

# Traffic Collision Statistics Report **2015**

Published: September 19, 2016



**Manitoba  
Public Insurance**



## Executive Summary





## **2015 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. 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.

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. When comparing 2015 to the five year average from 2010 to 2014, there will be an increase in collision counts that is partially a result of this change to two reporting sources. 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 2015.

### **Licensed Drivers and Vehicle Registrations**

There are 881,338 licensed drivers in Manitoba in 2015, an increase of 1% compared to 2014.

Overall, there are 1,052,376 vehicles registered in Manitoba (commercial and non-commercial, combined) in 2015, a 2% increase from 2014.

### **Traffic Collisions**

In 2015, there are a total of 41,548 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:

- 69 involve a fatality (0.2% of all collisions);
- 9,127 involve an injury, but not a fatality (22% of all collisions); and,
- 32,352 involve property damage only (78% of all collisions).

Overall traffic collisions in Manitoba in 2015 increased compared to 2014 and to the previous five year (2010 to 2014) annual average. There are 41,548 collisions in 2015, up from 40,672 collisions in 2014 and from 36,587 on average in the five year period 2010 to 2014. The increase in the total number of collisions in 2015 compared to 2014 is attributable to increases in collisions by all severity types. There are 5 more fatal collisions, 104 more injury collisions, and 767 more PDO collisions reported in 2015 than in 2014 (representing proportional changes of 8%, 1%, and 2%, respectively).

### **People Killed and Injured in Collisions**

In 2015, there are 12,017 victims (or casualties) of traffic collisions. Of these:

- 78 are killed (fewer than the average in the previous five years, 89);
- 415 are seriously injured (more than the average in the previous five years, 320);
- 1,947 sustain minor injuries (fewer than the average in the previous five years, 2,282);
- 9,014 sustain minimal injuries (more than the average in the previous five years, 6,606); and,
- 563 sustain injuries that are undefined in terms of severity (more than the average in the previous five years, 503).

The victim involvement rate (per 100,000 people in the general population) in traffic collisions in 2015 (910.1) has increased by 2% compared to 2014 (893.8) and by 18% compared to the previous five years (2010 to 2014) annual average (769.4). Victim involvement rates in traffic collisions in 2015 where the person:

- Is killed (5.9 in 2015) is nearly 14% higher than in 2014, but 16% lower than in the previous five years; and,
- Is injured, including all levels of severity (but excluding killed; 904.2 in 2015), is 2% higher than in 2014 and 19% higher 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 and seriously injured. In 2015, 86% of all casualties result from traffic collisions in urban areas. Traffic collisions in rural locations, however, account for 72% of people killed and 44% of people seriously injured. In the previous five year (2010 to 2014) annual average, 83% of all victims are from traffic collisions in urban locations, while 67% of people killed and 48% of people seriously injured are from traffic collisions in rural locations.

Victims in 2015 appear to follow a fairly typical distribution compared to past years in terms of month of occurrence. The winter months (January, February, and December) stand out as the months accounting for a disproportionate number of traffic collision victims overall, both in 2015 (32% of all victims) and in the previous five year (2010 to 2014) annual average (31%). In 2015 (and very 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 March to August) and is highest in late fall, winter and early spring (ranging from 9% to 11% of all victims in each month from October to February).

Considering people killed and seriously injured in Manitoba traffic collisions in 2015:

- Drivers account for the largest proportion of people killed (63%) and seriously injured (62%);
- Passengers account for 17% of people killed and 25% of people seriously injured;
- Pedestrians account for nearly 12% of people killed and 4% of people seriously injured;
- Bicyclists account for 1% of people killed and 1% of people seriously injured; and,
- Motorcyclists (including mopeds riders) account for 8% of people killed and 7% of people seriously injured.

In 2015, most vehicle occupant victims (including drivers, passengers and motorcyclists/moped riders) were using safety equipment at the time of the collision (99% of all victims where use is known). However, 29% of the people killed and 7% 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.

In 2015, 98% of driver and passenger victims were using the available safety equipment (seatbelts and child safety seats) and were not ejected from the vehicle. However, 80% of people ejected and killed were not using the available safety equipment at the time of the collision.

### **Drivers and Vehicles Involved in Collisions**

In 2015, there are 59,716 drivers involved in traffic collisions. Of these:

- 103 are involved in fatal collisions;
- 16,088 are involved in injury collisions; and,
- 43,525 are involved in PDO collisions.

The driver involvement rate (per 10,000 licensed drivers) in traffic collisions in 2015 is 677.6, a decrease of 4% compared to the rate in 2014 (705.1), but an increase of 2% from the previous five year (2010 to 2014) annual average (663.0). In 2015, driver involvement in:

- Fatal collisions (1.2) increased by 13% from 2014, but decreased by 12% compared to the previous five years;
- Injury collisions (182.5) decreased by 2% from 2014, but increased by 16% compared to the previous five years; and,
- PDO collisions (493.9) decreased by 5% from 2014, and by 2% compared to the previous five years.

Young drivers have a much higher rate of involvement in traffic collisions than older drivers. In 2015, drivers aged 16 to 24 years old have an involvement rate (per 10,000 licensed drivers) in traffic collisions of 1,009.4. This is:

- 1.2 times that of drivers aged 25 to 34 (rate of 826.0);
- 1.4 times that of drivers aged 35 to 44 (rate of 736.8);
- 1.5 times that of drivers aged 45 to 54 (rate of 652.7);
- 1.9 times that of drivers aged 55 to 64 (rate of 519.3); and,
- More than two-and-a-half times that of drivers aged 65 and older (rate of 381.3).

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.

In 2015, there are 61,711 vehicles involved in traffic collisions. Of these:

- 106 are involved in fatal collisions;
- 16,184 are involved in injury collisions; and,
- 45,421 are involved in PDO collisions.

Vehicle involvement in traffic collisions per 10,000 registered vehicles (vehicle involvement rate) has decreased in 2015 compared to 2014, but has increased relative to the previous five year (2010 to 2014) annual average. The vehicle involvement rate in collisions in 2015 for:

- Total collisions is 700.2 – decreased by nearly 3% from 2014, but increased by 3% from the previous five years;
- Fatal collisions is 1.2 – increased by 10% from 2014, but decreased by 14% from the previous five years;
- Injury collisions is 183.6 – decreased by 2% from 2014, but increased by 15% from the previous five years; and,
- PDO collisions is 515.4 – decreased by 3% from 2014, and decreased by 1% from the previous five years.

### Contributing Factors to Collisions

In 2015, 69% of all collisions have some at-fault contributing factor recorded (87% of fatal collisions; 75% of injury collisions). In 2015:

- A driver action is a contributing factor in 62% of all **collisions** (81% of fatal collisions; 72% of injury collisions; 59% of PDO collisions);
- A human condition is a contributing factor in 1% of all **collisions** (25% of fatal collisions; nearly 2% of injury collisions; less than 1% of PDO collisions); and,
- Environmental conditions are contributing factors in 10% of all **collisions** (nearly 15% of fatal collisions; 6% of injury collisions; 11% of PDO collisions).

The most prevalent **contributing factors recorded for collisions** in 2015 include:

- Distracted driving – 23% of all collisions (36% fatal; 25% injury; 22% PDO);
- “Following too closely” – 17% of all collisions (3% fatal; 28% injury; 14% PDO);
- Speed – 7% of all collisions (19% fatal; 8% injury; 7% PDO);
- “Backing unsafely” – 7% of all collisions (none fatal; 2% injury; 9% PDO);
- “Turning improperly” – 6% of all collisions (6% fatal; 8% injury; nearly 6% PDO);
- “Fail to yield right-of-way” – nearly 6% of all collisions (12% fatal; 9% injury; 5% PDO);
- “Changing lanes improperly” – 5% of all collisions (none fatal; 4% injury; 5% PDO);
- The actions of a wild animal – 5% of all collisions (1% fatal; 1% injury; nearly 6% PDO);
- “Lost control/Drive off the road” – 4% of all collisions (13% fatal; 4% injury; 4% PDO); and,
- “Slippery road surface” – 3% of all collisions (6% fatal; 3% injury; 3% PDO).

The most prevalent contributing factors recorded for collisions where **people are killed or seriously injured** in 2015 include:

- Distracted driving – 36% of people killed and 32% of people seriously injured;
- Speed –17% of people killed and nearly 15% of people seriously injured;
- “Lost control/Drive off the road” – 13% of people killed and 13% of people seriously injured;
- “Turning improperly” – 5% of people killed and 11% of people seriously injured;
- “Fail to yield right-of-way” – nearly 12% of people killed and 10% of people seriously injured;
- Impaired – nearly 21% of people killed and 6% of people seriously injured;
- “Following too closely” – 3% of the people killed and 8% of people seriously injured;
- “Leave stop sign before safe to do so” – 6% of people killed and nearly 7% of people seriously injured;
- “Disobey traffic control” – 8% of people killed and 6% of people seriously injured; and,
- “Slippery road surface” – 5% of the people killed and 6% of people seriously injured.

### **Off-Road Vehicle (ORV) Collisions**

In 2015, there are 269 off-road vehicle collisions, involving 67 victims, 303 vehicles and 300 drivers. Of the total off-road vehicle collisions:

- 7 are fatal collisions;
- 53 are injury collisions; and,
- 209 are PDO collisions.

### **Alcohol-related Criminal Code Convictions**

In 2014<sup>1</sup>, there are a total of 3,017 alcohol-related Criminal Code offence convictions, including:

- 1,845 convictions for driving with a blood alcohol concentration (BAC) over .08;
- 1,026 convictions for impaired driving; and,
- 146 convictions for refusing to provide a breath or blood sample.

In the 20-year period from 1995 to 2014, total alcohol-related Criminal Code convictions declined by 5%, from 3,175 in 1995 to 3,017 in 2014. Total convictions in 2014 (3,017 convictions) increased by 57% (1,095 more convictions) compared to 2013 (1,922 convictions) and was up as well by 48% compared to the previous five year (2009 to 2013) annual average (2,037 convictions).

Over the past twenty years, alcohol-related Criminal Code convictions have declined by 5% in Manitoba. Comparing the total number of convictions in 2014 to 1995 among drivers:

- Under 16 years of age, convictions increased by a count of 9
- 16 to 24 years of age, convictions declined by 15%;
- 25 to 44 years of age, convictions declined by 12%;
- 45 to 64 years of age, convictions increased by 41%; and,
- 65 years of age and older, convictions increased by 21%.

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

- Drivers under age 25 represented 14% of the licensed drivers in 2014, but accounted for 26% of convictions.
- Drivers aged 25 to 44 represented 34% of the licensed drivers in 2014, but accounted for 51% of convictions.

Over the past 10 years, from 2004 to 2014, there was a notable 36% increase in the rate of first offences. Rates of recidivism, indicated by second, and third and subsequent offences, increased at a marginal rate of 12% in second alcohol-related Criminal Code offences in 2014. In comparison, there was a 34% reduction in third and subsequent offences in 2014 compared to 2004.

<sup>1</sup> There is a one-year lag in the statistics reported to allow for court processing time. Therefore, 2014 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 2005 to 2015, 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 2005 to 2014 is presented and compared to 2015. Details are provided for 2014 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 four year period 2012 to 2015 is presented. Details are provided for 2015 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 2014 by age at the time of the offence and includes historical statistics for the period 1995 to 2013. 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.

# Table of Contents

Executive Summary ..... i

Preface .....vii

Table of Contents ..... ix

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

    Introduction ..... 3

    Table 1-1 Fatal, Injury and Property Damage Collisions by Total Licensed Drivers ..... 5

    Table 1-2 Percentage Change Year-over-Year in Involvement (per 10,000 Licensed Drivers) in Fatal, Injury, and Property Damage Only Collisions ..... 6

    Table 1-3 Fatal, Injury and Property Damage Collisions by Vehicles Registered ..... 7

    Figure 1-1 Involvement in Total Collisions by Licensed Drivers and Vehicles Registered ..... 8

    Figure 1-2 Involvement in Fatal Collisions by Licensed Drivers and Vehicles Registered ..... 8

    Figure 1-3 Involvement in Injury Collisions by Licensed Drivers and Vehicles Registered ..... 9

    Figure 1-4 Involvement in Property Damage Only (PDO) Collisions by Licensed Drivers and Vehicles Registered ..... 9

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

    Figure 1-5 Involvement (per 10,000 Licensed Drivers) in Total Collisions by Age Group ..... 11

SECTION 2 – Licensed Drivers ..... 13

    Introduction ..... 15

    Chart 2-1 Class Licence System Quick Reference Chart ..... 16

    Table 2-1 Class 1-5 Licensed Drivers by Year and Driver Status ..... 17

    Table 2-2 Class 1-5 Licensed Drivers by Age Group, Gender and Driver Status ..... 18

    Table 2-3 Class 1-5 Licensed Drivers by License Class, Driver Status and Gender ..... 19

    Table 2-4 Class 1-5 Male Drivers by Age Group, Driver Status and License Class ..... 20

    Table 2-5 Class 1-5 Female Drivers by Age Group, Driver Status and License Class ..... 21

    Table 2-6 Total Class 6 Active Licensed Drivers by Year ..... 22

    Table 2-7 Class 6 Active Licensed Drivers by Age Group, Gender and Driver Status ..... 23

    Table 2-8 Class 6 Active Licensed Drivers by License Class, Driver Status and Gender ..... 24

    Table 2-9 Active Class 6 Male Drivers by Age Group and License Class ..... 25

    Table 2-10 Active Class 6 Female Drivers by Age Group and License Class ..... 25

SECTION 3 – Vehicle Registrations ..... 27

    Introduction ..... 29

    Table 3-1 Non Commercial Vehicle Class ..... 30

    Table 3-2 Commercial Vehicle Class ..... 30

    Table 3-3 Vehicle Registration Summary ..... 31

SECTION 4 – Traffic Collisions.....	33
Introduction .....	35
Table 4-1 Historical Summary of Traffic Collisions.....	37
Figure 4-1 Historical Summary – Count of Traffic Collisions, Victims, Vehicles and Drivers.....	38
Table 4-2 Traffic Collisions by Month of Occurrence and Collision Severity.....	39
Figure 4-2 Traffic Collisions by Month of Occurrence and Collision Severity .....	40
Table 4-3 Traffic Collisions by Day of Occurrence and Collision Severity .....	41
Figure 4-3 Traffic Collisions by Day of Occurrence and Collision Severity .....	42
Table 4-4 Traffic Collisions by Time of Occurrence and Collision Severity.....	43
Figure 4-4 Traffic Collisions by Time of Occurrence and Collision Severity .....	44
Table 4-5 Traffic Collisions by Provincial Location and Collision Severity .....	45
Table 4-6 Collision Type by Urban/Rural Location.....	47
Table 4-7 Traffic Collisions by Road Surface Condition and Collision Severity .....	49
Figure 4-5 Traffic Collisions by Road Surface Condition and Collision Severity.....	50
Table 4-8 Traffic Collisions by Weather Condition and Collision Severity .....	51
Figure 4-6 Traffic Collisions by Weather Condition and Collision Severity .....	52
Table 4-9 Accident Configuration and Collision Severity .....	53
Figure 4-7 Distribution of Collisions by Accident Configuration and Collision Severity.....	54
SECTION 5 – Collision Victims.....	55
Introduction .....	57
Table 5-1 Historical Summary of Victims in Traffic Collisions .....	59
Table 5-2 Historical Summary of Victim Involvement Rate (per 100,000 People) in Traffic Collisions..	61
Figure 5-1 Historical Summary of Victim Involvement Rate in Traffic Collisions.....	62
Table 5-3 Collision Victims by Month of Occurrence and Casualty Type.....	63
Table 5-3a Collision Victims by Month of Occurrence and Casualty Type for Previous Five Years .....	64
Figure 5-2 Proportion of People Killed and Injured by Month of Occurrence.....	65
Table 5-4 Collision Victims by Day of Occurrence and Casualty Type .....	66
Table 5-4a Collision Victims by Day of Occurrence and Casualty Type for Previous Five Years .....	67
Figure 5-3 Proportion of People Killed and Injured by Day of Occurrence .....	67
Table 5-5 Collision Victims by Time of Occurrence and Casualty Type.....	68
Table 5-5a Collision Victims by Time of Occurrence and Casualty Type for Previous Five Years.....	69
Figure 5-4 Proportion of People Killed and Injured by Time of Occurrence.....	70
Table 5-6 Collision Victims by Gender and Casualty Type .....	71
Table 5-6a Collision Victims by Gender and Casualty Type for Previous Five Years.....	71
Figure 5-5 Proportion of People Killed and Injured by Gender and Casualty Type .....	72
Table 5-7 Collision Victims by Age Group and Casualty Type.....	73
Table 5-7a Collision Victims by Age Group and Casualty Type for Previous Five Years .....	74
Figure 5-6 Proportion of People Killed and Injured by Age Group and Casualty Type.....	75
Table 5-8 Collision Victims by Age Group, Casualty Type, and Gender.....	76
Table 5-8a Collision Victims by Age Group, Casualty Type, and Gender for Previous Five Years .....	77
Table 5-9 Victim Involvement Rate (per 100,000 people) by Gender and Age Group and Casualty Type .....	78

Table 5-10 Collision Victims by Road User Class and Age Group.....	80
Table 5-10a Victims by Road User Class and Age Group and Casualty Type for Previous Five Years	83
Figure 5-7 Proportion of People Killed and Injured by Road User Class .....	85
Table 5-11 Collision Victims by Collision Type and Casualty Type.....	86
Table 5-11a Collision Victims by Collision Type and Casualty Type for Previous Five Years .....	87
Table 5-12 Collision Victims by Accident Configuration and Casualty Type .....	88
Table 5-12a Collision Victims by Accident Configuration and Casualty Type for Previous Five Years .	89
Table 5-13 Collision Victims by Provincial Location and Casualty Type .....	90
Table 5-13a Collision Victims by Provincial Location and Casualty Type for Previous Five Years .....	91
Table 5-14 Collision Victims by Safety Equipment Use and Casualty Type .....	92
Table 5-14a Collision Victims by Safety Equipment Use and Casualty Type for Previous Five Years..	93
Table 5-15 Safety Equipment Effectiveness.....	94
Figure 5-8 Safety Equipment Effectiveness: Ratio of “Not Using Equipment” to “Using Equipment” ....	94
Table 5-16 Vehicle Occupant Victim Ejections in Traffic Collision .....	95
Table 5-16a Vehicle Occupant Victim Ejections in Traffic Collision for Previous Five Years.....	96
SECTION 6 – Pedestrian Victims .....	97
Introduction .....	99
Table 6-1 Historical Summary of Pedestrians Killed and Injured in Traffic Collisions.....	101
Table 6-2 Historical Summary of Pedestrian Involvement Rate (per 100,000 people) in Traffic Collisions.....	103
Figure 6-1 Pedestrian Involvement Rate (per 100,000 People) in Traffic Collisions.....	104
Table 6-3 Pedestrians Killed and Injured by Month of Occurrence and Casualty Type .....	105
Table 6-3a Pedestrians Killed and Injured by Month of Occurrence and Casualty Type for Previous Five Years .....	106
Figure 6-2 Proportion of Pedestrians Killed and Injured by Month of Occurrence .....	106
Table 6-4 Total Pedestrians Killed and Injured by Day of Occurrence and Casualty Type .....	107
Table 6-4a Pedestrians Killed and Injured by Day of Occurrence and Casualty Type for Previous Five Years.....	108
Figure 6-3 Proportion of Pedestrians Killed and Injured by Day of Occurrence.....	108
Table 6-5 Total Pedestrians Killed and Injured by Time of Occurrence and Casualty Type.....	109
Table 6-5a Pedestrian Victims by Time of Occurrence and Casualty Type for the Previous Five Years .....	110
Figure 6-4 Proportion of Pedestrians Killed and Injured by Time of Occurrence .....	110
Table 6-6 Total Pedestrians Killed and Injured by Age Group and Casualty Type .....	111
Table 6-6a Pedestrians Killed and Injured by Age and Casualty Type for Previous Five Years .....	112
Figure 6-5 Proportion of Pedestrians Killed and Injured by Age Group .....	113
Table 6-7 Pedestrian Involvement Rate (per 100,000 People) in Traffic Collisions by Age Group .....	114
Table 6-8 Pedestrian Action and Casualty Type .....	115
Table 6-8a Pedestrian Action and Casualty Type for the Previous Five Years .....	116

SECTION 7 – Vehicle Involvement.....	117
Introduction .....	119
Table 7-1 Historical Summary of Vehicles Involved in Traffic Collisions.....	121
Table 7-2 Historical Summary of Vehicle Involvement Rate (per 10,000 Registered Vehicles) in Traffic Collisions.....	122
Figure 7-1 Vehicle Involvement Rate (per 10,000 Registered Vehicles) in Fatal, Injury and PDO Collisions.....	123
Table 7-3 Vehicle Types (as defined in TAR) Involved in Traffic Collisions and Collision Severity .....	124
Table 7-4 Combined Select Vehicle Categories Involved in Traffic Collisions by Collision Severity ...	125
Table 7-5 Vehicle Involvement (per 10,000 Registered Vehicles) in Traffic Collision by Combined Vehicle Types and Collision Severity .....	125
 SECTION 8 – Driver Involvement.....	 127
Introduction .....	129
Table 8-1 Historical Summary of Drivers Involved in Traffic Collisions .....	131
Table 8-2 Historical Summary of Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions.....	132
Figure 8-1 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Severity...	133
Table 8-3 Drivers Involved in Traffic Collisions by Age Group and Collision Severity .....	134
Figure 8-2 Proportion of Traffic Collisions by Driver Age and Collision Severity .....	135
Table 8-4 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Age Group and Collision Severity .....	136
Table 8-5 Drivers Involved in Traffic Collisions by Gender and Age Group and Collision Severity .....	137
Figure 8-3 Proportion of Drivers Involved in Traffic Collisions by Gender and Collision Severity .....	138
Table 8-6 Drivers Involved in Traffic Collisions by Age Group and Gender and Collision Severity .....	139
Table 8-7 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Gender and Age Group and Collision Severity.....	140
 SECTION 9 – Contributing Factors.....	 141
Introduction .....	143
Table 9-1 Contributing Factors to a Collision by Collision Severity.....	147
Table 9-1a Contributing Factors to a Collision by Collision Severity for Previous Five Years .....	150
Table 9-2 Contributing Factors for Victims of a Collision by Casualty Type .....	153
Table 9-2a Contributing Factors for Victims of a Collision by Casualty Type for Previous Five Years	156
Table 9-3 Drivers Involved in Traffic Collisions by Contributing Factor and Collision Severity .....	159
Table 9-3a Drivers Involved in Traffic Collisions by Contributing Factor and Collision Severity for Previous Five Years.....	162
Figure 9-1 Select Contributing Factors for Drivers Involved in Collisions by Collision Severity .....	165
Table 9-4 Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Collisions Severity .....	166
Table 9-5 Driver Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Age.....	170
Table 9-5a Driver Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Age for Previous Five Years .....	172
Table 9-6 Historical Summary of Contributing Factors to a Collision Overall .....	175
Table 9-7 Historical Summary of Contributing Factors Recorded for Victims of Collisions.....	178

Table 9-8 Historical Summary of Contributing Factors Recorded for Drivers Involved in Collisions ...	181
Table 9-9 Summary of 'Speed', 'Distracted driving' and 'Impaired' as Contributing Factors .....	184
<b>SECTION 10 - National Safety Code Monitoring Report .....</b>	<b>185</b>
Introduction .....	187
Table 10-1 NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type and Collision Severity .....	190
Figure 10-1 Proportion of NSC Commercial Vehicles by Vehicle Type and Collision Severity .....	191
Table 10-2 Traffic Collision Victims by NSC Commercial Vehicle Type and Casualty Type .....	192
Table 10-2a Traffic Collision Victims by NSC Commercial Vehicle Type and Casualty Type for Previous Five Years .....	193
Figure 10-2 Proportion of Victims Involved in Collisions with NSC Commercial Vehicles by Vehicle Type and Casualty Type .....	194
Table 10-3 Commercial Vehicle Involvement in Traffic Collisions by Pre-Collision Activity and Collision Severity .....	195
Table 10-4 NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity .....	197
Table 10-4a NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity for the Previous Five Years .....	200
Figure 10-3 Select At-fault Contributing Factors for Commercial Vehicles and Drivers by Collision Severity .....	202
Table 10-5 Historical Summary of NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type .....	203
Table 10-6 Historical Summary of Traffic Collision Victims by NSC Commercial Vehicle Type .....	204
<b>SECTION 11 – Off-Road Vehicle Collisions .....</b>	<b>205</b>
Introduction .....	207
Table 11-1 Historical Summary of Off-Road Vehicle Collisions .....	210
Figure 11-1 Historical Summary of ORV Collisions .....	211
Table 11-2 Victims, Vehicles and Drivers Involved in Off-Road Vehicle Collisions by ORV Type .....	212
Figure 11-2 Proportion of ORV Collisions by Victims, Vehicle Type and Drivers .....	213
Table 11-3 Off-Road Vehicle Collisions by Month of Occurrence and Collision Severity .....	214
Table 11-4 Off-Road Vehicle Collisions by Day of Occurrence and Collision Severity .....	215
Figure 11-3 Proportion of ORV Collisions by Collision Severity and Day of Occurrence .....	215
Table 11-5 Off-Road Vehicle Collisions by Time of Occurrence and Collision Severity .....	216
Figure 11-4 Proportion of Total ORV Collisions by Collision Severity and Time of Occurrence .....	217
Table 11-6 Off-Road Vehicle Collisions by Light Condition and Collision Severity .....	218
Table 11-7 ORV Collisions by Weather Condition and Collision Severity .....	218
Table 11-8 ORV Collisions by MIT Regions and Collision Severity .....	220
Figure 11-5 Proportion of ORV Collisions by Collision Severity and MIT Regions .....	220
Table 11-9 Off-Road Vehicle Collisions by Location and Collision Severity .....	221
Table 11-10 ORV Collision Victims by Age Group and Casualty Type .....	222
Table 11-11 ORV Collision Victims by Gender and Casualty Type .....	223
Table 11-12 ORV Collision Victims by Safety Equipment Use and Casualty Type .....	223
Table 11-13 ORV Victims Killed vs. Injured for Helmeted and Non-helmeted ORV Occupants .....	224
Table 11-14 Drivers Involved in ORV Collisions by Age Group and Collision Severity .....	224

Table 11-15 ORV Collisions by Contributing Factors and Collision Severity .....	225
Table 11-16 Historical Summary of ORV Collisions by Month of Occurrence .....	229
Table 11-17 Historical Summary of ORV Collisions by Location .....	230
Table 11-18 Historical Summary of ORV Collision Victims by Age Group .....	231
Table 11-19 Historical Summary of ORV Collisions by Contributing Factors .....	232
SECTION 12 - Alcohol-Related Criminal Code Convictions .....	235
Introduction .....	237
Table 12-1: Total Alcohol-Related Criminal Code Convictions .....	240
Table 12-2: Total Alcohol-Related Criminal Code Convictions by Age Group .....	242
Figure 12-1: Percentage Change in Alcohol-Related Criminal Code Convictions by Age Group .....	243
Table 12-3: Total Alcohol-Related Criminal Code Offences by Age Group and Conviction Type .....	244
Table 12-4: Alcohol-Related Criminal Code Convictions by Active Licensed Drivers and Age Group .....	245
Table 12-5: Driver Involvement in “First”, “Second”, and “Third and Subsequent” Alcohol-Related Criminal Code Convictions by Age Group .....	246
GLOSSARY – Terms & Definitions .....	249
Terms and Definitions .....	251

## **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 2005 to 2015. This section also presents involvement rates for drivers by specific age groups.

### **Key Highlights**

In 2015, there are a total of 41,548 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:

- 69 involve a fatality (0.2% of all collisions);
- 9,127 involve an injury, but not a fatality (22% of all collisions); and,
- 32,352 involve property damage only (78% of all collisions).

In 2015, overall traffic collisions in Manitoba increased compared to 2014 and compared to the previous five year (2010 to 2014) annual average. There are:

- 41,548 collisions in 2015;
- 40,672 collisions in 2014; and,
- 36,587 collisions on average in the five year period 2010 to 2014.

Involvement in traffic collisions in Manitoba increased from 2014 and from the previous five year (2010 to 2014) annual average. Involvement in collisions (per 10,000 licensed drivers) is:

- 471.4 in 2015;
- 467.9 in 2014; and,
- 437.3 on average in the five year period 2010 to 2014.

The increase in the total number of collisions in 2015 compared to 2014 is attributable to increases in collisions by all severity types. There are 5 more fatal collisions, 104 more injury collisions, and 767 more PDO collisions reported in 2015 than in 2014 (representing proportional changes of 8%, 1%, and 2%, respectively).

### **Major Elements Examined**

Counts of collisions in Manitoba for 2015 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 Assent 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: 2005 to 2015

Year	Licensed Drivers	Total Collisions	Collisions /10,000 Drivers	Total Fatal	Fatal /10,000 Drivers	Total Injury	Injury /10,000 Drivers	Total PDO	PDO /10,000 Drivers
2005	716,169	33,164	463.1	88	1.2	6,482	90.5	26,594	371.3
2006	724,330	31,738	438.2	104	1.4	6,503	89.8	25,131	347.0
2007	752,398	29,494	392.0	96	1.3	6,415	85.3	22,983	305.5
2008	765,014	27,092	354.1	85	1.1	5,974	78.1	21,033	274.9
2009	776,209	26,578	342.4	83	1.1	5,396	69.5	21,099	271.8
2010	790,330	27,172	343.8	78	1.0	5,386	68.1	21,708	274.7
2011	813,691	34,302	421.6	94	1.2	6,309	77.5	27,899	342.9
2012	838,481	38,972	464.8	89	1.1	8,280	98.8	30,603	365.0
2013	855,791	41,819	488.7	69	0.8	8,729	102.0	33,021	385.9
2014	869,239	40,672	467.9	64	0.7	9,023	103.8	31,585	363.4
<b>2015</b>	<b>881,338</b>	<b>41,548</b>	<b>471.4</b>	<b>69</b>	<b>0.8</b>	<b>9,127</b>	<b>103.6</b>	<b>32,352</b>	<b>367.1</b>
2010-2014 Average	833,506	36,587	437.3	79	0.9	7,545	90.0	28,963	346.3

Relative to ten years ago, the total number of collisions in 2015 has increased by 25% (41,548 in 2015 compared to 33,164 in 2005). However, crash involvement per 10,000 licensed drivers has increased by only 2% in the same time period (471.4 in 2015 compared to 463.1 in 2005). Compared to 2014, total collisions have increased by 2% (up from a total of 40,672) and involvement has increased by 1%. Compared to the previous five year (2010 to 2014) annual average, total collisions have increased 14% and involvement has increased by 8%.

Compared to recent historical figures, in 2015:

- Fatal collisions have decreased by 22% compared to 2005, increased by 8% compared to 2014, and decreased by 12% compared to the previous five year (2010 to 2014) annual average.
- Injury collisions have increased by 41% compared to 2005, by 1% compared to 2014 and by 21% compared to the previous five year (2010 to 2014) annual average.
- PDO collisions have increased by 22% compared to 2005, by 2% compared to 2014 and by 12% compared to the previous five year (2010 to 2014) annual average.

Differences in the crash counts and rates in 2015 compared to the previous five year (2010 to 2014) annual average 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 Involvement (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: 2005 to 2015

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
2005	463.1	-	1.2	-	90.5	-	371.3	-
2006	438.2	-5.4%	1.4	16.9%	89.8	-0.8%	347.0	-6.6%
2007	392.0	-10.5%	1.3	-11.1%	85.3	-5.0%	305.5	-12.0%
2008	354.1	-9.7%	1.1	-12.9%	78.1	-8.4%	274.9	-10.0%
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%
<b>2015</b>	<b>471.4</b>	<b>0.8%</b>	<b>0.8</b>	<b>6.3%</b>	<b>103.6</b>	<b>-0.2%</b>	<b>367.1</b>	<b>1.0%</b>
2010-2014 Average*	437.3	6.8%	0.9	-6.3%	90.0	8.8%	346.3	6.4%

\*The '% change to previous year' for '2010-2014 Average' is an average rate of change for the time period 2010 to 2014.

Recognizing that collision counts 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 being involved in collisions instead of simply a raw count of collisions overall.

The involvement in collisions per 10,000 drivers in 2015 is:

- 471.4 for all collisions, up 1% from 2014 and up by 8% compared to the previous five year (2010 to 2014) annual average;
- 0.8 for fatal collisions, up 6% from 2014 and decreased by nearly 18% compared to the previous five year (2010 to 2014) annual average;
- 103.6 for injury collisions, down slightly from 103.8 in 2014 and up by 15% from the previous five year (2010 to 2014) annual average; and,
- 367.1 for PDO collisions, up 1% from 2014 and by 6% compared to the previous five year (2010 to 2014) 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: 2005 to 2015

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
2005	730,838	33,164	453.8	88	1.2	6,482	88.7	26,594	363.9
2006	740,636	31,738	428.5	104	1.4	6,503	87.8	25,131	339.3
2007	753,705	29,494	391.3	96	1.3	6,415	85.1	22,983	304.9
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
<b>2015</b>	<b>881,345</b>	<b>41,548</b>	<b>471.4</b>	<b>69</b>	<b>0.8</b>	<b>9,127</b>	<b>103.6</b>	<b>32,352</b>	<b>367.1</b>
2010-2014 Average	834,424	36,587	437.1	79	0.9	7,545	90.0	28,963	346.1

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

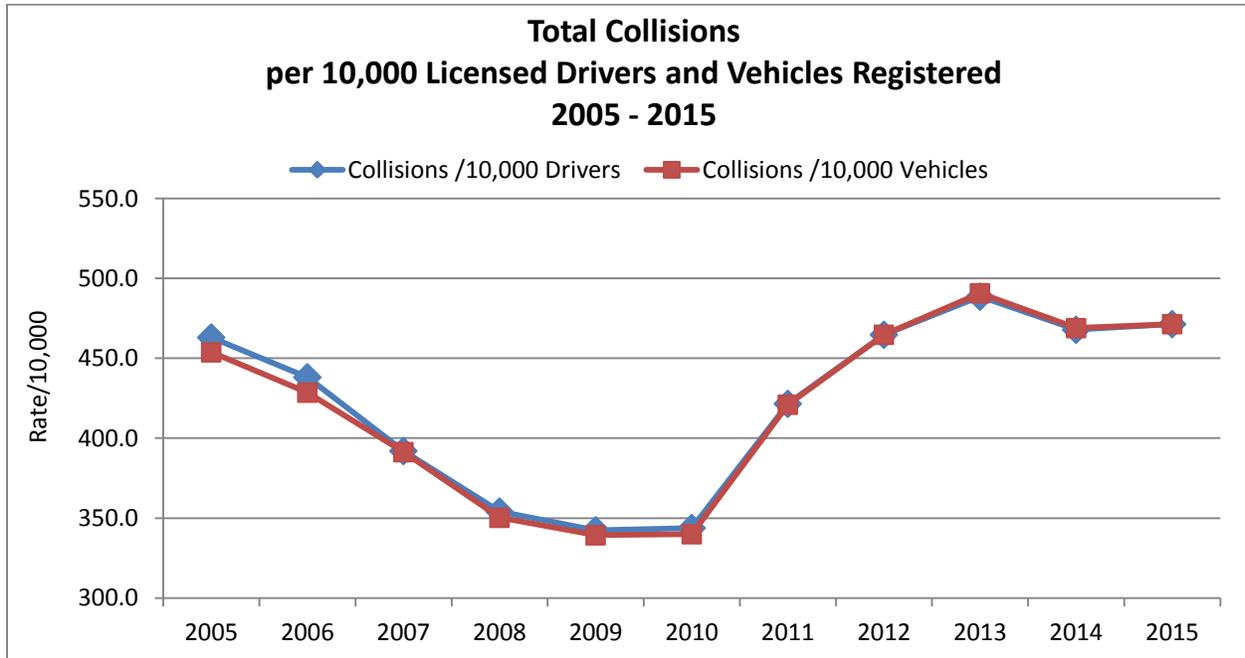
Involvement in collisions per 10,000 vehicles registered is another way to view collision rates in a standardized format. It attempts to account for fluctuations in the total number of vehicles registered for use on Manitoba roadways.

In 2015, there are 471.4 collisions for every 10,000 vehicles registered in Manitoba, up nearly 1% compared to the rate in 2014 (468.9) and by 8% compared to the rate in the previous five year (2010 to 2014) annual average (437.1).

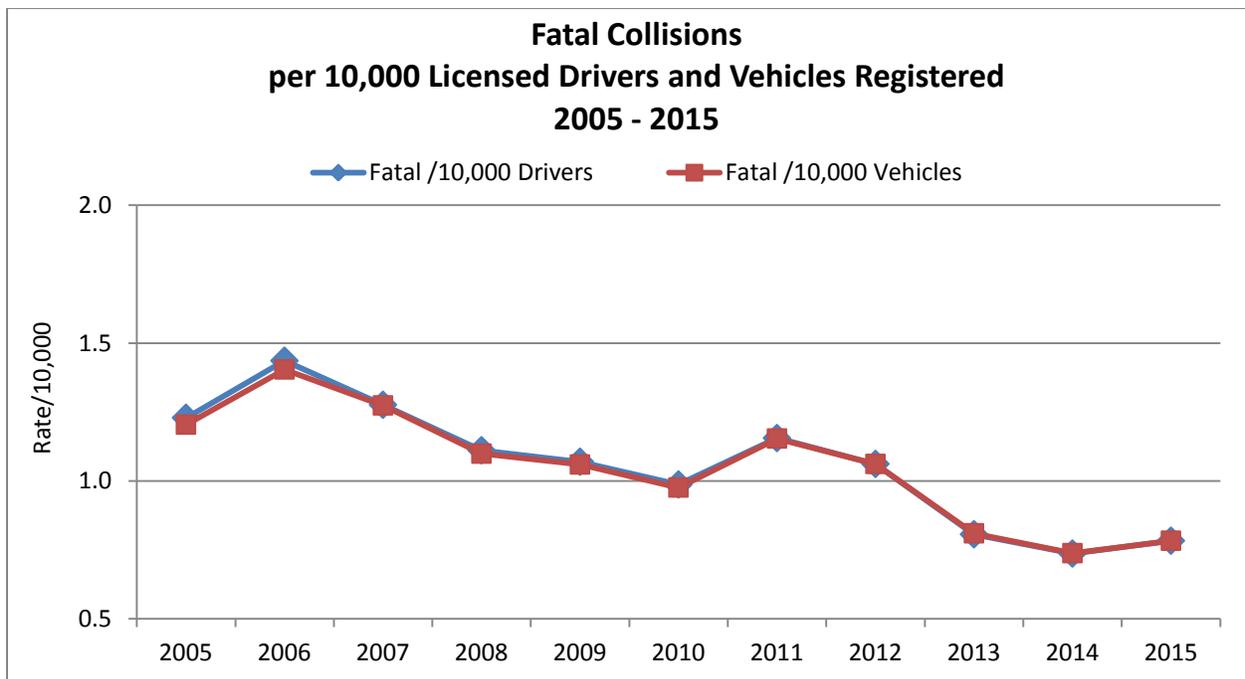
The changes in rate of involvement in collisions at each level of severity in 2015 vary compared to recent years. In 2015, there are 0.8 fatal collisions for every 10,000 vehicles, up 6% from 2014 (rate of 0.7), but down by 17% from the previous five year (2010 to 2014) annual average (rate of 0.9). The involvement rate for injury collisions (103.6 in 2015) is down nearly 1% compared to 2014 (rate of 104.0) and up 15% from the previous five year (2010 to 2014) annual average (rate of 90.0). Involvement in PDO collisions (367.1 in 2015) is up 1% compared to 2014 (rate of 364.2) and up 6% compared to the previous five year (2010 to 2014) annual average (rate of 346.1).

Involvement rates between 2005 and 2015 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 2015 collision rates, however, cannot be attributed to changes in what constitutes a reportable collision.

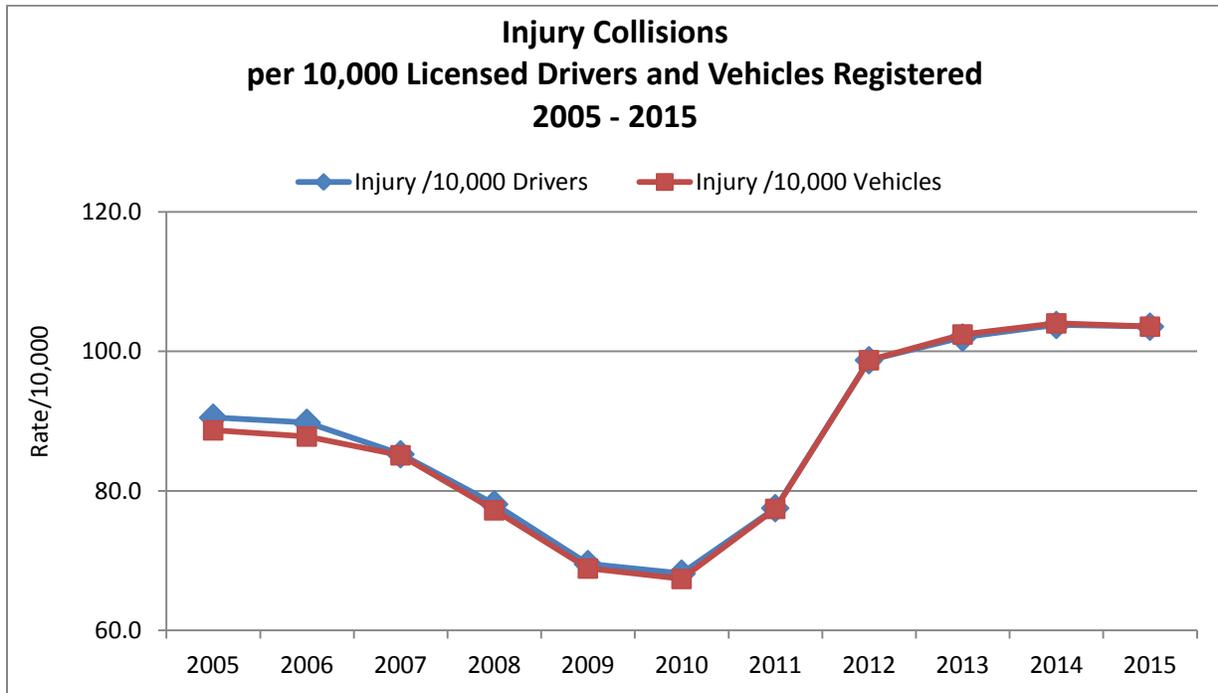
**Figure 1-1 Involvement in Total Collisions by Licensed Drivers and Vehicles Registered**



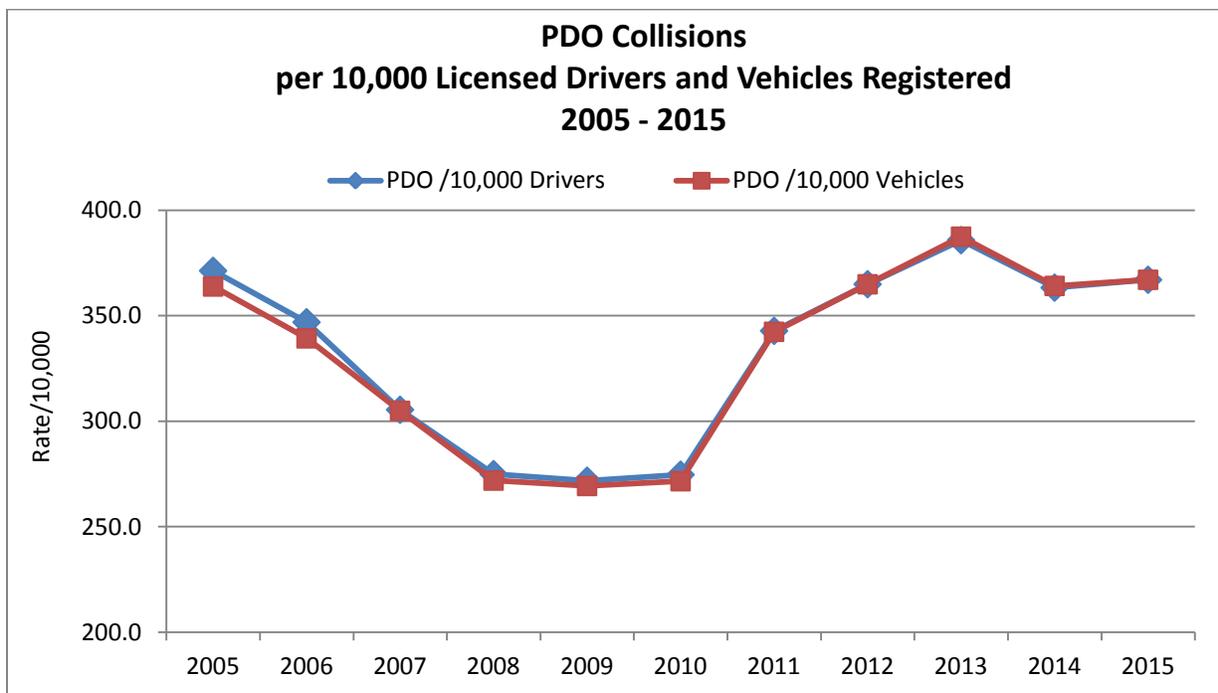
**Figure 1-2 Involvement in Fatal Collisions by Licensed Drivers and Vehicles Registered**



**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: 2005 to 2015

Age Group	Year											2010-2014 Average
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	
16-19	973.8	937.9	838.7	771.7	756.1	737.3	890.8	1,095.7	1,068.3	982.5	<b>969.1</b>	957.0
20-24	786.1	747.6	706.2	673.8	648.8	630.4	851.6	1,114.4	1,121.0	1,059.8	<b>1,035.3</b>	964.3
25-34	578.3	541.9	511.6	493.2	460.6	470.5	671.8	860.0	920.8	871.5	<b>826.0</b>	767.0
35-44	545.3	498.9	466.1	450.5	444.0	432.1	586.9	741.6	811.3	777.2	<b>736.8</b>	673.0
45-54	484.2	452.5	429.1	402.9	393.0	397.9	524.2	645.0	698.4	668.6	<b>652.7</b>	586.5
55-64	426.8	397.1	378.6	347.6	340.4	353.0	441.6	529.8	554.4	540.4	<b>519.3</b>	486.6
65-74	359.0	342.6	310.0	296.9	289.8	285.0	366.9	416.9	458.1	441.2	<b>414.2</b>	398.1
75>	318.6	321.2	276.5	237.4	235.2	254.9	292.5	342.7	353.4	331.7	<b>332.2</b>	316.6

In 2015, the youngest driver age groups in Manitoba continue to have the highest rates of involvement in collisions. At 969.1, the involvement rate of drivers aged 16 to 19 is:

- 6% lower than the rate of those aged 20 to 24;
- 17% higher than those aged 25 to 34;
- Nearly 32% higher than those aged 35 to 44;
- Nearly 49% higher than those aged 45 to 54;
- 87% higher than those aged 55 to 64; and,
- More than two and a half times the rate of those aged 65 and older.

Manitobans aged 20 to 24 have the highest rate of involvement in collisions in 2015. At 1,035.3, the involvement rate of drivers aged 20 to 24 is:

- 25% higher than those aged 25 to 34;
- Nearly 41% higher than those aged 35 to 44;
- 59% higher than those aged 45 to 54;
- Double those aged 55 to 64; and,
- Nearly triple 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 826.0 in 2015, the involvement rate of drivers aged 25 to 34 is:

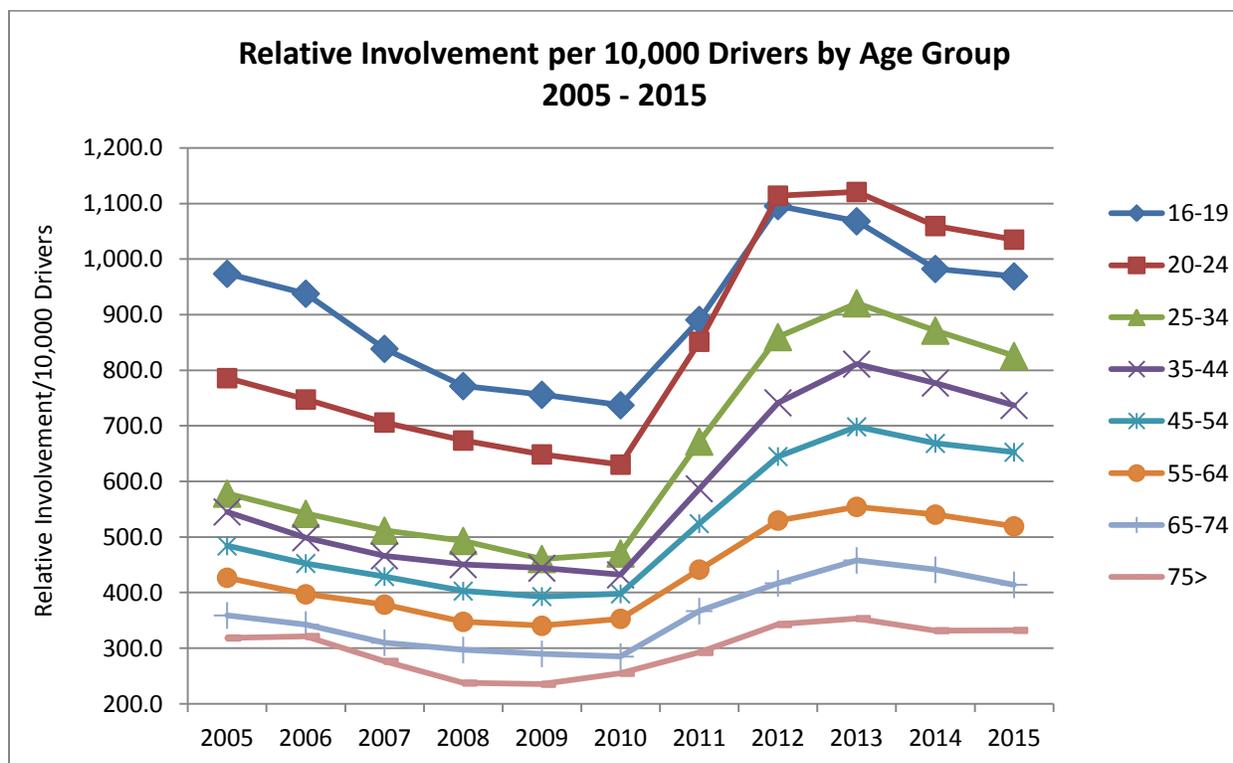
- 12% higher than those aged 35 to 44;
- Nearly 27% higher than those aged 45 to 54;
- 59% higher than those aged 55 to 64; and,
- More than double those aged 65 and older.

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

Collision involvement rates for drivers under the age of 75 have decreased in 2015 compared to 2014 but increased compared to the previous five year (2010 to 2014) annual average. Involvement per 10,000 licensed drivers in 2015 by age group:

- Age 16 to 19 – 969.1 in 2015, down 1% compared to 2014 but up 1% compared to the previous five year annual average.
- Age 20 to 24 – 1,035.3 in 2015, down 2% compared to 2014 but up 7% compared to the previous five year annual average.
- Age 25 to 34 – 826.0 in 2015, down 5% compared to 2014 but up 8% compared to the previous five year annual average.
- Age 35 to 44 – 736.8 in 2015, down 5% compared to 2014 but up nearly 10% compared to the previous five year annual average.
- Age 45 to 54 – 652.7 in 2015, down 2% compared to 2014 but up 11% compared to the previous five year annual average.
- Age 55 to 64 – 519.3 in 2015, down 4% compared to 2014 but up 7% compared to the previous five year annual average.
- Age 65 to 74 – 414.2 in 2015, down 6% compared to 2014 but up 4% compared to the previous five year annual average.
- Age 75 and over – 332.2 in 2015, up slightly from 331.7 in 2014 and up 5% 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 881,338 licensed drivers in Manitoba in 2015, an increase of 1% compared to 2014. 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 67% of all Suspended drivers in Manitoba.

There is an average of 69,506 licensed motorcycle drivers in Manitoba in 2015, an increase of 2% compared to 2014.

### **Major Elements Examined**

Counts of licensed drivers in Manitoba for 2015 represent an average for the 2015 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. This is different from some previous years. Methodological improvements were made to licensed driver counts in 2008. To enable historical comparisons of licensed driver counts, data reported here for the years 2005 through 2007 have been adjusted to reflect this new methodology.

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.

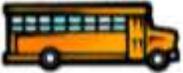
#### “Suspended drivers”

- 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:
  - [http://www.mpi.mb.ca/PDFs/DVL\\_PDFs/GDLGuide.pdf](http://www.mpi.mb.ca/PDFs/DVL_PDFs/GDLGuide.pdf); ou en Français,
  - [http://www.mpi.mb.ca/PDFs/DVL\\_PDFs/GDLGUIDEfr.pdf](http://www.mpi.mb.ca/PDFs/DVL_PDFs/GDLGUIDEfr.pdf)

**Chart 2-1 Class Licence System Quick Reference Chart**

Manitoba Licence Class		Allows the Licence Holder to Operate	Minimum Age	Requirements
1		Semi-trailer trucks including all vehicles in Classes 2, 3, 4, and 5.	18	<ul style="list-style-type: none"> <li>• Must hold a minimum Class 5 Intermediate or Class 5 Authorized Instruction licence to obtain authorized instruction in Classes 1–4.</li> <li>• Must pass written or oral knowledge test.</li> <li>• Requires supervising driver for Authorized Instruction.</li> <li>• 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.</li> </ul>
2	 	Buses <sup>1</sup> having a seating capacity of over 24 passengers (while carrying passengers), school buses <sup>2</sup> having a seating capacity over 36 passengers (while carrying passengers). Includes all vehicles in Classes 3, 4 and 5.		
3	 	Trucks with more than two axles, including any combination of vehicles, OR a truck with two axles towing a vehicle with a registered gross vehicle weight of more than 4,540 kg (but does not include a semi-trailer truck). Includes all vehicles in Classes 4 and 5.		
4	  	Taxis, ambulances, and other emergency vehicles, buses <sup>1</sup> with a seating capacity between 10 and 24 passengers (while carrying passengers) and school buses <sup>2</sup> with a seating capacity between 10 and 36 passengers (while carrying passengers). Includes all vehicles in Class 5.		
5	   	<p>Passenger cars, a bus while not carrying passengers, trucks with two axles, and any combination of vehicles consisting of a truck with two axles and a towed vehicle with a registered gross vehicle weight of <b>up to</b> 4,540 kg. May operate Class 3 vehicles if registered as a farm truck and the driver holds a Class 5 Intermediate or Full Stage Licence.</p> <p>May operate a Moped<sup>3</sup>, if 16 years of age or older.</p> <p><i>Note: A person must hold a valid minimum Class 5 Intermediate Stage driver's licence to 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, village or urban municipality. For further information please call 204-985-7000 or toll-free 1 800-665-2410.</i></p>	16 or 15½ if enrolled in high school driver education course	<ul style="list-style-type: none"> <li>• Must pass written or oral knowledge and sign tests for Class 5 Learner licence (minimum nine-month Learner Stage). (Must wait seven days for re-tests.)</li> <li>• Requires supervising driver for a Class 5 Learner Stage or Authorized Instruction.</li> <li>• Requires supervising driver for a Class 5 Intermediate if carrying more than one passenger between the hours of 12 midnight and 5 a.m.</li> <li>• Must pass road test to advance to the Intermediate Stage (minimum 15-month Intermediate Stage). (Must wait 14 days for re-test.)</li> </ul>
6		Motorcycles.	16	<ul style="list-style-type: none"> <li>• Driver must hold a valid licence of any class and stage.</li> <li>• Must pass written or oral knowledge test. (Must wait seven days for re-tests.)</li> <li>• Must obtain Class 6 M Stage licence in order to complete motorcycle training course. The course is required before Learner Stage Licence is issued. (Contact Manitoba Safety Council for motorcycle course charges.)</li> <li>• Minimum nine-month Learner Stage.</li> <li>• Must pass road test to advance to the Intermediate Stage (minimum 15-months Intermediate Stage). (Must wait 14 days for re-test.)</li> </ul>
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 licenced. Drivers of a Class 3 truck registered as a farm truck equipped with air brakes are exempt from this requirement.		<ul style="list-style-type: none"> <li>• Must pass written or oral test.</li> <li>• Must pass Air Brake practical test for "A" (Authorized) endorsement.</li> <li>• Must pass adjustment of the manual slack adjusters for "S" (Slack Adjuster) endorsement.</li> <li>• There is 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.</li> </ul>

1. 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.  
 2. School bus certificate is required. For further information contact the Manitoba Education, Training and Youth, Pupil Transportation at 204-945-6900.  
 3. 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: 2005-2015

Licensing Year	Active Drivers	Suspended Drivers	Total Drivers	% Change to Previous Year
2005	695,091	21,077	716,169	
2006	703,051	21,279	724,330	-1.1%
2007*	728,047	24,351	752,398	3.9%
2008	744,049	20,965	765,014	1.7%
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%
<b>2015</b>	<b>839,036</b>	<b>42,302</b>	<b>881,338</b>	1.4%
Average 2010-2014**	801,604	31,903	833,506	2.3%

\*The count of "Suspended Drivers" in 2007 is artificially high due to a system error that was later corrected to recode licences displayed as suspended, but not actually suspended.

\*\*The "% Change to Previous Year" for "Average 2010-2014" is an average rate of change for the time period 2010 to 2014.

Compared to 2014, the total number of licensed drivers in Manitoba in 2015 increased by 1% to 881,338. This is in line with historical increases seen in recent years; the rate of change over the past five years (2010-2014) was a 2% increase on average each year.

The proportion of suspended drivers increased by 5% in 2015 compared to 2014, up to 42,302 from 40,311, respectively. The count of suspended drivers in 2015 is 33% higher than the previous 5 year average (2010-2014), up to 42,302 from 31,903.

**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: 2015

Age Group	Gender	Active Drivers	Suspended Drivers	Total Drivers	% of "All Ages"	% Suspended in Category
16-17	Male	10,773	118	10,892	2.4	1.1
	Female	10,152	86	10,238	2.4	0.8
	Total	20,925	205	21,130	2.4	1.0
18-19	Male	13,288	525	13,813	3.0	3.8
	Female	12,341	349	12,690	3.0	2.8
	Total	25,629	874	26,502	3.0	3.3
20-24	Male	36,025	2,442	38,467	8.4	6.3
	Female	34,201	1,498	35,698	8.4	4.2
	Total	70,226	3,939	74,165	8.4	5.3
25-34	Male	73,602	5,105	78,706	17.2	6.5
	Female	71,425	2,787	74,212	17.5	3.8
	Total	145,027	7,891	152,918	17.4	5.2
35-44	Male	70,874	4,043	74,917	16.4	5.4
	Female	69,166	1,955	71,121	16.7	2.7
	Total	140,040	5,999	146,038	16.6	4.1
45-54	Male	77,319	4,005	81,324	17.8	4.9
	Female	74,047	1,494	75,541	17.8	2.0
	Total	151,366	5,499	156,865	17.8	3.5
55-64	Male	72,614	3,123	75,737	16.6	4.1
	Female	69,586	1,057	70,644	16.6	1.5
	Total	142,200	4,180	146,380	16.6	2.9
65-74	Male	46,401	2,293	48,694	10.7	4.7
	Female	44,480	979	45,458	10.7	2.2
	Total	90,880	3,272	94,152	10.7	3.5
75-84	Male	21,224	2,593	23,817	5.2	10.9
	Female	20,546	1,354	21,900	5.2	6.2
	Total	41,770	3,947	45,717	5.2	8.6
85+	Male	5,742	4,275	10,017	2.2	42.7
	Female	5,232	2,221	7,453	1.8	29.8
	Total	10,973	6,496	17,470	2.0	37.2
All Ages	Male	427,861	28,522	456,383	100.0	6.2
	Female	411,175	13,780	424,955	100.0	3.2
	Total	839,036	42,302	881,338	100.0	4.8

In 2015, the proportion of suspended drivers aged 75 or older is four times the proportion of suspended drivers under age 75 (nearly 17% 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 License Class, Driver Status and Gender**Table 2-3  
Class 1-5 Licensed Drivers by License Class, Driver Status and Gender: 2015

License Class	Active Drivers				Suspended Drivers				Total	%
	Male	Female	Subtotal	%	Male	Female	Subtotal	%		
1	38,079	1,486	39,566	4.7	1,041	33	1,073	2.5	40,639	4.6
2	4,691	1,644	6,335	0.8	89	23	112	0.3	6,447	0.7
3	11,128	355	11,482	1.4	271	5	276	0.7	11,758	1.3
4	12,761	4,204	16,965	2.0	451	64	515	1.2	17,480	2.0
5/F	334,114	365,281	699,395	83.4	22,221	9,891	32,112	75.9	731,507	83.0
5/I	9,650	9,548	19,199	2.3	578	232	810	1.9	20,009	2.3
5/L	14,539	23,094	37,632	4.5	2,337	2,543	4,880	11.5	42,513	4.8
5/A	2,888	5,563	8,452	1.0	844	703	1,547	3.7	9,999	1.1
Other	11	0	11	<0.1	690	286	976	2.3	987	0.1
Total	427,861	411,175	839,036	100.0	28,522	13,780	42,302	100.0	881,338	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 (83%). Novice drivers, holding either Learner (5/L) or an Intermediate (5/I) Stage licence, account for the next largest group (7% 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 2014 to 2015.

**Table 2-4 Class 1-5 Male Drivers by Age Group, Driver Status and License Class**Table 2-4  
Class 1-5 Male Drivers by Age Group, Driver Status and License Class: 2015

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	739	4,773	5,261	1	0	10,773
	Suspended	0	0	0	0	0	5	45	68	0	0	118
	Subtotal	0	0	0	0	0	744	4,818	5,329	1	0	10,892
18-19	Active	102	1	33	68	1	8,343	2,102	2,600	38	0	13,288
	Suspended	1	0	1	1	0	229	82	210	1	0	525
	Subtotal	104	1	35	69	1	8,571	2,184	2,810	40	0	13,813
20-24	Active	1,351	42	461	797	1	28,172	1,529	3,416	256	0	36,025
	Suspended	21	1	8	13	0	1,301	213	863	22	0	2,442
	Subtotal	1,372	43	469	810	1	29,473	1,742	4,279	278	0	38,467
25-34	Active	5,692	322	1,821	3,074	3	58,616	889	2,223	961	0	73,602
	Suspended	131	2	40	60	0	3,448	201	901	249	72	5,105
	Subtotal	5,823	325	1,862	3,133	3	62,064	1,091	3,123	1,211	72	78,706
35-44	Active	7,801	667	1,855	3,335	4	55,611	241	584	776	0	70,874
	Suspended	210	15	44	73	0	3,033	30	195	237	206	4,043
	Subtotal	8,010	682	1,899	3,408	4	58,644	271	779	1,013	206	74,917
45-54	Active	9,994	1,299	2,481	2,981	0	59,717	91	295	462	0	77,319
	Suspended	259	25	46	112	0	3,112	6	74	141	231	4,005
	Subtotal	10,252	1,323	2,528	3,093	0	62,829	97	368	603	231	81,324
55-64	Active	9,225	1,549	3,179	1,957	2	56,301	22	122	257	0	72,614
	Suspended	196	22	59	108	0	2,560	0	19	58	101	3,123
	Subtotal	9,421	1,571	3,238	2,065	2	58,861	23	142	314	101	75,737
65-74	Active	3,433	713	1,120	507	0	40,495	3	39	91	0	46,401
	Suspended	143	13	42	55	0	1,965	1	6	30	39	2,293
	Subtotal	3,576	726	1,162	561	0	42,460	4	45	121	39	48,694
75-84	Active	468	96	174	41	0	20,410	0	0	36	0	21,224
	Suspended	64	7	20	19	0	2,429	0	0	42	13	2,593
	Subtotal	531	103	193	60	0	22,838	0	0	79	13	23,817
85+	Active	13	2	3	2	0	5,711	0	0	10	0	5,742
	Suspended	17	4	11	12	0	4,139	0	0	63	29	4,275
	Subtotal	30	6	14	14	0	9,851	0	0	73	29	10,017
Total	Active	38,079	4,691	11,128	12,761	11	334,114	9,650	14,539	2,888	0	427,861
	Suspended	1,041	89	271	451	0	22,221	578	2,337	844	690	28,522
	Total	39,120	4,780	11,398	13,213	11	356,335	10,229	16,876	3,732	690	456,383

Men aged 45 to 54 make up the largest number of licensed drivers in Manitoba (9% of all drivers; 18% 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; 24% of suspended male drivers).

**Table 2-5 Class 1-5 Female Drivers by Age Group, Driver Status and License Class**Table 2-5  
Class 1-5 Female Drivers by Age Group, Driver Status and License Class: 2015

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	611	4,186	5,355	0	0	10,152
	Suspended	0	0	0	0	0	2	16	69	0	0	86
	Subtotal	0	0	0	0	0	612	4,202	5,423	0	0	10,238
18-19	Active	1	0	3	28	0	7,627	1,744	2,923	15	0	12,341
	Suspended	0	0	0	0	0	89	30	229	1	0	349
	Subtotal	1	0	3	28	0	7,717	1,774	3,153	15	0	12,690
20-24	Active	32	4	33	341	0	27,025	1,629	4,917	219	0	34,201
	Suspended	0	0	0	3	0	523	91	873	8	0	1,498
	Subtotal	32	4	33	344	0	27,548	1,720	5,790	227	0	35,698
25-34	Active	155	104	79	1,100	0	61,544	1,318	5,143	1,983	0	71,425
	Suspended	5	1	1	9	0	1,483	77	967	227	18	2,787
	Subtotal	160	105	80	1,109	0	63,026	1,395	6,110	2,210	18	74,212
35-44	Active	345	328	59	1,153	0	62,240	499	2,833	1,708	0	69,166
	Suspended	9	3	0	15	1	1,322	14	275	234	82	1,955
	Subtotal	354	331	60	1,168	1	63,562	513	3,108	1,942	82	71,121
45-54	Active	527	582	67	1,004	0	69,191	143	1,448	1,084	0	74,047
	Suspended	10	9	2	18	0	1,143	4	104	119	86	1,494
	Subtotal	537	592	69	1,022	0	70,334	147	1,552	1,203	86	75,541
55-64	Active	353	506	82	503	0	67,288	25	399	431	0	69,586
	Suspended	5	8	1	9	0	924	0	21	41	48	1,057
	Subtotal	358	514	83	512	0	68,212	25	420	472	48	70,644
65-74	Active	72	113	29	72	0	44,029	5	69	92	0	44,480
	Suspended	3	1	1	4	0	926	0	5	14	24	979
	Subtotal	75	114	30	76	0	44,955	5	74	106	24	45,458
75-84	Active	2	5	3	3	0	20,504	0	6	22	0	20,546
	Suspended	0	0	0	3	0	1,305	0	1	31	14	1,354
	Subtotal	2	5	3	6	0	21,809	0	7	53	14	21,900
85+	Active	0	0	1	0	0	5,222	0	1	8	0	5,232
	Suspended	0	1	0	3	0	2,173	0	0	30	14	2,221
	Subtotal	0	1	1	3	0	7,395	0	1	38	14	7,453
Total	Active	1,486	1,644	355	4,204	0	365,281	9,548	23,094	5,563	0	411,175
	Suspended	33	23	5	64	1	9,891	232	2,543	703	285	13,780
	Total	1,519	1,667	360	4,267	1	375,172	9,780	25,637	6,267	285	424,955

Women aged 45 to 54 make up the largest number of licensed female drivers in Manitoba (9% of all drivers; 18% of all female drivers).

Even though women account for almost half (48%) of all licensed drivers, they only account for 33% of suspended drivers in Manitoba. Women aged 25 to 34 account for the highest proportion of suspended female drivers under the age of 75 (27%).

**Table 2-6 Total Class 6 Active Licensed Drivers by Year**Table 2-6  
Total Class 6 Active Licensed Drivers by Year: 2005 to 2015

Licensing Year	Active Drivers	% Change to Previous Year
2005	54,005	-
2006	54,642	1.2%
2007*	56,825	4.0%
2008	58,486	2.9%
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%
<b>2015</b>	<b>69,506</b>	<b>1.9%</b>
Average 2010-2014*	65,070	2.6%

\*The "% Change to Previous Year" for "2010-14 Average" is an average rate of change for the time period 2010 to 2014.

In 2015, the number of motorcycle licence holders increased by 2% compared to 2014, in line with the annual average rate of change from 2010 through 2014 (3%).

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 are counted separately to avoid any duplication of counts with Class 1-5 licence holders. This means 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, Gender and Driver Status**Table 2-7  
Class 6 Active Licensed Drivers by Age Group and Gender: 2015

Age Group	Gender	Active Drivers	%
16-17	Male	126	
	Female	12	
	Total	138	0.2
18-19	Male	354	
	Female	35	
	Total	389	0.6
20-24	Male	2,278	
	Female	323	
	Total	2,601	3.7
25-34	Male	7,508	
	Female	1,250	
	Total	8,758	12.6
35-44	Male	8,222	
	Female	1,543	
	Total	9,766	14.0
45-54	Male	15,422	
	Female	2,450	
	Total	17,872	25.7
55-64	Male	18,478	
	Female	2,494	
	Total	20,972	30.2
65-74	Male	6,812	
	Female	717	
	Total	7,530	10.8
75-84	Male	1,168	
	Female	97	
	Total	1,265	1.8
85+	Male	197	
	Female	17	
	Total	214	0.3
All Ages	Male	60,565	
	Female	8,940	
	Total	69,506	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 (70%). Men aged 35 to 64 make up 61% 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 License Class, Driver Status and Gender**Table 2-8  
Class 6 Active Licensed Drivers by License Class and Gender: 2015

License Class	Active Drivers			
	Male	Female	Total	%
6/F	46,790	5,048	51,838	74.6
6/I	6	0	7	<0.1
6/L	8,140	2,437	10,578	15.2
6/A	2,627	382	3,008	4.3
6/M	3,002	1,074	4,075	5.9
Total	60,565	8,940	69,506	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 2015, Full Class 6 licence holders account for 75% of all Manitoba Class 6 licence holders and Learners account for 15%. This distribution is similar to 2014.

**Table 2-9 Active Class 6 Male Drivers by Age Group and License Class**Table 2-9  
Active Class 6 Male Drivers by Age Group and License Class: 2015

Age Group	License Class					Total	% of Total
	6/F	6/I	6/L	6/A	6/M		
16-17	2	4	79	0	41	126	0.2
18-19	37	0	184	1	131	354	0.6
20-24	481	1	1,192	22	582	2,278	3.8
25-34	2,618	1	3,276	366	1,248	7,508	12.4
35-44	5,003	0	1,665	1,039	515	8,222	13.6
45-54	13,339	0	1,011	794	278	15,422	25.5
55-64	17,480	0	542	319	138	18,478	30.5
65-74	6,519	0	171	69	53	6,812	11.2
75-84	1,118	0	20	15	14	1,168	1.9
85+	192	0	2	2	1	197	0.3
Total	46,790	6	8,140	2,627	3,002	60,565	

**Table 2-10 Active Class 6 Female Drivers by Age Group and License Class**Table 2-10  
Active Class 6 Female Drivers by Age Group and License Class: 2015

Age Group	License Class					Total	% of Total
	6/F	6/I	6/L	6/A	6/M		
16-17	0	0	9	0	3	12	0.1
18-19	2	0	20	0	12	35	0.4
20-24	29	0	171	1	122	323	3.6
25-34	237	0	674	32	307	1,250	14.0
35-44	568	0	636	120	220	1,543	17.3
45-54	1,453	0	625	138	234	2,450	27.4
55-64	1,984	0	284	77	149	2,494	27.9
65-74	662	0	18	12	26	717	8.0
75-84	96	0	0	1	0	97	1.1
85+	16	0	0	1	0	17	0.2
Total	5,048	0	2,437	382	1,074	8,940	



## 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 944,469 Non-commercial vehicles registered in Manitoba in 2015.

- This is a 2% increase over 2014 and a 25% increase from 2005.
- This is a 6% increase over the average registrations for the period 2010-2014.

There are a total of 107,907 Commercial vehicles registered in Manitoba in 2015.

- This is a slight 1% increase over 2014 and a 46% increase from 2005.
- This is a 11% increase over the average registrations for the period 2010-2014.

Overall, there is a 2% increase in the total vehicle registrations (commercial and non-commercial, combined) in Manitoba from 1,033,058 in 2014 to 1,052,376 in 2015.

There are a total of 33,735 Snowmobiles registered in Manitoba in 2015.

- There are 545 less registered snowmobiles in 2015 than in 2014 (a 2% decrease); a 70% increase from 2005.
- This is an 8% increase over the average registrations for the period 2010-2014.

### **Major Elements Examined**

Counts for each Commercial and Non-commercial registration types represent an average registration over the twelve-month period January through December 2015. 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 2014 through to and including April 2015 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: 2015

Vehicle Class*	Total	%
Passenger	559,606	59.3
Antique	136	<0.1
Motorcycle/Moped	13,732	1.5
Truck	156,302	16.5
Farm Truck	43,749	4.6
Snow Vehicle	49	<0.1
Trailer	170,778	18.1
Tractor (Other than Farm-type)	117	<0.1
<b>Total Non-Commercial Vehicles Registered</b>	<b>944,469</b>	<b>100</b>
Snowmobiles (Recreational)		
Snowmobiles	33,735	

\*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: 2015

Vehicle Class*	Total	%
Commercial Truck	33,521	31.1
Public Service Vehicle (PSV) Truck	12,447	11.5
Dealer and Repairer	6,439	6.0
Taxi/Livery/Limousine	903	0.8
Public Service Vehicle (PSV) Bus	168	0.2
Commercial Trailer	54,342	50.4
Public Service Vehicle (PSV) Trailer	87	<0.1
<b>Total Commercial Vehicles Registered</b>	<b>107,907</b>	<b>100</b>

\*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: 2005 to 2015

Registration Class	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	5-year (2010- 2014) Average	2015	% Change 2015 vs. 2014	% Change (2015 vs. 2010- 2014 average)
<b>Non-Commercial Vehicle Class</b>														
Passenger	487,158	491,363	499,078	509,856	516,185	521,894	529,406	539,384	545,723	551,113	537,504	<b>559,606</b>	1.5	4.1
Antique**	74	80	82	84	77	95	103	131	134	133	119	<b>136</b>	2.6	14.3
Motorcycle/Moped	7,605	8,357	9,143	10,059	10,413	10,732	11,229	12,329	12,658	13,042	11,998	<b>13,732</b>	5.3	14.5
Truck	115,755	117,278	120,217	123,766	127,154	133,057	139,530	145,405	149,295	153,077	144,073	<b>156,302</b>	2.1	8.5
Farm Truck	46,512	45,083	44,477	44,073	43,746	43,517	42,942	43,384	43,361	43,517	43,344	<b>43,749</b>	0.5	0.9
Snow Vehicle**	49	48	49	47	49	50	48	46	43	45	46	<b>49</b>	8.7	5.5
Trailer	97,684	103,840	111,630	120,891	127,080	134,358	143,249	154,603	160,451	165,492	151,630	<b>170,778</b>	3.2	12.6
Tractor (non-farm)	122	125	120	117	122	123	120	117	116	113	118	<b>117</b>	3.7	-0.4
Subtotal	754,959	766,174	784,796	808,892	824,824	843,825	866,628	895,400	911,781	926,533	888,833	<b>944,469</b>	1.9	6.3
<b>Commercial Vehicle Class</b>														
Truck	23,833	24,305	24,987	26,123	26,851	27,690	28,928	30,391	31,407	32,227	30,129	<b>33,521</b>	4.0	11.3
PSV Truck	8,988	9,526	10,115	9,863	9,818	9,849	10,244	10,934	11,337	11,813	10,835	<b>12,447</b>	5.4	14.9
Dealer/Repairer	6,561	6,512	6,511	6,546	6,347	6,229	6,185	6,178	6,210	6,354	6,231	<b>6,439</b>	1.3	3.3
Taxi/Livery	764	772	769	778	834	854	871	885	892	893	879	<b>903</b>	1.1	2.8
PSV Bus**	135	134	143	146	155	161	150	143	153	156	152	<b>168</b>	8.1	10.3
Trailers*	33,453	37,226	38,183	42,304	41,846	45,249	45,221	49,389	50,936	55,000	49,159	<b>54,342</b>	-1.2	10.5
PSV Trailers**	54	58	56	51	57	57	57	71	78	82	69	<b>87</b>	6.1	26.1
Subtotal	73,788	78,533	80,764	85,811	85,909	90,089	91,655	97,991	101,012	106,525	97,454	<b>107,907</b>	1.3	10.7
<b>Total Registrations - Non-Commercial and Commercial Vehicle Classes</b>														
Total Registrations	828,747	844,707	865,560	894,703	910,732	933,914	958,283	993,390	1,012,793	1,033,058	986,288	<b>1,052,376</b>	1.9	6.7
<b>Snowmobiles***</b>														
Total	19,852	20,832	23,401	26,359	27,664	28,064	30,421	30,650	32,851	34,280	31,253	<b>33,735</b>	-1.6	7.9
<b>Off-Road Vehicle Dealer Plates</b>														
Total	398	446	429	473	464	454	471	469	505	518	484	<b>529</b>	2.2	9.4

\*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 2015, December 2014 through April 2015, inclusive).

Over the previous five years (2010 to 2014), total vehicle registrations (excluding snowmobiles and ORV dealer plates) have increased by an average of 3% each year. In 2015, the increase in total vehicle registrations is consistent with this rate of change, increasing by 2% each year since 2013.

The total increase in overall vehicle registrations in 2015 comes from an increase in both non-commercial and commercial vehicle registrations. Non-commercial vehicle registrations increased by 2% in 2015 compared to 2014. Commercial vehicle registrations increased by 1% in 2015 compared to 2014.

Snowmobile registrations decreased by 2% in 2015 over 2014 (a total count of 33,735 snowmobiles in 2015), but increased by 8% compared to the 5-year (2010-2014) average registrations.

## 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 2005 to 2014 is presented and compared to 2015. Details are provided for 2015 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 2015, there are 12,017 victims from 41,548 collisions involving 61,711 vehicles and 59,716 drivers. Of the 41,548 collisions:

- 69 are fatal collisions involving 106 vehicles and 103 drivers, resulting in 78 people killed and 48 people injured;
- 9,127 are injury collisions involving 16,184 vehicles and 16,088 drivers, resulting in 11,891 people injured; and,
- 32,352 are PDO collisions involving 45,421 vehicles and 43,525 drivers.

Collisions on public roadways in Manitoba in 2015 most frequently occur:

- In Winnipeg (63% of all collisions; 19% of fatal, 77% of injury and 60% of PDO collisions) and in rural locations (20% of all collisions, 68% of fatal, 13% of injury and nearly 22% of PDO collisions);
- In the winter months (January, February, and December) – 32% of all collisions; 16% of fatal, 33% of injury and 32% of PDO collisions;
- On weekdays (Monday through Friday) with Friday specifically accounting for 17% of all collisions; 23% 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) – nearly 25% of all collisions; 13% of fatal, 29% of injury and 23% of PDO collisions.

Collisions on public roadways in Manitoba in 2015 are most frequently:

- “Motor vehicle to motor vehicle” in nature – 64% of all collisions; 64% of fatal, 82% of injury and 59% of PDO collisions; and,
- “Rear end” collisions (37% of all collisions), collisions occurring at 90° intersections (17% of all collisions), collisions involving a fixed object (12% of all collisions), side-swipe collisions (12% of all collisions), collisions resulting from leaving the road (6% of all collisions), collisions associated with turning (5% of all collisions), and head-on collisions (2% of all collisions).

### Major Elements Examined

Counts of collisions in Manitoba for 2015 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 2005 through 2015. Following that, the majority of this section explores traffic collisions occurring in 2015 and provides comparisons to annual average counts of collisions for the time period 2010 to 2014.

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 2010 to 2014. 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: 2005 to 2015

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	<b>2015</b>	2010-2014 Average
Total Collisions	33,164	31,738	29,494	27,092	26,578	27,172	34,302	38,972	41,819	40,672	<b>41,548</b>	36,587
Fatal	88	104	96	85	83	78	94	89	69	64	<b>69</b>	79
Injury	6,482	6,503	6,415	5,974	5,396	5,386	6,309	8,280	8,729	9,023	<b>9,127</b>	7,545
PDO	26,594	25,131	22,983	21,033	21,099	21,708	27,899	30,603	33,021	31,585	<b>32,352</b>	28,963
Total Victims	8,753	8,825	8,632	7,924	7,302	7,130	8,337	10,623	11,234	11,676	<b>12,017</b>	9,800
Killed	113	119	109	92	86	87	110	96	85	68	<b>78</b>	89
Injured	8,640	8,706	8,523	7,832	7,216	7,043	8,227	10,527	11,149	11,608	<b>11,939</b>	9,711
Total Vehicles Involved	54,343	51,620	48,491	44,555	43,610	44,979	53,516	59,556	64,316	62,277	<b>61,711</b>	56,929
Fatal	135	151	141	141	126	110	141	126	111	95	<b>106</b>	117
Injury	11,489	11,312	11,099	10,219	9,268	9,358	10,956	14,802	15,663	16,233	<b>16,184</b>	13,402
PDO	42,719	40,157	37,251	34,195	34,216	35,511	42,419	44,628	48,542	45,949	<b>45,421</b>	43,410
Total Drivers Involved	48,898	46,380	44,814	42,120	41,097	42,310	51,279	58,877	63,501	61,294	<b>59,716</b>	55,452
Fatal	126	145	135	121	120	105	130	119	106	90	<b>103</b>	110
Injury	11,044	10,827	10,696	9,854	8,938	8,969	10,644	14,696	15,539	16,120	<b>16,088</b>	13,194
PDO	37,728	35,408	33,983	32,145	32,039	33,236	40,505	44,062	47,856	45,084	<b>43,525</b>	42,149

In 2015, there are 12,017 victims from 41,548 collisions involving 61,711 vehicles and 59,716 drivers. Of the 41,548 collisions:

- 69 are fatal collisions involving 106 vehicles and 103 drivers, resulting in 78 people killed and 48 people injured;
- 9,127 are injury collisions involving 16,184 vehicles and 16,088 drivers, resulting in 11,891 people injured; and,
- 32,352 are PDO collisions involving 45,421 vehicles and 43,525 drivers.

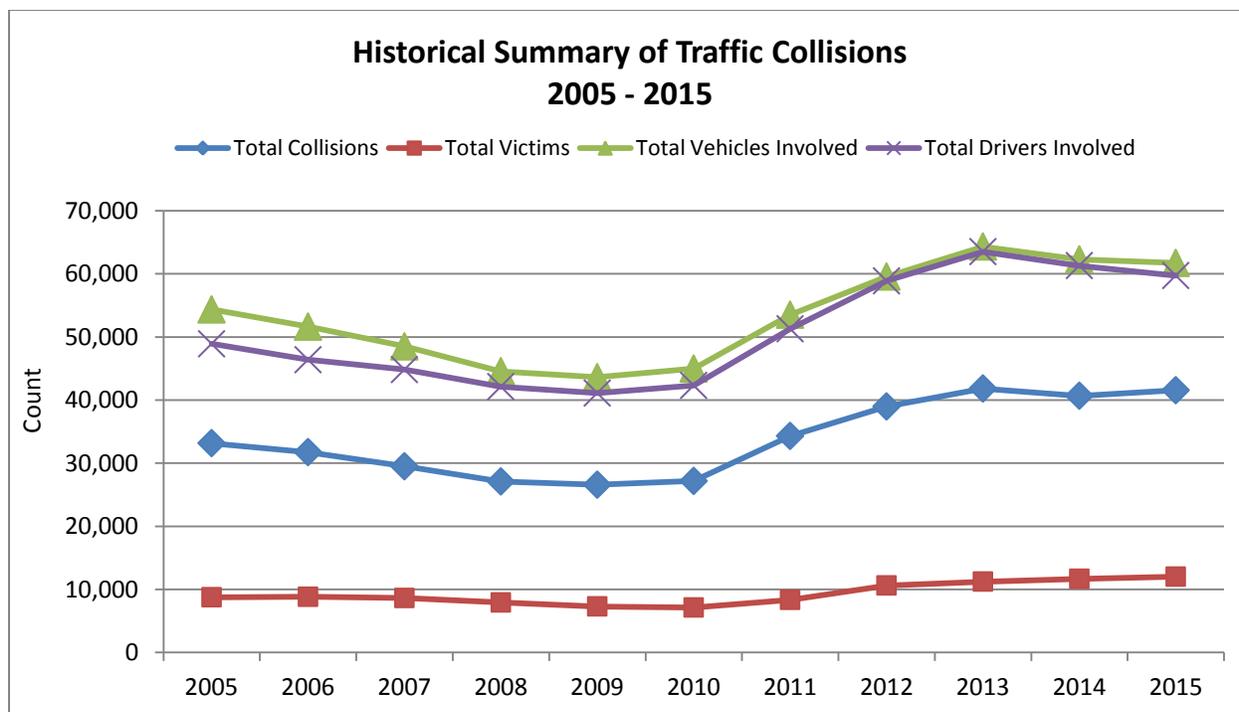
Total collisions in 2015 are up 2% compared to 2014 and by 14% compared to the number of collisions in the previous five year (2010 to 2014) annual average.

- Fatal collisions increased by 8% compared to 2014 but decreased by 12% compared to the previous five years.
- Injury collisions increased by 1% compared to 2014 and by 21% compared to the previous five years.
- PDO collisions increased by 2% compared to 2014 and by 12% compared to the previous five years.

The total number of collision victims in 2015 increased by 3% compared to 2014 and by 23% compared to the previous five year (2010 to 2014) annual average. The number of people killed in collisions in 2015 increased by 15% compared to 2014, but decreased by 13% compared to the previous five years. While the number of people killed in fatal collisions had been on a decline since 2011, in 2015 that number increased to 78 from 68 (in 2014).

The total number of drivers involved in collisions in 2015 is down 3% compared to 2014 but is up 8% compared to the previous five year (2010 to 2014) annual average. The number of vehicles involved in collisions in 2015 is down 1% from 2014, but up 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: 2015, 2010-2014 Average

Month	2015 Collision Severity						2015 Total	% of 2015 Total	2010-2014 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
January	3	4.3%	1,015	11.1%	3,440	10.6%	<b>4,458</b>	10.7%	5	894	3,589	4,488	12.3%
February	2	2.9%	950	10.4%	3,105	9.6%	<b>4,057</b>	9.8%	5	657	2,546	3,207	8.8%
March	3	4.3%	674	7.4%	2,427	7.5%	<b>3,104</b>	7.5%	3	644	2,387	3,034	8.3%
April	4	5.8%	580	6.4%	2,024	6.3%	<b>2,608</b>	6.3%	6	457	1,700	2,163	5.9%
May	6	8.7%	649	7.1%	2,134	6.6%	<b>2,789</b>	6.7%	6	507	1,721	2,235	6.1%
June	3	4.3%	657	7.2%	2,254	7.0%	<b>2,914</b>	7.0%	9	505	1,881	2,396	6.5%
July	7	10.1%	590	6.5%	2,247	6.9%	<b>2,844</b>	6.8%	10	501	1,769	2,280	6.2%
August	6	8.7%	651	7.1%	2,174	6.7%	<b>2,831</b>	6.8%	8	514	1,696	2,218	6.1%
September	11	15.9%	681	7.5%	2,425	7.5%	<b>3,117</b>	7.5%	9	563	1,901	2,473	6.8%
October	9	13.0%	774	8.5%	2,663	8.2%	<b>3,446</b>	8.3%	7	647	2,579	3,233	8.8%
November	9	13.0%	869	9.5%	3,568	11.0%	<b>4,446</b>	10.7%	5	826	3,611	4,442	12.1%
December	6	8.7%	1,037	11.4%	3,891	12.0%	<b>4,934</b>	11.9%	6	830	3,583	4,419	12.1%
<b>Total</b>	<b>69</b>	<b>100%</b>	<b>9,127</b>	<b>100%</b>	<b>32,352</b>	<b>100%</b>	<b>41,548</b>	<b>100%</b>	<b>79</b>	<b>7,545</b>	<b>28,963</b>	<b>36,587</b>	<b>100%</b>

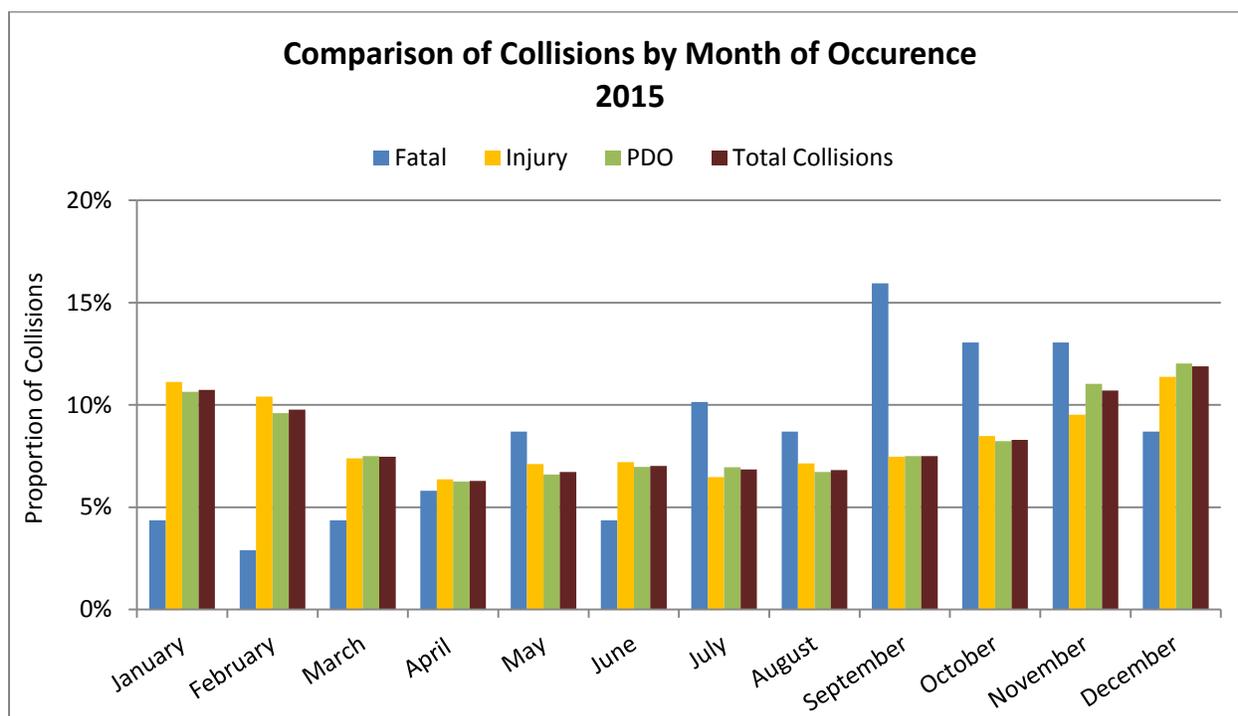
Note: Counts of collisions in the 2010-2014 average may not add to the total due to rounding.

The winter months of January, February and December continue to account for a high proportion of collisions in Manitoba, with one-third (32%) of all collisions happening in these months in 2015. In the previous five year period (2010 to 2014), these months also accounted for an average of one-third (33%) of all collisions. In 2015, January, February and December (combined), account for:

- 16% of all fatal collisions;
- 33% of all injury collisions; and,
- 32% of all PDO collisions.

Fatal collisions in 2015 occur most often in September, October, and November (42% of fatal crashes combined), compared to 27% in 2010 to 2014. The spring months of March, April and May account for the same proportion of fatal collisions relative to the previous five years (2015 – 19% of fatal crashes; 2010-2014 annual average – 19% of fatal crashes).

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



In 2015, injury collisions and PDO collisions occur most frequently in the months of November through February (42% of injury collisions and 43% of PDO collisions). In the previous five year period (2010 to 2014), these months account for nearly 43% of injury collisions and 46% of PDO collisions.

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

Table 4-3  
Traffic Collisions by Day of Week of Occurrence and Collision Severity: 2015, 2010-2014 Average

Day of Week	2015 Collision Severity						2015 Total	% of 2015 Total	2010-2014 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Sunday	6	8.7%	799	8.8%	3,427	10.6%	<b>4,232</b>	10.2%	12	700	3,069	3,781	10.3%
Monday	13	18.8%	1,255	13.8%	4,299	13.3%	<b>5,567</b>	13.4%	10	1,087	4,002	5,100	13.9%
Tuesday	11	15.9%	1,406	15.4%	4,816	14.9%	<b>6,233</b>	15.0%	6	1,167	4,171	5,344	14.6%
Wednesday	9	13.0%	1,508	16.5%	4,960	15.3%	<b>6,477</b>	15.6%	12	1,199	4,360	5,571	15.2%
Thursday	7	10.1%	1,493	16.4%	5,150	15.9%	<b>6,650</b>	16.0%	11	1,185	4,367	5,563	15.2%
Friday	16	23.2%	1,582	17.3%	5,487	17.0%	<b>7,085</b>	17.1%	12	1,280	5,078	6,371	17.4%
Saturday	7	10.1%	1,084	11.9%	4,213	13.0%	<b>5,304</b>	12.8%	15	926	3,916	4,857	13.3%
Total	69	100%	9,127	100%	32,352	100%	<b>41,548</b>	100%	79	7,545	28,963	36,587	100%

Note: Counts of collisions in the 2010-2014 average may not add to the total due to rounding.

Collisions in 2015 most frequently occur on weekdays, especially on Friday. Monday through Friday combined account for 77% of all collisions, 81% of fatal collisions, 79% of injury collisions and 76% of PDO collisions. In the previous five year (2010 to 2014) annual average, weekdays account for virtually the same proportions (76% of all collisions; 66% fatal; 78% injury; 76% PDO).

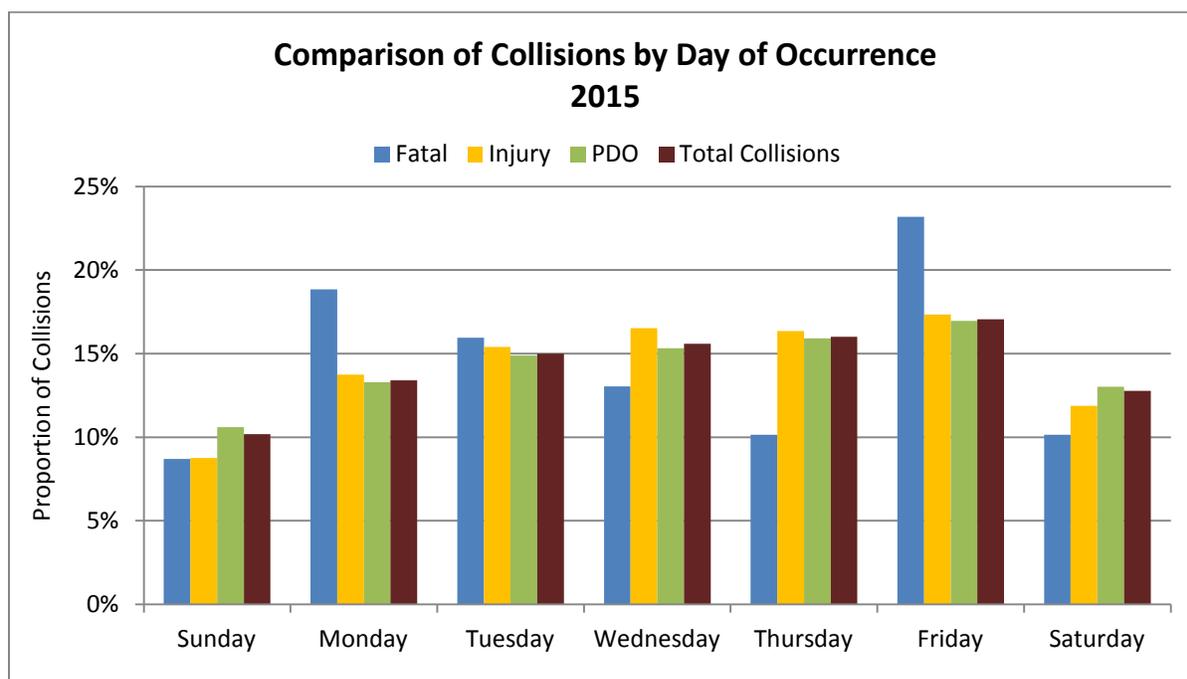
Overall, Friday accounts for the single largest proportion of collisions in 2015; this is also the case in the previous five year (2010 to 2014) annual average. Friday accounts for:

- 17% of all collisions in 2015 and in the previous five years;
- 23% of fatal collisions in 2015 and 16% in the previous five years;
- 17% of injury collisions in 2015 and in the previous five years; and,
- 17% of PDO collisions in 2015 and nearly 18% in the previous five years.

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

- 40% of all collisions in 2015 and 41% in the previous five years (2010 to 2014);
- 42% of fatal collisions in 2015 and 50% in the previous five years;
- 38% of injury collisions in 2015 and nearly 39% in the previous five years; and,
- 41% of PDO collisions in 2015 and 42% in the previous five years.

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



In 2015, fatal collisions occur most often on Friday (count of 16 or 23% of fatal collisions). In the previous five year (2010 to 2014) annual average, Saturdays account for the highest number of fatal crashes (15), but are closely followed by Fridays (12), Wednesdays (12), Sundays (12) and Thursdays (11).

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

Table 4-4  
Traffic Collisions by Time of Occurrence and Collision Severity: 2015, 2010-2014 Average

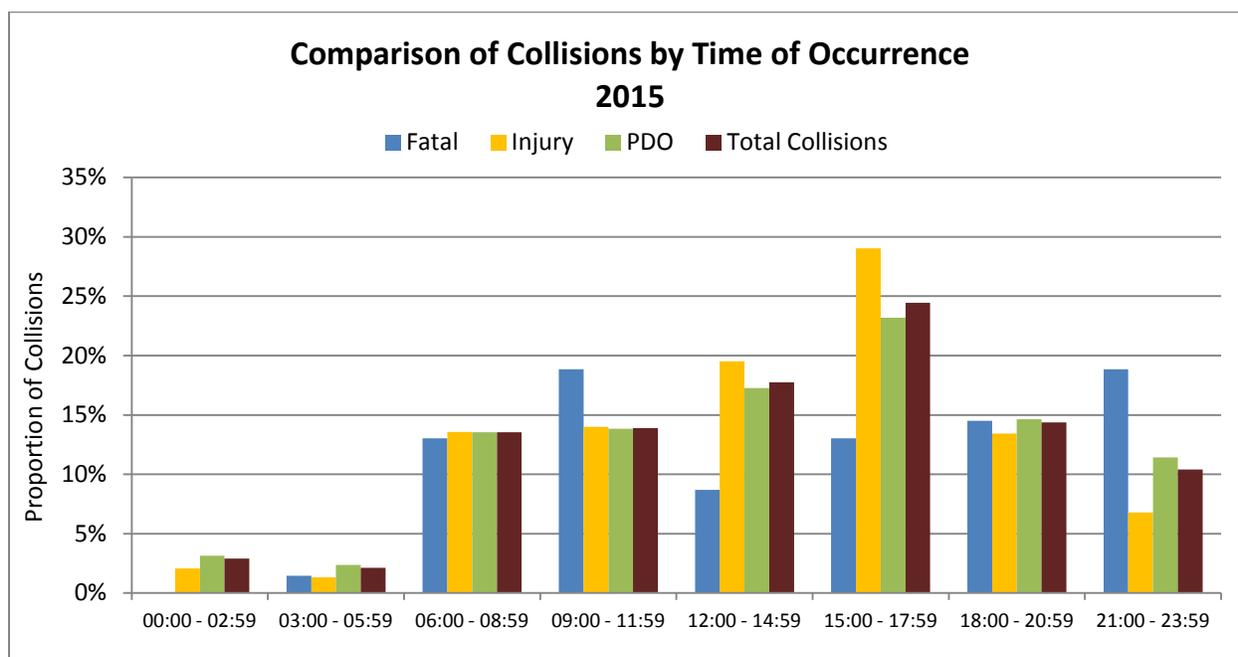
Time	2015 Collision Severity						2015 Total	% of 2015 Total	2010-2014 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
00:00 - 02:59	0	-	190	2.1%	1021	3.2%	<b>1,211</b>	2.9%	7	186	888	1,080	3.0%
03:00 - 05:59	1	1.4%	120	1.3%	768	2.4%	<b>889</b>	2.1%	7	133	727	868	2.4%
06:00 - 08:59	9	13.0%	1,239	13.6%	4,378	13.5%	<b>5,626</b>	13.5%	6	997	3,625	4,628	12.6%
09:00 - 11:59	13	18.8%	1,278	14.0%	4,477	13.8%	<b>5,768</b>	13.9%	8	1,046	3,838	4,892	13.4%
12:00 - 14:59	6	8.7%	1,781	19.5%	5,589	17.3%	<b>7,376</b>	17.8%	11	1,480	5,028	6,518	17.8%
15:00 - 17:59	9	13.0%	2,648	29.0%	7,502	23.2%	<b>10,159</b>	24.5%	11	2,097	6,823	8,931	24.4%
18:00 - 20:59	10	14.5%	1,225	13.4%	4,738	14.6%	<b>5,973</b>	14.4%	12	966	4,365	5,343	14.6%
21:00 - 23:59	13	18.8%	620	6.8%	3,696	11.4%	<b>4,329</b>	10.4%	11	534	3,264	3,809	10.4%
Not Stated	8	11.6%	26	0.3%	183	0.6%	<b>217</b>	0.5%	7	105	407	519	1.4%
Total	69	100%	9,127	100%	32,352	100%	<b>41,548</b>	100%	79	7,545	28,963	36,587	100%

Note: Counts of collisions in the 2010-2014 average may not add to the total due to rounding.

More than four in ten collisions in 2015 occur between noon and 6 p.m. (42% of all collisions, 22% of fatal collisions, nearly 49% of injury collisions, and nearly 41% of PDO collisions). This is consistent with the proportion of collisions occurring during these hours in the previous five year (2010 to 2014) annual average (42% of all collisions, 28% of fatal collisions, 47% of injury collisions, and 41% of PDO collisions).

The largest proportion of total traffic collisions in 2015 occur between 3 and 6 p.m. (15:00 – 17:59), what is often considered the “afternoon rush”. Nearly one-quarter (25%) of all collisions occur during these hours (13% of fatal collisions, 29% of injury collisions and 23% of PDO collisions). This is relatively consistent with the proportion of collisions occurring during these hours in the previous five year (2010 to 2014) annual average.

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



In 2015, fewer fatal crashes occur between the hours of midnight and 6 a.m than in the previous five year period. In 2015, 1% of fatal crashes occur during this time (along with 3% of injury crashes and nearly 6% of PDO crashes). In the previous five years, nearly 18% of fatal crashes occur between the hours of midnight and 6 a.m. (along with 4% of injury crashes and 6% of PDO crashes).

**Table 4-5 Traffic Collisions by Provincial Location and Collision Severity**Table 4-5  
Traffic Collisions by Provincial Location and Collision Severity: 2015, 2010-2014 Average

Location	2015 Collision Severity						2015 Total	% of 2015 Total	2010-2014 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Winnipeg	13	18.8%	7,024	77.0%	19,284	59.6%	<b>26,321</b>	63.4%	15	5,536	17,204	22,755	62.2%
Brandon	0	-	218	2.4%	1,022	3.2%	<b>1,240</b>	3.0%	<1	203	1,053	1,257	3.4%
Portage	1	1.4%	45	0.5%	276	0.9%	<b>322</b>	0.8%	-	50	271	322	0.9%
Flin Flon	0	-	4	<0.1%	78	0.2%	<b>82</b>	0.2%	<1	6	82	89	0.2%
Dauphin	0	-	33	0.4%	157	0.5%	<b>190</b>	0.5%	1	31	162	193	0.5%
Thompson	0	-	31	0.3%	218	0.7%	<b>249</b>	0.6%	<1	29	211	241	0.7%
The Pas	0	-	17	0.2%	134	0.4%	<b>151</b>	0.4%	<1	15	130	145	0.4%
Selkirk	0	-	67	0.7%	237	0.7%	<b>304</b>	0.7%	<1	57	239	297	0.8%
Other Urban	8	11.6%	520	5.7%	3,995	12.3%	<b>4,523</b>	10.9%	9	517	3,527	4,054	11.1%
All Rural	47	68.1%	1,168	12.8%	6,951	21.5%	<b>8,166</b>	19.7%	51	1,100	6,084	7,236	19.8%
Total	69	100%	9,127	100%	32,352	100%	<b>41,548</b>	100%	79	7,545	28,963	36,587	100%

Note: Counts of collisions in the 2010-2014 average may not add to the total due to rounding.

Urban locations account for four of five (80%) collisions in Manitoba, but only one-third of fatal collisions (32%) in 2015 (87% of injury collisions and nearly 79% of PDO collisions). Rural locations account for one-fifth of all collisions (20%), but more than two-thirds of fatal collisions (68%). This is consistent with historical results. In the previous five year period (2010 to 2014), urban locations accounted for an average of 80% of all collisions, one-third (32%) of fatal collisions, 85% of injury collisions, and 79% of PDO collisions.

In 2015, 63% 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 17% of all collisions. In the previous five year (2010 to 2014) annual average, 62% of all collisions occur in Winnipeg and 18% occur in other urban locations.

This pattern holds when we consider both injury and PDO collisions. In 2015:

- 77% of injury collisions occur in Winnipeg, 10% occur in other urban locations and 13% occur in rural locations.
- 60% of PDO collisions occur in Winnipeg, 19% occur in other urban locations and nearly 22% occur in rural locations.

Fatal collisions are different from the distribution of total crashes when it comes to the urban-rural split. In 2015, more than two-thirds of fatal collisions (68%) occur in rural locations, while 19% occur in Winnipeg and 13% occur in other urban locations. The over-representation of rural locations for fatal collisions in 2015 is consistent with the previous five year (2010 to 2014) annual average, where 65% of fatal collisions occur in rural locations, 19% occur in Winnipeg and nearly 17% occur in other urban locations.

**Table 4-6 Collision Type by Urban/Rural Location**

Table 4-6  
Collision Type by Urban/Rural Location: 2015, 2010-2014 Average

Collision Type	Location													2010-2014 Average Count of Total Collisions				
	2015 Urban				2015 Rural				2015 Provincial Total				2015 Provincial Total as % of Total	Fatal	Injury	PDO	Total	% of Total
	Fatal	Injury	PDO	Total	Fatal	Injury	PDO	Total	Fatal	Injury	PDO	Total						
Collision with pedestrian	1	37	61	99	0	0	1	1	1	37	62	<b>100</b>	0.2%	8	153	32	193	0.5%
Collision with other motor vehicle	12	7,021	18,404	25,437	32	451	760	1,243	44	7,472	19,164	<b>26,680</b>	64.2%	30	5,666	17,412	23,108	63.2%
Collisions with train	0	2	3	5	1	0	0	1	1	2	3	<b>6</b>	<0.1%	<1	2	7	10	<0.1%
Collision with motorcycle	1	6	3	10	0	3	0	3	1	9	3	<b>13</b>	<0.1%	2	44	21	67	0.2%
Collision with animal drawn vehicle	0	0	0	0	0	0	0	0	0	0	0	<b>0</b>	-	-	-	-	-	<0.1%
Collision with bicycle	0	6	61	67	0	0	4	4	0	6	65	<b>71</b>	0.2%	3	99	37	139	0.4%
Collision with animal	0	55	991	1,046	1	233	4,599	4,833	1	288	5,590	<b>5,879</b>	14.1%	<1	219	4,526	4,745	13.0%
Collision with fixed object	7	392	3,596	3,995	11	369	1,031	1,411	18	761	4,627	<b>5,406</b>	13.0%	10	597	3,806	4,413	12.1%
Collision with other object	0	390	2,132	2,522	2	82	475	559	2	472	2,607	<b>3,081</b>	7.4%	6	398	2,300	2,704	7.4%
Overtaken in roadway	0	5	5	10	0	4	5	9	0	9	10	<b>19</b>	<0.1%	3	62	91	156	0.4%
Ran off roadway	1	6	14	21	0	9	8	17	1	15	22	<b>38</b>	<0.1%	16	209	417	641	1.8%
Collision with moped	0	0	2	2	0	0	1	1	0	0	3	<b>3</b>	<0.1%	-	<1	1	1	<0.1%
Other non-collision	0	39	129	168	0	17	67	84	0	56	196	<b>252</b>	0.6%	<1	74	314	388	1.1%
<b>Total</b>	<b>22</b>	<b>7,959</b>	<b>25,401</b>	<b>33,382</b>	<b>47</b>	<b>1,168</b>	<b>6,951</b>	<b>8,166</b>	<b>69</b>	<b>9,127</b>	<b>32,352</b>	<b>41,548</b>	<b>100%</b>	<b>79</b>	<b>7,524</b>	<b>28,963</b>	<b>36,566</b>	<b>100%</b>

Note: Counts of collisions in the 2010-2014 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 2015 and in the previous five year (2010 to 2014) annual average. In 2015, “motor vehicle to motor vehicle” collisions account for:

- 64% of all collisions;
- 64% of fatal collisions;
- 82% of injury collisions; and,
- 59% of PDO collisions.

Collisions occurring in urban locations are also predominantly “motor vehicle to motor vehicle” in nature. In urban locations in 2015, “motor vehicle to motor vehicle” collisions account for:

- 76% of all collisions;
- Nearly 55% of fatal collisions;
- 88% of injury collisions; and,
- Nearly 73% 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 2015:

- 59% of all collisions are “motor vehicle to animal” in nature (2% of fatal collisions; 20% of injury collisions; and 66% of PDO collisions);
- 17% of all collisions are “motor vehicle to fixed object” in nature (23% of fatal collisions; 32% of injury collisions; and 15% of PDO collisions); and,
- 15% of all collisions are “motor vehicle to motor vehicle” in nature (68% of fatal collisions; 39% of injury collisions; and 11% of PDO collisions).

Collisions with pedestrians (accounting for less than half a percent of all collisions in 2015) account for a high proportion of fatal collisions occurring in urban locations. In 2015, 1% of fatal collisions in the province were “motor vehicle to pedestrian”; but in urban locations, nearly 5% of fatal collisions involve a motor vehicle hitting a pedestrian.

**Table 4-7 Traffic Collisions by Road Surface Condition and Collision Severity**Table 4-7  
Traffic Collisions by Road Surface Condition and Collision Severity: 2015, 2010-2014 Average

Road Surface Condition	2015 Collision Severity						2015 Total	% of 2015 Total	2010-2014 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Dry	42	60.9%	5,224	57.2%	17,943	55.5%	<b>23,209</b>	55.9%	53	3,979	14,724	18,756	51.3%
Wet	2	2.9%	1,069	11.7%	3,366	10.4%	<b>4,437</b>	10.7%	7	821	2,666	3,493	9.5%
Mud	0	-	5	<0.1%	76	0.2%	<b>81</b>	0.2%	-	7	63	70	0.2%
Snow	5	7.2%	765	8.4%	3,602	11.1%	<b>4,372</b>	10.5%	4	668	3,456	4,128	11.3%
Ice	5	7.2%	1,519	16.6%	5,295	16.4%	<b>6,819</b>	16.4%	7	1,609	6,324	7,940	21.7%
Slush	0	-	202	2.2%	568	1.8%	<b>770</b>	1.9%	<1	178	532	710	1.9%
Loose Sand/ Gravel/ Dirt	5	7.2%	80	0.9%	219	0.7%	<b>304</b>	0.7%	2	70	253	325	0.9%
Fresh Oil	0	-	2	<0.1%	7	<0.1%	<b>9</b>	<0.1%	-	4	12	16	<0.1%
Other	0	-	18	0.2%	99	0.3%	<b>117</b>	0.3%	<1	13	88	101	0.3%
Not Applicable	0	-	124	1.4%	343	1.1%	<b>467</b>	1.1%	2	133	520	656	1.8%
Unknown	10	14.5%	119	1.3%	834	2.6%	<b>963</b>	2.3%	2	62	327	391	1.1%
<b>Total</b>	<b>69</b>	<b>100%</b>	<b>9,127</b>	<b>100%</b>	<b>32,352</b>	<b>100%</b>	<b>41,548</b>	<b>100%</b>	<b>79</b>	<b>7,542</b>	<b>28,963</b>	<b>36,584</b>	<b>100%</b>

Note: Counts of collisions in the 2010-2014 average may not add to the total due to rounding.

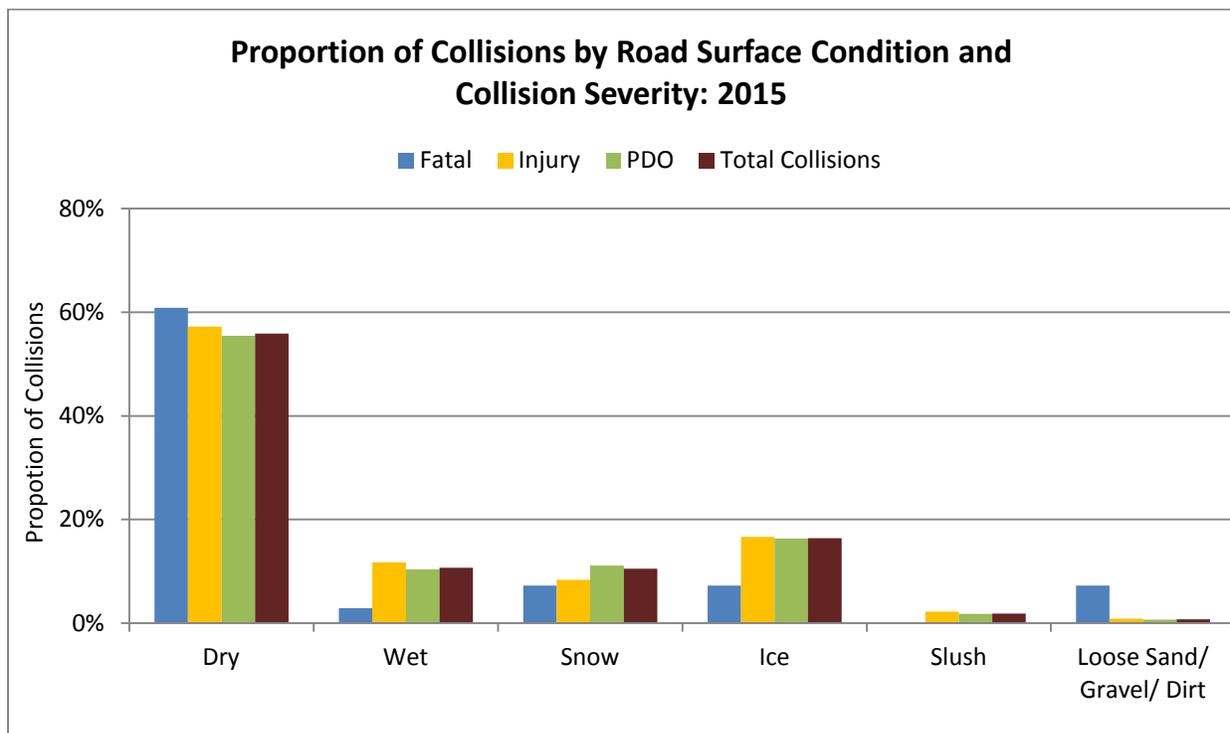
The collisions in Manitoba occur most often under “dry” road conditions. More than half (56%) of all collisions in 2015 and 51% in the previous five year (2010 to 2014) annual average occur on “dry” roads.

In 2015, 61% of fatal collisions occur on “dry” roads. This is relatively consistent with the previous five year (2010 to 2014) annual average where more than two-thirds of fatal collisions (nearly 68%) occur on “dry” roads.

Icy road conditions account for 16% of all collisions in 2015, including 7% of fatal collisions, 17% of injury collisions and 16% of PDO collisions. This is similar to the previous five year (2010 to 2014) annual average where icy roads account for 22% of all collisions, 9% of fatal collisions, 21% of injury collisions and 22% of PDO collisions.

“Snow” covered and “wet” roads account for the next highest proportions of all collisions in 2015, at nearly 11% and 11% respectively. These proportions are similar to the previous five year (2010 to 2014) annual average (11% and nearly 10% 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: 2015, 2010-2014 Average

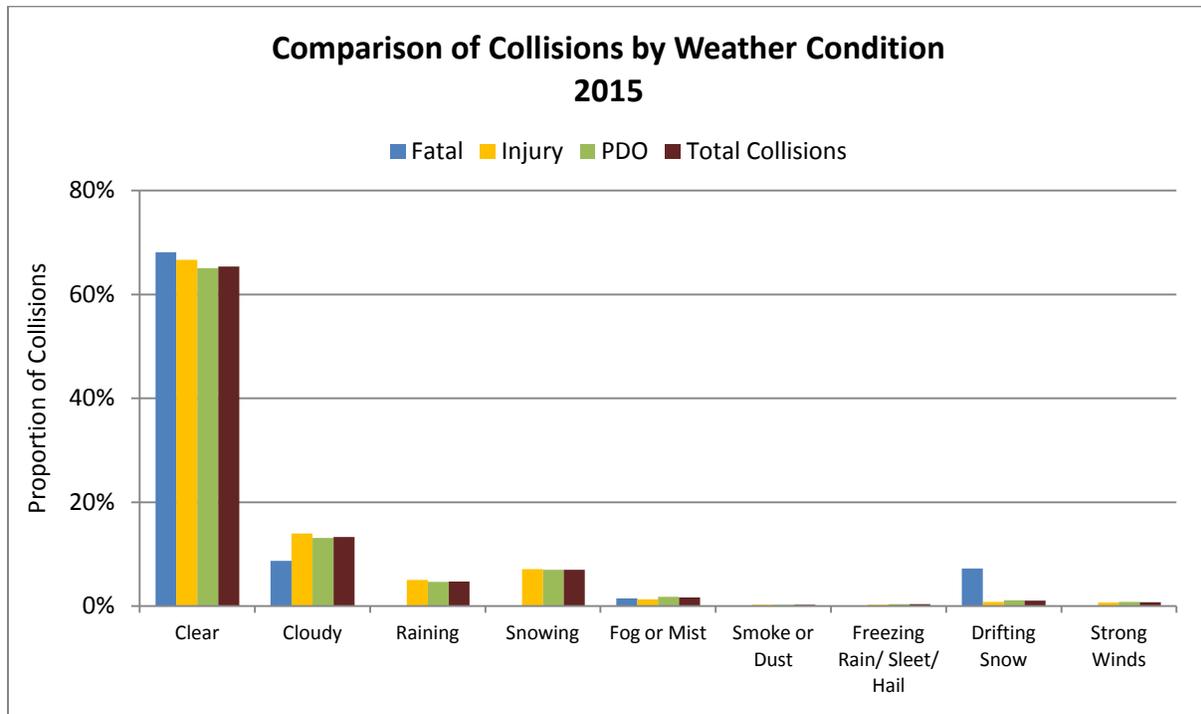
Weather Condition	2015 Collision Severity						2015 Total	% of 2015 Total	2010-2014 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Clear	47	68.1%	6,082	66.6%	21,045	65.1%	<b>27,174</b>	65.4%	54	5,102	19,011	24,168	66.1%
Cloudy	6	8.7%	1,274	14.0%	4,235	13.1%	<b>5,515</b>	13.3%	8	1,112	4,195	5,315	14.5%
Raining	0	-	460	5.0%	1,512	4.7%	<b>1,972</b>	4.7%	3	336	1,173	1,513	4.1%
Snowing	0	-	650	7.1%	2,257	7.0%	<b>2,907</b>	7.0%	2	471	2,069	2,542	6.9%
Fog or Mist	1	1.4%	119	1.3%	580	1.8%	<b>700</b>	1.7%	1	72	378	452	1.2%
Smoke or Dust	0	-	25	0.3%	80	0.2%	<b>105</b>	0.3%	<1	5	19	24	<0.1%
Freezing Rain/ Sleet/ Hail	0	-	22	0.2%	129	0.4%	<b>151</b>	0.4%	<1	40	144	183	0.5%
Drifting Snow	5	7.2%	76	0.8%	349	1.1%	<b>430</b>	1.0%	2	101	433	536	1.5%
Strong Winds	0	-	62	0.7%	253	0.8%	<b>315</b>	0.8%	2	55	219	276	0.8%
Other	0	-	8	<0.1%	58	0.2%	<b>66</b>	0.2%	<1	7	56	63	0.2%
Not Applicable	1	1.4%	150	1.6%	507	1.6%	<b>658</b>	1.6%	3	150	666	819	2.2%
Unknown	9	13.0%	199	2.2%	1,347	4.2%	<b>1,555</b>	3.7%	2	90	601	694	1.9%
<b>Total</b>	<b>69</b>	<b>100%</b>	<b>9,127</b>	<b>100%</b>	<b>32,352</b>	<b>100%</b>	<b>41,548</b>	<b>100%</b>	<b>79</b>	<b>7,542</b>	<b>28,963</b>	<b>36,584</b>	<b>100%</b>

Note: Counts of collisions in the 2010-2014 average may not add to the total due to rounding.

Most collisions in Manitoba occur during “clear” weather conditions. Around two-thirds (65%) of all collisions in 2015 and 66% in the previous five year (2010 to 2014) annual average occur in “clear” weather. This holds for all collisions regardless of severity. Other weather conditions when collisions occur in 2015 include:

- “Cloudy” – 13% of all collisions (9% of fatal collisions; 14% of injury collisions; 13% of PDO collisions);
- “Snowing” – 7% of all collisions (no fatal collisions; 7% of injury collisions; 7% of PDO collisions); and,
- “Raining” – 5% of all collisions (no fatal collisions; 5% of injury collisions; 5% 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: 2015, 2010-2014 Average

Accident Configuration	2015 Collision Severity						2015 Total	% of 2015 Total	2010-2014 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Rear End	4	6.9%	3,951	51.2%	6,362	32.1%	<b>10,317</b>	37.4%	1	2,905	6,138	9,045	35.2%
Head On	17	29.3%	111	1.4%	383	1.9%	<b>511</b>	1.9%	10	175	1,161	1,347	5.2%
Side Swipe Opposing	0	-	51	0.7%	217	1.1%	<b>268</b>	1.0%	1	65	306	372	1.4%
Side Swipe Same Direction	0	-	394	5.1%	2,724	13.7%	<b>3,118</b>	11.3%	<1	275	2,295	2,571	10.0%
Overtaking	1	1.7%	23	0.3%	137	0.7%	<b>161</b>	0.6%	1	46	309	356	1.4%
Right Turn - Same direction	0	-	23	0.3%	196	1.0%	<b>219</b>	0.8%	-	26	204	230	0.9%
Right Turn - Opposing	0	-	11	0.1%	53	0.3%	<b>64</b>	0.2%	-	14	74	88	0.3%
Left Turn - Opposing	0	-	224	2.9%	338	1.7%	<b>562</b>	2.0%	<1	167	370	537	2.1%
Left Turn - Same direction	0	-	31	0.4%	145	0.7%	<b>176</b>	0.6%	-	38	207	245	1.0%
Left Turn - Across	1	1.7%	165	2.1%	314	1.6%	<b>480</b>	1.7%	<1	185	523	709	2.8%
Intersection 90°	12	20.7%	1,820	23.6%	2,878	14.5%	<b>4,710</b>	17.1%	9	1,376	2,992	4,376	17.0%
Off Road Right	7	12.1%	238	3.1%	789	4.0%	<b>1,034</b>	3.7%	9	268	866	1,144	4.4%
Off Road Left	2	3.4%	172	2.2%	539	2.7%	<b>713</b>	2.6%	8	201	586	795	3.1%
Fixed Object	5	8.6%	306	4.0%	3,067	15.5%	<b>3,378</b>	12.2%	3	278	2,489	2,770	10.8%
Parking	0	-	142	1.8%	1,578	8.0%	<b>1,720</b>	6.2%	-	82	821	903	3.5%
Pedestrian	9	15.5%	58	0.8%	112	0.6%	<b>179</b>	0.6%	11	168	46	225	0.9%
Other	11	-	1,407	-	12,520	-	<b>13,938</b>	-	23	1,273	9,575	10,872	-
<b>Total</b>	<b>69</b>	<b>100%</b>	<b>9,127</b>	<b>100%</b>	<b>32,352</b>	<b>100%</b>	<b>41,548</b>	<b>100%</b>	<b>79</b>	<b>7,542</b>	<b>28,963</b>	<b>36,584</b>	<b>100%</b>

Note: Counts of collisions in the 2010-2014 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.

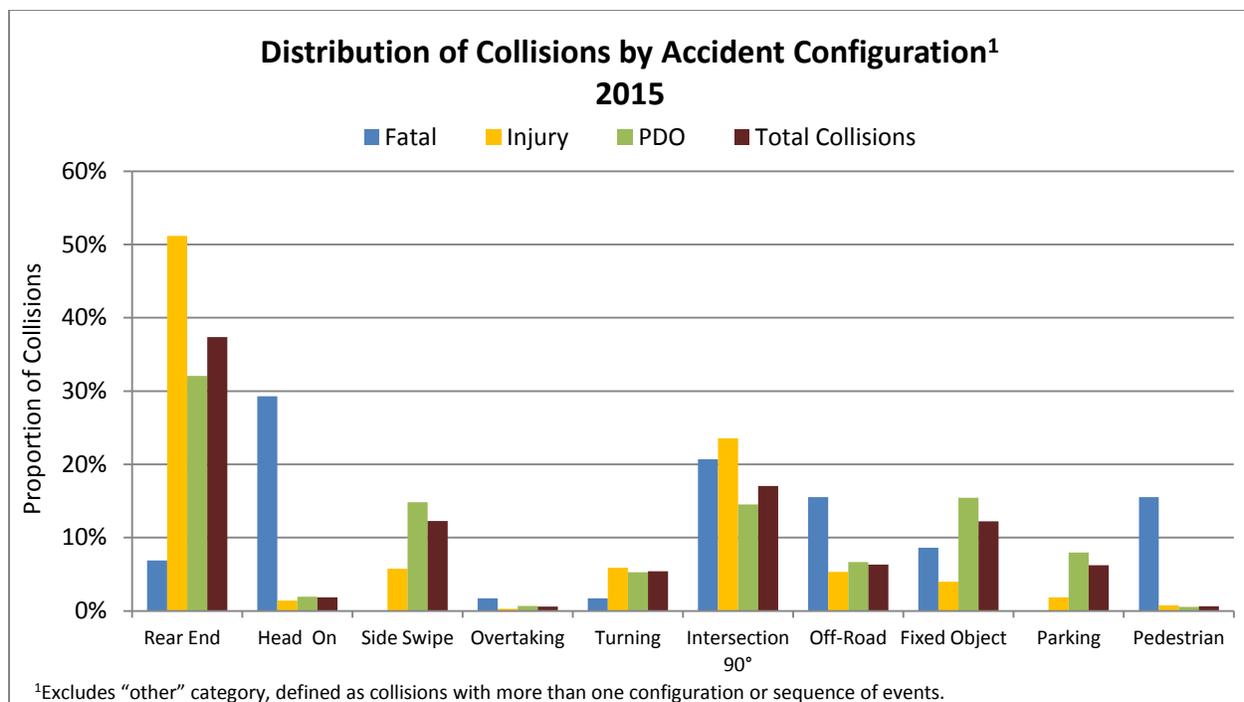
The most common accident configuration (or sequence of events immediately prior to or at the start of a collision) for collisions occurring in Manitoba (excluding “other”) is a “rear end” type. “Rear end” crashes account for 37% of all collisions in 2015 (7% fatal collision; 51% of injury collisions; 32% of PDO collisions) and 35% of all collisions in the previous five year (2010 to 2014) annual average.

Following “rear end” collisions, the next most common accident configurations in 2015 (excluding “other”) are:

- Collisions occurring at “intersection 90°” – 17% of all collisions, 21% of fatal collisions, 24% of injury collisions, and nearly 15% of PDO collisions;
- “Fixed object” collisions – 12% of all collisions, 9% fatal collisions, 4% of injury collisions, and nearly 16% of PDO collisions;
- “Side-swipe” collisions, including in the same or opposing direction – 12% of all collisions, no fatal collision, 6% of injury collisions, and 15% of PDO collisions;
- Collisions where the vehicle leaves the road (either “off road left” or “off road right”) – 6% of all collisions, nearly 16% of fatal collisions, 5% of injury collisions, and 7% of PDO collisions;
- Collisions where at least one vehicle is turning (both “left turn” or “right turn” and including in the “same direction” or “opposing” direction or “across”) – 5% of all collisions, one fatal collision, 6% of injury collisions, and 5% of PDO collisions; and,
- “Head on” collisions – 2% of all collisions, 29% of fatal collisions, 1% of injury collisions, and 2% 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 2015, nearly 34% of all collisions (16% fatal; 15% injury; 39% PDO) are recorded as “other”. In the previous five year (2010 to 2014) annual average, 30% of all collisions (30% fatal; 17% injury; 33% 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 2015 (29%), followed by collisions occurring at intersections (“intersection 90°” - 21%), collisions as a result of the vehicle leaving the road (“off-road left or right” - nearly 16%), and “pedestrian” collisions (nearly 16%).

## 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 2015, there are 12,017 victims (or casualties) of traffic collisions. Of these:

- 78 are killed;
- 415 are seriously injured;
- 1,947 sustain minor injuries;
- 9,014 sustain minimal injuries; and,
- 563 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 2015 (910.1) has increased by 2% compared to 2014 (893.8) and by 18% compared to the previous five years (2010 to 2014) annual average (769.4). Victim involvement rates in traffic collisions in 2015 where the person:

- Is killed (5.9 in 2015) is nearly 14% higher than in 2014, but 16% lower than in the previous five years; and,
- Is injured, including all levels of severity (but excluding killed; 904.2 in 2015), is 2% higher than in 2014 and 19% higher than in the previous five years.

People aged 35 to 44 have the highest victim involvement rates (per 100,000 people) overall in 2015.

- Children under age 15 – rate of 189.9
- People aged 15 to 24 – rate of 1,125.4
- People aged 25 to 34 – rate of 1,277.2
- People aged 35 to 44 – rate of 1,313.1
- People aged 45 to 54 – rate of 1,219.3
- People aged 55 and older – rate of 677.9

While women account for more than half of all casualties in traffic collisions (60%), men account for the highest proportion of people killed (69%). Men also account for more of the people seriously injured (51% compared to 49% women).

“Drivers” account for 77% of all casualties while motor vehicle “Passengers” for nearly 21%. “Motorcyclists” and “Moped” riders (combined) account for just over 1% of all casualties while “Bicyclists” account for less than half a percent and “Pedestrians” account for 1%. In 2015, “Pedestrians” account for nearly 12% of people killed in traffic collisions.

In 2015, casualties in traffic collisions most frequently result from crashes occurring:

- In Winnipeg – 76% of all victims;
- In the late fall, winter and early spring months (including October through March) – 57% of all victims; 50% of people killed and 57% of people injured;
- On Wednesday (16%), Thursday (16%), or Friday (17%); and,
- Between noon and 6 p.m. (12:00-14:59 – 20% of all victims; 15:00 to 17:59 – 29% of all victims).

### **Major Elements Examined**

Counts of collisions in Manitoba for 2015 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 2010 to 2014. 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:  
<http://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: 2005 to 2015

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		
2005	113	-	421	-	3,345	-	3,924	-	950	-	8,640	-	8,753	-
2006	119	5.3%	484	15.0%	3,458	3.4%	3,945	0.5%	819	-13.8%	8,706	0.8%	8,825	0.8%
2007	109	-8.4%	426	-12.0%	3,198	-7.5%	3,994	1.2%	905	10.5%	8,523	-2.1%	8,632	-2.2%
2008	92	-15.6%	396	-7.0%	2,968	-7.2%	3,678	-7.9%	790	-12.7%	7,832	-8.1%	7,924	-8.2%
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%
<b>2015</b>	<b>78</b>	<b>14.7%</b>	<b>415</b>	<b>37.0%</b>	<b>1,947</b>	<b>-3.1%</b>	<b>9,014</b>	<b>-2.0%</b>	<b>563</b>	<b>492.6%</b>	<b>11,939</b>	<b>2.9%</b>	<b>12,017</b>	<b>2.9%</b>
2010-2014 Average*	89	-3.3%	320	-4.2%	2,282	-6.6%	6,606	26.2%	503	-3.5%	9,711	10.5%	9,800	10.3%

\*The '% change to previous year' for '2010-2014 Average' is an average rate of change for the time period 2010 to 2014.

In 2015, there are 12,017 victims (or casualties) of traffic collisions. Of these:

- 78 are killed;
- 415 are seriously injured;
- 1,947 sustain minor injuries;
- 9,014 sustain minimal injuries; and,
- 563 sustain injuries that are undefined in terms of severity.

Overall, the total number of casualties in 2015 (12,017) is 3% higher than in 2014 (11,676). This increase is primarily due to increases in the number of people with undefined injuries. In 2015, there are 10 more people killed than in 2014, 112 more people seriously injured, 62 fewer people with minor injuries, 187 fewer people with minimal injuries, and 468 more people with other or undefined injuries.

Compared to the previous five year (2010 to 2014) annual average, in 2015:

- The number of people killed is down 13%;
- The number of people seriously injured is up 30%;
- The number of people sustaining minor injuries is down 15%;
- The number of people sustaining minimal injuries is up nearly 37%; and,
- The number of people sustaining “other” injuries is up 12%.

**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: 2005 to 2015

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		
2005	9.6	-	35.9	-	285.0	-	334.3	-	80.9	-	736.1	-	745.7	-
2006	10.1	4.9%	41.1	14.5%	293.4	3.0%	334.8	0.1%	69.5	-14.1%	738.8	0.4%	748.9	0.4%
2007	9.2	-9.0%	35.9	-12.6%	269.6	-8.1%	336.7	0.6%	76.3	9.8%	718.4	-2.8%	727.6	-2.8%
2008	7.7	-16.5%	33.0	-8.0%	247.5	-8.2%	306.8	-8.9%	65.9	-13.6%	653.2	-9.1%	660.9	-9.2%
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%
<b>2015</b>	<b>5.9</b>	<b>13.5%</b>	<b>31.4</b>	<b>35.5%</b>	<b>147.5</b>	<b>-4.1%</b>	<b>682.7</b>	<b>-3.1%</b>	<b>42.6</b>	<b>486.3%</b>	<b>904.2</b>	<b>1.8%</b>	<b>910.1</b>	<b>1.8%</b>
2010-2014 Average*	7.0	-4.7%	25.2	-5.6%	180.1	-8.0%	516.7	24.4%	40.4	-4.9%	762.3	8.9%	769.4	8.7%

\*The '% change to previous year' for '2010-2014 Average' is an average rate of change for the time period 2010 to 2014.

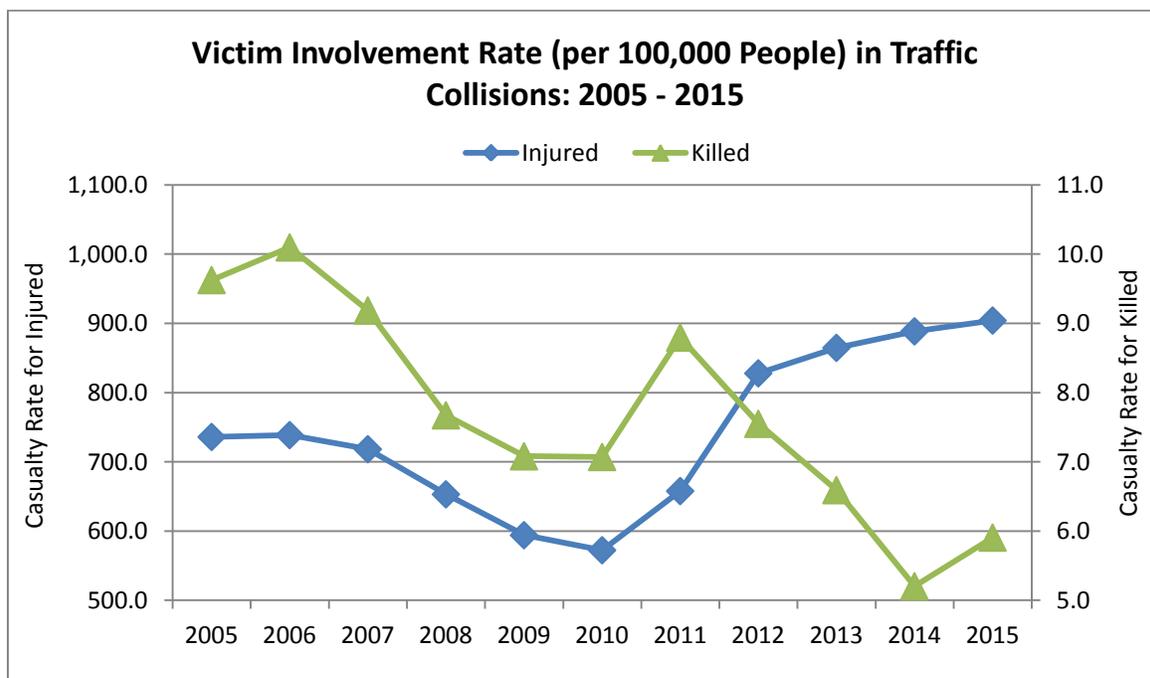
Recognizing that counts of victims of collisions could be impacted either positively or negatively by changing population statistics, involvement rates per 100,000 people in the general population in Manitoba is examined (see Table 5-2) to provide a standardized rate comparison. This accounts for changing 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 2015 (910.1) has increased by 2% compared to 2014 (893.8) and by 18% compared to the previous five years (2010 to 2014 – 769.4) on average.

Casualty involvement rates in traffic collisions in 2015 where a person:

- Is killed (5.9 in 2015) increased by nearly 14% compared to 2014, but decreased by 16% compared to the previous five years;
- Is injured, including all levels of severity (but excluding killed; 904.2 in 2015), increased by 2% compared to 2014 and by 19% compared to the previous five years;
- Is seriously injured (31.4 in 2015) increased by nearly 36% compared to 2014 and by 25% compared to the previous five years;
- Sustains minor injuries (147.5 in 2015) decreased by 4% compared to 2014 and by 18% compared to the previous five years;
- Sustains minimal injuries (682.7 in 2015) decreased by 3% compared to 2014, but increased by 32% compared to the previous five years; and,
- Sustains injuries that are unspecified in severity (“other injury”; 42.6 in 2015) is nearly six times the rate in 2014 and increased by 6% 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: 2015

Month of Occurrence	2015 Casualty Type												2015 Total Victims	% of 2015 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	5	6.4%	23	5.5%	155	8.0%	1,086	12.0%	10	1.8%	1,274	10.7%	<b>1,279</b>	10.6%
February	2	2.6%	30	7.2%	159	8.2%	1,002	11.1%	35	6.2%	1,226	10.3%	<b>1,228</b>	10.2%
March	3	3.8%	21	5.1%	127	6.5%	631	7.0%	66	11.7%	845	7.1%	<b>848</b>	7.1%
April	4	5.1%	24	5.8%	136	7.0%	548	6.1%	34	6.0%	742	6.2%	<b>746</b>	6.2%
May	6	7.7%	31	7.5%	164	8.4%	638	7.1%	30	5.3%	863	7.2%	<b>869</b>	7.2%
June	3	3.8%	29	7.0%	180	9.2%	623	6.9%	47	8.3%	879	7.4%	<b>882</b>	7.3%
July	7	9.0%	27	6.5%	162	8.3%	589	6.5%	40	7.1%	818	6.9%	<b>825</b>	6.9%
August	6	7.7%	36	8.7%	167	8.6%	635	7.0%	44	7.8%	882	7.4%	<b>888</b>	7.4%
September	13	16.7%	42	10.1%	157	8.1%	645	7.2%	56	9.9%	900	7.5%	<b>913</b>	7.6%
October	10	12.8%	56	13.5%	178	9.1%	761	8.4%	44	7.8%	1,039	8.7%	<b>1,049</b>	8.7%
November	13	16.7%	42	10.1%	179	9.2%	839	9.3%	65	11.5%	1,125	9.4%	<b>1,138</b>	9.5%
December	6	7.7%	54	13.0%	183	9.4%	1,017	11.3%	92	16.3%	1,346	11.3%	<b>1,352</b>	11.3%
Total	78	100%	415	100%	1,947	100%	9,014	100%	563	100%	11,939	100%	<b>12,017</b>	100%

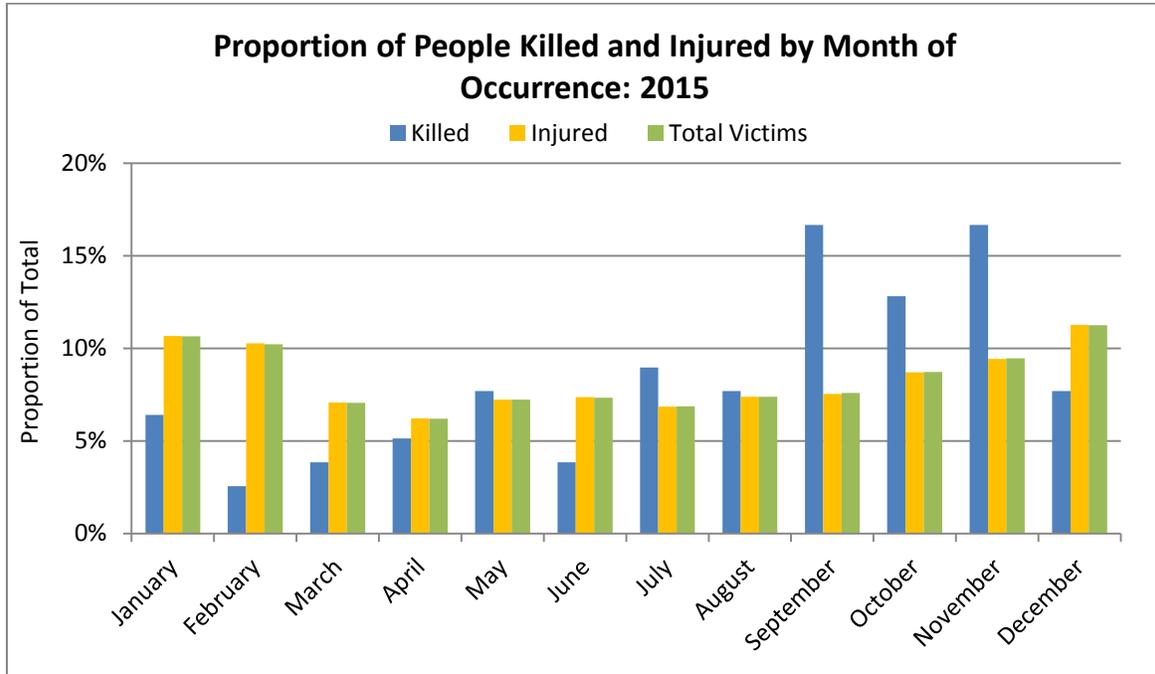
**Table 5-3a Collision Victims by Month of Occurrence and Casualty Type for Previous Five Years**

Table 5-3a  
Collision Victims by Month of Occurrence and Casualty Type: 2010-2014 Average

Month of Occurrence	2010-2014 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
January	6	29	234	830	51	1,144	1,150	11.7%
February	6	16	179	589	51	835	841	8.6%
March	3	21	198	568	45	833	836	8.5%
April	6	21	149	369	39	579	584	6.0%
May	8	27	162	420	44	652	659	6.7%
June	10	29	177	418	38	662	672	6.9%
July	12	28	196	398	41	663	675	6.9%
August	9	33	183	424	40	680	689	7.0%
September	9	36	195	462	38	731	740	7.5%
October	9	30	203	552	36	820	829	8.5%
November	6	26	202	775	43	1,047	1,053	10.7%
December	6	24	204	799	38	1,066	1,072	10.9%
<b>Total</b>	<b>89</b>	<b>320</b>	<b>2,282</b>	<b>6,606</b>	<b>503</b>	<b>9,711</b>	<b>9,800</b>	<b>100%</b>

Note: Counts of victims in the 2010-2014 average may not add to the total due to rounding.

Victims in 2015 appear to follow a fairly typical distribution compared to past years in terms of month of occurrence. The winter months (January, February, and December) stand out as the months accounting for a disproportionate number of traffic collision victims overall, both in 2015 (32% of all victims) and in the previous five year (2010 to 2014) annual average (31%). In 2015 (and very 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 March to August) and is highest in late fall, winter and early spring (ranging from 9% to 11% of all victims in each month from October to February).

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

In 2015, September, October, and November account for the highest proportions of people killed (17%, 13%, and 17% of people killed, respectively) by month. This is somewhat different from the previous five year (2010 to 2014) annual average, where the months of June and July 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: 2015

Day of the Week	2015 Casualty Type												2015 Total Victims	% of 2015 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	7	9.0%	67	16.1%	235	12.1%	763	8.5%	54	9.6%	1,119	9.4%	<b>1,126</b>	9.4%
Monday	17	21.8%	53	12.8%	248	12.7%	1,268	14.1%	81	14.4%	1,650	13.8%	<b>1,667</b>	13.9%
Tuesday	11	14.1%	46	11.1%	293	15.0%	1,343	14.9%	82	14.6%	1,764	14.8%	<b>1,775</b>	14.8%
Wednesday	10	12.8%	70	16.9%	311	16.0%	1,467	16.3%	94	16.7%	1,942	16.3%	<b>1,952</b>	16.2%
Thursday	7	9.0%	62	14.9%	298	15.3%	1,474	16.4%	97	17.2%	1,931	16.2%	<b>1,938</b>	16.1%
Friday	20	25.6%	60	14.5%	312	16.0%	1,598	17.7%	87	15.5%	2,057	17.2%	<b>2,077</b>	17.3%
Saturday	6	7.7%	57	13.7%	250	12.8%	1,101	12.2%	68	12.1%	1,476	12.4%	<b>1,482</b>	12.3%
Total	78	100%	415	100%	1,947	100%	9,014	100%	563	100%	11,939	100%	<b>12,017</b>	100%

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

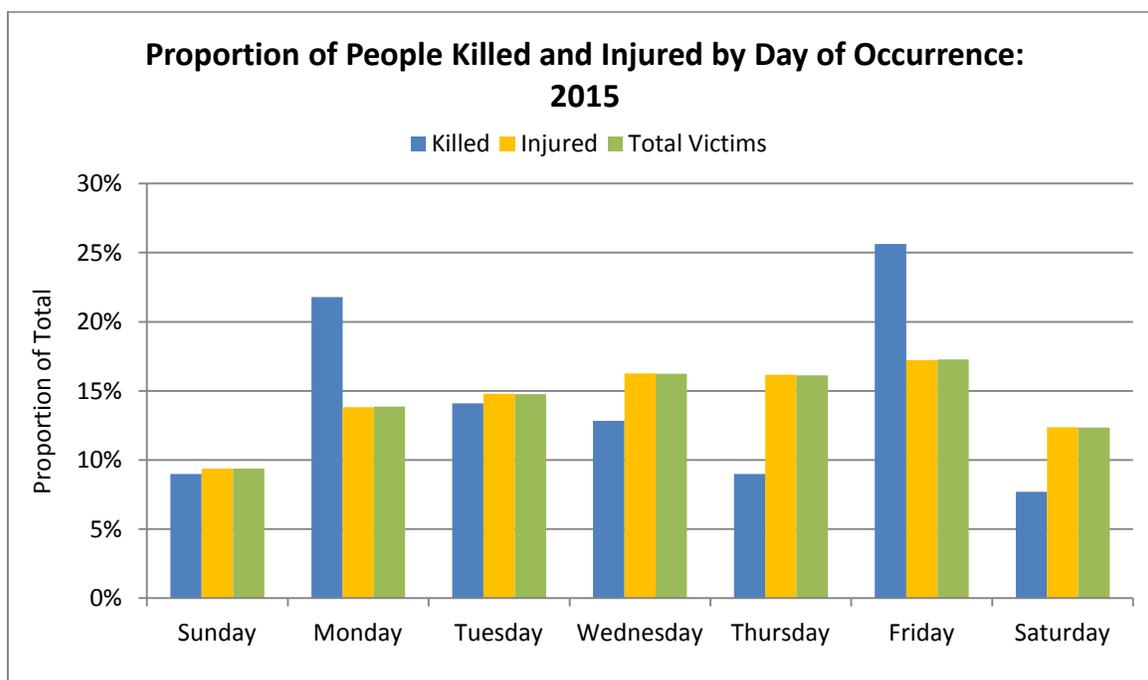
Table 5-4a  
Collision Victims by Day of Occurrence and Casualty Type: 2010-2014 Average

Day of the Week	2010-2014 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Sunday	14	39	252	621	49	961	975	10.0%
Monday	11	42	322	942	65	1,370	1,381	14.1%
Tuesday	7	41	320	1,029	74	1,463	1,469	15.0%
Wednesday	12	44	327	1,053	81	1,506	1,518	15.5%
Thursday	13	39	333	1,036	87	1,496	1,509	15.4%
Friday	15	57	398	1,108	83	1,647	1,661	17.0%
Saturday	17	57	330	816	65	1,269	1,286	13.1%
Total	89	320	2,282	6,606	503	9,711	9,800	100%

Note: Counts of victims in the 2010-2014 average may not add to the total due to rounding.

In 2015, the victims involved in traffic collisions on Wednesday (16%), Thursday (16%) and Friday (17%) account for 50% of all casualties. This is very similar to the previous five year (2010 to 2014) annual average, where Wednesday, Thursday and Friday account for 48% of all casualties.

Nearly half of people killed in crashes in 2015 were killed on a Monday or a Friday (22% Monday; 26% Friday). This is somewhat different from the previous five year (2010 to 2014) annual average, where the weekend (Friday, Saturday, and Sunday) is when most people are killed (52% 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: 2015

Time of the Day	2015 Casualty Type												2015 Total Victims	% of 2015 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	5	6.4%	23	5.5%	56	2.9%	158	1.8%	7	1.2%	244	2.0%	<b>249</b>	2.1%
03:00 - 05:59	1	1.3%	14	3.4%	44	2.3%	84	0.9%	3	0.5%	145	1.2%	<b>146</b>	1.2%
06:00 - 08:59	9	11.5%	47	11.3%	232	11.9%	1,206	13.4%	72	12.8%	1,557	13.0%	<b>1,566</b>	13.0%
09:00 - 11:59	16	20.5%	70	16.9%	284	14.6%	1,258	14.0%	91	16.2%	1,703	14.3%	<b>1,719</b>	14.3%
12:00 - 14:59	12	15.4%	72	17.3%	370	19.0%	1,822	20.2%	109	19.4%	2,373	19.9%	<b>2,385</b>	19.8%
15:00 - 17:59	10	12.8%	96	23.1%	475	24.4%	2,712	30.1%	144	25.6%	3,427	28.7%	<b>3,437</b>	28.6%
18:00 - 20:59	10	12.8%	66	15.9%	291	14.9%	1,205	13.4%	89	15.8%	1,651	13.8%	<b>1,661</b>	13.8%
21:00 - 23:59	14	17.9%	26	6.3%	189	9.7%	555	6.2%	44	7.8%	814	6.8%	<b>828</b>	6.9%
Not Stated	1	1.3%	1	0.2%	6	0.3%	14	0.2%	4	0.7%	25	0.2%	<b>26</b>	0.2%
<b>Total</b>	<b>78</b>	<b>100%</b>	<b>415</b>	<b>100%</b>	<b>1,947</b>	<b>100%</b>	<b>9,014</b>	<b>100%</b>	<b>563</b>	<b>100%</b>	<b>11,939</b>	<b>100%</b>	<b>12,017</b>	<b>100%</b>

**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: 2010-2014 Average

Time of the Day	2010-2014 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
00:00 - 02:59	7	18	81	136	17	251	257	2.6%
03:00 - 05:59	10	15	58	84	10	166	177	1.8%
06:00 - 08:59	6	34	281	838	60	1,213	1,218	12.4%
09:00 - 11:59	9	36	320	918	62	1,335	1,344	13.7%
12:00 - 14:59	14	51	406	1,348	89	1,894	1,907	19.5%
15:00 - 17:59	13	72	556	1,928	138	2,694	2,707	27.6%
18:00 - 20:59	12	44	324	867	60	1,294	1,307	13.3%
21:00 - 23:59	12	40	201	436	35	712	724	7.4%
Not Stated	6	11	56	52	33	152	158	1.6%
<b>Total</b>	<b>89</b>	<b>320</b>	<b>2,282</b>	<b>6,606</b>	<b>503</b>	<b>9,711</b>	<b>9,800</b>	<b>100%</b>

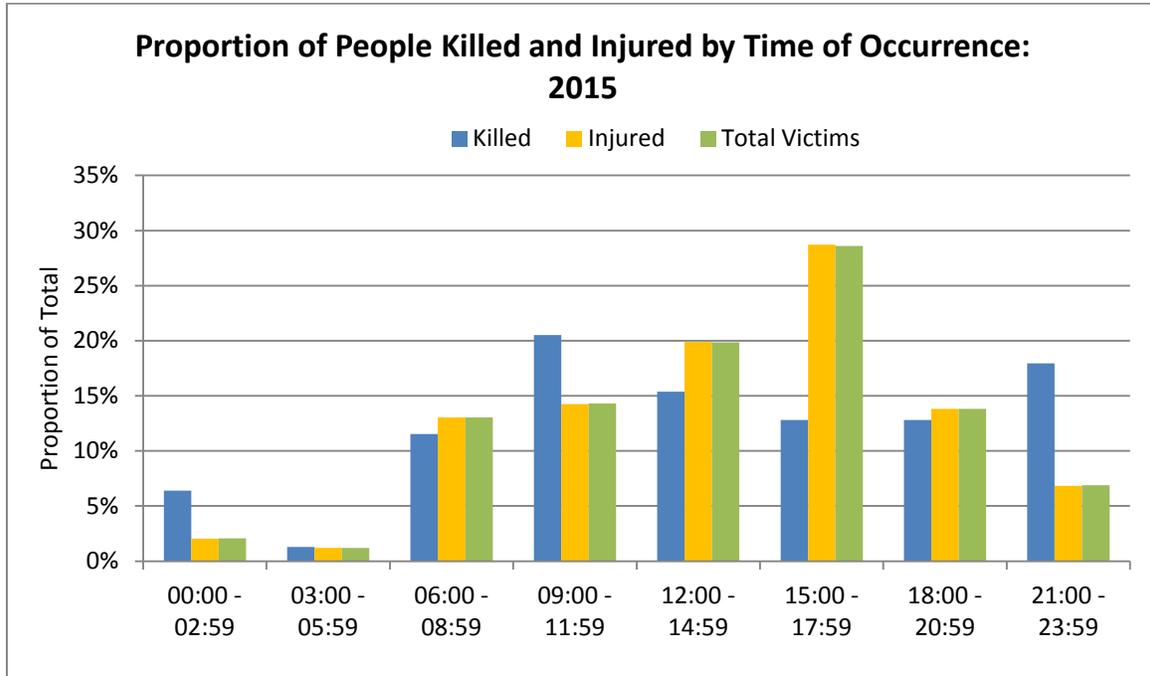
Note: Counts of victims in the 2010-2014 average may not add to the total due to rounding.

People are most often killed and injured in traffic collisions between noon and 6 p.m. In 2015, 48% of all victims are involved in traffic collisions between 12:00 and 14:59 (20%) and between 15:00 to 17:59 (29%). This is relatively consistent with the previous five year (2010 to 2014) annual average (12:00-14:59 – nearly 20% of all victims; 15:00 to 17:59 – 28% of all victims).

In 2015, most people are killed between 9 a.m. and midnight (09:00-11:59 – nearly 21%; 12:00-17:59 – 28% of people killed, 18:00 – 23:59 – 31% killed). This is similar to the previous five year (2010 to 2014) annual average where 30% of people are killed between noon and 6 p.m. and 27% are killed in collisions between 6 p.m. and midnight.

Comparing 2015 to the previous five year (2010 to 2014) annual average, there are small differences in the proportional distribution of people killed by time of the day. In 2015:

- 32% of people are killed between 6 a.m. and noon (06:00-08:59 – nearly 12%; 09:00-11:59 – nearly 21%), compared to 17% in the previous five years;
- 28% of people are killed between noon and 6 p.m. (12:00-14:59 – 15%; 15:00 to 17:59 – 13%), compared to 30% in the previous five years;
- 31% of people are killed between 6 p.m. and midnight (18:00-20:59 – 13%; 21:00 to 23:59 – 18%), compared to 27% in the previous five years; and,
- 8% of people are killed between midnight to 6 a.m. (00:00-02:59 – 6%; 03:00-05:59 – 1%), compared to 19% 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: 2015

Gender	2015 Casualty Type												2015 Total Victims	% of 2015 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	24	30.8%	202	48.9%	1,090	58.5%	5,344	60.7%	344	61.3%	6,980	60.0%	<b>7,004</b>	59.8%
Male	54	69.2%	211	51.1%	773	41.5%	3,456	39.3%	217	38.7%	4,657	40.0%	<b>4,711</b>	40.2%
Total	78	100%	413	100%	1,863	100%	8,800	100%	561	100%	11,637	100%	<b>11,715</b>	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: 2010-2014 Average

Gender	2010-2014 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Female	29	142	1,261	3,841	261	5,505	5,534	58.1%
Male	60	170	945	2,580	236	3,931	3,991	41.9%
Total	89	312	2,206	6,420	498	9,436	9,525	100%

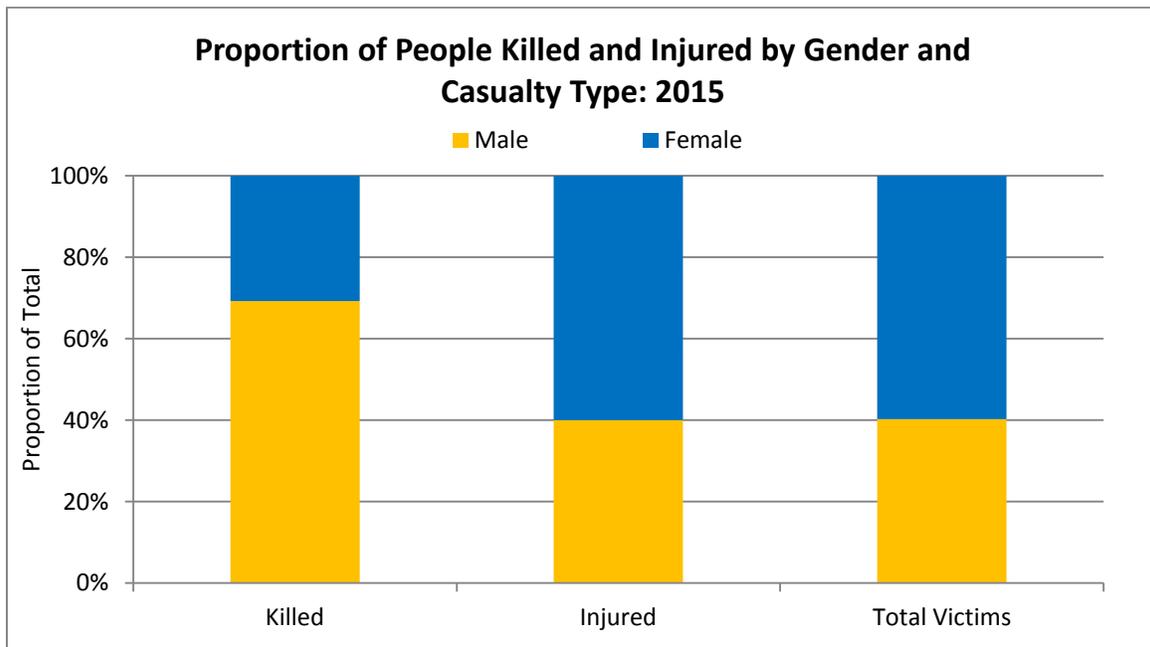
Note: Counts of victims in the 2010-2014 average may not add to the total due to rounding.

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

In 2015, women account for 60% of all casualties in traffic collisions, similar to the previous five year (2010 to 2014) annual average (58%). In 2015:

- Men account for a higher proportion of people killed (69%) 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 (60%), similar to the previous five years (58%);
- Men account for just over half of people seriously injured (51% compared to 49% women), similar to the previous five years; and,
- Women account for more people sustaining minor injuries (nearly 59%) and minimal injuries (61%) than men, similar to the previous five years (minor injuries – 57%; minimal injuries – 60%).

**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: 2015

Age Group	2015 Casualty Type												2015 Total Victims	% of 2015 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	1	1.3%	12	2.9%	41	2.2%	122	1.4%	3	0.5%	178	1.5%	<b>179</b>	1.5%
5-9	1	1.3%	4	1.0%	28	1.5%	82	0.9%	14	2.5%	128	1.1%	<b>129</b>	1.1%
10-14	0	-	7	1.7%	33	1.8%	112	1.3%	11	2.0%	163	1.4%	<b>163</b>	1.4%
15-19	5	6.4%	46	11.1%	191	10.3%	572	6.5%	37	6.6%	846	7.3%	<b>851</b>	7.3%
20-24	9	11.5%	47	11.4%	239	12.8%	868	9.9%	51	9.1%	1,205	10.4%	<b>1,214</b>	10.4%
25-34	10	12.8%	80	19.4%	330	17.7%	1,782	20.3%	137	24.4%	2,329	20.0%	<b>2,339</b>	20.0%
35-44	10	12.8%	64	15.5%	304	16.3%	1,739	19.8%	102	18.2%	2,209	19.0%	<b>2,219</b>	19.0%
45-54	18	23.1%	45	10.9%	305	16.4%	1,708	19.4%	99	17.6%	2,157	18.6%	<b>2,175</b>	18.6%
55-64	7	9.0%	45	10.9%	217	11.7%	1,125	12.8%	73	13.0%	1,460	12.6%	<b>1,467</b>	12.5%
65+	17	21.8%	63	15.3%	173	9.3%	675	7.7%	34	6.1%	945	8.1%	<b>962</b>	8.2%
Not Stated	0	-	0	-	2	-	15	-	0	-	17	-	<b>17</b>	-
<b>Total</b>	<b>78</b>	<b>100%</b>	<b>413</b>	<b>100%</b>	<b>1,863</b>	<b>100%</b>	<b>8,800</b>	<b>100%</b>	<b>561</b>	<b>100%</b>	<b>11,637</b>	<b>100%</b>	<b>11,715</b>	<b>100%</b>

\*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: 2010-2014 Average

Age Group	2010-2014 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
0-4	1	1	37	61	2	102	103	1.2%
5-9	1	3	47	73	3	127	128	1.5%
10-14	2	6	53	90	4	153	155	1.8%
15-19	12	35	272	433	17	756	768	8.7%
20-24	13	41	276	664	17	998	1,011	11.5%
25-34	13	49	402	1,280	25	1,757	1,770	20.1%
35-44	11	44	327	1,175	25	1,572	1,582	18.0%
45-54	10	44	324	1,170	20	1,557	1,567	17.8%
55-64	6	35	215	743	15	1,008	1,014	11.5%
65+	19	46	183	451	11	691	710	8.1%
Not Stated	<1	8	69	280	360	716	716	-
Total	89	312	2,206	6,420	498	9,436	9,525	100%

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

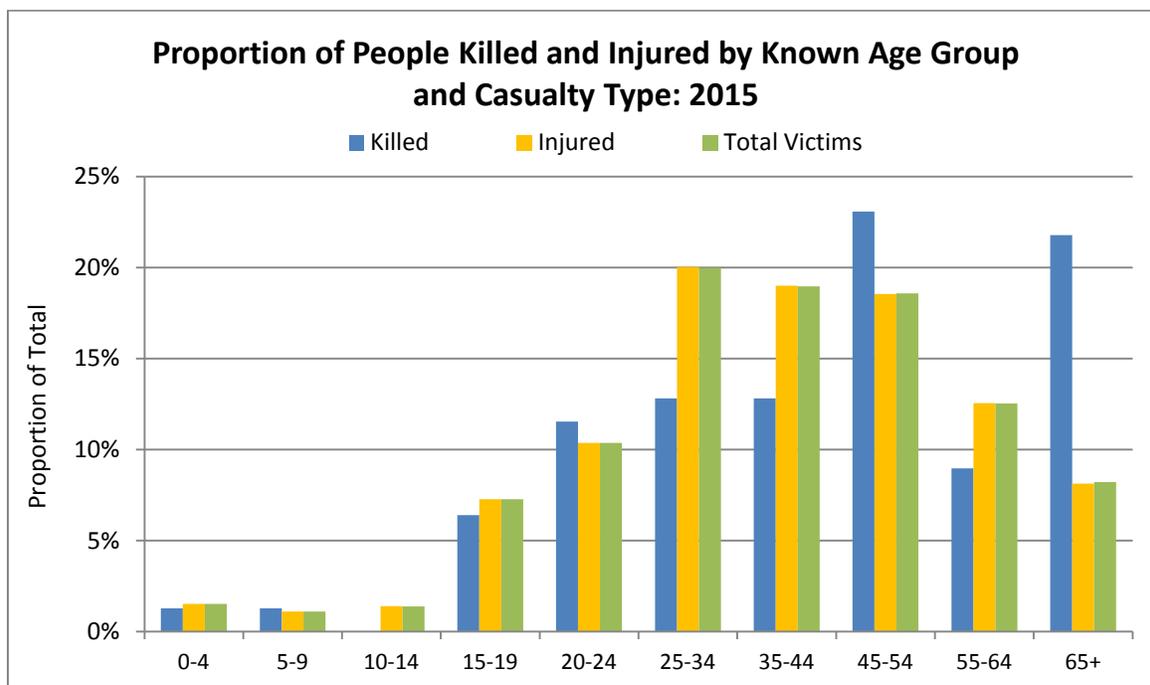
Note: Counts of victims in the 2010-2014 average may not add to the total due to rounding.

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 2015 (20% of all casualties; 13% of people killed; 19% of people seriously injured), followed by those aged 35 to 44 (19% of all casualties; 13% of people killed; nearly 16% of people seriously injured) and those age 45 to 54 (19% of all casualties; 23% of people killed; 11% of people seriously injured). Victims aged 15 to 19 account for 7% of all casualties while those aged 20 to 24 account for 10%.

The proportion of victims by age group in 2015 is very similar to what it has been in the previous five year (2010 to 2014) annual average. In the previous five years, victims aged 25 to 34 (20% of all victims) and those aged 35 to 44 (18% of all victims) account for the two largest groups, followed by victims aged 45 to 54 (18% of all victims). Victims aged 15 to 19 and 20 to 24 account for 9% and nearly 12% of all victims in the five year period (2010 to 2014), respectively.

In 2015, almost one-third of all people killed are aged 15 to 34 (6% aged 15-19; nearly 12% aged 20-24; 13% aged 25-34), 36% are aged 35 to 54, and 31% are aged 55 and older. In the previous five year (2010 to 2014) annual average, 43% of people killed are aged 15 to 34, nearly 24% are aged 35 to 54, and 28% are aged 55 and older.

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

In 2015, people aged 45 to 54 make up the largest group of people killed in traffic collisions (23%), followed by those aged 65 and older (22%). There are two children under age 10 killed in traffic collisions in 2015.

NOTE: For a detailed count of collision victims for 2015 and the previous five year (2010 to 2014) 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: 2015

Age Group		2015 Casualty Type											2015 Total Victims	% of 2015 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	1	4.2%	10	5.0%	22	2.0%	75	1.4%	0	-	107	1.5%	108	1.5%
	5-9	0	-	3	1.5%	13	1.2%	44	0.8%	3	0.9%	63	0.9%	63	0.9%
	10-14	0	-	3	1.5%	17	1.6%	72	1.3%	7	2.0%	99	1.4%	99	1.4%
	15-19	1	4.2%	24	11.9%	125	11.5%	350	6.6%	22	6.4%	521	7.5%	522	7.5%
	20-24	4	16.7%	23	11.4%	138	12.7%	546	10.2%	29	8.4%	736	10.6%	740	10.6%
	25-34	5	20.8%	39	19.3%	193	17.7%	1,067	20.0%	80	23.3%	1,379	19.8%	1,384	19.8%
	35-44	1	4.2%	35	17.3%	171	15.7%	1,062	19.9%	65	18.9%	1,333	19.1%	1,334	19.1%
	45-54	5	20.8%	23	11.4%	187	17.2%	1,042	19.5%	59	17.2%	1,311	18.8%	1,316	18.8%
	55-64	0	-	18	8.9%	125	11.5%	696	13.0%	58	16.9%	897	12.9%	897	12.8%
	65+	7	29.2%	24	11.9%	98	9.0%	382	7.2%	21	6.1%	525	7.5%	532	7.6%
	Not Stated	0	-	0	-	1	-	8	-	0	-	9	-	9	-
<b>Total Female</b>	<b>24</b>	<b>100%</b>	<b>202</b>	<b>100%</b>	<b>1,090</b>	<b>100%</b>	<b>5,344</b>	<b>100%</b>	<b>344</b>	<b>100%</b>	<b>6,980</b>	<b>100%</b>	<b>7,004</b>	100%	
Male	0-4	0	-	2	0.9%	19	2.5%	47	1.4%	3	1.4%	71	1.5%	71	1.5%
	5-9	1	1.9%	1	0.5%	15	1.9%	38	1.1%	11	5.1%	65	1.4%	66	1.4%
	10-14	0	-	4	1.9%	16	2.1%	40	1.2%	4	1.8%	64	1.4%	64	1.4%
	15-19	4	7.4%	22	10.4%	66	8.5%	222	6.4%	15	6.9%	325	7.0%	329	7.0%
	20-24	5	9.3%	24	11.4%	101	13.1%	322	9.3%	22	10.1%	469	10.1%	474	10.1%
	25-34	5	9.3%	41	19.4%	137	17.7%	715	20.7%	57	26.3%	950	20.4%	955	20.3%
	35-44	9	16.7%	29	13.7%	133	17.2%	677	19.6%	37	17.1%	876	18.8%	885	18.8%
	45-54	13	24.1%	22	10.4%	118	15.3%	666	19.3%	40	18.4%	846	18.2%	859	18.3%
	55-64	7	13.0%	27	12.8%	92	11.9%	429	12.4%	15	6.9%	563	12.1%	570	12.1%
	65+	10	18.5%	39	18.5%	75	9.7%	293	8.5%	13	6.0%	420	9.0%	430	9.1%
	Not Stated	0	-	0	-	1	-	7	-	0	-	8	-	8	-
<b>Total Male</b>	<b>54</b>	<b>100%</b>	<b>211</b>	<b>100%</b>	<b>773</b>	<b>100%</b>	<b>3,456</b>	<b>100%</b>	<b>217</b>	<b>100%</b>	<b>4,657</b>	<b>100%</b>	<b>4,711</b>	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: 2010-2014 Average

Age Group		2010-2014 Average Count of Victims							
		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Female	0-4	1	<1	21	34	<1	56	57	1.1%
	5-9	<1	2	23	37	2	63	64	1.2%
	10-14	<1	3	25	48	2	77	78	1.5%
	15-19	5	16	157	257	7	437	442	8.6%
	20-24	5	20	165	404	9	598	602	11.7%
	25-34	3	21	240	780	14	1,055	1,059	20.6%
	35-44	3	18	190	715	12	935	938	18.2%
	45-54	4	21	173	713	9	917	921	17.9%
	55-64	1	15	121	446	8	591	592	11.5%
	65+	7	22	107	257	5	391	398	7.7%
	Not Stated	<1	3	39	150	192	385	385	-
	Total Female	29	142	1,261	3,841	261	5,505	5,534	100%
Male	0-4	<1	<1	16	28	1	46	46	1.3%
	5-9	1	2	24	36	1	64	65	1.8%
	10-14	1	3	28	42	2	75	77	2.1%
	15-19	8	18	115	176	9	319	326	8.9%
	20-24	8	21	111	260	8	400	408	11.2%
	25-34	10	28	163	500	11	701	711	19.4%
	35-44	8	27	137	459	13	636	644	17.6%
	45-54	6	23	150	457	10	641	647	17.7%
	55-64	5	20	94	297	6	417	422	11.5%
	65+	12	24	76	194	6	300	312	8.5%
	Not Stated	<1	4	30	129	168	331	332	-
	Total Male	60	170	945	2,580	236	3,931	3,991	100%

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

Note: Counts of victims in the 2010-2014 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: 2015, 2010-2014 Average

Age Group		2015 Casualty Type						2015 Total Victims	2010-2014 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	2.5	24.7	54.3	185.0	-	263.9	266.4	2.5	2.0	51.9	83.8	1.0	138.6	141.1
	5-9	-	7.2	31.4	106.2	7.2	152.1	152.1	0.5	4.1	59.9	95.5	4.1	163.6	164.2
	10-14	-	7.7	43.8	185.5	18.0	255.0	255.0	1.0	6.6	64.5	120.9	4.6	196.5	197.5
	15-19	2.4	57.4	298.7	836.4	52.6	1,245.1	1,247.5	10.6	37.8	361.4	593.1	17.1	1009.5	1020.1
	20-24	8.5	48.7	292.2	1,156.1	61.4	1,558.4	1,566.9	10.1	43.6	363.2	890.9	19.4	1317.1	1327.3
	25-34	5.5	42.5	210.5	1,163.7	87.3	1,504.0	1,509.4	4.0	24.9	281.7	917.2	16.9	1240.8	1244.8
	35-44	1.2	41.3	201.8	1,253.4	76.7	1,573.2	1,574.4	3.4	21.7	231.7	872.0	15.1	1140.5	1143.9
	45-54	5.6	25.9	210.4	1,172.6	66.4	1,475.3	1,480.9	4.4	23.0	189.9	780.7	10.3	1003.9	1008.3
	55-64	-	21.8	151.6	844.4	70.4	1,088.2	1,088.2	1.3	19.5	156.9	578.7	10.9	765.9	767.2
	65+	6.5	22.4	91.3	355.9	19.6	489.1	495.6	13.8	46.7	223.1	535.0	10.4	815.3	829.1
	<b>Total Female</b>	<b>3.6</b>	<b>30.4</b>	<b>163.9</b>	<b>803.7</b>	<b>51.7</b>	<b>1,049.8</b>	<b>1,053.4</b>	4.6	22.2	197.5	601.7	41.0	862.4	867.0
Male	0-4	-	4.6	44.0	108.9	7.0	164.6	164.6	0.5	1.5	39.7	67.3	3.4	111.9	112.4
	5-9	2.3	2.3	34.9	88.4	25.6	151.2	153.5	2.5	4.5	60.8	91.5	3.5	160.3	162.9
	10-14	-	9.7	38.9	97.2	9.7	155.6	155.6	3.4	7.3	68.0	103.2	5.9	184.5	187.9
	15-19	9.0	49.3	147.9	497.6	33.6	728.5	737.5	17.0	41.1	256.7	393.3	20.5	711.7	728.6
	20-24	10.0	48.2	202.8	646.5	44.2	941.6	951.7	17.2	46.1	238.9	559.2	17.6	861.8	879.0
	25-34	5.5	44.8	149.8	782.0	62.3	1,039.0	1,044.4	11.6	32.6	192.0	589.8	13.0	827.4	839.0
	35-44	10.7	34.4	157.9	803.5	43.9	1,039.7	1,050.4	9.8	32.5	168.0	561.6	15.6	777.7	787.4
	45-54	14.5	24.6	131.8	743.9	44.7	945.0	959.5	6.8	24.6	163.6	498.3	11.3	697.9	704.6
	55-64	8.6	33.1	112.9	526.5	18.4	691.0	699.6	6.8	25.7	123.6	389.8	8.1	547.3	554.1
	65+	11.5	44.8	86.2	336.6	14.9	482.5	494.0	29.7	57.5	182.6	465.4	13.4	719.0	748.7
	<b>Total Male</b>	<b>8.2</b>	<b>32.2</b>	<b>117.9</b>	<b>527.3</b>	<b>33.1</b>	<b>710.5</b>	<b>718.8</b>	9.5	26.9	149.7	408.7	37.5	622.8	632.3

Note: Counts of victims in the 2010-2014 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 2015 is 1,053.4, while for males it is 718.8 (per 100,000 people). Similarly, in the previous five year (2010 to 2014) annual average, women have a higher involvement rate than men (women 867.0; men 632.3). However, men have higher involvement rates than women when it comes to being killed and sustaining serious injuries.

People aged 35 to 44 have the highest victim involvement rates (per 100,000 people) overall in 2015.

- Children under age 15 – rate of 189.9
- People aged 15 to 24 – rate of 1,125.4
- People aged 25 to 34 – rate of 1,277.2
- People aged 35 to 44 – rate of 1,313.1
- People aged 45 to 54 – rate of 1,219.3
- People aged 55 and older – rate of 677.9

In 2015, women aged 35 to 44 have the highest victim involvement rate of any age-gender group (1,574.4 per 100,000 people) followed by women aged 20 to 24 (1,566.9) and women aged 25 to 34 (1,509.4). While the victim involvement rates for young men is lower than young women in 2015, men aged 35 to 44 have the highest rate among male age groups (1,050.4 per 100,000 people) followed by men aged 25 to 34 (1,044.4) and men aged 45 to 54 (959.5).

The overall victim involvement rates in 2015 are generally higher than the rates in the previous five year (2010 to 2014) annual average.

- Compared to the previous five years, victim involvement rates for women increased by nearly 22% overall, but decreased by 21% for women killed. The rate for women seriously injured in 2015 increased by 37% compared to the previous five years.
- Compared to the previous five years, victim involvement rates for men increased by 14% overall, but decreased 13% for men killed. The rate for men seriously injured in 2015 increased by 20% 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: 2015

Age Group		2015 Casualty Type											2015 Total Victims	% of 2015 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	-	5	<0.1%	0	-	5	<0.1%	5	<0.1%
	5-9	0	-	0	-	0	-	1	<0.1%	0	-	1	<0.1%	1	<0.1%
	10-14	0	-	1	0.4%	0	-	1	<0.1%	0	-	2	<0.1%	2	<0.1%
	15-19	4	8.2%	30	11.7%	124	9.5%	395	5.6%	24	5.6%	573	6.3%	577	6.3%
	20-24	3	6.1%	29	11.3%	173	13.3%	714	10.0%	38	8.9%	954	10.5%	957	10.5%
	25-34	8	16.3%	54	21.1%	255	19.6%	1,505	21.2%	114	26.7%	1,928	21.2%	1,936	21.2%
	35-44	6	12.2%	45	17.6%	239	18.4%	1,520	21.4%	89	20.8%	1,893	20.8%	1,899	20.8%
	45-54	12	24.5%	25	9.8%	225	17.3%	1,451	20.4%	79	18.5%	1,780	19.6%	1,792	19.6%
	55-64	4	8.2%	26	10.2%	161	12.4%	978	13.7%	58	13.6%	1,223	13.4%	1,227	13.4%
	65+	12	24.5%	46	18.0%	124	9.5%	543	7.6%	25	5.9%	738	8.1%	750	8.2%
	Not Stated	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	<b>Total Drivers*</b>	<b>49</b>	<b>100%</b>	<b>256</b>	<b>100%</b>	<b>1,301</b>	<b>100%</b>	<b>7,113</b>	<b>100%</b>	<b>427</b>	<b>100%</b>	<b>9,097</b>	<b>100%</b>	<b>9,146</b>	100%
Passenger	0-4	1	7.7%	12	11.7%	64	13.0%	175	10.5%	4	3.4%	255	10.7%	256	10.7%
	5-9	1	7.7%	3	2.9%	34	6.9%	81	4.9%	13	11.0%	131	5.5%	132	5.5%
	10-14	0	-	3	2.9%	34	6.9%	117	7.0%	11	9.3%	165	6.9%	165	6.9%
	15-19	0	-	13	12.6%	59	12.0%	184	11.0%	11	9.3%	267	11.2%	267	11.1%
	20-24	3	23.1%	13	12.6%	51	10.3%	144	8.6%	10	8.5%	218	9.1%	221	9.2%
	25-34	0	-	20	19.4%	56	11.4%	261	15.6%	19	16.1%	356	14.9%	356	14.9%
	35-44	3	23.1%	9	8.7%	51	10.3%	209	12.5%	12	10.2%	281	11.8%	284	11.9%
	45-54	1	7.7%	10	9.7%	70	14.2%	236	14.1%	16	13.6%	332	13.9%	333	13.9%
	55-64	2	15.4%	8	7.8%	35	7.1%	134	8.0%	14	11.9%	191	8.0%	193	8.1%
	65+	2	15.4%	12	11.7%	39	7.9%	128	7.7%	8	6.8%	187	7.8%	189	7.9%
	Not Stated	0	-	0	-	7	-	37	-	0	-	44	-	44	-
	<b>Total Passengers*</b>	<b>13</b>	<b>100%</b>	<b>103</b>	<b>100%</b>	<b>500</b>	<b>100%</b>	<b>1,706</b>	<b>100%</b>	<b>118</b>	<b>100%</b>	<b>2,427</b>	<b>100%</b>	<b>2,440</b>	100%

(continued on next page)

(continued from previous page)

Age Group		2015 Casualty Type											2015 Total Victims	% of 2015 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	-	0	-	0	-	0	-	0	-	0	-
	15-19	1	16.7%	2	7.1%	2	4.9%	2	3.3%	0	-	6	4.6%	7	5.1%
	20-24	0	-	2	7.1%	4	9.8%	6	10.0%	1	50.0%	13	9.9%	13	9.5%
	25-34	1	16.7%	2	7.1%	9	22.0%	10	16.7%	1	50.0%	22	16.8%	23	16.8%
	35-44	0	-	3	10.7%	4	9.8%	8	13.3%	0	-	15	11.5%	15	10.9%
	45-54	3	50.0%	8	28.6%	6	14.6%	19	31.7%	0	-	33	25.2%	36	26.3%
	55-64	1	16.7%	9	32.1%	11	26.8%	12	20.0%	0	-	32	24.4%	33	24.1%
	65+	0	-	2	7.1%	5	12.2%	3	5.0%	0	-	10	7.6%	10	7.3%
	Not Stated	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>Total Motorcyclists*</b>	<b>6</b>	<b>100%</b>	<b>28</b>	<b>100%</b>	<b>41</b>	<b>100%</b>	<b>60</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>131</b>	<b>100%</b>	<b>137</b>	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	-	1	14.3%	0	-	1	7.7%	1	7.7%
	20-24	0	-	0	-	0	-	1	14.3%	0	-	1	7.7%	1	7.7%
	25-34	0	-	0	-	1	20.0%	3	42.9%	0	-	4	30.8%	4	30.8%
	35-44	0	-	1	100.0%	1	20.0%	0	-	0	-	2	15.4%	2	15.4%
	45-54	0	-	0	-	3	60.0%	2	28.6%	0	-	5	38.5%	5	38.5%
	55-64	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	65+	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	Not Stated	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>Total Moped*</b>	<b>0</b>	<b>0%</b>	<b>1</b>	<b>100%</b>	<b>5</b>	<b>100%</b>	<b>7</b>	<b>100%</b>	<b>0</b>	<b>0%</b>	<b>13</b>	<b>100%</b>	<b>13</b>	100%	

(continued on next page)

(continued from previous page)

Age Group		2015 Casualty Type											2015 Total Victims	% of 2015 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	-	0	-	0	-	1	7.1%	0	-	1	2.5%	1	2.4%
	5-9	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	10-14	0	-	1	33.3%	1	5.0%	0	-	0	-	2	5.0%	2	4.9%
	15-19	0	-	0	-	3	15.0%	1	7.1%	1	33.3%	5	12.5%	5	12.2%
	20-24	0	-	0	-	4	20.0%	2	14.3%	0	-	6	15.0%	6	14.6%
	25-34	0	-	0	-	3	15.0%	2	14.3%	0	-	5	12.5%	5	12.2%
	35-44	0	-	2	66.7%	3	15.0%	4	28.6%	0	-	9	22.5%	9	22.0%
	45-54	1	100.0%	0	-	2	10.0%	3	21.4%	2	66.7%	7	17.5%	8	19.5%
	55-64	0	-	0	-	3	15.0%	1	7.1%	0	-	4	10.0%	4	9.8%
	65+	0	-	0	-	1	5.0%	0	-	0	-	1	2.5%	1	2.4%
	Not Stated	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	<b>Total Bicyclists*</b>	<b>1</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>20</b>	<b>100%</b>	<b>14</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>40</b>	<b>100%</b>	<b>41</b>	100%
Pedestrian	0-4	0	-	1	5.6%	3	5.9%	2	5.0%	0	-	6	5.0%	6	4.6%
	5-9	0	-	0	-	0	-	0	-	1	8.3%	1	0.8%	1	0.8%
	10-14	0	-	2	11.1%	4	7.8%	0	-	0	-	6	5.0%	6	4.6%
	15-19	0	-	0	-	3	5.9%	2	5.0%	1	8.3%	6	5.0%	6	4.6%
	20-24	3	33.3%	2	11.1%	8	15.7%	4	10.0%	2	16.7%	16	13.2%	19	14.6%
	25-34	1	11.1%	2	11.1%	8	15.7%	3	7.5%	3	25.0%	16	13.2%	17	13.1%
	35-44	1	11.1%	4	22.2%	8	15.7%	7	17.5%	1	8.3%	20	16.5%	21	16.2%
	45-54	1	11.1%	2	11.1%	7	13.7%	6	15.0%	2	16.7%	17	14.0%	18	13.8%
	55-64	0	-	2	11.1%	5	9.8%	7	17.5%	1	8.3%	15	12.4%	15	11.5%
	65+	3	33.3%	3	16.7%	5	9.8%	9	22.5%	1	8.3%	18	14.9%	21	16.2%
	Not Stated	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	<b>Total Pedestrians*</b>	<b>9</b>	<b>100%</b>	<b>18</b>	<b>100%</b>	<b>51</b>	<b>100%</b>	<b>40</b>	<b>100%</b>	<b>12</b>	<b>100%</b>	<b>121</b>	<b>100%</b>	<b>130</b>	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 2015, there are 10 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 a serious injury, 2 with minor injuries, and 6 with minimal injuries.

Note: Some victims do not have their position in the vehicle recorded and are therefore missing from the table above. This includes 100 injured people (4 serious, 27 minor, 68 minimal injured, 1 'other').

**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: 2010-2014 Average

Age Group		2010-2014 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	-	2	2	<0.1%
	5-9	-	<1	<1	1	-	2	2	<0.1%
	10-14	<1	<1	<1	1	-	2	2	<0.1%
	15-19	4	17	165	307	10	499	503	7.4%
	20-24	6	23	198	544	10	775	781	11.5%
	25-34	7	31	302	1,097	18	1,448	1,455	21.5%
	35-44	6	30	250	1,035	20	1,335	1,340	19.8%
	45-54	7	28	248	1,024	14	1,314	1,321	19.5%
	55-64	4	23	162	631	11	827	831	12.2%
	65+	10	33	130	365	6	534	544	8.0%
	Not Stated	<1	2	30	152	227	412	412	-
	Total Drivers*	45	186	1,487	5,158	318	7,148	7,193	100%
Passenger	0-4	1	1	34	68	2	105	106	6.0%
	5-9	<1	2	43	78	2	125	125	7.0%
	10-14	<1	3	43	97	3	146	146	8.2%
	15-19	6	15	91	128	4	239	245	13.7%
	20-24	3	13	61	112	5	190	194	10.9%
	25-34	4	10	74	168	5	257	261	14.6%
	35-44	3	9	55	132	2	198	200	11.3%
	45-54	2	7	53	136	3	198	200	11.3%
	55-64	<1	6	38	108	2	154	154	8.7%
	65+	4	9	46	86	3	144	147	8.3%
	Not Stated	-	6	55	160	58	279	279	-
	Total Passengers*	24	79	592	1,275	88	2,035	2,059	100%
Motorcyclist	0-4	-	-	-	-	-	-	-	-
	5-9	-	-	<1	-	-	<1	<1	0.2%
	10-14	<1	<1	<1	-	-	<1	<1	0.8%
	15-19	<1	<1	2	<1	-	2	3	2.8%
	20-24	<1	2	7	5	-	13	14	13.7%
	25-34	1	3	6	8	<1	17	18	17.8%
	35-44	<1	3	7	7	<1	18	19	18.8%
	45-54	<1	6	11	10	<1	27	28	27.3%
	55-64	<1	4	7	5	<1	16	17	16.6%
	65+	<1	<1	<1	<1	-	2	2	2.0%
	Not Stated	-	<1	1	5	9	15	15	-
	Total Motorcyclists*	4	19	42	41	10	112	116	100%

(continued on next page)

(continued from previous page)

Age Group		2010-2014 Average Count of Victims							% of Total Victims
		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	
Moped	0-4	-	-	-	-	-	-	-	-
	5-9	-	-	-	-	-	-	-	-
	10-14	-	-	<1	-	-	<1	<1	2.0%
	15-19	-	-	-	-	-	-	-	-
	20-24	-	-	<1	<1	-	<1	<1	7.8%
	25-34	-	<1	<1	2	-	3	3	31.4%
	35-44	-	<1	1	<1	-	2	2	17.6%
	45-54	-	<1	1	1	<1	3	3	27.5%
	55-64	-	<1	<1	<1	-	1	1	9.8%
	65+	-	<1	<1	-	-	<1	<1	3.9%
	Not Stated	-	-	<1	<1	1	2	2	-
	Total Moped*	-	1	4	5	1	12	12	100%
Bicyclist	0-4	-	-	-	-	-	-	-	-
	5-9	<1	-	3	1	<1	4	4	4.7%
	10-14	<1	<1	6	1	<1	9	9	9.8%
	15-19	<1	1	7	4	<1	13	13	14.2%
	20-24	<1	<1	4	6	<1	11	12	12.5%
	25-34	<1	2	10	5	<1	17	18	18.7%
	35-44	<1	<1	6	5	<1	12	13	13.4%
	45-54	<1	2	6	4	1	13	13	14.0%
	55-64	-	<1	4	5	-	9	9	9.1%
	65+	1	-	1	1	-	2	3	3.6%
	Not Stated	<1	<1	5	17	26	49	49	-
	Total Bicyclists*	4	7	52	49	31	139	143	100%
Pedestrian	0-4	<1	<1	3	-	<1	4	4	2.4%
	5-9	-	2	3	<1	<1	6	6	3.9%
	10-14	<1	1	8	1	<1	11	11	7.0%
	15-19	2	2	10	4	1	18	19	11.9%
	20-24	2	3	9	4	2	19	20	12.7%
	25-34	1	3	13	7	2	24	25	15.5%
	35-44	<1	3	11	5	2	21	22	13.5%
	45-54	1	2	9	5	1	17	18	11.2%
	55-64	<1	2	7	3	2	14	15	9.2%
	65+	4	4	8	3	1	17	21	12.8%
	Not Stated	<1	2	10	22	40	75	75	-
	Total Pedestrians*	12	24	93	55	52	224	236	100%

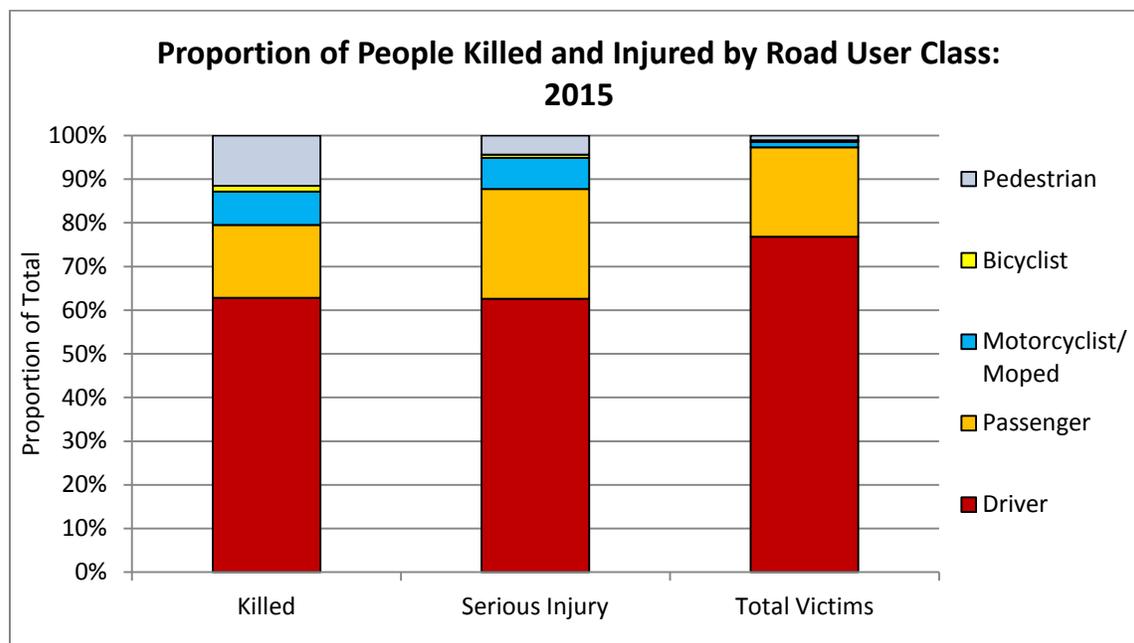
\*Percentage of the total does not include the "not stated" category.

Note: Counts for "Motorcyclist", "Bicyclist" and "Moped" include passengers on those vehicle types.

Note: Counts of victims in the 2010-2014 average may not add to the total due to rounding.

Note: In 2010-2014, there is an average of 6 victims in the class "Riding/Hanging On". There is also an average of 35 victims whose Road User Class cannot be determined. None of these people were killed in the five year period. These victims are not included in Table 5-10a.

In 2015, "Drivers" account for 77% of all casualties and motor vehicle "Passengers" for nearly 21%. "Motorcyclists" and "Moped" riders combined account for just over 1% of all casualties while "Bicyclists" account for less than half a percent and "Pedestrians" account for 1%. In 2015, "Pedestrians" account for nearly 12% of people killed in traffic collisions.

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

Among people killed in traffic collisions in 2015:

- “Drivers” account for the largest proportion at 63%;
- “Passengers” account for 17%;
- “Pedestrians” account for nearly 12%;
- “Motorcyclist” and “Moped” riders (combined) account for 8%; and,
- “Bicyclists” account for 1%.

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 nearly 12% of people killed and 4% of people seriously injured, but only 1% of all victims in 2015.
- Bicyclists account for 1% of people killed and 1% of people seriously injured, but less than half a percent of all victims in 2015.
- Motorcyclists and moped riders account 8% of people killed and 7% of people seriously injured, but only 1% of all victims in 2015.

**Table 5-11 Collision Victims by Collision Type and Casualty Type**Table 5-11  
Collision Victims by Collision Type and Casualty Type: 2015

Collision Type	2015 Casualty Type												2015 Total Victims	% of 2015 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	1	1.3%	9	2.2%	16	0.8%	15	0.2%	3	0.5%	43	0.4%	<b>44</b>	0.4%
Collision with other motor vehicle	53	67.9%	242	58.3%	1,466	75.3%	7,761	86.1%	445	79.0%	9,914	83.0%	<b>9,967</b>	82.9%
Collisions with train	1	1.3%	0	-	0	-	2	<0.1%	0	-	2	<0.1%	<b>3</b>	<0.1%
Collision with motorcycle	1	1.3%	2	0.5%	4	0.2%	3	<0.1%	1	0.2%	10	<0.1%	<b>11</b>	<0.1%
Collision with animal drawn vehicle	0	-	0	-	0	-	0	-	0	-	0	-	<b>0</b>	-
Collision with bicycle	0	-	0	-	2	0.1%	7	<0.1%	0	-	9	<0.1%	<b>9</b>	<0.1%
Collision with animal	1	1.3%	5	1.2%	41	2.1%	267	3.0%	20	3.6%	333	2.8%	<b>334</b>	2.8%
Collision with fixed object	18	23.1%	99	23.9%	247	12.7%	535	5.9%	47	8.3%	928	7.8%	<b>946</b>	7.9%
Collision with other object	2	2.6%	48	11.6%	145	7.4%	373	4.1%	36	6.4%	602	5.0%	<b>604</b>	5.0%
Overtaken in roadway	0	-	2	0.5%	2	0.1%	5	<0.1%	0	-	9	<0.1%	<b>9</b>	<0.1%
Ran off roadway	1	1.3%	5	1.2%	8	0.4%	5	<0.1%	3	0.5%	21	0.2%	<b>22</b>	0.2%
Collision with moped	0	-	0	-	0	-	0	-	0	-	0	-	<b>0</b>	-
Other non-collision	0	-	3	0.7%	16	0.8%	41	0.5%	8	1.4%	68	0.6%	<b>68</b>	0.6%
<b>Total</b>	<b>78</b>	<b>100%</b>	<b>415</b>	<b>100%</b>	<b>1,947</b>	<b>100%</b>	<b>9,014</b>	<b>100%</b>	<b>563</b>	<b>100%</b>	<b>11,939</b>	<b>100%</b>	<b>12,017</b>	<b>100%</b>

**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: 2010-2014 Average

Collision Type	2010-2014 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Collision with pedestrian	8	15	59	39	50	163	171	1.7%
Collision with other motor vehicle	37	154	1,488	5,416	349	7,407	7,443	76.2%
Collisions with train	1	1	1	<1	-	3	4	<0.1%
Collision with motorcycle	2	7	16	15	11	49	51	0.5%
Collision with animal drawn vehicle	-	-	-	-	-	-	-	-
Collision with bicycle	3	4	36	37	28	104	107	1.1%
Collision with animal	<1	6	48	201	8	262	262	2.7%
Collision with fixed object	12	43	251	394	20	708	720	7.4%
Collision with other object	6	27	134	325	10	496	503	5.1%
Overtuned in roadway	3	9	55	24	1	90	93	0.9%
Ran off roadway	17	44	155	80	26	305	322	3.3%
Collision with moped	-	-	<1	-	-	<1	<1	<0.1%
Other non-collision	<1	6	31	56	<1	94	94	1.0%
Total	89	316	2,275	6,588	503	9,681	9,771	100%

Note: Counts of victims in the 2010-2014 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 2015 and in the previous five year (2010 to 2014) annual average. In 2015, “collision with other motor vehicle” accounts for:

- 83% of all casualties (76% in the previous five years);
- 68% of people killed (41% in the previous five years); and,
- 58% of people seriously injured (49% in the previous five years).

“Collision with a pedestrian”, “collision with motorcycle”, “collision with fixed object”, 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: 2015

Accident Configuration	2015 Casualty Type												2015 Total Victims	% of 2015 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	4	6.0%	47	15.1%	394	24.7%	4,449	57.0%	251	52.7%	5,141	50.5%	<b>5,145</b>	50.2%
Head On	23	34.3%	20	6.4%	54	3.4%	84	1.1%	9	1.9%	167	1.6%	<b>190</b>	1.9%
Side Swipe Opposing	0	-	1	0.3%	15	0.9%	46	0.6%	1	0.2%	63	0.6%	<b>63</b>	0.6%
Side Swipe Same Direction	0	-	9	2.9%	47	2.9%	390	5.0%	20	4.2%	466	4.6%	<b>466</b>	4.5%
Overtaking	1	1.5%	0	-	6	0.4%	20	0.3%	2	0.4%	28	0.3%	<b>29</b>	0.3%
Right Turn - Same direction	0	-	0	-	4	0.3%	22	0.3%	0	-	26	0.3%	<b>26</b>	0.3%
Right Turn – Opposing	0	-	0	-	2	0.1%	9	0.1%	0	-	11	0.1%	<b>11</b>	0.1%
Left Turn – Opposing	0	-	15	4.8%	58	3.6%	235	3.0%	13	2.7%	321	3.2%	<b>321</b>	3.1%
Left Turn - Same direction	0	-	0	-	6	0.4%	35	0.4%	3	0.6%	44	0.4%	<b>44</b>	0.4%
Left Turn – Across	1	1.5%	8	2.6%	53	3.3%	166	2.1%	11	2.3%	238	2.3%	<b>239</b>	2.3%
Intersection 90°	15	22.4%	105	33.7%	655	41.1%	1,719	22.0%	116	24.4%	2,595	25.5%	<b>2,610</b>	25.4%
Off Road Right	7	10.4%	55	17.6%	107	6.7%	141	1.8%	13	2.7%	316	3.1%	<b>323</b>	3.1%
Off Road Left	2	3.0%	27	8.7%	76	4.8%	91	1.2%	9	1.9%	203	2.0%	<b>205</b>	2.0%
Fixed Object	5	7.5%	14	4.5%	74	4.6%	242	3.1%	17	3.6%	347	3.4%	<b>352</b>	3.4%
Parking	0	-	3	1.0%	16	1.0%	135	1.7%	5	1.1%	159	1.6%	<b>159</b>	1.6%
Pedestrian	9	13.4%	8	2.6%	28	1.8%	23	0.3%	6	1.3%	65	0.6%	<b>74</b>	0.7%
Other	11	-	103	-	352	-	1,207	-	87	-	1,749	-	<b>1,760</b>	-
<b>Total</b>	<b>78</b>	<b>100%</b>	<b>415</b>	<b>100%</b>	<b>1,947</b>	<b>100%</b>	<b>9,014</b>	<b>100%</b>	<b>563</b>	<b>100%</b>	<b>11,939</b>	<b>100%</b>	<b>12,017</b>	<b>100%</b>

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: 2010-2014 Average

Accident Configuration	2010-2014 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Rear End	2	27	455	3,060	127	3,669	3,671	44.9%
Head On	14	27	83	142	9	260	274	3.4%
Side Swipe Opposing	1	7	27	60	<1	95	96	1.2%
Side Swipe Same Direction	<1	4	51	264	11	330	330	4.0%
Overtaking	1	3	12	37	6	58	59	0.7%
Right Turn - Same direction	-	<1	5	22	2	30	30	0.4%
Right Turn - Opposing	-	<1	5	11	2	18	18	0.2%
Left Turn - Opposing	<1	5	66	160	5	235	236	2.9%
Left Turn - Same direction	-	<1	14	29	3	48	48	0.6%
Left Turn - Across	<1	6	80	149	19	254	255	3.1%
Intersection 90°	10	67	582	1,184	72	1,905	1,916	23.5%
Off Road Right	10	32	162	144	8	345	355	4.4%
Off Road Left	9	24	128	105	8	265	274	3.3%
Fixed Object	3	17	89	203	11	321	323	4.0%
Parking	-	<1	8	83	2	93	93	1.1%
Pedestrian	11	17	64	50	50	180	191	2.3%
Other	27	82	450	900	170	1,601	1,628	-
Total	89	319	2,281	6,604	503	9,707	9,797	100%

Note: Counts of victims in the 2010-2014 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 where the vehicle leaves the road (either in the right or left), side-wipe collisions, and collisions involving at least one vehicle turning. In 2015:

- "Rear end" collisions account for 50% of all victims, 6% of people killed, and 15% of people seriously injured;
- "Intersection 90°" collisions account for 25% of all victims, 22% of people killed, and 34% of people seriously injured;
- "Off road" (either right or left) collisions account for 5% of all victims, 13% of people killed, and 26% of people seriously injured; and,
- "Left turn" (including across, in the same direction, and opposing) collisions account for 6% of all victims, 1 person killed, and 7% of people seriously injured.

In 2015, people are most often killed in traffic collisions where:

- A "head on" collision occurs (34% of people killed);
- A collision occurs at 90° intersections (22% of people killed);
- A vehicle goes "off road" (either right or left; 13% of people killed); or,
- A "pedestrian" collision occurs (13% 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: 2015

Location	2015 Casualty Type												2015 Total Victims	% of 2015 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	13	16.7%	165	39.8%	1,094	56.2%	7,392	82.0%	456	81.0%	9,107	76.3%	<b>9,120</b>	75.9%
Brandon	0	-	15	3.6%	86	4.4%	159	1.8%	13	2.3%	273	2.3%	<b>273</b>	2.3%
Portage	1	1.3%	1	0.2%	17	0.9%	39	0.4%	1	0.2%	58	0.5%	<b>59</b>	0.5%
Flin Flon	0	-	0	-	2	0.1%	3	<0.1%	0	-	5	<0.1%	<b>5</b>	<0.1%
Dauphin	0	-	1	0.2%	13	0.7%	25	0.3%	0	-	39	0.3%	<b>39</b>	0.3%
Thompson	0	-	2	0.5%	15	0.8%	21	0.2%	0	-	38	0.3%	<b>38</b>	0.3%
The Pas	0	-	3	0.7%	9	0.5%	10	0.1%	0	-	22	0.2%	<b>22</b>	0.2%
Selkirk	0	-	4	1.0%	18	0.9%	60	0.7%	4	0.7%	86	0.7%	<b>86</b>	0.7%
Other Urban	8	10.3%	40	9.6%	176	9.0%	433	4.8%	26	4.6%	675	5.7%	<b>683</b>	5.7%
All Rural	56	71.8%	184	44.3%	517	26.6%	872	9.7%	63	11.2%	1,636	13.7%	<b>1,692</b>	14.1%
Total	78	100%	415	100%	1,947	100%	9,014	100%	563	100%	11,939	100%	<b>12,017</b>	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: 2010-2014 Average

Location	2010-2014 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Winnipeg	16	108	1,146	5,252	407	6,913	6,929	70.7%
Brandon	<1	7	100	145	9	260	261	2.7%
Portage	-	3	27	33	2	65	65	0.7%
Flin Flon	<1	<1	2	4	<1	8	9	<0.1%
Dauphin	1	1	20	18	<1	40	41	0.4%
Thompson	<1	1	13	21	3	38	39	0.4%
The Pas	<1	1	8	8	1	19	19	0.2%
Selkirk	<1	3	28	44	3	77	78	0.8%
Other Urban	11	40	249	393	19	702	712	7.3%
All Rural	59	155	689	687	57	1,588	1,648	16.8%
Total	89	320	2,282	6,606	503	9,711	9,800	100%

Note: Counts of victims in the 2010-2014 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 and seriously injured. In 2015, 86% of all casualties result from traffic collisions in urban areas. Traffic collisions in rural locations, however, account for 72% of people killed and 44% of people seriously injured. In the previous five year (2010 to 2014) annual average, 83% of all victims are from traffic collisions in urban locations, while 67% of people killed and 48% of people seriously injured 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: 2015

Safety Equipment	2015 Casualty Type												2015 Total Victims	% of 2015 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	1	1.5%	4	1.0%	17	0.9%	68	0.8%	5	0.9%	94	0.8%	<b>95</b>	0.8%
Lap belt only installed - Not in use	0	-	4	1.0%	9	0.5%	20	0.2%	2	0.4%	35	0.3%	<b>35</b>	0.3%
Shoulder belt only installed - In use	0	-	0	-	12	0.6%	42	0.5%	0	-	54	0.5%	<b>54</b>	0.5%
Shoulder belt only installed - Not in use	1	1.5%	3	0.8%	4	0.2%	13	0.1%	3	0.5%	23	0.2%	<b>24</b>	0.2%
Lap and shoulder belt assembly - In use	12	17.6%	191	49.2%	1,097	59.4%	7,697	86.6%	477	87.2%	9,462	81.1%	<b>9,474</b>	80.7%
Combined belt installed - Not in use	8	11.8%	8	2.1%	20	1.1%	21	0.2%	1	0.2%	50	0.4%	<b>58</b>	0.5%
Only lap part of full assembly in use	0	-	1	0.3%	0	-	20	0.2%	2	0.4%	23	0.2%	<b>23</b>	0.2%
Air bag deployed - Safety belt in use	12	17.6%	108	27.8%	558	30.2%	751	8.5%	38	6.9%	1,455	12.5%	<b>1,467</b>	12.5%
Air bar deployed - Safety belt not use	2	2.9%	5	1.3%	9	0.5%	4	<0.1%	0	-	18	0.2%	<b>20</b>	0.2%
Safety seat properly installed - In use	0	-	10	2.6%	36	1.9%	122	1.4%	13	2.4%	181	1.6%	<b>181</b>	1.5%
Safety seat improperly installed - In use	1	1.5%	0	-	5	0.3%	11	0.1%	2	0.4%	18	0.2%	<b>19</b>	0.2%
Safety seat installed - Not in use	0	-	0	-	0	-	1	<0.1%	0	-	1	<0.1%	<b>1</b>	<0.1%
Safety helmet worn	4	5.9%	26	6.7%	47	2.5%	63	0.7%	2	0.4%	138	1.2%	<b>142</b>	1.2%
Safety helmet not worn	0	-	1	0.3%	0	-	1	<0.1%	0	-	2	<0.1%	<b>2</b>	<0.1%
No safety device available	1	1.5%	5	1.3%	11	0.6%	4	<0.1%	0	-	20	0.2%	<b>21</b>	0.2%
Other	0	-	3	0.8%	6	0.3%	17	0.2%	1	0.2%	27	0.2%	<b>27</b>	0.2%
Not Applicable	3	4.4%	2	0.5%	6	0.3%	20	0.2%	1	0.2%	29	0.2%	<b>32</b>	0.3%
Unknown	23	33.8%	17	4.4%	10	0.5%	11	0.1%	0	-	38	0.3%	<b>61</b>	0.5%
<b>Total</b>	<b>68</b>	<b>100%</b>	<b>388</b>	<b>100%</b>	<b>1,847</b>	<b>100%</b>	<b>8,886</b>	<b>100%</b>	<b>547</b>	<b>100%</b>	<b>11,668</b>	<b>100%</b>	<b>11,736</b>	<b>100%</b>

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: 2010-2014 Average

Safety Equipment	2010-2014 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	4	54	91	4	153	154	1.6%
Lap belt only installed - Not in use	1	2	9	13	<1	24	25	0.3%
Shoulder belt only installed - In use	1	2	22	32	3	60	61	0.6%
Shoulder belt only installed - Not in use	2	2	8	14	<1	24	26	0.3%
Lap and shoulder belt assembly - In use	20	155	1,502	5,657	117	7,431	7,451	79.4%
Combined belt installed - Not in use	17	14	35	18	1	69	86	0.9%
Only lap part of full assembly in use	-	1	4	14	-	19	19	0.2%
Air bag deployed - Safety belt in use	6	48	307	303	8	666	672	7.2%
Air bag deployed - Safety belt not use	3	4	11	8	<1	24	27	0.3%
Safety seat properly installed - In use	1	1	46	107	1	155	156	1.7%
Safety seat improperly installed - In use	<1	<1	4	6	-	11	11	0.1%
Safety seat installed - Not in use	<1	<1	2	2	-	4	4	<0.1%
Safety helmet worn	2	18	43	38	2	101	104	1.1%
Safety helmet not worn	<1	4	1	1	-	6	7	<0.1%
No safety device available	<1	<1	3	4	-	8	8	<0.1%
Other	1	2	6	18	2	29	30	0.3%
Not Applicable	1	2	6	11	2	21	22	0.2%
Unknown	13	24	60	141	275	501	515	5.5%
<b>Total</b>	<b>73</b>	<b>286</b>	<b>2,125</b>	<b>6,478</b>	<b>418</b>	<b>9,307</b>	<b>9,380</b>	<b>100%</b>

Note: Counts of victims in the 2010-2014 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 2015, 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 2015, 29% of the people killed in traffic collisions and 7% 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.

**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': 2015

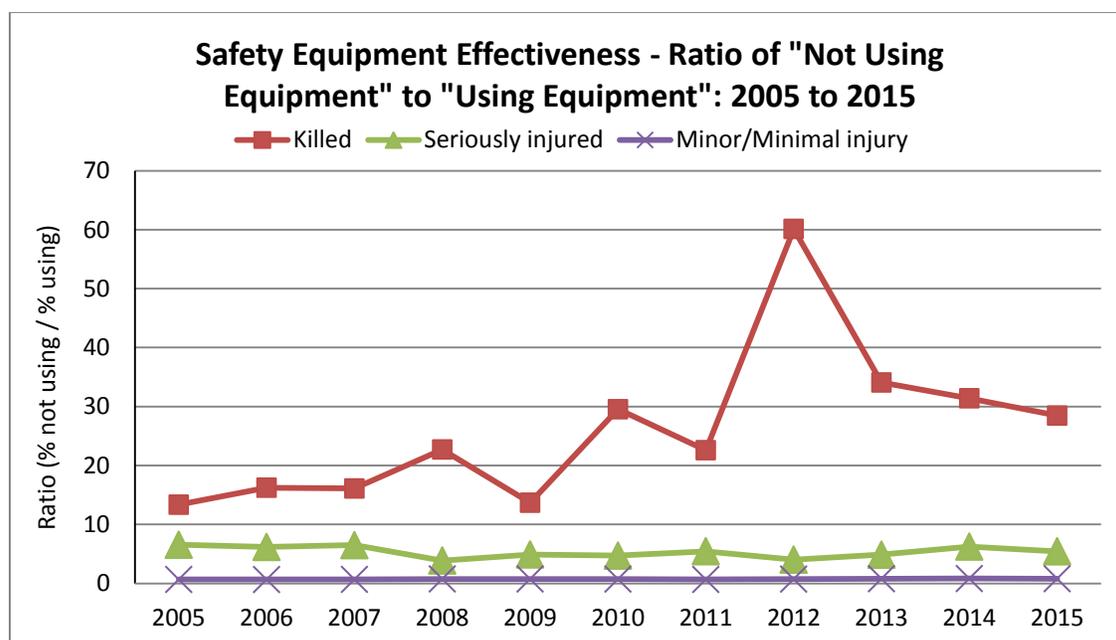
Safety Equipment Use	Total Casualties	Killed	% of Total Casualties	Serious Injury	% of Total Casualties	Minor/Minimal Injury	% of Total Casualties	Other Injury	% of Total Casualties
Equipment <u>not</u> in use	161	12	7.5%	26	16.1%	117	72.7%	6	3.7%
Equipment in use	11,455	30	0.3%	340	3.0%	10,546	92.1%	539	4.7%
<b>Safety Equipment Effectiveness*</b>		<b>28.46</b>		<b>5.44</b>		<b>0.79</b>		<b>0.79</b>	

\*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 2015, victims not using safety equipment are twenty-eight times more likely to be killed and five times more likely to be seriously injured in a traffic collision than those who used the equipment. Over the previous five years (2010 to 2014), people not using the available safety equipment are nearly thirty-six 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: 2015

Ejection	2015 Casualty Type												2015 Total Victims	% of 2015 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	54	87.1%	337	93.9%	1,782	98.9%	8,780	99.6%	542	99.4%	11,441	99.3%	<b>11,495</b>	99.2%
Fully Ejected	5	8.1%	19	5.3%	15	0.8%	21	0.2%	3	0.6%	58	0.5%	<b>63</b>	0.5%
Partially Ejected	3	4.8%	3	0.8%	4	0.2%	18	0.2%	0	-	25	0.2%	<b>28</b>	0.2%
<b>Total</b>	<b>62</b>	<b>100%</b>	<b>359</b>	<b>100%</b>	<b>1,801</b>	<b>100%</b>	<b>8,819</b>	<b>100%</b>	<b>545</b>	<b>100%</b>	<b>11,524</b>	<b>100%</b>	<b>11,586</b>	<b>100%</b>

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: 2010-2014 Average

Ejection	2010-2014 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Not Ejected	50	239	2,052	6,385	404	9,079	9,129	98.7%
Fully Ejected	17	24	22	39	2	87	103	1.1%
Partially Ejected	2	3	5	8	0	17	19	0.2%
Total	69	266	2,079	6,433	406	9,183	9,252	100%

Note: Counts of victims in the 2010-2014 average may not add to the total due to rounding.

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

In 2015, people fully or partially ejected from a vehicle and killed during a traffic collision account for 9% of all victims ejected from the vehicle. People killed but not ejected account for 0.5% of all victims not ejected during the collision. This makes people ejected during a collision nineteen times more likely to be killed than people not ejected. Similarly, people ejected and seriously injured during a collision account for 24% 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 eight times more likely to be seriously injured than people not ejected.

It is not common for a victim to be ejected from a vehicle during a collision while using the available safety equipment. In 2015, 98% of vehicle occupant casualties were using the available safety equipment (seatbelts and child safety seats) and were not ejected from the vehicle.

Even though the proportion of casualties ejected from the vehicle is very small, people ejected from a vehicle are much more likely to be killed or seriously injured when they are not using seatbelts and child safety seats. In 2015, 4 of 5 people ejected and killed were not using the available safety equipment at the time of the collision. This compares to only one person ejected and killed who was using the available safety equipment.

In the previous five year (2010 to 2014) annual average, people ejected from a vehicle while not using the seatbelts and child safety seats are nearly seven times more likely to be killed than people ejected from a vehicle while using seatbelts and child safety seats.

# 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 2015, there are 130 pedestrians killed or injured in traffic collisions. Of these:

- 9 are killed;
- 18 are seriously injured;
- 51 sustain minor injuries;
- 40 sustain minimal injuries; and
- 12 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 2015 (9.8) has decreased by 8% compared to 2014 (10.7) and by 47% compared to the previous five year (2010 to 2014) annual average (18.6).

Pedestrian involvement rate in fatal and injury collisions has decreased compared to the five year (2010 to 2014) annual average. Pedestrian involvement rate in traffic collisions in 2015 where a pedestrian:

- Is killed (0.7) is less than 2014 (0.8) and has decreased by 26% compared to the previous five year average; and,
- Is injured (9.2) has decreased by 7% compared to 2014 (9.9) and by 48% compared to the previous five year average (17.7).

In 2015, collisions involving pedestrians most frequently occur:

- In January, February and March (nearly 12% of pedestrian casualties, respectively); however, 6 of 9 pedestrians are killed between July and October;
- On Tuesday, Friday and Saturday (19%, 25% and 15% of pedestrian casualties, respectively); 7 of 9 pedestrians are killed between Thursday and Sunday; and,
- Between noon and 6 p.m. (12:00-14:59 – 27% of pedestrian casualties; 15:00 to 17:59 – 23% of pedestrian casualties); however, 6 of 9 pedestrians are killed between noon and midnight, and 2 of 9 are killed from 6 a.m. to noon.

Manitobans aged 20 to 24 have the highest involvement rate (per 100,000 people) in traffic collisions at 19.6 in 2015 (21.8 in the previous five years), followed by those aged 35 to 44 at 12.4 (13.3 in the previous five years).

Where the actions of the pedestrian immediately prior to the collision are known, most pedestrian casualties in 2015 occur when the pedestrian is:

- At an intersection, crossing with the right of way (45% of pedestrian casualties);
- Between intersections (7% of pedestrian casualties);
- At an intersection with no traffic control (6% of pedestrian casualties); and,
- On the sidewalk/median/safety zone (5% of pedestrian casualties).

For the 9 pedestrians killed in traffic collisions in 2015, 1 is killed at an intersection while crossing with the right of way, 2 while walking along roadway with traffic, 1 while walking on the sidewalk/median/safety zone, and 1 while running into the roadway. No pedestrian action was recorded for 3 of the 9 pedestrians killed, and 1 was indicated as 'other'.

### Major Elements Examined

Counts of collisions in Manitoba for 2015 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 2010 to 2014. 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:  
<http://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: 2005 to 2015

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		
2005	11	-	36	-	173	-	152	-	68	-	429	-	440	-
2006	14	27.3%	71	97.2%	207	19.7%	141	-7.2%	83	22.1%	502	17.0%	516	17.3%
2007	16	14.3%	52	-26.8%	161	-22.2%	107	-24.1%	109	31.3%	429	-14.5%	445	-13.8%
2008	15	-6.3%	49	-5.8%	153	-5.0%	133	24.3%	88	-19.3%	423	-1.4%	438	-1.6%
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%	21	-4.5%	64	30.6%	35	40.0%	9	-10.0%	129	21.7%	140	20.7%
<b>2015</b>	<b>9</b>	<b>-18.2%</b>	<b>18</b>	<b>-14.3%</b>	<b>51</b>	<b>-20.3%</b>	<b>40</b>	<b>14.3%</b>	<b>12</b>	<b>33.3%</b>	<b>121</b>	<b>-6.2%</b>	<b>130</b>	<b>-7.1%</b>
2010-2014 Average*	12	8.8%	24	-10.2%	92	-10.1%	55	-10.8%	52	-19.2%	223	-14.2%	234	-13.6%

\*The '% change to previous year' for '2010-2014 Average' is an average rate of change for the time period 2010-2014.

In 2015, there are 130 pedestrians killed or injured in traffic collisions. Of these:

- 9 are killed;
- 18 are seriously injured;
- 51 sustain minor injuries;
- 40 sustain minimal injuries; and
- 12 sustain injuries that are undefined in terms of severity.

The total number of pedestrians killed and injured in traffic collisions in 2015 has decreased by 7% compared to 2014 and by nearly 45% compared to the previous five year (2010 to 2014) annual average.

In 2015, the number of pedestrians:

- Killed has decreased by a count of two compared to 2014 and is 3 fewer than the previous five years;
- Sustaining serious injuries has decreased by a count of three compared to 2014 and by 25% compared to the previous five years;
- Sustaining minor injuries has decreased by 20% compared to 2014 and by 44% compared to the previous five years;
- Sustaining minimal injuries has increased by 14% compared to 2014 but has decreased by 27% compared to the previous five years; and,
- Sustaining an unspecified injury has increased by 33% compared to 2014 but has decreased by 77% 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 16 in 2007 to a low of 9 in 2009 and 2015. The number of pedestrians killed in 2015 is slightly down compared to 2014 and to the previous five year (2010 to 2014) 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: 2005 to 2015

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		
2005	0.9	-	3.1	-	14.7	-	12.9	-	5.8	-	36.5	-	37.5	-
2006	1.2	26.8%	6.0	96.4%	17.6	19.2%	12.0	-7.6%	7.0	21.6%	42.6	16.6%	43.8	16.8%
2007	1.3	13.5%	4.4	-27.3%	13.6	-22.7%	9.0	-24.6%	9.2	30.4%	36.2	-15.1%	37.5	-14.3%
2008	1.3	-7.2%	4.1	-6.8%	12.8	-6.0%	11.1	23.0%	7.3	-20.1%	35.3	-2.4%	36.5	-2.6%
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%	1.6	-5.8%	4.9	28.9%	2.7	38.2%	0.7	-11.2%	9.9	20.1%	10.7	19.1%
<b>2015</b>	<b>0.7</b>	<b>-19.1%</b>	<b>1.4</b>	<b>-15.2%</b>	<b>3.9</b>	<b>-21.2%</b>	<b>3.0</b>	<b>13.1%</b>	<b>0.9</b>	<b>31.9%</b>	<b>9.2</b>	<b>-7.2%</b>	<b>9.8</b>	<b>-8.1%</b>
2010-2014 Average*	0.9	7.2%	1.9	-11.5%	7.3	-11.4%	4.3	-12.0%	4.2	-20.3%	17.7	-15.4%	18.6	-14.8%

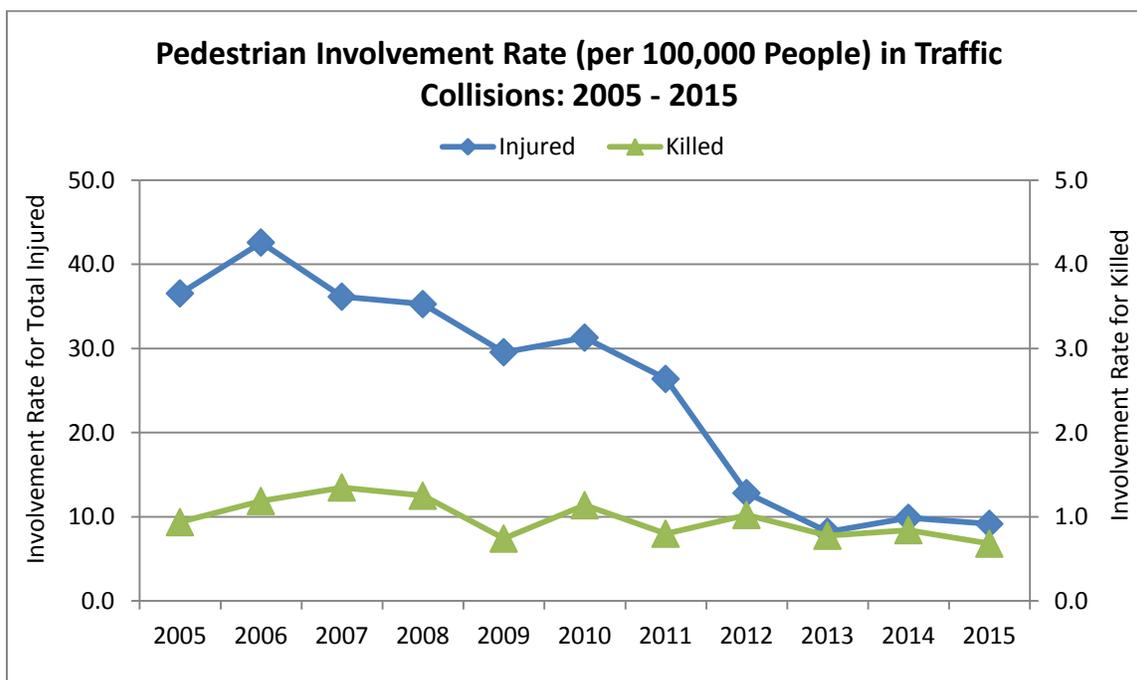
\*The '% change to previous year' for '2010-2014 Average' is an average rate of change for the time period 2010-2014.

The involvement rate (per 100,000 people in the general population) of pedestrians in traffic collisions in 2015 (9.8) has decreased by 8% compared to 2014 (10.7) and by 47% compared to the previous five year (2010 to 2014) annual average (18.6).

The pedestrian involvement rate in fatal and injury collisions has decreased compared to the five year (2010 to 2014) annual average. Pedestrian involvement rate in traffic collisions in 2015 where a pedestrian:

- Is killed (0.7) is less than 2014 (0.8) and has decreased by 26% compared to the previous five year average; and,
- Is injured (9.2) has decreased by 7% compared to 2014 (9.9) and by 48% compared to the previous five year average (17.7).
- Sustains serious injuries (1.4) has decreased by 15% compared to 2014 and by 28% compared to the previous five years;
- Sustains minor injuries (3.9) has decreased by 21% compared to 2014 and by 47% compared to the previous five years;
- Sustains minimal injuries (3.0) has increased by 13% compared to 2014, but has decreased by 30% compared to the previous five years; and,
- Sustains an unspecified injury (0.9) has increased by 32% compared to 2014, but has decreased by 78% compared to the previous five years.

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



Over the last eleven years (2005 to 2015), pedestrian injuries resulting from traffic collisions have generally declined. Since 2010, the involvement rate has decreased by an average of 15% each year.

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 2015 is in line with the pedestrian involvement rate for deaths recorded in the past eleven years, although it is one of the lower rates in that time period.

**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: 2015

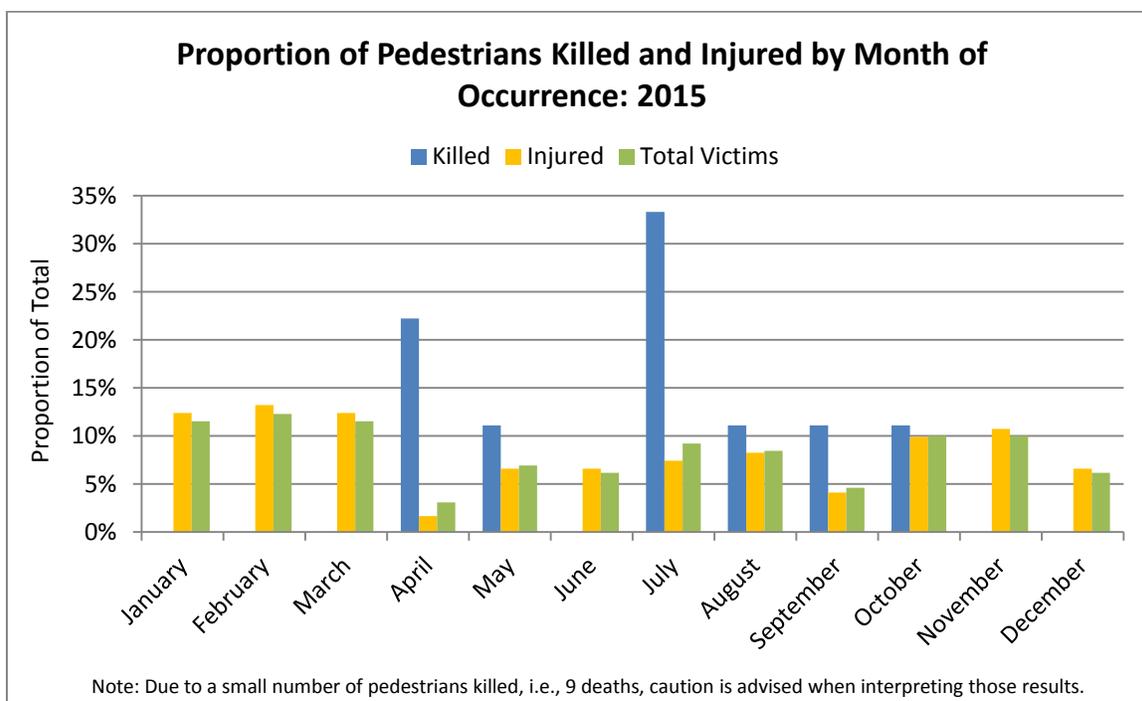
Month of Occurrence	2015 Casualty Type												2015 Total Victims	% of 2015 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
January	0	-	2	11.1%	5	9.8%	7	17.5%	1	8.3%	15	12.4%	15	11.5%
February	0	-	4	22.2%	6	11.8%	3	7.5%	3	25.0%	16	13.2%	16	12.3%
March	0	-	4	22.2%	9	17.6%	1	2.5%	1	8.3%	15	12.4%	15	11.5%
April	2	22.2%	0	-	2	3.9%	0	-	0	-	2	1.7%	4	3.1%
May	1	11.1%	0	-	3	5.9%	5	12.5%	0	-	8	6.6%	9	6.9%
June	0	-	1	5.6%	1	2.0%	6	15.0%	0	-	8	6.6%	8	6.2%
July	3	33.3%	1	5.6%	4	7.8%	3	7.5%	1	8.3%	9	7.4%	12	9.2%
August	1	11.1%	1	5.6%	5	9.8%	1	2.5%	3	25.0%	10	8.3%	11	8.5%
September	1	11.1%	1	5.6%	3	5.9%	1	2.5%	0	-	5	4.1%	6	4.6%
October	1	11.1%	2	11.1%	6	11.8%	4	10.0%	0	-	12	9.9%	13	10.0%
November	0	-	2	11.1%	5	9.8%	4	10.0%	2	16.7%	13	10.7%	13	10.0%
December	0	-	0	-	2	3.9%	5	12.5%	1	8.3%	8	6.6%	8	6.2%
<b>Total</b>	<b>9</b>	<b>100%</b>	<b>18</b>	<b>100%</b>	<b>51</b>	<b>100%</b>	<b>40</b>	<b>100%</b>	<b>12</b>	<b>100%</b>	<b>121</b>	<b>100%</b>	<b>130</b>	<b>100%</b>

**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: 2010-2014 Average

Month of Occurrence	2010-2014 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
January	<1	3	11	4	5	23	24	10.1%
February	<1	2	6	4	5	16	17	7.3%
March	<1	2	9	7	9	27	27	11.7%
April	2	2	7	5	3	17	19	8.0%
May	<1	2	7	5	4	19	19	8.2%
June	1	1	6	4	5	17	18	7.6%
July	1	1	7	3	3	14	16	6.7%
August	1	3	7	5	4	19	20	8.6%
September	1	2	10	5	3	20	21	8.9%
October	1	3	8	5	3	19	21	8.8%
November	<1	1	8	3	3	15	16	6.7%
December	2	2	7	3	4	16	17	7.4%
Total	12	24	92	55	52	223	234	100%

Note: Counts of pedestrians in the 2010-2014 average may not add to the total due to rounding.

In 2015, 6 of 9 pedestrians killed in collisions on Manitoba roadways are killed between July and October. Pedestrians are most likely to be injured in January (12%), February (12%) and March (12%). During the previous five year (2010 to 2014) annual average, January, March, September and October stand out as the months with the highest involvement of pedestrian casualties in collisions.

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

**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: 2015

Day of the Week	2015 Casualty Type												2015 Total Victims	% of 2015 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	1	11.1%	2	11.1%	5	9.8%	4	10.0%	0	-	11	9.1%	<b>12</b>	9.2%
Monday	0	-	0	-	4	7.8%	4	10.0%	2	16.7%	10	8.3%	<b>10</b>	7.7%
Tuesday	2	22.2%	4	22.2%	10	19.6%	8	20.0%	1	8.3%	23	19.0%	<b>25</b>	19.2%
Wednesday	0	-	5	27.8%	7	13.7%	5	12.5%	0	-	17	14.0%	<b>17</b>	13.1%
Thursday	3	33.3%	1	5.6%	2	3.9%	7	17.5%	2	16.7%	12	9.9%	<b>15</b>	11.5%
Friday	1	11.1%	4	22.2%	15	29.4%	6	15.0%	6	50.0%	31	25.6%	<b>32</b>	24.6%
Saturday	2	22.2%	2	11.1%	8	15.7%	6	15.0%	1	8.3%	17	14.0%	<b>19</b>	14.6%
Total	9	100%	18	100%	51	100%	40	100%	12	100%	121	100%	<b>130</b>	100%

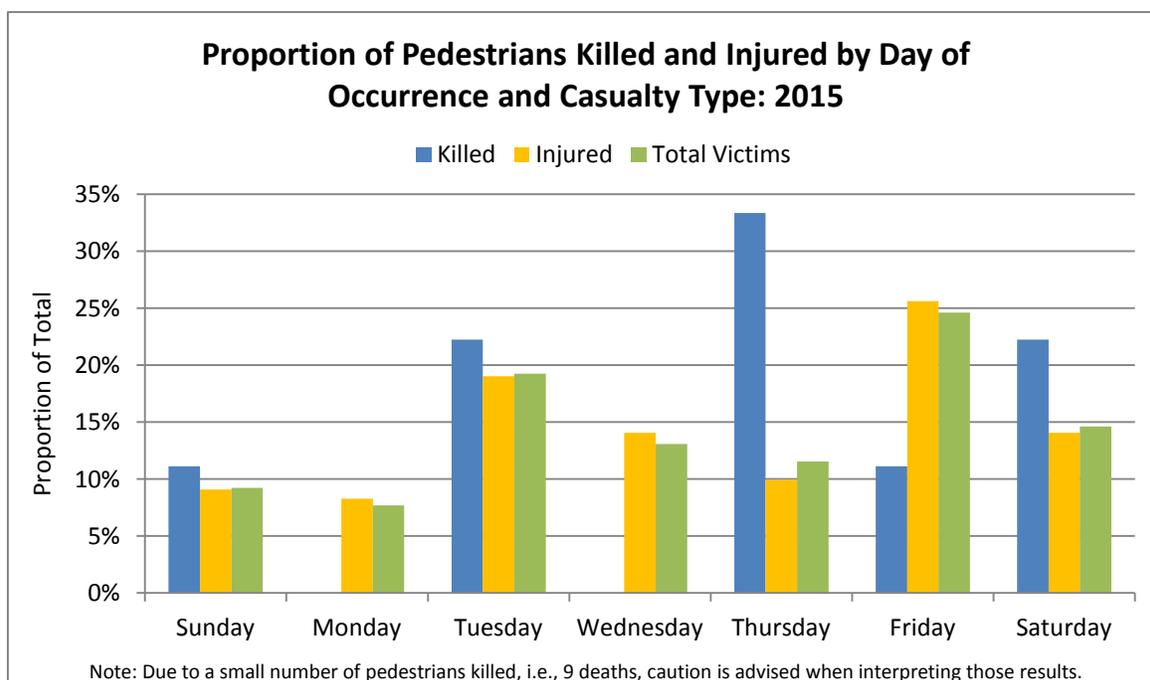
**Table 6-4a Pedestrians Killed and Injured by Day of Occurrence and Casualty Type for Previous Five Years**Table 6-4a  
Pedestrians Killed and Injured by Day of Occurrence and Casualty Type: 2010-2014 Average

Day of the Week	2010-2014 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Sunday	2	2	6	4	4	16	17	7.4%
Monday	2	3	11	7	5	26	28	12.0%
Tuesday	1	3	15	8	8	34	35	15.0%
Wednesday	1	4	16	9	11	41	42	18.0%
Thursday	2	4	17	11	9	40	42	17.8%
Friday	2	3	17	10	11	41	43	18.4%
Saturday	3	4	9	5	5	24	27	11.4%
Total	12	24	92	55	52	223	234	100%

Note: Counts of pedestrians in the 2010-2014 average may not add to the total due to rounding.

In 2015, more pedestrians are involved in traffic collisions on Tuesday (19% of all pedestrian casualties), Friday (25%), and Saturday (15%) than on other days of the week. In the previous five year (2010 to 2014) annual average, there are more pedestrians involved in traffic collisions on Wednesday (18%), Thursday (18%) and Friday (18%).

In 2015, 7 of 9 pedestrians are killed in traffic collisions between Thursday and Sunday. In the previous five year (2010 to 2014) annual average, weekend (including Friday, Saturday and Sunday) collisions account for half of pedestrians killed (50%).

**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: 2015

Time of the Day	2015 Casualty Type												2015 Total Victims	% of 2015 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	0	-	3	16.7%	3	6.0%	0	-	0	-	6	5.0%	6	4.7%
03:00 - 05:59	0	-	1	5.6%	1	2.0%	1	2.5%	0	-	3	2.5%	3	2.3%
06:00 - 08:59	1	12.5%	1	5.6%	5	10.0%	3	7.5%	2	16.7%	11	9.2%	12	9.4%
09:00 - 11:59	1	12.5%	1	5.6%	5	10.0%	7	17.5%	2	16.7%	15	12.5%	16	12.5%
12:00 - 14:59	0	-	4	22.2%	10	20.0%	14	35.0%	6	50.0%	34	28.3%	34	26.6%
15:00 - 17:59	0	-	6	33.3%	11	22.0%	11	27.5%	2	16.7%	30	25.0%	30	23.4%
18:00 - 20:59	3	37.5%	2	11.1%	11	22.0%	2	5.0%	0	-	15	12.5%	18	14.1%
21:00 - 23:59	3	37.5%	0	-	4	8.0%	2	5.0%	0	-	6	5.0%	9	7.0%
Not Stated	1	-	0	-	1	-	0	-	0	-	1	-	2	-
Total	9	100%	18	100%	51	100%	40	100%	12	100%	121	100%	130	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: 2010-2014 Average

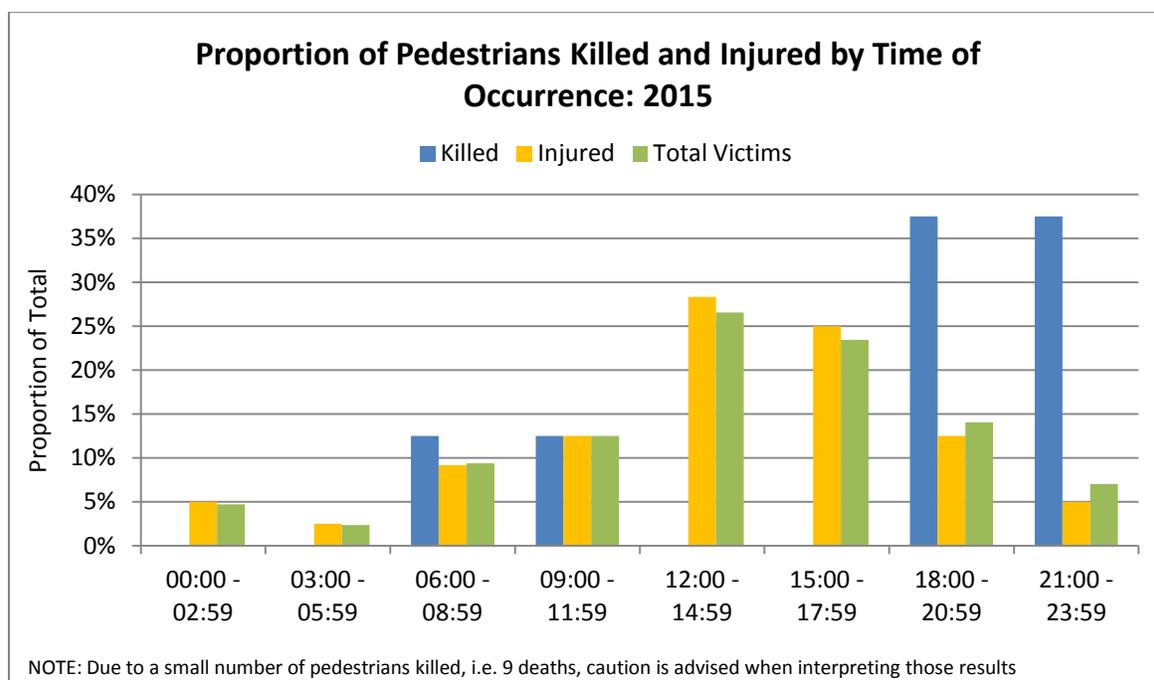
Time of the Day	2010-2014 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims*
00:00 - 02:59	1	1	3	1	2	7	8	3.8%
03:00 - 05:59	2	<1	2	<1	<1	4	6	2.7%
06:00 - 08:59	<1	2	12	7	7	28	29	13.0%
09:00 - 11:59	<1	2	10	8	5	25	26	11.8%
12:00 - 14:59	2	4	16	12	7	39	41	18.7%
15:00 - 17:59	2	5	24	12	15	57	59	26.8%
18:00 - 20:59	2	3	12	6	7	27	29	13.2%
21:00 - 23:59	2	5	8	4	3	19	22	9.9%
Not Stated	<1	1	4	4	5	14	15	-
Total	12	24	92	55	52	223	234	100%

Note: Counts of pedestrians in the 2010-2014 average may not add to the total due to rounding.

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

In 2015, 27% of all pedestrian victims are involved in traffic collisions between noon and 3 p.m. (12:00-14:59) while another 23% 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 (2010 to 2014) annual average (12:00-14:59 – 19% of all pedestrian victims; 15:00 to 17:59 – 27%).

In 2015, 6 of 9 pedestrians are killed between noon and midnight. Another 2 are killed between 6 a.m. and noon. This is fairly consistent with the previous five year (2010 to 2014) annual average, where 8 of 12 pedestrians killed are involved in collisions between noon and 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: 2015

Age Group	2015 Casualty Type												2015 Total Victims	% of 2015 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	-	1	5.6%	3	5.9%	2	5.0%	0	-	6	5.0%	6	4.6%
5-9	0	-	0	-	0	-	0	-	1	8.3%	1	0.8%	1	0.8%
10-14	0	-	2	11.1%	4	7.8%	0	-	0	-	6	5.0%	6	4.6%
15-19	0	-	0	-	3	5.9%	2	5.0%	1	8.3%	6	5.0%	6	4.6%
20-24	3	33.3%	2	11.1%	8	15.7%	4	10.0%	2	16.7%	16	13.2%	19	14.6%
25-34	1	11.1%	2	11.1%	8	15.7%	3	7.5%	3	25.0%	16	13.2%	17	13.1%
35-44	1	11.1%	4	22.2%	8	15.7%	7	17.5%	1	8.3%	20	16.5%	21	16.2%
45-54	1	11.1%	2	11.1%	7	13.7%	6	15.0%	2	16.7%	17	14.0%	18	13.8%
55-64	0	-	2	11.1%	5	9.8%	7	17.5%	1	8.3%	15	12.4%	15	11.5%
65+	3	33.3%	3	16.7%	5	9.8%	9	22.5%	1	8.3%	18	14.9%	21	16.2%
Not Stated	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>Total</b>	9	100%	18	100%	51	100%	40	100%	12	100%	121	100%	130	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: 2010-2014 Average

Age Group	2010-2014 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	4	4	2.4%
5-9	-	2	3	<1	<1	6	6	3.9%
10-14	<1	1	8	1	<1	10	11	6.9%
15-19	2	2	10	4	1	17	19	11.9%
20-24	2	3	9	4	2	18	20	12.5%
25-34	1	3	12	7	2	24	25	15.5%
35-44	<1	3	11	5	2	21	22	13.7%
45-54	1	2	9	5	1	17	18	11.2%
55-64	<1	2	7	3	2	14	15	9.3%
65+	4	4	8	3	1	17	20	12.8%
Not Stated	<1	2	10	22	40	74	75	-
Total	12	24	92	55	52	223	234	100%

Note: Counts of pedestrians in the 2010-2014 average may not add to the total due to rounding.

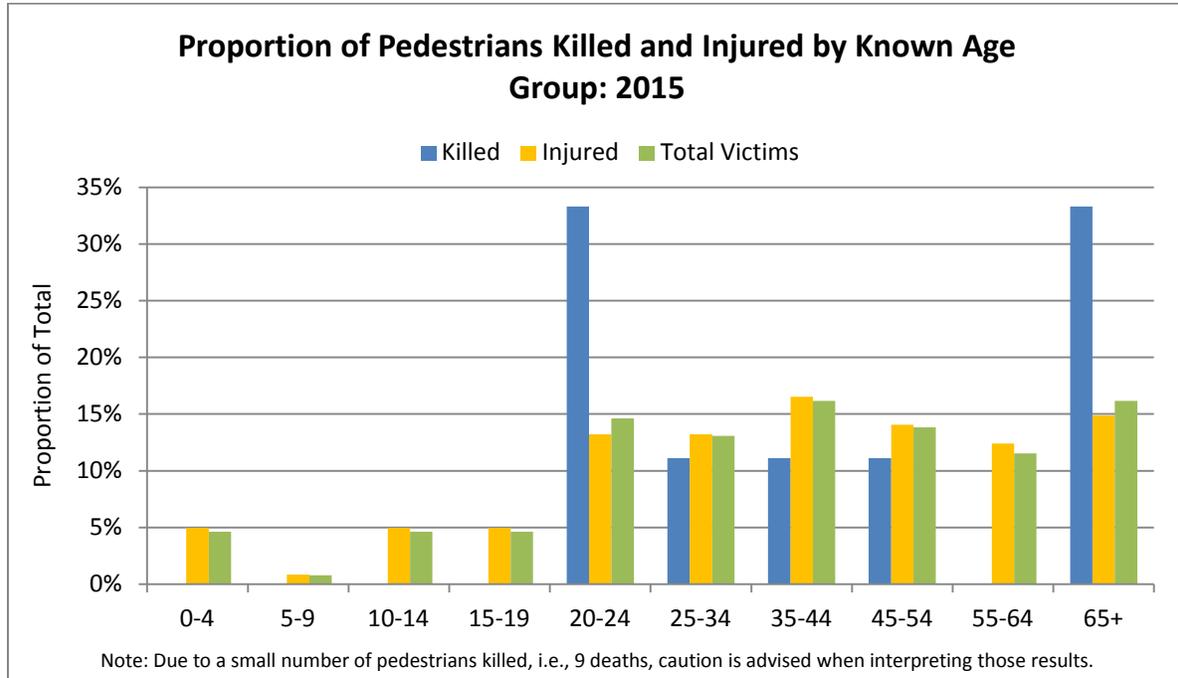
\*Percentage of the total does not include the 'Not Stated' category.

Note: The reader is cautioned that age is missing ('Not Stated') in several collisions - interpret with caution.

In 2015, 15% of pedestrian casualties are under the age of 20 (5% under age 10; 9% age 10 to 19) while 28% are between the ages of 20 and 34, and 30% are between the ages of 35 and 54. Adults aged 55 and older account for 28% 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 (2010 to 2014) annual average, 25% of pedestrian victims are under the age of 20, 28% were age 20 to 34, 25% were age 35 to 54 and 22% were age 55 and older.

People aged 20 to 24 and 65 and older represent the largest proportion of pedestrians killed in 2015, each representing 3 of the 9 killed. There is also one pedestrian killed in each of the following age groups:

- 25 to 34
- 35 to 44
- 45 to 54

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

Note: The minor, minimal, and other injury categories have several casualties with missing age information (“Not stated” on the Traffic Accident Report) affecting the proportion by age group for the “Injured” and “Total Victims” categories in Figure 6-5. Please interpret with caution.

**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: 2015, 2010-2014 Average

Age Group	2015 Casualty Type						2015 Total Victims	2010-2014 Average Involvement Rate		
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured		Killed	Injured	Total Victims
0-4	-	1.2	3.6	2.4	-	7.2	<b>7.2</b>	0.2	4.4	4.7
5-9	-	-	-	-	1.2	1.2	<b>1.2</b>	-	7.9	7.9
10-14	-	2.5	5.0	-	-	7.5	<b>7.5</b>	0.7	13.0	13.7
15-19	-	-	3.5	2.3	1.2	6.9	<b>6.9</b>	1.8	19.7	21.6
20-24	3.1	2.1	8.2	4.1	2.1	16.5	<b>19.6</b>	2.0	19.8	21.8
25-34	0.5	1.1	4.4	1.6	1.6	8.7	<b>9.3</b>	0.6	14.0	14.6
35-44	0.6	2.4	4.7	4.1	0.6	11.8	<b>12.4</b>	0.5	12.8	13.3
45-54	0.6	1.1	3.9	3.4	1.1	9.5	<b>10.1</b>	0.5	9.2	9.7
55-64	-	1.2	3.1	4.3	0.6	9.2	<b>9.2</b>	0.5	9.1	9.7
65+	1.5	1.5	2.6	4.6	0.5	9.3	<b>10.8</b>	2.0	9.4	11.4
Total	0.7	1.4	3.9	3.0	0.9	9.2	<b>9.8</b>	0.9	5.9	18.4

Younger pedestrians tend to have higher rates of involvement in traffic collisions. Manitobans aged 20 to 24 have the highest pedestrian involvement rate (per 100,000 people) in traffic collisions, at 19.6, in 2015 (21.8 in the previous five years), followed by those aged 35 to 44 at 12.4 (13.3 in the previous five years).

Pedestrian involvement rates in traffic collisions have decreased significantly in 2015 compared to the previous five year (2010 to 2014) annual average, down 47% for all pedestrian casualties. The involvement rates for pedestrians in all age groups are down in 2015, except for those aged 45 to 54, compared to the previous five years.

Decreases in pedestrian involvement rates for 2015 compared to the previous five years are a direct result of fewer pedestrian victims being captured in the Traffic Collision Statistics Database under the new reporting structure implemented in 2011.

**Table 6-8 Pedestrian Action and Casualty Type**Table 6-8  
Pedestrian Action and Casualty Type: 2015

Pedestrian Action	2015 Casualty Type												2015 Total Victims	% of 2015 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	16.7%	7	53.8%	19	55.9%	12	35.3%	4	50.0%	42	47.2%	<b>43</b>	45.3%
At intersection, without right of way	0	-	0	-	1	2.9%	1	2.9%	0	-	2	2.2%	<b>2</b>	2.1%
At intersection, no traffic control	0	-	2	15.4%	2	5.9%	2	5.9%	0	-	6	6.7%	<b>6</b>	6.3%
Between intersections	0	-	2	15.4%	2	5.9%	2	5.9%	1	12.5%	7	7.9%	<b>7</b>	7.4%
Walking along roadway against traffic	0	-	0	-	1	2.9%	0	-	0	-	1	1.1%	<b>1</b>	1.1%
Walking along roadway with traffic	2	33.3%	0	-	1	2.9%	0	-	0	-	1	1.1%	<b>3</b>	3.2%
On sidewalk/median/safety zone	1	16.7%	0	-	1	2.9%	3	8.8%	0	-	4	4.5%	<b>5</b>	5.3%
Walking on roadway (travelled portion)	0	-	0	-	0	-	0	-	1	12.5%	1	1.1%	<b>1</b>	1.1%
From behind vehicle/object on roadside	0	-	0	-	0	-	2	5.9%	0	-	2	2.2%	<b>2</b>	2.1%
Running into roadway	1	16.7%	0	-	1	2.9%	0	-	0	-	1	1.1%	<b>2</b>	2.1%
Getting on/off vehicle	0	-	0	-	0	-	1	2.9%	0	-	1	1.1%	<b>1</b>	1.1%
Pushing/working on vehicle	0	-	0	-	0	-	0	-	0	-	0	-	<b>0</b>	-
Playing on roadway	0	-	1	7.7%	0	-	0	-	0	-	1	1.1%	<b>1</b>	1.1%
Working on roadway	0	-	0	-	0	-	0	-	0	-	0	-	<b>0</b>	-
Lying on roadway	0	-	0	-	0	-	0	-	0	-	0	-	<b>0</b>	-
Other	1	16.7%	1	7.7%	6	17.6%	11	32.4%	2	25.0%	20	22.5%	<b>21</b>	22.1%
Unknown	3	-	5	-	17	-	6	-	4	-	32	-	<b>35</b>	-
<b>Total</b>	<b>9</b>	<b>100%</b>	<b>18</b>	<b>100%</b>	<b>51</b>	<b>100%</b>	<b>40</b>	<b>100%</b>	<b>12</b>	<b>100%</b>	<b>121</b>	<b>100%</b>	<b>130</b>	<b>100%</b>

\*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: 2010-2014 Average

Pedestrian Action	2010-2014 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	1	2	29	14	12	58	59	39.6%
At intersection, without right of way	<1	2	4	3	2	11	12	7.9%
At intersection, no traffic control	-	<1	2	1	1	5	5	3.5%
Between intersections	<1	2	9	3	3	17	17	11.6%
Walking along roadway against traffic	<1	<1	2	<1	<1	3	3	2.1%
Walking along roadway with traffic	<1	1	2	1	<1	5	5	3.5%
On sidewalk/median/safety zone	<1	<1	3	2	<1	6	6	4.0%
Walking on roadway (travelled portion)	1	2	2	2	2	8	9	6.3%
From behind vehicle/object on roadside	-	<1	2	1	1	5	5	3.3%
Running into roadway	<1	2	5	3	4	15	15	10.3%
Getting on/off vehicle	-	-	<1	<1	-	1	1	0.5%
Pushing/working on vehicle	-	<1	<1	-	-	0	0	0.3%
Playing on roadway	<1	-	<1	<1	-	1	1	0.8%
Working on roadway	<1	-	-	<1	<1	1	1	0.8%
Lying on roadway	<1	<1	<1	-	<1	1	2	1.5%
Other	-	<1	3	2	<1	6	6	4.1%
Unknown	5	8	25	20	24	77	82	-
Total	12	23	91	54	52	220	232	100%

Note: Counts of pedestrians in the 2010-2014 average may not add to the total due to rounding.

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

Where the actions of the pedestrian immediately prior to the collision are known, most pedestrian casualties in 2015 occur when the pedestrian is:

- At an intersection, crossing with the right of way (45% of pedestrian casualties);
- Between intersections (7% of pedestrian casualties);
- At an intersection with no traffic control (6% of pedestrian casualties); and,
- On the sidewalk/median/safety zone (5% of pedestrian casualties).

For the 9 pedestrians killed in traffic collisions in 2015, 1 is killed at an intersection while crossing with the right of way, 2 while walking along roadway with traffic, 1 while walking on the sidewalk/median/safety zone, and 1 while running into the roadway. No pedestrian action was recorded for 3 of the 9 pedestrians killed, and 1 was indicated as 'other'.

## 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 2015, there are 61,711 vehicles involved in traffic collisions. Of these:

- 106 are involved in fatal collisions;
- 16,184 are involved in injury collisions; and,
- 45,421 are involved in PDO collisions.

Vehicle involvement in traffic collisions per 10,000 registered vehicles (vehicle involvement rate) has decreased in 2015 compared to 2014, but has increased relative to the previous five year (2010 to 2014) annual average. The vehicle involvement rate in collisions in 2015 for:

- Total collisions is 700.2 – decreased by nearly 3% from 2014, but increased by 3% from the previous five years;
- Fatal collisions is 1.2 – increased by 10% from 2014, but decreased by 14% from the previous five years;
- Injury collisions is 183.6 – decreased by 2% from 2014, but increased by 15% from the previous five years; and,
- PDO collisions is 515.4 – decreased by 3% from 2014, and decreased by 1% 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 2015, the same as 2014 and similar to the previous five year (2010 to 2014) annual average (95%). Commercial vehicles represent 3% of the vehicles involved (similar to the 5% 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 2015 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 2010 to 2014. 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: 2005 to 2015

Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2005	135	-	11,489	-	42,719	-	54,343	-
2006	151	11.9%	11,312	-1.5%	40,157	-6.0%	51,620	-5.0%
2007	141	-6.6%	11,099	-1.9%	37,251	-7.2%	48,491	-6.1%
2008	141	0.0%	10,219	-7.9%	34,195	-8.2%	44,555	-8.1%
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%
<b>2015</b>	<b>106</b>	<b>11.6%</b>	<b>16,184</b>	<b>-0.3%</b>	<b>45,421</b>	<b>-1.1%</b>	<b>61,711</b>	<b>-0.9%</b>
2010-2014 Average*	117	-4.3%	13,402	12.5%	43,410	6.4%	56,929	7.6%

\* The '% change to previous year' for '2010-2014 Average' is an average rate of change for the five year period.

In 2015, there are 61,711 vehicles involved in traffic collisions. Of these:

- 106 are involved in fatal collisions;
- 16,184 are involved in injury collisions; and,
- 45,421 are involved in PDO collisions.

Overall, there are fewer vehicles involved in traffic collisions in 2015 (61,711) than in 2014 (62,277), but more than in the previous five year (2010 to 2014) annual average (56,929). In 2015, there are:

- 566 fewer vehicles involved in total collisions than in 2014 (a 1% decrease), but 4,782 more than in the previous five year average (an 8% increase);
- 11 more vehicles involved in fatal collisions than in 2014 (a 12% increase), but 11 fewer than in the previous five years (a 9% decrease);
- 49 fewer vehicles involved in injury collisions compared to 2014 (a less than 1% decrease), but 2,782 more than in the previous five years (a 21% increase); and,
- 528 fewer vehicles involved in PDO collisions compared to 2014 (a 1% decrease), but 2,011 more than in the previous five years (a 5% 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: 2005 to 2015

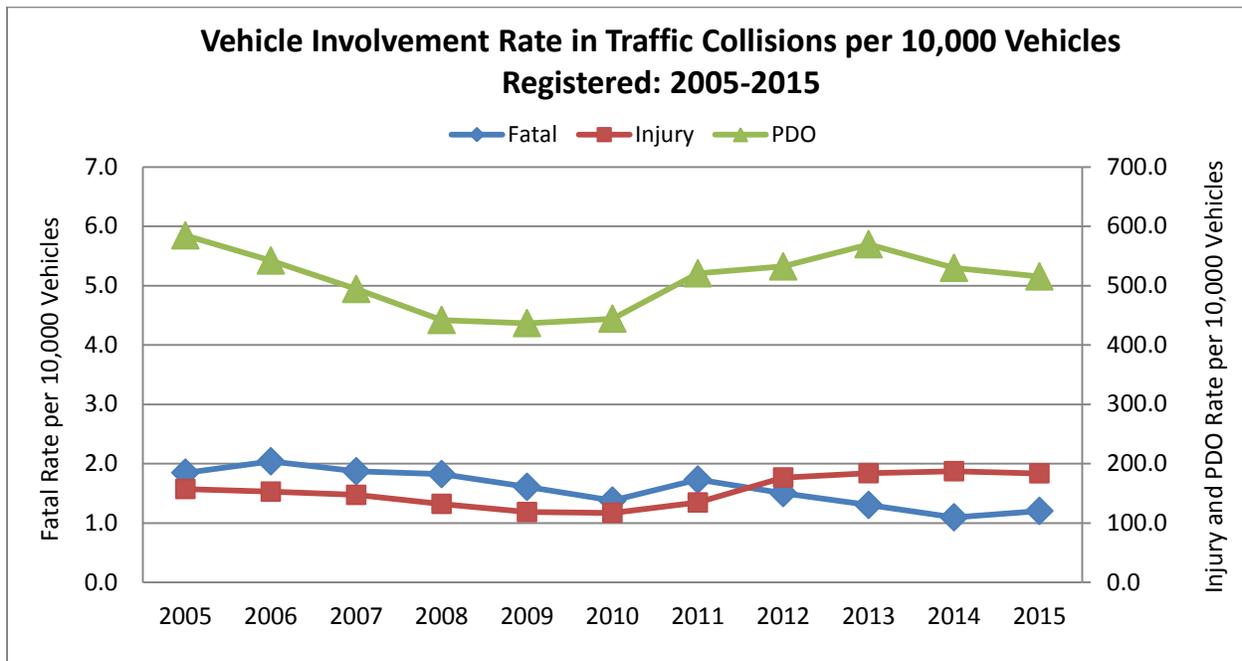
Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2005	1.8	-	157.2	-	584.5	-	743.6	-
2006	2.0	10.4%	152.7	-2.8%	542.2	-7.2%	697.0	-6.3%
2007	1.9	-8.2%	147.3	-3.6%	494.2	-8.8%	643.4	-7.7%
2008	1.8	-2.6%	132.1	-10.3%	442.0	-10.6%	575.9	-10.5%
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%
<b>2015</b>	<b>1.2</b>	<b>9.8%</b>	<b>183.6</b>	<b>-1.9%</b>	<b>515.4</b>	<b>-2.7%</b>	<b>700.2</b>	<b>-2.5%</b>
2010-2014 Average*	1.4	-6.2%	159.8	10.2%	519.3	4.2%	680.5	5.5%

\* The '% change to previous year' for '2010-2014 Average' is an average rate of change for the five year period.

Vehicle involvement in traffic collisions per 10,000 registered vehicles (vehicle involvement rate) has decreased in 2015 compared to 2014, but has increased relative to the previous five year (2010 to 2014) annual average. The vehicle involvement rate in collisions in 2015 for:

- Total collisions is 700.2 – decreased by nearly 3% from 2014, but increased by 3% from the previous five years;
- Fatal collisions is 1.2 – increased by 10% from 2014, but decreased by 14% from the previous five years;
- Injury collisions is 183.6 – decreased by 2% from 2014, but increased by 15% from the previous five years; and,
- PDO collisions is 515.4 – decreased by 3% from 2014, and decreased by 1% 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, the downward trend in vehicle involvement rates in PDO collisions from 2005 to 2009 did not continue in 2010, when the rate increased slightly. With the involvement rates in fatal collisions decreasing compared to the previous five year (2010 to 2014) annual average (see Table 7-2), it becomes clear that the increases in overall involvement from 2011 through 2014 are due to the increased number of vehicles involved in injury and PDO collisions. Even though vehicle involvement in PDO collisions is down in 2015 compared to 2012 through 2014, it is still higher than in 2007 through 2011.

**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: 2015, 2010-2014 Average

Vehicle Type	2015 Collision Severity						2015 Total	% of 2015 Total	2010-2014 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)	44	41.5%	12,103	74.8%	31,734	69.9%	<b>43,881</b>	71.1%	52	9,371	28,988	38,411	67.5%
Mini/Multi-Purpose Van	10	9.4%	1,218	7.5%	3,501	7.7%	<b>4,729</b>	7.7%	8	1,321	4,191	5,521	9.7%
Van under 4500 kg	2	1.9%	149	0.9%	414	0.9%	<b>565</b>	0.9%	1	135	458	594	1.0%
Pick-up under 4500 kg	24	22.6%	2,113	13.1%	8,189	18.0%	<b>10,326</b>	16.7%	27	1,695	7,378	9,100	16.0%
Truck over 4500 kg (unit chassis)	8	7.5%	173	1.1%	845	1.9%	<b>1,026</b>	1.7%	5	158	712	875	1.5%
Power Unit for Semi-Trailer	8	7.5%	106	0.7%	301	0.7%	<b>415</b>	0.7%	7	107	374	488	0.9%
Truck/Camper	0	-	0	-	0	-	<b>0</b>	-	<1	3	11	14	<0.1%
Motor home	0	-	2	<0.1%	14	<0.1%	<b>16</b>	<0.1%	<1	2	15	17	<0.1%
Truck (other)	1	0.9%	24	0.1%	51	0.1%	<b>76</b>	0.1%	5	255	916	1,176	2.1%
School Bus	0	-	6	<0.1%	4	<0.1%	<b>10</b>	<0.1%	<1	4	22	27	<0.1%
Other School Vehicle	0	-	0	-	0	-	<b>0</b>	-	<1	<1	<1	0	<0.1%
Transit Bus – urban	1	0.9%	45	0.3%	64	0.1%	<b>110</b>	0.2%	<1	32	65	97	0.2%
Para-transit Bus	0	-	3	<0.1%	10	<0.1%	<b>13</b>	<0.1%	<1	2	4	6	<0.1%
Intercity Bus	0	-	2	<0.1%	5	<0.1%	<b>7</b>	<0.1%	<1	4	11	15	<0.1%
Bus (other)	0	-	42	0.3%	78	0.2%	<b>120</b>	0.2%	<1	17	73	91	0.2%
Motorcycle/Scooter	6	5.7%	129	0.8%	48	0.1%	<b>183</b>	0.3%	3	111	51	166	0.3%
Moped	0	-	14	<0.1%	5	<0.1%	<b>19</b>	<0.1%	<1	13	4	17	<0.1%
Bicycle	1	0.9%	49	0.3%	150	0.3%	<b>200</b>	0.3%	4	144	57	206	0.4%
Ambulance	0	-	0	-	1	<0.1%	<b>1</b>	<0.1%	<1	2	9	11	<0.1%
Fire	0	-	0	-	1	<0.1%	<b>1</b>	<0.1%	<1	1	4	6	<0.1%
Police	0	-	0	-	0	-	<b>0</b>	-	<1	8	30	38	<0.1%
Mobility Vehicle	0	-	0	-	0	-	<b>0</b>	-	<1	<1	<1	0	-
Motorized Snow Vehicle HTA	0	-	0	-	0	-	<b>0</b>	-	<1	<1	2	2	<0.1%
Farm Equipment	0	-	0	-	0	-	<b>0</b>	-	<1	2	6	8	<0.1%
Construction Equipment	0	-	0	-	0	-	<b>0</b>	-	<1	4	25	29	<0.1%
Train/Other Rail Vehicle	0	-	0	-	0	-	<b>0</b>	-	<1	<1	<1	0	<0.1%
Off-Road Vehicles	1	0.9%	6	<0.1%	6	<0.1%	<b>13</b>	<0.1%	<1	4	2	15	<0.1%
<b>Total</b>	<b>106</b>	<b>100%</b>	<b>16,184</b>	<b>100%</b>	<b>45,421</b>	<b>100%</b>	<b>61,711</b>	<b>100%</b>	<b>117</b>	<b>13,402</b>	<b>43,410</b>	<b>56,929</b>	<b>100%</b>

Note: Counts of vehicles in the 2010-2014 average may not add to the total due to rounding.

**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: 2015, 2010-2014 Average

Vehicle Type	2015 Collision Severity						2015 Total	% of 2015 Total	2010-2014 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	80	76.2%	15,583	96.6%	43,838	96.9%	<b>59,501</b>	96.8%	89	12,522	41,014	53,625	94.7%
Passenger vehicles	56	53.3%	13,470	83.5%	35,649	78.8%	<b>49,175</b>	80.0%	62	10,827	33,636	44,526	78.6%
Light trucks	24	22.9%	2,113	13.1%	8,189	18.1%	<b>10,326</b>	16.8%	27	1,695	7,378	9,100	16.1%
NSC Commercial Vehicles	18	17.1%	401	2.5%	1,358	3.0%	<b>1,777</b>	2.9%	16	580	2,177	2,775	4.9%
PSV Vehicles	0	-	0	-	2	<0.1%	<b>2</b>	<0.1%	0	11	44	55	<0.1%
Motorcycle/Moped/Scooter	6	5.7%	143	0.9%	53	0.1%	<b>202</b>	0.3%	3	124	56	183	0.3%
Off-Road vehicles	1	1.0%	6	<0.1%	6	<0.1%	<b>13</b>	<0.1%	<1	4	2	15	<0.1%

Note: Counts of vehicles in the 2010-2014 average may not add to the total due to rounding.

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: 2015, 2010-2014 Average

Vehicle Type	2015 Collision Severity				2010-2014 Average			
	Fatal	Injury	PDO	2015 Total	Fatal	Injury	PDO	Total
Light Duty Vehicles	1.1	217.7	612.3	<b>831.1</b>	1.3	183.7	601.8	786.8
Passenger vehicles	1.0	240.7	637.0	<b>878.7</b>	1.2	201.4	625.8	828.4
Light trucks	1.5	135.2	523.9	<b>660.6</b>	1.9	117.6	512.1	631.6
NSC Commercial Vehicles	2.0	45.6	154.3	<b>201.9</b>	2.1	73.0	274.1	349.3
PSV Vehicles	0.0	0.0	1.6	<b>1.6</b>	0.0	10.3	40.2	50.9
Motorcycle/Moped/Scooter	4.4	104.1	38.6	<b>147.1</b>	2.5	103.2	46.5	152.2

Light duty vehicles, including passenger vehicles, minivans, and light trucks, represent 97% of the vehicles involved in all traffic collisions in 2015, the same as 2014 and similar to the previous five year (2010 to 2014) annual average (95%). Commercial vehicles represent 3% of the vehicles involved (similar to the 5% 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 831.1 in 2015 and 786.8 in the previous five year (2010 to 2014) annual average. NSC commercial vehicles have an involvement rate of 201.9 in 2014 and 349.3 in the previous five years.

Motorcycles (including scooters and mopeds) have the lowest rates of involvement in traffic collisions among all vehicle types examined. Motorcycles have a rate of involvement of 147.1 in 2015 and 152.2 for the previous five year (2010 to 2014) annual average.

Only two PSV vehicles were recorded as being involved in traffic collisions in 2015 and none were recorded for 2014; they had an involvement rate of 50.9 in the previous five years. This involvement rate has been falling in recent years due to this vehicle type no longer being captured consistently since the reporting change that took effect in October 2011.

Motorcycles (including scooters and mopeds) are much more likely than light duty vehicles to be involved in a fatal collision. In 2015, motorcycles have an involvement rate of 4.4 in fatal collisions, nearly four times the involvement rate of light duty vehicles in fatal collisions (1.1). In the previous five year (2010 to 2014) annual average, motorcycles had a vehicle involvement rate of 2.5 in fatal collisions, nearly double 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 2015, there are 59,716 drivers involved in traffic collisions. Of these:

- 103 are involved in fatal collisions;
- 16,088 are involved in injury collisions; and,
- 43,525 are involved in PDO collisions.

Drivers aged 16 to 24, 25 to 34, and those aged 35 to 44 account for the largest proportions of drivers (by age group) involved in traffic collisions in 2015.

Young drivers have a much higher rate of involvement in traffic collisions than older drivers. In 2015, drivers aged 16 to 24 years old have an involvement rate (per 10,000 licensed drivers) in traffic collisions of 1,009.4. This is:

- 1.2 times that of drivers aged 25 to 34 (rate of 826.0);
- 1.4 times that of drivers aged 35 to 44 (rate of 736.8);
- 1.5 times that of drivers aged 45 to 54 (rate of 652.7);
- 1.9 times that of drivers aged 55 to 64 (rate of 519.3); and,
- More than two-and-a-half times that of drivers aged 65 and older (rate of 381.3).

The majority of drivers involved in traffic collisions are male. Among all drivers involved in traffic collisions in 2015 where the driver gender is known, 60% are male and 40% are female.

- Fatal collisions: 79% are male drivers, 21% are female drivers.
- Injury collisions: 53% are male drivers, 47% are female drivers.
- PDO collisions: 63% are male drivers, 37% are female drivers.

The rate of involvement for men in traffic collisions in 2015 is 784.5, nearly one-and-a-half times that of females (560.0). Driver involvement rates in 2015:

- Fatal collisions: male rate – 1.8, female rate – 0.5
- Injury collisions: male rate – 185.6, female rate – 178.9
- PDO collisions: male rate – 597.1, female rate – 380.7

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 2015 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 other 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.

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. Changes to the reporting structure have resulted in significant improvements; only 0.2% of drivers are not identified by age in 2015 compared to nearly 5% in the five year (2010 to 2014) annual average. Likewise, gender is not always captured for each driver involved in a traffic collision, although improvements have been made here as well. In 2015, only 0.2% of the drivers involved in traffic collisions are not identified by gender compared with 4% in the previous five year (2010 to 2014) annual average.

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 2010 to 2014. 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: 2005 to 2015

Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2005	126	-	11,044	-	37,728	-	48,898	-
2006	145	15.1%	10,827	-2.0%	35,408	-6.1%	46,380	-5.1%
2007	135	-6.9%	10,696	-1.2%	33,983	-4.0%	44,814	-3.4%
2008	121	-10.4%	9,854	-7.9%	32,145	-5.4%	42,120	-6.0%
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%
<b>2015</b>	<b>103</b>	<b>14.4%</b>	<b>16,088</b>	<b>-0.2%</b>	<b>43,525</b>	<b>-3.5%</b>	<b>59,716</b>	<b>-2.6%</b>
2010-2014 Average*	110	-4.6%	13,194	13.3%	42,149	7.4%	55,452	8.7%

\* The '% change to previous year' for '2010-2014 Average' is an average rate of change for the five year period.

In 2015, there are 59,716 drivers involved in traffic collisions. Of these:

- 103 are involved in fatal collisions;
- 16,088 are involved in injury collisions; and,
- 43,525 are involved in PDO collisions.

Overall, the number of drivers involved in traffic collisions in 2015 decreased from 2014 (down 3%), but increased relative to the previous five year (2010 to 2014) annual average (up 8%). In 2015, there are:

- 1,578 fewer drivers involved in total collisions than in 2014, but 4,264 more than in the previous five years;
- 13 more drivers involved in fatal collisions than in 2014 (a 14% increase), but 7 fewer than in the previous five years (a 6% decrease);
- 32 fewer drivers involved in injury collisions compared to 2014 (a very small decrease), but 2,894 more than in the previous five years (a 22% increase); and,
- 1,559 fewer drivers involved in PDO collisions compared to 2014 (a nearly 4% decrease), but 1,376 more than in the previous five years (a 3% increase).

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

Table 8-2

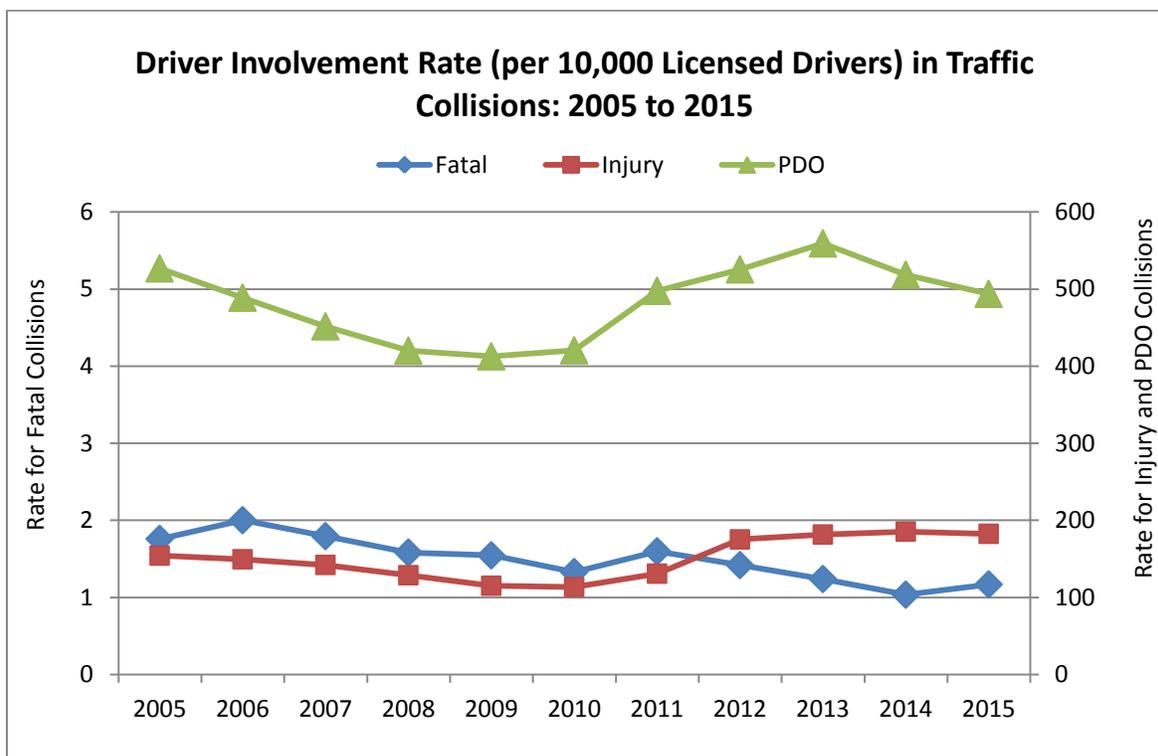
Historical Summary of Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions: 2005 to 2015

Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2005	1.8	-	154.2	-	526.8	-	682.8	-
2006	2.0	13.8%	149.5	-3.1%	488.8	-7.2%	640.3	-6.2%
2007	1.8	-10.4%	142.2	-4.9%	451.7	-7.6%	595.6	-7.0%
2008	1.6	-11.8%	128.8	-9.4%	420.2	-7.0%	550.6	-7.6%
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%
<b>2015</b>	<b>1.2</b>	<b>12.9%</b>	<b>182.5</b>	<b>-1.6%</b>	<b>493.9</b>	<b>-4.8%</b>	<b>677.6</b>	<b>-3.9%</b>
2010-2014 Average*	1.3	-6.8%	157.3	10.7%	504.3	5.0%	663.0	6.2%

\* The '% change to previous year' for '2010-2014 Average' is an average rate of change for the five year period.

The driver involvement rate (per 10,000 licensed drivers) in traffic collisions in 2015 is 677.6, a decrease of 4% compared to the rate in 2014 (705.1), but an increase of 2% from the previous five year (2010 to 2014) annual average (663.0). In 2015, driver involvement in:

- Fatal collisions (1.2) increased by 13% from 2014, but decreased by 12% compared to the previous five years;
- Injury collisions (182.5) decreased by 2% from 2014, but increased by 16% compared to the previous five years; and,
- PDO collisions (493.9) decreased by 5% from 2014, and by 2% compared to the previous five years.

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

The downward trend in the rate of involvement for drivers in PDO collisions had been fairly consistent between 2004 and 2008. Between 2009 and 2010, the rates were relatively stable and appear to have hit a low. The rate increased in 2011, 2012 and 2013, before falling in 2014 and 2015. The increases in driver involvement in PDO collisions in 2011 through 2015 are at least partially attributable to changes in the reporting structure that took effect in 2011.

The driver involvement rate for fatal and injury collisions had been steadily decreasing between 2004 and 2010 (the exception being a jump in the fatal collision rate in 2006). The driver involvement rate for injury collisions increased in 2011 through 2015, while the rate for fatal collisions has steadily decreased. The increases in driver involvement in injury collisions in 2011 through 2015 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: 2015, 2010-2014 Average

Age Group	2015 Collision Severity						2015 Total Collisions	% of 2015 Total Collisions*	2010-2014 Average Count of Drivers				
	Fatal	% of Total Fatal*	Injury	% of Total Injury*	PDO	% of Total PDO*			Fatal	Injury	PDO	Total	% of Total Collisions*
<16	1	1.0%	17	0.1%	54	0.1%	72	0.1%	0	7	31	38	<0.1%
16-19	12	11.7%	1,218	7.6%	3,386	7.8%	4,616	7.7%	11	1,046	3,595	4,653	8.8%
20-24	10	9.7%	1,916	11.9%	5,752	13.2%	7,678	12.9%	15	1,580	5,146	6,741	12.8%
25-34	21	20.4%	3,415	21.2%	9,195	21.2%	12,631	21.2%	22	2,664	8,026	10,712	20.3%
35-44	11	10.7%	3,046	18.9%	7,703	17.7%	10,760	18.1%	16	2,406	7,002	9,424	17.9%
45-54	21	20.4%	2,916	18.1%	7,302	16.8%	10,239	17.2%	17	2,347	7,083	9,447	17.9%
55-64	6	5.8%	2,101	13.1%	5,494	12.7%	7,601	12.8%	12	1,536	5,064	6,612	12.6%
65+	21	20.4%	1,445	9.0%	4,533	10.4%	5,999	10.1%	15	1,108	3,908	5,032	9.6%
Not Stated	0	-	14	-	106	-	120	-	1	500	2,294	2,794	-
<b>Total*</b>	<b>103</b>	<b>100%</b>	<b>16,088</b>	<b>100%</b>	<b>43,525</b>	<b>100%</b>	<b>59,716</b>	100%	110	13,194	42,149	55,452	100%

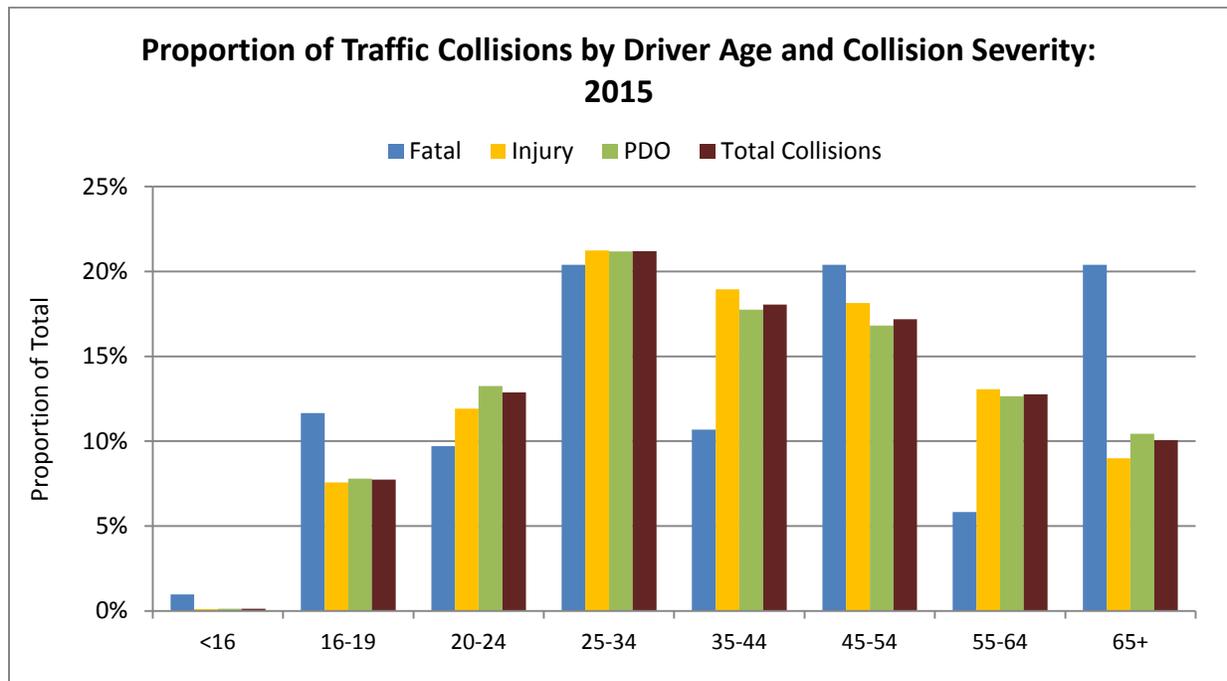
\*Percentage of the total does not include the 'not stated' category.

Note: Counts of drivers in the 2010-2014 average may not add to the total due to rounding.

Drivers aged 16 to 24 years old and those aged 25 to 34 account for the largest proportions of drivers (by age group) involved in traffic collisions in 2015.

- Total collisions: aged 16 to 24 – 21%; aged 25 to 34 – 21%; aged 35 to 44 – 18%; aged 45 to 54 – 17%; aged 55 to 64 – 13%; aged 65 and older – 10%.
- Fatal collisions: aged 16 to 24 – 21%; aged 25 to 34 – 20%; aged 35 to 44 – 11%; aged 45 to 54 – 20%; aged 55 to 64 – 6%; aged 65 and older – 20%.
- Injury collisions: aged 16 to 24 – nearly 20%; aged 25 to 34 – 21%; aged 35 to 44 – 19%; aged 45 to 54 – 18%; aged 55 to 64 – 13%; aged 65 and older – 9%.
- PDO collisions: aged 16 to 24 – 21%; aged 25 to 34 – 21%; aged 35 to 44 – 18%; aged 45 to 54 – 17%; aged 55 to 64 – 13%; aged 65 and older – 10%.

**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: 2015, 2010-2014 Average

Age Group	2015 Collision Severity			2015 Total Collisions	2010-2014 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
<16	-	-	-	-	-	-	-	-
16-19	2.5	255.7	710.9	<b>969.1</b>	2.3	215.1	739.2	956.6
20-24	1.3	258.3	775.6	<b>1,035.3</b>	2.1	226.0	735.8	963.9
25-34	1.4	223.3	601.3	<b>826.0</b>	1.6	190.7	574.5	766.8
35-44	0.8	208.6	527.5	<b>736.8</b>	1.1	171.8	499.9	672.8
45-54	1.3	185.9	465.5	<b>652.7</b>	1.1	145.7	439.6	586.3
55-64	0.4	143.5	375.3	<b>519.3</b>	0.9	113.0	372.6	486.5
65+	1.3	91.8	288.1	<b>381.3</b>	1.1	80.2	282.9	364.3

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 2015, drivers aged 16 to 24 years old have an involvement rate (per 10,000 licensed drivers) in traffic collisions of 1,009.4. This is:

- 1.2 times that of drivers aged 25 to 34 (rate of 826.0);
- 1.4 times that of drivers aged 35 to 44 (rate of 736.8);
- 1.5 times that of drivers aged 45 to 54 (rate of 652.7);
- 1.9 times that of drivers aged 55 to 64 (rate of 519.3); and,
- More than two-and-a-half times that of drivers aged 65 and older (rate of 381.3).

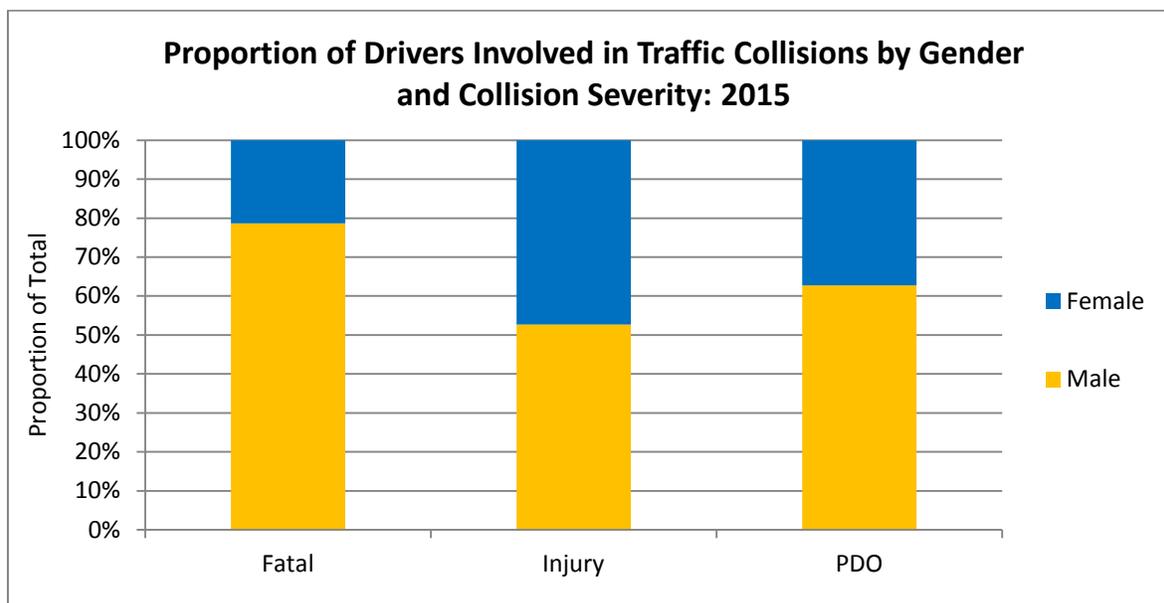
**Table 8-5 Drivers Involved in Traffic Collisions by Gender and Age Group and Collision Severity**Table 8-5  
Total Drivers Involved in Traffic Collisions by Gender and Age Group and Collision Severity: 2015, 2010-2014 Average

Gender - Age Group		2015 Collision Severity						2015 Total Collisions	% of 2015 Total Collisions*	2010-2014 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	-	7	<0.1%	18	0.1%	25	0.1%	<1	3	15	18	<0.1%
	16-19	3	13.6%	574	7.6%	1,258	7.8%	1,835	7.7%	4	481	1,394	1,879	9.0%
	20-24	2	9.1%	947	12.5%	2,150	13.3%	3,099	13.0%	5	763	1,960	2,728	13.1%
	25-34	6	27.3%	1,652	21.7%	3,469	21.5%	5,127	21.6%	5	1,298	3,009	4,312	20.6%
	35-44	0	-	1,474	19.4%	2,925	18.1%	4,399	18.5%	4	1,164	2,746	3,914	18.7%
	45-54	7	31.8%	1,397	18.4%	2,691	16.6%	4,095	17.2%	5	1,109	2,617	3,731	17.9%
	55-64	0	-	967	12.7%	2,032	12.6%	2,999	12.6%	2	698	1,814	2,514	12.0%
	65+	4	18.2%	582	7.7%	1,625	10.1%	2,211	9.3%	4	449	1,338	1,791	8.6%
	Not Stated	0	-	1	-	8	-	9	-	<1	58	255	313	-
	<b>Total Female*</b>	<b>22</b>	<b>100%</b>	<b>7,601</b>	<b>100%</b>	<b>16,176</b>	<b>100%</b>	<b>23,799</b>	<b>100%</b>	<b>28</b>	<b>6,024</b>	<b>15,147</b>	<b>21,199</b>	<b>100%</b>
Male	<16	1	1.2%	10	0.1%	36	0.1%	47	0.1%	<1	3	16	19	<0.1%
	16-19	9	11.1%	643	7.6%	2,123	7.8%	2,775	7.8%	8	563	2,191	2,762	8.7%
	20-24	8	9.9%	969	11.4%	3,595	13.2%	4,572	12.8%	10	814	3,171	3,995	12.6%
	25-34	15	18.5%	1,762	20.8%	5,723	21.0%	7,500	21.0%	18	1,359	4,993	6,370	20.1%
	35-44	11	13.6%	1,572	18.6%	4,777	17.5%	6,360	17.8%	12	1,238	4,238	5,488	17.3%
	45-54	14	17.3%	1,519	17.9%	4,609	16.9%	6,142	17.2%	12	1,234	4,449	5,696	18.0%
	55-64	6	7.4%	1,133	13.4%	3,462	12.7%	4,601	12.9%	10	836	3,241	4,087	12.9%
	65+	17	21.0%	862	10.2%	2,907	10.7%	3,786	10.6%	11	657	2,564	3,232	10.2%
	Not Stated	0	-	2	-	19	-	21	-	<1	99	439	538	-
	<b>Total Male*</b>	<b>81</b>	<b>100%</b>	<b>8,472</b>	<b>100%</b>	<b>27,251</b>	<b>100%</b>	<b>35,804</b>	<b>100%</b>	<b>82</b>	<b>6,803</b>	<b>25,302</b>	<b>32,186</b>	<b>100%</b>

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

Note: Counts of drivers in the 2010-2014 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 2015 where the driver gender is known, 60% are male and 40% are female.

- Fatal collisions: 79% are male drivers, 21% are female drivers.
- Injury collisions: 53% are male drivers, 47% are female drivers.
- PDO collisions: 63% are male drivers, 37% 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 2015:

- Male drivers aged 16 to 24 account for 12% of all collisions, nearly 17% of fatal collisions, 10% of injury collisions, and 13% of PDO collisions;
- Male drivers aged 25 to 34 account for 13% of all collisions, 15% of fatal collisions, 11% of injury collisions, and 13% of PDO collisions;
- Female drivers aged 16 to 24 account for 8% of all collisions, 5% of fatal collisions, nearly 10% of injury collisions and 8% of PDO collisions; and,
- Female drivers aged 25 to 34 account for 9% of all collisions, 6% of fatal collisions, 10% 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: 2015, 2010-2014 Average

Age Group - Gender		2015 Collision Severity						2015 Total Collisions	% of 2015 Total Collisions*	2010-2014 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	-	7	<0.1%	18	<0.1%	25	<0.1%	<1	3	15	18	<0.1%
	Male	1	1.0%	10	<0.1%	36	<0.1%	47	<0.1%	<1	3	16	19	<0.1%
16 to 24	Female	5	4.9%	1,521	9.5%	3,408	7.9%	4,934	8.3%	8	1,244	3,354	4,607	8.8%
	Male	17	16.5%	1,612	10.0%	5,718	13.2%	7,347	12.3%	18	1,377	5,362	6,757	12.9%
25 to 34	Female	6	5.8%	1,652	10.3%	3,469	8.0%	5,127	8.6%	5	1,298	3,009	4,312	8.2%
	Male	15	14.6%	1,762	11.0%	5,723	13.2%	7,500	12.6%	18	1,359	4,993	6,370	12.1%
35 to 44	Female	0	-	1,474	9.2%	2,925	6.7%	4,399	7.4%	4	1,164	2,746	3,914	7.4%
	Male	11	10.7%	1,572	9.8%	4,777	11.0%	6,360	10.7%	12	1,238	4,238	5,488	10.4%
45 to 54	Female	7	6.8%	1,397	8.7%	2,691	6.2%	4,095	6.9%	5	1,109	2,617	3,731	7.1%
	Male	14	13.6%	1,519	9.5%	4,609	10.6%	6,142	10.3%	12	1,234	4,449	5,696	10.8%
55 to 64	Female	0	-	967	6.0%	2,032	4.7%	2,999	5.0%	2	698	1,814	2,514	4.8%
	Male	6	5.8%	1,133	7.1%	3,462	8.0%	4,601	7.7%	10	836	3,241	4,087	7.8%
65 and older	Female	4	3.9%	582	3.6%	1,625	3.7%	2,211	3.7%	4	449	1,338	1,791	3.4%
	Male	17	16.5%	862	5.4%	2,907	6.7%	3,786	6.4%	11	657	2,564	3,232	6.2%
Not Stated	Female	0	-	1	-	8	-	9	-	<1	58	255	313	-
	Male	0	-	2	-	19	-	21	-	<1	99	439	538	-
Total	Female	22	21.4%	7,601	47.2%	16,176	37.2%	23,799	39.9%	27	6,024	15,147	21,199	39.7%
	Male	81	78.6%	8,472	52.6%	27,251	62.7%	35,804	60.0%	82	6,803	25,302	32,186	60.2%

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

Note: Counts of drivers in the 2010-2014 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: 2015, 2010-2014 Average

Gender - Age Group		2015 Collision Severity			2015 Total Collisions	2010-2014 Average			
		Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Female	<16	-	-	-	-	-	-	-	-
	16-19	1.3	250.3	548.7	<b>800.3</b>	1.6	203.6	590.1	795.4
	20-24	0.6	265.3	602.3	<b>868.1</b>	1.4	225.4	579.1	805.8
	25-34	0.8	222.6	467.4	<b>690.9</b>	0.7	191.5	444.1	636.3
	35-44	0.0	207.3	411.3	<b>618.5</b>	0.5	171.4	404.3	576.2
	45-54	0.9	184.9	356.2	<b>542.1</b>	0.6	143.3	338.1	482.0
	55-64	0.0	136.9	287.6	<b>424.5</b>	0.2	106.4	276.3	383.0
	65+	0.5	77.8	217.2	<b>295.5</b>	0.7	69.0	205.5	275.2
	Total	0.5	178.9	380.7	<b>560.0</b>	0.7	150.1	377.5	528.3
Male	<16	-	-	-	-	-	-	-	-
	16-19	3.6	260.3	859.4	<b>1,123.3</b>	3.0	225.1	875.9	1,103.9
	20-24	2.1	251.9	934.6	<b>1,188.5</b>	2.9	225.5	879.0	1,107.3
	25-34	1.9	223.9	727.1	<b>952.9</b>	2.4	189.0	694.0	885.4
	35-44	1.5	209.8	637.6	<b>848.9</b>	1.7	171.6	587.3	760.6
	45-54	1.7	186.8	566.7	<b>755.3</b>	1.5	147.4	531.5	680.4
	55-64	0.8	149.6	457.1	<b>607.5</b>	1.5	118.9	461.2	581.6
	65+	2.1	104.4	352.2	<b>458.8</b>	1.5	90.0	350.9	442.4
	Total	1.8	185.6	597.1	<b>784.5</b>	1.9	157.4	585.4	744.7

The rate of involvement for men in traffic collisions in 2015 is 784.5, nearly one-and-a-half times that of females (560.0). Driver involvement rates in 2015:

- Fatal collisions: male rate – 1.8, female rate – 0.5
- Injury collisions: male rate – 185.6, female rate – 178.9
- PDO collisions: male rate – 597.1, female rate – 380.7

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 2015, 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 male drivers aged 35 and older.

Compared to the previous five year (2010 to 2014) annual average, driver involvement rates for all gender-age groups increased for overall traffic collisions, injury collisions, and PDO collisions in 2015.

Driver involvement rates in fatal collisions show some changes. Comparing 2015 to the previous five year (2010 to 2014) annual average:

- Female involvement rates in fatal collisions decreased by 25% overall, but increased by 56% among drivers aged 45 to 54.
- Male involvement rates in fatal collisions decreased 6% overall. However, the rates among male drivers age 16 to 19 increased by 20%, while the rates for male drivers aged 65 and older increased by 37%.

## 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 2015, 69% of all collisions have some at-fault contributing factor recorded (87% of fatal collisions; 75% of injury collisions). In 2015:

- A driver action is a contributing factor in 62% of all **collisions** (81% of fatal collisions; 72% of injury collisions; 59% of PDO collisions);
- A human condition is a contributing factor in 1% of all **collisions** (25% of fatal collisions; nearly 2% of injury collisions; less than 1% of PDO collisions); and,
- Environmental conditions are contributing factors in 10% of all **collisions** (nearly 15% of fatal collisions; 6% of injury collisions; 11% of PDO collisions).

The most prevalent **contributing factors recorded for collisions** in 2015 include:

- Distracted driving – 23% of all collisions (36% fatal; 25% injury; 22% PDO);
- “Following too closely” – 17% of all collisions (3% fatal; 28% injury; 14% PDO);
- Speed – 7% of all collisions (19% fatal; 8% injury; 7% PDO);
- “Backing unsafely” – 7% of all collisions (none fatal; 2% injury; 9% PDO);
- “Turning improperly” – 6% of all collisions (6% fatal; 8% injury; nearly 6% PDO);
- “Fail to yield right-of-way” – nearly 6% of all collisions (12% fatal; 9% injury; 5% PDO);
- “Changing lanes improperly” – 5% of all collisions (none fatal; 4% injury; 5% PDO);
- The actions of a wild animal – 5% of all collisions (1% fatal; 1% injury; nearly 6% PDO);
- “Lost control/Drive off the road” – 4% of all collisions (13% fatal; 4% injury; 4% PDO); and,
- “Slippery road surface” – 3% of all collisions (6% fatal; 3% injury; 3% PDO).

Considering the **victims from collisions** in 2015:

- 74% of all victims resulted from a collision where at least one driver is noted as having a driver action contributing to the collision (78% of people killed; 78% of people seriously injured);
- 2% of all victims resulted from a collision where at least one driver is noted as having a human condition contributing to the collision (23% of people killed; 12% of people seriously injured); and,
- 6% of all victims resulted from a collision where environmental conditions are noted as contributing to the collision (17% of people killed; 12% of people seriously injured).

The most prevalent contributing factors recorded for collisions where **people are killed or seriously injured** in 2015 include:

- Distracted driving – 36% of people killed and 32% of people seriously injured;
- Speed – 17% of people killed and nearly 15% of people seriously injured;
- “Lost control/Drive off the road” – 13% of people killed and 13% of people seriously injured;
- “Turning improperly” – 5% of people killed and 11% of people seriously injured;
- “Fail to yield right-of-way” – nearly 12% of people killed and 10% of people seriously injured;
- Impaired – nearly 21% of people killed and 6% of people seriously injured;
- “Following too closely” – 3% of the people killed and 8% of people seriously injured;
- “Leave stop sign before safe to do so” – 6% of people killed and nearly 7% of people seriously injured;
- “Disobey traffic control” – 8% of people killed and 6% of people seriously injured; and,
- “Slippery road surface” – 5% of the people killed and 6% of people seriously injured.

In 2015, 49% of the **drivers involved in traffic collisions** were recorded as not being at-fault in the collision while 2% did not have any contributing factors identified.

- 44% of the drivers involved in a fatal collision were noted as not being at-fault.
- 54% of the drivers in an injury collision were noted as not being at-fault.
- 48% of the drivers in a PDO collision were noted as not being at-fault.

Driver actions were recorded for 44% of the **drivers involved in traffic collisions** in 2015.

- Nearly 52% of the drivers involved in fatal collisions had a driver action recorded.
- Nearly 42% of the drivers involved in injury collisions had a driver action recorded.
- 45% of the drivers involved in PDO collisions had a driver action recorded.

Human conditions were recorded as contributing factors for less than 1% of the **drivers involved in traffic collisions** in 2015.

- 14% of the drivers involved in fatal collisions had a human condition recorded.
- 1% of the drivers involved in injury collisions had a human condition recorded.
- Less than 1% of the drivers involved in PDO collisions had a human condition recorded.

Environmental conditions were recorded as contributing factors for 7% of **drivers involved in traffic collisions** in 2015.

- 10% of the drivers involved in fatal collisions had some environmental condition recorded.
- Nearly 4% of the drivers involved in injury collisions had some environmental condition recorded.
- 8% of the drivers involved in PDO collisions had some environmental condition recorded.

In 2015, the **driver involvement rate** (per 10,000 licensed drivers) in traffic collisions where:

- Any driver action is a contributing factor is 296.7, increased by 32% from the previous five years (224.8);
- Any human condition is a contributing factor is 3.3, decreased by 69% from the previous five years (10.7);
- Environmental conditions are a contributing factor is 45.4, decreased by 45% from the previous five years (82.7);
- Distracted driving is a contributing factor is 107.4, increased 88% from the previous five years (57.1);
- Speed is a contributing factor is 35.1, increased by 45% from the previous five years (24.2); and,
- Impaired is a contributing factor is 1.5, decreased by nearly 30% from the previous five years (2.2).

### Major Elements Examined

Counts of drivers involved in collisions in Manitoba for 2015 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. In 2015, 0.2% of drivers are not identified by age. In the five year annual average (2010 to 2014), 5% of drivers were not identified by age.

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 2010 to 2014. 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: 2015

Contributing Factor	2015 Collision Severity						2015 Total Collisions	% of 2015 Total Collisions
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	40	58.0%	7,510	82.3%	20,766	64.2%	28,316	68.2%
Driver Action - Driving properly	1	1.4%	175	1.9%	354	1.1%	530	1.3%
Any Driver Action	56	81.2%	6,612	72.4%	19,209	59.4%	25,877	62.3%
Follow too closely	2	2.9%	2,523	27.6%	4,433	13.7%	6,958	16.7%
Turning improperly	4	5.8%	768	8.4%	1,792	5.5%	2,564	6.2%
Passing improperly	3	4.3%	25	0.3%	123	0.4%	151	0.4%
Changing lanes improperly	0	-	335	3.7%	1,579	4.9%	1,914	4.6%
Fail to yield right-of-way	8	11.6%	782	8.6%	1,482	4.6%	2,272	5.5%
Disobey traffic control device/officer	6	8.7%	245	2.7%	249	0.8%	500	1.2%
Drive wrong way on roadway	1	1.4%	11	0.1%	16	<0.1%	28	<0.1%
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-
Back unsafely	0	-	202	2.2%	2,838	8.8%	3,040	7.3%
Parking improperly	1	1.4%	11	0.1%	140	0.4%	152	0.4%
Lost control/Drive off road	9	13.0%	382	4.2%	1,198	3.7%	1,589	3.8%
Driverless vehicle ran out of control	1	1.4%	6	<0.1%	31	<0.1%	38	<0.1%
Leave stop sign before safe to do so	4	5.8%	310	3.4%	530	1.6%	844	2.0%
Failed to signal	0	-	9	<0.1%	12	<0.1%	21	<0.1%
Take avoiding action	0	-	76	0.8%	412	1.3%	488	1.2%
Driver inexperience	3	4.3%	44	0.5%	129	0.4%	176	0.4%
Pedestrian error/confusion	5	7.2%	16	0.2%	34	0.1%	55	0.1%
NET Speed	13	18.8%	745	8.2%	2,334	7.2%	3,092	7.4%
Exceeding speed limit	3	4.3%	16	0.2%	29	<0.1%	48	0.1%
Driving too fast for conditions	7	10.1%	719	7.9%	2,279	7.0%	3,005	7.2%
Unsafe operating speed (Too fast or too slow)	3	4.3%	17	0.2%	28	<0.1%	48	0.1%
NET Distracted driving	25	36.2%	2,260	24.8%	7,178	22.2%	9,463	22.8%
Careless Driving	20	29.0%	2,095	23.0%	6,828	21.1%	8,943	21.5%
Distraction/Inattention	7	10.1%	232	2.5%	477	1.5%	716	1.7%

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2015 Collision Severity						2015 Total Collisions	% of 2015 Total Collisions
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	18	26.1%	1,628	17.8%	5,934	18.3%	7,580	18.2%
Any Human Condition	17	24.6%	141	1.5%	139	0.4%	297	0.7%
Loss of consciousness/Blackout prior to collision	0	-	31	0.3%	12	<0.1%	43	0.1%
Extreme fatigue/Fell asleep	0	-	22	0.2%	44	0.1%	66	0.2%
Defective eyesight	0	-	3	<0.1%	2	<0.1%	5	<0.1%
Defective hearing	1	1.4%	0	-	0	-	1	<0.1%
Medical disability	0	-	12	0.1%	8	<0.1%	20	<0.1%
Physical disability	1	1.4%	2	<0.1%	2	<0.1%	5	<0.1%
Mental disability	0	-	3	<0.1%	2	<0.1%	5	<0.1%
Mental confusion/Inability to remember	0	-	20	0.2%	8	<0.1%	28	<0.1%
Sudden illness	1	1.4%	3	<0.1%	4	<0.1%	8	<0.1%
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-
NET Impaired	15	21.7%	61	0.7%	64	0.2%	140	0.3%
Ability impaired alcohol	12	17.4%	48	0.5%	49	0.2%	109	0.3%
Ability impaired drugs	1	1.4%	5	<0.1%	1	<0.1%	7	<0.1%
Had been drinking/Suspected alcohol use	3	4.3%	15	0.2%	18	<0.1%	36	<0.1%
No Apparent (Vehicle) Defect	47	68.1%	7,884	86.4%	24,352	75.3%	32,283	77.7%
Any Vehicle Defect	2	2.9%	29	0.3%	269	0.8%	300	0.7%
Defective brakes	0	-	6	<0.1%	16	<0.1%	22	<0.1%
Defective steering	0	-	2	<0.1%	13	<0.1%	15	<0.1%
Defective headlights	0	-	0	-	0	-	0	-
Defective brake lights	0	-	0	-	5	<0.1%	5	<0.1%
Defective lighting (unspecified)	0	-	0	-	0	-	0	-
Defective engine controls/drive train	0	-	2	<0.1%	4	<0.1%	6	<0.1%
Defective suspension/wheels	0	-	4	<0.1%	45	0.1%	49	0.1%
Defective tires	1	1.4%	5	<0.1%	68	0.2%	74	0.2%
Tow hitch/yoke defective	0	-	0	-	25	<0.1%	25	<0.1%
Defective exhaust system	0	-	0	-	0	-	0	-
Hood/tailgate/door/covering opened	0	-	1	<0.1%	3	<0.1%	4	<0.1%
Defective glazing (obscured windows)	0	-	0	-	3	<0.1%	3	<0.1%
Vehicle modifications	0	-	0	-	2	<0.1%	2	<0.1%
Fire	0	-	1	<0.1%	0	-	1	<0.1%
Overloaded/oversized	0	-	1	<0.1%	3	<0.1%	4	<0.1%
Load shifted/spilled	0	-	2	<0.1%	21	<0.1%	23	<0.1%

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2015 Collision Severity						2015 Total Collisions	% of 2015 Total Collisions
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Jack-knife/trailer swing	0	-	3	<0.1%	60	0.2%	63	0.2%
Hydroplaning tires	1	1.4%	2	<0.1%	9	<0.1%	12	<0.1%
Any Environmental Condition	10	14.5%	572	6.3%	3,418	10.6%	4,000	9.6%
Animal action – Wild	1	1.4%	106	1.2%	1,785	5.5%	1,892	4.6%
Animal action – Domestic	0	-	7	<0.1%	26	<0.1%	33	<0.1%
Slippery road surface	4	5.8%	303	3.3%	1,050	3.2%	1,357	3.3%
Snow drift	0	-	5	<0.1%	40	0.1%	45	0.1%
Obstruction/debris on roadway	0	-	16	0.2%	175	0.5%	191	0.5%
View obstructed/limited	2	2.9%	53	0.6%	100	0.3%	155	0.4%
Glare/reflection	0	-	11	0.1%	30	<0.1%	41	<0.1%
Construction zone	0	-	3	<0.1%	12	<0.1%	15	<0.1%
Defective driving surface	2	2.9%	7	<0.1%	73	0.2%	82	0.2%
Shoulders defective	0	-	2	<0.1%	7	<0.1%	9	<0.1%
Lane markings inadequate	0	-	1	<0.1%	3	<0.1%	4	<0.1%
Defective/inoperative traffic control device	0	-	7	<0.1%	11	<0.1%	18	<0.1%
Weather	2	2.9%	61	0.7%	142	0.4%	205	0.5%
Pedestrian corridor in use	0	-	6	<0.1%	5	<0.1%	11	<0.1%
Uninvolved vehicle	0	-	9	<0.1%	18	<0.1%	27	<0.1%
Uninvolved pedestrian	0	-	2	<0.1%	2	<0.1%	4	<0.1%
Presence of prior accident	0	-	1	<0.1%	2	<0.1%	3	<0.1%
No Contributing Factor(s) Identified	11	15.9%	490	5.4%	1,071	3.3%	1,572	3.8%
Not Stated	0	-	14	0.2%	59	0.2%	73	0.2%
<b>Total</b>	<b>69</b>	<b>100%</b>	<b>9,127</b>	<b>100%</b>	<b>32,352</b>	<b>100%</b>	<b>41,548</b>	<b>100.0%</b>

\*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: 2010-2014 Average

Contributing Factor	2010-2014 Average Count				
	Fatal	Injury	PDO	Total Collisions	% of Total Collisions
Driver Action - Driving Properly and Human Condition - Apparently Normal	31	5,444	15,365	20,840	57.0%
Driver Action - Driving properly	4	314	1,034	1,352	3.7%
Any Driver Action	59	4,306	14,241	18,605	50.9%
Following too closely	1	1,456	3,015	4,473	12.2%
Turning improperly	2	376	1,098	1,476	4.0%
Passing improperly	2	27	115	144	0.4%
Changing lanes improperly	<1	175	1,024	1,199	3.3%
Fail to yield right-of-way	8	479	1,134	1,621	4.4%
Disobey traffic control device/officer	5	165	281	450	1.2%
Drive wrong way on roadway	2	9	17	28	<0.1%
Passing a vehicle at pedestrian X-walk	<1	<1	<1	1	<0.1%
Back unsafely	-	131	1,927	2,058	5.6%
Parking improperly	<1	7	94	101	0.3%
Lost control/Drive off road	15	273	842	1,130	3.1%
Driverless vehicle ran out of control	-	2	15	17	<0.1%
Leave stop sign before safe to do so	2	193	404	600	1.6%
Failed to signal	-	4	11	14	<0.1%
Take avoiding action	2	67	331	401	1.1%
Driver inexperience	2	50	141	192	0.5%
Pedestrian error/confusion	3	37	14	54	0.1%
NET Speed	18	442	1,559	2,018	5.5%
Exceeding speed limit	5	14	24	43	0.1%
Driving too fast for conditions	8	399	1,487	1,895	5.2%
Unsafe operating speed (Too fast or too slow)	4	32	54	90	0.2%
NET Distracted driving	25	1,009	3,748	4,781	13.1%
Careless Driving	16	845	3,325	4,186	11.4%
Distraction/Inattention	10	190	473	674	1.8%
Human Condition - Apparently Normal	17	1,216	3,830	5,063	13.8%
Any Human Condition	33	290	589	913	2.5%
Loss of consciousness/Blackout prior to collision	2	24	14	40	0.1%
Extreme fatigue/Fell asleep	1	29	44	74	0.2%
Defective eyesight	<1	2	4	7	<0.1%
Defective hearing	-	<1	1	2	<0.1%
Medical disability	<1	5	6	11	<0.1%
Physical disability	<1	3	4	6	<0.1%
Mental disability	1	3	1	5	<0.1%
Mental confusion/Inability to remember	<1	7	11	18	<0.1%
Sudden illness	<1	4	4	8	<0.1%
Exceed hours of service (commercial drivers only)	-	-	<1	<1	<0.1%
NET Impaired	21	71	100	192	0.5%
Ability impaired alcohol	14	47	68	128	0.4%
Ability impaired drugs	<1	2	4	7	<0.1%
Had been drinking/Suspected alcohol use	7	25	34	66	0.2%
No Apparent (Vehicle) Defect	47	5,688	15,984	21,720	59.4%
Any Vehicle Defect	2	37	178	217	0.6%
Defective brakes	<1	9	23	32	<0.1%
Defective steering	-	2	7	9	<0.1%
Defective headlights	<1	<1	1	2	<0.1%
Defective brake lights	-	<1	2	3	<0.1%
Defective lighting (unspecified)	<1	1	2	4	<0.1%

(continued on next page)

(continued from previous page)

Contributing Factor	2010-2014 Average Count				
	Fatal	Injury	PDO	Total Collisions	% of Total Collisions
Defective engine controls/drive train	-	3	8	11	<0.1%
Defective suspension/wheels	-	3	25	28	<0.1%
Defective tires	<1	7	39	46	0.1%
Tow hitch/yoke defective	-	1	13	14	<0.1%
Defective exhaust system	<1	<1	<1	<1	<0.1%
Hood/tailgate/door/covering opened	-	<1	3	4	<0.1%
Defective glazing (obscured windows)	-	1	2	3	<0.1%
Vehicle modifications	-	<1	<1	1	<0.1%
Fire	-	<1	2	2	<0.1%
Overloaded/oversized	-	<1	2	2	<0.1%
Load shifted/spilled	-	2	14	16	<0.1%
Jack-knife/trailer swing	<1	1	33	34	<0.1%
Hydroplaning tires	-	3	3	6	<0.1%
Any Environmental Condition	10	716	6,103	6,830	18.7%
Animal action - Wild	<1	209	4,107	4,316	11.8%
Animal action - Domestic	<1	12	95	107	0.3%
Slippery road surface	4	321	1,289	1,614	4.4%
Snow drift	-	16	109	126	0.3%
Obstruction/debris on roadway	<1	14	133	147	0.4%
View obstructed/limited	1	44	129	174	0.5%
Glare/reflection	-	16	31	47	0.1%
Construction zone	-	6	21	26	<0.1%
Defective driving surface	<1	26	86	112	0.3%
Shoulders defective	<1	5	9	14	<0.1%
Lane markings inadequate	-	1	6	8	<0.1%
Defective/inoperative traffic control device	<1	3	6	10	<0.1%
Weather	3	58	166	227	0.6%
Pedestrian corridor in use	<1	8	5	13	<0.1%
Uninvolved vehicle	<1	6	25	32	<0.1%
Uninvolved pedestrian	-	3	6	9	<0.1%
Presence of prior accident	-	4	6	10	<0.1%
No Contributing Factor(s) Identified	11	1,471	4,510	5,992	16.4%
Not Stated	-	29	89	118	0.3%
Total	79	7,545	28,963	36,587	100%

Note: Counts of collisions in the 2010-2014 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 2015, 69% of **all collisions** have at least one driver noted as having an at-fault contributing factor<sup>2</sup>. Most fatal collisions (87%) have at least one driver with an at-fault contributing factor while 75% of injury collisions do. In the previous five year (2010 to 2014) annual average, 68% of all collisions have at least one driver noted as having an at-fault contributing factor, including 86% of fatal collisions and 65% of injury collisions.

In 2015:

- A driver action is a contributing factor in 62% of all collisions (81% of fatal collisions; 72% of injury collisions; 59% of PDO collisions);
- A human condition is a contributing factor in 1% of all collisions (25% of fatal collisions; nearly 2% of injury collisions; less than 1% of PDO collisions); and,
- Environmental conditions are contributing factors in 10% of all collisions (nearly 15% of fatal collisions; 6% of injury collisions; 11% of PDO collisions); and,
- Some vehicle defect is noted as contributing factor in 1% of all collisions, including 2 fatal collisions.

In the five year (2010 to 2014) annual average:

- 51% of all collisions have at least one driver noted as having a driver action (74% of fatal collisions; 57% of injury collisions; 49% of PDO collisions);
- Nearly 3% of all collisions have at least one driver noted as having a human condition (42% of fatal collisions; 4% of injury collisions; 2% of PDO collisions);
- 19% of all collisions have an environmental condition noted as contributing to the collision (12% of fatal collisions; nearly 10% of injury collisions; 21% of PDO collisions); and,
- 1% 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 2015 include:

- Distracted driving – 23% of all collisions (36% fatal; 25% injury; 22% PDO);
- “Following too closely” – 17% of all collisions (3% fatal; 28% injury; 14% PDO);
- Speed – 7% of all collisions (19% fatal; 8% injury; 7% PDO);
- “Backing unsafely” – 7% of all collisions (none fatal; 2% injury; 9% PDO);
- “Turning improperly” – 6% of all collisions (6% fatal; 8% injury; nearly 6% PDO);
- “Fail to yield right-of-way” – nearly 6% of all collisions (12% fatal; 9% injury; 5% PDO);
- “Changing lanes improperly” – 5% of all collisions (none fatal; 4% injury; 5% PDO);
- The actions of a wild animal – 5% of all collisions (1% fatal; 1% injury; nearly 6% PDO);
- “Lost control/Drive off the road” – 4% of all collisions (13% fatal; 4% injury; 4% PDO); and,
- “Slippery road surface” – 3% of all collisions (6% fatal; 3% injury; 3% PDO).

NOTE: For a detailed count of contributing factors recorded for collisions occurring in each year from 2010 to 2015, please refer to “*Table 9-6 Historical Summary of Contributing Factors to a Collision*” at the end of this section.

<sup>2</sup> 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: 2015

Contributing Factor	2015 Casualty Type								2015 Total Casualties	% of 2015 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	47	60.3%	236	56.9%	9,758	84.7%	9,994	83.7%	<b>10,041</b>	<b>83.6%</b>
Driver Action - Driving properly	2	2.6%	14	3.4%	239	2.1%	253	2.1%	<b>255</b>	<b>2.1%</b>
Any Driver Action	61	78.2%	324	78.1%	8,547	74.2%	8,871	74.3%	<b>8,932</b>	<b>74.3%</b>
Following too closely	2	2.6%	32	7.7%	3,352	29.1%	3,384	28.3%	<b>3,386</b>	<b>28.2%</b>
Turning improperly	4	5.1%	46	11.1%	1,031	8.9%	1,077	9.0%	<b>1,081</b>	<b>9.0%</b>
Passing improperly	3	3.8%	3	0.7%	31	0.3%	34	0.3%	<b>37</b>	<b>0.3%</b>
Changing lanes improperly	0	-	7	1.7%	384	3.3%	391	3.3%	<b>391</b>	<b>3.3%</b>
Fail to yield right-of-way	9	11.5%	40	9.6%	1,093	9.5%	1,133	9.5%	<b>1,142</b>	<b>9.5%</b>
Disobey traffic control device/officer	6	7.7%	25	6.0%	362	3.1%	387	3.2%	<b>393</b>	<b>3.3%</b>
Drive wrong way on roadway	1	1.3%	1	0.2%	20	0.2%	21	0.2%	<b>22</b>	<b>0.2%</b>
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Back unsafely	0	-	1	0.2%	230	2.0%	231	1.9%	<b>231</b>	<b>1.9%</b>
Parking improperly	1	1.3%	0	-	11	<0.1%	11	<0.1%	<b>12</b>	<b>&lt;0.1%</b>
Lost control/Drive off road	10	12.8%	55	13.3%	415	3.6%	470	3.9%	<b>480</b>	<b>4.0%</b>
Driverless vehicle ran out of control	1	1.3%	0	-	10	<0.1%	10	<0.1%	<b>11</b>	<b>&lt;0.1%</b>
Leave stop sign before safe to do so	5	6.4%	27	6.5%	418	3.6%	445	3.7%	<b>450</b>	<b>3.7%</b>
Failed to signal	0	-	0	-	11	<0.1%	11	<0.1%	<b>11</b>	<b>&lt;0.1%</b>
Take avoiding action	0	-	4	1.0%	88	0.8%	92	0.8%	<b>92</b>	<b>0.8%</b>
Driver inexperience	3	3.8%	9	2.2%	46	0.4%	55	0.5%	<b>58</b>	<b>0.5%</b>
Pedestrian error/confusion	5	6.4%	4	1.0%	17	0.1%	21	0.2%	<b>26</b>	<b>0.2%</b>
NET Speed	13	16.7%	60	14.5%	920	8.0%	980	8.2%	<b>993</b>	<b>8.3%</b>
Exceeding speed limit	3	3.8%	6	1.4%	15	0.1%	21	0.2%	<b>24</b>	<b>0.2%</b>
Driving too fast for conditions	7	9.0%	52	12.5%	894	7.8%	946	7.9%	<b>953</b>	<b>7.9%</b>
Unsafe operating speed (Too fast or too slow)	3	3.8%	5	1.2%	16	0.1%	21	0.2%	<b>24</b>	<b>0.2%</b>
NET Distracted driving	28	35.9%	133	32.0%	2,940	25.5%	3,073	25.7%	<b>3,101</b>	<b>25.8%</b>
Careless Driving	23	29.5%	118	28.4%	2,697	23.4%	2,815	23.6%	<b>2,838</b>	<b>23.6%</b>
Distraction/Inattention	7	9.0%	30	7.2%	328	2.8%	358	3.0%	<b>365</b>	<b>3.0%</b>

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2015 Casualty Type								2015 Total Casualties	% of 2015 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	20	25.6%	79	19.0%	2,118	18.4%	2,197	18.4%	2,217	18.4%
Any Human Condition	18	23.1%	48	11.6%	160	1.4%	208	1.7%	226	1.9%
Loss of consciousness/Blackout prior to collision	0	-	17	4.1%	22	0.2%	39	0.3%	39	0.3%
Extreme fatigue/Fell asleep	0	-	3	0.7%	25	0.2%	28	0.2%	28	0.2%
Defective eyesight	0	-	1	0.2%	3	<0.1%	4	<0.1%	4	<0.1%
Defective hearing	1	1.3%	0	-	1	<0.1%	1	<0.1%	2	<0.1%
Medical disability	0	-	0	-	14	0.1%	14	0.1%	14	0.1%
Physical disability	1	1.3%	1	0.2%	2	<0.1%	3	<0.1%	4	<0.1%
Mental disability	0	-	1	0.2%	3	<0.1%	4	<0.1%	4	<0.1%
Mental confusion/Inability to remember	0	-	7	1.7%	20	0.2%	27	0.2%	27	0.2%
Sudden illness	1	1.3%	0	-	3	<0.1%	3	<0.1%	4	<0.1%
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-	0	-
NET Impaired	16	20.5%	24	5.8%	81	0.7%	105	0.9%	121	1.0%
Ability impaired alcohol	13	16.7%	21	5.1%	63	0.5%	84	0.7%	97	0.8%
Ability impaired drugs	2	2.6%	1	0.2%	6	<0.1%	7	<0.1%	9	<0.1%
Had been drinking/Suspected alcohol use	3	3.8%	4	1.0%	20	0.2%	24	0.2%	27	0.2%
No Apparent (Vehicle) Defect	54	69.2%	280	67.5%	10,154	88.1%	10,434	87.4%	10,488	87.3%
Any Vehicle Defect	2	2.6%	4	1.0%	29	0.3%	33	0.3%	35	0.3%
Defective brakes	0	-	0	-	8	<0.1%	8	<0.1%	8	<0.1%
Defective steering	0	-	0	-	2	<0.1%	2	<0.1%	2	<0.1%
Defective headlights	0	-	0	-	0	-	0	-	0	-
Defective brake lights	0	-	0	-	0	-	0	-	0	-
Defective lighting (unspecified)	0	-	0	-	0	-	0	-	0	-
Defective engine controls/drive train	0	-	0	-	2	<0.1%	2	<0.1%	2	<0.1%
Defective suspension/wheels	0	-	0	-	4	<0.1%	4	<0.1%	4	<0.1%
Defective tires	1	1.3%	3	0.7%	4	<0.1%	7	<0.1%	8	<0.1%
Tow hitch/yoke defective	0	-	0	-	0	-	0	-	0	-
Defective exhaust system	0	-	0	-	0	-	0	-	0	-
Hood/tailgate/door/covering opened	0	-	0	-	1	<0.1%	1	<0.1%	1	<0.1%
Defective glazing (obscured windows)	0	-	0	-	0	-	0	-	0	-
Vehicle modifications	0	-	0	-	0	-	0	-	0	-
Fire	0	-	1	0.2%	0	-	1	<0.1%	1	<0.1%
Overloaded/oversized	0	-	0	-	1	<0.1%	1	<0.1%	1	<0.1%

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2015 Casualty Type								2015 Total Casualties	% of 2015 Total Casualties
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Other Injuries	% of Total Other Injuries	Total Injuries	% of Total Injuries		
Load shifted/spilled	0	-	0	-	2	<0.1%	2	<0.1%	2	<0.1%
Jack-knife/trailer swing	0	-	0	-	3	<0.1%	3	<0.1%	3	<0.1%
Hydroplaning tires	1	1.3%	0	-	2	<0.1%	2	<0.1%	3	<0.1%
Any Environmental Condition	13	16.7%	50	12.0%	701	6.1%	751	6.3%	764	6.4%
Animal action – Wild	1	1.3%	7	1.7%	122	1.1%	129	1.1%	130	1.1%
Animal action – Domestic	0	-	1	0.2%	11	<0.1%	12	0.1%	12	<0.1%
Slippery road surface	4	5.1%	25	6.0%	383	3.3%	408	3.4%	412	3.4%
Snow drift	0	-	0	-	6	<0.1%	6	<0.1%	6	<0.1%
Obstruction/debris on roadway	0	-	1	0.2%	23	0.2%	24	0.2%	24	0.2%
View obstructed/limited	5	6.4%	6	1.4%	64	0.6%	70	0.6%	75	0.6%
Glare/reflection	0	-	1	0.2%	14	0.1%	15	0.1%	15	0.1%
Construction zone	0	-	0	-	5	<0.1%	5	<0.1%	5	<0.1%
Defective driving surface	2	2.6%	2	0.5%	8	<0.1%	10	<0.1%	12	<0.1%
Shoulders defective	0	-	1	0.2%	1	<0.1%	2	<0.1%	2	<0.1%
Lane markings inadequate	0	-	0	-	2	<0.1%	2	<0.1%	2	<0.1%
Defective/inoperative traffic control device	0	-	0	-	9	<0.1%	9	<0.1%	9	<0.1%
Weather	2	2.6%	13	3.1%	66	0.6%	79	0.7%	81	0.7%
Pedestrian corridor in use	0	-	1	0.2%	5	<0.1%	6	<0.1%	6	<0.1%
Uninvolved vehicle	0	-	0	-	11	<0.1%	11	<0.1%	11	<0.1%
Uninvolved pedestrian	0	-	0	-	2	<0.1%	2	<0.1%	2	<0.1%
Presence of prior accident	0	-	0	-	1	<0.1%	1	<0.1%	1	<0.1%
No Contributing Factor(s) Identified	11	14.1%	36	8.7%	603	5.2%	639	5.4%	650	5.4%
Not Stated	0	-	1	0.2%	15	0.1%	16	0.1%	16	0.1%
<b>Total</b>	<b>78</b>	<b>100%</b>	<b>415</b>	<b>100.0%</b>	<b>11,524</b>	<b>100.0%</b>	<b>11,939</b>	<b>100.0%</b>	<b>12,017</b>	<b>100.0%</b>

\*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: 2010-2014 Average

Contributing Factor	2010-2014 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	36	154	6,946	7,100	7,137	72.8%
Driver Action - Driving properly	5	15	419	434	439	4.5%
Any Driver Action	67	186	5,445	5,630	5,697	58.1%
Following too closely	2	12	1,827	1,838	1,840	18.8%
Turning improperly	2	12	489	501	502	5.1%
Passing improperly	3	3	35	39	41	0.4%
Changing lanes improperly	<1	2	216	218	219	2.2%
Fail to yield right-of-way	9	25	646	671	680	6.9%
Disobey traffic control device/officer	5	11	234	245	250	2.6%
Drive wrong way on roadway	3	2	13	15	18	0.2%
Passing a vehicle at pedestrian X-walk	<1	<1	<1	<1	<1	<0.1%
Back unsafely	-	1	149	150	150	1.5%
Parking improperly	<1	<1	8	8	9	<0.1%
Lost control/Drive off road	15	40	330	370	385	3.9%
Driverless vehicle ran out of control	-	-	2	2	2	<0.1%
Leave stop sign before safe to do so	2	12	263	276	278	2.8%
Failed to signal	-	-	4	4	4	<0.1%
Take avoiding action	2	5	81	85	88	0.9%
Driver inexperience	2	5	67	72	74	0.8%
Pedestrian error/confusion	3	5	36	41	45	0.5%
NET Speed	21	42	563	605	626	6.4%
Exceeding speed limit	6	6	21	27	33	0.3%
Driving too fast for conditions	10	25	506	531	541	5.5%
Unsafe operating speed (Too fast or too slow)	6	11	42	53	59	0.6%
NET Distracted driving	29	59	1,272	1,331	1,360	13.9%
Careless Driving	19	44	1,054	1,098	1,117	11.4%
Distraction/Inattention	11	18	254	272	283	2.9%
Human Condition - Apparently Normal	19	65	1,555	1,620	1,639	16.7%
Any Human Condition	37	58	373	430	467	4.8%
Loss of consciousness/Blackout prior to collision	2	5	23	28	30	0.3%
Extreme fatigue/Fell asleep	1	5	31	36	38	0.4%
Defective eyesight	<1	<1	3	3	4	<0.1%
Defective hearing	-	-	<1	<1	<1	<0.1%
Medical disability	<1	1	6	7	7	<0.1%
Physical disability	<1	-	4	4	4	<0.1%
Mental disability	1	1	5	6	7	<0.1%
Mental confusion/Inability to remember	<1	2	8	10	10	0.1%
Sudden illness	<1	1	3	4	5	<0.1%
Exceed hours of service (commercial drivers only)	-	-	-	-	-	-
NET Impaired	24	31	101	132	156	1.6%
Ability impaired alcohol	15	22	66	88	104	1.1%
Ability impaired drugs	<1	1	4	5	5	<0.1%
Had been drinking/Suspected alcohol use	9	10	36	46	55	0.6%
No Apparent (Vehicle) Defect	55	190	7,228	7,418	7,473	76.3%
Any Vehicle Defect	2	4	48	53	55	0.6%
Defective brakes	<1	<1	12	12	13	0.1%
Defective steering	-	<1	3	3	3	<0.1%
Defective headlights	<1	<1	2	2	3	<0.1%

(continued on next page)

(continued from previous page)

Contributing Factor	2010-2014 Average Count of Casualties					
	Killed	Serious Injury	Other Injuries	Total Injuries	Total Casualties	% of Total Casualties
Defective brake lights	-	<1	1	2	2	<0.1%
Defective lighting (unspecified)	<1	<1	1	2	2	<0.1%
Defective engine controls/drive train	-	<1	4	4	4	<0.1%
Defective suspension/wheels	-	<1	4	5	5	<0.1%
Defective tires	<1	1	10	12	12	0.1%
Tow hitch/yoke defective	-	-	2	2	2	<0.1%
Defective exhaust system	<1	-	<1	<1	<1	<0.1%
Hood/tailgate/door/covering opened	-	-	<1	<1	<1	<0.1%
Defective glazing (obscured windows)	-	-	1	1	1	<0.1%
Vehicle modifications	-	-	<1	<1	<1	<0.1%
Fire	-	-	<1	<1	<1	<0.1%
Overloaded/oversized	-	-	<1	<1	<1	<0.1%
Load shifted/spilled	-	<1	1	2	2	<0.1%
Jack-knife/trailer swing	<1	<1	2	2	2	<0.1%
Hydroplaning tires	-	<1	3	3	3	<0.1%
Any Environmental Condition	12	45	890	935	946	9.7%
Animal action - Wild	<1	9	240	249	249	2.5%
Animal action - Domestic	<1	<1	14	15	15	0.2%
Slippery road surface	5	16	417	434	438	4.5%
Snow drift	-	<1	21	22	22	0.2%
Obstruction/debris on roadway	<1	1	17	19	19	0.2%
View obstructed/limited	1	5	54	58	60	0.6%
Glare/reflection	-	<1	21	22	22	0.2%
Construction zone	-	<1	8	9	9	<0.1%
Defective driving surface	<1	4	33	37	37	0.4%
Shoulders defective	<1	<1	5	6	6	<0.1%
Lane markings inadequate	-	<1	2	2	2	<0.1%
Defective/inoperative traffic control device	<1	<1	4	5	5	<0.1%
Weather	4	6	77	84	87	0.9%
Pedestrian corridor in use	<1	<1	7	8	8	<0.1%
Uninvolved vehicle	<1	<1	10	10	10	0.1%
Uninvolved pedestrian	-	<1	3	4	4	<0.1%
Presence of prior accident	-	-	7	7	7	<0.1%
No Contributing Factor(s) Identified	12	68	1,813	1,882	1,893	19.3%
Not Stated	-	2	35	37	37	0.4%
Total	89	320	9,391	9,711	9,800	100%

Note: Counts of victims in the 2010-2014 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 2015, at-fault contributing factors are recorded for 77% of all **casualties**. At-fault contributing factors are recorded for:

- 83% of people killed;
- 85% of people seriously injured; and,
- 77% of victims with other injuries (including minor, minimal and undefined injuries).

In 2015, driver actions are recorded for 74% of **all victims** (78% of people killed and 78% of people seriously injured) while human conditions are recorded for 2% of all victims (23% of people killed and 12% of people seriously injured). Environmental conditions are recorded as a contributing factor for 6% of all victims (17% of people killed and 12% of people seriously injured).

In the previous five year (2010 to 2014) annual average, driver actions are recorded for 58% of all victims (75% of people killed and 58% of people seriously injured), while human conditions are recorded for 5% of all victims (41% of people killed and 18% of people seriously injured). Environmental conditions are recorded as a contributing factor for 10% of all victims, including for 13% of people killed and 14% of people seriously injured.

The most prevalent contributing factors recorded for collisions where **people are killed or seriously injured** in 2015 include:

- Distracted driving – 36% of people killed and 32% of people seriously injured;
- Speed – 17% of people killed and nearly 15% of people seriously injured;
- “Lost control/Drive off the road” – 13% of people killed and 13% of people seriously injured;
- “Turning improperly” – 5% of people killed and 11% of people seriously injured;
- “Fail to yield right-of-way” – nearly 12% of people killed and 10% of people seriously injured;
- Impaired – nearly 21% of people killed and 6% of people seriously injured;
- “Following too closely” – 3% of the people killed and 8% of people seriously injured;
- “Leave stop sign before safe to do so” – 6% of people killed and nearly 7% of people seriously injured;
- “Disobey traffic control” – 8% of people killed and 6% of people seriously injured; and,
- “Slippery road surface” – 5% of the people killed and 6% of people seriously injured.

NOTE: For a detailed count of contributing factors recorded for collisions occurring in each year from 2010 to 2015, 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: 2015

Contributing Factor	2015 Collision Severity						2015 Total Drivers	% of 2015 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	45	43.7%	8,352	51.9%	20,119	46.2%	<b>28,516</b>	<b>47.8%</b>
Driver Action - Driving properly	1	1.0%	180	1.1%	354	0.8%	<b>535</b>	<b>0.9%</b>
Any Driver Action	53	51.5%	6,682	41.5%	19,412	44.6%	<b>26,147</b>	<b>43.8%</b>
Following too closely	2	1.9%	2,536	15.8%	4,461	10.2%	<b>6,999</b>	<b>11.7%</b>
Turning improperly	4	3.9%	770	4.8%	1,803	4.1%	<b>2,577</b>	<b>4.3%</b>
Passing improperly	3	2.9%	25	0.2%	124	0.3%	<b>152</b>	<b>0.3%</b>
Changing lanes improperly	0	-	336	2.1%	1,617	3.7%	<b>1,953</b>	<b>3.3%</b>
Fail to yield right-of-way	7	6.8%	785	4.9%	1,486	3.4%	<b>2,278</b>	<b>3.8%</b>
Disobey traffic control device/officer	5	4.9%	247	1.5%	247	0.6%	<b>499</b>	<b>0.8%</b>
Drive wrong way on roadway	1	1.0%	11	<0.1%	15	<0.1%	<b>27</b>	<b>&lt;0.1%</b>
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Back unsafely	0	-	218	1.4%	2,865	6.6%	<b>3,083</b>	<b>5.2%</b>
Parking improperly	1	1.0%	11	<0.1%	134	0.3%	<b>146</b>	<b>0.2%</b>
Lost control/Drive off road	9	8.7%	381	2.4%	1,197	2.8%	<b>1,587</b>	<b>2.7%</b>
Driverless vehicle ran out of control	1	1.0%	6	<0.1%	30	<0.1%	<b>37</b>	<b>&lt;0.1%</b>
Leave stop sign before safe to do so	4	3.9%	310	1.9%	535	1.2%	<b>849</b>	<b>1.4%</b>
Failed to signal	0	-	9	<0.1%	12	<0.1%	<b>21</b>	<b>&lt;0.1%</b>
Take avoiding action	0	-	76	0.5%	412	0.9%	<b>488</b>	<b>0.8%</b>
Driver inexperience	3	2.9%	44	0.3%	127	0.3%	<b>174</b>	<b>0.3%</b>
Pedestrian error/confusion	1	1.0%	14	<0.1%	30	<0.1%	<b>45</b>	<b>&lt;0.1%</b>
NET Speed	13	12.6%	744	4.6%	2,333	5.4%	<b>3,090</b>	<b>5.2%</b>
Exceeding speed limit	3	2.9%	16	<0.1%	29	<0.1%	<b>48</b>	<b>&lt;0.1%</b>
Driving too fast for conditions	7	6.8%	718	4.5%	2,280	5.2%	<b>3,005</b>	<b>5.0%</b>
Unsafe operating speed (Too fast or too slow)	3	2.9%	17	0.1%	26	<0.1%	<b>46</b>	<b>&lt;0.1%</b>
NET Distracted driving	24	23.3%	2,261	14.1%	7,177	16.5%	<b>9,462</b>	<b>15.8%</b>
Careless Driving	19	18.4%	2,097	13.0%	6,831	15.7%	<b>8,947</b>	<b>15.0%</b>
Distraction/Inattention	7	6.8%	230	1.4%	469	1.1%	<b>706</b>	<b>1.2%</b>

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2015 Collision Severity						2015 Total Drivers	% of 2015 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	18	17.5%	1,608	10.0%	5,968	13.7%	7,594	12.7%
Any Human Condition	14	13.6%	141	0.9%	136	0.3%	291	0.5%
Loss of consciousness/Blackout prior to collision	0	-	31	0.2%	12	<0.1%	43	<0.1%
Extreme fatigue/Fell asleep	0	-	22	0.1%	44	0.1%	66	0.1%
Defective eyesight	0	-	3	<0.1%	2	<0.1%	5	<0.1%
Defective hearing	0	-	0	-	0	-	0	-
Medical disability	0	-	12	<0.1%	8	<0.1%	20	<0.1%
Physical disability	0	-	2	<0.1%	2	<0.1%	4	<0.1%
Mental disability	0	-	3	<0.1%	2	<0.1%	5	<0.1%
Mental confusion/Inability to remember	0	-	20	0.1%	8	<0.1%	28	<0.1%
Sudden illness	1	1.0%	3	<0.1%	4	<0.1%	8	<0.1%
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-
NET Impaired	13	12.6%	61	0.4%	61	0.1%	135	0.2%
Ability impaired alcohol	11	10.7%	48	0.3%	46	0.1%	105	0.2%
Ability impaired drugs	1	1.0%	5	<0.1%	1	<0.1%	7	<0.1%
Had been drinking/Suspected alcohol use	2	1.9%	15	<0.1%	18	<0.1%	35	<0.1%
No Apparent (Vehicle) Defect	66	64.1%	10,022	62.3%	26,268	60.4%	36,356	60.9%
Any Vehicle Defect	2	1.9%	29	0.2%	268	0.6%	299	0.5%
Defective brakes	0	-	6	<0.1%	16	<0.1%	22	<0.1%
Defective steering	0	-	2	<0.1%	12	<0.1%	14	<0.1%
Defective headlights	0	-	0	-	0	-	0	-
Defective brake lights	0	-	0	-	5	<0.1%	5	<0.1%
Defective lighting (unspecified)	0	-	0	-	0	-	0	-
Defective engine controls/drive train	0	-	2	<0.1%	4	<0.1%	6	<0.1%
Defective suspension/wheels	0	-	4	<0.1%	45	0.1%	49	<0.1%
Defective tires	1	1.0%	5	<0.1%	68	0.2%	74	0.1%
Tow hitch/yoke defective	0	-	0	-	25	<0.1%	25	<0.1%
Defective exhaust system	0	-	0	-	0	-	0	-
Hood/tailgate/door/covering opened	0	-	1	<0.1%	3	<0.1%	4	<0.1%
Defective glazing (obscured windows)	0	-	0	-	3	<0.1%	3	<0.1%
Vehicle modifications	0	-	0	-	2	<0.1%	2	<0.1%
Fire	0	-	1	<0.1%	0	-	1	<0.1%
Overloaded/oversized	0	-	1	<0.1%	3	<0.1%	4	<0.1%
Load shifted/spilled	0	-	2	<0.1%	21	-	1	<0.1%

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2015 Collision Severity						2015 Total Drivers	% of 2015 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Jack-knife/trailer swing	0	-	3	<0.1%	60	0.1%	63	0.1%
Hydroplaning tires	1	1.0%	2	<0.1%	9	<0.1%	12	<0.1%
Any Environmental Condition	10	9.7%	571	3.5%	3,419	7.9%	4,000	6.7%
Animal action – Wild	1	1.0%	106	0.7%	1,784	4.1%	1,891	3.2%
Animal action – Domestic	0	-	7	<0.1%	26	<0.1%	33	<0.1%
Slippery road surface	4	3.9%	304	1.9%	1,053	2.4%	1,361	2.3%
Snow drift	0	-	5	<0.1%	40	<0.1%	45	<0.1%
Obstruction/debris on roadway	0	-	16	<0.1%	174	0.4%	190	0.3%
View obstructed/limited	2	1.9%	53	0.3%	100	0.2%	155	0.3%
Glare/reflection	0	-	11	<0.1%	30	<0.1%	41	<0.1%
Construction zone	0	-	3	<0.1%	12	<0.1%	15	<0.1%
Defective driving surface	2	1.9%	7	<0.1%	73	0.2%	82	0.1%
Shoulders defective	0	-	2	<0.1%	7	<0.1%	9	<0.1%
Lane markings inadequate	0	-	1	<0.1%	3	<0.1%	4	<0.1%
Defective/inoperative traffic control device	0	-	7	<0.1%	10	<0.1%	17	<0.1%
Weather	2	1.9%	60	0.4%	142	0.3%	204	0.3%
Pedestrian corridor in use	0	-	5	<0.1%	5	<0.1%	10	<0.1%
Uninvolved vehicle	0	-	9	<0.1%	18	<0.1%	27	<0.1%
Uninvolved pedestrian	0	-	1	<0.1%	2	<0.1%	3	<0.1%
Presence of prior accident	0	-	1	<0.1%	2	<0.1%	3	<0.1%
No Contributing Factor(s) Identified	3	2.9%	420	2.6%	837	1.9%	1,260	2.1%
Not Stated	0	-	11	<0.1%	57	0.1%	68	0.1%
<b>Total</b>	<b>103</b>	<b>100%</b>	<b>16,088</b>	<b>100.0%</b>	<b>43,525</b>	<b>100.0%</b>	<b>59,716</b>	<b>100.0%</b>

\*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: 2010-2014 Average

Contributing Factor	2010-2014 Average Count of Drivers				
	Fatal	Injury	PDO	Total Drivers	% of Total Drivers
Driver Action - Driving Properly and Human Condition - Apparently Normal	33	6,144	16,143	22,320	40.3%
Driver Action - Driving properly	4	317	1,015	1,335	2.4%
Any Driver Action	57	4,318	14,363	18,738	33.8%
Following too closely	1	1,466	3,031	4,498	8.1%
Turning improperly	2	377	1,101	1,480	2.7%
Passing improperly	2	27	115	144	0.3%
Changing lanes improperly	<1	175	1,036	1,212	2.2%
Fail to yield right-of-way	6	475	1,140	1,621	2.9%
Disobey traffic control device/officer	3	163	283	450	0.8%
Drive wrong way on roadway	2	7	17	25	<0.1%
Passing a vehicle at pedestrian X-walk	<1	<1	<1	1	<0.1%
Back unsafely	-	139	1,932	2,071	3.7%
Parking improperly	<1	6	86	92	0.2%
Lost control/Drive off road	15	271	842	1,127	2.0%
Driverless vehicle ran out of control	-	2	12	14	<0.1%
Leave stop sign before safe to do so	2	193	407	603	1.1%
Failed to signal	-	4	10	14	<0.1%
Take avoiding action	2	67	333	401	0.7%
Driver inexperience	2	49	141	192	0.3%
Pedestrian error/confusion	2	11	10	23	<0.1%
NET Speed	18	440	1,561	2,019	3.6%
Exceeding speed limit	6	14	24	43	<0.1%
Driving too fast for conditions	9	399	1,489	1,896	3.4%
Unsafe operating speed (Too fast or too slow)	4	31	54	89	0.2%
NET Distracted driving	23	996	3,744	4,763	70.4%
Careless Driving	15	841	3,322	4,178	61.7%
Distraction/Inattention	9	180	473	662	9.8%
Human Condition - Apparently Normal	15	1,218	3,978	5,211	9.4%
Any Human Condition	29	273	588	890	1.6%
Loss of consciousness/Blackout prior to collision	2	23	14	39	<0.1%
Extreme fatigue/Fell asleep	1	29	44	74	0.1%
Defective eyesight	<1	2	4	6	<0.1%
Defective hearing	-	<1	1	1	<0.1%
Medical disability	<1	5	6	11	<0.1%
Physical disability	-	2	4	6	<0.1%
Mental disability	<1	2	1	4	<0.1%
Mental confusion/Inability to remember	<1	7	11	18	<0.1%
Sudden illness	<1	4	4	8	<0.1%
Exceed hours of service (commercial drivers only)	-	-	<1	<1	<0.1%
NET Impaired	19	64	99	181	0.3%
Ability impaired alcohol	13	41	66	121	0.2%
Ability impaired drugs	<1	2	4	6	<0.1%
Had been drinking/Suspected alcohol use	6	23	33	62	0.1%
No Apparent (Vehicle) Defect	56	7,091	18,432	25,579	46.1%
Any Vehicle Defect	2	35	176	213	0.4%
Defective brakes	<1	9	22	31	<0.1%
Defective steering	-	2	7	9	<0.1%
Defective headlights	<1	<1	1	2	<0.1%

(continued on next page)

(continued from previous page)

Contributing Factor	2010-2014 Average Count of Drivers				
	Fatal	Injury	PDO	Total Drivers	% of Total Drivers
Defective brake lights	-	<1	2	3	<0.1%
Defective lighting (unspecified)	<1	1	2	3	<0.1%
Defective engine controls/drive train	-	3	8	11	<0.1%
Defective suspension/wheels	-	3	25	28	<0.1%
Defective tires	<1	6	39	46	<0.1%
Tow hitch/yoke defective	-	1	12	14	<0.1%
Defective exhaust system	<1	<1	<1	<1	<0.1%
Hood/tailgate/door/covering opened	-	<1	3	3	<0.1%
Defective glazing (obscured windows)	-	1	2	3	<0.1%
Vehicle modifications	-	<1	<1	1	<0.1%
Fire	-	<1	2	2	<0.1%
Overloaded/oversized	-	<1	2	2	<0.1%
Load shifted/spilled	-	2	14	16	<0.1%
Jack-knife/trailer swing	<1	1	33	34	<0.1%
Hydroplaning tires	-	3	3	6	<0.1%
Any Environmental Condition	10	730	6,149	6,889	12.4%
Animal action - Wild	<1	209	4,108	4,318	7.8%
Animal action - Domestic	<1	12	95	108	12.4%
Slippery road surface	4	331	1,317	1,652	3.0%
Snow drift	-	17	112	129	0.2%
Obstruction/debris on roadway	<1	14	134	149	0.3%
View obstructed/limited	1	44	134	179	0.3%
Glare/reflection	-	16	31	48	<0.1%
Construction zone	-	6	22	28	<0.1%
Defective driving surface	<1	25	86	111	0.2%
Shoulders defective	<1	5	9	15	<0.1%
Lane markings inadequate	-	2	7	8	<0.1%
Defective/inoperative traffic control device	<1	3	7	10	<0.1%
Weather	3	60	170	234	0.4%
Pedestrian corridor in use	<1	6	5	11	<0.1%
Uninvolved vehicle	<1	6	26	33	<0.1%
Uninvolved pedestrian	-	2	6	8	<0.1%
Presence of prior accident	-	5	7	12	<0.1%
No Contributing Factor(s) Identified	7	1,600	5,163	6,770	12.2%
Not Stated	-	1	2	3	<0.1%
Total	110	13,194	42,149	55,452	100%

Note: Counts of drivers in the 2010-2014 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 2015, half of the **drivers involved in traffic collisions** (49%) are recorded as not being at-fault in the collision. Almost all of these drivers (48% overall) are noted in the traffic accident report (TAR) as both “driving properly” and being “apparently normal” at the time of a collision. Two percent of drivers have no contributing factors recorded for the collision.

- 44% of the drivers involved in a fatal collision are noted as not being at-fault.
- 54% of the drivers in an injury collision are noted as not being at-fault.
- 48% of the drivers in a PDO collision are noted as not being at-fault.

Driver actions are recorded for 44% of the **drivers involved in traffic collisions** in 2015. This is an increase from the previous five year (2010 to 2014) annual average, where driver actions are recorded for 34% of the drivers involved. In 2015:

- Nearly 52% of the drivers involved in **fatal collisions** have a driver action recorded, including:
  - 23% who are driving while distracted (including “careless driving” and “distraction/inattention”);
  - 13% who are speeding (including “exceeding speed limit”, “driving too fast for conditions” and “unsafe operating speed”);
  - 9% who “lost control/ drive off road”;
  - 7% who “fail to yield right-of-way”;
  - 5% who “disobey traffic control”;
  - 4% (each) who “leave stop sign before safe to do so” or are “turning improperly”, and,
  - 3% (each) who are “passing improperly” or are inexperienced drivers;
- Nearly 42% of the drivers involved in **injury collisions** have a driver action recorded, including:
  - 16% who are “following too closely”;
  - 14% who are driving while distracted; and,
  - 5% (each) who “fail to yield right-of-way”, are “turning improperly”, or are speeding;
- 45% of the drivers involved in **PDO collisions** have a driver action recorded, including:
  - Nearly 17% who are driving while distracted;
  - 10% who are “following too closely”;
  - 7% who are “back unsafely”;
  - 5% who are speeding;
  - 4% (each) who are “turning improperly” or “changing lanes improperly”; and,
  - 3% (each) who “fail to yield right-of-way” or “lost control/drive off road”.

Human conditions are recorded for nearly 1% of the **drivers involved in traffic collisions** in 2015, a decrease from the previous five year (2010 to 2014) annual average (2%). In 2015:

- 14% of the **drivers involved in fatal collisions** have a human condition recorded, including 13% who are impaired (including “ability impaired by alcohol”, “ability impaired by drugs” and “had been drinking/suspected alcohol use”); and,
- 1% of the **drivers involved in injury collisions** have a human condition recorded, including 0.4% who are impaired.

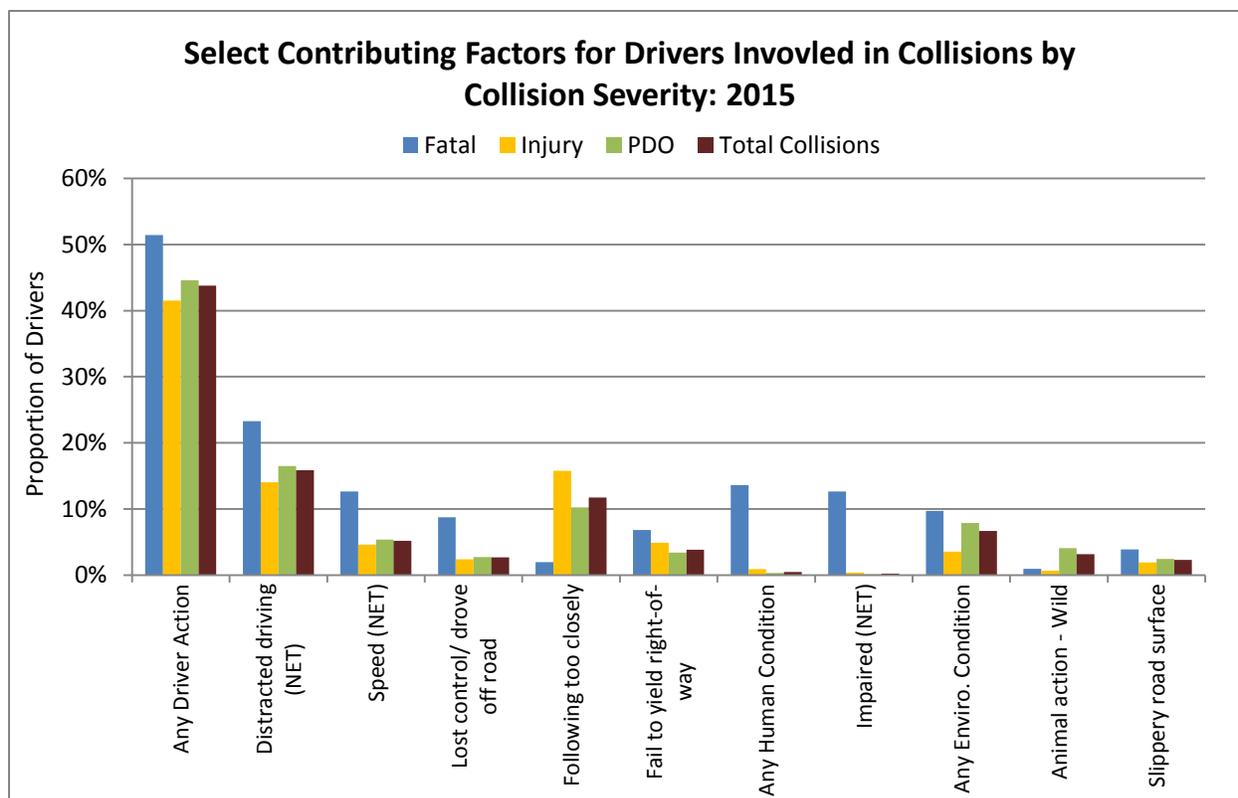
Some vehicle defect is recorded for 0.5% of drivers involved in traffic collisions in 2015 (0.4% in the previous five years, 2010 to 2014, annual average), including 2 drivers in a fatal collision.

Environmental conditions are recorded as contributing factors for 7% of **drivers involved in traffic collisions** (10% of fatal, nearly 4% of injury, and 8% of PDO) in 2015; compared to 12% in the previous five year (2010 to 2014) annual average. In 2015:

- 3% of drivers have “animal action – wild” recorded as a contributing factor (one fatal; 1% of injury; 4% of PDO); and,
- 2% of drivers have “slippery road surface” recorded as a contributing factor (4% of fatal; 2% of injury; 2% PDO).

NOTE: For a detailed count of contributing factors recorded for drivers involved in collisions occurring in each year from 2010 to 2015, 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 2015, driver actions and human conditions are most often recorded for fatal traffic collisions, with the most frequent of these being distracted driving, speeding, impaired driving, 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: 2015, 2010-2014 Average

Contributing Factor	2015 Collision Severity			2015 Total	2010-2014 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Any Driver Action	0.6	75.8	220.3	<b>296.7</b>	0.7	51.8	172.3	224.8
Following too closely	<0.1	28.8	50.6	<b>79.4</b>	<0.1	17.6	36.4	54.0
Turning improperly	<0.1	8.7	20.5	<b>29.2</b>	<0.1	4.5	13.2	17.8
Passing improperly	<0.1	0.3	1.4	<b>1.7</b>	<0.1	0.3	1.4	1.7
Changing lanes improperly	-	3.8	18.3	<b>22.2</b>	<0.1	2.1	12.4	14.5
Fail to yield right-of-way	<0.1	8.9	16.9	<b>25.8</b>	<0.1	5.7	13.7	19.4
Disobey traffic control device/officer	<0.1	2.8	2.8	<b>5.7</b>	<0.1	2.0	3.4	5.4
Drive wrong way on roadway	<0.1	0.1	0.2	<b>0.3</b>	<0.1	<0.1	0.2	0.3
Passing a vehicle at pedestrian X-walk	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Back unsafely	-	2.5	32.5	<b>35.0</b>	-	1.7	23.2	24.8
Parking improperly	<0.1	0.1	1.5	<b>1.7</b>	<0.1	<0.1	1.0	1.1
Lost control/Drive off road	0.1	4.3	13.6	<b>18.0</b>	0.2	3.2	10.1	13.5
Driverless vehicle ran out of control	<0.1	<0.1	0.3	<b>0.4</b>	-	<0.1	0.1	0.2
Leave stop sign before safe to do so	<0.1	3.5	6.1	<b>9.6</b>	<0.1	2.3	4.9	7.2
Failed to signal	-	0.1	0.1	<b>0.2</b>	-	<0.1	0.1	0.2
Take avoiding action	-	0.9	4.7	<b>5.5</b>	<0.1	0.8	4.0	4.8
Driver inexperience	<0.1	0.5	1.4	<b>2.0</b>	<0.1	0.6	1.7	2.3
Pedestrian error/confusion	<0.1	0.2	0.3	<b>0.5</b>	<0.1	0.1	0.1	0.3
NET Speed	0.1	8.4	26.5	<b>35.1</b>	0.2	5.3	18.7	24.2
Exceeding speed limit	<0.1	0.2	0.3	<b>0.5</b>	<0.1	0.2	0.3	0.5
Driving too fast for conditions	<0.1	8.1	25.9	<b>34.1</b>	0.1	4.8	17.9	22.8
Unsafe operating speed (Too fast or too slow)	<0.1	0.2	0.3	<b>0.5</b>	<0.1	0.4	0.6	1.1
NET Distracted driving	0.3	25.7	81.4	<b>107.4</b>	0.3	11.9	44.9	57.1
Careless Driving	0.2	23.8	77.5	<b>101.5</b>	0.2	10.1	39.9	50.1
Distraction/Inattention	<0.1	2.6	5.3	<b>8.0</b>	0.1	2.2	5.7	7.9

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2015 Collision Severity			2015 Total	2010-2014 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Any Human Condition	0.2	1.6	1.5	<b>3.3</b>	0.4	3.3	7.1	10.7
Loss of consciousness/Blackout prior to collision	-	0.4	0.1	<b>0.5</b>	<0.1	0.3	0.2	0.5
Extreme fatigue/Fell asleep	-	0.2	0.5	<b>0.7</b>	<0.1	0.3	0.5	0.9
Defective eyesight	-	<0.1	<0.1	<b>&lt;0.1</b>	<0.1	<0.1	<0.1	<0.1
Defective hearing	-	-	-	-	-	<0.1	<0.1	<0.1
Medical disability	-	0.1	<0.1	<b>0.2</b>	<0.1	<0.1	<0.1	0.1
Physical disability	-	<0.1	<0.1	<b>&lt;0.1</b>	-	<0.1	<0.1	<0.1
Mental disability	-	<0.1	<0.1	<b>&lt;0.1</b>	<0.1	<0.1	<0.1	<0.1
Mental confusion/Inability to remember	-	0.2	<0.1	<b>0.3</b>	<0.1	<0.1	0.1	0.2
Sudden illness	<0.1	<0.1	<0.1	<b>&lt;0.1</b>	<0.1	<0.1	<0.1	<0.1
Exceed hours of service (commercial drivers only)	-	-	-	-	-	-	<0.1	<0.1
NET Impaired	0.1	0.7	0.7	<b>1.5</b>	0.2	0.8	1.2	2.2
Ability impaired alcohol	0.1	0.5	0.5	<b>1.2</b>	0.2	0.5	0.8	1.5
Ability impaired drugs	<0.1	<0.1	<0.1	<b>&lt;0.1</b>	<0.1	<0.1	<0.1	<0.1
Had been drinking/Suspected alcohol use	<0.1	0.2	0.2	<b>0.4</b>	<0.1	0.3	0.4	0.7
Any Vehicle Defect	<0.1	0.3	3.0	<b>3.4</b>	<0.1	0.4	2.1	2.6
Defective brakes	-	<0.1	0.2	<b>0.2</b>	<0.1	0.1	0.3	0.4
Defective steering	-	<0.1	0.1	<b>0.2</b>	-	<0.1	<0.1	0.1
Defective headlights	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Defective brake lights	-	-	<0.1	<b>&lt;0.1</b>	-	<0.1	<0.1	<0.1
Defective lighting (unspecified)	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Defective engine controls/drive train	-	<0.1	<0.1	<b>&lt;0.1</b>	-	<0.1	<0.1	0.1
Defective suspension/wheels	-	<0.1	0.5	<b>0.6</b>	-	<0.1	0.3	0.3
Defective tires	<0.1	<0.1	0.8	<b>0.8</b>	<0.1	<0.1	0.5	0.5
Tow hitch/yoke defective	-	-	0.3	<b>0.3</b>	-	<0.1	0.1	0.2
Defective exhaust system	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Hood/tailgate/door/covering opened	-	<0.1	<0.1	<b>&lt;0.1</b>	-	<0.1	<0.1	<0.1
Defective glazing (obscured windows)	-	-	<0.1	<b>&lt;0.1</b>	-	<0.1	<0.1	<0.1
Vehicle modifications	-	-	<0.1	<b>&lt;0.1</b>	-	<0.1	<0.1	<0.1
Fire	-	<0.1	-	<b>&lt;0.1</b>	-	<0.1	<0.1	<0.1
Overloaded/oversized	-	<0.1	<0.1	<b>&lt;0.1</b>	-	<0.1	<0.1	<0.1

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2015 Collision Severity			2015 Total	2010-2014 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Load shifted/spilled	-	<0.1	0.2	<b>&lt;0.1</b>	-	<0.1	0.2	0.2
Jack-knife/trailer swing	-	<0.1	0.7	<b>0.7</b>	<0.1	<0.1	0.4	0.4
Hydroplaning tires	<0.1	<0.1	0.1	<b>0.1</b>	-	<0.1	<0.1	<0.1
Any Environmental Condition	0.1	6.5	38.8	<b>45.4</b>	0.1	8.8	73.8	82.7
Animal action – Wild	<0.1	1.2	20.2	<b>21.5</b>	<0.1	2.5	49.3	51.8
Animal action - Domestic	-	<0.1	0.3	<b>0.4</b>	<0.1	0.1	1.1	1.3
Slippery road surface	<0.1	3.4	11.9	<b>15.4</b>	<0.1	4.0	15.8	19.8
Snow drift	-	<0.1	0.5	<b>0.5</b>	-	0.2	1.3	1.5
Obstruction/debris on roadway	-	0.2	2.0	<b>2.2</b>	<0.1	0.2	1.6	1.8
View obstructed/limited	<0.1	0.6	1.1	<b>1.8</b>	<0.1	0.5	1.6	2.1
Glare/reflection	-	0.1	0.3	<b>0.5</b>	-	0.2	0.4	0.6
Construction zone	-	<0.1	0.1	<b>0.2</b>	-	<0.1	0.3	0.3
Defective driving surface	<0.1	<0.1	0.8	<b>0.9</b>	<0.1	0.3	1.0	1.3
Shoulders defective	-	<0.1	<0.1	<b>0.1</b>	<0.1	<0.1	0.1	0.2
Lane markings inadequate	-	<0.1	<0.1	<b>&lt;0.1</b>	-	<0.1	<0.1	<0.1
Defective/inoperative traffic control device	-	<0.1	0.1	<b>0.2</b>	<0.1	<0.1	<0.1	0.1
Weather	<0.1	0.7	1.6	<b>2.3</b>	<0.1	0.7	2.0	2.8
Pedestrian corridor in use	-	<0.1	<0.1	<b>0.1</b>	<0.1	<0.1	<0.1	0.1
Uninvolved vehicle	-	0.1	0.2	<b>0.3</b>	<0.1	<0.1	0.3	0.4
Uninvolved pedestrian	-	<0.1	<0.1	<b>&lt;0.1</b>	-	<0.1	<0.1	<0.1
Presence of prior accident	-	<0.1	<0.1	<b>&lt;0.1</b>	-	<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.

**Driver involvement rates** (per 10,000 licensed drivers) in collisions where an at-fault contributing factor has been recorded generally increased in 2015 compared to the previous five years (2010 to 2014) annual average. The observed change in involvement rates compared to the previous five-year average is at least partially attributable to the change in reporting structure that took effect in October 2011. This change, discussed in detail in the 2012 Traffic Collision Statistics Report, resulted in a significant increase in the number of drivers involved in PDO collisions and less severe injury collisions being reported in the Traffic Accident Report Database than in previous years.

In 2015, the **driver involvement rate** (per 10,000 licensed drivers) in traffic collisions where:

- Any driver action is a contributing factor is 296.7, increased by 32% from the previous five years (224.8);
- Any human condition is a contributing factor is 3.3, decreased by 69% from the previous five years (10.7);
- Environmental conditions are a contributing factor is 45.4, decreased by 45% from the previous five years (82.7);
- Distracted driving is a contributing factor is 107.4, increased by 88% from the previous five years (57.1);
- “Following too closely” is a contributing factor is 79.4, increased by 47% from the previous five years (54.0);
- Speed is a contributing factor is 35.1, increased by 45% from the previous five years (24.2);
- “Backing unsafely” is a contributing factor is 35.0, increased by 41% from the previous five years (24.8);
- “Turning improperly” is a contributing factor is 29.2, increased by 65% from the previous five years (17.8);
- “Fail to yield right-of-way” is a contributing factor is 25.8, increased by 33% from the previous five years (19.4);
- “Changing lanes improperly” is a contributing factor is 22.2, increased 52% from the previous five years (14.5);
- “Animal action - wild” is a contributing factor is 21.5, decreased by 59% from the previous five years (51.8);
- “Lost control/Drove off road” is a contributing factor is 18.0, increased by 33% from the previous five years (13.5);
- “Slippery road surface” is a contributing factor is 15.4, decreased by 22% from the previous five years (19.8);
- “Leave stop sign before safe to do so” is a contributing factor is 9.6, increased by 33% from the previous five years (7.2); and,
- Impaired is a contributing factor is 1.5, decreased by nearly 30% from the previous five years (2.2).

In 2015, the **driver involvement rate** (per 10,000 licensed drivers) in **fatal traffic collisions** where:

- A driver action is a contributing factor is 0.6, down from 0.7 in the previous five years;
- Distracted driving is a contributing factor is 0.3, relatively the same as the previous five years (0.3);
- A human condition is a contributing factor is 0.2, down from 0.4 in the previous five years;
- Speed is a contributing factor is 0.1, down from 0.2 in the previous five years;
- Impaired is a contributing factor is 0.1, down from 0.2 in the previous five years.
- An environmental condition is a contributing factor is 0.1, relatively the same as the previous five years; and,
- “Lost control/Drove off road” is a contributing factor is 0.1, down from 0.2 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: 2015

Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Any Driver Action	578.4	508.9	356.8	292.0	248.0	208.6	185.2
Following too closely	171.9	157.5	104.8	80.5	65.3	47.1	32.6
Turning improperly	55.0	49.1	34.9	27.5	24.6	19.3	22.0
Passing improperly	3.8	2.0	2.2	1.5	1.5	1.1	1.5
Changing lanes improperly	35.5	39.4	25.6	19.2	18.4	17.1	17.5
Fail to yield right-of-way	48.5	40.2	28.2	24.7	21.4	20.4	20.3
Disobey traffic control device/officer	11.5	10.0	6.5	4.8	5.1	3.8	4.1
Drive wrong way on roadway	0.6	0.5	0.4	0.4	0.1	0.2	0.2
Passing a vehicle at pedestrian X-walk	-	-	-	-	-	-	-
Back unsafely	38.0	35.7	33.1	36.0	35.8	38.0	30.8
Parking improperly	1.5	1.5	2.2	1.7	1.7	1.1	1.8
Lost control/Drive off road	55.4	38.6	24.3	17.2	11.0	9.6	6.1
Driverless vehicle ran out of control	0.8	0.4	0.6	<0.1	0.4	0.2	0.6
Leave stop sign before safe to do so	17.2	14.0	9.4	8.4	8.4	7.9	9.5
Failed to signal	0.4	0.5	0.5	0.3	<0.1	<0.1	0.1
Take avoiding action	10.9	10.2	7.8	6.1	4.3	3.1	2.4
Driver inexperience	13.0	5.3	1.8	0.8	0.9	0.8	0.4
Pedestrian error/confusion	1.5	0.3	0.3	1.0	0.5	0.3	0.3
NET Speed	88.0	71.2	46.8	36.7	27.0	18.1	12.7
Exceeding speed limit	1.3	1.1	0.8	0.5	0.3	0.4	0.3
Driving too fast for conditions	85.0	69.6	45.3	35.7	26.6	17.6	12.3
Unsafe operating speed (Too fast or too slow)	2.5	1.1	0.8	0.5	0.1	0.1	0.2
NET Distracted driving	208.9	185.9	128.5	105.8	88.1	72.2	71.2
Careless Driving	195.9	175.6	121.0	100.8	83.3	68.7	67.4
Distraction/Inattention	17.8	14.2	10.0	6.8	6.1	5.7	5.2
Any Human Condition	8.0	7.4	4.4	2.2	2.0	1.8	2.5
Loss of consciousness/Blackout prior to collision	1.0	0.9	0.3	0.3	0.3	0.4	0.7
Extreme fatigue/Fell asleep	2.5	3.0	0.9	0.3	0.3	0.3	0.3
Defective eyesight	-	-	-	-	-	<0.1	0.3
Defective hearing	-	-	-	-	-	-	-
Medical disability	-	0.3	0.1	0.1	0.1	0.3	0.4
Physical disability	-	-	<0.1	-	-	<0.1	0.1
Mental disability	0.2	-	0.2	-	-	-	<0.1
Mental confusion/Inability to remember	0.2	0.5	0.2	0.1	0.1	0.3	0.8
Sudden illness	0.2	0.1	-	-	<0.1	0.2	0.1
Exceed hours of service (commercial drivers only)	-	-	-	-	-	-	-
NET Impaired	4.0	3.2	2.8	1.4	1.1	0.5	0.3
Ability impaired alcohol	3.6	2.3	2.0	1.1	1.0	0.4	0.2
Ability impaired drugs	0.2	0.1	<0.1	0.1	0.1	-	-
Had been drinking/Suspected alcohol use	0.4	1.1	1.0	0.3	0.2	0.1	<0.1
Any Vehicle Defect	3.8	5.1	3.7	2.5	4.1	3.3	2.2
Defective brakes	0.6	0.3	0.1	0.2	0.4	<0.1	0.2
Defective steering	0.2	0.3	0.2	-	0.5	-	-
Defective headlights	-	-	-	-	-	-	-
Defective brake lights	0.2	0.3	-	-	0.1	-	-
Defective lighting (unspecified)	-	-	-	-	-	-	-
Defective engine controls/drive train	-	0.5	-	<0.1	<0.1	-	-
Defective suspension/wheels	0.4	0.5	0.9	0.1	0.7	0.5	0.5
Defective tires	1.5	1.5	1.0	0.9	0.8	0.8	0.3
Tow hitch/yoke defective	0.2	-	0.3	0.3	0.4	0.4	0.2
Defective exhaust system	-	-	-	-	-	-	-

(continued on next page)

(continued from previous page)

Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Hood/tailgate/door/covering opened	-	-	-	-	0.2	-	<0.1
Defective glazing (obscured windows)	-	-	0.1	-	-	-	<0.1
Vehicle modifications	-	-	<0.1	-	-	<0.1	-
Fire	-	-	-	<0.1	-	-	-
Overloaded/oversized	-	-	<0.1	<0.1	-	-	0.1
Load shifted/spilled	0.2	0.3	0.3	0.3	0.4	0.3	-
Jack-knife/trailer swing	0.2	1.2	0.7	0.3	0.6	1.0	0.9
Hydroplaning tires	0.2	0.4	0.1	0.3	<0.1	<0.1	-
Any Environmental Condition	74.1	76.5	55.5	51.3	44.2	31.0	20.9
Animal action - Wild	25.8	32.6	24.1	24.9	24.5	17.2	9.9
Animal action - Domestic	0.4	0.8	0.6	0.5	0.3	<0.1	0.3
Slippery road surface	35.7	29.4	21.2	16.9	12.0	8.4	5.5
Snow drift	0.6	0.8	0.9	0.4	0.8	0.1	0.1
Obstruction/debris on roadway	3.4	3.4	2.2	2.3	1.9	1.6	1.8
View obstructed/limited	1.9	3.0	2.2	2.1	1.3	0.9	1.7
Glare/reflection	0.8	0.7	0.4	0.5	0.2	0.6	0.4
Construction zone	0.4	0.3	0.1	0.3	0.2	<0.1	<0.1
Defective driving surface	1.9	2.0	1.1	0.9	1.0	0.6	0.1
Shoulders defective	0.2	-	0.1	0.1	<0.1	0.1	<0.1
Lane markings inadequate	0.2	-	0.1	-	-	-	<0.1
Defective/inoperative traffic control device	0.2	0.3	0.3	<0.1	0.3	0.2	0.1
Weather	2.9	4.3	3.1	2.5	2.0	1.5	1.3
Pedestrian corridor in use	-	-	0.2	0.1	<0.1	0.2	<0.1
Uninvolved vehicle	0.8	0.5	0.4	0.5	0.2	0.1	<0.1
Uninvolved pedestrian	-	-	-	0.1	-	<0.1	-
Presence of prior accident	-	-	-	<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: 2010-2014 Average

Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Any Driver Action	424.8	386.2	269.3	216.7	176.5	149.3	136.8
Following too closely	105.2	105.2	71.7	53.1	40.8	31.0	22.4
Turning improperly	29.9	27.9	20.8	15.2	13.5	12.7	13.9
Passing improperly	3.0	2.7	1.9	1.4	1.3	1.2	1.1
Changing lanes improperly	22.8	22.4	16.0	12.8	11.0	11.1	12.0
Fail to yield right-of-way	34.7	28.2	21.1	17.9	15.2	13.7	15.9
Disobey traffic control device/officer	9.0	8.2	5.6	4.5	3.5	3.8	4.1
Drive wrong way on roadway	0.6	0.4	0.3	0.3	0.2	0.2	0.2
Passing a vehicle at pedestrian X-walk	-	<0.1	<0.1	-	<0.1	<0.1	<0.1
Back unsafely	30.2	25.0	24.1	26.8	25.6	23.1	20.3
Parking improperly	1.2	1.3	1.3	1.0	1.0	0.9	1.1
Lost control/Drive off road	39.3	30.4	17.4	12.5	9.6	6.5	4.7
Driverless vehicle ran out of control	0.3	0.3	0.2	0.2	0.2	0.2	<0.1
Leave stop sign before safe to do so	13.5	10.1	7.1	6.7	5.5	5.4	7.0
Failed to signal	0.2	0.3	0.2	0.2	0.1	<0.1	0.1
Take avoiding action	9.8	10.8	6.4	5.1	3.6	2.6	1.5
Driver inexperience	18.8	4.7	1.9	2.7	0.7	0.4	0.3
Pedestrian error/confusion	0.2	0.3	0.4	0.3	0.2	0.3	0.2
NET Speed	59.8	49.7	33.0	25.2	16.5	11.9	8.8
Exceeding speed limit	2.3	1.4	0.6	0.6	0.2	<0.1	<0.1
Driving too fast for conditions	54.2	46.5	31.2	23.6	15.6	11.5	8.4
Unsafe operating speed (Too fast or too slow)	3.8	2.1	1.3	1.1	0.7	0.4	0.3
NET Distracted driving	106.1	102.0	70.0	54.0	44.9	38.5	36.9
Careless Driving	89.3	90.2	62.0	47.7	39.9	34.1	32.3
Distraction/Inattention	18.9	13.7	9.0	7.1	5.5	5.1	5.2
Any Human Condition	25.3	20.0	12.5	9.2	7.1	6.1	6.7
Loss of consciousness/Blackout prior to collision	0.5	0.7	0.4	0.4	0.3	0.4	0.6
Extreme fatigue/Fell asleep	3.2	2.1	1.4	0.6	0.5	0.4	0.2
Defective eyesight	<0.1	-	<0.1	<0.1	<0.1	<0.1	0.1
Defective hearing	-	-	-	-	<0.1	-	<0.1
Medical disability	<0.1	<0.1	0.1	<0.1	<0.1	0.2	0.3
Physical disability	<0.1	-	<0.1	<0.1	<0.1	<0.1	0.1
Mental disability	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mental confusion/Inability to remember	0.2	0.1	0.1	<0.1	<0.1	0.1	0.8
Sudden illness	-	<0.1	<0.1	<0.1	0.1	<0.1	0.2
Exceed hours of service (commercial drivers only)	-	-	-	-	<0.1	-	-
NET Impaired	5.0	5.6	3.1	1.9	1.4	0.7	0.3
Ability impaired alcohol	3.1	3.5	2.0	1.4	1.1	0.5	0.1
Ability impaired drugs	0.2	0.2	<0.1	<0.1	<0.1	<0.1	-
Had been drinking/Suspected alcohol use	2.1	2.2	1.1	0.5	0.4	0.2	0.1
Any Vehicle Defect	4.8	4.2	2.6	2.4	2.4	2.1	1.2
Defective brakes	1.1	0.6	0.4	0.5	0.2	0.2	0.1
Defective steering	0.3	0.3	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	0.2	<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	0.3	0.2	0.1	<0.1	<0.1	0.2	<0.1
Defective suspension/wheels	0.8	0.5	0.3	0.2	0.4	0.3	0.1
Defective tires	1.3	1.2	0.6	0.5	0.5	0.3	0.2
Tow hitch/yoke defective	<0.1	0.2	0.2	0.2	0.1	0.1	0.1
Defective exhaust system	-	<0.1	<0.1	-	-	-	-

(continued on next page)

(continued from previous page)

Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Hood/tailgate/door/covering opened	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Defective glazing (obscured windows)	0.2	<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
Overloaded/oversized	-	-	<0.1	<0.1	-	<0.1	<0.1
Load shifted/spilled	-	0.2	0.2	0.2	0.3	0.2	0.1
Jack-knife/trailer swing	0.3	0.5	0.4	0.6	0.4	0.4	0.3
Hydroplaning tires	0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1
Any Environmental Condition	121.4	125.0	97.6	85.0	83.3	65.5	39.7
Animal action - Wild	57.4	69.7	58.8	53.8	57.9	46.0	25.4
Animal action - Domestic	2.5	2.0	1.5	1.2	1.3	0.9	0.7
Slippery road surface	42.7	37.5	25.2	20.8	15.9	11.6	8.1
Snow drift	3.1	3.0	1.9	1.7	1.1	1.3	0.5
Obstruction/debris on roadway	2.3	2.6	2.2	1.8	1.6	1.5	1.1
View obstructed/limited	3.9	3.1	2.8	2.2	1.7	1.5	1.3
Glare/reflection	1.2	0.7	0.7	0.4	0.5	0.4	0.6
Construction zone	0.5	0.4	0.4	0.3	0.3	0.3	0.2
Defective driving surface	4.1	2.7	1.5	1.2	1.2	0.9	0.5
Shoulders defective	0.5	0.3	0.2	0.2	0.1	<0.1	0.1
Lane markings inadequate	0.2	0.3	<0.1	<0.1	<0.1	0.1	<0.1
Defective/inoperative traffic control device	0.3	<0.1	0.1	<0.1	0.1	<0.1	0.2
Weather	5.1	4.8	3.8	2.7	2.4	1.8	1.2
Pedestrian corridor in use	<0.1	0.2	0.2	0.1	0.2	<0.1	<0.1
Uninvolved vehicle	0.8	0.7	0.4	0.3	0.3	0.3	0.3
Uninvolved pedestrian	0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1
Presence of prior accident	0.2	0.4	0.2	<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 2015, the involvement rate in collisions for drivers aged 16 to 19 with:

- Any at-fault contributing factor is:
  - 1.1 times that of drivers aged 20 to 24;
  - 1.6 times that of drivers aged 25 to 34;
  - 1.9 times that of drivers aged 35 to 44; and,
  - 2.6 times that of drivers aged 45 and older.
- A driver action as a contributing factor is:
  - 1.1 times that of drivers aged 20 to 24;
  - 1.6 times that of drivers aged 25 to 34;
  - 2 times that of drivers aged 35 to 44; and,
  - 2.7 times that of drivers aged 45 and older.
- A human condition as a contributing factor is:
  - 1.1 times that of drivers aged 20 to 24;
  - 1.8 times that of drivers aged 25 to 34;
  - 3.6 times that of drivers aged 35 to 44; and,
  - 3.8 times that of drivers aged 45 and older.
- “Driver inexperience” as a contributing factor is:
  - 2.5 times that of drivers aged 20 to 24;
  - 7.4 times that of drivers aged 25 to 34;
  - 15.8 times that of drivers aged 35 to 44; and,
  - 18.1 times that of drivers aged 45 and older.

In 2015, 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;
  - 1.7 times that of drivers aged 35 to 44; and,
  - 2.3 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,
  - 2.4 times that of drivers aged 45 and older.
- A human condition as a contributing factor is:
  - 1.7 times that of drivers aged 25 to 34;
  - 3.4 times that of drivers aged 35 to 44; and,
  - 3.5 times that of drivers aged 45 and older.
- “Driver inexperience” as a contributing factor is:
  - 3 times that of drivers aged 25 to 34;
  - 6.4 times that of drivers aged 35 to 44; and,
  - 7.3 times that of drivers aged 45 and older.

As with **driver involvement rates** in traffic collisions overall, many drivers in specific age groups experienced increases in their involvement in specific contributing factors when comparing 2015 to the previous five years (2010 to 2014) annual average while some experienced decreases. It is possible that this is partially due to a change in the reporting requirements that affects many PDO and minimal injury collisions that were not captured or reported in the Traffic Accident Report Database in the past.

**Table 9-6 Historical Summary of Contributing Factors to a Collision Overall**Table 9-6  
Summary of Contributing Factors to a Collision: 2010 to 2015

Contributing Factor	2010 Total Collisions	% of 2010 Total Collisions	2011 Total Collisions	% of 2011 Total Collisions	2012 Total Collisions	% of 2012 Total Collisions	2013 Total Collisions	% of 2013 Total Collisions	2014 Total Collisions	% of 2014 Total Collisions	2015 Total Collisions	% of 2015 Total Collisions
Driver Action - Driving Properly and Human Condition - Apparently Normal	12,438	45.8%	17,016	49.6%	25,573	65.6%	25,005	59.8%	24,166	59.4%	28,316	68.2%
Driver Action - Driving properly	2,363	8.7%	1,907	5.6%	843	2.2%	858	2.1%	789	1.9%	530	1.3%
Any Driver Action	7,387	27.2%	12,785	37.3%	20,260	52.0%	25,859	61.8%	26,734	65.7%	25,877	62.3%
Following too closely	1,400	5.2%	2,945	8.6%	5,247	13.5%	6,190	14.8%	6,581	16.2%	6,958	16.7%
Turning improperly	701	2.6%	861	2.5%	1,527	3.9%	2,046	4.9%	2,247	5.5%	2,564	6.2%
Passing improperly	137	0.5%	134	0.4%	129	0.3%	169	0.4%	149	0.4%	151	0.4%
Changing lanes improperly	436	1.6%	823	2.4%	1,351	3.5%	1,615	3.9%	1,770	4.4%	1,914	4.6%
Fail to yield right-of-way	1,091	4.0%	1,400	4.1%	1,378	3.5%	2,062	4.9%	2,174	5.3%	2,272	5.5%
Disobey traffic control device/officer	493	1.8%	525	1.5%	357	0.9%	443	1.1%	433	1.1%	500	1.2%
Drive wrong way on roadway	38	0.1%	42	0.1%	9	<0.1%	12	<0.1%	38	<0.1%	28	<0.1%
Passing a vehicle at pedestrian X-walk	2	<0.1%	1	<0.1%	2	<0.1%	0	-	0	-	0	-
Back unsafely	509	1.9%	1,417	4.1%	2,634	6.8%	2,800	6.7%	2,930	7.2%	3,040	7.3%
Parking improperly	46	0.2%	98	0.3%	104	0.3%	104	0.2%	155	0.4%	152	0.4%
Lost control/Drive off road	582	2.1%	992	2.9%	1,064	2.7%	1,598	3.8%	1,415	3.5%	1,589	3.8%
Driverless vehicle ran out of control	10	<0.1%	11	<0.1%	18	<0.1%	12	<0.1%	33	<0.1%	38	<0.1%
Leave stop sign before safe to do so	316	1.2%	438	1.3%	493	1.3%	745	1.8%	1,006	2.5%	844	2.0%
Failed to signal	12	<0.1%	18	<0.1%	16	<0.1%	8	<0.1%	17	<0.1%	21	<0.1%
Take avoiding action	357	1.3%	425	1.2%	356	0.9%	408	1.0%	458	1.1%	488	1.2%
Driver inexperience	253	0.9%	282	0.8%	161	0.4%	144	0.3%	122	0.3%	176	0.4%
Pedestrian error/confusion	86	0.3%	76	0.2%	29	<0.1%	31	<0.1%	49	0.1%	55	0.1%
NET Speed	1,078	4.0%	1,627	4.7%	1,891	4.9%	2,418	5.8%	3,076	7.6%	3,092	7.4%
Exceeding speed limit	103	0.4%	57	0.2%	16	<0.1%	14	<0.1%	26	<0.1%	48	0.1%
Driving too fast for conditions	838	3.1%	1,443	4.2%	1,813	4.7%	2,362	5.6%	3,018	7.4%	3,005	7.2%
Unsafe operating speed (Too fast or too slow)	159	0.6%	143	0.4%	67	0.2%	45	0.1%	36	<0.1%	48	0.1%
NET Distracted driving	1,534	5.6%	2,415	7.0%	4,780	12.3%	6,709	16.0%	8,468	20.8%	9,463	22.8%
Careless Driving	460	1.7%	1,451	4.2%	4,474	11.5%	6,409	15.3%	8,136	20.0%	8,943	21.5%
Distraction/Inattention	1,135	4.2%	1,038	3.0%	372	1.0%	359	0.9%	464	1.1%	716	1.7%

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2010 Total Collisions	% of 2010 Total Collisions	2011 Total Collisions	% of 2011 Total Collisions	2012 Total Collisions	% of 2012 Total Collisions	2013 Total Collisions	% of 2013 Total Collisions	2014 Total Collisions	% of 2014 Total Collisions	2015 Total Collisions	% of 2015 Total Collisions
Human Condition - Apparently Normal	5,657	20.8%	5,894	17.2%	6,983	17.9%	2,990	7.1%	3,792	9.3%	7,580	18.2%
Any Human Condition	1,691	6.2%	1,429	4.2%	607	1.6%	599	1.4%	237	0.6%	297	0.7%
Loss of consciousness/Blackout prior to collision	50	0.2%	44	0.1%	33	<0.1%	34	<0.1%	37	<0.1%	43	0.1%
Extreme fatigue/Fell asleep	97	0.4%	88	0.3%	63	0.2%	63	0.2%	59	0.1%	66	0.2%
Defective eyesight	8	<0.1%	6	<0.1%	12	<0.1%	2	<0.1%	5	<0.1%	5	<0.1%
Defective hearing	5	<0.1%	2	<0.1%	1	<0.1%	0	-	0	-	1	<0.1%
Medical disability	19	<0.1%	11	<0.1%	6	<0.1%	10	<0.1%	10	<0.1%	20	<0.1%
Physical disability	11	<0.1%	16	<0.1%	1	<0.1%	3	<0.1%	1	<0.1%	5	<0.1%
Mental disability	11	<0.1%	6	<0.1%	2	<0.1%	4	<0.1%	4	<0.1%	5	<0.1%
Mental confusion/Inability to remember	21	<0.1%	21	<0.1%	13	<0.1%	22	<0.1%	15	<0.1%	28	<0.1%
Sudden illness	8	<0.1%	10	<0.1%	10	<0.1%	8	<0.1%	5	<0.1%	8	<0.1%
Exceed hours of service (commercial drivers only)	0	-	1	<0.1%	0	-	0	-	0	-	0	-
NET Impaired	373	1.4%	230	0.7%	123	0.3%	119	0.3%	115	0.3%	140	0.3%
Ability impaired alcohol	229	0.8%	147	0.4%	97	0.2%	94	0.2%	75	0.2%	109	0.3%
Ability impaired drugs	12	<0.1%	10	<0.1%	1	<0.1%	3	<0.1%	7	<0.1%	7	<0.1%
Had been drinking/Suspected alcohol use	152	0.6%	80	0.2%	30	<0.1%	31	<0.1%	38	<0.1%	36	<0.1%
No Apparent (Vehicle) Defect	14,097	51.9%	17,843	52.0%	26,336	67.6%	24,908	59.6%	25,414	62.5%	32,283	77.7%
Any Vehicle Defect	227	0.8%	223	0.7%	163	0.4%	189	0.5%	283	0.7%	300	0.7%
Defective brakes	68	0.3%	40	0.1%	17	<0.1%	14	<0.1%	23	<0.1%	22	<0.1%
Defective steering	17	<0.1%	13	<0.1%	3	<0.1%	4	<0.1%	10	<0.1%	15	<0.1%
Defective headlights	6	<0.1%	4	<0.1%	0	-	0	-	0	-	0	-
Defective brake lights	3	<0.1%	3	<0.1%	1	<0.1%	3	<0.1%	6	<0.1%	5	<0.1%
Defective lighting (unspecified)	7	<0.1%	5	<0.1%	0	-	3	<0.1%	3	<0.1%	0	-
Defective engine controls/drive train	23	<0.1%	13	<0.1%	6	<0.1%	8	<0.1%	7	<0.1%	6	<0.1%
Defective suspension/wheels	19	<0.1%	27	<0.1%	25	<0.1%	31	<0.1%	40	<0.1%	49	0.1%
Defective tires	41	0.2%	46	0.1%	27	<0.1%	35	<0.1%	80	0.2%	74	0.2%
Tow hitch/yoke defective	10	<0.1%	18	<0.1%	14	<0.1%	15	<0.1%	12	<0.1%	25	<0.1%
Defective exhaust system	2	<0.1%	1	<0.1%	1	<0.1%	0	-	0	-	0	-
Hood/tailgate/door/covering opened	3	<0.1%	4	<0.1%	4	<0.1%	3	<0.1%	4	<0.1%	4	<0.1%
Defective glazing (obscured windows)	5	<0.1%	2	<0.1%	3	<0.1%	2	<0.1%	3	<0.1%	3	<0.1%
Vehicle modifications	1	<0.1%	2	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	2	<0.1%
Fire	1	<0.1%	0	-	2	<0.1%	3	<0.1%	6	<0.1%	1	<0.1%
Overloaded/oversized	4	<0.1%	5	<0.1%	2	<0.1%	0	-	1	<0.1%	4	<0.1%

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2010 Total Collisions	% of 2010 Total Collisions	2011 Total Collisions	% of 2011 Total Collisions	2012 Total Collisions	% of 2012 Total Collisions	2013 Total Collisions	% of 2013 Total Collisions	2014 Total Collisions	% of 2014 Total Collisions	2015 Total Collisions	% of 2015 Total Collisions
Jack-knife/trailer swing	6	<0.1%	16	<0.1%	39	0.1%	44	0.1%	67	0.2%	63	0.2%
Hydroplaning tires	7	<0.1%	6	<0.1%	4	<0.1%	10	<0.1%	3	<0.1%	12	<0.1%
Any Environmental Condition	5,320	19.6%	8,143	23.7%	6,631	17.0%	7,231	17.3%	6,823	16.8%	4,000	9.6%
Animal action – Wild	3,133	11.5%	4,706	13.7%	4,967	12.7%	4,756	11.4%	4,017	9.9%	1,892	4.6%
Animal action – Domestic	175	0.6%	223	0.7%	41	0.1%	45	0.1%	52	0.1%	33	<0.1%
Slippery road surface	1,214	4.5%	2,111	6.2%	1,151	3.0%	1,737	4.2%	1,859	4.6%	1,357	3.3%
Snow drift	126	0.5%	207	0.6%	15	<0.1%	118	0.3%	163	0.4%	45	0.1%
Obstruction/debris on roadway	117	0.4%	149	0.4%	116	0.3%	152	0.4%	202	0.5%	191	0.5%
View obstructed/limited	212	0.8%	296	0.9%	66	0.2%	106	0.3%	190	0.5%	155	0.4%
Glare/reflection	63	0.2%	84	0.2%	26	<0.1%	36	<0.1%	27	<0.1%	41	<0.1%
Construction zone	26	<0.1%	49	0.1%	27	<0.1%	11	<0.1%	19	<0.1%	15	<0.1%
Defective driving surface	138	0.5%	199	0.6%	45	0.1%	60	0.1%	118	0.3%	82	0.2%
Shoulders defective	26	<0.1%	22	<0.1%	4	<0.1%	10	<0.1%	10	<0.1%	9	<0.1%
Lane markings inadequate	10	<0.1%	7	<0.1%	6	<0.1%	10	<0.1%	6	<0.1%	4	<0.1%
Defective/inoperative traffic control device	9	<0.1%	11	<0.1%	6	<0.1%	12	<0.1%	10	<0.1%	18	<0.1%
Weather	223	0.8%	353	1.0%	158	0.4%	214	0.5%	189	0.5%	205	0.5%
Pedestrian corridor in use	10	<0.1%	15	<0.1%	16	<0.1%	7	<0.1%	16	<0.1%	11	<0.1%
Uninvolved vehicle	49	0.2%	58	0.2%	14	<0.1%	20	<0.1%	18	<0.1%	27	<0.1%
Uninvolved pedestrian	9	<0.1%	15	<0.1%	8	<0.1%	8	<0.1%	3	<0.1%	4	<0.1%
Presence of prior accident	18	<0.1%	20	<0.1%	4	<0.1%	9	<0.1%	1	<0.1%	3	<0.1%
No Contributing Factor(s) Identified	11,909	43.8%	9,276	27.0%	3,507	9.0%	3,126	7.5%	2,144	5.3%	1,572	3.8%
Not Stated	5	<0.1%	570	1.7%	0	-	0	-	14	<0.1%	73	0.2%
<b>Total</b>	<b>27,172</b>	<b>100%</b>	<b>34,302</b>	<b>100%</b>	<b>38,972</b>	<b>100%</b>	<b>41,819</b>	<b>100%</b>	<b>40,672</b>	<b>100%</b>	<b>41,548</b>	<b>100%</b>

\*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: 2010 to 2015

Contributing Factor	2010 Total Victims	% of 2010 Total Victims	2011 Total Victims	% of 2011 Total Victims	2012 Total Victims	% of 2012 Total Victims	2013 Total Victims	% of 2013 Total Victims	2014 Total Victims	% of 2014 Total Victims	2015 Total Victims	% of 2015 Total Victims
Driver Action - Driving Properly and Human Condition - Apparently Normal	3,762	52.8%	4,990	59.9%	8,678	81.7%	8,886	79.1%	9,367	80.2%	10,041	83.6%
Driver Action - Driving properly	630	8.8%	486	5.8%	348	3.3%	364	3.2%	366	3.1%	255	2.1%
Any Driver Action	2,641	37.0%	3,717	44.6%	5,866	55.2%	7,636	68.0%	8,625	73.9%	8,932	74.3%
Following too closely	420	5.9%	950	11.4%	2,191	20.6%	2,578	22.9%	3,061	26.2%	3,386	28.2%
Turning improperly	202	2.8%	284	3.4%	434	4.1%	717	6.4%	875	7.5%	1,081	9.0%
Passing improperly	36	0.5%	41	0.5%	53	0.5%	44	0.4%	32	0.3%	37	0.3%
Changing lanes improperly	66	0.9%	123	1.5%	270	2.5%	269	2.4%	366	3.1%	391	3.3%
Fail to yield right-of-way	408	5.7%	518	6.2%	550	5.2%	842	7.5%	1,081	9.3%	1,142	9.5%
Disobey traffic control device/officer	247	3.5%	258	3.1%	194	1.8%	245	2.2%	307	2.6%	393	3.3%
Drive wrong way on roadway	19	0.3%	25	0.3%	17	0.2%	8	<0.1%	21	0.2%	22	0.2%
Passing a vehicle at pedestrian X-walk	1	<0.1%	1	<0.1%	2	<0.1%	0	-	0	-	0	-
Back unsafely	31	0.4%	68	0.8%	184	1.7%	214	1.9%	252	2.2%	231	1.9%
Parking improperly	2	<0.1%	11	0.1%	8	<0.1%	10	<0.1%	12	0.1%	12	<0.1%
Lost control/Drive off road	357	5.0%	366	4.4%	324	3.0%	459	4.1%	421	3.6%	480	4.0%
Driverless vehicle ran out of control	2	<0.1%	1	<0.1%	2	<0.1%	6	<0.1%	1	<0.1%	11	<0.1%
Leave stop sign before safe to do so	186	2.6%	211	2.5%	202	1.9%	301	2.7%	490	4.2%	450	3.7%
Failed to signal	0	-	4	<0.1%	7	<0.1%	4	<0.1%	5	<0.1%	11	<0.1%
Take avoiding action	109	1.5%	91	1.1%	67	0.6%	80	0.7%	92	0.8%	92	0.8%
Driver inexperience	114	1.6%	92	1.1%	56	0.5%	60	0.5%	46	0.4%	58	0.5%
Pedestrian error/confusion	83	1.2%	64	0.8%	25	0.2%	27	0.2%	25	0.2%	26	0.2%
NET Speed	457	6.4%	553	6.6%	543	5.1%	696	6.2%	881	7.5%	993	8.3%
Exceeding speed limit	80	1.1%	27	0.3%	15	0.1%	26	0.2%	19	0.2%	24	0.2%
Driving too fast for conditions	286	4.0%	448	5.4%	492	4.6%	646	5.8%	834	7.1%	953	7.9%
Unsafe operating speed (Too fast or too slow)	112	1.6%	85	1.0%	37	0.3%	29	0.3%	30	0.3%	24	0.2%
NET Distracted driving	709	9.9%	715	8.6%	1,249	11.8%	1,759	15.7%	2,369	20.3%	3,101	25.8%
Careless Driving	276	3.9%	403	4.8%	1,111	10.5%	1,621	14.4%	2,173	18.6%	2,838	23.6%
Distraction/Inattention	473	6.6%	348	4.2%	164	1.5%	161	1.4%	270	2.3%	365	3.0%

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2010 Total Victims	% of 2010 Total Victims	2011 Total Victims	% of 2011 Total Victims	2012 Total Victims	% of 2012 Total Victims	2013 Total Victims	% of 2013 Total Victims	2014 Total Victims	% of 2014 Total Victims	2015 Total Victims	% of 2015 Total Victims
Human Condition - Apparently Normal	1,747	24.5%	1,665	20.0%	2,264	21.3%	1,123	10.0%	1,394	11.9%	2,217	18.4%
Any Human Condition	816	11.4%	642	7.7%	315	3.0%	353	3.1%	208	1.8%	226	1.9%
Loss of consciousness/Blackout prior to collision	40	0.6%	28	0.3%	20	0.2%	26	0.2%	36	0.3%	39	0.3%
Extreme fatigue/Fell asleep	47	0.7%	51	0.6%	26	0.2%	39	0.3%	26	0.2%	28	0.2%
Defective eyesight	3	<0.1%	3	<0.1%	5	<0.1%	0	-	9	<0.1%	4	<0.1%
Defective hearing	2	<0.1%	1	<0.1%	0	-	0	-	0	-	2	<0.1%
Medical disability	10	0.1%	11	0.1%	5	<0.1%	2	<0.1%	7	<0.1%	14	0.1%
Physical disability	9	0.1%	9	0.1%	0	-	4	<0.1%	0	-	4	<0.1%
Mental disability	9	0.1%	9	0.1%	3	<0.1%	4	<0.1%	10	<0.1%	4	<0.1%
Mental confusion/Inability to remember	12	0.2%	9	0.1%	7	<0.1%	12	0.1%	12	0.1%	27	0.2%
Sudden illness	4	<0.1%	9	0.1%	5	<0.1%	6	<0.1%	2	<0.1%	4	<0.1%
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-	0	-	0	-
NET Impaired	248	3.5%	190	2.3%	106	1.0%	118	1.1%	116	1.0%	121	1.0%
Ability impaired alcohol	165	2.3%	122	1.5%	76	0.7%	87	0.8%	68	0.6%	97	0.8%
Ability impaired drugs	9	0.1%	5	<0.1%	1	<0.1%	1	<0.1%	10	<0.1%	9	<0.1%
Had been drinking/Suspected alcohol use	87	1.2%	68	0.8%	34	0.3%	44	0.4%	44	0.4%	27	0.2%
No Apparent (Vehicle) Defect	4,340	60.9%	5,341	64.1%	9,009	84.8%	9,011	80.2%	9,664	82.8%	10,488	87.3%
Any Vehicle Defect	114	1.6%	49	0.6%	23	0.2%	45	0.4%	44	0.4%	35	0.3%
Defective brakes	27	0.4%	8	<0.1%	9	<0.1%	10	<0.1%	10	<0.1%	8	<0.1%
Defective steering	4	<0.1%	4	<0.1%	0	-	1	<0.1%	7	<0.1%	2	<0.1%
Defective headlights	11	0.2%	2	<0.1%	0	-	0	-	0	-	0	-
Defective brake lights	3	<0.1%	0	-	3	<0.1%	0	-	2	<0.1%	0	-
Defective lighting (unspecified)	4	<0.1%	3	<0.1%	0	-	4	<0.1%	1	<0.1%	0	-
Defective engine controls/drive train	13	0.2%	3	<0.1%	0	-	2	<0.1%	2	<0.1%	2	<0.1%
Defective suspension/wheels	6	<0.1%	3	<0.1%	0	-	11	<0.1%	4	<0.1%	4	<0.1%
Defective tires	20	0.3%	23	0.3%	3	<0.1%	8	<0.1%	7	<0.1%	8	<0.1%
Tow hitch/yoke defective	8	0.1%	1	<0.1%	1	<0.1%	0	-	0	-	0	-
Defective exhaust system	1	<0.1%	0	-	3	<0.1%	0	-	0	-	0	-
Hood/tailgate/door/covering opened	2	<0.1%	0	-	0	-	0	-	0	-	1	<0.1%
Defective glazing (obscured windows)	2	<0.1%	0	-	2	<0.1%	0	-	2	<0.1%	0	-
Vehicle modifications	1	<0.1%	1	<0.1%	0	-	1	<0.1%	1	<0.1%	0	-
Fire	0	-	0	-	0	-	1	<0.1%	2	<0.1%	1	<0.1%
Overloaded/oversized	1	<0.1%	0	-	0	-	0	-	0	-	1	<0.1%

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2010 Total Victims	% of 2010 Total Victims	2011 Total Victims	% of 2011 Total Victims	2012 Total Victims	% of 2012 Total Victims	2013 Total Victims	% of 2013 Total Victims	2014 Total Victims	% of 2014 Total Victims	2015 Total Victims	% of 2015 Total Victims
Load shifted/spilled	1	<0.1%	0	-	1	<0.1%	3	<0.1%	3	<0.1%	2	<0.1%
Jack-knife/trailer swing	3	<0.1%	0	-	0	-	4	<0.1%	3	<0.1%	3	<0.1%
Hydroplaning tires	8	0.1%	2	<0.1%	1	<0.1%	5	<0.1%	0	-	3	<0.1%
Any Environmental Condition	979	13.7%	1,172	14.1%	713	6.7%	911	8.1%	957	8.2%	764	6.4%
Animal action – Wild	239	3.4%	275	3.3%	274	2.6%	240	2.1%	219	1.9%	130	1.1%
Animal action – Domestic	20	0.3%	39	0.5%	1	<0.1%	7	<0.1%	9	<0.1%	12	<0.1%
Slippery road surface	374	5.2%	558	6.7%	290	2.7%	475	4.2%	495	4.2%	412	3.4%
Snow drift	27	0.4%	39	0.5%	1	<0.1%	16	0.1%	27	0.2%	6	<0.1%
Obstruction/debris on roadway	30	0.4%	29	0.3%	10	<0.1%	12	0.1%	14	0.1%	24	0.2%
View obstructed/limited	67	0.9%	89	1.1%	22	0.2%	44	0.4%	77	0.7%	75	0.6%
Glare/reflection	31	0.4%	32	0.4%	17	0.2%	13	0.1%	15	0.1%	15	0.1%
Construction zone	15	0.2%	5	<0.1%	9	<0.1%	9	<0.1%	6	<0.1%	5	<0.1%
Defective driving surface	77	1.1%	58	0.7%	16	0.2%	18	0.2%	15	0.1%	12	<0.1%
Shoulders defective	10	0.1%	7	<0.1%	1	<0.1%	6	<0.1%	7	<0.1%	2	<0.1%
Lane markings inadequate	2	<0.1%	5	<0.1%	1	<0.1%	1	<0.1%	3	<0.1%	2	<0.1%
Defective/inoperative traffic control device	3	<0.1%	5	<0.1%	1	<0.1%	10	<0.1%	6	<0.1%	9	<0.1%
Weather	99	1.4%	120	1.4%	69	0.6%	74	0.7%	74	0.6%	81	0.7%
Pedestrian corridor in use	6	<0.1%	11	0.1%	11	0.1%	3	<0.1%	9	<0.1%	6	<0.1%
Uninvolved vehicle	23	0.3%	14	0.2%	3	<0.1%	7	<0.1%	5	<0.1%	11	<0.1%
Uninvolved pedestrian	4	<0.1%	7	<0.1%	5	<0.1%	2	<0.1%	0	-	2	<0.1%
Presence of prior accident	16	0.2%	13	0.2%	0	-	4	<0.1%	2	<0.1%	1	<0.1%
No Contributing Factor(s) Identified	2,900	40.7%	2,605	31.2%	1,605	15.1%	1,386	12.3%	971	8.3%	650	5.4%
Not Stated	1	<0.1%	178	2.1%	0	-	0	-	4	<0.1%	16	0.1%
<b>Total</b>	<b>7,130</b>	<b>100%</b>	<b>8,337</b>	<b>100%</b>	<b>10,623</b>	<b>100%</b>	<b>11,234</b>	<b>100%</b>	<b>11,676</b>	<b>100%</b>	<b>12,017</b>	<b>100%</b>

\*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: 2010 to 2015

Contributing Factor	2010 Total Drivers	% of 2010 Total Drivers	2011 Total Drivers	% of 2011 Total Drivers	2012 Total Drivers	% of 2012 Total Drivers	2013 Total Drivers	% of 2013 Total Drivers	2014 Total Drivers	% of 2014 Total Drivers	2015 Total Drivers	% of 2015 Total Drivers
Driver Action - Driving Properly and Human Condition - Apparently Normal	13,243	31.3%	18,204	35.5%	29,010	49.3%	26,101	41.1%	25,040	40.9%	<b>28,516</b>	<b>47.8%</b>
Driver Action - Driving properly	2,297	5.4%	1,882	3.7%	843	1.4%	863	1.4%	790	1.3%	<b>535</b>	<b>0.9%</b>
Any Driver Action	7,422	17.5%	12,805	25.0%	20,397	34.6%	26,087	41.1%	26,978	44.0%	<b>26,147</b>	<b>43.8%</b>
Following too closely	1,433	3.4%	2,973	5.8%	5,269	8.9%	6,207	9.8%	6,607	10.8%	<b>6,999</b>	<b>11.7%</b>
Turning improperly	700	1.7%	859	1.7%	1,528	2.6%	2,053	3.2%	2,258	3.7%	<b>2,577</b>	<b>4.3%</b>
Passing improperly	139	0.3%	131	0.3%	129	0.2%	173	0.3%	150	0.2%	<b>152</b>	<b>0.3%</b>
Changing lanes improperly	438	1.0%	821	1.6%	1,363	2.3%	1,642	2.6%	1,794	2.9%	<b>1,953</b>	<b>3.3%</b>
Fail to yield right-of-way	1,084	2.6%	1,393	2.7%	1,370	2.3%	2,070	3.3%	2,188	3.6%	<b>2,278</b>	<b>3.8%</b>
Disobey traffic control device/officer	493	1.2%	521	1.0%	356	0.6%	442	0.7%	437	0.7%	<b>499</b>	<b>0.8%</b>
Drive wrong way on roadway	29	<0.1%	40	<0.1%	9	<0.1%	11	<0.1%	38	<0.1%	<b>27</b>	<b>&lt;0.1%</b>
Passing a vehicle at pedestrian X-walk	2	<0.1%	1	<0.1%	2	<0.1%	0	-	0	-	<b>0</b>	<b>-</b>
Back unsafely	498	1.2%	1,406	2.7%	2,665	4.5%	2,827	4.5%	2,960	4.8%	<b>3,083</b>	<b>5.2%</b>
Parking improperly	37	<0.1%	80	0.2%	101	0.2%	96	0.2%	147	0.2%	<b>146</b>	<b>0.2%</b>
Lost control/Drive off road	578	1.4%	986	1.9%	1,062	1.8%	1,597	2.5%	1,414	2.3%	<b>1,587</b>	<b>2.7%</b>
Driverless vehicle ran out of control	7	<0.1%	7	<0.1%	16	<0.1%	12	<0.1%	28	<0.1%	<b>37</b>	<b>&lt;0.1%</b>
Leave stop sign before safe to do so	317	0.7%	440	0.9%	495	0.8%	750	1.2%	1,013	1.7%	<b>849</b>	<b>1.4%</b>
Failed to signal	11	<0.1%	18	<0.1%	16	<0.1%	8	<0.1%	17	<0.1%	<b>21</b>	<b>&lt;0.1%</b>
Take avoiding action	355	0.8%	433	0.8%	353	0.6%	408	0.6%	458	0.7%	<b>488</b>	<b>0.8%</b>
Driver inexperience	249	0.6%	281	0.5%	161	0.3%	145	0.2%	122	0.2%	<b>174</b>	<b>0.3%</b>
Pedestrian error/confusion	22	<0.1%	20	<0.1%	26	<0.1%	17	<0.1%	28	<0.1%	<b>45</b>	<b>&lt;0.1%</b>
NET Speed	1,082	2.6%	1,621	3.2%	1,890	3.2%	2,420	3.8%	3,081	5.0%	<b>3,090</b>	<b>5.2%</b>
Exceeding speed limit	103	0.2%	56	0.1%	16	<0.1%	15	<0.1%	26	<0.1%	<b>48</b>	<b>&lt;0.1%</b>
Driving too fast for conditions	841	2.0%	1,441	2.8%	1,813	3.1%	2,363	3.7%	3,024	4.9%	<b>3,005</b>	<b>5.0%</b>
Unsafe operating speed (Too fast or too slow)	159	0.4%	139	0.3%	66	0.1%	45	<0.1%	34	<0.1%	<b>46</b>	<b>&lt;0.1%</b>
NET Distracted driving	1,492	3.5%	2,382	4.6%	4,767	8.1%	6,702	10.6%	8,471	13.8%	<b>9,462</b>	<b>15.8%</b>
Careless Driving	445	1.1%	1,437	2.8%	4,461	7.6%	6,407	10.1%	8,140	13.3%	<b>8,947</b>	<b>15.0%</b>
Distraction/Inattention	1,105	2.6%	1,018	2.0%	372	0.6%	354	0.6%	460	0.8%	<b>706</b>	<b>1.2%</b>

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2010 Total Drivers	% of 2010 Total Drivers	2011 Total Drivers	% of 2011 Total Drivers	2012 Total Drivers	% of 2012 Total Drivers	2013 Total Drivers	% of 2013 Total Drivers	2014 Total Drivers	% of 2014 Total Drivers	2015 Total Drivers	% of 2015 Total Drivers
Human Condition - Apparently Normal	6,033	14.3%	6,111	11.9%	7,037	12.0%	3,048	4.8%	3,826	6.2%	7,594	12.7%
Any Human Condition	1,630	3.9%	1,397	2.7%	602	1.0%	592	0.9%	230	0.4%	291	0.5%
Loss of consciousness/Blackout prior to collision	50	0.1%	44	<0.1%	33	<0.1%	34	<0.1%	36	<0.1%	43	<0.1%
Extreme fatigue/Fell asleep	97	0.2%	87	0.2%	63	0.1%	63	<0.1%	59	<0.1%	66	0.1%
Defective eyesight	8	<0.1%	6	<0.1%	12	<0.1%	2	<0.1%	4	<0.1%	5	<0.1%
Defective hearing	4	<0.1%	2	<0.1%	1	<0.1%	0	-	0	-	0	-
Medical disability	19	<0.1%	12	<0.1%	6	<0.1%	10	<0.1%	10	<0.1%	20	<0.1%
Physical disability	10	<0.1%	16	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%	4	<0.1%
Mental disability	8	<0.1%	2	<0.1%	2	<0.1%	4	<0.1%	4	<0.1%	5	<0.1%
Mental confusion/Inability to remember	20	<0.1%	20	<0.1%	13	<0.1%	22	<0.1%	15	<0.1%	28	<0.1%
Sudden illness	8	<0.1%	10	<0.1%	10	<0.1%	8	<0.1%	5	<0.1%	8	<0.1%
Exceed hours of service (commercial drivers only)	0	-	1	<0.1%	0	-	0	-	0	-	0	-
NET Impaired	344	0.8%	217	0.4%	118	0.2%	117	0.2%	110	0.2%	135	0.2%
Ability impaired alcohol	209	0.5%	139	0.3%	93	0.2%	93	0.1%	72	0.1%	105	0.2%
Ability impaired drugs	11	<0.1%	10	<0.1%	1	<0.1%	3	<0.1%	7	<0.1%	7	<0.1%
Had been drinking/Suspected alcohol use	142	0.3%	75	0.1%	29	<0.1%	30	<0.1%	36	<0.1%	35	<0.1%
No Apparent (Vehicle) Defect	17,631	41.7%	21,567	42.1%	33,658	57.2%	26,885	42.3%	28,156	45.9%	36,356	60.9%
Any Vehicle Defect	216	0.5%	216	0.4%	163	0.3%	188	0.3%	282	0.5%	299	0.5%
Defective brakes	65	0.2%	39	<0.1%	17	<0.1%	14	<0.1%	22	<0.1%	22	<0.1%
Defective steering	17	<0.1%	13	<0.1%	3	<0.1%	4	<0.1%	10	<0.1%	14	<0.1%
Defective headlights	6	<0.1%	3	<0.1%	0	-	0	-	0	-	0	-
Defective brake lights	3	<0.1%	3	<0.1%	1	<0.1%	3	<0.1%	6	<0.1%	5	<0.1%
Defective lighting (unspecified)	6	<0.1%	4	<0.1%	0	-	3	<0.1%	3	<0.1%	0	-
Defective engine controls/drive train	20	<0.1%	13	<0.1%	6	<0.1%	8	<0.1%	7	<0.1%	6	<0.1%
Defective suspension/wheels	19	<0.1%	27	<0.1%	25	<0.1%	31	<0.1%	40	<0.1%	49	<0.1%
Defective tires	40	<0.1%	46	<0.1%	27	<0.1%	35	<0.1%	80	0.1%	74	0.1%
Tow hitch/yoke defective	10	<0.1%	17	<0.1%	14	<0.1%	15	<0.1%	12	<0.1%	25	<0.1%
Defective exhaust system	2	<0.1%	1	<0.1%	1	<0.1%	0	-	0	-	0	-
Hood/tailgate/door/covering opened	2	<0.1%	2	<0.1%	4	<0.1%	3	<0.1%	4	<0.1%	4	<0.1%
Defective glazing (obscured windows)	5	<0.1%	2	<0.1%	3	<0.1%	2	<0.1%	3	<0.1%	3	<0.1%
Vehicle modifications	0	-	2	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%	2	<0.1%
Fire	1	<0.1%	0	-	2	<0.1%	3	<0.1%	6	<0.1%	1	<0.1%
Overloaded/oversized	3	<0.1%	4	<0.1%	2	<0.1%	0	-	1	<0.1%	4	<0.1%

(continued on next page)

## Section 9

## Contributing Factors

(continued from previous page)

Contributing Factor	2010 Total Drivers	% of 2010 Total Drivers	2011 Total Drivers	% of 2011 Total Drivers	2012 Total Drivers	% of 2012 Total Drivers	2013 Total Drivers	% of 2013 Total Drivers	2014 Total Drivers	% of 2014 Total Drivers	2015 Total Drivers	% of 2015 Total Drivers
Load shifted/spilled	9	<0.1%	19	<0.1%	15	<0.1%	16	<0.1%	21	<0.1%	23	<0.1%
Jack-knife/trailer swing	6	<0.1%	16	<0.1%	39	<0.1%	43	<0.1%	67	0.1%	63	0.1%
Hydroplaning tires	7	<0.1%	6	<0.1%	4	<0.1%	10	<0.1%	3	<0.1%	12	<0.1%
Any Environmental Condition	5,490	13.0%	8,256	16.1%	6,630	11.3%	7,240	11.4%	6,829	11.1%	4,000	6.7%
Animal action – Wild	3,137	7.4%	4,708	9.2%	4,969	8.4%	4,757	7.5%	4,017	6.6%	1,891	3.2%
Animal action – Domestic	175	0.4%	226	0.4%	41	<0.1%	45	<0.1%	52	<0.1%	33	<0.1%
Slippery road surface	1,316	3.1%	2,190	4.3%	1,152	2.0%	1,740	2.7%	1,862	3.0%	1,361	2.3%
Snow drift	132	0.3%	215	0.4%	15	<0.1%	118	0.2%	164	0.3%	45	<0.1%
Obstruction/debris on roadway	125	0.3%	147	0.3%	116	0.2%	153	0.2%	202	0.3%	190	0.3%
View obstructed/limited	229	0.5%	305	0.6%	65	0.1%	104	0.2%	191	0.3%	155	0.3%
Glare/reflection	65	0.2%	84	0.2%	26	<0.1%	36	<0.1%	27	<0.1%	41	<0.1%
Construction zone	32	<0.1%	51	<0.1%	27	<0.1%	11	<0.1%	20	<0.1%	15	<0.1%
Defective driving surface	135	0.3%	198	0.4%	45	<0.1%	60	<0.1%	118	0.2%	82	0.1%
Shoulders defective	26	<0.1%	22	<0.1%	4	<0.1%	10	<0.1%	11	<0.1%	9	<0.1%
Lane markings inadequate	11	<0.1%	8	<0.1%	6	<0.1%	10	<0.1%	6	<0.1%	4	<0.1%
Defective/inoperative traffic control device	11	<0.1%	12	<0.1%	6	<0.1%	12	<0.1%	10	<0.1%	17	<0.1%
Weather	240	0.6%	364	0.7%	159	0.3%	215	0.3%	191	0.3%	204	0.3%
Pedestrian corridor in use	9	<0.1%	14	<0.1%	14	<0.1%	7	<0.1%	13	<0.1%	10	<0.1%
Uninvolved vehicle	51	0.1%	61	0.1%	13	<0.1%	20	<0.1%	18	<0.1%	27	<0.1%
Uninvolved pedestrian	8	<0.1%	14	<0.1%	7	<0.1%	7	<0.1%	2	<0.1%	3	<0.1%
Presence of prior accident	22	<0.1%	23	<0.1%	4	<0.1%	9	<0.1%	1	<0.1%	3	<0.1%
No Contributing Factor(s) Identified	14,082	33.3%	11,540	22.5%	3,304	5.6%	2,969	4.7%	1,953	3.2%	1,260	2.1%
Not Stated	2	<0.1%	0	-	0	-	0	-	13	<0.1%	68	0.1%
<b>Total</b>	<b>42,310</b>	<b>100%</b>	<b>51,279</b>	<b>100%</b>	<b>58,877</b>	<b>100%</b>	<b>63,501</b>	<b>100%</b>	<b>61,294</b>	<b>100%</b>	<b>59,716</b>	<b>100%</b>

\*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' &amp; 'Impaired' as Contributing Factors: 2010 to 2015

		2010	2011	2012	2013	2014	2010-2014 average	2015
<b>NET Speed ('Exceeding speed limit', 'Driving too fast for conditions' and 'Unsafe operating speed (too fast or too slow)' combined)</b>								
Collisions	All collisions	1,078 4.0%	1,627 4.7%	1,891 4.9%	2,418 5.8%	3,076 7.6%	2,018 5.5%	<b>3,092</b> <b>7.4%</b>
	Fatal collisions	20 25.6%	30 31.9%	17 19.1%	10 14.5%	11 17.2%	18 22.3%	<b>13</b> <b>18.8%</b>
	Injury collisions	285 5.3%	348 5.5%	393 4.7%	499 5.7%	683 7.6%	442 5.9%	<b>745</b> <b>8.2%</b>
Victims	All victims (killed or injured)	457 6.4%	553 6.6%	543 5.1%	696 6.2%	881 7.5%	626 6.4%	<b>993</b> <b>8.3%</b>
	People killed	23 26.4%	37 33.6%	19 19.8%	14 16.5%	12 17.6%	21 23.5%	<b>13</b> <b>16.7%</b>
	People seriously injured	43 13.8%	56 16.6%	35 10.3%	38 12.4%	36 11.9%	42 13.0%	<b>60</b> <b>14.5%</b>
Driver Involvement (/10,000 drivers)	All collisions	13.6	20.0	22.6	28.3	35.4	24.2	<b>35.1</b>
	Fatal collisions	0.3	0.4	0.2	0.1	0.1	0.2	<b>0.1</b>
	Injury collisions	3.6	4.3	4.7	5.8	7.9	5.3	<b>8.4</b>
<b>NET Distracted driving ('Distraction/ inattention' and 'Careless driving' combined)</b>								
Collisions	All collisions	1,534 5.6%	2,415 7.0%	4,780 12.3%	6,709 16.0%	8,468 20.8%	4,781 13.1%	<b>9,463</b> <b>22.8%</b>
	Fatal collisions	30 38.5%	24 25.5%	35 39.3%	18 26.1%	17 26.6%	25 31.5%	<b>25</b> <b>36.2%</b>
	Injury collisions	452 8.4%	477 7.6%	948 11.4%	1,357 15.5%	1,810 20.1%	1,009 13.4%	<b>2,260</b> <b>24.8%</b>
Victims	All victims (killed or injured)	709 9.9%	715 8.6%	1,249 11.8%	1,759 15.7%	2,369 20.3%	1,360 13.9%	<b>3,101</b> <b>25.8%</b>
	People killed	31 35.6%	30 27.3%	37 38.5%	28 32.9%	18 26.5%	29 32.3%	<b>28</b> <b>35.9%</b>
	People seriously injured	56 17.9%	46 13.6%	45 13.3%	64 20.8%	84 27.7%	59 18.5%	<b>133</b> <b>32.0%</b>
Driver Involvement (/10,000 drivers)	All collisions	19.4	29.7	57.0	78.4	97.4	57.1	<b>107.4</b>
	Fatal collisions	0.4	0.3	0.4	0.2	0.2	0.3	<b>0.3</b>
	Injury collisions	5.7	5.9	11.3	15.9	20.8	11.9	<b>25.7</b>
<b>NET Impaired ('Impaired by alcohol', 'Impaired by drugs' and 'Had been drinking/Suspected alcohol use' combined)</b>								
Collisions	All collisions	373 1.4%	230 0.7%	123 0.3%	119 0.3%	115 0.3%	192 0.5%	<b>140</b> <b>0.3%</b>
	Fatal collisions	21 26.9%	21 22.3%	28 31.5%	15 21.7%	19 29.7%	21 26.4%	<b>15</b> <b>21.7%</b>
	Injury collisions	135 2.5%	88 1.4%	36 0.4%	50 0.6%	45 0.5%	71 0.9%	<b>61</b> <b>0.7%</b>
Victims	All victims (killed or injured)	248 3.5%	190 2.3%	106 1.0%	118 1.1%	116 1.0%	156 1.6%	<b>121</b> <b>1.0%</b>
	People killed	22 25.3%	27 24.5%	32 33.3%	19 22.4%	19 27.9%	24 26.7%	<b>16</b> <b>20.5%</b>
	People seriously injured	40 12.8%	38 11.3%	23 6.8%	32 10.4%	22 7.3%	31 9.7%	<b>24</b> <b>5.8%</b>
Driver Involvement (/10,000 drivers)	All collisions	4.7	2.8	1.5	1.4	1.3	2.2	<b>1.5</b>
	Fatal collisions	0.3	0.3	0.3	0.2	0.2	0.2	<b>0.1</b>
	Injury collisions	1.7	1.1	0.4	0.6	0.5	0.8	<b>0.7</b>

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 2015, there are 1,777 commercial vehicles involved in traffic collisions. Of these:

- 18 are involved in fatal collisions;
- 401 are involved in injury collisions; and,
- 1,358 are involved in PDO collisions.

Traffic collisions where at least one commercial vehicle is involved resulted in a total of 557 victims in 2015, including:

- 21 people killed;
- 31 people seriously injured; and,
- 505 people where the injury is minor, minimal or unspecified.

### **Major Elements Examined**

Counts of NSC commercial vehicles involved in collisions in Manitoba for 2015 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 2010 to 2014. 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: 2015, 2010-2014 Average

Vehicle Category	2015 Collision Severity						2015 Total	% of 2015 Total	2010-2014 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	8	44.4%	173	43.1%	845	62.2%	<b>1,026</b>	57.7%	5	158	712	875	31.5%
Power Unit (Semi-Trailer)	8	44.4%	106	26.4%	301	22.2%	<b>415</b>	23.4%	7	107	374	488	17.6%
Truck - Other	1	5.6%	24	6.0%	51	3.8%	<b>76</b>	4.3%	5	255	916	1,176	42.4%
School Bus	0	-	6	1.5%	4	0.3%	<b>10</b>	0.6%	<1	4	22	27	1.0%
Transit Bus - Urban	1	5.6%	45	11.2%	64	4.7%	<b>110</b>	6.2%	<1	32	65	97	3.5%
Para-Transit Bus	0	-	3	0.7%	10	0.7%	<b>13</b>	0.7%	-	2	4	6	0.2%
Inter-City Bus	0	-	2	0.5%	5	0.4%	<b>7</b>	0.4%	-	4	11	15	0.5%
Bus - Other	0	-	42	10.5%	78	5.7%	<b>120</b>	6.8%	<1	17	73	91	3.3%
<b>Total</b>	<b>18</b>	<b>100%</b>	<b>401</b>	<b>100%</b>	<b>1,358</b>	<b>100%</b>	<b>1,777</b>	<b>100%</b>	<b>18</b>	<b>580</b>	<b>2,177</b>	<b>2,775</b>	<b>100%</b>

Note: Counts of vehicles in the 2010-2014 average may not add to the total due to rounding.

In 2015, there are 1,777 commercial vehicles involved in traffic collisions. Of these:

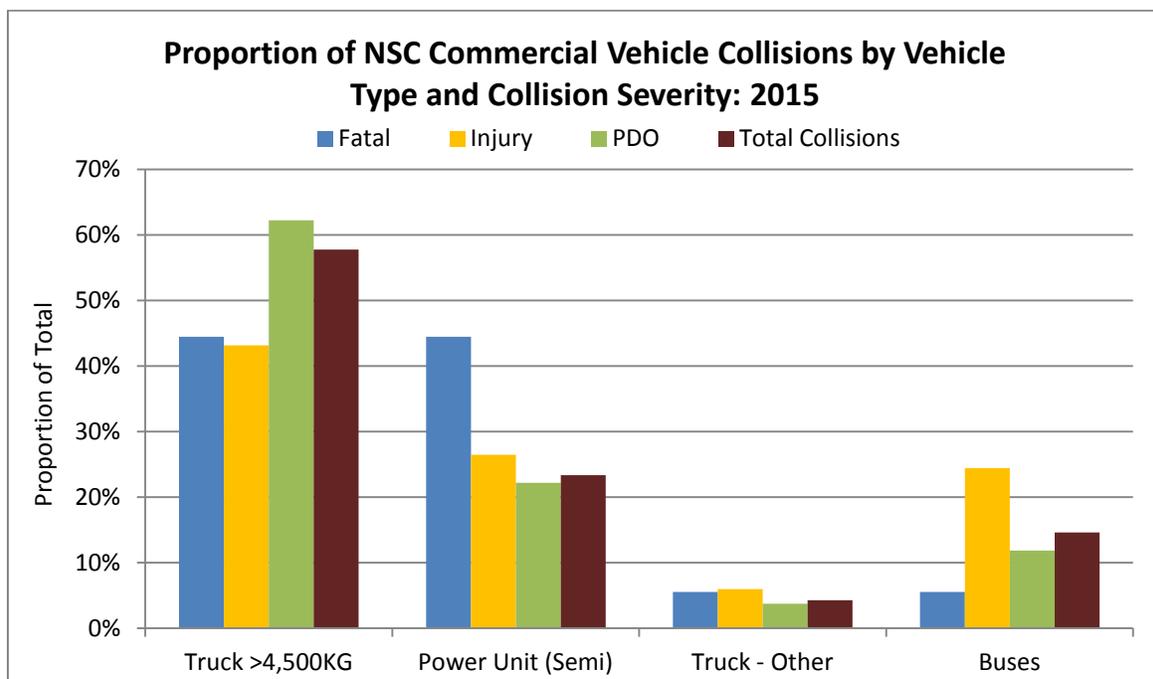
- 18 are involved in fatal collisions;
- 401 are involved in injury collisions; and,
- 1,358 are involved in PDO collisions.

The number of NSC commercial vehicles involved in collisions in 2015 has decreased by 36% (a count of 998) compared to the previous five year (2010 to 2014) annual average. Compared to the previous five years, the number of NSC commercial vehicles in 2015 involved in:

- Fatal collisions is unchanged;
- Injury collisions decreased by 31% (a count of 179); and,
- PDO collisions decreased by 38% (a count of 819).

NOTE: For a detailed historical count of NSC Commercial Vehicles involved in traffic collisions occurring in each year from 2010 to 2014, 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 2015, trucks with a unit chassis greater than 4,500 kilograms and power units for semi-trailers combined account for 81% of the commercial vehicles involved in traffic collisions.

- Power units for semi-trailers account for 8 of the 18 commercial vehicles involved in fatal collisions; and,
- Trucks with unit chassis greater than 4,500 kilograms account for 8 of the 18 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: 2015

Vehicle Type	2015 Casualty Type												2015 Total Victims	% of 2015 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	9	42.9%	10	32.3%	36	27.1%	168	48.8%	9	32.1%	223	41.6%	<b>232</b>	41.7%
Power Unit (Semi-Trailer)	10	47.6%	14	45.2%	41	30.8%	71	20.6%	12	42.9%	138	25.7%	<b>148</b>	26.6%
Truck - Other	1	4.8%	1	3.2%	8	6.0%	24	7.0%	3	10.7%	36	6.7%	<b>37</b>	6.6%
School Bus	0	-	1	3.2%	5	3.8%	7	2.0%	1	3.6%	14	2.6%	<b>14</b>	2.5%
Transit Bus - Urban	1	4.8%	1	3.2%	17	12.8%	37	10.8%	2	7.1%	57	10.6%	<b>58</b>	10.4%
Para-Transit Bus	0	-	1	3.2%	1	0.8%	2	0.6%	0	-	4	0.7%	<b>4</b>	0.7%
Inter-City Bus	0	-	0	-	3	2.3%	1	0.3%	0	-	4	0.7%	<b>4</b>	0.7%
Bus - Other	0	-	3	9.7%	22	16.5%	34	9.9%	1	3.6%	60	11.2%	<b>60</b>	10.8%
<b>Total</b>	<b>21</b>	<b>100%</b>	<b>31</b>	<b>100%</b>	<b>133</b>	<b>100%</b>	<b>344</b>	<b>100%</b>	<b>28</b>	<b>100%</b>	<b>536</b>	<b>100%</b>	<b>557</b>	<b>100%</b>

**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: 2010-2014 Average

Vehicle Type	2010-2014 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	4	10	54	123	8	195	200	27.0%
Power Unit (Semi-Trailer)	8	12	49	62	6	129	137	18.5%
Truck - Other	6	13	98	144	61	316	322	43.6%
School Bus	1	<1	3	3	<1	7	8	1.1%
Transit Bus - Urban	<1	2	13	24	3	42	42	5.7%
Para-Transit Bus	-	-	-	2	<1	2	2	0.3%
Inter-City Bus	-	<1	2	2	<1	5	5	0.6%
Bus - Other	<1	1	8	14	<1	23	24	3.2%
<b>Total</b>	<b>20</b>	<b>39</b>	<b>227</b>	<b>375</b>	<b>79</b>	<b>720</b>	<b>740</b>	<b>100%</b>

Note: Counts of victims in the 2010-2014 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 557 victims in 2015, including:

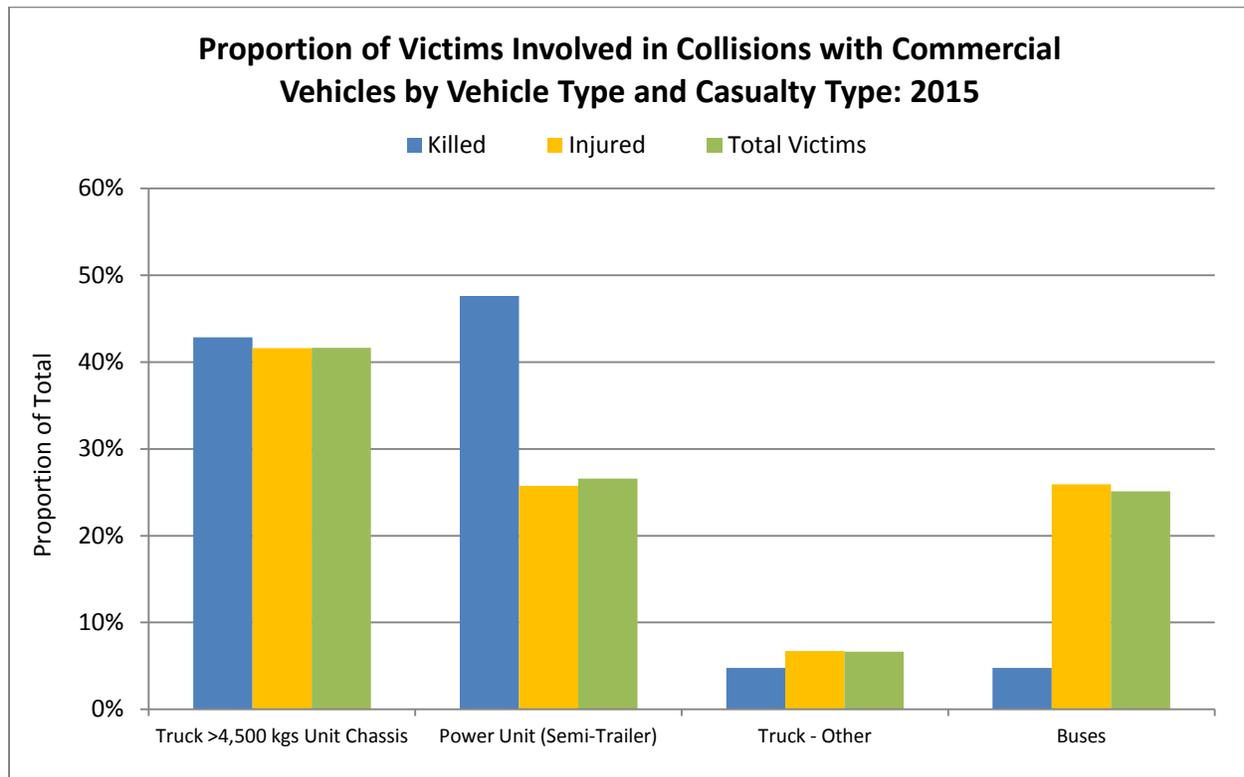
- 21 people killed;
- 31 people seriously injured; and,
- 505 people where the injury is minor, minimal or unspecified.

Collisions involving commercial vehicles in 2015 resulted in fewer people injured overall when compared to the previous five year (2010 to 2014) annual average. In 2015:

- The number of people killed increased by a count of 1 compared to the previous five years;
- The number of people seriously injured decreased by a count of 8 (a nearly 21% decrease) compared to the previous five years; and,
- The number of people injured overall decreased by a count of 184 (a nearly 26% decrease) 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 2010 to 2014, 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 2015, 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 (19 of 21 people killed) or seriously injured (77%).

**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: 2015, 2010-2014 Average

Pre-Collision Activity	2015 Collision Severity						2015 Total	% of 2015 Total	2010-2014 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	14	77.8%	127	31.7%	445	32.8%	586	33.0%	11	248	842	1,101	39.7%
Turning Left	2	11.1%	18	4.5%	52	3.8%	72	4.1%	<1	38	127	166	6.0%
Turning Right	0	-	8	2.0%	32	2.4%	40	2.3%	1	16	93	111	4.0%
Making U Turn	0	-	2	0.5%	4	0.3%	6	0.3%	-	1	6	8	0.3%
Changing Lanes – Left	0	-	1	0.2%	8	0.6%	9	0.5%	-	4	30	34	1.2%
Changing Lanes – Right	0	-	5	1.2%	21	1.5%	26	1.5%	-	6	29	35	1.2%
Merging	0	-	1	0.2%	3	0.2%	4	0.2%	<1	4	18	23	0.8%
Reversing	0	-	6	1.5%	117	8.6%	123	6.9%	-	5	118	122	4.4%
Overtaking	0	-	0	-	0	-	0	-	<1	2	8	10	0.3%
Slowing/Stopping on Roadway	0	-	11	2.7%	36	2.7%	47	2.6%	<1	21	65	87	3.1%
Stopped in Traffic	0	-	29	7.2%	72	5.3%	101	5.7%	<1	55	177	232	8.4%
Starting in Traffic	1	5.6%	9	2.2%	12	0.9%	22	1.2%	-	7	18	25	0.9%
Leave Parking Position/Roadside	0	-	1	0.2%	5	0.4%	6	0.3%	-	1	6	7	0.3%
Enter Parking Position/Roadside	0	-	2	0.5%	6	0.4%	8	0.5%	-	<1	9	10	0.3%
Parked Legally	0	-	1	0.2%	22	1.6%	23	1.3%	<1	4	69	73	2.6%
Parked Illegally	0	-	0	-	0	-	0	-	-	<1	3	3	0.1%
Swerving	0	-	2	0.5%	6	0.4%	8	0.5%	<1	3	10	14	0.5%
Other	0	-	1	0.2%	20	1.5%	21	1.2%	<1	3	16	20	0.7%
Not Applicable/Unknown	1	5.6%	177	44.1%	497	36.6%	675	38.0%	3	160	532	695	25.0%
<b>Total</b>	<b>18</b>	<b>100%</b>	<b>401</b>	<b>100%</b>	<b>1,358</b>	<b>100%</b>	<b>1,777</b>	<b>100%</b>	<b>18</b>	<b>580</b>	<b>2,177</b>	<b>2,775</b>	<b>100%</b>

Note: Counts of vehicles in the 2010-2014 average may not add to the total due to rounding.

In 2015, most NSC commercial vehicles involved in a collision were “going straight ahead” when the collision occurred (33% of NSC vehicles involved in collisions; 78% of NSC vehicles involved in fatal collisions; 32% of NSC vehicles involved in injury collisions; and 33% of NSC vehicles involved in PDO collisions). In the previous five year (2010 to 2014) annual average, “going straight ahead” was noted as the pre-collision action for 40% of all commercial vehicles involved in a collision.

Other noteworthy pre-collision actions for commercial vehicles involved in collisions in 2015 include:

- Stopped or stopping (“stopped in traffic” and “slowing/stopping on roadway” combined) – 8%;
- Reversing – 7% of all collisions; and,
- Turning (“turning left” and “turning right” combined) – 6%.

Considering fatal collisions, there are very few pre-collision actions noted in 2015. “Going straight ahead” was noted for 14 of 18 vehicles involved in a fatal collision. “Turning left” was noted for two NSC vehicles involved in a fatal crash, while one was “starting in traffic”.

Commercial vehicles involved in injury collisions in 2015 were noted most often as “going straight ahead” (32%). Other pre-collision actions of commercial vehicles involved in injury collisions include:

- Stopped or stopping (“stopped in traffic” and slowing/stopping on roadway” combined) – 10%;
- Turning (“turning left” and “turning right” combined) – nearly 7%;
- Starting in traffic – 2%; and,
- Changing lanes (left or right) – nearly 2%.

**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: 2015

Contributing Factor	2015 Collision Severity						2015 Total	% of 2015 Total
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	11	61.1%	190	47.4%	624	45.9%	<b>825</b>	<b>46.4%</b>
Driver Action - Driving properly	0	-	12	3.0%	24	1.8%	<b>36</b>	<b>2.0%</b>
Any Driver Action	6	33.3%	124	30.9%	453	33.4%	<b>583</b>	<b>32.8%</b>
Follow too closely	0	-	43	10.7%	67	4.9%	<b>110</b>	<b>6.2%</b>
Turning improperly	1	5.6%	12	3.0%	41	3.0%	<b>54</b>	<b>3.0%</b>
Passing improperly	0	-	2	0.5%	1	<0.1%	<b>3</b>	<b>0.2%</b>
Changing lanes improperly	0	-	9	2.2%	40	2.9%	<b>49</b>	<b>2.8%</b>
Fail to yield right of way	1	5.6%	13	3.2%	25	1.8%	<b>39</b>	<b>2.2%</b>
Disobey traffic control device/officer	1	5.6%	2	0.5%	5	0.4%	<b>8</b>	<b>0.5%</b>
Drive wrong way on roadway	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Back unsafely	0	-	6	1.5%	118	8.7%	<b>124</b>	<b>7.0%</b>
Parking improperly	0	-	0	-	4	0.3%	<b>4</b>	<b>0.2%</b>
Lost control/Drive off road	1	5.6%	5	1.2%	18	1.3%	<b>24</b>	<b>1.4%</b>
Driverless vehicle ran out of control	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Leave stop sign before safe to do so	1	5.6%	5	1.2%	7	0.5%	<b>13</b>	<b>0.7%</b>
Failed to signal	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Take avoiding action	0	-	2	0.5%	7	0.5%	<b>9</b>	<b>0.5%</b>
Driver inexperience	1	5.6%	0	-	4	0.3%	<b>5</b>	<b>0.3%</b>
Pedestrian error/confusion	0	-	0	-	0	-	<b>0</b>	<b>-</b>
NET Speed	1	5.6%	11	2.7%	43	3.2%	<b>55</b>	<b>3.1%</b>
Exceeding speed limit	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Driving too fast for conditions	1	5.6%	11	2.7%	41	3.0%	<b>53</b>	<b>3.0%</b>
Unsafe operating speed (Too fast or too slow)	0	-	0	-	2	0.1%	<b>2</b>	<b>0.1%</b>
NET Distracted driving	3	16.7%	36	9.0%	179	13.2%	<b>218</b>	<b>12.3%</b>
Careless Driving	2	11.1%	32	8.0%	167	12.3%	<b>201</b>	<b>11.3%</b>
Distraction/Inattention	1	5.6%	4	1.0%	15	1.1%	<b>20</b>	<b>1.1%</b>

(continued on next page)

(continued from previous page)

Contributing Factor	2015 Collision Severity						2015 Total	% of 2015 Total
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	4	22.2%	32	8.0%	195	14.4%	231	13.0%
Any Human Condition	0	-	2	0.5%	0	-	2	0.1%
Loss of consciousness/Blackout prior to collision	0	-	0	-	0	-	0	-
Extreme fatigue/Fell asleep	0	-	2	0.5%	0	-	2	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	-	0	-	0	-
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-
NET Impaired	0	-	0	-	0	-	0	-
Ability impaired alcohol	0	-	0	-	0	-	0	-
Ability impaired drugs	0	-	0	-	0	-	0	-
Had been drinking/Suspected alcohol use	0	-	0	-	0	-	0	-
No apparent (vehicle) defect	15	83.3%	218	54.4%	774	57.0%	1,007	56.7%
Any Vehicle Defect	0	-	5	1.2%	32	2.4%	37	2.1%
Defective brakes	0	-	0	-	2	0.1%	2	0.1%
Defective steering	0	-	2	0.5%	1	<0.1%	3	0.2%
Defective headlights	0	-	0	-	0	-	0	-
Defective brakelights	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	-	5	0.4%	5	0.3%
Defective tires	0	-	0	-	4	0.3%	4	0.2%
Tow hitch/yoke defective	0	-	0	-	5	0.4%	5	0.3%
Defective exhaust system	0	-	0	-	0	-	0	-
Hood/tailgate/door/covering opened	0	-	1	0.2%	0	-	1	<0.1%
Defective glazing (obscured windows)	0	-	0	-	0	-	0	-
Vehicle modifications	0	-	0	-	0	-	0	-
Fire	0	-	0	-	0	-	0	-
Overloaded/oversized	0	-	1	0.2%	1	<0.1%	2	0.1%

(continued on next page)

(continued from previous page)

Contributing Factor	2015 Collision Severity						2015 Total	% of 2015 Total
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Load shifted/spilled	0	-	1	0.2%	6	0.4%	7	0.4%
Jack-knife/trailer swing	0	-	0	-	7	0.5%	7	0.4%
Hydroplaning tires	0	-	0	-	1	<0.1%	1	<0.1%
Any Environmental Condition	0	-	12	3.0%	62	4.6%	74	4.2%
Animal action - Wild	0	-	1	0.2%	32	2.4%	33	1.9%
Animal action - Domestic	0	-	0	-	0	-	0	-
Slippery road surface	0	-	5	1.2%	15	1.1%	20	1.1%
Snow drift	0	-	0	-	1	<0.1%	1	<0.1%
Obstruction/debris on roadway	0	-	0	-	3	0.2%	3	0.2%
View obstructed/limited	0	-	2	0.5%	4	0.3%	6	0.3%
Glare/reflection	0	-	1	0.2%	0	-	1	<0.1%
Construction zone	0	-	0	-	0	-	0	-
Defective driving surface	0	-	0	-	2	0.1%	2	0.1%
Shoulders defective	0	-	1	0.2%	1	<0.1%	2	0.1%
Lane markings inadequate	0	-	0	-	0	-	0	-
Defective/inoperative traffic control device	0	-	0	-	0	-	0	-
Weather	0	-	3	0.7%	6	0.4%	9	0.5%
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	-	56	14.0%	128	9.4%	184	10.4%
Not Applicable/Not Stated	0	-	2	0.5%	5	0.4%	7	0.4%
<b>Total</b>	<b>18</b>	<b>100.0%</b>	<b>401</b>	<b>100.0%</b>	<b>1,358</b>	<b>100%</b>	<b>1,777</b>	<b>100.0%</b>

\*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: 2010-2014 Average

Contributing Factor	2010-2014 Average Count of Vehicles				
	Fatal	Injury	PDO	Total Vehicles	% of Total Vehicles
Driver Action - Driving Properly and Human Condition - Apparently Normal	8	218	770	996	35.9%
Driver Action - Driving properly	1	17	78	96	3.4%
Any Driver Action	6	136	491	633	22.8%
Follow too closely	<1	39	78	117	4.2%
Turning improperly	<1	10	55	65	2.3%
Passing improperly	<1	2	11	13	0.5%
Changing lanes improperly	-	6	42	48	1.7%
Fail to yield right of way	<1	18	41	59	2.1%
Disobey traffic control device/officer	<1	5	12	18	0.6%
Drive wrong way on roadway	<1	<1	<1	1	<0.1%
Passing a vehicle at pedestrian X-walk	-	-	-	-	-
Back unsafely	-	5	90	95	3.4%
Parking improperly	-	<1	3	4	0.1%
Lost control/Drive off road	1	12	24	37	1.3%
Driverless vehicle ran out of control	-	-	<1	<1	<0.1%
Leave stop sign before safe to do so	<1	6	10	17	0.6%
Failed to signal	-	-	<1	<1	<0.1%
Take avoiding action	<1	4	17	21	0.7%
Driver inexperience	-	2	8	10	0.4%
Pedestrian error/confusion	<1	<1	<1	1	<0.1%
NET Speed	2	20	50	71	2.6%
Exceeding speed limit	<1	1	1	3	0.1%
Driving too fast for conditions	1	14	44	59	2.1%
Unsafe operating speed (Too fast or too slow)	<1	5	4	9	0.3%
NET Distracted driving	2	27	112	142	5.1%
Careless Driving	1	18	74	93	3.4%
Distraction/Inattention	<1	10	41	51	1.8%
Human Condition - Apparently Normal	3	71	254	328	11.8%
Any Human Condition	2	15	47	64	2.3%
Loss of consciousness/Blackout prior to collision	-	1	1	3	<0.1%
Extreme fatigue/Fell asleep	-	2	3	4	0.2%
Defective eyesight	-	-	<1	<1	<0.1%
Defective hearing	-	-	-	-	-
Medical disability	-	<1	<1	<1	<0.1%
Physical disability	-	-	-	-	-
Mental disability	<1	-	-	<1	<0.1%
Mental confusion/Inability to remember	-	<1	-	<1	<0.1%
Sudden illness	-	<1	<1	<1	<0.1%
Exceed hours of service (commercial drivers only)	-	-	-	-	-
NET Impaired	1	2	5	9	0.3%
Ability impaired alcohol	1	2	4	7	0.2%
Ability impaired drugs	-	-	<1	<1	<0.1%
Had been drinking/Suspected alcohol use	<1	<1	1	2	<0.1%

(continued on next page)

(continued from previous page)

Contributing Factor	2010-2014 Average Count of Vehicles				
	Fatal	Injury	PDO	Total Vehicles	% of Total Vehicles
No apparent (vehicle) defect	11	271	907	1,189	42.8%
Any Vehicle Defect	<1	6	29	35	1.3%
Defective brakes	<1	1	3	4	0.1%
Defective steering	-	<1	<1	<1	<0.1%
Defective headlights	-	-	-	-	-
Defective brakelights	-	-	<1	<1	<0.1%
Defective lighting (unspecified)	-	<1	<1	<1	<0.1%
Defective engine controls/drive train	-	<1	<1	1	<0.1%
Defective suspension/wheels	-	-	1	1	<0.1%
Defective tires	-	1	6	7	0.2%
Tow hitch/yoke defective	-	-	2	2	<0.1%
Defective exhaust system	-	-	<1	<1	<0.1%
Hood/tailgate/door/covering opened	-	-	<1	<1	<0.1%
Defective glazing (obscured windows)	-	-	<1	<1	<0.1%
Vehicle modifications	-	-	<1	<1	<0.1%
Fire	-	-	<1	<1	<0.1%
Overloaded/oversized	-	<1	1	1	<0.1%
Load shifted/spilled	-	1	5	6	0.2%
Jack-knife/trailer swing	<1	<1	8	9	0.3%
Hydroplaning tires	-	<1	-	<1	<0.1%
Any Environmental Condition	1	41	272	315	11.4%
Animal action - Wild	-	7	159	166	6.0%
Animal action - Domestic	-	<1	7	8	0.3%
Slippery road surface	<1	20	63	84	3.0%
Snow drift	-	1	8	9	0.3%
Obstruction/debris on roadway	-	1	8	9	0.3%
View obstructed/limited	<1	4	13	16	0.6%
Glare/reflection	-	1	2	3	0.1%
Construction zone	-	<1	2	3	<0.1%
Defective driving surface	-	3	4	7	0.3%
Shoulders defective	-	<1	1	2	<0.1%
Lane markings inadequate	-	-	<1	<1	<0.1%
Defective/inoperative traffic control device	<1	<1	<1	1	<0.1%
Weather	<1	5	16	21	0.8%
Pedestrian corridor in use	-	<1	<1	<1	<0.1%
Uninvolved vehicle	-	<1	3	4	0.1%
Uninvolved pedestrian	-	-	<1	<1	<0.1%
Presence of prior accident	-	<1	<1	1	<0.1%
No Contributing Factor(s) Identified	1	162	550	713	25.7%
Not Applicable/Not Stated	-	-	<1	<1	<0.1%
Total	18	580	2,177	2,775	100%

Note: Counts of vehicles in the 2010-2014 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 2015, six in ten 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 13% as "apparently normal" human condition. Over the previous five year (2010 to 2014) annual average, half (51%) of commercial drivers involved in collisions are noted as driving properly and being in a normal human condition.

A driver action is recorded for 33% of the drivers of NSC commercial vehicles involved in traffic collisions in 2015, an increase from the previous five year (2010 to 2014) annual average (23%). A human condition is recorded for 0.1% of the drivers of NSC vehicles involved in traffic collisions in 2015, down from the previous five year (2010 to 2014) annual average (2%).

Specific driver actions noted most often as contributing factors for drivers of NSC commercial vehicles involved a traffic collision in 2015 include:

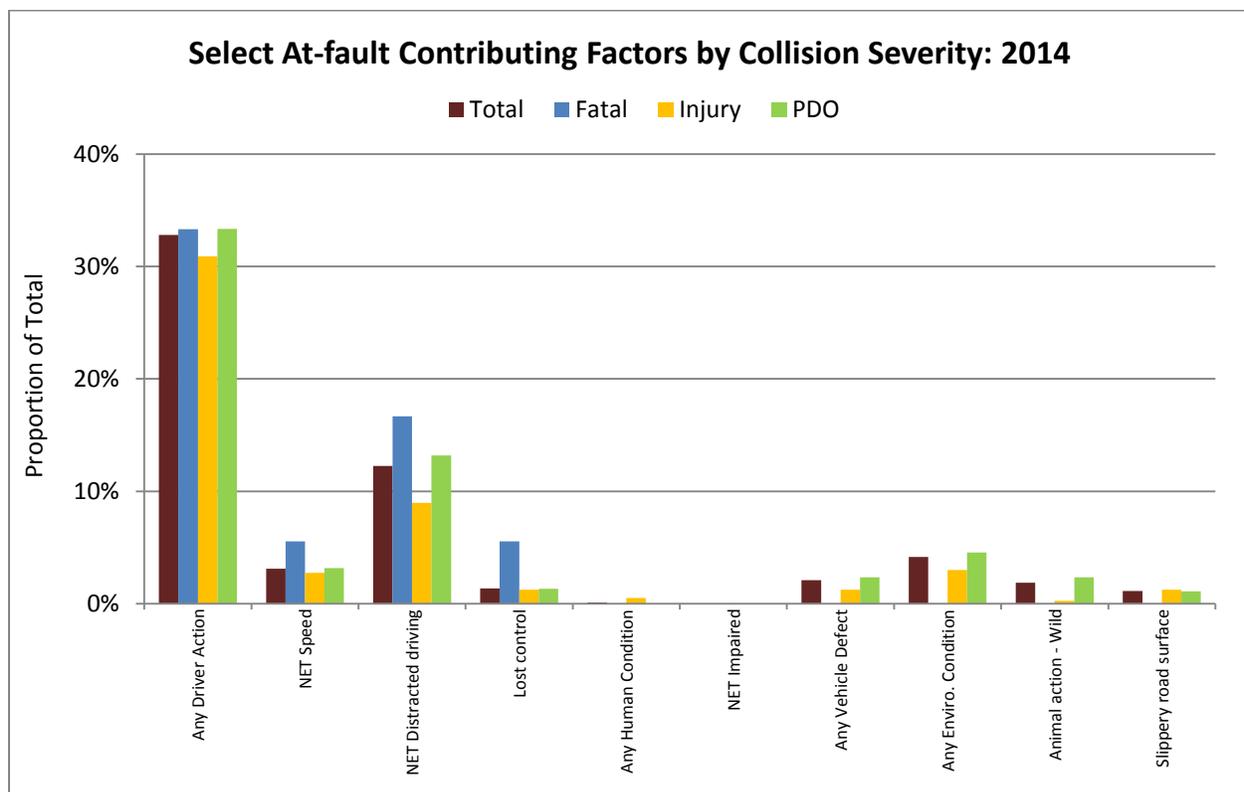
- Distracted driving (including “careless driving” and “distraction/inattention”) – 12%;
- “Following too closely” – 6%;
- “Back unsafely” – 7%;
- “Turning improperly” – 3%;
- Speed (including “exceeding speed limit” “driving too fast for conditions” and “unsafe operating speed (too fast or too slow)”) – 3%;
- “Change lanes improperly” – 3%; and,
- “Fail to yield right of way” – 2%.

The only human condition noted in 2015 as a contributing factor for a commercial vehicle driver involved is “extreme fatigue/fell asleep”, noted for two drivers involved in injury collisions.

A vehicle defect is recorded as a contributing factor for 2% of the commercial vehicles involved in a traffic collision in 2015. This is fairly consistent with the previous five year (2010 to 2014) annual average; vehicle defects are recorded for 1% of the commercial vehicles involved in traffic collisions.

Environmental conditions are recorded as a contributing factor for 4% of the commercial vehicles involved in traffic collisions in 2015 (down from 2010 to 2014 annual average of 11%). The two most common environmental conditions recorded for commercial vehicles involved in a traffic collision in 2015 are “the action of a wild animal” (2%) and “slippery road surface” (1%).

**Figure 10-3 Select At-fault Contributing Factors for Commercial Vehicles and Drivers by Collision Severity**



A driver action is recorded for 6 of 18 commercial vehicle drivers involved in fatal crashes in 2015.

**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: 2010 to 2015

Vehicle Category	2010 Total	% of 2010 Total	2011 Total	% of 2011 Total	2012 Total	% of 2012 Total	2013 Total	% of 2013 Total	2014 Total	% of 2014 Total	<b>2015 Total</b>	<b>% of 2015 Total</b>
Truck >4,500 kgs Unit Chassis	543	12.8%	721	17.4%	932	55.6%	1,097	57.4%	1,082	57.0%	<b>1,026</b>	<b>57.7%</b>
Power Unit (Semi-Trailer)	506	11.9%	546	13.2%	419	25.0%	471	24.7%	500	26.4%	<b>415</b>	<b>23.4%</b>
Truck - Other	2,961	69.7%	2,654	64.0%	88	5.3%	95	5.0%	80	4.2%	<b>76</b>	<b>4.3%</b>
School Bus	90	2.1%	44	1.1%	0	-	1	<0.1%	1	<0.1%	<b>10</b>	<b>0.6%</b>
Transit Bus - Urban	96	2.3%	90	2.2%	101	6.0%	102	5.3%	98	5.2%	<b>110</b>	<b>6.2%</b>
Para-Transit Bus	1	<0.1%	8	0.2%	8	0.5%	6	0.3%	5	0.3%	<b>13</b>	<b>0.7%</b>
Inter-City Bus	26	0.6%	23	0.6%	8	0.5%	7	0.4%	10	0.5%	<b>7</b>	<b>0.4%</b>
Bus - Other	24	0.6%	58	1.4%	120	7.2%	131	6.9%	121	6.4%	<b>120</b>	<b>6.8%</b>
<b>Total</b>	<b>4,247</b>	<b>100%</b>	<b>4,144</b>	<b>100%</b>	<b>1,676</b>	<b>100%</b>	<b>1,910</b>	<b>100%</b>	<b>1,897</b>	<b>100%</b>	<b>1,777</b>	<b>100%</b>

**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: 2010 to 2015

Vehicle Category	2010 Total	% of 2010 Total	2011 Total	% of 2011 Total	2012 Total	% of 2012 Total	2013 Total	% of 2013 Total	2014 Total	% of 2014 Total	<b>2015 Total</b>	<b>% of 2015 Total</b>
Truck >4,500 kgs Unit Chassis	131	11.7%	147	14.0%	196	42.7%	265	49.4%	260	48.6%	<b>232</b>	<b>41.7%</b>
Power Unit (Semi-Trailer)	112	10.0%	113	10.8%	155	33.8%	143	26.7%	162	30.3%	<b>148</b>	<b>26.6%</b>
Truck - Other	819	73.0%	702	67.0%	22	4.8%	33	6.2%	35	6.5%	<b>37</b>	<b>6.6%</b>
School Bus	19	1.7%	17	1.6%	0	-	5	0.9%	1	0.2%	<b>14</b>	<b>2.5%</b>
Transit Bus - Urban	30	2.7%	41	3.9%	55	12.0%	46	8.6%	38	7.1%	<b>58</b>	<b>10.4%</b>
Para-Transit Bus	0	-	2	0.2%	5	1.1%	2	0.4%	1	0.2%	<b>4</b>	<b>0.7%</b>
Inter-City Bus	5	0.4%	13	1.2%	3	0.7%	2	0.4%	1	0.2%	<b>4</b>	<b>0.7%</b>
Bus - Other	6	0.5%	12	1.1%	23	5.0%	40	7.5%	37	6.9%	<b>60</b>	<b>10.8%</b>
<b>Total</b>	<b>1,122</b>	<b>100%</b>	<b>1,047</b>	<b>100%</b>	<b>459</b>	<b>100%</b>	<b>536</b>	<b>100%</b>	<b>535</b>	<b>100%</b>	<b>557</b>	<b>100%</b>

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 four year period 2012 to 2015 is presented. Details are provided for 2015 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.

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 2015, there are 269 off-road vehicle collisions, involving 67 victims, 303 vehicles and 300 drivers. Of these:

- 7 are fatal collisions, involving 8 vehicles and 8 drivers, resulting in 7 people killed and 0 injured;
- 53 are injury collisions, involving 63 vehicles and 63 drivers, resulting in 60 people injured; and,
- 209 are PDO collisions, involving 232 vehicles and 229 drivers.

In 2015, ORV collisions occur most often:

- During the months from January through June, representing 168 of 269 collisions (nearly 63%).
- On weekends (Friday, Saturday and Sunday), representing 191 of 269 (71%) collisions.
- During daylight, representing 166 of 269 (62%) collisions.
- In the Eastern Region of Manitoba, representing 142 of 269 (53%) collisions.
- With drivers under the age of 45, 189 of 279 drivers (where age is known) involved in ORV collisions (68%).

Notwithstanding the overall collision trends, **fatal** ORV collisions in 2015 occur most often:

- On weekends (Friday, Saturday and Sunday), representing 5 of 7 fatal collisions (71%).
- Between noon and midnight, 5 of 7 fatal collisions (71%).
- In the South Central and Eastern Regions of Manitoba combined, accounting for 5 of 7 fatal collisions (71%).

### **Major Elements Examined**

Counts of off-road vehicle (ORV) collisions in Manitoba for 2015 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 2012 through 2015. The remainder of this section explores ORV collisions occurring in 2015 and provides average counts of collisions for the time period of 2012 to 2014 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, other types of vehicles, and driverless vehicles. 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 2012 to 2014. 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: 2012 to 2015

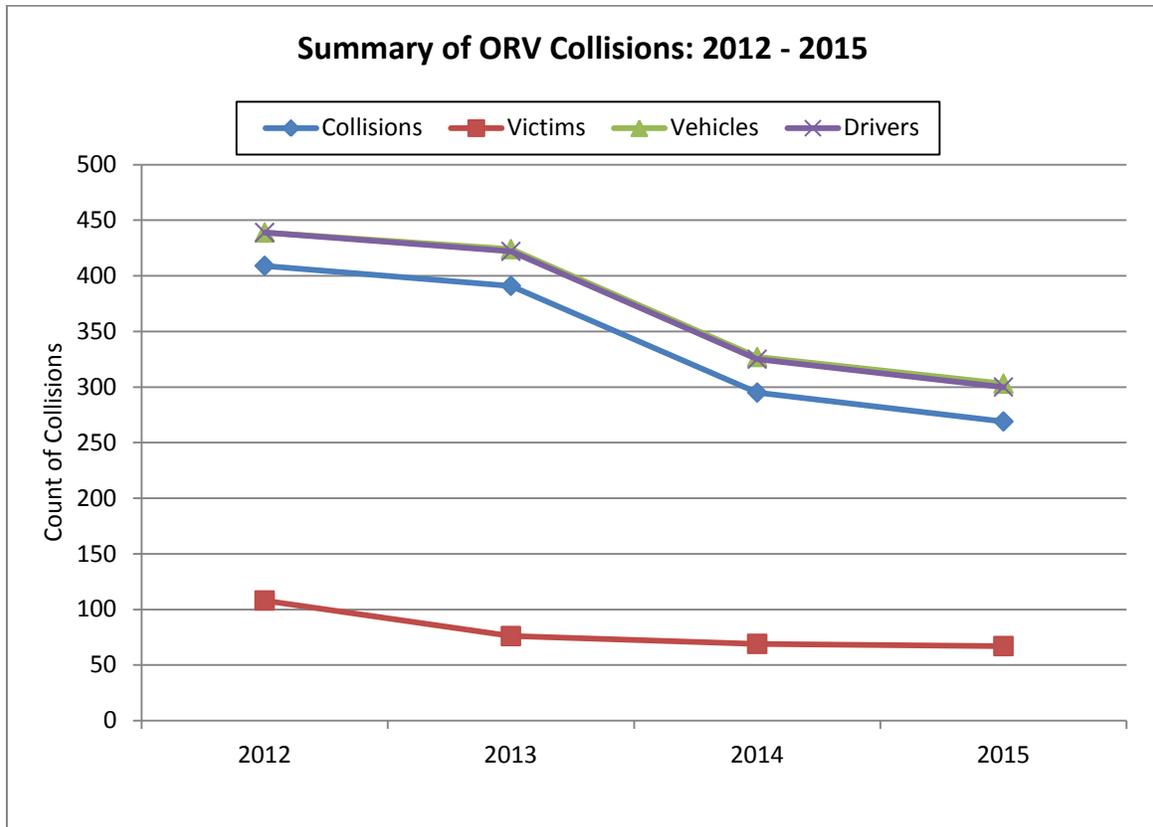
	2012	2013	2014	2015	2012-2014 Average
Total Collisions	409	391	295	<b>269</b>	365
Fatal	9	13	11	<b>7</b>	11
Injury	87	59	49	<b>53</b>	65
PDO	313	319	235	<b>209</b>	289
Total Victims	108	76	69	<b>67</b>	84
Killed	10	13	14	<b>7</b>	12
Injured	98	63	55	<b>60</b>	72
Total Vehicles Involved	439	424	327	<b>303</b>	397
Fatal	10	14	16	<b>8</b>	13
Injury	91	63	57	<b>63</b>	70
PDO	338	347	254	<b>232</b>	313
Total Drivers Involved	439	422	325	<b>300</b>	395
Fatal	10	14	16	<b>8</b>	13
Injury	91	63	57	<b>63</b>	70
PDO	338	345	252	<b>229</b>	312

In 2015, there are 269 off-road vehicle collisions, involving 67 victims, 303 vehicles and 300 drivers. Of these:

- 7 are fatal collisions, involving 8 vehicles and 8 drivers, resulting in 7 people killed and 0 injured;
- 53 are injury collisions, involving 63 vehicles and 63 drivers, resulting in 60 people injured; and,
- 209 are PDO collisions, involving 232 vehicles and 229 drivers.

Total ORV collisions in 2015 are 9% lower than in 2014 and 26% lower than the average number of collisions in the previous three year (2012 to 2014) period. Compared to the previous three years, in 2015:

- ORV collision victims are down 21%;
- The number of people killed decreased by 43%;
- The number of vehicles involved decreased by 24%; and,
- The number of drivers involved decreased by 24%.

**Figure 11-1 Historical Summary of ORV Collisions**

The numbers of ORV collisions and victims in those collisions decreased in 2015. The number of vehicles and drivers involved in those collisions has also decreased.

**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: 2015, 2012-2014 Average

	2015					2012-2014 Average					% Change 2015 to 2012-2014 Average				
	Snowmobile	ATV	Motorcycle	Other*	Total	Snowmobile	ATV	Motorcycle	Other*	Total	Snowmobile	ATV	Motorcycle	Other*	Total
Total Victims	22	36	4	5	<b>67</b>	40	38	2	5	84	-44.5%	-5.3%	100.0%	7.1%	-20.6%
Killed	3	4	0	0	<b>7</b>	4	7	<1	<1	12	-30.8%	-42.9%	-100.0%	-100.0%	-43.2%
Injured	19	32	4	5	<b>60</b>	35	31	1	4	72	-46.2%	3.2%	200.0%	15.4%	-16.7%
Total Vehicles Involved	118	143	5	37	<b>303</b>	196	158	2	41	397	-39.8%	-9.7%	200.0%	-9.0%	-23.6%
Fatal	3	4	0	1	<b>8</b>	4	7	<1	1	13	-30.8%	-42.9%	-100.0%	-25.0%	-40.0%
Injury	20	31	4	8	<b>63</b>	36	27	1	6	70	-44.4%	14.8%	300.0%	26.3%	-10.4%
PDO	95	108	1	28	<b>232</b>	156	124	0	33	313	-39.0%	-13.1%	100.0%	-15.2%	-25.9%
Total Drivers Involved	118	141	5	36	<b>300</b>	196	158	2	40	395	-39.7%	-10.8%	200.0%	-10.0%	-24.1%
Fatal	3	4	0	1	<b>8</b>	4	7	<1	1	13	-30.8%	-42.9%	-100.0%	-25.0%	-40.0%
Injury	20	31	4	8	<b>63</b>	36	27	1	6	70	-44.4%	14.8%	300.0%	26.3%	-10.4%
PDO	95	106	1	27	<b>229</b>	155	124	0	32	312	-38.8%	-14.5%	100.0%	-16.5%	-26.5%

\* '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 2015, a total of 303 vehicles were involved in off-road collisions, including:

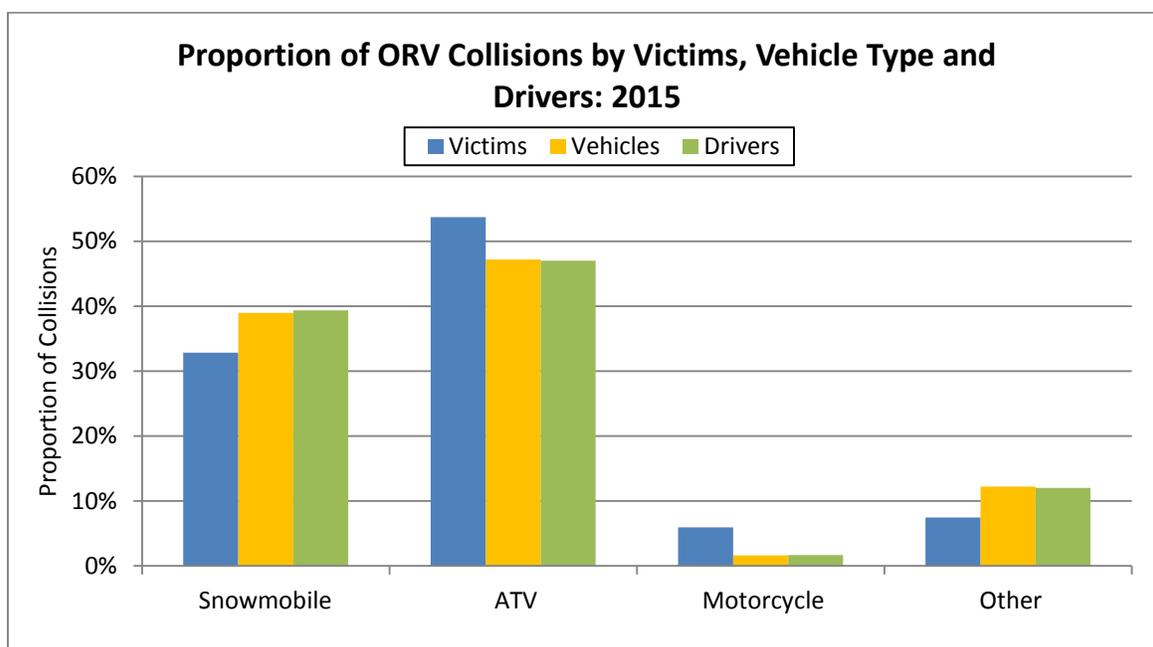
- 118 snowmobiles and snowmobile drivers, resulting in 22 victims including 3 people killed;
- 143 ATVs and 141 ATV drivers, resulting in 36 victims including 4 people killed;
- 5 motorcycles and motorcycle drivers, resulting in 4 victims and no person killed; and,
- 37 'Other' vehicles and 36 drivers of those vehicles, resulting in 5 victims and no person killed.

Compared to the previous three year (2012 to 2014) annual average, in 2015:

- Snowmobile collisions are below average across all categories – victims are down by nearly 45%, while vehicles and drivers involved are down by 40% each.
- ATV collisions are below average across all categories – victims are down by 5%, vehicles and drivers are down by 10% and 11%, respectively. However, the number of people injured in ATV collisions increased by a count of 1 (or 3%).
- Motorcycle collisions are above average across all categories – victims are up by a count of 2, while vehicles and drivers involved are up by a count of 3 each.
- 'Other' vehicle collisions are below average in total vehicles and total drivers involved, while victim counts remain the same – vehicles and drivers involved are down by 9% and 10%, respectively.

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 2015, ATVs account for the largest proportion of victims as well as drivers and vehicles involved in ORV collisions, followed by snowmobiles.

**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: 2015, 2012-2014 Average

Month	2015 Collision Severity						2015 Total	% of 2015 Total	2012-2014 Average	% Change 2015 to 2012-2014 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
January	1	14.3%	8	15.1%	26	12.4%	35	13.0%	48	-27.6%
February	0	-	8	15.1%	28	13.4%	36	13.4%	57	-37.2%
March	1	14.3%	4	7.5%	34	16.3%	39	14.5%	56	-30.4%
April	0	-	4	7.5%	20	9.6%	24	8.9%	27	-12.2%
May	0	-	6	11.3%	9	4.3%	15	5.6%	23	-35.7%
June	0	-	3	5.7%	16	7.7%	19	7.1%	19	-1.7%
July	1	14.3%	4	7.5%	15	7.2%	20	7.4%	20	-1.6%
August	0	-	3	5.7%	13	6.2%	16	5.9%	19	-17.2%
September	0	-	6	11.3%	16	7.7%	22	8.2%	19	17.9%
October	2	28.6%	3	5.7%	11	5.3%	16	5.9%	17	-7.7%
November	1	14.3%	2	3.8%	4	1.9%	7	2.6%	23	-69.1%
December	1	14.3%	2	3.8%	17	8.1%	20	7.4%	35	-42.9%
Total	7	100%	53	100%	209	100%	269	100%	365	-26.3%

The majority of ORV collisions in 2015 occur from January to June. When combined, these six months account for nearly 63% of ORV collisions.

The 2015 proportional distribution of ORV collisions by month is similar to the previous three year (2012 to 2014) annual average.

- Winter (December/January/February) – 34% in 2015; nearly 39% in the previous three years.
- Spring (March/April/May) – 29% in 2015 and in the previous three years.
- Summer (June/July/August) – 20% in 2015; 16% in the previous three years.
- Fall (September/October/November) – 17% in 2015; 16% in the previous three years.

In 2015, fatal ORV collisions do not follow any discernible pattern by month of occurrence.

Injury ORV collisions appear more frequent from January to June in 2015 (62%).

NOTE: For a detailed count of ORV collisions by month of occurrence in each year from 2012 to 2015, 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**

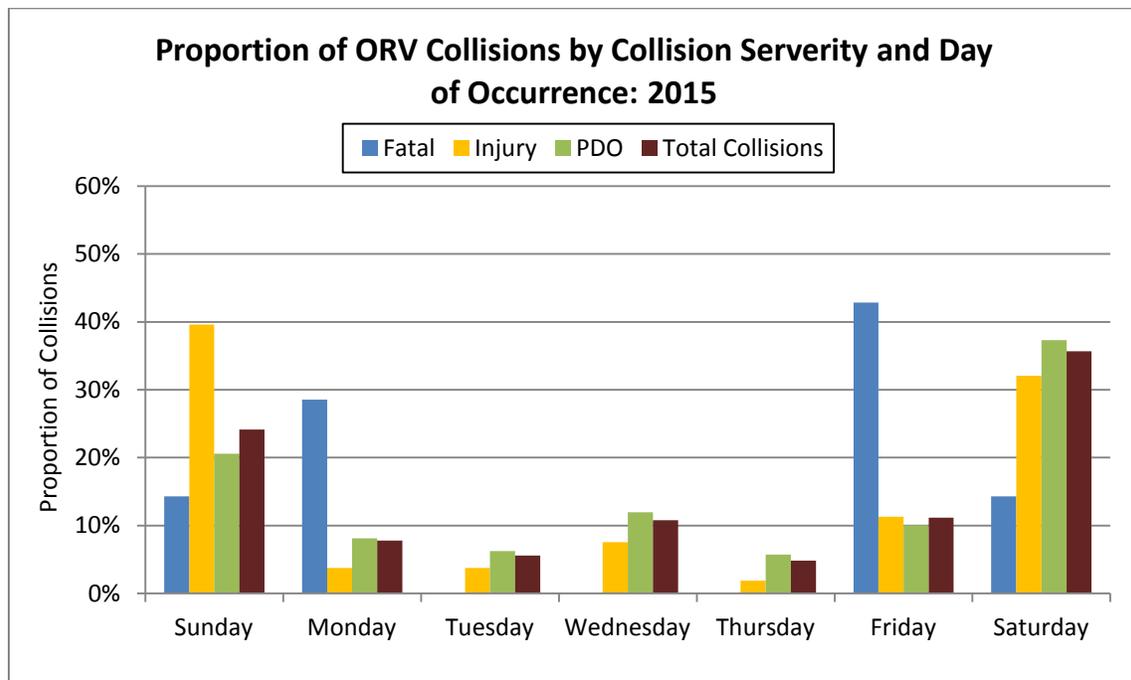
Table 11-4  
ORV Collisions by Day of Occurrence and Collision Severity: 2015, 2012-2014 Average

Day	2015 Collision Severity						2015 Total	% of 2015 Total	2012-2014 Average	% Change 2015 to 2012-2014 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Sunday	1	14.3%	21	39.6%	43	20.6%	65	24.2%	80	-18.8%
Monday	2	28.6%	2	3.8%	17	8.1%	21	7.8%	28	-25.9%
Tuesday	0	-	2	3.8%	13	6.2%	15	5.6%	26	-41.6%
Wednesday	0	-	4	7.5%	25	12.0%	29	10.8%	21	38.1%
Thursday	0	-	1	1.9%	12	5.7%	13	4.8%	28	-54.1%
Friday	3	42.9%	6	11.3%	21	10.0%	30	11.2%	42	-28.6%
Saturday	1	14.3%	17	32.1%	78	37.3%	96	35.7%	140	-31.3%
Total	7	100%	53	100%	209	100%	269	100%	365	-26.3%

The majority of ORV collisions happen on weekends (Friday, Saturday and Sunday). In 2015, 71% of ORV collisions occurred on Friday (11%), Saturday (36%) and Sunday (24%). Monday through Thursday account for 29% of ORV collisions.

In 2015, 5 of 7 of all fatal ORV collisions (71%) occur on weekends (Friday, Saturday and Sunday combined), including 3 fatal ORV collisions on Fridays.

**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: 2015, 2012-2014 Average

Time	2015 Collision Severity						2015 Total	% of 2015 Total	2012-2014 Average	% Change 2015 to 2012-2014 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
00:00 - 02:59	1	14.3%	4	7.5%	3	1.4%	8	3.0%	7	20.0%
03:00 - 05:59	1	14.3%	3	5.7%	0	-	4	1.5%	2	71.4%
06:00 - 08:59	0	-	0	-	2	1.0%	2	0.7%	4	-53.8%
09:00 - 11:59	0	-	6	11.3%	22	10.5%	28	10.4%	38	-27.0%
12:00 - 14:59	3	42.9%	7	13.2%	74	35.4%	84	31.2%	105	-20.3%
15:00 - 17:59	1	14.3%	16	30.2%	54	25.8%	71	26.4%	106	-33.2%
18:00 - 20:59	0	-	8	15.1%	42	20.1%	50	18.6%	69	-27.9%
21:00 - 23:59	1	14.3%	9	17.0%	12	5.7%	22	8.2%	32	-30.5%
Not Stated	0	-	0	-	0	-	0	-	<1	-100.0%
Total	7	100%	53	100%	209	100%	269	100%	365	-26.3%

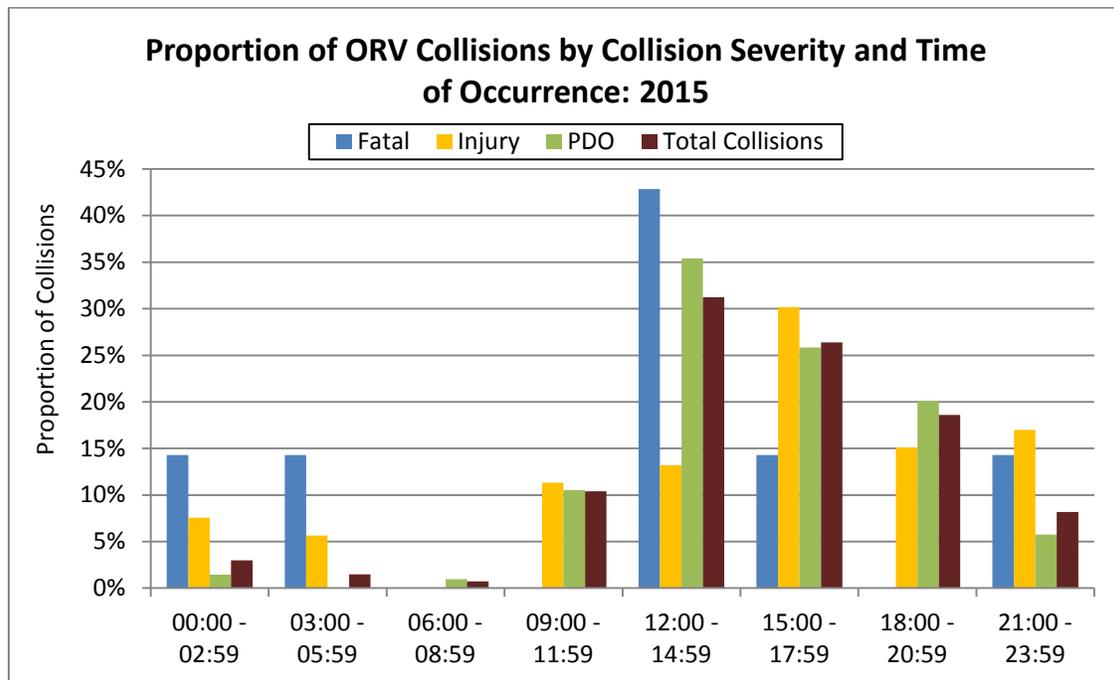
The majority of off-road collisions occur in the afternoon and evening. In 2015, 84% of all ORV vehicle collisions occurred between noon and midnight (12:00 to 14:59 – 31%; 15:00 to 17:59 – 26%; 18:00 to 20:59 – 19%; 21:00 to 23:59 – 8%).

The proportional distribution of ORV collisions by time of day in 2015 is similar to the previous three year (2012 to 2014) annual average.

- Morning (06:00 to 11:59) – 11% in 2015; 12% in the previous three years.
- Afternoon (12:00 to 17:59) – 58% in 2015 and in the previous three years.
- Evening (18:00 to 20:59) – 19% in 2015 and in the previous three years.
- Overnight (21:00 to 05:59) – 13% in 2015; 11% in the previous three years.

In 2015, the majority of fatal ORV collisions occurred between noon and midnight (5 of 7 fatal collisions).

In 2015, 23 of 53 injury ORV collisions occurred between noon and 6 p.m. and 17 of 53 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 2015, nearly 5% of ORV collisions occurred between midnight and 6 a.m., however, the proportion of fatal collisions is much higher (2 of 7 fatal collisions occurred between midnight and 6 a.m., i.e. 29%). The majority of all ORV collisions occurred between noon and midnight (84%), while 11% occurred between 6 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: 2015, 2012-2014 Average

Light Condition	2015 Collision Severity						2015 Total	% of 2015 Total	2012-2014 Average	% Change 2015 to 2012-2014 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Day	1	14.3%	28	52.8%	137	65.6%	166	61.7%	231	-28.0%
Dawn	0	-	1	1.9%	1	0.5%	2	0.7%	2	0.0%
Dusk	0	-	2	3.8%	13	6.2%	15	5.6%	18	-15.1%
Dark	4	57.1%	15	28.3%	22	10.5%	41	15.2%	52	-20.6%
Artificial Light	0	-	0	-	0	-	0	-	2	-100.0%
Not Stated	2	28.6%	7	13.2%	36	17.2%	45	16.7%	61	-25.8%
Total	7	100%	53	100%	209	100%	269	100%	365	-26.3%

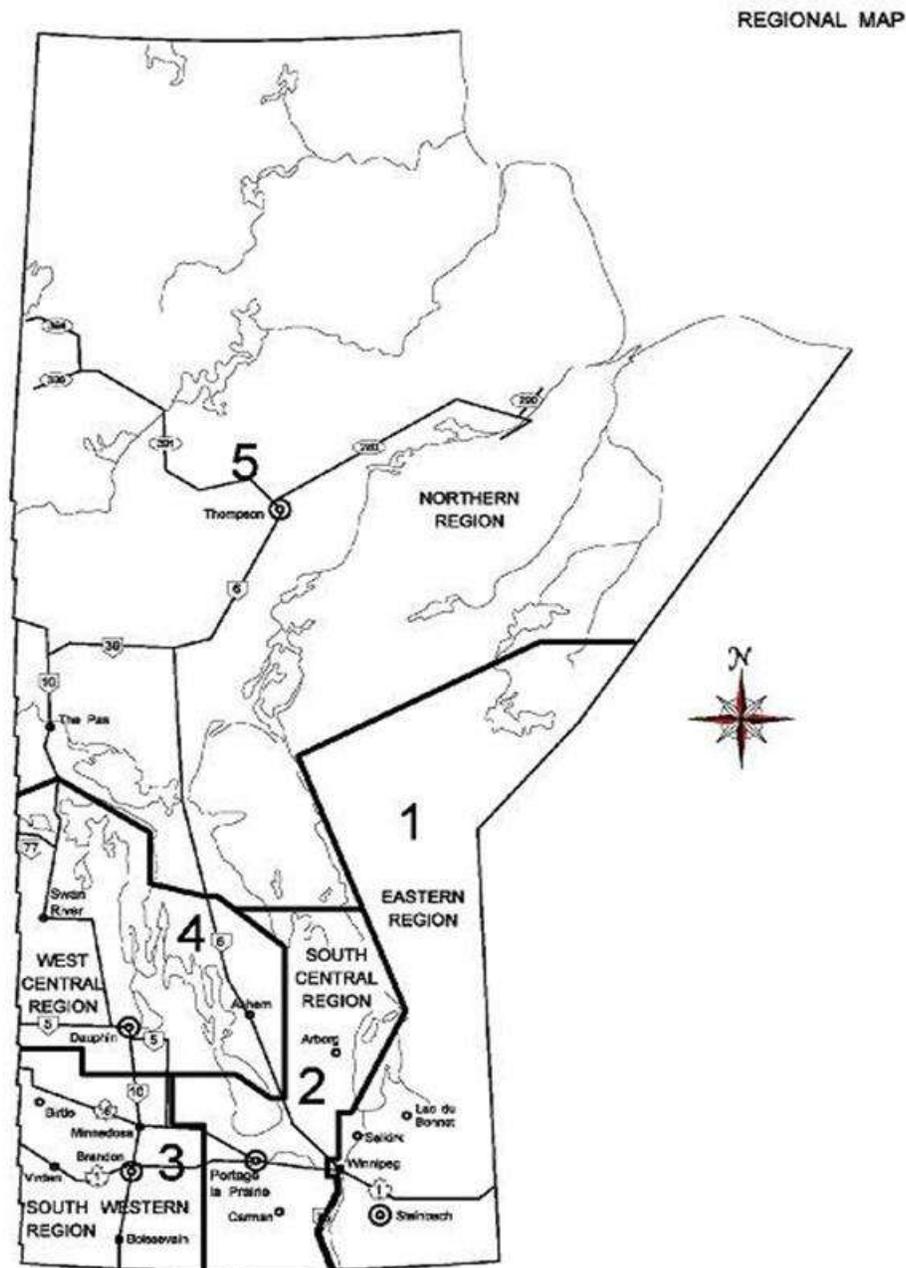
The majority of ORV collisions occur during daylight conditions, from a half hour after sunrise to a half hour before sunset. In 2015, daylight conditions account for 62% of ORV collisions. An additional 15% occurred during darkness.

**Table 11-7 ORV Collisions by Weather Condition and Collision Severity**Table 11-7  
ORV Collisions by Weather Condition and Collision Severity: 2015, 2012-2014 Average

Weather Condition	2015 Collision Severity						2015 Total	% of 2015 Total	2012-2014 Average	% Change 2015 to 2012-2014 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Clear	4	57.1%	35	66.0%	122	58.4%	161	59.9%	222	-27.6%
Cloudy	0	-	1	1.9%	23	11.0%	24	8.9%	39	-37.9%
Raining	1	14.3%	2	3.8%	2	1.0%	5	1.9%	5	-6.2%
Snowing	0	-	4	7.5%	10	4.8%	14	5.2%	12	16.7%
Fog/Mist	0	-	0	-	2	1.0%	2	0.7%	4	-45.5%
Smoke/Dust	0	-	0	-	2	1.0%	2	0.7%	<1	500.0%
Freezing Rain/Sleet/Hail	0	-	0	-	0	-	0	-	<1	-100.0%
Drifting Snow	0	-	0	-	5	2.4%	5	1.9%	5	0.0%
Strong Winds	1	14.3%	0	-	3	1.4%	4	1.5%	2	100.0%
Not Stated	1	14.3%	11	20.8%	40	19.1%	52	19.3%	75	-31.0%
Total	7	100%	53	100%	209	100%	269	100%	365	-26.3%

The majority of ORV collisions occur when weather conditions are clear. In 2015, 60% of ORV collisions occurred in clear weather conditions. Another 9% 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.<sup>3</sup> Off-road vehicle collisions are reported by location within these regions.

<sup>3</sup> 2014/2015 Annual Report for Manitoba Infrastructure and Transportation:  
[http://www.gov.mb.ca/mit/reports/annual/2014\\_2015\\_annual.pdf](http://www.gov.mb.ca/mit/reports/annual/2014_2015_annual.pdf)

**Table 11-8 ORV Collisions by MIT Regions and Collision Severity**

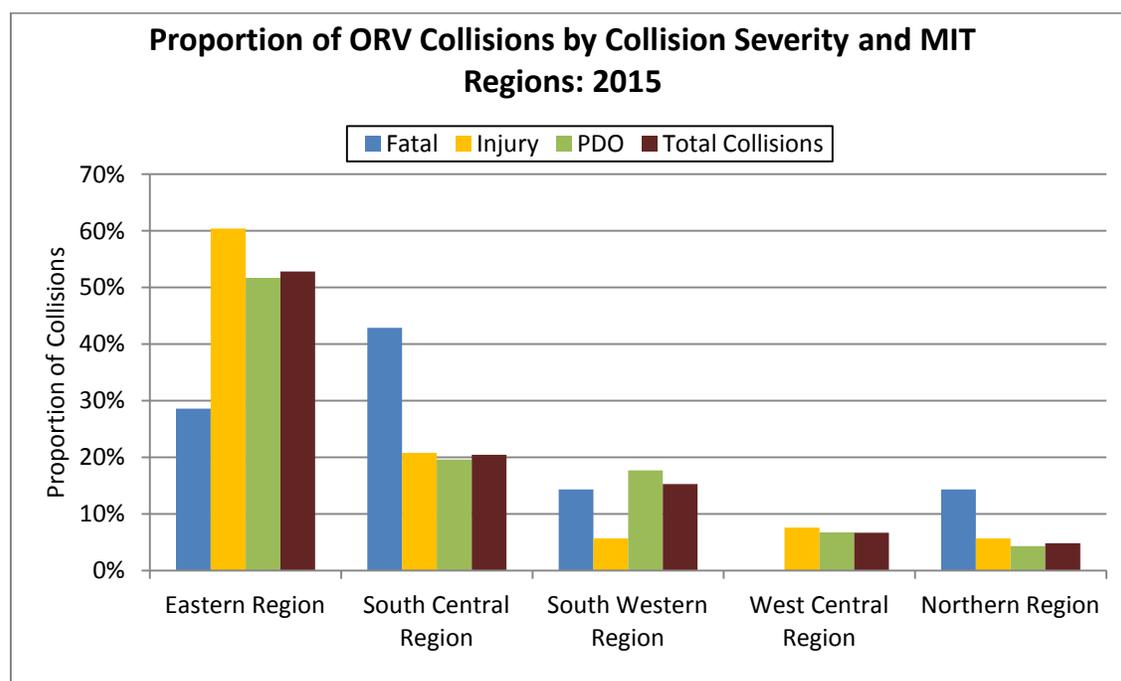
Table 11-8  
ORV Collisions by MIT Regions and Collision Severity: 2015, 2012-2014 Average

Region	2015 Collision Severity						2015 Total	% of 2015 Total	2012-2014 Average	% Change 2015 to 2012-2014 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Eastern Region	2	28.6%	32	60.4%	108	51.7%	142	52.8%	182	-22.1%
South Central Region	3	42.9%	11	20.8%	41	19.6%	55	20.4%	75	-27.0%
South Western Region	1	14.3%	3	5.7%	37	17.7%	41	15.2%	46	-10.9%
West Central Region	0	-	4	7.5%	14	6.7%	18	6.7%	37	-51.8%
Northern Region	1	14.3%	3	5.7%	9	4.3%	13	4.8%	24	-45.8%
Total	7	100%	53	100%	209	100%	269	100%	365	-26.3%

The Eastern Region of Manitoba historically accounts for a large share of off-road vehicle accidents. In 2015, 53% of ORV collisions occurred in the Eastern Region. The South Central Region follows with 20%, while the South Western Region accounts for 15% of the total collisions.

The overall count of ORV collisions in 2015 is down across all regions in Manitoba (compared to the 2012 to 2014 annual average). The proportional distribution of collisions by region in 2015 is similar to the previous three year annual average.

- Eastern Region – 53% of ORV collisions in 2015; 50% in previous three years.
- South Central Region – 20% of ORV collisions in 2015; 21% in previous three years.
- South Western Region – 15% of ORV collisions in 2015; 13% in previous three years.
- West Central Region – 7% of ORV collisions in 2015; 10% in previous three years.
- Northern Region – 5% of ORV collisions in 2015; 7% in previous three years.

**Figure 11-5 Proportion of ORV Collisions by Collision Severity and MIT Regions**

Fatal ORV collisions in 2015 occur most often in the South Central and Eastern Regions of Manitoba (3 of 7 and 2 of 7 fatal collisions, respectively), followed by the South Western and Northern Regions (1 of 7 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: 2015, 2012-2014 Average

Location	2015 Collision Severity						2015 Total	% of 2015 Total	2012-2014 Average	% Change 2015 to 2012-2014 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Public Roadway	4	57.1%	14	26.4%	36	17.2%	54	20.1%	58	-7.4%
Ditches	1	14.3%	4	7.5%	22	10.5%	27	10.0%	29	-6.9%
River/Lake	0	-	6	11.3%	16	7.7%	22	8.2%	36	-38.3%
Field	0	-	3	5.7%	14	6.7%	17	6.3%	14	21.4%
Farm Yard/Private Property	1	14.3%	4	7.5%	38	18.2%	43	16.0%	47	-9.2%
Parking Lot	0	-	0	-	2	1.0%	2	0.7%	2	20.0%
Embankment	0	-	0	-	1	0.5%	1	0.4%	2	-50.0%
Gravel Road	1	14.3%	2	3.8%	2	1.0%	5	1.9%	7	-28.6%
Trail*	0	-	8	15.1%	40	19.1%	48	17.8%	92	-48.0%
Other**	0	-	11	20.8%	36	17.2%	47	17.5%	71	-33.5%
Not Stated	0	-	1	1.9%	2	1.0%	3	1.1%	7	-57.1%
<b>Total</b>	<b>7</b>	<b>100%</b>	<b>53</b>	<b>100%</b>	<b>209</b>	<b>100%</b>	<b>269</b>	<b>100%</b>	<b>365</b>	<b>-26.3%</b>

\*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 2015, “public roadway” was the most common location for ORV collisions (20% of total) followed by “trail” (18%).

The proportion of ORV collisions happening at specific locations in 2015 shows some differences when compared to the previous three year (2012 to 2014) annual average.

- “Public Roadway” – 20% in 2015; 16% in the previous three years.
- “Trail” – 18% in 2015; 25% in the previous three years.
- “Other” – nearly 18% in 2015; 19% in the previous three years.
- “Farm Yard/Private Property” – 16% in 2015; 13% in the previous three years.
- “Ditches” – 10% in 2015; 8% in the previous three years.

NOTE: For a detailed count of ORV collisions by location in each year from 2012 to 2015, 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: 2015, 2012-2014 Average

Age Group	2015 Casualty Type				2015 Total Victims	% of 2015 Total Victims	2012-2014 Average			
	Killed	% of Total Killed	Injured	% of Total Injured			Killed	Injured	Total Victims	% of Total Victims
0-4	0	-	1	1.7%	1	1.5%	0	0	0	-
5-9	0	-	1	1.7%	1	1.5%	0	0	0	-
10-14	0	-	1	1.7%	1	1.5%	1	<1	2	2.0%
15-19	1	14.3%	4	6.7%	5	7.5%	1	7	8	9.5%
20-24	0	-	9	15.0%	9	13.4%	2	9	11	12.6%
25-34	2	28.6%	9	15.0%	11	16.4%	3	13	16	19.0%
35-44	0	-	16	26.7%	16	23.9%	1	16	17	20.2%
45-54	1	14.3%	9	15.0%	10	14.9%	2	13	15	17.4%
55-64	3	42.9%	4	6.7%	7	10.4%	2	6	7	8.7%
65+	0	-	2	3.3%	2	3.0%	0	2	2	2.4%
Not Stated	0	-	4	6.7%	4	6.0%	1	6	7	8.3%
Total	7	100%	60	100%	67	100%	12	72	84	100%

The majority of ORV collision victims are under the age of 45 (66% of all victims). In 2015, 8 of 67 ORV collision victims (12%) are under the age of 20 while 13% are aged 20-24, 16% are aged 25-34, and 24% are aged 35-44. Nineteen of 67 victims (28%) are 45 years old and older (15% aged 45 to 54; 10% aged 55 to 64; 3% aged 65 and older).

ORV collision victims in 2015 are, for the most part, consistent in terms of overall age demographic when compared with the previous three year (2012 to 2014) annual average. In the previous three years:

- Persons under the age of 15 account for 2% of all victims in ORV collisions, compared to nearly 5% in 2015;
- Persons aged 15 to 44 account for 61% of all victims in ORV collisions, compared to the same proportion in 2015;
- Persons aged 45 and above account for nearly 29% of all victims in ORV collisions, compared to 28% in 2015.

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 2012 to 2015, 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: 2015, 2012-2014 Average

Gender	2015 Casualty Type				2015 Total Victims	% of 2015 Total Victims	2012-2014 Average			
	Killed	% of Total Killed	Injured	% of Total Injured			Killed	Injured	Total Victims	% of Total Victims
Male	7	100%	43	78.2%	50	80.6%	9	56	66	85.3%
Female	0	-	12	21.8%	12	19.4%	2	9	11	14.7%
Total	7	100%	55	100%	62	100%	11	66	77	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 2015 are male. Males account for 50 of 62 ORV collision victims (81%). This is consistent with the previous three year (2012 to 2014) annual average (85%).

**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: 2015, 2012-2014 Average

Safety Equipment	2015 Casualty Type				2015 Total Victims	% of 2015 Total Victims	2012-2014 Average				% Change 2015 to 2012-2014 Average
	Killed	% of Total Killed	Injured	% of Total Injured			Killed	Injured	Total Victims	% of Total Victims	
Safety Helmet Worn	2	28.6%	35	58.3%	37	55.2%	4	50	54	64.4%	-31.9%
Safety Helmet Not Worn	2	28.6%	5	8.3%	7	10.4%	4	6	10	11.9%	-30.0%
Seat Belt Assembly Used	0	-	11	18.3%	11	16.4%	0	6	6	7.1%	83.3%
Seat Belt Assembly Not Used	2	28.6%	4	6.7%	6	9.0%	<1	1	1	1.6%	350.0%
Not Stated	1	14.3%	1	1.7%	2	3.0%	2	3	5	5.9%	-60.0%
Not Applicable*	0	-	4	6.7%	4	6.0%	2	6	8	9.1%	-47.8%
Total	7	100%	60	100%	67	100%	12	72	84	100%	-20.6%

\* Victims who were not operators/passengers of off-road vehicles; therefore do not require a helmet.

In 2015, 37 victims (55%) in ORV collisions were wearing a safety helmet; 7 were not. This includes 2 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 2015 (55%) has decreased compared to the previous three year annual average (2012 to 2014; 64%).

**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  
(2012-2015)

	Helmet worn		Helmet not worn		Helmet Effectiveness
	Number	Percent	Number	Percent	(Ratio of % helmet not worn to % helmet worn)
Killed	14	7.0%	15	40.5%	5.79
Injured	186	93.0%	22	59.5%	0.64
Total	200	100%	37	100%	-

Note: Data have been presented in aggregate for the years 2012-2015.

As the number of victims wearing helmets exceeds those not wearing helmets, a casual interpretation of the statistics may lead one to 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, 7% are killed. Among people not wearing helmets when they sustain an injury from an ORV collision, nearly 41% are killed. This indicates that an ORV collision victim is almost six 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: 2015, 2012-2014 Average

Age Group	2015 Collision Severity						2015 Total	% of 2015 Total	2012-2014 Average	% Change 2015 to 2012-2014 Average
	Fatal	% of Total Fatal*	Injury	% of Total Injury*	PDO	% of Total PDO*				
<16	0	-	1	1.6%	5	2.4%	6	2.2%	9	-30.8%
16-19	2	25.0%	3	4.9%	15	7.1%	20	7.2%	28	-29.4%
20-24	0	-	9	14.8%	33	15.7%	42	15.1%	58	-27.6%
25-34	2	25.0%	9	14.8%	54	25.7%	65	23.3%	102	-36.3%
35-44	0	-	16	26.2%	40	19.0%	56	20.1%	71	-21.5%
45-54	1	12.5%	14	23.0%	46	21.9%	61	21.9%	68	-9.9%
55-64	3	37.5%	7	11.5%	16	7.6%	26	9.3%	27	-2.5%
65+	0	-	2	3.3%	1	0.5%	3	1.1%	8	-60.9%
Not Stated	0	-	2	-	19	-	21	-	25	-
Total	8	100%	63	100%	229	100%	300	100%	395	-24.1%

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

In 2015, drivers under the age of 45 account for 68% of drivers involved in ORV collisions (<16 – 2%; 16 to 19 – 7%; 20 to 24 – 15%; 25 to 34 – 23%; 35 to 44 – 20%), while drivers aged 45 and older account for 32% (45 to 54 – 22%; 55 to 64 – 9%; 65 and older – 1%).

**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: 2015

Contributing Factor	2015 Collision Severity						2015 Total Drivers	% of 2015 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	0	-	9	14.3%	25	10.9%	34	11.3%
Driver Action - Driving properly	1	12.5%	0	-	2	0.9%	3	1.0%
Any At-fault Driver Action	4	50.0%	28	44.4%	107	46.7%	139	46.3%
Following too closely	0	-	2	3.2%	5	2.2%	7	2.3%
Turning improperly	0	-	1	1.6%	3	1.3%	4	1.3%
Passing improperly	0	-	0	-	0	-	0	-
Changing lanes improperly	0	-	0	-	0	-	0	-
Fail to yield right-of-way	0	-	1	1.6%	1	0.4%	2	0.7%
Disobey traffic control device/officer	1	12.5%	0	-	0	-	1	0.3%
Drive wrong way on roadway	0	-	0	-	0	-	0	-
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-
Back unsafely	0	-	0	-	5	2.2%	5	1.7%
Parking improperly	0	-	0	-	0	-	0	-
Lost control/Drive off road	2	25.0%	7	11.1%	13	5.7%	22	7.3%
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	-	0	-	2	0.9%	2	0.7%
Driver inexperience	0	-	3	4.8%	0	-	3	1.0%
Pedestrian error/confusion	0	-	0	-	0	-	0	-
NET Speed	1	12.5%	3	4.8%	15	6.6%	19	6.3%
Exceeding speed limit	0	-	0	-	0	-	0	-
Driving too fast for conditions	0	-	3	4.8%	15	6.6%	18	6.0%
Unsafe operating speed (Too fast or too slow)	1	12.5%	0	-	0	-	1	0.3%
NET Distracted driving	1	12.5%	18	28.6%	78	34.1%	97	32.3%
Careless Driving	1	12.5%	17	27.0%	76	33.2%	94	31.3%
Distraction/Inattention	1	12.5%	3	4.8%	2	0.9%	6	2.0%

(continued on next page)

(continued from previous page)

Contributing Factor	2015 Collision Severity						2015 Total Drivers	% of 2015 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	0	-	11	17.5%	27	11.8%	<b>38</b>	<b>12.7%</b>
Any At-fault Human Condition	2	25.0%	2	3.2%	1	0.4%	<b>5</b>	<b>1.7%</b>
Loss of consciousness/Blackout prior to collision	0	-	0	-	0	-	<b>0</b>	-
Extreme fatigue/Fell asleep	0	-	0	-	1	0.4%	<b>1</b>	<b>0.3%</b>
Defective eyesight	0	-	0	-	0	-	<b>0</b>	-
Defective hearing	0	-	0	-	0	-	<b>0</b>	-
Medical disability	0	-	0	-	0	-	<b>0</b>	-
Physical disability	0	-	0	-	0	-	<b>0</b>	-
Mental disability	0	-	0	-	0	-	<b>0</b>	-
Mental confusion/Inability to remember	0	-	0	-	0	-	<b>0</b>	-
Sudden illness	0	-	0	-	0	-	<b>0</b>	-
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	<b>0</b>	-
NET Impaired	2	25.0%	2	3.2%	0	-	<b>4</b>	<b>1.3%</b>
Ability impaired alcohol	2	25.0%	1	1.6%	0	-	<b>3</b>	<b>1.0%</b>
Ability impaired drugs	0	-	0	-	0	-	<b>0</b>	-
Had been drinking/Suspected alcohol use	0	-	1	1.6%	0	-	<b>1</b>	<b>0.3%</b>
No Apparent (Vehicle) Defect	0	-	17	27.0%	47	20.5%	<b>64</b>	<b>21.3%</b>
Any At-fault Vehicle Defect	0	-	0	-	1	0.4%	<b>1</b>	<b>0.3%</b>
Defective brakes	0	-	0	-	0	-	<b>0</b>	-
Defective steering	0	-	0	-	1	0.4%	<b>1</b>	<b>0.3%</b>
Defective headlights	0	-	0	-	0	-	<b>0</b>	-
Defective brake lights	0	-	0	-	0	-	<b>0</b>	-
Defective lighting (unspecified)	0	-	0	-	0	-	<b>0</b>	-
Defective engine controls/drive train	0	-	0	-	0	-	<b>0</b>	-
Defective suspension/wheels	0	-	0	-	0	-	<b>0</b>	-
Defective tires	0	-	0	-	0	-	<b>0</b>	-
Tow hitch/yoke defective	0	-	0	-	0	-	<b>0</b>	-
Defective exhaust system	0	-	0	-	0	-	<b>0</b>	-
Hood/tailgate/door/covering opened	0	-	0	-	0	-	<b>0</b>	-
Defective glazing (obscured windows)	0	-	0	-	0	-	<b>0</b>	-
Vehicle modifications	0	-	0	-	0	-	<b>0</b>	-
Fire	0	-	0	-	0	-	<b>0</b>	-
Overloaded/oversized	0	-	0	-	0	-	<b>0</b>	-
Load shifted/spilled	0	-	0	-	0	-	<b>0</b>	-
Jack-knife/trailer swing	0	-	0	-	0	-	<b>0</b>	-
Hydroplaning tires	0	-	0	-	0	-	<b>0</b>	-

(continued on next page)

(continued from previous page)

Contributing Factor	2015 Collision Severity						2015 Total Drivers	% of 2015 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Any At-fault Environmental Condition	0	-	1	1.6%	24	10.5%	25	8.3%
Animal action - Wild	0	-	0	-	1	0.4%	1	0.3%
Animal action - Domestic	0	-	0	-	1	0.4%	1	0.3%
Slippery road surface	0	-	0	-	2	0.9%	2	0.7%
Snow drift	0	-	0	-	1	0.4%	1	0.3%
Obstruction/debris on roadway	0	-	1	1.6%	14	6.1%	15	5.0%
View obstructed/limited	0	-	0	-	2	0.9%	2	0.7%
Glare/reflection	0	-	0	-	0	-	0	-
Construction zone	0	-	0	-	0	-	0	-
Defective driving surface	0	-	0	-	2	0.9%	2	0.7%
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	-	2	0.9%	2	0.7%
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	37.5%	20	31.7%	82	35.8%	105	35.0%
<b>Total</b>	<b>8</b>	<b>100%</b>	<b>63</b>	<b>100%</b>	<b>229</b>	<b>100%</b>	<b>300</b>	<b>100%</b>

\*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 2015, at least one at-fault driver action is recorded for 139 of the 300 drivers involved in ORV collisions (46%), including:

- 4 of 8 drivers involved in fatal collisions;
- 28 of 63 drivers involved in injury collisions; and,
- 107 of 229 drivers involved in PDO collisions.

The most prevalent at-fault driver actions include:

- Distracted driving (including “careless driving” and “distraction/inattention”) – 32% of the drivers involved;
- “Loss of control/drive off road” – 7% of the drivers involved; and,
- Speed (including “exceeding speed limit”, “driving too fast for conditions” and “unsafe operating speed”) – 6% of the drivers involved.

At-fault human conditions are recorded for 2% of the drivers involved in ORV collisions, with the most prevalent being impaired (including “ability impaired by alcohol”, “ability impaired by drugs” and “had been drinking/suspected alcohol use”) (1% of the drivers involved).

Environmental conditions are recorded as contributing for 8% of the drivers involved in ORV collisions, with the most prevalent being “obstruction/debris on roadway” (5% of the drivers involved).

Only one of the drivers involved in ORV collisions had a vehicle defect recorded as a contributing factor.

In the previous three year (2012 to 2014) annual average of the drivers involved in ORV collisions:

- 41% had an at-fault driver action recorded, with 27% being distracted (“careless driving” and “distraction/inattention”), 8% speed, and 5% “lost control/drive off road”;
- 1% had an at-fault ‘human condition’ recorded, with the most common being impaired (1%);
- 11% had an environmental condition recorded, with the most common being “obstruction/debris on roadway” (4%), “animal action – wild” (2%), and “defective driving surface” (2%); and,
- only 2 drivers had a vehicle defect recorded as a contributing factor.

In 2015, 4 of 8 drivers involved in fatal collisions had an at-fault driver action and 2 of 8 had an at-fault human condition. The most common at-fault contributing factors recorded for drivers involved in fatal ORV collisions in 2015 include:

- Impaired (including “ability impaired by alcohol”, “ability impaired by drugs” and “had been drinking/suspected alcohol use”) – 2 of 8 drivers;
- Speed (including “exceeding speed limit”, “driving too fast for conditions” and “unsafe operating speed”) – 1 of 8 drivers; and,
- Distracted driving (including “careless driving” and “distraction/inattention”) – 1 of 8 drivers.

NOTE: For a detailed count of drivers involved in ORV collisions by the contributing factors recorded in each year from 2012 to 2015, 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: 2012 to 2015

Month	2012 Total	% of 2012 Total	2013 Total	% of 2013 Total	2014 Total	% of 2014 Total	<b>2015 Total</b>	<b>% of 2015 Total</b>
January	52	12.7%	53	13.6%	40	13.6%	<b>35</b>	<b>13.0%</b>
February	67	16.4%	61	15.6%	44	14.9%	<b>36</b>	<b>13.4%</b>
March	60	14.7%	67	17.1%	41	13.9%	<b>39</b>	<b>14.5%</b>
April	24	5.9%	28	7.2%	30	10.2%	<b>24</b>	<b>8.9%</b>
May	20	4.9%	23	5.9%	27	9.2%	<b>15</b>	<b>5.6%</b>
June	20	4.9%	25	6.4%	13	4.4%	<b>19</b>	<b>7.1%</b>
July	18	4.4%	23	5.9%	20	6.8%	<b>20</b>	<b>7.4%</b>
August	18	4.4%	20	5.1%	20	6.8%	<b>16</b>	<b>5.9%</b>
September	23	5.6%	17	4.3%	16	5.4%	<b>22</b>	<b>8.2%</b>
October	16	3.9%	20	5.1%	16	5.4%	<b>16</b>	<b>5.9%</b>
November	29	7.1%	25	6.4%	14	4.7%	<b>7</b>	<b>2.6%</b>
December	62	15.2%	29	7.4%	14	4.7%	<b>20</b>	<b>7.4%</b>
<b>Total</b>	<b>409</b>	<b>100%</b>	<b>391</b>	<b>100%</b>	<b>295</b>	<b>100%</b>	<b>269</b>	<b>100%</b>

**Table 11-17 Historical Summary of ORV Collisions by Location**

Table 11-17  
Summary of ORV Collisions by Location: 2012 to 2015

Location	2012 Total	% of 2012 Total	2013 Total	% of 2013 Total	2014 Total	% of 2014 Total	<b>2015 Total</b>	<b>% of 2015 Total</b>
Public Roadway	62	15.2%	68	17.4%	45	15.3%	<b>54</b>	<b>20.1%</b>
Ditches	36	8.8%	35	9.0%	16	5.4%	<b>27</b>	<b>10.0%</b>
River/Lake	45	11.0%	42	10.7%	20	6.8%	<b>22</b>	<b>8.2%</b>
Field	16	3.9%	17	4.3%	9	3.1%	<b>17</b>	<b>6.3%</b>
Farm Yard/Private Property	50	12.2%	46	11.8%	46	15.6%	<b>43</b>	<b>16.0%</b>
Parking Lot	2	0.5%	1	0.3%	2	0.7%	<b>2</b>	<b>0.7%</b>
Embankment	2	0.5%	2	0.5%	2	0.7%	<b>1</b>	<b>0.4%</b>
Gravel Road	4	1.0%	12	3.1%	5	1.7%	<b>5</b>	<b>1.9%</b>
Trail*	112	27.4%	88	22.5%	77	26.1%	<b>48</b>	<b>17.8%</b>
Other**	72	17.6%	74	18.9%	66	22.4%	<b>47</b>	<b>17.5%</b>
Not Stated	8	2.0%	6	1.5%	7	2.4%	<b>3</b>	<b>1.1%</b>
<b>Total</b>	<b>409</b>	<b>100%</b>	<b>391</b>	<b>100%</b>	<b>295</b>	<b>100%</b>	<b>269</b>	<b>100%</b>

\*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: 2012 to 2015

Age Group	2012 Total	% of 2012 Total	2013 Total	% of 2013 Total	2014 Total	% of 2014 Total	<b>2015 Total</b>	<b>% of 2015 Total</b>
0-4	0	-	0	-	0	-	1	1.5%
5-9	0	-	0	-	0	-	1	1.5%
10-14	3	2.8%	1	1.3%	1	1.4%	1	1.5%
15-19	10	9.3%	6	7.9%	8	11.6%	5	7.5%
20-24	12	11.1%	13	17.1%	7	10.1%	9	13.4%
25-34	15	13.9%	16	21.1%	17	24.6%	11	16.4%
35-44	29	26.9%	10	13.2%	12	17.4%	16	23.9%
45-54	22	20.4%	14	18.4%	8	11.6%	10	14.9%
55-64	7	6.5%	7	9.2%	8	11.6%	7	10.4%
65+	4	3.7%	2	2.6%	0	-	2	3.0%
Not Stated	6	5.6%	7	9.2%	8	11.6%	4	6.0%
<b>Total</b>	108	100%	76	100%	69	100%	<b>67</b>	<b>100%</b>

**Table 11-19 Historical Summary of ORV Collisions by Contributing Factors**

Table 11-19  
 Historical Summary of ORV Collisions by Contributing Factors: 2012 to 2015

Contributing Factor	2012 Total Drivers	% of 2012 Total Drivers	2013 Total Drivers	% of 2013 Total Drivers	2014 Total Drivers	% of 2014 Total Drivers	2015 Total Drivers	% of 2015 Total Drivers
Driver Action - Driving Properly and Human Condition - Apparently Normal	75	17.1%	25	5.9%	18	5.5%	34	11.3%
Driver Action - Driving properly	7	1.6%	1	0.2%	0	-	3	1.0%
Any At-fault Driver Action	154	35.1%	176	41.7%	157	48.3%	139	46.3%
Following too closely	4	0.9%	1	0.2%	8	2.5%	7	2.3%
Turning improperly	0	-	2	0.5%	6	1.8%	4	1.3%
Passing improperly	0	-	0	-	0	-	0	-
Changing lanes improperly	0	-	0	-	0	-	0	-
Fail to yield right-of-way	2	0.5%	0	-	1	0.3%	2	0.7%
Disobey traffic control device/officer	0	-	0	-	0	-	1	0.3%
Drive wrong way on roadway	0	-	0	-	0	-	0	-
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-
Back unsafely	3	0.7%	1	0.2%	1	0.3%	5	1.7%
Parking improperly	0	-	0	-	0	-	0	-
Lost control/Drive off road	18	4.1%	23	5.5%	13	4.0%	22	7.3%
Driverless vehicle ran out of control	0	-	2	0.5%	0	-	0	-
Leave stop sign before safe to do so	1	0.2%	0	-	0	-	0	-
Failed to signal	0	-	0	-	0	-	0	-
Take avoiding action	2	0.5%	3	0.7%	3	0.9%	2	0.7%
Driver inexperience	4	0.9%	3	0.7%	1	0.3%	3	1.0%
Pedestrian error/confusion	0	-	0	-	0	-	0	-
NET Speed	26	5.9%	33	7.8%	35	10.8%	19	6.3%
Exceeding speed limit	1	0.2%	1	0.2%	0	-	0	-
Driving too fast for conditions	22	5.0%	29	6.9%	31	9.5%	18	6.0%
Unsafe operating speed (Too fast or too slow)	4	0.9%	3	0.7%	4	1.2%	1	0.3%
NET Distracted driving	99	22.6%	111	26.3%	109	33.5%	97	32.3%
Careless Driving	96	21.9%	110	26.1%	109	33.5%	94	31.3%
Distraction/Inattention	4	0.9%	2	0.5%	2	0.6%	6	2.0%

(continued on next page)

(continued from previous page)

Contributing Factor	2012 Total Drivers	% of 2012 Total Drivers	2013 Total Drivers	% of 2013 Total Drivers	2014 Total Drivers	% of 2014 Total Drivers	2015 Total Drivers	% of 2015 Total Drivers
Human Condition - Apparently Normal	71	16.2%	34	8.1%	29	8.9%	38	12.7%
Any At-fault Human Condition	6	1.4%	6	1.4%	5	1.5%	5	1.7%
Loss of consciousness/Blackout prior to collision	0	-	0	-	0	-	0	-
Extreme fatigue/Fell asleep	0	-	0	-	0	-	1	0.3%
Defective eyesight	0	-	0	-	0	-	0	-
Defective hearing	0	-	0	-	0	-	0	-
Medical disability	0	-	0	-	0	-	0	-
Physical disability	0	-	1	0.2%	0	-	0	-
Mental disability	0	-	0	-	0	-	0	-
Mental confusion/Inability to remember	0	-	0	-	0	-	0	-
Sudden illness	0	-	0	-	0	-	0	-
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-
NET Impaired	6	1.4%	5	1.2%	5	1.5%	4	1.3%
Ability impaired alcohol	6	1.4%	2	0.5%	2	0.6%	3	1.0%
Ability impaired drugs	0	-	0	-	0	-	0	-
Had been drinking/Suspected alcohol use	0	-	3	0.7%	3	0.9%	1	0.3%
No Apparent (Vehicle) Defect	139	31.7%	50	11.8%	39	12.0%	64	21.3%
Any At-fault Vehicle Defect	0	-	2	0.5%	3	0.9%	1	0.3%
Defective brakes	0	-	1	0.2%	1	0.3%	0	-
Defective steering	0	-	0	-	0	-	1	0.3%
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	-	2	0.6%	0	-
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	-	1	0.2%	0	-	0	-
Jack-knife/trailer swing	0	-	0	-	0	-	0	-
Hydroplaning tires	0	-	0	-	0	-	0	-

(continued on next page)

(continued from previous page)

Contributing Factor	2012 Total Drivers	% of 2012 Total Drivers	2013 Total Drivers	% of 2013 Total Drivers	2014 Total Drivers	% of 2014 Total Drivers	2015 Total Drivers	% of 2015 Total Drivers
Any At-fault Environmental Condition	47	10.7%	52	12.3%	29	8.9%	<b>25</b>	<b>8.3%</b>
Animal action – Wild	4	0.9%	10	2.4%	5	1.5%	<b>1</b>	<b>0.3%</b>
Animal action - Domestic	1	0.2%	0	-	3	0.9%	<b>1</b>	<b>0.3%</b>
Slippery road surface	3	0.7%	7	1.7%	3	0.9%	<b>2</b>	<b>0.7%</b>
Snow drift	4	0.9%	7	1.7%	2	0.6%	<b>1</b>	<b>0.3%</b>
Obstruction/debris on roadway	20	4.6%	18	4.3%	13	4.0%	<b>15</b>	<b>5.0%</b>
View obstructed/limited	3	0.7%	1	0.2%	2	0.6%	<b>2</b>	<b>0.7%</b>
Glare/reflection	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Construction zone	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Defective driving surface	10	2.3%	7	1.7%	2	0.6%	<b>2</b>	<b>0.7%</b>
Shoulders defective	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Lane markings inadequate	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Defective/inoperative traffic control device	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Weather	2	0.5%	2	0.5%	1	0.3%	<b>2</b>	<b>0.7%</b>
Pedestrian corridor in use	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Uninvolved vehicle	0	-	1	0.2%	0	-	<b>0</b>	<b>-</b>
Uninvolved pedestrian	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Presence of prior accident	0	-	0	-	0	-	<b>0</b>	<b>-</b>
No Contributing Factor(s) Identified	0	-	0	-	1	0.3%	<b>0</b>	<b>-</b>
Not Stated	154	35.1%	158	37.4%	107	32.9%	<b>105</b>	<b>35.0%</b>
<b>Total</b>	<b>439</b>	<b>100%</b>	<b>422</b>	<b>100%</b>	<b>325</b>	<b>100%</b>	<b>300</b>	<b>100%</b>

\*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 2014 by age at the time of the offence and includes historical statistics for the period 1995 to 2013. There is a one-year lag in the statistics reported to allow for court processing time. Therefore, 2014 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 2014, there are a total of 3,017 alcohol-related Criminal Code offence convictions, including:

- 1,845 convictions for driving with a blood alcohol concentration (BAC) over .08<sup>4</sup>;
- 1,026 convictions for impaired driving<sup>5</sup>; and,
- 146 convictions for refusing to provide a breath or blood sample<sup>6</sup>.

In 2014, the count of drivers convicted of alcohol-related Criminal Code offences (3,017) increased by 57% (1,095 more convictions) compared to 2013 (1,922) and was also up by 48% compared to the previous five year (2009 to 2013) annual average (2,037). Comparing 2014 to the previous five year (2009 to 2013) annual average:

- Convictions for “alcohol content over .08” increased by 45%;
- Convictions for “impaired driving” increased by 53%; and,
- Convictions for “refuse sample” increased by 53%.

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

- Drivers under age 25 represented 14% of the licensed drivers in 2014, but accounted for 26% of convictions.
- Drivers aged 25 to 44 represented 34% of the licensed drivers in 2014, but accounted for 51% of convictions.

Over the past 10 years, from 2004 to 2014, there was a notable 36% increase in the rate of first offences. Rates of recidivism, indicated by second, and third and subsequent offences, increased at a marginal rate of 12% in second alcohol-related Criminal Code offences in 2014. In comparison, there was a 34% reduction in third and subsequent offences in 2014 compared to 2004.

### 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 with a youth 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.

<sup>4</sup> Includes s.253B and s.253BC

<sup>5</sup> Includes s.253A, s.253AC, s.255-2 and s.255-3

<sup>6</sup> 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”<sup>7</sup>: 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 when there was a youth 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.

<sup>7</sup> 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 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: 1995 to 2014\*

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	
1995	2,478	N/A	405	N/A	25	3	264	N/A	3,175
1996	2,267	N/A	334	N/A	24	0	250	N/A	2,875
1997	2,519	N/A	366	N/A	37	3	277	N/A	3,202
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
<b>2014</b>	<b>1,823</b>	<b>22</b>	<b>1,010</b>	<b>4</b>	<b>11</b>	<b>1</b>	<b>144</b>	<b>2</b>	<b>3,017</b>
2009-13 Average	1,265	5	644	5	20	4	95	<1	2,037
% Change 2013 to 2014	61.8%	340.0%	52.8%	-50.0%	-31.3%	-75.0%	44.0%	100.0%	57.0%
% Change 2009-13 Average to 2014	44.1%	378.3%	56.9%	-13.0%	-45.0%	-72.2%	51.9%	233.3%	48.1%
% Change 1995 to 2014	-26.4%	N/A	149.4%	N/A	-56.0%	-66.7%	-45.5%	N/A	-5.0%

\*There is a one-year lag in the statistics reported to allow for court processing time. Therefore, 2014 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 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 2014, the count of drivers convicted of alcohol-related Criminal Code offences (3,017) increased by 57% (1,095 more convictions) compared to 2013 (1,922) and was also up by 48% compared to the previous five year (2009 to 2013) annual average (2,037).

Comparing 2014 to the previous five year (2009 to 2013) annual average:

- Convictions for "alcohol content over .08" increased by 45%;
- Convictions for "impaired driving" increased by 53%; and,
- Convictions for "refuse sample" increased by 53%.

In 2014, there were 22 convictions for driving with a blood alcohol concentration (BAC) over .08 while a youth (under age 16) was in the vehicle, 4 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 eight year period have fluctuated dramatically due to their overall low frequency in any given year.

In the 20-year period from 1995 to 2014, total alcohol-related Criminal Code convictions declined by 5%, from 3,175 in 1995 to 3,017 in 2014.

- Convictions for "alcohol content over .08" decreased by 26% (2,478 in 1995 to 1,845 in 2014).
- Convictions for "impaired driving" increased by 137% (433 in 1995 to 1,026 in 2014).
- Convictions for "refuse sample" decreased by 45% (264 in 1995 to 146 in 2014).

**Table 12-2: Total Alcohol-Related Criminal Code Convictions by Age Group**

Table 12-2

Total Alcohol-Related Criminal Code Convictions by Age Group: 1995 to 2014

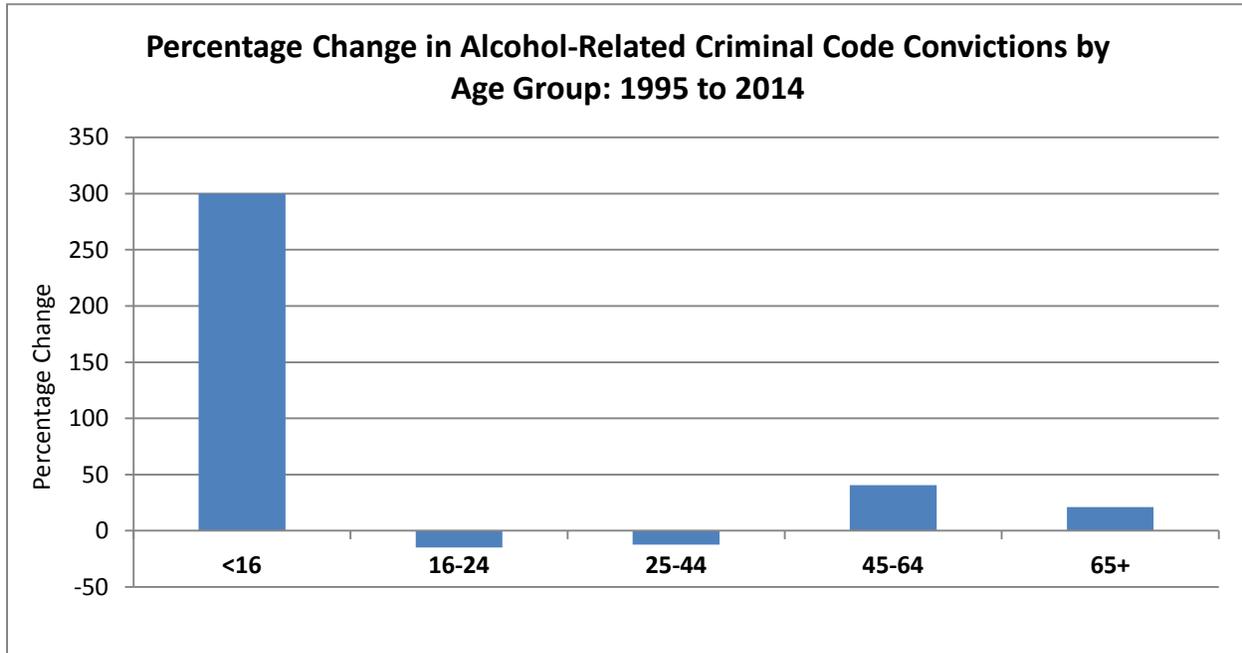
	<16	16-17	18-20	21-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Total
1995	3	82	364	471	518	547	422	278	177	111	86	59	33	11	13	3,175
1996	7	66	366	388	447	394	387	267	208	151	71	66	32	10	15	2,875
1997	7	105	430	495	451	440	440	302	201	130	78	50	44	18	11	3,202
1998	7	109	349	448	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
<b>2014</b>	<b>12</b>	<b>26</b>	<b>298</b>	<b>457</b>	<b>533</b>	<b>424</b>	<b>331</b>	<b>258</b>	<b>223</b>	<b>200</b>	<b>121</b>	<b>65</b>	<b>49</b>	<b>12</b>	<b>8</b>	<b>3,017</b>
2009-13 Average	5	36	233	328	336	252	230	187	160	124	72	42	22	8	2	2,037
% Change 2013 to 2014	200.0%	-10.3%	66.5%	56.5%	76.5%	52.5%	39.7%	44.1%	50.7%	69.5%	68.1%	44.4%	88.5%	No change	700.0%	57.0%
% Change 2009-13 Average to 2014	130.8%	-27.0%	27.8%	39.3%	58.5%	68.5%	44.2%	38.0%	39.7%	61.0%	68.1%	54.8%	120.7%	46.3%	263.6%	48.1%
% Change 1995 to 2014	300.0%	-68.3%	-18.1%	-3.0%	2.9%	-22.5%	-21.6%	-7.2%	26.0%	80.2%	40.7%	10.2%	48.5%	9.1%	-38.5%	-5.0%

Caution: The count of convictions shown does not take into account the number of licensed drivers by age group.

Comparing 2014 to the previous five year (2009 to 2013) annual average:

- There are 48% more convictions in total (a difference of 980);
- Convictions among the youngest age group (under age 16) increased by a count of 7;
- Convictions among 16 to 24 year olds increased by 31% (a count of 184);
- Convictions among 25 to 44 year olds is increased by 54% (a count of 542);
- Convictions among 45 to 64 year olds increased by 53% (a count of 211); and,
- Convictions among those aged 65 and older more than doubled, up to 69 from 32.

**Figure 12-1: Percentage Change in Alcohol-Related Criminal Code Convictions by Age Group**



During the twenty-year period 1995 to 2014, all age groups experienced a 5% decrease in alcohol-related Criminal Code convictions. Convictions among drivers aged:

- under 16 increased by a count of 9;
- 16 to 24 decreased by 15%;
- 25 to 44 decreased by 12%;
- 45 to 64 increased by 41%; and,
- 65 and older increased by 21%.

**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: 2014

Age Group	Alcohol Content Over .08		Impaired Driving		Impaired Driving Causing Injury/Death		Refuse Sample		Total
	253B	253BC	253A	253AC	Injury	Death	254-5	254-5C	
<16	6	1	5	0	0	0	0	0	12
16-17	12	1	10	2	0	0	1	0	26
18-20	203	0	84	0	3	0	8	0	298
21-24	292	2	149	0	2	1	11	0	457
25-29	313	6	181	0	3	0	30	0	533
30-34	253	5	139	1	3	0	21	2	424
35-39	192	1	114	0	0	0	24	0	331
40-44	151	3	91	0	0	0	13	0	258
45-49	129	2	76	1	0	0	15	0	223
50-54	121	0	73	0	0	0	6	0	200
55-59	64	1	48	0	0	0	8	0	121
60-64	39	0	22	0	0	0	4	0	65
65-69	35	0	13	0	0	0	1	0	49
70-74	7	0	3	0	0	0	2	0	12
75+	6	0	2	0	0	0	0	0	8
<b>Total</b>	<b>1,823</b>	<b>22</b>	<b>1010</b>	<b>4</b>	<b>11</b>	<b>1</b>	<b>144</b>	<b>2</b>	<b>3,017</b>

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: 2004, 2009 and 2014

Age Group	2004			2009			2014		
	# Alcohol Convictions	% Total Alcohol Convictions	% Licensed Drivers	# Alcohol Convictions	% Total Alcohol Convictions	% Licensed Drivers	# Alcohol Convictions	% Total Alcohol Convictions	% Licensed Drivers
<16-24*	615	32.0%	14.4%	635	30.0%	14.1%	793	26.3%	14.1%
25-44	927	48.2%	36.2%	1,061	50.1%	33.7%	1,546	51.2%	33.8%
45-64	342	17.8%	34.1%	390	18.4%	36.5%	609	20.2%	34.8%
65+	38	2.0%	15.3%	30	1.4%	15.6%	69	2.3%	17.4%
<b>Total</b>	<b>1,922</b>	<b>100%</b>	<b>100%</b>	<b>2,116</b>	<b>100%</b>	<b>100%</b>	<b>3,017</b>	<b>100%</b>	<b>100%</b>

\* 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 increased by 57% from 2004 (count of 1,922) to 2014 (count of 3,017).

#### <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 2004 and 2009, but for 32% of alcohol offence convictions in 2004 and 30% in 2009. In 2014, these drivers again represent 14% of the licensed drivers, but accounted for 26% 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 2004, 2009, and 2014, drivers in this group made up 36%, 34%, and 34% of licensed drivers, respectively. However, these drivers accounted for 48%, 50%, and 51% of alcohol-related Criminal Code convictions in those years, respectively.

#### 45 to 64 Age Group

Drivers aged 45 to 64 are underrepresented in alcohol-related Criminal Code convictions. In the years 2004, 2009, and 2014, drivers in this group made up 34%, nearly 37%, and 35%, respectively, of licensed drivers. At the same time, these drivers accounted for 18%, 18%, and 20%, respectively, of alcohol-related Criminal Code convictions.

#### 65 and Older Age Group

Older drivers are underrepresented in alcohol-related Criminal Code convictions. In the years 2004, 2009, and 2014, drivers 65 years of age and older made up 15%, 16%, and 17% of licensed drivers, respectively, but accounted for only 2%, 1%, and 2% of alcohol-related Criminal Code convictions, respectively.

**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: 2004, 2009 and 2014

Age Group	2004			2009			2014		
	Alcohol* Convictions	Licensed Drivers	Rate /1,000	Alcohol Convictions	Licensed Drivers	Rate /1,000	Alcohol Convictions	Licensed Drivers	Rate /1,000
<b>Total Alcohol-Related Criminal Code Convictions</b>									
<16-24	615	104,810	5.9	635	109,587	5.8	793	122,192	6.5
25-44	927	263,983	3.5	1,061	261,782	4.1	1,546	293,540	5.3
45-64	342	248,289	1.4	390	283,428	1.4	609	302,229	2.0
65+	38	111,489	0.3	30	121,412	0.2	69	151,278	0.5
<b>Total</b>	<b>1,922</b>	<b>728,571</b>	<b>2.6</b>	<b>2,116</b>	<b>776,209</b>	<b>2.7</b>	<b>3,017</b>	<b>869,239</b>	<b>3.5</b>
<b>First Occurrence</b>									
<16-24	555	104,810	5.3	581	109,587	5.3	729	122,192	6.0
25-44	799	263,983	3.0	929	261,782	3.5	1,379	293,540	4.7
45-64	292	248,289	1.2	351	283,428	1.2	548	302,229	1.8
65+	35	111,489	0.3	27	121,412	0.2	68	151,278	0.4
<b>Total</b>	<b>1,681</b>	<b>728,571</b>	<b>2.3</b>	<b>1,888</b>	<b>776,209</b>	<b>2.4</b>	<b>2,724</b>	<b>869,239</b>	<b>3.1</b>
<b>Second Occurrence</b>									
<16-24	49	104,810	0.5	48	109,587	0.4	59	122,192	0.5
25-44	99	263,983	0.4	92	261,782	0.4	140	293,540	0.5
45-64	39	248,289	0.2	29	283,428	0.1	53	302,229	0.2
65+	3	111,489	<0.1	2	121,412	<0.1	1	151,278	<0.1
<b>Total</b>	<b>190</b>	<b>728,571</b>	<b>0.3</b>	<b>171</b>	<b>776,209</b>	<b>0.2</b>	<b>253</b>	<b>869,239</b>	<b>0.3</b>
<b>Third and Subsequent Occurrence</b>									
<16-24	11	104,810	0.1	6	109,587	0.1	5	122,192	<0.1
25-44	29	263,983	0.1	40	261,782	0.2	27	293,540	0.1
45-64	11	248,289	<0.1	10	283,428	<0.1	8	302,229	<0.1
65+	0	111,489	<0.1	1	121,412	<0.1	0	151,278	<0.1
<b>Total</b>	<b>51</b>	<b>728,571</b>	<b>0.1</b>	<b>57</b>	<b>776,209</b>	<b>0.1</b>	<b>40</b>	<b>869,239</b>	<b>&lt;0.1</b>

\* 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 increased by 32% (2.6 per 1,000 licensed drivers in 2004; 3.5 per 1,000 licensed drivers in 2014).<sup>8</sup>

<sup>8</sup> 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 5.9, 5.8 and 6.5 alcohol-related Criminal Code convictions in 2004, 2009 and 2014, respectively. The 2014 rate for this age group is 11% higher than the 2004 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 3.5 in 2004, 4.1 in 2009, and 5.3 in 2014. The 2014 rate for this age group is 50% higher than the 2004 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 1.4 in 2004, 1.4 in 2009, and 2.0 in 2014. The 2014 rate for this age group is 46% higher than the 2004 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 2004, 0.2 in 2009, and 0.5 in 2014. The 2014 rate for this age group is 34% higher than the 2004 rate.

### First Occurrence

In 2014, the number of drivers convicted of an alcohol-related Criminal Code offence for the **first** time has increased by 62% compared to ten years ago (1,681 in 2004; 2,724 in 2014).

Comparing the involvement rates (per 1,000 licensed drivers) for 2004 and 2014, first occurrence Criminal Code convictions increased by 36% overall and in each age group individually.

- Age 24 and under – an 13% increase in 2014 compared to 2004
- Age 25 to 44 – a 55% increase in 2014 compared to 2004
- Age 45 to 64 – a 54% increase in 2014 compared to 2004
- Age 65 and older – a 43% increase in 2014 compared to 2004

### Second Occurrence

In 2014, the number of drivers convicted of an alcohol-related Criminal Code offence for the **second** time has increased by 33% compared to ten years ago (190 in 2004; 253 in 2014).

Comparing the involvement rates (per 1,000 licensed drivers) for 2004 and 2014, second occurrence Criminal Code convictions increased by 12% overall.

- Age 24 and under – a 3% increase in 2014 compared to 2004
- Age 25 to 44 – a 27% increase in 2014 compared to 2004
- Age 45 to 64 – a 12% increase in 2014 compared to 2004
- Age 65 and older – a 75% decrease in 2014 compared to 2004; a count of 1 in 2014 compared to 3 in 2004

### Third and Subsequent Occurrence

In 2014, the number of drivers convicted of an alcohol-related Criminal Code offence for the **third and subsequent** time has decreased by 22% compared to ten years ago (51 in 2004; 40 in 2014).

Comparing the involvement rates (per 1,000 licensed drivers) for 2004 and 2014, third and subsequent occurrence Criminal Code convictions decreased by 34% overall.

- Age 24 and under – a count of 5 in 2014 compared to 11 in 2004; a 61% decrease in the rate
- Age 25 to 44 – a count of 27 in 2014 compared to 29 in 2004; a 16% decrease in the rate
- Age 45 to 64 – a count of 8 in 2014 compared to 11 in 2004; a 40% decrease in the rate
- Age 65 and older – no change (a count of 0) in 2014 compared to none in 2004

**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”<sup>9</sup>: 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 when there was a youth in the vehicle.

<sup>9</sup> 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 when there was a youth 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:
  - [http://www.mpi.mb.ca/PDFs/DVL\\_PDFs/GDLGuide.pdf](http://www.mpi.mb.ca/PDFs/DVL_PDFs/GDLGuide.pdf); ou en Français,
  - [http://www.mpi.mb.ca/PDFs/DVL\\_PDFs/GDLGUIDEfr.pdf](http://www.mpi.mb.ca/PDFs/DVL_PDFs/GDLGUIDEfr.pdf)

**“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 manoeuvre 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 Assent 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.

