ANNUAL OPERATIONS REPORT
JULY 1, 2017 - JUNE 30, 2018
Since 1965, the UNC Highway Safety Research Center has helped shape the field of transportation safety as a leading research institution. The mission of HSRC is to improve the safety, sustainability and efficiency of all surface transportation modes through a balanced, interdisciplinary program of research, evaluation and information dissemination. We conduct our everyday work with that ideal at the forefront, and in fiscal year 2018 (July 1, 2017 to June 30, 2018), we continued to grow experience and build expertise in conducting cutting-edge transportation safety research, program analysis and implementation.

This operations report provides a summary of FY2018 HSRC activities in the following areas: financials, researchers and staff, publications and presentations, and graphic and website design projects.

**HSRC DIVERSITY STATEMENT**

The UNC Highway Safety Research Center affirms the University’s core values regarding diversity, inclusion and multiculturalism. The HSRC is committed, through its policies, practices, programs and services, to creating and fostering an environment of inclusion, equity, non-discrimination and pluralism, grounded in respect and appreciation for all, and promoting and celebrating individual and collective achievement.
HSRC is a part of the University of North Carolina system, located on the UNC-Chapel Hill campus. Our work is funded through a combination of state and federal-level projects, and corporate- and foundation-sponsored projects.

For each dollar appropriated to HSRC by the state of North Carolina in FY2018, HSRC staff generated $16.13 in research and program funding. External revenues to support the mission of HSRC were received from contracts, grants, cooperative agreements and donations.

**U.S. AND INTERNATIONAL GOVERNMENT SPONSORS**

- American Association of State Highway and Transportation Officials
- British Columbia Ministry of Transportation
- California Department of Transportation
- Florida Department of Transportation
- Kansas Bureau of Traffic Safety
- Kansas Turnpike Authority
- Land Transport New Zealand/The Beca Group
- National Institutes of Health
  - National Institute of Child Health and Human Development
  - National Institute on Alcohol Abuse and Alcoholism
- New York City Department of Transportation
- North Carolina Department of Health and Human Services
- North Carolina Department of Transportation
- North Carolina Governor’s Highway Safety Program
- Traffic Injury Research Foundation of Canada
- Transportation Research Board of The National Academies
  - National Cooperative Highway Research Program
- University of North Carolina at Chapel Hill
- U.S. Centers for Disease Control and Prevention
- U.S. Department of Transportation
  - Federal Highway Administration
  - National Highway Traffic Safety Administration
  - Office of the Assistant Secretary for Research and Technology
  - Research and Innovative Technology Administration
- U.S. Environmental Protection Agency
- Volpe National Transportation Systems Center
- Wisconsin Department of Transportation

**CORPORATE AND FOUNDATION SPONSORS**

- AAA Foundation for Traffic Safety
- AAA Kansas
- FedEx Corporation
- FIA Foundation
- General Motors
- Insurance Institute for Highway Safety
- John Rex Endowment
- Motorcycle Safety Foundation
- National Safety Council
- Robert Wood Johnson Foundation
- Safe Kids Worldwide
- Schwinn
- Society for the Advancement of Violence and Injury Research
- State Farm Insurance Company
**RESEARCHERS AND STAFF**

HSRC has a dynamic team of researchers and staff with extensive expertise in a broad range of disciplines. It is through their creativity, passion, energy and expertise that HSRC has been able to achieve many successes in 2018. This list includes current, former and retired staff who were employed by HSRC during FY2018 (July 1, 2017, to June 30, 2018).

### BUSINESS SERVICES

- **Neil Batson**  
  *Business Officer*

- **Courtney Blake**  
  *Administrative Support Specialist*

- **Matthew Glassman**  
  *Technical Support Analyst  
  10 years of NC service*

- **Daniel Harper**  
  *Contract Specialist*

- **Dianne Harrington**  
  *Business Manager*

- **Ann Hume**  
  *Accounting Technician*

- **Jean Justice**  
  *Administrative Support  
  Retired October 2017*

- **Linette Tyson**  
  *Contract Specialist*

### RESEARCH PROGRAMS

- **Kristin Blank, M.L.A.**  
  *Pedestrian and Bicyclist Projects  
  Communications Manager*

- **Kristen Brookshire, M.C.R.P.**  
  *Research Associate*

- **Daniel Carter, M.S.C.E., P.E.**  
  *Senior Engineering Research Associate  
  Served as HSRC Interim Director (Jan. 1-Dec. 2, 2018)***

- **Michael Clamann, Ph.D.**  
  *Senior Human Factors Engineer*

- **Forrest Council, Ph.D.**  
  *Senior Research Scientist  
  Retired July 2017*

- **Rob Foss, Ph.D.**  
  *Senior Research Scientist and Director, Center for the Study of Young Drivers*

- **Dan Gelinne**  
  *Research Associate*

- **Christine Gomola Mullin, M.S.**  
  *Embedded Research Librarian*

- **Arthur Goodwin, M.A.**  
  *Senior Research Associate and Associate Director for Behavioral Sciences Research*

- **Bill Hall, M.A.**  
  *Manager, Occupant Protection Program  
  Retired December 2017*

- **David Harkey, Ph.D., P.E.**  
  *Director  
  Retired December 2017*

- **Stephanie Harrell, M.A.**  
  *Social/Clinical Research Assistant*

- **Stephen Heiny, M.C.R.P.**  
  *Junior Research Associate*

- **Bevan Kirley, M.S.**  
  *Senior Research Associate*

- **Wesley Kumfer, Ph.D.**  
  *Engineering Research Associate*

- **Bo Lan, Ph.D.**  
  *Research Associate  
  5 years of NC service*

- **Nancy Lefler, M.C.R.P.**  
  *Senior Research Associate and Program Manager*

- **Daniel Levitt**  
  *Research Associate*

- **Richard Lytle**  
  *Web Applications Programmer  
  25 years of NC service*

- **Lauren Marchetti**  
  *Senior Strategic Adviser*

- **Marie Melendez**  
  *Communications Specialist*
RESEARCH PROGRAMS (CONT.)

Caroline Mozingo
Senior Manager of Communications, Education and Outreach and Associate Director, Research Services
Served as HSRC Interim Deputy Director (Jan. 1-Dec. 2, 2018)**

Kristel Robison, M.S.W.
Research Associate

Eric Rodgman, M.P.H.
Senior Database Analyst

Graham Russell
Graphic Designer

Taha Saleem, Ph.D.
Postdoctoral Research Associate

Laura Sandt, Ph.D., M.R.P.
Senior Research Associate and Associate Director, Vulnerable Road User Group

Libby Thomas, M.S.
Senior Research Associate

Yudan Wang, Ph.D.
Senior Research Associate
5 years of NC service

Jonathon Weisenfeld
Design Services Manager

Carolyn Williams, M.B.A
Senior Applications Specialist

Charles Zegeer, M.S.C.E., P.E.
Senior Technical Adviser

* All years of service at HSRC

** The University of North Carolina
UNC at Chapel Hill conducted a national search for the new director of HSRC during FY2018. Interim leadership roles were filled by internal staff, and other various responsibilities were successfully met with the help and support of all current HSRC staff.

ADVISORY BOARD

The HSRC Advisory Board serves to assist in the identification of strategies and program direction for the Center. The board meets once a year to review HSRC’s strategic plan, review progress and discuss future direction.

Dr. Herb Garrison — Chair
Professor of Emergency Medicine, East Carolina University

Dr. Kelly R. Evenson
Research Professor, Department of Epidemiology, UNC-Chapel Hill

Dr. Richard F. Pain
Transportation Research Board (retired)

Dr. Alice Ammerman
Director, Center for Health Promotion and Disease Prevention, UNC-Chapel Hill

Dr. Stephen Marshall
Director, Injury Prevention Research Center, UNC-Chapel Hill

Mr. John F. Sullivan III
North Carolina Division Administrator, Federal Highway Administration

Mr. Alan Dellapenna
North Carolina Department of Health and Human Services, Injury and Violence Prevention Branch

Colonel Glenn M. McNeill
Commander, North Carolina State Highway Patrol
STAFF MILESTONES

Matthew Glassman
Matthew Glassman has worked for UNC for 10 years. He is responsible for day-to-day upkeep of end user computing and troubleshooting, as well as researching newer technologies. In FY2018, Matthew officially joined the Office of Research Information Systems team and now helps provide quality IT/IS support to research offices, including HSRC, involved in all aspects of the research enterprise at Carolina.

Bo Lan
Bo Lan has been a research associate at HSRC for five years. Bo’s research interests are mainly on the application of the state-of-the-art statistical methods in road safety studies including the use of empirical Bayesian, full Bayesian and tree-based methods.

Richard Lytle
Richard Lytle has worked for UNC for 25 years. With an extensive background in programming, Richard serves as a web applications programmer for the Center. In his role, he creates and maintains various web applications and works in the development and maintenance of HSRC’s many databases.

Natalie O’Brien
Natalie O’Brien joined UNC 10 years ago. Her research focuses primarily on examining factors that contribute to the high crash rates among teen drivers and identifying effective policies and programs to reduce travel-related deaths and injuries.

Three HSRC researchers awarded top NC civilian honors
The Governor of North Carolina awarded three of the state’s highest civilian honors to HSRC researchers in December 2017. Bill Hall and Rob Foss were inducted into the Order of the Long Leaf Pine, and HSRC Director David Harkey received the Old North State Award. These prestigious honors were bestowed by NC Governor’s Highway Safety Program Director Mark Ezzell on behalf of Governor Roy Cooper during a retirement celebration in Chapel Hill.

Raghavan Srinivasan
Raghavan “Srini” Srinivasan, a senior transportation research engineer, has been with HSRC for 15 years. His areas of research include traffic engineering and safety, human factors and the application of statistics and econometric methods.

Yudan Wang
Yudan Wang has worked in the UNC system for five years, joining HSRC as a senior research associate in 2016. She has worked on policy and program evaluation projects using multiple administrative data sources, field data and census data.
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Journal/Publication Details</th>
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<tbody>
<tr>
<td>Carter, D.</td>
<td>Wrong way driving in North Carolina. Presented at the NCDOT Safety and Operations Roundtable Meeting, Raleigh, NC.</td>
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<tr>
<td>Carter, D.</td>
<td>Resources for road safety professionals. Presented at the Annual Meeting of the North Carolina Section of the Institute for Transportation Engineers, Raleigh, NC.</td>
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<tr>
<td>Carter, D.</td>
<td>Identifying vertical curves using SHRP2 RID data. Remotely presented to the SHRP2 Safety Data Oversight Committee, Washington, DC.</td>
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<tr>
<td>Clamann, M.</td>
<td>Sharing the road with robots: Considerations for incorporating automated vehicle technology into a safe roadway system. Presented at the CSCRS Coffee &amp; Conversation: A safe systems exploration of transportation, UNC Chapel Hill, NC.</td>
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<tr>
<td>Combs, T., Sandt, L., McDonald, N., &amp; Clamann, M.</td>
<td>Limitations in detection technologies for automated driving systems and implications for pedestrian safety. Presented at the 97th Annual Meeting of the Transportation Research Board, Washington, DC.</td>
<td></td>
</tr>
<tr>
<td>Foss, R.</td>
<td>Reducing teen driver crashes with an effective driver licensing system. Testimony to Ohio House of Representatives, Committee on Transportation and Public Safety, Columbus, OH.</td>
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<tr>
<td>Foss, R.</td>
<td>Windfall! Gains in teen driver safety remain readily available to most states. Western Pacific Injury Prevention Network Webinar.</td>
<td></td>
</tr>
<tr>
<td>Goodwin, A.</td>
<td>Enforcement with teenage drivers. Presentation at the NC Traffic Safety Conference and Expo, Wilmington, NC.</td>
<td></td>
</tr>
<tr>
<td>Goodwin, A.</td>
<td>Everything you wanted to know about distracted driving. Presentation at the NC Traffic Safety Conference and Expo, Wilmington, NC.</td>
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</tbody>
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LaJeunesse, S. (2017, August). Vision Zero: What is it, where did it come from, and how might it work in Chapel Hill? Presented at the Chapel Hill Transportation and Connectivity Advisory Board Meeting, Chapel Hill, NC.


LaJeanesse, S. (2017, October). Vision Zero and Safe Systems Part II: Cultural approaches toward improving road user safety. Invited lecture for the UNC Department of City and Regional Planning PLAN 636 course, Chapel Hill, NC.


LaJeunesse, S. (2018, February). Complete Streets as Safe Systems. Invited lecture for the UNC Department of City and Regional Planning PLAN 590 course, Chapel Hill, NC.


Wang, Y. (2018). 180-second session: Current HSRC projects on GDL and young drivers. Presented at the TRB Young Driver Committee Mid-Year meeting.


DESIGN SERVICES

HSRC’s experienced Design Services and communications teams work closely with researchers to envision, create and support many program and project needs by building web interfaces, creating program collateral, formatting reports, and managing other multimedia projects.

RECENT PROJECTS INCLUDE:

- Creating promotional fliers, conference posters, display booths and event signage
- Conducting webinar editing and processing for video projects
- Designing research project reports and whitepapers, including infographics and illustrations
- Developing and managing multimedia websites and web tools
- Envisioning and updating logos and brand identities
- Managing and building dynamic, customized databases and database-driven web tools
- Programming and designing digital newsletters, email blasts and user-generated certificates

Car Seats: Am I using the right one?

- BEAR-FACING
- FACING-FACING
- BOOSTER SEAT
- SEAT-BELT

Walking and Biking in an Automated Future

GOVERNOR’S HIGHWAY SAFETY PROGRAM
DIRECTOR MARK EZZELL
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
STATE OF NORTH CAROLINA
FY2017 Annual Report

North Carolina Governor’s Highway Safety Program FY2017 Annual Report

NORTH CAROLINA Governor’s Highway Safety Program STRATEGIC PLAN

Walking and Biking in an Automated Future

Governor’s Highway Safety Program
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
STATE OF NORTH CAROLINA
FY2017 Annual Report
GRAPHIC/WEBSITE DESIGN AND SOCIAL MEDIA

HSRC maintains dozens of websites for various highway safety-related projects. In this section of the annual report, we highlight newly created websites or websites that have undergone major design changes in FY2018, as well as a selection of others that continue to be maintained by HSRC.

NEW AND UPDATED WEBSITES

PedBikeImages
pedbikeimages.org
An open access collection of pedestrian- and bicyclist-related images maintained by the Pedestrian and Bicycle Information Center.

Vision Zero for Youth
visionzeroforyouth.org
A website for Vision Zero for Youth, an organization working to accelerate getting to zero traffic deaths, starting with children.

HSRC Staff Create Road Safety Fundamentals Textbook

HSRC staff wrote and designed "Road Safety Fundamentals: Concepts, Strategies, and Practices that Reduce Fatalities and Injuries on the Road." This textbook is free and was designed to educate professionals in road safety and can be used in the classroom or on the job to better understand the basic principles, data and methods of managing road safety. The book was funded by the U.S. Department of Transportation’s Federal Highway Administration under the Highway Safety Information System contract.

To download this document visit: https://rspcb.safety.fhwa.dot.gov/rsf/
WEBSITES HSRC MAINTAINS

apsguide.org
A comprehensive source of information on Accessible Pedestrian Signals (APS), including recommended or required features, and how to design intersection corners to accommodate APS appropriately.

Bicycle Safer Journey
pedbikeinfo.org/bicyclesaferjourney
An online educational resource that introduces kids and teens to bicycle safety skills.

BIKESAFE Guide & Countermeasure Selection System
pedbikesafe.org/bikesafe
An online guide that provides practitioners with up-to-date information, such as engineering or enforcement treatments, for improving the safety and mobility of bicyclists.

BuckleUpNC.org
buckleupnc.org
A comprehensive website that provides information about North Carolina’s seat belt and child passenger safety laws, tips for choosing and using car seats, and a listing of locations where families can go for education and assistance with car seat installation.

Center for the Study of Young Drivers
csyd.unc.edu
A website that provides insight into why motor-vehicle crashes are the leading cause of death among teenagers and information on the research being conducted to investigate this issue.

Collaborative Sciences Center for Road Safety
roadsafety.unc.edu
The website for CSCRs. Contains information on the research, education and professional development activities of CSCRs, a National University Transportation Center supporting the FAST Act research priority of promoting safety.

@CSCRsinfo facebook.com/CSCRsinfo

Crash Modification Factors Clearinghouse
cmfclearinghouse.org
A searchable database of crash modification factors, helpful tools in evaluating road safety engineering countermeasures.

Highway Safety Information System
hsisinfo.org
A multi-state database that contains crash, roadway inventory and traffic volume data for a select group of states and urban centers.

Highway Safety Research Center
hsrc.unc.edu
HSRC’s own website where visitors can access information including updates about our work, publication lists, news updates, staff bios and contact information.

@HSRCinfo facebook.com/HSRCinfo

North Carolina Crash Data Query
nccrashdata.hsrc.unc.edu
A data analysis tool to create tables reflecting North Carolina crash, vehicle and driver/occupant information for crashes.
Pedestrian and Bicycle Information Center
pedbikeinfo.org
A clearinghouse for pedestrian and bicycle resources, with information about health and safety, engineering, advocacy, education, enforcement and access and mobility. Hosted first Twitter chat about Vision Zero.

@pedbikeinfo facebook.com/pedbikeinfo

Pedestrian Safer Journey
pedbikeinfo.org/pedsaferjourney
Curriculum for teaching pedestrian safety to children and teens, available in both English and Spanish.

PEDSAFE Guide and Countermeasure Selection System
pedbikesafe.org/pedsafe
An online guide intended to provide practitioners with the latest information including engineering, education or enforcement treatments, for improving the safety and mobility of pedestrians.

Road Safety Academy
rsa.unc.edu
The Road Safety Academy is the training and education arm of HSRC. Through this site, the RSA offers both in-person and web-based trainings that cover a broad range of road safety topics.

Safe Kids Orange County
safekidsorangenc.org
A website that provides the Orange County, North Carolina, community with information and resources to decrease injury, disability and death, and the costs to the community that are associated with injuries.

Safe Routes Wake County
saferouteswakecounty.org
A website created to support Safe Routes Wake County, an effort to improve safety and to encourage children to walk or bike to school.

Walk and Bike to School
walkbiketoschool.org
A website with information about National Walk and Bike to School events in the U.S., how to get involved and resources to help plan an event in your community.

facebook.com/walkbiketoschoolday

Walk Friendly Communities
walkfriendly.org
A website that recognizes communities that are working to improve a wide range of conditions related to walking including safety, mobility, access and comfort.

@walkfriendly

Watch for Me NC
watchformenc.org
A website about the Watch for Me NC education and enforcement campaign aimed to encourage safety among pedestrians, bicyclists and drivers.