



Connecticut  
Transportation Safety  
Research Center



**2015 ANNUAL REPORT**

**Connecticut Transportation  
Safety Research Center**

# CONNECTICUT TRANSPORTATION SAFETY RESEARCH CENTER

## 2015 Annual Report

### A Word From Our Director Dr. Eric Jackson

The past year at the Safety Research Center has been one of opportunity, growth and challenge. The State of Connecticut's transition to a new electronic crash reporting system and update to their crash report form presented a monumental challenge. One which our team approached with optimism and with a foundation in reality. With the assistance and dedication of law enforcement from across the state, we were able to successfully assist the Connecticut Department of Transportation (CT DOT) in making one of the most substantial changes to transportation safety data in our state's history. The new data being collected at the scene of each crash will provide engineers and law enforcement with the data necessary to make life saving decisions.



Our center is dedicated to the continued success of the timely, accurate and complete crash data collection, while working to develop state of the art analysis tools and methods. We were fortunate in 2015 to be recognized for two national awards for the services we provide and for the progress that Connecticut has made to become a national resource for crash data collection and analysis tools. We will continue to innovate, outreach and improve safety in Connecticut. In, 2016 we will begin to see the potential benefits of this change in data collection and seek new opportunities to advance safety in Connecticut. We will renew and strengthen our relationship with our partners in law enforcement as we offer new and innovative training opportunities while being receptive to requests for modifications.

The CT DOT has a renewed focus on safety and we are thankful to be a part of this movement to save lives, prevent injuries and improve the quality life for the traveling public.

Sincerely,

A handwritten signature in black ink that reads "Eric Jackson". The signature is fluid and cursive.

Eric Jackson, PhD

"The Connecticut Transportation Safety Research Center will distinguish Connecticut as a national leader in transportation safety research and crash data distribution".

- Governor Dannel P. Malloy,  
quoted in UConn Today

### In This Issue

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Dr. Jackson speaking about the CTSRC at a press conference. Source: UConn Today

# THE NEW MMUCC PR-1

In January 2015, the Department of Transportation required all motor vehicle crash investigators in Connecticut to use the new PR-1 crash report. The report was updated using the Model Minimum Uniform Crash Criteria (MMUCC) guidelines to enhance what data law enforcement must collect for crash reports. The previous PR-1 had not been updated since 1995.

**MMUCC Guideline**  
Model Minimum Uniform Crash Criteria  
Fourth Edition (2012)

MMUCC Guidelines

## Crash Report Elements

Minimum Model Uniform Crash Criteria (MMUCC) is a standardized data set for describing motor vehicle crashes and it was used as the foundation for changes made to the PR-1 crash report. This new crash report enables Connecticut law enforcement to obtain a host of new information about driver's actions in the moments leading up to and after the crash as well as details about distracted driving, which was previously not collected. Data fields on the report have been updated to reflect the latest technological advances and to aid in traffic safety analysis and crash prevention. In addition, supplemental forms were developed to aid in data collection for rare crash events such as those involving buses, commercial vehicles and non-motorists, crashes.

Page 1 of 32 CONNECTICUT UNIFORM POLICE CRASH REPORT  
Form PR-1 REV June 2015  
Case Number: \_\_\_\_\_  
Number of Motor Vehicles: 1  
Number of Non-Motorists: 0  
Crash Summary (Print) DOT Inventory: \_\_\_\_\_

**CRASH DATE, TIME, SEVERITY, AND LOCATION**

Crash occurred on (date) \_\_\_\_\_ at (time) \_\_\_\_\_ at (location) \_\_\_\_\_  
 Length: \_\_\_\_\_ # of lanes at intersection: \_\_\_\_\_ distance: \_\_\_\_\_ N, S, E, W  
 # of lanes at intersection: \_\_\_\_\_ # of lanes at intersection: \_\_\_\_\_

**CRASH FACTORS AND CONDITIONS**

**VEHICLE DAMAGE INFORMATION**

MMUCC PR-1 Crash Report



CTSRC Crash News Update Newsletter

Also beginning in January 2015, the field coordinator for the CTSRC began publishing a weekly newsletter for law enforcement. The Crash News Update newsletter contains valuable information on the progress of the program as well as educational information on the accuracy and completion of the MMUCC PR-1. The newsletter also focuses on professional development of the investigators and the importance of timely and accurate data collection. In 2015, 16 newsletters were published and distributed, with an average of 800 monthly readers.



“We needed to change the culture of the police officers...you are no longer report takers, you are CRASH INVESTIGATORS”

- Charles Grasso III, Crash Data Liaison



## MMUCC Training

The MMUCC PR-1 training course was developed and approved by the police academy. It was also presented to police officers in the State of Connecticut as a ‘train the trainer’ course. Officers were presented with a complete overview of new terminology as well as the ability to electronically submit their crash reports to CT DOT.

### Field Coordinators

Our field coordinators, Charles Grasso and Kevin Slater, were tasked with solidifying the partnership and trust between Connecticut police officers and CT DOT. We knew that the entire process would run smoother if the officers felt that they had an ally who understood how the transition to the new PR-1 would really effect the law enforcement community. Our selected field coordinators are law enforcement officers, active and retired, and possess a strong background in crash investigation. They conducted initial and ongoing training in addition to assisting with the installation of the PDF form of the PR-1 in over 20 agencies within Connecticut. Both field coordinators are crash scene reconstructionists, court deemed experts and police academy certified instructors.

### Training Materials

The program consisted of a Power Point presentation, interactive lectures and hands on investigative training. CT DOT and UConn determined that short training videos were an efficient way of communicating this new material to the law enforcement community. A number of promotional materials were also created, including a field note sheet designed to allow officers to quickly clear the scene of a crash but also collect all the critical information necessary to complete their report. The course materials can be found at <http://s.uconn.edu/ctsrc>.



MMUCC Investigators Guide and Training Manuals

### Classes

These classes were presented to officers during a 12 week period. Each officer who received the training was awarded police academy continuing education credits (CEU's) for completion of the course and was then able to train officers within their respective agencies. The course consisted of the following:

- Six hour, POST certified training course
- Two hour, POST certified refresher course
- 100+ hours spent each month working directly with police agencies across the state
- Training of DOT Data Quality Staff as well as CT State's Attorneys Office and the courts.



MMUCC Training Events

# CRASH DATA REPOSITORY

Connecticut's first COMPLETE crash data analysis tool

## Latest Features

- Crash Mapping Capability
- MMUCC PR-1 Crash Data
- Distracted Driving Crash Data
- Law Enforcement Grant Application Tool

The Crash Data Repository is a web-based query and analysis tool designed at the University of Connecticut, in the Connecticut Transportation Institute. The Repository provides unprecedented public and private access to crash data, allowing users to research crash statistics in their neighborhood, town, county, and state. The goal of the Repository to continually provide members with timely, accurate, complete and uniform crash data. In addition to the Department of Public Safety and Connecticut Department of Transportation databases, a third database was developed in January 2015 to house the new crash data captured by the revised PR-1. Future additions to the Repository will include the integration of other vital data sources such as EMS, roadway geometry, and citation data.

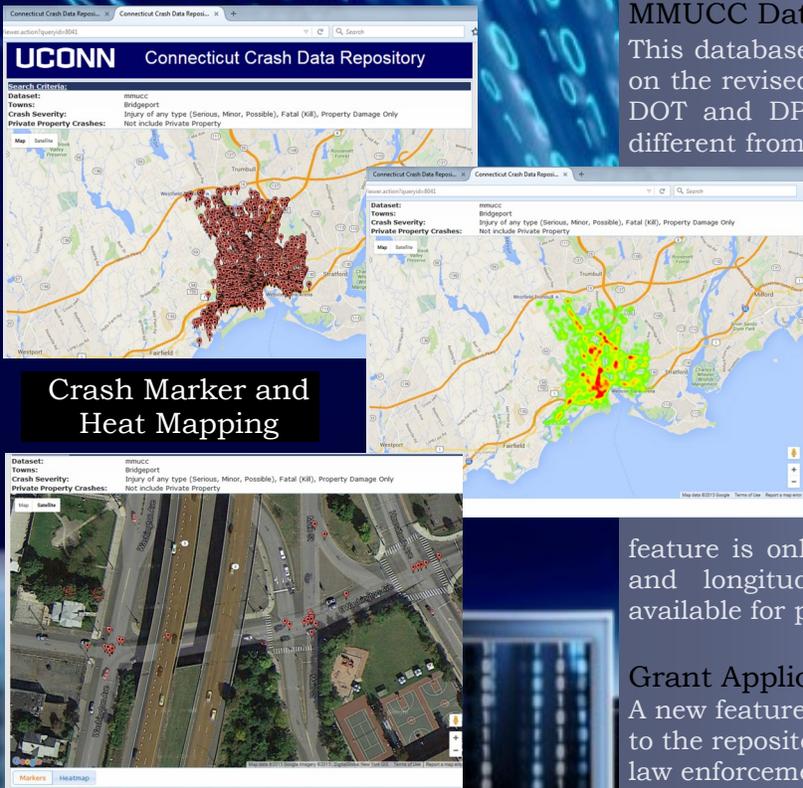
## MMUCC Database

This database was developed using the 110 data elements now available on the revised PR-1 crash report. This database is separate from the CT DOT and DPS databases because the new PR-1 form is so radically different from the previous one that was used for the last 20 years. There are entirely different data fields on the new report and it is important that the new crash data is separated to ensure it's accuracy.

## Hotspot Mapping

The hotspot mapping was developed as an analysis tool for engineers working in the traffic safety community but is also available to and can be truly beneficial for the general public. Users can now view their queried crashes on a heat map or in satellite view and can click on individual crash markers to generate a crash summary box, which details the particulars of that crash. This feature is only available for use with the MMUCC database as latitude and longitude coordinates are not available for previous crash data.

## Crash Marker and Heat Mapping



## Grant Application Tool

A new feature has recently been added to the repository that is specific to the law enforcement community. Using the crash data available in the repository, officers now have the ability to generate the report page needed for their grant application submission to the Department of Transportation. There are three options: *Click It or Ticket, DUI Enforcement, and Speed Enforcement*, and the report generated looks identical to the hard copy applications officers have used in the past when applying for funding. Officers can select their town, desired grant report and time period and the data will be auto populated, providing them with the total number of crashes, fatalities and injuries for that particular application. However, because we do not currently have citation data, the total number of arrests for that time period will have to be filled in by officer.

**“This repository ...is the envy of other states, which have contacted Connecticut to learn how our system was built...[it] is a model that other states seek to replicate”**

- *Kazem Kazerounian, interim dean of UConn's School of Engineering, quoted in UConn Today*

**UCONN Connecticut Crash Data Repository**

Summary: The report shows the Alcohol related crashes for the years between 2010 and 2014 in the town of Mansfield.  
Road Classification: Rural or Urban not specified. Route Class not specified.

PROJECT TITLE	APPLICANT
2015	

STATEMENT OF THE PROBLEM AND BACKGROUND INFORMATION (CONTINUED):  
DATA MUST INCLUDE ALCOHOL-RELATED FATAL AND INJURY CRASH DATA, DUI ARREST DATA, TIME OF DAY AND DAY OF THE WEEK AND LOCATIONS WHERE THE PROBLEM EXISTS. MAKE SURE TO INCLUDE YOUR PERFORMANCE MEASURES, (WHAT IS YOUR BENCHMARK, WHAT ARE YOUR GOALS AND HOW WILL YOU MEASURE YOUR SUCCESS).

Alcohol Crashes in Mansfield					
2010	2011	2012	2013	2014	
21	17	21	25	22	

Alcohol Fatalities in Mansfield					
2010	2011	2012	2013	2014	
1	1	0	1	1	

Alcohol Injuries in Mansfield					
2010	2011	2012	2013	2014	
4	4	3	4	4	

Alcohol Arrests in Mansfield					
2010	2011	2012	2013	2014	
125	76	76	76	76	

You must provide point of contact information for this grant  
(This would be the person who is the day-to-day point of contact)

Name of Contact:

Contact Title:

Work Phone:

Cell Phone:

FAX No.:

Email Address:

[New Report](#) [Print Report](#)

# Crash Data Repository Usage Statistics

## Queries

**6,649 Total Queries**

**Average 477 queries each month**

**910 Total Exports**

**Average of 65 data exports a month**

## Exports

## Users

**964 Total Users**

**Average of 48 users a month**

## AWARDS & PROFESSIONAL RECOGNITIONS

### 2015 Bright Ideas Program

The Ash Center for Democratic Governance and Innovation  
J.F.K. School of Government,  
Harvard University

*"Bright Ideas is an initiative that recognizes creative and promising government programs and partnerships. The initiative is offered through the Innovations in Government Program, a program of the Ash Center for Democratic Governance and Innovation at Harvard Kennedy School. For more information, please visit <http://innovationsaward.harvard.edu/BrightIdeas.cfm>."*

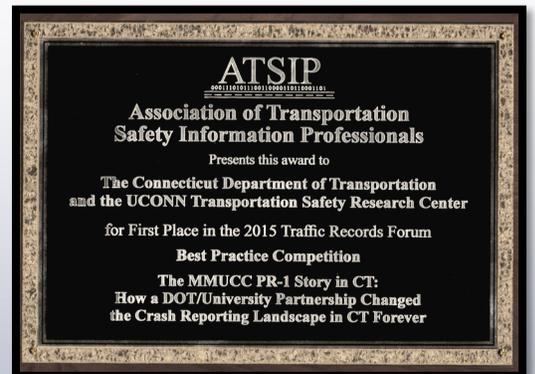


### 2015 Best Practices in Traffic Records

Association of Transportation Safety Information Professionals (ATSIP)

41st International Traffic Records Forum

*This year at the 41st International Forum on Traffic Records and Highway Information Systems, our Connecticut Team, which encompasses the CTSRC and the CT DOT, won First Place for Best Practices in Traffic Records!*



Connecticut Traffic Safety Team

# CTSRC Staff

## Eric Jackson, PhD

Director, Associate Research Professor  
e.Jackson@enr.uconn.edu, 860-486-8426

Dr. Jackson serves as the Director of the CTSRC and has been an Assistant Research Professor at the University of Connecticut since 2009. He completed his B.S. in civil engineering from the University of Kentucky in 2002 and his Masters (2004) and PhD (2008) at the University of Connecticut.



## Marisa Auguste

Behavioral Analyst, Research Asst. II  
marisa@enr.uconn.edu, 860-486-7199

Ms. Auguste obtained her M.S. in Criminal Justice with a concentration in Victimology from the University of New Haven, as well as a certification in Victim Advocacy and Service Management. She also received her B.A. in Sociology from the University of Texas - San Antonio. Ms. Auguste's conducts research of motor vehicle crashes relative to driver behavior by analyzing crash data at the State and local level. She is working towards the development of innovative behavioral research and behavioral modification methods based on general deterrence and social norming strategies to aid in reducing crash fatalities and injuries. Ms. Auguste has also produced several publications relative to driver behavior on her blog, 'Drivers Behaving Badly'.

## Kevin Slater

Officer (Ret.), Crash Data Liaison  
kslater@enr.uconn.edu  
860-930-2967



Mr. Slater is a retired officer from the Vernon CT Police Department. During his tenure there, he held various Patrol based positions from FTO, Traffic Officer, Special Enforcement Unit and Honor Guard. He is certified as a Commercial Motor Vehicle Inspector by DMV in CT and served as Team Leader on the Metro Traffic Services Regional crash investigation squad that investigated numerous Fatal/Serious crashes in an eight city/town region in North Central Connecticut. He retired from the Vernon Police Department in 2012. Mr. Slater continues to work part time as a Police Officer in the Stafford Resident Trooper's Office.



## Charles Grasso, III

Sgt. (Ret.), Crash Data Liaison  
grasso@enr.uconn.edu  
860-753-1240

Mr. Grasso is a retired police Sergeant with over 27 years experience. He graduated from the Connecticut Police Academy and the Institute of Police Technology and Management at the University of North Florida. He retired in 2013, holding the title of Police

Sergeant, Accident Reconstructionist and Regional Traffic Team Commander for the Town of Enfield. He also served as the Town Director of Emergency Management, Law Enforcement grant writer, Public Information Officer and Federal Emergency Management Agency (FEMA) liaison for Enfield and became a court deemed expert in the area of motor vehicle collisions. Mr. Grasso has served on a number of committees including the DUI Task Force, Connecticut MADD Operating Committee, the Town of Stafford Public Safety Committee and the Town of Enfield's Workers' Compensation Safety Committee.

## Wei Zeng, PhD

Associate Research Scientist  
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Dr. Zeng earned her Bachelors and Masters of Engineering in Computer Science and Engineering from the South China University of Technology. She completed her PhD in the same discipline at the University of Connecticut in 2012. She was awarded a Graduate PreDoctoral fellowship and a Doctoral Dissertation fellowship from the University of Connecticut and has held the title of Network Engineer and Software Developer. Currently, Dr. Zeng is an Associate Research Scientist for the CTSRC, developing data collection, import, query, analysis and reporting tools for the Connecticut Crash Data Repository (CTCDR).

Shelly Desjardin, Lori Judd and Regina Hackett are partially funded by the Safety Research Center and support the staff with the production of materials, workshop and training logistics and fiscal grant management.



Shelly Desjardin



Lori Judd



Regina Hackett

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[www.ctcrash.uconn.edu](http://www.ctcrash.uconn.edu)

<http://s.uconn.edu/ctsrc>