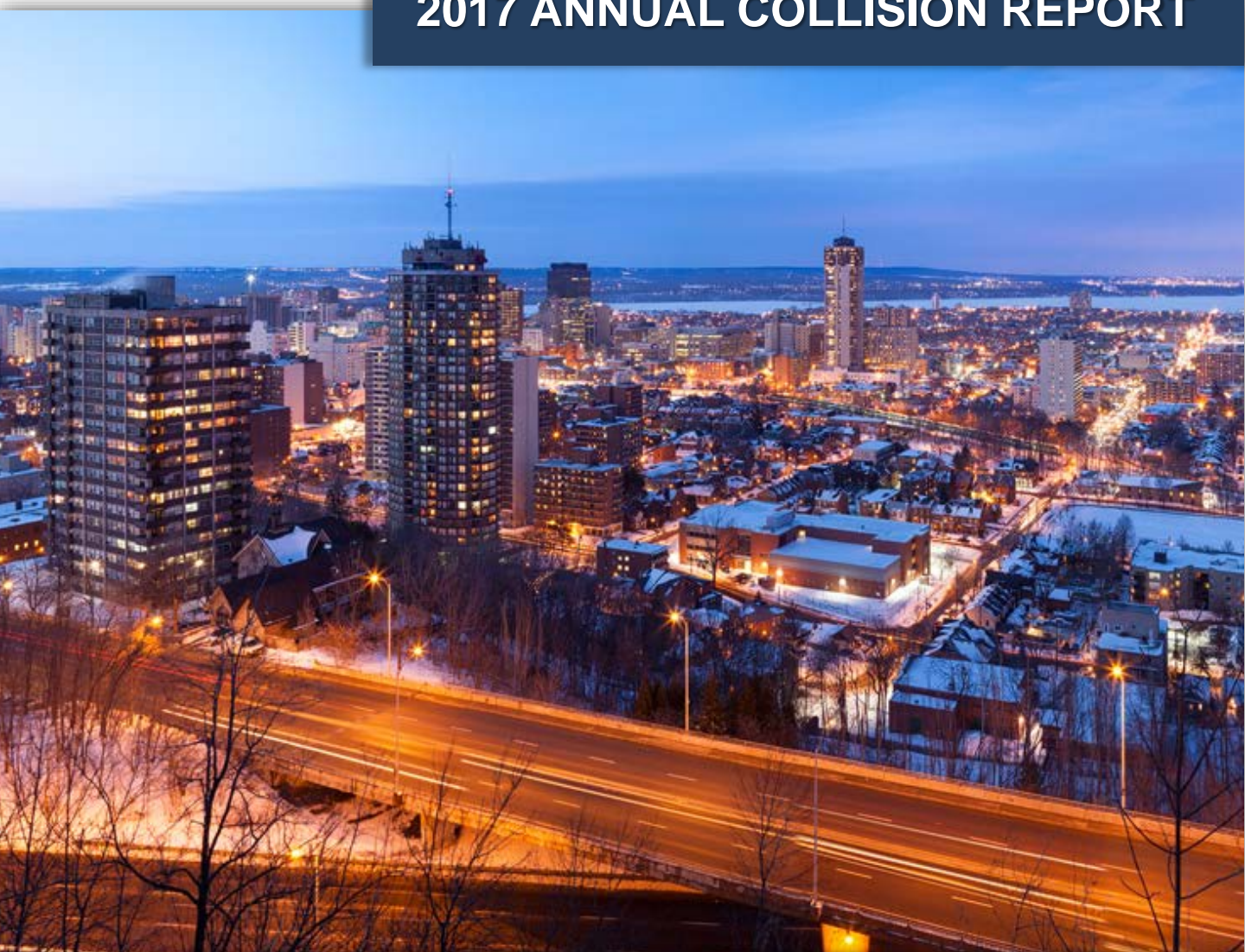




Hamilton

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Report PW19012
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2017 ANNUAL COLLISION REPORT



Roads & Traffic Division
Public Works Department
City of Hamilton

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The Annual Traffic Safety Report is a summary of statistics and trends associated with traffic collisions that have occurred in the City of Hamilton. It is comprised of the following sections:

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Executive Summary

The City of Hamilton road network consist of approximately 2,864 lane-kilometres of urban and rural roads. As part of the road network, there are a total of 7,960 intersections, of which 607 are controlled by traffic signals and 1,130 are controlled by all-way stops. In addition, the City of Hamilton has 72 pedestrian crossovers.

An analysis of collisions in 2017 identified that the majority of collisions occur on a Friday, the months with the highest number of total collisions are October and December, and the hour with the highest number of collisions is between 2 p.m. and 3 p.m. during the day.

In 2017, 239 collision occurred involving pedestrians, which resulted in 215 injuries and 4 fatalities. There were 176 collisions that occurred involving cyclists, which resulted in 138 injuries and zero fatalities.

The most common collision type is a single motor vehicle collision and the most frequent driver action that resulted in the collision is Lost Control.



Disclaimer and Explanation:

Self-Reporting of Collisions

The use of the term “reported” or “police reported” collision refers to a collision attended by a member of the Hamilton Police Service who filled out the standard Provincial reporting form.

In June 2003, Hamilton Police Services adopted a system of Collision Reporting Centres (CRC) for the City of Hamilton. These “one stop reporting centres” allow citizens who are involved in minor, property damage collisions, to file a report based on their own information only, at the nearest CRC office. These collisions are referred to as “self-reported” collisions.

As a result of the introduction of self-reporting, there has been a significant decrease in the total number of collisions reported by Police officers, and the statistics in this report reflect this. This is to be expected as the onus for reporting minor collisions was shifted from the police officers to the general public.

Total Collisions as reported in this document are a sum of Police Reported Collisions and Self-Reported Collisions.



Introduction

The City of Hamilton is situated in Southern Ontario at the westerly end of Lake Ontario. The City amalgamated on January 1, 2001, joining the Town of Ancaster, the Town of Dundas, the Town of Flamborough, the Township of Glanbrook, the former City of Hamilton and the City of Stoney Creek to form the new City of Hamilton. The population of the City of Hamilton is 536,930 (2016 Statistics Canada Census).

The road system contains the full spectrum of road types: multi-lane, one-way and two-way arterials, residential local and collector streets, medium and high-speed rural two-lane roads and a 90 km/h limited access parkway system.

The geographic area for analysis includes all roads within the Hamilton municipal boundaries, excluding collisions occurring on provincially controlled roadways: Queen Elizabeth Way (mainline), Highway 6, Highway 8 from Highway 5 northerly, Highway 5 between Highway 6 and Highway 8/52, Highway 403, on-ramps & off-ramps to Highway 403. Collisions occurring on service roads to the Queen Elizabeth Way are included. Only collisions on city streets or sidewalks are recorded – private property collisions are not included.



Introduction

Traffic collisions are a primary cause of deaths, injuries and associated property losses. The direct costs of collisions in Ontario, in 2012, amounted to an estimated \$3 billion. Direct costs include the cost to society of property damage, health care, police services, courts, fire and ambulance services, tow trucks, out of pocket costs, and traffic delays. Indirect cost of collisions (associated with productivity losses due to disability and premature mortality) is more than twice the direct costs. The intention of this report is to provide factual information to those agencies and persons concerned with the safety of the roadway transportation system within the City of Hamilton.

Between 2013 and 2017, there was an average of 8,202 total collisions and an average of 1,825 collisions resulting in injuries on Hamilton roadways each year, including an average of 14 fatal collisions. This information correlates to the following average rates per 100,000 population for the City of Hamilton.

	Collision Rate/100,000 Pop.				Injury Rate/100,000 Pop.				Fatality Rate/100,000 Pop.		
	All	Ped.	Cyclist		All	Ped.	Cyclist		All	Ped.	Cyclist
2013	1449.0	45.0	32.3		335.0	39.8	0.8		2.7	1.0	0.2
2014	1558.0	45.2	30.2		352.3	40.4	1.7		3.1	1.0	0.0
2015	1566.6	46.6	30.8		360.1	40.7	0.6		2.6	1.3	0.2
2016	1542.0	51.9	33.4		361.6	47.6	1.9		2.1	0.7	0
2017	1625.9	42.9	32.3		313.6	38.8	2.1		3.0	0.7	0

Section 1

Traffic Safety Initiatives and Education Campaigns



TRAFFIC SAFETY INITIATIVES

The Hamilton Strategic Road Safety Program, including the Hamilton Strategic Road Safety Committee, were re-established in 2014 by City Council and are committed to reducing the number of collisions, particularly injury and fatal collisions city-wide. Since 2014, numerous traffic safety initiatives have been implemented to encourage motorists to slow down and improve safety for all road users.



EDUCATION CAMPAIGNS

Since 2015, the City of Hamilton has launched a number of road safety education campaigns to raise awareness to issues identified by the Hamilton Strategic Road Safety Committee. These campaigns are targeted to encourage motorists to change driver behavior. These various campaigns include video's, print media, social media and radio advertisements. The images below are linked to various road safety campaigns.



Safety Zone Lawn Signs & Neighbourhood Entry Signs

Lawn signs and neighbourhood entry signs advising drivers to slow down are now available to residents of Hamilton. These [signs](#) promote safer streets and remind drivers to reduce their speed in residential areas. The safety of all road users is a priority for the City of Hamilton.



Dynamic Speed Signs

Dynamic Speed Signs have been introduced to the City of Hamilton as part of a safety initiative to reduce vehicle speed. The operating speed electronically displayed is a strong visual reminder to the motorist to comply with the posted speed limit. Residents can also access the city [website](#) to see the placement of devices and obtain summary data from each unit.

Pedestrian Crossovers (PXOs)

The City of Hamilton approved the use and installation of pedestrian crossovers in 2016 to assist pedestrians to easily and safely cross the road. The Highway Traffic Act requires motorists and cyclists to stop and yield to pedestrians intending to cross the road, and wait for them to completely reach the other side before driving. The City currently has 38 [PXO](#)'s installed and approximately \$400,000 is dedicated each year for the installation of new PXOs from a priority ranking list.



Traffic Calming Measures

Speed humps, speed cushions, bump-outs, median islands and knockdown sticks are all additional tools used across the City to reduce vehicle speeds and increase safety for all road users. Approximately \$350,000 is dedicated each year for implementing [traffic calming](#) measures on Hamilton roadways.

Traffic Signals

The City of Hamilton's Public Works Department has been using various approaches to create safer signalized intersections for all road users:

- Introduction of fully protected left-turn phasing to separate conflicts between pedestrians and vehicles;
- All new and reconstructed signals feature pedestrian countdown signals and accessible pedestrian push-buttons;
- Ladder crosswalk markings are installed to highlight the presence of pedestrian crossing facilities;
- Increases in the allocated crossing time for pedestrians;
- Right-turn-on-red movements are restricted where vehicle sightlines are insufficient; and
- Expansion of the red-light camera program through the installation of 5 new red-light cameras per year at locations that experience higher than expected right-angle collisions.



School Zone Safety Reviews

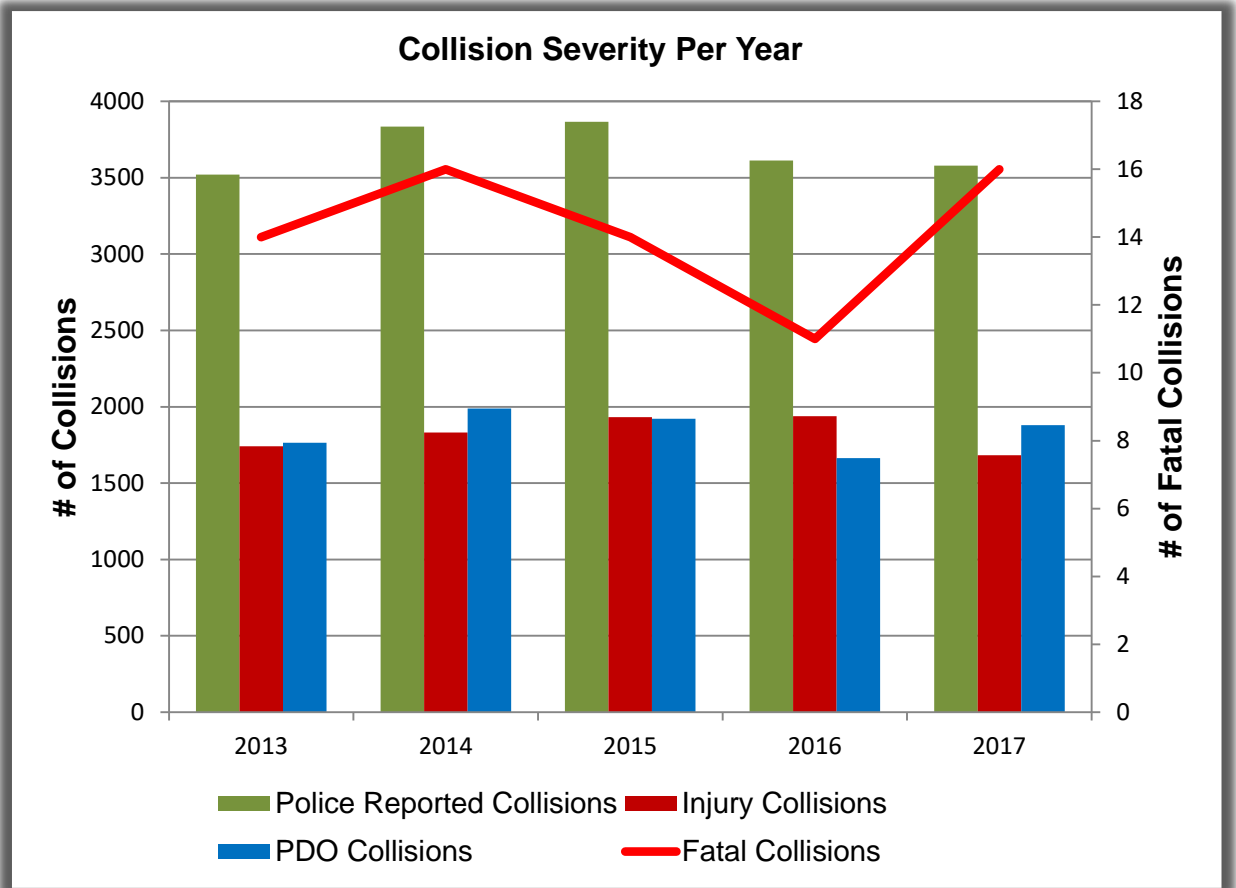
The Hamilton Strategic Road Safety Committee recognizes that school zones are high vulnerable road user locations. City Staff from various Departments, have been proactively conducting and implementing various initiatives throughout the city to ensure that children can travel to and from school safely. Some of these initiatives included, increased enforcement by Hamilton Police Service and Hamilton Parking Enforcement, reduced speed limits, expansion of ladder crosswalk locations, radar message board installations, school zone and additional warning signs, speed humps, bump-outs, and the development of Safe Routes to School routes through the Planning Department and Hamilton Public Health.



Section 2

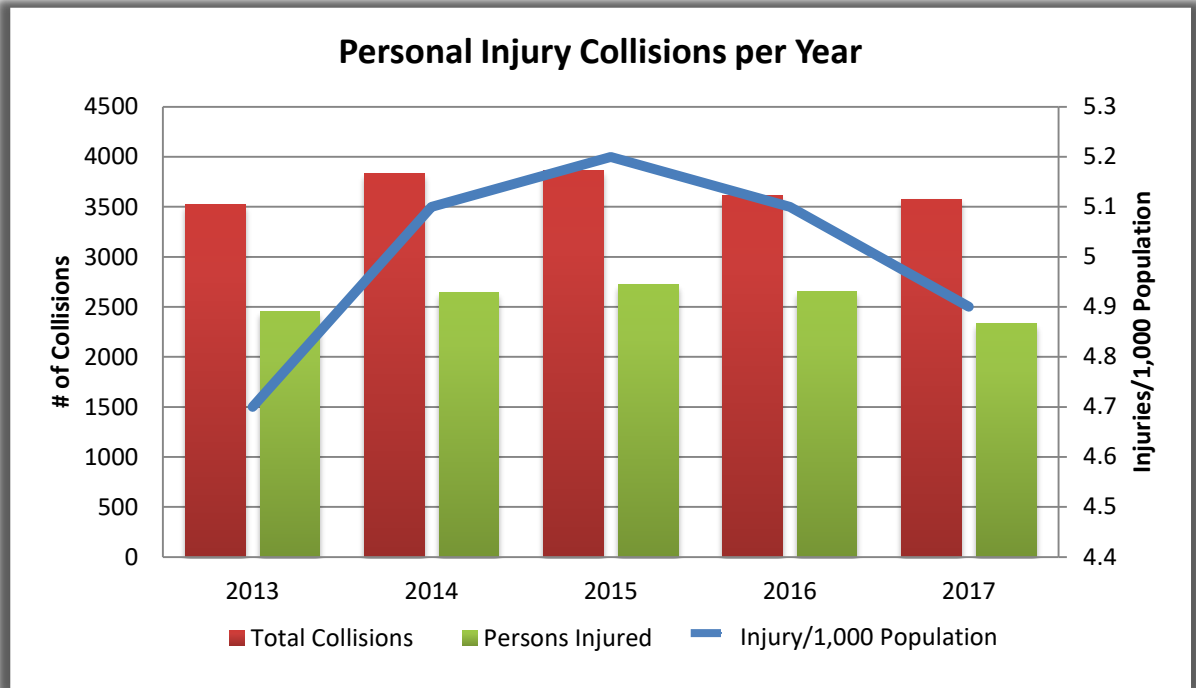
Five Year Collision Trends – 2013 to 2017





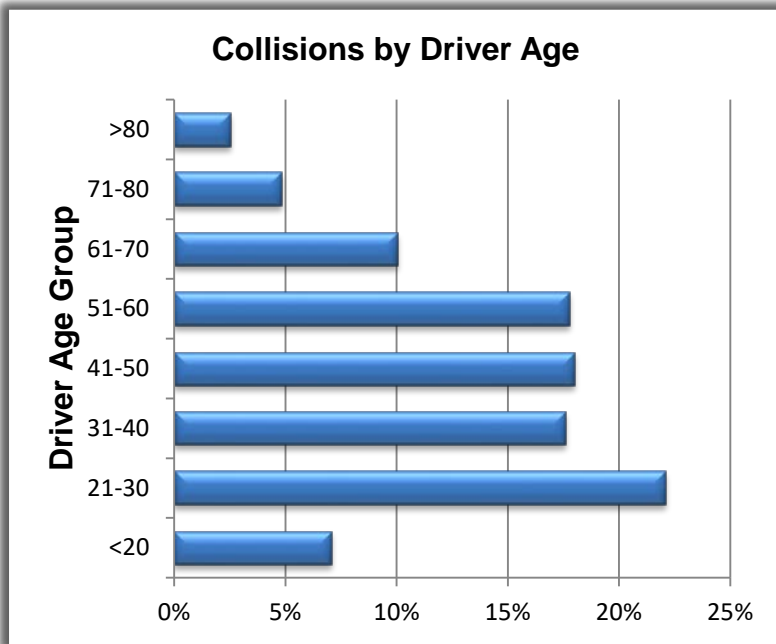
PDO = Property Damage Only



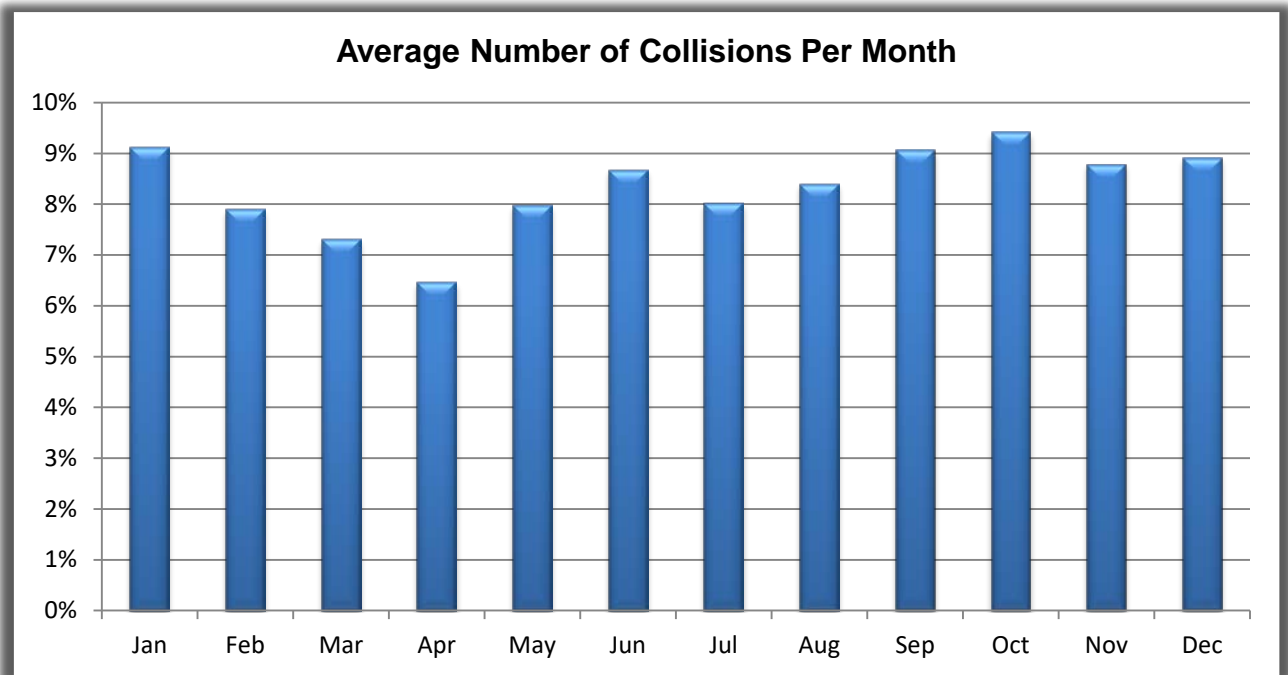


Year	Total Collisions	Self Reported Collisions	Police Reported Collisions	Injury Collisions	Property Damage Collisions	Fatal Collisions
2013	7533	4012	3521	1742	1765	14
2014	8102	4267	3835	1831	1988	16
2015	8398	4534	3864	1931	1919	14
2016	8263	4653	3610	1937	1662	11
2017	8802	5224	3578	1682	1880	16

The total number of collisions have been increasing each year since 2013, however, the number of collisions with Hamilton Police Services involvement has declined since 2015. The City saw a reduction of 255 injury collisions from 2016 to 2017.

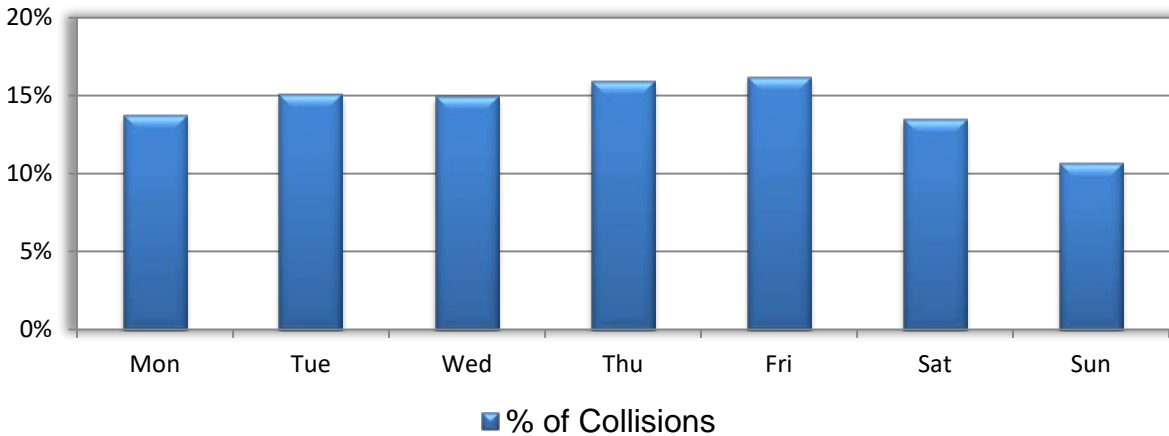


Over 20% of drivers involved in collisions from 2013-2017 in the City of Hamilton were between the ages of 21-30 years old. The most common age for a driver involved in a collision during this time period was 23 years old. It should be noted that these were drivers involved in collisions, not necessarily the person at fault.



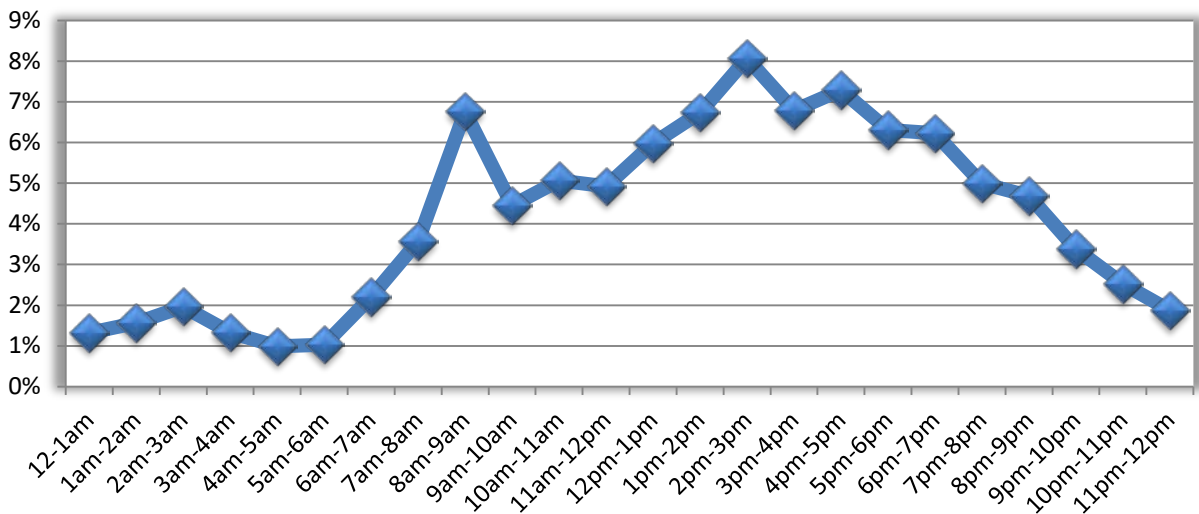
In the last 5 years, April has been the month that has seen the lowest average number of collisions. The highest average number of collisions occurred in October. The spring months of March, April and May show the lowest seasonal trend in collisions while the autumn season of September, October and November have the highest.

Collisions by Day of Week



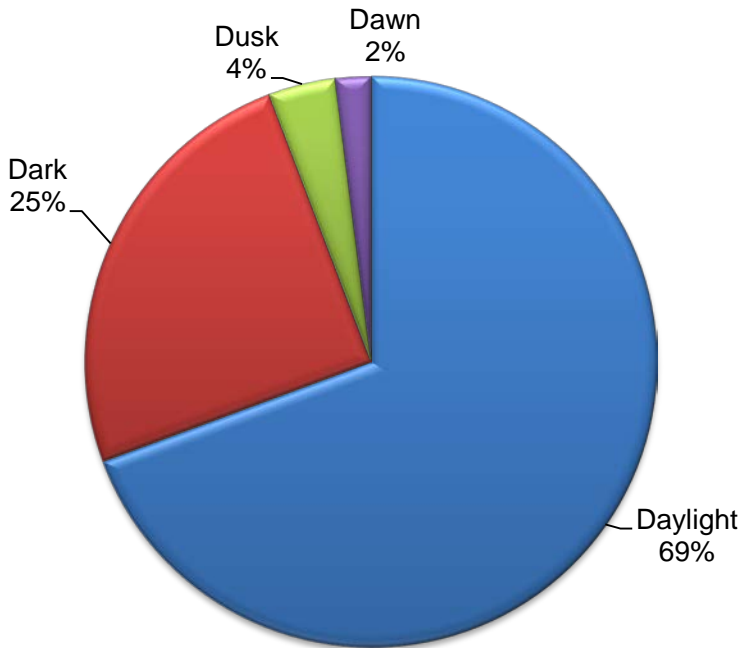
Approximately 16% of all collisions occurred on a Friday in the past 5 years making it the highest day of the week for collisions. Sundays have been the lowest with approximately 11% of collisions.

Collisions by Hour of Day



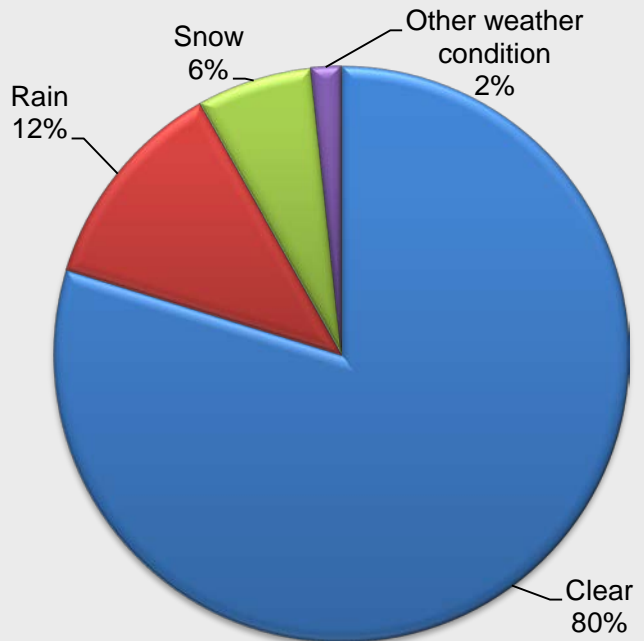
Statistically, the hour of 2:00 p.m. – 3:00 p.m. has had the highest number of collisions in the past 5 years. This is also the highest collision hour period for 2017 stats.

Collisions by Lighting Condition



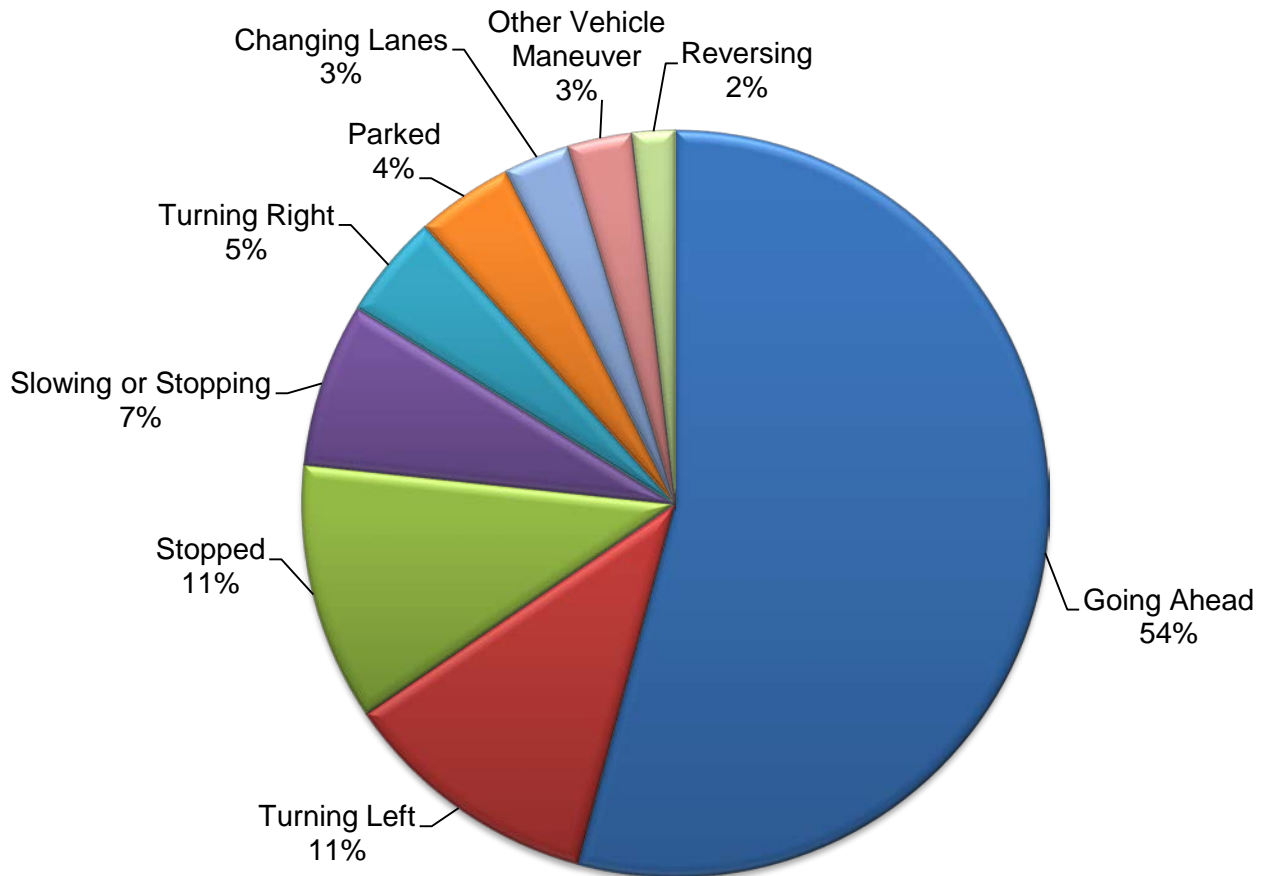
Throughout the past 5 years, 69% of all collisions have occurred during daylight conditions, while 25% have occurred during dark conditions.

Collisions by Weather Condition

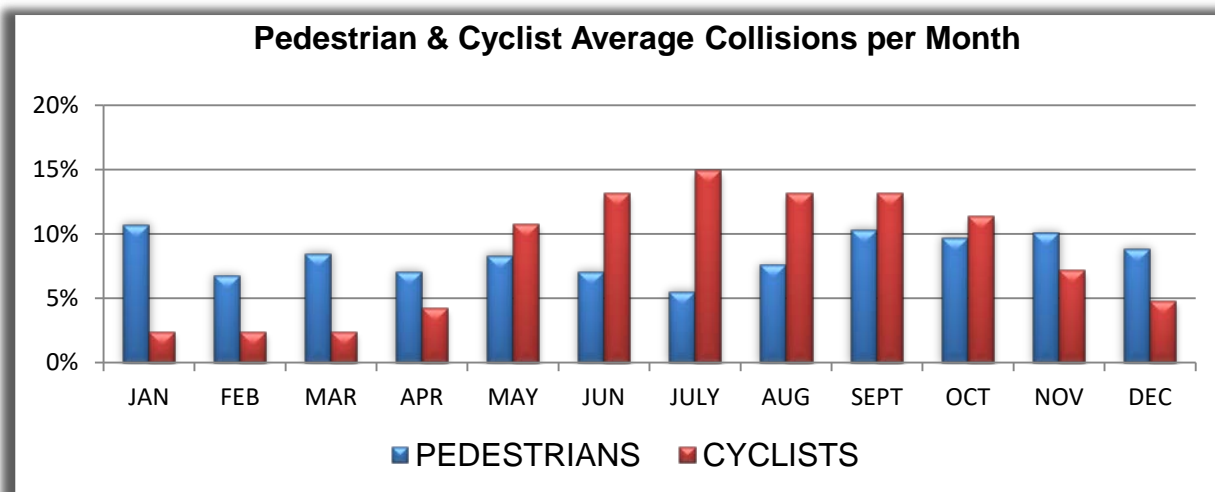
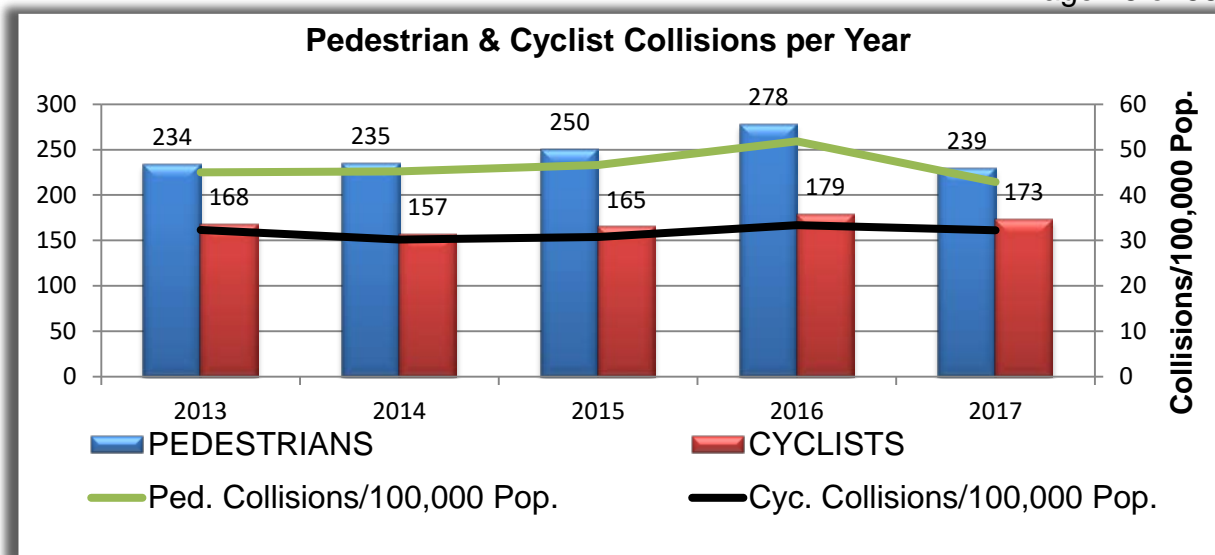


80% of all collisions from 2013-2017 occurred during clear weather conditions, 12% during rain and 6% during snow conditions. Other weather conditions include freezing rain, drifting snow and fog.

Collisions by Vehicle Maneuver



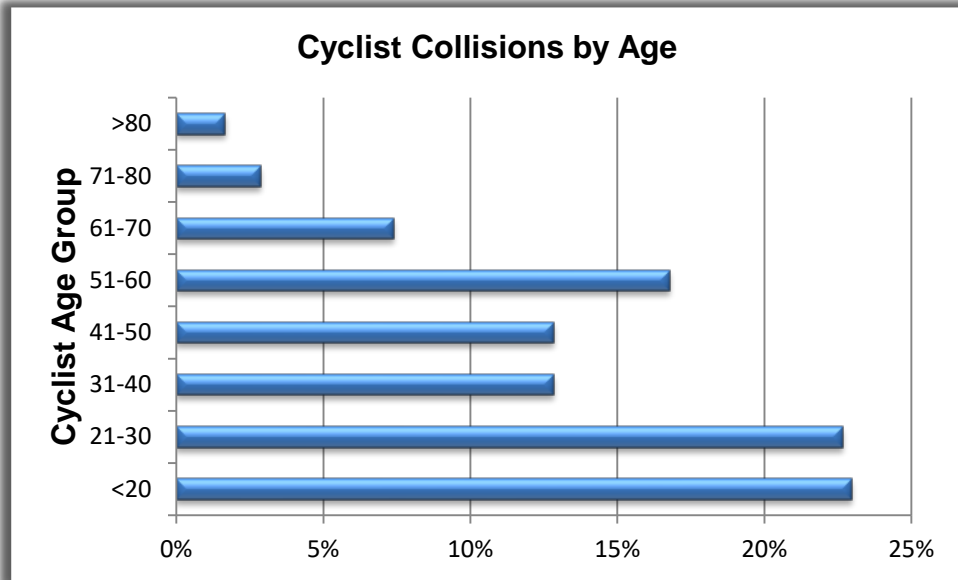
Statistics show that the most common vehicle maneuver (including bicycles) involved in a collision was "Going Ahead" which occurs 54% of the time. "Turning Left" and "Stopped" were the second leading maneuvers at 11%.



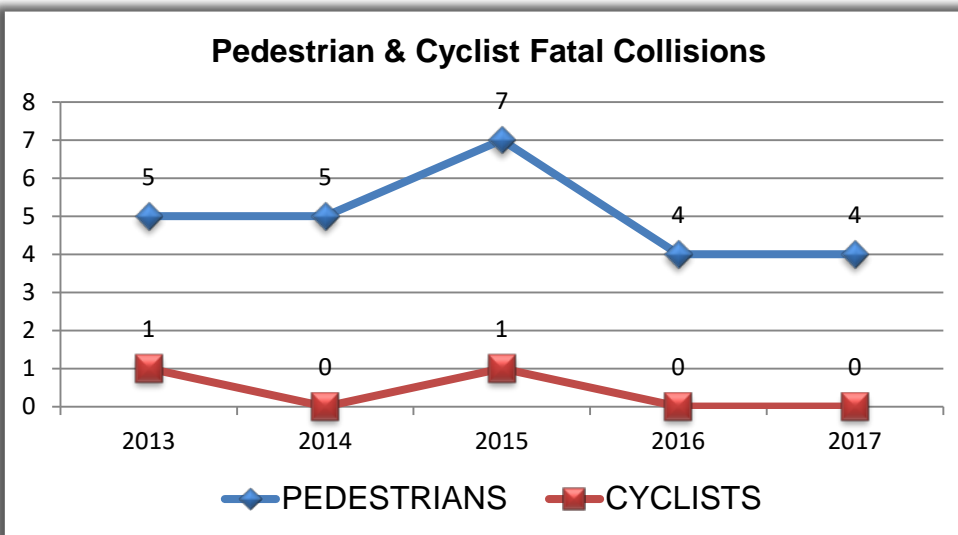
Collisions involving pedestrians and cyclists reached a peak in 2016 with 278 and 179 respectively. In 2017, there was a reduction of 39 pedestrian collisions and a slight reduction in cyclist collisions compared to 2016.

Between 2013-2017, the month of January has been, on average, the month with the most amount of pedestrian collisions and July having the least amount. January 2016 had the highest number of pedestrian collisions with 44.

For cyclists, July had the highest average number of collisions and the winter months of January, February & March had the fewest collisions, most likely due to a reduced volume of cyclists at those times. September 2014 had the highest number of cyclist collisions with 31.

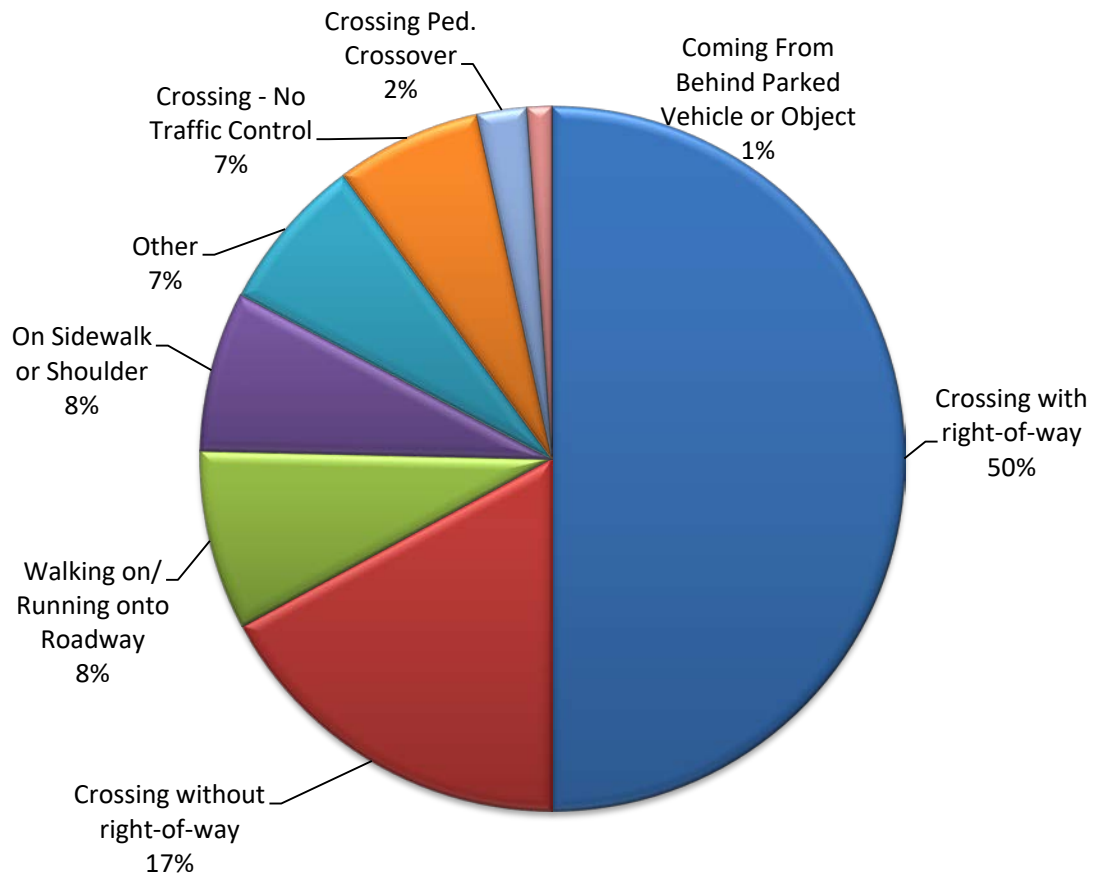


Cyclists under 20 years old were involved in the highest number of collisions between 2013 and 2017. The most common ages for cyclists involved in a collision were 17, 18 and 19, which occurred 21 times each.



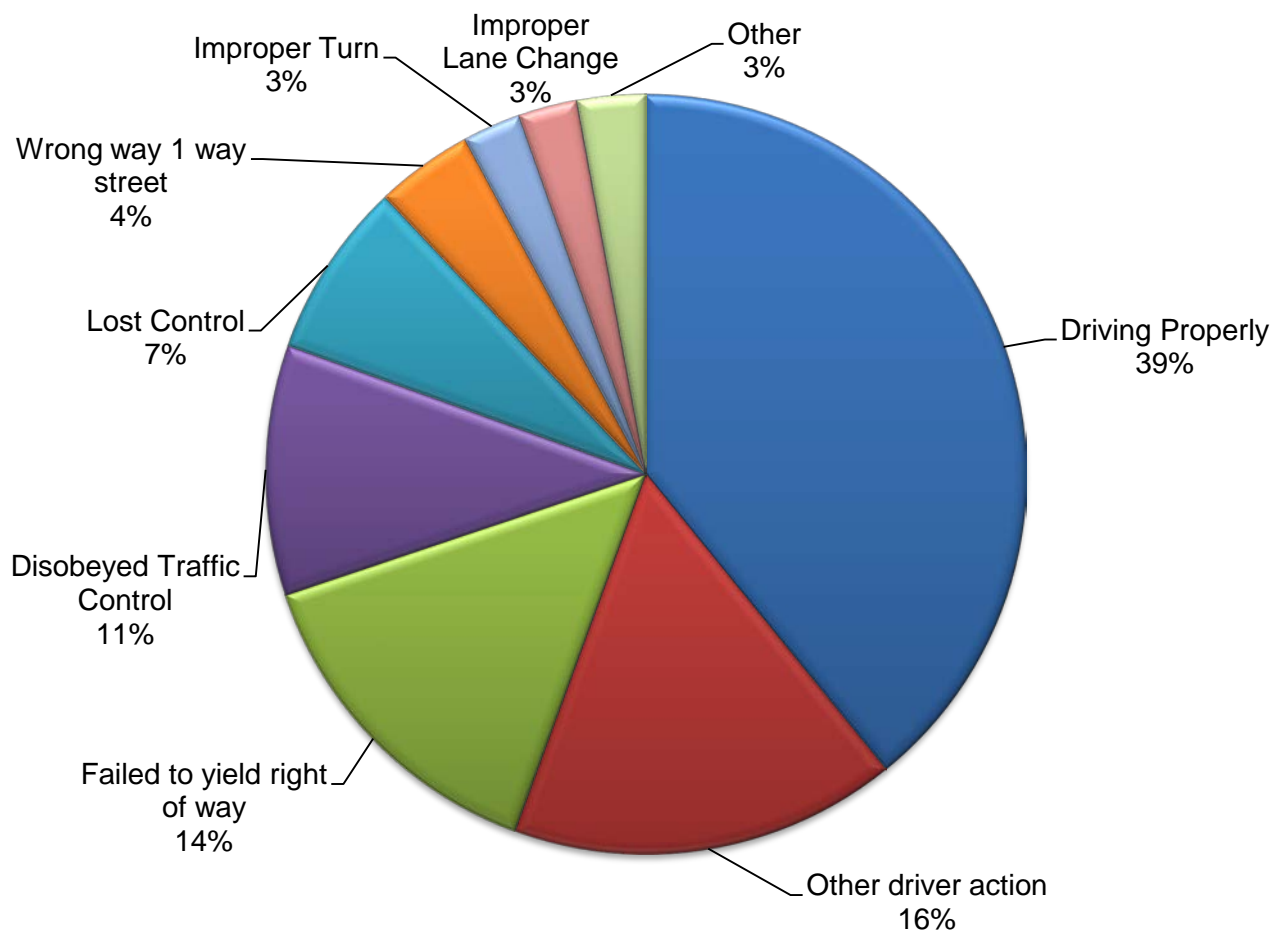
2015 saw the highest number of pedestrian fatalities with 7, while 2016 and 2017 have seen the lowest number of fatal collisions in the past 5 years. There have been 2 fatal cyclist collisions since 2013, with the last one occurring in 2015.

Pedestrian Collisions by Pedestrian Action



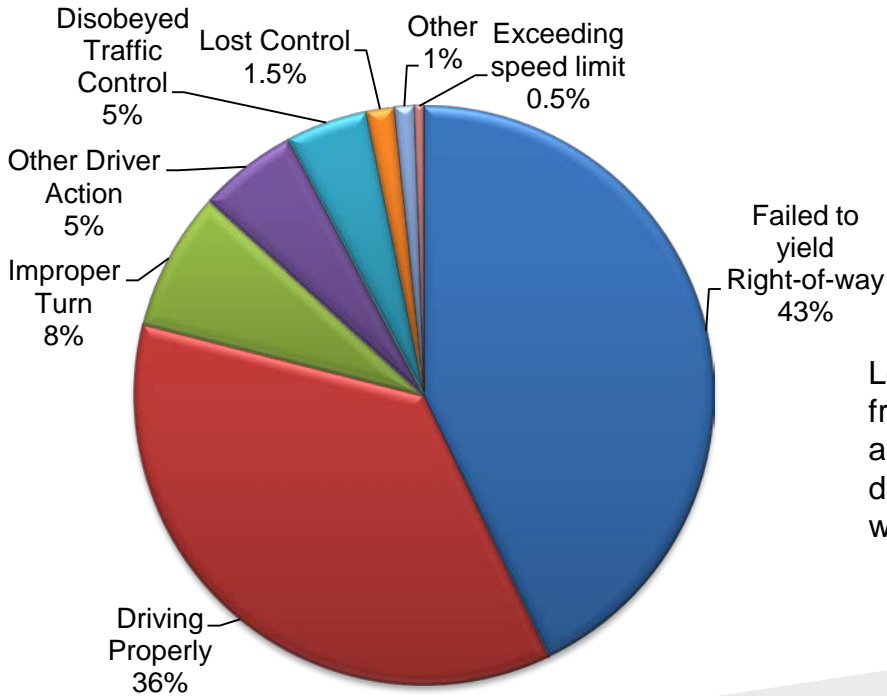
Half of all pedestrian collisions occurred when pedestrians had the right-of-way during the last 5 years, followed by a pedestrian crossing without the right-of-way, which occurred 17% of the time.

Cyclist Collisions by Cyclist Action



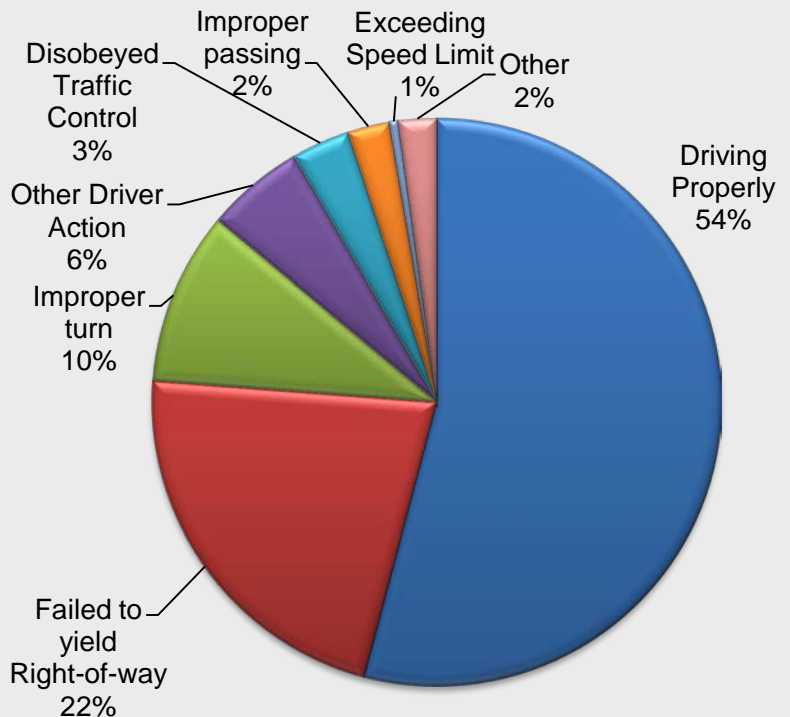
39% of cyclist collisions occurred when the cyclist was identified as driving properly.

Pedestrian Collisions by Driver Action



Looking at Pedestrian collisions from the motor vehicle driver's action, 43% of the time the driver failed to yield the right-of-way.

Cyclist Collisions by Driver Action



During 54% of all cyclist collisions, the motor vehicle operator was classified as driving properly.

The table below lists the intersections that had the highest number of collisions between 2013 & 2017.

Intersections with Highest # of Collisions							
Rank	Intersection	2013	2014	2015	2016	2017	5 Year
1	Dundurn and King	10	18	7	14	13	62
2	James and Main	7	18	16	7	11	59
3	John and King	14	20	8	5	10	57
4	Main and Wellington	14	10	11	11	9	55
5	Dundurn and Main	9	5	12	15	11	52
6	John and Main	10	8	15	7	6	46
7	Kenilworth and Main	7	9	12	10	6	44
8	RHVP & NB Off-Ramp to King	7	7	12	5	8	39
9	Mohawk and Upper James	11	12	8	5	3	39
10	Centennial Pkwy & Queenston	12	5	4	6	10	37
11	Rymal and Upper James	4	6	7	13	7	37
12	Hunter and John	7	8	6	9	6	36
13	Fennell and Upper James	4	10	6	8	8	36
14	Mohawk and Upper Gage	7	8	9	4	6	34
15	Main and Victoria	4	8	9	7	6	34
16	Barton and Ottawa	5	10	7	4	7	33
17	James and King	6	5	9	7	6	33
18	Cannon and Wellington	3	12	10	0	8	33
19	Stone Church and Upper James	8	8	2	7	7	32
20	King and Victoria	1	5	4	13	9	32

The table below lists the intersections that had the highest number of pedestrian collisions between 2013 & 2017.

Intersections with Highest Pedestrian # of Collisions							
Rank	Intersection	2013	2014	2015	2016	2017	5 Year
1	Kenilworth and Main	2	0	3	4	1	10
2	Dundurn and King	1	4	0	3	2	10
3	Barton and Ottawa	0	2	4	1	1	8
4	Barton & Wellington	1	2	1	3	1	8
5	Charlton and John	4	0	3	1	0	8
6	Main and Queen	1	1	3	1	1	7
7	Cannon & Wellington	1	3	3	0	0	7
8	King and Wellington	0	2	2	3	0	7
10 intersections with 6 pedestrian collisions							

The intersections of Kenilworth Avenue & Main Street and Dundurn Street & King Street have recorded the most pedestrian collisions in the past 5 years with 10 collisions each.

This table below lists the intersections that had the highest number of cyclist collisions between 2013 and 2017.

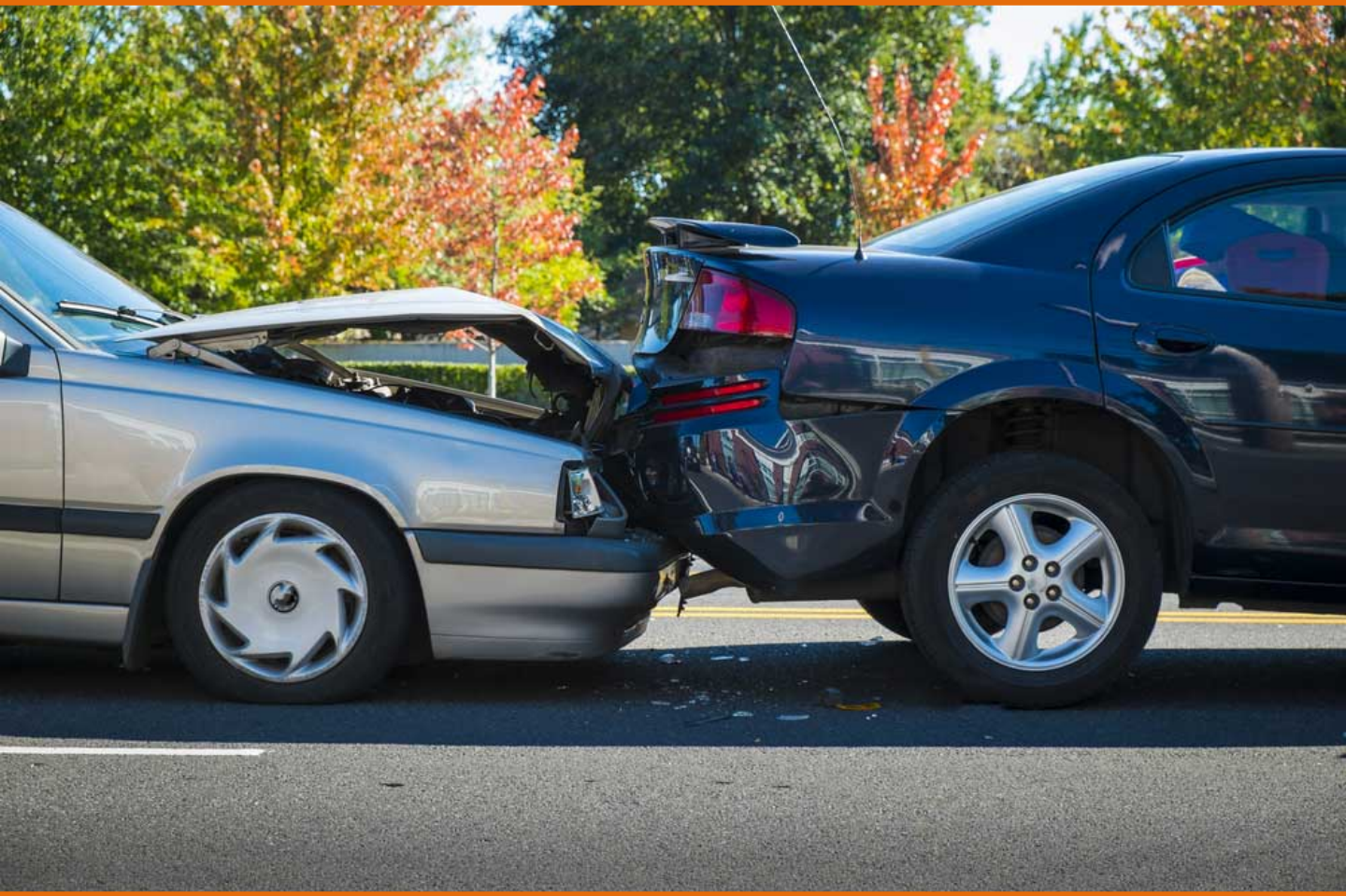
Intersections with Highest # Cyclist Collisions							
Rank	Intersection	2013	2014	2015	2016	2017	5 Year
1	Cannon and Wellington	0	4	3	0	3	10
2	Cannon and Mary	1	1	1	3	4	10
3	King and Macklin	1	2	0	1	1	5
4	Ashley and Cannon	0	0	1	2	2	5
5	Queenston & RHVP NB Off-Ramp to Queenston	0	2	1	2	0	5
6	Stinson Street and Victoria Avenue	0	1	1	2	0	4
7	Cannon and Cathcart	0	0	1	1	2	4
8	Hwy 8 and Millen Road	0	2	1	0	1	4
9	Cannon and Oak Avenue	0	0	0	2	2	4
21 INTERSECTIONS WITH 3 CYCLIST COLLISIONS							

Two intersections along the Cannon Street cycle track (at Wellington Street and Mary Street) have recorded the most cyclist collisions in the past 5 years with 10 collisions each.



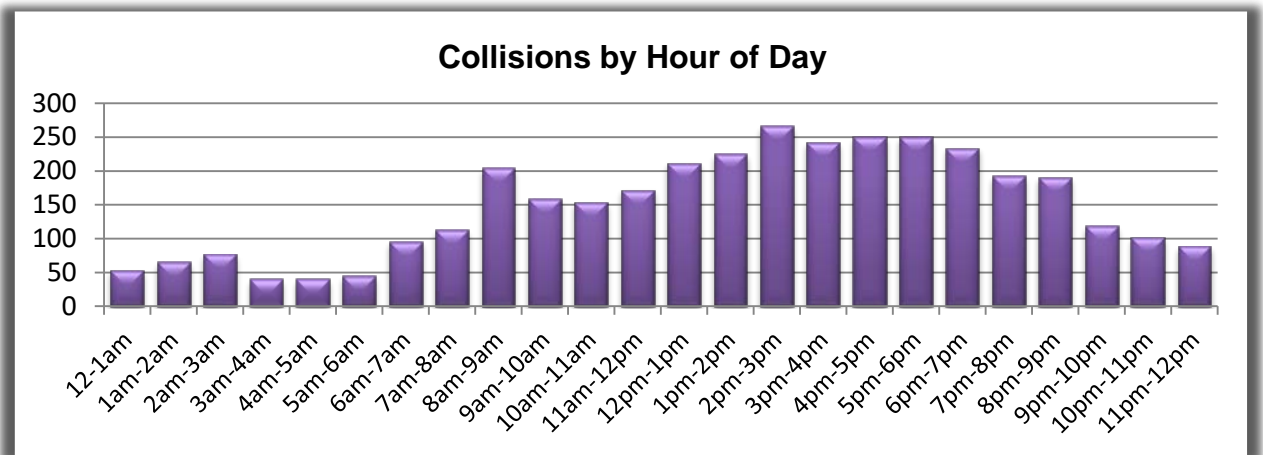
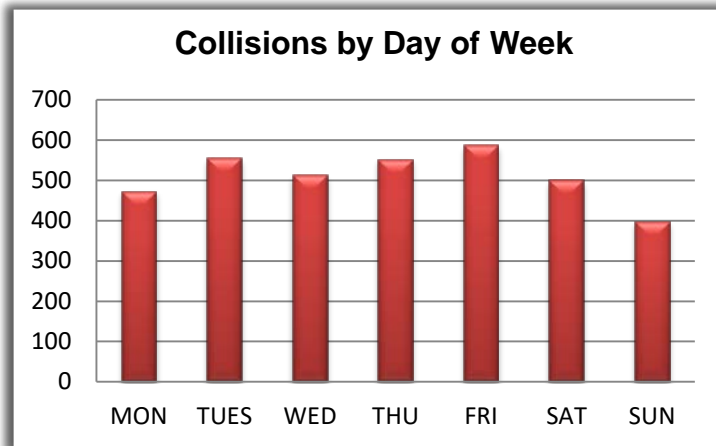
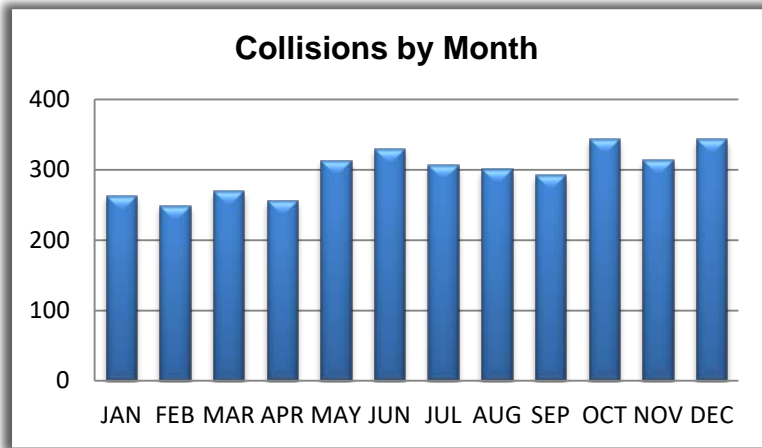
Section 3

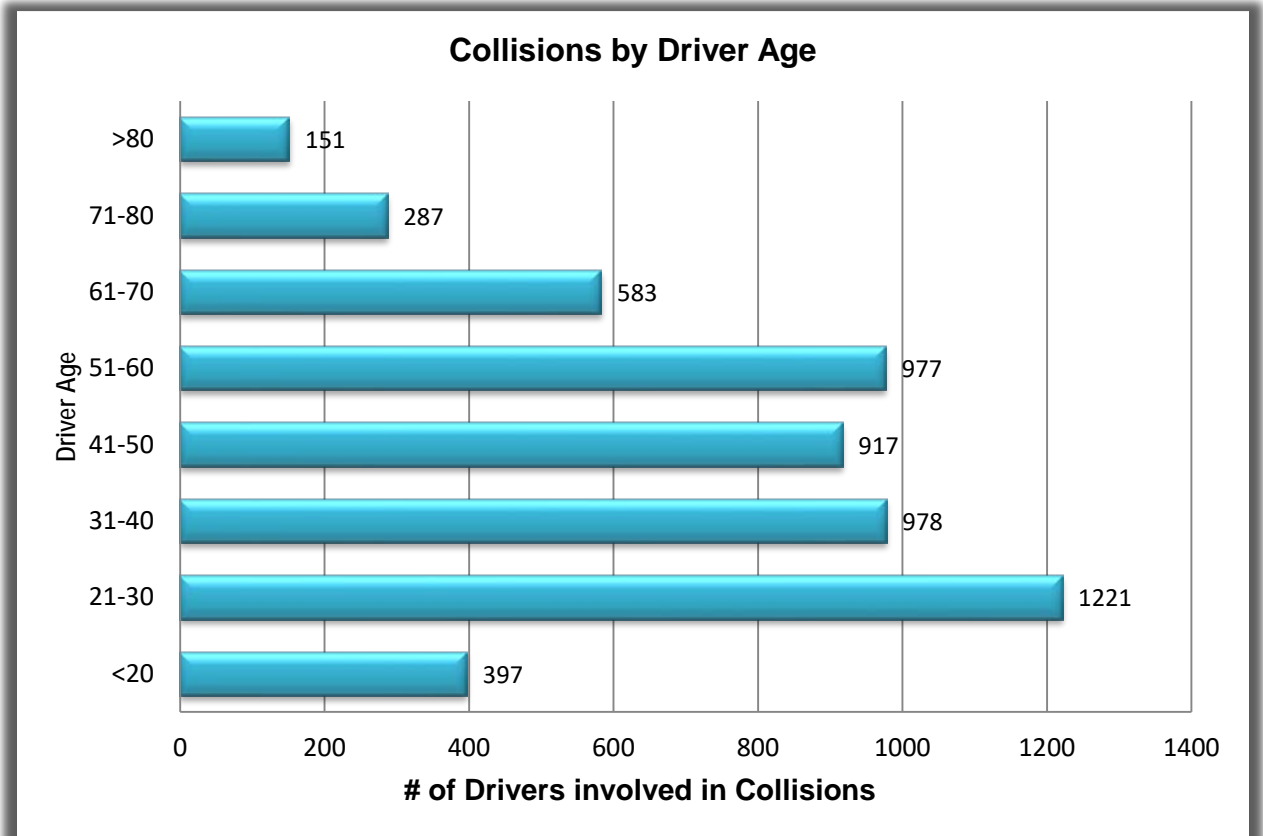
Collision Statistics – 2017



The table below provides a summary of collision statistics for 2017.

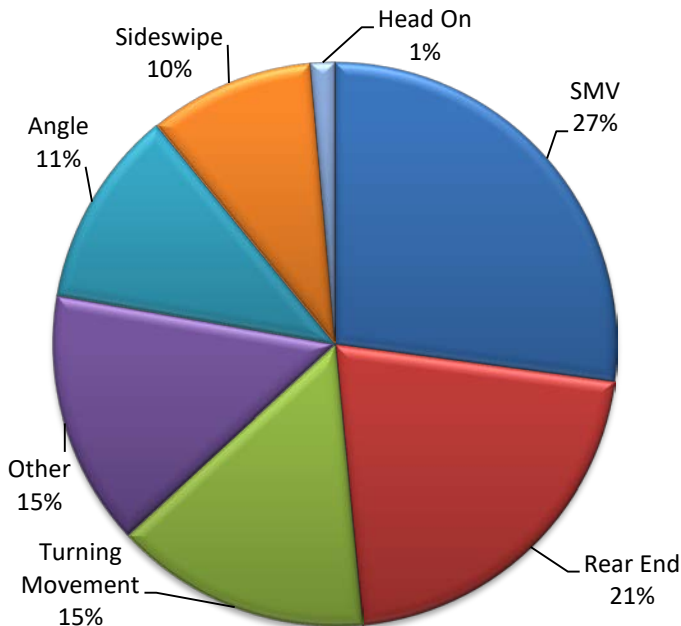
Statistics	2017
Number of total collisions	8802
Number of police reported collisions	3578
Number of Injury/Fatal collisions	Injury: 1682 Fatal: 16
Number of collisions involving pedestrians	239
Number of Injury/Fatal collisions involving pedestrians	Injury: 215 Fatal: 4
Day with highest number of pedestrian collisions	Tuesday
Hour with highest number of pedestrian collisions	3 pm – 4 pm
Number of collisions involving cyclists	176
Number of Injury/Fatal collisions involving cyclists	Injury: 138 Fatal: 0
Day with highest number of cyclist collisions	Thursday
Hours with highest number of cyclist collisions	1 pm – 2 pm & 6 pm – 7 pm
Day with highest number of total collisions	Friday
Month with highest number of total collisions	October & December
Hour with highest number of total collisions	2 pm – 3 pm
Most common collision type	Single motor vehicle
Most frequent driver action resulting in collision	Lost control





In 2017, there were 1221 drivers between the ages of 21 and 30 that were involved in collisions on City of Hamilton streets. The most common age for a driver involved in a collision was 24 years old. It should be noted that these were drivers involved in collisions, not necessarily the person at fault.

Collisions by Initial Impact Type



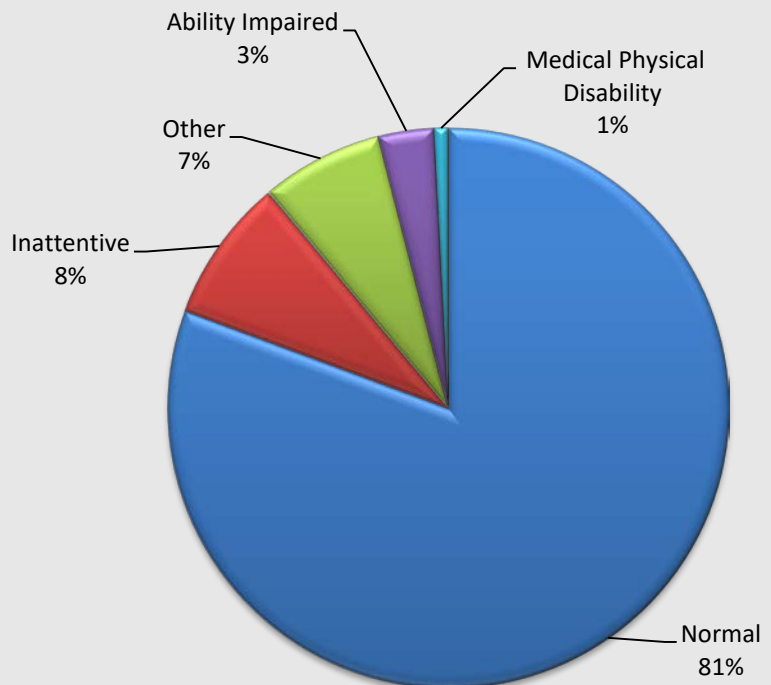
Impact Type	#
Single motor vehicle	971
Rear end	763
Turning movement	526
Other	522
Angle	406
Sideswipe	340
Head on	50

Over 25% of collisions in 2017 involved a single motor vehicle. Head on collisions accounted for only 1% of all collisions.

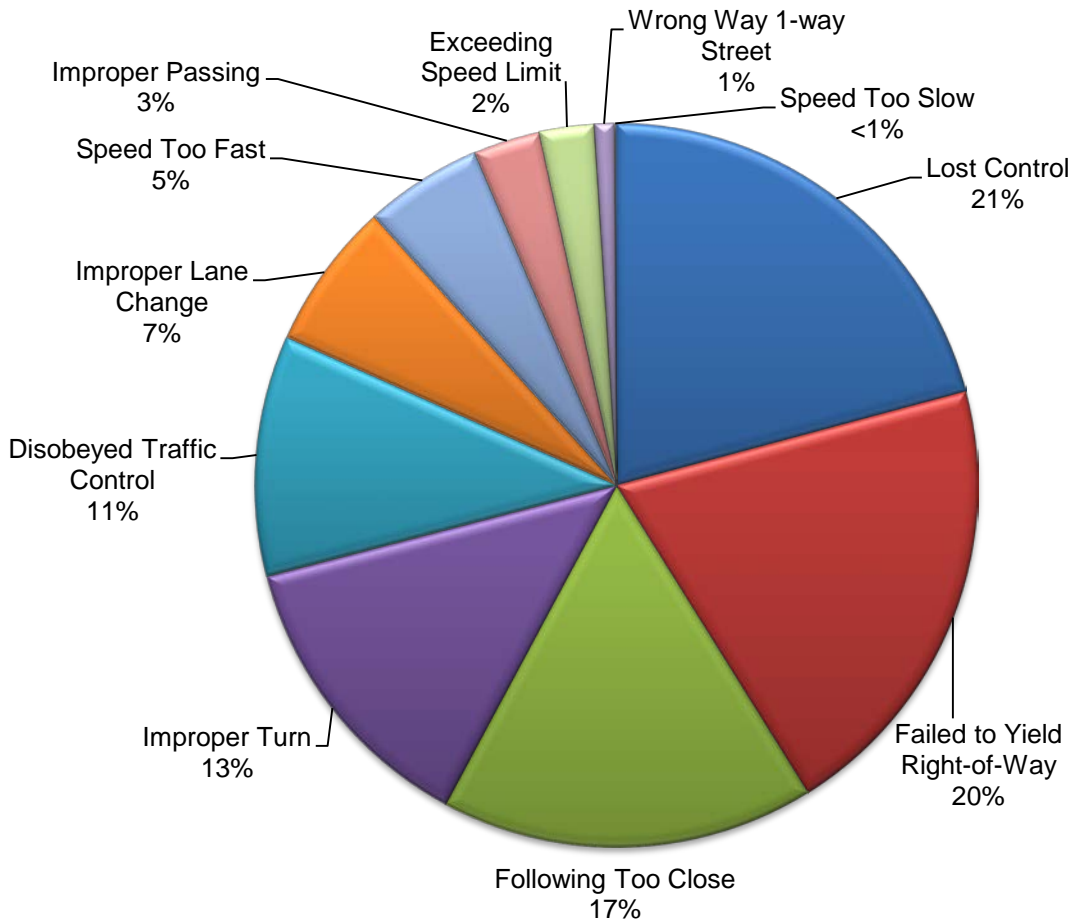
Driver Condition	#
Normal	4885
Inattentive	501
Other	428
Ability impaired alcohol/drugs	194
Medical physical disability	48

In more than 80% of collisions in 2017 drivers were noted as operating their vehicle under "normal" condition, meaning they were not distracted, impaired by alcohol or drugs or any other condition.

Collisions by Driver Condition



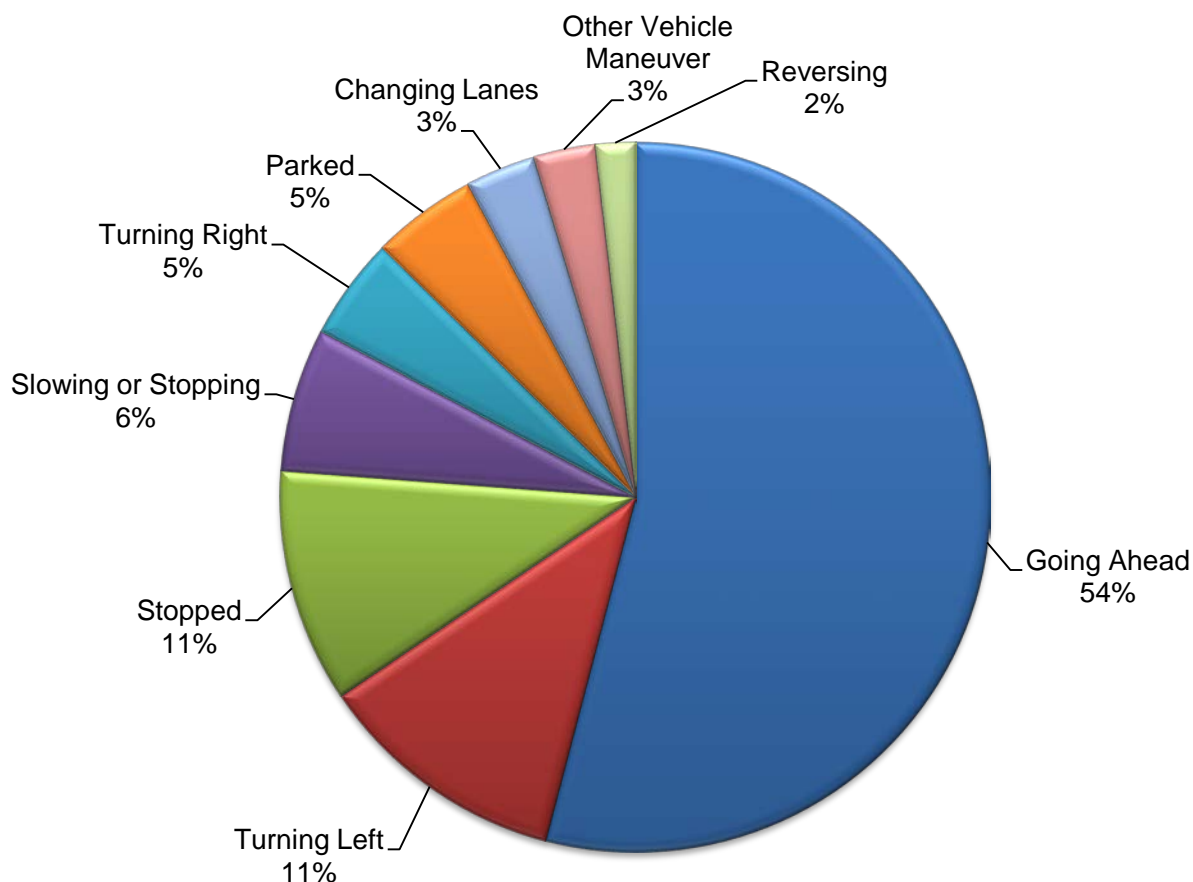
Collisions by Driver Action



Driver Action
Lost control
Failed to yield right of way
Following too close
Improper turn
Disobeyed traffic control
Improper lane change
Speed too fast
Improper passing
Exceeding speed limit
Wrong way one-way street
Speed too slow

The leading cause of collisions were drivers losing control of their vehicles (21%) and Failed to Yield right-of-way was second highest at 20%. Speed related collisions resulted in 7% of collisions City-wide in 2017.

Collisions by Vehicle Maneuver

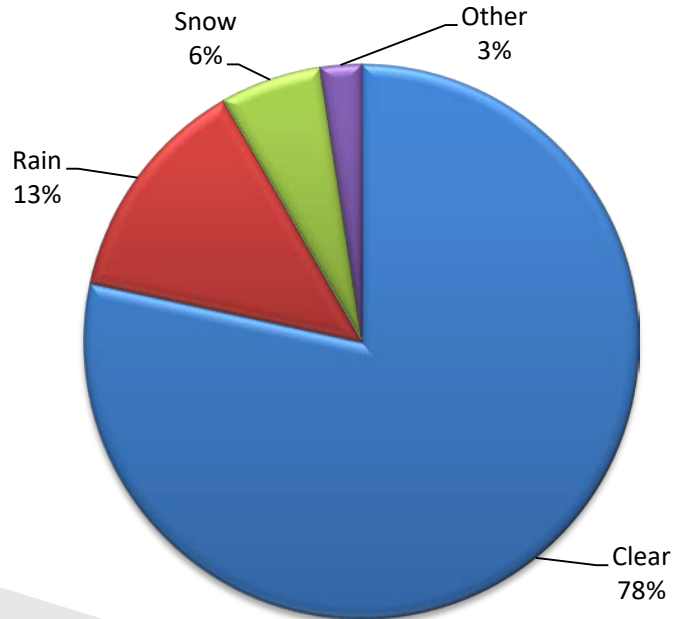


Statistics show that the most common vehicle maneuver (includes bicycles) during a collision in 2017 was “Going Ahead”, which occurred 54% of the time. “Turning Left” was the second leading maneuver at 11%.

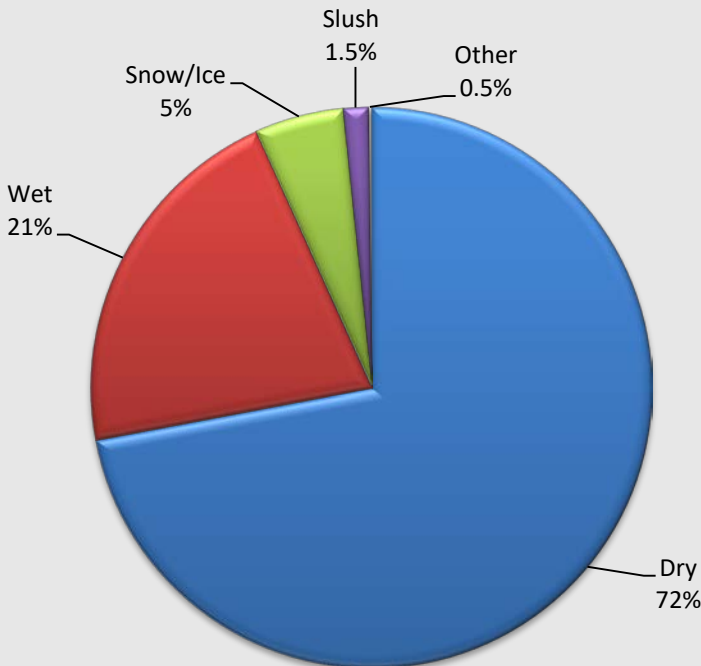
Vehicles that were stopped accounted for 11% and parked vehicles were involved in 5%. These values almost mirror those from the 2013-2017 data. Other vehicle maneuvers include merging, pulling onto or away from the shoulder or U-turns.

Collisions by Weather Condition

78% of all collisions in 2017 occurred during clear weather conditions. 13% occurred during rain and 6% during snow. The other weather conditions include fog, strong winds, freezing rain, drifting snow, etc.



Collisions by Road Condition



72% of all collisions in 2017 occurred during dry road surface conditions. 21% occurred when the road surface was wet, 5% during snow/ice and 1.5% in slushy conditions. The other road surface conditions include mud, loose gravel, etc.

Intersections with Highest # of Collisions			
Rank	Intersection	# of Collisions	Ward
1	*Dundurn and King	14	1
2	*James and Main	11	2
3	*Dundurn and Main	11	1
4	*Centennial Parkway and Queenston	10	9
5	*John and King	10	2
6	King and Queen	9	1/2
7	Barton and Gage	9	3
8	*Main and Wellington	9	2/3
9	*King and Victoria	9	3
10	Catharine and Main	8	2
11	Dundurn and York	8	1
12	*Fennell and Upper James	8	7/8
13	*Cannon and Wellington	8	2/3
14	*RHVP and RHVP NB Off-Ramp To King	8	5
15	Barton and Strathearne	8	4

* Represents locations that were also identified in 2013-2017 review

Section 4

Fatal Collisions – 2017



Fatal Collisions

An evaluation was undertaken of fatal collisions in order to analyze the collision circumstances and to identify any potential patterns.

- 50% (8) of fatal collisions occurred on rural roadways and 50% (8) occurred on urban roadways
- 25% (4) occurred within an intersection and 75% (12) occurred at midblock locations
- 6% (1) of collisions occurred when it was raining, 6% (1) when it was snowing and 88% (14) during clear weather
- 19% (3) occurred during wet road conditions, 6% (1) on loose snow and 75% (12) on dry roadways
- 31% (5) of fatal collisions were the result of a Single Motor Vehicle, 25% (4) were caused by Head On collisions, 25% (4) were Pedestrian/Vehicle collisions, 13% (2) were Angle collisions within intersections and 6% (1) was the result of a Sideswipe collision
- 44% (7) occurred when drivers lost control of the vehicle, 13% (2) because a driver disobeyed the traffic control, 13% (2) when a driver failed to yield the right-of-way, 6% (1) from a driver exceeding the speed limit, 6% (1) from an improper lane change and 18% (3) from another driver's action or driving properly

Based on the information, the majority of fatal collisions occurred during clear, dry conditions at midblock locations.

The following chart identifies the weather, lighting and road surface conditions, initial impact type, driver action and a brief summary of the details taken from the motor vehicle accident report and comments from the Police officer that created the report for each fatal collision that happened in Hamilton in 2017.

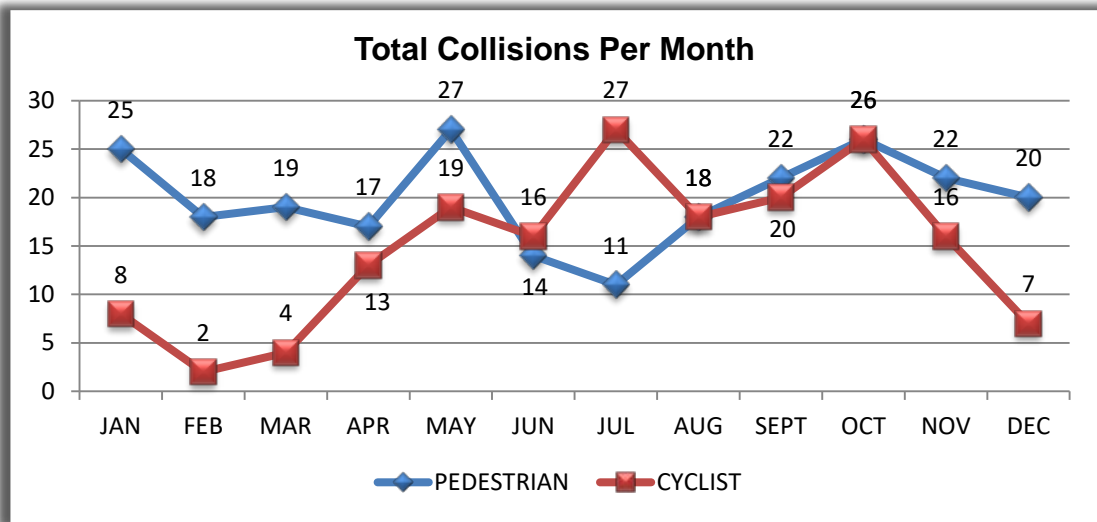
Fatal Collisions – 2017

DATE	STREET 1	STREET 2	LOCATION	WEATHER	LIGHTING	ROAD 1 SURFACE CONDITION	INITIAL IMPACT	DRV 1 ACTION	DETAILS
01/04/2017	QUEENSTON	COCHRANE	Intersection	Rain	Dark	Wet	SMV/other	Exceeding speed limit	Single motor vehicle exceeding speed limit
01/11/2017	NEBO	TWENTY	Intersection	Clear	Daylight	Dry	Intersection 90 degrees	Disobeyed traff control	Angle collision where Driver 1 disobeyed All-Way Stop control and collided with Driver 2
01/25/2017	LINC	DARTNB-EB ON RP	Midblock	Clear	Daylight	Dry	Head on	Lost control	Driver 1 lost control and crossed over center median and struck Vehicle 2
02/21/2017	RHVP	GREENHILL WB TO RHVP	Midblock	Clear	Dark artificial	Wet	Side swipe	Lost control	Driver 1 sideswiped Vehicle 2 causing Vehicle 1 to cross over center median and was then struck by Vehicle 3
03/14/2017	BIMBROOK	HENDERSHOTT	Midblock	Snow	Daylight	Loose snow	Head on	Lost control	Driver 1 lost control of vehicle, crossed over into oncoming traffic and collided head on with Driver 2
04/18/2017	INDIAN TR	LYNDEN RD	Midblock	Clear	Dark	Dry	SMV/other	Lost control	Single motor vehicle lost control travelling eastbound and left roadway
04/23/2017	HWY 97	VALENS	Midblock	Clear	Daylight	Dry	SMV/other	Lost control	Single motor vehicle lost control and collided with a tree
04/24/2017	NIKOLA TESLA BLVD	WOODWARDH	Midblock	Clear	Daylight	Dry	Ped/Vehicle	Improper lane change	Driver 1 made improper lane change, struck vehicle 3 which was being loaded onto flatbed tow truck. Vehicle 3 then struck Pedestrian.
05/16/2017	EVANS RD	HWY 5	Midblock	Clear	Daylight	Dry	Ped/Vehicle	Driving Properly	Pedestrian was crossing uncontrolled midblock when struck by Driver 1
06/15/2017	SAFARI	MIDDLETOWN	Midblock	Clear	Daylight	Dry	Head on	Other driver action	Driver 1 had been drinking, crossed centerline of roadway and collided with Driver 2
08/04/2017	SHAW	CHEEVER	Intersection	Clear	Dark artificial	Dry	SMV/other	Lost control	Driver 1 on Moped was impaired and collided with fixed object
08/09/2017	CENTRE	11TH CON	Intersection	Clear	Daylight	Dry	Intersection 90 degrees	Disobeyed traff control	Angle collision where Driver 1 disobeyed stop control and collided with Driver 2
08/29/2017	UPPER JAMES	HOMESTEAD DR	Midblock	Clear	Dark	Dry	Head on	Failed to yield right of way	Driver 1 crossed centerline of roadway and collided with Driver 2
09/22/2017	WILSON A	LOWER LIONS CLUB	Midblock	Clear	Dark artificial	Dry	SMV/other	Lost control	Single motor vehicle lost control, left roadway and struck fixed object
10/13/2017	LINC	LAP-WB-403 ON RAMP	Midblock	Clear	Dark artificial	Dry	Ped/Vehicle	Driving Properly	Pedestrian attempted to cross uncontrolled midblock on Lincoln Alexander Parkway and was struck by Driver 1
12/22/2017	UPPER PARADISE	KORDUN	Midblock	Clear	Daylight	Wet	Ped/Vehicle	Failed to yield right of way	Two pedestrians crossing uncontrolled midblock were struck by Driver 1 resulting in one fatality

Section 5

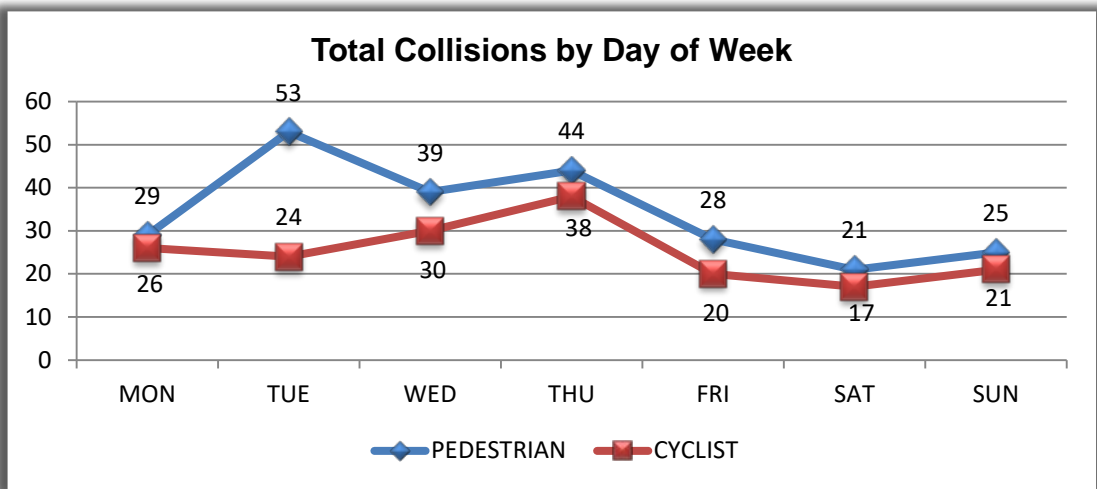
Pedestrian & Cyclist Collisions – 2017





There were 239 collisions involving pedestrians and 176 cyclist collisions in 2017.

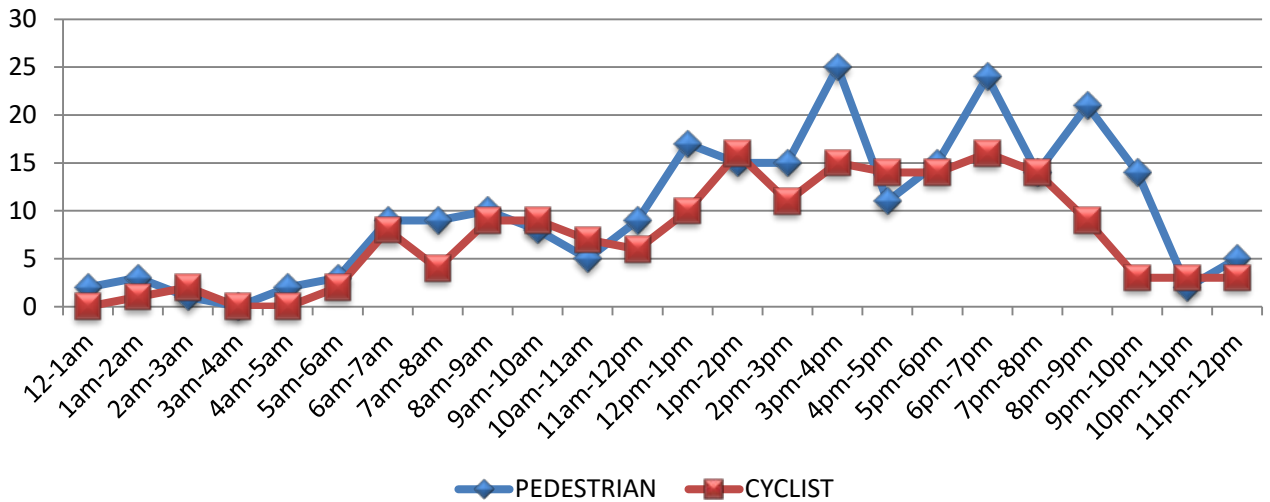
July had the lowest number of pedestrian collisions but alternatively the highest number of cyclist collisions.



Tuesday being the outlier, pedestrian and cyclist collisions followed the same trend for collisions by day of the week.

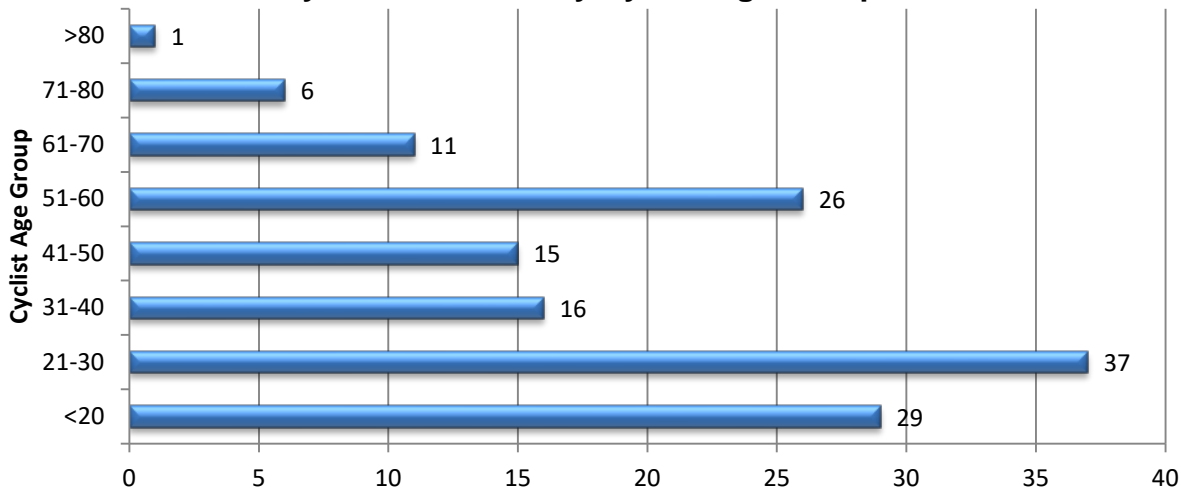
Thursdays were the worst day for combined number of pedestrian and cyclist collisions.

Collisions by Hour of Day



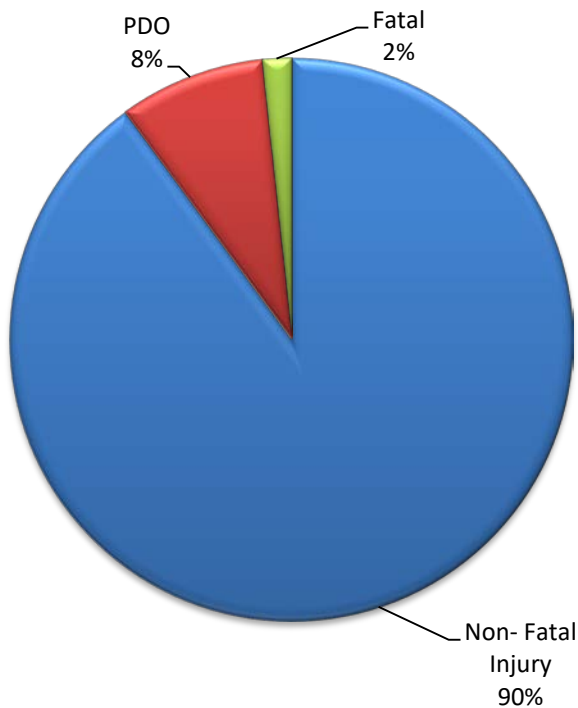
The time period of 3:00 pm – 4:00 pm had the highest number of pedestrian collisions with 25, while 1:00pm – 2:00 pm and 6:00 pm – 7:00 pm had the highest number of cyclist collisions with 16.

Cyclist Collisions by Cyclist Age Groups



The most common ages for cyclists involved in collisions in 2017 were 29 and 53 years old, which both occurred 7 times.

Pedestrian Injury



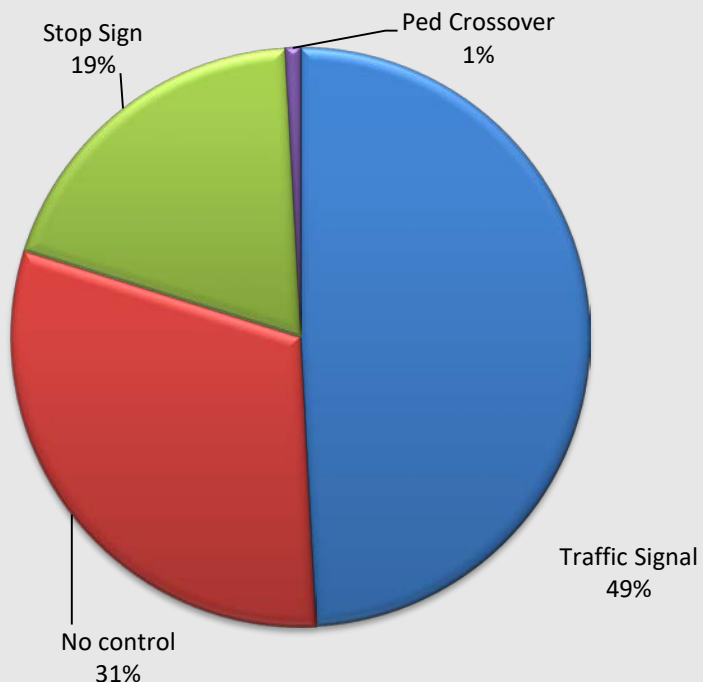
Injury Classification	#
Non-fatal injury	215
Property damage only	20
Fatal	4

In 2017, 90% of all pedestrian related collisions resulted in a non-fatal injury. There were 4 fatal pedestrian collisions.

Pedestrian Collisions by Traffic Control

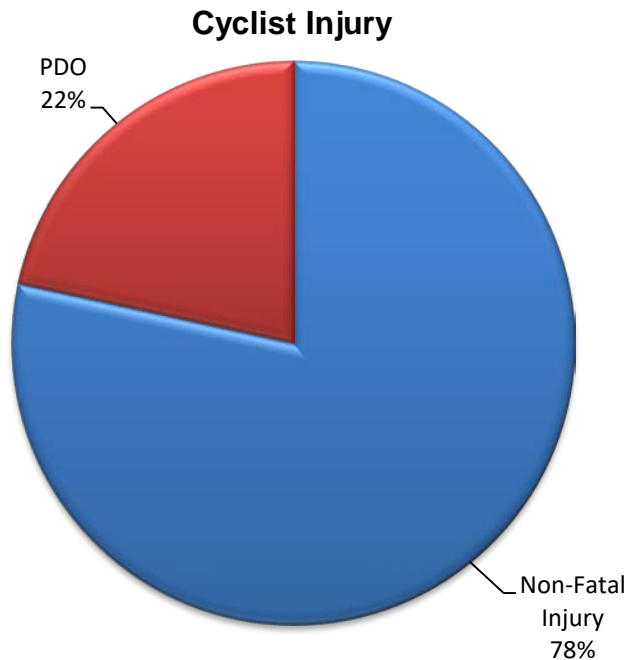
Traffic Control Type	#
Traffic signal	117
No control	73
Stop sign	46
Pedestrian crossover	2
Other	1

Nearly half of all pedestrian related collisions happened at locations controlled by traffic signals. 31% occurred where there was no form of traffic control.

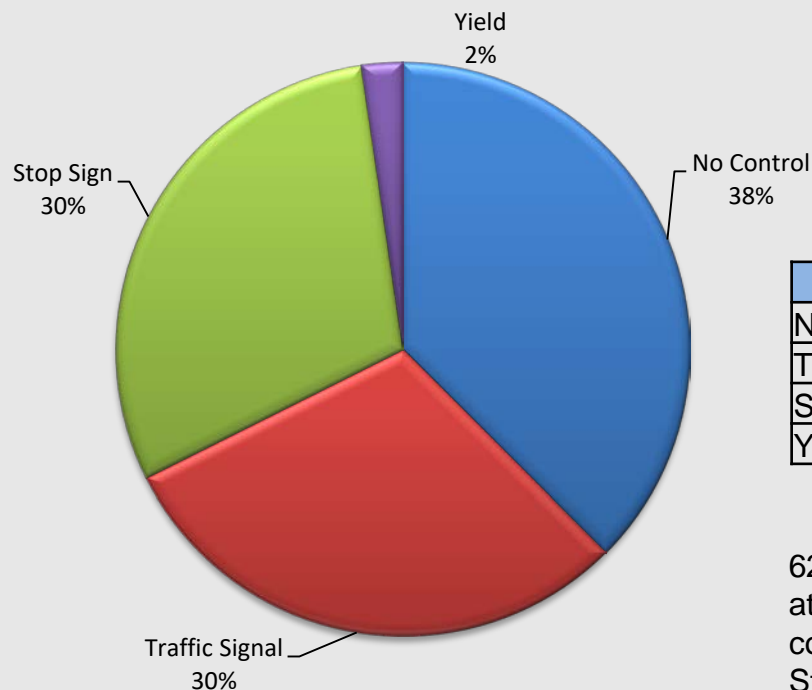


Collision Classification	#
Non-fatal injury	138
Property Damage Only	38
Fatal	0

In 2017, 78% of collisions involving cyclists resulted in non-fatal injuries. There were 0 fatal cyclist collisions.



Cyclist Collisions by Traffic Control



Traffic Control Type	#
No control	66
Traffic signal	53
Stop sign	53
Yield	4

62% of cyclist collisions occurred at locations that were either controlled by a traffic signal or a Stop/Yield sign.



Intersections with the Highest # of Pedestrian Collisions			
Rank	Intersection	# of Collisions	Ward
1	Bay and King	3	2
2	Fennell and Upper James	3	7/8
3	*Dundurn and King	3	1
4	Dundurn and Main	2	1
5	Gage and Main	2	3
6	Mohawk and Upper Ottawa	2	6
7	Hunter and Queen	2	1/2
8	Delawana and Grandville	2	5
9	Governors and Main	2	13
10	Catharine and Main	2	2
11	Marston and Paramount	2	9
12	Main and West	2	2
13	Jackson and John	2	2
14	Nash and Queenston	2	5
15	Cannon and Wentworth	2	3
16	Herkimer and James	2	2



Intersections with the Highest # of Cyclist Collisions			
Rank	Intersection	# of Collisions	Ward
1	*Cannon and Mary	4	2
2	*Cannon and Wellington	3	2/3
3	Locke and Main	2	1
4	*Ashley and Cannon	2	3
5	Cannon and MacNab	2	2
6	Barton and Lake	2	5
7	Cannon and Gibson	2	3
8	Barton and Centennial	2	5
9	Tyrone and West 5 th	2	8
10	Main and Ottawa	2	3/4
11	*Cannon and Cathcart	2	2
12	Cannon and Tisdale St	2	3

* Locations that were also identified in 2013-2017 review

Section 6

Lincoln Alexander (LINC) & Red Hill Valley
Parkways (RHVP)
Five Year Collision Trends – 2013 to 2017



Lincoln Alexander Parkway Collisions						
Collision Type	2013	2014	2015	2016	2017	TOTAL
Total Collisions	135	138	135	144	159	711
Police Reported	74	65	72	59	62	332
Crossover	1	2	1	0	1	5
Property Damage Only	32	27	22	21	31	133
Injury	42	37	50	38	30	197
Fatal	0	1	0	0	1	2

The total number of collisions on the LINC have increased 18% since 2013, however, the number of police reported collisions has decreased 16% and collisions resulting in injuries have decreased 28%. There have been 5 crossover collisions.

Red Hill Valley Parkway Collisions						
Collision Type	2013	2014	2015	2016	2017	TOTAL
Total Collisions	128	117	238	186	193	862
Police Reported	79	71	138	102	102	492
Crossover	1	1	6	0	3	11
Property Damage Only	44	45	80	58	59	286
Injury	35	26	56	44	41	202
Fatal	0	0	2	0	2	4

Total collisions on the RHVP have increased 51% in the past 5 years. Police reported collisions have increased 29% and injury collisions have increased 17%. There have been 11 crossover collisions and 4 fatal collisions.

Lincoln Alexander Parkway Collisions						
Month	2013	2014	2015	2016	2017	TOTAL
January	5	9	6*	9	2	31
February	4	9	10	5	5	33
March	5	1	4	4	5	19
April	1	3	7	2	3	16
May	8	4*	4	10	6	32
June	5	4	4	4	8	25
July	4	4	5	2	4	19
August	4	4	10	8	5*	31
September	15	10	5	6	2	38
October	6	8*	4	4	9	31
November	12	4	5	0	7	28
December	5*	5	8	5	6	29
TOTAL	74	65	72	59	62	332

*Denotes when a full crossover occurred resulting in a head-on collision.

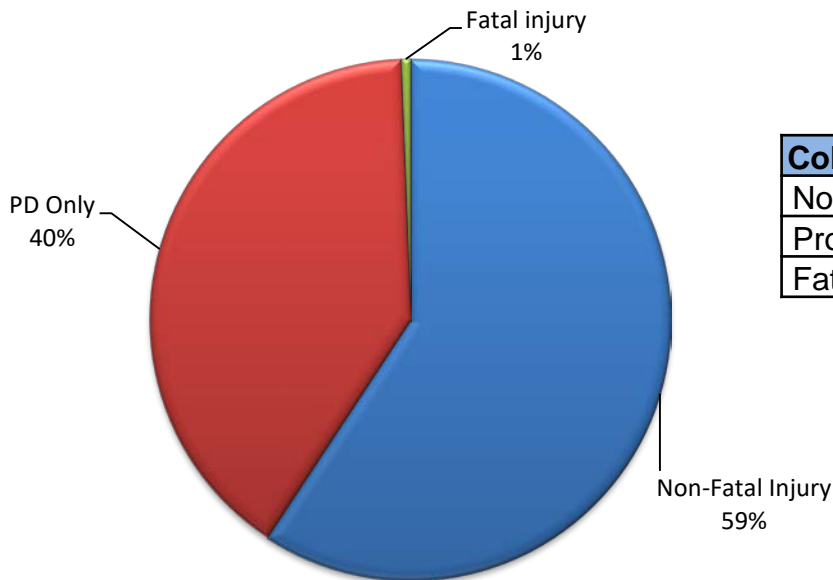
2013 saw the highest number of collisions on the LINC with 74. September 2013 was the month with the most collisions with 15 collisions.

Red Hill Valley Parkway Collisions						
Month	2013	2014	2015	2016	2017	TOTAL
January	5	9	7*	14	9*	44
February	7	5	6	5	6	29
March	1	3	7*	5	5	21
April	4	1	7	7	6	25
May	7	5	12*	3	11	38
June	6	2	14	7	9	38
July	3	4	11	8	8*	34
August	8	1	7*	9	10	35
September	8	11	13	12	7	51
October	13	11*	19*	16	9	68
November	7	6	11	8	15*	47
December	10*	13	24*	8	7	62
TOTAL	79	71	138	102	102	492

*Denotes when a full crossover occurred resulting in a head-on collision.

2015 had the high number of collisions on the RHVP with 138. December 2015 was the month with the most collisions with 24 collisions.

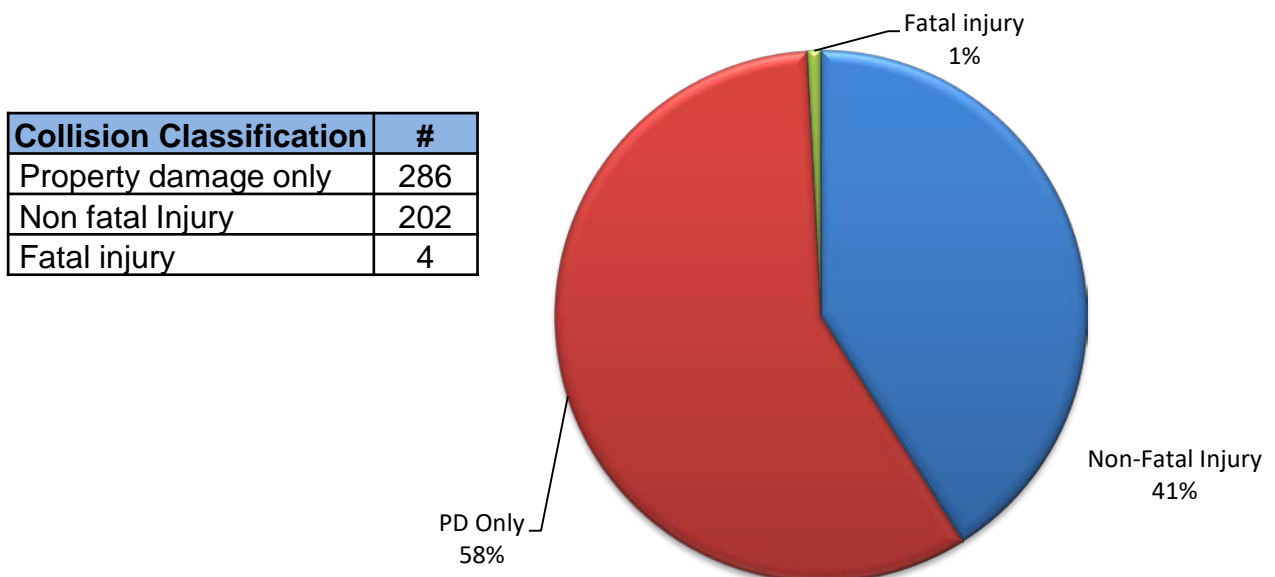
LINC Collision Severity



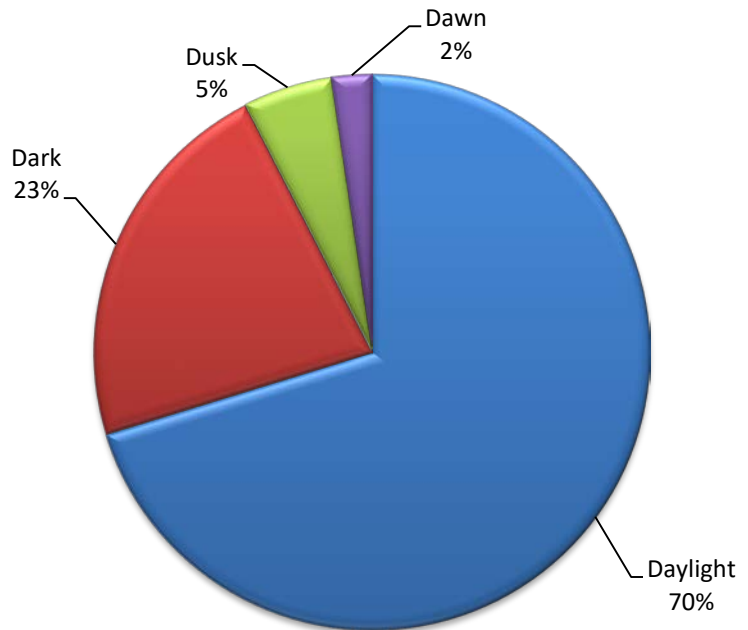
Collision Classification	#
Non-Fatal Injury	197
Property damage only	133
Fatal injury	2

Nearly 60% of all collisions on the Lincoln Alexander Parkway resulted in non-fatal injuries compared to 41% on the Red Hill Valley Parkway. There have been a total of 6 fatal collisions on the two roadways combined since 2013.

RHVP Collision Severity

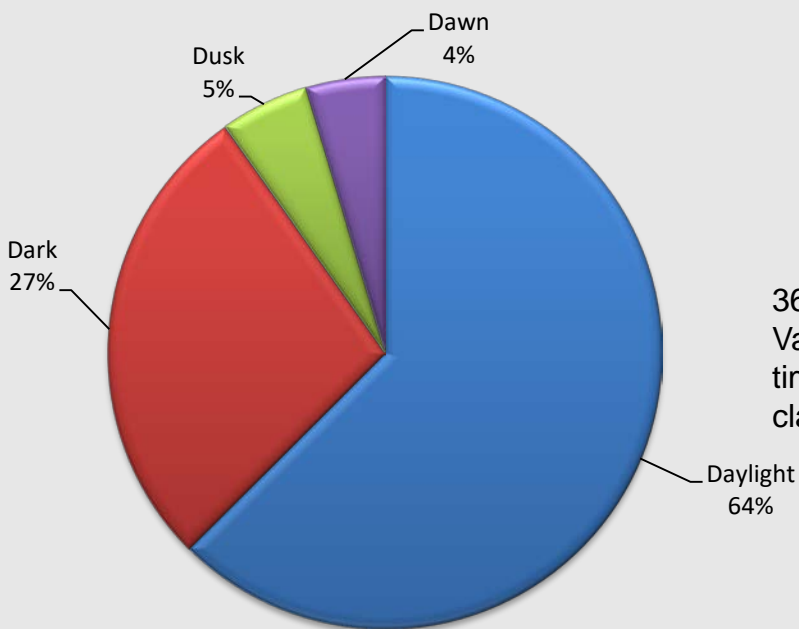


LINC Collisions by Lighting Condition



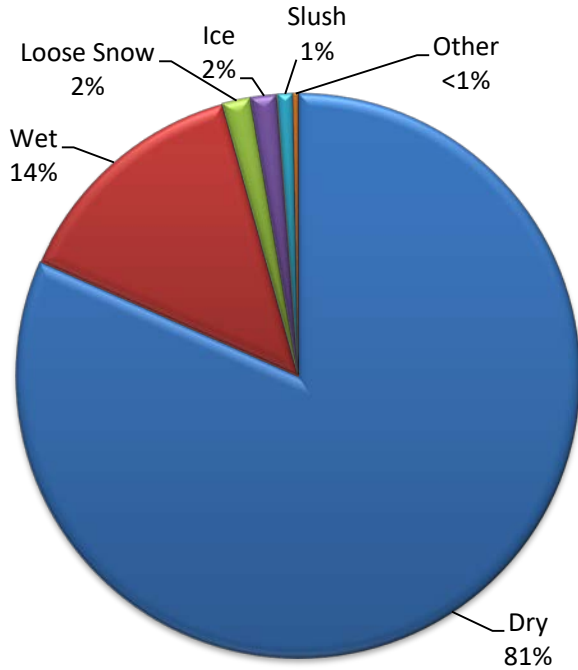
30% of collisions on the Lincoln Alexander Parkway occurred during times when lighting conditions were classified as other than Daylight.

RHVP Collision by Lighting Condition



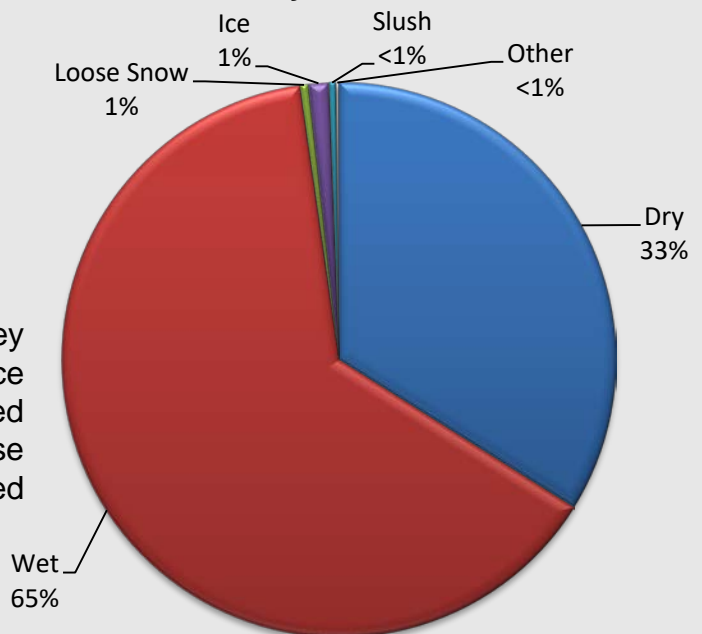
36% of collisions on the Red Hill Valley Parkway occurred during times when lighting conditions were classified as other than Daylight.

LINC Collisions by Road Surface Condition

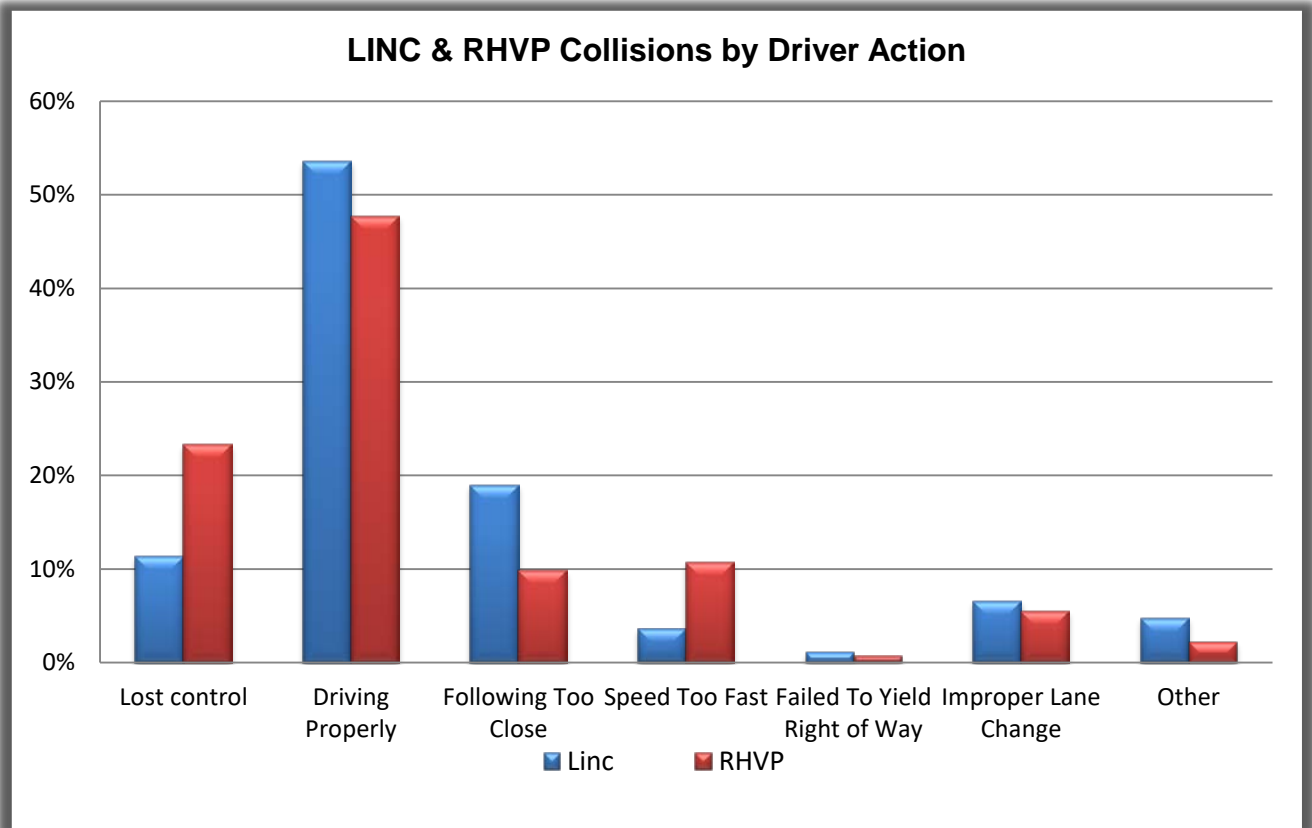


Over 80% of collisions on the Lincoln Alexander Parkway occurred when the road surface was dry. 14% occurred when the road surface was wet, 2% during loose snow and ice and 1% during slushy conditions.

RHVP Collisions by Road Surface Condition



65% of collisions on the Red Hill Valley Parkway occurred when the road surface was wet. 33% of collisions occurred during dry road conditions and ice, loose snow, slush and others each accounted for 1% or less.

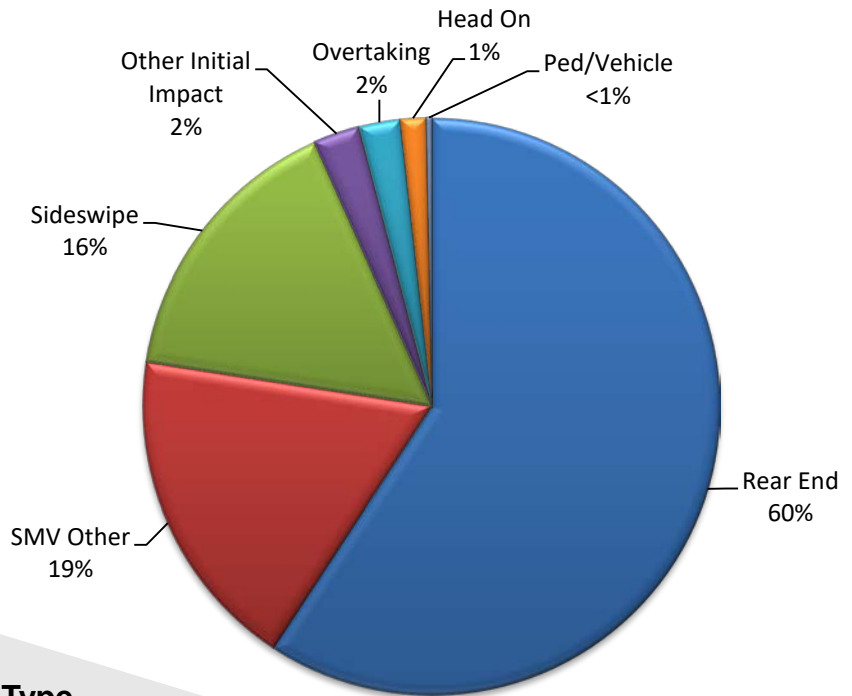


The most common driver action resulting in collisions on the Lincoln Alexander Parkway were drivers “Following Too Close.” The Red Hill Valley Parkway driver action resulting in the most collisions was “Lost Control.”

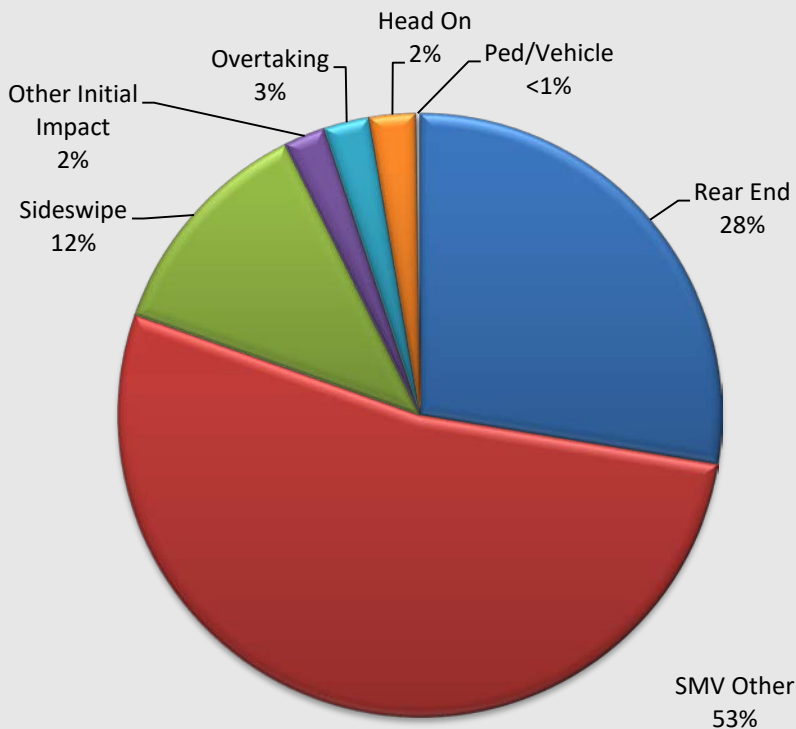
The values in “Driving Properly” typically represent the action of the driver that was not at fault in a collision.

LINC Collisions by Impact Type

Rear end collisions were the most common occurrence on the Lincoln Alexander Parkway.

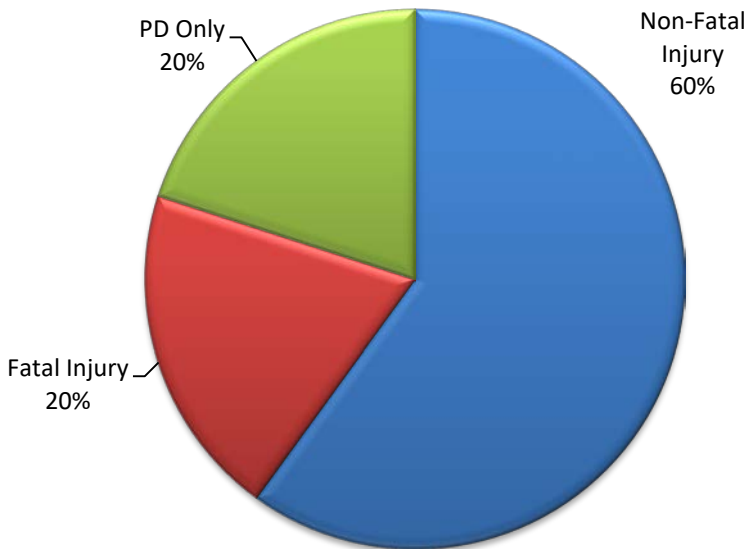


RHVP Collisions by Impact Type



Single Motor Vehicle collisions accounted for more than 50% of all collisions on the Red Hill Valley Parkway.

LINC Injury Severity for Crossover Collisions



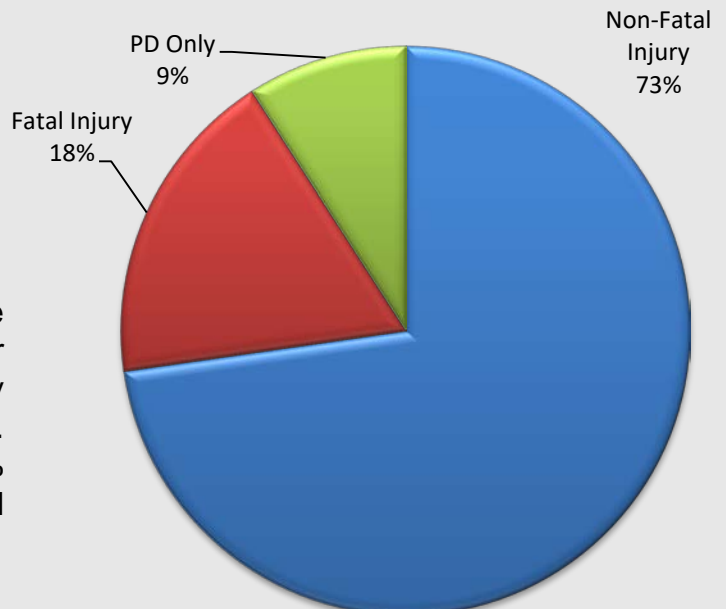
Classification	#
Property damage only	1
Non-fatal injury	3
Fatal injury	1

There have been a total of 5 collisions since 2013 where a vehicle has fully crossed over the center median of the Lincoln Alexander Parkway and collided with another vehicle. Crossover over collisions account for 1.5% of all collisions that occur on the Lincoln Alexander Parkway.

RHVP Injury Severity for Crossover Collisions

Classification	#
Property damage only	1
Non-fatal injury	8
Fatal injury	2

There have been a total of 11 collisions since 2013 where a vehicle has fully crossed over the center median of the Red Hill Valley Parkway and collided with another vehicle. Crossover collisions account for 2.2% of all collisions that occur on the Red Hill Valley Parkway.



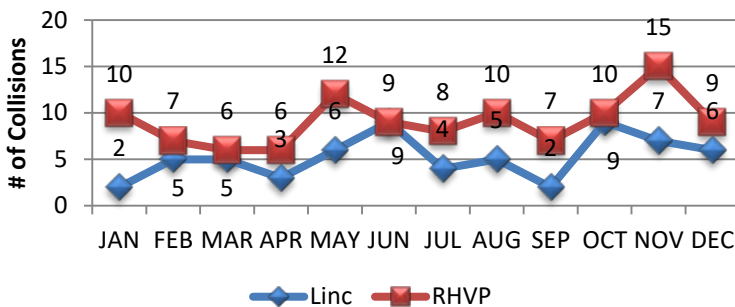
Section 7

Lincoln Alexander & Red Hill Valley Parkways Collision Statistics – 2017



2017 STATISTICS	LINC	RHVP
Number of total collisions	159	193
Number of police reported collisions	63	109
Number of fatal collisions	1	2
Number of collisions involving pedestrians	1	0
Number of crossover collisions	1	3
Day with highest number of total collisions	Friday	Sunday
Month with highest number of total collisions	June & October	November
Hour with highest number of total collisions	8AM – 9AM	6AM – 7AM 8AM – 9AM 12PM – 1PM 6PM – 7PM
Most common collision type	Rear end	Single Motor vehicle
Most frequent driver action resulting in collision	Following too close	Lost control

LINC & RHVP Collisions by Month



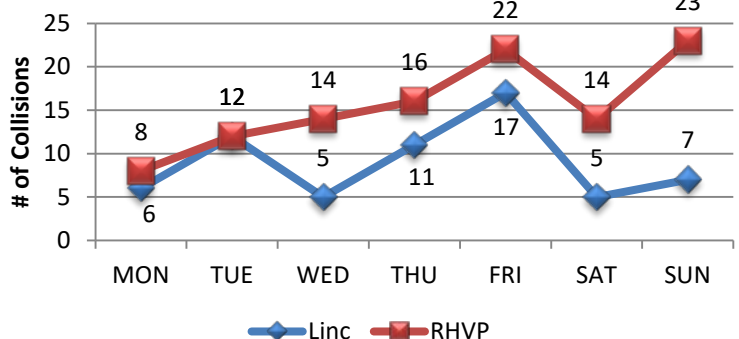
June and October had the highest number of collisions on the LINC.

November was the month that had the highest number of collisions on the RHVP.

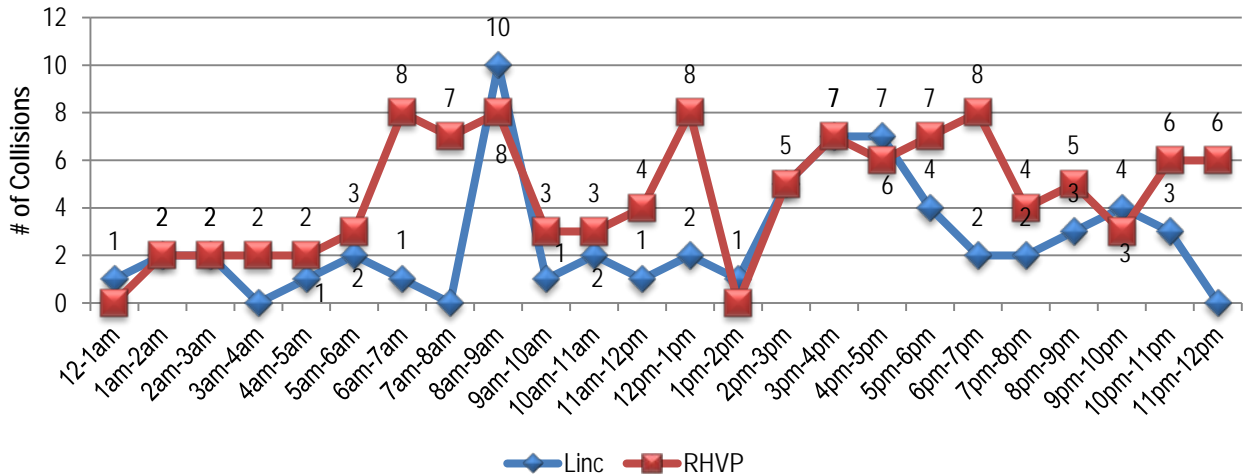
Friday had the highest combined collisions for both Parkways during the week.

Friday had the most collisions for the LINC and Sunday was highest for the RHVP.

LINC & RHVP Collisions by Day of Week

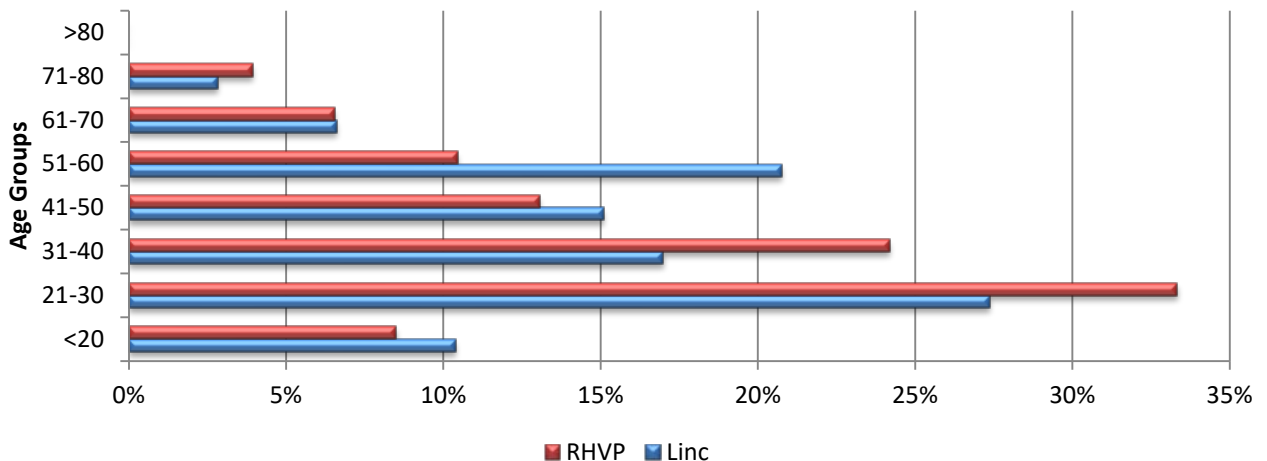


LINC & RHVP Collisions by Hour of Day



The 8:00 am – 9:00 am morning commute resulted in the highest number of collisions during that hour on the Lincoln Alexander Parkway in 2017. The Red Hill Valley Parkway had 4 different hours that had 8 collisions throughout the year.

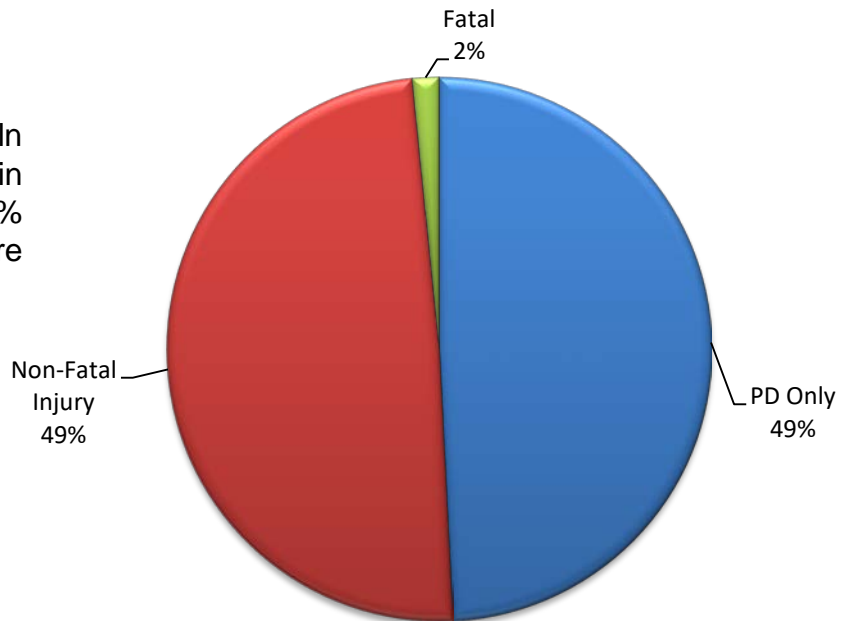
LINC & RHVP Collisions by Driver Age



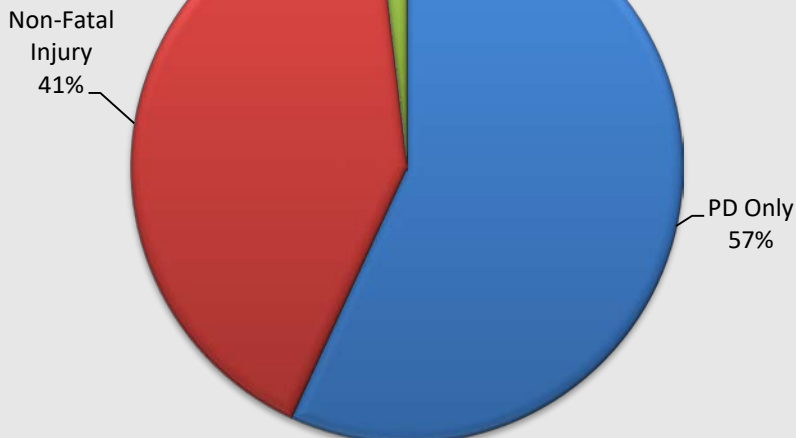
The most common age for a driver involved in a collision on the Lincoln Alexander Parkway in 2017 was 21. The most common age for a driver involved in a collision on the Red Hill Valley Parkway was 24. It should be noted that these were drivers involved in collisions, not necessarily the person at fault.

LINC Collisions by Severity

49% of collisions on the Lincoln Alexander Parkway resulted in property damage and 49% resulted in non-fatal injuries. There was 1 fatal collision in 2017.

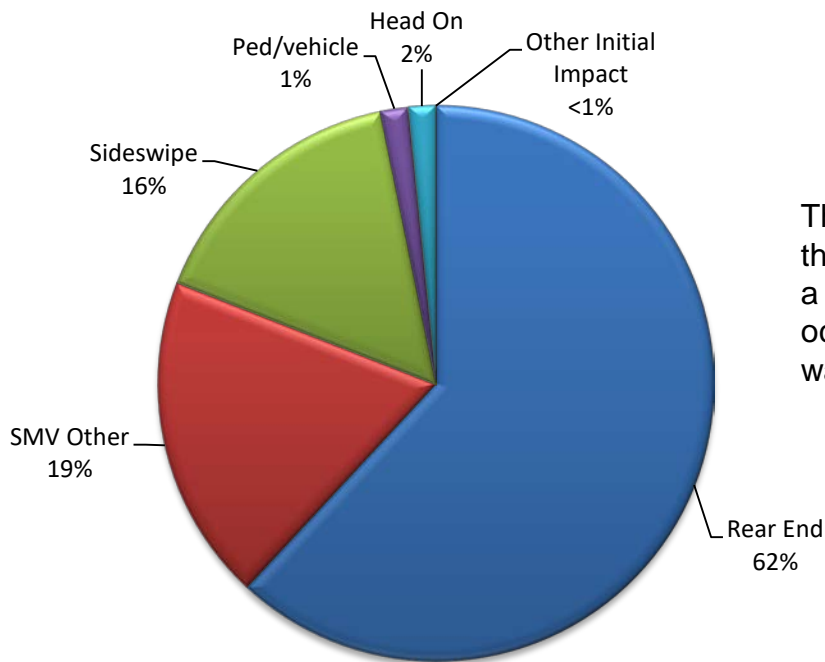


RHVP Collisions by Severity



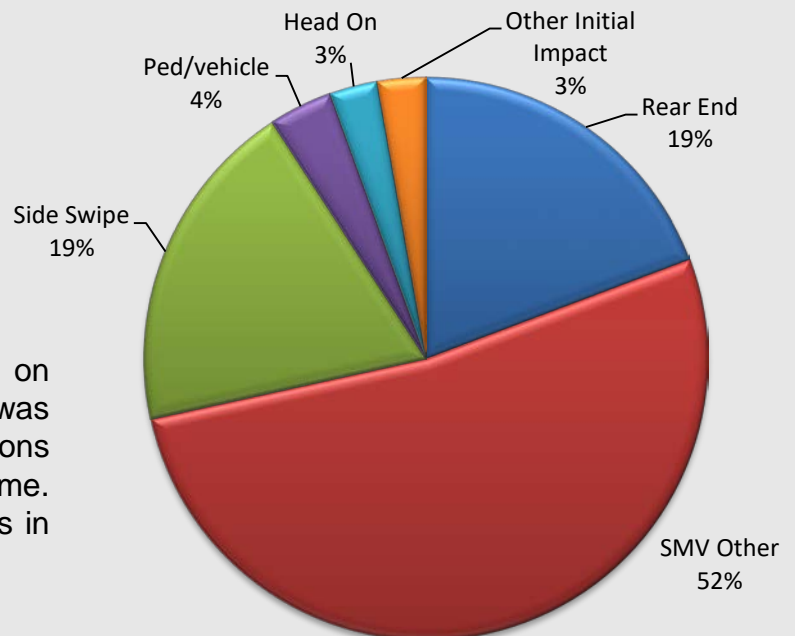
57% of collisions on the Red Hill Valley Parkway resulted in property damage and 41% resulted in non-fatal injuries. There were 2 fatal collisions in 2017.

LINC Collisions by Initial Impact Type



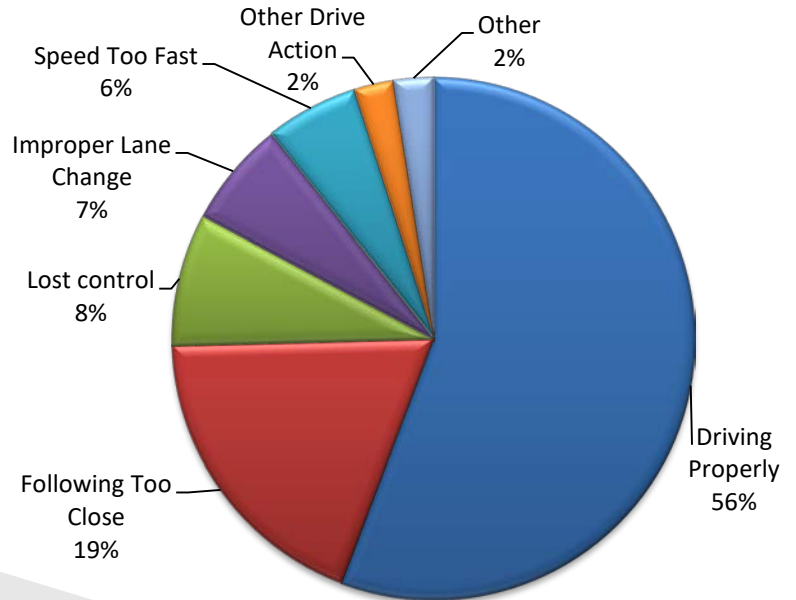
The most common impact type on the Lincoln Alexander Parkway was a “Rear End” collision which occurred 62% of the time. There was 1 Crossover collision in 2017.

RHVP Collisions by Initial Impact Type



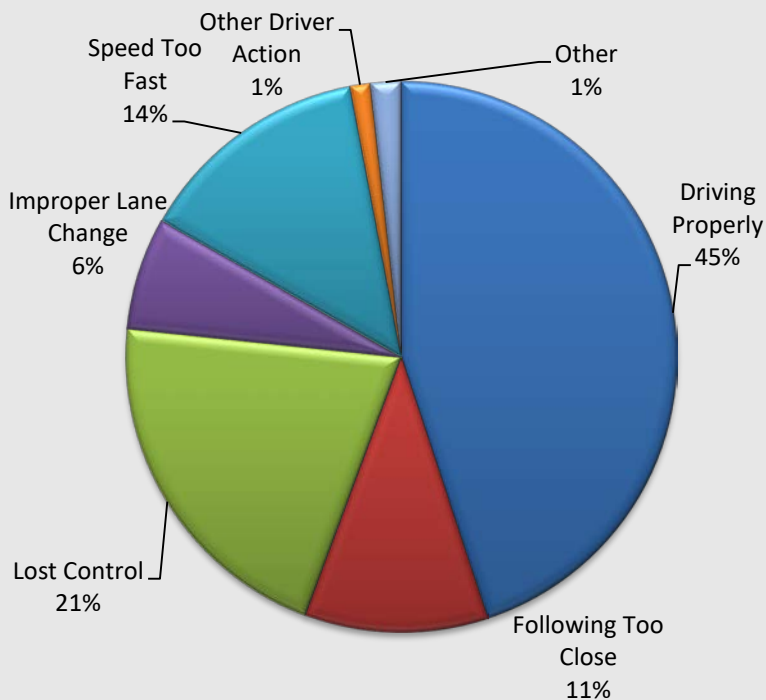
The most common impact type on the Red Hill Valley Parkway was “Single Motor Vehicle” collisions which occurred 52% of the time. There were 3 Crossover collisions in 2017.

LINC Collisions by Driver Action



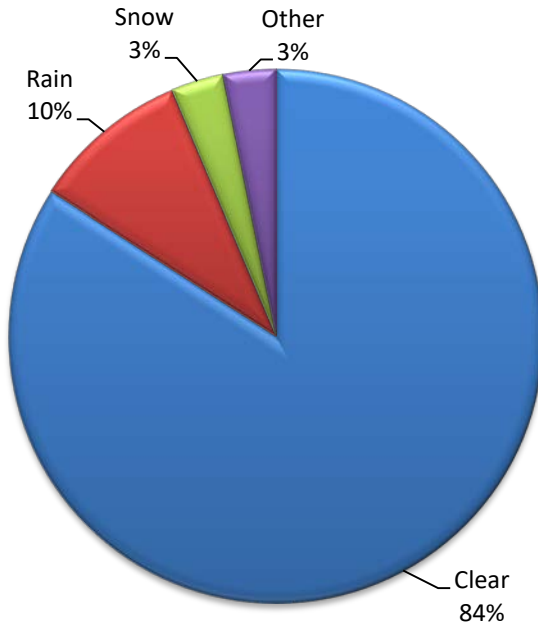
“Driving Properly” was the driver action that resulted in the most collisions on the Lincoln Alexander Parkway. “Following Too Close” was 19% and “Lost Control” was 8%.

RHVP Collisions by Driver Action



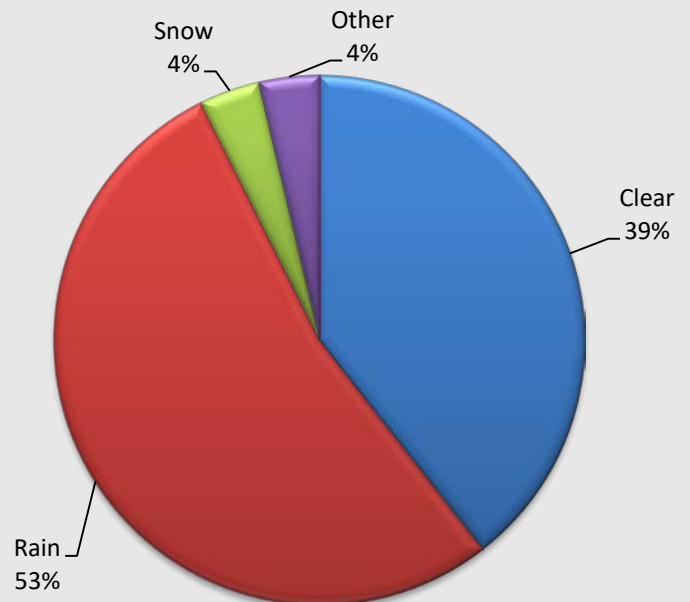
“Driving Properly” was the driver action that resulted in the most collisions on the Red Hill Valley Parkway. “Lost Control” was 21% and “Speed Too Fast” was 14%.

LINC Collisions by Weather Condition



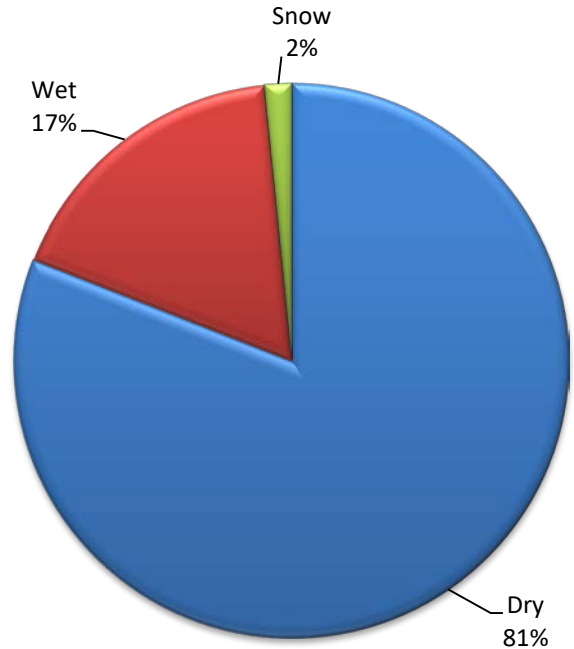
84% of all collisions on the Lincoln Alexander Parkway occurred when the weather was clear.

RHVP Collisions by Weather Condition



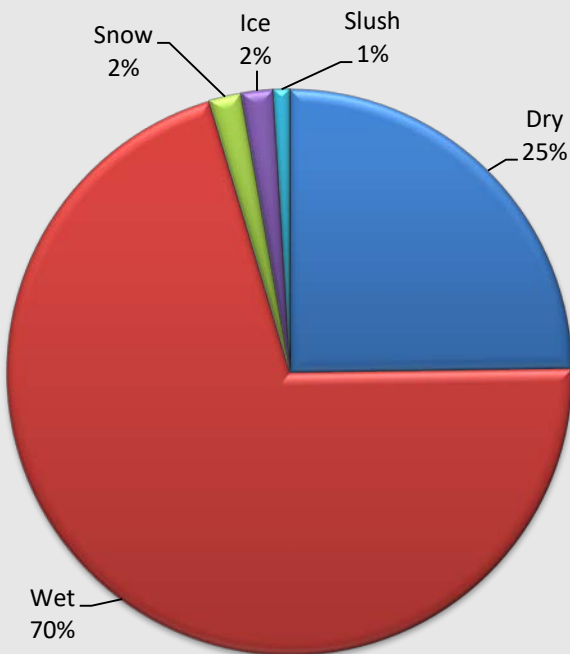
53% of all 2017 collisions on the Red Hill Valley Parkway occurred when it was raining.

LINC Collisions by Road Surface Condition



81% of all collisions on the Lincoln Alexander Parkway occurred when the road surface was dry.

RHVP Collisions by Road Surface Condition



70% of all 2017 collisions on the Red Hill Valley Parkway occurred when the road surface was wet.

Section 8

Network Screening

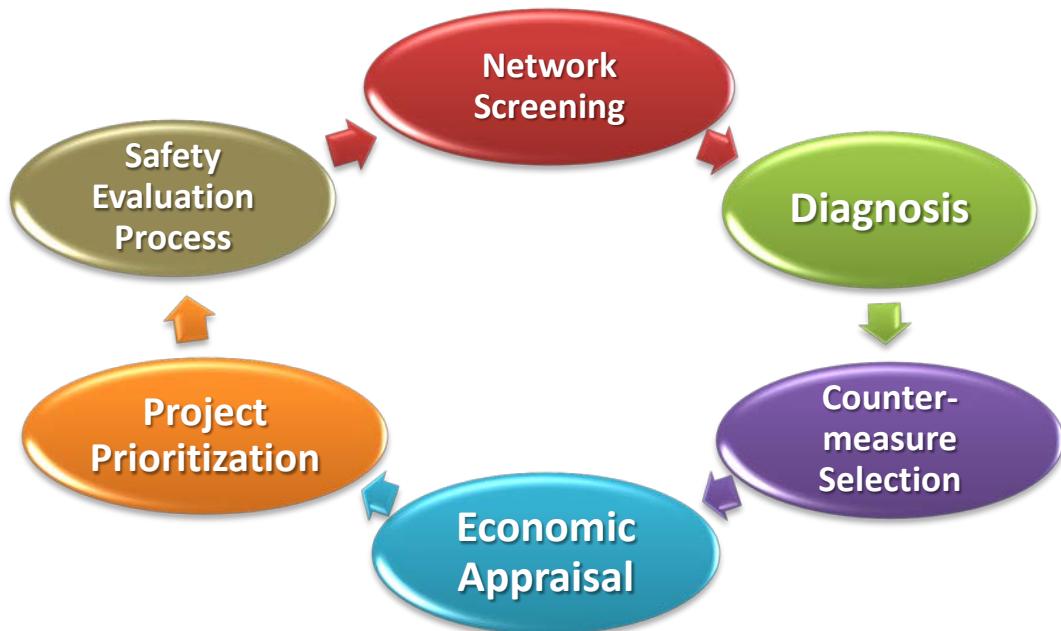


Network Screening

Network Screening is the comprehensive process of evaluating safety conditions on the entire road network in the City of Hamilton. By using the same method at each location, the results can be compared and prioritized.

Twelve (12) types of road groups are analyzed:

- Traffic Signals (at intersections)
- IPS – Intersection Pedestrian Signals
- Mid-Block Traffic Signals
- All-Way Stop Controlled Intersections
- Two-Way Stop Controlled Intersections
- Yield Controlled Intersections
- Intersections with No Control
- Urban Roadway Sections, between intersections (curbed cross-sections)
- Rural Roadway Sections, between intersections (uncurbed cross-sections)
- Lincoln Alexander Parkway and Redhill Valley Parkway Sections
- Lincoln Alexander Parkway and Redhill Valley Parkway On-Ramps
- Lincoln Alexander Parkway and Redhill Valley Parkway Off-Ramps



Calculation of Risk and Overrepresentation

Traditionally, collision screening processes determined candidate locations by calculating collision rates considering collision frequency and traffic volume.

A major change that has been implemented in the network screening process for the City of Hamilton is the automated calculation of overrepresentation trends in the collision that occurred at each location when compared to its peer group. By comparing locations to other similar types within the group, a risk indicator can be calculated. All locations are then grouped and sorted by the indicator. In particular, where collision types were found to be overrepresented, greater potential exists for the application of programs or techniques to reduce the number of collisions. This element forms one component of a test for candidate locations for the application of road safety audits.

To further enhance the likelihood of success in achieving collision reduction, the network risk indicator and collision type overrepresentation were supplemented with an evaluation of the frequency of collisions at each location. Each site was checked to determine if the number of collisions at the locations exceeded the upper 95% confidence limits for the expected number of collisions for sites in that group of locations. This additional test ensured that there was good “potential” at each site selected to implement successful countermeasures.

Network Screening Overrepresentation Ranking – 2013-2017 (TOP 15 LOCATIONS)

Rank	Group	Description	Network Risk Indicator	Total Collisions	Collisions per Km	Overall average # of Collisions for 5 years for Group	Fatal or Injury Collisions for 5 Years for Location
1	Onramp	Mud: Mud SB - EB off ramp - RHVP	86.209	39	91.1	11.0	8
2	Two-way	Highland Rd and Third Rd	72.694	7		1.1	5
3	Urban Road	Dundurn: Aberdeen – King	72.208	23	17.7	15.3	12
4	Onramp	King to RHVP NB loop on ramp	59.385	7	16.2	11.0	4
5	Off-ramp	RHVP SB to King off ramp	56.834	8	16.7	11.3	2
6	Rural Road	Pritchard: Stone Church – Rymal	55.695	12	11.7	3.0	8
7	Rural Road	Rymal: Upper Sherman - Upper Gage	53.638	45	53.4	3.0	37
8	Rural Road	Jerseyville: Martin – Wilson	50.166	23	10.8	3.0	17
9	Urban Road	Barton: Wellington – Wentworth	48.300	44	51.3	15.3	16
10	Off-ramp	SCRIP EB - SB ramp: Mud NB - SB off ramp – SCRIP	48.194	19	43.6	11.3	7
11	Urban Road	Stone Church: Upper Ottawa – Pritchard	48.076	38	20.7	15.3	27
12	Urban Road	Wilson: Fiddlers Green – Mohawk	42.368	45	24.2	15.3	30
13	Two-way	10th Concession and Cooper	41.573	6		1.1	4
14	Urban Road	King: James – Catharine	41.234	23	68.2	15.3	12
15	Urban Road	SCRIP: Stone Church to RHVP off ramps	40.176	10	28.0	15.3	8

Network Screening Overrepresentation Ranking – 2013-2017 (LOCATIONS 16-30)

Rank	Group	Description	Network Risk Indicator	Total Collisions	Collisions per Km	Overall average # of Collisions for 5 years for Group	Fatal or Injury Collisions for 5 Years for Location
16	Urban Road	Rymal: West 5th - Upper James	39.975	21	59.3	15.3	16
17	Two-way	Eleventh Rd & Mud	37.175	15		1.1	10
18	Two-way	Birch Avenue and Princess Street	36.834	7		1.1	7
19	Urban Road	Queenston: Parkdale - Nash	36.754	77	47.5	15.3	47
20	Urban Road	Barton: James - Wellington	33.793	36	42.3	15.3	18
21	Rural Road	VanWagners: Beach Blvd- Centennial Pkwy	33.595	19	7.5	3.0	10
22	On-ramp	Queenston to RHVP SB loop on ramp	30.085	8	24.2	11.0	3
23	Urban Road	Upper James: Mohawk - LINC WB off ramp	29.815	61	58.7	15.3	44
24	Urban Road	Barton: Wentworth - Sherman	29.789	29	34.4	15.3	21
25	Rural Road	Sulphur Springs: Mineral Springs - Lovers Lane	29.786	12	8.2	3.0	6
26	Rural Road	Weirs Ln: Hwy 8 - Governors	29.613	12	5.5	3.0	3
27	Two-way	Beechwood & Lottridge	28.345	6		1.1	6
28	Two-way	Cooper and HWY 97	28.147	8		1.1	3
29	Urban Road	Upper James: Rymal - Alderlea	28.049	32	58.7	15.3	24
30	Rural Road	Evans: Dundas - Parkside	28.034	9	10.0	3.0	4

Network Screening Overrepresentation Ranking – 2013-2017 (LOCATIONS 31-50)

Rank	Group	Description	Network Risk Indicator	Total Collisions	Collisions per Km	Overall average # of Collisions for 5 years for Group	Fatal or Injury Collisions for 5 Years for Location
31	Urban Road	Queenston: Nash - Centennial Pkwy	28.012	58	71.1	15.3	31
32	Rural Road	Rymal: Swayze - Upper Centennial	27.558	19	46.8	3.0	9
33	Urban Road	Upper James: Rymal - Stone Church	27.047	67	66.5	15.3	44
34	Urban Road	John: King - Barton	26.115	20	22.6	15.3	9
35	Rural Road	Old Ancaster Dundas: Turnbull - Lions Club	26.049	34	18.2	3.0	14
36	Rural Road	Fifty: Ridge - Coker	25.768	7	4.7	3.0	5
37	Urban Road	King: Catharine - Wellington	25.668	40	75.2	15.3	9
38	Urban Road	Wellington: King - Claremont Access	25.337	13	66.3	15.3	5
39	Rural Road	Twenty: Garth - Upper James	25.213	7	4.3	3.0	3
40	Urban Road	Barton: Sherman - Gage	23.908	38	44.2	15.3	21
41	Rural Road	Jerseyville: Paddy Greene - Martin	22.207	12	6.5	3.0	4
42	Urban Road	King: Queen - James	21.897	57	67.9	15.3	21
43	Rural Road	Rymal: Upper Wentworth - Upper Sherman	21.601	25	30.5	3.0	14
44	Urban Road	Fennell: Upper Ottawa - Upper Kenilworth	21.418	17	19.4	15.3	10
45	Urban Road	Main: Longwood - Paradise	21.028	7	60.3	15.3	4
46	Rural Road	Miles: Dickenson - Airport	20.852	13	4.8	3.0	7
47	Urban Road	King: Paradise - Newton	20.669	22	28.8	15.3	13
48	Urban Road	James: St Josephs - King	20.136	45	46.5	15.3	12
49	Two-way	6th Con & Brock Rd	20.118	6		1.1	5
50	Rural Road	Ridge: Upper Centennial - New Mountain	20.109	8	3.3	3.0	4

Section 9

Red Light Camera Statistics



Red Light Cameras

The City of Hamilton has installed 24 Red Light Cameras (RLC). The chart, on the following page, shows the location of all RLC's installed before 2017. The City installed RLCs at 5 locations in 2017:

- Charlton Street @ John Street
- Mohawk Road @ Upper Paradise Road
- Hess Street @ York Road
- Dundas Street @ Mill Street
- Highway 8 @ Green Road

Red Light Cameras are generally installed at locations that have a history of right-angle collisions which typically result in more severe injury & fatal collisions. There has been a 49% reduction in right-angle collisions and 57% reduction in injury/fatal collisions at all Red Light Camera locations combined in the past 3 years.



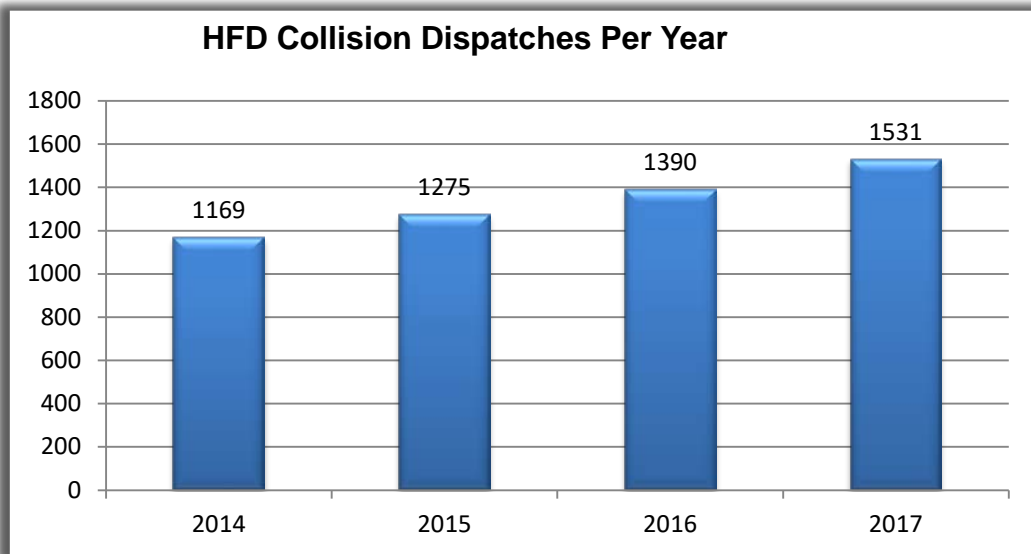
Location	Date Installed	Right Angle Collisions			Injury/Fatal Collisions			Annual Violations
		3 Years Before	2015-2017	% Change	3 Years Before	2015-2017	% Change	2015-2017
Stone Church @ Upper Wentworth	21-Jul-08	1	1	0%	0	0	0%	216
Mud @ Paramount	21-Jul-08	3	2	-33%	2	1	-50%	222
Cannon @ Hess	19-Aug-08	9	2	-78%	5	2	-60%	1940
Burlington @ Gage	19-Aug-08	8	2	-75%	7	2	-71%	243
Dundurn @ King	17-Aug-09	13	3	-77%	7	1	-86%	2550
Dundurn @ Main	17-Aug-09	5	1	-80%	5	0	-100%	2004
Bay @ Main (EB)	12-Oct-10	4	8	+100%	2	4	+100%	605
Cannon @ Kenilworth	12-Oct-10	8	6	-25%	6	3	-50%	470
Bay @ Main (NB)	16-Oct-12	7	8	+14%	5	4	-20%	269
Main @ Sanford	16-Oct-12	3	3	0%	1	1	0%	1231
Brantdale @ Upper James	16-Oct-12	1	0	-100%	1	0	-100%	884
Longwood @ Main	12-Nov-13	4	1	-75%	1	1	0%	176
Mohawk @ Upper Gage	12-Nov-13	3	1	-67%	2	1	-50%	224
Mohawk @ Upper Wellington	05-Dec-14	6	2	-67%	5	1	-80%	659
Fennel @ Up. Gage	28-Nov-14	7	0	-100%	5	0	-100%	166
King @ Lawrence/RHVP	05-Dec-14	3	0	-100%	3	0	-100%	392
Mohawk @ Upper Wentworth*	13-Feb-15	3	1	67%	3	1	-67%	417
Main @ Wellington*	13-Feb-15	10	12	+20%	5	8	+60%	425
King @ Macklin*	07-Jan-15	6	0	-100%	5	0	-100%	1740
All RLC Locations Combined		104	53	-49%	70	33	-57%	14833

*After collisions from 2016 & 2017 only

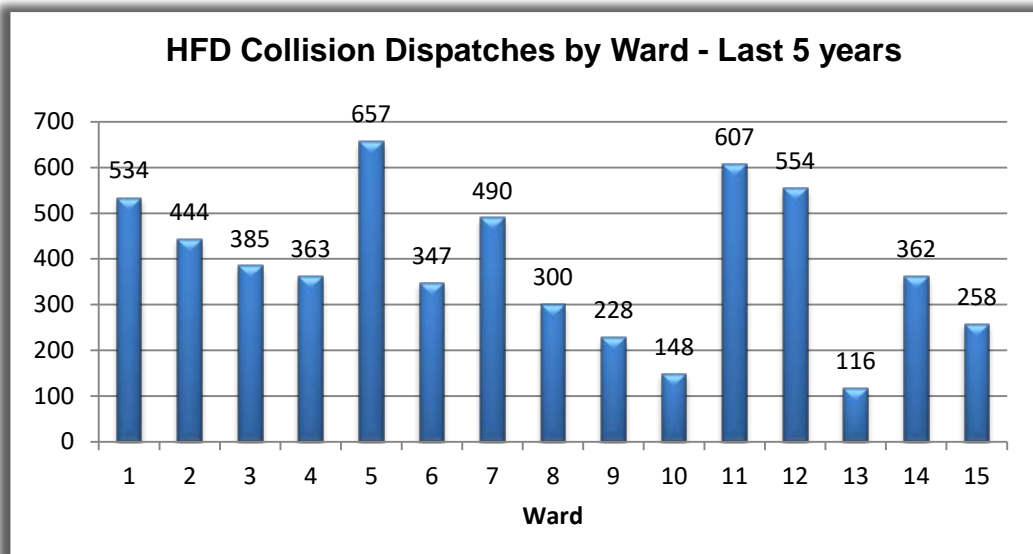
Section 10

Hamilton Fire Department Collision Statistics

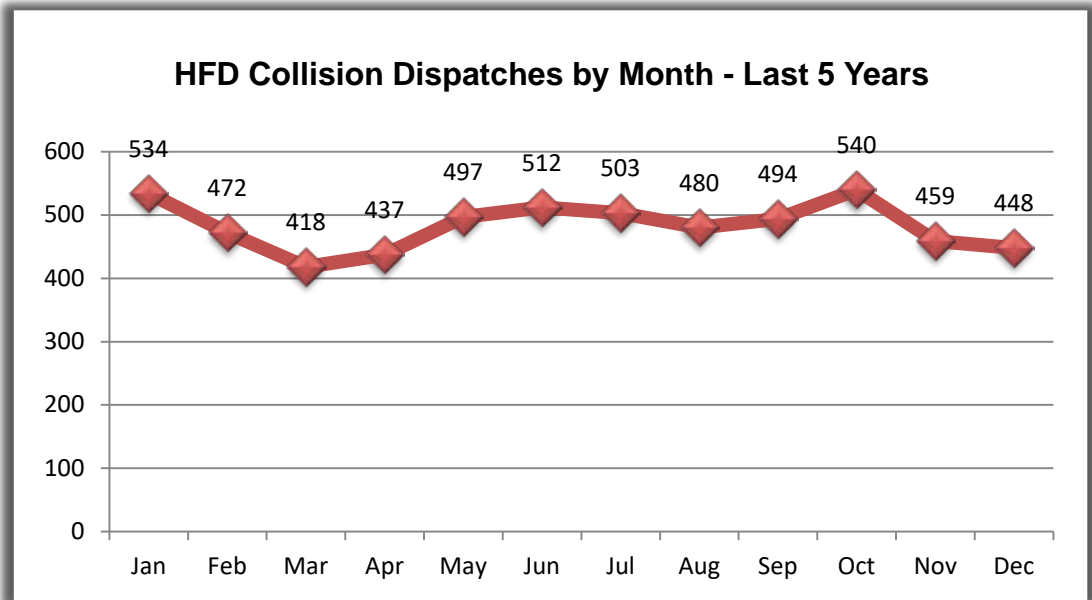




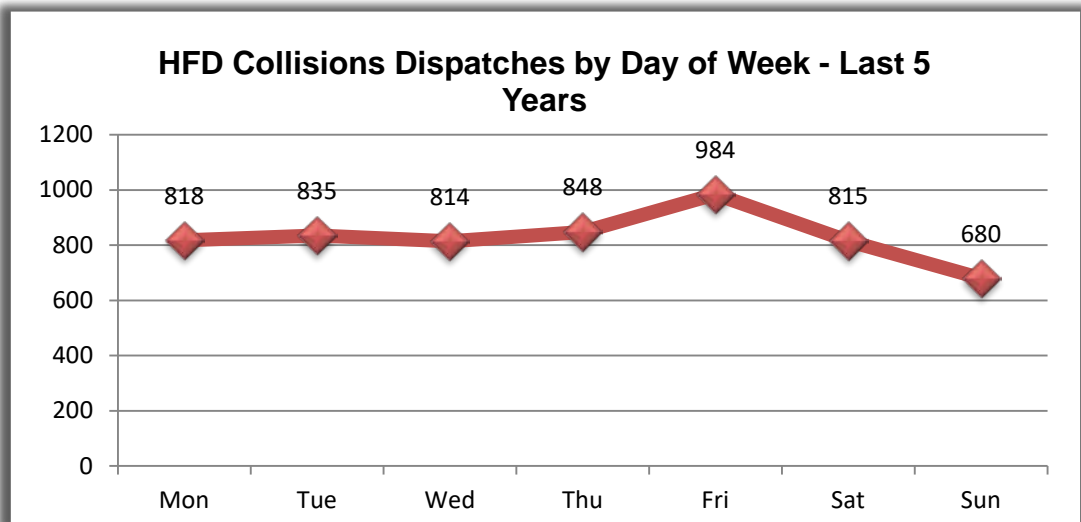
The Hamilton Fire Department have been dispatched to a higher number of collisions every year since 2014. In 2017, an increase of 141 more collision dispatches than 2016, an increase of approximately 10%.



The last 5 years have resulted in Ward 5 having the highest number of collision dispatches for the Hamilton Fire Department with an average of approximately 130 per year. Ward 13 has the fewest collision dispatches with an average of 23 per year.

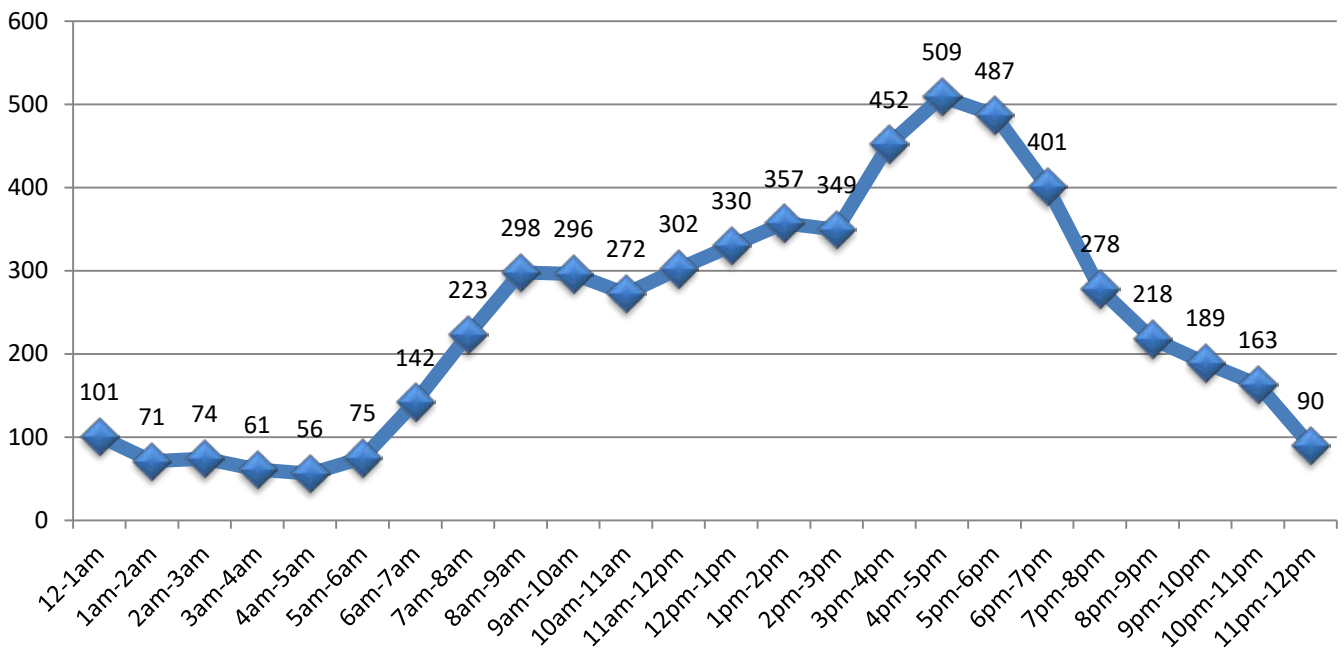


The Hamilton Fire Department has been dispatched to 540 collisions in October over the past 5 years. This coincides with October also having the highest monthly percentage of collisions (9%) in the past 5 years.



Fridays have statistically been the day with the highest number of collisions resulting in Hamilton Fire being dispatched. This coincides with Fridays also being the day with the highest number of collisions in the past 5 years.

HFD Collision Dispatches by Hour of Day - Last 5 Years



The time period of 4:00 pm – 5:00 pm has been the hour in which the Hamilton Fire Department have been dispatched most often in the past 5 years for collisions.

Section 11

Public Health Statistics



**Emergency Department Visits
In the City of Hamilton
By Mode of Transportation By Year (2013-2017)**
(Rate Per 100,000 Population)

Year	Motor Vehicle Collisions		Pedestrian		Cycling	
	#	Rate	#	Rate	#	Rate
2013	3,484	637.7	367	67.2	1,132	207.2
2014	3,698	670.9	405	73.5	1,204	218.4
2015	3,798	684.3	393	70.8	1,242	223.8
2016	4,221	752.4	468	83.4	1,156	206.1
2017	4,182	733.8	434	76.2	1,174	206.0

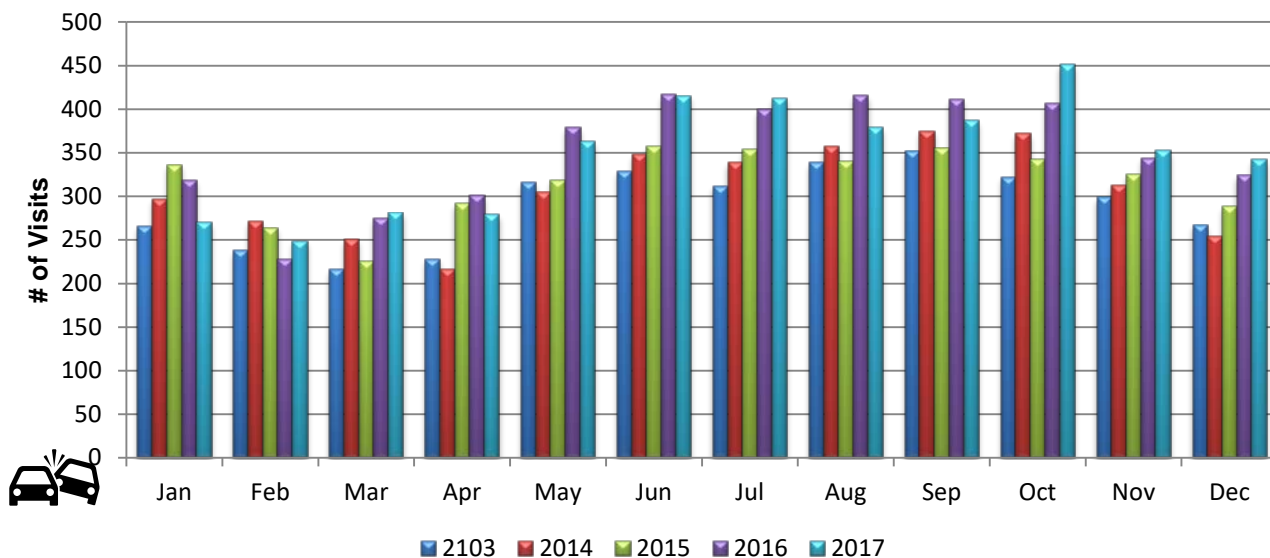
Motor vehicle collisions account for more emergency department visits and hospital admissions in comparison to pedestrian and cycling injuries. Emergency visit numbers differ from collisions stats as not all emergency visits are the result of a reported collision, there can be multiple diagnoses per visits and often there are multiple people injured in one collision.

In 2017, there were 4,182 emergency department visits to Hamilton hospitals for injuries related to motor vehicle collisions. 671 (16%) of these visits required hospital admittance.

Between 2013 and 2017, the rate of emergency department visits to Hamilton hospitals for injuries related to motor vehicle collisions has increased.

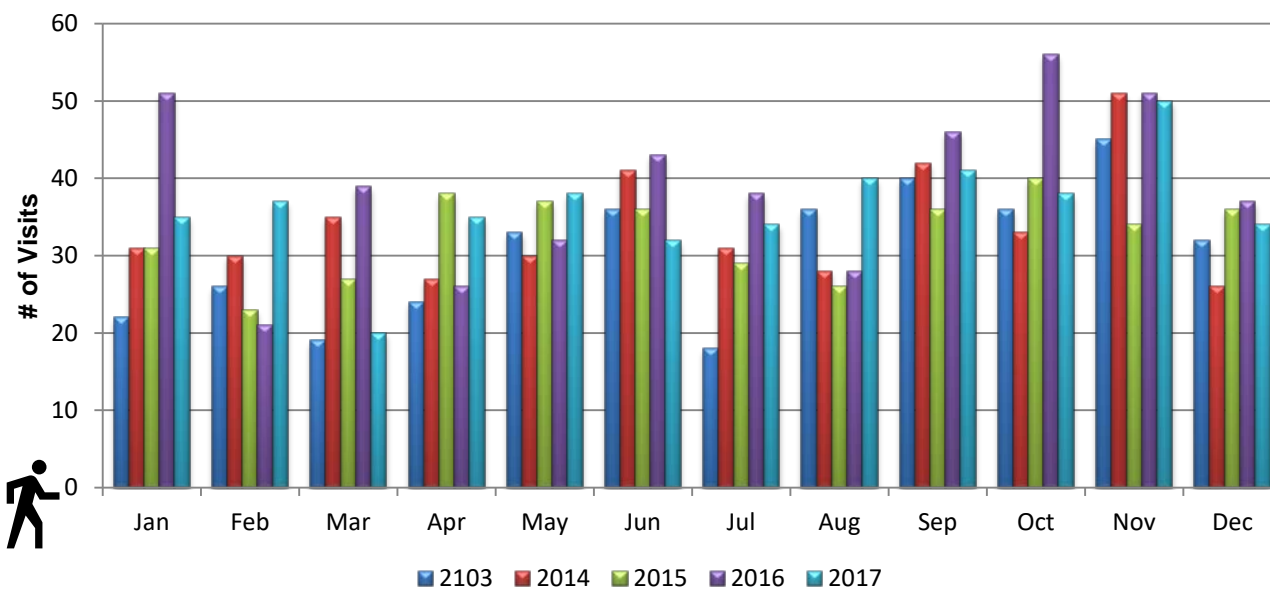
The following graphs show the number of monthly emergency department visits per year for motor vehicle collisions, pedestrians and cyclists.

Monthly Emergency Department Visits by Year for Motor Vehicle Collisions



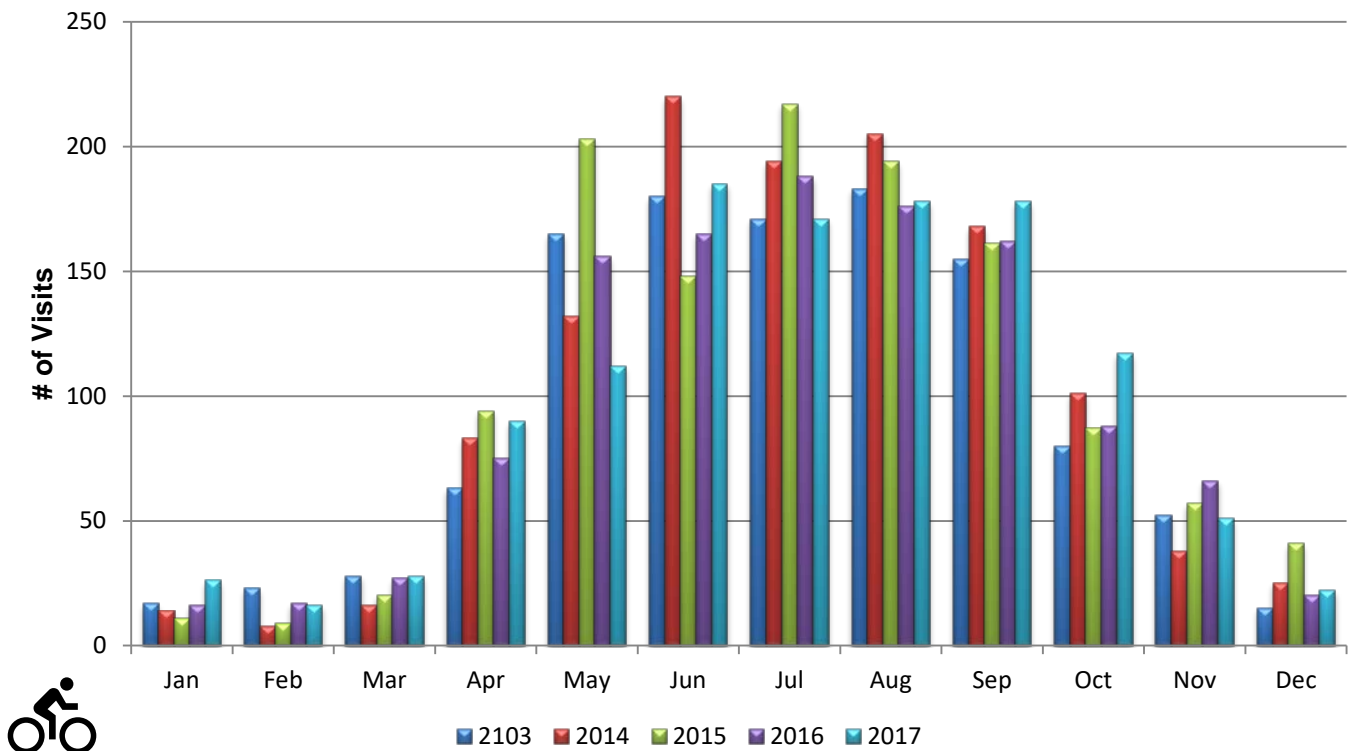
October 2017 was the month with the highest number of visits (approximately 450) to the emergency department due to motor vehicle collisions.

Monthly Emergency Department Visits by Year for Pedestrians



October 2016 was the month with the highest number of visits (approximately 56) to the emergency department for pedestrian collisions since 2013.

Monthly Emergency Department Visits by Year for Cyclists



June 2014 was the month with the highest number of visits (approximately 220) to the emergency department for cyclists.

Section 12

Hamilton Police Services Statistics



The Hamilton Police Service has developed a year-long Road Safety Education and Awareness Campaign. The goal is to raise understanding of driver and pedestrian safety rules and gain compliance on the use of safety equipment. As part of the Hamilton Strategic Road Safety Committee, the Hamilton Police Service is committed to reducing motor vehicle collisions (MVC's) in Hamilton.

The 2017 Traffic Safety Program targeted seasonal issues. In the spring/summer months, the focus was on distracted driving, seat belts, aggressive driving and speeding. In the fall, emphasis was directed again at distracted driving and speeding. In addition, the Hamilton Police Service joined the provincial Seat Belt Campaign. During the holiday season, R.I.D.E. lanes were emphasized.

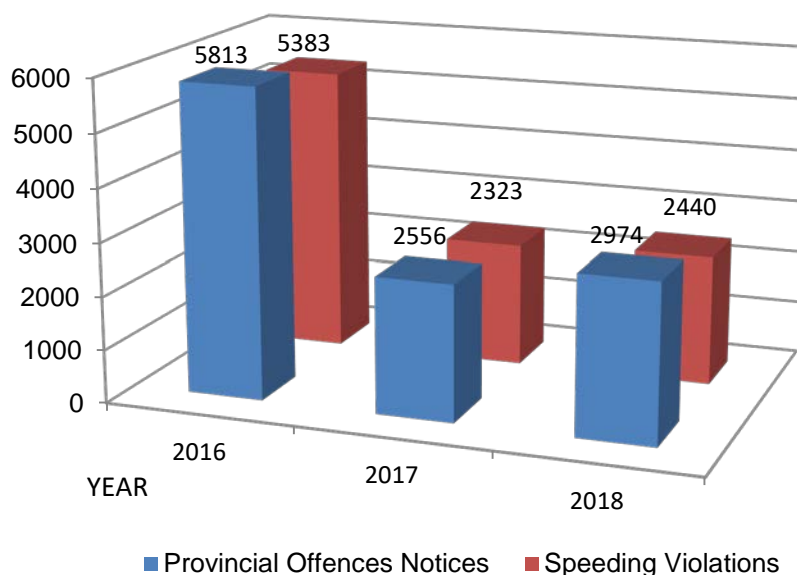
Hazardous Moving Violations

Hazardous moving violations (red light infractions, stop sign infractions, speeding, careless driving offences, distracted driving, etc.), decreased 11.32% over 2016. In 2017, there were 34,964 provincial offenses notices issued in comparison to 39,424 notices in 2016.

Non-Hazardous Violations

Non-hazardous violations (seat belt violations, fail to surrender permits, validation tag offences, etc.), decreased 3.81% over 2016. In 2017, 14,408 violations were issued, in comparison to 14,978 in 2016.

of Notices and Violations issued per year on the LINC/RHVP



2017 Alcohol-Related Charges

In 2017, there were 673 alcohol-related driving offences, which represent a decrease of 1.61% over 2016. In 2016, there were 684 alcohol-related driving offences.

There were 160 motor vehicle collisions that involved alcohol in 2017 as compared to 121 in 2016, an increase of 32.23%.

Type of Charges	2017	2016	% Change
Impaired	279	273	+2.19%
Over 80 mg	322	338	-4.73%
Impaired C.B.H.	2	2	0.00%
Impaired by Drugs	16	22	-27.27%
Impaired Cause Death	0	1	-100%
Refuse Breath	43	36	+19.44%
Over 80 cause Death	0	1	-100%
Over 80 cause B.H.	3	0	+300%
Refuse Blood	1	0	+100%
Refuse A.S.D	7	11	-36.36%
Blood Samples Taken	1	0	+100%
Alcohol-Related Driving Offences	673	684	-1.61%

Five-Year Trend: Alcohol Related Charges

Type of Charges	2017	2016	2015	2014	2013
Impaired	279	273	300	350	353
Over 80 mg	322	338	377	447	419
Impaired C.B.H.	2	2	5	2	0
Impaired by Drugs	16	22	24	18	4
Impaired Cause Death	0	1	1	1	1
Refuse Breath	43	36	50	60	39
Over 80 cause Death	0	1	1	0	0
Over 80 cause B.H.	3	0	3	0	0
Refuse Blood	0	0	1	0	0
Refuse A.S.D	7	11	16	18	12
Blood Samples Taken	1	0	4	3	3
Alcohol-Related Driving Offences	673	684	778	896	828

2013-2017 R.I.D.E. Stats

R.I.D.E Program	2017	2016	2015	2014	2013
R.I.D.E. Stops	182,228	224,503	245,760	240,344	238,450
R.I.D.E. Tests	156	219	337	391	376

R.I.D.E. is a year-long educational and enforcement program for the Hamilton Police Service. The Service also participates in the Provincial Policing Community's annual R.I.D.E. focus that starts in December.

R.I.D.E. Stats	2017 Yearly Total	2016 Yearly Total	% Difference
Stopped	182,228	224,503	-18.83%
Pass	107	162	-33.95%
Warn	29	39	-25.64%
Fail	20	18	+11.11%
Impaired	8	4	+100%
Over .08	24	22	+9.09%
Refuse A.S.D.	0	0	0.00%
Refuse Breath	0	0	0.00%
Other C.C.	21	18	+16.67%
Roadside Demand	156	219	-28.77%
Alcohol Warn Range Suspension	29	39	-25.64%

In 2017, there were a total of 182,228 vehicles stopped by the R.I.D.E. Program. This represents a decrease of 18.83%, below 2016.

R.I.D.E. will again be a focus of the **2018 Traffic Management Plan**.

Section 13

Action Items



ACTION ITEMS
NEXT EXIT

Demonstrating a commitment to continually increase safety for all road users, the Hamilton Strategic Road Safety Committee will:

- Review and implement collision countermeasures based on the Network Screening results for intersections and road segments identified as being the most dangerous locations in the City. This will include on-site investigations, along with collecting traffic data, to determine the cause of collisions and to develop recommendations to increase safety at each location based on cost-benefit analysis.
- Development of an interactive mapping tool that will show all motor vehicle, pedestrian and cycling collisions that have occurred on Hamilton streets.
- The Province is in the process of amending the Highway Traffic Act to implement Bill 65 legislation which will reduce the speed limit on all local roadways within designated neighbourhoods to 40 km/h. Subject to Council approval this initiative would be initiated in 2019.
- In conjunction with the neighbourhood speed limit reductions, designated School Zones located on local roadways, would be reduced to 30 km/h.
- Working with other Ontario municipalities, implement Automated Speed Enforcement zones throughout the City based on the new Bill 65 legislation and the future amendments to the Highway Traffic Act. This could include a mobile speed enforcement camera that can be stationed throughout the City in various designated Community Safety Zones and School Zones
- Implement the ideology of Vision Zero.
- Review new technologies that can be used to enhance traffic safety including autonomous vehicle and connected vehicle/infrastructure applications.
- Update the yearly collision statistics and provide a Traffic Safety Report on an annual basis.

Section 14

Appendix

APPENDIX.

Motor Vehicle Collision History

Year	Police Reported Collisions	Fatal Collisions	Injury Collisions	Property Damage Collisions
2000	5217	20	2023	3151
2001	5171	20	2031	3107
2002	5270	19	2229	3020
2003 (a)	4041	21	1784	2238
2004	3161	16	1697	1448
2005	3149	19	1690	1440
2006	3174	22	1638	1514
2007	3356	21	1743	1592
2008	3314	14	1675	1625
2009	3335	14	1666	1655
2010	3673	20	1809	1844
2011	3755	17	1835	1903
2012	3650	20	1795	1835
2013	3521	14	1742	1765
2014	3835	16	1831	1988
2015	3864	14	1931	1919
2016	3610	11	1937	1662
2017	3578	16	1682	1880

(a) Introduction of Collision Reporting Centres – *refer to disclaimer on Page 2.*



Personal Injuries and Fatalities

Year	Police Reported Collisions	Persons Injured	Personal Injuries/1,000 Population	# of Fatalities	Fatalities/100,000 Population	Fatalities/10,000 Registered Vehicle
2000	5217	3013	6.4	22	4.7	0.6
2001	5171	3107	5.2	21	4.4	0.6
2002	5270	3209	6.4	19	3.8	0.5
2003(a)	4041	2680	5.3	21	4.1	0.5
2004	3161	2507	5.0	16	3.2	0.4
2005	3149	2422	4.8	19	3.8	0.5
2006	3174	2427	4.8	25	4.9	0.7
2007	3356	2457	4.9	27	5.3	0.7
2008	3314	2347	4.6	14	2.8	0.4
2009	3335	2345	4.6	16	3.1	0.4
2010	3673	2533	5.0	21	4.1	0.5
2011	3755	2509	4.8	18	3.5	0.5
2012	3650	2462	4.7	22	4.2	0.5
2013	3521	2452	4.7	15	2.9	0.4
2014	3835	2648	5.1	18	3.5	0.4
2015	3864	2720	5.2	15	2.8	n/a
2016	3610	2653	5.1	12	2.3	0.3
2017	3578	2332	4.9	16	3.0	0.4

(a) Introduction of Collision Reporting Centres – *refer to disclaimer on Page 2.*



Pedestrian and Cyclist Injuries and Fatalities

Year	Collisions Involving Pedestrians	Pedestrian Injuries/ Fatalities	Pedestrian Fatalities Only	Collisions Involving Cyclists	Cyclist Injuries/ Fatalities	Cyclist Fatalities Only
2000	282	271	8	159	145	1
2001	270	262	2	157	131	4
2002	262	253	2	170	146	2
2003(a)	264	237	6	142	120	0
2004	241	222	4	169	143	1
2005	268	245	5	151	131	0
2006	243	227	6	146	132	2
2007	293	288	8	156	137	0
2008	250	246	3	162	140	1
2009	221	209	2	139	121	2
2010	272	257	7	162	143	2
2011	267	274	8	149	127	0
2012	264	247	6	161	138	1
2013	234	220	5	168	131	1
2014	235	225	5	157	130	0
2015	250	224	7	165	133	1
2016	278	259	4	179	148	0
2017	239	215	4	176	138	0



Alcohol Related Motor Vehicle Collisions

Year	Police Reported Collisions	Total Alcohol-Related Collisions	% of Total Collisions Involving Alcohol	Impaired or Had Been Drinking (Drivers Under the Age of 21)	Total Fatal Collisions	Alcohol-Related Fatal Collisions (a)	% Fatal Collisions Involving Alcohol
2000	5217	252	5.0	5.8	20	1	5.0
2001	5171	266	5.1	7.8	20	1	5.0
2002	5270	281	5.3	4.6	19	0	0.0
2003 (b)	4041	242	5.9	3.4	19	1	5.2
2004	3161	208	6.6	1.5	16	2	12.5
2005	3149	234	7.4	7.9	19	2	10.5
2006	3174	231	7.3	4.8	22	2	9.0
2007	3356	223	6.6	8.5	21	2	9.5
2008	3314	235	7.0	9.4	14	2	14.2
2009	3335	195	5.8	6.1	14	2	14.2
2010	3673	181	4.9	7.7	20	2	10.0
2011	3755	190	5.0	3.3	17	4	23.5
2012	3650	155	4.2	2.0	20	0	0
2013	3521	168	4.8	4.0	14	3	21.4
2014	3835	169	4.4	1.9	16	2	12.5
2015	3864	148	3.8	2.4	14	0	0
2016	3610	151	4.2	1.7	11	1	9.1
2017	3578	174	4.7	3.4	16	2	12.5

(a) Includes drivers classified as impaired due to alcohol or classified as had been drinking

(b) Introduction of Collision Reporting Centres – refer to disclaimer on Page 2.



2017 City of Hamilton's Annual Collision Report

Please contact us for more information.

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