

To: Transportation Committee

Transportation Subcommittee

From: Jennifer Carrier, Director of Transportation Planning

Jillian Massey, Senior Transportation Planner

Date: December 1, 2017

Subject: Target Setting for Safety Performance Measures

To follow up on the November 3, 2017 memorandum to the Transportation Committee related to safety performance measures, CRCOG prepared the below supplemental information. We would like to discuss this supplemental information in detail at the upcoming December 11, 2017 subcommittee meeting and possibly act on safety targets during the Transportation Committee meeting this month.

Federal Regulations

As communicated in the past, CRCOG will need to set targets for five (5) safety performance measures which include: # of fatalities; rate of fatalities (per 100 million Vehicle Miles Traveled - VMT); # of serious injuries; rate of serious injuries (per 100 million VMT); and # of non-motorized fatalities plus serious injuries. These safety performance measures are applicable to all public roads regardless of ownership or functional classification. Targets are established annually (CTDOT submitted theirs in the summer of 2017 for calendar year 2018). CRCOG is permitted to set our own targets if we so choose, however this needs to completed by February 27, 2018.

Each year, FHWA will determine whether CTDOT has met or made significant progress toward meeting its targets. If the state does not achieve or make significant progress on 4 out of the 5 targets it must obligate Highway Safety Improvement Program (HSIP) funds to safety projects, develop an implementation plan, and describe how the Highway Safety Plan (HSP) will be adjusted to better meet performance targets.

CRCOG will be held accountable for safety progress through the federal certification review process. During the review FHWA will evaluate how CRCOG is addressing and achieving targets (or assisting the state in achieving targets).

Regional Safety Targets

In order to make a decision about whether CRCOG develops our own targets or adopt CTDOT's targets we need to understand the data, resources, and implications.

<u>Data:</u> Outlined on the next page are the safety measures and targets that have been set by CTDOT and comparable data that CRCOG compiled as it relates to our numbers and rates. In order to understand how our region compares to the state, we included population and VMT data. We have attached graphics showing the specific data by year and the trend line in addition to data from UConn's Crash Data Repository summarizing regional crashes for 2016.

If CRCOG elects to establish our own safety performance targets, we will be required to calculate our own regional VMT and submit our methodology along with our targets to CTDOT. However, given that CTDOT collects statewide VMT data, we will need to coordinate with CTDOT each time we develop targets to ensure that regional VMT data is available in sufficient time to analyze them and complete our target process. CRCOG has been working with CTDOT to secure VMT data however, to date, we do not have sufficient data to be able to develop and defend a methodology.

Andover / Avon / Berlin / Bloomfield / Bolton / Canton / Columbia / Coventry / East Granby / East Hartford / East Windsor / Ellington / Enfield / Farmington Glastonbury / Granby / Hartford / Hebron / Manchester / Marlborough / Mansfield / New Britain / Newington / Plainville / Rocky Hill / Simsbury / Somers South Windsor / Southington / Stafford / Suffield / Tolland / Vernon / West Hartford / Wethersfield / Willington / Windsor / Windsor Locks

	Connecticut	CRCOG Region	CRCOG Compared to Connecticut
Population	3,590,866	975,729	27%
Vehicle Miles Traveled	86,342,829	24,456,092	28%
# of Fatalities ¹	257	78	30%
Rate of Fatalities ²	0.823	0.866	Higher
# of Serious Injuries ¹	1,571	436	28%
Rate of Serious Injuries ²	5.03	4.87	Lower
# of Non-motorized fatalities + serious injuries ¹	280	59	21%

⁵⁻Year Average

<u>Resources:</u> CRCOG is working to understand how CTDOT develops VMT data throughout the state and what information is available region wide. Due to the uncertainty of this CRCOG staff cannot assess the needed resources to work with and analyze the data. There is a possibility that the VMT data has gaps which could require CRCOG and towns to collect average daily traffic volumes on municipal roads.

<u>Implications:</u> If CRCOG elects to set our own safety targets we will need to aggressively work to meet those targets so it does not become an issue during the federal certification review process. Given the uncertainty of how the federal rule will be carried out, it may be in everyone's interest to adopt the state's targets in these early years, understand what the data and trends are, and monitor what other states are doing. It's also important to note that CRCOG administers LOTCIP funds and can direct those funds to safety capital projects however given that CTDOT administers HSIP funds and other federal funds that address safety projects, CRCOG has limited control in directing funds for safety projects.

Recommendations

CRCOG can either agree to support the CTDOT targets or establish a targets specific to CRCOG's planning area. It is important to understand CRCOG will need to conduct some level of regional self-evaluation regarding how safety is addressed in our planning and programming processes. Key areas we will need to focus on include the Long Range Transportation Plan (LRTP), the Transportation Improvement Program (TIP) and project selection.

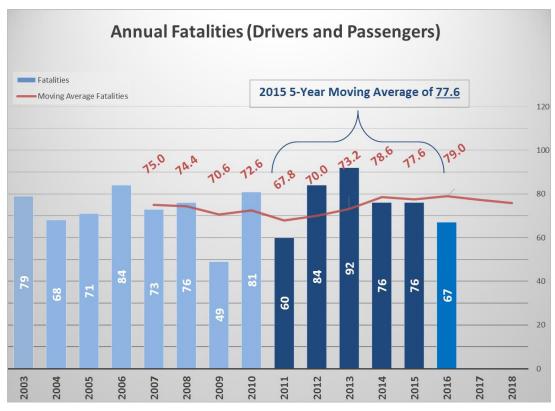
In our memorandum last month, CRCOG laid out a number of items to consider as we work toward establishing performance targets. Since our discussion at the last Transportation Committee meeting we outreached to two other CT regions to discuss their target setting process. The regions we talked with will be endorsing CTDOT's targets given CT's small geography and the anticipated drain on resources given the need to develop a VMT methodology.

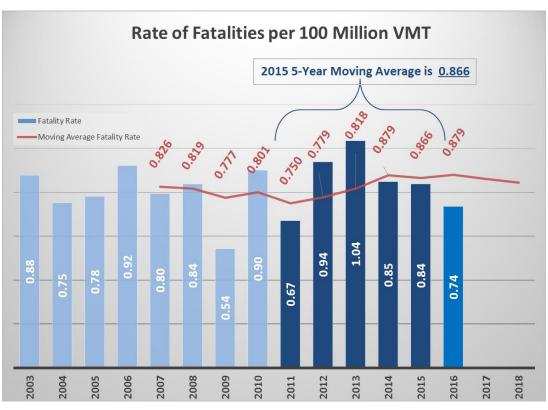
CRCOG staff recommends that the Committee endorse the State's targets for calendar year 2018 with the following suggestions. We also included a draft Policy Board resolution for your consideration.

² Per 100 million VMT

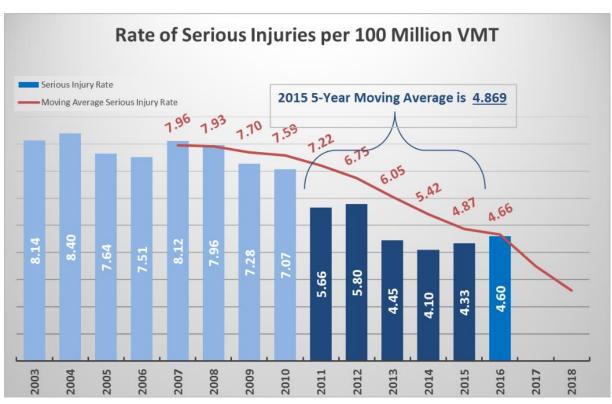
- CRCOG work in the coming year to assess what other regions are doing nationally and get a better handle on VMTs within the region.
- CRCOG advocate to CTDOT that a Regional Safety Plan be advanced within our region as it will assist us in pinpointing safety patterns and areas of concerns. In the meantime CRCOG staff can work to issue regional safety data two times a year.
- Request CTDOT coordinate quarterly meetings with Regional Planning Organizations to ensure collaboration on safety efforts and reaching safety targets.
- Continue to support the Safety Circuit Rider program and work in partnership with UConn's Technology Transfer Center to collaborate in addressing safety on local roads and understanding best practices as it relates to safety projects.
- Monitor federal financials and projects in the region that address safety and ensure a fair share
 is being spent within our region to address safety. Given that our region is about 30% of the
 state's population, VMT and fatal accidents we should consider that as a baseline when
 assessing safety initiatives and funds spent in our region.
- Monitor crashes and trends in the Capitol Region and, if necessary, consider amending our rating criteria or funding set-aside amounts on certain funding programs (e.g. LOTCIP, TA Set-Aside) to ensure we support projects that address safety.

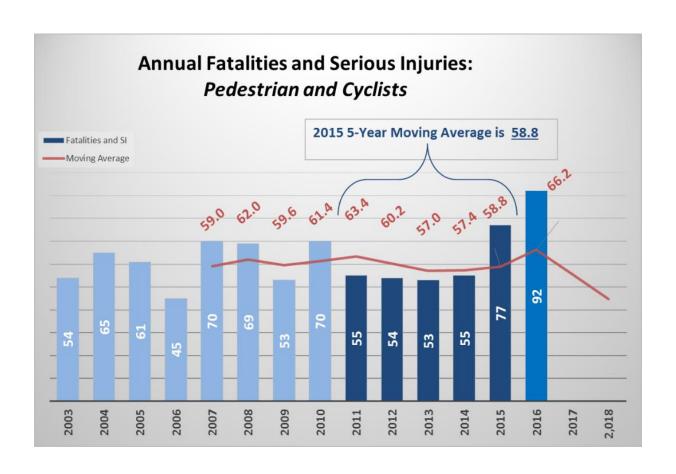
Regional Data for Performance Measures



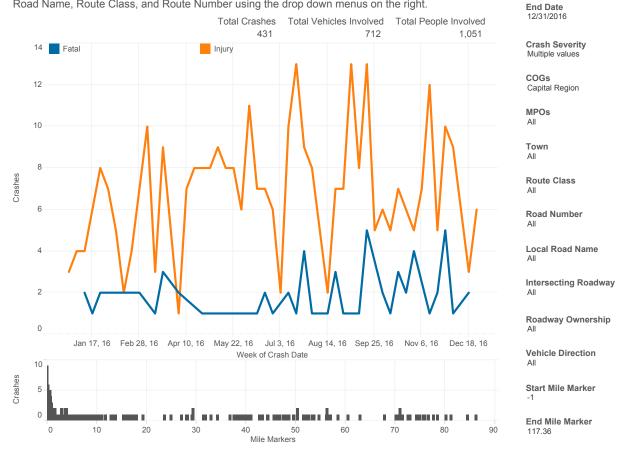








The story tab above contain tables and figures summarizing the crash data for the State of Connecticut. The tabs are organized topically, first focusing on crash variables, then vehicle variables, personal variables, and ending with dashboards about specific crash types. The data can be filtered by Year, 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 Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

These data are exempt from discovery or admission under 23 U.S.C 409. Data Extracted 11/28/2017

Note: Unknown mileposts are listed as -1

Queries

Start Date

1/1/2016

2016

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Summary Pages: Crash Severity

Crash Severity
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Time and Date of Crashes
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Contributing Factors
Contributing Factors - Vehicle
Crash Manner and Location
First Harmful Event

Vehicles Involved:

Vehicle Crash Events Vehicle Body Type Traffic Control Devices Vehicle Actions

Persons Involved:

Demographics
Conditions at time of Crash
Seatbelt Use
Airbag Deployment
Ejection Status and Injuries
Driver Actions
Driver Distraction

Emphasis Areas:

Pedestrian Motorcycle Crashes Workzone Crashes

Crash Severity

Geography of Crashes 1

Geography of Crashes 2

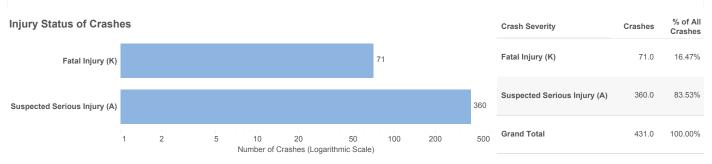
Time and Date of Crash
Conditions

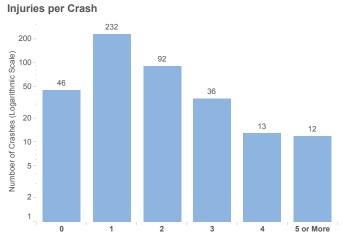
Conditions

Roadway
Features 1

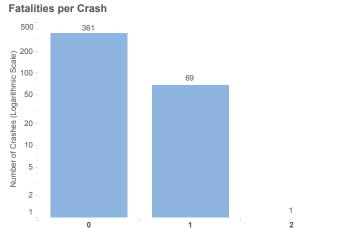
Features.

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Injuries per Crash	Crashes	% of All Crashes
0	46.0	10.67%
1	232.0	53.83%
2	92.0	21.35%
3	36.0	8.35%
4	13.0	3.02%
5 or More	12.0	2.78%
Grand Total	431.0	100.00%



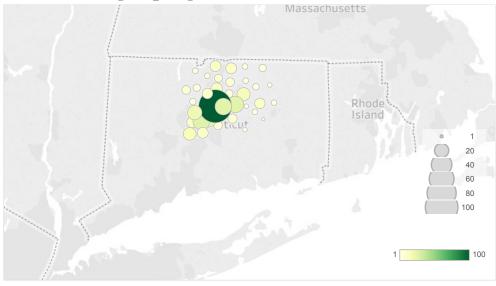
Fatalities per Crash	Crashes	% of All Crashes
0	361.0	83.76%
1	69.0	16.01%
2	1.0	0.23%
Grand Total	431.0	100.00%

Crash Severity Geography of Crashes 1 Geography of Crashes 2 Time and Date of Crash Conditions Features 1 Roadway Features 1 Features...

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

Route C	lass		Crashes	% of A	II Crashes
Unknow	/n		11.0		2.55%
Intersta	te		17.0		3.94%
US Rou	te		47.0		10.90%
State			154.0		35.73%
Local			202.0		46.87%
Grand T	otal		431.0		100.00%
Number of Crashes 150 – 100 – 50 –					
	Local	State	US Route	Interstate	Unknown

County	Crashes	% of All Crashes
Hartford	379.0	87.94%
Tolland	52.0	12.06%
Grand Total	431.0	100.00%



Town	Crashes	% of All Crashes
Andover	3.0	0.70%
Avon	4.0	0.93%
Berlin	11.0	2.55%
Bloomfield	10.0	2.32%
Bolton	2.0	0.46%
Canton	7.0	1.62%
Columbia	1.0	0.23%
Coventry	10.0	2.32%
East Granby	3.0	0.70%
East Hartford	25.0	5.80%
East Windsor	7.0	1.62%
Ellington	3.0	0.70%
Enfield	11.0	2.55%
Farmington	19.0	4.41%
Glastonbury	8.0	1.86%
Granby	3.0	0.70%
Hartford	100.0	23.20%
Manchester	25.0	5.80%
Mansfield	3.0	0.70%
Marlborough	2.0	0.46%

Crash Severity

Geography of

Geography of Crashes 2

Time and Date of

Crash Conditions Roadway
Features 1

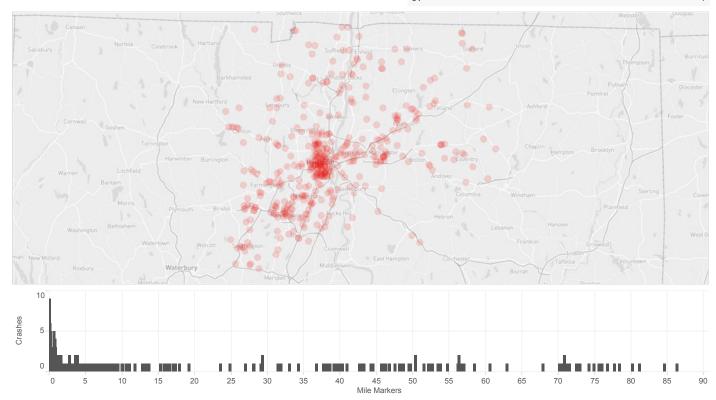
Roadway Features

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

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 for entirely errors. These may not directly correspond and are not guarenteed to be accurate.

44	21
5	13
6	13
Unknown	12
15	10
91	10
10	9
187	9
175	7
84	7



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Crash Geography of Crashes 1 Geography of Crashes Cras

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

Month and Date of Crashes 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 Crash Date Month of % of All Crashes Crash Crashes Date Jan 31.0 Jan 7.2% Feb Feb 27.0 6.3% Mar Mai 34 0 7.9% Apr Apr 29.0 6.7% May 38.0 8.8% May 9.0% 39.0 Jun Jun 46.0 10.7% Jul Aug 26.0 6.0% Aug Sep 50.0 11.6% Sep 36.0 8.4% Oct Oct Nov 35.0 8.1% 40.0 9.3% Dec Total 431.0 100.0% Hour of % of All Crashes Time and Day of the Week Crash Time Crashes 20.0 4.64% 12 AM 3.25% 14.0 1 AM Weekday of Crash 2 AM 11.0 2.55% 7.0 1.62% 3 AM Sunday 5.0 1.16% 4 AM 7.0 1.62% 5 AM Monday 13.0 3.02% 6 AM 10.0 2.32% 7 AM Tuesday 3.71% 16.0 8 AM 11.0 2.55% 9 AM Wednesday 18.0 4.18% 10 AM 15.0 3.48% 11 AM Thursday 23.0 5.34% 12 PM 13.0 3.02% 1 PM Friday 25.0 5.80% 2 PM 31.0 7.19% 3 PM Saturday 19.0 4.41% 4 PM 34.0 7.89% 5 PM Saturday Friday Thursday Wednesday Tuesday Sunday **Grand Total** Monday 38.0 8.82% 6 PM 25.0 5.80% 7 PM Crashes 79.0 72.0 72.0 48.0 65.0 431.0 54.0 41.0 22.0 5.10% 8 PM 4.18% 18.0 9 PM % of Total Crashes 16.71% 12.53% 9.51% 100.00% 11.14% 15.08% 21.0 4.87% 10 PM 15.0 3.48% 11 PM These data are exempt from discovery or admission under 23 U.S.C 409. Data Extracted 11/28/2017 431.0 100.00% **Grand Total**

2

10

20

Number of Crashes (Logarithmic Scale)

Geography of Crashes 1

Geography of

Time and Date of

Crash Conditions

Roadway
Features 1

Roadway
Features 2

Contributing Factors

372

500

200

% of All Crashes

53.13%

32.02%

11.37%

1.16%

0.93%

0.70%

0.23%

0.23%

0.23%

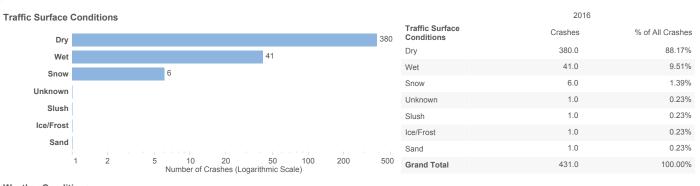
100.00%

2016

1.0

431.0

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Weather Conditions

	201	16	Clear				
Weather Conditions	Crashes	% of All Crashes	Peter			27	
Clear	372.0	86.31%	Rain			21	
Rain	27.0	6.26%	Cloudy			21	
Cloudy	21.0	4.87%	Snow		6		
Snow	6.0	1.39%	Severe Crosswinds	2			
Severe Crosswinds	2.0	0.46%	Severe Crosswinds	2			
Unknown	1.0	0.23%	Fog, Smoke, Smog				
Fog, Smoke, Smog	1.0	0.23%	Blowing Snow				
Blowing Snow	1.0	0.23%	•		1		
Grand Total	431.0	100.00%		1 2	5 10 Number of C	20 50 rashes (Logarithmic	100 2 Scale)

Light Conditions					201
Daylight			229	Light Conditions	Crashes
Dark - Lighted			138	Daylight	229.0
Dark - Not Lighted		49		Dark - Lighted	138.0
Dawn	5			Dark - Not Lighted	49.0
Dusk	4			Dawn	5.0
Dark - Unknown Lighting	3			Dusk	4.0
Null				Dark - Unknown Lighting	3.0
Other				Null	1.0
Unknown				Other	1.0

50

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200

100

Unknown

Grand Total

Geography

Other Location Within an Interchange

Other

Grand Total

Time and Date of

Crash

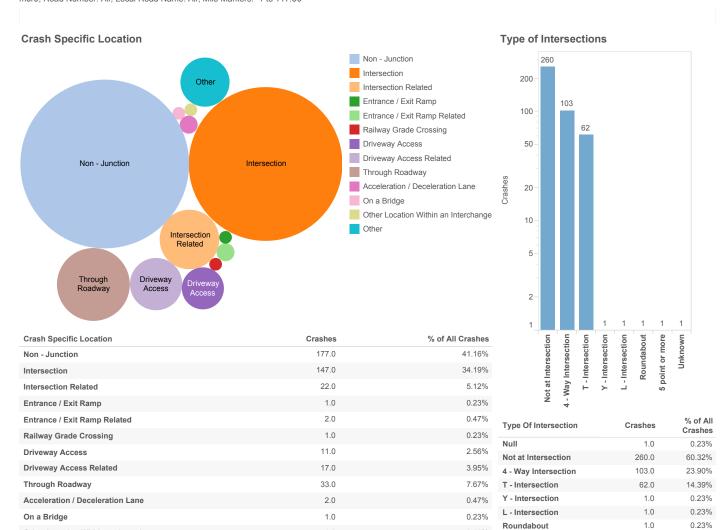
Roadway Features 1

Roadway Features 2

Contributing

Contributing Factors-Vehic...

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36



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0.23%

3.49%

100.00%

5 point or more

Unknown

Grand Total

1.0

1.0

431.0

0.23%

0.23%

100.00%

1.0

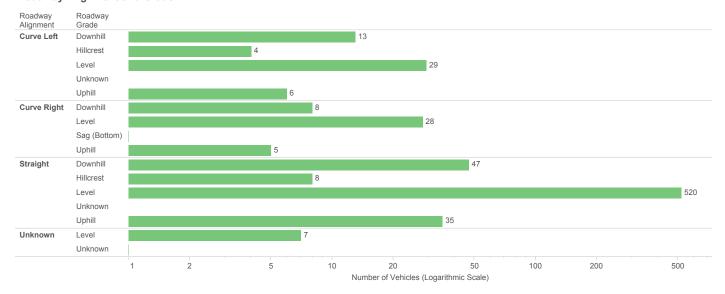
15.0

430.0

Time and Crash Conditions Roadway Features 1 Roadway Features 2 Contributing Factors Contributing Factors-Vehicle and Location

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

Roadway Alignment and Grade



Roadway Grade	Count of Vehicles	% of Total Vehicles	Roadway Alignme
Downhill	68.0	9.55%	Curve Left
Hillcrest	12.0	1.69%	
Level	584.0	82.02%	Curve Right
Sag (Bottom)	1.0	0.14%	Straight
Unknown	1.0	0.14%	Unknown
Uphill	46.0	6.46%	Olikilowii
Grand Total	712.0	100.00%	Grand Total

Roadway Alignment	Count of Vehicles	% of Total Vehicles
Curve Left	52.0	7.30%
Curve Right	42.0	5.90%
Straight	610.0	85.67%
Unknown	8.0	1.12%
Grand Total	712.0	100.00%

Crash Roadway Roadway Features 2 Contributing Factors Contributing Factors-Vehicle and Location Event 1

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

Contributing Circumstances (Excluding Null and None)



Contributing Circumstances Road	Crashes	% of All Crashes	Contributing Circumstances Environment	Crashes	% of All Crashes
None	382.0	88.84%	None	381.0	88.60%
Backup - Prior Incident	1.0	0.23%			
Backup - Regular Congestion	7.0	1.63%	Weather Conditions	25.0	5.81%
Road Surface Condition	19.0	4.42%	Visual Obstruction(s)	5.0	1.16%
Debris	1.0	0.23%	Glare	5.0	1.16%
Work Zone	3.0	0.70%			
Shoulders (none, low, etc.)	1.0	0.23%	Animal(s) in Roadway	2.0	0.47%
Non-Highway Work	1.0	0.23%	Other	5.0	1.16%
Other	10.0	2.33%	Unknown	7.0	1.63%
Unknown	5.0	1.16%	Olikilowii	7.0	1.03%
Grand Total	430.0	100.00%	Grand Total	430.0	100.00%

Roadway

Roadway

Contributing

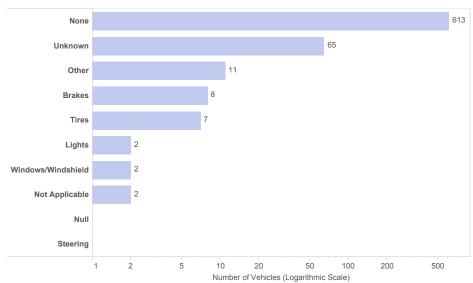
Contributing Factors-Vehicle

Crash Manner

First Harmful

First Harmful

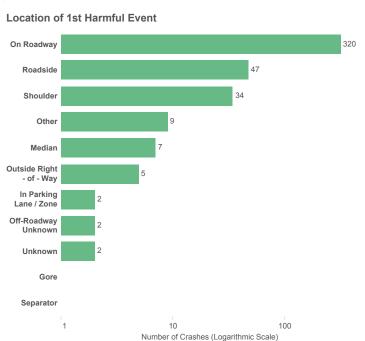
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Contributing Circumstances Vehicle	Count of Vehicles	% of Total Vehicles
None	613.0	86.10%
Unknown	65.0	9.13%
Other	11.0	1.54%
Brakes	8.0	1.12%
Tires	7.0	0.98%
Lights	2.0	0.28%
Windows/Windshield	2.0	0.28%
Not Applicable	2.0	0.28%
Null	1.0	0.14%
Steering	1.0	0.14%
Grand Total	712.0	100.00%

Crash Manner and Location

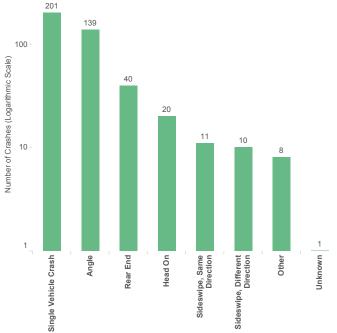
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		/
Location Of First Harmful Event	Crashes	% of All Crashes
On Roadway	320.0	74.42%
Shoulder	34.0	7.91%
Median	7.0	1.63%
Roadside	47.0	10.93%
Gore	1.0	0.23%
Separator	1.0	0.23%
In Parking Lane / Zone	2.0	0.47%
Off-Roadway Unknown	2.0	0.47%
Outside Right - of - Way	5.0	1.16%
Other	9.0	2.09%
Unknown	2.0	0.47%
Grand Total	430.0	100.00%

201 139

Manner of Crashes



Manner Of Crash	Crashes	% of All Crashes
Rear End	40.0	9.30%
Head On	20.0	4.65%
Angle	139.0	32.33%
Sideswipe, Same Direction	11.0	2.56%
Sideswipe, Different Direction	10.0	2.33%
Single Vehicle Crash	201.0	46.74%
Other	8.0	1.86%
Unknown	1.0	0.23%
Grand Total	430.0	100.00%

Contributing

Contributing
Factors-Vehicle

Crash Manner and Location

First Harmful Event 1

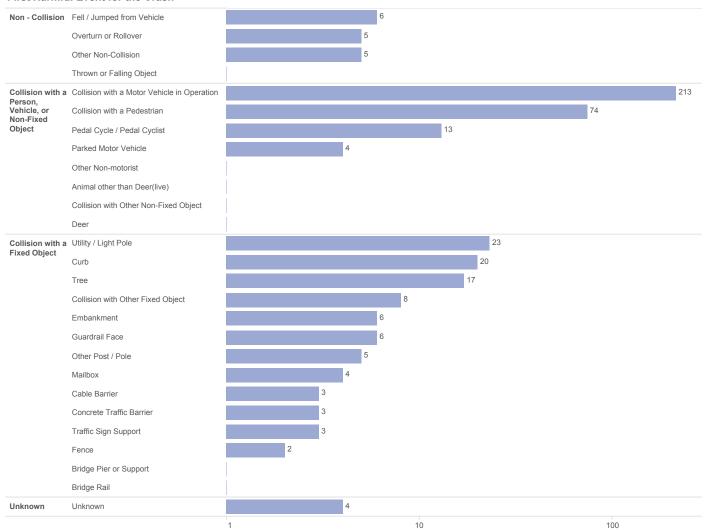
First Harmfu

Vehicle Crash

Vehicle Body

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

First Harmful Event for the Crash



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Number of Crashes (Logarithmic Scale)

Contributing Factors-Veh.

Crash Manner

First Harmfu

First Harmful Event 2

Vehicle Crash

Vehicle Body
Type

Traffic Control Devices

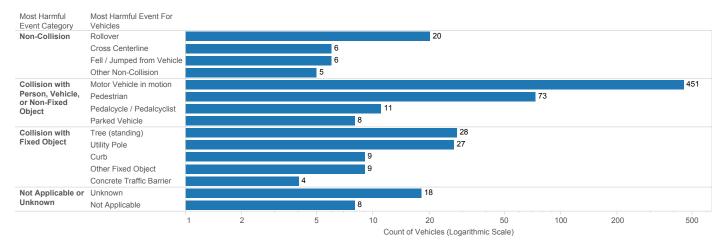
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Event Categories	First Harmful Event	On Roadway	Shoulder	Median	Roadside	Gore	Separat	In Parking Lane / Zone	Off- Roadway Unknown	Outside Right - of - Way	Other	Unknown	Grand Total
Non -	Overturn or Rollover	5											5
Collision	Fell / Jumped from Vehicle	5									1		6
	Thrown or Falling Object				1								1
	Other Non-Collision	3									1	1	5
	Total	13			1						2	1	17
Collision	Collision with a Pedestrian	66	2					1		1	3	1	74
with a	Pedal Cycle / Pedal Cyclist	11	2										13
Person,	Other Non-motorist	1											1
Vehicle, or Non-Fixed	Animal other than Deer(live)	1											1
Object	Collision with a Motor Vehicle in Operation	207	1	1	2	1					1		213
Object	Parked Motor Vehicle	2			2								4
	Collision with Other Non-Fixed Object							1					1
	Deer	1											1
	Total	289	5	1	4	1		2		1	4	1	308
Collision	Bridge Pier or Support	1											1
with a	Bridge Rail				1								1
Fixed	Cable Barrier		2		1								3
Object	Curb	8	5		6						1		20
	Embankment			2	3					1			6
	Guardrail Face		5		1								6
	Concrete Traffic Barrier			2			1						3
	Tree	1	4	1	10					1			17
	Utility / Light Pole	3	9		10						1		23
	Traffic Sign Support			1	2								3
	Fence				1					1			2
	Mailbox		1		1				1	1			4
	Other Post / Pole	2	2		1								5
	Collision with Other Fixed Object	1	1		4				1		1		8
	Total	16	29	6	41		1		2	4	3		102
Unknown	Unknown	2			1								3
	Total	2			1								3
Grand Total	I	320	34	7	47	1	1	2	2	5	9	2	430

Crash First Harmful Event 1 First Harmful Event 2 Vehicle Crash Type Traffic Control Devices Actions

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

15 Most Common Harmful Events for Vehicles

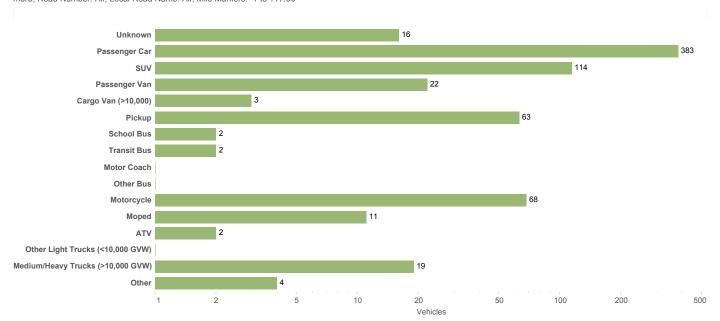


Harmful Events - Full List

Most Harmful Event For Vehicles	Count of Vehicles	% of Total Vehicles	1st Event for Vehicles	Count of Vehicles	% of Total Vehicles	2nd Event for Vehicles	Count of Vehicles	% of Total Vehicles
Rollover	20.0	2.81%	Rollover	6.0	0.84%	Null	40.0	5.62%
Ran Off Roadway Right	1.0	0.14%	Ran Off Roadway Right	27.0	3.79%	Rollover	7.0	0.98%
Ran Off Roadway Left	3.0	0.42%	Ran Off Roadway Left	13.0	1.83%	Ran Off Roadway Right	6.0	0.84%
Cross Centerline	6.0	0.84%	Cross Median	1.0	0.14%	Ran Off Roadway Left	13.0	1.83%
Fell / Jumped from Vehicle	6.0	0.84%	Cross Centerline	20.0	2.81%	Cross Median	1.0	0.14%
Other Non-Collision	5.0	0.70%	Downhill Runaway	1.0	0.14%	Cross Centerline	7.0	0.98%
Pedestrian	73.0	10.25%	Fell/Jumped from Vehicle	7.0	0.98%	Fell / Jumped from Vehicle	2.0	0.28%
Pedalcycle / Pedalcyclist	11.0	1.54%	Reentering Roadway	1.0	0.14%	Reentering Roadway	1.0	0.14%
Other Non-Motorist	1.0	0.14%	Other Non-Collision	6.0	0.84%	Other Non-Collision	2.0	0.28%
Animal (live)	1.0	0.14%	Pedestrian	70.0	9.83%	Pedestrian	7.0	0.98%
Motor Vehicle in motion	451.0	63.34%	Pedalcycle / Pedalcyclist	12.0	1.69%	Pedalcycle / Pedalcyclist	2.0	0.28%
Parked Vehicle	8.0	1.12%	Other Non-motorist	1.0	0.14%	Motor Vehicle in Motion	21.0	2.95%
Struck by Falling or Shifting Car	1.0	0.14%	Animal (live)	1.0	0.14%	Parked Vehicle	6.0	0.84%
Other Non - Fixed Object	4.0	0.56%	Motor Vehicle in Motion	459.0	64.47%	Other Non - Fixed Object	3.0	0.42%
Bridge Pier or Support	1.0	0.14%	Parked Vehicle	9.0	1.26%	Bridge Rail	1.0	0.14%
Cable Barrier	1.0	0.14%	Other Non-Fixed Object	2.0	0.28%	Cable Barrier	3.0	0.42%
Culvert	1.0	0.14%	Bridge Pier or Support	1.0	0.14%	Culvert	1.0	0.14%
Curb		4 000/	Curb		0.0=0/	Curb		2 222/

First Harmful Event 2 Vehicle Crash Events Vehicle Body Traffic Control Devices Devices Demographics

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36



Vehicle Type	Count of Vehicles	% of Total Vehicles
Passenger Car	383.0	53.79%
Passenger Van	22.0	3.09%
School Bus	2.0	0.28%
Other Bus	1.0	0.14%
Motorcycle	68.0	9.55%
Moped	11.0	1.54%
ATV	2.0	0.28%
Other Light Trucks (<10,000 GVW)	1.0	0.14%
Medium/Heavy Trucks (>10,000 GVW)	19.0	2.67%
Other	4.0	0.56%
Unknown	16.0	2.25%
SUV	114.0	16.01%
Cargo Van (>10,000)	3.0	0.42%
Pickup	63.0	8.85%
Transit Bus	2.0	0.28%
Motor Coach	1.0	0.14%
Grand Total	712.0	100.00%

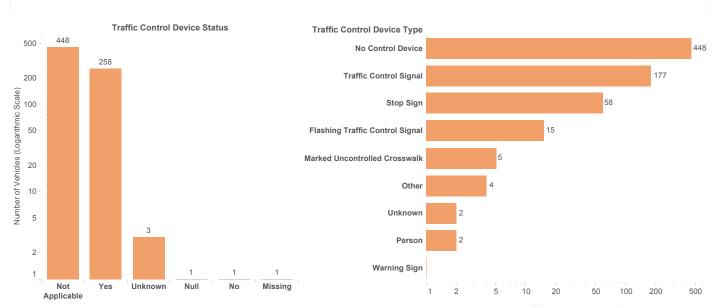
First Harmful Events

Vehicle Crash Events

Vehicle Body Traffic Control Devices

Vehicle Actions Demographics Condition at Time of Crash

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

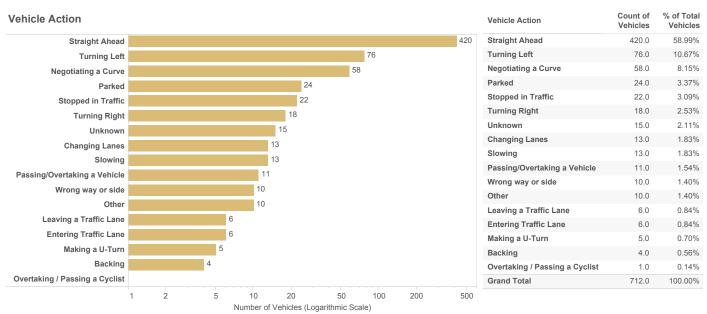


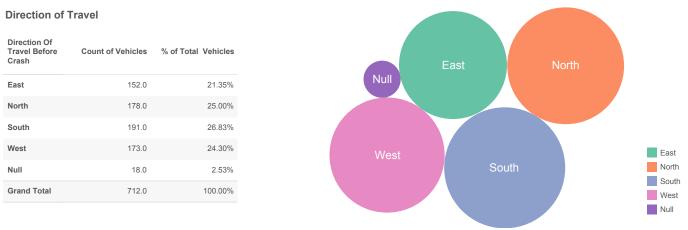
Number of Vehicles (Logarithmic Scale)

				Т	raffic Control D	evice Status				
	Unkno	wn	No		Yes		Missi	ng	Not Applicable	
Traffic Control Device Type	Count of Vehicles	% of Total Vehicles								
Unknown	2.0									
No Control Device										
Person					2.0	0.78%				
Traffic Control Signal										
Flashing Traffic Control Signal					15.0					
Stop Sign										
Warning Sign					1.0					
Marked Uncontrolled Crosswalk										
Other					4.0	1.55%				
Grand Total										

Vehicle Crash Even.. Vehicle Body Traffic Control Devices Vehicle Actions Demographics Condition at Time of Crash

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36





Vehicle Body Traffic Control Devices

Vehicle Actions Demographics Condition at Time of Crash

Seatbelt Use Airbag Deployment

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

Age by Person Type Unknown 0-15 16-20 21-25 26-30 31-35 36-40 41-45 46-50 51-55

Drivers

Other

240

Passengers

260

	Driv	ers	Passer	ngers	Oth	er	Grand Total		
Age	Count of People	% of Total People	Count of People	% of Total People	Count of People	% of Total People	Count of People	% of Total People	
Unknown	35	5.09%	7	2.76%			42	4.01%	
0-15	2	0.29%	51	20.08%	10	9.35%	63	6.01%	
16-20	63	9.17%	53	20.87%	12	11.21%	128	12.21%	
21-25	97	14.12%	32	12.60%	12	11.21%	141	13.45%	
26-30	94	13.68%	18	7.09%	12	11.21%	124	11.83%	
31-35	52	7.57%	11	4.33%	6	5.61%	69	6.58%	
36-40	48	6.99%	17	6.69%	7	6.54%	72	6.87%	
41-45	46	6.70%	12	4.72%	6	5.61%	64	6.11%	
46-50	61	8.88%	8	3.15%	7	6.54%	76	7.25%	
51-55	47	6.84%	13	5.12%	11	10.28%	71	6.77%	
56-60	54	7.86%	7	2.76%	6	5.61%	67	6.39%	
61-65	32	4.66%	7	2.76%	6	5.61%	45	4.29%	
66-70	21	3.06%	5	1.97%	3	2.80%	29	2.77%	
> 70	35	5.09%	13	5.12%	9	8.41%	57	5.44%	
Grand Total	687	100.00%	254	100.00%	107	100.00%	1.048	100.00%	

120

140

160

180

200

220

Gender by Person Type

56-60

61-65 E

> 70

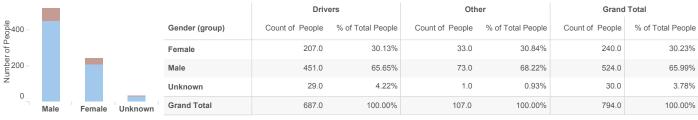
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20

40

60

80



Traffic Control Dev..

Vehicle Actions

Demographics

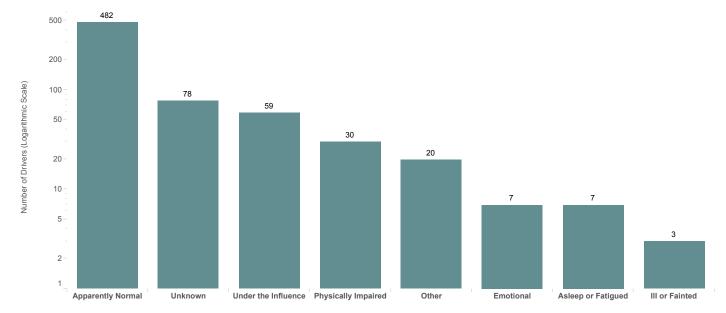
Condition at Time of Crash

Seatbelt Use

Airbag Deployment Ejection Status and Injuries

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

Condition at the Time of the Crash



	Drive	ers	Oth	ner	Grand	Total
Condition at time of Crash	Count of People	% of Total People	Count of People	% of Total People	Count of People	% of Total People
Null	1.0	0.15%	2.0	1.87%	3.0	0.38%
Apparently Normal	482.0	70.16%	68.0	63.55%	550.0	69.27%
Physically Impaired	30.0	4.37%	8.0	7.48%	38.0	4.79%
Emotional	7.0	1.02%	3.0	2.80%	10.0	1.26%
III or Fainted	3.0	0.44%			3.0	0.38%
Asleep or Fatigued	7.0	1.02%			7.0	0.88%
Under the Influence	59.0	8.59%	10.0	9.35%	69.0	8.69%
Other	20.0	2.91%	6.0	5.61%	26.0	3.27%
Unknown	78.0	11.35%	10.0	9.35%	88.0	11.08%
Grand Total	687.0	100.00%	107.0	100.00%	794.0	100.00%

Seatbelt Use

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

Restraint Systems Used Drivers Passengers 500 Unknown Other 400 Number of People 200 100 0 Shoulder and Lap Belt Used Restraint Used, Not Applicable Child Restraint Shoulder Belt Only Lap Belt Only None Used-Motor Unknown Other

	Drive	rs	Passengers		Other		Unknown		Grand Total	
Restraint System Used	Count of People	% of Total People								
Shoulder and Lap Belt Used	408.0	59.48%	135.0	53.78%	1.0	50.00%			544.0	57.87%
None Used-Motor Vehicle Occupant	61.0	8.89%	32.0	12.75%					93.0	9.89%
Lap Belt Only			1.0	0.40%					1.0	0.11%
Shoulder Belt Only	7.0	1.02%	4.0	1.59%					11.0	1.17%
Unknown	53.0	7.73%	35.0	13.94%					88.0	9.36%
Restraint Used, Type Unknown	75.0	10.93%	15.0	5.98%			1.0	100.00%	91.0	9.68%
Child Restraint Systems Used			19.0	7.57%					19.0	2.02%
Not Applicable	81.0	11.81%	10.0	3.98%					91.0	9.68%
Other	1.0	0.15%			1.0	50.00%			2.0	0.21%
Grand Total	686.0	100.00%	251.0	100.00%	2.0	100.00%	1.0	100.00%	940.0	100.00%

Systems Used

Type Unknown

Vehicle Occupant

Demograph

Condition at

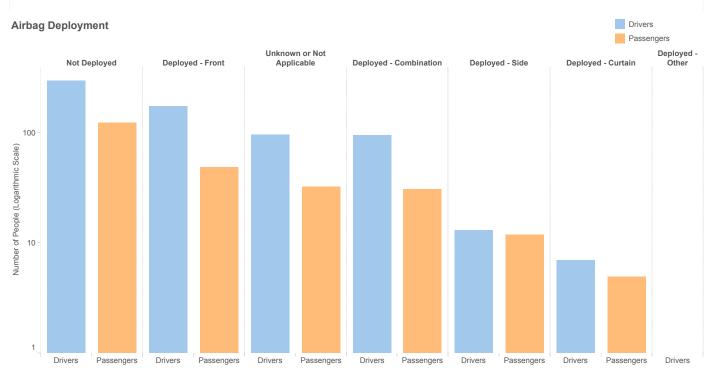
Seatbelt Use

Airbag Deployment **Ejection Status** and Injuries

Driver Actions

Driver Distraction

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36



	Drive	rs	Passengers		Unknown		Other		Grand Total	
Airbag Deployment	Count of People	% of Total People	Count of People	% of Total People	Count of People	% of Total People	Count of People	% of Total People	Count of People	% of Total People
Not Deployed	298.0	43.38%	124.0	48.82%					422.0	44.61%
Deployed - Front	175.0	25.47%	49.0	19.29%	1.0	33.33%			225.0	23.78%
Deployed - Combination	96.0	13.97%	31.0	12.20%			1.0	50.00%	128.0	13.53%
Deployed - Side	13.0	1.89%	12.0	4.72%					25.0	2.64%
Deployed - Curtain	7.0	1.02%	5.0	1.97%					12.0	1.27%
Deployed - Other	1.0	0.15%							1.0	0.11%
Unknown or Not Applicable	97.0	14.12%	33.0	12.99%	2.0	66.67%	1.0	50.00%	133.0	14.06%
Grand Total	687.0	100.00%	254.0	100.00%	3.0	100.00%	2.0	100.00%	946.0	100.00%

Condition at Time of Cra.. Seatbelt Use Airbag Deployment Ejection Status and Injuries Driver Actions Distraction Pedestrians

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

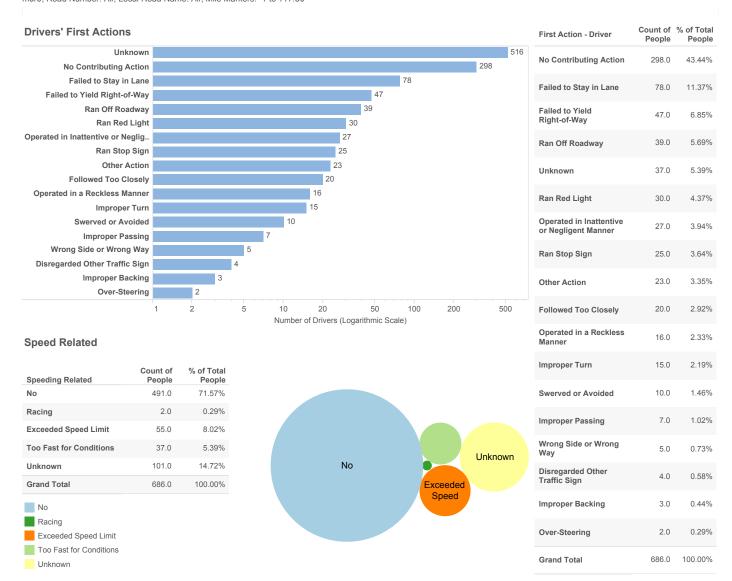
Ejection Status and Restraint Use None Used-Motor Vehicle Restraint Used, Child Restraint Shoulder and Shoulder Belt **Ejection Status** Unknown Lap Belt Only Not Applicable Other Lap Belt Used Only Type Unknown Systems Used Occupant Not Ejected 86 85 543 36 2 Partially Ejected 3 1 23 **Totally Ejected** 31 Unknown or Not Applicable

Ejection Status and Injury Status by Person Type (Excluding Null Values)

		Drive	rs	Passen	gers	Othe	er	Unkno	own	Grand	Total
Ejection Status	Injury Status	Count of People	% of Total People								
Not Ejected	Fatal Injury (K)	41.0	5.97%	8.0	3.15%					49.0	5.18%
	No Apparent Injury (O)	244.0	35.52%	78.0	30.71%	1.0	50.00%			323.0	34.14%
	Possible Injury (C)	52.0	7.57%	29.0	11.42%			1.0	33.33%	82.0	8.67%
	Suspected Minor Injury (B)	77.0	11.21%	55.0	21.65%					132.0	13.95%
	Suspected Serious Injury (A)	212.0	30.86%	75.0	29.53%	1.0	50.00%			288.0	30.44%
Partially Ejected	Fatal Injury (K)	2.0	0.29%							2.0	0.21%
Ejecteu	Suspected Minor Injury (B)	1.0	0.15%							1.0	0.11%
	Suspected Serious Injury (A)	2.0	0.29%							2.0	0.21%
Totally Ejected	Fatal Injury (K)	1.0	0.15%							1.0	0.11%
Ejected	Suspected Minor Injury (B)	2.0	0.29%							2.0	0.21%
	Suspected Serious Injury (A)	20.0	2.91%	5.0	1.97%					25.0	2.64%
Unknown or Not	Fatal Injury (K)	1.0	0.15%							1.0	0.11%
Applicable	No Apparent Injury (O)	3.0	0.44%	1.0	0.39%					4.0	0.42%
	Suspected Minor Injury (B)	2.0	0.29%	1.0	0.39%					3.0	0.32%
	Suspected Serious Injury (A)	26.0	3.78%	2.0	0.79%					28.0	2.96%
	Unknown	1.0	0.15%					2.0	66.67%	3.0	0.32%
Grand Total		687.0	100.00%	254.0	100.00%	2.0	100.00%	3.0	100.00%	946.0	100.00%

Seatbelt Use Airbag Ejection Status and Injuries Driver Actions Driver Distraction Pedestrians Motorcycle Crashes

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36



Airbag Ejection Status Driver Actions Driver Distraction Pedestrians Motorcycle Crashes Crashes

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

Driver Distraction by Driver's First Action

	Driver Distracted By								
Driver Actions	Not Distracted	Manually Operating an Electronic Communicati	Talking on Hands-Free Electronic Device	Talking on Hand-Held Electronic Device	Other Activity, Electronic Device	Passenger	Other Inside the Vehicle	Outside the Vehicle	Unknown
No Contributing Action	276								22
Ran Off Roadway	17						1		21
Failed to Yield Right-of-Way	35				1			1	10
Ran Red Light	13		1					1	15
Ran Stop Sign	18		1						6
Disregarded Other Traffic Sign	3								1
Improper Turn	14								1
Improper Backing	1								2
Improper Passing	4								3
Wrong Side or Wrong Way	3						1		1
Followed Too Closely	7					1	2	2	8
Failed to Stay in Lane	26			1	1		5		46
Operated in a Reckless Manner	8								8
Operated in Inattentive or Negligent Manner	13	2		1	1		2	1	8
Swerved or Avoided	9	1							
Over-Steering									2
Other Action	16					1	1	2	3
Unknown	6							1	30

276 **Distracted Driving** Driver Distracted By Count of People % of Total People Not Distracted Not Distracted 469.0 68.37% Manually Operating an Manually Operating an 0.44% 3.0 Talking on Hands-Free Electronic Device Electronic Communication Talking on Hands-Free 2.0 0.29% Talking on Hand-Held **Electronic Device** Talking on Hand-Held Electronic Device 2.0 0.29% Other Activity, Electronic Other Activity, Electronic 1.0 0.15% Device Passenger Passenger 2.0 0.29% Other Inside the Vehicle Other Inside the Vehicle 12.0 1.75% Outside the Vehicle Outside the Vehicle 8.0 1.17% 187 Unknown 187.0 27.26% 10 100 200 500 **Grand Total** 686.0 100.00% Number of Drivers (Logarithmic Scale)

Airbag De ployment Ejection Status Driver Actions Driver Distraction Pedestrians Motorcycle Crashes Crashes

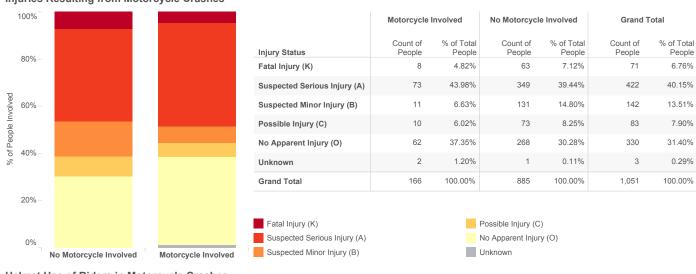
Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

Pedestrians Distraction Pedestrian Circumstances at the Time of the Crash No Improper Action Null Dart/Dash Failure to Yield Right-of-Way Unknown Failure to Obey Traffic Signs, Signal.. In Roadway Improperly Inattentive Not Visible Wrong-Way Riding or Walking Other, Other Outside Unknown Not Distracted Disabled Vehicle Related 10 Number of Pedestrians (Logarithmic Scale) Null Unknown Not Distracted Manually Operating an Electronic Device Other Activity, Electronic Device Circumstances At Time of Crash Count of People % of Total People Other, Outside Null 2.0 1.87% Distracted By Count of People % of Total People No Improper Action 32.0 29.91% Null 1.87% Dart/Dash 8.41% 9.0 22.0 20.56% Failure to Yield Right-of-Way Not Distracted 65.0 60.75% Failure to Obey Traffic Signs, Signals, or Officer 7.0 6.54% Manually Operating an Electronic 1.0 0.93% In Roadway Improperly 6.0 5.61% 2.0 **Disabled Vehicle Related** 1.87% Other Activity, Electronic Device 4.0 3.74% Inattentive 2.0 1.87% Not Visible 9.0 8.41% 7.0 6.54% Other, Outside Wrong-Way Riding or Walking 3.0 2.80% 6.54% Unknown 28.0 26.17% Other 7.0 5.61% Unknown 6.0 **Grand Total** 107.0 100.00% **Grand Total** 107.0 100.00%

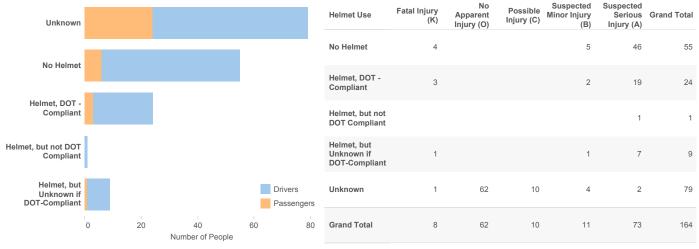
Airbag De ployment Ejection Status and Injuries Driver Actions Distraction Pedestrians Motorcycle Crashes Crashes

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

Injuries Resulting from Motorcycle Crashes



Helmet Use of Riders in Motorcycle Crashes



Airbag De Ejection Statu

ijection Status Driver Ad

Driver Distraction Pedestrians

Motorcycle Crashes Work Zones Crashes

Queries Selected: Town: All, Date (Year: 2016 or 1/1/2016 to 12/31/2016), Severity: Suspected Serious Injury (A) & Fatal Injury (K), Route Class: Unknown, Interstate, US Route and 2 more, Road Number: All, Local Road Name: All, Mile Markers: -1 to 117.36

Location Relative of Workzone

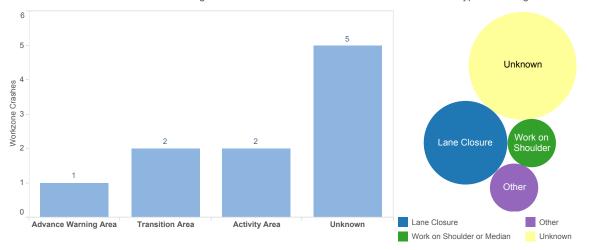
Type of Workzone

Crashes	% of All Crashes
1.0	0.23%
2.0	0.46%
2.0	0.46%
404.0	93.74%
17.0	3.94%
5.0	1.16%
431.0	100.00%
	1.0 2.0 2.0 404.0 17.0 5.0

Time Of Work Zone	Crashes	% of All Crashes
Type Of Work Zone	Crasnes	% of All Crashes
Lane Closure	3.0	0.70%
Work on Shoulder or Median	1.0	0.23%
Not a Work Zone	404.0	93.74%
Null	17.0	3.94%
Unknown	5.0	1.16%
Other	1.0	0.23%
Grand Total	431.0	100.00%

Location Relative to Work Zone Excluding Null and Not a Work Zone Crashes

Work Zone Type Excluding Null and Not a Work Zone Crashes



Workzone Related	Crashes	% of All Crashes
Yes	5.0	1.16%
No	425.0	98.61%
Null	1.0	0.23%
Grand Total	431.0	100.00%

Worker Presence	Crashes	% of All Crashes
Yes	3.0	0.70%
No	6.0	1.39%
Not a Work Zone	400.0	92.81%
Unknown	5.0	1.16%
Null	17.0	3.94%
Grand Total	431.0	100.00%

Law Enforcement Presence	Crashes	% of All Crashes
Yes	1.0	0.23%
No	3.0	0.70%
Not a Work Zone	404.0	93.74%
Unknown	6.0	1.39%
Null	17.0	3.94%
Grand Total	431.0	100.00%



RESOLUTION REGARDING TARGETS FOR SAFETY PERFORMANCE MEASURES ESTABLISHED BY CTDOT

WHEREAS, the Capitol Region Council of Governments (CRCOG) has been designated by the Governor of the State of Connecticut as the Metropolitan Planning Organization responsible, together with the State, for the comprehensive, continuing, and cooperative transportation planning process for the Capitol Region; and

WHEREAS, the Highway Safety Improvement Program (HSIP) final rule (23 CFR Part 490) requires States to set targets for five safety performance measures by August 31, 2017, and

WHEREAS, the Connecticut Department of Transportation (CTDOT) has established targets for five performance measures based on five year rolling averages for:

- (1) Number of Fatalities,
- (2) Rate of Fatalities per 100 million Vehicle Miles Traveled (VMT),
- (3) Number of Serious Injuries,
- (4) Rate of Serious Injuries per 100 million VMT, and
- (5) Number of Non-Motorized Fatalities and Non-motorized Serious Injuries, and

WHEREAS, the CTDOT generally discussed safety performance measures with the 8 Metropolitan Planning Organizations (MPOs) in Connecticut at the February 22, 2017 Safety Target Setting Coordination and Training Workshop; and at the December 2016 and the April 2017 RPO Coordination meetings, and

WHEREAS, the CTDOT has officially adopted the safety targets in the Highway Safety Improvement Program annual report dated August 28, 2017, and the Highway Safety Plan dated June 2017, and

WHEREAS, the CRCOG may establish safety targets by agreeing to plan and program projects that contribute toward the accomplishment of the aforementioned State's targets, or establish its own target within 180 days of the State establishing and reporting its safety targets.

NOW THEREFORE, BE IT RESOLVED, that the MPO Policy Board has agreed to support CTDOT's 2018 targets for the five safety performance targets as attached herein, and

BE IT FURTHER RESOLVED, that the MPO Policy Board will plan and program projects that contribute to the accomplishment of said targets.

CERTIFICATE: The undersigned duly qualified CRCOG Board Member certifies that the foregoing is a true and correct copy of a resolution adopted by the voting members of the CRCOG on December 13, 2017.

	Marcia LeClerc
Capitol Region Counc	il of Governments
	Date