November 04)
Holiday Booze It amp Lose It (December 14-January 2, 2019)



Across all five waves, 18,174 checkpoints and saturation patrols were conducted, resulting in a total of 6,331 DWI charges (see the table below). Compared to 2017, 21 percent fewer checkpoints and saturation patrols were conducted during Booze It & Lose It enforcement activities in 2018, and these activities resulted in 15 percent fewer DWI charges.

Law enforcement officers are encouraged to enforce North Carolina's DWI laws throughout the year between enforcement campaigns. As shown in the table below, there were a total of 43,905 DWI charges issued during 2018 and 37,574 of these were issued during non-campaign periods throughout the year. Over 80 percent of DWI charges issued in 2018 were during non-enhanced enforcement campaign times of the year.

In addition to DWI charges, the five waves of the Booze It & Lose It campaign during 2018 resulted in 16,284 charges for occupant restraint violations, 9,108 arrests for drug violations, 6,810 wanted persons apprehended, and 21,747 citations for driving without a license. An additional 2,637 DWI charges were made during other enhanced enforcement periods in 2018, such as Click It or Ticket.

Checkpoints and DWI Charges

	2018	2017
St. Patrick's Day Booze It amp Lose It		
Checkpoints and saturation patrols	1,685	1,597
DWI charges	635	558
Booze It amp Lose It: Operation Firecracker		

Checkpoints and saturation patrols	3,943	4,113
DWI charges	1,373	1,449
Labor Day Booze It amp Lose It		
Checkpoints and saturation patrols	4,309	7,793
DWI charges	1,411	2,390
Halloween Booze It amp Lose It		
Checkpoints and saturation patrols	2,592	1,622
DWI charges	883	555
Holiday Booze It amp Lose It		
Checkpoints and saturation patrols	5,645	7,818
DWI charges	2,029	2,528
Totals - All Enforcement Campaigns		
Checkpoints and saturation patrols	18,174	22,943
DWI charges	6,331	7,480
Total DWI Charges for Year (AOC*)	43,905	45,256
Total - Non-Enforcement Campaign DWI Charges #	37,574	37,776
Total - Non-Enforcement Campaign DWI Charges %	85.6%	83.5%

The information about checkpoint activity and DWI charges was provided to GHSP, as required, by law enforcement agencies participating in Booze It & Lose It enhanced enforcement periods. Each campaign included approximately 400 participating law enforcement agencies across the state, including local police departments, Sheriff's departments, and the North Carolina State Highway Patrol.

*Calendar year data from Administrative Office of the Courts includes Commercial DWI (DWI>=.04 – 20-138.2(A)(2), DWI Schedule I Controlled Substance – 20-138.2(A)(3), Commercial DWI Under the Influence – 20-138.2(A)(1), DWI Commercial Vehicle – 20-138.2) and DWI (Driving After Consuming <21 – 20-138.3, Driving While Impaired and Aid & Abet Impaired Driving - 20-138.1)

Summary

During 2017, alcohol-impaired driving fatalities in North Carolina decreased by six percent, from 439 to 413. Similarly, the rate of alcohol-impaired fatalities per capita and per 100 million VMT decreased. As in previous years, certain groups of drivers are at higher risk for alcohol-

impaired crashes including males, drivers age 21 to 34, motorcycle and motor-scooter riders, and drivers on rural roadways. Alcohol-involved crashes are most common at night, especially from 8 p.m. to 2 a.m. The counties that account for the most alcohol-involved fatalities are Mecklenburg, Wake, Guilford, Cumberland, Robeson and Forsyth.

Drugged driving appears to be a growing problem in North Carolina. The number of fatalities involving a drugged driver has increased almost 50 percent over the past decade. Drugged driving crashes are especially common among males, drivers between the ages of 18 and 44, and those living in rural areas.

GHSP believes the number of alcohol-involved and drugged driving fatalities can be further reduced through a combination of enforcement and educational programs designed to deter driving while impaired. These countermeasures are described elsewhere in this section.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-5) Number of fatalities in crashes involving a driver or motorcycle operator with a BAC of .08 and above (FARS)	2020	5 Year	10.0

Countermeasure Strategies in Program Area

Countermeasure Strategy
1.1.1 Administrative License Revocation or Suspension (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.1 Publicized Sobriety Checkpoints (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.2 High Visibility Saturation Patrols (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.5 Integrated Enforcement (Chapter 1: Alcohol and Drug Impaired Driving)
1.3.1 DWI Courts (Chapter 1: Alcohol and Drug Impaired Driving)
1.4.2 Alcohol Interlocks (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.7.1 Enforcement of Drug Impaired Driving (Chapter 1: Alcohol and Drug Impaired Driving)

Countermeasure Strategy: 1.1.1 Administrative License Revocation or Suspension (Chapter 1: Alcohol and Drug Impaired Driving)

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

Administrative license revocation (ALR) or suspension (ALS) laws allow law enforcement officers or licensing authorities to revoke or suspend a driver's license if the driver fails a BAC test. Because it happens administratively, this approach provides a swift and certain penalty for DWI offenders. It also protects the driving public by removing DWI offenders from the road. In North Carolina, the North Carolina Division of Motor Vehicles is responsible for evaluating appeals related to these types of revocations and suspensions. GHSP will partner with the NCDMV to provide training to ensure hearing officers are prepared to conduct professional and thorough hearings.

Linkage Between Program Area

One-fourth (25%) of all traffic fatalities in 2017 involved an alcohol-impaired driver. Enforcement of DWI laws is a key strategy in efforts to reduce the number of alcohol related fatalities. North Carolina laws require immediate revocation or suspension of an individual's operator's license when it is determined the individual was operating a motor vehicle while impaired. Revocation or suspension of an individual's operator's license is often an imposed penalty when arrests are adjudicated. Many who have their license suspended or revoked appeal the penalty. It is the responsibility of the North Carolina Division of Motor Vehicles to hear these appeals. The NCDMV typically conducts more than 27,000 hearings per year, many of which are directly related to a suspension or revocation resulting from a DWI arrest. Training to ensure hearing officers are prepared to conduct professional and thorough hearings is critical to furthering GHSP's goal of decreasing alcohol impaired driving fatalities in FY20.

Rationale

ALR/ALS earns a maximum of 5 stars in NHTSA's Countermeasures that Work. A review of the research literature found that ALR/ALS laws reduce crashes by an average of 13%. Other studies show ALR/ALS reduces recidivism (i.e., repeat offenses).

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 4	Training and Education - Impaired Driving

Planned Activity: Training and Education - Impaired Driving

Planned activity number: NC GHSP 4

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts focused on impaired driving detection, enforcement, and awareness.

Intended Subrecipients

Subrecipients will include law enforcement agencies and supporting organizations, non-profit organizations focused on traffic safety initiatives, and government agencies focused on traffic safety efforts.

Countermeasure strategies

Countermeasure Strategy
1.1.1 Administrative License Revocation or Suspension (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.5 Integrated Enforcement (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.7.1 Enforcement of Drug Impaired Driving (Chapter 1: Alcohol and Drug Impaired Driving)
9.3.2 Promote Bicycle Helmet Use with Education (Chapter 9 Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Mid	405d Mid Drug and Alcohol Training (FAST)	$326,298.00	$0.00	
2017	FAST Act NHTSA 402	Alcohol (FAST)	$1,059,211.00	$0.00	$827,875.00
2018	FAST Act NHTSA 402	Police Traffic Services (FAST)	$66,050.00	$0.00	$0.00

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Data Entry Management System Licensing Agreement	1	$95,000.00	$95,000.00	$95,000.00	$95,000.00
DRE Web-Based Call-Out System	1	$7,500.00	$7,500.00	$7,500.00	$7,500.00
In-Car Video System	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$35,000.00	$70,000.00

Countermeasure Strategy: 1.2.1 Publicized Sobriety Checkpoints (Chapter 1: Alcohol and Drug Impaired Driving)

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

Sobriety checkpoints are part of a traffic safety approach called high visibility enforcement (HVE). At sobriety checkpoints, law enforcement officers stop vehicles at a predetermined location to check whether the driver is impaired. In addition to removing impaired drivers from the road, checkpoints deter driving after drinking among the general population by increasing the perceived risk of arrest. For that reason, sobriety checkpoints are most effective when they are well-publicized. GHSP will partner with several state and local law enforcement agencies who will use sobriety checkpoints in an effort to combat impaired driving.

Linkage Between Program Area

Twenty-nine percent (29%) of all traffic fatalities in 2017 involved an alcohol-impaired driver. Enforcement of DWI laws is a key strategy in efforts to reduce the number of alcohol related fatalities. Sobriety checkpoints are a component of a traffic safety approach called high visibility enforcement. Sobriety checkpoints have proven to be an effective enforcement tool, especially when well publicized. Funding enforcement efforts such as sobriety checkpoints is one way GHSP seeks to decrease alcohol impaired driving fatalities in FY20.

Rationale

Sobriety checkpoints earn a maximum of 5 stars in NHTSA's Countermeasures that Work. A Centers for Disease Control and Prevention systematic review found that sobriety checkpoints reduce alcohol-related fatal and injury crashes each by approximately 20%. A number of NHTSA-funded evaluations have produced similar results.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 1	Enforcement - Impaired Driving

Planned Activity: Enforcement - Impaired Driving

Planned activity number: NC GHSP 1

Primary Countermeasure Strategy ID:

Planned Activity Description

Enforcement activities include funding for law enforcement personnel through both FTE and overtime efforts to conduct high visibility enforcement, saturation patrols, and daytime and nighttime checkpoints to actively enforce traffic safety laws primarily focused on impaired driving.

Intended Subrecipients

Subrecipients will primarily include state and local law enforcement agencies in counties ranking in the top twenty-five for fatalities in the state.

Countermeasure strategies

Countermeasure Strategy
1.2.1 Publicized Sobriety Checkpoints (Chapter 1: Alcohol and Drug Impaired Driving)

1.2.2 High Visibility Saturation Patrols (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.5 Integrated Enforcement (Chapter 1: Alcohol and Drug Impaired Driving)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405d Impaired Driving Mid	405d Mid BAC Testing/Reporting (FAST)	$458,310.00	$0.00	
2018	FAST Act 405d Impaired Driving Mid	405d Mid HVE (FAST)	$1,443,717.00	$368,925.00	
2018	FAST Act 405d Impaired Driving Mid	405d Mid Training (FAST)	$1,190,061.00	$0.00	
2019	FAST Act NHTSA 402	Alcohol (FAST)	$1,430,824.00	$2,179,061.00	$1,425,824.00

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
In-Car Video System	1	$6,000.00	$6,000.00	$6,000.00	$6,000.00
In-Car Video System	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Mobile Data Terminal (MDT)	1	$6,000.00	$6,000.00	$6,000.00	$6,000.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Patrol Vehicle	1	$35,000.00	$35,000.00	$35,000.00	$35,000.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$35,000.00	$70,000.00
Training and Certification Database Software	1	$75,000.00	$75,000.00	$75,000.00	$75,000.00
Training and Certification Database Software	1	$40,000.00	$40,000.00	$40,000.00	$40,000.00

Countermeasure Strategy: 1.2.2 High Visibility Saturation Patrols (Chapter 1: Alcohol and Drug Impaired Driving)

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

Saturation patrols involve teams of law enforcement officers patrolling a specific area for a set time to detect and arrest impaired drivers. Similar to sobriety checkpoints, saturation patrols are most effective when they are well-publicized. The goal is to deter driving after drinking by increasing the perceived risk of arrest. Often these patrols focus on areas where impaired driving is common and where alcohol-involved crashes frequently occur. GHSP will partner with several state and local law enforcement agencies to provide funding for personnel dedicated to impaired driving enforcement.

Linkage Between Program Area

Twenty-nine percent (29%) of all traffic fatalities in 2017 involved an alcohol-impaired driver. Enforcement of DWI laws is a key strategy in efforts to reduce the number of alcohol related fatalities. Saturation patrols are a component of a traffic safety approach called high visibility enforcement. Saturation patrols have proven to be an effective enforcement tool, especially when utilized in areas where data reveals increased numbers of alcohol related crashes. Funding enforcement efforts such as saturation patrols is one way GHSP seeks to decrease alcohol impaired driving fatalities in FY20.

Rationale

Saturation patrols earn 4 stars in NHTSA's Countermeasures that Work. Research suggests that saturation patrols are effective in increasing arrests for drinking and driving and reducing alcohol-related fatal crashes. For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 1	Enforcement - Impaired Driving

Planned Activity: Enforcement - Impaired Driving

Planned activity number: NC GHSP 1

Primary Countermeasure Strategy ID:

Planned Activity Description

Enforcement activities include funding for law enforcement personnel through both FTE and overtime efforts to conduct high visibility enforcement, saturation patrols, and daytime and nighttime checkpoints to actively enforce traffic safety laws primarily focused on impaired driving.

Intended Subrecipients

Subrecipients will primarily include state and local law enforcement agencies in counties ranking in the top twenty-five for fatalities in the state.

Countermeasure strategies

Countermeasure Strategy
1.2.1 Publicized Sobriety Checkpoints (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.2 High Visibility Saturation Patrols (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.5 Integrated Enforcement (Chapter 1: Alcohol and Drug Impaired Driving)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405d Impaired Driving Mid	405d Mid BAC Testing/Reporting (FAST)	$458,310.00	$0.00	
2018	FAST Act 405d Impaired Driving Mid	405d Mid HVE (FAST)	$1,443,717.00	$368,925.00	
2018	FAST Act 405d Impaired Driving Mid	405d Mid Training (FAST)	$1,190,061.00	$0.00	
2019	FAST Act NHTSA 402	Alcohol (FAST)	$1,430,824.00	$2,179,061.00	$1,425,824.00

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
In-Car Video System	1	$6,000.00	$6,000.00	$6,000.00	$6,000.00
In-Car Video System	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Mobile Data Terminal (MDT)	1	$6,000.00	$6,000.00	$6,000.00	$6,000.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Patrol Vehicle	1	$35,000.00	$35,000.00	$35,000.00	$35,000.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$35,000.00	$70,000.00
Training and Certification Database Software	1	$75,000.00	$75,000.00	$75,000.00	$75,000.00

Training and Certification Database Software	1	$40,000.00	$40,000.00	$40,000.00	$40,000.00

Countermeasure Strategy: 1.2.5 Integrated Enforcement (Chapter 1: Alcohol and Drug Impaired Driving)

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

With integrated enforcement, impaired-driving enforcement is incorporated into other special enforcement activities, such as those directed at speeding or seat belt nonuse. Research shows that impaired drivers often disobey a wide range of traffic safety laws. Hence, an effective means of identifying impaired drivers is to conduct heightened enforcement of other types of violations, especially during the nighttime hours. GHSP will partner with the North Carolina Department of Health and Human Service's Forensic Testing for Alcohol section.

Linkage Between Program Area

One-fourth (25%) of all traffic fatalities in 2017 involved an alcohol-impaired driver. Enforcement of DWI laws is a key strategy in efforts to reduce the number of alcohol related fatalities. Providing law enforcement with the knowledge and resources through an integrated effort with alcohol testing partners will further GHSP's goal of decreasing alcohol impaired fatalities in FY20.

Rationale

Integrated enforcement earns 3 stars in NHTSA's Countermeasures that Work. Relatively few studies have evaluated integrated enforcement, but the available research suggests this approach, when combined with publicity, can reduce single-vehicle nighttime crashes (which are likely to involve alcohol) by 10% to 35%. For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 1	Enforcement - Impaired Driving
NC GHSP 4	Training and Education - Impaired Driving

Planned Activity: Enforcement - Impaired Driving

Planned activity number: NC GHSP 1

Primary Countermeasure Strategy ID:

Planned Activity Description

Enforcement activities include funding for law enforcement personnel through both FTE and overtime efforts to conduct high visibility enforcement, saturation patrols, and daytime and nighttime checkpoints to actively enforce traffic safety laws primarily focused on impaired driving.

Intended Subrecipients

Subrecipients will primarily include state and local law enforcement agencies in counties ranking in the top twenty-five for fatalities in the state.

Countermeasure strategies

Countermeasure Strategy
1.2.1 Publicized Sobriety Checkpoints (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.2 High Visibility Saturation Patrols (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.5 Integrated Enforcement (Chapter 1: Alcohol and Drug Impaired Driving)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405d Impaired Driving Mid	405d Mid BAC Testing/Reporting (FAST)	$458,310.00	$0.00	
2018	FAST Act 405d Impaired Driving Mid	405d Mid HVE (FAST)	$1,443,717.00	$368,925.00	
2018	FAST Act 405d Impaired Driving Mid	405d Mid Training (FAST)	$1,190,061.00	$0.00	
2019	FAST Act NHTSA 402	Alcohol (FAST)	$1,430,824.00	$2,179,061.00	$1,425,824.00

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
In-Car Video System	1	$6,000.00	$6,000.00	$6,000.00	$6,000.00
In-Car Video System	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Mobile Data Terminal (MDT)	1	$6,000.00	$6,000.00	$6,000.00	$6,000.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Patrol Vehicle	1	$35,000.00	$35,000.00	$35,000.00	$35,000.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$35,000.00	$70,000.00

Training and Certification Database Software	1	$75,000.00	$75,000.00	$75,000.00	$75,000.00
Training and Certification Database Software	1	$40,000.00	$40,000.00	$40,000.00	$40,000.00

Planned Activity: Training and Education - Impaired Driving

Planned activity number: NC GHSP 4

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts focused on impaired driving detection, enforcement, and awareness.

Intended Subrecipients

Subrecipients will include law enforcement agencies and supporting organizations, non-profit organizations focused on traffic safety initiatives, and government agencies focused on traffic safety efforts.

Countermeasure strategies

Countermeasure Strategy
1.1.1 Administrative License Revocation or Suspension (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.5 Integrated Enforcement (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.7.1 Enforcement of Drug Impaired Driving (Chapter 1: Alcohol and Drug Impaired Driving)
9.3.2 Promote Bicycle Helmet Use with Education (Chapter 9 Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Mid	405d Mid Drug and Alcohol Training (FAST)	$326,298.00	$0.00	
2017	FAST Act NHTSA 402	Alcohol (FAST)	$1,059,211.00	$0.00	$827,875.00
2018	FAST Act NHTSA 402	Police Traffic Services (FAST)	$66,050.00	$0.00	$0.00

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Data Entry Management System Licensing Agreement	1	$95,000.00	$95,000.00	$95,000.00	$95,000.00
DRE Web-Based Call-Out System	1	$7,500.00	$7,500.00	$7,500.00	$7,500.00
In-Car Video System	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$35,000.00	$70,000.00

Countermeasure Strategy: 1.3.1 DWI Courts (Chapter 1: Alcohol and Drug Impaired Driving)

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

DWI courts specialize in DWI cases. Prosecutors, judges, probation officers and treatment staff work together to address an offender's underlying alcohol problems and to reduce the likelihood of recidivism. DWI courts can be more effective than regular courts because offenders are closely supervised and because judges and other court personnel are highly familiar with complex DWI laws.

GHSP will partner with state and county prosecutorial agencies to monitor DWI cases. GHSP will also partner with state and county laboratories in an effort to expeditiously process blood evidence for impaired driving cases.

Linkage Between Program Area

One-fourth (25%) of all traffic fatalities in 2017 involved an alcohol-impaired driver. Enforcement of DWI laws is a key strategy in efforts to reduce the number of alcohol related fatalities. Rapid, efficient prosecution is vital to the adjudication process. Rapid, efficient processing of blood evidence is vital to successful prosecution. Funding allocated towards evidence processing and prosecution efforts to facilitate success in DWI courts is a means of furthering GHSP's goal of decreasing alcohol impaired fatalities in FY19.

Rationale

reduces recidivism, especially when incorporated within a comprehensive DWI court program. Studies have found that DWI court participants are nearly 20 times less likely to be arrested for DWI within two years than offenders in traditional probation.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 10	Prosecution and Adjudication

Planned Activity: Prosecution and Adjudication

Planned activity number: NC GHSP 10

Primary Countermeasure Strategy ID:

Planned Activity Description

Funding will support prosecutorial efforts and diversion projects related to motor vehicle violations that include but are not limited to alcohol and drug impaired driving and occupant protection.

Intended Subrecipients

Subrecipients will include state and county prosecutors and state and county managed laboratories responsible for evidence testing and preparation.

Countermeasure strategies

Countermeasure Strategy
1.3.1 DWI Courts (Chapter 1: Alcohol and Drug Impaired Driving)
1.4.2 Alcohol Interlocks (Chapter 1: Alcohol and Drug Impaired Driving)
2.2.3 Sustained Enforcement (Chapter 2: Seat Belts and Child Restraints)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2017	FAST Act 405d Impaired Driving Mid	405d Mid BAC Testing/Reporting (FAST)	$447,553.00	$77,258.00	
2019	FAST Act 405d Impaired Driving Mid	405d Mid Ignition Interlock (FAST)	$396,086.00	$0.00	
2019	FAST Act 405d Impaired Driving Mid	405d Mid Court Support (FAST)	$735,767.00	$55,461.00	
2018	FAST Act NHTSA 402	Occupant Protection (FAST)	$65,201.00	$0.00	$55,201.00
2019	FAST Act NHTSA 402	Alcohol (FAST)	$361,378.00	$0.00	$361,378.00
2016	MAP 21 405d Impaired Driving mid	405d Mid Court Support	$389,528.00	$0.00	

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Annual Service Contract-Gas Chromatogaph	1	$5,500.00	$5,500.00	$5,500.00	$5,500.00
Liquid Chromatograph/Quadropole Lease	3	$118,318.00	$354,954.00	$118,318.00	$354,954.00
Monitoring Enhancement for Ignition Interlock	1	$396,086.00	$396,086.00	$396,086.00	$396,086.00

Countermeasure Strategy: 1.4.2 Alcohol Interlocks (Chapter 1: Alcohol and Drug Impaired Driving)

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

An alcohol interlock is an electronic breath testing device that prevents a vehicle from starting if the driver has been drinking. Interlocks are typically installed on an offender's vehicle as a condition of probation when a driver's license is reinstated. Interlocks record the breath test results; this data is available to judges, probation officers and others involved with the offender's case. GHSP will partner with the North Carolina Division of Motor Vehicles to enhance NCDMV's current Ignition Interlock Management System.

Linkage Between Program Area

One-fourth (25%) of all traffic fatalities in 2017 involved an alcohol-impaired driver. Enforcement of DWI laws is a key strategy in efforts to reduce the number of alcohol related fatalities. The use of ignition interlocks has proven effective in reducing DWI recidivism. Partnering with the North Carolina Division of Motor Vehicles to enhance the state's Interlock Ignition Management System will further GHSP's goal of decreasing alcohol impaired fatalities in FY20.

Rationale

Alcohol interlocks earn the highest rating of 5 stars in NHTSA's Countermeasures that Work. A number of evaluations suggest that interlocks reduce DWI recidivism by 50% or more. This effect largely disappears once interlocks are removed, with interlock and comparison drivers having similar recidivism rates. Nonetheless, interlocks are clearly highly effective at preventing alcohol-impaired driving while they are installed.
For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 10	Prosecution and Adjudication

Planned Activity: Prosecution and Adjudication

Planned activity number: NC GHSP 10

Primary Countermeasure Strategy ID:

Planned Activity Description

Funding will support prosecutorial efforts and diversion projects related to motor vehicle violations that include but are not limited to alcohol and drug impaired driving and occupant protection.

Intended Subrecipients

Subrecipients will include state and county prosecutors and state and county managed laboratories responsible for evidence testing and preparation.

Countermeasure strategies

Countermeasure Strategy
1.3.1 DWI Courts (Chapter 1: Alcohol and Drug Impaired Driving)
1.4.2 Alcohol Interlocks (Chapter 1: Alcohol and Drug Impaired Driving)
2.2.3 Sustained Enforcement (Chapter 2: Seat Belts and Child Restraints)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2017	FAST Act 405d Impaired Driving Mid	405d Mid BAC Testing/Reporting (FAST)	$447,553.00	$77,258.00	
2019	FAST Act 405d Impaired Driving Mid	405d Mid Ignition Interlock (FAST)	$396,086.00	$0.00	
2019	FAST Act 405d Impaired Driving Mid	405d Mid Court Support (FAST)	$735,767.00	$55,461.00	
2018	FAST Act NHTSA 402	Occupant Protection (FAST)	$65,201.00	$0.00	$55,201.00
2019	FAST Act NHTSA 402	Alcohol (FAST)	$361,378.00	$0.00	$361,378.00
2016	MAP 21 405d Impaired Driving mid	405d Mid Court Support	$389,528.00	$0.00	

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Annual Service Contract-Gas Chromatogaph	1	$5,500.00	$5,500.00	$5,500.00	$5,500.00
Liquid Chromatograph/Quadropole Lease	3	$118,318.00	$354,954.00	$118,318.00	$354,954.00
Monitoring Enhancement for Ignition Interlock	1	$396,086.00	$396,086.00	$396,086.00	$396,086.00

Countermeasure Strategy: 1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

Mass media campaigns involve intensive communications and outreach activities to discourage the general population from drinking and driving. They typically use radio, television, print, social media, and other communication channels. Mass media can include both paid media as well as earned media (e.g., news stories or editorials). Effective campaigns identify a specific target audience and develop messages and delivery methods that are appropriate and effective for that audience.

Linkage Between Program Area

The GHSP Communications and Media intends to focus primary efforts on alcohol-impaired driving and occupant protection. While 2017 resulted in minimal declines in the number of alcohol related, GHSP must remain intently focused on reducing fatalities in this area. The use of mass media campaigns will afford the opportunity to address recognized specific target populations (young males aged 21-34) who are disproportionately affected by crashes involving impairment. Proposed targets in FY20 include decreasing alcohol-impaired driving fatalities. Effective media campaigns not only deter the general driving public from violating traffic safety laws, effective media campaigns can create the perception that more law enforcement are actively patrolling.

Rationale

Mass media campaigns earn 3 stars in NHTSA's Countermeasures that Work. Research shows that mass media campaigns can reduce alcohol-related crashes by 13% when the campaigns are carefully planned, well-funded, achieve a high level of audience exposure, have high-quality messages that were pre-tested for effectiveness, and are conducted in conjunction with other impaired-driving activities (e.g., Booze It and Lose It).
For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 12	Media
NC GHSP 4	Training and Education - Impaired Driving

Planned Activity: Media

Planned activity number: NC GHSP 12

Primary Countermeasure Strategy ID:

Planned Activity Description

Coordinate with communications partners to ensure effective public service announcements designed to focus on highway safety.

Intended Subrecipients

Countermeasure strategies

Countermeasure Strategy
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
	FAST Act 405b OP High	405b High Paid Advertising (FAST)			
2018	FAST Act 405b OP High	405b High Occupant Protection (FAST)	$200,000.00	$0.00	
2017	FAST Act 405b OP Low	405b OP Low (FAST)	$46,482.73	$0.00	
2019	FAST Act 405d Impaired Driving Mid	405d Mid Paid/Earned Media (FAST)	$200,000.00	$0.00	
2017	FAST Act 405h Nonmotorized Safety	405h Public Education	$100,000.00	$100,000.00	

2018	FAST Act NHTSA 402	Pedestrian Safety (FAST)	$100,000.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Occupant Protection (FAST)	$319,663.55	$0.00	$0.00
2016	MAP 21 405b Occupant Protection High Belt Use	405b High Occupant Protection (MAP-21)	$83,853.72	$0.00	
	MAP 21 405b Occupant Protection Low Belt Use	405b Low HVE (MAP-21)			
	MAP 21 405d Impaired Driving low	405d Mid BAC Paid/Earned Media (MAP-21)			
	MAP 21 405d Impaired Driving low	405d Mid BAC Paid/Earned Media (MAP-21)			
2016	MAP 21 405d Impaired Driving mid	405d Mid Paid/Earned Media	$800,000.00	$0.00	
	NHTSA 402	Paid Advertising			
	NHTSA 402	Paid Advertising			
2016	NHTSA 402	Occupant Protection	$50,000.00	$0.00	$0.00

Planned Activity: Training and Education - Impaired Driving

Planned activity number: NC GHSP 4

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts focused on impaired driving detection, enforcement, and awareness.

Intended Subrecipients

Subrecipients will include law enforcement agencies and supporting organizations, non-profit organizations focused on traffic safety initiatives, and government agencies focused on traffic safety efforts.

Countermeasure strategies

Countermeasure Strategy

1.1.1 Administrative License Revocation or Suspension (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.5 Integrated Enforcement (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.7.1 Enforcement of Drug Impaired Driving (Chapter 1: Alcohol and Drug Impaired Driving)
9.3.2 Promote Bicycle Helmet Use with Education (Chapter 9 Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Mid	405d Mid Drug and Alcohol Training (FAST)	$326,298.00	$0.00	
2017	FAST Act NHTSA 402	Alcohol (FAST)	$1,059,211.00	$0.00	$827,875.00
2018	FAST Act NHTSA 402	Police Traffic Services (FAST)	$66,050.00	$0.00	$0.00

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Data Entry Management System Licensing Agreement	1	$95,000.00	$95,000.00	$95,000.00	$95,000.00
DRE Web-Based Call-Out System	1	$7,500.00	$7,500.00	$7,500.00	$7,500.00
In-Car Video System	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$35,000.00	$70,000.00

Countermeasure Strategy: 1.7.1 Enforcement of Drug Impaired Driving (Chapter 1: Alcohol and Drug Impaired Driving)

Program Area: Impaired Driving (Drug and Alcohol)

Project Safety Impacts

One-fourth (25%) of all traffic fatalities in 2017 involved an alcohol-impaired driver. Enforcement of DWI laws is a key strategy in efforts to reduce the number of alcohol related fatalities. Though young drivers do not appear to be over-represented in alcohol impaired fatalities, any young driver fatality is tragic, especially when involving impairment. GHSP is committed to decreasing alcohol impaired fatalities and young driver fatal crashes.

Linkage Between Program Area

Drug impaired driving and drug impaired fatalities are increasing in North Carolina. In 2017, there were 92 drugged driving fatalities and an additional 186 serious injury crashes. The ongoing opioid epidemic can only affect these statistics negatively. Enforcement can be a challenge as officers require specialized training to detect drug impaired drivers and laboratories require specialized equipment to test for the presence of drugs in blood. Allocating funding for drug impaired driving will further GHSP's goal of reducing traffic related fatalities by impacting drugged driving fatalities.

Rationale

Enforcement of drugged driving earns 3 stars in NHTSA's Countermeasures that Work. No studies have evaluated whether drugged driving enforcement reduces drugged driving or crashes. However, research shows that DRE judgments of drug impairment are corroborated by toxicological analysis in 85% or more of cases. For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 4	Training and Education - Impaired Driving

Planned Activity: Training and Education - Impaired Driving

Planned activity number: NC GHSP 4

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts focused on impaired driving detection, enforcement, and awareness.

Intended Subrecipients

Subrecipients will include law enforcement agencies and supporting organizations, non-profit organizations focused on traffic safety initiatives, and government agencies focused on traffic safety efforts.

Countermeasure strategies

Countermeasure Strategy
1.1.1 Administrative License Revocation or Suspension (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.5 Integrated Enforcement (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)

1.7.1 Enforcement of Drug Impaired Driving (Chapter 1: Alcohol and Drug Impaired Driving)
9.3.2 Promote Bicycle Helmet Use with Education (Chapter 9 Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Mid	405d Mid Drug and Alcohol Training (FAST)	$326,298.00	$0.00	
2017	FAST Act NHTSA 402	Alcohol (FAST)	$1,059,211.00	$0.00	$827,875.00
2018	FAST Act NHTSA 402	Police Traffic Services (FAST)	$66,050.00	$0.00	$0.00

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Data Entry Management System Licensing Agreement	1	$95,000.00	$95,000.00	$95,000.00	$95,000.00
DRE Web-Based Call-Out System	1	$7,500.00	$7,500.00	$7,500.00	$7,500.00
In-Car Video System	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$35,000.00	$70,000.00

Program Area: Motorcycle Safety

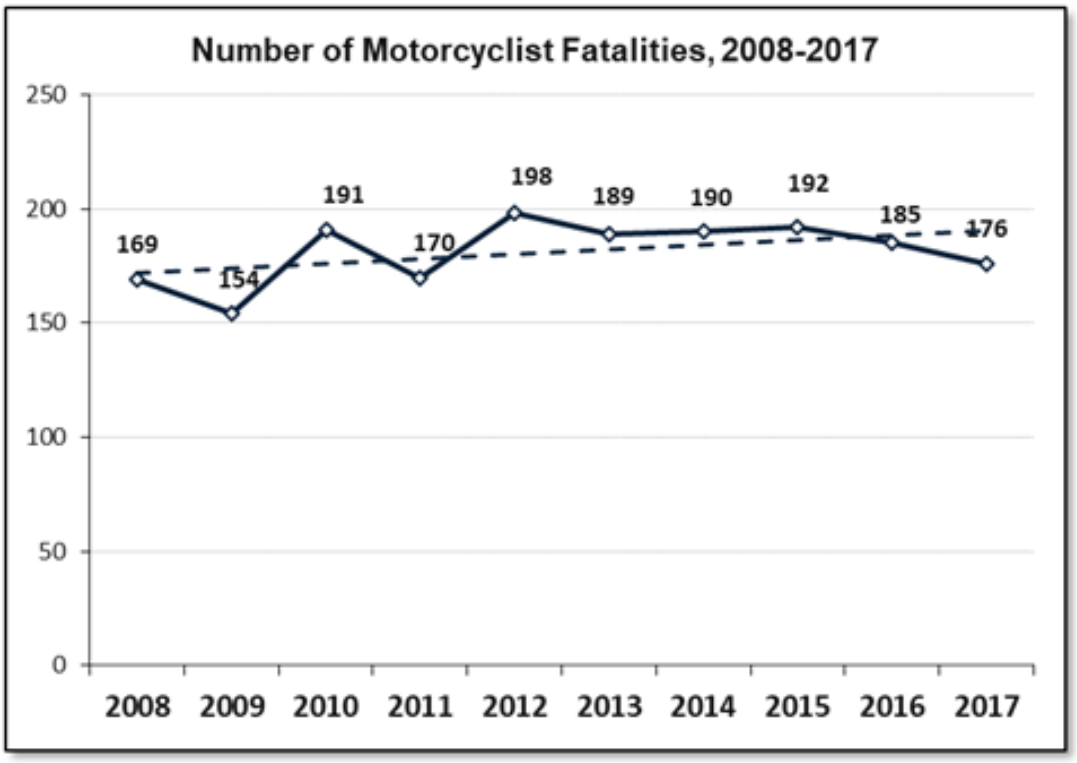
Description of Highway Safety Problems

Motorcycle Safety

Crashes, Deaths and Injuries

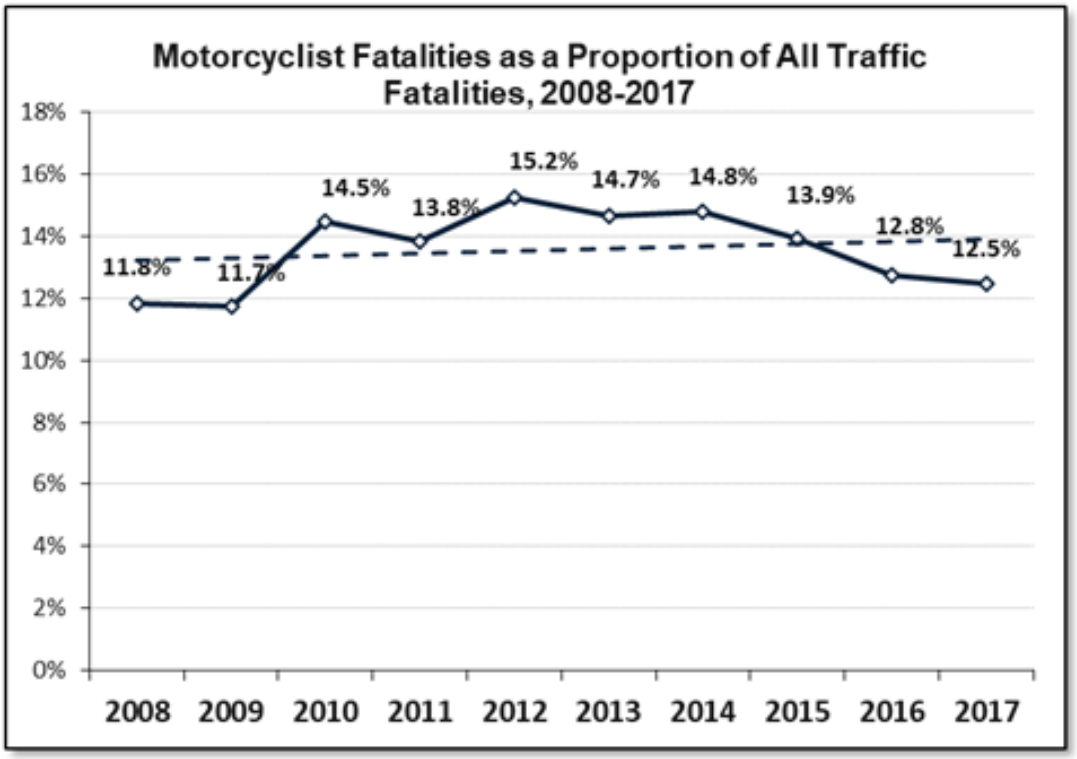
In 2017, there were 176 motorcycle rider fatalities in North Carolina, a decrease of nine fatalities from 2016. As shown in the figure below, the long-term trend suggests a gradual rise in motorcycle rider fatalities over the past ten years and 2018 preliminary data from NC

Division of Motor Vehicles (NC DMV) confirms this.



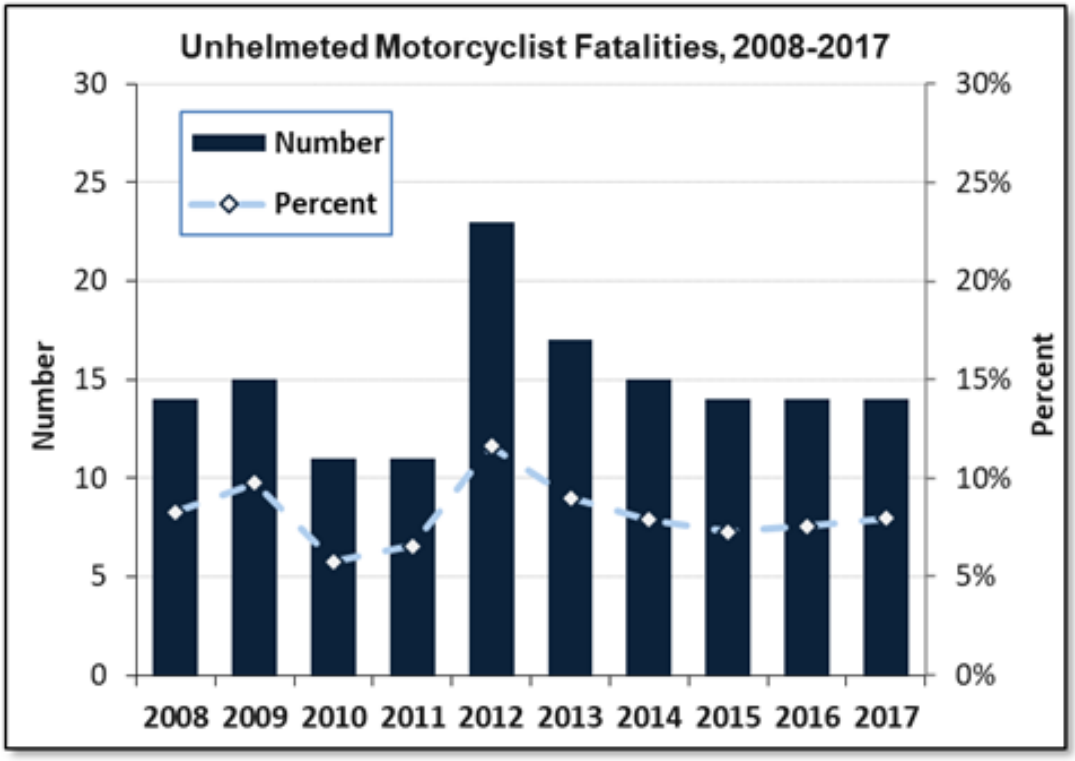
Source: FARS, 2008–2017

Motorcyclists represented 12.5 percent of all traffic fatalities in North Carolina during 2017. This percentage has dropped over past five years, as shown in the figure below. Motorcyclist fatalities have remained relatively flat over this period while total traffic fatalities have increased.



Source: FARS, 2008–2017

One positive finding is the vast majority of fatally injured motorcyclists in North Carolina were wearing a helmet when they crashed. In all likelihood, there would have been many more fatalities if North Carolina did not have a universal helmet law and a high rate of helmet use. In 2017, 14 fatally injured motorcycle riders were not wearing a helmet, the same as 2016. NHTSA estimates that motorcycle helmets saved 97 lives in North Carolina during 2017. An additional four lives could have been saved if all riders involved in crashes had been wearing a helmet. The percentage of killed riders that were unhelmeted has remained relatively consistent and low, averaging 8.0 percent over the last ten years.



Source: FARS, 2008–2017

Although the total number of motorcycle rider fatalities has increased substantially since 2001, the fatality rate per registered motorcycle has been relatively stable, as shown in the table below. This indicates that the increase in motorcyclist fatalities since 2001 is due primarily to an increase in riders.

Motorcycle Crash and Fatality Rates Per Registered Motorcycle, 2001–2016

Year	TotalCrashes	TotalFatalities	RegisteredMotorcycles*	Crash Rate per1,000 RegisteredMotorcycles	Fatality Rate per10,000 RegisteredMotorcycles
2001	2,541	109	111,051	22.9	10.00
2002	2,606	123	121,047	21.0	10.24

2003	2,904	108	131,991	20.8	8.18
2004	3,350	136	145,450	21.3	9.69
2005	3,664	152	160,420	21.0	9.48
2006	4,099	150	176,909	21.1	8.76
2007	4,390	201	193,486	20.5	10.60
2008	4,877	169	210,719	20.9	8.16
2009	4,162	154	200,718	18.3	7.87
2010	4,330	191	182,836	23.7	10.67
2011	4,750	170	191,732	24.8	8.76
2012	4,805	198	194,471	24.7	10.18
2013	4,383	189	191,162	22.9	9.89
2014	4,440	190	188,675	23.5	10.07
2015	4,504	192	192,034	23.5	10.00
2016	4,826	185	189,029	25.5	9.79
2017	4,674	176	188,197	24.8	9.35

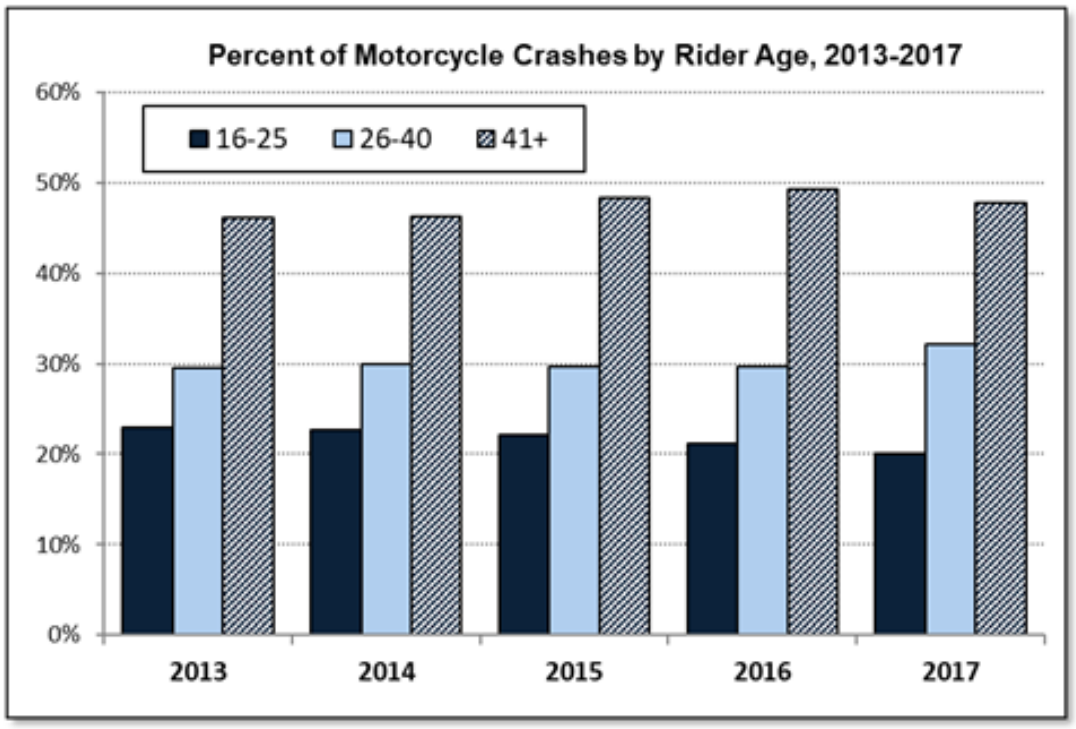
*Note: Registered motorcycle data are from NCDOT vehicle registration file. These differ substantially from what is reported in the FHWA database, which is simply an estimate of motorcycle registrations.

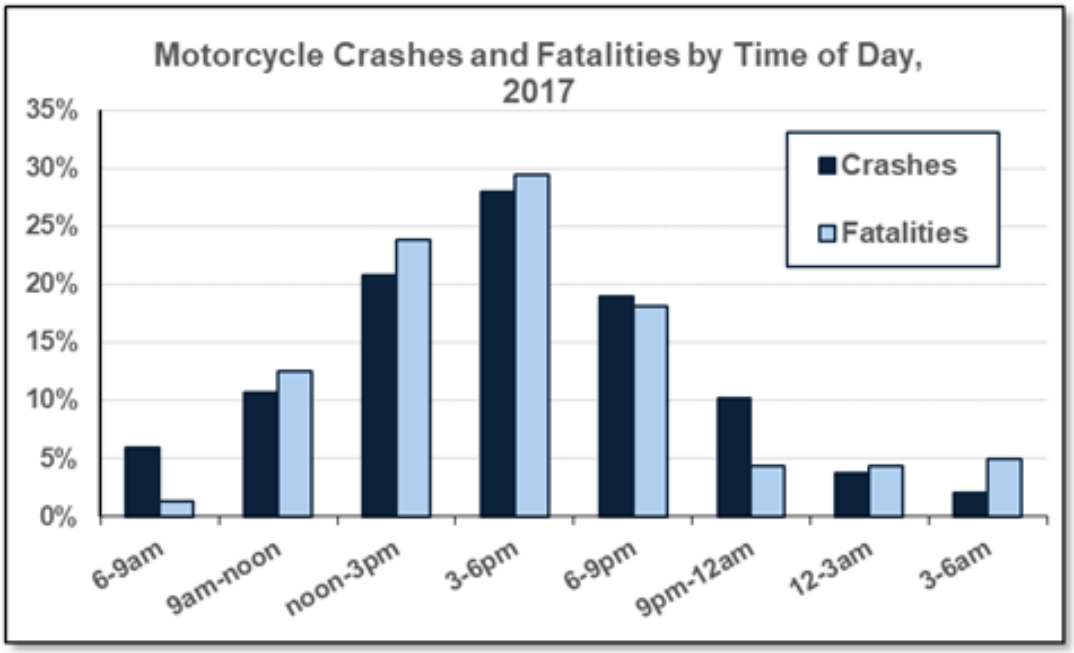
The vast majority (93 percent) of crash-involved motorcycle riders in 2017 were male. Forty-two percent of motorcycle crashes were single vehicle crashes, and 52 percent occurred on rural roads. Alcohol use continues to be an important contributing factor to motorcycle crashes. Alcohol use was suspected in 8.2 percent of all motorcyclist crashes in 2017—more than twice the rate of alcohol involvement in crashes involving passenger vehicles, pickup trucks, or other types of vehicles.

Nationwide, the past few decades have seen a gradual shift in the age of motorcyclists involved in crashes. The same pattern holds true in North Carolina. Riders age 41 and older now account for nearly half of all riders involved in crashes, as shown in the figure below.

Source: NCDOT Motor Vehicle Crash Data, 2013–2017

Motorcyclist fatalities are overrepresented on weekends. Forty-three percent of motorcyclist fatalities in North Carolina in 2017 occurred on Saturday or Sunday. Motorcycle crashes and fatalities tend to be most common during the afternoon and early evening. Twenty-eight percent of all motorcycle crashes and 29 percent of fatalities in 2017 occurred between 3 and 6 p.m. (see the figure below).





Source: NCDOT Motor Vehicle Crash Data, 2017 and FARS, 2017

The table below shows the 31 counties with the highest number of motorcyclist fatalities from 2013–2017. The counties with the most fatalities include Mecklenburg, Wake, Cumberland and Guilford. As is the case for passenger vehicles, many of the counties with the highest number of motorcyclist fatalities are also highly populated areas. The 31 counties listed in the table account for 72 percent of motorcyclist fatalities in the state.

Motorcyclist Fatalities by County, 2013–2017

County	MotorcyclistFatalities	Percent of TotalMotorcyclistFatalities
Mecklenburg	57	6.12%
Wake	51	5.48%
Cumberland	46	4.94%
Guilford	43	4.62%
Forsyth	32	3.44%
Onslow	28	3.01%
Buncombe	27	2.90%
Davidson	25	2.69%
Catawba	24	2.58%
Durham	23	2.47%
Randolph	23	2.47%
Iredell	21	2.26%
Gaston	20	2.15%
Rowan	20	2.15%
Johnston	18	1.93%
Robeson	18	1.93%
New Hanover	17	1.83%
Alamance	16	1.72%
Graham	15	1.61%
Harnett	15	1.61%
Haywood	15	1.61%
Cabarrus	14	1.50%
Columbus	14	1.50%
Surry	12	1.29%
Wilkes	12	1.29%
Chatham	10	1.07%
Henderson	10	1.07%
Pitt	10	1.07%
Union	10	1.07%
Wayne	10	1.07%
Wilson	10	1.07%

Source: FARS, 2013–2017

A different picture emerges when looking at fatalities per registered motorcycle. Here, many of the counties with the highest fatality rates are in the less populated, mountainous part of the state. As shown in the table below, Graham County has a dramatically higher fatal crash rate than any other county in North Carolina. This is likely due to Graham County's reputation as a popular tourist destination for motorcyclists. In total, five of the top 10 counties listed below are in the western (mountainous) part of the state that tends to be a popular destination for out-of-county and even out-of-state riders.

Top 10 Counties with the Highest Rate of Fatal Crash-Involved Motorcyclists Per Registered

Motorcycle, 2013–2017

County	MotorcyclistFatalities	Motorcycle Crashes	Registered Motorcycles	Crash InvolvedMotorcyclesPer 1000RegisteredMotorcycles	Fatality Rate Per10,000 Registered Motorcycles	
Graham	15	290	1,128	284.57	132.98	
Columbus	14	106	5,492	20.03	25.49	
Bladen	7	52	2,858	16.79	24.49	
Vance	6	106	3,088	35.30	19.43	
Macon	9	162	4,714	34.58	19.09	
Wilson	10	158	5,433	27.98	18.41	
Haywood	15	230	8,271	26.96	18.14	
Madison	6	87	3,327	27.35	18.03	
Montgomery	5	47	2,949	15.60	16.95	
Swain	4	131	2,372	58.18	16.86	

Summary

Motorcycles remain a popular form of transportation in North Carolina. Motorcyclists accounted for 12.5 percent of all traffic fatalities in North Carolina in 2017, up from 7 percent of traffic fatalities in 2001. The vast majority of fatally injured motorcycle riders are male. In addition, riders age 41 and older now account for almost half of all riders involved in crashes. Five counties in North Carolina— Mecklenburg, Wake, Cumberland, Guilford and Forsyth—account for 25 percent of the state's motorcyclist fatalities. However, many of the counties with the highest crash rates per registered motorcycle are located in the less populated western part of the state. Graham County has a dramatically higher crash rate than any other county in North Carolina. This is likely due to the county's reputation as a popular tourist destination for motorcyclists.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-7) Number of motorcyclist fatalities (FARS)	2020	5 Year	5.00
2020	C-8) Number of unhelmeted motorcyclist fatalities (FARS)	2020	5 Year	0.00

Countermeasure Strategies in Program Area

Countermeasure Strategy
5.3.2 Motorcycle Rider Training (Chapter 5: Motorcycle Safety)
Not Applicable-No Countermeasure

Countermeasure Strategy: 5.3.2 Motorcycle Rider Training (Chapter 5: Motorcycle Safety)

Program Area: Motorcycle Safety

Project Safety Impacts

Motorcycle rider training is available from rider organizations, manufacturers, the U.S. military, and many other groups. To encourage training, some jurisdictions waive testing requirements for riders who successfully complete an approved training course. Many training programs include both classroom and on-bike instruction. Some programs emphasize motorcycle control skills while others train riders to recognize potentially hazardous riding situations and encourage riders to assess their own limitations. GHSP will partner state and local law enforcement agencies and Lenoir County Community College to coordinate and assess motorcycle rider training throughout the state.

Linkage Between Program Area

Long term trend analysis suggests a gradual rise in motorcycle rider fatalities over the past ten years. Motorcycle rider training programs providing classroom and on-bike instruction can prove useful and effective in combating this trend. GHSP will partner with state and local law enforcement to continue to support the BikeSafe program in North Carolina. GHSP will remain committed to decreasing motorcycle fatalities.

Rationale

Motorcycle rider training earns 1 star in NHTSA's Countermeasures that Work. A Cochrane Review found conflicting evidence about the effectiveness of motorcycle rider training in reducing crashes. At this point in time, few high-quality evaluations exist of motorcycle rider training programs.
For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 7	Training and Education - Motorcycle Safety

Planned Activity: Training and Education - Motorcycle Safety

Planned activity number: NC GHSP 7

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts focused on motorcycle safety and awareness.

Intended Subrecipients

Subrecipients will include law enforcement agencies, government agencies, and university research institutions.

Countermeasure strategies

Countermeasure Strategy
5.3.2 Motorcycle Rider Training (Chapter 5: Motorcycle Safety)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405f Motorcycle Programs	405f Motorcyclist Training (FAST)	$153,875.72	$0.00	
2019	FAST Act NHTSA 402	Motorcycle Safety (FAST)	$171,385.02	$47,500.00	$119,494.02
2016	MAP 21 405f Motorcycle Programs	405f Motorcycle Programs (MAP-21)	$18,705.26	$0.00	

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Motorcycles	10	$8,000.00	$80,000.00	$4,000.00	$40,000.00
Website Maintenance	1	$10,000.00	$10,000.00	$10,000.00	$10,000.00

Countermeasure Strategy: Not Applicable-No Countermeasure

Program Area: Motorcycle Safety

Project Safety Impacts

N/A

Linkage Between Program Area

N/A

Rationale

N/A

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 13	Program Management

Planned Activity: Program Management

Planned activity number: NC GHSP 13

Primary Countermeasure Strategy ID:

Planned Activity Description

Coordinate efforts within GHSP and subrecipients to effectively manage projects designed to address highway safety concerns throughout the state.

Intended Subrecipients

NC Governor's Highway Safety Program and other state and local agencies.

Countermeasure strategies

Countermeasure Strategy
Not Applicable-No Countermeasure
Not Applicable-No Countermeasure
Not Applicable-No Countermeasure

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
	FAST Act 405f Motorcycle Programs	405f Motorcyclist Training (FAST)			
	FAST Act NHTSA 402	Motorcycle Safety (FAST)			
2017	FAST Act NHTSA 402	Occupant Protection (FAST)	$234,018.00	$0.00	$0.00
2018	FAST Act NHTSA 402	Planning and Administration (FAST)	$223,134.00	$223,135.00	$0.00
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$1,807,429.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$7,152.00	$0.00	$7,152.00
	NHTSA 402	Motorcycle Safety			
	NHTSA 402	Occupant Protection			
	NHTSA 402	Planning and Administration			
	NHTSA 402	Safe Communities			

Program Area: Non-motorized (Pedestrians and Bicyclist)

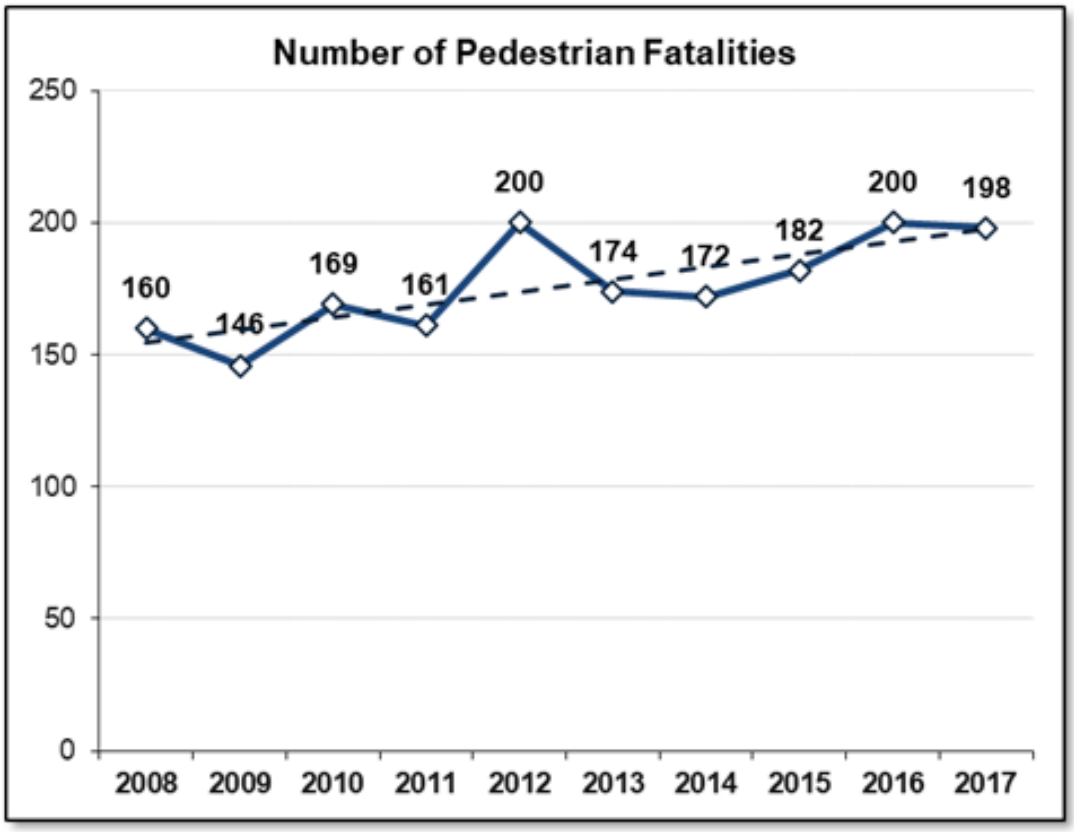
Description of Highway Safety Problems

Non-motorized (Pedestrians & Bicyclists)

Pedestrians

Evidence Considered

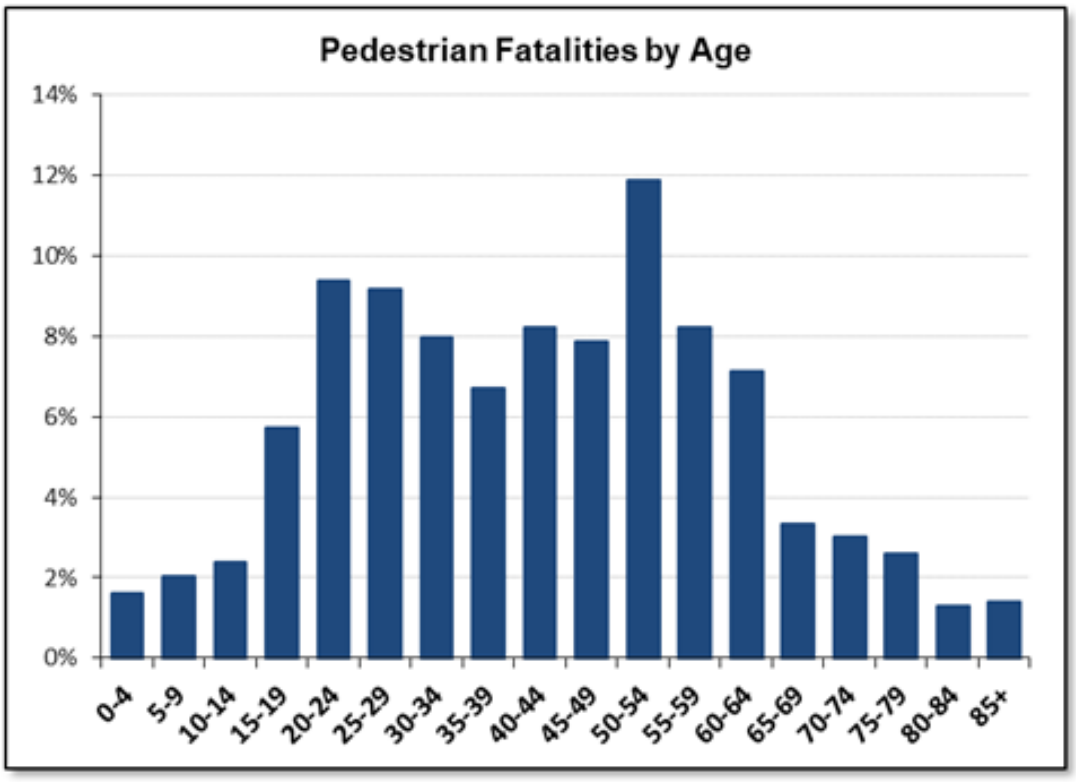
In 2017, 198 pedestrians were killed in crashes involving a motor vehicle in North Carolina, a decrease of two fatalities from 2016. As shown in the figure below, the number of pedestrian deaths in North Carolina has steadily increased since 2009. This is similar to national trends.



Source: FARS, 2008–2017

Although crashes involving pedestrians represent only one percent of the total reported crashes in North Carolina, pedestrians are highly over-represented in fatal crashes. During 2017, pedestrians accounted for 14.0 percent of all traffic fatalities in the state. Because they don't have the same protection as motor vehicle occupants, pedestrians are likely to be seriously injured or killed in a pedestrian/vehicle crash. Moreover, the faster the vehicle is traveling, the greater the risk to the pedestrian. Research shows the likelihood of pedestrian death is 25 percent when a vehicle is traveling at 32 mph, 50 percent at 42 mph, and 90 percent at 58 mph. In 2017, males accounted for three-fourths (75%) of all pedestrian fatalities (149 male vs. 49 female), a trend that has been consistent for the past several years. The next figure shows the age of pedestrians killed in crashes in North Carolina between the years 2013 and 2017. Pedestrian fatalities are most common among adults ages 20 to 64. Children (<15) and older

adults (65+) account for a relatively small percentage of pedestrian fatalities.



Source: FARS, 2013–2017

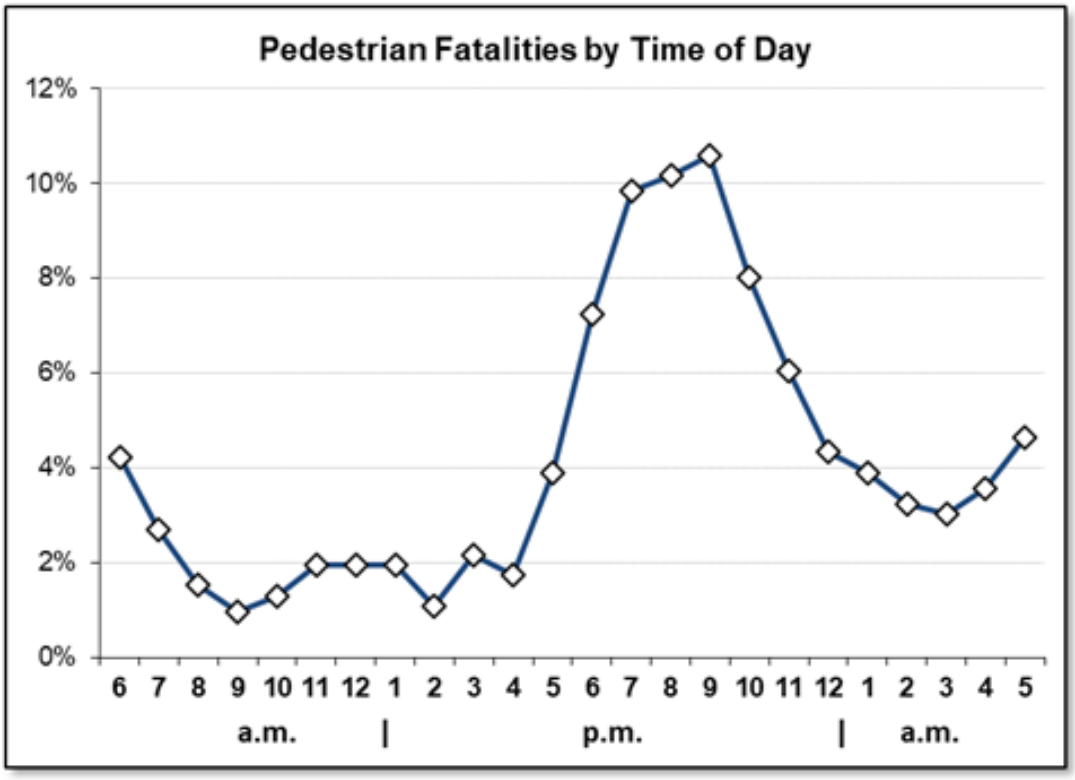
It is not uncommon for alcohol to be involved in pedestrian fatalities. Between 2013 and 2017, 45 percent of pedestrians who were killed in crashes in North Carolina had a positive BAC (among those with a known BAC), and 39 percent had a BAC of .08 or above. Pedestrian fatalities also vary by time of day. As shown in the figure below, pedestrian fatalities are most common during the evening hours. Half (52 percent) of pedestrian fatalities occur between 6 p.m. and midnight. Pedestrians can be more difficult to see at nighttime and alcohol-involvement is higher in nighttime crashes.

Source: FARS, 2013–2017

Only nine percent of all pedestrian fatalities in North Carolina occur at intersections. In fact, the most common type of fatal crash involves a pedestrian standing, walking, or running along a roadway.

Overall, pedestrian fatalities are somewhat more common in urban than rural locations (57 percent vs. 43 percent). Urbanized areas have more pedestrians and motor vehicles, and thus more chances for pedestrian-motor vehicle crashes to occur. However, rural areas have fewer facilities for pedestrians such as sidewalks. Moreover, vehicles on rural roads are likely to be traveling at high speeds, so crashes are substantially more likely to result in fatalities.

The table below shows the 31 counties in North Carolina with the most pedestrian fatalities



from 2013 through 2017. Mecklenburg County had the highest number of pedestrian fatalities during this period (90), followed by Wake (69), Guilford (56), and Cumberland (47) counties. In total, the 31 counties listed in the table account for 76 percent of all pedestrian fatalities in the state during this period. The table also shows the pedestrian fatality rate per 100,000 population. Many of the counties with the highest per capita rates of pedestrian fatalities are located in the eastern (coastal) part of the state (e.g., Pender, Sampson, Nash, New Hanover, Robeson, Cumberland, Pitt, Wilson, Wayne, and Onslow counties).

Pedestrian Fatalities, 2013–2017

County	Pedestrian fatalities	Fatalities per100,000 population	% of allpedestrian fatalities
Mecklenburg	90	1.74	9.73%
Wake	69	1.36	7.46%
Guilford	56	2.17	6.05%
Cumberland	47	2.85	5.08%
New Hanover	32	2.90	3.46%
Forsyth	30	1.63	3.24%
Buncombe	27	2.13	2.92%
Gaston	25	2.34	2.70%
Pitt	24	2.73	2.59%
Durham	22	1.47	2.38%
Onslow	21	2.18	2.27%
Johnston	20	2.15	2.16%

Robeson	19	2.85	2.05%
Catawba	17	2.18	1.84%
Cabarrus	16	1.63	1.73%
Iredell	16	1.88	1.73%
Wayne	15	2.40	1.62%
Nash	14	2.97	1.51%
Burke	13	2.91	1.41%
Harnett	13	2.03	1.41%
Davidson	12	1.46	1.30%
Union	12	1.09	1.30%
Alamance	11	1.39	1.19%
Cleveland	11	2.26	1.19%
Craven	11	2.12	1.19%
Randolph	11	1.54	1.19%
Sampson	11	3.45	1.19%
Wilson	11	2.70	1.19%
Moore	10	2.12	1.08%
Pender	10	3.45	1.08%
Rowan	10	1.43	1.08%

Source: FARS, 2013–2017 and U.S. Census

Pedestrian Safety Summary

The number of pedestrian fatalities in North Carolina has increased since 2009. Pedestrian fatalities are most common among males, persons age 20 to 64, and during the evening hours. Nearly half of pedestrians killed in crashes had a positive BAC. The counties that account for the most pedestrian fatalities are Mecklenburg, Wake, Guilford, and Cumberland; however, several counties in the eastern part of the state are noteworthy for having high per capita fatality rates.

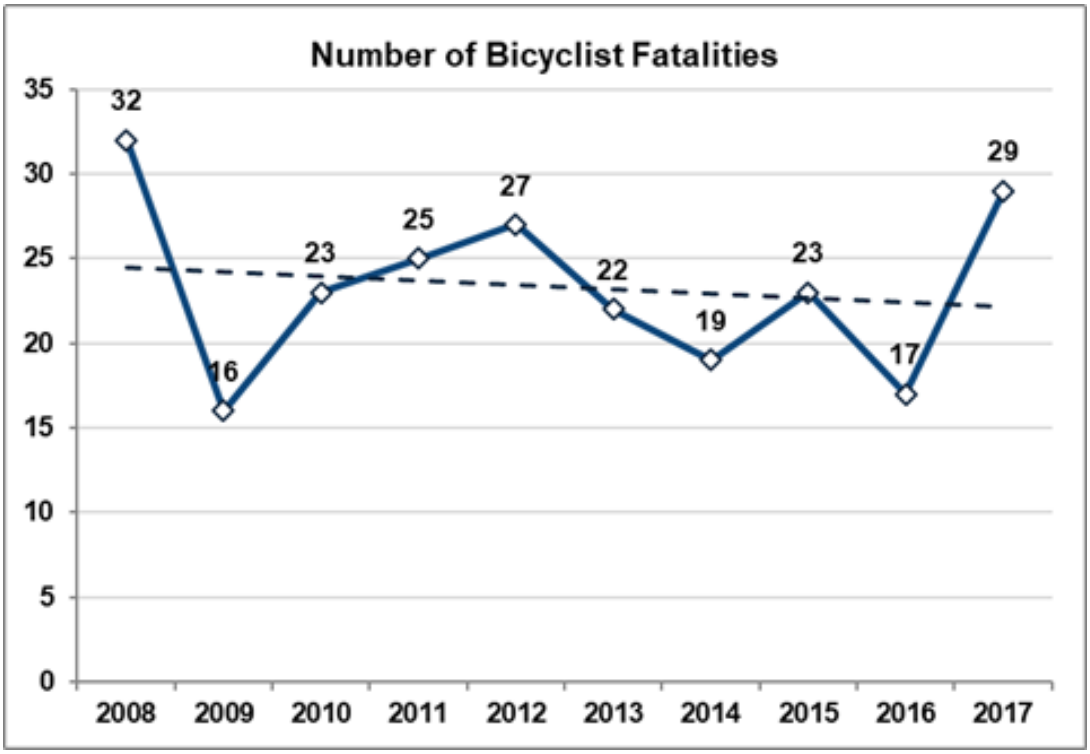
Bicyclists

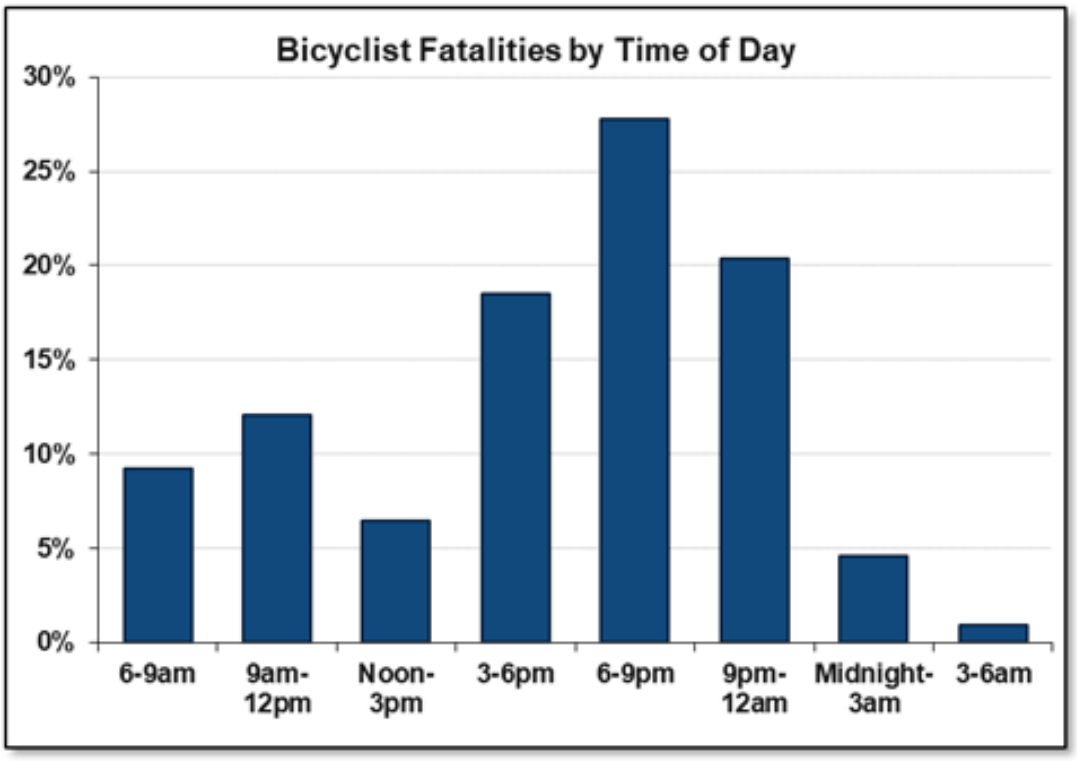
Evidence Considered

In 2017, there were 29 bicyclists killed in fatal crashes in North Carolina, an increase of twelve from 2016. As shown in the figure below, bicyclist fatalities in North Carolina have fluctuated from year to year, although the long-term trend suggests a gradual decrease in fatalities.

Source: FARS, 2008–2017

Between 2013 and 2017, almost three fourths (73 percent) of bicyclist fatalities occurred on weekdays (Mon-Fri). As shown in the figure below, bicyclist fatalities peak between the hours of 6:00 p.m. and 9:00 p.m. This reflects commuting cyclists sharing the road with motorists, with declining visibility as it gets darker.

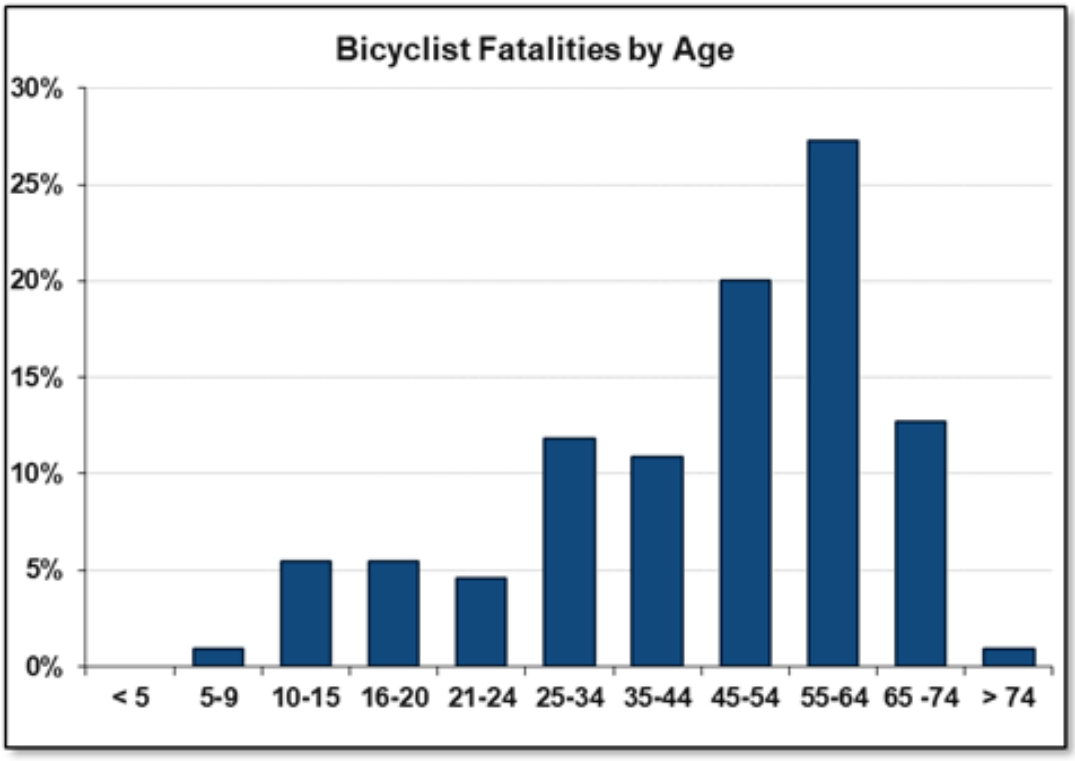




Source: FARS, 2013–2017

Only 20 percent of bicyclist fatalities in North Carolina occur at intersections. Instead, half (52%) of fatalities occur in crashes where a motorist attempts to overtake the bicyclist. As shown in the figure below, bicyclist fatalities are most common among riders ages 45 to 64. Bicyclist fatalities involving children are relatively rare in North Carolina.

Source: FARS, 2013–2017



The table below lists the 22 counties in North Carolina with more than one bicyclist fatality from 2013 to 2017. The counties with the most fatalities include Mecklenburg, Robeson, Wake, Guilford, New Hanover, and Durham. No other county had more than four bicyclist fatalities during the five-year period. Several of the counties near the top of the table also have large populations. In total, the 22 counties listed in the table account for 80 percent of the bicyclist fatalities in North Carolina during this period.

Bicyclist fatalities, 2013 – 2017

County	Bicyclist fatalities	Fatalities per 10,000population	% of allbicyclist fatalities
Mecklenburg	11	0.10	10.00%
Robeson	10	0.75	9.09%
Wake	8	0.07	7.27%
Guilford	7	0.13	6.36%
New Hanover	7	0.31	6.36%
Durham	6	0.19	5.45%
Brunswick	4	0.31	3.64%
Dare	3	0.83	2.73%
Harnett	3	0.23	2.73%
Hoke	3	0.55	2.73%
Orange	3	0.21	2.73%
Pender	3	0.49	2.73%
Craven	2	0.19	1.82%
Cumberland	2	0.06	1.82%

Currituck	2	0.76	1.82%
Gaston	2	0.09	1.82%
Halifax	2	0.39	1.82%
Henderson	2	0.17	1.82%
Iredell	2	0.11	1.82%
Jones	2	2.08	1.82%
Rockingham	2	0.22	1.82%
Scotland	2	0.57	1.82%

Bicyclist Safety Summary

The number of bicyclist fatalities in North Carolina is less than the number of fatalities involving pedestrians, motorcyclists, and other types of road users. However, bicyclist fatalities still present a serious problem. Bicyclist fatalities most commonly occur on weekdays at non-intersections. The victims are typically adults between the ages of 45 and 64. Half of bicyclist fatalities occur in crashes where a motorist was attempting to overtake the bicyclist. The counties with the most bicyclist fatalities over the past five years include Mecklenburg, Robeson, Wake, Guilford, New Hanover, and Durham.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-10) Number of pedestrian fatalities (FARS)	2020	5 Year	5.0
2020	C-11) Number of bicyclists fatalities (FARS)	2020	5 Year	10.0

Countermeasure Strategies in Program Area

Countermeasure Strategy
8.4.4 Targeted Enforcement (Chapter 8: Pedestrians)
9.1.3 Bicycle Safety Education for Children (Chapter 9: Bicycles)
9.3.2 Promote Bicycle Helmet Use with Education (Chapter 9 Bicycles)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)

Countermeasure Strategy: 8.4.4 Targeted Enforcement (Chapter 8: Pedestrians)

Program Area: Non-motorized (Pedestrians and Bicyclist)

Project Safety Impacts

Targeted enforcement aims to increase compliance with traffic laws by both pedestrians and motorists. Some programs educate pedestrians about proper crossing behavior and issue tickets or warnings to violators. Other programs are tailored primarily to motorists, such as North Carolina's "Watch for Me" campaign that encourages drivers to be vigilant for pedestrians. As mentioned previously, targeted enforcement programs are most effective when publicized and highly visible.

Linkage Between Program Area

The number of pedestrians killed in crashes involving a motor vehicle is trending in an upward manner in recent years. Education and training for law enforcement can be an effective response. GHSP strives to limit the number of pedestrian fatalities in the upcoming fiscal year.

Rationale

Targeted enforcement earns 3 stars in NHTSA's Countermeasures that Work. Because targeted enforcement can be employed for a variety of purposes in many different settings, its effectiveness is context-dependent. Nevertheless, several evaluations suggest that targeted enforcement can reduce pedestrian violations (e.g., walking outside the crosswalk) and increase driver yielding to pedestrians.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 8	Training and Education - Non-Motorized (Bike & Ped)

Planned Activity: Training and Education - Non-Motorized (Bike & Ped)

Planned activity number: NC GHSP 8

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts focused on pedestrian and bicycle safety and awareness.

Intended Subrecipients

Subrecipients will primarily include state agencies, university research institutions, and non-profit organizations.

Countermeasure strategies

Countermeasure Strategy
8.4.4 Targeted Enforcement (Chapter 8: Pedestrians)
9.1.3 Bicycle Safety Education for Children (Chapter 9: Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2017	405h - Non-Motorized Traffic Safety	405h Training	$51,249.42	$0.00	
	FAST Act 405d Impaired Driving Mid	405d Mid Court Support (FAST)			

	FAST Act NHTSA 402	Alcohol (FAST)			
2019	FAST Act NHTSA 402	Pedestrian/Bicycle Safety (FAST)	$171,990.58	$0.00	$5,500.00
	NHTSA 402	Occupant Protection			

Countermeasure Strategy: 9.1.3 Bicycle Safety Education for Children (Chapter 9: Bicycles)

Program Area: Non-motorized (Pedestrians and Bicyclist)

Project Safety Impacts

Bicycle education for children is designed to teach basic bicycle handling skills, traffic laws, how to ride on streets, and proper helmet use. Since young children are not yet drivers, they do not have the experience to recognize potential traffic hazards. Consequently, a common focus of bicycle safety education is on identifying locations that are safe places for children to ride. Bicycle education may be provided by many different types of organizations including schools, parks and recreation departments, community centers, and faith-based organizations. GHSP will partner with nonprofits and state agencies to promote bicycle safety for children through educational functions and bike rodeo events.

Linkage Between Program Area

The number of bicyclists killed in crashes involving a motor vehicle has declined in recent years. While bicyclist fatalities involving children are relatively rare, all can presumably agree such incidents are extremely tragic. Education for children can lead to safe riding habits. GHSP desires to decrease the number of bicyclist fatalities in the upcoming fiscal year.

Rationale

Bicycle safety education for children earns 2 stars in NHTSA's Countermeasures that Work. Research shows bicycle education can increase children's knowledge of laws and safe behaviors. However, it is not clear whether this translates into the adoption of safe riding behaviors on actual roads. Educational programs appear most effective at increasing observed helmet use.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 8	Training and Education - Non-Motorized (Bike & Ped)

Planned Activity: Training and Education - Non-Motorized (Bike & Ped)

Planned activity number: NC GHSP 8

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts focused on pedestrian and bicycle safety and awareness.

Intended Subrecipients

Subrecipients will primarily include state agencies, university research institutions, and non-profit organizations.

Countermeasure strategies

Countermeasure Strategy
8.4.4 Targeted Enforcement (Chapter 8: Pedestrians)
9.1.3 Bicycle Safety Education for Children (Chapter 9: Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2017	405h - Non-Motorized Traffic Safety	405h Training	$51,249.42	$0.00	
	FAST Act 405d Impaired Driving Mid	405d Mid Court Support (FAST)			
	FAST Act NHTSA 402	Alcohol (FAST)			
2019	FAST Act NHTSA 402	Pedestrian/Bicycle Safety (FAST)	$171,990.58	$0.00	$5,500.00
	NHTSA 402	Occupant Protection			

Countermeasure Strategy: 9.3.2 Promote Bicycle Helmet Use with Education (Chapter 9 Bicycles)

Program Area: Non-motorized (Pedestrians and Bicyclist)

Project Safety Impacts

Bicycle helmets can reduce the likelihood and severity of brain injuries for bicyclists involved in crashes. However, a U.S. survey found that only one-third of people who had ridden a bicycle in the last year used a helmet for all, or nearly all, of their rides. Bicycle helmet promotions are designed to increase the use of helmets among bicyclists through education and (sometimes) free or discounted helmets. Education and promotions usually include instruction on how to properly fit the helmet and the importance of wearing a helmet on every trip. GHSP will partner with nonprofits and state agencies to promote bicycle safety for children through educational functions focusing on helmet use in cycling.

Linkage Between Program Area

The number of bicyclists killed in crashes involving a motor vehicle has declined in recent years. While bicyclist fatalities involving children are relatively rare, all can presumably agree such incidents are extremely tragic. Education for children can lead to safe riding habits, especially those habits related to helmet use.

GHSP desires to decrease the number of bicyclist fatalities in the upcoming fiscal year.

Rationale

Promoting bicycle helmet use with education earns 2 stars in NHTSA's Countermeasures that Work. A Cochrane systematic review found that educational programs significantly increase helmet use among children under age 18. The most effective programs were community-based and provided free helmets.
For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 4	Training and Education - Impaired Driving

Planned Activity: Training and Education - Impaired Driving

Planned activity number: NC GHSP 4

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts focused on impaired driving detection, enforcement, and awareness.

Intended Subrecipients

Subrecipients will include law enforcement agencies and supporting organizations, non-profit organizations focused on traffic safety initiatives, and government agencies focused on traffic safety efforts.

Countermeasure strategies

Countermeasure Strategy
1.1.1 Administrative License Revocation or Suspension (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.5 Integrated Enforcement (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.7.1 Enforcement of Drug Impaired Driving (Chapter 1: Alcohol and Drug Impaired Driving)
9.3.2 Promote Bicycle Helmet Use with Education (Chapter 9 Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act 405d Impaired Driving Mid	405d Mid Drug and Alcohol Training (FAST)	$326,298.00	$0.00	
2017	FAST Act NHTSA 402	Alcohol (FAST)	$1,059,211.00	$0.00	$827,875.00

2018	FAST Act NHTSA 402	Police Traffic Services (FAST)	$66,050.00	$0.00	$0.00

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Data Entry Management System Licensing Agreement	1	$95,000.00	$95,000.00	$95,000.00	$95,000.00
DRE Web-Based Call-Out System	1	$7,500.00	$7,500.00	$7,500.00	$7,500.00
In-Car Video System	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$35,000.00	$70,000.00

Countermeasure Strategy: 9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)

Program Area: Non-motorized (Pedestrians and Bicyclist)

Project Safety Impacts

The purpose of Share the Road programs is to increase driver's awareness of bicyclists, as well as improve both bicyclist and driver compliance with relevant traffic laws. The use of media to conduct outreach and further the Share the Road message add immense value. Effective campaigns such as Watch4Me serve to develop messages and delivery methods that are appropriate and effective.

Linkage Between Program Area

North Carolina experienced increases in bicyclists and pedestrian fatalities in 2017. Pedestrian deaths have increased gradually since 2009. Bicyclist fatalities have fluctuated from year to year since 2007. However, as more municipalities make changes to roadways and related infrastructure through the use of designated bicycle lanes, communications and outreach strategies providing Share the Road messages will be instrumental in keeping the cycling and motoring public safe.

Rationale

Share the Road Awareness Campaigns earn one star in NHTSA's Countermeasures that Work. Share the Road awareness materials can be effective in increasing knowledge and appropriate attitudes.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 12	Media

Planned Activity: Media

Planned activity number: NC GHSP 12

Primary Countermeasure Strategy ID:

Planned Activity Description

Coordinate with communications partners to ensure effective public service announcements designed to focus on highway safety.

Intended Subrecipients

Countermeasure strategies

Countermeasure Strategy
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
	FAST Act 405b OP High	405b High Paid Advertising (FAST)			
2018	FAST Act 405b OP High	405b High Occupant Protection (FAST)	$200,000.00	$0.00	
2017	FAST Act 405b OP Low	405b OP Low (FAST)	$46,482.73	$0.00	
2019	FAST Act 405d Impaired Driving Mid	405d Mid Paid/Earned Media (FAST)	$200,000.00	$0.00	
2017	FAST Act 405h Nonmotorized Safety	405h Public Education	$100,000.00	$100,000.00	

2018	FAST Act NHTSA 402	Pedestrian Safety (FAST)	$100,000.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Occupant Protection (FAST)	$319,663.55	$0.00	$0.00
2016	MAP 21 405b Occupant Protection High Belt Use	405b High Occupant Protection (MAP-21)	$83,853.72	$0.00	
	MAP 21 405b Occupant Protection Low Belt Use	405b Low HVE (MAP-21)			
	MAP 21 405d Impaired Driving low	405d Mid BAC Paid/Earned Media (MAP-21)			
	MAP 21 405d Impaired Driving low	405d Mid BAC Paid/Earned Media (MAP-21)			
2016	MAP 21 405d Impaired Driving mid	405d Mid Paid/Earned Media	$800,000.00	$0.00	
	NHTSA 402	Paid Advertising			
	NHTSA 402	Paid Advertising			
2016	NHTSA 402	Occupant Protection	$50,000.00	$0.00	$0.00

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Description of Highway Safety Problems

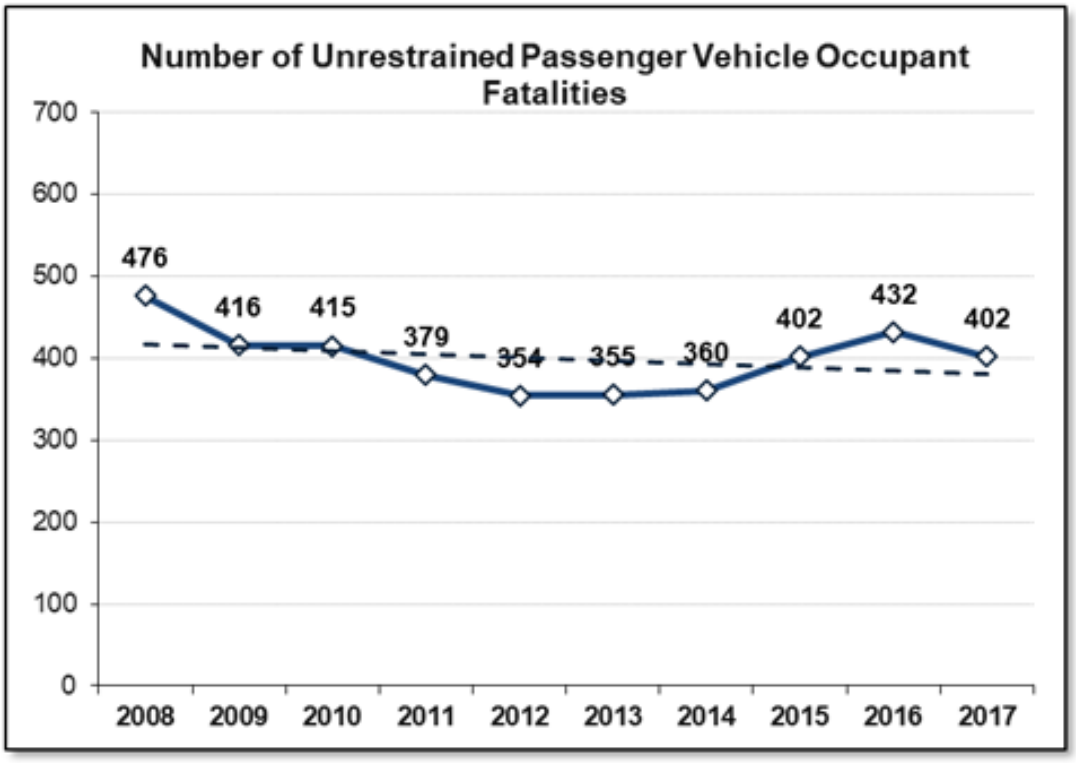
Occupant Protection (Adult & CPS)

Passenger Vehicle Driver and Occupant Deaths and Injuries

The primary goal of the North Carolina occupant protection program is to have NC drivers and passengers comply with seat belt usage laws and to ensure all young children are secured in age and size appropriate car and booster seats. As restraint use increases, the number of unrestrained occupant fatalities should decline.

In 2017, there were 402 fatalities in North Carolina involving an unrestrained passenger vehicle driver or occupant—a decrease of 30 fatalities from the previous year. This reversed a trend of increasing unrestrained fatalities during the previous three years. Overall, the long-term trend

suggests a gradual decline in unrestrained fatalities in North Carolina. The general pattern is similar to unrestrained fatalities nationwide.

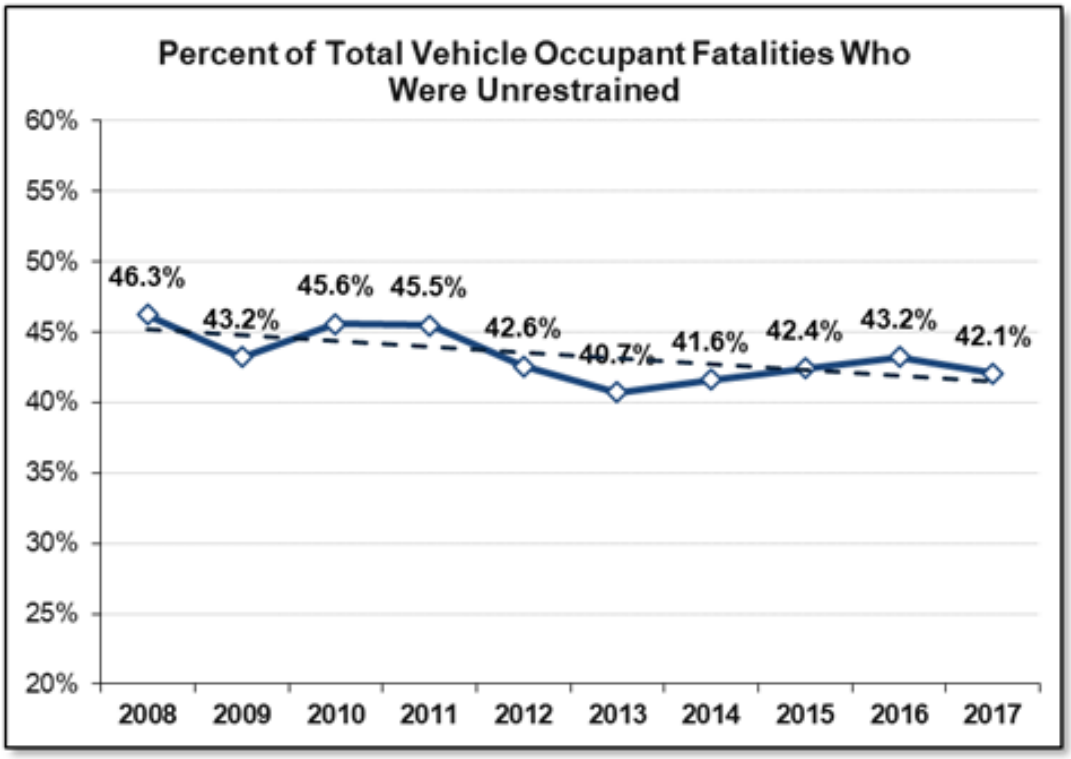


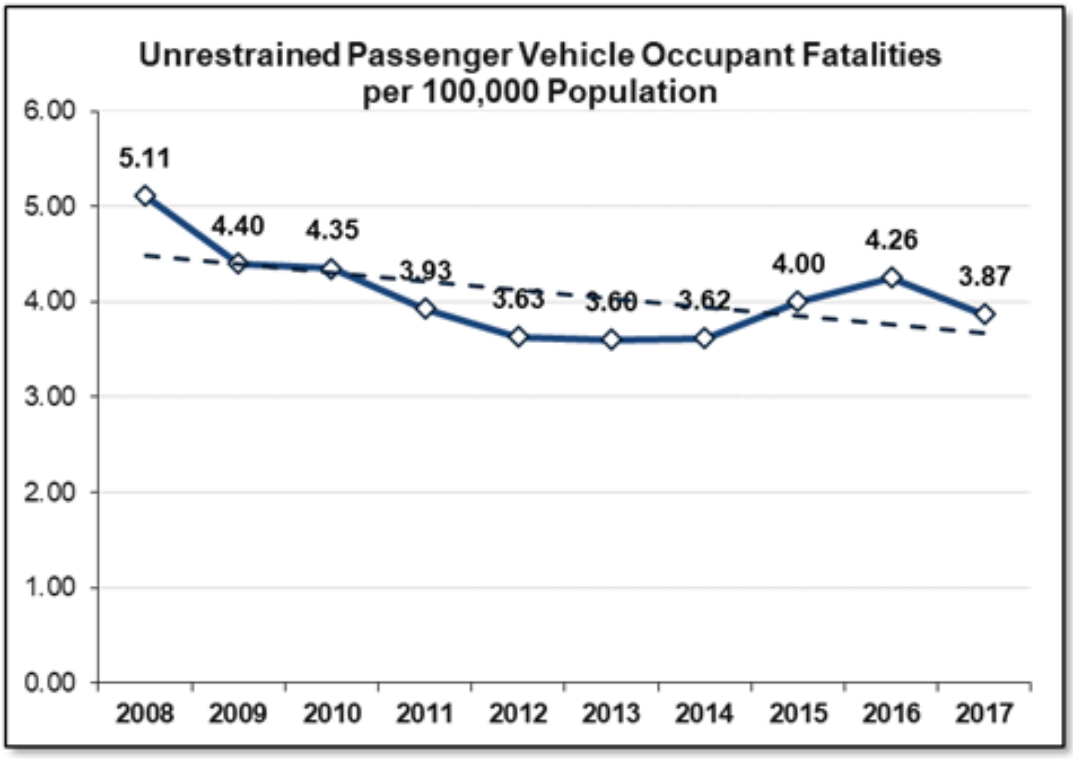
Source: FARS, 2008–2017

The percentage of passenger fatalities in North Carolina who were unrestrained at the time of crash is shown in the next figure. In 2017, 42.1 percent of fatally injured vehicle drivers and occupants were unrestrained, a decrease from 43.2 percent in 2016. Although the percent of unrestrained fatalities has fluctuated over time, the long-term trend suggests a steady decline.

Source: FARS, 2008–2017

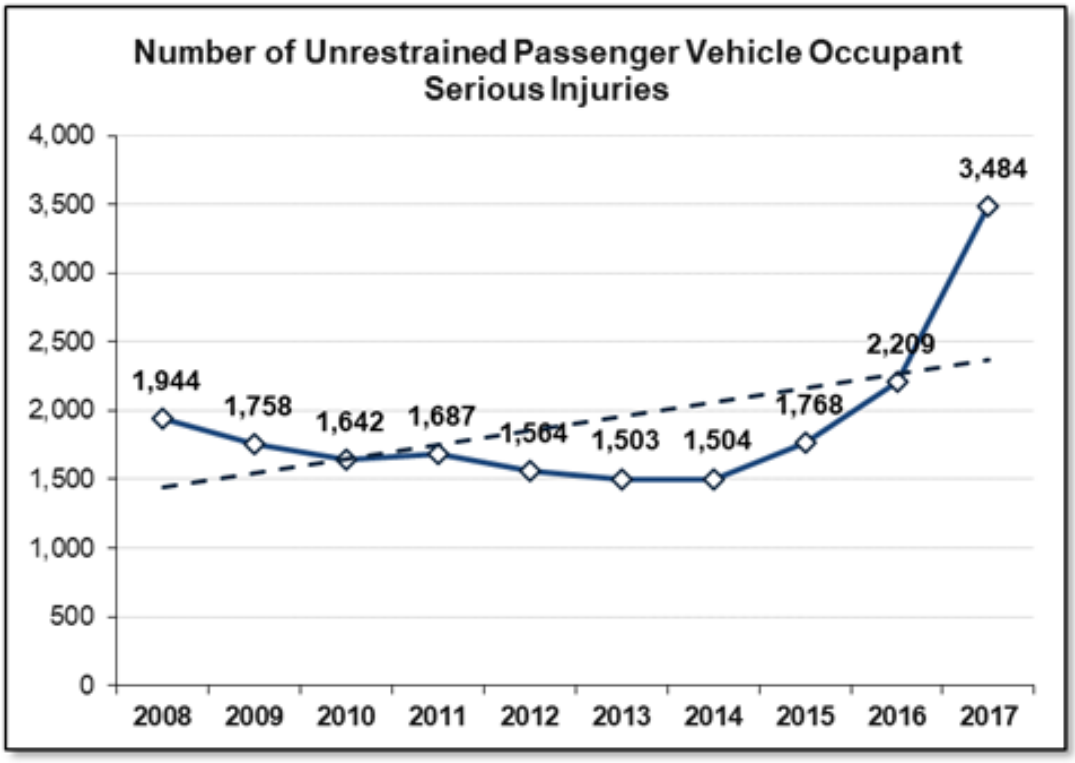
As mentioned earlier, North Carolina's population has grown considerably during the last decade. Consequently, it is important to consider fatality rates per capita. The figure below shows unrestrained fatalities per 100,000 population in North Carolina from 2008 through 2017. Unrestrained fatalities per capita declined noticeably in 2017. This was a result of fewer unrestrained fatalities coupled with North Carolina's growing population. Once again, the long-term trend shows a decline in unrestrained fatalities per capita.





Source: FARS, 2008–2017 and U.S. Census

In addition to the 402 unrestrained fatalities in 2017, there were 3,484 serious (“A”) injuries among unrestrained vehicle occupants. This is a substantial increase from the 2,209 serious injuries in 2016. However, North Carolina changed the definition of “serious injury” during the last 3 months of 2016. This substantially impacted the number of unrestrained serious injuries in 2017.



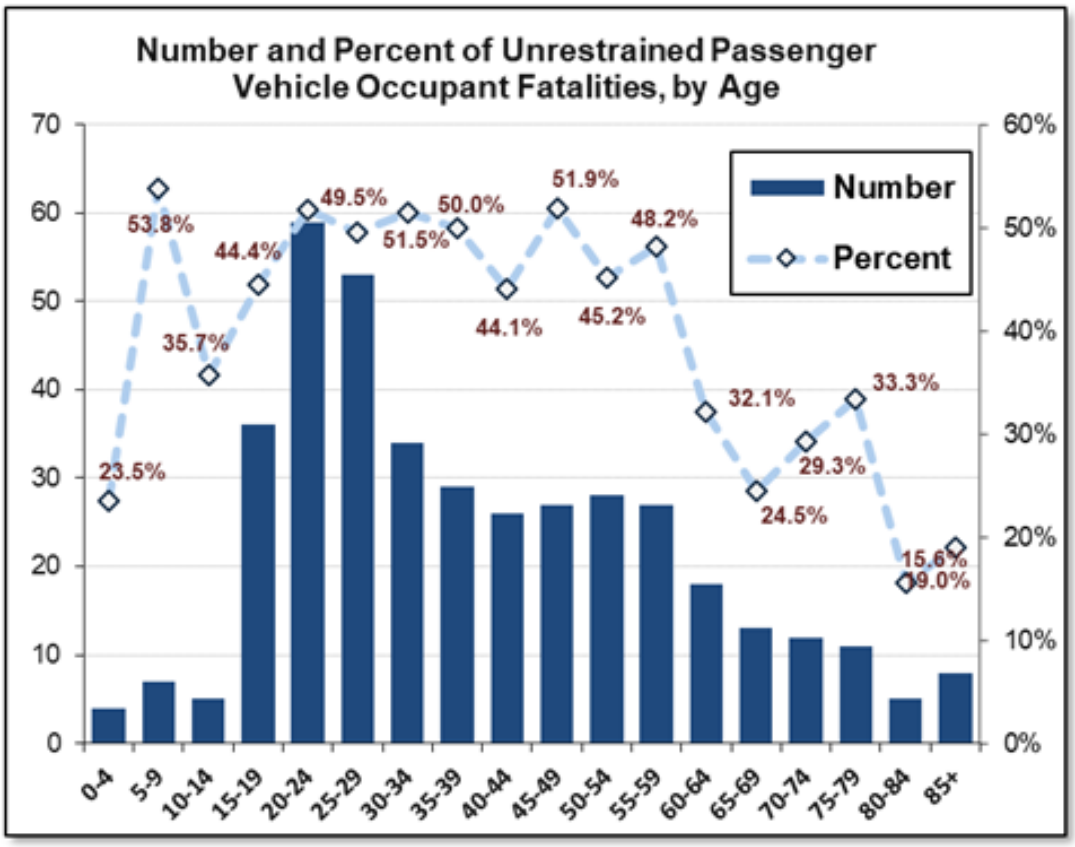
Source: NCDOT Motor Vehicle Crash Data, 2008–2017

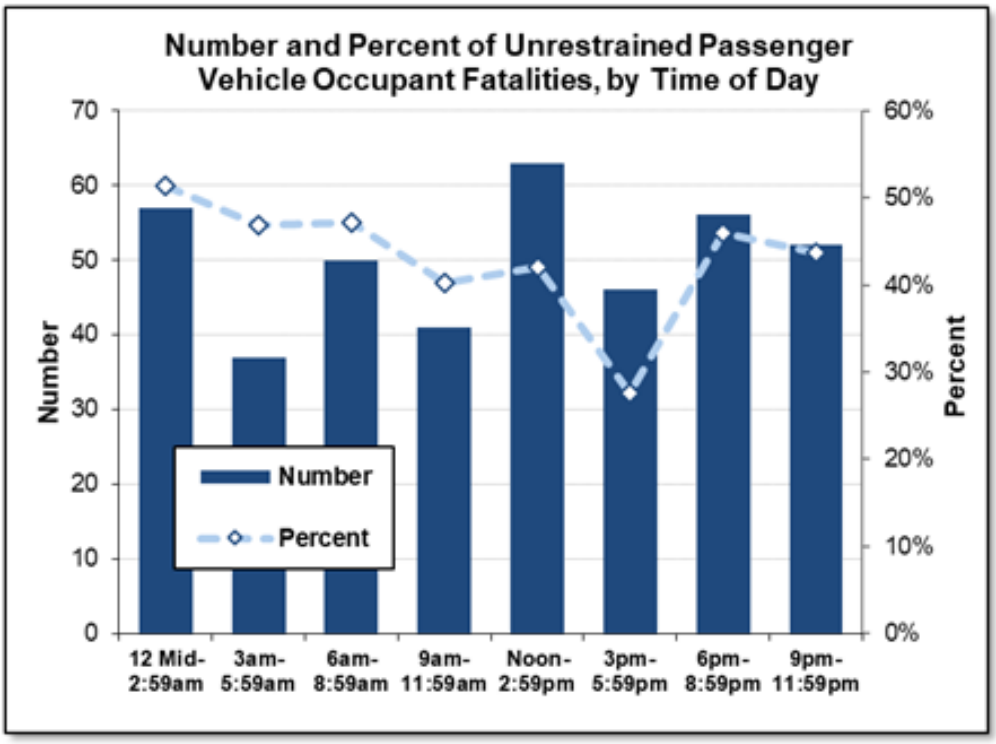
NOTE: The definition of “serious injury” was changed during the last 3 months of 2016, likely contributing to the rise in reported injuries.

During 2017, there were more than twice as many unrestrained fatalities among males as females (278 vs. 124). This indicates that “buckle up” programs and messages need to focus chiefly on males. Unrestrained fatalities also vary by age, as shown in the figure below. The number of unrestrained fatalities peaks for drivers and occupants ages 20 to 29. However, the percent of fatalities who were unrestrained is relatively high from age 15 to 59. Unrestrained fatalities are less common among those younger than 15 and those 60 and older.

Source: FARS, 2017

The next figure shows the number (left axis, blue bars) and percent (right axis, blue line) of unrestrained passenger vehicle occupant fatalities and the time of day those crashes occurred. The number of unrestrained fatalities is highest from noon to 2:59 p.m. However, the percent of fatalities that were unrestrained is highest at night, peaking between midnight and 2:59 a.m.





Source: FARS, 2017

Seat belt observational data is not available at the county level; hence, county-specific analyses focus on unrestrained fatally injured passenger vehicle occupants. The table below shows the 39 counties with the most unrestrained fatalities from 2013 to 2017. Mecklenburg county had the

most unrestrained fatalities during this period, followed by Robeson, Wake and Guilford counties. Altogether, the 39 counties listed in the table account for 72 percent of all unrestrained fatalities in North Carolina from 2013 to 2017. The table also shows the proportion of fatalities in each county who were unrestrained. Many of the counties with the highest proportion of unrestrained fatalities are in the southeastern part of the state (e.g., Bladen, Duplin, Wayne, Brunswick and Robeson counties).

Unrestrained Passenger Vehicle Occupant Fatalities, 2013–2017

County	Total Unrestrained Fatalities	Percent of Total County FatalitiesWho Were Unrestrained	Percent of Total NC Unrestrained Fatalities
Mecklenburg	126	47.0%	6.5%
Robeson	79	48.8%	4.1%
Wake	77	37.9%	4.0%
Guilford	73	42.0%	3.7%
Johnston	47	41.6%	2.4%
Davidson	44	44.0%	2.3%
Cumberland	43	36.4%	2.2%
Forsyth	43	36.4%	2.2%
Buncombe	40	40.4%	2.1%
Columbus	39	46.4%	2.0%
Gaston	39	40.6%	2.0%
Durham	38	50.7%	2.0%
Harnett	37	38.5%	1.9%
Wayne	35	47.9%	1.8%
Nash	34	38.6%	1.7%
Alamance	33	47.8%	1.7%
Union	33	38.8%	1.7%
Moore	32	46.4%	1.6%
Rowan	32	42.7%	1.6%
Sampson	31	43.7%	1.6%
Brunswick	29	47.5%	1.5%
Randolph	29	38.7%	1.5%
Iredell	27	33.8%	1.4%
Pender	27	46.6%	1.4%
Pitt	27	36.0%	1.4%
Duplin	26	49.1%	1.3%
Wilson	26	46.4%	1.3%
Catawba	25	39.1%	1.3%
Bladen	24	54.5%	1.2%
Cabarrus	23	33.3%	1.2%
Cleveland	23	35.4%	1.2%

Franklin	23	51.1%	1.2%
Onslow	23	39.0%	1.2%
Lee	22	38.6%	1.1%
Chatham	21	44.7%	1.1%
Surry	21	42.0%	1.1%
Halifax	20	46.5%	1.0%
Edgecombe	19	48.7%	1.0%
Rockingham	19	40.4%	1.0%

Source: FARS, 2013–2017

Behaviors

North Carolina's most recent annual seat belt use survey, conducted in accordance with North Carolina's NHTSA-certified plan, was conducted in June 2018 at 120 sites in 15 counties. For all sites, trained observers recorded information for stopped or nearly stopped vehicles. Data were collected during rush hours (weekdays between 7 a.m. and 9 a.m. or 3:30 p.m. and 6 p.m.), non-rush hours (weekdays between 9 a.m. and 3:30 p.m.), and on weekends (Saturday or Sunday between 7 a.m. and 6 p.m.). In total, field observers collected seat belt use data on 29,084 drivers and 7,128 front right seat passengers for a total of 36,212 observations.

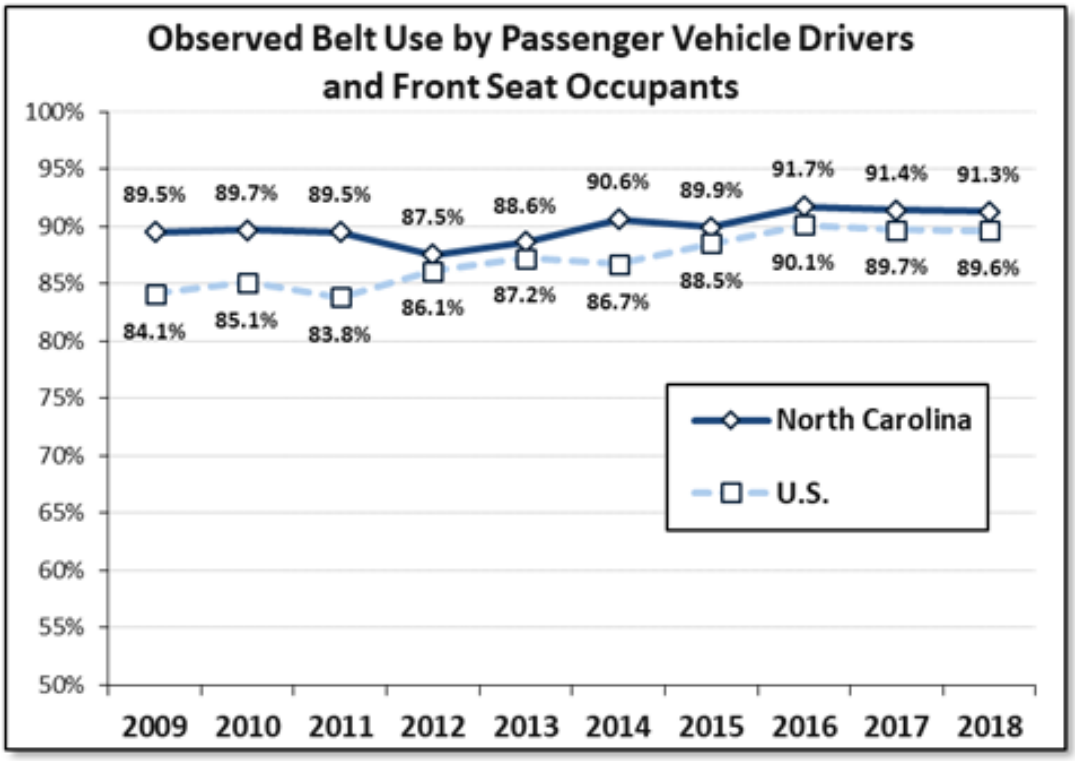
The 2018 observed belt use rate for drivers was 91.5 percent. This is slightly lower than the rate of 91.6 percent recorded in the 2017 survey. The observed belt use rate for right front-seat passengers was 90.3 percent, down from the 2017 rate of 91.0 percent. The 2018 seat belt usage rate for drivers and front-seat passengers combined was 91.3 percent, almost identical to the 2017 rate of 91.4 percent. As shown in the figure below, North Carolina's observed belt use rate has changed relatively little over the past ten years. North Carolina's observed belt use rate is higher than the national average, although the gap has shrunk in recent years.

Source: North Carolina's annual seat belt use survey reports and NHTSA

In 2018, observed belt use was 1.2 percentage points higher among drivers (91.5 percent) than front seat passengers (90.3 percent). As shown in the table below, groups with somewhat lower observed seat belt use in North Carolina include males, young drivers, those driving in rural areas, and drivers of pickup trucks and vans. Belt use was also somewhat lower among those in the coastal region of the state. Overall, however, approximately 90 percent of vehicle occupants in every group were buckled up. Differences between groups were quite small.

Observed Seat Belt Use Rates, June 2018

Category	Weighted Use (%)
Overall	
Driver	91.5
Passenger	90.3



Combined	91.3
Sex of Driver	
Male	89.4
Female	93.6
Age of Driver	
16–24	88.8
25–44	91.2
45–64	91.7
65+	91.7
Urban/Rural	
Urban	91.9
Rural	90.3
Vehicle Type	
Car	91.9
Van	89.4
Minivan	92.6
Pickup Truck	87.5
Sport-Utility Vehicle	94.6
Region	
Mountain	91.7
Piedmont	91.7
Coast	91.0

Source: The 2018 North Carolina Observational Survey of Seat Belt Use

Seatbelt observations were conducted in 15 counties. As shown in the next table, observed belt use differed across counties, from a low of 87.2 percent in Catawba County, to a high of 95.8

percent in Wilkes County.

Observed Seat Belt Use Rates by County, June 2017	
County	Observed Belt Use %
Alamance	93.4
Buncombe	95.0
Catawba	87.2
Cleveland	90.5
Columbus	92.0
Durham	88.4
Forsyth	92.1
Guilford	91.0
Mecklenburg	92.3
Nash	90.6
Pender	91.3
Robeson	89.5
Sampson	91.6
Wake	91.4
Wilkes	95.8

Source: The 2018 North Carolina Observational Survey of Seat Belt Use

Statewide Campaigns/Programs

Enforcement Activities

North Carolina's seat belt law (G.S. 20-135.2A) requires drivers and front and rear seat passengers ages 16 and older to wear seat belts in vehicles required to have them. The North Carolina Child Passenger Safety law (G.S. 20-137.1) requires occupants age 15 and younger to be appropriately restrained in all vehicles required to have seat belts and requires an age and size appropriate child restraint or booster seat for children who are younger than age 8 and who weigh less than 80 pounds. Additionally, children who are younger than age 5 and who weigh less than 40 pounds must be in the rear seat in vehicles with active front passenger airbags.

During 2018, law enforcement agencies in North Carolina conducted three waves of enforcement of occupant protection laws:

Spring Click it or Ticket (May 21 - June 3, 2018)

Child Passenger Safety Week (September 23-29, 2018)

Thanksgiving Click it or Ticket (November 19-25, 2018)

Data for enhanced enforcement periods is reported directly to GHSP from participating law enforcement agencies. Across all three enforcement waves, 8,750 citations were issued for violations of the seat belt law and 1,155 for violations of the child passenger safety law, for a total of 9,905 occupant restraint citations.

Law enforcement officers are encouraged to issue citations for occupant restraint law violations during all enforcement campaigns and throughout the year between enforcement campaigns. As shown in the table below, an additional 14,269 seat belt violations and 3,538 child passenger safety law violations were issued in 2018 during other enhanced enforcement periods (e.g., Booze It & Lose It). An additional 84,589 seat belt and CPS citations were issued in 2018 during non-campaign periods throughout the year.

North Carolina Seat Belt and Child Passenger Safety Law Citations

Campaign / Violations	2017	2018
Spring Click It or Ticket Campaign		
Seat belt violations	8,101	6,741
Child passenger safety law violations	899	754
Total	9,000	7,495
Child Passenger Safety Week Campaign		
Seat belt violations	3,839	329
Child passenger safety law violations	437	102
Total	4,276	431
Thanksgiving Click It or Ticket Campaign		
Seat belt violations	3,062	1,680
Child passenger safety law violations	398	299
Total	3,460	1,979
Click It or Ticket/CPS Week Overall Totals		
Seat belt violations	15,002	8,750
Child passenger safety law violations	1,734	1,155
Total	16,736	9, 905
Other Campaign Totals (e.g., Booze It amp Lose It)		
Seat belt violations	19,797	14,269
Child passenger safety law violations	3,319	3,538
Total	23,116	26,228
Totals - All Enforcement Campaigns		
Seat belt violations	34,799	23,019
Child passenger safety law violations	5,053	4,693
Total	39,852	36,133

Totals Citations for Year (AOC*)		
Seat belt violations	117,837	102,193
Child passenger safety law violations	19,599	18,579
Total	137,436	120,722
Totals - Non-Enforcement Campaign Citation #		
Seat belt violations	83,038	79,174
Child passenger safety law violations	14,546	13,886
Total	97,584	84,589
Totals - Non-Enforcement Campaign Citation % (AOC*)		
Seat belt violations	70.4%	77.5%
Child passenger safety law violations	74.2%	74.7%
Total	71.0%	70.1%

Sources: GHSP Online Reporting system and *North Carolina Administrative Office of the Courts (AOC) - Calendar year data from Administrative Office of the Courts includes Child Passenger Safety (Child Not in Rear Seat – 20-137.1(A1), Fail to Secure Passenger Under 16 – 20-137.1, No Child Restraint System – 20-137.1) and Seat Belt (Fail to Wear Seat Belt-Driver – 20-135.2A, Fail to Wear Seat Belt-Front Seat – 20-135.2A, Fail to Wear Seat Belt-Rear Seat – 20-135.2A€, License/Permit Seat Belt Violation <18 – 20-11(L)).

Summary

Unrestrained fatalities have risen the past two years in North Carolina. This is largely a result of increases in North Carolina’s population and vehicle miles traveled. The percent of total occupant vehicle fatalities who were unrestrained has changed little over the past decade.

Observed restraint use for drivers and front seat occupants in North Carolina currently stands at 91.4 percent. This is close to the highest seat belt use rate ever measured in North Carolina (91.7 percent). North Carolina’s observed belt use rate has been and continues to be higher than the national average.

Both unrestrained fatalities and observed belt use paint a similar picture of the problem. Belt use is lower among males, young adults, and occupants of vans and pickup trucks. In addition, belt use is lower at nighttime—the percent of fatalities that were unrestrained peaks between the hours of 9 p.m. and 2:59 a.m. Five counties in North Carolina account for 20 percent of the state’s unrestrained fatalities (Mecklenburg, Robeson, Guilford, Wake and Cumberland). Several smaller counties in the southeast part of the state also disproportionately account for a larger share of unrestrained fatalities.

Child Passenger Safety Programs

North Carolina is very active in the field of child passenger safety and has numerous programs that support child passenger safety efforts in the state. The program develops local permanent car seat checking stations (PCSs) that provide education and “hands-on” technical assistance to parents and other caregivers. Permanent checking stations are locations where parents/caregivers can receive information about child passenger safety, have their children’s car seats and seat belts checked to ensure they are installed and used correctly, and receive education and training from the Technicians on how to install and use their children’s car seats.

The PCS programs also provide NHTSA/GHSP funded no-cost car seats, along with education on their correct use, to qualifying families when available. Using PSCs as car seat distribution sites helps to ensure that trained, qualified personnel provide education and harnessing/installation assistance to parents and caregivers receiving seats purchased with GHSP funding.

The NC criteria for permanent checking stations can be found on the buckleupnc.org website and clearly meets and exceeds NHTSA’s Inspection Station criteria. Criteria for recognition as a PCS in North Carolina includes:

The sponsoring agency must provide a station(s) or site(s) as a permanent location(s) for parents/caregivers to receive education on child restraints.

The primary contact for the PCS must be a current Nationally Certified Child Passenger Safety Technician or Technician Instructor (CPST). Secondary program contacts and persons designated as the contact for the general public are not required to be CPSTs.

A current Nationally Certified CPST must be available, on site, during checking station hours of operation. Checking station hours of operation should be determined based on the number and availability of CPSTs. Sponsoring agencies should not feel obligated to provide “24/7” PCS services or to persons who show up at the PCS at times outside of posted hours of operation.

All persons, inspecting and/or installing child restraints and/or educating parents/caregivers on their proper use must be current Nationally Certified Technicians.

It is recommended, but not required, to have at least two CPSTs involved in providing checking and educational services to have a “second pair of eyes” available for reviewing the installation and use of the child restraints before the parent/caregiver leaves the PCS and assure that the CPS checklist form is correctly completed.

There were 202 permanent car seat checking station programs in 83 counties as of May 2019. Some programs have more than one location for providing services and some programs provide services to surrounding counties, resulting in a total of 258 locations providing service.

As shown in the table below, the 83 counties with established PCS programs represent 96.9% of North Carolina’s total 2017 population, including 98.2% of the state’s Hispanic population,

97.1% of the state's Black/African American population, and 97.7% of the state's American Indian population. Many of these programs also serve neighboring counties. Parents and other caregivers can search the buckleupnc.org website by county for programs and agencies in North Carolina that offer child passenger safety and seat belt information and technical assistance in their communities, including Permanent Checking Stations. During FY2018, these programs checked 8,040 car seats for 7,982 children. Almost half (47.5%) of these checks were for children less than age one. Another 40 percent were for children 1-5 years old.

County amp Presence of PCS	2017 Population	% of NC Total Pop	% of NC Hispanic Pop	% of NC Black/African American Pop	% of NC American Indian Pop
Yes, PCS Present in County	Alamance	163,339	1.6%	2.0%	1.4%
1.8%	Alexander	38,206	0.4%	0.2%	0.1%
0.1%	Alleghany	11,387	0.1%	0.1%	0.0%
0.0%	Anson	25,460	0.2%	0.1%	0.5%
0.1%	Ashe	27,418	0.3%	0.2%	0.0%
0.0%	Avery	17,953	0.2%	0.1%	0.0%
0.1%	Beaufort	47,504	0.5%	0.4%	0.5%
0.3%	Bertie	19,802	0.2%	0.0%	0.5%
0.1%	Bladen	34,507	0.3%	0.3%	0.5%
0.6%	Brunswick	131,887	1.3%	0.7%	0.7%
0.7%	Buncombe	259,317	2.5%	1.9%	0.7%
0.9%	Burke	90,776	0.9%	0.5%	0.3%
0.6%	Cabarrus	205,204	2.0%	2.0%	1.6%
0.9%	Caldwell	83,230	0.8%	0.4%	0.2%
0.4%	Carteret	70,216	0.7%	0.3%	0.2%
0.2%	Caswell	23,255	0.2%	0.1%	0.3%
0.1%	Catawba	157,376	1.5%	1.5%	0.6%
0.6%	Chatham	72,736	0.7%	1.0%	0.4%
0.7%	Chowan	14,243	0.1%	0.1%	0.2%
0.0%	Clay	11,487	0.1%	0.0%	0.0%
0.0%	Cleveland	98,427	1.0%	0.3%	0.9%
0.2%	Columbus	56,649	0.6%	0.3%	0.8%
1.1%	Craven	103,557	1.0%	0.7%	1.0%
0.4%	Cumberland	329,017	3.2%	3.7%	5.5%
3.3%	Currituck	26,666	0.3%	0.1%	0.1%
0.1%	Dare	36,722	0.4%	0.3%	0.0%
0.2%	Davidson	166,716	1.6%	1.3%	0.7%
1.0%	Davie	42,686	0.4%	0.3%	0.1%
0.2%	Duplin	59,747	0.6%	1.3%	0.6%

0.6%	Durham	307,007	3.0%	4.7%	5.3%
2.3%	Edgecombe	53,156	0.5%	0.2%	1.3%
0.2%	Forsyth	373,625	3.6%	5.5%	4.6%
2.3%	Franklin	66,643	0.6%	0.6%	0.7%
0.4%	Gaston	218,754	2.1%	1.5%	1.6%
0.9%	Gates	12,043	0.1%	0.0%	0.2%
0.0%	Granville	60,213	0.6%	0.5%	0.8%
0.4%	Greene	21,356	0.2%	0.4%	0.3%
0.4%	Guilford	527,922	5.1%	4.5%	8.1%
2.5%	Halifax	52,041	0.5%	0.1%	1.2%
1.3%	Harnett	131,645	1.3%	1.6%	1.2%
1.8%	Haywood	62,464	0.6%	0.3%	0.0%
0.2%	Henderson	115,659	1.1%	1.2%	0.2%
0.5%	Hertford	24,029	0.2%	0.1%	0.6%
0.1%	Hoke	53,435	0.5%	0.7%	0.7%
3.0%	Iredell	176,229	1.7%	1.3%	0.9%
0.8%	Jackson	43,639	0.4%	0.3%	0.0%
2.4%	Johnston	194,271	1.9%	2.8%	1.3%
1.2%	Lee	59,729	0.6%	1.3%	0.5%
0.6%	Lenoir	57,346	0.6%	0.5%	1.0%
0.3%	Lincoln	83,318	0.8%	0.6%	0.2%
0.2%	Macon	35,596	0.3%	0.3%	0.0%
0.2%	Madison	22,247	0.2%	0.1%	0.0%
0.0%	Martin	23,394	0.2%	0.1%	0.4%
0.1%	Mecklenburg	1,074,596	10.4%	14.3%	15.7%
5.8%	Moore	97,554	0.9%	0.7%	0.5%
0.6%	Nash	95,063	0.9%	0.6%	1.7%
0.6%	New Hanover	229,501	2.2%	1.4%	1.4%
1.0%	Onslow	196,793	1.9%	2.3%	1.2%
0.9%	Orange	142,830	1.4%	1.4%	0.7%
0.6%	Pender	60,905	0.6%	0.4%	0.4%
0.4%	Person	39,880	0.4%	0.2%	0.5%
0.2%	Pitt	178,017	1.7%	1.1%	2.7%
0.6%	Randolph	143,690	1.4%	1.7%	0.4%
1.1%	Richmond	45,147	0.4%	0.3%	0.6%
1.0%	Robeson	132,231	1.3%	1.3%	1.4%
30.1%	Rockingham	91,502	0.9%	0.6%	0.8%
0.3%	Rowan	141,371	1.4%	1.4%	1.0%
0.5%	Rutherford	68,259	0.7%	0.3%	0.3%
0.1%	Sampson	63,845	0.6%	1.2%	0.7%
1.5%	Scotland	35,794	0.3%	0.1%	0.6%
2.7%	Stanly	62,727	0.6%	0.3%	0.3%
0.1%	Stokes	46,605	0.5%	0.1%	0.1%
0.1%	Surry	73,116	0.7%	0.8%	0.1%
0.3%	Swain	14,730	0.1%	0.1%	0.0%

2.2%	Transylvania	34,575	0.3%	0.1%	0.1%
0.1%	Union	228,492	2.2%	2.8%	1.2%
1.0%	Vance	45,129	0.4%	0.4%	1.0%
0.3%	Wake	1,052,120	10.2%	11.0%	10.3%
6.6%	Watauga	56,418	0.5%	0.2%	0.0%
0.1%	Wayne	124,227	1.2%	1.6%	1.7%
0.7%	Wilkes	69,870	0.7%	0.4%	0.1%
0.2%	Wilson	81,674	0.8%	0.9%	1.4%
0.3%	Yadkin	38,226	0.4%	0.4%	0.1%
0.2%	YES PCS TOTAL	9,966,138	96.9%	98.2%	97.1%
97.7%					
	No PCS Present in County	Camden	10,358	0.1%	0.0%
0.1%	0.0%	Cherokee	28,941	0.3%	0.1%
0.0%	0.2%	Graham	8,763	0.1%	0.0%
0.0%	0.3%	Hyde	5,466	0.1%	0.1%
0.1%	0.0%	Jones	10,100	0.1%	0.0%
0.1%	0.1%	McDowell	46,171	0.4%	0.3%
0.1%	0.3%	Mitchell	15,244	0.1%	0.1%
0.0%	0.1%	Montgomery	27,845	0.3%	0.4%
0.2%	0.2%	Northampton	20,908	0.2%	0.0%
0.5%	0.1%	Pamlico	13,288	0.1%	0.1%
0.1%	0.1%	Pasquotank	39,842	0.4%	0.2%
0.7%	0.1%	Perquimans	13,690	0.1%	0.0%
0.1%	0.0%	Polk	21,319	0.2%	0.1%
0.0%	0.1%	Tyrrell	4,310	0.0%	0.0%
0.1%	0.0%	Warren	20,234	0.2%	0.1%
0.5%	0.7%	Washington	12,324	0.1%	0.1%
0.3%	0.1%	Yancey	18,314	0.2%	0.1%
0.0%	0.1%	NO PCS TOTAL	317,117	3.1%	1.8%
2.9%	2.3%				
		NC TOTAL	10,283,255	100.0%	100.0%

As of May, 2019, North Carolina had 3,266 child passenger safety certified Technicians and Instructors. Of these, 3,220 were Technicians (including 96 Technician Proxies) and 46 were Technician Instructors. North Carolina had at least one Technician in 96 of 100 counties. More than half (58%) of these Technicians are in the fire services (e.g., fire fighters). Law enforcement is the second largest profession represented (13%).

In 2018, over two thirds of North Carolina Technicians eligible for recertification did so. The national average for all States for recertification during this time was 55.4%. North Carolina ranked 1st in the number of Technicians eligible for recertification (1,462) and 4th in the overall

percentage of Technicians who recertified during this period.

The NC Department of Insurance, Office of State Fire Marshal (OSFM) administers North Carolina's child passenger safety program. Injury prevention specialists coordinate most NC Certification classes and are held based on need, requests from local agencies and programs, ability of a location to fill a class of 20-25 students, and availability of a suitable training location. Classes are held in both urban and rural areas.

In FY2018, 28 Certification Courses were held throughout North Carolina resulting in the certification of 598 new Technicians. Additionally, six Certification Renewal courses were held for those people whose certifications had expired but who wanted to remain active in the field. In total, 700 individuals were certified or recertified, as shown in the table below.

Summary of NC CPS Certification and Renewal Classes by Type and Region, FY2018

Class Type amp Region	No. Classes	# Certified/ Recertified	Average No.Students
Certification Classes			
Region 1	11	224	20.4
Region 2	5	109	21.8
Region 3	7	158	22.6
Region 4	5	107	21.4
Certification Total	28	598	21.4
Renewal Classes			
Region 1	4	75	18.8
Region 2	0	0	NA
Region 3	2	27	13.5
Region 4	0	0	NA
Renewal Total	6	102	17
FY2018 Total	34	700	NA

Certification class locations are determined based on the distribution of certified technicians and permanent car seat checking station program throughout the State. These classes average about 20-25 attendees, though some have up to 35 participants. We anticipate the distribution and location of classes in FY2020 will be similar to the distributions in FY2018 and FY2019. In total, we anticipate 28 classes with a total of 520 – 650 students in FY2020.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value

2020	C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)	2020	5 Year	10.0
2020	B-1) Observed seat belt use for passenger vehicles, front seat outboard occupants (survey)	2020	5 Year	93.40

Countermeasure Strategies in Program Area

Countermeasure Strategy
2.2.1 Short-Term, High Visibility Seat Belt Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
2.2.3 Sustained Enforcement (Chapter 2: Seat Belts and Child Restraints)
2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
2.3.2 Communications and Outreach Strategies for Low Belt Use Groups (Chapter 2: Seat Belts and Child Restraints)
2.6.2 Communities and Outreach Strategies for Child Restraint and Booster Seat Use (Chapter 2: Seat Belts and Child Restraints)
2.7.2 Inspection Stations (Chapter 2: Seat Belts and Child Restraints)
3.2.2 High Visibility Enforcement (Chapter 3: Speeding and Speed Enforcement)
Not Applicable-No Countermeasure

Countermeasure Strategy: 2.2.1 Short-Term, High Visibility Seat Belt Law Enforcement (Chapter 2: Seat Belts and Child Restraints)

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

High-visibility belt law enforcement usually consists of short, intense periods of enforcement using checkpoints and saturation patrols. To be most effective, the law enforcement activity should be well-publicized through paid and earned media. This increases the perception among the general driving population that unbelted drivers will be stopped and cited. GHSP will partner with numerous law enforcement agencies throughout the state to fund full time traffic safety officer positions and overtime opportunities focused on short term high visibility enforcement efforts.

Linkage Between Program Area

North Carolina realized an increase in the number of unrestrained fatalities in 2016. Though there was a decrease in 2017 in the number of unrestrained fatalities, 2018 trends indicated increases. It is extremely important for GHSP to continue to focus efforts on increased seatbelt usage. High visibility seatbelt enforcement provides a proven means of doing so. In an effort to achieve a decrease in unrestrained passenger vehicle occupant fatalities, GHSP will fund full time traffic safety officer positions and overtime opportunities

focused on these short term efforts.

Rationale

Short-term, high-visibility belt law enforcement earns the highest rating of 5 stars in NHTSA's Countermeasures that Work. A Centers for Disease Control and Prevention systematic review of high-quality studies found that high-visibility enforcement programs increase belt use by approximately 16 percentage points, with greater gains in locations with lower pre-program belt use. Additionally, these increases in belt use are usually sustained even after the enforcement program ends.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 2	Enforcement - Police Traffic Services

Planned Activity: Enforcement - Police Traffic Services

Planned activity number: NC GHSP 2

Primary Countermeasure Strategy ID:

Planned Activity Description

Intended Subrecipients

Subrecipients will primarily include state and local law enforcement agencies in counties ranking in the top twenty-five for fatalities in the state.

Countermeasure strategies

Countermeasure Strategy
2.2.1 Short-Term, High Visibility Seat Belt Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
3.2.2 High Visibility Enforcement (Chapter 3: Speeding and Speed Enforcement)
3.2.2 High Visibility Enforcement (Chapter 3: Speeding and Speed Enforcement)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
	FAST Act 405b OP High	405b High Child Restraint (FAST)			
2019	FAST Act 405b OP High	405b High HVE (FAST)	$100,000.00	$0.00	

	FAST Act 405d Impaired Driving Mid	405d Mid Training (FAST)			
	FAST Act 405d Impaired Driving Mid	405d Mid Drug and Alcohol Training (FAST)			
	FAST Act 405d Impaired Driving Mid	405d Mid Drug and Alcohol Training (FAST)			
	FAST Act NHTSA 402	Police Traffic Services (FAST)			
	FAST Act NHTSA 402	Police Traffic Services (FAST)			
	FAST Act NHTSA 402	Motorcycle Safety (FAST)			
2018	FAST Act NHTSA 402	Police Traffic Services (FAST)	$3,576,901.00	$310,685.00	$3,576,901.00
	NHTSA 402	Police Traffic Services			
	NHTSA 402	Motorcycle Safety			

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
In-Car Video System	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
In-Car Video System	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
In-Car Video System	1	$6,000.00	$6,000.00	$5,100.00	$5,100.00
In-Car Video System	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
In-Car Video System	1	$6,000.00	$6,000.00	$5,100.00	$5,100.00
In-Car Video System	3	$6,000.00	$18,000.00	$5,100.00	$15,300.00
Light Tower	1	$8,000.00	$8,000.00	$4,000.00	$4,000.00
Mobile Data Terminal	1	$6,000.00	$6,000.00	$5,100.00	$5,100.00

Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
Mobile Data Terminal (MDT)	1	$6,000.00	$6,000.00	$5,100.00	$5,100.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
Mobile Data Terminal (MDT)	3	$6,000.00	$18,000.00	$5,100.00	$15,300.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$29,750.00	$59,500.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$29,750.00	$59,500.00
Patrol Vehicle	1	$35,000.00	$35,000.00	$29,750.00	$29,750.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$29,750.00	$59,500.00
Patrol Vehicle	1	$35,000.00	$35,000.00	$29,750.00	$29,750.00
Patrol Vehicle	3	$35,000.00	$105,000.00	$29,750.00	$89,250.00

Countermeasure Strategy: 2.2.3 Sustained Enforcement (Chapter 2: Seat Belts and Child Restraints)

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

As opposed to short, intense periods of enforcement (Countermeasure 2.3), another approach is to enforce seat belt laws vigorously as part of ongoing traffic enforcement activities. Seat belt nonusers often commit other traffic violations such as speeding or aggressive driving. Hence, an effective means of increasing belt use is to identify seat belt violations during regular enforcement activities. GHSP will partner with numerous law enforcement agencies throughout the state to fund full time traffic safety officer positions to conduct sustained high visibility enforcement efforts.

Linkage Between Program Area

North Carolina realized an increase in the number of unrestrained fatalities in 2016. Though there was a decrease in 2017 in the number of unrestrained fatalities, 2018 trends indicated increases. It is extremely important for GHSP to continue to focus efforts on increased seatbelt usage. Sustained high visibility seatbelt enforcement provides a proven means of doing so. In an effort to achieve a decrease in unrestrained passenger vehicle occupant fatalities, GHSP will fund full time traffic safety officer positions within counties and municipalities throughout the state that rank in the Top 25 in either overall fatalities or unrestrained fatalities. As a result, GHSP hopes to decrease unrestrained passenger vehicle occupant fatalities.

Rationale

Sustained enforcement earns 3 stars in NHTSA's Countermeasures that Work. States that use sustained enforcement have statewide belt use rates well above the national average. An advantage of sustained enforcement is that this approach avoids the abrupt drop in belt use typically observed after short-term campaigns.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 10	Prosecution and Adjudication

Planned Activity: Prosecution and Adjudication

Planned activity number: NC GHSP 10

Primary Countermeasure Strategy ID:

Planned Activity Description

Funding will support prosecutorial efforts and diversion projects related to motor vehicle violations that include but are not limited to alcohol and drug impaired driving and occupant protection.

Intended Subrecipients

Subrecipients will include state and county prosecutors and state and county managed laboratories responsible for evidence testing and preparation.

Countermeasure strategies

Countermeasure Strategy
1.3.1 DWI Courts (Chapter 1: Alcohol and Drug Impaired Driving)
1.4.2 Alcohol Interlocks (Chapter 1: Alcohol and Drug Impaired Driving)
2.2.3 Sustained Enforcement (Chapter 2: Seat Belts and Child Restraints)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2017	FAST Act 405d Impaired Driving Mid	405d Mid BAC Testing/Reporting (FAST)	$447,553.00	$77,258.00	
2019	FAST Act 405d Impaired Driving Mid	405d Mid Ignition Interlock (FAST)	$396,086.00	$0.00	

2019	FAST Act 405d Impaired Driving Mid	405d Mid Court Support (FAST)	$735,767.00	$55,461.00	
2018	FAST Act NHTSA 402	Occupant Protection (FAST)	$65,201.00	$0.00	$55,201.00
2019	FAST Act NHTSA 402	Alcohol (FAST)	$361,378.00	$0.00	$361,378.00
2016	MAP 21 405d Impaired Driving mid	405d Mid Court Support	$389,528.00	$0.00	

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Annual Service Contract-Gas Chromatogaph	1	$5,500.00	$5,500.00	$5,500.00	$5,500.00
Liquid Chromatograph/Quadropole Lease	3	$118,318.00	$354,954.00	$118,318.00	$354,954.00
Monitoring Enhancement for Ignition Interlock	1	$396,086.00	$396,086.00	$396,086.00	$396,086.00

Countermeasure Strategy: 2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

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Linkage Between Program Area

Click or tap here to enter text.

Rationale

Click or tap here to enter text.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 12	Media

Planned Activity: Media

Planned activity number: NC GHSP 12

Primary Countermeasure Strategy ID:

Planned Activity Description

Coordinate with communications partners to ensure effective public service announcements designed to focus on highway safety.

Intended Subrecipients

Countermeasure strategies

Countermeasure Strategy
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
1.5.2 Mass Media Campaigns (Chapter 1: Alcohol and Drug Impaired Driving)
2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
2.3.1 Communications and Outreach Supporting Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)
9.4.2 Share the Road Awareness Programs (Chapter 9: Bicycles)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
	FAST Act 405b OP High	405b High Paid Advertising (FAST)			
2018	FAST Act 405b OP High	405b High Occupant Protection (FAST)	$200,000.00	$0.00	
2017	FAST Act 405b OP Low	405b OP Low (FAST)	$46,482.73	$0.00	
2019	FAST Act 405d Impaired Driving Mid	405d Mid Paid/Earned Media (FAST)	$200,000.00	$0.00	
2017	FAST Act 405h Nonmotorized Safety	405h Public Education	$100,000.00	$100,000.00	
2018	FAST Act NHTSA 402	Pedestrian Safety (FAST)	$100,000.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Occupant Protection (FAST)	$319,663.55	$0.00	$0.00

2016	MAP 21 405b Occupant Protection High Belt Use	405b High Occupant Protection (MAP-21)	$83,853.72	$0.00	
	MAP 21 405b Occupant Protection Low Belt Use	405b Low HVE (MAP-21)			
	MAP 21 405d Impaired Driving low	405d Mid BAC Paid/Earned Media (MAP-21)			
	MAP 21 405d Impaired Driving low	405d Mid BAC Paid/Earned Media (MAP-21)			
2016	MAP 21 405d Impaired Driving mid	405d Mid Paid/Earned Media	$800,000.00	$0.00	
	NHTSA 402	Paid Advertising			
	NHTSA 402	Paid Advertising			
2016	NHTSA 402	Occupant Protection	$50,000.00	$0.00	$0.00

Countermeasure Strategy: 2.3.2 Communications and Outreach Strategies for Low Belt Use Groups (Chapter 2: Seat Belts and Child Restraints)

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

Most drivers and passengers wear seat belts. The challenge is to reach the minority of drivers who still do not buckle up regularly. Research shows that seat belt nonuse is typically higher among males, young adults, those living in rural areas, and those driving in pickup trucks. Additionally, belt use is lower among passengers than drivers, especially in the back seats of vehicles. Communication programs aim to reach this high-risk group of nonusers to encourage them to buckle up. GHSP will provide this type of outreach and support during Click It or Ticket campaigns throughout the year.

Linkage Between Program Area

North Carolina realized an increase in the number of unrestrained fatalities in 2016. Though there was a decrease in 2017 in the number of unrestrained fatalities, 2018 trends indicated increases. It is extremely important for GHSP to continue to focus efforts on increased seatbelt usage. There are identifiable groups within the state that display a low observed seatbelt use, to include males, young drivers, those driving in rural areas, and drivers of pickup trucks and vans. GHSP's efforts in outreach will endeavor to reduce these trends

and decrease unrestrained passenger vehicle occupant fatalities.

Rationale

Communication and outreach for low-belt-use groups earns 4 stars in NHTSA's Countermeasures that Work. This approach is considered proven when the communication is directly connected to enforcement activity (e.g., Click It or Ticket). However, "stand alone" communication programs can also be effective when they target the audience effectively, have carefully developed messages, and use extensive paid and earned media.
For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 6	Training and Education - Occupant Protection

Planned Activity: Training and Education - Occupant Protection

Planned activity number: NC GHSP 6

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts focused on occupant protection and child passenger safety.

Intended Subrecipients

Subrecipients will include government agencies, non-profit organizations, and university research institutions.

Countermeasure strategies

Countermeasure Strategy
2.3.2 Communications and Outreach Strategies for Low Belt Use Groups (Chapter 2: Seat Belts and Child Restraints)
2.6.2 Communities and Outreach Strategies for Child Restraint and Booster Seat Use (Chapter 2: Seat Belts and Child Restraints)
2.7.2 Inspection Stations (Chapter 2: Seat Belts and Child Restraints)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405b OP High	405b High Public Education (FAST)	$206,714.00	$0.00	
2019	FAST Act 405b OP High	405b High Community CPS Services (FAST)	$335,500.00	$0.00	

2017	FAST Act 405b OP Low	405b Low Community CPS Services (FAST)	$50,000.00	$0.00	
	FAST Act 405d Impaired Driving Mid	405d Mid Court Support (FAST)			
	FAST Act 405d Impaired Driving Mid	405d Mid Court Support (FAST)			
	FAST Act NHTSA 402	Alcohol (FAST)			
2018	FAST Act NHTSA 402	Child Restraint (FAST)	$105,474.00	$0.00	$105,474.00
2018	FAST Act NHTSA 402	Occupant Protection (FAST)	$317,033.00	$0.00	$0.00

Countermeasure Strategy: 2.6.2 Communities and Outreach Strategies for Child Restraint and Booster Seat Use (Chapter 2: Seat Belts and Child Restraints)

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

Observational data show that 7% of children under age 1 are in forward-facing child restraints. Similarly, 17% of children 1 to 3 are in booster seats, using seat belts alone, or are unrestrained. These children are at heightened risk of injury in a crash. Communications and outreach strategies aim to ensure that all children use restraints that are appropriate for the child's age and weight.

Linkage Between Program Area

North Carolina realized an increase in the number of unrestrained fatalities in 2016. Though there was a decrease in 2017 in the number of unrestrained fatalities, 2018 trends indicated increases. It is extremely important for GHSP to continue to focus efforts on increased seatbelt usage. According to crash data evaluated by North Carolina State University's Institute for Traffic Research and Education, 87.6% of restrained children (aged 0-7) survived crashes while only 66.7% of those unrestrained survived crashes between 2011-2015. Through effective outreach and specialized communication, GHSP hopes to impact the rate of restraint and booster seat use and decrease unrestrained passenger vehicle occupant fatalities.

Rationale

Communication and outreach for child restraint and booster seat use earns 2 stars in NHTSA's Countermeasures that Work. Few such programs have been evaluated. However, a handful of studies suggest that tailored communication and outreach can significantly increase correct restraint and booster seat use.
For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 6	Training and Education - Occupant Protection

Planned Activity: Training and Education - Occupant Protection

Planned activity number: NC GHSP 6

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts focused on occupant protection and child passenger safety.

Intended Subrecipients

Subrecipients will include government agencies, non-profit organizations, and university research institutions.

Countermeasure strategies

Countermeasure Strategy
2.3.2 Communications and Outreach Strategies for Low Belt Use Groups (Chapter 2: Seat Belts and Child Restraints)
2.6.2 Communities and Outreach Strategies for Child Restraint and Booster Seat Use (Chapter 2: Seat Belts and Child Restraints)
2.7.2 Inspection Stations (Chapter 2: Seat Belts and Child Restraints)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405b OP High	405b High Public Education (FAST)	$206,714.00	$0.00	
2019	FAST Act 405b OP High	405b High Community CPS Services (FAST)	$335,500.00	$0.00	
2017	FAST Act 405b OP Low	405b Low Community CPS Services (FAST)	$50,000.00	$0.00	
	FAST Act 405d Impaired Driving Mid	405d Mid Court Support (FAST)			
	FAST Act 405d Impaired Driving Mid	405d Mid Court Support (FAST)			
	FAST Act NHTSA 402	Alcohol (FAST)			

2018	FAST Act NHTSA 402	Child Restraint (FAST)	$105,474.00	$0.00	$105,474.00
2018	FAST Act NHTSA 402	Occupant Protection (FAST)	$317,033.00	$0.00	$0.00

Countermeasure Strategy: 2.7.2 Inspection Stations (Chapter 2: Seat Belts and Child Restraints)

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

Studies show that misuse of child restraints is common. Child passenger safety (CPS) inspection stations are places or events where parents can receive “hands on” assistance from certified CPS technicians about appropriate use of child restraints. Child restraint inspections may be held at car dealerships, hospitals, fire stations, state fairs, and other community events. GHSP will partner with key state agencies and nonprofit organizations to provide training and support to CPS technicians to enable them to effectively promote child passenger safety and provide instruction from CPS technicians.

Linkage Between Program Area

North Carolina realized an increase in the number of unrestrained fatalities in 2016. Though there was a decrease in 2017 in the number of unrestrained fatalities, 2018 trends indicated increases. It is extremely important for GHSP to continue to focus efforts on increased seatbelt usage. According to crash data evaluated by North Carolina State University’s Institute for Traffic Research and Education, 87.6% of restrained children (aged 0-7) survived crashes while only 66.7% of those unrestrained survived crashes between 2011-2015. Through effective training and support of CPS technicians and the promotion of CPS inspection stations, GHSP hopes to impact the rate of restraint and booster seat use and decrease unrestrained passenger vehicle occupant fatalities.

Rationale

Inspection stations earn 2 stars in NHTSA’s Countermeasures that Work. Few such programs have been evaluated. However, several studies have found that children whose parents received “hands on” assistance with child restraints were significantly more likely to be properly restrained than children whose parents did not receive such assistance.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 6	Training and Education - Occupant Protection

Planned Activity: Training and Education - Occupant Protection

Planned activity number: NC GHSP 6

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts focused on occupant protection and child passenger safety.

Intended Subrecipients

Subrecipients will include government agencies, non-profit organizations, and university research institutions.

Countermeasure strategies

Countermeasure Strategy
2.3.2 Communications and Outreach Strategies for Low Belt Use Groups (Chapter 2: Seat Belts and Child Restraints)
2.6.2 Communities and Outreach Strategies for Child Restraint and Booster Seat Use (Chapter 2: Seat Belts and Child Restraints)
2.7.2 Inspection Stations (Chapter 2: Seat Belts and Child Restraints)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405b OP High	405b High Public Education (FAST)	$206,714.00	$0.00	
2019	FAST Act 405b OP High	405b High Community CPS Services (FAST)	$335,500.00	$0.00	
2017	FAST Act 405b OP Low	405b Low Community CPS Services (FAST)	$50,000.00	$0.00	
	FAST Act 405d Impaired Driving Mid	405d Mid Court Support (FAST)			
	FAST Act 405d Impaired Driving Mid	405d Mid Court Support (FAST)			
	FAST Act NHTSA 402	Alcohol (FAST)			
2018	FAST Act NHTSA 402	Child Restraint (FAST)	$105,474.00	$0.00	$105,474.00
2018	FAST Act NHTSA 402	Occupant Protection (FAST)	$317,033.00	$0.00	$0.00

Countermeasure Strategy: 3.2.2 High Visibility Enforcement (Chapter 3: Speeding and Speed Enforcement)

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

As discussed previously, high visibility enforcement (HVE) involves checkpoints, saturation patrols, and other proactive law enforcement activities targeting a specific traffic safety issue. HVE is one of the most effective approaches for reducing impaired driving and seat belt nonuse. However, HVE campaigns have also been used to deter other unlawful behaviors such as speeding, aggressive driving and cell phone use. Again, the goal is to convince the general driving public that such behaviors are likely to be detected and that offenders will be punished. Because speeding and aggressive driving are moving violations, officers must use saturation patrols and other techniques to apprehend these drivers, rather than checkpoints. GHSP will partner with numerous law enforcement agencies throughout the state to fund full time traffic safety officer positions and overtime opportunities focused on high visibility enforcement efforts.

Linkage Between Program Area

High visibility enforcement is one of the most effective approaches for reducing impaired driving and seat belt nonuse. High visibility enforcement can and most often does serve as a deterrent to aggressive driving behaviors, to include speeding and cell phone usage. Though North Carolina experienced a decrease in the number of speeding related fatalities in 2017, fatalities attributed to distracted driving appeared to be increasing in 2018. GHSP will fund several state, county, and municipal traffic officer positions throughout the state in counties ranked in the Top 25 in fatalities. GHSP will seek to decrease overall traffic related fatalities and speeding related fatalities.

Rationale

High visibility enforcement earns 2 stars in NHTSA's Countermeasures that Work. Several studies have found reductions in crashes or the frequency of violations following HVE campaigns that target speeding, cell phone use, or other traffic violations.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 2	Enforcement - Police Traffic Services

Planned Activity: Enforcement - Police Traffic Services

Planned activity number: NC GHSP 2

Primary Countermeasure Strategy ID:

Planned Activity Description

Intended Subrecipients

Subrecipients will primarily include state and local law enforcement agencies in counties ranking in the top twenty-five for fatalities in the state.

Countermeasure strategies

Countermeasure Strategy
2.2.1 Short-Term, High Visibility Seat Belt Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
3.2.2 High Visibility Enforcement (Chapter 3: Speeding and Speed Enforcement)
3.2.2 High Visibility Enforcement (Chapter 3: Speeding and Speed Enforcement)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
	FAST Act 405b OP High	405b High Child Restraint (FAST)			
2019	FAST Act 405b OP High	405b High HVE (FAST)	$100,000.00	$0.00	
	FAST Act 405d Impaired Driving Mid	405d Mid Training (FAST)			
	FAST Act 405d Impaired Driving Mid	405d Mid Drug and Alcohol Training (FAST)			
	FAST Act 405d Impaired Driving Mid	405d Mid Drug and Alcohol Training (FAST)			
	FAST Act NHTSA 402	Police Traffic Services (FAST)			
	FAST Act NHTSA 402	Police Traffic Services (FAST)			
	FAST Act NHTSA 402	Motorcycle Safety (FAST)			
2018	FAST Act NHTSA 402	Police Traffic Services (FAST)	$3,576,901.00	$310,685.00	$3,576,901.00
	NHTSA 402	Police Traffic Services			
	NHTSA 402	Motorcycle Safety			

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
In-Car Video System	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
In-Car Video System	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
In-Car Video System	1	$6,000.00	$6,000.00	$5,100.00	$5,100.00
In-Car Video System	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
In-Car Video System	1	$6,000.00	$6,000.00	$5,100.00	$5,100.00
In-Car Video System	3	$6,000.00	$18,000.00	$5,100.00	$15,300.00
Light Tower	1	$8,000.00	$8,000.00	$4,000.00	$4,000.00
Mobile Data Terminal	1	$6,000.00	$6,000.00	$5,100.00	$5,100.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
Mobile Data Terminal (MDT)	1	$6,000.00	$6,000.00	$5,100.00	$5,100.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
Mobile Data Terminal (MDT)	3	$6,000.00	$18,000.00	$5,100.00	$15,300.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$29,750.00	$59,500.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$29,750.00	$59,500.00
Patrol Vehicle	1	$35,000.00	$35,000.00	$29,750.00	$29,750.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$29,750.00	$59,500.00
Patrol Vehicle	1	$35,000.00	$35,000.00	$29,750.00	$29,750.00
Patrol Vehicle	3	$35,000.00	$105,000.00	$29,750.00	$89,250.00

Countermeasure Strategy: Not Applicable-No Countermeasure

Program Area: Occupant Protection (Adult and Child Passenger Safety)

Project Safety Impacts

N/A

Linkage Between Program Area

N/A

Rationale

N/A

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 13	Program Management

Planned Activity: Program Management

Planned activity number: NC GHSP 13

Primary Countermeasure Strategy ID:

Planned Activity Description

Coordinate efforts within GHSP and subrecipients to effectively manage projects designed to address highway safety concerns throughout the state.

Intended Subrecipients

NC Governor's Highway Safety Program and other state and local agencies.

Countermeasure strategies

Countermeasure Strategy
Not Applicable-No Countermeasure
Not Applicable-No Countermeasure
Not Applicable-No Countermeasure

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
	FAST Act 405f Motorcycle Programs	405f Motorcyclist Training (FAST)			
	FAST Act NHTSA 402	Motorcycle Safety (FAST)			
2017	FAST Act NHTSA 402	Occupant Protection (FAST)	$234,018.00	$0.00	$0.00
2018	FAST Act NHTSA 402	Planning and Administration (FAST)	$223,134.00	$223,135.00	$0.00
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$1,807,429.00	$0.00	$0.00

2019	FAST Act NHTSA 402	Safe Communities (FAST)	$7,152.00	$0.00	$7,152.00
	NHTSA 402	Motorcycle Safety			
	NHTSA 402	Occupant Protection			
	NHTSA 402	Planning and Administration			
	NHTSA 402	Safe Communities			

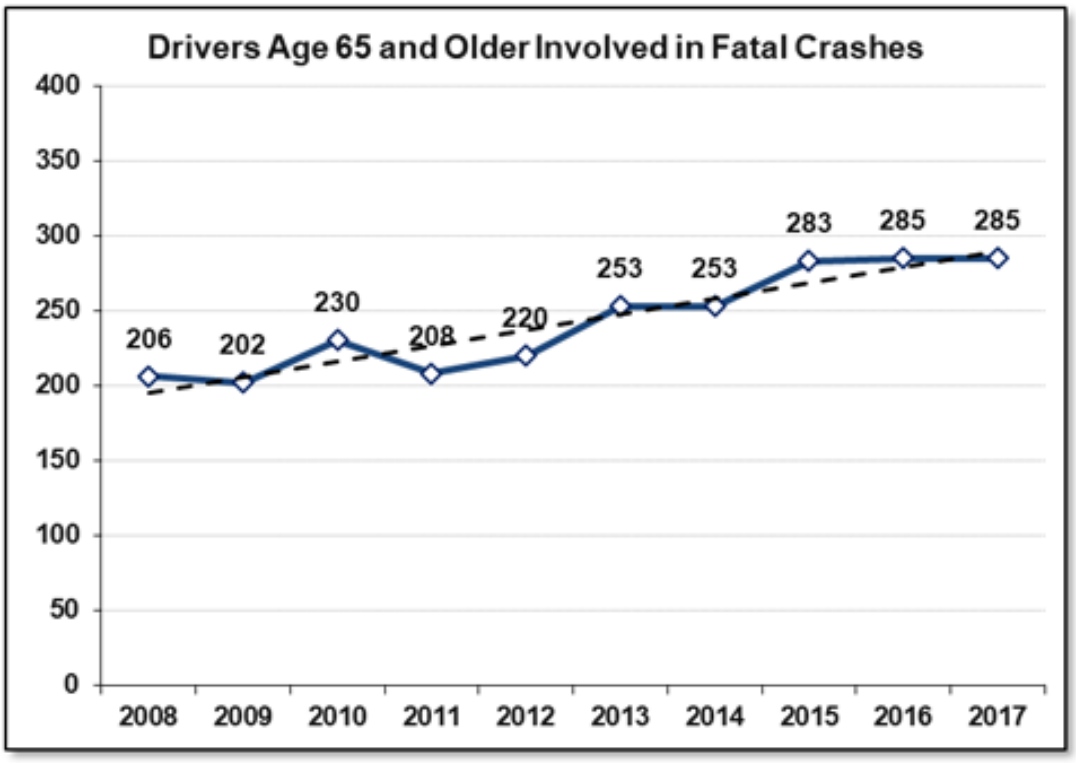
Program Area: Older Drivers

Description of Highway Safety Problems

Older Drivers

Evidence Considered

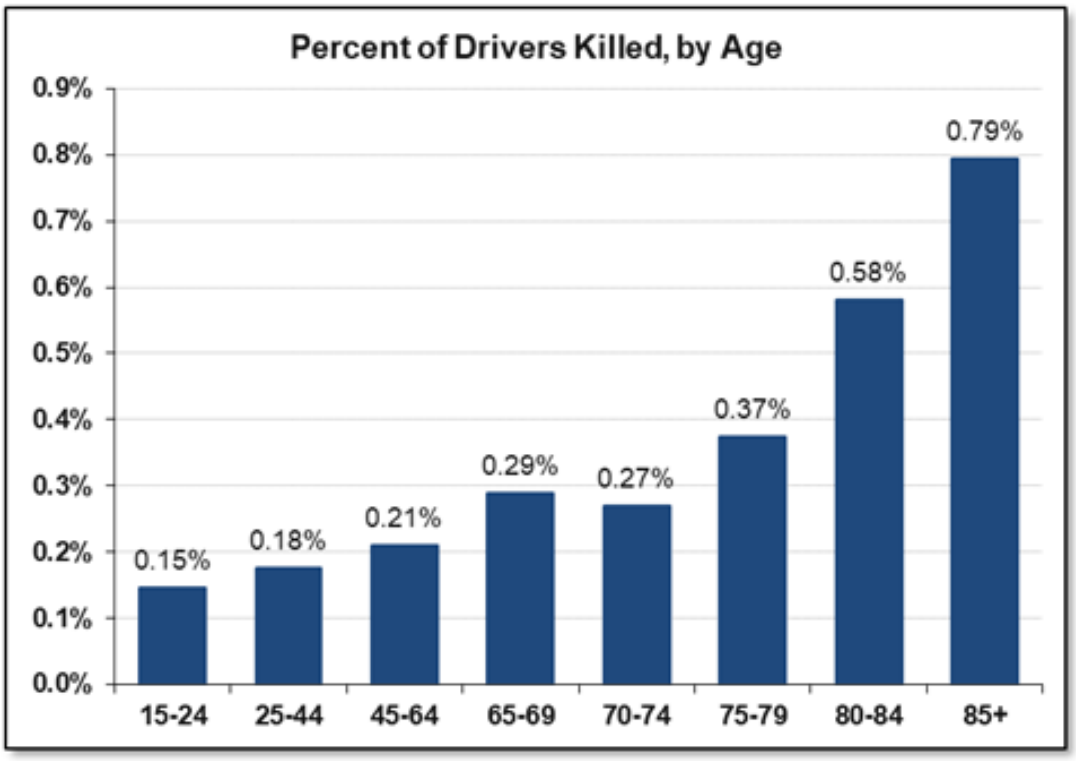
In 2017, there were 285 drivers age 65 and older involved in fatal crashes in North Carolina. This figure is unchanged from 2016. The figure below shows fatal crashes involving older drivers for the years 2008 to 2017. Over that ten-year span, fatal crashes have steadily increased.



Source: FARS, 2008–2017

When older drivers are involved in a crash, they are more likely than their younger counterparts to be killed. The next figure shows the percent of crash-involved drivers in North Carolina who were killed, based on the age of the driver. The risk of being killed in a crash increases,

especially after age 80. Drivers 80 and older are four times more likely to be killed if involved in a crash than are the youngest drivers (15-24 years old). To a large degree, this reflects the increasing fragility of older persons.



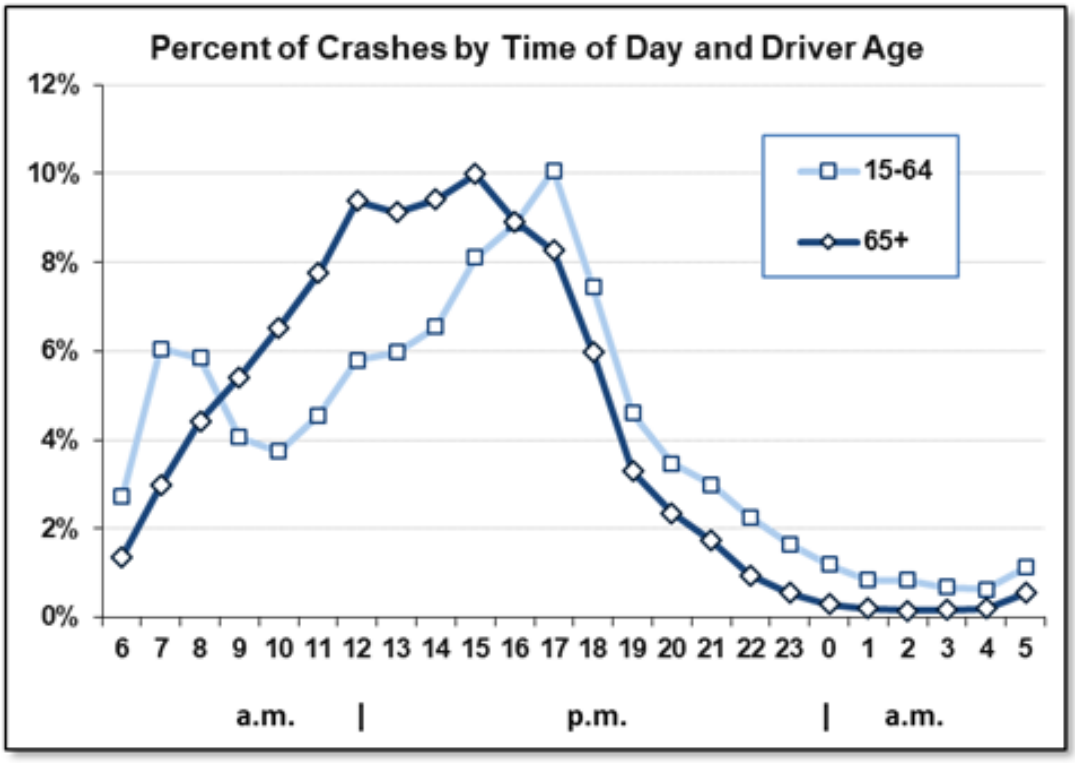
Source: North Carolina Motor Vehicle Crash Data, 2017

In 2017, there were 47,674 drivers age 65 and older involved in a crash in North Carolina. Drivers age 65 and older represented 20 percent of the driving age population in 2017, but accounted for ten percent of drivers in crashes and 19 percent of the drivers killed.

The crashes of older and younger drivers differ by time of day, as shown in the next figure. For drivers age 15 to 64, crashes peak at 7 a.m. and 5 p.m., corresponding to the morning and evening “rush hours.” For drivers age 65 and older, crashes are highest between noon and 5 p.m. It is also noteworthy that older drivers have fewer crashes than their younger counterparts during the nighttime hours.

Source: NCDOT Motor Vehicle Crash Data, 2017

The table below lists the 39 counties with the highest number of older drivers involved in fatal crashes from 2013 to 2017. The counties with the highest numbers of fatal crashes during this period were Guilford (57), Mecklenburg (53) and Wake (47). These counties also have large populations. The table also shows the fatal crash rate per 10,000 population for drivers 65 and older. Madison County (6.21 fatal crashes per 10,000 population) and Columbus County (5.12) stand out as having a particularly high per capita crash rate for older drivers. Other counties with high per capita rates include Pender (3.88), Lee (3.76), Surry (3.69), Robeson (3.33) and



Nash (3.28). In total, the 39 counties listed in the table account for 70 percent of all older drivers in North Carolina involved in fatal crashes during the five-year period.

Older drivers (65+) involved in fatal crashes, 2013–2017

County	Older drivers involvedIn fatal crashes	Rate per10,000 population	% of all 65+ drivers involved infatal crashes
Guilford	57	1.46	4.19%
Mecklenburg	53	0.90	3.90%
Wake	47	0.81	3.46%
Forsyth	35	1.22	2.58%
Robeson	32	3.33	2.35%
Johnston	31	2.47	2.28%
Buncombe	30	1.19	2.21%
Gaston	30	1.74	2.21%
Randolph	30	2.45	2.21%
Cumberland	29	1.44	2.13%
Iredell	28	2.07	2.06%
Nash	28	3.28	2.06%
Catawba	27	2.00	1.99%
Columbus	27	5.12	1.99%
Davidson	27	1.87	1.99%
Pitt	26	2.33	1.91%
Surry	26	3.69	1.91%
Rowan	22	1.85	1.62%

Alamance	21	1.54	1.55%
Pender	21	3.88	1.55%
Harnett	20	2.44	1.47%
Lincoln	20	2.82	1.47%
Cabarrus	19	1.42	1.40%
Haywood	19	2.44	1.40%
Union	19	1.35	1.40%
Chatham	18	2.03	1.32%
Durham	18	0.97	1.32%
Henderson	18	1.19	1.32%
Lee	18	3.76	1.32%
Onslow	18	1.97	1.32%
Brunswick	16	0.84	1.18%
Wayne	16	1.64	1.18%
Wilkes	16	2.21	1.18%
Burke	15	1.69	1.10%
Madison	15	6.21	1.10%
Halifax	14	2.74	1.03%
Moore	14	1.11	1.03%
Sampson	14	2.58	1.03%
Stanly	14	2.41	1.03%

Source: FARS, 2013–2017

Older Driver Summary

Fatal crashes involving drivers age 65 and older have steadily increased over the past decade. Moreover, when older drivers are involved in a crash, they are much more likely than their younger counterparts to be killed. The counties in North Carolina that account for the most older driver fatal crashes are Guilford, Mecklenburg and Wake. Madison and Columbus counties are notable for having a high rate of older driver fatal crashes per capita.

Drivers age 65 and older represent a growing proportion of the population in North Carolina, as a large number of baby boomers reach age 65. Because of this population shift, older driver crashes could potentially double during the next 25 years. For this reason, it is important that North Carolina adopt a comprehensive approach to reduce crashes involving older drivers.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	Number of older drives involved in fatal crashes	2020	5 Year	5.00

Countermeasure Strategies in Program Area

Countermeasure Strategy
7.1.2 General Communications and Education (Chapter 7: Older Drivers)

Countermeasure Strategy: 7.1.2 General Communications and Education (Chapter 7: Older Drivers)

Program Area: Older Drivers

Project Safety Impacts

Older drivers have physical limitations, slowed cognitive abilities, and may take medications or have health conditions that influence their driving skill. Communications and education for older drivers is designed to inform them of driving risks, help them assess their driving capabilities, and advise them in compensating for limitations or possibly restricting their driving. GHSP will partner institutions of higher education to develop and institute countermeasures to reduce crash risks for older drivers.

Linkage Between Program Area

North Carolina has seen an increase in fatal crashes involving older divers (age 65 and older) in recent years. Educating older drivers and their families about methods to allow them to drive safer for a longer period of time, services and resources that may be available, and how to access these services may me key in reversing this trend. GHSP endeavors to decrease the number of older drivers involved in fatal crashes.

Rationale

General communications and education for older drivers earns 2 stars in NHTSA's Countermeasures that Work. The available research suggests that education can increase knowledge among older drivers, but it is not known whether this influences their subsequent driving behavior or crashes.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 9	Training and Education - Other

Planned Activity: Training and Education - Other

Planned activity number: NC GHSP 9

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts include awareness related to school bus safety, senior drivers, youth drivers, and distracted driving.

Intended Subrecipients

Subrecipients will primarily include state agencies and university research institutions.

Countermeasure strategies

Countermeasure Strategy

6.2.2 Post-Licensure or Second Tier Driver Education (Chapter 6: Young Driver)
7.1.2 General Communications and Education (Chapter 7: Older Drivers)
8.2.3 Child School Bus Training (Chapter 8: Pedestrians)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act NHTSA 402	Driver Education (FAST)	$115,844.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Pupil Transportation Safety (FAST)	$42,500.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$62,439.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$338,033.00	$0.00	$228,033.00

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Driving Simulator Package	4	$8,400.00	$33,600.00	$8,400.00	$33,600.00
Driving Simulators	2	$25,000.00	$50,000.00	$25,000.00	$50,000.00

Program Area: Planning & Administration

Description of Highway Safety Problems

Associated Performance Measures

Planned Activities

Planned Activities in Program Area

Unique Identifier	Planned Activity Name	Primary Countermeasure Strategy ID
NC GHSP 13	Program Management	

Planned Activity: Program Management

Planned activity number: NC GHSP 13

Primary Countermeasure Strategy ID:

Planned Activity Description

Coordinate efforts within GHSP and subrecipients to effectively manage projects designed to address highway safety concerns throughout the state.

Intended Subrecipients

NC Governor's Highway Safety Program and other state and local agencies.

Countermeasure strategies

Countermeasure Strategy
Not Applicable-No Countermeasure
Not Applicable-No Countermeasure
Not Applicable-No Countermeasure

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
	FAST Act 405f Motorcycle Programs	405f Motorcyclist Training (FAST)			
	FAST Act NHTSA 402	Motorcycle Safety (FAST)			
2017	FAST Act NHTSA 402	Occupant Protection (FAST)	$234,018.00	$0.00	$0.00
2018	FAST Act NHTSA 402	Planning and Administration (FAST)	$223,134.00	$223,135.00	$0.00
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$1,807,429.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$7,152.00	$0.00	$7,152.00
	NHTSA 402	Motorcycle Safety			
	NHTSA 402	Occupant Protection			
	NHTSA 402	Planning and Administration			
	NHTSA 402	Safe Communities			

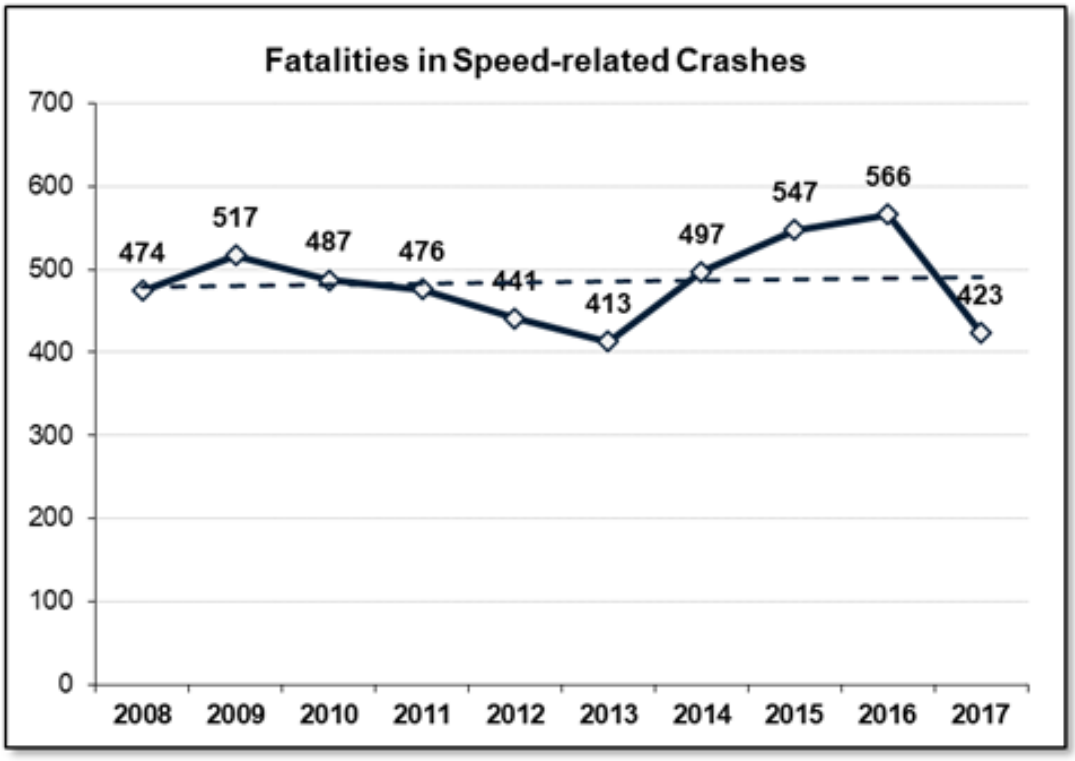
Program Area: Police Traffic Services

Description of Highway Safety Problems

Police Traffic Services

Crashes, Deaths and Injuries

In 2017, 423 persons were killed in crashes in North Carolina involving a driver who was speeding. This is a 25 percent decrease from the 566 speed-related fatalities in 2016. The long-term trend suggests little change in the number of speed-related fatalities in North Carolina over the past decade, as shown in the figure below.

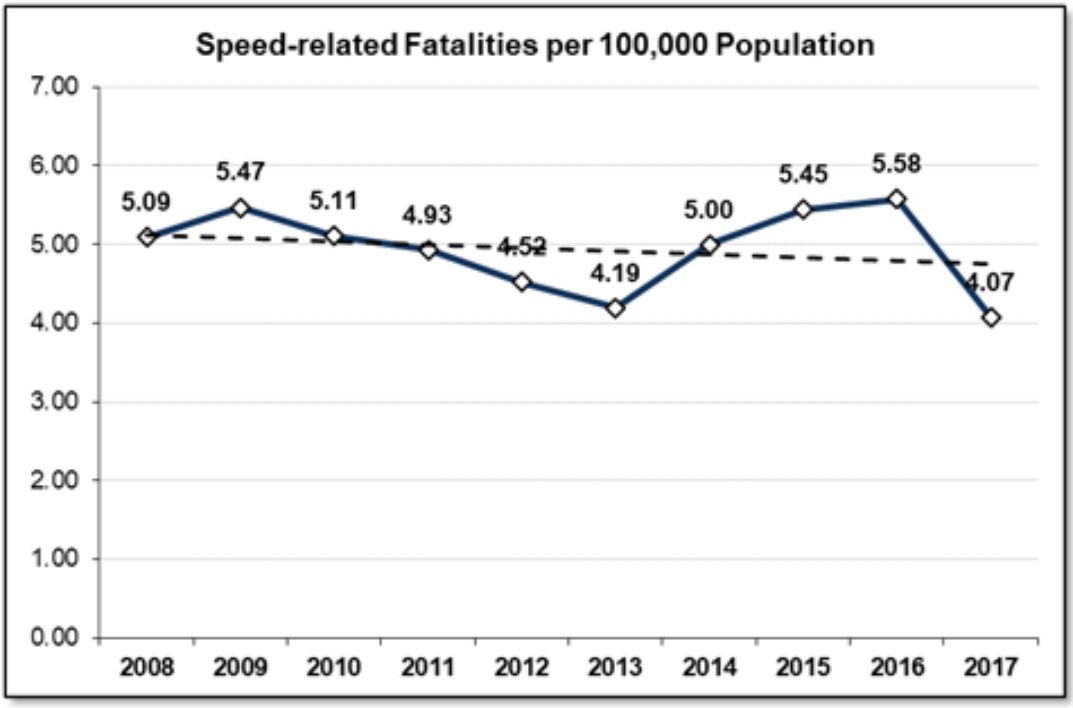


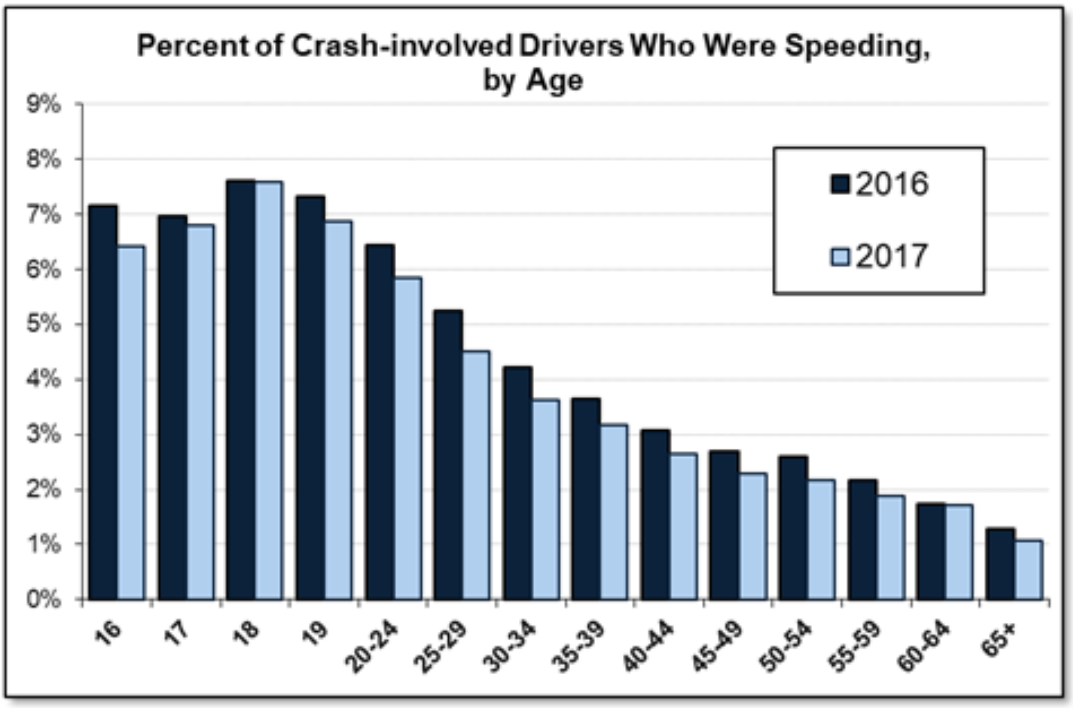
Source: FARS, 2008–2017

Thirty percent of fatalities in 2017 involved a driver who was speeding, down from 39 percent in 2016. As mentioned previously, North Carolina's population has grown considerably during the last decade. Consequently, it is important to consider fatality rates per capita. The figure below shows speed-related driving fatalities per 100,000 population in North Carolina from 2008 through 2017. Speed-related fatalities per capita decreased steadily between 2009 and 2013, then rose for each of the next three years. This past year saw a noticeable drop in speed-related fatalities per capita, which now stands at its lowest rate in more than 10 years.

Source: FARS, 2008–2017 and U.S. Census

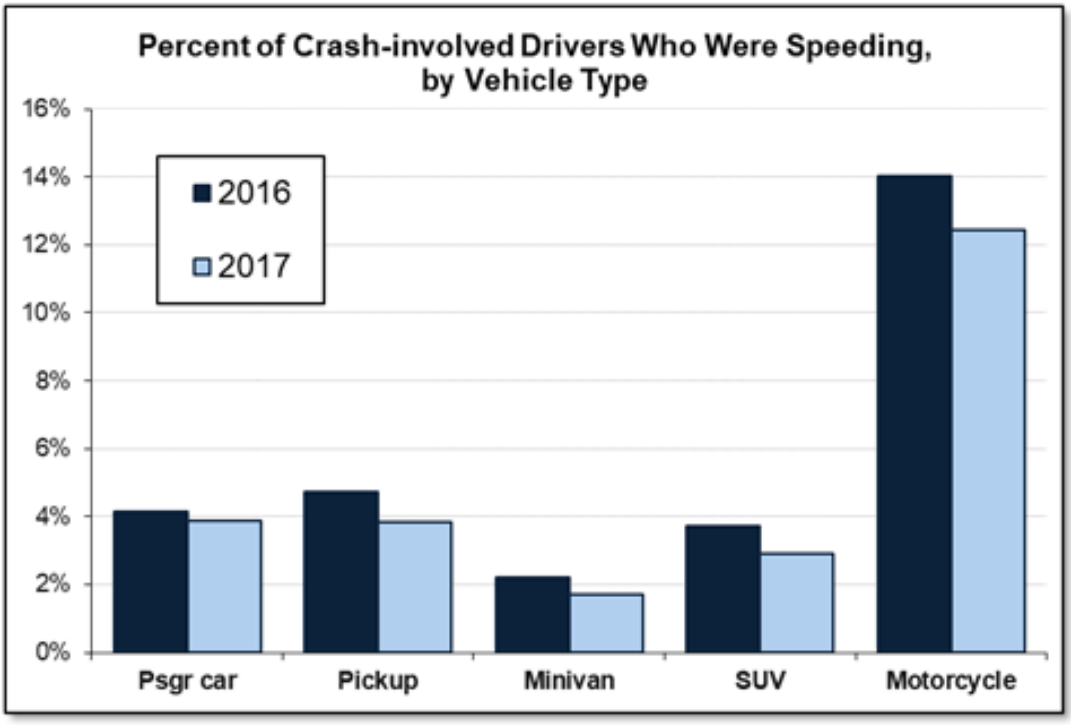
Speed is less often involved in non-fatal crashes. Among all drivers in crashes in North Carolina during 2017, 3.6 percent were speeding (compared to 4.0 percent in 2016). Male drivers are noticeably more likely to be involved in a speed-related crash than female drivers. Among crash-involved drivers in 2017, 4.3 percent of males were speeding compared to 2.7 percent of females. Speeding also varies by the age of the driver. As shown in the figure below, speed involvement in crashes tends to be highest among the youngest drivers and gradually decreases with age. Speeding decreased in 2017 among most age groups.





Source: NCDOT Motor Vehicle Crash Data, 2016–2017

Speeding is substantially more common in rural crashes than urban crashes. During 2017, 6.4 percent of drivers in crashes on rural roads were speeding, compared to 2.0 percent of drivers who crashed on urban roads. As shown in figure below, speeding is also quite frequent among motorcycle riders. During 2017, 12 percent of crash-involved motorcycle riders were speeding, compared to less than four percent of drivers of other types of vehicles. The frequency of speeding in crashes decreased somewhat in 2017 for each vehicle type.



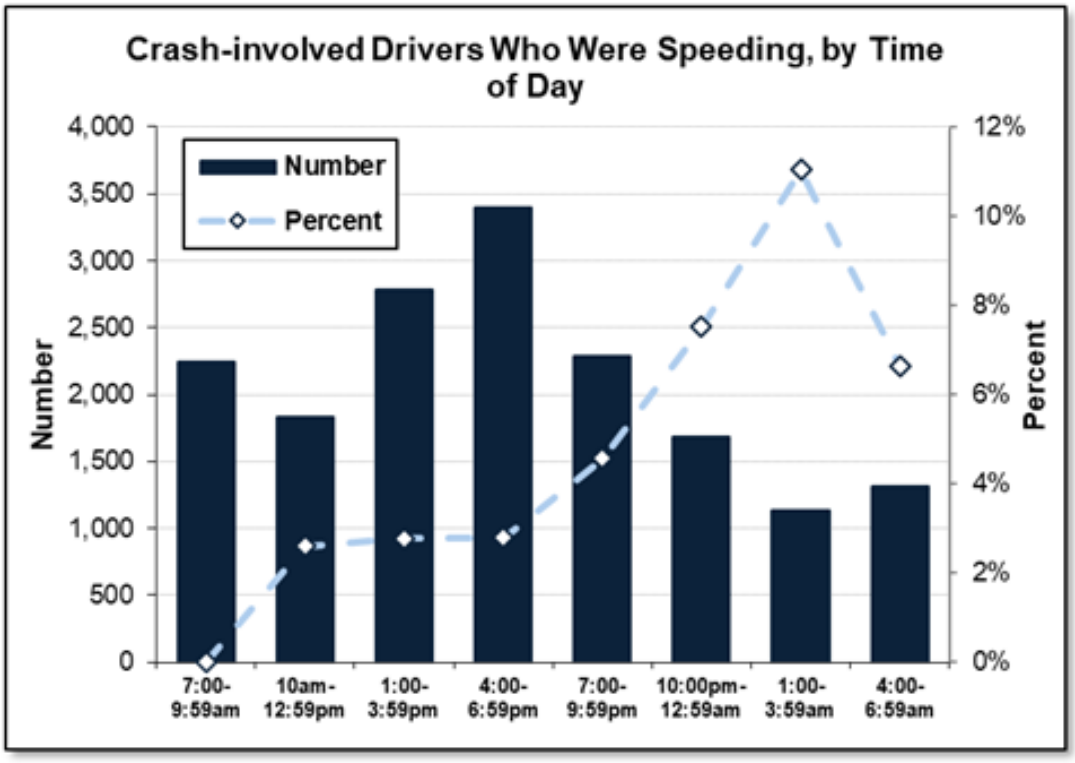
Source: NCDOT Motor Vehicle Crash Data, 2016–2017

The next figure shows the number and percent of drivers in crashes who were speeding by time of day. The number of crash-involved drivers who were speeding tends to be high at times that correspond to the daily “rush hour” (i.e., 7:00-9:59 a.m. in the morning and 4:00-6:59 p.m. in the afternoon). However, the percent of crash-involved drivers who were speeding is highest late at night, peaking between 1:00 and 3:59 a.m. In other words, the majority of speed-related crashes occur during the day when there are more drivers on the roadway, but crashes occurring late at night are more likely than daytime crashes to involve speeding.

Source: NCDOT Motor Vehicle Crash Data, 2017

North Carolina has 100 counties. The table below shows the 35 counties with the most fatalities in crashes involving a driver who was speeding from 2013 to 2017. Mecklenburg County had the highest number of speed-involved fatalities during this period, followed by Wake, Guilford, Robeson and Cumberland counties. These five counties are among the largest in North Carolina and include many of the most populous cities. In total, the 35 counties listed in the table account for 71 percent of all speed-related fatalities in North Carolina from 2013 to 2017.

The table also shows fatalities per 10,000 population. When looking at speed-related fatalities per capita, the counties that stand out include Robeson (1.46), Hoke (1.15), Halifax (0.97), Lee (0.96), Columbus (0.93), Harnett (0.90), Pender (0.85), and Nash (0.85). These counties are well above the overall North Carolina per capita rate of 0.48. Several of these counties are in rural areas in either the southeastern part of the state or along the I-95 corridor.



Fatalities in Crashes Involving a Driver Who Was Speeding, 2013–2017

County	Fatalities in speed-related crashes	Fatalities per 10,000 population	% of all speed-involved fatalities
Mecklenburg	181	0.34	7.40%
Wake	113	0.21	4.62%
Guilford	110	0.42	4.50%
Robeson	97	1.46	3.97%
Cumberland	81	0.49	3.31%
Davidson	68	0.82	2.78%
Johnston	61	0.62	2.49%
Harnett	60	0.90	2.45%
Forsyth	59	0.31	2.41%
Gaston	57	0.52	2.33%
Durham	55	0.35	2.25%
Buncombe	49	0.38	2.00%
Onslow	49	0.51	2.00%
Randolph	48	0.67	1.96%
Cabarrus	42	0.41	1.72%
Nash	40	0.85	1.64%
Cleveland	38	0.78	1.55%
Rowan	35	0.50	1.43%
Wayne	34	0.55	1.39%
Moore	33	0.68	1.35%
Union	32	0.28	1.31%
Alamance	31	0.38	1.27%

Hoke	31	1.15	1.27%
New Hanover	30	0.26	1.23%
Orange	30	0.41	1.23%
Lee	29	0.96	1.19%
Catawba	28	0.35	1.14%
Iredell	28	0.32	1.14%
Columbus	26	0.93	1.06%
Pender	26	0.85	1.06%
Brunswick	25	0.38	1.02%
Craven	25	0.49	1.02%
Halifax	25	0.97	1.02%
Pitt	25	0.28	1.02%
Wilson	25	0.61	1.02%

Source: FARS, 2013–2017

Enforcement Activities

Law enforcement agencies in North Carolina conducted the Speed a Little. Lose a Lot campaign from March 26 to April 1, 2018. The campaign included 1,167 checkpoints and patrols and resulted in 5,046 citations for speeding. Additionally, the 2018 campaign resulted in 392 DWI charges, 470 occupant restraint charges, 1,724 citations for DWLR, 1,026 wanted persons apprehended and 184 citations for reckless driving.

GHSP also partnered with the North Carolina State Highway Patrol (NCSHP) and local law enforcement agencies to conduct the high-visibility Survive the Drive campaign. The campaign focuses on speeding, seatbelt nonuse and distracted driving in counties with high fatality rates on rural roads. Although only about 20 percent of the U.S. population lives in rural areas, rural roads account for more than half of all traffic fatalities. According to U.S. DOT, the fatality rate in rural areas is 2.4 times higher than in urban areas. Survive the Drive campaign efforts focused on Sampson, Johnston, Harnett, Randolph and Cleveland counties from February through June of 2018 and resulted in 3948 traffic and other related charges.

Seven other enhanced enforcement campaigns were conducted during 2018, such as Booze It & Lose It and Click It or Ticket. During these campaigns, 27,094 checkpoints and saturation patrols were conducted resulting in 109,708 speeding citations.

Summary

North Carolina experienced a noticeable decrease in speed-related fatalities during 2017. However, speeding continues to be a factor in approximately 30 percent of all motor vehicle fatalities in the state. Speed involvement in crashes is highest among males, young drivers, motorcycle riders, and drivers on rural roadways. Speed also plays a role in a large percentage of nighttime crashes. The counties that account for the most speed-involved fatalities are

Mecklenburg, Wake, Guilford, Robeson and Cumberland.

GHSP believes the number of speed-related fatalities in North Carolina can be further reduced through a combination of enforcement and educational programs. These countermeasures are described elsewhere in this section.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-6) Number of speeding-related fatalities (FARS)	2020	5 Year	5.00

Countermeasure Strategies in Program Area

Countermeasure Strategy
3.2.2 High Visibility Enforcement (Chapter 3: Speeding and Speed Enforcement)
3.2.3 Other Enforcement Methods (Chapter 3: Speeding and Speed Enforcement)
Not Applicable-No Countermeasure

Countermeasure Strategy: 3.2.2 High Visibility Enforcement (Chapter 3: Speeding and Speed Enforcement)

Program Area: Police Traffic Services

Project Safety Impacts

As discussed previously, high visibility enforcement (HVE) involves checkpoints, saturation patrols, and other proactive law enforcement activities targeting a specific traffic safety issue. HVE is one of the most effective approaches for reducing impaired driving and seat belt nonuse. However, HVE campaigns have also been used to deter other unlawful behaviors such as speeding, aggressive driving and cell phone use. Again, the goal is to convince the general driving public that such behaviors are likely to be detected and that offenders will be punished. Because speeding and aggressive driving are moving violations, officers must use saturation patrols and other techniques to apprehend these drivers, rather than checkpoints. GHSP will partner with numerous law enforcement agencies throughout the state to fund full time traffic safety officer positions and overtime opportunities focused on high visibility enforcement efforts.

Linkage Between Program Area

High visibility enforcement is one of the most effective approaches for reducing impaired driving and seat belt nonuse. High visibility enforcement can and most often does serve as a deterrent to aggressive driving behaviors, to include speeding and cell phone usage. Though North Carolina experienced a decrease in the number of speeding related fatalities in 2017, fatalities attributed to distracted driving appeared to be increasing in 2018. GHSP will fund several state, county, and municipal traffic officer positions throughout the state in counties ranked in the Top 25 in fatalities. GHSP will seek to decrease overall traffic related fatalities and speeding related fatalities.

Rationale

High visibility enforcement earns 2 stars in NHTSA's Countermeasures that Work. Several studies have found reductions in crashes or the frequency of violations following HVE campaigns that target speeding, cell phone use, or other traffic violations.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 2	Enforcement - Police Traffic Services
NC GHSP 5	Training and Education - Police Traffic Services

Planned Activity: Enforcement - Police Traffic Services

Planned activity number: NC GHSP 2

Primary Countermeasure Strategy ID:

Planned Activity Description

Intended Subrecipients

Subrecipients will primarily include state and local law enforcement agencies in counties ranking in the top twenty-five for fatalities in the state.

Countermeasure strategies

Countermeasure Strategy
2.2.1 Short-Term, High Visibility Seat Belt Law Enforcement (Chapter 2: Seat Belts and Child Restraints)
3.2.2 High Visibility Enforcement (Chapter 3: Speeding and Speed Enforcement)
3.2.2 High Visibility Enforcement (Chapter 3: Speeding and Speed Enforcement)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
	FAST Act 405b OP High	405b High Child Restraint (FAST)			
2019	FAST Act 405b OP High	405b High HVE (FAST)	$100,000.00	$0.00	
	FAST Act 405d Impaired Driving Mid	405d Mid Training (FAST)			

	FAST Act 405d Impaired Driving Mid	405d Mid Drug and Alcohol Training (FAST)			
	FAST Act 405d Impaired Driving Mid	405d Mid Drug and Alcohol Training (FAST)			
	FAST Act NHTSA 402	Police Traffic Services (FAST)			
	FAST Act NHTSA 402	Police Traffic Services (FAST)			
	FAST Act NHTSA 402	Motorcycle Safety (FAST)			
2018	FAST Act NHTSA 402	Police Traffic Services (FAST)	$3,576,901.00	$310,685.00	$3,576,901.00
	NHTSA 402	Police Traffic Services			
	NHTSA 402	Motorcycle Safety			

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
In-Car Video System	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
In-Car Video System	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
In-Car Video System	1	$6,000.00	$6,000.00	$5,100.00	$5,100.00
In-Car Video System	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
In-Car Video System	1	$6,000.00	$6,000.00	$5,100.00	$5,100.00
In-Car Video System	3	$6,000.00	$18,000.00	$5,100.00	$15,300.00
Light Tower	1	$8,000.00	$8,000.00	$4,000.00	$4,000.00
Mobile Data Terminal	1	$6,000.00	$6,000.00	$5,100.00	$5,100.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00

Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
Mobile Data Terminal (MDT)	1	$6,000.00	$6,000.00	$5,100.00	$5,100.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$5,100.00	$10,200.00
Mobile Data Terminal (MDT)	3	$6,000.00	$18,000.00	$5,100.00	$15,300.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$29,750.00	$59,500.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$29,750.00	$59,500.00
Patrol Vehicle	1	$35,000.00	$35,000.00	$29,750.00	$29,750.00
Patrol Vehicle	2	$35,000.00	$70,000.00	$29,750.00	$59,500.00
Patrol Vehicle	1	$35,000.00	$35,000.00	$29,750.00	$29,750.00
Patrol Vehicle	3	$35,000.00	$105,000.00	$29,750.00	$89,250.00

Planned Activity: Training and Education - Police Traffic Services

Planned activity number: NC GHSP 5

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts focused on the enforcement of traffic safety laws and statues to include but not limited to speeding and occupant protection violations.

Intended Subrecipients

Subrecipients will include law enforcement agencies and supporting organizations, non-profit organizations focused on traffic safety initiatives, and government agencies focused on traffic safety efforts.

Countermeasure strategies

Countermeasure Strategy
3.2.2 High Visibility Enforcement (Chapter 3: Speeding and Speed Enforcement)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2017	FAST Act NHTSA 402	Police Traffic Services (FAST)	$162,800.00	$0.00	$0.00

Countermeasure Strategy: 3.2.3 Other Enforcement Methods (Chapter 3: Speeding

and Speed Enforcement)

Program Area: Police Traffic Services

Project Safety Impacts

Other enforcement methods earn 2 stars in NHTSA's Countermeasures that Work. It is difficult to evaluate this countermeasure because the methods employed by officers are many and varied. However, speed trailers and several other approaches are considered highly promising.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Linkage Between Program Area

Though North Carolina experienced a decrease in the number of speeding related fatalities in 2017, fatalities attributed to distracted driving appeared to be increasing in 2018. It is incumbent upon GHSP's law enforcement partners remain innovative in enforcement efforts and to communicate both successes and failures. GHSP utilizes its Law Enforcement Liaison program to accomplish this. GHSP will seek to decrease overall traffic related fatalities and speeding related fatalities.

Rationale

Other enforcement methods earn 2 stars in NHTSA's Countermeasures that Work. It is difficult to evaluate this countermeasure because the methods employed by officers are many and varied. However, speed trailers and several other approaches are considered highly promising.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 3	Law Enforcement Liaison

Planned Activity: Law Enforcement Liaison

Planned activity number: NC GHSP 3

Primary Countermeasure Strategy ID:

Planned Activity Description

GHSP will partner with law enforcement professionals in designated regions of the state to coordinate traffic safety efforts.

Intended Subrecipients

Subrecipients will include our LEL program partners with eleven law enforcement professionals in eleven identifiable regions throughout the state.

Countermeasure strategies

Countermeasure Strategy

3.2.3 Other Enforcement Methods (Chapter 3: Speeding and Speed Enforcement)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2019	FAST Act NHTSA 402	Police Traffic Services (FAST)	$245,000.00		$245,000.00

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
In-Car Video System	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
In-Car Video System	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
In-Car Video System	2	$6,000.00	$12,000.00	$6,000.00	$12,000.00
In-Car Video System	3	$6,000.00	$18,000.00	$6,000.00	$18,000.00
Light Tower	1	$8,000.00	$8,000.00	$8,000.00	$8,000.00
Seat Belt Convincer	1	$25,000.00	$25,000.00	$25,000.00	$25,000.00

Countermeasure Strategy: Not Applicable-No Countermeasure

Program Area: Police Traffic Services

Project Safety Impacts

Click or tap here to enter text.

Linkage Between Program Area

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Rationale

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Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 13	Program Management

Planned Activity: Program Management

Planned activity number: NC GHSP 13

Primary Countermeasure Strategy ID:

Planned Activity Description

Coordinate efforts within GHSP and subrecipients to effectively manage projects designed to address highway

safety concerns throughout the state.

Intended Subrecipients

NC Governor's Highway Safety Program and other state and local agencies.

Countermeasure strategies

Countermeasure Strategy
Not Applicable-No Countermeasure
Not Applicable-No Countermeasure
Not Applicable-No Countermeasure

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
	FAST Act 405f Motorcycle Programs	405f Motorcyclist Training (FAST)			
	FAST Act NHTSA 402	Motorcycle Safety (FAST)			
2017	FAST Act NHTSA 402	Occupant Protection (FAST)	$234,018.00	$0.00	$0.00
2018	FAST Act NHTSA 402	Planning and Administration (FAST)	$223,134.00	$223,135.00	$0.00
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$1,807,429.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$7,152.00	$0.00	$7,152.00
	NHTSA 402	Motorcycle Safety			
	NHTSA 402	Occupant Protection			
	NHTSA 402	Planning and Administration			
	NHTSA 402	Safe Communities			

Program Area: School Bus Safety

Description of Highway Safety Problems

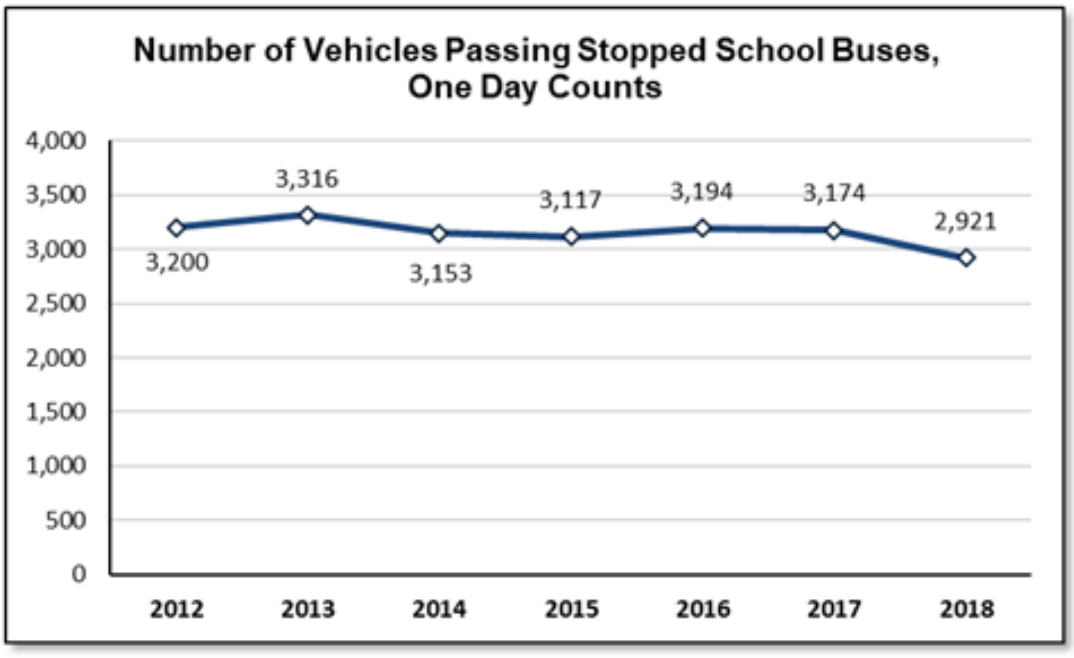
School Bus Safety

Evidence Considered

Federal standards do not require seat belts, except for the driver, on large buses with Gross Vehicle Weight Ratings (GVWR) of more than 10,000 pounds. School buses rely on strong, closely spaced, well-padded, energy absorbing seats and higher seat backs to "compartmentalize" and protect passengers during a crash. This compartmentalization, along with the size and construction of school buses, make them very safe vehicles.

The major problem area related to school buses is children in the "danger zone" around the school bus. This is where most school bus-related fatalities take place. In the spring of 2018, one student was killed and another injured in Mecklenburg County when a motorist failed to stop for a school bus. Fourteen years of data compiled by the North Carolina Department of Public Instruction (DPI) show that approximately 3,000 vehicles per day pass a stopped school bus in North Carolina, endangering the lives of children.

The DPI School Transportation Section coordinates an annual count of school bus stop arm violations during a single day in March each year. As shown in the figure below, there were 2,921 incidents recorded statewide during the single day count in 2017. In each case, a moving vehicle passed a stopped school bus when the lights were flashing and the stop arm was extended. The passing vehicle was going the opposite direction (approaching the bus from the front) in 2,010 cases; the vehicle was going in the same direction (approaching the bus from the rear) in 914 cases. A similar number of stop arm violations have been observed and recorded each year since 2012. Every such incident runs the risk of injuring or killing a child getting on or off a school bus.



Source: North Carolina School Bus Safety Web Stop Arm Violation Statistics http://www.ncbussafety.org/Stoparm/index.html

Camera systems have been developed that can combat school bus stop arm violations by capturing these illegal passing events. Installed on buses, the cameras record critical information such as the vehicle make, model and license number, as well as an image of the offending driver. These are all required elements for successfully prosecuting stop arm violations in North Carolina. A law passed in 2017 authorizes the use of video evidence for issuing violations for passing a stopped school bus in North Carolina. The penalty for a first offense is $400 and rises to $750 for a second violation and $1,000 for each subsequent violation.

In 2012, GHSP provided funds to DPI to conduct a stop-arm camera pilot program. Subsequently, the North Carolina General Assembly provided $690,000 in funding to deploy stop arm cameras throughout the state beginning with the 2013–2014 school year. This funding has continued annually and provides cameras based on need to local education agencies (LEA's) in North Carolina. The use of stop arm cameras continues to expand across North Carolina. LEA's report 1,612 out of 13,172 school buses are equipped with a stop arm violation camera system.

Compartmentalization has been shown to work very well in frontal and rear-end crashes. However, additional protection is needed to keep school bus riders in their seats during side impacts and rollovers, such as a rollover crash that occurred in Charlotte in May 2019 resulting in fifteen minor injuries. DPI has conducted two pilot projects, one in 2003 and another in 2007, looking at the feasibility and acceptance of lap/shoulder belts on school buses. In 2016, DPI began implementing a coordinated rollout of nearly 200 buses fully equipped with lap shoulder belts in 13 counties. DPI is also coordinating an evaluation of the lap/shoulder belt rollout with the objectives of identifying national seat belt implementation best practices, developing technical assistance resources for local education agency implementation, and studying seatbelt implementation impacts for students and drivers.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-10) Number of pedestrian fatalities (FARS)	2020	5 Year	5.0

Countermeasure Strategies in Program Area

Countermeasure Strategy
8.2.3 Child School Bus Training (Chapter 8: Pedestrians)

Countermeasure Strategy: 8.2.3 Child School Bus Training (Chapter 8: Pedestrians)

Program Area: School Bus Safety

Project Safety Impacts

Each year, school-aged children are killed when they are struck by school buses or by other vehicles that are passing a stopped school bus. The purpose of school bus training is to teach children how to safely approach, board, disembark, and walk away from school buses. Targeted behaviors include boarding and exiting from the bus and crossing the street to and from the bus. GHSP will partner with a state agency to continue to promote safe ridership by evaluating enhanced loading procedures and outreach activities.

Linkage Between Program Area

On average, more than 3000 vehicles per day pass a stopped school bus. Affecting driver behavior regarding stopped school buses will remain a challenge but educating bus riders about procedures for safely loading and unloading a bus could help in avoiding a tragedy. In partnering with the N.C. Department of Public Instruction, GHSP seeks to reduce traffic related fatalities.

Rationale

Child school bus training earns 2 stars in NHTSA's Countermeasures that Work. Such training programs are difficult to evaluate, since injuries and deaths in school-bus-related crashes are rare.
For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 9	Training and Education - Other

Planned Activity: Training and Education - Other

Planned activity number: NC GHSP 9

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts include awareness related to school bus safety, senior drivers, youth drivers, and distracted driving.

Intended Subrecipients

Subrecipients will primarily include state agencies and university research institutions.

Countermeasure strategies

Countermeasure Strategy
6.2.2 Post-Licensure or Second Tier Driver Education (Chapter 6: Young Driver)
7.1.2 General Communications and Education (Chapter 7: Older Drivers)
8.2.3 Child School Bus Training (Chapter 8: Pedestrians)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act NHTSA 402	Driver Education (FAST)	$115,844.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Pupil Transportation Safety (FAST)	$42,500.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$62,439.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$338,033.00	$0.00	$228,033.00

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Driving Simulator Package	4	$8,400.00	$33,600.00	$8,400.00	$33,600.00
Driving Simulators	2	$25,000.00	$50,000.00	$25,000.00	$50,000.00

Program Area: Traffic Records

Description of Highway Safety Problems

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	Number of core traffic records databases improved (timeliness)	2020	Annual	1.00
2020	Number of core traffic records databases improved (accessibility)	2020	Annual	1.00
2020	Number of core traffic records databases improved (integration)	2020	Annual	1.00

Countermeasure Strategies in Program Area

Countermeasure Strategy
Highway Safety Office Program Management
Improves accessibility of a core highway safety database
Improves integration between one or more core highway safety databases
Improves timeliness of a core highway safety database

Countermeasure Strategy: Highway Safety Office Program Management

Program Area: Traffic Records

Project Safety Impacts

GHSP is data driven in determining funding allocations and recognizes the importance of traffic safety records being accessible, accurate, complete, integrated, timely, and uniform. As such, GHSP will partner with the Highway Safety Research Center at the University of North Carolina in Chapel Hill to provide technical and logistical support to the Traffic Records Coordinating Committee (TRCC) to enable coordination, communication and cooperation among the TRCC membership and other stakeholders and to update the NC Strategic Plan for Traffic Safety Information System.

Linkage Between Program Area

In an effort to continue its goal of providing direction and facilitate coordination among safety data stewards and stakeholders to improve the transportation safety information systems in North Carolina through ongoing Traffic Records Committee activities, GHSP will continually support the committee's efforts.

Rationale

GHSP will endeavor to make quantifiable, measurable progress improvements in the accuracy, completeness, timeliness, uniformity, accessibility or integration of data in core highway safety databases.
For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 11	Data Improvement

Planned Activity: Data Improvement

Planned activity number: NC GHSP 11

Primary Countermeasure Strategy ID:

Planned Activity Description

Efforts designed to ensure core traffic record database improvements related to accuracy, completeness, timeliness, uniformity, accessibility and integration.

Intended Subrecipients

Subrecipients will primarily include universities and state agencies associated with traffic records.

Countermeasure strategies

Countermeasure Strategy
Highway Safety Office Program Management
Improves accessibility of a core highway safety database
Improves integration between one or more core highway safety databases
Improves timeliness of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405c Data Program	405c Data Program (FAST)	$1,482,753.21	$45,000.00	
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$24,567.00	$0.00	$0.00
2016	MAP 21 405c Data Program	405c Data Program (MAP-21)	$91,875.79	$0.00	

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
BI Site License (Pro-Rated)	1	$58,000.00	$58,000.00	$58,000.00	$58,000.00
Hardware/Software	1	$6,500.00	$6,500.00	$6,500.00	$6,500.00
Hosting/Cloud Services	1	$10,000.00	$10,000.00	$10,000.00	$10,000.00
Mobile Data Terminal (MDT)	8	$6,000.00	$48,000.00	$3,000.00	$24,000.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$3,000.00	$6,000.00
Mobile Data Terminal (MDT)	5	$6,000.00	$30,000.00	$3,000.00	$15,000.00

Countermeasure Strategy: Improves accessibility of a core highway safety database

Program Area: Traffic Records

Project Safety Impacts

GHSP is data driven in determining funding allocations and recognizes the importance of traffic safety records being accessible, accurate, complete, integrated, timely, and uniform. As such, GHSP will partner with the

Institute for Transportation, Research, and Education at North Carolina State University to provide updated information and analytical capabilities to all stakeholders and eventually the public on crash statistics. GHSP will also partner with the North Carolina Division of Motor Vehicles to enhance North Carolina's crash database.

Linkage Between Program Area

In an effort to continue its goal of providing direction and facilitate coordination among safety data stewards and stakeholders to improve the transportation safety information systems in North Carolina through ongoing Traffic Records Committee activities, GHSP will support projects and programs designed to improve accessibility of core highway safety databases.

Rationale

GHSP will endeavor to make quantifiable, measurable progress improvements in the accuracy, completeness, timeliness, uniformity, accessibility or integration of data in core highway safety databases.
For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 11	Data Improvement

Planned Activity: Data Improvement

Planned activity number: NC GHSP 11

Primary Countermeasure Strategy ID:

Planned Activity Description

Efforts designed to ensure core traffic record database improvements related to accuracy, completeness, timeliness, uniformity, accessibility and integration.

Intended Subrecipients

Subrecipients will primarily include universities and state agencies associated with traffic records.

Countermeasure strategies

Countermeasure Strategy
Highway Safety Office Program Management
Improves accessibility of a core highway safety database
Improves integration between one or more core highway safety databases
Improves timeliness of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit

2018	FAST Act 405c Data Program	405c Data Program (FAST)	$1,482,753.21	$45,000.00	
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$24,567.00	$0.00	$0.00
2016	MAP 21 405c Data Program	405c Data Program (MAP-21)	$91,875.79	$0.00	

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
BI Site License (Pro-Rated)	1	$58,000.00	$58,000.00	$58,000.00	$58,000.00
Hardware/Software	1	$6,500.00	$6,500.00	$6,500.00	$6,500.00
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Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$3,000.00	$6,000.00
Mobile Data Terminal (MDT)	5	$6,000.00	$30,000.00	$3,000.00	$15,000.00

Countermeasure Strategy: Improves integration between one or more core highway safety databases

Program Area: Traffic Records

Project Safety Impacts

GHSP is data driven in determining funding allocations and recognizes the importance of traffic safety records being accessible, accurate, complete, integrated, timely, and uniform. GHSP will partner with the Injury Prevention Research Center at the University of North Carolina at Chapel Hill to develop a means of data documentation in a standardized format for each key data source identified for potential data linkage to address health outcomes of motor vehicle crash injury in N. C. It will directly address issues identified in the 2019 TRCC Strategic Plan, as well as deficits identified in the 2018 N.C. Traffic Records Assessment. GHSP will partner further with the Injury Prevention Research Center at the University of North Carolina at Chapel Hill to build on the previously determined foundations by identifying and overcoming barriers to linking biomedical data to DMV crash report data.

Linkage Between Program Area

In an effort to continue its goal of providing direction and facilitate coordination among safety data stewards and stakeholders to improve the transportation safety information systems in North Carolina through ongoing Traffic Records Committee activities, GHSP will support projects and programs designed to improve the integration between one or more core highway safety databases.

Rationale

GHSP will endeavor to make quantifiable, measurable progress improvements in the accuracy, completeness, timeliness, uniformity, accessibility or integration of data in core highway safety databases.
For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 11	Data Improvement

Planned Activity: Data Improvement

Planned activity number: NC GHSP 11

Primary Countermeasure Strategy ID:

Planned Activity Description

Efforts designed to ensure core traffic record database improvements related to accuracy, completeness, timeliness, uniformity, accessibility and integration.

Intended Subrecipients

Subrecipients will primarily include universities and state agencies associated with traffic records.

Countermeasure strategies

Countermeasure Strategy
Highway Safety Office Program Management
Improves accessibility of a core highway safety database
Improves integration between one or more core highway safety databases
Improves timeliness of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act 405c Data Program	405c Data Program (FAST)	$1,482,753.21	$45,000.00	
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2016	MAP 21 405c Data Program	405c Data Program (MAP-21)	$91,875.79	$0.00	

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
BI Site License (Pro-Rated)	1	$58,000.00	$58,000.00	$58,000.00	$58,000.00
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Mobile Data Terminal (MDT)	5	$6,000.00	$30,000.00	$3,000.00	$15,000.00

Countermeasure Strategy: Improves timeliness of a core highway safety database

Program Area: Traffic Records

Project Safety Impacts

GHSP is data driven in determining funding allocations and recognizes the importance of traffic safety records being accessible, accurate, complete, integrated, timely, and uniform. GHSP will continue its partnership with the North Carolina Judicial Department's Administrative Office of the Courts to facilitate the use of the e-Citation and e-Crash system by law enforcement. GHSP will also partner with local law enforcement agencies to ensure the timely reporting of data.

Linkage Between Program Area

In an effort to continue its goal of providing direction and facilitate coordination among safety data stewards and stakeholders to improve the transportation safety information systems in North Carolina through ongoing Traffic Records Committee activities, GHSP will support projects and programs designed to improve timeliness of core highway safety databases.

Rationale

GHSP will endeavor to make quantifiable, measurable progress improvements in the accuracy, completeness, timeliness, uniformity, accessibility or integration of data in core highway safety databases.
For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 11	Data Improvement

Planned Activity: Data Improvement

Planned activity number: NC GHSP 11

Primary Countermeasure Strategy ID:

Planned Activity Description

Efforts designed to ensure core traffic record database improvements related to accuracy, completeness, timeliness, uniformity, accessibility and integration.

Intended Subrecipients

Subrecipients will primarily include universities and state agencies associated with traffic records.

Countermeasure strategies

Countermeasure Strategy
Highway Safety Office Program Management
Improves accessibility of a core highway safety database
Improves integration between one or more core highway safety databases
Improves timeliness of a core highway safety database

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
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Major purchases and dispositions

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Hosting/Cloud Services	1	$10,000.00	$10,000.00	$10,000.00	$10,000.00
Mobile Data Terminal (MDT)	8	$6,000.00	$48,000.00	$3,000.00	$24,000.00
Mobile Data Terminal (MDT)	2	$6,000.00	$12,000.00	$3,000.00	$6,000.00
Mobile Data Terminal (MDT)	5	$6,000.00	$30,000.00	$3,000.00	$15,000.00

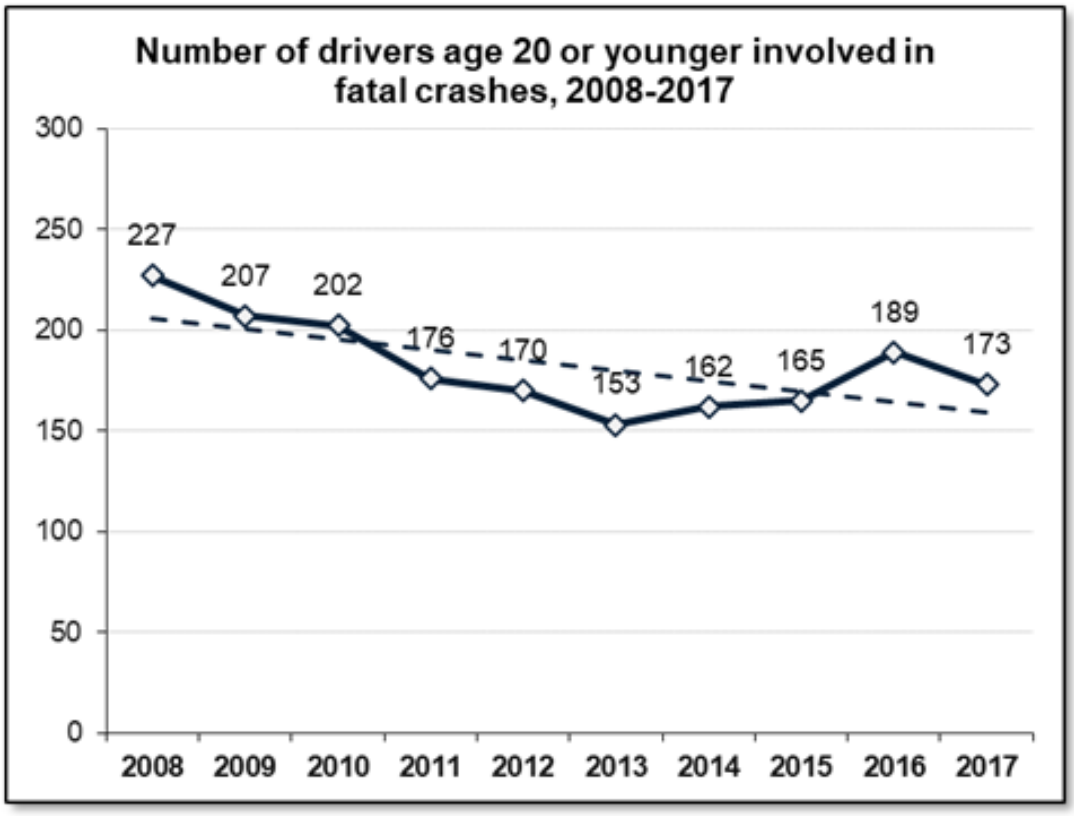
Program Area: Young Drivers

Description of Highway Safety Problems

Young Drivers

Crashes, Deaths and Injuries

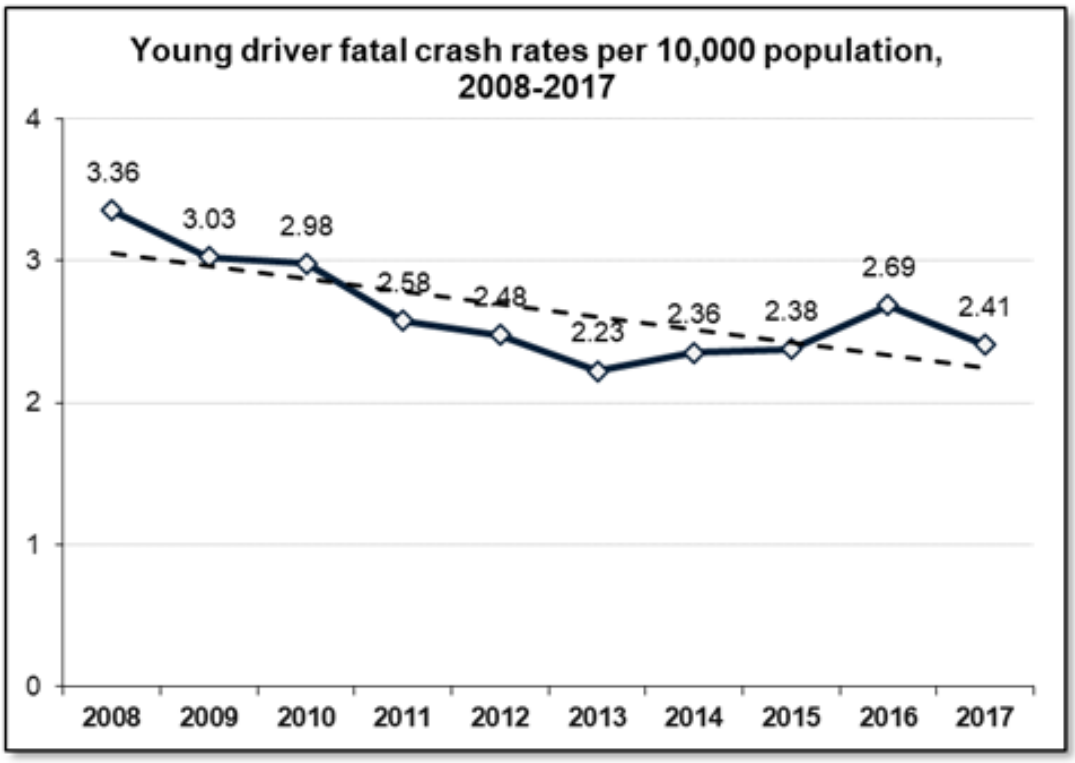
Motor vehicle crashes are a leading cause of death among young people in North Carolina. During 2017, 173 drivers age 20 or younger were involved in a fatal crash, a decrease of 16 fatal crashes from 2016. As shown in the figure below, the long-term trend shows a decline in young driver fatal crash involvement in North Carolina.



Source: FARS, 2008–2017

North Carolina’s population has grown dramatically during the past decade. Consequently, it is important to examine crash involvements per capita. The figure below shows fatal crash rates

per 10,000 population for drivers ages 16 to 20. In 2017, the fatal crash rate decreased from 2.69 to 2.41. Moreover, the long-term trend shows fatalities per capita dropped by 28 percent between 2008 and 2017.



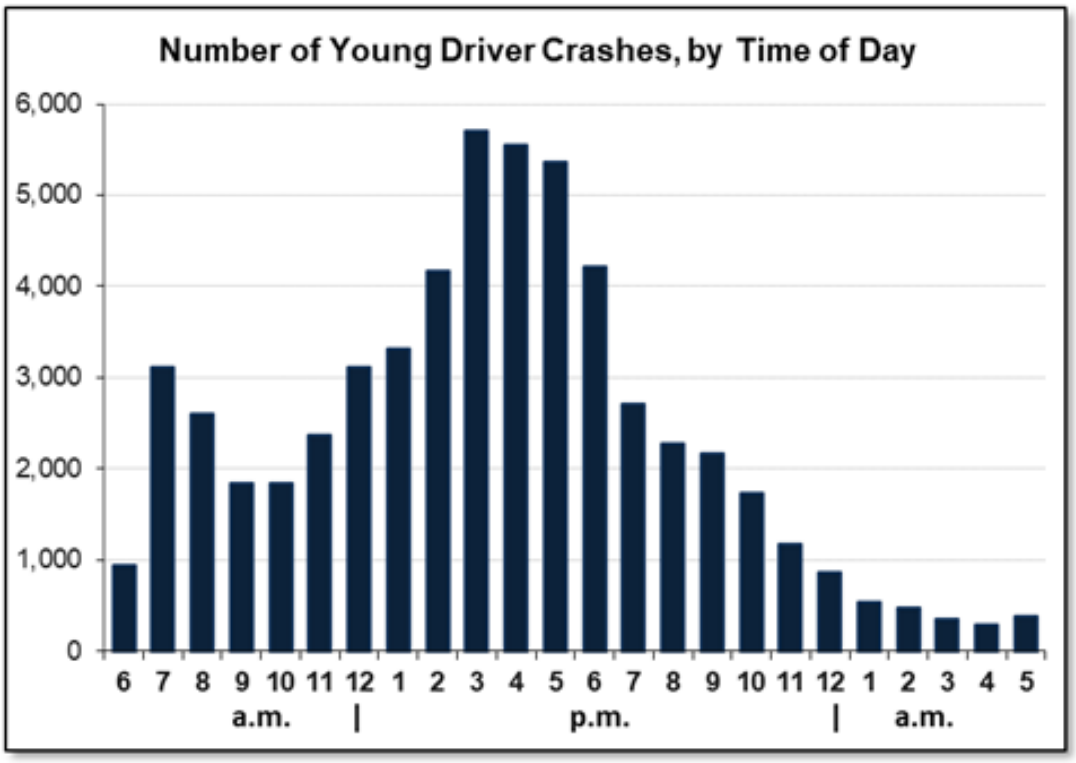
Source: FARS, 2008–2017 and U.S. Census Bureau

Despite the reduction in young driver fatal crashes over the past decade, young drivers in North Carolina continue to be over-represented in crashes and fatalities. In 2017, persons 16 to 20 years old comprised just 3.5 percent of the population in North Carolina, but they accounted for 8.6 percent of all fatal crashes.

During 2017, drivers 16 to 20 years old were involved in 57,128 police-reported crashes in North Carolina. Consistent with previous years, males accounted for a greater proportion of crashes than females (53 percent versus 47 percent). In addition, young driver crashes were more likely to occur on urban roads (59 percent) than rural roads (41 percent). Two-thirds (67 percent) of crash-involved young drivers were driving passenger cars. Fewer were driving SUVs (18 percent), pickups (11 percent), or other types of vehicles.

The figure below shows the time of day of young driver crashes in 2017. There are distinct peaks from 7-9 a.m. and 3-6 p.m. This coincides with times when teens are driving to and from school. Young driver crashes drop off in the evening and are very low late at night. Nighttime is more dangerous for drivers of all ages because of darkness, fatigue, alcohol, and other factors, but it is especially dangerous for young drivers who are less experienced in this setting. North Carolina currently restricts unsupervised driving after 9 p.m. for teens with a provisional GDL

license.



Source: NCDOT Motor Vehicle Crash Data, 2017

The table below lists the 29 counties with the highest numbers of young drivers involved in fatal crashes from 2013 to 2017. Mecklenburg County had the largest number of young drivers involved in fatal crashes (55), followed by Wake (54), Guilford (35), Buncombe (24), Cumberland (24) and Johnston (24) counties. In total, the 29 counties listed in the table account for 84 percent of all young drivers involved in fatal crashes in North Carolina from 2013 to 2017. The counties near the top of the table are generally those with the largest populations. When looking at the rate of young driver involvement in fatal crashes per 10,000 population, the counties which stand out are Columbus (9.00), Sampson (6.58), Stanly (5.09), Franklin (4.95), Nash (4.45), Davidson (3.91), Harnett (3.79) and Wilson (3.77).

Young drivers involved in fatal crashes, 2013–2017

County	Young drivers involved in fatal crashes	Rate per 10,000 population	% of all16-20 involved in fatal crashes
Mecklenburg	55	1.70	8.50%
Wake	54	1.46	8.35%
Guilford	35	1.70	5.41%
Buncombe	24	3.28	3.71%
Cumberland	24	2.00	3.71%
Johnston	24	3.42	3.71%
Davidson	21	3.91	3.25%

Robeson	21	3.50	3.25%
Durham	20	1.92	3.09%
Harnett	19	3.79	2.94%
Randolph	18	3.59	2.78%
Columbus	17	9.00	2.63%
Pitt	16	1.66	2.47%
Union	16	1.68	2.47%
Catawba	15	2.83	2.32%
Sampson	15	6.58	2.32%
Nash	14	4.45	2.16%
Cabarrus	13	1.78	2.01%
Rowan	13	2.76	2.01%
Cleveland	12	3.43	1.85%
Forsyth	12	0.92	1.85%
Onslow	12	1.40	1.85%
Brunswick	11	3.66	1.70%
Franklin	11	4.95	1.70%
Henderson	11	3.57	1.70%
Gaston	10	1.37	1.55%
New Hanover	10	1.18	1.55%
Stanly	10	5.09	1.55%
Wilson	10	3.77	1.55%

Summary

North Carolina has seen a substantial reduction in fatal crashes involving young drivers during the past decade. Between 2008 and 2017, fatal crashes dropped by 24 percent. The decrease is evident even after taking population changes into account. Unfortunately, fatal crashes continue to be a leading cause of death for young people in North Carolina. Mecklenburg, Wake, Guilford, Buncombe, Cumberland and Johnston Counties account for the largest number of young driver fatal crashes.

Associated Performance Measures

Fiscal Year	Performance measure name	Target End Year	Target Period	Target Value
2020	C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)	2020	5 Year	10.0

Countermeasure Strategies in Program Area

Countermeasure Strategy
6.2.2 Post-Licensure or Second Tier Driver Education (Chapter 6: Young Driver)

Countermeasure Strategy: 6.2.2 Post-Licensure or Second Tier Driver Education

(Chapter 6: Young Driver)

Program Area: Young Drivers

Project Safety Impacts

Driver education has long been used to teach basic driving skills and safe driving practices. However, standard pre-licensure driver education does not reduce crash rates. Efforts are being made to develop post-licensure education curricula and to integrate driver education with GDL. Post-licensure education would tend to focus on the -on-road experience that the students have acquired in their initial months of driving. GHSP will partner with nonprofits and institutions of higher education to develop and promote projects designed to provide guidance to young drivers in an effort to reduce young driver crashes.

Linkage Between Program Area

Motor vehicle crashes are the leading cause of death among young people in North Carolina. The number of drivers involved in a fatal crash is trending upward in recent years. Education, training, and guidance for young drivers can hopefully abate this trend. GHSP will endeavor to decrease the number of drivers age 20 or younger involved in fatal crashes.

Rationale

Post-licensure driver education earned 1 star in NHTSA's Countermeasures that Work and remans under development. The need exists to evaluate programs to determine what can be effective and useful. Michigan is the only state that has adopted a two-stage system of driver education.

For each program area, the allocated funding is based on the awarded 405 funds supplemented by 402 funds. Further considerations regarding allocated funding are based upon the effectiveness of the countermeasure strategy and applications received.

Planned activities in countermeasure strategy

Unique Identifier	Planned Activity Name
NC GHSP 9	Training and Education - Other

Planned Activity: Training and Education - Other

Planned activity number: NC GHSP 9

Primary Countermeasure Strategy ID:

Planned Activity Description

Funded training and educational efforts include awareness related to school bus safety, senior drivers, youth drivers, and distracted driving.

Intended Subrecipients

Subrecipients will primarily include state agencies and university research institutions.

Countermeasure strategies

Countermeasure Strategy
6.2.2 Post-Licensure or Second Tier Driver Education (Chapter 6: Young Driver)
7.1.2 General Communications and Education (Chapter 7: Older Drivers)
8.2.3 Child School Bus Training (Chapter 8: Pedestrians)

Funding sources

Source Fiscal Year	Funding Source ID	Eligible Use of Funds	Estimated Funding Amount	Match Amount	Local Benefit
2018	FAST Act NHTSA 402	Driver Education (FAST)	$115,844.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Pupil Transportation Safety (FAST)	$42,500.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$62,439.00	$0.00	$0.00
2019	FAST Act NHTSA 402	Safe Communities (FAST)	$338,033.00	$0.00	$228,033.00

Major purchases and dispositions

Equipment with a useful life of more than one year and an acquisition cost of $5,000 or more.

Item	Quantity	Unit cost	Total Cost	NHTSA Share per unit	NHTSA Share Total Cost
Driving Simulator Package	4	$8,400.00	$33,600.00	$8,400.00	$33,600.00
Driving Simulators	2	$25,000.00	$50,000.00	$25,000.00	$50,000.00

Evidence-based traffic safety enforcement program (TSEP)

Planned activities that collectively constitute an evidence-based traffic safety enforcement program (TSEP):

Unique Identifier	Planned Activity Name
NC GHSP 1	Enforcement - Impaired Driving
NC GHSP 2	Enforcement - Police Traffic Services
NC GHSP 3	Law Enforcement Liaison
NC GHSP 12	Media
NC GHSP 10	Prosecution and Adjudication

Analysis of crashes, crash fatalities, and injuries in areas of highest risk.

Crash Analysis

GHSP has developed policies and procedures to ensure that enforcement resources are used efficiently and effectively to support the goals of North Carolina’s highway safety program. North Carolina incorporates an evidence-based approach in its statewide enforcement program through the components described below.

Data-driven Problem Identification

GHSP conducts an extensive problem identification process to develop and implement the most effective and

efficient plan for the distribution of federal funds. A number of data sources are examined to give the most complete picture of the major traffic safety problems in the state. These include, but are not limited to, motor vehicle crash data, enforcement and adjudication data, and seat belt use observational surveys. The problem identification process helps to ensure that the initiatives implemented address the crash, fatality and injury problems within the state. This process also provides appropriate criteria for the designation of funding priorities as well as providing a benchmark for administration and evaluation of the overall highway safety plan.

The data analyses conducted in the problem identification process are designed to identify which drivers or other road users are under- or over-involved in crashes, and to determine when (day vs. night, weekday vs. weekend) and where (counties and cities, urban vs. rural roads) crashes are occurring. Behavioral measures, such as alcohol impairment and seat belt non-use, are also examined.

GHSP utilizes an in-house review team and input from partners to review project applications and prioritize the applications based on the applicants' problem identification, goals and objectives, use of evidence-based strategies and activities, budget and past performance.

Deployment of Resources

Selection of Evidence-based Countermeasures

To address the problem areas described above and to meet North Carolina's goals for FY2020, GHSP focuses on strategies that have been proven effective in reducing motor vehicle crashes, injuries and fatalities, including evidence-based enforcement. To assist in this process, GHSP uses the 9th Edition of NHTSA's Countermeasures that Work (CMTW). CMTW was designed to assist State Highway Safety Offices in selecting evidence-based countermeasures for addressing major highway safety problem areas.

Countermeasures will include high-visibility enforcement of alcohol, speed and occupant protection laws using enforcement checkpoints and saturation patrols. Associated media plans ensure these enforcement efforts are well publicized to the driving public.

Effectiveness Monitoring

Continuous Monitoring

To ensure law enforcement projects remain committed to their stated plans, various tracking mechanisms are utilized to enable GHSP Highway Safety Specialists to monitor the progress of each project. Quarterly progress reports are required from each agency receiving grant funding to ensure that the goals and outcomes of each project are met. Projects, including enforcement projects, are required to report on monthly enforcement actions taken, educational programs delivered and hours worked. During each statewide enforcement campaign, GHSP requires law enforcement agencies with grant funding to report their citation totals online on a weekly basis. GHSP also solicits non-grant funded agencies to participate in these campaigns and report as well. These reports of checkpoint and saturation patrol activities include data on the locations and times worked, the number of officers present and the number of tickets issued. This

monitoring allows GHSP to make adjustments to the enforcement plans for each agency in sufficient time to provide the greatest use of resources to address targeted traffic safety problems.

High-visibility enforcement (HVE) strategies

Planned HVE strategies to support national mobilizations:

Countermeasure Strategy
1.2.1 Publicized Sobriety Checkpoints (Chapter 1: Alcohol and Drug Impaired Driving)
1.2.2 High Visibility Saturation Patrols (Chapter 1: Alcohol and Drug Impaired Driving)

HVE planned activities that demonstrate the State's support and participation in the National HVE mobilizations to reduce alcohol-impaired or drug impaired operation of motor vehicles and increase use of seat belts by occupants of motor vehicles:

Unique Identifier	Planned Activity Name
NC GHSP 1	Enforcement - Impaired Driving
NC GHSP 10	Prosecution and Adjudication
NC GHSP 12	Media
NC GHSP 2	Enforcement - Police Traffic Services
NC GHSP 3	Law Enforcement Liaison

405(b) Occupant protection grant

Occupant protection plan

State occupant protection program area plan that identifies the safety problems to be addressed, performance measures and targets, and the countermeasure strategies and planned activities the State will implement to address those problems:

Program Area Name
Occupant Protection (Adult and Child Passenger Safety)

Participation in Click-it-or-Ticket (CIOT) national mobilization

Agencies planning to participate in CIOT:

Agency
Aberdeen Police Department
Ahoskie Police Department
Alamance County Sheriff's Office
Albemarle Police Department
Albert J. Ellis Airport Police Department
Alexander County Sheriff's Office
Alleghany County Sheriff's Office
Andrews Police Department

Angier Police Department
Anson County Sheriff's Office
Apex Police Department
Appalachian Regional Healthcare Systems, Inc
Appalachian State University Police
Archdale Police Department
Ashe County Sheriff's Office
Ashe Memorial Hospital, Inc
Asheboro Police Department
Asheville ABC Law Enforcement
Asheville Police Department
Asheville-Buncombe Technical Community College
Atlantic Beach Police Department
Aulander Police Department
Aurora Police Department
Avery County Sheriff's Office
Ayden Police Department
Badin Police Department
Bailey Police Department
Bakersville Police Department
Bald Head Island Public Safety
Banner Elk Police Department
Beaufort County ABC Law Enforcement
Beaufort County Community College Police Department
Beaufort County Sheriff's Office
Beaufort Police Department
Beech Mountain Police Department
Belhaven Police Department
Belmont Abbey College
Belmont Police Department
Benson Police Department
Bertie County Sheriff's Office
Bessemer City Police Department
Bethel Police Department
Beulaville Police Department
Biltmore Company Police, Inc
Biltmore Forest Police Department
Biscoe Police Department
Black Creek Police Department
Black Mountain Police Department
Bladen County Sheriff's Office
Bladenboro Police Department
Blowing Rock Police Department
Blue Ridge Community College Police Department
Blue Ridge Public Safety

Boiling Spring Lakes Police Dept
Boiling Springs Police Department
Boone Police Department
Boonville Police Department
Brevard Police Department
Bridgeton Police Department
Broadway Police Department
Brookford Police Department
Broughton Hospital Police Department
Brunswick Community College Police Dept
Brunswick County Sheriff's Office
Bryson City Police Department
Buncombe County Sheriff's Office
Bunn Police Department
Burgaw Police Department
Burke County Sheriff's Office
Burlington Police Department
Burnsville Police Department
Butner Public Safety
Cabarrus County Sheriff's Office
Caldwell County Sheriff's Office
Camden County Sheriff's Office
Cameron Police Department
Candor Police Department
Canton Police Department
Cape Carteret Police Department
Cape Fear Community College Campus Police Dept
Capitol Special Police
Carolina Beach Police Department
Carolina East Healthcare Systems
Cumberland County ABC Law Enfor.
Dare County ABC Law Enforcement
Durham County ABC Law Enforcement
Triad Municipal ABC Law Enforcement
Statesville ABC Law Enforcement
Mecklenburg County ABC Law Enf
Nash County ABC Law Enforcement
Pitt County ABC Law Enforcement
Wake County ABC Law Enforcement
Wayne County ABC
Elon University
Montreat College
UNC-Asheville Police
Cherokee County Schools Company Police
Gardner-Webb Universtity

Southeastern Community College
Fayetteville State University Police
Methodist University
Davidson College
Duke University
Durham Technical Community College
NCCU Police Department
Forsyth Technical Community College
UNC School of the Arts Police
Wake Forest University
Louisburg College Campus Police
Gaston College
Graham County Schools
Guilford Tech Community College Campus Police Department
NC A & T University
UNC-Greensboro Police Dept
Chowan University
Western Carolina University Police
Wayne Community College
Charlotte-Mecklenburg Schools
Johnson C. Smith University
Queens University of Charlotte
UNC-Charlotte Police Department
Sandhills Community College PD
Nash Community College
UNC-Wilmington Police Dept
UNC-Chapel Hill Police Department
Elizabeth City State University
East Carolina University Police Dept
Pitt Community College Police Dept.
Richmond County Schools
UNC-Pembroke Police Dept
Livingstone College
Surry Community College PD
Vance-Granville Community College
Meredith College
NC State University Public Safety
Saint Augustine's University
Shaw University
Wake Technical Community College Police Dept
Wilson Community College PD
Linville Land Harbor Security Force, Inc.
Diamond Creek Golf Club, LLC
Greater Asheville Regional Airport Public Safety
Delta Company Police, LLC

United Special Police
Field Force Inc. Company Police
North State Security Group, LLC
Lake Royale POA
Lankford Protective Services, Inc.
Williams Guard & Patrol, LLC
Eagle Eye Company Police
Never Quit Services, LLC.
OS-NQS Special Police
DEPS Company Police, INC
USSA Company Police
Mountain Security Patrol Inc.
Duke Energy
Elite Police, Inc.
Enforcement Company Police Department, LLC
Equestrian Special Police
Executive Company Police
F.T.C. Company Police, LLC.
Kodiak Company Police
Norfolk Southern Railroad Police Department
OPSEC International, LLC Special Police
Professional Police Services, Inc.
S3 Special Police and Security
Southeastern Company Police
Statewide Company Police, Inc.
STARS Special Police
Coastal Company Police and Polygraph, LLC
King Special Police, Ltd
Liberty Company Police, Inc
COMPANY POLICE COMM - RALEIGH
Crabtree Valley Mall
Carolinas HealthCare System
Carrboro Police Department
Carteret County ABC Law Enforcement
Carteret County Sheriff's Office
Carthage Police Department
Cary Police Department
Caswell Beach Police Department
Caswell County Sheriff's Office
Catawba County Sheriff's Office
Catawba Police Department
Catawba Valley Medical Center
Chadbourn Police Department
Chapel Hill Police Department
Charlotte-Mecklenburg Police Dept.

Chatham County Sheriff's Office
Cherokee County Sheriff's Office
Cherokee Police Department
Cherry-O'Berry Hospital Police
Cherryville Police Department
China Grove Police Department
Chocowinity Police Department
Chowan County Sheriff's Office
City-County Bureau of Identification
CJ STANDARDS
Claremont Police Department
Clarkton Police Department
Clay County Sheriff's Office
Clayton Police Department
Cleveland County Sheriff's Office
Cleveland Police Department
Clinton Police Department
Clyde Police Department
Coats Police Department
Columbus County Sheriff's Office
Columbus Police Department
Concord Police Department
Conover Police Department
Conway Police Department
Cooleemee Police Department
Cornelius Police Department
Cramerton Police Department
Craven County Sheriff's Office
Creedmoor Police Department
CSX Transportation
Cumberland County Sheriff's Office
Currituck County Sheriff's Office
Dallas Police Department
Dare County Sheriff's Office
Davidson County Sheriff's Office
Davidson Police Department
Davie County Sheriff's Office
Denton Police Department
Dobson Police Department
Drexel Police Department
Duck Police Department
Dunn Police Department
Duplin County Sheriff's Office
Durham County Sheriff's Office
Durham County Youth Center

Durham Police Department
East Bend Police Department
East Spencer Police Department
Eden Police Department
Edenton Police Department
Edgecombe County Sheriff's Office
Elizabeth City Police Department
Elizabethtown Police Department
Elk Park Police Department
Elkin Police Department
Elon Police Department
Emerald Isle Police Department
Enfield Police Department
Erwin Police Department
Fair Bluff Police Department
Fairmont Police Department
Farmville Police Department
Fayetteville Police Department
Fletcher Police Department
Forest City Police Department
Forsyth County Sheriff's Office
Fort Fisher Company Police
Four Oaks Police Department
Foxfire Village Police Department
Franklin County Sheriff's Office
Franklin Police Department
Franklinton Police Department
Fremont Police Department
Fuquay-Varina Police Department
G4S Secure Solutions (USA) Inc.
Garner Police Department
Garysburg Police Department
Gaston County Police Dept
Gaston County Sheriff's Office
Gaston Police Department
Gastonia Police Department
Gates County Sheriff's Office
GENERAL ASSEMBLY POLICE
Gibsonville Police Department
Glen Alpine Police Department
Global One Company Police and Public Safety, Inc
Goldsboro Police Department
Graham County Sheriff's Office
Graham Police Department
Granite Falls Police Department

Granite Quarry Police Department
Granville County Sheriff's Office
Greene County Sheriff's Office
Greensboro Police Department
Greenville Police Department
Grifton Police Department
Grover Police Department
GUILFORD CO JUV DETENTION CENTER
Guilford County Sheriff's Office
Halifax County Sheriff's Office
Hamlet Police Department
Harnett County Sheriff's Office
Harnett Health System
Havelock Police Department
Haw River Police Department
Haywood County Sheriff's Office
Henderson County Sheriff's Office
Henderson Police Department
Hendersonville Police Department
Hertford County Sheriff's Office
Hertford Police Department
Hickory Police Department
High Point Parks And Recreation
High Point Police Department
Highlands Police Department
Hillsborough Police Department
Hobgood Police Department
Hoke County Sheriff's Office
Holden Beach Police Department
Holly Ridge Police Department
Holly Springs Dept of Public Safety
Hope Mills Police Department
Hot Springs Police Department
Hudson Police Department
Huntersville Police Department
Hyde County Sheriff's Office
Indian Beach Police Department
Iredell County Sheriff's Office
Jackson County Sheriff's Office
Jackson Police Department
Jacksonville Police Department
Jefferson Police Department
Johnston County Sheriff's Office
Jones County Sheriff's Office
Jonesville Police Department

Kannapolis Police Department
Kenansville Police Department
Kenly Police Department
Kernersville Police Department
Kill Devil Hills Police Department
King Police Department
Kings Mountain Police Department
Kinston Police Department
Kitty Hawk Police Department
Knightdale Police Department
Kure Beach Police Department
Lake Lure Police Department
Lake Waccamaw Police Department
Landis Police Department
Laurel Park Police Department
Laurinburg Police Department
Lee County Sheriff's Office
Leland Police Department
Lenoir County Sheriff's Office
Lenoir Memorial Hospital Company Police
Lenoir Police Department
Lewiston Woodville Police Department
Lexington Police Department
Liberty Police Department
Lilesville Police Department
Lillington Police Department
Lincoln County Sheriff's Office
Lincolnton Police Department
Littleton Police Department
Locust Police Department
Long-Leaf Neuro-Medical Treatment Center
Longview Police Department
Louisburg Police Department
Lowell Police Department
Lumberton Police Department
Macon County Sheriff's Office
Madison County Sheriff's Office
Madison Police Department
Maggie Valley Police Department
Magnolia Police Department
Maiden Police Department
Manteo Police Department
Marine Patrol of NC
Marion Police Department
Mars Hill Police Department

Marshall Police Department
Marshville Police Department
Martin County Sheriff's Office
Matthews Police Department
Maxton Police Department
Mayodan Police Department
Maysville Police Department
McDowell County Sheriff's Office
Mebane Police Department
Mecklenburg County Sheriff's Office
Micro Police Department
Middlesex Police Department
Mint Hill Police Department
Misenheimer Police Department
Mitchell County Sheriff's Office
Mocksville Police Department
Monroe Police Department
Montgomery County Sheriff's Office
Montreat Police Department
Moore County Schools
Moore County Sheriff's Office
Mooresville Police Department
Morehead City Police Department
Morganton Public Safety
Morrisville Police Department
Morven Police Department
Mount Airy Police Department
Mount Gilead Police Department
Mount Holly Police Department
Mount Olive Police Department
Murfreesboro Police Department
Murphy Police Department
Nags Head Police Department
Nash County Sheriff's Office
Nash Healthcare Systems, Inc
Nashville Police Dept
Navassa Police Department
NC Alcohol Law Enforcement
NC Arboretum Police
NC Department of Insurance
NC Dept of Agriculture Public Safety
NC Dept of Health & Human Services PD - Black Mtn
NC Dept of Revenue-Criminal Investigations Div
NC Dept of Revenue-Motor Fuels Divison
NC Dept of Revenue-Unauth. Substance Tax Div.

NC Division of Parks & Recreation
NC DMV - License and Theft
NC Forest Service
NC Industrial Commission - Fraud Section
NC State Bureau of Investigation
NC State Capitol Police
NC State Highway Patrol
NC Supreme Court PD
NC Wildlife Resources Commission
New Bern Police Department
New Hanover County Sheriff's Office
New Hanover Regional Medical Center
Newland Police Department
Newport Police Department
Newton Grove Police Department
Newton Police Department
Norlina Police Department
North Topsail Beach Police Dept.
North Wilkesboro Police Department
Northampton County Sheriff's Office
Northwest Police Department
Norwood Police Department
Nova Agency Company Police
Oak Island Dept of Public Safety
Oakboro Police Department
Ocean Isle Police Department
ODS Company Police, Inc.
Old Fort Police Department
Onslow County Sheriff's Office
Orange County Sheriff's Office
Oriental Police Department
Oxford Police Department
Pamlico County Sheriff's Office
Parkton Police Department
Pasquotank County Sheriff's Office
Pembroke Police Department
Pender County Sheriff's Office
Perquimans County Sheriff's Office
Person County Sheriff's Office
Person-Caswell Lake Authority
Piedmont Triad International Airport
Piedmont Triad Regional Water Authority
Pikeville Police Department
Pilot Mountain Police Department
Pine Knoll Shores Public Safety

Pine Level Police Department
Pinebluff Police Department
Pinehurst Police Department
Pinetops Police Department
Pineville Police Department
Pink Hill Police Department
Pitt County Sheriff's Office
Pittsboro Police Dept
Plymouth Police Department
Polk County Sheriff's Office
Polkton Police Department
Princeton Police Department
Princeville Police Department
Raeford Police Department
Raleigh Police Department
Ramseur Police Department
Randleman Police Department
Randolph County Sheriff's Office
Ranlo Police Department
RDU Police Department
Red Springs Police Department
Reidsville Police Department
Rhodhiss Police Department
Rich Square Police Department
Richlands Police Department
Richmond County Sheriff's Office
River Bend Police Department
Roanoke Rapids Police Department
Robbins Police Department
Robersonville Police Department
Robeson County Sheriff's Office
Rockingham County Sheriff's Office
Rockingham Police Department
Rockwell Police Department
Rocky Mount Police Department
Rolesville Police Department
Roper Police Department
Rose Hill Police Department
Rowan County Sheriff's Office
Rowland Police Department
Roxboro Police Department
Rutherford County Sheriff's Office
Rutherfordton Police Department
Salemburg Police Department
Salisbury Police Department

Saluda Police Department
Sampson County Sheriff's Office
Sanford Police Department
SAS Institute Inc.
Scotland County Sheriff's Office
Scotland Neck Police Department
Seagrove Police Department
Secretary of State
Selma Police Department
Seven Devils Police Department
Shallotte Police Department
Sharpsburg Police Department
Shelby Police Department
SHERIFFS' STANDARDS
Siler City Police Department
Simpson Police Department
Smithfield Police Department
Snow Hill Police Department
Southern Pines Police Department
Southern Shores Police Department
Southport Police Department
Sparta Police Department
Spencer Police Department
Spindale Police Department
Spring Hope Police Department
Spring Lake Police Department
Spruce Pine Police Department
St. Paul's Police Dept
Stallings Police Department
Stanfield Police Department
Stanley Police Department
Stanly County Sheriff's Office
Stantonsburg Police Department
Star Police Department
State Ports Authority - Wilmington
State Ports Authority- Morehead City
Statesville Police Department
Stedman Police Department
Stem Police Department
Stokes County Sheriff's Office
Stoneville Police Department
Stovall Police Department
Sugar Mountain Police Department
Sunset Beach Police Department
Surf City Police Department

Surry County Sheriff's Office
Swain County Sheriff's Office
Swansboro Police Department
Sylva Police Department.
Tabor City Police Department
Tarboro Police Department
Taylorsville Police Department
Taylortown Police Department
Test Sheriff Office By ITD for Testing SS Only 2013
Thomasville Police Department
Topsail Beach Police Department
Transylvania County Sheriff's Office
Trent Woods Police Department
Troutman Police Department
Troy Police Department
Tryon Police Department
Tyrrell County Sheriff's Office
U.S. Special Police, LLC
UNC Hospitals
Union County Sheriff's Office
Valdese Police Department
Vance County Sheriff's Office
Vanceboro Police Department
Vass Police Department
Vidant Company Police
Wadesboro Police Department
Wagram Police Department
Wake County Sheriff's Office
Wake Forest Police Department
WAKE MEDICAL CENTER POLICE
Wallace Police Department
Walnut Creek Police Department
Warren County Sheriff's Office
Warrenton Police Department
Warsaw Police Department
Washington Co.
Washington County Sheriff's Office
Washington Police Department
Watauga County Sheriff's Office
Waxhaw Police Department
Wayne County Sheriff's Office
Wayne Memorial Hospital Inc
Waynesville Police Department
Weaverville Police Department
Weldon Police Department

Wendell Police Department
West Jefferson Police Department
Whispering Pines Police Department
Whitakers Police Department
White Lake Police Department
Whiteville Police Department
Wilkes County Sheriff's Office
Wilkesboro Police Department
Williamston Police Department
Wilmington Int'l Airport Public Safety
Wilmington Police Department
Wilson County Sheriff's Office
Wilson Police Department
Wilson's Mills Police Department
Windsor Police Department
Winfall Police Department
Wingate Police Department
Winston-Salem Police Department
Winston-Salem State University Police
Winterville Police Department
Winton Police Department
Woodfin Police Department
Woodland Police Department
Wrightsville Beach Police Department
Yadkin County Sheriff's Office
Yadkinville Police Department
Yancey County Board of Education
Yancey County Sheriff's Office
Youngsville Police Department
Zebulon Police Department

Description of the State's planned participation in the Click-it-or-Ticket national mobilization:

Planned Participation in Click-it-or-Ticket

Research shows that seat belts are the single most important safety device for reducing injuries and fatalities for vehicle occupants during a crash. North Carolina has developed a comprehensive program that combines law enforcement and media to enforce the State’s seat belt law. The nationwide “Click It or Ticket” program was first developed in North Carolina 25 years ago, and is one of North Carolina’s best tools for increasing belt use. GHSP remains committed to encouraging every North Carolinian to buckle up during every trip—day and night.

In addition to participation in the Click It or Ticket mobilizations conducted each spring and fall, GHSP law enforcement grantees are required to conduct a minimum of one nighttime seat belt enforcement effort each month. GHSP also encourages nighttime seat belt enforcement in counties that are overrepresented in unbelted fatalities. GHSP educates law enforcement agencies on the importance of improving seat belt compliance rates and their role in reducing unrestrained fatalities and injuries. GHSP provided law enforcement agencies a guide

with descriptions of both the Child Passenger Safety Law and the Seat Belt Law. This guide gives law enforcement officers, particularly those with little to no training in child passenger safety, a clear outline of how to enforce the law.

In an effort to increase occupant protection enforcement and influence the fatality and seat belt usage rates in North Carolina, the GHSP partners with the North Carolina State Highway Patrol to conduct Special Operation Projects in designated high-risk counties. Selected enforcement days and times corresponded with data that showed when unrestrained fatalities were occurring. The Special Operation Projects are conducted during the mobilizations.

List of Task for Participants & Organizations

Child restraint inspection stations

Countermeasure strategies demonstrating an active network of child passenger safety inspection stations and/or inspection events:

Countermeasure Strategy
2.6.2 Communities and Outreach Strategies for Child Restraint and Booster Seat Use (Chapter 2: Seat Belts and Child Restraints)
2.7.2 Inspection Stations (Chapter 2: Seat Belts and Child Restraints)

Planned activities demonstrating an active network of child passenger safety inspection stations and/or inspection events:

Unique Identifier	Planned Activity Name
NC GHSP 6	Training and Education - Occupant Protection

Total number of planned inspection stations and/or events in the State.

Planned inspection stations and/or events: 258

Total number of planned inspection stations and/or events in the State serving each of the following population categories: urban, rural, and at-risk:

Populations served - urban: 80

Populations served - rural: 191

Populations served - at risk: 139

CERTIFICATION: The inspection stations/events are staffed with at least one current nationally Certified Child Passenger Safety Technician.

Child passenger safety technicians

Countermeasure strategies for recruiting, training and maintaining a sufficient number of child passenger safety technicians:

Countermeasure Strategy
2.6.2 Communities and Outreach Strategies for Child Restraint and Booster Seat Use (Chapter 2: Seat Belts and Child Restraints)
2.7.2 Inspection Stations (Chapter 2: Seat Belts and Child Restraints)

Planned activities for recruiting, training and maintaining a sufficient number of child passenger safety

technicians:

Unique Identifier	Planned Activity Name
NC GHSP 6	Training and Education - Occupant Protection

Estimate of the total number of classes and the estimated total number of technicians to be trained in the upcoming fiscal year to ensure coverage of child passenger safety inspection stations and inspection events by nationally Certified Child Passenger Safety Technicians.

Estimated total number of classes: 28

Estimated total number of technicians: 600

Maintenance of effort

ASSURANCE: The lead State agency responsible for occupant protection programs shall maintain its aggregate expenditures for occupant protection programs at or above the level of such expenditures in fiscal year 2014 and 2015.

405(c) State traffic safety information system improvements grant

Traffic records coordinating committee (TRCC)

Meeting dates of the TRCC during the 12 months immediately preceding the application due date:

Meeting Date
10/3/2018
2/6/2019
5/1/2019

Name and title of the State's Traffic Records Coordinator:

Name of State's Traffic Records Coordinator: Bob Stevens

Title of State's Traffic Records Coordinator: State Traffic Safety Data Coordinator, NC GHSP

TRCC members by name, title, home organization and the core safety database represented:

List of TRCC members

Current Members of the North Carolina Traffic Records Coordinating Committee

Name	Title	Organization	Core Safety Database Represented
Brian Mayhew (TRCC Co-chairperson)	State Safety Traffic Engineer	Traffic Safety Unit, NCDOT	Crash, Roadway
Eric Rodgman (TRCC Co-chairperson)	Database Specialist	UNC Highway Safety Research Center	All
Nancy Lefler	TR Strategic Plan PI	UNC Highway Safety Research Center	Crash, Driver License
Marie Melendez	Strategic Plan Project Key Member	UNC Highway Safety Research Center	Crash

Katie Harmon	Research Associate	UNC Highway Safety Research Center	Medical, Crash, FARS
Greg Ferrara	Program Manager, GIS	NC State University, Institute for Transportation Research and Education	Crash, Roadway, Citation
Jennifer Barbour	Data Analyst	NC Administrative Office of the Courts	Citation, Adjudication
Bob Stevens	State Traffic Safety Data Coordinator	North Carolina Governor's Highway Safety Program	All
Mark Ezzell	Director	North Carolina Governor's Highway Safety Program	All
Warren Smith	Highway Safety Specialist	North Carolina Governor's Highway Safety Program	All
Brian Murphy	Safety Planning Engineer	Safety Planning Group, NCDOT	Crash, Roadway
Shawn Troy	Safety Engineer	Safety Planning Group, NCDOT	Crash, Roadway
Erin Lesh	GIS Supervisor	NC DIT-T	Crash
Vish Tharuvesanchi	IT Manager	Traffic Records Systems, NCDOT	Crash, Roadway
Sharon Schiro	Director	UNC Trauma Registry	Trauma, Hospital, Vital
Eric Bellamy	TR Administrator / FARS Manager	Division of Motor Vehicles, NCDOT	Crash, FARS, Driver, Vehicle
Janna Allison	Strategy, Research and Planning	Division of Motor Vehicles, NCDOT	Crash, License
Reba Calvert	Administrative Officer Field Services	DMV	Vehicle Registration
Genia Newkirk	Regional Chief Examiner, Field Services Section	DMV	Driver License
Alan Dellapenna	Injury and Violence Prevention Branch Head	DHHS	EMS, ED, Trauma, Hospital, Vital
Jeff Robertson	Database Administrator	UNC Department of Emergency Medicine, EMS Performance Improvement Center	EMS, ED, Trauma, Hospital, Vital
Eric Schaberg	Collision Investigation Training Coordinator	North Carolina State Highway Patrol	Crash, Citation
Alan Stokes	Raleigh PD	Raleigh Police Department	Crash, Citation

Anna Waller	Senior Research Scientist	UNC Department of Emergency Medicine, Carolina Center for Health Informatics	All
Kathy Peticolas	Project Manager	Carolina Center for Health Infomatics	All
Meg Miller	NHTSA Regional Representative	NHTSA	All

Traffic Records System Assessment

Appendix F – Responses to the 2017 NC TR Assessment Overall Recommendations

Responses to the 2017 NC TR Assessment Overall Recommendations:

As taken from the 2017 NC TR Assessment published on May 5, 2017 on pages 4-5, North Carolina should address the recommendations below by implementing changes to improve the ratings for the assessment questions in those section modules with lower than average scores. North Carolina can also apply for a NHTSA Traffic Records GO Team, for targeted technical assistance. Here are the 2018 responses to the current overall TR Assessment recommendations:

Crash Recommendations

Recommendation	Addressed	Not Addressed
Improve the procedures/process flows for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory	NC DMV and DOT have process flow checks in place for the Crash data being submitted by NC LE. Errors and consistency are monitored as noted in the Advisory.	NC DOT and NC DMV are both working on additional improvements to comply better with this recommendation. See pages 27-32 of the 2018 Plan.
Improve the interfaces with the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	NC DOT has met regularly with independent vendors helping submit NC Crash data with specific LE agencies to improve the interface procedure for NC Crash data as noted in the Advisory.	NC DOT and NC DMV are both working on additional improvements to comply better with this recommendation. See pages 27-32 of the 2018 Plan.
Improve the data quality control program for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	Procedures are in place addressing the Crash data quality and error rates are monitored as noted in Advisory.	NC DOT and NC DMV are both working on additional improvements to comply better with this recommendation. See pages 27-32 of the 2018 Plan.

Vehicle Recommendations

Recommendation	Addressed	Not Addressed

Improve the data quality control program for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is a future effort.	Agency has data quality control procedures for the vehicle registration data but has not yet provided documentation consistent with the Advisory best practices. The TRCC hasonly recently added vehicle registration agency representatives to assist with this recommendation. See pages 37-38 of the 2018 Plan. Agency has data quality control procedures for the vehicle registration data but has not yet provided documentation consistent with the Advisory best practices. The TRCC hasonly recently added vehicle registration agency representatives to assist with this recommendation. See pages 37-38 of the 2018 Plan. Agency has data quality control procedures for the vehicle registration data but has not yet provided documentation consistent with the Advisory best practices. The TRCC hasonly recently added vehicle registration agency representatives to assist with this recommendation. See pages 37-38 of the 2018 Plan.

Driver Recommendations

Recommendation	Addressed	Not Addressed
Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is a future effort.	Agency has data quality control procedures for the Driver License data but has not yet provided documentation consistent with the Advisory best practices. The TRCC has only recently added driver license agency representatives to assist with this recommendation. See page 37 of the 2018 Plan.

Improve the data dictionary for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is a future effort.	Agency has an informal data dictionary but has not yet provided a formal data dictionary consistent with the Advisory best practices. The TRCC has only recently added Driver License agency representatives to assist with this recommendation. See page 37 of the 2018 Plan.
Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is a future effort.	Agency has data quality control system parts in place for the Driver License data but has not yet provided formal documentation consistent with the Advisory best practices. The TRCC has only recently added Driver License agency representatives to assist with this recommendation. See Page 37 of the 2018 Plan.

Roadway Recommendations

Recommendation	Addressed	Not Addressed
Improve the data quality control program for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is an ongoing effort.	Agency has data quality control system parts in place for the Roadway System data but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the quality control procedures for their Roadway data. See pages 35-36 of the 2018 Plan.

Citation / Adjudication Recommendations

Recommendation	Addressed	Not Addressed
Improve the interfaces with the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is an ongoing effort.	Agency has interfaces for the Citation and Adjudication systems but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the interfaces for the Citation and Adjudication systems. See pages 33-34 of the 2018 Plan.

Improve the data quality control program for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is an ongoing effort.	Agency has data quality control system parts in place for the Citation and Adjudication systems but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the quality control procedures for their Citation and Adjudication systems. See Page 33-34 of the 2018 Plan.

EMS / Injury Surveillance Recommendations

Recommendation	Addressed	Not Addressed
Improve the interfaces with the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is an ongoing effort.	Agency has interfaces for all the Injury Surveillance systems but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the interfaces for all the Injury Surveillance data systems. See pages 34-35 of the 2018 Plan. Agency has interfaces for all the Injury Surveillance systems but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the interfaces for all the Injury Surveillance data systems. See pages 34-35 of the 2018 Plan.

Improve the data quality control program for the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is an ongoing effort.	Agency has data quality control system parts in place for all the Injury Surveillance data systems but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the quality control procedures for all their Injury Surveillance data systems. See pages 34-35 of the 2018 Plan. Agency has data quality control system parts in place for all the Injury Surveillance data systems but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the quality control procedures for all their Injury Surveillance data systems. See pages 34-35 of the 2018 Plan.

The considerations for the NC agencies for the above areas not addressing the overall recommendations as noted in the most recent five-year 2017 NC TR Assessment Report can be summarized as being not addressed due to the following reasons:

1) The issue is currently not a priority to the NC agency at this time.

2) The NC agency presently does not have the necessary personnel and financial resources to address the issue. A NHTSA GoTeam or 405(c) grant has not yet been requested.

3) The NC agency has prioritized other issues which must be addressed and/or completed as directed by the senior administration of the NC agency and/ or as mandated by the NC legislature.

4) NC agency changes in personnel have affected addressing some issues. The changes include retirements, new administrators or directors have been appointed, and changes in personnel within the NC TRCC.

Traffic Records for Measurable Progress

2019 Strategic Plan

Overview

In 2019, the NC TRCC began the process of updating the 2018 Strategic Plan. The UNC Highway Safety Research Center (HSRC) worked with NC GHSP and NCDOT to review relevant materials, gather input from key agencies, and develop a plan to guide improvements to be made in traffic safety information systems over the next five years. Agencies who participated in the development of this plan included:

· EMSPIC

· NCSU ITRE

NC DHHS

· NC GHSP

NCAOC

· NCDOT

· NCDIT-T

NCDMV

· NCSHP

UNC HSRC

Gathering input for the plan began with the initial task of reviewing the following documents:

North Carolina Traffic Safety Information Systems Strategic Plan, 2018. This plan became the benchmark for progress with respect to improvements made over the past year.

State of North Carolina Traffic Records Assessment, 2017. The assessment was completed by a NHTSA Technical Assessment Team in May 2017 and included several recommendations related to traffic safety information systems.

North Carolina Governor's Highway Safety Program FY 2018 Highway Safety Plan. This plan was reviewed for specific recommendations related to traffic safety information systems and for data-related recommendations related to targeted safety strategies.

The primary source of input to the plan was a strategic planning session with representatives from the agencies listed above. This session was used to review goals and objectives and monitor progress toward performance measures, which were set last year.

The plan in this current form, first developed in 2010, was intended to address improvements in traffic safety information systems over five years. However, the plan was and will continue to be reviewed on an annual cycle and modified as necessary to ensure that progress is being made in each of the areas and that new objectives are added to address changes in the state and take advantage of improvements that may lead to better systems. In other words, this is a dynamic plan.

Vision and Mission

Vision

To improve safety by significantly reducing the number of fatalities and injuries to the citizens and visitors of our state.

Mission

Provide the leadership to establish and maintain a level of coordination, communication and cooperation between agencies and stakeholders to maximize utilization and improve functionality, data accuracy, timeliness and linkages, and to advance electronic data collection, protect privacy, minimize redundancies in traffic records systems and better accomplish individual agencies' goals.

Goals and Objectives

Goals are established for the NC TRCC as an entity and for each of the six primary data systems that are required for addressing traffic safety in the state. For each of these seven goals, specific objectives, and performance measures were developed that represent the priorities for each group/system.

Traffic Records Coordinating Committee

Goal – Provide direction and facilitate coordination among the safety data stewards and stakeholders to improve the transportation safety information systems in North Carolina.

*Note: The official annual performance period for measuring performance is April to March each year. However, some of the activities described in this section include items undertaken or completed in May or June, as the final plan is delivered at the end of June each year.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
Ensure that the membership of the TRCC consists of all key stakeholders, including the owners, stewards and users of the data inNC.Ensure that the membership of the TRCC consists of all key stakeholders, including the owners, stewards and users of the data inNC.	An annual review of stakeholders and expansion of the TRCC membership as necessary.	Ongoing. Annual review has been conducted. Seeking additional members as gaps identified.	Ongoing -- Annual review has been conducted. TRCC is still seeking additional members to fill the gaps identified.
In collaboration with the NC GHSP, review and improve upon the protocol used in the identification and prioritization of projects.	Annual review and improvement upon the project identification and prioritization process. (Note: Schedule for the approved protocol will need to align with the GHSP proposalprocess.)An nual review and improvement upon the project identification and prioritization process. (Note: Schedule for the approved protocol will need to align with the GHSP proposalprocess.)	Ongoing. Formal project identification form has been created.	Ongoing. Formal project identification form has been created. See below.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
	A set of guidelines created for use in identifying and prioritizing projects. A set of guidelines created for use in identifying and prioritizing projects.	Ongoing. Process will be finalized at the next TRCC meeting Ongoing. Process will be finalized at the next TRCC meeting	The initial TRCC project rating policy and procedure has been agreed on. See Appendix G for the policy description, project description form, and the rating sheet for the TRCC members.

	A prioritized list of recommended projects provided to NC GHSP and other funding sources and agencies that align with the specific objectives of theStrategic Plan. A prioritized list of recommended projects provided to NC GHSP and other funding sources and agencies that align with the specific objectives of theStrategic Plan. A prioritized list of recommended projects provided to NC GHSP and other funding sources and agencies that align with the specific objectives of theStrategic Plan.	Ongoing Ongoing	
Monitor and measure progress on existing goals and objectives.	Annual update of TRCC Strategic Plan.	Completed	Completed
	Periodic review ofongoing projects, focusing on progress toward meeting performance measures outlined in the strategic plan.Periodic review ofongoing projects, focusing on progress toward meeting performance measures outlined in the strategic plan.	Completed	Completed
	Feedback to NC ECHS to report on progress made and new strategies proposed by the TRCC.	Updates provided at quarterly NC ECHS meetings.	Updates provided at quarterly NC ECHS meetings.

	Review NHTSA recommendations for TRCC activities to align our goals with the assessment documentfocus questions.Review NHTSA recommendations for TRCC activities to align our goals with the assessment documentfocus questions.	Ongoing	Ongoing
Identify gaps in the current traffic records	Establishment and revision of goals and objectives as part of	Completed (June 2018)	Completed (June 2019)

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
systems and explore	development of the		
new solutions.	next strategic plan.		
	(Note: Explore		
	external funding		
	opportunities.		
	Examples include:		
	405C, NC ECHS,		
	FHWA, NHTSA, CDC).		

Explore the value and feasibility of capturing detailed lat/long location information for citations, crashes and asset management (results have implications for multipledata systems).Explore the value and feasibility of capturing detailed lat/long location information for citations, crashes and asset management (results have implications for multipledata systems).	Feasibility study report.	Future effort, pending availability of resources. Collecting lat/long information for severe injury crashes from ITRE.Future effort, pending availability of resources. Collecting lat/long information for severe injury crashes from ITRE.Future effort, pending availability of resources. Collecting lat/long information for severe injury crashes from ITRE.	Future effort, pending availability of resources. Collecting lat/long information for all severe (K amp A) injury crashes from ITRE.Future effort, pending availability of resources. Collecting lat/long information for all severe (K amp A) injury crashes from ITRE.Future effort, pending availability of resources. Collecting lat/long information for all severe (K amp A) injury crashes from ITRE.Future effort, pending availability of resources. Collecting lat/long information for all severe (K amp A) injury crashes from ITRE.
Share NC achievements and best practices in traffic safety information systems with other states.	Participation in regional and national conferences and peer- to-peer exchanges.	Ongoing. Presentations were made in 2017 and will be made in 2018 at the Traffic Records forum.	Ongoing. Presentations were made in 2018 and will be made in 2019 at the Traffic Records forum.
		Several TRCC members attended the 2017 Traffic Records forum and plan to attend 2018.	Several TRCC members attended the 2018 Traffic Records forum and some will attend 2019.
		Division of Public Health collaborated with CDC Injury Center sharing traffic records with health data.	Division of Public Health collaborated with CDC Injury Center sharing traffic records with health data.
		Ongoing NHTSA GoTeam effort to improve injury surveillance data system.	Major changes in personnel have put a GoTeam effort on hold for a while.
		Peer exchange in Louisiana related to state safety data systems (specifically	Peer exchange in Louisiana related to state safety data systems

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
		regarding roadway system).	(specifically regarding roadway system).

Monitor and evaluate the achievements and best practices in traffic safety information systems in other states for potential implementation in NC.	Participation in peer-to-peer exchanges. Review of promising strategies from other states, or items shared w/ other states, and sharing back with group.Participation in peer- to-peer exchanges. Review of promising strategies from other states, or items shared w/ other states, and sharing back with group.Participation in peer- to-peer exchanges. Review of promising strategies from other states, or items shared w/ other states, and sharing back with group.Participation in peer- to-peer exchanges. Review of promising strategies from other states, or items shared w/ other states, and sharing back with group.Participation in peer- to-peer exchanges. Review of promising strategies from other states, or items shared w/ other states, and sharing back with group.	Ongoing NHTSA GoTeam effort to improve injury surveillance data system. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Evaluating other state's electronic crash reporting methodologies (Possible XML based pdf form).Ongoing NHTSA GoTeam effort to improve injury surveillance data system. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Evaluating other state's electronic crash reporting methodologies (Possible XML based pdf form).Ongoing NHTSA GoTeam effort to improve injury surveillance data system. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Evaluating other state's electronic crash reporting methodologies (Possible XML based pdf form).Ongoing NHTSA GoTeam effort to improve injury surveillance data system. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Evaluating	No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state's electronic crash reporting methodologies (Possible XML based pdf form).No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state's electronic crash reporting methodologies (Possible XML based pdf form).No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state's electronic crash reporting methodologies (Possible XML based pdf form).No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state's electronic crash reporting methodologies

		other state’s electronic crash reporting methodologies (Possible XML based pdf form).	(Possible XML based pdf form).No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state’s electronic crash reporting methodologies (Possible XML based pdf form).No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state’s electronic crash reporting methodologies (Possible XML based pdf form).No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state’s electronic crash reporting methodologies (Possible XML based pdf form).

	Monitor USDOT/other state's TRCCs for ideas for consideration.	Continued involvement and attendance at Traffic Records Forum in New Orleans (August 2017). NC is a HSISstate and has an annual peer exchange on traffic recordtopics.Continued involvement and attendance at Traffic Records Forum in New Orleans (August 2017). NC is a HSISstate and has an annual peer exchange on traffic recordtopics.Continued involvement and attendance at Traffic Records Forum in New Orleans (August 2017). NC is a HSISstate and has an annual peer exchange on traffic recordtopics.	Continued involvement and attendance at Traffic Records Forum in Milwaukee (August 2018). NC is a HSIS state and has an annual peer exchange on traffic record topics.
Ensure that state highway safety plans include traffic safety information systems as a major component.	Review of NC State Highway Safety Plan (SHSP). Review of Highway Safety Improvement Plan (HSIP).Review of NC State Highway Safety Plan (SHSP). Review of Highway Safety Improvement Plan (HSIP).Review of NC State Highway Safety Plan (SHSP). Review of Highway Safety Improvement Plan (HSIP).	Next update will be in 2019. HSIP 2017 plans were completed and submitted.Next update will be in 2019. HSIP 2017 plans were completed and submitted.Next update will be in 2019. HSIP 2017 plans were completed and submitted.Next update will be in 2019. HSIP 2017 plans were completed and submitted.	Next update will be in 2020. HSIP 2018 plans were completed and submitted.Next update will be in 2020. HSIP 2018 plans were completed and submitted.Next update will be in 2020. HSIP 2018 plans were completed and submitted.Next update will be in 2020. HSIP 2018 plans were completed and submitted.
	Review of NC Highway Safety Plan (HSP).	Completed (HSP 2018).	Completed (HSP 2019).

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Expand performance measures for remaining Core Data Systems.	Performance measures for vehicle, driver, roadway, and injury surveillance.	Future effort	Current project under consideration to assist TR agencies with this effort.

Crash Information Systems

Goal – Maintain the crash data system and expand the capabilities of the system to allow the state to use this data to track crash injury/fatality experience for use in court cases, safety improvement studies, and evaluating State driving statutes.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Continue to enhance and expand electronic crash reporting by all enforcement agencies in the State.	Number or percentage of law enforcement agencies submitting to the electronic crash reporting system (minimum of 50% electronic submissions). Number or percentage of reported crashes submitted via the electronic crash reporting system. Integration and use of additional features or options for crash reporting. (Example: geo-locating using an XML based pdf from.)Number or percentage of law enforcement agencies submitting to the electronic crash reporting system (minimum of 50% electronic submissions). Number or percentage of reported crashes submitted via the electronic crash reporting system. Integration and use of additional features or options for crash reporting. (Example: geo-locating using an XML based pdf from.)Number or percentage of law enforcement agencies submitting to the electronic crash reporting system (minimum of 50% electronic submissions). Number or percentage of reported crashes submitted via the electronic crash reporting system. Integration and use of additional features	25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%	30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal

	or options for crash reporting. (Example: geo-locating using an XML based pdf from.)Number or percentage of law enforcement agencies submitting to the electronic crash reporting system (minimum of 50% electronic submissions). Number or percentage of reported crashes submitted via the electronic crash reporting system. Integration and use of additional features or options for crash reporting. (Example: geo-locating using an XML based pdf from.)Number or percentage of law enforcement agencies submitting to the electronic crash reporting system (minimum of 50% electronic submissions). Number or percentage of reported crashes submitted via the electronic crash reporting system. Integration and use of additional features or options for crash reporting. (Example: geo-locating using an XML based pdf from.)		and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped

			crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes
Continue to communicate data collection and data submission protocols and business rules with third-party softwarevendors of electronicContinue to communicate data collection and data submission protocols and business rules with third-party softwarevendors of electronic	Periodic meetings with third-party vendors to share business rules and communicate changes.	Continuing biweekly meetings.	Ongoing

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

crash submission products to keep them apprised of changes in the North Carolina crash data systems that need to be accommodated in their software applications.	Periodic review and validation of third-party vendors' compliance capabilities. Initial review and validation for new third-party vendors.Periodic review and validation of third- party vendors' compliance capabilities. Initial review and validation for new third-party vendors.Periodic review and validation of third- party vendors' compliance capabilities. Initial review and validation for new third-party vendors.	Currently 4 vendors in place (1 new vendor in progress).	When DMV makes changes, we check to see the changes are accurate. Currently 4 vendors in place (1 new vendor in progress).When DMV makes changes, we check to see the changes are accurate. Currently 4 vendors in place (1 new vendor in progress).When DMV makes changes, we check to see the changes are accurate. Currently 4 vendors in place (1 new vendor in progress).When DMV makes changes, we check to see the changes are accurate. Currently 4 vendors in place (1 new vendor in progress).When DMV makes changes, we check to see the changes are accurate. Currently 4 vendors in place (1 new vendor in progress).

Explore the feasibility of LEA-level metrics for improving crash reporting.	Feasibility study on the potential range and use of LEA-specific metrics. (Note: Report on types of errors made and time period for reporting, compared to peers)Next: Review and see if it can be enhanced or built upon in the future/broadened toinclude quality.Feasibility study on the potential range and use of LEA- specific metrics. (Note: Report on types of errors made and time period for reporting, compared to peers)Next: Review and see if it can be enhanced or built upon in the future/broadened toinclude quality.Feasibility study on the potential range and use of LEA- specific metrics. (Note: Report on types of errors made and time period for reporting, compared to peers)Next: Review and see if it can be enhanced or built upon in the future/broadened toinclude quality.	Ongoing	Ongoing

Continue to enhance the integration of crash data systems.	Continuing to correct CRS records on the basis of analysis of TEAAS data. Periodic review of the integration process between the traffic safety unit and DMV.Continuing to correct CRS records on the basis of analysis of TEAAS data. Periodic review of the integration process between the traffic safety unit and DMV.Continuing to correct CRS records on the basis of analysis of TEAAS data. Periodic review of the integration process between the traffic safety unit and DMV.	Ongoing OngoingOngoing OngoingOngoing OngoingOngoing OngoingOngoing OngoingOngoing Ongoing	Ongoing OngoingOngoing OngoingOngoing OngoingOngoing OngoingOngoing OngoingOngoing Ongoing

Ensure that crash data continue to be submitted accurately and in a timely manner to the CRS.	Average lapsed time between the time of the crash and the time of the submission. Percentage of crash reports submitted within 10 days.(GS 20-166.1 indicates that a law enforcement agency who receives an accident report mustforward it to theAverage lapsed time between the time of the crash and the time of the submission. Percentage of crash reports submitted within 10 days.(GS 20-166.1 indicates that a law enforcement agency who receives an accident report mustforward it to theAverage lapsed time between the time of the crash and the time of the submission. Percentage of crash reports submitted within 10 days.(GS 20-166.1 indicates that a law enforcement agency who receives an accident report mustforward it to theAverage lapsed time between the time of the crash and the time of the submission. Percentage of crash reports submitted within 10 days.(GS 20-166.1 indicates that a law enforcement agency who receives an accident report mustforward it to theAverage lapsed time between the time of the crash and	29.89 days (print submissions)4.26 days (electronic submissions) 71.98%29.89 days (print submissions)4.26 days (electronic submissions) 71.98%29.89 days (print submissions)4.26 days (electronic submissions) 71.98%29.89 days (print submissions)4.26 days (electronic submissions) 71.98%	17.83 days (print submissions)3.92 days (electronic submissions) 78.52%17.83 days (print submissions)3.92 days (electronic submissions) 78.52%17.83 days (print submissions)3.92 days (electronic submissions) 78.52%17.83 days (print submissions)3.92 days (electronic submissions) 78.52%

	the time of the submission. Percentage of crash reports submitted within 10 days.(GS 20-166.1 indicates that a law enforcement agency who receives an accident report mustforward it to the		

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
	NCDMV within 10 days after receiving the report.)		
Ensure that crash data continue to be accurately recorded and reported to the CRS.	The percentage of rejected crash reports. (Note: no reports are accepted to the CRS until the errors in mandated data elements are corrected.)	3.75% (electronic submission only)	3.6% (electronic submission only)
	Periodic summary of crash report rejection reasons.	Periodic summary of rejections provided.	Ongoing. Also identify any potential corrections
	Periodic review of business rules to target inaccurate fields.	Identify new business rules with new form design.	Ongoing
Ensure that crash data continues to be recorded as completely as possible.	Percentage of reports that have no missing critical data elements. (Note: Must define critical elements; see notes under prior objective.)	Completed MMUCC 5 assessment of crash variables (February 2018).	Complete
	Periodic review of business rules to address completeness.	Ongoing	Ongoing
	Feedback to LEAs with respect to their data quality.	Ongoing, bi-weekly calls.	Ongoing
	Year-to-year comparison of the number of reports received to review for possible missing data.	Ongoing	Ongoing

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
Ensure that crash data is recorded uniformly.	Percentage of data elements that are MMUCC compliant. Year-to-year comparison of reportable vs. non-reportable crashes byLEAs.Percentage of data elements that are MMUCC compliant. Year-to-year comparison of reportable vs. non-reportable crashes byLEAs.Percentage of data elements that are MMUCC compliant. Year-to-year comparison of reportable vs. non-reportable crashes byLEAs.Percentage of data elements that are MMUCC compliant. Year-to-year comparison of reportable vs. non-reportable crashes byLEAs.	MMUCC Analysis was completed in 2018. MMUCC Mapping Score 67.7% 75.33% reportable24.67% non-reportableMMUCC Analysis was completed in 2018. MMUCC Mapping Score 67.7% 75.33% reportable24.67% non-reportableMMUCC Analysis was completed in 2018. MMUCC Mapping Score 67.7% 75.33% reportable24.67% non- reportable	Complete 74.95% reportable25.05% non-reportableComplete 74.95% reportable25.05% non-reportableComplete 74.95% reportable25.05% non-reportableComplete 74.95% reportable25.05% non-reportableComplete 74.95% reportable25.05% non-reportableComplete 74.95% reportable25.05% non-reportable

Ensure that the crash data are accessible to key stakeholders.	Annual survey of crash data accessibility by stakeholder groups, including internal users within the NCDOT and external users such as other state agencies and universities. Potential workshop with stakeholders including IT to discuss accessibility issues.Annual survey of crash data accessibility by stakeholder groups, including internal users within the NCDOT and external users such as other state agencies and universities. Potential workshop with stakeholders including IT to discuss accessibility issues.Annual survey of crash data accessibility by stakeholder groups, including internal users within the NCDOT and external users such as other state agencies and universities. Potential workshop with stakeholders including IT to discuss accessibility issues.Annual survey of crash data accessibility by stakeholder groups, including internal users within the NCDOT and external users such as other state agencies and universities. Potential workshop with stakeholders including IT to discuss accessibility issues.	DMV is working with stakeholders as data needs arise. ITRE has received a snapshot of data back to 2000.HSRC received a snapshot of data from 1991 – 1999 for a specific project they are working on. Still a future effort. Sanitized crash data has been completed.DMV is working with stakeholders as data needs arise. ITRE has received a snapshot of data back to 2000.HSRC received a snapshot of data from 1991 – 1999 for a specific project they are working on. Still a future effort. Sanitized crash data has been completed.DMV is working with stakeholders as data needs arise. ITRE has received a snapshot of data back to 2000.HSRC received a snapshot of data from 1991 – 1999 for a specific project they are working on. Still a future effort. Sanitized crash data has been	Ongoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. Ongoing

		completed.DMV is working with stakeholders as data needs arise. ITRE has received a snapshot of data back to 2000.HSRC received a snapshot of data from 1991 – 1999 for a specific project they are working on. Still a future effort. Sanitized crash data has been completed.DMV is working with stakeholders as data needs arise. ITRE has received a snapshot of data back to 2000.HSRC received a snapshot of data from 1991 – 1999 for a specific project they are working on. Still a future effort. Sanitized crash data has been completed.DMV is working with stakeholders as data needs arise. ITRE has received a snapshot of data back to 2000.HSRC received a snapshot of data from 1991 – 1999 for a specific project they are working on. Still a future effort. Sanitized crash data has been completed.DMV is working with stakeholders as data needs arise. ITRE has received a snapshot of data back to 2000.HSRC received a snapshot of data from 1991 – 1999 for a specific project they are working on. Still a future effort. Sanitized crash data	

		has been completed.DMV is working with stakeholders as data needs arise. ITRE has received a snapshot of data back to 2000.HSRC received a snapshot of data from 1991 – 1999 for a specific project they are working on. Still a future effort. Sanitized crash data has been completed.	

Enhance law enforcement training that will result in more complete and accurate crash reporting.	Review of alternative training methods, including distance learning and blended training options, and methods used in other fields. (Note: EMS as an example.) Number of law enforcement officers who receive training, including a breakdown of standard and more extensive training.Review of alternative training methods, including distance learning and blended training options, and methods used in other fields. (Note: EMS as an example.) Number of law enforcement officers who receive training, including a breakdown of standard and more extensive training.Review of alternative training methods, including distance learning and blended training options, and methods used in other fields. (Note: EMS as an example.) Number of law enforcement officers who receive training, including a breakdown of standard and more extensive training.	Ongoing Trained 109 law enforcement train- the-trainer officers between April 1, 2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1, 2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1, 2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1, 2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1, 2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1, 2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1,	Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional

		2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1, 2017and March 31, 2018.	classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
	Review of the current Basic Law Enforcement Training.	Coming January 2019. Does not address electronic reporting.	

Explore the feasibility of creating a statewide streamlined or “limited” data entry protocol for non-injury crashes within the electronic crash reporting system at the time the DMV349 is updated.	Review of the implications on the CRS database. Review of the implications on safety analysis and decision making.Review of the implications on the CRS database. Review of the implications on safety analysis and decision making.Review of the implications on the CRS database. Review of the implications on safety analysis and decision making.	Future effort Future effortFuture effort Future effortFuture effort Future effortFuture effort Future effortFuture effort Future effortFuture effort Future effort	Future effort Future effortFuture effort Future effortFuture effort Future effortFuture effort Future effortFuture effort Future effortFuture effort Future effort
	Note: The issuesaddressed should include data acquisition, compliance with NHTSA data guidance (e.g., MMUCC), legal considerations, and possible degradation in the information being captured in thecrash report.Note: The issuesaddressed should include data acquisition, compliance with NHTSA data guidance (e.g., MMUCC), legal considerations, and possible degradation in the information being captured in thecrash report.Note: The issuesaddressed should include data acquisition, compliance with NHTSA data guidance (e.g., MMUCC), legal considerations, and possible degradation in the information being captured in thecrash report.		

Develop standards for reporting location information.	Publication of spatial location reporting standards available to third-party vendorsfor ECRS.Publication of spatial location reporting standards available to third-party vendorsfor ECRS.	Ongoing	Ongoing
	Determine the best method of implementing electronic crash reporting by all LEAs statewide.	Meetings held in Fall 2017. Progress discussed.	Produced fillable PDF with validations (this is still considered a paper form). Looking to turn PDF into XML format.
		Do away with paper pads and move toward electroniccrash collection.Do away with paper pads and move toward electroniccrash collection.	No longer distributing paper pads.

Data Use & Integration

Goal - Provide direction and facilitate coordination among the safety data stewards to improve the integration of transportation safety information systems in North Carolina.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Conduct a feasibility assessment of the value of and most effective means of sharing data across multiple systems within the data collection process, such as crash and citation, for consistency andaccuracy of data.Conduct a feasibility assessment of the value of and most effective means of sharing data across multiple systems within the data collection process, such as crash and citation, for consistency andaccuracy of data.	Feasibility study report. (Note: This is a project that will be addressed in the future, when all stewards are ready and funding is available to support the study.)	Future effort	Future effort
Explore the value and the feasibility of developing a centralized database for warning tickets that would be available to law enforcement officers and other stakeholders, such as researchers, in the road safetycommunity.Explore the value and the feasibility of developing a centralized database for warning tickets that would be available to law enforcement officers and other stakeholders, such as researchers, in the road safetycommunity.	Feasibility study report. (Note: This is a low priority issue based on recent discussions with NHTSA and will be discussed at a later time.)	Decided not to do it.	Decided not to do it. Will remove in the next version of the TR Plan.
Conduct demonstration projects to illustrate the feasibility and value of data integration.	Data Linkage Project Repeat Offenders ProjectData Linkage Project Repeat Offenders ProjectData Linkage Project Repeat Offenders Project	In progress	Ongoing In progressOngoing In progressOngoing In progress

Citation/Adjudication Systems

Goal – Maintain and update North Carolina AOC databases and oversee the proper movement of court information and data, while centralizing information and creating citation/sharing procedures for the citation and adjudication records.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
Continue to improve electronic citation audit procedures and implement the most promising improvements to ensure citations are tracked from time of issuance to disposition of citations.	Implementation of a tracking system for unused citations.	Based on user feedback the previous software upgrade has improved system stability and fewer instances of “lost” citations reported. No relevant effort currently underway for tracking unusedcitations.Based on user feedback the previous software upgrade has improved system stability and fewer instances of “lost” citations reported. No relevant effort currently underway for tracking unusedcitations.	Based on user feedback the previous software upgrade has improved system stability and has resulted in fewer “lost” citations. There is no effort underway to track unused citations.
Continue to improve the electronic citation submission statewide.	Length of time for citations to be received at AOC.	88.33% receivedwithin 3 days88.33% receivedwithin 3 days	89.27% received within 3 days
Increase data capture surrounding the case management of DWI charges and convictions to aide in the analysis and tracking of thesecases.Increase data capture surrounding the case management of DWI charges and convictions to aide in the analysis and tracking of thesecases.	Number of DWI data element fields added to the file.	Next steps have not been defined.	Next steps have not been defined.

Provide an interface between eCitation and NCAWARE for the most frequent arrestable offenses to reduce duplicate data entry.	Percent reduction in number of cases for which there is duplicate data entry.	eCitation and NCWARE Interface project is near completion. Target implementation date set for Summer 2018.	Completed Feb 2019
Capture and store large video as evidence in a secure location in data center.	Expand discovery automation system to handle remote blob storage.	Future effort	Future effort
Paperless process in court room with workflow between district attorney, judges and clerks.	Design and develop automated workflow process for citation in the courtroom.	The NCAOC has begun the RFP process for an Integrated Case Management System. A vendor contract award is targeted for 1Q19.	The NCAOC has begun the RFP process for an Integrated Case Management System. A vendor contract has notyet been awarded.The NCAOC has begun the RFP process for an Integrated Case Management System. A vendor contract has notyet been awarded.

Injury Surveillance Systems

Goal – Evaluate the need for and feasibility of a Statewide Surveillance Injury System.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Conduct a demonstration project that links injury surveillance data with crash data to identify issues associated with linkage.	Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration project report.Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration project report.Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration project report.Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration project report.Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration	Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers are identified. Working with UNC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers are identified. Working with UNC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers are identified. Working with UNC	Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are

	project report.Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration project report.Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration project report.Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration project report.Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration project report.Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project.	Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers are identified. Working with UNC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers are identified. Working with UNC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers are identified.	needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work

	Demonstration project report.	Working with UNC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers are identified. Working with UNC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers are identified. Working with UNC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers	with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In

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			Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic

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			barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Meet with key stakeholders to improve interfaces across the health care databases (EMS, Emergency Department, Hospital Discharge, Trauma Registry, Vital Records) and examine transportation injury data.	Develop process flow diagrams, data dictionaries, policies and procedures, data quality guidelines, annual reporting from the medical data systems to TRCC, and explore the collection of rehabilitation data.	Ongoing meetings to continue to refine the linkage.	4 complete, pending approval: crash report (DMV), FARS, Medicaid, Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.4 complete, pending approval: crash report (DMV), FARS, Medicaid, Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.4 complete, pending approval: crash report (DMV), FARS, Medicaid, Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.4 complete, pending approval: crash

			report (DMV), FARS, Medicaid, Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.4 complete, pending approval: crash report (DMV), FARS, Medicaid, Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.4 complete, pending approval: crash report (DMV), FARS, Medicaid, Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.4 complete, pending approval: crash report (DMV), FARS, Medicaid,

			Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.

Roadway Information Systems

Goal – Continue to maintain and expand an up-to-date statewide inventory of all North Carolina roadways that allows the State to track roadway changes and improvements and permits enhanced safety analysis.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Improve the interoperability and linkage between the linear referencing system, road characteristics data, and the crash data system (TEAAS).	Successful implementation of a distributed ownership model for capturing and maintaining roadway data elements. Ability of external customers to add or edit data to the primary roadway characteristics file. Ability to integrate crashes from non-system roadways into the statewide LRS.Successful implementation of a distributed ownership model for capturing and maintaining roadway data elements. Ability of external customers to add or edit data to the primary roadway characteristics file. Ability to integrate crashes from non-system roadways into the statewide LRS.Successful implementation of a distributed ownership model for capturing and maintaining roadway data elements. Ability of external customers to add or edit data to the primary roadway characteristics file. Ability to integrate crashes from non-system roadways into the statewide LRS.Successful implementation of a distributed ownership model for capturing and maintaining roadway data elements. Ability of external customers to add or edit data to the primary roadway	Integration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to	Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in

	characteristics file. Ability to integrate crashes from non-system roadways into the statewide LRS.Successful implementation of a distributed ownership model for capturing and maintaining roadway data elements. Ability of external customers to add or edit data to the primary roadway characteristics file. Ability to integrate crashes from non-system roadways into the statewide LRS.	provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration	all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.

		with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-system	

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
		roads for spatial display purposes.	Update TEAAS application to place crashes on local roads (goal complete Dec 2019). Update TEAAS application to place crashes on local roads (goal complete Dec 2019). Update TEAAS application to place crashes on local roads (goal complete Dec 2019). Update TEAAS application to place crashes on local roads (goal complete Dec 2019).
Conduct a feasibility assessment of the development of supplemental roadway files that may be used in safety analysis. (Examples include horizontal curves andgrades.)Conduct a feasibility assessment of the development of supplemental roadway files that may be used in safety analysis. (Examples include horizontal curves andgrades.)	Feasibility report that includes priorities for the development of supplemental files.	Collecting data for all state-maintained roadways.	Ongoing – data collection on secondary roads through pavement collection effort.

Explore the feasibility of an intersection database (in support of FHWA Fundamental Data Elements (FDE)).	Feasibility report.	Pilot project complete 2017 for rural, stop controlled intersections.Currently exploring options for the development of an enterprise level intersectiondatabase. Pilot project complete 2017 for rural, stop controlled intersections.Currently exploring options for the development of an enterprise level intersectiondatabase. Pilot project complete 2017 for rural, stop controlled intersections.Currently exploring options for the development of an enterprise level intersectiondatabase.	Waiting on FHWA AEGIST Guidebook (expected September 2019).
Improve data quality control for roadway data elements.	Investigate what data quality control measures are in placecurrently.Investigate what data quality control measures are in placecurrently.	Ongoing	Proposed GHSP project to address this.

Driver Information Systems

Goal – Continue to maintain and update the North Carolina driver license record data to be used in road safety studies and statistical analysis and to track all North Carolina drivers and their driving records according to North Carolina law.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Provide online a basic summary of the number of licensed North Carolina drivers, which includes their age, race, sex and county of residence. (Note: the publication should include motorcycle endorsements, commercial licenses andlearner's permits.)Provide online a basic summary of the number of licensed North Carolina drivers, which includes their age, race, sex and county of residence. (Note: the publication should include motorcycle endorsements, commercial licenses andlearner's permits.)	Annual online publication as part of NC Crash Facts.	Ongoing	Ongoing.
Hold mini-assessment meeting(s) with key individuals in driver license sections to address the issues of the data dictionary and improve data quality control.	Improve communication efforts and obtain a better understanding of what data documentation, data information flow charts, purging record procedures and data quality control routines are available. Develop summary reports on each ofthese topics.Improve communication efforts and obtain a better understanding of what data documentation, data information flow charts, purging record procedures and data quality control routines are available. Develop summary reports on each ofthese topics.	In progress: data dictionary	Working on.

Vehicle Information Systems

Goal – Continue to maintain and update all North Carolina vehicle registration record data for the state to be used in road safety studies and statistical analysis and to insure all vehicles are properly licensed according to the laws of NC.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
Publish a summary of the number of NC registered vehicles – by type of vehicle andcounty.Publish a summary of the number of NC registered vehicles – by type of vehicle andcounty.	Annual publication as part of NC Crash Facts.	Completed 2017	Updated for 2018.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Hold a mini-assessment meeting(s) with key individuals in vehicle registration information systems to address the issue of data quality control.	Improve communication efforts and obtain a better understanding of the information available in the Vehicle Data System, data quality control procedures, validation of VINs, vehicle data information flow diagrams, and vehicle record purging procedures. Develop summary reports on each topic.Improve communication efforts and obtain a better understanding of the information available in the Vehicle Data System, data quality control procedures, validation of VINs, vehicle data information flow diagrams, and vehicle record purging procedures. Develop summary reports on each topic.Improve communication efforts and obtain a better understanding of the information available in the Vehicle Data System, data quality control procedures, validation of VINs, vehicle data information flow diagrams, and vehicle record purging procedures. Develop summary reports on each topic.	Key individuals with vehicle registration systems are participating in the NC TRCC.	Working on.

Traffic Records Supporting Non-Implemented Recommendations

Appendix F – Responses to the 2017 NC TR Assessment Overall Recommendations

Responses to the 2017 NC TR Assessment Overall Recommendations:

As taken from the 2017 NC TR Assessment published on May 5, 2017 on pages 4-5, North Carolina should address the recommendations below by implementing changes to improve the ratings for the assessment

questions in those section modules with lower than average scores. North Carolina can also apply for a NHTSA Traffic Records GO Team, for targeted technical assistance. Here are the 2018 responses to the current overall TR Assessment recommendations:

Crash Recommendations

Recommendation	Addressed	Not Addressed
Improve the procedures/process flows for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory	NC DMV and DOT have process flow checks in place for the Crash data being submitted by NC LE. Errors and consistency are monitored as noted in the Advisory.	NC DOT and NC DMV are both working on additional improvements to comply better with this recommendation. See pages 27-32 of the 2018 Plan.
Improve the interfaces with the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	NC DOT has met regularly with independent vendors helping submit NC Crash data with specific LE agencies to improve the interface procedure for NC Crash data as noted in the Advisory.	NC DOT and NC DMV are both working on additional improvements to comply better with this recommendation. See pages 27-32 of the 2018 Plan.
Improve the data quality control program for the Crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	Procedures are in place addressing the Crash data quality and error rates are monitored as noted in Advisory.	NC DOT and NC DMV are both working on additional improvements to comply better with this recommendation. See pages 27-32 of the 2018 Plan.

Vehicle Recommendations

Recommendation	Addressed	Not Addressed

Improve the data quality control program for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is a future effort.	Agency has data quality control procedures for the vehicle registration data but has not yet provided documentation consistent with the Advisory best practices. The TRCC hasonly recently added vehicle registration agency representatives to assist with this recommendation. See pages 37-38 of the 2018 Plan. Agency has data quality control procedures for the vehicle registration data but has not yet provided documentation consistent with the Advisory best practices. The TRCC hasonly recently added vehicle registration agency representatives to assist with this recommendation. See pages 37-38 of the 2018 Plan. Agency has data quality control procedures for the vehicle registration data but has not yet provided documentation consistent with the Advisory best practices. The TRCC hasonly recently added vehicle registration agency representatives to assist with this recommendation. See pages 37-38 of the 2018 Plan.

Driver Recommendations

Recommendation	Addressed	Not Addressed
Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is a future effort.	Agency has data quality control procedures for the Driver License data but has not yet provided documentation consistent with the Advisory best practices. The TRCC has only recently added driver license agency representatives to assist with this recommendation. See page 37 of the 2018 Plan.

Improve the data dictionary for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is a future effort.	Agency has an informal data dictionary but has not yet provided a formal data dictionary consistent with the Advisory best practices. The TRCC has only recently added Driver License agency representatives to assist with this recommendation. See page 37 of the 2018 Plan.
Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is a future effort.	Agency has data quality control system parts in place for the Driver License data but has not yet provided formal documentation consistent with the Advisory best practices. The TRCC has only recently added Driver License agency representatives to assist with this recommendation. See Page 37 of the 2018 Plan.

Roadway Recommendations

Recommendation	Addressed	Not Addressed
Improve the data quality control program for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is an ongoing effort.	Agency has data quality control system parts in place for the Roadway System data but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the quality control procedures for their Roadway data. See pages 35-36 of the 2018 Plan.

Citation / Adjudication Recommendations

Recommendation	Addressed	Not Addressed
Improve the interfaces with the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is an ongoing effort.	Agency has interfaces for the Citation and Adjudication systems but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the interfaces for the Citation and Adjudication systems. See pages 33-34 of the 2018 Plan.

Improve the data quality control program for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is an ongoing effort.	Agency has data quality control system parts in place for the Citation and Adjudication systems but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the quality control procedures for their Citation and Adjudication systems. See Page 33-34 of the 2018 Plan.

EMS / Injury Surveillance Recommendations

Recommendation	Addressed	Not Addressed
Improve the interfaces with the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is an ongoing effort.	Agency has interfaces for all the Injury Surveillance systems but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the interfaces for all the Injury Surveillance data systems. See pages 34-35 of the 2018 Plan. Agency has interfaces for all the Injury Surveillance systems but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the interfaces for all the Injury Surveillance data systems. See pages 34-35 of the 2018 Plan.

Improve the data quality control program for the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.	For now, this is an ongoing effort.	Agency has data quality control system parts in place for all the Injury Surveillance data systems but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the quality control procedures for all their Injury Surveillance data systems. See pages 34-35 of the 2018 Plan. Agency has data quality control system parts in place for all the Injury Surveillance data systems but has not yet provided formal documentation consistent with the Advisory best practices. The agency has been working on improving the quality control procedures for all their Injury Surveillance data systems. See pages 34-35 of the 2018 Plan.

The considerations for the NC agencies for the above areas not addressing the overall recommendations as noted in the most recent five-year 2017 NC TR Assessment Report can be summarized as being not addressed due to the following reasons:

1) The issue is currently not a priority to the NC agency at this time.

2) The NC agency presently does not have the necessary personnel and financial resources to address the issue. A NHTSA GoTeam or 405(c) grant has not yet been requested.

3) The NC agency has prioritized other issues which must be addressed and/or completed as directed by the senior administration of the NC agency and/ or as mandated by the NC legislature.

4) NC agency changes in personnel have affected addressing some issues. The changes include retirements, new administrators or directors have been appointed, and changes in personnel within the NC TRCC.

Traffic Records for Model Performance Measures

2The primary source of input to the plan was a strategic planning session with representatives from the agencies listed above. This session was used to review goals and objectives and monitor progress toward performance measures, which were set last year.

2019 Strategic Plan

Overview

In 2019, the NC TRCC began the process of updating the 2018 Strategic Plan. The UNC Highway Safety Research Center (HSRC) worked with NC GHSP and NCDOT to review relevant materials, gather input from key agencies, and develop a plan to guide improvements to

be made in traffic safety information systems over the next five years. Agencies who participated in the development of this plan included:

- EMSPIC
- NCSU ITRE

NC DHHS

- NC GHSP

NCAOC

- NCDOT
- NCDIT-T

NCDMV

- NCSHP

UNC HSRC

Gathering input for the plan began with the initial task of reviewing the following documents:

North Carolina Traffic Safety Information Systems Strategic Plan, 2018. This plan became the benchmark for progress with respect to improvements made over the past year.

State of North Carolina Traffic Records Assessment, 2017. The assessment was completed by a NHTSA Technical Assessment Team in May 2017 and included several recommendations related to traffic safety information systems.

North Carolina Governor's Highway Safety Program FY 2018 Highway Safety Plan. This plan was reviewed for specific recommendations related to traffic safety information systems and for data-related recommendations related to targeted safety strategies.

The primary source of input to the plan was a strategic planning session with representatives from the agencies listed above. This session was used to review goals and objectives and monitor progress toward performance measures, which were set last year.

The plan in this current form, first developed in 2010, was intended to address improvements in traffic safety information systems over five years. However, the plan was and will continue to be reviewed on an annual cycle and modified as necessary to ensure that progress is being made in each of the areas and that new objectives are added to address changes in the state and take advantage of improvements that may lead to better systems. In other words, this is a dynamic plan.

Vision and Mission

Vision

To improve safety by significantly reducing the number of fatalities and injuries to the citizens and visitors of our state.

Mission

Provide the leadership to establish and maintain a level of coordination, communication and

cooperation between agencies and stakeholders to maximize utilization and improve functionality, data accuracy, timeliness and linkages, and to advance electronic data collection, protect privacy, minimize redundancies in traffic records systems and better accomplish individual agencies' goals.

Goals and Objectives

Goals are established for the NC TRCC as an entity and for each of the six primary data systems that are required for addressing traffic safety in the state. For each of these seven goals, specific objectives, and performance measures were developed that represent the priorities for each group/system.

Traffic Records Coordinating Committee

Goal – Provide direction and facilitate coordination among the safety data stewards and stakeholders to improve the transportation safety information systems in North Carolina.

*Note: The official annual performance period for measuring performance is April to March each year. However, some of the activities described in this section include items undertaken or completed in May or June, as the final plan is delivered at the end of June each year.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
Ensure that the membership of the TRCC consists of all key stakeholders, including the owners, stewards and users of the data inNC.Ensure that the membership of the TRCC consists of all key stakeholders, including the owners, stewards and users of the data inNC.	An annual review of stakeholders and expansion of the TRCC membership as necessary.	Ongoing. Annual review has been conducted. Seeking additional members as gaps identified.	Ongoing -- Annual review has been conducted. TRCC is still seeking additional members to fill the gaps identified.

In collaboration with the NC GHSP, review and improve upon the protocol used in the identification and prioritization of projects.	Annual review and improvement upon the project identification and prioritization process. (Note: Schedule for the approved protocol will need to align with the GHSP proposalprocess.)An nual review and improvement upon the project identification and prioritization process. (Note: Schedule for the approved protocol will need to align with the GHSP proposalprocess.)	Ongoing. Formal project identification form has been created.	Ongoing. Formal project identification form has been created. See below.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
	A set of guidelines created for use in identifying and prioritizing projects. A set of guidelines created for use in identifying and prioritizing projects.	Ongoing. Process will be finalized at the next TRCC meeting Ongoing. Process will be finalized at the next TRCC meeting	The initial TRCC project rating policy and procedure has been agreed on. See Appendix G for the policy description, project description form, and the rating sheet for the TRCC members.

	A prioritized list of recommended projects provided to NC GHSP and other funding sources and agencies that align with the specific objectives of theStrategic Plan. A prioritized list of recommended projects provided to NC GHSP and other funding sources and agencies that align with the specific objectives of theStrategic Plan. A prioritized list of recommended projects provided to NC GHSP and other funding sources and agencies that align with the specific objectives of theStrategic Plan.	Ongoing Ongoing	
Monitor and measure progress on existing goals and objectives.	Annual update of TRCC Strategic Plan.	Completed	Completed
	Periodic review ofongoing projects, focusing on progress toward meeting performance measures outlined in the strategic plan.Periodic review ofongoing projects, focusing on progress toward meeting performance measures outlined in the strategic plan.	Completed	Completed
	Feedback to NC ECHS to report on progress made and new strategies proposed by the TRCC.	Updates provided at quarterly NC ECHS meetings.	Updates provided at quarterly NC ECHS meetings.

	Review NHTSA recommendations for TRCC activities to align our goals with the assessment documentfocus questions.Review NHTSA recommendations for TRCC activities to align our goals with the assessment documentfocus questions.	Ongoing	Ongoing
Identify gaps in the current traffic records	Establishment and revision of goals and objectives as part of	Completed (June 2018)	Completed (June 2019)

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
systems and explore	development of the		
new solutions.	next strategic plan.		
	(Note: Explore		
	external funding		
	opportunities.		
	Examples include:		
	405C, NC ECHS,		
	FHWA, NHTSA, CDC).		

Explore the value and feasibility of capturing detailed lat/long location information for citations, crashes and asset management (results have implications for multipledata systems).Explore the value and feasibility of capturing detailed lat/long location information for citations, crashes and asset management (results have implications for multipledata systems).	Feasibility study report.	Future effort, pending availability of resources. Collecting lat/long information for severe injury crashes from ITRE.Future effort, pending availability of resources. Collecting lat/long information for severe injury crashes from ITRE.Future effort, pending availability of resources. Collecting lat/long information for severe injury crashes from ITRE.	Future effort, pending availability of resources. Collecting lat/long information for all severe (K amp A) injury crashes from ITRE.Future effort, pending availability of resources. Collecting lat/long information for all severe (K amp A) injury crashes from ITRE.Future effort, pending availability of resources. Collecting lat/long information for all severe (K amp A) injury crashes from ITRE.Future effort, pending availability of resources. Collecting lat/long information for all severe (K amp A) injury crashes from ITRE.
Share NC achievements and best practices in traffic safety information systems with other states.	Participation in regional and national conferences and peer- to-peer exchanges.	Ongoing. Presentations were made in 2017 and will be made in 2018 at the Traffic Records forum.	Ongoing. Presentations were made in 2018 and will be made in 2019 at the Traffic Records forum.
		Several TRCC members attended the 2017 Traffic Records forum and plan to attend 2018.	Several TRCC members attended the 2018 Traffic Records forum and some will attend 2019.
		Division of Public Health collaborated with CDC Injury Center sharing traffic records with health data.	Division of Public Health collaborated with CDC Injury Center sharing traffic records with health data.
		Ongoing NHTSA GoTeam effort to improve injury surveillance data system.	Major changes in personnel have put a GoTeam effort on hold for a while.
		Peer exchange in Louisiana related to state safety data systems (specifically	Peer exchange in Louisiana related to state safety data systems

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
		regarding roadway system).	(specifically regarding roadway system).

Monitor and evaluate the achievements and best practices in traffic safety information systems in other states for potential implementation in NC.	Participation in peer-to-peer exchanges. Review of promising strategies from other states, or items shared w/ other states, and sharing back with group.Participation in peer- to-peer exchanges. Review of promising strategies from other states, or items shared w/ other states, and sharing back with group.Participation in peer- to-peer exchanges. Review of promising strategies from other states, or items shared w/ other states, and sharing back with group.Participation in peer- to-peer exchanges. Review of promising strategies from other states, or items shared w/ other states, and sharing back with group.Participation in peer- to-peer exchanges. Review of promising strategies from other states, or items shared w/ other states, and sharing back with group.	Ongoing NHTSA GoTeam effort to improve injury surveillance data system. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Evaluating other state's electronic crash reporting methodologies (Possible XML based pdf form).Ongoing NHTSA GoTeam effort to improve injury surveillance data system. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Evaluating other state's electronic crash reporting methodologies (Possible XML based pdf form).Ongoing NHTSA GoTeam effort to improve injury surveillance data system. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Evaluating other state's electronic crash reporting methodologies (Possible XML based pdf form).Ongoing NHTSA GoTeam effort to improve injury surveillance data system. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Evaluating	No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state's electronic crash reporting methodologies (Possible XML based pdf form).No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state's electronic crash reporting methodologies (Possible XML based pdf form).No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state's electronic crash reporting methodologies (Possible XML based pdf form).No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state's electronic crash reporting methodologies

		other state’s electronic crash reporting methodologies (Possible XML based pdf form).	(Possible XML based pdf form).No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state’s electronic crash reporting methodologies (Possible XML based pdf form).No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state’s electronic crash reporting methodologies (Possible XML based pdf form).No NHTSA GoTeams are currently being utilized. Peer exchange in Louisiana related to state safety data systems (specifically regarding roadway system).Still evaluating other state’s electronic crash reporting methodologies (Possible XML based pdf form).

	Monitor USDOT/other state's TRCCs for ideas for consideration.	Continued involvement and attendance at Traffic Records Forum in New Orleans (August 2017). NC is a HSISstate and has an annual peer exchange on traffic recordtopics.Continued involvement and attendance at Traffic Records Forum in New Orleans (August 2017). NC is a HSISstate and has an annual peer exchange on traffic recordtopics.Continued involvement and attendance at Traffic Records Forum in New Orleans (August 2017). NC is a HSISstate and has an annual peer exchange on traffic recordtopics.	Continued involvement and attendance at Traffic Records Forum in Milwaukee (August 2018). NC is a HSIS state and has an annual peer exchange on traffic record topics.
Ensure that state highway safety plans include traffic safety information systems as a major component.	Review of NC State Highway Safety Plan (SHSP). Review of Highway Safety Improvement Plan (HSIP).Review of NC State Highway Safety Plan (SHSP). Review of Highway Safety Improvement Plan (HSIP).Review of NC State Highway Safety Plan (SHSP). Review of Highway Safety Improvement Plan (HSIP).	Next update will be in 2019. HSIP 2017 plans were completed and submitted.Next update will be in 2019. HSIP 2017 plans were completed and submitted.Next update will be in 2019. HSIP 2017 plans were completed and submitted.Next update will be in 2019. HSIP 2017 plans were completed and submitted.	Next update will be in 2020. HSIP 2018 plans were completed and submitted.Next update will be in 2020. HSIP 2018 plans were completed and submitted.Next update will be in 2020. HSIP 2018 plans were completed and submitted.Next update will be in 2020. HSIP 2018 plans were completed and submitted.
	Review of NC Highway Safety Plan (HSP).	Completed (HSP 2018).	Completed (HSP 2019).

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Expand performance measures for remaining Core Data Systems.	Performance measures for vehicle, driver, roadway, and injury surveillance.	Future effort	Current project under consideration to assist TR agencies with this effort.

Crash Information Systems

Goal – Maintain the crash data system and expand the capabilities of the system to allow the state to use this data to track crash injury/fatality experience for use in court cases, safety improvement studies, and evaluating State driving statutes.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Continue to enhance and expand electronic crash reporting by all enforcement agencies in the State.	Number or percentage of law enforcement agencies submitting to the electronic crash reporting system (minimum of 50% electronic submissions). Number or percentage of reported crashes submitted via the electronic crash reporting system. Integration and use of additional features or options for crash reporting. (Example: geo-locating using an XML based pdf from.)Number or percentage of law enforcement agencies submitting to the electronic crash reporting system (minimum of 50% electronic submissions). Number or percentage of reported crashes submitted via the electronic crash reporting system. Integration and use of additional features or options for crash reporting. (Example: geo-locating using an XML based pdf from.)Number or percentage of law enforcement agencies submitting to the electronic crash reporting system (minimum of 50% electronic submissions). Number or percentage of reported crashes submitted via the electronic crash reporting system. Integration and use of additional features	25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%25.81% 74.0%	30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal

	or options for crash reporting. (Example: geo-locating using an XML based pdf from.)Number or percentage of law enforcement agencies submitting to the electronic crash reporting system (minimum of 50% electronic submissions). Number or percentage of reported crashes submitted via the electronic crash reporting system. Integration and use of additional features or options for crash reporting. (Example: geo-locating using an XML based pdf from.)Number or percentage of law enforcement agencies submitting to the electronic crash reporting system (minimum of 50% electronic submissions). Number or percentage of reported crashes submitted via the electronic crash reporting system. Integration and use of additional features or options for crash reporting. (Example: geo-locating using an XML based pdf from.)		and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped

			crashes30.63% 79.22% Ongoing – collecting x and y coordinates for fatal and A-level injury crashes in NC + bike/ped crashes
Continue to communicate data collection and data submission protocols and business rules with third-party softwarevendors of electronicContinue to communicate data collection and data submission protocols and business rules with third-party softwarevendors of electronic	Periodic meetings with third-party vendors to share business rules and communicate changes.	Continuing biweekly meetings.	Ongoing

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

crash submission products to keep them apprised of changes in the North Carolina crash data systems that need to be accommodated in their software applications.	Periodic review and validation of third-party vendors' compliance capabilities. Initial review and validation for new third-party vendors.Periodic review and validation of third- party vendors' compliance capabilities. Initial review and validation for new third-party vendors.Periodic review and validation of third- party vendors' compliance capabilities. Initial review and validation for new third-party vendors.	Currently 4 vendors in place (1 new vendor in progress).	When DMV makes changes, we check to see the changes are accurate. Currently 4 vendors in place (1 new vendor in progress).When DMV makes changes, we check to see the changes are accurate. Currently 4 vendors in place (1 new vendor in progress).When DMV makes changes, we check to see the changes are accurate. Currently 4 vendors in place (1 new vendor in progress).When DMV makes changes, we check to see the changes are accurate. Currently 4 vendors in place (1 new vendor in progress).When DMV makes changes, we check to see the changes are accurate. Currently 4 vendors in place (1 new vendor in progress).

Explore the feasibility of LEA-level metrics for improving crash reporting.	Feasibility study on the potential range and use of LEA-specific metrics. (Note: Report on types of errors made and time period for reporting, compared to peers)Next: Review and see if it can be enhanced or built upon in the future/broadened toinclude quality.Feasibility study on the potential range and use of LEA- specific metrics. (Note: Report on types of errors made and time period for reporting, compared to peers)Next: Review and see if it can be enhanced or built upon in the future/broadened toinclude quality.Feasibility study on the potential range and use of LEA- specific metrics. (Note: Report on types of errors made and time period for reporting, compared to peers)Next: Review and see if it can be enhanced or built upon in the future/broadened toinclude quality.	Ongoing	Ongoing

Continue to enhance the integration of crash data systems.	Continuing to correct CRS records on the basis of analysis of TEAAS data. Periodic review of the integration process between the traffic safety unit and DMV.Continuing to correct CRS records on the basis of analysis of TEAAS data. Periodic review of the integration process between the traffic safety unit and DMV.Continuing to correct CRS records on the basis of analysis of TEAAS data. Periodic review of the integration process between the traffic safety unit and DMV.	Ongoing OngoingOngoing OngoingOngoing OngoingOngoing OngoingOngoing OngoingOngoing Ongoing	Ongoing OngoingOngoing OngoingOngoing OngoingOngoing OngoingOngoing OngoingOngoing Ongoing

Ensure that crash data continue to be submitted accurately and in a timely manner to the CRS.	Average lapsed time between the time of the crash and the time of the submission. Percentage of crash reports submitted within 10 days.(GS 20-166.1 indicates that a law enforcement agency who receives an accident report mustforward it to theAverage lapsed time between the time of the crash and the time of the submission. Percentage of crash reports submitted within 10 days.(GS 20-166.1 indicates that a law enforcement agency who receives an accident report mustforward it to theAverage lapsed time between the time of the crash and the time of the submission. Percentage of crash reports submitted within 10 days.(GS 20-166.1 indicates that a law enforcement agency who receives an accident report mustforward it to theAverage lapsed time between the time of the crash and the time of the submission. Percentage of crash reports submitted within 10 days.(GS 20-166.1 indicates that a law enforcement agency who receives an accident report mustforward it to theAverage lapsed time between the time of the crash and	29.89 days (print submissions)4.26 days (electronic submissions) 71.98%29.89 days (print submissions)4.26 days (electronic submissions) 71.98%29.89 days (print submissions)4.26 days (electronic submissions) 71.98%29.89 days (print submissions)4.26 days (electronic submissions) 71.98%	17.83 days (print submissions)3.92 days (electronic submissions) 78.52%17.83 days (print submissions)3.92 days (electronic submissions) 78.52%17.83 days (print submissions)3.92 days (electronic submissions) 78.52%17.83 days (print submissions)3.92 days (electronic submissions) 78.52%

	the time of the submission. Percentage of crash reports submitted within 10 days.(GS 20-166.1 indicates that a law enforcement agency who receives an accident report mustforward it to the		

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
	NCDMV within 10 days after receiving the report.)		
Ensure that crash data continue to be accurately recorded and reported to the CRS.	The percentage of rejected crash reports. (Note: no reports are accepted to the CRS until the errors in mandated data elements are corrected.)	3.75% (electronic submission only)	3.6% (electronic submission only)
	Periodic summary of crash report rejection reasons.	Periodic summary of rejections provided.	Ongoing. Also identify any potential corrections
	Periodic review of business rules to target inaccurate fields.	Identify new business rules with new form design.	Ongoing
Ensure that crash data continues to be recorded as completely as possible.	Percentage of reports that have no missing critical data elements. (Note: Must define critical elements; see notes under prior objective.)	Completed MMUCC 5 assessment of crash variables (February 2018).	Complete
	Periodic review of business rules to address completeness.	Ongoing	Ongoing
	Feedback to LEAs with respect to their data quality.	Ongoing, bi-weekly calls.	Ongoing
	Year-to-year comparison of the number of reports received to review for possible missing data.	Ongoing	Ongoing

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
Ensure that crash data is recorded uniformly.	Percentage of data elements that are MMUCC compliant. Year-to-year comparison of reportable vs. non-reportable crashes byLEAs.Percentage of data elements that are MMUCC compliant. Year-to-year comparison of reportable vs. non-reportable crashes byLEAs.Percentage of data elements that are MMUCC compliant. Year-to-year comparison of reportable vs. non-reportable crashes byLEAs.Percentage of data elements that are MMUCC compliant. Year-to-year comparison of reportable vs. non-reportable crashes byLEAs.	MMUCC Analysis was completed in 2018. MMUCC Mapping Score 67.7% 75.33% reportable24.67% non-reportableMMUCC Analysis was completed in 2018. MMUCC Mapping Score 67.7% 75.33% reportable24.67% non-reportableMMUCC Analysis was completed in 2018. MMUCC Mapping Score 67.7% 75.33% reportable24.67% non- reportable	Complete 74.95% reportable25.05% non-reportableComplete 74.95% reportable25.05% non-reportableComplete 74.95% reportable25.05% non-reportableComplete 74.95% reportable25.05% non-reportableComplete 74.95% reportable25.05% non-reportableComplete 74.95% reportable25.05% non-reportable

Ensure that the crash data are accessible to key stakeholders.	Annual survey of crash data accessibility by stakeholder groups, including internal users within the NCDOT and external users such as other state agencies and universities. Potential workshop with stakeholders including IT to discuss accessibility issues.Annual survey of crash data accessibility by stakeholder groups, including internal users within the NCDOT and external users such as other state agencies and universities. Potential workshop with stakeholders including IT to discuss accessibility issues.Annual survey of crash data accessibility by stakeholder groups, including internal users within the NCDOT and external users such as other state agencies and universities. Potential workshop with stakeholders including IT to discuss accessibility issues.Annual survey of crash data accessibility by stakeholder groups, including internal users within the NCDOT and external users such as other state agencies and universities. Potential workshop with stakeholders including IT to discuss accessibility issues.	DMV is working with stakeholders as data needs arise. ITRE has received a snapshot of data back to 2000.HSRC received a snapshot of data from 1991 – 1999 for a specific project they are working on. Still a future effort. Sanitized crash data has been completed.DMV is working with stakeholders as data needs arise. ITRE has received a snapshot of data back to 2000.HSRC received a snapshot of data from 1991 – 1999 for a specific project they are working on. Still a future effort. Sanitized crash data has been completed.DMV is working with stakeholders as data needs arise. ITRE has received a snapshot of data back to 2000.HSRC received a snapshot of data from 1991 – 1999 for a specific project they are working on. Still a future effort. Sanitized crash data has been	Ongoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. OngoingOngoing Still a future effort. Ongoing

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		has been completed.DMV is working with stakeholders as data needs arise. ITRE has received a snapshot of data back to 2000.HSRC received a snapshot of data from 1991 – 1999 for a specific project they are working on. Still a future effort. Sanitized crash data has been completed.	

Enhance law enforcement training that will result in more complete and accurate crash reporting.	Review of alternative training methods, including distance learning and blended training options, and methods used in other fields. (Note: EMS as an example.) Number of law enforcement officers who receive training, including a breakdown of standard and more extensive training.Review of alternative training methods, including distance learning and blended training options, and methods used in other fields. (Note: EMS as an example.) Number of law enforcement officers who receive training, including a breakdown of standard and more extensive training.Review of alternative training methods, including distance learning and blended training options, and methods used in other fields. (Note: EMS as an example.) Number of law enforcement officers who receive training, including a breakdown of standard and more extensive training.	Ongoing Trained 109 law enforcement train- the-trainer officers between April 1, 2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1, 2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1, 2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1, 2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1, 2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1, 2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1,	Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional

		2017and March 31, 2018.Ongoing Trained 109 law enforcement train-the-trainer officers between April 1, 2017and March 31, 2018.	classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.Sgt Eric Schaberg has continued working on these improvements. Trained 108 law enforcement train-the- trainer officers between April 1, 2018 and March31, 2019 in 4 different instructional classes.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
	Review of the current Basic Law Enforcement Training.	Coming January 2019. Does not address electronic reporting.	

Explore the feasibility of creating a statewide streamlined or “limited” data entry protocol for non-injury crashes within the electronic crash reporting system at the time the DMV349 is updated.	Review of the implications on the CRS database. Review of the implications on safety analysis and decision making.Review of the implications on the CRS database. Review of the implications on safety analysis and decision making.Review of the implications on the CRS database. Review of the implications on safety analysis and decision making.	Future effort Future effortFuture effort Future effortFuture effort Future effortFuture effort Future effortFuture effort Future effortFuture effort Future effort	Future effort Future effortFuture effort Future effortFuture effort Future effortFuture effort Future effortFuture effort Future effortFuture effort Future effort
	Note: The issuesaddressed should include data acquisition, compliance with NHTSA data guidance (e.g., MMUCC), legal considerations, and possible degradation in the information being captured in thecrash report.Note: The issuesaddressed should include data acquisition, compliance with NHTSA data guidance (e.g., MMUCC), legal considerations, and possible degradation in the information being captured in thecrash report.Note: The issuesaddressed should include data acquisition, compliance with NHTSA data guidance (e.g., MMUCC), legal considerations, and possible degradation in the information being captured in thecrash report.		

Develop standards for reporting location information.	Publication of spatial location reporting standards available to third-party vendorsfor ECRS.Publication of spatial location reporting standards available to third-party vendorsfor ECRS.	Ongoing	Ongoing
	Determine the best method of implementing electronic crash reporting by all LEAs statewide.	Meetings held in Fall 2017. Progress discussed.	Produced fillable PDF with validations (this is still considered a paper form). Looking to turn PDF into XML format.
		Do away with paper pads and move toward electroniccrash collection.Do away with paper pads and move toward electroniccrash collection.	No longer distributing paper pads.

Data Use & Integration

Goal - Provide direction and facilitate coordination among the safety data stewards to improve the integration of transportation safety information systems in North Carolina.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Conduct a feasibility assessment of the value of and most effective means of sharing data across multiple systems within the data collection process, such as crash and citation, for consistency andaccuracy of data.Conduct a feasibility assessment of the value of and most effective means of sharing data across multiple systems within the data collection process, such as crash and citation, for consistency andaccuracy of data.	Feasibility study report. (Note: This is a project that will be addressed in the future, when all stewards are ready and funding is available to support the study.)	Future effort	Future effort
Explore the value and the feasibility of developing a centralized database for warning tickets that would be available to law enforcement officers and other stakeholders, such as researchers, in the road safetycommunity.Explore the value and the feasibility of developing a centralized database for warning tickets that would be available to law enforcement officers and other stakeholders, such as researchers, in the road safetycommunity.	Feasibility study report. (Note: This is a low priority issue based on recent discussions with NHTSA and will be discussed at a later time.)	Decided not to do it.	Decided not to do it. Will remove in the next version of the TR Plan.
Conduct demonstration projects to illustrate the feasibility and value of data integration.	Data Linkage Project Repeat Offenders ProjectData Linkage Project Repeat Offenders ProjectData Linkage Project Repeat Offenders Project	In progress	Ongoing In progressOngoing In progressOngoing In progress

Citation/Adjudication Systems

Goal – Maintain and update North Carolina AOC databases and oversee the proper movement of court information and data, while centralizing information and creating citation/sharing procedures for the citation and adjudication records.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
Continue to improve electronic citation audit procedures and implement the most promising improvements to ensure citations are tracked from time of issuance to disposition of citations.	Implementation of a tracking system for unused citations.	Based on user feedback the previous software upgrade has improved system stability and fewer instances of “lost” citations reported. No relevant effort currently underway for tracking unusedcitations.Based on user feedback the previous software upgrade has improved system stability and fewer instances of “lost” citations reported. No relevant effort currently underway for tracking unusedcitations.	Based on user feedback the previous software upgrade has improved system stability and has resulted in fewer “lost” citations. There is no effort underway to track unused citations.
Continue to improve the electronic citation submission statewide.	Length of time for citations to be received at AOC.	88.33% receivedwithin 3 days88.33% receivedwithin 3 days	89.27% received within 3 days
Increase data capture surrounding the case management of DWI charges and convictions to aide in the analysis and tracking of thesecases.Increase data capture surrounding the case management of DWI charges and convictions to aide in the analysis and tracking of thesecases.	Number of DWI data element fields added to the file.	Next steps have not been defined.	Next steps have not been defined.

Provide an interface between eCitation and NCAWARE for the most frequent arrestable offenses to reduce duplicate data entry.	Percent reduction in number of cases for which there is duplicate data entry.	eCitation and NCWARE Interface project is near completion. Target implementation date set for Summer 2018.	Completed Feb 2019
Capture and store large video as evidence in a secure location in data center.	Expand discovery automation system to handle remote blob storage.	Future effort	Future effort
Paperless process in court room with workflow between district attorney, judges and clerks.	Design and develop automated workflow process for citation in the courtroom.	The NCAOC has begun the RFP process for an Integrated Case Management System. A vendor contract award is targeted for 1Q19.	The NCAOC has begun the RFP process for an Integrated Case Management System. A vendor contract has notyet been awarded.The NCAOC has begun the RFP process for an Integrated Case Management System. A vendor contract has notyet been awarded.

Injury Surveillance Systems

Goal – Evaluate the need for and feasibility of a Statewide Surveillance Injury System.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Conduct a demonstration project that links injury surveillance data with crash data to identify issues associated with linkage.	Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration project report.Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration project report.Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration project report.Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration project report.Identification of a project with defined objectives that requires linking injury surveillance data and crash data. Development of a work plan for the demonstration project. Demonstration	Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers are identified. Working with UNC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers are identified. Working with UNC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers are identified. Working with UNC	Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are

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	Demonstration project report.	Working with UNC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers are identified. Working with UNC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers are identified. Working with UNC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held second strategic planning meeting in December 2017 Add demonstration projects to go deep within the health data to help identify costs. Determine what elements are needed to create a sustainable system. Utilizing NHTSA GoTeam as barriers	with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In

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			Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic planning meeting in March 2019 Work in progress (identifying data costs). In progress: Determine what elements are needed to create a sustainable system. Applying for CDC funding. Completed NHTSA GoTeam as barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.Continuing the data linkage project to connect crash data and health data. Held third strategic

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			barriers are identified. Completed: Pilot work with UNC Trauma Registry Data. Began work with the NC Trauma Registry Data.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Meet with key stakeholders to improve interfaces across the health care databases (EMS, Emergency Department, Hospital Discharge, Trauma Registry, Vital Records) and examine transportation injury data.	Develop process flow diagrams, data dictionaries, policies and procedures, data quality guidelines, annual reporting from the medical data systems to TRCC, and explore the collection of rehabilitation data.	Ongoing meetings to continue to refine the linkage.	4 complete, pending approval: crash report (DMV), FARS, Medicaid, Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.4 complete, pending approval: crash report (DMV), FARS, Medicaid, Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.4 complete, pending approval: crash report (DMV), FARS, Medicaid, Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.4 complete, pending approval: crash

			report (DMV), FARS, Medicaid, Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.4 complete, pending approval: crash report (DMV), FARS, Medicaid, Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.4 complete, pending approval: crash report (DMV), FARS, Medicaid, Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.4 complete, pending approval: crash report (DMV), FARS, Medicaid,

			Office of Chief Medical data 6 complete: Vital stats, Sheps Center hospital data, trauma data, emergency department (NCDETECT), research data statistics, EMS data 2 working to get: PBCAT, HSIS 1 no participation: NC health care association.

Roadway Information Systems

Goal – Continue to maintain and expand an up-to-date statewide inventory of all North Carolina roadways that allows the State to track roadway changes and improvements and permits enhanced safety analysis.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Improve the interoperability and linkage between the linear referencing system, road characteristics data, and the crash data system (TEAAS).	Successful implementation of a distributed ownership model for capturing and maintaining roadway data elements. Ability of external customers to add or edit data to the primary roadway characteristics file. Ability to integrate crashes from non-system roadways into the statewide LRS.Successful implementation of a distributed ownership model for capturing and maintaining roadway data elements. Ability of external customers to add or edit data to the primary roadway characteristics file. Ability to integrate crashes from non-system roadways into the statewide LRS.Successful implementation of a distributed ownership model for capturing and maintaining roadway data elements. Ability of external customers to add or edit data to the primary roadway characteristics file. Ability to integrate crashes from non-system roadways into the statewide LRS.Successful implementation of a distributed ownership model for capturing and maintaining roadway data elements. Ability of external customers to add or edit data to the primary roadway	Integration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to	Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in

	characteristics file. Ability to integrate crashes from non-system roadways into the statewide LRS.Successful implementation of a distributed ownership model for capturing and maintaining roadway data elements. Ability of external customers to add or edit data to the primary roadway characteristics file. Ability to integrate crashes from non-system roadways into the statewide LRS.	provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-systemIntegration	all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.Ongoing. Integrated 7 business units. Future effort, evaluating a tie in connection with the state's next gen 9-1-1 (address system). Updated non-system roads in all but 3 counties in NC.

		with various business units is ongoing. Future effort Project underway to provide functionality to link crashes on non-system roads toLRS non-system	

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
		roads for spatial display purposes.	Update TEAAS application to place crashes on local roads (goal complete Dec 2019). Update TEAAS application to place crashes on local roads (goal complete Dec 2019). Update TEAAS application to place crashes on local roads (goal complete Dec 2019). Update TEAAS application to place crashes on local roads (goal complete Dec 2019).
Conduct a feasibility assessment of the development of supplemental roadway files that may be used in safety analysis. (Examples include horizontal curves andgrades.)Conduct a feasibility assessment of the development of supplemental roadway files that may be used in safety analysis. (Examples include horizontal curves andgrades.)	Feasibility report that includes priorities for the development of supplemental files.	Collecting data for all state-maintained roadways.	Ongoing – data collection on secondary roads through pavement collection effort.

Explore the feasibility of an intersection database (in support of FHWA Fundamental Data Elements (FDE)).	Feasibility report.	Pilot project complete 2017 for rural, stop controlled intersections.Currently exploring options for the development of an enterprise level intersectiondatabase. Pilot project complete 2017 for rural, stop controlled intersections.Currently exploring options for the development of an enterprise level intersectiondatabase. Pilot project complete 2017 for rural, stop controlled intersections.Currently exploring options for the development of an enterprise level intersectiondatabase.	Waiting on FHWA AEGIST Guidebook (expected September 2019).
Improve data quality control for roadway data elements.	Investigate what data quality control measures are in placecurrently.Investigate what data quality control measures are in placecurrently.	Ongoing	Proposed GHSP project to address this.

Driver Information Systems

Goal – Continue to maintain and update the North Carolina driver license record data to be used in road safety studies and statistical analysis and to track all North Carolina drivers and their driving records according to North Carolina law.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Provide online a basic summary of the number of licensed North Carolina drivers, which includes their age, race, sex and county of residence. (Note: the publication should include motorcycle endorsements, commercial licenses andlearner's permits.)Provide online a basic summary of the number of licensed North Carolina drivers, which includes their age, race, sex and county of residence. (Note: the publication should include motorcycle endorsements, commercial licenses andlearner's permits.)	Annual online publication as part of NC Crash Facts.	Ongoing	Ongoing.
Hold mini-assessment meeting(s) with key individuals in driver license sections to address the issues of the data dictionary and improve data quality control.	Improve communication efforts and obtain a better understanding of what data documentation, data information flow charts, purging record procedures and data quality control routines are available. Develop summary reports on each ofthese topics.Improve communication efforts and obtain a better understanding of what data documentation, data information flow charts, purging record procedures and data quality control routines are available. Develop summary reports on each ofthese topics.	In progress: data dictionary	Working on.

Vehicle Information Systems

Goal – Continue to maintain and update all North Carolina vehicle registration record data for the state to be used in road safety studies and statistical analysis and to insure all vehicles are properly licensed according to the laws of NC.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*
Publish a summary of the number of NC registered vehicles – by type of vehicle andcounty.Publish a summary of the number of NC registered vehicles – by type of vehicle andcounty.	Annual publication as part of NC Crash Facts.	Completed 2017	Updated for 2018.

Objective	Performance Measure/Target	4/1/17-3/31/18	4/1/18-3/31/19*

Hold a mini-assessment meeting(s) with key individuals in vehicle registration information systems to address the issue of data quality control.	Improve communication efforts and obtain a better understanding of the information available in the Vehicle Data System, data quality control procedures, validation of VINs, vehicle data information flow diagrams, and vehicle record purging procedures. Develop summary reports on each topic.Improve communication efforts and obtain a better understanding of the information available in the Vehicle Data System, data quality control procedures, validation of VINs, vehicle data information flow diagrams, and vehicle record purging procedures. Develop summary reports on each topic.Improve communication efforts and obtain a better understanding of the information available in the Vehicle Data System, data quality control procedures, validation of VINs, vehicle data information flow diagrams, and vehicle record purging procedures. Develop summary reports on each topic.	Key individuals with vehicle registration systems are participating in the NC TRCC.	Working on.

State traffic records strategic plan

Strategic Plan, approved by the TRCC, that— (i) Describes specific, quantifiable and measurable improvements that are anticipated in the State's core safety databases (ii) Includes a list of all recommendations from its most recent highway safety data and traffic records system assessment; (iii) Identifies which recommendations the State intends to address in the fiscal year, the countermeasure strategies and planned

activities that implement each recommendation, and the performance measures to be used to demonstrate quantifiable and measurable progress; and (iv) Identifies which recommendations the State does not intend to address in the fiscal year and explains the reason for not implementing the recommendations:

Planned activities that implement recommendations:

Unique Identifier	Planned Activity Name
NC GHSP 11	Data Improvement
NC GHSP 13	Program Management

Quantitative and Measurable Improvement

Supporting documentation covering a contiguous 12-month performance period starting no earlier than April 1 of the calendar year prior to the application due date, that demonstrates quantitative improvement when compared to the comparable 12-month baseline period.

State Highway Safety Data and Traffic Records System Assessment

Date of the assessment of the State's highway safety data and traffic records system that was conducted or updated within the five years prior to the application due date:

Date of Assessment: 5/5/2017

Requirement for maintenance of effort

ASSURANCE: The lead State agency responsible for State traffic safety information system improvements programs shall maintain its aggregate expenditures for State traffic safety information system improvements programs at or above the average level of such expenditures in fiscal years 2014 and 2015

405(d) Impaired driving countermeasures grant

Impaired driving assurances

Impaired driving qualification: Mid-Range State

ASSURANCE: The State shall use the funds awarded under 23 U.S.C. 405(d)(1) only for the implementation and enforcement of programs authorized in 23 C.F.R. 1300.23(j).

ASSURANCE: The lead State agency responsible for impaired driving programs shall maintain its aggregate expenditures for impaired driving programs at or above the average level of such expenditures in fiscal years 2014 and 2015.

Impaired driving program assessment

Date of the last NHTSA-facilitated assessment of the State's impaired driving program conducted:

Date of Last NHTSA Assessment:

Authority to operate

Direct copy of the section of the statewide impaired driving plan that describes the authority and basis for the operation of the Statewide impaired driving task force, including the process used to develop and approve the plan and date of approval.

Authority and Basis of Operation

INTRODUCTION

This FY2018 Impaired Driving Plan was developed by the North Carolina Statewide Impaired Driving Task

Force. The purpose of the Plan is to provide a comprehensive strategy for preventing and reducing alcohol-impaired driving. The Plan provides data on the impaired driving problem in North Carolina, documents ongoing initiatives to address various aspects of the problem, and discusses potential new strategies. This Plan is provided to the National Highway Traffic Safety Administration (NHTSA) in response to the grant requirements of Title 23, Section 405(d).

INTRODUCTION

This FY2018 Impaired Driving Plan was developed by the North Carolina Statewide Impaired Driving Task Force. The purpose of the Plan is to provide a comprehensive strategy for preventing and reducing alcohol-impaired driving. The Plan provides data on the impaired driving problem in North Carolina, documents ongoing initiatives to address various aspects of the problem, and discusses potential new strategies. This Plan is provided to the National Highway Traffic Safety Administration (NHTSA) in response to the grant requirements of Title 23, Section 405(d).

About the Statewide Impaired Driving Task Force

The Statewide Impaired Driving Task Force was established pursuant to an executive order. The North Carolina Governor's Highway Safety Program (GHSP) initially worked with the Office of the Governor to develop the Statewide Impaired Driving Task Force. The Task Force was initially convened in August 2013 to discuss the impaired driving issues in the State, the challenges that need to be addressed, ongoing and planned initiatives, and potential new strategies for further consideration. The Task Force was expanded during 2014 to include additional expertise from many of the agencies already represented, increased representation for all geographic areas of the State, and advocacy and non-profit groups whose missions include addressing impaired driving. Due to a change in executive leadership, the makeup and operation of the Task Force was modified. The Task Force membership currently includes a few core members from the original Task Force as well as several key new members. The current members were selected under the authority of the Governor's Representative, who serves as the chair. The plan is to once again expand the membership to include individuals from a variety of backgrounds and disciplines in order that many different perspectives and experiences are represented. In April 2019, GHSP has hired staff that will work specifically with the Task Forces to increase their membership and provide resources to assist them in addressing impaired driving issues. The Task Force exists to review North Carolina data, laws, regulations, and programs and develop a statewide impaired driving plan to provide a comprehensive strategy for preventing and reducing impaired driving behavior. The current membership and their affiliations are included in the Appendix.

The five original subcommittees of the DWI Task Force and their assigned duties were as follows:

Prevention & Education – Review current programs aimed at education of population about dangers of impaired driving and programs aimed at prevention of impaired driving. Suggest ways to improve these programs or new approaches and how to implement them.

Deterrence/Enforcement – Review current methods for discouraging impaired driving, identifying the impaired and revoked driver, and processing drivers arrested for impaired driving. Suggest methods for making the process more effective and efficient (from stop to initial appearance).

Adjudication – Review the current process from the initial appearance through sentencing of an impaired driver. Suggest methods for making the process more efficient including changes in the law and process.

Post-conviction & Treatment – Review current treatment and monitoring programs for convicted offenders,

including treatment courts. Suggest methods to ensure that offenders complete treatment and/or sanctions and treatment resource needs to reduce recidivism.

System Overview – Review current driver licensing and control, alcoholic beverage control, and impaired substance controls and how the effectiveness of the current approach to DWI can be evaluated, including resource needs. Suggest changes to licensing of drivers, registration of vehicles, sale of alcohol and other impairing substances, changes to funding to increase resources, and how the effectiveness of the system can be better evaluated.

North Carolina previously submitted an Impaired Driving Plan on August 29, 2013. The FY2018 Impaired Driving Plan represents an updated and most current version of the Impaired Driving Plan. The reorganized Impaired Driving Task Force held a webinar on May 31, 2017. The Task Force discussed and approved the revised DWI Plan for FY2018.

This Impaired Driving Plan begins with an overview of the alcohol-impaired driving problem in North Carolina. The subsequent sections of the Plan then correspond to the format prescribed in NHTSA Highway Safety Program Guideline No. 8.

Key Stakeholders

ATTACHMENT 1: STATEWIDE IMPAIRED DRIVING TASK MEMBERSHIP

Name: Jennifer Lichtneger
Title: State Executive Director
Agency: NC MADD
5104 Western Blvd. Ste. B
Raleigh NC 27606
E-Mail: jennifer.lichtneger@madd.org
Phone: 919-787-6599

Name: Sarah Garner
Title: Traffic Safety Resource Prosecutor
Agency N.C. Conference of District Attorneys
P.O. Box 3159
Cary NC 27519
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Phone: 919-500-9134

Name: William H. Hollingsed
Title: Chief of Police
Agency: Waynesville Police Department
9 South Main Street
Waynesville NC 28786
E-Mail: wpdchief@waynesvillepd.com
Phone: 828-456-5363

Name: Mark Ezzell
Title: Director

Agency: NC Governor's Highway Safety Program
750 N. Greenfield Parkway
Garner NC 27529
E-Mail: dnail@ncdot.gov
Phone: 919-814-3654
Name: Melynda Swindells
Title: Credentialing and Compliance Manager
Agency: NC Office of Emergency Medical Services
1201 Umstead Drive
Raleigh NC 27603
E-Mail: melynda.swindells@dhhs.nc.gov
Phone: 919-855-3942
Name: David Williams
Title: Highway Safety Specialist
Agency: NC Governor's Highway Safety Program
215 East Lane Street
Raleigh NC 27601
E-Mail: dswilliams4@ncdot.gov
Phone: 919-814-3662
Legal Adviser: Ike Avery

Date that the Statewide impaired driving plan was approved by the State's task force.

Date impaired driving plan approved by task force: 5/31/2017

Strategic plan details

State will use a previously submitted Statewide impaired driving plan that was developed and approved within three years prior to the application due date.

Continue to use previously submitted plan: Yes

ASSURANCE: The State continues to use the previously submitted Statewide impaired driving plan.

405(f) Motorcyclist safety grant

Motorcycle safety information

To qualify for a Motorcyclist Safety Grant in a fiscal year, a State shall submit as part of its HSP documentation demonstrating compliance with at least two of the following criteria:

Motorcycle rider training course: Yes
Motorcyclist awareness program: No
Reduction of fatalities and crashes: No
Impaired driving program: No
Reduction of impaired fatalities and accidents: No
Use of fees collected from motorcyclists: Yes

Motorcycle rider training course

Name and organization of the head of the designated State authority over motorcyclist safety issues:

State authority agency: NC DOT Division of Motor Vehicles

State authority name/title: Commissioner Torre Jessup

Introductory rider curricula that has been approved by the designated State authority and adopted by the State:

Approved curricula: (i) Motorcycle Safety Foundation Basic Rider Course

Other approved curricula:

CERTIFICATION: The head of the designated State authority over motorcyclist safety issues has approved and the State has adopted the selected introductory rider curricula.

Counties or political subdivisions in the State where motorcycle rider training courses will be conducted during the fiscal year of the grant and the number of registered motorcycles in each such county or political subdivision according to official State motor vehicle records, provided the State must offer at least one motorcycle rider training course in counties or political subdivisions that collectively account for a majority of the State's registered motorcycles.

County or Political Subdivision	Number of registered motorcycles
Alamance	3,073
Brunswick	3,063
Buncombe	5,727
Cabarrus	4,200
Caldwell	2,180
Carteret	1,639
Catawba	4,169
Craven	2,393
Cumberland	6,558
Davidson	4,150
Durham	2,867
Edgecombe	721
Forsyth	5,790
Gaston	5,041
Guilford	6,751
Henderson	3,001
Hertford	300
Iredell	4,514
Johnston	4,193
Lee	1,171
Lenoir	828
Macon	943
McDowell	1,270
Mecklenburg	10,034
Moore	2,282
Nash	1,646
New Hanover	3,089
Onslow	5,051
Pasquotank	739

Pitt	2,018
Randolph	3,541
Robeson	2,935
Rockingham	1,899
Rowan	3,438
Surry	1,873
Union	4,735
Vance	596
Wake	12,574
Wayne	2,186

Total number of registered motorcycles in State.

Total # of registered motorcycles in State: 188,843

Use of fees collected from motorcyclists for motorcycle programs

Process under which all fees collected by the State from motorcyclists for the purposes of funding motorcycle training and safety programs are used for motorcycle training and safety programs.

Use of fees criterion: Data State

Legal citations for each law state criteria.

Requirement Description	State citation(s) captured
The State law or regulation requiring that all fees collected by the State from motorcyclists for the purpose of funding motorcycle training and safety programs are to be used for motorcycle training and safety programs.	Yes

Citations

Legal Citation Requirement: The State law or regulation requiring that all fees collected by the State from motorcyclists for the purpose of funding motorcycle training and safety programs are to be used for motorcycle training and safety programs.

Legal Citation: 20-87(6)

Amended Date:

Certifications, Assurances, and Highway Safety Plan PDFs

Certifications and Assurances for 23 U.S.C. Chapter 4 and Section 1906 grants, signed by the Governor's Representative for Highway Safety, certifying to the HSP application contents and performance conditions and providing assurances that the State will comply with applicable laws, and financial and programmatic requirements.

Supporting Document
NC GHSP Certifications and Assurances.pdf