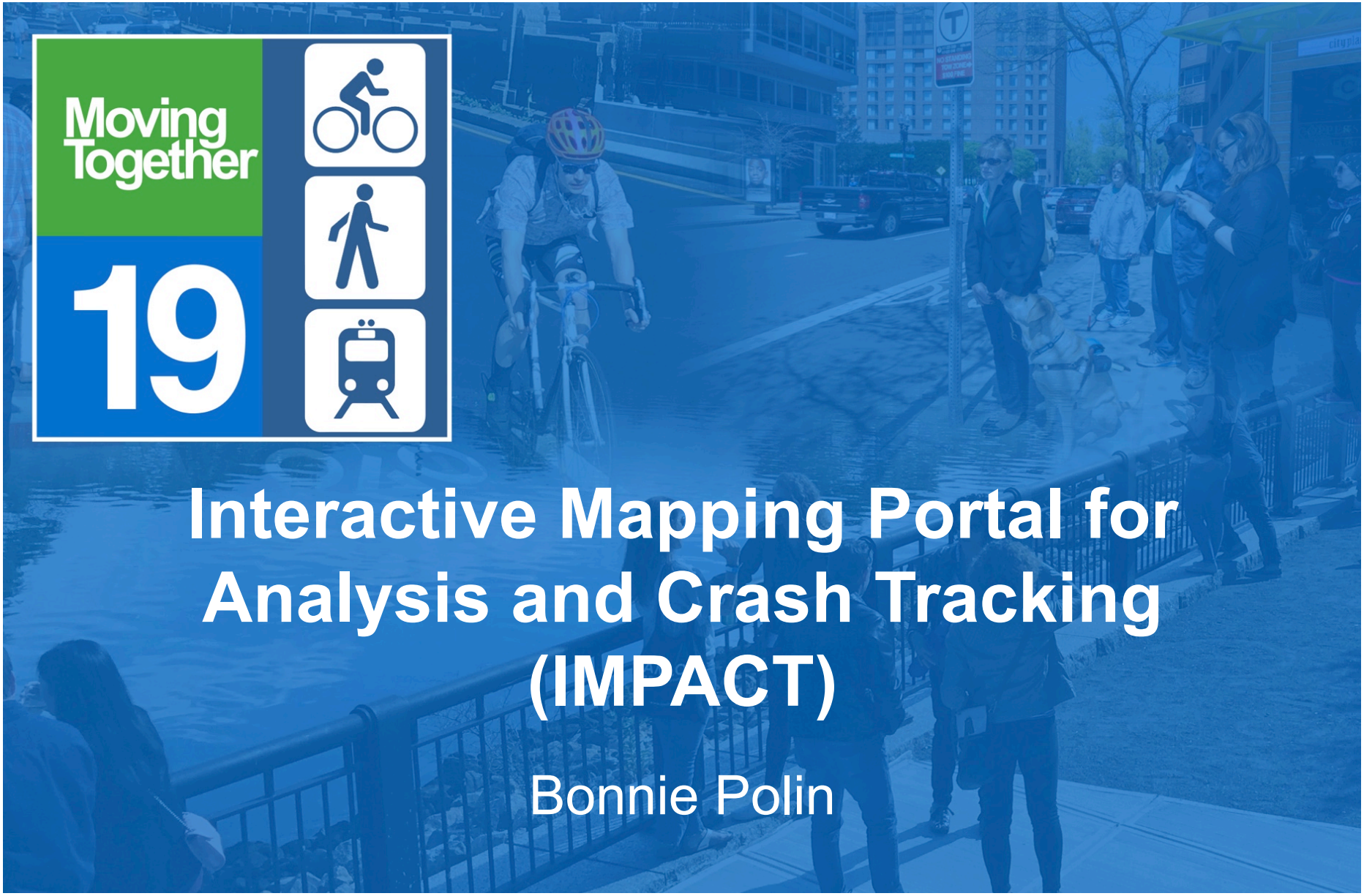


Interactive Mapping Portal for Analysis and Crash Tracking (IMPACT)

Bonnie Polin

IMPACT

massDOT
Massachusetts Department of Transportation

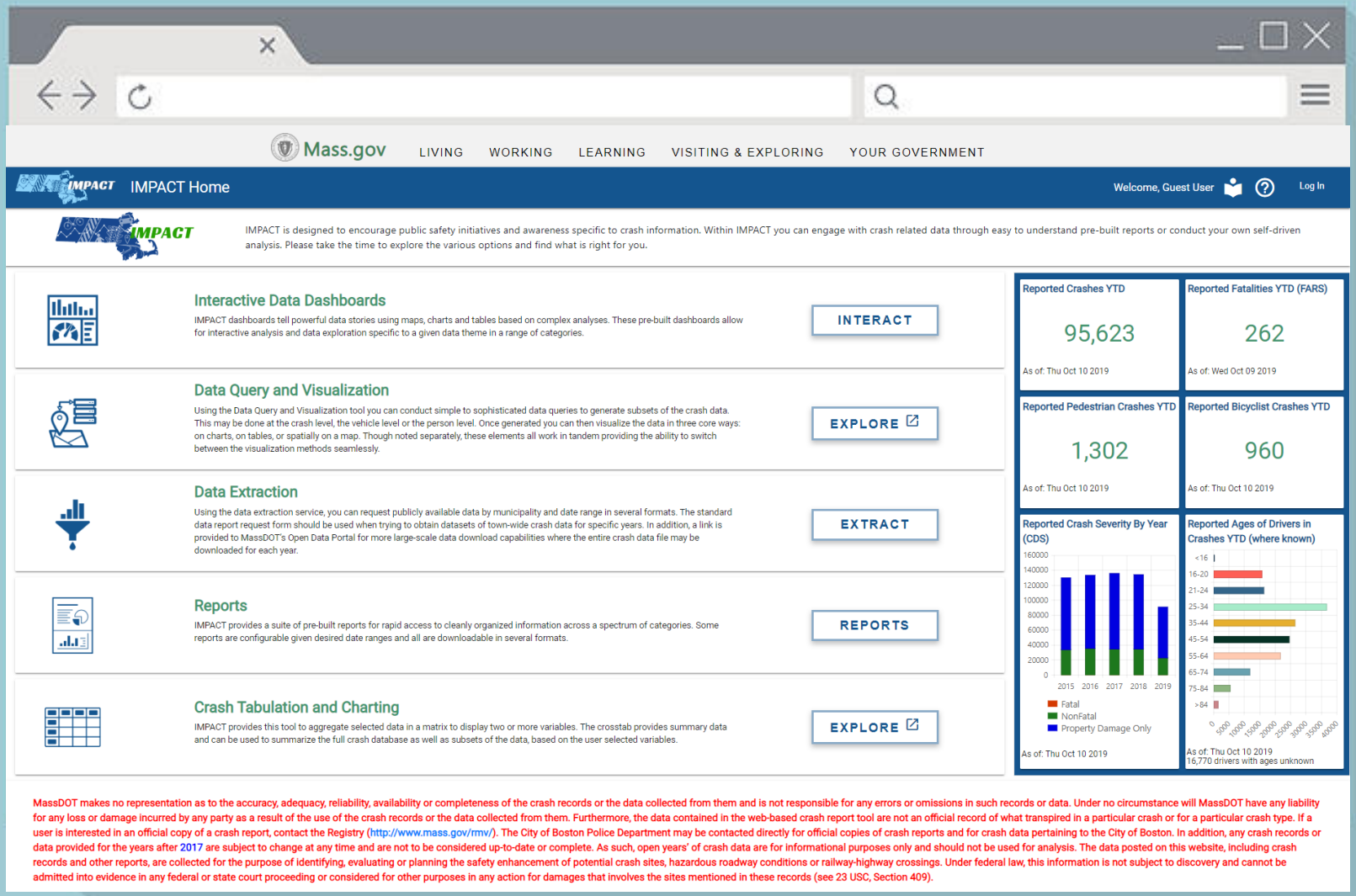
ADVANTAGES OF THE NEW IMPACT SYSTEM

- Provides crash summary information on all crashes accepted into the RMV crash data system including CURRENT crashes (previously the crash data portal was only for closed years which could be more than 2 years old).

- Provides PERSON level and VEHICLE/DRIVER level information not just crash level.

- Provides canned reports and dashboards for quick glance information as well as other user-friendly enhancements.

- Provides information specific to needs of law enforcement agencies so they benefit from good quality crash data and will work to improve upon the data.


Mass.gov
LIVING
WORKING
LEARNING
VISITING & EXPLORING
YOUR GOVERNMENT
IMPACT Home
Welcome, Guest User
Log In
IMPACT is designed to encourage public safety initiatives and awareness specific to crash information. Within IMPACT you can engage with crash related data through easy to understand pre-built reports or conduct your own self-driven analysis. Please take the time to explore the various options and find what is right for you.
Interactive Data Dashboards
IMPACT dashboards tell powerful data stories using maps, charts and tables based on complex analyses. These pre-built dashboards allow for interactive analysis and data exploration specific to a given data theme in a range of categories.
INTERACT
Data Query and Visualization
Using the Data Query and Visualization tool you can conduct simple to sophisticated data queries to generate subsets of the crash data. This may be done at the crash level, the vehicle level or the person level. Once generated you can then visualize the data in three core ways: on charts, on tables, or spatially on a map. Though noted separately, these elements all work in tandem providing the ability to switch between the visualization methods seamlessly.
EXPLORE
Data Extraction
Using the data extraction service, you can request publicly available data by municipality and date range in several formats. The standard data report request form should be used when trying to obtain datasets of town-wide crash data for specific years. In addition, a link is provided to MassDOT's Open Data Portal for more large-scale data download capabilities where the entire crash data file may be downloaded for each year.
EXTRACT
Reports
IMPACT provides a suite of pre-built reports for rapid access to cleanly organized information across a spectrum of categories. Some reports are configurable given desired date ranges and all are downloadable in several formats.
REPORTS
Crash Tabulation and Charting
IMPACT provides this tool to aggregate selected data in a matrix to display two or more variables. The crosstab provides summary data and can be used to summarize the full crash database as well as subsets of the data, based on the user selected variables.
EXPLORE
Reported Crashes YTD
95,623
As of: Thu Oct 10 2019
Reported Fatalities YTD (FARS)
262
As of: Wed Oct 09 2019
Reported Pedestrian Crashes YTD
1,302
As of: Thu Oct 10 2019
Reported Bicyclist Crashes YTD
960
As of: Thu Oct 10 2019
Reported Crash Severity By Year (CDS)
160000
140000
120000
100000
80000
60000
40000
20000
0
2015
2016
2017
2018
2019
Fatal
NonFatal
Property Damage Only
As of: Thu Oct 10 2019
Reported Ages of Drivers in Crashes YTD (where known)
<16
16-20
21-24
25-34
35-44
45-54
55-64
65-74
75-84
>84
0
5000
10000
15000
20000
25000
30000
35000
40000
As of: Thu Oct 10 2019
16,770 drivers with ages unknown
MassDOT makes no representation as to the accuracy, adequacy, reliability, availability or completeness of the crash records or the data collected from them and is not responsible for any errors or omissions in such records or data. Under no circumstance will MassDOT have any liability for any loss or damage incurred by any party as a result of the use of the crash records or the data collected from them. Furthermore, the data contained in the web-based crash report tool are not an official record of what transpired in a particular crash or for a particular crash type. If a user is interested in an official copy of a crash report, contact the Registry (http://www.mass.gov/rmv/). The City of Boston Police Department may be contacted directly for official copies of crash reports and for crash data pertaining to the City of Boston. In addition, any crash records or data provided for the years after 2017 are subject to change at any time and are not to be considered up-to-date or complete. As such, open years' of crash data are for informational purposes only and should not be used for analysis. The data posted on this website, including crash records and other reports, are collected for the purpose of identifying, evaluating or planning the safety enhancement of potential crash sites, hazardous roadway conditions or railway-highway crossings. Under federal law, this information is not subject to discovery and cannot be admitted into evidence in any federal or state court proceeding or considered for other purposes in any action for damages that involves the sites mentioned in these records (see 23 USC, Section 409).

Report

Standardized Reports

The Standardized Reports show Crash Report data broken down by a variety of different criteria.

Police Agency

The Police Agency report displays the number of Crash Reports entered into RMV's Crash Data System (CDS), broken down by police agency. The report defaults to the last 5 years, but any range of up to 10 years can be selected.

Older, Younger, and JOL Driver Related Crashes by Injury Type

This report displays the number of older drivers (65+), younger drivers (< 21), and drivers with a junior operator license involved in reported crashes by injury type, broken down by year. The report defaults to the last 5 years, but any range of up to 10 years can be selected.

Fatal Crashes by Town

The Fatal Crashes by Town report displays the annual and average number of fatal crash reports entered into RMV's Crash Data System (CDS), broken down by police agency (State or local city/town). The report defaults to the last 5 years, but any range of up to 10 years can be selected. Please note this is at the crash level and not at the person level so the report does NOT present the number of fatalities.

Reports Entered by Police Agency by Month

The Reporting Levels by Police Agency report shows the number of Crash Reports entered into RMV's Crash Data System (CDS), broken down by month. The report defaults to the current year, but other years can be selected as well.

Driver Distractions in Crashes

The Driver Distractions report displays the information pertaining to distractions by drivers who were involved in reported crashes entered into RMV's Crash Data System (CDS), broken down by the type (if any) of driver distraction. The report defaults to the last 5 years, but any range of up to 10 years can be selected.

Crashes by Urban Type and Functional Class

This report displays the number of Crash Reports entered into RMV's Crash Data System (CDS), broken down by urban type and functional class. The report defaults to the last 5 years, but any range of up to 10 years can be selected.

Crashes by Severity

The Crashes by Severity report displays the number of Crash Reports entered into RMV's Crash Data System (CDS), broken down by crash severity. The report defaults to the last 5 years, but any range of up to 10 years can be selected.

Pedestrian, Cyclist and Motorcyclist Crashes by Injury

This report displays the number of pedestrians, cyclists and motorcyclists who were involved in reported crashes entered into RMV's Crash Data System (CDS), broken down by year and injury level. The report defaults to the last 5 years, but any range of up to 10 years can be selected.

IMPACT

massDOT
Massachusetts Department of Transportation

2015-2019 Pedestrian, Cyclist and Motorcyclist Crashes by Injury

created: 10/10/2019

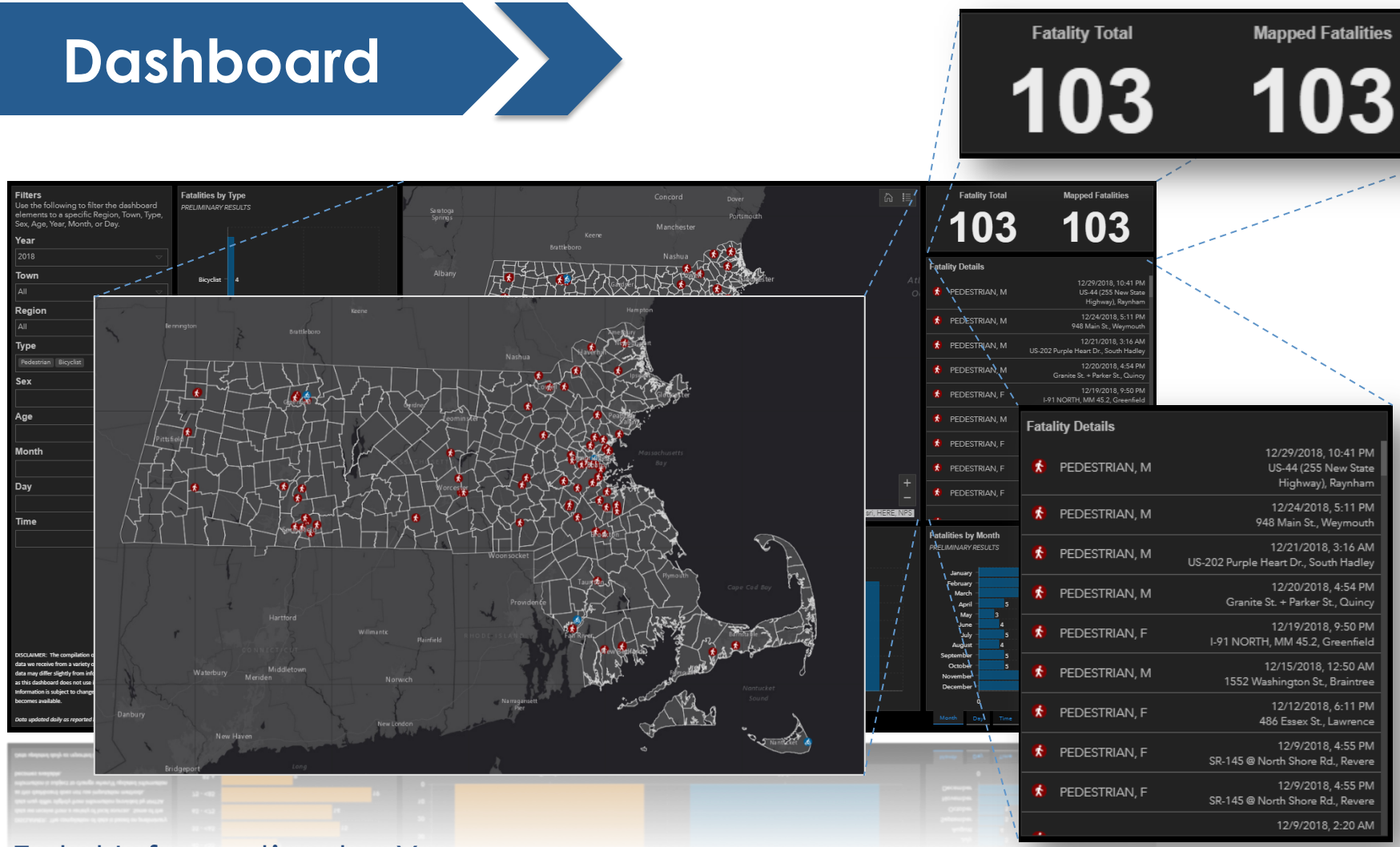
Bicycle, Pedestrian, Motorcycle Injury Type	2015	2016	2017	2018	2019
Cyclist: Fatal injury	11	8	11	4	3
Cyclist: Non-fatal injury	1,038	1,081	1,018	921	723
Cyclist: Not Reported	49	76	36	30	19
Cyclist: Property damage only (none injured)	302	324	306	291	206
Cyclist: Reported but invalid	0	0	0	0	0
Cyclist: Unknown	4	6	7	9	9
Cyclist: Total	1,404	1,495	1,378	1,255	960
Motorcycle: Fatal injury	53	41	49	58	46
Motorcycle: Non-fatal injury	1,440	1,465	1,312	1,153	1,003
Motorcycle: Not Reported	52	57	44	39	31
Motorcycle: Property damage only (none injured)	441	443	368	431	319
Motorcycle: Reported but invalid	0	0	0	0	0
Motorcycle: Unknown	10	12	0	14	11
Motorcycle: Total	1,996	2,018	1,773	1,695	1,410
Pedestrian: Fatal injury	74	76	69	58	39
Pedestrian: Non-fatal injury	1,711	1,861	1,824	1,730	1,022
Pedestrian: Not Reported	66	60	81	62	49
Pedestrian: Property damage only (none injured)	370	332	342	275	175
Pedestrian: Reported but invalid	0	0	0	0	0
Pedestrian: Unknown	15	11	9	19	17
Pedestrian: Total	2,236	2,340	2,325	2,144	1,302

MassDOT makes no representation as to the accuracy, adequacy, reliability, availability or completeness of the crash records or the data collected from them and is not responsible for any errors or omissions in such records or data. Under no circumstance will MassDOT have any liability for any loss or damage incurred by any party as a result of the use of the crash records or the data collected from them. Furthermore, the data contained in the web-based crash report tool are not an official record of what transpired in a particular crash or for a particular crash type. If a user is interested in an official copy of a crash report, contact the Registry (http://www.mass.gov/rmv/).

The City of Boston Police Department may be contacted directly for official copies of crash reports and for crash data pertaining to the City of Boston. In addition, any crash records or data provided for the years 2018 and later are subject to change at any time and are not to be considered up-to-date or complete. As such, open years' of crash data are for informational purposes only and should not be used for analysis.

The data posted on this website, including crash records and other reports, are collected for the purpose of identifying, evaluating or planning the safety enhancement of potential crash sites, hazardous roadway conditions or railway-highway crossings. Under federal law, this information is not subject to discovery and cannot be admitted into evidence in any federal or state court proceeding or considered for other purposes in any action for damages that involves the sites mentioned in these records (see 23 USC, Section 409).

Dashboard



Fatal Information by Year
Filter: 2018, Pedestrian & Bicyclist

Data Extract

Open Data Portal

This service should be used when trying to obtain statewide crash data that may be filtered at the crash, vehicle, or person level that could be downloaded in several formats.

VIEW

Standard Data Report Request Form (for crash level data)

By completing the fields below, an email should be sent to you within 5-10 minutes with a link to the resulting data. For a small or medium
this form for multiple years of data. For multiple towns you can make multiple requests using this form. For statewide data, the Open Data

Email Address *

Confirm Email *

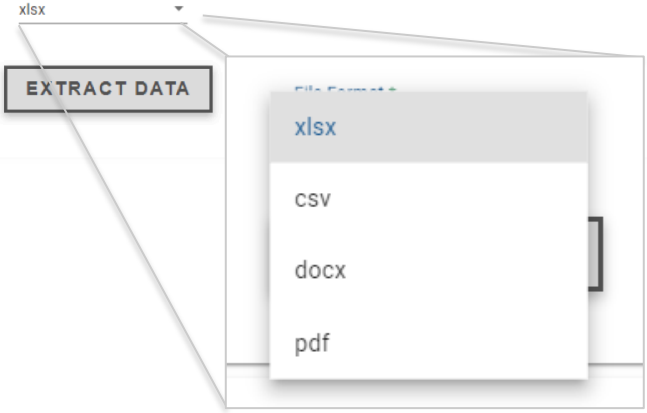
Report Start Year * - Report End Year *

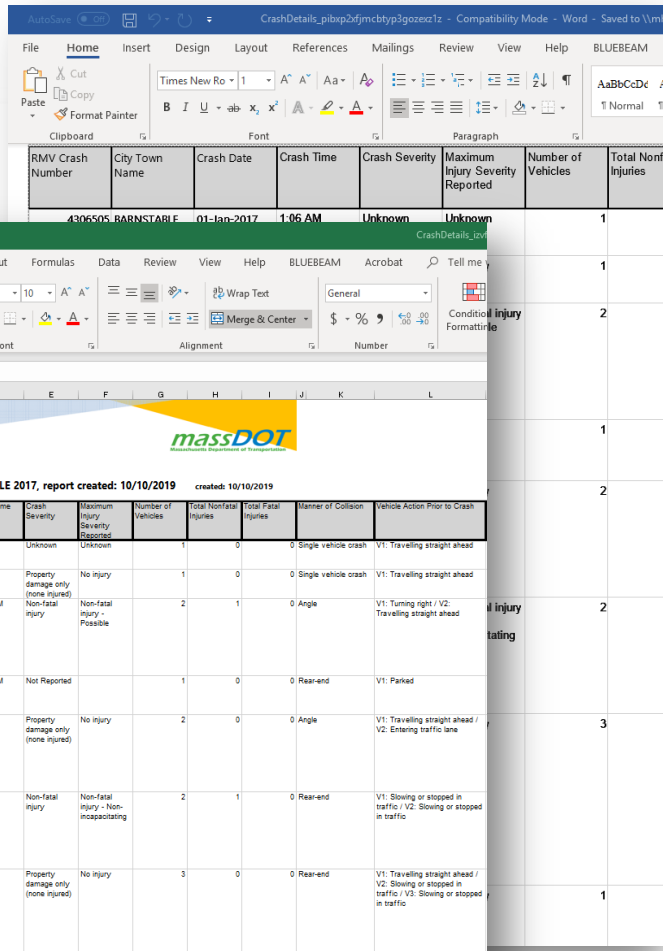
Municipality *

File Format *

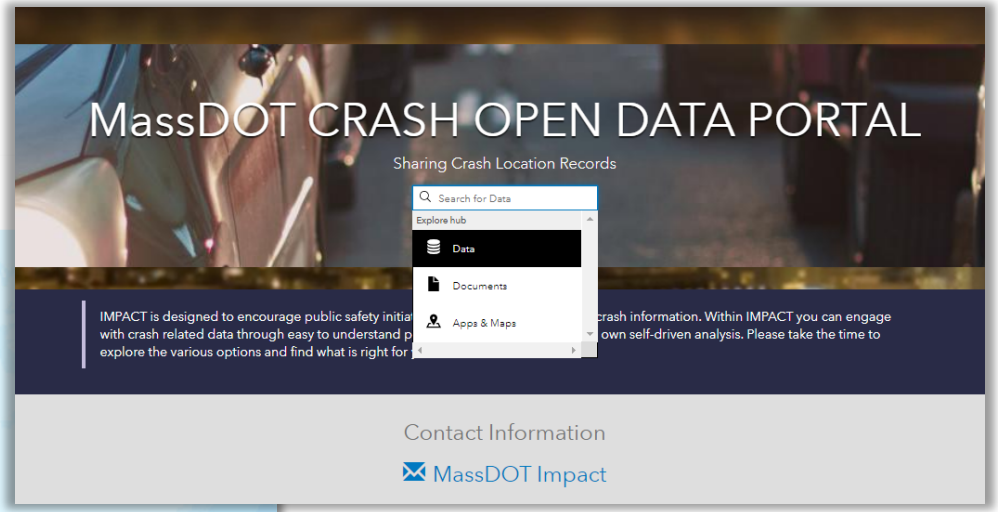
xlsx

EXTRACT DATA



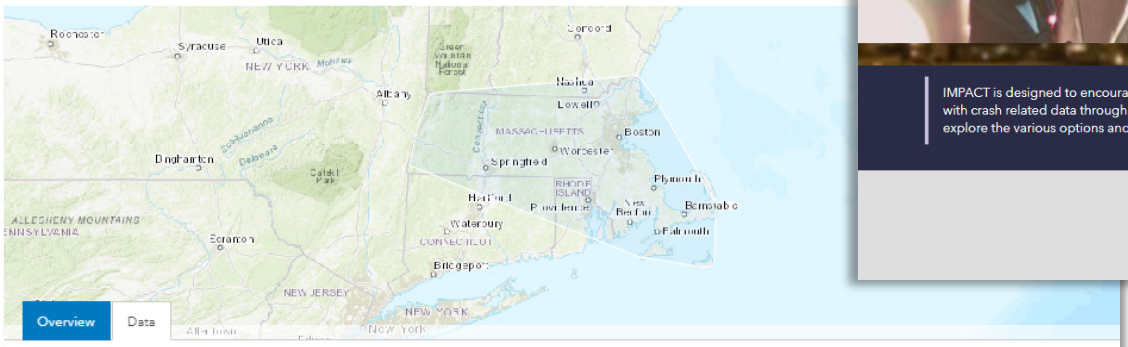


Data Extract



2016 Vehicle Level Crash Details

Last updated 3 months ago | 263,914 Records



7/19/2019 | Feature Layer | Custom License

Download | APIs

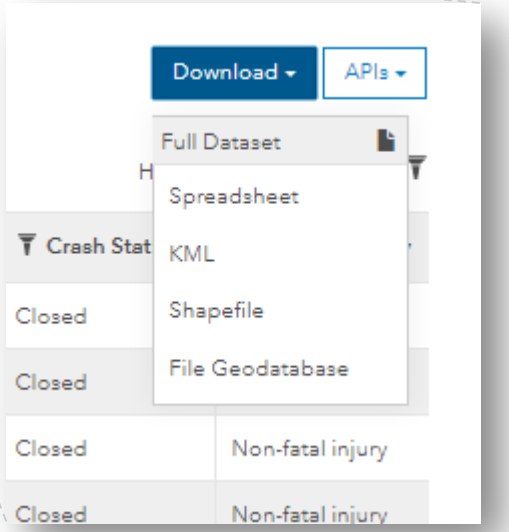
Showing 1 to 10 of 252,124

Hint: Filter columns using

OBJECTID	Crash Number	City Town Name	Crash Date	Crash Hour	Crash Time	Crash Status	Crash Severity
1	4210340	CHICOPEE	6/26/2016, 5:54 PM	05:00PM to 05:59PM	05:54 PM	Closed	Non-fatal injury
2	4210340	CHICOPEE	6/26/2016, 5:54 PM	05:00PM to 05:59PM	05:54 PM	Closed	Non-fatal injury
3	4344338	WORCESTER	12/22/2016, 3:12 PM	03:00PM to 03:59PM	03:12 PM	Closed	Non-fatal injury
4	4344338	WORCESTER	12/22/2016, 3:12 PM	03:00PM to 03:59PM	03:12 PM	Closed	Non-fatal injury
5	4344338	WORCESTER	12/22/2016, 3:12 PM	03:00PM to 03:59PM	03:12 PM	Closed	Non-fatal injury
6	4344338	WORCESTER	12/22/2016, 3:12 PM	03:00PM to 03:59PM	03:12 PM	Closed	Non-fatal injury
7	4349745	MELROSE	10/3/2016, 5:29 PM	05:00PM to 05:59PM	05:29 PM	Closed	Fatal injury
8	4349745	MELROSE	10/3/2016, 5:29 PM	05:00PM to 05:59PM	05:29 PM	Closed	Fatal injury
9	4349745	MELROSE	10/3/2016, 5:29 PM	05:00PM to 05:59PM	05:29 PM	Closed	Fatal injury
10	4349745	MELROSE	10/3/2016, 5:29 PM	05:00PM to 05:59PM	05:29 PM	Closed	Fatal injury

1 2 3 4 5 6 7 8 9 10

Showing time fields in America/New_York timezone.



Crosstab

IMPACT Home > Crash Tabulation and Charting

Crash Data | Vehicle Data | Person Data

Data Selector

Configure your data elements below.

Choose fields to add to report:

- **Crash Attributes**
  - AADT-Linked RD
  - Access Control-linked RD
  - Age of Driver - Oldest Known
  - Age of Driver - Youngest Known
  - Age of Non-Motorist - Oldest Known
  - Age of Non-motorist - Youngest Known
  - City Town Name
  - County Name

Drag fields between areas below:

Filters	Columns
	Year
Rows	**Values**
Crash Severity	Crash Count (Sum)

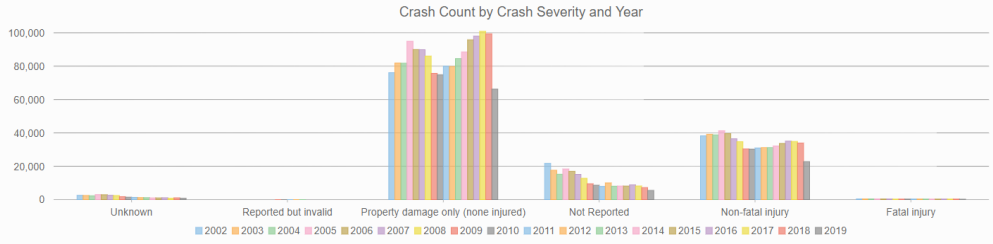
Defer Updates | UPDATE

Pivot Data Grid:

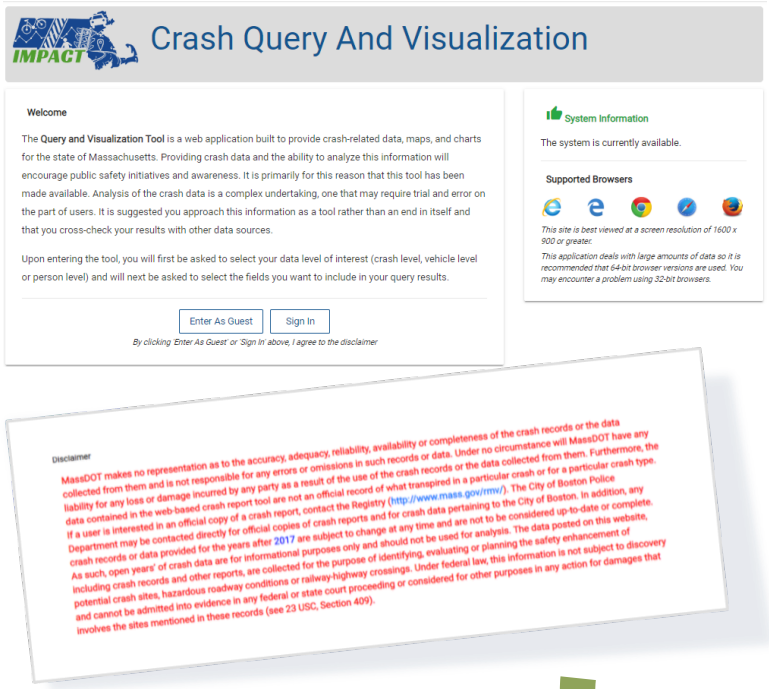
Data will populate here once you have configured your data elements in the Data Selector..

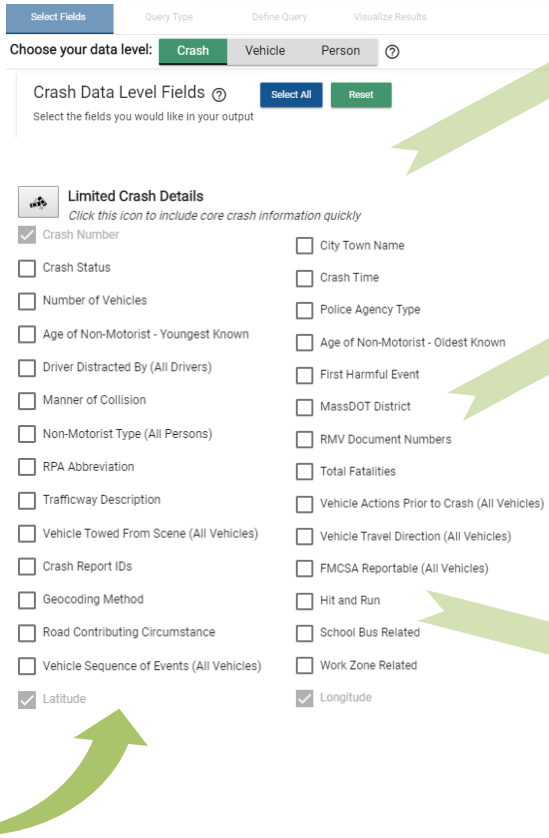
Crash Severity	2017	2018	2019	Crash Count
Unknown	816	1,089	821	31,387
Reported but invalid				32
Property damage only (none injured)	100,855	99,436	66,240	1,544,528
Not Reported	8,212	7,243	5,523	208,252
Non-fatal injury	34,851	33,937	22,789	614,940
Fatal injury	334	348	250	6,535
Grand Total	145,068	142,053	95,623	2,405,674

EXPORT GRID DATA



Data Query & Visualization





Basic Search

After selecting the fields to include in the query results from the previous screen, you can query on 17 pre-selected fields, (the most commonly requested), by clicking on the above button. You can then opt to further refine through a "Spatial Search" or go directly to visualize results

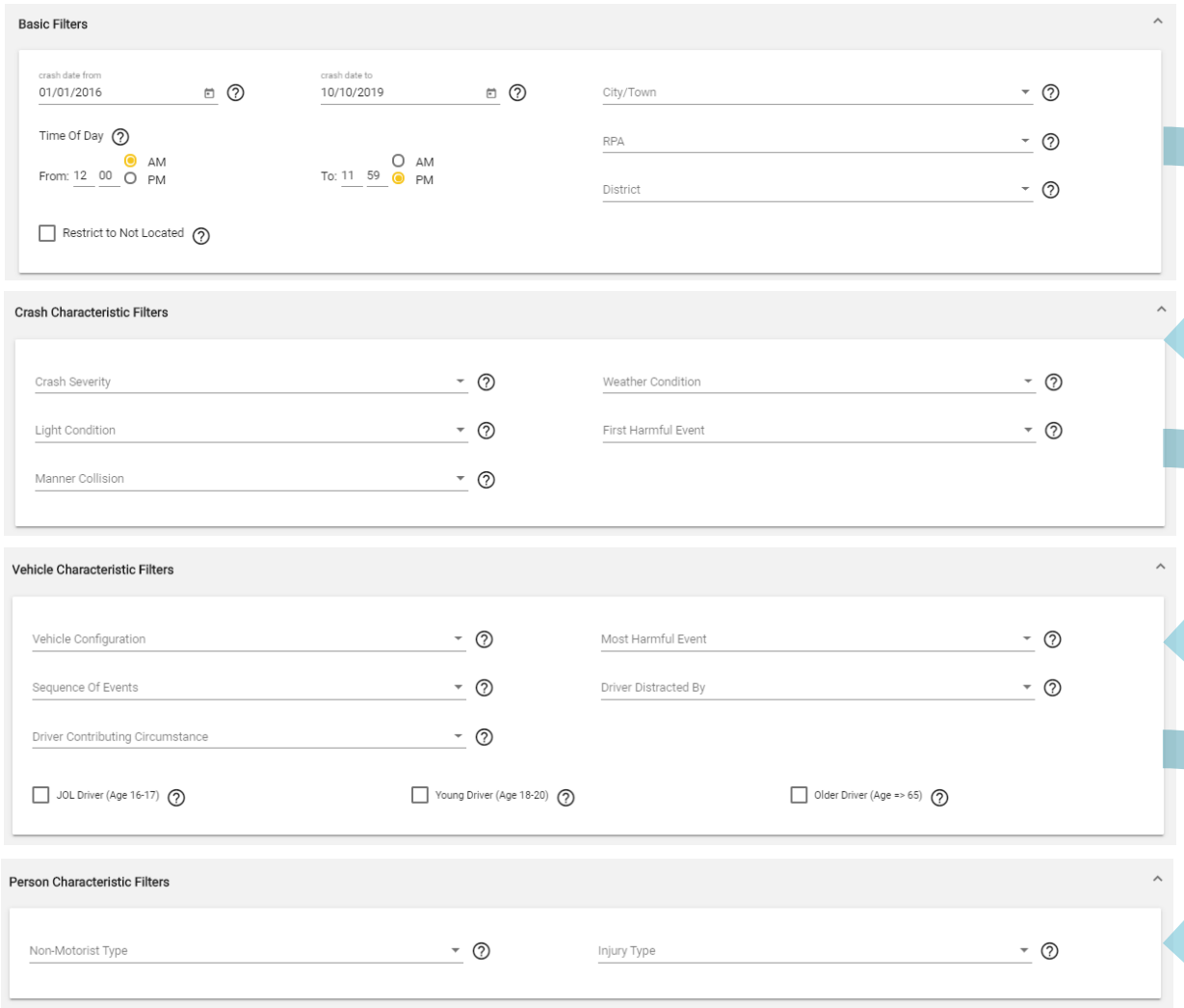
Spatial Search

After selecting the fields to include in the query results from the previous screen, you can spatially query the data by clicking on the above button. You can then opt to further refine through a "Basic Search" or "Advanced Search" or go directly to visualize results.

Advanced Search

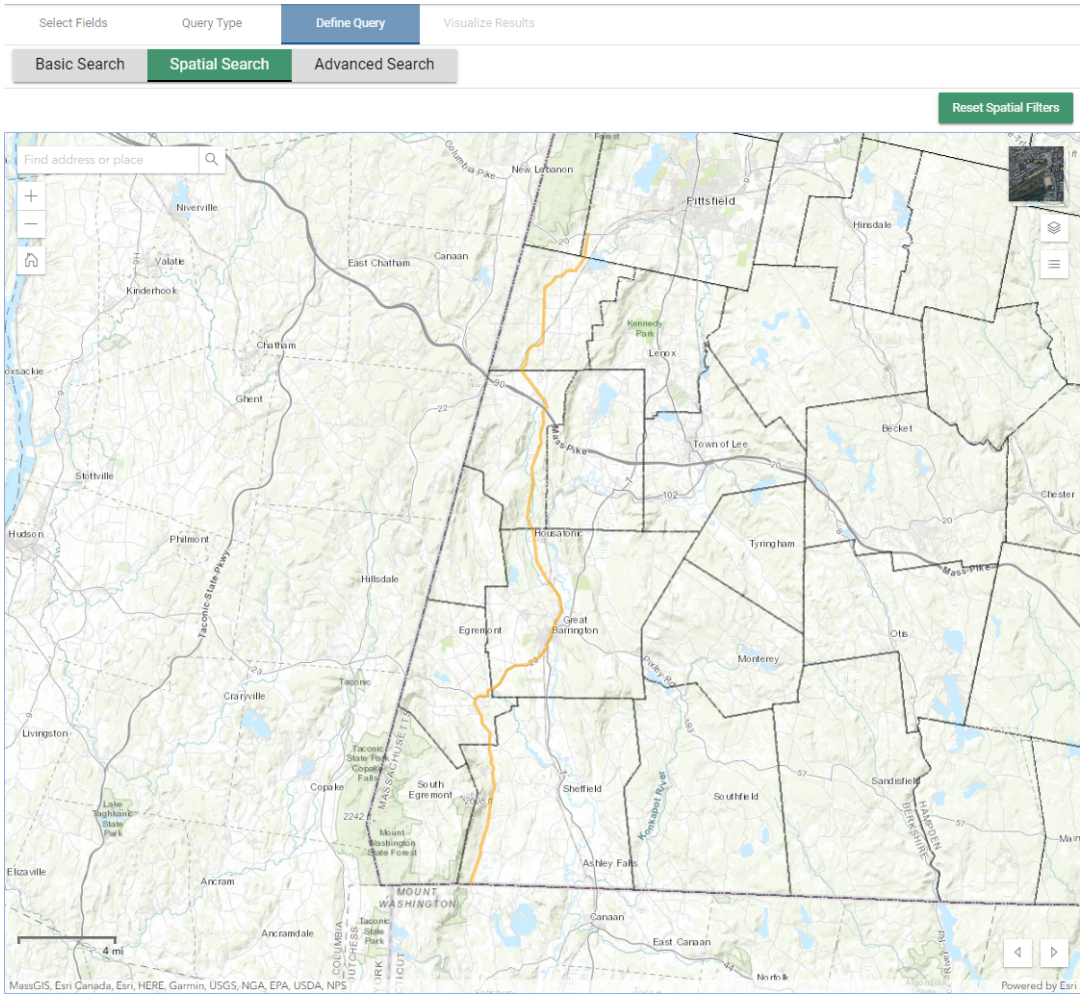
After selecting the fields to include in the query results from the previous screen, you can query using over 160 data fields with various mathematical and logical operators for a detailed query by clicking on the above button. You can then opt to further refine through a "Spatial Search" or go directly to visualize results.

Data Query & Visualization

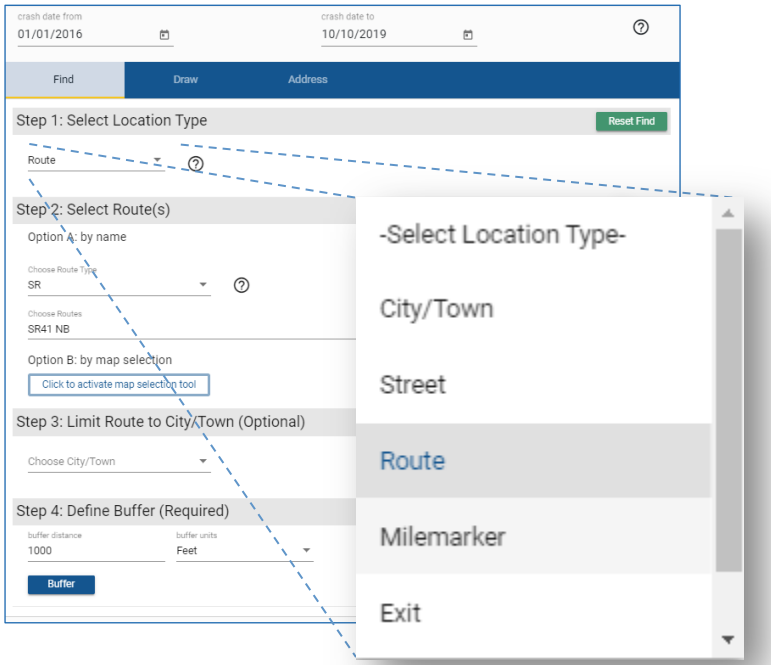


Basic Search

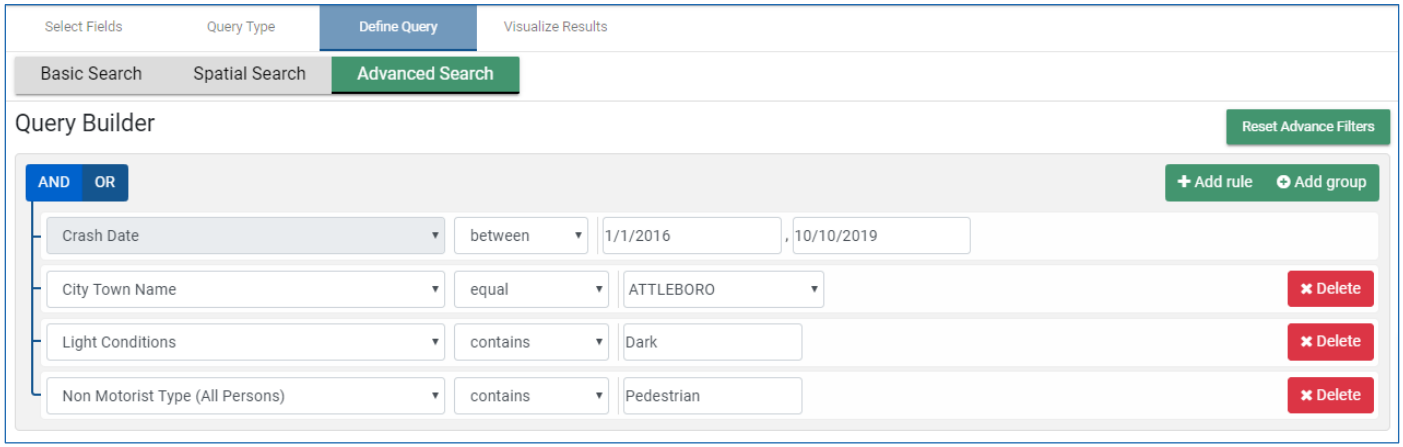
Data Query & Visualization

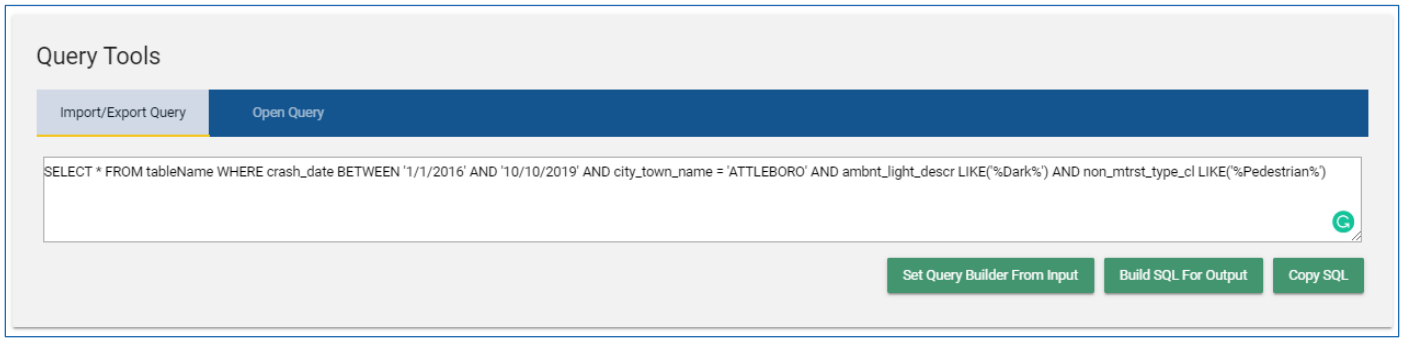


Spatial Search



Data Query & Visualization



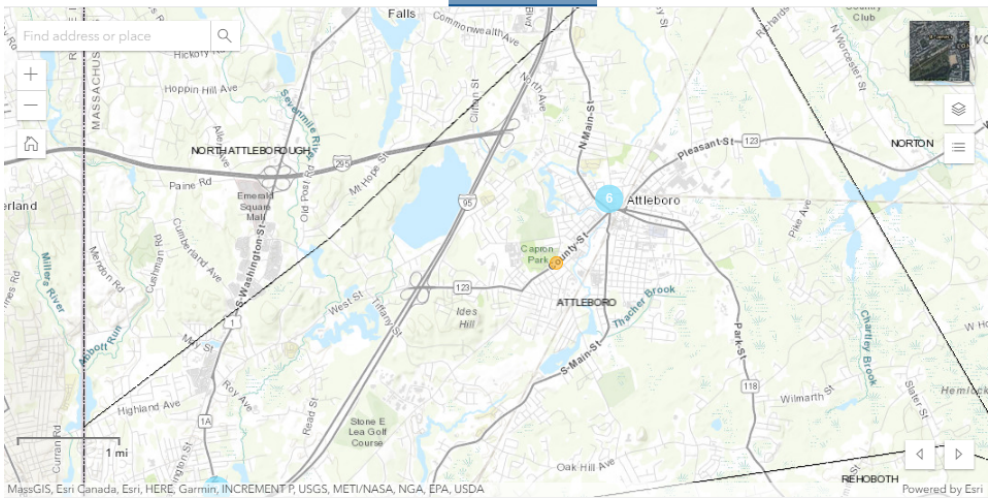


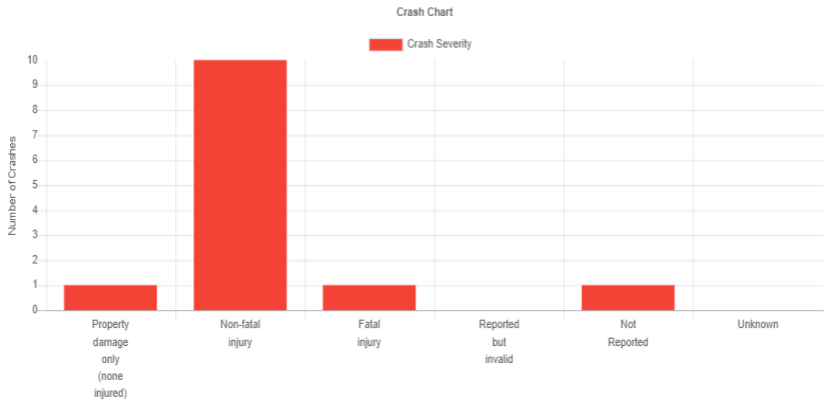
Advanced Search

Data Query & Visualization

Visualize Results

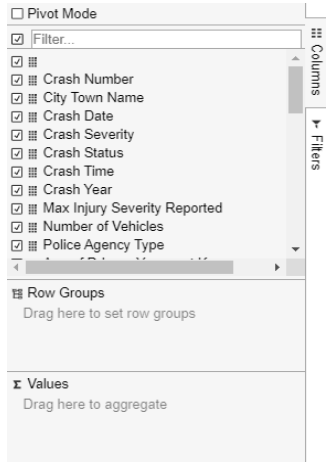
Select Fields | Query Type | Define Query | **Visualize Results**





Drag here to set row groups

Crash Number	City Town Name	Crash Date	Crash Severity	Crash Status	Crash Time	Crash Year
4236740	ATTLEBORO	8/18/2016	Non-fatal injury	Closed	9:54 PM	2016
4306995	ATTLEBORO	1/3/2017	Fatal injury	Closed	5:36 PM	2017
4222340	ATTLEBORO	7/22/2016	Non-fatal injury	Closed	10:17 PM	2016
4512786	ATTLEBORO	3/11/2018	Non-fatal injury	Open	12:57 AM	2018
4142616	ATTLEBORO	1/28/2016	Non-fatal injury	Closed	6:31 PM	2016
4278572	ATTLEBORO	10/28/2016	Property damage only (no…	Closed	5:43 PM	2016
4386209	ATTLEBORO	7/4/2017	Non-fatal injury	Closed	11:14 PM	2017
4453737	ATTLEBORO	11/12/2017	Non-fatal injury	Closed	4:50 PM	2017
4468093	ATTLEBORO	12/6/2017	Non-fatal injury	Closed	6:34 PM	2017
4488298	ATTLEBORO	1/18/2018	Non-fatal injury	Open	7:24 PM	2018
4489721	ATTLEBORO	1/23/2018	Non-fatal injury	Open	5:00 PM	2018
4504570	ATTLEBORO	2/19/2018	Non-fatal injury	Open	7:35 PM	2018
4278570	ATTLEBORO	10/28/2016	Not Reported	Closed	8:03 PM	2016



Thank You!

Bonnie Polin
Bonnie.polin@state.ma.us
857-368-9636

https://apps.impact.dot.state.ma.us/cdp/