

North Carolina Governor's Highway Safety Program FY2018 Highway Safety Plan



GOVERNOR ROY COOPER
STATE OF NORTH CAROLINA

SECRETARY JAMES TROGDON
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

INTERIM DIRECTOR ROBERT BROOME
GOVERNOR'S HIGHWAY SAFETY PROGRAM



Durham, North Carolina Downtown Cityscape



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

June 30, 2017

Dr. Elizabeth A. Baker, Regional Administrator
National Highway Traffic Safety Administration
10 S. Howard Street, Suite 6700
Baltimore, Maryland 21201

Dear Dr. Baker:

Enclosed you will find North Carolina's FY 2018 Highway Safety Plan (HSP) and Section 405 Applications for your review and consideration.

The HSP outlines specific expenditures of funds for FY 2018 and includes brief descriptions of project contracts that the Governor's Highway Safety Program (GHSP) intends to fund. The project contracts included in the Plan were selected for funding based on the probability that each would provide a positive impact on the goals outlined in the HSP.

We are submitting additional applications outlining how North Carolina qualifies for funding under Sections 405B Occupant Protection, 405C State Traffic Safety Information System Improvements, 405D Impaired Driving Countermeasures, and 405F Motorcyclist Safety.

Included in the Plan are the necessary certifications and the listing of all equipment and software/information technology systems with a per item cost of \$5,000 or more for your review.

North Carolina anticipates a favorable review of all sections applied for in the Highway Safety Plan and Section 405 applications. If there are any questions or clarifications needed, please contact me at 919-814-3650.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Broome".

Robert Broome
Interim Director, GR

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
GOVERNOR'S HIGHWAY SAFETY
PROGRAM
1508 MAIL SERVICE CENTER
RALEIGH, NC 27699-1508

Telephone: (919) 814-3650
Fax: (919) 733-0604
Customer Service: 1-877-368-4968

Website: www.ncdot.gov/programs/GHSP/

Location
215 E. LANE STREET
RALEIGH, NC 27601-1035

TABLE OF CONTENTS

Executive Summary..... 1

Overview of North Carolina’s Governor’s Highway Safety Program 3

 History 3

 Organizational Structure 3

North Carolina Demographics..... 5

 Population 5

 Geography 6

 Transportation 6

 Media in North Carolina 7

Project Selection Process 9

 Traffic Safety Project Proposals 9

 Planning Process 10

Problem Identification and Target Setting Process 13

 Problem Identification 13

 North Carolina Strategic Highway Safety Plan/Highway Safety Improvement Program 13

 Sources of Information 14

 Target Setting Process 15

Performance Measures and Targets..... 17

 Performance Measures 17

 National Comparisons 25

 County Comparisons..... 26

 Program Targets 28

 Alignment of Targets with the North Carolina Strategic Highway Safety Plan and North Carolina Highway Safety Improvement Program 30

Program Areas and Selection of Evidence-Based Countermeasures 31

 Evidence-Based Traffic Safety Enforcement Plan..... 31

 Program Areas 32

 Funded Projects and Activities 32

Alcohol-Impaired Driving 35

 Target..... 35

 Evidence Considered 35

 Statewide Campaigns/Programs 41

 Summary..... 42

 Countermeasures and Funding Priorities 43

Table of Contents

| | |
|--|-----|
| Media Plan | 44 |
| FY2018 Alcohol-Impaired Driving Projects | 45 |
| Occupant Protection | 56 |
| Targets | 56 |
| Evidence Considered | 56 |
| Statewide Campaigns/Programs | 65 |
| Summary..... | 74 |
| Countermeasures and Funding Priorities | 75 |
| Media Plan..... | 76 |
| FY2018 Occupant Protection Projects | 77 |
| Police Traffic Services..... | 81 |
| Target..... | 81 |
| Evidence Considered | 81 |
| Statewide Campaigns/Programs | 86 |
| Summary..... | 87 |
| Countermeasures and Funding Priorities | 87 |
| Media Plan..... | 87 |
| FY2018 Police Traffic Services Projects | 88 |
| Young Drivers | 95 |
| Target..... | 95 |
| Evidence Considered | 95 |
| Statewide Campaigns/Programs | 99 |
| Summary..... | 99 |
| Countermeasures and Funding Priorities | 100 |
| Media Plan..... | 100 |
| FY2018 Young Driver Projects | 100 |
| Motorcycle Safety | 103 |
| Targets | 103 |
| Evidence Considered | 103 |
| Statewide Campaigns/Programs | 108 |
| Summary..... | 112 |
| Countermeasures and Funding Priorities | 112 |
| Media Plan..... | 113 |
| FY2018 Motorcycle Safety Projects | 113 |
| Traffic Records | 119 |

Table of Contents

| | |
|---|-----|
| Target..... | 119 |
| North Carolina Traffic Records Coordinating Committee (TRCC)..... | 119 |
| North Carolina Traffic Records Assessment | 120 |
| North Carolina Traffic Records Strategic Planning | 122 |
| TRCC Current Activities..... | 122 |
| Newly Defined Goals and Objectives of the TRCC..... | 123 |
| TRCC Meeting Schedule..... | 137 |
| FY2018 Traffic Records Projects | 138 |
| Other Highway Safety Priorities..... | 141 |
| Targets | 141 |
| Older Drivers..... | 141 |
| Pedestrians | 145 |
| Bicyclists..... | 149 |
| Distracted Driving | 152 |
| Commercial Motor Vehicles | 154 |
| School Buses | 158 |
| FY2017 Other Highway Safety Priorities Projects..... | 159 |
| North Carolina Highway Safety Media Plan..... | 163 |
| Priority Areas | 163 |
| FY2018 Media Projects | 163 |
| Equipment and Software/IT Requests of \$5,000 or More..... | 167 |
| Cost Summary | 173 |

LIST OF TABLES

| | |
|---|----|
| Table 1. Fastest Growing Counties in North Carolina, 2010–2015 | 5 |
| Table 2. Summary of North Carolina Traffic Safety Indicators | 24 |
| Table 3. Comparison of North Carolina to the U.S., 2015 | 25 |
| Table 4. Fatalities in Motor Vehicle Crashes, by County, 2015..... | 27 |
| Table 5. Summary of North Carolina Traffic Safety Targets for FY2018 | 29 |
| Table 6 Fatalities in Crashes Involving a Driver with a BAC of .08 or Above, 2011–2015..... | 40 |
| Table 7. Checkpoints and DWI Charges | 42 |
| Table 8. Unrestrained Passenger Vehicle Occupant Fatalities, 2011–2015 | 61 |
| Table 9. Observed Seat Belt Use Rates, June 2016..... | 64 |
| Table 10. Observed Seat Belt Use Rates by County, June 2016..... | 64 |
| Table 11. North Carolina Permanent Car Seat Checking Station Locations by County and Populations Covered, March 2016..... | 67 |

Table of Contents

| | |
|--|-----|
| Table 12 Summary of North Carolina CPS Certification and Renewal Classes by Type and Region, FY16 and FY17 (Through March) | 70 |
| Table 13. North Carolina CPS Certification Classes Planned for FY18 | 71 |
| Table 14. North Carolina Seat Belt and Child Passenger Safety Law Citations | 73 |
| Table 15. Fatalities in Crashes Involving a Driver Who Was Speeding, 2011–2015 | 85 |
| Table 16. Young Drivers Involved in Fatal Crashes, 2011–2015 | 98 |
| Table 17. Motorcycle Crash and Fatality Rates Per Registered Motorcycle, 2001–2015..... | 105 |
| Table 18. Motorcyclist Fatalities, by County, 2011–2015..... | 107 |
| Table 19. Top 10 Counties With Highest Rate of Crash-Involved Motorcyclists Per Registered Motorcycle, 2011–2015 | 108 |
| Table 20. Summary of Registered Motorcycles in Counties with MSF Basic Rider Classes Planned For FY2018 | 109 |
| Table 21. North Carolina Counties with and without MSF Basic Rider Courses Planned for FY2018 | 109 |
| Table 22. Current North Carolina Traffic Records Coordinating Committee..... | 119 |
| Table 23. Older Drivers (65+) Involved in Fatal Crashes, 2011–2015 | 143 |
| Table 24. Pedestrian Fatalities, 2011–2015..... | 147 |
| Table 25. Bicyclist Fatalities, 2011–2015 | 151 |
| Table 26. North Carolina, Region 3, and National Distracted Driving Related Fatalities: 2011–2015..... | 153 |
| Table 27. North Carolina Fatalities by Distracted Driving Related Behavior: 2011–2015 | 153 |
| Table 28. All North Carolina Crashes and Large Truck Involvement, 2011–2015..... | 155 |
| Table 29. Persons in North Carolina Crashes Involving Heavy Trucks by Vehicle Type, 2011–2015..... | 156 |
| Table 30. North Carolina Fatalities in Crashes Involving Large Trucks by County, 2011–2015 | 156 |

LIST OF FIGURES

| | |
|--|----|
| Figure 1. Growth Rate for North Carolina’s 100 Counties | 6 |
| Figure 2. North Carolina Annual Fatality Counts | 17 |
| Figure 3. North Carolina Annual Disabling Injury Counts | 18 |
| Figure 4. Fatality Rate per Vehicle Mile Traveled | 19 |
| Figure 5. Fatality Rates per 100,000 Population..... | 19 |
| Figure 6. Motorcycle, Pedalcycle and Pedestrian Fatalities | 20 |
| Figure 7. Fatalities by Sex..... | 21 |
| Figure 8. Fatalities by Urban vs. Rural Locations | 21 |
| Figure 9. Fatalities by Time of Day..... | 22 |
| Figure 10. Fatalities by Age | 23 |
| Figure 11. Total Fatalities in North Carolina, by County, 2015 | 26 |
| Figure 12. Fatalities in North Carolina per 100,000 Population, by County, 2014 | 27 |
| Figure 13. Fatalities Involving a Driver or Motorcycle Operator with a BAC of .08 or Above | 35 |
| Figure 14. Alcohol-impaired Driving Fatalities per VMT | 36 |
| Figure 15. Alcohol-impaired Driving Fatalities per 100,000 Population | 37 |

Table of Contents

| | |
|---|-----|
| Figure 16. Crash Involved Drivers Who Had Been Drinking by Sex..... | 37 |
| Figure 17. Crash Involved Drivers Who Had Been Drinking by Age | 38 |
| Figure 18. Alcohol-Involvement in Crashes by Vehicle Type | 39 |
| Figure 19. Alcohol-Involvement in Crashes by Time of Day | 39 |
| Figure 20. Number of Passenger Vehicle Drivers and Occupants Killed..... | 57 |
| Figure 21. Number of Unrestrained Passenger Vehicle Driver and Occupant Fatalities | 57 |
| Figure 22. Percent of Unrestrained Passenger Vehicle Driver and Occupant Fatalities..... | 58 |
| Figure 23. Number of Passenger Vehicle Drivers and Occupants Killed or Seriously Injured | 59 |
| Figure 24. Percent of Passenger Vehicle Drivers and Occupants Killed or Seriously Injured | 59 |
| Figure 25. Unrestrained Passenger Vehicle Fatalities by Age..... | 60 |
| Figure 26. Unrestrained Passenger Vehicle Fatalities by Time of Day..... | 61 |
| Figure 27. Observed Seat Belt Use..... | 63 |
| Figure 28. Fatalities in Speed-Related Crashes | 81 |
| Figure 29. Percent of Fatalities Involving a Driver Who Was Speeding..... | 82 |
| Figure 30. Speed-Related Fatalities per 100,000 Population..... | 83 |
| Figure 31. Percent of Crash-involved Drivers Who Were Speeding by Age and Sex | 83 |
| Figure 32. Percent of Crash-involved Drivers Who Were Speeding by Vehicle Type | 84 |
| Figure 33. Crash-involved Drivers Who Were Speeding by Time of Day | 85 |
| Figure 34. Drivers Age 20 or Younger Involved in Fatal Crashes | 95 |
| Figure 35. Moving Average of Drivers in Fatal Crashes by Age | 96 |
| Figure 36. Teenage Driver Fatal Crash Rates per 10,000 Population | 97 |
| Figure 37. Young Driver Crashes by Time of Day | 97 |
| Figure 38. Number of Motorcyclist Fatalities | 103 |
| Figure 39. Motorcycle Fatalities as a Proportion of All Fatalities | 104 |
| Figure 40. Unhelmeted Motorcyclist Fatalities..... | 104 |
| Figure 41. Percent of Motorcycle Crashes by Rider Age..... | 106 |
| Figure 42. Motorcycle Crashes and Fatalities by Time of Day | 106 |
| Figure 43. Drivers Age 65 and Older Involved in Fatal Crashes | 141 |
| Figure 44. Percent of Drivers Killed by Age..... | 142 |
| Figure 45. Percent of Crashes by Time of Day and Driver Age | 143 |
| Figure 46. Number of Pedestrian Fatalities | 146 |
| Figure 47. Pedestrian Fatalities by Age..... | 146 |
| Figure 48. Pedestrian Fatalities by Time of Day, 2011–2015..... | 147 |
| Figure 49. Number of Bicyclists Killed in Crashes | 149 |
| Figure 50. Percent of Bicyclists Killed by Time of Day..... | 150 |
| Figure 51. Number of Bicyclists Killed by Age..... | 151 |
| Figure 52. North Carolina Large Truck Related Crashes and Fatalities..... | 155 |
| Figure 53. One Day Counts of Vehicles Passing Stopped School Buses: 2012–2015..... | 158 |

EXECUTIVE SUMMARY

According to the Highway Safety Act of 1966, each state shall have a highway safety program approved by the U.S. Secretary of Transportation designed to reduce traffic crashes and the resulting deaths, injuries and property damage. In order to secure funding, each state must submit a Highway Safety Plan (HSP) to the National Highway Traffic Safety Administration (NHTSA). The HSP must identify highway safety problems, establish performance measures and targets, and describe the state's countermeasure strategies and projects to achieve its performance targets. The FY2018 HSP serves as North Carolina's application for federal funds available under the highway safety grant program (Section 402) and the National Priority Safety Program (Section 405), as specified in the Fixing America's Surface Transportation (FAST) Act.

The North Carolina Governor's Highway Safety Program (GHSP) conducts an extensive problem identification process to develop the most effective and efficient plan for the distribution of federal funds. During FY2017, a number of data sources were examined during the problem identification process, including FARS data, North Carolina crash data, enforcement and adjudication data, census data, and seat belt use observational surveys. Problem identification is vital to the success of our highway safety program and ensures the initiatives implemented address the crash, fatality and injury problems within the state. The process also provides appropriate criteria for the designation of funding priorities and provides a benchmark for administration and evaluation of the HSP.

This HSP includes targets for each of the 15 key traffic safety indicators outlined by NHTSA and the Governor's Highway Safety Association (GHSA). Many factors were considered when setting performance targets for FY2018, including trends from the previous 5-10 years, ceiling/floor effects, external forces (e.g., economic factors, gasoline prices), and the effectiveness of available countermeasures. The overall objective was to set performance targets that were challenging but obtainable. The ultimate goal is zero deaths in North Carolina from motor vehicle crashes.

To meet North Carolina's targets, GHSP focuses on strategies that have been proven effective. GHSP uses the 8th Edition of NHTSA's *Countermeasures that Work* (CMTW), a document designed to assist State Highway Safety Offices in selecting evidence-based countermeasures for addressing major highway safety problem areas.

During FY2018, GHSP will fund a variety of programs, projects and activities with federal transportation funds, all of which are intended to advance the traffic safety targets set forth in this Highway Safety Plan. GHSP has identified the following areas as top priorities for program funding for FY2018:

- Alcohol-Impaired Driving (accounting for 411 fatalities in 2015);
- Occupant Protection (402 unrestrained fatalities);
- Speeding and Police Traffic Services (547 fatalities);
- Young Drivers (165 fatalities);
- Motorcycles (192 fatalities);
- Traffic Records;

Executive Summary

- Other Highway Safety Priorities: Older Drivers (283 fatalities); Pedestrians (182 fatalities); Pedalcyclists (23 fatalities); Distracted Driving (93 fatal crashes); Commercial Motor Vehicles (115 fatal crashes).

This document describes the organizational structure of GHSP, the problem identification process employed to determine the priority areas and accompanying targets for FY2018, and the process to select sub-grantees for FY2018. It also includes the performance measures and targets for the core outcome and behavior measures as required by NHTSA and GHSA. In accordance with FAST Act requirements, the targets of the FY2018 GHSP Highway Safety Plan match the overall targets in the Highway Safety Improvement Program and are also aligned with the goals of the North Carolina Strategic Highway Safety Plan, which was most recently revised during 2014 and released, in its final version, in March 2015. Finally, the HSP includes the required Certifications and Assurances and Cost Summary. The University of North Carolina Highway Safety Research Center (HSRC) assisted in the preparation of this Highway Safety Plan.

OVERVIEW OF NORTH CAROLINA'S GOVERNOR'S HIGHWAY SAFETY PROGRAM

GHSP's Mission

The mission of the Governor's Highway Safety Program is to promote highway safety awareness and reduce the number of traffic crashes and fatalities in the state of North Carolina through the planning and execution of safety programs.

History

When Congress passed the Highway Safety Act of 1966, the Act provided that:

- Each state shall have a highway safety program – approved by the U.S. Secretary of Transportation – designed to reduce traffic crashes and the resulting deaths, injuries and property damage.
- Each state's program shall be in accordance with highway safety standards promulgated by the U.S. Secretary of Transportation.
- At least 40 percent of the federal funds apportioned to the state must be expended to benefit local highway safety activities.
- The Governor shall be responsible for the administration of the program through a state agency that has adequate powers and is suitably equipped and organized to carry out the program.

In 1967, the North Carolina General Assembly enacted legislation that empowered the Governor to contract with the U.S. Department of Transportation for the purpose of securing funding available through the Highway Safety Act of 1966, Section 402. The Governor then delegated this responsibility to the GHSP Director, who also held the title of the Governor's Representative for Highway Safety. In 1975, the General Assembly gave the responsibility for the Highway Safety Program to the Secretary of Transportation.

Organizational Structure

GHSP employees are subject to the North Carolina Department of Transportation (NCDOT) personnel policies and the State Personnel Act. The Governor of North Carolina appoints the GHSP Director as the official responsible for all aspects of the highway safety program. The Director is the ranking official having authority to administer the highway safety program.

GHSP is currently staffed with ten professionals and three support personnel. The Director delegates the day-to-day office operations and functions of the agency to the Assistant Director. The Assistant Director directly oversees and/or influences GHSP's three primary sections:

1. Planning, Programs and Evaluation Section

The function of the Planning, Programs and Evaluation section is to develop, implement, manage, monitor and evaluate a grants program that effectively addresses highway safety concerns. These concerns are identified as a result of a comprehensive analysis of crash, citation and other empirical data. This program is the basis for the annual Highway Safety Plan. The Planning, Programs and Evaluation section is currently headed by the Planning, Programs and Evaluation Manager and is staffed with four Highway Safety Specialists. One additional specialist coordinates and oversees the law enforcement liaison system. Every project is assigned to a specific Highway Safety Specialist. The

Highway Safety Specialists serve as liaisons with Project Directors, NHTSA and other highway safety agencies.

2. Finance and Administration Section

The function of the Finance and Administration section is to manage and coordinate the financial operations and administrative support needs of GHSP. The Finance and Administration section is currently staffed with a Finance Officer and an administrative assistant.

3. Public Information and Education

The function of the Public Information and Education section is to increase the level of awareness and visibility of highway safety issues and GHSP. The Public Information and Education section is headed by the Communications and Events Coordinator and is staffed internally with a program assistant and a part-time program assistant. GHSP also has the assistance of staff who work under the direction of NCDOT's Communications Office, with input from GHSP.

NORTH CAROLINA DEMOGRAPHICS

Population

North Carolina’s population officially passed the 10 million mark in 2015. North Carolina is now the ninth largest state in the U.S. In 2016, the U.S. Census Bureau estimated North Carolina’s population at 10,146,788. North Carolina is growing rapidly—the state’s population has increased 6.4 percent since 2010 and 26 percent since 2000. North Carolina’s 10 largest cities include Charlotte (827,097), Raleigh (451,066), Greensboro (285,342), Durham (257,636), Winston-Salem (241,218), Fayetteville (201,963), Cary (159,769), Wilmington (115,933), High Point (110,268) and Greenville (90,957).

According to U.S. Census data from 2015, the median age in North Carolina is 37.4 years. Fifteen percent of the state’s population is age 65 or older; 23 percent is under age 18. The population is predominantly white (71 percent) and Black/African American (22 percent). Nine percent is Latino. The median income in North Carolina is \$46,868.

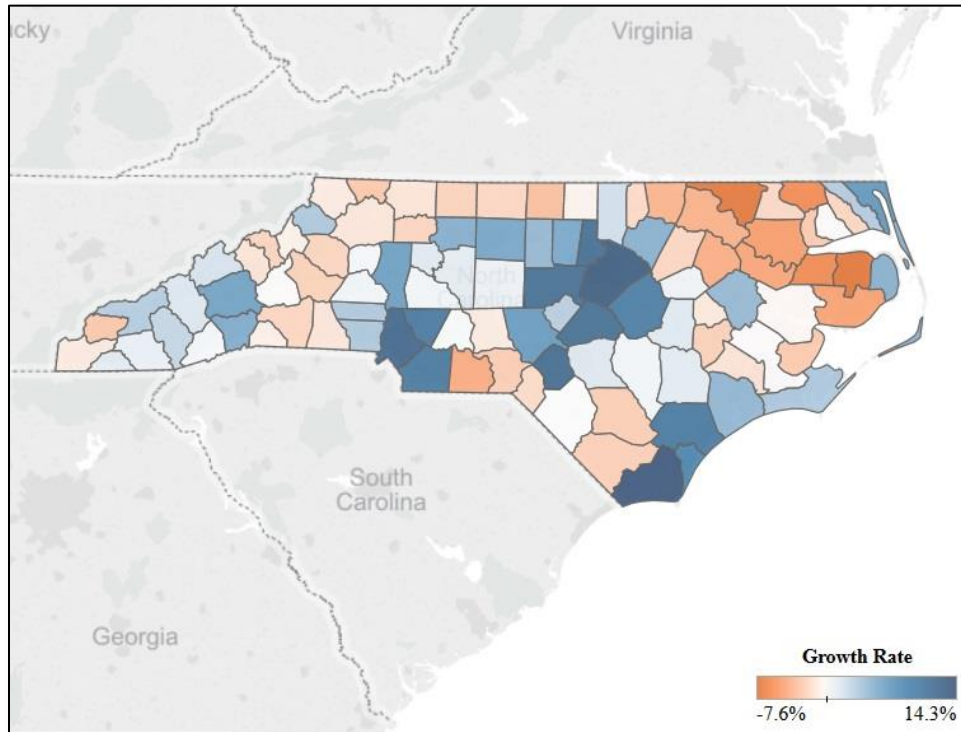
North Carolina is comprised of 100 counties. Forty-six counties have experienced population growth since 2010. As shown in Table 1, Brunswick County is the fastest growing county in North Carolina. Located between Wilmington and Myrtle Beach, South Carolina, Brunswick draws a large number of retirees. In total, 10 counties experienced double digit population growth since 2010, and seven were among the 100 fastest-growing counties in the nation. Many of the counties listed below are located in the lower coastal plain and the urban areas of the Piedmont. Nearly half (47 percent) of the state’s growth since 2010 has occurred in two counties: Wake and Mecklenburg.

Table 1. Fastest Growing Counties in North Carolina, 2010–2015

| County | 2010 Population | 2015 Population | Growth | % Change |
|---------------|----------------------------|----------------------------|---------------|-----------------|
| Brunswick | 107,431 | 122,765 | 15,334 | 14.3% |
| Wake | 901,021 | 1,024,198 | 123,177 | 13.7% |
| Mecklenburg | 919,666 | 1,034,070 | 114,404 | 12.4% |
| Hoke | 46,952 | 52,671 | 5,719 | 12.2% |
| Harnett | 114,678 | 128,140 | 13,462 | 11.7% |
| Chatham | 63,491 | 70,928 | 7,437 | 11.7% |
| Durham | 269,974 | 300,952 | 30,978 | 11.5% |
| Union | 201,307 | 222,742 | 21,435 | 10.6% |
| Cabarrus | 178,182 | 196,762 | 18,580 | 10.4% |
| Pender | 52,201 | 57,611 | 5,410 | 10.4% |

Meanwhile, 48 of North Carolina’s 100 counties have experienced population decline since 2010 including Tyrrell (-8 percent), Northampton (-8 percent), Washington (-6 percent), Gates (-6 percent), Bertie (-5 percent), Hyde (-5 percent) and Martin (-5 percent). Several of these counties are located in the northeastern part of the state. Figure 1 on the next page shows the growth rate for North Carolina’s 100 counties.

Figure 1. Growth Rate for North Carolina’s 100 Counties



Source: Carolina Population Center, UNC

Geography

North Carolina is located 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. There are three distinct geographic regions in North Carolina – the Coastal plain, Mountain region and Piedmont. The Coastal plain occupies the eastern part of the state and is a popular tourist destination. Besides its many beaches, the Coastal plain features the Outer Banks, Kill Devil Hills (the site of the Wright Brothers’ first powered flight), a shipwreck museum and lighthouses. The Mountain region is located in the western part of the state and includes hundreds of miles of hiking trails, including the Appalachian Trail. The highest elevation is Mt. Mitchell at 6,684 feet—the highest peak east of the Mississippi River. In between the Coastal and Mountain regions lies the Piedmont, which is the state’s most urbanized and densely populated region. North Carolina’s capital (Raleigh) and largest city (Charlotte) are located within the Piedmont region.

Transportation

North Carolina has the second largest state highway system in the country. The transportation system includes 106,202 miles of roadway, 1,254 miles of interstate highways and 69,450 miles of rural roads. According to the Federal Highway Administration (FHWA), North Carolina had 7,160,621 licensed drivers in 2015, an increase of 10 percent from 2010. Eighty-six percent of the driving-age population in the state is licensed. FHWA records indicate a total of 7,928,973 registered vehicles in 2015, of which 3,391,383 were privately owned automobiles and 188,659 were privately owned motorcycles.

Multiple vehicle ownership is common in North Carolina. According to the U.S. Census, 77 percent of North Carolina residents report having access to two or more vehicles. Among employed adults in North Carolina, the vast majority drive to work alone (81 percent). Ten percent report carpooling to work, while only a small percent take public transportation (1.1 percent), walk (1.9 percent), or bike (0.2 percent). More than two-thirds (72 percent) work in the same county in which they live, 25 percent work in another county, and three percent work in another state. The mean time to travel to work is 23.5 minutes.

Media in North Carolina

North Carolina has a large number of media outlets, including 153 newspapers, 40 television stations and 71 radio stations. The state also has several major business journals, magazines and college newspapers.

PROJECT SELECTION PROCESS

Traffic Safety Project Proposals

Each year, GHSP provides funds for projects that are designed to reduce crashes, injuries and fatalities in North Carolina. GHSP uses a web-based application system to streamline the process for organizations, municipalities and state agencies that apply for highway safety grants. The system is integrated with NCDOT's Federal Aid, Grants and Financial System and allows users to view the status of an application and request changes to a contract at any time. In addition to reducing paperwork, GHSP staff can approve applications electronically. Proper authorization is necessary to access the system.

Some general guidelines about the GHSP highway safety grants program:

- All funding from GHSP must be for highway safety purposes only.
- All funding must be necessary and reasonable.
- All funding is based on the implementation of evidence-based strategies.
- All funding is performance-based. Substantial progress in reducing crashes, injuries and fatalities is required as a condition of continued funding.
- All funding is passed through from the federal government and is subject to both federal and state regulations.
- All funding is considered to be "seed money" to get programs started. In most cases, the grantee is expected to provide a portion of the project costs and is expected to continue the program after GHSP funding ends.
- Projects are only approved for one full or partial federal fiscal year at a time. However, projects are typically funded for three consecutive years with a progressively higher cost share.
- Funding cannot be used to replace or supplant existing expenditures, nor can they be used to carry out the general operating expenses of the grantee.
- All funding is on a reimbursement basis. The grantee must pay for all expenses up front and then submit a reimbursement request to receive the funds.
- Special provisions for law enforcement agencies include:
 - Must conduct a minimum of one daytime and one nighttime seat belt initiative per month and one impaired driving checkpoint per month; and
 - Must participate in all *Click It or Ticket* and *Booze It & Lose It* campaigns.

All traffic safety project proposals are due to GHSP by January 31 of each year. GHSP utilizes a data driven approach in conjunction with an in-house review team to select the most appropriate project applications to fund. GHSP Highway Safety Specialists (HSSs) conduct the initial review of projects based on the applicants' problem identification, goals and objectives, use of evidence-based strategies and activities, budget and past performance. Specialists also initially consider whether the application is within the top 25 counties based on five-year average fatality data. GHSP then has a review meeting that includes input from HSSs, the Director, Assistant Director, Planning, Programs and Evaluation Manager and Finance Officer, as well as other partners when appropriate.

GHSP relies heavily on the HSS review of the application, the summary documentation provided by the HSS, and the actual review conducted in the group setting. Applications are reviewed individually via an overhead projection system through an internet meeting portal to allow the entire review team and partners to critique the individual applications, provide input and ask questions concerning the individual proposals. GHSP also solicits input from NHTSA, the Regional Law Enforcement Liaison (RLEL) network or other partners (when appropriate) as part of the decision making process.

Risk Assessment

GHSP's review process includes a risk assessment of the agency and the proposed project. This information is captured on the project review form initially completed by the HSS. The risk assessment may include such information as the past performance of the agency during previous grants including claim and reporting timeliness and accuracy, previous participation in GHSP-sponsored campaigns and events, tenure of agency head, agency size, agency's current emphasis on highway safety, agency's highway safety enforcement efforts for the three previous years, monitoring results from other Federal agency awards, and any other incidental or anecdotal information that may provide an indication of project success or failure. Prior to funding any project, GHSP reviews debarred lists and also checks for known single audit findings that may indicate a high risk. If a project is funded, but deemed a higher than normal risk, GHSP typically will require enhanced reporting and/or monitoring to better track the project progress.

Once a traffic safety project proposal is approved by GHSP and NHTSA, an agreement is electronically signed and returned to the applicant agency with an approval letter.

Planning Process

Below is a brief overview of the planning process used to identify the projects that will have the greatest impact in promoting highway safety awareness and reducing the number of traffic crashes, injuries and fatalities in the state. The highway safety planning process is circular and continuous. The efforts from each year influence the problem areas and performance targets for the following year.

1. Solicit potential grantees (January)

Organizations and agencies who are interested in developing projects that address GHSP's identified priority program areas are encouraged to attend a one-on-one session at the Highway Safety Symposium or review the guidelines for project proposals available online. They are also encouraged to contact a Highway Safety Specialist if they have any questions. The online information outlines the priority program areas and the type of grant activities that GHSP is seeking for the next fiscal year. In addition, instructions and timelines for submitting an application using the online system are available. Grantees who have received funding from GHSP in previous fiscal years as well as potential new applicants are encouraged to review this information.

The Highway Safety Plan:

The Highway Safety Plan (HSP) is a compilation of all the approved highway safety projects with a short description of each project and how they address the identified problems. The GHSP Planning, Programs and Evaluation staff drafts the HSP on the basis of the problems identified and the various approved projects. The Plan is submitted to the National Highway Traffic Safety Administration and the Federal Highway Administration for review. It is also sent to the Governor and to the NCDOT Secretary. Once approved, the HSP is implemented on October 1 and is in effect through September 30 of the following year. For FY2018, the University of North Carolina Highway Safety Research Center assisted in the preparation of North Carolina's Highway Safety Plan.

2. Review highway safety grant applications (February – April)

As described above, GHSP Highway Safety Specialists review projects and prioritize applications based on the applicants' problem identification, goals and objectives, use of evidence-based strategies and activities, budget and past performance. GHSP also receives input from the Regional Law Enforcement Liaison network and other partners before final selections are made.

3. Project agreements (May – July)

Applicants are informed about decisions on their applications. During this period, the final Highway Safety Plan and Performance Plan are submitted to NHTSA and FHWA.

4. Monitoring and reporting (August – December)

New grants are implemented beginning October 1. GHSP monitors grantees to ensure compliance with standards and project agreements. Throughout the year, grantees are required to submit quarterly progress reports documenting their activities, accomplishments and any potential problems that may have arisen. Finally, GHSP prepares the Annual Report which is due December 31 of each year.

PROBLEM IDENTIFICATION AND TARGET SETTING PROCESS

Problem Identification

The North Carolina's Governor's Highway Safety Program conducts an extensive problem identification process to develop and implement the most effective and efficient plan for the distribution of federal funds. Problem identification is vital to the success of our highway safety program and ensures the initiatives implemented address the crash, fatality and injury problems within the state. It also provides appropriate criteria for the designation of funding priorities and provides a benchmark for administration and evaluation of the overall Highway Safety Plan.

GHSP uses the problem identification process and guidelines outlined in the NHTSA Traffic Safety Performance Measures for States and Federal Agencies and the GHSA Guidelines for Developing Highway Safety Performance Plans.

North Carolina Strategic Highway Safety Plan/Highway Safety Improvement Program

In accordance with Federal requirements, GHSP ensures that the overall targets of the North Carolina Highway Safety Plan match the overall targets in the Highway Safety Improvement Program and are aligned with the goals of the North Carolina Strategic Highway Safety Plan (SHSP). The SHSP was initially developed in 2004 and most recently revised in 2014 by the North Carolina Executive Committee for Highway Safety and its partner organizations. These safety stakeholders include state, regional, local and tribal agencies, as well as other public and private partners.

North Carolina is a Vision Zero State—even one fatality is too many on our roadways. This plan's vision, mission and goals guide the development and implementation of strategies and actions to achieve Vision Zero. The working goal of the revised strategic plan is to cut fatalities and serious injuries in North Carolina in half based on the 2013 figures, reducing the total annual fatalities by 630 fatalities and the total serious injuries by 1,055 serious injuries by 2030.

The plan will achieve these goals through the implementation of strategies and actions in nine safety emphasis areas:

- Demographic Considerations
- Driving While Impaired
- Emerging Issues and Data
- Intersection Safety
- Keeping Drivers Alert
- Lane Departure
- Occupant Protection/Motorcycles
- Pedestrians and Bicyclists
- Speed

The safety stakeholders selected these emphasis areas cooperatively through a data-driven approach, noting that many individual crashes are typically attributed to more than one emphasis area. For example, a crash may involve speeding, intersection safety and occupant protection. Therefore, these

emphasis areas provide an opportunity to address crashes from multiple perspectives and represent the greatest opportunity for safety professionals to focus their efforts to achieve the goals of the HSP.

Once selected, emphasis area working groups (EAWGs) were convened for each focus area and were tasked with developing a plan for each emphasis area that defines the problem, describes past and ongoing efforts to address it, and identifies strategies and actions moving forward to further improve safety in that area.

The North Carolina Governor's Highway Safety Program was a key player in the process of updating the SHSP with Highway Safety Specialists and other GHSP staff serving on each of the EAWGs. This participation allows GHSP to align the targets and strategies of the HSP with the goals and strategies of the SHSP to the greatest degree possible. Refer to the "Alignment of Targets with the North Carolina Strategic Highway Safety Plan" section in the "Performance Measures and Targets" chapter for additional information.

Sources of Information

A number of data sources are examined to give the most complete picture of the major traffic safety problems in the state. The sources of information that informed our problem identification process for FY2018 are described below.

Traffic Crash Data

North Carolina is fortunate to have 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 the 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.

Additionally, GHSP has access to the National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS), which is the primary tool for comparing North Carolina data to the national numbers to identify our state's ongoing concerns. GHSP compares current year crash data with crash data from the previous 5-10 years. This data is critical to monitoring trends and establishing appropriate targets. The FY2018 Highway Safety Plan includes FARS data and North Carolina crash data through 2015 – the most recent years 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. Within the crash data, each of the following variables were examined as part of the problem identification process: crash severity (fatal, injury, or property damage only), driver age, driver sex, 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. The county-specific data were used to rank the counties in terms of 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. GHSP campaigns and reporting deadlines are listed on the GHSP Yearly Planning Calendar. 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.

North Carolina also has a centralized system of courts administered by the Administrative Office of Courts (AOC). This enables GHSP to obtain accurate and up to date data on citations, including the status and disposition of cases.

Census Data (State-Wide and by County)

The State Demographics branch of the North Carolina Office of State Budget and Management (OSBM) is responsible for producing 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 (white/other) and sex, 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 2016 at 120 sites in 15 counties across the state. In addition to the 120 NHTSA certified sites, GHSP opted to include another 80 sites in 10 additional counties for the June 2016 sample, bringing the final total number of sites observed to 200 sites. 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.

Consultation with Other Organizations

GHSP collaborates with many organizations as part of the problem identification process including the DMV, the Traffic Safety Systems Management Unit of NCDOT, the North Carolina State University Institute for Transportation Research and Education, and the University of North Carolina Highway Safety Research Center. The information provided by these agencies is supplemented by data from other state and local agencies. Federal mandates and the nine national priority program emphasis areas also influence problem identification.

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. Based on this information, specific targets are established addressing each problem area. The target setting process is described below.

Target Setting Process

Many factors were considered when setting performance targets for FY2018. The overall objective was to set performance targets that were challenging but obtainable. The ultimate goal is zero deaths from motor vehicle crashes in North Carolina. The factors considered in the goal setting process included the following:

- Trends in crashes and fatalities: As mentioned above, trends in crashes and fatalities in North Carolina were examined for the previous 5-10 years. For example, motor vehicle fatalities have increased from 1,230 to 1,379 between the years 2011 and 2015, mirroring national trends. During that same period, North Carolina has also experienced a rise in the number of fatalities involving a driver with a BAC of .08 or above, unrestrained passenger vehicle occupant fatalities,

and speed-related fatalities. A primary objective is to reverse this trend by setting ambitious but achievable targets for reductions in fatalities.

- **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. This rate is very low and would be difficult to improve upon. Rather than spending funds to reduce this rate even further, resources might be better spent on other problem areas where greater progress is achievable.
- **The effect of external forces:** The extent to which crashes or fatalities may be a function of external forces or factors beyond the ability of law enforcement, safety advocates, educators and others to influence was also considered. These may include economic factors, gasoline prices and population changes, as well as geographic, topographic and roadway system factors. 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 slow economy and high gas prices may serve to dampen this effect. To the extent possible, we considered the potential effect of these external forces in setting targets.
- **Effectiveness of known countermeasures:** Another factor considered when setting targets was whether there are known effective programs/approaches to address the particular problem area. This includes how many effective countermeasures are available and how powerful they are. With some problem areas, such as alcohol-impaired driving, there are a number of proven countermeasures for reducing crashes and fatalities. For example, high-visibility sobriety checkpoints receive a maximum rating of 5-stars for effectiveness in NHTSA's *Countermeasures that Work*. Hence, we set challenging but achievable targets for this problem area. Regarding young drivers, there is only one proven countermeasure: graduated driver licensing (GDL). North Carolina is fortunate to have an excellent GDL system in place. However, achieving further reductions in young driver crashes may be challenging given the lack of other proven programs currently available. The targets for reducing young driver crashes are therefore somewhat less ambitious than for other areas where there are more proven countermeasures for reducing crashes and fatalities.

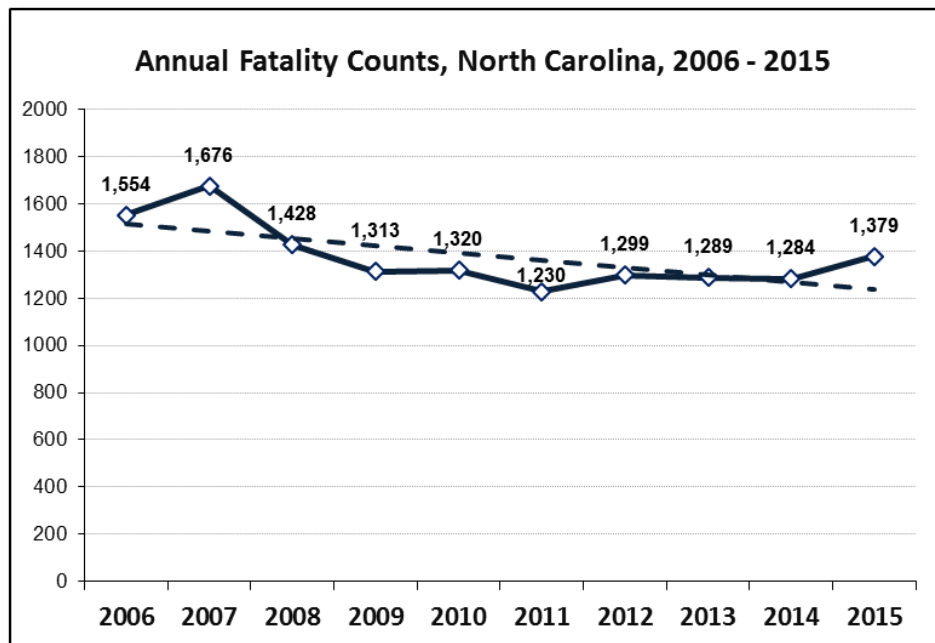
The FY2018 Highway Safety Plan targets were established after considering the above factors. The specific performance measures and targets for North Carolina are described in the next section.

PERFORMANCE MEASURES AND TARGETS

Performance Measures

In this section, we review North Carolina’s progress in meeting its performance measures and targets. Similar to national trends, traffic fatalities rose in North Carolina during 2015. There were 1,379 fatalities resulting from motor vehicle crashes in North Carolina – a seven percent increase from the 1,284 fatalities in 2014. Although this increase is concerning, the long-term (10 year) trend suggests a gradual decrease in traffic fatalities in North Carolina, as shown in Figure 2 below.

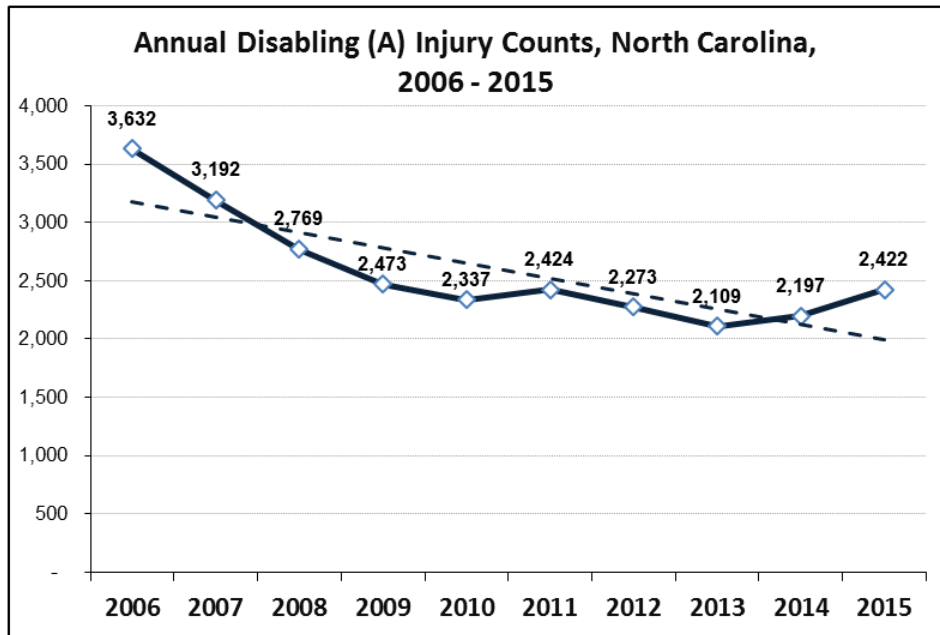
Figure 2. North Carolina Annual Fatality Counts



Source: FARS, 2006–2015

As shown in Figure 3, the number of disabling (A) injuries have also increased each of the past two years in North Carolina. During 2015, there were 2,422 disabling injuries, up 10 percent from the 2,197 injuries in 2014. Once again, however, the long-term trend shows a long-standing decrease in disabling injuries. Since 2006, disabling injuries have decreased by 33 percent in North Carolina.

Figure 3. North Carolina Annual Disabling Injury Counts

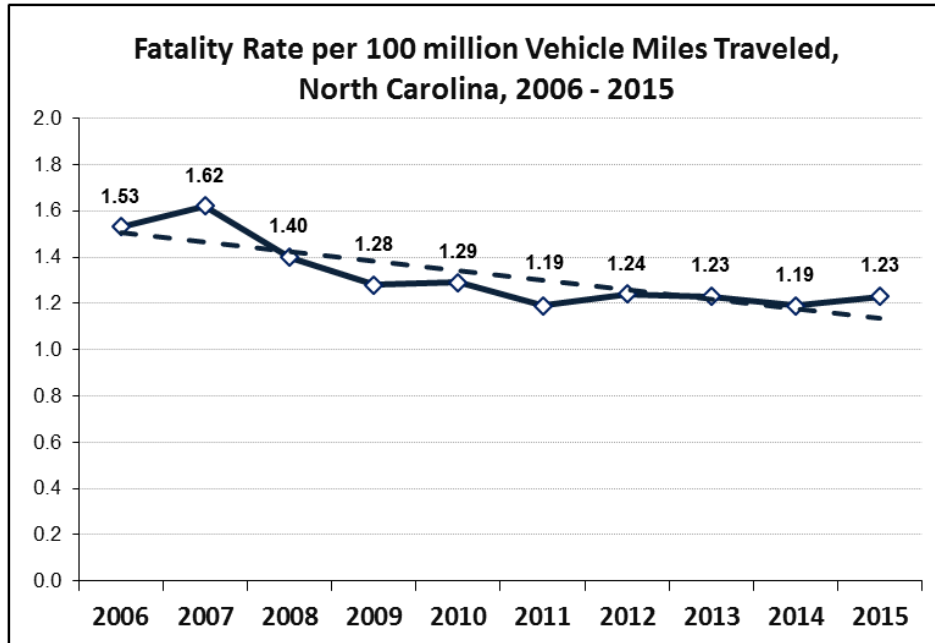


Source: NCDOT Motor Vehicle Crash Data, 2006–2015

In addition to the increase in total fatalities, the fatality rate per vehicle mile traveled (VMT) also increased in 2015. There were 1.23 fatalities per 100 million VMT during 2015, compared to 1.19 in 2014. As with other measures, the long-term trend suggests a gradual decrease in fatalities per VMT, as shown in Figure 4 below.

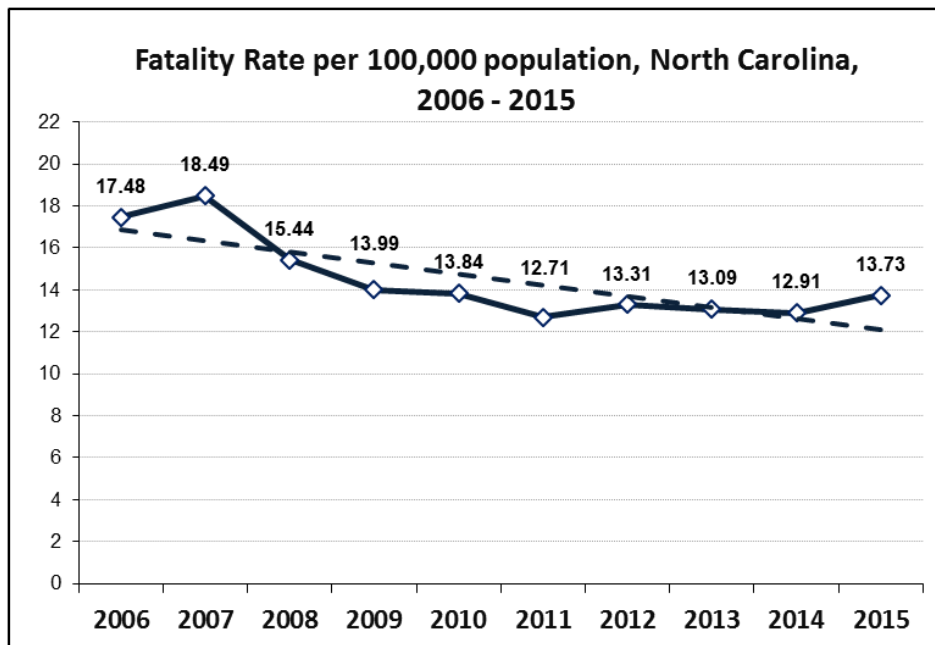
As mentioned earlier in the “State Demographics” section, North Carolina’s population has grown considerably during the last decade. Consequently, it is important to consider fatality rates per capita. Figure 5 shows fatality rates per 100,000 population in North Carolina from 2006 through 2015. During 2015, the per population fatality rate increased from 12.91 to 13.73. Again, however, the overall pattern suggests a gradual decline in fatal crashes per capita.

Figure 4. Fatality Rate per Vehicle Mile Traveled



Source: FARS, 2006–2015

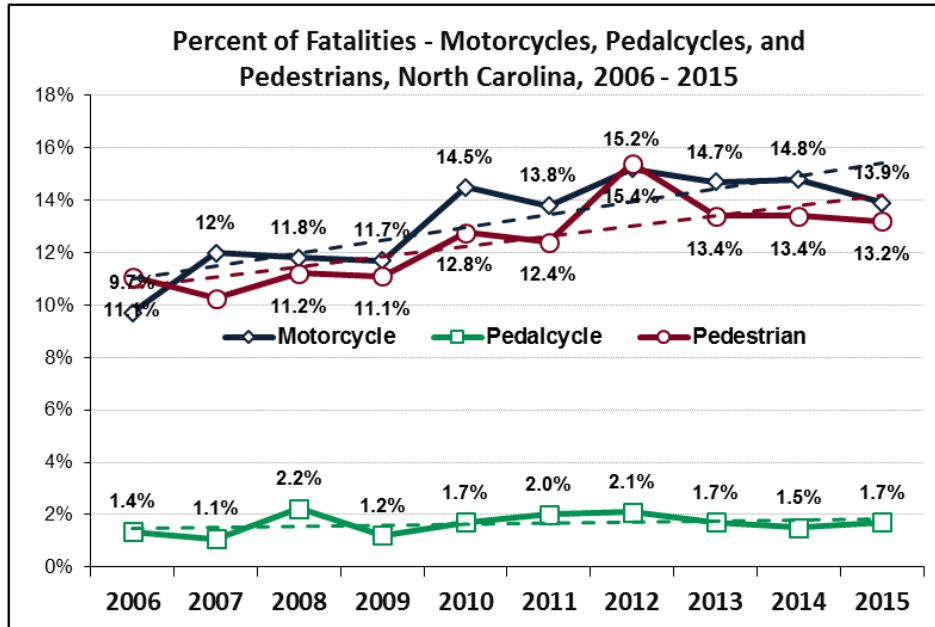
Figure 5. Fatality Rates per 100,000 Population



Source: FARS, 2006–2015 and U.S. Census Bureau

During 2015, there were 192 motorcyclist fatalities in North Carolina. This was virtually unchanged from the 190 motorcyclist fatalities in 2014. Similarly, there was little change in fatalities to pedestrians or pedalcyclists. However, as shown in Figure 6, motorcyclists and pedestrians have accounted for a gradually increasing share of the fatalities in North Carolina over the past ten years.

Figure 6. Motorcycle, Pedalcycle and Pedestrian Fatalities

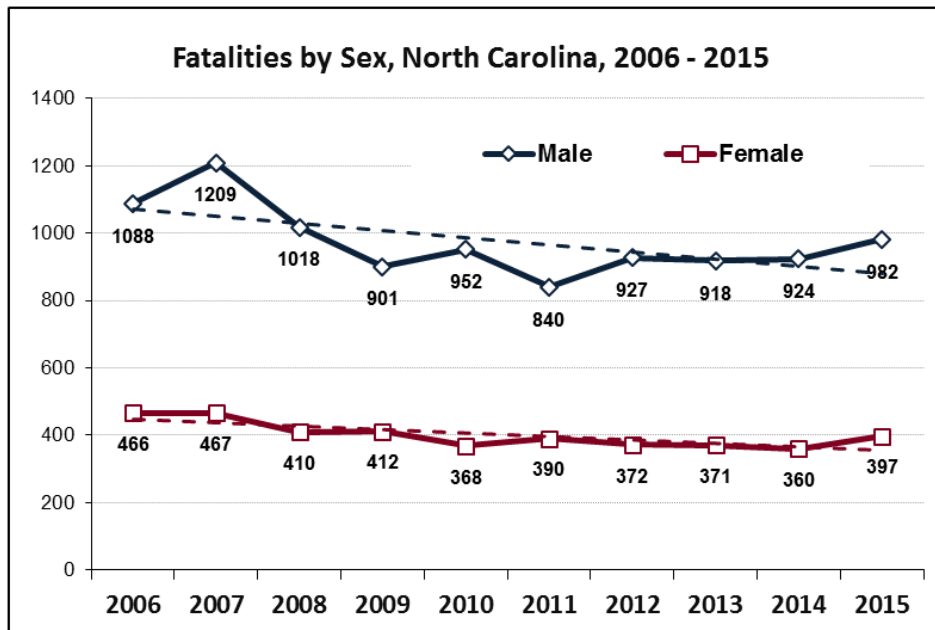


Source: FARS, 2011–2015

Fatalities among both males and females increased during 2015. As shown in Figure 7, trends over the past ten years suggest a falling number of fatalities, particularly for males. Each year, approximately 70 percent of the fatalities in North Carolina are males.

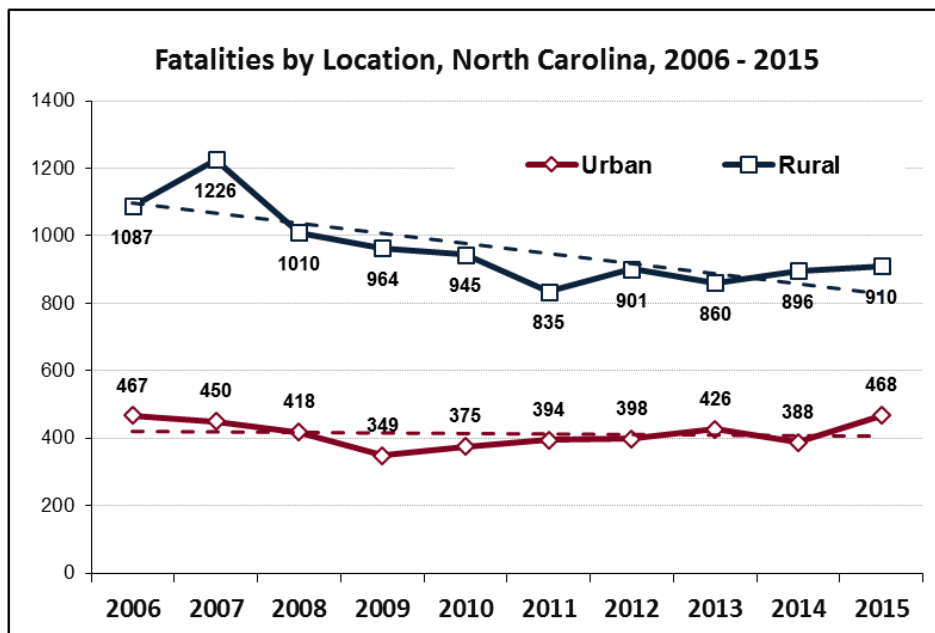
Rural roadways account for approximately two-thirds (66 percent) of fatalities each year in North Carolina. During 2015, fatalities on rural roads rose slightly from 896 to 910. Meanwhile, there was a noticeable increase in fatalities on urban roads, from 388 to 468. Long-term trends show a gradual decrease in rural fatalities, but little change in urban fatalities (see Figure 8).

Figure 7. Fatalities by Sex



Source: FARS, 2006–2015

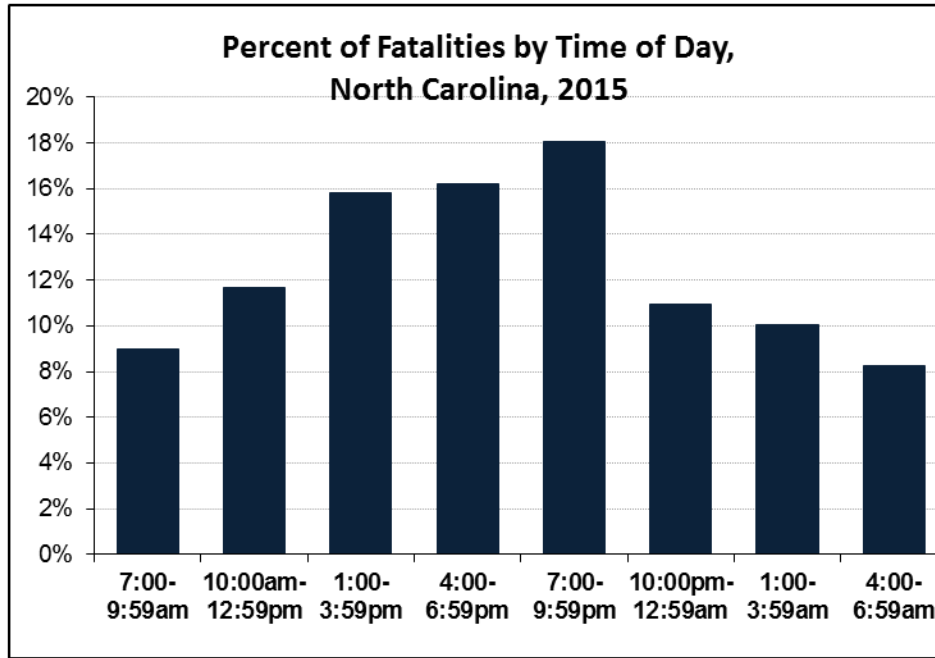
Figure 8. Fatalities by Urban vs. Rural Locations



Source: FARS, 2006–2015

Fatalities also vary based on time of day. As shown in Figure 9, the highest percent of fatalities during 2015 was between 1:00 p.m. and 10:00 p.m. This coincides with the daily “rush hour” and early evening traffic.

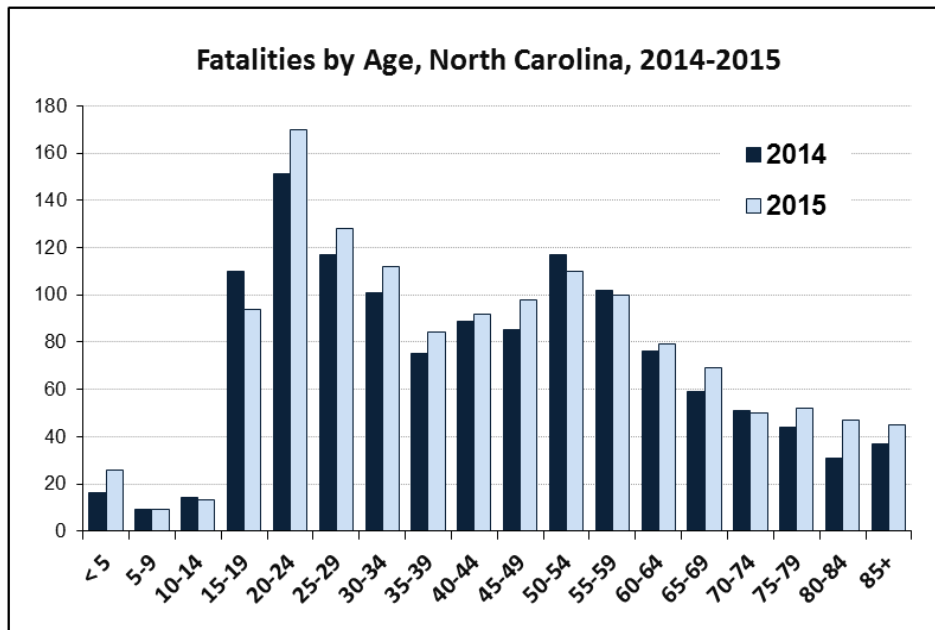
Figure 9. Fatalities by Time of Day



Source: FARS, 2015

The age of persons fatally injured in motor vehicle crashes in North Carolina is shown in Figure 10. During 2015, there were 48 fatalities among persons age 14 or younger, an increase from the 39 fatalities in this age group in 2014. Fatalities increase substantially once teens reach driving age. During 2015, there were 94 fatalities among those ages 15 to 19, down from 110 in 2014. Among all age groups, fatalities were highest among young adults between the ages of 20 and 24. Fatalities increased noticeably, from 151 to 170, among this age group during 2015.

Figure 10. Fatalities by Age



Source: FARS, 2014–2015

As mentioned previously, total fatalities, fatalities per VMT, and fatalities per capita all increased in 2015. This is likely due to a variety of factors including demographic and population changes, a rise in vehicle miles traveled and economic factors that influence driving. As part of the FY2018 Performance Plan, we have set targets to reverse this recent trend in North Carolina and to reduce fatalities by the year 2018.

Other performance measures showed little change during 2014, or also changed in the wrong direction. The number of fatalities involving drivers or motorcycle operators with a BAC of .08 or greater increased 13 percent, from 363 to 411. GHSP is not satisfied with maintaining the status quo and remains committed to removing impaired drivers of all vehicle types from our roadways. GHSP is funding a number of initiatives during FY2018 to address impaired driving including DWI enforcement teams, DWI treatment courts and expedited blood testing. North Carolina has a Statewide Impaired Driving Task Force that created and updated an Impaired Driving Plan that provides a comprehensive strategy for preventing and reducing alcohol-impaired driving in North Carolina. Additionally, North Carolina conducted a NHTSA-facilitated impaired driving program assessment during April 2015. GHSP is working to implement the recommendations through the Task Force as well as other means.

Another area of continuing concern is speed-related fatalities. There were 547 speed-related fatalities in 2015, up from 497 fatalities in 2014 (a 10 percent increase). Speeding increases both the likelihood and the severity of motor vehicle crashes and GHSP remains committed to reducing these crashes. During FY2018, GHSP is funding efforts to address the problem through the Statewide Traffic Enforcement Program.

Fatalities involving unrestrained vehicle occupants also increased noticeably during 2015. North Carolina experienced 42 more unrestrained fatalities during 2015 than 2014, an increase of 12 percent. The observed belt use rate for drivers and front seat occupants in 2015 was 89.9 percent, down slightly from

90.6 percent in 2014. However, the most recent observational survey (conducted in June 2016) found the observed belt use rate once again exceeded 90 percent (at 91.7 percent). To maintain belt use above 90 percent, GHSP will continue to support proven countermeasures including high visibility enforcement targeting nighttime belt use and focusing on those counties with the highest numbers of unrestrained fatalities. North Carolina conducted a NHTSA-facilitated occupant protection program assessment in July 2013, and many of the recommendations from this assessment have been incorporated into a Strategic Plan developed by a Statewide Occupant Protection Task Force. An additional assessment was conducted during April 2016. The Task Force is in the process of updating the strategic plan to address the recommendations from the latest assessment.

Overall, motorcyclist fatalities in North Carolina have changed very little since 2012. During 2015, motorcycle fatalities increased by two, from 190 to 192. Motorcyclists account for 14 percent of traffic fatalities in North Carolina, even though they comprise just two percent of registered vehicles. One positive finding is the vast majority of fatally injured motorcyclists in North Carolina were wearing a helmet when they crashed. In all likelihood, North Carolina would have experienced many more fatalities if the state did not have a universal helmet law and a high rate of helmet use. To address the problem of motorcycle rider fatalities, GHSP has expanded the “BikeSafe NC” program utilizing a system of regional coordinators. These efforts have increased the number and locations of BikeSafe classes available to students.

During 2015, the number of drivers age 20 or younger involved in fatal crashes increased slightly from 162 to 165. Fatalities involving young drivers represent about 12 percent of the total fatalities in North Carolina, even though they represent just seven percent of the population. GHSP is supporting and evaluating several innovative approaches to improving young driver safety. For example, GHSP is working to implement a comprehensive program to provide guidance to parents of new drivers in North Carolina.

Table 2 provides a summary of the 15 traffic safety indicators for North Carolina for the years 2009 to 2015.

Table 2. Summary of North Carolina Traffic Safety Indicators

| Indicator | Year | | | | | | |
|---|-------|-------|-------|-------|-------|-------|-------|
| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| Fatalities | 1,313 | 1,320 | 1,230 | 1,299 | 1,289 | 1,284 | 1,379 |
| Fatality Rate / 100 million VMT | 1.28 | 1.29 | 1.19 | 1.24 | 1.23 | 1.19 | 1.23 |
| Number of "Disabling" (A) Injuries | 2,473 | 2,337 | 2,424 | 2,273 | 2,109 | 2,197 | 2,422 |
| Number of Fatalities Involving Driver or MC Operator w/ > .08 BAC | 358 | 389 | 359 | 372 | 368 | 363 | 411 |
| Number of Unrestrained Passenger Vehicle Occupant Fatalities | 416 | 415 | 379 | 354 | 355 | 360 | 402 |
| Number of Speeding-Related Fatalities | 517 | 487 | 476 | 441 | 413 | 497 | 547 |
| Number of Motorcyclist Fatalities | 154 | 191 | 170 | 198 | 189 | 190 | 192 |
| Number of Unhelmeted Motorcyclist Fatalities | 15 | 11 | 11 | 23 | 17 | 15 | 14 |
| Number of Drivers Age 20 or Younger Involved in Fatal Crashes | 207 | 202 | 176 | 170 | 153 | 162 | 165 |

Performance Measures and Targets

| Indicator | Year | | | | | | |
|---|---------|---------|---------|---------|---------|---------|---------|
| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
| Number of Pedestrian Fatalities | 146 | 169 | 161 | 200 | 174 | 172 | 182 |
| Number of Pedalcyclists Killed in Crashes | 16 | 23 | 25 | 27 | 22 | 19 | 23 |
| Observed Belt Use by Passenger Vehicle Drivers and Right Front Seat Occupants | 89.5% | 89.7% | 89.5% | 87.5% | 88.6% | 90.6% | 89.9% |
| Seat Belt Citations Issued During Grant-Funded Enforcement Activities | 49,495 | 44,700 | 38,099 | 40,767 | 43,543 | 46,453 | 46,161 |
| Impaired Driving Arrests Made During Grant-Funded Enforcement Activities | 16,145 | 16,096 | 13,833 | 14,533 | 13,011 | 12,899 | 13,856 |
| Speeding Citations Issued During Grant-Funded Enforcement Activities | 176,100 | 174,250 | 147,045 | 148,561 | 133,794 | 133,940 | 146,546 |

Note: Disabling injury data come from NCDOT motor vehicle crash data. Observed belt use comes from North Carolina's annual seat belt use survey. Data for enforcement activities is reported directly to GHSP from participating law enforcement agencies. All other data are from FARS.

National Comparisons

Although North Carolina has seen improvement over the past decade across many of the 15 key traffic safety indicators, there are several areas where the state lags behind the U.S. as a whole. Table 3 demonstrates how North Carolina compares to the nation on a variety of performance measures. All figures are based on 2015 FARS data except observed belt use (which comes from the annual seat belt use survey).

Table 3. Comparison of North Carolina to the U.S., 2015

| Performance Measure | North Carolina | United States | NC +/- US |
|---|----------------|---------------|-----------|
| Fatalities per 100 million VMT | 1.23 | 1.13 | + 0.10 |
| Fatalities per 100,000 population | 13.73 | 10.92 | + 2.81 |
| Alcohol-impaired driving fatalities (BAC = .08+) per 100 million VMT | 0.37 | 0.33 | + 0.04 |
| Percent of fatalities with the highest driver BAC in the crash of .08+ | 30% | 29% | + 1% |
| Percent of passenger vehicle occupant fatalities who were unrestrained | 35% | 38% | - 3% |
| Observed belt use by passenger vehicle drivers and right front seat occupants | 90% | 89% | + 1% |

Compared to the U.S., North Carolina has a higher rate of fatalities per capita and per miles traveled. North Carolina also has slightly higher alcohol-impaired driving rates. These are areas where North Carolina can improve.

Meanwhile, there are several areas where North Carolina compares quite favorably to the nation. North Carolina has a lower percent of fatalities who were unrestrained than does the nation as a whole and the observed belt use by passenger vehicle drivers and right front seat occupants is higher than the national average. These are strengths upon which North Carolina can build for the future.

County Comparisons

North Carolina is comprised of 100 counties. As would be expected, there are sizeable differences between individual counties in the occurrence of motor vehicle fatalities. Figure 11 on the following page shows the total number of fatalities in each of North Carolina’s 100 counties during 2015.

The eleven counties with the highest number of fatalities in 2015 included Mecklenburg (80), Wake (65), Guilford (57), Robeson (53), Cumberland (42), Forsyth (41), Gaston (40), Buncombe (36), Pitt (32), Catawba (28) and Davidson (28). Not surprisingly, many of these counties are also among the most populous counties in the state.

Figure 12 shows the fatality rate per 100,000 population during 2015. Here, the pattern is very different. The counties with the highest fatality rate per capita tend to be rural counties, primarily in the northeastern and southeastern parts of the state, as well as along the I-95 corridor. Since most of these counties have relatively small populations, even small numbers of fatalities produce high fatality rates. The ten counties with the highest rate of fatalities per 100,000 population include Robeson (39.74), Sampson (39.07), Pamlico (37.95), Lee (35.65), Graham (34.24), Gates (34.07), Duplin (33.41), Warren (29.31), Bertie (29.22) and Hoke (28.97).

Figure 11. Total Fatalities in North Carolina, by County, 2015

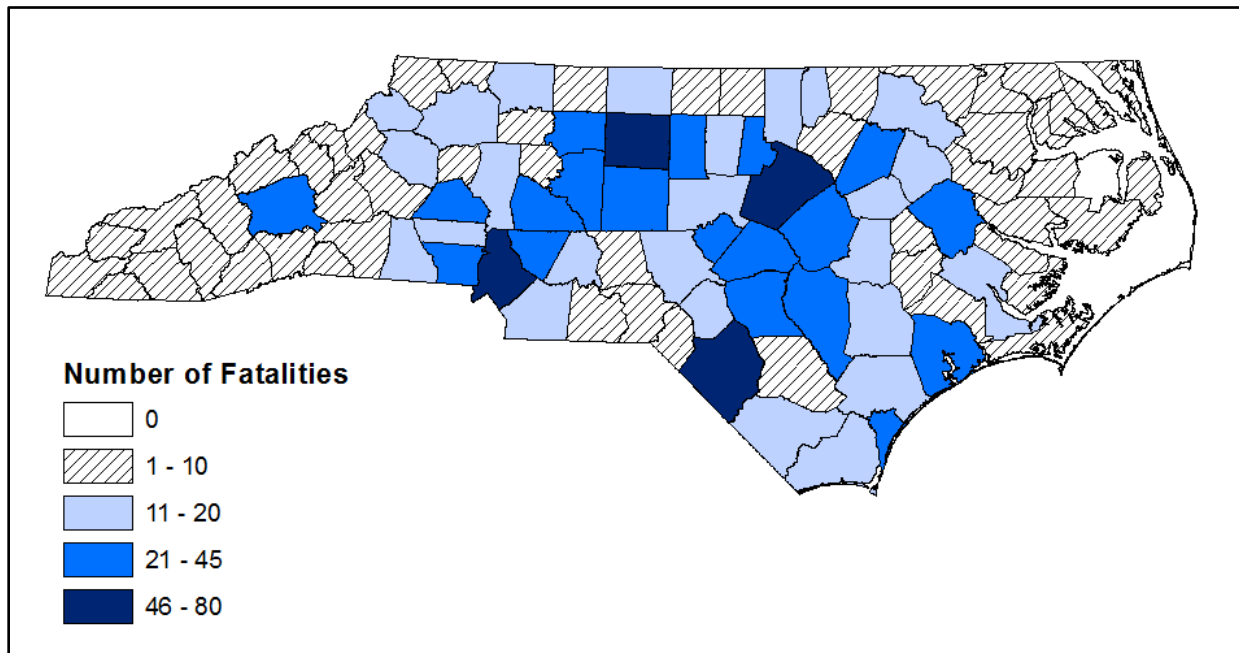
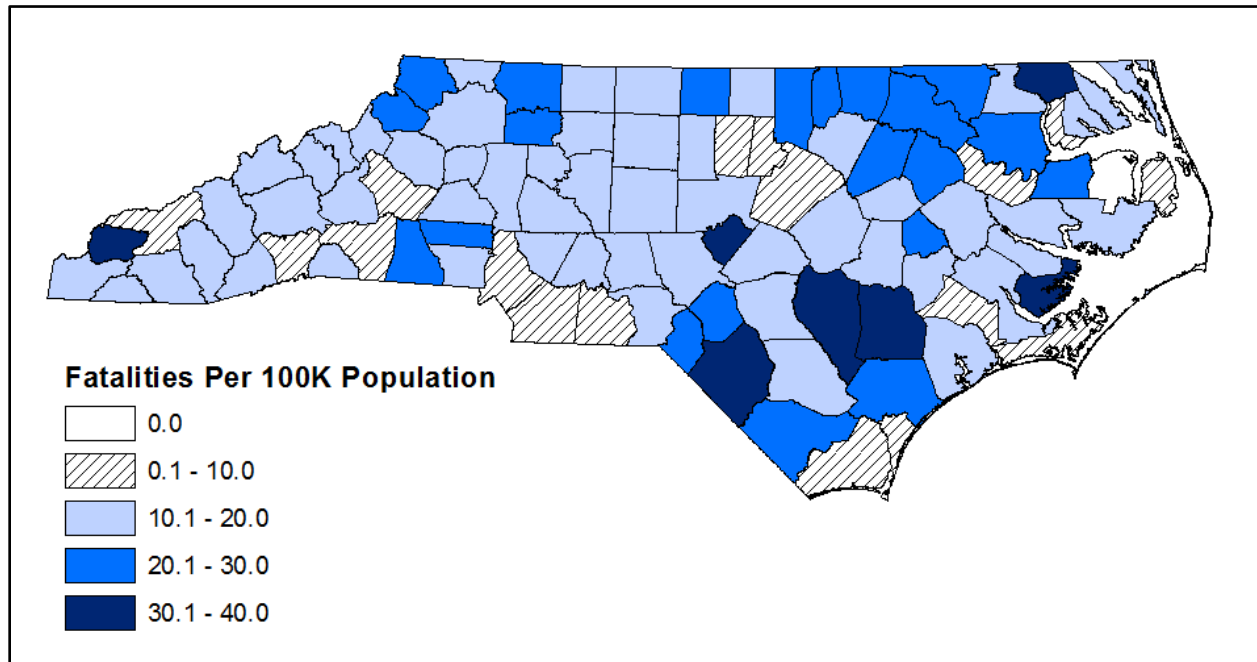


Figure 12. Fatalities in North Carolina per 100,000 Population, by County, 2014



To achieve statewide targets for decreasing motor vehicle fatalities, both the counties with the highest number of fatalities and the counties with a greater than expected contribution of fatalities per population must be considered. Each of the individual sections of the Highway Safety Plan (e.g., alcohol-impaired driving, occupant protection) identifies the specific counties in North Carolina where highway safety problems are most significant.

Table 4 presents the total number of fatalities and fatalities per 100,000 population during 2015 for all 100 counties in North Carolina. The table also includes the rank of each county (with “1” being the most fatalities or highest rate per population). The fatality data shown in the table are from FARS and the population numbers are from U.S. Census estimates for 2015.

Table 4. Fatalities in Motor Vehicle Crashes, by County, 2015

| County | Population | Fatalities # | Fatalities Rank | Per100KPop Rate | Per100KPop Rank | County | Population | Fatalities # | Fatalities Rank | Per100KPop Rate | Per100KPop Rank |
|-----------|------------|--------------|-----------------|-----------------|-----------------|-------------|------------|--------------|-----------------|-----------------|-----------------|
| Alamance | 157,522 | 24 | 26 | 15.24 | 55 | Johnston | 184,519 | 27 | 7 | 14.63 | 59 |
| Alexander | 37,952 | 6 | 60 | 15.81 | 51 | Jones | 10,423 | 1 | 96 | 9.59 | 83 |
| Alleghany | 11,190 | 2 | 93 | 17.87 | 40 | Lee | 58,908 | 21 | 38 | 35.65 | 4 |
| Anson | 26,155 | 2 | 68 | 7.65 | 91 | Lenoir | 58,338 | 9 | 47 | 15.43 | 54 |
| Ashe | 27,332 | 6 | 75 | 21.95 | 23 | Lincoln | 81,397 | 19 | 41 | 23.34 | 20 |
| Avery | 17,816 | 3 | 88 | 16.84 | 45 | Macon | 34,771 | 5 | 67 | 14.38 | 62 |
| Beaufort | 47,829 | 5 | 46 | 10.45 | 80 | Madison | 21,663 | 3 | 87 | 13.85 | 65 |
| Bertie | 20,533 | 6 | 63 | 29.22 | 9 | Martin | 23,746 | 2 | 76 | 8.42 | 88 |
| Bladen | 35,011 | 4 | 49 | 11.42 | 72 | McDowell | 45,370 | 5 | 54 | 11.02 | 76 |
| Brunswick | 123,535 | 12 | 24 | 9.71 | 82 | Mecklenburg | 1,035,605 | 80 | 1 | 7.72 | 90 |
| Buncombe | 254,836 | 36 | 8 | 14.13 | 64 | Mitchell | 15,335 | 2 | 92 | 13.04 | 68 |
| Burke | 89,114 | 8 | 44 | 8.98 | 85 | Montgomery | 27,826 | 3 | 70 | 10.78 | 78 |
| Cabarrus | 195,714 | 25 | 25 | 12.77 | 69 | Moore | 94,492 | 16 | 33 | 16.93 | 44 |

Table 4. Fatalities in Motor Vehicle Crashes, by County, 2015

| County | Population | Fatalities | | Per100KPop | | County | Population | Fatalities | | Per100KPop | |
|------------|------------|------------|------|------------|------|--------------|------------|------------|------|------------|------|
| | | # | Rank | Rate | Rank | | | # | Rank | Rate | Rank |
| Caldwell | 82,577 | 12 | 45 | 14.53 | 60 | Nash | 94,370 | 24 | 16 | 25.43 | 11 |
| Camden | 10,224 | 0 | 94 | 0.00 | 99 | New Hanover | 220,231 | 21 | 22 | 9.54 | 84 |
| Carteret | 69,826 | 4 | 58 | 5.73 | 97 | Northampton | 21,073 | 5 | 65 | 23.73 | 18 |
| Caswell | 23,606 | 6 | 78 | 25.42 | 12 | Onslow | 194,636 | 24 | 13 | 12.33 | 71 |
| Catawba | 155,828 | 28 | 14 | 17.97 | 38 | Orange | 140,144 | 12 | 35 | 8.56 | 87 |
| Chatham | 71,815 | 12 | 50 | 16.71 | 46 | Pamlico | 13,174 | 5 | 89 | 37.95 | 3 |
| Cherokee | 27,770 | 5 | 71 | 18.01 | 37 | Pasquotank | 39,731 | 4 | 82 | 10.07 | 81 |
| Chowan | 14,541 | 1 | 98 | 6.88 | 94 | Pender | 57,941 | 14 | 32 | 24.16 | 16 |
| Clay | 11,036 | 2 | 90 | 18.12 | 35 | Perquimans | 13,648 | 2 | 95 | 14.65 | 58 |
| Cleveland | 97,871 | 20 | 36 | 20.44 | 27 | Person | 39,574 | 6 | 66 | 15.16 | 56 |
| Columbus | 57,206 | 14 | 23 | 24.47 | 14 | Pitt | 175,532 | 32 | 18 | 18.23 | 33 |
| Craven | 103,691 | 16 | 27 | 15.43 | 53 | Polk | 20,828 | 4 | 73 | 19.20 | 30 |
| Cumberland | 328,860 | 42 | 4 | 12.77 | 70 | Randolph | 142,943 | 26 | 17 | 18.19 | 34 |
| Currituck | 25,627 | 4 | 80 | 15.61 | 52 | Richmond | 45,353 | 5 | 48 | 11.02 | 74 |
| Dare | 36,001 | 2 | 77 | 5.56 | 98 | Robeson | 133,375 | 53 | 5 | 39.74 | 1 |
| Davidson | 165,193 | 28 | 9 | 16.95 | 43 | Rockingham | 92,084 | 15 | 29 | 16.29 | 50 |
| Davie | 41,743 | 6 | 61 | 14.37 | 63 | Rowan | 140,122 | 23 | 11 | 16.41 | 48 |
| Duplin | 59,868 | 20 | 31 | 33.41 | 7 | Rutherford | 67,617 | 6 | 51 | 8.87 | 86 |
| Durham | 297,219 | 25 | 15 | 8.41 | 89 | Sampson | 63,993 | 25 | 28 | 39.07 | 2 |
| Edgecombe | 54,367 | 11 | 55 | 20.23 | 28 | Scotland | 35,821 | 9 | 59 | 25.12 | 13 |
| Forsyth | 366,543 | 41 | 6 | 11.19 | 73 | Stanly | 61,234 | 11 | 52 | 17.96 | 39 |
| Franklin | 64,206 | 7 | 57 | 10.90 | 77 | Stokes | 46,763 | 9 | 56 | 19.25 | 29 |
| Gaston | 212,636 | 40 | 10 | 18.81 | 31 | Surry | 73,195 | 16 | 30 | 21.86 | 24 |
| Gates | 11,739 | 4 | 83 | 34.07 | 6 | Swain | 14,953 | 1 | 91 | 6.69 | 95 |
| Graham | 8,761 | 3 | 85 | 34.24 | 5 | Transylvania | 33,745 | 5 | 74 | 14.82 | 57 |
| Granville | 58,547 | 12 | 34 | 20.50 | 26 | Tyrrell | 4,217 | 0 | 100 | 0.00 | 100 |
| Greene | 21,158 | 5 | 81 | 23.63 | 19 | Union | 219,992 | 16 | 20 | 7.27 | 92 |
| Guilford | 517,124 | 57 | 3 | 11.02 | 75 | Vance | 45,097 | 11 | 53 | 24.39 | 15 |
| Halifax | 52,423 | 12 | 42 | 22.89 | 21 | Wake | 1,007,631 | 65 | 2 | 6.45 | 96 |
| Harnett | 127,127 | 23 | 12 | 18.09 | 36 | Warren | 20,473 | 6 | 79 | 29.31 | 8 |
| Haywood | 60,631 | 8 | 72 | 13.19 | 67 | Washington | 12,589 | 3 | 97 | 23.83 | 17 |
| Henderson | 112,511 | 8 | 40 | 7.11 | 93 | Watauga | 53,737 | 12 | 69 | 22.33 | 22 |
| Hertford | 24,426 | 4 | 84 | 16.38 | 49 | Wayne | 124,984 | 17 | 21 | 13.60 | 66 |
| Hoke | 51,776 | 15 | 39 | 28.97 | 10 | Wilkes | 69,663 | 12 | 43 | 17.23 | 42 |
| Hyde | 5,631 | 1 | 99 | 17.76 | 41 | Wilson | 81,689 | 15 | 37 | 18.36 | 32 |
| Iredell | 170,230 | 18 | 19 | 10.57 | 79 | Yadkin | 37,705 | 8 | 62 | 21.22 | 25 |
| Jackson | 41,597 | 6 | 64 | 14.42 | 61 | Yancey | 17,959 | 3 | 86 | 16.70 | 47 |
| TOTAL | | | | | | | 10,056,683 | 1,379 | -- | 13.71 | -- |

Program Targets

North Carolina’s Highway Safety targets are presented in Table 5. The targets established for the individual program areas are also provided in subsequent sections of the report.

Table 5. Summary of North Carolina Traffic Safety Targets for FY2018

| Program Area | Target(s) |
|--------------------------|--|
| Overall targets | <ul style="list-style-type: none"> • Reduce traffic-related fatalities by 6.87 percent from the 2011–2015 average of 1,296.4 to the 2014–2018 average of 1,207.3 by December 31, 2018. • Reduce the fatality rate of 100 million VMT by 8.31 percent from the 2011–2015 average of 1.215 to the 2014–2018 average of 1.114 by December 31, 2018. • Reduce the number of serious injuries by 9.94 percent from the 2012–2016 average of 2,399.8 to the 2014–2018 average of 2,161.2 by December 31, 2018 |
| Alcohol-impaired Driving | <ul style="list-style-type: none"> • Decrease alcohol impaired driving fatalities 10 percent from the 2011–2015 average of 375 to the 2014–2018 average of 338 by December 31, 2018. |
| Occupant Protection | <ul style="list-style-type: none"> • Decrease unrestrained passenger vehicle occupant fatalities in all seating positions 15 percent from the 2011–2015 average of 370 to the 2014–2018 average of 315 by December 31, 2018. • Increase statewide observed seat belt use of front seat outboard occupants in passenger vehicles 3 percentage points from the 2012–2016 average usage rate of 89.7 percent to the 2014–2018 average of 92.7 percent by December 31, 2018. |
| Police Traffic Services | <ul style="list-style-type: none"> • Decrease speeding-related fatalities by 5 percent from the 2011–2015 average of 475 to the 2014–2018 average of 451 by December 31, 2018. |
| Young Drivers | <ul style="list-style-type: none"> • Decrease drivers age 20 or younger involved in fatal crashes by 20 percent from the 2011–2015 average of 165 to the 2014–2018 average of 132 by December 31, 2018. |
| Motorcycles | <ul style="list-style-type: none"> • Decrease motorcyclist fatalities 5 percent from the 2011–2015 average of 188 to the 2014–2018 average of 178 by December 31, 2018. • Limit the 2014–2018 average number of unhelmeted motorcyclist fatalities to the 2011–2015 average of 16 by December 31, 2018. |
| Older Drivers | <ul style="list-style-type: none"> • Decrease the number of older drivers involved in fatal crashes 5 percent from the 2011–2015 average of 243 to the 2014–2018 average of 231 by December 31, 2018. |
| Pedestrians | <ul style="list-style-type: none"> • Limit the 2014–2018 average number of pedestrian fatalities to the 2011–2015 average of 178 by December 31, 2018. |
| Bicyclists | <ul style="list-style-type: none"> • Decrease the number of bicyclist fatalities 15 percent from the 2011–2015 average of 23 to the 2014–2018 average of 20 by December 31, 2018. |
| Commercial Vehicles | <ul style="list-style-type: none"> • Limit the 2014–2018 average number of large truck fatalities to the 2011–2015 average of 127 through December 31, 2018. |
| Traffic Records | <ul style="list-style-type: none"> • Provide direction and facilitate coordination among the safety data stewards and stakeholders to improve the transportation safety information systems in North Carolina through on-going Traffic Records Coordinating Committee activities. |

Alignment of Targets with the North Carolina Strategic Highway Safety Plan and North Carolina Highway Safety Improvement Program

The State of North Carolina revised its Strategic Highway Safety Plan (SHSP) during 2014 and released the final version in March 2015. The goals stated in the SHSP are to cut the fatalities and serious injuries in North Carolina in half by 2030; that is, reducing the total annual fatalities by 630 and the total number of serious injuries by 1,055. The goals of the Strategic Highway Safety Plan will be achieved through the implementation of strategies and actions in nine safety emphasis areas:

- Demographic Considerations (in particular— older drivers and younger drivers)
- Driving While Impaired
- Emerging Issues and Data
- Intersection Safety
- Keeping Drivers Alert
- Lane Departure
- Occupant Protection/Motorcycles
- Pedestrians and Bicyclists
- Speed

As required, the targets for fatalities, fatality rate / 100 million VMT, and for the number of "disabling" (A) injuries of this FY2018 Highway Safety Plan submitted by GHSP match the overall targets in the Highway Safety Improvement Program and are aligned with the goals of the North Carolina Strategic Highway Safety Plan. When trend lines are generated for these traffic safety indicators, North Carolina is on track to achieve the goals of the North Carolina Strategic Highway Safety Plan of cutting total fatalities from 1,260 to 630, cutting the fatality rate per million VMT from 1.23 to 0.62, and cutting the number of disabling injuries from 2,109 to 1,054 by 2030.

PROGRAM AREAS AND SELECTION OF EVIDENCE-BASED COUNTERMEASURES

During FY2018, GHSP will fund a variety of programs, projects and activities with federal transportation funds, which are intended to advance the traffic safety targets set forth in this Highway Safety Plan. GHSP focuses on strategies that have been proven effective in reducing motor vehicle crashes, injuries and fatalities, including evidence-based enforcement.

Evidence-Based Traffic Safety Enforcement Plan

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 was previously noted, 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.

Selection of Evidence-based Countermeasures

To address the problem areas described above and to meet North Carolina's goals for FY2018, 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 8th 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

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 personnel 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.

Projects that do not include enforcement personnel are required to report on a quarterly basis to ensure that the goals and outcomes of each of these projects are met and to enable GHSP and project personnel to make adjustments to their tasks and objectives as needed to address problems that might arise.

Program Areas

During FY2018, GHSP will fund a variety of programs, projects and activities with federal transportation funds, which are intended to advance the traffic safety targets set forth in this Highway Safety Plan. GHSP has identified the following areas as top priorities for program funding for FY2018:

- Alcohol-Impaired Driving (accounting for 411 fatalities in 2015);
- Occupant Protection (402 unrestrained fatalities);
- Speeding and Police Traffic Services (547 fatalities);
- Young Drivers (165 fatalities);
- Motorcycles (192 fatalities);
- Traffic Records;
- Other Highway Safety Priorities: Older Drivers (283 fatalities); Pedestrians (182 fatalities); pedalcyclists (23 fatalities); Distracted Driving (93 fatal crashes); Commercial Motor Vehicles (115 fatal crashes).

The order in which the program areas are discussed generally coincides with their position in GHSP's overall set of priorities, with the top priorities being alcohol-impaired driving and occupant protection.

Each program area begins with the target for the problem area (reductions in fatalities, increases in belt use, etc.). The evidence considered in establishing the target is then reviewed. This includes crash/fatality data, findings from observational surveys, attitude and awareness questionnaires, and other data sources. Statewide campaigns/programs to address the problem area are then briefly described. Finally, there is a listing of projects submitted for approval for FY2018.

Funded Projects and Activities

The following list includes projects that are included as a part of the original submission of the FY2018 North Carolina Highway Safety Plan to provide funding for GHSP to carry out the administrative and operational tasks necessary for the office to function and administer funds received from NHTSA.

Program Areas and Countermeasure Selection

A listing of all projects, including the funding level and source, can be found in the Cost Summary at the end of this document.

Agency: Governor's Highway Safety Program
Project Number: PA-18-01-01
Project Title: GHSP In-House P&A
Project Description: This is an ongoing project that provides funding for the Director and Assistant Director positions to manage the day-to-day operations of the highway safety office. This project also provides funding for the Finance Officer, Administrative Assistant and Program Assistant positions to carry out the administrative tasks necessary for the office to function.
CMTW: NA

Agency: Governor's Highway Safety Program
Project Number: SA-18-09-01
Project Title: GHSP In-House Programs and Operations
Project Description: This is an ongoing project that provides funding for the Planning, Programs and Evaluation Manager and Highway Safety Specialist positions responsible for administering and monitoring grants, a Law Enforcement Liaison position to coordinate and enhance law enforcement participation, a Communication and Events Coordinator position to promote and assist in managing events, and a Materials Manager position to coordinate the distribution of information and materials. This project also provides funding for other operational expenses and highway safety events throughout the year.
CMTW: NA

Agency: Governor's Highway Safety Program
Project Number: SA-18-09-02
Project Title: GHSP In-House Events and Media
Project Description: This is an ongoing project to provide funding for highway safety programs and events (including, but not limited to impaired driving and occupant protection). GHSP continues to plan and implement *Booze It & Lose It, Click It or Ticket* and other highway safety events and activities. GHSP will develop and update materials as needed to enhance the highway safety message in various program areas. This project funds the Traffic Safety Conference and Expo (formerly the Highway Safety Symposium) although we are working on transitioning the conference logistics to another agency.
CMTW: NA

Agency: UNC-Highway Safety Research Center
Project Number: SA-18-09-03
Project Title: Highway Safety Plan and Annual Report
Project Description: This is an ongoing continuation project that provides funding for preparation of the North Carolina Highway Safety Plan and GHSP 's Annual Report.
CMTW: NA

Agency: UNC-Highway Safety Research Center
Project Number: SA-18-09-07

Project Title: Safe Systems Synthesis and Summit
Project Description: This is the initial year of the project that will provide funding to support the efforts of the Collaborative Sciences Center for Road Safety (CSCRS) to develop safe systems resources. The Safe Systems approach involves a holistic view of the road transport system and the interactions among roads and roadsides, travel speeds, vehicles and road users. It is an inclusive approach that caters to all groups using the road system which includes drivers, motorcyclists, passengers, pedestrians, cyclists, and commercial/heavy vehicle drivers. The project aims to develop a synthesis of safe systems best practices around the world, produce a web-based version of the synthesis for dissemination and to conduct a Safe Systems Summit in North Carolina to support the implementation of safe systems.

CMTW: NA

Agency: NC State University-Institute of Transportation Research and Education
Project Number: SA-18-09-09
Project Title: Vision Zero-Event and Outreach Support
Project Description: This is the first year of a project to provide dedicated staff to lead conference and event coordination designed in support of North Carolina's Vision Zero initiative. Specifically, dedicated staff will coordinate the annual North Carolina Traffic Safety Conference and Expo, the North Carolina State Fair's "Safety City" exhibition and other events focused on promoting a unified traffic safety culture message for preventing roadway injuries and fatalities.

CMTW: NA

Agency: UNC-Highway Safety Research Center
Project Number: SA-18-09-10
Project Title: Development of a Safe Systems Toolkit
Project Description: This is the first year of a two year project designed to develop and test a pilot "toolkit" of resources for use by transportation professionals and their local partners to address local transportation safety issues as the State of North Carolina seeks to grow the Vision Zero campaign.

CMTW: NA

ALCOHOL-IMPAIRED DRIVING

Target

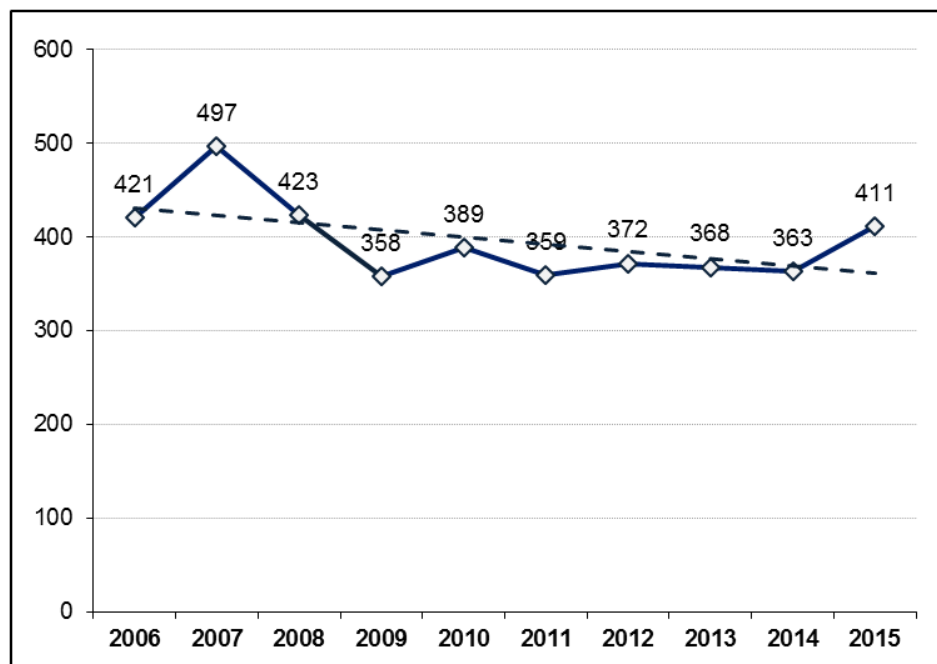
- ❖ **GHSP’s goal is to decrease alcohol impaired driving fatalities 10 percent from the 2011–2015 average of 375 to the 2014–2018 average of 338 by December 31, 2018.**

Evidence Considered

Crashes, Deaths and Injuries

During 2015, 411 persons were killed in crashes in North Carolina involving a driver or motorcycle operator with a BAC of .08 or above. This is 13 percent higher than the 363 alcohol-involved fatalities in 2014. Despite this increase, the number of traffic fatalities involving an impaired driver has gradually decreased over the past ten years, as shown in Figure 13. It remains to be seen whether 2015 is an anomaly, or whether it represents a new pattern of increasing alcohol-involved fatalities.

Figure 13. Fatalities Involving a Driver or Motorcycle Operator with a BAC of .08 or Above



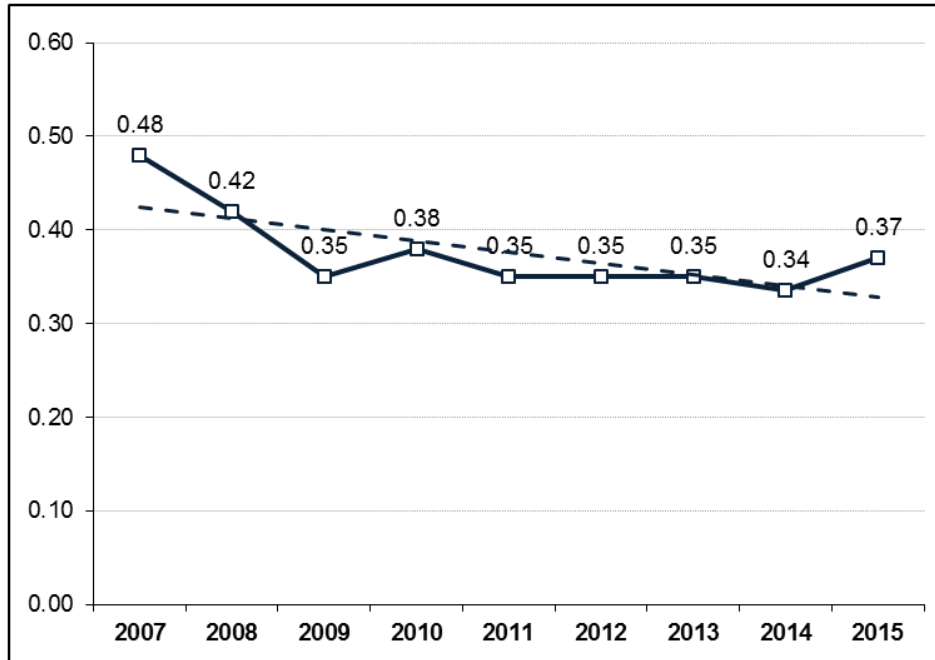
Source: FARS, 2006–2015

GHSP believes the number of alcohol-involved fatalities can be further reduced through a combination of enforcement and educational programs designed to deter driving while impaired. Hence, we have set a target that reduces alcohol-impaired driving fatalities by 10 percent, to 337 fatalities by 2018.

The percent of fatalities that involve an impaired driver has been very consistent since 2005. Approximately 30 percent of fatalities in North Carolina have involved a driver with a BAC of .08 or above. In 2015, 29.8 percent of fatalities involved an impaired driver, up slightly from 28.3 percent of fatalities in 2014.

During 2015, there were 0.37 alcohol-impaired driving fatalities per 100 million vehicle miles traveled (VMT). This figure is somewhat higher than the 0.34 recorded in 2014. Again, however, the longer-term trend suggests a decrease in alcohol-impaired fatalities per VMT, as shown in Figure 14.

Figure 14. Alcohol-impaired Driving Fatalities per VMT



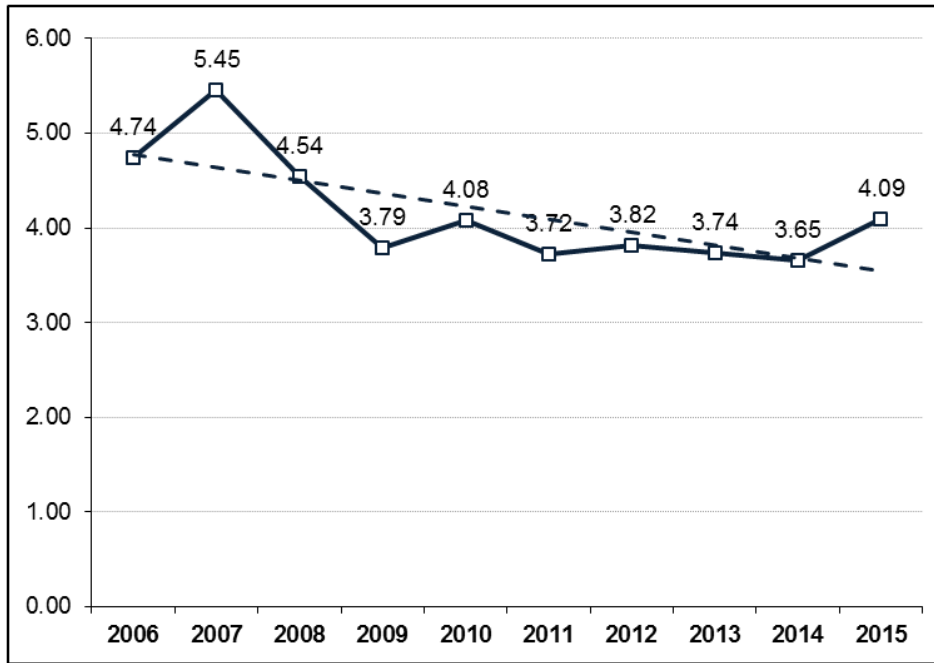
Source: FARS, 2007–2015 and FHWA

As mentioned in the “State Demographics” section, North Carolina’s population has grown considerably during the last decade. Consequently, it is important to consider fatality rates per capita. shows alcohol-impaired driving fatalities per 100,000 population in North Carolina from 2006 through 2015. Similar to the previous analyses there was a rise in 2015, but the overall pattern suggests a decline in alcohol-impaired fatalities per capita.

In addition to the 411 alcohol-impaired driving fatalities during 2015, there were 469 serious (“A”) injuries, 4,707 less severe injuries, and 5,600 property damage only crashes. Alcohol is less often involved in non-fatal crashes. Among all drivers in crashes in North Carolina during 2015, 2.64 percent had been drinking (based on the judgment of the law enforcement officer who completed the crash report form). This is slightly lower than in 2014 (2.76 percent).

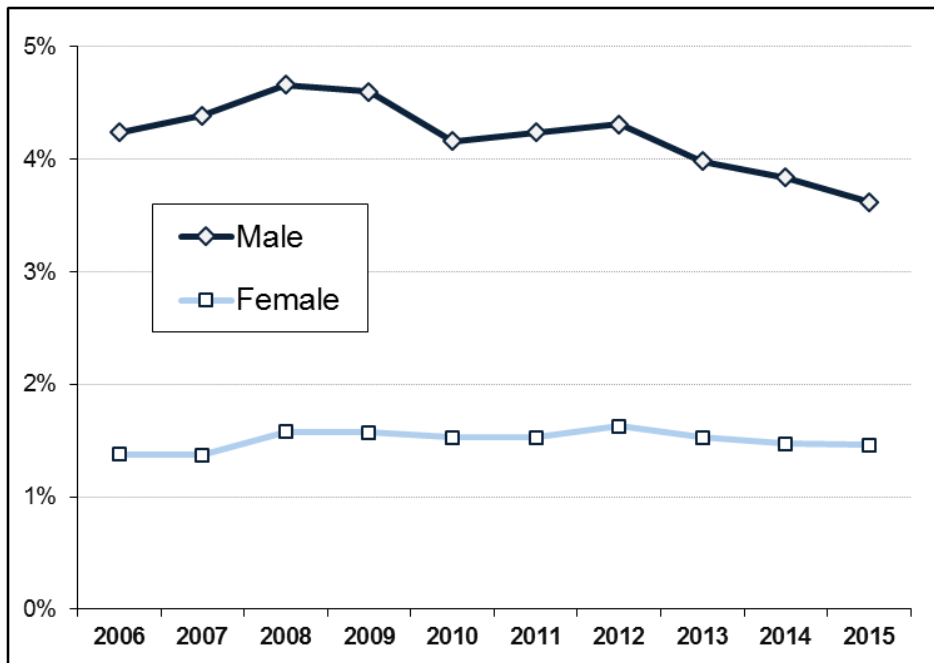
Alcohol involvement was more common among drivers involved in rural crashes (4.0 percent) than urban crashes (1.9 percent). Rural roadways are inherently more dangerous than urban roadways, and they can be particularly difficult to handle if a driver has been drinking. Additionally, alcohol-involvement in crashes was higher among males than females: 3.6 percent versus 1.5 percent. As shown in Figure 16, alcohol-involvement among males shows a mostly downward trend beginning in 2008. Meanwhile, alcohol-involvement among females has changed very little. This mirrors national trends.

Figure 15. Alcohol-impaired Driving Fatalities per 100,000 Population



Source: FARS, 2006–2015

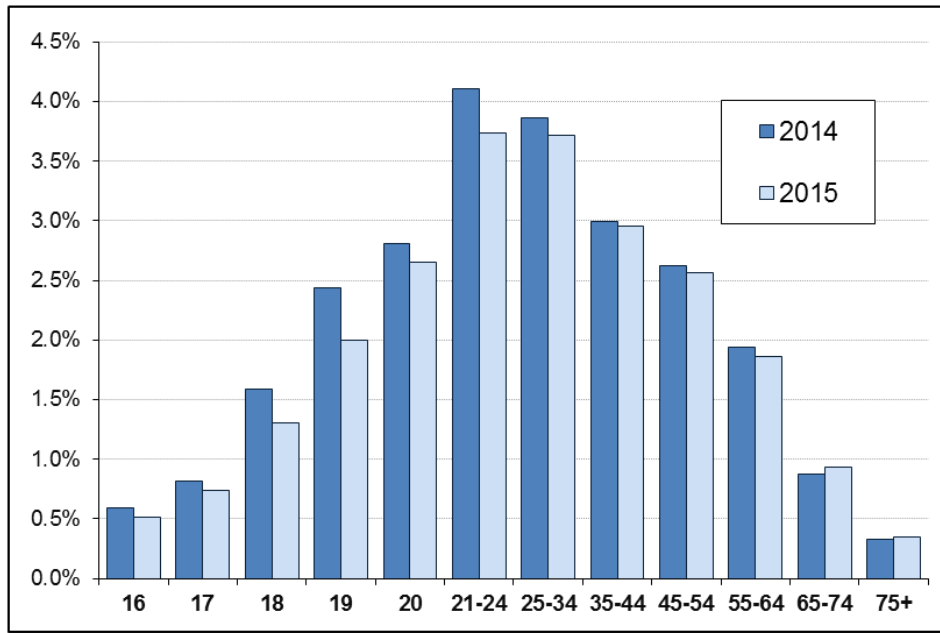
Figure 16. Crash Involved Drivers Who Had Been Drinking by Sex



Source: NCDOT Motor Vehicle Crash Data, 2006–2015

Alcohol-involvement also varies substantially by the age of the driver. As shown in Figure 17, 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 65 and older. During 2015, alcohol involvement in crashes decreased somewhat for drivers between the ages of 18 and 34.

Figure 17. Crash Involved Drivers Who Had Been Drinking by Age

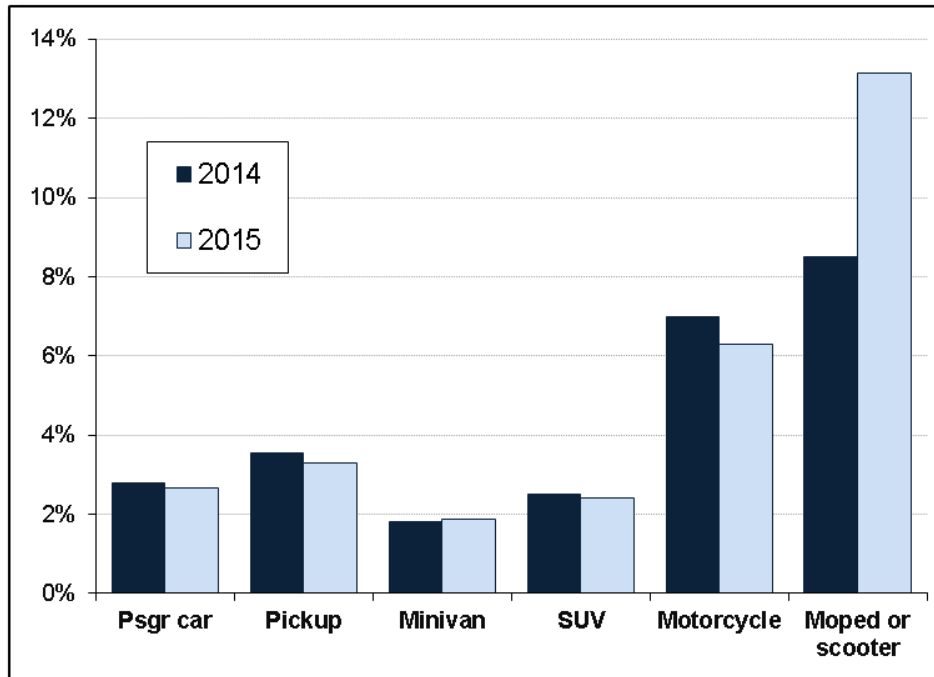


Source: NCDOT Motor Vehicle Crash Data, 2014–2015

Drivers of different vehicle types also vary in their rate of alcohol-involvement in crashes. As shown in Figure 18, alcohol-involvement in crashes is highest among riders of motorcycles and mopeds/scooters. During 2015, 6.3 percent of motorcycle and 13.2 percent of moped/scooter crashes involved a driver who had been drinking. Alcohol-involvement among riders of mopeds/scooters increased noticeably in 2015.

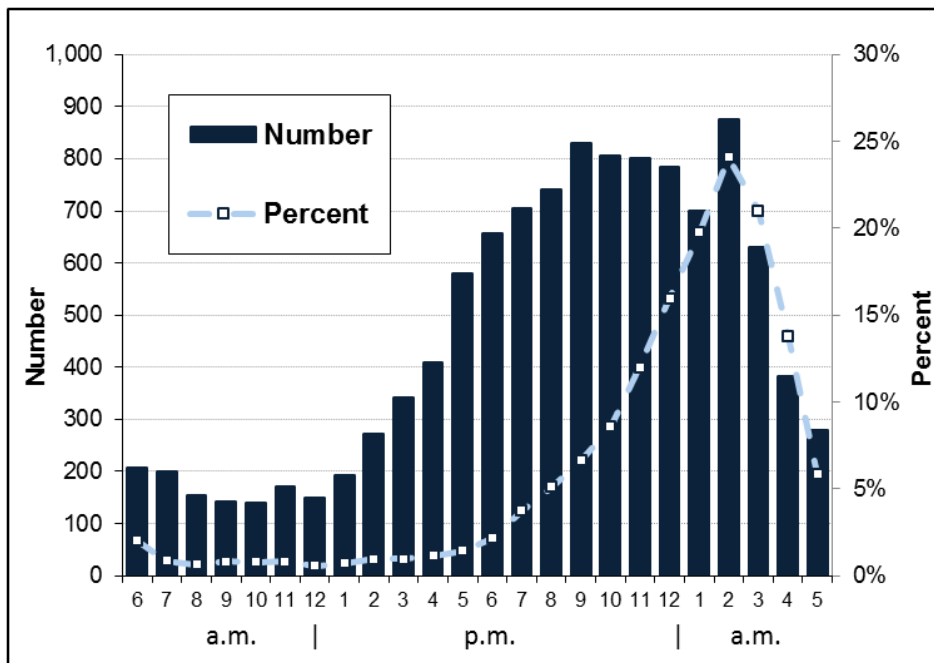
Figure 19 shows the number (left axis, blue bars) and percent (right axis, blue line) of crashes involving alcohol by time of day. Both the number and percent of alcohol-involved crashes peaks at 2 a.m. During 2015, there were 876 crashes involving alcohol between 2:00–2:59 a.m., accounting for 24 percent of all crashes at that hour of day. Although the hours of 2:00–2:59 a.m. represents a period with a very high concentration of alcohol-involved crashes, the sheer *number* of alcohol crashes is high from 9:00 p.m. to 3:00 a.m.

Figure 18. Alcohol-Involvement in Crashes by Vehicle Type



Source: NCDOT Motor Vehicle Crash Data, 2014–2015

Figure 19. Alcohol-Involvement in Crashes by Time of Day



Source: NCDOT Motor Vehicle Crash Data, 2015

North Carolina has 100 counties. Table 6 shows the 42 counties with the most fatalities in crashes from 2011 to 2015 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 42 counties listed in the table account for 80 percent of all alcohol-involved fatalities in North Carolina’s from 2011 to 2015. The table also shows the alcohol-involved fatality rate per 10,000 population. Many of the counties with high per capita rates of alcohol-involved fatalities are located in the southeastern part of the state (e.g., Robeson, Hoke, Columbus, Pender and Sampson counties) or along the border with Virginia (e.g., Vance, Halifax and Granville counties).

Table 6 Fatalities in Crashes Involving a Driver with a BAC of .08 or Above, 2011–2015

| County | Fatalities in alcohol-involved crashes | Fatalities per 10,000 population | % of all alcohol involved fatalities |
|---------------|---|---|---|
| Mecklenburg | 127 | 1.23 | 6.73% |
| Wake | 110 | 1.09 | 5.83% |
| Guilford | 76 | 1.47 | 4.03% |
| Cumberland | 74 | 2.25 | 3.92% |
| Robeson | 66 | 4.95 | 3.50% |
| Forsyth | 60 | 1.64 | 3.18% |
| Davidson | 46 | 2.78 | 2.44% |
| Johnston | 42 | 2.28 | 2.22% |
| Catawba | 41 | 2.63 | 2.17% |
| Harnett | 40 | 3.15 | 2.12% |
| Onslow | 40 | 2.06 | 2.12% |
| Nash | 35 | 3.71 | 1.85% |
| Gaston | 35 | 1.65 | 1.85% |
| Rowan | 33 | 2.36 | 1.75% |
| Randolph | 33 | 2.31 | 1.75% |
| New Hanover | 32 | 1.45 | 1.69% |
| Durham | 32 | 1.08 | 1.69% |
| Pitt | 31 | 1.77 | 1.64% |
| Union | 29 | 1.32 | 1.54% |
| Wayne | 28 | 2.24 | 1.48% |
| Buncombe | 28 | 1.10 | 1.48% |
| Columbus | 26 | 4.54 | 1.38% |
| Moore | 26 | 2.75 | 1.38% |
| Brunswick | 26 | 2.10 | 1.38% |
| Iredell | 26 | 1.53 | 1.38% |
| Sampson | 25 | 3.91 | 1.32% |
| Hoke | 24 | 4.64 | 1.27% |
| Pender | 24 | 4.14 | 1.27% |
| Lincoln | 23 | 2.83 | 1.22% |
| Orange | 23 | 1.64 | 1.22% |
| Wilson | 22 | 2.69 | 1.17% |
| Cleveland | 22 | 2.25 | 1.17% |
| Alamance | 22 | 1.40 | 1.17% |
| Halifax | 21 | 4.01 | 1.11% |
| Craven | 21 | 2.03 | 1.11% |
| Vance | 20 | 4.43 | 1.06% |

Table 6 Fatalities in Crashes Involving a Driver with a BAC of .08 or Above, 2011–2015

| County | Fatalities in alcohol-involved crashes | Fatalities per 10,000 population | % of all alcohol involved fatalities |
|------------|--|----------------------------------|--------------------------------------|
| Granville | 20 | 3.42 | 1.06% |
| Duplin | 19 | 3.17 | 1.01% |
| Surry | 19 | 2.60 | 1.01% |
| Rockingham | 19 | 2.06 | 1.01% |
| Cabarrus | 19 | 0.97 | 1.01% |
| Lee | 18 | 3.06 | 0.95% |

Source: FARS, 2011–2015 and U.S. Census Bureau

Statewide Campaigns/Programs

Enforcement Activities

During 2016, law enforcement agencies in North Carolina conducted five waves of the *Booze It & Lose It* campaign:

- St. Patrick’s Day *Booze It & Lose It* (March 16-20)
- *Booze It & Lose It*: Operation Firecracker (June 24-July 4)
- Labor Day *Booze It & Lose It* (August 19-September 5)
- Halloween *Booze It & Lose It* (October 28-31)
- Holiday *Booze It & Lose It* (December 9-January 1, 2017)

Across all five waves, 27,019 checkpoints and saturation patrols were conducted, resulting in a total of 8,731 DWI charges (see Table 7). Compared to 2015, 24 percent fewer checkpoints and saturation patrols were conducted during *Booze It & Lose It* enforcement activities in 2016, and these activities resulted in 11 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 52,940 DWI charges issued during 2016 and 46,478 of these were issued during non-campaign periods throughout the year. Over 80 percent of DWI charges issued in 2016 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 2016 also resulted in 20,633 charges for occupant restraint violations, 11,466 arrests for drug violations, 9,655 wanted persons apprehended, and 25,301 citations for driving without a license. An additional 4,143 DWI charges were made during other enhanced enforcement periods in 2016, such as *Click It or Ticket*.

Table 7. Checkpoints and DWI Charges

| | 2016 | 2015 |
|---|---------------|----------------|
| St. Patrick's Day <i>Booze It & Lose It</i> | | |
| Checkpoints and saturation patrols | 2,813 | 2,862 |
| DWI charges | 790 | 785 |
| <i>Booze It & Lose It: Operation Firecracker</i> | | |
| Checkpoints and saturation patrols | 4,635 | 6,571 |
| DWI charges | 1,729 | 1,785 |
| Labor Day <i>Booze It & Lose It</i> | | |
| Checkpoints and saturation patrols | 9,014 | 13,567 |
| DWI charges | 2,943 | 3,523 |
| Halloween <i>Booze It & Lose It</i> | | |
| Checkpoints and saturation patrols | 2,118 | 1,553 |
| DWI charges | 605 | 601 |
| Holiday <i>Booze It & Lose It</i> | | |
| Checkpoints and saturation patrols | 8,439 | 10,914 |
| DWI charges | 2,664 | 3,074 |
| Totals - All Enforcement Campaigns | | |
| Checkpoints and saturation patrols | 27,019 | 35,467 |
| DWI charges | 8,731 | 9,768 |
| Total DWI Charges for Year (AOC*) | 91,884 | 102,708 |
| Total - Non-Enforcement Campaign DWI Charges # | 83,153 | 94,042 |
| Total - Non-Enforcement Campaign DWI Charges % | 90.5% | 90.5% |

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 \geq .04 – 20-138.2(A)(2), DWI Schedule I Controlled Substance – 20-138.2(A)(3), Commercial DWI Under the Influence – 20138.2(A)(1), DWI Commercial Vehicle – 20-138.2) and DWI (Driving After Consuming <21 – 20-138.3, Driving While Impaired - 20-138.1)

Summary

During 2015, alcohol-impaired driving fatalities in North Carolina increased by 13 percent, from 363 to 411. Similarly, the rate of alcohol-impaired fatalities per capita and per 100 million VMT increased in 2015. As in previous years, there continue to be certain groups of drivers who are at higher risk for alcohol impaired crashes. This includes males, drivers age 21 to 29, motorcycle and motor-scooter riders, and drivers on rural roadways. Alcohol-involved crashes are most common at nighttime, especially from 2 a.m. to 3 a.m. The counties that account for the most alcohol-involved fatalities are Mecklenburg, Wake, Guilford, Cumberland, Robeson and Forsyth.

GHSP is concerned about the increase in alcohol-impaired driving fatalities in 2015 and remains committed to removing impaired drivers from our roadways. To adjust for the confounding effect of economic conditions, five year averages were used as the baseline for setting goals. GHSP is working toward a reduction of 10 percent in fatalities by 2018 involving drivers with a BAC of .08 or above.

Countermeasures and Funding Priorities

To address the problem areas described above and to meet North Carolina's goals for 2018, 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 8th 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.

GHSP continues to implement an initiative to establish DWI Enforcement Teams in counties that were overrepresented in alcohol-related fatalities. GHSP originally crafted the initiative to encourage local law enforcement agencies in the identified counties to focus their enforcement efforts on days and times that impaired drivers were most likely to be on the roadways – typically Thursday, Friday and Saturday nights between 10 p.m. and 6 a.m. the following morning. During FY2018, GHSP will fund DWI Enforcement Teams in Buncombe, Forsyth, Guilford, Mecklenburg, Union, Wake and Wayne counties. GHSP will also fund two State Highway Patrol DWI Enforcement Teams to work in Cumberland and Robeson counties. Collectively, these nine counties accounted for almost a third (32 percent) of the alcohol-involved fatalities in North Carolina during the past five years, and they include the six counties with the highest number of fatalities. By focusing proven enforcement strategies in this select group of counties, GHSP expects to maximize the impact with the resources available. In addition, GHSP will encourage more communities that are overrepresented in alcohol-related fatalities to be involved in the DWI Enforcement Team approach. GHSP will provide access to data and county maps to these communities to communicate the location of impaired driving crashes, injuries and fatalities, as well as the time of day and day of week that these are occurring. Access to data will be provided to other areas of the State as well, in order to assist them with focusing their enforcement efforts in the most appropriate locations and times. In addition to supporting enforcement teams specifically focused on impaired driving, GHSP also plans to fund additional general enforcement efforts as noted in the Police Traffic Services section.

GHSP is also committed to supporting enforcement efforts statewide and particularly to the support of agencies that seek assistance to establish impaired driving checking stations. Checking stations have been proven by NHTSA to be extremely effective in curbing impaired driving and are supported by an overwhelming percentage of the population. GHSP is also fully supportive of the continued operation and expansion of the North Carolina BAT Mobile Program, operated by the Forensic Tests for Alcohol Branch (FTA). This program has been in operation since 1996 and since the program's inception has resulted in almost 3,800 checking stations and netted over 17,000 DWI arrests. During FY2018, GHSP is funding one new B.A.T. Mobile Unit to meet demand for on-site impaired driver processing by law enforcement. The units are deployed regionally assuring adequate checking station coverage throughout the State. GHSP will also fund a new database application system for the FTA to support the business processes associated with scheduling, enrollment and delivery of training programs, tracking certification history, as well as scheduling and tracking special events for the BAT mobile program.

GHSP is dedicated to the continued prosecution of impaired drivers and will support the North Carolina Conference of District Attorneys' (CDA) efforts to train more prosecutors and law enforcement officers statewide. During FY2018, GHSP plans to continue support for Dedicated DWI Treatment Courts in two counties (Buncombe and Cumberland). DWI Courts deal only with impaired driving cases and are proven to reduce recidivism among offenders. GHSP plans to evaluate the other seven counties with dedicated GHSP funded DWI Enforcement Teams to determine if they are good candidates for the establishment

and implementation of DWI courts. During FY2018, GHSP will continue to support a Drug Recognition Expert (DRE) coordinator, who will schedule trainings across the state to help officers detect impaired driving suspects under the influence of drugs. The DRE coordinator will also provide training for DRE's and DRE instructors to ensure state of the art training for all certified DRE personnel in North Carolina. Additionally, GHSP will fund 50 tablets for distribution to the DRE's across the state and a DRE Data Entry and Management System. This will allow for increased management proficiency in the DRE Program.

The North Carolina State Bureau of Investigation (SBI) laboratory does the blood alcohol testing for the majority of law enforcement agencies in North Carolina. Because of a recent court decision that requires the right to confront your accuser, the length between when a blood analysis is submitted to the time it takes for the technician to testify in court is up to 18 months. Valuable time is being spent traveling between counties statewide to testify on the analysis procedures and the results. During FY2018, GHSP will continue funding laboratories in Wake County, Pitt County and Wilmington to continue and/or expand their existing blood alcohol testing facilities and to expedite the blood alcohol analysis. Additionally, GHSP will fund for each of the three North Carolina State Crime Labs (NCSCCL), a Liquid Chromatograph/Quadrupole-Time-of-Flight (LC/Q-TOF) instrument. These LC/Q-TOF instruments allow for the screening of blood sample extracts for compounds with known molecular formulas, which includes over a thousand drugs and metabolites.

Media Plan

GHSP will support all of the fore mentioned FY2018 impaired driving campaigns with earned and/or paid media to draw attention to each of the campaigns. North Carolina utilizes a variety of media modes to draw attention to the campaigns and the enforcement efforts in the state.

Campaign kickoff events are planned for all FY2018 campaigns, seeking earned media attention that will be gained from partnerships with the NCDOT Communications Office, MADD, North Carolina State Highway Patrol, local law enforcement, Conference of District Attorney's, etc. The kickoff events will feature the GHSP Director, state law enforcement and local law enforcement, and will often include victims, survivors or offenders. At times GHSP will change the typical kickoff format to draw attention to a variety of impaired driving issues.

GHSP is in the process of re-evaluating our marketing efforts to move toward a more targeted approach thus increasing reach while lowering costs. GHSP will continue partnerships with universities in the state. The messaging and enforcement will focus on the issue of alcohol abuse at college sporting events and reminding citizens there are more ways than ever to get home after drinking. GHSP will continue to encourage those that plan to drink or who have been drinking to find a safe, sober way home. GHSP will promote *Booze It & Lose It* throughout the school year on campuses through targeted sports marketing and media campaigns.

GHSP also partners with minor league baseball clubs in the state to advertise the *Booze It & Lose It* message. The messaging coincides with the Operation Firecracker and Labor Day campaigns. Advertising at the ballparks includes various signage, in-game PSA's, social media, radio and program advertisements.

Additional advertising will be done through our agency of record. Marketing and advertising efforts are becoming more progressive with the ability to micro-target our audience and utilize a variety of

mediums to ensure *Booze It & Lose It* makes the most effective use of messaging. Paid media will be utilized during enforcement periods and certain months when increased alcohol-related fatalities occur. In-house social media will also be used throughout the entire year with messaging targeting key demographics and areas.

FY2018 Alcohol-Impaired Driving Projects

The following section outlines projects that are currently approved by the review team and officially part of the original submission of the FY2018 North Carolina Highway Safety Plan to address alcohol-impaired driving. A listing of all projects, including the funding level and source, can be found in the Cost Summary at the end of this document. (Note: CMTW = NHTSA's *Countermeasures that Work*).

Agency: Governor's Highway Safety Program
Project Number: AL-18-00-00
Project Title: GHSP In-House Impaired Driving Future Projects
Project Description: GHSP will set aside funds for anticipated projects that may occur during the year. Opportunities may arise at a later date during the fiscal year to conduct projects and funds are set aside for this purpose.
CMTW: NA

Agency: Department of Public Safety-Alcohol Law Enforcement Division
Project Number: AL-18-02-01
Project Title: Keys to Life/Mobile Enforcement Grant
Project Description: This is an ongoing project that provides funding for the Keys to Life and Mobile Enforcement project. The North Carolina Department of Public Safety Alcohol Law Enforcement Division conducts Keys to Life as an educational program targeting high school and younger college students during times of the year associated with underage drinking, including prom, spring break and graduation. In addition, Mobile Enforcement projects with saturated patrols and alcohol compliance checks will be conducted throughout the state at events with a higher likelihood of underage drinking, including festivals, back-to-school events and concerts. The goal of this project is to reduce underage consumption and reduce alcohol-related crashes by conducting 80 public information programs and 24 Mobile Enforcement Operations.
CMTW: Chapter 1, Section 2.1, 2.2

Agency: Guilford County Sheriff's Office
Project Number: AL-18-02-02
Project Title: DWI Task Force Educator
Project Description: This is the fourth year of a project for a DWI Task Force Educators position. Guilford County ranks third in both overall fatalities and alcohol-related fatalities. This position works in conjunction with the Guilford County DWI Task Force to educate the public regarding impaired driving.
CMTW: Chapter 1, Section 2.1, 2.2, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: UNC-Highway Safety Research Center
Project Number: AL-18-02-03
Project Title: Repeat Offenders in North Carolina
Project Description: This is year two of a two year project to better understand the contribution of repeat offenders to traffic crashes, injuries and fatalities. and to identify approaches to mitigate this problem. Repeat offenders can include drinking drivers, speeders, aggressive drivers and those who show a general disregard of traffic laws.
CMTW: Chapter 1, Section 3.1

Agency: Huntersville Police Department
Project Number: M1HVE-18-13-02 M5HVE-18-15-11
Project Title: Huntersville Traffic Safety Grant
Project Description: This is a new project with the Huntersville Police Department. They currently have a dedicated traffic team with four officers and a Sergeant. The project will provide funding for two additional Traffic officers and their equipment. Mecklenburg County is ranked first for overall fatalities, first for alcohol-related fatalities, first for unrestrained fatalities and second for young driver fatal crashes. The goal of the project is to reduce alcohol-related and unrestrained traffic crashes and injuries through enforcement and education efforts. Enforcement efforts will target these drivers by conducting seat belt initiatives and by holding checking stations during the day and nighttime.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Department of Health and Human Services-Forensic Tests for Alcohol Branch
Project Number: M5BAC-18-15-01
Project Title: Breath Alcohol Testing Mobile Unit Program
Project Description: This is an ongoing project that provides funding for the Blood Alcohol Testing (BAT) program. This program provides the BAT Mobile Units stationed regionally across the state. This project provides funding for the salary for three existing BAT coordinators, the salary for two part-time BAT coordinators and an additional BAT Mobile unit. This project will enhance the program's ability to assist law enforcement agencies across the state in efforts to remove impaired drivers from the highways by providing onsite breath testing facilities during checkpoints.
CMTW: Chapter 1, Section 2.1, 2.2

Agency: Department of Health and Human Services-Forensic Tests for Alcohol Branch
Project Number: M5BAC-18-15-02
Project Title: Science Program
Project Description: This is an ongoing project that provides funding for the Science Program. The Science Program project provides and maintains the breath alcohol testing instruments statewide. The project also conducts all the training for law enforcement officers on these instruments. The Science project this fiscal year will purchase a Data Base Upgrade Application along with IT Hardware and IT Application Maintenance and Support.

Agency: CMTW: Chapter 1, Section 2.1; 2.2, 2.3, 2.4
Pitt County Sheriff's Office
Project Number: M5BAC-18-15-03
Project Title: Pitt County Impaired Driving Laboratory Analysis Program
Project Description: This is the fifth year of a project for blood alcohol analysis with the Pitt County Sheriff's Office. The North Carolina State Bureau of Investigation laboratory does the blood alcohol testing for the majority of law enforcement agencies in our state. Because of a recent court decision that requires the right to confront your accuser, the length between when a blood analysis is submitted to the time it takes for the technician to testify in court is up to 18 months. Valuable time is being spent traveling between counties statewide to testify on the analysis procedures and the results. The goal of the project is to provide a blood alcohol testing facility for Pitt County. This lab will expedite the adjudication process by offering the court system the immediate availability of the lab technician that performed the blood testing. The goal of the project is to reduce the blood alcohol analysis time frame from 12-18 months to 1 month and expand by one additional judicial district.
CMTW: Chapter 1, Section 2.1, 2.2

Agency: Wilmington Police Department
Project Number: M5BAC-18-15-04
Project Title: Regional Crime Laboratory Collaboration
Project Description: This is the fifth year of project with the Wilmington Police Department for blood alcohol analysis. New Hanover County is ranked 17th for alcohol-related fatalities. The North Carolina State Bureau of Investigation laboratory does the blood alcohol testing for the majority of law enforcement agencies in our state. Because of a recent court decision that requires the right to confront your accuser, the length between when a blood analysis is submitted to the time it takes for the technician to testify in court is up to 18 months. Valuable time is being spent traveling between counties statewide to testify on the analysis procedures and the results. Currently, the Wilmington blood laboratory has a turnaround time of less than 10 days for the blood alcohol testing results. The Wilmington Police Blood Laboratory expanded the blood alcohol testing to the Tri-County region and now provides analysis for several counties. The expanded laboratory increased the local and state agencies served from 16 to 55 agencies covering the counties of New Hanover, Brunswick, Pender, Duplin, Columbus and Onslow. The goal of the lab is to expand the service into Cumberland county.
CMTW: NA

Agency: Wake/Raleigh City County Bureau of Identification
Project Number: M5BAC-18-15-05
Project Title: Wake County DWI Blood Analysis
Project Description: This is the fourth year of a project that provides funding for a blood alcohol analysis laboratory. Wake County DWI Blood Analysis offers an avenue to receive blood alcohol test results much quicker than the State Crime Laboratory can provide them with two full-time chemists. The goal of the project is to continue expedited analysis of blood alcohol cases, reduce the number of

alcohol-related crashed by repeat offenders, and increase efficiency in the laboratory with additional personnel and backup instrumentation.

CMTW: Chapter 1, Section 2.1, 2.2

Agency: Conference of District Attorneys
Project Number: M5CS-18-15-01 PT-18-06-13
Project Title: Traffic Safety Resource Prosecutor Project
Project Description: This is an ongoing project that funds six Traffic Safety Resource Prosecutors (TSRP) and a Traffic Safety Legal Assistant that provide highway safety-related information, technical support and training to law enforcement, prosecutors, magistrates and judges. This is provided through individualized and joint training sessions as well as publications and technical support. Five of the TSRP's are assigned regionally and provide technical assistance, train prosecutor's, law enforcement, judicial officials and other allied officials in support of the counties where DWI Task Forces have been created.
CMTW: Chapter 1, Section 3.1, 3.2, 3.3, 3.4; Chapter 3, Section 3.1, 3.2

Agency: Judicial Department - Administrative Office of the Courts
Project Number: M5CS-18-15-02
Project Title: Buncombe County DWI Treatment and Prevention Court
Project Description: This is an ongoing project that funds a Legal Assistant to work in conjunction with the Buncombe County DWI Treatment Court Coordinator. Buncombe County is the 7th most populated County in North Carolina; however, the county has a higher conviction rate for habitual DWI offenders in comparison with other counties which have a larger population. Buncombe County is ranked 20th for alcohol-related fatalities. Buncombe County is aggressively targeting repeat offenders with a DWI Treatment Court, which follows in similar fashion, their Drug Treatment Court. Part of the overall process is to identify Level 1 and 2 offenders and facilitate entry into the program. The goal of the project is to reduce recidivism of DWI offenders and is a companion project with Buncombe County MCS-18-15-04.
CMTW: Chapter 1, Section 3.1

Agency: Cumberland County
Project Number: M5CS-18-15-03
Project Title: Cumberland County Sobriety Court Coordinator/Community Liaison
Project Description: This is an ongoing project for the Cumberland County DWI Treatment Court. Cumberland County is ranked fourth in overall fatalities and fourth in alcohol-related fatalities. Cumberland County has one of the highest per capita arrest rates for DWI in North Carolina. Cumberland County continues to aggressively target repeat offenders with a DWI Treatment Court. Part of the overall process is to identify Level 1 and Level 2 offenders who are eligible to participate in the program. The goals of the project are to maintain pretrial monitoring of 100-150 high-risk defendants and maintain treatment monitoring of 10-20 high-risk treatment defendants.
CMTW: Chapter 1, Section 3.1

Agency: Buncombe County
Project Number: M5CS-18-15-04
Project Title: Buncombe County DWI Treatment Court
Project Description: This is a continuation project that funds a DWI Treatment Court Coordinator to work in conjunction with the Buncombe County Legal Assistant. Buncombe County is the 7th most populated County in North Carolina; however the county has a higher conviction rate for habitual DWI offenders in comparison with other counties which have a larger population. Buncombe County is ranked 20th in alcohol-related fatalities. Buncombe County is aggressively targeting repeat offenders with a DWI Treatment Court. Part of the overall process is to identify Level 1 and Level 2 offenders eligible for the program. The DWI Treatment Court Coordinator is responsible for this task. The goal of the project is to reduce recidivism of DWI offenders and is a companion project with the Administrative Office of the Courts project M5CS-18-15-02.
CMTW: Chapter 1, Section 3.1

Agency: Department of Public Safety-State Highway Patrol
Project Number: M5HVE-18-15-01
Project Title: *Booze It & Loose It Overtime*
Project Description: This is a continuation project that provides funding for overtime enforcement of driving while impaired offenses. The goal of the project is to reduce the number of alcohol-related fatalities and serious injuries. The State Highway Patrol will strategically place Troopers in the top 10 counties for impaired driving fatalities during the *Booze It & Lose It* campaigns. The enforcement efforts will focus on impaired drivers during the peak night time hours and on the weekends.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3, 2.4, 2.5

Agency: Department of Public Safety-State Highway Patrol
Project Number: M5HVE-18-15-02
Project Title: DWI Task Force-Cumberland County
Project Description: This is the fourth year of a project that funds four Troopers and one Sergeant with the State Highway Patrol for a DWI Task Force. This DWI Task Force is assigned to Cumberland County, which is ranked fourth in alcohol-related fatalities. The Task Force will focus on driving while impaired during the peak night time hours and on the weekends. The goal of the project is to reduce the number of alcohol-related fatalities and serious injuries.
CMTW: Chapter 1, Section 2.1, 2.2, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Department of Public Safety-State Highway Patrol
Project Number: M5HVE-18-15-03
Project Title: DWI Task Force-Robeson County
Project Description: This is the fourth year of a project that funds four Troopers and one Sergeant staffing a DWI Task Force assigned to Robeson county. Robeson County ranks 5th for alcohol-related fatalities in the state. The goal of the project is to reduce the number of alcohol-related fatalities and serious injuries in Robeson county. The enforcement efforts will focus on driving while impaired during the peak night time hours and on the weekends.
CMTW: Chapter 1, Section 2.1, 2.2, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Asheville Police Department
Project Number: M5HVE-18-15-05
Project Title: Asheville Buncombe County DWI Task Force
Project Description: This is the fifth year of a project that provides funding for six DWI Task force officers (four with the Asheville Police Department including a Sergeant and two with the Buncombe County Sheriff's Office). Buncombe County is ranked 8th for overall fatalities, 20th for alcohol-related fatalities, 7th for unrestrained fatalities and 7th for young driver fatal crashes. The goal of the project is to reduce alcohol-related fatalities, crashes and injuries through enforcement and education efforts. Enforcement efforts will target these drivers by conducting saturation patrols and by holding DWI checking stations on peak night time hours, holidays and weekends. The Task Force will work closely with the local MADD chapter to educate the citizens of Buncombe County about the dangers of drinking and driving.
CMTW: Chapter 1, Section 2.1, 2.2, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Winston-Salem Police Department
Project Number: M5HVE-18-15-06
Project Title: Forsyth County DWI Task Force
Project Description: This is a continuation project to fund the Forsyth County DWI Task Force. Forsyth County is ranked sixth in impaired driving-related fatalities and eighth in the number of unrestrained fatalities. This Task Force is a multi-agency effort between the police departments of Kernersville and Winston-Salem and the Forsyth County Sheriff's Office. The goals of the project are to reduce the number of alcohol-related crashes and fatalities. Between 2011–2015 Forsyth County had 60 alcohol-related vehicle fatalities and 45 fatalities resulting from unrestrained motorists. These totals reflect an average of 12 percent alcohol-related fatalities per year and an average of nine percent unrestrained fatalities per year.
CMTW: Chapter 1, Section 2.1, 2.2, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Guilford County Sheriff's Office
Project Number: M5HVE-18-15-07
Project Title: DWI Task Force
Project Description: This is sixth year of an impaired driving enforcement project to fund five positions. Guilford County ranks third in overall fatalities, third in alcohol-related fatalities and fourth in unrestrained fatalities. This project continues funding for a multi-agency DWI Task Force (Guilford County Sheriff's Office, Greensboro Police Department and High Point Police Department). The Task Force maintains a high level of impaired driving arrests through strict enforcement and increased daytime and nighttime with the goal to reduce alcohol-related fatalities.
CMTW: Chapter 1, Section 2.1, 2.2, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Kernersville Police Department
Project Number: M5HVE-18-15-08
Project Title: Forsyth County DWI Task Force Expansion

Project Description: This is a third year of a project to fund a traffic officer as part of the expansion of the Forsyth County DWI Task Force. Forsyth County is ranked sixth in impaired driving-related fatalities. This Task Force is a multi-agency effort between the police departments of Kernersville and Winston-Salem and the Forsyth County Sheriff's Office. The goals of the project are to reduce the number of alcohol-related crashes and fatalities.

CMTW: Chapter 1, Section 2.1, 2.2, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Union County Sheriff's Office

Project Number: M5HVE-18-15-09

Project Title: DWI Task Force

Project Description: This is the third year of a project that provides funding for five DWI Task force officers (four Deputies and a sergeant). Union County is ranked 20th for overall fatalities and 19th for alcohol-related fatalities. The goal of the project is to reduce alcohol-related fatalities, traffic crashes and injuries through enforcement and education efforts. Enforcement efforts include conducting saturation patrols and DWI checking stations during peak night time hours, holidays and weekends. The Task Force will work to educate the citizens of Union County about the dangers of drinking and driving through outreach/educational events.

CMTW: Chapter 1, Section 2.1, 2.2, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Wayne County Sheriff's Office

Project Number: M5HVE-18-15-10

Project Title: DWI Task Force

Project Description: This is the third year of a project for a DWI Task Force in Wayne County consisting of four deputies to address the impaired driving problem. Wayne County is ranked 21st in overall fatalities, 21st in alcohol-related fatalities and 21st in young-driver fatalities. Wayne County is the home to Seymour Johnson Air Force Base resulting in a large population of younger drivers therefore special enforcement and education efforts are aimed at the 18 - 25 age group. The goals of the project are to reduce the number of alcohol-related crashes and fatalities as well as reducing the number of young driver-involved crashes.

CMTW: Chapter 1, Section 2.1, 2.2, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Fuquay-Varina Police Department

Project Number: M5HVE-18-15-12 OP-18-04-03

Project Title: Traffic Safety Program

Project Description: This is the initial year of a project that will provide funding for one traffic officer that will expand the current three officer dedicated traffic team to a total of four traffic officers. Wake County is ranked second in overall fatalities, second in alcohol-related fatalities, third in unrestrained fatalities and first in young driver-related fatalities (20 or younger). This project will participate in DWI checking stations, conduct daytime and nighttime seat belt checking stations and conduct education and community outreach. The Town of Fuquay-Varina Police Department aims to reduce the number of speed-related crashes, reduce the young driver involved crashes and reduce the total injury crashes through education and enforcement efforts.

CMTW: Chapter 1, Section 2.1, 2.2, 2.3, 2.4, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Bessemer City Police Department
Project Number: M5HVE-18-15-15 PT-18-06-19
Project Title: Bessemer City Police Traffic Grant
Project Description: This is a new project with the Bessemer City Police Department. The project will provide funding for one traffic officer and the equipment for that officer. Gaston County is ranked 10th for overall fatalities 12th for alcohol-related fatalities, 9th for unrestrained fatalities and 13th for speed-related fatalities. The goal of the project is to reduce speed-related, alcohol-related and unrestrained traffic crashes and injuries through enforcement and education efforts. Enforcement efforts will target these drivers by conducting seat belt initiatives and by holding checking stations during the day and nighttime.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3, 2.4, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Graham Police Department
Project Number: M5HVE-18-15-17 PT-18-06-23
Project Title: Graham PD Traffic Safety Project
Project Description: This is the first year of a project to fund a traffic enforcement officer. The City of Graham has approximately 15,000 residents and covers 10 square miles. As the county seat of Alamance County, the City of Graham experiences a high volume of traffic on a daily basis. Alamance County is ranked 26th in overall fatalities. The police department plans to reduce the number of crashes with injuries and fatalities that are caused by speeding, reckless and intoxicated drivers.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3, 2.4, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Charlotte-Mecklenburg Police Department
Project Number: M5HVE-18-15-18
Project Title: DWI Task Force
Project Description: This is the fifth year of a project that provides funding for seven DWI Task force officers including a sergeant. Mecklenburg County is ranked 1st for overall fatalities and 1st for alcohol-related fatalities. The goal of the project is to reduce alcohol-related fatalities, traffic crashes and injuries through enforcement and education efforts. Enforcement efforts will target impaired drivers by conducting saturation patrols and conducting DWI checking stations on peak night time hours, holidays and weekends. The Task Force will work closely with the local teen safe driving project to educate the teens and the citizens of Mecklenburg County about the dangers of drinking and driving.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3, 2.4, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Raleigh Police Department
Project Number: M5MVE-18-15-04
Project Title: Raleigh Police Department DWI Squad
Project Description: This is the fifth year of a project that provides funding for a five officer DWI Squad. Wake County is ranked 2nd in alcohol-related fatalities. The DWI Squad is deployed during the peak night time and weekend hours when impaired drivers are known to be on the road. Along with enforcement efforts,

informational presentations are planned for Driver's Education classes. The unit aims to reduce the number of alcohol-related fatalities.

Agency: Department of Health and Human Services-Forensic Tests for Alcohol Branch
Project Number: M5TR-18-15-01
Project Title: Drug Recognition Expert Program
Project Description: This is an ongoing project that provides funding for the Drug Recognition Expert (DRE) Program. This project includes funding for the DRE coordinator responsible for scheduling training across the state to help officers detect impaired suspects under the influence of drugs. The coordinator also provides instruction for DRE's and DRE instructors to ensure state of the art training for all certified DRE personnel. The DRE project this year will include a data entry and management system and will purchase 50 tablets to upload DRE evaluations into the system.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3, 2.4, 2.5; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Department of Health and Human Services-Forensic Tests for Alcohol Branch
Project Number: M5TR-18-15-02
Project Title: Standardized Field Sobriety Testing Program
Project Description: This is an ongoing project that provides funding for the Standardized Field Sobriety Testing (SFST) Program. This project provides training to law enforcement officers for SFST and Advanced Roadside Impaired Driving Enforcement (ARIDE) across the state.
CMTW: Chapter 1, Section 2.1

Agency: Governor's Highway Safety Program
Project Number: M5X-18-00-00
Project Title: GHSP In-House Impaired Driving Future Projects
Project Description: GHSP will set aside funds for anticipated projects that may occur during the year. Opportunities may arise at a later date during the fiscal year to conduct projects and funds are set aside for this purpose.
CMTW: NA

Agency: Governor's Highway Safety Program
Project Number: M5X-18-15-01
Project Title: GHSP In-House Alcohol Summit
Project Description: This is an ongoing project that provides funding for a DWI Task Force Summit to provide training and information for the DWI teams. These teams are an innovative and creative concept to form local task forces which work primarily nights and weekends to focus on removing impaired drivers from the roadways. The primary purpose of the summit is to have the teams from all over the state to collaborate and share their individual successes, accomplishments and lessons learned. Other agencies interested in forming a task force are also invited to attend. The goal of the project is to reduce alcohol-related fatalities.
CMTW: Chapter 1, Section 2.1, 2.2

Agency: MADD North Carolina
Project Number: M5X-18-15-02

| | |
|-----------------------------|---|
| Project Title: | Impaired Driving and Underage Drinking Prevention |
| Project Description: | This is an ongoing project that provides funding for a Program Specialist and Court Monitor Specialist in addition to educational materials and events. MADD North Carolina trains and educates the public about the destructive decisions associated with drinking and driving. The main duty of the Court Monitor Specialist is to train volunteers to observe pending DWI cases and note their outcomes. The project's goals are to significantly reduce alcohol-related fatalities and injuries, instances of impaired driving, and to continue educating the youth on highway safety issues and making positive choices/decisions. CMTW: Chapter 1, Section 3.3, 5.2, 6.5 |
| Agency: | North Carolina Department of Justice-State Crime Lab |
| Project Number: | M5X-18-15-03 |
| Project Title: | North Carolina State Crime Laboratory Toxicology Enhancement |
| Project Description: | This is a new project with the North Carolina Department of Justice/North Carolina State Crime Laboratory . This project will send 12 personnel to receive training at the Robert F. Borckenstein course on Alcohol and Highway Safety. The project will lease three new Liquid Chromatograph/Quadrupole-Time-of-Flight instruments. The lease costs are proportionately funded at 97%. These instruments allow for the screening of blood sample extracts for compounds with known molecular formulas, which includes over a thousand drugs and metabolites. CMTW: Chapter 1, Section 2.1; 2.2, 2.3, 2.4 |
| Agency: | Lumberton Police Department |
| Project Number: | PT-18-06-15 |
| Project Title: | Lumberton DWI/OP Enforcement Team |
| Project Description: | This the fourth year of a project that funds two traffic officers. Robeson county is ranked 5th for alcohol-related fatalities and 2nd for unrestrained fatalities. Enforcement efforts will occur during the peak night time hours when impaired drivers are known to be on the road. The officers will collaborate with other agencies and municipalities within Robeson County. Along with their enforcement efforts, the officers will educate students by teaching fatal vision courses to high schools and attending driver education classes around the county. The goal of the project is to reduce the number of alcohol-related and unrestrained fatalities in Robeson County. CMTW: Chapter 1, Section 2.1, 2.2, 2.3, 2.4, 2.5; Chapter 2, Section 2.1, 2.2, 2.3 |
| Agency: | Division of Motor Vehicles |
| Project Number: | PT-18-06-17 |
| Project Title: | Administrative Hearings Training |
| Project Description: | This is a continuation project that provides funding to train hearing officers on the skills required to conduct professional and thorough hearings that balance an individual's privilege to drive with highway safety concerns. The hearing officers are also educated on any and all law changes (case law and statutes) to ensure that they conduct and hold hearings in accordance with all applicable laws. This project also provides funding for attendance at the Association of |

Ignition Interlock Program Administrators (AIIPA) conference and board meetings.

CMTW: Chapter 1, Section 1.1

OCCUPANT PROTECTION

Targets

- ❖ **GHSP's goal is to unrestrained passenger vehicle occupant fatalities in all seating positions 15 percent from the 2011–2015 average of 370 to the 2014–2018 average of 315 by December 31, 2018.**
- ❖ **GHSP's goal is to increase statewide observed seat belt use of front seat outboard occupants in passenger vehicles 3 percentage points from the 2012–2016 average usage rate of 89.7 percent to the 2014–2018 average of 92.7 percent by December 31, 2018.**

Evidence Considered

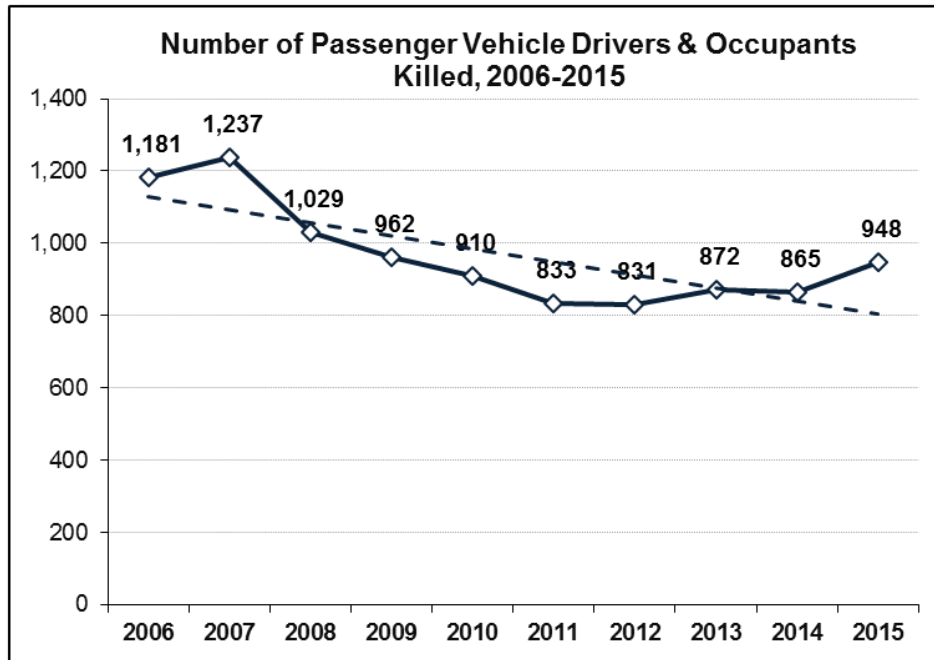
Passenger Vehicle Driver and Occupant Deaths and Injuries

In 2015, there were 948 passenger vehicle drivers and occupants killed in motor vehicle crashes. This number represents an increase of 83 deaths when compared to the 2014 total of 865 fatalities. As shown in Figure 20, passenger vehicle occupant fatalities in North Carolina had been declining steadily since 2007 until the increase in 2013. The small decrease in fatalities in 2011 and ensuing increases in fatalities from 2012 until 2015 could be reflective of improving economic conditions in North Carolina that would likely result in increased travel. This trend is not unique to North Carolina. Increases in traffic fatalities have been seen on a national level, as well. It remains clear, however, that increased usage of seat belt and child car seats is vital to reducing serious injuries and fatalities that occur as a result of vehicle crashes.

The primary goal of the North Carolina occupant protection program is to gain compliance from all vehicle drivers and passengers in both seat belt usage and ensuring all young children are secured in age and size appropriate car and booster seats. As restraint use numbers and percentages increase, the number of unrestrained occupant fatalities should decline. As shown in Figure 21, there were 402 fatalities in North Carolina involving an unrestrained passenger vehicle driver or occupant in 2015. This was an increase of 42 fatalities from the 360 unrestrained fatalities in 2014. Since 2007 when unrestrained fatalities reached their highest totals in the previous ten years, North Carolina had experienced a steady decline.

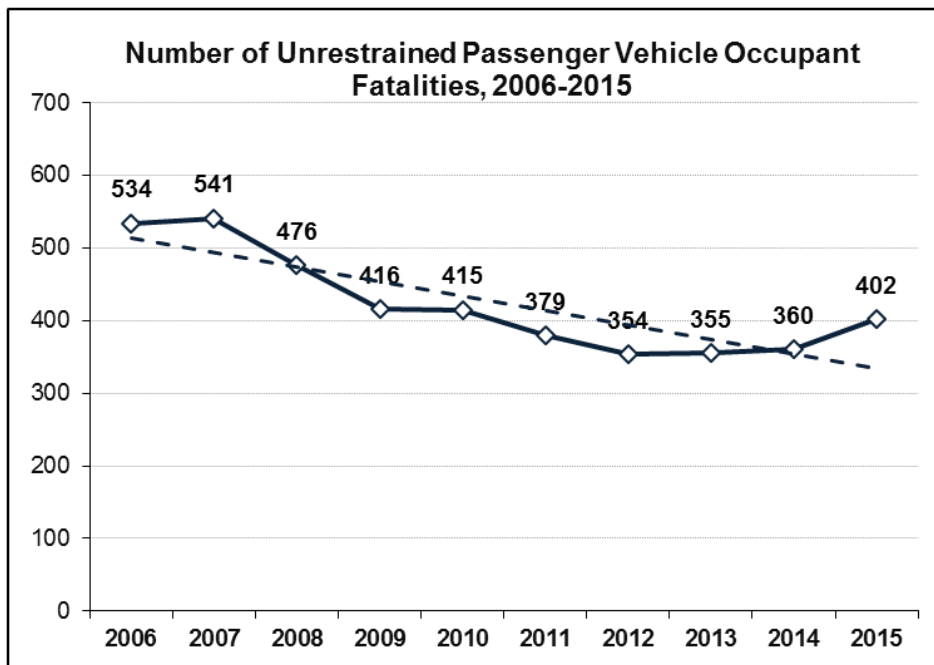
The percentage of passenger fatalities in North Carolina who were unrestrained at the time of crash illustrate a similar trend. Figure 22, shows that 45.5 percent of fatally injured vehicle drivers and occupants were unrestrained in 2011. Following a decrease in 2013, the rate of those fatally injured increased to 41.6 percent in 2014 and 42.4 percent in 2015. The increases in the number and percentages of unrestrained drivers and occupants killed during the last three years makes it clearly evident that North Carolina needs to continue efforts to increase seat belt and car seat use for all passenger vehicle drivers and occupants on every trip.

Figure 20. Number of Passenger Vehicle Drivers and Occupants Killed



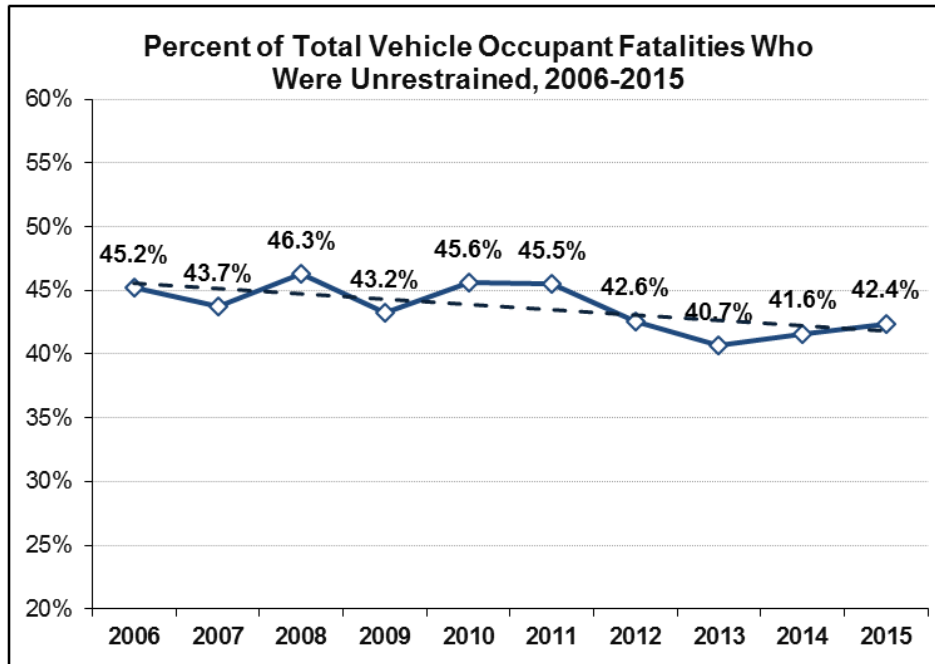
Source: FARS, 2006–2015

Figure 21. Number of Unrestrained Passenger Vehicle Driver and Occupant Fatalities



Source: FARS, 2006–2015

Figure 22. Percent of Unrestrained Passenger Vehicle Driver and Occupant Fatalities

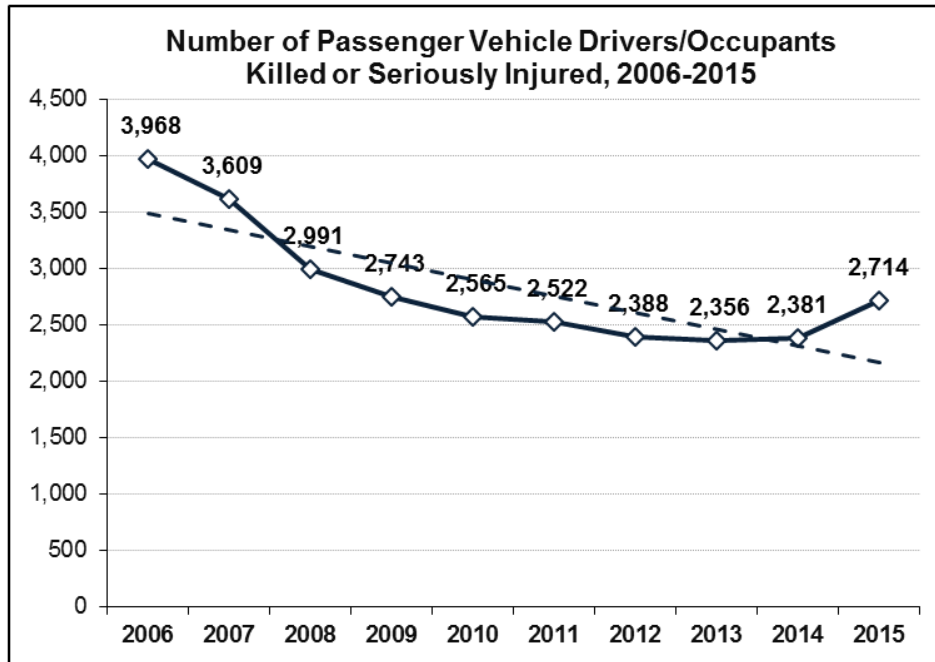


Source: FARS, 2006–2015

During the ten-year period covering 2006–2015, an average of 976 drivers and occupants were fatally injured as a result of vehicle crashes. During this same time, an average of 1,853 persons received serious (A-Type) injuries each year. In 2015, there were 1,768 serious injuries in North Carolina. This figure represented an 18 percent increase from the 1,504 injuries in 2014. Tracking serious injuries and fatalities among occupants can provide additional insight to injury trends since fatalities are a relatively rare event and a few bad crashes with multiple fatalities can potentially skew fatality numbers for any given year. As shown in Figure 23, the number of drivers and occupants of passenger vehicles who were killed or seriously injured declined each year between 2006 and 2013 before increasing in 2014. A similar trend is evident regarding fatalities. As with the fatality trend, the decline was especially rapid between 2006 and 2010 before decline becoming more gradual after 2010 until increasing in 2014 and 2015.

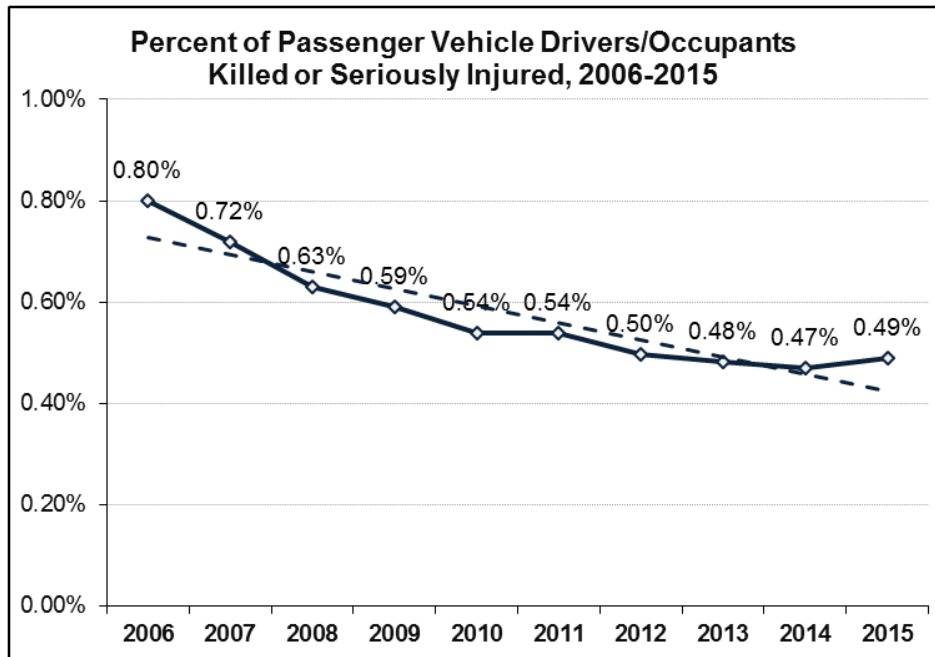
Figure 24, illustrates the fatal plus serious injury rate, or the percentage of drivers and occupants of passenger vehicles who were killed or seriously injured. Figure 24 shows declining percentages over the previous ten years. These percentages represent trends similar to those related to the number of fatalities. The decline was especially rapid after 2006, becoming more gradual after 2010 and increasing slightly in 2015. Unlike the trend in the number of fatalities, which can increase or decrease based on how many crashes occur, the fatal plus serious injury rate is not as affected by economic declines or improvements. The increase experienced between 2014 and 2015 is slight despite the actual increase of 300. This suggests that increases in occupant restraint use rates have helped to keep the number of persons killed or seriously injured from increasing drastically along with the increases in recent years in the number of drivers and occupants involved in crashes.

Figure 23. Number of Passenger Vehicle Drivers and Occupants Killed or Seriously Injured



Source: NCDOT Motor Vehicle Crash Data, 2006–2015

Figure 24. Percent of Passenger Vehicle Drivers and Occupants Killed or Seriously Injured



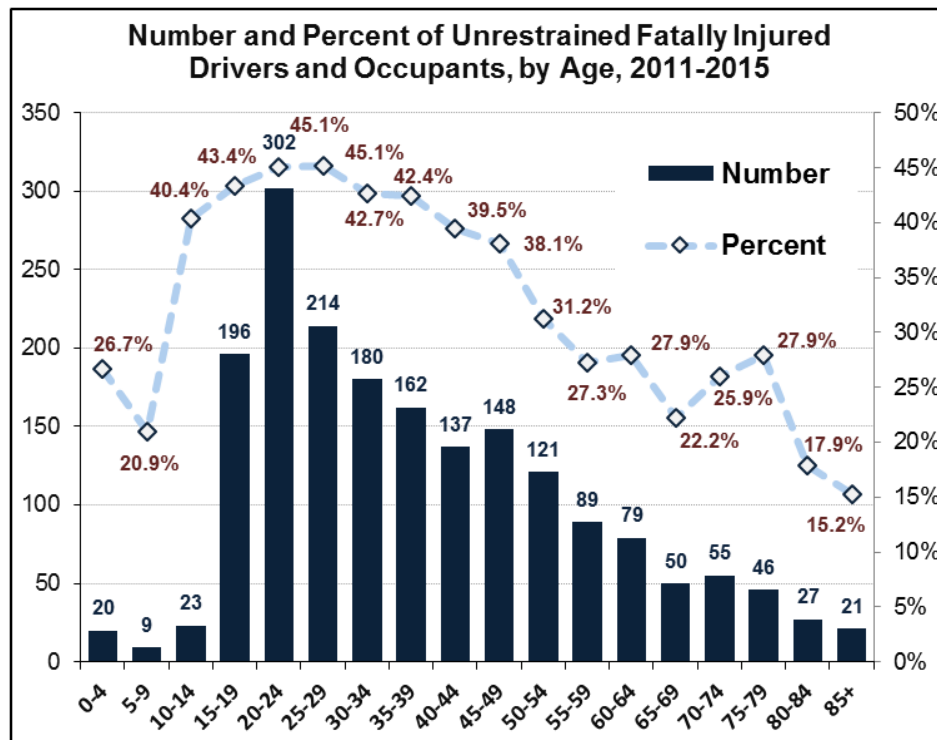
Source: NCDOT Motor Vehicle Crash Data, 2006 – 2015

During 2015, there were nearly an equal number of male and female drivers and passengers involved in crashes in North Carolina (287,906 male vs. 276,522 or 51 percent vs. 49 percent). However, the number of male drivers and passengers killed was nearly twice that for females (585 vs. 315). In addition, there

were more than twice as many unrestrained fatalities among males than females (275 vs. 124). These gender differences indicate, among other things, that “buckle up” programs and messages need to be focused more on males than females.

Figure 25 indicates that unrestrained fatalities also vary by age with unrestrained fatalities peaking for drivers and occupants ages 20 to 24. By comparison, unrestrained fatalities are relatively rare among those younger than 15 and those age 65 and older. There were 165 passenger vehicle occupants less than 15 years who sustained fatal injuries during this time. A total of 50 (30 percent) of these were unrestrained. There were 926 passenger vehicle occupants age 65 and older who sustained fatal injuries during this time. A total of 212 (23 percent) were unrestrained. By comparison, 1,518 (42 percent) of the 3,650 fatalities among those ages 15-59 were unrestrained.

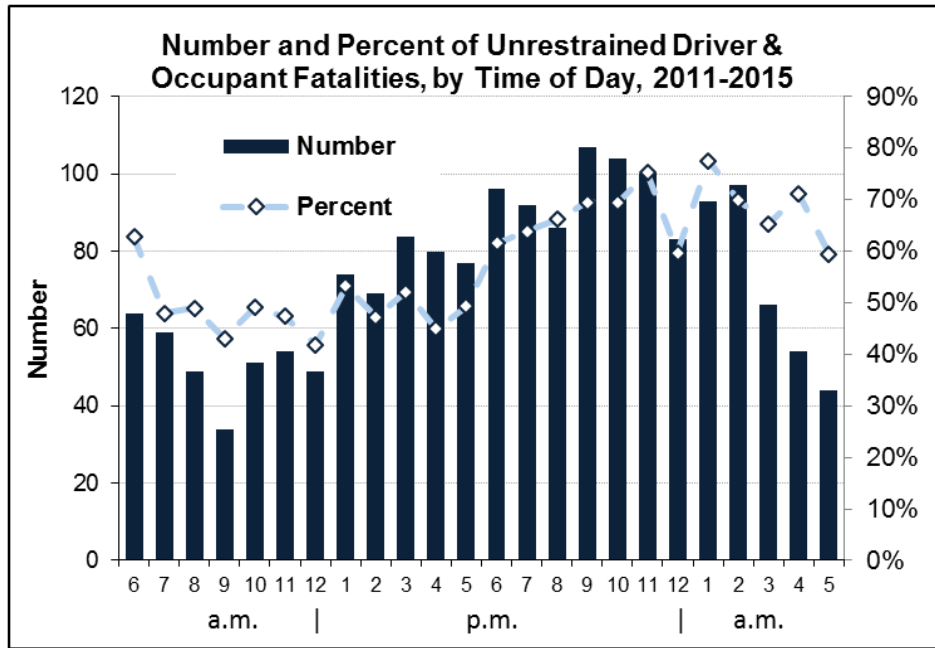
Figure 25. Unrestrained Passenger Vehicle Fatalities by Age



Source: FARS, 2011–2015

Figure 26 represents the number and percent of unrestrained passenger vehicle occupants suffering fatal injuries and the time of day those crashes occurred. During the five-year period of 2011–2015, the total number and percent of unrestrained fatalities varied by time of day. The peaks for the number of fatalities were highest between 6:00pm and 2:00am. The percent of fatalities that were unrestrained, on the other hand, peaked between 11:00pm and 6:00am. In general, the percent of fatally injured passenger vehicle occupants that were unrestrained is substantially higher at night.

Figure 26. Unrestrained Passenger Vehicle Fatalities by Time of Day



Source: FARS, 2011–2015

Seat belt observational data is not available at the county level; hence, county-specific analyses focus on unrestrained fatally injured passengers. Counts of fatally injured unrestrained passenger vehicle occupants from 2011 to 2015 are shown in Table 8. The table also shows the proportion of fatalities in each county who were unrestrained and the proportion of total unrestrained fatalities accounted for by each county. Four counties (Mecklenburg, Robeson, Wake and Guilford) had at least 50 unrestrained passenger vehicle fatalities from 2011 to 2015. In total, the 50 counties listed in the table represent 81 percent of all unrestrained fatally injured passenger vehicle occupants in North Carolina from 2011 to 2015. Many of the counties with the highest number of unrestrained fatalities also have large populations (for instance, Mecklenburg, Wake and Guilford Counties), so these same 50 counties also make up 84 percent of the total North Carolina population (based on 2015 county population estimates). Note also that high proportions of unrestrained fatalities tend to be most common in the southeastern part of the state. The southeastern counties of Bladen, Brunswick, Columbus, Cumberland, Duplin, Harnett, New Hanover, Onslow, Pender, Robeson and Sampson account for 20 percent of North Carolina’s unrestrained fatalities, but only 14 percent of the population.

Table 8. Unrestrained Passenger Vehicle Occupant Fatalities, 2011–2015

| County | Total Unrestrained Fatalities | Percent of Total County Fatalities Who Were Unrestrained | Percent of Total NC Unrestrained Fatalities |
|-------------|-------------------------------|--|---|
| Mecklenburg | 90 | 44.6% | 4.9% |
| Robeson | 83 | 52.2% | 4.5% |
| Wake | 66 | 33.3% | 3.6% |
| Guilford | 65 | 42.5% | 3.5% |
| Davidson | 49 | 49.0% | 2.7% |
| Cumberland | 48 | 39.0% | 2.6% |

Table 8. Unrestrained Passenger Vehicle Occupant Fatalities, 2011–2015

| County | Total Unrestrained Fatalities | Percent of Total County Fatalities Who Were Unrestrained | Percent of Total NC Unrestrained Fatalities |
|-----------------|--------------------------------------|---|--|
| Buncombe | 46 | 45.5% | 2.5% |
| Forsyth | 43 | 39.1% | 2.3% |
| Johnston | 42 | 40.8% | 2.3% |
| Gaston | 41 | 43.6% | 2.2% |
| Rowan | 38 | 44.7% | 2.1% |
| Columbus | 36 | 50.7% | 2.0% |
| Wayne | 36 | 50.0% | 2.0% |
| Randolph | 35 | 46.7% | 1.9% |
| Harnett | 33 | 38.4% | 1.8% |
| Nash | 33 | 40.2% | 1.8% |
| Sampson | 32 | 53.3% | 1.7% |
| Alamance | 30 | 52.6% | 1.6% |
| Duplin | 29 | 47.5% | 1.6% |
| Brunswick | 28 | 44.4% | 1.5% |
| Moore | 28 | 52.8% | 1.5% |
| Pitt | 28 | 38.4% | 1.5% |
| Durham | 27 | 40.9% | 1.5% |
| Pender | 27 | 51.9% | 1.5% |
| Union | 25 | 34.7% | 1.4% |
| Onslow | 24 | 35.8% | 1.3% |
| Iredell | 23 | 36.5% | 1.3% |
| Catawba | 21 | 30.0% | 1.1% |
| Rockingham | 21 | 38.2% | 1.1% |
| Craven | 20 | 36.4% | 1.1% |
| Cabarrus | 19 | 32.2% | 1.0% |
| Cleveland | 19 | 40.4% | 1.0% |
| Granville | 19 | 42.2% | 1.0% |
| Surry | 19 | 35.8% | 1.0% |
| Franklin | 18 | 54.5% | 1.0% |
| Halifax | 18 | 43.9% | 1.0% |
| Hoke | 18 | 40.0% | 1.0% |
| Lee | 18 | 35.3% | 1.0% |
| New Hanover | 18 | 51.4% | 1.0% |
| Richmond | 18 | 54.5% | 1.0% |
| Chatham | 17 | 53.1% | 0.9% |
| Lincoln | 17 | 37.8% | 0.9% |
| Wilson | 17 | 38.6% | 0.9% |
| Anson | 16 | 64.0% | 0.9% |
| Beaufort | 16 | 44.4% | 0.9% |
| Rutherford | 16 | 50.0% | 0.9% |
| Stanly | 15 | 42.9% | 0.8% |
| Bladen | 14 | 37.8% | 0.8% |
| Edgecombe | 14 | 45.2% | 0.8% |
| Vance | 14 | 42.4% | 0.8% |
| NC TOTAL | 1,844 | 42.6% | 100.0% |

Source: FARS, 2011–2015

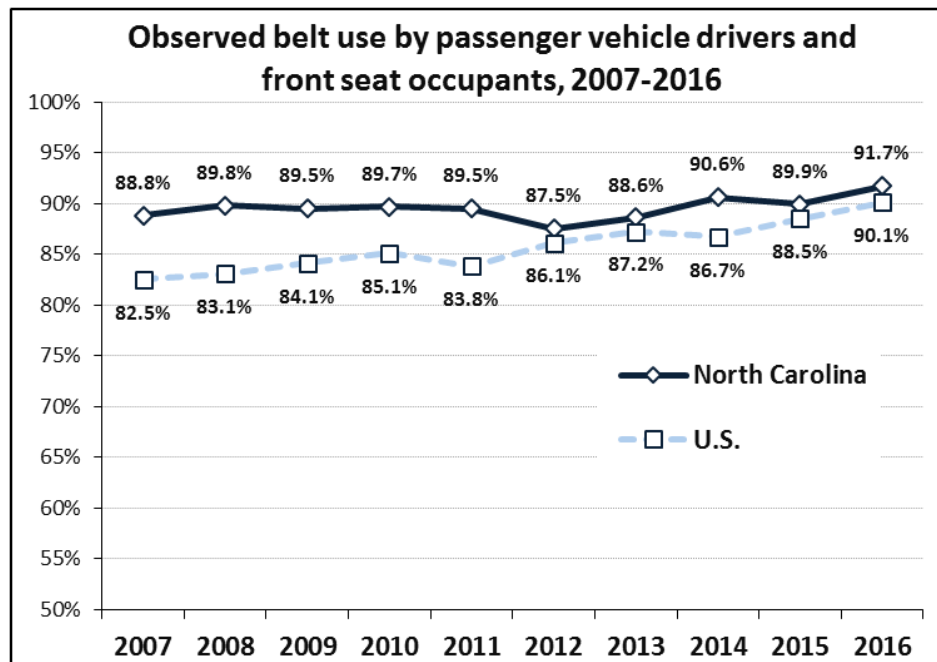
Behaviors

North Carolina’s most recent annual seat belt use survey, conducted in accordance with North Carolina’s NHTSA-certified plan, was conducted in June 2016 at 120 sites in 15 counties. In addition to the 120 NHTSA-certified sites, GHSP opted to include another 80 sites in 10 additional counties to the June 2016 120 site sample in order to have additional data for problem identification in those 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.).

The 2016 observed belt use rate for the certified 120 sites for drivers is 92.1 percent, compared with 89.8 percent in the June 2015 survey. The observed belt use rate for right front-seat passengers is 90.4 percent, which is up slightly from 2015’s rate of 90.3 percent. The 2015 seat belt usage rate for drivers and front-seat passengers combined is 91.7 percent, which is up 1.8 percentage points from the 2015 rate of 89.9 percent. As shown in Figure 27, North Carolina’s observed belt use rate has changed relatively little over the past ten years. Although the gap is smaller in recent years, North Carolina’s observed belt use rate has been and continues to be higher than the national average.

In 2015, observed belt use was 1.7 percentage points higher among drivers (92.1 percent) than front seat passengers (90.4 percent). As shown in Table 9, groups with relatively low 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 driving in the coastal and piedmont regions of the state as compared to the mountains. Seatbelt observations were conducted in 25 counties. As shown in Table 10, observed belt use differed somewhat across counties, from a low of 86.5 percent in Columbus County, to a high of 95.1 percent in Forsyth County.

Figure 27. Observed Seat Belt Use



Source: North Carolina’s annual seat belt use survey reports; NHTSA Traffic Safety Fact Sheet *Seat Belt Use in 2016—Overall Results* (DOT HS 812 351)

Table 9. Observed Seat Belt Use Rates, June 2016

| Category | Weighted Use (%) |
|-----------------------|-------------------------|
| Overall | |
| Driver | 92.1 |
| Passenger | 90.4 |
| Combined | 91.7 |
| Sex of Driver | |
| Male | 91.1 |
| Female | 95.1 |
| Age of Driver | |
| 16–24 | 88.1 |
| 25–64 | 93.1 |
| 65+ | 93.7 |
| Urban/Rural | |
| Urban | 92.8 |
| Rural | 89.3 |
| Vehicle Type | |
| Car | 92.3 |
| Van | 90.3 |
| Minivan | 95.9 |
| Pickup Truck | 88.8 |
| Sport-Utility Vehicle | 93.8 |
| Region | |
| Mountain | 93.4 |
| Piedmont | 92.2 |
| Coast | 90.5 |

Source: North Carolina Seat Belt Usage Rates, Unweighted and Weighted: 120-Site June 2016 Survey

Table 10. Observed Seat Belt Use Rates by County, June 2016

| County | Observed Belt Use % |
|---------------|----------------------------|
| Alamance | 90.4 |
| Brunswick* | 89.6 |
| Buncombe* | 92.4 |
| Cabarrus | 93.4 |
| Caldwell | 90.9 |
| Catawba | 92.5 |
| Columbus | 86.5 |
| Cumberland | 92.3 |
| Davidson* | 88.3 |
| Durham* | 89.2 |
| Forsyth* | 95.9 |

Table 10. Observed Seat Belt Use Rates by County, June 2016

| County | Observed Belt Use % |
|-------------|---------------------|
| Franklin | 94.3 |
| Gaston* | 93.8 |
| Guilford | 91.1 |
| Harnett | 91.7 |
| Johnston | 93.3 |
| Mecklenburg | 92.7 |
| Nash | 88.7 |
| Onslow | 89.8 |
| Robeson | 88.8 |
| Rockingham* | 94.0 |
| Rowan | 94.4 |
| Sampson* | 91.1 |
| Wake | 94.5 |
| Wayne* | 88.1 |

*Excluded from NHTSA sample.

Source: *The 2016 North Carolina Seat Belt Survey and Other Analyses Final Report* (September 2016)

Statewide Campaigns/Programs

Comprehensive Occupant Protection Program Development

North Carolina participated in an April 17-22, 2016 comprehensive NHTSA-facilitated assessment of all elements of the North Carolina occupant protection program. The Assessment Team members examined North Carolina specific legislation and use requirements, enforcement, communication, education and other strategies that are all necessary to achieve significant, lasting increases in seat belt and child safety seat usage. The Assessment concluded with the Assessment Team making some key recommendations for improving the North Carolina occupant protection program.

GHSP and Occupant Protection Program partners have reviewed – and will continue to review - the Assessment Team’s final report that includes specific recommendations from the assessment team for improving the North Carolina occupant protection program. The statewide campaigns, programs and countermeasures that are being implemented in the next few years as well as this coming year will reflect many of the recommendations of the Assessment Team.

In 2014, GHSP worked with other Occupant Protection Program partners to establish a Statewide Occupant Protection Task Force. Members of the OP Task Force represent a number of state agencies, university research centers, law enforcement and healthcare including:

- GHSP
- Asheville Police Department
- Charlotte-Mecklenburg Police Department
- Injury and Violence Prevention Section, North Carolina Department of Health and Human Services

- North Carolina Administrative Office of the Courts
- North Carolina Conference of District Attorneys
- North Carolina Department of Insurance, Office of State Fire Marshal and Safe Kids North Carolina
- North Carolina Department of Transportation, Transportation Mobility and Safety Division, Traffic Safety Unit
- North Carolina State Highway Patrol
- UNC Highway Safety Research Center
- Western North Carolina Safe Kids, Mission Children's Hospital

The Task Force reviews and discusses occupant protection issues, challenges that need to be addressed, ongoing and planned initiatives, potential new strategies for further consideration, and then updates the North Carolina Occupant Protection Strategic Plan as needed. The comprehensive plan that was developed by the OP Task Force and approved on June 26, 2014 provides data on occupant protection-related issues in North Carolina, documents ongoing initiatives to address various aspects of the problem, and presents potential strategies. In accordance with NHTSA's occupant protection guidelines, problems and strategies were developed for the components of legislation, regulation and policy; enforcement and adjudication; communication, media and outreach; occupant protection for children program; outreach; and data and program evaluation.

Child Passenger Safety Programs

North Carolina is very active in the field of child passenger safety (CPS) and has numerous programs that support child passenger safety efforts in the state. The current focus for the North Carolina CPS program is to develop local permanent car seat checking stations (PCSs) to 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 are also being used as outlets to 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 funding amount for the no-cost car seats do not exceed the five percent threshold as allowed by NHTSA.

The North Carolina criteria for being recognized as a permanent checking station 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 CPS 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 180 permanent car seat checking station programs in 79 counties as of the end of March 2017. Some programs have more than one location for providing services and some programs provide services to surrounding counties, resulting in a total of 228 locations providing services to 85 counties.

As shown in Table 11, the 79 counties with established PCS programs represent 94.5 percent of North Carolina’s total 2015 population. This coverage includes 96.4 percent of the state’s Hispanic population, 95.6 percent of the state’s Black/African American population, and 93.5 percent of the state’s American Indian population. Many of these programs extend their reach by also serve neighboring counties. Parents and other caregivers can search by county through the North Carolina database of 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, on the buckleupnc.org website. During FY2016 and through the first six months of FY2017, North Carolina PCS programs checked 14,434 car seats for 14,725 children. Over half (51 percent) of these checks were for children less than age one with another 39 percent being for 1-5 year old children.

Table 11. North Carolina Permanent Car Seat Checking Station Locations by County and Populations Covered, March 2016

| County and Presence of PCS | No. Locations | Total 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 | 2 | 158,276 | 1.6% | 2.1% | 1.4% | 1.4% |
| Alexander | 2 | 37,325 | 0.4% | 0.2% | 0.1% | 0.1% |
| Alleghany | 1 | 10,837 | 0.1% | 0.1% | 0.0% | 0.0% |
| Anson | 1 | 25,759 | 0.3% | 0.1% | 0.6% | 0.1% |
| Ashe | 1 | 27,020 | 0.3% | 0.2% | 0.0% | 0.1% |
| Avery | 1 | 17,689 | 0.2% | 0.1% | 0.0% | 0.1% |
| Beaufort | 1 | 47,651 | 0.5% | 0.4% | 0.5% | 0.3% |
| Bertie | 1 | 20,199 | 0.2% | 0.0% | 0.6% | 0.1% |
| Brunswick | 8 | 122,765 | 1.2% | 0.6% | 0.6% | 0.7% |
| Buncombe | 10 | 253,178 | 2.5% | 1.8% | 0.7% | 0.8% |
| Burke | 3 | 88,842 | 0.9% | 0.6% | 0.3% | 0.5% |
| Cabarrus | 1 | 196,762 | 2.0% | 2.2% | 1.6% | 0.9% |
| Caldwell | 2 | 81,287 | 0.8% | 0.4% | 0.2% | 0.3% |
| Carteret | 2 | 68,879 | 0.7% | 0.3% | 0.2% | 0.3% |
| Caswell | 1 | 22,941 | 0.2% | 0.1% | 0.3% | 0.1% |
| Catawba | 4 | 155,056 | 1.5% | 1.6% | 0.6% | 0.6% |
| Chatham | 2 | 70,928 | 0.7% | 1.0% | 0.4% | 0.6% |
| Chowan | 1 | 14,394 | 0.1% | 0.1% | 0.2% | 0.0% |

Table 11. North Carolina Permanent Car Seat Checking Station Locations by County and Populations Covered, March 2016

| County and Presence of PCS | No. Locations | Total Population | % of NC Total Pop | % of NC Hispanic Pop | % of NC Black/African American Pop | % of NC American Indian Pop |
|----------------------------|---------------|------------------|-------------------|----------------------|------------------------------------|-----------------------------|
| Clay | 1 | 10,703 | 0.1% | 0.0% | 0.0% | 0.0% |
| Cleveland | 3 | 96,879 | 1.0% | 0.3% | 0.9% | 0.2% |
| Columbus | 1 | 56,694 | 0.6% | 0.3% | 0.8% | 1.3% |
| Craven | 1 | 103,451 | 1.0% | 0.8% | 1.0% | 0.4% |
| Cumberland | 12 | 323,838 | 3.2% | 4.0% | 5.5% | 3.7% |
| Currituck | 1 | 25,263 | 0.3% | 0.1% | 0.1% | 0.1% |
| Dare | 6 | 35,663 | 0.4% | 0.3% | 0.0% | 0.1% |
| Davidson | 1 | 164,622 | 1.6% | 1.2% | 0.7% | 0.8% |
| Davie | 2 | 41,753 | 0.4% | 0.3% | 0.1% | 0.2% |
| Duplin | 1 | 59,159 | 0.6% | 1.4% | 0.7% | 0.5% |
| Durham | 3 | 300,952 | 3.0% | 4.4% | 5.2% | 1.8% |
| Edgecombe | 2 | 54,150 | 0.5% | 0.3% | 1.4% | 0.3% |
| Forsyth | 7 | 369,019 | 3.7% | 5.1% | 4.5% | 2.0% |
| Franklin | 1 | 63,710 | 0.6% | 0.6% | 0.8% | 0.4% |
| Gaston | 1 | 213,442 | 2.1% | 1.5% | 1.6% | 0.8% |
| Gates | 1 | 11,431 | 0.1% | 0.0% | 0.2% | 0.0% |
| Granville | 1 | 58,674 | 0.6% | 0.5% | 0.8% | 0.3% |
| Greene | 1 | 21,134 | 0.2% | 0.3% | 0.3% | 0.3% |
| Guilford | 7 | 517,600 | 5.2% | 4.4% | 8.0% | 2.5% |
| Halifax | 3 | 52,456 | 0.5% | 0.2% | 1.3% | 1.4% |
| Harnett | 6 | 128,140 | 1.3% | 1.7% | 1.3% | 1.4% |
| Haywood | 1 | 59,868 | 0.6% | 0.2% | 0.0% | 0.2% |
| Henderson | 1 | 112,655 | 1.1% | 1.2% | 0.2% | 0.5% |
| Hertford | 1 | 24,184 | 0.2% | 0.1% | 0.7% | 0.2% |
| Hoke | 2 | 52,671 | 0.5% | 0.7% | 0.8% | 3.1% |
| Jackson | 1 | 41,265 | 0.4% | 0.2% | 0.0% | 2.5% |
| Johnston | 3 | 185,660 | 1.8% | 2.7% | 1.3% | 1.0% |
| Lee | 1 | 59,660 | 0.6% | 1.3% | 0.5% | 0.5% |
| Lenoir | 3 | 58,106 | 0.6% | 0.5% | 1.1% | 0.2% |
| Lincoln | 3 | 81,035 | 0.8% | 0.6% | 0.2% | 0.2% |
| Macon | 3 | 34,201 | 0.3% | 0.3% | 0.0% | 0.2% |
| Martin | 1 | 23,357 | 0.2% | 0.1% | 0.5% | 0.1% |
| Mecklenburg | 3 | 1,034,070 | 10.3% | 14.4% | 15.0% | 5.1% |
| Moore | 4 | 94,352 | 0.9% | 0.7% | 0.5% | 0.6% |
| Nash | 10 | 93,919 | 0.9% | 0.7% | 1.7% | 0.6% |
| New Hanover | 13 | 220,358 | 2.2% | 1.3% | 1.4% | 0.8% |
| Onslow | 11 | 186,311 | 1.9% | 2.5% | 1.3% | 1.1% |
| Orange | 5 | 141,354 | 1.4% | 1.3% | 0.8% | 0.6% |
| Pender | 2 | 57,611 | 0.6% | 0.4% | 0.4% | 0.3% |
| Person | 2 | 39,259 | 0.4% | 0.2% | 0.5% | 0.2% |
| Pitt | 3 | 175,842 | 1.8% | 1.2% | 2.8% | 0.6% |
| Randolph | 3 | 142,799 | 1.4% | 1.8% | 0.4% | 1.0% |
| Richmond | 2 | 45,437 | 0.5% | 0.3% | 0.6% | 0.9% |
| Robeson | 3 | 134,197 | 1.3% | 1.2% | 1.5% | 34.3% |
| Rockingham | 1 | 91,758 | 0.9% | 0.6% | 0.8% | 0.3% |
| Rowan | 1 | 139,142 | 1.4% | 1.3% | 1.0% | 0.5% |

Table 11. North Carolina Permanent Car Seat Checking Station Locations by County and Populations Covered, March 2016

| County and Presence of PCS | No. Locations | Total Population | % of NC Total Pop | % of NC Hispanic Pop | % of NC Black/African American Pop | % of NC American Indian Pop |
|--|---------------|-------------------|-------------------|----------------------|------------------------------------|-----------------------------|
| Rutherford | 3 | 66,390 | 0.7% | 0.3% | 0.3% | 0.2% |
| Sampson | 1 | 63,724 | 0.6% | 1.3% | 0.8% | 1.3% |
| Scotland | 2 | 35,509 | 0.4% | 0.1% | 0.6% | 2.6% |
| Stanly | 1 | 60,714 | 0.6% | 0.3% | 0.3% | 0.2% |
| Stokes | 1 | 46,351 | 0.5% | 0.2% | 0.1% | 0.1% |
| Surry | 2 | 72,743 | 0.7% | 0.8% | 0.1% | 0.3% |
| Transylvania | 1 | 33,211 | 0.3% | 0.1% | 0.1% | 0.1% |
| Union | 7 | 222,742 | 2.2% | 2.7% | 1.2% | 0.9% |
| Vance | 1 | 44,568 | 0.4% | 0.4% | 1.0% | 0.2% |
| Wake | 11 | 1,024,198 | 10.2% | 11.3% | 9.8% | 5.4% |
| Watauga | 3 | 52,906 | 0.5% | 0.2% | 0.0% | 0.1% |
| Wayne | 2 | 124,132 | 1.2% | 1.5% | 1.8% | 0.6% |
| Wilkes | 1 | 68,502 | 0.7% | 0.5% | 0.1% | 0.2% |
| Wilson | 2 | 81,714 | 0.8% | 0.9% | 1.5% | 0.3% |
| Yadkin | 1 | 37,585 | 0.4% | 0.4% | 0.1% | 0.2% |
| YES PCS TOTAL | 228 | 9,492,581 | 94.5% | 96.4% | 95.6% | 93.5% |
| <i>No PCS Present In County</i> | | | | | | |
| Bladen | 0 | 34,318 | 0.3% | 0.3% | 0.5% | 0.7% |
| Camden | 0 | 10,309 | 0.1% | 0.0% | 0.1% | 0.0% |
| Cherokee | 0 | 27,178 | 0.3% | 0.1% | 0.0% | 0.3% |
| Graham | 0 | 8,616 | 0.1% | 0.0% | 0.0% | 0.4% |
| Hyde | 0 | 5,526 | 0.1% | 0.0% | 0.1% | 0.0% |
| Iredell | 0 | 169,866 | 1.7% | 1.4% | 0.9% | 0.6% |
| Jones | 0 | 10,013 | 0.1% | 0.0% | 0.1% | 0.0% |
| Madison | 0 | 21,139 | 0.2% | 0.1% | 0.0% | 0.1% |
| McDowell | 0 | 44,989 | 0.4% | 0.3% | 0.1% | 0.2% |
| Mitchell | 0 | 15,246 | 0.2% | 0.1% | 0.0% | 0.1% |
| Montgomery | 0 | 27,548 | 0.3% | 0.5% | 0.2% | 0.2% |
| Northampton | 0 | 20,426 | 0.2% | 0.0% | 0.5% | 0.1% |
| Pamlico | 0 | 12,781 | 0.1% | 0.1% | 0.1% | 0.1% |
| Pasquotank | 0 | 39,829 | 0.4% | 0.2% | 0.7% | 0.1% |
| Perquimans | 0 | 13,440 | 0.1% | 0.0% | 0.1% | 0.0% |
| Polk | 0 | 20,366 | 0.2% | 0.1% | 0.0% | 0.1% |
| Swain | 0 | 14,434 | 0.1% | 0.1% | 0.0% | 2.6% |
| Tyrrell | 0 | 4,070 | 0.0% | 0.0% | 0.1% | 0.0% |
| Warren | 0 | 20,155 | 0.2% | 0.1% | 0.5% | 0.7% |
| Washington | 0 | 12,385 | 0.1% | 0.1% | 0.3% | 0.1% |
| Yancey | 0 | 17,587 | 0.2% | 0.1% | 0.0% | 0.1% |
| NO PCS TOTAL | 0 | 550,221 | 5.5% | 3.6% | 4.4% | 6.5% |
| NC TOTAL | 228 | 10,042,802 | 100.0% | 100.0% | 100.0% | 100.0% |

As of the end of March 2017, North Carolina had 2,909 CPS certified Technicians and Instructors. Of these, 2,861 were Technicians (including 78 Technician Proxies) and 48 were Technician Instructors. North Carolina had at least one CPS Technician in 98 of 100 counties (Bertie and Hyde Counties did not

have any Technicians). More than half (57 percent) of these Technicians are in the fire services (e.g., fire fighters) with the second largest profession represented being law enforcement (14 percent). Not all Technicians choose to maintain their certification. Even so, 62 percent of North Carolina Technicians eligible for recertification did so during FY 2016 calendar year. The national average for all States for recertification during this time was 56.4 percent. In comparison with other States, North Carolina ranked 1st in terms of the number of Technicians eligible for recertification (1,295) and 11th in terms of the overall percentage of Technicians who recertified during this period. The ten States that ranked higher in the recertification rate had, on average, many fewer (201) Technicians eligible for recertification during FY16. The North Carolina recertification rate for the first three months of 2017 was 67.5 percent compared to 54.4 percent for all States and territories.

For the purposes of the child passenger safety program, North Carolina is split into 3 regions - Eastern, Central and Western. These are regions defined by the North Carolina Department of Insurance, Office of State Fire Marshal (OSFM) for the delivery of injury prevention programs by OSFM’s three regional Injury Prevention Specialists. The majority of North Carolina CPS Certification classes are coordinated by the Injury Prevention Specialists and are held in each of the three regions 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 FY2016 and through the first six months of FY2017, 39 Certification Courses were held throughout North Carolina resulting in the certification of 767 new Technicians. Additionally, eight Certification Renewal courses were held for those people whose certifications had expired but who wanted to remain active in the field. As a result of those classes, 97 expired technicians were re-certified for a total of 864 individuals certified or recertified (Table 5).

Table 12 Summary of North Carolina CPS Certification and Renewal Classes by Type and Region, FY16 and FY17 (Through March)

| Class Type and Region | No. Classes | # Certified/ Recertified | Average No. Students |
|------------------------------|--------------------|-------------------------------------|---------------------------------|
| Certification Classes | | | |
| Eastern | 10 | 208 | 20.8 |
| Central | 15 | 299 | 19.9 |
| Western | 14 | 260 | 18.6 |
| Certification Total | 39 | 767 | 19.7 |
| Renewal Classes | | | |
| Eastern | 1 | 10 | 10.0 |
| Central | 2 | 37 | 18.5 |
| Western | 5 | 50 | 10.0 |
| Renewal Total | 8 | 97 | 12.1 |
| FY16-17 Total | 47 | 864 | NA |

Certification class locations are determined based on the distribution of certified technicians and permanent car seat checking station program throughout the State. Although some classes may have as many as 30 - 35 technician candidates, classes are planned based on having 20 – 25 students per class as a general rule. Because the distribution of certified technicians and permanent car seat checking stations is constantly changing, it is difficult to predict exact class locations. However, we anticipate that the distribution and location of classes in FY18 will be similar to the distributions in FY16 and FY17.

Table 13 presents the schedule of classes planned thus far for FY18. During initial planning, proposed dates are identified by month and locations are identified at the county level. The North Carolina child passenger safety program partners recognize and expect that the training class schedule and locations may be adjusted during the project year to account for changes in the numbers of Technicians in each of the counties due to attrition, to account for Technician Instructor availability, and to account for where new or additional programs are needed to provide car seat checking services to North Carolina parents and other caregivers.

Table 13. North Carolina CPS Certification Classes Planned for FY18

| Planned Month | Planned County | Region | # of Technician Candidates |
|---|----------------|---------|----------------------------|
| <i>Certification Classes</i> | | | |
| November, 2017 | Alamance | Central | 20 - 25 |
| November, 2017 | Carteret | Eastern | 20 - 25 |
| November, 2017 | Swain | Western | 20 - 25 |
| January, 2018 | Pitt | Eastern | 20 - 25 |
| February, 2018 | New Hanover | Eastern | 20 - 25 |
| March, 2018 | Halifax | Central | 20 - 25 |
| March, 2018 | Moore | Central | 20 - 25 |
| March, 2018 | Onslow | Eastern | 20 - 25 |
| April, 2018 | Cumberland | Central | 20 - 25 |
| April, 2018 | Dare | Eastern | 20 - 25 |
| April, 2018 | Wake | Central | 20 - 25 |
| April, 2018 | Watauga | Western | 20 - 25 |
| May, 2018 | Forsyth | Central | 20 - 25 |
| May, 2018 | Henderson | Western | 20 - 25 |
| May, 2018 | Robeson | Eastern | 20 - 25 |
| May, 2018 | Vance | Central | 20 - 25 |
| May, 2018 | Wayne | Eastern | 20 - 25 |
| June, 2018 | Mecklenburg | Western | 20 - 25 |
| June, 2018 | Rockingham | Central | 20 - 25 |
| June, 2018 | Wilson | Eastern | 20 - 25 |
| July, 2018 | Johnston | Central | 20 - 25 |
| July, 2018 | Rutherford | Western | 20 - 25 |
| August, 2018 | Orange | Central | 20 - 25 |
| September, 2018 | Beaufort | Eastern | 20 - 25 |
| Planned Certification Classes Total | | | 480 - 600 |
| <i>Certification Renewal Classes</i> | | | |
| November, 2017 | Alamance | Central | 15 - 20 |
| April, 2018 | Wake | Central | 15 - 20 |
| Planned Renewal Classes Total | | | 30 - 40 |

| | |
|------------------------------|-----------|
| Planned Classes Total | 510 - 640 |
|------------------------------|-----------|

BuckleUpNC Conference and Website

The BuckleUpNC Conference is North Carolina's only conference dedicated primarily to the protection of children and their families as they travel in motor vehicles. This conference aims to provide sessions that reflect diversity of the field, with the intent of increasing knowledge and sharing best practices throughout North Carolina and beyond. This event is structured to bring together hundreds of CPS technicians, instructors, advocates and industry leaders to discuss the most current occupant protection resources, technologies, products and programs.

The BuckleUpNC Conference is one of the primary ways North Carolina provides opportunities for continuing education credits required for CPS recertification. The final registration for the May 2016 BuckleUpNC Conference included 214 participants, 18 exhibitors and speakers, 14 conference committee members and GHSP representatives, and 10 awards luncheon guests for a total registration of 256. Conference attendees had an opportunity to earn as many as seven CPS continuing education credits, more than enough required for recertification.

GHSP provides funding to the UNC Highway Safety Research Center to provide general seat belt and child passenger safety (CPS) information and technical assistance to consumers through an in-state toll-free phone line, email inquiries and buckleupnc.org. A large number of calls through the toll-free information line are handled by HSRC staff. Many of these calls were related to the North Carolina CPS law and issues related to choosing and using child restraints and seat belts. In most cases – and where it is deemed beneficial to do so – callers are referred to local programs for further assistance.

HSRC also manages a Program Management system on the buckleupnc.org site. This Program Management restricted access site is designed to collect, maintain and use information on local CPS - and occupant restraint-related programs and resources in North Carolina. Another component of this system is the Permanent Checking Stations (PCS) online reporting system used to track local CPS program activities. This is being done so that program and contact information is centralized for sharing by the North Carolina Department of Insurance, Office of State Fire Marshal (OSFM), GHSP and the UNC Highway Safety Research Center (HSRC).

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 2016, law enforcement agencies in North Carolina conducted three waves of enforcement concerning occupant protection:

- Spring *Click it or Ticket* (May 23 - June 5, 2016)
- Child Passenger Safety Week (September 18-24, 2016)

- Thanksgiving *Click it or Ticket* (November 21-27, 2016)

Data for enhanced enforcement periods is reported directly to GHSP from participating law enforcement agencies. Across all three enforcement waves, 10,837 citations were issued for violations of the seat belt law and 1,337 for violations of the child passenger safety law, for a total of 12,174 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 Table 14, an additional 21,847 seat belt violations and 3,625 child passenger safety law violations were issued in 2016 during other enhanced enforcement periods (e.g., *Booze It & Lose It*). An additional 94,933 seat belt and CPS citations were issued in 2016 during non-campaign periods throughout the year. Approximately 72 percent of citations issued in 2016 were during non-enhanced enforcement campaign times of the year. This ratio is slightly skewed as not all agencies report during campaigns. North Carolina averaged 68 percent of eligible law enforcement agencies reporting during the 2016 campaigns. However, these agencies represent approximately 80 percent of the population. While the total number of citations has decreased the seat belt rate increased from 89.9 in 2015 to 91.7 in 2016 as previously indicated.

Table 14. North Carolina Seat Belt and Child Passenger Safety Law Citations

| Campaign / Violations | 2016 | 2015 |
|--|---------------|---------------|
| <i>Spring Click It or Ticket Campaign</i> | | |
| Seat belt violations | 8,483 | 12,056 |
| Child passenger safety law violations | 873 | 1,152 |
| Total | 9,356 | 13,208 |
| <i>Child Passenger Safety Week Campaign</i> | | |
| Seat belt violations | 393 | 2,908 |
| Child passenger safety law violations | 124 | 387 |
| Total | 517 | 3,295 |
| <i>Thanksgiving Click It or Ticket Campaign</i> | | |
| Seat belt violations | 1,961 | 2,947 |
| Child passenger safety law violations | 340 | 448 |
| Total | 2,301 | 3,395 |
| <i>Click It or Ticket/CPS Week Overall Totals</i> | | |
| Seat belt violations | 10,837 | 17,911 |
| Child passenger safety law violations | 1,337 | 1,987 |
| Total | 12,174 | 19,898 |
| <i>Booze It & Lose It OP Violations Totals</i> | | |
| Seat belt violations | 17,684 | 19,408 |
| Child passenger safety law violations | 2,949 | 3,487 |
| Total | 20,633 | 22,895 |
| <i>Obey the Sign or Pay the Fine OP Violations Totals</i> | | |
| Seat belt violations | 4,163 | 3,481 |
| Child passenger safety law violations | 676 | 1,644 |
| Total | 4,839 | 5,125 |
| <i>Totals - All Enforcement Campaigns</i> | | |

Table 14. North Carolina Seat Belt and Child Passenger Safety Law Citations

| Campaign / Violations | 2016 | 2015 |
|--|----------------|----------------|
| Seat belt violations | 32,684 | 40,800 |
| Child passenger safety law violations | 4,962 | 7,118 |
| Total | 37,646 | 47,918 |
| Totals Citations for Year (AOC*) | | |
| Seat belt violations | 116,732 | 135,028 |
| Child passenger safety law violations | 15,847 | 17,962 |
| Total | 132,579 | 152,990 |
| Totals - Non-Enforcement Campaign Citation # | | |
| Seat belt violations | 84,048 | 94,228 |
| Child passenger safety law violations | 10,885 | 10,844 |
| Total | 94,933 | 105,072 |
| Totals - Non-Enforcement Campaign Citation % (AOC*) | | |
| Seat belt violations | 64.0% | 65.1% |
| Child passenger safety law violations | 71.5% | 75.0% |
| Total | 65.0% | 66.5% |

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

Over the past decade, there had been a steady decrease in the number of unrestrained passenger vehicle occupant fatalities in North Carolina until we experienced a five fatality (1.4 percent) increase in unrestrained fatalities between 2013 and 2014 and then had an 11.6 percent increase of 42 unrestrained fatalities between 2014 and 2015. The fatal plus serious injury rate, i.e., the percentage of drivers and occupants of passenger vehicles who were killed or seriously injured, has also been declining over the last ten years. Unlike the trend in the number of fatalities or serious injuries, the fatal plus serious injury rate is not affected by economic declines or improvements. The trend of seeing declines in the fatal plus serious injury rate between 2006 and 2015 suggests that increases in occupant restraint use rates during this time have produced the desired outcome of reducing fatalities and serious injuries and/or keeping them from being even higher due to increases in the numbers of individuals involved in crashes in recent years.

Observed restraint use for drivers and front seat occupants in North Carolina currently stands at 92.1 percent. This is the highest statewide seat belt use rate ever measured in North Carolina. 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, those age 15 to 34, and occupants of vans and especially pickup trucks. In addition, belt use is lower at nighttime and the percent of fatalities that were unrestrained peaks between the hours of 11:00pm and 6:00am. Five counties in North Carolina account for nearly 20 percent of the

state's unrestrained fatalities (Mecklenburg, Robeson, Wake, Guilford and Davidson). Several smaller counties in the southeast part of the state also disproportionately account for a larger share of unrestrained fatalities.

We believe further reductions in unrestrained passenger vehicle fatalities are possible. To adjust for the confounding effect of economic conditions, five year averages were used as the baseline for setting goals. GHSP is working to decrease unrestrained passenger vehicle occupant fatalities in all seating positions 15 percent from the 2011–2015 average of 370 to the 2014–2018 average of 315 by December 31, 2018. In addition, GHSP's goal is to increase statewide observed seat belt use of front seat outboard occupants in passenger vehicles three percentage points from the 2012–2016 average usage rate of 89.7 percent to the 2014–2018 average of 92.7 percent by December 31, 2018.

Countermeasures and Funding Priorities

To address the problem areas described above and to meet North Carolina's goals, 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 8th Edition of NHTSA's *Countermeasures that Work* (CMTW). CMTW is designed to assist State Highway Safety Offices in selecting evidence-based countermeasures for addressing major highway safety problem areas.

GHSP is involved in an ongoing process to implement a comprehensive occupant protection program through a strategic plan developed by a statewide occupant protection task force. This strategic plan is based in part on the recommendations from the July 2013 and April 2016 NHTSA-facilitated occupant protection program assessment. The statewide campaigns, programs and countermeasures that follow may change as needed in response to additional recommendations generated by the statewide Occupant Protection Task Force and working groups that have been established to address specific programs and target groups.

GHSP will work with program partners to continue support for child passenger safety efforts in the state by continuing to focus on permanent car seat checking stations (PCSs) to provide education and technical assistance to parents and caregivers and to serve as outlets to provide NHTSA/GHSP funded no-cost car seats, along with education on their correct use, to qualifying families. GHSP will continue to support CPS Technician Certification courses throughout the State to certify new Technicians to support the local PCSs and other programs. Additionally, GHSP will continue to support Certification Renewal courses for those people whose certification status expired, but who want to remain active in the field. In addition, GHSP will work to restructure and reinforce the child passenger safety diversion program - where CPS law violators can attend an educational/fitting program in lieu of paying their fine and court costs - through partnerships with District Attorneys' Offices, State and local child passenger safety programs and law enforcement.

GHSP will strive to increase occupant restraint use in high risk groups such as drivers at night and drivers and passengers identified as being high risk through survey data or crash reports. GHSP will focus law enforcement and media attention on the enforcement of seat belts during the times of day where most unrestrained fatalities occur and will require seat belt enforcement efforts by subgrantees to devote at least 50 percent of their enforcement efforts at night. Through support and refinement of the Vision Zero Analytics project, GHSP continues to facilitate the collection and sharing of data and county maps with agencies in occupant restraint focus counties that are either survey counties or overrepresented in unrestrained fatalities. Data shared with the counties will include the locations of these fatal crashes,

the day of the week and the time of day they are occurring. Enforcement (citation) data for each county is presented and correlated with unrestrained fatality rates. Collaborative meetings with our partners are used to focus enforcement efforts during campaigns and throughout the year. GHSP will seek buy-in from the agencies to address the problem locations and GHSP will offer funding as needed to enhance the enforcement efforts.

GHSP will review the most recent observational seat belt use data in conjunction with fatality data to target counties needing additional attention similar to targeted mobilizations previously conducted. GHSP will expand the survey to the remaining 85 counties over a three-year period. This will provide seat belt usage rates for every county at least once every three years. This information is used to identify trends in the high unrestrained fatality counties.

GHSP will work with the Traffic Safety Resource Prosecutors (TSRPs) to identify and address any prosecution and adjudication issues concerning seat belt citations and the reduction or dismissal of charges. There does not seem to be a systemic problem with this occurring in North Carolina, but the issue does need to be looked at closer, especially in counties where the seat belt use is below 90 percent.

Media Plan

GHSP will support all FY2018 occupant protection campaigns and seat belt mobilizations with earned and/or paid media to draw attention to each of the campaigns. North Carolina utilizes a variety of media modes to draw attention to the campaigns and the enforcement efforts in the state.

Campaign kickoff events are planned for all FY2018 campaigns, seeking earned media attention that will be gained from partnerships with the NCDOT Communications Office, Safe Kids North Carolina, North Carolina State Highway Patrol, local law enforcement, etc. The kickoff events will feature the GHSP Director, state law enforcement and local law enforcement, and will often include victims, survivors or offenders. At times GHSP will change the typical kickoff format to draw attention to a variety of occupant protection issues.

GHSP is in the process of re-evaluating our marketing efforts to move toward a more targeted approach thus increasing reach while lowering costs. GHSP will continue partnerships with all major universities in the state. The messaging and enforcement will focus on the issue of students not buckling up when arriving/leaving college sporting events. GHSP will promote *Click It or Ticket* throughout the school year on campuses through targeted sports marketing and media campaigns.

GHSP also partners with minor league baseball clubs in the state to advertise the *Click It or Ticket* message. The messaging coincides with the May campaign, Child Passenger Safety week and the Thanksgiving campaign. Advertising at the ballparks includes, but is not limited to, outfield signage, program advertisements, live reads, social media support, digital banners and radio.

Additional advertising will be done through GHSP's agency of record. Marketing and advertising efforts are becoming more progressive with the ability to micro-target GHSP's audience and utilize a variety of mediums to ensure *Click It or Ticket* efforts use the most effective messaging. Paid media will be utilized during enforcement periods and certain months when increased unbelted fatalities occur. In-house social media will also be used throughout the entire year with messaging targeting key demographics and areas.

FY2018 Occupant Protection Projects

The following section outlines some of the projects that are currently approved by the review team and officially part of the original submission of the FY2018 North Carolina Highway Safety Plan to address occupant protection. A listing of all projects, including the funding level and source, can be found in the Cost Summary at the end of this document. (Note: CMTW = NHTSA's *Countermeasures that Work*).

Agency: VIP for a VIP, Inc.
Project Number: OP-18-04-04
Project Title: Seatbelt Rollover Demonstration Program
Project Description: This is a one-time project that will support Vehicle Injury Prevention (VIP) programming for high schools and community safety events throughout North Carolina. Vehicle Injury Prevention for a Very Important Person delivers a strong, memorable presentation on the dangers and consequences of a poor driving decision with an aim of reducing the number of teen deaths occurring in motor vehicle crashes in North Carolina. The program will use a rollover demonstrator as an educational and informational tool at events.
CMTW: Chapter 2, Section 3.2

Agency: WNC Safe Kids
Project Number: M1CPS-18-13-01
Project Title: Safe Transportation for All Children/ Occupant Protection for All Ages
Project Description: This is a continuation project that provides funding for Safe Kids Western North Carolina (Safe Kids WNC) to provide leadership for the State to increase and maintain the base of Child Passenger Safety (CPS) Technicians trained in Special Needs Transportation. Safe Kids WNC will continue to serve as the referral resource for families of children with special health care needs and offer the "Transporting Children with Special Needs" CPS enrichment course two times per year in different regions of the state. This project will allow Safe Kids WNC to attend several conferences including BuckleUpNC, Safe Kids NC and Lifesavers. Partnerships with law enforcement will continue to grow while participating in local *Click It or Ticket* enforcement activities and the CPS Diversion Program. The project will educate tweens and teens through program objectives to become a safe passenger now, as well as in the future as drivers.
CMTW: Chapter 2, Section 7.2

Agency: Department of Public Safety-State Highway Patrol
Project Number: M1HVE-18-13-01
Project Title: *Click It or Ticket* Overtime
Project Description: This is an ongoing continuation project that provides funding for overtime enforcement for occupant restraint violations. The project will provide increased and sustained enforcement efforts in the 25 Occupant Protection Focus Counties. Select waves of overtime enforcement will be conducted during the May *Click It or Ticket* campaign and at other times throughout the year. With increased high visibility enforcement, the goal of the project is to reduce unrestrained fatalities and serious injuries, while also increasing the seat belt usage rate.
CMTW: Chapter 2, Section 2.1, 5.1

Agency: Huntersville Police Department
Project Number: M1HVE-18-13-02 M5HVE-18-15-11
Project Title: Huntersville Traffic Safety Grant
Project Description: This is a new project with the Huntersville Police Department. They currently have a dedicated traffic team with four officers and a Sergeant. The project will provide funding for two additional Traffic officers and their equipment. Mecklenburg County is ranked first for overall fatalities, first for alcohol-related fatalities, first for unrestrained fatalities and second for young driver fatal crashes. The goal of the project is to reduce alcohol-related and unrestrained traffic crashes and injuries through enforcement and education efforts. Enforcement efforts will target these drivers by conducting seat belt initiatives and by holding checking stations during the day and nighttime.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Governor's Highway Safety Program
Project Number: M1X-18-00-00
Project Title: GHSP In-House Occupant Protection Future Projects
Project Description: GHSP will set aside funds for anticipated projects that may occur during the year. Opportunities may arise at a later date during the fiscal year to conduct projects and funds are set aside for this purpose.
CMTW: NA

Agency: Department of Insurance
Project Number: M2CPS-18-13-01
Project Title: CPS and Occupant Protection
Project Description: This is an ongoing project that provides funding for the Office of State Fire Marshal (OSFM)/Safe Kids NC to continue child passenger safety efforts. The goal of the project is to increase the usage of child restraints, booster seats and seat belts in order to reduce the number of injuries and deaths to child occupants in motor vehicle. OSFM will accomplish this by collaborating with local and state child passenger safety and occupant protection programs. This project will restructure and reinforce the child passenger safety diversion program through partnerships with GHSP, District Attorneys' Offices, child passenger safety programs and law enforcement.
CMTW: Chapter 2, Section 7.1, 7.2

Agency: NC State University-Institute of Transportation Research and Education
Project Number: M2X-18-13-01 OP-18-04-06
Project Title: North Carolina Observational Study of Seat Belt Use
Project Description: This project provides funding to fulfill all reporting requirements for North Carolina's Observational Survey of Seat Belt Use for 2018 with respect to NHTSA's guidelines and guidance. In order to successfully fulfill the annual reporting specifications, this project will follow all procedures for NHTSA approval. The project will collect seat belt use data in June 2018 to use for determining an estimate of the statewide seat belt use rate. This project will also conduct additional surveys to gather 30 additional counties seat belt usage

rates and provide training to law enforcement agencies so that they can conduct their own reliable seat belt usage surveys.

CMTW: Chapter 2, Section 1

Agency: Fuquay-Varina Police Department
Project Number: M5HVE-18-15-12 OP-18-04-03
Project Title: Traffic Safety Program
Project Description: This is the initial year of a project that will provide funding for one traffic officer that will expand the current three officer dedicated traffic team to a total of four traffic officers. Wake County is ranked second in overall fatalities, second in alcohol-related fatalities, third in unrestrained fatalities and first in young driver-related fatalities (20 or younger). This project will participate in DWI checking stations, conduct daytime and nighttime seat belt checking stations and conduct education and community outreach. The Town of Fuquay-Varina Police Department aims to reduce the number of speed-related crashes, reduce the young driver involved crashes and reduce the total injury crashes through education and enforcement efforts.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: UNC-Highway Safety Research Center
Project Number: OP-18-04-02
Project Title: Continued Development of the BuckleUpNC Resource Center
Project Description: This is a continuation project that provides funding to maintain and update the BuckleUpNC website (www.buckleupnc.org). This project provides consumer information to the public through a toll free number, website, brochures and flyers. The project provides program and technical assistance to child passenger safety advocates and administrators. The Highway Safety Research Center will continue to support the North Carolina Occupant Protection Task Force and will also continue to collaborate with GHSP and the Office of the State Fire Marshal on Occupant Protection issues throughout the year.
CMTW: Chapter 2, Section 6.1, 6.2, 7.2

Agency: Lumberton Police Department
Project Number: PT-18-06-15
Project Title: Lumberton DWI/OP Enforcement Team
Project Description: This the fourth year of a project that funds two traffic officers. Robeson county is ranked 5th for alcohol-related fatalities and 2nd for unrestrained fatalities. Enforcement efforts will occur during the peak night time hours when impaired drivers are known to be on the road. The officers will collaborate with other agencies and municipalities within Robeson County. Along with their enforcement efforts, the officers will educate students by teaching fatal vision courses to high schools and attending driver education classes around the county. The goal of the project is to reduce the number of alcohol-related and unrestrained fatalities in Robeson County.

CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3;
Chapter 3, Section 2.2, 2.3

POLICE TRAFFIC SERVICES

Target

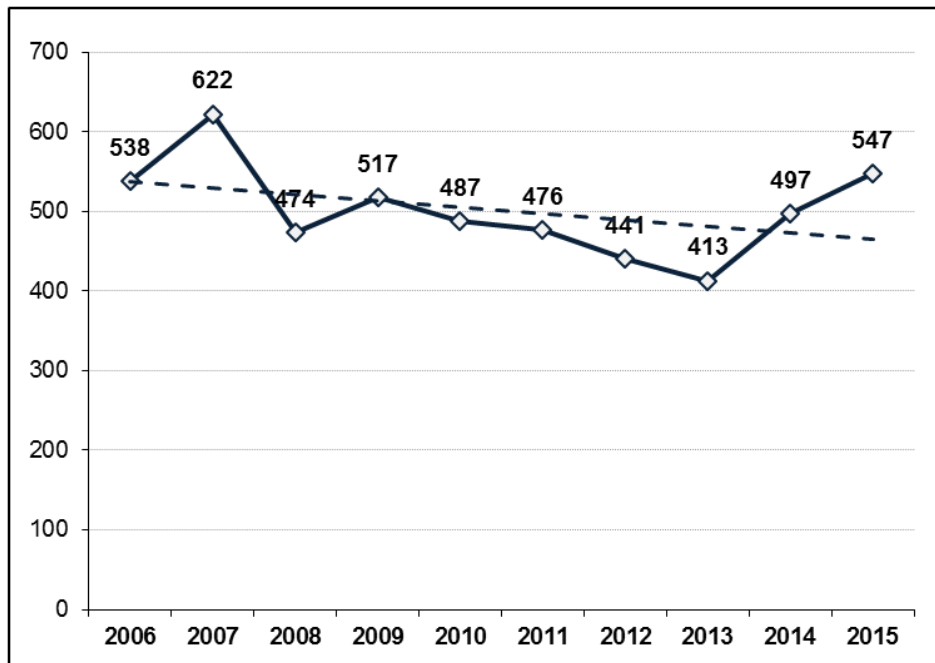
- ❖ GHSP’s goal is to decrease speeding-related fatalities by 5 percent from the 2011–2015 average of 475 to the 2014–2018 average of 451 by December 31, 2018.

Evidence Considered

Crashes, Deaths and Injuries

In 2015, 547 persons were killed in crashes in North Carolina involving a driver who was speeding, a 10 percent increase from the 497 speed-related fatalities in 2014. Although the general trend suggests a gradual decline in speed-related fatalities, North Carolina has experienced a sharp increase in fatalities during the past two years, as shown in Figure 28.

Figure 28. Fatalities in Speed-Related Crashes

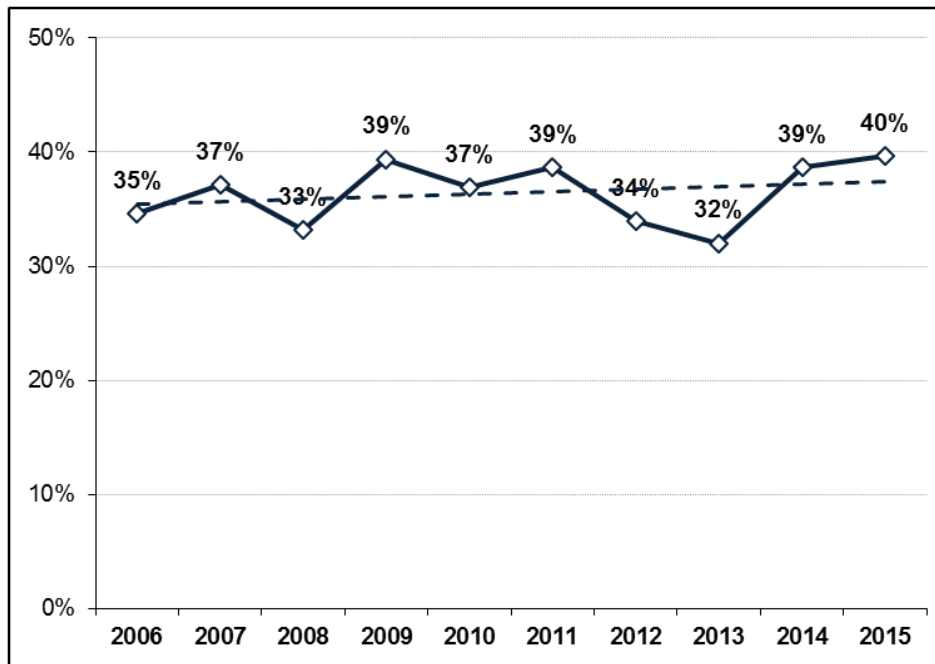


Source: FARS, 2006–2015

GHSP believes the number of speed-related fatalities in North Carolina can be further reduced through a combination of enforcement and educational programs. Hence, we have set a target that reduces speed-related driving fatalities by five percent, to 451 fatalities by 2018.

As shown in Figure 29, the percent of fatalities involving a driver who was speeding has changed only slightly over the past 10 years. During 2015, 40 percent of fatalities were speed-related, up from 39 percent of fatalities in 2014.

Figure 29. Percent of Fatalities Involving a Driver Who Was Speeding



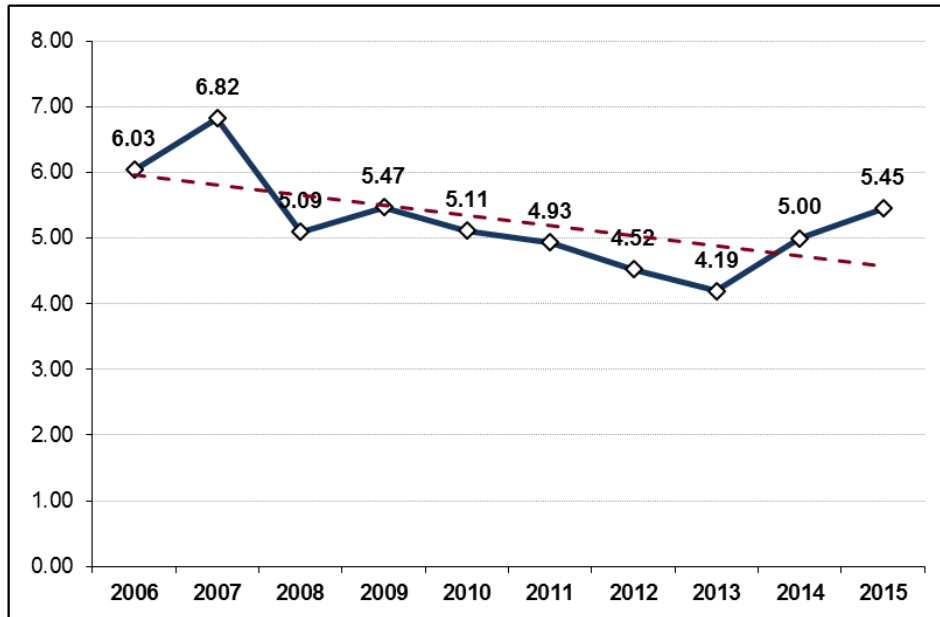
Source: FARS, 2006–2015

As mentioned previously, North Carolina’s population has grown considerably during the last decade. Consequently, it is important to consider fatality rates per capita. Figure 30 shows speed-related driving fatalities per 100,000 population in North Carolina from 2006 through 2015. The overall trend shows a decline in speed-related fatalities per capita. Once again, however, there has been a noticeable increase in the fatality rate during the past two years.

Speed is less often involved in non-fatal crashes. Among all drivers in crashes in North Carolina during 2015, 4.6 percent were speeding (compared to 5.0 percent in 2014). Male drivers were noticeably more likely to be involved in a speed-related crash than female drivers. Among crash-involved drivers in 2015, 5.5 percent of males were speeding compared to 3.6 percent of females. Speeding also varies by the age of the driver. As shown in Figure 31, speed involvement in crashes tends to be highest among the youngest drivers and gradually decreases with age. At all ages, male crash-involved drivers are more likely to have been speeding than female drivers.

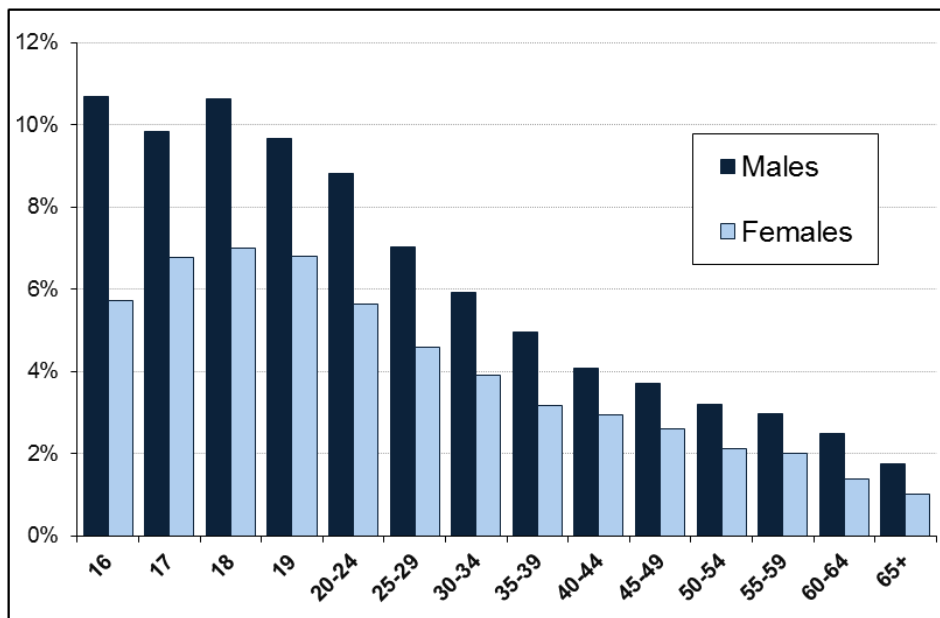
Speeding is substantially more common in rural crashes than urban crashes. During 2015, 8.3 percent of drivers in crashes on rural roads were speeding, compared to 2.6 percent of drivers who crashed on urban roads. As shown in Figure 32, speeding is also quite frequent among crash-involved motorcycle riders. During 2015, 12.7 percent of crash-involved motorcycle riders were speeding, compared to less than 6 percent of drivers of other types of vehicles. The frequency of speeding in motorcycle crashes decreased somewhat in 2015 compared with 2014.

Figure 30. Speed-Related Fatalities per 100,000 Population



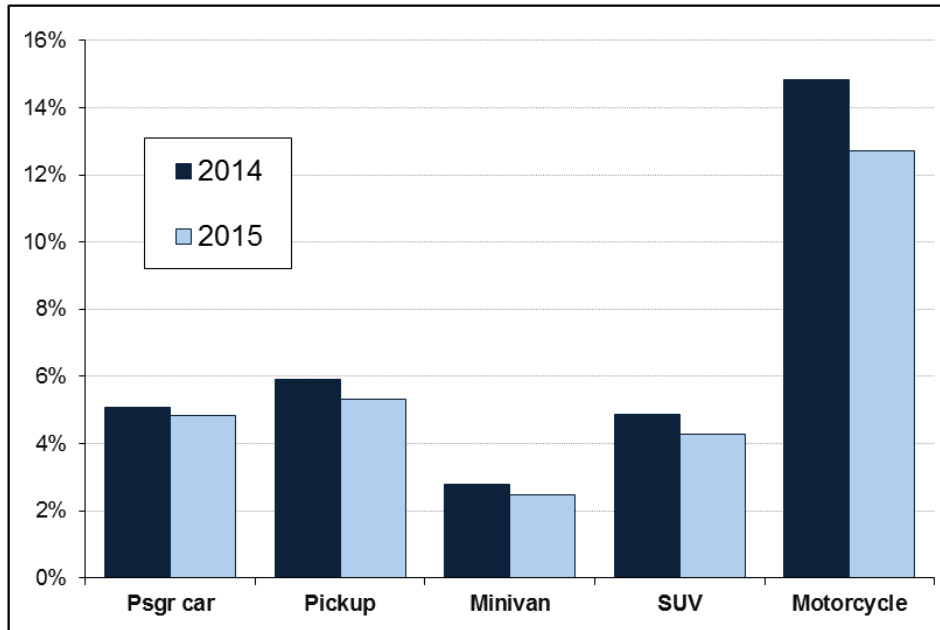
Source: FARS, 2006–2015

Figure 31. Percent of Crash-involved Drivers Who Were Speeding by Age and Sex



Source: NCDOT Motor Vehicle Crash Data, 2015

Figure 32. Percent of Crash-involved Drivers Who Were Speeding by Vehicle Type



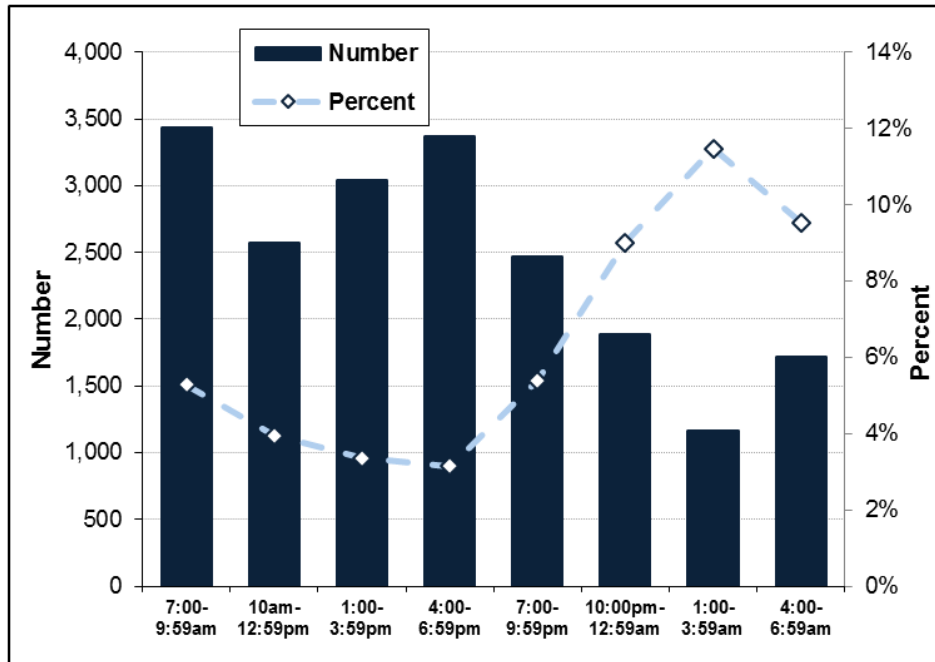
Source: NCDOT Motor Vehicle Crash Data, 2014–2015

Figure 33 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 is highest 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.

North Carolina has 100 counties. Table 15 shows the 40 counties with the most fatalities in crashes involving a driver who was speeding for the years 2011 to 2015. 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 40 counties listed in the table account for 75 percent of all speed-related fatalities in North Carolina from 2011 to 2015.

Table 15 also shows fatalities per 10,000 population. When looking at speed-related fatalities per capita, the counties that stand out include Robeson (1.21), Hoke (1.08), Columbus (1.05), Pender (1.00), Halifax (0.95), Lee (0.92), Nash (0.89) and Harnett (0.82). These counties are well above the overall North Carolina per capita rate of 0.47.

Figure 33. Crash-involved Drivers Who Were Speeding by Time of Day



Source: NCDOT Motor Vehicle Crash Data, 2015

Table 15. Fatalities in Crashes Involving a Driver Who Was Speeding, 2011–2015

| County | Fatalities in speed-related crashes | Fatalities per 10,000 population | % of all speed-involved fatalities |
|-------------|-------------------------------------|----------------------------------|------------------------------------|
| Mecklenburg | 140 | 0.27 | 5.90% |
| Wake | 128 | 0.25 | 5.40% |
| Guilford | 104 | 0.40 | 4.38% |
| Robeson | 81 | 1.21 | 3.41% |
| Cumberland | 65 | 0.40 | 2.74% |
| Johnston | 60 | 0.65 | 2.53% |
| Davidson | 57 | 0.69 | 2.40% |
| Buncombe | 56 | 0.44 | 2.36% |
| Onslow | 55 | 0.57 | 2.32% |
| Forsyth | 54 | 0.29 | 2.28% |
| Randolph | 53 | 0.74 | 2.23% |
| Harnett | 52 | 0.82 | 2.19% |
| Gaston | 48 | 0.45 | 2.02% |
| Durham | 46 | 0.31 | 1.94% |
| Nash | 42 | 0.89 | 1.77% |
| Rowan | 40 | 0.57 | 1.69% |
| Cabarrus | 38 | 0.39 | 1.60% |
| Orange | 38 | 0.54 | 1.60% |
| Catawba | 35 | 0.45 | 1.48% |
| Pitt | 35 | 0.40 | 1.48% |

Table 15. Fatalities in Crashes Involving a Driver Who Was Speeding, 2011–2015

| County | Fatalities in speed-related crashes | Fatalities per 10,000 population | % of all speed-involved fatalities |
|-------------|-------------------------------------|----------------------------------|------------------------------------|
| Union | 35 | 0.32 | 1.48% |
| Craven | 31 | 0.60 | 1.31% |
| Moore | 31 | 0.66 | 1.31% |
| Columbus | 30 | 1.05 | 1.26% |
| New Hanover | 30 | 0.27 | 1.26% |
| Wayne | 30 | 0.48 | 1.26% |
| Brunswick | 29 | 0.47 | 1.22% |
| Pender | 29 | 1.00 | 1.22% |
| Surry | 29 | 0.79 | 1.22% |
| Hoke | 28 | 1.08 | 1.18% |
| Cleveland | 27 | 0.55 | 1.14% |
| Lee | 27 | 0.92 | 1.14% |
| Halifax | 25 | 0.95 | 1.05% |
| Iredell | 25 | 0.29 | 1.05% |
| Rockingham | 25 | 0.54 | 1.05% |
| Sampson | 24 | 0.75 | 1.01% |
| Alamance | 23 | 0.29 | 0.97% |
| Duplin | 22 | 0.73 | 0.93% |
| Wilkes | 22 | 0.63 | 0.93% |
| Caldwell | 21 | 0.51 | 0.89% |

Source: FARS, 2011–2015

Statewide Campaigns/Programs

Enforcement Activities

Law enforcement agencies in North Carolina conducted the *Obey the Sign or Pay the Fine* campaign from March 24 to April 3, 2016. The campaign included 5,598 checkpoints and patrols and resulted in 18,515 citations for speeding. Additionally, the 2016 campaign resulted in 1,429 DWI charges, 4,839 occupant restraint charges, 4,337 citations for DWLR, 1,676 wanted persons apprehended and 1,150 citations for reckless driving.

Eight other enhanced enforcement campaigns were conducted during 2015, such as *Booze It & Lose It* and *Click It or Ticket*. During these campaigns, 37,552 checkpoints and saturation patrols were conducted resulting in 132,751 speeding citations.

The State Highway Patrol participated in a national campaign entitled the I-40 Challenge. Participating states included Arizona, Arkansas, California, New Mexico, Oklahoma, Tennessee and Texas. The campaign targeted several violations including speeding, distracted driving, seat belt use, following too closely, and driving while impaired along the Interstate 40 corridor.

GHSP continues to support local agencies in their speed enforcement efforts. In FY2018, GHSP plans to fund eight new projects providing traffic safety officers that will supplement existing traffic safety teams

or create new teams that are not currently in existence. A ninth traffic safety team will receive a continuation in funding. All the teams have indicated that speed enforcement in high crash corridors will be part of the traffic safety team's day-to-day duties.

Summary

North Carolina has experienced a noticeable increase in speed-related fatalities during 2014 and 2015. Speeding continues to be a factor in 40 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 further reductions in speed-related crashes and fatalities are possible. To adjust for the confounding effect of economic conditions, five year averages were used as the baseline for setting goals. GHSP is working toward reducing speed-related fatalities 5 percent by 2018.

Countermeasures and Funding Priorities

To address the problem areas described above and to meet North Carolina's goals for 2018, 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 8th 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.

GHSP will continue to focus law enforcement and media attention on the enforcement of speeding. Through support and refinement of the Vision Zero Analytics project, GHSP continues to facilitate the collection and sharing of data and county maps with agencies in the top 20-25 counties that are overrepresented in speeding fatalities according to the FY2018 Highway Safety Plan. This information will include the locations of these crashes, day of week and time of day they are occurring. Several of the counties with high rates of fatalities per capita are located in the eastern part of the state along the I-95 corridor. Many of these counties have relatively small populations with their rates affected by heavy traffic and crashes on I-95 which suggests that enforcement activities should be focused there. Crash location maps will help to clarify and pinpoint the problem areas.

Enforcement (citation) data for each county will also be reviewed. GHSP's collaboration with our partners is intended to assist in targeting enforcement efforts during campaigns and throughout the year. GHSP will seek buy in from the agencies to address the problem locations and GHSP will offer funding as needed to enhance the enforcement efforts.

Media Plan

GHSP will support the FY2018 *Obey the Sign or Pay the Fine* national campaign with its own statewide campaign entitled *Speed a Little, Lose a Lot*. The use of earned media will draw attention to the campaign. North Carolina utilizes a variety of media modes to raise awareness for enforcement efforts in the state.

Campaign kickoff events are planned for all FY2018 campaigns, seeking earned media attention gained from partnerships with NCDOT's Communications Office, State Highway Patrol, local law enforcement, Conference of District Attorneys, etc. The kickoff events will feature the GHSP Director, state law

enforcement and local law enforcement, and will often include victims, survivors or offenders. At times GHSP will change the typical kickoff format to draw attention to a variety of speed-related issues.

GHSP will continue to rely heavily on the use of technologies, such as variable message signs or boards, and social media sites such as Facebook and Twitter, to spread the word on the enforcement crackdown. GHSP will rely on the NCDOT Communications Office to assist in this effort.

FY2018 Police Traffic Services Projects

The following section outlines the key projects that are currently approved by the review team and officially part of the original submission of the FY2018 North Carolina Highway Safety Plan to address speeding. While focusing on speed, aggressive driving and other traffic safety problems will be addressed as well. A complete listing of projects, including the funding level and source, can be found in the Cost Summary at the end of this document. (Note: CMTW = NHTSA’s *Countermeasures that Work*).

Agency: Lillington Police Department
Project Number: M5HVE-18-15-13 PT-18-06-20
Project Title: Traffic Enforcement Officer
Project Description: This would be the first year of a three year project to provide the Lillington Police Department with a traffic safety officer and equipment. This officer will conduct targeted enforcement and will conduct education and outreach in the community to increase awareness of traffic safety issues. The aim of the project is to reduce speed-related crashes by 10 percent and the total number of crashes by 10 percent.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Bessemer City Police Department
Project Number: M5HVE-18-15-15 PT-18-06-19
Project Title: Bessemer City Police Traffic Grant
Project Description: This is a new project with the Bessemer City Police Department. The project will provide funding for one traffic officer and the equipment for that officer. Gaston County is ranked 10th for overall fatalities 12th for alcohol-related fatalities, 9th for unrestrained fatalities and 13th for speed-related fatalities. The goal of the project is to reduce speed-related, alcohol-related and unrestrained traffic crashes and injuries through enforcement and education efforts. Enforcement efforts will target these drivers by conducting seat belt initiatives and by holding checking stations during the day and nighttime.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Reidsville Police Department
Project Number: M5HVE-18-15-16 OP-18-04-05
Project Title: Traffic Safety Officer
Project Description: This is the first year of a project to fund one traffic officer and equipment. Traffic crashes in the City of Reidsville have dropped from 1,018 to 737 throughout the city from 2012 through the year 2016. While the total crashes in

the city have decreased, Rockingham County is ranked 29th in the state for overall fatalities. The Reidsville Police Department has a plan of action to reduce the speeding violations and vehicle crashes throughout the City of Reidsville.

CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Graham Police Department
Project Number: M5HVE-18-15-17 PT-18-06-23
Project Title: Graham PD Traffic Safety Project
Project Description: This is the first year of a project to fund a traffic enforcement officer. The City of Graham has approximately 15,000 residents and covers 10 square miles. As the county seat of Alamance County, the City of Graham experiences a high volume of traffic on a daily basis. Alamance County is ranked 26th in overall fatalities. The police department plans to reduce the number of crashes with injuries and fatalities that are caused by speeding, reckless and intoxicated drivers.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Governor's Highway Safety Program
Project Number: PT-18-06-01
Project Title: GHSP In-House Statewide Traffic Enforcement Program
Project Description: This is an ongoing project to fund a program for traffic safety equipment for use in an statewide enforcement and education program. GHSP conducts various enforcement efforts throughout the year, including several *Booze It & Lose It* and *Click It or Ticket* campaigns. GHSP encourages law enforcement agencies to participate and report their citation totals via online reporting on a weekly basis during each campaign as well as at other times during the year. Agencies are evaluated at the end of the year for their participation and reporting. Based on a demonstrated need, agencies may then request specific equipment to assist GHSP in achieving their goals in the reduction of alcohol, speed, or unrestrained fatalities. This project funds the cost of the equipment.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3

Agency: Guilford County Sheriff's Office
Project Number: PT-18-06-02
Project Title: Region 7 Law Enforcement Liaison
Project Description: This is an ongoing project for the Region 7 LEL. The Regional LEL will continue serving GHSP to encourage County Coordinators within Region 7 to continue GHSP campaigns and other traffic-related initiatives as it pertains to GHSP. The LEL will continue promoting highway safety within this region and work with agencies to raise the seatbelt usage above 92.5 percent and obtain a regional participation rate of over 90 percent.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Asheville Police Department
Project Number: PT-18-06-03
Project Title: Region 10 Law Enforcement Liaison
Project Description: This is an ongoing project for the Region 10 LEL. The Regional LEL will continue serving GHSP to encourage County Coordinators within Region 10 to continue GHSP campaigns and other traffic-related initiatives as it pertains to GHSP. The LEL will continue promoting highway safety within this region and work with agencies to raise the seatbelt usage above 92.5 percent and obtain a regional participation rate of over 90 percent.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Rockingham Police Department
Project Number: PT-18-06-04
Project Title: Region 6 Law Enforcement Liaison
Project Description: This is an ongoing project for the Region 6 LEL. The Regional LEL will continue serving GHSP to encourage County Coordinators within Region 6 to continue GHSP campaigns and other traffic-related initiatives as it pertains to GHSP. The LEL will continue promoting highway safety within this region and work with agencies to raise the seatbelt usage above 92.5 percent and obtain a regional participation rate of over 88 percent.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Marion Police Department
Project Number: PT-18-06-05
Project Title: Region 9 Law Enforcement Liaison
Project Description: This is an ongoing project for the Region 9 LEL. The Regional LEL will continue serving GHSP to encourage County Coordinators within Region 9 to continue GHSP campaigns and other traffic-related initiatives as it pertains to GHSP. The LEL will continue promoting highway safety within this region and work with agencies to raise the seatbelt usage above 92.5 percent and obtain a regional participation rate of over 80 percent.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Charlotte-Mecklenburg Police Department
Project Number: PT-18-06-06
Project Title: Region 8 Law Enforcement Liaison
Project Description: This is an ongoing project for the Region 8 LEL. The Regional LEL will continue serving GHSP to encourage County Coordinators within Region 8 to continue GHSP campaigns and other traffic-related initiatives as it pertains to GSHP. The LEL will continue promoting highway safety within this region and work with agencies to raise the seatbelt usage above 92.5 percent and obtain a regional participation rate of over 83 percent.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Tarboro Police Department
Project Number: PT-18-06-07
Project Title: Region 4 Law Enforcement Liaison
Project Description: This is an ongoing project for the Region 4 LEL. The Regional LEL will continue serving GHSP to encourage County Coordinators within Region 4 to continue GHSP campaigns and other traffic-related initiatives as it pertains to GHSP. The LEL will continue promoting highway safety within this region and work with agencies to raise the seatbelt usage above 92.5 percent and obtain a regional participation rate of over 81 percent.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Ayden Police Department
Project Number: PT-18-06-08
Project Title: Region 2 Law Enforcement Liaison
Project Description: This is an ongoing project for the Region 2 LEL. The Regional LEL will continue serving GHSP to encourage County Coordinators within Region 2 to continue GHSP campaigns and other traffic-related initiatives as it pertains to GHSP. The LEL will continue promoting highway safety within this region and work with agencies to raise the seatbelt usage above 92.5 percent and obtain a regional participation rate of over 81 percent.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Orange County Sheriff's Office
Project Number: PT-18-06-09
Project Title: Region 5 Law Enforcement Liaison
Project Description: This is an ongoing project for the Region 5 LEL. The Regional LEL will continue serving GHSP to encourage County Coordinators within Region 5 to continue GHSP campaigns and other traffic-related initiatives as it pertains to GHSP. The LEL will continue promoting highway safety within this region and work with agencies to raise the seatbelt usage above 92.5 percent and obtain a regional participation rate of over 89 percent.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Jackson County Sheriff's Office
Project Number: PT-18-06-10
Project Title: Region 11 Law Enforcement Liaison
Project Description: This is an ongoing project for the Region 11 LEL. The Regional LEL will continue serving GHSP to encourage County Coordinators within Region 11 to continue GHSP campaigns and other traffic-related initiatives as it pertains to GHSP. The LEL will continue promoting highway safety within this region and work with agencies to raise the seatbelt usage above 92.5 percent and obtain a regional participation rate of over 73 percent.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Kitty Hawk Police Department
Project Number: PT-18-06-11
Project Title: Region 1 Law Enforcement Liaison
Project Description: This is an ongoing project for the Region 1 LEL. The Regional LEL will continue serving GHSP to encourage County Coordinators within Region 1 to continue GHSP campaigns and other traffic-related initiatives as it pertains to GHSP. The LEL will continue promoting highway safety within this region and work with agencies to raise the seatbelt usage above 92.5 percent and obtain a regional participation rate of over 77 percent.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: New Hanover County Sheriff's Office
Project Number: PT-18-06-12
Project Title: Region 3 Law Enforcement Liaison
Project Description: This is an ongoing project for the Region 3 LEL. The Regional LEL will continue serving GHSP to encourage County Coordinators within Region 3 to continue GHSP campaigns and other traffic-related initiatives as it pertains to GHSP. The LEL will continue promoting highway safety within this region and work with agencies to raise the seatbelt usage above 92.5 percent and obtain a regional participation rate of over 83 percent.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Cornelius Police Department
Project Number: PT-18-06-14
Project Title: Cornelius Police Department Traffic Unit
Project Description: This is the third year of a project that provides funding for two traffic officers to expand the current three officer dedicated traffic team to a total of five traffic officers. Mecklenburg County is ranked 1st for overall fatalities, 1st for alcohol-related fatalities and 1st for unrestrained fatalities. The goal of the project is to reduce fatalities through enforcement and education efforts. The traffic team will work with the Charlotte-Mecklenburg Police Department DWI Task Force on special DWI enforcement campaigns.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Department of Justice-Justice Academy
Project Number: PT-18-06-16
Project Title: Highway Safety Enforcement Officer Training Program
Project Description: This is a continuation project that provides funding for training to law enforcement officers statewide for crash investigation and radar instructor certification. The Justice Academy will deliver multiple courses taught by the instructional staff of nationally recognized training facilities to provide a highly advanced level of training to officers. The Justice Academy's goal is to seek out experts in the crash investigation and radar instruction fields to supplement the training programs offered to North Carolina law enforcement officers.

CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: North Carolina Sheriffs' Association
Project Number: PT-18-06-18
Project Title: Legislative Update Training
Project Description: This is an ongoing project that funds a legislative update to the newly appointed Sheriffs' in North Carolina . The North Carolina General Assembly has made a substantial number of changes to the state's Motor Vehicle Law. To help provide local law enforcement officers with the knowledge of these changes to effectively enforce the new laws, the North Carolina Sheriffs' Association will conduct statewide training classes not offered through any other resource to support training on new legislation for law enforcement officers.
CMTW: NA

Agency: Harnett County Sheriff's Office
Project Number: PT-18-06-21 M5HVE-18-15-14
Project Title: Harnett Traffic Safety Project
Project Description: This is a new project to provide the Harnett County Sheriff's Office with a traffic safety officer and equipment. This officer will conduct targeted enforcement and will conduct education and outreach in the community to increase awareness of traffic safety issues. The aim of the project is to reduce overall fatalities by 25 percent, speed-related fatalities by 25 percent and young driver involved fatal crashes by 30 percent.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: Wake Forest Police Department
Project Number: PT-18-06-22
Project Title: Traffic Safety Unit
Project Description: This is the initial year of a project that will provide funding for one traffic officer and equipment that will expand the current five officer dedicated traffic team to a total of six traffic officers. Wake County is ranked second in overall fatalities, second in alcohol-related fatalities, third in unrestrained fatalities and first in young driver-related fatalities (20 or younger). This project will conduct targeted enforcement by increasing patrols in high traffic areas, host and participate in DWI checking stations, set up daytime and nighttime seatbelt checking stations and conduct education and community outreach. The Wake Forest Police Department team aims to increase DWI arrests and increase seatbelt citations issued through education and enforcement efforts.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: UNC-Highway Safety Research Center
Project Number: SA-18-09-05
Project Title: GHSP Website and Reporting System
Project Description: This is a fourth year of a project that provides funding for the upgrade and continued maintenance of the STEP reporting system. The grant includes "fixes"

to the program as they are determined, automated report summaries, and housing the database.

CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3;
Chapter 3, Section 2.2, 2.3

YOUNG DRIVERS

Target

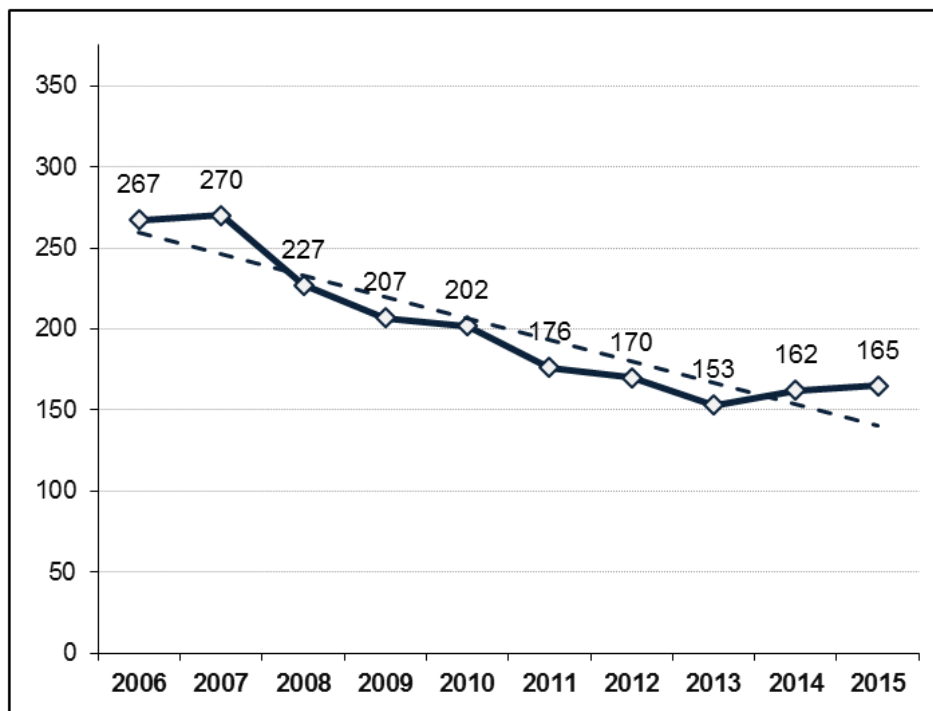
- ❖ **GHSP’s goal is to decrease drivers age 20 or younger involved in fatal crashes by 20 percent from the 2011–2015 average of 165 to the 2014–2018 average of 132 by December 31, 2018.**

Evidence Considered

Crashes, Deaths and Injuries

Motor vehicle crashes are the leading cause of death among young people in North Carolina. During 2015, 165 drivers 20 years of age or younger were involved in a fatal crash, an increase of three deaths from 2014. As shown in Figure 34, the number of young drivers involved in fatal crashes has declined steadily in North Carolina over the past ten years. In fact, fatal crashes involving young drivers dropped 38 percent between 2006 and 2015.

Figure 34. Drivers Age 20 or Younger Involved in Fatal Crashes

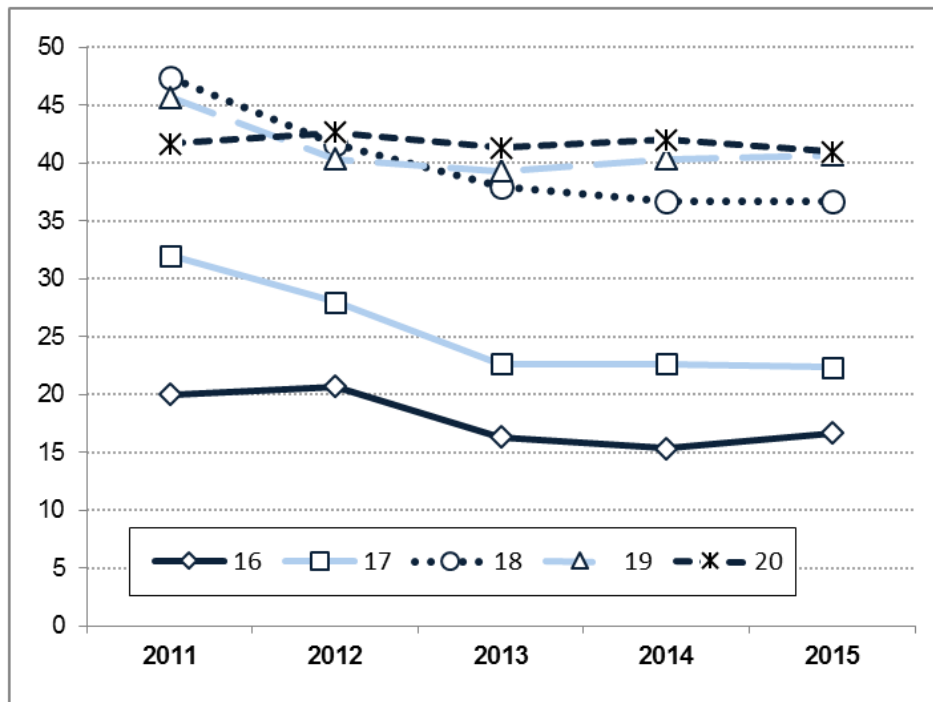


Source: FARS, 2006–2015

Involvement in fatal crashes has decreased for young drivers of all ages. Figure 35 shows the moving average of drivers in fatal crashes, separately for ages 16 through 20. Moving averages were used to smooth out the yearly fluctuations in fatalities for each individual age. Generally, 16-year-old drivers experience fewer fatal crashes than their older counterparts. Drivers age 17 have slightly higher involvements in fatal crashes, while involvement is higher still for ages 18 to 20. This is not surprising,

since many 16-year-olds (and some 17-year-olds) do not have a license, and younger teens drive fewer miles, on average, than older teens.

Figure 35. Moving Average of Drivers in Fatal Crashes by Age



Source: FARS, 2011–2015

North Carolina’s population has grown dramatically during the past decade. Consequently, it is important to examine crash involvements per capita in addition to simple counts. Figure 36 shows fatal crash rates per 10,000 population for drivers ages 16 to 20. In 2015, the fatal crash rate increased slightly from 2.36 to 2.38. The long-term trend, however, shows fatalities per capita dropped by 43 percent from 2006 to 2015.

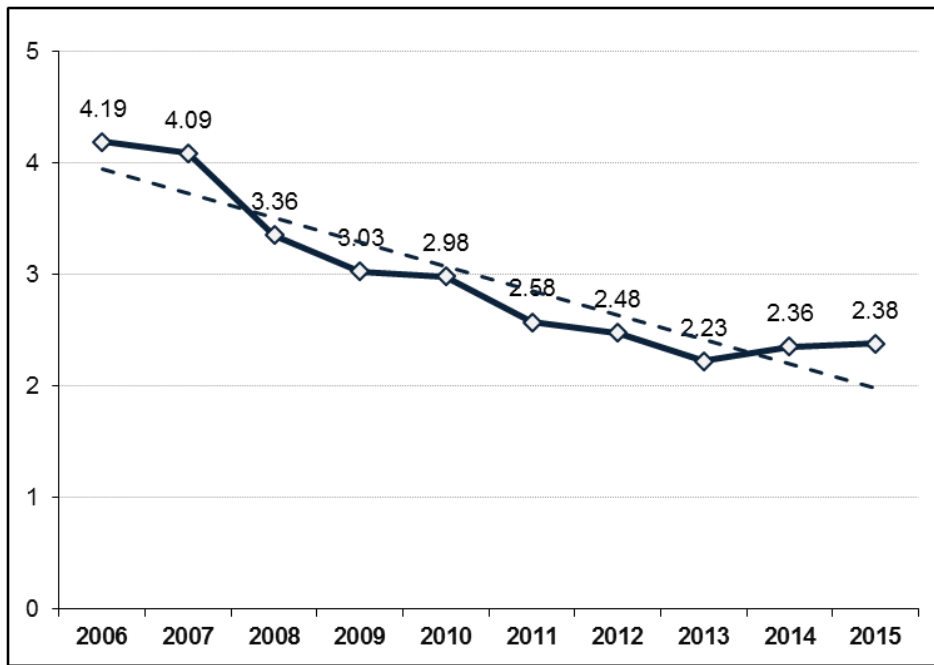
Despite the reduction in young driver fatal crashes in recent years, young drivers in North Carolina continue to be over-represented in crashes and fatalities. In 2015, drivers 16 to 20 years old comprised seven percent of the population in North Carolina, yet they accounted for 14 percent of all crashes and nine percent of fatal crashes.

During 2015, drivers 16 to 20 years old were involved in 53,065 crashes in North Carolina. Consistent with previous years, males accounted for a slightly 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 of crash-involved young drivers were driving passenger cars (67 percent). Fewer were driving SUVs (18 percent), pickups (12 percent), or minivans (2 percent).

Figure 37 shows the time of day of young driver crashes in 2015. There are distinct peaks near 7 a.m. and 3 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

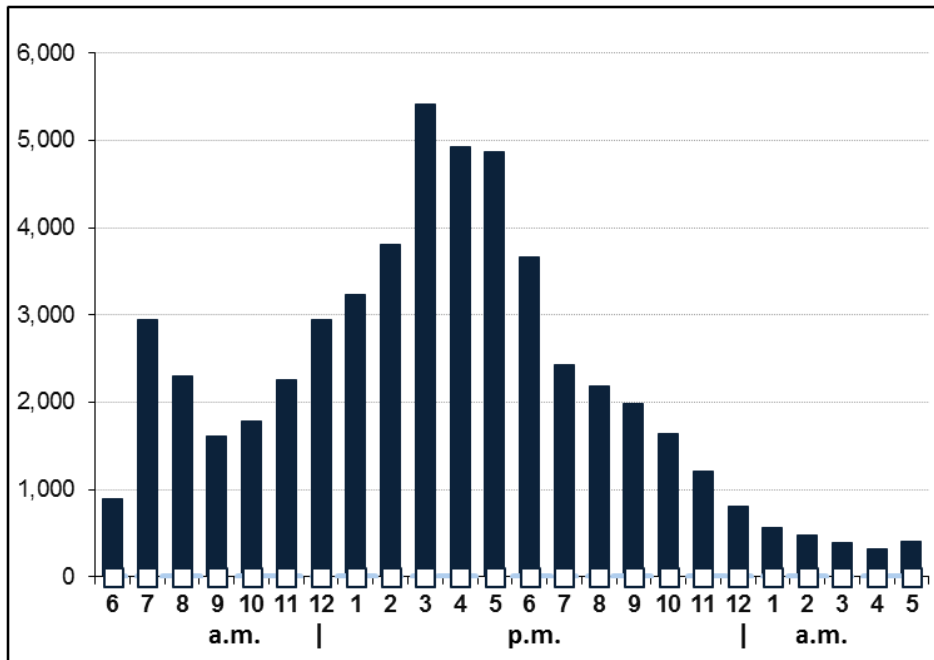
who are less experienced in this setting. North Carolina currently restricts unsupervised driving after 9 p.m. for teens with a provisional GDL license.

Figure 36. Teenage Driver Fatal Crash Rates per 10,000 Population



Source: FARS, 2006–2015 and U.S. Census Bureau

Figure 37. Young Driver Crashes by Time of Day



Source: NCDOT Motor Vehicle Crash Data, 2015

Table 16 lists the 30 counties with the highest numbers of young drivers involved in fatal crashes from 2011 to 2015. Wake County had the most young drivers involved in fatal crashes (57), followed by Mecklenburg County (53), Guilford County (31), Cumberland County (29) and Robeson County (27). In total, the 30 counties listed in the table account for nearly 70 percent of all young drivers involved in fatal crashes in North Carolina from 2011 to 2015. 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 (6.83), Brunswick (6.55), Nash (6.46), Sampson (4.94), Rutherford (4.79), Robeson (4.64) and Duplin (4.48).

Table 16. Young drivers involved in fatal crashes, 2011–2015

| County | Young drivers involved in fatal crashes | Rate per 10,000 population | % of all 16-20 involved in fatal crashes |
|---------------|--|-----------------------------------|---|
| Wake | 57 | 1.66 | 7.13% |
| Mecklenburg | 53 | 1.73 | 6.63% |
| Guilford | 31 | 1.54 | 3.88% |
| Cumberland | 29 | 2.43 | 3.63% |
| Robeson | 27 | 4.64 | 3.38% |
| Johnston | 25 | 3.87 | 3.13% |
| Buncombe | 23 | 3.23 | 2.88% |
| Union | 22 | 2.51 | 2.75% |
| Nash | 20 | 6.46 | 2.50% |
| Durham | 19 | 1.88 | 2.38% |
| Brunswick | 18 | 6.55 | 2.25% |
| Pitt | 18 | 1.90 | 2.25% |
| Davidson | 17 | 3.24 | 2.13% |
| Catawba | 15 | 2.89 | 1.88% |
| Forsyth | 15 | 1.21 | 1.88% |
| Randolph | 15 | 3.06 | 1.88% |
| Columbus | 13 | 6.83 | 1.63% |
| Onslow | 13 | 1.39 | 1.63% |
| Rowan | 13 | 2.77 | 1.63% |
| Sampson | 11 | 4.94 | 1.38% |
| Wayne | 11 | 2.65 | 1.38% |
| Harnett | 10 | 2.11 | 1.25% |
| Rockingham | 10 | 3.57 | 1.25% |
| Rutherford | 10 | 4.79 | 1.25% |
| Surry | 10 | 3.89 | 1.25% |
| Alamance | 9 | 1.49 | 1.13% |
| Cabarrus | 9 | 1.34 | 1.13% |
| Duplin | 9 | 4.48 | 1.13% |
| Gaston | 9 | 1.28 | 1.13% |
| Orange | 9 | 1.16 | 1.13% |

Statewide Campaigns/Programs

As mentioned in the Occupant Protection Chapter, young occupants who are fatally injured are less likely to be restrained. To address this problem, GHSP has funded young driver initiatives focused on occupant protection and other high risk driving behaviors. Vidant Medical Center in Pitt County established a peer-led safe driving program in several high schools in their county. A full-time coordinator with the medical center worked with schools to establish driving clubs, help students identify the risk areas they wanted to focus on in their school, and develop programs to reach their peers and convince them to change their risky driving behaviors. They conducted periodic seatbelt surveys and noted a significant increase in seatbelt use after implementing the programs at several schools.

Other North Carolina programs that have received support from GHSP include a teen safe driving initiative similar to the Pitt County efforts mentioned above through Carolinas Medical Center which focused on several Charlotte/Mecklenburg high schools. The program saw similar success with increases in seatbelt use and decreases in other risky driving behaviors. Additionally, GHSP has previously partnered with StreetSafe and VIP for a VIP. StreetSafe is a hands-on driving program for young drivers designed to change the driving behaviors that cause moving violations, crashes, DWI's, injuries and death. During the program, young drivers witness and experience the consequences of improper motor vehicle operation, particularly in dangerous situations, but in a controlled environment. As a result, they gain the experience and information they need to appreciate driving safely. VIP for a VIP (Vehicle Injury Prevention for a Very Important Person) educates teen drivers about the dangers of driving impaired or distracted. The program brings the sight, sound and smell of a fatal vehicle crash to high school students in a dramatic way in hopes of embedding the consequences of these often senseless events into the minds of teenage drivers. The vision is that, at the end of the day, students will have a realistic picture of what can happen as a result of one moment of inattention. The program is delivered by volunteers from local Fire, EMS, Police, and State Highway Patrol agencies.

It should be noted that several other initiatives, such as *Booze It & Lose It*, *Speed A Little, Lose A Lot*, and *Click It or Ticket* encompass young drivers as part of the overall driving population. These are discussed in detail elsewhere in the Highway Safety Plan.

Summary

North Carolina has seen a substantial reduction in fatal crashes involving young drivers over the past decade. Between 2006 and 2015, fatal crashes dropped by 38 percent. The decrease is evident even after taking population changes into account.

Despite these improvements, motor vehicle crashes continue to be a leading cause of death among young people in North Carolina. The counties that account for the highest number of young drivers involved in fatal crashes are Wake, Mecklenburg, Guilford, Cumberland and Robeson. Columbus, Brunswick, Nash, Sampson, Rutherford, Robeson and Duplin counties are noteworthy for having both a relatively high number of young drivers involved in fatal crashes and a high rate per capita.

GHSP believes further reductions in the number of young drivers involved in fatal crashes are possible. To adjust for the confounding effect of economic conditions, five year averages were used as the baseline for setting goals. GHSP is working toward reducing the number of young drivers involved in fatal crashes 20 percent by December, 31 2018.

Countermeasures and Funding Priorities

To address the problem areas described above and to meet North Carolina's goals for 2018, 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 8th 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.

GHSP is committed to exploring and evaluating innovative approaches to training young drivers and offering evidence based resources and technical assistance to key stakeholders in North Carolina interested in improving young driver safety.

GHSP will continue to fund the North Carolina Teen Driver Resource Center (NCTDRC). The NCTDRC is an information resource center for five community sectors that can play a central role in improving young driver safety in North Carolina: law enforcement, state agencies, community organizations, parents of teenage drivers and policy-makers.

Media Plan

GHSP will utilize earned media attention for youth and teen driving safety. The media is much attuned to youth issues and is currently very responsive to all efforts to better educate and train the state's young drivers. GHSP has planned media events at strategic location across the state to promote the distracted driving message "One Text or Call Could Wreck It All" at local high schools.

GHSP will continue its partnership with Huddle which provides the printed sporting event tickets for local high schools. During the 2016–2017 school year, this partnership reached 399 high schools across the state and includes traffic safety messaging on the printed tickets to teens and parents. The schools selected are all located in target counties (those with high numbers or rates of young driver fatal crashes).

GHSP is also working to expand its social media presence on Facebook, Twitter, Instagram and other platforms that are popular among teen drivers. Having a presence on various social media sites allows GHSP to communicate with teen drivers directly and target our messaging to them.

GHSP intends to continue using NHTSA's "5 to Drive" messaging and intends to seek out sponsorship opportunities with highway safety partners such as SADD and VIP for a VIP to further promote this message in a highly targeted environment.

FY2018 Young Driver Projects

The following section outlines the key projects that are currently approved by the review team and officially part of the original submission of the FY2018 North Carolina Highway Safety Plan to address young driver safety. A listing of all projects, including the funding level and source, can be found in the Cost Summary at the end of this document. (Note: CMTW = NHTSA's *Countermeasures that Work*).

Agency: UNC-Highway Safety Research Center
Project Number: DE-18-08-01
Project Title: North Carolina Teen Driver Safety Initiative
Project Description: This is an ongoing project that provides funding for the Teen Driver Resource Center. The primary focus of the project is to test and implement a comprehensive program to provide guidance to parents of new drivers in North Carolina. The Highway Safety Resource Center will continue providing guidance and assistance to various stakeholder groups with interest in improving teen driver and passenger safety throughout North Carolina.
CMTW: Chapter 6, Section 2.1, 2.2, 3.1

Agency: Pitt Memorial Hospital Foundation
Project Number: SA-18-09-08
Project Title: Pitt County Teen Safe Drivers
Project Description: This is a fifth year project that provides funding for a program specialist to assist in managing the PittCo Teen Safe Driver Program. The program coordinates efforts to effectively reduce the crash rate among Pitt County teen drivers. The PittCo Teen Safe Drivers Program uses a peer-peer model and a variety of evidence-based strategies to create a community focused on safe driving. The project will focus on expanding into two private Pitt County High Schools, The Oakwood School and Greenville Christian Academy. The goal of the project is to increase seatbelt usage among teen drivers and reduce impaired driving among teen drivers.
CMTW: Chapter 6, Section 2.1, 2.2

MOTORCYCLE SAFETY

Targets

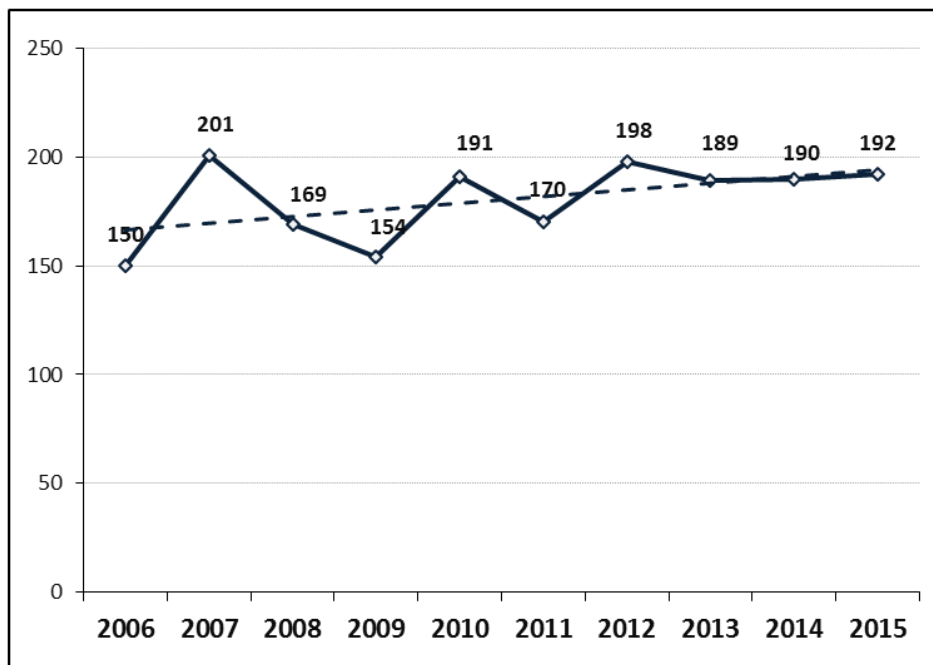
- ❖ GHSP’s goal is to decrease motorcyclist fatalities 5 percent from the 2011–2015 average of 188 to the 2014–2018 average of 178 by December 31, 2018.
- ❖ GHSP’s goal is to limit the 2014–2018 average number of unhelmeted motorcyclist fatalities to the 2011–2015 average of 16 by December 31, 2018.

Evidence Considered

Crashes, Deaths and Injuries

In 2015, there were 192 motorcycle rider fatalities in North Carolina, an increase of two fatalities from 2014. As shown in Figure 38, the long-term trend suggests a gradual rise in motorcycle rider fatalities over the past ten years.

Figure 38. Number of Motorcyclist Fatalities



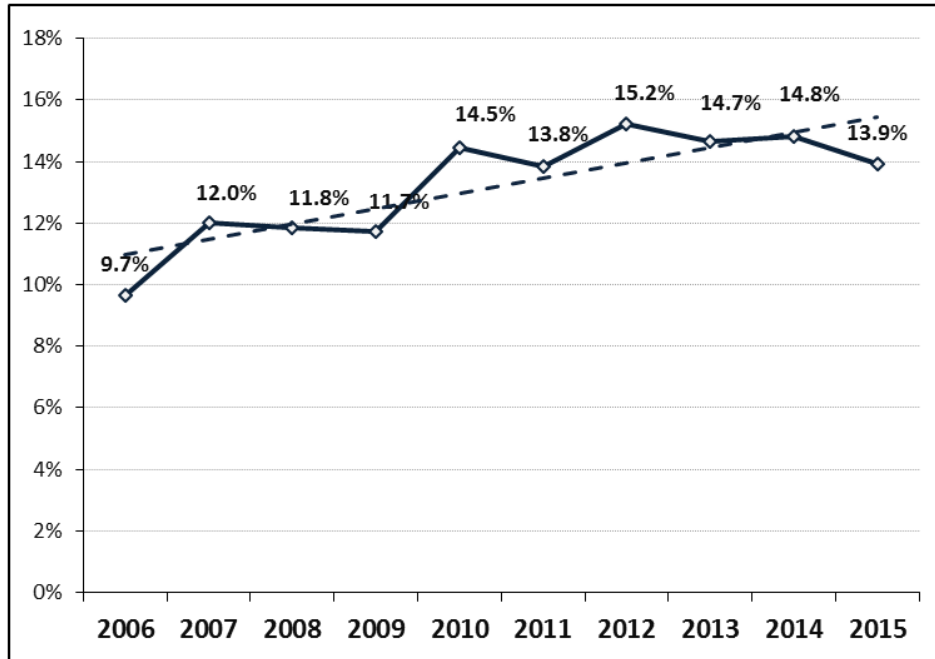
Source: FARS, 2006–2015

An additional concern is that motorcyclists represent an increasing proportion of traffic fatalities in North Carolina. As shown in Figure 39, motorcyclists currently account for 13.9 percent of traffic fatalities, up from 9.7 percent of traffic fatalities in 2006. However, it appears this trend has leveled off over the past four years.

One positive finding is the vast majority of fatally injured motorcyclists in North Carolina were wearing a helmet when they crashed (see Figure 40). 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 2015, 14 fatally injured motorcycle riders were not wearing a helmet, compared to 15 unhelmeted fatalities in 2014.

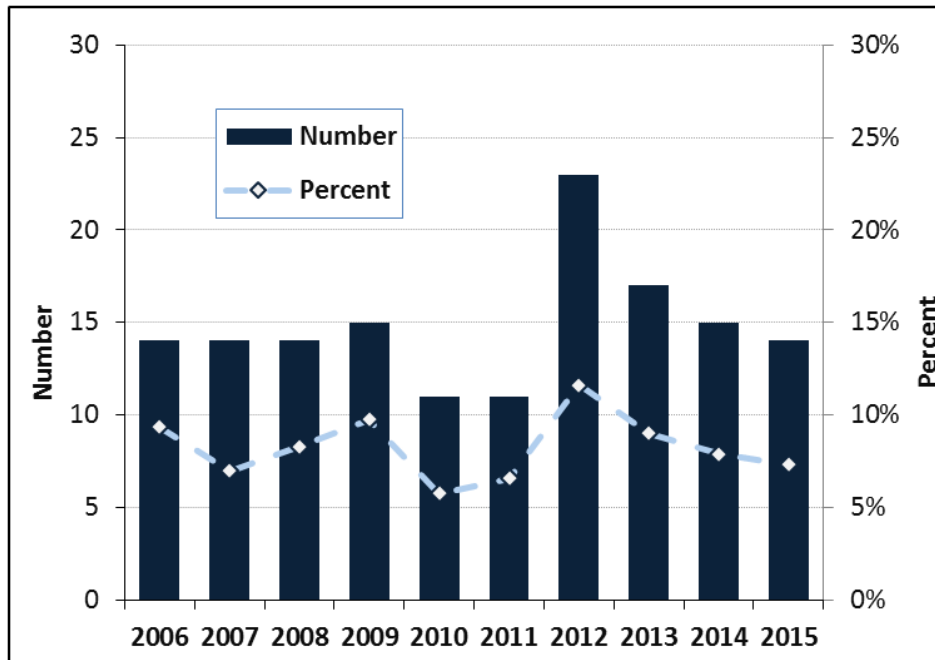
NHTSA estimates an additional five lives could have been saved in 2015 if all riders involved in crashes had been wearing a helmet. The percent of unhelmeted motorcyclist fatalities has remained relatively consistent and low, averaging 8.2 percent over the last ten years.

Figure 39. Motorcycle Fatalities as a Proportion of All Fatalities



Source: FARS, 2006–2015

Figure 40. Unhelmeted Motorcyclist Fatalities



Source: FARS, 2006–2015

Although the total number of motorcycle rider fatalities has increased over the last decade, both the fatality rate per registered motorcycle and the total crash rate per registered motorcycle have been relatively stable since at least 2001, as shown in Table 17. This indicates that the increase in motorcyclist fatalities in recent years is due primarily to the increase in riders.

Table 17. Motorcycle Crash and Fatality Rates Per Registered Motorcycle, 2001–2015

| Year | Total Crashes | Total Fatalities | Registered Motorcycles* | Crash Rate per 1,000 Registered Motorcycles | Fatality Rate per 10,000 Registered Motorcycles |
|------|---------------|------------------|-------------------------|---|---|
| 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 |

*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.

Most motorcycle riders in the U.S. and North Carolina are male. Not surprisingly, the vast majority (93 percent) of crash-involved motorcycle riders in 2015 were male. Nearly half (47 percent) of motorcycle crashes were single vehicle crashes, and 50 percent occurred on rural roads. Alcohol use continues to be an important contributing factor to motorcycle crashes. Alcohol use was suspected in 7.5 percent of all motorcyclist crashes in 2015 – about twice the rate of alcohol involvement in crashes involving passenger vehicles, pickup trucks, or other types of vehicles.

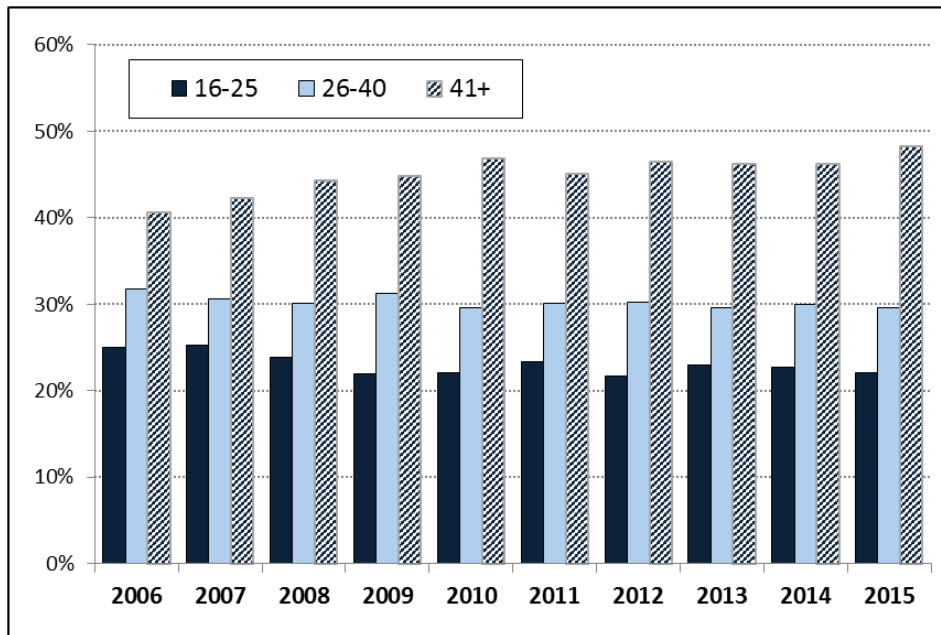
Nationwide, the past few decades have seen a gradual shift in the age of motorcyclists involved in crashes. In recent years the trend appears to have stabilized in North Carolina, with riders age 41 and older now accounting for nearly half of all riders involved in crashes (see Figure 41).

Motorcycle crashes and fatalities tend to be most common during the afternoon and early evening. Twenty-nine percent (29 percent) of all motorcycle crashes and 25 percent of fatalities in 2015 occurred between 3-6 p.m. However, fatalities are over-represented in motorcycle crashes occurring between 9 p.m. and 6 a.m. (see Figure 42).

Table 18 shows the 34 counties with the highest number of motorcyclist fatalities from 2011–2015. The counties with the most fatalities include Wake, Mecklenburg, Cumberland, Guilford and Robeson. As is the case for passenger vehicles, many of the counties with the highest number of motorcyclist fatalities

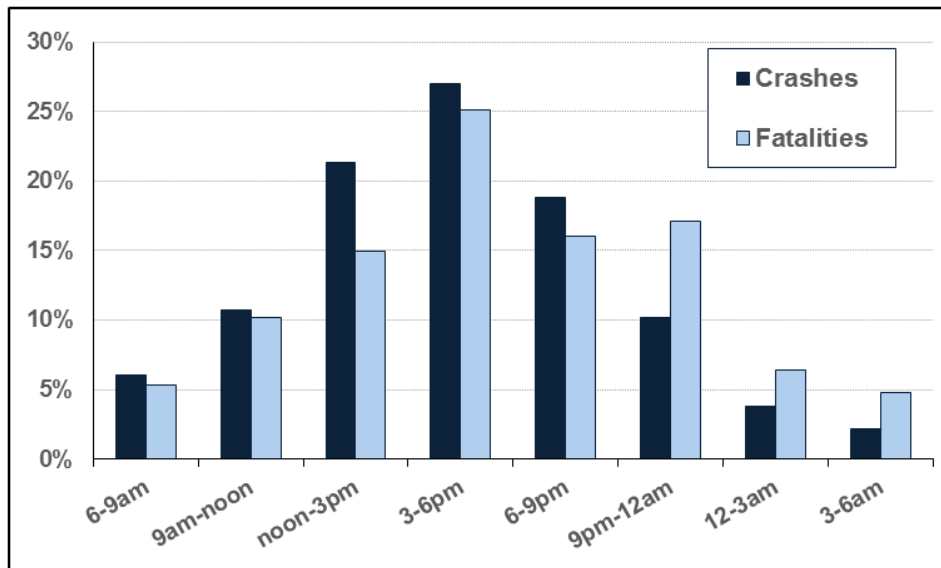
are also highly populated areas. The 34 counties listed in the table account for 74 percent of motorcyclist fatalities in the state.

Figure 41. Percent of Motorcycle Crashes by Rider Age



Source: NCDOT Motor Vehicle Crash Data, 2006–2015

Figure 42. Motorcycle Crashes and Fatalities by Time of Day



Source: NCDOT Motor Vehicle Crash Data, 2015; FARS, 2015

Table 18. Motorcyclist Fatalities, by County, 2011–2015

| County | Motorcyclist Fatalities | Percent of Total Motorcyclist Fatalities |
|---------------|------------------------------------|---|
| Wake | 57 | 6.08% |
| Mecklenburg | 56 | 5.97% |
| Cumberland | 50 | 5.33% |
| Guilford | 38 | 4.05% |
| Robeson | 28 | 2.99% |
| Johnston | 27 | 2.88% |
| Rowan | 26 | 2.77% |
| Randolph | 25 | 2.67% |
| Catawba | 24 | 2.56% |
| Forsyth | 23 | 2.45% |
| New Hanover | 22 | 2.35% |
| Onslow | 22 | 2.35% |
| Buncombe | 21 | 2.24% |
| Davidson | 21 | 2.24% |
| Iredell | 20 | 2.13% |
| Durham | 18 | 1.92% |
| Alamance | 16 | 1.71% |
| Cabarrus | 15 | 1.60% |
| Burke | 14 | 1.49% |
| Harnett | 14 | 1.49% |
| Brunswick | 13 | 1.39% |
| Craven | 12 | 1.28% |
| Graham | 12 | 1.28% |
| Union | 12 | 1.28% |
| Henderson | 11 | 1.17% |
| Pender | 11 | 1.17% |
| Pitt | 11 | 1.17% |
| Richmond | 11 | 1.17% |
| Wayne | 11 | 1.17% |
| Gaston | 10 | 1.07% |
| Haywood | 10 | 1.07% |
| Surry | 10 | 1.07% |
| Wilkes | 10 | 1.07% |
| Wilson | 10 | 1.07% |

Source: FARS, 2011–2015

A different picture emerges when looking at fatalities per registered motorcycle. Here, many of the counties with the highest crash rates are located in the less populated mountainous western part of the state. As shown in Table 19, Graham County has a dramatically higher 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 in Table 16 are in the western (mountainous) part of

the state that tends to be a popular recreational destination for out-of-county and even out-of-state riders.

Table 19. Top 10 Counties With Highest Rate of Crash-Involved Motorcyclists Per Registered Motorcycle, 2011–2015

| County | Motorcyclist Fatalities | Motorcycles Involved in Crashes | Registered Motorcycles (2015) | Crash Involved Motorcycles Per 1000 Registered Motorcycles | Fatality Rate Per 10,000 Registered Motorcycles |
|--------------|-------------------------|---------------------------------|-------------------------------|--|---|
| Graham | 12 | 326 | 1,098 | 296.90 | 109.29 |
| Swain | 4 | 135 | 2,368 | 57.01 | 16.89 |
| Durham | 18 | 570 | 14,221 | 40.08 | 12.66 |
| McDowell | 0 | 216 | 6,043 | 35.74 | 0.00 |
| New Hanover | 22 | 573 | 16,171 | 35.43 | 13.60 |
| Vance | 6 | 111 | 3,228 | 34.39 | 18.59 |
| Transylvania | 6 | 141 | 4,180 | 33.73 | 14.35 |
| Jackson | 8 | 131 | 4,012 | 32.65 | 19.94 |
| Mecklenburg | 56 | 1,715 | 53,016 | 32.35 | 10.56 |
| Macon | 8 | 152 | 4,799 | 31.67 | 16.67 |

Statewide Campaigns/Programs

Motorcycle Rider Training Courses

North Carolina incorporates multiple motorcycle rider training courses into its motorcycle safety education program including BikeSafe NC and the North Carolina Motorcycle Safety Education Program.

BikeSafe NC

BikeSafe NC is an initiative of GHSP in partnership with law enforcement agencies and the motorcycle community to be proactive in reducing crashes and fatalities in North Carolina. The program offers training in riding techniques and discusses safety topics. The training is conducted by law enforcement motor officers in a non-threatening and non-enforcement environment. Students are typically experienced riders who are interested in improving their riding skills. The training takes place in the classroom and on the streets. Once on the road, students are paired with a motor officer who observes their riding techniques. The motor officer provides feedback on riding techniques and offers instruction on how the rider can improve his/her techniques to become a safer rider. The on-street assessment is repeated and feedback and instruction are provided a second time.

The program has become extremely popular. Currently the program is hosted by 42 agencies throughout North Carolina. Due to high demand for classes—and to help expand agency participation across the state—the BikeSafe program has been divided into six regions: Great Smoky Mountain, Triad, Piedmont, Triangle, Eastern and Southeast region. Each region has a Regional Coordinator who is dedicated to promoting the BikeSafe program and recruiting other agencies in the area to become involved. Currently GHSP plans to host advanced training for Bike Safe Assessors during 2017.

North Carolina Motorcycle Safety Education Program

The North Carolina Motorcycle Safety Education Program (NCMSEP) is a nationally recognized program for motorcycle rider training, having twice received the Motorcycle Safety Foundation (MSF) Outstanding State Motorcycle Safety Education Program Award. North Carolina uses the MSF Basic Rider Course (BRC), the MSF Experienced Rider Course (ERC) and the MSF Advanced Rider Course (ARC).

MSF Basic Rider classes were conducted in 35 North Carolina counties in FY2016. Thus far in FY2017 (through May, 2017) 403 Basic Rider classes have been conducted in 35 North Carolina counties and the NCMSEP expects at least one class to be conducted in each of the same counties in FY2018. As shown in Table 20 and Table 21, North Carolina Counties with MSF Basic Rider Courses planned for FY2018 account for 63 percent of the North Carolina motorcycle registrations and therefore collectively account for much more than half of North Carolina’s registered motorcycles.

Table 20. Summary of Registered Motorcycles in Counties with MSF Basic Rider Classes Planned for FY2018

| County Class Status | Motorcycle Registrations | |
|---------------------------------------|--------------------------|--------------|
| | No. Registered | % Registered |
| Counties with Planned Classes (35) | 120,132 | 62.6% |
| Counties without Planned Classes (65) | 71,902 | 37.4% |
| Total (100) | 192,034 | 100.0% |

Table 21. North Carolina Counties with and without MSF Basic Rider Courses Planned for FY2018

| County | MC Registrations | | Training will be offered in the county during the month(s) selected: | | | | | | | | | | | |
|-----------|---|--|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Yes, there is a Training Site in the County | No, there is not a Training Site in the County | Oct-17 | Nov-17 | Dec-17 | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 |
| Alamance | 3,027 | | X | X | | | X | X | X | X | X | X | X | X |
| Alexander | | 1,193 | | | | | | | | | | | | |
| Alleghany | | 264 | | | | | | | | | | | | |
| Anson | | 507 | | | | | | | | | | | | |
| Ashe | | 709 | | | | | | | | | | | | |
| Avery | | 409 | | | | | | | | | | | | |
| Beaufort | | 931 | | | | | | | | | | | | |
| Bertie | | 326 | | | | | | | | | | | | |
| Bladen | | 609 | | | | | | | | | | | | |
| Brunswick | 3,031 | | X | X | | | X | | X | X | X | X | X | |
| Buncombe | 5,897 | | X | X | | | | X | X | X | X | X | X | X |
| Burke | | 2,064 | | | | | | | | | | | | |
| Cabarrus | 4,244 | | X | X | | | | X | X | X | X | X | X | X |
| Caldwell | 2,118 | | X | X | | | | X | X | X | X | X | X | X |
| Camden | | 335 | | | | | | | | | | | | |
| Carteret | 1,722 | | X | X | X | | | X | X | X | X | | X | X |
| Caswell | | 460 | | | | | | | | | | | | |
| Catawba | | 4,014 | | | | | | | | | | | | |

Table 21. North Carolina Counties with and without MSF Basic Rider Courses Planned for FY2018

| County | MC Registrations | | Training will be offered in the county during the month(s) selected: | | | | | | | | | | | |
|------------|---|--|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Yes, there is a Training Site in the County | No, there is not a Training Site in the County | Oct-17 | Nov-17 | Dec-17 | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 |
| Chatham | | 1,489 | | | | | | | | | | | | |
| Cherokee | | 827 | | | | | | | | | | | | |
| Chowan | 207 | | | | | | | | X | | X | X | | X |
| Clay | | 279 | | | | | | | | | | | | |
| Cleveland | | 2,270 | | | | | | | | | | | | |
| Columbus | | 1,106 | | | | | | | | | | | | |
| Craven | 2,487 | | | X | | | | X | X | X | X | X | X | X |
| Cumberland | 7,123 | | X | X | X | X | X | X | 8 | X | X | X | X | X |
| Currituck | | 778 | | | | | | | | | | | | |
| Dare | | 845 | | | | | | | | | | | | |
| Davidson | 4,234 | | X | X | | | | X | X | X | X | X | | X |
| Davie | | 1,077 | | | | | | | | | | | | |
| Duplin | | 896 | | | | | | | | | | | | |
| Durham | 2,902 | | X | X | X | | | | | | | | | |
| Edgecombe | 771 | | | | | | | X | | | | | | |
| Forsyth | 5,868 | | X | X | | | X | X | X | X | X | X | X | X |
| Franklin | | 1,371 | | | | | | | | | | | | |
| Gaston | 5,286 | | X | X | | | | X | X | X | X | X | X | X |
| Gates | | 298 | | | | | | | | | | | | |
| Graham | | 209 | | | | | | | | | | | | |
| Granville | | 1,341 | | | | | | | | | | | | |
| Greene | | 319 | | | | | | | | | | | | |
| Guilford | 6,914 | | X | X | X | X | X | X | X | X | | | X | |
| Halifax | | 1,076 | | | | | | | | | | | | |
| Harnett | | 3,298 | | | | | | | | | | | | |
| Haywood | | 1,659 | | | | | | | | | | | | |
| Henderson | 3,003 | | X | X | | | X | | X | X | X | | X | X |
| Hertford | | 349 | | | | | | | | | | | | |
| Hoke | | 1,605 | | | | | | | | | | | | |
| Hyde | | 45 | | | | | | | | | | | | |
| Iredell | | 4,657 | | | | | | | | | | | | |
| Jackson | | 824 | | | | | | | | | | | | |
| Johnston | 4,042 | | X | X | | | X | X | X | X | X | X | X | X |
| Jones | | 260 | | | | | | | | | | | | |
| Lee | 1,235 | | X | X | | | | X | X | X | X | X | X | X |
| Lenoir | 824 | | X | X | | | X | X | X | X | X | X | | X |
| Lincoln | | 2,664 | | | | | | | | | | | | |
| Macon | 922 | | | | | | | X | X | X | X | | X | X |
| Madison | | 669 | | | | | | | | | | | | |
| Martin | | 434 | | | | | | | | | | | | |

Table 21. North Carolina Counties with and without MSF Basic Rider Courses Planned for FY2018

| County | MC Registrations | | Training will be offered in the county during the month(s) selected: | | | | | | | | | | | |
|--------------|---|--|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Yes, there is a Training Site in the County | No, there is not a Training Site in the County | Oct-17 | Nov-17 | Dec-17 | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 |
| McDowell | 1,248 | | | X | | | | | | | X | X | | X |
| Mecklenburg | 10,542 | | X | X | X | X | X | X | X | | X | X | X | X |
| Mitchell | 441 | | | X | | | | | X | X | X | X | | X |
| Montgomery | | 566 | | | | | | | | | | | | |
| Moore | | 2,391 | | | | | | | | | | | | |
| Nash | 1,703 | | X | X | X | | | X | X | X | X | X | X | X |
| New Hanover | 3,219 | | X | X | X | | X | X | X | X | X | X | X | X |
| Northampton | | 404 | | | | | | | | | | | | |
| Onslow | 5,524 | | X | | X | | X | X | X | X | X | | X | X |
| Orange | | 1,812 | | | | | | | | | | | | |
| Pamlico | | 303 | | | | | | | | | | | | |
| Pasquotank | 759 | | X | | | | | X | | | | X | X | X |
| Pender | | 1,342 | | | | | | | | | | | | |
| Perquimans | | 281 | | | | | | | | | | | | |
| Person | | 1,121 | | | | | | | | | | | | |
| Pitt | 2,186 | | X | X | X | | X | X | X | X | X | X | X | X |
| Polk | | 641 | | | | | | | | | | | | |
| Randolph | 3,587 | | | X | | | X | X | X | X | X | X | X | X |
| Richmond | | 973 | | | | | | | | | | | | |
| Robeson | 2,785 | | | | | | | | X | X | X | X | | X |
| Rockingham | 2,041 | | X | X | | | | X | X | X | X | X | X | X |
| Rowan | | 3,537 | | | | | | | | | | | | |
| Rutherford | | 1,626 | | | | | | | | | | | | |
| Sampson | | 1,031 | | | | | | | | | | | | |
| Scotland | | 548 | | | | | | | | | | | | |
| Stanly | | 1,831 | | | | | | | | | | | | |
| Stokes | | 1,560 | | | | | | | | | | | | |
| Surry | 1,942 | | | X | | | | X | X | X | X | X | X | |
| Swain | | 451 | | | | | | | | | | | | |
| Transylvania | | 864 | | | | | | | | | | | | |
| Tyrrell | | 77 | | | | | | | | | | | | |
| Union | 4,824 | | X | X | | | X | X | X | X | X | X | | |
| Vance | 629 | | | X | | | | | X | X | X | X | X | |
| Wake | 12,845 | | X | X | X | X | X | X | X | X | X | X | X | X |
| Warren | | 314 | | | | | | | | | | | | |
| Washington | | 184 | | | | | | | | | | | | |
| Watauga | | 984 | | | | | | | | | | | | |
| Wayne | | 2,290 | | | | | | | | | | | | |
| Wilkes | | 1,698 | | | | | | | | | | | | |
| Wilson | | 1,079 | | | | | | | | | | | | |

Table 21. North Carolina Counties with and without MSF Basic Rider Courses Planned for FY2018

| County | MC Registrations | | Training will be offered in the county during the month(s) selected: | | | | | | | | | | | |
|----------------|---|--|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Yes, there is a Training Site in the County | No, there is not a Training Site in the County | Oct-17 | Nov-17 | Dec-17 | Jan-18 | Feb-18 | Mar-18 | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 |
| Yadkin | | 1,062 | | | | | | | | | | | | |
| Yancey | | 466 | | | | | | | | | | | | |
| Total # | 120,132 | 71,902 | | | | | | | | | | | | |
| Total % | 62.6% | 37.4% | | | | | | | | | | | | |

Total (With Training Site) **Total (Without Training Site)**

Summary

Motorcycles remain a popular form of transportation in North Carolina. From 2000 to 2009, motorcycle registrations per capita increased 72 percent. Since 2009, there has been a small decrease in motorcycle registrations per capita; however, registrations per capita remains around 50 percent higher in 2015 than in 2000. Not surprisingly, the number of motorcyclist fatalities is higher as well. Motorcyclists accounted for 15 percent of all traffic fatalities in North Carolina in 2015, up from 7 percent of traffic fatalities in 2001.

The vast majority of crash-involved and fatally injured motorcycle riders are male. In addition, riders age 41 and older account for almost half of riders involved in crashes. The peak time of crashes is 3 to 6 p.m., although fatal crashes are most common between 6 and 9 p.m. Five counties in North Carolina—Wake, Mecklenburg, Cumberland, Guilford and Robeson—account for almost 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 in part to Graham County’s reputation as a popular tourist destination for motorcyclists.

The majority of fatally or seriously injured motorcyclists were wearing a helmet when they crashed. Although North Carolina has been successful at minimizing the number of unhelmeted motorcyclist fatalities, we believe further reductions in overall motorcyclist fatalities are possible. To adjust for the confounding effect of economic conditions, five year averages were used as the baseline for setting goals. GHSP is working to decrease motorcyclist fatalities 5 percent from the 2011–2015 average of 188 to the 2014–2018 average of 178 by December 31, 2018 and to limit the 2014–2018 average number of unhelmeted motorcyclist fatalities to the 2011–2015 average of 16 by December 31, 2018.

Countermeasures and Funding Priorities

To address the problem areas described above and to meet North Carolina’s goals for 2018, 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 8th 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.

GHSP is strongly supportive of efforts to provide training to help motorcyclists become safe riders. During FY2018, GHSP plans to continue expanding the North Carolina BikeSafe program to reach a larger number of motorcyclists. GHSP recently conducted a process evaluation of the BikeSafe program. The evaluation identified a number of positive attributes of the program such as:

- The program provides individualized feedback on how each rider can improve his/her techniques to become a safer rider;
- Students are nearly unanimous in their opinion that the class is a positive experience;
- The class is delivered more consistently than most programs, and there are attempts at providing oversight and quality assurance;
- BikeSafe Assessors are highly dedicated to the program.

The evaluation also revealed several issues and areas for improvement. With recruitment, the program only reaches approximately 500 riders each year (out of ~180,000 registered motorcyclists), and a recent statewide survey found only 28 percent of riders have heard of BikeSafe. The evaluation offered recommendations for better reaching the target population (e.g., young riders, inexperienced riders and those with sport bikes), and for setting yearly goals for future enrollment. With regard to the classroom content and rider assessments, the evaluation found the primary behavior goals for participants were not clear, and assessors do not appear to be using common criteria for evaluating students. Recommendations were offered for establishing behavioral goals and ensuring these goals are a consistent focus of the classroom instruction, riding components and assessor feedback. Finally, the evaluation provided recommendations for training new assessors and ensuring the program is standardized and implemented with fidelity in all locations as the program grows. GHSP's plans to continue implementing these recommendations in FY2018.

Media Plan

GHSP will utilize a variety of media modes to draw attention to motorcycle safety efforts in the state. GHSP will conduct at least one awareness event for Motorcycle Safety Awareness month in May 2018. GHSP will seek earned media attention gained from partnerships with the NCDOT Communications Office, State Highway Patrol, local law enforcement, Motorcycle Clubs, Military Bases and other partners. Awareness events will typically feature the GHSP Director, state law enforcement, local law enforcement and military representatives. BikeSafe will usually conduct training in conjunction with these events to draw media attention.

GHSP will continue a partnership with Capital City Bike Fest held in Raleigh. The event draws approximately 75,000 attendees. A majority of the attendees are riders or are interested in becoming riders. GHSP will promote rider safety and the various rider education and training opportunities available to riders in North Carolina.

Additional advertising will be done as funds become available in key areas that may include billboards, radio, digital ads, social media and other advertising opportunities throughout the state during Motorcycle Safety Awareness month. Earned media and social media support will continue throughout the summer months when motorcycle crashes occur more often.

FY2018 Motorcycle Safety Projects

The following section outlines the key projects that are currently approved by the review team and officially part of the original submission of the FY2018 North Carolina Highway Safety Plan to address

motorcycle safety. A listing of all projects, including the funding level and source, can be found in the Cost Summary at the end of this document. (Note: CMTW = NHTSA's *Countermeasures that Work*).

Agency: Hendersonville Police Department
Project Number: M9MT-18-16-01
Project Title: BikeSafeNC LEL
Project Description: This is an ongoing project to fund the BikeSafe NC initiative of GHSP. BikeSafe is a partnership with law enforcement agencies and the motorcycle community to proactively reduce motorcycle crashes and fatalities. In North Carolina motorcycle collisions result in a large number of fatalities and injuries. Motorcycles represent 3 percent of all registered vehicles in North Carolina, but account for nearly 15 percent of all fatalities. GHSP established a database of statistical information and a contact list of Motor Officers in law enforcement departments throughout the state using six Regional BikeSafe NC Liaisons. BikeSafe Liaisons are responsible for promoting BikeSafe NC and traffic safety with law enforcement agencies and the citizens throughout their region. This project funds equipment to continue the BikeSafe Program and encourage additional law enforcement agencies to participate.
CMTW: Chapter 5, Section 3.2

Agency: New Bern Police Department
Project Number: M9MT-18-16-02
Project Title: BikeSafe NC LEL
Project Description: This is an ongoing project to fund the BikeSafe NC initiative of GHSP. BikeSafe is a partnership with law enforcement agencies and the motorcycle community to proactively reduce motorcycle crashes and fatalities. In North Carolina motorcycle collisions result in a large number of fatalities and injuries. Motorcycles represent 3 percent of all registered vehicles in North Carolina, but account for nearly 15 percent of all fatalities. GHSP established a database of statistical information and a contact list of Motor Officers in law enforcement departments throughout the state using five Regional BikeSafe NC Liaisons. BikeSafe Liaisons are responsible for promoting BikeSafe NC and traffic safety with law enforcement agencies and the citizens throughout their region. This project funds equipment to continue the BikeSafe Program and encourage additional law enforcement agencies to participate.
CMTW: Chapter 5, Section 3.2

Agency: Raleigh Police Department
Project Number: M9MT-18-16-03
Project Title: BikeSafe NC LEL
Project Description: This is the second year of a project to fund the BikeSafe NC initiative of GHSP. BikeSafe is a partnership with law enforcement agencies and the motorcycle community to proactively reduce motorcycle crashes and fatalities. In North Carolina motorcycle collisions result in a large number of fatalities and injuries. Motorcycles represent 3 percent of all registered vehicles in North Carolina, but account for nearly 15 percent of all fatalities. GHSP established a database of statistical information and a contact list of Motor Officers in law enforcement departments throughout the state using five Regional BikeSafe NC Liaisons.

BikeSafe Liaisons are responsible for promoting BikeSafe NC and traffic safety with law enforcement agencies and the citizens throughout their region. This project funds equipment to continue the BikeSafe Program and encourage additional law enforcement agencies to participate.

CMTW: Chapter 5, Section 3.2

Agency: Lenoir Community College
Project Number: M9MT-18-16-04
Project Title: North Carolina Motorcycle Safety Education Program Quality Assurance/ Summer Update
Project Description: This is an ongoing project to provide quality training to help minimize motorcycle crashes and fatalities through the Quality Assurance team and the summer Rider Coach instructor update. The Motorcycle Safety Foundation requires evaluation and repainting of the motorcycle driving ranges so that all the lines are completely visible to the students. There are currently 36 total community college sites that conduct rider training. This project funds a portion of the cost of the evaluation and repainting.
CMTW: Chapter 5, Section 3.2

Agency: Department of Public Safety-State Highway Patrol
Project Number: M9MT-18-16-05
Project Title: BikeSafe NC
Project Description: This is an ongoing project that allows the North Carolina State Highway Patrol to continue to work towards reducing the number of fatalities and serious injury crashes involving motorcycles in our state. Bike Safe will invite motorcyclist to participate in Rider Skill Days, which offer assessment on present driving skills and advice to make their experience as a motorcyclist safer and more enjoyable, therefore striving to reduce the number of motorcycle fatalities and serious injury crashes.
CMTW: Chapter 5, Section 3.2

Agency: Jacksonville Police Department
Project Number: M9MT-18-16-06
Project Title: BikeSafe NC LEL
Project Description: This is an ongoing project to fund the BikeSafe NC initiative of GHSP. BikeSafe is a partnership with law enforcement agencies and the motorcycle community to proactively reduce motorcycle crashes and fatalities. In North Carolina motorcycle collisions result in a large number of fatalities and injuries. Motorcycles represent 3 percent of all registered vehicles in North Carolina, but account for nearly 15 percent of all fatalities. GHSP established a database of statistical information and a contact list of Motor Officers in law enforcement departments throughout the state using five Regional BikeSafe NC Liaisons. BikeSafe Liaisons are responsible for promoting BikeSafe NC and traffic safety with law enforcement agencies and the citizens throughout their region. This project funds equipment to continue the BikeSafe Program and encourage additional law enforcement agencies to participate.
CMTW: Chapter 5, Section 3.2

Agency: Guilford County Sheriff's Office
Project Number: M9MT-18-16-07
Project Title: BikeSafe NC LEL
Project Description: This is an ongoing project to fund the BikeSafe NC initiative of GHSP. BikeSafe is a partnership with law enforcement agencies and the motorcycle community to proactively reduce motorcycle crashes and fatalities. In North Carolina motorcycle collisions result in a large number of fatalities and injuries. Motorcycles represent three percent of all registered vehicles in North Carolina, but account for nearly 15 percent of all fatalities. BikeSafe Liaisons are responsible for promoting BikeSafe NC and traffic safety with law enforcement agencies and the citizens throughout their region. This project funds equipment to continue the BikeSafe Program and encourage additional law enforcement agencies to participate.
CMTW: Chapter 5, Section 3.2

Agency: Orange County Sheriff's Office
Project Number: M9MT-18-16-08 MC-18-03-02
Project Title: Orange County Sheriff's Office BikeSafe Grant
Project Description: This is the first year of a Bikesafe NC motorcycle assessor program in Orange County. From 2011–2015, Orange County ranked 37th in the average number of motorcyclist crashes and 44th in motorcyclist serious injuries despite averaging less than one fatal motorcycle crash per year. Orange County has experienced one fatal motorcycle crash per year during each of the last three years. Orange County and its neighboring counties of Alamance, Caswell, Chatham, Durham and Person collectively averaged 10 motorcycle fatalities per year for 2014 and 2015. This project will facilitate the hosting and/or assisting in BikeSafe classes in the region.
CMTW: Chapter 5, Section 3.2

Agency: Apex Police Department
Project Number: M9MT-18-16-09 MC-18-03-04
Project Title: BikeSafe
Project Description: This is the first year of a Bikesafe NC motorcycle assessor program. Apex has seen a sudden increase in traffic crashes and a significant increase in injury collisions. These increases can be directly attributable to population increases and a traffic unit unable to adequately respond to those population increases. Additional increases in population are projected. According to NCDOT motor vehicle crash data, Wake County had 1873 motorcycle collisions from 2011 to 2015. Of those 1873 motorcycle collisions, fifty-seven (57) resulted in fatalities and 112 resulted in serious injury. Since 2011, the Apex Police Department has investigated seventy-one (71) motorcycle-related crashes.
CMTW: Chapter 5, Section 3.2

Agency: Fletcher Police Department
Project Number: M9MT-18-16-10 MC-18-03-05
Project Title: BikeSafe - Fletcher

Project Description: This is the first year of a Bikesafe NC motorcycle assessor program. Several major roadways provide easy access to Fletcher. US Highway 25 runs north-south through the center of the town and serves as a primary thoroughfare for residents. Interstate 26 is located to the west and travels through Fletcher, North Carolina to Tennessee and South Carolina. Fletcher will utilize BikeSafe NC officers to host or assist in three BikeSafe classes across North Carolina.
CMTW: Chapter 5, Section 3.2

Agency: Governor's Highway Safety Program
Project Number: M9X-18-00-00
Project Title: GHSP In-House Motorcycle Future Projects
Project Description: GHSP will set aside funds for anticipated projects that may occur during the year. Opportunities may arise at a later date during the fiscal year to conduct projects and funds are set aside for this purpose.
CMTW: NA

Agency: Governor's Highway Safety Program
Project Number: MC-18-03-01
Project Title: GHSP In-House Motorcycle
Project Description: This is an ongoing project to support the BikeSafe NC program. GHSP is committed to maintaining a high rate of awareness regarding motorcycle safety through the BikeSafe Program. GHSP plans a public information and education campaign through earned media and paid media. GHSP is responsible for educating the public on motorcycle safety issues and reducing the number of fatal motorcycle crashes. The BikeSafe program currently is hosted by 45 law enforcement agencies. Due to high demand for classes – and to help expand agency participation across the state – the BikeSafe program is divided into six regions: Great Smoky Mountain, Metropolitan, Triad, Triangle, Eastern and Southeast region. Each region has a Regional Coordinator to promote BikeSafe and recruit other agencies in the area. In addition to media efforts, this project funds training for law enforcement agencies involved in the BikeSafe program.
CMTW: Chapter 5, Section 3.2

Agency: Lenoir Community College
Project Number: MC-18-03-03
Project Title: Motorcycle Safety Training
Project Description: This is an ongoing project that allows the North Carolina Motorcycle Safety Education Program (NCMSEP) to offer rider training to meet the needs of a growing population of motorcyclists. Motorcycle registrations have increased and many military personnel are coming to North Carolina and are required to complete a MSF class. North Carolina is also requiring anyone under 18 to have the class in order to receive a motorcycle endorsement. NCMSEP continues to training more students and offer more classes. This project also trains Rider Coaches to address attrition due to retirement. This project will train enough Rider Coaches to maintain a balance between the number of Rider Coaches and the number of classes needed to meet student demand. In 2015, there were 192 motorcycle-related fatalities in North Carolina.
CMTW: Chapter 5, Section 3.2

Agency: Cabarrus County Sheriff's Office

Project Number: MC-18-03-06

Project Title: BikeSafe NC LEL

Project Description: This is the first year of a project to fund an additional BikeSafe NC regional liaison to support the BikeSafe initiative of GHSP. BikeSafe is a partnership with law enforcement agencies and the motorcycle community to proactively reduce motorcycle crashes and fatalities. In North Carolina motorcycle collisions result in a large number of fatalities and injuries. Motorcycles represent three percent of all registered vehicles in North Carolina, but account for nearly 15 percent of all fatalities. BikeSafe Liaisons are responsible for promoting BikeSafe NC and traffic safety with law enforcement agencies and the citizens throughout their region. This project funds equipment to continue the BikeSafe Program and encourage additional law enforcement agencies to participate.

CMTW: Chapter 5, Section 3.2

TRAFFIC RECORDS

Target

- ❖ **GHSP’s goal is to provide direction and facilitate coordination among the safety data stewards and stakeholders to improve the transportation safety information systems in North Carolina through on-going Traffic Records Coordinating Committee activities including:**
 - Continue expanding the membership of the North Carolina Traffic Records Coordinating Committee (TRCC) to include additional stakeholders. Examples include local law enforcement, public health professionals and transportation planners
 - In collaboration with the North Carolina GHSP, review and improve upon the protocol used in the identification, prioritization and selection of projects that are funded by the Section 405C State Traffic Safety Information System Improvement Grant program system authorized under the FAST Act being administered by NHTSA.
 - Annually review and update the Traffic Safety Information Systems Strategic Plan to measure progress on existing goals and objectives and to establish new goals and objectives. All TRCC members and additional stakeholders should provide input to the review/update process via facilitated workshops.

North Carolina Traffic Records Coordinating Committee

The TRCC consists of a diverse membership that includes representation from the data stewards for each primary data or information system: crash records; vehicle and driver records; roadway inventory and geographic information systems; court, citation and adjudication systems; and medical outcome systems. Several key stakeholder agencies also serve in a membership role on the committee, including law enforcement, the NCDOT Traffic Safety Unit, GHSP and a university research center. The current list of members, including the core safety databases represented by members, is provided in Table 22 below.

Table 22. Current 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 |
| Greg Ferrara | Program Manager, GIS | NC State University, Institute for Transportation Research and Education | Crash, Roadway, Citation |
| Cindy Blackwell | Business Relationship Manager | NC Administrative Office of the Courts | Citation, Adjudication |

Table 22. Current North Carolina Traffic Records Coordinating Committee

| Name | Title | Organization | Core Safety Database Represented |
|--------------------|--|--|---|
| Frank Hackney | State Traffic Safety Data Coordinator | North Carolina Governor’s Highway Safety Program | All |
| Brian Murphy | Safety Planning Engineer | Safety Planning Group, NCDOT | Crash, Roadway |
| John Puryear | DMV | Assistant Director, Traffic Records | Driver, Vehicle |
| Eric Bellamy | TR Administrator / FARS Manager | Division of Motor Vehicles, NCDOT | Crash, FARS, Driver, Vehicle |
| Alan Dellapenna | DHHS | Injury and Violence Prevention Branch Head | 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 |
| Vish Tharuvesanchi | IT Manager | Traffic Records Systems, NCDOT | Crash, Roadway |
| Anna Waller | Senior Research Scientist | UNC Department of Emergency Medicine, Carolina Center for Health Informatics | All |

This group of representatives is made up of the agency data and data system specialists who know how their data records and database systems work. There is an additional North Carolina Executive Committee for Highway Safety (ECHS) which includes the agency leaders and/or senior managers for almost all of the same agencies. The TRCC makes recommendations to the ECHS, which then makes final policy and financial decisions on any recommendations.

North Carolina Traffic Records Assessment

The TRCC conducted a complete North Carolina Traffic Records Assessment in January 2012. An independent assessment panel carefully interviewed all TR agencies, reviewed their traffic records systems, assessed the current state of each agency’s traffic records data systems, and made recommendations on improvements to the data or the data systems. The 2012 Traffic Records Assessment report has been the blue print for guiding the TRCC in looking at improvements and changes to the current data bases and systems and was the foundation for the 2013 North Carolina Traffic Records Strategic Plan submitted July 1, 2013, the 2014 North Carolina Traffic Records Strategic Plan submitted July 1, 2014, the 2015 North Carolina Traffic Records Strategic Plan submitted July 1, 2015, and the 2016 North Carolina Traffic Records Strategic Plan submitted July 1, 2016. The TRCC has just completed the latest North Carolina Traffic Records Assessment which began on January 31, 2017 and

was completed on April 14, 2017. The final 2017 North Carolina Traffic Records Assessment Report became available on May 9, 2017. Even though the assessment report was received shortly before the TRCC strategic planning meeting, the 2017 Assessment provided valuable information for development of the 2017 North Carolina Traffic Records Strategic Plan. The TRCC used the 2017 North Carolina Traffic Records Assessment priority recommendations (provided below) for ongoing planning and system improvement. The 2017 strategic plan includes specific strategies and action items that address each of these recommendations and are tailored to the needs of the data stewards and data users in the State.

All of the remaining recommendations noted at the question level are currently under consideration and are incorporated into the Highway Safety Plan by reference. Due to the limited time between receiving the assessment final report and the strategic planning process only the major recommendations are addressed in the 2017 North Carolina Traffic Records Strategic Plan. Once the TRCC conducts a more thorough review of the assessment report, additional recommendations may be included in the North Carolina Traffic Records Strategic Plan. Following below are the priority recommendations made by the assessment team:

North Carolina can address the recommendations below by implementing changes to improve the ratings for the 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.

Crash Recommendations

- Improve the procedures/ process flows for the crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
- Improve the interfaces with the crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
- Improve the data quality control program for the crash data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

Vehicle Recommendations

- Improve the data quality control program for the Vehicle data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

Driver Recommendations

- Improve the data dictionary for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.
- Improve the data quality control program for the Driver data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

Roadway Recommendations

- Improve the data quality control program for the Roadway data system to reflect best practices identified in the Traffic Records Program Assessment Advisory.

Citation / Adjudication Recommendations

- Improve the interfaces with the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
- Improve the data quality control program for the Citation and Adjudication systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.

EMS / Injury Surveillance Recommendations

- Improve the interfaces with the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.
- Improve the data quality control program for the Injury Surveillance systems to reflect best practices identified in the Traffic Records Program Assessment Advisory.

The Strategic Plan will continue to be reviewed on an annual cycle for progress toward improvements data and/or the data systems. This plan will be 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.

Each year, GHSP provides an updated Highway Safety Plan (HSP) which analyzes the most recent data available to help with setting the priorities for the coming year (with an eye on the coming five years). North Carolina has expended previously allocated funds to:

- Fund the North Carolina Traffic Records Assessment conducted in 2012 and 2017.
- Assist the North Carolina Administrative Office of the Courts as they replace the paper submission process for traffic citations with electronic eCitations.
- Equip the State Highway Patrol's patrol vehicles with AirCard technology to improve their computer connection capability from their vehicles.
- Provide additional printers for the law enforcement officers issuing traffic citations.
- Assist the NCDOT Geographic Information Systems with updates to their systems.
- Provide the North Carolina Emergency Medical Services with an opportunity to develop a matching procedure and a new project for linking EMS, ED and North Carolina patient data to the state crash data. The TRCC and GHSP funded a pilot project as a demonstration effort for North Carolina involving Wake County. That effort is now being expanded in the current year to develop an implementation plan for the state to facilitate the linkage of crash data with medical data.

North Carolina Traffic Records Strategic Planning

In 2012, the Highway Safety Research Center (HSRC) oversaw the creation of the North Carolina Traffic Records Strategic Plan document which served as the application to NHTSA for an allocation of NHTSA 405C (old 408) Data Improvement monies set aside by Congress for all the states. These application/reports have been compiled through the North Carolina Data Coordinator, along with input from the entire TRCC membership. As a result, North Carolina has been awarded monies for the North Carolina Data Coordinator to allocate to needed Traffic Record Data Improvements projects for the last several years.

Along with this application document, North Carolina updates the annual Highway Safety Plan provided through GHSP, detailing the current state of traffic safety in North Carolina based on the most recent traffic records data available. The Highway Safety Plan identifies the areas of traffic safety that need the most attention by North Carolina traffic safety agencies, advocates and law enforcement.

TRCC Current Activities

The TRCC has been meeting regularly since 2002, has created a TRCC website to detail the minutes of the quarterly meetings, has provided access to the Traffic Records Assessment and North Carolina traffic

records strategic plan reports, and has provided the public the names of the key agency contacts within North Carolina. The TRCC is currently co-chaired by Brian Mayhew of the NCDOT Traffic Safety Unit and UNC Highway Safety Research Center Data Specialist Eric Rodgman.

The website has a collection of the key contacts, minutes from all the TRCC meetings, copies of the annual Strategic Plan documents, and all the traffic records assessment documents. The web site address is: <https://connect.ncdot.gov/groups/NCTRCC>.

The current TRCC had a steering committee who worked on assisting the DMV Traffic Records Section with revising the DMV 349 Crash Report for the first time in 10 years. The first phase of this process was completed in early 2011. However, the recommendations will not be implemented until several other critical NCDOT system changes have been completed.

Newly Defined Goals and Objectives of the TRCC

The TRCC continued to better identify the goals of the committee, updated the TRCC Charter to accommodate current funding authorization recommendations, further refined the performance measures, and brought them up-to-date. At an all-day meeting on May 17, 2017, the TRCC updated each goal and performance measure objective from the 2016 North Carolina Traffic Records Strategic Plan and reviewed all the TR projects. Based on these updates, the new North Carolina Traffic Records Strategic Plan includes the following description of the TRCC objectives (taken from pages 21 to 34 of the updated May 31, 2017 North Carolina Traffic Records Strategic Plan) and the performance measures to be used:

Goals are established for the 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 as follow:

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.*

| Traffic Records Coordinating Committee | | | |
|--|---|--|--|
| Objective | Performance Measure/Target | 4/1/15-3/31/16* | 4/1/16-3/31/17* |
| Ensure that the membership of the TRCC consists of all key stakeholders, including the owners, stewards and users of the data in North Carolina. | An annual review of stakeholders and expansion of the TRCC membership as necessary. | Reviewed membership, added 6 new members | Discuss DMV membership with current DMV representative to determine if additional expertise is needed on TRCC committee. |

| Traffic Records Coordinating Committee | | | |
|---|---|--|--|
| Objective | Performance Measure/Target | 4/1/15-3/31/16* | 4/1/16-3/31/17* |
| In collaboration with GHSP, review and improve upon the protocol used in the identification and prioritization of projects. | <p>Annual review and improvement upon the project identification and prioritization process. <i>(Note: Schedule for the approved protocol will need to align with the GHSP proposal process.)</i></p> <p>A set of guidelines created for use in identifying and prioritizing projects.</p> <p>A prioritized list of recommended projects provided to GHSP and other funding sources and agencies that align with the specific objectives of the Strategic Plan.</p> | <p>Ongoing</p> <p>Sub-committee formed to develop draft protocol; will be presented to full TRCC membership in fall 2016.</p> <p>Future effort (may be part of the protocol developed)</p> | <p>Ongoing (related to measure below)</p> <p>Ongoing. Plans for the October 2017 TRCC include reviewing this item.</p> <p>Ongoing (will be done following the guideline development noted above)</p> |
| Monitor and measure progress on existing goals and objectives. | <p>Annual update of TRCC Strategic Plan.</p> <p>Periodic review of ongoing projects, focusing on progress toward meeting performance measures outlined in the strategic plan.</p> <p>Feedback to ECHS to report on progress made and new strategies proposed by the TRCC.</p> <p>Review NHTSA recommendations for TRCC activities to align</p> | <p>Completed (June 2016)</p> <p>Completed</p> <p>As needed for specific purposes or when requested (plan to ask to be on agenda for fall 2016 meeting)</p> <p>Completed</p> | <p>Completed</p> <p>Completed</p> <p>As needed for specific purposes or when requested (will ask to be on agenda for fall 2017 meeting)</p> <p>2017 assessment (received mid-May, 2017) being</p> |

| Traffic Records Coordinating Committee | | | |
|--|--|--|--|
| Objective | Performance Measure/Target | 4/1/15-3/31/16* | 4/1/16-3/31/17* |
| | our goals with the assessment document focus questions. | | reviewed by all stakeholders to find future opportunities for information systems improvements. |
| Identify gaps in the current traffic records systems and explore new solutions. | Establishment and revision of goals and objectives as part of development of the next strategic plan. <i>(Note: Explore external funding opportunities. Examples include: 405C, ECHS, FHWA, NHTSA, CDC).</i> | Completed (May 2016) | Completed (May 2017) |
| Explore the value and feasibility of capturing detailed lat/long location information for citations, crashes and asset management (results have implications for multiple data systems). | Feasibility study report. | Future effort | Future effort, pending availability of resources. |
| Share North Carolina achievements and best practices in traffic safety information systems with other states. | Participation in regional and national conferences and peer-to-peer exchanges. | (See list from Anna Waller/send request to group for presentations related to their systems/tied to goals of TRCC.) Any presentations/participation in Baltimore in 2016? | Held stakeholders meeting in April 2017. Project moving forward with the GoTeam effort. TRCC members plan to attend the Traffic Records Forum in New Orleans in August 2017, present on activities in North Carolina. |

| Traffic Records Coordinating Committee | | | |
|--|--|--|--|
| <i>Objective</i> | <i>Performance Measure/Target</i> | <i>4/1/15-3/31/16*</i> | <i>4/1/16-3/31/17*</i> |
| Monitor and evaluate the achievements and best practices in traffic safety information systems in other states for potential implementation in North Carolina. | <p>Participation in peer-to-peer exchanges.</p> <p>Review of promising strategies from other states, or items shared w/ other states, and sharing back with group.</p> <p>Monitor USDOT/other state's TRCCs for ideas for consideration.</p> | <p>Delegation of 7 TRCC members and other North Carolina representatives participated in the Traffic Records Forum in Costa Mesa, CA (October 2015)</p> <p>State experiences with assessment process/spatial mapping of crashes/emerging technologies</p> <p>Ongoing</p> | <p>Continued involvement and attendance at Traffic Records Forum in Baltimore, MD (August 2016). North Carolina is a HSIS state and has an annual peer exchange on traffic record topics</p> <p>Ongoing</p> <p>Ongoing</p> |
| Ensure that state highway safety plans include traffic safety information systems as a major component. | <p>Review of North Carolina Strategic Highway Safety Plan.</p> <p>Review of North Carolina State Highway Safety Plan.</p> | <p>The final plan was released in the summer of 2015. This review task is completed.</p> <p>Completed (July 2015)</p> | <p>2016 plans were completed and submitted.</p> <p>Completed (2016)</p> |

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.

| Crash Information Systems | | | |
|--|---|-----------------------|------------------------|
| <i>Objective</i> | <i>Performance Measure/Target</i> | <i>4/1/15-3/31/16</i> | <i>4/1/16-3/31/17*</i> |
| Continue to enhance and expand electronic crash reporting by all | Number or percentage of law enforcement agencies submitting to the electronic crash reporting system. | 21.26% | 23.33% |

| Crash Information Systems | | | |
|---|---|--|--|
| Objective | Performance Measure/Target | 4/1/15-3/31/16 | 4/1/16-3/31/17* |
| enforcement agencies in the State. | <p>Number or percentage of reported <u>crashes</u> submitted via the electronic crash reporting system.</p> <p>Integration and use of additional features or options for crash reporting. <i>(Example: geo-locating.)</i></p> | <p>72.59%</p> <p>Future effort (dependent on third party vendor capability and DMV requirements).</p> | <p>76.67%</p> <p>Conduct an assessment of agency reporting practices to determine who is taking advantages of additional crash reporting features.</p> <p>*Note: City of Raleigh has been collecting x and y coordinates since 2012.</p> |
| Continue to communicate data collection and data submission protocols and business rules with third-party software vendors of electronic 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. | <p>Periodic meetings with third-party vendors to share business rules and communicate changes.</p> <p>Periodic review and validation of third-party vendors' compliance capabilities.</p> <p>Initial review and validation for new third-party vendors.</p> | <p>Biweekly meeting conducted by DMV.</p> <p>Initial tests by DMV, but no period review yet.</p> <p>Currently 4 vendors in place (0 new vendors in the last year). New vendor coming online in FY17.</p> | <p>Biweekly meeting conducted by DMV.</p> <p>Initial tests by DMV, but no period review yet.</p> <p>Currently 5 vendors in place (0 new vendors in progress).</p> |
| Explore the feasibility of LEA-level metrics for improving crash reporting. | Feasibility study on the potential range and use of LEA-specific metrics. <i>(Note: Report on types of errors made and time period for</i> | Published crash data submission performance and LEA-specific assessments in LEA newsletter as a | Published crash data submission performance and LEA-specific assessments in LEA newsletter as a |

| Crash Information Systems | | | |
|---|--|---|--|
| Objective | Performance Measure/Target | 4/1/15-3/31/16 | 4/1/16-3/31/17* |
| | <i>reporting, compared to peers) Next: Review and see if it can be enhanced or built upon in the future/broadened to include quality.</i> | means of providing peer agency performance results. | means of providing peer agency performance results. |
| 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. | When error is identified. Protocol in place between DMV and NCDOT Traffic Safety Unit to find and resolve discovered issues. | When error is identified. Monthly meetings to resolve any issues. 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 must forward it to the DMV within 10 days after receiving the report.) | 21.89 days (print submissions) 3.82 days (electronic submissions) 70.76% *These are the same numbers reported in the 2016 Strategic Plan | 27.56 days (print submissions) 4.01 days (electronic submissions) 68.60% |
| 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.) Periodic summary of crash report rejection reasons. | 4.74% (electronic submission only) 1,324 reasons for rejection (electronic submission only). Summary report on file (may become part | 3.66% (electronic submission only) |

| Crash Information Systems | | | |
|--|---|---|---|
| Objective | Performance Measure/Target | 4/1/15-3/31/16 | 4/1/16-3/31/17* |
| | Periodic review of business rules to target inaccurate fields. | of the LEA newsletter to help inform training). Future effort | Future effort to be revisited in conjunction with the development of the new crash system. |
| Ensure that crash data continues to be recorded as completely as possible. | Percentage of reports that have no missing critical data elements. <i>(Note: Must define critical elements; see notes under prior objective.)</i> Periodic review of business rules to address completeness. Feedback to LEAs with respect to their data quality. Year-to-year comparison of the number of reports received to review for possible missing data. | Future effort (non-mandated elements to be reviewed as potential critical data elements). Addressed business rule completeness as a result of vehicle style addition and moped definition change. Query is run every 6 months regarding alcohol level and injury status updated. LEAs are contacted as a result of the query. Query run comparing crash report submission 2014 to 2015. LEAs contacted and submission discussed. | All critical data elements are required for electronically submitted reports by business rules. Ongoing Ongoing and covered in monthly meetings. Ongoing |
| Ensure that crash data is recorded uniformly. | Percentage of data elements that are MMUCC compliant. | 67.5% Crash Mapping Score. 55.3% Vehicle Mapping Score. 73.8% Person Mapping Score. 75.22% reportable | *Note: Personal injury variable definitions have been changed to NHTSA standards. 75.34% reportable 24.66% non-reportable |

| Crash Information Systems | | | |
|--|--|---|---|
| Objective | Performance Measure/Target | 4/1/15-3/31/16 | 4/1/16-3/31/17* |
| | Year-to-year comparison of reportable vs. non-reportable crashes by LEAs. | 24.78% 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. | New Department of Information Technology rules and protocols requires review of this objective in the coming year, as IT within all state agencies is in a state of transition. Future effort (same as above) | New Department of Information Technology rules and protocols requires review of this objective in the coming year, as IT within all state agencies is in a state of transition. Future effort (same as above). *Note: Sanitized crash data set that can be supplied to outside users. |
| 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. <i>(Note: EMS as an example.)</i> Number of law enforcement officers who receive training, including a breakdown of standard and more extensive training. | Computer Based Training developed and still being utilized. Bomgar Training sessions used as needed to promote on-hands training assistance for TraCS10 and ECRS LEAs. Trained 72 law enforcement train-the-trainer officers between April 1, 2015 and March 11, 2016 from 35 agencies using NISR training materials and materials developed by DMV TR training staff. | Ongoing Trained 79 law enforcement train-the-trainer officers between April 1, 2016 and March 31, 2017. |

| Crash Information Systems | | | |
|---|---|--|--|
| Objective | Performance Measure/Target | 4/1/15-3/31/16 | 4/1/16-3/31/17* |
| | Review of the current Basic Law Enforcement Training. | Future effort | Currently being updated for North Carolina training and standards. Traffic Crash rollout approximately 2018. |
| 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. | <p>Review of the implications on the CRS database.</p> <p>Review of the implications on safety analysis and decision making.</p> <p><i>Note: The issues addressed should include data acquisition, compliance with NHTSA data guidance (e.g., MMUCC), legal considerations, and possible degradation in the information being captured in the crash report.</i></p> | <p>Future effort (when new forms are developed that include data element/attribute changes)</p> <p>Future effort (same as above)</p> | <p>Future effort (when new forms are developed that include data element/attribute changes)</p> <p>Future effort (same as above)</p> |
| Develop standards for reporting location information. | Publication of spatial location reporting standards available to third-party vendors for ECRS. | Reporting standards provided to third-party vendors. | Ongoing |
| | Determine the best method of implementing electronic crash reporting by all LEAs statewide. | | To be discussed further in fall 2017 TRCC meeting to determine how this will be addressed. |

Data Use and Integration

Goal - Provide direction and facilitate coordination among the safety data stewards to improve the integration of transportation safety information systems in North Carolina.

| Data Use and Integration | | | |
|---|--|----------------|--|
| Objective | Performance Measure/Target | 4/1/15-3/31/16 | 4/1/16-3/31/17* |
| 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 and accuracy of data. | Feasibility study report. <i>(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.)</i> | 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 safety community. | Feasibility study report. <i>(Note: This is a low priority issue based on recent discussions with NHTSA and will be discussed at a later time.)</i> | Future effort | Recommendation to eliminate this objective since it is not part of the 2017 assessment. The TRCC membership has previously noted that 1) this is a low priority item – no funds to implement such a system, and 2) uncertainty of the value of such a system. Using the new 2017 assessment, we can now remove this objective. |
| Conduct demonstration projects to illustrate the feasibility and value of data integration. | Data Linkage Project and Repeat Offenders Project. | | |

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.

| Citation/Adjudication Systems | | | |
|---|---|---|--|
| Objective | Performance Measure/Target | 4/1/15-3/31/16 | 4/1/16-3/31/17* |
| 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. | Software upgrade in progress. | Software upgrade completed, improving the stability and tracking of citation issuance to include passed/failed citation transmissions. |
| Continue to improve the electronic citation submission statewide. | Length of time for citations to be received at AOC. | 84.63% received within 3 days *Note: Previously reported data was incorrect. | 87.63% received within 3 days |
| Increase data capture surrounding the case management of DWI charges and convictions to aide in the analysis and tracking of these cases. | Number of DWI data element fields added to the file. | In process. AOC communicating with legislature regarding reporting requirements. | Four reports were reviewed by AOC and judicial officials. 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. | Future effort. Expect to begin in October 2016. | In progress |
| Capture and store large video as evidence in a secure location in data center. | Expand discovery automation system to handle remote blob storage. | In progress | Partially implemented (25% of the prosecutorial districts implemented; project on hold due to prioritization and resource allocation). |
| Paperless process in court room with workflow between | Design and develop automated workflow process for citation in the courtroom. | In progress, awaiting development of e-courts strategic plan. | Future effort |

| Citation/Adjudication Systems | | | |
|---------------------------------------|-----------------------------------|-----------------------|------------------------|
| <i>Objective</i> | <i>Performance Measure/Target</i> | <i>4/1/15-3/31/16</i> | <i>4/1/16-3/31/17*</i> |
| district attorney, judges and clerks. | | | |

Injury Surveillance Systems

Goal – Evaluate the need for and feasibility of a Statewide Surveillance Injury System.

| Injury Surveillance Systems | | | |
|---|---|---|---|
| <i>Objective</i> | <i>Performance Measure/Target</i> | <i>4/1/15-3/31/16</i> | <i>4/1/16-3/31/17*</i> |
| Conduct a demonstration project that links injury surveillance data with crash data to identify issues associated with linkage. | <p>Identification of a project with defined objectives that requires linking injury surveillance data and crash data.</p> <p>Development of a work plan for the demonstration project.</p> <p>Demonstration project report.</p> | <p>Ongoing</p> <p>Expansion project to initiate October 2016.</p> <p>Interim reports have been and are still being submitted.</p> | <p>Developed into a strategic planning project for statewide data linkage. Stakeholder planning meeting held 4-6-2017. Follow up meeting planned September 2017, smaller work group meetings planned in between.</p> <p>Final report for the Wake County Demonstration project submitted in September 2016.</p> |
| 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. | | Initial stakeholders meeting conducted in 2017 as part of the Data Linkage project. Further efforts to be defined in the coming year. |

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.

| Roadway Information Systems | | | |
|---|--|---|--|
| Objective | Performance Measure/Target | 4/1/15-3/31/16 | 4/1/16-3/31/17* |
| Expand the linear referencing system (foundation for linkage to roadway characteristics) to cover all public roads, state- and locally-owned. | Percentage of North Carolina roadway mileage that is included in the LRS. | Re-scheduled to be completed in summer 2016. | Completed late 2016. |
| 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. | In progress. Will be implemented with the Road Operations and Management Effort (ROME) project (ESRI Roads and Highways project) Future effort (long-term goal for municipalities to enter data) | ROME completed. Integration in progress. Future effort |
| Conduct a feasibility assessment of the development of supplemental roadway | Feasibility report that includes priorities for the development of supplemental files. | Currently collecting information for primary highways. | Currently collecting information for primary highways. Looking to expand |

| Roadway Information Systems | | | |
|---|--|-------------------------------|---|
| <i>Objective</i> | <i>Performance Measure/Target</i> | <i>4/1/15-3/31/16</i> | <i>4/1/16-3/31/17*</i> |
| files that may be used in safety analysis. (Examples include horizontal curves and grades.) | | | to include additional state maintained roads. |
| Explore the feasibility of an intersection database (in support of FHWA Fundamental Data Elements (FDE)). | Feasibility report. | Future effort (starting FY17) | Pilot project underway. Estimated completion December 2017. |
| Improve data quality control for roadway data elements. | Investigate what data quality control measures are in place currently. | | Explore further with NCDOT during fall 2017 TRCC committee meeting. |

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.

| Driver Information Systems | | | |
|--|---|--|--|
| <i>Objective</i> | <i>Performance Measure/Target</i> | <i>4/1/15-3/31/16</i> | <i>4/1/16-3/31/17*</i> |
| 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 and learner’s permits.) | Annual online publication as part of North Carolina Crash Facts. | Update expected at fall 2016 TRCC meeting. | Find out more information about access to this data during the mini-assessment meeting(s). |
| Hold mini-assessment meeting(s) with key individuals in driver license sections to address the issues of the | Improve communication efforts and obtain a better understanding of what data documentation, data information flow charts, | | Future effort |

| Driver Information Systems | | | |
|---|---|-----------------------|------------------------|
| Objective | Performance Measure/Target | 4/1/15-3/31/16 | 4/1/16-3/31/17* |
| data dictionary and improve data quality control. | purging record procedures and data quality control routines are available. Develop summary reports on each of these topics. | | |

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 North Carolina.

| Vehicle Information Systems | | | |
|--|---|--|------------------------|
| Objective | Performance Measure/Target | 4/1/15-3/31/16 | 4/1/16-3/31/17* |
| Publish a summary of the number of North Carolina registered vehicles – by type of vehicle and county. | Annual publication as part of North Carolina Crash Facts. | Update expected at fall 2016 TRCC meeting. | Completed |
| 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. | | Future effort |

TRCC Meeting Schedule

In the previous project year, FY2016, the TRCC met on the following three dates:

- 1) September 30, 2015 (UNC HSRC)
- 2) February 3, 2016 (AOC Raleigh)

- 3) May 17, 2016 (UNC HSRC).

In the current year, FY2017, the TRCC met four times on the following dates:

- 1) September 13, 2016 (AOC)
- 2) December 14, 2016 (UNC HSRC)
- 3) March 29, 2017 (NCDOT in Garner)
- 4) May 17, 2017 (UNC HSRC).

In the coming year, FY2018, the TRCC plans to meet on the following dates:

- 1) October 4, 2017 (location: TBA)
- 2) February 7, 2018 (location: TBA)
- 3) May 18, 2018 (location: TBA)

FY2018 Traffic Records Projects

The following section outlines the key projects that are currently approved by the review team and officially part of the original submission of the FY2018 North Carolina Highway Safety Plan to address traffic records. A listing of all projects, including the funding level and source, can be found in the Cost Summary at the end of this document.

Agency: Governor's Highway Safety Program
Project Number: M3DA-18-00-00
Project Title: GHSP In-House Traffic Records Future Projects
Project Description: GHSP will set aside funds for anticipated projects that may occur during the year. Opportunities may arise at a later date during the fiscal year to conduct projects and funds are set aside for this purpose.
CMTW: NA

Agency: NC State University-Institute of Transportation Research and Education
Project Number: M3DA-18-14-01
Project Title: Vision Zero-Fatality Reduction Program
Project Description: This is an ongoing project to promote North Carolina's Vision Zero efforts and to provide updated information and analytical capabilities to all stakeholders and the public on crash statistics. The website will be updated monthly as new crash data is received from the state database.
CMTW: NA

Agency: Judicial Department-Administrative Office of the Courts
Project Number: M3DA-18-14-02
Project Title: eCitation Printer Distribution
Project Description: This is an ongoing project that provides printers to law enforcement agencies to increase the number of agencies and officers on eCitation thus increasing the percentage of eCitations versus paper citations in support of the Traffic Safety Information Systems Strategic Plan goals.
CMTW: Chapter 1, Section 2.1, 2.2, 2.3; Chapter 2, Section 2.1, 2.2, 2.3; Chapter 3, Section 2.2, 2.3

Agency: UNC-Highway Safety Research Center
Project Number: M3DA-18-14-03
Project Title: Linking Crash Reports to Medical Data in NC: A Strategic Implementation Plan
Project Description: This is the fourth year of an ongoing project to provide the linkage of statewide crash data with statewide medical data. This project through analysis will determine best linkage methods to all traffic data sources. This project will develop baseline data to determine the best way to merge crash data with injury data statewide.
CMTW: NA

Agency: Elizabeth City Police Department
Project Number: M3DA-18-14-04
Project Title: Records Management Grant
Project Description: This is a one year project to purchase MDT's to enable the police department to switch to electronic crash reporting. This move will increase the percentage of crash reports received electronically in support of the Traffic Safety Information Systems Strategic Plan goals
CMTW: NA

Agency: Governor's Highway Safety Program
Project Number: TR-18-07-01
Project Title: GHSP In-House Traffic Records
Project Description: This is an ongoing project to provide partial funding for the state Traffic Records Coordinator position. This position will act as the liaison to the TRCC and other state agencies as well as stakeholders in North Carolina, other states and NHTSA.
CMTW: NA

Agency: UNC-Highway Safety Research Center
Project Number: TR-18-07-02
Project Title: Quick Response
Project Description: This is an ongoing project that provides "quick" access to traffic records and data to all stakeholders. HSRC has maintained this service for GHSP for over twenty years providing an invaluable source of information and assistance to anyone needing information regarding, crashes, fatalities, or any information on traffic data.
CMTW: NA

Agency: UNC-Highway Safety Research Center
Project Number: TR-18-07-03
Project Title: North Carolina Traffic Safety Information Systems Strategic Plan Update
Project Description: This is an ongoing project to provide technical and logistical support to the TRCC to enable coordination, communication and cooperation among the TRCC membership and other stakeholders and to update the North Carolina Strategic Plan for Traffic Safety Information Systems.
CMTW: NA

OTHER HIGHWAY SAFETY PRIORITIES

Targets

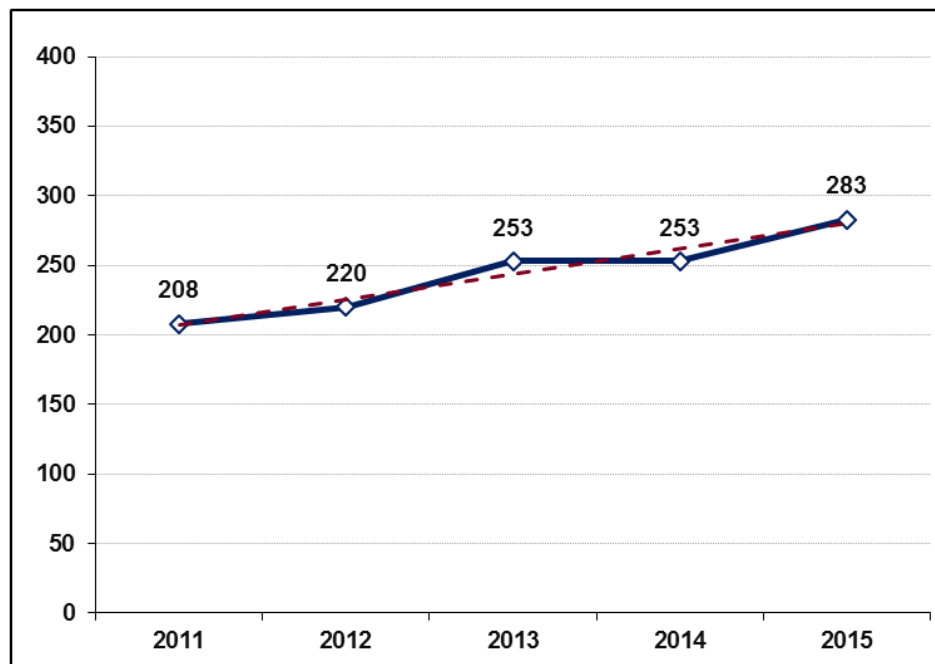
- ❖ GHSP's goal is to decrease the number of older drivers involved in fatal crashes five percent from the 2011–2015 average of 243 to the 2014–2018 average of 231 by December 31, 2018.
- ❖ GHSP's goal is to limit the 2014–2018 average number of pedestrian fatalities to the 2011–2015 average of 178 by December, 31, 2018.
- ❖ GHSP's goal is to decrease the number of bicyclist fatalities 15 percent from the 2011–2015 average of 23 to the 2014–2018 average of 20 by December 31, 2018.
- ❖ GHSP's goal is to limit the 2014–2018 average number of large truck fatalities to the 2011–2015 average of 127 through December 31, 2018.

Older Drivers

Evidence Considered

In 2015, there were 283 drivers age 65 and older involved in fatal crashes in North Carolina. This was a 12 percent increase from the 253 older drivers involved in fatal crashes in 2014. Figure 43 shows fatal crashes involving older drivers for the years 2011 to 2015. As shown in Figure 43, the number of older drivers involved in fatal crashes has increased or remained the same for each of the last five years.

Figure 43. Drivers Age 65 and Older Involved in Fatal Crashes

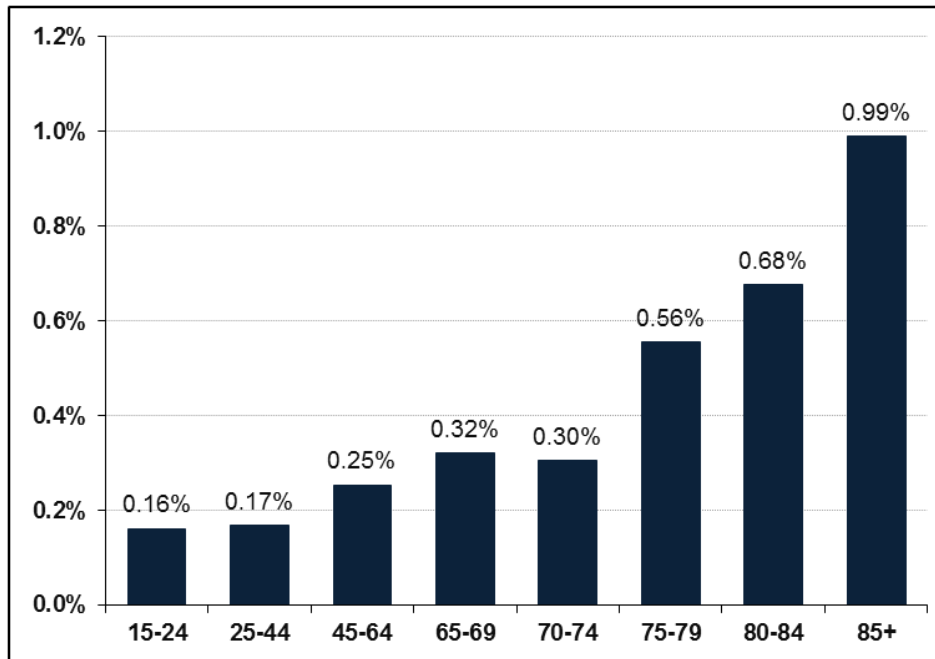


Source: FARS, 2011 – 299/16015

When older drivers are involved in a crash, they are more likely than their younger counterparts to be killed. Figure 44 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 with each successive age group. Drivers 85 and older were 6.2 times more likely to be killed if involved in a crash than were the youngest drivers (15-24 years old). To a large degree, this reflects the increasing fragility of older persons.

Figure 44. Percent of Drivers Killed by Age



Source: North Carolina Motor Vehicle Crash Data, 2015

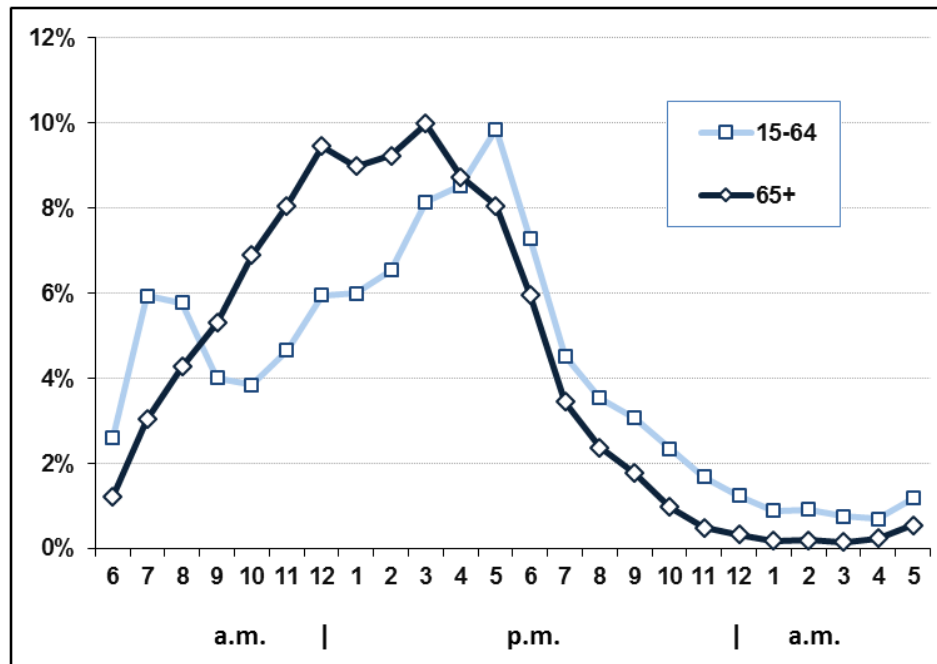
In 2015, there were 41,047 drivers age 65 and older involved in a crash in North Carolina. Although drivers age 65 and older represented 18.8 percent of the driving age population in 2015, they accounted for only 9.8 percent of drivers in crashes but 20.5 percent of the drivers killed.

Older driver crashes in North Carolina differ from their younger counterparts in the time of day, as shown in Figure 45. 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 3 p.m. It is also noteworthy that older drivers have few crashes during the nighttime hours.

Table 23 lists the 41 counties with the highest number of older drivers involved in fatal crashes from 2011 to 2015. The 10 counties with the highest numbers of older driver fatalities during this time are Guilford (49), Wake (47), Mecklenburg (40), Johnston (35), Nash (32), Forsyth (29), Gaston (29), Iredell (28), Randolph (28) and Robeson (28). Many of the counties near the top of the table also have large populations.

Table 23 also shows the crash rate per 10,000 population for drivers 65 and older for these 41 counties. Counties that stand out with crash rates per capita much higher than the statewide rate of 1.33 include Madison (7.56), Nash (4.01), Columbus (3.56), Lee (3.52) and Alexander (3.45). In total, the 41 counties listed in the table account for 72 percent of all older drivers in North Carolina involved in fatal crashes during these years.

Figure 45. Percent of Crashes by Time of Day and Driver Age



Source: NCDOT Motor Vehicle Crash Data, 2015

Table 23. Older drivers (65+) involved in fatal crashes, 2011–2015

| County | Older drivers involved In fatal crashes | Rate per 10,000 population | % of all 65+ drivers involved in fatal crashes |
|-------------|--|----------------------------------|--|
| Guilford | 49 | 1.34 | 4.03% |
| Wake | 47 | 0.90 | 3.86% |
| Mecklenburg | 40 | 0.75 | 3.29% |
| Johnston | 35 | 3.08 | 2.88% |
| Nash | 32 | 4.01 | 2.63% |
| Forsyth | 29 | 1.08 | 2.38% |
| Gaston | 29 | 1.80 | 2.38% |
| Iredell | 28 | 2.23 | 2.30% |
| Randolph | 28 | 2.40 | 2.30% |
| Robeson | 28 | 3.06 | 2.30% |
| Cumberland | 26 | 1.39 | 2.14% |
| Buncombe | 25 | 1.06 | 2.05% |
| Catawba | 25 | 1.96 | 2.05% |
| Davidson | 24 | 1.74 | 1.97% |
| Surry | 23 | 3.38 | 1.89% |
| Union | 22 | 1.71 | 1.81% |
| Henderson | 20 | 1.41 | 1.64% |
| Rowan | 20 | 1.76 | 1.64% |
| Cabarrus | 19 | 1.54 | 1.56% |

Table 23. Older drivers (65+) involved in fatal crashes, 2011–2015

| County | Older drivers involved in fatal crashes | Rate per 10,000 population | % of all 65+ drivers involved in fatal crashes |
|-------------|---|----------------------------|--|
| Columbus | 18 | 3.56 | 1.48% |
| Onslow | 18 | 2.13 | 1.48% |
| Durham | 17 | 1.01 | 1.40% |
| Madison | 17 | 7.56 | 1.40% |
| Pitt | 17 | 1.65 | 1.40% |
| Alamance | 16 | 1.25 | 1.31% |
| Chatham | 16 | 1.93 | 1.31% |
| Lee | 16 | 3.52 | 1.31% |
| Caldwell | 15 | 2.02 | 1.23% |
| Wilkes | 15 | 2.17 | 1.23% |
| Burke | 14 | 1.67 | 1.15% |
| Craven | 14 | 1.63 | 1.15% |
| New Hanover | 14 | 0.79 | 1.15% |
| Pender | 14 | 2.81 | 1.15% |
| Brunswick | 13 | 0.77 | 1.07% |
| Lenoir | 13 | 2.45 | 1.07% |
| Lincoln | 13 | 1.98 | 1.07% |
| Moore | 13 | 1.09 | 1.07% |
| Wayne | 13 | 1.39 | 1.07% |
| Alexander | 12 | 3.45 | 0.99% |
| Beaufort | 12 | 2.24 | 0.99% |
| Granville | 12 | 2.69 | 0.99% |

Source: FARS, 2011–2015

Older Driver Summary and Countermeasures

Fatal crashes involving drivers age 65 and older has increased steadily over the past five years. Moreover, drivers older than age 85 were 6.2 times more likely to be killed if involved in a crash than were the youngest drivers (15-24 years old) in 2015. This suggests that 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, Wake, Mecklenburg, Johnston, Nash, Forsyth, Gaston, Iredell, Randolph and Robeson.

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 alone, 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.

We believe further reductions in the number of older drivers involved in fatal crashes are possible. To adjust for the confounding effect of economic conditions, five year averages were used as the baseline for setting goals. GHSP is working to decrease the number of older drives involved in fatal crashes five percent from the 2011–2015 average of 243 to the 2014–2018 average of 231 by December 31, 2018.

GHSP will work with the Older Driver Work Group that functions as part of the Executive Committee for Highway Safety to explore programs and countermeasures that will help improve older driver safety, including evidence-based enforcement. GHSP is committed to exploring programs and techniques to improve older driver safety. GHSP will also seek partners within and outside of the Older Driver Work Group to expand the reach and knowledge on the issue of older driver safety.

Media Plan

GHSP will seek opportunities with older driver partners to draw media attention to the increasing issue of older driver safety, particularly in counties where older driver involved crashes are most prevalent. GHSP does not have any planned media events or advertising scheduled for FY2018, but will evaluate opportunities in the coming months. GHSP will also explore non-traditional media opportunities such as utilizing social media platforms to bring attention and awareness to older driver safety.

Pedestrians

Evidence Considered

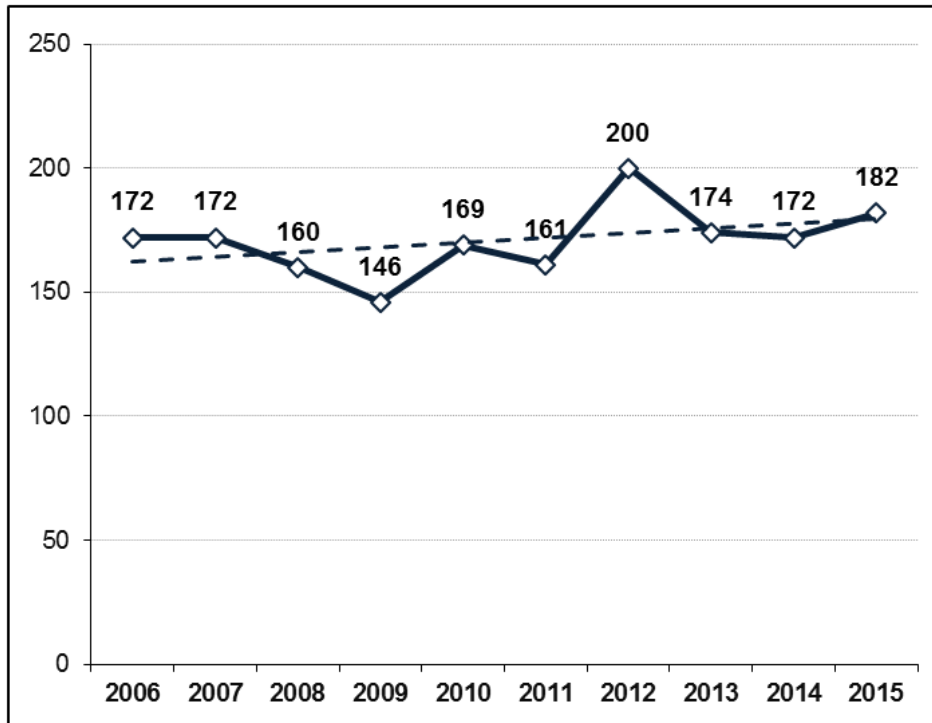
In 2015, 182 pedestrians were killed in crashes involving a motor vehicle in North Carolina, an increase of 10 fatalities compared to 2014. As shown in Figure 46, the number of pedestrian deaths has remained fairly consistent over the past decade, with the exception of a notable increase in 2012. The average number of fatalities for the five-year period from 2011–2015 was 178.

Although crashes involving pedestrians represent only about 1 percent of the total reported crashes in North Carolina, pedestrians are highly over-represented in fatal crashes. Pedestrian fatalities accounted for 13.2 percent of all traffic fatalities during 2015. Pedestrians are over-represented in fatalities because they have less protection than occupants of motor vehicles in a pedestrian/vehicle crash. Moreover, the faster the vehicle is traveling, the greater the risk to the pedestrian. Research shows the risk 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 2015, males accounted for three times as many pedestrian fatalities as females (138 vs. 44), a trend that has been consistent for the past several years. Figure 47 shows the age of pedestrians killed in crashes. Children (<15) and older adults (65+) account for a relatively small percentage of pedestrian fatalities. Rather, the highest proportion of pedestrian fatalities is among adults age 20 to 54.

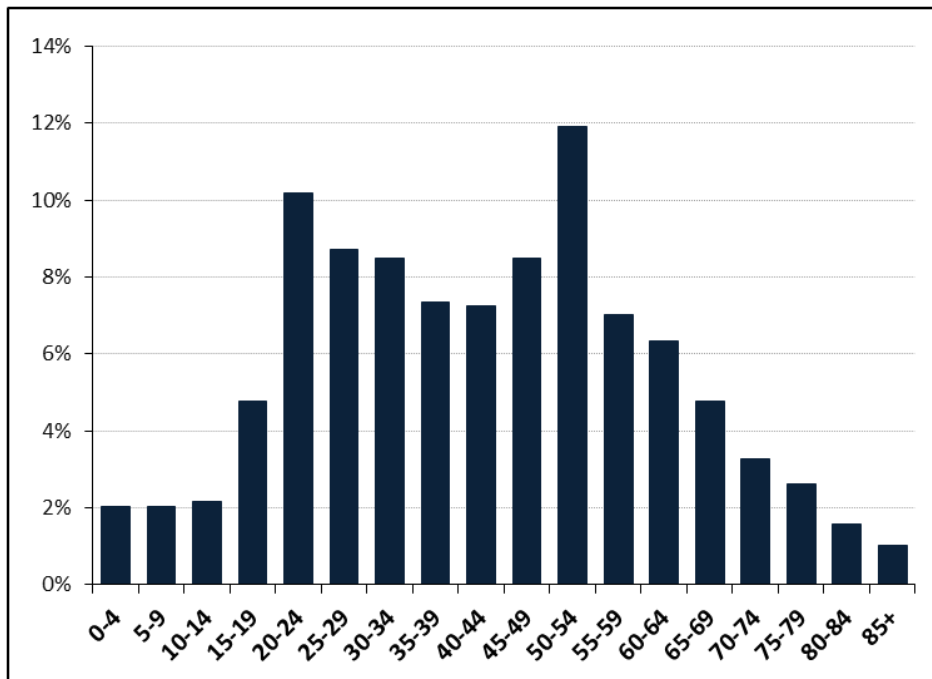
It is not uncommon for alcohol to be involved in pedestrian fatalities. During the years 2011 through 2015, 48 percent of pedestrians who were killed in crashes in North Carolina had a positive BAC (among those with a known BAC), and 43 percent had a BAC of .08 or above. Pedestrian fatalities also vary by time of day. As shown in Figure 48, pedestrian fatalities are much more common during the nighttime hours. Between 2011 and 2015, 73 percent of pedestrian fatalities occurred between 6 p.m. and 6 a.m. This is not surprising, since pedestrians can be much more difficult to see at nighttime and alcohol-involvement is higher in nighttime crashes.

Figure 46. Number of Pedestrian Fatalities



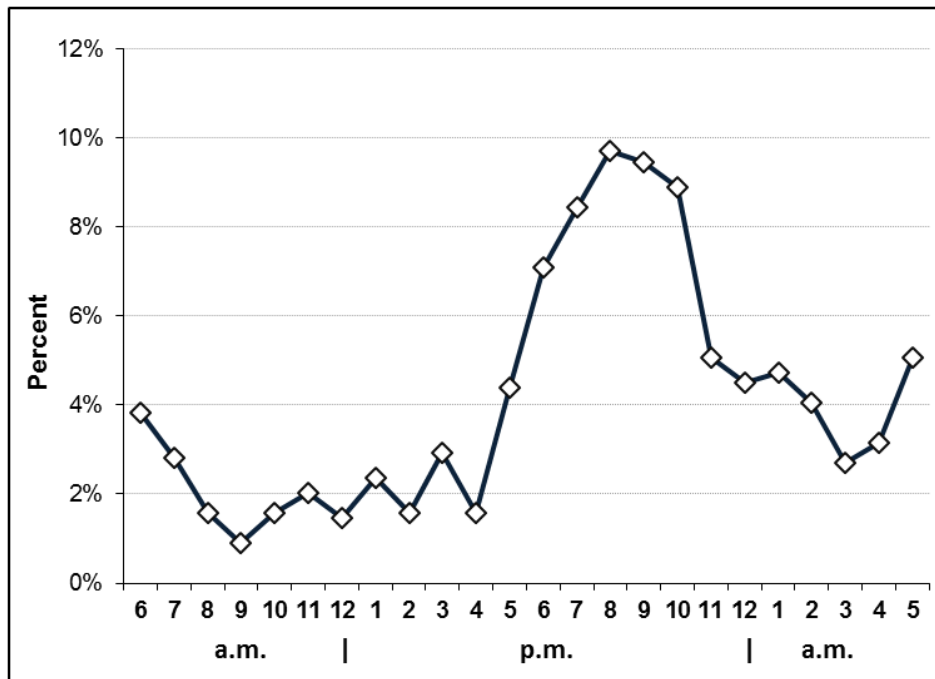
Source: FARS, 2006–2015

Figure 47. Pedestrian Fatalities by Age



Source: FARS, 2011–2015

Figure 48. Pedestrian Fatalities by Time of Day, 2011–2015



Source: FARS, 2011–2015

Overall, pedestrian fatalities are split almost evenly between urban (48 percent) and rural (52 percent) locations. 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.

Table 24 shows the top 29 counties with the most pedestrian fatalities from 2011 through 2015. Mecklenburg County had the highest number of pedestrian fatalities during this period (88), followed by Wake (63), Cumberland (49), Guilford (48), New Hanover (35) and Forsyth (31). In total, the 29 counties listed in the table account for 74 percent of all pedestrian fatalities in North Carolina during these years.

The counties with the highest numbers of pedestrian fatalities are generally those with the largest populations. However, there are exceptions to this pattern. Columbus and Halifax Counties are particularly noteworthy in having both high pedestrian fatality counts and high rates per capita. Other counties with high per capita rates as well as relatively high counts of pedestrian fatalities include Sampson, Robeson and New Hanover.

Table 24. Pedestrian Fatalities, 2011–2015

| County | Pedestrian fatalities | Fatalities per 100,000 population | % of all pedestrian fatalities |
|-------------|-----------------------|-----------------------------------|--------------------------------|
| Mecklenburg | 88 | 1.78 | 9.95% |
| Wake | 63 | 1.30 | 7.13% |
| Cumberland | 49 | 2.98 | 5.54% |
| Guilford | 48 | 1.89 | 5.43% |

Table 24. Pedestrian Fatalities, 2011–2015

| County | Pedestrian fatalities | Fatalities per 100,000 population | % of all pedestrian fatalities |
|-------------|-----------------------|--------------------------------------|-----------------------------------|
| New Hanover | 35 | 3.28 | 3.96% |
| Forsyth | 31 | 1.72 | 3.51% |
| Buncombe | 25 | 2.01 | 2.83% |
| Gaston | 24 | 2.29 | 2.71% |
| Robeson | 24 | 3.58 | 2.71% |
| Johnston | 22 | 2.47 | 2.49% |
| Pitt | 20 | 2.31 | 2.26% |
| Durham | 19 | 1.33 | 2.15% |
| Onslow | 19 | 2.00 | 2.15% |
| Wayne | 15 | 2.40 | 1.70% |
| Columbus | 13 | 4.51 | 1.47% |
| Iredell | 13 | 1.57 | 1.47% |
| Nash | 13 | 2.74 | 1.47% |
| Union | 13 | 1.23 | 1.47% |
| Davidson | 12 | 1.46 | 1.36% |
| Halifax | 12 | 4.48 | 1.36% |
| Sampson | 12 | 3.74 | 1.36% |
| Cabarrus | 11 | 1.17 | 1.24% |
| Catawba | 11 | 1.42 | 1.24% |
| Harnett | 11 | 1.78 | 1.24% |
| Wilson | 11 | 2.70 | 1.24% |
| Alamance | 10 | 1.29 | 1.13% |
| Cleveland | 10 | 2.05 | 1.13% |
| Orange | 9 | 1.30 | 1.02% |
| Randolph | 9 | 1.26 | 1.02% |

Pedestrian Safety Summary and Countermeasures

The number of pedestrian fatalities in North Carolina has changed little over the past decade. Pedestrian fatalities are most common among males, persons age 20 to 54, and during nighttime hours. Nearly half of pedestrians killed in crashes have a BAC of .08 or above. The counties that account for the most pedestrian fatalities are Mecklenburg, Wake, Cumberland, Guilford, New Hanover and Forsyth counties. Columbus and Halifax Counties are particularly noteworthy in having both a high pedestrian fatality counts and high fatality rates per capita.

GHSP believes further reductions in pedestrian fatalities are possible. To adjust for the confounding effect of economic conditions, five year averages were used as the baseline for setting goals. GHSP is working to limit the 2014–2018 average number of pedestrian fatalities to the 2011–2015 average of 178 by December, 31, 2018.

Where appropriate, GHSP and its partners will use evidence based enforcement tactics in these areas as well.

Media Plan

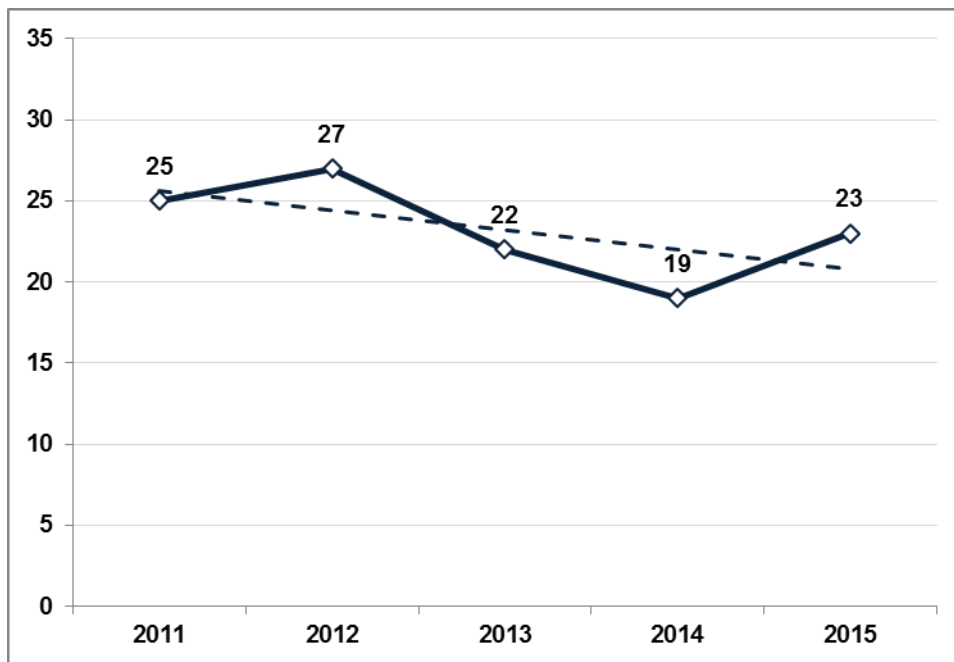
GHSP continues to seek opportunities with pedestrian safety partners to draw media attention to the issues of pedestrian safety through earned media events, particularly in counties where pedestrian incidents and injuries are most prevalent. GHSP will partner with the Division of Bicycle and Pedestrian Transportation to promote pedestrian safety in conjunction with the Watch For Me NC campaign. GHSP is funding paid media efforts utilizing NCDOT’s agency of record. GHSP will also explore non-traditional media opportunities, such as social media platforms, to bring attention and awareness to pedestrian safety.

Bicyclists

Evidence Considered

In 2015, there were 23 bicyclists killed in fatal crashes in North Carolina, an increase of four from the 19 bicyclists killed in 2014. As shown in Figure 49, bicyclist fatalities in North Carolina have fluctuated from year to year, although the general trend has been a decrease in fatalities.

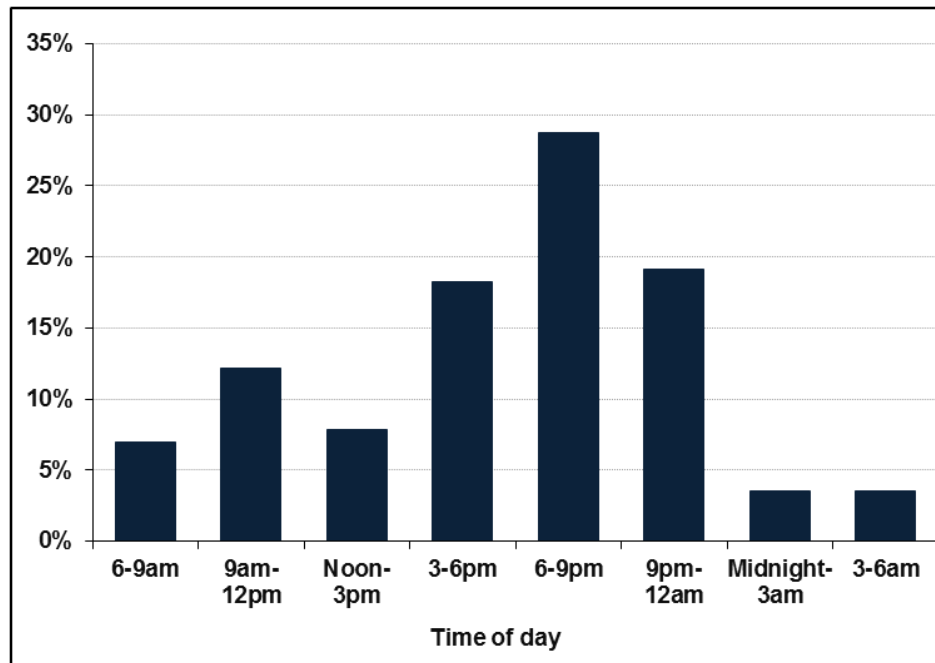
Figure 49. Number of Bicyclists Killed in Crashes



Source: FARS, 2011–2015

Bicyclist fatalities during the years 2011–2015 peaked between the hours of 6:00 and 9:00 p.m. (see Figure 50). This reflects commuting cyclists sharing the road with motorists, with declining visibility as it gets darker. Overall, fatalities were evenly split between daytime (6:00 a.m.-5:59 p.m.) and nighttime (6:00 p.m.-5:59 a.m.). Three fourths (74 percent) of fatalities occurred on weekdays; one fourth (26 percent) occurred on Saturday or Sunday.

Figure 50. Percent of Bicyclists Killed by Time of Day



Source: FARS, 2011–2015

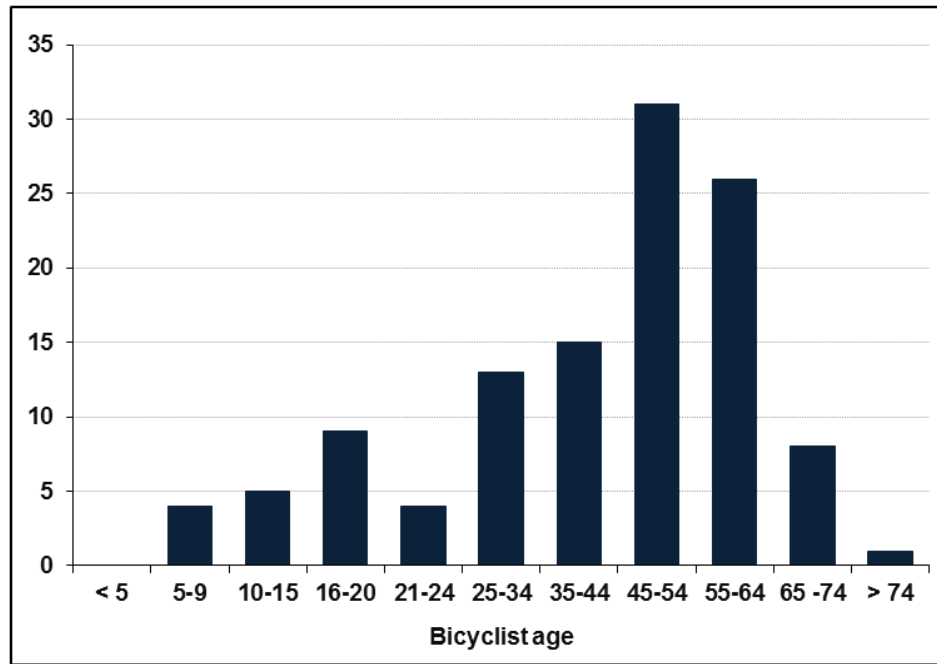
Most bicyclist fatalities occur at places other than intersections. Between 2011 and 2015, only 14 percent of bicyclist fatalities occurred at intersections, whereas 86 percent occurred at non-intersections. For 37 percent of the bicyclists killed during these years there were no “improper actions” on the part of the bicyclist that contributed to the crash. For the remaining fatalities, the most common contributing factors included failure to yield the right of way (15 percent), not being visible (e.g., dark clothing, no lighting; 14 percent), inattention (6 percent) and wrong-way riding (5 percent).

As shown in

Figure 51, bicyclist fatalities involving children are relatively rare in North Carolina. Instead, bicyclist fatalities are most common among riders ages 45 to 64. Many of these individuals probably use bicycles as their primary means of transportation for getting to work, errands, etc.

Table 25 lists the 26 counties with more than one bicyclist fatality during the years 2011 through 2015. The counties with the most bicyclist fatalities include Robeson, Wake, Guilford, Mecklenburg and New Hanover counties. No other county had more than five bicyclist fatalities during the five-year period. Several of the counties near the top of the table also have large populations. In total, the 26 counties listed in the table account for 85 percent of the bicyclist fatalities in North Carolina during this period.

Figure 51. Number of Bicyclists Killed by Age



Source: FARS, 2011–2015

Table 25. Bicyclist fatalities, 2011 - 2015

| County | Bicyclist fatalities | Fatalities per 10,000 population | % of all bicyclist fatalities |
|-------------|----------------------|----------------------------------|-------------------------------|
| Robeson | 10 | 0.75 | 8.62% |
| Wake | 8 | 0.08 | 6.90% |
| Guilford | 6 | 0.12 | 5.17% |
| Mecklenburg | 6 | 0.06 | 5.17% |
| New Hanover | 6 | 0.27 | 5.17% |
| Brunswick | 5 | 0.40 | 4.31% |
| Durham | 5 | 0.17 | 4.31% |
| Orange | 5 | 0.36 | 4.31% |
| Dare | 4 | 1.11 | 3.45% |
| Onslow | 4 | 0.21 | 3.45% |
| Avery | 3 | 1.68 | 2.59% |
| Craven | 3 | 0.29 | 2.59% |
| Harnett | 3 | 0.24 | 2.59% |
| Lee | 3 | 0.51 | 2.59% |
| Pitt | 3 | 0.17 | 2.59% |
| Rockingham | 3 | 0.33 | 2.59% |
| Scotland | 3 | 0.84 | 2.59% |
| Union | 3 | 0.14 | 2.59% |

Table 25. Bicyclist fatalities, 2011 - 2015

| County | Bicyclist fatalities | Fatalities per 10,000 population | % of all bicyclist fatalities |
|------------|----------------------|----------------------------------|-------------------------------|
| Bertie | 2 | 0.97 | 1.72% |
| Cumberland | 2 | 0.06 | 1.72% |
| Davidson | 2 | 0.12 | 1.72% |
| Duplin | 2 | 0.33 | 1.72% |
| Halifax | 2 | 0.38 | 1.72% |
| Hoke | 2 | 0.39 | 1.72% |
| Iredell | 2 | 0.12 | 1.72% |
| Nash | 2 | 0.21 | 1.72% |

Bicyclist Safety Summary and Countermeasures

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. The factors on the part of the bicyclists which contribute most to bicyclist fatalities include failure to yield the right of way, not being visible, inattention and wrong-way riding. However, it should be noted that for more than a third of the bicyclists killed, there were no “improper actions” on the part of the bicyclists that contributed to the crash.

GHSP believes further reductions in bicyclist fatalities are possible. To adjust for the confounding effect of economic conditions, five year averages were used as the baseline for setting goals. GHSP is working to decrease the number of bicyclist fatalities 15 percent from the 2011–2015 average of 23 to the 2014–2018 average of 20 by December 31, 2018.

Where appropriate, GHSP and its partners will use evidence based enforcement tactics in these areas as well.

Media Plan

GHSP continues to seek opportunities with bicycle safety partners to draw media attention to the issues of bicyclist safety through earned media events, particularly in counties where bicyclist incidents and injuries are most prevalent. GHSP is partnering with the Division of Bicycle and Pedestrian Transportation to promote bicyclist safety in conjunction with the Watch For Me NC campaign. GHSP is funding paid media efforts utilizing NCDOT’s agency of record. GHSP will also explore non-traditional media opportunities such as social media platforms to bring attention and awareness to bicyclist safety.

Distracted Driving

Evidence Considered

NHTSA defines distraction as “a specific type of inattention that occurs when drivers divert their attention from the driving task to focus on some other activity instead.” Distraction can include secondary tasks such as operating vehicle controls, eating/drinking, attending to personal hygiene, or operating a cell phone. Drivers can also be distracted by other vehicle occupants, or by outside persons,

objects or events. Driving while daydreaming or lost in thought is identified as distracted driving by NHTSA, but physical conditions and/or impairments (such as fatigue, alcohol and medical conditions) or psychological states (such as anger or depression) are not. FARS data includes fields that identify one or more attributes which may indicate inattention just prior to the impending critical event. NHTSA has included these distraction variables since 2010.

According to 2015 FARS data, there were 93 fatalities among drivers and passengers of motor vehicles in North Carolina in which one or more drivers were reported as being distracted at the time of the crash. These “distraction-affected” crashes accounted for 8.0 percent of the total fatalities for the year in North Carolina. As shown in Table 26, the proportion of distraction-affected crashes from 2011–2015 was lower in North Carolina than in the U.S. or NHTSA Region 3 States. However, the proportion of distraction-affected crashes has grown noticeably over the past five years. In fact, the proportion of distraction-affected crashes in North Carolina exceeded the U.S. proportion for the first time in 2015.

Table 26. North Carolina, Region 3, and National Distracted Driving Related Fatalities: 2011–2015

| Geographic Region | 2011 | | 2012 | | 2013 | | 2014 | | 2015 | | 2011–2015 | |
|--------------------------|------------------|-------------------------|-------|------------|-------|------------|-------|------------|-------|------------|-----------|------------|
| | # K ¹ | % of Total ² | # K | % of Total | # K | % of Total | # K | % of Total | # K | % of Total | # K | % of Total |
| North Carolina (N=6,422) | 69 | 6.6% | 51 | 4.8% | 74 | 6.8% | 69 | 6.3% | 93 | 8.0% | 356 | 6.5% |
| Region 3 (N=18,684) | 423 | 13.3% | 454 | 14.1% | 429 | 14.0% | 363 | 12.1% | 414 | 12.7% | 2,083 | 13.3% |
| Nation (N=215,803) | 2,210 | 8.1% | 2,119 | 7.6% | 2,005 | 7.4% | 1,922 | 7.1% | 2,176 | 7.6% | 10,432 | 7.6% |

¹No. of Driver/Occupant Fatalities; ²Percent of Total Involved; Source: FARS, 2011–2015

As shown in Table 27, there were 356 fatalities among drivers and passengers of motor vehicles in North Carolina crashes from 2011–2015 in which a driver was noted as being distracted. Of the known distractions, 80.6 percent were recorded as being due to some manner of being careless or inattentive. Even though cell phones are generally considered to be a major distraction for drivers, only 8.7 percent of the distractions during this time were attributed to cell phones (other cellular phone-related, while dialing cellular phone, while manipulating cellular phone, and while talking or listening to cellular phone). Although a police officer investigating a crash may see evidence suggesting the driver was inattentive, it may be difficult for the officer to determine whether the source of inattention was a cell phone. Hence, officers often use the broader “careless/inattentive” code on the crash report form.

Table 27. North Carolina Fatalities by Distracted Driving Related Behavior: 2011–2015

| Distracted | N | % of Total | % of Distractions |
|-------------------------------|-------|------------|-------------------|
| Not Distracted | 4,939 | 90.4% | -- |
| Unknown if Distracted | 168 | 3.1% | -- |
| Careless/Inattentive | 287 | 5.3% | 80.6% |
| Cellular Phone Related | 31 | 0.6% | 8.7% |
| Looked But Did Not See | 22 | 0.4% | 6.2% |
| Distracted by Other Occupants | 7 | 0.1% | 2.0% |
| Distracted, Details Unknown | 6 | 0.1% | 1.7% |

Table 27. North Carolina Fatalities by Distracted Driving Related Behavior: 2011–2015

| Distraction | N | % of Total | % of Distractions |
|--------------------|----------|-------------------|--------------------------|
| Other Distraction | 3 | 0.1% | 0.8% |
| Total | 5,463 | 100.0% | -- |
| Total Distractions | 356 | 6.5% | 100.0% |

Distractions Driving Summary and Countermeasures

GHSP is concerned about the issue of distracted driving. Our goal is to reduce the occurrence of distracted driving in North Carolina through combined education and enforcement. GHSP recognizes that distracted driving results in part from lifestyle choices and larger societal and cultural trends. Consequently, few highway safety countermeasures have been identified to reduce distracted driving. Recent demonstration programs suggest high-visibility cell phone/text messaging enforcement may be effective in reducing this behavior. GHSP is exploring potential countermeasures including high-visibility enforcement, and will look for opportunities to implement and evaluate countermeasures that might reduce distracted driving among North Carolina drivers.

Media Plan

GHSP continues to seek opportunities with highway safety partners to draw media attention to the issue of distracted driving. GHSP plans to bring attention to distracted driving through an earned media event as part of the State Fair Safety City display and during Distracted Driving Awareness month. The display at Safety City will include driving simulators to demonstrate how distractions play a significant role in crashes. GHSP will also explore non-traditional media opportunities, such as social media platforms, to bring attention to the dangers of distracted driving.

Commercial Motor Vehicles*Evidence Considered*

Large trucks (defined as a truck with a gross vehicle weight rating (GVWR) greater than 10,000 pounds) play an important role in North Carolina's economy through the efficient distribution of our state's products and commodities. However, large trucks also play a major role in the number and severity of North Carolina traffic crashes because of their size, weight and the number of miles they drive during the course of delivering their cargo.

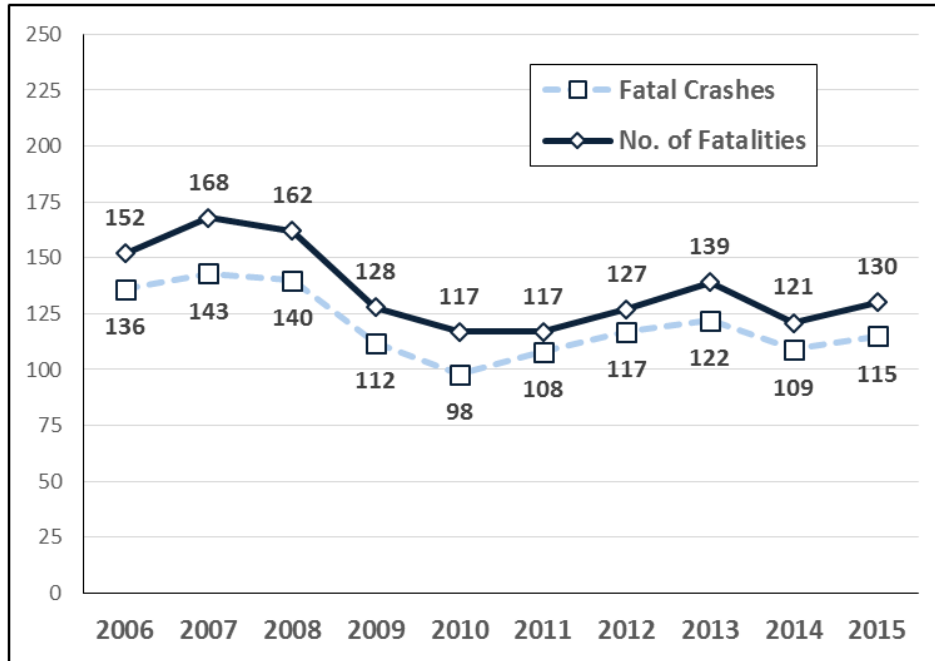
In 2015, there were 115 fatal crashes involving large trucks in North Carolina, resulting in 130 deaths. This is up from the 109 fatal crashes and 121 deaths in 2014. As shown in Figure 52, the number of truck-related fatal crashes and deaths declined following the economic recession in 2008. Although they rose slightly after 2011, they have not returned to their 2008 level.

As shown in Table 28, large trucks were involved in 4.4 to 4.8 percent of all crashes in North Carolina during the years 2011 to 2015. On average, large trucks are involved in 4.6 percent of North Carolina crashes.

Large trucks are involved in a relatively small number of crashes each year, but they are involved in a disproportionate number of fatal and serious injuries due to their size and weight. The largest SUVs weigh less than 6,000 pounds, but by definition large trucks weigh more than 10,000 pounds and can

weigh as much as 80,000 pounds fully loaded with cargo. When two vehicles collide, the lighter vehicle will always be at a disadvantage when there is a sizeable difference in vehicle weights. Also, large trucks are taller and have higher ground clearances than passenger cars, meaning that passenger cars can underide the truck trailers which can result in severe injuries.

Figure 52. North Carolina Large Truck Related Crashes and Fatalities



Source: Federal Motor Carrier Safety Administration (FMCSA) 2006–2015

Table 28. All North Carolina Crashes and Large Truck Involvement, 2011–2015

| Truck Involved? | | 2011 | 2012 | 2013 | 2014 | 2015 | Total |
|-----------------|---|---------|---------|---------|---------|---------|-----------|
| No | N | 199,161 | 204,187 | 210,552 | 215,752 | 239,569 | 1,069,221 |
| | % | 95.5% | 95.6% | 95.6% | 95.2% | 95.2% | 95.4% |
| Yes | N | 9,348 | 9,454 | 9,757 | 10,834 | 12,119 | 51,512 |
| | % | 4.5% | 4.4% | 4.4% | 4.8% | 4.8% | 4.6% |
| Total | N | 208,509 | 213,641 | 220,309 | 226,586 | 251,688 | 1,120,733 |
| | % | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |

Source: North Carolina Crash Data Query Web Site (nccrashdata.hsra.unc.edu/index.cfm)

As shown in Table 29, over 137,000 persons in North Carolina were in crashes involving large trucks during the five-year period from 2011–2015. Of these, 43 percent were drivers/occupants of a large truck; the other 57 percent were drivers/occupants of some type of vehicle other than a large truck. However, 85 percent of the persons killed and 82 percent of the persons seriously injured (A type injuries) were in vehicles other than large trucks.

Table 30 lists the 16 North Carolina counties with ten or more fatalities in crashes involving large trucks during the five year period from 2011–2015. The five counties with the highest numbers of fatalities

during this time were Mecklenburg, Guilford, Wake, Buncombe and Forsyth. All of the counties in the table other than Columbus and Union have one or more interstate highways running through them. About 25 percent of all large truck crashes occur on interstate highways. In contrast, only eight percent of crashes of all other vehicle types occur on interstates.

Table 29. Persons in North Carolina Crashes Involving Heavy Trucks by Vehicle Type, 2011–2015

| Vehicle Type of Driver/Occupant | | Injury Level* | | | | | Unk | Total |
|---------------------------------|---|---------------|------|-------|--------|---------|-------|---------|
| | | (K) | (A) | (B) | (C) | (O) | | |
| Other vehicle | N | 547 | 565 | 3,920 | 13,543 | 56,142 | 3,409 | 78,126 |
| | % | 0.7% | 0.7% | 5.0% | 17.3% | 71.9% | 4.4% | 100.0% |
| Heavy Truck | N | 97 | 126 | 1,327 | 3,638 | 50,902 | 3,242 | 59,332 |
| | % | 0.2% | 0.2% | 2.2% | 6.1% | 85.8% | 5.5% | 100.0% |
| Total | N | 644 | 691 | 5,247 | 17,181 | 107,044 | 6,651 | 137,458 |
| | % | 0.5% | 0.5% | 3.8% | 12.5% | 77.9% | 4.8% | 100.0% |

*(K) = Killed, (A) = Disabling injury, (B) = Evident injury, (C) = Possible injury, (O) = No injury, Unk = Unknown injury. Source: North Carolina Crash Data Query Web Site (nccrashdata.hsrrc.unc.edu/index.cfm)

Table 30. North Carolina Fatalities in Crashes Involving Large Trucks by County, 2011 - 2015

| County | 2011 | 2012 | 2013 | 2014 | 2015 | 2011–2015 |
|-------------|------|------|------|------|------|-----------|
| Mecklenburg | 7 | 8 | 5 | 5 | 9 | 34 |
| Guilford | 2 | 2 | 4 | 9 | 7 | 24 |
| Wake | 1 | 4 | 6 | 1 | 8 | 20 |
| Buncombe | 0 | 3 | 7 | 1 | 6 | 17 |
| Forsyth | 4 | 3 | 1 | 4 | 4 | 16 |
| Cumberland | 5 | 2 | 3 | 3 | 2 | 15 |
| Randolph | 5 | 2 | 2 | 4 | 2 | 15 |
| Robeson | 4 | 2 | 2 | 3 | 3 | 14 |
| Wayne | 2 | 3 | 4 | 3 | 2 | 14 |
| Davidson | 4 | 1 | 2 | 2 | 4 | 13 |
| Catawba | 1 | 4 | 1 | 0 | 5 | 11 |
| Columbus | 0 | 3 | 4 | 2 | 2 | 11 |
| Rowan | 0 | 3 | 4 | 1 | 3 | 11 |
| Cabarrus | 2 | 4 | 4 | 0 | 0 | 10 |
| Duplin | 0 | 2 | 2 | 4 | 2 | 10 |
| Gaston | 1 | 1 | 1 | 3 | 4 | 10 |
| Nash | 1 | 4 | 2 | 2 | 1 | 10 |
| Union | 1 | 1 | 2 | 4 | 2 | 10 |

Source: FARS, 2011–2015

Commercial Motor Vehicles Summary and Countermeasures

During 2015, there was an increase in the number of fatal crashes involving large trucks (defined as a truck with a GVWR greater than 10,000 pounds) and the number of persons killed in these crashes.

Large trucks are involved in a relatively small number of crashes each year, but they are involved in a disproportionate number of fatal and serious injuries due to their large size and weight. Because of continuing concerns, it is important that North Carolina adopt a comprehensive approach to reduce crashes involving large trucks.

Working in collaboration with the State Highway Patrol Commercial Vehicle Unit and other law enforcement agencies, GHSP has helped enhance awareness and enforcement efforts that target aggressive driving around, as well as by, large trucks. GHSP partners with other agencies to promote “No-Zone” messaging aimed at increasing driver awareness of trucks and other commercial motor vehicles and the danger areas around these large vehicles where crashes are more likely to occur.

GHSP has also supported pilot programs that study the effects of different public awareness and enforcement programs aimed at reducing aggressive driving behaviors. One promising approach is the use of portable changeable message signs (PCMS) to target aggressive driving behavior. Evaluations found that the use of PCMSs alone do not significantly affect traffic behavior, but supplementing the signage with enforcement did show positive effects in reducing aggressive driving behaviors.

Many large truck-related crashes result from unsafe driver behaviors, such as speeding, distracted driving, or following too closely, by truck drivers and other motorists around large trucks. Highly visible traffic enforcement can deter drivers from such behaviors. However, many law enforcement officers may be reluctant to conduct a vehicle stop of a large truck due to a lack of knowledge and/or skills relating to large truck stops.

A 16-hour Commercial Motor Vehicle block was added to the Traffic Crash Reconstruction curriculum in 2015. This course was delivered three times through the North Carolina Justice Academy (NCJA) during FY2017 (September 2016, December 2016, and March 2017). Typical class enrollment is 16 students per offering. The Justice Academy plans additional course offerings during FY2018.

GHSP believes reductions are possible in fatal crashes involving large trucks. To adjust for the confounding effect of economic conditions, five year averages were used as the baseline for setting goals. GHSP is working to limit the 2014–2018 average number of large truck fatalities to the 2011–2015 average of 127 through December 31, 2018.

GHSP will work with our program partners, including the Executive Committee for Highway Safety, to explore programs and countermeasures that will help reduce large truck-related crashes and fatalities. GHSP is committed to exploring programs and techniques, including evidence-based enforcement, to improve large truck and commercial motor vehicle safety.

Media Plan

GHSP continues to seek opportunities with large truck and commercial motor vehicle safety partners to draw media attention to the issue of sharing the road with large trucks. GHSP will also explore non-traditional media opportunities, such as social media platforms, to bring attention and awareness to the dangers and issues facing commercial motor vehicles.

School Buses

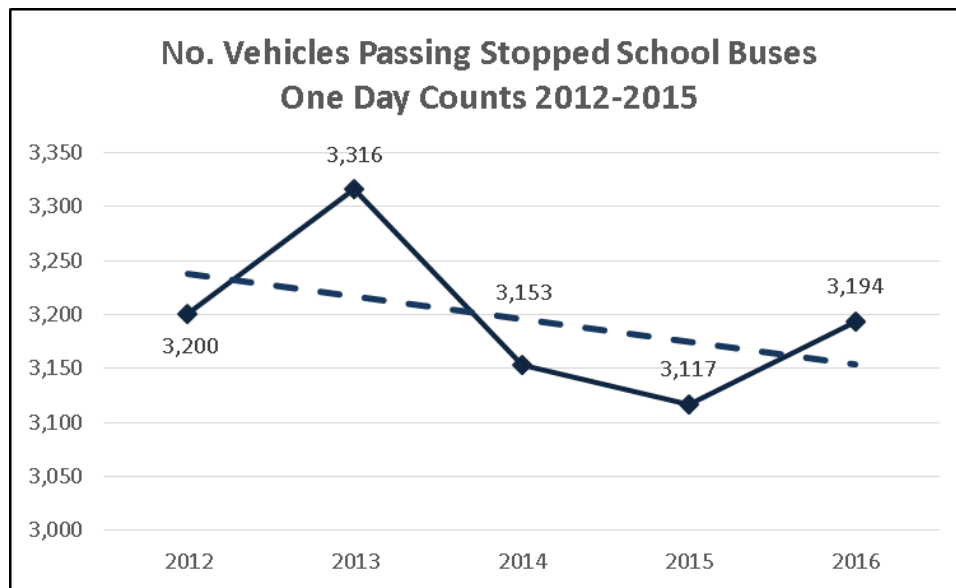
Evidence Considered

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. The size and construction of school buses as well as compartmentalization 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. During the opening days of the 2014–2015 school year, three students were seriously injured in Wake and Wilson Counties when a motorist didn't stop. Fourteen years of data compiled by the North Carolina Department of Public Instruction show that about 3,500 vehicles per day pass a stopped school bus, endangering the lives of children.

The North Carolina Department of Public Instruction (DPI) School Transportation Section coordinates an annual count of school bus stop arm violations during a single day in March. As shown in Figure 53 below, there were 3,194 incidents observed and recorded statewide during a single day in March 2016 where a moving vehicle passed a stopped school bus with its stop arm extended and lights flashing. A similar number of stop arm violations occurred in 2015 when 3,117 incidents were observed and recorded. Every such incident runs the risk of injuring or killing a child getting on or off a school bus.

Figure 53. One Day Counts of Vehicles Passing Stopped School Buses: 2012–2015



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

School Bus Safety Summary and Countermeasures

Compartmentalization has been shown to work very well in frontal and rear-end crashes, but seat belts are needed to keep school bus riders in their seats and thus in their "compartments," during side impacts and rollovers. 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.

Video technology exists that can combat school bus stop arm violations by capturing these illegal passing events and record critical information – such as vehicle make, model, license number and an image of the offending driver – all the required elements in order to seek stop arm violation prosecution in North Carolina. Through previous years’ GHSP funding, DPI was able to conduct a stop-arm camera pilot program and expand into other areas of the State. As a result of this pilot project the North Carolina General Assembly funded \$690,000 per year for the 2013–2014 school years to deploy Stop Arm Cameras throughout the state. This funding has continued annually and provides cameras based on need to local education authorities (LEA’s) in North Carolina. The use of stop arm violation cameras continues to expand across North Carolina. Data reported from the public schools to DPI shows that 1,612 out of 13,172 school buses are equipped with a stop arm violation camera system with an anticipated 273 added this year.

Media Plan

GHSP will seek opportunities with school bus safety partners to draw media attention to school bus safety issues related to bus passengers and children in the "danger zone" around the school bus since this is where most school bus-related fatalities take place. GHSP does not have any planned media events or advertising scheduled for FY2018. GHSP, in partnership with DPI, will explore non-traditional media opportunities such as utilizing social media platforms to bring attention and awareness to school bus safety.

FY2017 Other Highway Safety Priorities Projects

The following section outlines projects that are currently approved by the review team and officially part of the original submission of the FY2017 North Carolina Highway Safety Plan to address older driver, bicycle, pedestrian, distracted driving and commercial motor vehicles. A listing of all projects, including the funding level and source, can be found in the Cost Summary at the end of this document. (Note: CMTW = NHTSA’s *Countermeasures that Work*).

Agency: Outer Banks Bicycle and Pedestrian Safety Coalition
Project Number: FHX-18-12-01
Project Title: OBBPSC Safety Training and Education Grant
Project Description: This is the second year of a grant to the Outer Banks Bicycle and Pedestrian Safety Coalition (OBBPSC) to educate and train the public, and especially school age children, on the proper and safe way to be a pedestrian and/or ride bicycles. The project will provide safety items for use during bicycle training rodeos and other safety/educational events. The program will also address educating the general public on how to react when around bicyclists and/or pedestrians. The project will provide local support for the statewide program Watch4Me NC.
CMTW: Chapter 8, Section 2.1; 4.5, 4.6; Chapter 9, Section 1.3, 1.4, 2.2, 3.2

Agency: Department of Transportation-Bicycle and Pedestrian Division
Project Number: FHX-18-12-03
Project Title: Watch For Me North Carolina-Safety, Education, and Enforcement Statewide Campaign
Project Description: This is the fifth year of a project with the Division of Bicycle and Pedestrian Transportation. This project will provide funding to manage and implement the Watch for Me NC program statewide. This will include partnering with statewide communications to disseminate the bicycle and pedestrian safety message. The project also includes education and training for law enforcement agencies throughout the state on bicycle and pedestrian laws. The goal of the project is to reduce the number of injuries and deaths associated with bicycle and pedestrian traffic crashes by changing the general behaviors of bicyclists, pedestrians and the motoring public.
CMTW: Chapter 8, Section 3.2, 4.4; Chapter 9, Section 3.3, 4.2

Agency: UNC-Highway Safety Research Center
Project Number: SA-18-09-04
Project Title: Senior Driver Information and Materials Development and Delivery
Project Description: This is a continuing project that provides support to maintain the statewide Senior Driver Safety Coalition and to develop and maintain a website with the primary focus of educating older adults and their families about ways aging can affect driving, steps that individuals and families can take to keep driving safer and longer, what resources are available, and how to access these services. While the number of fatalities involving a driver age 65 and older has gradually decreased during the last decade, when older drivers are involved in a crash, they are more likely than their younger counterparts to be killed.
CMTW: Chapter 7, Section 1.2

Agency: NC State University
Project Number: SA-18-09-06
Project Title: Address the Challenges of Older Drivers in North Carolina Using Modern Technologies
Project Description: This is the initial year of this project that will pinpoint the needs and challenges of older drivers in North Carolina. This is necessary to develop and implement programs and countermeasures to reduce the crash risks of older drivers and to improve the road safety for everyone in North Carolina. This project will conduct a survey of older drivers (drivers age 65 and older) in North Carolina on general physical and mental health conditions, driving habits, transportation needs and preferences, and then combine the survey information with North Carolina crash data to identify the needs and challenges of older drivers and to suggest what services and countermeasures could be implemented using simulated driving technology (e.g., self-assessment of mental functioning, driving strategy adoption, and training programs).
CMTW: NA

Agency: Department of Public Instruction
Project Number: SB-18-10-01
Project Title: School Bus Safety

Project Description: This is an ongoing project that provides funding for a school bus safety program. The project will conduct outreach activities, develop the School Bus Safety Web, install stop arm cameras, and evaluate use of enhanced loading procedures. North Carolina Department of Public Instruction aims to decrease the number of motorists passing stopped school buses through increased prosecutions from the use of stop arm cameras.

CMTW: Chapter 8, Section 2.3

NORTH CAROLINA HIGHWAY SAFETY MEDIA PLAN

Priority Areas

The GHSP media plan will mainly target two areas of primary concern: occupant protection and alcohol-impaired driving. All media in these areas will include paid and earned media. GHSP also plans to utilize paid media for pedestrian and bicycle safety as well as motorcycle safety and awareness although to a lesser extent.

In the area of occupant protection, North Carolina will participate in the national *Click It or Ticket* mobilization in FY2018. We will primarily focus our media efforts toward counties and demographic groups which demonstrate low seat belt usage as indicated in the Occupant Protection section of the Highway Safety Plan. Paid media spots will convey an enforcement or social norming message to compliment the national media placement. The paid public service announcements will utilize outlets such as television, radio, digital media, internet radio, social media and out-of-home elements. Finally, earned media will be conducted statewide with planned campaign kickoffs and approximately 1,500 to 2,000 checkpoints anticipated for the mobilization.

North Carolina will also participate in all national impaired driving mobilizations. A state specific public service announcement will be placed across the state during the holiday campaign (December 2017 – January 2018). The paid public service announcements will utilize 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.

While GHSP has previously used sports marketing to reach our target demographics, we are currently in the process of reassessing this approach. 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. We are in the process of obtaining a new agency of record to help guide our efforts. Sports and events marketing efforts will continue in some form and target all areas of traffic safety mentioned.

Pedestrian and bicycle media efforts will focus on awareness regarding the Watch For Me NC campaign. The paid public service announcements will utilize outlets such as sidewalk stenciling, transit signage and other out-of-home elements. Motorcycle safety awareness media efforts will most likely include bill board advertising promoting the training classes offered through the BikeSafe NC program. Paid media funding associated with motorcycle safety is included in the Motorcycle section.

Additional information about GHSP's media plan can be found in the sections of the Highway Safety Plan that address specific program areas.

FY2018 Media Projects

The following section outlines projects that are currently approved by the review team and officially part of the original submission of the FY2018 North Carolina Highway Safety Plan to target two areas of primary concern—occupant protection and alcohol-impaired driving—as well as pedestrian and bicycle media efforts through paid and earned media. A listing of all projects, including the funding level and source, can be found in the Cost Summary at the end of this document. (Note: CMTW = NHTSA's *Countermeasures that Work*).

Agency: Governor's Highway Safety Program
Project Number: FHX-18-12-02
Project Title: GHSP In-House Pedestrian Safety Media Buys
Project Description: This is an ongoing project to provide funding for a media campaign to address bicycle and pedestrian safety. GHSP plans to continue outreach efforts regarding bicycle and pedestrian safety with a media placement campaign which may include TV, radio or other advertising as appropriate. As part of the plan, GHSP will utilize our agency of record to supply media buys, placement and distribution of our message using data to target specific locations and identify the most effective methods.
CMTW: Chapter 8, Section 3.1; 4.7; Chapter 9, Section 4.2

Agency: Governor's Highway Safety Program
Project Number: M2PE-18-13-01
Project Title: GHSP In-House OP Media Buys
Project Description: This is an ongoing project to provide funding for a media campaigns to address occupant protection issues. GHSP plans to continue outreach efforts regarding occupant protection with a media placement campaign during each enforcement period which may include TV, radio or other advertising as appropriate. As part of the plan, GHSP will utilize our agency of record to supply media buys, placement and statewide distribution of our message during and between campaigns using data to identify the most effective methods.
CMTW: Chapter 2, Section 3.1, 3.2, 6.1, 6.2

Agency: Governor's Highway Safety Program
Project Number: M5PEM-18-15-01
Project Title: GHSP In-House Impaired Driving Media Buys
Project Description: This is an ongoing project to provide funding for a media campaigns to address impaired driving issues. GHSP plans to continue outreach efforts regarding impaired driving with a media placement campaign during each enforcement period which may include TV, radio or other advertising as appropriate. As part of the plan, GHSP will utilize our agency of record to supply media buys, placement and statewide distribution of our message during and between campaigns using data to identify the most effective methods.
CMTW: Chapter 1, Section 5.2

Agency: Governor's Highway Safety Program
Project Number: M5PEM-18-15-02
Project Title: GHSP In-House Impaired Driving Sports Marketing
Project Description: This is an ongoing project to provide funding for sports and events marketing of highway safety messages. While GHSP has utilized sports and events marketing to reach our target demographics we are reassessing this approach. This project will provide funding for marketing efforts associated with sporting and other events. Previously GHSP had conducted marketing with major league teams in North Carolina, major universities, NASCAR, minor league baseball clubs and other areas including outdoor concert venues and other events. We are in the process of obtaining a new agency of record to help guide our efforts. Sports and events marketing efforts will continue in some form and target impaired

driving. Outreach efforts will focus on increasing attention on the target audience using data to identify the most effective methods.

CMTW: Chapter 1, Section 5.2

Agency: Governor's Highway Safety Program

Project Number: OP-18-04-01

Project Title: GHSP In-House Sports Marketing OP

Project Description: This is an ongoing project to provide funding for sports and events marketing of highway safety messages. While GHSP has utilized sports and events marketing to reach our target demographics we are reassessing this approach. This project will provide funding for marketing efforts associated with sporting and other events. Previously GHSP had conducted marketing with major league teams in North Carolina, major universities, NASCAR, minor league baseball clubs and other areas including outdoor concert venues and other events. We are in the process of obtaining a new agency of record to help guide our efforts. Sports and events marketing efforts will continue in some form and target occupant protection. Outreach efforts will focus on increasing attention on the target audience using data to identify the most effective methods.

CMTW: Chapter 2, Section 3.1, 3.2, 6.1, 6.2

EQUIPMENT AND SOFTWARE/IT REQUESTS OF \$5,000 OR MORE

| Equipment Requests of \$5,000 or More | | | | | |
|---------------------------------------|---|----------|---|------------------|------------------|
| Project Number | Agency | Quantity | Description | Unit Amount | Total Amount |
| M9MT-18-16-09 MC-18-03-04 | Apex Police Department | 1 | Motorcycle | \$30,000.00 | \$30,000.00 |
| M9MT-18-16-09 MC-18-03-04 | Apex Police Department | 1 | Radio | \$7,000.00 | \$7,000.00 |
| PT-18-06-03 | Asheville Police Department | 1 | DWI Simulator | \$23,000.00 | \$23,000.00 |
| PT-18-06-08 | Ayden Police Department | 1 | DWI Simulator | \$23,000.00 | \$23,000.00 |
| M5HVE-18-15- 15/PT-18-06-19 | Bessemer City Police Department | 1 | In-Car Video System | \$6,000.00 | \$6,000.00 |
| M5HVE-18-15- 15/PT-18-06-19 | Bessemer City Police Department | 1 | MDT (Mobile Data Terminal) | \$6,000.00 | \$6,000.00 |
| M5HVE-18-15- 15/PT-18-06-19 | Bessemer City Police Department | 1 | Patrol Vehicle | \$35,000.00 | \$35,000.00 |
| M5HVE-18-15- 15/PT-18-06-19 | Bessemer City Police Department | 1 | Radio | \$7,000.00 | \$7,000.00 |
| PT-18-06-06 | Charlotte Mecklenburg Police Department | 1 | DWI Simulator | \$23,000.00 | \$23,000.00 |
| M5X-18-15-03 | Department of Justice-Toxicology | 3 | Liquid Chromatograph/Quad rupole-Leased | \$148,146.0 0 | \$444,438.0 0 |
| PT-18-06-16 | Department of Justice-Training | 1 | SMI/EVOC Training Vehicle | \$35,000.00 | \$35,000.00 |
| SB-18-10-01 | Department of Public Instruction | 1 | Buster the Bus | \$5,000.00 | \$5,000.00 |
| AL-18-02-01 | Department of Public Safety- ALE | 1 | Low Light Camera | \$10,000.00 | \$10,000.00 |
| M5BAC-18-15-01 | DHHS FTA-BAT | 1 | BAT Mobile Unit | \$400,000.0 0 | \$400,000.0 0 |
| M3DA-18-14-04 | Elizabeth City Police Department | 5 | MDT (Mobile Data Terminal) | \$6,000.00 | \$30,000.00 |
| M9MT-18-16-10 MC-18-03-05 | Fletcher Police Department | 1 | Motorcycle | \$30,000.00 | \$30,000.00 |
| M9MT-18-16-10 MC-18-03-05 | Fletcher Police Department | 1 | Radio | \$7,000.00 | \$7,000.00 |
| M5HVE-18-15-12 / OP-18-04-03 | Fuquay-Varina Police Department | 1 | In-Car Video System | \$6,000.00 | \$6,000.00 |
| M5HVE-18-15-12 / OP-18-04-03 | Fuquay-Varina Police Department | 1 | MDT (Mobile Data Terminal) | \$6,000.00 | \$6,000.00 |

Equipment and Software/IT Requests

| Equipment Requests of \$5,000 or More | | | | | |
|---------------------------------------|--------------------------------------|----------|-------------------------------|-------------|--------------|
| Project Number | Agency | Quantity | Description | Unit Amount | Total Amount |
| M5HVE-18-15-12 / OP-18-04-03 | Fuquay-Varina Police Department | 1 | Patrol Vehicle | \$35,000.00 | \$35,000.00 |
| M5HVE-18-15-12 / OP-18-04-03 | Fuquay-Varina Police Department | 1 | Radio | \$7,000.00 | \$7,000.00 |
| PT-18-06-01 | Governor's Highway Safety Program | 10 | In-Car Video System | \$6,000.00 | \$60,000.00 |
| M5HVE-18-15-17 PT-18-06-23 | Graham Police Department | 1 | In-Car Video System | \$6,000.00 | \$6,000.00 |
| M5HVE-18-15-17 PT-18-06-23 | Graham Police Department | 1 | MDT (Mobile Data Terminal) | \$6,000.00 | \$6,000.00 |
| M5HVE-18-15-17 PT-18-06-23 | Graham Police Department | 1 | Patrol Vehicle | \$35,000.00 | \$35,000.00 |
| M5HVE-18-15-17 PT-18-06-23 | Graham Police Department | 1 | Radio | \$7,000.00 | \$7,000.00 |
| PT-18-06-02 | Guilford County Sheriff's Office | 1 | DWI Simulator | \$23,000.00 | \$23,000.00 |
| PT-18-06-02 | Guilford County Sheriff's Office | 1 | Radio | \$7,000.00 | \$7,000.00 |
| PT-18-06-02 | Guilford County Sheriff's Office | 1 | Seat Belt Convincer | \$20,000.00 | \$20,000.00 |
| M5HVE-18-15- 14/PT-18-06-21 | Harnett County Sheriff's Office | 1 | Patrol Vehicle | \$35,000.00 | \$35,000.00 |
| M5HVE-18-15- 14/PT-18-06-21 | Harnett County Sheriff's Office | 1 | Radio | \$7,000.00 | \$7,000.00 |
| M5HVE-18-15- 14/PT-18-06-21 | Harnett County Sheriff's Office | 1 | MDT (Mobile Data Terminal) | \$6,000.00 | \$6,000.00 |
| M5HVE-18-15- 14/PT-18-06-21 | Harnett County Sheriff's Office | 1 | In-Car Video System | \$6,000.00 | \$6,000.00 |
| M1HVE-18-13- 02/M5HVE-18-15- 11 | Huntersville Police Department | 2 | In-Car Video System | \$6,000.00 | \$12,000.00 |
| M1HVE-18-13- 02/M5HVE-18-15- 11 | Huntersville Police Department | 2 | MDT (Mobile Data Terminal) | \$6,000.00 | \$12,000.00 |
| M1HVE-18-13- 02/M5HVE-18-15- 11 | Huntersville Police Department | 2 | Patrol Vehicle | \$35,000.00 | \$70,000.00 |
| M1HVE-18-13- 02/M5HVE-18-15- 11 | Huntersville Police Department | 2 | Radio | \$7,000.00 | \$14,000.00 |
| PT-18-06-10 | Jackson County Sheriff's Office | 1 | DWI Simulator | \$23,000.00 | \$23,000.00 |

Equipment and Software/IT Requests

| Equipment Requests of \$5,000 or More | | | | | |
|---------------------------------------|---|----------|---------------------------------|-------------|--------------|
| Project Number | Agency | Quantity | Description | Unit Amount | Total Amount |
| PT-18-06-10 | Jackson County Sheriff's Office | 1 | In-Car Video System | \$6,000.00 | \$6,000.00 |
| PT-18-06-11 | Kitty Hawk Police Department | 1 | DWI Simulator | \$23,000.00 | \$23,000.00 |
| M5HVE-18-15-13 PT-18-06-20 | Lillington Police Department | 1 | MDT (Mobile Data Terminal) | \$6,000.00 | \$6,000.00 |
| M5HVE-18-15-13 PT-18-06-20 | Lillington Police Department | 1 | Patrol Vehicle | \$35,000.00 | \$35,000.00 |
| M5HVE-18-15-13 PT-18-06-20 | Lillington Police Department | 1 | Radio | \$7,000.00 | \$7,000.00 |
| PT-18-06-05 | Marion Police Department | 1 | DWI Simulator | \$23,000.00 | \$23,000.00 |
| PT-18-06-05 | Marion Police Department | 2 | MDT (Mobile Data Terminal) | \$6,000.00 | \$12,000.00 |
| PT-18-06-12 | New Hanover County Sheriff's Office | 1 | DWI Simulator | \$23,000.00 | \$23,000.00 |
| M9MT-18-16-08 MC-18-03-02 | Orange County Sheriff's Office | 1 | Motorcycle | \$30,000.00 | \$30,000.00 |
| M9MT-18-16-08 MC-18-03-02 | Orange County Sheriff's Office | 1 | Radio | \$7,000.00 | \$7,000.00 |
| PT-18-06-09 | Orange County Sheriff's Office | 1 | DWI Simulator | \$23,000.00 | \$23,000.00 |
| PT-18-06-09 | Orange County Sheriff's Office | 1 | Equipment Trailer | \$5,000.00 | \$5,000.00 |
| FHX-18-12-01 | Outer Banks Bicycle and Pedestrian Safety Coalition | 2 | Compact variable message boards | \$16,000.00 | \$32,000.00 |
| M5HVE-18-15-16 OP-18-04-05 | Reidsville Police Department | 1 | In-Car Video System | \$6,000.00 | \$6,000.00 |
| M5HVE-18-15-16 OP-18-04-05 | Reidsville Police Department | 1 | MDT (Mobile Data Terminal) | \$6,000.00 | \$6,000.00 |
| M5HVE-18-15-16 OP-18-04-05 | Reidsville Police Department | 1 | Patrol Vehicle | \$35,000.00 | \$35,000.00 |
| M5HVE-18-15-16 OP-18-04-05 | Reidsville Police Department | 1 | Radio | \$7,000.00 | \$7,000.00 |
| PT-18-06-04 | Rockingham Police Department | 1 | DWI Simulator | \$23,000.00 | \$23,000.00 |
| PT-18-06-04 | Rockingham Police Department | 1 | In-Car Video System | \$6,000.00 | \$6,000.00 |
| PT-18-06-07 | Tarboro Police Department | 1 | DWI Simulator | \$23,000.00 | \$23,000.00 |

Equipment and Software/IT Requests

Equipment Requests of \$5,000 or More

| Project Number | Agency | Quantity | Description | Unit Amount | Total Amount |
|----------------|-------------------------------------|----------|----------------------------|-------------|--------------|
| PT-18-06-07 | Tarboro Police Department | 1 | Seat Belt Convincer | \$20,000.00 | \$20,000.00 |
| PT-18-06-07 | Tarboro Police Department | 3 | In-Car Video System | \$6,000.00 | \$18,000.00 |
| DD-18-11-01 | Vehicle Injury Prevention for a VIP | 1 | Equipment Trailer | \$5,000.00 | \$5,000.00 |
| DD-18-11-01 | Vehicle Injury Prevention for a VIP | 1 | Vehicle Cab | \$10,000.00 | \$10,000.00 |
| PT-18-06-22 | Wake Forest Police Department | 1 | In-Car Video System | \$6,000.00 | \$6,000.00 |
| PT-18-06-22 | Wake Forest Police Department | 1 | MDT (Mobile Data Terminal) | \$6,000.00 | \$6,000.00 |
| PT-18-06-22 | Wake Forest Police Department | 1 | Patrol Vehicle | \$35,000.00 | \$35,000.00 |
| PT-18-06-22 | Wake Forest Police Department | 1 | Radio | \$7,000.00 | \$7,000.00 |

Software/IT Requests of \$5,000 or More

| Project Number | Agency | Quantity | Description | Unit Amount | Total Amount |
|----------------|--|----------|--|----------------|----------------|
| SB-18-10-01 | Department of Public Instruction | 1 | School Bus Safety Web Hosting/Maintenance | \$6,000.00 | \$6,000.00 |
| SB-18-10-01 | Department of Public Instruction | 1 | Seat Belt Implementation Assistance and Analysis | \$8,000.00 | \$8,000.00 |
| SB-18-10-01 | Department of Public Instruction | 1 | Stop Arm Camera Analysis and Technology Transfer | \$6,000.00 | \$6,000.00 |
| SB-18-10-01 | Department of Public Instruction | 1 | Online Bus Driver Training | \$5,500.00 | \$5,500.00 |
| M9MT-18-16-05 | Department of Public Safety-State Highway Patrol | 1 | Hosting Service | \$10,000.00 | \$10,000.00 |
| M5TR-18-15-01 | DHHS FTA-DRE | 1 | Data Entry and Management System | \$42,000.00 | \$42,000.00 |
| M5BAC-18-15-02 | DHHS FTA-Science | 1 | Data Base Upgrade Application | \$1,250,000.00 | \$1,250,000.00 |
| M5BAC-18-15-02 | DHHS FTA-Science | 1 | IT Application Maintenance and Support Fee | \$225,000.00 | \$225,000.00 |

Equipment and Software/IT Requests

| Software/IT Requests of \$5,000 or More | | | | | |
|---|---|----------|---|--------------|--------------|
| Project Number | Agency | Quantity | Description | Unit Amount | Total Amount |
| M5BAC-18-15-02 | DHHS FTA-Science | 1 | IT Hardware Hosting Annual Fee | \$50,000.00 | \$50,000.00 |
| PA-18-01-01 | Governor's Highway Safety Program | 1 | Enterprise Business Service (EBS)-formerly BSIP | \$120,000.00 | \$120,000.00 |
| SA-18-09-02 | Governor's Highway Safety Program | 1 | Traffic Safety Conference Website | \$54,400.00 | \$54,400.00 |
| SA-18-09-02 | Governor's Highway Safety Program | 1 | Traffic Safety App | \$25,000.00 | \$25,000.00 |
| M3DA-18-14-01 | NC State University-Vision Zero | 1 | Analytical Software | \$7,790.00 | \$7,790.00 |
| M3DA-18-14-01 | NC State University-Vision Zero | 1 | Hosting/Cloud Services | \$10,500.00 | \$10,500.00 |
| M3DA-18-14-01 | NC State University-Vision Zero | 1 | BI Site License (initial purchase) | \$70,000.00 | \$70,000.00 |
| SA-18-09-09 | NC State University-Vision Zero | 1 | Direct marketing software | \$15,000.00 | \$15,000.00 |
| SA-18-09-09 | NC State University-Vision Zero | 1 | Registration software | \$15,000.00 | \$15,000.00 |
| M5BAC-18-15-05 | Wake/Raleigh City County Bureau of Identification | 1 | HeadSpace GC Service Agreement | \$7,000.00 | \$7,000.00 |
| M5BAC-18-15-04 | Wilmington Police Department | 1 | Annual service-Trace 1310 Gas Chromatograph | \$6,500.00 | \$6,500.00 |

COST SUMMARY

**U.S. Department of Transportation National Highway Traffic Safety Administration
Highway Safety Plan**

State: North Carolina

**Cost Summary
2018-HSP-1
For Approval**

Report Date: 06/28/2017

| Program Area | Line | Project | Description | State | Current Fiscal Year Funds | Carry Forward Funds | Share to Local | Indirect costs |
|-----------------------------|------|------------------|--|--------------|---------------------------|---------------------|----------------|----------------|
| NHTSA | | | | | | | | |
| NHTSA 402 | | | | | | | | |
| Planning and Administration | | | | | | | | |
| | 15 | PA-2018-01-01-00 | GHSP IN HOUSE-P&A ¹ | \$291,096.00 | \$291,095.00 | \$.00 | \$.00 | \$.00 |
| | | | Planning and Administration Total | \$291,096.00 | \$291,095.00 | \$.00 | \$.00 | \$.00 |
| Alcohol | | | | | | | | |
| | 1 | AL-2018-02-01-00 | NC DEPT OF PUBLIC SAFETY-ALE | \$.00 | \$20,000.00 | \$.00 | \$.00 | \$.00 |
| | 2 | AL-2018-02-02-00 | GUILFORD COUNTY SHERIFF'S OFFICE-EDUCATO | \$38,230.00 | \$38,231.00 | \$.00 | \$38,231.00 | \$.00 |
| | | | Alcohol Total | \$38,230.00 | \$58,231.00 | \$.00 | \$38,231.00 | \$.00 |
| Motorcycle Safety | | | | | | | | |
| | 4 | MC-2018-03-01-00 | GHSP-IN HOUSE MOTORCYCLE | \$.00 | \$180,000.00 | \$.00 | \$.00 | \$.00 |
| | 5 | MC-2018-03-02-00 | ORANGE COUNTY SHERIFF'S OFFICE-BIKESAFE | \$4,875.00 | \$14,625.00 | \$.00 | \$14,625.00 | \$.00 |
| | 6 | MC-2018-03-03-00 | LENOIR COMMUNITY COLLEGE-EQUIPMENT | \$75,000.00 | \$75,000.00 | \$.00 | \$75,000.00 | \$.00 |
| | 7 | MC-2018-03-04-00 | TOWN OF APEX | \$5,125.00 | \$15,375.00 | \$.00 | \$15,375.00 | \$.00 |
| | 8 | MC-2018-03-05-00 | TOWN OF FLETCHER | \$4,875.00 | \$14,625.00 | \$.00 | \$14,625.00 | \$.00 |
| | 109 | MC-2018-03-06-00 | CABARRUS COUNTY SHERIFF'S OFFICE | \$.00 | \$10,000.00 | \$.00 | \$10,000.00 | \$.00 |
| | | | Motorcycle Safety Total | \$89,875.00 | \$309,625.00 | \$.00 | \$129,625.00 | \$.00 |

¹ The Governor's Highway Safety Program (GHSP) is designated as the lead state agency for impaired driving and occupant protection programs. As such GHSP will maintain actual expenditures related to impaired driving and occupant protection at or above the average expenditures for FY14 and FY15. However, GHSP does not have any actual expenditures directly associated with either of these programs.

Cost Summary

| Program Area | Line | Project | Description | State | Current Fiscal Year Funds | Carry Forward Funds | Share to Local | Indirect costs |
|-------------------------------|------|------------------|---|-------------|---------------------------|---------------------|----------------|----------------|
| Occupant Protection | | | | | | | | |
| | 9 | OP-2018-04-01-00 | GHSP-IN HOUSE SPORTS MARKETING | \$.00 | \$400,000.00 | \$.00 | \$325,000.00 | \$.00 |
| | 10 | OP-2018-04-02-00 | UNC HSRC-BUCKLE UP | \$.00 | \$243,092.00 | \$.00 | \$.00 | \$22,099.00 |
| | 11 | OP-2018-04-03-00 | TOWN OF FUQUAY VARINA | \$8,634.00 | \$48,925.00 | \$.00 | \$48,925.00 | \$.00 |
| | 13 | OP-2018-04-05-00 | CITY OF REIDSVILLE | \$7,861.00 | \$44,689.00 | \$.00 | \$44,689.00 | \$.00 |
| | 14 | OP-2018-04-06-00 | NC STATE UNIVERSITY-SEAT BELT SURVEY | \$.00 | \$27,722.00 | \$.00 | \$.00 | \$.00 |
| Occupant Protection Total | | | | \$16,495.00 | \$764,428.00 | \$.00 | \$418,614.00 | \$22,099.00 |
| Police Traffic Services | | | | | | | | |
| | 21 | PT-2018-06-02-00 | GUILFORD COUNTY SHERIFF'S OFFICE-LEL | \$.00 | \$63,000.00 | \$.00 | \$.00 | \$.00 |
| | 22 | PT-2018-06-03-00 | CITY OF ASHEVILLE-LEL | \$.00 | \$43,000.00 | \$.00 | \$.00 | \$.00 |
| | 23 | PT-2018-06-04-00 | ROCKINGHAM POLICE DEPT-LEL | \$.00 | \$43,000.00 | \$.00 | \$.00 | \$.00 |
| | 24 | PT-2018-06-05-00 | CITY OF MARION-LEL | \$.00 | \$43,000.00 | \$.00 | \$.00 | \$.00 |
| | 25 | PT-2018-06-06-00 | CHARLOTTE-MECK POLICE DEPT-LEL | \$.00 | \$43,000.00 | \$.00 | \$.00 | \$.00 |
| | 26 | PT-2018-06-07-00 | TOWN OF TARBORO-LEL | \$.00 | \$63,000.00 | \$.00 | \$.00 | \$.00 |
| | 27 | PT-2018-06-08-00 | TOWN OF AYDEN-LEL | \$.00 | \$43,000.00 | \$.00 | \$.00 | \$.00 |
| | 28 | PT-2018-06-09-00 | ORANGE COUNTY SHERIFF'S OFFICE-LEL | \$.00 | \$43,000.00 | \$.00 | \$.00 | \$.00 |
| | 29 | PT-2018-06-10-00 | JACKSON COUNTY SHERIFF'S OFFICE-LEL | \$.00 | \$43,000.00 | \$.00 | \$.00 | \$.00 |
| | 30 | PT-2018-06-11-00 | TOWN OF KITTY HAWK-LEL | \$.00 | \$43,000.00 | \$.00 | \$.00 | \$.00 |
| | 31 | PT-2018-06-12-00 | NEW HANOVER COUNTY SHERIFF'S OFFICE-LEL | \$.00 | \$43,000.00 | \$.00 | \$.00 | \$.00 |
| | 32 | PT-2018-06-14-00 | TOWN OF CORNELIUS | \$63,844.00 | \$63,844.00 | \$.00 | \$63,844.00 | \$.00 |
| | 33 | PT-2018-06-17-00 | NC DMV FISCAL-TRAINING ² | \$.00 | \$54,550.00 | \$.00 | \$.00 | \$.00 |
| Police Traffic Services Total | | | | \$63,844.00 | \$631,394.00 | \$.00 | \$63,844.00 | \$.00 |
| Traffic Records | | | | | | | | |
| | 17 | TR-2018-07-01-00 | GHSP IN-HOUSE TRAFFIC RECORDS | \$.00 | \$111,800.00 | \$.00 | \$.00 | \$.00 |

² This project is not associated with traffic records. However, the Division of Motor Vehicles (DMV) is designated the lead state agency for traffic records. As such the DMV will maintain actual expenditures related for the salaries and indirect costs of the employees and maintenance of equipment primarily associated with driver, vehicle and crash system data at or above the average expenditures for FY14 (\$1,605,226) and FY15 (\$1,751,624). These expenditures are estimated to amount to \$1.8 million.

Cost Summary

| Program Area | Line | Project | Description | State | Current Fiscal Year Funds | Carry Forward Funds | Share to Local | Indirect costs |
|--|------|---------------------|---------------------------------------|--------------|---------------------------|---------------------|----------------|----------------|
| | 18 | TR-2018-07-02-00 | UNC HSRC-QUICK RESPONSE | \$.00 | \$24,975.00 | \$.00 | \$.00 | \$2,270.00 |
| | 19 | TR-2018-07-03-00 | UNC HSRC-TRCC | \$.00 | \$52,063.00 | \$.00 | \$.00 | \$4,733.00 |
| Traffic Records Total | | | | \$.00 | \$188,838.00 | \$.00 | \$.00 | \$7,003.00 |
| Driver Education | | | | | | | | |
| | 3 | DE-2018-08-01-00 | UNC HSRC-TEEN DRIVER SAFETY | \$.00 | \$188,987.00 | \$.00 | \$.00 | \$17,181.00 |
| Driver Education Total | | | | \$.00 | \$188,987.00 | \$.00 | \$.00 | \$17,181.00 |
| Pupil Transportation Safety | | | | | | | | |
| | 16 | SB-2018-10-01-00 | DPI TRANSPORTATION | \$146,000.00 | \$57,000.00 | \$.00 | \$57,000.00 | \$3,000.00 |
| Pupil Transportation Safety Total | | | | \$146,000.00 | \$57,000.00 | \$.00 | \$57,000.00 | \$3,000.00 |
| NHTSA 402 Total | | | | \$645,540.00 | \$2,489,598.00 | \$.00 | \$707,314.00 | \$49,283.00 |
| MAP 21 405b OP High | | | | | | | | |
| | 63 | M1HVE-2018-13-01-00 | NC DEPT OF PUBLIC SAFETY-OP OT | \$.00 | \$100,000.00 | \$.00 | \$.00 | \$.00 |
| | 64 | M1HVE-2018-13-02-00 | TOWN OF HUNTERSVILLE | \$17,450.00 | \$98,887.00 | \$.00 | \$98,887.00 | \$.00 |
| 405b High HVE Total | | | | \$17,450.00 | \$198,887.00 | \$.00 | \$98,887.00 | \$.00 |
| 405b High Community CPS Services | | | | | | | | |
| | 62 | M1CPS-2018-13-01-00 | WNC SAFE KIDS | \$.00 | \$101,005.00 | \$.00 | \$.00 | \$.00 |
| 405b High Community CPS Services Total | | | | \$.00 | \$101,005.00 | \$.00 | \$.00 | \$.00 |
| MAP 21 405b OP High Total | | | | \$17,450.00 | \$299,892.00 | \$.00 | \$98,887.00 | \$.00 |
| MAP 21 405b OP Low | | | | | | | | |
| | 65 | M2X-2018-13-01-00 | NC STATE UNIVERSITY-SEAT BELT SURVEYS | \$.00 | \$150,563.00 | \$.00 | \$.00 | \$29,714.00 |
| 405b OP Low Total | | | | \$.00 | \$150,563.00 | \$.00 | \$.00 | \$29,714.00 |
| MAP 21 405b OP Low Total | | | | \$.00 | \$150,563.00 | \$.00 | \$.00 | \$29,714.00 |
| MAP 21 405c Data Program | | | | | | | | |
| | 66 | M3DA-2018-14-01-00 | NC STATE UNIVERSITY-VISION ZERO | \$.00 | \$476,951.00 | \$.00 | \$.00 | \$79,492.00 |
| | 67 | M3DA-2018-14-02-00 | NC JUDICIAL-eCITATION | \$.00 | \$312,822.00 | \$.00 | \$.00 | \$.00 |
| | 68 | M3DA-2018-14-03-00 | UNC HSRC-CRASH REPORT LINKAGE | \$.00 | \$252,860.00 | \$.00 | \$.00 | \$22,987.00 |
| | 69 | M3DA-2018-14-04-00 | ELIZABETH CITY POLICE DEPT | \$15,000.00 | \$15,000.00 | \$.00 | \$15,000.00 | \$.00 |
| 405c Data Program Total | | | | \$15,000.00 | \$1,057,633.00 | \$.00 | \$15,000.00 | \$102,479.00 |
| MAP 21 405c Data Program Total | | | | \$15,000.00 | \$1,057,633.00 | \$.00 | \$15,000.00 | \$102,479.00 |

Cost Summary

| Program Area | Line | Project | Description | State | Current Fiscal Year Funds | Carry Forward Funds | Share to Local | Indirect costs |
|----------------------------------|------|---------------------|---|-------|---------------------------|---------------------|----------------|----------------|
| MAP 21 405d Impaired Driving Mid | | | | | | | | |
| | 78 | M5HVE-2018-15-01-00 | NC DEPT OF PUBLIC SAFETY-DWI OT | \$ | 150,000.00 | \$ | \$ | \$ |
| | 79 | M5HVE-2018-15-02-00 | NC DEPT OF PUBLIC SAFETY-CUMBERLAND | \$ | 486,161.00 | \$ | \$ | \$ |
| | 80 | M5HVE-2018-15-03-00 | NC DEPT OF PUBLIC SAFETY-ROBESON | \$ | 486,161.00 | \$ | \$ | \$ |
| | 81 | M5HVE-2018-15-04-00 | CITY OF RALEIGH | \$ | 295,474.00 | \$ | \$ | \$ |
| | 82 | M5HVE-2018-15-05-00 | CITY OF ASHEVILLE-DWI TASK FORCE | \$ | 301,748.00 | \$ | \$ | \$ |
| | 83 | M5HVE-2018-15-06-00 | CITY OF WINSTON-SALEM DWI TASK FORCE | \$ | 396,462.00 | \$ | \$ | \$ |
| | 84 | M5HVE-2018-15-07-00 | GUILFORD COUNTY SHERIFF'S OFFICE-DWI TF | \$ | 342,221.00 | \$ | \$ | \$ |
| | 85 | M5HVE-2018-15-08-00 | TOWN OF KERNERSVILLE | \$ | 22,560.00 | \$ | \$ | \$ |
| | 86 | M5HVE-2018-15-09-00 | UNION COUNTY-DWI TASK FORCE | \$ | 137,285.00 | \$ | \$ | \$ |
| | 87 | M5HVE-2018-15-10-00 | WAYNE COUNTY | \$ | 60,105.00 | \$ | \$ | \$ |
| | 88 | M5HVE-2018-15-11-00 | TOWN OF HUNTERSVILLE | \$ | 17,451.00 | \$ | \$ | \$ |
| | 89 | M5HVE-2018-15-12-00 | TOWN OF FUQUAY VARINA | \$ | 8,634.00 | \$ | \$ | \$ |
| | 90 | M5HVE-2018-15-13-00 | TOWN OF LILLINGTON | \$ | 8,112.00 | \$ | \$ | \$ |
| | 91 | M5HVE-2018-15-14-00 | HARNETT COUNTY SHERIFF'S OFFICE | \$ | 9,247.00 | \$ | \$ | \$ |
| | 92 | M5HVE-2018-15-15-00 | CITY OF BESSEMER | \$ | 9,050.00 | \$ | \$ | \$ |
| | 93 | M5HVE-2018-15-16-00 | CITY OF REIDSVILLE | \$ | 7,861.00 | \$ | \$ | \$ |
| | 94 | M5HVE-2018-15-17-00 | GRAHAM POLICE DEPARTMENT | \$ | 9,787.00 | \$ | \$ | \$ |
| 405d Mid HVE Total | | | | \$ | 1,625,997.00 | \$ | \$ | \$ |
| 405d Mid Court Support | | | | | | | | |
| | 73 | M5CS-2018-15-01-00 | NC JUDICIAL-CONFERENCE OF DA'S | \$ | 933,434.00 | \$ | \$ | \$ |
| | 74 | M5CS-2018-15-02-00 | NC JUDICIAL-BUNCOMBE COUNTY SOB. COURT | \$ | 54,219.00 | \$ | \$ | \$ |
| | 76 | M5CS-2018-15-03-00 | CUMBERLAND COUNTY SOBRIETY COURT | \$ | 91,095.00 | \$ | \$ | \$ |
| | 77 | M5CS-2018-15-04-00 | BUNCOMBE COUNTY-BUNCOMBE CO. SOB. COURT | \$ | 124,549.00 | \$ | \$ | \$ |

Cost Summary

| Program Area | Line | Project | Description | State | Current Fiscal Year Funds | Carry Forward Funds | Share to Local | Indirect costs |
|--|------|---------------------|-----------------------------------|--------------|---------------------------|---------------------|----------------|----------------|
| 405d Mid Court Support Total | | | | | \$0.00 | \$1,203,297.00 | \$0.00 | \$0.00 |
| 405d Mid BAC Testing/Reporting | | | | | | | | |
| | 70 | M5BAC-2018-15-01-00 | NC DEPT OF HEALTH-BAT PROGRAM | \$0.00 | \$864,586.00 | \$0.00 | \$0.00 | \$0.00 |
| | 71 | M5BAC-2018-15-04-00 | CITY OF WILMINGTON BLOOD LAB | \$43,664.00 | \$134,686.00 | \$0.00 | \$134,686.00 | \$0.00 |
| | 72 | M5BAC-2018-15-05-00 | CCBI-WAKE | \$114,068.00 | \$114,069.00 | \$0.00 | \$114,069.00 | \$0.00 |
| | 75 | M5BAC-2018-15-03-00 | PITT COUNTY-DWI BLOOD LAB | \$57,718.00 | \$57,718.00 | \$0.00 | \$57,718.00 | \$0.00 |
| 405d Mid BAC Testing/Reporting Total | | | | | \$215,450.00 | \$1,171,059.00 | \$0.00 | \$306,473.00 |
| 405d Mid Paid/Earned Media | | | | | | | | |
| | 95 | M5PEM-2018-15-01-00 | GHSP IN-HOUSE AL MEDIA BUYS | \$0.00 | \$500,000.00 | \$0.00 | \$0.00 | \$0.00 |
| | 96 | M5PEM-2018-15-02-00 | GHSP IN-HOUSE AL SPORTS MARKETING | \$0.00 | \$400,000.00 | \$0.00 | \$0.00 | \$0.00 |
| 405d Mid Paid/Earned Media Total | | | | | \$0.00 | \$900,000.00 | \$0.00 | \$0.00 |
| 405d Mid Training | | | | | | | | |
| | 97 | M5TR-2018-15-01-00 | NC DEPT OF HEALTH-DRE PROGRAM | \$0.00 | \$374,560.00 | \$0.00 | \$0.00 | \$0.00 |
| | 98 | M5TR-2018-15-02-00 | NC DEPT OF HEALTH-SFST PROGRAM | \$0.00 | \$131,073.00 | \$0.00 | \$0.00 | \$0.00 |
| 405d Mid Training Total | | | | | \$0.00 | \$505,633.00 | \$0.00 | \$0.00 |
| 405d Impaired Driving Mid | | | | | | | | |
| | 99 | M5X-2018-15-01-00 | GHSP IN-HOUSE DWI-SUMMIT | \$0.00 | \$40,000.00 | \$0.00 | \$0.00 | \$0.00 |
| | 100 | M5X-2018-15-02-00 | MADD NORTH CAROLINA | \$0.00 | \$216,415.00 | \$0.00 | \$0.00 | \$0.00 |
| | 101 | M5X-2018-15-03-00 | NC DEPT OF JUSTICE TOXICOLOGY | \$0.00 | \$479,498.00 | \$0.00 | \$0.00 | \$0.00 |
| 405d Impaired Driving Mid Total | | | | | \$0.00 | \$735,913.00 | \$0.00 | \$0.00 |
| MAP 21 405d Impaired Driving Mid Total | | | | | \$1,841,447.00 | \$7,034,435.00 | \$0.00 | \$1,702,684.00 |
| MAP 21 405f Motorcycle Programs | | | | | | | | |
| | 102 | M9MT-2018-16-01-00 | CITY OF HENDERSONVILLE BIKESAFE | \$0.00 | \$5,000.00 | \$0.00 | \$0.00 | \$0.00 |
| | 103 | M9MT-2018-16-02-00 | CITY OF NEW BERN BIKESAFE | \$0.00 | \$5,000.00 | \$0.00 | \$0.00 | \$0.00 |
| | 104 | M9MT-2018-16-03-00 | CITY OF RALEIGH BIKESAFE | \$0.00 | \$5,000.00 | \$0.00 | \$0.00 | \$0.00 |

Cost Summary

| Program Area | Line | Project | Description | State | Current Fiscal Year Funds | Carry Forward Funds | Share to Local | Indirect costs |
|----------------------------|---------------------------------------|--------------------|--|--------------|---------------------------|---------------------|----------------|----------------|
| | 105 | M9MT-2018-16-05-00 | NC DEPT OF PUBLIC SAFETY- BIKESAFE | \$.00 | \$20,000.00 | \$.00 | \$.00 | \$.00 |
| | 106 | M9MT-2018-16-06-00 | CITY OF JACKSONVILLE BIKESAFE | \$.00 | \$5,000.00 | \$.00 | \$.00 | \$.00 |
| | 107 | M9MT-2018-16-08-00 | ORANGE COUNTY BIKESAFE | \$4,875.00 | \$14,625.00 | \$.00 | \$14,625.00 | \$.00 |
| 405f Motorcyclist Training | Total | | | \$4,875.00 | \$54,625.00 | \$.00 | \$14,625.00 | \$.00 |
| | MAP 21 405f Motorcycle Programs Total | | | \$4,875.00 | \$54,625.00 | \$.00 | \$14,625.00 | \$.00 |
| FAST Act NHTSA 402 | | | | | | | | |
| | 113 | AL-2018-00-00-00 | GHSP IN-HOUSE-IMPAIRED DRIVING FUTURE PR | \$.00 | \$7,000,000.00 | \$.00 | \$5,000,000.00 | \$.00 |
| | 118 | AL-2018-02-03-00 | UNC HSRC-DWI REPEAT OFFENDER | \$.00 | \$137,179.00 | \$.00 | \$.00 | \$12,471.00 |
| Alcohol Total | | | | \$.00 | \$7,137,179.00 | \$.00 | \$5,000,000.00 | \$12,471.00 |
| Police Traffic Services | | | | | | | | |
| | 42 | PT-2018-06-15-00 | CITY OF LUMBERTON | \$57,894.00 | \$57,894.00 | \$.00 | \$57,894.00 | \$.00 |
| | 43 | PT-2018-06-16-00 | NC DEPT OF JUSTICE- TRAINING | \$.00 | \$210,780.00 | \$.00 | \$.00 | \$.00 |
| | 44 | PT-2018-06-18-00 | NC SHERIFF'S ASSOCIATION | \$.00 | \$64,964.00 | \$.00 | \$.00 | \$.00 |
| | 45 | PT-2018-06-19-00 | CITY OF BESSEMER | \$9,050.00 | \$51,282.00 | \$.00 | \$.00 | \$.00 |
| | 46 | PT-2018-06-20-00 | TOWN OF LILLINGTON | \$8,112.00 | \$45,973.00 | \$.00 | \$45,973.00 | \$.00 |
| | 47 | PT-2018-06-21-00 | HARNETT COUNTY SHERIFF'S OFFICE | \$9,248.00 | \$52,403.00 | \$.00 | \$52,403.00 | \$.00 |
| | 48 | PT-2018-06-22-00 | WAKE FOREST POLICE DEPT | \$17,567.00 | \$99,544.00 | \$.00 | \$99,544.00 | \$.00 |
| | 49 | PT-2018-06-23-00 | GRAHAM POLICE DEPARTMENT | \$9,787.00 | \$55,461.00 | \$.00 | \$55,461.00 | \$.00 |
| | 50 | PT-2018-06-13-00 | NC JUDICIAL-CONFERENCE OF DA'S | \$.00 | \$208,000.00 | \$.00 | \$.00 | \$.00 |
| | 110 | PT-2018-06-01-00 | GHSP IN-HOUSE-STEP | \$.00 | \$2,500,000.00 | \$.00 | \$2,500,000.00 | \$.00 |
| Police Traffic Services | Total | | | \$111,658.00 | \$3,346,301.00 | \$.00 | \$2,811,275.00 | \$.00 |
| Safe Communities | | | | | | | | |
| | 34 | SA-2018-09-01-00 | GHSP IN-HOUSE-PROGRAMS AND SUPPORT | \$.00 | \$798,000.00 | \$.00 | \$.00 | \$.00 |
| | 35 | SA-2018-09-02-00 | GHSP IN-HOUSE-EVENTS AND MEDIA | \$.00 | \$504,400.00 | \$.00 | \$.00 | \$.00 |
| | 36 | SA-2018-09-03-00 | UNC HSRC-HIGHWAY SAFETY PLAN | \$.00 | \$101,713.00 | \$.00 | \$.00 | \$9,247.00 |
| | 37 | SA-2018-09-04-00 | UNC HSRC-SR DRIVER | \$.00 | \$83,995.00 | \$.00 | \$.00 | \$7,636.00 |

Cost Summary

| Program Area | Line | Project | Description | State | Current Fiscal Year Funds | Carry Forward Funds | Share to Local | Indirect costs |
|---------------------------------------|------|---------------------|---|--------------|---------------------------|---------------------|----------------|----------------|
| | 38 | SA-2018-09-05-00 | UNC HSRC-STEP SYSTEM PROGRAM | \$.00 | \$10,055.00 | \$.00 | \$.00 | \$914.00 |
| | 39 | SA-2018-09-06-00 | NC STATE UNIVERSITY-SR DRIVER | \$.00 | \$120,909.00 | \$.00 | \$.00 | \$18,818.00 |
| | 40 | SA-2018-09-07-00 | UNC HSRC-SAFE SYSTEMS SUMMIT | \$.00 | \$135,172.00 | \$.00 | \$.00 | \$12,288.00 |
| | 41 | SA-2018-09-08-00 | PITT MEMORIAL- TEEN SAFETY | \$.00 | \$58,222.00 | \$.00 | \$.00 | \$.00 |
| | 111 | SA-2018-09-09-00 | NC STATE UNIVERSITY- VISION ZERO-CONFEREN | \$.00 | \$652,808.00 | \$.00 | \$.00 | \$108,801.00 |
| | 112 | SA-2018-09-10-00 | UNC HSRC-SAFE SYSTEMS TOOLKIT | \$.00 | \$123,347.00 | \$.00 | \$.00 | \$11,213.00 |
| Safe Communities Total | | | | \$.00 | \$2,588,621.00 | \$.00 | \$.00 | \$168,917.00 |
| Occupant Protection | | | | | | | | |
| | 108 | OP-2018-04-04-00 | VIP FOR VIP | \$.00 | \$15,200.00 | \$.00 | \$15,200.00 | \$.00 |
| Occupant Protection Total | | | | \$.00 | \$15,200.00 | \$.00 | \$15,200.00 | \$.00 |
| FAST Act NHTSA 402 Total | | | | \$111,658.00 | \$13,087,301.00 | \$.00 | \$7,826,475.00 | \$181,388.00 |
| FAST Act 405b OP High | | | | | | | | |
| | 114 | M1X-2018-00-00-00 | GHSP IN-HOUSE-OP FUTURE PROJECTS | \$.00 | \$700,000.00 | \$.00 | \$.00 | \$.00 |
| 405b OP High Total | | | | \$.00 | \$700,000.00 | \$.00 | \$.00 | \$.00 |
| FAST Act 405b OP High Total | | | | \$.00 | \$700,000.00 | \$.00 | \$.00 | \$.00 |
| FAST Act 405b OP Low | | | | | | | | |
| | 55 | M2PE-2018-13-01-00 | GHSP IN-HOUSE OP MEDIA BUYS | \$.00 | \$500,000.00 | \$.00 | \$.00 | \$.00 |
| 405b Low Public Education Total | | | | \$.00 | \$500,000.00 | \$.00 | \$.00 | \$.00 |
| 405b Low Community CPS Services | | | | | | | | |
| | 54 | M2CPS-2018-13-01-00 | NC DEPT OF INSURANCE | \$376,900.00 | \$376,900.00 | \$.00 | \$.00 | \$.00 |
| 405b Low Community CPS Services Total | | | | \$376,900.00 | \$376,900.00 | \$.00 | \$.00 | \$.00 |
| FAST Act 405b OP Low Total | | | | \$376,900.00 | \$876,900.00 | \$.00 | \$.00 | \$.00 |
| FAST Act 405c Data Program | | | | | | | | |
| | 115 | M3DA-2018-00-00-00 | GHSP IN-HOUSE-TR FUTURE PROJECTS | \$.00 | \$1,100,000.00 | \$.00 | \$.00 | \$.00 |
| 405c Data Program Total | | | | \$.00 | \$1,100,000.00 | \$.00 | \$.00 | \$.00 |
| FAST Act 405c Data Program Total | | | | \$.00 | \$1,100,000.00 | \$.00 | \$.00 | \$.00 |

Cost Summary

| Program Area | Line | Project | Description | State | Current Fiscal Year Funds | Carry Forward Funds | Share to Local | Indirect costs |
|--|------|---------------------|--|--------------|---------------------------|---------------------|----------------|----------------|
| FAST Act 405d Impaired Driving Mid | 57 | M5HVE-2018-15-18-00 | CHARLOTTE-MECK POLICE DEPARTMENT | \$562,438.00 | \$187,479.00 | \$0.00 | \$187,479.00 | \$0.00 |
| 405d Mid HVE Total | | | | \$562,438.00 | \$187,479.00 | \$0.00 | \$187,479.00 | \$0.00 |
| 405d Mid BAC Testing/Reporting | 56 | M5BAC-2018-15-02-00 | NC DEPT OF HEALTH-SCIENCE PROGRAM | \$0.00 | \$2,364,768.00 | \$0.00 | \$0.00 | \$0.00 |
| 405d Mid BAC Testing/Reporting Total | | | | \$0.00 | \$2,364,768.00 | \$0.00 | \$0.00 | \$0.00 |
| 405d Impaired Driving Mid | 116 | M5X-2018-00-00-00 | GHSP IN-HOUSE-IMPAIRED DRIVING FUTURE PR | \$0.00 | \$3,500,000.00 | \$0.00 | \$0.00 | \$0.00 |
| 405d Impaired Driving Mid Total | | | | \$0.00 | \$3,500,000.00 | \$0.00 | \$0.00 | \$0.00 |
| FAST Act 405d Impaired Driving Mid Total | | | | \$562,438.00 | \$6,052,247.00 | \$0.00 | \$187,479.00 | \$0.00 |
| FAST Act 405f Motorcycle Programs | 58 | M9MT-2018-16-04-00 | LENOIR COMMUNITY COLLEGE-QUALITY ASSURAN | \$0.00 | \$60,000.00 | \$0.00 | \$0.00 | \$0.00 |
| | 59 | M9MT-2018-16-07-00 | GUILFORD COUNTY SHERIFF'S OFFICE-BIKESAF | \$0.00 | \$5,000.00 | \$0.00 | \$5,000.00 | \$0.00 |
| | 60 | M9MT-2018-16-09-00 | TOWN OF APEX | \$5,125.00 | \$15,375.00 | \$0.00 | \$15,375.00 | \$0.00 |
| | 61 | M9MT-2018-16-10-00 | TOWN OF FLETCHER | \$4,875.00 | \$14,625.00 | \$0.00 | \$14,625.00 | \$0.00 |
| 405f Motorcyclist Training Total | | | | \$10,000.00 | \$95,000.00 | \$0.00 | \$35,000.00 | \$0.00 |
| 405f Motorcycle Programs | 117 | M9X-2018-00-00-00 | GHSP IN-HOUSE-MOTORCYCLE FUTURE PROJECTS | \$0.00 | \$120,000.00 | \$0.00 | \$0.00 | \$0.00 |
| 405f Motorcycle Programs Total | | | | \$0.00 | \$120,000.00 | \$0.00 | \$0.00 | \$0.00 |
| FAST Act 405f Motorcycle Programs Total | | | | \$10,000.00 | \$215,000.00 | \$0.00 | \$35,000.00 | \$0.00 |
| FAST Act 405h Nonmotorized Safety | 51 | FHX-2018-12-01-00 | OUTER BANKS BICYCLE PEDESTRAIN | \$0.00 | \$41,950.00 | \$0.00 | \$0.00 | \$0.00 |
| | 52 | FHX-2018-12-02-00 | GHSP IN-HOUSE PED SAFETY MEDIA BUYS | \$0.00 | \$150,000.00 | \$0.00 | \$0.00 | \$0.00 |
| | 53 | FHX-2018-12-03-00 | NC DEPT OF TRANSPORTATION BIKE & PED | \$0.00 | \$165,000.00 | \$0.00 | \$0.00 | \$33,000.00 |
| 405h Nonmotorized Safety Total | | | | \$0.00 | \$356,950.00 | \$0.00 | \$0.00 | \$33,000.00 |
| FAST Act 405h Nonmotorized Safety Total | | | | \$0.00 | \$356,950.00 | \$0.00 | \$0.00 | \$33,000.00 |

Cost Summary

| Program Area | Line | Project | Description | State | Current Fiscal Year Funds | Carry Forward Funds | Share to Local | Indirect costs | |
|--------------|------|---------|-------------|-------|---------------------------|---------------------|----------------|-----------------|--------------|
| | | | NHTSA Total | | \$3,585,308.00 | \$33,475,144.00 | \$.00 | \$10,587,464.00 | \$395,864.00 |
| | | | Total | | \$3,585,308.00 | \$33,475,144.00 | \$.00 | \$10,587,464.00 | \$395,864.00 |

