CTSRC Connecticut Transportation Safety Research Center

University Partnerships for Better Data

Connecticut Crash Data Repository

Safety Data

- NHTSA's 6 Core Data Systems

- NHTSA Performance Measure 6 Pack

Crash Data in Connecticut

MMUCC

Version 4

Jan. 1, 2015

Connecticut's MMUCC V4 Toolbox

DOT/UCONN Partnership
Transportation Safety Research Center

Clear Goals and Time Frames

IT Solutions

Data Quality

Crash Data Champion

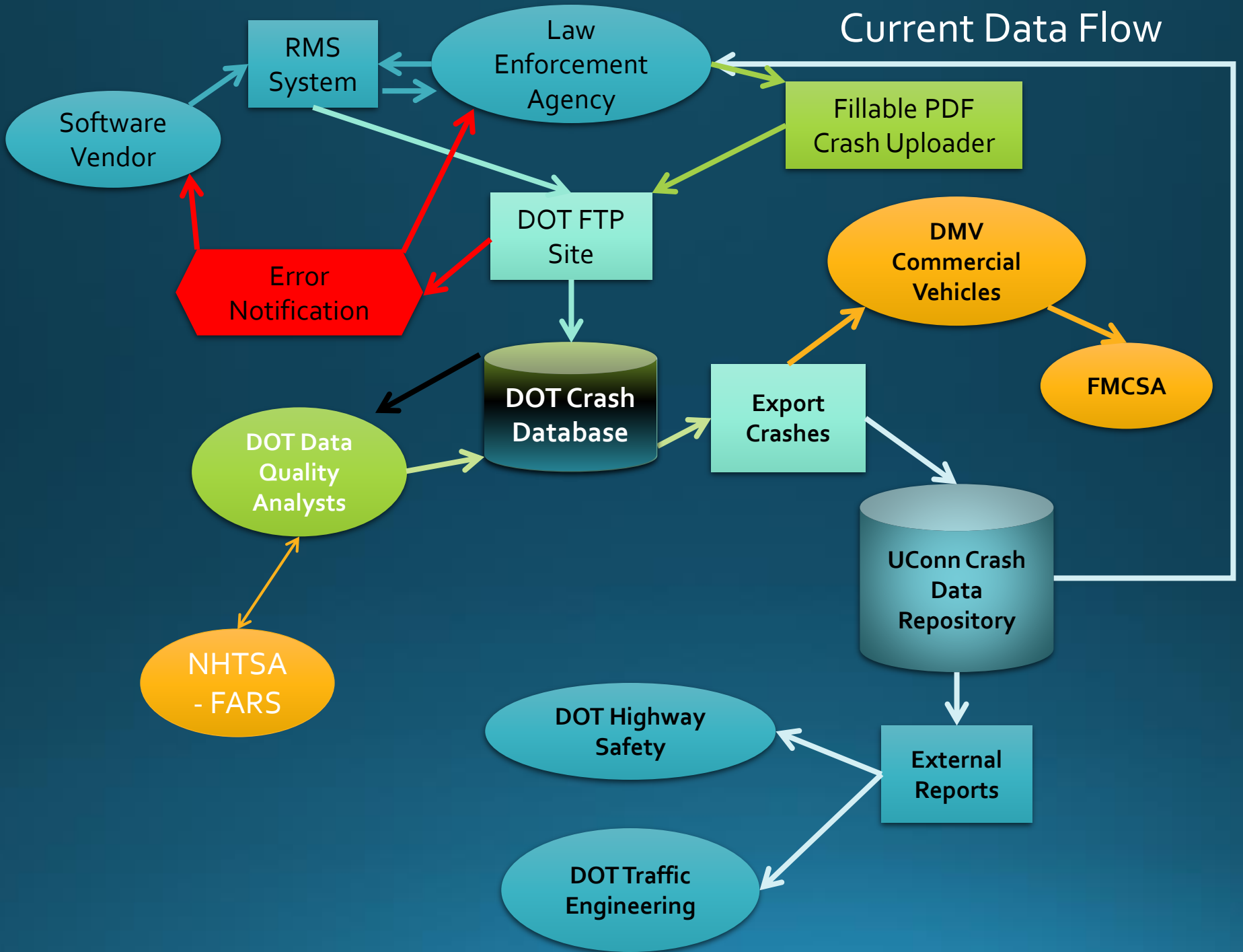
MMUCC Training

Crash Data Repository

Fillable PDF

Partnership and Outreach

Current Data Flow



Future Data Linkage?

- Complete Data Integration
  - Judicial- Citation, Infractions, and Arrests
  - Public Health- EMS/ Trauma
  - DMV-Driver History and Vehicle History
  - State Tox Lab - Blood, Breath, Urine Tox Results
  - Medical Examiner- Tox Results on Deceased

DDACTS - Data Driven Approach to Crime and Transportation Safety


Crash Data Repository

UCONN Connecticut Crash Data Repository

[Main Menu] User: *not logged in*

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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 CTCDR is comprised of crash data from two separate sources; The Department of Public Safety (DPS) and The Connecticut Department of Transportation (CTDOT).

The purpose of the CTCDR is to provide members of the traffic-safety community with timely, accurate, complete and uniform crash data. The CTCDR allows for complex queries of both datasets such as, by date, route, route class, collision type, injury severity, etc. For further analysis, this data can be summarized by user-defined categories to help identify trends or patterns in the crash data.

Connecticut Traffic Deaths

UCONN

Year To Date as of

2016 257 2015 234 2014 2013 242

Preliminary Yea

2015 2

Basic Users: Crash DashBoard | Basic Report Tool

Advanced Users: Data Query Tool

Notes to users:

- New data is added to the repository nightly.
- The data provided by CTDOT does not contain personal or private information.
- For crashes occurring before 2007 and between March 2011 to December 2011, property damage only crashes occurring on local roads were not recorded in the DOT database. Therefore, PDO crash totals will vary greatly over these time periods for no reason other than the data were not recorded for these crashes.
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UCONN Connecticut Crash Data Repository

CAST Dashboards

The Collision Analysis Summary Tables (CAST) is a summary dashboard where the crash data can be filtered to the road, town, crash severity, or time period of interest and explored along a variety of aspects, including but not limited to crash locations, time and date of crashes, vehicle types, demographics of persons involved, and driver distraction.

2010 - 2014

2015 - Present

Crash Emphasis Area[illegible]board

The Crash Emphasis Area[illegible]ard provides a different way to select and filter the crash data than the CAST Dashboard. Users can select the sp[illegible] area of interest and view the statistics of just those crashes of interest. Examples of emphasis areas include D[illegible]s, crashes involving motorcycles, and crashes occurring at intersections.

2015 - [illegible]esent

UCONN Connecticut Crash Data Repository

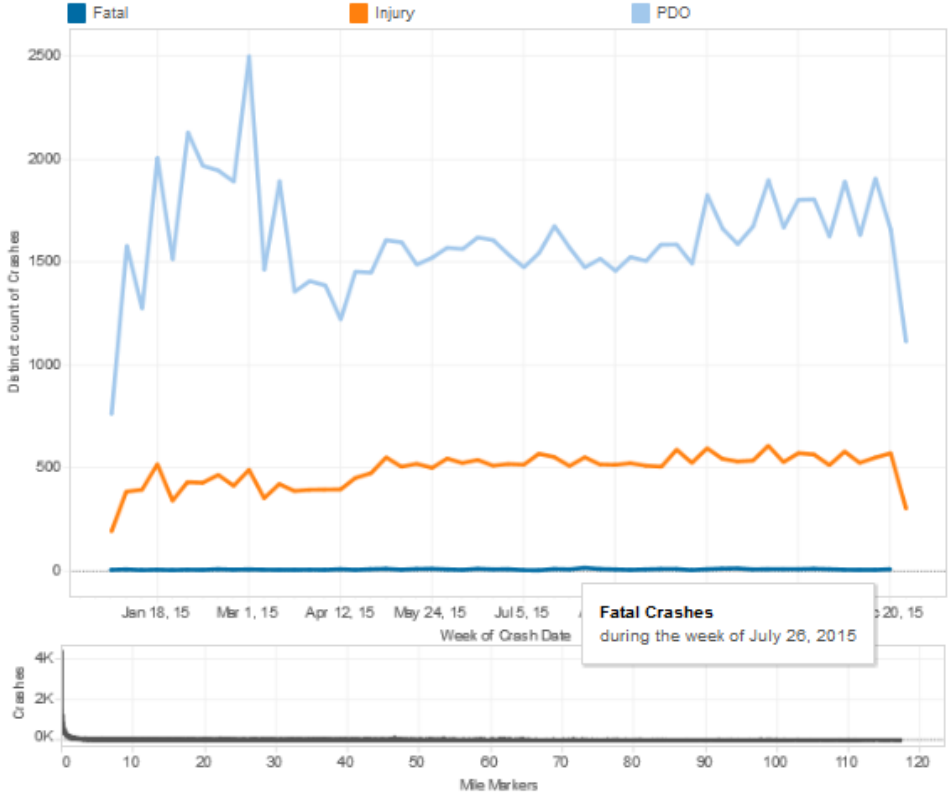
Crash Emphasis Areas Dashboard: 2015 - Present

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.

Search Criteria | Query Descriptions | CAST Report

Crash Emphasis Areas

The story tab above contain tables and figures summarizing the crash data for the State of Connecticut. The tabs are organized topically, first focusing on crash variables, then vehicle variables, personal variables, and ending with dashboards about specific crash types. The data can be filtered by Year, Date of Crash, Crash Severity, COGs, MPOs, Town, Road Name, Intersecting Road Name, Route Class, and Route Number using the drop down menus on the right.



Queries

Emphasis Areas
- (•) All Crashes
- ( ) Fatal Crashes
- ( ) DUI Crashes
- ( ) Young Drivers
- ( ) Crashes involving Motorcycles
- ( ) Non-Motorist Crashes
- ( ) Pedestrian-involved Crashes
- ( ) Bicyclist-involved Crashes
- ( ) Work Zone Crashes
- ( ) Crashes involving School Bu...
- ( ) Crashes involving ATVs

Year: 2015

Start Date: 1/1/2015

End Date: 10/12/2016

COGs: (All)

MPOs: (All)

Town: (All)

Route Class: (All)

Road Number: (All)

Start Mile Marker: -1

End Mile Marker: 117.36

Note: Unknown mileposts are listed as -1

Queries Selected: Emphasis Area *All Crashes*, Town *All*, Date (Year(s) *2015* or *1/1/2015* to *10/12/2016*), Severity *All*, Route Class *All*, Road Number *All*

Search Criteria | Query Descriptions | CAST Report

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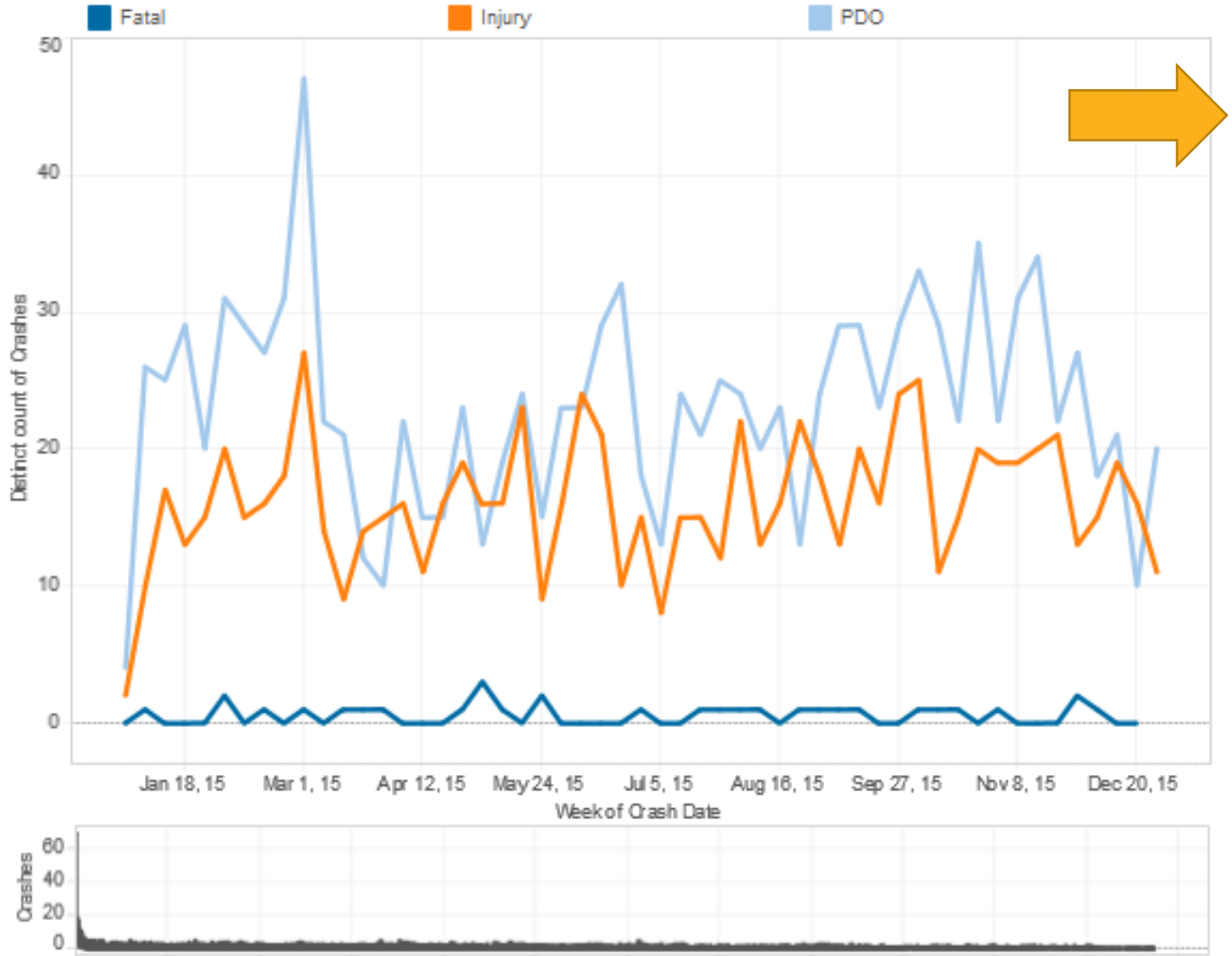


Queries

Emphasis Areas

- Non-Motorist Crashes
- Pedestrian-involved Crashes
- Bicyclist-involved Crashes
- Work Zone Crashes
- Crashes involving School Bu...
- Crashes involving ATVs
- Intersection Crashes
- Roadway Departure Crashes
- Crashes at Railroad Crossings
- Crashes involving Transit Bu...
- (•) FMCSA qualifying crashes

Year
2015

Start Date
1/1/2015

End Date
10/12/2016

COGs
(All)

MPOs
(All)

Town
(All)

Route Class
(All)

Road Number
(All)

Start Mile Marker
-1

End Mile Marker

Search Criteria | Query Descriptions | CAST Report

Query Descriptions

Fatal Crashes – All Crashes where at least one person involved was fatally-injured.

DUI Crashes – Crashes where at least one driver involved is identified as under the influence of Medication, Drugs, or Alcohol at the time of the crash in the accident report.

Young Drivers – Crashes where at least one of the drivers involved is between the ages of 15 to 25.

Crashes involving Motorcycles – Crashes where at least one of the vehicles involved is a motorcycle.

Non-Motorist Crashes – Crash where at least one of the people involved in the crash is either a bicyclist or a pedestrian.

Pedestrian-involved Crashes – Crash where at least one of the people involved in the crash is a pedestrian.

Bicyclist-involved Crashes – Crash where at least one of the people involved in the crash is a bicyclist.

Work Zone Crashes – Crashes that were related to the presence of a Work Zone.

Crashes involving School Buses – Crashes where at least one vehicle involved is a School Bus

Crashes involving ATVs – Crashes where at least one vehicle involved is an All-Terrain Vehicle (ATV)

Roadway Departure Crashes – Crash where at least one driver's action was driving off of the roadway

Intersections Crashes - Crashes that occured at an intersection or are intersection-related

Railroad Crossing Crashes - Crashes that occured at a railroad grade crossing

Crashes involving Transit Buses - Crashes where at least one vehicle involved is a Transit Bus

FMCSA Qualifying Crashes - Crashes where at least one vehicle involved is an FMCSA qualifying vehicle and where there was either 1) a fatality, 2) an injury requiring transporation to a medical facility, or 3) disabiling damage to one of the vehicles involved

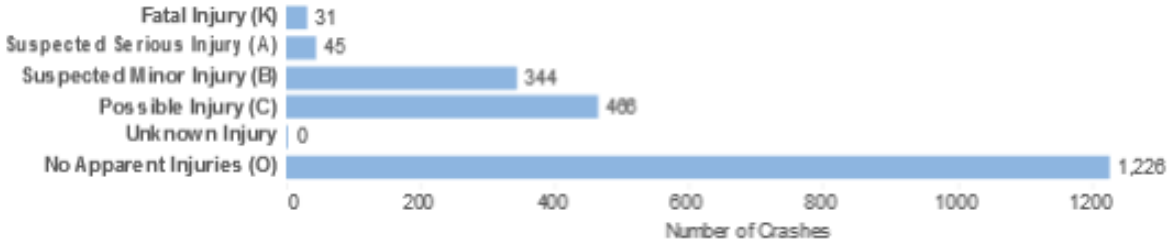
Search Criteria | Query Descriptions | CAST Report

Crash Emphasis Areas - FMCSA qualifying crashes

Crash Severity | Geography of Crashes 1 | Geography of Crashes 2 | Crash Conditions | Time and Date of Crashes | Crash Manner and Location | Fi Ev

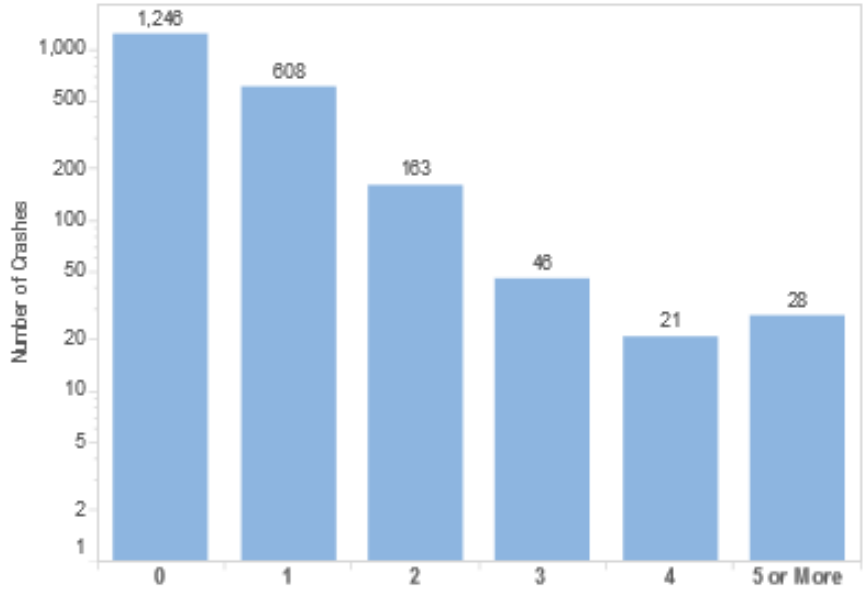
Queries Selected: Emphasis Area *FMCSA qualifying crashes*, Town *All*, Date (Year(s) *2015* or *1/1/2015* to *10/12/2016*), Severity *All*, Route Class *All*, Road Number *All*

Injury Status of Crashes

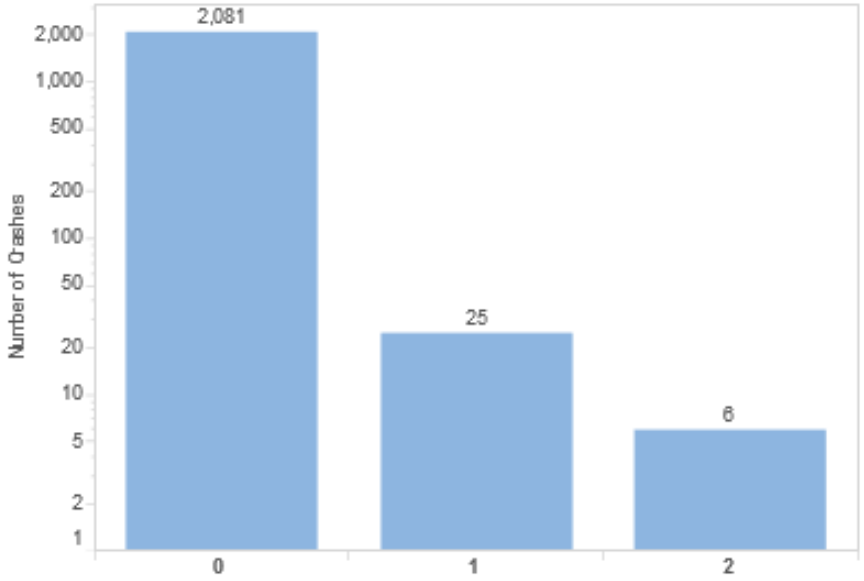


Crash Severity	Number of Crashes	% of Total Crashes
Fatal Injury (K)	31	1.47%
Suspected Serious Injury (A)	45	2.13%
Suspected Minor Injury (B)	344	16.29%
Possible Injury (C)	466	22.06%
Unknown Injury	0	0.00%
No Apparent Injuries (O)	1,226	58.05%
Grand Total	2,112	100.00%

Injuries per Crash



Fatalities per Crash



Queries Selected: Emphasis Area *FMCSA qualifying crashes*, Town *All*, Date (Year(s) *2015* or *1/1/2015* to *10/12/2016*), Severity *All*, Route Class *All*, Road Number *All*

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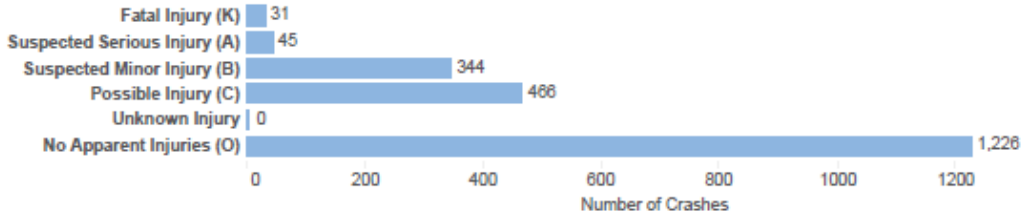

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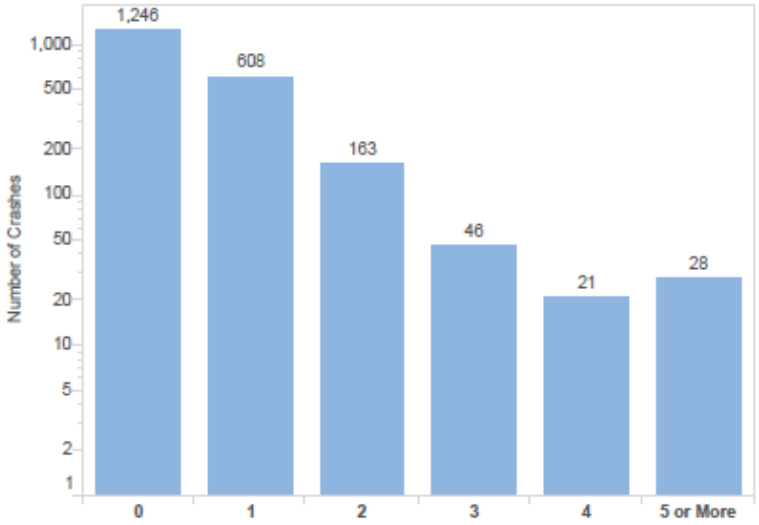
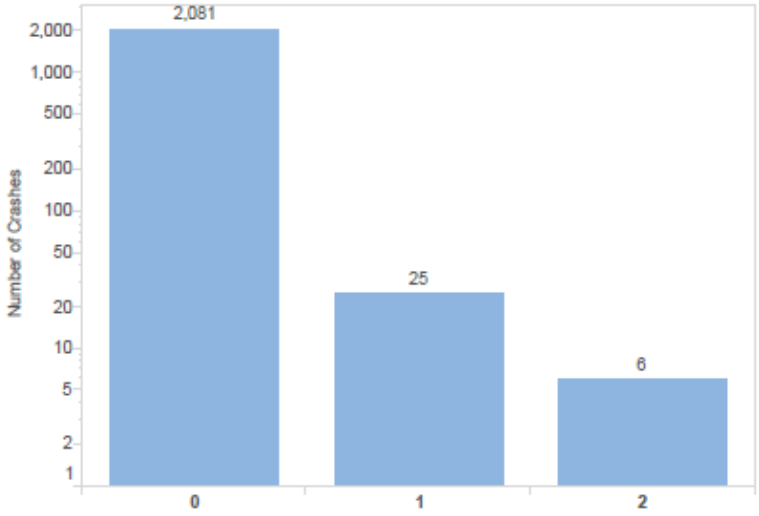


Injuries per Crash	Number of Crashes	% of Total Crashes
0	1,246	59.00%
1	608	28.79%
2	163	7.72%
3	46	2.18%
4	21	0.99%
5 or More	28	1.33%
Grand Total	2,112	100.00%

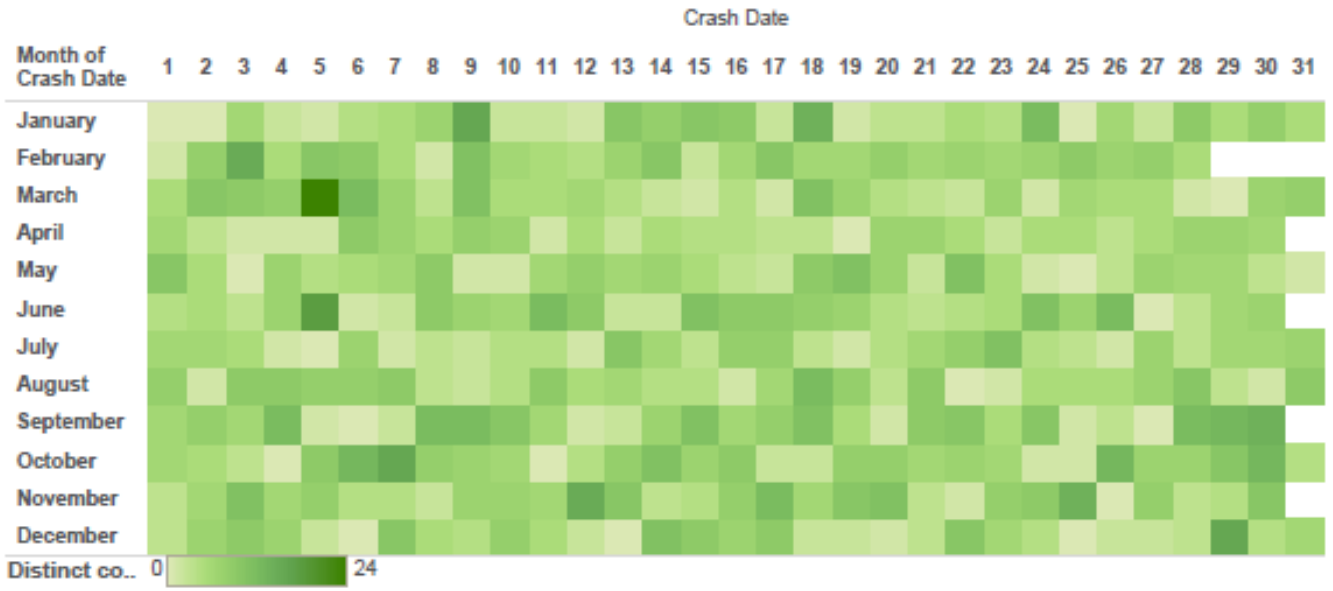
Fatalities per Crash



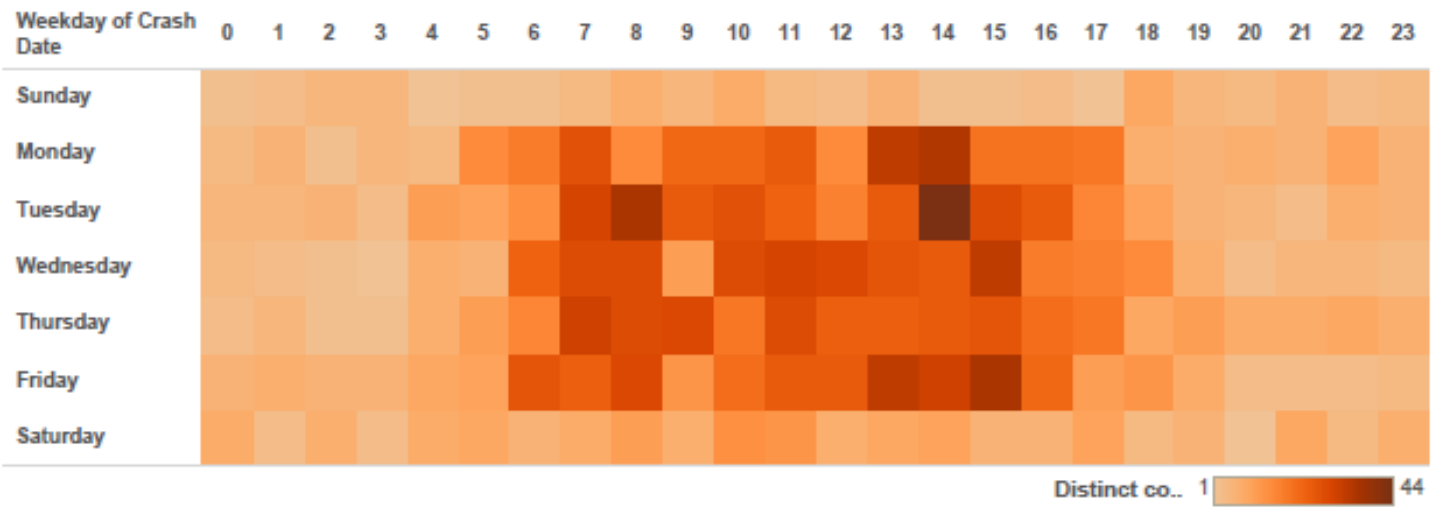
Fatalities per Crash	Number of Crashes	% of Total Crashes
0	2,081	98.53%
1	25	1.18%
2	6	0.28%
Grand Total	2,112	100.00%

Month and Date of Crashes

Month of Crash Date	2015 Number of Crashes	2015 % of Total Crashes
January	162	7.67%
February	190	9.00%
March	184	8.71%
April	134	6.34%
May	157	7.43%
June	193	9.14%
July	145	6.87%
August	174	8.24%
September	204	9.66%
October	207	9.80%
November	203	9.61%
December	159	7.53%
Grand Total	2,112	100.00%



Time and Day of the Week



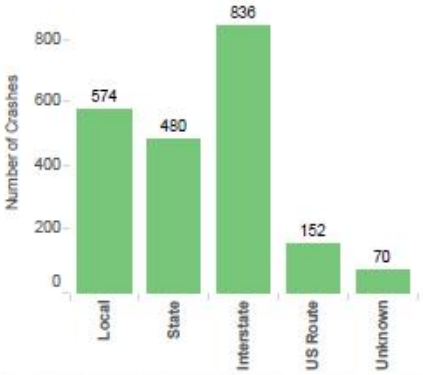
Hour of Crash Time	Number of Crashes	% of Total Crashes
0	32	1.52%
1	32	1.52%
2	30	1.42%
3	25	1.18%
4	47	2.23%
5	63	2.98%
6	105	4.97%
7	152	7.20%
8	154	7.29%
9	112	5.30%
10	139	6.58%
11	148	7.01%
12	120	5.68%
13	156	7.39%
14	172	8.14%
15	151	7.15%

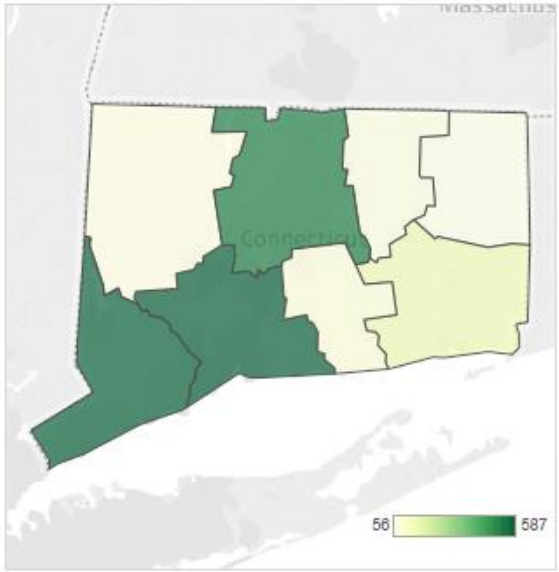
Crash Emphasis Areas - FMCSA qualifying crashes

Crash Severity | **Geography of Crashes 1** | Geography of Crashes 2 | Crash Conditions | Time and Date of Crashes | Crash Manner and Location | First Harmful ..

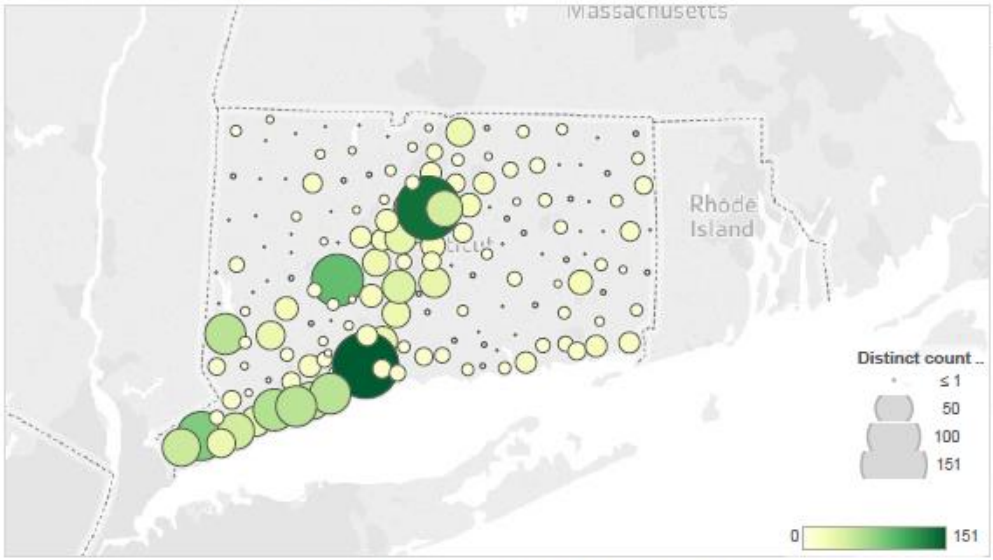
Queries Selected: Emphasis Area *FMCSA qualifying crashes*, Town *All*, Date (Year(s) *2015* or *1/1/2015* to *10/12/2016*), Severity *All*, Route Class *All*, Road Number *All*

Route Class	Number of Crashes	% of Total Crashes
Unknown	70	3.31%
Interstate	836	39.58%
US Route	152	7.20%
State	480	22.73%
Local	574	27.18%
Grand Total	2,112	100.00%





County	Number of Crashes	% of Total Crashes
Fairfield	585	27.70%
Hartford	531	25.14%
Litchfield	65	3.08%
Middlesex	77	3.65%
New Haven	587	27.79%
New London	144	6.82%
Tolland	67	3.17%
Windham	56	2.65%
Grand Total	2,112	100.00%

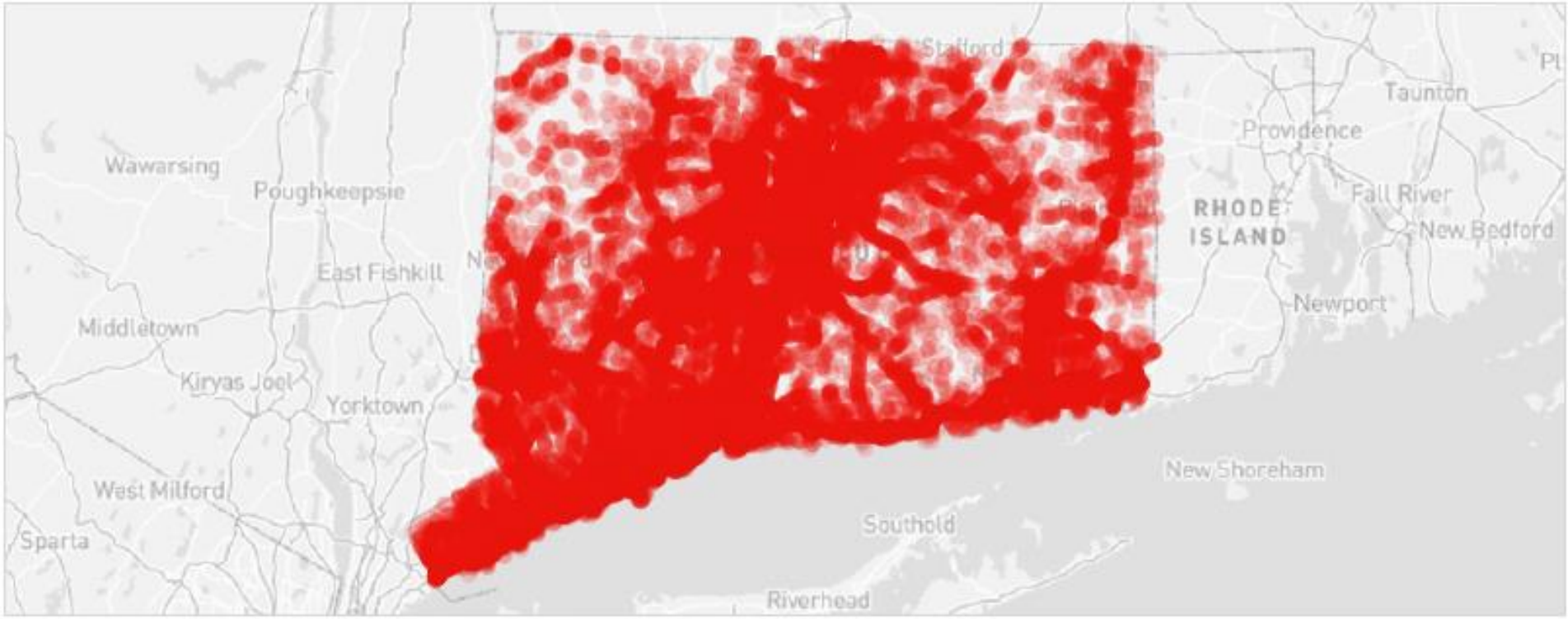


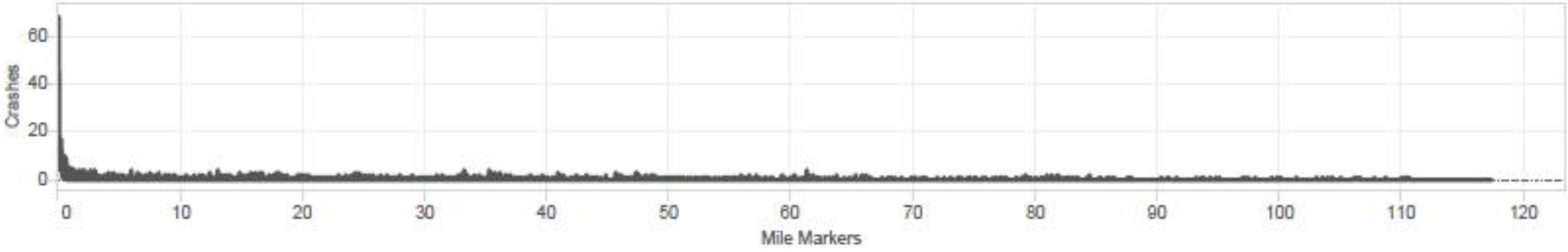
Town	Number of Crashes	% of Total Crashes
Andover	2	0.09%
Ansonia	3	0.14%
Ashford	1	0.05%
Avon	4	0.19%
Barkhamsted	3	0.14%
Beacon Falls	1	0.05%
Berlin	9	0.43%
Bethany	4	0.19%
Bethel	6	0.28%
Bethlehem	1	0.05%
Bloomfield	8	0.38%
Bolton	1	0.05%
Bozrah	3	0.14%
Branford	10	0.47%
Bridgeport	58	2.75%
Bridgewater	0	0.00%
Bristol	17	0.80%
Brookfield	4	0.19%
Brooklyn	6	0.28%
Burlington	3	0.14%

This page incorporates dynamic filtering on the tables and mile marker bar graph. By selecting a record, the other figures will be filtered by that selection. **Any selections made on this page will not be reflected anywhere else in the report.**

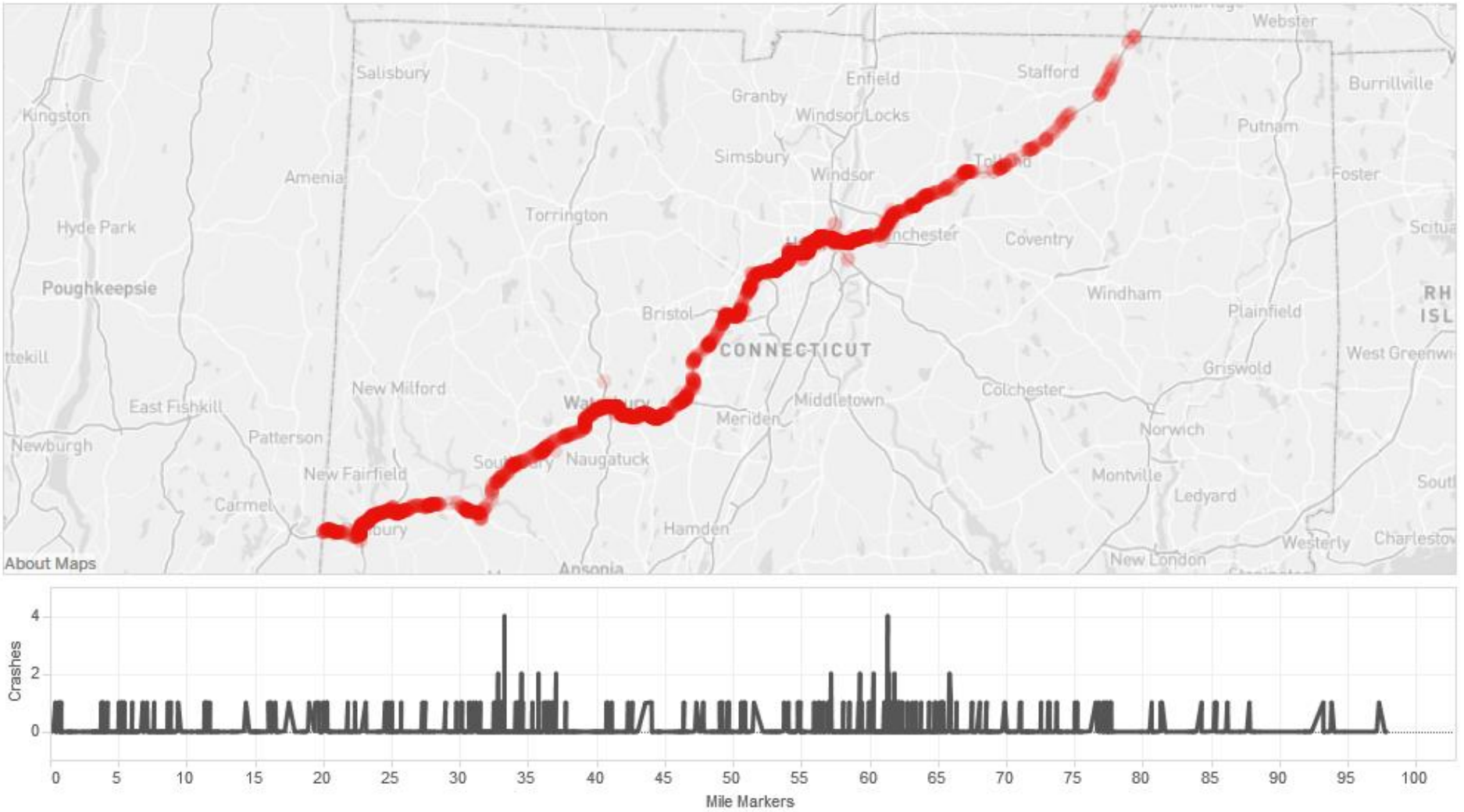
Please Note: The location and route number are both drawn directly from the crash reports and have not been checked to confirm accuracy. These may not directly correspond and are not guarenteed to be accurate.

95	4,847
84	3,888
1	3,532
15	3,501
91	2,830
10	1,468
6	1,293
8	1,243
44	1,081





I-84 Qualifying CV Crashes



UCONN Connecticut Crash Data Repository

[Main Menu] User: *jackson (erj02003@engr.uconn.edu)*
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UCONN

Year To Date as of Nov 01

2016 257 2015 234 2014 216 2013 242

Preliminary Year-End

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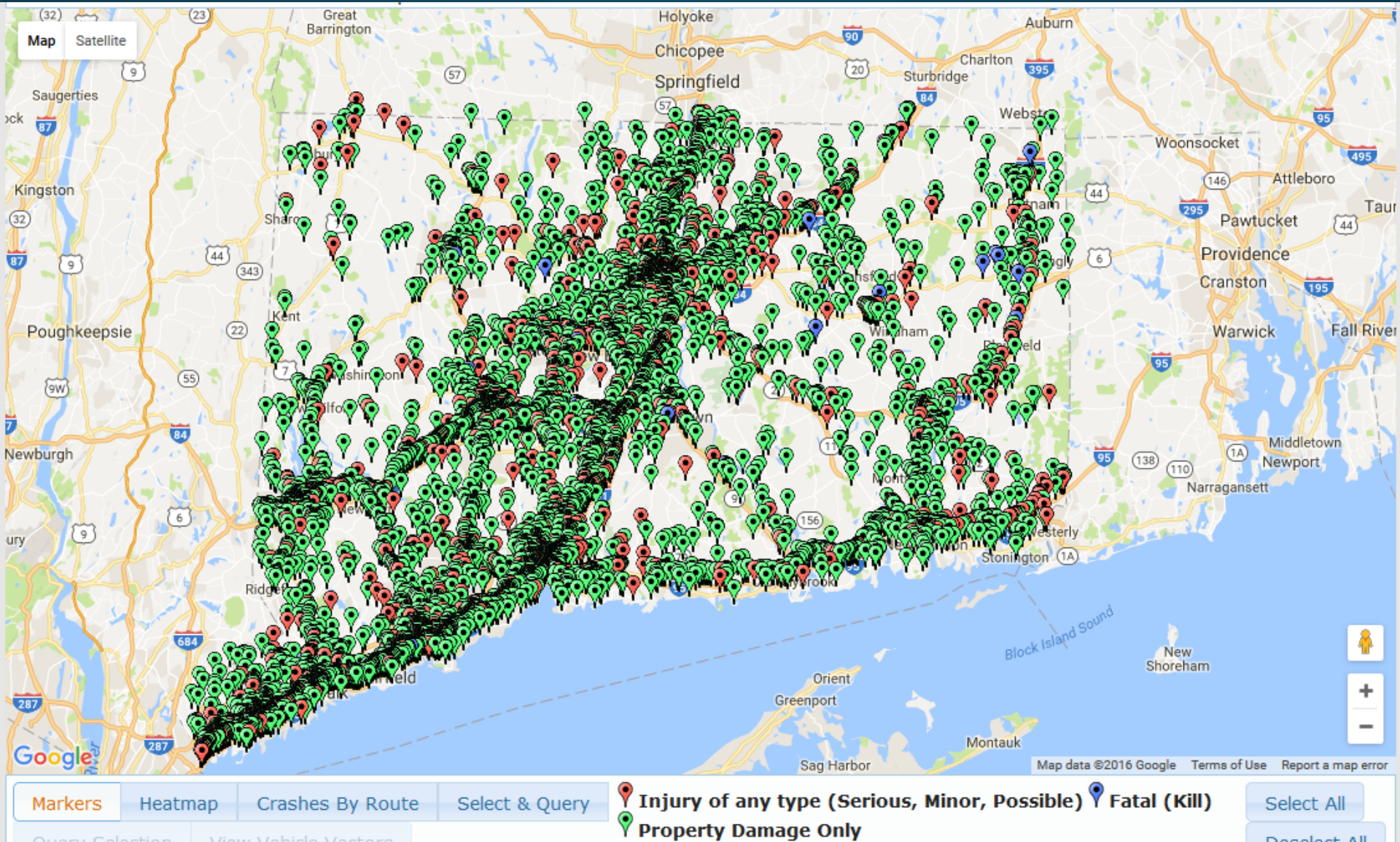
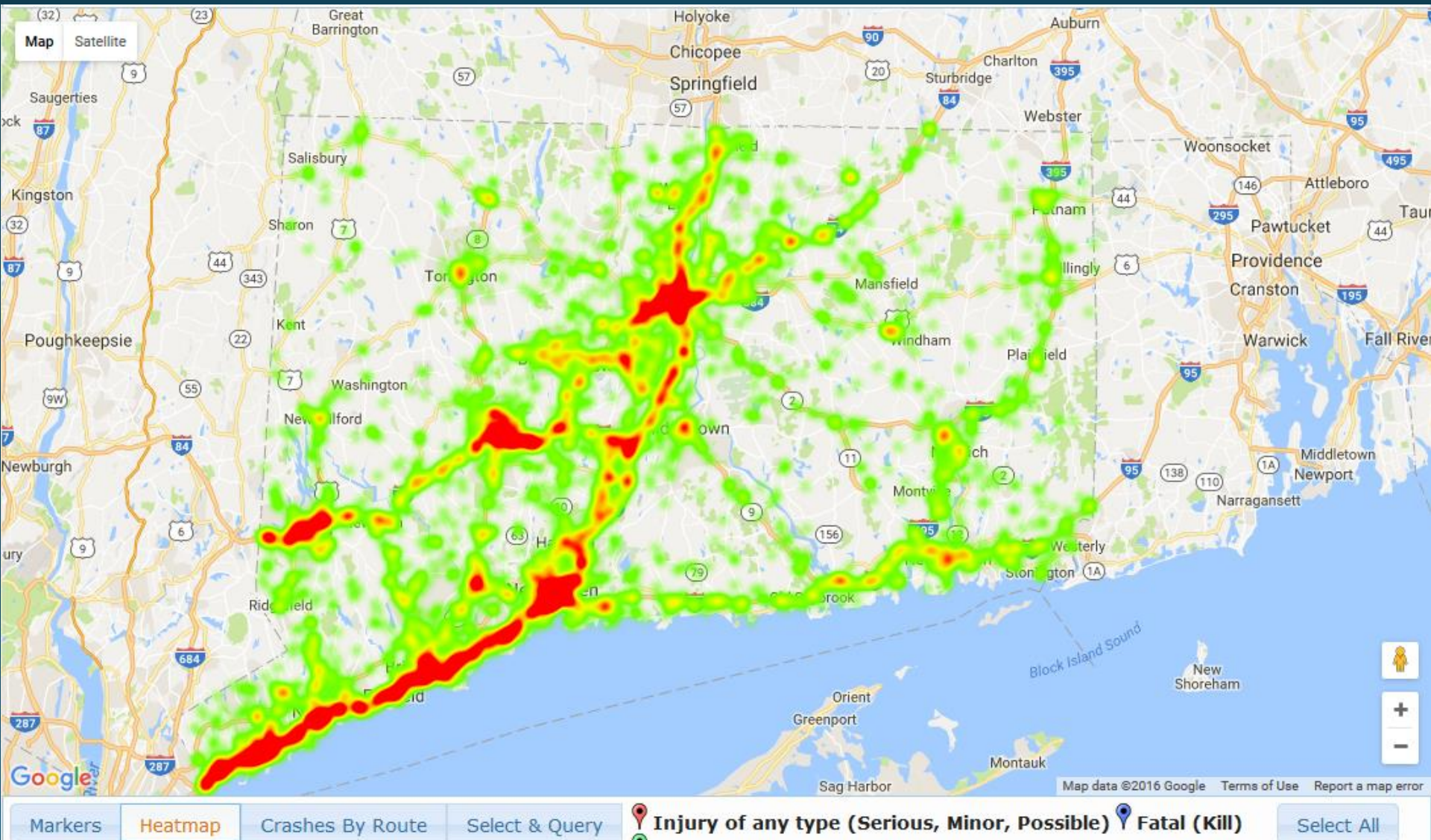
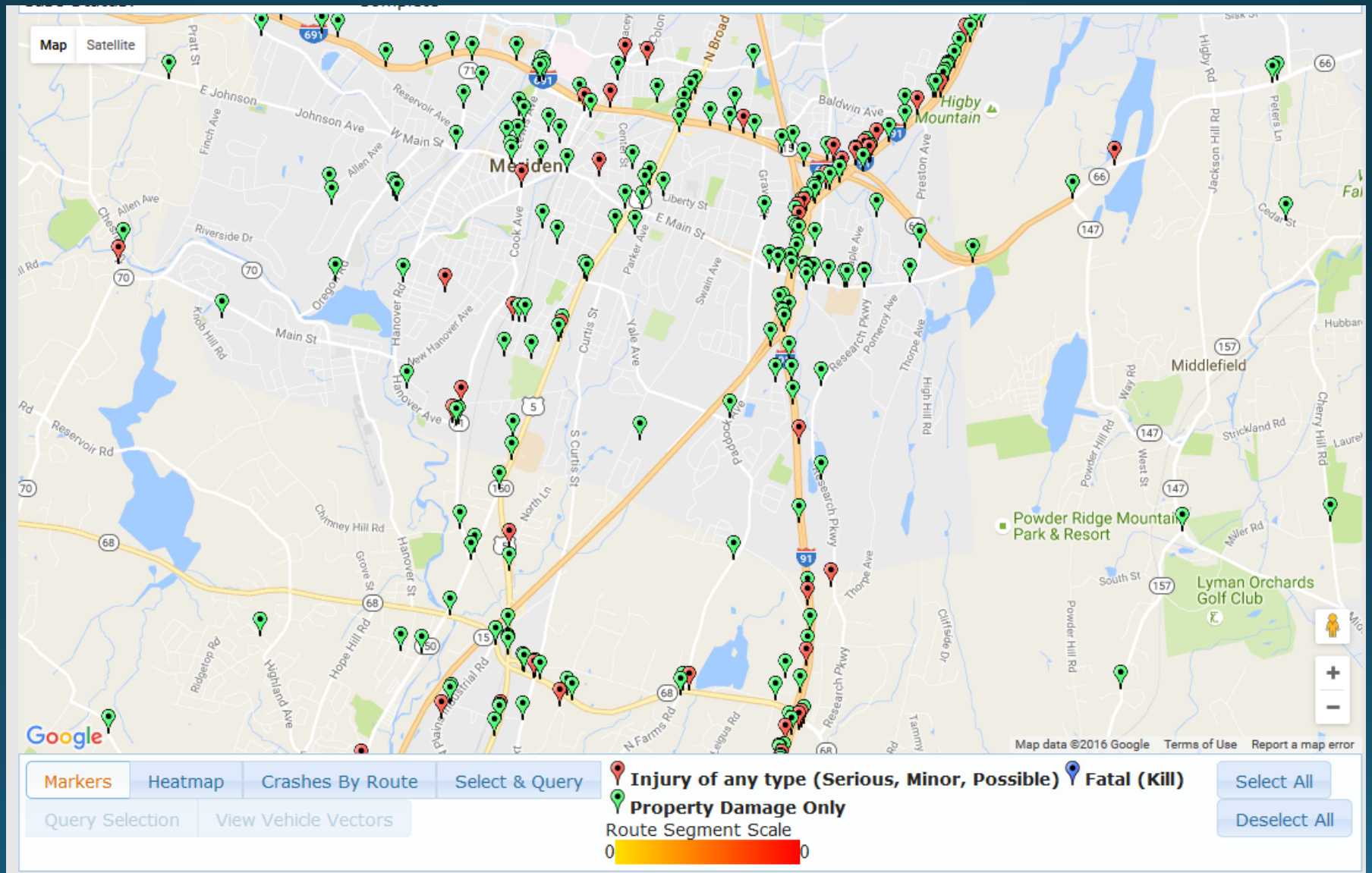
Advanced Query Tools



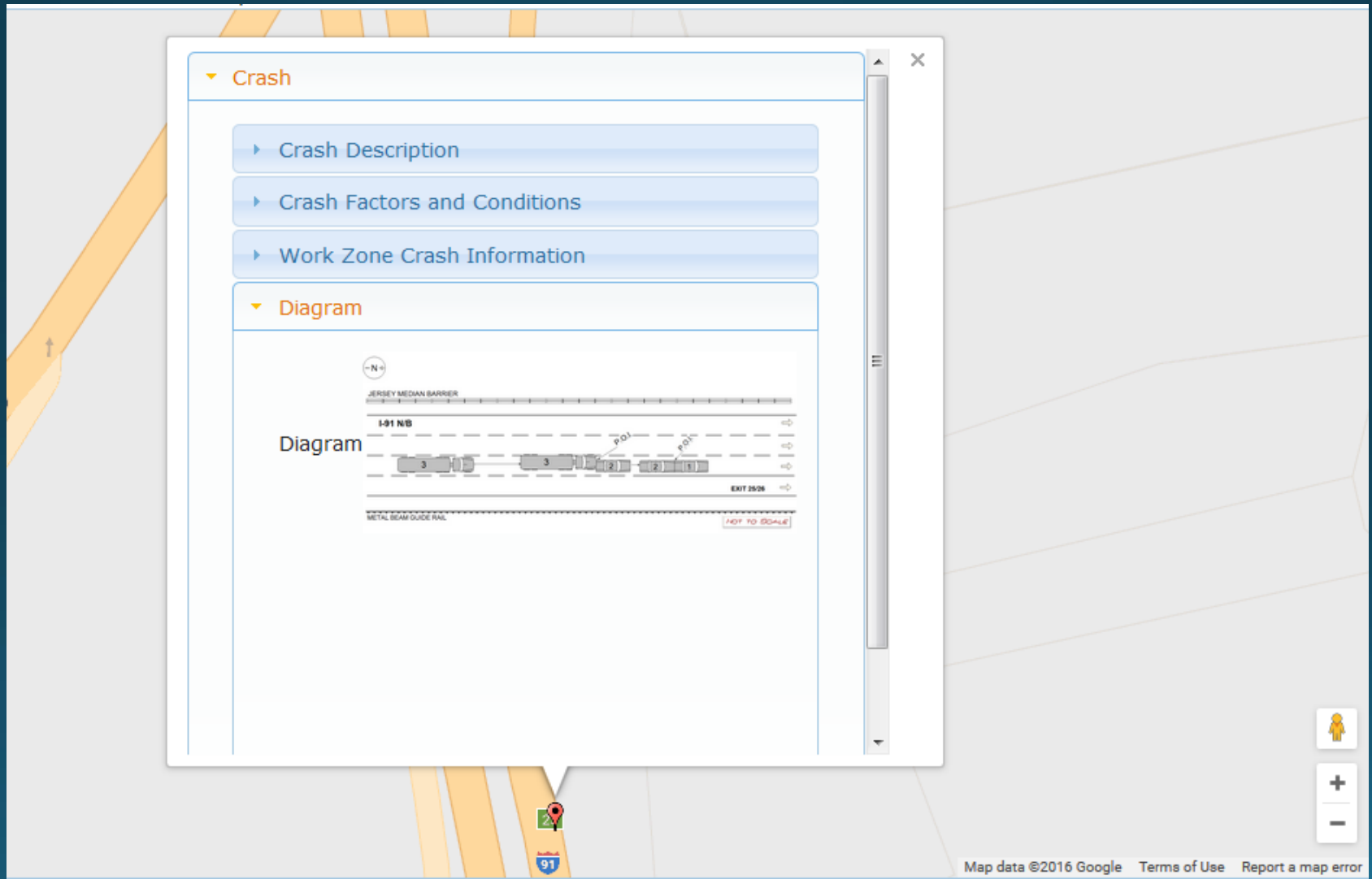
Advanced Query Tools



Advanced Query Tools



Advanced Query Tools



Advanced Query Tools

Advanced Query Tools

Solutions?

- How do we improve saf

Artificial intelligence forces truck drivers to search for alternatives

David Csordas
CONTRIBUTOR

There is evidence all around us that humans are gradually becoming obsolete, the empty cashier lines in the grocery store while customers choose "self-checkout," being just one example. There was a time when science fiction was just that—fiction—and the fantastic world of technology was just a dream. But reality is different today and the world of James Cameron's "Terminator" suddenly seems more realistic than ever.

The most recent development has been the creation of automated automobiles, an idea that has been around for many years but has always seemed too far-fetched. Until now. Cruise control has a whole new meaning in these vehicles, as advanced computers use GPS and radar to electronically guide them through the streets. Innovation has occurred mostly in large transportation trucks, 18-wheelers.

In theory, it's a good idea. Products would reach their destinations faster, less accidents would occur because humans will not be behind the wheel and because no one is driving, companies will not have to pay as many workers, saving them money and (hopefully) passing that down to their customers.

But as reality is often different than theory, so is this one. It is rather unsettling to imagine 18-wheel-wrecking-balls being piloted by a computer. We all know how often those self-checkout machines need very human support to do their jobs. Who will support a machine traveling at 60 miles per hour?

And this is completely ignoring the truckers themselves. As Natalie Kitroeff of the Los Angeles Times puts it, "at risk is one of the most common jobs in many states, and one of the last remaining careers that offer middle-class pay to those without a college degree". As factory jobs have gushed out of the country, the unemployed in their wake have turned to trucking as a source of income. It is, after all, one of those jobs that cannot be exported.

Yet it is one that can be automated, apparently. Uber's Otto, one of the first self-driving trucks, has partnered with Budweiser to test-run the technology by bringing beer to millions of customers without being driven by the human hand. So far there have been no accidents to report, but a fully trained driver is required to sit inside of the truck, making sure everything operates correctly. What will happen when this is no longer the case?

According to the American Trucking Association, there are an estimated 3.5 million professional truck drivers in the United States, most of whom stand to lose their jobs if automated driving becomes the norm.

An automated society is a very foreign topic to us. What would our lives be if we lived like the Jetsons? It is scary because it is unknown, but it holds its benefits, andw automated trucks do as well. In Texas in 2013, while only 3 percent of the traffic is made up of tractor trailers, they cause 12 percent of the motor vehicle deaths in the state. If a computer drove these trucks, it might be able to compensate for dangerous situations better than a human. GPS and radar do not need light nor clear skies to see well, after all. By automating trucks, we take the human error out of driving.

Maybe a good solution is somewhere in the middle, similar to what Budweiser and Otto are doing. Test out the new technology, with a driver present in case something goes wrong. Once more data is known about the matter, and the public is more comfortable with the idea of driverless trucks, then make plans on how to proceed.

We must be careful when inventing artificial intelligence so as not to disrupt what makes us human. Sometimes tasks that can be done by machine should still be done by humans. With self-checkout in the grocery stores, customers miss the personal touch of communicating with a cashier, for better or for worse. High-school students certainly miss the employment opportunity. In the words of Christian Lous Lange, "Technology is a useful servant, but a dangerous master."

Contact

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