A Word From Our Director
Dr. Eric D. Jackson

If there was a common theme for 2016 it would be GROWTH. This year, the CTSRC saw dramatic growth in funding, projects, staffing and data. The center kicked off two major grants with the Connecticut Department of Transportation (CT DOT). The first grant was to assist the CT DOT in updating their safety analysis system to align with the methods outlined in the Highway Safety Manual. This effort required expansion of the CTSRC to include six new staff members. Through the hiring of computer programmers, safety engineers, a statistician, and a geographic information system specialist, the CTSRC embarked on a new venture to create a Connecticut specific safety analysis system. The second major grant reauthorized the crash data repository and the safety data team for a five year period. This included the addition of an epidemiologist to the CTSRC staff to lead research initiatives with respect to driver and non-motorist risk taking activities. The goal is to have the resulting human factors research lead into the development of behavior modifications strategies to improve transportation safety.

Unfortunately, Connecticut also saw growth in some less than desirable areas. Most notably in the number of fatal crashes. In 2016, Connecticut reported over 300 fatalities which is the highest number of fatalities since 2010. Furthermore, 2016 also had well over 50 pedestrian fatalities, which is potentially more than any other year ever recorded in Connecticut (1997 was the worst year on record with 55 pedestrian fatalities). Statistics like these are growing in the wrong direction and we have made it our mission here at the CTSRC to reverse these trends and make all roadways safe for the traveling public.

As we look ahead to 2017, there is a great deal of optimism that the recent commitments and partnerships will continue to mature and new innovative programs being developed in Connecticut will have a positive and substantial impact on safety in our state.

Sincerely,

Eric D. Jackson, PhD
Director

“By 2021, we will see autonomous vehicles in operation across the country in ways that we [only] imagine today...my daughter, who will be 16 in 2021, won't have her driver's license. She will be using a service.”

- U.S. Secretary of Transportation Anthony Foxx, as quoted in The Verge.

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Commercial/Heavy Truck Training for the CT PR-1 (FMCSA)

This continuing training focuses on improving data collected by CT Police Officers in the course of investigating Commercial/Heavy Truck crashes throughout the state. The training consists of a classroom presentation designed to familiarize the officers with what information should be gathered and documented on the CT PR-1. The class also offers a “hands-on” portion, where the officers are able to interact with large vehicles and observe where to obtain the information needed to complete the CT PR-1. Participants who have successfully completed this training course have earned POSTC Continuing Education credits. UConn will develop technologies to assist officers in collecting timely, accurate, and complete data in the field.

PR-1 Support/Training:

The new MMUCC PR-1 was developed at the CTSRC under the direction of the CT DOT, with assistance of the Traffic Records Coordinating Committee (TRCC), and state and local law enforcement. During 2016, CTSRC Field Coordinators provided ongoing training to police officers in the understanding of this new MMUCC compliant form, with explanations of new data fields and why date elements requested are important to all data users. The CTSRC will continue to research any future support documents or software applications to maintain 100% electronic crash reporting and implement future changes to the report form as needed.

In 2016, the CTSRC’s Crash Data Liaisons Kevin Slater and Chuck Grasso provided training and support to agencies in 78 Connecticut towns! Mr. Grasso and Mr. Slater travel to local and municipal agencies around the state to assist them with issues such as:

- Understanding DOT final edit rules and warnings on the electronic PR-1,
- How to correctly report special case crashes and other data quality issues,
- Review of training and top ten MMUCC elements, and
- Ongoing software issues or limitations

![Crash Data Liaison Kevin Slater teaching an FMCSA course for Torrington Police Department](image)
Crash Dashboards

The Crash Dashboards, the newest feature of the CTCDR, were created to replace two data reports generated by CT DOT; The Connecticut Accident Summary Tables and the Accident Experience Summary Report. The dashboards are intended to provide the user with a multi-page summary report of crash data based on a few simple query selections. There are three separate dashboards, all with similar layouts and features, but each containing a different subset of crash data.

CAST Dashboards

The CAST Dashboards are comprised of 26 pages of interactive charts and graphs of crash data. The pages are organized to cover a range of crash data, including variables related to the crash, vehicle, driver.

2015-Present — The 2015-Present CAST Dashboard includes crash data from January 1, 2015 to present day, collected on the new Model Minimum Uniform Crash Criteria (MMUCC) revised PR-1 crash report form.

2010-2014 — The 2010-2014 CAST Dashboard includes crash data from these years whose variables have been formatted to fit the new MMUCC categories on the revised PR-1 crash report form. Unfortunately, not all of the new fields are applicable to crash data prior to 2015, simply because the data was not being collected. Because of this, some fields may be blank, such as Driver Distraction.

Census Dashboards

Census data is also available within the dashboards, under the 2010-2014 CAST Dashboard. Data source descriptions are listed on the first page. The census data is compiled from the state's 2014 daily vehicle miles traveled and road mileage, 2010-2014 crash data and 2010-2014 population data from the American community survey. The pages display population totals by age, gender and personal income for each Connecticut town. Also included are town crash totals by DVMT and Miles of Roadway. The last page provides a summary table of data from the previous pages.

Crash Emphasis Areas Dashboard: 2015 - Present

The Crash Emphasis Areas Dashboard provides a different way to select and filter the crash data than the CAST Dashboard. Users can select the specific emphasis area of interest and view the statistics of just those crashes of interest. Examples of emphasis areas include DUI Crashes, crashes involving motorcycles, and crashes occurring at intersections. This dashboard is smaller, containing only 15 pages of crash figures. Many of the pages contained in the original dashboards were removed because they duplicated some of the emphasis area selections.

For more information regarding the MMUCC classifications please read our CTCDR users guide located on the repository’s homepage. You can also visit the MMUCC website at mmucc.us.
Successfully linked data can help better determine risk factors for motor vehicle crash injuries, medical outcomes and costs, inform interventions, and help decrease the rates of injuries and deaths among people involved in motor vehicle crashes."

- Centers for Disease Control and Prevention on the need for data linkage

The CTSRC and the CT DOT are embarking on an effort to build the most comprehensive transportation safety data system in the country. Our goal is to obtain data from the state agencies that represent each of the areas of the NHTSA 6-pack: Crash, Driver, Vehicle, Roadway, Citation and Adjudication, and Injury Surveillance. This is one of the first steps in developing a long term strategic plan for the collection, storage and distribution of transportation safety statistics for the state of Connecticut.

**Advanced Tutorial Videos**

The Connecticut Crash Data Repository (CTCDR) is a web tool designed to provide access to select crash information collected by state and local police. This data repository enables users to query, analyze and print/export the data for research and informational purposes. The CTSRC is currently creating tutorial videos of the CTCDR to assist the user in navigating the Data Query Tool, as well as Crash Dashboards. The 2017 updated User’s Guide is now available on the CTCDR’s website!

**Connecticut Fatal Ticker**

The ticker displays the total number of Connecticut traffic related deaths that have occurred year to date for the last four years. The preliminary year-end total of traffic fatalities for the previous calendar year is also presented. The Traffic Fatality Ticker is updated on a bi-monthly basis.

**NEXT STEP: STATEWIDE DATA LINKAGE!**
The CTSRC team is excited to announce the launch of our brand new website! After 6 months of hard work and a compilation of a great effort from many CTSRC team members, our new website was launched in August of 2016. The new site can be accessed at [www.ctsrc.uconn.edu](http://www.ctsrc.uconn.edu)! Visitors of the CTSRC website can find information related to current CTSRC projects, tutorial videos for the Crash Data Repository as well as contact information for various training provided by the CTSRC.

**CTSRC Crash News Update**

The Crash News Update newsletter released ten new issues in 2016 and garnered an average of 450 monthly readers. This year’s issues covered topics such as the Fatality Analysis Reporting System (F.A.R.S.), qualifying commercial vehicle crashes, and how to correctly report a crash involving a distracted pedestrian.

The newsletter contains valuable information on the progress of training programs as well as educational information on the accuracy and completion of the MMUCC PR-1. It also focuses on professional development of the investigators and the importance of timely and accurate data collection.

*This newsletter is authored by Charles Grasso, Crash Data Liaison for the CTSRC.*

**Drivers Behaving Badly Blog**

The traffic psychology blog, [Drivers Behaving Badly](http://www.ctsrc.uconn.edu) had almost 1200 views and more than 600 visitors in 2016! Individuals from 41 different countries, including South Africa, Poland, and Argentina, visited the site to read posts discussing motorcycle education, distracted drivers and pedestrian and bicycle safety.

*This blog is authored by Marisa Auguste, Behavior Analyst for the CTSRC.*
SAFETY ANALYSIS TEAM:

The Safety Analysis Team is charged with implementing the Safety Techniques Enhancement Plan for CT DOT. The Safety Techniques Enhancement Plan recommended Connecticut to follow and improve the six-step cycle of safety management process defined by the Highway Safety Manual (HSM), which includes network screening, diagnosis, countermeasure selection, economic appraisal, project prioritization, and safety effectiveness evaluation.

Roadway Inventory File Database

- Collecting and assembling data required,
- Exploring data gaps and challenges,
- Creating Connecticut roadway intersection inventory and segments following the HSM requirements, and
- Developing and improving tools which include:
  - **Crash Visualization Tree**
    A Crash Visualization Tree tool to help to identify the trending characteristics (e.g., facility type, weather contributor, etc.) of focus crash types.
  - **Collision Diagram**
    This application will be used to automatically generate collision diagrams that are to visually display the crash history at intersections or roadway segments.
  - **SLOSSS (Suggested List of Surveillance Study Sites) Application**
    The MAP-based application for network screening.

DATA COLLECTION TEAM:

CT DOT/CONREP Motorcycle Survey

In the summer of 2016, the CTSRC conducted a research survey to improve the training for motorcycle riders and increase motorcycle safety around the state of Connecticut. The CTSRC contacted 1,000's of Connecticut residents who participated in the CT Rider Education Program and requested they participate in an online survey which focused on motorcycle safety education and how to improve it for our residents. The CTSRC is now reviewing and processing the data that was collected.

2015 MMUCC Crash Facts Book

The CTSRC staff is currently revising the CT DOT annual report of Connecticut crash statistics to reflect the new Model Minimum Crash Criteria (MMUCC) data being collected in Connecticut. This book is released as a summary of crash statistics and trends for the state.

Crash Data Recorder (CDR) Grant

In 2016, the Connecticut Department of Transportation awarded the University of Connecticut a grant to assist law enforcement with collision investigations. The CTSRC purchased two complete sets of Bosch EDR tools, including all available cables. Beginning in 2017, we will facilitate the training of 60 law enforcement officers as Certified Crash Data Recorder Technicians. This equipment and training will allow for the collection of more complete and comprehensive crash data, allowing widespread implementation and access to EDR data, providing a comprehensive snap shot of the vehicle activity throughout the entire crash experience; pre-crash, crash, and post-crash.

CURRENT PROJECTS
On August 30, 2016, the GHSA Awards Committee selected the Connecticut DOT and UConn Transportation Safety Research Center Crash Data Improvements Program to receive the 2016 Peter K. O'Rourke Special Achievement Award for Outstanding Achievement in Transportation Safety. This award recognizes notable achievements in the field of highway safety during the prior calendar year by individuals, coalitions, organizations, nonprofit groups, businesses, media, government agencies, universities, or programs.

**AWARDS & PROFESSIONAL RECOGNITIONS**

**2016 Peter K. O’Rourke Special Achievement Award**

*The Governors Highway Safety Association*

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**CRASH DATA REPOSITORY USAGE STATISTICS**

- **Queries**
  - 24,953 Total Queries
  - Average of 1,640 queries a month

- **Exports**
  - 3,333 Total Exports
  - Average of 209 data exports a month

- **Users**
  - 1,496 Total Users
  - Average of 168 users a month

**AWARDS & PROFESSIONAL RECOGNITIONS**

- **GHSA**
  - New Hampshire Safety Summit
  - AAA Drugged Driving Summit
  - CT Peer Exchange

- **CT Law Enforcement Summit**
  - CT Seatbelt Summit
  - 19th Annual National Tribal Transportation Conference
  - UMassSafe Commercial Vehicle Safety Research Summit

Connecticut Traffic Safety Team
**2016 Dean’s Excellence Award**

**Dr. Eric Jackson, Director**

Dr. Jackson was presented with the UConn School of Engineering Dean’s Excellence Award on April 26, 2016. The Dean’s Excellence Award recognizes faculty or staff whose work has made a significant impact in research, education or engagement. Dr. Jackson was also invited to participate as an expert on the National MMUCC V5 panel.

**Distracted Driving Research on WTNH News 8**

**Marisa Auguste, Behavior Analyst**

In April 2016, Ms. Auguste was recognized for her traffic psychology research on distracted driving. Stories discussing her work at the CTSRC as well as her *Drivers Behaving Badly* blog post “Are We Addicted to Distraction”, were featured on WTNH News 8, the local news channel in New Haven, CT, as well as, in the Hartford Business Journal, UConn Today, CBS Talk Radio (WTIC- Hartford) and WalletHub.

**Publication in CVSA’s Guardian Magazine**

**Kevin Slater, Crash Data Liaison**

Mr. Slater’s article discussing the training of Connecticut law enforcement in the area of Commercial vehicle inspections and crash investigations, was published in the Fall 2016 issue of the Commercial Vehicle Safety Alliance’s Guardian Magazine. Mr. Slater highlights the CTSRC and the CT DOT as the recipients of an FMCSA grant in Fall of 2015 and the collaborative effort amongst partners like the National Institute for Safety Research, Inc. and CT DMV’s Commercial Safety Division to develop this comprehensive training.

**CTCDR Featured in TR News Magazine**

**Marisa Auguste, Behavior Analyst**

An article written by Marisa Auguste about the Crash Data Repository was featured in a news brief in the Transportation Research Board’s bimonthly magazine, *TR News*. The article titled “Connecticut Deploys Crash Data Analysis Tool” was published in the July-August 2016: Flight Plans for Aviation Research issue and discusses the features of the CTCDR.

**Safety Analysis Team**

**Connecticut Transportation Safety Research Center**

The Safety Analysis Team of CTSRC was established in the summer of 2016. The mission of the Safety Analysis team is to implement the six-step cycle of safety management process defined by the Highway Safety Manual (HSM) which includes network screening, diagnosis, countermeasure selection, economic appraisal, project prioritization, and safety effectiveness evaluation. The goal for Connecticut is to create a state-of-the-art transportation safety analysis system and to distinguish Connecticut as a national leader in crash data collection and safety analysis.