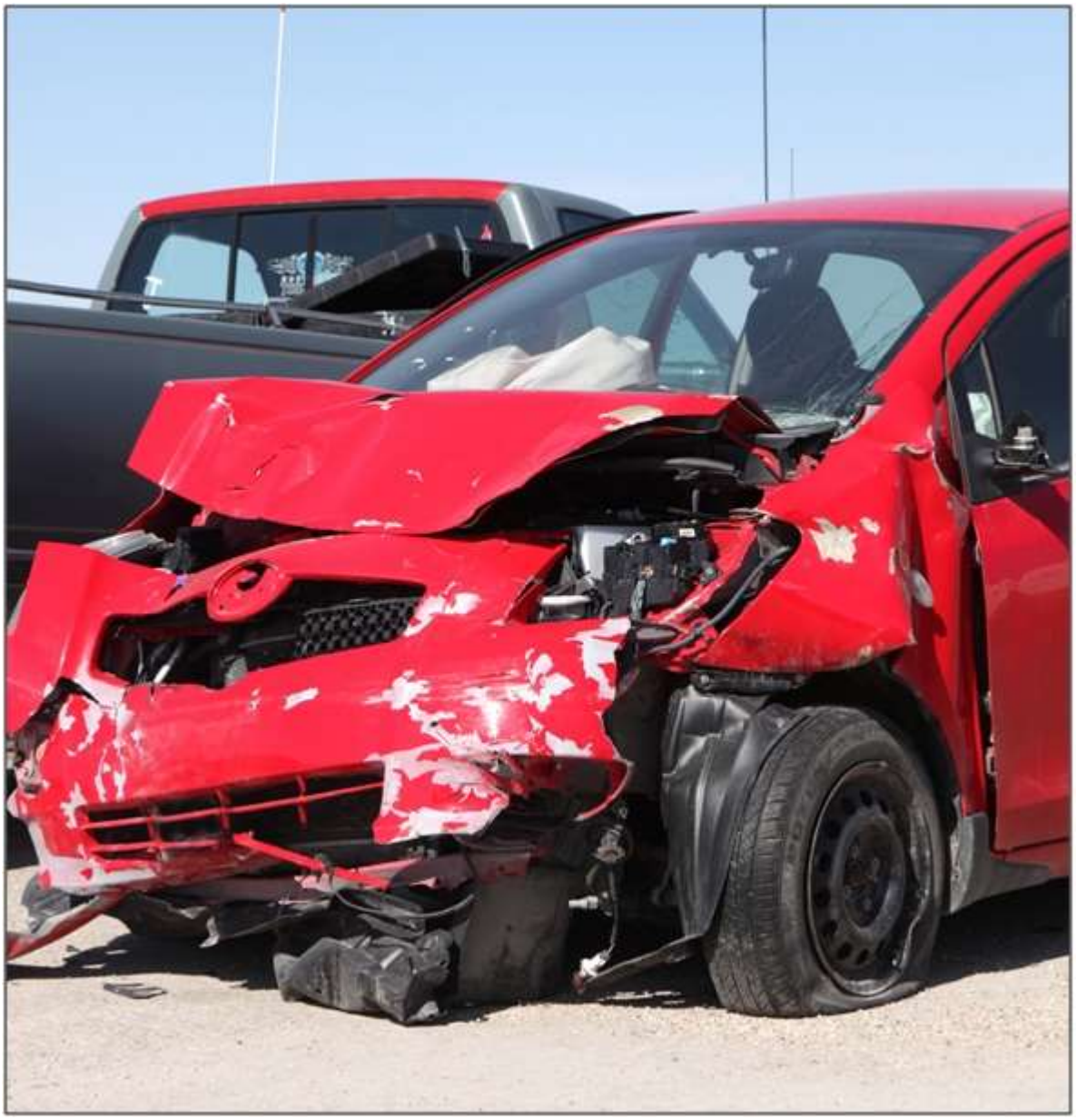
MANITOBA PUBLIC INSURANCE

2018

TRAFFIC COLLISION STATISTICS REPORT

MANITOBA
PUBLIC INSURANCE

Executive Summary



2018 Traffic Collision Statistics Report – Executive Summary

Motor vehicle collisions resulting in a fatality, injury or property damage only are required by law to be reported to either a law enforcement agency and/or to Manitoba Public Insurance. The collision incidents reported through the claim registration process with Manitoba Public Insurance form the basis for the overall population of collisions that Traffic Accident Reports (TARs) could be drawn from. To be consistent with jurisdictions across Canada and in compliance with reporting standards for the National Collision Database (NCDB) maintained by Transport Canada, a "reportable collision" definition is applied as a filter to these collision incidents. It is these TAR reportable collisions that are the primary focus of this Traffic Collision Statistics Report.

The TAR reportable collision definition, for inclusion in the NCDB, includes that the crash:

- Occurred on a public roadway in Manitoba,
  - Excluding crashes occurring parking lots, on private property, crashes occurring off road, and crashes on First Nation roadways
  - Including crashes involving non-Manitoba residents (due to the incident occurring in MB)
- Involved some injury (following the NCDB injury definitions) or fatality,
  - Excluding crashes where death was due to natural causes, homicide, or suicide
  - Excluding where the death occurred greater than 30 days after crash
- Has property damage in excess of $2,000 (combined for all parties involved), if no injury or fatality occurred.

The *Traffic Collision Statistics Report* is the official report of traffic collision statistics in Manitoba. It reports the details surrounding traffic collisions in Manitoba, allowing users to analyze the reasons why collisions occur. Knowing more about collisions helps policy makers, traffic safety experts, public safety programmers and legislators to pinpoint areas for review and create targeted approaches to preventing and reducing traffic collisions.

Due to amendments to the *Highway Traffic Act* that took effect in 2011, this report uses two sources for Traffic Accident Reports (TARs); TARs completed by a law enforcement agency and TARs completed when a collision claim is registered with Manitoba Public Insurance. This change resulted in an increase in minimal injury and property damage only (PDO) collisions in the Traffic Accident Report Database that had previously been underreported.

The following is a presentation of the key highlights of this report for 2018.

Licensed Drivers and Vehicle Registrations

There are 920,414 licensed drivers in Manitoba in 2018, an increase of 2% compared to 2017.

Overall, there are 1,101,949 vehicles registered in Manitoba (commercial and non-commercial, combined) in 2018, a 2% increase from 2017.

Traffic Collisions

In 2018, there are 87,111 collision incidents reported with Manitoba Public Insurance. After a "reportable collision" definition is applied as a filter to these collision incidents, there are a total of 51,732 traffic collisions that conform to the reportable collision requirement for Traffic Accident Reports. Of these:

- 65 involve a fatality (0.1% of all collisions);
- 9,325 involve an injury, but not a fatality (18% of all collisions); and,
- 42,342 involve property damage only (82% of all collisions).

Overall traffic collisions in Manitoba in 2018 decreased slightly compared to 2017 but increased compared to the previous five year (2013 to 2017) annual average. There are 51,732 collisions in 2018, down from 51,844 collisions in 2017 and up from 44,240 on average in the five year period 2013 to 2017. The decrease in the total number of collisions in 2018 compared to 2017 is attributable to decreases in injury collisions. There are the same number of fatal collisions, 366 fewer injury collisions, and 254 more PDO collisions reported in 2018 than in 2017 (representing proportional changes of 0%, -4%, and 1%, respectively).

People Killed and Injured in Collisions

In 2018, there are 12,057 victims (or casualties) of traffic collisions. Of these:

- 70 are killed (15% fewer than in the previous five years);
- 437 are seriously injured (12% more than in the previous five years);
- 1,818 sustain minor injuries (13% fewer than in the previous five years);
- 9,422 sustain minimal injuries (2% more than in the previous five years); and,
- 310 sustain injuries that are undefined in terms of severity (25% more than in the previous five years).

The victim involvement rate (per 100,000 people in the general population) in traffic collisions in 2018 (886.2) has decreased by 5% compared to 2017 (932.9) and by 3% compared to the previous five years (2013 to 2017) annual average (910.6). Victim involvement rates in traffic collisions in 2018 where the person:

- Is killed (5.1 in 2018) is 4% lower than in 2017 and 17% lower than in the previous five years; and,
- Is injured, including all levels of severity (but excluding killed; 881.1 in 2018), is 5% lower than in 2017 and 3% lower than in the previous five years.

Traffic collisions in urban locations account for the majority of casualties overall while rural locations account for the majority of people killed. In 2018, 88% of all casualties result from traffic collisions in urban areas. Traffic collisions in rural locations, however, account for 61% of people killed. In the previous five year (2013 to 2017) annual average, 86% of all victims are from traffic collisions in urban locations, while 69% of people killed are from traffic collisions in rural locations.

Victims in 2018 appear to follow a fairly typical distribution compared to past years in terms of month of occurrence. The months of January, February, November and December combined account for a disproportionate number of traffic collision victims overall, both in 2018 (42% of all victims) and in the previous five year (2013 to 2017) annual average (42%). In 2018 (similar to the previous five years), the count of victims is lowest in the late spring and summer months (ranging from 6% to 7% of all victims in each month from April to August) and is highest in late fall, winter and early spring (ranging from 8% to 13% of all victims in each month from October to March).

Considering people killed and seriously injured in Manitoba traffic collisions in 2018:

- Drivers account for the largest proportion of people killed (50%) and seriously injured (58%);
- Passengers account for 21% of people killed and 24% of people seriously injured;
- Pedestrians account for 19% of people killed and 8% of people seriously injured;
- Motorcyclists (including motorcycle and moped riders, combined) account for 6% of people killed and 6% of people seriously injured; and,
- Bicyclists account for 4% of people killed and 3% of people seriously injured.

In 2018, most victims in traffic collisions were using safety equipment at the time of the collision (99% of all victims where safety equipment use is known). However, 46% of the people killed in traffic collisions and 3% of the people seriously injured in traffic collisions are recorded as not wearing or using the available safety equipment at the time of the collision.

Drivers and Vehicles Involved in Collisions

In 2018, there are 66,606 drivers involved in traffic collisions. Of these:

- 95 are involved in fatal collisions;
- 15,752 are involved in injury collisions; and,
- 50,759 are involved in PDO collisions.

The driver involvement rate (per 10,000 licensed drivers) in traffic collisions in 2018 is 723.7, a decrease of 4% compared to the rate in 2017 (756.0) but an increase of 1% from the previous five year (2013 to 2017) annual average (718.7). In 2018, driver involvement in:

- Fatal collisions (1.0) increased by 10% from 2017 but decreased by 13% compared to the previous five years;
- Injury collisions (171.1) decreased by 6% from 2017 and by 7% compared to the previous five years; and,
- PDO collisions (551.5) decreased by 4% from 2017 but increased by 3% compared to the previous five years.

In 2018, there are 70,244 vehicles involved in traffic collisions. Of these:

- 98 are involved in fatal collisions;
- 15,975 are involved in injury collisions; and,
- 54,171 are involved in PDO collisions.

Vehicle involvement in traffic collisions per 10,000 registered vehicles (vehicle involvement rate) has decreased in 2018 compared to 2017 but has increased compared to the previous five year (2013 to 2017) annual average. The vehicle involvement rate in collisions in 2018 for:

- Total collisions is 764.8 – decreased by 4% from 2017 but increased by 3% from the previous five years;
- Fatal collisions is 1.1 – increased by 10% from 2017 but decreased by 14% from the previous five years;
- Injury collisions is 173.9 – decreased by 6% from 2017 and from the previous five years; and,
- PDO collisions is 589.8 – decreased by 3% from 2017 but increased by 6% from the previous five years.

The reader should note that neither the count of drivers or vehicles involved in collisions nor the calculated rate of involvement takes into account exposure to risk in terms of hours of driving, kilometres driven or driving situations.

Contributing Factors to Collisions

In 2018, nearly 56% of all collisions have some at-fault contributing factor recorded (89% of fatal collisions; 74% of injury collisions). In 2018:

- A driver action is a contributing factor in 51% of all collisions (74% of fatal collisions; 72% of injury collisions; 47% of PDO collisions);
- A human condition is a contributing factor in nearly 1% of all collisions (nearly 42% of fatal collisions; 1% of injury collisions; 0.3% of PDO collisions); and,
- Environmental conditions are contributing factors in 7% of all collisions (14% of fatal collisions; 6% of injury collisions; 7% of PDO collisions).

The most prevalent **contributing factors recorded for collisions** in 2018 include:

- Distracted driving – 28% of all collisions (28% fatal; nearly 37% injury; 26% PDO);
- “Following too closely” – 10% of all collisions (nearly 2% fatal; 20% injury; 8% PDO);
- “Backing unsafely” – 6% of all collisions (no fatal; 3% injury; 7% PDO);
- “Turning improperly” – 5% of all collisions (nearly 2% fatal; 8% injury; 4% PDO);
- Speed – 4% of all collisions (23% fatal; 5% injury; 4% PDO);
- “Fail to yield right-of-way” – 4% of all collisions (9% fatal; 9% injury; 3% PDO);
- “Changing lanes improperly” – 4% of all collisions (no fatal; 4% injury; 4% PDO);
- “Slippery road surface” – 3% of all collisions (3% fatal; 3% injury; 3% PDO);
- The actions of a wild animal – 3% of all collisions (no fatal; 1% injury; 3% PDO); and,
- “Lost control/Drive off the road” – 2% of all collisions (12% fatal; 3% injury; 2% PDO).

The most prevalent contributing factors recorded for collisions where **people are killed or seriously injured** in 2018 include:

- Impaired – 40% of people killed and 2% of people seriously injured;
- Distracted driving – 27% of people killed and 45% of people seriously injured;
- Speed – 26% of people killed and 10% of people seriously injured;
- “Lost control/Drive off the road” – 11% of people killed and 7% of people seriously injured;
- “Fail to yield right-of-way” – 9% of people killed and 14% of people seriously injured;
- “Pedestrian error/confusion” – 6% of people killed and 2% of people seriously injured;
- “View obstructed/limited” – 4% of people killed and 3% of people seriously injured;
- “Take avoiding action” – 4% of people killed and nearly 3% of people seriously injured;
- “Drive wrong way on roadway” – 4% of people killed and 1% of people seriously injured;
- “Shoulders defective” – 4% of people killed and nearly 1% of people seriously injured;
- “Disobey traffic control device/officer” – 3% of people killed and 9% of people seriously injured;
- “Leave stop sign before safe to do so” – 3% of people killed and 5% of people seriously injured;
- “Slippery road surface” – 3% of people killed and 5% of people seriously injured;
- “Turning improperly” – 1% of people killed and 9% of people seriously injured; and,
- “Following too closely” – 1% of people killed and 8% of people seriously injured.

Off-Road Vehicle (ORV) Collisions

As ORV collisions occur primarily outside of roadways and road rights-of-way, most of them are not valid for inclusion in the public roadway Traffic Accident Database. However, some ORV collisions are included in the Traffic Accident Database (if they occur on a public roadway and involve a vehicle that normally operates on public roadways); therefore, statistics between ORV collisions and other traffic collisions of this report are not additive.

In 2018, there are 163 off-road vehicle collisions, involving 50 victims, 173 vehicles and 170 drivers. Of these:

- 15 are fatal collisions, involving 15 vehicles and drivers, resulting in 16 people killed and no one injured;
- 33 are injury collisions, involving 36 vehicles and drivers, resulting in 34 people injured; and,
- 115 are PDO collisions, involving 122 vehicles and 119 drivers.

Alcohol-related Criminal Code Convictions

In 2017[1], there are a total of 1,695 alcohol-related Criminal Code offence convictions, including:

- 970 convictions for driving with a blood alcohol concentration (BAC) over .08;
- 630 convictions for impaired driving; and,
- 95 convictions for refusing to provide a breath or blood sample.

In the 20-year period from 1998 to 2017, total alcohol-related Criminal Code convictions decreased by 47%, from 3,219 in 1998 to 1,695 in 2017. Total convictions in 2017 (1,695) decreased by 9% compared to 2016 (1,862) and by 12% compared to the previous five year (2012 to 2016) annual average (1,931).

Licensed drivers up to the age of 44 are overrepresented in alcohol-related Criminal Code convictions.

- Drivers under age 25 represented nearly 14% of the licensed drivers in 2017, but accounted for 23% of convictions.
- Drivers aged 25 to 44 represented nearly 35% of the licensed drivers in 2017, but accounted for nearly 54% of convictions.

Over the past 10 years, from 2007 to 2017, there was a 31% decrease in the rate of first offences. Rates of recidivism, indicated by second, and third and subsequent offences, decreased at a rate of 27% in second alcohol-related Criminal Code offences in 2017, but increased at a rate of 11% in third and subsequent offences in 2017 compared to 2007.

[1] There is a one-year lag in the statistics reported to allow for court processing time. Therefore, 2017 is the most current year for which these statistics are available.

Preface

Motor vehicle collisions resulting in a fatality, injury or property damage are required by law to be reported to either a law enforcement agency and/or to Manitoba Public Insurance. Subsequently, a Traffic Accident Report (TAR) for the collision is created. The *Traffic Collision Statistics Report* deals with these reportable collisions and the TARs arising from them.

The *Traffic Collision Statistics Report* is the official report of traffic collision statistics in Manitoba. It reports the details surrounding traffic collisions in Manitoba, allowing users to analyze the reasons why collisions occur. Knowing more about collisions helps policy makers, traffic safety experts, public safety programmers and legislators to pinpoint areas for review and create targeted approaches to preventing and reducing traffic collisions.

Annual collision statistics, such as those contained in the *Traffic Collision Statistics Report*, are used to:

- Indicate trends;
- Identify driver and vehicle factors in accidents;
- Evaluate current programs and new provincial road safety initiatives;
- Monitor commercial vehicle collisions in accordance with the National Safety Code; and,
- Guide development of new policies and programs to reduce the frequency and severity of traffic collisions in the province.

A brief Synopsis of each section of this Report can be found below.

Section 1 – Drivers, Vehicle and Collision Rates: Historical Trends
This section calculates involvement rates for total collisions as well as for fatal, injury, and property damage only (PDO) collisions using licensed drivers and vehicles registered for the years 2007 to 2017, inclusive. This section also deals with relative involvement rates of drivers by specific age groups.

Section 2 – Licensed Drivers
This section deals with Active and Suspended Drivers by specific Age Groups, Gender and Manitoba Licence Class.

Section 3 – Vehicle Registrations
This section deals with vehicle registrations and examines these by three major categories: Commercial; Non-commercial; and, Snowmobiles (Recreational).

Section 4 – Traffic Collisions
This section counts the number of collisions in Manitoba and provides detail for collisions of different severity; fatal, injury and property damage only (PDO). Historical information regarding the number of collisions, victims, vehicles and drivers involved in collisions over the ten year period 2007 to 2016 is presented and compared to 2017. Details are provided for 2017 traffic collisions in terms of the month of occurrence, day of the week, time of day, weather and road conditions, location and type of collision.

Section 5 – Collision Victims
This section counts the number of victims killed and injured in traffic collisions and examines the severity of the injury received by the victim. Month, time and day of occurrences are examined, as well as the age of the victim. Victim involvement rates in traffic collisions per 100,000 people in the general population are also calculated.

Section 6 – Pedestrian Victims
This section counts the number of pedestrian victims killed and injured in traffic collisions and examines the severity of the injury received by the pedestrian victim. Month, time and day of occurrence are examined and breaks are provided for the age of the pedestrian. The specific pedestrian actions taken immediately prior to the collision are also presented. Pedestrian involvement rates in traffic collisions per 100,000 people in the general population are also calculated.

Section 7 – Vehicle Involvement
This section counts the number of vehicles involved in traffic collisions. Vehicle involvement in a collision is calculated for each vehicle type (such as passenger vehicles, vans, pick-up trucks, types of emergency vehicles). Vehicle involvement rates in traffic collisions per 10,000 registered vehicles are also calculated.

Section 8 – Driver Involvement
This section counts the number of drivers involved in traffic collisions and breaks this down by age and gender of the driver. Driver involvement rates in traffic collisions per 10,000 licensed drivers are also detailed.

Section 9 – Contributing Factors
This section examines the contributing factors to traffic collisions as reported on the Traffic Accident Report (TAR). Detail is provided at the collision level and for collision severity, at the victim level and for victims of each casualty type, and at the driver level by collision severity. Driver involvement rates (per 10,000 licensed drivers) in collisions with specific contributing factors are calculated and discussed.

Section 10 – National Safety Code Monitoring Report
This section counts the number of commercial vehicles involved in collisions, the severity of those collisions and the victims killed and injured in those collisions.

Section 11 – Off-Road Vehicle Collisions
This section counts the number of off-road vehicle (ORV) collisions in Manitoba and provides detail for collisions of different severity: fatal, injury and property damage only (PDO). Information regarding the number of ORV collisions, victims, vehicles, and drivers involved over the six year period 2012 to 2017 is presented. Details are provided for 2017 ORV collisions in terms of the month of occurrence, day of the week, time of day, weather and road conditions, location, and type of collision.

Section 12 – Alcohol-Related Criminal Code Convictions
This section counts the number of drivers convicted of alcohol-related Criminal Code offences for the year 2016 by age at the time of the offence and includes historical statistics for the period 1997 to 2015. Details are provided for ‘first’, ‘second’ and ‘third and subsequent’ (i.e., third, fourth, fifth, etc. combined) offences and whether or not a youth was present in the vehicle at the time of the offence.

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SECTION 1 – Drivers, Vehicle and Collision Rates: Historical Trends

Introduction

This section calculates involvement rates for total collisions as well as for fatal, injury and property damage only (PDO) collisions using licensed drivers and vehicles registered for the years 2008 to 2018. This section also presents involvement rates for drivers by specific age groups.

Key Highlights

In 2018, there are 87,111 collision incidents reported through the claim registration process with Manitoba Public Insurance where some insurance related financial activity took place. This forms the basis for the overall population of collisions that Traffic Accident Reports (TARs) could be drawn from. To be consistent with jurisdictions across Canada and in compliance with reporting standards for the National Collision Database maintained by Transport Canada, a "reportable collision" definition is applied as a filter to these collision incidents, resulting in a total of 51,732 TAR reportable collisions. It is these TAR reportable collisions that are the primary focus of this Traffic Collision Statistics Report.

In 2018, there are a total of 51,732 traffic collisions reported to Manitoba Public Insurance and law enforcement agencies in Manitoba that conform to the reportable collision requirement for Traffic Accident Reports. Of these:

- 65 involve a fatality (0.1% of all collisions);
- 9,325 involve an injury, but not a fatality (18% of all collisions); and,
- 42,342 involve property damage only (82% of all collisions).

In 2018, overall traffic collisions in Manitoba decreased slightly compared to 2017 but increased compared to the previous five year (2013 to 2017) annual average. There are:

- 51,732 collisions in 2018;
- 51,844 collisions in 2017; and,
- 44,240 collisions on average in the five year period 2013 to 2017.

Involvement in traffic collisions in Manitoba decreased from 2017 but increased from the previous five year (2013 to 2017) annual average. Involvement in collisions (per 10,000 licensed drivers) is:

- 562.1 in 2018;
- 572.6 in 2017; and,
- 501.9 on average in the five year period 2013 to 2017.

The decrease in the total number of collisions in 2018 compared to 2017 is attributable to decreases in injury collisions. There are the same number of fatal collisions, 366 fewer injury collisions, and 254 more PDO collisions reported in 2018 than in 2017 (representing proportional changes of 0%, -4%, and 1%, respectively).

Major Elements Examined

Counts of collisions in Manitoba for 2018 and previous years are taken from Traffic Accident Reports (TARs) generated by Manitoba Public Insurance and law enforcement agencies, and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, fatal collisions, injury collisions, and property damage only (PDO) collisions. To be included in the Traffic Accident Database, these reportable collisions must occur on a public roadway.

Involvement in collisions is calculated for total collisions and for collisions of different severity (fatal, injury and PDO). It is calculated both for licensed drivers and for vehicles registered. Involvement per 10,000 licensed drivers by different age groups is also examined.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

Terms and Definitions

"Reportable Collision"

- Prior to a change in the Highway Traffic Act (which took effect in October of 2011), motor vehicle collisions resulting in a fatality, injury or property damage in excess of $1,000 were required by law to be reported to a law enforcement agency. Subsequently, the law enforcement agency completed a Traffic Accident Report for the collision.
- Amendments to the Highway Traffic Act (which received Royal Ascent in June 2011 and took effect in October of 2011) changed the definition of a reportable collision to require a police report be made if the driver is aware, has reason to believe, or is later made aware, that a collision involves: a fatality; an injury requiring admittance to hospital for observation or treatment; another driver not having a valid driver's licence; another vehicle not validly registered; the driver of another vehicle not providing the required particulars; the driver of another vehicle not stopping at the scene of the accident; or, alcohol or another intoxicating substance as a factor in the accident.
- As of October 2011, all accidents occurring on a public roadway where the above conditions are not met are reported through the claim registration process with Manitoba Public Insurance.
- As of 2012 and consistent with other jurisdictions in Canada, it is a requirement that a minimum of $2,000 damage (all vehicles combined) is necessary for property damage only (PDO) collisions to be included in this report.
- This report deals with these reportable collisions and the TARs arising from them, regardless of whether the TAR is generated by law enforcement agencies or by Manitoba Public Insurance.

"Public Roadway"

- A public roadway in Manitoba is considered to be any provincial road (PR), provincial trunk highway (PTH) or municipal road, including the entrances to and exits from these roadways. This excludes all off-road areas, parking lots, private property, and First Nation Reserve roads (unless the road is a PR or PTH running through, across or on Reserve lands).

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence. Fatal collisions resulting from suicide, where the fatality occurs because of a medical condition and collisions that do not occur on public roadways are excluded.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Involvement"

- A calculation of the number of collisions per specific unit of licensed drivers or registered vehicles. For the purposes of this report, involvement is calculated per 10,000 licensed drivers or registered vehicles.

"Licensed drivers"

- A count of all Manitobans aged 16 and older who hold a valid licence within the licensing year including active and suspended drivers. (See *Section 2 Licensed Drivers* for more information)

Table 1-1 Fatal, Injury and Property Damage Collisions by Total Licensed Drivers

Table 1-1
Fatal, Injury, and Property Damage Collisions by Total Licensed Drivers: 2008 to 2018

Year	Licensed Drivers	Collision Incidents	**Total TAR Reportable Collisions**	TAR Collisions /10,000 Drivers	Total Fatal	Fatal /10,000 Drivers	Total Injury	Injury /10,000 Drivers	Total PDO	PDO /10,000 Drivers
2008	765,014	89,019	**27,092**	354.1	85	1.1	5,974	78.1	21,033	274.9
2009	776,209	88,953	**26,578**	342.4	83	1.1	5,396	69.5	21,099	271.8
2010	790,330	89,275	**27,172**	343.8	78	1.0	5,386	68.1	21,708	274.7
2011	813,691	94,925	**34,302**	421.6	94	1.2	6,309	77.5	27,899	342.9
2012	838,481	92,236	**38,972**	464.8	89	1.1	8,280	98.8	30,603	365.0
2013	855,791	99,611	**41,819**	488.7	69	0.8	8,729	102.0	33,021	385.9
2014	869,239	95,499	**40,672**	467.9	64	0.7	9,023	103.8	31,585	363.4
2015	881,338	89,325	**41,548**	471.4	69	0.8	9,127	103.6	32,352	367.1
2016	895,880	92,995	**45,316**	505.8	96	1.1	9,582	107.0	35,638	397.8
2017	905,365	94,172	**51,844**	572.6	65	0.7	9,691	107.0	42,088	464.9
2018	**920,414**	**87,111**	**51,732**	**562.1**	**65**	**0.7**	**9,325**	**101.3**	**42,342**	**460.0**
2013-2017 Average	881,522	94,320	**44,240**	501.9	73	0.8	9,230	104.7	34,937	396.3

In 2018, there are 87,111 collision incidents reported through the claim registration process with Manitoba Public Insurance where some insurance related financial activity took place. This forms the basis for the overall population of collisions that Traffic Accident Reports (TARs) could be drawn from. To be consistent with jurisdictions across Canada and in compliance with reporting standards for the National Collision Database maintained by Transport Canada, a “reportable collision” definition is applied as a filter to these collision incidents, resulting in a total of 51,732 TAR reportable collisions. It is these TAR reportable collisions that are the primary focus of this Traffic Collision Statistics Report.

Relative to ten years ago, the total number of collisions in 2018 has increased by 91% (51,732 in 2018 compared to 27,092 in 2008). Crash involvement per 10,000 licensed drivers has increased by 59% in the same time period (562.1 in 2018 compared to 354.1 in 2008). Compared to 2017, total collisions have decreased by a count of 112 (down from a total of 51,844) and involvement has decreased by 2%. Compared to the previous five year (2013 to 2017) annual average, total collisions have increased 17% and involvement has increased by 12%.

Compared to recent historical figures, in 2018:

- Fatal collisions have decreased by nearly 24% compared to 2008, are unchanged compared to 2017, and have decreased by nearly 11% compared to the previous five year (2013 to 2017) annual average.
- Injury collisions have increased by 56% compared to 2008, decreased by 4% compared to 2017 and increased by 1% compared to the previous five year (2013 to 2017) annual average.
- PDO collisions have doubled compared to 2008, increased by 1% compared to 2017 and by 21% compared to the previous five year (2013 to 2017) annual average.

Differences in the crash counts and rates in 2012 through 2018 compared to 2008 through 2011 are at least somewhat affected by the reporting change that took effect late in 2011. Please see the definition of “Reportable Collision” for detail regarding this change.

Table 1-2 Percentage Change Year-over-Year in Relative Involvement Rate (per 10,000 Licensed Drivers) in Fatal, Injury, and Property Damage Only Collisions

Table 1-2

Percentage Change Year-Over-Year in Relative Involvement Rate (per 10,000 Licensed Drivers) in Fatal, Injury, and PDO Collisions: 2008 to 2018

Year	Collisions /10,000 Drivers	% change to previous year	Fatal /10,000 Drivers	% change to previous year	Injury /10,000 Drivers	% change to previous year	PDO /10,000 Drivers	% change to previous year
2008	354.1	-	1.1	-	78.1	-	274.9	-
2009	342.4	-3.3%	1.1	-3.8%	69.5	-11.0%	271.8	-1.1%
2010	343.8	0.4%	1.0	-7.7%	68.1	-2.0%	274.7	1.0%
2011	421.6	22.6%	1.2	17.1%	77.5	13.8%	342.9	24.8%
2012	464.8	10.3%	1.1	-8.1%	98.8	27.4%	365.0	6.4%
2013	488.7	5.1%	0.8	-24.0%	102.0	3.3%	385.9	5.7%
2014	467.9	-4.2%	0.7	-8.7%	103.8	1.8%	363.4	-5.8%
2015	471.4	0.8%	0.8	6.3%	103.6	-0.2%	367.1	1.0%
2016	505.8	7.3%	1.1	36.9%	107.0	3.3%	397.8	8.4%
2017	572.6	13.2%	0.7	-33.0%	107.0	0.1%	464.9	16.9%
2018	**562.1**	**-1.8%**	**0.7**	**-1.6%**	**101.3**	**-5.3%**	**460.0**	**-1.0%**
2013-2017 Average*	501.9	12.0%	0.8	-14.3%	104.7	-3.2%	396.3	16.1%

* "% change" in this line compares the current year to the 5-year average

Recognizing that collision counts could be impacted either positively or negatively by changing population demographics, involvement rates per 10,000 licensed drivers are examined to provide a standardized collision rate comparison. This eliminates the effect of changing population size and focuses on how many drivers are being involved in collisions instead of simply a raw count of collisions overall.

The involvement in collisions per 10,000 drivers in 2018 is:

- 562.1 for all collisions, down 2% from 2017 and up by 12% compared to the previous five year (2013 to 2017) annual average;
- 0.7 for fatal collisions, down 2% from 2017 and by 14% compared to the previous five year (2013 to 2017) annual average;
- 101.3 for injury collisions, down 5% from 2017 and by 3% from the previous five year (2013 to 2017) annual average; and,
- 460.0 for PDO collisions, down 1% from 2017 and up by 16% compared to the previous five year (2013 to 2017) annual average.

Table 1-3 Fatal, Injury, and Property Damage Collisions by Vehicles Registered

Table 1-3
Fatal, Injury, and Property Damage Collisions by Vehicles Registered: 2008 to 2018

Year	Vehicles Registered*	Total Collisions	Collisions /10,000 Vehicles	Total Fatal	Fatal /10,000 Vehicles	Total Injury	Injury /10,000 Vehicles	Total PDO	PDO /10,000 Vehicles
2008	773,596	27,092	350.2	85	1.1	5,974	77.2	21,033	271.9
2009	783,426	26,578	339.3	83	1.1	5,396	68.9	21,099	269.3
2010	799,327	27,172	339.9	78	1.0	5,386	67.4	21,708	271.6
2011	814,808	34,302	421.0	94	1.2	6,309	77.4	27,899	342.4
2012	838,553	38,972	464.8	89	1.1	8,280	98.7	30,603	364.9
2013	852,105	41,819	490.8	69	0.8	8,729	102.4	33,021	387.5
2014	867,326	40,672	468.9	64	0.7	9,023	104.0	31,585	364.2
2015	881,345	41,548	471.4	69	0.8	9,127	103.6	32,352	367.1
2016	894,690	45,316	506.5	96	1.1	9,582	107.1	35,638	398.3
2017	905,020	51,844	572.8	65	0.7	9,691	107.1	42,088	465.1
2018	**918,510**	**51,732**	**563.2**	**65**	**0.7**	**9,325**	**101.5**	**42,342**	**461.0**
2013-2017 Average	880,097	44,240	502.7	73	0.8	9,230	104.9	34,937	397.0

*Vehicles registered exclude off-road vehicles, non-commercial snow vehicles, non-commercial trailers, non-farm tractors and PSV trailers.

Involvement in collisions per 10,000 vehicles registered is another way to view collision rates in a standardized format. It attempts to account for fluctuations in the total number of vehicles registered for use on Manitoba roadways.

In 2018, there are 563.2 collisions for every 10,000 vehicles registered in Manitoba, down 2% compared to the rate in 2017 (572.8) and up by 12% compared to the rate in the previous five year (2013 to 2017) annual average (502.7).

The changes in rate of involvement in collisions at each level of severity in 2018 vary compared to recent years. In 2018, there are 0.7 fatal collisions for every 10,000 vehicles, relatively unchanged compared to 2017 (rate of 0.7), and down by 14% from the previous five year (2013 to 2017) annual average (rate of 0.8). The involvement rate for injury collisions (101.5 in 2018) is down 5% from 2017 (rate of 107.1) and by 3% from the previous five year (2013 to 2017) annual average (rate of 104.9). Involvement in PDO collisions (461.0 in 2018) is down 1% compared to 2017 (rate of 465.1) and up by 16% compared to the previous five year (2013 to 2017) annual average (rate of 397.0).

Involvement rates between 2008 and 2018 for collisions in Manitoba, both per 10,000 licensed drivers and per 10,000 registered vehicles, are noted in Figures 1-1, 1-2, 1-3 and 1-4 on the following pages. The spike in rates for overall collisions, injury collisions, and PDO collisions in 2011 and 2012 is attributable to a change in the reporting requirements, discussed under the “Reportable Collisions” definition. Year over year changes in the 2018 collision rates, however, cannot be attributed to changes in what constitutes a reportable collision.

Figure 1-1 Involvement in Total Collisions by Licensed Drivers and Vehicles Registered

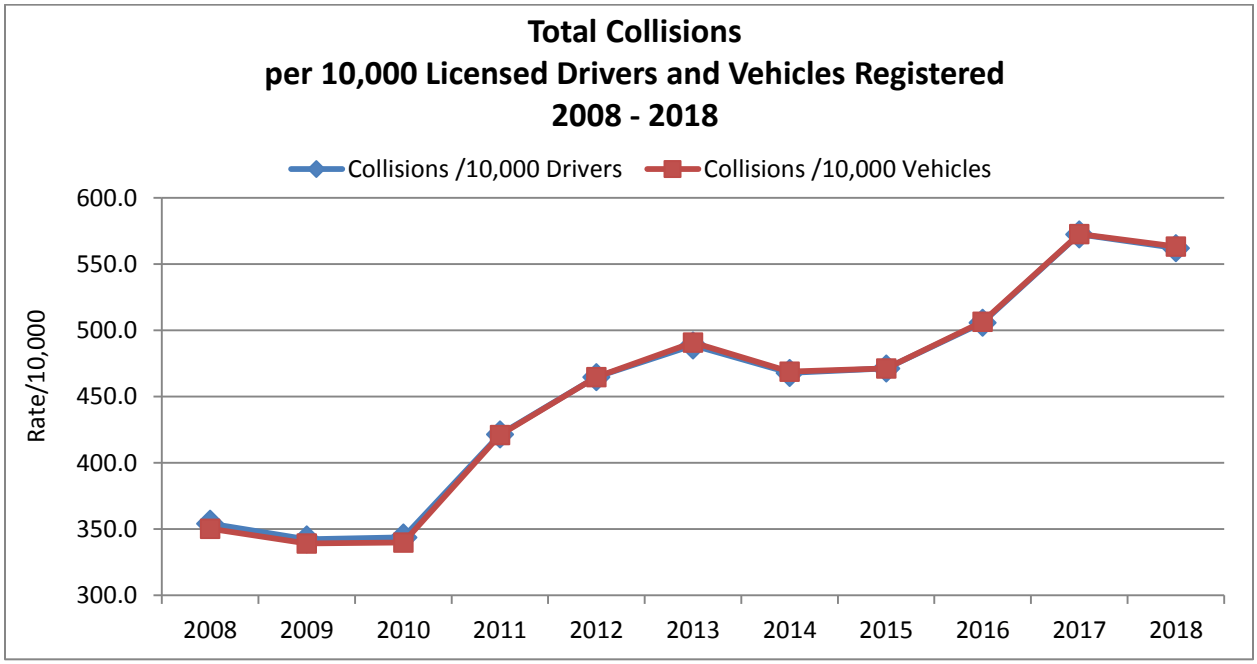


Figure 1-2 Involvement in Fatal Collisions by Licensed Drivers and Vehicles Registered

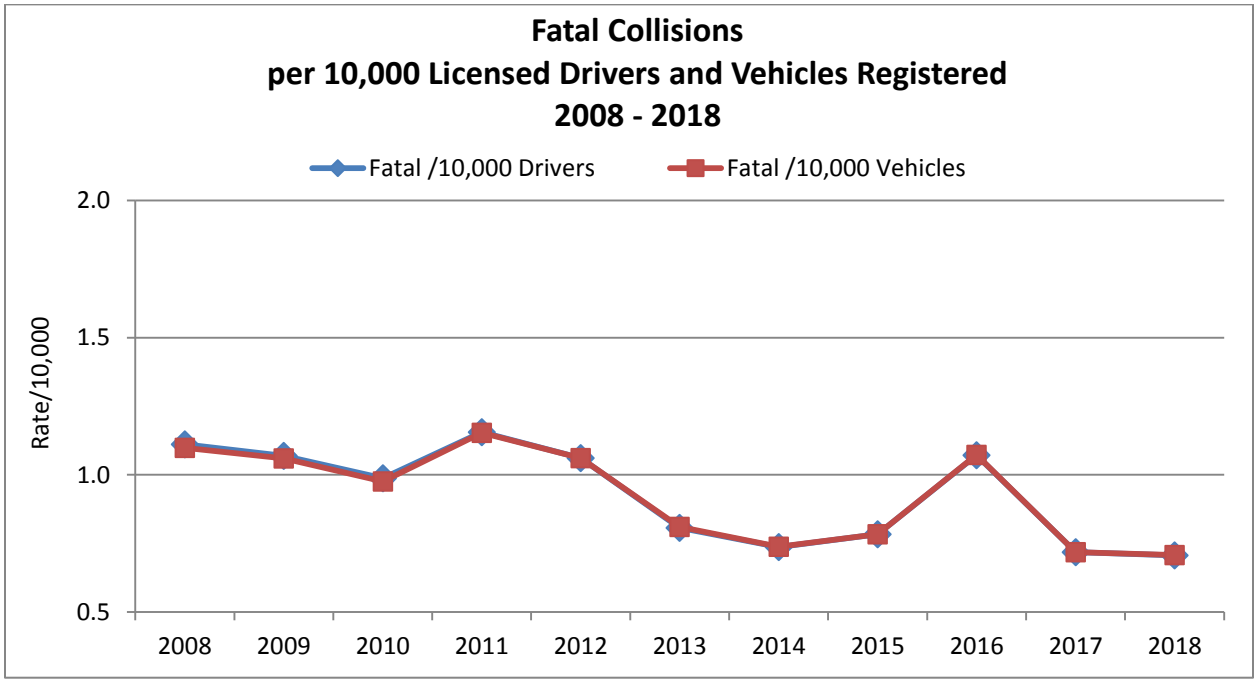


Figure 1-3 Involvement in Injury Collisions by Licensed Drivers and Vehicles Registered

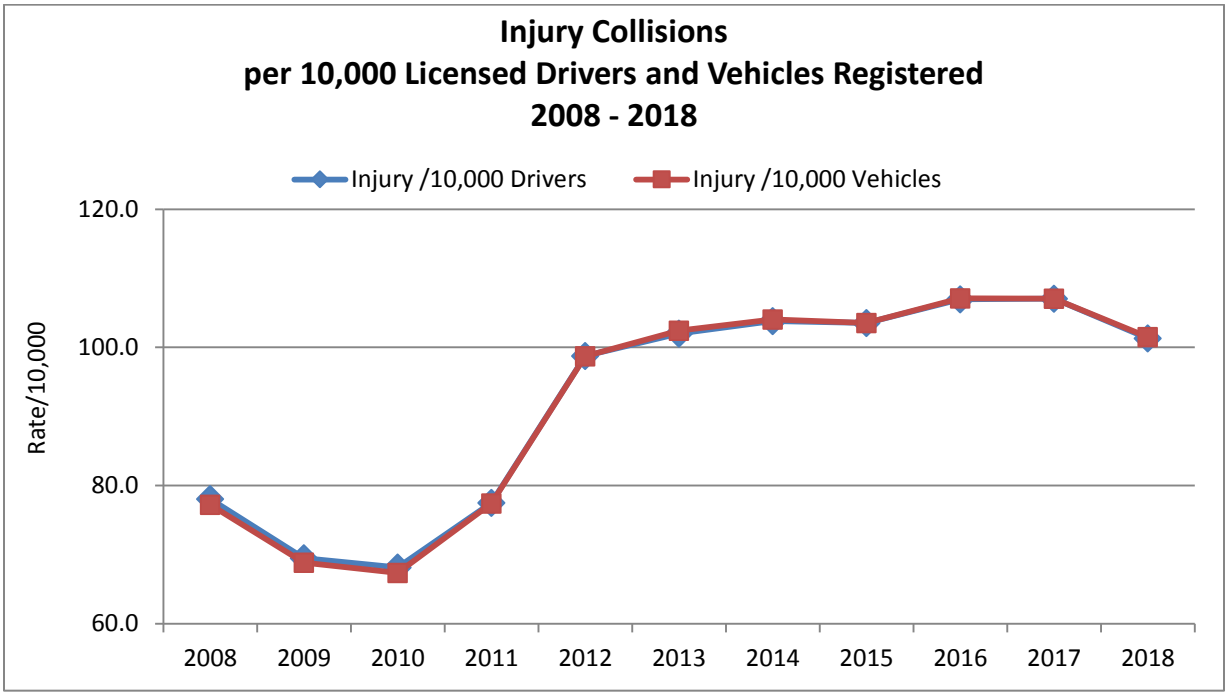


Figure 1-4 Involvement in Property Damage Only (PDO) Collisions by Licensed Drivers and Vehicles Registered

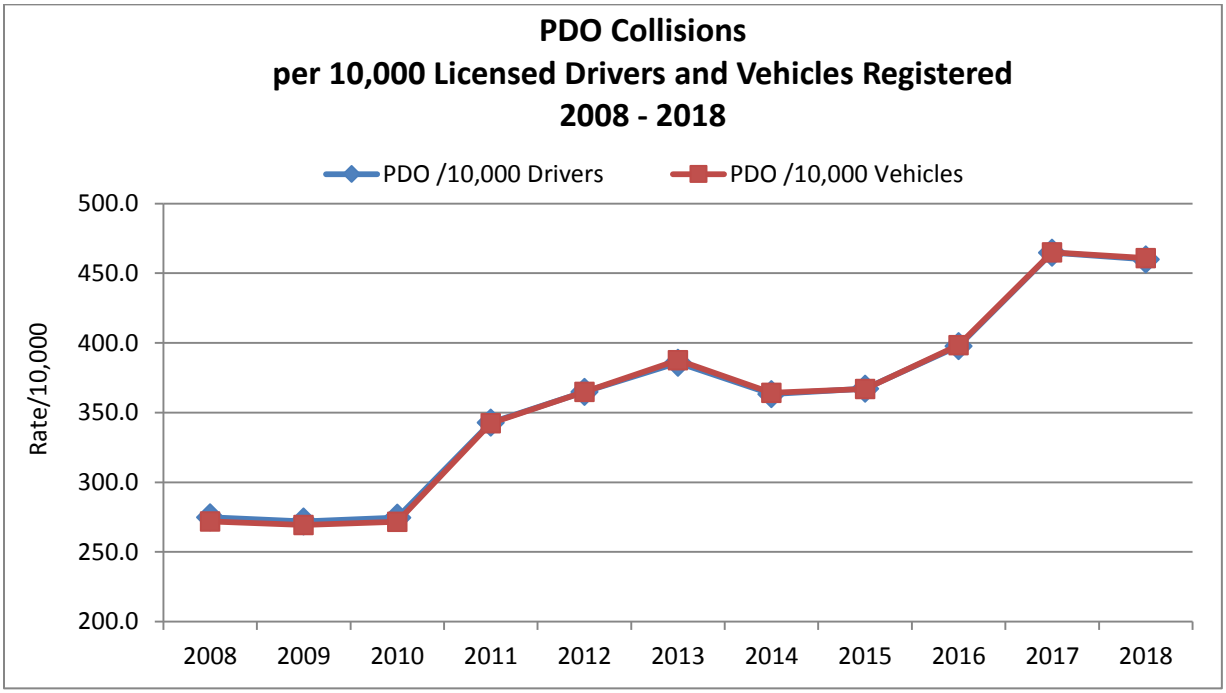


Table 1-4 Involvement (Total Collisions) per 10,000 Licensed Drivers by Age Group

Table 1-4
Involvement (Total Collisions) /10,000 Licensed Drivers by Age Group: 2008 to 2018

Age Group	Year											2013-2017 Average
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	**2018**	
16-19	771.7	756.1	737.3	890.8	1,095.7	1,068.3	982.5	969.1	993.0	1,051.9	**931.2**	1,005.3
20-24	673.8	648.8	630.4	851.6	1,114.4	1,121.0	1,059.8	1,035.3	1,079.7	1,135.5	**1,058.0**	1,098.0
25-34	493.2	460.6	470.5	671.8	860.0	920.8	871.5	826.0	867.5	914.3	**865.9**	904.5
35-44	450.5	444.0	432.1	586.9	741.6	811.3	777.2	736.8	779.1	842.5	**803.2**	801.2
45-54	402.9	393.0	397.9	524.2	645.0	698.4	668.6	652.7	696.0	742.8	**726.9**	683.2
55-64	347.6	340.4	353.0	441.6	529.8	554.4	540.4	519.3	551.0	575.4	**582.3**	560.7
65-74	296.9	289.8	285.0	366.9	416.9	458.1	441.2	414.2	447.5	479.7	**467.1**	469.1
75>	237.4	235.2	254.9	292.5	342.7	353.4	331.7	332.2	333.9	355.7	**357.6**	348.1

In 2018, the youngest driver age groups in Manitoba (16 to 19 and 20 to 24) continue to have the highest rates of involvement in collisions. At 931.2, the involvement rate of drivers aged 16 to 19 is:

- 12% lower than the rate of those aged 20 to 24;
- Nearly 8% higher than those aged 25 to 34;
- 16% higher than those aged 35 to 44;
- 28% higher than those aged 45 to 54;
- 60% higher than those aged 55 to 64; and,
- More than double the rate of those aged 65 and older.

Manitobans aged 20 to 24 have the highest rate of involvement in collisions in 2018. At 1,058.0, the involvement rate of drivers aged 20 to 24 is:

- 22% higher than those aged 25 to 34;
- 32% higher than those aged 35 to 44;
- Nearly 46% higher than those aged 45 to 54;
- 82% higher than those aged 55 to 64; and,
- Two and a half times the rate of those aged 65 and older.

Manitobans aged 25 to 34, while having a lower involvement rate than younger drivers, have a higher involvement rate than drivers in older age groups. At 865.9 in 2018, the involvement rate of drivers aged 25 to 34 is:

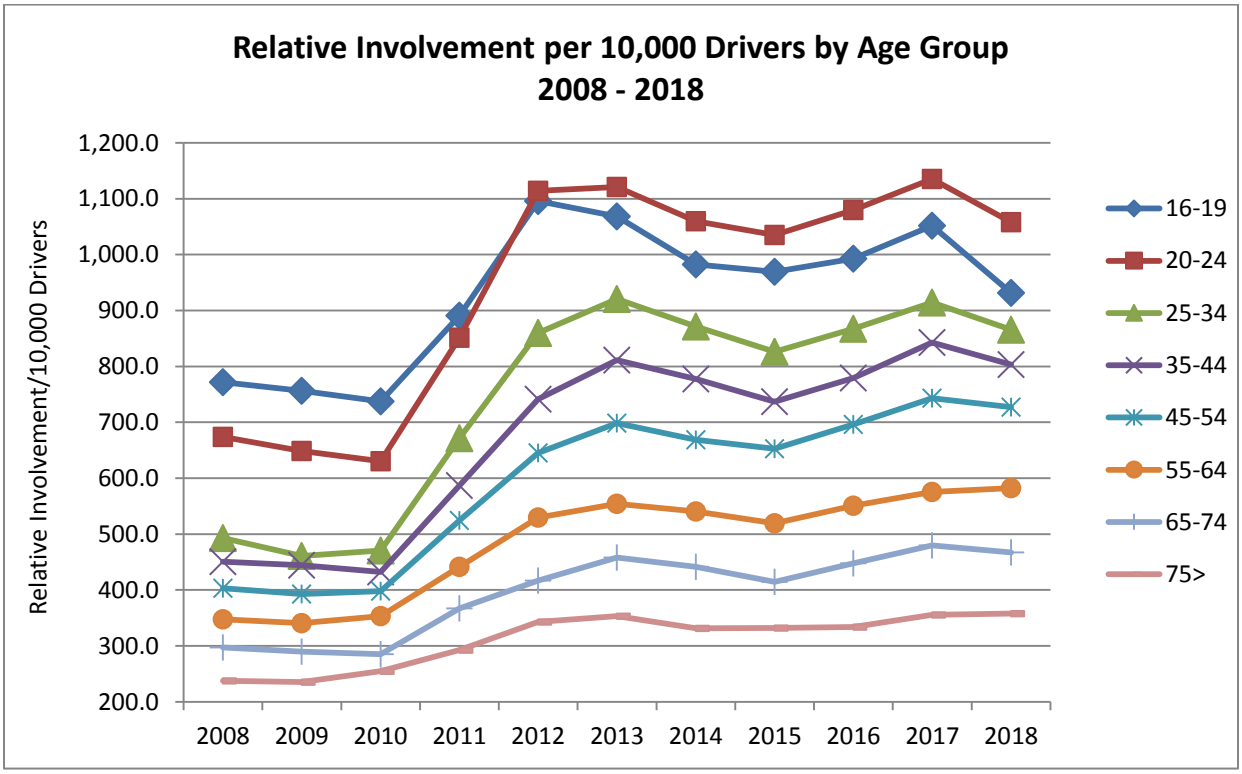
- 8% higher than those aged 35 to 44;
- 19% higher than those aged 45 to 54;
- 49% higher than those aged 55 to 64; and,
- More than double those aged 65 and older.

The involvement rate for drivers in each successive age group beginning at age 35 drops off consistently.

Collision involvement rates for drivers in most age groups have decreased in 2018 compared to 2017 and to the previous five year (2013 to 2017) annual average. Involvement per 10,000 licensed drivers in 2018 by age group:

- Age 16 to 19 – 931.2 in 2018, down nearly 12% compared to 2017 and by 7% compared to the previous five year annual average.
- Age 20 to 24 – 1,058.0 in 2018, down 7% compared to 2017 and by 4% compared to the previous five year annual average.
- Age 25 to 34 – 865.9 in 2018, down 5% compared to 2017 and by 4% compared to the previous five year annual average.
- Age 35 to 44 – 803.2 in 2018, down 5% compared to 2017 and is relatively unchanged compared to the previous five year annual average.
- Age 45 to 54 – 726.9 in 2018, down 2% compared to 2017 and up by 6% compared to the previous five year annual average.
- Age 55 to 64 – 582.3 in 2018, up 1% compared to 2017 and by 4% compared to the previous five year annual average.
- Age 65 to 74 – 467.1 in 2018, down 3% compared to 2017 and is relatively unchanged compared to the previous five year annual average.
- Age 75 and over – 357.6 in 2018, up nearly 1% compared to 2017 and by 3% compared to the previous five year annual average.

Figure 1-5 Involvement (per 10,000 Licensed Drivers) in Total Collisions by Age Group



SECTION 2 – Licensed Drivers

Introduction

This section deals with Active and Suspended Drivers by specific Age Groups, Gender and Manitoba Licence Class.

Key Highlights
There is an average of 920,414 licensed drivers in Manitoba in 2018, an increase of 2% compared to 2017. Of these:

- 95% are Active drivers, 5% are Suspended drivers;
- 52% are Male, 48% are Female;
- 68% are between the ages of 25 and 64; and
- Men account for 65% of all Suspended drivers in Manitoba.

There is an average of 73,822 licensed motorcycle drivers in Manitoba in 2018, an increase of 2% compared to 2017.

Major Elements Examined
Counts of licensed drivers in Manitoba for 2018 represent an average for the 2018 calendar year. That is, "point-in-time" observations (licensed drivers by age, licence class and gender) are recorded as of the first of each month and then an average for the year is calculated and reported. Due to rounding in this process, some columns and rows may not add to the total.

At the beginning of this section, there is a quick reference chart of Manitoba's Driver Licence and Vehicle Class descriptions. A review of these charts will indicate which Driver Licence Class is required to operate specific Vehicle Classes.

As it is a requirement for Class 6 licence holders to first possess a Class 1-5 licence prior to obtaining a Class 6 licence, Class 1 to 5 licence holders are discussed separately from Class 6 licence holders to avoid duplication of licence counts. Tables 2-6, 2-7, 2-8, 2-9 and 2-10 present the number of Class 6 active motorcycle licensed drivers by Gender, Age Group and Driver Licence Class.

Terms and Definitions
"Licence Class"

- A Manitoba Driver's Licence of a specific level which permits the holder to operate vehicles within a specific Vehicle Class.

"Vehicle Class"

- Category of vehicles meeting specific designations and specifications.

"Active drivers"

- Drivers holding an active Manitoba Driver's Licence of any specific Licence Class.

"Suspended drivers"

- Drivers holding a Manitoba Driver's Licence of any specific Licence Class who have been disqualified from driving for some reason. Although the list is extensive, some possible suspensions could be for driving violations, medical conditions, administrative suspensions and criminal code convictions.

"Graduated Driver Licensing (GDL)"

- A three-stage program designed to help new drivers, regardless of age, acquire the knowledge and skill needed to safely operate a motor vehicle. Each licence stage has specific rules and restrictions governing when and under what circumstances the holder is allowed to operate a motor vehicle, enabling novice drivers to gain more experience under a greater variety of driving conditions. Both Class 5 and Class 6 licences have a GDL stage associated with them.
- Three stages of GDL: Learner (5/L or 6/L); Intermediate (5/I or 6/I); and, Full (5/F or 6/F).
- To view a full discussion of the GDL program in Manitoba, please visit:
  - https://www.mpi.mb.ca/Pages/graduated-driver-licensing.aspx; ou en Français,
  - https://www.mpi.mb.ca/Pages/graduated-driver-licensing-fr.aspx

Chart 2-1 Class Licence System Quick Reference Chart

The Class Licence System

Manitoba Licence Class		Allows the Licence Holder to Operate	Minimum Age	Medical Requirements	Requirements
1		• Semi-trailer trucks[1]. • Includes all vehicles in Classes 2, 3, 4 and 5.	18	• Must meet medical and vision standards. • Medical report required on initial application and periodically thereafter based on the age of the driver. Medical report valid for six months from the date completed by physician. Must obtain Authorized Instruction within this six-month time frame.	• Must hold a minimum Class 5I (Intermediate Stage) licence or Class 5A (Authorized Instruction Stage) licence to obtain authorized instruction in Classes 1–4. • Must pass knowledge test. • Requires supervising driver for Authorized Instruction. • Must pass road test. For Classes 1, 2, 3 or 4 (buses and trucks only), the test includes a pre-trip inspection of vehicle (and air brake system if applicable) by the applicant.
2		• Buses[2] having a seating capacity of over 24 passengers (while carrying passengers). • School buses[3] having a seating capacity over 36 passengers (while carrying passengers). • Includes all vehicles in Classes 3, 4 and 5.			
3		• A truck with more than two axles. • A combination of vehicles that includes a truck with more than two axles (not including a semi-trailer truck[1]). • A combination of vehicles consisting of a truck with two axles or Class 5 passenger vehicle, and a towed vehicle with a registered gross vehicle weight of **more than** 4,540 kg. • Includes all vehicles in Classes 4 and 5.			
4		• Ambulances and other emergency vehicles. • Buses[2] with a seating capacity between 10 and 24 passengers (while carrying passengers). • School buses[3] with a seating capacity between 10 and 36 passengers (while carrying passengers). • Includes all vehicles in Class 5. *Note: Individual municipalities may require a Class 4 licence to operate a vehicle for hire – contact your municipality for information.*			
5		• A passenger car (other than Class 4 vehicles). • A bus[2] while not carrying passengers. • A truck with two axles. • A combination of vehicles consisting of a passenger car or a truck with two axles, and a towed vehicle with a registered gross vehicle weight of **up to** 4,540 kg. • May operate Class 3 vehicles registered as a farm truck and the driver holds a Class 5I (Intermediate stage) licence or 5F (Full stage) licence. • May operate a moped[4], if 16 years of age or older. • May operate a special mobile machine, implement of husbandry or tractor on a provincial highway, or a highway within the municipal boundaries of a city, town or urban municipality, subject to supervising driver requirements.	16 or 15½ if enrolled in a high school driver education course currently in progress	• Medical report required when requested. • Must meet vision standards.	• Must pass knowledge test for Class 5L (Learner Stage) licence (must wait seven days for re-test.) • Requires supervising driver for Class 5L (Learner Stage) or Class 5A (Authorized Instruction) licence. • Requires supervising driver for a Class 5I (Intermediate Stage) licence if carrying more than one passenger between the hours of midnight and 5 a.m. • Must pass road test to advance to the Intermediate Stage (Minimum 15 months). (Must wait 14 days for re-test. Professional instruction required if five or more tests are needed.)
6		• Motorcycles.	16	• Medical report required when requested. • Must meet vision standards.	• Driver must hold a valid licence of any class and stage. • Must pass knowledge test (must wait seven days for re-test). • Must obtain Class 6M (Motorcycle Training Course Stage) licence in order to complete motorcycle training course. The course is required before Class 6L (Learner Stage) licence is issued. (Contact Safety Services Manitoba for motorcycle course scheduling and fees.) • Minimum nine-month Learner Stage. • Must pass road test to advance to the Intermediate Stage (Minimum 15 months). (Must wait 14 days for re-test.)
Air Brake Endorsement		• Air brake endorsement permits the holder to drive vehicles equipped with air brakes in the class of vehicle for which the person is licensed. *Note: Drivers of a Class 3 truck registered as a farm truck equipped with air brakes are exempt from this requirement.*			• Must pass knowledge test. • Must pass Air Brake practical test for A (Authorized) endorsement. • Must pass adjustment of the manual slack adjusters for S (Slack Adjuster) endorsement. • No additional charge for the Air Brake practical test if it is completed at the same time you are road-tested for a higher class of licence.

1. A semi-trailer truck is a truck tractor and a semi-trailer combined.
2. A bus is any vehicle with a seating capacity of at least 11 persons (including the driver) used primarily to carry passengers. It excludes vehicles used for personal transportation by the owner or with the owner's permission.
3. School bus certificate is required. For further information, contact the Pupil Transportation Unit, Manitoba Education and Training at 204-945-6900.
4. Mopeds are not allowed to be driven on highways with a speed limit exceeding 80 km/h but may cross these highways.

Table 2-1 Class 1-5 Licensed Drivers by Year and Driver Status

Table 2-1
Class 1-5 Licensed Drivers by Year and Driver Status: 2008-2018

Licensing Year	Active Drivers	Suspended Drivers	Total Drivers	% Change to Previous Year
2008	744,049	20,965	765,014	-
2009	754,485	21,724	776,209	1.5%
2010	767,222	23,108	790,330	1.8%
2011	788,046	25,645	813,691	3.0%
2012	805,519	32,962	838,481	3.0%
2013	818,303	37,487	855,791	2.1%
2014	828,928	40,311	869,239	1.6%
2015	839,036	42,302	881,338	1.4%
2016	852,067	43,813	895,880	1.7%
2017	864,695	40,670	905,365	1.1%
2018	**876,350**	**44,064**	**920,414**	1.7%
Average 2013-2017	840,606	40,917	881,522	4.4%

Compared to 2017, the total number of licensed drivers in Manitoba in 2018 increased by 2% to 920,414. This is in line with historical increases seen in recent years; the rate of change over the past five years (2013-2017) was a nearly 2% increase on average each year. The total number of licensed drivers increased by 4% in 2018 compared to the previous five year (2013-2017) annual average.

The proportion of suspended drivers increased by 8% in 2018 compared to 2017, up to 44,064 from 40,670, respectively. The count of suspended drivers in 2018 is 8% higher than the previous five year (2013-2017) annual average.

Table 2-2 Class 1-5 Licensed Drivers by Age Group, Gender and Driver Status

Table 2-2
Class 1-5 Licensed Drivers by Age Group, Gender and Driver Status: 2018

Age Group	Gender	Active Drivers	Suspended Drivers	Total Drivers	% of "All Ages"	% Suspended in Category
16-17	Male	10,774	246	11,021	2.3	2.2
	Female	10,351	125	10,476	2.4	1.2
	Total	21,126	371	21,497	2.3	1.7
18-19	Male	13,283	575	13,858	2.9	4.1
	Female	12,319	381	12,700	2.9	3.0
	Total	25,603	956	26,559	2.9	3.6
20-24	Male	37,194	2,481	39,676	8.4	6.3
	Female	34,029	1,570	35,599	8.0	4.4
	Total	71,223	4,052	75,275	8.2	5.4
25-34	Male	78,898	5,895	84,793	17.8	7.0
	Female	76,461	3,667	80,128	18.0	4.6
	Total	155,359	9,562	164,921	17.9	5.8
35-44	Male	74,739	4,584	79,323	16.7	5.8
	Female	73,043	2,493	75,536	17.0	3.3
	Total	147,782	7,077	154,859	16.8	4.6
45-54	Male	73,802	4,014	77,816	16.4	5.2
	Female	71,003	1,717	72,720	16.3	2.4
	Total	144,805	5,731	150,535	16.4	3.8
55-64	Male	76,805	3,553	80,358	16.9	4.4
	Female	73,456	1,275	74,731	16.8	1.7
	Total	150,261	4,828	155,089	16.8	3.1
65-74	Male	51,688	2,304	53,992	11.4	4.3
	Female	50,518	1,083	51,601	11.6	2.1
	Total	102,206	3,387	105,593	11.5	3.2
75-84	Male	23,043	2,185	25,228	5.3	8.7
	Female	22,924	1,293	24,217	5.4	5.3
	Total	45,967	3,478	49,445	5.4	7.0
85+	Male	6,179	2,911	9,090	1.9	32.0
	Female	5,840	1,713	7,552	1.7	22.7
	Total	12,019	4,623	16,642	1.8	27.8
All Ages	Male	446,406	28,747	475,153	100.0	6.1
	Female	429,944	15,317	445,261	100.0	3.4
	Total	876,350	44,064	920,414	100.0	4.8

In 2018, the proportion of suspended drivers aged 75 or older is three times the proportion of suspended drivers under age 75 (12% of drivers aged 75 or older are suspended; 4% of drivers aged 16 to 74 are suspended).

Table 2-3 Class 1-5 Licensed Drivers by Licence Class, Driver Status and Gender

Table 2-3
Class 1-5 Licensed Drivers by License Class, Driver Status and Gender: 2018

License Class	Active Drivers				Suspended Drivers				Total	%
	Male	Female	Subtotal	%	Male	Female	Subtotal	%		
1	40,741	1,523	42,263	4.8	1,149	41	1,190	2.7	43,454	4.7
2	4,652	1,673	6,324	0.7	91	21	111	0.3	6,436	0.7
3	11,918	454	12,372	1.4	284	7	290	0.7	12,662	1.4
4	12,584	4,174	16,758	1.9	436	66	501	1.1	17,259	1.9
5/F	347,099	378,838	725,937	82.8	21,526	10,505	32,031	72.7	757,968	82.4
5/I	9,304	9,605	18,909	2.2	662	283	944	2.1	19,853	2.2
5/L	16,265	26,745	43,010	4.9	3,058	3,355	6,413	14.6	49,422	5.4
5/A	3,818	6,930	10,748	1.2	936	797	1,733	3.9	12,481	1.4
Other	27	3	29	<0.1	606	243	849	1.9	879	<0.1
Total	446,406	429,944	876,350	100.0	28,747	15,317	44,064	100.0	920,414	100.0

Manitoba Class 5 Driver's Licence Stages:

- 5/F Full Class 5 licence (including Full Stage Class 5 under Graduated Driver Licensing)
- 5/I Intermediate Stage under Graduated Driver Licensing
- 5/L Learner Stage under Graduated Driver Licensing
- 5/A Learner drivers who are not in Graduated Driver Licensing
- Other Unlicensed drivers assigned a licence number

The vast majority of Manitobans with a licence hold a Full Class 5 (82%). Novice drivers, holding either Learner (5/L) or an Intermediate (5/I) Stage licence, account for the next largest group (8% of all licensed drivers in Manitoba), followed by Class 1 licensed drivers (5%).

Very little has changed in the proportion of licence holders by class when comparing 2018 to 2017.

Table 2-4 Class 1-5 Male Drivers by Age Group, Driver Status and Licence Class

Table 2-4
Class 1-5 Male Drivers by Age Group, Driver Status and License Class: 2018

Age Group	Status	Licence Class										Total
		1	2	3	4	1-4/A	5/F	5/I	5/L	5/A	5 Other	
16-17	Active	0	0	0	0	0	702	4,491	5,580	2	0	10,774
	Suspended	0	0	0	0	0	124	46	76	0	1	246
	Subtotal	0	0	0	0	0	826	4,536	5,656	2	1	11,021
18-19	Active	102	1	22	55	2	8,132	2,037	2,818	115	0	13,283
	Suspended	2	0	0	0	0	262	76	232	1	1	575
	Subtotal	105	2	22	55	2	8,394	2,113	3,050	116	1	13,858
20-24	Active	1,621	38	526	795	4	28,548	1,491	3,686	486	0	37,194
	Suspended	29	0	12	7	0	1,291	201	910	32	0	2,481
	Subtotal	1,650	38	538	802	4	29,839	1,691	4,597	517	0	39,676
25-34	Active	6,797	334	2,190	2,953	11	61,677	905	2,898	1,133	0	78,898
	Suspended	147	5	41	66	1	3,741	273	1,398	210	12	5,895
	Subtotal	6,945	339	2,231	3,019	12	65,419	1,178	4,296	1,343	12	84,793
35-44	Active	8,048	673	2,123	3,279	5	58,593	278	745	994	0	74,739
	Suspended	237	11	49	65	0	3,362	54	310	306	190	4,584
	Subtotal	8,286	684	2,172	3,343	5	61,955	332	1,055	1,300	190	79,323
45-54	Active	9,459	1,135	2,289	2,827	3	57,118	82	321	569	0	73,802
	Suspended	292	22	49	99	0	3,085	10	84	174	198	4,014
	Subtotal	9,751	1,157	2,338	2,926	3	60,203	92	405	743	198	77,816
55-64	Active	9,901	1,574	3,208	2,029	2	59,583	19	164	326	0	76,805
	Suspended	227	30	55	104	0	2,870	2	38	93	134	3,553
	Subtotal	10,128	1,604	3,263	2,133	2	62,454	21	202	419	134	80,358
65-74	Active	4,129	776	1,339	590	0	44,663	2	47	140	0	51,688
	Suspended	127	14	44	67	0	1,970	0	9	35	39	2,304
	Subtotal	4,256	790	1,383	657	0	46,633	2	56	175	39	53,992
75-84	Active	662	119	209	54	0	21,951	0	5	44	0	23,043
	Suspended	69	6	24	21	0	2,017	0	1	39	9	2,185
	Subtotal	731	124	232	75	0	23,968	0	6	83	9	25,228
85+	Active	21	3	11	3	0	6,132	0	0	10	0	6,179
	Suspended	19	4	10	8	0	2,804	0	0	46	21	2,911
	Subtotal	40	6	22	11	0	8,936	0	0	56	21	9,090
Total	Active	40,741	4,652	11,918	12,584	27	347,099	9,304	16,265	3,818	0	446,406
	Suspended	1,149	91	284	436	1	21,526	662	3,058	936	605	28,747
	Total	41,890	4,742	12,201	13,020	28	368,625	9,966	19,322	4,754	605	475,153

Men aged 25 to 34 make up the largest number of licensed drivers in Manitoba (9% of all drivers; 18% of all male drivers), closely followed by men aged 55 to 64 (9% of all drivers; 17% of all male drivers).

Men aged 25 to 34 account for the largest proportion of suspended drivers under the age of 75 (16% of all suspended drivers; 25% of suspended male drivers).

Table 2-5 Class 1-5 Female Drivers by Age Group, Driver Status and Licence Class

Table 2-5
Class 1-5 Female Drivers by Age Group, Driver Status and License Class: 2018

Age Group	Status	License Class										Total
		1	2	3	4	1-4/A	5/F	5/I	5/L	5/A	5 Other	
16-17	Active	0	0	0	0	0	648	4,160	5,543	1	0	10,351
	Suspended	0	0	0	0	0	27	18	81	0	0	125
	Subtotal	0	0	0	0	0	674	4,178	5,624	1	0	10,476
18-19	Active	1	0	2	15	0	7,332	1,659	3,273	36	0	12,319
	Suspended	0	0	0	0	0	107	36	238	0	0	381
	Subtotal	1	0	2	15	0	7,439	1,695	3,511	36	0	12,700
20-24	Active	38	9	63	329	0	26,356	1,544	5,344	346	0	34,029
	Suspended	0	0	0	2	0	571	70	909	18	0	1,570
	Subtotal	38	9	63	331	0	26,927	1,614	6,253	364	0	35,599
25-34	Active	168	119	119	1,061	1	64,865	1,489	6,380	2,260	0	76,461
	Suspended	7	1	1	11	0	1,887	128	1,449	183	2	3,667
	Subtotal	174	120	120	1,072	1	66,751	1,618	7,829	2,442	2	80,128
35-44	Active	302	294	72	1,108	2	65,029	586	3,493	2,157	0	73,043
	Suspended	9	4	2	17	0	1,616	26	468	282	70	2,493
	Subtotal	311	298	74	1,125	2	66,644	613	3,961	2,439	70	75,536
45-54	Active	500	511	74	984	0	65,532	142	1,925	1,335	0	71,003
	Suspended	12	6	1	12	0	1,288	4	159	168	67	1,717
	Subtotal	512	516	75	996	0	66,820	147	2,083	1,504	67	72,720
55-64	Active	407	574	79	578	0	70,531	21	671	595	0	73,456
	Suspended	12	8	1	11	0	1,076	0	40	67	61	1,275
	Subtotal	419	582	81	588	0	71,607	21	711	662	61	74,731
65-74	Active	100	153	40	95	0	49,856	4	107	164	0	50,518
	Suspended	2	1	1	8	0	1,005	0	10	31	26	1,083
	Subtotal	103	154	41	103	0	50,860	4	116	195	26	51,601
75-84	Active	6	13	4	4	0	22,863	0	8	26	0	22,924
	Suspended	0	0	1	2	0	1,258	0	2	22	8	1,293
	Subtotal	6	13	5	6	0	24,121	0	10	48	8	24,217
85+	Active	0	0	1	0	0	5,827	0	1	10	0	5,840
	Suspended	0	1	0	4	0	1,671	0	0	27	10	1,713
	Subtotal	0	1	1	4	0	7,498	0	1	37	10	7,552
Total	Active	1,523	1,673	454	4,174	3	378,838	9,605	26,745	6,930	0	429,944
	Suspended	41	21	7	66	0	10,505	283	3,355	797	243	15,317
	Total	1,564	1,694	461	4,239	3	389,343	9,887	30,100	7,727	243	445,261

Women aged 25 to 34 make up the largest number of licensed female drivers in Manitoba (9% of all drivers; 18% of all female drivers), closely followed by women aged 35 to 44 (8% of all drivers; 17% of all female drivers).

Even though women account for almost half (48%) of all licensed drivers, they only account for 35% of suspended drivers in Manitoba. Women aged 25 to 34 account for the highest proportion of suspended female drivers under the age of 75 (30%).

Table 2-6 Total Class 6 Active Licensed Drivers by Year

Table 2-6
Total Class 6 Active Licensed Drivers by Year: 2008 to 2018

Licensing Year	Active Drivers	% Change to Previous Year
2008	58,486	-
2009	60,105	2.8%
2010	61,572	2.4%
2011	63,385	2.9%
2012	65,305	3.0%
2013	66,908	2.5%
2014	68,180	1.9%
2015	69,506	1.9%
2016	71,135	2.3%
2017	72,551	2.0%
2018	**73,822**	**1.8%**
Average 2013-2017	69,656	6.0%

In 2018, the number of motorcycle licence holders increased by 2% compared to 2017, in line with the annual average rate of change in the previous five years (2013-2017 – 2%). The total number of motorcycle licence holders increased by 6% in 2018 compared to the previous five year (2013-2017) annual average.

As discussed in the introduction of this section, Class 6 Motorcycle licence holders in Manitoba also hold a Class 1-5 licence due to a requirement for those wishing to obtain a Class 6 licence to first obtain a licence in any other class (1-5). Because of this, Class 6 licence holders cannot be added to Class 1-5 licence holders.

Also, a licence suspension is applicable to all licence classes held by a suspended driver. Therefore, suspended Class 6 licences are not counted or addressed in the following discussion; they have been covered in the previous discussions of suspended Class 1-5 licence holders.

Table 2-7 Class 6 Active Licensed Drivers by Age Group and Gender

Table 2-7
Class 6 Active Licensed Drivers by Age Group and Gender: 2018

Age Group	Gender	Active Drivers	%
16-17	Male	96	
	Female	14	
	Total	109	0.1
18-19	Male	347	
	Female	38	
	Total	385	0.5
20-24	Male	2,355	
	Female	310	
	Total	2,665	3.6
25-34	Male	8,118	
	Female	1,389	
	Total	9,507	12.9
35-44	Male	8,561	
	Female	1,622	
	Total	10,183	13.8
45-54	Male	13,018	
	Female	2,305	
	Total	15,324	20.8
55-64	Male	19,417	
	Female	2,872	
	Total	22,289	30.2
65-74	Male	10,257	
	Female	1,127	
	Total	11,385	15.4
75-84	Male	1,563	
	Female	129	
	Total	1,692	2.3
85+	Male	253	
	Female	31	
	Total	284	0.4
All Ages	Male	63,985	
	Female	9,837	
	Total	73,822	100.0

Men account for the majority of Class 6 licence holders (87% overall). Most Class 6 licence holders are between the ages 35 and 64 (65%). Men aged 35 to 64 make up nearly 56% of all Class 6 licence holders. Women in the same age group (aged 35 to 64) make up 9% of all Class 6 licence holders.

Table 2-8 Class 6 Active Licensed Drivers by Licence Class and Gender

Table 2-8
Class 6 Active Licensed Drivers by License Class and Gender: 2018

License Class	Active Drivers			
	Male	Female	Total	%
6/F	47,481	5,230	52,711	71.4
6/I	6	0	6	<0.1
6/L	9,974	2,898	12,872	17.4
6/A	2,986	396	3,382	4.6
6/M	3,539	1,312	4,851	6.6
Total	63,985	9,837	73,822	100.0

Manitoba Class 6 Driver's Licence Stages

6/F Full Class 6 licence (including Full Stage Class 6 under Graduated Driver Licensing)
6/I Intermediate Stage under Graduated Driver Licensing
6/L Learner Stage under Graduated Driver Licensing
6/A Learner drivers who are not in Graduated Driver Licensing
6/M Licence received after passing written test, entitling holder to take the Motorcycle Training Course

Under Manitoba's Graduated Driver Licensing (GDL) program, novice drivers are only required to complete the Intermediate Stage once. Credit for time served in the Intermediate Stage in Class 5 is given for the Intermediate Stage in Class 6. That is, if a novice driver completes the Intermediate stage of the GDL program for a Class 5 licence, they do not need to repeat the Intermediate Stage in order to obtain a Class 6 licence.

In 2018, Full Class 6 licence holders account for 71% of all Manitoba Class 6 licence holders and Learners account for 17%. This distribution is similar to 2017.

Table 2-9 Active Class 6 Male Drivers by Age Group and Licence Class

Table 2-9
Active Class 6 Male Drivers by Age Group and License Class: 2018

Age Group	License Class					Total	% of Total
	6/F	6/I	6/L	6/A	6/M		
16-17	5	5	60	0	26	96	0.1
18-19	51	1	192	1	102	347	0.5
20-24	480	0	1,240	54	581	2,355	3.7
25-34	2,611	0	3,770	316	1,420	8,118	12.7
35-44	4,486	0	2,334	1,004	737	8,561	13.4
45-54	10,360	0	1,296	995	366	13,018	20.3
55-64	17,952	0	788	481	196	19,417	30.3
65-74	9,809	0	255	109	84	10,257	16.0
75-84	1,479	0	36	23	25	1,563	2.4
85+	247	0	2	2	2	253	0.4
Total	47,481	6	9,974	2,986	3,539	63,985	

Table 2-10 Active Class 6 Female Drivers by Age Group and Licence Class

Table 2-10
Active Class 6 Female Drivers by Age Group and License Class: 2018

Age Group	License Class					Total	% of Total
	6/F	6/I	6/L	6/A	6/M		
16-17	0	0	7	0	6	14	0.1
18-19	5	0	15	0	18	38	0.4
20-24	33	0	172	0	105	310	3.1
25-34	233	0	748	15	393	1,389	14.1
35-44	503	0	733	108	278	1,622	16.5
45-54	1,190	0	730	137	248	2,305	23.4
55-64	2,114	0	447	107	204	2,872	29.2
65-74	997	0	45	27	58	1,127	11.5
75-84	124	0	0	3	2	129	1.3
85+	31	0	0	0	0	31	0.3
Total	5,230	0	2,898	396	1,312	9,837	

SECTION 3 – Vehicle Registrations

Introduction

This section deals with vehicle registrations and examines these by three major categories: Commercial; Non-Commercial; and, Snowmobiles (Recreational).

Key Highlights
There are a total of 974,610 Non-Commercial vehicles registered in Manitoba in 2018.

- This is a 1% increase over 2017 and a nearly 21% increase from 2008.
- This is a 4% increase over the average registrations for the period 2013-2017.

There are a total of 127,339 Commercial vehicles registered in Manitoba in 2018.

- This is a nearly 4% increase over 2017 and a 48% increase from 2008.
- This is a 14% increase over the average registrations for the period 2013-2017.

Overall, there is a 2% increase in the total vehicle registrations (commercial and non-commercial, combined) in Manitoba from 1,084,536 in 2017 to 1,101,949 in 2018.

There are a total of 34,943 Snowmobiles registered in Manitoba in 2018.

- There are 600 more registered snowmobiles in 2018 than in 2017 (a 2% increase); a 33% increase from 2008.
- This is a 3% increase over the average registrations for the period 2013-2017.

Major Elements Examined
Counts for each Commercial and Non-Commercial registration types represent an average registration over the twelve-month period January through December 2018. That is, active vehicle registrations as of the first of each month are recorded for each vehicle category and then an average for the year is calculated and reported. Counts for Snowmobiles use a similar “point-in-time” average calculation, but include December 2017 through to and including April 2018 to cover the snowmobile riding season.

Terms and Definitions
“Vehicle Class”

- Category of vehicles meeting specific designations and specifications
- Non-Commercial vehicle classes are vehicles registered for private use and include:
    - Passenger
    - Antique
    - Motorcycle/Moped
    - Truck
    - Farm Truck
    - Snow Vehicle
    - Trailer
    - Tractor (non-farm)
- Commercial vehicle classes are those involving vehicles registered to or for the use of a business and include:
    - Truck
    - Public Service Vehicles (PSV) Truck
    - Dealer/Repairer
    - Taxi/Livery
    - PSV Bus
    - Trailers
    - PSV Trailers
- A detailed description of each class noted above can be found in the “Glossary” of the Report

Table 3-1 Non Commercial Vehicle Class

Table 3-1
Non-Commercial Vehicle Class: 2018

Vehicle Class*	Total	%
Passenger	579,212	59.4
Antique	152	<0.1
Motorcycle/Moped	15,761	1.6
Truck	152,615	15.7
Farm Truck	43,563	4.5
Snow Vehicle	49	<0.1
Trailer	183,121	18.8
Tractor (Other than Farm-type)	137	<0.1
Total Non-Commercial Vehicles Registered	**974,610**	**100**
Snowmobiles (Recreational)		
Snowmobiles	34,943	

*For definition of these motor vehicle classes refer to the “Terms and Definitions” of this Section and “Glossary” of this Report.

Table 3-2 Commercial Vehicle Class

Table 3-2
Commercial Vehicle Class: 2018

Vehicle Class*	Total	%
Commercial Truck	43,037	33.8
Public Service Vehicle (PSV) Truck	15,558	12.2
Dealer and Repairer	6,548	5.1
Taxi/Livery/Limousine	310	0.2
Public Service Vehicle (PSV) Bus	217	0.2
Commercial Trailer	61,538	48.3
Public Service Vehicle (PSV) Trailer	132	0.1
Total Commercial Vehicles Registered	**127,339**	**100**

*For definition of these motor vehicle classes refer to the “Terms and Definitions” of this Section and “Glossary” of this Report.

Table 3-3 Vehicle Registration Summary

Table 3-3
Vehicle Registrations Summary: 2008 to 2018

Registration Class	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	5-year (2013-2017) Average	**2018**	% Change 2018 vs. 2017	% Change (2018 vs. 2013-2017 average)
Non-Commercial Vehicle Class														
Passenger	509,856	516,185	521,894	529,406	539,384	545,723	551,113	559,606	565,348	571,719	558,702	**579,212**	1.3	3.7
Antique**	84	77	95	103	131	134	133	136	145	145	139	**152**	4.9	9.5
Motorcycle/Moped	10,059	10,413	10,732	11,229	12,329	12,658	13,042	13,732	14,634	15,356	13,884	**15,761**	2.6	13.5
Truck	123,766	127,154	133,057	139,530	145,405	149,295	153,077	156,302	150,401	151,143	152,043	**152,615**	1.0	0.4
Farm Truck	44,073	43,746	43,517	42,942	43,384	43,361	43,517	43,749	43,908	43,702	43,647	**43,563**	-0.3	-0.2
Snow Vehicle**	47	49	50	48	46	43	45	49	48	49	47	**49**	-0.2	4.3
Trailer	120,891	127,080	134,358	143,249	154,603	160,451	165,492	170,778	175,160	179,244	170,225	**183,121**	2.2	7.6
Tractor (non-farm)	117	122	123	120	117	116	113	117	116	120	116	**137**	14.7	17.9
Subtotal	808,892	824,824	843,825	866,628	895,400	911,781	926,533	944,469	949,761	961,477	938,804	**974,610**	1.4	3.8
Commercial Vehicle Class														
Truck	26,123	26,851	27,690	28,928	30,391	31,407	32,227	33,521	40,161	42,160	35,895	**43,037**	2.1	19.9
PSV Truck	9,863	9,818	9,849	10,244	10,934	11,337	11,813	12,447	14,647	15,130	13,075	**15,558**	2.8	19.0
Dealer/Repairer	6,546	6,347	6,229	6,185	6,178	6,210	6,354	6,439	6,551	6,598	6,431	**6,548**	-0.8	1.8
Taxi/Livery	778	834	854	871	885	892	893	903	883	818	878	**310**	-62.2	-64.7
PSV Bus**	146	155	161	150	143	153	156	168	188	196	172	**217**	10.8	26.3
Trailers*	42,304	41,846	45,249	45,221	49,389	50,936	55,000	54,342	57,824	58,054	55,231	**61,538**	6.0	11.4
PSV Trailers**	51	57	57	57	71	78	82	87	101	104	90	**132**	27.0	45.5
Subtotal	85,811	85,909	90,089	91,655	97,991	101,012	106,525	107,907	120,355	123,059	111,772	**127,339**	3.5	13.9
Total Registrations - Non-Commercial and Commercial Vehicle Classes														
Total Registrations	894,703	910,732	933,914	958,283	993,390	1,012,793	1,033,058	1,052,376	1,070,115	1,084,536	1,050,576	**1,101,949**	1.6	4.9
Snowmobiles* **														
Total	26,359	27,664	28,064	30,421	30,650	32,851	34,280	33,735	34,061	34,344	33,854	**34,943**	1.7	3.2
Off-Road Vehicle Dealer Plates														
Total	473	464	454	471	469	505	518	529	562	568	537	**552**	-2.9	2.8

*Commercial trailers include semi-trailers.
**Due to small numbers, percentage change figures are expected to be somewhat erratic year-over-year and should be interpreted with extreme caution.
***Snowmobile registration count reflects the average number of active policies at a point in time during the riding season, from December to April (e.g., for 2018, December 2017 through April 2018, inclusive).

The total count of vehicles registered in Manitoba in 2018 (1,101,949) has increased by 2% compared to 2017. This increase is in line with year-over-year increases seen in previous years. The count of registered vehicles in 2018 is 5% higher than the five year (2013-2017) annual average.

The total increase in overall vehicle registrations in 2018 comes from an increase in both non-commercial and commercial vehicle registrations. Non-Commercial vehicle registrations increased by 1% in 2018 compared to 2017. Commercial vehicle registrations increased by nearly 4% in 2018 compared to 2017.

Snowmobile registrations increased by 2% in 2018 over 2017, and by 3% compared to the five year (2013-2017) annual average.

SECTION 4 – Traffic Collisions

Introduction

This section counts the number of collisions in Manitoba and provides detail for collisions of different severity: fatal, injury and property damage only (PDO). Historical information regarding the number of collisions, the number of victims, the number of vehicles and the number of drivers involved in collisions over the ten year period 2008 to 2017 is presented and compared to 2018. Details are provided for 2018 traffic collisions in terms of the month of occurrence, day of the week, time of day, weather and road conditions, location and type of collision.

Key Highlights

In 2018, there are 12,057 victims from 51,732 collisions involving 70,244 vehicles and 66,606 drivers. Of the 51,732 collisions:

- 65 are fatal collisions involving 98 vehicles and 95 drivers, resulting in 70 people killed and 47 people injured;
- 9,325 are injury collisions involving 15,975 vehicles and 15,752 drivers, resulting in 11,940 people injured; and,
- 42,342 are PDO collisions involving 54,171 vehicles and 50,759 drivers.

Collisions on public roadways in Manitoba in 2018 most frequently occur:

- In Winnipeg (nearly 61% of all collisions; nearly 19% of fatal, 78% of injury and 57% of PDO collisions) and in rural locations (23% of all collisions, nearly 59% of fatal, 11% of injury and 26% of PDO collisions);
- In the months of January, November and December – 32% of all collisions; nearly 19% of fatal, 32% of injury and 32% of PDO collisions;
- On Fridays - Friday accounts for 17% of all collisions; 26% of fatal, 17% of injury and 17% of PDO collisions; and,
- Between the hours of 3 and 6 p.m. (15:00 to 17:59) – 24% of all collisions; 15% of fatal, 29% of injury and 23% of PDO collisions.

Collisions on public roadways in Manitoba in 2018 are most frequently:

- “Motor vehicle to motor vehicle” in nature – 62% of all collisions; 52% of fatal, 83% of injury and 57% of PDO collisions; and,
- “Rear end” collisions (37% of all collisions), collisions occurring at 90° intersections (nearly 15% of all collisions), collisions involving a fixed object (14% of all collisions) and side-swipe collisions (13% of all collisions).

Major Elements Examined

Counts of collisions in Manitoba for 2018 and previous years are taken from Traffic Accident Reports (TARs) completed by Manitoba Public Insurance and law enforcement agencies, and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, fatal collisions, injury collisions, and property damage only (PDO) collisions.

Collisions, victims, vehicles and drivers are presented separately at the beginning of this section with counts provided for the years 2008 through 2018. Following that, the majority of this section explores traffic collisions occurring in 2018 and provides comparisons to annual average counts of collisions for the time period 2013 to 2017.

It is important to note that the number of collisions is not equal to the number of victims as each collision can result in multiple victims. Likewise, the number of vehicles involved is not equal to the number of drivers involved as a driverless vehicle (e.g., a parked car; vehicles that do not have a licensed driver) could be involved in a collision.

“Drivers” in this section refers to the number of drivers involved in collisions. It excludes pedestrians, bicyclists, snowmobiles, off-road vehicles, farm and construction equipment, trains and parked vehicles.

The terms ‘crash’, ‘collision’, and ‘accident’ are used interchangeably in this report.

The terms 'fatally injured' and 'killed' are used interchangeably in this report.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Likewise, average calculations are presented for historical data from the years 2013 to 2017. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions can have a significant effect on statistics such as percentage change to previous years and involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

Terms and Definitions

"Collision Severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Collision Type"

- Refers to the object struck by a motor vehicle during a collision (including: a pedestrian, another motor vehicle, a train, a motorcycle, a bicycle, an animal, and fixed objects) or to what happened to the vehicle in a single-vehicle collision (including: overturned on roadway and ran off roadway).

"Urban Location"

- Collisions occurring within the municipal boundaries of urban locations, including Winnipeg, Brandon, Portage la Prairie, Flin Flon, Dauphin, Thompson, The Pas, Selkirk and others.

"Rural Location"

- Collisions occurring on primary highways, secondary highways and local roadways, including the Trans Canada Highway and excluding those that occur within the municipal boundaries of an urban area.

"Accident Configuration"

- Briefly describes the action taken by a vehicle immediately prior to or at the start of the collision, including such events as rear-ending another vehicle, side-swiping another vehicle, turning into (the path of) another vehicle, parking, meeting another vehicle at an intersection and/or leaving the roadway.
- "Other" in terms of accident configuration includes collisions involving more than one configuration or sequence of events.

Table 4-1 Historical Summary of Traffic Collisions

Table 4-1
Historical Summary of Traffic Collisions: 2008 to 2018

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	**2018**	2013-2017 Average
Total Collisions	27,092	26,578	27,172	34,302	38,972	41,819	40,672	41,548	45,316	51,844	**51,732**	44,240
Fatal	85	83	78	94	89	69	64	69	96	65	**65**	73
Injury	5,974	5,396	5,386	6,309	8,280	8,729	9,023	9,127	9,582	9,691	**9,325**	9,230
PDO	21,033	21,099	21,708	27,899	30,603	33,021	31,585	32,352	35,638	42,088	**42,342**	34,937
Total Victims	7,924	7,302	7,130	8,337	10,623	11,234	11,676	12,017	12,653	12,659	**12,057**	12,048
Killed	92	86	87	110	96	85	68	78	107	73	**70**	82
Injured	7,832	7,216	7,043	8,227	10,527	11,149	11,608	11,939	12,546	12,586	**11,987**	11,966
Total Vehicles Involved	44,555	43,610	44,979	53,516	59,556	64,316	62,277	61,711	66,063	72,055	**70,244**	65,284
Fatal	141	126	110	141	126	111	95	106	143	88	**98**	109
Injury	10,219	9,268	9,358	10,956	14,802	15,663	16,233	16,184	16,927	16,748	**15,975**	16,351
PDO	34,195	34,216	35,511	42,419	44,628	48,542	45,949	45,421	48,993	55,219	**54,171**	48,825
Total Drivers Involved	42,120	41,097	42,310	51,279	58,877	63,501	61,294	59,716	63,839	68,447	**66,606**	63,359
Fatal	121	120	105	130	119	106	90	103	138	85	**95**	104
Injury	9,854	8,938	8,969	10,644	14,696	15,539	16,120	16,088	16,753	16,531	**15,752**	16,206
PDO	32,145	32,039	33,236	40,505	44,062	47,856	45,084	43,525	46,948	51,831	**50,759**	47,049

In 2018, there are 12,057 victims from 51,732 collisions involving 70,244 vehicles and 66,606 drivers. Of the 51,732 collisions:

- 65 are fatal collisions involving 98 vehicles and 95 drivers, resulting in 70 people killed and 47 people injured;
- 9,325 are injury collisions involving 15,975 vehicles and 15,752 drivers, resulting in 11,940 people injured; and,
- 42,342 are PDO collisions involving 54,171 vehicles and 50,759 drivers.

Total collisions in 2018 decreased slightly compared to 2017 but increased by 17% compared to the number of collisions in the previous five year (2013 to 2017) annual average.

- Fatal collisions are the same compared to 2017 and decreased by nearly 11% compared to the previous five years.
- Injury collisions decreased by 4% compared to 2017 but increased by 1% compared to the previous five years.
- PDO collisions increased by 1% compared to 2017 and by 21% compared to the previous five years.

The total number of collision victims in 2018 is down 5% compared to 2017 and is relatively unchanged compared to the previous five year (2013 to 2017) annual average. The number of people killed in collisions in 2018 decreased by 4% (a count of 3) compared to 2017 and by 15% compared to the previous five years. The count of people killed in 2018 is among the lowest in the last ten years.

The total number of drivers involved in collisions in 2018 is down 3% compared to 2017 and up by 5% compared to the previous five year (2013 to 2017) annual average. The number of vehicles involved in collisions in 2018 is down nearly 3% from 2017 and up by 8% compared to the previous five years.

Figure 4-1 Historical Summary – Count of Traffic Collisions, Victims, Vehicles and Drivers

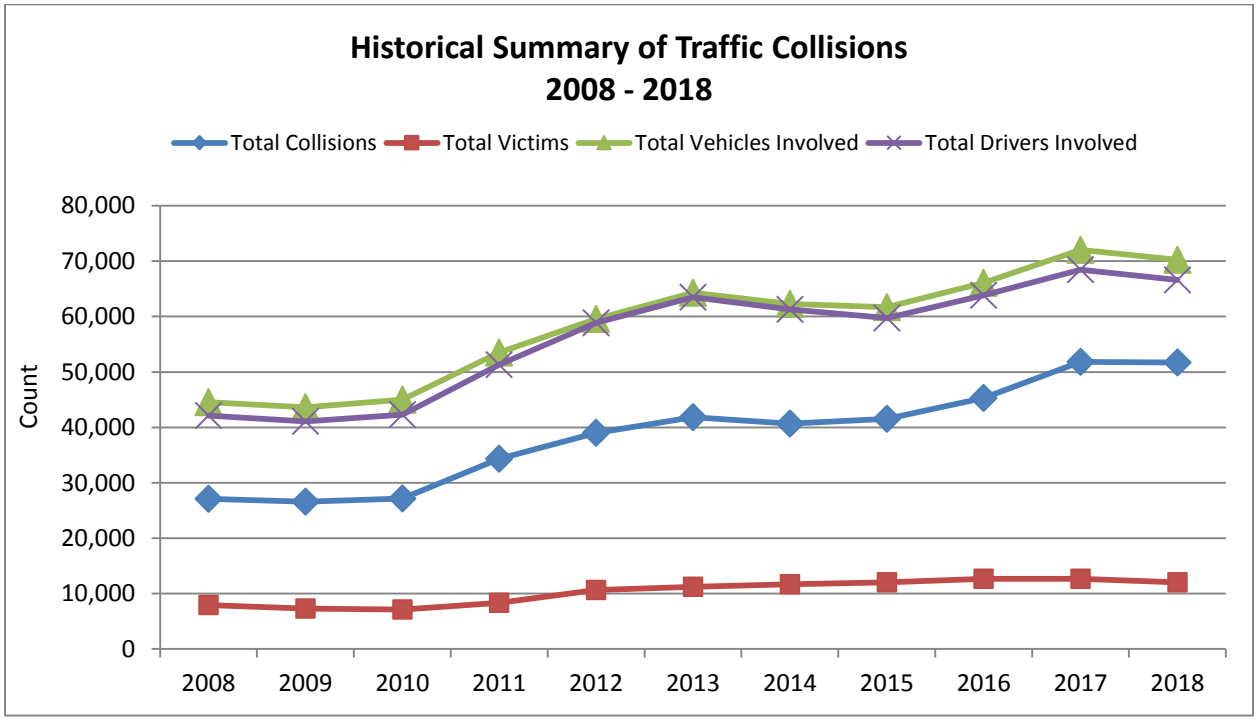


Table 4-2 Traffic Collisions by Month of Occurrence and Collision Severity

Table 4-2
Traffic Collisions by Month of Occurrence and Collision Severity: 2018, 2013-2017 Average

Month	2018 Collision Severity						**2018 Total**	% of 2018 Total	2013-2017 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
January	4	6.2%	1,189	12.8%	4,638	11.0%	**5,831**	11.3%	3	1,098	4,187	5,288	12.0%
February	7	10.8%	978	10.5%	3,775	8.9%	**4,760**	9.2%	3	857	3,198	4,058	9.2%
March	5	7.7%	730	7.8%	3,269	7.7%	**4,004**	7.7%	3	730	2,878	3,611	8.2%
April	3	4.6%	559	6.0%	2,700	6.4%	**3,262**	6.3%	5	549	2,221	2,775	6.3%
May	8	12.3%	655	7.0%	2,827	6.7%	**3,490**	6.7%	6	625	2,202	2,833	6.4%
June	8	12.3%	642	6.9%	2,982	7.0%	**3,632**	7.0%	7	639	2,382	3,028	6.8%
July	7	10.8%	618	6.6%	2,899	6.8%	**3,524**	6.8%	10	615	2,362	2,987	6.8%
August	8	12.3%	639	6.9%	3,087	7.3%	**3,734**	7.2%	9	653	2,251	2,913	6.6%
September	5	7.7%	718	7.7%	3,248	7.7%	**3,971**	7.7%	8	689	2,464	3,161	7.1%
October	2	3.1%	785	8.4%	3,854	9.1%	**4,641**	9.0%	8	765	2,820	3,594	8.1%
November	6	9.2%	866	9.3%	4,625	10.9%	**5,497**	10.6%	6	934	3,789	4,729	10.7%
December	2	3.1%	946	10.1%	4,438	10.5%	**5,386**	10.4%	4	1,076	4,182	5,263	11.9%
Total	65	100%	9,325	100%	42,342	100%	**51,732**	100%	73	9,230	34,937	44,240	100%

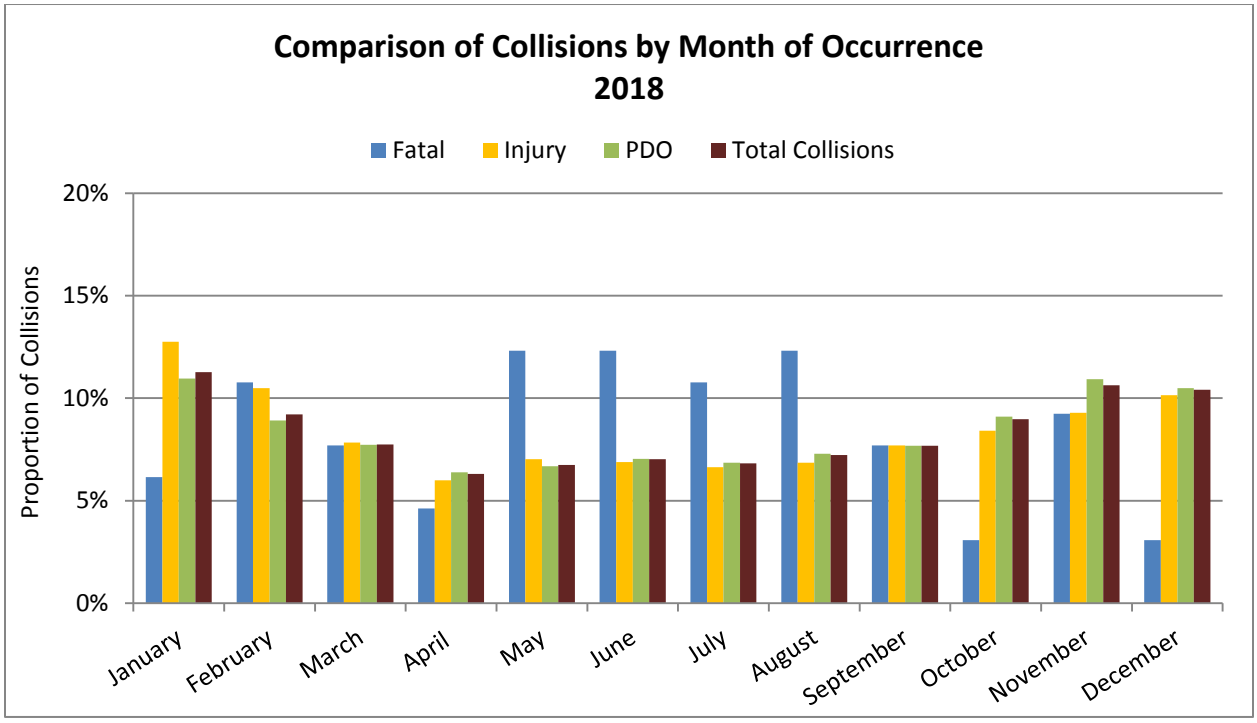
Note: Counts of collisions in the 2013-2017 average may not add to the total due to rounding.

In 2018, one-third (32%) of all collisions in Manitoba happened in the months of January, November and December. In the previous five year period (2013 to 2017), these months accounted for an average of nearly 35% of all collisions. In 2018, January, November and December (combined), account for:

- Nearly 19% of all fatal collisions;
- 32% of all injury collisions; and,
- 32% of all PDO collisions.

Fatal collisions in 2018 occur most often in February, May, June, July, and August (nearly 59% of fatal crashes combined). Comparatively, 48% of fatal collisions occur in these months during the previous five years.

Figure 4-2 Traffic Collisions by Month of Occurrence and Collision Severity



In 2018, injury collisions and PDO collisions occur most frequently in the months of November through February (43% of injury collisions and 41% of PDO collisions). In the previous five year period (2013 to 2017), these months account for 43% of injury collisions and 44% of PDO collisions.

Table 4-3 Traffic Collisions by Day of Occurrence and Collision Severity

Table 4-3
Traffic Collisions by Day of Occurrence and Collision Severity: 2018, 2013-2017 Average

Day of Week	2018 Collision Severity						**2018 Total**	% of 2018 Total	2013-2017 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Sunday	14	21.5%	846	9.1%	4,382	10.3%	**5,242**	10.1%	12	843	3,721	4,576	10.3%
Monday	2	3.1%	1,285	13.8%	5,811	13.7%	**7,098**	13.7%	10	1,340	4,927	6,277	14.2%
Tuesday	6	9.2%	1,500	16.1%	6,233	14.7%	**7,739**	15.0%	8	1,449	5,138	6,595	14.9%
Wednesday	5	7.7%	1,452	15.6%	6,434	15.2%	**7,891**	15.3%	10	1,449	5,262	6,721	15.2%
Thursday	9	13.8%	1,581	17.0%	6,907	16.3%	**8,497**	16.4%	8	1,462	5,257	6,727	15.2%
Friday	17	26.2%	1,599	17.1%	7,213	17.0%	**8,829**	17.1%	11	1,581	6,004	7,596	17.2%
Saturday	12	18.5%	1,062	11.4%	5,362	12.7%	**6,436**	12.4%	13	1,107	4,629	5,749	13.0%
Total	65	100%	9,325	100%	42,342	100%	**51,732**	100%	73	9,230	34,937	44,240	100%

Note: Counts of collisions in the 2013-2017 average may not add to the total due to rounding.

Collisions in 2018 most frequently occur on weekdays. Monday through Friday combined account for 77% of all collisions, 60% of fatal collisions, nearly 80% of injury collisions and 77% of PDO collisions. In the previous five year (2013 to 2017) annual average, weekdays account for the same proportions (77% of all collisions; 66% fatal; 79% injury; 76% PDO).

Overall, Friday accounts for the single largest proportion of collisions in 2018; this is also the case in the previous five year (2013 to 2017) annual average. Friday accounts for:

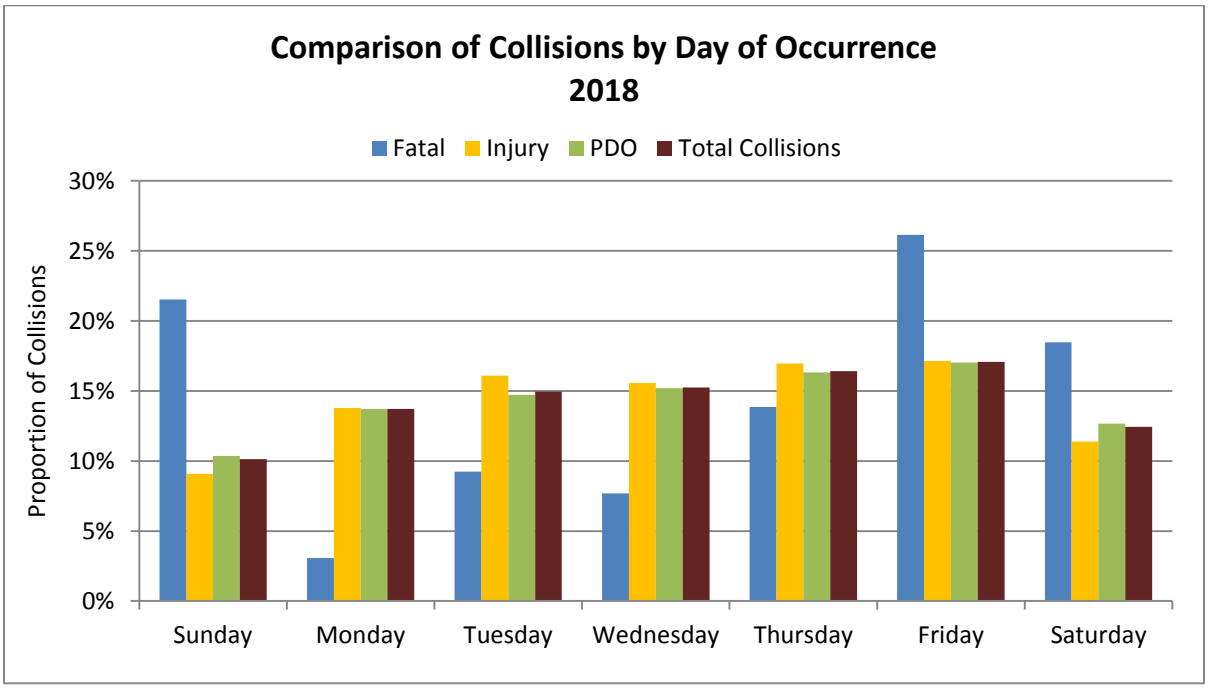
- 17% of all collisions in 2018 and in the previous five years;
- 26% of fatal collisions in 2018 and 16% in the previous five years;
- 17% of injury collisions in 2018 and in the previous five years; and,
- 17% of PDO collisions in 2018 and in the previous five years.

Weekends, including Friday, Saturday and Sunday combined, account for:

- 40% of all collisions in 2018 and nearly 41% in the previous five years (2013 to 2017);
- 66% of fatal collisions in 2018 and 50% in the previous five years;
- 38% of injury collisions in 2018 and in the previous five years; and,
- 40% of PDO collisions in 2018 and 41% in the previous five years.

Fridays are unique, accounting for the highest proportion of overall, fatal, injury, and PDO collisions by day of the week (17% of all collisions; 26% of fatal, 17% of injury and 17% of PDO collisions). Friday can be included as a weekday and as a weekend, and will affect any interpretation of crash prevalence depending on where it is grouped.

Figure 4-3 Traffic Collisions by Day of Occurrence and Collision Severity



In 2018, fatal collisions occur most often on Friday (count of 17 or 26% of fatal collisions). In the previous five year (2013 to 2017) annual average, Saturdays account for the highest number of fatal crashes (count of 13; 17% of fatal collisions), closely followed by Sundays (count of 12; 17%).

Table 4-4 Traffic Collisions by Time of Occurrence and Collision Severity

Table 4-4
Traffic Collisions by Time of Occurrence and Collision Severity: 2018, 2013-2017 Average

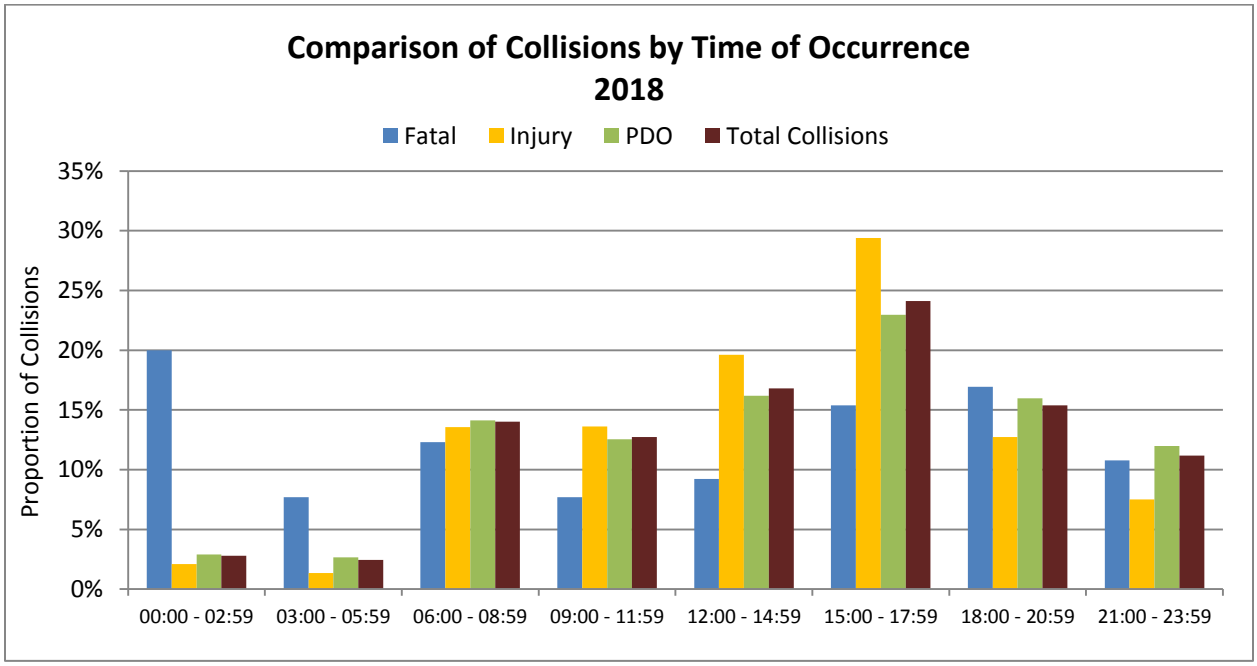
Time	2018 Collision Severity						**2018 Total**	% of 2018 Total	2013-2017 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
00:00 - 02:59	13	20.0%	196	2.1%	1230	2.9%	**1,439**	2.8%	5	206	1,071	1,281	2.9%
03:00 - 05:59	5	7.7%	126	1.4%	1,129	2.7%	**1,260**	2.4%	4	117	849	970	2.2%
06:00 - 08:59	8	12.3%	1,265	13.6%	5,976	14.1%	**7,249**	14.0%	8	1,244	4,651	5,902	13.3%
09:00 - 11:59	5	7.7%	1,270	13.6%	5,312	12.5%	**6,587**	12.7%	10	1,303	4,717	6,030	13.6%
12:00 - 14:59	6	9.2%	1,828	19.6%	6,852	16.2%	**8,686**	16.8%	10	1,825	5,972	7,807	17.6%
15:00 - 17:59	10	15.4%	2,741	29.4%	9,727	23.0%	**12,478**	24.1%	11	2,639	8,095	10,746	24.3%
18:00 - 20:59	11	16.9%	1,186	12.7%	6,764	16.0%	**7,961**	15.4%	11	1,232	5,316	6,559	14.8%
21:00 - 23:59	7	10.8%	699	7.5%	5,076	12.0%	**5,782**	11.2%	11	636	4,036	4,683	10.6%
Not Stated	0	-	14	0.2%	276	0.7%	**290**	0.6%	3	29	230	262	0.6%
Total	65	100%	9,325	100%	42,342	100%	**51,732**	100%	73	9,230	34,937	44,240	100%

Note: Counts of collisions in the 2013-2017 average may not add to the total due to rounding.

Four in ten collisions in 2018 occur between noon and 6 p.m. (41% of all collisions, 25% of fatal collisions, 49% of injury collisions, and 39% of PDO collisions). This is consistent with the proportion of collisions occurring during these hours in the previous five year (2013 to 2017) annual average (42% of all collisions, nearly 30% of fatal collisions, 48% of injury collisions, and 40% of PDO collisions).

The largest proportion of total traffic collisions in 2018 occur between 3 and 6 p.m. (15:00 – 17:59), what is often considered the "afternoon rush". Almost one in four (24%) collisions occur during these hours (15% of fatal collisions, 29% of injury collisions and 23% of PDO collisions). This is consistent with the proportion of collisions occurring during these hours in the previous five year (2013 to 2017) annual average.

Figure 4-4 Traffic Collisions by Time of Occurrence and Collision Severity



In 2018, 43% of fatal crashes occur between 3 p.m. and midnight, while another 20% of fatal crashes occur between midnight and 3 a.m.

Table 4-5 Traffic Collisions by Provincial Location and Collision Severity

Table 4-5
Traffic Collisions by Provincial Location and Collision Severity: 2018, 2013-2017 Average

Location	2018 Collision Severity						**2018 Total**	% of 2018 Total	2013-2017 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Winnipeg	12	18.5%	7,297	78.3%	23,991	56.7%	**31,300**	60.5%	12	7,039	20,873	27,924	63.1%
Brandon	0	-	232	2.5%	1,232	2.9%	**1,464**	2.8%	<1	217	1,076	1,293	2.9%
Portage	2	3.1%	52	0.6%	255	0.6%	**309**	0.6%	<1	54	267	322	0.7%
Flin Flon	0	-	6	<0.1%	86	0.2%	**92**	0.2%	<1	3	73	76	0.2%
Dauphin	0	-	32	0.3%	173	0.4%	**205**	0.4%	1	31	167	199	0.5%
Thompson	0	-	33	0.4%	237	0.6%	**270**	0.5%	<1	30	226	257	0.6%
The Pas	0	-	11	0.1%	166	0.4%	**177**	0.3%	-	15	138	153	0.3%
Selkirk	0	-	62	0.7%	286	0.7%	**348**	0.7%	<1	69	260	330	0.7%
Other Urban	13	20.0%	552	5.9%	4,884	11.5%	**5,449**	10.5%	7	596	4,222	4,825	10.9%
All Rural	38	58.5%	1,048	11.2%	11,032	26.1%	**12,118**	23.4%	49	1,177	7,635	8,862	20.0%
Total	65	100%	9,325	100%	42,341	100%	**51,732**	100%	73	9,230	34,937	44,240	100%

Note: Counts of collisions in the 2013-2017 average may not add to the total due to rounding.

Urban locations account for 77% of collisions in Manitoba, but only nearly 42% of fatal collisions in 2018 (89% of injury collisions; 74% of PDO collisions). Rural locations account for 23% of all collisions, but nearly 59% of fatal collisions. This is consistent with historical results. In the previous five year period (2013 to 2017), urban locations accounted for an average of 80% of all collisions, 29% of fatal collisions, 87% of injury collisions, and 78% of PDO collisions.

In 2018, nearly 61% of traffic collisions occur in Winnipeg while other urban locations (including Brandon, Portage, Flin Flon, Dauphin, Thompson, The Pas, Selkirk and "Other urban") account for 16% of all collisions. In the previous five year (2013 to 2017) annual average, 63% of all collisions occur in Winnipeg and 17% occur in other urban locations.

This pattern holds when we consider both injury and PDO collisions. In 2018:

- 78% of injury collisions occur in Winnipeg, 10% occur in other urban locations and 11% occur in rural locations.
- 57% of PDO collisions occur in Winnipeg, 17% occur in other urban locations and 26% occur in rural locations.

Fatal collisions are different from the distribution of total crashes when it comes to the urban-rural split. In 2018, nearly 59% of fatal collisions occur in rural locations, while nearly 19% occur in Winnipeg and 23% occur in other urban locations. The over-representation of rural locations for fatal collisions in 2018 is consistent with the previous five year (2013 to 2017) annual average, where 68% of fatal collisions occur in rural locations, 17% occur in Winnipeg and 15% occur in other urban locations.

Table 4-6 Collision Type by Urban/Rural Location

Table 4-6
Collision Type by Urban/Rural Location: 2018, 2013-2017 Average

Collision Type	Location													2013-2017 Average Count of Collisions				
	2018 Urban				2018 Rural				2018 Provincial Total				2018 Provincial Total as % of Total					
	Fatal	Injury	PDO	Total	Fatal	Injury	PDO	Total	Fatal	Injury	PDO	**Total**		Fatal	Injury	PDO	Total	% of Total
Collision with pedestrian	2	98	83	183	2	3	4	9	4	101	87	**192**	0.4%	3	45	57	105	0.2%
Collision with other motor vehicle	10	7,369	23,245	30,624	24	350	942	1,316	34	7,719	24,187	**31,940**	61.7%	37	7,429	20,304	27,769	62.8%
Collisions with train	0	2	4	6	0	0	2	2	0	2	6	**8**	<0.1%	<1	2	3	5	<0.1%
Collision with motorcycle	1	5	6	12	0	1	2	3	1	6	8	**15**	<0.1%	1	7	5	14	<0.1%
Collision with animal drawn vehicle	0	0	0	0	0	0	0	0	0	0	0	**0**	-	-	-	-	-	<0.1%
Collision with bicycle	0	70	108	178	0	0	0	0	0	70	108	**178**	0.3%	1	29	59	89	0.2%
Collision with animal	0	63	1,797	1,860	0	286	8,412	8,698	0	349	10,209	**10,558**	20.4%	<1	290	6,160	6,451	14.6%
Collision with fixed object	6	416	3,874	4,296	7	321	1,031	1,359	13	737	4,905	**5,655**	10.9%	17	803	5,047	5,866	13.3%
Collision with other object	3	207	1,973	2,183	2	52	560	614	5	259	2,533	**2,797**	5.4%	7	474	2,916	3,397	7.7%
Overturned in roadway	0	8	7	15	1	5	6	12	1	13	13	**27**	<0.1%	2	11	14	27	<0.1%
Ran off roadway	5	1	2	8	0	3	4	7	5	4	6	**15**	<0.1%	4	39	30	73	0.2%
Collision with moped	0	0	0	0	0	0	0	0	0	0	0	**0**	-	-	<1	1	2	<0.1%
Other non-collision	0	38	211	249	2	27	69	98	2	65	280	**347**	0.7%	1	79	341	421	1.0%
Total	27	8,277	31,310	39,614	38	1,048	11,032	12,118	65	9,325	42,342	**51,732**	100%	73	9,209	34,937	44,219	100%

Note: Counts of collisions in the 2013-2017 average may not add to the total due to rounding.

The majority of crashes on public roadways in Manitoba are “motor vehicle to motor vehicle” collisions, both in 2018 and in the previous five year (2013 to 2017) annual average. In 2018, “motor vehicle to motor vehicle” collisions account for:

- 62% of all collisions;
- 52% of fatal collisions;
- 83% of injury collisions; and,
- 57% of PDO collisions.

Collisions occurring in urban locations are also predominantly “motor vehicle to motor vehicle” in nature. In urban locations in 2018, “motor vehicle to motor vehicle” collisions account for:

- 77% of all collisions;
- 37% of fatal collisions;
- 89% of injury collisions; and,
- 74% of PDO collisions.

Collisions occurring in rural locations are predominantly “motor vehicle to animal” in nature, with “motor vehicle to fixed object” the second most common configuration, and “motor vehicle to motor vehicle” as the third most common. In rural locations in 2018:

- 72% of all collisions are “motor vehicle to animal” in nature (no fatal collisions; 27% of injury collisions; and 76% of PDO collisions);
- 11% of all collisions are “motor vehicle to fixed object” in nature (18% of fatal collisions; 31% of injury collisions; and 9% of PDO collisions); and,
- 11% of all collisions are “motor vehicle to motor vehicle” in nature (63% of fatal collisions; 33% of injury collisions; and nearly 9% of PDO collisions).

Table 4-7 Traffic Collisions by Road Surface Condition and Collision Severity

Table 4-7
Traffic Collisions by Road Surface Condition and Collision Severity: 2018, 2013-2017 Average

Road Surface Condition	2018 Collision Severity						**2018 Total**	% of 2018 Total	2013-2017 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Dry	37	56.9%	5,381	57.7%	24,817	58.6%	**30,235**	58.4%	47	4,981	18,293	23,322	52.7%
Wet	4	6.2%	972	10.4%	3,562	8.4%	**4,538**	8.8%	5	959	3,105	4,069	9.2%
Mud	0	-	7	<0.1%	74	0.2%	**81**	0.2%	<1	7	82	89	0.2%
Snow	3	4.6%	742	8.0%	4,253	10.0%	**4,998**	9.7%	3	781	4,026	4,810	10.9%
Ice	1	1.5%	1,622	17.4%	5,871	13.9%	**7,494**	14.5%	5	1,931	6,996	8,933	20.2%
Slush	1	1.5%	166	1.8%	611	1.4%	**778**	1.5%	1	214	651	866	2.0%
Loose Sand/ Gravel/ Dirt	3	4.6%	58	0.6%	252	0.6%	**313**	0.6%	2	68	261	331	0.7%
Fresh Oil	0	-	10	0.1%	18	<0.1%	**28**	<0.1%	-	5	16	21	<0.1%
Other	0	-	22	0.2%	146	0.3%	**168**	0.3%	<1	22	135	158	0.4%
Not Applicable	0	-	17	0.2%	321	0.8%	**338**	0.7%	<1	108	337	446	1.0%
Unknown	16	24.6%	328	3.5%	2,417	5.7%	**2,761**	5.3%	7	152	1,034	1,194	2.7%
Total	65	100%	9,325	100%	42,342	100%	**51,732**	100%	73	9,227	34,937	44,237	100%

Note: Counts of collisions in the 2013-2017 average may not add to the total due to rounding.

Collisions in Manitoba occur most often under “dry” road conditions. More than half (58%) of all collisions in 2018 and 53% in the previous five year (2013 to 2017) annual average occur on “dry” roads.

In 2018, 57% of fatal collisions occur on “dry” roads. This is lower than the previous five year (2013 to 2017) annual average (65%).

Icy road conditions account for nearly 15% of all collisions in 2018, including 1 fatal collision, 17% of injury collisions and 14% of PDO collisions. This is similar to the previous five year (2013 to 2017) annual average where icy roads account for 20% of all collisions, 7% of fatal collisions, 21% of injury collisions and 20% of PDO collisions.

“Snow” covered and “wet” roads account for the next highest proportions of all collisions in 2018, at 10% and 9% respectively. These proportions are similar to the previous five year (2013 to 2017) annual average (11% and 9% respectively).

Figure 4-5 Traffic Collisions by Road Surface Condition and Collision Severity

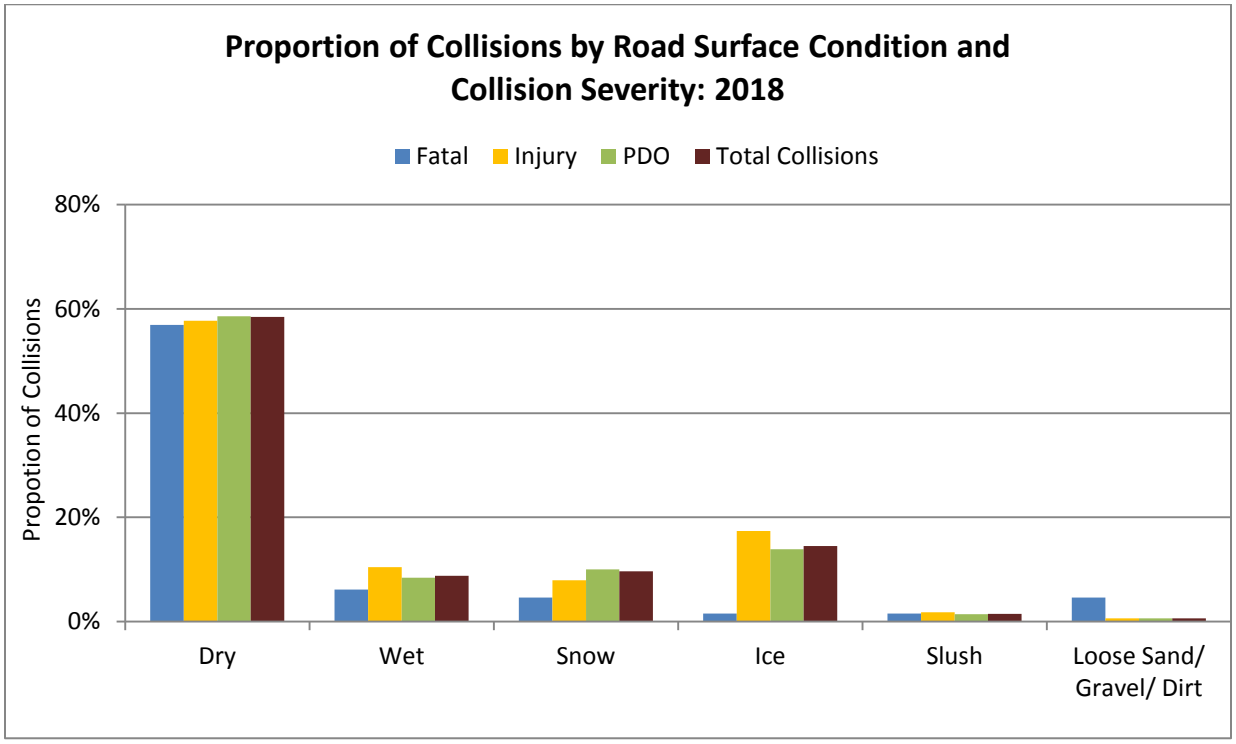


Table 4-8 Traffic Collisions by Weather Condition and Collision Severity

Table 4-8
Traffic Collisions by Weather Condition and Collision Severity: 2018, 2013-2017 Average

Weather Condition	2018 Collision Severity						**2018 Total**	% of 2018 Total	2013-2017 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Clear	39	60.0%	6,427	68.9%	28,006	66.1%	**34,472**	66.6%	47	6,240	22,794	29,081	65.7%
Cloudy	5	7.7%	1,348	14.5%	5,568	13.2%	**6,921**	13.4%	8	1,331	4,758	6,097	13.8%
Raining	1	1.5%	282	3.0%	1,198	2.8%	**1,481**	2.9%	2	405	1,388	1,794	4.1%
Snowing	1	1.5%	492	5.3%	2,130	5.0%	**2,623**	5.1%	2	564	2,290	2,856	6.5%
Fog or Mist	0	-	85	0.9%	646	1.5%	**731**	1.4%	1	93	467	561	1.3%
Smoke or Dust	0	-	26	0.3%	127	0.3%	**153**	0.3%	<1	10	36	46	0.1%
Freezing Rain/ Sleet/ Hail	0	-	42	0.5%	107	0.3%	**149**	0.3%	<1	39	139	179	0.4%
Drifting Snow	2	3.1%	74	0.8%	362	0.9%	**438**	0.8%	1	107	496	605	1.4%
Strong Winds	1	1.5%	70	0.8%	292	0.7%	**363**	0.7%	1	70	305	377	0.9%
Other	0	-	12	0.1%	91	0.2%	**103**	0.2%	<1	13	89	102	0.2%
Not Applicable	0	-	24	0.3%	390	0.9%	**414**	0.8%	1	127	495	623	1.4%
Unknown	16	24.6%	443	4.8%	3,425	8.1%	**3,884**	7.5%	9	227	1,679	1,915	4.3%
Total	65	100%	9,325	100%	42,342	100%	**51,732**	100%	73	9,227	34,937	44,237	100%

Note: Counts of collisions in the 2013-2017 average may not add to the total due to rounding.

Most collisions in Manitoba occur during “clear” weather conditions. Two-thirds (67%) of all collisions (60% of fatal collisions; 69% of injury collisions; 66% of PDO collisions) in 2018 and 66% of all collisions (64% of fatal collisions; 68% of injury collisions; 65% of PDO collisions) in the previous five year (2013 to 2017) annual average occur in “clear” weather. Other weather conditions when collisions occur in 2018 include:

- “Cloudy” – 13% of all collisions (8% of fatal collisions; nearly 15% of injury collisions; 13% of PDO collisions);
- “Snowing” – 5% of all collisions (1 fatal collision; 5% of injury collisions; 5% of PDO collisions); and,
- “Raining” – 3% of all collisions (1 fatal collision; 3% of injury collisions; 3% of PDO collisions).

Figure 4-6 Traffic Collisions by Weather Condition and Collision Severity

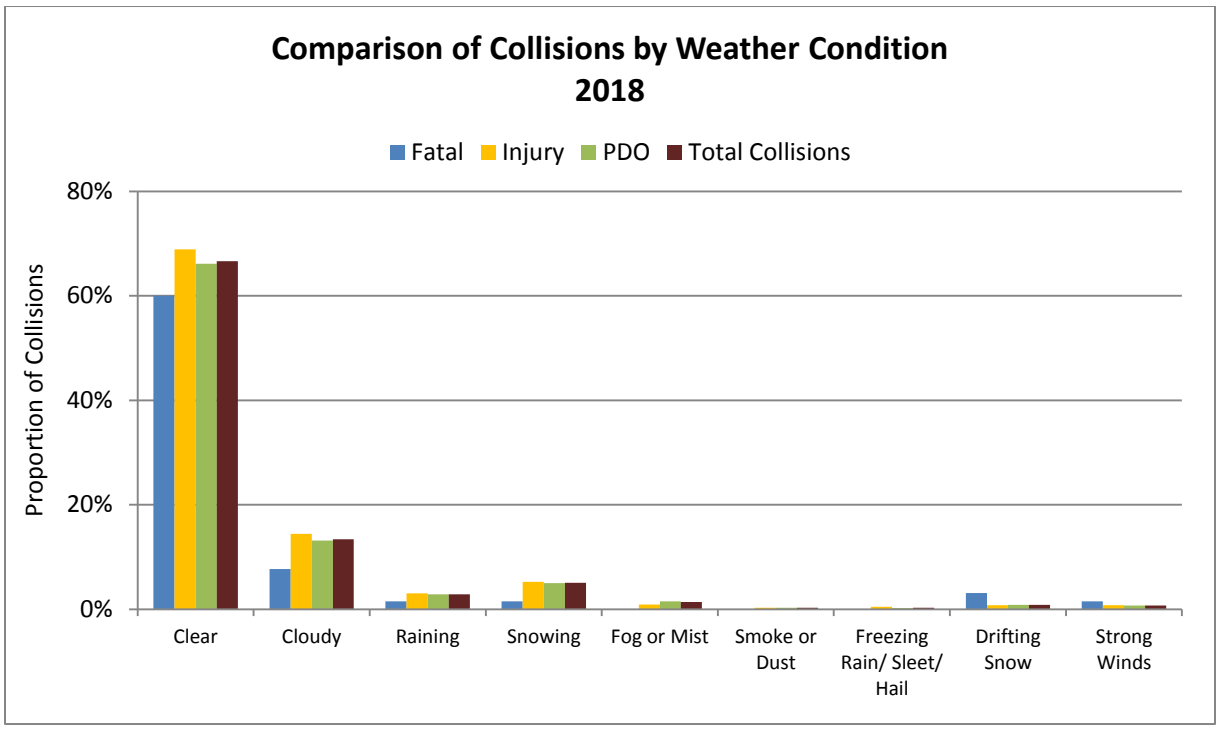


Table 4-9 Accident Configuration and Collision Severity

Table 4-9

Accident Configuration and Collision Severity: 2018, 2013-2017 Average

Accident Configuration	2018 Collision Severity						**2018 Total**	% of 2018 Total	2013-2017 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Rear End	2	6.1%	3,959	50.0%	8,330	33.2%	**12,291**	37.2%	3	3,911	6,961	10,874	36.2%
Head On	10	30.3%	91	1.1%	436	1.7%	**537**	1.6%	13	150	734	898	3.0%
Side Swipe Opposing	0	-	65	0.8%	282	1.1%	**347**	1.1%	<1	69	324	394	1.3%
Side Swipe Same Direction	0	-	492	6.2%	3,499	14.0%	**3,991**	12.1%	<1	417	2,953	3,370	11.2%
Overtaking	0	-	32	0.4%	143	0.6%	**175**	0.5%	<1	29	163	193	0.6%
Right Turn - Same direction	0	-	24	0.3%	195	0.8%	**219**	0.7%	<1	28	195	222	0.7%
Right Turn - Opposing	0	-	13	0.2%	48	0.2%	**61**	0.2%	-	12	56	68	0.2%
Left Turn - Opposing	1	3.0%	238	3.0%	395	1.6%	**634**	1.9%	1.0	216	379	596	2.0%
Left Turn - Same direction	0	-	28	0.4%	155	0.6%	**183**	0.6%	-	30	173	203	0.7%
Left Turn - Across	1	3.0%	224	2.8%	391	1.6%	**616**	1.9%	<1	163	342	505	1.7%
Intersection 90°	6	18.2%	1,718	21.7%	3,060	12.2%	**4,784**	14.5%	8	1,832	3,255	5,095	16.9%
Off Road Right	3	9.1%	212	2.7%	673	2.7%	**888**	2.7%	7	266	874	1,146	3.8%
Off Road Left	3	9.1%	166	2.1%	484	1.9%	**653**	2.0%	4	182	613	798	2.7%
Fixed Object	1	3.0%	361	4.6%	4,340	17.3%	**4,702**	14.2%	3	347	3,417	3,768	12.5%
Parking	0	-	141	1.8%	2,478	9.9%	**2,619**	7.9%	<1	127	1,629	1,756	5.8%
Pedestrian	6	18.2%	161	2.0%	151	0.6%	**318**	1.0%	7	80	89	176	0.6%
Other	32	-	1,400	-	17,282	-	**18,714**	-	24	1,369	12,781	14,174	-
Total	65	100%	9,325	100%	42,342	100%	**51,732**	100%	73	9,227	34,937	44,237	100%

Note: Counts of collisions in the 2013-2017 average may not add to the total due to rounding.
Note: 'Other' accident configurations consist primarily of collisions involving more than one configuration or sequence of events. Calculations in '% of Total' exclude the 'Other' category.

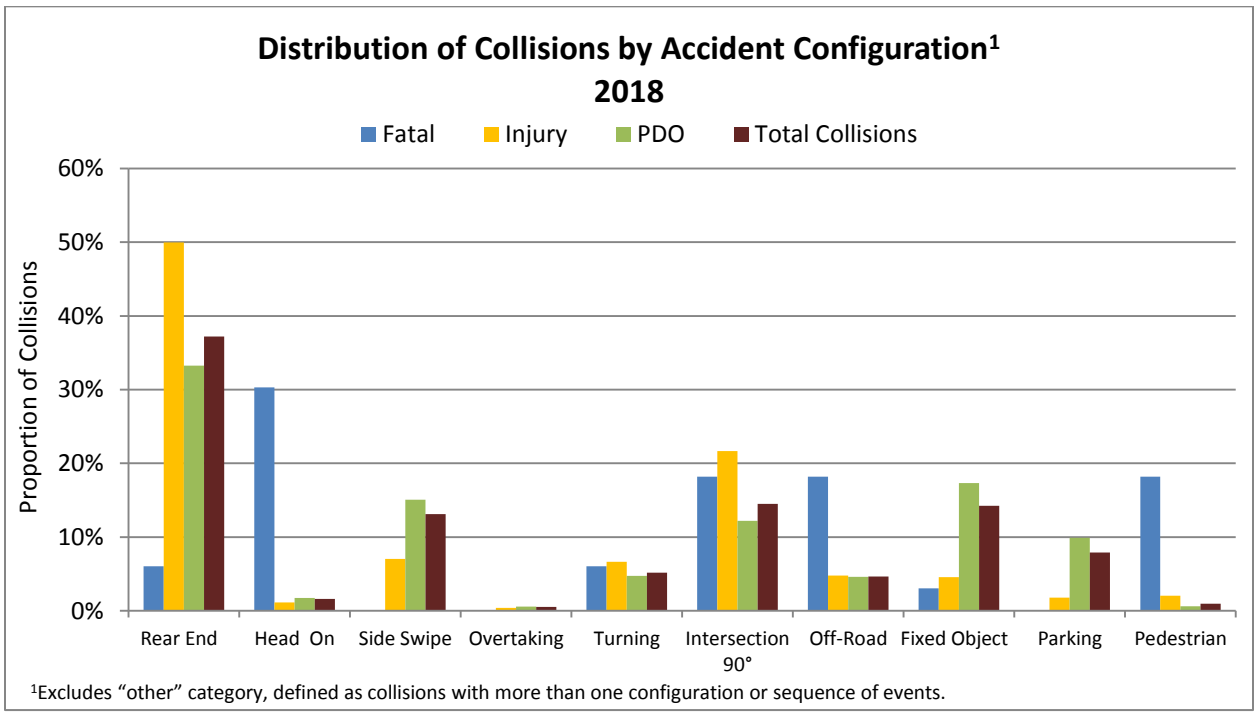
The most common accident configuration (or sequence of events immediately prior to or at the start of a collision) for collisions occurring in Manitoba (excluding "other") is a "rear end" type. "Rear end" crashes account for 37% of all collisions in 2018 (6% fatal collision; 50% of injury collisions; 33% of PDO collisions) and 36% of all collisions in the previous five year (2013 to 2017) annual average.

Following "rear end" collisions, the next most common accident configurations in 2018 (excluding "other") are:

- Collisions occurring at "intersection 90°" – nearly 15% of all collisions, 18% of fatal collisions, 22% of injury collisions, and 12% of PDO collisions;
- "Fixed object" collisions – 14% of all collisions, 3% fatal collisions, 5% of injury collisions, and 17% of PDO collisions; and,
- "Side-swipe" collisions, including in the same or opposing direction – 13% of all collisions, no fatal collisions, 7% of injury collisions, and 15% of PDO collisions.

A large proportion of collisions cannot be assigned a single accident configuration or sequence of events. That is, they involve more than one of the possible configuration types. These collisions fall into the "other" category. In 2018, 36% of all collisions (49% fatal; 15% injury; 41% PDO) are recorded as "other". In the previous five year (2013 to 2017) annual average, 32% of all collisions (33% fatal; 15% injury; 37% PDO) are recorded as "other".

Figure 4-7 Distribution of Collisions by Accident Configuration and Collision Severity



"Head on" collisions are the highest proportion of fatal collisions in 2018 (30%), followed by collisions occurring at intersections ("intersection 90°" – 18%), collisions as a result of the vehicle leaving the road ("off-road left or right" – 18%), and collisions where a pedestrian is involved (18%).

SECTION 5 – Collision Victims

Introduction

This section counts the number of people killed and injured in traffic collisions and examines the severity of the injury received by the victim. Month, time and day of occurrences are examined, as well as the age of the victim. Other characteristics of the collision are presented as well. Relative involvement of victims in traffic collisions per 100,000 people in the general population is also calculated.

Key Highlights

In 2018, there are 12,057 victims (or casualties) of traffic collisions. Of these:

- 70 are killed;
- 437 are seriously injured;
- 1,818 sustain minor injuries;
- 9,422 sustain minimal injuries; and,
- 310 sustain injuries that are undefined in terms of severity.

The victim involvement rate (per 100,000 people in the general population) in traffic collisions in 2018 (886.2) has decreased by 5% compared to 2017 (932.9) and by 3% compared to the previous five years (2013 to 2017) annual average (910.6). Victim involvement rates in traffic collisions in 2018 where the person:

- Is killed (5.1 in 2018) is 4% lower than in 2017 and 17% lower than in the previous five years; and,
- Is injured, including all levels of severity (but excluding killed; 881.1 in 2018), is 5% lower than in 2017 and 3% lower than in the previous five years.

People aged 20 to 24 and 35 to 44 have the highest victim involvement rates (per 100,000 people) overall in 2018.

- Children under age 15 – rate of 206.9
- People aged 15 to 19 – rate of 873.8
- People aged 20 to 24 – rate of 1,310.5
- People aged 25 to 34 – rate of 1,261.0
- People aged 35 to 44 – rate of 1,265.3
- People aged 45 to 54 – rate of 1,174.1
- People aged 55 and older – rate of 671.7

While women account for more than half of all casualties in traffic collisions (59%), men account for the highest proportion of people killed (71%). Women account for more of the people seriously injured (54% compared to 46% men).

“Drivers” account for 75% of all casualties and motor vehicle “Passengers” for 21%. “Motorcyclists” and “Moped” riders combined account for 1% of all casualties while “Bicyclists” account for 1% and “Pedestrians” account for 2%. In 2018, “Pedestrians” account for 19% of people killed in traffic collisions.

In 2018, casualties in traffic collisions most frequently result from crashes occurring:

- In Winnipeg – nearly 78% of all victims;
- In the late fall, winter and early spring months (including October through March) – 58% of all victims; 40% of people killed and 58% of people injured;
- On Friday (17% of all victims; 24% of people killed and 17% of people injured); and,
- Between noon and 6 p.m. (12:00-14:59 – 20% of all victims; 15:00 to 17:59 – 30% of all victims).

Major Elements Examined

Counts of collisions in Manitoba for 2018 and previous years are taken from Traffic Accident Reports (TARs) generated by Manitoba Public Insurance and law enforcement agencies, and compiled by Manitoba Public Insurance.

It is important to note that the number of victims involved in traffic collisions is not equal to the number of collisions that occurred as each collision can result in multiple victims while some collisions result in property damage only (PDO). PDO collisions are not included in this section.

The terms 'crash', 'collision' and 'accident' are used interchangeably in this report. As well, the terms 'victim' and 'casualty', and the terms 'fatality' and 'killed' are used interchangeably in this report.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and relative involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Likewise, average calculations are presented for historical data from the years 2013 to 2017. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

Terms and Definitions

"Casualty Type"

- A classification of the severity of the injury sustained by a victim in a traffic collision, i.e., whether someone was killed or injured. This classification also includes a designation for the severity of each non-fatal injury sustained (i.e., victims sustaining a serious/major, minor or minimal injury).

"Killed"

- The casualty type "killed" indicates where the victim involved in the traffic collision died as a result of their injuries within thirty (30) days of the collision occurrence.

"Injured"

- The casualty type "injured" indicates where the victim sustained some level of personal injury, but in which they were not killed. Levels of injury include: 'serious' or 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required). 'Other' injury is noted when the severity of the victim's injury is not known or recorded in the TAR.

"Road User Class"

- A classification based on how a person involved in a collision was using the road at the time of the collision. It includes: Drivers (of motor vehicles), Passengers (in motor vehicles), those Riding/Hanging On (to a motor vehicle), Motorcyclist (drivers and passengers), Moped (drivers and passengers), Bicyclist (drivers and passengers), and Pedestrians.

"Vehicle Occupant"

- All those in the "Road User Class" recorded as "Drivers" and "Passengers". It excludes "Motorcyclist", "Bicyclist", "Moped", those "Riding/Hanging On" to a vehicle, and "Pedestrians".

"Victim Involvement Rate"

- A calculation of the number of victims or casualties involved in traffic collisions for every 100,000 people in the general population in Manitoba. Population statistics are taken from the Provincial government and can be found at the following web address: https://www.gov.mb.ca/health/annstats/index.html

"Collision Type"

- Refers to the object struck by a motor vehicle during a collision (including: a pedestrian, another motor vehicle, a train, a motorcycle, a bicycle, an animal, and fixed objects) or to what happened to the vehicle in a single-vehicle collision (including: overturned on roadway and ran off roadway).

"Accident Configuration"

- Briefly describes the action taken by a vehicle immediately prior to or at the start of the collision, including such events as rear-ending another vehicle, side-swiping another vehicle, turning into (the path of) another vehicle, parking, meeting another vehicle at an intersection and/or leaving the roadway.
- "Other" in terms of accident configuration includes, primarily, collisions involving more than one configuration or sequence of events.

Table 5-1 Historical Summary of Victims in Traffic Collisions

Table 5-1
Historical Summary of Victims in Traffic Collisions: 2008 to 2018

Year	Casualty Type												Total Victims	% change to previous year
	Killed	% change to previous year	Serious Injury	% change to previous year	Minor Injury	% change to previous year	Minimal Injury	% change to previous year	Other Injury	% change to previous year	Total Injured	% change to previous year		
2008	92	-	396	-	2,968	-	3,678	-	790	-	7,832	-	7,924	-
2009	86	-6.5%	384	-3.0%	2,853	-3.9%	3,288	-10.6%	691	-12.5%	7,216	-7.9%	7,302	-7.8%
2010	87	1.2%	312	-18.8%	2,458	-13.8%	3,170	-3.6%	1,103	59.6%	7,043	-2.4%	7,130	-2.4%
2011	110	26.4%	337	8.0%	2,465	0.3%	4,306	35.8%	1,119	1.5%	8,227	16.8%	8,337	16.9%
2012	96	-12.7%	339	0.6%	2,237	-9.2%	7,864	82.6%	87	-92.2%	10,527	28.0%	10,623	27.4%
2013	85	-11.5%	307	-9.4%	2,242	0.2%	8,488	7.9%	112	28.7%	11,149	5.9%	11,234	5.8%
2014	68	-20.0%	303	-1.3%	2,009	-10.4%	9,201	8.4%	95	-15.2%	11,608	4.1%	11,676	3.9%
2015	78	14.7%	415	37.0%	1,947	-3.1%	9,014	-2.0%	563	492.6%	11,939	2.9%	12,017	2.9%
2016	107	37.2%	478	15.2%	2,174	11.7%	9,710	7.7%	184	-67.3%	12,546	5.1%	12,653	5.3%
2017	73	-31.8%	442	-7.5%	2,026	-6.8%	9,836	1.3%	282	53.3%	12,586	0.3%	12,659	0.0%
2018	**70**	**-4.1%**	**437**	**-1.1%**	**1,818**	**-10.3%**	**9,422**	**-4.2%**	**310**	**9.9%**	**11,987**	**-4.8%**	**12,057**	**-4.8%**
2013-2017 Average*	82	-14.8%	389	12.3%	2,080	-12.6%	9,250	1.9%	247	25.4%	11,966	0.2%	12,048	0.1%

* "% change" in this line compares the current year to the 5-year average

In 2018, there are 12,057 victims (or casualties) of traffic collisions. Of these:

- 70 are killed;
- 437 are seriously injured;
- 1,818 sustain minor injuries;
- 9,422 sustain minimal injuries; and,
- 310 sustain injuries that are undefined in terms of severity.

Overall, the total number of casualties in 2018 (12,057) decreased by 5% compared to 2017 (12,659). In 2018, there are 3 fewer people killed than in 2017, 5 fewer people seriously injured, 208 fewer people with minor injuries, 414 fewer people with minimal injuries, and 28 more people with other or undefined injuries.

Compared to the previous five year (2013 to 2017) annual average, in 2018:

- The number of people killed is down 15%;
- The number of people seriously injured is up 12%;
- The number of people sustaining minor injuries is down 13%;
- The number of people sustaining minimal injuries is up 2%; and,
- The number of people sustaining “other” injuries is up 25%.

Table 5-2 Historical Summary of Victim Involvement Rate (per 100,000 People) in Traffic Collisions

Table 5-2

Historical Summary of Victim Involvement Rate (per 100,000 People) in Traffic Collisions: 2008 to 2018

Year	Casualty Type												Total Victims	% change to previous year
	Killed	% change to previous year	Serious Injury	% change to previous year	Minor Injury	% change to previous year	Minimal Injury	% change to previous year	Other Injury	% change to previous year	Total Injured	% change to previous year		
2008	7.7	-	33.0	-	247.5	-	306.8	-	65.9	-	653.2	-	660.9	-
2009	7.1	-7.7%	31.6	-4.3%	234.9	-5.1%	270.8	-11.7%	56.9	-13.6%	594.2	-9.0%	601.3	-9.0%
2010	7.1	-0.1%	25.4	-19.8%	199.8	-15.0%	257.7	-4.8%	89.7	57.6%	572.5	-3.7%	579.5	-3.6%
2011	8.8	24.4%	26.9	6.3%	197.1	-1.3%	344.3	33.6%	89.5	-0.2%	657.9	14.9%	666.7	15.0%
2012	7.6	-14.2%	26.7	-1.1%	175.9	-10.7%	618.5	79.6%	6.8	-92.4%	828.0	25.9%	835.5	25.3%
2013	6.6	-12.7%	23.8	-10.7%	173.9	-1.2%	658.4	6.4%	8.7	27.0%	864.8	4.4%	871.3	4.3%
2014	5.2	-21.0%	23.2	-2.6%	153.8	-11.6%	704.4	7.0%	7.3	-16.3%	888.6	2.8%	893.8	2.6%
2015	5.9	13.5%	31.4	35.5%	147.5	-4.1%	682.7	-3.1%	42.6	486.3%	904.2	1.8%	910.1	1.8%
2016	8.0	35.2%	35.7	13.5%	162.3	10.1%	725.0	6.2%	13.7	-67.8%	936.8	3.6%	944.7	3.8%
2017	5.4	-32.7%	32.6	-8.7%	149.3	-8.0%	724.9	0.0%	20.8	51.3%	927.5	-1.0%	932.9	-1.3%
2018	**5.1**	**-4.4%**	**32.1**	**-1.4%**	**133.6**	**-10.5%**	**692.5**	**-4.5%**	**22.8**	**9.6%**	**881.1**	**-5.0%**	**886.2**	**-5.0%**
2013-2017 Average*	6.2	-17.2%	29.3	9.5%	157.4	-15.1%	699.1	-0.9%	18.6	22.3%	904.4	-2.6%	910.6	-2.7%

* "% change" in this line compares the current year to the 5-year average

Recognizing that counts of victims of collisions could be impacted either positively or negatively by changing population statistics, involvement rates per 100,000 people in the general population in Manitoba is examined (see Table 5-2) to provide a standardized rate comparison. This accounts for changing population size instead of simply a raw count of the number of victims involved overall.

The victim involvement rate (per 100,000 people in the general population) in traffic collisions in 2018 (886.2) has decreased by 5% compared to 2017 (932.9), and by 3% compared to the previous five years (2013 to 2017 – 910.6) on average.

Casualty involvement rates in traffic collisions in 2018 where a person:

- Is killed (5.1 in 2018) decreased by 4% compared to 2017 and by 17% compared to the previous five years;
- Is injured, including all levels of severity (but excluding killed; 881.1 in 2018), decreased by 5% compared to 2017 and by 3% compared to the previous five years;
- Is seriously injured (32.1 in 2018) decreased by 1% compared to 2017, but increased by nearly 10% compared to the previous five years;
- Sustains minor injuries (133.6 in 2018) decreased by nearly 11% compared to 2017 and by 15% compared to the previous five years;
- Sustains minimal injuries (692.5 in 2018) deceased by nearly 5% compared to 2017 and by 1% compared to the previous five years; and,
- Sustains injuries that are unspecified in severity (“other injury”; 22.8 in 2018) increased by 10% compared to 2017 and by 22% compared to the previous five years.

Figure 5-1 Historical Summary of Victim Involvement Rate in Traffic Collisions

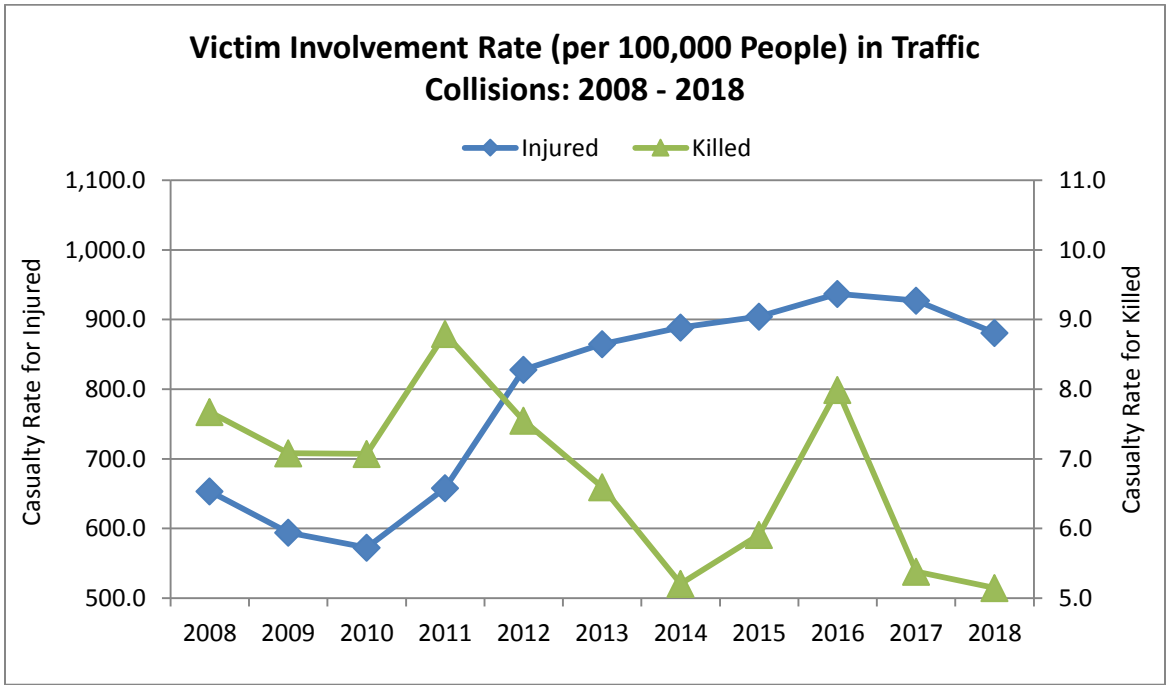


Table 5-3 Collision Victims by Month of Occurrence and Casualty Type

Table 5-3
Collision Victims by Month of Occurrence and Casualty Type: 2018

Month of Occurrence	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
January	4	5.7%	31	7.1%	193	10.6%	1,247	13.2%	52	16.8%	1,523	12.7%	**1,527**	12.7%
February	9	12.9%	39	8.9%	160	8.8%	1,014	10.8%	33	10.6%	1,246	10.4%	**1,255**	10.4%
March	5	7.1%	38	8.7%	132	7.3%	707	7.5%	23	7.4%	900	7.5%	**905**	7.5%
April	5	7.1%	28	6.4%	97	5.3%	585	6.2%	15	4.8%	725	6.0%	**730**	6.1%
May	8	11.4%	49	11.2%	141	7.8%	628	6.7%	24	7.7%	842	7.0%	**850**	7.0%
June	9	12.9%	43	9.8%	135	7.4%	628	6.7%	29	9.4%	835	7.0%	**844**	7.0%
July	7	10.0%	35	8.0%	162	8.9%	614	6.5%	15	4.8%	826	6.9%	**833**	6.9%
August	8	11.4%	36	8.2%	152	8.4%	638	6.8%	26	8.4%	852	7.1%	**860**	7.1%
September	5	7.1%	29	6.6%	147	8.1%	720	7.6%	20	6.5%	916	7.6%	**921**	7.6%
October	2	2.9%	54	12.4%	171	9.4%	773	8.2%	24	7.7%	1,022	8.5%	**1,024**	8.5%
November	6	8.6%	32	7.3%	162	8.9%	862	9.1%	31	10.0%	1,087	9.1%	**1,093**	9.1%
December	2	2.9%	23	5.3%	166	9.1%	1,006	10.7%	18	5.8%	1,213	10.1%	**1,215**	10.1%
Total	70	100%	437	100%	1,818	100%	9,422	100%	310	100%	11,987	100%	**12,057**	100%

Table 5-3a Collision Victims by Month of Occurrence and Casualty Type for Previous Five Years

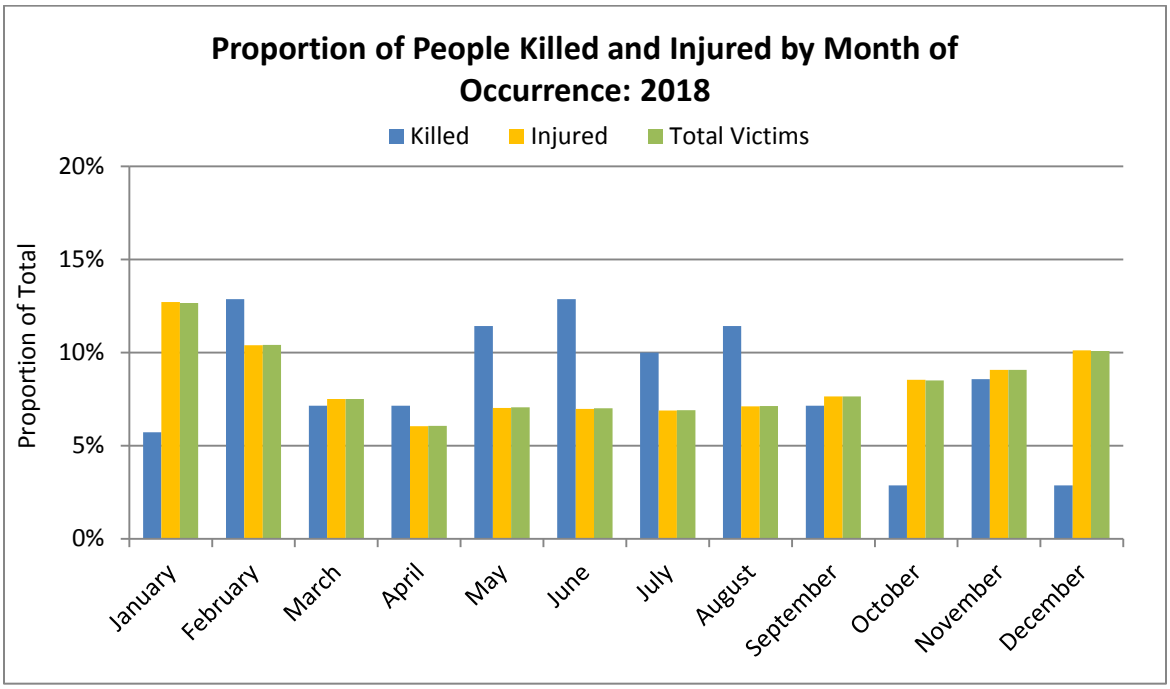
Table 5-3a
Collision Victims by Month of Occurrence and Casualty Type: 2013-2017 Average

Month of Occurrence	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
January	4	30	190	1,159	8	1,388	1,392	11.6%
February	3	21	160	889	20	1,091	1,094	9.1%
March	3	25	161	721	27	933	936	7.8%
April	6	27	126	543	13	709	714	5.9%
May	7	34	171	603	15	822	829	6.9%
June	7	32	172	621	20	845	852	7.1%
July	12	33	176	596	21	825	837	6.9%
August	10	37	178	635	22	873	883	7.3%
September	9	44	164	666	20	894	902	7.5%
October	10	41	192	758	18	1,009	1,018	8.5%
November	8	34	192	935	30	1,191	1,199	10.0%
December	5	33	197	1,124	33	1,387	1,392	11.6%
Total	82	389	2,080	9,250	247	11,966	12,048	100%

Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.

Victims in 2018 appear to follow a fairly typical distribution compared to past years in terms of month of occurrence. The months of January, February, November and December combined account for a disproportionate number of traffic collision victims overall, both in 2018 (42% of all victims) and in the previous five year (2013 to 2017) annual average (42%). In 2018 (similar to the previous five years), the count of victims is lowest in the late spring and summer months (ranging from 6% to 7% of all victims in each month from April to August) and is highest in late fall, winter and early spring (ranging from 8% to 13% of all victims in each month from October to March).

Figure 5-2 Proportion of People Killed and Injured by Month of Occurrence



In 2018, February, May, June, July and August account for the highest proportions of people killed (13%, 11%, 13%, 10% and 11% of people killed, respectively) by month. This is somewhat different from the previous five year (2013 to 2017) annual average, where the months of July, August, September and October account for the highest proportions of deaths.

Table 5-4 Collision Victims by Day of Occurrence and Casualty Type

Table 5-4
Collision Victims by Day of Occurrence and Casualty Type: 2018

Day of the Week	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Sunday	14	20.0%	77	17.6%	218	12.0%	863	9.2%	32	10.3%	1,190	9.9%	**1,204**	10.0%
Monday	2	2.9%	49	11.2%	260	14.3%	1,268	13.5%	44	14.2%	1,621	13.5%	**1,623**	13.5%
Tuesday	6	8.6%	48	11.0%	226	12.4%	1,542	16.4%	46	14.8%	1,862	15.5%	**1,868**	15.5%
Wednesday	7	10.0%	69	15.8%	271	14.9%	1,464	15.5%	46	14.8%	1,850	15.4%	**1,857**	15.4%
Thursday	9	12.9%	75	17.2%	312	17.2%	1,535	16.3%	51	16.5%	1,973	16.5%	**1,982**	16.4%
Friday	17	24.3%	69	15.8%	290	16.0%	1,611	17.1%	50	16.1%	2,020	16.9%	**2,037**	16.9%
Saturday	15	21.4%	50	11.4%	241	13.3%	1,139	12.1%	41	13.2%	1,471	12.3%	**1,486**	12.3%
Total	70	100%	437	100%	1,818	100%	9,422	100%	310	100%	11,987	100%	**12,057**	100%

Table 5-4a Collision Victims by Day of Occurrence and Casualty Type for Previous Five Years

Table 5-4a
Collision Victims by Day of Occurrence and Casualty Type: 2013-2017 Average

Day of the Week	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Sunday	14	51	240	855	27	1,173	1,188	9.9%
Monday	11	55	287	1,333	35	1,711	1,722	14.3%
Tuesday	9	50	308	1,434	33	1,825	1,833	15.2%
Wednesday	11	51	294	1,458	38	1,842	1,853	15.4%
Thursday	8	54	304	1,469	36	1,862	1,870	15.5%
Friday	13	61	351	1,574	45	2,031	2,044	17.0%
Saturday	16	67	296	1,127	33	1,522	1,538	12.8%
Total	82	389	2,080	9,250	247	11,966	12,048	100%

Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.

In 2018, the victims involved in traffic collisions are fairly evenly distributed throughout the week, with lowest on Sunday (10%) and highest on Friday (17%). This is very similar to the previous five year (2013 to 2017) annual average.

Two thirds (66%) of people were killed on the weekend (24% Friday; 21% Saturday; 20% Sunday) in 2018. This is similar to the previous five year (2013 to 2017) annual average, where the weekend (Friday, Saturday, and Sunday) is when most people are killed (53% cumulatively).

Figure 5-3 Proportion of People Killed and Injured by Day of Occurrence

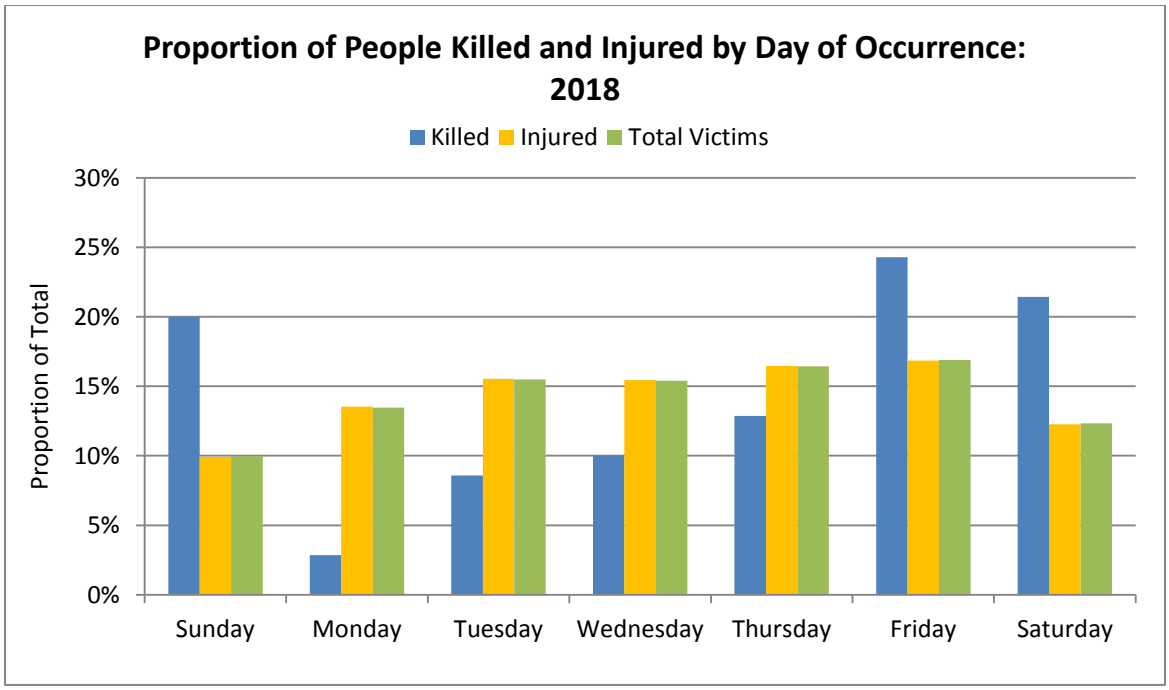


Table 5-5 Collision Victims by Time of Occurrence and Casualty Type

Table 5-5

Collision Victims by Time of Occurrence and Casualty Type: 2018

Time of the Day	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
00:00 - 02:59	13	18.6%	28	6.4%	57	3.1%	162	1.7%	3	1.0%	250	2.1%	**263**	2.2%
03:00 - 05:59	5	7.1%	12	2.7%	34	1.9%	102	1.1%	1	0.3%	149	1.2%	**154**	1.3%
06:00 - 08:59	8	11.4%	47	10.8%	220	12.1%	1,218	12.9%	44	14.2%	1,529	12.8%	**1,537**	12.7%
09:00 - 11:59	6	8.6%	54	12.4%	220	12.1%	1,271	13.5%	47	15.2%	1,592	13.3%	**1,598**	13.3%
12:00 - 14:59	6	8.6%	95	21.7%	339	18.6%	1,868	19.8%	67	21.6%	2,369	19.8%	**2,375**	19.7%
15:00 - 17:59	12	17.1%	93	21.3%	483	26.6%	2,897	30.7%	93	30.0%	3,566	29.7%	**3,578**	29.7%
18:00 - 20:59	11	15.7%	55	12.6%	286	15.7%	1,202	12.8%	36	11.6%	1,579	13.2%	**1,590**	13.2%
21:00 - 23:59	9	12.9%	50	11.4%	176	9.7%	693	7.4%	19	6.1%	938	7.8%	**947**	7.9%
Not Stated	0	-	3	0.7%	3	0.2%	9	<0.1%	0	-	15	0.1%	**15**	0.1%
Total	70	100%	437	100%	1,818	100%	9,422	100%	310	100%	11,987	100%	**12,057**	100%

Table 5-5a Collision Victims by Time of Occurrence and Casualty Type for Previous Five Years

Table 5-5a
Collision Victims by Time of Occurrence and Casualty: 2013-2017 Average

Time of the Day	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
00:00 - 02:59	6	19	69	171	6	266	272	2.3%
03:00 - 05:59	5	13	39	89	2	142	148	1.2%
06:00 - 08:59	9	39	257	1,207	33	1,536	1,545	12.8%
09:00 - 11:59	11	57	285	1,291	37	1,670	1,681	14.0%
12:00 - 14:59	13	63	401	1,878	49	2,390	2,404	20.0%
15:00 - 17:59	13	94	526	2,731	61	3,412	3,425	28.4%
18:00 - 20:59	12	64	305	1,260	39	1,668	1,680	13.9%
21:00 - 23:59	12	37	185	602	18	843	855	7.1%
Not Stated	1	3	13	21	1	38	39	0.3%
Total	82	389	2,080	9,250	247	11,966	12,048	100%

Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.

People are most often killed and injured in traffic collisions between noon and 6 p.m. In 2018, 49% of all victims are involved in traffic collisions between 12:00 and 14:59 (20%) and between 15:00 to 17:59 (30%). This is consistent with the previous five year (2013 to 2017) annual average (12:00-14:59 – 20% of all victims; 15:00 to 17:59 – 28% of all victims).

In 2018, most people are killed between 3 p.m. and 3 a.m. (15:00-17:59 – 17% of people killed, 18:00-23:59 – 29% killed, 00:00-02:59 – 19% killed). This is somewhat different from the previous five year (2013 to 2017) annual average where most people are killed between noon and midnight (12:00-17:59 – 32% killed, 18:00-23:59 – 29% killed).

Comparing 2018 to the previous five year (2013 to 2017) annual average, the proportional distribution of people killed by time of the day is somewhat different. In 2018:

- 20% of people are killed between 6 a.m. and noon (06:00-08:59 – 11%; 09:00-11:59 – 9%), compared to 25% in the previous five years;
- 26% of people are killed between noon and 6 p.m. (12:00-14:59 – 9%; 15:00 to 17:59 – 17%), compared to 32% in the previous five years;
- 29% of people are killed between 6 p.m. and midnight (18:00-20:59 – 16%; 21:00 to 23:59 – 13%), compared to 29% in the previous five years; and,
- 26% of people are killed between midnight to 6 a.m. (00:00-02:59 – 19%; 03:00-05:59 – 7%), compared to 14% in the previous five years.

Figure 5-4 Proportion of People Killed and Injured by Time of Occurrence

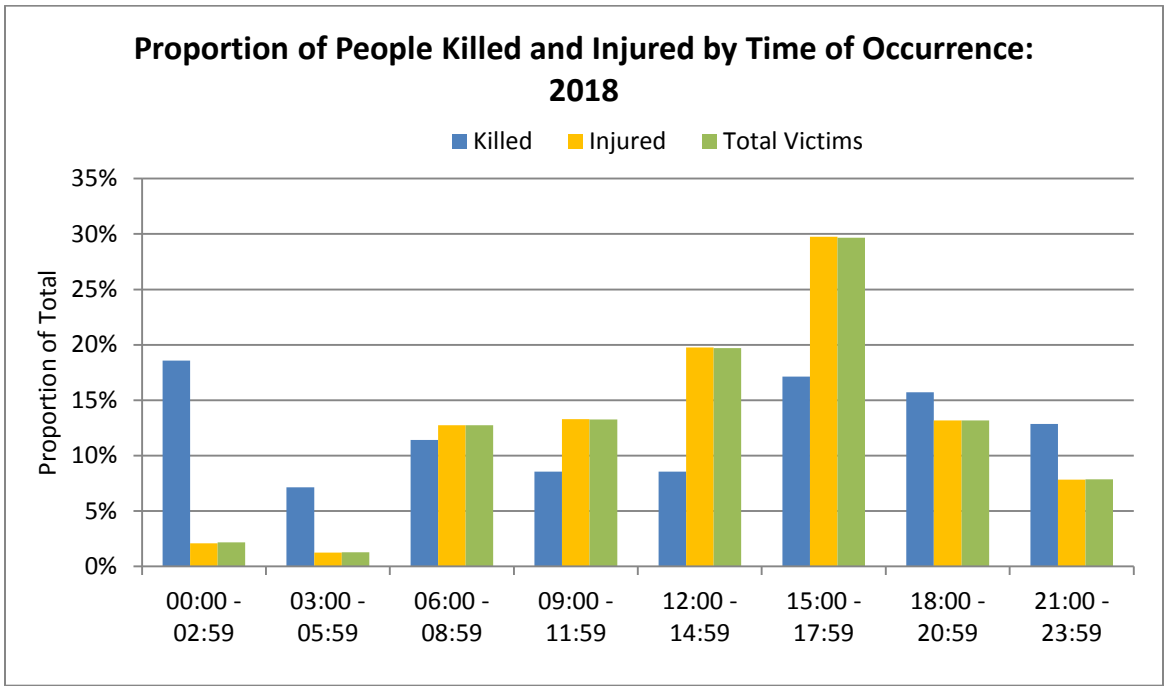


Table 5-6 Collision Victims by Gender and Casualty Type

Table 5-6

Collision Victims by Gender and Casualty Type: 2018

Gender	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Female	20	28.6%	228	53.8%	992	56.5%	5,526	59.9%	172	56.2%	6,918	59.1%	**6,938**	58.9%
Male	50	71.4%	196	46.2%	763	43.5%	3,696	40.1%	134	43.8%	4,789	40.9%	**4,839**	41.1%
Total	70	100%	424	100%	1,755	100%	9,222	100%	306	100%	11,707	100%	**11,777**	100%

Note: Some victims do not have age and gender recorded and are therefore missing from the table above.

Table 5-6a Collision Victims by Gender and Casualty Type for Previous Five Years

Table 5-6a

Collision Victims by Gender and Casualty Type: 2013-2017 Average

Gender	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Female	27	181	1,148	5,463	139	6,931	6,958	59.4%
Male	55	204	849	3,543	99	4,693	4,748	40.6%
Total	82	385	1,996	9,006	238	11,625	11,707	100%

Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.
Note: Some victims do not have age and gender recorded and are therefore missing from the table above.

In 2018, women account for 59% of all casualties in traffic collisions, same as the previous five year (2013 to 2017) annual average (59%). In 2018:

- Men account for a higher proportion of people killed (71%) than women, similar to the previous five years when men accounted for 67% of victims killed;
- Women account for the majority of people injured (but not killed) overall (59%), similar to the previous five years (60%);
- Women account for just over half of people seriously injured (54% compared to 46% men), somewhat different from the previous five years (53% men compared to 47% women); and,
- Women account for more people sustaining minor injuries (nearly 57%) and minimal injuries (60%) than men, similar to the previous five years (minor injuries – nearly 58%; minimal injuries – 61%).

Figure 5-5 Proportion of People Killed and Injured by Gender and Casualty Type

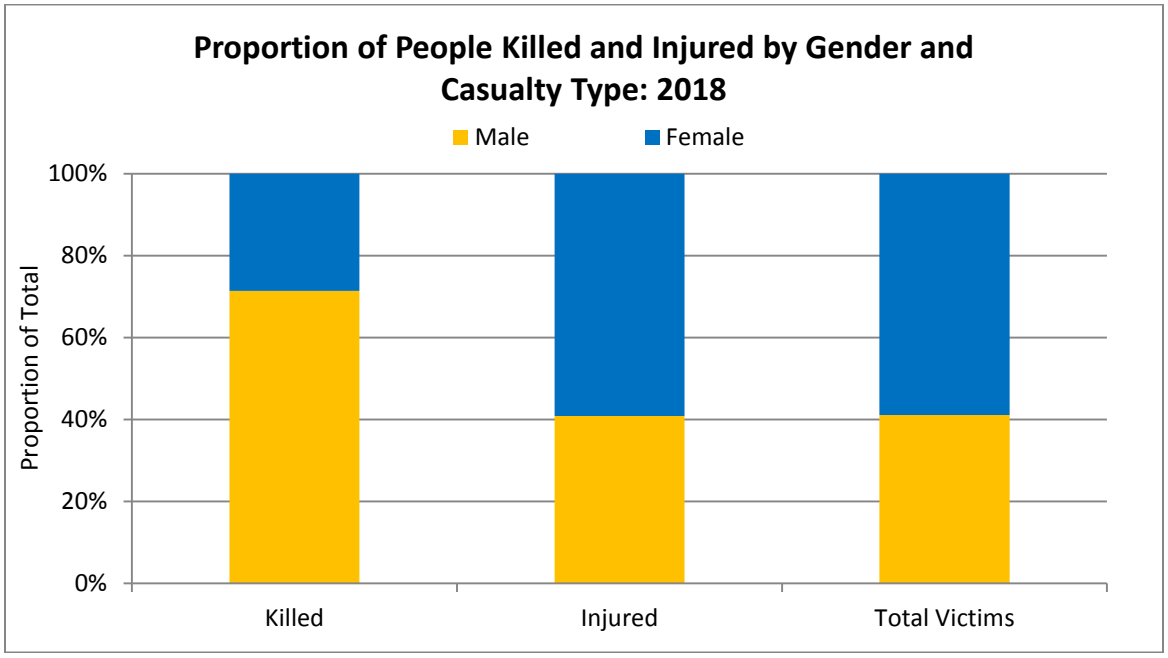


Table 5-7 Collision Victims by Age Group and Casualty Type

Table 5-7

Collision Victims by Age Group and Casualty Type: 2018

Age Group	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
0-4	0	-	8	1.9%	33	1.9%	94	1.0%	1	0.3%	136	1.2%	**136**	1.2%
5-9	2	2.9%	14	3.3%	36	2.1%	131	1.4%	5	1.6%	186	1.6%	**188**	1.6%
10-14	3	4.3%	3	0.7%	44	2.5%	159	1.7%	2	0.7%	208	1.8%	**211**	1.8%
15-19	9	12.9%	36	8.5%	155	8.9%	507	5.5%	18	5.9%	716	6.1%	**725**	6.2%
20-24	5	7.1%	39	9.2%	187	10.7%	936	10.2%	32	10.5%	1,194	10.2%	**1,199**	10.2%
25-34	14	20.0%	64	15.1%	341	19.5%	1,937	21.1%	81	26.5%	2,423	20.8%	**2,437**	20.8%
35-44	16	22.9%	63	14.9%	288	16.5%	1,825	19.8%	52	17.0%	2,228	19.1%	**2,244**	19.1%
45-54	6	8.6%	66	15.6%	257	14.7%	1,632	17.7%	54	17.6%	2,009	17.2%	**2,015**	17.2%
55-64	7	10.0%	52	12.3%	220	12.6%	1,228	13.4%	27	8.8%	1,527	13.1%	**1,534**	13.1%
65+	8	11.4%	78	18.4%	187	10.7%	747	8.1%	34	11.1%	1,046	9.0%	**1,054**	9.0%
Not Stated	0	-	1	-	7	-	26	-	0	-	34	-	**34**	-
Total	70	100%	424	100%	1,755	100%	9,222	100%	306	100%	11,707	100%	**11,777**	100%

*Percentage of the total does not include the "not stated" category.
Note: Some victims do not have age and gender recorded and are therefore missing from the table above.

Table 5-7a Collision Victims by Age Group and Casualty Type for Previous Five Years

Table 5-7a

Collision Victims by Age Group and Casualty Type: 2013-2017 Average

Age Group	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
0-4	<1	6	39	109	2	157	157	1.3%
5-9	<1	7	41	103	5	156	156	1.3%
10-14	2	5	40	126	5	176	178	1.5%
15-19	7	38	219	559	16	832	839	7.2%
20-24	10	47	242	915	22	1,226	1,236	10.6%
25-34	15	64	383	1,889	53	2,389	2,404	20.6%
35-44	10	56	305	1,775	43	2,178	2,188	18.8%
45-54	13	53	307	1,667	40	2,067	2,080	17.8%
55-64	8	44	227	1,132	32	1,435	1,443	12.4%
65+	16	62	183	696	17	958	975	8.4%
Not Stated	-	2	11	34	2	50	50	-
Total	82	385	1,996	9,006	238	11,625	11,707	100%

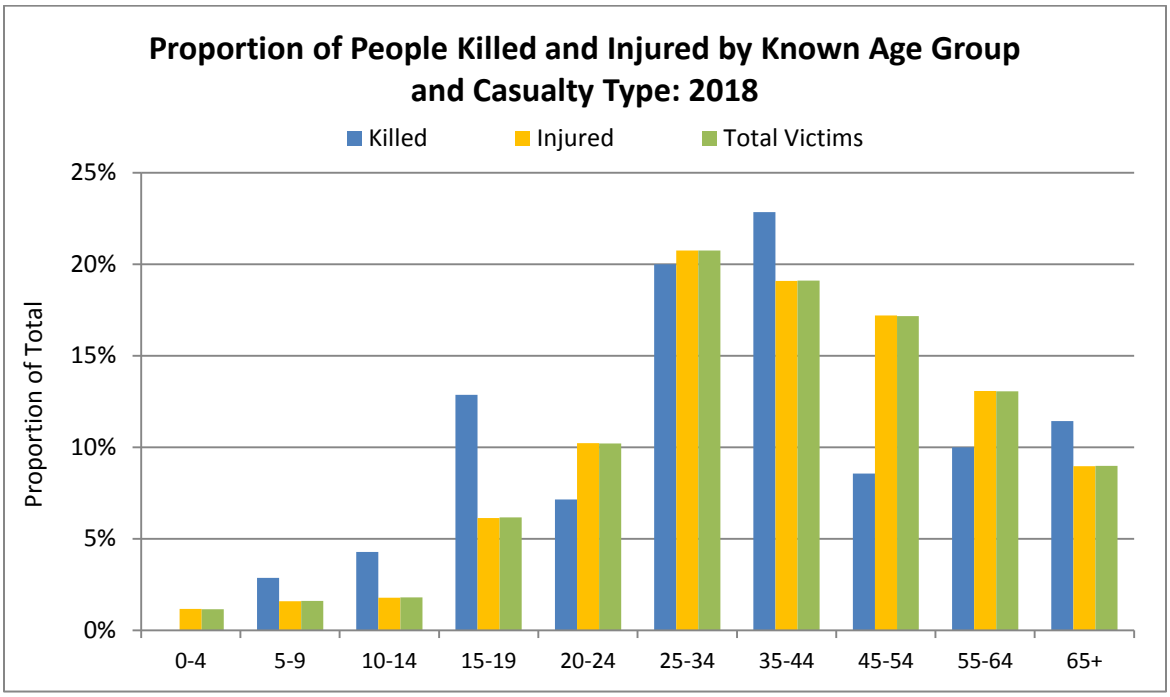
*Percentage of the total does not include the "not stated" category.
Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.
Note: Some victims do not have age and gender recorded and are therefore missing from the table above.

Victims aged 25 to 34 account for the highest proportion of casualties in 2018 (21% of all casualties; 20% of people killed; 15% of people seriously injured), followed by those aged 35 to 44 (19% of all casualties; 23% of people killed; 15% of people seriously injured) and those age 45 to 54 (17% of all casualties; 9% of people killed; 16% of people seriously injured). Victims aged 15 to 19 account for 6% of all casualties while those aged 20 to 24 account for 10%.

The proportion of victims by age group in 2018 is very similar to what it has been in the previous five year (2013 to 2017) annual average. In the previous five years, victims aged 25 to 34 (21% of all victims) account for the largest group, followed by victims aged 35 to 44 (19% of all victims) and those aged 45 to 54 (18% of all victims). Victims aged 15 to 19 and 20 to 24 account for 7% and 11% of all victims in the five year period (2013 to 2017), respectively.

In 2018, 40% of all people killed are aged 15 to 34 (13% aged 15-19; 7% aged 20-24; 20% aged 25-34), 31% are aged 35 to 54, and 21% are aged 55 and older. In the previous five year (2013 to 2017) annual average, 39% of people killed are aged 15 to 34, 28% are aged 35 to 54, and 29% are aged 55 and older.

Figure 5-6 Proportion of People Killed and Injured by Age Group and Casualty Type



In 2018, people aged 35 to 44 make up the largest group of people killed in traffic collisions (23%), followed by those aged 25 to 34 (20%).

NOTE: For a detailed count of collision victims for 2018 and the previous five year (2013 to 2017) annual average by age and gender combined, please refer to "*Table 5-8 Collision Victims by Age Group, Casualty Type, and Gender*" and "*Table 5-8a Collision Victims by Age Group, Casualty Type, and Gender for Previous Five Years*" on the following pages.

Table 5-8 Collision Victims by Age Group, Casualty Type, and Gender

Table 5-8

Collision Victims by Gender and Age Group and Casualty Type: 2018

Age Group		2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
		Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Female	0-4	0	-	5	2.2%	14	1.4%	44	0.8%	1	0.6%	64	0.9%	**64**	0.9%
	5-9	0	-	9	4.0%	18	1.8%	73	1.3%	2	1.2%	102	1.5%	**102**	1.5%
	10-14	0	-	2	0.9%	25	2.5%	97	1.8%	1	0.6%	125	1.8%	**125**	1.8%
	15-19	3	15.0%	25	11.0%	89	9.0%	297	5.4%	11	6.4%	422	6.1%	**425**	6.1%
	20-24	3	15.0%	21	9.3%	111	11.2%	550	10.0%	18	10.5%	700	10.2%	**703**	10.2%
	25-34	4	20.0%	29	12.8%	213	21.6%	1,162	21.1%	48	27.9%	1,452	21.1%	**1,456**	21.1%
	35-44	5	25.0%	38	16.7%	166	16.8%	1,102	20.0%	31	18.0%	1,337	19.4%	**1,342**	19.4%
	45-54	2	10.0%	34	15.0%	138	14.0%	1,010	18.4%	27	15.7%	1,209	17.5%	**1,211**	17.5%
	55-64	2	10.0%	22	9.7%	119	12.0%	728	13.2%	15	8.7%	884	12.8%	**886**	12.8%
	65+	1	5.0%	42	18.5%	95	9.6%	441	8.0%	18	10.5%	596	8.6%	**597**	8.6%
	Not Stated	0	-	1	-	4	-	22	-	0	-	27	-	**27**	-
	Total Female	**20**	**100%**	**228**	**100%**	**992**	**100%**	**5,526**	**100%**	**172**	**100%**	**6,918**	**100%**	**6,938**	100%
Male	0-4	0	-	3	1.5%	19	2.5%	50	1.4%	0	-	72	1.5%	**72**	1.5%
	5-9	2	4.0%	5	2.6%	18	2.4%	58	1.6%	3	2.2%	84	1.8%	**86**	1.8%
	10-14	3	6.0%	1	0.5%	19	2.5%	62	1.7%	1	0.7%	83	1.7%	**86**	1.8%
	15-19	6	12.0%	11	5.6%	66	8.7%	210	5.7%	7	5.2%	294	6.1%	**300**	6.2%
	20-24	2	4.0%	18	9.2%	76	10.0%	386	10.5%	14	10.4%	494	10.3%	**496**	10.3%
	25-34	10	20.0%	35	17.9%	128	16.8%	775	21.0%	33	24.6%	971	20.3%	**981**	20.3%
	35-44	11	22.0%	25	12.8%	122	16.1%	723	19.6%	21	15.7%	891	18.6%	**902**	18.7%
	45-54	4	8.0%	32	16.3%	119	15.7%	622	16.8%	27	20.1%	800	16.7%	**804**	16.6%
	55-64	5	10.0%	30	15.3%	101	13.3%	500	13.5%	12	9.0%	643	13.4%	**648**	13.4%
	65+	7	14.0%	36	18.4%	92	12.1%	306	8.3%	16	11.9%	450	9.4%	**457**	9.5%
	Not Stated	0	-	0	-	3	-	4	-	0	-	7	-	**7**	-
	Total Male	**50**	**100%**	**196**	**100%**	**763**	**100%**	**3,696**	**100%**	**134**	**100%**	**4,789**	**100%**	**4,839**	100%

*Percentage of the total does not include the "not stated" category.

Note: Some victims do not have age and gender recorded and are therefore missing from the table above.

Table 5-8a Collision Victims by Age Group, Casualty Type, and Gender for Previous Five Years

Table 5-8a

Collision Victims by Gender and Age Group and Casualty Type: 2013-2017 Average

Age Group		2013-2017 Average Count of Victims							
		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Female	0-4	<1	4	19	61	1	85	86	1.2%
	5-9	-	3	18	54	2	77	77	1.1%
	10-14	<1	2	20	73	3	98	99	1.4%
	15-19	3	20	136	335	9	500	502	7.3%
	20-24	3	21	140	566	13	740	743	10.7%
	25-34	5	29	231	1,152	31	1,443	1,448	20.9%
	35-44	2	29	175	1,083	25	1,312	1,314	19.0%
	45-54	4	23	172	1,027	23	1,245	1,249	18.0%
	55-64	2	21	125	684	22	852	853	12.3%
	65+	7	29	103	407	10	549	556	8.0%
	Not Stated	-	1	7	22	<1	30	30	-
	Total Female	27	181	1,148	5,463	139	6,931	6,958	100%
Male	0-4	<1	3	19	48	1	71	72	1.5%
	5-9	<1	4	23	49	3	79	79	1.7%
	10-14	<1	3	20	53	2	78	79	1.7%
	15-19	5	19	83	224	7	332	337	7.1%
	20-24	6	26	102	349	9	486	493	10.4%
	25-34	10	36	152	737	22	946	957	20.2%
	35-44	8	27	129	692	18	866	874	18.5%
	45-54	9	30	135	640	17	822	831	17.6%
	55-64	6	23	102	448	10	584	590	12.5%
	65+	10	33	80	289	7	409	418	8.8%
	Not Stated	-	1	4	13	1	20	20	-
	Total Male	55	204	849	3,543	99	4,693	4,748	100%

*Percentage of the total does not include the "not stated" category.
Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.
Note: Some victims do not have age and gender recorded and are therefore missing from the table above.

Table 5-9 Victim Involvement Rate (per 100,000 people) by Gender and Age Group and Casualty Type

Table 5-9

Victim Involvement Rate (per 100,000 people) by Gender and Age Group and Casualty Type: 2018, 2013-2017 Average

Age Group		2018 Casualty Type						**2018 Total Victims**	2013-2017 Average Victim Involvement Rate						
		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims
Female	0-4	-	11.9	33.4	105.0	2.4	152.8	**152.8**	1.5	9.3	47.5	149.2	2.4	208.4	209.9
	5-9	-	20.9	41.8	169.4	4.6	236.7	**236.7**	-	7.8	43.7	130.7	5.3	187.5	187.5
	10-14	-	4.9	61.1	236.9	2.4	305.3	**305.3**	2.0	5.1	51.6	186.4	7.1	250.2	252.3
	15-19	7.5	62.3	221.9	740.4	27.4	1,052.0	**1,059.5**	6.7	47.2	323.6	797.7	21.9	1,190.4	1,197.1
	20-24	6.7	47.2	249.3	1,235.3	40.4	1,572.2	**1,578.9**	7.2	44.7	299.0	1,205.5	26.8	1,576.0	1,583.3
	25-34	4.1	29.9	219.6	1,198.0	49.5	1,497.0	**1,501.2**	5.0	31.1	251.3	1,252.3	34.1	1,568.8	1,573.8
	35-44	5.6	42.8	186.9	1,240.8	34.9	1,505.3	**1,511.0**	2.6	33.9	206.5	1,274.9	29.2	1,544.5	1,547.1
	45-54	2.3	39.8	161.5	1,181.7	31.6	1,414.5	**1,416.9**	5.0	25.9	193.6	1,155.5	26.1	1,401.0	1,406.0
	55-64	2.3	25.3	136.9	837.3	17.3	1,016.7	**1,019.0**	1.9	25.2	151.6	829.4	26.7	1,033.0	1,034.9
	65+	0.9	36.2	82.0	380.5	15.5	514.3	**515.1**	12.6	54.3	191.9	757.1	18.2	1,021.5	1,034.1
	Total Female	**2.9**	**33.3**	**144.9**	**807.1**	**25.1**	**1,010.4**	**1,013.3**	4.1	27.2	172.3	820.3	20.9	1,040.8	1,044.9
Male	0-4	-	6.7	42.6	112.1	-	161.4	**161.4**	0.5	6.0	44.4	111.9	2.8	165.0	165.5
	5-9	4.4	11.1	39.9	128.6	6.7	186.3	**190.7**	0.9	8.4	52.6	114.6	7.5	183.0	183.9
	10-14	7.0	2.3	44.3	144.5	2.3	193.4	**200.4**	1.9	7.7	48.2	126.9	5.8	188.6	190.6
	15-19	14.0	25.7	154.0	490.0	16.3	686.0	**700.0**	10.3	41.6	185.1	500.8	15.7	743.2	753.4
	20-24	4.3	38.3	161.8	821.9	29.8	1,051.8	**1,056.1**	12.9	51.6	205.6	704.0	18.9	980.1	993.0
	25-34	10.4	36.4	133.0	805.1	34.3	1,008.7	**1,019.1**	11.4	38.9	166.0	804.7	23.6	1,033.1	1,044.4
	35-44	12.4	28.2	137.8	816.7	23.7	1,006.5	**1,018.9**	9.5	32.1	152.7	817.5	21.3	1,023.6	1,033.1
	45-54	4.6	37.1	138.1	722.0	31.3	928.7	**933.3**	9.6	33.5	150.4	715.2	19.2	918.3	928.0
	55-64	5.8	34.5	116.2	575.3	13.8	739.8	**745.5**	7.4	28.2	125.3	549.5	12.5	715.5	722.9
	65+	7.3	37.7	96.3	320.2	16.7	470.9	**478.2**	22.0	75.7	182.6	663.3	16.1	937.6	959.6
	Total Male	**7.4**	**29.0**	**112.9**	**546.9**	**19.8**	**708.6**	**716.0**	8.4	31.0	129.3	539.6	15.0	714.9	723.3

Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.
Note: Some victims do not have age and gender recorded and are therefore missing from the table above.

Overall, women have higher victim involvement rates than men. The involvement rate for females in all traffic collisions in 2018 is 1,013.3, while for males it is 716.0 (per 100,000 people). Similarly, in the previous five year (2013 to 2017) annual average, women have a higher involvement rate than men (women 1,044.9; men 723.3). However, men have higher involvement rates than women when it comes to being killed.

People aged 20 to 24 and 35 to 44 have the highest victim involvement rates (per 100,000 people) overall in 2018.

- Children under age 15 – rate of 206.9
- People aged 15 to 19 – rate of 873.8
- People aged 20 to 24 – rate of 1,310.5
- People aged 25 to 34 – rate of 1,261.0
- People aged 35 to 44 – rate of 1,265.3
- People aged 45 to 54 – rate of 1,174.1
- People aged 55 and older – rate of 671.7

In 2018, women aged 20 to 24 have the highest victim involvement rate of any age-gender group (1,578.9 per 100,000 people) followed by women aged 35 to 44 (1,511.0) and women aged 25 to 34 (1,501.2). While the victim involvement rates for men is lower than women in 2018, men aged 20 to 24 have the highest rate among male age groups (1,056.1 per 100,000 people) followed by men aged 25 to 34 (1,019.1) and men aged 35 to 44 (1,018.9).

The overall victim involvement rates in 2018 are generally lower than the rates in the previous five year (2013 to 2017) annual average.

- Compared to the previous five years, victim involvement rates for women decreased by 3% overall. The rate for women killed in 2018 decreased by nearly 29%, but women seriously injured in 2018 increased by 22% compared to the previous five years.
- Compared to the previous five years, victim involvement rates for men decreased by 1% overall. The rate for men killed in 2018 decreased by 12% and seriously injured in 2018 decreased by nearly 7% compared to the previous five years.

Table 5-10 Collision Victims by Road User Class and Age Group

Table 5-10

Collision Victims by Road User Class and Age Group and Casualty Type: 2018

	Age Group	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
		Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Driver	0-4	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	5-9	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	10-14	2	5.7%	0	-	0	-	0	-	0	-	0	-	**2**	<0.1%
	15-19	4	11.4%	17	6.7%	81	7.0%	347	4.7%	9	3.8%	454	5.0%	**458**	5.1%
	20-24	1	2.9%	23	9.1%	123	10.7%	777	10.6%	28	11.9%	951	10.6%	**952**	10.5%
	25-34	7	20.0%	39	15.5%	248	21.6%	1,646	22.4%	61	26.0%	1,994	22.2%	**2,001**	22.2%
	35-44	9	25.7%	39	15.5%	213	18.5%	1,573	21.4%	46	19.6%	1,871	20.8%	**1,880**	20.8%
	45-54	4	11.4%	44	17.5%	194	16.9%	1,400	19.0%	44	18.7%	1,682	18.7%	**1,686**	18.7%
	55-64	3	8.6%	39	15.5%	162	14.1%	1,007	13.7%	19	8.1%	1,227	13.6%	**1,230**	13.6%
	65+	5	14.3%	51	20.2%	129	11.2%	609	8.3%	28	11.9%	817	9.1%	**822**	9.1%
	Not Stated	0	-	0	-	0	-	3	-	0	-	3	-	**3**	-
	Total Drivers*	**35**	**100%**	**252**	**100%**	**1,150**	**100%**	**7,362**	**100%**	**235**	**100%**	**8,999**	**100%**	**9,034**	100%
Passenger	0-4	0	-	10	9.4%	27	6.2%	98	5.6%	2	2.9%	137	5.8%	**137**	5.8%
	5-9	1	6.7%	12	11.3%	29	6.7%	128	7.4%	5	7.4%	174	7.4%	**175**	7.4%
	10-14	0	-	3	2.8%	38	8.8%	157	9.0%	2	2.9%	200	8.5%	**200**	8.5%
	15-19	3	20.0%	15	14.2%	60	13.8%	158	9.1%	8	11.8%	241	10.3%	**244**	10.3%
	20-24	2	13.3%	8	7.5%	45	10.4%	143	8.2%	4	5.9%	200	8.5%	**202**	8.6%
	25-34	3	20.0%	17	16.0%	62	14.3%	273	15.7%	19	27.9%	371	15.8%	**374**	15.8%
	35-44	1	6.7%	11	10.4%	46	10.6%	232	13.3%	6	8.8%	295	12.6%	**296**	12.5%
	45-54	2	13.3%	9	8.5%	40	9.2%	213	12.3%	9	13.2%	271	11.6%	**273**	11.6%
	55-64	1	6.7%	7	6.6%	38	8.8%	201	11.6%	7	10.3%	253	10.8%	**254**	10.8%
	65+	2	13.3%	14	13.2%	49	11.3%	135	7.8%	6	8.8%	204	8.7%	**206**	8.7%
	Not Stated	0	-	0	-	19	-	86	-	0	-	105	-	**105**	-
	Total Passengers*	**15**	**100%**	**106**	**100%**	**453**	**100%**	**1,824**	**100%**	**68**	**100%**	**2,451**	**100%**	**2,466**	100%

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Section 5 Collision Victims

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Age Group		2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
		Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Motorcyclist	0-4	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	5-9	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	10-14	0	-	0	-	1	3.1%	0	-	0	-	1	0.9%	**1**	0.9%
	15-19	0	-	1	4.0%	2	6.3%	4	7.8%	0	-	7	6.5%	**7**	6.3%
	20-24	0	-	1	4.0%	3	9.4%	8	15.7%	0	-	12	11.1%	**12**	10.7%
	25-34	1	25.0%	3	12.0%	7	21.9%	8	15.7%	0	-	18	16.7%	**19**	17.0%
	35-44	1	25.0%	4	16.0%	3	9.4%	8	15.7%	0	-	15	13.9%	**16**	14.3%
	45-54	0	-	6	24.0%	5	15.6%	13	25.5%	0	-	24	22.2%	**24**	21.4%
	55-64	1	25.0%	7	28.0%	9	28.1%	7	13.7%	0	-	23	21.3%	**24**	21.4%
	65+	1	25.0%	3	12.0%	2	6.3%	3	5.9%	0	-	8	7.4%	**9**	8.0%
	Not Stated	0	-	1	-	0	-	0	-	0	-	1	-	**1**	-
	Total Motorcyclists*	**4**	**100%**	**26**	**100%**	**32**	**100%**	**51**	**100%**	**0**	**0%**	**109**	**100%**	**113**	100%
Moped	0-4	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	5-9	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	10-14	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	15-19	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	20-24	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	25-34	0	-	1	100.0%	1	50.0%	3	37.5%	0	-	5	45.5%	**5**	45.5%
	35-44	0	-	0	-	0	-	3	37.5%	0	-	3	27.3%	**3**	27.3%
	45-54	0	-	0	-	1	50.0%	0	-	0	-	1	9.1%	**1**	9.1%
	55-64	0	-	0	-	0	-	2	25.0%	0	-	2	18.2%	**2**	18.2%
	65+	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	Not Stated	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
	Total Moped*	**0**	**0%**	**1**	**100%**	**2**	**100%**	**8**	**100%**	**0**	**0%**	**11**	**100%**	**11**	100%

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Section 5 Collision Victims

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	Age Group	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
		Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Bicyclist	0-4	0	-	1	7.1%	5	9.1%	6	11.8%	1	50.0%	13	10.7%	**13**	10.4%
	5-9	0	-	1	7.1%	1	1.8%	0	-	0	-	2	1.6%	**2**	1.6%
	10-14	1	33.3%	0	-	2	3.6%	3	5.9%	0	-	5	4.1%	**6**	4.8%
	15-19	1	33.3%	0	-	6	10.9%	2	3.9%	0	-	8	6.6%	**9**	7.2%
	20-24	0	-	1	7.1%	8	14.5%	4	7.8%	0	-	13	10.7%	**13**	10.4%
	25-34	0	-	3	21.4%	8	14.5%	9	17.6%	0	-	20	16.4%	**20**	16.0%
	35-44	0	-	3	21.4%	8	14.5%	7	13.7%	0	-	18	14.8%	**18**	14.4%
	45-54	0	-	2	14.3%	9	16.4%	9	17.6%	1	50.0%	21	17.2%	**21**	16.8%
	55-64	1	33.3%	1	7.1%	7	12.7%	10	19.6%	0	-	18	14.8%	**19**	15.2%
	65+	0	-	2	14.3%	1	1.8%	1	2.0%	0	-	4	3.3%	**4**	3.2%
	Not Stated	0	-	0	-	1	-	0	-	0	-	1	-	**1**	-
	Total Bicyclists*	**3**	**100%**	**14**	**100%**	**56**	**100%**	**51**	**100%**	**2**	**100%**	**123**	**100%**	**126**	100%
Pedestrian	0-4	0	-	2	5.6%	4	4.1%	0	-	0	-	6	3.0%	**6**	2.8%
	5-9	1	7.7%	2	5.6%	3	3.1%	1	1.6%	0	-	6	3.0%	**7**	3.3%
	10-14	0	-	1	2.8%	7	7.1%	2	3.1%	0	-	10	5.0%	**10**	4.7%
	15-19	1	7.7%	3	8.3%	7	7.1%	1	1.6%	1	25.0%	12	5.9%	**13**	6.0%
	20-24	2	15.4%	6	16.7%	10	10.2%	8	12.5%	0	-	24	11.9%	**26**	12.1%
	25-34	3	23.1%	4	11.1%	22	22.4%	11	17.2%	1	25.0%	38	18.8%	**41**	19.1%
	35-44	5	38.5%	5	13.9%	18	18.4%	9	14.1%	0	-	32	15.8%	**37**	17.2%
	45-54	0	-	4	11.1%	8	8.2%	9	14.1%	1	25.0%	22	10.9%	**22**	10.2%
	55-64	1	7.7%	1	2.8%	7	7.1%	12	18.8%	0	-	20	9.9%	**21**	9.8%
	65+	0	-	8	22.2%	12	12.2%	11	17.2%	1	25.0%	32	15.8%	**32**	14.9%
	Not Stated	0	-	0	-	5	-	7	-	0	-	12	-	**12**	-
	Total Pedestrians*	**13**	**100%**	**36**	**100%**	**103**	**100%**	**71**	**100%**	**4**	**100%**	**214**	**100%**	**227**	100%

*Percentage of the total does not include the "not stated" category.
Note: Counts for “Motorcyclist”, “Bicyclist” and “Moped” include passengers on those vehicle types.
Note: In 2018, there are 13 victims in the class "Riding/hanging on" (i.e., not in the passenger compartment) who are not included in Table 5-10. This includes 2 people with serious injuries, 2 with minor injuries, 8 with minimal injuries and 1 with other injury.
Note: Some victims do not have their position in the vehicle recorded and are therefore missing from the table above. This includes 67 injured people (20 minor and 47 minimal injuries).

Table 5-10a Victims by Road User Class and Age Group and Casualty Type for Previous Five Years

Table 5-10a

Collision Victims by Road User Class and Age Group and Casualty Type: 2013-2017 Average

Age Group		2013-2017 Average Count of Victims							
		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Driver	0-4	-	-	<1	1	-	1	1	<0.1%
	5-9	-	-	-	<1	-	<1	<1	<0.1%
	10-14	-	<1	<1	<1	<1	1	1	<0.1%
	15-19	4	22	144	392	11	568	572	6.3%
	20-24	5	28	174	755	15	972	977	10.7%
	25-34	9	41	297	1,600	43	1,981	1,990	21.9%
	35-44	5	37	237	1,552	35	1,862	1,867	20.5%
	45-54	7	33	234	1,438	32	1,737	1,745	19.2%
	55-64	5	27	169	966	22	1,185	1,190	13.1%
	65+	9	43	129	561	13	746	755	8.3%
	Not Stated	-	-	1	3	-	5	5	-
	Total Drivers*	45	232	1,385	7,270	171	9,058	9,103	100%
Passenger	0-4	<1	8	42	121	3	173	174	7.6%
	5-9	<1	5	40	107	4	157	157	6.8%
	10-14	1	3	37	135	4	179	181	7.9%
	15-19	2	12	67	168	5	252	254	11.0%
	20-24	2	13	54	147	5	219	221	9.6%
	25-34	3	12	63	266	8	348	351	15.3%
	35-44	3	12	50	208	5	275	278	12.1%
	45-54	2	9	51	211	5	277	279	12.1%
	55-64	1	8	40	154	6	209	210	9.1%
	65+	3	13	44	132	2	192	196	8.5%
	Not Stated	-	2	34	109	2	147	147	-
	Total Passengers*	19	97	523	1,758	49	2,428	2,446	100%
Motorcyclist	0-4	-	-	-	-	-	-	-	-
	5-9	-	-	-	-	-	-	-	-
	10-14	-	-	-	-	-	-	-	-
	15-19	<1	<1	2	1	-	4	4	3.0%
	20-24	<1	3	6	6	<1	16	16	11.7%
	25-34	1	5	8	12	<1	25	26	19.2%
	35-44	<1	3	7	11	<1	21	22	16.3%
	45-54	2	7	11	14	<1	33	35	25.7%
	55-64	<1	6	9	10	-	25	25	18.9%
	65+	<1	2	2	3	-	7	7	5.2%
	Not Stated	-	-	-	<1	-	<1	<1	-
	Total Motorcyclists*	5	26	46	57	1	130	135	100%

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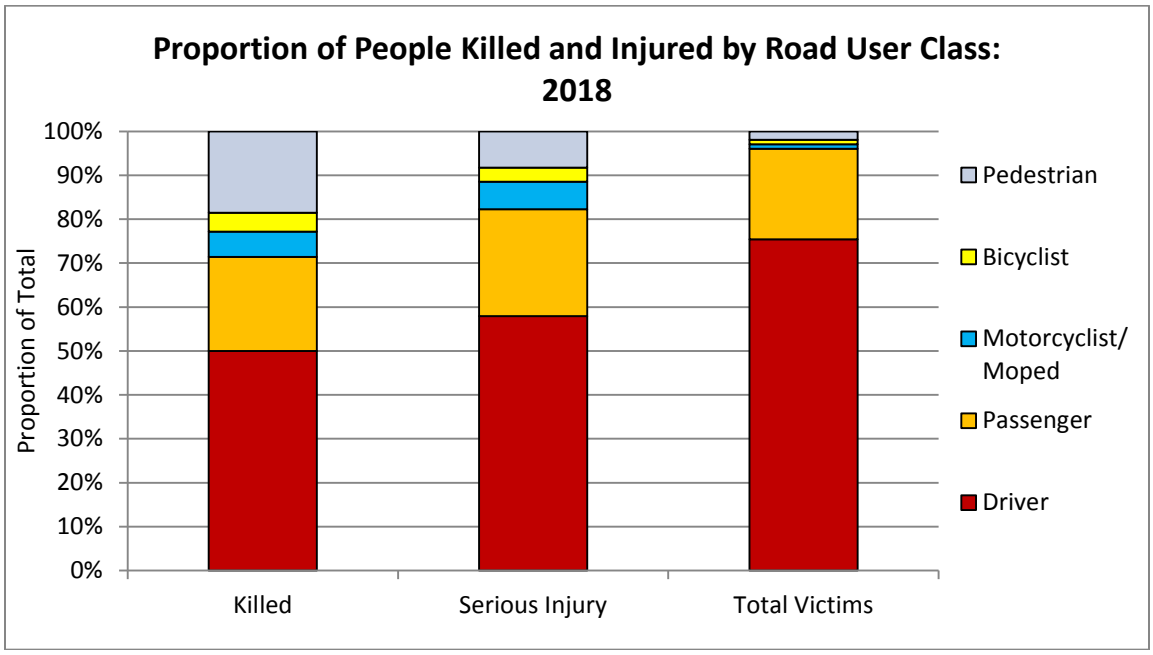
Age Group		2013-2017 Average Count of Victims							
		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Moped	0-4	-	-	-	-	-	-	-	-
	5-9	-	-	-	-	-	-	-	-
	10-14	-	-	-	-	-	-	-	-
	15-19	-	-	<1	<1	-	<1	<1	3.4%
	20-24	-	-	-	<1	-	<1	<1	6.8%
	25-34	-	<1	<1	3	-	4	4	30.5%
	35-44	-	<1	1	<1	-	2	2	16.9%
	45-54	-	<1	2	1	<1	4	4	32.2%
	55-64	-	-	<1	<1	-	1	1	8.5%
	65+	-	-	-	-	<1	<1	<1	1.7%
	Not Stated	-	-	-	-	-	-	-	-
	Total Moped*	-	1	4	6	<1	12	12	100%
Bicyclist	0-4	-	-	<1	2	<1	3	3	3.3%
	5-9	-	-	1	<1	<1	2	2	2.4%
	10-14	<1	<1	3	<1	<1	5	5	5.6%
	15-19	-	1	4	4	<1	10	10	11.3%
	20-24	<1	<1	4	6	<1	11	11	12.7%
	25-34	<1	1	8	7	1	18	18	20.4%
	35-44	<1	1	6	6	1	14	15	16.7%
	45-54	<1	1	4	5	2	12	13	14.2%
	55-64	-	<1	2	4	<1	7	7	8.2%
	65+	<1	<1	2	1	<1	4	5	5.1%
	Not Stated	-	<1	<1	1	<1	3	3	-
	Total Bicyclists*	3	8	35	38	9	90	93	100%
Pedestrian	0-4	<1	<1	3	1	<1	5	5	3.7%
	5-9	-	1	2	<1	<1	4	4	3.0%
	10-14	<1	<1	3	1	-	5	6	3.9%
	15-19	1	2	5	3	1	10	12	8.2%
	20-24	2	2	6	4	2	15	17	11.8%
	25-34	2	4	10	7	2	22	24	16.9%
	35-44	<1	3	6	7	<1	17	18	12.7%
	45-54	1	2	8	7	1	18	19	13.7%
	55-64	1	2	7	5	3	17	18	12.8%
	65+	2	4	7	5	1	16	19	13.3%
	Not Stated	-	<1	2	2	3	7	7	-
	Total Pedestrians*	11	22	59	43	14	138	149	100%

*Percentage of the total does not include the "not stated" category.
Note: Counts for “Motorcyclist”, “Bicyclist” and “Moped” include passengers on those vehicle types.
Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.
Note: In 2013-2017, there is an average of 30 victims in the class “Riding/Hanging On”. There is also an average of 80 victims whose Road User Class cannot be determined. These victims are not included in Table 5-10a.

In 2018, “Drivers” account for 75% of all casualties and motor vehicle “Passengers” for 21%. “Motorcyclists” and “Moped” riders combined account for 1% of all casualties while “Bicyclists” account for 1% and “Pedestrians” account for 2%. In 2018, “Pedestrians” account for 19% of people killed in traffic collisions.

Figure 5-7 Proportion of People Killed and Injured by Road User Class



Considering people killed and seriously injured in Manitoba traffic collisions in 2018:

- Drivers account for the largest proportion of people killed (50%) and seriously injured (58%);
- Passengers account for 21% of people killed and 24% of people seriously injured;
- Pedestrians account for 19% of people killed and 8% of people seriously injured;
- Motorcyclists (including motorcycle and moped riders, combined) account for 6% of people killed and 6% of people seriously injured; and,
- Bicyclists account for 4% of people killed and 3% of people seriously injured.

Vulnerable road users (pedestrians, motorcyclists/moped riders, and bicyclists) account for a much higher proportion of people killed and seriously injured than they do for people sustaining only minor or minimal injuries.

- Pedestrians account for 19% of people killed and 8% of people seriously injured, but only 2% of all victims in 2018.
- Motorcyclists and moped riders account for 6% of people killed and 6% of people seriously injured, but only 1% of all victims in 2018.
- Bicyclists account for 4% of people killed and 3% of people seriously injured, but only 1% of all victims in 2018.

Table 5-11 Collision Victims by Collision Type and Casualty Type

Table 5-11
Collision Victims by Collision Type and Casualty Type: 2018

Collision Type	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Collision with pedestrian	4	5.7%	19	4.3%	44	2.4%	41	0.4%	2	0.6%	106	0.9%	**110**	0.9%
Collision with other motor vehicle	39	55.7%	277	63.4%	1,332	73.3%	8,220	87.2%	273	88.1%	10,102	84.3%	**10,141**	84.1%
Collisions with train	0	-	1	0.2%	1	<0.1%	0	-	0	-	2	<0.1%	**2**	<0.1%
Collision with motorcycle	1	1.4%	0	-	1	<0.1%	6	<0.1%	0	-	7	<0.1%	**8**	<0.1%
Collision with animal drawn vehicle	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
Collision with bicycle	0	-	8	1.8%	25	1.4%	43	0.5%	2	0.6%	78	0.7%	**78**	0.6%
Collision with animal	0	-	13	3.0%	47	2.6%	350	3.7%	6	1.9%	416	3.5%	**416**	3.5%
Collision with fixed object	13	18.6%	82	18.8%	270	14.9%	512	5.4%	21	6.8%	885	7.4%	**898**	7.4%
Collision with other object	5	7.1%	29	6.6%	67	3.7%	191	2.0%	6	1.9%	293	2.4%	**298**	2.5%
Overturned in roadway	1	1.4%	1	0.2%	5	0.3%	7	<0.1%	0	-	13	0.1%	**14**	0.1%
Ran off roadway	5	7.1%	3	0.7%	5	0.3%	1	<0.1%	0	-	9	<0.1%	**14**	0.1%
Collision with moped	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
Other non-collision	2	2.9%	4	0.9%	21	1.2%	51	0.5%	0	-	76	0.6%	**78**	0.6%
Total	70	100%	437	100%	1,818	100%	9,422	100%	310	100%	11,987	100%	**12,057**	100%

Table 5-11a Collision Victims by Collision Type and Casualty Type for Previous Five Years

Table 5-11a
Collision Victims by Collision Type and Casualty Type: 2013-2017 Average

Collision Type	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Collision with pedestrian	3	9	19	15	7	50	53	0.4%
Collision with other motor vehicle	43	219	1,485	7,867	194	9,765	9,807	81.6%
Collisions with train	<1	<1	<1	<1	-	2	2	<0.1%
Collision with motorcycle	2	3	3	4	<1	9	11	<0.1%
Collision with animal drawn vehicle	-	-	-	-	-	-	-	-
Collision with bicycle	1	3	11	18	2	34	35	0.3%
Collision with animal	<1	9	34	290	7	340	340	2.8%
Collision with fixed object	18	83	299	567	17	966	984	8.2%
Collision with other object	7	36	158	393	13	600	607	5.1%
Overturned in roadway	2	2	7	5	-	14	15	0.1%
Ran off roadway	5	16	31	12	2	61	65	0.5%
Collision with moped	-	-	<1	<1	-	<1	<1	<0.1%
Other non-collision	1	6	25	61	4	96	97	0.8%
Total	82	385	2,072	9,232	247	11,936	12,018	100%

Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.
Note: There are several victims in 2014 where collision type was not captured; these are not included in the average calculation.

Motor vehicles colliding with other motor vehicles account for the majority of casualties in Manitoba, both in 2018 and in the previous five year (2013 to 2017) annual average. In 2018, “collision with other motor vehicle” accounts for:

- 84% of all casualties (82% in the previous five years);
- 56% of people killed (52% in the previous five years); and,
- 63% of people seriously injured (57% in the previous five years).

“Collision with a pedestrian”, “collision with motorcycle”, “collision with fixed object”, “collision with other object”, “overturned in roadway”, and “ran off roadway” each account for a higher proportion of people killed than of people injured in traffic collisions.

Table 5-12 Collision Victims by Accident Configuration and Casualty Type

Table 5-12
Collision Victims by Accident Configuration and Casualty Type: 2018

Accident Configuration	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Rear End	2	5.3%	46	14.3%	356	23.6%	4,541	55.4%	152	56.3%	5,095	49.5%	**5,097**	49.3%
Head On	12	31.6%	19	5.9%	34	2.3%	77	0.9%	1	0.4%	131	1.3%	**143**	1.4%
Side Swipe Opposing	0	-	3	0.9%	17	1.1%	75	0.9%	1	0.4%	96	0.9%	**96**	0.9%
Side Swipe Same Direction	0	-	11	3.4%	44	2.9%	503	6.1%	14	5.2%	572	5.6%	**572**	5.5%
Overtaking	0	-	1	0.3%	5	0.3%	34	0.4%	1	0.4%	41	0.4%	**41**	0.4%
Right Turn - Same direction	0	-	0	-	7	0.5%	24	0.3%	1	0.4%	32	0.3%	**32**	0.3%
Right Turn - Opposing	0	-	0	-	3	0.2%	10	0.1%	1	0.4%	14	0.1%	**14**	0.1%
Left Turn - Opposing	1	2.6%	16	5.0%	99	6.6%	238	2.9%	8	3.0%	361	3.5%	**362**	3.5%
Left Turn - Same direction	0	-	0	-	8	0.5%	28	0.3%	0	-	36	0.3%	**36**	0.3%
Left Turn - Across	1	2.6%	12	3.7%	71	4.7%	232	2.8%	10	3.7%	325	3.2%	**326**	3.2%
Intersection 90°	7	18.4%	108	33.5%	522	34.6%	1,699	20.7%	59	21.9%	2,388	23.2%	**2,395**	23.2%
Off Road Right	5	13.2%	18	5.6%	83	5.5%	142	1.7%	4	1.5%	247	2.4%	**252**	2.4%
Off Road Left	3	7.9%	30	9.3%	86	5.7%	99	1.2%	2	0.7%	217	2.1%	**220**	2.1%
Fixed Object	1	2.6%	28	8.7%	93	6.2%	279	3.4%	14	5.2%	414	4.0%	**415**	4.0%
Parking	0	-	3	0.9%	14	0.9%	140	1.7%	0	-	157	1.5%	**157**	1.5%
Pedestrian	6	15.8%	27	8.4%	68	4.5%	78	1.0%	2	0.7%	175	1.7%	**181**	1.8%
Other	32	-	115	-	308	-	1,223	-	40	-	1,686	-	**1,718**	-
Total	70	100%	437	100%	1,818	100%	9,422	100%	310	100%	11,987	100%	**12,057**	100%

Note: “Other” accident configurations consist primarily of collisions involving more than one configuration or sequence of events. Calculations in "% of Total" exclude the "Other" category.

Table 5-12a Collision Victims by Accident Configuration and Casualty Type for Previous Five Years

Table 5-12a

Collision Victims by Accident Configuration and Casualty Type: 2013-2017 Average

Accident Configuration	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Rear End	3	39	440	4,461	102	5,041	5,044	48.8%
Head On	18	27	68	125	5	225	243	2.3%
Side Swipe Opposing	<1	4	19	69	<1	93	93	0.9%
Side Swipe Same Direction	<1	9	58	433	9	509	509	4.9%
Overtaking	<1	1	6	27	<1	35	36	0.3%
Right Turn - Same direction	<1	<1	5	24	1	31	31	0.3%
Right Turn - Opposing	-	<1	3	11	<1	14	14	0.1%
Left Turn - Opposing	1	9	72	219	5	305	306	3.0%
Left Turn - Same direction	-	<1	5	29	1	36	36	0.3%
Left Turn - Across	<1	8	47	161	4	220	220	2.1%
Intersection 90°	10	96	653	1,779	45	2,573	2,582	25.0%
Off Road Right	7	38	130	166	5	338	345	3.3%
Off Road Left	4	25	87	107	3	222	226	2.2%
Fixed Object	4	22	92	276	9	399	403	3.9%
Parking	<1	1	15	129	2	148	148	1.4%
Pedestrian	7	14	32	36	10	92	98	1.0%
Other	26	96	347	1,196	44	1,683	1,709	-
Total	82	388	2,078	9,248	247	11,962	12,044	100%

Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.
Note: “Other” accident configurations consist primarily of collisions involving more than one configuration or sequence of events. Calculations in "% of Total" exclude the "Other" category.
Note: There are several victims in 2014 where accident configuration was not captured; these are not included in the average calculation.

“Rear end” collisions and those occurring at “intersections 90°” account for the highest proportions of casualties, followed by collisions involving at least one vehicle turning, side-swipe collisions, and collisions where the vehicle leaves the road (either “off road right” or “off road left”). In 2018:

- “Rear end” collisions account for 49% of all victims, 5% of people killed, and 14% of people seriously injured;
- “Intersection 90°” collisions account for 23% of all victims, 18% of people killed, and nearly 34% of people seriously injured;
- “Left turn” (including across, in the same direction, and opposing) collisions account for 7% of all victims, 5% of people killed, and 9% of people seriously injured;
- “Side swipe” (either opposing or same direction) collisions account for nearly 7% of all victims, none killed, and 4% of people seriously injured; and,
- “Off road” (either right or left) collisions account for 5% of all victims, 21% of people killed, and 15% of people seriously injured.

In 2018, people are most often killed in traffic collisions where:

- A “head on” collision occurs (32% of people killed);
- A vehicle goes “off road” (either right or left; 21% of people killed); or,
- A collision occurs at 90° intersections (18% of people killed).

Table 5-13 Collision Victims by Provincial Location and Casualty Type

Table 5-13
Collision Victims by Provincial Location and Casualty Type: 2018

Location	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Winnipeg	12	17.1%	211	48.3%	1,086	59.7%	7,772	82.5%	261	84.2%	9,330	77.8%	**9,342**	77.5%
Brandon	0	-	12	2.7%	72	4.0%	191	2.0%	4	1.3%	279	2.3%	**279**	2.3%
Portage	2	2.9%	12	2.7%	18	1.0%	44	0.5%	1	0.3%	75	0.6%	**77**	0.6%
Flin Flon	0	-	1	0.2%	5	0.3%	2	<0.1%	1	0.3%	9	<0.1%	**9**	<0.1%
Dauphin	0	-	2	0.5%	8	0.4%	25	0.3%	1	0.3%	36	0.3%	**36**	0.3%
Thompson	0	-	4	0.9%	16	0.9%	19	0.2%	2	0.6%	41	0.3%	**41**	0.3%
The Pas	0	-	0	-	7	0.4%	5	<0.1%	0	-	12	0.1%	**12**	<0.1%
Selkirk	0	-	4	0.9%	17	0.9%	56	0.6%	2	0.6%	79	0.7%	**79**	0.7%
Other Urban	13	18.6%	61	14.0%	172	9.5%	472	5.0%	21	6.8%	726	6.1%	**739**	6.1%
All Rural	43	61.4%	130	29.7%	417	22.9%	836	8.9%	17	5.5%	1,400	11.7%	**1,443**	12.0%
Total	70	100%	437	100%	1,818	100%	9,422	100%	310	100%	11,987	100%	**12,057**	100%

Table 5-13a Collision Victims by Provincial Location and Casualty Type for Previous Five Years

Table 5-13a
Collision Victims by Provincial Location and Casualty: 2013-2017 Average

Location	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Winnipeg	13	155	1,141	7,510	193	8,999	9,012	74.8%
Brandon	<1	11	79	172	6	268	268	2.2%
Portage	2	2	18	48	1	70	71	0.6%
Flin Flon	<1	<1	2	2	-	4	5	<0.1%
Dauphin	1	2	10	23	1	36	37	0.3%
Thompson	<1	2	12	22	1	38	39	0.3%
The Pas	-	1	9	10	<1	20	20	0.2%
Selkirk	<1	3	23	60	2	88	88	0.7%
Other Urban	8	45	232	513	14	804	811	6.7%
All Rural	56	167	553	891	28	1,640	1,696	14.1%
Total	82	389	2,080	9,250	247	11,966	12,048	100%

Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.

While traffic collisions occurring in urban locations account for the majority of casualties overall, traffic collisions in rural locations account for the majority of people killed. In 2018, 88% of all casualties result from traffic collisions in urban areas. Traffic collisions in rural locations, however, account for 61% of people killed. In the previous five year (2013 to 2017) annual average, 86% of all victims are from traffic collisions in urban locations, while 69% of people killed are from traffic collisions in rural locations.

Table 5-14 Collision Victims by Safety Equipment Use and Casualty Type

Table 5-14

Collision Victims by Safety Equipment Use and Casualty Type: 2018

Safety Equipment	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Lap belt only installed - In use	0	-	6	1.6%	15	0.9%	106	1.1%	0	-	127	1.1%	**127**	1.1%
Lap belt only installed - Not in use	1	1.9%	3	0.8%	8	0.5%	24	0.3%	0	-	35	0.3%	**36**	0.3%
Shoulder belt only installed - In use	1	1.9%	0	-	8	0.5%	33	0.4%	0	-	41	0.4%	**42**	0.4%
Shoulder belt only installed - Not in use	2	3.7%	2	0.5%	5	0.3%	9	<0.1%	0	-	16	0.1%	**18**	0.2%
Lap and shoulder belt assembly - In use	8	14.8%	176	45.7%	956	58.4%	7,848	84.9%	252	83.2%	9,232	79.8%	**9,240**	79.5%
Combined belt installed - Not in use	8	14.8%	4	1.0%	19	1.2%	19	0.2%	0	-	42	0.4%	**50**	0.4%
Only lap part of full assembly in use	1	1.9%	0	-	1	<0.1%	28	0.3%	0	-	29	0.3%	**30**	0.3%
Air bag deployed - Safety belt in use	6	11.1%	143	37.1%	516	31.5%	905	9.8%	39	12.9%	1,603	13.9%	**1,609**	13.8%
Air bar deployed - Safety belt not use	4	7.4%	2	0.5%	14	0.9%	10	0.1%	0	-	26	0.2%	**30**	0.3%
Safety seat properly installed - In use	0	-	7	1.8%	44	2.7%	168	1.8%	4	1.3%	223	1.9%	**223**	1.9%
Safety seat improperly installed - In use	0	-	3	0.8%	0	-	2	<0.1%	2	0.7%	7	<0.1%	**7**	<0.1%
Safety seat installed - Not in use	0	-	0	-	0	-	1	<0.1%	0	-	1	<0.1%	**1**	<0.1%
Safety helmet worn	3	5.6%	25	6.5%	34	2.1%	56	0.6%	0	-	115	1.0%	**118**	1.0%
Safety helmet not worn	1	1.9%	0	-	0	-	0	-	0	-	0	-	**1**	<0.1%
No safety device available	0	-	1	0.3%	3	0.2%	0	-	0	-	4	<0.1%	**4**	<0.1%
Other	1	1.9%	2	0.5%	0	-	6	<0.1%	1	0.3%	9	<0.1%	**10**	<0.1%
Not Applicable	0	-	2	0.5%	6	0.4%	18	0.2%	3	1.0%	29	0.3%	**29**	0.2%
Unknown	18	33.3%	9	2.3%	8	0.5%	12	0.1%	2	0.7%	31	0.3%	**49**	0.4%
Total	54	100%	385	100%	1,637	100%	9,245	100%	303	100%	11,570	100%	**11,624**	100%

Note: Vehicle occupants (Road User Class = Driver, Passenger) plus Motorcyclists and Moped riders and their passengers.

Table 5-14a Collision Victims by Safety Equipment Use and Casualty Type for Previous Five Years

Table 5-14a

Collision Victims by Safety Equipment Use and Casualty Type: 2013-2017 Average

Safety Equipment	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Lap belt only installed - In use	1	3	18	66	5	91	93	0.8%
Lap belt only installed - Not in use	2	4	9	21	<1	34	36	0.3%
Shoulder belt only installed - In use	1	2	9	38	5	54	55	0.5%
Shoulder belt only installed - Not in use	2	3	8	19	<1	30	32	0.3%
Lap and shoulder belt assembly - In use	16	175	1,223	7,928	177	9,503	9,519	81.4%
Combined belt installed - Not in use	10	8	21	24	<1	54	65	0.6%
Only lap part of full assembly in use	-	<1	2	17	<1	20	20	0.2%
Air bag deployed - Safety belt in use	9	98	518	671	16	1,303	1,312	11.2%
Air bar deployed - Safety belt not use	3	5	11	8	<1	23	27	0.2%
Safety seat properly installed - In use	<1	7	49	163	5	223	224	1.9%
Safety seat improperly installed - In use	<1	1	4	11	<1	17	18	0.2%
Safety seat installed - Not in use	<1	<1	1	2	-	4	4	<0.1%
Safety helmet worn	3	24	47	58	2	131	134	1.1%
Safety helmet not worn	<1	2	1	<1	-	4	4	<0.1%
No safety device available	1	2	5	5	<1	12	13	0.1%
Other	2	3	10	18	2	32	34	0.3%
Not Applicable	2	3	8	24	1	37	39	0.3%
Unknown	14	16	15	18	5	54	68	0.6%
Total	68	356	1,959	9,092	221	11,628	11,696	100%

Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.
Note: Vehicle occupants (Road User Class = Driver, Passenger) plus Motorcyclists and Moped riders and their passengers.

In 2018, most victims in traffic collisions were using safety equipment at the time of the collision (99% of all victims where safety equipment use is known, i.e., excluding “other”, “not applicable” and “unknown”).

In 2018, 46% of the people killed in traffic collisions and 3% of the people seriously injured in traffic collisions are recorded as not wearing or using the available safety equipment at the time of the collision (where safety equipment use is known).

Table 5-15 Safety Equipment Effectiveness

Table 5-15

Safety Equipment Effectiveness - Ratio of Victims Killed and Injured While 'Not Using Safety Equipment' to 'Using Safety Equipment': 2018

Safety Equipment Use	Total Casualties	Killed	% of Total Casualties	Serious Injury	% of Total Casualties	Minor/ Minimal Injury	% of Total Casualties	Other Injury	% of Total Casualties
Equipment not in use	140	16	11.4%	12	8.6%	112	80.0%	0	0.0%
Equipment in use	11,396	19	0.2%	360	3.2%	10,720	94.1%	297	2.6%
Safety Equipment Effectiveness*			**68.55**		**2.71**		**0.85**		**0.00**

*Ratio of % not using equipment over the % using equipment.

As a large majority of vehicle occupants use safety equipment (such as seatbelts, child restraints and helmets), the number of victims in traffic collisions who use safety equipment exceeds the number of victims who did not use safety equipment. Considering this, one might erroneously conclude that using safety equipment contributes to more victims.

When considering the effectiveness of safety equipment in a traffic collision, the proportion of victims by casualty type who use safety equipment is compared to the proportion of victims by casualty type not using safety equipment. In this manner, it is possible to determine the effectiveness of the equipment by examining how much more likely the victim is to sustain injuries of a specific severity when using or not using safety equipment.

As shown in Table 5-15, in 2018, victims not using safety equipment are nearly seventy times more likely to be killed and nearly three times more likely to be seriously injured in a traffic collision than those who used the equipment. Over the previous five years (2013 to 2017), people not using the available safety equipment are nearly forty times more likely to be killed and five times more likely to be seriously injured in a collision than people using the equipment.

Figure 5-8 Safety Equipment Effectiveness: Ratio of "Not Using Equipment" to "Using Equipment"

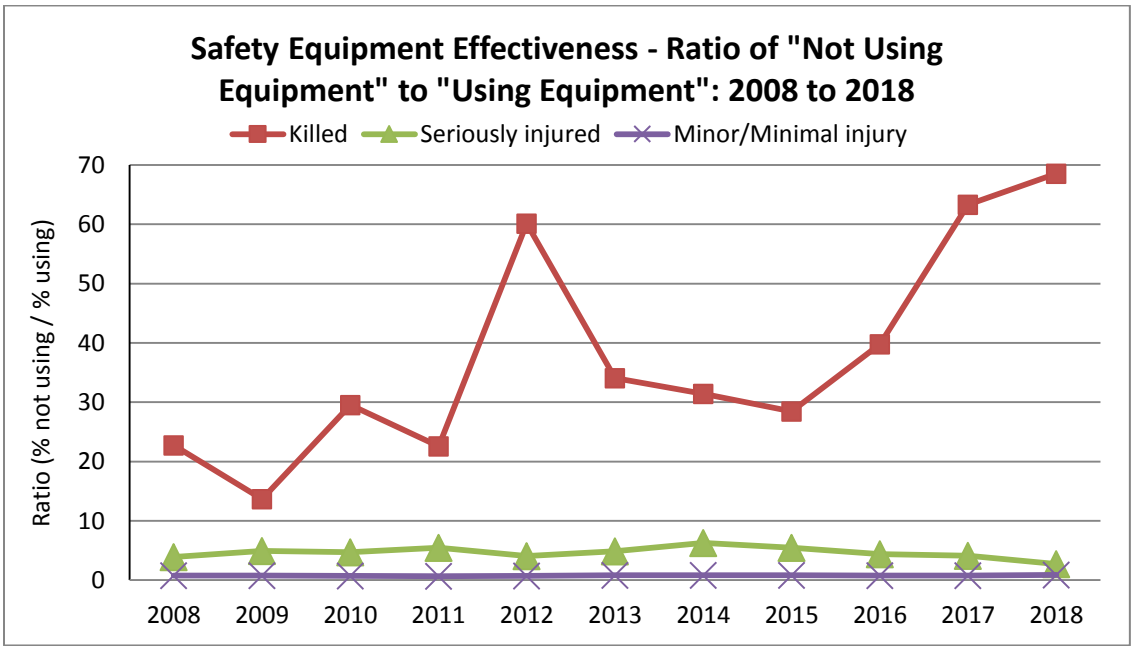


Table 5-16 Vehicle Occupant Victim Ejections in Traffic Collision

Table 5-16

Vehicle Occupant Victims by Ejection From Vehicle and Casualty Type: 2018

Ejection	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Not Ejected	37	74.0%	339	94.7%	1,590	99.2%	9,107	99.1%	302	99.7%	11,338	99.0%	**11,375**	98.9%
Fully Ejected	11	22.0%	16	4.5%	11	0.7%	57	0.6%	1	0.3%	85	0.7%	**96**	0.8%
Partially Ejected	2	4.0%	3	0.8%	2	0.1%	22	0.2%	0	-	27	0.2%	**29**	0.3%
Total	50	100%	358	100%	1,603	100%	9,186	100%	303	100%	11,450	100%	**11,500**	100%

NOTE: Vehicle occupants (Drivers and Passengers; excluding Motorcyclist, Moped riders and passengers).

Table 5-16a Vehicle Occupant Victim Ejections in Traffic Collision for Previous Five Years

Table 5-16a
Vehicle Occupant Victims by Ejection From Vehicle and Casualty: 2013-2017 Average

Ejection	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Not Ejected	47	307	1,885	8,977	218	11,387	11,434	99.0%
Fully Ejected	14	18	20	38	1	77	90	0.8%
Partially Ejected	2	4	4	14	0	23	24	0.2%
Total	63	329	1,909	9,029	220	11,486	11,549	100%

Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.
Note: Vehicle occupants (Drivers and Passengers; excluding Motorcyclist, Moped riders and passengers).

In 2018, people fully or partially ejected from a vehicle and killed during a traffic collision account for 10% of all victims ejected from the vehicle. People killed but not ejected account for 0.3% of all victims not ejected during the collision. This makes people ejected during a collision more than thirty times more likely to be killed than people not ejected. Similarly, people ejected and seriously injured during a collision account for 15% of all victims ejected while people seriously injured but not ejected account for only 3% of victims not ejected. This makes people ejected during a collision five times more likely to be seriously injured than people not ejected.

SECTION 6 – Pedestrian Victims

Introduction

This section counts the number of pedestrians killed and injured in traffic collisions and examines the severity of the injury received by the pedestrian. Month, time and day of occurrence are examined and breaks are provided for the age of the pedestrian. The specific pedestrian actions taken immediately prior to the collision are also presented. Involvement rate of pedestrians in traffic collisions per 100,000 people in the general population is also calculated.

Key Highlights

In 2018, there are 227 pedestrians killed or injured in traffic collisions. Of these:

- 13 are killed;
- 36 are seriously injured;
- 103 sustain minor injuries;
- 71 sustain minimal injuries; and
- 4 sustain injuries that are undefined in terms of severity.

The involvement rate (per 100,000 people in the general population) of pedestrians in traffic collisions in 2018 (16.7) has increased by nearly 27% compared to 2017 (13.2) and by 48% compared to the previous five year (2013 to 2017) annual average (11.2).

Pedestrian involvement rate in traffic collisions in 2018 where a pedestrian:

- Is killed (1.0) has increased by 8% compared to 2017 (0.9) and by 15% compared to the previous five year average (0.8); and,
- Is injured (15.7) has increased by 28% compared to 2017 (12.3) and by 51% compared to the previous five year average (10.4).

In 2018, collisions involving pedestrians most frequently occur:

- In February and March (12% and nearly 12% of pedestrian casualties, respectively); 3 of 13 pedestrians are killed in March;
- On weekdays (Monday to Friday), 80% of pedestrian casualties cumulatively; 7 of 13 pedestrians are killed on weekdays; and,
- Between noon and 6 p.m. (12:00-14:59 – 18% of pedestrian casualties; 15:00 to 17:59 – 25% of pedestrian casualties.

Manitobans aged 20 to 24 have the highest pedestrian involvement rate (per 100,000 people) in traffic collisions, at 28.4 in 2018 (17.4 in the previous five years), followed by those aged 25 to 34 at 21.2 (13.1 in the previous five years).

Where the actions of the pedestrian immediately prior to the collision are known, most pedestrian casualties in 2018 occur when the pedestrian is:

- At an intersection, crossing with the right of way (37% of pedestrian casualties);
- Between intersections (7% of pedestrian casualties); and,
- On sidewalk/median/safety zone (7% of pedestrian casualties).

For the 13 pedestrians killed in traffic collisions in 2018, 4 were walking on roadway, 2 were running into roadway, 2 were lying on roadway, 1 was at an intersection while crossing with the right of way, 1 was walking along roadway with traffic, and 1 was getting on/off vehicle. No pedestrian action was recorded for 2 of the 13 pedestrians killed.

Major Elements Examined

Counts of collisions in Manitoba for 2018 and previous years are taken from Traffic Accident Reports (TARs) completed by Manitoba Public Insurance and law enforcement agencies, and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, fatal collisions, injury collisions, and property damage only (PDO) collisions.

It is important to note that the number of pedestrian victims in traffic collisions is not equal to the number of collisions that occurred involving pedestrians as each collision can result in multiple victims. It is also possible that a collision could involve a pedestrian who is not killed or injured.

The terms 'crash', 'collision' and 'accident' are used interchangeably in this report. The terms 'victims' and 'casualties' are used interchangeably in this report. The terms 'fatality' and 'killed' are used interchangeably in this report.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding pedestrian collisions of differing injury severity.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percent. Likewise, average calculations are presented for historical data from the years 2013 to 2017. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

Terms and Definitions

"Casualty Type"

- A classification of the severity of the injury sustained by a victim in a traffic collision, i.e., whether someone was killed or injured. This classification also includes a designation for the severity of each non-fatal injury sustained (i.e., victims sustaining a serious/major, minor or minimal injury).

"Killed"

- The casualty type "killed" indicates the victim involved in the traffic collision died as a result of their injuries within thirty days of the collision occurrence.

"Injured"

- The casualty type "injured" indicates the victim sustained some level of personal injury, but in which they were not killed. Levels of injury include: 'serious' or 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required). 'Other' injury is noted when the severity of the victim's injuries is not known or recorded in the TAR.

"Collision severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Pedestrian Involvement Rate"

- A calculation of the number of pedestrians involved in traffic collisions for every 100,000 people in the general population in Manitoba. Population statistics are taken from the Provincial government and can be found at the following web address: https://www.gov.mb.ca/health/annstats/index.html

"Pedestrian Action"

- Refers to the actions taken by a pedestrian immediately prior to a collision (including: crossing at an intersection with or without the right-of-way, crossing between intersections, running into the roadway, walking on the roadway, lying on the roadway, playing on the roadway, etc.).

Table 6-1 Historical Summary of Pedestrians Killed and Injured in Traffic Collisions

Table 6-1
Historical Summary of Pedestrians Killed and Injured in Traffic Collisions: 2008 to 2018

Year	Casualty Type												Total Victims	% change to previous year
	Killed	% change to previous year	Serious Injury	% change to previous year	Minor Injury	% change to previous year	Minimal Injury	% change to previous year	Other Injury	% change to previous year	Total Injured	% change to previous year		
2008	15	-	49	-	153	-	133	-	88	-	423	-	438	-
2009	9	-40.0%	37	-24.5%	137	-10.5%	90	-32.3%	95	8.0%	359	-15.1%	368	-16.0%
2010	14	55.6%	32	-13.5%	126	-8.0%	111	23.3%	116	22.1%	385	7.2%	399	8.4%
2011	10	-28.6%	24	-25.0%	130	3.2%	62	-44.1%	114	-1.7%	330	-14.3%	340	-14.8%
2012	13	30.0%	21	-12.5%	90	-30.8%	40	-35.5%	12	-89.5%	163	-50.6%	176	-48.2%
2013	10	-23.1%	22	4.8%	49	-45.6%	25	-37.5%	10	-16.7%	106	-35.0%	116	-34.1%
2014	11	10.0%	22	0.0%	68	38.8%	38	52.0%	9	-10.0%	137	29.2%	148	27.6%
2015	9	-18.2%	18	-18.2%	51	-25.0%	40	5.3%	12	33.3%	121	-11.7%	130	-12.2%
2016	13	44.4%	27	50.0%	49	-3.9%	54	35.0%	29	141.7%	159	31.4%	172	32.3%
2017	12	-7.7%	22	-18.5%	78	59.2%	56	3.7%	11	-62.1%	167	5.0%	179	4.1%
2018	**13**	**8.3%**	**36**	**63.6%**	**103**	**32.1%**	**71**	**26.8%**	**4**	**-63.6%**	**214**	**28.1%**	**227**	**26.8%**
2013-2017 Average*	11	18.2%	22	62.2%	59	74.6%	43	66.7%	14	-71.8%	138	55.1%	149	52.3%

* "% change" in this line compares the current year to the 5-year average

In 2018, there are 227 pedestrians killed or injured in traffic collisions. Of these:

- 13 are killed;
- 36 are seriously injured;
- 103 sustain minor injuries;
- 71 sustain minimal injuries; and
- 4 sustain injuries that are undefined in terms of severity.

The total number of pedestrians killed and injured in traffic collisions in 2018 has increased by 27% compared to 2017 and by 52% compared to the previous five year (2013 to 2017) annual average. In 2018, the number of pedestrians:

- Killed has increased by 8% compared to 2017 and by 18% compared to the previous five years;
- Sustaining serious injuries has increased by 64% compared to 2017 and by 62% compared to the previous five years;
- Sustaining minor injuries has increased by 32% compared to 2017 and by 75% compared to the previous five years;
- Sustaining minimal injuries has increased by 27% compared to 2017 and by 67% compared to the previous five years; and,
- Sustaining an unspecified injury has decreased by 64% compared to 2017 and by 72% compared to the previous five years.

The number of pedestrians killed in traffic collisions over the past ten years has fluctuated, ranging from a high of 15 in 2008 to a low of 9 in 2009 and 2015. The number of pedestrians killed in 2018 is up by a count of 1 compared to 2017 and by a count of 2 compared to the previous five year (2013 to 2017) annual average.

Recognizing that counts of pedestrians involved in collisions could be impacted either positively or negatively by changing population statistics, involvement rates per 100,000 people in the general population in Manitoba is examined (see Table 6-2) to provide a standardized rate comparison. This accounts for changing population size instead of simply a raw count of the number of pedestrians involved overall.

Table 6-2 Historical Summary of Pedestrian Involvement Rate (per 100,000 people) in Traffic Collisions

Table 6-2
Historical Summary of Pedestrian Involvement Rates (per 100,000 people) in Traffic Collisions: 2008 to 2018

Year	Casualty Type												Total Victims	% change to previous year
	Killed	% change to previous year	Serious Injury	% change to previous year	Minor Injury	% change to previous year	Minimal Injury	% change to previous year	Other Injury	% change to previous year	Total Injured	% change to previous year		
2008	1.3	-	4.1	-	12.8	-	11.1	-	7.3	-	35.3	-	36.5	-
2009	0.7	-40.8%	3.0	-25.4%	11.3	-11.6%	7.4	-33.2%	7.8	6.6%	29.6	-16.2%	30.3	-17.0%
2010	1.1	53.5%	2.6	-14.6%	10.2	-9.2%	9.0	21.7%	9.4	20.5%	31.3	5.9%	32.4	7.0%
2011	0.8	-29.7%	1.9	-26.2%	10.4	1.5%	5.0	-45.0%	9.1	-3.3%	26.4	-15.7%	27.2	-16.2%
2012	1.0	27.9%	1.7	-13.9%	7.1	-31.9%	3.1	-36.5%	0.9	-89.6%	12.8	-51.4%	13.8	-49.1%
2013	0.8	-24.1%	1.7	3.3%	3.8	-46.3%	1.9	-38.4%	0.8	-17.8%	8.2	-35.9%	9.0	-35.0%
2014	0.8	8.6%	1.7	-1.3%	5.2	37.0%	2.9	50.0%	0.7	-11.2%	10.5	27.6%	11.3	25.9%
2015	0.7	-19.1%	1.4	-19.1%	3.9	-25.8%	3.0	4.1%	0.9	31.9%	9.2	-12.6%	9.8	-13.1%
2016	1.0	42.4%	2.0	47.9%	3.7	-5.3%	4.0	33.1%	2.2	138.2%	11.9	29.5%	12.8	30.4%
2017	0.9	-8.9%	1.6	-19.6%	5.7	57.1%	4.1	2.4%	0.8	-62.6%	12.3	3.7%	13.2	2.7%
2018	**1.0**	**8.1%**	**2.6**	**63.2%**	**7.6**	**31.7%**	**5.2**	**26.5%**	**0.3**	**-63.7%**	**15.7**	**27.8%**	**16.7**	**26.5%**
2013-2017 Average*	0.8	15.0%	1.7	57.7%	4.5	69.9%	3.2	62.7%	1.1	-72.5%	10.4	51.1%	11.2	48.4%

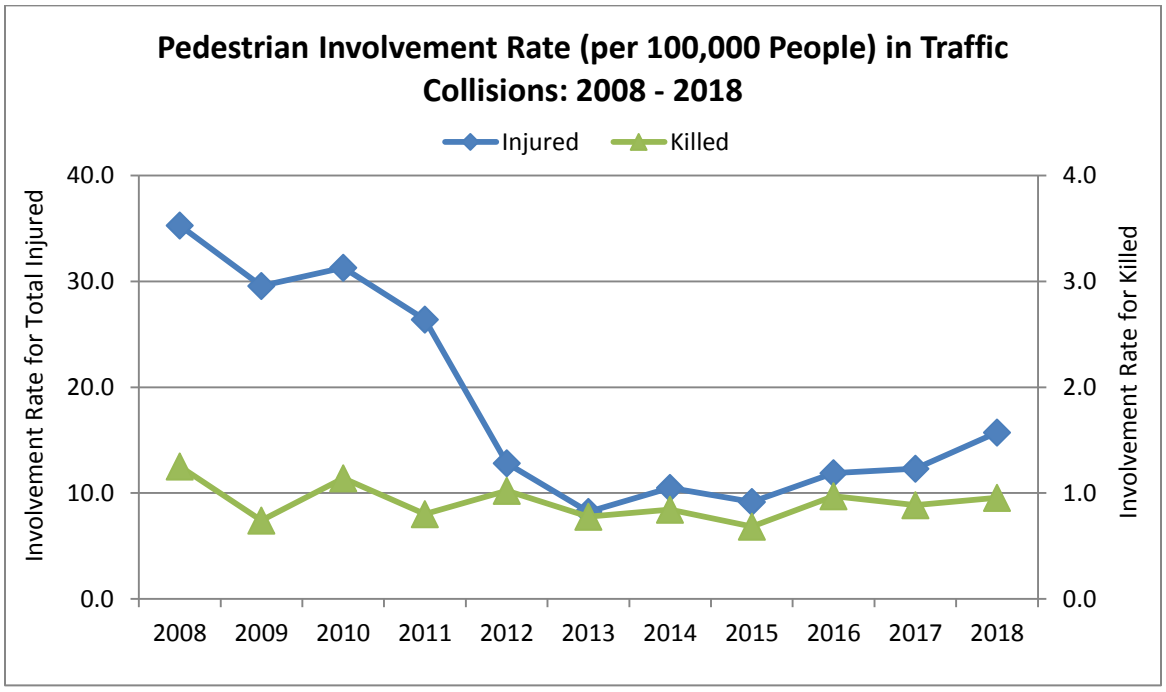
* "% change" in this line compares the current year to the 5-year average

The involvement rate (per 100,000 people in the general population) of pedestrians in traffic collisions in 2018 (16.7) has increased by nearly 27% compared to 2017 (13.2) and by 48% compared to the previous five year (2013 to 2017) annual average (11.2).

Pedestrian involvement rate in traffic collisions in 2018 where a pedestrian:

- Is killed (1.0) has increased by 8% compared to 2017 (0.9) and by 15% compared to the previous five year average (0.8);
- Is injured (15.7) has increased by 28% compared to 2017 (12.3) and by 51% compared to the previous five year average (10.4);
- Sustains serious injuries (2.6) has increased by 63% compared to 2017 and by 58% compared to the previous five years;
- Sustains minor injuries (7.6) has increased by 32% compared to 2017 and by 70% compared to the previous five years;
- Sustains minimal injuries (5.2) has increased by nearly 27% compared to 2017 and by 63% compared to the previous five years; and,
- Sustains an unspecified injury (0.3) has decreased by 64% compared to 2017 and by nearly 73% compared to the previous five years.

Figure 6-1 Pedestrian Involvement Rate (per 100,000 People) in Traffic Collisions



Over the last eleven years, pedestrian injuries resulting from traffic collisions have generally declined from 2008 to 2013, but have gradually increased since 2013.

Over this same time frame, the involvement rate for pedestrians killed in traffic collisions has fluctuated somewhat, but has consistently been between 0.7 and 1.3. The involvement rate in 2018 is in line with the pedestrian involvement rate for deaths recorded in the past eleven years.

Table 6-3 Pedestrians Killed and Injured by Month of Occurrence and Casualty Type

Table 6-3
Total Pedestrians Killed and Injured by Month of Occurrence and Casualty Type: 2018

Month of Occurrence	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
January	1	7.7%	3	8.3%	7	6.8%	4	5.6%	0	-	14	6.5%	**15**	6.6%
February	1	7.7%	6	16.7%	12	11.7%	9	12.7%	0	-	27	12.6%	**28**	12.3%
March	3	23.1%	5	13.9%	10	9.7%	7	9.9%	1	25.0%	23	10.7%	**26**	11.5%
April	1	7.7%	0	-	5	4.9%	6	8.5%	0	-	11	5.1%	**12**	5.3%
May	1	7.7%	4	11.1%	7	6.8%	5	7.0%	0	-	16	7.5%	**17**	7.5%
June	1	7.7%	5	13.9%	5	4.9%	6	8.5%	1	25.0%	17	7.9%	**18**	7.9%
July	1	7.7%	1	2.8%	10	9.7%	4	5.6%	0	-	15	7.0%	**16**	7.0%
August	1	7.7%	1	2.8%	7	6.8%	5	7.0%	0	-	13	6.1%	**14**	6.2%
September	1	7.7%	4	11.1%	4	3.9%	10	14.1%	0	-	18	8.4%	**19**	8.4%
October	0	-	2	5.6%	12	11.7%	5	7.0%	0	-	19	8.9%	**19**	8.4%
November	1	7.7%	3	8.3%	10	9.7%	6	8.5%	0	-	19	8.9%	**20**	8.8%
December	1	7.7%	2	5.6%	14	13.6%	4	5.6%	2	50.0%	22	10.3%	**23**	10.1%
Total	13	100%	36	100%	103	100%	71	100%	4	100%	214	100%	**227**	100%

Table 6-3a Pedestrians Killed and Injured by Month of Occurrence and Casualty Type for Previous Five Years

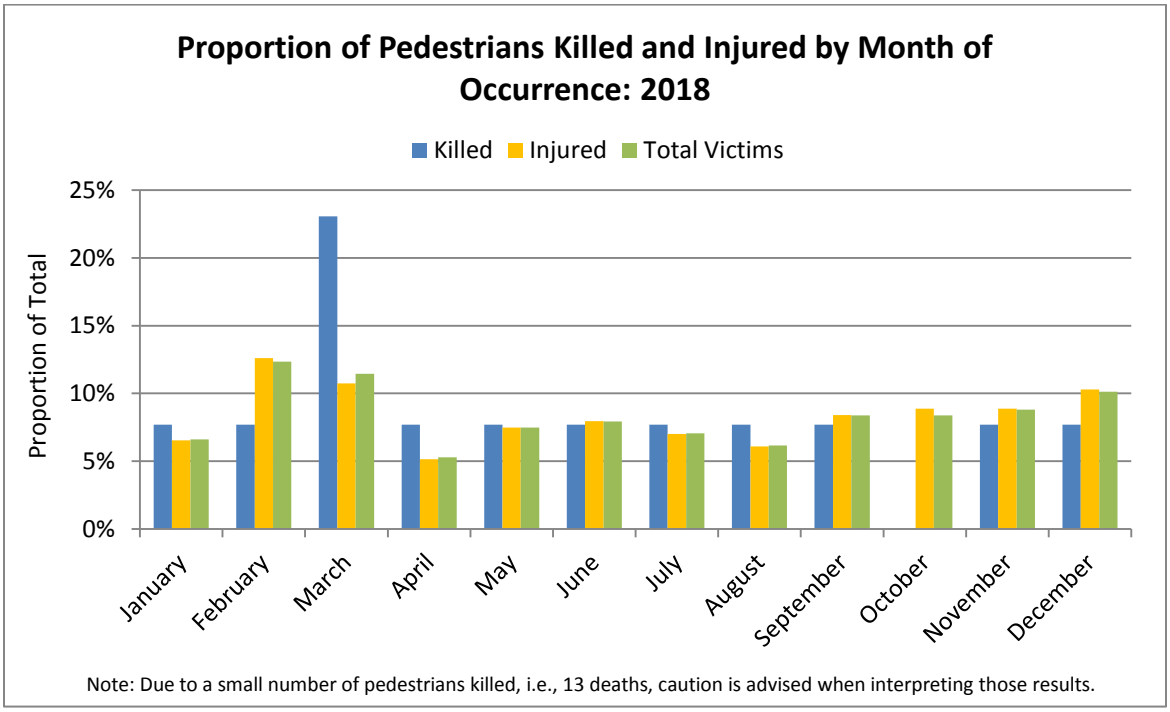
Table 6-3a
Pedestrians Killed and Injured by Month of Occurrence and Casualty Type: 2013-2017 Average

Month of Occurrence	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
January	<1	2	5	4	1	13	13	8.9%
February	<1	1	4	3	<1	8	9	5.9%
March	<1	2	4	4	1	12	12	8.1%
April	1	<1	5	2	<1	7	10	6.4%
May	<1	2	6	5	<1	13	13	9.0%
June	<1	2	5	4	2	12	13	8.5%
July	2	<1	4	2	2	7	9	6.3%
August	1	3	5	4	2	15	16	10.5%
September	1	2	4	2	1	10	11	7.2%
October	1	3	6	4	1	14	15	10.3%
November	<1	3	6	5	2	15	15	10.3%
December	1	1	5	4	1	11	13	8.6%
Total	11	22	59	43	14	138	149	100%

Note: Counts of pedestrians in the 2013-2017 average may not add to the total due to rounding.

In 2018, one pedestrian was killed in collisions on Manitoba roadways in each month except March (3 killed) and October (none killed). Pedestrians are most likely to be injured in February (13%) and March (11%). During the previous five year (2013 to 2017) annual average, August stands out as the month with the highest involvement of pedestrian casualties in collisions.

Figure 6-2 Proportion of Pedestrians Killed and Injured by Month of Occurrence



Note: Due to a small number of pedestrians killed, i.e., 13 deaths, caution is advised when interpreting those results.

Table 6-4 Total Pedestrians Killed and Injured by Day of Occurrence and Casualty Type

Table 6-4
Total Pedestrians Killed and Injured by Day of Occurrence and Casualty Type: 2018

Day of the Week	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Sunday	3	23.1%	3	8.3%	6	5.8%	5	7.0%	0	-	14	6.5%	**17**	7.5%
Monday	0	-	2	5.6%	17	16.5%	9	12.7%	1	25.0%	29	13.6%	**29**	12.8%
Tuesday	1	7.7%	3	8.3%	18	17.5%	7	9.9%	0	-	28	13.1%	**29**	12.8%
Wednesday	1	7.7%	9	25.0%	16	15.5%	15	21.1%	1	25.0%	41	19.2%	**42**	18.5%
Thursday	2	15.4%	4	11.1%	16	15.5%	8	11.3%	1	25.0%	29	13.6%	**31**	13.7%
Friday	3	23.1%	7	19.4%	22	21.4%	18	25.4%	1	25.0%	48	22.4%	**51**	22.5%
Saturday	3	23.1%	8	22.2%	8	7.8%	9	12.7%	0	-	25	11.7%	**28**	12.3%
Total	13	100%	36	100%	103	100%	71	100%	4	100%	214	100%	**227**	100%

Table 6-4a Pedestrians Killed and Injured by Day of Occurrence and Casualty Type for Previous Five Years

Table 6-4a
Pedestrians Killed and Injured by Day of Occurrence and Casualty Type: 2013-2017 Average

Day of the Week	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Sunday	2	1	5	4	2	11	13	8.6%
Monday	1	3	6	7	1	18	19	12.9%
Tuesday	2	4	11	6	<1	22	24	16.4%
Wednesday	<1	3	9	8	2	22	22	15.0%
Thursday	2	4	9	6	2	22	24	15.8%
Friday	2	3	11	8	4	27	28	19.1%
Saturday	2	3	8	3	2	16	18	12.2%
Total	11	22	59	43	14	138	149	100%

Note: Counts of pedestrians in the 2013-2017 average may not add to the total due to rounding.

In 2018, pedestrians involved in traffic collisions on weekdays (Monday to Friday) account for 80% of all casualties. This is very similar to the previous five year (2013 to 2017) annual average, where weekdays (Monday to Friday) account for 79% of all pedestrian casualties.

In 2018, 7 of 13 pedestrians are killed in traffic collisions on weekdays (Monday to Friday), while another 6 are killed on the weekend (Saturday and Sunday). This is similar to the previous five year (2013 to 2017) annual average.

Figure 6-3 Proportion of Pedestrians Killed and Injured by Day of Occurrence

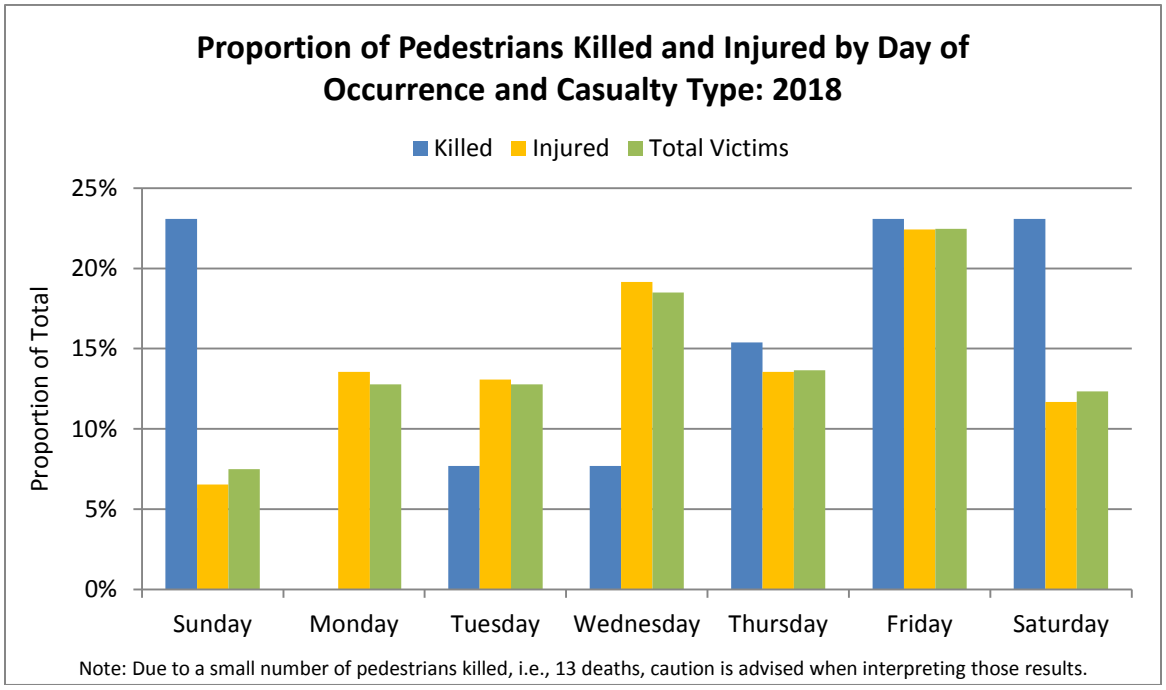


Table 6-5 Total Pedestrians Killed and Injured by Time of Occurrence and Casualty Type

Table 6-5
Total Pedestrians Killed and Injured by Time of Occurrence and Casualty Type: 2018

Time of the Day	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims*
	Killed	% of Total Killed*	Serious Injury	% of Total Serious Injury*	Minor Injury	% of Total Minor Injury*	Minimal Injury	% of Total Minimal Injury*	Other Injury	% of Total Other Injury*	Total Injured	% of Total Injured*		
00:00 - 02:59	2	15.4%	2	5.7%	3	2.9%	2	2.9%	0	-	7	3.3%	**9**	4.0%
03:00 - 05:59	2	15.4%	1	2.9%	2	2.0%	0	-	0	-	3	1.4%	**5**	2.2%
06:00 - 08:59	2	15.4%	4	11.4%	17	16.7%	7	10.0%	1	25.0%	29	13.7%	**31**	13.8%
09:00 - 11:59	0	-	4	11.4%	13	12.7%	17	24.3%	0	-	34	16.1%	**34**	15.2%
12:00 - 14:59	0	-	3	8.6%	22	21.6%	13	18.6%	2	50.0%	40	19.0%	**40**	17.9%
15:00 - 17:59	3	23.1%	10	28.6%	23	22.5%	18	25.7%	1	25.0%	52	24.6%	**55**	24.6%
18:00 - 20:59	2	15.4%	6	17.1%	11	10.8%	11	15.7%	0	-	28	13.3%	**30**	13.4%
21:00 - 23:59	2	15.4%	5	14.3%	11	10.8%	2	2.9%	0	-	18	8.5%	**20**	8.9%
Not Stated	0	-	1	-	1	-	1	-	0	-	3	-	**3**	-
Total	13	100%	36	100%	103	100%	71	100%	4	100%	214	100%	**227**	100%

*Percentage of the total does not include the 'not stated' category.

Table 6-5a Pedestrian Victims by Time of Occurrence and Casualty Type for the Previous Five Years

Table 6-5a
Pedestrians Killed and Injured by Time of Occurrence and Casualty: 2013-2017 Average

Time of the Day	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims*
00:00 - 02:59	1	2	2	<1	2	6	7	5.0%
03:00 - 05:59	2	<1	<1	<1	-	2	3	2.3%
06:00 - 08:59	<1	1	8	6	2	17	17	11.8%
09:00 - 11:59	<1	2	7	7	2	17	18	12.2%
12:00 - 14:59	1	4	11	9	4	28	29	19.9%
15:00 - 17:59	1	6	15	13	3	37	38	25.8%
18:00 - 20:59	2	4	9	4	1	18	19	13.2%
21:00 - 23:59	3	2	5	3	1	12	14	9.8%
Not Stated	<1	<1	<1	<1	<1	1	2	-
Total	11	22	59	43	14	138	149	100%

Note: Counts of pedestrians in the 2013-2017 average may not add to the total due to rounding.
*Percentage of the total does not include the 'not stated' category.

In 2018, 18% of all pedestrian victims are involved in traffic collisions between noon and 3 p.m. (12:00-14:59) while 25% are involved in traffic collisions between 3 p.m. and 6 p.m. (15:00 to 17:59). This is similar to the previous five year (2013 to 2017) annual average (12:00-14:59 – 20% of all pedestrian victims; 15:00 to 17:59 – 26%).

In 2018, 7 of 13 pedestrians are killed from noon to midnight. In the previous five year (2013 to 2017) annual average, 7 of 11 pedestrians are killed from noon to midnight.

Figure 6-4 Proportion of Pedestrians Killed and Injured by Time of Occurrence

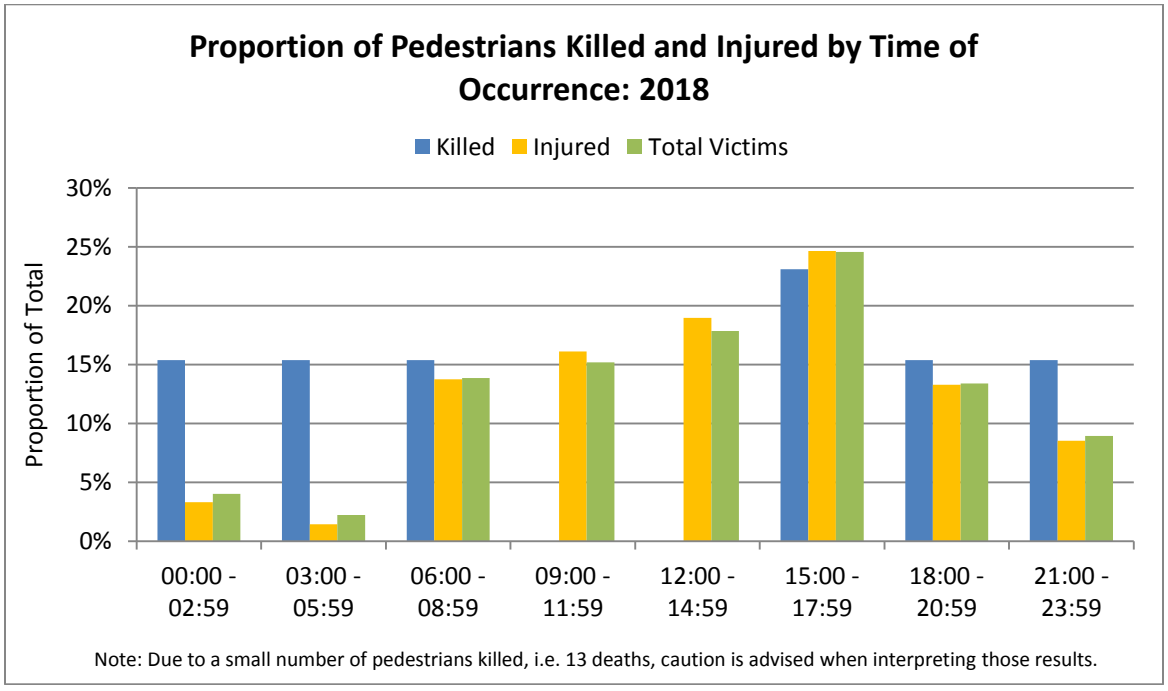


Table 6-6 Total Pedestrians Killed and Injured by Age Group and Casualty Type

Table 6-6
Total Pedestrians Killed and Injured by Age Group and Casualty Type: 2018

Age Group	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims*
	Killed	% of Total Killed*	Serious Injury	% of Total Serious Injury*	Minor Injury	% of Total Minor Injury*	Minimal Injury	% of Total Minimal Injury*	Other Injury	% of Total Other Injury*	Total Injured	% of Total Injured*		
0-4	0	-	2	5.6%	4	4.1%	0	-	0	-	6	3.0%	**6**	2.8%
5-9	1	7.7%	2	5.6%	3	3.1%	1	1.6%	0	-	6	3.0%	**7**	3.3%
10-14	0	-	1	2.8%	7	7.1%	2	3.1%	0	-	10	5.0%	**10**	4.7%
15-19	1	7.7%	3	8.3%	7	7.1%	1	1.6%	1	25.0%	12	5.9%	**13**	6.0%
20-24	2	15.4%	6	16.7%	10	10.2%	8	12.5%	0	-	24	11.9%	**26**	12.1%
25-34	3	23.1%	4	11.1%	22	22.4%	11	17.2%	1	25.0%	38	18.8%	**41**	19.1%
35-44	5	38.5%	5	13.9%	18	18.4%	9	14.1%	0	-	32	15.8%	**37**	17.2%
45-54	0	-	4	11.1%	8	8.2%	9	14.1%	1	25.0%	22	10.9%	**22**	10.2%
55-64	1	7.7%	1	2.8%	7	7.1%	12	18.8%	0	-	20	9.9%	**21**	9.8%
65+	0	-	8	22.2%	12	12.2%	11	17.2%	1	25.0%	32	15.8%	**32**	14.9%
Not Stated	0	-	0	-	5	-	7	-	0	-	12	-	**12**	-
Total	13	100%	36	100%	103	100%	71	100%	4	100%	214	100%	**227**	100%

*Percentage of the total does not include the 'Not Stated' category.
Note: The reader is cautioned that age is missing ('Not Stated') in several collisions - interpret with caution.

Table 6-6a Pedestrians Killed and Injured by Age and Casualty Type for Previous Five Years

Table 6-6a
Pedestrians Killed and Injured by Age Group and Casualty Type: 2013-2017 Average

Age Group	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims*
0-4	<1	<1	3	1	<1	5	5	3.7%
5-9	-	1	2	<1	<1	4	4	3.0%
10-14	<1	<1	3	1	-	5	6	3.9%
15-19	1	2	5	3	1	10	12	8.2%
20-24	2	2	6	4	2	15	17	11.8%
25-34	2	4	10	7	2	22	24	16.9%
35-44	<1	3	6	7	<1	17	18	12.7%
45-54	1	2	8	7	1	18	19	13.7%
55-64	1	2	7	5	3	17	18	12.8%
65+	2	4	7	5	1	16	19	13.3%
Not Stated	-	<1	2	2	3	7	7	-
Total	11	22	59	43	14	138	149	100%

Note: Counts of pedestrians in the 2013-2017 average may not add to the total due to rounding.
*Percentage of the total does not include the 'Not Stated' category.
Note: The reader is cautioned that age is missing ('Not Stated') in several collisions - interpret with caution.

In 2018, 17% of pedestrian casualties are under the age of 20 (6% under age 10; 11% age 10 to 19), while 31% are between the ages of 20 and 34, and 27% are between the ages of 35 and 54. Adults aged 55 and older account for 25% of pedestrian victims. This distribution of pedestrian casualties by age is somewhat similar to what it is in the previous five years. In the five year (2013 to 2017) annual average, 19% of pedestrian victims are under the age of 20, 29% were age 20 to 34, 26% were age 35 to 54 and 26% were age 55 and older.

People aged 35 to 44 represent the largest proportion of pedestrians killed in 2018 (5 of 13 killed, nearly 39%). In the previous five year (2013 to 2017) annual average, 22% of pedestrians killed are aged 65 and older.

In 2018, there are 2 pedestrians under age twenty killed in traffic collisions in Manitoba. In the previous five year period (2013 to 2017) there were an average of 2 killed in this age group each year.

Figure 6-5 Proportion of Pedestrians Killed and Injured by Age Group

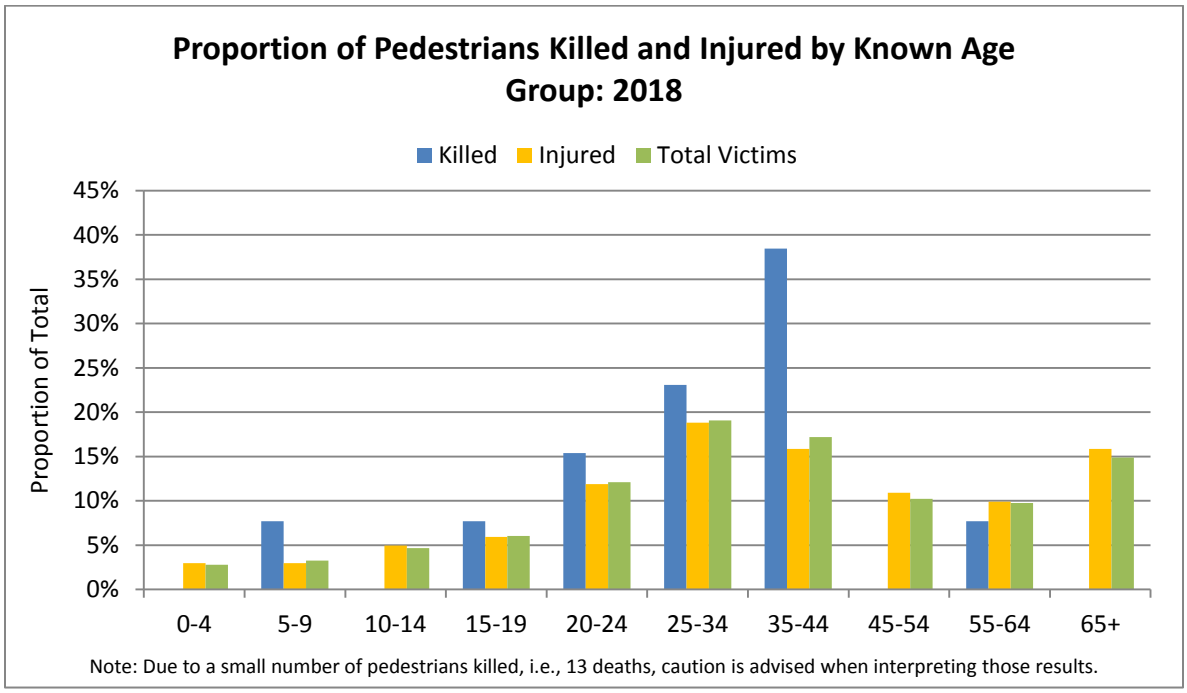


Table 6-7 Pedestrian Involvement Rate (per 100,000 People) in Traffic Collisions by Age Group

Table 6-7
Pedestrian Involvement Rate (per 100,000 People) in Traffic Collisions by Age Group: 2018, 2013-2017 Average

Age Group	2018 Casualty Type						**2018 Total Victims**	2013-2017 Average Involvement Rate		
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured		Killed	Injured	Total Victims
0-4	-	2.3	4.6	-	-	6.9	**6.9**	0.2	5.9	6.2
5-9	1.1	2.3	3.4	1.1	-	6.8	**7.9**	-	5.0	5.0
10-14	-	1.2	8.3	2.4	-	11.9	**11.9**	0.2	6.7	6.9
15-19	1.2	3.6	8.4	1.2	1.2	14.5	**15.7**	1.4	12.0	13.4
20-24	2.2	6.6	10.9	8.7	-	26.2	**28.4**	2.1	15.3	17.4
25-34	1.6	2.1	11.4	5.7	0.5	19.7	**21.2**	1.1	12.0	13.1
35-44	2.8	2.8	10.1	5.1	-	18.0	**20.9**	0.5	10.1	10.6
45-54	-	2.3	4.7	5.2	0.6	12.8	**12.8**	0.7	10.2	10.9
55-64	0.6	0.6	4.0	6.9	-	11.5	**12.1**	0.6	10.5	11.1
65+	-	3.8	5.7	5.2	0.5	15.1	**15.1**	1.2	8.4	9.7
Total	1.0	2.6	7.6	5.2	0.3	15.7	**16.7**	0.8	10.4	11.3

Manitobans aged 20 to 24 have the highest pedestrian involvement rate (per 100,000 people) in traffic collisions, at 28.4 in 2018 (17.4 in the previous five years), followed by those aged 25 to 34 at 21.2 (13.1 in the previous five years).

Pedestrian involvement rates in traffic collisions have increased in 2018 compared to the previous five year (2013 to 2017) annual average in all age groups.

Table 6-8 Pedestrian Action and Casualty Type

Table 6-8

Pedestrian Action and Casualty Type: 2018

Pedestrian Action	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims*
	Killed	% of Total Killed*	Serious Injury	% of Total Serious Injury*	Minor Injury	% of Total Minor Injury*	Minimal Injury	% of Total Minimal Injury*	Other Injury	% of Total Other Injury*	Total Injured	% of Total Injured*		
At intersection, with right of way	1	9.1%	10	34.5%	31	41.3%	18	37.5%	2	66.7%	61	39.4%	**62**	37.3%
At intersection, without right of way	0	-	1	3.4%	4	5.3%	1	2.1%	0	-	6	3.9%	**6**	3.6%
At intersection, no traffic control	0	-	0	-	4	5.3%	2	4.2%	1	33.3%	7	4.5%	**7**	4.2%
Between intersections	0	-	1	3.4%	5	6.7%	6	12.5%	0	-	12	7.7%	**12**	7.2%
Walking along roadway against traffic	0	-	2	6.9%	0	-	0	-	0	-	2	1.3%	**2**	1.2%
Walking along roadway with traffic	1	9.1%	0	-	1	1.3%	1	2.1%	0	-	2	1.3%	**3**	1.8%
On sidewalk/median/safety zone	0	-	1	3.4%	4	5.3%	6	12.5%	0	-	11	7.1%	**11**	6.6%
Walking on roadway (travelled portion)	4	36.4%	1	3.4%	1	1.3%	0	-	0	-	2	1.3%	**6**	3.6%
From behind vehicle/object on roadside	0	-	1	3.4%	3	4.0%	2	4.2%	0	-	6	3.9%	**6**	3.6%
Running into roadway	2	18.2%	1	3.4%	0	-	0	-	0	-	1	0.6%	**3**	1.8%
Getting on/off vehicle	1	9.1%	0	-	0	-	0	-	0	-	0	-	**1**	0.6%
Pushing/working on vehicle	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
Playing on roadway	0	-	0	-	0	-	0	-	0	-	0	-	**0**	-
Working on roadway	0	-	1	3.4%	0	-	0	-	0	-	1	0.6%	**1**	0.6%
Lying on roadway	2	18.2%	1	3.4%	0	-	0	-	0	-	1	0.6%	**3**	1.8%
Other	0	-	9	31.0%	22	29.3%	12	25.0%	0	-	43	27.7%	**43**	25.9%
Unknown	2	-	7	-	28	-	23	-	1	-	59	-	**61**	-
Total	13	100%	36	100%	103	100%	71	100%	4	100%	214	100%	**227**	100%

*Percentage of the total has been rebased to exclude the 'unknown' category.

Table 6-8a Pedestrian Action and Casualty Type for the Previous Five Years

Table 6-8a
Pedestrian Action and Casualty Type: 2013-2017 Average

Pedestrian Action	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims*
At intersection, with right of way	2	4	18	16	2	41	42	42.7%
At intersection, without right of way	<1	1	2	1	<1	5	5	5.4%
At intersection, no traffic control	-	<1	2	2	<1	5	5	4.6%
Between intersections	<1	2	3	1	<1	7	7	7.1%
Walking along roadway against traffic	<1	<1	1	<1	-	2	2	2.2%
Walking along roadway with traffic	<1	<1	<1	1	<1	3	3	3.0%
On sidewalk/median/safety zone	<1	<1	2	2	<1	4	4	4.2%
Walking on roadway (travelled portion)	<1	<1	2	<1	<1	4	5	4.6%
From behind vehicle/object on roadside	-	<1	1	1	<1	3	3	2.6%
Running into roadway	<1	2	2	<1	<1	4	5	4.8%
Getting on/off vehicle	-	<1	-	<1	-	0	0	0.4%
Pushing/working on vehicle	-	-	-	-	-	0	0	-
Playing on roadway	<1	<1	<1	<1	-	1	1	1.2%
Working on roadway	-	-	-	-	-	0	0	-
Lying on roadway	<1	<1	-	-	<1	0	1	0.8%
Other	<1	<1	6	7	1	15	16	16.1%
Unknown	6	8	17	8	7	40	46	-
Total	11	21	57	41	14	134	145	100%

Note: Counts of pedestrians in the 2013-2017 average may not add to the total due to rounding.
*Percentage of the total has been rebased to exclude the 'unknown' category.
Note: There are several victims in 2014 where pedestrian action was not captured; these are not included in the average calculation.

Where the actions of the pedestrian immediately prior to the collision are known, most pedestrian casualties in 2018 occur when the pedestrian is:

- At an intersection, crossing with the right of way (37% of pedestrian casualties);
- Between intersections (7% of pedestrian casualties); and,
- On sidewalk/median/safety zone (7% of pedestrian casualties).

For the 13 pedestrians killed in traffic collisions in 2018, 4 were walking on roadway, 2 were running into roadway, 2 were lying on roadway, 1 was at an intersection while crossing with the right of way, 1 was walking along roadway with traffic, and 1 was getting on/off vehicle. No pedestrian action was recorded for 2 of the 13 pedestrians killed.

SECTION 7 – Vehicle Involvement

Introduction

This section counts the number of vehicles involved in traffic collisions. Vehicle involvement in a collision is calculated for each vehicle type (such as passenger vehicles, vans, pick-up trucks, types of emergency vehicles). Vehicles involved in collisions that were, or were not, transporting hazardous loads and the nature of these loads is also indicated.

Key Highlights
In 2018, there are 70,244 vehicles involved in traffic collisions. Of these:

- 98 are involved in fatal collisions;
- 15,975 are involved in injury collisions; and,
- 54,171 are involved in PDO collisions.

Vehicle involvement in traffic collisions per 10,000 registered vehicles (vehicle involvement rate) has decreased in 2018 compared to 2017 but has increased compared to the previous five year (2013 to 2017) annual average. The vehicle involvement rate in collisions in 2018 for:

- Total collisions is 764.8 – decreased by 4% from 2017 but increased by 3% from the previous five years;
- Fatal collisions is 1.1 – increased by 10% from 2017 but decreased by 14% from the previous five years;
- Injury collisions is 173.9 – decreased by 6% from 2017 and from the previous five years; and,
- PDO collisions is 589.8 – decreased by 3% from 2017 but increased by 6% from the previous five years.

Light duty vehicles, including passenger vehicles, minivans, and light trucks, represent 97% of the vehicles involved in all traffic collisions in 2018, the same as 2017 and the previous five year (2013 to 2017) annual average (97%). Commercial vehicles represent 3% of the vehicles involved (the same as in the previous five years) while motorcycles, scooters, and mopeds represent 0.3% of the vehicles involved (the same as in the previous five years).

Major Elements Examined
Counts of vehicles involved in collisions in Manitoba for 2018 and previous years are taken from Traffic Accident Reports (TARs) completed by Manitoba Public Insurance and law enforcement agencies, and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, fatal collisions, injury collisions, and property damage only (PDO) collisions.

It is important to note that the number of collisions is not equal to the number of vehicles involved in those collisions. All collisions reported involve at least one vehicle, but may involve more than one as well.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Likewise, average calculations are presented for historical data from the years 2013 to 2017. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and vehicle involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

Terms and Definitions

"Vehicles"

- The number of vehicles involved in collisions. It excludes pedestrians, but includes automobiles, trucks, vans, buses, mobility vehicles, motorcycles, scooters, mopeds, bicycles, off-road vehicles, farm and construction equipment, and trains.

"Collision Severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Vehicle Involvement Rate"

- A calculation of the number of vehicles involved in traffic collisions for every 10,000 vehicles registered in Manitoba. The total number of vehicles registered is based on a point-in-time observation of the number of vehicles registered in specific vehicle classes. More detail regarding the methodology used to count registered vehicles can be found in "*Section 3 Vehicle Registrations*" of this report.

"Light Duty Vehicles"

- A classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: passenger vehicles (automobile), mini/multi-purpose van, van under 4,500 kg, and pick-up under 4,500 kg.

"NSC Commercial Vehicles"

- The National Safety Code (NSC) classification of vehicles is a classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: "Truck greater than 4,500 kilograms (unit chassis)", "Power Unit for Semi-Trailer", "Truck (Other)" (where the type and size of truck is unknown), "School Bus", "Transit Bus (Urban)", "Inter-City Bus", and "Bus (Other)". These vehicles bear a National Safety Code Number and are entered onto the National Safety Code Collision Monitoring Report.

"PSV Vehicles"

- Also known as 'public service vehicles', a classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: "Other school vehicle", and "Emergency vehicles", including ambulance, fire and police vehicles.

Table 7-1 Historical Summary of Vehicles Involved in Traffic Collisions

Table 7-1
Historical Summary of Vehicles Involved in Traffic Collisions: 2008 to 2018

Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2008	141	-	10,219	-	34,195	-	44,555	-
2009	126	-10.6%	9,268	-9.3%	34,216	0.1%	43,610	-2.1%
2010	110	-12.7%	9,358	1.0%	35,511	3.8%	44,979	3.1%
2011	141	28.2%	10,956	17.1%	42,419	19.5%	53,516	19.0%
2012	126	-10.6%	14,802	35.1%	44,628	5.2%	59,556	11.3%
2013	111	-11.9%	15,663	5.8%	48,542	8.8%	64,316	8.0%
2014	95	-14.4%	16,233	3.6%	45,949	-5.3%	62,277	-3.2%
2015	106	11.6%	16,184	-0.3%	45,421	-1.1%	61,711	-0.9%
2016	143	34.9%	16,927	4.6%	48,993	7.9%	66,063	7.1%
2017	88	-38.5%	16,748	-1.1%	55,219	12.7%	72,055	9.1%
2018	**98**	**11.4%**	**15,975**	**-4.6%**	**54,171**	**-1.9%**	**70,244**	**-2.5%**
2013-2017 Average*	109	-9.8%	16,351	-2.3%	48,825	10.9%	65,284	7.6%

* "% change" in this line compares the current year to the 5-year average

In 2018, there are 70,244 vehicles involved in traffic collisions. Of these:

- 98 are involved in fatal collisions;
- 15,975 are involved in injury collisions; and,
- 54,171 are involved in PDO collisions.

Overall, there are fewer vehicles involved in traffic collisions in 2018 (70,244) than in 2017 (72,055), but more than in the previous five year (2013 to 2017) annual average (65,284). In 2018, there are:

- 1,811 fewer vehicles involved in total collisions than in 2017 (a nearly 3% decrease) and 4,960 more than in the previous five year average (an 8% increase);
- 10 more vehicles involved in fatal collisions than in 2017 (an 11% increase) and 11 fewer than in the previous five years (a 10% decrease);
- 773 fewer vehicles involved in injury collisions compared to 2017 (a 5% decrease) and 376 fewer than in the previous five years (a 2% decrease); and,
- 1,048 fewer vehicles involved in PDO collisions compared to 2017 (a 2% decrease) and 5,346 more than in the previous five years (an 11% increase).

Table 7-2 Historical Summary of Vehicle Involvement Rate (per 10,000 Registered Vehicles) in Traffic Collisions

Table 7-2
Historical Summary of Vehicle Involvement Rate (per 10,000 Registered Vehicles) in Traffic Collisions: 2008 to 2018

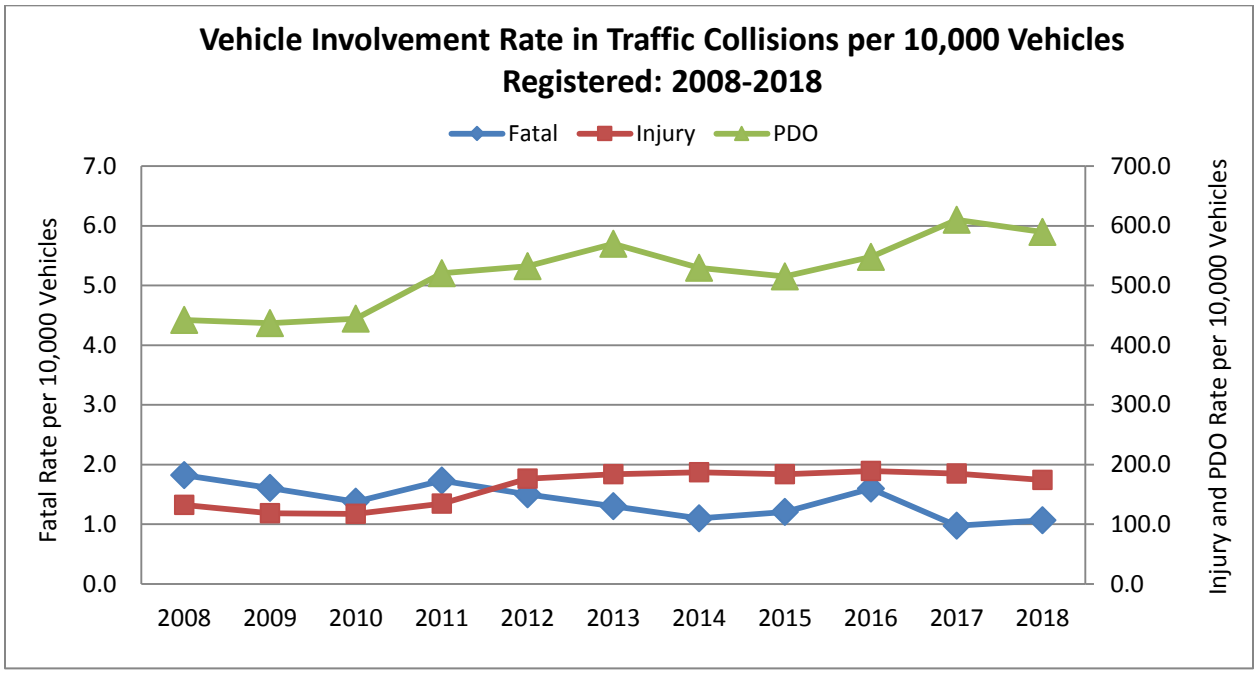
Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2008	1.8	-	132.1	-	442.0	-	575.9	-
2009	1.6	-11.8%	118.3	-10.4%	436.7	-1.2%	556.7	-3.3%
2010	1.4	-14.4%	117.1	-1.0%	444.3	1.7%	562.7	1.1%
2011	1.7	25.7%	134.5	14.9%	520.6	17.2%	656.8	16.7%
2012	1.5	-13.2%	176.5	31.3%	532.2	2.2%	710.2	8.1%
2013	1.3	-13.3%	183.8	4.1%	569.7	7.0%	754.8	6.3%
2014	1.1	-15.9%	187.2	1.8%	529.8	-7.0%	718.0	-4.9%
2015	1.2	9.8%	183.6	-1.9%	515.4	-2.7%	700.2	-2.5%
2016	1.6	32.9%	189.2	3.0%	547.6	6.3%	738.4	5.5%
2017	1.0	-39.2%	185.1	-2.2%	610.1	11.4%	796.2	7.8%
2018	**1.1**	**9.7%**	**173.9**	**-6.0%**	**589.8**	**-3.3%**	**764.8**	**-3.9%**
2013-2017 Average*	1.2	-13.6%	185.8	-6.4%	554.5	6.4%	741.5	3.1%

* "% change" in this line compares the current year to the 5-year average

Vehicle involvement in traffic collisions per 10,000 registered vehicles (vehicle involvement rate) has decreased in 2018 compared to 2017 but has increased compared to the previous five year (2013 to 2017) annual average. The vehicle involvement rate in collisions in 2018 for:

- Total collisions is 764.8 – decreased by 4% from 2017 but increased by 3% from the previous five years;
- Fatal collisions is 1.1 – increased by 10% from 2017 but decreased by 14% from the previous five years;
- Injury collisions is 173.9 – decreased by 6% from 2017 and from the previous five years; and,
- PDO collisions is 589.8 – decreased by 3% from 2017 but increased by 6% from the previous five years.

Figure 7-1 Vehicle Involvement Rate (per 10,000 Registered Vehicles) in Fatal, Injury and PDO Collisions



As shown in Figure 7-1, vehicle involvement rates for injury crashes and PDO crashes in 2018 decreased slightly and vehicle involvement rate for fatal crashes in 2018 increased slightly compared to 2017.

Table 7-3 Vehicle Types (as defined in TAR) Involved in Traffic Collisions and Collision Severity

Table 7-3

Vehicle Types (as defined in TAR) Involved in Traffic Collisions and Collision Severity: 2018, 2013-2017 Average

Vehicle Type	2018 Collision Severity						**2018 Total**	% of 2018 Total	2013-2017 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Passenger vehicle (automobile)	45	46.9%	12,190	76.3%	38,490	71.1%	**50,725**	72.2%	49	12,149	34,059	46,257	70.9%
Mini/Multi-Purpose Van	6	6.3%	1,080	6.8%	3,526	6.5%	**4,612**	6.6%	7	1,311	3,844	5,162	7.9%
Van under 4500 kg	2	2.1%	142	0.9%	459	0.8%	**603**	0.9%	1	145	445	591	0.9%
Pick-up under 4500 kg	24	25.0%	1,860	11.6%	9,706	17.9%	**11,590**	16.5%	26	2,075	8,729	10,830	16.6%
Truck over 4500 kg (unit chassis)	4	4.2%	198	1.2%	956	1.8%	**1,158**	1.6%	6	195	891	1,092	1.7%
Power Unit for Semi-Trailer	5	5.2%	120	0.8%	421	0.8%	**546**	0.8%	10	114	382	505	0.8%
Truck/Camper	0	-	0	-	0	-	**0**	-	<1	<1	2	2	<0.1%
Motor home	0	-	0	-	20	<0.1%	**20**	<0.1%	<1	3	23	26	<0.1%
Truck (other)	1	1.0%	20	0.1%	93	0.2%	**114**	0.2%	1	25	65	91	0.1%
School Bus	0	-	13	<0.1%	61	0.1%	**74**	0.1%	<1	6	21	27	<0.1%
Other School Vehicle	0	-	0	-	0	-	**0**	-	<1	<1	<1	0	-
Transit Bus – urban	1	1.0%	51	0.3%	35	<0.1%	**87**	0.1%	<1	47	58	106	0.2%
Para-transit Bus	0	-	5	<0.1%	4	<0.1%	**9**	<0.1%	<1	2	6	8	<0.1%
Intercity Bus	0	-	6	<0.1%	10	<0.1%	**16**	<0.1%	<1	1	9	10	<0.1%
Bus (other)	0	-	8	<0.1%	74	0.1%	**82**	0.1%	<1	24	80	104	0.2%
Motorcycle/Scooter	4	4.2%	109	0.7%	57	0.1%	**170**	0.2%	4	130	53	188	0.3%
Moped	0	-	11	<0.1%	4	<0.1%	**15**	<0.1%	<1	12	4	16	<0.1%
Bicycle	3	3.1%	132	0.8%	146	0.3%	**281**	0.4%	3	99	112	214	0.3%
Ambulance	1	1.0%	6	<0.1%	17	<0.1%	**24**	<0.1%	<1	1	8	10	<0.1%
Fire	0	-	20	0.1%	80	0.1%	**100**	0.1%	<1	5	28	33	<0.1%
Police	0	-	0	-	0	-	**0**	-	<1	<1	<1	0	-
Mobility Vehicle	0	-	0	-	0	-	**0**	-	<1	<1	<1	0	<0.1%
Motorized Snow Vehicle HTA	0	-	0	-	1	<0.1%	**1**	<0.1%	<1	<1	<1	1	<0.1%
Farm Equipment	0	-	1	<0.1%	0	-	**1**	<0.1%	<1	<1	<1	0	<0.1%
Construction Equipment	0	-	0	-	2	<0.1%	**2**	<0.1%	<1	<1	<1	1	<0.1%
Train/Other Rail Vehicle	0	-	0	-	0	-	**0**	-	<1	<1	<1	0	-
Off-Road Vehicles	0	-	3	<0.1%	5	<0.1%	**8**	<0.1%	<1	1	1	11	<0.1%
Total	96	100%	15,975	100%	54,167	100%	**70,238**	100%	109	16,351	48,825	65,284	100%

Note: Counts of vehicles in the 2013-2017 average may not add to the total due to rounding.
Note: Some vehicles are not identified by vehicle type due to a hit and run scenario.

Table 7-4 Combined Select Vehicle Categories Involved in Traffic Collisions by Collision Severity

Table 7-4

Vehicle Types (Combined Select Categories) Involved in Traffic Collisions and Collision Severity: 2018, 2013-2017 Average

Vehicle Type	2018 Collision Severity						**2018 Total**	% of 2018 Total	2013-2017 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Light Duty Vehicles	77	82.8%	15,272	96.4%	52,181	96.6%	**67,530**	96.6%	83	15,679	47,077	62,839	96.6%
Passenger vehicles	53	57.0%	13,412	84.7%	42,475	78.7%	**55,940**	80.0%	57	13,604	38,348	52,009	80.0%
Light trucks	24	25.8%	1,860	11.7%	9,706	18.0%	**11,590**	16.6%	26	2,075	8,729	10,830	16.7%
NSC Commercial Vehicles	11	11.8%	421	2.7%	1,654	3.1%	**2,086**	3.0%	17	415	1,512	1,944	3.0%
PSV Vehicles	1	1.1%	26	0.2%	97	0.2%	**124**	0.2%	0	6	36	43	<0.1%
Motorcycle/Moped/Scooter	4	4.3%	120	0.8%	61	0.1%	**185**	0.3%	4	143	57	203	0.3%
Off-Road vehicles	0	-	3	<0.1%	5	<0.1%	**8**	<0.1%	<1	1	1	11	<0.1%

Note: Counts of vehicles in the 2013-2017 average may not add to the total due to rounding.
Note: Some vehicles are not identified by vehicle type due to a hit and run scenario.
Note: The above categories are not an exhaustive list. Only primary vehicle types are included; vehicle types such as trains, bicycles, truck/camper units and motor homes are not.

Table 7-5 Vehicle Involvement (per 10,000 Registered Vehicles) in Traffic Collision by Combined Vehicle Types and Collision Severity

Table 7-5

Vehicle Involvement (per 10,000 Registered Vehicles) in Traffic Collisions by Combined Vehicle Types and Collision Severity: 2018, 2013-2017 Average

Vehicle Type	2018 Collision Severity				2013-2017 Average			
	Fatal	Injury	PDO	**2018 Total**	Fatal	Injury	PDO	Total
Light Duty Vehicles	1.1	208.7	713.0	**922.8**	1.2	220.6	662.4	884.1
Passenger vehicles	0.9	231.6	733.3	**965.8**	1.0	243.5	686.4	930.9
Light trucks	1.6	121.9	636.0	**759.4**	1.7	136.5	574.1	712.3
NSC Commercial Vehicles	1.0	40.2	157.8	**199.1**	1.8	45.4	165.6	212.9
PSV Vehicles	0.1	16.7	62.3	**79.7**	0.0	4.7	27.8	32.6
Motorcycle/Moped/Scooter	2.5	76.1	38.7	**117.4**	3.0	102.7	40.8	146.5

Light duty vehicles, including passenger vehicles, minivans, and light trucks, represent 97% of the vehicles involved in all traffic collisions in 2018, the same as 2017 and the previous five year (2013 to 2017) annual average (97%). Commercial vehicles represent 3% of the vehicles involved (the same as in the previous five years) while motorcycles, scooters, and mopeds represent 0.3% of the vehicles involved (the same as in the previous five years).

Light duty vehicles have the highest vehicle involvement rate (per 10,000 registered vehicles) among all the vehicle types examined. Light duty vehicles (passenger vehicles and light trucks, combined) have an involvement rate of 922.8 in 2018 and 884.1 in the previous five year (2013 to 2017) annual average. NSC commercial vehicles have an involvement rate of 199.1 in 2018 and 212.9 in the previous five years.

Motorcycles (including scooters and mopeds) have the second lowest rates of involvement in traffic collisions among all vehicle types examined. Motorcycles have a rate of involvement of 117.4 in 2018 and 146.5 for the previous five year (2013 to 2017) annual average.

Few PSV vehicles are recorded as being involved in traffic collisions in 2018 (only 124 in total). They had an involvement rate (per 10,000 registered vehicles) of 79.7 in 2018 and 32.6 in the previous five years.

Motorcycles (including scooters and mopeds) are much more likely than light duty vehicles to be involved in a fatal collision. In 2018, motorcycles have an involvement rate of 2.5 in fatal collisions, nearly two-and-a-half times the involvement rate of light duty vehicles in fatal collisions (1.1). In the previous five year (2013 to 2017) annual average, motorcycles had a vehicle involvement rate of 3.0 in fatal collisions, more than two-and-a-half times the rate of light duty vehicles.

NOTE: No vehicle involvement rate for off-road vehicles (ORV) is calculated due to difficulty in developing a reliable and accurate population count of these vehicles.

SECTION 8 – Driver Involvement

Introduction

This section counts the number of drivers involved in traffic collisions and breaks this down by age and gender of the driver. The rate of involvement (per 10,000 licensed drivers) in traffic collisions is also detailed.

Key Highlights

In 2018, there are 66,606 drivers involved in traffic collisions. Of these:

- 95 are involved in fatal collisions;
- 15,752 are involved in injury collisions; and,
- 50,759 are involved in PDO collisions.

Drivers aged 16 to 24, 25 to 34, and those age 35 to 44 account for the largest proportions of drivers (by age group) involved in traffic collisions in 2018.

Young drivers have a much higher rate of involvement in traffic collisions than older drivers. In 2018, drivers aged 16 to 24 years old have an involvement rate (per 10,000 licensed drivers) in traffic collisions of 1,008.6. This is:

- 1.2 times that of drivers aged 25 to 34 (rate of 865.9);
- 1.3 times that of drivers aged 35 to 44 (rate of 803.2);
- 1.4 times that of drivers aged 45 to 54 (rate of 726.9);
- 1.7 times that of drivers aged 55 to 64 (rate of 582.3); and,
- Nearly two-and-a-half times that of drivers aged 65 and older (rate of 424.9).

The majority of drivers involved in traffic collisions are male. Among all drivers involved in traffic collisions in 2018 where the driver gender is known, 60% are male and 40% are female.

- Fatal collisions: 78% are male drivers, 22% are female drivers
- Injury collisions: 52% are male drivers, 48% are female drivers
- PDO collisions: 62% are male drivers, 38% are female drivers

The rate of involvement for men in traffic collisions in 2018 is 838.7, nearly one-and-a-half times that of females (598.3). Driver involvement rates in 2018:

- Fatal collisions: male rate – 1.5, female rate – 0.5
- Injury collisions: male rate – 173.5, female rate – 168.4
- PDO collisions: male rate – 663.6, female rate – 429.4

The reader should note that neither the count of drivers involved in collisions nor the calculated rate of involvement takes into account exposure to risk in terms of hours of driving, kilometres driven, or driving situations.

Major Elements Examined

Counts of drivers involved in collisions in Manitoba for 2018 and previous years are taken from Traffic Accident Reports (TARs) completed by Manitoba Public Insurance and law enforcement agencies, and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, fatal collisions, injury collisions, and property damage only (PDO) collisions.

It is important to note that the number of collisions is not equal to the number of drivers involved in those collisions; nor is the number of vehicles involved in collisions. Some collisions involve more than one driver while others involve a single driver; the number of drivers will not equal the number of collisions. Likewise, not every vehicle involved in a collision will have a driver. Some collisions involve parked vehicles while others may involve driverless vehicles, such as construction or farm equipment (a full definition of what constitutes a "driver" for this report is provided under the "*Terms and Definitions*" heading). As there are more drivers involved in collisions than collisions overall, involvement rates calculated based on the number of drivers will be higher than the involvement rates calculated based on the number of collisions.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Likewise, average calculations are presented for historical data from the years 2013 to 2017. Rounding errors in these calculations will cause individual average counts not to add to total average counts in some cases.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

Terms and Definitions

"Drivers"

- The number of drivers involved in collisions. It excludes pedestrians, bicyclists, snowmobiles, off-road vehicles, farm and construction equipment, trains and parked vehicles.

"Collision Severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Driver Involvement Rate"

- A calculation of the number of drivers involved in traffic collisions for every 10,000 drivers licensed in Manitoba. The total number of drivers licensed to drive includes both active and suspended drivers. This involvement rate does not take into account the number of vehicle kilometres driven by each driver group. More detail regarding the methodology used to count licensed drivers can be found in "*Section 2 Licensed Drivers*" of this report.

Table 8-1 Historical Summary of Drivers Involved in Traffic Collisions

Table 8-1
Historical Summary of Drivers Involved in Traffic Collisions: 2008 to 2018

Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2008	121	-	9,854	-	32,145	-	42,120	-
2009	120	-0.8%	8,938	-9.3%	32,039	-0.3%	41,097	-2.4%
2010	105	-12.5%	8,969	0.3%	33,236	3.7%	42,310	3.0%
2011	130	23.8%	10,644	18.7%	40,505	21.9%	51,279	21.2%
2012	119	-8.5%	14,696	38.1%	44,062	8.8%	58,877	14.8%
2013	106	-10.9%	15,539	5.7%	47,856	8.6%	63,501	7.9%
2014	90	-15.1%	16,120	3.7%	45,084	-5.8%	61,294	-3.5%
2015	103	14.4%	16,088	-0.2%	43,525	-3.5%	59,716	-2.6%
2016	138	34.0%	16,753	4.1%	46,948	7.9%	63,839	6.9%
2017	85	-38.4%	16,531	-1.3%	51,831	10.4%	68,447	7.2%
2018	**95**	**11.8%**	**15,752**	**-4.7%**	**50,759**	**-2.1%**	**66,606**	**-2.7%**
2013-2017 Average*	104	-9.0%	16,206	-2.8%	47,049	7.9%	63,359	5.1%

* "% change" in this line compares the current year to the 5-year average

In 2018, there are 66,606 drivers involved in traffic collisions. Of these:

- 95 are involved in fatal collisions;
- 15,752 are involved in injury collisions; and,
- 50,759 are involved in PDO collisions.

Overall, the number of drivers involved in traffic collisions in 2018 decreased from 2017 (down 3%) but increased from the previous five year (2013 to 2017) annual average (up 5%). In 2018, there are:

- 1,841 fewer drivers involved in total collisions than in 2017 and 3,247 more than in the previous five years;
- 10 more drivers involved in fatal collisions than in 2017 (a 12% increase) and 9 fewer than in the previous five years (a 9% decrease);
- 779 fewer drivers involved in injury collisions compared to 2017 (a 5% decrease) and 454 fewer than in the previous five years (a 3% decrease); and,
- 1,072 fewer drivers involved in PDO collisions compared to 2017 (a 2% decrease) and 3,710 more than in the previous five years (an 8% increase).

Table 8-2 Historical Summary of Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions

Table 8-2
Historical Summary of Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions: 2008 to 2018

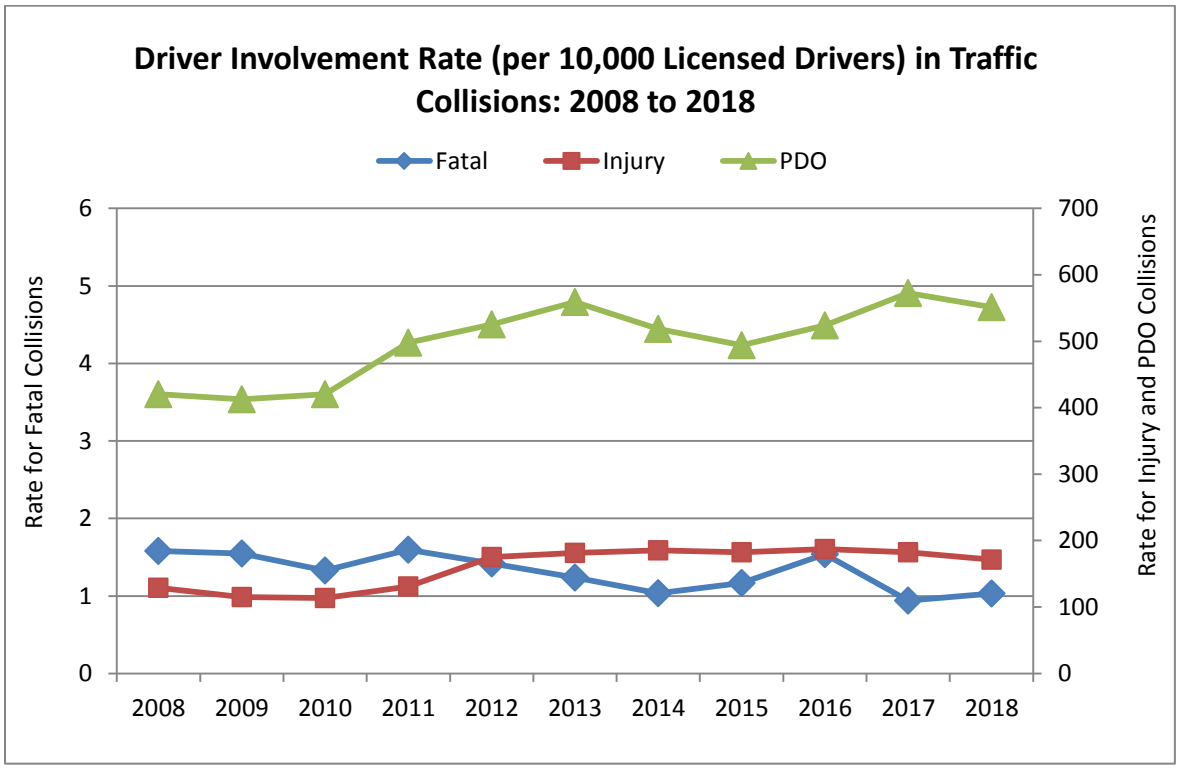
Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2008	1.6	-	128.8	-	420.2	-	550.6	-
2009	1.5	-2.3%	115.1	-10.6%	412.8	-1.8%	529.5	-3.8%
2010	1.3	-14.1%	113.5	-1.4%	420.5	1.9%	535.3	1.1%
2011	1.6	20.3%	130.8	15.3%	497.8	18.4%	630.2	17.7%
2012	1.4	-11.2%	175.3	34.0%	525.5	5.6%	702.2	11.4%
2013	1.2	-12.7%	181.6	3.6%	559.2	6.4%	742.0	5.7%
2014	1.0	-16.4%	185.4	2.1%	518.7	-7.2%	705.1	-5.0%
2015	1.2	12.9%	182.5	-1.6%	493.9	-4.8%	677.6	-3.9%
2016	1.5	31.8%	187.0	2.4%	524.0	6.1%	712.6	5.2%
2017	0.9	-39.1%	182.6	-2.4%	572.5	9.2%	756.0	6.1%
2018	**1.0**	**9.9%**	**171.1**	**-6.3%**	**551.5**	**-3.7%**	**723.7**	**-4.3%**
2013-2017 Average*	1.2	-12.9%	183.8	-6.9%	533.6	3.3%	718.7	0.7%

* "% change" in this line compares the current year to the 5-year average

The driver involvement rate (per 10,000 licensed drivers) in traffic collisions in 2018 is 723.7, a decrease of 4% compared to the rate in 2017 (756.0) but an increase of 1% from the previous five year (2013 to 2017) annual average (718.7). In 2018, driver involvement in:

- Fatal collisions (1.0) increased by 10% from 2017 but decreased by 13% compared to the previous five years;
- Injury collisions (171.1) decreased by 6% from 2017 and by 7% compared to the previous five years; and,
- PDO collisions (551.5) decreased by 4% from 2017 but increased by 3% compared to the previous five years.

Figure 8-1 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Severity



The rate of involvement for drivers in PDO collisions had been fairly consistent between 2008 and 2010. The rate increased in 2011, 2012 and 2013, before falling in 2014 and 2015, and increased again in 2016 and 2017 before falling in 2018. The increased driver involvement rates in PDO collisions since 2011 (compared to 2008 to 2010) are at least partially attributable to changes in the reporting structure that took effect in 2011.

The driver involvement rate for injury collisions increased in 2011 and 2012, and were relatively stable from 2013 through 2018. The rate for fatal collisions had steadily decreased until increases in 2015 and 2016, then decreased again in 2017 and stayed fairly stable in 2018. The increases in driver involvement in injury collisions since 2011 are at least partially attributable to changes in the reporting structure that took effect in 2011. However, changes in driver involvement in fatal collisions cannot be attributed to this reporting structure change.

Table 8-3 Drivers Involved in Traffic Collisions by Age Group and Collision Severity

Table 8-3

Drivers Involved in Traffic Collisions by Age Group and Collision Severity: 2018, 2013-2017 Average

Age Group	2018 Collision Severity						**2018 Total Collisions**	% of 2018 Total Collisions*	2013-2017 Average Count of Drivers				
	Fatal	% of Total Fatal*	Injury	% of Total Injury*	PDO	% of Total PDO*			Fatal	Injury	PDO	Total	% of Total Collisions*
<16	0	-	8	<0.1%	54	0.1%	**62**	<0.1%	0	20	46	66	0.1%
16-19	11	11.7%	1,005	6.4%	3,459	6.8%	**4,475**	6.7%	10	1,199	3,661	4,871	7.7%
20-24	5	5.3%	1,814	11.5%	6,145	12.1%	**7,964**	12.0%	13	1,954	6,081	8,048	12.7%
25-34	17	18.1%	3,398	21.6%	10,865	21.5%	**14,280**	21.5%	23	3,511	9,950	13,483	21.3%
35-44	23	24.5%	3,062	19.4%	9,353	18.5%	**12,438**	18.7%	13	3,094	8,464	11,571	18.3%
45-54	14	14.9%	2,754	17.5%	8,175	16.1%	**10,943**	16.5%	17	2,902	7,925	10,845	17.1%
55-64	10	10.6%	2,133	13.5%	6,888	13.6%	**9,031**	13.6%	12	2,032	5,975	8,020	12.7%
65+	14	14.9%	1,570	10.0%	5,711	11.3%	**7,295**	11.0%	15	1,476	4,856	6,348	10.0%
Not Stated	1	-	8	-	109	-	**118**	-	1	17	90	108	-
Total*	**95**	**100%**	**15,752**	**100%**	**50,759**	**100%**	**66,606**	100%	104	16,206	47,049	63,359	100%

*Percentage of the total does not include the 'not stated' category.
Note: Counts of drivers in the 2013-2017 average may not add to the total due to rounding.

Drivers aged 16 to 24, 25 to 34, and those age 35 to 44 account for the largest proportions of drivers (by age group) involved in traffic collisions in 2018. Overall, these proportions are very similar to previous years.

- Total collisions: aged 16 to 24 – 19%; aged 25 to 34 – nearly 22%; aged 35 to 44 – 19%; aged 45 to 54 – nearly 17%; aged 55 to 64 – 14%; aged 65 and older – 11%.
- Fatal collisions: aged 16 to 24 – 17%; aged 25 to 34 – 18%; aged 35 to 44 – nearly 25%; aged 45 to 54 – 15%; aged 55 to 64 – 11%; aged 65 and older – 15%.
- Injury collisions: aged 16 to 24 – 18%; aged 25 to 34 – 22%; aged 35 to 44 – 19%; aged 45 to 54 – nearly 18%; aged 55 to 64 – nearly 14%; aged 65 and older – 10%.
- PDO collisions: aged 16 to 24 – 19%; aged 25 to 34 – nearly 22%; aged 35 to 44 – nearly 19%; aged 45 to 54 – 16%; aged 55 to 64 – 14%; aged 65 and older – 11%.

Figure 8-2 Proportion of Traffic Collisions by Driver Age and Collision Severity

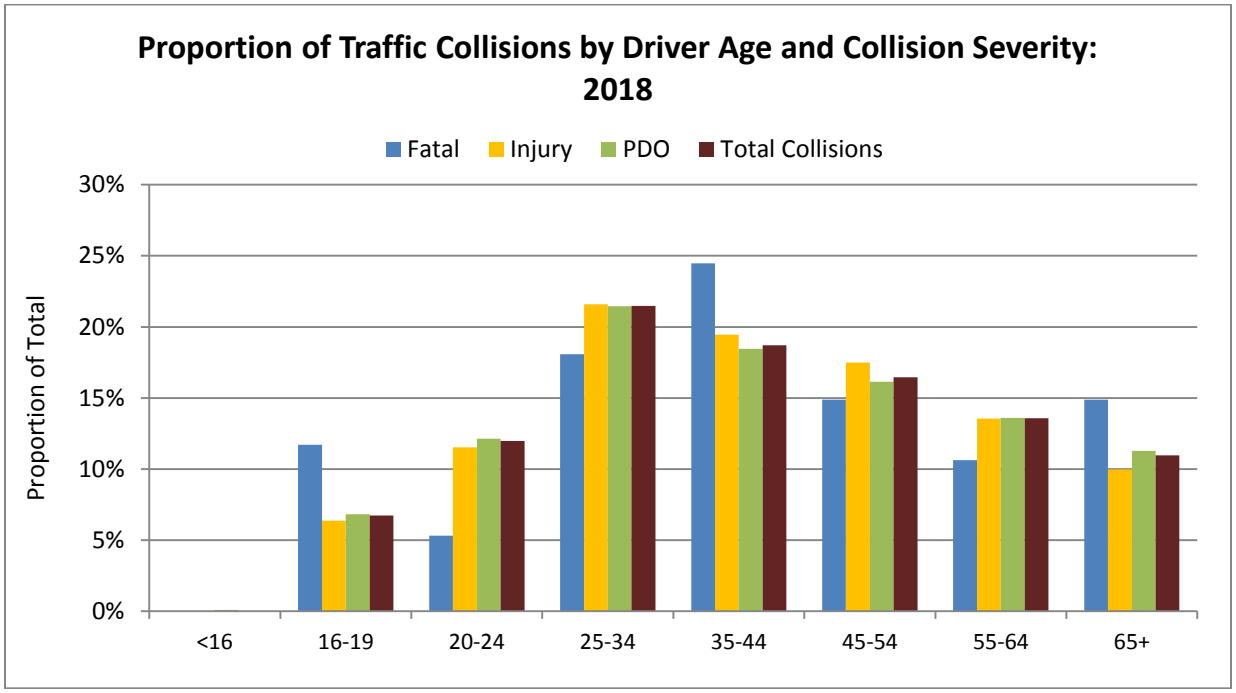


Table 8-4 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Age Group and Collision Severity

Table 8-4
Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Age Group and Collision Severity: 2018, 2013-2017 Average

Age Group	2018 Collision Severity			**2018 Total Collisions**	2013-2017 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
<16	-	-	-	**-**	-	-	-	-
16-19	2.3	209.1	719.8	**931.2**	2.1	249.4	761.7	1,013.2
20-24	0.7	241.0	816.3	**1,058.0**	1.7	263.8	820.7	1,086.2
25-34	1.0	206.0	658.8	**865.9**	1.5	229.1	649.4	880.0
35-44	1.5	197.7	604.0	**803.2**	0.9	211.2	577.6	789.6
45-54	0.9	182.9	543.1	**726.9**	1.1	185.0	505.3	691.4
55-64	0.6	137.5	444.1	**582.3**	0.8	139.0	408.5	548.3
65+	0.8	91.4	332.7	**424.9**	1.0	94.3	310.3	405.6

Recognizing that counts of drivers involved in collisions could be impacted either positively or negatively by changing population statistics, involvement rates per 10,000 licensed drivers are examined to provide a standardized collision rate comparison. This eliminates the effect of changing population size and focuses on how many drivers are involved in collisions instead of simply a raw count of drivers. Further, in the absence of the number of kilometres driven, the driver involvement rate acts as a proxy for exposure to collision risk.

Young drivers have a much higher rate of involvement in traffic collisions than older drivers. In 2018, drivers aged 16 to 24 years old have an involvement rate (per 10,000 licensed drivers) in traffic collisions of 1,008.6. This is:

- 1.2 times that of drivers aged 25 to 34 (rate of 865.9);
- 1.3 times that of drivers aged 35 to 44 (rate of 803.2);
- 1.4 times that of drivers aged 45 to 54 (rate of 726.9);
- 1.7 times that of drivers aged 55 to 64 (rate of 582.3); and,
- Nearly two-and-a-half times that of drivers aged 65 and older (rate of 424.9).

Table 8-5 Drivers Involved in Traffic Collisions by Gender and Age Group and Collision Severity

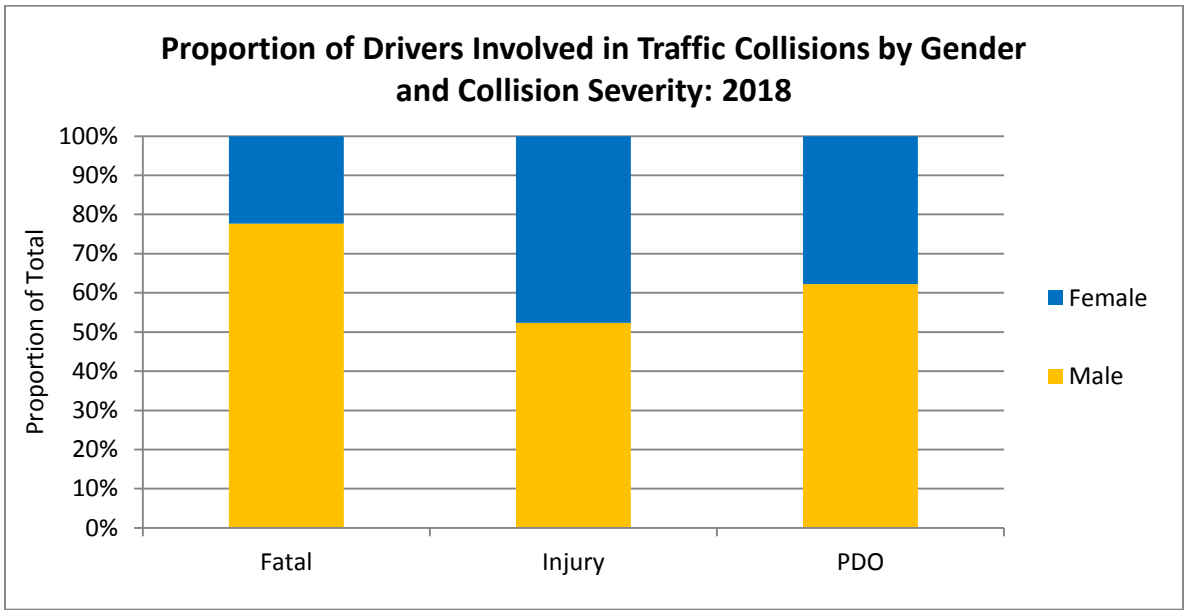
Table 8-5

Total Drivers Involved in Traffic Collisions by Gender and Age Group and Collision Severity: 2018, 2013-2017 Average

Gender - Age Group		2018 Collision Severity						2018 Total Collisions	% of 2018 Total Collisions*	2013-2017 Average Count of Drivers				
		Fatal	% of Total Fatal*	Injury	% of Total Injury*	PDO	% of Total PDO*			Fatal	Injury	PDO	Total	% of Total Collisions*
Female	<16	0	-	4	<0.1%	29	0.2%	**33**	0.1%	<1	7	18	25	0.1%
	16-19	1	4.8%	484	6.5%	1,280	6.7%	**1,765**	6.6%	4	555	1,384	1,942	7.7%
	20-24	2	9.5%	847	11.3%	2,310	12.1%	**3,159**	11.9%	4	937	2,262	3,203	12.7%
	25-34	2	9.5%	1,668	22.2%	4,192	21.9%	**5,862**	22.0%	6	1,709	3,736	5,451	21.7%
	35-44	5	23.8%	1,533	20.4%	3,655	19.1%	**5,193**	19.5%	2	1,519	3,286	4,807	19.1%
	45-54	2	9.5%	1,330	17.7%	3,160	16.5%	**4,492**	16.9%	5	1,379	2,915	4,299	17.1%
	55-64	4	19.0%	980	13.1%	2,473	12.9%	**3,457**	13.0%	2	926	2,148	3,076	12.2%
	65+	5	23.8%	652	8.7%	2,013	10.5%	**2,670**	10.0%	4	611	1,716	2,331	9.3%
	Not Stated	0	-	1	-	7	-	**8**	-	<1	1	8	9	-
	Total Female*	**21**	**100%**	**7,499**	**100%**	**19,119**	**100%**	**26,639**	100%	27	7,644	17,472	25,143	100%
Male	<16	0	-	4	<0.1%	25	<0.1%	**29**	<0.1%	<1	13	28	41	0.1%
	16-19	10	13.7%	521	6.3%	2,171	6.9%	**2,702**	6.8%	7	643	2,275	2,924	7.7%
	20-24	3	4.1%	967	11.7%	3,824	12.1%	**4,794**	12.0%	9	1,016	3,812	4,837	12.7%
	25-34	15	20.5%	1,728	21.0%	6,670	21.2%	**8,413**	21.1%	17	1,800	6,210	8,028	21.1%
	35-44	18	24.7%	1,528	18.5%	5,697	18.1%	**7,243**	18.2%	11	1,575	5,176	6,761	17.7%
	45-54	12	16.4%	1,424	17.3%	5,014	15.9%	**6,450**	16.2%	13	1,523	5,009	6,544	17.2%
	55-64	6	8.2%	1,153	14.0%	4,415	14.0%	**5,574**	14.0%	10	1,106	3,826	4,942	13.0%
	65+	9	12.3%	918	11.1%	3,697	11.7%	**4,624**	11.6%	11	865	3,140	4,016	10.5%
	Not Stated	0	-	1	-	19	-	**20**	-	<1	3	12	15	-
	Total Male*	**73**	**100%**	**8,244**	**100%**	**31,532**	**100%**	**39,849**	100%	77	8,544	29,488	38,108	100%

*Percentage of the total does not include the 'not stated' category.
Note: Counts of drivers in the 2013-2017 average may not add to the total due to rounding.
Note: Some drivers do not have age and gender recorded and are therefore missing from the table above.

Figure 8-3 Proportion of Drivers Involved in Traffic Collisions by Gender and Collision Severity



The majority of drivers involved in traffic collisions are male. Among all drivers involved in traffic collisions in 2018 where the driver gender is known, 60% are male and 40% are female.

- Fatal collisions: 78% are male drivers, 22% are female drivers
- Injury collisions: 52% are male drivers, 48% are female drivers
- PDO collisions: 62% are male drivers, 38% are female drivers

The reader should note that the count of drivers involved in collisions does not take into account exposure to risk in terms of driving situations, hours driven or kilometres driven.

As shown in Table 8-6 (on the following page), young drivers account for the highest proportions of collisions. In particular, young male drivers account for a larger proportion of collisions than any other group of drivers. In 2018:

- Male drivers aged 16 to 24 account for 11% of all collisions, 14% of fatal collisions, nearly 10% of injury collisions, and 12% of PDO collisions;
- Male drivers aged 25 to 34 account for 13% of all collisions, 16% of fatal collisions, 11% of injury collisions, and 13% of PDO collisions;
- Female drivers aged 16 to 24 account for 7% of all collisions, 3% of fatal collisions, nearly 9% of injury collisions and 7% of PDO collisions; and,
- Female drivers aged 25 to 34 account for 9% of all collisions, 2% of fatal collisions, 11% of injury collisions and 8% of PDO collisions.

Table 8-6 Drivers Involved in Traffic Collisions by Age Group and Gender and Collision Severity

Table 8-6

Total Drivers Involved in Traffic Collisions by Age Group and Gender and Collision Severity: 2018, 2013-2017 Average

Age Group - Gender		2018 Collision Severity						2018 Total Collisions	% of 2018 Total Collisions*	2013-2017 Average Count of Drivers				
		Fatal	% of Total Fatal*	Injury	% of Total Injury*	PDO	% of Total PDO*			Fatal	Injury	PDO	Total	% of Total Collisions*
<16	Female	0	-	4	<0.1%	29	<0.1%	**33**	<0.1%	<1	7	18	25	<0.1%
	Male	0	-	4	<0.1%	25	<0.1%	**29**	<0.1%	<1	13	28	41	<0.1%
16 to 24	Female	3	3.2%	1,331	8.5%	3,590	7.1%	**4,924**	7.4%	8	1,492	3,646	5,145	8.1%
	Male	13	13.8%	1,488	9.5%	5,995	11.8%	**7,496**	11.3%	15	1,659	6,087	7,762	12.3%
25 to 34	Female	2	2.1%	1,668	10.6%	4,192	8.3%	**5,862**	8.8%	6	1,709	3,736	5,451	8.6%
	Male	15	16.0%	1,728	11.0%	6,670	13.2%	**8,413**	12.7%	17	1,800	6,210	8,028	12.7%
35 to 44	Female	5	5.3%	1,533	9.7%	3,655	7.2%	**5,193**	7.8%	2	1,519	3,286	4,807	7.6%
	Male	18	19.1%	1,528	9.7%	5,697	11.3%	**7,243**	10.9%	11	1,575	5,176	6,761	10.7%
45 to 54	Female	2	2.1%	1,330	8.4%	3,160	6.2%	**4,492**	6.8%	5	1,379	2,915	4,299	6.8%
	Male	12	12.8%	1,424	9.0%	5,014	9.9%	**6,450**	9.7%	13	1,523	5,009	6,544	10.4%
55 to 64	Female	4	4.3%	980	6.2%	2,473	4.9%	**3,457**	5.2%	2	926	2,148	3,076	4.9%
	Male	6	6.4%	1,153	7.3%	4,415	8.7%	**5,574**	8.4%	10	1,106	3,826	4,942	7.8%
65 and older	Female	5	5.3%	652	4.1%	2,013	4.0%	**2,670**	4.0%	4	611	1,716	2,331	3.7%
	Male	9	9.6%	918	5.8%	3,697	7.3%	**4,624**	7.0%	11	865	3,140	4,016	6.4%
Not Stated	Female	0	-	1	-	7	-	**8**	-	<1	1	8	9	-
	Male	0	-	1	-	19	-	**20**	-	<1	3	12	15	-
Total	Female	21	22.3%	7,499	47.6%	19,119	37.7%	**26,639**	40.1%	26	7,644	17,472	25,143	39.7%
	Male	73	77.7%	8,244	52.3%	31,532	62.2%	**39,849**	59.9%	77	8,544	29,488	38,108	60.2%

*Percentage of the total does not include the 'not stated' category.
Note: Counts of drivers in the 2013-2017 average may not add to the total due to rounding.
Note: Some drivers do not have age and gender recorded and are therefore missing from the table above.

Table 8-7 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Gender and Age Group and Collision Severity

Table 8-7
Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Gender and Age Group and Collision Severity: 2018, 2013-2017 Average

Gender - Age Group		2018 Collision Severity			**2018 Total Collisions**	2013-2017 Average			
		Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Female	<16	-	-	-	**-**	-	-	-	-
	16-19	0.4	208.8	552.3	**761.5**	1.6	239.0	596.1	836.6
	20-24	0.6	237.9	648.9	**887.4**	1.1	263.2	635.5	899.8
	25-34	0.2	208.2	523.2	**731.6**	0.8	229.8	502.5	733.2
	35-44	0.7	202.9	483.9	**687.5**	0.3	212.9	460.7	673.9
	45-54	0.3	182.9	434.5	**617.7**	0.6	182.4	385.7	568.7
	55-64	0.5	131.1	330.9	**462.6**	0.3	131.3	304.4	436.0
	65+	0.6	78.2	241.5	**320.3**	0.5	81.9	229.9	312.3
	Total	0.5	168.4	429.4	**598.3**	0.6	179.7	410.9	591.2
Male	<16	-	-	-	**-**	-	-	-	-
	16-19	4.0	209.4	872.6	**1,086.1**	2.7	258.7	915.0	1,176.4
	20-24	0.8	243.7	963.8	**1,208.3**	2.2	264.0	990.3	1,256.5
	25-34	1.8	203.8	786.6	**992.2**	2.2	228.3	787.3	1,017.7
	35-44	2.3	192.6	718.2	**913.1**	1.4	209.4	688.2	899.0
	45-54	1.5	183.0	644.3	**828.9**	1.6	187.4	616.3	805.3
	55-64	0.7	143.5	549.4	**693.6**	1.3	146.1	505.5	652.9
	65+	1.0	104.0	418.6	**523.6**	1.4	105.6	383.6	490.6
	Total	1.5	173.5	663.6	**838.7**	1.7	187.3	646.3	835.2

The rate of involvement for men in traffic collisions in 2018 is 838.7, nearly one-and-a-half times that of women (598.3). Driver involvement rates in 2018:

- Fatal collisions: male rate – 1.5, female rate – 0.5
- Injury collisions: male rate – 173.5, female rate – 168.4
- PDO collisions: male rate – 663.6, female rate – 429.4

The reader should note that the calculated driver involvement rates do not take into account exposure to risk in terms of driving situations, hours driven or kilometres driven.

In 2018, young males, especially those under age 25, have the highest driver involvement rates of all driver gender-age groups. Young females under age 25 have higher driver involvement rates in total collisions than female drivers aged 25 and older.

Compared to the previous five year (2013 to 2017) annual average, driver involvement rates in 2018 increased for drivers aged 35 and older but decreased for drivers under 35 for overall traffic collisions.

Driver involvement rates in fatal collisions show some variations. Comparing 2018 to the previous five year (2013 to 2017) annual average:

- Female involvement rates in fatal collisions decreased by 25% overall. However, the rates for female drivers age 35 to 44 more than doubled, and rates for females aged 55 and older also increased while other age groups decreased.
- Male involvement rates in fatal collisions decreased by 9% overall. However, the rates among male drivers age 16 to 19 and 35 to 44 increased while all other age groups decreased.

SECTION 9 – Contributing Factors

Introduction

This section examines the contributing factors to traffic collisions as reported on the Traffic Accident Report (TAR). Detail is provided at the collision level, at the victim level and at the driver level. Driver involvement rates (per 10,000 licensed drivers) in collisions with specific contributing factors are also provided and discussed. The reader is cautioned to note that more than one contributing factor can be recorded for each vehicle and/or driver involved in a collision. The total count of contributing factors noted will add to more than the number of collisions, vehicles, drivers, or victims in those crashes.

Key Highlights

In 2018, nearly 56% of all collisions have some at-fault contributing factor recorded (89% of fatal collisions; 74% of injury collisions). In 2018:

- A driver action is a contributing factor in 51% of all **collisions** (74% of fatal collisions; 72% of injury collisions; 47% of PDO collisions);
- A human condition is a contributing factor in nearly 1% of all **collisions** (nearly 42% of fatal collisions; 1% of injury collisions; 0.3% of PDO collisions); and,
- Environmental conditions are contributing factors in 7% of all **collisions** (14% of fatal collisions; 6% of injury collisions; 7% of PDO collisions).

The most prevalent **contributing factors recorded for collisions** in 2018 include:

- Distracted driving – 28% of all collisions (28% fatal; nearly 37% injury; 26% PDO);
- "Following too closely" – 10% of all collisions (nearly 2% fatal; 20% injury; 8% PDO);
- "Backing unsafely" – 6% of all collisions (no fatal; 3% injury; 7% PDO);
- "Turning improperly" – 5% of all collisions (nearly 2% fatal; 8% injury; 4% PDO);
- Speed – 4% of all collisions (23% fatal; 5% injury; 4% PDO);
- "Fail to yield right-of-way" – 4% of all collisions (9% fatal; 9% injury; 3% PDO);
- "Changing lanes improperly" – 4% of all collisions (no fatal; 4% injury; 4% PDO);
- "Slippery road surface" – 3% of all collisions (3% fatal; 3% injury; 3% PDO);
- The actions of a wild animal – 3% of all collisions (no fatal; 1% injury; 3% PDO); and,
- "Lost control/Drive off the road" – 2% of all collisions (12% fatal; 3% injury; 2% PDO).

Considering the **victims from collisions** in 2018:

- 74% of all victims resulted from a collision where at least one driver is noted as having a driver action contributing to the collision (73% of people killed; 84% of people seriously injured);
- Nearly 2% of all victims resulted from a collision where at least one driver is noted as having a human condition contributing to the collision (43% of people killed; 7% of people seriously injured); and,
- 6% of all victims resulted from a collision where environmental conditions are noted as contributing to the collision (16% of people killed; 14% of people seriously injured).

The most prevalent contributing factors recorded for collisions where **people are killed or seriously injured** in 2018 include:

- Impaired – 40% of people killed and 2% of people seriously injured;
- Distracted driving – 27% of people killed and 45% of people seriously injured;
- Speed – 26% of people killed and 10% of people seriously injured;
- "Lost control/Drive off the road" – 11% of people killed and 7% of people seriously injured;
- "Fail to yield right-of-way" – 9% of people killed and 14% of people seriously injured;
- "Pedestrian error/confusion" – 6% of people killed and 2% of people seriously injured;
- "View obstructed/limited" – 4% of people killed and 3% of people seriously injured;
- "Take avoiding action" – 4% of people killed and nearly 3% of people seriously injured;
- "Drive wrong way on roadway" – 4% of people killed and 1% of people seriously injured;
- "Shoulders defective" – 4% of people killed and nearly 1% of people seriously injured;
- "Disobey traffic control device/officer" – 3% of people killed and 9% of people seriously injured;
- "Leave stop sign before safe to do so" – 3% of people killed and 5% of people seriously injured;
- "Slippery road surface" – 3% of people killed and 5% of people seriously injured;
- "Turning improperly" – 1% of people killed and 9% of people seriously injured; and,
- "Following too closely" – 1% of people killed and 8% of people seriously injured.

In 2018, 56% of the **drivers involved in traffic collisions** were recorded as not being at-fault in the collision.

- 38% of the drivers involved in a fatal collision were noted as not being at-fault.
- 55% of the drivers in an injury collision were noted as not being at-fault.
- 56% of the drivers in a PDO collision were noted as not being at-fault.

Driver actions were recorded for 40% of the **drivers involved in traffic collisions** in 2018.

- Nearly 51% of the drivers involved in fatal collisions had a driver action recorded.
- 43% of the drivers involved in injury collisions had a driver action recorded.
- 39% of the drivers involved in PDO collisions had a driver action recorded.

Human conditions were recorded as contributing factors for 0.4% of the **drivers involved in traffic collisions** in 2018.

- 26% of the drivers involved in fatal collisions had a human condition recorded.
- 0.7% of the drivers involved in injury collisions had a human condition recorded.
- 0.3% of the drivers involved in PDO collisions had a human condition recorded.

Environmental conditions were recorded as contributing factors for nearly 6% of **drivers involved in traffic collisions** in 2018.

- 7% of the drivers involved in fatal collisions had some environmental condition recorded.
- 3% of the drivers involved in injury collisions had some environmental condition recorded.
- 6% of the drivers involved in PDO collisions had some environmental condition recorded.

In 2018, the **driver involvement rate** (per 10,000 licensed drivers) in traffic collisions where:

- Any driver action is a contributing factor is 291.2, decreased by 5% from the previous five years (307.7);
- Any human condition is a contributing factor is 2.8, decreased by 25% from the previous five years (3.8);
- Environmental conditions are a contributing factor is 39.9, decreased by 39% from the previous five years (65.9);
- Distracted driving is a contributing factor is 158.4, increased by 37% from the previous five years (116.0);
- Speed is a contributing factor is 24.8, decreased by 28% from the previous five years (34.6); and,
- Impaired is a contributing factor is 1.3, decreased by 5% from the previous five years (1.4).

Major Elements Examined

Counts of drivers involved in collisions in Manitoba for 2018 and previous years are taken from Traffic Accident Reports (TARs) completed by Manitoba Public Insurance and law enforcement agencies, and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, fatal collisions, injury collisions, and property damage only (PDO) collisions.

When reviewing the “Contributing Factors” for a traffic collision, the reader is cautioned to note that more than one contributing factor can be recorded for each collision. The total count of contributing factors noted will add to more than the number of collisions, vehicles, drivers or victims in those crashes.

For the purposes of this report, speed as a contributing factor is discussed as being a combination of the individual factors “exceeding speed limit”, “driving too fast for conditions” and “unsafe operating speed (too fast or too slow)”.

For the purposes of this report, impaired as a contributing factor is discussed as being a combination of the individual factors “ability impaired by alcohol”, “ability impaired by drugs” and “had been drinking/suspected alcohol use”.

For the purposes of this report, distracted driving as a contributing factor is discussed as being a combination of the individual factors “careless driving” and “distraction/inattention”.

It is important to note that the number of collisions is not equal to the number of drivers involved in collisions because some collisions involve more than one driver while others involve a single driver. (A full definition of what constitutes a "driver" for this report is provided under the "Terms and Definitions" heading.) Because there are more drivers involved in collisions than collisions overall, relative involvement rates calculated based on the number of drivers will be higher than the relative involvement rates calculated based on the number of collisions.

When exploring the number of drivers in different age groups involved in traffic collisions, the reader is cautioned that the driver's age is missing in some collisions.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Average annual calculations are presented for historical data from the years 2013 to 2017. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and relative involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

Terms and Definitions

"Contributing Factor"

- Those circumstances or factors recorded as having contributed to the collision or its severity. Factors can be selected from four categories: driver action, human condition, vehicle condition, or environmental condition. The TAR allows for up to three contributing factors to be recorded for each driver or vehicle involved in the collision.

"At-fault Contributing Factor"

- A contributing factor where some action or condition other than "driving properly" and "apparently normal" has been noted.

"Driver Action"

- A category of contributing factors attributed to actions taken or performed by a driver immediately prior to a collision.

"Human Condition"

- A category of contributing factors attributed to the physical or mental condition of a driver immediately prior to a collision, most often that limit the driver's ability to drive safely or properly.

"Vehicle Condition"

- A category of contributing factors attributed to the physical condition of a vehicle immediately prior to a collision.

"Environmental Condition"

- A category of contributing factors attributed to environmental conditions (i.e., weather, road surface and animal actions) immediately prior to a collision.

"Drivers"

- The number of drivers involved in collisions. It excludes pedestrians, bicyclists, snowmobiles, off-road vehicles, farm and construction equipment, trains and parked vehicles.

"Collision Severity"

- A classification of a collision based on the most severe result of the collision; i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Driver Involvement Rate"

- A calculation of the number of drivers involved in traffic collisions for every 10,000 drivers licensed in Manitoba. The total number of drivers licensed to drive includes both active and suspended drivers. This involvement rate does not take into account the number of vehicle kilometers driven by each driver group.

Table 9-1 Contributing Factors to a Collision by Collision Severity

Table 9-1

Contributing Factors to a Collision by Collision Severity: 2018

Contributing Factor	2018 Collision Severity						2018 Total Collisions	% of 2018 Total Collisions
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	27	41.5%	7,847	84.2%	30,898	73.0%	**38,772**	**74.9%**
Driver Action - Driving properly	1	1.5%	40	0.4%	169	0.4%	**210**	**0.4%**
Any Driver Action	48	73.8%	6,685	71.7%	19,864	46.9%	**26,597**	**51.4%**
Follow too closely	1	1.5%	1,864	20.0%	3,225	7.6%	**5,090**	**9.8%**
Turning improperly	1	1.5%	723	7.8%	1,647	3.9%	**2,371**	**4.6%**
Passing improperly	2	3.1%	33	0.4%	89	0.2%	**124**	**0.2%**
Changing lanes improperly	0	-	377	4.0%	1,600	3.8%	**1,977**	**3.8%**
Fail to yield right-of-way	6	9.2%	803	8.6%	1,333	3.1%	**2,142**	**4.1%**
Disobey traffic control device/officer	2	3.1%	218	2.3%	238	0.6%	**458**	**0.9%**
Drive wrong way on roadway	3	4.6%	6	<0.1%	10	<0.1%	**19**	**<0.1%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	**0**	**-**
Back unsafely	0	-	243	2.6%	2,814	6.6%	**3,057**	**5.9%**
Parking improperly	0	-	10	0.1%	101	0.2%	**111**	**0.2%**
Lost control/Drive off road	8	12.3%	270	2.9%	890	2.1%	**1,168**	**2.3%**
Driverless vehicle ran out of control	0	-	7	<0.1%	21	<0.1%	**28**	**<0.1%**
Leave stop sign before safe to do so	2	3.1%	271	2.9%	388	0.9%	**661**	**1.3%**
Failed to signal	0	-	5	<0.1%	9	<0.1%	**14**	**<0.1%**
Take avoiding action	3	4.6%	80	0.9%	354	0.8%	**437**	**0.8%**
Driver inexperience	1	1.5%	33	0.4%	107	0.3%	**141**	**0.3%**
Pedestrian error/confusion	4	6.2%	36	0.4%	38	<0.1%	**78**	**0.2%**
NET Speed	15	23.1%	477	5.1%	1,791	4.2%	**2,283**	**4.4%**
Exceeding speed limit	9	13.8%	8	<0.1%	17	<0.1%	**34**	**<0.1%**
Driving too fast for conditions	6	9.2%	460	4.9%	1,761	4.2%	**2,227**	**4.3%**
Unsafe operating speed (Too fast or too slow)	1	1.5%	9	<0.1%	14	<0.1%	**24**	**<0.1%**
NET Distracted driving	18	27.7%	3,408	36.5%	11,192	26.4%	**14,618**	**28.3%**
Careless Driving	16	24.6%	3,338	35.8%	11,034	26.1%	**14,388**	**27.8%**
Distraction/Inattention	4	6.2%	153	1.6%	355	0.8%	**512**	**1.0%**

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Contributing Factor	2018 Collision Severity						2018 Total Collisions	% of 2018 Total Collisions
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	21	32.3%	4,284	45.9%	13,904	32.8%	**18,209**	**35.2%**
Any Human Condition	27	41.5%	113	1.2%	139	0.3%	**279**	**0.5%**
Loss of consciousness/Blackout prior to collision	2	3.1%	24	0.3%	18	<0.1%	**44**	**<0.1%**
Extreme fatigue/Fell asleep	1	1.5%	27	0.3%	40	<0.1%	**68**	**0.1%**
Defective eyesight	0	-	0	-	0	-	**0**	**-**
Defective hearing	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Medical disability	0	-	9	<0.1%	6	<0.1%	**15**	**<0.1%**
Physical disability	0	-	0	-	0	-	**0**	**-**
Mental disability	0	-	7	<0.1%	0	-	**7**	**<0.1%**
Mental confusion/Inability to remember	0	-	13	0.1%	5	<0.1%	**18**	**<0.1%**
Sudden illness	0	-	5	<0.1%	1	<0.1%	**6**	**<0.1%**
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	**0**	**-**
NET Impaired	25	38.5%	41	0.4%	73	0.2%	**139**	**0.3%**
Ability impaired alcohol	20	30.8%	34	0.4%	64	0.2%	**118**	**0.2%**
Ability impaired drugs	2	3.1%	4	<0.1%	4	<0.1%	**10**	**<0.1%**
Had been drinking/Suspected alcohol use	5	7.7%	4	<0.1%	9	<0.1%	**18**	**<0.1%**
No Apparent (Vehicle) Defect	36	55.4%	8,789	94.3%	38,192	90.2%	**47,017**	**90.9%**
Any Vehicle Defect	2	3.1%	23	0.2%	213	0.5%	**238**	**0.5%**
Defective brakes	0	-	3	<0.1%	11	<0.1%	**14**	**<0.1%**
Defective steering	0	-	1	<0.1%	4	<0.1%	**5**	**<0.1%**
Defective headlights	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Defective brake lights	1	1.5%	0	-	4	<0.1%	**5**	**<0.1%**
Defective lighting (unspecified)	0	-	1	<0.1%	1	<0.1%	**2**	**<0.1%**
Defective engine controls/drive train	0	-	2	<0.1%	6	<0.1%	**8**	**<0.1%**
Defective suspension/wheels	0	-	2	<0.1%	50	0.1%	**52**	**0.1%**
Defective tires	1	1.5%	7	<0.1%	62	0.1%	**70**	**0.1%**
Tow hitch/yoke defective	0	-	2	<0.1%	11	<0.1%	**13**	**<0.1%**
Defective exhaust system	0	-	0	-	0	-	**0**	**-**
Hood/tailgate/door/covering opened	0	-	0	-	4	<0.1%	**4**	**<0.1%**
Defective glazing (obscured windows)	0	-	1	<0.1%	0	-	**1**	**<0.1%**
Vehicle modifications	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Fire	0	-	0	-	0	-	**0**	**-**
Overloaded/oversized	0	-	0	-	7	<0.1%	**7**	**<0.1%**
Load shifted/spilled	0	-	1	<0.1%	15	<0.1%	**16**	**<0.1%**

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Contributing Factor	2018 Collision Severity						2018 Total Collisions	% of 2018 Total Collisions
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Jack-knife/trailer swing	0	-	1	<0.1%	39	<0.1%	**40**	**<0.1%**
Hydroplaning tires	0	-	2	<0.1%	2	<0.1%	**4**	**<0.1%**
Any Environmental Condition	9	13.8%	566	6.1%	3,151	7.4%	**3,726**	**7.2%**
Animal action - Wild	0	-	59	0.6%	1,377	3.3%	**1,436**	**2.8%**
Animal action - Domestic	0	-	11	0.1%	41	<0.1%	**52**	**0.1%**
Slippery road surface	2	3.1%	318	3.4%	1,128	2.7%	**1,448**	**2.8%**
Snow drift	0	-	7	<0.1%	63	0.1%	**70**	**0.1%**
Obstruction/debris on roadway	0	-	13	0.1%	159	0.4%	**172**	**0.3%**
View obstructed/limited	3	4.6%	62	0.7%	158	0.4%	**223**	**0.4%**
Glare/reflection	0	-	16	0.2%	20	<0.1%	**36**	**<0.1%**
Construction zone	0	-	4	<0.1%	15	<0.1%	**19**	**<0.1%**
Defective driving surface	0	-	19	0.2%	100	0.2%	**119**	**0.2%**
Shoulders defective	1	1.5%	0	-	3	<0.1%	**4**	**<0.1%**
Lane markings inadequate	0	-	0	-	5	<0.1%	**5**	**<0.1%**
Defective/inoperative traffic control device	0	-	5	<0.1%	8	<0.1%	**13**	**<0.1%**
Weather	2	3.1%	45	0.5%	91	0.2%	**138**	**0.3%**
Pedestrian corridor in use	1	1.5%	18	0.2%	14	<0.1%	**33**	**<0.1%**
Uninvolved vehicle	0	-	10	0.1%	20	<0.1%	**30**	**<0.1%**
Uninvolved pedestrian	0	-	3	<0.1%	2	<0.1%	**5**	**<0.1%**
Presence of prior accident	1	1.5%	5	<0.1%	4	<0.1%	**10**	**<0.1%**
No Contributing Factor(s) Identified	4	6.2%	130	1.4%	308	0.7%	**442**	**0.9%**
Not Stated	1	1.5%	12	0.1%	26	<0.1%	**39**	**<0.1%**
Total	65	100%	9,325	100%	42,341	100%	**51,732**	**100.0%**

*Note: For each vehicle and/or driver involved in a collision, up to three contributing factors can be recorded. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

Table 9-1a Contributing Factors to a Collision by Collision Severity for Previous Five Years

Table 9-1a

Contributing Factors to a Collision by Collision Severity: 2013-2017 Average

Contributing Factor	2013-2017 Average Count				
	Fatal	Injury	PDO	Total Collisions	% of Total Collisions
Driver Action - Driving Properly and Human Condition - Apparently Normal	33	7,503	21,540	29,075	65.7%
Driver Action - Driving properly	1	168	395	564	1.3%
Any Driver Action	54	6,632	20,179	26,865	60.7%
Following too closely	1	2,355	4,198	6,554	14.8%
Turning improperly	2	716	1,703	2,421	5.5%
Passing improperly	2	29	126	158	0.4%
Changing lanes improperly	<1	323	1,582	1,906	4.3%
Fail to yield right-of-way	7	775	1,513	2,295	5.2%
Disobey traffic control device/officer	5	223	264	492	1.1%
Drive wrong way on roadway	3	7	14	24	<0.1%
Passing a vehicle at pedestrian X-walk	-	<1	<1	<1	<0.1%
Back unsafely	<1	215	2,914	3,130	7.1%
Parking improperly	<1	11	149	161	0.4%
Lost control/Drive off road	12	340	1,118	1,470	3.3%
Driverless vehicle ran out of control	<1	8	26	35	<0.1%
Leave stop sign before safe to do so	3	303	559	865	2.0%
Failed to signal	-	7	12	19	<0.1%
Take avoiding action	<1	84	400	484	1.1%
Driver inexperience	2	46	123	171	0.4%
Pedestrian error/confusion	4	22	28	54	0.1%
NET Speed	14	696	2,338	3,048	6.9%
Exceeding speed limit	6	10	16	32	<0.1%
Driving too fast for conditions	6	674	2,303	2,984	6.7%
Unsafe operating speed (Too fast or too slow)	3	14	22	39	<0.1%
NET Distracted driving	22	2,291	7,913	10,226	23.1%
Careless Driving	16	2,161	7,638	9,814	22.2%
Distraction/Inattention	7	204	467	679	1.5%
Human Condition - Apparently Normal	13	2,220	7,785	10,018	22.6%
Any Human Condition	25	133	184	342	0.8%
Loss of consciousness/Blackout prior to collision	2	24	16	42	<0.1%
Extreme fatigue/Fell asleep	1	22	44	67	0.2%
Defective eyesight	<1	1	2	4	<0.1%
Defective hearing	<1	-	<1	<1	<0.1%
Medical disability	-	7	6	13	<0.1%
Physical disability	<1	<1	2	3	<0.1%
Mental disability	<1	2	1	4	<0.1%
Mental confusion/Inability to remember	-	11	11	22	<0.1%
Sudden illness	<1	4	3	8	<0.1%
Exceed hours of service (commercial drivers only)	-	-	-	-	-
NET Impaired	20	49	61	130	0.3%
Ability impaired alcohol	13	37	49	99	0.2%
Ability impaired drugs	2	2	3	7	<0.1%
Had been drinking/Suspected alcohol use	7	14	12	33	<0.1%
No Apparent (Vehicle) Defect	36	7,952	25,466	33,453	75.6%
Any Vehicle Defect	2	33	244	278	0.6%
Defective brakes	<1	7	16	24	<0.1%
Defective steering	-	1	6	7	<0.1%
Defective headlights	-	<1	<1	<1	<0.1%
Defective brake lights	<1	1	4	5	<0.1%
Defective lighting (unspecified)	<1	<1	1	2	<0.1%
Defective engine controls/drive train	-	2	6	7	<0.1%

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Contributing Factor	2013-2017 Average Count				
	Fatal	Injury	PDO	Total Collisions	% of Total Collisions
Defective suspension/wheels	-	4	42	46	0.1%
Defective tires	<1	6	66	72	0.2%
Tow hitch/yoke defective	-	1	15	16	<0.1%
Defective exhaust system	-	-	-	-	-
Hood/tailgate/door/covering opened	<1	<1	5	6	<0.1%
Defective glazing (obscured windows)	-	<1	2	2	<0.1%
Vehicle modifications	-	<1	<1	1	<0.1%
Fire	-	1	2	3	<0.1%
Overloaded/oversized	-	<1	2	3	<0.1%
Load shifted/spilled	-	3	20	23	<0.1%
Jack-knife/trailer swing	<1	2	57	59	0.1%
Hydroplaning tires	<1	2	5	6	<0.1%
Any Environmental Condition	9	714	5,105	5,828	13.2%
Animal action - Wild	<1	140	3,059	3,199	7.2%
Animal action - Domestic	-	9	40	50	0.1%
Slippery road surface	4	386	1,347	1,736	3.9%
Snow drift	<1	13	91	104	0.2%
Obstruction/debris on roadway	<1	17	199	216	0.5%
View obstructed/limited	2	54	118	174	0.4%
Glare/reflection	<1	11	27	38	<0.1%
Construction zone	-	5	13	18	<0.1%
Defective driving surface	<1	14	89	104	0.2%
Shoulders defective	<1	3	5	8	<0.1%
Lane markings inadequate	-	1	5	6	<0.1%
Defective/inoperative traffic control device	<1	7	7	14	<0.1%
Weather	2	58	144	204	0.5%
Pedestrian corridor in use	<1	10	10	21	<0.1%
Uninvolved vehicle	-	8	15	23	<0.1%
Uninvolved pedestrian	-	3	4	7	<0.1%
Presence of prior accident	-	1	2	3	<0.1%
No Contributing Factor(s) Identified	7	561	1,179	1,746	3.9%
Not Stated	-	10	32	43	<0.1%
Total	73	9,230	34,937	44,240	100%

Note: Counts of collisions in the 2013-2017 average may not add to the total due to rounding.
*Note: For each vehicle and/or driver involved in a collision, up to three contributing factors can be recorded. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

While contributing factors are recorded for each vehicle and/or driver involved in a collision, examining contributing factors at the driver level does not reveal the full detail of what may have caused the collision overall. To understand the **contributing factors to a collision**, contributing factors recorded for each vehicle and/or driver involved in the collision are examined at the collision level, that is, rather than at the individual driver level. In this analysis (presented in Table 9-1 and Table 9-1a), all factors noted as contributing to the collision overall are examined.

In 2018, nearly 56% of **all collisions** have at least one driver noted as having an at-fault contributing factor[2]. Most fatal collisions (89%) have at least one driver with an at-fault contributing factor while 74% of injury collisions do. In the previous five year (2013 to 2017) annual average, nearly 71% of all collisions have at least one driver noted as having an at-fault contributing factor, including 85% of fatal collisions and 76% of injury collisions.

In 2018:

- A driver action is a contributing factor in 51% of all collisions (74% of fatal collisions; 72% of injury collisions; 47% of PDO collisions);
- A human condition is a contributing factor in nearly 1% of all collisions (nearly 42% of fatal collisions; 1% of injury collisions; 0.3% of PDO collisions);
- Environmental conditions are contributing factors in 7% of all collisions (14% of fatal collisions; 6% of injury collisions; 7% of PDO collisions); and,
- Some vehicle defect is noted as contributing factor in nearly 1% of all collisions, including 2 fatal collisions.

In the five year (2013 to 2017) annual average:

- 61% of all collisions have at least one driver noted as having a driver action (75% of fatal collisions; 72% of injury collisions; 58% of PDO collisions);
- 1% of all collisions have at least one driver noted as having a human condition (35% of fatal collisions; 1% of injury collisions; nearly 1% of PDO collisions);
- 13% of all collisions have an environmental condition noted as contributing to the collision (13% of fatal collisions; 8% of injury collisions; 15% of PDO collisions); and,
- 0.6% of collisions have a vehicle defect noted as contributing to the collision, including 2 fatal collisions each year.

The most prevalent **contributing factors recorded for collisions** in 2018 include:

- Distracted driving – 28% of all collisions (28% fatal; nearly 37% injury; 26% PDO);
- "Following too closely" – 10% of all collisions (nearly 2% fatal; 20% injury; 8% PDO);
- "Backing unsafely" – 6% of all collisions (no fatal; 3% injury; 7% PDO);
- "Turning improperly" – 5% of all collisions (nearly 2% fatal; 8% injury; 4% PDO);
- Speed – 4% of all collisions (23% fatal; 5% injury; 4% PDO);
- "Fail to yield right-of-way" – 4% of all collisions (9% fatal; 9% injury; 3% PDO);
- "Changing lanes improperly" – 4% of all collisions (no fatal; 4% injury; 4% PDO);
- "Slippery road surface" – 3% of all collisions (3% fatal; 3% injury; 3% PDO);
- The actions of a wild animal – 3% of all collisions (no fatal; 1% injury; 3% PDO); and,
- "Lost control/Drive off the road" – 2% of all collisions (12% fatal; 3% injury; 2% PDO).

NOTE: For a detailed count of contributing factors recorded for collisions occurring in each year from 2013 to 2018, please refer to "*Table 9-6 Historical Summary of Contributing Factors to a Collision*" at the end of this section.

[2] An "at-fault contributing factor" is an indication that some action or condition of the driver, vehicle or environment has been recorded as contributing to the collision. It excludes indications of the driver "driving properly" and being "apparently normal".

Table 9-2 Contributing Factors for Victims of a Collision by Casualty Type

Table 9-2
Contributing Factors for Each Victim of a Collision by Casualty Type: 2018

Contributing Factor	2018 Casualty Type								2018 Total Casualties	% of 2018 Total Casualties
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Other Injuries	% of Total Other Injuries	Total Injuries	% of Total Injuries		
Driver Action - Driving Properly and Human Condition - Apparently Normal	30	42.9%	269	61.6%	10,010	86.7%	10,279	85.8%	**10,309**	**85.5%**
Driver Action - Driving properly	1	1.4%	5	1.1%	55	0.5%	60	0.5%	**61**	**0.5%**
Any Driver Action	51	72.9%	366	83.8%	8,466	73.3%	8,832	73.7%	**8,883**	**73.7%**
Following too closely	1	1.4%	36	8.2%	2,482	21.5%	2,518	21.0%	**2,519**	**20.9%**
Turning improperly	1	1.4%	41	9.4%	928	8.0%	969	8.1%	**970**	**8.0%**
Passing improperly	2	2.9%	4	0.9%	42	0.4%	46	0.4%	**48**	**0.4%**
Changing lanes improperly	0	-	8	1.8%	437	3.8%	445	3.7%	**445**	**3.7%**
Fail to yield right-of-way	6	8.6%	62	14.2%	1,048	9.1%	1,110	9.3%	**1,116**	**9.3%**
Disobey traffic control device/officer	2	2.9%	40	9.2%	307	2.7%	347	2.9%	**349**	**2.9%**
Drive wrong way on roadway	3	4.3%	4	0.9%	10	<0.1%	14	0.1%	**17**	**0.1%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-	**0**	**-**
Back unsafely	0	-	3	0.7%	270	2.3%	273	2.3%	**273**	**2.3%**
Parking improperly	0	-	1	0.2%	13	0.1%	14	0.1%	**14**	**0.1%**
Lost control/Drive off road	8	11.4%	30	6.9%	302	2.6%	332	2.8%	**340**	**2.8%**
Driverless vehicle ran out of control	0	-	2	0.5%	6	<0.1%	8	<0.1%	**8**	**<0.1%**
Leave stop sign before safe to do so	2	2.9%	22	5.0%	336	2.9%	358	3.0%	**360**	**3.0%**
Failed to signal	0	-	1	0.2%	6	<0.1%	7	<0.1%	**7**	**<0.1%**
Take avoiding action	3	4.3%	11	2.5%	81	0.7%	92	0.8%	**95**	**0.8%**
Driver inexperience	1	1.4%	5	1.1%	40	0.3%	45	0.4%	**46**	**0.4%**
Pedestrian error/confusion	4	5.7%	8	1.8%	30	0.3%	38	0.3%	**42**	**0.3%**
NET Speed	18	25.7%	43	9.8%	604	5.2%	647	5.4%	**665**	**5.5%**
Exceeding speed limit	10	14.3%	7	1.6%	9	<0.1%	16	0.1%	**26**	**0.2%**
Driving too fast for conditions	8	11.4%	33	7.6%	585	5.1%	618	5.2%	**626**	**5.2%**
Unsafe operating speed (Too fast or too slow)	1	1.4%	3	0.7%	10	<0.1%	13	0.1%	**14**	**0.1%**
NET Distracted driving	19	27.1%	195	44.6%	4,287	37.1%	4,482	37.4%	**4,501**	**37.3%**
Careless Driving	17	24.3%	185	42.3%	4,209	36.4%	4,394	36.7%	**4,411**	**36.6%**
Distraction/Inattention	4	5.7%	13	3.0%	186	1.6%	199	1.7%	**203**	**1.7%**

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Contributing Factor	2018 Casualty Type								2018 Total Casualties	% of 2018 Total Casualties
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Other Injuries	% of Total Other Injuries	Total Injuries	% of Total Injuries		
Human Condition - Apparently Normal	23	32.9%	200	45.8%	5,407	46.8%	5,607	46.8%	**5,630**	**46.7%**
Any Human Condition	30	42.9%	29	6.6%	125	1.1%	154	1.3%	**184**	**1.5%**
Loss of consciousness/Blackout prior to collision	2	2.9%	7	1.6%	21	0.2%	28	0.2%	**30**	**0.2%**
Extreme fatigue/Fell asleep	1	1.4%	4	0.9%	29	0.3%	33	0.3%	**34**	**0.3%**
Defective eyesight	0	-	0	-	0	-	0	-	**0**	**-**
Defective hearing	0	-	0	-	0	-	0	-	**0**	**-**
Medical disability	0	-	1	0.2%	13	0.1%	14	0.1%	**14**	**0.1%**
Physical disability	0	-	0	-	0	-	0	-	**0**	**-**
Mental disability	0	-	3	0.7%	5	<0.1%	8	<0.1%	**8**	**<0.1%**
Mental confusion/Inability to remember	0	-	4	0.9%	11	<0.1%	15	0.1%	**15**	**0.1%**
Sudden illness	0	-	1	0.2%	5	<0.1%	6	<0.1%	**6**	**<0.1%**
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-	**0**	**-**
NET Impaired	28	40.0%	10	2.3%	55	0.5%	65	0.5%	**93**	**0.8%**
Ability impaired alcohol	22	31.4%	6	1.4%	51	0.4%	57	0.5%	**79**	**0.7%**
Ability impaired drugs	3	4.3%	3	0.7%	4	<0.1%	7	<0.1%	**10**	**<0.1%**
Had been drinking/Suspected alcohol use	5	7.1%	2	0.5%	2	<0.1%	4	<0.1%	**9**	**<0.1%**
No Apparent (Vehicle) Defect	39	55.7%	367	84.0%	10,996	95.2%	11,363	94.8%	**11,402**	**94.6%**
Any Vehicle Defect	2	2.9%	3	0.7%	27	0.2%	30	0.3%	**32**	**0.3%**
Defective brakes	0	-	0	-	3	<0.1%	3	<0.1%	**3**	**<0.1%**
Defective steering	0	-	0	-	3	<0.1%	3	<0.1%	**3**	**<0.1%**
Defective headlights	0	-	0	-	0	-	0	-	**0**	**-**
Defective brake lights	1	1.4%	0	-	0	-	0	-	**1**	**<0.1%**
Defective lighting (unspecified)	0	-	0	-	1	<0.1%	1	<0.1%	**1**	**<0.1%**
Defective engine controls/drive train	0	-	1	0.2%	2	<0.1%	3	<0.1%	**3**	**<0.1%**
Defective suspension/wheels	0	-	0	-	2	<0.1%	2	<0.1%	**2**	**<0.1%**
Defective tires	1	1.4%	1	0.2%	9	<0.1%	10	<0.1%	**11**	**<0.1%**
Tow hitch/yoke defective	0	-	0	-	3	<0.1%	3	<0.1%	**3**	**<0.1%**
Defective exhaust system	0	-	0	-	0	-	0	-	**0**	**-**
Hood/tailgate/door/covering opened	0	-	0	-	0	-	0	-	**0**	**-**
Defective glazing (obscured windows)	0	-	0	-	1	<0.1%	1	<0.1%	**1**	**<0.1%**
Vehicle modifications	0	-	0	-	0	-	0	-	**0**	**-**
Fire	0	-	0	-	0	-	0	-	**0**	**-**
Overloaded/oversized	0	-	0	-	0	-	0	-	**0**	**-**
Load shifted/spilled	0	-	0	-	1	<0.1%	1	<0.1%	**1**	**<0.1%**

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Section 9 Contributing Factors

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Contributing Factor	2018 Casualty Type								2018 Total Casualties	% of 2018 Total Casualties
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Other Injuries	% of Total Other Injuries	Total Injuries	% of Total Injuries		
Jack-knife/trailer swing	0	-	1	0.2%	0	-	1	<0.1%	**1**	**<0.1%**
Hydroplaning tires	0	-	0	-	2	<0.1%	2	<0.1%	**2**	**<0.1%**
Any Environmental Condition	11	15.7%	63	14.4%	657	5.7%	720	6.0%	**731**	**6.1%**
Animal action - Wild	0	-	10	2.3%	61	0.5%	71	0.6%	**71**	**0.6%**
Animal action - Domestic	0	-	0	-	12	0.1%	12	0.1%	**12**	**<0.1%**
Slippery road surface	2	2.9%	22	5.0%	380	3.3%	402	3.4%	**404**	**3.4%**
Snow drift	0	-	1	0.2%	8	<0.1%	9	<0.1%	**9**	**<0.1%**
Obstruction/debris on roadway	0	-	2	0.5%	12	0.1%	14	0.1%	**14**	**0.1%**
View obstructed/limited	3	4.3%	12	2.7%	77	0.7%	89	0.7%	**92**	**0.8%**
Glare/reflection	0	-	1	0.2%	21	0.2%	22	0.2%	**22**	**0.2%**
Construction zone	0	-	0	-	6	<0.1%	6	<0.1%	**6**	**<0.1%**
Defective driving surface	0	-	3	0.7%	16	0.1%	19	0.2%	**19**	**0.2%**
Shoulders defective	3	4.3%	2	0.5%	4	<0.1%	6	<0.1%	**9**	**<0.1%**
Lane markings inadequate	0	-	0	-	0	-	0	-	**0**	**-**
Defective/inoperative traffic control device	0	-	0	-	6	<0.1%	6	<0.1%	**6**	**<0.1%**
Weather	2	2.9%	11	2.5%	43	0.4%	54	0.5%	**56**	**0.5%**
Pedestrian corridor in use	1	1.4%	3	0.7%	16	0.1%	19	0.2%	**20**	**0.2%**
Uninvolved vehicle	0	-	2	0.5%	12	0.1%	14	0.1%	**14**	**0.1%**
Uninvolved pedestrian	0	-	0	-	3	<0.1%	3	<0.1%	**3**	**<0.1%**
Presence of prior accident	1	1.4%	0	-	7	<0.1%	7	<0.1%	**8**	**<0.1%**
No Contributing Factor(s) Identified	4	5.7%	3	0.7%	165	1.4%	168	1.4%	**172**	**1.4%**
Not Stated	1	1.4%	3	0.7%	11	<0.1%	14	0.1%	**15**	**0.1%**
Total	70	100%	437	100.0%	11,550	100.0%	11,987	100.0%	**12,057**	**100.0%**

*Note: For each vehicle and/or driver involved in a collision, up to three contributing factors can be recorded. Because multiple factors can be noted, the counts and percentages under each casualty type will add to more than the total victims of that casualty type.
"Other Injuries" includes injuries defined as "Minor", Minimal" and "Other", or undefined in severity.

Table 9-2a Contributing Factors for Victims of a Collision by Casualty Type for Previous Five Years

Table 9-2a

Contributing Factors for Each Victim of a Collision by Casualty Type: 2013-2017 Average

Contributing Factor	2013-2017 Average Count of Casualties					
	Killed	Serious Injury	Other Injuries	Total Injuries	Total Casualties	% of Total Casualties
Driver Action - Driving Properly and Human Condition - Apparently Normal	39	219	9,674	9,893	9,932	82.4%
Driver Action - Driving properly	2	9	230	240	241	2.0%
Any Driver Action	62	292	8,450	8,742	8,804	73.1%
Following too closely	2	25	3,073	3,098	3,099	25.7%
Turning improperly	3	33	943	976	978	8.1%
Passing improperly	3	4	37	41	43	0.4%
Changing lanes improperly	1	7	392	399	400	3.3%
Fail to yield right-of-way	9	43	1,041	1,084	1,093	9.1%
Disobey traffic control device/officer	6	17	323	340	345	2.9%
Drive wrong way on roadway	3	3	13	16	19	0.2%
Passing a vehicle at pedestrian X-walk	-	-	<1	<1	<1	<0.1%
Back unsafely	<1	3	247	250	250	2.1%
Parking improperly	<1	<1	12	13	13	0.1%
Lost control/Drive off road	13	50	377	427	440	3.7%
Driverless vehicle ran out of control	<1	<1	10	10	11	<0.1%
Leave stop sign before safe to do so	4	20	400	420	424	3.5%
Failed to signal	-	<1	8	8	8	<0.1%
Take avoiding action	<1	6	95	101	102	0.8%
Driver inexperience	2	6	55	61	63	0.5%
Pedestrian error/confusion	4	5	21	26	31	0.3%
NET Speed	17	55	856	911	928	7.7%
Exceeding speed limit	7	8	13	21	28	0.2%
Driving too fast for conditions	7	43	829	873	879	7.3%
Unsafe operating speed (Too fast or too slow)	4	6	16	22	26	0.2%
NET Distracted driving	27	121	2,904	3,025	3,052	25.3%
Careless Driving	20	105	2,728	2,833	2,853	23.7%
Distraction/Inattention	8	23	279	302	310	2.6%
Human Condition - Apparently Normal	15	72	2,849	2,921	2,936	24.4%
Any Human Condition	29	50	154	204	233	1.9%
Loss of consciousness/Blackout prior to collision	2	9	21	30	32	0.3%
Extreme fatigue/Fell asleep	1	5	22	27	29	0.2%
Defective eyesight	<1	1	2	3	3	<0.1%
Defective hearing	<1	-	<1	<1	<1	<0.1%
Medical disability	-	2	7	9	9	<0.1%
Physical disability	<1	<1	1	1	2	<0.1%
Mental disability	<1	1	3	4	4	<0.1%
Mental confusion/Inability to remember	-	4	11	14	14	0.1%
Sudden illness	<1	1	3	5	5	<0.1%
Exceed hours of service (commercial drivers only)	-	-	-	-	-	-
NET Impaired	23	28	68	97	120	1.0%
Ability impaired alcohol	15	19	49	68	83	0.7%
Ability impaired drugs	2	1	4	6	8	<0.1%
Had been drinking/Suspected alcohol use	9	9	21	30	39	0.3%
No Apparent (Vehicle) Defect	41	242	10,170	10,412	10,453	86.8%
Any Vehicle Defect	2	3	41	45	47	0.4%
Defective brakes	<1	<1	10	11	11	<0.1%
Defective steering	-	-	2	2	2	<0.1%
Defective headlights	-	-	<1	<1	<1	<0.1%

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Contributing Factor	2013-2017 Average Count of Casualties					
	Killed	Serious Injury	Other Injuries	Total Injuries	Total Casualties	% of Total Casualties
Defective brake lights	<1	<1	2	2	2	<0.1%
Defective lighting (unspecified)	<1	-	2	2	2	<0.1%
Defective engine controls/drive train	-	<1	2	2	2	<0.1%
Defective suspension/wheels	-	<1	5	6	6	<0.1%
Defective tires	<1	1	7	9	9	<0.1%
Tow hitch/yoke defective	-	<1	1	2	2	<0.1%
Defective exhaust system	-	-	-	-	-	-
Hood/tailgate/door/covering opened	<1	-	1	1	1	<0.1%
Defective glazing (obscured windows)	-	-	<1	<1	<1	<0.1%
Vehicle modifications	-	-	<1	<1	<1	<0.1%
Fire	-	<1	1	2	2	<0.1%
Overloaded/oversized	-	-	<1	<1	<1	<0.1%
Load shifted/spilled	-	-	3	3	3	<0.1%
Jack-knife/trailer swing	<1	<1	2	2	3	<0.1%
Hydroplaning tires	<1	<1	2	2	2	<0.1%
Any Environmental Condition	10	50	862	912	922	7.7%
Animal action - Wild	<1	8	155	163	164	1.4%
Animal action - Domestic	-	<1	12	12	12	<0.1%
Slippery road surface	4	22	483	505	509	4.2%
Snow drift	<1	1	16	17	17	0.1%
Obstruction/debris on roadway	<1	1	21	22	22	0.2%
View obstructed/limited	2	6	69	75	77	0.6%
Glare/reflection	<1	<1	13	14	14	0.1%
Construction zone	-	<1	6	7	7	<0.1%
Defective driving surface	<1	3	16	19	19	0.2%
Shoulders defective	<1	<1	3	3	3	<0.1%
Lane markings inadequate	-	<1	2	2	2	<0.1%
Defective/inoperative traffic control device	<1	1	9	11	11	<0.1%
Weather	2	6	69	76	78	0.6%
Pedestrian corridor in use	<1	2	9	11	12	<0.1%
Uninvolved vehicle	-	<1	8	9	9	<0.1%
Uninvolved pedestrian	-	-	4	4	4	<0.1%
Presence of prior accident	-	-	2	2	2	<0.1%
No Contributing Factor(s) Identified	7	34	712	747	754	6.3%
Not Stated	-	<1	10	11	11	<0.1%
Total	82	389	11,577	11,966	12,048	100%

Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.
*Note: For each vehicle and/or driver involved in a collision, up to three contributing factors can be recorded. Because multiple factors can be noted, the counts and percentages under each casualty type will add to more than the total victims of that casualty type.
"Other Injuries" includes injuries defined as "Minor", Minimal" and "Other", or undefined in severity.

Contributing factors recorded for each vehicle and/or driver involved in the collision are examined at the **victim level** in Table 9-2 and Table 9-2a. In this analysis, the contributing factors recorded for any driver involved in a fatal or injury collision is considered as contributing to the person being killed or injured.

In 2018, at-fault contributing factors are recorded for 76% of all **casualties**. At-fault contributing factors are recorded for:

- 90% of people killed;
- Nearly 90% of people seriously injured; and,
- 75% of victims with other injuries (including minor, minimal and undefined injuries).

In 2018, driver actions are recorded for 74% of **all victims** (73% of people killed and 84% of people seriously injured) while human conditions are recorded for nearly 2% of all victims (43% of people killed and 7% of people seriously injured). Environmental conditions are recorded as a contributing factor for 6% of all victims (16% of people killed and 14% of people seriously injured).

In the previous five year (2013 to 2017) annual average, driver actions are recorded for 73% of all victims (76% of people killed and 75% of people seriously injured), while human conditions are recorded for 2% of all victims (35% of people killed and 13% of people seriously injured). Environmental conditions are recorded as a contributing factor for 8% of all victims (12% of people killed and 13% of people seriously injured).

The most prevalent contributing factors recorded for collisions where **people are killed or seriously injured** in 2018 include:

- Impaired – 40% of people killed and 2% of people seriously injured;
- Distracted driving – 27% of people killed and 45% of people seriously injured;
- Speed – 26% of people killed and 10% of people seriously injured;
- “Lost control/Drive off the road” – 11% of people killed and 7% of people seriously injured;
- “Fail to yield right-of-way” – 9% of people killed and 14% of people seriously injured;
- “Pedestrian error/confusion” – 6% of people killed and 2% of people seriously injured;
- “View obstructed/limited” – 4% of people killed and 3% of people seriously injured;
- “Take avoiding action” – 4% of people killed and nearly 3% of people seriously injured;
- “Drive wrong way on roadway” – 4% of people killed and 1% of people seriously injured;
- “Shoulders defective” – 4% of people killed and nearly 1% of people seriously injured;
- “Disobey traffic control device/officer” – 3% of people killed and 9% of people seriously injured;
- “Leave stop sign before safe to do so” – 3% of people killed and 5% of people seriously injured;
- “Slippery road surface” – 3% of people killed and 5% of people seriously injured;
- “Turning improperly” – 1% of people killed and 9% of people seriously injured; and,
- “Following too closely” – 1% of people killed and 8% of people seriously injured.

NOTE: For a detailed count of contributing factors recorded for collisions occurring in each year from 2013 to 2018, please refer to “*Table 9-7 Historical Summary of Contributing Factors Recorded for Victims of Collisions*” at the end of this section.

Table 9-3 Drivers Involved in Traffic Collisions by Contributing Factor and Collision Severity

Table 9-3

Drivers Involved in Collisions by Contributing Factors and Collision Severity: 2018

Contributing Factor	2018 Collision Severity						2018 Total Drivers	% of 2018 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	32	33.7%	8,651	54.9%	28,597	56.3%	**37,280**	**56.0%**
Driver Action - Driving properly	1	1.1%	38	0.2%	166	0.3%	**205**	**0.3%**
Any Driver Action	48	50.5%	6,741	42.8%	20,009	39.4%	**26,798**	**40.2%**
Following too closely	1	1.1%	1,864	11.8%	3,225	6.4%	**5,090**	**7.6%**
Turning improperly	1	1.1%	723	4.6%	1,650	3.3%	**2,374**	**3.6%**
Passing improperly	2	2.1%	33	0.2%	89	0.2%	**124**	**0.2%**
Changing lanes improperly	0	-	381	2.4%	1,640	3.2%	**2,021**	**3.0%**
Fail to yield right-of-way	5	5.3%	788	5.0%	1,324	2.6%	**2,117**	**3.2%**
Disobey traffic control device/officer	2	2.1%	219	1.4%	235	0.5%	**456**	**0.7%**
Drive wrong way on roadway	3	3.2%	5	<0.1%	9	<0.1%	**17**	**<0.1%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	**0**	**-**
Back unsafely	0	-	261	1.7%	2,829	5.6%	**3,090**	**4.6%**
Parking improperly	0	-	10	<0.1%	86	0.2%	**96**	**0.1%**
Lost control/Drive off road	8	8.4%	269	1.7%	889	1.8%	**1,166**	**1.8%**
Driverless vehicle ran out of control	0	-	7	<0.1%	19	<0.1%	**26**	**<0.1%**
Leave stop sign before safe to do so	2	2.1%	273	1.7%	389	0.8%	**664**	**1.0%**
Failed to signal	0	-	5	<0.1%	9	<0.1%	**14**	**<0.1%**
Take avoiding action	3	3.2%	77	0.5%	351	0.7%	**431**	**0.6%**
Driver inexperience	1	1.1%	31	0.2%	106	0.2%	**138**	**0.2%**
Pedestrian error/confusion	1	1.1%	9	<0.1%	18	<0.1%	**28**	**<0.1%**
NET Speed	15	15.8%	476	3.0%	1,789	3.5%	**2,280**	**3.4%**
Exceeding speed limit	9	9.5%	8	<0.1%	17	<0.1%	**34**	**<0.1%**
Driving too fast for conditions	6	6.3%	459	2.9%	1,759	3.5%	**2,224**	**3.3%**
Unsafe operating speed (Too fast or too slow)	1	1.1%	9	<0.1%	13	<0.1%	**23**	**<0.1%**
NET Distracted driving	18	18.9%	3,411	21.7%	11,153	22.0%	**14,582**	**21.9%**
Careless Driving	16	16.8%	3,342	21.2%	11,004	21.7%	**14,362**	**21.6%**
Distraction/Inattention	4	4.2%	149	0.9%	343	0.7%	**496**	**0.7%**

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Contributing Factor	2018 Collision Severity						2018 Total Drivers	% of 2018 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	16	16.8%	4,228	26.8%	13,890	27.4%	**18,134**	**27.2%**
Any Human Condition	25	26.3%	110	0.7%	127	0.3%	**262**	**0.4%**
Loss of consciousness/Blackout prior to collision	2	2.1%	24	0.2%	18	<0.1%	**44**	**<0.1%**
Extreme fatigue/Fell asleep	1	1.1%	27	0.2%	40	<0.1%	**68**	**0.1%**
Defective eyesight	0	-	0	-	0	-	**0**	**-**
Defective hearing	0	-	0	-	0	-	**0**	**-**
Medical disability	0	-	9	<0.1%	6	<0.1%	**15**	**<0.1%**
Physical disability	0	-	0	-	0	-	**0**	**-**
Mental disability	0	-	7	<0.1%	0	-	**7**	**<0.1%**
Mental confusion/Inability to remember	0	-	13	<0.1%	5	<0.1%	**18**	**<0.1%**
Sudden illness	0	-	5	<0.1%	1	<0.1%	**6**	**<0.1%**
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	**0**	**-**
NET Impaired	23	24.2%	38	0.2%	62	0.1%	**123**	**0.2%**
Ability impaired alcohol	20	21.1%	32	0.2%	53	0.1%	**105**	**0.2%**
Ability impaired drugs	2	2.1%	4	<0.1%	3	<0.1%	**9**	**<0.1%**
Had been drinking/Suspected alcohol use	3	3.2%	3	<0.1%	8	<0.1%	**14**	**<0.1%**
No Apparent (Vehicle) Defect	51	53.7%	13,133	83.4%	42,607	83.9%	**55,791**	**83.8%**
Any Vehicle Defect	2	2.1%	23	0.1%	212	0.4%	**237**	**0.4%**
Defective brakes	0	-	3	<0.1%	11	<0.1%	**14**	**<0.1%**
Defective steering	0	-	1	<0.1%	4	<0.1%	**5**	**<0.1%**
Defective headlights	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Defective brake lights	1	1.1%	0	-	4	<0.1%	**5**	**<0.1%**
Defective lighting (unspecified)	0	-	1	<0.1%	1	<0.1%	**2**	**<0.1%**
Defective engine controls/drive train	0	-	2	<0.1%	6	<0.1%	**8**	**<0.1%**
Defective suspension/wheels	0	-	2	<0.1%	50	<0.1%	**52**	**<0.1%**
Defective tires	1	1.1%	7	<0.1%	62	0.1%	**70**	**0.1%**
Tow hitch/yoke defective	0	-	2	<0.1%	10	<0.1%	**12**	**<0.1%**
Defective exhaust system	0	-	0	-	0	-	**0**	**-**
Hood/tailgate/door/covering opened	0	-	0	-	4	<0.1%	**4**	**<0.1%**
Defective glazing (obscured windows)	0	-	1	<0.1%	0	-	**1**	**<0.1%**
Vehicle modifications	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Fire	0	-	0	-	0	-	**0**	**-**
Overloaded/oversized	0	-	0	-	7	<0.1%	**7**	**<0.1%**
Load shifted/spilled	0	-	1	-	15	-	**0**	**-**

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Contributing Factor	2018 Collision Severity						2018 Total Drivers	% of 2018 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Jack-knife/trailer swing	0	-	1	<0.1%	39	<0.1%	**40**	**<0.1%**
Hydroplaning tires	0	-	2	<0.1%	2	<0.1%	**4**	**<0.1%**
Any Environmental Condition	7	7.4%	535	3.4%	3,133	6.2%	**3,675**	**5.5%**
Animal action - Wild	0	-	59	0.4%	1,376	2.7%	**1,435**	**2.2%**
Animal action - Domestic	0	-	10	<0.1%	41	<0.1%	**51**	**<0.1%**
Slippery road surface	2	2.1%	317	2.0%	1,128	2.2%	**1,447**	**2.2%**
Snow drift	0	-	7	<0.1%	63	0.1%	**70**	**0.1%**
Obstruction/debris on roadway	0	-	11	<0.1%	159	0.3%	**170**	**0.3%**
View obstructed/limited	1	1.1%	54	0.3%	151	0.3%	**206**	**0.3%**
Glare/reflection	0	-	14	<0.1%	19	<0.1%	**33**	**<0.1%**
Construction zone	0	-	3	<0.1%	15	<0.1%	**18**	**<0.1%**
Defective driving surface	0	-	19	0.1%	100	0.2%	**119**	**0.2%**
Shoulders defective	1	1.1%	0	-	3	<0.1%	**4**	**<0.1%**
Lane markings inadequate	0	-	0	-	5	<0.1%	**5**	**<0.1%**
Defective/inoperative traffic control device	0	-	4	<0.1%	8	<0.1%	**12**	**<0.1%**
Weather	3	3.2%	35	0.2%	89	0.2%	**127**	**0.2%**
Pedestrian corridor in use	0	-	5	<0.1%	5	<0.1%	**10**	**<0.1%**
Uninvolved vehicle	0	-	6	<0.1%	16	<0.1%	**22**	**<0.1%**
Uninvolved pedestrian	0	-	0	-	2	<0.1%	**2**	**<0.1%**
Presence of prior accident	1	1.1%	5	<0.1%	3	<0.1%	**9**	**<0.1%**
No Contributing Factor(s) Identified	1	1.1%	91	0.6%	249	0.5%	**341**	**0.5%**
Not Stated	0	-	5	<0.1%	21	<0.1%	**26**	**<0.1%**
Total	95	100%	15,752	100.0%	50,759	100.0%	**66,606**	**100.0%**

*Note: For each vehicle and/or driver involved in a collision, up to three contributing factors can be recorded. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

Table 9-3a Drivers Involved in Traffic Collisions by Contributing Factor and Collision Severity for Previous Five Years

Table 9-3a

Drivers Involved in Collisions by Contributing Factors and Collision Severity: 2013-2017 Average

Contributing Factor	2013-2017 Average Count of Drivers				
	Fatal	Injury	PDO	Total Drivers	% of Total Drivers
Driver Action - Driving Properly and Human Condition - Apparently Normal	37	8,289	20,981	29,307	46.3%
Driver Action - Driving properly	1	168	396	566	0.9%
Any Driver Action	53	6,696	20,380	27,128	42.8%
Following too closely	1	2,365	4,210	6,576	10.4%
Turning improperly	2	718	1,711	2,431	3.8%
Passing improperly	2	30	128	160	0.3%
Changing lanes improperly	<1	325	1,621	1,947	3.1%
Fail to yield right-of-way	6	772	1,523	2,301	3.6%
Disobey traffic control device/officer	5	221	263	489	0.8%
Drive wrong way on roadway	3	7	14	24	<0.1%
Passing a vehicle at pedestrian X-walk	-	<1	<1	<1	<0.1%
Back unsafely	<1	228	2,936	3,165	5.0%
Parking improperly	<1	10	141	152	0.2%
Lost control/Drive off road	13	339	1,117	1,469	2.3%
Driverless vehicle ran out of control	<1	8	24	32	<0.1%
Leave stop sign before safe to do so	3	304	563	871	1.4%
Failed to signal	-	7	12	19	<0.1%
Take avoiding action	<1	81	399	481	0.8%
Driver inexperience	2	46	123	170	0.3%
Pedestrian error/confusion	1	11	20	32	<0.1%
NET Speed	15	695	2,338	3,047	4.8%
Exceeding speed limit	6	10	16	32	<0.1%
Driving too fast for conditions	6	674	2,303	2,983	4.7%
Unsafe operating speed (Too fast or too slow)	3	13	21	38	<0.1%
NET Distracted driving	21	2,291	7,912	10,225	16.1%
Careless Driving	15	2,164	7,639	9,818	15.5%
Distraction/Inattention	7	201	462	670	1.1%
Human Condition - Apparently Normal	11	2,185	7,847	10,042	15.8%
Any Human Condition	23	130	181	334	0.5%
Loss of consciousness/Blackout prior to collision	2	24	16	42	<0.1%
Extreme fatigue/Fell asleep	1	22	44	67	0.1%
Defective eyesight	<1	1	2	3	<0.1%
Defective hearing	-	-	<1	<1	<0.1%
Medical disability	-	7	6	13	<0.1%
Physical disability	-	<1	2	2	<0.1%
Mental disability	<1	2	1	4	<0.1%
Mental confusion/Inability to remember	-	11	10	21	<0.1%
Sudden illness	<1	4	3	8	<0.1%
Exceed hours of service (commercial drivers only)	-	-	-	-	-
NET Impaired	18	47	59	124	0.2%
Ability impaired alcohol	12	35	47	95	0.1%
Ability impaired drugs	2	2	2	6	<0.1%
Had been drinking/Suspected alcohol use	6	13	12	31	<0.1%
No Apparent (Vehicle) Defect	47	10,323	28,172	38,542	60.8%
Any Vehicle Defect	2	32	242	276	0.4%
Defective brakes	<1	7	16	23	<0.1%
Defective steering	-	1	6	7	<0.1%

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Contributing Factor	2013-2017 Average Count of Drivers				
	Fatal	Injury	PDO	Total Drivers	% of Total Drivers
Defective headlights	-	<1	<1	<1	<0.1%
Defective brake lights	<1	1	4	5	<0.1%
Defective lighting (unspecified)	<1	<1	1	2	<0.1%
Defective engine controls/drive train	-	2	6	7	<0.1%
Defective suspension/wheels	-	4	42	46	<0.1%
Defective tires	<1	6	66	72	0.1%
Tow hitch/yoke defective	-	1	15	16	<0.1%
Defective exhaust system	-	-	-	-	-
Hood/tailgate/door/covering opened	<1	<1	5	6	<0.1%
Defective glazing (obscured windows)	-	<1	2	2	<0.1%
Vehicle modifications	-	<1	<1	1	<0.1%
Fire	-	1	2	3	<0.1%
Overloaded/oversized	-	<1	2	2	<0.1%
Load shifted/spilled	-	3	20	22	<0.1%
Jack-knife/trailer swing	<1	2	57	59	<0.1%
Hydroplaning tires	<1	2	5	6	<0.1%
Any Environmental Condition	10	702	5,101	5,813	9.2%
Animal action - Wild	<1	140	3,059	3,199	5.0%
Animal action - Domestic	-	9	40	50	<0.1%
Slippery road surface	4	387	1,348	1,739	2.7%
Snow drift	<1	13	91	104	0.2%
Obstruction/debris on roadway	-	17	199	215	0.3%
View obstructed/limited	2	50	116	168	0.3%
Glare/reflection	<1	10	27	37	<0.1%
Construction zone	-	4	12	17	<0.1%
Defective driving surface	<1	13	89	103	0.2%
Shoulders defective	<1	3	5	8	<0.1%
Lane markings inadequate	-	1	5	6	<0.1%
Defective/inoperative traffic control device	<1	6	7	13	<0.1%
Weather	2	57	143	202	0.3%
Pedestrian corridor in use	<1	5	7	12	<0.1%
Uninvolved vehicle	-	6	15	21	<0.1%
Uninvolved pedestrian	-	1	2	4	<0.1%
Presence of prior accident	-	1	2	3	<0.1%
No Contributing Factor(s) Identified	3	500	1,034	1,537	2.4%
Not Stated	-	8	29	37	<0.1%
Total	104	16,206	47,049	63,359	100%

Note: Counts of drivers in the 2013-2017 average may not add to the total due to rounding.
*Note: For each vehicle and/or driver involved in a collision, up to three contributing factors can be recorded. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

Table 9-3 and Table 9-3a examine the contributing factors recorded for each driver involved in a collision.

In 2018, more than half of the **drivers involved in traffic collisions** (56%) are recorded as not being at-fault in the collision. Almost all of these drivers are noted in the traffic accident report (TAR) as both "driving properly" and being "apparently normal" at the time of a collision. Less than one percent (0.5%) of drivers have no contributing factors recorded for the collision.

- 38% of the drivers involved in a fatal collision are noted as not being at-fault.
- 55% of the drivers in an injury collision are noted as not being at-fault.
- 56% of the drivers in a PDO collision are noted as not being at-fault.

Driver actions are recorded for 40% of the **drivers involved in traffic collisions** in 2018. This is a slight decrease from the previous five year (2013 to 2017) annual average, where driver actions are recorded for 43% of the drivers involved. In 2018:

- Nearly 51% of the drivers involved in **fatal collisions** have a driver action recorded, including:
  - 19% who are driving while distracted (including "careless driving" and "distraction/ inattention");
  - 16% who are speeding (including "exceeding speed limit", "driving too fast for conditions" and "unsafe operating speed");
  - 8% who "lost control/ drive off road"; and,
  - 5% who "fail to yield right-of-way".
- 43% of the drivers involved in **injury collisions** have a driver action recorded, including:
  - 22% who are driving while distracted;
  - 12% who are "following too closely";
  - 5% who "fail to yield right-of-way"; and,
  - 5% who are "turning improperly".
- 39% of the drivers involved in **PDO collisions** have a driver action recorded, including:
  - 22% who are driving while distracted;
  - 6% who are "following too closely"; and,
  - 6% who "back unsafely".

Human conditions are recorded for 0.4% of the **drivers involved in traffic collisions** in 2018, a slight decrease from the previous five year (2013 to 2017) annual average (0.5%). In 2018:

- 26% of the **drivers involved in fatal collisions** have a human condition recorded, including 24% who are impaired (including "ability impaired by alcohol", "ability impaired by drugs" and "had been drinking/suspected alcohol use"); and,
- 0.7% of the **drivers involved in injury collisions** have a human condition recorded, including 0.2% who are impaired.

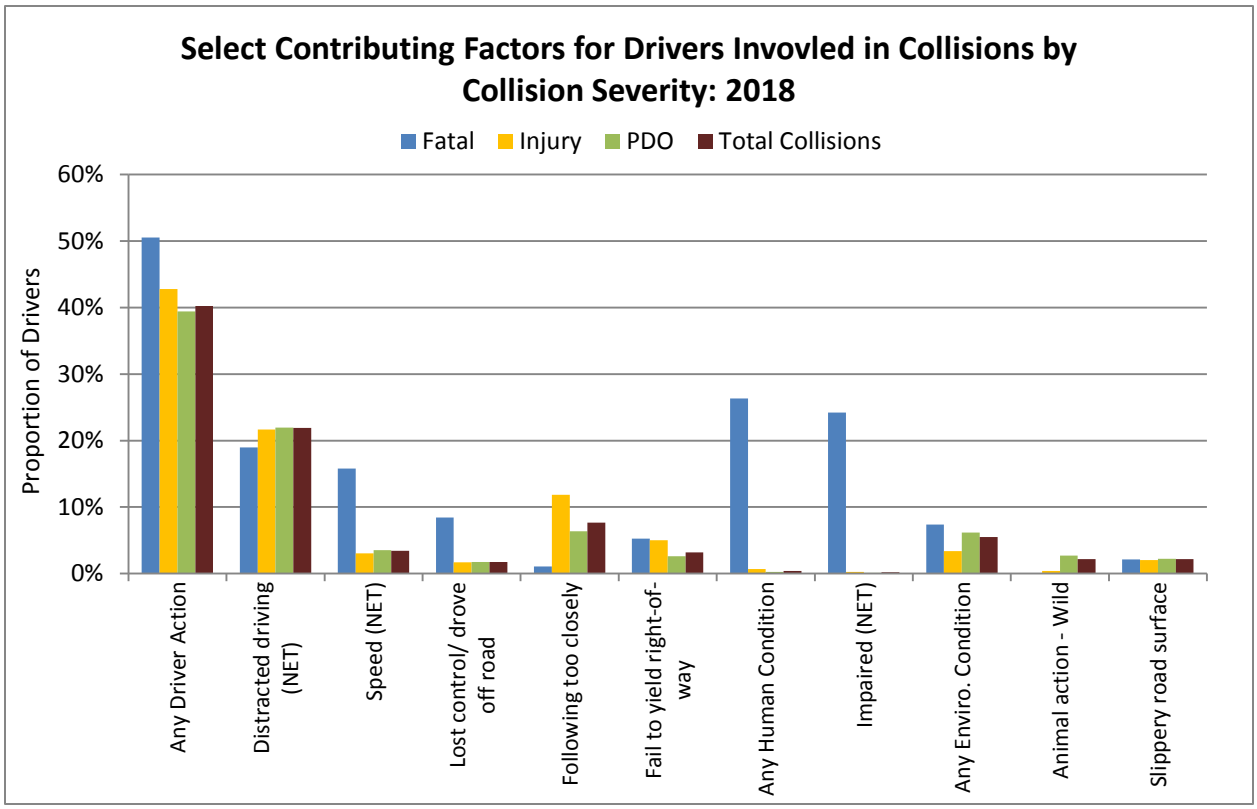
Some vehicle defect is recorded for 0.4% of drivers involved in traffic collisions in 2018 (0.4% in the previous five years, 2013 to 2017, annual average), including 2 drivers in a fatal collision.

Environmental conditions are recorded as contributing factors for nearly 6% of **drivers involved in traffic collisions** (7% of fatal, 3% of injury, and 6% of PDO) in 2018; compared to 9% in the previous five year (2013 to 2017) annual average. In 2018:

- 2% of drivers have "slippery road surface" recorded as a contributing factor (2% of fatal; 2% of injury; 2% PDO); and,
- 2% of drivers have "animal action – wild" recorded as a contributing factor (no fatal; 0.4% of injury; 3% of PDO).

NOTE: For a detailed count of contributing factors recorded for drivers involved in collisions occurring in each year from 2013 to 2018, please refer to "*Table 9-8 Historical Summary of Contributing Factors for Drivers Involved in Collisions*" at the end of this section.

Figure 9-1 Select Contributing Factors for Drivers Involved in Collisions by Collision Severity



While many contributing factors are recorded for the **drivers involved in traffic collisions**, generally there are only a few that account for a large proportion of traffic collisions in Manitoba. In 2018, driver actions and human conditions are most often recorded for fatal traffic collisions, with the most frequent of these being impaired driving, distracted driving, speeding, losing control of the vehicle, and failure to yield right-of-way. Driver actions and environmental conditions (including distracted driving, following too closely, speeding, and the actions of wild animals) are the most often recorded contributing factors for PDO collisions.

Table 9-4 Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Collisions Severity

Table 9-4

Driver Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Collision Severity: 2018, 2013-2017 Average

Contributing Factor	2018 Collision Severity			**2018 Total**	2013-2017 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Any Driver Action	0.5	73.2	217.4	**291.2**	0.6	76.0	231.2	307.7
Following too closely	<0.1	20.3	35.0	**55.3**	<0.1	26.8	47.8	74.6
Turning improperly	<0.1	7.9	17.9	**25.8**	<0.1	8.1	19.4	27.6
Passing improperly	<0.1	0.4	1.0	**1.3**	<0.1	0.3	1.4	1.8
Changing lanes improperly	-	4.1	17.8	**22.0**	<0.1	3.7	18.4	22.1
Fail to yield right-of-way	<0.1	8.6	14.4	**23.0**	<0.1	8.8	17.3	26.1
Disobey traffic control device/officer	<0.1	2.4	2.6	**5.0**	<0.1	2.5	3.0	5.5
Drive wrong way on roadway	<0.1	<0.1	<0.1	**0.2**	<0.1	<0.1	0.2	0.3
Passing a vehicle at pedestrian X-walk	-	-	-	**-**	-	<0.1	<0.1	<0.1
Back unsafely	-	2.8	30.7	**33.6**	<0.1	2.6	33.3	35.9
Parking improperly	-	0.1	0.9	**1.0**	<0.1	0.1	1.6	1.7
Lost control/Drive off road	<0.1	2.9	9.7	**12.7**	0.1	3.8	12.7	16.7
Driverless vehicle ran out of control	-	<0.1	0.2	**0.3**	<0.1	<0.1	0.3	0.4
Leave stop sign before safe to do so	<0.1	3.0	4.2	**7.2**	<0.1	3.5	6.4	9.9
Failed to signal	-	<0.1	<0.1	**0.2**	-	<0.1	0.1	0.2
Take avoiding action	<0.1	0.8	3.8	**4.7**	<0.1	0.9	4.5	5.5
Driver inexperience	<0.1	0.3	1.2	**1.5**	<0.1	0.5	1.4	1.9
Pedestrian error/confusion	<0.1	<0.1	0.2	**0.3**	<0.1	0.1	0.2	0.4
NET Speed	0.2	5.2	19.4	**24.8**	0.2	7.9	26.5	34.6
Exceeding speed limit	<0.1	<0.1	0.2	**0.4**	<0.1	0.1	0.2	0.4
Driving too fast for conditions	<0.1	5.0	19.1	**24.2**	<0.1	7.6	26.1	33.8
Unsafe operating speed (Too fast or too slow)	<0.1	<0.1	0.1	**0.2**	<0.1	0.2	0.2	0.4
NET Distracted driving	0.2	37.1	121.2	**158.4**	0.2	26.0	89.8	116.0
Careless Driving	0.2	36.3	119.6	**156.0**	0.2	24.5	86.7	111.4
Distraction/Inattention	<0.1	1.6	3.7	**5.4**	<0.1	2.3	5.2	7.6

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Contributing Factor	2018 Collision Severity			2018 Total	2013-2017 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Any Human Condition	0.3	1.2	1.4	**2.8**	0.3	1.5	2.1	3.8
Loss of consciousness/Blackout prior to collision	<0.1	0.3	0.2	**0.5**	<0.1	0.3	0.2	0.5
Extreme fatigue/Fell asleep	<0.1	0.3	0.4	**0.7**	<0.1	0.2	0.5	0.8
Defective eyesight	-	-	-	**-**	<0.1	<0.1	<0.1	<0.1
Defective hearing	-	-	-	**-**	-	-	<0.1	<0.1
Medical disability	-	<0.1	<0.1	**0.2**	-	<0.1	<0.1	0.1
Physical disability	-	-	-	**-**	-	<0.1	<0.1	<0.1
Mental disability	-	<0.1	-	**<0.1**	<0.1	<0.1	<0.1	<0.1
Mental confusion/Inability to remember	-	0.1	<0.1	**0.2**	-	0.1	0.1	0.2
Sudden illness	-	<0.1	<0.1	**<0.1**	<0.1	<0.1	<0.1	<0.1
Exceed hours of service (commercial drivers only)	-	-	-	**-**	-	-	-	-
NET Impaired	0.2	0.4	0.7	**1.3**	0.2	0.5	0.7	1.4
Ability impaired alcohol	0.2	0.3	0.6	**1.1**	0.1	0.4	0.5	1.1
Ability impaired drugs	<0.1	<0.1	<0.1	**<0.1**	<0.1	<0.1	<0.1	<0.1
Had been drinking/Suspected alcohol use	<0.1	<0.1	<0.1	**0.2**	<0.1	0.1	0.1	0.3
Any Vehicle Defect	<0.1	0.2	2.3	**2.6**	<0.1	0.4	2.7	3.1
Defective brakes	-	<0.1	0.1	**0.2**	<0.1	<0.1	0.2	0.3
Defective steering	-	<0.1	<0.1	**<0.1**	-	<0.1	<0.1	<0.1
Defective headlights	-	-	<0.1	**<0.1**	-	<0.1	<0.1	<0.1
Defective brake lights	<0.1	-	<0.1	**<0.1**	<0.1	<0.1	<0.1	<0.1
Defective lighting (unspecified)	-	<0.1	<0.1	**<0.1**	<0.1	<0.1	<0.1	<0.1
Defective engine controls/drive train	-	<0.1	<0.1	**<0.1**	-	<0.1	<0.1	<0.1
Defective suspension/wheels	-	<0.1	0.5	**0.6**	-	<0.1	0.5	0.5
Defective tires	<0.1	<0.1	0.7	**0.8**	<0.1	<0.1	0.7	0.8
Tow hitch/yoke defective	-	<0.1	0.1	**0.1**	-	<0.1	0.2	0.2
Defective exhaust system	-	-	-	**-**	-	-	-	-
Hood/tailgate/door/covering opened	-	-	<0.1	**<0.1**	<0.1	<0.1	<0.1	<0.1
Defective glazing (obscured windows)	-	<0.1	-	**<0.1**	-	<0.1	<0.1	<0.1
Vehicle modifications	-	-	<0.1	**<0.1**	-	<0.1	<0.1	<0.1
Fire	-	-	-	**-**	-	<0.1	<0.1	<0.1
Overloaded/oversized	-	-	<0.1	**<0.1**	-	<0.1	<0.1	<0.1

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Contributing Factor	2018 Collision Severity			2018 Total	2013-2017 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Load shifted/spilled	-	<0.1	0.2	**-**	-	<0.1	0.2	0.3
Jack-knife/trailer swing	-	<0.1	0.4	**0.4**	<0.1	<0.1	0.6	0.7
Hydroplaning tires	-	<0.1	<0.1	**<0.1**	<0.1	<0.1	<0.1	<0.1
Any Environmental Condition	<0.1	5.8	34.0	**39.9**	0.1	8.0	57.9	65.9
Animal action - Wild	-	0.6	14.9	**15.6**	<0.1	1.6	34.7	36.3
Animal action - Domestic	-	0.1	0.4	**0.6**	-	0.1	0.5	0.6
Slippery road surface	<0.1	3.4	12.3	**15.7**	<0.1	4.4	15.3	19.7
Snow drift	-	<0.1	0.7	**0.8**	<0.1	0.2	1.0	1.2
Obstruction/debris on roadway	-	0.1	1.7	**1.8**	-	0.2	2.3	2.4
View obstructed/limited	<0.1	0.6	1.6	**2.2**	<0.1	0.6	1.3	1.9
Glare/reflection	-	0.2	0.2	**0.4**	<0.1	0.1	0.3	0.4
Construction zone	-	<0.1	0.2	**0.2**	-	<0.1	0.1	0.2
Defective driving surface	-	0.2	1.1	**1.3**	<0.1	0.2	1.0	1.2
Shoulders defective	<0.1	-	<0.1	**<0.1**	<0.1	<0.1	<0.1	<0.1
Lane markings inadequate	-	-	<0.1	**<0.1**	-	<0.1	<0.1	<0.1
Defective/inoperative traffic control device	-	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	0.2
Weather	<0.1	0.4	1.0	**1.4**	<0.1	0.6	1.6	2.3
Pedestrian corridor in use	-	<0.1	<0.1	**0.1**	<0.1	<0.1	<0.1	0.1
Uninvolved vehicle	-	<0.1	0.2	**0.2**	-	<0.1	0.2	0.2
Uninvolved pedestrian	-	-	<0.1	**<0.1**	-	<0.1	<0.1	<0.1
Presence of prior accident	<0.1	<0.1	<0.1	**<0.1**	-	<0.1	<0.1	<0.1

Recognizing that counts of drivers involved in collisions could be impacted either positively or negatively by changing population statistics, relative involvement rates per 10,000 licensed drivers is examined to provide a standardized collision rate comparison. This eliminates the effect of changing population size and focuses on the rate at which drivers are involved in collisions instead of simply a raw count of the number of drivers involved overall.

In 2018, the **driver involvement rate** (per 10,000 licensed drivers) in traffic collisions where:

- Any driver action is a contributing factor is 291.2, decreased by 5% from the previous five years (307.7);
- Any human condition is a contributing factor is 2.8, decreased by 25% from the previous five years (3.8);
- Some environmental condition is a contributing factor is 39.9, decreased by 39% from the previous five years (65.9);
- Distracted driving is a contributing factor is 158.4, increased by 37% from the previous five years (116.0);
- "Following too closely" is a contributing factor is 55.3, decreased by 26% from the previous five years (74.6);
- "Backing unsafely" is a contributing factor is 33.6, decreased by nearly 7% from the previous five years (35.9);
- "Turning improperly" is a contributing factor is 25.8, decreased by nearly 7% from the previous five years (27.6);
- Speed is a contributing factor is 24.8, decreased by 28% from the previous five years (34.6);
- "Fail to yield right-of-way" is a contributing factor is 23.0, decreased by 12% from the previous five years (26.1);
- "Changing lanes improperly" is a contributing factor is 22.0, relatively unchanged from the previous five years (22.1);
- "Slippery road surface" is a contributing factor is 15.7, decreased by 20% from the previous five years (19.7);
- "Animal action - wild" is a contributing factor is 15.6, decreased by 57% from the previous five years (36.3);
- "Lost control/Drove off road" is a contributing factor is 12.7, decreased by 24% from the previous five years (16.7); and,
- Impaired is a contributing factor is 1.3, decreased by 5% from the previous five years (1.4).

In 2018, the **driver involvement rate** (per 10,000 licensed drivers) in **fatal traffic collisions** where:

- A driver action is a contributing factor is 0.5, down from 0.6 in the previous five years;
- Distracted driving is a contributing factor is 0.2, relatively the same as in the previous five years (0.2);
- A human condition is a contributing factor is 0.3, relatively the same as in the previous five years (0.3);
- Impaired is a contributing factor is 0.2, relatively the same as in the previous five years (0.2);
- Speed is a contributing factor is 0.2, relatively the same as in the previous five years (0.2); and,
- An environmental condition is a contributing factor is less than 0.1, down slightly from 0.1 in the previous five years.

Table 9-5 Driver Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Age

Table 9-5

Driver Involvement Rate (per 10,000 Licensed Drivers) in All Collisions by Contributing Factors and Age Group: 2018

Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Any Driver Action	505.7	483.3	340.3	290.1	255.8	215.0	196.0
Following too closely	111.1	113.6	74.0	55.7	46.0	32.9	23.7
Turning improperly	41.4	43.6	28.3	25.8	21.5	18.2	21.7
Passing improperly	2.3	2.1	1.2	1.2	1.3	1.0	1.4
Changing lanes improperly	34.3	34.9	24.3	20.5	18.0	17.3	19.3
Fail to yield right-of-way	32.0	34.4	26.6	21.3	20.2	18.1	20.1
Disobey traffic control device/officer	6.5	7.8	7.3	5.2	3.2	4.5	2.7
Drive wrong way on roadway	0.8	0.4	0.1	0.2	0.1	<0.1	0.1
Passing a vehicle at pedestrian X-walk	-	-	-	-	-	-	-
Back unsafely	29.8	26.2	31.3	34.9	40.5	34.5	31.5
Parking improperly	0.8	1.5	1.0	1.0	0.7	1.1	1.2
Lost control/Drive off road	37.7	28.2	15.6	12.3	9.2	6.4	4.6
Driverless vehicle ran out of control	1.0	0.3	0.3	0.3	0.2	0.3	<0.1
Leave stop sign before safe to do so	10.4	9.0	7.4	6.1	7.8	5.7	7.0
Failed to signal	-	0.3	<0.1	0.2	0.2	0.1	0.2
Take avoiding action	10.6	8.5	6.2	5.0	4.4	2.8	1.5
Driver inexperience	10.0	3.9	1.3	0.7	0.5	0.6	0.3
Pedestrian error/confusion	0.4	0.4	0.4	0.3	0.1	0.5	0.2
NET Speed	65.8	53.7	29.7	26.3	17.9	14.2	9.7
Exceeding speed limit	0.6	0.9	0.5	0.5	0.2	0.2	0.1
Driving too fast for conditions	64.1	52.2	28.9	25.7	17.5	13.9	9.4
Unsafe operating speed (Too fast or too slow)	1.0	0.5	0.2	0.1	0.1	0.2	0.2
NET Distracted driving	278.0	261.0	185.5	158.0	137.8	116.6	107.6
Careless Driving	272.4	257.6	183.0	155.6	135.6	115.0	105.9
Distraction/Inattention	11.2	8.6	6.4	5.8	4.4	3.5	3.6
Any Human Condition	3.7	7.2	3.8	2.5	2.0	1.9	1.7
Loss of consciousness/Blackout prior to collision	0.6	0.7	0.7	0.1	0.4	0.3	0.7
Extreme fatigue/Fell asleep	0.8	2.8	1.1	0.5	0.5	0.4	0.2
Defective eyesight	-	-	-	-	-	-	-
Defective hearing	-	-	-	-	-	-	-
Medical disability	-	-	<0.1	0.3	0.2	0.2	0.2
Physical disability	-	-	-	-	-	-	-
Mental disability	-	-	<0.1	<0.1	0.2	0.1	-
Mental confusion/Inability to remember	-	0.5	0.2	<0.1	<0.1	0.1	0.4
Sudden illness	0.2	-	<0.1	-	<0.1	0.1	<0.1
Exceed hours of service (commercial drivers only)	-	-	-	-	-	-	-
NET Impaired	2.1	3.3	1.9	1.7	0.9	0.9	0.2
Ability impaired alcohol	1.7	2.9	1.7	1.3	0.7	0.8	0.2
Ability impaired drugs	-	0.1	0.2	0.1	<0.1	0.1	-
Had been drinking/Suspected alcohol use	0.4	0.4	<0.1	0.3	0.1	0.1	-
Any Vehicle Defect	2.9	2.9	1.7	1.3	0.7	0.8	0.2
Defective brakes	0.2	0.5	0.1	<0.1	0.1	0.3	-
Defective steering	0.4	0.1	-	-	0.1	-	-
Defective headlights	0.2	-	-	-	-	-	-
Defective brake lights	0.2	-	0.1	-	<0.1	-	<0.1
Defective lighting (unspecified)	-	-	<0.1	-	-	<0.1	-
Defective engine controls/drive train	-	0.1	0.1	<0.1	<0.1	0.1	<0.1
Defective suspension/wheels	0.6	0.5	0.6	0.8	0.8	0.6	0.1
Defective tires	1.2	1.2	1.1	1.2	0.6	0.4	0.2
Tow hitch/yoke defective	-	-	<0.1	0.1	0.2	0.2	0.1

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Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Defective exhaust system	-	-	-	-	-	-	-
Hood/tailgate/door/covering opened	-	-	<0.1	-	<0.1	<0.1	<0.1
Defective glazing (obscured windows)	-	-	-	<0.1	-	-	-
Vehicle modifications	-	-	<0.1	-	-	-	-
Fire	-	-	-	-	-	-	-
Overloaded/oversized	-	0.1	-	0.1	0.2	<0.1	-
Load shifted/spilled	-	0.5	0.2	<0.1	0.4	<0.1	-
Jack-knife/trailer swing	-	0.1	0.5	0.8	0.5	0.6	<0.1
Hydroplaning tires	-	0.3	-	-	-	-	0.1
Any Environmental Condition	67.4	70.3	47.9	43.1	37.6	28.2	20.7
Animal action - Wild	19.6	22.2	17.4	18.1	17.3	13.3	8.0
Animal action - Domestic	1.0	1.2	0.6	0.6	0.5	0.3	0.3
Slippery road surface	36.6	33.1	20.3	16.3	11.8	8.6	7.0
Snow drift	1.0	1.2	0.7	1.4	0.5	0.5	0.4
Obstruction/debris on roadway	1.2	2.1	2.5	1.5	1.9	1.6	1.7
View obstructed/limited	3.1	3.2	3.0	2.1	2.5	1.6	1.4
Glare/reflection	0.4	0.9	0.2	0.3	0.2	0.3	0.4
Construction zone	-	0.3	0.3	0.1	0.3	<0.1	0.2
Defective driving surface	3.3	2.5	1.3	1.2	1.1	1.2	0.5
Shoulders defective	0.2	-	<0.1	<0.1	-	-	<0.1
Lane markings inadequate	0.2	0.1	-	0.2	-	-	-
Defective/inoperative traffic control device	-	0.3	0.2	<0.1	0.1	0.1	0.1
Weather	1.9	2.5	1.3	1.5	1.4	1.2	0.9
Pedestrian corridor in use	0.2	0.3	-	0.2	0.2	-	<0.1
Uninvolved vehicle	0.2	0.7	0.2	0.2	0.4	0.1	<0.1
Uninvolved pedestrian	-	0.1	-	-	<0.1	-	-
Presence of prior accident	-	0.4	0.1	<0.1	<0.1	<0.1	<0.1

Table 9-5a Driver Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Age for Previous Five Years

Table 9-5a

Driver Involvement Rate (per 10,000 Licensed Drivers) in All Collisions by Contributing Factors and Age Group: 2013-2017 Average

Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Any Driver Action	575.8	527.6	376.2	307.3	258.8	210.7	191.7
Following too closely	154.6	150.6	100.0	75.7	60.1	44.1	30.9
Turning improperly	49.0	46.6	33.4	25.4	22.3	19.4	21.0
Passing improperly	3.6	3.1	2.3	1.7	1.5	1.1	1.3
Changing lanes improperly	35.9	35.7	25.8	21.2	17.8	16.2	18.2
Fail to yield right-of-way	47.6	39.5	30.5	25.0	21.9	18.4	21.1
Disobey traffic control device/officer	9.7	9.6	6.6	5.1	4.7	3.5	4.3
Drive wrong way on roadway	0.5	0.4	0.4	0.2	0.2	0.2	0.2
Passing a vehicle at pedestrian X-walk	<0.1	-	<0.1	-	-	-	-
Back unsafely	43.0	33.0	33.5	39.7	37.9	36.2	31.2
Parking improperly	1.5	1.7	2.1	1.7	1.5	1.4	1.9
Lost control/Drive off road	46.9	37.0	22.0	16.0	11.7	8.4	5.7
Driverless vehicle ran out of control	0.5	0.5	0.4	0.5	0.3	0.2	0.3
Leave stop sign before safe to do so	19.0	14.0	10.5	9.4	8.3	7.3	8.9
Failed to signal	0.4	0.3	0.3	0.2	0.2	0.1	0.2
Take avoiding action	10.3	11.8	8.0	5.6	4.1	2.9	2.0
Driver inexperience	12.3	4.8	1.9	1.0	0.8	0.6	0.4
Pedestrian error/confusion	0.5	0.4	0.4	0.5	0.3	0.3	0.2
NET Speed	82.6	69.5	47.8	35.5	26.5	18.4	12.4
Exceeding speed limit	0.8	0.8	0.6	0.4	0.2	0.2	<0.1
Driving too fast for conditions	80.3	68.0	46.8	34.8	26.1	18.1	12.3
Unsafe operating speed (Too fast or too slow)	1.9	1.0	0.5	0.3	0.3	0.2	0.1
NET Distracted driving	209.5	197.8	142.2	114.2	96.8	79.5	76.6
Careless Driving	199.7	190.2	136.5	109.9	93.0	76.8	73.2
Distraction/Inattention	15.5	12.4	9.4	6.9	6.0	5.1	5.5
Any Human Condition	7.9	7.6	5.1	3.3	2.6	2.1	2.6
Loss of consciousness/Blackout prior to collision	0.6	0.7	0.4	0.5	0.3	0.4	0.6
Extreme fatigue/Fell asleep	2.5	1.9	1.3	0.5	0.4	0.3	0.2
Defective eyesight	-	-	<0.1	<0.1	-	<0.1	0.1
Defective hearing	<0.1	-	-	-	-	-	<0.1
Medical disability	-	0.2	<0.1	<0.1	<0.1	0.2	0.3
Physical disability	-	-	<0.1	<0.1	<0.1	<0.1	<0.1
Mental disability	<0.1	<0.1	0.1	<0.1	-	<0.1	<0.1
Mental confusion/Inability to remember	0.2	0.2	0.2	0.1	0.1	0.1	0.7
Sudden illness	<0.1	0.1	<0.1	<0.1	0.1	<0.1	0.2
Exceed hours of service (commercial drivers only)	-	-	-	-	-	-	-
NET Impaired	3.0	3.5	2.2	1.4	1.0	0.6	0.2
Ability impaired alcohol	2.4	2.6	1.7	1.1	0.8	0.4	0.1
Ability impaired drugs	0.1	0.2	0.1	0.1	<0.1	-	<0.1
Had been drinking/Suspected alcohol use	0.7	1.0	0.5	0.3	0.2	0.2	<0.1
Any Vehicle Defect	4.0	4.7	3.7	3.2	3.1	3.0	1.6
Defective brakes	0.4	0.5	0.4	0.3	0.2	0.2	0.1
Defective steering	0.2	0.1	<0.1	<0.1	0.1	<0.1	-
Defective headlights	-	<0.1	-	-	-	<0.1	-
Defective brake lights	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Defective lighting (unspecified)	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Defective engine controls/drive train	0.1	0.3	<0.1	<0.1	<0.1	0.1	<0.1
Defective suspension/wheels	0.7	0.7	0.7	0.4	0.5	0.5	0.3
Defective tires	1.6	1.4	1.1	0.9	0.6	0.7	0.3
Tow hitch/yoke defective	0.1	0.2	0.2	0.3	0.2	0.2	<0.1

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Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Defective exhaust system	-	-	-	-	-	-	-
Hood/tailgate/door/covering opened	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Defective glazing (obscured windows)	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Vehicle modifications	-	<0.1	<0.1	<0.1	-	<0.1	-
Fire	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Overloaded/oversized	-	-	<0.1	<0.1	-	<0.1	<0.1
Load shifted/spilled	0.1	0.3	0.3	0.2	0.4	0.3	0.1
Jack-knife/trailer swing	0.3	0.7	0.7	0.7	0.8	0.7	0.5
Hydroplaning tires	0.1	0.2	0.1	0.1	<0.1	<0.1	<0.1
Any Environmental Condition	99.2	106.7	80.8	72.4	65.5	50.0	30.9
Animal action - Wild	42.9	52.1	42.0	41.3	40.2	31.0	17.4
Animal action - Domestic	1.1	1.0	0.8	0.7	0.4	0.3	0.2
Slippery road surface	40.9	37.8	26.5	20.2	16.5	12.1	7.9
Snow drift	2.1	2.3	1.6	1.4	0.9	0.8	0.4
Obstruction/debris on roadway	3.2	3.7	2.8	2.6	2.3	2.2	1.5
View obstructed/limited	3.0	3.0	2.4	2.2	1.5	1.1	1.4
Glare/reflection	0.7	0.5	0.4	0.3	0.4	0.3	0.4
Construction zone	0.2	0.2	0.3	0.2	0.2	0.2	0.1
Defective driving surface	2.2	2.1	1.3	1.3	1.1	1.0	0.4
Shoulders defective	0.2	0.2	0.1	<0.1	0.1	<0.1	<0.1
Lane markings inadequate	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Defective/inoperative traffic control device	0.2	0.2	0.2	<0.1	0.1	<0.1	0.2
Weather	3.5	4.7	3.1	2.5	2.0	1.4	1.0
Pedestrian corridor in use	0.1	0.2	0.1	0.2	0.1	0.1	0.1
Uninvolved vehicle	0.4	0.4	0.3	0.3	0.2	0.1	0.2
Uninvolved pedestrian	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
Presence of prior accident	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Younger drivers, especially those under the age of 25, tend to have higher **driver involvement rates** in traffic collisions overall and in collisions where specific contributing factors are noted.

In 2018, the involvement rate in collisions for drivers aged 16 to 19 with:

- Any at-fault contributing factor is:
  - 1.0 times that of drivers aged 20 to 24;
  - 1.5 times that of drivers aged 25 to 34;
  - 1.7 times that of drivers aged 35 to 44; and,
  - 2.2 times that of drivers aged 45 and older.
- A driver action as a contributing factor is:
  - 1.0 times that of drivers aged 20 to 24;
  - 1.5 times that of drivers aged 25 to 34;
  - 1.7 times that of drivers aged 35 to 44; and,
  - 2.3 times that of drivers aged 45 and older.
- A human condition as a contributing factor is:
  - 0.5 times that of drivers aged 20 to 24;
  - 1.0 times that of drivers aged 25 to 34;
  - 1.5 times that of drivers aged 35 to 44; and,
  - 2.0 times that of drivers aged 45 and older.
- “Driver inexperience” as a contributing factor is:
  - 2.6 times that of drivers aged 20 to 24;
  - 7.8 times that of drivers aged 25 to 34;
  - 14.1 times that of drivers aged 35 to 44; and,
  - 20.5 times that of drivers aged 45 and older.

In 2018, the involvement rate in collisions for drivers aged 20 to 24 with:

- Any at-fault contributing factor is:
  - 1.4 times that of drivers aged 25 to 34;
  - 1.6 times that of drivers aged 35 to 44; and,
  - 2.2 times that of drivers aged 45 and older.
- A driver action as a contributing factor is:
  - 1.4 times that of drivers aged 25 to 34;
  - 1.7 times that of drivers aged 35 to 44; and,
  - 2.2 times that of drivers aged 45 and older.
- A human condition as a contributing factor is:
  - 1.9 times that of drivers aged 25 to 34;
  - 2.8 times that of drivers aged 35 to 44; and,
  - 3.9 times that of drivers aged 45 and older.
- "Driver inexperience" as a contributing factor is:
  - 3.0 times that of drivers aged 25 to 34;
  - 5.4 times that of drivers aged 35 to 44; and,
  - 7.9 times that of drivers aged 45 and older.

Table 9-6 Historical Summary of Contributing Factors to a Collision Overall

Table 9-6

Summary of Contributing Factors to a Collision: 2013 to 2018

Contributing Factor	2013 Total Collisions	% of 2013 Total Collisions	2014 Total Collisions	% of 2014 Total Collisions	2015 Total Collisions	% of 2015 Total Collisions	2016 Total Collisions	% of 2016 Total Collisions	2017 Total Collisions	% of 2017 Total Collisions	**2018 Total Collisions**	**% of 2018 Total Collisions**
Driver Action - Driving Properly and Human Condition - Apparently Normal	25,005	59.8%	24,166	59.4%	28,316	68.2%	32,255	71.2%	35,635	68.7%	**38,772**	**74.9%**
Driver Action - Driving properly	858	2.1%	789	1.9%	530	1.3%	429	0.9%	214	0.4%	**210**	**0.4%**
Any Driver Action	25,859	61.8%	26,734	65.7%	25,877	62.3%	26,859	59.3%	28,998	55.9%	**26,597**	**51.4%**
Following too closely	6,190	14.8%	6,581	16.2%	6,958	16.7%	6,763	14.9%	6,280	12.1%	**5,090**	**9.8%**
Turning improperly	2,046	4.9%	2,247	5.5%	2,564	6.2%	2,486	5.5%	2,762	5.3%	**2,371**	**4.6%**
Passing improperly	169	0.4%	149	0.4%	151	0.4%	164	0.4%	156	0.3%	**124**	**0.2%**
Changing lanes improperly	1,615	3.9%	1,770	4.4%	1,914	4.6%	2,080	4.6%	2,149	4.1%	**1,977**	**3.8%**
Fail to yield right-of-way	2,062	4.9%	2,174	5.3%	2,272	5.5%	2,358	5.2%	2,610	5.0%	**2,142**	**4.1%**
Disobey traffic control device/officer	443	1.1%	433	1.1%	500	1.2%	527	1.2%	558	1.1%	**458**	**0.9%**
Drive wrong way on roadway	12	<0.1%	38	<0.1%	28	<0.1%	18	<0.1%	25	<0.1%	**19**	**<0.1%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-	3	<0.1%	**0**	**-**
Back unsafely	2,800	6.7%	2,930	7.2%	3,040	7.3%	3,383	7.5%	3,496	6.7%	**3,057**	**5.9%**
Parking improperly	104	0.2%	155	0.4%	152	0.4%	181	0.4%	212	0.4%	**111**	**0.2%**
Lost control/Drive off road	1,598	3.8%	1,415	3.5%	1,589	3.8%	1,403	3.1%	1,347	2.6%	**1,168**	**2.3%**
Driverless vehicle ran out of control	12	<0.1%	33	<0.1%	38	<0.1%	37	<0.1%	53	0.1%	**28**	**<0.1%**
Leave stop sign before safe to do so	745	1.8%	1,006	2.5%	844	2.0%	861	1.9%	869	1.7%	**661**	**1.3%**
Failed to signal	8	<0.1%	17	<0.1%	21	<0.1%	17	<0.1%	31	<0.1%	**14**	**<0.1%**
Take avoiding action	408	1.0%	458	1.1%	488	1.2%	522	1.2%	544	1.0%	**437**	**0.8%**
Driver inexperience	144	0.3%	122	0.3%	176	0.4%	176	0.4%	235	0.5%	**141**	**0.3%**
Pedestrian error/confusion	31	<0.1%	49	0.1%	55	0.1%	65	0.1%	71	0.1%	**78**	**0.2%**
NET Speed	2,418	5.8%	3,076	7.6%	3,092	7.4%	2,964	6.5%	3,692	7.1%	**2,283**	**4.4%**
Exceeding speed limit	14	<0.1%	26	<0.1%	48	0.1%	39	<0.1%	31	<0.1%	**34**	**<0.1%**
Driving too fast for conditions	2,362	5.6%	3,018	7.4%	3,005	7.2%	2,890	6.4%	3,643	7.0%	**2,227**	**4.3%**
Unsafe operating speed (Too fast or too slow)	45	0.1%	36	<0.1%	48	0.1%	42	<0.1%	23	<0.1%	**24**	**<0.1%**
NET Distracted driving	6,709	16.0%	8,468	20.8%	9,463	22.8%	11,086	24.5%	15,403	29.7%	**14,618**	**28.3%**
Careless Driving	6,409	15.3%	8,136	20.0%	8,943	21.5%	10,560	23.3%	15,024	29.0%	**14,388**	**27.8%**
Distraction/Inattention	359	0.9%	464	1.1%	716	1.7%	787	1.7%	1,068	2.1%	**512**	**1.0%**

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Section 9 Contributing Factors

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Contributing Factor	2013 Total Collisions	% of 2013 Total Collisions	2014 Total Collisions	% of 2014 Total Collisions	2015 Total Collisions	% of 2015 Total Collisions	2016 Total Collisions	% of 2016 Total Collisions	2017 Total Collisions	% of 2017 Total Collisions	**2018 Total Collisions**	**% of 2018 Total Collisions**
Human Condition - Apparently Normal	2,990	7.1%	3,792	9.3%	7,580	18.2%	15,621	34.5%	20,107	38.8%	**18,209**	**35.2%**
Any Human Condition	599	1.4%	237	0.6%	297	0.7%	301	0.7%	278	0.5%	**279**	**0.5%**
Loss of consciousness/Blackout prior to collision	34	<0.1%	37	<0.1%	43	0.1%	40	<0.1%	54	0.1%	**44**	**<0.1%**
Extreme fatigue/Fell asleep	63	0.2%	59	0.1%	66	0.2%	79	0.2%	70	0.1%	**68**	**0.1%**
Defective eyesight	2	<0.1%	5	<0.1%	5	<0.1%	4	<0.1%	2	<0.1%	**0**	**-**
Defective hearing	0	-	0	-	1	<0.1%	2	<0.1%	0	-	**1**	**<0.1%**
Medical disability	10	<0.1%	10	<0.1%	20	<0.1%	11	<0.1%	15	<0.1%	**15**	**<0.1%**
Physical disability	3	<0.1%	1	<0.1%	5	<0.1%	4	<0.1%	3	<0.1%	**0**	**-**
Mental disability	4	<0.1%	4	<0.1%	5	<0.1%	4	<0.1%	3	<0.1%	**7**	**<0.1%**
Mental confusion/Inability to remember	22	<0.1%	15	<0.1%	28	<0.1%	24	<0.1%	19	<0.1%	**18**	**<0.1%**
Sudden illness	8	<0.1%	5	<0.1%	8	<0.1%	12	<0.1%	6	<0.1%	**6**	**<0.1%**
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-	0	-	**0**	**-**
NET Impaired	119	0.3%	115	0.3%	140	0.3%	145	0.3%	133	0.3%	**139**	**0.3%**
Ability impaired alcohol	94	0.2%	75	0.2%	109	0.3%	110	0.2%	109	0.2%	**118**	**0.2%**
Ability impaired drugs	3	<0.1%	7	<0.1%	7	<0.1%	8	<0.1%	8	<0.1%	**10**	**<0.1%**
Had been drinking/Suspected alcohol use	31	<0.1%	38	<0.1%	36	<0.1%	34	<0.1%	27	<0.1%	**18**	**<0.1%**
No Apparent (Vehicle) Defect	24,908	59.6%	25,414	62.5%	32,283	77.7%	38,760	85.5%	45,902	88.5%	**47,017**	**90.9%**
Any Vehicle Defect	189	0.5%	283	0.7%	300	0.7%	278	0.6%	342	0.7%	**238**	**0.5%**
Defective brakes	14	<0.1%	23	<0.1%	22	<0.1%	30	<0.1%	31	<0.1%	**14**	**<0.1%**
Defective steering	4	<0.1%	10	<0.1%	15	<0.1%	2	<0.1%	5	<0.1%	**5**	**<0.1%**
Defective headlights	0	-	0	-	0	-	0	-	2	<0.1%	**1**	**<0.1%**
Defective brake lights	3	<0.1%	6	<0.1%	5	<0.1%	10	<0.1%	3	<0.1%	**5**	**<0.1%**
Defective lighting (unspecified)	3	<0.1%	3	<0.1%	0	-	2	<0.1%	4	<0.1%	**2**	**<0.1%**
Defective engine controls/drive train	8	<0.1%	7	<0.1%	6	<0.1%	9	<0.1%	7	<0.1%	**8**	**<0.1%**
Defective suspension/wheels	31	<0.1%	40	<0.1%	49	0.1%	52	0.1%	58	0.1%	**52**	**0.1%**
Defective tires	35	<0.1%	80	0.2%	74	0.2%	70	0.2%	100	0.2%	**70**	**0.1%**
Tow hitch/yoke defective	15	<0.1%	12	<0.1%	25	<0.1%	15	<0.1%	15	<0.1%	**13**	**<0.1%**
Defective exhaust system	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Hood/tailgate/door/covering opened	3	<0.1%	4	<0.1%	4	<0.1%	13	<0.1%	5	<0.1%	**4**	**<0.1%**
Defective glazing (obscured windows)	2	<0.1%	3	<0.1%	3	<0.1%	2	<0.1%	1	<0.1%	**1**	**<0.1%**
Vehicle modifications	1	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	**1**	**<0.1%**
Fire	3	<0.1%	6	<0.1%	1	<0.1%	3	<0.1%	1	<0.1%	**0**	**-**

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Section 9 Contributing Factors

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Contributing Factor	2013 Total Collisions	% of 2013 Total Collisions	2014 Total Collisions	% of 2014 Total Collisions	2015 Total Collisions	% of 2015 Total Collisions	2016 Total Collisions	% of 2016 Total Collisions	2017 Total Collisions	% of 2017 Total Collisions	**2018 Total Collisions**	**% of 2018 Total Collisions**
Overloaded/oversized	0	-	1	<0.1%	4	<0.1%	4	<0.1%	4	<0.1%	**7**	**<0.1%**
Load shifted/spilled	16	<0.1%	21	<0.1%	23	<0.1%	16	<0.1%	37	<0.1%	**16**	**<0.1%**
Jack-knife/trailer swing	44	0.1%	67	0.2%	63	0.2%	51	0.1%	71	0.1%	**40**	**<0.1%**
Hydroplaning tires	10	<0.1%	3	<0.1%	12	<0.1%	6	<0.1%	1	<0.1%	**4**	**<0.1%**
Any Environmental Condition	7,231	17.3%	6,823	16.8%	4,000	9.6%	4,556	10.1%	6,528	12.6%	**3,726**	**7.2%**
Animal action - Wild	4,756	11.4%	4,017	9.9%	1,892	4.6%	1,892	4.2%	3,437	6.6%	**1,436**	**2.8%**
Animal action - Domestic	45	0.1%	52	0.1%	33	<0.1%	51	0.1%	67	0.1%	**52**	**0.1%**
Slippery road surface	1,737	4.2%	1,859	4.6%	1,357	3.3%	1,700	3.8%	2,029	3.9%	**1,448**	**2.8%**
Snow drift	118	0.3%	163	0.4%	45	0.1%	96	0.2%	98	0.2%	**70**	**0.1%**
Obstruction/debris on roadway	152	0.4%	202	0.5%	191	0.5%	255	0.6%	280	0.5%	**172**	**0.3%**
View obstructed/limited	106	0.3%	190	0.5%	155	0.4%	185	0.4%	235	0.5%	**223**	**0.4%**
Glare/reflection	36	<0.1%	27	<0.1%	41	<0.1%	52	0.1%	35	<0.1%	**36**	**<0.1%**
Construction zone	11	<0.1%	19	<0.1%	15	<0.1%	23	<0.1%	21	<0.1%	**19**	**<0.1%**
Defective driving surface	60	0.1%	118	0.3%	82	0.2%	121	0.3%	137	0.3%	**119**	**0.2%**
Shoulders defective	10	<0.1%	10	<0.1%	9	<0.1%	8	<0.1%	3	<0.1%	**4**	**<0.1%**
Lane markings inadequate	10	<0.1%	6	<0.1%	4	<0.1%	7	<0.1%	4	<0.1%	**5**	**<0.1%**
Defective/inoperative traffic control device	12	<0.1%	10	<0.1%	18	<0.1%	13	<0.1%	17	<0.1%	**13**	**<0.1%**
Weather	214	0.5%	189	0.5%	205	0.5%	198	0.4%	213	0.4%	**138**	**0.3%**
Pedestrian corridor in use	7	<0.1%	16	<0.1%	11	<0.1%	26	<0.1%	45	<0.1%	**33**	**<0.1%**
Uninvolved vehicle	20	<0.1%	18	<0.1%	27	<0.1%	32	<0.1%	19	<0.1%	**30**	**<0.1%**
Uninvolved pedestrian	8	<0.1%	3	<0.1%	4	<0.1%	8	<0.1%	13	<0.1%	**5**	**<0.1%**
Presence of prior accident	9	<0.1%	1	<0.1%	3	<0.1%	2	<0.1%	1	<0.1%	**10**	**<0.1%**
No Contributing Factor(s) Identified	3,126	7.5%	2,144	5.3%	1,572	3.8%	1,463	3.2%	427	0.8%	**442**	**0.9%**
Not Stated	0	-	14	<0.1%	73	0.2%	74	0.2%	52	0.1%	**39**	**<0.1%**
Total	41,819	100%	40,672	100%	41,548	100%	45,316	100%	51,844	100%	**51,732**	**100%**

*Note: For each vehicle and/or driver involved in a collision, up to three contributing factors can be recorded. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

Table 9-7 Historical Summary of Contributing Factors Recorded for Victims of Collisions

Table 9-7

Summary of Contributing Factors for Victims (Killed and Injured, Combined) of Collisions: 2013 to 2018

Contributing Factor	2013 Total Victims	% of 2013 Total Victims	2014 Total Victims	% of 2014 Total Victims	2015 Total Victims	% of 2015 Total Victims	2016 Total Victims	% of 2016 Total Victims	2017 Total Victims	% of 2017 Total Victims	**2018 Total Victims**	**% of 2018 Total Victims**
Driver Action - Driving Properly and Human Condition - Apparently Normal	8,886	79.1%	9,367	80.2%	10,041	83.6%	10,726	84.8%	10,639	84.0%	**10,309**	**85.5%**
Driver Action - Driving properly	364	3.2%	366	3.1%	255	2.1%	147	1.2%	74	0.6%	**61**	**0.5%**
Any Driver Action	7,636	68.0%	8,625	73.9%	8,932	74.3%	9,171	72.5%	9,657	76.3%	**8,883**	**73.7%**
Following too closely	2,578	22.9%	3,061	26.2%	3,386	28.2%	3,302	26.1%	3,170	25.0%	**2,519**	**20.9%**
Turning improperly	717	6.4%	875	7.5%	1,081	9.0%	1,097	8.7%	1,122	8.9%	**970**	**8.0%**
Passing improperly	44	0.4%	32	0.3%	37	0.3%	63	0.5%	41	0.3%	**48**	**0.4%**
Changing lanes improperly	269	2.4%	366	3.1%	391	3.3%	452	3.6%	522	4.1%	**445**	**3.7%**
Fail to yield right-of-way	842	7.5%	1,081	9.3%	1,142	9.5%	1,120	8.9%	1,281	10.1%	**1,116**	**9.3%**
Disobey traffic control device/officer	245	2.2%	307	2.6%	393	3.3%	373	2.9%	409	3.2%	**349**	**2.9%**
Drive wrong way on roadway	8	<0.1%	21	0.2%	22	0.2%	17	0.1%	26	0.2%	**17**	**0.1%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-	1	<0.1%	**0**	**-**
Back unsafely	214	1.9%	252	2.2%	231	1.9%	259	2.0%	293	2.3%	**273**	**2.3%**
Parking improperly	10	<0.1%	12	0.1%	12	<0.1%	19	0.2%	14	0.1%	**14**	**0.1%**
Lost control/Drive off road	459	4.1%	421	3.6%	480	4.0%	439	3.5%	403	3.2%	**340**	**2.8%**
Driverless vehicle ran out of control	6	<0.1%	1	<0.1%	11	<0.1%	16	0.1%	19	0.2%	**8**	**<0.1%**
Leave stop sign before safe to do so	301	2.7%	490	4.2%	450	3.7%	441	3.5%	436	3.4%	**360**	**3.0%**
Failed to signal	4	<0.1%	5	<0.1%	11	<0.1%	8	<0.1%	14	0.1%	**7**	**<0.1%**
Take avoiding action	80	0.7%	92	0.8%	92	0.8%	111	0.9%	133	1.1%	**95**	**0.8%**
Driver inexperience	60	0.5%	46	0.4%	58	0.5%	62	0.5%	87	0.7%	**46**	**0.4%**
Pedestrian error/confusion	27	0.2%	25	0.2%	26	0.2%	34	0.3%	41	0.3%	**42**	**0.3%**
NET Speed	696	6.2%	881	7.5%	993	8.3%	977	7.7%	1,092	8.6%	**665**	**5.5%**
Exceeding speed limit	26	0.2%	19	0.2%	24	0.2%	54	0.4%	19	0.2%	**26**	**0.2%**
Driving too fast for conditions	646	5.8%	834	7.1%	953	7.9%	899	7.1%	1,064	8.4%	**626**	**5.2%**
Unsafe operating speed (Too fast or too slow)	29	0.3%	30	0.3%	24	0.2%	34	0.3%	11	<0.1%	**14**	**0.1%**
NET Distracted driving	1,759	15.7%	2,369	20.3%	3,101	25.8%	3,367	26.6%	4,662	36.8%	**4,501**	**37.3%**
Careless Driving	1,621	14.4%	2,173	18.6%	2,838	23.6%	3,142	24.8%	4,490	35.5%	**4,411**	**36.6%**
Distraction/Inattention	161	1.4%	270	2.3%	365	3.0%	350	2.8%	404	3.2%	**203**	**1.7%**

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Section 9 Contributing Factors

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Contributing Factor	2013 Total Victims	% of 2013 Total Victims	2014 Total Victims	% of 2014 Total Victims	2015 Total Victims	% of 2015 Total Victims	2016 Total Victims	% of 2016 Total Victims	2017 Total Victims	% of 2017 Total Victims	**2018 Total Victims**	**% of 2018 Total Victims**
Human Condition - Apparently Normal	1,123	10.0%	1,394	11.9%	2,217	18.4%	4,564	36.1%	5,380	42.5%	**5,630**	**46.7%**
Any Human Condition	353	3.1%	208	1.8%	226	1.9%	206	1.6%	174	1.4%	**184**	**1.5%**
Loss of consciousness/Blackout prior to collision	26	0.2%	36	0.3%	39	0.3%	24	0.2%	34	0.3%	**30**	**0.2%**
Extreme fatigue/Fell asleep	39	0.3%	26	0.2%	28	0.2%	27	0.2%	24	0.2%	**34**	**0.3%**
Defective eyesight	0	-	9	<0.1%	4	<0.1%	1	<0.1%	2	<0.1%	**0**	**-**
Defective hearing	0	-	0	-	2	<0.1%	0	-	0	-	**0**	**-**
Medical disability	2	<0.1%	7	<0.1%	14	0.1%	10	<0.1%	12	<0.1%	**14**	**0.1%**
Physical disability	4	<0.1%	0	-	4	<0.1%	1	<0.1%	0	-	**0**	**-**
Mental disability	4	<0.1%	10	<0.1%	4	<0.1%	2	<0.1%	2	<0.1%	**8**	**<0.1%**
Mental confusion/Inability to remember	12	0.1%	12	0.1%	27	0.2%	8	<0.1%	13	0.1%	**15**	**0.1%**
Sudden illness	6	<0.1%	2	<0.1%	4	<0.1%	10	<0.1%	4	<0.1%	**6**	**<0.1%**
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-	0	-	**0**	**-**
NET Impaired	118	1.1%	116	1.0%	121	1.0%	139	1.1%	104	0.8%	**93**	**0.8%**
Ability impaired alcohol	87	0.8%	68	0.6%	97	0.8%	93	0.7%	71	0.6%	**79**	**0.7%**
Ability impaired drugs	1	<0.1%	10	<0.1%	9	<0.1%	16	0.1%	2	<0.1%	**10**	**<0.1%**
Had been drinking/Suspected alcohol use	44	0.4%	44	0.4%	27	0.2%	41	0.3%	38	0.3%	**9**	**<0.1%**
No Apparent (Vehicle) Defect	9,011	80.2%	9,664	82.8%	10,488	87.3%	11,462	90.6%	11,639	91.9%	**11,402**	**94.6%**
Any Vehicle Defect	45	0.4%	44	0.4%	35	0.3%	59	0.5%	52	0.4%	**32**	**0.3%**
Defective brakes	10	<0.1%	10	<0.1%	8	<0.1%	9	<0.1%	18	0.1%	**3**	**<0.1%**
Defective steering	1	<0.1%	7	<0.1%	2	<0.1%	0	-	2	<0.1%	**3**	**<0.1%**
Defective headlights	0	-	0	-	0	-	0	-	1	<0.1%	**0**	**-**
Defective brake lights	0	-	2	<0.1%	0	-	8	<0.1%	0	-	**1**	**<0.1%**
Defective lighting (unspecified)	4	<0.1%	1	<0.1%	0	-	4	<0.1%	2	<0.1%	**1**	**<0.1%**
Defective engine controls/drive train	2	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%	**3**	**<0.1%**
Defective suspension/wheels	11	<0.1%	4	<0.1%	4	<0.1%	7	<0.1%	3	<0.1%	**2**	**<0.1%**
Defective tires	8	<0.1%	7	<0.1%	8	<0.1%	15	0.1%	8	<0.1%	**11**	**<0.1%**
Tow hitch/yoke defective	0	-	0	-	0	-	2	<0.1%	6	<0.1%	**3**	**<0.1%**
Defective exhaust system	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Hood/tailgate/door/covering opened	0	-	0	-	1	<0.1%	4	<0.1%	1	<0.1%	**0**	**-**
Defective glazing (obscured windows)	0	-	2	<0.1%	0	-	2	<0.1%	0	-	**1**	**<0.1%**
Vehicle modifications	1	<0.1%	1	<0.1%	0	-	0	-	0	-	**0**	**-**
Fire	1	<0.1%	2	<0.1%	1	<0.1%	2	<0.1%	2	<0.1%	**0**	**-**

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Section 9 Contributing Factors

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Contributing Factor	2013 Total Victims	% of 2013 Total Victims	2014 Total Victims	% of 2014 Total Victims	2015 Total Victims	% of 2015 Total Victims	2016 Total Victims	% of 2016 Total Victims	2017 Total Victims	% of 2017 Total Victims	**2018 Total Victims**	**% of 2018 Total Victims**
Overloaded/oversized	0	-	0	-	1	<0.1%	0	-	0	-	**0**	**-**
Load shifted/spilled	3	<0.1%	3	<0.1%	2	<0.1%	2	<0.1%	5	<0.1%	**1**	**<0.1%**
Jack-knife/trailer swing	4	<0.1%	3	<0.1%	3	<0.1%	1	<0.1%	2	<0.1%	**1**	**<0.1%**
Hydroplaning tires	5	<0.1%	0	-	3	<0.1%	3	<0.1%	0	-	**2**	**<0.1%**
Any Environmental Condition	911	8.1%	957	8.2%	764	6.4%	942	7.4%	1,035	8.2%	**731**	**6.1%**
Animal action - Wild	240	2.1%	219	1.9%	130	1.1%	100	0.8%	131	1.0%	**71**	**0.6%**
Animal action - Domestic	7	<0.1%	9	<0.1%	12	<0.1%	14	0.1%	18	0.1%	**12**	**<0.1%**
Slippery road surface	475	4.2%	495	4.2%	412	3.4%	560	4.4%	602	4.8%	**404**	**3.4%**
Snow drift	16	0.1%	27	0.2%	6	<0.1%	24	0.2%	13	0.1%	**9**	**<0.1%**
Obstruction/debris on roadway	12	0.1%	14	0.1%	24	0.2%	25	0.2%	36	0.3%	**14**	**0.1%**
View obstructed/limited	44	0.4%	77	0.7%	75	0.6%	96	0.8%	95	0.8%	**92**	**0.8%**
Glare/reflection	13	0.1%	15	0.1%	15	0.1%	18	0.1%	9	<0.1%	**22**	**0.2%**
Construction zone	9	<0.1%	6	<0.1%	5	<0.1%	7	<0.1%	6	<0.1%	**6**	**<0.1%**
Defective driving surface	18	0.2%	15	0.1%	12	<0.1%	22	0.2%	30	0.2%	**19**	**0.2%**
Shoulders defective	6	<0.1%	7	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	**9**	**<0.1%**
Lane markings inadequate	1	<0.1%	3	<0.1%	2	<0.1%	4	<0.1%	0	-	**0**	**-**
Defective/inoperative traffic control device	10	<0.1%	6	<0.1%	9	<0.1%	15	0.1%	14	0.1%	**6**	**<0.1%**
Weather	74	0.7%	74	0.6%	81	0.7%	72	0.6%	88	0.7%	**56**	**0.5%**
Pedestrian corridor in use	3	<0.1%	9	<0.1%	6	<0.1%	7	<0.1%	33	0.3%	**20**	**0.2%**
Uninvolved vehicle	7	<0.1%	5	<0.1%	11	<0.1%	13	0.1%	8	<0.1%	**14**	**0.1%**
Uninvolved pedestrian	2	<0.1%	0	-	2	<0.1%	7	<0.1%	7	<0.1%	**3**	**<0.1%**
Presence of prior accident	4	<0.1%	2	<0.1%	1	<0.1%	5	<0.1%	0	-	**8**	**<0.1%**
No Contributing Factor(s) Identified	1,386	12.3%	971	8.3%	650	5.4%	589	4.7%	172	1.4%	**172**	**1.4%**
Not Stated	0	-	4	<0.1%	16	0.1%	18	0.1%	18	0.1%	**15**	**0.1%**
Total	11,234	100%	11,676	100%	12,017	100%	12,653	100%	12,659	100%	**12,057**	**100%**

*Note: For each vehicle and/or driver involved in a collision, up to three contributing factors can be recorded. Because multiple factors can be noted, the counts and percentages under each year will add to more than the total victims for that year.

Table 9-8 Historical Summary of Contributing Factors Recorded for Drivers Involved in Collisions

Table 9-8

Summary of Contributing Factors for Drivers Involved in Collisions: 2013 to 2018

Contributing Factor	2013 Total Drivers	% of 2013 Total Drivers	2014 Total Drivers	% of 2014 Total Drivers	2015 Total Drivers	% of 2015 Total Drivers	2016 Total Drivers	% of 2016 Total Drivers	2017 Total Drivers	% of 2017 Total Drivers	**2018 Total Drivers**	**% of 2018 Total Drivers**
Driver Action - Driving Properly and Human Condition - Apparently Normal	26,101	41.1%	25,040	40.9%	28,516	47.8%	32,598	51.1%	34,281	50.1%	**37,280**	**56.0%**
Driver Action - Driving properly	863	1.4%	790	1.3%	535	0.9%	429	0.7%	211	0.3%	**205**	**0.3%**
Any Driver Action	26,087	41.1%	26,978	44.0%	26,147	43.8%	27,122	42.5%	29,307	42.8%	**26,798**	**40.2%**
Following too closely	6,207	9.8%	6,607	10.8%	6,999	11.7%	6,776	10.6%	6,292	9.2%	**5,090**	**7.6%**
Turning improperly	2,053	3.2%	2,258	3.7%	2,577	4.3%	2,496	3.9%	2,769	4.0%	**2,374**	**3.6%**
Passing improperly	173	0.3%	150	0.2%	152	0.3%	165	0.3%	158	0.2%	**124**	**0.2%**
Changing lanes improperly	1,642	2.6%	1,794	2.9%	1,953	3.3%	2,121	3.3%	2,224	3.2%	**2,021**	**3.0%**
Fail to yield right-of-way	2,070	3.3%	2,188	3.6%	2,278	3.8%	2,368	3.7%	2,603	3.8%	**2,117**	**3.2%**
Disobey traffic control device/officer	442	0.7%	437	0.7%	499	0.8%	525	0.8%	542	0.8%	**456**	**0.7%**
Drive wrong way on roadway	11	<0.1%	38	<0.1%	27	<0.1%	18	<0.1%	24	<0.1%	**17**	**<0.1%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-	3	<0.1%	**0**	**-**
Back unsafely	2,827	4.5%	2,960	4.8%	3,083	5.2%	3,418	5.4%	3,536	5.2%	**3,090**	**4.6%**
Parking improperly	96	0.2%	147	0.2%	146	0.2%	172	0.3%	200	0.3%	**96**	**0.1%**
Lost control/Drive off road	1,597	2.5%	1,414	2.3%	1,587	2.7%	1,402	2.2%	1,346	2.0%	**1,166**	**1.8%**
Driverless vehicle ran out of control	12	<0.1%	28	<0.1%	37	<0.1%	37	<0.1%	45	<0.1%	**26**	**<0.1%**
Leave stop sign before safe to do so	750	1.2%	1,013	1.7%	849	1.4%	870	1.4%	872	1.3%	**664**	**1.0%**
Failed to signal	8	<0.1%	17	<0.1%	21	<0.1%	17	<0.1%	30	<0.1%	**14**	**<0.1%**
Take avoiding action	408	0.6%	458	0.7%	488	0.8%	521	0.8%	528	0.8%	**431**	**0.6%**
Driver inexperience	145	0.2%	122	0.2%	174	0.3%	176	0.3%	235	0.3%	**138**	**0.2%**
Pedestrian error/confusion	17	<0.1%	28	<0.1%	45	<0.1%	41	<0.1%	29	<0.1%	**28**	**<0.1%**
NET Speed	2,420	3.8%	3,081	5.0%	3,090	5.2%	2,959	4.6%	3,687	5.4%	**2,280**	**3.4%**
Exceeding speed limit	15	<0.1%	26	<0.1%	48	<0.1%	38	<0.1%	31	<0.1%	**34**	**<0.1%**
Driving too fast for conditions	2,363	3.7%	3,024	4.9%	3,005	5.0%	2,887	4.5%	3,638	5.3%	**2,224**	**3.3%**
Unsafe operating speed (Too fast or too slow)	45	<0.1%	34	<0.1%	46	<0.1%	41	<0.1%	23	<0.1%	**23**	**<0.1%**
NET Distracted driving	6,702	10.6%	8,471	13.8%	9,462	15.8%	11,093	17.4%	15,398	22.5%	**14,582**	**21.9%**
Careless Driving	6,407	10.1%	8,140	13.3%	8,947	15.0%	10,573	16.6%	15,025	22.0%	**14,362**	**21.6%**
Distraction/Inattention	354	0.6%	460	0.8%	706	1.2%	776	1.2%	1,054	1.5%	**496**	**0.7%**

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Section 9 Contributing Factors

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Contributing Factor	2013 Total Drivers	% of 2013 Total Drivers	2014 Total Drivers	% of 2014 Total Drivers	2015 Total Drivers	% of 2015 Total Drivers	2016 Total Drivers	% of 2016 Total Drivers	2017 Total Drivers	% of 2017 Total Drivers	**2018 Total Drivers**	**% of 2018 Total Drivers**
Human Condition - Apparently Normal	3,048	4.8%	3,826	6.2%	7,594	12.7%	15,605	24.4%	20,136	29.4%	**18,134**	**27.2%**
Any Human Condition	592	0.9%	230	0.4%	291	0.5%	294	0.5%	262	0.4%	**262**	**0.4%**
Loss of consciousness/Blackout prior to collision	34	<0.1%	36	<0.1%	43	<0.1%	41	<0.1%	54	<0.1%	**44**	**<0.1%**
Extreme fatigue/Fell asleep	63	<0.1%	59	<0.1%	66	0.1%	79	0.1%	70	0.1%	**68**	**0.1%**
Defective eyesight	2	<0.1%	4	<0.1%	5	<0.1%	4	<0.1%	1	<0.1%	**0**	**-**
Defective hearing	0	-	0	-	0	-	2	<0.1%	0	-	**0**	**-**
Medical disability	10	<0.1%	10	<0.1%	20	<0.1%	11	<0.1%	14	<0.1%	**15**	**<0.1%**
Physical disability	2	<0.1%	1	<0.1%	4	<0.1%	4	<0.1%	1	<0.1%	**0**	**-**
Mental disability	4	<0.1%	4	<0.1%	5	<0.1%	4	<0.1%	3	<0.1%	**7**	**<0.1%**
Mental confusion/Inability to remember	22	<0.1%	15	<0.1%	28	<0.1%	23	<0.1%	18	<0.1%	**18**	**<0.1%**
Sudden illness	8	<0.1%	5	<0.1%	8	<0.1%	12	<0.1%	6	<0.1%	**6**	**<0.1%**
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-	0	-	**0**	**-**
NET Impaired	117	0.2%	110	0.2%	135	0.2%	138	0.2%	120	0.2%	**123**	**0.2%**
Ability impaired alcohol	93	0.1%	72	0.1%	105	0.2%	104	0.2%	100	0.1%	**105**	**0.2%**
Ability impaired drugs	3	<0.1%	7	<0.1%	7	<0.1%	7	<0.1%	7	<0.1%	**9**	**<0.1%**
Had been drinking/Suspected alcohol use	30	<0.1%	36	<0.1%	35	<0.1%	32	<0.1%	20	<0.1%	**14**	**<0.1%**
No Apparent (Vehicle) Defect	26,885	42.3%	28,156	45.9%	36,356	60.9%	47,046	73.7%	54,268	79.3%	**55,791**	**83.8%**
Any Vehicle Defect	188	0.3%	282	0.5%	299	0.5%	276	0.4%	337	0.5%	**237**	**0.4%**
Defective brakes	14	<0.1%	22	<0.1%	22	<0.1%	29	<0.1%	29	<0.1%	**14**	**<0.1%**
Defective steering	4	<0.1%	10	<0.1%	14	<0.1%	2	<0.1%	4	<0.1%	**5**	**<0.1%**
Defective headlights	0	-	0	-	0	-	0	-	2	<0.1%	**1**	**<0.1%**
Defective brake lights	3	<0.1%	6	<0.1%	5	<0.1%	10	<0.1%	3	<0.1%	**5**	**<0.1%**
Defective lighting (unspecified)	3	<0.1%	3	<0.1%	0	-	2	<0.1%	4	<0.1%	**2**	**<0.1%**
Defective engine controls/drive train	8	<0.1%	7	<0.1%	6	<0.1%	9	<0.1%	7	<0.1%	**8**	**<0.1%**
Defective suspension/wheels	31	<0.1%	40	<0.1%	49	<0.1%	52	<0.1%	58	<0.1%	**52**	**<0.1%**
Defective tires	35	<0.1%	80	0.1%	74	0.1%	70	0.1%	100	0.1%	**70**	**0.1%**
Tow hitch/yoke defective	15	<0.1%	12	<0.1%	25	<0.1%	15	<0.1%	15	<0.1%	**12**	**<0.1%**
Defective exhaust system	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Hood/tailgate/door/covering opened	3	<0.1%	4	<0.1%	4	<0.1%	13	<0.1%	5	<0.1%	**4**	**<0.1%**
Defective glazing (obscured windows)	2	<0.1%	3	<0.1%	3	<0.1%	2	<0.1%	1	<0.1%	**1**	**<0.1%**
Vehicle modifications	1	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	**1**	**<0.1%**
Fire	3	<0.1%	6	<0.1%	1	<0.1%	3	<0.1%	1	<0.1%	**0**	**-**

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Section 9 Contributing Factors

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Contributing Factor	2013 Total Drivers	% of 2013 Total Drivers	2014 Total Drivers	% of 2014 Total Drivers	2015 Total Drivers	% of 2015 Total Drivers	2016 Total Drivers	% of 2016 Total Drivers	2017 Total Drivers	% of 2017 Total Drivers	**2018 Total Drivers**	**% of 2018 Total Drivers**
Overloaded/oversized	0	-	1	<0.1%	4	<0.1%	3	<0.1%	4	<0.1%	**7**	**<0.1%**
Load shifted/spilled	16	<0.1%	21	<0.1%	23	<0.1%	16	<0.1%	35	<0.1%	**16**	**<0.1%**
Jack-knife/trailer swing	43	<0.1%	67	0.1%	63	0.1%	51	<0.1%	71	0.1%	**40**	**<0.1%**
Hydroplaning tires	10	<0.1%	3	<0.1%	12	<0.1%	6	<0.1%	1	<0.1%	**4**	**<0.1%**
Any Environmental Condition	7,240	11.4%	6,829	11.1%	4,000	6.7%	4,535	7.1%	6,460	9.4%	**3,675**	**5.5%**
Animal action - Wild	4,757	7.5%	4,017	6.6%	1,891	3.2%	1,893	3.0%	3,437	5.0%	**1,435**	**2.2%**
Animal action - Domestic	45	<0.1%	52	<0.1%	33	<0.1%	51	<0.1%	67	<0.1%	**51**	**<0.1%**
Slippery road surface	1,740	2.7%	1,862	3.0%	1,361	2.3%	1,703	2.7%	2,029	3.0%	**1,447**	**2.2%**
Snow drift	118	0.2%	164	0.3%	45	<0.1%	96	0.2%	98	0.1%	**70**	**0.1%**
Obstruction/debris on roadway	153	0.2%	202	0.3%	190	0.3%	254	0.4%	278	0.4%	**170**	**0.3%**
View obstructed/limited	104	0.2%	191	0.3%	155	0.3%	177	0.3%	211	0.3%	**206**	**0.3%**
Glare/reflection	36	<0.1%	27	<0.1%	41	<0.1%	50	<0.1%	30	<0.1%	**33**	**<0.1%**
Construction zone	11	<0.1%	20	<0.1%	15	<0.1%	20	<0.1%	17	<0.1%	**18**	**<0.1%**
Defective driving surface	60	<0.1%	118	0.2%	82	0.1%	120	0.2%	136	0.2%	**119**	**0.2%**
Shoulders defective	10	<0.1%	11	<0.1%	9	<0.1%	7	<0.1%	3	<0.1%	**4**	**<0.1%**
Lane markings inadequate	10	<0.1%	6	<0.1%	4	<0.1%	8	<0.1%	4	<0.1%	**5**	**<0.1%**
Defective/inoperative traffic control device	12	<0.1%	10	<0.1%	17	<0.1%	13	<0.1%	15	<0.1%	**12**	**<0.1%**
Weather	215	0.3%	191	0.3%	204	0.3%	192	0.3%	209	0.3%	**127**	**0.2%**
Pedestrian corridor in use	7	<0.1%	13	<0.1%	10	<0.1%	18	<0.1%	14	<0.1%	**10**	**<0.1%**
Uninvolved vehicle	20	<0.1%	18	<0.1%	27	<0.1%	27	<0.1%	11	<0.1%	**22**	**<0.1%**
Uninvolved pedestrian	7	<0.1%	2	<0.1%	3	<0.1%	3	<0.1%	3	<0.1%	**2**	**<0.1%**
Presence of prior accident	9	<0.1%	1	<0.1%	3	<0.1%	2	<0.1%	0	-	**9**	**<0.1%**
No Contributing Factor(s) Identified	2,969	4.7%	1,953	3.2%	1,260	2.1%	1,196	1.9%	305	0.4%	**341**	**0.5%**
Not Stated	0	-	13	<0.1%	68	0.1%	61	<0.1%	44	<0.1%	**26**	**<0.1%**
Total	63,501	100%	61,294	100%	59,716	100%	63,839	100%	68,447	100%	**66,606**	**100%**

*Note: For each vehicle and/or driver involved in a collision, up to three contributing factors can be recorded. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

Table 9-9 Summary of 'Speed', 'Distracted driving' and 'Impaired' as Contributing Factors

Table 9-9
Summary of 'Speed', 'Distracted driving' & 'Impaired' as Contributing Factors: 2013 to 2018

		2013	2014	2015	2016	2017	2013-2017 average	**2018**
NET Speed ('Exceeding speed limit', 'Driving too fast for conditions' and 'Unsafe operating speed (too fast or too slow)' combined)								
Collisions	All collisions	2,418	3,076	3,092	2,964	3,692	3,048	**2,283**
		5.8%	7.6%	7.4%	6.5%	7.1%	6.9%	**4.4%**
	Fatal collisions	10	11	13	26	12	14	**15**
		14.5%	17.2%	18.8%	27.1%	18.5%	19.8%	**23.1%**
	Injury collisions	499	683	745	722	830	696	**477**
		5.7%	7.6%	8.2%	7.5%	8.6%	7.5%	**5.1%**
Victims	All victims (killed or injured)	696	881	993	977	1,092	928	**665**
		6.2%	7.5%	8.3%	7.7%	8.6%	7.7%	**5.5%**
	People killed	14	12	13	33	13	17	**18**
		16.5%	17.6%	16.7%	30.8%	17.8%	20.7%	**25.7%**
	People seriously injured	38	36	60	73	69	55	**43**
		12.4%	11.9%	14.5%	15.3%	15.6%	14.2%	**9.8%**
Driver Involvement (/10,000 drivers)	All collisions	28.3	35.4	35.1	33.0	40.7	34.6	**24.8**
	Fatal collisions	0.1	0.1	0.1	0.3	0.1	0.2	**0.2**
	Injury collisions	5.8	7.9	8.4	8.0	9.1	7.9	**5.2**
NET Distracted driving ('Distraction/ inattention' and 'Careless driving' combined)								
Collisions	All collisions	6,709	8,468	9,463	11,086	15,403	10,226	**14,618**
		16.0%	20.8%	22.8%	24.5%	29.7%	23.1%	**28.3%**
	Fatal collisions	18	17	25	23	26	22	**18**
		26.1%	26.6%	36.2%	24.0%	40.0%	30.0%	**27.7%**
	Injury collisions	1,357	1,810	2,260	2,535	3,495	2,291	**3,408**
		15.5%	20.1%	24.8%	26.5%	36.1%	24.8%	**36.5%**
Victims	All victims (killed or injured)	1,759	2,369	3,101	3,367	4,662	3,052	**4,501**
		15.7%	20.3%	25.8%	26.6%	36.8%	25.3%	**37.3%**
	People killed	28	18	28	29	30	27	**19**
		32.9%	26.5%	35.9%	27.1%	41.1%	32.4%	**27.1%**
	People seriously injured	64	84	133	138	184	121	**195**
		20.8%	27.7%	32.0%	28.9%	41.6%	31.0%	**44.6%**
Driver Involvement (/10,000 drivers)	All collisions	78.3	97.5	107.4	123.8	170.1	116.0	**158.4**
	Fatal collisions	0.2	0.2	0.3	0.3	0.3	0.2	**0.2**
	Injury collisions	15.8	20.9	25.7	28.4	38.5	26.0	**37.1**
NET Impaired ('Impaired by alcohol', 'Impaired by drugs' and 'Had been drinking/Suspected alcohol use' combined)								
Collisions	All collisions	119	115	140	145	133	130	**139**
		0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	**0.3%**
	Fatal collisions	15	19	15	31	21	20	**25**
		21.7%	29.7%	21.7%	32.3%	32.3%	27.8%	**38.5%**
	Injury collisions	50	45	61	49	42	49	**41**
		0.6%	0.5%	0.7%	0.5%	0.4%	0.5%	**0.4%**
Victims	All victims (killed or injured)	118	116	121	139	104	120	**93**
		1.1%	1.0%	1.0%	1.1%	0.8%	1.0%	**0.8%**
	People killed	19	19	16	38	23	23	**28**
		22.4%	27.9%	20.5%	35.5%	31.5%	28.0%	**40.0%**
	People seriously injured	32	22	24	36	27	28	**10**
		10.4%	7.3%	5.8%	7.5%	6.1%	7.2%	**2.3%**
Driver Involvement (/10,000 drivers)	All collisions	1.4	1.3	1.5	1.5	1.3	1.4	**1.3**
	Fatal collisions	0.2	0.2	0.1	0.3	0.2	0.2	**0.2**
	Injury collisions	0.6	0.5	0.7	0.5	0.4	0.5	**0.4**

Note: Proportions provided for each contributing factor in a specific category are for the count of contributing factor as a portion of all collisions in the specific category. E.g., the proportion of fatal collisions where speed is a factor is derived from the count of fatal collisions in the specific year where speed is a factor divided by the total fatal collisions in that year.

SECTION 10 - National Safety Code Monitoring Report

Introduction

This section counts the number of commercial vehicles involved in collisions, the severity of those collisions and the victims killed and injured in those collisions. This section includes only commercial vehicles with a National Safety Code (NSC).

Key Highlights

In 2018, there are 2,086 commercial vehicles involved in traffic collisions. Of these:

- 11 are involved in fatal collisions;
- 421 are involved in injury collisions; and,
- 1,654 are involved in PDO collisions.

Traffic collisions where at least one commercial vehicle is involved resulted in a total of 544 victims in 2018, including:

- 11 people killed;
- 39 people seriously injured; and,
- 494 people where the injury is minor, minimal or unspecified.

Major Elements Examined

Counts of NSC commercial vehicles involved in collisions in Manitoba for 2018 and previous years are taken from Traffic Accident Reports (TARs) completed by Manitoba Public Insurance and law enforcement agencies, and compiled by Manitoba Public Insurance. These counts are presented for all reportable collisions, fatal collisions, injury collisions, and property damage only (PDO) collisions.

It is important to note that the number of collisions is not equal to the number of vehicles involved in those collisions, nor does it equal the number of victims in those collisions. All collisions reported involve at least one vehicle, but may involve more than one as well. Likewise, a single collision could involve no victims, or one or more victims.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Likewise, average calculations are presented for historical data from the years 2013 to 2017. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

Due to the small numbers of fatal collisions, fluctuations year-over-year could be dramatic; a small change in the total count of these types of collisions could have a significant effect on statistics such as percentage change to previous years and involvement rates. Therefore, the reader is strongly cautioned when interpreting results regarding fatal collisions.

The reader is cautioned that not all victims in a collision involving an NSC commercial vehicle will be a driver or passenger in the commercial vehicle. This section counts the number of total victims resulting from a collision where a commercial vehicle was involved, not just the victims in the commercial vehicle.

Terms and Definitions

“Collision Severity”

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

“Fatal Collision”

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed. Levels of injury include: 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required).

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Light Duty Vehicles"

- A classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: passenger vehicles (automobile), mini/multi-purpose van, van under 4,500 kg and pick-up under 4,500 kg.

"NSC Commercial Vehicles"

- The National Safety Code (NSC) is a classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: "Truck greater than 4,500 kilograms (unit chassis)", "Power Unit for Semi-Trailer", "Truck (Other)" (where the type and size of truck is unknown), "School Bus", "Transit Bus (Urban)", "Inter-City Bus", and "Bus (Other)". These vehicles bear a National Safety Code Number and are entered onto the National Safety Code Collision Monitoring Report.

"Truck greater than 4,500 kilograms (unit chassis)"

- A vehicle category that includes all straight trucks with a gross vehicle mass 4,500 kg and over on the vehicle registration. This does not include truck tractors with a fifth wheel assembly.

"Power Unit for Semi-Trailer"

- A vehicle category that includes truck tractors used for the moving of cargo in or on a trailer by means of a fifth wheel connection. This does not include pickups equipped with a fifth wheel.

"Truck (Other)"

- A vehicle category used if the type and size of truck is unknown.

"School Bus"

- A vehicle category that includes a bus authorized for the transportation of students to or from school and related school activities.

"Transit Bus (Urban)"

- A vehicle category that includes a bus used for commercial carrying of passengers within an urban area.

"Inter-City Bus"

- A vehicle category that includes a bus licensed for inter-city or provincial travel.

"Bus (Other)"

- A vehicle category that includes personal use of buses and bus type conversions, but does not include original equipment manufacturer type; for example, buses converted to motor homes.

"Contributing Factor"

- Those circumstances or factors recorded as having contributed to the collision or its severity. Factors can be selected from four categories: driver action, human condition, vehicle condition, or environmental condition. The TAR allows for up to three contributing factors to be recorded for each driver or vehicle involved in the collision.

"At-fault Contributing Factor"

- A contributing factor where some action or condition other than "driving properly" and "apparently normal" has been noted.

"Driver Action"

- A category of contributing factors attributed to actions taken or performed by a driver immediately prior to a collision.

"Human Condition"

- A category of contributing factors attributed to the physical or mental condition of a driver immediately prior to a collision, most often that limit the driver's ability to drive safely or properly.

"Vehicle Condition"

- A category of contributing factors attributed to the physical condition of a vehicle immediately prior to a collision.

"Environmental Condition"

- A category of contributing factors attributed to environmental conditions (i.e., weather, road surface and animal actions) immediately prior to a collision.

"Pre-collision activity"

- The action of a vehicle immediately prior to involvement in a collision. This is an indication of what the vehicle was doing prior to the accident or to the driver realizing that a collision may occur and does not include vehicle maneuver to avoid the collision.

Table 10-1 NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type and Collision Severity

Table 10-1

NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type and Collision Severity: 2018, 2013-2017 Average

Vehicle Category	2018 Collision Severity						**2018 Total**	% of 2018 Total	2013-2017 Average Count of Vehicles				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Truck >4,500 kgs Unit Chassis	4	36.4%	198	47.0%	956	57.8%	**1,158**	55.5%	6	195	891	1,092	56.2%
Power Unit (Semi-Trailer)	5	45.5%	120	28.5%	421	25.5%	**546**	26.2%	10	114	382	505	26.0%
Truck - Other	1	9.1%	20	4.8%	93	5.6%	**114**	5.5%	1	25	65	91	4.7%
School Bus	0	-	13	3.1%	61	3.7%	**74**	3.5%	-	6	21	27	1.4%
Transit Bus - Urban	1	9.1%	51	12.1%	35	2.1%	**87**	4.2%	<1	47	58	106	5.5%
Para-Transit Bus	0	-	5	1.2%	4	0.2%	**9**	0.4%	-	2	6	8	0.4%
Inter-City Bus	0	-	6	1.4%	10	0.6%	**16**	0.8%	-	1	9	10	0.5%
Bus - Other	0	-	8	1.9%	74	4.5%	**82**	3.9%	<1	24	80	104	5.4%
Total	11	100%	421	100%	1,654	100%	**2,086**	100%	17	415	1,512	1,944	100%

Note: Counts of vehicles in the 2013-2017 average may not add to the total due to rounding.

In 2018, there are 2,086 commercial vehicles involved in traffic collisions. Of these:

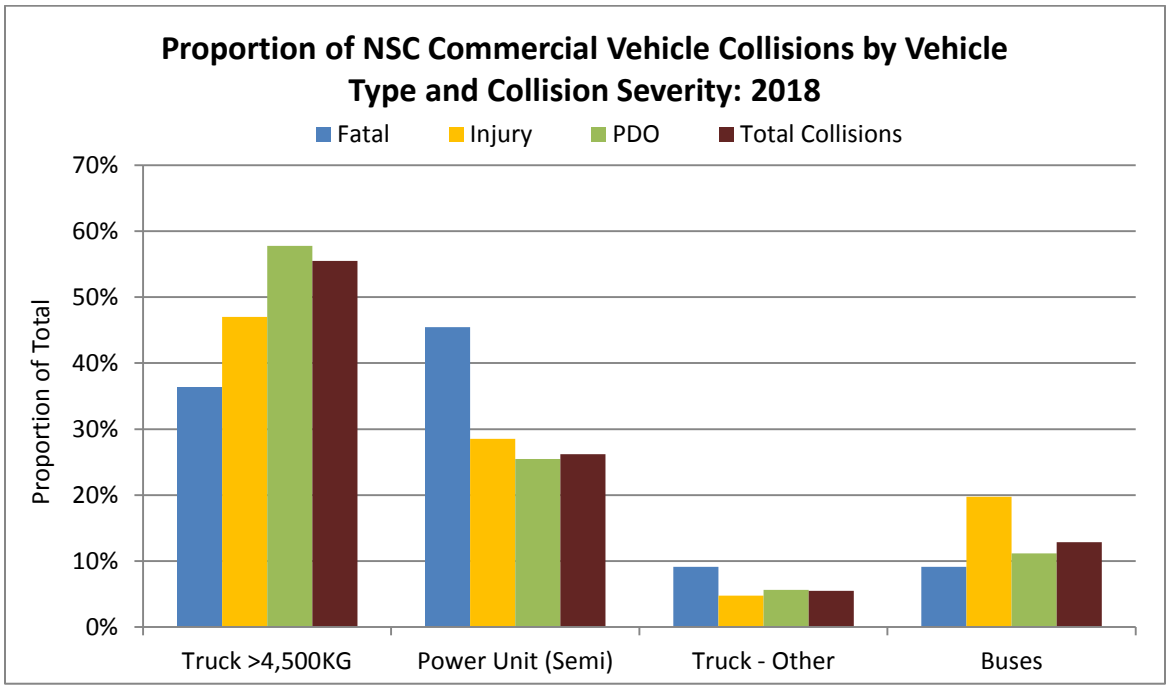
- 11 are involved in fatal collisions;
- 421 are involved in injury collisions; and,
- 1,654 are involved in PDO collisions.

The number of NSC commercial vehicles involved in collisions in 2018 has increased by 7% (a count of 142) compared to the previous five year (2013 to 2017) annual average. Compared to the previous five years, the number of NSC commercial vehicles in 2018 involved in:

- Fatal collisions decreased by a count of 6;
- Injury collisions increased by nearly 2% (a count of 6); and,
- PDO collisions increased by 9% (a count of 142).

NOTE: For a detailed historical count of NSC Commercial Vehicles involved in traffic collisions occurring in each year from 2013 to 2018, please refer to "*Table 10-5 Historical Summary of NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type*" at the end of this section.

Figure 10-1 Proportion of NSC Commercial Vehicles by Vehicle Type and Collision Severity



In 2018, trucks with a unit chassis greater than 4,500 kilograms and power units for semi-trailers combined account for 82% of the commercial vehicles involved in traffic collisions.

- Power units for semi-trailers account for 5 of the 11 commercial vehicles involved in fatal collisions; and,
- Trucks with unit chassis greater than 4,500 kilograms account for 4 of the 11 commercial vehicles involved in fatal collisions.

Table 10-2 Traffic Collision Victims by NSC Commercial Vehicle Type and Casualty Type

Table 10-2
Traffic Collision Victims by NSC Commercial Vehicle Type and Casualty Type: 2018

Vehicle Type	2018 Casualty Type												**2018 Total Victims**	% of 2018 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Truck >4,500 kgs Unit Chassis	4	36.4%	17	43.6%	50	38.8%	180	51.0%	6	50.0%	253	47.5%	**257**	47.2%
Power Unit (Semi-Trailer)	5	45.5%	15	38.5%	47	36.4%	86	24.4%	3	25.0%	151	28.3%	**156**	28.7%
Truck - Other	1	9.1%	4	10.3%	6	4.7%	14	4.0%	1	8.3%	25	4.7%	**26**	4.8%
School Bus	0	-	0	-	3	2.3%	11	3.1%	0	-	14	2.6%	**14**	2.6%
Transit Bus - Urban	1	9.1%	3	7.7%	15	11.6%	48	13.6%	1	8.3%	67	12.6%	**68**	12.5%
Para-Transit Bus	0	-	0	-	1	0.8%	4	1.1%	0	-	5	0.9%	**5**	0.9%
Inter-City Bus	0	-	0	-	2	1.6%	5	1.4%	0	-	7	1.3%	**7**	1.3%
Bus - Other	0	-	0	-	5	3.9%	5	1.4%	1	8.3%	11	2.1%	**11**	2.0%
Total	11	100%	39	100%	129	100%	353	100%	12	100%	533	100%	**544**	100%

Table 10-2a Traffic Collision Victims by NSC Commercial Vehicle Type and Casualty Type for Previous Five Years

Table 10-2a
Traffic Collision Victims by NSC Commercial Vehicle Type and Casualty Type: 2013-2017 Average

Vehicle Type	2013-2017 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Truck >4,500 kgs Unit Chassis	6	12	57	173	4	245	251	45.8%
Power Unit (Semi-Trailer)	9	14	51	78	3	146	156	28.4%
Truck - Other	1	3	8	20	2	33	34	6.3%
School Bus	-	<1	3	7	<1	10	10	1.9%
Transit Bus - Urban	<1	1	13	43	<1	58	58	10.6%
Para-Transit Bus	-	<1	<1	2	-	3	3	0.5%
Inter-City Bus	-	-	<1	1	-	2	2	0.4%
Bus - Other	<1	2	10	21	<1	34	34	6.2%
Total	18	33	142	346	11	531	549	100%

Note: Counts of victims in the 2013-2017 average may not add to the total due to rounding.

Traffic collisions where at least one commercial vehicle is involved resulted in a total of 544 victims in 2018, including:

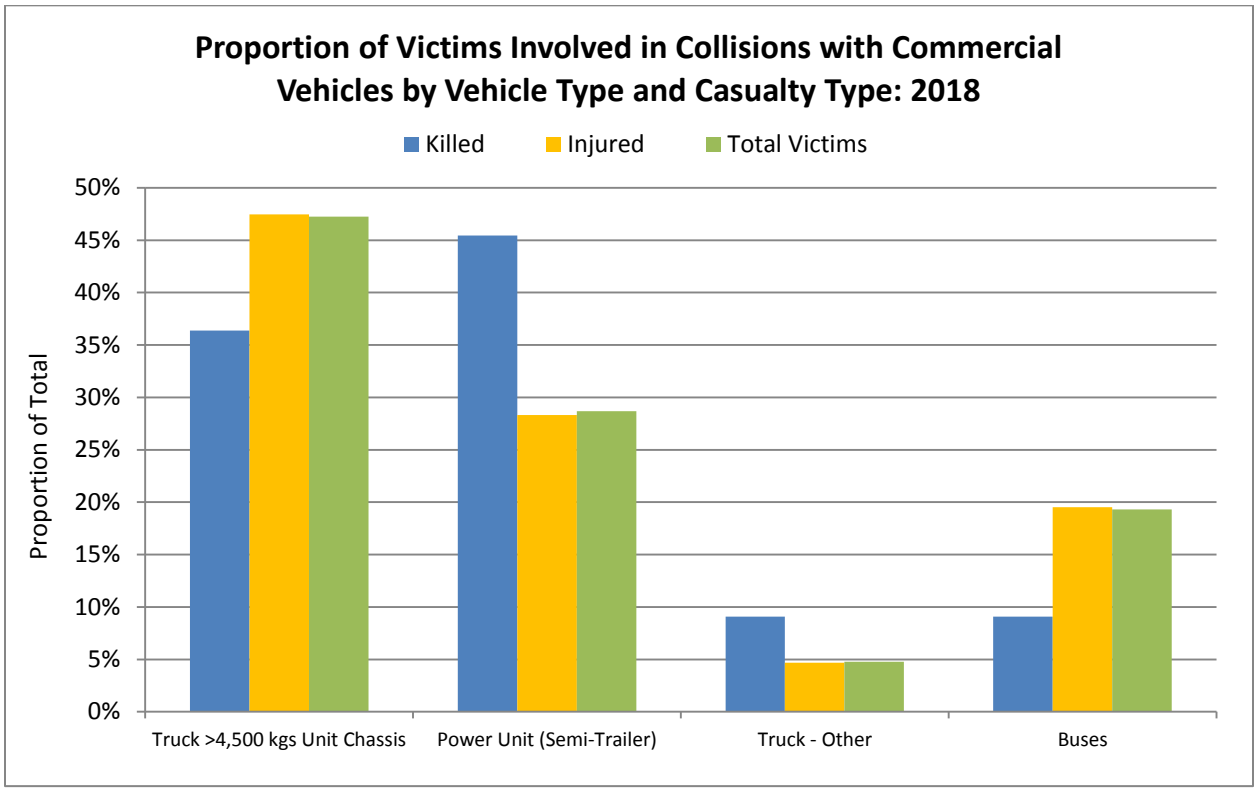
- 11 people killed;
- 39 people seriously injured; and,
- 494 people where the injury is minor, minimal or unspecified.

Collisions involving commercial vehicles in 2018 resulted in fewer people injured overall when compared to the previous five year (2013 to 2017) annual average. In 2018:

- The number of people killed decreased by a count of 7 compared to the previous five years;
- The number of people seriously injured increased by a count of 6 (an 18% increase) compared to the previous five years; and,
- The number of people injured overall is relatively unchanged compared to the previous five years.

NOTE: For a detailed historical count of traffic collision victims where an NSC Commercial Vehicle was involved in each year from 2013 to 2018, please refer to "*Table 10-6 Historical Summary of Traffic Collision Victims where an NSC Commercial Vehicle is Involved by Vehicle Type*" at the end of this section.

Figure 10-2 Proportion of Victims Involved in Collisions with NSC Commercial Vehicles by Vehicle Type and Casualty Type



In 2018, collisions involving trucks with unit chassis greater than 4,500 kilograms along with power units for semi-trailers make up the largest proportions of NSC vehicles involved where someone is killed (9 of 11 people killed) or seriously injured (82%).

Table 10-3 Commercial Vehicle Involvement in Traffic Collisions by Pre-Collision Activity and Collision Severity

Table 10-3

NSC Commercial Vehicles Involved in Traffic Collisions by Pre-Collision Activity and Collision Severity: 2018, 2013-2017 Average

Pre-Collision Activity	2018 Collision Severity						**2018 Total**	**% of 2018 Total**	2013-2017 Average Count of Vehicles				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Going Straight Ahead	8	72.7%	196	46.6%	715	43.2%	**919**	44.1%	11	146	542	699	36.0%
Turning Left	1	9.1%	21	5.0%	97	5.9%	**119**	5.7%	1	21	67	89	4.6%
Turning Right	0	-	23	5.5%	49	3.0%	**72**	3.5%	<1	7	48	56	2.9%
Making U Turn	0	-	0	-	3	0.2%	**3**	0.1%	-	1	5	6	0.3%
Changing Lanes – Left	0	-	2	0.5%	18	1.1%	**20**	1.0%	<1	4	15	19	1.0%
Changing Lanes – Right	1	9.1%	10	2.4%	21	1.3%	**32**	1.5%	-	6	17	23	1.2%
Merging	0	-	4	1.0%	7	0.4%	**11**	0.5%	-	1	4	5	0.3%
Reversing	0	-	12	2.9%	147	8.9%	**159**	7.6%	-	5	116	121	6.2%
Overtaking	0	-	0	-	1	<0.1%	**1**	<0.1%	-	-	2	2	0.1%
Slowing/Stopping on Roadway	0	-	17	4.0%	50	3.0%	**67**	3.2%	<1	14	40	55	2.8%
Stopped in Traffic	0	-	27	6.4%	115	7.0%	**142**	6.8%	-	23	80	103	5.3%
Starting in Traffic	0	-	3	0.7%	16	1.0%	**19**	0.9%	<1	7	12	19	1.0%
Leave Parking Position/Roadside	0	-	2	0.5%	8	0.5%	**10**	0.5%	-	1	5	6	0.3%
Enter Parking Position/Roadside	0	-	2	0.5%	7	0.4%	**9**	0.4%	-	1	8	9	0.5%
Parked Legally	0	-	3	0.7%	59	3.6%	**62**	3.0%	<1	<1	29	30	1.5%
Parked Illegally	0	-	0	-	0	-	**0**	-	-	<1	<1	<1	<0.1%
Swerving	0	-	5	1.2%	15	0.9%	**20**	1.0%	<1	3	7	10	0.5%
Other	1	9.1%	9	2.1%	61	3.7%	**71**	3.4%	<1	6	43	49	2.5%
Not Applicable/Unknown	0	-	85	20.2%	265	16.0%	**350**	16.8%	3	167	472	642	33.0%
Total	11	100%	421	100%	1,654	100%	**2,086**	100%	17	415	1,512	1,944	100%

Note: Counts of vehicles in the 2013-2017 average may not add to the total due to rounding.

In 2018, most NSC commercial vehicles involved in a collision were “going straight ahead” when the collision occurred (44% of NSC vehicles involved in collisions; 73% of NSC vehicles involved in fatal collisions; 47% of NSC vehicles involved in injury collisions; and 43% of NSC vehicles involved in PDO collisions). In the previous five year (2013 to 2017) annual average, “going straight ahead” was noted as the pre-collision action for 36% of all commercial vehicles involved in a collision.

Other noteworthy pre-collision actions for commercial vehicles involved in collisions in 2018 include:

- Stopped or stopping (“stopped in traffic” and “slowing/stopping on roadway” combined) – 10%;
- Turning (“turning left” and “turning right” combined) – 9%; and,
- Reversing – 8% of all collisions.

Considering fatal collisions, there are very few pre-collision actions noted in 2018. “Going straight ahead” was noted for 8 of 11 NSC vehicles (73%) involved in a fatal collision.

Commercial vehicles involved in injury collisions in 2018 were noted most often as “going straight ahead” (47%). Other pre-collision actions of commercial vehicles involved in injury collisions include:

- Turning (“turning left” and “turning right” combined) – nearly 11%; and,
- Stopped or stopping (“stopped in traffic” and “slowing/stopping on roadway” combined) – 10%.

Table 10-4 NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity

Table 10-4

NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity: 2018

Contributing Factor	2018 Collision Severity						2018 Total	% of 2018 Total
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	3	27.3%	174	41.3%	781	47.2%	**958**	**45.9%**
Driver Action - Driving properly	0	-	7	1.7%	36	2.2%	**43**	**2.1%**
Any Driver Action	6	54.5%	197	46.8%	641	38.8%	**844**	**40.5%**
Follow too closely	0	-	61	14.5%	60	3.6%	**121**	**5.8%**
Turning improperly	0	-	14	3.3%	74	4.5%	**88**	**4.2%**
Passing improperly	0	-	3	0.7%	3	0.2%	**6**	**0.3%**
Changing lanes improperly	0	-	20	4.8%	50	3.0%	**70**	**3.4%**
Fail to yield right of way	1	9.1%	15	3.6%	21	1.3%	**37**	**1.8%**
Disobey traffic control device/officer	1	9.1%	7	1.7%	5	0.3%	**13**	**0.6%**
Drive wrong way on roadway	0	-	1	0.2%	1	<0.1%	**2**	**<0.1%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	**0**	**-**
Back unsafely	0	-	13	3.1%	159	9.6%	**172**	**8.2%**
Parking improperly	0	-	1	0.2%	5	0.3%	**6**	**0.3%**
Lost control/Drive off road	1	9.1%	6	1.4%	19	1.1%	**26**	**1.2%**
Driverless vehicle ran out of control	0	-	0	-	2	0.1%	**2**	**<0.1%**
Leave stop sign before safe to do so	1	9.1%	4	1.0%	13	0.8%	**18**	**0.9%**
Failed to signal	0	-	0	-	0	-	**0**	**-**
Take avoiding action	0	-	3	0.7%	9	0.5%	**12**	**0.6%**
Driver inexperience	1	9.1%	1	0.2%	3	0.2%	**5**	**0.2%**
Pedestrian error/confusion	0	-	0	-	1	<0.1%	**1**	**<0.1%**
NET Speed	2	18.2%	15	3.6%	35	2.1%	**52**	**2.5%**
Exceeding speed limit	0	-	0	-	0	-	**0**	**-**
Driving too fast for conditions	2	18.2%	14	3.3%	35	2.1%	**51**	**2.4%**
Unsafe operating speed (Too fast or too slow)	0	-	1	0.2%	0	-	**1**	**<0.1%**
NET Distracted driving	1	9.1%	64	15.2%	274	16.6%	**339**	**16.3%**
Careless Driving	1	9.1%	55	13.1%	251	15.2%	**307**	**14.7%**
Distraction/Inattention	0	-	11	2.6%	29	1.8%	**40**	**1.9%**

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Contributing Factor	2018 Collision Severity						2018 Total	% of 2018 Total
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	3	27.3%	122	29.0%	478	28.9%	**603**	**28.9%**
Any Human Condition	1	9.1%	3	0.7%	4	0.2%	**8**	**0.4%**
Loss of consciousness/Blackout prior to collision	0	-	0	-	2	0.1%	**2**	**<0.1%**
Extreme fatigue/Fell asleep	0	-	1	0.2%	2	0.1%	**3**	**0.1%**
Defective eyesight	0	-	0	-	0	-	**0**	**-**
Defective hearing	0	-	0	-	0	-	**0**	**-**
Medical disability	0	-	0	-	0	-	**0**	**-**
Physical disability	0	-	0	-	0	-	**0**	**-**
Mental disability	0	-	0	-	0	-	**0**	**-**
Mental confusion/Inability to remember	0	-	0	-	0	-	**0**	**-**
Sudden illness	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	**0**	**-**
NET Impaired	1	9.1%	2	0.5%	0	-	**3**	**0.1%**
Ability impaired alcohol	1	9.1%	2	0.5%	0	-	**3**	**0.1%**
Ability impaired drugs	0	-	0	-	0	-	**0**	**-**
Had been drinking/Suspected alcohol use	0	-	0	-	0	-	**0**	**-**
No apparent (vehicle) defect	6	54.5%	286	67.9%	1,175	71.0%	**1,467**	**70.3%**
Any Vehicle Defect	0	-	5	1.2%	38	2.3%	**43**	**2.1%**
Defective brakes	0	-	0	-	0	-	**0**	**-**
Defective steering	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Defective headlights	0	-	0	-	0	-	**0**	**-**
Defective brake lights	0	-	0	-	0	-	**0**	**-**
Defective lighting (unspecified)	0	-	0	-	0	-	**0**	**-**
Defective engine controls/drive train	0	-	0	-	0	-	**0**	**-**
Defective suspension/wheels	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Defective tires	0	-	2	0.5%	8	0.5%	**10**	**0.5%**
Tow hitch/yoke defective	0	-	0	-	3	0.2%	**3**	**0.1%**
Defective exhaust system	0	-	0	-	0	-	**0**	**-**
Hood/tailgate/door/covering opened	0	-	0	-	2	0.1%	**2**	**<0.1%**
Defective glazing (obscured windows)	0	-	0	-	0	-	**0**	**-**
Vehicle modifications	0	-	0	-	0	-	**0**	**-**
Fire	0	-	0	-	0	-	**0**	**-**
Overloaded/oversized	0	-	0	-	5	0.3%	**5**	**0.2%**

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Contributing Factor	2018 Collision Severity						2018 Total	% of 2018 Total
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Load shifted/spilled	0	-	1	0.2%	8	0.5%	**9**	**0.4%**
Jack-knife/trailer swing	0	-	1	0.2%	13	0.8%	**14**	**0.7%**
Hydroplaning tires	0	-	1	0.2%	0	-	**1**	**<0.1%**
Any Environmental Condition	1	9.1%	17	4.0%	107	6.5%	**125**	**6.0%**
Animal action - Wild	0	-	1	0.2%	56	3.4%	**57**	**2.7%**
Animal action - Domestic	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Slippery road surface	1	9.1%	10	2.4%	19	1.1%	**30**	**1.4%**
Snow drift	0	-	0	-	3	0.2%	**3**	**0.1%**
Obstruction/debris on roadway	0	-	0	-	8	0.5%	**8**	**0.4%**
View obstructed/limited	0	-	0	-	10	0.6%	**10**	**0.5%**
Glare/reflection	0	-	0	-	0	-	**0**	**-**
Construction zone	0	-	1	0.2%	1	<0.1%	**2**	**<0.1%**
Defective driving surface	0	-	0	-	6	0.4%	**6**	**0.3%**
Shoulders defective	0	-	0	-	0	-	**0**	**-**
Lane markings inadequate	0	-	0	-	0	-	**0**	**-**
Defective/inoperative traffic control device	0	-	0	-	1	<0.1%	**1**	**<0.1%**
Weather	1	9.1%	3	0.7%	3	0.2%	**7**	**0.3%**
Pedestrian corridor in use	0	-	0	-	0	-	**0**	**-**
Uninvolved vehicle	0	-	2	0.5%	1	<0.1%	**3**	**0.1%**
Uninvolved pedestrian	0	-	0	-	0	-	**0**	**-**
Presence of prior accident	0	-	0	-	0	-	**0**	**-**
No Contributing Factor(s) Identified	0	-	11	2.6%	20	1.2%	**31**	**1.5%**
Not Applicable/Not Stated	0	-	2	0.5%	4	0.2%	**6**	**0.3%**
Total	11	100.0%	421	100.0%	1,654	100%	**2,086**	**100.0%**

*Note: Each vehicle and/or driver involved in a collision can have up to three contributing factors noted. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total. An exception to this is the factors “Driver Action – Driving Properly and Human Condition – Apparently Normal”, "Driver Action – Driving Properly” and “Human Condition – Apparently Normal”, which are mutually exclusive and can be added to determine a “Driver not at-fault” total.

Table 10-4a NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity for the Previous Five Years

Table 10-4a

NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity: 2013-2017 Average

Contributing Factor	2013-2017 Average Count of Vehicles				
	Fatal	Injury	PDO	Total Vehicles	% of Total Vehicles
Driver Action - Driving Properly and Human Condition - Apparently Normal	8	177	650	835	43.0%
Driver Action - Driving properly	<1	7	25	31	1.6%
Any Driver Action	6	151	519	676	34.8%
Follow too closely	<1	53	73	126	6.5%
Turning improperly	<1	15	56	71	3.7%
Passing improperly	-	2	5	7	0.4%
Changing lanes improperly	-	11	48	59	3.0%
Fail to yield right of way	1	14	28	44	2.2%
Disobey traffic control device/officer	1	4	5	9	0.5%
Drive wrong way on roadway	<1	<1	<1	1	<0.1%
Passing a vehicle at pedestrian X-walk	-	-	-	-	-
Back unsafely	-	5	123	128	6.6%
Parking improperly	-	-	5	5	0.2%
Lost control/Drive off road	1	6	19	27	1.4%
Driverless vehicle ran out of control	-	-	<1	<1	<0.1%
Leave stop sign before safe to do so	1	5	10	15	0.8%
Failed to signal	-	-	-	-	-
Take avoiding action	<1	2	6	9	0.4%
Driver inexperience	<1	<1	5	6	0.3%
Pedestrian error/confusion	<1	-	<1	<1	<0.1%
NET Speed	<1	14	44	59	3.0%
Exceeding speed limit	-	<1	-	<1	<0.1%
Driving too fast for conditions	<1	13	43	56	2.9%
Unsafe operating speed (Too fast or too slow)	-	1	1	2	0.1%
NET Distracted driving	2	43	184	230	11.8%
Careless Driving	2	38	167	207	10.6%
Distraction/Inattention	<1	7	21	29	1.5%
Human Condition - Apparently Normal	2	64	271	337	17.4%
Any Human Condition	1	3	5	10	0.5%
Loss of consciousness/Blackout prior to collision	-	<1	<1	1	<0.1%
Extreme fatigue/Fell asleep	<1	1	<1	2	<0.1%
Defective eyesight	-	-	-	-	-
Defective hearing	-	-	-	-	-
Medical disability	-	-	-	-	-
Physical disability	-	-	-	-	-
Mental disability	<1	-	-	<1	<0.1%
Mental confusion/Inability to remember	-	<1	-	<1	<0.1%
Sudden illness	-	-	-	-	-
Exceed hours of service (commercial drivers only)	-	-	-	-	-
NET Impaired	<1	<1	<1	2	0.1%
Ability impaired alcohol	<1	<1	<1	2	<0.1%
Ability impaired drugs	-	-	<1	<1	<0.1%
Had been drinking/Suspected alcohol use	-	-	<1	<1	<0.1%

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Contributing Factor	2013-2017 Average Count of Vehicles				
	Fatal	Injury	PDO	Total Vehicles	% of Total Vehicles
No apparent (vehicle) defect	8	228	837	1,074	55.2%
Any Vehicle Defect	<1	3	32	36	1.9%
Defective brakes	<1	<1	1	2	0.1%
Defective steering	-	<1	<1	<1	<0.1%
Defective headlights	-	-	-	-	-
Defective brake lights	<1	-	<1	<1	<0.1%
Defective lighting (unspecified)	<1	<1	<1	<1	<0.1%
Defective engine controls/drive train	-	-	<1	<1	<0.1%
Defective suspension/wheels	-	-	2	2	0.1%
Defective tires	-	-	7	7	0.3%
Tow hitch/yoke defective	-	-	2	2	<0.1%
Defective exhaust system	-	-	-	-	-
Hood/tailgate/door/covering opened	-	<1	<1	<1	<0.1%
Defective glazing (obscured windows)	-	-	<1	<1	<0.1%
Vehicle modifications	-	-	-	-	-
Fire	-	-	-	-	-
Overloaded/oversized	-	<1	2	2	<0.1%
Load shifted/spilled	-	1	6	7	0.3%
Jack-knife/trailer swing	<1	<1	11	11	0.6%
Hydroplaning tires	-	<1	<1	<1	<0.1%
Any Environmental Condition	1	17	122	140	7.2%
Animal action - Wild	-	1	79	80	4.1%
Animal action - Domestic	-	<1	1	1	<0.1%
Slippery road surface	<1	10	22	32	1.6%
Snow drift	-	<1	2	2	<0.1%
Obstruction/debris on roadway	-	<1	6	6	0.3%
View obstructed/limited	<1	2	3	5	0.3%
Glare/reflection	-	<1	<1	1	<0.1%
Construction zone	-	<1	<1	<1	<0.1%
Defective driving surface	-	<1	3	3	0.2%
Shoulders defective	-	<1	<1	<1	<0.1%
Lane markings inadequate	-	-	<1	<1	<0.1%
Defective/inoperative traffic control device	<1	-	<1	<1	<0.1%
Weather	<1	2	5	7	0.4%
Pedestrian corridor in use	-	<1	<1	<1	<0.1%
Uninvolved vehicle	-	<1	<1	1	<0.1%
Uninvolved pedestrian	-	-	-	-	-
Presence of prior accident	-	<1	-	<1	<0.1%
No Contributing Factor(s) Identified	-	56	122	178	9.2%
Not Applicable/Not Stated	-	<1	3	4	0.2%
Total	17	415	1,512	1,944	100%

Note: Counts of vehicles in the 2013-2017 average may not add to the total due to rounding.
*Note: Each vehicle and/or driver involved in a collision can have up to three contributing factors noted. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total. An exception to this is the factors “Driver Action – Driving Properly and Human Condition – Apparently Normal”, "Driver Action – Driving Properly” and “Human Condition – Apparently Normal”, which are mutually exclusive and can be added to determine a “Driver not at-fault” total.

In 2018, three in four drivers of NSC vehicles involved in a collision are noted as driving properly and being in a normal human condition, including 46% as both “driving properly” and “apparently normal”, 2% as “driving properly” and 29% as “apparently normal” human condition. Over the previous five year (2013 to 2017) annual average, six in ten (62%) of commercial drivers involved in collisions are noted as driving properly and being in a normal human condition.

A driver action is recorded for nearly 41% of the drivers of NSC commercial vehicles involved in traffic collisions in 2018, an increase from the previous five year (2013 to 2017) annual average (35%). Specific driver actions noted most often as contributing factors for drivers of NSC commercial vehicles involved a traffic collision in 2018 include:

- Distracted driving (including "careless driving" and "distraction/inattention") – 16%;
- "Back unsafely" – 8%;
- "Following too closely" – 6%;
- "Turning improperly" – 4%;
- "Change lanes improperly" – 3%;
- Speed (including "exceeding speed limit" "driving too fast for conditions" and "unsafe operating speed (too fast or too slow)") – nearly 3%; and,
- "Fail to yield right of way" – 2%.

Human conditions are not often noted for commercial vehicle drivers. In 2018, three drivers are noted as being "impaired by alcohol", three are noted as having "extreme fatigue/fell asleep" and two are noted as experiencing "loss of consciousness/blackout prior to collision" as a contributing factors to a collision. This is fairly consistent with the human conditions recorded for commercial drivers in the previous five years.

Some vehicle defect is recorded as a contributing factor for 2% of the commercial vehicles involved in a traffic collision in 2018. This is consistent with the previous five year (2013 to 2017) annual average.

Environmental conditions are recorded as a contributing factor for 6% of the commercial vehicles involved in traffic collisions in 2018 (a slight decrease from 2013 to 2017 annual average of 7%). The two most common environmental conditions recorded for commercial vehicles involved in a traffic collision in 2018 are "the action of a wild animal" (3%) and "slippery road surface" (1%).

Figure 10-3 Select At-fault Contributing Factors for Commercial Vehicles and Drivers by Collision Severity

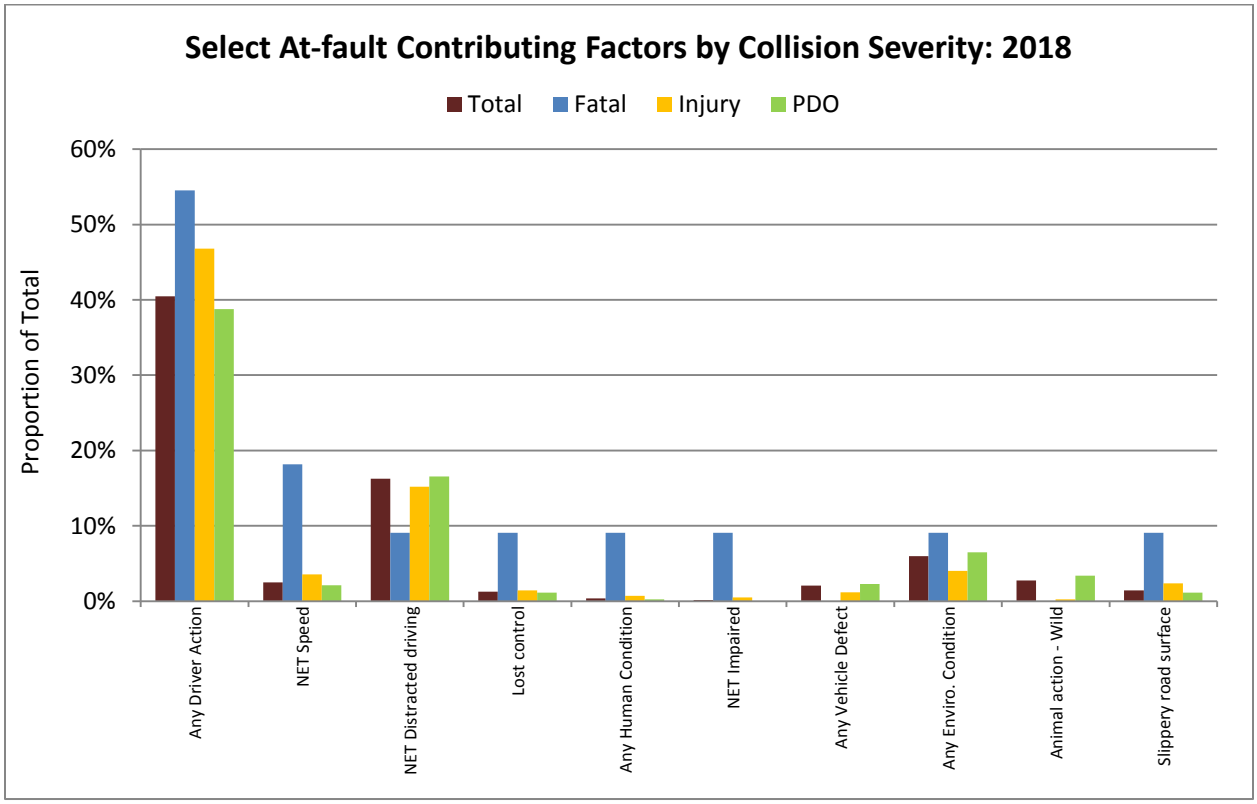


Table 10-5 Historical Summary of NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type

Table 10-5

Historical Summary of NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type: 2013 to 2018

Vehicle Category	2013 Total	% of 2013 Total	2014 Total	% of 2014 Total	2015 Total	% of 2015 Total	2016 Total	% of 2016 Total	2017 Total	% of 2017 Total	**2018 Total**	**% of 2018 Total**
Truck >4,500 kgs Unit Chassis	1,097	57.4%	1,082	57.0%	1,026	57.7%	1,100	56.3%	1,155	53.0%	**1,158**	**55.5%**
Power Unit (Semi-Trailer)	471	24.7%	500	26.4%	415	23.4%	496	25.4%	645	29.6%	**546**	**26.2%**
Truck - Other	95	5.0%	80	4.2%	76	4.3%	112	5.7%	94	4.3%	**114**	**5.5%**
School Bus	1	<0.1%	1	<0.1%	10	0.6%	52	2.7%	71	3.3%	**74**	**3.5%**
Transit Bus - Urban	102	5.3%	98	5.2%	110	6.2%	102	5.2%	118	5.4%	**87**	**4.2%**
Para-Transit Bus	6	0.3%	5	0.3%	13	0.7%	10	0.5%	6	0.3%	**9**	**0.4%**
Inter-City Bus	7	0.4%	10	0.5%	7	0.4%	12	0.6%	13	0.6%	**16**	**0.8%**
Bus - Other	131	6.9%	121	6.4%	120	6.8%	71	3.6%	79	3.6%	**82**	**3.9%**
Total	1,910	100%	1,897	100%	1,777	100%	1,955	100%	2,181	100%	**2,086**	**100%**

Table 10-6 Historical Summary of Traffic Collision Victims by NSC Commercial Vehicle Type

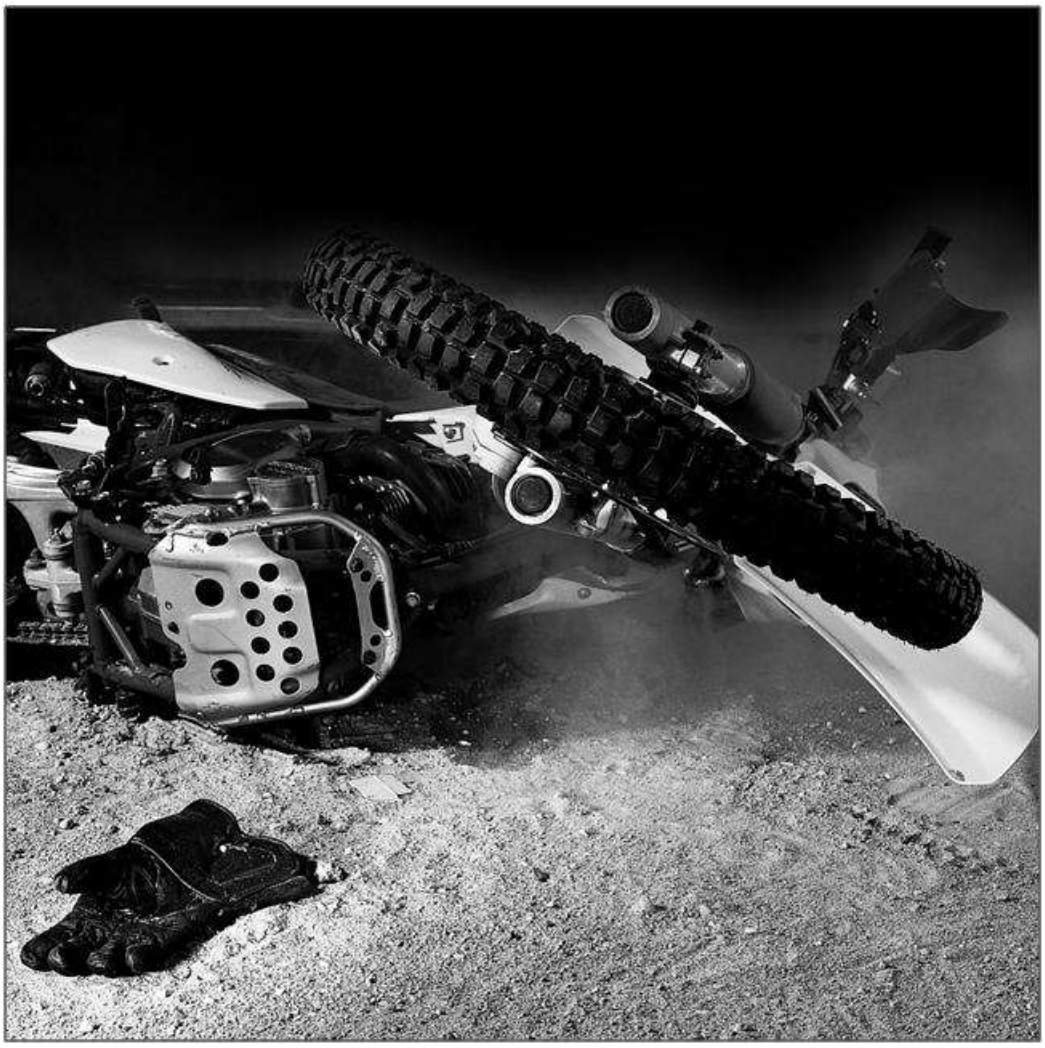
Table 10-6

Historical Summary of Traffic Collision Victims (Killed and Injured, Combined) by NSC Commercial Vehicle Type: 2013 to 2018

Vehicle Category	2013 Total	% of 2013 Total	2014 Total	% of 2014 Total	2015 Total	% of 2015 Total	2016 Total	% of 2016 Total	2017 Total	% of 2017 Total	**2018 Total**	**% of 2018 Total**
Truck >4,500 kgs Unit Chassis	265	49.4%	260	48.6%	232	41.7%	251	45.4%	249	44.2%	**257**	**47.2%**
Power Unit (Semi-Trailer)	143	26.7%	162	30.3%	148	26.6%	163	29.5%	162	28.8%	**156**	**28.7%**
Truck - Other	33	6.2%	35	6.5%	37	6.6%	42	7.6%	25	4.4%	**26**	**4.8%**
School Bus	5	0.9%	1	0.2%	14	2.5%	19	3.4%	13	2.3%	**14**	**2.6%**
Transit Bus - Urban	46	8.6%	38	7.1%	58	10.4%	50	9.0%	100	17.8%	**68**	**12.5%**
Para-Transit Bus	2	0.4%	1	0.2%	4	0.7%	6	1.1%	0	-	**5**	**0.9%**
Inter-City Bus	2	0.4%	1	0.2%	4	0.7%	3	0.5%	0	-	**7**	**1.3%**
Bus - Other	40	7.5%	37	6.9%	60	10.8%	19	3.4%	14	2.5%	**11**	**2.0%**
Total	536	100%	535	100%	557	100%	553	100%	563	100%	**544**	**100%**

Note: Information in Table 10-6 includes all victims of collisions where an NSC commercial vehicle is involved, not only victims from the NSC vehicle.

SECTION 11 – Off-Road Vehicle Collisions



Introduction

This section counts the number of off-road vehicle (ORV) collisions in Manitoba and provides detail for collisions of different severity: fatal, injury and property damage only (PDO). Information regarding the number of ORV collisions, victims, vehicles and drivers involved over the six year period 2013 to 2018 is presented. Details are provided for 2018 ORV collisions in terms of the month of occurrence, day of the week, time of day, weather and light conditions, location, and region of collision.

Data for ORV collisions are drawn from Traffic Accident Reports (TARs) generated by Manitoba Public Insurance as part of the claim process and from law enforcement agencies when they complete an accident report.

Key Highlights
In 2018, there are 163 off-road vehicle collisions, involving 50 victims, 173 vehicles and 170 drivers. Of these:

- 15 are fatal collisions, involving 15 vehicles and drivers, resulting in 16 people killed and no one injured;
- 33 are injury collisions, involving 36 vehicles and drivers, resulting in 34 people injured; and,
- 115 are PDO collisions, involving 122 vehicles and 119 drivers.

In 2018, ORV collisions occur most often:

- During the months of December, January, February and March, representing 97 of 163 collisions (nearly 60%).
- On weekends (Friday, Saturday and Sunday), representing 120 of 163 (74%) collisions.
- During daylight, representing 115 of 163 (71%) collisions.
- In the Eastern Region of Manitoba, representing 85 of 163 (52%) collisions.
- With drivers under the age of 45, 117 of 170 drivers (where age is known) involved in ORV collisions (69%).

Notwithstanding the overall collision trends, **fatal** ORV collisions in 2018 occur most often:

- On weekends (Friday, Saturday and Sunday), representing 9 of 15 fatal collisions (60%).
- Between noon and midnight, 10 of 15 fatal collisions (67%).
- On public roadway, accounting for 6 of 15 fatal collisions (40%).

Major Elements Examined
Counts of off-road vehicle (ORV) collisions in Manitoba for 2018 and previous years are taken from Traffic Accident Reports compiled by Manitoba Public Insurance. These counts are presented for all reportable ORV collisions, fatal collisions, injury collisions and property damage only (PDO) collisions. ORV collisions are maintained in a separate database from roadway collisions. As ORV collisions occur primarily outside of roadways and road rights-of-way, most of them are not valid for inclusion in the public roadway Traffic Accident Database. However, some ORV collisions are included in the Traffic Accident Database (if they occur on a public roadway and involve a vehicle that normally operates on public roadways); therefore, statistics between this and other sections of this report are not additive.

Collisions, victims, vehicles and drivers are presented separately at the beginning of this section with counts provided for the years 2013 through 2018. The remainder of this section explores ORV collisions occurring in 2018 and provides average counts of collisions for the time period of 2013 to 2017 as a comparison.

It is important to note that the number of fatal or injury collisions is not equal to the number of fatal or injured victims as each collision can result in multiple victims. Likewise, the number of vehicles involved is not necessarily equal to the number of drivers involved as a driverless vehicle could be involved in a collision.

No statistics are calculated for off-road vehicle involvement rates due to the fact that no reliable base population count of off-road vehicles is available. Similarly, it is difficult to establish a base count of actual riders/operators, making it difficult to calculate driver involvement rates.

"Drivers" in this section refers to the number of drivers of off-road vehicles involved in collisions. It excludes pedestrians and driverless vehicles (parked). In ORV collisions, there are few driverless vehicles involved, but still some.

The terms 'crash', 'collision' and 'accident' are used interchangeably in this report. The terms 'fatality' and 'killed' are used interchangeably in this report.

The reader is cautioned that not all percentages and calculations in the following tables will add to 100% of the total noted. Rounding error will often produce a difference of one or two percentage points. Likewise, average calculations are presented for historical data from the years 2013 to 2017. Rounding error in these calculations will cause individual average counts not to add to total average counts in some cases.

When reviewing the "Contributing Factors" for a traffic collision, the reader is cautioned to note that more than one contributing factor can be recorded for each collision. The total count of contributing factors noted will add to more than the number of collisions, vehicles or victims in those crashes.

Terms and Definitions

"Off-road Vehicle (ORV)"

- One of several vehicle types designed for off-road use. It includes snowmobiles, off-road motorcycles, all-terrain vehicles (ATVs), amphibious vehicles, dune/sport buggies, and 4-wheel drive vehicles operated off-road.

"Reportable ORV Collision"

- ORV collisions resulting in a fatality, injury or property damage in excess of $1,000 are required by law to be reported to a law enforcement agency. Subsequently, the law enforcement agency completes a Traffic Accident Report (TAR) for the collision. This report deals with these reportable ORV collisions and the TARs arising from them.

"ATV"

- All Terrain Vehicle; includes vehicles with 3, 4 and 6 wheels.

"Collision Severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed.

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"Casualty Type"

- A classification of the severity of the injury sustained by a victim in a traffic collision, i.e., whether someone was killed or injured. This classification also includes a designation for the severity of each non-fatal (i.e., people injured but not killed) injury sustained.

"Killed"

- The casualty type "killed" indicates where the victim involved in the traffic collision died as a result of their injuries within thirty days of the collision occurrence.

"Injured"

- The casualty type "injured" indicates where the victim sustained some level of personal injury, but in which they were not killed. Levels of injury include: 'serious' or 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required). 'Other' injury is noted when the severity of the victim's injuries is not known or recorded in the TAR.

"Collision Type"

- Refers to the object struck by a motor vehicle during a collision (including: a pedestrian, another motor vehicle, a train, a motorcycle, a bicycle, an animal, and fixed objects) or to what happened to the vehicle in a single-vehicle collision (including: overturned on roadway and ran off roadway).

"Light Condition"

- Describes the light conditions at the scene of the accident, including:
    - Day – the light conditions which normally occur between one half hour after sunrise and one half hour before sunset;
    - Dawn – the light conditions which normally occur between one half hour before sunrise and one half hour after sunrise;
    - Dusk – the light conditions which normally occur between one half hour before sunset and one half hour after sunset;
    - Dark – the light conditions which normally occur between one half hour after sunset and one half hour before sunrise; and,
    - Artificial lighting – artificial illumination devices were functioning at the accident site under light conditions which normally occur between one half hour after sunset and one half hour before sunrise.

"Weather Condition"

- Describes the weather conditions prevalent at the time of the accident, including:
    - Clear – bright conditions, without precipitation or airborne matter, are recorded as clear;
    - Cloudy – dull, overcast conditions, without precipitation or airborne matter, are recorded as cloudy;
    - Raining;
    - Snowing;
    - Fog or Mist – airborne matter, of natural origin, which obscures visibility;
    - Smoke or Dust – airborne matter, of a natural or artificial origin, which obscures visibility;
    - Freezing Rain / Sleet / Hail – freezing rain, sleet or hail (self explanatory);
    - Drifting Snow – snow drifting on or above roadway, which obscures visibility of the roadway, road markings, traffic devices or roadway fixtures; and,
    - Strong Winds – used if wind was a contributing factor in the accident.

"Region"

- Manitoba Infrastructure and Transportation is served by five regional office locations, each responsible for a geographic region (for boundaries, see Map 1-1). "Regions" are used to indicate the region in which a collision occurred.

"Contributing Factor"

- Those circumstances or factors recorded as having contributed to the collision or its severity. Factors can be selected from four categories: driver action, human condition, vehicle condition, or environmental condition. The TAR allows for up to three contributing factors to be recorded for each driver or vehicle involved in the collision.

"At-fault Contributing Factor"

- A contributing factor where some action or condition other than "driving properly" and "apparently normal" has been noted.

Table 11-1 Historical Summary of Off-Road Vehicle Collisions

Table 11-1
Historical Summary of Off-Road Vehicle Collisions: 2013 to 2018

	2013	2014	2015	2016	2017	**2018**	2013-2017 Average
Total Collisions	391	295	269	268	168	**163**	278
Fatal	13	11	7	18	6	**15**	11
Injury	59	49	53	66	32	**33**	52
PDO	319	235	209	184	130	**115**	215
Total Victims	76	69	67	94	43	**50**	70
Killed	13	14	7	20	6	**16**	12
Injured	63	55	60	74	37	**34**	58
Total Vehicles Involved	424	327	303	297	182	**173**	307
Fatal	14	16	8	19	7	**15**	13
Injury	63	57	63	77	34	**36**	59
PDO	347	254	232	201	141	**122**	235
Total Drivers Involved	422	325	300	295	177	**170**	304
Fatal	14	16	8	19	7	**15**	13
Injury	63	57	63	76	34	**36**	59
PDO	345	252	229	200	136	**119**	232

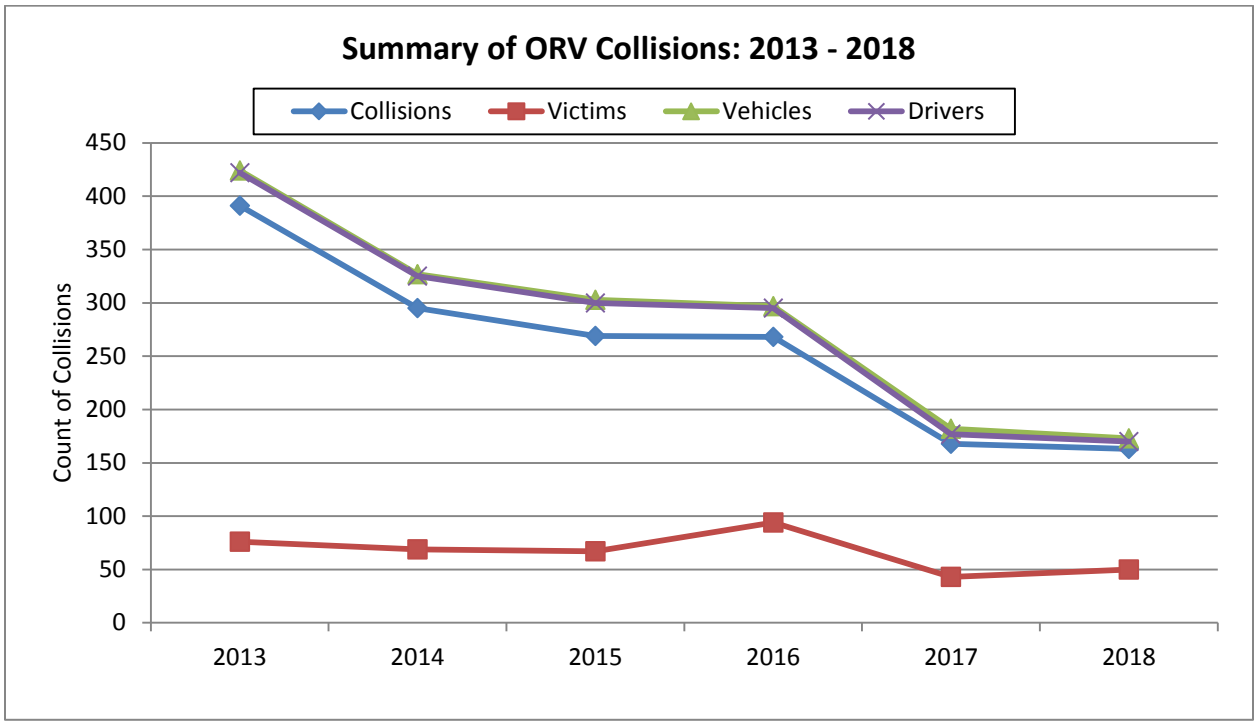
In 2018, there are 163 off-road vehicle collisions, involving 50 victims, 173 vehicles and 170 drivers. Of these:

- 15 are fatal collisions, involving 15 vehicles and drivers, resulting in 16 people killed and no one injured;
- 33 are injury collisions, involving 36 vehicles and drivers, resulting in 34 people injured; and,
- 115 are PDO collisions, involving 122 vehicles and 119 drivers.

Total ORV collisions in 2018 are 3% lower than 2017 and 41% lower than the average number of collisions in the previous five year (2013 to 2017) period. Compared to the previous five years, in 2018:

- ORV collision victims decreased by 28%;
- The number of people killed increased by 33%;
- The number of vehicles involved decreased by 44%; and,
- The number of drivers involved decreased by 44%.

Figure 11-1 Historical Summary of ORV Collisions



The counts of ORV collisions, victims, and vehicles and drivers involved in those collisions in 2018 are similar to the counts in 2017.

Table 11-2 Victims, Vehicles and Drivers Involved in Off-Road Vehicle Collisions by ORV Type

Table 11-2
Victims, Vehicles and Drivers Involved in Off-Road Vehicle Collisions by ORV Type: 2018, 2013-2017 Average

	2018					2013-2017 Average					% Change 2018 to 2013-2017 Average				
	Snowmobile	ATV	Motorcycle	Other*	**Total**	Snowmobile	ATV	Motorcycle	Other*	Total	Snowmobile	ATV	Motorcycle	Other*	Total
Total Victims	30	17	0	3	**50**	28	36	1	4	70	7.1%	-53.0%	-100.0%	-28.6%	-28.4%
Killed	11	5	0	0	**16**	4	8	<1	<1	12	189.5%	-34.2%	-100.0%	-100.0%	33.3%
Injured	19	12	0	3	**34**	24	29	1	4	58	-21.5%	-58.0%	-100.0%	-21.1%	-41.2%
Total Vehicles Involved	90	56	0	27	**173**	143	124	2	38	307	-37.1%	-54.8%	-100.0%	-28.6%	-43.6%
Fatal	10	5	0	0	**15**	4	7	<1	1	13	150.0%	-32.4%	-100.0%	-100.0%	17.2%
Injury	20	11	0	5	**36**	25	26	1	7	59	-18.7%	-57.7%	-100.0%	-28.6%	-38.8%
PDO	60	40	0	22	**122**	114	90	<1	30	235	-47.6%	-55.8%	-100.0%	-25.7%	-48.1%
Total Drivers Involved	88	56	0	26	**170**	143	123	2	36	304	-38.3%	-54.4%	-100.0%	-28.6%	-44.0%
Fatal	10	5	0	0	**15**	4	7	<1	1	13	150.0%	-32.4%	-100.0%	-100.0%	17.2%
Injury	20	11	0	5	**36**	25	26	1	7	59	-18.7%	-57.4%	-100.0%	-28.6%	-38.6%
PDO	58	40	0	21	**119**	114	90	<1	28	232	-49.1%	-55.4%	-100.0%	-25.5%	-48.8%

* 'Other' includes: vehicles not registered as an off-road vehicle, dune/sport buggy, 4 wheel drive motor vehicle (operated off-road), amphibious vehicle, pedestrians and those listed under “not stated” category.

In 2018, a total of 173 vehicles were involved in off-road collisions, including:

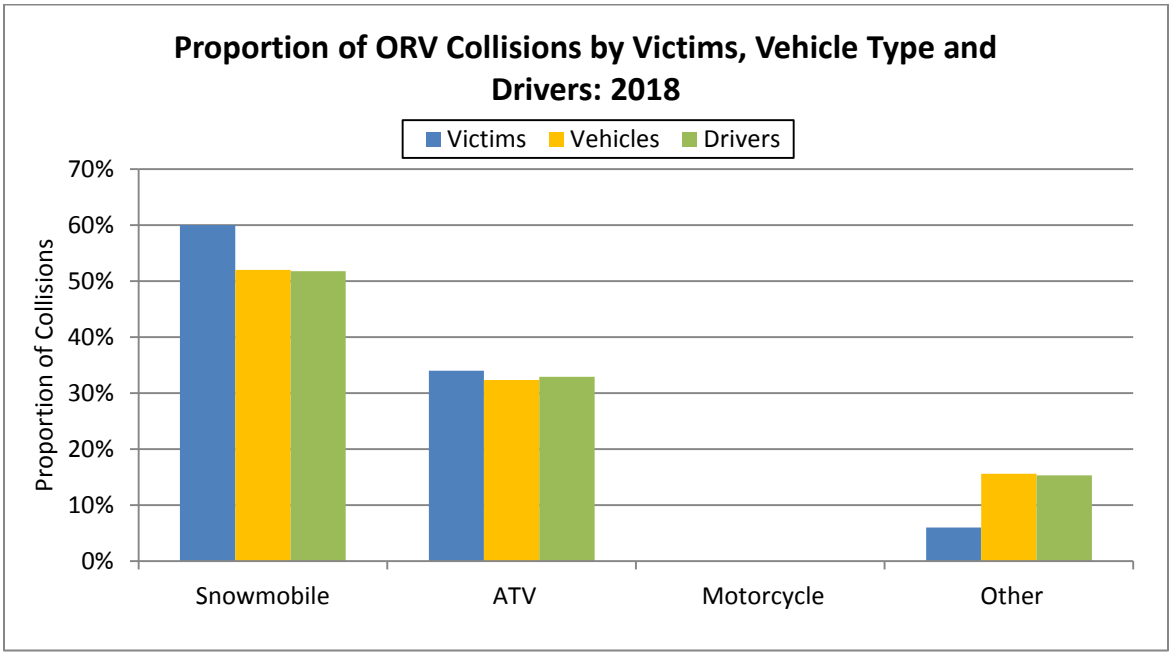
- 90 snowmobiles and 88 snowmobile drivers, resulting in 30 victims including 11 people killed;
- 56 ATVs and ATV drivers, resulting in 17 victims including 5 people killed;
- no motorcycles involved; and,
- 27 'Other' vehicles and 26 drivers of those vehicles, resulting in 3 victims and no one killed.

Compared to the previous five year (2013 to 2017) annual average, in 2018:

- Total vehicles and total drivers involved in snowmobile collisions are down by 37% and 38%, respectively. Victim counts are up by 7%; the number of people killed in snowmobile collisions has increased from a count of 4 to 11;
- Total vehicles and total drivers involved in ATV collisions are down by 55% and 54%, respectively. Victim counts are down by 53%; the number of people killed and injured in ATV collisions decreased by 34% and 58%, respectively; and,
- Total vehicles and total drivers involved in 'other' vehicle collisions and victim counts have all decreased compared to the previous five year annual average.

Note: Due to low annual counts of people killed and injured in ORV collisions, relatively small changes in these counts year-over-year can produce dramatic changes in percentage terms. Please use caution when interpreting these results.

Figure 11-2 Proportion of ORV Collisions by Victims, Vehicle Type and Drivers



In 2018, snowmobiles account for the largest proportion of victims, drivers and vehicles involved in ORV collisions.

Table 11-3 Off-Road Vehicle Collisions by Month of Occurrence and Collision Severity

Table 11-3
ORV Collisions by Month of Occurrence and Collision Severity: 2018, 2013-2017 Average

Month	2018 Collision Severity						**2018 Total**	**% of 2018 Total**	2013-2017 Average	% Change 2018 to 2013-2017 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
January	2	13.3%	4	12.1%	16	13.9%	**22**	**13.5%**	40	-45.5%
February	1	6.7%	6	18.2%	22	19.1%	**29**	**17.8%**	42	-30.3%
March	4	26.7%	6	18.2%	16	13.9%	**26**	**16.0%**	38	-31.6%
April	1	6.7%	2	6.1%	11	9.6%	**14**	**8.6%**	21	-34.6%
May	1	6.7%	4	12.1%	7	6.1%	**12**	**7.4%**	19	-38.1%
June	1	6.7%	1	3.0%	8	7.0%	**10**	**6.1%**	16	-37.5%
July	0	-	4	12.1%	4	3.5%	**8**	**4.9%**	20	-59.2%
August	1	6.7%	1	3.0%	6	5.2%	**8**	**4.9%**	16	-48.7%
September	1	6.7%	2	6.1%	4	3.5%	**7**	**4.3%**	17	-59.8%
October	0	-	0	-	5	4.3%	**5**	**3.1%**	14	-65.3%
November	1	6.7%	0	-	1	0.9%	**2**	**1.2%**	12	-83.3%
December	2	13.3%	3	9.1%	15	13.0%	**20**	**12.3%**	22	-10.7%
Total	15	100%	33	100%	115	100%	**163**	**100%**	278	-41.4%

The ORV collisions in 2018 occur more often in winter months (December, January, February and March). When combined, these four months account for nearly 60% of ORV collisions.

The 2018 proportional distribution of ORV collisions by month is similar to the previous five year (2013 to 2017) annual average.

- Winter (December/January/February/March) – nearly 60% in 2018; 51% in the previous five years.
- Spring (April/May) – 16% in 2018; 15% in the previous five years.
- Summer (June/July/August) – 16% in 2018; 18% in the previous five years.
- Fall (September/October/November) – 9% in 2018; 16% in the previous five years.

In 2018, fatal ORV collisions occurred in every month except July and October.

Injury ORV collisions fluctuate throughout the year in 2018.

NOTE: For a detailed count of ORV collisions by month of occurrence in each year from 2013 to 2018, please refer to "*Table 11-16 Historical Summary of ORV Collisions by Month of Occurrence*" at the end of this section.

Table 11-4 Off-Road Vehicle Collisions by Day of Occurrence and Collision Severity

Table 11-4
ORV Collisions by Day of Occurrence and Collision Severity: 2018, 2013-2017 Average

Day	2018 Collision Severity						**2018 Total**	**% of 2018 Total**	2013-2017 Average	% Change 2018 to 2013-2017 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Sunday	2	13.3%	9	27.3%	20	17.4%	**31**	**19.0%**	61	-49.3%
Monday	1	6.7%	3	9.1%	4	3.5%	**8**	**4.9%**	21	-62.6%
Tuesday	2	13.3%	2	6.1%	10	8.7%	**14**	**8.6%**	21	-33.3%
Wednesday	1	6.7%	1	3.0%	6	5.2%	**8**	**4.9%**	21	-61.2%
Thursday	2	13.3%	0	-	11	9.6%	**13**	**8.0%**	20	-34.3%
Friday	0	-	5	15.2%	15	13.0%	**20**	**12.3%**	33	-39.4%
Saturday	7	46.7%	13	39.4%	49	42.6%	**69**	**42.3%**	101	-31.8%
Total	15	100%	33	100%	115	100%	**163**	**100%**	278	-41.4%

The majority of ORV collisions happen on weekends (Friday, Saturday and Sunday). In 2018, 74% of ORV collisions occurred on Friday (12%), Saturday (42%) and Sunday (19%). Monday through Thursday account for 26% of ORV collisions.

In 2018, 9 of 15 fatal ORV collisions (60%) occur on weekends (Friday, Saturday and Sunday combined).

Figure 11-3 Proportion of ORV Collisions by Collision Severity and Day of Occurrence

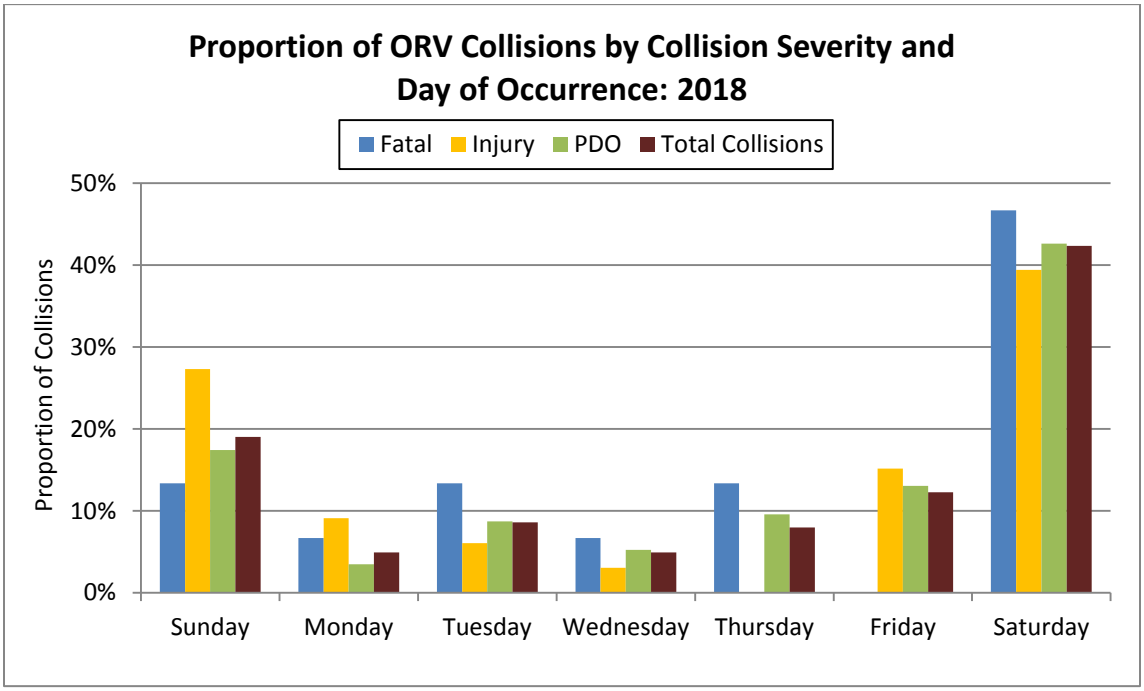


Table 11-5 Off-Road Vehicle Collisions by Time of Occurrence and Collision Severity

Table 11-5
ORV Collisions by Time of Occurrence and Collision Severity: 2018, 2013-2017 Average

Time	2018 Collision Severity						**2018 Total**	**% of 2018 Total**	2013-2017 Average	% Change 2018 to 2013-2017 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
00:00 - 02:59	1	6.7%	0	-	3	2.6%	**4**	**2.5%**	7	-48.4%
03:00 - 05:59	0	-	1	3.0%	0	-	**1**	**0.6%**	2	-55.6%
06:00 - 08:59	0	-	0	-	1	0.9%	**1**	**0.6%**	3	-75.0%
09:00 - 11:59	3	20.0%	4	12.1%	11	9.6%	**18**	**11.0%**	28	-41.9%
12:00 - 14:59	1	6.7%	8	24.2%	36	31.3%	**45**	**27.6%**	81	-49.9%
15:00 - 17:59	4	26.7%	10	30.3%	34	29.6%	**48**	**29.4%**	81	-45.1%
18:00 - 20:59	2	13.3%	7	21.2%	21	18.3%	**30**	**18.4%**	52	-46.7%
21:00 - 23:59	3	20.0%	3	9.1%	9	7.8%	**15**	**9.2%**	23	-42.3%
Not Stated	1	6.7%	0	-	0	-	**1**	**0.6%**	1	-20.0%
Total	15	100%	33	100%	115	100%	**163**	**100%**	278	-46.7%

The majority of off-road collisions occur in the afternoon and evening. In 2018, 85% of all ORV vehicle collisions occurred between noon and midnight (12:00 to 14:59 – 28%; 15:00 to 17:59 – 29%; 18:00 to 20:59 – 18%; 21:00 to 23:59 – 9%).

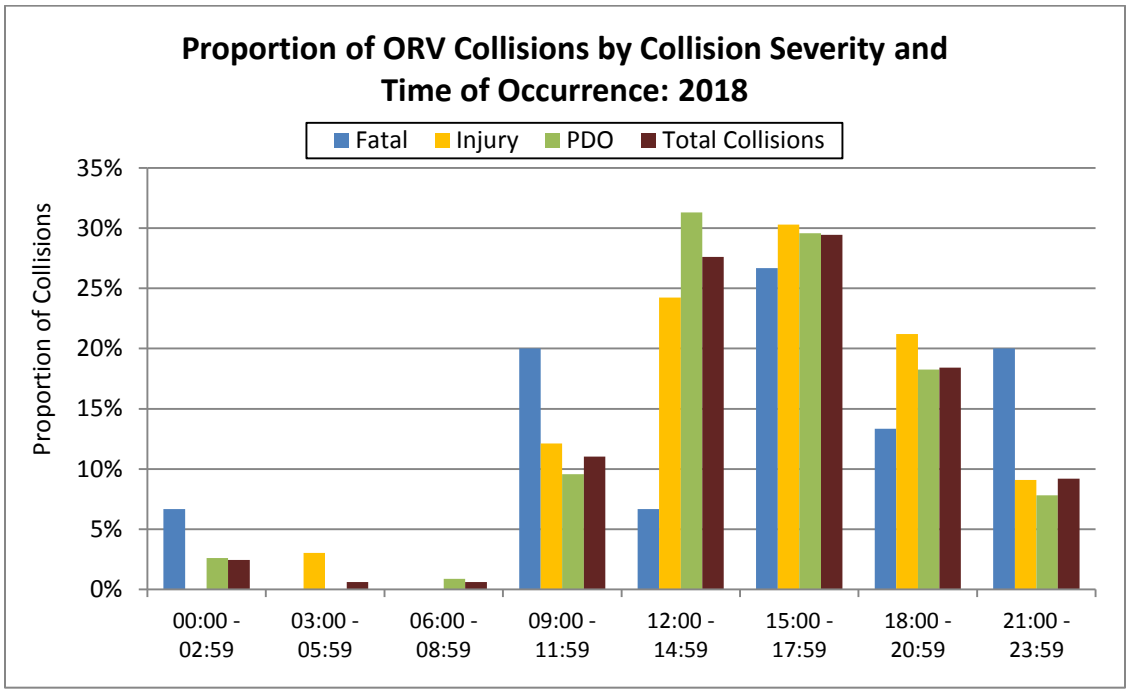
The proportional distribution of ORV collisions by time of day in 2018 is similar to the previous five year (2013 to 2017) annual average.

- Morning (06:00 to 11:59) – 12% in 2018; 11% in the previous five years.
- Afternoon (12:00 to 17:59) – 57% in 2018; 58% in the previous five years.
- Evening (18:00 to 20:59) – 18% in 2018; 19% in the previous five years.
- Overnight (21:00 to 05:59) – 12% in 2018; 12% in the previous five years.

In 2018, the majority of fatal ORV collisions occurred between noon and midnight (10 of 15 fatal collisions).

In 2018, 18 of 33 injury ORV collisions occurred between noon and 6 p.m. and 10 of 33 injury ORV collisions occurred between 6 p.m. and midnight.

Figure 11-4 Proportion of Total ORV Collisions by Collision Severity and Time of Occurrence



In 2018, the majority of all ORV collisions occurred between noon and midnight (85%), while 11% occurred between 9 a.m. and noon.

Table 11-6 Off-Road Vehicle Collisions by Light Condition and Collision Severity

Table 11-6
ORV Collisions by Light Condition and Collision Severity: 2018, 2013-2017 Average

Light Condition	2018 Collision Severity						**2018 Total**	**% of 2018 Total**	2013-2017 Average	% Change 2018 to 2013-2017 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Day	6	40.0%	21	63.6%	88	76.5%	**115**	**70.6%**	176	-39.9%
Dawn	0	-	0	-	0	-	**0**	**-**	1	-100.0%
Dusk	1	6.7%	3	9.1%	6	5.2%	**10**	**6.1%**	15	-38.5%
Dark	4	26.7%	6	18.2%	12	10.4%	**22**	**13.5%**	41	-49.4%
Artificial Light	0	-	0	-	1	0.9%	**1**	**0.6%**	1	-42.9%
Not Stated	4	26.7%	3	9.1%	8	7.0%	**15**	**9.2%**	44	-70.9%
Total	15	100%	33	100%	115	100%	**163**	**100%**	278	-46.7%

The majority of ORV collisions occur during daylight conditions, from a half hour after sunrise to a half hour before sunset. In 2018, daylight conditions account for 71% of ORV collisions. An additional nearly 14% occurred during darkness.

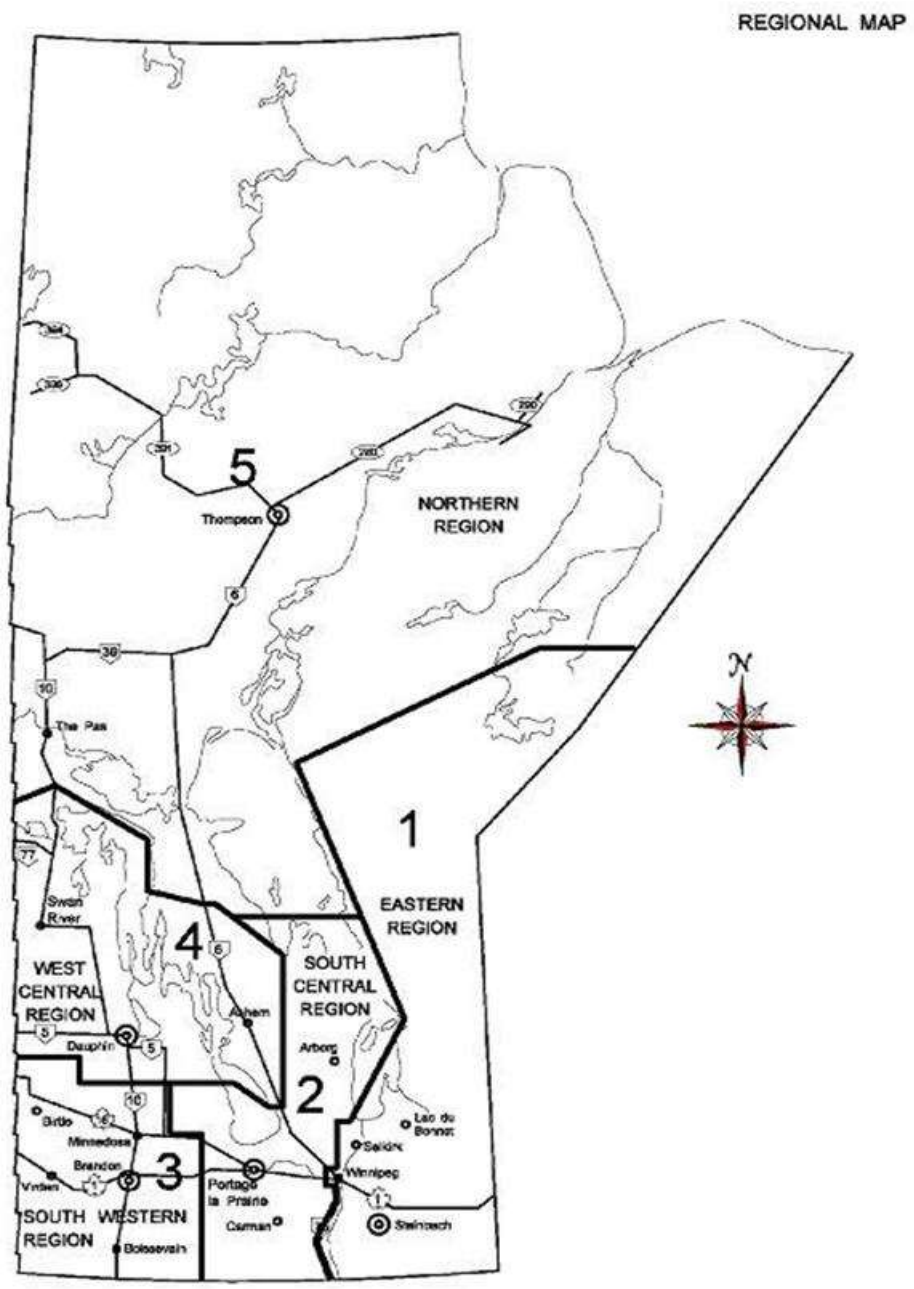
Table 11-7 ORV Collisions by Weather Condition and Collision Severity

Table 11-7
ORV Collisions by Weather Condition and Collision Severity: 2018, 2013-2017 Average

Weather Condition	2018 Collision Severity						**2018 Total**	**% of 2018 Total**	2013-2017 Average	% Change 2018 to 2013-2017 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Clear	7	46.7%	23	69.7%	88	76.5%	**118**	**72.4%**	169	-35.7%
Cloudy	2	13.3%	5	15.2%	10	8.7%	**17**	**10.4%**	29	-45.6%
Raining	0	-	2	6.1%	1	0.9%	**3**	**1.8%**	5	-42.9%
Snowing	1	6.7%	0	-	5	4.3%	**6**	**3.7%**	9	-46.7%
Fog/Mist	0	-	0	-	0	-	**0**	**-**	3	-100.0%
Smoke/Dust	0	-	0	-	0	-	**0**	**-**	<1	-100.0%
Freezing Rain/Sleet/Hail	0	-	0	-	0	-	**0**	**-**	<1	-100.0%
Drifting Snow	0	-	0	-	0	-	**0**	**-**	4	-100.0%
Strong Winds	0	-	0	-	0	-	**0**	**-**	2	-100.0%
Not Stated	5	33.3%	3	9.1%	11	9.6%	**19**	**11.7%**	56	-70.1%
Total	15	100%	33	100%	115	100%	**163**	**100%**	278	-46.7%

The majority of ORV collisions occur when weather conditions are clear. In 2018, 72% of ORV collisions occurred in clear weather conditions. Another 10% occurred in cloudy weather.

Map 1-1 Manitoba Infrastructure and Transportation (MIT) Regions



Source: Manitoba Infrastructure and Transportation, Traffic Engineering

This map shows the boundaries of Manitoba Infrastructure and Transportation (MIT) regions and regional office locations. Regional Offices are responsible for service delivery and management of MIT programs, as indicated in the department's annual report.[3] Off-road vehicle collisions are reported by location within these regions.

[3] 2017/2018 Annual Report for Manitoba Infrastructure and Transportation: http://www.gov.mb.ca/mit/reports/annual/2017_2018_annual.pdf

Table 11-8 ORV Collisions by MIT Regions and Collision Severity

Table 11-8
ORV Collisions by MIT Regions and Collision Severity: 2018, 2013-2017 Average

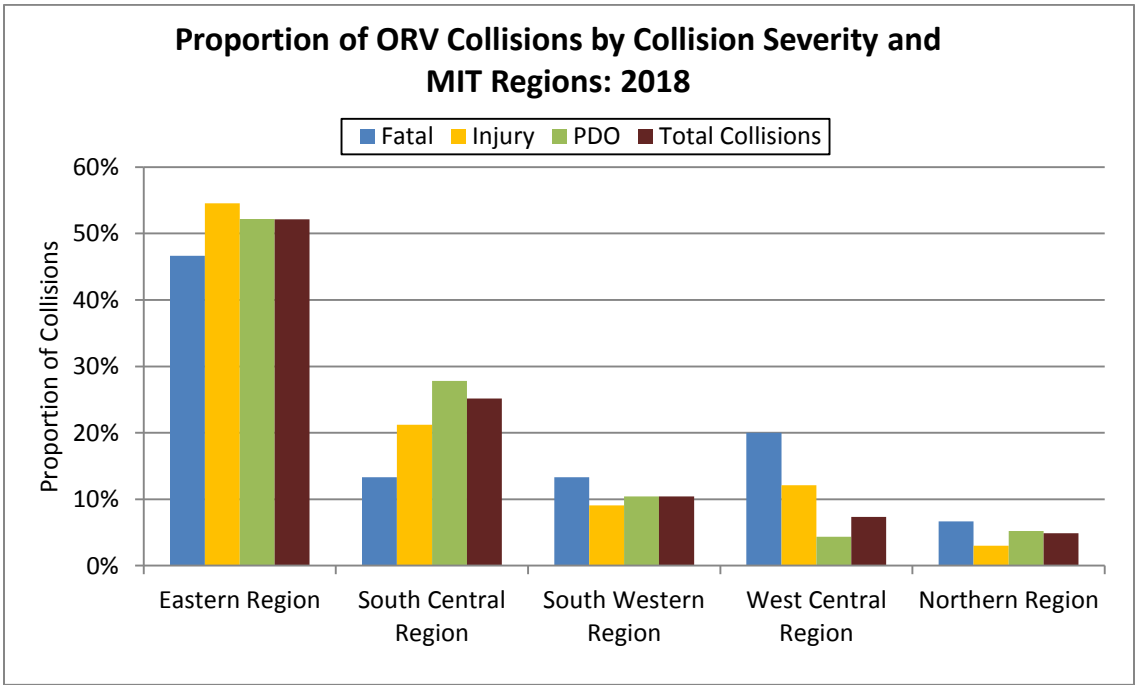
Region	2018 Collision Severity						**2018 Total**	**% of 2018 Total**	2013-2017 Average	% Change 2018 to 2013-2017 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Eastern Region	7	46.7%	18	54.5%	60	52.2%	**85**	**52.1%**	140	-44.6%
South Central Region	2	13.3%	7	21.2%	32	27.8%	**41**	**25.2%**	55	-33.9%
South Western Region	2	13.3%	3	9.1%	12	10.4%	**17**	**10.4%**	39	-61.4%
West Central Region	3	20.0%	4	12.1%	5	4.3%	**12**	**7.4%**	24	-54.3%
Northern Region	1	6.7%	1	3.0%	6	5.2%	**8**	**4.9%**	19	-60.0%
Total	15	100%	33	100%	115	100%	**163**	**100%**	278	-46.7%

The Eastern Region of Manitoba historically accounts for a large share of off-road vehicle accidents. In 2018, 52% of ORV collisions occurred in the Eastern Region. The South Central Region follows with 25%, while the South Western Region accounts for 10% of the total collisions.

While the overall count of ORV collisions in 2018 is down across all regions in Manitoba (compared to the 2013 to 2017 annual average), the proportional distribution of collisions by region in 2018 is similar to the previous five year annual average.

- Eastern Region – 52% of ORV collisions in 2018; 50% in previous five years.
- South Central Region – 25% of ORV collisions in 2018; 20% in previous five years.
- South Western Region – 10% of ORV collisions in 2018; 14% in previous five years.
- West Central Region – 7% of ORV collisions in 2018; 9% in previous five years.
- Northern Region – 5% of ORV collisions in 2018; 7% in previous five years.

Figure 11-5 Proportion of ORV Collisions by Collision Severity and MIT Regions



Fatal ORV collisions in 2018 occur most often in the Eastern Region of Manitoba (7 of 15 fatal collisions, each).

Table 11-9 Off-Road Vehicle Collisions by Location and Collision Severity

Table 11-9
ORV Collisions by Location and Collision Severity: 2018, 2013-2017 Average

Location	2018 Collision Severity						**2018 Total**	**% of 2018 Total**	2013-2017 Average	% Change 2018 to 2013-2017 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Public Roadway	6	40.0%	6	18.2%	8	7.0%	**20**	**12.3%**	46	-62.8%
Ditches	0	-	5	15.2%	8	7.0%	**13**	**8.0%**	23	-49.5%
River/Lake	1	6.7%	3	9.1%	11	9.6%	**15**	**9.2%**	24	-41.2%
Field	1	6.7%	1	3.0%	7	6.1%	**9**	**5.5%**	16	-42.9%
Farm Yard/Private Property	2	13.3%	3	9.1%	14	12.2%	**19**	**11.7%**	36	-52.5%
Parking Lot	0	-	0	-	0	-	**0**	**-**	1	-100.0%
Embankment	1	6.7%	1	3.0%	2	1.7%	**4**	**2.5%**	3	60.0%
Gravel Road	0	-	1	3.0%	2	1.7%	**3**	**1.8%**	6	-55.6%
Trail*	3	20.0%	6	18.2%	34	29.6%	**43**	**26.4%**	67	-40.5%
Other**	1	6.7%	7	21.2%	29	25.2%	**37**	**22.7%**	52	-35.1%
Not Stated	0	-	0	-	0	-	**0**	**-**	4	-100.0%
Total	15	100%	33	100%	115	100%	**163**	**100%**	278	-46.7%

*Includes marked groomed trail, bush trail/winter road, and snowmobile trail.

**Includes park, forest, bush, camp site, mountain, valley, hill, railroad and floodway/diversion.

Note: Historical averages are rounded off to the nearest integer. Computations of percentage changes from the historical trend to the current year are based on actual averages and not on the rounded numbers presented in the table.

In 2018, “trail” was the most common location for ORV collisions (26% of total) followed by “other” locations (23%).

The proportion of ORV collisions happening at specific locations in 2018 is similar to the previous five year (2013 to 2017) annual average.

- “Trail” – 26% in 2018; 24% in the previous five years.
- “Other” – 23% in 2018; 19% in the previous five years.
- “Public Roadway” – 12% in 2018; nearly 17% in the previous five years.
- “Farm Yard/Private Property” – 12% in 2018; 13% in the previous five years.

NOTE: For a detailed count of ORV collisions by location in each year from 2013 to 2018, please refer to “*Table 11-17 Historical Summary of ORV Collisions by Location*” at the end of this section.

Table 11-10 ORV Collision Victims by Age Group and Casualty Type

Table 11-10
ORV Collision Victims by Age Group and Casualty Type: 2018, 2013-2017 Average

Age Group	2018 Casualty Type				**2018 Total Victims**	**% of 2018 Total Victims**	2013-2017 Average			
	Killed	% of Total Killed	Injured	% of Total Injured			Killed	Injured	Total Victims	% of Total Victims
0-4	0	-	0	-	**0**	**-**	<1	<1	<1	0.6%
5-9	0	-	0	-	**0**	**-**	0	<1	<1	0.9%
10-14	1	6.3%	1	2.9%	**2**	**4.0%**	<1	<1	1	1.4%
15-19	0	-	1	2.9%	**1**	**2.0%**	<1	5	5	7.4%
20-24	2	12.5%	5	14.7%	**7**	**14.0%**	1	6	7	10.6%
25-34	6	37.5%	8	23.5%	**14**	**28.0%**	3	12	15	21.5%
35-44	5	31.3%	5	14.7%	**10**	**20.0%**	<1	13	13	18.9%
45-54	0	-	6	17.6%	**6**	**12.0%**	2	9	11	16.3%
55-64	1	6.3%	6	17.6%	**7**	**14.0%**	2	6	8	11.7%
65+	1	6.3%	2	5.9%	**3**	**6.0%**	1	1	2	2.9%
Not Stated	0	-	0	-	**0**	**-**	<1	5	5	7.7%
Total	16	100%	34	100%	**50**	**100%**	12	58	70	100%

The majority of ORV collision victims are under the age of 45 (68% of all victims). In 2018, 10 of 50 ORV collision victims (20%) are under the age of 25 while 28% are aged 25-34, and 20% are aged 35-44. Sixteen of 50 victims (32%) are 45 years old and older (12% aged 45 to 54; 14% aged 55 to 64; 6% aged 65 and older).

ORV collision victims in 2018 are, for the most part, consistent in terms of overall age demographic when compared with the previous five year (2013 to 2017) annual average. In the previous five years:

- Persons under the age of 15 account for 3% of all victims in ORV collisions, compared to 4% in 2018;
- Persons aged 15 to 44 account for nearly 59% of all victims in ORV collisions, compared to 64% in 2018;
- Persons aged 45 and above account for 31% of all victims in ORV collisions, compared to 32% in 2018.

NOTE: The classification of victims is different from that of drivers (see Table 11-14) as victims may be of any age. Therefore, they are classified by a 5-year age cohort up to age 24. While drivers of off-road vehicles may not be required to be licensed, driver statistics are recorded consistent with other sections, and identified as under 16, 16 to 19, and then using the same classifications for victims.

NOTE: For a detailed count of ORV collision victims by age group in each year from 2013 to 2018, please refer to "*Table 11-18 Historical Summary of ORV Collision Victims by Age Group*" at the end of this section.

Table 11-11 ORV Collision Victims by Gender and Casualty Type

Table 11-11
ORV Collision Victims by Gender and Casualty Type: 2018, 2013-2017 Average

Gender	2018 Casualty Type				**2018 Total Victims**	**% of 2018 Total Victims**	2013-2017 Average			
	Killed	% of Total Killed	Injured	% of Total Injured			Killed	Injured	Total Victims	% of Total Victims
Male	14	87.5%	27	79.4%	**41**	**82.0%**	10	42	52	81.0%
Female	2	12.5%	7	20.6%	**9**	**18.0%**	1	11	12	19.0%
Total	16	100%	34	100%	**50**	**100%**	11	53	64	100%

Note: Some victims do not have gender recorded and are therefore missing from the table above.

The majority of people killed and injured in ORV collisions in 2018 are male. Males account for 41 of 50 ORV collision victims (82%). This is similar to the previous five year (2013 to 2017) annual average (81%).

Table 11-12 ORV Collision Victims by Safety Equipment Use and Casualty Type

Table 11-12
ORV Collision Victims by Safety Equipment Use and Casualty Type: 2018, 2013-2017 Average

Safety Equipment	2018 Casualty Type				**2018 Total Victims**	**% of 2018 Total Victims**	2013-2017 Average			
	Killed	% of Total Killed	Injured	% of Total Injured			Killed	Injured	Total Victims	% of Total Victims
Safety Helmet Worn	5	31.3%	23	67.6%	**28**	**56.0%**	3	35	38	54.4%
Safety Helmet Not Worn	2	12.5%	1	2.9%	**3**	**6.0%**	4	5	9	12.6%
Seat Belt Assembly Used	0	-	6	17.6%	**6**	**12.0%**	<1	7	8	10.9%
Seat Belt Assembly Not Used	0	-	0	-	**0**	**-**	<1	2	2	3.2%
Not Stated	7	43.8%	1	2.9%	**8**	**16.0%**	3	2	5	6.9%
Not Applicable*	2	12.5%	3	8.8%	**5**	**10.0%**	1	7	8	12.0%
Total	16	100%	34	100%	**50**	**100%**	12	58	70	100%

* Victims who were not operators/passengers of off-road vehicles; therefore do not require a helmet.

In 2018, 28 victims (56%) in ORV collisions were wearing a safety helmet; 3 were not. This includes 5 people killed while wearing a helmet and 2 people killed while not wearing a helmet. The proportion of victims who were wearing a helmet in 2018 (56%) has increased slightly compared to the previous five year annual average (2013 to 2017; 54%).

Table 11-13 ORV Victims Killed vs. Injured for Helmeted and Non-helmeted ORV Occupants

Table 11-13

ORV Victims Killed vs. Injured for Helmeted and Non-helmeted ORV Occupants (2013-2018)

	Helmet worn		Helmet not worn		Hemet Effectiveness
	Number	Percent	Number	Percent	(Ratio of % helmet not worn to % helmet worn)
Killed	21	9.6%	21	44.7%	4.64
Injured	197	90.4%	26	55.3%	0.61
Total	218	100%	47	100%	-

Note: Data have been presented in aggregate for the years 2013-2018.

As the number of victims wearing helmets exceeds those not wearing helmets, one could conclude that helmets contribute to fatalities and injuries in ORV collisions. However, it is likely that with a large majority of drivers and passengers wearing helmets, they have a high representation among collision victims.

Table 11-13 compares the proportion of people killed and injured for those wearing and not wearing helmets. Among people wearing helmets when they sustain an injury from an ORV collision, 10% are killed. Among people not wearing helmets when they sustain an injury from an ORV collision, 45% are killed. This indicates that an ORV collision victim is almost five times more likely to be killed if they are not wearing a helmet at the time of a collision.

Table 11-14 Drivers Involved in ORV Collisions by Age Group and Collision Severity

Table 11-14

Drivers Involved in ORV Collisions by Age Group and Collision Severity: 2018, 2013-2017 Average

Age Group	2018 Collision Severity						**2018 Total**	**% of 2018 Total**	2013-2017 Average	% Change 2018 to 2013-2017 Average
	Fatal	% of Total Fatal*	Injury	% of Total Injury*	PDO	% of Total PDO*				
<16	1	6.7%	2	5.6%	4	3.4%	**7**	**4.1%**	6	12.9%
16-19	0	-	1	2.8%	9	7.6%	**10**	**5.9%**	19	-47.4%
20-24	1	6.7%	6	16.7%	12	10.1%	**19**	**11.2%**	43	-56.2%
25-34	6	40.0%	7	19.4%	32	26.9%	**45**	**26.5%**	74	-38.9%
35-44	5	33.3%	5	13.9%	26	21.8%	**36**	**21.2%**	56	-35.3%
45-54	0	-	6	16.7%	23	19.3%	**29**	**17.1%**	56	-48.2%
55-64	1	6.7%	7	19.4%	11	9.2%	**19**	**11.2%**	26	-27.5%
65+	1	6.7%	2	5.6%	2	1.7%	**5**	**2.9%**	7	-24.2%
Not Stated	0	-	0	-	0	-	**0**	**-**	17	-
Total	15	100%	36	100%	119	100%	**170**	**100%**	304	-44.0%

*Percentage of the total does not include the "not stated" category.

In 2018, drivers under the age of 45 account for 69% of drivers involved in ORV collisions (<16 – 4%; 16 to 19 – 6%; 20 to 24 – 11%; 25 to 34 – nearly 27%; 35 to 44 – 21%), while drivers aged 45 and older account for 31% (45 to 54 – 17%; 55 to 64 – 11%; 65 and older – 3%).

Table 11-15 ORV Collisions by Contributing Factors and Collision Severity

Table 11-15

Drivers Involved in ORV Collisions by Contributing Factors and Collision Severity: 2018

Contributing Factor	2018 Collision Severity						**2018 Total Drivers**	**% of 2018 Total Drivers**
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	0	-	3	8.3%	7	5.9%	**10**	**5.9%**
Driver Action - Driving properly	1	6.7%	0	-	0	-	**1**	**0.6%**
Any At-fault Driver Action	10	66.7%	30	83.3%	88	73.9%	**128**	**75.3%**
Following too closely	0	-	0	-	2	1.7%	**2**	**1.2%**
Turning improperly	1	6.7%	0	-	0	-	**1**	**0.6%**
Passing improperly	0	-	0	-	0	-	**0**	**-**
Changing lanes improperly	0	-	0	-	0	-	**0**	**-**
Fail to yield right-of-way	0	-	0	-	1	0.8%	**1**	**0.6%**
Disobey traffic control device/officer	0	-	0	-	0	-	**0**	**-**
Drive wrong way on roadway	0	-	1	2.8%	0	-	**1**	**0.6%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	**0**	**-**
Back unsafely	0	-	0	-	1	0.8%	**1**	**0.6%**
Parking improperly	0	-	0	-	0	-	**0**	**-**
Lost control/Drive off road	1	6.7%	0	-	6	5.0%	**7**	**4.1%**
Driverless vehicle ran out of control	0	-	0	-	0	-	**0**	**-**
Leave stop sign before safe to do so	0	-	0	-	0	-	**0**	**-**
Failed to signal	0	-	0	-	0	-	**0**	**-**
Take avoiding action	0	-	1	2.8%	0	-	**1**	**0.6%**
Driver inexperience	0	-	1	2.8%	5	4.2%	**6**	**3.5%**
Pedestrian error/confusion	0	-	0	-	0	-	**0**	**-**
NET Speed	9	60.0%	22	61.1%	67	56.3%	**98**	**57.6%**
Exceeding speed limit	0	-	0	-	0	-	**0**	**-**
Driving too fast for conditions	8	53.3%	22	61.1%	67	56.3%	**97**	**57.1%**
Unsafe operating speed (Too fast or too slow)	1	6.7%	0	-	0	-	**1**	**0.6%**
NET Distracted driving	1	6.7%	5	13.9%	15	12.6%	**21**	**12.4%**
Careless Driving	1	6.7%	2	5.6%	11	9.2%	**14**	**8.2%**
Distraction/Inattention	0	-	3	8.3%	4	3.4%	**7**	**4.1%**

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Contributing Factor	2018 Collision Severity						2018 Total Drivers	% of 2018 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	5	33.3%	27	75.0%	99	83.2%	**131**	**77.1%**
Any At-fault Human Condition	4	26.7%	0	-	0	-	**4**	**2.4%**
Loss of consciousness/Blackout prior to collision	0	-	0	-	0	-	**0**	**-**
Extreme fatigue/Fell asleep	0	-	0	-	0	-	**0**	**-**
Defective eyesight	0	-	0	-	0	-	**0**	**-**
Defective hearing	0	-	0	-	0	-	**0**	**-**
Medical disability	0	-	0	-	0	-	**0**	**-**
Physical disability	0	-	0	-	0	-	**0**	**-**
Mental disability	0	-	0	-	0	-	**0**	**-**
Mental confusion/Inability to remember	0	-	0	-	0	-	**0**	**-**
Sudden illness	1	6.7%	0	-	0	-	**1**	**0.6%**
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	**0**	**-**
NET Impaired	3	20.0%	0	-	0	-	**3**	**1.8%**
Ability impaired alcohol	2	13.3%	0	-	0	-	**2**	**1.2%**
Ability impaired drugs	0	-	0	-	0	-	**0**	**-**
Had been drinking/Suspected alcohol use	1	6.7%	0	-	0	-	**1**	**0.6%**
No Apparent (Vehicle) Defect	8	53.3%	30	83.3%	94	79.0%	**132**	**77.6%**
Any At-fault Vehicle Defect	0	-	0	-	1	0.8%	**1**	**0.6%**
Defective brakes	0	-	0	-	0	-	**0**	**-**
Defective steering	0	-	0	-	0	-	**0**	**-**
Defective headlights	0	-	0	-	0	-	**0**	**-**
Defective brake lights	0	-	0	-	0	-	**0**	**-**
Defective lighting (unspecified)	0	-	0	-	0	-	**0**	**-**
Defective engine controls/drive train	0	-	0	-	0	-	**0**	**-**
Defective suspension/wheels	0	-	0	-	1	0.8%	**1**	**0.6%**
Defective tires	0	-	0	-	0	-	**0**	**-**
Tow hitch/yoke defective	0	-	0	-	0	-	**0**	**-**
Defective exhaust system	0	-	0	-	0	-	**0**	**-**
Hood/tailgate/door/covering opened	0	-	0	-	0	-	**0**	**-**
Defective glazing (obscured windows)	0	-	0	-	0	-	**0**	**-**
Vehicle modifications	0	-	0	-	0	-	**0**	**-**
Fire	0	-	0	-	0	-	**0**	**-**
Overloaded/oversized	0	-	0	-	0	-	**0**	**-**
Load shifted/spilled	0	-	0	-	0	-	**0**	**-**
Jack-knife/trailer swing	0	-	0	-	0	-	**0**	**-**
Hydroplaning tires	0	-	0	-	0	-	**0**	**-**

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Contributing Factor	2018 Collision Severity						2018 Total Drivers	% of 2018 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Any At-fault Environmental Condition	1	6.7%	3	8.3%	37	31.1%	**41**	**24.1%**
Animal action - Wild	0	-	0	-	1	0.8%	**1**	**0.6%**
Animal action - Domestic	0	-	0	-	0	-	**0**	**-**
Slippery road surface	0	-	1	2.8%	3	2.5%	**4**	**2.4%**
Snow drift	1	6.7%	0	-	0	-	**1**	**0.6%**
Obstruction/debris on roadway	0	-	2	5.6%	30	25.2%	**32**	**18.8%**
View obstructed/limited	0	-	0	-	3	2.5%	**3**	**1.8%**
Glare/reflection	0	-	0	-	0	-	**0**	**-**
Construction zone	0	-	0	-	0	-	**0**	**-**
Defective driving surface	0	-	0	-	0	-	**0**	**-**
Shoulders defective	0	-	0	-	0	-	**0**	**-**
Lane markings inadequate	0	-	0	-	0	-	**0**	**-**
Defective/inoperative traffic control device	0	-	0	-	0	-	**0**	**-**
Weather	0	-	0	-	0	-	**0**	**-**
Pedestrian corridor in use	0	-	0	-	0	-	**0**	**-**
Uninvolved vehicle	0	-	0	-	0	-	**0**	**-**
Uninvolved pedestrian	0	-	0	-	0	-	**0**	**-**
Presence of prior accident	0	-	0	-	0	-	**0**	**-**
No Contributing Factor(s) Identified	0	-	0	-	0	-	**0**	**-**
Not Stated	3	20.0%	1	2.8%	0	-	**4**	**2.4%**
Total	15	100%	36	100%	119	100%	**170**	**100%**

*Note: For each vehicle and/or driver involved in a collision, up to three contributing factors can be recorded. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

In 2018, at least one at-fault driver action is recorded for 128 of the 170 drivers involved in ORV collisions (75%), including:

- 10 of 15 drivers involved in fatal collisions;
- 30 of 36 drivers involved in injury collisions; and,
- 88 of 119 drivers involved in PDO collisions.

The most prevalent at-fault driver actions include:

- Speed (including “exceeding speed limit”, “driving too fast for conditions” and “unsafe operating speed”) – 58% of the drivers involved;
- Distracted driving (including “careless driving” and “distraction/inattention”) – 12% of the drivers involved;
- “Loss of control/drive off road” – 4% of the drivers involved; and,
- “Driver inexperience” – nearly 4% of the drivers involved.

At-fault human conditions are recorded as contributing for 2% of the drivers involved in ORV collisions, with the most prevalent being impaired driving (including “ability impaired by alcohol”, “ability impaired by drugs” and “had been drinking/suspected alcohol use”) (2% of the drivers involved).

Environmental conditions are recorded as contributing for 24% of the drivers involved in ORV collisions, with the most prevalent being “obstruction/debris on roadway” (19% of the drivers involved).

Only one driver involved in ORV collisions had a vehicle defect recorded as a contributing factor.

In the previous five year (2013 to 2017) annual average of the drivers involved in ORV collisions:

- 52% had an at-fault driver action recorded, with nearly 33% being distracted (“careless driving” and “distraction/inattention”), 13% speed, and 7% “lost control/drive off road”;
- 2% had an at-fault ‘human condition’ recorded, with the most common being impaired (2%);
- 13% had an environmental condition recorded, with the most common being “obstruction/debris on roadway” (6%) and “defective driving surface” (2%); and,
- On average, only 2 drivers had a vehicle defect recorded as a contributing factor per year.

In 2018, 10 of 15 drivers involved in fatal collisions had an at-fault driver action and 4 of 15 had an at-fault human condition. The most common at-fault contributing factors recorded for drivers involved in fatal ORV collisions in 2018 include:

- Speed (including “exceeding speed limit”, “driving too fast for conditions” and “unsafe operating speed”) – 9 of 15 drivers; and,
- Impaired (including “ability impaired by alcohol”, “ability impaired by drugs” and “had been drinking/suspected alcohol use”) – 3 of 15 drivers.

NOTE: For a detailed count of drivers involved in ORV collisions by the contributing factors recorded in each year from 2013 to 2018, please refer to “*Table 11-19 Historical Summary of Drivers Involved in ORV Collisions by Contributing Factors*” at the end of this section.

Table 11-16 Historical Summary of ORV Collisions by Month of Occurrence

Table 11-16
Summary of ORV Collisions by Month of Occurrence: 2013 to 2018

Month	2013 Total	% of 2013 Total	2014 Total	% of 2014 Total	2015 Total	% of 2015 Total	2016 Total	% of 2016 Total	2017 Total	% of 2017 Total	**2018 Total**	**% of 2018 Total**
January	53	13.6%	40	13.6%	35	13.0%	40	14.9%	34	20.2%	**22**	**13.5%**
February	61	15.6%	44	14.9%	36	13.4%	41	15.3%	26	15.5%	**29**	**17.8%**
March	67	17.1%	41	13.9%	39	14.5%	32	11.9%	11	6.5%	**26**	**16.0%**
April	28	7.2%	30	10.2%	24	8.9%	9	3.4%	16	9.5%	**14**	**8.6%**
May	23	5.9%	27	9.2%	15	5.6%	20	7.5%	12	7.1%	**12**	**7.4%**
June	25	6.4%	13	4.4%	19	7.1%	10	3.7%	13	7.7%	**10**	**6.1%**
July	23	5.9%	20	6.8%	20	7.4%	23	8.6%	12	7.1%	**8**	**4.9%**
August	20	5.1%	20	6.8%	16	5.9%	16	6.0%	6	3.6%	**8**	**4.9%**
September	17	4.3%	16	5.4%	22	8.2%	24	9.0%	8	4.8%	**7**	**4.3%**
October	20	5.1%	16	5.4%	16	5.9%	8	3.0%	12	7.1%	**5**	**3.1%**
November	25	6.4%	14	4.7%	7	2.6%	8	3.0%	6	3.6%	**2**	**1.2%**
December	29	7.4%	14	4.7%	20	7.4%	37	13.8%	12	7.1%	**20**	**12.3%**
Total	391	100%	295	100%	269	100%	268	100%	168	100%	**163**	**100%**

Table 11-17 Historical Summary of ORV Collisions by Location

Table 11-17
Summary of ORV Collisions by Location: 2013 to 2018

Location	2013 Total	% of 2013 Total	2014 Total	% of 2014 Total	2015 Total	% of 2015 Total	2016 Total	% of 2016 Total	2017 Total	% of 2017 Total	**2018 Total**	**% of 2018 Total**
Public Roadway	68	17.4%	45	15.3%	54	20.1%	48	17.9%	14	8.3%	**20**	**12.3%**
Ditches	35	9.0%	16	5.4%	27	10.0%	25	9.3%	14	8.3%	**13**	**8.0%**
River/Lake	42	10.7%	20	6.8%	22	8.2%	18	6.7%	19	11.3%	**15**	**9.2%**
Field	17	4.3%	9	3.1%	17	6.3%	20	7.5%	16	9.5%	**9**	**5.5%**
Farm Yard/Private Property	46	11.8%	46	15.6%	43	16.0%	25	9.3%	19	11.3%	**19**	**11.7%**
Parking Lot	1	0.3%	2	0.7%	2	0.7%	1	0.4%	1	0.6%	**0**	**-**
Embankment	2	0.5%	2	0.7%	1	0.4%	5	1.9%	3	1.8%	**4**	**2.5%**
Gravel Road	12	3.1%	5	1.7%	5	1.9%	5	1.9%	3	1.8%	**3**	**1.8%**
Trail*	88	22.5%	77	26.1%	48	17.8%	76	28.4%	46	27.4%	**43**	**26.4%**
Other**	74	18.9%	66	22.4%	47	17.5%	41	15.3%	33	19.6%	**37**	**22.7%**
Not Stated	6	1.5%	7	2.4%	3	1.1%	4	1.5%	0	-	**0**	**-**
Total	391	100%	295	100%	269	100%	268	100%	168	100%	**163**	**100%**

*Includes marked groomed trail, bush trail/winter road, and snowmobile trail.

**Includes park, forest, bush, camp site, mountain, valley, hill, railroad and floodway/diversion.

Table 11-18 Historical Summary of ORV Collision Victims by Age Group

Table 11-18

Historical Summary of ORV Collision Victims by Age Group: 2013 to 2018

Age Group	2013 Total	% of 2013 Total	2014 Total	% of 2014 Total	2015 Total	% of 2015 Total	2016 Total	% of 2016 Total	2017 Total	% of 2017 Total	**2018 Total**	**% of 2018 Total**
0-4	0	-	0	-	1	1.5%	0	-	1	2.3%	**0**	**-**
5-9	0	-	0	-	1	1.5%	1	1.1%	1	2.3%	**0**	**-**
10-14	1	1.3%	1	1.4%	1	1.5%	2	2.1%	0	-	**2**	**4.0%**
15-19	6	7.9%	8	11.6%	5	7.5%	6	6.4%	1	2.3%	**1**	**2.0%**
20-24	13	17.1%	7	10.1%	9	13.4%	4	4.3%	4	9.3%	**7**	**14.0%**
25-34	16	21.1%	17	24.6%	11	16.4%	20	21.3%	11	25.6%	**14**	**28.0%**
35-44	10	13.2%	12	17.4%	16	23.9%	22	23.4%	6	14.0%	**10**	**20.0%**
45-54	14	18.4%	8	11.6%	10	14.9%	19	20.2%	6	14.0%	**6**	**12.0%**
55-64	7	9.2%	8	11.6%	7	10.4%	10	10.6%	9	20.9%	**7**	**14.0%**
65+	2	2.6%	0	-	2	3.0%	5	5.3%	1	2.3%	**3**	**6.0%**
Not Stated	7	9.2%	8	11.6%	4	6.0%	5	5.3%	3	7.0%	**0**	**-**
Total	76	100%	69	100%	67	100%	94	100%	43	100%	**50**	**100%**

Table 11-19 Historical Summary of ORV Collisions by Contributing Factors

Table 11-19

Historical Summary of ORV Collisions by Contributing Factors: 2013 to 2018

Contributing Factor	2013 Total Drivers	% of 2013 Total Drivers	2014 Total Drivers	% of 2014 Total Drivers	2015 Total Drivers	% of 2015 Total Drivers	2016 Total Drivers	% of 2016 Total Drivers	2017 Total Drivers	% of 2017 Total Drivers	**2018 Total Drivers**	**% of 2018 Total Drivers**
Driver Action - Driving Properly and Human Condition - Apparently Normal	25	5.9%	18	5.5%	34	11.3%	36	12.2%	11	6.2%	**10**	**5.9%**
Driver Action - Driving properly	1	0.2%	0	-	3	1.0%	2	0.7%	0	-	**1**	**0.6%**
Any At-fault Driver Action	176	41.7%	157	48.3%	139	46.3%	170	57.6%	148	83.6%	**128**	**75.3%**
Following too closely	1	0.2%	8	2.5%	7	2.3%	3	1.0%	5	2.8%	**2**	**1.2%**
Turning improperly	2	0.5%	6	1.8%	4	1.3%	4	1.4%	3	1.7%	**1**	**0.6%**
Passing improperly	0	-	0	-	0	-	1	0.3%	0	-	**0**	**-**
Changing lanes improperly	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Fail to yield right-of-way	0	-	1	0.3%	2	0.7%	0	-	2	1.1%	**1**	**0.6%**
Disobey traffic control device/officer	0	-	0	-	1	0.3%	0	-	0	-	**0**	**-**
Drive wrong way on roadway	0	-	0	-	0	-	0	-	0	-	**1**	**0.6%**
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Back unsafely	1	0.2%	1	0.3%	5	1.7%	1	0.3%	3	1.7%	**1**	**0.6%**
Parking improperly	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Lost control/Drive off road	23	5.5%	13	4.0%	22	7.3%	24	8.1%	30	16.9%	**7**	**4.1%**
Driverless vehicle ran out of control	2	0.5%	0	-	0	-	0	-	0	-	**0**	**-**
Leave stop sign before safe to do so	0	-	0	-	0	-	1	0.3%	0	-	**0**	**-**
Failed to signal	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Take avoiding action	3	0.7%	3	0.9%	2	0.7%	5	1.7%	3	1.7%	**1**	**0.6%**
Driver inexperience	3	0.7%	1	0.3%	3	1.0%	8	2.7%	13	7.3%	**6**	**3.5%**
Pedestrian error/confusion	0	-	0	-	0	-	0	-	0	-	**0**	**-**
NET Speed	33	7.8%	35	10.8%	19	6.3%	42	14.2%	64	36.2%	**98**	**57.6%**
Exceeding speed limit	1	0.2%	0	-	0	-	2	0.7%	0	-	**0**	**-**
Driving too fast for conditions	29	6.9%	31	9.5%	18	6.0%	34	11.5%	63	35.6%	**97**	**57.1%**
Unsafe operating speed (Too fast or too slow)	3	0.7%	4	1.2%	1	0.3%	6	2.0%	1	0.6%	**1**	**0.6%**
NET Distracted driving	111	26.3%	109	33.5%	97	32.3%	120	40.7%	57	32.2%	**21**	**12.4%**
Careless Driving	110	26.1%	109	33.5%	93	31.0%	114	38.6%	51	28.8%	**14**	**8.2%**
Distraction/Inattention	2	0.5%	2	0.6%	6	2.0%	11	3.7%	14	7.9%	**7**	**4.1%**

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Section 11 Off-Road Vehicle Collisions

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Contributing Factor	2013 Total Drivers	% of 2013 Total Drivers	2014 Total Drivers	% of 2014 Total Drivers	2015 Total Drivers	% of 2015 Total Drivers	2016 Total Drivers	% of 2016 Total Drivers	2017 Total Drivers	% of 2017 Total Drivers	**2018 Total Drivers**	**% of 2018 Total Drivers**
Human Condition - Apparently Normal	34	8.1%	29	8.9%	38	12.7%	77	26.1%	95	53.7%	**131**	**77.1%**
Any At-fault Human Condition	6	1.4%	5	1.5%	5	1.7%	11	3.7%	3	1.7%	**4**	**2.4%**
Loss of consciousness/Blackout prior to collision	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Extreme fatigue/Fell asleep	0	-	0	-	1	0.3%	0	-	0	-	**0**	**-**
Defective eyesight	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Defective hearing	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Medical disability	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Physical disability	1	0.2%	0	-	0	-	0	-	0	-	**0**	**-**
Mental disability	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Mental confusion/Inability to remember	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Sudden illness	0	-	0	-	0	-	0	-	0	-	**1**	**0.6%**
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-	0	-	**0**	**-**
NET Impaired	5	1.2%	5	1.5%	4	1.3%	11	3.7%	3	1.7%	**3**	**1.8%**
Ability impaired alcohol	2	0.5%	2	0.6%	3	1.0%	6	2.0%	3	1.7%	**2**	**1.2%**
Ability impaired drugs	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Had been drinking/Suspected alcohol use	3	0.7%	3	0.9%	1	0.3%	5	1.7%	0	-	**1**	**0.6%**
No Apparent (Vehicle) Defect	50	11.8%	39	12.0%	64	21.3%	132	44.7%	119	67.2%	**132**	**77.6%**
Any At-fault Vehicle Defect	2	0.5%	3	0.9%	1	0.3%	4	1.4%	0	-	**1**	**0.6%**
Defective brakes	1	0.2%	1	0.3%	0	-	0	-	0	-	**0**	**-**
Defective steering	0	-	0	-	1	0.3%	1	0.3%	0	-	**0**	**-**
Defective headlights	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Defective brake lights	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Defective lighting (unspecified)	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Defective engine controls/drive train	0	-	0	-	0	-	2	0.7%	0	-	**0**	**-**
Defective suspension/wheels	0	-	2	0.6%	0	-	1	0.3%	0	-	**1**	**0.6%**
Defective tires	0	-	0	-	0	-	1	0.3%	0	-	**0**	**-**
Tow hitch/yoke defective	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Defective exhaust system	0	-	0	-	0	-	1	0.3%	0	-	**0**	**-**
Hood/tailgate/door/covering opened	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Defective glazing (obscured windows)	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Vehicle modifications	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Fire	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Overloaded/oversized	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Load shifted/spilled	1	0.2%	0	-	0	-	0	-	0	-	**0**	**-**
Jack-knife/trailer swing	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Hydroplaning tires	0	-	0	-	0	-	0	-	0	-	**0**	**-**

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Section 11 Off-Road Vehicle Collisions

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Contributing Factor	2013 Total Drivers	% of 2013 Total Drivers	2014 Total Drivers	% of 2014 Total Drivers	2015 Total Drivers	% of 2015 Total Drivers	2016 Total Drivers	% of 2016 Total Drivers	2017 Total Drivers	% of 2017 Total Drivers	**2018 Total Drivers**	**% of 2018 Total Drivers**
Any At-fault Environmental Condition	52	12.3%	29	8.9%	25	8.3%	63	21.4%	33	18.6%	**41**	**24.1%**
Animal action - Wild	10	2.4%	5	1.5%	1	0.3%	0	-	3	1.7%	**1**	**0.6%**
Animal action - Domestic	0	-	3	0.9%	1	0.3%	0	-	1	0.6%	**0**	**-**
Slippery road surface	7	1.7%	3	0.9%	2	0.7%	6	2.0%	4	2.3%	**4**	**2.4%**
Snow drift	7	1.7%	2	0.6%	1	0.3%	8	2.7%	5	2.8%	**1**	**0.6%**
Obstruction/debris on roadway	18	4.3%	13	4.0%	15	5.0%	33	11.2%	16	9.0%	**32**	**18.8%**
View obstructed/limited	1	0.2%	2	0.6%	2	0.7%	8	2.7%	1	0.6%	**3**	**1.8%**
Glare/reflection	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Construction zone	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Defective driving surface	7	1.7%	2	0.6%	2	0.7%	13	4.4%	4	2.3%	**0**	**-**
Shoulders defective	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Lane markings inadequate	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Defective/inoperative traffic control device	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Weather	2	0.5%	1	0.3%	2	0.7%	3	1.0%	0	-	**0**	**-**
Pedestrian corridor in use	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Uninvolved vehicle	1	0.2%	0	-	0	-	0	-	0	-	**0**	**-**
Uninvolved pedestrian	0	-	0	-	0	-	0	-	0	-	**0**	**-**
Presence of prior accident	0	-	0	-	0	-	0	-	0	-	**0**	**-**
No Contributing Factor(s) Identified	0	-	1	0.3%	0	-	0	-	0	-	**0**	**-**
Not Stated	158	37.4%	107	32.9%	105	35.0%	60	20.3%	5	2.8%	**4**	**2.4%**
Total	422	100%	325	100%	300	100%	295	100%	177	100%	**170**	**100%**

*Note: For each vehicle and/or driver involved in a collision, up to three contributing factors can be recorded. Because multiple factors can be noted, the counts and percentages under each collision severity will add to more than the total collisions of that severity.

SECTION 12 - Alcohol-Related Criminal Code Convictions

Introduction

This section counts the number of drivers convicted of alcohol-related Criminal Code offences for the year 2017 by age at the time of the offence and includes historical statistics for the period 1998 to 2016. There is a one-year lag in the statistics reported to allow for court processing time. Therefore, 2017 is the most current year for which these statistics are available. Details are provided for "first", "second" and "third and subsequent" (i.e., third, fourth, fifth, etc. combined) offences and whether or not a youth was present in the vehicle at the time of the offence.

Key Highlights
In 2017, there are a total of 1,695 alcohol-related Criminal Code offence convictions, including:

- 970 convictions for driving with a blood alcohol concentration (BAC) over .08[4];
- 630 convictions for impaired driving[5]; and,
- 95 convictions for refusing to provide a breath or blood sample[6].

In 2017, the count of drivers convicted of alcohol-related Criminal Code offences (1,695) decreased by 9% compared to 2016 (1,862), the count decreased by 12% compared to the previous five year (2012 to 2016) annual average (1,931). Comparing 2017 to the previous five year (2012 to 2016) annual average:

- Convictions for "alcohol content over .08" decreased by 14%;
- Convictions for "impaired driving" decreased by 11%; and,
- Convictions for "refuse sample" decreased by 9%.

Licensed drivers up to the age of 44 are overrepresented in alcohol-related Criminal Code convictions.

- Drivers under age 25 represented nearly 14% of the licensed drivers in 2017, but accounted for 23% of convictions.
- Drivers aged 25 to 44 represented nearly 35% of the licensed drivers in 2017, but accounted for nearly 54% of convictions.

Over the past 10 years, from 2007 to 2017, there was a 31% decrease in the rate of first offences. Rates of recidivism, indicated by second, and third and subsequent offences, decreased at a rate of 27% in second alcohol-related Criminal Code offences in 2017, but increased at a rate of 11% in third and subsequent offences in 2017 compared to 2007.

Major Elements Examined
This section reports the number of drivers convicted of alcohol-related Criminal Code offences.

Convictions have been broken down by whether or not a passenger under the age of 16 was in the vehicle at the time the offence occurred (under columns designated by a trailing "C" in the statute number). In 2005, Manitoba added increased consequences to Criminal Code offences 253A, 253B and 254-5 when these offences are committed while a youth was in the vehicle; 2007 represents the first year where these conviction categories are available for reporting.

Beginning in 2007, convictions of Manitoba drivers for impaired driving offences originating in other provinces and the United States have been added to the counts reported here. Prior to that time, these "out-of-province" offences were not included in the annual counts.

"Relative involvement rates" in this section of the report are calculated as a rate per 1,000 licensed drivers to ensure consistency with other jurisdictions.

In years past, the severity of the sanctions imposed by the courts in Manitoba took into account whether or not the offence involved a traffic collision. Until 2004, Driver Records noted whether the conviction was associated with a crash; that procedure has been discontinued and this report no longer includes a separate count for convictions occurring with or without a collision.

[4] Includes s.253B and s.253BC
[5] Includes s.253A, s.253AC, s.255-2 and s.255-3
[6] Includes s.254-5 and s.254-5C

Terms and Definitions

"Blood alcohol concentration (BAC)"

- A measure of the concentration of alcohol in a person's blood. A measure of ".08 BAC" is equivalent of 80 milligrams of alcohol per 1,000 milligrams of blood, or 0.08%.

"Criminal Code 253A" and "Criminal Code 253B"[7]: Impaired driving

- Everyone commits an offence who operates a motor vehicle or vessel or operates or assists in the operation of an aircraft or of railway equipment or has the care or control of a motor vehicle, vessel, aircraft or railway equipment, whether it is in motion or not,
  - (*a*) while the person's ability to operate the vehicle, vessel, aircraft or railway equipment is impaired by alcohol or a drug; or
  - (*b*) having consumed alcohol in such a quantity that the concentration in the person's blood exceeds eighty milligrams of alcohol in one hundred millilitres of blood.
- For greater certainty, the reference to impairment by alcohol or a drug in paragraph (*a*) includes impairment by a combination of alcohol and a drug.
- "253AC" and "253BC" indicate a conviction when there was a youth in the vehicle.

"Criminal Code Statute 254-5": Refusing to comply with a request for sample

- If a peace officer has reasonable grounds to suspect that a person has alcohol or a drug in their body and that the person has, within the preceding three hours, operated a motor vehicle or vessel, operated or assisted in the operation of an aircraft or railway equipment or had the care or control of a motor vehicle, a vessel, an aircraft or railway equipment, whether it was in motion or not, the peace officer may, by demand, require the person to comply with paragraph (*a*), in the case of a drug, or with either or both of paragraphs (*a*) and (*b*), in the case of alcohol:
  - (*a*) to perform forthwith physical coordination tests … and, if necessary, to accompany the peace officer for that purpose; and
  - (*b*) to provide forthwith a sample of breath that, in the peace officer's opinion, will enable a proper analysis to be made by means of an approved screening device and, if necessary, to accompany the peace officer for that purpose.
- Everyone commits an offence who, without reasonable excuse, fails or refuses to comply with a demand made under this section.
- "254-5C" indicates a conviction while a youth was in the vehicle.

"Criminal Code Statute 255-2": Impaired driving/refusing to provide sample causing injury

- Everyone who commits an offence under paragraph 253(*a*) and causes bodily harm to another person as a result is guilty of an indictable offence and liable to imprisonment for a term of not more than 10 years.
- Everyone who, while committing an offence under paragraph 253(*b*), causes an accident resulting in bodily harm to another person is guilty of an indictable offence and liable to imprisonment for a term of not more than 10 years.
- Everyone who commits an offence under subsection 254(5) and, at the time of committing the offence, knows or ought to know that their operation of the motor vehicle, vessel, aircraft or railway equipment, their assistance in the operation of the aircraft or railway equipment or their care or control of the motor vehicle, vessel, aircraft or railway equipment caused an accident resulting in bodily harm to another person is guilty of an indictable offence and liable to imprisonment for a term of not more than 10 years.

[7] Definitions for Criminal Code Statute 253, 254 and 255 are taken directly from the **Criminal Code (R.S., 1985, c. C-46)** of Canada, as posted on the Department of Justice website. (http://lois-laws.justice.gc.ca/eng/)

“Criminal Code Statute 255-3”: Impaired driving/refusing to provide sample causing death

- Everyone who commits an offence under paragraph 253(*a*) and causes the death of another person as a result is guilty of an indictable offence and liable to imprisonment for life.
- Everyone who, while committing an offence under paragraph 253(*b*), causes an accident resulting in the death of another person is guilty of an indictable offence and liable to imprisonment for life.
- Everyone who commits an offence under subsection 254(5) and, at the time of committing the offence, knows or ought to know that their operation of the motor vehicle, vessel, aircraft or railway equipment, their assistance in the operation of the aircraft or railway equipment or their care or control of the motor vehicle, vessel, aircraft or railway equipment caused an accident resulting in the death of another person, or in bodily harm to another person whose death ensues, is guilty of an indictable offence and liable to imprisonment for life.

Table 12-1: Total Alcohol-Related Criminal Code Convictions

Table 12-1
Total Alcohol-Related Criminal Code Convictions: 1998 to 2017*

Year	Alcohol Content Over .08		Impaired Driving		Impaired Driving Causing Injury/Death		Refuse Sample		Total
	253B	253BC	253A	253AC	255-2	255-3	254-5	254-5C	
1998	2,487	N/A	404	N/A	36	1	291	N/A	3,219
1999	2,460	N/A	441	N/A	29	3	320	N/A	3,253
2000	1,959	N/A	493	N/A	34	4	245	N/A	2,735
2001	1,783	N/A	574	N/A	35	2	186	N/A	2,580
2002	1,655	N/A	611	N/A	20	4	143	N/A	2,433
2003	1,464	N/A	567	N/A	19	3	144	N/A	2,197
2004	1,316	N/A	486	N/A	19	4	97	N/A	1,922
2005	1,089	N/A	474	N/A	16	4	98	N/A	1,681
2006	1,270	N/A	478	N/A	12	4	67	N/A	1,831
2007	1,301	3	618	1	14	2	80	0	2,019
2008	1,324	5	593	5	15	3	89	0	2,034
2009	1,344	4	657	3	23	0	84	1	2,116
2010	1,424	3	663	6	23	2	90	0	2,211
2011	1,252	8	577	0	19	5	94	1	1,956
2012	1,177	3	661	6	19	7	106	0	1,979
2013	1,127	5	661	8	16	4	100	1	1,922
2014	1,164	15	700	1	23	3	121	1	2,028
2015	1,049	11	686	7	19	5	84	3	1,864
2016	1,045	15	670	5	14	9	103	1	1,862
2017	**951**	**19**	**615**	**6**	**8**	**1**	**93**	**2**	**1,695**
2012-16 Average	1,112	10	676	5	18	6	103	1	1,931
% Change 2016 to 2017	-9.0%	26.7%	-8.2%	20.0%	-42.9%	-88.9%	-9.7%	100.0%	-9.0%
% Change 2012-16 Average to 2017	-14.5%	93.9%	-9.0%	11.1%	-56.0%	-82.1%	-9.5%	66.7%	-12.2%
% Change 1998 to 2017	-61.8%	N/A	52.2%	N/A	-77.8%	<0.1%	-68.0%	N/A	-47.3%

*There is a one-year lag in the statistics reported to allow for court processing time. Therefore, 2017 is the most current year for which these statistics are available.

Note: In 2005, Manitoba added increased consequences for Criminal Code offences 253A, 253B and 254-5 committed with a youth under the age of 16 in the vehicle. These convictions are denoted by a trailing "C" in the statute number.

NOTE: Counts and percentage change statistics that cannot be calculated due to the fact that the specific conviction code or type did not exist in historical data are noted in the table as “N/A”. Changes to the previous year and to the previous five-year trend for convictions committed with a youth in the vehicle should be interpreted with caution due to small counts.

CAUTION: Beginning in 2007, convictions for impaired driving offences originating in other provinces and the United States have been added to the counts reported here. Prior to that time, these “out-of-province” offences were not included in the annual counts. The difference in convictions noted in 2008 compared to years prior to 2007 is affected by this change.

In 2017, the count of drivers convicted of alcohol-related Criminal Code offences (1,695) decreased by 9% compared to 2016 (1,862); the count decreased by 12% compared to the previous five year (2012 to 2016) annual average (1,931).

Comparing 2017 to the previous five year (2012 to 2016) annual average:

- Convictions for “alcohol content over .08” decreased by 14%;
- Convictions for “impaired driving” decreased by 11%; and,
- Convictions for “refuse sample” decreased by 9%.

In 2017, there were 19 convictions for driving with a blood alcohol concentration (BAC) over .08 while a youth (under age 16) was in the vehicle, 6 for impaired driving while a youth was in the vehicle, and 2 for refusing to provide a breath or blood sample while a youth was in the vehicle. Counts of these convictions over the ten year period have fluctuated dramatically due to their overall low frequency in any given year.

In the 20-year period from 1998 to 2017, total alcohol-related Criminal Code convictions decreased by 47%, from 3,219 in 1998 to 1,695 in 2017.

- Convictions for “alcohol content over .08” decreased by 61% (2,487 in 1998 to 970 in 2017).
- Convictions for “impaired driving” increased by 43% (441 in 1998 to 630 in 2017).
- Convictions for “refuse sample” decreased by 67% (291 in 1998 to 95 in 2017).

Table 12-2: Total Alcohol-Related Criminal Code Convictions by Age Group

Table 12-2
Total Alcohol-Related Criminal Code Convictions by Age Group: 1998 to 2017

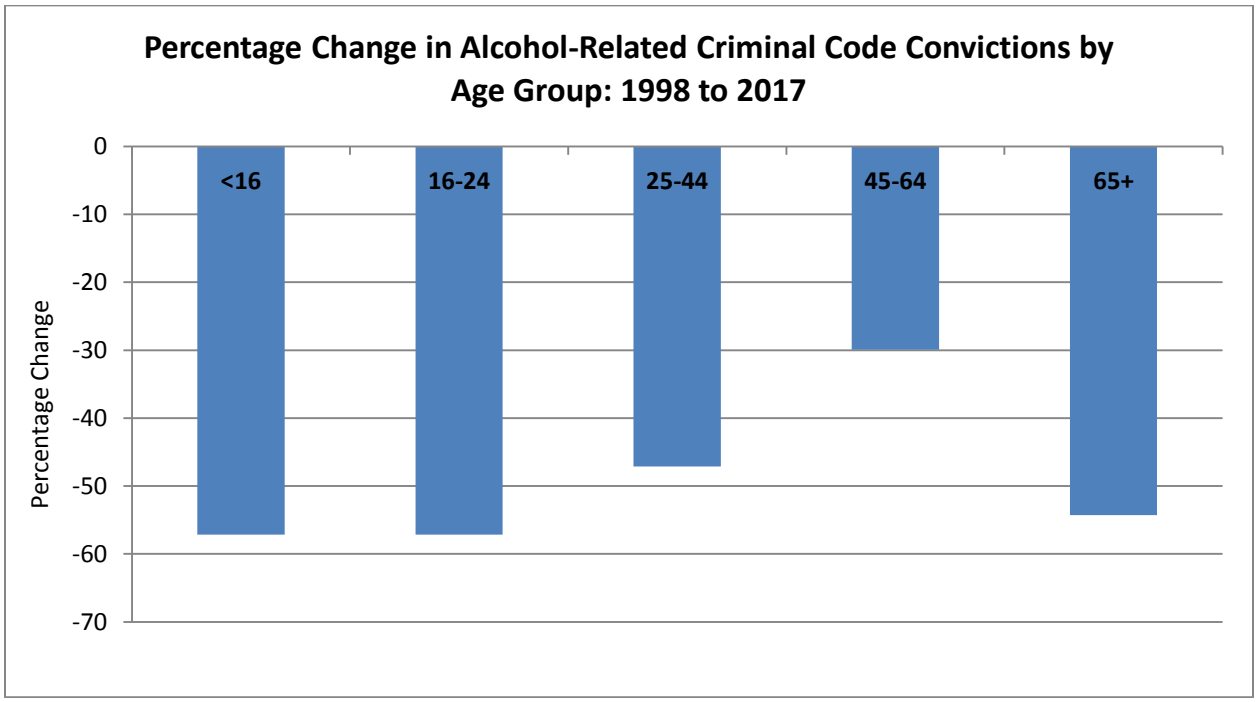
	<16	16-17	18-20	21-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Total
1998	7	109	349	448	495	459	455	306	227	163	82	49	39	25	6	3,219
1999	13	81	412	504	484	445	429	330	248	151	56	46	28	15	11	3,253
2000	12	75	345	430	396	368	354	298	198	102	66	42	23	14	12	2,735
2001	11	91	357	379	384	334	322	259	177	128	54	44	22	15	3	2,580
2002	11	85	333	338	359	309	277	282	175	102	78	39	24	10	11	2,433
2003	7	65	300	308	317	269	237	233	178	109	81	44	26	14	9	2,197
2004	5	55	282	273	251	235	209	232	150	83	63	46	21	13	4	1,922
2005	6	46	210	272	243	204	178	158	139	91	51	45	24	5	9	1,681
2006	8	58	259	298	264	222	173	178	168	82	60	35	16	5	5	1,831
2007	7	50	274	289	306	248	244	200	151	110	67	35	19	9	10	2,019
2008	4	59	234	320	312	245	196	201	197	117	74	43	21	8	3	2,034
2009	2	37	255	341	358	268	222	213	176	120	57	37	19	8	3	2,116
2010	8	43	286	356	353	241	250	198	169	133	76	55	33	7	3	2,211
2011	5	36	235	333	334	220	200	166	157	122	88	36	15	7	2	1,956
2012	7	33	211	318	334	251	239	179	148	128	67	37	18	7	2	1,979
2013	4	29	179	292	302	278	237	179	148	118	72	45	26	12	1	1,922
2014	8	16	186	303	338	290	226	192	150	141	80	47	37	9	5	2,028
2015	6	16	169	277	351	275	197	150	167	109	78	38	23	4	4	1,864
2016	3	17	159	288	345	250	223	171	148	107	72	37	25	7	10	1,862
2017	**3**	**22**	**132**	**234**	**324**	**236**	**177**	**170**	**152**	**100**	**72**	**41**	**19**	**6**	**7**	**1,695**
2012-16 Average	6	22	181	296	334	269	224	174	152	121	74	41	26	8	4	1,931
% Change 2016 to 2017	No change	29.4%	-17.0%	-18.8%	-6.1%	-5.6%	-20.6%	-0.6%	2.7%	-6.5%	No change	10.8%	-24.0%	-14.3%	-30.0%	-9.0%
% Change 2012-16 Average to 2017	-46.4%	-0.9%	-27.0%	-20.8%	-3.0%	-12.2%	-21.1%	-2.4%	-0.1%	-17.1%	-2.4%	0.5%	-26.4%	-23.1%	59.1%	-12.2%
% Change 1998 to 2017	-57.1%	-79.8%	-62.2%	-47.8%	-34.5%	-48.6%	-61.1%	-44.4%	-33.0%	-38.7%	-12.2%	-16.3%	-51.3%	-76.0%	16.7%	-47.3%

Caution: The count of convictions shown does not take into account the number of licensed drivers by age group.

Comparing 2017 to the previous five year (2012 to 2016) annual average:

- There are 12% less convictions in total (a difference of 236);
- Convictions among the youngest age group (under age 16) decreased by a count of 3;
- Convictions among 16 to 24 year olds decreased by 22% (a count of 111);
- Convictions among 25 to 44 year olds decreased by 9% (a count of 94);
- Convictions among 45 to 64 year olds decreased by 6% (a count of 22); and,
- Convictions among those aged 65 and older decreased by 16% (a count of 6).

Figure 12-1: Percentage Change in Alcohol-Related Criminal Code Convictions by Age Group



During the 20-year period 1998 to 2017, alcohol-related Criminal Code convictions have decreased by 47% in Manitoba. Convictions among drivers aged:

- Under 16 decreased by a count of 4;
- 16 to 24 decreased by 57%;
- 25 to 44 decreased by 47%;
- 45 to 64 decreased by 30%; and,
- 65 and older decreased by 54%.

Table 12-3: Total Alcohol-Related Criminal Code Offences by Age Group and Conviction Type

Table 12-3
Total Alcohol-Related Criminal Code Offences by Age Group and Conviction Type: 2017

Age Group	Alcohol Content Over .08		Impaired Driving		Impaired Driving Causing Injury/Death		Refuse Sample		Total
	253B	253BC	253A	253AC	255-2	255-3	254-5	254-5C	
<16	1	1	1	0	0	0	0	0	3
16-17	8	0	14	0	0	0	0	0	22
18-20	80	2	45	0	2	0	3	0	132
21-24	140	1	79	0	1	0	13	0	234
25-29	186	5	117	2	1	1	12	0	324
30-34	127	5	84	1	1	0	17	1	236
35-39	94	1	65	1	2	0	13	1	177
40-44	94	1	64	1	0	0	10	0	170
45-49	75	2	64	0	0	0	11	0	152
50-54	62	1	32	0	1	0	4	0	100
55-59	45	0	23	0	0	0	4	0	72
60-64	19	0	18	1	0	0	3	0	41
65-69	14	0	3	0	0	0	2	0	19
70-74	5	0	1	0	0	0	0	0	6
75+	1	0	5	0	0	0	1	0	7
Total	**951**	**19**	**615**	**6**	**8**	**1**	**93**	**2**	**1,695**

Caution: The count of convictions shown does not take into account population demographics by age group or the number of licensed drivers by age group.

Table 12-4: Alcohol-Related Criminal Code Convictions by Active Licensed Drivers and Age Group

Table 12-4
Alcohol-Related Criminal Code Convictions by Active Licensed Drivers and Age Group: 2007, 2012 and 2017

Age Group	2007			2012			2017		
	# Alcohol Convictions	% Total Alcohol Convictions	% Licensed Drivers	# Alcohol Convictions	% Total Alcohol Convictions	% Licensed Drivers	# Alcohol Convictions	% Total Alcohol Convictions	% Licensed Drivers
<16-24*	620	30.7%	14.2%	569	28.8%	14.4%	391	23.1%	13.5%
25-44	998	49.4%	34.5%	1,003	50.7%	33.6%	907	53.5%	34.5%
45-64	363	18.0%	36.1%	380	19.2%	35.6%	365	21.5%	33.7%
65+	38	1.9%	15.2%	27	1.4%	16.5%	32	1.9%	18.2%
Total	**2,019**	**100%**	**100%**	**1,979**	**100%**	**100%**	**1,695**	**100%**	**100%**

* Includes statistics for individuals under the age of 16 convicted of an alcohol-related Criminal Code offence, but who may not have been licensed at the time of offence.

Alcohol-related convictions decreased by 16% from 2007 (count of 2,019) to 2017 (count of 1,695).

<16 to 24 Age Group
Drivers up to the age of 24 continue to be overrepresented in alcohol-related Criminal Code convictions. Drivers up to the age of 24 accounted for 14% of all licensed drivers in 2007 and 2012, but for 31% of alcohol offence convictions in 2007 and 29% in 2012. In 2017, these drivers represent nearly 14% of the licensed drivers, but accounted for 23% of convictions.

25 to 44 Age Group
Drivers aged 25 to 44 continue to be overrepresented in alcohol-related Criminal Code convictions. In the years 2007, 2012, and 2017, drivers in this group made up nearly 35%, 34%, and nearly 35% of licensed drivers, respectively. However, these drivers accounted for 49% in 2007, 51% in 2012, and nearly 54% in 2017 of all alcohol-related Criminal Code convictions.

45 to 64 Age Group
Drivers aged 45 to 64 are underrepresented in alcohol-related Criminal Code convictions. In the years 2007, 2012, and 2017, drivers in this group made up 36%, 36%, and 34%, respectively, of licensed drivers. At the same time, these drivers accounted for 18% in 2007, 19% in 2012, and nearly 22% in 2017 of all alcohol-related Criminal Code convictions.

65 and Older Age Group
Older drivers are underrepresented in alcohol-related Criminal Code convictions. In the years 2007, 2012, and 2017, drivers 65 years of age and older made up 15%, nearly 17%, and 18% of licensed drivers, respectively, but accounted for only 2% in 2007, 1% in 2012, and 2% in 2017 of alcohol-related Criminal Code convictions each of those years.

Table 12-5: Driver Involvement in "First", "Second", and "Third and Subsequent" Alcohol-Related Criminal Code Convictions by Age Group

Table 12-5
Driver Involvement in 'First', 'Second', and 'Third and Subsequent' Alcohol-Related Criminal Code Convictions by Age Group: 2007, 2012 and 2017

Age Group	2007			2012			2017		
	Alcohol* Convictions	Licensed Drivers	Rate /1,000	Alcohol Convictions	Licensed Drivers	Rate /1,000	Alcohol Convictions	Licensed Drivers	Rate /1,000
Total Alcohol-Related Criminal Code Convictions									
<16-24	620	106,514	5.8	569	120,540	4.7	391	122,592	3.2
25-44	997	259,874	3.8	1,003	281,413	3.6	907	312,722	2.9
45-64	364	271,555	1.3	380	298,335	1.3	365	305,048	1.2
65+	38	114,455	0.3	27	138,193	0.2	32	165,003	0.2
Total	**2,019**	**752,398**	**2.7**	**1,979**	**838,481**	**2.4**	**1,695**	**905,365**	**1.9**
First Occurrence									
<16-24	585	106,514	5.5	526	120,540	4.4	358	122,592	2.9
25-44	890	259,874	3.4	875	281,413	3.1	808	312,722	2.6
45-64	333	271,555	1.2	340	298,335	1.1	330	305,048	1.1
65+	33	114,455	0.3	26	138,193	0.2	29	165,003	0.2
Total	**1,841**	**752,398**	**2.4**	**1,767**	**838,481**	**2.1**	**1,525**	**905,365**	**1.7**
Second Occurrence									
<16-24	33	106,514	0.3	33	120,540	0.3	30	122,592	0.2
25-44	89	259,874	0.3	104	281,413	0.4	73	312,722	0.2
45-64	21	271,555	0.1	32	298,335	0.1	24	305,048	0.1
65+	5	114,455	<0.1	1	138,193	<0.1	3	165,003	<0.1
Total	**148**	**752,398**	**0.2**	**170**	**838,481**	**0.2**	**130**	**905,365**	**0.1**
Third and Subsequent Occurrence									
<16-24	2	106,514	<0.1	10	120,540	0.1	3	122,592	<0.1
25-44	18	259,874	0.1	24	281,413	0.1	26	312,722	0.1
45-64	10	271,555	<0.1	8	298,335	<0.1	11	305,048	<0.1
65+	0	114,455	<0.1	0	138,193	<0.1	0	165,003	<0.1
Total	**30**	**752,398**	**<0.1**	**42**	**838,481**	**0.1**	**40**	**905,365**	**<0.1**

* For comparative purposes, the report assumes each alcohol-related Criminal Code conviction is for a single licensed driver although a single driver may obtain more than one alcohol-related Criminal Code conviction in any given year or specific incident.

Compared to ten years ago, the involvement rate of drivers in alcohol-related Criminal Code convictions has decreased by 30% (2.7 per 1,000 licensed drivers in 2007; 1.9 per 1,000 licensed drivers in 2017).[8]

[8] Please note that due to the inclusion of only one decimal place in the figures displayed in Table 12-5 that some of the percentage changes in involvement rate noted will be different than those calculated using the figures from the table. The reported percentage change uses multiple decimal points in its calculation while the displayed figures have been rounded to one decimal.

<16 to 24 Age Group
For every 1,000 licensed drivers in this age group, there were 5.8, 4.7 and 3.2 alcohol-related Criminal Code convictions in 2007, 2012 and 2017, respectively. The 2017 rate for this age group is 45% lower than the 2007 rate.

25 to 44 Age Group
The relative involvement rate of drivers aged 25 to 44 in alcohol-related Criminal Code convictions (per 1,000 licensed drivers) was 3.8 in 2007, 3.6 in 2012, and 2.9 in 2017. The 2017 rate for this age group is 24% lower than the 2007 rate.

45 to 64 Age Group
The relative involvement rate of drivers aged 45 to 64 in alcohol-related Criminal Code convictions (per 1,000 licensed drivers) was 1.3 in 2007, 1.3 in 2012, and 1.2 in 2017. The 2017 rate for this age group is 11% lower than the 2007 rate.

65 and Older Age Group
The relative involvement rate of drivers aged 65 and older in alcohol-related Criminal Code convictions (per 1,000 licensed drivers) was 0.3 in 2007, 0.2 in 2012, and 0.2 in 2017. The 2017 rate for this age group is 42% lower than the 2007 rate.

First Occurrence
In 2017, the number of drivers convicted of an alcohol-related Criminal Code offence for the **first** time has decreased by 17% compared to ten years ago (1,841 in 2007; 1,525 in 2017).

Comparing the involvement rates (per 1,000 licensed drivers) for 2007 and 2017, first occurrence Criminal Code convictions decreased by 31% overall.

- Age 24 and under – a 47% decrease in 2017 compared to 2007
- Age 25 to 44 – a 25% decrease in 2017 compared to 2007
- Age 45 to 64 – a 12% decrease in 2017 compared to 2007
- Age 65 and older – a 39% decrease in 2017 compared to 2007

Second Occurrence
In 2017, the number of drivers convicted of an alcohol-related Criminal Code offence for the **second** time has decreased by 12% compared to ten years ago (148 in 2007; 130 in 2017).

Comparing the involvement rates (per 1,000 licensed drivers) for 2007 and 2017, second occurrence Criminal Code convictions decreased by 27% overall.

- Age 24 and under – a 21% decrease in 2017 compared to 2007
- Age 25 to 44 – a 32% decrease in 2017 compared to 2007
- Age 45 to 64 – a 2% increase in 2017 compared to 2007
- Age 65 and older – a 58% decrease in 2017 compared to 2007; a count of 3 in 2017 compared to 5 in 2007

Third and Subsequent Occurrence
In 2017, the number of drivers convicted of an alcohol-related Criminal Code offence for the **third and subsequent** time has increased by 33% compared to ten years ago (30 in 2007; 40 in 2017).

Comparing the involvement rates (per 1,000 licensed drivers) for 2007 and 2017, third and subsequent occurrence Criminal Code convictions increased by 11% overall.

- Age 24 and under – a count of 3 in 2017 compared to 2 in 2007; a 30% increase in the rate
- Age 25 to 44 – a count of 26 in 2017 compared to 18 in 2007; a 20% increase in the rate
- Age 45 to 64 – a count of 11 in 2017 compared to 10 in 2007; a 2% decrease in the rate
- Age 65 and older – none in 2017 and in 2007

CAUTION: Please interpret numbers of convictions for “second” and “third and subsequent” offences with caution. Due to the small numbers of these convictions overall, small shifts in the counts can produce relatively large percentage change differences.

GLOSSARY – Terms & Definitions

Terms and Definitions

"Accident Configuration"

- Briefly describes the action taken by a vehicle immediately prior to or at the start of the collision, including such events as rear-ending another vehicle, side-swiping another vehicle, turning into (the path of) another vehicle, parking, meeting another vehicle at an intersection and/or leaving the roadway.
- "Other" in terms of accident configuration includes, primarily, collisions involving more than one configuration or sequence of events.

"Active Drivers"

- Drivers holding an active Manitoba Driver's Licence of any specific Licence Class

"At-fault Contributing Factor"

- A contributing factor where some action or condition other than "driving properly" and "apparently normal" has been noted.

"ATV"

- All Terrain Vehicle; includes vehicles with 3, 4 and 6 wheels.

"Blood alcohol concentration (BAC)"

- A measure of the concentration of alcohol in a person's blood. A measure of ".08 BAC" is equivalent of 80 milligrams of alcohol per 1,000 milligrams of blood, or 0.08%.

"Casualty Type"

- A classification of the severity of the injury sustained by a victim in a traffic collision, i.e., whether someone was killed or injured. This classification also includes a designation for the severity of each non-fatal injury sustained (i.e., victims sustaining a serious/major, minor or minimal injury).

"Collision Severity"

- A classification of a collision based on the most severe result of the collision, i.e., whether someone was killed (fatal), injured (injury) or property damage only (PDO) occurred.

"Collision Type"

- Refers to the object struck by a motor vehicle during a collision (including: a pedestrian, another motor vehicle, a train, a motorcycle, a bicycle, an animal, and fixed objects) or to what happened to the vehicle in a single-vehicle collision (including: overturned on roadway and ran off roadway).

"Contributing Factor"

- Those circumstances or factors recorded as having contributed to the collision or its severity. Factors can be selected from four categories: driver action, human condition, vehicle condition, or environmental condition. The TAR allows for up to three contributing factors to be recorded for each driver or vehicle involved in the collision.

"Criminal Code 253A" and "Criminal Code 253B"[9]: Impaired driving

- Every one commits an offence who operates a motor vehicle or vessel or operates or assists in the operation of an aircraft or of railway equipment or has the care or control of a motor vehicle, vessel, aircraft or railway equipment, whether it is in motion or not,
  - (*a*) while the person's ability to operate the vehicle, vessel, aircraft or railway equipment is impaired by alcohol or a drug; or
  - (*b*) having consumed alcohol in such a quantity that the concentration in the person's blood exceeds eighty milligrams of alcohol in one hundred millilitres of blood.
- For greater certainty, the reference to impairment by alcohol or a drug in paragraph (*a*) includes impairment by a combination of alcohol and a drug.
- "253AC" and "253BC" indicate a conviction while a youth was in the vehicle.

[9] Definitions for Criminal Code Statute 253, 254 and 255 are taken directly from the **Criminal Code (R.S., 1985, c. C-46)** of Canada, as posted on the Department of Justice website. (http://laws.justice.gc.ca/en/)

"Criminal Code Statute 254-5": Refusing to comply with a request for sample

- If a peace officer has reasonable grounds to suspect that a person has alcohol or a drug in their body and that the person has, within the preceding three hours, operated a motor vehicle or vessel, operated or assisted in the operation of an aircraft or railway equipment or had the care or control of a motor vehicle, a vessel, an aircraft or railway equipment, whether it was in motion or not, the peace officer may, by demand, require the person to comply with paragraph (*a*), in the case of a drug, or with either or both of paragraphs (*a*) and (*b*), in the case of alcohol:
    - (*a*) to perform forthwith physical coordination tests … and, if necessary, to accompany the peace officer for that purpose; and
    - (*b*) to provide forthwith a sample of breath that, in the peace officer's opinion, will enable a proper analysis to be made by means of an approved screening device and, if necessary, to accompany the peace officer for that purpose.
- Everyone commits an offence who, without reasonable excuse, fails or refuses to comply with a demand made under this section.
- "254-5C" indicates a conviction while a youth was in the vehicle.

"Criminal Code Statute 255-2": Impaired driving/refusing to provide sample causing injury

- Everyone who commits an offence under paragraph 253(*a*) and causes bodily harm to another person as a result is guilty of an indictable offence and liable to imprisonment for a term of not more than 10 years.
- Everyone who, while committing an offence under paragraph 253(*b*), causes an accident resulting in bodily harm to another person is guilty of an indictable offence and liable to imprisonment for a term of not more than 10 years.
- Everyone who commits an offence under subsection 254(5) and, at the time of committing the offence, knows or ought to know that their operation of the motor vehicle, vessel, aircraft or railway equipment, their assistance in the operation of the aircraft or railway equipment or their care or control of the motor vehicle, vessel, aircraft or railway equipment caused an accident resulting in bodily harm to another person is guilty of an indictable offence and liable to imprisonment for a term of not more than 10 years.

"Criminal Code Statute 255-3": Impaired driving/refusing to provide sample causing death

- Everyone who commits an offence under paragraph 253(*a*) and causes the death of another person as a result is guilty of an indictable offence and liable to imprisonment for life.
- Everyone who, while committing an offence under paragraph 253(*b*), causes an accident resulting in the death of another person is guilty of an indictable offence and liable to imprisonment for life.
- Everyone who commits an offence under subsection 254(5) and, at the time of committing the offence, knows or ought to know that their operation of the motor vehicle, vessel, aircraft or railway equipment, their assistance in the operation of the aircraft or railway equipment or their care or control of the motor vehicle, vessel, aircraft or railway equipment caused an accident resulting in the death of another person, or in bodily harm to another person whose death ensues, is guilty of an indictable offence and liable to imprisonment for life.

"Driver Action"

- A category of contributing factors attributed to actions taken or performed by a driver immediately prior to a collision.

"Driver Involvement Rate"

- A calculation of the number of drivers involved in traffic collisions for every 10,000 drivers licensed in Manitoba. The total number of drivers licensed to drive includes both active and suspended drivers. This involvement rate does not take into account the number of vehicle kilometres driven by each driver group.

"Environmental Condition"

- A category of contributing factors attributed to environmental conditions (i.e., weather, road surface and animal actions) immediately prior to a collision.

"Fatal Collision"

- A motor vehicle collision in which at least one person is killed as a result of the collision. The death must have occurred within thirty days of the collision occurrence.

"Graduated Driver Licensing (GDL)"

- A three-stage program designed to help new drivers, regardless of age, acquire the knowledge and skill needed to safely operate a motor vehicle. Each licence stage has specific rules and restrictions governing when and under what circumstances the holder is allowed to operate a motor vehicle, enabling novice drivers to gain more experience under a greater variety of driving conditions. Both Class 5 and Class 6 licences have a GDL stage associated with them.
- Three stages of GDL: Learner (5/L or 6/L); Intermediate (5/I or 6/I); and, Full (5/F or 6/F).
- To view a full discussion of the GDL program in Manitoba, please visit:
  - https://www.mpi.mb.ca/Pages/graduated-driver-licensing.aspx; ou en Français,
  - https://www.mpi.mb.ca/Pages/graduated-driver-licensing-fr.aspx

"Human Condition"

- A category of contributing factors attributed to the physical or mental condition of a driver immediately prior to a collision, most often that limit the driver's ability to drive safely or properly.

"Injured"

- The casualty type "injured" indicates the victim sustained some level of personal injury, but in which they were not killed. Levels of injury include: 'serious' or 'major' (admitted to hospital); 'minor' (treated and released from hospital); and, 'minimal' (no hospital treatment required). 'Other' injury is noted when the severity of the victim's injuries is not known or recorded in the TAR.

"Injury Collision"

- A motor vehicle collision in which at least one person has been recorded as sustaining some level of personal injury, but in which no one is fatally injured or killed.

"Involvement"

- A calculation of the number of collisions per specific unit of licensed drivers or registered vehicles. For the purposes of this report, involvement is calculated per 10,000 licensed drivers or registered vehicles.

"Killed"

- The casualty type "killed" indicates the victim involved in the traffic collision died as a result of their injuries within thirty (30) days of the collision occurrence.

"Licence Class"

- A Manitoba Driver's Licence of a specific level which permits the holder to operate vehicles within a specific Vehicle Class

"Licensed Drivers"

- A count of all Manitobans aged 16 and older who hold a valid licence within the licensing year including active and suspended drivers. (See *Section 2 Licensed Drivers* for more information)

"Light Condition"

- Describes the light conditions at the scene of the accident, including:
  - Day – the light conditions which normally occur between one half hour after sunrise and one half hour before sunset;
  - Dawn – the light conditions which normally occur between one half hour before sunrise and one half hour after sunrise;
  - Dusk – the light conditions which normally occur between one half hour before sunset and one half hour after sunset;
  - Dark – the light conditions which normally occur between one half hour after sunset and one half hour before sunrise; and,
  - Artificial lighting – artificial illumination devices were functioning at the accident site under light conditions which normally occur between one half hour after sunset and one half hour before sunrise.

"Light Duty Vehicles"

- A classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: passenger vehicles (automobile), mini/multi-purpose van, van under 4,500 kg and pick-up under 4,500 kg.

"NSC Commercial Vehicles"

- The National Safety Code (NSC) classification of vehicles is a classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: "Truck greater than 4,500 kilograms (unit chassis)", "Power Unit for Semi-Trailer", "Truck (Other)" (where the type and size of truck is unknown), "School Bus", "Transit Bus (Urban)", "Inter-City Bus", and "Bus (Other)". These vehicles bear a National Safety Code Number and are entered onto the National Safety Code Collision Monitoring Report.

"Off-road Vehicle (ORV)"

- One of several vehicle types designed for off-road use. It includes snowmobiles, off-road motorcycles, all-terrain vehicles (ATVs), amphibious vehicles, dune/sport buggies, and 4-wheel drive vehicles operated off-road.

"Pedestrian Action"

- Refers to the actions taken by a pedestrian immediately prior to a collision (including: crossing at an intersection with or without the right-of-way, crossing between intersections, running into the roadway, walking on the roadway, lying on the roadway, playing on the roadway, etc.).

"Pedestrian Involvement Rate"

- A calculation of the number of pedestrians involved in traffic collisions for every 100,000 people in the general population in Manitoba. Population statistics are taken from the Provincial government and can be found at the following web address: http://www.gov.mb.ca/health/annstats/index.html

"Pre-collision activity"

- The action of a vehicle immediately prior to involvement in a collision. This is an indication of what the vehicle was doing prior to the accident or to the driver realizing that a collision may occur and does not include vehicle manoeuver to avoid the collision.

"Property Damage Only (PDO) Collision"

- A motor vehicle collision in which no injury or fatality is sustained and only property damage is the result.

"PSV Vehicles"

- Also known as 'public service vehicles', a classification of vehicle types including those defined in the Traffic Accident Report (TAR) as: "Other school vehicle", and "Emergency vehicles", including ambulance, fire and police vehicles.

"Public Roadway"

- A public roadway in Manitoba is considered to be any provincial road (PR), provincial trunk highway (PTH) or municipal road, including the entrances to and exits from these roadways. This excludes all off-road areas, parking lots, private property and First Nation Reserve roads (unless the road is a PR or PTH running through, across or on Reserve lands).

"Region"

- Manitoba Infrastructure and Transportation is served by 5 regional office locations, each responsible for a geographic region (for boundaries, see Map 11-1). "Regions" are used to indicate the region in which a collision occurred.

"Reportable Collision"

- Prior to a change in the Highway Traffic Account (which took effect in October of 2011), motor vehicle collisions resulting in a fatality, injury or property damage in excess of $1,000 were required by law to be reported to a law enforcement agency. Subsequently, the law enforcement agency completed a Traffic Accident Report for the collision.
- Amendments to the Highway Traffic Act (which received Royal Ascent in June 2011 and took effect in October of 2011) changed the definition of a reportable collision to require a police report be made if the driver is aware, has reason to believe, or is later made aware, that a collision involves: a fatality; an injury requiring admittance to hospital for observation or treatment; another driver not having a valid driver's licence; another vehicle not validly registered; the driver of another vehicle not providing the required particulars; the driver of another vehicle not stopping at the scene of the accident; or, alcohol or another intoxicating substance as a factor in the accident.

- As of October 2011, all accidents occurring on a public roadway where the above conditions are not met are reported through the claim registration process with Manitoba Public Insurance.
- As of 2012 and consistent with other jurisdictions in Canada, it is a requirement that a minimum of $2,000 damage (all vehicles combined) is necessary for property damage only (PDO) collisions to be included in this report.
- This report deals with these reportable collisions and the TARs arising from them, regardless of whether the TAR is generated by law enforcement agencies or by Manitoba Public Insurance.

"Reportable ORV Collision"

- ORV collisions resulting in a fatality, injury or property damage in excess of $1,000 are required by law to be reported to a law enforcement agency. Subsequently, the law enforcement agency completes a Traffic Accident Report (TAR) for the collision. This report deals with these reportable ORV collisions and the TARs arising from them.

"Road User Class"

- A classification based on how a person involved in a collision was using the road at the time of the collision. It includes: Drivers (of motor vehicles), Passengers (in motor vehicles), those Riding/Hanging On (to a motor vehicle), Motorcyclist (drivers and passengers), Moped (drivers and passengers), Bicyclist (drivers and passengers), and Pedestrians.

"Rural Location"

- Collisions occurring on primary highways, secondary highways and local roadways, including the Trans Canada Highway and excluding those that occur within the municipal boundaries of an urban area.

"Suspended drivers"

- Drivers holding a Manitoba Driver's Licence of any specific Licence Class who have been disqualified from driving for some reason. Although the list is extensive, some possible suspensions could be for driving violations, medical conditions, administrative suspensions and criminal code convictions.

"Urban Location"

- Collisions occurring within the municipal boundaries of urban areas, including Winnipeg, Brandon, Portage la Prairie, Flin Flon, Dauphin, Thompson, The Pas, Selkirk and others.

"Vehicle Class"

- Category of vehicles meeting specific designations and specifications
- Non-commercial vehicle classes are vehicles registered for private use and include:
    - Passenger - A motor vehicle classified by the manufacturer as a passenger car or which is designed, constructed or adapted for the principle purpose of transporting passengers and includes a delivery car, but does not include a motorcycle, moped or motor vehicle which is designed, constructed or adapted for the purpose of carrying goods or commodities.
    - Antique - A car, truck or motorcycle that is more than thirty years old at the time of application for registration. A motor vehicle registered as an antique car, truck or motorcycle can be driven only when: taking it to be repaired or serviced; displaying it to the public in a parade or procession and driving it to or from such a parade or procession; driving it to an antique car, truck or motorcycle rally as authorized by the Registrar of Motor Vehicles.
    - Motorcycle - A vehicle that has a steering handlebar completely constrained from rotating in relation to the axle of one wheel in contact with the ground, is designed to travel on not more than three wheels in contact with the ground, has a minimum unladen seat height of 650 millimetres, has a minimum wheel rim diameter of 250 millimetres, has a minimum wheelbase of 1,016 millimetres, and, has a maximum speed capability of more than 50 km/h but does not include a moped, power-assisted bicycle or tractor.
    - Moped - A motor vehicle which has 2 tandem wheels or 3 wheels, each of which is more than 250 millimetres in diameter, has a seat or saddle having a minimum unladen height of 650 millimetres, when measured from the ground level to the top of the forward most part of the saddle, is capable of being driven at all times by pedals only if so equipped, by motor only or by both pedals and motor, and, the motor has a piston displacement of not more than 50 cubic centimetres, or is an electric motor neither of which is capable of enabling the moped to attain a speed greater than 50 km/h.

- Truck – see “Passenger”.
- Farm Truck - A motor vehicle classified as a “truck” at time of registration and is owned by a person engaged in farming.
- Snow Vehicle A vehicle that has a gross vehicle weight in exceeding 454 kilograms and is not equipped with wheels, but in place thereof is equipped with tractor treads alone or with tractor treads and skis, or with skis and a propeller, or is a toboggan equipped with tractor treads or a propeller, is designed primarily for operating over snow or ice, and is used primarily for that purpose, and is designed to be self-propelled.
- Trailer - A vehicle designed for carrying persons or chattels, and for being towed by a motor vehicle, and includes a farm trailer but does not include an implement of husbandry that is temporarily towed, propelled, or moved upon a highway.
- Tractor - A self-propelled vehicle that is designed primarily for traction purposes, and that is not itself constructed to carry a load other than the driver, and includes a farm tractor but does not include a truck tractor or a special mobile machine.

- Commercial vehicle classes are those involving vehicles registered to or for the use of a business and include:
  - Truck - A truck (or trailer) used to transport the registered owner’s (or lessee’s) own business goods: beyond a radius of 20 kilometres of the City of Winnipeg, where the registered owner’s business address is in the City of Winnipeg, beyond a radius of 30 kilometres of a city, town or village other than the City of Winnipeg, where the registered owner’s address is not in the City of Winnipeg.
  - Public Service Vehicles (PSV) - A motor vehicle or trailer operated by or on behalf of any person, for transportation for gain or compensation of persons or property upon a highway, and includes a semi-trailer truck; but does not include the passenger-carrying-motor vehicles of an electric, or steam railway or motor bus company operating on the streets of a city, or school buses, ambulances or hearses or motor vehicle operated for gain or compensation under *The Taxicab Act* or a municipal by-law in cities, towns, and villages.
  - Dealer - A person who carries on the business as principal or agent, or who holds himself or herself out as carrying on the business as principal or agent, (a) of buying motor vehicles or trailers; (b) of selling motor vehicles or trailers, whether or not in combination with leasing them; or (c) of buying and selling motor vehicles or trailers, whether or not in combination with leasing them.
  - Repairer - A person who maintains a garage for the purpose of rendering services therein upon motor vehicles and/or trailers, at a charge, price or consideration; or who owns and operates a fleet of five or more motor vehicles or trailers; or both, and maintains a facility for their repair, is permitted under The Highway Traffic Act to obtain “Repairer” licence plates to be used to transport motor vehicles for repair from place of origin to the repair facility and return, and the testing of the motor vehicle after the repair work has been completed.
  - Taxi - A motor vehicle had, kept, used, intended for use, or operated, for the transportation of persons for compensation, and includes such vehicles when garaged or under repair; but does not include a public service vehicle, a trolley bus or passenger-carrying motor vehicle or a public transportation system operating on the streets of a city, a school bus, an ambulance, a hearse, or a motor vehicle, or vehicle of a class of motor vehicles, that The Taxicab Board established under The Taxicab Act excludes from the definition of a taxicab under that Act.
  - Livery - A vehicle licenced under *The Highway Traffic Act* for the transportation of persons for compensation and is licensed to operate in the Province according to terms issued by the Motor Transport Board.
  - Trailers – see previous definition.

"Vehicle Condition"

- A category of contributing factors attributed to the physical condition of a vehicle immediately prior to a collision.

"Vehicle Occupant"

- All those in the "Road User Class" of "Drivers" and "Passengers". It excludes "Motorcyclist", "Bicyclist", "Moped", those "Riding/Hanging On" to a vehicle and "Pedestrians".

"Vehicle Involvement Rate"

- A calculation of the number of vehicles involved in traffic collisions for every 10,000 vehicles registered in Manitoba. The total number of vehicles registered is based on a point-in-time observation of the number of vehicles registered in specific vehicle classes. More detail regarding the methodology used to count registered vehicles can be found in "*Section 3 Vehicle Registrations*" of this report.

"Victim Involvement Rate"

- A calculation of the number of victims or casualties involved in traffic collisions for every 100,000 people in the general population in Manitoba. Population statistics are taken from the Provincial government and can be found at the following web address: http://www.gov.mb.ca/health/annstats/index.html

"Weather Condition"

- Describes the weather conditions prevalent at the time of the accident, including:
    - Clear – bright conditions, without precipitation or airborne matter, are recorded as clear;
    - Cloudy – dull, overcast conditions, without precipitation or airborne matter, are recorded as cloudy;
    - Raining – raining (self explanatory);
    - Snowing – snowing (self explanatory);
    - Fog or Mist – airborne matter, of natural origin, which obscures visibility;
    - Smoke or Dust – airborne matter, of a natural or artificial origin, which obscures visibility;
    - Freezing Rain / Sleet / Hail – freezing rain, sleet or hail (self explanatory);
    - Drifting Snow – snow drifting on or above roadway, which obscures visibility of the roadway, road markings, traffic devices or roadway fixtures; and,
    - Strong Winds – used if wind was a contributing factor in the accident.