

Traffic Collision  
Statistics Report

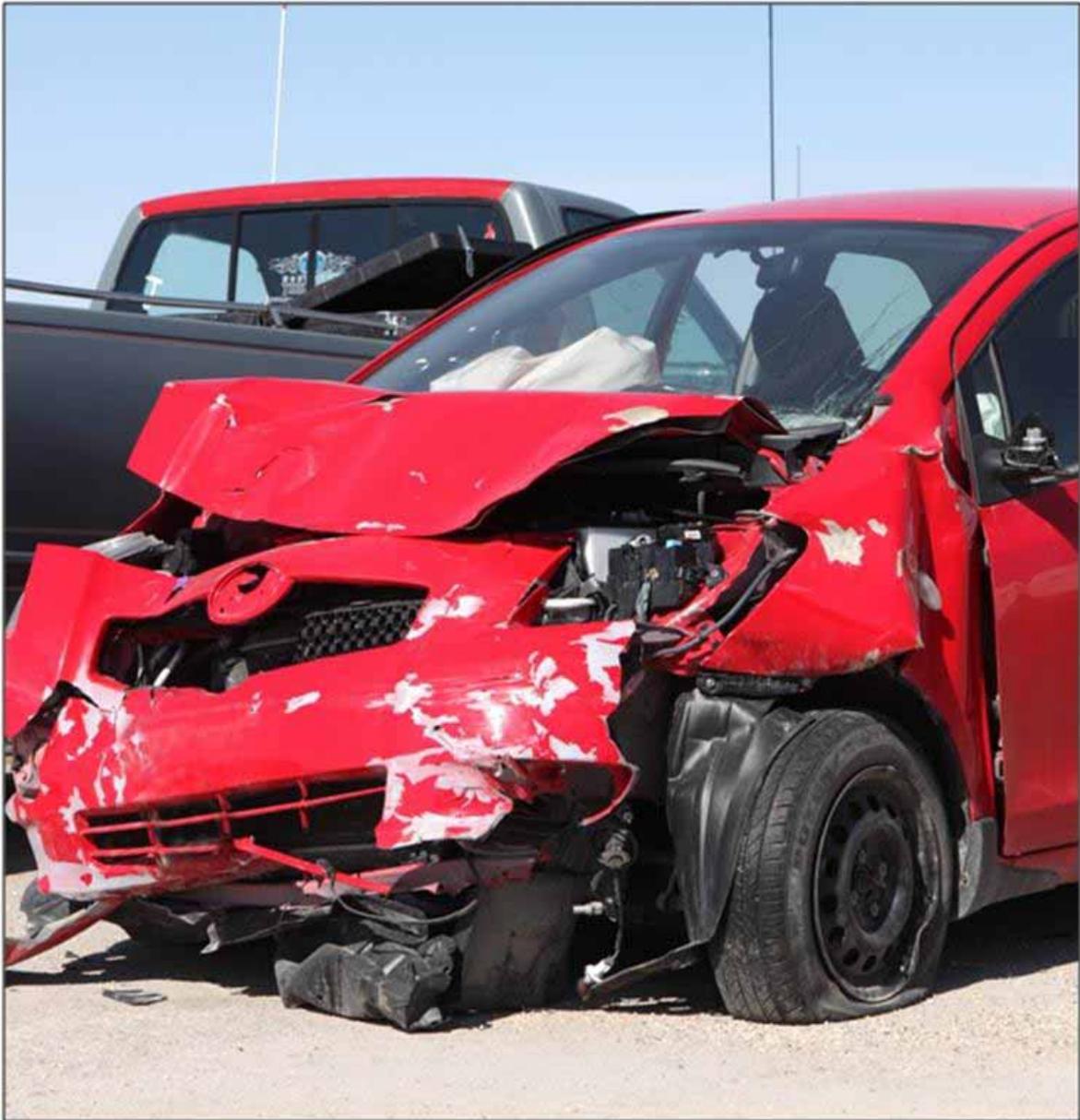
2012



**Manitoba  
Public Insurance**



# EXECUTIVE SUMMARY





## **2012 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 October 2011, this report uses two sources for Traffic Accident Reports (TARs); TARs completed by a law enforcement agency and TARs completed when a collision claim is registered with Manitoba Public Insurance. This change to the use of two data sources resulted in an increase in collision counts, specifically for collisions resulting in minimal injuries or property damage only.

The following is a presentation of the key highlights of this report for 2012.

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

In 2012, there are 838,481 licensed drivers in Manitoba, an increase of 3% compared to 2011.

Overall, there are 993,390 vehicles registered in Manitoba (commercial and non-commercial, combined) in 2012, a 4% increase from 2011.

### **Traffic Collisions**

In 2012, there are a total of 38,972 traffic collisions reported in Manitoba that conform to the reportable collision requirement for Traffic Accident Reports. Of these:

- 89 involve a fatality (0.2% of all collisions);
- 8,280 involve an injury, but not a fatality (21% of all collisions); and,
- 30,603 involve property damage only (nearly 79% of all collisions).

Overall traffic collisions in Manitoba increased compared to 2011 and compared to the previous five year (2007 to 2011) annual average. There are 38,972 collisions in 2012, up from 34,302 collisions in 2011 and, 28,928 on average in the five year period 2007 to 2011.

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

In 2012, there are 10,623 victims (or casualties) of traffic collisions. Of these:

- 96 are killed (110 in 2011);
- 339 are seriously injured (337 in 2011);
- 2,237 sustain minor injuries (2,465 in 2011);
- 7,864 sustain minimal injuries (4,306 in 2011); and,
- 87 sustain injuries that are undefined in terms of severity (1,119 in 2011).

The involvement rate (per 100,000 people in the general population) of casualties in traffic collisions in 2012 (835.5) has increased by 25% compared to 2011 (666.7) and by 29% compared to the previous five years (2007 to 2011) annual average (647.2). Victim involvement rates in traffic collisions in 2012 where the person:

- Is killed (7.6 in 2012) is 14% lower than in 2011 and 5% lower than in the previous five years; and,
- Is injured, including all levels of severity but excluding killed (828.0 in 2012), is 26% higher than in 2011 and nearly 30% higher than in the previous five years.

In 2012, there are 176 pedestrians killed or injured in traffic collisions. Of these:

- 13 are killed (10 in 2011);
- 21 are seriously injured (24 in 2011);
- 90 sustain minor injuries (130 in 2011);
- 40 sustain minimal injuries (62 in 2011); and
- 12 sustain injuries that are undefined in terms of severity (114 in 2011).

Pedestrian involvement rates in fatal and injury collisions have decreased compared to the five year (2007 to 2011) annual average. Pedestrian involvement rates in traffic collisions in 2012 where a pedestrian:

- Is killed (1.0) has increased compared to 2011 (0.8) but is slightly below the previous five year average (1.1); and
- Is injured (12.8) has decreased by 51% compared to 2011 (26.4) and by nearly 60% compared to the previous five year average (31.7).

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

In 2012, there are 58,877 drivers involved in traffic collisions. Of these:

- 119 are involved in fatal collisions;
- 14,696 are involved in injury collisions; and,
- 44,062 are involved in PDO collisions.

The involvement rate per 10,000 licensed drivers in traffic collisions in 2012 is 702.2, increased 11% compared to 2011 (630.2) and nearly 24% to the previous five year (2007 to 2011) annual average. In 2012, the driver involvement in:

- Fatal collisions (1.4) decreased by 11% from 2011 and by nearly 10% compared to the previous five years;
- Injury collisions (175.3) increased by 34% from 2011 and by 39% compared to the previous five years; and,
- PDO collisions (525.5) increased by 6% from 2011 and by 19% compared to the previous five years.

Young drivers have a much higher rate of involvement in traffic collisions than older drivers. In 2012, drivers aged 16 to 24 years old have an involvement rate (per 10,000 licensed drivers) in traffic collisions of 1,104.9. This is:

- 1.3 times that of drivers aged 25 to 34 (rate of 858.7);
- 1.5 times that of drivers aged 35 to 44 (rate of 740.4);
- 1.7 times that of drivers aged 45 to 54 (rate of 644.1);
- Over twice that of drivers aged 55 to 64 (rate of 529.2); and,
- Nearly three times that of drivers aged 65 and older (rate of 385.7).

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.

In 2012, there are 59,556 vehicles involved in traffic collisions. Of these:

- 126 are involved in fatal collisions;
- 14,802 are involved in injury collisions; and,
- 44,628 are involved in PDO collisions.

Vehicle involvement in traffic collisions per 10,000 registered vehicles is 710.2 in 2012, increased by 8% compared to 2011 and by nearly 19% to the previous five year (2007 to 2011) annual average. Vehicle involvement rates in 2012 for:

- Fatal collisions is 1.5; decreased 13% from 2011, and nearly 11% from the previous five years;
- Injury collisions is 176.5; increased 31% from 2011, and 36% from the previous five years; and,
- PDO collisions is 532.2; increased 2% from 2011, and 14% from the previous five years.

## Contributing Factors to Collisions

In 2012:

- An at-fault driver action is a contributing factor in 52% of all **collisions** (84% of fatal collisions; nearly 55% of injury collisions; 51% of PDO collisions);
- An at-fault human condition is a contributing factor in nearly 2% of all **collisions** (nearly 51% of fatal collisions; 2% of injury collisions; 1% of PDO collisions); and,
- Environmental conditions are contributing factors in 17% of all **collisions** (9% of fatal collisions; 7% of injury collisions; 20% of PDO collisions).

The most prevalent **contributing factors recorded for collisions** in 2012 include:

- “Following too closely” – nearly 14% of all collisions (three fatal; 21% injury; 11% PDO);
- The actions of a wild animal – 13% of all collisions (one fatal; 3% injury; nearly 16% PDO);
- Distracted driving – 12% of all collisions (39% fatal; 11% injury; 12% PDO);
- “Backing unsafely” – 7% of all collisions (none fatal; 2% injury; 8% PDO);
- Speed – 5% of all collisions (19% fatal; 5% injury; 5% PDO);
- “Turning improperly” – 4% of all collisions (nearly 5% fatal; 4% injury; 4% PDO);
- “Fail to yield right-of-way” – nearly 4% of all collisions (16% fatal; nearly 5% injury; 3% PDO);
- “Changing lanes improperly” – nearly 4% of all collisions (one fatal; nearly 3% injury; 4% PDO);
- “Slippery road surface” – 3% of all collisions (two fatal; 3% injury; 3% PDO); and,
- “Lost control/Drive off the road” – 3% of all collisions (20% fatal; 3% injury; 3% PDO).

Considering the **victims from collisions** in 2012:

- 55% of all victims resulted from a collision where at least one driver is noted as having an at-fault driver action contributing to the collision (83% of people killed; 51% of people seriously injured);
- 3% of all victims resulted from a collision where at least one driver is noted as having an at-fault human condition contributing to the collision (51% of people killed; 14% of people seriously injured); and,
- Nearly 7% of all victims resulted from a collision where environmental conditions are noted as contributing to the collision (10% of people killed; 6% of people seriously injured).

The most prevalent contributing factors recorded for collisions where **people are killed or seriously injured** in 2012 include:

- Distracted driving – nearly 39% of people killed and 13% of people seriously injured;
- Impaired – 33% of people killed and 7% of people seriously injured;
- Speed – 20% of people killed and 10% of people seriously injured;
- “Lost control/Drive off the road” – 19% of people killed and 9% of people seriously injured;
- “Fail to yield right-of-way” – nearly 15% of people killed and nearly 9% of people seriously injured;
- “Take avoiding action” – 8% of people killed and 1% of people seriously injured;
- “Disobey traffic control device/officer” – 7% of people killed and 2% of people seriously injured;
- “Turning improperly” – 4% of people killed and 3% of people seriously injured;
- “Following too closely” – 3% of people killed and 3% of people seriously injured; and,
- “Leave stop sign before safe to do so” – 2% people killed and 4% of people seriously injured.

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

In 2012, there are 47 off-road vehicle collisions, involving 54 victims, 54 vehicles, and 54 drivers. Of these:

- 8 are fatal collisions, involving 9 vehicles and 9 drivers, resulting in 9 people killed and 3 injured;
- 35 are injury collisions, involving 39 vehicles and 39 drivers, resulting in 42 people injured; and,
- 4 are PDO collisions, involving 6 vehicles and 6 drivers.

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

In 2011<sup>1</sup>, there are a total of 1,956 alcohol-related Criminal Code offence convictions, including:

- 1,260 convictions for driving with a BAC over .08;
- 577 convictions for impaired driving; and,
- 95 convictions for refusing to provide a breath or blood sample.

In the 20-year period from 1992 to 2011, the total alcohol-related Criminal Code convictions declined by 48%, from 3,752 in 1992 to 1,956 in 2011. 2011 is the first year since 2005 where a decrease in the number of alcohol-related Criminal Code convictions has been recorded from the previous year. Total convictions in 2011 (1,956 convictions) are down nearly 12% compared to 2010 (2,211 convictions) and 4% compared to the previous five year (2006 to 2010) annual average (2,042 convictions).

Over the past twenty years, alcohol-related Criminal Code convictions have declined in all age groups in Manitoba. Comparing the total number of convictions in 2011 to 1992 among drivers:

- Under 25 years of age, convictions declined by 46%;
- 25 to 44 years of age, convictions declined by 56%;
- 45 to 64 years of age, convictions declined by 16%; and,
- 65 years of age and older, convictions declined by 62%.

Rates of recidivism, indicated by second and third and subsequent offences, decreased substantially from 2001 to 2011. There was a 31% reduction in drivers convicted of a second alcohol-related Criminal Code offence, and a nearly 51% reduction in drivers convicted of a third and subsequent offence in 2011 when compared to 2001.

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<sup>1</sup> There is a one-year lag in the statistics reported to allow for court processing time. Therefore, 2011 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 2002 to 2012 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 2002 to 2011 is presented and compared to 2012. Details are provided for 2012 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 eleven year period 2002 to 2012 is presented. Details are provided for 2012 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 2011 by age at the time of the offence and includes historical statistics for the period 1992 to 2010 in comparison to 2011. 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 Ten Year 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 .....	48
Figure 4-5 Traffic Collisions by Road Surface Condition and Collision Severity.....	49
Table 4-8 Traffic Collisions by Weather Condition and Collision Severity.....	50
Figure 4-6 Traffic Collisions by Weather Condition and Collision Severity .....	51
Table 4-9 Accident Configuration and Collision Severity .....	52
Figure 4-7 Distribution of Collisions by Accident Configuration and Collision Severity.....	53
 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 Eleven Year Summary of Drivers Involved in Traffic Collisions .....	132
Table 8-2 Historical Summary of Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions.....	133
Figure 8-1 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions of Different Severity .....	134
Table 8-3 Drivers Involved in Traffic Collisions by Age Group and Collision Severity .....	135
Figure 8-2 Proportion of Traffic Collisions by Driver Age and Collision Severity .....	136
Table 8-4 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Age Group and Collision Severity .....	137
Table 8-5 Drivers Involved in Traffic Collisions by Gender and Age Group and Collision Severity .....	138
Figure 8-3 Proportion of Drivers Involved in Traffic Collisions by Gender and Collision Severity.....	139
Table 8-6 Drivers Involved in Traffic Collisions by Age Group and Gender and Collision Severity .....	140
Table 8-7 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions by Gender and Age Group and Collision Severity.....	141
SECTION 9 – Contributing Factors.....	143
Introduction .....	145
Table 9-1 Contributing Factors to a Collision by Collision Severity.....	149
Table 9-1a Contributing Factors to a Collision by Collision Severity for Previous Five Years .....	152
Table 9-2 Contributing Factors for Victims of a Collision by Casualty Type .....	155
Table 9-2a Contributing Factors for Victims of a Collision by Casualty Type for Previous Five Years	158
Table 9-3 Drivers Involved in Traffic Collisions by Contributing Factor and Collision Severity .....	161
Table 9-3a Drivers Involved in Traffic Collisions by Contributing Factor and Collision Severity for Previous Five Years.....	164
Figure 9-1 Select Contributing Factors for Drivers Involved in Collisions by Collision Severity.....	167
Table 9-4 Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Collisions Severity .....	168
Table 9-5 Driver Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Age.....	172
Table 9-5a Driver Involvement Rate (per 10,000 Licensed Drivers) in Collisions by Contributing Factors and Age for Previous Five Years.....	174
Table 9-6 Historical Summary of Contributing Factors to a Collision Overall .....	177
Table 9-7 Historical Summary of Contributing Factors Recorded for Victims of Collisions.....	180
Table 9-8 Historical Summary of Contributing Factors Recorded for Drivers Involved in Collisions ...	183
Table 9-9 Summary of ‘Speed’, ‘Distracted driving’ and ‘Impaired’ as Contributing Factors .....	186

Section 10 - National Safety Code Monitoring Report .....	187
Introduction .....	189
Table 10-1 NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type and Collision Severity .....	192
Figure 10-1 Proportion of NSC Commercial Vehicles by Vehicle Type and Collision Severity .....	193
Table 10-2 Traffic Collision Victims by NSC Commercial Vehicle Type and Casualty Type .....	194
Table 10-2a Traffic Collision Victims by NSC Commercial Vehicle Type and Casualty Type for Previous Five Years.....	195
Figure 10-2 Proportion of Victims Involved in Collisions with NSC Commercial Vehicles by Vehicle Type and Casualty Type.....	196
Table 10-3 Commercial Vehicle Involvement in Traffic Collisions by Pre-Collision Activity and Collision Severity .....	197
Table 10-4 NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity .....	199
Table 10-4a NSC Commercial Vehicles Involved in Traffic Collisions by Contributing Factors and Collision Severity for the Previous Five Years.....	202
Figure 10-3 Select At-fault Contributing Factors for Commercial Vehicles and Drivers by Collision Severity .....	204
Table 10-5 Historical Summary of NSC Commercial Vehicles Involved in Traffic Collisions by Vehicle Type .....	205
Table 10-6 Historical Summary of Traffic Collision Victims where an NSC Commercial Vehicle is Involved by Vehicle Type.....	206
SECTION 11 – Off-Road Vehicle Collisions .....	207
Introduction .....	209
Table 11-1 Historical Summary of Off-Road Vehicle Collisions .....	212
Figure 11-1 Historical Summary of ORV Collisions.....	213
Table 11-2 Victims, Vehicles and Drivers Involved in Off-Road Vehicle Collisions by ORV Type.....	214
Figure 11-2 Proportion of ORV Collisions by Victims, Vehicle Type and Drivers .....	215
Table 11-3 ORVs Involved in Collisions by Vehicle Type and Active Registration .....	216
Table 11-4 Drivers Involved in ORV Collisions by Active Driver's Licence and Collision Severity .....	217
Table 11-5 Off-Road Vehicle Collisions by Month of Occurrence and Collision Severity .....	218
Table 11-6 Off-Road Vehicle Collisions by Day of Occurrence and Collision Severity.....	219
Figure 11-3 Proportion of ORV Collisions by Collision Severity and Day of Occurrence.....	219
Table 11-7 Off-Road Vehicle Collisions by Time of Occurrence and Collision Severity .....	220
Figure 11-4 Proportion of Total ORV Collisions by Collision Severity and Time of Occurrence .....	221
Table 11-8 Off-Road Vehicle Collisions by Light Condition and Collision Severity.....	222
Table 11-9 ORV Collisions by Weather Condition and Collision Severity.....	222
Map 1-1 Manitoba Infrastructure and Transportation (MIT) Regions .....	223
Table 11-10 ORV Collisions by MIT Regions and Collision Severity .....	224
Figure 11-5 Proportion of ORV Collisions by Collision Severity and MIT Regions .....	224
Table 11-11 Off-Road Vehicle Collisions by Location and Collision Severity .....	225
Table 11-12 ORV Collision Victims by Age Group and Casualty Type .....	226
Table 11-13 ORV Collision Victims by Gender and Casualty Type .....	227
Table 11-14 ORV Collision Victims by Safety Equipment Use and Casualty Type .....	227
Table 11-15 ORV Victims Killed vs. Injured for Helmeted and Non-helmeted ORV Occupants.....	228

Table 11-16 Drivers Involved in ORV Collisions by Age Group and Collision Severity .....	228
Table 11-17 ORV Collisions by Contributing Factors and Collision Severity .....	229
Table 11-18 Historical Summary of ORVs Involved in Collisions by Vehicle Type and Active Registration .....	233
Table 11-19 Historical Summary of ORV Collisions by Month of Occurrence .....	234
Table 11-20 Historical Summary of ORV Collisions by Location .....	235
Table 11-21 Historical Summary of ORV Collision Victims by Age Group .....	236
Table 11-22 Historical Summary of ORV Collisions by Contributing Factors .....	237
SECTION 12 - Alcohol-Related Criminal Code Convictions .....	241
Introduction .....	243
Table 12-1: Total Alcohol-Related Criminal Code Convictions .....	246
Table 12-2: Total Alcohol-Related Criminal Code Convictions by Age Group .....	248
Figure 12-1: Percentage Change in Alcohol-Related Criminal Code Convictions by Age Group .....	249
Table 12-3: Total Alcohol-Related Criminal Code Offences by Age Group and Conviction Type .....	250
Table 12-4: Alcohol-Related Criminal Code Convictions by Active Licensed Drivers and Age Group .....	251
Table 12-5: Driver Involvement in 'First', 'Second', and 'Third and Subsequent' Alcohol-Related Criminal Code Convictions by Age Group .....	252
Glossary – Terms & Definitions .....	255
Terms and Definitions .....	257

# **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 2002 to 2012. This section also presents involvement rates for drivers by specific age groups.

Due to amendments to the *Highway Traffic Act* that took effect in October 2011, this report uses two sources for Traffic Accident Reports (TARs); TARs completed by a law enforcement agency and TARs completed when a collision claim is registered with Manitoba Public Insurance. This change was implemented for several reasons, including:

- To address underreporting in previous years;
- To increase the data available to infrastructure and traffic safety policy decision makers; and,
- To simplify the traffic accident reporting process for Manitobans.

This change to the use of two data sources resulted in an increase in traffic collision counts, specifically for collisions resulting in minimal injuries or property damage only.

## **Key Highlights**

In 2012, there are a total of 38,972 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:

- 89 involve a fatality (0.2% of all collisions);
- 8,280 involve an injury, but not a fatality (21% of all collisions); and,
- 30,603 involve property damage only (nearly 79% of all collisions).

In 2012, overall traffic collisions in Manitoba increased compared to 2011 and compared to the previous five year (2007 to 2011) annual average. There are:

- 38,972 collisions in 2012;
- 34,302 collisions in 2011; and,
- 28,928 collisions on average in the five year period 2007 to 2011.

Involvement in traffic collisions in Manitoba increased from 2011 and from the previous five year (2007 to 2011) annual average. Involvement in collisions (per 10,000 licensed drivers) is:

- 464.8 in 2012;
- 421.6 in 2011; and,
- 370.8 on average in the five year period 2007 to 2011.

The increase in the total number of collisions in 2012 compared to 2011 is attributable to increases in injury collisions and PDO collisions. There are 1,971 more injury collisions, and 2,704 more PDO collisions reported in 2012 than in 2011, representing proportional increases of 31%, and 10%, respectively.

The count of injury collisions and PDO collisions in 2012, and the related involvement rate in these collisions, may be due in part to changes in reporting requirements. The change in reporting requirements is not affecting the count and involvement rate for fatal collisions.

## **Major Elements Examined**

Counts of collisions in Manitoba for 2012 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 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.

#### “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: 2002 to 2012

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
2002	700,169	31,909	455.7	99	1.4	6,934	99.0	24,876	355.3
2003	703,889	34,771	494.0	95	1.3	7,273	103.3	27,403	389.3
2004	711,488	35,002	492.0	90	1.3	6,855	96.3	28,057	394.3
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	765,060	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	790,331	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
<b>2012</b>	<b>838,481</b>	<b>38,972</b>	<b>464.8</b>	<b>89</b>	<b>1.1</b>	<b>8,280</b>	<b>98.8</b>	<b>30,603</b>	<b>365.0</b>
2007-2011 Average	779,538	28,928	370.8	87	1.1	5,896	75.7	22,944	293.9

Relative to ten years ago, the total number of collisions in 2012 has increased by 22% (38,972 in 2012 compared to 31,909 in 2002). The involvement (per 10,000 licensed drivers) in collisions has also increased by 2% in the same time period (464.8 in 2012 compared to 455.7 in 2002). Compared to 2011, total collisions have increased by nearly 14% (up from a total of 34,302) and involvement has increased by 10%. Compared to the previous five year (2007 to 2011) annual average, total collisions have increased 35% and involvement has increased by 25%.

The increases in total collisions in 2012 are due to changes in the reporting requirements. As of October 2011, in addition to police-reported accidents, collision claims registered with Manitoba Public Insurance result in a Traffic Accident Report being completed, as long as the accident occurred on a public roadway and it meets the other requirements of being a "reportable collision". This affects many PDO collisions and less severe injury collisions that were not captured or reported in the Traffic Accident Database in the past.

Compared to recent historical figures, collision counts of different severities all increased in 2012 with the exception of fatal collisions.

- Fatal collisions have decreased by 10% compared to 2002 and by 5% compared to 2011, but have increased by 2% compared to the previous five year (2007 to 2011) annual average.
- Injury collisions have increased by 19% compared to 2002, by 31% compared to 2011 and by 40% compared to the previous five year (2007 to 2011) annual average.
- PDO collisions have increased by 23% compared to 2002 and by 10% compared to 2011. They have also increased by 33% compared to the previous five year (2007 to 2011) annual average.

**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: 2002 to 2012

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
2002	455.7	-	1.4	-	99.0	-	355.3	-
2003	494.0	8.4%	1.3	-4.5%	103.3	4.3%	389.3	9.6%
2004	492.0	-0.4%	1.3	-6.3%	96.3	-6.8%	394.3	1.3%
2005	463.1	-5.9%	1.2	-2.9%	90.5	-6.1%	371.3	-5.8%
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%
<b>2012</b>	<b>464.8</b>	<b>10.3%</b>	<b>1.1</b>	<b>-8.1%</b>	<b>98.8</b>	<b>27.4%</b>	<b>365.0</b>	<b>6.4%</b>
2007-11 Average*	370.8	-0.1%	1.1	-3.7%	75.7	-2.5%	294.0	0.6%

\*The "% change to previous year" for "2007-11 Average" is an average rate of change for the time period 2007 to 2011.

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.

Involvement (per 10,000 licensed drivers) in collisions is up overall as well as for collisions of different severities with the exception of fatal collisions. The involvement in collisions per 10,000 drivers in 2012 is:

- 464.8 for all collisions, up 10% from 2011 and increased by 25% compared to the previous five year (2007 to 2011) annual average;
- 1.1 for fatal collisions, down 8% from 2011, but nearly equal to the rate in the previous five year (2007 to 2011) annual average;
- 98.8 for injury collisions, up 27% from 2011, but decreased 30% from the previous five year (2007 to 2011) annual average; and,
- 365.0 for PDO collisions, up 6% from 2011 and increased by 24% compared to the previous five year (2007 to 2011) annual average.

The previous downward trend in collision rates and involvement that had continued from 2004 through to 2010 has been reversed in 2011 and 2012. Also, it is worthwhile to note that involvement rates overall had been relatively unchanged in the years 2007 to 2011. The changes in reporting structure that took effect in October 2011 are responsible for increases in the counts of PDO and injury collisions, with corresponding increases to the involvement rates for these collisions.

**Table 1-3 Fatal, Injury and Property Damage Collisions by Vehicles Registered**Table 1-3  
Fatal, Injury, and Property Damage Collisions by Vehicles Registered: 2002 to 2012

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
2002	707,802	31,909	450.8	99	1.4	6,934	98.0	24,876	351.5
2003	714,170	34,771	486.9	95	1.3	7,273	101.8	27,403	383.7
2004	725,590	35,002	482.4	90	1.2	6,855	94.5	28,057	386.7
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
<b>2012</b>	<b>838,553</b>	<b>38,972</b>	<b>464.8</b>	<b>89</b>	<b>1.1</b>	<b>8,280</b>	<b>98.7</b>	<b>30,603</b>	<b>364.9</b>
2007-11 Average	784,972	28,928	368.3	87	1.1	5,896	75.2	22,944	292.0

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

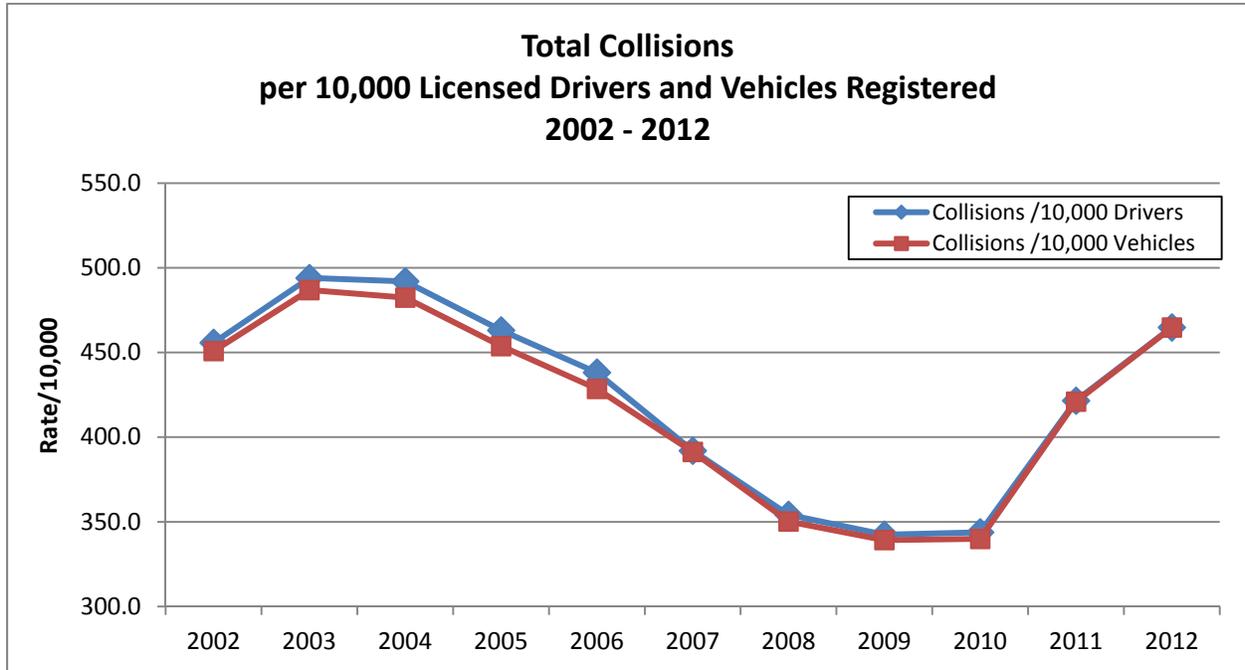
Involvement in collisions per 10,000 vehicles registered is another way to view collision rates in a standardized format. It attempts to account for fluctuations in the total number of vehicles registered for use on Manitoba roadways.

In 2012, there are 464.8 collisions for every 10,000 vehicles registered in Manitoba, up by 10% compared to the rate in 2011 (421.0) and increased by 26% compared to the rate in the previous five year (2007 to 2011) annual average (368.3).

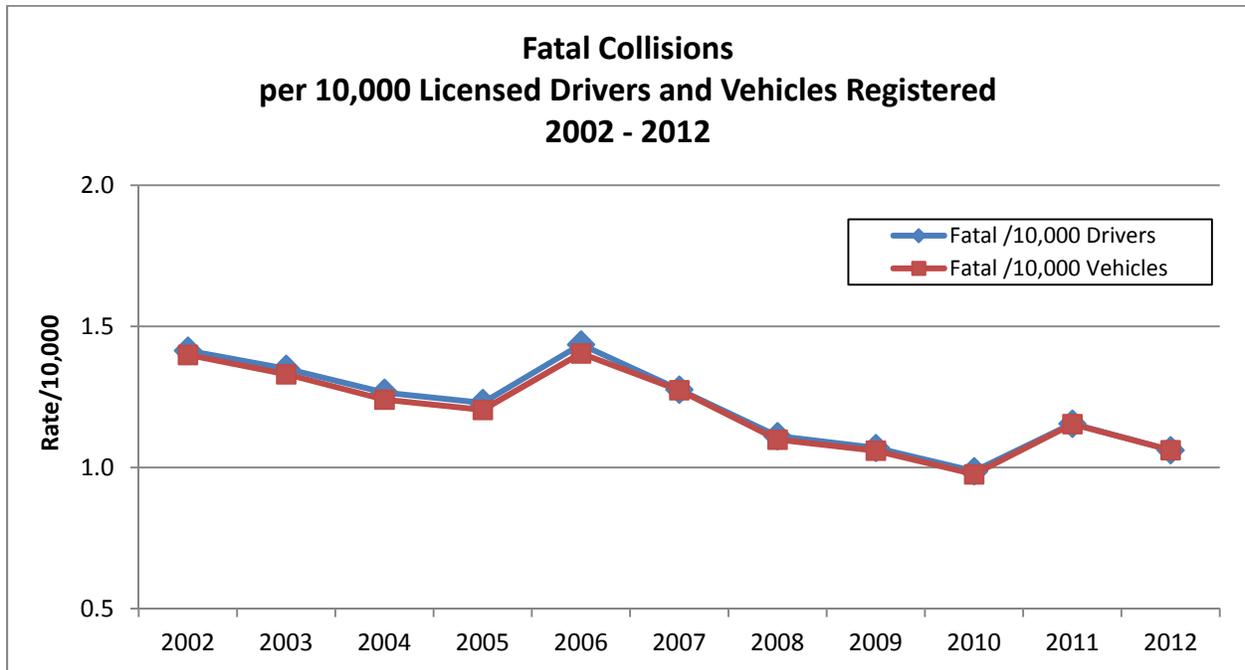
The rate of involvement in collisions at each level of severity has also increased in 2012 compared to recent years with the exception of fatal collisions. In 2012, there are 1.1 fatal collisions for every 10,000 vehicles, down from 1.2 in 2011 and relatively equal to the rate in the previous five year (2007 to 2011) annual average. The involvement rate for injury collisions is up nearly 28% compared to 2011 while the involvement rate for PDO collisions increased by nearly 7% from 2011. Compared to the previous five year (2007 to 2011) annual average, the involvement rate for injury collisions in 2012 has increased by 31% while the involvement rate for PDO collisions increased by nearly 25%.

Involvement rates between 2003 and 2012 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 2012 is attributable to the change in the reporting requirements, previously discussed. However, the change in involvement rate in fatal collisions cannot be attributed to this reporting change.

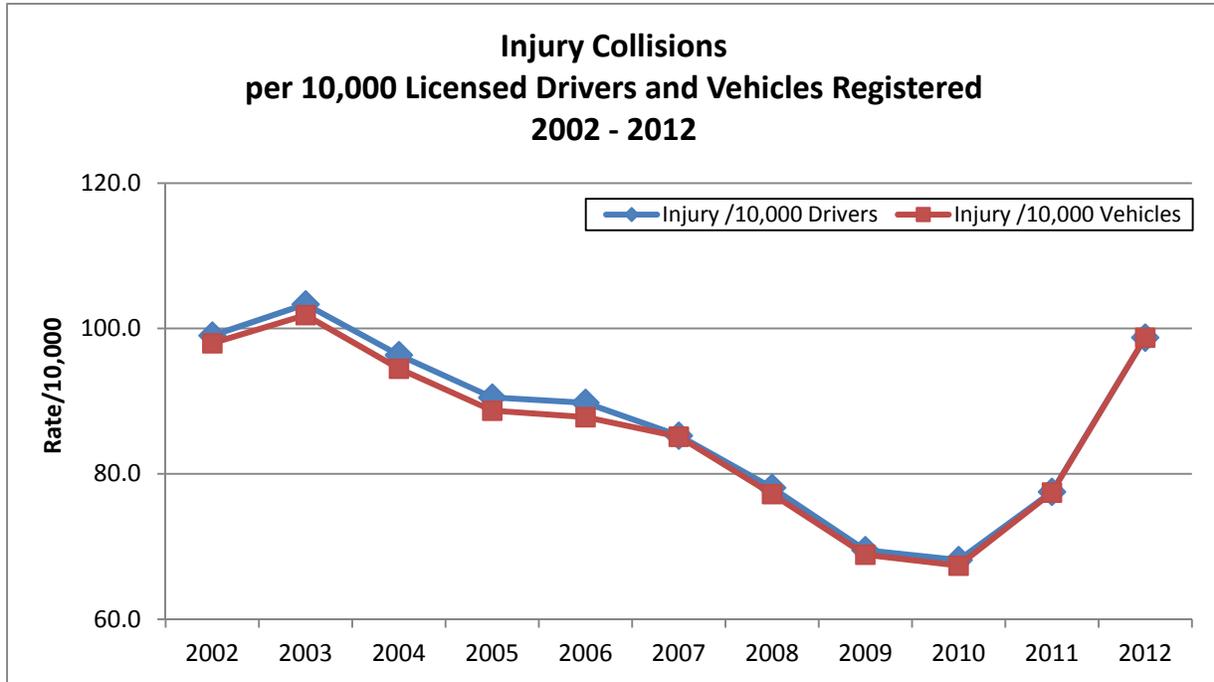
**Figure 1-1 Involvement in Total Collisions by Licensed Drivers and Vehicles Registered**



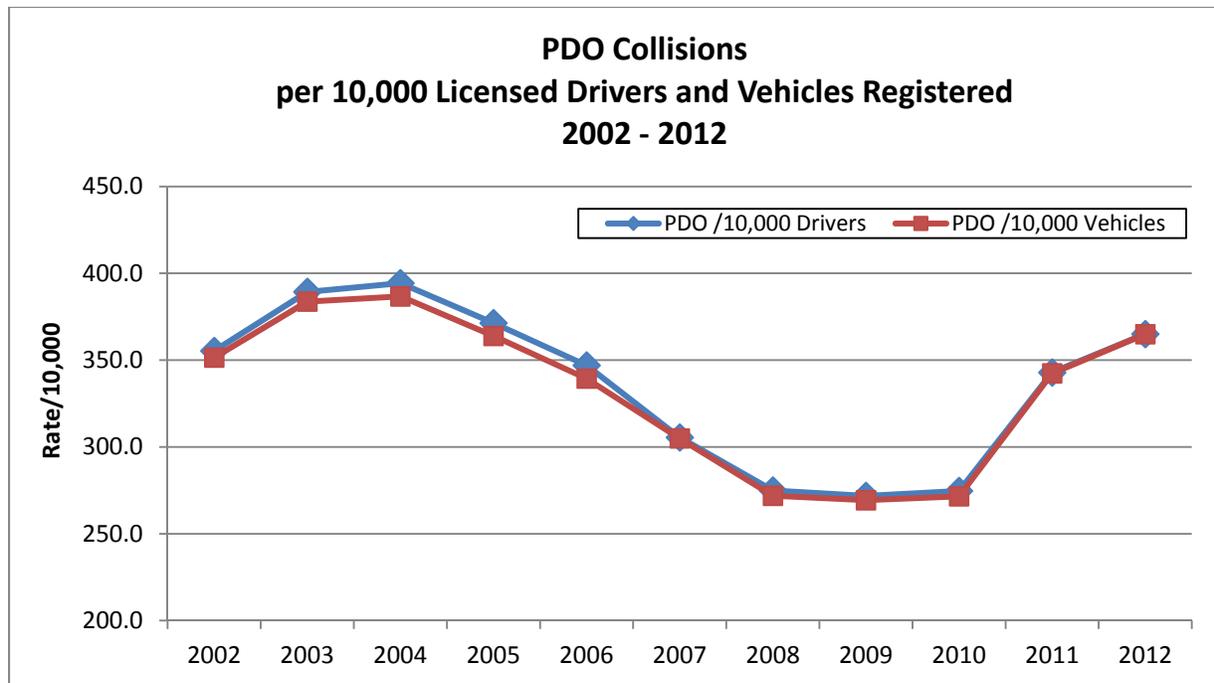
**Figure 1-2 Involvement in Fatal Collisions by Licensed Drivers and Vehicles Registered**



**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: 2002 to 2012

Age Group	Year											2007-11 Average
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	<b>2012</b>	
16-19	1,131.8	1,099.7	1,071.2	973.8	937.9	838.7	771.7	756.1	737.3	890.8	<b>1,093.9</b>	799.4
20-24	809.3	866.1	868.7	786.1	747.6	706.2	673.8	648.8	630.4	851.6	<b>1,112.7</b>	704.1
25-34	579.4	615.3	617.4	578.3	541.9	511.6	493.2	460.6	470.5	671.8	<b>858.7</b>	523.6
35-44	508.1	566.7	582.6	545.3	498.9	466.1	450.5	444.0	432.1	586.9	<b>740.4</b>	476.0
45-54	458.6	511.1	494.3	484.2	452.5	429.1	402.9	393.0	397.9	524.2	<b>644.1</b>	429.6
55-64	407.5	446.9	461.8	426.8	397.1	378.6	347.6	340.4	353.0	441.6	<b>529.2</b>	373.3
65-74	353.8	390.4	375.7	359.0	342.6	310.0	296.9	289.8	285.0	366.9	<b>416.7</b>	310.6
75>	325.2	364.7	337.8	318.6	321.2	276.5	237.4	235.2	254.9	292.5	<b>341.9</b>	259.6

In 2012, the youngest drivers in Manitoba have the second highest rate of involvement in collisions. At 1,093.9, the involvement rate of drivers aged 16 to 19 is:

- Nearly 2% lower than those aged 20 to 24;
- 27% higher than those aged 25 to 34;
- 48% higher than those aged 35 to 44;
- 70% higher than those aged 45 to 54;
- More than double (107% higher) those aged 55 to 64; and,
- Nearly triple the rate of those aged 65 and older.

Manitobans aged 20 to 24 have the highest rate of involvement collisions in 2012. At 1,112.7, the involvement rate of drivers aged 20 to 24 is:

- Nearly 30% higher than those aged 25 to 34;
- 50% higher than those aged 35 to 44;
- 73% higher than those aged 45 to 54;
- More than double (nearly 110% higher) 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 858.7, the involvement rate of drivers aged 25 to 34 is:

- 16% higher than those aged 35 to 44;
- 33% higher than those aged 45 to 54;
- 62% higher than those aged 55 to 64; and,
- More than double those aged 65 and older.

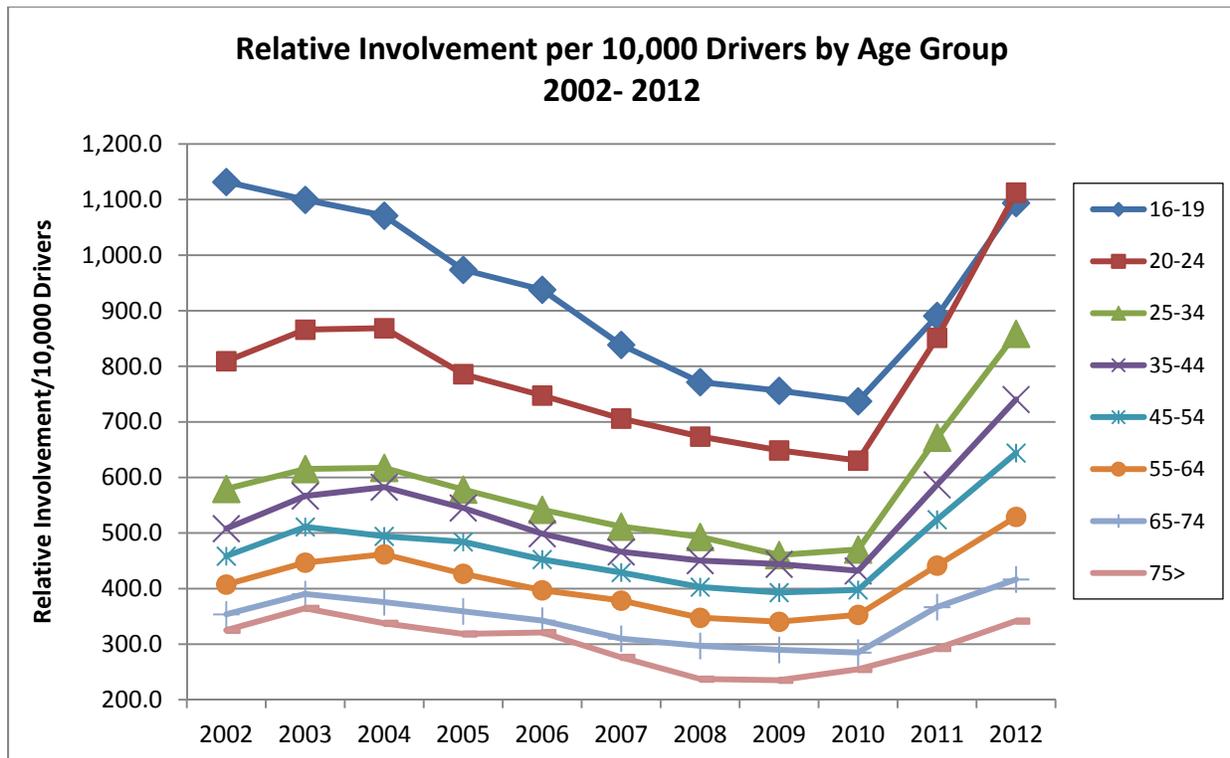
While differences do exist between the involvement rates of drivers in subsequent age brackets, the percentage differences between groups are much smaller.

Collision involvement rates for drivers in all age groups have increased in 2012 compared to 2011 and to the previous five year (2007 to 2011) annual average. Involvement per 10,000 licensed drivers in 2012 by age group:

- Age 16 to 19 – 1,093.9 in 2012, up 23% compared to 2011 and by 37% compared to the previous five year annual average.
- Age 20 to 24 – 1,112.7 in 2012, up 31% compared to 2011 and by 58% compared to the previous five year annual average.
- Age 25 to 34 – 858.7 in 2012, up 28% compared to 2011 and by 65% compared to the previous five year annual average.
- Age 35 to 44 – 740.4 in 2012, up 26% compared to 2011 and by nearly 56% compared to the previous five year annual average.
- Age 45 to 54 – 644.1 in 2012, up 23% compared to 2011 and by 50% compared to the previous five year annual average.
- Age 55 to 64 – 529.2 in 2012, up 20% compared to 2011 and by 42% compared to the previous five year annual average.
- Age 65 to 74 – 416.7 in 2012, up nearly 14% compared to 2011 and by 34% compared to the previous five year annual average.
- Age 75 and over – 341.9 in 2012, up 17% compared to 2011 and by 32% compared to the previous five year annual average.

The observed increases in involvement rates is at least partially attributable to the change in reporting structure, with more drivers involved in PDO collisions and less severe injury collisions that were not captured in the Traffic Accident Database in the past now being reported.

**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 838,481 licensed drivers in Manitoba in 2012, an increase of 3% compared to 2011. Of these:

- 96% are Active drivers, 4% are Suspended drivers;
- 52% are Male, 48% are Female;
- 69% are between the ages of 25 and 64;
- Men account for 70% of all Suspended drivers in Manitoba.

There is an average of 65,305 licensed motorcycle drivers in Manitoba in 2012, an increase of 3% compared to 2011.

**Major Elements Examined**

Counts of licensed drivers in Manitoba for 2012 represent an average for the 2012 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 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 2002 through 2007 have been adjusted to reflect this new methodology. Information regarding the monthly count of Class 6 licence holders was not available for years prior to 2003; the historical count of Class 6 licence holders has not been adjusted to reflect the new methodology for the year 2002.

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

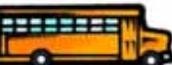
“Suspended drivers”

- 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 4,540 kg</b>. 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: 2002-2012

Licensing Year	Active Drivers	Suspended Drivers	Total Drivers	% Change to Previous Year
2002	679,219	20,950	700,169	-
2003	683,060	20,829	703,889	0.5%
2004	690,568	20,919	711,488	1.1%
2005	695,091	21,077	716,169	0.7%
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%
<b>2012</b>	<b>805,519</b>	<b>32,962</b>	<b>838,481</b>	3.0%
Average 2007-2011	756,370	23,158	779,528	2.4%

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

Compared to 2011, the total number of licensed drivers in Manitoba in 2012 increased by 3.0% to 838,481. This is slightly higher than historical increases seen in recent years; the rate of change over the past five years (2007-2011) was a 2.4% increase on average each year.

The proportion of suspended drivers increased by 28.5% in 2012 compared to 2011, up to 32,962 from 25,645, respectively. The count of suspended drivers in 2012 appears to be somewhat higher than historical figures. Similarly, in 2011 the suspended driver count was higher than historical figures (an 11% increase over 2010).

**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: 2012

Age Group	Gender	Active Drivers	Suspended Drivers	Total Drivers	% of "All Ages"	% Suspended in Category
16-17	Male	11,344	163	11,507	2.6	1.4
	Female	11,005	138	11,143	2.8	1.2
	Total	22,349	301	22,650	2.7	1.3
18-19	Male	13,344	585	13,929	3.2	4.2
	Female	12,572	355	12,926	3.2	2.7
	Total	25,916	939	26,855	3.2	3.5
20-24	Male	34,377	2,121	36,498	8.4	5.8
	Female	33,293	1,193	34,487	8.5	3.5
	Total	67,671	3,314	70,985	8.5	4.7
25-34	Male	68,521	3,935	72,456	16.7	5.4
	Female	66,450	1,775	68,224	16.9	2.6
	Total	134,971	5,710	140,681	16.8	4.1
35-44	Male	69,233	3,372	72,605	16.7	4.6
	Female	66,787	1,261	68,047	16.8	1.9
	Total	136,020	4,633	140,652	16.8	3.3
45-54	Male	80,558	3,525	84,083	19.3	4.2
	Female	76,836	1,087	77,923	19.3	1.4
	Total	157,394	4,612	162,006	19.3	2.8
55-64	Male	68,079	2,371	70,450	16.2	3.4
	Female	65,187	760	65,947	16.3	1.2
	Total	133,266	3,131	136,397	16.3	2.3
65-74	Male	40,557	1,681	42,238	9.7	4.0
	Female	38,095	669	38,765	9.6	1.7
	Total	78,652	2,350	81,002	9.7	2.9
75-84	Male	20,404	2,186	22,590	5.2	9.7
	Female	19,217	1,053	20,270	5.0	5.2
	Total	39,621	3,239	42,860	5.1	7.6
85+	Male	5,132	3,080	8,212	1.9	37.5
	Female	4,527	1,653	6,180	1.5	26.8
	Total	9,659	4,733	14,392	1.7	32.9
All Ages	Male	411,550	23,019	434,569	100.0	5.3
	Female	393,970	9,943	403,912	100.0	2.5
	Total	805,519	32,962	838,481	100.0	3.9

In 2012, the proportion of suspended drivers aged 75 or older is nearly four-and-a-half times the proportion of suspended drivers under age 75 (13.9% of drivers aged 75 or older are suspended; 3.2% of drivers aged 16 to 74 are suspended). While this difference in the proportion of suspended drivers between older and younger Manitobans is in line with prior years, it has been trending upward in recent years, possibly a reflection of the overall aging of the population and the increase in the number of Manitobans aged 75 or older.<sup>2</sup>

<sup>2</sup> For a discussion regarding Canada's ageing population, refer to Statistics Canada - <http://www.statcan.gc.ca/daily-quotidien/100526/dq100526b-eng.htm>

**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: 2012

License Class	Active Drivers				Suspended Drivers				Total	%
	Male	Female	Subtotal	%	Male	Female	Subtotal	%		
1	35,385	1,423	36,808	4.6	815	20	836	2.5	37,644	4.5
2	4,679	1,650	6,330	0.8	80	18	98	0.3	6,428	0.8
3	10,575	314	10,889	1.4	231	4	234	0.7	11,124	1.3
4	13,095	4,278	17,373	2.2	410	58	468	1.4	17,841	2.1
5/F	322,581	352,552	675,133	83.8	18,350	7,408	25,758	78.1	700,891	83.6
5/I	9,863	9,865	19,728	2.4	435	169	604	1.8	20,332	2.4
5/L	12,900	19,457	32,357	4.0	1,453	1,510	2,963	9.0	35,320	4.2
5/A	2,460	4,430	6,890	0.9	541	462	1,002	3.0	7,892	0.9
Other	11	0	11	<0.1	705	294	999	3.0	1,010	0.1
Total	411,550	393,970	805,519	100.0	23,019	9,943	32,962	100.0	838,481	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 (84%). 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 (4.5%).

Very little has changed in the proportion of licence holders by class when comparing 2012 to 2011.

**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: 2012

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	750	5,242	5,351	1	0	11,344
	Suspended	0	0	0	0	0	7	54	103	0	0	163
	Subtotal	0	0	0	0	0	756	5,295	5,454	1	0	11,507
18-19	Active	94	1	19	79	1	8,737	2,127	2,271	17	0	13,344
	Suspended	1	0	1	1	0	274	89	220	0	0	585
	Subtotal	95	1	19	79	1	9,011	2,216	2,491	18	0	13,929
20-24	Active	1,085	37	382	880	2	27,458	1,413	2,946	174	0	34,377
	Suspended	17	0	12	16	0	1,276	163	628	9	0	2,121
	Subtotal	1,102	37	394	896	2	28,734	1,576	3,574	183	0	36,498
25-34	Active	4,915	307	1,501	3,226	2	55,376	752	1,485	957	0	68,521
	Suspended	98	4	32	55	0	2,891	99	380	238	139	3,935
	Subtotal	5,013	310	1,532	3,282	2	58,267	851	1,865	1,195	139	72,456
35-44	Active	7,683	725	1,752	3,340	5	54,352	236	501	639	0	69,233
	Suspended	181	10	37	75	1	2,618	24	85	123	219	3,372
	Subtotal	7,864	735	1,789	3,415	5	56,970	260	586	762	219	72,605
45-54	Active	10,273	1,422	2,836	3,193	1	62,133	75	235	390	0	80,558
	Suspended	202	31	43	110	0	2,849	6	31	54	200	3,525
	Subtotal	10,476	1,453	2,879	3,303	1	64,982	80	266	444	200	84,083
55-64	Active	8,265	1,515	3,048	1,949	0	53,014	17	93	178	0	68,079
	Suspended	169	18	54	89	0	1,931	1	4	30	75	2,371
	Subtotal	8,434	1,534	3,102	2,038	0	54,945	17	97	208	75	70,450
65-74	Active	2,730	609	924	398	0	35,807	2	19	68	0	40,557
	Suspended	92	7	28	42	0	1,472	0	1	15	23	1,681
	Subtotal	2,822	616	953	440	0	37,279	2	20	84	23	42,238
75-84	Active	331	63	111	28	0	19,842	0	1	28	0	20,404
	Suspended	43	7	17	14	0	2,056	0	0	36	13	2,186
	Subtotal	375	69	128	42	0	21,899	0	1	63	13	22,590
85+	Active	7	1	3	1	0	5,112	0	0	7	0	5,132
	Suspended	12	4	7	8	0	2,977	0	0	36	35	3,080
	Subtotal	19	5	11	10	0	8,089	0	0	43	35	8,212
Total	Active	35,385	4,679	10,575	13,095	11	322,581	9,863	12,900	2,460	0	411,550
	Suspended	815	80	231	410	1	18,350	435	1,453	541	705	23,019
	Total	36,200	4,760	10,806	13,505	11	340,931	10,298	14,352	3,001	705	434,569

Men aged 45 to 54 make up the largest number of licensed drivers in Manitoba (10% of all drivers; 19% of all male drivers). Males aged 25 to 34 account for the largest proportion of suspended male drivers (22%) under the age of 75. Men aged 75 and above are proportionally overrepresented in terms of suspensions (75 to 84 – 5% of total male drivers, 9% of suspended male drivers; 85+ – 2% of total male drivers, 13% of suspended male drivers).

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

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	667	4,720	5,617	1	0	11,005
	Suspended	0	0	0	0	0	2	23	113	0	0	138
	Subtotal	0	0	0	0	0	669	4,742	5,731	1	0	11,143
18-19	Active	2	0	1	26	0	7,886	1,891	2,756	9	0	12,572
	Suspended	0	0	0	0	0	86	36	232	0	0	355
	Subtotal	2	0	1	26	0	7,972	1,927	2,989	9	0	12,926
20-24	Active	28	7	26	299	0	26,816	1,589	4,408	120	0	33,293
	Suspended	0	0	0	2	0	504	60	620	7	0	1,193
	Subtotal	28	7	26	302	0	27,320	1,648	5,029	128	0	34,487
25-34	Active	145	97	49	1,105	0	58,706	1,061	3,491	1,797	0	66,450
	Suspended	4	1	0	11	0	1,056	35	382	238	48	1,775
	Subtotal	149	98	49	1,116	0	59,761	1,096	3,873	2,035	48	68,224
35-44	Active	350	375	49	1,196	0	61,072	447	1,998	1,301	0	66,787
	Suspended	5	5	1	13	0	929	12	112	103	81	1,261
	Subtotal	354	380	50	1,209	0	62,001	459	2,110	1,404	81	68,047
45-54	Active	511	641	68	1,074	0	72,668	125	924	825	0	76,836
	Suspended	8	4	1	14	0	884	4	42	51	79	1,087
	Subtotal	520	645	69	1,088	0	73,552	129	965	876	79	77,923
55-64	Active	314	446	95	491	0	63,310	29	216	287	0	65,187
	Suspended	2	6	1	9	0	680	0	6	13	42	760
	Subtotal	316	451	96	500	0	63,990	29	221	301	42	65,947
65-74	Active	69	85	25	80	0	37,729	2	43	62	0	38,095
	Suspended	1	1	1	3	0	635	0	2	8	18	669
	Subtotal	70	86	26	83	0	38,364	2	45	71	18	38,765
75-84	Active	5	1	1	7	0	19,180	1	4	19	0	19,217
	Suspended	0	0	0	3	0	1,018	0	1	17	14	1,053
	Subtotal	5	1	1	10	0	20,198	1	5	35	14	20,270
85+	Active	0	0	0	0	0	4,518	0	0	9	0	4,527
	Suspended	0	1	0	2	0	1,614	0	0	24	12	1,653
	Subtotal	0	1	0	2	0	6,132	0	0	33	12	6,180
Total	Active	1,423	1,650	314	4,278	0	352,552	9,865	19,457	4,430	0	393,970
	Suspended	20	18	4	58	0	7,408	169	1,510	462	294	9,943
	Total	1,444	1,668	318	4,336	0	359,960	10,033	20,967	4,891	294	403,912

Women aged 45 to 54 make up the largest number of licensed female drivers in Manitoba (9% of all drivers; 19% of all female drivers).

Women only account for 30% of all suspended drivers in Manitoba, even though they account for nearly half (48%) of all licensed drivers. Women aged 25 to 34 account for the highest proportion of suspended female drivers (18%). Similar to men, women aged 75 and above are proportionally overrepresented in terms of suspensions (75 to 84 – 5% of total female drivers, 11% of suspended female drivers; 85+ – 2% of total female drivers, 17% of suspended female drivers).

**Table 2-6 Total Class 6 Active Licensed Drivers by Year**Table 2-6  
Total Class 6 Active Licensed Drivers by Year: 2002 to 2012

Licensing Year	Active Drivers	% Change to Previous Year
2002*	46,905	-
2003	51,569	-
2004	52,702	2.2%
2005	54,005	2.5%
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%
<b>2012</b>	<b>65,305</b>	<b>3.0%</b>
Average 2007-2011	60,075	3.0%

\*The count for 2002 is not comparable to counts in 2003 through 2012. Percentage change to previous year is not calculated due to a change in the methodology.

In 2012, the number of motorcycle licence holders increased by 3% compared to 2011, the same as the annual average rate of change from 2007 through 2011 (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.

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:  
2012

Age Group	Gender	Active Drivers	%
16-17	Male	122	
	Female	6	
	Total	128	0.2
18-19	Male	379	
	Female	48	
	Total	427	0.7
20-24	Male	2,179	
	Female	318	
	Total	2,497	3.8
25-34	Male	6,755	
	Female	1,134	
	Total	7,889	12.1
35-44	Male	8,649	
	Female	1,464	
	Total	10,113	15.5
45-54	Male	17,793	
	Female	2,592	
	Total	20,386	31.2
55-64	Male	16,273	
	Female	1,987	
	Total	18,260	28.0
65-74	Male	4,072	
	Female	396	
	Total	4,468	6.8
75-84	Male	916	
	Female	81	
	Total	997	1.5
85+	Male	134	
	Female	7	
	Total	141	0.2
All Ages	Male	57,272	
	Female	8,033	
	Total	65,305	100.0

Men account for nearly 9 in 10 of all Class 6 licence holders (88% overall). The vast majority of Class 6 licence holders are between the ages 35 and 64 (75%). Men aged 35 to 64 make up 65% of all Class 6 licence holders. Women in the same age group (aged 35 to 64) make up only 9%.

**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: 2012

License Class	Active Drivers			
	Male	Female	Total	%
6/F	46,224	4,843	51,067	78.2
6/I	9	0	9	<0.1
6/L	6,308	1,979	8,287	12.7
6/A	2,373	366	2,740	4.2
6/M	2,358	844	3,202	4.9
Total	57,272	8,033	65,305	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 2012, Full Class 6 licence holders account for 78% of all Manitoba Class 6 licence holders and Learners account for 13%. This distribution is similar to 2011.

**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: 2012

Age Group	License Class					Total	% of Total
	6/F	6/I	6/L	6/A	6/M		
16-17	6	6	63	0	47	122	0.2
18-19	43	1	211	1	124	379	0.7
20-24	492	0	1,104	8	574	2,179	3.8
25-34	2,633	1	2,589	580	952	6,755	11.8
35-44	6,240	1	1,126	958	324	8,649	15.1
45-54	16,259	0	739	592	204	17,793	31.1
55-64	15,627	0	370	186	91	16,273	28.4
65-74	3,904	0	95	40	34	4,072	7.1
75-84	889	0	10	9	8	916	1.6
85+	131	0	1	1	1	134	0.2
Total	46,224	9	6,308	2,373	2,358	57,272	

**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: 2012

Age Group	License Class					Total	% of Total
	6/F	6/I	6/L	6/A	6/M		
16-17	0	0	4	0	2	6	<0.1
18-19	4	0	26	0	18	48	0.6
20-24	31	0	177	0	111	318	4.0
25-34	251	0	574	60	249	1,134	14.1
35-44	630	0	538	126	169	1,464	18.2
45-54	1,778	0	502	122	190	2,592	32.3
55-64	1,689	0	152	51	95	1,987	24.7
65-74	373	0	7	5	11	396	4.9
75-84	80	0	0	1	0	81	1.0
85+	6	0	0	1	0	7	<0.1
Total	4,843	0	1,979	366	844	8,033	



## **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 895,400 Non-commercial vehicles registered in Manitoba in 2012.

- This is a 3% increase over 2011 and a 24 % increase from 2002.
- This is an 8% increase over the average registrations for the period 2007-2011.

There are a total of 97,991 Commercial vehicles registered in Manitoba in 2012.

- This is a 7% increase over 2011 and a 40% increase from 2002.
- This is a 13% increase over the average registrations for the period 2007-2011.

Overall, there is a 4% increase in the total vehicle registrations (commercial and non-commercial, combined) in Manitoba from 958,283 in 2011 to 993,390 in 2012.

There are a total of 30,650 Snowmobiles registered in Manitoba in 2012.

- There are 229 more registered snowmobiles in 2012 than in 2011 (a 0.8% increase); a 66% increase from 2002.
- This is a 13% increase over the average registrations for the period 2007-2011.

### **Major Elements Examined**

Counts for each Commercial and Non-commercial registration types represent an average registration over the twelve-month period January through December 2012. 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 2011 through to and including April 2012 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: 2012

Vehicle Class*	Total	%
Passenger	539,384	60.2
Antique	131	<0.1
Motorcycle/Moped	12,329	1.4
Truck	145,405	16.2
Farm Truck	43,384	4.8
Snow Vehicle	46	<0.1
Trailer	154,603	17.3
Tractor (Other than Farm-type)	117	<0.1
<b>Total Non-Commercial Vehicles Registered</b>	<b>895,400</b>	<b>100.0</b>
Snowmobiles (Recreational)		
Snowmobiles	30,650	

\*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: 2012

Vehicle Class*	Total	%
Commercial Truck	30,391	31.0
Public Service Vehicle (PSV) Truck	10,934	11.2
Dealer and Repairer	6,178	6.3
Taxi/Livery/Limousine	885	0.9
Public Service Vehicle (PSV) Bus	143	0.1
Commercial Trailer	49,389	50.4
Public Service Vehicle (PSV) Trailer	71	<0.1
<b>Total Commercial Vehicles Registered</b>	<b>97,991</b>	<b>100.0</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: 2002 to 2012

Registration Class	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	5-year (2007- 2011) Average	2012	% Change 2012 vs. 2011	% Change (2012 vs. 2007-2011 average)
<b>Non-Commercial Vehicle Class</b>														
Passenger	469,420	476,834	483,274	487,158	491,363	499,078	509,856	516,185	521,894	529,406	515,284	<b>539,384</b>	1.9	4.7
Antique**	83	79	71	74	80	82	84	77	95	103	88	<b>131</b>	27.8	49.3
Motorcycle/Moped	6,677	7,210	7,339	7,605	8,357	9,143	10,059	10,413	10,732	11,229	10,315	<b>12,329</b>	9.8	19.5
Truck	112,549	113,302	114,818	115,755	117,278	120,217	123,766	127,154	133,057	139,530	128,745	<b>145,405</b>	4.2	12.9
Farm Truck	48,971	48,370	47,650	46,512	45,083	44,477	44,073	43,746	43,517	42,942	43,751	<b>43,384</b>	1.0	-0.8
Snow Vehicle**	59	55	52	49	48	49	47	49	50	48	49	<b>46</b>	-3.8	-4.7
Trailer	85,986	88,375	92,396	97,684	103,840	111,630	120,891	127,080	134,358	143,249	127,441	<b>154,603</b>	7.9	21.3
Tractor (non-farm)	144	140	131	122	125	120	117	122	123	120	120	<b>117</b>	-2.4	-2.4
Subtotal	723,889	734,365	745,731	754,959	766,174	784,796	808,892	824,824	843,825	866,628	825,793	<b>895,400</b>	3.3	8.4
<b>Commercial Vehicle Class</b>														
Truck	22,798	23,130	23,520	23,833	24,305	24,987	26,123	26,851	27,690	28,928	26,916	<b>30,391</b>	5.1	12.9
PSV Truck	6,907	7,366	8,313	8,988	9,526	10,115	9,863	9,818	9,849	10,244	9,978	<b>10,934</b>	6.7	9.6
Dealer/Repairer	7,238	6,987	6,644	6,561	6,512	6,511	6,546	6,347	6,229	6,185	6,364	<b>6,178</b>	-0.1	-2.9
Taxi/Livery	747	735	756	764	772	769	778	834	854	871	821	<b>885</b>	1.5	7.7
PSV Bus**	139	135	132	135	134	143	146	155	161	150	151	<b>143</b>	-4.4	-5.3
Trailers*	32,273	30,022	33,073	33,453	37,226	38,183	42,304	41,846	45,249	45,221	42,560	<b>49,389</b>	9.2	16.0
PSV Trailers**	44	57	57	54	58	56	51	57	57	57	56	<b>71</b>	25.2	27.6
Subtotal	70,146	68,432	72,495	73,788	78,533	80,764	85,811	85,909	90,089	91,655	86,846	<b>97,991</b>	6.9	12.8
<b>Total Registrations - Non-Commercial and Commercial Vehicle Classes</b>														
Total Registrations	794,035	802,797	818,226	828,747	844,707	865,560	894,703	910,732	933,914	958,283	912,638	<b>993,390</b>	3.7	8.8
<b>Snowmobiles***</b>														
Total	18,483	18,647	19,321	19,852	20,832	23,401	26,359	27,664	28,064	30,421	27,182	<b>30,650</b>	0.8	12.8
<b>Off-Road Vehicle Dealer Plates</b>														
Total	378	415	417	398	446	429	473	464	454	471	458	<b>469</b>	-0.4	2.4

\*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 2008, December 2008 through April 2009, inclusive).

Over the previous five years (2007 to 2011), total vehicle registrations (excluding snowmobiles and ORV dealer plates) have increased by an average of nearly 3% each year. In 2012, the increase in total vehicle registrations is slightly higher than this rate of change, increasing by 4% compared to 2011.

The total increase in overall vehicle registrations in 2012 comes from an increase in both non-commercial and commercial vehicle registrations. Non-commercial vehicle registrations increased by 3% in 2012 compared to 2011. Commercial vehicle registrations increased by 7% in 2012 compared to 2011.

Snowmobile registrations increased by 0.8% in 2012 over 2011 (a total count of 229 snowmobiles) and by 13% compared to the 5-year (2007-2011) 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 2002 to 2011 is presented and compared to 2012. Details are provided for 2012 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.

Due to amendments to the *Highway Traffic Act* that took effect in October 2011, this report uses two sources for Traffic Accident Reports (TARs); TARs completed by a law enforcement agency and TARs completed when a collision claim is registered with Manitoba Public Insurance. This change to the use of two data sources resulted in an increase in traffic collision counts, specifically for collisions resulting in minimal injuries or property damage only.

## Key Highlights

In 2012, there are 10,623 victims from 38,972 collisions involving 59,556 vehicles and 58,877 drivers. Of the 38,972 collisions:

- 89 are fatal collisions involving 126 vehicles and 119 drivers, resulting in 96 people killed and 89 people injured;
- 8,280 are injury collisions involving 14,802 vehicles and 14,696 drivers, resulting in 10,438 people injured; and,
- 30,603 are PDO collisions involving 44,628 vehicles and 44,062 drivers.

Collisions on public roadways in Manitoba in 2012 most frequently occur:

- In Winnipeg (63% of all collisions; 21% of fatal, 76% of injury and 59% of PDO collisions) and in rural areas (nearly 19% of all collisions, 64% of fatal, nearly 12% of injury and 20% of PDO collisions);
- In the winter months (January, February, and December) – 31% of all collisions; 20% of fatal, nearly 32% of injury and 31% of PDO collisions;
- Wednesday through Friday – nearly 49% of all collisions; 47% of fatal, nearly 50% of injury and 48% of PDO collisions – with Friday specifically accounting for nearly 18% of all collisions; 20% of fatal, 17% of injury and nearly 18% of PDO collisions; and,
- Between the hours of 3 and 6 p.m. (15:00 to 17:59) – 24% of all collisions; 10% of fatal, 28% of injury and 23% of PDO collisions.

Collisions on public roadways in Manitoba in 2012 are most frequently:

- “Motor vehicle to motor vehicle” in nature – 61% of all collisions; 35% of fatal, 77% of injury and 56% of PDO collisions; and,
- “Rear end” collisions (36% of all collisions), collisions occurring at 90° intersections (15% of all collisions), collisions involving a fixed object (12% of all collisions), side-swipe collisions (11% of all collisions), collisions associated with turning and collisions resulting from leaving the road (7% of all collisions).

## Major Elements Examined

Counts of collisions in Manitoba for 2012 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 2002 through 2012. Following that, the majority of this section explores traffic collisions occurring in 2012 and provides annual average counts of collisions for the time period 2007 to 2011 compared to 2012 collisions.

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 2007 to 2011. 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 areas, 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 Ten Year Summary of Traffic Collisions**

Table 4-1  
Historical Summary of Traffic Collisions: 2002 to 2012

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2007- 2011 Average
Total Collisions	31,909	34,771	35,002	33,164	31,738	29,494	27,092	26,578	27,172	34,302	<b>38,972</b>	28,928
Fatal	99	95	90	88	104	96	85	83	78	94	<b>89</b>	87
Injury	6,934	7,273	6,855	6,482	6,503	6,415	5,974	5,396	5,386	6,309	<b>8,280</b>	5,896
PDO	24,876	27,403	28,057	26,594	25,131	22,983	21,033	21,099	21,708	27,899	<b>30,603</b>	22,944
Total Victims	9,616	9,821	9,314	8,753	8,825	8,632	7,924	7,302	7,130	8,337	<b>10,623</b>	7,865
Killed	109	102	99	113	119	109	92	86	87	110	<b>96</b>	97
Injured	9,507	9,719	9,215	8,640	8,706	8,523	7,832	7,216	7,043	8,227	<b>10,527</b>	7,768
Total Vehicles Involved	52,691	57,280	57,219	54,343	51,620	48,491	44,555	43,610	44,979	53,516	<b>59,556</b>	47,030
Fatal	156	142	131	135	151	141	141	126	110	141	<b>126</b>	132
Injury	12,346	12,750	12,090	11,489	11,312	11,099	10,219	9,268	9,358	10,956	<b>14,802</b>	10,180
PDO	40,189	44,388	44,998	42,719	40,157	37,251	34,195	34,216	35,511	42,419	<b>44,628</b>	36,718
Total Drivers Involved	47,952	52,403	52,013	48,898	46,380	44,814	42,120	41,097	42,310	51,279	<b>58,877</b>	44,324
Fatal	149	138	127	126	145	135	121	120	105	130	<b>119</b>	122
Injury	11,920	12,248	11,647	11,044	10,827	10,696	9,854	8,938	8,969	10,644	<b>14,696</b>	9,820
PDO	35,883	40,017	40,239	37,728	35,408	33,983	32,145	32,039	33,236	40,505	<b>44,062</b>	34,382

In 2012, there are 10,623 victims from 38,972 collisions involving 59,556 vehicles and 58,877 drivers. Of the 38,972 collisions:

- 89 are fatal collisions involving 126 vehicles and 119 drivers, resulting in 96 people killed;
- 8,280 are injury collisions involving 14,802 vehicles and 14,696 drivers, resulting in 10,438 people injured; and,
- 30,603 are PDO collisions involving 44,628 vehicles and 44,062 drivers.

Total collisions in 2012 are up nearly 14% compared to 2011 and 35% compared to the number of collisions in the previous five year (2007 to 2011) annual average.

- Fatal collisions decreased by 5% compared to 2011 and increased by 2% compared to the previous five years.
- Injury collisions increased by 31% compared to 2011 and by 40% compared to the previous five years.
- PDO collisions are up 10% compared to 2011 and by 33% compared to the previous five years.

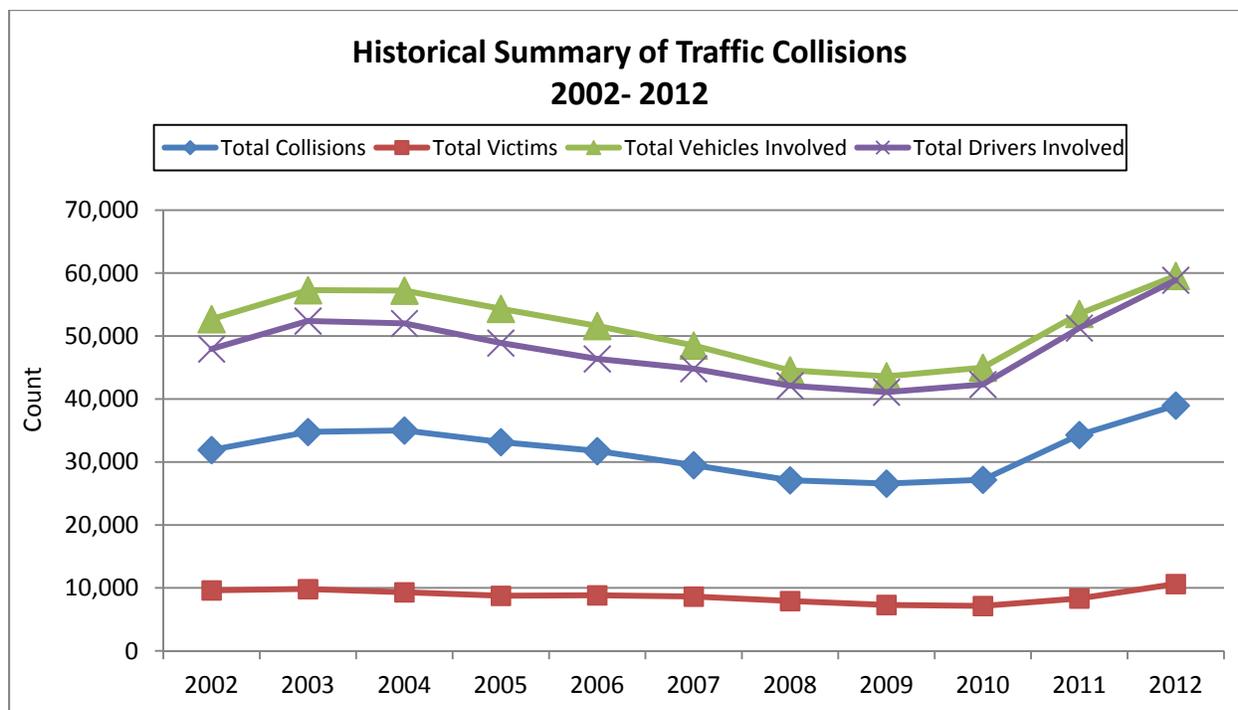
The total number of collision victims in 2012 increased by 27% over 2011 and by 35% compared to the previous five year (2007 to 2011) annual average.

The total number of drivers involved in collisions in 2012 is up 15% from the number of drivers involved in 2011 and by 33% compared to the previous five year (2007 to 2011) annual average. The number of vehicles involved in 2012 is up 11% from 2011 and nearly 27% from the previous five year annual average.

The increases in total collisions, drivers and vehicles involved, and people injured in 2012 are due to a change in the reporting requirements. As of October 2011, in addition to police-reported accidents, collision claims registered with Manitoba Public Insurance result in a Traffic Accident Report being completed, as long as the accident occurred on a public roadway and it meets the other requirements of being a reportable traffic collision. This affects many PDO and minimal injury collisions that were not captured or reported in the Traffic Accident Database in the past.

Changes in the number of fatal collisions and the number of people killed in collisions cannot be attributed to this reporting change. In 2012, the number of people killed in fatal collisions (96) is down 13% compared to 2011 (110), but is relatively consistent with 2008 (92), 2009 (86) and 2010 (87).

**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: 2012, 2007-2011 Average

Month	2012 Collision Severity						2012 Total	% of 2012 Total	2007-2011 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
January	5	5.6%	1,082	13.1%	3,487	11.4%	<b>4,574</b>	11.7%	5	589	2,592	3,187	11.0%
February	7	7.9%	756	9.1%	2,322	7.6%	<b>3,085</b>	7.9%	5	519	2,177	2,701	9.3%
March	1	1.1%	811	9.8%	2,439	8.0%	<b>3,251</b>	8.3%	5	469	1,795	2,270	7.8%
April	6	6.7%	563	6.8%	1,640	5.4%	<b>2,209</b>	5.7%	6	362	1,326	1,694	5.9%
May	7	7.9%	624	7.5%	1,949	6.4%	<b>2,580</b>	6.6%	6	417	1,386	1,810	6.3%
June	12	13.5%	526	6.4%	2,241	7.3%	<b>2,779</b>	7.1%	8	472	1,533	2,014	7.0%
July	10	11.2%	509	6.1%	1,973	6.4%	<b>2,492</b>	6.4%	9	432	1,421	1,862	6.4%
August	11	12.4%	525	6.3%	1,999	6.5%	<b>2,535</b>	6.5%	8	454	1,365	1,826	6.3%
September	15	16.9%	553	6.7%	2,231	7.3%	<b>2,799</b>	7.2%	8	474	1,532	2,014	7.0%
October	3	3.4%	755	9.1%	2,898	9.5%	<b>3,656</b>	9.4%	11	518	2,137	2,666	9.2%
November	6	6.7%	807	9.7%	3,664	12.0%	<b>4,477</b>	11.5%	8	592	2,765	3,365	11.6%
December	6	6.7%	769	9.3%	3,760	12.3%	<b>4,535</b>	11.6%	7	597	2,914	3,518	12.2%
Total	89	100%	8,280	100%	30,603	100%	<b>38,972</b>	100%	87	5,896	22,944	28,928	100%

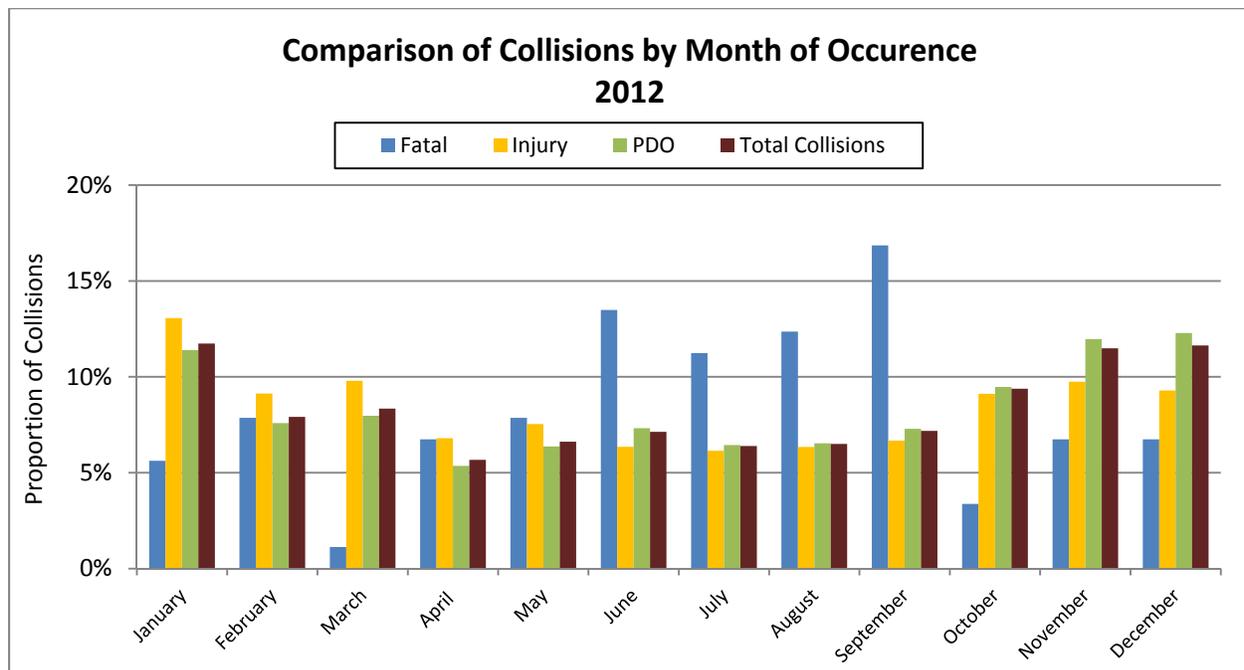
Note: Counts of collisions in the 2007-2011 average may not add to the total due to rounding.

As has been the case in the past, the winter months of January, February and December account for nearly one-third (31%) of all collisions in Manitoba in 2012. In the previous five year period (2007-2011), these months accounted for an average of nearly 33% of all collisions. In 2012, January, February and December, combined, account for:

- 20% of all fatal collisions;
- Nearly 32% of all injury collisions; and,
- 31% of all PDO collisions.

Fatal collisions in 2012 represent somewhat of a divergence from recent years. In 2012, the summer months account for an unusually high proportion of fatal collisions overall. More than half (54%) of fatal collisions occur in June, July, August, and September (compared to 38% in 2007 to 2011). However, March and October account for an unusually low proportion of fatal collision relative to the previous five year, in which nearly 5% of fatal collisions occur in 2012, compared to nearly 19% of fatal collisions in 2007 to 2011.

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



In 2012, injury collisions and PDO collisions occur most frequently in the months of November, December, and January (32% of injury collisions and 36% of PDO collisions). In the previous five year period (2007 to 2011), these three months account for 30% of injury collisions and 36% 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: 2012, 2007-2011 Average

Day of Week	2012 Collision Severity						2012 Total	% of 2012 Total	2007-2011 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Sunday	12	13.5%	711	8.6%	3,170	10.4%	<b>3,893</b>	10.0%	15	587	2,434	3,035	10.5%
Monday	12	13.5%	1,131	13.7%	3,995	13.1%	<b>5,138</b>	13.2%	8	823	3,084	3,915	13.5%
Tuesday	9	10.1%	1,303	15.7%	4,347	14.2%	<b>5,659</b>	14.5%	8	888	3,316	4,212	14.6%
Wednesday	12	13.5%	1,378	16.6%	4,719	15.4%	<b>6,109</b>	15.7%	13	897	3,353	4,263	14.7%
Thursday	12	13.5%	1,290	15.6%	4,671	15.3%	<b>5,973</b>	15.3%	13	929	3,491	4,433	15.3%
Friday	18	20.2%	1,432	17.3%	5,395	17.6%	<b>6,845</b>	17.6%	14	996	4,046	5,056	17.5%
Saturday	14	15.7%	1,035	12.5%	4,306	14.1%	<b>5,355</b>	13.7%	16	776	3,221	4,013	13.9%
Total	89	100%	8,280	100%	30,603	100%	<b>38,972</b>	100%	87	5,896	22,944	28,928	100%

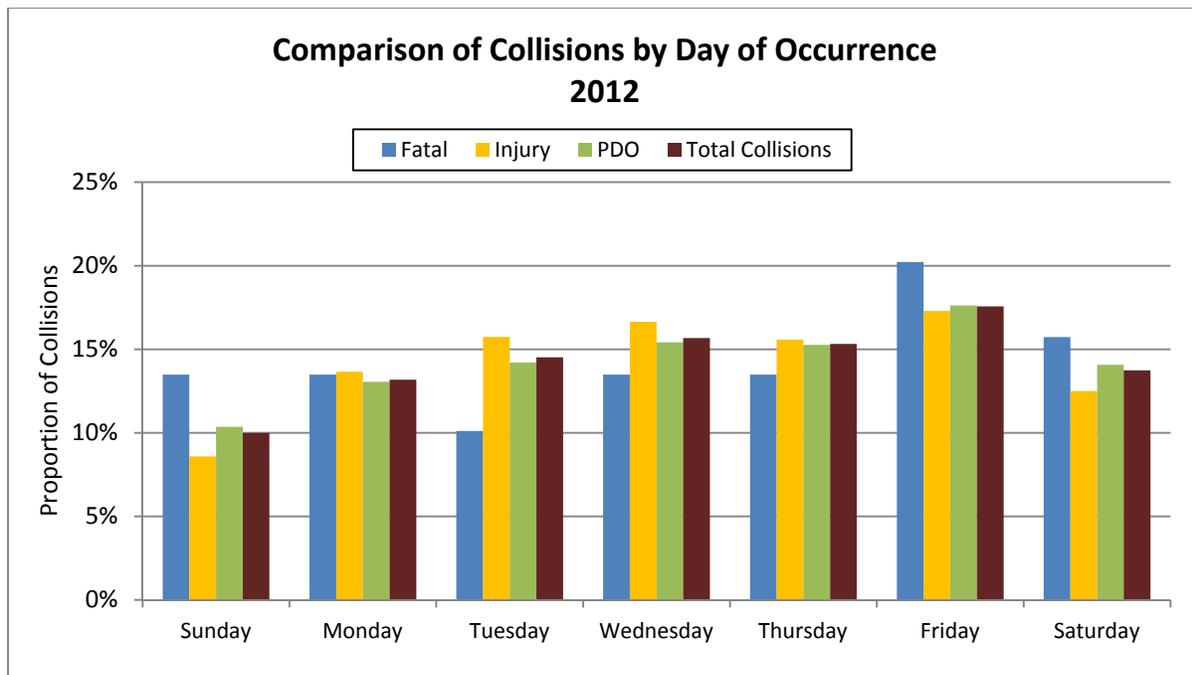
Note: Counts of collisions in the 2007-2011 average may not add to the total due to rounding.

Collisions in 2012 most frequently occur on Wednesday, Thursday and Friday. Combined, these three days account for nearly 49% of all collisions, 47% of fatal collisions, nearly 50% of injury collisions and 48% of PDO collisions. In the previous five year (2007 to 2011) annual average, Wednesday through Friday combined account for virtually the same proportions (nearly 48%).

Overall, Friday accounts for the single largest proportion of collisions in 2012; this is also the case in the previous five year (2007 to 2011) annual average. Friday accounts for:

- Nearly 18% of all collisions in 2012 and in the previous five years;
- 20% of fatal collisions in 2012 and nearly 17% in the previous five years;
- 17% of injury collisions in 2012 and 17% in the previous five years; and,
- Nearly 18% of PDO collisions in 2012 and in the previous five years.

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



Weekends, defined as all day Friday, Saturday and Sunday, combined, account for:

- 41% of all collisions in 2012 and 42% in the previous five years (2007 to 2011);
- 49% of fatal collisions in 2012 and nearly 52% in the previous five years;
- 38% of injury collisions in 2012 and 40% in the previous five years; and,
- 42% of PDO collisions in 2012 and 42% in the previous five years.

In 2012, fatal collisions happen most often on Friday (count of 18 or 20% of fatal collisions). Nearly as many fatal collisions in 2012 happen on Saturday (count of 14 or 16% of fatal collisions). In the previous five year (2007 to 2011) annual average, Saturdays account for the highest numbers of fatal collisions, followed by Sundays and Fridays.

**Table 4-4 Traffic Collisions by Time of Occurrence and Collision Severity**Table 4-4  
Traffic Collisions by Time of Occurrence and Collision Severity: 2012, 2007-2011 Average

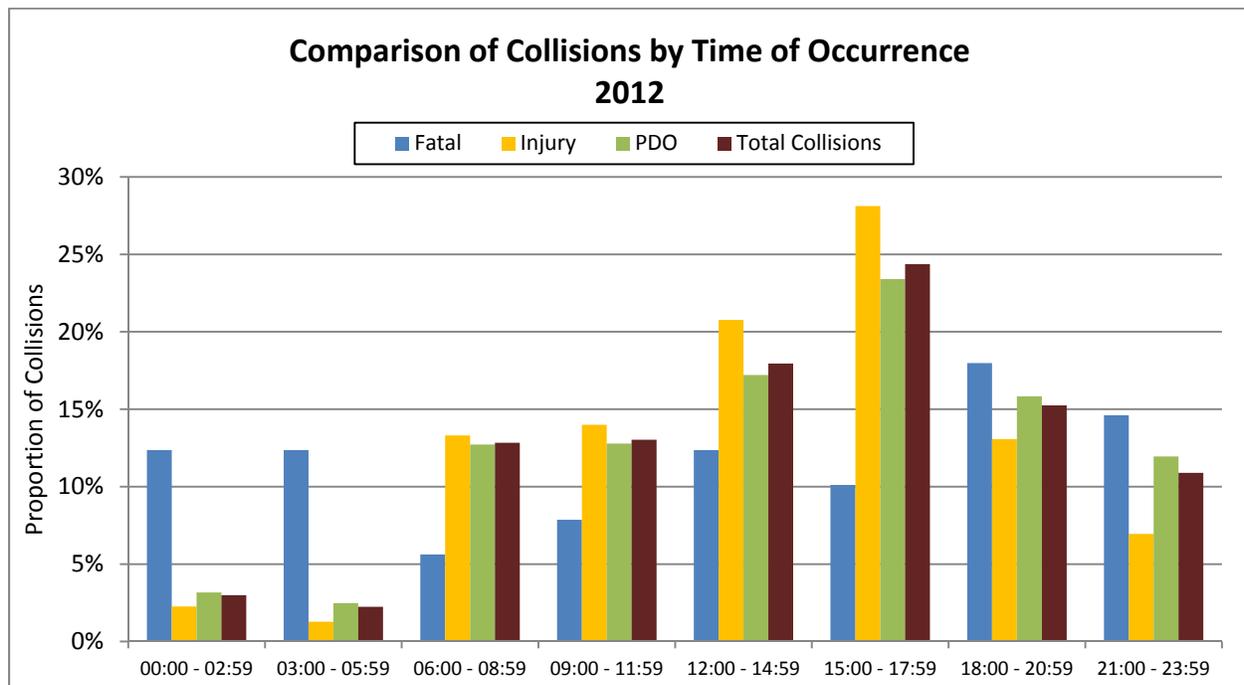
Time	2012 Collision Severity						2012 Total	% of 2012 Total	2007-2011 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
00:00 - 02:59	11	12.4%	187	2.3%	968	3.2%	<b>1,166</b>	3.0%	7	180	711	899	3.1%
03:00 - 05:59	11	12.4%	106	1.3%	757	2.5%	<b>874</b>	2.2%	9	152	656	817	2.8%
06:00 - 08:59	5	5.6%	1,102	13.3%	3,893	12.7%	<b>5,000</b>	12.8%	6	733	2,671	3,409	11.8%
09:00 - 11:59	7	7.9%	1,159	14.0%	3,913	12.8%	<b>5,079</b>	13.0%	10	743	2,935	3,687	12.7%
12:00 - 14:59	11	12.4%	1,719	20.8%	5,267	17.2%	<b>6,997</b>	18.0%	13	1,095	4,064	5,172	17.9%
15:00 - 17:59	9	10.1%	2,328	28.1%	7,161	23.4%	<b>9,498</b>	24.4%	11	1,510	5,197	6,718	23.2%
18:00 - 20:59	16	18.0%	1,082	13.1%	4,844	15.8%	<b>5,942</b>	15.2%	14	748	3,290	4,053	14.0%
21:00 - 23:59	13	14.6%	575	6.9%	3,656	11.9%	<b>4,244</b>	10.9%	9	471	2,507	2,987	10.3%
Not Stated	6	6.7%	22	0.3%	144	0.5%	<b>172</b>	0.4%	8	264	913	1,185	4.1%
Total	89	100%	8,280	100%	30,603	100%	<b>38,972</b>	100%	87	5,896	22,944	28,928	100%

Note: Counts of collisions in the 2007-2011 average may not add to the total due to rounding.

Four in ten collisions in 2012 occur between noon and 6 p.m. (42% of all collisions, nearly 23% of fatal collisions, 49% of injury collisions, and nearly 41% of PDO collisions). Again, this is consistent with the proportion of collisions occurring during these hours in the previous five year (2007 to 2011) annual average (41% of all collisions, 28% of fatal collisions, 44% of injury collisions, and 40% of PDO collisions).

The largest proportion of total traffic collisions in 2012 occur between 3 and 6 p.m. (15:00 – 17:59), what is often be considered the “afternoon rush”. Nearly one-quarter (24%) of all collisions occur during these hours (10% of fatal collisions, 28% 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 (2007 to 2011) annual average.

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



In 2012, consistent with the previous five year annual average, a disproportionate number of fatal collisions occur between the hours of midnight and 6 a.m.; 25% of fatal collisions compared to only 5% of all collisions overall.

**Table 4-5 Traffic Collisions by Provincial Location and Collision Severity**Table 4-5  
Traffic Collisions by Provincial Location and Collision Severity: 2012, 2007-2011 Average

Location	2012 Collision Severity						2012 Total	% of 2012 Total	2007-2011 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Winnipeg	19	21.3%	6,307	76.2%	18,136	59.3%	<b>24,462</b>	62.8%	17	3,891	12,785	16,692	57.7%
Brandon	1	1.1%	205	2.5%	901	2.9%	<b>1,107</b>	2.8%	1	206	1,097	1,304	4.5%
Portage	0	-	53	0.6%	255	0.8%	<b>308</b>	0.8%	<1	41	299	340	1.2%
Flin Flon	1	1.1%	6	<0.1%	63	0.2%	<b>70</b>	0.2%	<1	13	110	124	0.4%
Dauphin	1	1.1%	28	0.3%	139	0.5%	<b>168</b>	0.4%	<1	30	154	184	0.6%
Thompson	1	1.1%	35	0.4%	212	0.7%	<b>248</b>	0.6%	<1	27	234	261	0.9%
The Pas	0	-	22	0.3%	122	0.4%	<b>144</b>	0.4%	<1	12	130	142	0.5%
Selkirk	1	1.1%	69	0.8%	260	0.8%	<b>330</b>	0.8%	<1	40	209	249	0.9%
Other Urban	8	9.0%	592	7.1%	4,269	13.9%	<b>4,869</b>	12.5%	9	365	2,336	2,711	9.4%
All Rural	57	64.0%	963	11.6%	6,246	20.4%	<b>7,266</b>	18.6%	59	1,271	5,591	6,921	23.9%
Total	89	100%	8,280	100%	30,603	100%	<b>38,972</b>	100%	87	5,896	22,944	28,928	100%

Note: Counts of collisions in the 2007-2011 average may not add to the total due to rounding.

As shown in Table 4-5 (on the preceding page), urban areas account for four in five (81%) of all collisions in Manitoba, but only about one-third of fatal collisions (36%) in 2012 (88% of injury collisions and nearly 80% of PDO collisions). Rural areas account for one-fifth of all collisions (19%), but two-thirds of fatal collisions (64%). This is consistent with historical results. In the previous five year period (2007 to 2011), urban areas accounted for an average of 76% of all collisions, 31% of fatal collisions, 78% of injury collisions, and nearly 76% of PDO collisions.

In 2012, 63% traffic collisions occur in Winnipeg while other urban areas (including Brandon, Portage, Flin Flon, Dauphin, Thompson, The Pas, Selkirk and "Other urban") account for nearly 19% of all collisions. In the previous five year (2007 to 2011) annual average, 58% of all collisions occur in Winnipeg and 18% occur in other urban areas.

This pattern holds when we consider both injury and PDO collisions. In 2012:

- More than 76% of injury collisions occur in Winnipeg, 12% occur in other urban areas and nearly 12% occur in rural areas.
- 59% of PDO collisions occur in Winnipeg, 20% occur in other urban areas and 20% occur in rural areas.

Fatal collisions represent a marked departure from this overall distribution. In 2012, about two-thirds of fatal collisions (64%) occur in rural areas, while 21% occur in Winnipeg and nearly 15% occur in other urban areas. The over-representation of rural areas in fatal collisions is also found within the previous five year (2007 to 2011) annual average, where 67% of fatal collisions occur in rural areas, 19% occur in Winnipeg and 13% occur in other urban areas.

As shown in Table 4-6 (on the following page), "motor vehicle to motor vehicle" collisions account for the majority of collisions in Manitoba, both in 2012 and in the previous five year (2007 to 2011) annual average. In 2012 "motor vehicle to motor vehicle" collisions account for:

- 61% of all collisions;
- 35% of fatal collisions;
- 77% of injury collisions; and,
- 56% of PDO collisions.

Collisions occurring in urban areas are predominantly "motor vehicle to motor vehicle" in nature. In urban areas in 2012, "motor vehicle to motor vehicle" collisions account for:

- Nearly 72% of all collisions;
- Nearly 41% of fatal collisions;
- Nearly 84% of injury collisions; and,
- 68% of PDO collisions.

Collisions occurring in rural areas 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 areas in 2012:

- 60% of all collisions are "motor vehicle to animal" in nature (one fatal collision; nearly 22% of injury collisions; and 66% of PDO collisions);
- 17% of all collisions are "motor vehicle to fixed object" in nature (16% of fatal collisions; nearly 36% of injury collisions; and 14% of PDO collisions); and,
- 13% of all collisions are "motor vehicle to motor vehicle" in nature (nearly 32% of fatal collisions; nearly 29% of injury collisions; and 10% of PDO collisions).

Collisions with pedestrians (accounting for 0.3% of all collisions in 2012) account for a high proportion of fatal collisions in Manitoba; 7% of fatal collisions in the province were "motor vehicle to pedestrian". In urban areas, nearly 13% of fatal collisions in 2012 involve a motor vehicle hitting a pedestrian. Considering all collisions of the type "motor vehicle to pedestrian" in 2012, nearly 6% resulted in a fatality, 45% resulted in an injury, and nearly 50% resulted in a PDO.

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

Table 4-6  
Collision Type by Urban/Rural Location: 2012, 2007-2011 Average

Collision Type	Location													2007-2011 Average Count of Total Collisions				
	2012 Urban				2012 Rural				2012 Provincial Total				2012 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	4	47	53	104	2	1	0	3	6	48	53	107	0.3%	13	368	10	391	1.4%
Collision with other motor vehicle	13	6,120	16,583	22,716	18	274	643	935	31	6,394	17,226	23,651	60.7%	31	3,945	15,591	19,567	67.6%
Collisions with train	0	0	8	8	1	1	0	2	1	1	8	10	<0.1%	2	4	10	16	<0.1%
Collision with motorcycle	0	3	6	9	1	2	0	3	1	5	6	12	<0.1%	3	108	45	155	0.5%
Collision with animal drawn vehicle	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	0	0	<0.1%
Collision with bicycle	1	17	39	57	1	0	2	3	2	17	41	60	0.2%	3	238	26	267	0.9%
Collision with animal	0	57	1,043	1,100	1	207	4,149	4,357	1	264	5,192	5,457	14.0%	0	180	3,537	3,717	12.8%
Collision with fixed object	5	462	3,781	4,248	9	343	901	1,253	14	805	4,682	5,501	14.1%	6	271	1,593	1,869	6.5%
Collision with other object	6	528	2,563	3,097	10	57	430	497	16	585	2,993	3,594	9.2%	4	91	662	757	2.6%
Overtaken in roadway	1	3	9	13	0	6	8	14	1	9	17	27	<0.1%	8	172	213	393	1.4%
Ran off roadway	2	15	21	38	14	49	32	95	16	64	53	133	0.3%	17	504	1,131	1,653	5.7%
Collision with moped	0	1	3	4	0	0	0	0	0	1	3	4	<0.1%	-	-	-	-	-
Other non-collision	0	64	248	312	0	23	81	104	0	87	329	416	1.1%	0	15	127	142	0.5%
<b>Total</b>	<b>32</b>	<b>7,317</b>	<b>24,357</b>	<b>31,706</b>	<b>57</b>	<b>963</b>	<b>6,246</b>	<b>7,266</b>	<b>89</b>	<b>8,280</b>	<b>30,603</b>	<b>38,972</b>	<b>100%</b>	<b>87</b>	<b>5,896</b>	<b>22,944</b>	<b>28,928</b>	<b>100%</b>

Note: Counts of collisions in the 2007-2011 average may not add to the total due to rounding.

**Table 4-7 Traffic Collisions by Road Surface Condition and Collision Severity**Table 4-7  
Traffic Collisions by Road Surface Condition and Collision Severity: 2012, 2007-2011 Average

Road Surface Condition	2012 Collision Severity						2012 Total	% of 2012 Total	2007-2011 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Dry	63	70.8%	4,335	52.4%	15,922	52.0%	<b>20,320</b>	52.1%	58	3,441	12,606	16,104	55.7%
Wet	6	6.7%	1,142	13.8%	3,494	11.4%	<b>4,642</b>	11.9%	8	631	2,103	2,741	9.5%
Mud	0	-	6	<0.1%	74	0.2%	<b>80</b>	0.2%	<1	9	49	58	0.2%
Snow	3	3.4%	638	7.7%	3,015	9.9%	<b>3,656</b>	9.4%	6	474	2,444	2,924	10.1%
Ice	6	6.7%	1,581	19.1%	6,153	20.1%	<b>7,740</b>	19.9%	9	1,003	4,340	5,352	18.5%
Slush	0	-	261	3.2%	731	2.4%	<b>992</b>	2.5%	1	87	262	350	1.2%
Loose Sand/Gravel/Dirt	1	1.1%	84	1.0%	314	1.0%	<b>399</b>	1.0%	3	80	183	266	0.9%
Fresh Oil	0	-	5	<0.1%	18	<0.1%	<b>23</b>	<0.1%	-	1	3	4	<0.1%
Other	2	2.2%	18	0.2%	123	0.4%	<b>143</b>	0.4%	<1	<1	13	14	<0.1%
Not Applicable	4	4.5%	146	1.8%	371	1.2%	<b>521</b>	1.3%	3	158	880	1,041	3.6%
Unknown	4	4.5%	64	0.8%	388	1.3%	<b>456</b>	1.2%	-	10	62	72	0.2%
<b>Total</b>	<b>89</b>	<b>96%</b>	<b>8,280</b>	<b>99%</b>	<b>30,603</b>	<b>99%</b>	<b>38,972</b>	<b>99%</b>	<b>87</b>	<b>5,896</b>	<b>22,944</b>	<b>28,928</b>	<b>100%</b>

Note: Counts of collisions in the 2007-2011 average may not add to the total due to rounding.

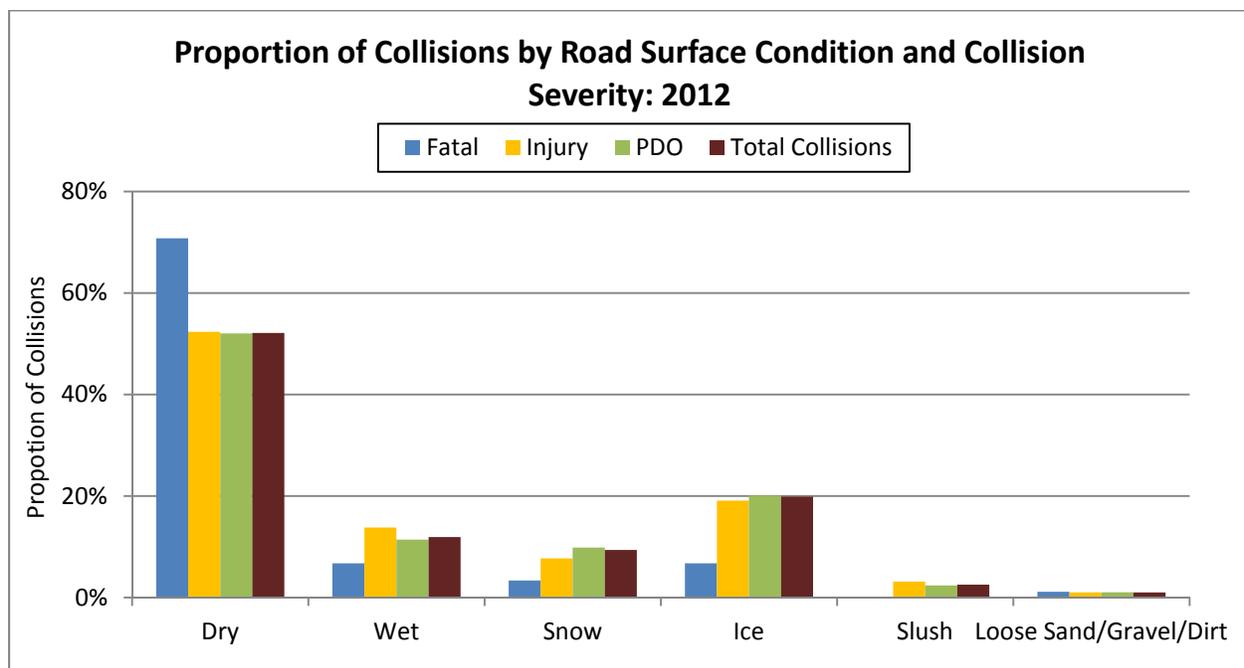
Most collisions in Manitoba occur under “dry” road conditions. More than one-half (52%) of all collisions in 2012 and 56% in the previous five year (2007 to 2011) annual average occur on “dry” roads.

In 2012, 71% of fatal collisions occur on “dry” roads. This is relatively consistent with the previous five year (2007 to 2011) annual average; two-thirds of fatal collisions (67%) occur on “dry” roads.

Icy road conditions account for 20% of all collisions in 2012, including 7% of fatal collisions, 19% of injury collisions and 20% of PDO collisions. This is relatively equal to the previous five year (2007 to 2011) annual average where icy roads account for nearly 19% of all collisions, 10% of fatal collisions, 17% of injury collisions and 19% of PDO collisions.

“Snow” covered and “wet” roads account for fairly equal proportions of all collisions in 2012, at 9% and 12% respectively. These proportions are relatively equal to the previous five year (2007 to 2011) annual average (10% each).

**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: 2012, 2007-2011 Average

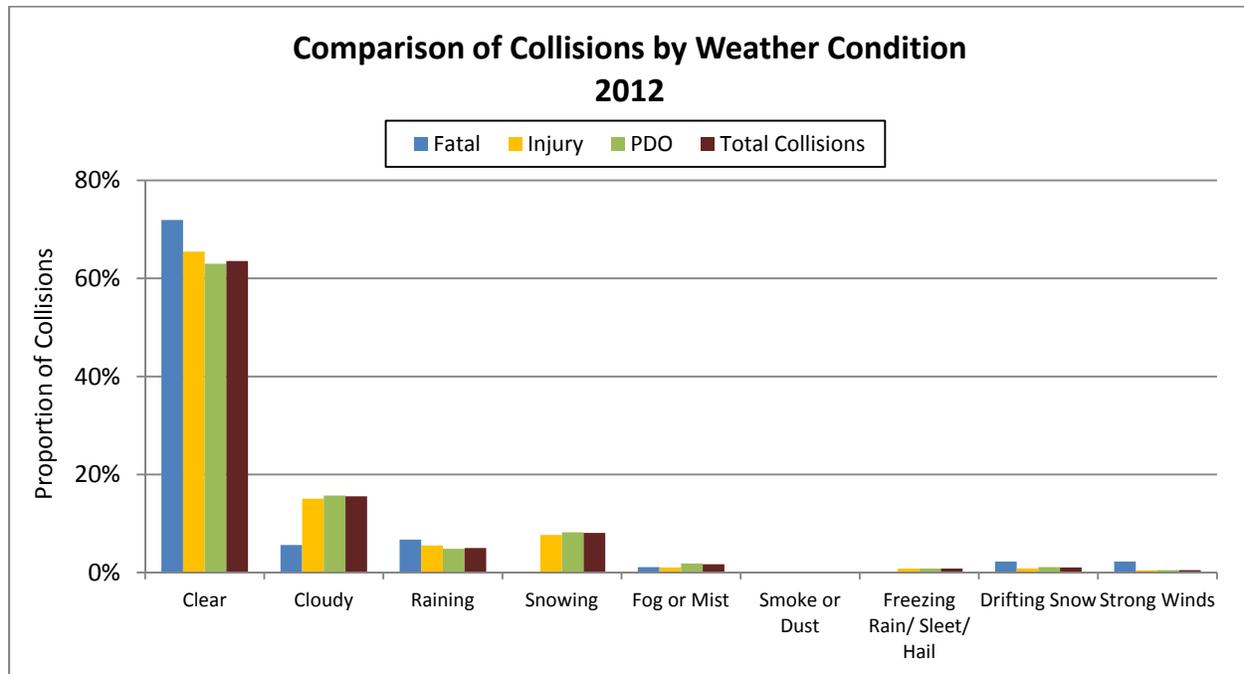
Weather Condition	2012 Collision Severity						2012 Total	% of 2012 Total	2007-2011 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Clear	64	71.9%	5,421	65.5%	19,281	63.0%	<b>24,766</b>	63.5%	58	4,004	15,495	19,558	67.6%
Cloudy	5	5.6%	1,247	15.1%	4,814	15.7%	<b>6,066</b>	15.6%	12	934	3,374	4,320	14.9%
Raining	6	6.7%	458	5.5%	1,484	4.8%	<b>1,948</b>	5.0%	4	284	980	1,267	4.4%
Snowing	0	-	634	7.7%	2,516	8.2%	<b>3,150</b>	8.1%	5	291	1,311	1,607	5.6%
Fog or Mist	1	1.1%	88	1.1%	569	1.9%	<b>658</b>	1.7%	2	51	235	288	1.0%
Smoke or Dust	0	-	6	<0.1%	34	0.1%	<b>40</b>	0.1%	-	5	12	17	<0.1%
Freezing Rain/Sleet/Hail	0	-	69	0.8%	248	0.8%	<b>317</b>	0.8%	<1	33	114	148	0.5%
Drifting Snow	2	2.2%	71	0.9%	338	1.1%	<b>411</b>	1.1%	1	61	201	263	0.9%
Strong Winds	2	2.2%	40	0.5%	154	0.5%	<b>196</b>	0.5%	1	45	135	180	0.6%
Other	1	1.1%	10	0.1%	83	0.3%	<b>94</b>	0.2%	-	<1	12	13	<0.1%
Not Applicable	4	4.5%	151	1.8%	455	1.5%	<b>610</b>	1.6%	4	171	955	1,131	3.9%
Unknown	4	4.5%	85	1.0%	627	2.0%	<b>716</b>	1.8%	-	16	119	135	0.5%
<b>Total</b>	<b>89</b>	<b>96%</b>	<b>8,280</b>	<b>99%</b>	<b>30,603</b>	<b>98%</b>	<b>38,972</b>	<b>98%</b>	<b>87</b>	<b>5,896</b>	<b>22,944</b>	<b>28,928</b>	<b>99%</b>

Note: Counts of collisions in the 2007-2011 average may not add to the total due to rounding.

Most collisions in Manitoba occur during “clear” weather conditions. Two-thirds of all collisions in 2012 and in the previous five year (2007 to 2011) annual average occur in “clear” weather (nearly 64% and nearly 68% respectively). This holds for all collisions regardless of severity. In 2012:

- “Cloudy” conditions account for nearly 16% of all collisions, nearly 6% of fatal collisions, 15% of injury collisions and 16% of PDO collisions;
- “Snowing” conditions account for 8% of all collisions, no fatal collisions, 8% of injury collisions and PDO collisions; and,
- “Raining” conditions account for 5% of all collisions, 7% of fatal collisions, nearly 6% of injury collisions and 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: 2012, 2007-2011 Average

Accident Configuration	2012 Collision Severity						2012 Total	% of 2012 Total	2007-2011 Average Count of Collisions				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Rear End	3	4.9%	3,594	49.9%	6,775	31.4%	<b>10,372</b>	36.0%	4	1,732	4,829	6,565	34.7%
Head On	10	16.4%	252	3.5%	1,708	7.9%	<b>1,970</b>	6.8%	12	94	436	542	2.9%
Side Swipe Opposing	1	1.6%	68	0.9%	265	1.2%	<b>334</b>	1.2%	1	46	275	323	1.7%
Side Swipe Same Direction	1	1.6%	348	4.8%	2,527	11.7%	<b>2,876</b>	10.0%	0	130	1,456	1,586	8.4%
Overtaking	0	-	47	0.7%	261	1.2%	<b>308</b>	1.1%	1	61	392	454	2.4%
Right Turn - Same direction	0	-	35	0.5%	280	1.3%	<b>315</b>	1.1%	<1	24	135	159	0.8%
Right Turn - Opposing	0	-	13	0.2%	93	0.4%	<b>106</b>	0.4%	<1	15	73	89	0.5%
Left Turn - Opposing	0	-	213	3.0%	476	2.2%	<b>689</b>	2.4%	<1	68	197	265	1.4%
Left Turn - Same direction	0	-	61	0.8%	229	1.1%	<b>290</b>	1.0%	<1	33	185	218	1.2%
Left Turn - Across	0	-	171	2.4%	394	1.8%	<b>565</b>	2.0%	1	291	773	1,066	5.6%
Intersection 90°	10	16.4%	1,354	18.8%	2,963	13.8%	<b>4,327</b>	15.0%	13	970	2,450	3,433	18.1%
Off Road Right	10	16.4%	302	4.2%	954	4.4%	<b>1,266</b>	4.4%	12	295	703	1,010	5.3%
Off Road Left	7	11.5%	184	2.6%	622	2.9%	<b>813</b>	2.8%	10	246	457	713	3.8%
Fixed Object	5	8.2%	374	5.2%	3,144	14.6%	<b>3,523</b>	12.2%	2	151	1,078	1,232	6.5%
Parking	0	-	120	1.7%	780	3.6%	<b>900</b>	3.1%	<1	21	884	905	4.8%
Pedestrian	14	23.0%	64	0.9%	75	0.3%	<b>153</b>	0.5%	12	343	11	366	1.9%
Other	28	-	1,080	-	9,057	-	<b>10,165</b>	-	19	1,374	8,609	10,002	-
<b>Total</b>	<b>89</b>	<b>100%</b>	<b>8,280</b>	<b>100%</b>	<b>30,603</b>	<b>100%</b>	<b>38,972</b>	<b>100%</b>	<b>87</b>	<b>5,896</b>	<b>22,944</b>	<b>28,928</b>	<b>100%</b>

Note: Counts of collisions in the 2007-2011 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.

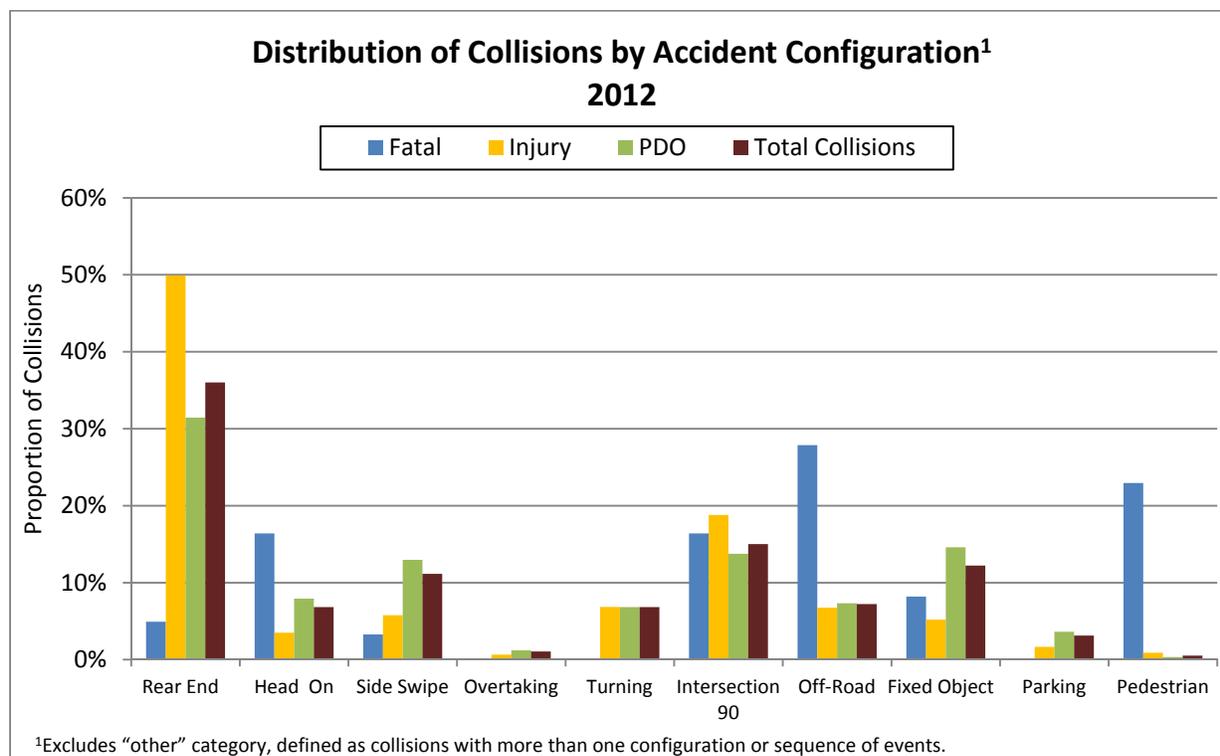
The most common accident configuration (or sequence of events immediately prior to or at the start of a collision) for collisions occurring in Manitoba (excluding “other”) is a “rear end” type. “Rear end” crashes account for 36% of all collisions in 2012 (three fatal collisions; 50% of injury collisions; 31% of PDO collisions) and 35% of all collisions in the previous five year (2007 to 2011) annual average.

Following “rear end” collisions, the next most common accident configurations in 2012 (excluding “other”) are:

- Collisions occurring at “intersection 90°” – 15% of all collisions, 16% of fatal collisions, 19% of injury collisions, and 14% of PDO collisions;
- “Fixed object” collisions – 12% of all collisions, 8% of fatal collision, 5% of injury collisions, and nearly 15% of PDO collisions;
- “Side-swipe” collisions, including in the same or opposing direction – 11% of all collisions, two fatal collisions, 6% of injury collisions, and 13% of PDO collisions;
- “Head on” collisions – 7% of all collisions, 16% of fatal collisions, nearly 4% of injury collisions, and 8% of PDO collisions;
- Collisions where the vehicle leaves the road (either “off road left” or “off road right”) – 7% of all collisions, 28% of fatal collisions, 7% of injury collisions, and 7% of PDO collisions; and,
- Collisions where at least one vehicle is turning (both “left turn” or “right turn” and including in the “same direction” or “opposing” direction) – 5% of all collisions, no fatal collision, 7% of injury collisions, and 7% 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 2012, 26% of all collisions (nearly 32% fatal; 13% injury; and nearly 30% PDO) are recorded as “other”. In the previous five year (2007 to 2011) annual average, nearly 35% of all collisions (21% fatal; 23% injury; and nearly 38% PDO) are recorded as “other”.

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



Collisions as a result of the vehicle leaving the road (“off-road left or right”) are the highest proportion of fatal collisions in 2012 (28%), followed by “pedestrian” collisions (23%), collisions occurring at intersections (“intersection 90°” - 16%), and “head on” collisions (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.

Due to amendments to the *Highway Traffic Act* that took effect in October 2011, this report uses two sources for Traffic Accident Reports (TARs); TARs completed by a law enforcement agency and TARs completed when a collision claim is registered with Manitoba Public Insurance. This change to the use of two data sources resulted in an increase in victim counts, specifically for minimal injuries.

### **Key Highlights**

In 2012, there are 10,623 victims (or casualties) of traffic collisions. Of these:

- 96 are killed;
- 339 are seriously injured;
- 2,237 sustain minor injuries;
- 7,864 sustain minimal injuries; and,
- 87 sustain injuries that are undefined in terms of severity.

The involvement rate (per 100,000 people in the general population) of casualties in traffic collisions in 2012 (835.5) has increased by 25% compared to 2011 (666.7) and by 29% compared to the previous five years (2007 to 2011) annual average (647.2). Victim involvement rates in traffic collisions in 2012 where the person:

- Was killed (7.6 in 2012) is 14% lower than in 2011 and 5% lower than in the previous five years; and,
- Was injured, including all levels of severity but excluding killed (828.0 in 2012), is 26% higher than in 2011 and nearly 30% higher than in the previous five years.

While women account for more than half of all casualties in traffic collisions (58%), men account for the highest proportion of people killed (69%). Men also account for more of the people seriously injured (54% compared to 46% women).

Victims aged 25 to 34 account for the highest proportion of casualties in 2012 (nearly 21% of all casualties; 19% of people killed; 17% of people seriously injured), followed by those aged 35 to 44 (nearly 19% of all casualties) and those age 45 to 54 (18% of all casualties). Victims aged 15 to 19 account for nearly 8% of all casualties and those aged 20 to 24 account for 12%.

“Drivers” account for 77% of all casualties and motor vehicle “Passengers” for 20%. “Motorcyclists” and “Moped” riders combine to account for just over 1% of all casualties while “Pedestrians” account for 2% and “Bicyclists” account for 1%. In 2012, “Pedestrians” account for nearly 14% of people killed in traffic collisions.

In 2012, casualties in traffic collisions most frequently result from crashes occurring:

- In Winnipeg – nearly 75% of all victims;
- In the late fall and winter months (including November through February) – 41% of all victims; 30% of people killed and 41% of people injured;
- On Wednesday (16% of all victims), Thursday (nearly 16%), or Friday (17%); and,
- Between noon and 6 p.m. (12:00-14:59 – nearly 21% of all victims; 15:00 to 17:59 – 28% of all victims).

### **Major Elements Examined**

Counts of collisions in Manitoba for 2012 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 2007 to 2011. 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: 2002 to 2012

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		
2002	109	-	467	-	3,812	-	4,611	-	617	-	9,507	-	9,616	-
2003	102	-6.4%	499	6.9%	3,829	0.4%	4,719	2.3%	672	8.9%	9,719	2.2%	9,821	2.1%
2004	99	-2.9%	483	-3.2%	3,736	-2.4%	4,308	-8.7%	688	2.4%	9,215	-5.2%	9,314	-5.2%
2005	113	14.1%	421	-12.8%	3,345	-10.5%	3,924	-8.9%	950	38.1%	8,640	-6.2%	8,753	-6.0%
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%
<b>2012</b>	<b>96</b>	<b>-12.7%</b>	<b>339</b>	<b>0.6%</b>	<b>2,237</b>	<b>-9.2%</b>	<b>7,864</b>	<b>82.6%</b>	<b>87</b>	<b>-92.2%</b>	<b>10,527</b>	<b>28.0%</b>	<b>10,623</b>	<b>27.4%</b>
2007-2011 Average*	97	-0.6%	371	-6.6%	2,788	-6.4%	3,687	3.0%	922	9.3%	7,768	-0.7%	7,865	-0.7%

\*The "% change to previous year" for "2007-2011 Average" is an average rate of change for the time period 2007 to 2011.

In 2012, there are 10,623 victims (or casualties) of traffic collisions. Of these:

- 96 are killed;
- 339 are seriously injured;
- 2,237 sustain minor injuries;
- 7,864 sustain minimal injuries; and,
- 87 sustain injuries that are undefined in terms of severity.

Overall, there is an increase in the number of victims in traffic collisions in 2012; however, this is concentrated in the minimal injury category. There are 14 fewer people killed than in 2011, 2 more people seriously injured and 228 fewer people with minor injuries. There are 3,558 more people with minimal injuries in 2012 than in 2011. The total number of casualties in 2012 (10,623) is up 35% compared to the previous five year (2007 to 2011) annual average (7,865). In 2012 compared to the previous five years:

- The count of people killed is down by 1;
- The number of people seriously injured is down nearly 9%;
- The number of people sustaining minor injuries is down 20%;
- The number of people sustaining minimal injuries has more than doubled (up 113%); and,
- The number of people sustaining “other” injuries is down by nearly 91%.

Prior to 2012, the total number of victims had been decreasing by an average of 1% each year from 2007 to 2011. In 2012, there is a substantial increase in the count of victims compared to previous years. This increase is mainly coming from people reporting minimal injuries.

The increase in the number of people injured in 2012 is attributable to a change in the reporting requirements. As of October 2011, in addition to police-reported accidents, collision claims registered with Manitoba Public Insurance result in a Traffic Accident Report being completed, as long as the accident occurred on a public roadway and it meets the other requirements of being a reportable traffic collision. This affects many collisions with less severe injuries, specifically minimal injuries that were not captured in the Traffic Accident Database in the past.

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.

**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: 2002 to 2012

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		
2002	9.4	-	40.4	-	329.7	-	398.8	-	53.4	-	822.3	-	831.7	-
2003	8.8	-6.7%	43.0	6.5%	330.1	0.1%	406.9	2.0%	57.9	8.6%	838.0	1.9%	846.8	1.8%
2004	8.5	-3.8%	41.3	-4.0%	319.4	-3.3%	368.3	-9.5%	58.8	1.5%	787.8	-6.0%	796.3	-6.0%
2005	9.6	13.7%	35.9	-13.1%	285.0	-10.8%	334.3	-9.2%	80.9	37.6%	736.1	-6.6%	745.7	-6.4%
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%
<b>2012</b>	<b>7.6</b>	<b>-14.2%</b>	<b>26.7</b>	<b>-1.1%</b>	<b>175.9</b>	<b>-10.7%</b>	<b>618.5</b>	<b>79.6%</b>	<b>6.8</b>	<b>-92.4%</b>	<b>828.0</b>	<b>25.9%</b>	<b>835.5</b>	<b>25.3%</b>
2007-2011 Average*	8.0	-1.8%	30.6	-7.7%	229.8	-7.5%	303.2	1.8%	75.6	8.0%	639.2	-1.9%	647.2	-1.9%

\*The "% change to previous year" for "2007-2011 Average" is an average rate of change for the time period 2007 to 2011.

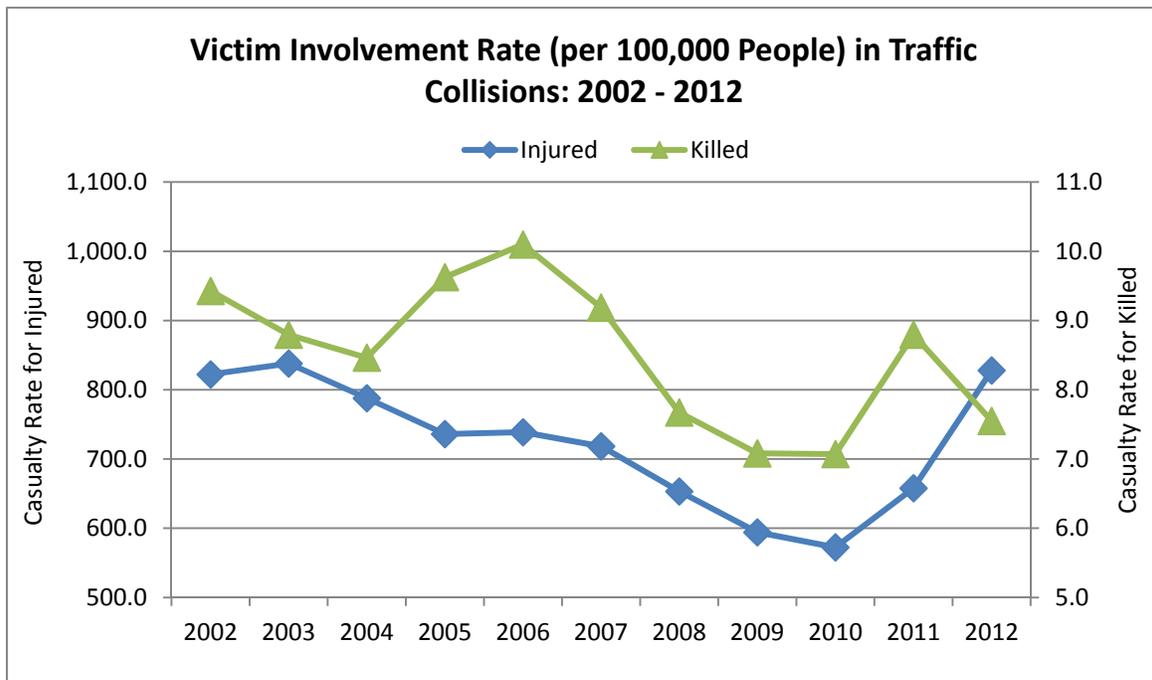
The victim involvement rate (per 100,000 people in the general population) in traffic collisions in 2012 (835.5) has increased by 25% compared to 2011 (666.7) and by 29% compared to the previous five years (2007 to 2011 – 647.2) on average.

Casualty involvement rates in traffic collisions in 2012 where the person:

- Was killed (7.6 in 2012) decreased 14% compared to 2011 and 5% compared to the previous five years;
- Was injured, including all levels of severity but excluding killed (828.0 in 2012), increased 26% compared to 2011 and by nearly 30% compared to the previous five years;
- Was seriously injured (26.7 in 2012) decreased by 1% compared to 2011 and by 13% compared to the previous five years;
- Sustained minor injuries (175.9 in 2012) decreased by 11% compared to 2011 and by 23% compared to the previous five years;
- Sustained minimal injuries (618.5 in 2012) increased by nearly 80% compared to 2011 and more than doubled compared to the previous five years (up 104%); and,
- Sustained injuries that are unspecified in severity (“other injury” – 6.8 in 2012) virtually vanished compared to 2011 and to the previous five years.

The changes in reporting structure that took effect in October 2011 are responsible for substantial increases in victim involvement rates for “minimal” injuries, which are driving the increase in the overall involvement rate for total victims. Victim involvement in 2012 is down in all categories except “minimal” injuries.

**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: 2012

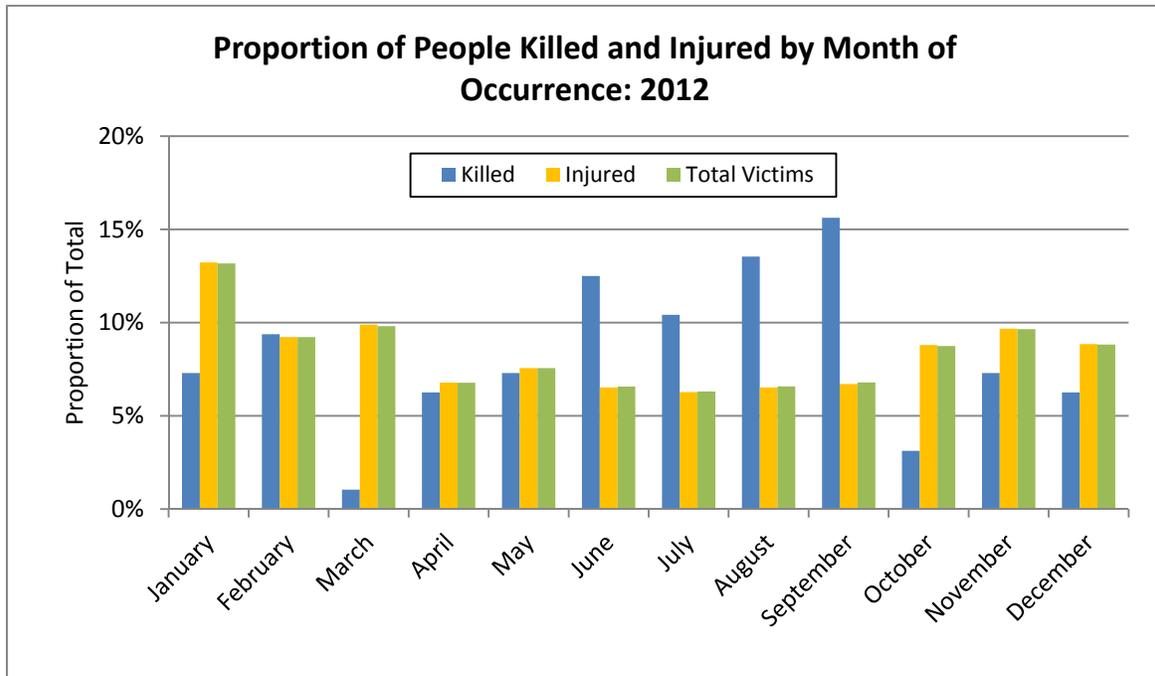
Month of Occurrence	2012 Casualty Type												2012 Total Victims	% of 2012 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
January	7	7.3%	42	12.4%	243	10.9%	1,083	13.8%	24	27.6%	1,392	13.2%	<b>1,399</b>	13.2%
February	9	9.4%	18	5.3%	174	7.8%	769	9.8%	10	11.5%	971	9.2%	<b>980</b>	9.2%
March	1	1.0%	37	10.9%	209	9.3%	792	10.1%	3	3.4%	1,041	9.9%	<b>1,042</b>	9.8%
April	6	6.3%	20	5.9%	194	8.7%	495	6.3%	5	5.7%	714	6.8%	<b>720</b>	6.8%
May	7	7.3%	30	8.8%	168	7.5%	596	7.6%	2	2.3%	796	7.6%	<b>803</b>	7.6%
June	12	12.5%	29	8.6%	173	7.7%	478	6.1%	6	6.9%	686	6.5%	<b>698</b>	6.6%
July	10	10.4%	20	5.9%	183	8.2%	453	5.8%	4	4.6%	660	6.3%	<b>670</b>	6.3%
August	13	13.5%	26	7.7%	156	7.0%	498	6.3%	6	6.9%	686	6.5%	<b>699</b>	6.6%
September	15	15.6%	34	10.0%	168	7.5%	495	6.3%	9	10.3%	706	6.7%	<b>721</b>	6.8%
October	3	3.1%	26	7.7%	202	9.0%	695	8.8%	3	3.4%	926	8.8%	<b>929</b>	8.7%
November	7	7.3%	34	10.0%	183	8.2%	794	10.1%	7	8.0%	1,018	9.7%	<b>1,025</b>	9.6%
December	6	6.3%	23	6.8%	184	8.2%	716	9.1%	8	9.2%	931	8.8%	<b>937</b>	8.8%
<b>Total</b>	<b>96</b>	<b>100%</b>	<b>339</b>	<b>100%</b>	<b>2,237</b>	<b>100%</b>	<b>7,864</b>	<b>100%</b>	<b>87</b>	<b>100%</b>	<b>10,527</b>	<b>100%</b>	<b>10,623</b>	<b>100%</b>

**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: 2007-2011 Average

Month of Occurrence	2007-2011 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
January	6	30	264	374	105	773	779	9.9%
February	5	23	233	330	94	681	686	8.7%
March	6	25	235	304	72	636	641	8.2%
April	7	24	173	205	62	464	471	6.0%
May	8	29	196	246	73	544	552	7.0%
June	9	36	237	275	72	620	629	8.0%
July	9	37	234	250	71	592	601	7.6%
August	8	38	241	257	65	601	609	7.7%
September	9	35	233	286	73	628	637	8.1%
October	13	34	246	318	70	667	680	8.6%
November	9	35	244	420	70	769	778	9.9%
December	8	23	253	424	94	794	802	10.2%
Total	97	371	2,788	3,687	922	7,768	7,865	100%

Note: Counts of victims in the 2007-2011 average may not add to the total due to rounding.

Injuries in 2012 appear to follow a fairly typical distribution compared to past years in terms of month of occurrence. January stands out as a month accounting for a disproportionate number of traffic collision victims overall, both in 2012 (13% of all victims) and in the previous five year (2007 to 2011) annual average (10%). In 2012 (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 nearly 8% of all victims in each month from April to September) and is highest in late fall, winter and early spring (ranging from 9% to 13% of all victims in each month from October to March).

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

In 2012, June, July, August and September account for the highest proportions of people killed (nearly 13%, 10%, nearly 14% and nearly 16% of people killed, respectively) by month. This is relatively the same in the previous five year (2007 to 2011) annual average, where the months of June through October account for the highest proportions of deaths. February stands out in 2012 (when compared to the previous five years), with 9% of people being killed in that month, nearly twice the previous trend (5% in 2007 to 2011).

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

Table 5-4  
Collision Victims by Day of Occurrence and Casualty Type: 2012

Day of the Week	2012 Casualty Type												2012 Total Victims	% 2012 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	12	12.5%	48	14.2%	246	11.0%	661	8.4%	11	12.6%	966	9.2%	<b>978</b>	9.2%
Monday	12	12.5%	49	14.5%	321	14.3%	1,022	13.0%	8	9.2%	1,400	13.3%	<b>1,412</b>	13.3%
Tuesday	10	10.4%	44	13.0%	299	13.4%	1,252	15.9%	7	8.0%	1,602	15.2%	<b>1,612</b>	15.2%
Wednesday	14	14.6%	42	12.4%	310	13.9%	1,352	17.2%	18	20.7%	1,722	16.4%	<b>1,736</b>	16.3%
Thursday	14	14.6%	50	14.7%	302	13.5%	1,264	16.1%	13	14.9%	1,629	15.5%	<b>1,643</b>	15.5%
Friday	18	18.8%	58	17.1%	414	18.5%	1,327	16.9%	17	19.5%	1,816	17.3%	<b>1,834</b>	17.3%
Saturday	16	16.7%	48	14.2%	345	15.4%	986	12.5%	13	14.9%	1,392	13.2%	<b>1,408</b>	13.3%
Total	96	100%	339	100%	2,237	100%	7,864	100%	87	100%	10,527	100%	<b>10,623</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: 2007-2011 Average

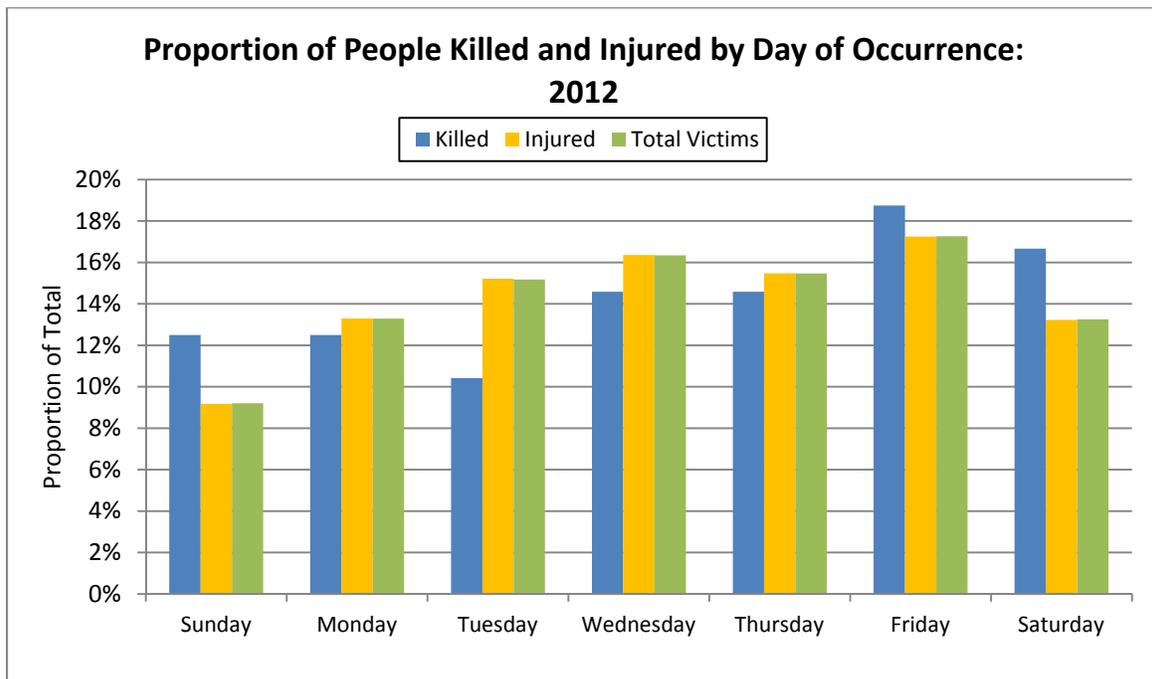
Day of the Week	2007-2011 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Sunday	17	51	319	374	91	835	852	10.8%
Monday	8	40	390	516	126	1,072	1,080	13.7%
Tuesday	9	50	381	543	143	1,117	1,126	14.3%
Wednesday	14	45	406	548	140	1,139	1,152	14.7%
Thursday	16	52	423	570	152	1,196	1,212	15.4%
Friday	17	64	463	625	153	1,305	1,322	16.8%
Saturday	17	68	407	512	116	1,103	1,120	14.2%
Total	97	371	2,788	3,687	922	7,768	7,865	100%

Note: Counts of victims in the 2007-2011 average may not add to the total due to rounding.

In 2012, most victims are involved in traffic collisions in the latter half of the work week, with Wednesday, Thursday and Friday (16%, nearly 16%, and 17% of all victims, respectively) accounting for half of all casualties. In the previous five year (2007 to 2011) annual average, Wednesday, Thursday and Friday account for 47% of all casualties.

The weekend (including all day Friday, Saturday and Sunday) is when most people are killed in traffic collisions. In 2012, Friday (19%), Saturday (17%) and Sunday (nearly 13%) together account for half of all people killed in traffic collisions. This is relatively unchanged from the previous five year (2007 to 2011) annual average, although Sundays in 2012 account for a smaller proportion than in the past.

**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: 2012

Time of the Day	2012 Casualty Type												2012 Total Victims	% of 2012 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	11	11.5%	14	4.1%	76	3.4%	165	2.1%	8	9.2%	263	2.5%	<b>274</b>	2.6%
03:00 - 05:59	15	15.6%	16	4.7%	51	2.3%	68	0.9%	2	2.3%	137	1.3%	<b>152</b>	1.4%
06:00 - 08:59	5	5.2%	37	10.9%	277	12.4%	1,008	12.8%	8	9.2%	1,330	12.6%	<b>1,335</b>	12.6%
09:00 - 11:59	7	7.3%	40	11.8%	333	14.9%	1,087	13.8%	10	11.5%	1,470	14.0%	<b>1,477</b>	13.9%
12:00 - 14:59	13	13.5%	53	15.6%	425	19.0%	1,668	21.2%	21	24.1%	2,167	20.6%	<b>2,180</b>	20.5%
15:00 - 17:59	9	9.4%	73	21.5%	568	25.4%	2,314	29.4%	19	21.8%	2,974	28.3%	<b>2,983</b>	28.1%
18:00 - 20:59	16	16.7%	60	17.7%	312	13.9%	1,038	13.2%	14	16.1%	1,424	13.5%	<b>1,440</b>	13.6%
21:00 - 23:59	13	13.5%	41	12.1%	184	8.2%	502	6.4%	4	4.6%	731	6.9%	<b>744</b>	7.0%
Not Stated	7	7.3%	5	1.5%	11	0.5%	14	0.2%	1	1.1%	31	0.3%	<b>38</b>	0.4%
<b>Total</b>	<b>96</b>	<b>100%</b>	<b>339</b>	<b>100%</b>	<b>2,237</b>	<b>100%</b>	<b>7,864</b>	<b>100%</b>	<b>87</b>	<b>100%</b>	<b>10,527</b>	<b>100%</b>	<b>10,623</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: 2007-2011 Average

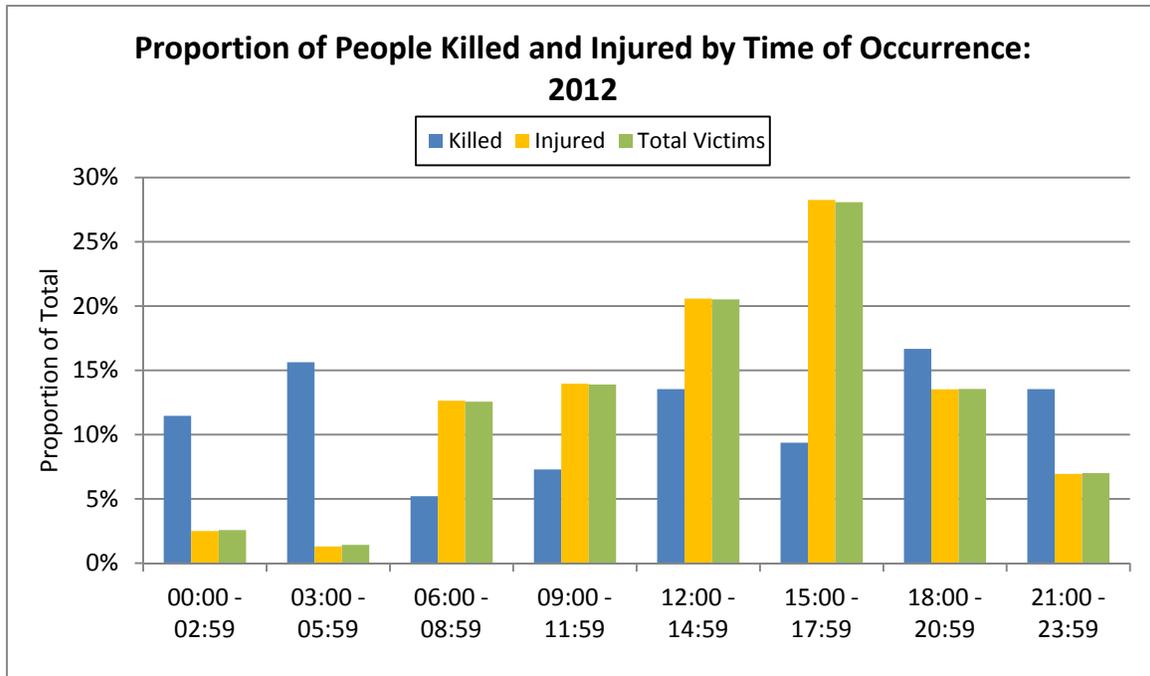
Time of the Day	2007-2011 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
00:00 - 02:59	7	28	108	91	24	251	259	3.3%
03:00 - 05:59	10	20	86	78	17	201	211	2.7%
06:00 - 08:59	6	33	329	422	106	890	896	11.4%
09:00 - 11:59	10	35	363	453	111	962	972	12.4%
12:00 - 14:59	14	55	489	713	172	1,429	1,443	18.4%
15:00 - 17:59	14	79	631	1,017	247	1,974	1,988	25.3%
18:00 - 20:59	16	47	391	486	114	1,039	1,055	13.4%
21:00 - 23:59	10	48	246	289	66	648	659	8.4%
Not Stated	9	26	145	138	64	373	382	4.9%
Total	97	371	2,788	3,687	922	7,768	7,865	100%

Note: Counts of victims in the 2007-2011 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 2012, nearly 49% of all victims are involved in traffic collisions between 12:00 and 14:59 (nearly 21%) or between 15:00 to 17:59 (28%). This is consistent with the previous five year (2007 to 2011) annual average (12:00-14:59 – 18% of all victims; 15:00 to 17:59 – 25% of all victims).

In 2012, more people are killed between 6 p.m. to midnight than at any other time of the day (30% of people killed), followed by midnight to 6 a.m. (27% of people killed). Combined, 57% of people killed in collisions in 2012 are killed during this 12-hour period. This is slightly different from the previous five year (2007 to 2011) annual average, where 45% of people are killed in collisions between 6 p.m. and 6 a.m., with another nearly 30% being killed in collisions between noon and 6 p.m.. In 2012:

- Nearly 13% of people are killed between 6 a.m. and noon (06:00-08:59 – 5%; 09:00-11:59 – 7%), compared to nearly 17% in the previous five years;
- 23% of people are killed between noon and 6 p.m. (12:00-14:59 – nearly 14%; 15:00 to 17:59 – 9%), compared to nearly 30% in the previous five years;
- 30% of people are killed between 6 p.m. and midnight (18:00-20:59 – 17%; 21:00 to 23:59 – nearly 14%), compared to 27% in the previous five years; and,
- 27% of people are killed between midnight to 6 a.m. (00:00-02:59 – nearly 12%; 03:00-05:59 – nearly 16%), compared to 18% in the previous five years.

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

In 2012, it appears that the frequency with which people are injured in traffic collisions is fairly low between midnight and 6 a.m., and then builds through the day, beginning at approximately 6 a.m. and reaching a peak between 3 p.m. and 6 p.m., before falling off abruptly until midnight. The smallest number of people injured in traffic collisions is between midnight and 6 a.m. This pattern can also be seen in the previous five year (2007 to 2011) annual average. This pattern does not hold, however, when it comes to people killed in traffic collisions.

**Table 5-6 Collision Victims by Gender and Casualty Type**

Table 5-6  
Collision Victims by Gender and Casualty Type: 2012

Gender	2012 Casualty Type												2012 Total Victims	% of 2012 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	30	31.3%	145	46.0%	1,217	58.0%	4,520	59.5%	32	41.0%	5,914	58.6%	<b>5,944</b>	58.4%
Male	66	68.8%	170	54.0%	882	42.0%	3,072	40.5%	46	59.0%	4,170	41.4%	<b>4,236</b>	41.6%
Total	96	100%	315	100%	2,099	100%	7,592	100%	78	100%	10,084	100%	<b>10,180</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: 2007-2011 Average

Gender	2007-2011 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Female	31	161	1,551	2,055	473	4,239	4,270	54.5%
Male	66	208	1,226	1,613	448	3,495	3,561	45.5%
Total	97	369	2,777	3,668	920	7,735	7,831	100%

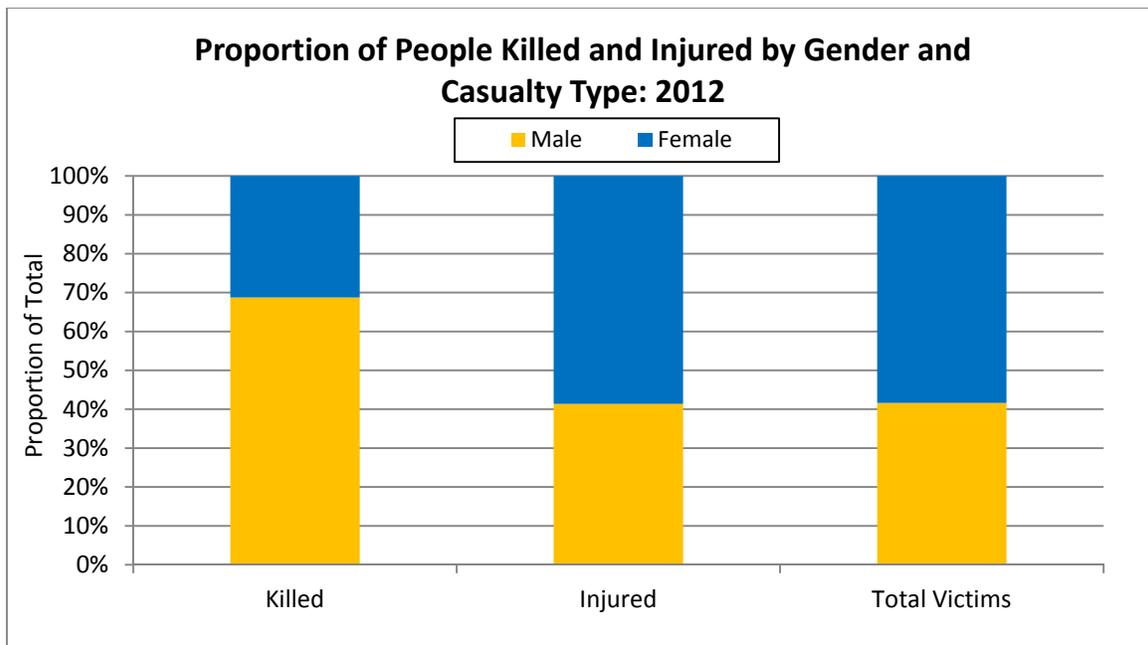
Note: Counts of victims in the 2007-2011 average may not add to the total due to rounding.

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

In 2012, women account more than half of all casualties in traffic collisions (58%), relatively unchanged from the previous five year (2007 to 2011) annual average. In 2012:

- Men account for a higher proportion of people killed (69%) than women, similar to the previous five years when men accounted for 68% of victims killed;
- Women account for the majority of people injured (but not killed) overall (nearly 59%), similar to the previous five years;
- Men account for just over half of people seriously injured (54% compared to 46% women), relatively unchanged from the previous five years; and,
- Women account for more people sustaining minor injuries (58%) and minimal injuries (nearly 60%) than men, similar to the previous five years.

**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: 2012

Age Group	2012 Casualty Type												2012 Total Victims	% of 2012 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	1.0%	0	-	32	1.5%	69	0.9%	0	-	101	1.0%	<b>102</b>	1.0%
5-9	3	3.1%	0	-	51	2.5%	82	1.1%	0	-	133	1.3%	<b>136</b>	1.4%
10-14	2	2.1%	8	2.6%	35	1.7%	80	1.1%	0	-	123	1.2%	<b>125</b>	1.2%
15-19	14	14.6%	29	9.3%	214	10.3%	500	6.7%	11	15.1%	754	7.6%	<b>768</b>	7.6%
20-24	15	15.6%	34	10.9%	294	14.1%	822	10.9%	10	13.7%	1,160	11.6%	<b>1,175</b>	11.7%
25-34	18	18.8%	52	16.7%	390	18.8%	1,587	21.1%	14	19.2%	2,043	20.5%	<b>2,061</b>	20.5%
35-44	12	12.5%	46	14.7%	332	16.0%	1,449	19.3%	20	27.4%	1,847	18.5%	<b>1,859</b>	18.5%
45-54	8	8.3%	42	13.5%	328	15.8%	1,446	19.3%	6	8.2%	1,822	18.3%	<b>1,830</b>	18.2%
55-64	6	6.3%	43	13.8%	216	10.4%	925	12.3%	9	12.3%	1,193	12.0%	<b>1,199</b>	11.9%
65+	17	17.7%	58	18.6%	186	9.0%	547	7.3%	3	4.1%	794	8.0%	<b>811</b>	8.1%
Not Stated	0	-	3	-	21	-	85	-	5	-	114	-	<b>114</b>	-
Total	96	100%	315	100%	2,099	100%	7,592	100%	78	100%	10,084	100%	<b>10,180</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 5-7a Collision Victims by Age Group and Casualty Type for Previous Five Years**

Table 5-7a  
Collision Victims by Age Group and Casualty Type: 2007-2011 Average

Age Group	2007-2011 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
0-4	1	4	46	28	3	81	82	1.3%
5-9	1	6	61	47	4	118	118	1.9%
10-14	1	10	95	75	5	185	187	3.0%
15-19	13	49	400	284	22	755	768	12.5%
20-24	15	50	342	337	21	750	764	12.5%
25-34	12	54	453	531	31	1,070	1,081	17.7%
35-44	13	53	409	535	27	1,023	1,036	16.9%
45-54	13	48	372	530	30	980	993	16.2%
55-64	7	37	224	321	19	602	609	9.9%
65+	19	42	208	205	13	467	486	7.9%
Not Stated	3	16	168	776	743	1,703	1,706	-
Total	97	369	2,777	3,668	920	7,735	7,831	100%

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

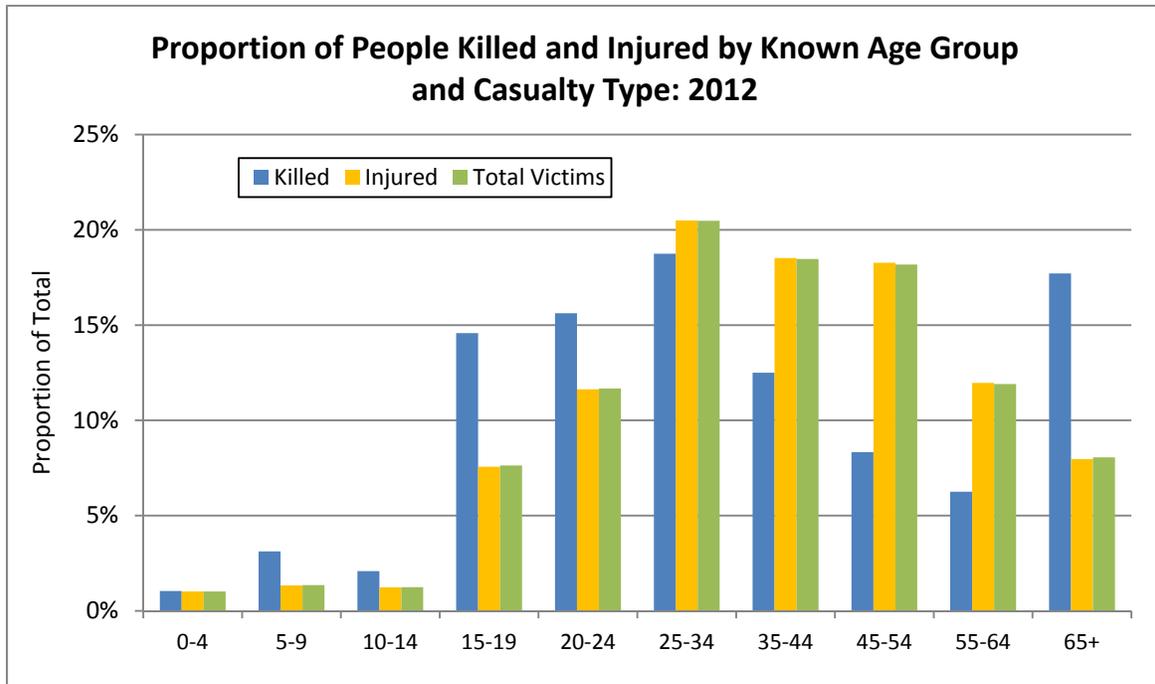
Note: Counts of victims in the 2007-2011 average may not add to the total due to rounding.

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 2012 (nearly 21% of all casualties; 19% of people killed; 17% of people seriously injured), followed by those aged 35 to 44 (nearly 19% of all casualties) and those age 45 to 54 (18% of all casualties). Victims aged 15 to 19 account for nearly 8% of all casualties and those aged 20 to 24 account for 12%.

The proportion of victims by age group in 2012 is very similar to what it has been in the previous five year (2007 to 2011) annual average. In the previous five years, victims aged 25 to 34 (18% of all victims) and those aged 35 to 44 (17% of all victims) account for the two largest groups, followed by victims aged 45 to 54 (16% of all victims). Victims aged 15 to 19 and 20 to 24 each account for nearly 13% of all victims in the five year period 2007 to 2011.

In 2012, half of all people killed are aged 15 to 34 (nearly 15% aged 15-19; nearly 16% aged 20-24; 19% aged 25-34), 21% are aged 35 to 54, and 24% are aged 55 and older. In the previous five year (2007 to 2011) annual average, nearly 42% of people killed are aged 15 to 34, 28% are aged 35 to 54, and nearly 28% are aged 55 and older.

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

Of all people killed in traffic collisions in 2012, those aged 25 to 34 make up the largest group (19%), followed by those aged 65 and older (18%), those aged 20 to 24 (nearly 16%) and those aged 15 to 19 (nearly 15%). There are 6 children under the age of 15 killed in traffic collisions in 2012.

NOTE: For a detailed count of collision victims for 2012 and the previous five year (2007 to 2011) 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: 2012

Age Group	2012 Casualty Type												2012 Total Victims	% of 2012 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	3.3%	0	-	14	1.2%	34	0.8%	0	-	48	0.8%	49	0.8%
	5-9	1	3.3%	0	-	24	2.0%	37	0.8%	0	-	61	1.0%	62	1.1%
	10-14	0	-	5	3.5%	19	1.6%	36	0.8%	0	-	60	1.0%	60	1.0%
	15-19	4	13.3%	15	10.5%	138	11.5%	292	6.5%	4	12.9%	449	7.7%	453	7.7%
	20-24	6	20.0%	17	11.9%	181	15.0%	516	11.5%	5	16.1%	719	12.3%	725	12.3%
	25-34	6	20.0%	24	16.8%	223	18.5%	948	21.2%	9	29.0%	1,204	20.6%	1,210	20.6%
	35-44	3	10.0%	15	10.5%	193	16.0%	870	19.5%	6	19.4%	1,084	18.5%	1,087	18.5%
	45-54	2	6.7%	21	14.7%	180	15.0%	888	19.9%	1	3.2%	1,090	18.6%	1,092	18.6%
	55-64	0	-	19	13.3%	125	10.4%	544	12.2%	5	16.1%	693	11.9%	693	11.8%
	65+	7	23.3%	27	18.9%	107	8.9%	305	6.8%	1	3.2%	440	7.5%	447	7.6%
	Not Stated	0	-	2	-	13	-	50	-	1	-	66	-	66	-
<b>Total Female</b>	<b>30</b>	<b>100%</b>	<b>145</b>	<b>100%</b>	<b>1,217</b>	<b>100%</b>	<b>4,520</b>	<b>100%</b>	<b>32</b>	<b>100%</b>	<b>5,914</b>	<b>100%</b>	<b>5,944</b>	100%	
Male	0-4	0	-	0	-	18	2.1%	35	1.2%	0	-	53	1.3%	53	1.3%
	5-9	2	3.0%	0	-	27	3.1%	45	1.5%	0	-	72	1.7%	74	1.8%
	10-14	2	3.0%	3	1.8%	16	1.8%	44	1.4%	0	-	63	1.5%	65	1.6%
	15-19	10	15.2%	14	8.3%	76	8.7%	208	6.8%	7	16.7%	305	7.4%	315	7.5%
	20-24	9	13.6%	17	10.1%	113	12.9%	306	10.1%	5	11.9%	441	10.7%	450	10.7%
	25-34	12	18.2%	28	16.6%	167	19.1%	639	21.0%	5	11.9%	839	20.4%	851	20.3%
	35-44	9	13.6%	31	18.3%	139	15.9%	579	19.1%	14	33.3%	763	18.5%	772	18.4%
	45-54	6	9.1%	21	12.4%	148	16.9%	558	18.4%	5	11.9%	732	17.8%	738	17.6%
	55-64	6	9.1%	24	14.2%	91	10.4%	381	12.5%	4	9.5%	500	12.1%	506	12.1%
	65+	10	15.2%	31	18.3%	79	9.0%	242	8.0%	2	4.8%	354	8.6%	364	8.7%
	Not Stated	0	-	1	-	8	-	35	-	4	-	48	-	48	-
<b>Total Male</b>	<b>66</b>	<b>100%</b>	<b>170</b>	<b>100%</b>	<b>882</b>	<b>100%</b>	<b>3,072</b>	<b>100%</b>	<b>46</b>	<b>100%</b>	<b>4,170</b>	<b>100%</b>	<b>4,236</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: 2007-2011 Average

Age Group		2007-2011 Average Count of Victims							
		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Female	0-4	1	2	24	14	1	42	42	1.3%
	5-9	0	3	31	26	1	60	60	1.8%
	10-14	0	4	47	40	2	93	94	2.8%
	15-19	5	24	223	160	10	417	422	12.5%
	20-24	5	21	195	193	11	421	425	12.6%
	25-34	3	21	259	308	16	603	605	17.9%
	35-44	3	20	233	303	15	571	574	17.0%
	45-54	4	22	204	300	16	541	546	16.2%
	55-64	2	16	126	184	10	335	337	10.0%
	65+	6	21	120	113	7	261	267	7.9%
	Not Stated	1	7	89	415	384	896	897	-
Total Female	31	161	1,551	2,055	473	4,239	4,270	100%	
Male	0-4	0	1	22	14	2	40	40	1.4%
	5-9	0	3	31	21	3	58	58	2.1%
	10-14	1	6	48	35	3	92	93	3.4%
	15-19	8	25	177	124	12	338	346	12.6%
	20-24	10	29	147	144	9	329	339	12.3%
	25-34	9	33	195	223	16	467	476	17.3%
	35-44	10	33	175	231	13	452	462	16.8%
	45-54	9	27	168	230	14	439	448	16.3%
	55-64	6	21	98	138	10	266	272	9.9%
	65+	12	21	87	92	6	207	219	8.0%
	Not Stated	1	9	79	361	359	807	809	-
Total Male	66	208	1,226	1,613	448	3,495	3,561	100%	

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

Note: Counts of victims in the 2007-2011 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: 2012, 2007-2011 Average

Age Group		2012 Casualty Type						2012 Total Victims	2007-2011 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	-	35.0	85.1	-	120.1	122.6	1.6	6.3	63.4	37.0	3.2	109.9	111.5
	5-9	2.6	-	62.7	96.7	-	159.4	162.1	1.1	7.0	82.7	69.7	2.7	162.1	163.2
	10-14	-	12.9	48.9	92.7	-	154.5	154.5	1.0	10.0	117.1	99.7	5.5	232.2	233.2
	15-19	9.3	34.8	320.3	677.7	9.3	1,042.0	1,051.3	11.5	55.7	513.7	368.6	23.5	961.5	973.0
	20-24	13.2	37.3	397.1	1,132.0	11.0	1,577.3	1,590.4	10.9	50.4	464.4	458.2	26.6	999.6	1010.5
	25-34	7.0	28.1	261.0	1,109.4	10.5	1,408.9	1,415.9	3.3	26.6	327.3	389.4	19.7	763.0	766.3
	35-44	3.7	18.3	235.3	1,060.7	7.3	1,321.7	1,325.3	4.2	24.3	285.9	371.7	17.9	699.8	703.9
	45-54	2.2	22.9	196.3	968.3	1.1	1,188.6	1,190.8	4.8	24.0	224.4	330.2	17.9	596.5	601.4
	55-64	-	24.5	161.3	702.0	6.5	894.3	894.3	2.3	22.4	178.4	260.2	13.9	474.8	477.0
	65+	7.0	27.0	107.2	305.5	1.0	440.8	447.8	3.1	15.4	197.1	915.6	846.8	1975.0	1978.1
	<b>Total Female</b>	<b>4.7</b>	<b>22.6</b>	<b>189.5</b>	<b>703.8</b>	<b>5.0</b>	<b>920.9</b>	<b>925.5</b>	5.0	26.2	253.0	335.1	77.1	691.4	696.4
Male	0-4	-	-	43.1	83.8	-	126.9	126.9	0.5	3.1	56.8	36.6	5.7	102.2	102.7
	5-9	5.0	-	67.3	112.2	-	179.5	184.5	1.0	8.4	79.9	54.3	7.8	150.5	151.5
	10-14	4.8	7.2	38.6	106.2	-	152.1	156.9	1.9	13.5	115.9	85.5	7.7	222.6	224.6
	15-19	22.0	30.9	167.5	458.5	15.4	672.3	694.3	17.6	56.8	398.6	279.5	27.1	762.0	779.5
	20-24	19.2	36.3	241.0	652.5	10.7	940.4	959.6	23.7	69.1	347.0	340.9	22.2	779.2	802.9
	25-34	14.2	33.2	197.8	756.8	5.9	993.6	1,007.8	11.7	41.9	247.4	283.5	20.1	592.9	604.6
	35-44	11.0	37.9	169.8	707.2	17.1	931.9	942.9	12.1	40.3	215.7	284.6	15.7	556.4	568.5
	45-54	6.5	22.8	160.6	605.4	5.4	794.2	800.7	9.4	29.2	184.5	252.3	15.6	481.5	490.9
	55-64	7.9	31.6	119.8	501.6	5.3	658.2	666.1	8.3	30.7	140.3	197.4	13.8	382.2	390.5
	65+	12.6	39.2	99.8	305.8	2.5	447.3	460.0	31.7	55.6	226.4	238.8	16.1	536.9	568.6
	<b>Total Male</b>	<b>10.5</b>	<b>27.0</b>	<b>140.2</b>	<b>488.3</b>	<b>7.3</b>	<b>662.8</b>	<b>673.3</b>	10.9	34.6	203.3	267.6	74.2	579.7	590.6

Note: Counts of victims in the 2007-2011 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 2012 is 925.5 while for males it is 673.3 (per 100,000 people). Similarly, in the previous five year (2007-2011) annual average, women have a higher involvement rate than men (women 696.4; men 590.6). However, men have higher involvement rates than women when it comes to being killed and sustaining serious injuries. Victim involvement by gender overall (per 100,000 people):

- People killed – Males 10.5 in 2012 (10.9 in previous 5-year average), Females 4.7 in 2012 (5.0 in previous 5-year average);
- People seriously injured – Males 27.0 in 2012 (34.6 in previous 5-year average), Females 22.6 in 2012 (26.2 in previous 5-year average);
- People sustaining minor injuries – Males 140.2 in 2012 (203.3 in previous 5-year average), Females 189.5 in 2012 (253.0 in previous 5-year average);
- People sustaining minimal injuries – Males 488.3 in 2012 (267.6 in previous 5-year average), Females 703.8 in 2012 (335.1 in previous 5-year average); and,
- People sustaining “other” injuries – Males 7.3 in 2012 (74.2 in previous 5-year average), Females 5.0 in 2012 (77.1 in previous 5-year average).

It should be noted that the change in reporting structure that took place in October 2011 resulted in a significant increase in the number of minimal injuries captured in the Traffic Accident Report database. It also virtually eliminated “unspecified” injuries as virtually all injuries are quantified under the claims processing procedures. This is not a result of changing rates of involvement, but of how traffic accidents are reported.

People aged 25 to 44 have the highest victim involvement rates overall in 2012.

- Overall in 2012, people aged 15 to 24 have a victim involvement rate of 1,073.9 (per 100,000 people), while people aged 25 to 34 have a rate of 1,211.9 and people aged 35 to 44 have a rate of 1,134.1. People age 45 to 54 have a rate of 995.7 while people aged 55 and older have a rate of 617.0. Children under age 15 have a victim involvement rate of 151.2.
- In 2012, women aged 20 to 24 have the highest victim involvement rate of any age-gender group (1,590.4 per 100,000 people) followed by women aged 25 to 34 (1,415.9) and women aged 35 to 44 (1,325.3).
- While the victim involvement rates for young men is lower than young women in 2012, men aged 25 to 34 have the highest rate among male age groups (1,007.8 per 100,000 people) followed by men aged 20 to 24 (959.6) and men aged 35 to 44 (942.9).

The overall victim involvement rates in 2012 are below the rates in the previous five year (2007 to 2011) annual average, with the obvious exception of rates for minimal injuries.

- Compared to the previous five years, victim involvement rates for women decreased by 7% for people killed, by 14% for people seriously injured, and by 25% for people with minor injuries. Meanwhile, the rate for women with minimal injuries more than doubled in 2012 compared to 2007 to 2011.
- Compared to the previous five years, victim involvement rates for men decreased by 4% for people killed, by 22% for people seriously injured, and by 31% for people with minor injuries. Meanwhile, the rate for men with minimal injuries increased by nearly 83% in 2012 compared to 2007 to 2011.

**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: 2012

Age Group		2012 Casualty Type											2012 Total Victims	% of 2012 Total Victims	
		Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured			% of Total Injured
Driver	0-4	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	5-9	0	-	0	-	1	<0.1%	1	<0.1%	0	-	2	<0.1%	2	<0.1%
	10-14	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	15-19	5	10.9%	20	9.4%	142	9.3%	384	6.1%	9	15.0%	555	6.9%	560	6.9%
	20-24	7	15.2%	23	10.8%	229	15.1%	688	11.0%	7	11.7%	947	11.7%	954	11.8%
	25-34	10	21.7%	37	17.5%	318	20.9%	1,386	22.1%	14	23.3%	1,755	21.7%	1,765	21.7%
	35-44	4	8.7%	31	14.6%	268	17.6%	1,301	20.7%	16	26.7%	1,616	20.0%	1,620	20.0%
	45-54	6	13.0%	31	14.6%	253	16.6%	1,272	20.3%	6	10.0%	1,562	19.3%	1,568	19.3%
	55-64	5	10.9%	32	15.1%	172	11.3%	796	12.7%	6	10.0%	1,006	12.5%	1,011	12.5%
	65+	9	19.6%	38	17.9%	137	9.0%	453	7.2%	2	3.3%	630	7.8%	639	7.9%
	Not Stated	0	-	0	-	1	-	3	-	0	-	4	-	4	-
<b>Total Drivers*</b>	<b>46</b>	<b>100%</b>	<b>212</b>	<b>100%</b>	<b>1,521</b>	<b>100%</b>	<b>6,284</b>	<b>100%</b>	<b>60</b>	<b>100%</b>	<b>8,077</b>	<b>100%</b>	<b>8,123</b>	<b>100%</b>	
Passenger	0-4	1	3.8%	2	3.0%	34	7.3%	77	6.0%	0	-	113	6.2%	114	6.2%
	5-9	3	11.5%	0	-	48	10.3%	96	7.5%	0	-	144	8.0%	147	8.0%
	10-14	0	-	6	9.1%	35	7.5%	90	7.0%	0	-	131	7.2%	131	7.1%
	15-19	5	19.2%	7	10.6%	68	14.7%	133	10.4%	0	-	208	11.5%	213	11.6%
	20-24	4	15.4%	9	13.6%	46	9.9%	135	10.6%	1	50.0%	191	10.6%	195	10.6%
	25-34	6	23.1%	10	15.2%	50	10.8%	204	16.0%	0	-	264	14.6%	270	14.7%
	35-44	3	11.5%	7	10.6%	48	10.3%	147	11.5%	0	-	202	11.2%	205	11.2%
	45-54	2	7.7%	7	10.6%	52	11.2%	165	12.9%	0	-	224	12.4%	226	12.3%
	55-64	0	-	3	4.5%	34	7.3%	130	10.2%	1	50.0%	168	9.3%	168	9.2%
	65+	2	7.7%	15	22.7%	49	10.6%	100	7.8%	0	-	164	9.1%	166	9.0%
	Not Stated	0	-	10	-	74	-	179	-	0	-	263	-	263	-
<b>Total Passengers*</b>	<b>26</b>	<b>100%</b>	<b>76</b>	<b>100%</b>	<b>538</b>	<b>100%</b>	<b>1,456</b>	<b>100%</b>	<b>2</b>	<b>100%</b>	<b>2,072</b>	<b>100%</b>	<b>2,098</b>	<b>100%</b>	

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Section 5

Collision Victims

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Age Group		2012 Casualty Type											2012 Total Victims	% of 2012 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	-	1	2.3%	0	-	0	-	1	1.0%	1	1.0%
	10-14	1	20.0%	0	-	1	2.3%	0	-	0	-	1	1.0%	2	1.9%
	15-19	0	-	0	-	1	2.3%	0	-	0	-	1	1.0%	1	1.0%
	20-24	1	20.0%	2	15.4%	6	13.6%	7	17.1%	0	-	15	15.2%	16	15.4%
	25-34	1	20.0%	1	7.7%	8	18.2%	11	26.8%	0	-	20	20.2%	21	20.2%
	35-44	2	40.0%	5	38.5%	4	9.1%	5	12.2%	1	100.0%	15	15.2%	17	16.3%
	45-54	0	-	2	15.4%	13	29.5%	14	34.1%	0	-	29	29.3%	29	27.9%
	55-64	0	-	3	23.1%	8	18.2%	4	9.8%	0	-	15	15.2%	15	14.4%
	65+	0	-	0	-	2	4.5%	0	-	0	-	2	2.0%	2	1.9%
	Not Stated	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>Total Motorcyclists*</b>	<b>5</b>	<b>100%</b>	<b>13</b>	<b>100%</b>	<b>44</b>	<b>100%</b>	<b>41</b>	<b>100%</b>	<b>1</b>	<b>100%</b>	<b>99</b>	<b>100%</b>	<b>104</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	-	0	-	0	-	0	-	0	-
	20-24	0	-	0	-	2	33.3%	0	-	0	-	2	12.5%	2	12.5%
	25-34	0	-	1	33.3%	1	16.7%	2	28.6%	0	-	4	25.0%	4	25.0%
	35-44	0	-	1	33.3%	2	33.3%	1	14.3%	0	-	4	25.0%	4	25.0%
	45-54	0	-	0	-	1	16.7%	4	57.1%	0	-	5	31.3%	5	31.3%
	55-64	0	-	1	33.3%	0	-	0	-	0	-	1	6.3%	1	6.3%
	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>3</b>	<b>100%</b>	<b>6</b>	<b>100%</b>	<b>7</b>	<b>100%</b>	<b>0</b>	<b>0%</b>	<b>16</b>	<b>100%</b>	<b>16</b>	100%	

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Section 5

Collision Victims

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Age Group		2012 Casualty Type											2012 Total Victims	% of 2012 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	-	0	-	0	-	0	-	0	-
	5-9	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	10-14	0	-	1	11.1%	3	10.7%	0	-	0	-	4	6.3%	4	5.9%
	15-19	1	20.0%	1	11.1%	0	-	3	13.0%	0	-	4	6.3%	5	7.4%
	20-24	0	-	0	-	2	7.1%	8	34.8%	1	33.3%	11	17.5%	11	16.2%
	25-34	0	-	3	33.3%	5	17.9%	1	4.3%	1	33.3%	10	15.9%	10	14.7%
	35-44	2	40.0%	0	-	5	17.9%	1	4.3%	1	33.3%	7	11.1%	9	13.2%
	45-54	0	-	3	33.3%	8	28.6%	5	21.7%	0	-	16	25.4%	16	23.5%
	55-64	0	-	1	11.1%	3	10.7%	5	21.7%	0	-	9	14.3%	9	13.2%
	65+	2	40.0%	0	-	2	7.1%	0	-	0	-	2	3.2%	4	5.9%
	Not Stated	0	-	0	-	2	-	1	-	1	-	4	-	4	-
<b>Total Bicyclists*</b>	<b>5</b>	<b>100%</b>	<b>9</b>	<b>100%</b>	<b>30</b>	<b>100%</b>	<b>24</b>	<b>100%</b>	<b>4</b>	<b>100%</b>	<b>67</b>	<b>100%</b>	<b>72</b>	100%	
Pedestrian	0-4	0	-	0	-	1	1.2%	0	-	0	-	1	0.7%	1	0.6%
	5-9	0	-	0	-	3	3.6%	0	-	0	-	3	2.0%	3	1.8%
	10-14	1	7.7%	2	10.0%	4	4.8%	0	-	0	-	6	4.0%	7	4.3%
	15-19	3	23.1%	2	10.0%	10	11.9%	2	5.3%	0	-	14	9.3%	17	10.4%
	20-24	2	15.4%	1	5.0%	14	16.7%	5	13.2%	1	12.5%	21	14.0%	23	14.1%
	25-34	1	7.7%	1	5.0%	14	16.7%	6	15.8%	1	12.5%	22	14.7%	23	14.1%
	35-44	1	7.7%	3	15.0%	13	15.5%	8	21.1%	3	37.5%	27	18.0%	28	17.2%
	45-54	0	-	2	10.0%	15	17.9%	7	18.4%	0	-	24	16.0%	24	14.7%
	55-64	1	7.7%	4	20.0%	7	8.3%	3	7.9%	2	25.0%	16	10.7%	17	10.4%
	65+	4	30.8%	5	25.0%	3	3.6%	7	18.4%	1	12.5%	16	10.7%	20	12.3%
	Not Stated	0	-	1	-	6	-	2	-	4	-	13	-	13	-
<b>Total Pedestrians*</b>	<b>13</b>	<b>100%</b>	<b>21</b>	<b>100%</b>	<b>90</b>	<b>100%</b>	<b>40</b>	<b>100%</b>	<b>12</b>	<b>100%</b>	<b>163</b>	<b>100%</b>	<b>176</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 2012, there are seven people killed or injured in the class "Riding/hanging on" (i.e. not in the passenger compartment) who are not included in Table 5-10. This includes 1 person killed, 3 people with minor injuries and 3 people 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 27 injured people (5 serious, 5 minor, 9 minimal, 8 other injured).

**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: 2007-2011 Average

Age Group		2007-2011 Average Count of Victims							
		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Driver	0-4	0	<1	1	1	<1	2	2	<0.1%
	5-9	0	<1	1	2	<1	3	3	<0.1%
	10-14	0	2	2	1	1	6	6	0.1%
	15-19	7	23	209	174	11	418	425	10.4%
	20-24	9	24	227	255	11	518	526	12.8%
	25-34	7	32	313	426	19	791	797	19.4%
	35-44	8	32	296	441	21	790	798	19.5%
	45-54	7	28	266	441	22	757	764	18.6%
	55-64	5	23	157	258	14	452	456	11.1%
	65+	11	25	129	151	7	312	323	7.9%
	Not Stated	1	6	89	505	471	1,071	1,072	-
Total Drivers*	54	195	1,691	2,654	577	5,118	5,172	100%	
Passenger	0-4	1	2	41	26	2	72	72	4.6%
	5-9	0	2	46	42	3	93	93	5.9%
	10-14	<1	4	69	68	3	143	143	9.1%
	15-19	5	20	157	99	7	283	288	18.2%
	20-24	4	17	85	71	7	179	183	11.6%
	25-34	3	14	105	89	8	216	220	13.9%
	35-44	3	11	80	78	4	173	176	11.1%
	45-54	3	11	72	74	6	163	166	10.5%
	55-64	1	7	45	55	3	110	111	7.0%
	65+	3	10	63	50	5	127	130	8.2%
	Not Stated	0	6	55	154	113	328	328	-
Total Passengers*	22	104	817	806	160	1,887	1,909	100%	
Motorcyclist	0-4	0	0	0	0	<1	0	0	0.2%
	5-9	0	0	<1	0	0	0	0	0.2%
	10-14	0	<1	0	<1	<1	2	2	1.8%
	15-19	<1	<1	3	1	0	6	6	6.1%
	20-24	<1	3	10	2	<1	16	16	16.7%
	25-34	<1	4	7	3	<1	15	16	16.1%
	35-44	1	3	8	6	<1	17	19	18.9%
	45-54	<1	6	10	5	1	23	23	23.8%
	55-64	1	4	7	2	<1	13	14	14.3%
	65+	<1	<1	1	<1	0	2	2	1.8%
	Not Stated	0	1	4	14	14	32	32	-
Total Motorcyclists*	3	23	53	36	15	127	131	100%	

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Age Group		2007-2011 Average Count of Victims							
		Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Moped	0-4	0	0	0	0	0	0	0	-
	5-9	0	0	0	0	0	0	0	-
	10-14	0	0	<1	0	0	<1	<1	6.7%
	15-19	0	0	0	<1	0	<1	<1	6.7%
	20-24	0	0	<1	0	0	<1	<1	6.7%
	25-34	0	<1	<1	<1	0	0	0	20.0%
	35-44	0	0	<1	<1	0	0	0	20.0%
	45-54	<1	0	<1	0	0	<1	<1	20.0%
	55-64	0	<1	0	0	0	<1	<1	13.3%
	65+	0	0	<1	0	0	<1	<1	6.7%
	Not Stated	0	0	<1	1	2	3	3	-
	Total Moped*	<1	1	2	1	1	5	5	100%
Bicyclist	0-4	0	0	<1	<1	0	1	1	0.4%
	5-9	0	1	5	2	<1	9	9	6.4%
	10-14	0	1	12	5	<1	24	24	16.7%
	15-19	0	2	13	5	1	23	23	16.2%
	20-24	0	<1	8	6	1	18	18	12.4%
	25-34	0	1	13	5	2	23	23	15.6%
	35-44	0	2	10	4	<1	17	17	12.0%
	45-54	1	1	8	4	1	17	17	12.0%
	55-64	0	1	5	3	0	9	9	6.2%
	65+	1	<1	1	1	0	2	3	1.9%
	Not Stated	<1	1	9	50	55	120	120	-
	Total Bicyclists*	3	11	95	99	56	262	265	100%
Pedestrian	0-4	<1	1	4	1	1	7	7	2.7%
	5-9	<1	3	8	1	1	17	18	6.9%
	10-14	<1	3	13	2	1	23	23	9.1%
	15-19	<1	4	17	5	3	32	32	12.5%
	20-24	2	6	13	4	1	26	27	10.6%
	25-34	1	3	16	7	2	32	33	12.9%
	35-44	1	6	13	6	2	30	31	12.2%
	45-54	2	3	16	5	1	30	32	12.3%
	55-64	1	3	10	4	1	20	20	8.0%
	65+	4	6	13	3	2	29	33	12.8%
	Not Stated	1	3	18	64	89	175	177	-
	Total Pedestrians*	14	48	157	116	98	420	433	100%

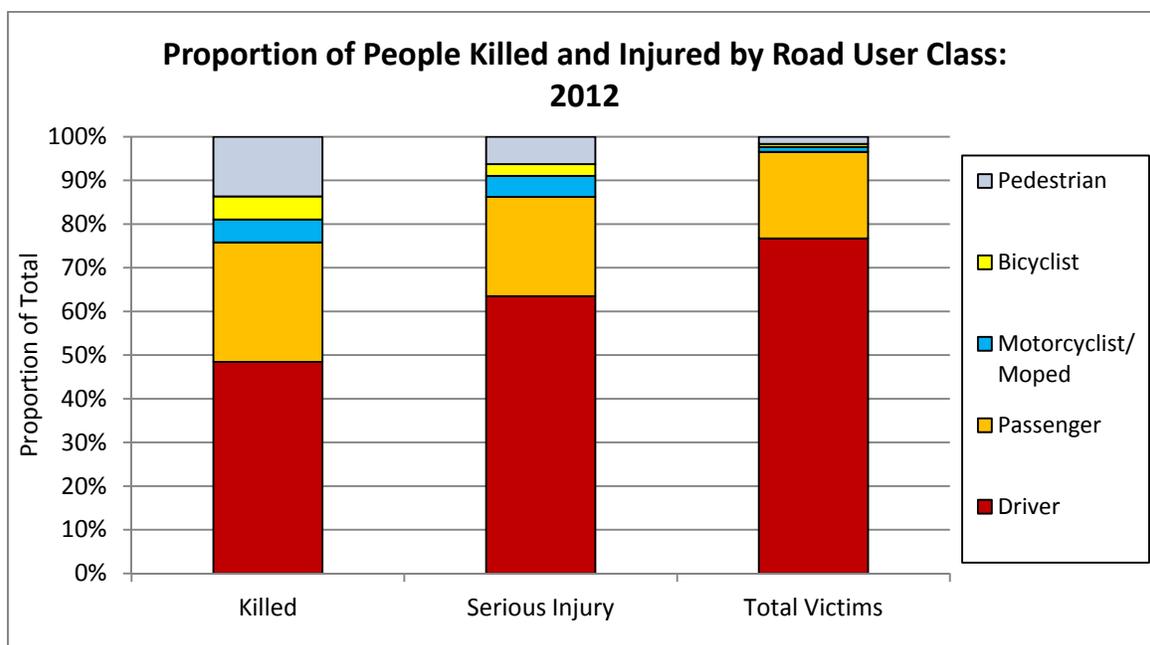
\*Percentage of the total does not include the "not stated" category.

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

Note: Counts of victims in the 2007-2011 average may not add to the total due to rounding.

Note: In 2007-2011 on average, there are three people injured each year in the class "Riding/Hanging On". There is also an average of 6 people person each year whose position is not recorded and whose Road User Class cannot be determined. None of these victims were killed. These victims are not included in Table 5-10a.

In 2012, "Drivers" account for 77% of all casualties and motor vehicle "Passengers" for 20%. "Motorcyclists" and "Moped" riders combine to account for just over 1% of all casualties while "Pedestrians" account for 2% and "Bicyclists" account for 1%. In 2012, "Pedestrians" account for nearly 14% of people killed in traffic collisions.

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

Pedestrians and motorcyclists/mopeds account for a much higher proportion of people killed and seriously injured than they represent among all victims in traffic collisions.

- In terms of people killed in traffic collisions, “Drivers” account for the largest proportion in 2012 at 48%, followed by motor vehicle “Passengers” at 27%, “Pedestrians” at nearly 14%, and “Bicyclists” and “Motorcyclist/ Mopeds”, both at 5%.
- In terms of people seriously injured in traffic collisions, “Drivers” account for the largest proportion in 2012 at nearly 64%, followed by motor vehicle “Passengers” at 23%, “Pedestrians” at 6%, and “Motorcyclist/ Mopeds” at 5%.
- “Pedestrians” account for a much larger proportion of people killed than they do for victims overall; nearly 14% of people killed and only 2% of all victims in 2012.
- “Bicyclists” account for a much larger proportion of people killed than they do for victims overall; 5% of people killed and less than 1% of all victims in 2012.
- “Motorcyclist/ Mopeds” account for a much larger proportion of people killed than they do for victims overall; 5% of people killed and only 1% of all victims in 2012.

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

Table 5-11  
Collision Victims by Collision Type and Casualty Type: 2012

Collision Type	2012 Casualty Type												2012 Total Victims	% of 2012 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	6	6.3%	5	1.5%	28	1.3%	12	0.2%	5	5.7%	50	0.5%	<b>56</b>	0.5%
Collision with other motor vehicle	36	37.5%	173	51.0%	1,516	67.8%	6,488	82.5%	57	65.5%	8,234	78.2%	<b>8,270</b>	77.8%
Collisions with train	1	1.0%	1	0.3%	1	<0.1%	0	-	0	-	2	<0.1%	<b>3</b>	<0.1%
Collision with motorcycle	1	1.0%	2	0.6%	1	<0.1%	3	<0.1%	1	1.1%	7	<0.1%	<b>8</b>	<0.1%
Collision with animal drawn vehicle	0	-	0	-	0	-	0	-	0	-	0	-	<b>0</b>	-
Collision with bicycle	2	2.1%	2	0.6%	8	0.4%	8	0.1%	2	2.3%	20	0.2%	<b>22</b>	0.2%
Collision with animal	1	1.0%	2	0.6%	43	1.9%	265	3.4%	2	2.3%	312	3.0%	<b>313</b>	2.9%
Collision with fixed object	14	14.6%	69	20.4%	337	15.1%	529	6.7%	6	6.9%	941	8.9%	<b>955</b>	9.0%
Collision with other object	18	18.8%	45	13.3%	199	8.9%	476	6.1%	7	8.0%	727	6.9%	<b>745</b>	7.0%
Overtaken in roadway	1	1.0%	2	0.6%	7	0.3%	4	<0.1%	0	-	13	0.1%	<b>14</b>	0.1%
Ran off roadway	16	16.7%	29	8.6%	48	2.1%	19	0.2%	7	8.0%	103	1.0%	<b>119</b>	1.1%
Collision with moped	0	-	0	-	1	<0.1%	0	-	0	-	1	<0.1%	<b>1</b>	<0.1%
Other non-collision	0	-	9	2.7%	48	2.1%	60	0.8%	0	-	117	1.1%	<b>117</b>	1.1%
<b>Total</b>	<b>96</b>	<b>100%</b>	<b>339</b>	<b>100%</b>	<b>2,237</b>	<b>100%</b>	<b>7,864</b>	<b>100%</b>	<b>87</b>	<b>100%</b>	<b>10,527</b>	<b>100%</b>	<b>10,623</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: 2007-2011 Average

Collision Type	2007-2011 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Collision with pedestrian	13	38	139	103	107	387	400	5.1%
Collision with other motor vehicle	37	153	1,726	2,861	632	5,371	5,409	68.8%
Collisions with train	2	2	3	1	0	5	7	<0.1%
Collision with motorcycle	3	18	47	36	17	119	122	1.6%
Collision with animal drawn vehicle	0	0	0	0	0	0	0	-
Collision with bicycle	3	9	85	90	61	244	247	3.1%
Collision with animal	0	8	68	138	12	226	227	2.9%
Collision with fixed object	7	22	132	138	34	326	332	4.2%
Collision with other object	4	11	36	58	9	113	117	1.5%
Overtaken in roadway	9	33	158	62	5	259	267	3.4%
Ran off roadway	18	76	388	190	45	698	716	9.1%
Collision with moped	0	0	0	0	0	0	0	-
Other non-collision	0	1	8	10	0	19	19	0.2%
Total	97	371	2,788	3,687	922	7,768	7,865	100%

Note: Counts of victims in the 2007-2011 average may not add to the total due to rounding.

Motor vehicles colliding with other motor vehicles account for the majority of casualties in Manitoba, both in 2012 and in the previous five year (2007 to 2011) annual average. In 2012, “collision with other motor vehicle” accounts for:

- 78% of all casualties (more than 69% in the previous five years);
- Nearly 38% of people killed (nearly 39% in the previous five years); and,
- 51% of people seriously injured (41% in the previous five years).

“Collision with fixed object”, “collision with other object”, “ran off roadway” and “collision with a pedestrian” each account for a much higher proportion of people killed than of people injured in traffic collisions. In 2012, “collision with other object” accounts for 19% of people killed and 7% of people injured while “collision with fixed object” accounts for nearly 15% of people killed and 9% of people injured. “Ran off roadway” accounts for 17% of people killed in 2012, but only 1% of people injured. “Collision with pedestrian” accounts for a much higher proportion of people killed (6% of total killed) than it does people injured (0.5% of people injured).

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

Table 5-12  
Collision Victims by Accident Configuration and Casualty Type: 2012

Accident Configuration	2012 Casualty Type												2012 Total Victims	% of 2012 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	5	7.6%	25	9.4%	473	25.3%	3,958	56.6%	24	40.7%	4,480	48.8%	<b>4,485</b>	48.5%
Head On	13	19.7%	33	12.5%	124	6.6%	208	3.0%	2	3.4%	367	4.0%	<b>380</b>	4.1%
Side Swipe Opposing	1	1.5%	7	2.6%	33	1.8%	60	0.9%	1	1.7%	101	1.1%	<b>102</b>	1.1%
Side Swipe Same Direction	1	1.5%	3	1.1%	51	2.7%	358	5.1%	3	5.1%	415	4.5%	<b>416</b>	4.5%
Overtaking	0	-	2	0.8%	9	0.5%	46	0.7%	2	3.4%	59	0.6%	<b>59</b>	0.6%
Right Turn - Same direction	0	-	0	-	5	0.3%	36	0.5%	0	-	41	0.4%	<b>41</b>	0.4%
Right Turn - Opposing	0	-	1	0.4%	3	0.2%	14	0.2%	0	-	18	0.2%	<b>18</b>	0.2%
Left Turn - Opposing	0	-	10	3.8%	97	5.2%	194	2.8%	0	-	301	3.3%	<b>301</b>	3.3%
Left Turn - Same direction	0	-	1	0.4%	25	1.3%	50	0.7%	0	-	76	0.8%	<b>76</b>	0.8%
Left Turn - Across	0	-	6	2.3%	64	3.4%	162	2.3%	0	-	232	2.5%	<b>232</b>	2.5%
Intersection 90°	10	15.2%	76	28.7%	573	30.6%	1,201	17.2%	13	22.0%	1,863	20.3%	<b>1,873</b>	20.2%
Off Road Right	10	15.2%	43	16.2%	156	8.3%	168	2.4%	1	1.7%	368	4.0%	<b>378</b>	4.1%
Off Road Left	7	10.6%	26	9.8%	100	5.3%	103	1.5%	0	-	229	2.5%	<b>236</b>	2.6%
Fixed Object	5	7.6%	25	9.4%	115	6.1%	288	4.1%	4	6.8%	432	4.7%	<b>437</b>	4.7%
Parking	0	-	2	0.8%	7	0.4%	120	1.7%	2	3.4%	131	1.4%	<b>131</b>	1.4%
Pedestrian	14	21.2%	5	1.9%	36	1.9%	26	0.4%	7	11.9%	74	0.8%	<b>88</b>	1.0%
Other	30	-	74	-	366	-	872	-	28	-	1,340	-	<b>1,370</b>	-
<b>Total</b>	<b>96</b>	<b>100%</b>	<b>339</b>	<b>100%</b>	<b>2,237</b>	<b>100%</b>	<b>7,864</b>	<b>100%</b>	<b>87</b>	<b>100%</b>	<b>10,527</b>	<b>100%</b>	<b>10,623</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: 2007-2011 Average

Accident Configuration	2007-2011 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Rear End	4	28	548	1,445	232	2,253	2,257	37.3%
Head On	15	23	69	60	12	164	179	3.0%
Side Swipe Opposing	1	4	30	36	4	74	75	1.2%
Side Swipe Same Direction	0	5	46	95	15	160	160	2.6%
Overtaking	1	3	25	41	10	79	80	1.3%
Right Turn - Same direction	0	1	9	16	3	29	29	0.5%
Right Turn - Opposing	0	1	6	8	4	18	18	0.3%
Left Turn - Opposing	0	3	33	45	9	91	91	1.5%
Left Turn - Same direction	0	1	16	22	5	43	43	0.7%
Left Turn - Across	2	13	156	196	36	401	403	6.6%
Intersection 90°	14	66	563	606	129	1,363	1,377	22.7%
Off Road Right	13	41	226	119	14	400	413	6.8%
Off Road Left	11	38	192	96	15	341	351	5.8%
Fixed Object	2	13	67	81	19	180	182	3.0%
Parking	0	1	5	16	2	23	23	0.4%
Pedestrian	12	34	130	95	102	360	372	6.1%
Other	21	97	668	711	312	1,788	1,809	-
Total	97	371	2,788	3,687	922	7,768	7,865	100%

Note: Counts of victims in the 2007-2011 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.

"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) and left turns. In 2012:

- "Rear end" accounts for nearly 49% of all victims, nearly 8% of people killed and 9% of people seriously injured;
- "Intersection 90°" accounts for 20% of all victims, 15% of people killed and 29% of people seriously injured;
- "Off road" (either right or left) accounts for nearly 7% of all victims, 26% of people killed and 26% of people seriously injured; and,
- "Left turn" (including across, in the same direction, and opposing) account for nearly 7% of all victims, no one killed, but 6% of people seriously injured.

People are most often killed in traffic collisions where the vehicle leaves the road, meets another vehicle head on or at 90° intersections, or hits a pedestrian. In 2012:

- A vehicle going "Off road" (either right or left) accounts for 26% of people killed;
- "Pedestrian" collisions account for 21% of people killed;
- "Head on" collisions account for 20% of people killed; and,
- Collisions at 90° intersections account for 15% 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: 2012

Location	2012 Casualty Type												2012 Total Victims	% of 2012 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	19	19.8%	132	38.9%	1,276	57.0%	6,430	81.8%	62	71.3%	7,900	75.0%	<b>7,919</b>	74.5%
Brandon	1	1.0%	9	2.7%	79	3.5%	165	2.1%	0	-	253	2.4%	<b>254</b>	2.4%
Portage	0	-	1	0.3%	36	1.6%	40	0.5%	0	-	77	0.7%	<b>77</b>	0.7%
Flin Flon	1	1.0%	0	-	0	-	6	<0.1%	0	-	6	<0.1%	<b>7</b>	<0.1%
Dauphin	1	1.0%	2	0.6%	18	0.8%	15	0.2%	1	1.1%	36	0.3%	<b>37</b>	0.3%
Thompson	1	1.0%	0	-	21	0.9%	23	0.3%	0	-	44	0.4%	<b>45</b>	0.4%
The Pas	0	-	2	0.6%	8	0.4%	14	0.2%	0	-	24	0.2%	<b>24</b>	0.2%
Selkirk	1	1.0%	3	0.9%	32	1.4%	65	0.8%	1	1.1%	101	1.0%	<b>102</b>	1.0%
Other Urban	10	10.4%	54	15.9%	238	10.6%	441	5.6%	10	11.5%	743	7.1%	<b>753</b>	7.1%
All Rural	62	64.6%	136	40.1%	529	23.6%	665	8.5%	13	14.9%	1,343	12.8%	<b>1,405</b>	13.2%
<b>Total</b>	<b>96</b>	<b>100%</b>	<b>339</b>	<b>100%</b>	<b>2,237</b>	<b>100%</b>	<b>7,864</b>	<b>100%</b>	<b>87</b>	<b>100%</b>	<b>10,527</b>	<b>100%</b>	<b>10,623</b>	<b>100%</b>

**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: 2007-2011 Average

Location	2007-2011 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Winnipeg	18	103	1,307	2,715	769	4,894	4,912	62.5%
Brandon	1	8	140	107	15	270	271	3.4%
Portage	0	3	31	16	5	55	55	0.7%
Flin Flon	0	1	9	6	1	17	18	0.2%
Dauphin	0	2	27	12	1	42	42	0.5%
Thompson	0	2	15	14	4	34	35	0.4%
The Pas	0	1	8	4	2	15	15	0.2%
Selkirk	0	2	22	21	6	51	51	0.6%
Other Urban	10	36	231	208	28	503	514	6.5%
All Rural	66	213	999	583	91	1,887	1,953	24.8%
Total	97	371	2,788	3,687	922	7,768	7,865	100%

Note: Counts of victims in the 2007-2011 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 2012, 87% of all casualties resulted from traffic collisions in urban areas. Traffic collisions in rural locations, however, account for nearly 65% of people killed and 40% of people seriously injured. In the previous five year (2007 to 2011) annual average, 75% of all victims are from traffic collisions in urban locations while 68% of people killed and nearly 58% 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: 2012

Safety Equipment	2012 Casualty Type												2012 Total Victims	% of 2012 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	2	2.6%	0	-	27	1.3%	41	0.5%	1	1.6%	69	0.7%	<b>71</b>	0.7%
Lap belt only installed - Not in use	0	-	1	0.3%	6	0.3%	10	0.1%	0	-	17	0.2%	<b>17</b>	0.2%
Shoulder belt only installed - In use	1	1.3%	3	1.0%	9	0.4%	27	0.3%	2	3.2%	41	0.4%	<b>42</b>	0.4%
Shoulder belt only installed - Not in use	2	2.6%	2	0.7%	7	0.3%	14	0.2%	0	-	23	0.2%	<b>25</b>	0.2%
Lap and shoulder belt assembly - In use	16	20.8%	160	52.6%	1,474	69.9%	7,027	90.2%	42	66.7%	8,703	84.8%	<b>8,719</b>	84.3%
Combined belt installed - Not in use	23	29.9%	11	3.6%	31	1.5%	14	0.2%	0	-	56	0.5%	<b>79</b>	0.8%
Only lap part of full assembly in use	0	-	2	0.7%	8	0.4%	25	0.3%	0	-	35	0.3%	<b>35</b>	0.3%
Air bag deployed - Safety belt in use	7	9.1%	86	28.3%	392	18.6%	374	4.8%	2	3.2%	854	8.3%	<b>861</b>	8.3%
Air bag deployed - Safety belt not use	9	11.7%	2	0.7%	13	0.6%	16	0.2%	0	-	31	0.3%	<b>40</b>	0.4%
Safety seat properly installed - In use	3	3.9%	1	0.3%	45	2.1%	132	1.7%	0	-	178	1.7%	<b>181</b>	1.8%
Safety seat improperly installed - In use	1	1.3%	0	-	3	0.1%	8	0.1%	0	-	11	0.1%	<b>12</b>	0.1%
Safety seat installed - Not in use	0	-	0	-	1	<0.1%	3	<0.1%	0	-	4	<0.1%	<b>4</b>	<0.1%
Safety helmet worn	3	3.9%	14	4.6%	47	2.2%	44	0.6%	0	-	105	1.0%	<b>108</b>	1.0%
Safety helmet not worn	3	3.9%	3	1.0%	1	<0.1%	2	<0.1%	0	-	6	<0.1%	<b>9</b>	<0.1%
No safety device available	0	-	1	0.3%	6	0.3%	6	<0.1%	0	-	13	0.1%	<b>13</b>	0.1%
Other	1	1.3%	0	-	6	0.3%	21	0.3%	0	-	27	0.3%	<b>28</b>	0.3%
Not Applicable	0	-	1	0.3%	7	0.3%	12	0.2%	4	6.3%	24	0.2%	<b>24</b>	0.2%
Unknown	6	7.8%	17	5.6%	26	1.2%	12	0.2%	12	19.0%	67	0.7%	<b>73</b>	0.7%
<b>Total</b>	<b>77</b>	<b>100%</b>	<b>304</b>	<b>100%</b>	<b>2,109</b>	<b>100%</b>	<b>7,788</b>	<b>100%</b>	<b>63</b>	<b>100%</b>	<b>10,264</b>	<b>100%</b>	<b>10,341</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: 2007-2011 Average

Safety Equipment	2007-2011 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	2	12	124	140	9	284	286	3.9%
Lap belt only installed - Not in use	1	3	12	5	1	21	22	0.3%
Shoulder belt only installed - In use	1	5	51	45	5	106	107	1.5%
Shoulder belt only installed - Not in use	3	3	11	8	1	22	25	0.3%
Lap and shoulder belt assembly - In use	23	178	1,903	2,713	183	4,977	5,000	68.9%
Combined belt installed - Not in use	19	34	70	26	2	132	151	2.1%
Only lap part of full assembly in use	<1	1	2	3	0	6	6	<0.1%
Air bag deployed - Safety belt in use	5	21	133	71	8	233	238	3.3%
Air bag deployed - Safety belt not use	2	4	7	3	1	15	17	0.2%
Safety seat properly installed - In use	<1	2	43	42	2	90	90	1.2%
Safety seat improperly installed - In use	0	0	2	<1	0	3	3	<0.1%
Safety seat installed - Not in use	<1	0	1	0	0	2	2	<0.1%
Safety helmet worn	3	19	43	19	2	83	86	1.2%
Safety helmet not worn	2	3	2	2	0	6	8	0.1%
No safety device available	0	1	2	<1	0	3	4	<0.1%
Other	0	<1	0	0	0	<1	<1	<0.1%
Not Applicable	0	2	5	6	2	16	16	0.2%
Unknown	18	34	146	410	539	1,129	1,147	15.8%
<b>Total</b>	<b>82</b>	<b>340</b>	<b>2,733</b>	<b>3,397</b>	<b>706</b>	<b>7,177</b>	<b>7,259</b>	<b>100%</b>

Note: Counts of victims in the 2007-2011 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 2012, most victims in traffic collisions were using safety equipment at the time of the collision (98% of all victims where safety equipment use is known, i.e., excluding "other", "not applicable" and "unknown").

In 2012, 53% 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": 2012

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	187	37	19.8%	20	10.7%	130	69.5%	0	0.0%
Equipment in use	10,029	33	0.3%	266	2.7%	9,683	96.6%	47	0.5%
<b>Safety Equipment Effectiveness*</b>		<b>60.13</b>		<b>4.03</b>		<b>0.72</b>		<b>0.00</b>	

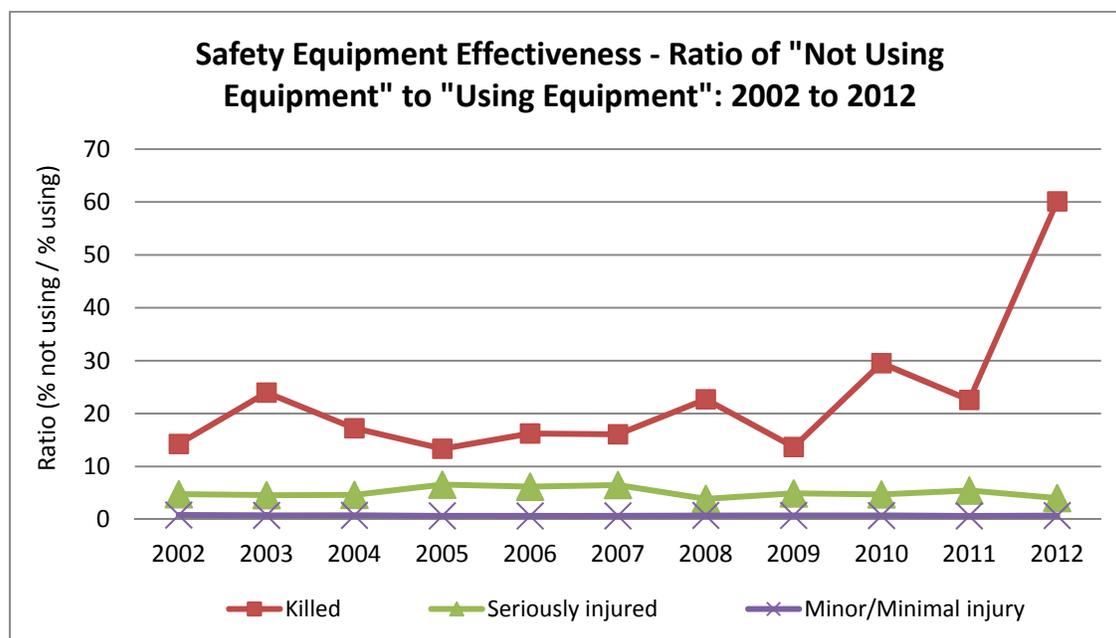
\*Ratio of % not using equipment over the % using equipment.

As the number of victims in traffic collisions who use safety equipment (such as seatbelts, child restraints and helmets) exceeds the number of those who did not use safety equipment, one might conclude that using safety equipment contributes to more victims. However, a large majority of vehicle occupants use safety equipment, and thus have a higher representation among collision 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 2012, victims not using safety equipment are sixty times more likely to be killed and four times more likely to be seriously injured in a traffic collision than those who used the equipment. Over the previous five years (2007 to 2011), people not using the available safety equipment are nearly twenty-one 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: 2012

Ejection	2012 Casualty Type												2012 Total Victims	% of 2012 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	48	66.7%	266	92.4%	2037	98.9%	7,698	99.5%	60	96.8%	10,061	99.1%	<b>10,109</b>	98.9%
Fully Ejected	20	27.8%	17	5.9%	13	0.6%	34	0.4%	2	3.2%	66	0.7%	<b>86</b>	0.8%
Partially Ejected	4	5.6%	5	1.7%	9	0.4%	8	0.1%	0	-	22	0.2%	<b>26</b>	0.3%
Total	72	100%	288	100%	2,059	100%	7,740	100%	62	100%	10,149	100%	<b>10,221</b>	100%

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

**Table 5-16a Vehicle Occupant Victim Ejections in Traffic Collision for Previous Five Years**Table 5-16a  
Vehicle Occupant Victims by Ejection From Vehicle and Casualty: 2007-2011 Average

Ejection	2007-2011 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Not Ejected	54	261	2,461	3,432	735	6,889	6,943	98.0%
Fully Ejected	19	34	42	26	2	104	123	1.7%
Partially Ejected	4	5	4	3	1	12	16	0.2%
Total	77	299	2,508	3,460	738	7,006	7,082	100%

Note: Counts of victims in the 2007-2011 average may not add to the total due to rounding.

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

Most victims in traffic collisions are not ejected from the vehicle they are travelling in. The victims most likely to be ejected are people who are killed or seriously injured. In 2012, 33% of people killed and nearly 8% of people seriously injured were either fully or partially ejected from the vehicle.

In 2012, people fully or partially ejected from a vehicle and killed during a traffic collision account for 21% 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 forty-five times more likely to be killed than people not ejected. Similarly, people ejected and seriously injured during a collision account for nearly 20% of all victims ejected while people seriously injured but not ejected account for less than 3% of victims not ejected. This makes people ejected during a collision more than seven 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 2012, 96% 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 2012, 79% of people ejected and killed were not using the available safety equipment. This compares to nearly 13% of people ejected and killed who were known to be using the available safety equipment.

Put another way, in 2012, people ejected from a vehicle while not using the seatbelts and child safety seats are six times more likely to be killed than people ejected from a vehicle while using seatbelts and child safety seats. In the previous five year (2007 to 2011) annual average, people ejected from a vehicle while not using the seatbelts and child safety seats are nearly four 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.

Due to amendments to the *Highway Traffic Act* that took effect in October 2011, this report uses two sources for Traffic Accident Reports (TARs); TARs completed by a law enforcement agency and TARs completed when a collision claim is registered with Manitoba Public Insurance. This change to the use of two data sources resulted in an increase in overall traffic collision counts, specifically for collisions resulting in minimal injuries or property damage only.

### **Key Highlights**

In 2012, there are 176 pedestrians killed or injured in traffic collisions. Of these:

- 13 are killed;
- 21 are seriously injured;
- 90 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 2012 (13.8) has decreased by 49% compared to 2011 (27.2) and has decreased by 58% compared to the previous five year (2007 to 2011) annual average (32.8).

Pedestrian involvement rates in fatal and injury collisions have decreased compared to the five year (2007 to 2011) annual average. Pedestrian involvement rates in traffic collisions in 2012 where a pedestrian:

- Was killed (1.0) has increased by 28% compared to 2011 (0.8) but is slightly below the previous five year average (1.1); and
- Was injured (12.8) has decreased by 51% compared to 2011 (26.4) and by nearly 60% compared to the previous five year average (31.7).

In 2012, collisions involving pedestrians most frequently occur:

- In March (13% of pedestrian casualties), May (more than 10% of pedestrian casualties), and October (nearly 10% of pedestrian casualties), although 10 of 13 pedestrians are killed between April and September;
- On weekdays, particularly Tuesday (nearly 18% of pedestrian casualties), Wednesday (23% of pedestrian casualties), and Thursday (nearly 18% of pedestrian casualties); and,
- Between noon and 6 p.m. (12:00-14:59 – 21% of pedestrian casualties; 15:00 to 17:59 – 23% of pedestrian casualties), although 3 of 13 pedestrians are killed during this time, an equal number are killed from midnight to 6 a.m. and 5 of 13 are killed between 6 p.m. and midnight.

Manitobans aged 20 to 24 have the highest pedestrian involvement rate (per 100,000 people) in traffic collisions at 24.9 in 2012 (29.9 in the previous five years), followed by those aged 15 to 19 at 19.2 (33.5 in the previous five years).

Where the actions of the pedestrian immediately prior to the collision are known, most pedestrian casualties in 2012 occur when the pedestrian is:

- At an intersection, crossing with the right of way (nearly 39% of pedestrian casualties);
- Between intersections, crossing the roadway (10% of pedestrian casualties); or,
- Walking on roadway (nearly 6% of pedestrian casualties).

For the 13 pedestrians killed in traffic collisions in 2012, two are killed in collisions while walking along or on the roadway, two while lying on the roadway, and one while running into roadway; none are noted to be killed while crossing at an intersection (with or without the right of way).

**Major Elements Examined**

Counts of collisions in Manitoba for 2012 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 2007 to 2011. 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: 2002 to 2012

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		
2002	14	-	37	-	202	-	149	-	53	-	441	-	455	-
2003	13	-7.1%	51	37.8%	207	2.5%	192	28.9%	59	11.3%	509	15.4%	522	14.7%
2004	15	15.4%	57	11.8%	201	-2.9%	143	-25.5%	55	-6.8%	456	-10.4%	471	-9.8%
2005	11	-26.7%	36	-36.8%	173	-13.9%	152	6.3%	68	23.6%	429	-5.9%	440	-6.6%
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%
<b>2012</b>	<b>13</b>	<b>30.0%</b>	<b>21</b>	<b>-12.5%</b>	<b>90</b>	<b>-30.8%</b>	<b>40</b>	<b>-35.5%</b>	<b>12</b>	<b>-89.5%</b>	<b>163</b>	<b>-50.6%</b>	<b>176</b>	<b>-48.2%</b>
2007-2011 Average*	13	-1.0%	39	-19.1%	141	-8.5%	101	-10.6%	104	8.1%	385	-7.6%	398	-7.5%

\*The "% change to previous year" for "2007-2011 Average" is an average rate of change for the time period 2007-2011.

In 2012, there are 176 pedestrians killed or injured in traffic collisions. Of these:

- 13 are killed;
- 21 are seriously injured;
- 90 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 2012 has decreased by 48% compared to 2011 and by 56% compared to the previous five year (2007 to 2011) annual average. In 2012, the number of pedestrians:

- Killed has increased by a count of three compared to 2011 and is consistent with the previous five years;
- Sustaining serious injuries has decreased by nearly 13% compared to 2011 and by 46% compared to the previous five years;
- Sustaining minor injuries has decreased by 31% compared to 2011 and by 36% compared to the previous five years; and,
- Sustaining minimal injuries has decreased by nearly 36% compared to 2011 and by 60% 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. The number of pedestrians killed in 2012 is up compared to 2011 (13 and 10, respectively) and is consistent with the previous five year (2007 to 2011) annual average (13).

The change in the number of pedestrians reported to be injured in traffic collisions in 2012 may be partially due to a change in the reporting requirements. As of October 2011, in addition to police-reported accidents, collision claims registered with Manitoba Public Insurance result in a Traffic Accident Report being completed, as long as the accident occurred on a public roadway and it meets the other requirements of being a reportable traffic collision. While this affects many PDO and less severe injury collisions that were not captured or reported in the Traffic Accident Database in the past, it may also reduce the number of pedestrian collisions reported, especially if no one requires medical treatment and there is no property damage.

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: 2002 to 2012

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		
2002	1.2	-	3.2	-	17.5	-	12.9	-	4.6	-	38.1	-	39.4	-
2003	1.1	-7.4%	4.4	37.4%	17.8	2.2%	16.6	28.5%	5.1	11.0%	43.9	15.1%	45.0	14.4%
2004	1.3	14.4%	4.9	10.8%	17.2	-3.7%	12.2	-26.2%	4.7	-7.6%	39.0	-11.2%	40.3	-10.5%
2005	0.9	-26.9%	3.1	-37.1%	14.7	-14.2%	12.9	5.9%	5.8	23.2%	36.5	-6.3%	37.5	-6.9%
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%
<b>2012</b>	<b>1.0</b>	<b>27.9%</b>	<b>1.7</b>	<b>-13.9%</b>	<b>7.1</b>	<b>-31.9%</b>	<b>3.1</b>	<b>-36.5%</b>	<b>0.9</b>	<b>-89.6%</b>	<b>12.8</b>	<b>-51.4%</b>	<b>13.8</b>	<b>-49.1%</b>
2007-2011 Average*	1.1	-2.1%	3.2	-20.1%	11.7	-9.6%	8.3	-11.6%	8.6	6.8%	31.7	-8.7%	32.8	-8.6%

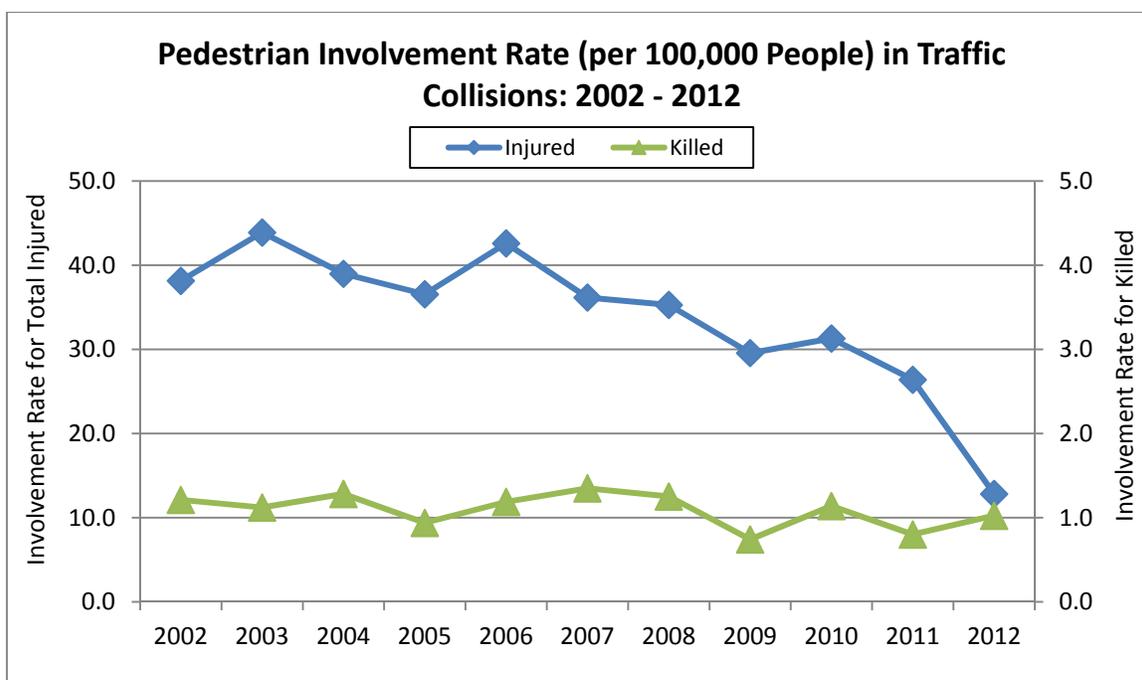
\*The "% change to previous year" for "2007-2011 Average" is an average rate of change for the time period 2007-2011.

The involvement rate (per 100,000 people in the general population) of pedestrians in traffic collisions in 2012 (13.8) has decreased by 49% compared to 2011 (27.2) and has decreased by 58% compared to the previous five year (2007 to 2011) annual average (32.8).

Pedestrian involvement rate in fatal and injury collisions has decreased compared to the five year (2007 to 2011) annual average. Pedestrian involvement rate in traffic collisions in 2012 where a pedestrian:

- Was killed (1.0) has increased by 28% compared to 2011 (0.8) and is relatively unchanged the previous five year average (1.1);
- Sustained serious injuries (1.7) has decreased by 14% compared to 2011 (1.9) and by nearly 49% compared to the previous five years (3.2);
- Sustained minor injuries (7.1) has decreased by 32% compared to 2011 (10.4) and by more than 39% compared to the previous five years (11.7);
- Sustained minimal injuries (3.1) has decreased by nearly 37% compared to 2011 (5.0) and by 62% compared to the previous five years (8.3); and,
- Sustained an unspecified injury (0.9) has decreased substantially by nearly 90% compared to 2011 (9.1) and by 89% compared to the previous five years (8.6).

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



Over the last eleven years (2002 to 2012), pedestrian injuries resulting from traffic collisions have generally declined. With the exception of 2003, 2006 and 2010, each year in the past eleven has seen a decrease in the pedestrian injury involvement rate.

Over this same time frame, the involvement rate for pedestrians killed in traffic collisions has fluctuated somewhat, but been consistent at the same time, between 0.7 and 1.3. The involvement rate in 2012 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: 2012

Month of Occurrence	2012 Casualty Type												2012 Total Victims	% of 2012 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	-	4	19.0%	8	8.9%	0	-	1	8.3%	13	8.0%	13	7.4%
February	2	15.4%	2	9.5%	6	6.7%	5	12.5%	0	-	13	8.0%	15	8.5%
March	0	-	1	4.8%	12	13.3%	9	22.5%	1	8.3%	23	14.1%	23	13.1%
April	2	15.4%	0	-	10	11.1%	0	-	1	8.3%	11	6.7%	13	7.4%
May	1	7.7%	1	4.8%	9	10.0%	6	15.0%	1	8.3%	17	10.4%	18	10.2%
June	2	15.4%	1	4.8%	4	4.4%	3	7.5%	2	16.7%	10	6.1%	12	6.8%
July	1	7.7%	1	4.8%	9	10.0%	3	7.5%	1	8.3%	14	8.6%	15	8.5%
August	2	15.4%	1	4.8%	4	4.4%	2	5.0%	2	16.7%	9	5.5%	11	6.3%
September	2	15.4%	3	14.3%	3	3.3%	2	5.0%	2	16.7%	10	6.1%	12	6.8%
October	0	-	3	14.3%	9	10.0%	5	12.5%	0	-	17	10.4%	17	9.7%
November	1	7.7%	1	4.8%	10	11.1%	3	7.5%	0	-	14	8.6%	15	8.5%
December	0	-	3	14.3%	6	6.7%	2	5.0%	1	8.3%	12	7.4%	12	6.8%
Total	13	100%	21	100%	90	100%	40	100%	12	100%	163	100%	176	100%

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

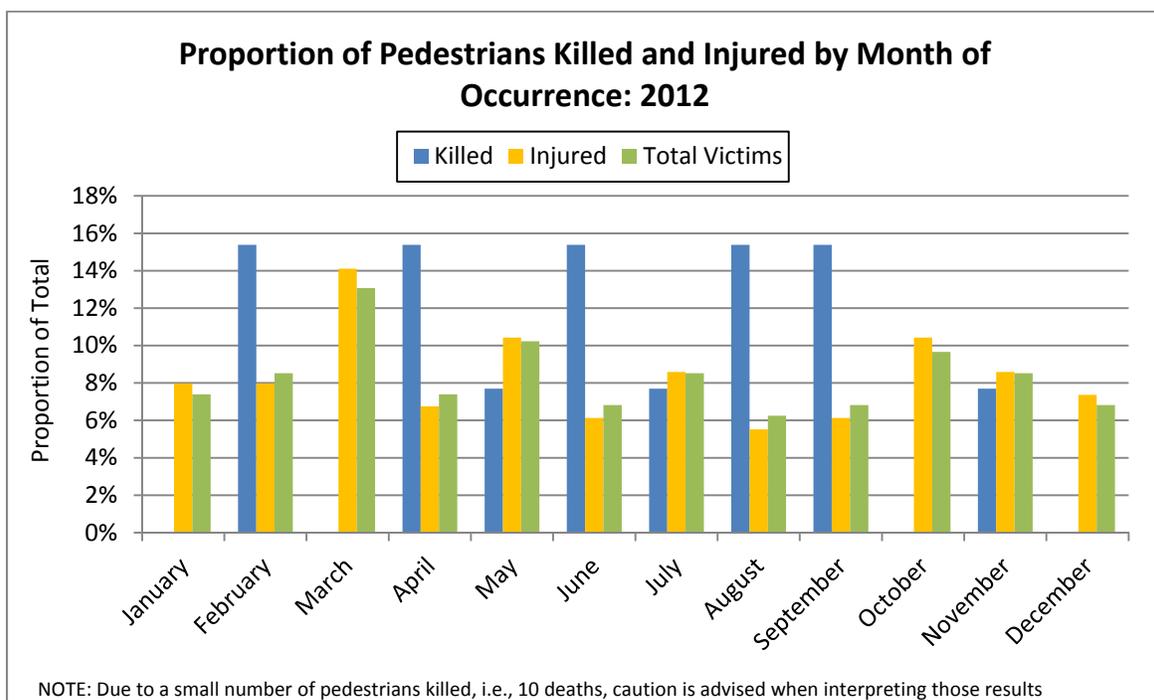
Table 6-3a  
Pedestrians Killed and Injured by Month of Occurrence and Casualty Type: 2007-2011 Average

Month of Occurrence	2007-2011 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
January	<1	4	14	8	10	37	37	9.2%
February	1	4	11	9	11	34	35	8.8%
March	1	4	15	11	11	41	42	10.5%
April	1	3	9	9	8	29	31	7.7%
May	1	3	10	8	7	27	28	7.1%
June	1	3	10	6	10	29	30	7.5%
July	1	2	11	7	6	25	26	6.6%
August	1	3	8	7	9	28	29	7.4%
September	1	2	15	10	9	36	37	9.3%
October	1	5	14	11	7	37	39	9.7%
November	1	4	14	9	7	34	35	8.7%
December	2	3	10	6	9	27	29	7.3%
Total	13	39	141	101	104	385	398	100%

Note: Counts of pedestrians in the 2007-2011 average may not add to the total due to rounding.

In 2012, ten of 13 pedestrians killed in collisions on Manitoba roadways are killed between April and September. Pedestrians are most likely to be injured in March (14% of pedestrians injured but not killed), May (10%) and October (10%). During the previous five year (2007 to 2011) 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: 2012

Day of the Week	2012 Casualty Type												2012 Total Victims	% 2012 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	7.7%	2	9.5%	3	3.3%	3	7.5%	2	16.7%	10	6.1%	<b>11</b>	6.3%
Monday	3	23.1%	4	19.0%	9	10.0%	5	12.5%	3	25.0%	21	12.9%	<b>24</b>	13.6%
Tuesday	2	15.4%	2	9.5%	20	22.2%	5	12.5%	2	16.7%	29	17.8%	<b>31</b>	17.6%
Wednesday	1	7.7%	6	28.6%	25	27.8%	8	20.0%	0	-	39	23.9%	<b>40</b>	22.7%
Thursday	2	15.4%	3	14.3%	14	15.6%	11	27.5%	1	8.3%	29	17.8%	<b>31</b>	17.6%
Friday	1	7.7%	2	9.5%	12	13.3%	5	12.5%	2	16.7%	21	12.9%	<b>22</b>	12.5%
Saturday	3	23.1%	2	9.5%	7	7.8%	3	7.5%	2	16.7%	14	8.6%	<b>17</b>	9.7%
<b>Total</b>	<b>13</b>	<b>100%</b>	<b>21</b>	<b>100%</b>	<b>90</b>	<b>100%</b>	<b>40</b>	<b>100%</b>	<b>12</b>	<b>100%</b>	<b>163</b>	<b>100%</b>	<b>176</b>	<b>100%</b>

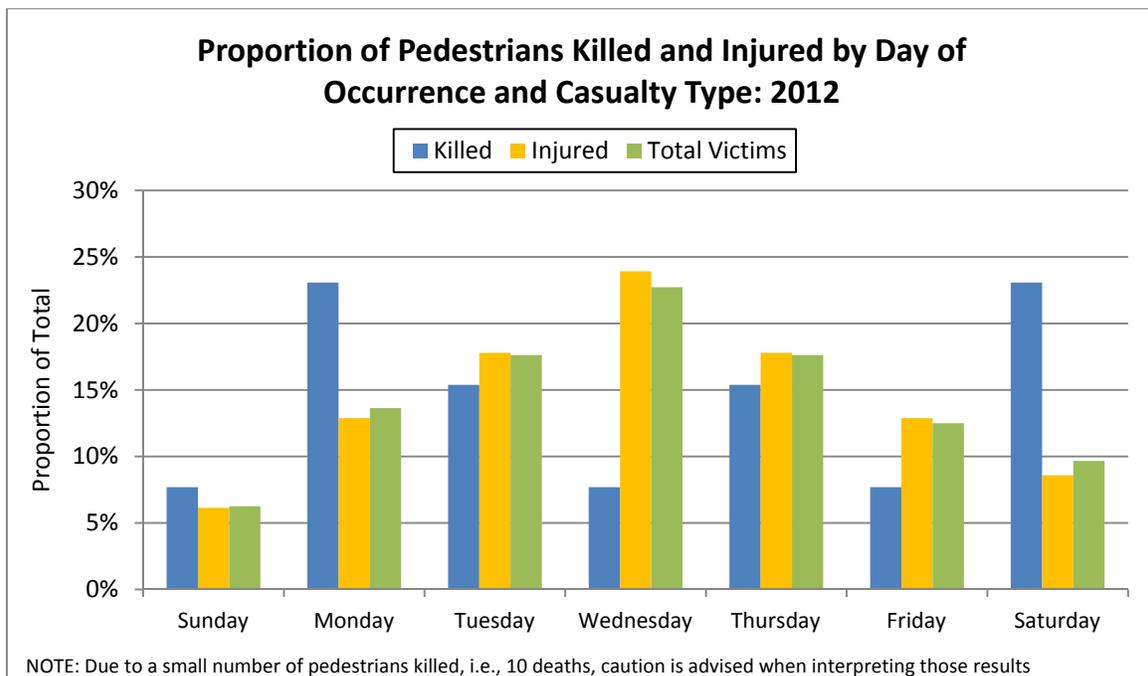
**Table 6-4a Pedestrians Killed and Injured by Day of Occurrence and Casualty Type for Previous Five Years**Table 6-4a  
Pedestrians Killed and Injured by Day of Occurrence and Casualty Type: 2007-2011 Average

Day of the Week	2007-2011 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims
Sunday	2	4	11	7	7	29	31	7.8%
Monday	1	3	21	15	13	52	53	13.4%
Tuesday	1	6	23	16	18	63	64	16.0%
Wednesday	2	5	22	16	19	63	65	16.3%
Thursday	1	7	26	18	19	70	71	17.8%
Friday	3	6	23	19	19	67	70	17.6%
Saturday	2	8	15	9	10	42	44	11.1%
Total	13	39	141	101	104	385	398	100%

Note: Counts of pedestrians in the 2007-2011 average may not add to the total due to rounding.

In 2012, more pedestrians are involved in traffic collisions on Tuesday (nearly 18% of all pedestrian casualties), Wednesday (23%), and Thursday (nearly 18%) than on other days of the week. This is very similar to the distribution of pedestrian casualties by day of the week in the previous five years.

In 2012, 5 of 13 pedestrians are killed in traffic collisions on the weekend (defined as all day Friday, Saturday and Sunday). In the previous five year (2007 to 2011) annual average, weekend collisions account for more than one-half of pedestrians killed (58%).

**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: 2012

Time of the Day	2012 Casualty Type											2012 Total Victims	% of 2012 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	1	9.1%	1	4.8%	3	3.4%	0	-	1	9.1%	5	3.1%	6	3.5%
03:00 - 05:59	2	18.2%	1	4.8%	1	1.1%	1	2.5%	1	9.1%	4	2.5%	6	3.5%
06:00 - 08:59	0	-	3	14.3%	11	12.4%	1	2.5%	2	18.2%	17	10.6%	17	9.9%
09:00 - 11:59	0	-	1	4.8%	15	16.9%	9	22.5%	0	-	25	15.5%	25	14.5%
12:00 - 14:59	2	18.2%	5	23.8%	17	19.1%	10	25.0%	2	18.2%	34	21.1%	36	20.9%
15:00 - 17:59	1	9.1%	2	9.5%	24	27.0%	11	27.5%	2	18.2%	39	24.2%	40	23.3%
18:00 - 20:59	3	27.3%	5	23.8%	14	15.7%	4	10.0%	1	9.1%	24	14.9%	27	15.7%
21:00 - 23:59	2	18.2%	3	14.3%	4	4.5%	4	10.0%	2	18.2%	13	8.1%	15	8.7%
Not Stated	2	-	0	-	1	-	0	-	1	-	2	-	4	-
Total	13	100%	21	100%	90	100%	40	100%	12	100%	163	100%	176	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: 2007-2011 Average

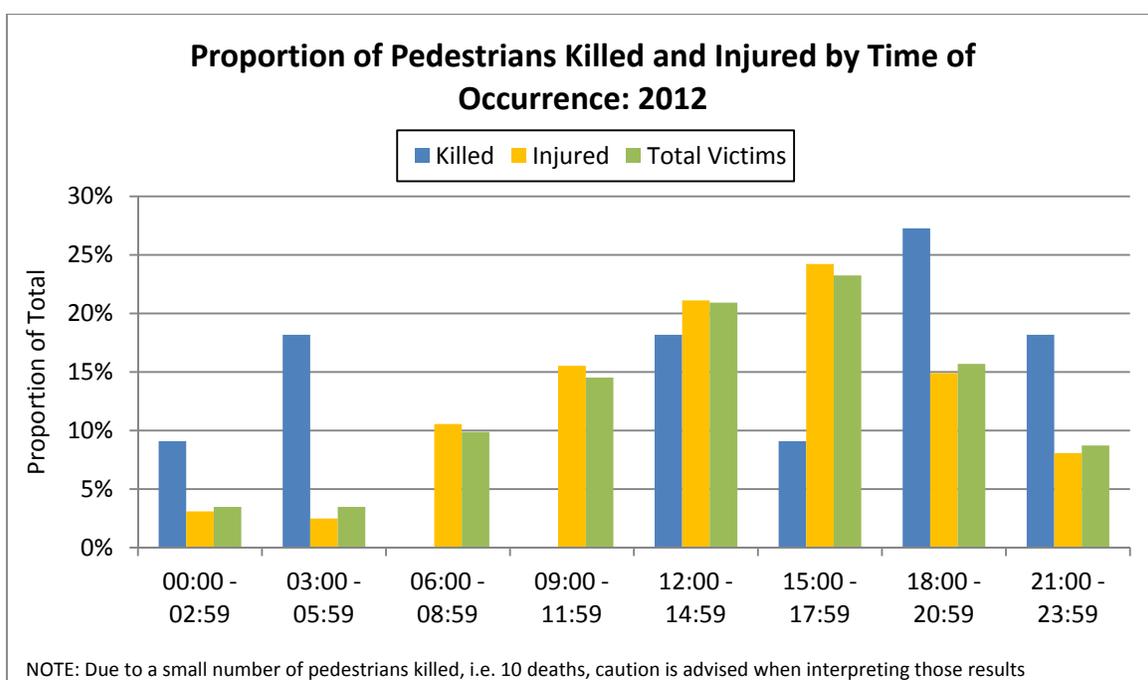
Time of the Day	2007-2011 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims*
00:00 - 02:59	2	2	4	3	2	11	12	3.4%
03:00 - 05:59	1	1	3	1	1	7	9	2.4%
06:00 - 08:59	1	2	17	12	14	46	47	12.9%
09:00 - 11:59	1	3	14	15	10	42	43	11.9%
12:00 - 14:59	2	6	25	19	18	67	69	19.0%
15:00 - 17:59	2	9	33	21	29	93	95	26.3%
18:00 - 20:59	2	6	21	11	13	51	52	14.5%
21:00 - 23:59	2	5	12	10	7	33	35	9.7%
Not Stated	1	4	12	9	10	35	36	-
Total	13	39	141	101	104	385	398	100%

Note: Counts of pedestrians in the 2007-2011 average may not add to the total due to rounding.

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

In 2012, 21% 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 (2007 to 2011) annual average (12:00-14:59 – 19% of all pedestrian victims; 15:00 to 17:59 – 26%).

In 2012, 3 pedestrians are killed between noon and 6 p.m., five are killed between 6 p.m. and midnight, and three are killed between midnight and 6 a.m.. This is similar to the previous five year (2007 to 2011) annual average, where 7 of 13 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: 2012

Age Group	2012 Casualty Type											2012 Total Victims	% of 2012 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	-	0	-	1	1.2%	0	-	0	-	1	0.7%	1	0.6%
5-9	0	-	0	-	3	3.6%	0	-	0	-	3	2.0%	3	1.8%
10-14	1	7.7%	2	10.0%	4	4.8%	0	-	0	-	6	4.0%	7	4.3%
15-19	3	23.1%	2	10.0%	10	11.9%	2	5.3%	0	-	14	9.3%	17	10.4%
20-24	2	15.4%	1	5.0%	14	16.7%	5	13.2%	1	12.5%	21	14.0%	23	14.1%
25-34	1	7.7%	1	5.0%	14	16.7%	6	15.8%	1	12.5%	22	14.7%	23	14.1%
35-44	1	7.7%	3	15.0%	13	15.5%	8	21.1%	3	37.5%	27	18.0%	28	17.2%
45-54	0	-	2	10.0%	15	17.9%	7	18.4%	0	-	24	16.0%	24	14.7%
55-64	1	7.7%	4	20.0%	7	8.3%	3	7.9%	2	25.0%	16	10.7%	17	10.4%
65+	4	30.8%	5	25.0%	3	3.6%	7	18.4%	1	12.5%	16	10.7%	20	12.3%
Not Stated	0	-	1	-	6	-	2	-	4	-	13	-	13	-
<b>Total</b>	<b>13</b>	<b>100%</b>	<b>21</b>	<b>100%</b>	<b>90</b>	<b>100%</b>	<b>40</b>	<b>100%</b>	<b>12</b>	<b>100%</b>	<b>163</b>	<b>100%</b>	<b>176</b>	<b>100%</b>

\*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 in the minor, minimal, and other injury categories - 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: 2007-2011 Average

Age Group	2007-2011 Average Count of Victims							
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured	Total Victims	% of Total Victims*
0-4	<1	<1	4	<1	<1	6	6	2.9%
5-9	<1	3	8	<1	1	13	14	6.1%
10-14	<1	3	13	2	1	19	19	8.6%
15-19	<1	4	17	5	3	29	29	13.1%
20-24	2	6	13	4	1	24	25	11.2%
25-34	1	3	16	7	2	27	28	12.7%
35-44	1	6	13	6	2	27	28	12.4%
45-54	2	3	16	5	1	25	27	12.0%
55-64	1	3	10	4	1	19	20	8.7%
65+	4	6	13	3	2	24	28	12.4%
Not Stated	<1	3	18	64	89	173	174	-
Total	13	38	141	99	104	385	398	100%

Note: Counts of pedestrians in the 2007-2011 average may not add to the total due to rounding.

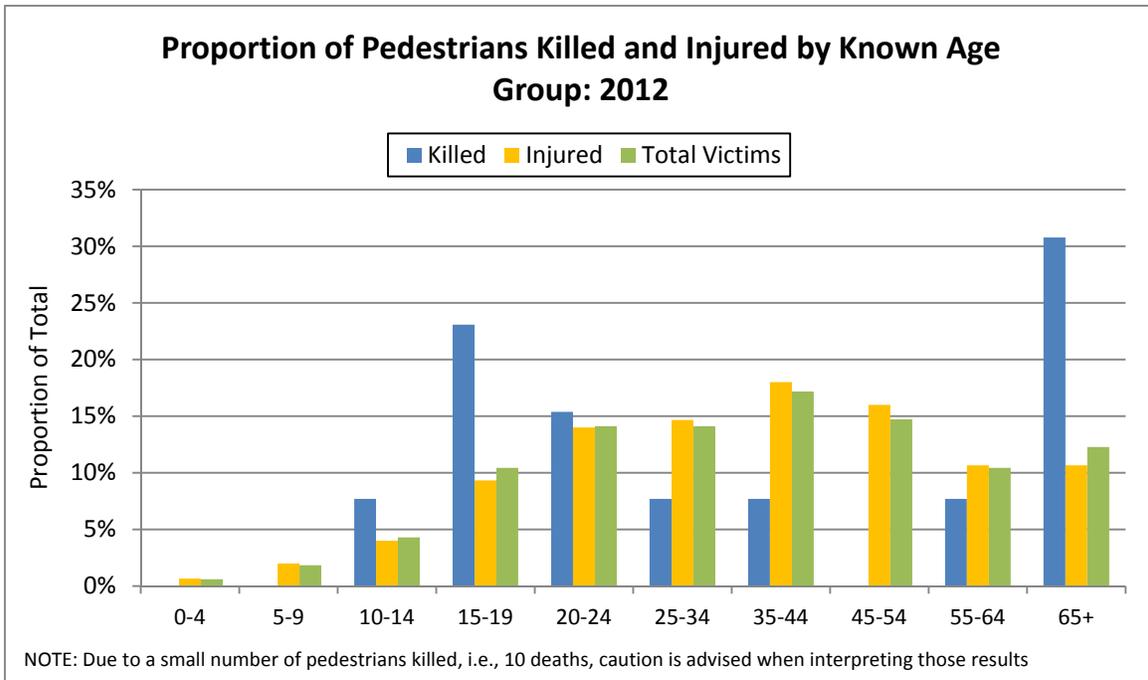
\*Percentage of the total does not include the "Not Stated" category.

Note: The reader is cautioned that age is missing ("Not Stated") in several collisions in the minor, minimal, and other injury categories - interpret with caution.

In 2012, more than 17% of pedestrians killed and injured are under the age of 20 (2% under age 10; 15% age 10 to 19) while 28% are between the ages of 20 and 34 and 32% are between the ages of 35 and 54. Adults aged 55 and older account for 23% of pedestrian victims. This distribution of pedestrian casualties by age is somewhat different to what it is in the previous five years. In the five year (2007 to 2011) annual average, 31% of pedestrian victims are under the age of 20, 24% were age 20 to 34, 24% were age 35 to 54 and 21% were age 55 and older.

Young people aged 15 to 19 and adults aged 65 and older represent a large proportion of pedestrians killed in 2012 (23% and 31%, respectively), up substantially compared to the previous five year (2007 to 2011) annual average (13% and 12%, respectively).

**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: 2012, 2007-2011 Average

Year	2012 Casualty Type						2012 Total Victims	2007-2011 Average Involvement		
	Killed	Serious Injury	Minor Injury	Minimal Injury	Other Injury	Total Injured		Killed	Injured	Total Victims
0-4	-	-	1.2	-	-	1.2	1.2	0.3	8.1	8.4
5-9	-	-	3.8	-	-	3.8	3.8	0.5	17.5	18.1
10-14	1.2	2.5	5.0	-	-	7.5	8.7	0.5	23.1	23.5
15-19	3.4	2.3	11.3	2.3	-	15.8	19.2	0.5	33.0	33.5
20-24	2.2	1.1	15.1	5.4	1.1	22.7	24.9	1.9	28.0	29.9
25-34	0.6	0.6	8.2	3.5	0.6	12.9	13.5	0.8	17.2	18.0
35-44	0.6	1.8	7.9	4.9	1.8	16.5	17.1	0.6	16.5	17.1
45-54	-	1.1	8.2	3.8	-	13.1	13.1	1.0	13.9	14.8
55-64	0.7	2.6	4.6	2.0	1.3	10.4	11.1	0.7	13.3	14.0
65+	2.2	2.8	1.7	3.9	0.6	8.9	11.2	2.4	14.2	16.6
Total	1.0	1.7	7.1	3.1	0.9	12.8	13.8	1.1	31.7	32.7

Younger pedestrians, although they account for a smaller number of pedestrian victims, tend to have a higher rate of involvement in traffic collisions. Manitobans aged 20 to 24 have the highest pedestrian involvement rate (per 100,000 people) in traffic collisions at 24.9 in 2012 (29.9 in the previous five years), followed by those aged 15 to 19 at 19.2 (33.5 in the previous five years). This is about two and a half times the involvement rate of Manitobans aged 55 and older in 2012. Also, the involvement rate of Manitobans aged 65 and older is lower (11.2) in 2012 than for the previous five year (2007 to 2011) annual average where it was 16.6.

The involvement rate for younger pedestrians has dropped dramatically in 2012 compared to the previous five year (2007 to 2011) annual average. The involvement rates in 2012 for Manitobans:

- Under age 10 is 5.1 – down 81% from the previous five years (26.4);
- Aged 10 to 14 is 8.7 – down 63% from the previous five years (23.5); and,
- Aged 15 to 19 is 19.2 – down nearly 43% from the previous five years (33.5).

**Table 6-8 Pedestrian Action and Casualty Type**Table 6-8  
Pedestrian Action and Casualty Type: 2012

Pedestrian Action	2012 Casualty Type												2012 Total Victims	% of 2012 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	0	-	4	30.8%	28	47.5%	7	26.9%	3	50.0%	42	40.4%	42	38.5%
At intersection, without right of way	0	-	1	7.7%	4	6.8%	0	-	0	-	5	4.8%	5	4.6%
At intersection, no traffic control	0	-	0	-	1	1.7%	4	15.4%	0	-	5	4.8%	5	4.6%
Between intersections	0	-	1	7.7%	8	13.6%	1	3.8%	1	16.7%	11	10.6%	11	10.1%
Walking along roadway against traffic	0	-	1	7.7%	0	-	1	3.8%	0	-	2	1.9%	2	1.8%
Walking along roadway with traffic	1	20.0%	0	-	2	3.4%	0	-	0	-	2	1.9%	3	2.8%
On sidewalk/median/safety zone	0	-	0	-	2	3.4%	3	11.5%	0	-	5	4.8%	5	4.6%
Walking on roadway (travelled portion)	1	20.0%	2	15.4%	0	-	3	11.5%	0	-	5	4.8%	6	5.5%
From behind vehicle/object on roadside	0	-	1	7.7%	3	5.1%	1	3.8%	0	-	5	4.8%	5	4.6%
Running into roadway	1	20.0%	0	-	1	1.7%	1	3.8%	1	16.7%	3	2.9%	4	3.7%
Getting on/off vehicle	0	-	0	-	1	1.7%	0	-	0	-	1	1.0%	1	0.9%
Pushing/working on vehicle	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Playing on roadway	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Working on roadway	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Lying on roadway	2	40.0%	1	7.7%	0	-	0	-	1	16.7%	2	1.9%	4	3.7%
Other	0	-	2	15.4%	9	15.3%	5	19.2%	0	-	16	15.4%	16	14.7%
Unknown	8	-	8	-	31	-	14	-	6	-	59	-	67	-
Total*	13	100%	21	100%	90	100%	40	100%	12	100%	163	100%	176	100%

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

**Table 6-8a Pedestrian Action and Casualty Type for the Previous Five Years**Table 6-8a  
Pedestrian Action and Casualty Type: 2007-2011 Average

Pedestrian Action	2007-2011 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	6	39	26	20	91	92	36.3%
At intersection, without right of way	1	4	11	7	7	29	29	11.6%
At intersection, no traffic control	0	1	2	1	2	7	8	3.0%
Between intersections	1	4	15	9	7	35	37	14.4%
Walking along roadway against traffic	0	1	2	0	1	4	4	1.6%
Walking along roadway with traffic	1	1	3	2	1	8	8	3.3%
On sidewalk/median/safety zone	0	0	4	3	1	8	8	3.2%
Walking on roadway (travelled portion)	1	2	5	3	2	11	13	5.0%
From behind vehicle/object on roadside	0	0	3	1	2	7	7	2.8%
Running into roadway	1	6	15	8	8	36	37	14.6%
Getting on/off vehicle	0	0	1	1	0	2	3	1.0%
Pushing/working on vehicle	0	1	0	0	0	1	1	0.4%
Playing on roadway	0	0	1	0	0	1	1	0.5%
Working on roadway	0	0	1	1	1	3	3	1.1%
Lying on roadway	2	1	0	0	0	1	3	1.1%
Other	0	0	0	0	0	0	0	0.2%
Unknown	4	11	39	38	51	140	144	-
Total	13	39	141	101	104	385	398	100%

Note: Counts of pedestrians in the 2007-2011 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 2012 occur when the pedestrian is:

- At an intersection, crossing with the right of way (nearly 39% of pedestrian casualties);
- Between intersections, crossing the roadway (10% of pedestrian casualties); or,
- Walking on roadway (nearly 6% of pedestrian casualties).

Pedestrian actions immediately prior to the traffic collision in 2012 are somewhat different than the actions recorded in the previous five year (2007 to 2011) annual average. For all pedestrian victims in 2012, the proportion of collisions where the pedestrian:

- Ran onto the road decreased by 75% compared the previous five years;
- Crossed the road between intersections decreased by 30% compared to the previous five years; and,
- Was at an intersection without the right or way decreased by 60%.

For the 13 pedestrians killed in traffic collisions in 2012, 2 are killed in collisions while walking along or on the roadway, 2 while lying on the roadway, and 1 while running into roadway; none are known to be killed at an intersection. No pedestrian action was recorded for 8 of the 13 pedestrians killed.

## SECTION 7 – VEHICLE INVOLVEMENT





### **Introduction**

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

Due to amendments to the *Highway Traffic Act* that took effect in October 2011, this report uses two sources for Traffic Accident Reports (TARs); TARs completed by a law enforcement agency and TARs completed when a collision claim is registered with Manitoba Public Insurance. This change to the use of two data sources resulted in an increase in the count of vehicles involved in traffic collisions, specifically for collisions resulting in minimal injuries and property damage only.

### **Key Highlights**

In 2012, there are 59,556 vehicles involved in traffic collisions. Of these:

- 126 are involved in fatal collisions;
- 14,802 are involved in injury collisions; and,
- 44,628 are involved in PDO collisions.

Vehicle involvement in traffic collisions per 10,000 registered vehicles (vehicle involvement rate) has increased in 2012 compared to 2011 and to the previous five year (2007 to 2011) annual average. The vehicle involvement rate in collisions in 2012 for:

- Total collisions is 710.2; increased by 8% from 2011, and by nearly 19% from the previous five years;
- Fatal collisions is 1.5; decreased by 13% from 2011, and by nearly 11% from the previous five years;
- Injury collisions is 176.5; increased by 31% from 2011, and by 36% from the previous five years; and,
- PDO collisions is 532.2; increased by 2% from 2011, and by 14% 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 2012, an increase when compared to the previous five year (2007 to 2011) annual average (nearly 91%). Commercial vehicles represent 3%, and motorcycles, scooters, and mopeds 0.3%, of the vehicles involved; both decreased from the previous five years.

### **Major Elements Examined**

Counts of vehicles involved in collisions in Manitoba for 2012 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 2007 to 2011. 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: 2002 to 2012

Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2002	156	-	12,346	-	40,189	-	52,691	-
2003	142	-9.0%	12,750	3.3%	44,388	10.4%	57,280	8.7%
2004	131	-7.7%	12,090	-5.2%	44,998	1.4%	57,219	-0.1%
2005	135	3.1%	11,489	-5.0%	42,719	-5.1%	54,343	-5.0%
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%
<b>2012</b>	<b>126</b>	<b>-10.6%</b>	<b>14,802</b>	<b>35.1%</b>	<b>44,628</b>	<b>5.2%</b>	<b>59,556</b>	<b>11.3%</b>
2007-2011 Average*	132	-0.4%	10,180	-0.2%	36,718	1.6%	47,030	1.2%

\* The "% change to previous year" for "2007-2011 Average" is an average rate of change for the time period 2007 to 2011.

In 2012, there are 59,556 vehicles involved in traffic collisions. Of these:

- 126 are involved in fatal collisions;
- 14,802 are involved in injury collisions; and,
- 44,628 are involved in PDO collisions.

Overall, there are more vehicles involved in traffic collisions in 2012 than in any of the previous five years, 2007 through 2011. Overall, there are 6,040 more vehicles involved in traffic collisions in Manitoba in 2012 than in 2011 (an 11% increase), and 12,526 more vehicles involved than in the previous five year (2007 to 2011) annual average (a nearly 27% increase). In 2012, there are:

- 15 fewer vehicles involved in fatal collisions than in 2011 (a nearly 11% decrease), 6 fewer than in the previous five years (a 4% decrease);
- 3,846 more vehicles involved in injury collisions compared to 2011 (a 35% increase), 4,622 more than in the previous five years (a 45% increase); and,
- 2,209 more vehicles involved in PDO collisions compared to 2011 (a 5% increase), 7,910 more than in the previous five years (a nearly 22% increase).

The increase in the number of vehicles involved in collisions in 2012 is attributable to a change in the reporting requirements. As of October 2011, in addition to police-reported accidents, collision claims registered with Manitoba Public Insurance result in a Traffic Accident Report being completed, as long as the accident occurred on a public roadway and it meets the other requirements of being a reportable traffic collision. This affects many PDO and minimal injury collisions that were not captured or reported in the Traffic Accident Database in the past.

**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: 2002 to 2012

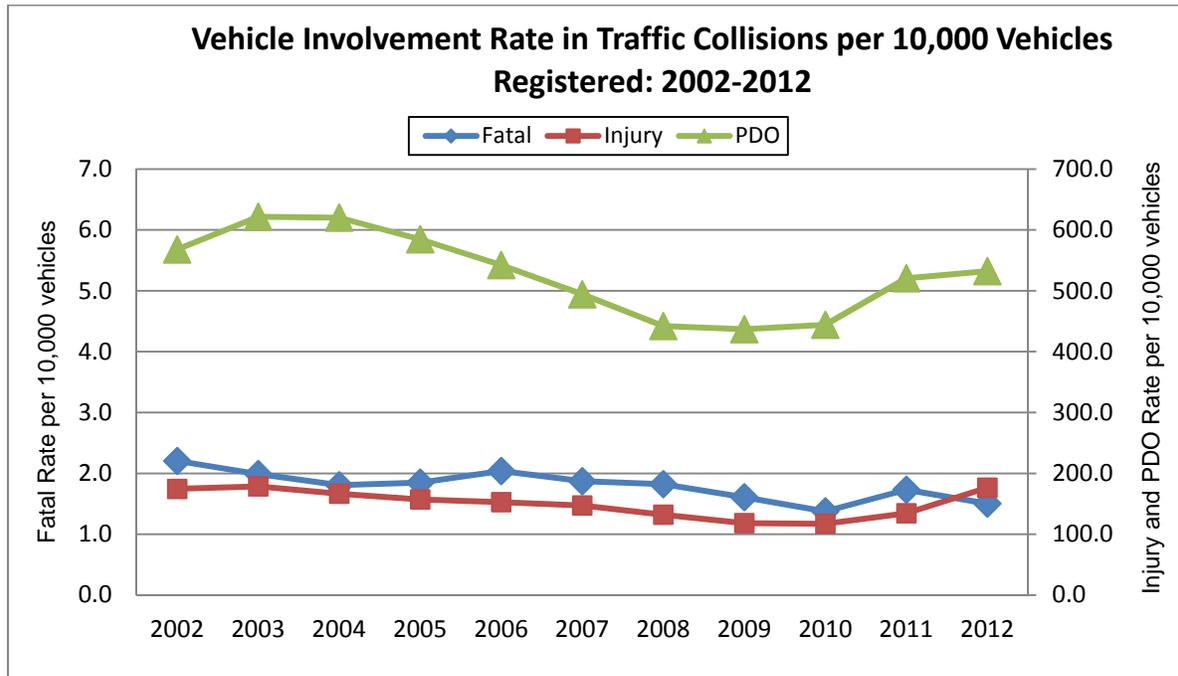
Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2002	2.2	-	174.4	-	567.8	-	744.4	-
2003	2.0	-9.8%	178.5	2.4%	621.5	9.5%	802.0	7.7%
2004	1.8	-9.2%	166.6	-6.7%	620.2	-0.2%	788.6	-1.7%
2005	1.8	2.3%	157.2	-5.7%	584.5	-5.7%	743.6	-5.7%
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%
<b>2012</b>	<b>1.5</b>	<b>-13.2%</b>	<b>176.5</b>	<b>31.3%</b>	<b>532.2</b>	<b>2.2%</b>	<b>710.2</b>	<b>8.1%</b>
2007-2011 Average*	1.7	-2.3%	129.8	-2.1%	467.6	-0.3%	599.1	-0.7%

\* The "% change to previous year" for "2007-2011 Average" is an average rate of change for the time period 2007 to 2011.

Vehicle involvement in traffic collisions per 10,000 registered vehicles (vehicle involvement rate) has increased in 2012 compared to 2011 and to the previous five year (2007 to 2011) annual average. The vehicle involvement rate in 2012 for:

- Total collisions is 710.2; increased by 8% from 2011 and by nearly 19% from the previous five years;
- Fatal collisions is 1.5; decreased by 13% from 2011, and by nearly 11% from the previous five years;
- Injury collisions is 176.5; increased by 31% from 2011, and by 36% from the previous five years; and,
- PDO collisions is 532.2; increased by 2% from 2011, and by 14% 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 that spanned between 2004 and 2010 did not continue in 2011 and 2012, with the rate increasing. With the involvement rates in fatal collisions decreasing compared to the previous five year (2007 to 2011) annual average (see Table 7-2), it becomes clear that this increase in overall involvement is due to the increased number of vehicles recorded as being involved in injury and PDO collisions.

**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: 2012, 2007-2011 Average

Vehicle Type	2012 Collision Severity						2012 Total	% of 2012 Total	2007-2011 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)	63	50.0%	10,708	72.3%	30,564	68.5%	<b>41,335</b>	69.4%	55	6,349	22,843	29,247	62.2%
Mini/Multi-Purpose Van	15	11.9%	1,493	10.1%	4,257	9.5%	<b>5,765</b>	9.7%	10	1,136	4,096	5,242	11.1%
Van under 4500 kg	0	-	145	1.0%	418	0.9%	<b>563</b>	0.9%	3	124	494	620	1.3%
Pick-up under 4500 kg	25	19.8%	1,895	12.8%	7,925	17.8%	<b>9,845</b>	16.5%	29	1,256	5,788	7,073	15.0%
Truck over 4500 kg (unit chassis)	4	3.2%	158	1.1%	770	1.7%	<b>932</b>	1.6%	3	116	455	574	1.2%
Power Unit for Semi-Trailer	7	5.6%	116	0.8%	296	0.7%	<b>419</b>	0.7%	10	107	398	516	1.1%
Truck/Camper	0	-	0	-	0	-	<b>0</b>	-	<1	6	24	31	<0.1%
Motor home	0	-	5	<0.1%	20	<0.1%	<b>25</b>	<0.1%	<1	2	10	12	<0.1%
Truck (other)	0	-	21	0.1%	67	0.2%	<b>88</b>	0.1%	8	606	2,174	2,789	5.9%
School Bus	0	-	0	-	0	-	<b>0</b>	-	1	10	57	68	0.1%
Other School Vehicle	0	-	0	-	0	-	<b>0</b>	-	<1	<1	<1	1	<0.1%
Transit Bus – urban	1	0.8%	46	0.3%	54	0.1%	<b>101</b>	0.2%	<1	23	55	79	0.2%
Para-transit Bus	0	-	4	<0.1%	4	<0.1%	<b>8</b>	<0.1%	<1	1	4	5	<0.1%
Intercity Bus	0	-	3	<0.1%	5	<0.1%	<b>8</b>	<0.1%	<1	9	35	44	<0.1%
Bus (other)	0	-	20	0.1%	100	0.2%	<b>120</b>	0.2%	<1	5	22	27	<0.1%
Motorcycle/Scooter	4	3.2%	98	0.7%	64	0.1%	<b>166</b>	0.3%	3	121	48	171	0.4%
Moped	0	-	17	0.1%	9	<0.1%	<b>26</b>	<0.1%	<1	6	2	8	<0.1%
Bicycle	5	4.0%	73	0.5%	74	0.2%	<b>152</b>	0.3%	4	242	25	271	0.6%
Ambulance	0	-	0	-	0	-	<b>0</b>	-	<1	5	21	26	<0.1%
Fire	0	-	0	-	0	-	<b>0</b>	-	<1	3	12	16	<0.1%
Police	0	-	0	-	0	-	<b>0</b>	-	<1	22	64	86	0.2%
Mobility Vehicle	0	-	0	-	0	-	<b>0</b>	-	<1	<1	<1	1	<0.1%
Motorised Snow Vehicle HTA	0	-	0	-	0	-	<b>0</b>	-	<1	<1	2	2	<0.1%
Farm Equipment	0	-	0	-	0	-	<b>0</b>	-	<1	5	18	24	<0.1%
Construction Equipment	0	-	0	-	0	-	<b>0</b>	-	<1	9	60	70	0.1%
Train/Other Rail Vehicle	0	-	0	-	0	-	<b>0</b>	-	<1	<1	<1	0	<0.1%
Off-Road Vehicles	2	1.6%	0	-	1	<0.1%	<b>3</b>	<0.1%	<1	6	5	27	<0.1%
<b>Total</b>	<b>126</b>	<b>100%</b>	<b>14,802</b>	<b>100%</b>	<b>44,628</b>	<b>100%</b>	<b>59,556</b>	<b>100%</b>	<b>132</b>	<b>10,180</b>	<b>36,718</b>	<b>47,030</b>	<b>100%</b>

Note: Counts of vehicles in the 2007-2011 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: 2012, 2007-2011 Average

Vehicle Type	2012 Collision Severity						2012 Total	% of 2012 Total	2007-2011 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	103	85.1%	14,241	96.7%	43,164	96.9%	<b>57,508</b>	96.8%	96	8,865	33,222	42,183	90.5%
Passenger vehicles	78	64.5%	12,346	83.8%	35,239	79.1%	<b>47,663</b>	80.3%	68	7,609	27,433	35,110	75.3%
Light trucks	25	20.7%	1,895	12.9%	7,925	17.8%	<b>9,845</b>	16.6%	29	1,256	5,788	7,073	15.2%
NSC Commercial Vehicles	12	9.9%	368	2.5%	1,296	2.9%	<b>1,676</b>	2.8%	23	878	3,201	4,103	8.8%
PSV Vehicles	0	-	0	-	0	-	<b>0</b>	-	0	30	97	128	0.3%
Motorcycle/Moped/Scooter	4	3.3%	115	0.8%	73	0.2%	<b>192</b>	0.3%	3	127	49	179	0.4%
Off-Road vehicles	2	1.7%	0	-	1	<0.1%	<b>3</b>	<0.1%	<1	6	5	27	<0.1%

Note: Counts of vehicles in the 2007-2011 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: 2012, 2007-2011 Average

Vehicle Type	2012 Collision Severity				2007-2011 Average			
	Fatal	Injury	PDO	2012 Total	Fatal	Injury	PDO	Total
Light Duty Vehicles	1.6	221.1	670.2	<b>892.9</b>	1.4	132.5	496.6	630.6
Passenger vehicles	1.5	239.6	683.9	<b>925.0</b>	1.3	143.7	518.2	663.2
Light trucks	1.9	147.2	615.6	<b>764.7</b>	2.1	90.0	414.8	506.9
NSC Commercial Vehicles	1.7	52.9	186.1	<b>240.7</b>	3.1	118.2	430.9	552.2
PSV Vehicles	0.0	0.0	0.0	<b>0.0</b>	0.0	29.5	94.3	125.1
Motorcycle/Moped/Scooter	3.9	111.5	70.8	<b>186.1</b>	2.5	112.9	44.0	159.6

Light duty vehicles, including passenger vehicles, minivans, and light trucks, represent 97% of the vehicles involved in all traffic collisions in 2012, an increase when compared to the previous five year (2007 to 2011) annual average (nearly 91%). Commercial vehicles represent 3%, and motorcycles, scooters, and mopeds 0.3%, of the vehicles involved; both decreased from 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 892.9 in 2012 and 630.6 in the previous five year (2007 to 2011) annual average. NSC commercial vehicles have the second highest involvement rate, at 240.7 in 2012 and 552.2 in the previous five years.

Motorcycles (including scooters and mopeds) and PSV vehicles, have the lowest rates of involvement in traffic collisions among all vehicle types examined, both in 2012 and in the previous five year (2007 to 2011) annual average. Motorcycles have a rate of involvement of 186.1 in 2012 and 159.6 for the previous five year (2007 to 2011) annual average. No PSV vehicles were recorded as being involved in traffic collisions in 2012, with an involvement rate of 125.1 in the previous five years.

Motorcycles (including scooters and mopeds) are much more likely than light duty vehicles to be involved in a fatal collision. In 2012, motorcycles have an involvement rate of 3.9 in fatal collisions, more than double the involvement rate of light duty vehicles in fatal collisions (1.6). In the previous five year (2007 to 2011) annual average, motorcycles had a vehicle involvement rate of 2.5 in fatal collisions, nearly double the rate of light duty vehicles (1.4).

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.

Due to amendments to the *Highway Traffic Act* that took effect in October 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. The use of two data sources resulted in an increase in the count of drivers involved in collision, specifically for collisions resulting in minimal injuries or property damage only.

## Key Highlights

In 2012, there are 58,877 drivers involved in traffic collisions. Of these:

- 119 are involved in fatal collisions;
- 14,696 are involved in injury collisions; and,
- 44,062 are involved in PDO collisions.

Drivers aged 16 to 24 years old account for the largest proportion of drivers involved in traffic collisions in 2012, followed by drivers aged 25 to 34.

- Total collisions: aged 16 to 24 – nearly 23%; aged 25 to 34 – nearly 21%; aged 35 to 44 – 18%; aged 45 to 54 – 18%; aged 55 to 64 – 12%; aged 65 and older – 9%.
- Fatal collisions: aged 16 to 24 – 26%; aged 25 to 34 – 25%; aged 35 to 44 – 14%; aged 45 to 54 – 13%; aged 55 to 64 – 11%; aged 65 and older – 10%.
- Injury collisions: aged 16 to 24 – 21%; aged 25 to 34 – 21%; aged 35 to 44 – 19%; aged 45 to 54 – 18%; aged 55 to 64 – 12%; aged 65 and older – 8%.
- PDO collisions: aged 16 to 24 – 23%; aged 25 to 34 – 20%; aged 35 to 44 – 17%; aged 45 to 54 – nearly 18%; aged 55 to 64 – 12%; aged 65 and older – 9%.

Young drivers have a much higher rate of involvement in traffic collisions than older drivers. In 2012, drivers aged 16 to 24 years old have an involvement rate (per 10,000 licensed drivers) in traffic collisions of 1,104.9. This is:

- 1.3 times that of drivers aged 25 to 34 (rate of 858.7);
- 1.5 times that of drivers aged 35 to 44 (rate of 740.4);
- 1.7 times that of drivers aged 45 to 54 (rate of 644.1);
- Over twice that of drivers aged 55 to 64 (rate of 529.2); and,
- Nearly three times that of drivers aged 65 and older (rate of 385.7).

The majority of drivers involved in traffic collisions are male. Among all drivers involved in traffic collisions in 2012 where the driver gender is known, nearly 60% are male and nearly 40% female.

- Fatal collisions: 68% involved male drivers, 32% female drivers.
- Injury collisions: 53% involved male drivers, 47% female drivers.
- PDO collisions: nearly 63% involved male drivers, nearly 38% female drivers.

The rate of involvement for men in traffic collisions in 2012 is 813.1, nearly one and a half times that of females (581.9). Driver involvement rates in 2012:

- Fatal collisions: male rate – 1.9, female rate – 0.9.
- Injury collisions: male rate – 178.4, female rate – 171.8.
- PDO collisions: male rate – 632.8, female rate – 409.2.

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 2012 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 comparing historical results of involvement rates per 10,000 licensed drivers, the reader is cautioned to note that data from 2002 used a different methodology when counting the population of licensed drivers than data from 2003 to 2012. While presented here, it should be noted that calculations for 2002 are not directly comparable to the calculations for 2003 to 2012. Section 2 of this report outlines these methodological differences in greater detail.

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. While changes to the reporting structure in 2011 have resulted in significant improvements (0.1% of drivers not identified by age in 2012), 18% of drivers are not identified by age in the five year (2007 to 2011) annual average. Likewise, gender is not always captured for each driver involved in a traffic collision. In 2012, 0.1% of the drivers involved in traffic collisions are not identified by gender compared with 5% for the previous five year (2007 to 2011) 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 2007 to 2011. 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 Eleven Year Summary of Drivers Involved in Traffic Collisions**

Table 8-1  
Historical Summary of Drivers Involved in Traffic Collisions: 2002 to 2012

Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2002	149	-	11,920	-	35,883	-	47,952	-
2003	138	-7.4%	12,248	2.8%	40,017	11.5%	52,403	9.3%
2004	127	-8.0%	11,647	-4.9%	40,239	0.6%	52,013	-0.7%
2005	126	-0.8%	11,044	-5.2%	37,728	-6.2%	48,898	-6.0%
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%
<b>2012</b>	<b>119</b>	<b>-8.5%</b>	<b>14,696</b>	<b>38.1%</b>	<b>44,062</b>	<b>8.8%</b>	<b>58,877</b>	<b>14.8%</b>
2007-2011 Average*	122	-1.4%	9,820	0.1%	34,382	3.2%	44,324	2.5%

\* The "% change to previous year" for "2007-2011 Average" is an average rate of change for the time period 2007 to 2011.

In 2012, there are 58,877 drivers involved in traffic collisions. Of these:

- 119 are involved in fatal collisions;
- 14,696 are involved in injury collisions; and,
- 44,062 are involved in PDO collisions.

Overall, the number of drivers involved in traffic collisions in 2012 increased, up 15% from 2011 and by 33% from the previous five year (2007 to 2011) annual average. In 2012, there are:

- 11 fewer drivers involved in fatal collisions than in 2011 (nearly a 9% increase), 3 fewer than in the previous five years (a nearly 3% decrease);
- 4,052 more drivers involved in injury collisions compared to 2011 (a 38% increase), 4,876 more than in the previous five years (a 50% increase); and,
- 3,557 more drivers involved in PDO collisions compared to 2011 (a 9% increase), 9,680 more than in the previous five years (a 28% increase).

The increase in the number of drivers involved in collisions in 2012 is attributable to a change in the reporting requirements. As of October 2011, in addition to police-reported accidents, collision claims registered with Manitoba Public Insurance result in a Traffic Accident Report being completed, as long as the accident occurred on a public roadway and it meets the other requirements of being a reportable traffic collision. This affects many PDO and minimal injury collisions that were not captured or reported in the Traffic Accident Database in the past.

**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: 2002 to 2012

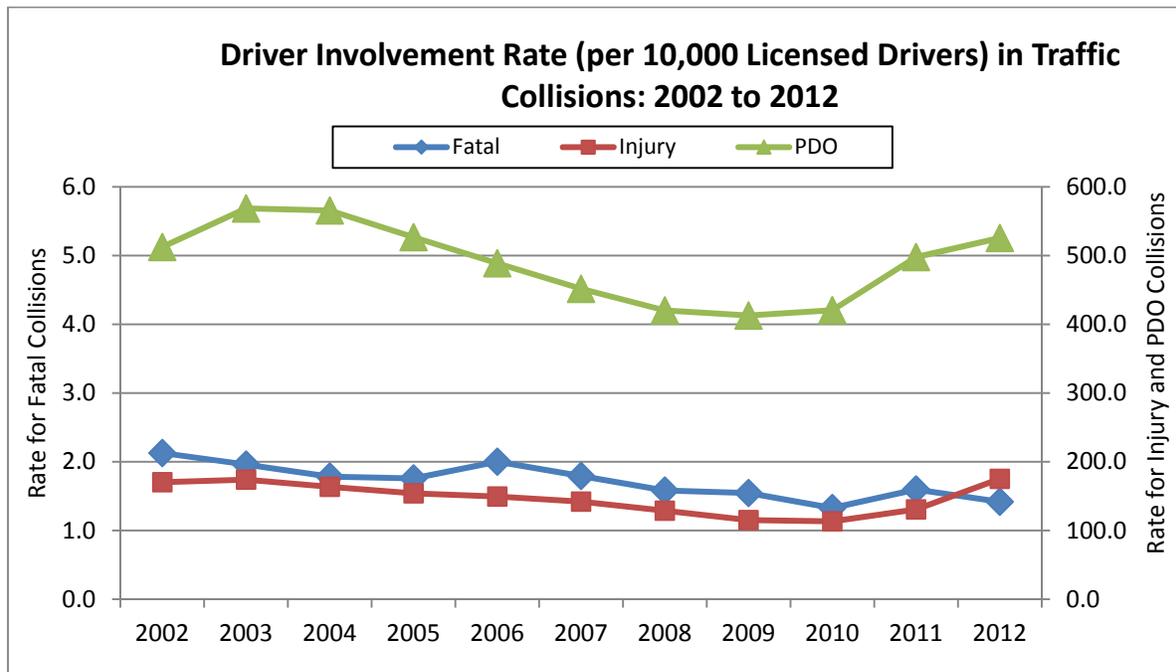
Year	Collision Severity						Total Collisions	% change to previous year
	Fatal	% change to previous year	Injury	% change to previous year	PDO	% change to previous year		
2002	2.1	-	170.2	-	512.5	-	684.9	-
2003	2.0	-7.9%	174.0	2.2%	568.5	10.9%	744.5	8.7%
2004	1.8	-9.0%	163.7	-5.9%	565.6	-0.5%	731.0	-1.8%
2005	1.8	-1.4%	154.2	-5.8%	526.8	-6.9%	682.8	-6.6%
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%
<b>2012</b>	<b>1.4</b>	<b>-11.2%</b>	<b>175.3</b>	<b>34.0%</b>	<b>525.5</b>	<b>5.6%</b>	<b>702.2</b>	<b>11.4%</b>
2007-2011 Average*	1.6	-3.7%	126.1	-2.2%	440.6	0.8%	568.2	0.1%

\* The "% change to previous year" for "2007-2011 Average" is an average rate of change for the time period 2007 to 2011.

The rate of involvement for drivers in traffic collisions in 2012 is 702.2 per 10,000 licensed drivers, an increase of 11% compared to the rate in 2011 (630.2) and an increase of nearly 24% from the previous five year (2007 to 2011) annual average. In 2012, the driver involvement in:

- Fatal collisions (1.4) decreased by 11% from 2011 and by nearly 10% compared to the previous five years;
- Injury collisions (175.3) increased by 34% from 2011 and by 39% compared to the previous five years; and,
- PDO collisions (525.5) increased by 6% from 2011 and by 19% compared to the previous five years.

**Figure 8-1 Driver Involvement Rate (per 10,000 Licensed Drivers) in Traffic Collisions of Different 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 2012, there were slight increases to the previous years, but the rate remained much lower than it was in 2002 and 2003. In 2012, the rate has increased, reaching highs not seen since 2005. The driver involvement rate for fatal and injury collisions had been steadily decreasing between 2002 and 2010 (the exception being a jump in the fatal collision rate in 2006). The driver involvement rate for injury collisions increased in both 2011 and 2012, while the rate for fatal collisions has fluctuated in these two years (increase in 2011, decrease in 2012).

The observed increases in driver involvement rates is due to the change in reporting structure, with more drivers involved in PDO collisions and less severe injury collisions that were not captured in the Traffic Accident Database in the past now being reported.

**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: 2012, 2007-2011 Average

Age Group	2012 Collision Severity						2012 Total Collisions	% of 2012 Total Collisions	2007-2011 Average Count of Drivers				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total Collisions
<16	0	-	5	<0.1%	35	<0.1%	40	<0.1%	2	14	34	50	0.1%
16-19	13	10.9%	1,233	8.4%	4,170	9.5%	5,416	9.2%	12	820	2,925	3,757	10.3%
20-24	18	15.1%	1,897	12.9%	5,988	13.6%	7,903	13.4%	17	1,057	3,403	4,476	12.3%
25-34	30	25.2%	3,115	21.2%	8,941	20.3%	12,086	20.5%	20	1,595	5,008	6,622	18.2%
35-44	17	14.3%	2,762	18.8%	7,636	17.3%	10,415	17.7%	22	1,611	4,905	6,537	17.9%
45-54	16	13.4%	2,669	18.2%	7,750	17.6%	10,435	17.7%	21	1,559	5,293	6,873	18.9%
55-64	13	10.9%	1,788	12.2%	5,414	12.3%	7,215	12.3%	12	986	3,604	4,602	12.6%
65+	12	10.1%	1,225	8.3%	4,093	9.3%	5,330	9.1%	16	697	2,808	3,522	9.7%
Not Stated	0	-	2	-	35	-	37	-	1	1,482	6,402	7,885	-
<b>Total*</b>	<b>119</b>	<b>100%</b>	<b>14,696</b>	<b>100%</b>	<b>44,062</b>	<b>100%</b>	<b>58,877</b>	100%	122	9,820	34,382	44,324	100%

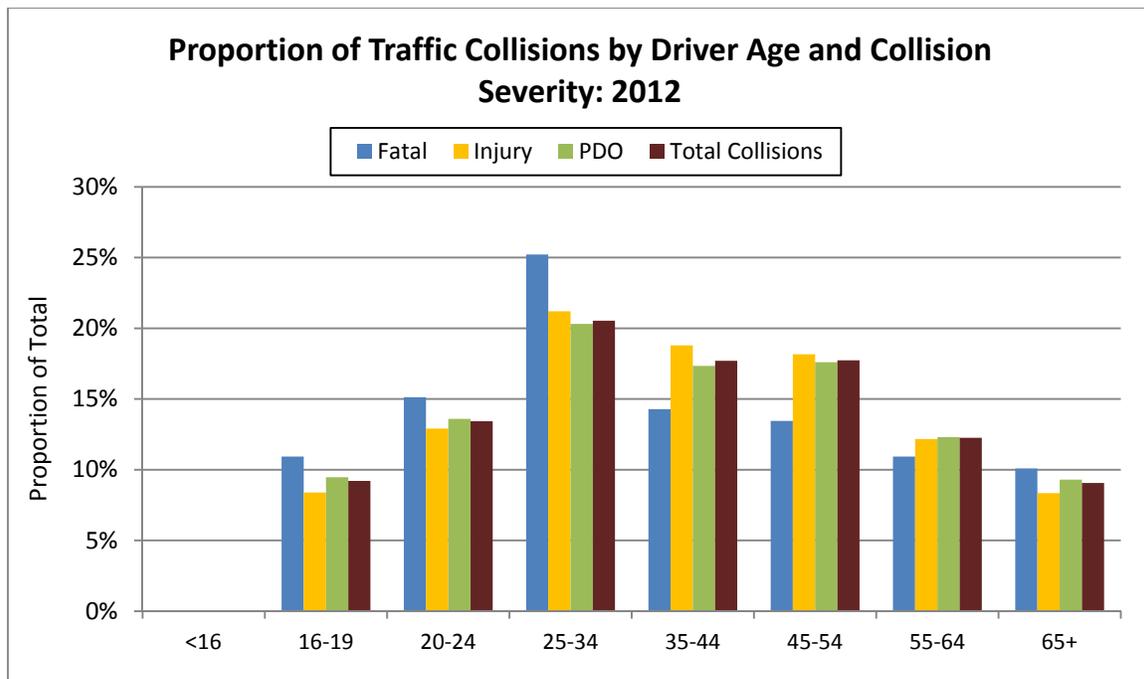
\*Percentage of the total does not include the "not stated" category.

Note: Counts of drivers in the 2007-2011 average may not add to the total due to rounding.

Drivers aged 16 to 24 years old account for the largest proportion of drivers involved in traffic collisions in 2012, followed by drivers aged 25 to 34.

- Total collisions: aged 16 to 24 – nearly 23%; aged 25 to 34 – nearly 21%; aged 35 to 44 – 18%; aged 45 to 54 – 18%; aged 55 to 64 – 12%; aged 65 and older – 9%.
- Fatal collisions: aged 16 to 24 – 26%; aged 25 to 34 – 25%; aged 35 to 44 – 14%; aged 45 to 54 – 13%; aged 55 to 64 – 11%; aged 65 and older – 10%.
- Injury collisions: aged 16 to 24 – 21%; aged 25 to 34 – 21%; aged 35 to 44 – 19%; aged 45 to 54 – 18%; aged 55 to 64 – 12%; aged 65 and older – 8%.
- PDO collisions: aged 16 to 24 – 23%; aged 25 to 34 – 20%; aged 35 to 44 – 17%; aged 45 to 54 – nearly 18%; aged 55 to 64 – 12%; aged 65 and older – 9%.

**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: 2012, 2007-2011 Average

Age Group	2012 Collision Severity			2012 Total Collisions	2007-2011 Average Count of Drivers			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
<16	-	-	-	-	-	-	-	-
16-19	2.6	249.0	842.2	<b>1,093.9</b>	2.6	174.5	622.3	799.4
20-24	2.5	267.1	843.0	<b>1,112.7</b>	2.6	166.2	535.3	704.1
25-34	2.1	221.3	635.2	<b>858.7</b>	1.6	126.1	396.0	523.6
35-44	1.2	196.4	542.9	<b>740.4</b>	1.6	117.3	357.2	476.0
45-54	1.1	164.7	478.4	<b>644.1</b>	1.3	97.5	330.9	429.6
55-64	0.9	131.2	397.1	<b>529.2</b>	1.0	80.0	292.3	373.3
65+	0.9	88.6	296.2	<b>385.7</b>	1.3	57.2	230.4	288.9

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 being involved in collisions instead of simply a raw count of drivers involved. Further, in the absence of the number of kilometres driven, this driver involvement rate acts as a proxy for exposure to collision risk.

Young drivers have a much higher involvement rate in traffic collisions than older drivers. Drivers aged 16 to 19 have the highest rates of involvement in fatal collisions. Drivers aged 20 to 24 are second only to drivers aged 16 to 19 for fatal collisions and have the highest rates of involvement in collisions, injury collisions and PDO collisions. Combined, drivers aged 16 to 24 have a much higher rate of involvement in traffic collisions than older drivers. In 2012, drivers aged 16 to 24 years old have an involvement rate (per 10,000 licensed drivers) in traffic collisions of 1104.9. This is:

- 1.3 times that of drivers aged 25 to 34 (rate of 858.7);
- 1.5 times that of drivers aged 35 to 44 (rate of 740.4);
- 1.7 times that of drivers aged 45 to 54 (rate of 644.1);
- Over twice that of drivers aged 55 to 64 (rate of 529.2); and,
- Nearly three times that of drivers aged 65 and older (rate of 385.7).

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

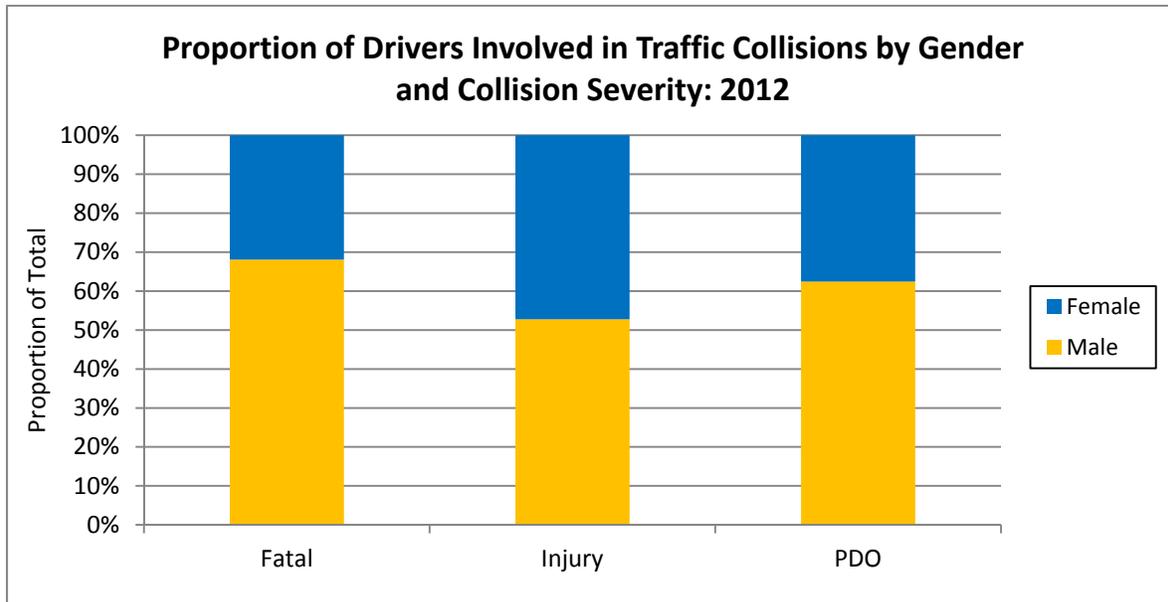
Table 8-5  
Total Drivers Involved in Traffic Collisions by Gender and Age Group and Collision Severity: 2012, 2007-2011 Average

Gender - Age Group		2012 Collision Severity						2012 Total Collisions*	% of 2011 Total Collisions	2007-2011 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	-	3	<0.1%	16	<0.1%	19	<0.1%	<1	4	16	22	0.2%
	16-19	5	13.2%	553	8.0%	1,616	9.8%	2,174	9.2%	4	378	1,116	1,498	10.7%
	20-24	6	15.8%	942	13.6%	2,277	13.8%	3,225	13.7%	4	489	1,299	1,792	12.8%
	25-34	7	18.4%	1,501	21.6%	3,402	20.6%	4,910	20.9%	4	744	1,877	2,624	18.7%
	35-44	7	18.4%	1,351	19.5%	2,998	18.1%	4,356	18.5%	5	726	1,885	2,615	18.6%
	45-54	5	13.2%	1,276	18.4%	2,895	17.5%	4,176	17.8%	5	682	1,916	2,603	18.5%
	55-64	1	2.6%	813	11.7%	1,924	11.6%	2,738	11.6%	2	424	1,255	1,681	12.0%
	65+	7	18.4%	501	7.2%	1,397	8.5%	1,905	8.1%	3	268	937	1,208	8.6%
	Not Stated	0	-	0	-	2	-	2	-	<1	150	599	749	-
	<b>Total Female*</b>	<b>38</b>	<b>100%</b>	<b>6,940</b>	<b>100%</b>	<b>16,527</b>	<b>100%</b>	<b>23,505</b>	100%	27	3,865	10,900	14,792	100%
Male	<16	0	-	2	<0.1%	19	<0.1%	21	<0.1%	<1	7	16	24	0.1%
	16-19	8	9.9%	680	8.8%	2,552	9.3%	3,240	9.2%	9	436	1,779	2,223	10.1%
	20-24	12	14.8%	955	12.3%	3,710	13.5%	4,677	13.2%	13	554	2,057	2,623	11.9%
	25-34	23	28.4%	1,614	20.8%	5,538	20.1%	7,175	20.3%	16	828	3,059	3,903	17.7%
	35-44	10	12.3%	1,411	18.2%	4,638	16.9%	6,059	17.1%	17	872	2,961	3,850	17.5%
	45-54	11	13.6%	1,392	18.0%	4,854	17.7%	6,257	17.7%	16	864	3,320	4,199	19.1%
	55-64	12	14.8%	975	12.6%	3,490	12.7%	4,477	12.7%	10	556	2,319	2,885	13.1%
	65+	5	6.2%	724	9.3%	2,696	9.8%	3,425	9.7%	13	424	1,850	2,287	10.4%
	Not Stated	0	-	0	-	2	-	2	-	<1	257	1,034	1,291	-
	<b>Total Male*</b>	<b>81</b>	<b>100%</b>	<b>7,753</b>	<b>100%</b>	<b>27,499</b>	<b>100%</b>	<b>35,333</b>	100%	94	4,797	18,395	23,286	100%

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

Note: Counts of drivers in the 2007-2011 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 2012 where the driver gender is known, nearly 60% are male and nearly 40% female.

- Fatal collisions: 68% involved male drivers, 32% female drivers.
- Injury collisions: 53% involved male drivers, 47% female drivers.
- PDO collisions: 62% involved male drivers, nearly 38% 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 male drivers account for a larger proportion of collisions than any other group of drivers. In 2012:

- Male drivers aged 16 to 24 account for nearly 14% of total collisions, 17% of fatal collisions, 11% of injury collisions, and 14% of PDO collisions; and,
- Female drivers aged 16 to 24 account for 9% of total collisions, 9% of fatal collisions, 10% of injury collisions and nearly 9% 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: 2012, 2007-2011 Average

Age Group - Gender		2012 Collision Severity						2012 Total Collisions	% of 2012 Total Collisions*	2007-2011 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	-	3	<0.1%	16	<0.1%	19	<0.1%	<1	4	16	22	<0.1%
	Male	0	-	2	<0.1%	19	<0.1%	21	<0.1%	<1	7	16	24	<0.1%
16 to 24	Female	11	9.2%	1,495	10.2%	3,893	8.8%	5,399	9.2%	8	867	2,416	3,290	9.1%
	Male	20	16.8%	1,635	11.1%	6,262	14.2%	7,917	13.5%	21	989	3,836	4,846	13.4%
25 to 34	Female	7	5.9%	1,501	10.2%	3,402	7.7%	4,910	8.3%	4	744	1,877	2,624	7.3%
	Male	23	19.3%	1,614	11.0%	5,538	12.6%	7,175	12.2%	16	828	3,059	3,903	10.8%
35 to 44	Female	7	5.9%	1,351	9.2%	2,998	6.8%	4,356	7.4%	5	726	1,885	2,615	7.3%
	Male	10	8.4%	1,411	9.6%	4,638	10.5%	6,059	10.3%	17	872	2,961	3,850	10.7%
45 to 54	Female	5	4.2%	1,276	8.7%	2,895	6.6%	4,176	7.1%	5	682	1,916	2,603	7.2%
	Male	11	9.2%	1,392	9.5%	4,854	11.0%	6,257	10.6%	16	864	3,320	4,199	11.7%
55 to 64	Female	1	0.8%	813	5.5%	1,924	4.4%	2,738	4.7%	2	424	1,255	1,681	4.7%
	Male	12	10.1%	975	6.6%	3,490	7.9%	4,477	7.6%	10	556	2,319	2,885	8.0%
65 and older	Female	7	5.9%	501	3.4%	1,397	3.2%	1,905	3.2%	3	268	937	1,208	3.4%
	Male	5	4.2%	724	4.9%	2,696	6.1%	3,425	5.8%	13	424	1,850	2,287	6.3%
Not Stated	Female	0	-	0	-	2	-	2	-	<1	150	599	749	-
	Male	0	-	0	-	2	-	2	-	<1	257	1,034	1,291	-
Total	Female	38	31.9%	6,940	47.2%	16,527	37.5%	23,505	39.9%	26	3,865	10,900	14,792	38.9%
	Male	81	68.1%	7,753	52.8%	27,499	62.4%	35,333	60.0%	93	4,797	18,395	23,286	61.0%

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

Note: Counts of drivers in the 2007-2011 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: 2012, 2007-2011 Average

Gender - Age Group		2012 Collision Severity			2012 Total Collisions	2007-2011 Average Count of Drivers			
		Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Female	<16	-	-	-	-	-	-	-	-
	16-19	2.1	229.7	671.3	<b>903.1</b>	1.6	165.5	488.4	655.5
	20-24	1.7	272.9	659.7	<b>934.3</b>	1.3	158.7	421.8	581.8
	25-34	1.0	219.8	498.1	<b>718.9</b>	0.7	120.9	305.0	426.6
	35-44	1.0	198.5	440.5	<b>640.0</b>	0.8	109.1	283.3	393.2
	45-54	0.6	163.7	371.5	<b>535.9</b>	0.6	89.0	249.9	339.5
	55-64	0.2	123.4	292.1	<b>415.6</b>	0.3	71.6	212.0	283.8
	65+	1.1	76.9	214.4	<b>292.4</b>	0.6	47.2	164.8	212.6
	Total	0.9	171.8	409.2	<b>581.9</b>	0.7	103.2	291.1	395.1
Male	<16	-	-	-	-	-	-	-	-
	16-19	3.1	267.3	1,003.2	<b>1,273.7</b>	3.6	180.4	736.8	920.8
	20-24	3.3	261.6	1,016.1	<b>1,281.0</b>	3.8	169.0	627.8	800.6
	25-34	3.2	222.8	764.4	<b>990.3</b>	2.4	127.5	471.1	600.9
	35-44	1.4	194.4	638.9	<b>834.6</b>	2.3	123.1	418.3	543.7
	45-54	1.3	165.6	577.3	<b>744.2</b>	1.9	103.7	398.5	504.1
	55-64	1.7	138.4	495.4	<b>635.5</b>	1.6	86.7	361.9	450.3
	65+	0.7	99.1	369.1	<b>468.9</b>	2.0	65.1	284.2	351.3
	Total	1.9	178.4	632.8	<b>813.1</b>	2.3	118.4	454.1	574.8

Male drivers are much more likely to be involved in a traffic collision than female drivers. The driver involvement rate for men in traffic collisions in 2012 is 813.1, nearly one and a half times that of females (581.9). Involvement rates (per 10,000 licensed drivers) for collisions of differing severity in 2012:

- Fatal collisions: male rate – 1.9, female rate – 0.9.
- Injury collisions: male rate – 178.4, female rate – 171.8.
- PDO collisions: male rate – 632.8, female rate – 409.2.

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 2012, young males, especially those aged 20 to 24, have the highest driver involvement rates of all driver-gender age groups. Young females, both in the 16 to 19 age bracket and the 20 to 24 age bracket, have higher driver involvement rates in total collisions than all male drivers aged 35 and older.

Compared to the previous five year (2007 to 2011) annual average, driver involvement rates for all gender-age groups increased for overall traffic collisions, injury collisions, and PDO collisions in 2012.

Driver involvement rates in fatal collisions show some changes that stand out. Comparing 2012 to the previous five year (2007 to 2011) annual average:

- Female involvement rates in fatal collisions increased by nearly 30% overall, by 32% for drivers aged 16 to 19, by 34% for drivers aged 20 to 24, by 50% for drivers aged 25 to 34, by 37% for drivers aged 35 to 44, by nearly 3% for drivers aged 45 to 54, and by 91% for drivers aged 65 and older;
- The only age group among female drivers to experience a decrease in driver involvement rate in fatal collisions were drivers aged 55 to 64, where it decreased by 44%;
- Male involvement rates in fatal collisions decreased 19% overall, by nearly 12% among those aged 16 to 19, by nearly 15% for those aged 20 to 24, by 41% by those aged 35 to 44, by 31% for those aged 45 to 54, and by 66% for those aged 65 and older.



## 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 and for collision severity, at the victim level and for victims of each casualty type, and at the driver level and for the age of the driver involved in the collision, by collision severity. Driver involvement rates (per 10,000 licensed drivers) in collisions with specific contributing factors are 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.

Due to amendments to the *Highway Traffic Act* that took effect in October 2011, this report uses two sources for Traffic Accident Reports (TARs); TARs completed by a law enforcement agency and TARs completed when a collision claim is registered with Manitoba Public Insurance. This change to the use of two data sources resulted in an increase in collision counts, specifically for collisions resulting in minimal injuries or property damage only.

### Key Highlights

In 2012:

- An at-fault driver action is a contributing factor in 52% of all **collisions** (84% of fatal collisions; nearly 55% of injury collisions; 51% of PDO collisions);
- An at-fault human condition is a contributing factor in nearly 2% of all **collisions** (nearly 51% of fatal collisions; 2% of injury collisions; 1% of PDO collisions); and,
- Environmental conditions are contributing factors in 17% of all **collisions** (9% of fatal collisions; 7% of injury collisions; 20% of PDO collisions).

The most prevalent **contributing factors recorded for collisions** in 2012 include:

- "Following too closely" – nearly 14% of all collisions (three fatal; 21% injury; 11% PDO);
- The actions of a wild animal – 13% of all collisions (one fatal; 3% injury; nearly 16% PDO);
- Distracted driving – 12% of all collisions (39% fatal; 11% injury; 12% PDO);
- "Backing unsafely" – 7% of all collisions (none fatal; 2% injury; 8% PDO);
- Speed – 5% of all collisions (19% fatal; 5% injury; 5% PDO);
- "Turning improperly" – 4% of all collisions (nearly 5% fatal; 4% injury; 4% PDO);
- "Fail to yield right-of-way" – nearly 4% of all collisions (16% fatal; nearly 5% injury; 3% PDO);
- "Changing lanes improperly" – nearly 4% of all collisions (one fatal; nearly 3% injury; 4% PDO);
- "Slippery road surface" – 3% of all collisions (two fatal; 3% injury; 3% PDO); and,
- "Lost control/Drive off the road" – 3% of all collisions (20% fatal; 3% injury; 3% PDO).

Considering the **victims from collisions** in 2012:

- 55% of all victims resulted from a collision where at least one driver is noted as having an at-fault driver action contributing to the collision (83% of people killed; 51% of people seriously injured);
- 3% of all victims resulted from a collision where at least one driver is noted as having an at-fault human condition contributing to the collision (51% of people killed; 14% of people seriously injured); and,
- Nearly 7% of all victims resulted from a collision where environmental conditions are noted as contributing to the collision (10% of people killed; 6% of people seriously injured).

The most prevalent contributing factors recorded for collisions where **people are killed or seriously injured** in 2012 include:

- Distracted driving – nearly 39% of people killed and 13% of people seriously injured;
- Impaired – 33% of people killed and 7% of people seriously injured;
- Speed – 20% of people killed and 10% of people seriously injured;
- "Lost control/Drive off the road" – 19% of people killed and 9% of people seriously injured;
- "Fail to yield right-of-way" – nearly 15% of people killed and nearly 9% of people seriously injured;
- "Take avoiding action" – 8% of people killed and 1% of people seriously injured;
- "Disobey traffic control device/officer" – 7% of people killed and 2% of people seriously injured;
- "Turning improperly" – 4% of people killed and 3% of people seriously injured;
- "Following too closely" – 3% of people killed and 3% of people seriously injured; and,
- "Leave stop sign before safe to do so" – 2% people killed and 4% of people seriously injured.

In 2012, 49% of the **drivers involved in traffic collisions** were recorded as not being at-fault in the collision while nearly 6% did not have any contributing factors identified.

- 30% of the drivers involved in a fatal collision were noted as not being at-fault.
- 58% of the drivers in an injury collision were noted as not being at-fault.
- 46% of the drivers in a PDO collision were noted as not being at-fault.

At-fault driver actions were recorded for nearly 35% of the **drivers involved in traffic collisions** in 2012.

- 63% of the drivers involved in fatal collisions had an at-fault driver action recorded.
- 31% of the drivers involved in injury collisions had an at-fault driver action recorded.
- 36% of the drivers involved in PDO collisions had an at-fault driver action recorded.

At-fault human conditions were recorded as contributing factors for 1% of the **drivers involved in traffic collisions** in 2012.

- 35% of the drivers involved in fatal collisions had an at-fault human condition recorded.
- 1% of the drivers involved in injury collisions had an at-fault human condition recorded.
- 1% of the drivers involved in PDO collisions had an at-fault human condition recorded.

Environmental conditions were recorded as contributing factors for 11% of **drivers involved in traffic collisions** in 2012, including nearly 8% of the drivers involved in fatal collisions (4% injury; 14% PDO).

In 2012, the **driver involvement rate** (per 10,000 licensed drivers) in traffic collisions where:

- Any at-fault driver action is a contributing factor is 243.3, more than double the rate from the previous five years (111.4 annual average in 2007 to 2011);
- Any at-fault human condition is a contributing factor is 7.2, decreased by 67% from the previous five years (21.8 annual average in 2007 to 2011);
- Environmental conditions are a contributing factor is 79.1, decreased by nearly 4% from the previous five years (82.0 annual average in 2007 to 2011);
- Speed is a contributing factor is 22.5, increased by 19% from the previous five years (18.8 annual average in 2007 to 2011);
- Distracted driving is a contributing factor is 56.9, nearly two-and-a-half times the rate from the previous five years (23.6 annual average in 2007 to 2011); and,
- Impaired is a contributing factor is 1.4, decreased by nearly 68% from the previous five years (4.3 annual average in 2007 to 2011).

### Major Elements Examined

Counts of drivers involved in collisions in Manitoba for 2012 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 2012, fewer than 1% of drivers are not identified by age. In the five year (2007 to 2011) annual average, nearly one in five drivers (18%) is 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 2007 to 2011. 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 kilometres 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: 2012

Contributing Factor	2012 Collision Severity						2012 Total Collisions	% of 2012 Total Collisions
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	33	37.1%	6,720	81.2%	18,820	61.5%	<b>25,573</b>	<b>65.6%</b>
Driver Action - Driving properly	4	4.5%	255	3.1%	584	1.9%	<b>843</b>	<b>2.2%</b>
Any At-fault Driver Action	75	84.3%	4,518	54.6%	15,667	51.2%	<b>20,260</b>	<b>52.0%</b>
Follow too closely	3	3.4%	1,765	21.3%	3,479	11.4%	<b>5,247</b>	<b>13.5%</b>
Turning improperly	4	4.5%	329	4.0%	1,194	3.9%	<b>1,527</b>	<b>3.9%</b>
Passing improperly	2	2.2%	30	0.4%	97	0.3%	<b>129</b>	<b>0.3%</b>
Changing lanes improperly	1	1.1%	214	2.6%	1,136	3.7%	<b>1,351</b>	<b>3.5%</b>
Fail to yield right-of-way	14	15.7%	377	4.6%	987	3.2%	<b>1,378</b>	<b>3.5%</b>
Disobey traffic control device/officer	7	7.9%	125	1.5%	225	0.7%	<b>357</b>	<b>0.9%</b>
Drive wrong way on roadway	4	4.5%	4	<0.1%	1	<0.1%	<b>9</b>	<b>&lt;0.1%</b>
Passing a vehicle at pedestrian X-walk	0	-	2	<0.1%	0	-	<b>2</b>	<b>&lt;0.1%</b>
Back unsafely	0	-	169	2.0%	2,465	8.1%	<b>2,634</b>	<b>6.8%</b>
Parking improperly	0	-	6	<0.1%	98	0.3%	<b>104</b>	<b>0.3%</b>
Lost control/Drive off road	18	20.2%	228	2.8%	818	2.7%	<b>1,064</b>	<b>2.7%</b>
Driverless vehicle ran out of control	0	-	2	<0.1%	16	<0.1%	<b>18</b>	<b>&lt;0.1%</b>
Leave stop sign before safe to do so	2	2.2%	141	1.7%	350	1.1%	<b>493</b>	<b>1.3%</b>
Failed to signal	0	-	6	<0.1%	10	<0.1%	<b>16</b>	<b>&lt;0.1%</b>
Take avoiding action	8	9.0%	45	0.5%	303	1.0%	<b>356</b>	<b>0.9%</b>
Driver inexperience	2	2.2%	35	0.4%	124	0.4%	<b>161</b>	<b>0.4%</b>
Pedestrian error/confusion	4	4.5%	17	0.2%	8	<0.1%	<b>29</b>	<b>&lt;0.1%</b>
NET Speed	17	19.1%	393	4.7%	1,481	4.8%	<b>1,891</b>	<b>4.9%</b>
Exceeding speed limit	5	5.6%	1	<0.1%	10	<0.1%	<b>16</b>	<b>&lt;0.1%</b>
Driving too fast for conditions	8	9.0%	372	4.5%	1,433	4.7%	<b>1,813</b>	<b>4.7%</b>
Unsafe operating speed (Too fast or too slow)	4	4.5%	21	0.3%	42	0.1%	<b>67</b>	<b>0.2%</b>
NET Distracted driving	35	39.3%	948	11.4%	3,797	12.4%	<b>4,780</b>	<b>12.3%</b>
Careless Driving	20	22.5%	861	10.4%	3,593	11.7%	<b>4,474</b>	<b>11.5%</b>
Distraction/Inattention	18	20.2%	106	1.3%	248	0.8%	<b>372</b>	<b>1.0%</b>

(continued on next page)

Section 9

Contributing Factors

(continued from previous page)

Contributing Factor	2012 Collision Severity						2012 Total Collisions	% of 2012 Total Collisions
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	14	15.7%	1,742	21.0%	5,227	17.1%	<b>6,983</b>	<b>17.9%</b>
Any At-fault Human Condition	45	50.6%	184	2.2%	378	1.2%	<b>607</b>	<b>1.6%</b>
Loss of consciousness/Blackout prior to collision	3	3.4%	13	0.2%	17	<0.1%	<b>33</b>	<b>&lt;0.1%</b>
Extreme fatigue/Fell asleep	2	2.2%	21	0.3%	40	0.1%	<b>63</b>	<b>0.2%</b>
Defective eyesight	0	-	4	<0.1%	8	<0.1%	<b>12</b>	<b>&lt;0.1%</b>
Defective hearing	0	-	0	-	1	<0.1%	<b>1</b>	<b>&lt;0.1%</b>
Medical disability	1	1.1%	2	<0.1%	3	<0.1%	<b>6</b>	<b>&lt;0.1%</b>
Physical disability	0	-	0	-	1	<0.1%	<b>1</b>	<b>&lt;0.1%</b>
Mental disability	0	-	2	<0.1%	0	-	<b>2</b>	<b>&lt;0.1%</b>
Mental confusion/Inability to remember	0	-	4	<0.1%	9	<0.1%	<b>13</b>	<b>&lt;0.1%</b>
Sudden illness	1	1.1%	4	<0.1%	5	<0.1%	<b>10</b>	<b>&lt;0.1%</b>
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	<b>0</b>	<b>-</b>
NET Impaired	28	31.5%	36	0.4%	59	0.2%	<b>123</b>	<b>0.3%</b>
Ability impaired alcohol	21	23.6%	27	0.3%	49	0.2%	<b>97</b>	<b>0.2%</b>
Ability impaired drugs	0	-	1	<0.1%	0	-	<b>1</b>	<b>&lt;0.1%</b>
Had been drinking/Suspected alcohol use	7	7.9%	11	0.1%	12	<0.1%	<b>30</b>	<b>&lt;0.1%</b>
No Apparent (Vehicle) Defect	47	52.8%	6,974	84.2%	19,315	63.1%	<b>26,336</b>	<b>67.6%</b>
Any At-fault Vehicle Defect	2	2.2%	11	0.1%	150	0.5%	<b>163</b>	<b>0.4%</b>
Defective brakes	0	-	5	<0.1%	12	<0.1%	<b>17</b>	<b>&lt;0.1%</b>
Defective steering	0	-	0	-	3	<0.1%	<b>3</b>	<b>&lt;0.1%</b>
Defective headlights	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Defective brake lights	0	-	1	<0.1%	0	-	<b>1</b>	<b>&lt;0.1%</b>
Defective lighting (unspecified)	0	-	0	-	0	-	<b>0</b>	<b>-</b>
Defective engine controls/drive train	0	-	0	-	6	<0.1%	<b>6</b>	<b>&lt;0.1%</b>
Defective suspension/wheels	0	-	0	-	25	<0.1%	<b>25</b>	<b>&lt;0.1%</b>
Defective tires	1	1.1%	1	<0.1%	25	<0.1%	<b>27</b>	<b>&lt;0.1%</b>
Tow hitch/yoke defective	0	-	1	<0.1%	13	<0.1%	<b>14</b>	<b>&lt;0.1%</b>
Defective exhaust system	1	1.1%	0	-	0	-	<b>1</b>	<b>&lt;0.1%</b>
Hood/tailgate/door/covering opened	0	-	0	-	4	<0.1%	<b>4</b>	<b>&lt;0.1%</b>
Defective glazing (obscured windows)	0	-	1	<0.1%	2	<0.1%	<b>3</b>	<b>&lt;0.1%</b>
Vehicle modifications	0	-	0	-	2	<0.1%	<b>2</b>	<b>&lt;0.1%</b>
Fire	0	-	0	-	2	<0.1%	<b>2</b>	<b>&lt;0.1%</b>
Overloaded/oversized	0	-	0	-	2	<0.1%	<b>2</b>	<b>&lt;0.1%</b>
Load shifted/spilled	0	-	1	<0.1%	14	<0.1%	<b>15</b>	<b>&lt;0.1%</b>

(continued on next page)

Section 9

Contributing Factors

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Contributing Factor	2012 Collision Severity						2012 Total Collisions	% of 2012 Total Collisions
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Jack-knife/trailer swing	0	-	0	-	39	0.1%	39	0.1%
Hydroplaning tires	0	-	1	<0.1%	3	<0.1%	4	<0.1%
Any At-fault Environmental Condition	8	9.0%	562	6.8%	6,061	19.8%	6,631	17.0%
Animal action - Wild	1	1.1%	229	2.8%	4,737	15.5%	4,967	12.7%
Animal action - Domestic	0	-	1	<0.1%	40	0.1%	41	0.1%
Slippery road surface	2	2.2%	227	2.7%	922	3.0%	1,151	3.0%
Snow drift	0	-	1	<0.1%	14	<0.1%	15	<0.1%
Obstruction/debris on roadway	0	-	7	<0.1%	109	0.4%	116	0.3%
View obstructed/limited	0	-	19	0.2%	47	0.2%	66	0.2%
Glare/reflection	0	-	12	0.1%	14	<0.1%	26	<0.1%
Construction zone	0	-	5	<0.1%	22	<0.1%	27	<0.1%
Defective driving surface	0	-	7	<0.1%	38	0.1%	45	0.1%
Shoulders defective	0	-	1	<0.1%	3	<0.1%	4	<0.1%
Lane markings inadequate	0	-	1	<0.1%	5	<0.1%	6	<0.1%
Defective/inoperative traffic control device	0	-	1	<0.1%	5	<0.1%	6	<0.1%
Weather	5	5.6%	46	0.6%	107	0.3%	158	0.4%
Pedestrian corridor in use	0	-	11	0.1%	5	<0.1%	16	<0.1%
Uninvolved vehicle	0	-	3	<0.1%	11	<0.1%	14	<0.1%
Uninvolved pedestrian	0	-	4	<0.1%	4	<0.1%	8	<0.1%
Presence of prior accident	0	-	0	-	4	<0.1%	4	<0.1%
No Contributing Factor(s) Identified	3	3.4%	1,200	14.5%	2,304	7.5%	3,507	9.0%
Not Applicable/Not Stated	0	-	0	-	0	-	0	-
<b>Total</b>	<b>89</b>	<b>100%</b>	<b>8,280</b>	<b>100%</b>	<b>30,603</b>	<b>100%</b>	<b>38,972</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: 2007-2011 Average

Contributing Factor	2007-2011 Average Count				
	Fatal	Injury	PDO	Total Collisions	% of Total Collisions
Driver Action - Driving Properly and Human Condition - Apparently Normal	30	3,051	10,013	13,093	45.3%
Driver Action - Driving properly	5	439	1,727	2,171	7.5%
Any At-fault Driver Action	62	2,185	6,398	8,645	29.9%
Following too closely	1	385	1,129	1,514	5.2%
Turning improperly	2	148	495	645	2.2%
Passing improperly	2	24	101	127	0.4%
Changing lanes improperly	0	55	400	456	1.6%
Fail to yield right-of-way	5	332	894	1,231	4.3%
Disobey traffic control device/officer	4	182	336	522	1.8%
Drive wrong way on roadway	1	12	22	36	0.1%
Passing a vehicle at pedestrian X-walk	0	1	1	2	<0.1%
Back unsafely	0	31	696	727	2.5%
Parking improperly	0	5	56	61	0.2%
Lost control/Drive off road	18	303	497	817	2.8%
Driverless vehicle ran out of control	0	1	10	11	<0.1%
Leave stop sign before safe to do so	3	113	204	321	1.1%
Failed to signal	0	3	15	17	<0.1%
Take avoiding action	2	88	288	378	1.3%
Driver inexperience	3	99	258	360	1.2%
Pedestrian error/confusion	3	78	9	91	0.3%
NET Speed	23	423	1,014	1,460	5.0%
Exceeding speed limit	8	41	62	111	0.4%
Driving too fast for conditions	10	303	874	1,186	4.1%
Unsafe operating speed (Too fast or too slow)	6	88	95	189	0.7%
NET Distracted driving	22	545	1,305	1,872	6.5%
Careless Driving	15	228	509	752	2.6%
Distraction/Inattention	8	347	842	1,197	4.1%
Human Condition - Apparently Normal	15	1,378	4,820	6,213	21.5%
Any At-fault Human Condition	40	575	1,142	1,757	6.1%
Loss of consciousness/Blackout prior to collision	2	26	15	43	0.1%
Extreme fatigue/Fell asleep	1	43	56	100	0.3%
Defective eyesight	1	4	9	13	<0.1%
Defective hearing	0	2	2	4	<0.1%
Medical disability	0	9	9	18	<0.1%
Physical disability	0	5	10	16	<0.1%
Mental disability	1	5	3	9	<0.1%
Mental confusion/Inability to remember	0	11	14	25	<0.1%
Sudden illness	1	5	6	12	<0.1%
Exceed hours of service (commercial drivers only)	0	0	0	1	<0.1%
NET Impaired	27	142	197	366	1.3%
Ability impaired alcohol	15	92	127	234	0.8%
Ability impaired drugs	2	5	8	14	<0.1%
Had been drinking/Suspected alcohol use	12	54	71	136	0.5%
No Apparent (Vehicle) Defect	47	3,499	11,330	14,876	51.4%
Any At-fault Vehicle Defect	2	58	171	231	0.8%
Defective brakes	0	16	36	52	0.2%
Defective steering	0	4	11	15	<0.1%
Defective headlights	0	2	3	5	<0.1%
Defective brake lights	0	0	3	3	<0.1%

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## Section 9

## Contributing Factors

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Contributing Factor	2007-2011 Average Count				
	Fatal	Injury	PDO	Total Collisions	% of Total Collisions
Defective engine controls/drive train	0	5	15	20	<0.1%
Defective lighting (unspecified)	0	2	4	6	<0.1%
Defective suspension/wheels	0	3	13	16	<0.1%
Defective tires	1	11	30	41	0.1%
Tow hitch/yoke defective	0	2	8	11	<0.1%
Defective exhaust system	0	1	1	2	<0.1%
Hood/tailgate/door/covering opened	0	3	7	11	<0.1%
Defective glazing (obscured windows)	0	2	3	5	<0.1%
Vehicle modifications	0	1	8	9	<0.1%
Fire	0	0	0	0	<0.1%
Overloaded/oversized	0	1	4	5	<0.1%
Load shifted/spilled	0	2	13	16	<0.1%
Jack-knife/trailer swing	0	1	10	11	<0.1%
Hydroplaning tires	0	3	4	7	<0.1%
Any At-fault Environmental Condition	12	793	5,409	6,213	21.5%
Animal action - Wild	0	210	3,173	3,384	11.7%
Animal action - Domestic	1	23	146	170	0.6%
Slippery road surface	6	340	1,430	1,776	6.1%
Snow drift	0	23	124	147	0.5%
Obstruction/debris on roadway	0	16	101	118	0.4%
View obstructed/limited	2	54	196	252	0.9%
Glare/reflection	1	21	48	69	0.2%
Construction zone	0	7	28	36	0.1%
Defective driving surface	0	43	110	152	0.5%
Shoulders defective	0	6	16	21	<0.1%
Lane markings inadequate	0	2	5	7	<0.1%
Defective/inoperative traffic control device	0	3	9	12	<0.1%
Weather	2	64	189	255	0.9%
Pedestrian corridor in use	0	13	4	17	<0.1%
Uninvolved vehicle	0	17	52	69	0.2%
Uninvolved pedestrian	0	6	9	15	<0.1%
Presence of prior accident	0	8	14	23	<0.1%
No Contributing Factor(s) Identified	20	2,438	8,993	11,451	39.6%
Not Applicable/Not Stated	0	29	89	118	0.4%
Total	87	5,896	22,944	28,928	100%

Note: Counts of collisions in the 2007-2011 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 2012, 68% of **all collisions** have at least one driver noted as having an at-fault contributing factor<sup>3</sup>. Most fatal collisions (92%) have at least one driver with an at-fault contributing factor while 60% of injury collisions do. In the previous five year (2007 to 2011) annual average, nearly 51% of all collisions have at least one driver noted as having an at-fault contributing factor, including 86% of fatal collisions and 50% of injury collisions.

In 2012:

- 52% of all collisions have at least one driver noted as having an at-fault driver action (84% of fatal collisions; nearly 55% of injury collisions; 51% of PDO collisions);
- Nearly 2% of all collisions have at least one driver noted as having an at-fault human condition (nearly 51% of fatal collisions; 2% of injury collisions; 1% of PDO collisions);
- 17% of all collisions have some environmental condition noted as contributing to the collision (9% of fatal collisions; 7% of injury collisions; 20% of PDO collisions); and,
- About half a percent of all collisions have some vehicle defect noted as contributing to the collision, including two fatal collisions.

In the five year (2007 to 2011) annual average:

- 30% of all collisions have at least one driver noted as having an at-fault driver action (71% of fatal collisions; 37% of injury collisions; 28% of PDO collisions);
- 6% of all collisions have at least one driver noted as having an at-fault human condition (45% of fatal collisions; 10% of injury collisions; 5% of PDO collisions);
- Nearly 22% of all collisions have an environmental condition noted as contributing to the collision (14% of fatal collisions; 13% of injury collisions; nearly 24% of PDO collisions); and,
- 1% of collisions have a vehicle defect noted as contributing to the collision.

The most prevalent **contributing factors recorded for collisions** in 2012 include:

- “Following too closely” – nearly 14% of all collisions (three fatal; 21% injury; 11% PDO);
- The actions of a wild animal – 13% of all collisions (one fatal; 3% injury; nearly 16% PDO);
- Distracted driving – 12% of all collisions (39% fatal; 11% injury; 12% PDO);
- “Backing unsafely” – 7% of all collisions (none fatal; 2% injury; 8% PDO);
- Speed – 5% of all collisions (19% fatal; 5% injury; 5% PDO);
- “Turning improperly” – 4% of all collisions (nearly 5% fatal; 4% injury; 4% PDO);
- “Fail to yield right-of-way” – nearly 4% of all collisions (16% fatal; nearly 5% injury; 3% PDO);
- “Changing lanes improperly” – nearly 4% of all collisions (one fatal; nearly 3% injury; 4% PDO);
- “Slippery road surface” – 3% of all collisions (two fatal; 3% injury; 3% PDO); and,
- “Lost control/Drive off the road” – 3% of all collisions (20% fatal; 3% injury; 3% PDO).

NOTE: For a detailed count of contributing factors recorded for collisions occurring in each year from 2007 to 2012, please refer to “*Table 9-6 Historical Summary of Contributing Factors to a Collision*” at the end of this section.

<sup>3</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: 2012

Contributing Factor	2012 Casualty Type								2012 Total Casualties	% of 2012 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	37	38.5%	201	59.3%	8,440	82.8%	8,641	82.1%	<b>8,678</b>	<b>81.7%</b>
Driver Action - Driving properly	4	4.2%	9	2.7%	335	3.3%	344	3.3%	<b>348</b>	<b>3.3%</b>
Any At-fault Driver Action	80	83.3%	172	50.7%	5,614	55.1%	5,786	55.0%	<b>5,866</b>	<b>55.2%</b>
Following too closely	3	3.1%	11	3.2%	2,177	21.4%	2,188	20.8%	<b>2,191</b>	<b>20.6%</b>
Turning improperly	4	4.2%	11	3.2%	419	4.1%	430	4.1%	<b>434</b>	<b>4.1%</b>
Passing improperly	2	2.1%	3	0.9%	48	0.5%	51	0.5%	<b>53</b>	<b>0.5%</b>
Changing lanes improperly	1	1.0%	5	1.5%	264	2.6%	269	2.6%	<b>270</b>	<b>2.5%</b>
Fail to yield right-of-way	14	14.6%	29	8.6%	507	5.0%	536	5.1%	<b>550</b>	<b>5.2%</b>
Disobey traffic control device/officer	7	7.3%	8	2.4%	179	1.8%	187	1.8%	<b>194</b>	<b>1.8%</b>
Drive wrong way on roadway	7	7.3%	2	0.6%	8	<0.1%	10	<0.1%	<b>17</b>	<b>0.2%</b>
Passing a vehicle at pedestrian X-walk	0	-	1	0.3%	1	<0.1%	2	<0.1%	<b>2</b>	<b>&lt;0.1%</b>
Back unsafely	0	-	0	-	184	1.8%	184	1.7%	<b>184</b>	<b>1.7%</b>
Parking improperly	0	-	1	0.3%	7	<0.1%	8	<0.1%	<b>8</b>	<b>&lt;0.1%</b>
Lost control/Drive off road	18	18.8%	32	9.4%	274	2.7%	306	2.9%	<b>324</b>	<b>3.0%</b>
Driverless vehicle ran out of control	0	-	0	-	2	<0.1%	2	<0.1%	<b>2</b>	<b>&lt;0.1%</b>
Leave stop sign before safe to do so	2	2.1%	13	3.8%	187	1.8%	200	1.9%	<b>202</b>	<b>1.9%</b>
Failed to signal	0	-	0	-	7	<0.1%	7	<0.1%	<b>7</b>	<b>&lt;0.1%</b>
Take avoiding action	8	8.3%	3	0.9%	56	0.5%	59	0.6%	<b>67</b>	<b>0.6%</b>
Driver inexperience	2	2.1%	4	1.2%	50	0.5%	54	0.5%	<b>56</b>	<b>0.5%</b>
Pedestrian error/confusion	4	4.2%	2	0.6%	19	0.2%	21	0.2%	<b>25</b>	<b>0.2%</b>
NET Speed	19	19.8%	35	10.3%	489	4.8%	524	5.0%	<b>543</b>	<b>5.1%</b>
Exceeding speed limit	5	5.2%	3	0.9%	7	<0.1%	10	<0.1%	<b>15</b>	<b>0.1%</b>
Driving too fast for conditions	10	10.4%	23	6.8%	459	4.5%	482	4.6%	<b>492</b>	<b>4.6%</b>
Unsafe operating speed (Too fast or too slow)	4	4.2%	10	2.9%	23	0.2%	33	0.3%	<b>37</b>	<b>0.3%</b>
NET Distracted driving	37	38.5%	45	13.3%	1,167	11.5%	1,212	11.5%	<b>1,249</b>	<b>11.8%</b>
Careless Driving	20	20.8%	34	10.0%	1,057	10.4%	1,091	10.4%	<b>1,111</b>	<b>10.5%</b>
Distraction/Inattention	20	20.8%	14	4.1%	130	1.3%	144	1.4%	<b>164</b>	<b>1.5%</b>

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## Section 9

## Contributing Factors

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Contributing Factor	2012 Casualty Type								2012 Total Casualties	% of 2012 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	15	15.6%	62	18.3%	2,187	21.5%	2,249	21.4%	2,264	21.3%
Any At-fault Human Condition	49	51.0%	47	13.9%	219	2.1%	266	2.5%	315	3.0%
Loss of consciousness/Blackout prior to collision	5	5.2%	4	1.2%	11	0.1%	15	0.1%	20	0.2%
Extreme fatigue/Fell asleep	2	2.1%	5	1.5%	19	0.2%	24	0.2%	26	0.2%
Defective eyesight	0	-	1	0.3%	4	<0.1%	5	<0.1%	5	<0.1%
Defective hearing	0	-	0	-	0	-	0	-	0	-
Medical disability	1	1.0%	0	-	4	<0.1%	4	<0.1%	5	<0.1%
Physical disability	0	-	0	-	0	-	0	-	0	-
Mental disability	0	-	1	0.3%	2	<0.1%	3	<0.1%	3	<0.1%
Mental confusion/Inability to remember	0	-	1	0.3%	6	<0.1%	7	<0.1%	7	<0.1%
Sudden illness	1	1.0%	1	0.3%	3	<0.1%	4	<0.1%	5	<0.1%
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-	0	-
NET Impaired	32	33.3%	23	6.8%	51	0.5%	74	0.7%	106	1.0%
Ability impaired alcohol	23	24.0%	19	5.6%	34	0.3%	53	0.5%	76	0.7%
Ability impaired drugs	0	-	0	-	1	<0.1%	1	<0.1%	1	<0.1%
Had been drinking/Suspected alcohol use	9	9.4%	4	1.2%	21	0.2%	25	0.2%	34	0.3%
No Apparent (Vehicle) Defect	51	53.1%	230	67.8%	8,728	85.7%	8,958	85.1%	9,009	84.8%
Any At-fault Vehicle Defect	4	4.2%	2	0.6%	17	0.2%	19	0.2%	23	0.2%
Defective brakes	0	-	0	-	9	<0.1%	9	<0.1%	9	<0.1%
Defective steering	0	-	0	-	0	-	0	-	0	-
Defective headlights	0	-	0	-	0	-	0	-	0	-
Defective brake lights	0	-	1	0.3%	2	<0.1%	3	<0.1%	3	<0.1%
Defective lighting (unspecified)	0	-	0	-	0	-	0	-	0	-
Defective engine controls/drive train	0	-	0	-	0	-	0	-	0	-
Defective suspension/wheels	0	-	0	-	0	-	0	-	0	-
Defective tires	1	1.0%	0	-	2	<0.1%	2	<0.1%	3	<0.1%
Tow hitch/yoke defective	0	-	0	-	1	<0.1%	1	<0.1%	1	<0.1%
Defective exhaust system	3	3.1%	0	-	0	-	0	-	3	<0.1%
Hood/tailgate/door/covering opened	0	-	0	-	0	-	0	-	0	-
Defective glazing (obscured windows)	0	-	0	-	2	<0.1%	2	<0.1%	2	<0.1%
Vehicle modifications	0	-	0	-	0	-	0	-	0	-
Fire	0	-	0	-	0	-	0	-	0	-
Overloaded/oversized	0	-	0	-	0	-	0	-	0	-

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Section 9

Contributing Factors

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Contributing Factor	2012 Casualty Type								2012 Total Casualties	% of 2012 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	-	1	0.3%	0	-	1	<0.1%	1	<0.1%
Jack-knife/trailer swing	0	-	0	-	0	-	0	-	0	-
Hydroplaning tires	0	-	0	-	1	<0.1%	1	<0.1%	1	<0.1%
Any At-fault Environmental Condition	10	10.4%	20	5.9%	683	6.7%	703	6.7%	713	6.7%
Animal action - Wild	1	1.0%	2	0.6%	271	2.7%	273	2.6%	274	2.6%
Animal action - Domestic	0	-	0	-	1	<0.1%	1	<0.1%	1	<0.1%
Slippery road surface	2	2.1%	9	2.7%	279	2.7%	288	2.7%	290	2.7%
Snow drift	0	-	0	-	1	<0.1%	1	<0.1%	1	<0.1%
Obstruction/debris on roadway	0	-	0	-	10	<0.1%	10	<0.1%	10	<0.1%
View obstructed/limited	0	-	1	0.3%	21	0.2%	22	0.2%	22	0.2%
Glare/reflection	0	-	1	0.3%	16	0.2%	17	0.2%	17	0.2%
Construction zone	0	-	0	-	9	<0.1%	9	<0.1%	9	<0.1%
Defective driving surface	0	-	4	1.2%	12	0.1%	16	0.2%	16	0.2%
Shoulders defective	0	-	0	-	1	<0.1%	1	<0.1%	1	<0.1%
Lane markings inadequate	0	-	0	-	1	<0.1%	1	<0.1%	1	<0.1%
Defective/inoperative traffic control device	0	-	0	-	1	<0.1%	1	<0.1%	1	<0.1%
Weather	7	7.3%	3	0.9%	59	0.6%	62	0.6%	69	0.6%
Pedestrian corridor in use	0	-	1	0.3%	10	<0.1%	11	0.1%	11	0.1%
Uninvolved vehicle	0	-	0	-	3	<0.1%	3	<0.1%	3	<0.1%
Uninvolved pedestrian	0	-	0	-	5	<0.1%	5	<0.1%	5	<0.1%
Presence of prior accident	0	-	0	-	0	-	0	-	0	-
No Contributing Factor(s) Identified	3	3.1%	87	25.7%	1,515	14.9%	1,602	15.2%	1,605	15.1%
Not Applicable/Not Stated	0	-	0	-	0	-	0	-	0	-
<b>Total</b>	<b>96</b>	<b>100%</b>	<b>339</b>	<b>100.0%</b>	<b>10,188</b>	<b>100.0%</b>	<b>10,527</b>	<b>100.0%</b>	<b>10,623</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: 2007-2011 Average

Contributing Factor	2007-2011 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	34	137	3,960	4,097	4,131	52.5%
Driver Action - Driving properly	6	27	564	591	597	7.6%
Any At-fault Driver Action	69	202	2,860	3,062	3,131	39.8%
Following too closely	1	5	496	501	502	6.4%
Turning improperly	2	9	200	209	210	2.7%
Passing improperly	2	3	32	35	37	0.5%
Changing lanes improperly	0	3	70	73	73	0.9%
Fail to yield right-of-way	5	27	436	463	469	6.0%
Disobey traffic control device/officer	5	18	266	284	289	3.7%
Drive wrong way on roadway	1	3	17	20	22	0.3%
Passing a vehicle at pedestrian X-walk	0	0	2	2	2	<0.1%
Back unsafely	0	2	33	34	34	0.4%
Parking improperly	0	1	6	6	6	<0.1%
Lost control/Drive off road	19	52	386	438	457	5.8%
Driverless vehicle ran out of control	0	0	1	1	1	<0.1%
Leave stop sign before safe to do so	3	13	164	178	181	2.3%
Failed to signal	0	0	3	3	3	<0.1%
Take avoiding action	3	10	109	120	122	1.6%
Driver inexperience	3	15	139	155	158	2.0%
Pedestrian error/confusion	3	10	73	83	86	1.1%
NET Speed	26	58	562	621	647	8.2%
Exceeding speed limit	9	16	55	71	80	1.0%
Driving too fast for conditions	11	30	403	433	444	5.6%
Unsafe operating speed (Too fast or too slow)	7	16	117	133	140	1.8%
NET Distracted driving	25	61	732	1,872	1,897	24.1%
Careless Driving	18	36	313	752	770	9.8%
Distraction/Inattention	8	29	462	1,197	1,205	15.3%
Human Condition - Apparently Normal	17	77	1,806	1,883	1,900	24.2%
Any At-fault Human Condition	44	92	753	845	889	11.3%
Loss of consciousness/Blackout prior to collision	2	5	26	32	34	0.4%
Extreme fatigue/Fell asleep	2	11	47	58	60	0.8%
Defective eyesight	1	1	5	6	7	<0.1%
Defective hearing	0	0	2	2	2	<0.1%
Medical disability	0	3	9	12	12	0.1%
Physical disability	0	0	7	7	8	<0.1%
Mental disability	1	1	6	7	8	<0.1%
Mental confusion/Inability to remember	0	2	11	13	13	0.2%
Sudden illness	1	2	6	7	8	0.1%
Exceed hours of service (commercial drivers only)	0	0	0	0	0	<0.1%
NET Impaired	30	46	198	245	275	3.5%
Ability impaired alcohol	17	29	130	159	175	2.2%
Ability impaired drugs	2	2	7	9	11	0.1%
Had been drinking/Suspected alcohol use	14	18	73	92	106	1.3%
No Apparent (Vehicle) Defect	54	188	4,503	4,691	4,744	60.3%
Any At-fault Vehicle Defect	3	7	73	81	84	1.1%
Defective brakes	0	1	20	21	21	0.3%
Defective steering	0	1	5	5	5	<0.1%

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## Section 9

## Contributing Factors

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Contributing Factor	2007-2011 Average Count of Casualties					
	Killed	Serious Injury	Other Injuries	Total Injuries	Total Casualties	% of Total Casualties
Defective headlights	1	1	4	5	5	<0.1%
Defective brake lights	0	0	1	1	1	<0.1%
Defective lighting (unspecified)	0	1	1	2	3	<0.1%
Defective engine controls/drive train	0	1	7	7	7	<0.1%
Defective suspension/wheels	0	0	4	4	4	<0.1%
Defective tires	1	3	14	16	17	0.2%
Tow hitch/yoke defective	0	0	3	3	3	<0.1%
Defective exhaust system	0	1	1	2	2	<0.1%
Hood/tailgate/door/covering opened	0	0	4	4	4	<0.1%
Defective glazing (obscured windows)	0	0	2	2	2	<0.1%
Vehicle modifications	0	0	1	1	1	<0.1%
Fire	0	0	0	0	0	-
Overloaded/oversized	0	0	1	1	1	<0.1%
Load shifted/spilled	0	0	3	3	3	<0.1%
Jack-knife/trailer swing	0	0	2	2	2	<0.1%
Hydroplaning tires	0	0	4	4	4	<0.1%
Any At-fault Environmental Condition	14	70	1,015	1,085	1,099	14.0%
Animal action - Wild	0	15	248	264	264	3.4%
Animal action - Domestic	1	3	25	28	29	0.4%
Slippery road surface	7	25	457	481	489	6.2%
Snow drift	0	2	31	33	33	0.4%
Obstruction/debris on roadway	0	2	24	26	26	0.3%
View obstructed/limited	2	8	74	82	84	1.1%
Glare/reflection	1	2	25	27	28	0.4%
Construction zone	0	1	11	12	12	0.2%
Defective driving surface	0	6	50	56	56	0.7%
Shoulders defective	0	0	6	6	6	<0.1%
Lane markings inadequate	0	0	3	3	3	<0.1%
Defective/inoperative traffic control device	0	0	5	6	6	<0.1%
Weather	2	8	91	99	102	1.3%
Pedestrian corridor in use	0	1	15	16	16	0.2%
Uninvolved vehicle	0	1	25	26	26	0.3%
Uninvolved pedestrian	0	0	8	8	8	0.1%
Presence of prior accident	0	1	14	15	15	0.2%
No Contributing Factor(s) Identified	21	93	2,940	3,033	3,055	38.8%
Not Applicable/Not Stated	0	2	36	37	37	0.5%
Total	97	371	7,397	7,768	7,865	100%

Note: Counts of victims in the 2007-2011 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 2012, at-fault contributing factors are recorded for drivers involved in collisions for 61% of all **casualties**. At-fault contributing factors are recorded for:

- 93% of people killed;
- 60% of people seriously injured; and,
- Nearly 61% of victims with other injuries (including minor, minimal and undefined injuries).

In 2012, at-fault driver actions are recorded for 55% of **all victims** (83% of people killed and 51% of people seriously injured) while at-fault human conditions are recorded for 3% of all victims (51% of people killed and 14% of people seriously injured). Environmental conditions are recorded as a contributing factor for nearly 7% of all victims (10% of people killed and 6% of people seriously injured).

In the previous five year (2007 to 2011) annual average, at-fault driver actions are recorded for 40% of all victims (71% of all people killed and nearly 55% of people seriously injured) – at-fault human conditions are recorded for nearly 11% of all victims (45% of all people killed and 25% of people seriously injured). Environmental conditions are recorded as a contributing factor for 14% of all victims, including for 14% of people killed and 19% of people seriously injured.

The most prevalent contributing factors recorded for collisions where **people are killed or seriously injured** in 2012 include:

- Distracted driving – nearly 39% of people killed and 13% of people seriously injured;
- Impaired – 33% of people killed and 7% of people seriously injured;
- Speed – 20% of people killed and 10% of people seriously injured;
- “Lost control/Drive off the road” – 19% of people killed and 9% of people seriously injured;
- “Fail to yield right-of-way” – nearly 15% of people killed and nearly 9% of people seriously injured;
- “Take avoiding action” – 8% of people killed and 1% of people seriously injured;
- “Disobey traffic control device/officer” – 7% of people killed and 2% of people seriously injured;
- “Turning improperly” – 4% of people killed and 3% of people seriously injured;
- “Following too closely” – 3% of people killed and 3% of people seriously injured; and,
- “Leave stop sign before safe to do so” – 2% people killed and 4% of people seriously injured.

NOTE: For a detailed count of contributing factors recorded for collisions occurring in each year from 2007 to 2012, 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: 2012

Contributing Factor	2012 Collision Severity						2012 Total Drivers	% of 2012 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	34	28.6%	8,136	55.4%	20,840	47.3%	<b>29,010</b>	<b>49.3%</b>
Driver Action - Driving properly	3	2.5%	253	1.7%	587	1.3%	<b>843</b>	<b>1.4%</b>
Any At-fault Driver Action	75	63.0%	4,554	31.0%	15,768	35.8%	<b>20,397</b>	<b>34.6%</b>
Following too closely	3	2.5%	1,771	12.1%	3,495	7.9%	<b>5,269</b>	<b>8.9%</b>
Turning improperly	4	3.4%	329	2.2%	1,195	2.7%	<b>1,528</b>	<b>2.6%</b>
Passing improperly	2	1.7%	29	0.2%	98	0.2%	<b>129</b>	<b>0.2%</b>
Changing lanes improperly	1	0.8%	215	1.5%	1,147	2.6%	<b>1,363</b>	<b>2.3%</b>
Fail to yield right-of-way	9	7.6%	373	2.5%	988	2.2%	<b>1,370</b>	<b>2.3%</b>
Disobey traffic control device/officer	2	1.7%	128	0.9%	226	0.5%	<b>356</b>	<b>0.6%</b>
Drive wrong way on roadway	4	3.4%	4	<0.1%	1	<0.1%	<b>9</b>	<b>&lt;0.1%</b>
Passing a vehicle at pedestrian X-walk	0	-	2	<0.1%	0	-	<b>2</b>	<b>&lt;0.1%</b>
Back unsafely	0	-	182	1.2%	2,483	5.6%	<b>2,665</b>	<b>4.5%</b>
Parking improperly	0	-	6	<0.1%	95	0.2%	<b>101</b>	<b>0.2%</b>
Lost control/Drive off road	18	15.1%	227	1.5%	817	1.9%	<b>1,062</b>	<b>1.8%</b>
Driverless vehicle ran out of control	0	-	2	<0.1%	14	<0.1%	<b>16</b>	<b>&lt;0.1%</b>
Leave stop sign before safe to do so	2	1.7%	141	1.0%	352	0.8%	<b>495</b>	<b>0.8%</b>
Failed to signal	0	-	6	<0.1%	10	<0.1%	<b>16</b>	<b>&lt;0.1%</b>
Take avoiding action	5	4.2%	45	0.3%	303	0.7%	<b>353</b>	<b>0.6%</b>
Driver inexperience	2	1.7%	35	0.2%	124	0.3%	<b>161</b>	<b>0.3%</b>
Pedestrian error/confusion	4	3.4%	14	<0.1%	8	<0.1%	<b>26</b>	<b>&lt;0.1%</b>
NET Speed	17	14.3%	393	2.7%	1,480	3.4%	<b>1,890</b>	<b>3.2%</b>
Exceeding speed limit	5	4.2%	1	<0.1%	10	<0.1%	<b>16</b>	<b>&lt;0.1%</b>
Driving too fast for conditions	9	7.6%	372	2.5%	1,432	3.2%	<b>1,813</b>	<b>3.1%</b>
Unsafe operating speed (Too fast or too slow)	3	2.5%	21	0.1%	42	<0.1%	<b>66</b>	<b>0.1%</b>
NET Distracted driving	36	30.3%	944	6.4%	3,787	8.6%	<b>4,767</b>	<b>8.1%</b>
Careless Driving	20	16.8%	857	5.8%	3,584	8.1%	<b>4,461</b>	<b>7.6%</b>
Distraction/Inattention	19	16.0%	106	0.7%	247	0.6%	<b>372</b>	<b>0.6%</b>

(continued on next page)

Section 9

Contributing Factors

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Contributing Factor	2012 Collision Severity						2012 Total Drivers	% of 2012 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	10	8.4%	1,739	11.8%	5,288	12.0%	7,037	12.0%
Any At-fault Human Condition	42	35.3%	184	1.3%	376	0.9%	602	1.0%
Loss of consciousness/Blackout prior to collision	3	2.5%	13	<0.1%	17	<0.1%	33	<0.1%
Extreme fatigue/Fell asleep	2	1.7%	21	0.1%	40	<0.1%	63	0.1%
Defective eyesight	0	-	4	<0.1%	8	<0.1%	12	<0.1%
Defective hearing	0	-	0	-	1	<0.1%	1	<0.1%
Medical disability	1	0.8%	2	<0.1%	3	<0.1%	6	<0.1%
Physical disability	0	-	0	-	1	<0.1%	1	<0.1%
Mental disability	0	-	2	<0.1%	0	-	2	<0.1%
Mental confusion/Inability to remember	0	-	4	<0.1%	9	<0.1%	13	<0.1%
Sudden illness	1	0.8%	4	<0.1%	5	<0.1%	10	<0.1%
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-
NET Impaired	24	20.2%	36	0.2%	58	0.1%	118	0.2%
Ability impaired alcohol	18	15.1%	27	0.2%	48	0.1%	93	0.2%
Ability impaired drugs	0	-	1	<0.1%	0	-	1	<0.1%
Had been drinking/Suspected alcohol use	6	5.0%	11	<0.1%	12	<0.1%	29	<0.1%
No Apparent (Vehicle) Defect	48	40.3%	9,645	65.6%	23,965	54.4%	33,658	57.2%
Any At-fault Vehicle Defect	2	1.7%	11	<0.1%	150	0.3%	163	0.3%
Defective brakes	0	-	5	<0.1%	12	<0.1%	17	<0.1%
Defective steering	0	-	0	-	3	<0.1%	3	<0.1%
Defective headlights	0	-	0	-	0	-	0	-
Defective brake lights	0	-	1	<0.1%	0	-	1	<0.1%
Defective lighting (unspecified)	0	-	0	-	0	-	0	-
Defective engine controls/drive train	0	-	0	-	6	<0.1%	6	<0.1%
Defective suspension/wheels	0	-	0	-	25	<0.1%	25	<0.1%
Defective tires	1	0.8%	1	<0.1%	25	<0.1%	27	<0.1%
Tow hitch/yoke defective	0	-	1	<0.1%	13	<0.1%	14	<0.1%
Defective exhaust system	1	0.8%	0	-	0	-	1	<0.1%
Hood/taillgate/door/covering opened	0	-	0	-	4	<0.1%	4	<0.1%
Defective glazing (obscured windows)	0	-	1	<0.1%	2	<0.1%	3	<0.1%
Vehicle modifications	0	-	0	-	2	<0.1%	2	<0.1%
Fire	0	-	0	-	2	<0.1%	2	<0.1%
Overloaded/oversized	0	-	0	-	2	<0.1%	2	<0.1%

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Section 9

Contributing Factors

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Contributing Factor	2012 Collision Severity						2012 Total Drivers	% of 2012 Total Drivers
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Jack-knife/trailer swing	0	-	0	-	39	<0.1%	39	<0.1%
Load shifted/spilled	0	-	1	-	14	<0.1%	2	<0.1%
Hydroplaning tires	0	-	1	<0.1%	3	<0.1%	4	<0.1%
Any At-fault Environmental Condition	9	7.6%	559	3.8%	6,062	13.8%	6,630	11.3%
Animal action - Wild	1	0.8%	229	1.6%	4,739	10.8%	4,969	8.4%
Animal action - Domestic	0	-	1	<0.1%	40	<0.1%	41	<0.1%
Slippery road surface	2	1.7%	228	1.6%	922	2.1%	1,152	2.0%
Snow drift	0	-	1	<0.1%	14	<0.1%	15	<0.1%
Obstruction/debris on roadway	0	-	7	<0.1%	109	0.2%	116	0.2%
View obstructed/limited	0	-	18	0.1%	47	0.1%	65	0.1%
Glare/reflection	0	-	12	<0.1%	14	<0.1%	26	<0.1%
Construction zone	0	-	5	<0.1%	22	<0.1%	27	<0.1%
Defective driving surface	0	-	7	<0.1%	38	<0.1%	45	<0.1%
Shoulders defective	0	-	1	<0.1%	3	<0.1%	4	<0.1%
Lane markings inadequate	0	-	1	<0.1%	5	<0.1%	6	<0.1%
Defective/inoperative traffic control device	0	-	1	<0.1%	5	<0.1%	6	<0.1%
Weather	6	5.0%	46	0.3%	107	0.2%	159	0.3%
Pedestrian corridor in use	0	-	10	<0.1%	4	<0.1%	14	<0.1%
Uninvolved vehicle	0	-	2	<0.1%	11	<0.1%	13	<0.1%
Uninvolved pedestrian	0	-	3	<0.1%	4	<0.1%	7	<0.1%
Presence of prior accident	0	-	0	-	4	<0.1%	4	<0.1%
No Contributing Factor(s) Identified	1	0.8%	1,103	7.5%	2,200	5.0%	3,304	5.6%
Not Applicable/Not Stated	0	-	0	-	0	-	0	-
<b>Total</b>	<b>119</b>	<b>100%</b>	<b>14,696</b>	<b>100.0%</b>	<b>44,062</b>	<b>100.0%</b>	<b>58,877</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: 2007-2011 Average

Contributing Factor	2007-2011 Average Count of Drivers				
	Fatal	Injury	PDO	Total Drivers	% of Total Drivers
Driver Action - Driving Properly and Human Condition - Apparently Normal	31	3,409	10,471	13,910	31.4%
Driver Action - Driving properly	5	448	1,671	2,124	4.8%
Any At-fault Driver Action	59	2,132	6,491	8,682	19.6%
Following too closely	1	393	1,144	1,537	3.5%
Turning improperly	1	146	496	643	1.5%
Passing improperly	2	24	101	127	0.3%
Changing lanes improperly	0	54	400	455	1.0%
Fail to yield right-of-way	5	321	896	1,221	2.8%
Disobey traffic control device/officer	4	175	336	515	1.2%
Drive wrong way on roadway	1	8	21	30	<0.1%
Passing a vehicle at pedestrian X-walk	0	1	1	2	<0.1%
Back unsafely	0	31	689	720	1.6%
Parking improperly	0	3	44	47	0.1%
Lost control/Drive off road	17	301	495	814	1.8%
Driverless vehicle run out of control	0	1	6	7	<0.1%
Leave stop sign before safe to do so	3	112	206	321	0.7%
Failed to signal	0	3	15	17	<0.1%
Take avoiding action	2	89	293	385	0.9%
Driver inexperience	3	95	256	354	0.8%
Pedestrian error/confusion	1	14	8	24	<0.1%
NET Speed	22	425	1,022	1,469	3.3%
Exceeding speed limit	8	40	62	110	0.2%
Driving too fast for conditions	10	306	881	1,197	2.7%
Unsafe operating speed (Too fast or too slow)	6	86	95	187	0.4%
NET Distracted driving	20	512	1,307	1,839	13.8%
Careless Driving	14	221	507	742	5.6%
Distraction/Inattention	7	319	846	1,172	8.8%
Human Condition - Apparently Normal	15	1,419	5,206	6,640	15.0%
Any At-fault Human Condition	35	523	1,144	1,702	3.8%
Loss of consciousness/Blackout prior to collision	2	25	15	42	<0.1%
Extreme fatigue/Fell asleep	1	43	56	100	0.2%
Defective eyesight	0	3	9	13	<0.1%
Defective hearing	0	1	2	3	<0.1%
Medical disability	0	9	9	18	<0.1%
Physical disability	0	4	10	15	<0.1%
Mental disability	0	2	3	6	<0.1%
Mental confusion/Inability to remember	0	10	14	25	<0.1%
Sudden illness	1	5	6	12	<0.1%
Exceed hours of service (commercial drivers only)	0	0	0	1	<0.1%
NET Impaired	24	122	193	339	0.8%
Ability impaired alcohol	14	79	125	218	0.5%
Ability impaired drugs	2	4	7	13	<0.1%
Had been drinking/Suspected alcohol use	10	46	69	125	0.3%
No Apparent (Vehicle) Defect	56	4,634	13,729	18,419	41.6%
Any At-fault Vehicle Defect	2	55	165	221	0.5%
Defective brakes	0	14	35	49	0.1%
Defective steering	0	4	11	15	<0.1%
Defective headlights	0	2	3	5	<0.1%

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## Section 9

## Contributing Factors

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Contributing Factor	2007-2011 Average Count of Drivers				
	Fatal	Injury	PDO	Total Drivers	% of Total Drivers
Defective brake lights	0	0	3	3	<0.1%
Defective lighting (unspecified)	0	1	3	4	<0.1%
Defective engine controls/drive train	0	5	13	18	<0.1%
Defective suspension/wheels	0	3	13	16	<0.1%
Defective tires	1	10	30	41	<0.1%
Tow hitch/yoke defective	0	2	8	11	<0.1%
Defective exhaust system	0	1	1	2	<0.1%
Hood/tailgate/door/covering opened	0	3	7	10	<0.1%
Defective glazing (obscured windows)	0	2	3	5	<0.1%
Vehicle modifications	0	0	8	8	<0.1%
Fire	0	0	0	0	<0.1%
Overloaded/oversized	0	1	3	4	<0.1%
Load shifted/spilled	0	2	13	15	<0.1%
Jack-knife/trailer swing	0	1	10	11	<0.1%
Hydroplaning tires	0	3	4	7	<0.1%
Any At-fault Environmental Condition	13	835	5,546	6,394	14.4%
Animal action - Wild	0	211	3,175	3,386	7.6%
Animal action - Domestic	1	23	147	171	14.4%
Slippery road surface	7	369	1,521	1,897	4.3%
Snow drift	0	24	129	153	0.3%
Obstruction/debris on roadway	0	17	104	121	0.3%
View obstructed/limited	2	58	206	266	0.6%
Glare/reflection	1	21	48	69	0.2%
Construction zone	0	8	31	39	<0.1%
Defective driving surface	0	42	109	151	0.3%
Shoulders defective	0	6	15	21	<0.1%
Lane markings inadequate	0	2	6	8	<0.1%
Defective/inoperative traffic control device	0	4	10	14	<0.1%
Weather	2	71	199	272	0.6%
Pedestrian corridor in use	0	10	4	15	<0.1%
Uninvolved vehicle	0	18	56	74	0.2%
Uninvolved pedestrian	0	6	10	16	<0.1%
Presence of prior accident	0	9	18	27	<0.1%
No Contributing Factor(s) Identified	14	2,846	10,503	13,363	30.1%
Not Applicable/Not Stated	0	0	1	1	<0.1%
Total	122	9,820	34,382	44,324	100%

Note: Counts of drivers in the 2007-2011 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 2012, half of the **drivers involved in traffic collisions** (49%) are recorded as not being at-fault in the collision. Virtually all of these drivers (49% overall) are noted in the traffic accident report (TAR) as both “driving properly” and being “apparently normal” at the time of a collision. Another 1% of drivers are noted as “driving properly” while 12% are noted as being in “apparently normal” human condition. Nearly 6% of drivers have no contributing factors recorded for the collision.

- 30% of the drivers involved in a fatal collision are noted as not being at-fault.
- 58% of the drivers in an injury collision are noted as not being at-fault.
- 46% of the drivers in a PDO collision are noted as not being at-fault.

At-fault driver actions are recorded for nearly 35% of the **drivers involved in traffic collisions** in 2012. This is an increase from the previous five year (2007 to 2011) annual average, where nearly 20% of drivers are recorded as being at-fault in the collision. In 2012:

- 63% of the drivers involved in **fatal collisions** have an at-fault driver action recorded, including:
  - 30% who are driving while distracted (including “careless driving” and “distraction/inattention”);
  - 15% who “lost control/ drive off road”;
  - 14% who are speeding (including “exceeding speed limit”, “driving too fast for conditions” and “unsafe operating speed”); and,
  - Nearly 8% who “fail to yield right-of-way”;
- 31% of the drivers involved in **injury collisions** have an at-fault driver action recorded, including:
  - 12% who are “following too closely”;
  - 6% who are driving while distracted;
  - 3% who are speeding; and,
  - Nearly 3% who “fail to yield right-of-way”;
- 36% of the drivers involved in **PDO collisions** have an at-fault driver action recorded.

At-fault human conditions are recorded for 1% of the **drivers involved in traffic collisions** in 2012, a decrease from the previous five year (2007 to 2011) annual average (4%). In 2012:

- 35% of the **drivers involved in fatal collisions** have an at-fault human condition recorded, including 20% 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 an at-fault human condition recorded, including 0.2% who are impaired.

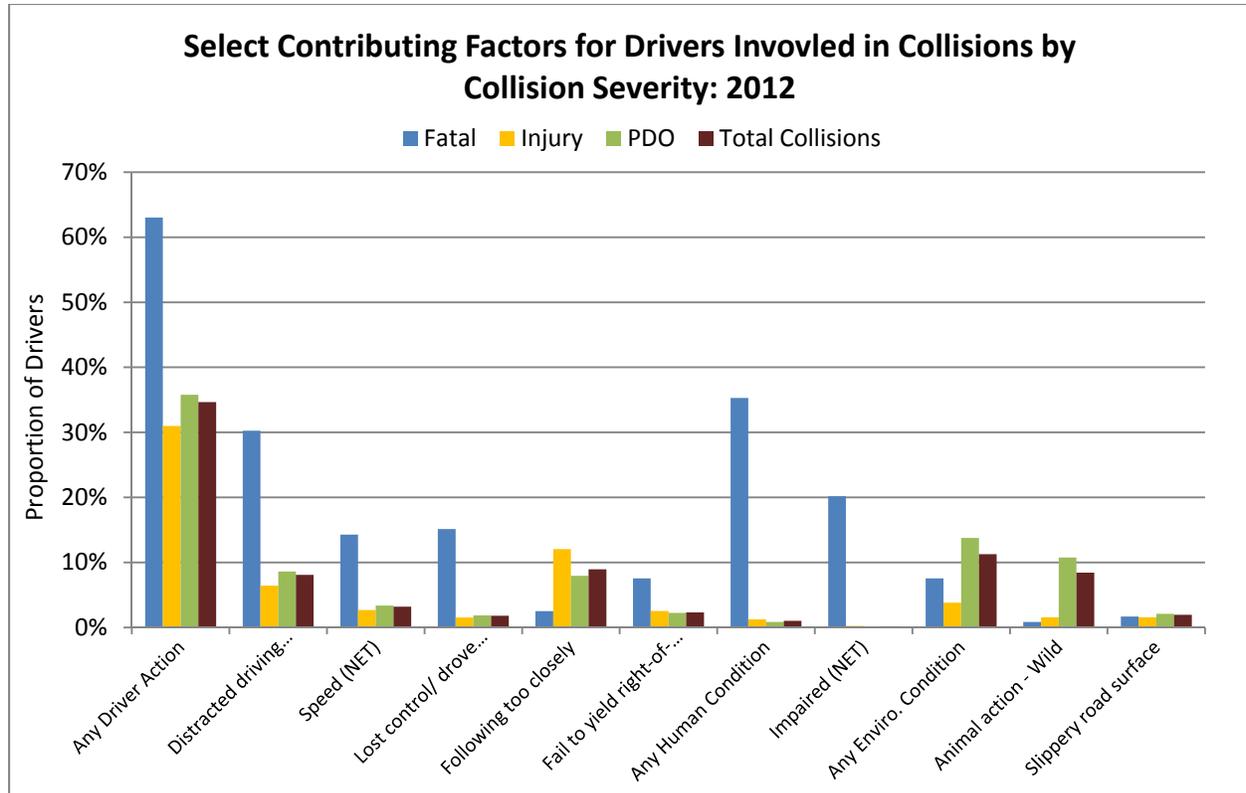
A vehicle defect is recorded for 0.3% of drivers involved in traffic collisions in 2012 (0.5% in the previous five years, 2007 to 2011, annual average).

Environmental conditions are recorded as contributing factors for 11% of **drivers involved in traffic collisions** (nearly 8% of fatal collisions, 4% of injury collisions and 14% of PDO collisions) in 2012 and 14% of the drivers involved in collisions in the previous five year (2007 to 2011) annual average. In 2012:

- 8% of collisions have “animal action – wild” recorded as a contributing factor (1% fatal; nearly 2% injury);
- 2% of collisions have “slippery road surface” recorded as a contributing factor (2% fatal; nearly 2% injury); and,
- 0.3% of collisions have “weather” recorded as a contributing factor (5% fatal).

NOTE: For a detailed count of contributing factors recorded for drivers involved in collisions occurring in each year from 2007 to 2012, 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 2012, driver actions and human conditions are most often recorded for fatal traffic collisions, with the most frequent of these being distracted driving, impaired driving, losing control of the vehicle, and speeding. Driver actions and environmental conditions (including 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: 2012, 2007-2011 Average

Contributing Factor	2012 Collision Severity			2012 Total	2007-2011 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Any At-fault Driver Action	0.9	54.3	188.1	<b>243.3</b>	0.8	27.3	83.3	111.4
Following too closely	<0.1	21.1	41.7	<b>62.8</b>	<0.1	5.0	14.7	19.7
Turning improperly	<0.1	3.9	14.3	<b>18.2</b>	<0.1	1.9	6.4	8.2
Passing improperly	<0.1	0.3	1.2	<b>1.5</b>	<0.1	0.3	1.3	1.6
Changing lanes improperly	<0.1	2.6	13.7	<b>16.3</b>	<0.1	0.7	5.1	5.8
Fail to yield right-of-way	0.1	4.4	11.8	<b>16.3</b>	<0.1	4.1	11.5	15.7
Disobey traffic control device/officer	<0.1	1.5	2.7	<b>4.2</b>	<0.1	2.2	4.3	6.6
Drive wrong way on roadway	<0.1	<0.1	<0.1	<b>0.1</b>	<0.1	0.1	0.3	0.4
Passing a vehicle at pedestrian X-walk	-	<0.1	-	<b>&lt;0.1</b>	<0.1	<0.1	<0.1	<0.1
Back unsafely	-	2.2	29.6	<b>31.8</b>	-	0.4	8.8	9.2
Parking improperly	-	<0.1	1.1	<b>1.2</b>	<0.1	<0.1	0.6	0.6
Lost control/Drive off road	0.2	2.7	9.7	<b>12.7</b>	0.2	3.9	6.4	10.4
Driverless vehicle ran out of control	-	<0.1	0.2	<b>0.2</b>	-	<0.1	<0.1	<0.1
Leave stop sign before safe to do so	<0.1	1.7	4.2	<b>5.9</b>	<0.1	1.4	2.6	4.1
Failed to signal	-	<0.1	0.1	<b>0.2</b>	-	<0.1	0.2	0.2
Take avoiding action	<0.1	0.5	3.6	<b>4.2</b>	<0.1	1.1	3.8	4.9
Driver inexperience	<0.1	0.4	1.5	<b>1.9</b>	<0.1	1.2	3.3	4.5
Pedestrian error/confusion	<0.1	0.2	<0.1	<b>0.3</b>	<0.1	0.2	0.1	0.3
NET Speed	0.2	4.7	17.7	<b>22.5</b>	0.3	5.4	13.1	18.8
Exceeding speed limit	<0.1	<0.1	0.1	<b>0.2</b>	0.1	0.5	0.8	1.4
Driving too fast for conditions	0.1	4.4	17.1	<b>21.6</b>	0.1	3.9	11.3	15.4
Unsafe operating speed (Too fast or too slow)	<0.1	0.3	0.5	<b>0.8</b>	<0.1	1.1	1.2	2.4
NET Distracted driving	0.4	11.3	45.2	<b>56.9</b>	0.3	6.6	16.8	23.6
Careless Driving	0.2	10.2	42.7	<b>53.2</b>	0.2	2.8	6.5	9.5
Distraction/Inattention	0.2	1.3	2.9	<b>4.4</b>	<0.1	4.1	10.9	15.0
Any At-fault Human Condition	0.5	2.2	4.5	<b>7.2</b>	0.4	6.7	14.7	21.8
Loss of consciousness/Blackout prior to collision	<0.1	0.2	0.2	<b>0.4</b>	<0.1	0.3	0.2	0.5
Extreme fatigue/Fell asleep	<0.1	0.3	0.5	<b>0.8</b>	<0.1	0.5	0.7	1.3
Defective eyesight	-	<0.1	<0.1	<b>0.1</b>	<0.1	<0.1	0.1	0.2

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Section 9

Contributing Factors

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Contributing Factor	2012 Collision Severity			2012 Total	2007-2011 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Defective hearing	-	-	<0.1	<b>&lt;0.1</b>	<0.1	<0.1	<0.1	<0.1
Medical disability	<0.1	<0.1	<0.1	<b>&lt;0.1</b>	-	0.1	0.1	0.2
Physical disability	-	-	<0.1	<b>&lt;0.1</b>	<0.1	<0.1	0.1	0.2
Mental disability	-	<0.1	-	<b>&lt;0.1</b>	<0.1	<0.1	<0.1	<0.1
Mental confusion/Inability to remember	-	<0.1	0.1	<b>0.2</b>	<0.1	0.1	0.2	0.3
Sudden illness	<0.1	<0.1	<0.1	<b>0.1</b>	<0.1	<0.1	<0.1	0.2
Exceed hours of service (commercial drivers only)	-	-	-	-	-	<0.1	<0.1	<0.1
NET Impaired	0.3	0.4	0.7	<b>1.4</b>	0.3	1.6	2.5	4.3
Ability impaired alcohol	0.2	0.3	0.6	<b>1.1</b>	0.2	1.0	1.6	2.8
Ability impaired drugs	-	<0.1	-	<b>&lt;0.1</b>	<0.1	<0.1	<0.1	0.2
Had been drinking/Suspected alcohol use	<0.1	0.1	0.1	<b>0.3</b>	0.1	0.6	0.9	1.6
Any At-fault Vehicle Defect	<0.1	0.1	1.8	<b>1.9</b>	<0.1	0.7	2.1	2.8
Defective brakes	-	<0.1	0.1	<b>0.2</b>	-	0.2	0.4	0.6
Defective steering	-	-	<0.1	<b>&lt;0.1</b>	-	<0.1	0.1	0.2
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
Defective engine controls/drive train	-	-	<0.1	<b>&lt;0.1</b>	-	<0.1	0.2	0.2
Defective suspension/wheels	-	-	0.3	<b>0.3</b>	-	<0.1	0.2	0.2
Defective tires	<0.1	<0.1	0.3	<b>0.3</b>	<0.1	0.1	0.4	0.5
Tow hitch/yoke defective	-	<0.1	0.2	<b>0.2</b>	-	<0.1	0.1	0.1
Defective exhaust system	<0.1	-	-	<b>&lt;0.1</b>	<0.1	<0.1	<0.1	<0.1
Hood/tailgate/door/covering opened	-	-	<0.1	<b>&lt;0.1</b>	-	<0.1	<0.1	0.1
Defective glazing (obscured windows)	-	<0.1	<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	0.1
Fire	-	-	<0.1	<b>&lt;0.1</b>	-	-	<0.1	<0.1
Overloaded/oversized	-	-	<0.1	<b>&lt;0.1</b>	<0.1	<0.1	<0.1	<0.1
Load shifted/spilled	-	<0.1	0.2	<b>&lt;0.1</b>	-	<0.1	0.2	0.2
Jack-knife/trailer swing	-	-	0.5	<b>0.5</b>	-	<0.1	0.1	0.1
Hydroplaning tires	-	<0.1	<0.1	<b>&lt;0.1</b>	-	<0.1	<0.1	<0.1
Any At-fault Environmental Condition	0.1	6.7	72.3	<b>79.1</b>	0.2	10.7	71.1	82.0
Animal action - Wild	<0.1	2.7	56.5	<b>59.3</b>	<0.1	2.7	40.7	43.4
Animal action - Domestic	-	<0.1	0.5	<b>0.5</b>	<0.1	0.3	1.9	2.2
Slippery road surface	<0.1	2.7	11.0	<b>13.7</b>	<0.1	4.7	19.5	24.3

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## Section 9

## Contributing Factors

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Contributing Factor	2012 Collision Severity			2012 Total	2007-2011 Average			
	Fatal	Injury	PDO		Fatal	Injury	PDO	Total
Snow drift	-	<0.1	0.2	<b>0.2</b>	-	0.3	1.7	2.0
Obstruction/debris on roadway	-	<0.1	1.3	<b>1.4</b>	<0.1	0.2	1.3	1.6
View obstructed/limited	-	0.2	0.6	<b>0.8</b>	<0.1	0.7	2.6	3.4
Glare/reflection	-	0.1	0.2	<b>0.3</b>	<0.1	0.3	0.6	0.9
Construction zone	-	<0.1	0.3	<b>0.3</b>	-	0.1	0.4	0.5
Defective driving surface	-	<0.1	0.5	<b>0.5</b>	<0.1	0.5	1.4	1.9
Shoulders defective	-	<0.1	<0.1	<b>&lt;0.1</b>	-	<0.1	0.2	0.3
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>&lt;0.1</b>	-	<0.1	0.1	0.2
Weather	<0.1	0.5	1.3	<b>1.9</b>	<0.1	0.9	2.6	3.5
Pedestrian corridor in use	-	0.1	<0.1	<b>0.2</b>	-	0.1	<0.1	0.2
Uninvolved vehicle	-	<0.1	0.1	<b>0.2</b>	<0.1	0.2	0.7	1.0
Uninvolved pedestrian	-	<0.1	<0.1	<b>&lt;0.1</b>	-	<0.1	0.1	0.2
Presence of prior accident	-	-	<0.1	<b>&lt;0.1</b>	-	0.1	0.2	0.3

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 2012 compared to the previous five years (2007 to 2011) annual average. The observed changes in involvement rates is at least partially attributable to the change in reporting structure, with more drivers involved in PDO collisions and less severe injury collisions that were not captured in the Traffic Accident Database in the past now being reported.

In 2012, the **driver involvement rate** (per 10,000 licensed drivers) in traffic collisions where:

- Any at-fault driver action is a contributing factor is 243.3, more than double the rate from the previous five years (111.4);
- Any at-fault human condition is a contributing factor is 7.2, decreased by 67% from the previous five years (21.8);
- Environmental conditions are a contributing factor is 79.1, decreased by nearly 4% from the previous five years (82.0);
- "Following too closely" is a contributing factor is 62.8, more than triple the rate from the previous five years (19.7);
- "Animal action - wild" is a contributing factor is 59.3, increased by 36% from the previous five years (43.4);
- Distracted driving is a contributing factor is 56.9, nearly two-and-a-half times the rate from the previous five years (23.6);
- "Backing unsafely" is a contributing factor is 31.8, nearly three-and-a-half times the rate from the previous five years (9.2);
- Speed is a contributing factor is 22.5, increased by nearly 20% from the previous five years (18.8);
- "Turning improperly" is a contributing factor is 18.2, more than double the rate from the previous five years (8.2);
- "Fail to yield right-of-way" is a contributing factor is 16.3, increased by 4% from the previous five years (15.7);
- "Changing lanes improperly" is a contributing factor is 16.3, nearly triple the rate from the previous five years (5.8);
- "Slippery road surface" is a contributing factor is 13.7, decreased by nearly 44% from the previous five years (24.3);
- "Lost control/Drove off road" is a contributing factor is 12.7, increased by 21% from the previous five years (10.4); and,
- Impaired is a contributing factor is 1.4, decreased by nearly 68% from the previous five years (4.3).

In 2012, the **driver involvement rate** (per 10,000 licensed drivers) in **fatal traffic collisions** where:

- An at-fault driver action is a contributing factor is 0.9, increased slightly compared to the previous five years (0.8);
- Distracted driving is a contributing factor is 0.4, increased slightly compared to the previous five years;
- Speed is a contributing factor is 0.2, down from 0.3 in the previous five years;
- "Lost control/Drove off road" is a contributing factor is 0.2, equal to the previous five years;
- An at-fault human condition is a contributing factor is 0.5, up slightly from 0.4 in the previous five years; and,
- Impaired is a contributing factor is 0.3, equal to 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: 2012

Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Any At-fault Driver Action	453.2	438.1	299.5	236.7	198.8	163.9	147.0
Following too closely	127.4	128.8	89.1	64.1	47.2	33.9	24.7
Turning improperly	30.9	30.6	20.7	16.1	14.4	13.9	15.6
Passing improperly	2.0	3.0	2.1	1.1	1.4	1.3	0.9
Changing lanes improperly	25.4	24.6	17.4	14.3	13.6	14.7	14.0
Fail to yield right-of-way	25.4	22.1	19.4	16.8	12.7	12.6	14.5
Disobey traffic control device/officer	6.5	5.9	5.9	4.0	2.9	3.3	3.6
Drive wrong way on roadway	0.2	0.1	0.1	<0.1	<0.1	<0.1	0.1
Passing a vehicle at pedestrian X-walk	-	-	-	-	<0.1	-	<0.1
Back unsafely	35.3	36.6	31.3	34.9	34.8	28.4	25.0
Parking improperly	1.6	1.8	1.3	1.6	1.0	0.7	0.9
Lost control/Drive off road	38.6	26.3	17.5	11.2	9.9	4.8	3.9
Driverless vehicle ran out of control	0.2	0.1	0.4	-	0.2	0.2	<0.1
Leave stop sign before safe to do so	9.7	9.6	5.8	5.8	4.9	4.4	5.4
Failed to signal	0.4	0.1	0.2	0.4	<0.1	<0.1	0.1
Take avoiding action	7.7	10.3	5.4	5.4	3.3	1.8	0.9
Driver inexperience	13.5	4.4	1.8	0.9	0.7	0.3	0.3
Pedestrian error/confusion	0.2	0.4	0.3	0.5	0.2	0.4	0.1
NET Speed	52.3	51.7	31.5	21.4	16.1	11.2	7.6
Exceeding speed limit	0.8	0.7	0.4	-	<0.1	-	-
Driving too fast for conditions	49.7	50.0	29.8	20.5	15.5	11.1	7.4
Unsafe operating speed (Too fast or too slow)	2.0	1.3	1.3	0.9	0.6	0.2	0.2
NET Distracted driving	109.5	111.1	67.6	50.8	44.8	39.0	36.8
Careless Driving	103.4	105.3	62.7	46.9	41.9	36.8	34.4
Distraction/Inattention	8.1	7.9	5.5	4.4	3.4	2.9	3.1
Any At-fault Human Condition	15.1	13.9	9.4	6.3	5.0	4.8	4.4
Loss of consciousness/Blackout prior to collision	0.4	1.0	0.3	0.5	0.2	0.4	0.4
Extreme fatigue/Fell asleep	3.2	1.4	1.1	<0.1	0.5	0.6	0.3
Defective eyesight	0.2	-	0.2	0.1	<0.1	0.2	0.1
Defective hearing	-	-	-	-	-	-	<0.1
Medical disability	-	-	<0.1	-	0.1	<0.1	0.1
Physical disability	-	-	-	<0.1	-	-	-
Mental disability	-	-	-	<0.1	-	-	<0.1
Mental confusion/Inability to remember	0.4	0.3	-	-	<0.1	0.1	0.4
Sudden illness	-	0.3	<0.1	-	0.1	0.1	0.2
Exceed hours of service (commercial drivers only)	-	-	-	-	-	-	-
NET Impaired	3.2	3.8	2.6	1.3	0.7	0.6	<0.1
Ability impaired alcohol	2.4	2.8	1.9	1.1	0.7	0.4	<0.1
Ability impaired drugs	-	-	-	-	-	<0.1	-
Had been drinking/Suspected alcohol use	1.2	1.0	0.8	0.1	0.1	<0.1	-
Any At-fault Vehicle Defect	3.0	3.5	2.1	1.7	2.3	1.3	1.0
Defective brakes	0.6	0.4	0.1	0.4	0.2	<0.1	-
Defective steering	-	0.1	<0.1	<0.1	-	-	-
Defective headlights	-	-	-	-	-	-	-
Defective brake lights	0.2	-	-	-	-	-	-
Defective lighting (unspecified)	-	-	-	-	-	-	-
Defective engine controls/drive train	-	-	<0.1	-	<0.1	0.1	0.1
Defective suspension/wheels	0.8	0.4	0.1	0.2	0.5	0.4	-
Defective tires	0.8	1.0	0.4	-	0.4	-	0.2
Tow hitch/yoke defective	-	0.3	0.1	0.2	0.2	<0.1	0.2

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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 exhaust system	-	-	<0.1	-	-	-	-
Defective glazing (obscured windows)	0.2	-	-	-	<0.1	<0.1	-
Vehicle modifications	-	-	-	-	0.1	-	-
Fire	-	-	0.1	-	-	-	-
Overloaded/oversized	-	-	-	<0.1	-	<0.1	-
Load shifted/spilled	-	0.1	0.2	<0.1	0.2	0.2	0.2
Jack-knife/trailer swing	0.2	0.7	0.6	0.7	0.5	0.2	0.2
Hydroplaning tires	0.2	0.4	-	-	-	-	-
Any At-fault Environmental Condition	101.6	118.3	92.1	89.9	83.5	62.1	38.1
Animal action - Wild	65.2	80.0	66.4	68.3	67.3	50.5	29.2
Animal action - Domestic	0.6	0.7	0.7	0.7	0.4	0.2	0.2
Slippery road surface	27.1	26.5	17.9	15.9	10.4	7.8	5.6
Snow drift	0.2	0.4	0.2	0.1	0.2	-	0.2
Obstruction/debris on roadway	2.0	2.8	1.6	1.3	1.4	0.9	0.9
View obstructed/limited	0.8	1.1	1.0	0.6	0.9	1.0	0.2
Glare/reflection	-	0.7	0.5	0.4	0.2	<0.1	0.3
Construction zone	-	0.7	0.4	0.2	0.2	0.3	0.4
Defective driving surface	1.6	0.4	0.8	0.2	0.8	0.3	0.2
Shoulders defective	-	0.3	-	-	-	-	0.1
Lane markings inadequate	0.2	0.3	<0.1	-	-	-	0.1
Defective/inoperative traffic control device	-	0.1	-	-	0.2	-	0.1
Weather	4.6	3.9	2.1	2.1	1.7	0.9	0.7
Pedestrian corridor in use	-	0.3	0.4	0.2	0.2	-	<0.1
Uninvolved vehicle	-	0.4	0.2	0.4	-	0.1	-
Uninvolved pedestrian	-	0.3	0.2	-	<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: 2007-2011 Average

Contributing Factor	Age Group						
	16-19	20-24	25-34	35-44	45-54	55-64	65+
Any At-fault Driver Action	261.1	181.9	108.7	88.5	69.0	62.5	64.4
Following too closely	37.1	33.1	20.8	15.9	12.3	10.5	7.6
Turning improperly	13.9	10.8	7.3	5.5	5.4	5.2	6.2
Passing improperly	2.7	2.1	1.5	1.3	1.1	0.8	1.2
Changing lanes improperly	9.7	8.3	4.7	3.9	3.6	3.4	4.0
Fail to yield right-of-way	29.7	21.2	13.3	10.9	9.8	10.7	13.2
Disobey traffic control device/officer	11.1	9.9	5.4	4.4	3.5	3.4	4.4
Drive wrong way on roadway	0.7	0.7	0.3	0.3	0.2	0.2	0.2
Passing a vehicle at pedestrian X-walk	0.2	<0.1	<0.1	<0.1	-	<0.1	<0.1
Back unsafely	14.0	9.8	7.6	7.6	7.7	8.0	7.3
Parking improperly	0.6	0.4	0.6	0.4	0.4	0.6	0.7
Lost control/Drive off road	35.0	22.5	12.4	8.8	6.0	5.1	4.4
Driverless vehicle ran out of control	0.3	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Leave stop sign before safe to do so	8.3	5.1	3.5	3.2	2.7	2.4	4.8
Failed to signal	0.3	0.3	0.3	0.2	0.2	0.2	<0.1
Take avoiding action	11.7	9.2	5.9	4.7	3.6	2.9	2.0
Driver inexperience	44.6	8.1	2.6	5.1	0.6	0.4	0.3
Pedestrian error/confusion	0.6	0.7	0.3	0.2	0.3	0.2	0.2
NET Speed	60.7	40.4	21.3	16.8	10.5	7.4	5.6
Exceeding speed limit	6.4	4.0	1.5	1.0	0.5	0.2	0.2
Driving too fast for conditions	46.9	32.2	17.6	14.1	8.8	6.3	4.5
Unsafe operating speed (Too fast or too slow)	8.9	5.1	2.5	2.0	1.2	0.9	0.9
NET Distracted driving	56.5	41.6	23.6	18.3	14.8	13.2	14.8
Careless Driving	21.8	16.4	9.7	7.8	5.9	4.9	5.4
Distraction/Inattention	37.5	27.1	14.8	11.4	9.4	8.8	10.0
Any At-fault Human Condition	53.1	42.3	22.9	17.1	13.3	11.6	14.3
Loss of consciousness/Blackout prior to collision	0.6	0.8	0.5	0.4	0.4	0.4	0.8
Extreme fatigue/Fell asleep	4.3	3.1	1.6	1.0	0.7	0.6	0.6
Defective eyesight	0.3	0.1	<0.1	<0.1	0.1	0.1	0.4
Defective hearing	-	<0.1	-	<0.1	<0.1	<0.1	0.2
Medical disability	<0.1	0.1	0.2	0.1	0.2	0.1	0.6
Physical disability	0.2	<0.1	0.2	0.2	0.1	0.1	0.4
Mental disability	0.1	-	<0.1	<0.1	<0.1	<0.1	0.1
Mental confusion/Inability to remember	0.2	0.2	0.2	0.1	0.2	0.1	1.1
Sudden illness	0.2	<0.1	<0.1	0.1	0.1	0.1	0.3
Exceed hours of service (commercial drivers only)	-	-	-	<0.1	<0.1	<0.1	-
NET Impaired	10.4	11.8	5.8	4.0	2.3	1.2	0.5
Ability impaired alcohol	6.4	7.0	3.8	2.8	1.7	1.0	0.3
Ability impaired drugs	0.5	0.5	0.1	0.2	<0.1	<0.1	<0.1
Had been drinking/Suspected alcohol use	4.1	4.9	2.0	1.4	0.7	0.3	0.2
Any At-fault Vehicle Defect	7.0	4.7	3.0	2.5	2.4	1.9	1.0
Defective brakes	2.0	0.7	0.6	0.6	0.5	0.3	0.2
Defective steering	0.7	0.5	0.2	0.2	0.1	0.1	<0.1
Defective headlights	0.3	0.1	<0.1	<0.1	<0.1	-	<0.1
Defective brake lights	0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1
Defective lighting (unspecified)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Defective engine controls/drive train	0.5	0.4	0.2	0.2	0.2	0.2	<0.1
Defective suspension/wheels	0.5	0.4	0.2	0.2	0.2	0.1	<0.1
Defective tires	1.7	1.2	0.6	0.4	0.4	0.2	0.2
Tow hitch/yoke defective	-	<0.1	0.3	0.1	0.1	<0.1	<0.1

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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	<0.1
Defective exhaust system	-	<0.1	<0.1	<0.1	-	<0.1	-
Defective glazing (obscured windows)	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Vehicle modifications	0.2	0.3	0.2	<0.1	<0.1	<0.1	-
Fire	-	-	-	-	<0.1	-	-
Overloaded/oversized	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Load shifted/spilled	<0.1	0.2	0.1	0.2	0.2	0.2	<0.1
Jack-knife/trailer swing	0.2	<0.1	0.2	0.1	0.2	0.1	<0.1
Hydroplaning tires	0.4	0.2	<0.1	<0.1	<0.1	0.1	<0.1
Any At-fault Environmental Condition	147.2	121.1	88.1	76.9	80.2	65.2	41.1
Animal action - Wild	53.6	54.4	44.2	41.9	49.4	41.6	22.9
Animal action - Domestic	4.5	3.3	2.2	2.2	2.1	1.6	1.3
Slippery road surface	59.7	44.8	28.7	22.5	19.3	13.4	9.7
Snow drift	4.6	3.4	2.5	2.2	1.4	1.5	0.6
Obstruction/debris on roadway	2.7	2.3	1.8	1.1	1.4	1.2	1.0
View obstructed/limited	7.2	5.0	3.4	3.0	2.8	2.5	2.3
Glare/reflection	1.9	1.0	0.9	0.6	0.8	0.7	0.9
Construction zone	0.9	0.7	0.5	0.4	0.5	0.4	0.4
Defective driving surface	8.3	3.7	2.2	1.6	1.3	1.0	0.6
Shoulders defective	0.5	0.6	0.3	0.2	0.2	0.1	0.2
Lane markings inadequate	0.3	0.3	<0.1	0.1	<0.1	<0.1	<0.1
Defective/inoperative traffic control device	0.6	0.3	0.1	0.1	0.1	0.1	<0.1
Weather	7.1	5.9	4.6	3.2	2.7	2.4	1.7
Pedestrian corridor in use	0.3	0.3	0.2	0.1	0.2	0.1	<0.1
Uninvolved vehicle	2.0	1.9	0.7	0.7	0.8	0.7	0.6
Uninvolved pedestrian	0.4	0.2	0.3	0.2	0.2	<0.1	0.1
Presence of prior accident	0.3	0.7	0.3	0.3	0.4	0.3	<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 2012, the involvement rate in collisions for drivers aged 16 to 19 with:

- An at-fault contributing factor is:
  - 1.0 times that of drivers aged 20 to 24;
  - 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.
- An at-fault driver action as a contributing factor is:
  - 1.0 times that of drivers aged 20 to 24;
  - 1.5 times that of drivers aged 25 to 34;
  - 1.9 times that of drivers aged 35 to 44; and,
  - 2.7 times that of drivers aged 45 and older.
- An at-fault human condition 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;
  - 2.4 times that of drivers aged 35 to 44; and,
  - 3.2 times that of drivers aged 45 and older.
- “Driver inexperience” as a contributing factor is:
  - 3.2 times that of drivers aged 20 to 24;
  - 7.6 times that of drivers aged 25 to 34;
  - 14.6 times that of drivers aged 35 to 44; and,
  - 37.0 times that of drivers aged 45 and older.

In 2011, the involvement rate in collisions for drivers aged 20 to 24 with:

- An 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,
  - 2.5 times that of drivers aged 45 and older.
- An at-fault driver action as a contributing factor is:
  - 1.5 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.
- An at-fault human condition as a contributing factor is:
  - 1.5 times that of drivers aged 25 to 34;
  - 2.2 times that of drivers aged 35 to 44; and,
  - 2.9 times that of drivers aged 45 and older.
- “Driver inexperience” as a contributing factor is:
  - 2.4 times that of drivers aged 25 to 34;
  - 4.6 times that of drivers aged 35 to 44; and,
  - 11.6 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 2012 to the previous five years (2007 to 2011) 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: 2007 to 2012

Contributing Factor	2007 Total Collisions	% of 2007 Total Collisions	2008 Total Collisions	% of 2008 Total Collisions	2009 Total Collisions	% of 2009 Total Collisions	2010 Total Collisions	% of 2010 Total Collisions	2011 Total Collisions	% of 2011 Total Collisions	2012 Total Collisions	% of 2012 Total Collisions
Driver Action - Driving Properly and Human Condition - Apparently Normal	13,546	45.9%	11,269	41.6%	11,196	42.1%	12,438	45.8%	17,016	49.6%	<b>25,573</b>	<b>65.6%</b>
Driver Action - Driving properly	2,007	6.8%	2,156	8.0%	2,421	9.1%	2,363	8.7%	1,907	5.6%	<b>843</b>	<b>2.2%</b>
Any At-fault Driver Action	8,461	28.7%	7,358	27.2%	7,236	27.2%	7,387	27.2%	12,785	37.3%	<b>20,260</b>	<b>52.0%</b>
Following too closely	1,153	3.9%	984	3.6%	1,088	4.1%	1,400	5.2%	2,945	8.6%	<b>5,247</b>	<b>13.5%</b>
Turning improperly	581	2.0%	508	1.9%	572	2.2%	701	2.6%	861	2.5%	<b>1,527</b>	<b>3.9%</b>
Passing improperly	122	0.4%	120	0.4%	124	0.5%	137	0.5%	134	0.4%	<b>129</b>	<b>0.3%</b>
Changing lanes improperly	352	1.2%	305	1.1%	363	1.4%	436	1.6%	823	2.4%	<b>1,351</b>	<b>3.5%</b>
Fail to yield right-of-way	1,421	4.8%	1,108	4.1%	1,134	4.3%	1,091	4.0%	1,400	4.1%	<b>1,378</b>	<b>3.5%</b>
Disobey traffic control device/officer	606	2.1%	508	1.9%	479	1.8%	493	1.8%	525	1.5%	<b>357</b>	<b>0.9%</b>
Drive wrong way on roadway	42	0.1%	31	0.1%	26	<0.1%	38	0.1%	42	0.1%	<b>9</b>	<b>&lt;0.1%</b>
Passing a vehicle at pedestrian X-walk	2	<0.1%	3	<0.1%	3	<0.1%	2	<0.1%	1	<0.1%	<b>2</b>	<b>&lt;0.1%</b>
Back unsafely	747	2.5%	469	1.7%	493	1.9%	509	1.9%	1,417	4.1%	<b>2,634</b>	<b>6.8%</b>
Parking improperly	73	0.2%	43	0.2%	46	0.2%	46	0.2%	98	0.3%	<b>104</b>	<b>0.3%</b>
Lost control/Drive off road	749	2.5%	915	3.4%	849	3.2%	582	2.1%	992	2.9%	<b>1,064</b>	<b>2.7%</b>
Driverless vehicle ran out of control	14	<0.1%	10	<0.1%	10	<0.1%	10	<0.1%	11	<0.1%	<b>18</b>	<b>&lt;0.1%</b>
Leave stop sign before safe to do so	321	1.1%	269	1.0%	259	1.0%	316	1.2%	438	1.3%	<b>493</b>	<b>1.3%</b>
Failed to signal	16	<0.1%	24	<0.1%	17	<0.1%	12	<0.1%	18	<0.1%	<b>16</b>	<b>&lt;0.1%</b>
Take avoiding action	364	1.2%	333	1.2%	412	1.6%	357	1.3%	425	1.2%	<b>356</b>	<b>0.9%</b>
Driver inexperience	439	1.5%	478	1.8%	348	1.3%	253	0.9%	282	0.8%	<b>161</b>	<b>0.4%</b>
Pedestrian error/confusion	113	0.4%	91	0.3%	88	0.3%	86	0.3%	76	0.2%	<b>29</b>	<b>&lt;0.1%</b>
NET Speed	1,640	5.6%	1,518	5.6%	1,436	5.4%	1,078	4.0%	1,627	4.7%	<b>1,891</b>	<b>4.9%</b>
Exceeding speed limit	137	0.5%	140	0.5%	117	0.4%	103	0.4%	57	0.2%	<b>16</b>	<b>&lt;0.1%</b>
Driving too fast for conditions	1,365	4.6%	1,207	4.5%	1,078	4.1%	838	3.1%	1,443	4.2%	<b>1,813</b>	<b>4.7%</b>
Unsafe operating speed (Too fast or too slow)	166	0.6%	198	0.7%	280	1.1%	159	0.6%	143	0.4%	<b>67</b>	<b>0.2%</b>
NET Distracted driving	1,903	6.5%	1,876	6.9%	1,630	6.1%	1,534	5.6%	2,415	7.0%	<b>4,780</b>	<b>12.3%</b>
Careless Driving	560	1.9%	662	2.4%	628	2.4%	460	1.7%	1,451	4.2%	<b>4,474</b>	<b>11.5%</b>
Distraction/Inattention	1,417	4.8%	1,306	4.8%	1,087	4.1%	1,135	4.2%	1,038	3.0%	<b>372</b>	<b>1.0%</b>

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Section 9

Contributing Factors

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Contributing Factor	2007 Total Collisions	% of 2007 Total Collisions	2008 Total Collisions	% of 2008 Total Collisions	2009 Total Collisions	% of 2009 Total Collisions	2010 Total Collisions	% of 2010 Total Collisions	2011 Total Collisions	% of 2011 Total Collisions	2012 Total Collisions	% of 2012 Total Collisions
Human Condition - Apparently Normal	7,162	24.3%	6,528	24.1%	5,826	21.9%	5,657	20.8%	5,894	17.2%	6,983	17.9%
Any At-fault Human Condition	2,056	7.0%	1,923	7.1%	1,685	6.3%	1,691	6.2%	1,429	4.2%	607	1.6%
Loss of consciousness/Blackout prior to collision	36	0.1%	47	0.2%	37	0.1%	50	0.2%	44	0.1%	33	<0.1%
Extreme fatigue/Fell asleep	106	0.4%	114	0.4%	95	0.4%	97	0.4%	88	0.3%	63	0.2%
Defective eyesight	22	<0.1%	15	<0.1%	16	<0.1%	8	<0.1%	6	<0.1%	12	<0.1%
Defective hearing	4	<0.1%	6	<0.1%	2	<0.1%	5	<0.1%	2	<0.1%	1	<0.1%
Medical disability	25	<0.1%	12	<0.1%	23	<0.1%	19	<0.1%	11	<0.1%	6	<0.1%
Physical disability	16	<0.1%	19	<0.1%	18	<0.1%	11	<0.1%	16	<0.1%	1	<0.1%
Mental disability	8	<0.1%	15	<0.1%	6	<0.1%	11	<0.1%	6	<0.1%	2	<0.1%
Mental confusion/Inability to remember	37	0.1%	23	<0.1%	25	<0.1%	21	<0.1%	21	<0.1%	13	<0.1%
Sudden illness	12	<0.1%	14	<0.1%	17	<0.1%	8	<0.1%	10	<0.1%	10	<0.1%
Exceed hours of service (commercial drivers only)	1	<0.1%	1	<0.1%	1	<0.1%	0	-	1	<0.1%	0	-
NET Impaired	424	1.4%	396	1.5%	405	1.5%	373	1.4%	230	0.7%	123	0.3%
Ability impaired alcohol	278	0.9%	253	0.9%	263	1.0%	229	0.8%	147	0.4%	97	0.2%
Ability impaired drugs	14	<0.1%	19	<0.1%	16	<0.1%	12	<0.1%	10	<0.1%	1	<0.1%
Had been drinking/Suspected alcohol use	154	0.5%	144	0.5%	151	0.6%	152	0.6%	80	0.2%	30	<0.1%
No Apparent (Vehicle) Defect	15,871	53.8%	13,499	49.8%	13,072	49.2%	14,097	51.9%	17,843	52.0%	26,336	67.6%
Any At-fault Vehicle Defect	253	0.9%	239	0.9%	214	0.8%	227	0.8%	223	0.7%	163	0.4%
Defective brakes	47	0.2%	54	0.2%	50	0.2%	68	0.3%	40	0.1%	17	<0.1%
Defective steering	16	<0.1%	12	<0.1%	17	<0.1%	17	<0.1%	13	<0.1%	3	<0.1%
Defective headlights	7	<0.1%	3	<0.1%	7	<0.1%	6	<0.1%	4	<0.1%	0	-
Defective brake lights	2	<0.1%	8	<0.1%	1	<0.1%	3	<0.1%	3	<0.1%	1	<0.1%
Defective lighting (unspecified)	6	<0.1%	3	<0.1%	7	<0.1%	7	<0.1%	5	<0.1%	0	-
Defective engine controls/drive train	27	<0.1%	20	<0.1%	17	<0.1%	23	<0.1%	13	<0.1%	6	<0.1%
Defective suspension/wheels	12	<0.1%	11	<0.1%	11	<0.1%	19	<0.1%	27	<0.1%	25	<0.1%
Defective tires	44	0.1%	41	0.2%	35	0.1%	41	0.2%	46	0.1%	27	<0.1%
Tow hitch/yoke defective	11	<0.1%	9	<0.1%	5	<0.1%	10	<0.1%	18	<0.1%	14	<0.1%
Defective exhaust system	2	<0.1%	3	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%
Hood/tailgate/door/covering opened	12	<0.1%	11	<0.1%	23	<0.1%	3	<0.1%	4	<0.1%	4	<0.1%
Defective glazing (obscured windows)	1	<0.1%	7	<0.1%	12	<0.1%	5	<0.1%	2	<0.1%	3	<0.1%
Vehicle modifications	24	<0.1%	15	<0.1%	3	<0.1%	1	<0.1%	2	<0.1%	2	<0.1%
Fire	1	<0.1%	0	-	0	-	1	<0.1%	0	-	2	<0.1%

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Section 9

Contributing Factors

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Contributing Factor	2007 Total Collisions	% of 2007 Total Collisions	2008 Total Collisions	% of 2008 Total Collisions	2009 Total Collisions	% of 2009 Total Collisions	2010 Total Collisions	% of 2010 Total Collisions	2011 Total Collisions	% of 2011 Total Collisions	2012 Total Collisions	% of 2012 Total Collisions
Overloaded/oversized	8	<0.1%	2	<0.1%	4	<0.1%	4	<0.1%	5	<0.1%	2	<0.1%
Load shifted/spilled	17	<0.1%	23	<0.1%	10	<0.1%	9	<0.1%	19	<0.1%	15	<0.1%
Jack-knife/trailer swing	13	<0.1%	12	<0.1%	9	<0.1%	6	<0.1%	16	<0.1%	39	0.1%
Hydroplaning tires	6	<0.1%	8	<0.1%	7	<0.1%	7	<0.1%	6	<0.1%	4	<0.1%
Any At-fault Environmental Condition	6,098	20.7%	5,742	21.2%	5,764	21.7%	5,320	19.6%	8,143	23.7%	6,631	17.0%
Animal action - Wild	3,123	10.6%	2,922	10.8%	3,035	11.4%	3,133	11.5%	4,706	13.7%	4,967	12.7%
Animal action - Domestic	156	0.5%	148	0.5%	149	0.6%	175	0.6%	223	0.7%	41	0.1%
Slippery road surface	1,865	6.3%	1,821	6.7%	1,868	7.0%	1,214	4.5%	2,111	6.2%	1,151	3.0%
Snow drift	147	0.5%	166	0.6%	89	0.3%	126	0.5%	207	0.6%	15	<0.1%
Obstruction/debris on roadway	139	0.5%	113	0.4%	71	0.3%	117	0.4%	149	0.4%	116	0.3%
View obstructed/limited	312	1.1%	215	0.8%	224	0.8%	212	0.8%	296	0.9%	66	0.2%
Glare/reflection	67	0.2%	79	0.3%	54	0.2%	63	0.2%	84	0.2%	26	<0.1%
Construction zone	41	0.1%	28	0.1%	35	0.1%	26	<0.1%	49	0.1%	27	<0.1%
Defective driving surface	155	0.5%	124	0.5%	146	0.5%	138	0.5%	199	0.6%	45	0.1%
Shoulders defective	22	<0.1%	18	<0.1%	19	<0.1%	26	<0.1%	22	<0.1%	4	<0.1%
Lane markings inadequate	4	<0.1%	5	<0.1%	9	<0.1%	10	<0.1%	7	<0.1%	6	<0.1%
Defective/inoperative traffic control device	17	<0.1%	9	<0.1%	14	<0.1%	9	<0.1%	11	<0.1%	6	<0.1%
Weather	234	0.8%	257	0.9%	206	0.8%	223	0.8%	353	1.0%	158	0.4%
Pedestrian corridor in use	25	<0.1%	19	<0.1%	17	<0.1%	10	<0.1%	15	<0.1%	16	<0.1%
Uninvolved vehicle	94	0.3%	86	0.3%	57	0.2%	49	0.2%	58	0.2%	14	<0.1%
Uninvolved pedestrian	17	<0.1%	15	<0.1%	20	<0.1%	9	<0.1%	15	<0.1%	8	<0.1%
Presence of prior accident	22	<0.1%	30	0.1%	23	<0.1%	18	<0.1%	20	<0.1%	4	<0.1%
No Contributing Factor(s) Identified	12,791	43.4%	11,757	43.4%	11,523	43.4%	11,909	43.8%	9,276	27.0%	3,507	9.0%
Not Applicable/Not Stated	1	<0.1%	4	<0.1%	8	<0.1%	5	<0.1%	570	1.7%	0	-
<b>Total</b>	<b>29,494</b>	<b>100%</b>	<b>27,092</b>	<b>100%</b>	<b>26,578</b>	<b>100%</b>	<b>27,172</b>	<b>100%</b>	<b>34,302</b>	<b>100%</b>	<b>38,972</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: 2007 to 2012

Contributing Factor	2007 Total Victims	% of 2007 Total Victims	2008 Total Victims	% of 2008 Total Victims	2009 Total Victims	% of 2009 Total Victims	2010 Total Victims	% of 2010 Total Victims	2011 Total Victims	% of 2011 Total Victims	<b>2012 Total Victims</b>	<b>% of 2012 Total Victims</b>
Driver Action - Driving Properly and Human Condition - Apparently Normal	4,654	53.9%	3,743	47.2%	3,507	48.0%	3,762	52.8%	4,990	59.9%	<b>8,678</b>	<b>81.7%</b>
Driver Action - Driving properly	575	6.7%	611	7.7%	685	9.4%	630	8.8%	486	5.8%	<b>348</b>	<b>3.3%</b>
Any At-fault Driver Action	3,295	38.2%	3,200	40.4%	2,802	38.4%	2,641	37.0%	3,717	44.6%	<b>5,866</b>	<b>55.2%</b>
Following too closely	418	4.8%	361	4.6%	359	4.9%	420	5.9%	950	11.4%	<b>2,191</b>	<b>20.6%</b>
Turning improperly	200	2.3%	175	2.2%	190	2.6%	202	2.8%	284	3.4%	<b>434</b>	<b>4.1%</b>
Passing improperly	52	0.6%	31	0.4%	26	0.4%	36	0.5%	41	0.5%	<b>53</b>	<b>0.5%</b>
Changing lanes improperly	64	0.7%	57	0.7%	55	0.8%	66	0.9%	123	1.5%	<b>270</b>	<b>2.5%</b>
Fail to yield right-of-way	569	6.6%	440	5.6%	408	5.6%	408	5.7%	518	6.2%	<b>550</b>	<b>5.2%</b>
Disobey traffic control device/officer	335	3.9%	317	4.0%	287	3.9%	247	3.5%	258	3.1%	<b>194</b>	<b>1.8%</b>
Drive wrong way on roadway	36	0.4%	21	0.3%	7	<0.1%	19	0.3%	25	0.3%	<b>17</b>	<b>0.2%</b>
Passing a vehicle at pedestrian X-walk	1	<0.1%	3	<0.1%	3	<0.1%	1	<0.1%	1	<0.1%	<b>2</b>	<b>&lt;0.1%</b>
Back unsafely	22	0.3%	26	0.3%	25	0.3%	31	0.4%	68	0.8%	<b>184</b>	<b>1.7%</b>
Parking improperly	11	0.1%	3	<0.1%	5	<0.1%	2	<0.1%	11	0.1%	<b>8</b>	<b>&lt;0.1%</b>
Lost control/Drive off road	388	4.5%	631	8.0%	544	7.5%	357	5.0%	366	4.4%	<b>324</b>	<b>3.0%</b>
Driverless vehicle ran out of control	1	<0.1%	0	-	3	<0.1%	2	<0.1%	1	<0.1%	<b>2</b>	<b>&lt;0.1%</b>
Leave stop sign before safe to do so	180	2.1%	176	2.2%	150	2.1%	186	2.6%	211	2.5%	<b>202</b>	<b>1.9%</b>
Failed to signal	1	<0.1%	5	<0.1%	6	<0.1%	0	-	4	<0.1%	<b>7</b>	<b>&lt;0.1%</b>
Take avoiding action	131	1.5%	144	1.8%	137	1.9%	109	1.5%	91	1.1%	<b>67</b>	<b>0.6%</b>
Driver inexperience	204	2.4%	230	2.9%	151	2.1%	114	1.6%	92	1.1%	<b>56</b>	<b>0.5%</b>
Pedestrian error/confusion	109	1.3%	89	1.1%	87	1.2%	83	1.2%	64	0.8%	<b>25</b>	<b>0.2%</b>
NET Speed	750	8.7%	805	10.2%	670	9.2%	457	6.4%	553	6.6%	<b>543</b>	<b>5.1%</b>
Exceeding speed limit	104	1.2%	107	1.4%	83	1.1%	80	1.1%	27	0.3%	<b>15</b>	<b>0.1%</b>
Driving too fast for conditions	568	6.6%	560	7.1%	357	4.9%	286	4.0%	448	5.4%	<b>492</b>	<b>4.6%</b>
Unsafe operating speed (Too fast or too slow)	96	1.1%	160	2.0%	249	3.4%	112	1.6%	85	1.0%	<b>37</b>	<b>0.3%</b>
NET Distracted driving	892	10.3%	991	12.5%	782	10.7%	709	9.9%	715	8.6%	<b>1,249</b>	<b>11.8%</b>
Careless Driving	317	3.7%	480	6.1%	358	4.9%	276	3.9%	403	4.8%	<b>1,111</b>	<b>10.5%</b>
Distraction/Inattention	640	7.4%	578	7.3%	458	6.3%	473	6.6%	348	4.2%	<b>164</b>	<b>1.5%</b>

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Section 9

Contributing Factors

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Contributing Factor	2007 Total Victims	% of 2007 Total Victims	2008 Total Victims	% of 2008 Total Victims	2009 Total Victims	% of 2009 Total Victims	2010 Total Victims	% of 2010 Total Victims	2011 Total Victims	% of 2011 Total Victims	2012 Total Victims	% of 2012 Total Victims
Human Condition - Apparently Normal	2,267	26.3%	2,090	26.4%	1,732	23.7%	1,747	24.5%	1,665	20.0%	2,264	21.3%
Any At-fault Human Condition	1,096	12.7%	1,021	12.9%	871	11.9%	816	11.4%	642	7.7%	315	3.0%
Loss of consciousness/Blackout prior to collision	31	0.4%	42	0.5%	27	0.4%	40	0.6%	28	0.3%	20	0.2%
Extreme fatigue/Fell asleep	65	0.8%	71	0.9%	65	0.9%	47	0.7%	51	0.6%	26	0.2%
Defective eyesight	13	0.2%	8	0.1%	6	<0.1%	3	<0.1%	3	<0.1%	5	<0.1%
Defective hearing	3	<0.1%	6	<0.1%	0	-	2	<0.1%	1	<0.1%	0	-
Medical disability	13	0.2%	10	0.1%	14	0.2%	10	0.1%	11	0.1%	5	<0.1%
Physical disability	4	<0.1%	6	<0.1%	10	0.1%	9	0.1%	9	0.1%	0	-
Mental disability	6	<0.1%	12	0.2%	2	<0.1%	9	0.1%	9	0.1%	3	<0.1%
Mental confusion/Inability to remember	20	0.2%	13	0.2%	11	0.2%	12	0.2%	9	0.1%	7	<0.1%
Sudden illness	9	0.1%	8	0.1%	12	0.2%	4	<0.1%	9	0.1%	5	<0.1%
Exceed hours of service (commercial drivers only)	1	<0.1%	0	-	1	<0.1%	0	-	0	-	0	-
NET Impaired	333	3.9%	312	3.9%	293	4.0%	248	3.5%	190	2.3%	106	1.0%
Ability impaired alcohol	215	2.5%	189	2.4%	185	2.5%	165	2.3%	122	1.5%	76	0.7%
Ability impaired drugs	16	0.2%	19	0.2%	5	<0.1%	9	0.1%	5	<0.1%	1	<0.1%
Had been drinking/Suspected alcohol use	126	1.5%	130	1.6%	117	1.6%	87	1.2%	68	0.8%	34	0.3%
No Apparent (Vehicle) Defect	5,393	62.5%	4,582	57.8%	4,066	55.7%	4,340	60.9%	5,341	64.1%	9,009	84.8%
Any At-fault Vehicle Defect	88	1.0%	74	0.9%	93	1.3%	114	1.6%	49	0.6%	23	0.2%
Defective brakes	21	0.2%	19	0.2%	29	0.4%	27	0.4%	8	<0.1%	9	<0.1%
Defective steering	6	<0.1%	6	<0.1%	6	<0.1%	4	<0.1%	4	<0.1%	0	-
Defective headlights	5	<0.1%	5	<0.1%	4	<0.1%	11	0.2%	2	<0.1%	0	-
Defective brake lights	0	-	0	-	0	-	3	<0.1%	0	-	3	<0.1%
Defective lighting (unspecified)	4	<0.1%	1	<0.1%	1	<0.1%	4	<0.1%	3	<0.1%	0	-
Defective engine controls/drive train	7	<0.1%	7	<0.1%	7	<0.1%	13	0.2%	3	<0.1%	0	-
Defective suspension/wheels	5	<0.1%	3	<0.1%	3	<0.1%	6	<0.1%	3	<0.1%	0	-
Defective tires	25	0.3%	7	<0.1%	10	0.1%	20	0.3%	23	0.3%	3	<0.1%
Tow hitch/yoke defective	1	<0.1%	3	<0.1%	2	<0.1%	8	0.1%	1	<0.1%	1	<0.1%
Defective exhaust system	1	<0.1%	7	<0.1%	1	<0.1%	1	<0.1%	0	-	3	<0.1%
Hood/tailgate/door/covering opened	2	<0.1%	4	<0.1%	12	0.2%	2	<0.1%	0	-	0	-
Defective glazing (obscured windows)	1	<0.1%	1	<0.1%	7	<0.1%	2	<0.1%	0	-	2	<0.1%
Vehicle modifications	1	<0.1%	1	<0.1%	0	-	1	<0.1%	1	<0.1%	0	-
Fire	0	-	0	-	0	-	0	-	0	-	0	-
Overloaded/oversized	1	<0.1%	0	-	2	<0.1%	1	<0.1%	0	-	0	-

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Section 9

Contributing Factors

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Contributing Factor	2007 Total Victims	% of 2007 Total Victims	2008 Total Victims	% of 2008 Total Victims	2009 Total Victims	% of 2009 Total Victims	2010 Total Victims	% of 2010 Total Victims	2011 Total Victims	% of 2011 Total Victims	2012 Total Victims	% of 2012 Total Victims
Load shifted/spilled	6	<0.1%	8	0.1%	0	-	1	<0.1%	0	-	1	<0.1%
Jack-knife/trailer swing	2	<0.1%	1	<0.1%	4	<0.1%	3	<0.1%	0	-	0	-
Hydroplaning tires	1	<0.1%	2	<0.1%	8	0.1%	8	0.1%	2	<0.1%	1	<0.1%
Any At-fault Environmental Condition	1,316	15.2%	986	12.4%	1,042	14.3%	979	13.7%	1,172	14.1%	713	6.7%
Animal action - Wild	319	3.7%	241	3.0%	246	3.4%	239	3.4%	275	3.3%	274	2.6%
Animal action - Domestic	37	0.4%	29	0.4%	21	0.3%	20	0.3%	39	0.5%	1	<0.1%
Slippery road surface	579	6.7%	434	5.5%	498	6.8%	374	5.2%	558	6.7%	290	2.7%
Snow drift	46	0.5%	34	0.4%	18	0.2%	27	0.4%	39	0.5%	1	<0.1%
Obstruction/debris on roadway	23	0.3%	27	0.3%	22	0.3%	30	0.4%	29	0.3%	10	<0.1%
View obstructed/limited	107	1.2%	63	0.8%	96	1.3%	67	0.9%	89	1.1%	22	0.2%
Glare/reflection	26	0.3%	29	0.4%	21	0.3%	31	0.4%	32	0.4%	17	0.2%
Construction zone	22	0.3%	8	0.1%	10	0.1%	15	0.2%	5	<0.1%	9	<0.1%
Defective driving surface	61	0.7%	42	0.5%	44	0.6%	77	1.1%	58	0.7%	16	0.2%
Shoulders defective	7	<0.1%	3	<0.1%	4	<0.1%	10	0.1%	7	<0.1%	1	<0.1%
Lane markings inadequate	2	<0.1%	3	<0.1%	3	<0.1%	2	<0.1%	5	<0.1%	1	<0.1%
Defective/inoperative traffic control device	9	0.1%	2	<0.1%	10	0.1%	3	<0.1%	5	<0.1%	1	<0.1%
Weather	110	1.3%	77	1.0%	102	1.4%	99	1.4%	120	1.4%	69	0.6%
Pedestrian corridor in use	22	0.3%	18	0.2%	21	0.3%	6	<0.1%	11	0.1%	11	0.1%
Uninvolved vehicle	47	0.5%	25	0.3%	22	0.3%	23	0.3%	14	0.2%	3	<0.1%
Uninvolved pedestrian	12	0.1%	10	0.1%	8	0.1%	4	<0.1%	7	<0.1%	5	<0.1%
Presence of prior accident	20	0.2%	8	0.1%	17	0.2%	16	0.2%	13	0.2%	0	-
No Contributing Factor(s) Identified	3,535	41.0%	3,229	40.7%	3,005	41.2%	2,900	40.7%	2,605	31.2%	1,605	15.1%
Not Applicable/Not Stated	0	-	5	<0.1%	2	<0.1%	1	<0.1%	178	2.1%	0	-
<b>Total</b>	<b>8,632</b>	<b>100%</b>	<b>7,924</b>	<b>100%</b>	<b>7,302</b>	<b>100%</b>	<b>7,130</b>	<b>100%</b>	<b>8,337</b>	<b>100%</b>	<b>10,623</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: 2007 to 2012

Contributing Factor	2007 Total Drivers	% of 2007 Total Drivers	2008 Total Drivers	% of 2008 Total Drivers	2009 Total Drivers	% of 2009 Total Drivers	2010 Total Drivers	% of 2010 Total Drivers	2011 Total Drivers	% of 2011 Total Drivers	2012 Total Drivers	% of 2012 Total Drivers
Driver Action - Driving Properly and Human Condition - Apparently Normal	14,105	31.5%	12,041	28.6%	11,958	29.1%	13,243	31.3%	18,204	35.5%	<b>29,010</b>	<b>49.3%</b>
Driver Action - Driving properly	1,923	4.3%	2,123	5.0%	2,397	5.8%	2,297	5.4%	1,882	3.7%	<b>843</b>	<b>1.4%</b>
Any At-fault Driver Action	8,502	19.0%	7,368	17.5%	7,313	17.8%	7,422	17.5%	12,805	25.0%	<b>20,397</b>	<b>34.6%</b>
Following too closely	1,169	2.6%	1,001	2.4%	1,110	2.7%	1,433	3.4%	2,973	5.8%	<b>5,269</b>	<b>8.9%</b>
Turning improperly	581	1.3%	503	1.2%	572	1.4%	700	1.7%	859	1.7%	<b>1,528</b>	<b>2.6%</b>
Passing improperly	124	0.3%	117	0.3%	124	0.3%	139	0.3%	131	0.3%	<b>129</b>	<b>0.2%</b>
Changing lanes improperly	348	0.8%	307	0.7%	362	0.9%	438	1.0%	821	1.6%	<b>1,363</b>	<b>2.3%</b>
Fail to yield right-of-way	1,414	3.2%	1,092	2.6%	1,123	2.7%	1,084	2.6%	1,393	2.7%	<b>1,370</b>	<b>2.3%</b>
Disobey traffic control device/officer	587	1.3%	496	1.2%	480	1.2%	493	1.2%	521	1.0%	<b>356</b>	<b>0.6%</b>
Drive wrong way on roadway	38	<0.1%	23	<0.1%	22	<0.1%	29	<0.1%	40	<0.1%	<b>9</b>	<b>&lt;0.1%</b>
Passing a vehicle at pedestrian X-walk	2	<0.1%	3	<0.1%	3	<0.1%	2	<0.1%	1	<0.1%	<b>2</b>	<b>&lt;0.1%</b>
Back unsafely	752	1.7%	464	1.1%	479	1.2%	498	1.2%	1,406	2.7%	<b>2,665</b>	<b>4.5%</b>
Parking improperly	48	0.1%	33	<0.1%	37	<0.1%	37	<0.1%	80	0.2%	<b>101</b>	<b>0.2%</b>
Lost control/Drive off road	744	1.7%	913	2.2%	849	2.1%	578	1.4%	986	1.9%	<b>1,062</b>	<b>1.8%</b>
Driverless vehicle ran out of control	10	<0.1%	6	<0.1%	7	<0.1%	7	<0.1%	7	<0.1%	<b>16</b>	<b>&lt;0.1%</b>
Leave stop sign before safe to do so	322	0.7%	267	0.6%	259	0.6%	317	0.7%	440	0.9%	<b>495</b>	<b>0.8%</b>
Failed to signal	16	<0.1%	24	<0.1%	17	<0.1%	11	<0.1%	18	<0.1%	<b>16</b>	<b>&lt;0.1%</b>
Take avoiding action	370	0.8%	337	0.8%	428	1.0%	355	0.8%	433	0.8%	<b>353</b>	<b>0.6%</b>
Driver inexperience	428	1.0%	468	1.1%	344	0.8%	249	0.6%	281	0.5%	<b>161</b>	<b>0.3%</b>
Pedestrian error/confusion	29	<0.1%	26	<0.1%	23	<0.1%	22	<0.1%	20	<0.1%	<b>26</b>	<b>&lt;0.1%</b>
NET Speed	1,660	3.7%	1,530	3.6%	1,453	3.5%	1,082	2.6%	1,621	3.2%	<b>1,890</b>	<b>3.2%</b>
Exceeding speed limit	136	0.3%	137	0.3%	117	0.3%	103	0.2%	56	0.1%	<b>16</b>	<b>&lt;0.1%</b>
Driving too fast for conditions	1,388	3.1%	1,222	2.9%	1,095	2.7%	841	2.0%	1,441	2.8%	<b>1,813</b>	<b>3.1%</b>
Unsafe operating speed (Too fast or too slow)	164	0.4%	196	0.5%	278	0.7%	159	0.4%	139	0.3%	<b>66</b>	<b>0.1%</b>
NET Distracted driving	1,860	4.2%	1,848	4.4%	1,613	3.9%	1,492	3.5%	2,382	4.6%	<b>4,767</b>	<b>8.1%</b>
Careless Driving	555	1.2%	650	1.5%	623	1.5%	445	1.1%	1,437	2.8%	<b>4,461</b>	<b>7.6%</b>
Distraction/Inattention	1,376	3.1%	1,286	3.1%	1,075	2.6%	1,105	2.6%	1,018	2.0%	<b>372</b>	<b>0.6%</b>

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## Section 9

## Contributing Factors

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Contributing Factor	2007 Total Drivers	% of 2007 Total Drivers	2008 Total Drivers	% of 2008 Total Drivers	2009 Total Drivers	% of 2009 Total Drivers	2010 Total Drivers	% of 2010 Total Drivers	2011 Total Drivers	% of 2011 Total Drivers	2012 Total Drivers	% of 2012 Total Drivers
Human Condition - Apparently Normal	7,681	17.1%	7,065	16.8%	6,309	15.4%	6,033	14.3%	6,111	11.9%	7,037	12.0%
Any At-fault Human Condition	1,980	4.4%	1,865	4.4%	1,637	4.0%	1,630	3.9%	1,397	2.7%	602	1.0%
Loss of consciousness/Blackout prior to collision	35	<0.1%	45	0.1%	35	<0.1%	50	0.1%	44	<0.1%	33	<0.1%
Extreme fatigue/Fell asleep	107	0.2%	113	0.3%	95	0.2%	97	0.2%	87	0.2%	63	0.1%
Defective eyesight	20	<0.1%	15	<0.1%	15	<0.1%	8	<0.1%	6	<0.1%	12	<0.1%
Defective hearing	4	<0.1%	4	<0.1%	2	<0.1%	4	<0.1%	2	<0.1%	1	<0.1%
Medical disability	24	<0.1%	12	<0.1%	23	<0.1%	19	<0.1%	12	<0.1%	6	<0.1%
Physical disability	15	<0.1%	18	<0.1%	15	<0.1%	10	<0.1%	16	<0.1%	1	<0.1%
Mental disability	6	<0.1%	7	<0.1%	6	<0.1%	8	<0.1%	2	<0.1%	2	<0.1%
Mental confusion/Inability to remember	36	<0.1%	23	<0.1%	24	<0.1%	20	<0.1%	20	<0.1%	13	<0.1%
Sudden illness	12	<0.1%	14	<0.1%	16	<0.1%	8	<0.1%	10	<0.1%	10	<0.1%
Exceed hours of service (commercial drivers only)	1	<0.1%	1	<0.1%	1	<0.1%	0	-	1	<0.1%	0	-
NET Impaired	393	0.9%	367	0.9%	374	0.9%	344	0.8%	217	0.4%	118	0.2%
Ability impaired alcohol	260	0.6%	234	0.6%	246	0.6%	209	0.5%	139	0.3%	93	0.2%
Ability impaired drugs	12	<0.1%	18	<0.1%	16	<0.1%	11	<0.1%	10	<0.1%	1	<0.1%
Had been drinking/Suspected alcohol use	140	0.3%	133	0.3%	137	0.3%	142	0.3%	75	0.1%	29	<0.1%
No Apparent (Vehicle) Defect	19,615	43.8%	16,885	40.1%	16,395	39.9%	17,631	41.7%	21,567	42.1%	33,658	57.2%
Any At-fault Vehicle Defect	238	0.5%	231	0.5%	206	0.5%	216	0.5%	216	0.4%	163	0.3%
Defective brakes	43	<0.1%	50	0.1%	48	0.1%	65	0.2%	39	<0.1%	17	<0.1%
Defective steering	16	<0.1%	11	<0.1%	17	<0.1%	17	<0.1%	13	<0.1%	3	<0.1%
Defective headlights	6	<0.1%	3	<0.1%	7	<0.1%	6	<0.1%	3	<0.1%	0	-
Defective brake lights	2	<0.1%	8	<0.1%	1	<0.1%	3	<0.1%	3	<0.1%	1	<0.1%
Defective lighting (unspecified)	5	<0.1%	3	<0.1%	4	<0.1%	6	<0.1%	4	<0.1%	0	-
Defective engine controls/drive train	25	<0.1%	18	<0.1%	14	<0.1%	20	<0.1%	13	<0.1%	6	<0.1%
Defective suspension/wheels	12	<0.1%	11	<0.1%	11	<0.1%	19	<0.1%	27	<0.1%	25	<0.1%
Defective tires	44	<0.1%	41	<0.1%	33	<0.1%	40	<0.1%	46	<0.1%	27	<0.1%
Tow hitch/yoke defective	12	<0.1%	9	<0.1%	5	<0.1%	10	<0.1%	17	<0.1%	14	<0.1%
Defective exhaust system	2	<0.1%	3	<0.1%	1	<0.1%	2	<0.1%	1	<0.1%	1	<0.1%
Hood/tailgate/door/covering opened	12	<0.1%	11	<0.1%	22	<0.1%	2	<0.1%	2	<0.1%	4	<0.1%
Defective glazing (obscured windows)	1	<0.1%	6	<0.1%	12	<0.1%	5	<0.1%	2	<0.1%	3	<0.1%
Vehicle modifications	20	<0.1%	17	<0.1%	3	<0.1%	0	-	2	<0.1%	2	<0.1%
Fire	0	-	0	-	0	-	1	<0.1%	0	-	2	<0.1%
Overloaded/oversized	6	<0.1%	2	<0.1%	4	<0.1%	3	<0.1%	4	<0.1%	2	<0.1%

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Section 9

Contributing Factors

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Contributing Factor	2007 Total Drivers	% of 2007 Total Drivers	2008 Total Drivers	% of 2008 Total Drivers	2009 Total Drivers	% of 2009 Total Drivers	2010 Total Drivers	% of 2010 Total Drivers	2011 Total Drivers	% of 2011 Total Drivers	2012 Total Drivers	% of 2012 Total Drivers
Load shifted/spilled	17	<0.1%	22	<0.1%	10	<0.1%	9	<0.1%	19	<0.1%	15	<0.1%
Jack-knife/trailer swing	12	<0.1%	11	<0.1%	9	<0.1%	6	<0.1%	16	<0.1%	39	<0.1%
Hydroplaning tires	6	<0.1%	8	<0.1%	7	<0.1%	7	<0.1%	6	<0.1%	4	<0.1%
Any At-fault Environmental Condition	6,303	14.1%	5,959	14.1%	5,964	14.5%	5,490	13.0%	8,256	16.1%	6,630	11.3%
Animal action - Wild	3,124	7.0%	2,926	6.9%	3,036	7.4%	3,137	7.4%	4,708	9.2%	4,969	8.4%
Animal action - Domestic	156	0.3%	148	0.4%	149	0.4%	175	0.4%	226	0.4%	41	<0.1%
Slippery road surface	1,996	4.5%	1,972	4.7%	2,012	4.9%	1,316	3.1%	2,190	4.3%	1,152	2.0%
Snow drift	151	0.3%	171	0.4%	96	0.2%	132	0.3%	215	0.4%	15	<0.1%
Obstruction/debris on roadway	144	0.3%	116	0.3%	74	0.2%	125	0.3%	147	0.3%	116	0.2%
View obstructed/limited	326	0.7%	231	0.5%	240	0.6%	229	0.5%	305	0.6%	65	0.1%
Glare/reflection	67	0.1%	77	0.2%	53	0.1%	65	0.2%	84	0.2%	26	<0.1%
Construction zone	45	0.1%	32	<0.1%	37	<0.1%	32	<0.1%	51	<0.1%	27	<0.1%
Defective driving surface	153	0.3%	124	0.3%	145	0.4%	135	0.3%	198	0.4%	45	<0.1%
Shoulders defective	21	<0.1%	17	<0.1%	19	<0.1%	26	<0.1%	22	<0.1%	4	<0.1%
Lane markings inadequate	5	<0.1%	5	<0.1%	10	<0.1%	11	<0.1%	8	<0.1%	6	<0.1%
Defective/inoperative traffic control device	21	<0.1%	11	<0.1%	14	<0.1%	11	<0.1%	12	<0.1%	6	<0.1%
Weather	258	0.6%	280	0.7%	220	0.5%	240	0.6%	364	0.7%	159	0.3%
Pedestrian corridor in use	25	<0.1%	16	<0.1%	9	<0.1%	9	<0.1%	14	<0.1%	14	<0.1%
Uninvolved vehicle	104	0.2%	96	0.2%	59	0.1%	51	0.1%	61	0.1%	13	<0.1%
Uninvolved pedestrian	18	<0.1%	14	<0.1%	25	<0.1%	8	<0.1%	14	<0.1%	7	<0.1%
Presence of prior accident	23	<0.1%	39	<0.1%	28	<0.1%	22	<0.1%	23	<0.1%	4	<0.1%
No Contributing Factor(s) Identified	13,867	30.9%	13,882	33.0%	13,445	32.7%	14,082	33.3%	11,540	22.5%	3,304	5.6%
Not Applicable/Not Stated	1	<0.1%	1	<0.1%	2	<0.1%	2	<0.1%	0	-	0	-
<b>Total</b>	<b>44,814</b>	<b>100%</b>	<b>42,120</b>	<b>100%</b>	<b>41,097</b>	<b>100%</b>	<b>42,310</b>	<b>100%</b>	<b>51,279</b>	<b>100%</b>	<b>58,877</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' & 'Impaired' as Contributing Factors: 2007 to 2012

		2007	2008	2009	2010	2011	2007-2011 average	2012
<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	1,640 5.6%	1,518 5.6%	1,436 5.4%	1,078 4.0%	1,627 4.7%	1,460 5.0%	<b>1,891</b> <b>4.9%</b>
	Fatal collisions	21 21.9%	21 24.7%	23 27.7%	20 25.6%	30 31.9%	23 26.4%	<b>17</b> <b>19.1%</b>
	Injury collisions	501 7.8%	556 9.3%	424 7.9%	285 5.3%	348 5.5%	423 7.2%	<b>393</b> <b>4.7%</b>
Victims	All victims (killed or injured)	750 8.7%	805 10.2%	670 9.2%	457 6.4%	553 6.6%	647 8.2%	<b>543</b> <b>5.1%</b>
	People killed	25 22.9%	22 23.9%	24 27.9%	23 26.4%	37 33.6%	26 27.1%	<b>19</b> <b>19.8%</b>
	People seriously injured	64 15.0%	76 19.2%	53 13.8%	43 13.8%	56 16.6%	58 15.7%	<b>35</b> <b>10.3%</b>
Driver Involvement (/10,000 drivers)	All collisions	21.8	19.8	18.5	13.6	20.0	18.8	<b>22.5</b>
	Fatal collisions	0.3	0.3	0.3	0.3	0.4	0.3	<b>0.2</b>
	Injury collisions	6.7	7.3	5.5	3.6	4.3	5.4	<b>4.7</b>
<b>NET Distracted driving ('Distraction/ inattention' and 'Careless driving' combined)</b>								
Collisions	All collisions	1,903 6.5%	1,876 6.9%	1,630 6.1%	1,534 5.6%	2,415 7.0%	1,872 6.5%	<b>4,780</b> <b>12.3%</b>
	Fatal collisions	17 0.1%	19 0.1%	19 0.1%	30 0.1%	24 0.1%	22 25.0%	<b>35</b> <b>39.3%</b>
	Injury collisions	618 2.1%	656 2.4%	522 2.0%	452 1.7%	477 1.4%	545 9.2%	<b>948</b> <b>11.4%</b>
Victims	All victims (killed or injured)	892 10.3%	991 12.5%	782 10.7%	709 9.9%	715 8.6%	1,897 24.1%	<b>1,249</b> <b>11.8%</b>
	People killed	23 21.1%	22 23.9%	20 23.3%	31 35.6%	30 27.3%	25 26.0%	<b>37</b> <b>38.5%</b>
	People seriously injured	66 15.5%	75 18.9%	62 16.1%	56 17.9%	46 13.6%	61 16.4%	<b>45</b> <b>13.3%</b>
Driver Involvement (/10,000 drivers)	All collisions	25.3	24.5	21.0	19.4	29.7	23.6	<b>56.9</b>
	Fatal collisions	0.2	0.2	0.2	0.4	0.3	0.3	<b>0.4</b>
	Injury collisions	8.2	8.6	6.7	5.7	5.9	6.6	<b>11.3</b>
<b>NET Impaired ('Impaired by alcohol', 'Impaired by drugs' and 'Had been drinking/Suspected alcohol use' combined)</b>								
Collisions	All collisions	424 1.4%	396 1.5%	405 1.5%	373 1.4%	230 0.7%	366 1.3%	<b>123</b> <b>0.3%</b>
	Fatal collisions	36 37.5%	33 38.8%	23 27.7%	21 26.9%	21 22.3%	27 30.7%	<b>28</b> <b>31.5%</b>
	Injury collisions	177 2.8%	151 2.5%	160 3.0%	135 2.5%	88 1.4%	142 2.4%	<b>36</b> <b>0.4%</b>
Victims	All victims (killed or injured)	333 3.9%	312 3.9%	293 4.0%	248 3.5%	190 2.3%	275 3.5%	<b>106</b> <b>1.0%</b>
	People killed	40 36.7%	38 41.3%	25 29.1%	22 25.3%	27 24.5%	30 31.4%	<b>32</b> <b>33.3%</b>
	People seriously injured	60 14.1%	48 12.1%	46 12.0%	40 12.8%	38 11.3%	46 12.5%	<b>23</b> <b>6.8%</b>
Driver Involvement (/10,000 drivers)	All collisions	5.6	5.2	5.2	4.7	2.8	4.3	<b>1.4</b>
	Fatal collisions	0.5	0.4	0.3	0.3	0.3	0.3	<b>0.3</b>
	Injury collisions	2.4	2.0	2.1	1.7	1.1	1.6	<b>0.4</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).

Due to amendments to the *Highway Traffic Act* that took effect in October 2011, this report uses two sources for Traffic Accident Reports (TARs); TARs completed by a law enforcement agency and TARs completed when a collision claim is registered with Manitoba Public Insurance. This change to the use of two data sources resulted in an increase in overall traffic collision counts, specifically for collisions resulting in minimal injuries or property damage only.

### **Key Highlights**

In 2012, there are 1,676 commercial vehicles involved in traffic collisions. Of these:

- 12 are involved in fatal collisions;
- 368 are involved in injury collisions; and,
- 1,296 are involved in PDO collisions.

Traffic collisions where at least one commercial vehicle is involved resulted in a total of 459 victims in 2012, including:

- 14 people killed;
- 28 people seriously injured; and,
- 417 people where the injury is minor, minimal or unspecified.

### **Major Elements Examined**

Counts of NSC commercial vehicles involved in collisions in Manitoba for 2012 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 2007 to 2011. 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: 2012, 2007-2011 Average

Vehicle Category	2012 Collision Severity						2012 Total	% of 2012 Total	2007-2011 Average Count of Vehicles				
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO			Fatal	Injury	PDO	Total	% of Total
Truck >4,500 kgs Unit Chassis	4	33.3%	158	42.9%	770	59.4%	<b>932</b>	55.6%	3	116	455	574	14.0%
Power Unit (Semi-Trailer)	7	58.3%	116	31.5%	296	22.8%	<b>419</b>	25.0%	10	107	398	516	12.6%
Truck - Other	0	-	21	5.7%	67	5.2%	<b>88</b>	5.3%	8	606	2,174	2,789	68.0%
School Bus	0	-	0	-	0	-	<b>0</b>	-	1	10	57	68	1.7%
Transit Bus - Urban	1	8.3%	46	12.5%	54	4.2%	<b>101</b>	6.0%	0	23	55	79	1.9%
Para-Transit Bus	0	-	4	1.1%	4	0.3%	<b>8</b>	0.5%	0	1	4	5	0.1%
Inter-City Bus	0	-	3	0.8%	5	0.4%	<b>8</b>	0.5%	0	9	35	44	1.1%
Bus - Other	0	-	20	5.4%	100	7.7%	<b>120</b>	7.2%	0	5	22	27	0.7%
<b>Total</b>	<b>12</b>	<b>100%</b>	<b>368</b>	<b>100%</b>	<b>1,296</b>	<b>100%</b>	<b>1,676</b>	<b>100%</b>	<b>23</b>	<b>878</b>	<b>3,201</b>	<b>4,103</b>	<b>100%</b>

Note: Counts of vehicles in the 2007-2011 average may not add to the total due to rounding.

In 2012, there are 1,676 commercial vehicles involved in traffic collisions. Of these:

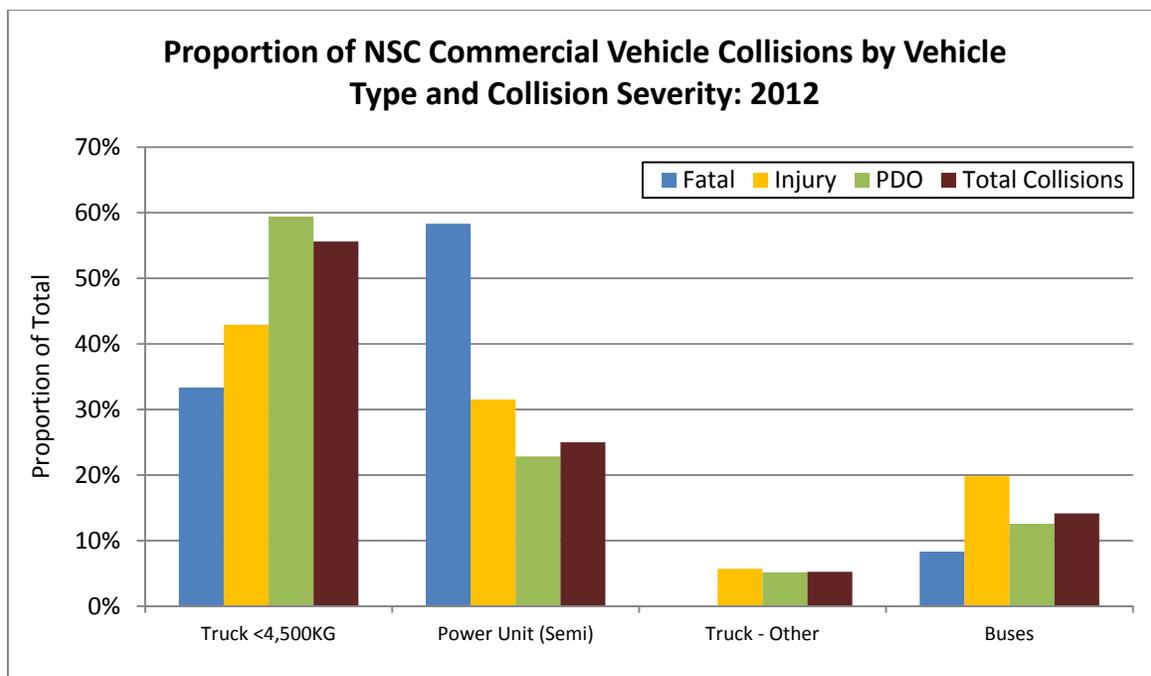
- 12 are involved in fatal collisions;
- 368 are involved in injury collisions; and,
- 1,296 are involved in PDO collisions.

The number of NSC commercial vehicles involved in collisions in 2012 has decreased substantially (by 59%, a count of 2,427) compared to the previous five year (2007 to 2011) annual average. Compared to the previous five years, the number of NSC commercial vehicles in 2012 involved in:

- Fatal collisions decreased by a count of 11 (a 48% decrease);
- Injury collisions decreased by a count of 510 (a 58% decrease); and,
- PDO collisions decreased by a count of 1,905 (a nearly 60% decrease).

NOTE: For a detailed historical count of NSC Commercial Vehicles involved in traffic collisions occurring in each year from 2007 to 2012, 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 2012, trucks with a unit chassis greater than 4,500 kilograms and power units for semi-trailers made for a combined total of nearly 81% of the commercial vehicles involved in traffic collisions.

- Power units for semi-trailers account for 7 of the 12 commercial vehicles involved in fatal collisions;
- Trucks with unit chassis greater than 4,500 kilograms account for 4 of the 12 commercial vehicles involved in fatal collisions; and
- “Transit bus (urban)” accounts for 1 of the 12 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 where an NSC Commercial Vehicle is Involved by Vehicle Type and Casualty Type: 2012

Vehicle Type	2012 Casualty Type												2012 Total Victims	% of 2012 Total Victims
	Killed	% of Total Killed	Serious Injury	% of Total Serious Injury	Minor Injury	% of Total Minor Injury	Minimal Injury	% of Total Minimal Injury	Other Injury	% of Total Other Injury	Total Injured	% of Total Injured		
Truck >4,500 kgs Unit Chassis	4	28.6%	7	25.0%	53	37.6%	131	49.2%	1	10.0%	192	43.1%	<b>196</b>	42.7%
Power Unit (Semi-Trailer)	9	64.3%	16	57.1%	55	39.0%	72	27.1%	3	30.0%	146	32.8%	<b>155</b>	33.8%
Truck - Other	0	-	4	14.3%	9	6.4%	8	3.0%	1	10.0%	22	4.9%	<b>22</b>	4.8%
School Bus	0	-	0	-	0	-	0	-	0	-	0	-	<b>0</b>	-
Transit Bus - Urban	1	7.1%	1	3.6%	14	9.9%	34	12.8%	5	50.0%	54	12.1%	<b>55</b>	12.0%
Para-Transit Bus	0	-	0	-	0	-	5	1.9%	0	-	5	1.1%	<b>5</b>	1.1%
Inter-City Bus	0	-	0	-	1	0.7%	2	0.8%	0	-	3	0.7%	<b>3</b>	0.7%
Bus - Other	0	-	0	-	9	6.4%	14	5.3%	0	-	23	5.2%	<b>23</b>	5.0%
<b>Total</b>	<b>14</b>	<b>100%</b>	<b>28</b>	<b>100%</b>	<b>141</b>	<b>100%</b>	<b>266</b>	<b>100%</b>	<b>10</b>	<b>100%</b>	<b>445</b>	<b>100%</b>	<b>459</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 where an NSC Commercial Vehicle is Involved by Vehicle Type and Casualty Type: 2007-2011 Average

Vehicle Type	2007-2011 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	3	12	60	57	14	145	148	12.7%
Power Unit (Semi-Trailer)	10	13	62	42	11	138	148	12.7%
Truck - Other	10	28	256	360	128	782	792	68.1%
School Bus	2	1	7	5	2	17	18	1.6%
Transit Bus - Urban	0	2	13	13	4	33	33	2.8%
Para-Transit Bus	0	0	1	0	0	2	2	0.1%
Inter-City Bus	0	1	7	3	5	17	17	1.5%
Bus - Other	0	0	1	4	1	7	7	0.6%
<b>Total</b>	<b>24</b>	<b>58</b>	<b>408</b>	<b>484</b>	<b>165</b>	<b>1,140</b>	<b>1,164</b>	<b>100%</b>

Note: Counts of victims in the 2007-2011 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 459 victims in 2012, including:

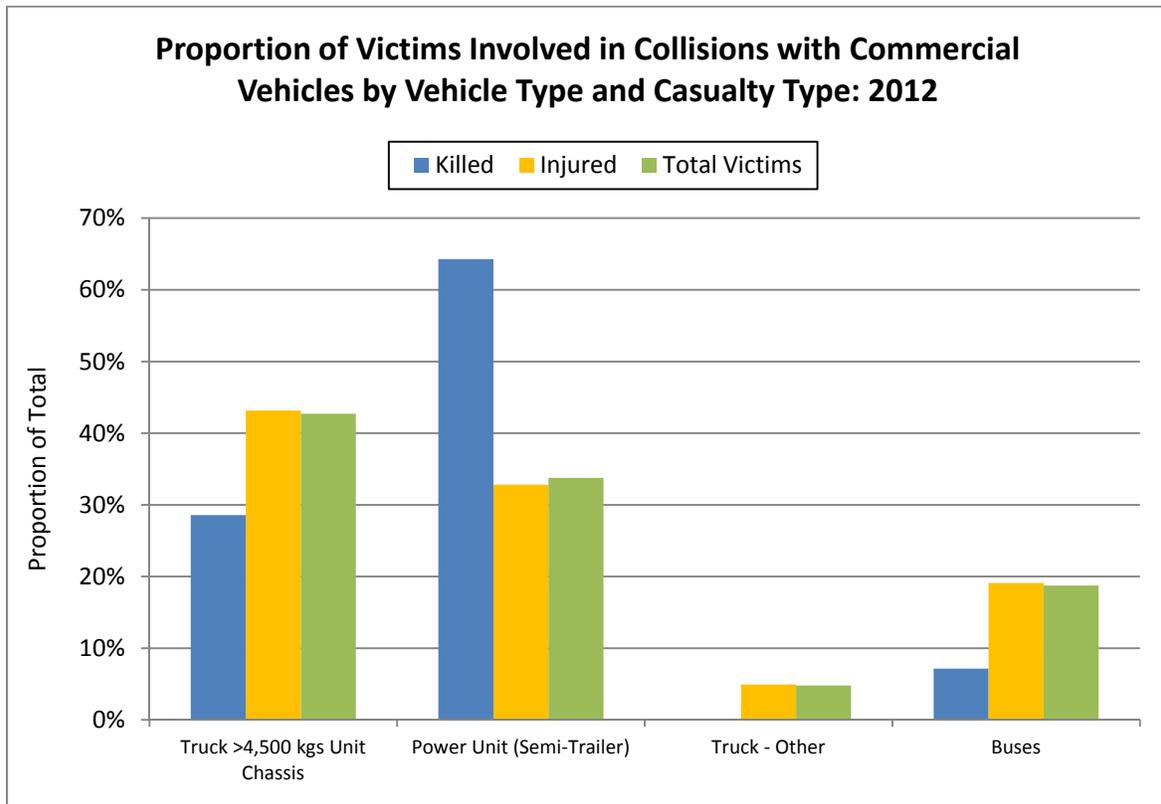
- 14 people killed;
- 28 people seriously injured; and,
- 417 people where the injury is minor, minimal or unspecified.

Collisions involving commercial vehicles in 2012 resulted in fewer people killed and injured when compared to the previous five year (2007 to 2011) annual average. In 2012:

- The number of people killed decreased by a count of 10 (a nearly 43% decrease) compared to the previous five years;
- The number of people injured overall decreased by a count of 695 (a 61% decrease) compared to the previous five years; and,
- The number of people seriously injured decreased by a count of 30 (a nearly 52% 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 2007 to 2012, 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 2012, 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 (93%) or injured (82%).

**Table 10-3 Commercial Vehicle Involvement in Traffic Collisions by Pre-Collision Activity and Collision Severity**

Table 10-3

NSC Commercial Vehicles Involved in Traffic Collisions by Pre-Collision Activity and Collision Severity: 2012, 2007-2011 Average

Pre-Collision Activity	2012 Collision Severity						2012 Total	% of 2012 Total	2007-2011 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	9	75.0%	123	33.4%	410	31.6%	<b>542</b>	<b>32.3%</b>	16	469	1,415	1,900	46.3%
Turning Left	0	-	11	3.0%	59	4.6%	<b>70</b>	<b>4.2%</b>	1	69	233	303	7.4%
Turning Right	0	-	6	1.6%	51	3.9%	<b>57</b>	<b>3.4%</b>	1	32	154	186	4.5%
Making U Turn	0	-	0	-	5	0.4%	<b>5</b>	<b>0.3%</b>	0	3	10	13	0.3%
Changing Lanes – Left	0	-	8	2.2%	18	1.4%	<b>26</b>	<b>1.6%</b>	0	7	42	49	1.2%
Changing Lanes – Right	0	-	4	1.1%	15	1.2%	<b>19</b>	<b>1.1%</b>	0	8	47	55	1.3%
Merging	1	8.3%	1	0.3%	2	0.2%	<b>4</b>	<b>0.2%</b>	0	8	35	43	1.0%
Reversing	0	-	7	1.9%	90	6.9%	<b>97</b>	<b>5.8%</b>	0	7	153	159	3.9%
Overtaking	0	-	0	-	1	<0.1%	<b>1</b>	<b>&lt;0.1%</b>	1	6	16	23	0.6%
Slowing/Stopping on Roadway	0	-	11	3.0%	35	2.7%	<b>46</b>	<b>2.7%</b>	0	31	105	136	3.3%
Stopped in Traffic	0	-	21	5.7%	65	5.0%	<b>86</b>	<b>5.1%</b>	0	98	319	417	10.2%
Starting in Traffic	0	-	5	1.4%	9	0.7%	<b>14</b>	<b>0.8%</b>	0	8	22	30	0.7%
Leave Parking Position/Roadside	0	-	0	-	3	0.2%	<b>3</b>	<b>0.2%</b>	0	2	11	13	0.3%
Enter Parking Position/Roadside	0	-	0	-	6	0.5%	<b>6</b>	<b>0.4%</b>	0	0	5	5	0.1%
Parked Legally	0	-	1	0.3%	23	1.8%	<b>24</b>	<b>1.4%</b>	0	9	147	156	3.8%
Parked Illegally	0	-	0	-	0	-	<b>0</b>	<b>-</b>	0	0	6	7	0.2%
Swerving	0	-	1	0.3%	5	0.4%	<b>6</b>	<b>0.4%</b>	1	6	18	25	0.6%
Other	0	-	6	1.6%	16	1.2%	<b>22</b>	<b>1.3%</b>	0	0	2	3	<0.1%
Not Applicable/Unknown	2	16.7%	163	44.3%	483	37.3%	<b>648</b>	<b>38.7%</b>	2	116	462	580	14.1%
<b>Total</b>	<b>12</b>	<b>17%</b>	<b>368</b>	<b>54%</b>	<b>1,296</b>	<b>47%</b>	<b>1,676</b>	<b>48%</b>	<b>23</b>	<b>878</b>	<b>3,201</b>	<b>4,103</b>	<b>100%</b>

Note: Counts of vehicles in the 2007-2011 average may not add to the total due to rounding.

In 2012, most NSC commercial vehicles involved in a collision were “going straight ahead” when the collision occurred (32% of NSC vehicles involved in collisions; 75% involved in fatal collisions; 33% involved in injury collisions; and nearly 32% involved in PDO collisions). In the previous five year (2007 to 2011) annual average, “going straight ahead” was noted as the pre-collision action for 46% of all commercial vehicles involved in a collision.

Other pre-collision actions of commercial vehicles in 2012 include:

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

Considering fatal collisions, there are very few pre-collision actions noted in 2012. “Going straight ahead” was noted for 9 of 12 vehicles involved in a fatal collision, while “merging” was noted for 1 vehicle of the 12 involved.

Commercial vehicles involved in injury collisions in 2012 were noted most often as “going straight ahead” (33%). Other pre-collision actions of commercial vehicles involved in injury collisions include:

- Stopped or stopping (“stopped in traffic” and slowing/stopping on roadway” combined) – nearly 9%; and,
- Turning (“turning left” and “turning right” combined) – nearly 5%.

**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: 2012

Contributing Factor	2012 Collision Severity						2012 Total	% of 2012 Total
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	6	50.0%	170	46.2%	618	47.7%	794	47.4%
Driver Action - Driving properly	2	16.7%	3	0.8%	21	1.6%	26	1.6%
Any At-fault Driver Action	5	41.7%	93	25.3%	336	25.9%	434	25.9%
Follow too closely	0	-	27	7.3%	56	4.3%	83	5.0%
Turning improperly	1	8.3%	2	0.5%	27	2.1%	30	1.8%
Passing improperly	1	8.3%	2	0.5%	4	0.3%	7	0.4%
Changing lanes improperly	0	-	5	1.4%	31	2.4%	36	2.1%
Fail to yield right of way	0	-	9	2.4%	15	1.2%	24	1.4%
Disobey traffic control device/officer	1	8.3%	1	0.3%	5	0.4%	7	0.4%
Drive wrong way on roadway	1	8.3%	0	-	0	-	1	<0.1%
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-
Back unsafely	0	-	9	2.4%	90	6.9%	99	5.9%
Parking improperly	0	-	0	-	0	-	0	-
Lost control/Drive off road	0	-	7	1.9%	19	1.5%	26	1.6%
Driverless vehicle ran out of control	0	-	0	-	2	0.2%	2	0.1%
Leave stop sign before safe to do so	0	-	2	0.5%	6	0.5%	8	0.5%
Failed to signal	0	-	0	-	0	-	0	-
Take avoiding action	0	-	1	0.3%	6	0.5%	7	0.4%
Driver inexperience	0	-	0	-	6	0.5%	6	0.4%
Pedestrian error/confusion	1	8.3%	0	-	0	-	1	<0.1%
NET Speed	1	8.3%	11	3.0%	20	1.5%	32	1.9%
Exceeding speed limit	0	-	0	-	0	-	0	-
Driving too fast for conditions	1	8.3%	9	2.4%	19	1.5%	29	1.7%
Unsafe operating speed (Too fast or too slow)	0	-	2	0.5%	1	<0.1%	3	0.2%
NET Distracted driving	0	-	26	7.1%	75	5.8%	101	6.0%
Careless Driving	0	-	20	5.4%	67	5.2%	87	5.2%
Distraction/Inattention	0	-	6	1.6%	8	0.6%	14	0.8%

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Contributing Factor	2012 Collision Severity						2012 Total	% of 2012 Total
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	1	8.3%	38	10.3%	128	9.9%	167	10.0%
Any At-fault Human Condition	2	16.7%	6	1.6%	13	1.0%	21	1.3%
Loss of consciousness/Blackout prior to collision	0	-	0	-	1	<0.1%	1	<0.1%
Extreme fatigue/Fell asleep	0	-	0	-	2	0.2%	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	2	16.7%	0	-	2	0.2%	4	0.2%
Ability impaired alcohol	2	16.7%	0	-	2	0.2%	4	0.2%
Ability impaired drugs	0	-	0	-	0	-	0	-
Had been drinking/Suspected alcohol use	0	-	0	-	0	-	0	-
No apparent (vehicle) defect	8	66.7%	207	56.3%	679	52.4%	894	53.3%
Any at-fault vehicle defect	0	-	2	0.5%	20	1.5%	22	1.3%
Defective brakes	0	-	0	-	1	<0.1%	1	<0.1%
Defective steering	0	-	0	-	0	-	0	-
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	-	1	<0.1%	1	<0.1%
Defective suspension/wheels	0	-	0	-	1	<0.1%	1	<0.1%
Defective tires	0	-	1	0.3%	2	0.2%	3	0.2%
Tow hitch/yoke defective	0	-	0	-	2	0.2%	2	0.1%
Defective exhaust system	0	-	0	-	0	-	0	-
Hood/tailgate/door/covering opened	0	-	0	-	1	<0.1%	1	<0.1%
Defective glazing (obscured windows)	0	-	0	-	0	-	0	-
Vehicle modifications	0	-	0	-	2	0.2%	2	0.1%
Fire	0	-	0	-	0	-	0	-

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Contributing Factor	2012 Collision Severity						2012 Total	% of 2012 Total
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Overloaded/oversized	0	-	0	-	0	-	0	-
Load shifted/spilled	0	-	1	0.3%	4	0.3%	5	0.3%
Jack-knife/trailer swing	0	-	0	-	7	0.5%	7	0.4%
Hydroplaning tires	0	-	0	-	0	-	0	-
Any At-fault Environmental Condition	1	8.3%	7	1.9%	142	11.0%	150	8.9%
Animal action - Wild	0	-	2	0.5%	115	8.9%	117	7.0%
Animal action - Domestic	0	-	0	-	2	0.2%	2	0.1%
Slippery road surface	0	-	4	1.1%	13	1.0%	17	1.0%
Snow drift	0	-	0	-	0	-	0	-
Obstruction/debris on roadway	0	-	0	-	3	0.2%	3	0.2%
View obstructed/limited	0	-	0	-	5	0.4%	5	0.3%
Glare/reflection	0	-	0	-	1	<0.1%	1	<0.1%
Construction zone	0	-	0	-	2	0.2%	2	0.1%
Defective driving surface	0	-	0	-	0	-	0	-
Shoulders defective	0	-	0	-	0	-	0	-
Lane markings inadequate	0	-	0	-	0	-	0	-
Defective/inoperative traffic control device	0	-	0	-	0	-	0	-
Weather	1	8.3%	1	0.3%	3	0.2%	5	0.3%
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	-	88	23.9%	171	13.2%	259	15.5%
Not Applicable/Not Stated	0	-	0	-	0	-	0	-
<b>Total</b>	<b>12</b>	<b>100.0%</b>	<b>368</b>	<b>100.0%</b>	<b>1,296</b>	<b>100%</b>	<b>1,676</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: 2007 to 2011

Contributing Factor	2007-2011 Average Count of Vehicles				
	Fatal	Injury	PDO	Total Vehicles	% of Total Vehicles
Driver Action - Driving Properly and Human Condition - Apparently Normal	8	291	977	1,276	31.1%
Driver Action - Driving properly	1	39	147	187	4.6%
Any At-fault Driver Action	9	193	557	758	18.5%
Follow too closely	0	31	70	101	2.5%
Turning improperly	0	14	64	78	1.9%
Passing improperly	0	2	14	16	0.4%
Changing lanes improperly	0	5	40	45	1.1%
Fail to yield right of way	1	25	63	89	2.2%
Disobey traffic control device/officer	0	15	27	43	1.0%
Drive wrong way on roadway	0	0	2	2	<0.1%
Passing a vehicle at pedestrian X-walk	0	0	0	0	-
Back unsafely	0	3	73	76	1.9%
Parking improperly	0	1	4	5	0.1%
Lost control/Drive off road	3	32	39	74	1.8%
Driverless vehicle ran out of control	0	0	1	1	<0.1%
Leave stop sign before safe to do so	1	10	13	24	0.6%
Failed to signal	0	0	2	2	<0.1%
Take avoiding action	1	10	32	43	1.0%
Driver inexperience	0	7	21	28	0.7%
Pedestrian error/confusion	0	2	1	3	<0.1%
NET Speed	3	47	92	141	3.4%
Exceeding speed limit	1	2	4	7	0.2%
Driving too fast for conditions	2	33	78	113	2.7%
Unsafe operating speed (Too fast or too slow)	0	12	10	23	0.6%
NET Distracted driving	3	45	119	167	4.1%
Careless Driving	2	21	38	61	1.5%
Distraction/Inattention	1	26	85	113	2.7%
Human Condition - Apparently Normal	4	134	483	621	15.1%
Any at-fault human condition	3	42	107	152	3.7%
Loss of consciousness/Blackout prior to collision	0	2	1	4	<0.1%
Extreme fatigue/Fell asleep	0	6	5	10	0.3%
Defective eyesight	0	0	1	1	<0.1%
Defective hearing	0	0	0	0	<0.1%
Medical disability	0	0	1	2	<0.1%
Physical disability	0	0	1	1	<0.1%
Mental disability	0	0	0	0	<0.1%
Mental confusion/Inability to remember	0	1	0	1	<0.1%
Sudden illness	0	1	1	2	<0.1%
Exceed hours of service (commercial drivers only)	0	0	0	0	<0.1%
NET Impaired	1	7	13	22	0.5%
Ability impaired alcohol	0	5	9	14	0.3%
Ability impaired drugs	0	0	0	0	<0.1%
Had been drinking/Suspected alcohol use	1	3	5	8	0.2%
No apparent (vehicle) defect	11	404	1,279	1,694	41.3%
Any at-fault vehicle defect	0	11	34	45	1.1%
Defective brakes	0	2	6	8	0.2%

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Contributing Factor	2007-2011 Average Count of Vehicles				
	Fatal	Injury	PDO	Total Vehicles	% of Total Vehicles
Defective headlights	0	0	0	0	<0.1%
Defective steering	0	1	1	2	<0.1%
Defective brakelights	0	0	1	1	<0.1%
Defective lighting (unspecified)	0	1	1	1	<0.1%
Defective engine controls/drive train	0	1	1	3	<0.1%
Defective suspension/wheels	0	0	1	1	<0.1%
Defective tires	0	1	5	7	0.2%
Tow hitch/yoke defective	0	0	3	4	<0.1%
Defective exhaust system	0	0	0	1	<0.1%
Hood/tailgate/door/covering opened	0	0	1	1	<0.1%
Defective glazing (obscured windows)	0	0	0	0	<0.1%
Vehicle modifications	0	0	1	1	<0.1%
Fire	0	0	0	0	<0.1%
Overloaded/oversized	0	0	2	3	<0.1%
Load shifted/spilled	0	1	6	7	0.2%
Jack-knife/trailer swing	0	1	5	6	0.1%
Hydroplaning tires	0	1	0	1	<0.1%
Any At-fault Environmental Condition	2	88	467	556	13.6%
Animal action - Wild	0	12	208	221	5.4%
Animal action - Domestic	0	2	15	17	0.4%
Slippery road surface	1	44	161	206	5.0%
Snow drift	0	3	13	16	0.4%
Obstruction/debris on roadway	0	2	9	11	0.3%
View obstructed/limited	0	7	25	32	0.8%
Glare/reflection	0	2	3	4	0.1%
Construction zone	0	1	5	6	0.2%
Defective driving surface	0	5	11	16	0.4%
Shoulders defective	0	1	4	5	0.1%
Lane markings inadequate	0	0	1	1	<0.1%
Defective/inoperative traffic control device	0	1	2	3	<0.1%
Weather	0	12	32	44	1.1%
Pedestrian corridor in use	0	1	1	1	<0.1%
Uninvolved vehicle	0	1	8	9	0.2%
Uninvolved pedestrian	0	0	1	2	<0.1%
Presence of prior accident	0	1	2	4	<0.1%
No Contributing Factor(s) Identified	3	266	1,080	1,350	32.9%
Not Applicable/Not Stated	0	0	0	0	<0.1%
Total	23	878	3,201	4,103	100%

Note: Counts of vehicles in the 2007-2011 average may not add to the total due to rounding.

\*NOTE: Each driver and/or vehicle 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.

Drivers of NSC commercial vehicles involved in traffic collisions are most often noted as "driving properly" and being apparently normal" at the time of the collision. In 2012, 59% of the drivers of these vehicles involved in a collision are noted as "driving properly and being in a normal human condition", including 47% as both "driving properly and apparently normal", nearly 2% as "driving properly" and 10% as "apparently normal". Over the previous five year (2007 to 2011) annual average, more than half (51%) of commercial drivers involved in collisions are noted as "driving properly" and being in an "apparently normal" human condition.

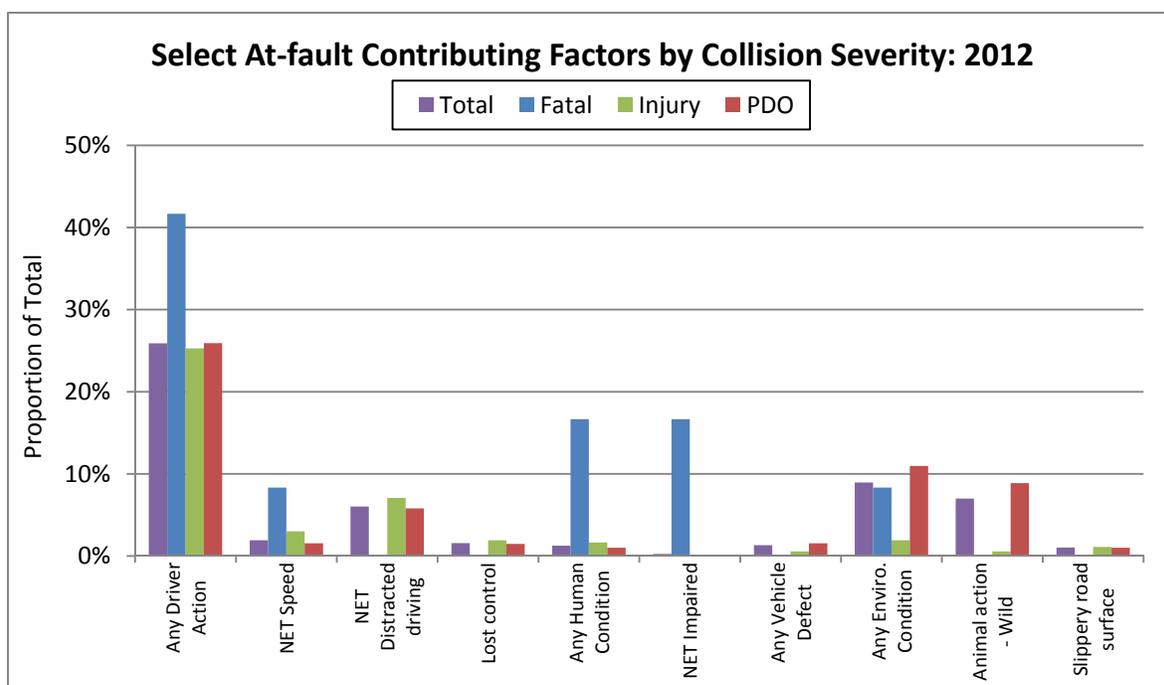
An at-fault driver action is recorded for 26% of the drivers of NSC commercial vehicles involved in traffic collisions in 2012, an increase from the previous five year (2007 to 2011) annual average (nearly 19%). An at-fault human condition is recorded for 1% of the drivers of these vehicles involved in traffic collisions in 2012, also down slightly from the previous five year (2007 to 2011) annual average (4%). Some of the specific driver actions and human conditions noted as contributing factors for drivers of NSC commercial vehicles involved in a traffic collision in 2012 include:

- Distracted driving – 6% (including “careless driving” – 5% and “distraction/inattention” – 1%);
- “Back unsafely” – 6%;
- “Following too closely” – 5%;
- “Change lanes improperly” – 2%;
- Speed – 2% (including “exceeding speed limit” – none, “driving too fast for conditions” – 2%, and “unsafe operating speed (too fast or too slow)” – 0.2%);
- “Turning improperly” – 2%;
- “Lost control/ drive off road” – nearly 2%;
- “Fail to yield right of way” – 1%; and
- “Leave stop sign before safe to do so” – nearly 1%.

A vehicle defect is recorded as a contributing factor for just over 1% of the commercial vehicles involved in a traffic collision in 2012. This is consistent with the previous five year (2007 to 2011) 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 9% of the commercial vehicles involved in traffic collisions in 2012 (down from 2007 to 2011 annual average of nearly 14%). The two most common environmental conditions recorded for commercial vehicles involved in a traffic collision in 2012 are “the action of a wild animal” (7%) 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 a 5 of 12 fatal collisions (42%) involving commercial vehicles in 2012.

**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: 2007 to 2012

Vehicle Category	2007 Total	% of 2007 Total	2008 Total	% of 2008 Total	2009 Total	% of 2009 Total	2010 Total	% of 2010 Total	2011 Total	% of 2011 Total	<b>2012 Total</b>	<b>% of 2012 Total</b>
Truck >4,500 kgs Unit Chassis	601	13.7%	516	13.2%	491	12.9%	543	12.8%	721	17.4%	<b>932</b>	<b>55.6%</b>
Power Unit (Semi-Trailer)	586	13.3%	484	12.3%	457	12.0%	506	11.9%	546	13.2%	<b>419</b>	<b>25.0%</b>
Truck - Other	2,960	67.3%	2,698	68.8%	2,673	70.3%	2,961	69.7%	2,654	64.0%	<b>88</b>	<b>5.3%</b>
School Bus	75	1.7%	69	1.8%	64	1.7%	90	2.1%	44	1.1%	<b>0</b>	<b>-</b>
Transit Bus - Urban	66	1.5%	67	1.7%	75	2.0%	96	2.3%	90	2.2%	<b>101</b>	<b>6.0%</b>
Para-Transit Bus	6	0.1%	4	0.1%	4	0.1%	1	<0.1%	8	0.2%	<b>8</b>	<b>0.5%</b>
Inter-City Bus	85	1.9%	64	1.6%	24	0.6%	26	0.6%	23	0.6%	<b>8</b>	<b>0.5%</b>
Bus - Other	21	0.5%	20	0.5%	12	0.3%	24	0.6%	58	1.4%	<b>120</b>	<b>7.2%</b>
<b>Total</b>	<b>4,400</b>	<b>100%</b>	<b>3,922</b>	<b>100%</b>	<b>3,800</b>	<b>100%</b>	<b>4,247</b>	<b>100%</b>	<b>4,144</b>	<b>100%</b>	<b>1,676</b>	<b>100%</b>

**Table 10-6 Historical Summary of Traffic Collision Victims where an NSC Commercial Vehicle is Involved by Vehicle Type**

Table 10-6  
Historical Summary of Traffic Collision Victims (Killed and Injured, Combined) where an NSC Commercial Vehicle is  
Involved by Vehicle Type: 2007 to 2012

Vehicle Category	2007 Total	% of 2007 Total	2008 Total	% of 2008 Total	2009 Total	% of 2009 Total	2010 Total	% of 2010 Total	2011 Total	% of 2011 Total	<b>2012 Total</b>	<b>% of 2012 Total</b>
Truck >4,500 kgs Unit Chassis	184	14.0%	131	11.4%	132	12.4%	131	11.7%	147	14.0%	<b>196</b>	<b>42.7%</b>
Power Unit (Semi-Trailer)	183	13.9%	151	13.2%	130	12.2%	112	10.0%	113	10.8%	<b>155</b>	<b>33.8%</b>
Truck - Other	879	66.8%	792	69.2%	720	67.4%	819	73.0%	702	67.0%	<b>22</b>	<b>4.8%</b>
School Bus	9	0.7%	13	1.1%	25	2.3%	19	1.7%	17	1.6%	<b>0</b>	<b>-</b>
Transit Bus - Urban	25	1.9%	35	3.1%	32	3.0%	30	2.7%	41	3.9%	<b>55</b>	<b>12.0%</b>
Para-Transit Bus	1	<0.1%	1	<0.1%	4	0.4%	0	-	2	0.2%	<b>5</b>	<b>1.1%</b>
Inter-City Bus	29	2.2%	12	1.0%	25	2.3%	5	0.4%	13	1.2%	<b>3</b>	<b>0.7%</b>
Bus - Other	6	0.5%	10	0.9%	0	-	6	0.5%	12	1.1%	<b>23</b>	<b>5.0%</b>
<b>Total</b>	<b>1,316</b>	<b>100%</b>	<b>1,145</b>	<b>100%</b>	<b>1,068</b>	<b>100%</b>	<b>1,122</b>	<b>100%</b>	<b>1,047</b>	<b>100%</b>	<b>459</b>	<b>100%</b>

NOTE: Information in Table 10-7 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 eleven year period 2002 to 2012 is presented. Details are provided for 2012 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.

Amendments to the *Highway Traffic Act (HTA)* that took effect in October 2011 significantly affected the number of recorded ORV collisions in Manitoba. Data for ORV collisions are drawn exclusively from police-reported Traffic Accident Reports (TARs). ORV collision counts between January and May 2012 are far below the 2006 to 2010 annual average. The Corporation surmises this is due to fewer traffic accident reports being taken by police because of a misunderstanding that HTA changes that took effect in October 2011 applied to ORV collisions when they did not. ORV collision counts normalized after May 2012.

### **Key Highlights**

In 2012, there are 47 off-road vehicle collisions, involving 54 victims, 54 vehicles, and 54 drivers. Of these:

- 8 are fatal collisions, involving 9 vehicles and 9 drivers, resulting in 9 people killed and 3 injured;
- 35 are injury collisions, involving 39 vehicles and 39 drivers, resulting in 42 people injured; and,
- 4 are PDO collisions, involving 6 vehicles and 6 drivers.

In 2012, ORV collisions occur most often:

- In winter (November to February) representing 22 of 47 collisions (47%).
- On Saturday and Sunday, representing 29 of 47 (64%) collisions, combined.
- During daylight, representing 33 of 47 (70%) collisions.
- In the Eastern Region of Manitoba, representing 18 of 47 (38%) collisions.
- Under the age of 45 (three-quarters of drivers involved in ORV collisions are under the age of 45).

Notwithstanding the overall collision trends, **fatal** ORV collisions in 2012 occur most often:

- In winter (November to February), representing 4 of 8 fatal collisions.
- During the “day” accounting for 5 of 8 fatal collisions.
- In the Northern and West Central Regions of Manitoba, cumulatively accounting for 5 of 8 fatal collisions.

### **Major Elements Examined**

Counts of off-road vehicle (ORV) collisions in Manitoba for 2012 and previous years are taken from Traffic Accident Reports completed by law enforcement agencies and 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 2002 through 2012. The remainder of this section explores ORV collisions occurring in 2012 and provides average counts of collisions for the time period of 2007 to 2011 as a comparison.

While it does not impact ORV collision statistics as much as other motor vehicle collision statistics, 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 vehicle involvement rates for off-road vehicles. This is due to the fact that ORVs are often not required to be registered, making base populations difficult to determine. Similarly, riders/operators often do not need to be licensed, making establishing a base population difficult to determine for driver involvement rate calculations.

“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 2007 to 2011. 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 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.

**“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: 2002 to 2012

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	<b>2012</b>	2007-11 Average
Total Collisions	100	123	139	162	176	132	137	126	107	72	<b>47</b>	115
Fatal	4	7	7	9	9	6	10	10	5	12	<b>8</b>	9
Injury	62	80	81	104	107	78	75	82	72	38	<b>35</b>	69
PDO	34	36	51	49	60	48	52	34	30	22	<b>4</b>	37
Total Victims	91	109	107	131	142	103	106	102	92	75	<b>54</b>	96
Killed	5	7	7	9	9	6	11	10	6	12	<b>9</b>	9
Injured	86	102	100	122	133	97	95	92	86	63	<b>45</b>	87
Total Vehicles Involved	129	149	188	206	228	174	166	153	133	100	<b>54</b>	145
Fatal	8	8	9	11	12	8	13	10	6	18	<b>9</b>	11
Injury	73	92	111	134	138	98	89	94	87	57	<b>39</b>	85
PDO	48	49	68	61	78	68	64	49	40	25	<b>6</b>	49
Total Drivers Involved	127	148	188	206	228	174	166	148	127	97	<b>54</b>	142
Fatal	7	8	9	11	12	8	13	10	6	18	<b>9</b>	11
Injury	73	91	111	134	138	98	89	93	83	54	<b>39</b>	83
PDO	47	49	68	61	78	68	64	45	38	25	<b>6</b>	48

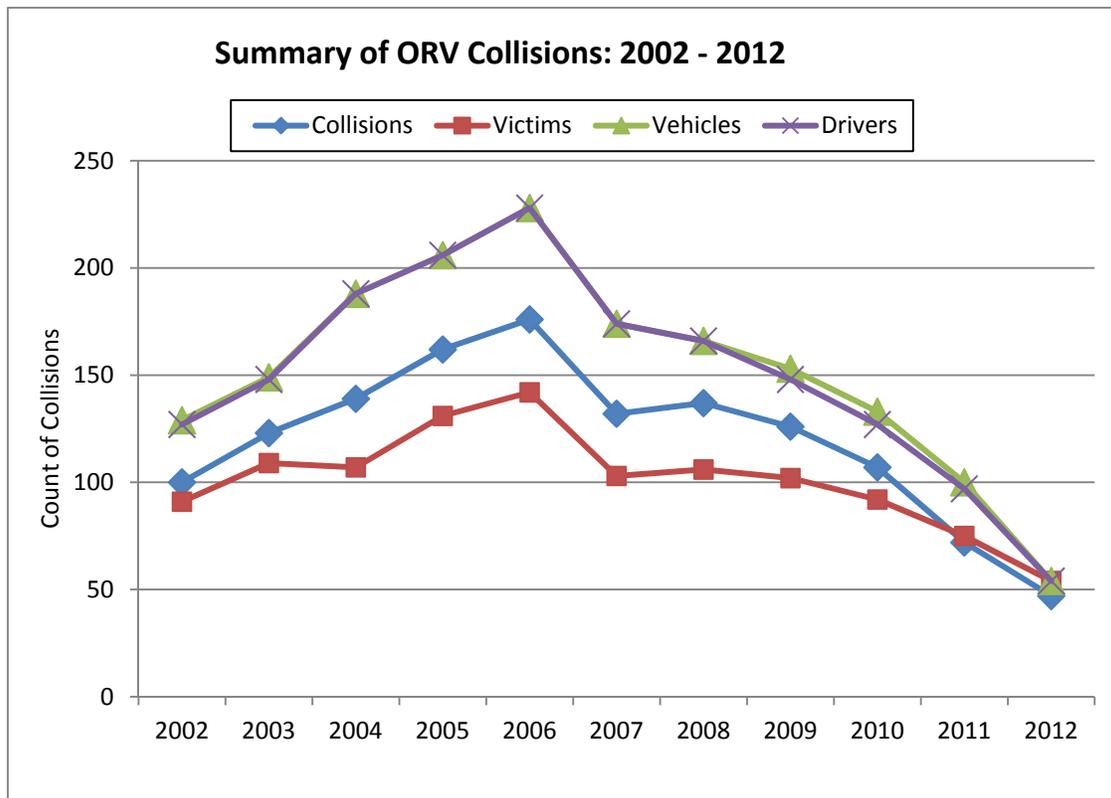
In 2012, there are 47 off-road vehicle collisions, involving 54 victims, 54 vehicles, and 54 drivers. Of these:

- 8 are fatal collisions, involving 9 vehicles and 9 drivers, resulting in 9 people killed and 3 injured;
- 35 are injury collisions, involving 39 vehicles and 39 drivers, resulting in 42 people injured; and,
- 4 are PDO collisions, involving 6 vehicles and 6 drivers.

Total ORV collisions in 2012 are 35% lower than in 2011 and nearly 59% lower than the average number of collisions in the previous five year (2007 to 2011) annual average. Compared to the previous five years, in 2012:

- ORV collision victims are down nearly 44%;
- No change in the number of people killed;
- The number of vehicles involved decreased by 63%; and,
- The number of drivers involved in decreased by 62%.

Caution is advised when interpreting decreases in ORV collision counts in 2012 compared to the previous five years as the HTA reporting change that took effect in October 2011 significantly affected the total number of ORV collisions reported this year. It is expected that the count of ORV collisions will normalize in 2013.

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

The numbers of ORV collisions and victims in those collisions have both decreased in 2012, continuing a downward trend since a peak in 2006. 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: 2012, 2007-2011 Average

	2012					2007-11 Average					% Change 2012 to 2007-11 Average				
	Snowmobile	ATV	Motorcycle	Other*	Total	Snowmobile	ATV	Motorcycle	Other*	Total	Snowmobile	ATV	Motorcycle	Other*	Total
Total Victims	21	26	1	6	<b>54</b>	41	36	5	14	96	-49.0%	-28.2%	-78.3%	-55.9%	-43.5%
Killed	5	3	1	0	<b>9</b>	3	4	1	1	9	47.1%	-28.6%	66.7%	-100.0%	0.0%
Injured	16	23	0	6	<b>45</b>	38	32	4	13	87	-57.7%	-28.1%	-100.0%	-53.1%	-48.0%
Total Vehicles Involved	22	23	1	8	<b>54</b>	70	41	5	29	145	-68.4%	-43.9%	-81.5%	-72.6%	-62.8%
Fatal	4	3	1	1	<b>9</b>	4	4	1	2	11	5.3%	-28.6%	25.0%	-54.5%	-18.2%
Injury	17	17	0	5	<b>39</b>	38	27	4	15	85	-55.7%	-38.0%	-100.0%	-66.2%	-54.1%
PDO	1	3	0	2	<b>6</b>	27	9	0	12	49	-96.4%	-68.1%	-100.0%	-83.6%	-87.8%
Total Drivers Involved	22	23	1	8	<b>54</b>	69	41	5	27	142	-68.3%	-43.3%	-81.5%	-70.4%	-62.1%
Fatal	4	3	1	1	<b>9</b>	4	4	1	2	11	5.3%	-28.6%	25.0%	-54.5%	-18.2%
Injury	17	17	0	5	<b>39</b>	38	27	4	14	83	-55.7%	-37.0%	-100.0%	-63.2%	-53.2%
PDO	1	3	0	2	<b>6</b>	27	9	0	11	48	-96.3%	-68.1%	-100.0%	-82.1%	-87.5%

\* 'Other' includes: vehicles not registered as an off-road vehicle, dune /sport buggy, 4 wheel drive motor vehicle (operated off-road), amphibious vehicle, and those listed under "not stated" category.

In 2012, a total of 54 vehicles were involved in off-road collisions, including:

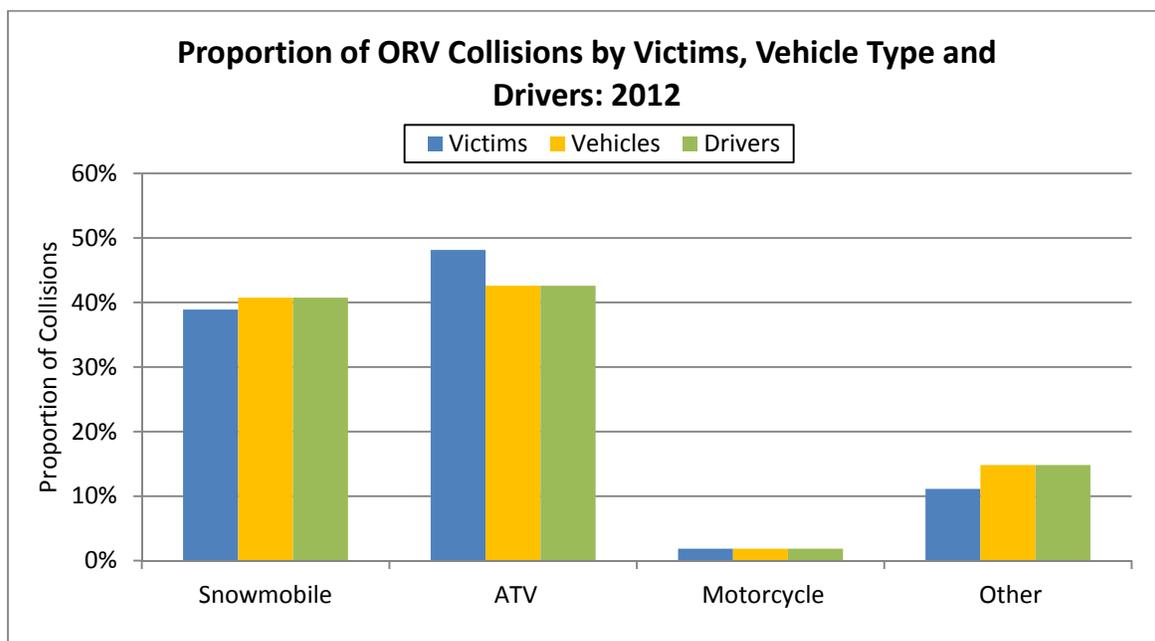
- 22 snowmobiles and snowmobile drivers, resulting in 21 victims including 5 people killed;
- 23 ATVs and ATV drivers, resulting in 26 victims including 3 people killed;
- 1 motorcycle and motorcycle drivers, resulting in 1 person killed; and,
- 8 'Other' vehicles and 'Other' drivers of those vehicles, resulting in 6 victims and no people killed.

Compared to the previous five year (2007 to 2011) annual average, in 2012:

- Snowmobile collisions are below average across all categories – victims are down by 49%, while vehicles and drivers involved are down by 68% each.
- ATV collisions are below average across all categories – victims are down by 28%, vehicles and drivers are down by 44% and 43% respectively.
- Motorcycle collisions are below average across all categories – victims are down by 78%, while vehicles and drivers involved are down by nearly 82% each.
- 'Other' vehicle collisions are below average across all categories – victims are down by 56%, while vehicles and drivers involved are down by nearly 73% and 70% 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 2012, ATVs account for the largest proportion of victims, drivers and vehicles involved in ORV collisions, followed by snowmobiles. 'Other' vehicles and motorcycles operated off-road account for the third largest and the smallest proportions respectively of victims, vehicles, and drivers involved in ORV collisions.

**Table 11-3 ORVs Involved in Collisions by Vehicle Type and Active Registration**

Table 11-3  
ORVs Involved in Collisions by Vehicle Type and Active Registration: 2012, 2007-2011  
Average

Vehicle Type	2012 Active Registration			2012 Total	2012 % Known to be Registered**	2007-11 Average Registered	% Change 2012 to 2007-11 Average
	Yes	No	Not Stated				
Snowmobile	14	2	6	22	63.6%	69	-68.3%
ATV	11	1	11	23	47.8%	41	-43.6%
Motorcycle	0	0	1	1	-	5	-79.2%
Other*	6	1	1	8	75.0%	29	-72.4%
Total	31	4	19	54	57.4%	144	-62.5%

\* 'Other' includes: vehicles not registered as an off-road vehicle, dune/sport buggy, 4 wheel drive motor vehicle (operated off-road), amphibious vehicle, and those listed under "not stated" category.

\*\* The "% known to be registered" is calculated as active registrations ('Yes' in the table) as a proportion of total ORVs in the category. "Not stated" is included in the total but are not considered as known to be registered.

A substantial number of off-road vehicles involved in collisions are not registered or not known to be registered (nearly 43%). In 2012, 31 of 54 off-road vehicles involved in collisions (57%) had active registrations at the time of the collision. At the time of the collision in 2012:

- 14 of 22 snowmobiles (nearly 64%) had active registrations;
- 11 of 23 ATVs (48%) had active registrations;
- 0 of 1 motorcycles (0%) had active registrations; and
- 6 of 8 'other' vehicles (75%), including on-road vehicles operating off-road at the time, had active registrations.

NOTE: For a detailed count of ORV vehicle types involved in collisions occurring in each year from 2007 to 2012, please refer to "Table 11-18 Historical Summary of ORVs Involved in Collisions by Vehicle Type and Active Registration" at the end of this section.

**Table 11-4 Drivers Involved in ORV Collisions by Active Driver's Licence and Collision Severity**

Table 11-4

Drivers Involved in ORV Collisions by Active Driver's Licence and Collision Severity: 2012, 2007-2011 Average

Active Driver's Licence	2012 Collision Severity						2012 Total	% of 2012 Total	2007-11 Average	% Change 2011 to 2007-11 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Yes	4	44.4%	32	82.1%	4	66.7%	<b>40</b>	<b>74.1%</b>	103	-61.2%
No	2	22.2%	4	10.3%	2	33.3%	<b>8</b>	<b>14.8%</b>	19	-58.3%
Not Stated	2	22.2%	2	5.1%	0	-	<b>4</b>	<b>7.4%</b>	19	-78.9%
Not Applicable	1	11.1%	1	2.6%	0	-	<b>2</b>	<b>3.7%</b>	1	66.7%
Total	9	100%	39	100%	6	100%	<b>54</b>	<b>100%</b>	142	-62.1%

In 2012, 74% of drivers in ORV collisions have an active driver's license while 15% do not.

- Fatal collisions: 4 of 9 drivers involved are licensed
- Injury collisions: 82% of drivers are licensed; 10% are unlicensed (5% not stated)
- PDO collisions: 4 of 6 drivers involved are licensed; 2 of 6 are unlicensed

**Table 11-5 Off-Road Vehicle Collisions by Month of Occurrence and Collision Severity**Table 11-5  
ORV Collisions by Month of Occurrence and Collision Severity: 2012, 2007-2011 Average

Month	2012 Collision Severity						2012 Total	% of 2012 Total	2007-11 Average	% Change 2012 to 2007-11 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
January	2	25.0%	0	-	0	-	2	4.3%	23	-91.4%
February	1	12.5%	1	2.9%	0	-	2	4.3%	19	-89.5%
March	0	-	0	-	1	25.0%	1	2.1%	19	-94.8%
April	1	12.5%	1	2.9%	0	-	2	4.3%	8	-74.4%
May	1	12.5%	1	2.9%	0	-	2	4.3%	6	-68.8%
June	1	12.5%	6	17.1%	1	25.0%	8	17.0%	10	-20.0%
July	1	12.5%	2	5.7%	0	-	3	6.4%	8	-63.4%
August	0	-	1	2.9%	1	25.0%	2	4.3%	8	-75.0%
September	0	-	4	11.4%	1	25.0%	5	10.6%	7	-24.2%
October	0	-	2	5.7%	0	-	2	4.3%	4	-54.5%
November	1	12.5%	6	17.1%	0	-	7	14.9%	3	105.9%
December	0	-	11	31.4%	0	-	11	23.4%	19	-42.7%
Total	8	100%	35	100%	4	100%	47	100%	136	-65.3%

The majority of ORV collisions in 2012 occur during the winter months (November, December, January, February). When combined, these four months account for almost half (nearly 47%) of ORV collisions. The summer months (June, July and August) account for 28% when combined.

In the previous five year (2007 to 2011) annual average, the majority of ORV collisions occurred in the winter and early spring, including December through to March.

NOTE: For a detailed count of ORV collisions by month of occurrence in each year from 2007 to 2012, please refer to "Table 11-19 Historical Summary of ORV Collisions by Month of Occurrence" at the end of this section.

**Table 11-6 Off-Road Vehicle Collisions by Day of Occurrence and Collision Severity**

Table 11-6  
ORV Collisions by Day of Occurrence and Collision Severity: 2012, 2007-2011 Average

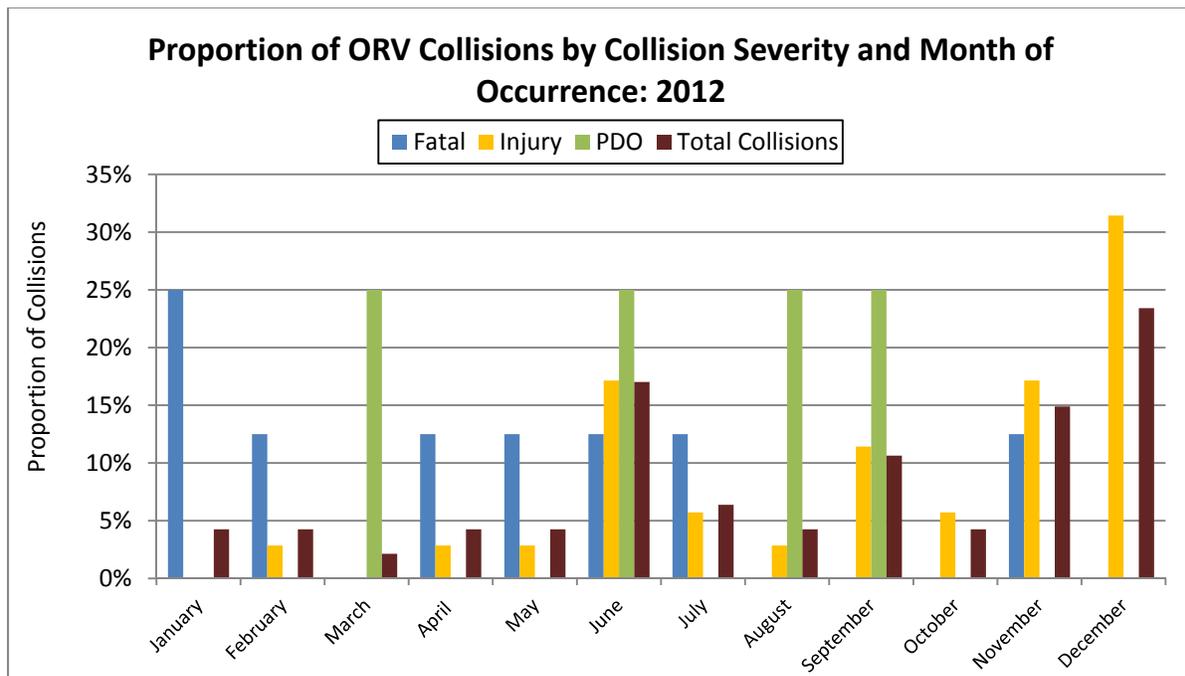
Day	2012 Collision Severity						2012 Total	% of 2012 Total	2007-11 Average	% Change 2012 to 2007-11 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Sunday	3	37.5%	11	33.3%	1	25.0%	15	33.3%	29	-47.9%
Monday	2	25.0%	4	12.1%	1	25.0%	7	15.6%	9	-25.5%
Tuesday	1	12.5%	2	6.1%	0	-	3	6.7%	7	-57.1%
Wednesday	1	12.5%	0	-	0	-	1	2.2%	8	-86.8%
Thursday	0	-	2	6.1%	0	-	2	4.4%	9	-77.3%
Friday	1	12.5%	2	6.1%	0	-	3	6.7%	17	-82.1%
Saturday	0	-	12	36.4%	2	50.0%	14	31.1%	35	-60.5%
Total	8	100%	33	100%	4	100%	45	100%	115	-60.8%

\*There are 2 "Not Stated" in 2012, so the total of known is 45, but overall is 47.

In 2012, nearly two-thirds (64%) of ORV collisions occurred on Saturday (31%) and Sunday (33%). Monday through Friday, combined, account for nearly 36% of ORV collisions.

In 2012, 33% of all ORV collisions, including 3 of the 8 fatal ORV collisions, happen on Sunday.

**Figure 11-3 Proportion of ORV Collisions by Collision Severity and Day of Occurrence**



**Table 11-7 Off-Road Vehicle Collisions by Time of Occurrence and Collision Severity**Table 11-7  
ORV Collisions by Time of Occurrence and Collision Severity: 2012, 2007-2011 Average

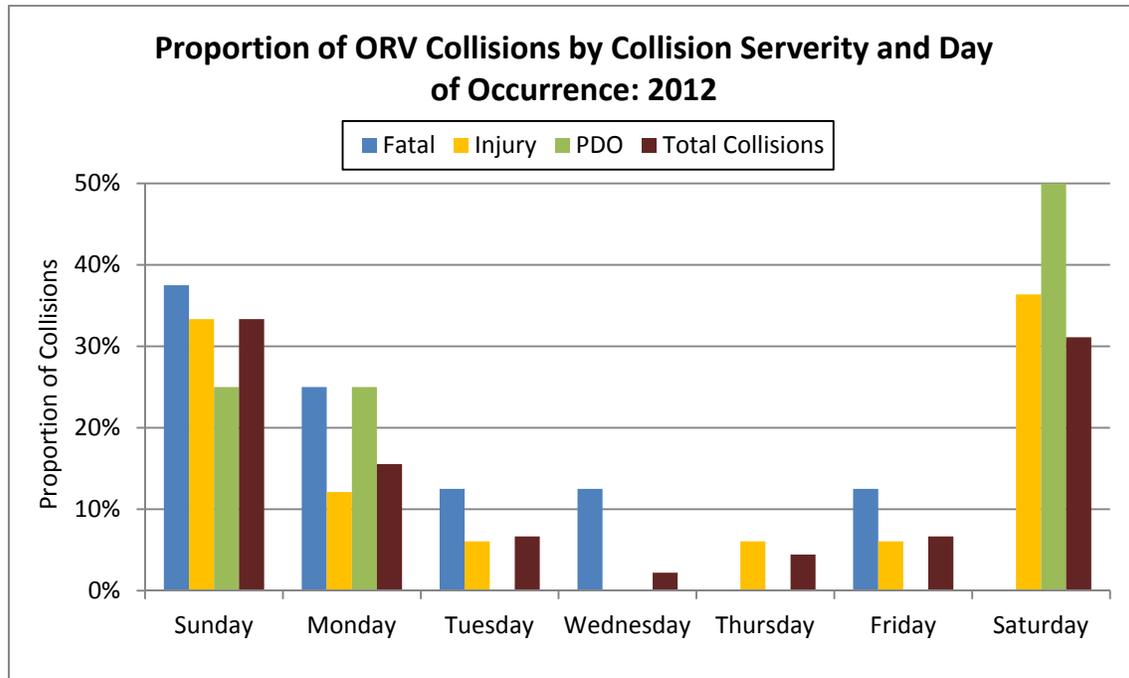
Time	2012 Collision Severity						2012 Total	% of 2012 Total	2007-11 Average	% Change 2011 to 2007-11 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
00:00 - 02:59	2	25.0%	1	2.9%	1	25.0%	4	8.5%	6	-3.2%
03:00 - 05:59	1	12.5%	1	2.9%	0	-	2	4.3%		
06:00 - 08:59	0	-	0	-	0	-	0	-	14	-78.6%
09:00 - 11:59	1	12.5%	2	5.7%	0	-	3	6.4%		
12:00 - 14:59	1	12.5%	8	22.9%	0	-	9	19.1%		
15:00 - 17:59	0	-	7	20.0%	1	25.0%	8	17.0%	55	-69.0%
18:00 - 20:59	1	12.5%	7	20.0%	1	25.0%	9	19.1%		
21:00 - 23:59	2	25.0%	3	8.6%	1	25.0%	6	12.8%	33	-54.5%
Not Stated	0	-	6	17.1%	0	-	6	12.8%		
Total	8	100%	35	100%	4	100%	47	100%	115	-59.1%

The majority of off-road collisions occur in the afternoon and early evening. In 2012, 55% of all ORV vehicle collisions occurred between noon and 9 p.m. (12:00 to 14:59 – 19%; 15:00 to 17:59 – 17%; 18:00 to 20:59 – 19%).

Comparing 2012 to the previous five year (2007 to 2011) annual average, there are small differences in the proportional distribution of ORV collisions by time of day.

- Morning (06:00 to 11:59) – 6% in 2012; 12% in the previous five years
- Afternoon (12:00 to 17:59) – 36% in 2012; 48% in the previous five years
- Evening (18:00 to 23:59) – 32% in 2012; 29% in the previous five years
- Overnight (00:00 to 05:59) – 13% in 2012; 5% in the previous five years

NOTE: The methodology for counting collisions by time of occurrence was changed in 2008. The new methodology uses three-hour rather than six-hour time periods. Historical data (2007 to 2011) is presented using the six-hour time periods.

**Figure 11-4 Proportion of Total ORV Collisions by Collision Severity and Time of Occurrence**

In 2012, the number of ORV collisions rises throughout the day, beginning with few collisions occurring between midnight and 9 a.m. and peaking between noon and 9 p.m. The count then drops off until midnight, further decreasing overnight through until 9 a.m.

Fatal ORV collisions in 2012 occurred most often between 9 p.m. and midnight (2 of 8) and between midnight and 3 a.m. (2 of 8).

**Table 11-8 Off-Road Vehicle Collisions by Light Condition and Collision Severity**Table 11-8  
ORV Collisions by Light Condition and Collision Severity: 2012, 2007-2011 Average

Light Condition	2012 Collision Severity						2012 Total	% of 2012 Total	2007-11 Average	% Change 2012 to 2007-11 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Day	5	62.5%	25	71.4%	3	75.0%	33	70.2%	73	-54.9%
Dawn	0	-	0	-	0	-	0	-	1	-100.0%
Dusk	0	-	2	5.7%	1	25.0%	3	6.4%	8	-62.5%
Dark	3	37.5%	5	14.3%	0	-	8	17.0%	28	-71.2%
Artificial Light	0	-	1	2.9%	0	-	1	2.1%	2	-44.4%
Not Stated	0	-	2	5.7%	0	-	2	4.3%	3	-33.3%
Total	8	100%	35	100%	4	100%	47	100%	115	-59.1%

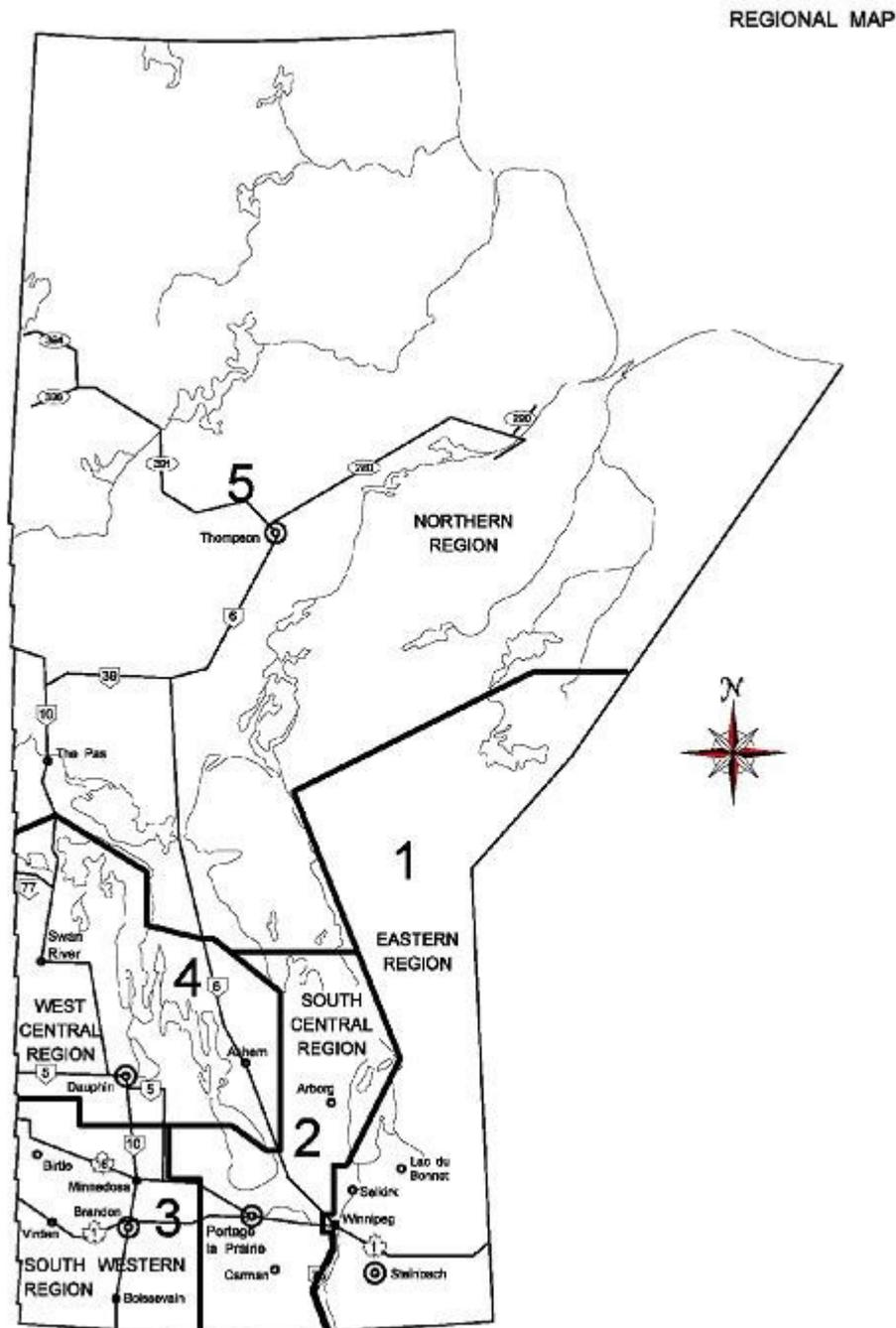
The majority of ORV collisions occur during daylight conditions, from a half hour after sunrise to a half hour before sunset. In 2012, "day" accounts for 33 of 47 collisions (70% of the total). An additional 8 collisions (17%) occurred during darkness. Three ORV collisions (6%) occurred at dusk.

**Table 11-9 ORV Collisions by Weather Condition and Collision Severity**Table 11-9  
ORV Collisions by Weather Condition and Collision Severity: 2012, 2007-2011 Average

Weather Condition	2012 Collision Severity						2012 Total	% of 2012 Total	2007-11 Average	% Change 2012 to 2007-11 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Clear	7	87.5%	25	71.4%	4	100.0%	36	76.6%	82	-56.0%
Cloudy	0	-	4	11.4%	0	-	4	8.5%	14	-72.2%
Raining	0	-	1	2.9%	0	-	1	2.1%	3	-66.7%
Snowing	1	12.5%	0	-	0	-	1	2.1%	4	-76.2%
Fog/Mist	0	-	1	2.9%	0	-	1	2.1%	2	-50.0%
Smoke/Dust	0	-	0	-	0	-	0	-	0	-
Drifting Snow	0	-	1	2.9%	0	-	1	2.1%	1	25.0%
Strong Winds	0	-	1	2.9%	0	-	1	2.1%	2	-
Not Stated	0	-	2	5.7%	0	-	2	4.3%	6	-66.7%
Total	8	100%	35	100%	4	100%	47	100%	115	-59.1%

The majority of ORV collisions occur when weather conditions are clear. In 2012, 36 of 47 collisions (nearly 77% of the total) occur in clear weather conditions. Another 4 collisions (nearly 9%) occur in cloudy weather.

Compared to the previous five year (2007 to 2011) annual average, the proportion of ORV collisions happening in clear conditions is consistent (nearly 77% in 2012; 71% in the previous five years). The proportion of ORV collisions happening in cloudy weather decreased (nearly 9% in 2012 compared to nearly 13% in the previous five years).

**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>4</sup> Off-road vehicle collisions are reported by location within these regions.

<sup>4</sup> 2007/2008 Annual Report for Manitoba Infrastructure and Transportation.

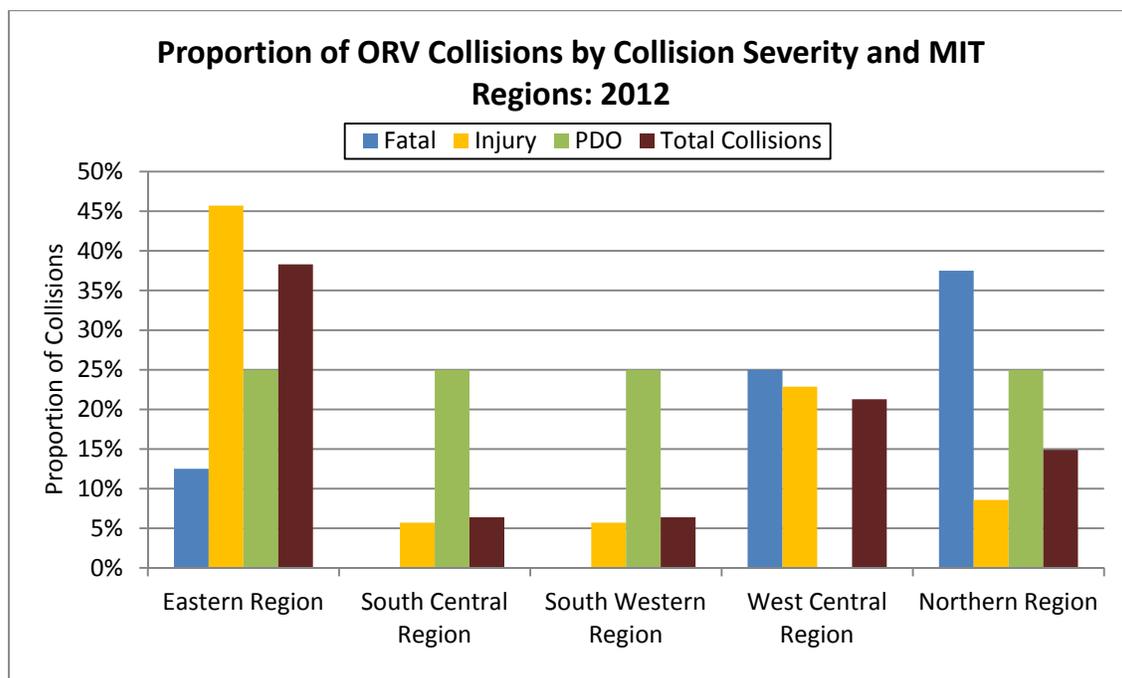
**Table 11-10 ORV Collisions by MIT Regions and Collision Severity**Table 11-10  
ORV Collisions by MIT Regions and Collision Severity: 2012, 2007-2011 Average

Region	2012 Collision Severity						2012 Total	% of 2012 Total	2007-11 Average	% Change 2012 to 2007-11 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Eastern Region	1	12.5%	16	45.7%	1	25.0%	18	38.3%	53	-66.0%
South Central Region	0	-	2	5.7%	1	25.0%	3	6.4%	15	-79.7%
South Western Region	0	-	2	5.7%	1	25.0%	3	6.4%	11	-72.2%
West Central Region	2	25.0%	8	22.9%	0	-	10	21.3%	17	-40.5%
Northern Region	3	37.5%	3	8.6%	1	25.0%	7	14.9%	16	-56.3%
Not Stated	2	25.0%	4	11.4%	0	-	6	12.8%	3	76.5%
Total	8	100%	35	100%	4	100%	47	100%	115	-59.1%

The Eastern Region of Manitoba historically accounts for the largest share of off-road vehicle accidents. In 2012, 18 of 47 collisions (38% of the total) occurred in the Eastern Region. The West Central Region followed with 10 collisions (21%), while the Northern Region had 7 collisions (15%).

The overall count of ORV collisions in 2012 is down across all regions in Manitoba (compared to the 2007 to 2011 annual average). The proportional distribution of collisions by region has fluctuated in 2012.

- Eastern Region – 38% of ORV collisions in 2012; 46% in previous five years
- South Central Region – 6% of ORV collisions in 2012; 13% in previous five years
- South Western Region – 6% of ORV collisions in 2012; 9% in previous five years
- West Central Region – 21% of ORV collisions in 2012; nearly 15% in previous five years
- Northern Region – nearly 15% of ORV collisions in 2012; 14% in previous five years

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

Fatal ORV collisions in 2012 occur most often in the Northern Region of Manitoba (3 of 8 fatal collisions). The West Central Region accounts for 2 of 8 fatal collisions.

**Table 11-11 Off-Road Vehicle Collisions by Location and Collision Severity**Table 11-11  
ORV Collisions by Location and Collision Severity: 2012, 2007-2011 Average

Location	2012 Collision Severity						2012 Total	% of 2012 Total	2007-11 Average	% Change 2012 to 2007-11 Average
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO				
Public Roadway	3	37.5%	11	31.4%	2	50.0%	16	34.0%	23	-31.0%
Ditches	0	-	9	25.7%	0	-	9	19.1%	22	-58.7%
River/Lake	1	12.5%	0	-	1	25.0%	2	4.3%	9	-78.7%
Field	1	12.5%	2	5.7%	0	-	3	6.4%	8	-60.5%
Farm Yard/Private Property	0	-	2	5.7%	0	-	2	4.3%	8	-75.6%
Parking Lot	0	-	0	-	0	-	0	-	2	-100.0%
Embankment	1	12.5%	0	-	0	-	1	2.1%	0	-
Gravel Road	0	-	0	-	1	25.0%	1	2.1%	2	-44.4%
Trail*	1		4		0		5	10.6%	28	
Other	0	-	1	2.9%	0	-	1	2.1%	2	-58.3%
Not Stated	1	12.5%	6	17.1%	0	-	7	14.9%	10	-27.1%
Total	8	87.5%	35	88.6%	4	100.0%	47	100.0%	115	-59.1%

\*Includes marked trail, groomed trail, bush trail, winter road and snowmobile trail.

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 2012, "public roadway" was the most common location for ORV collisions (16 of 47 collisions; 34%) followed by "ditches" (9 collisions; 19%).

The proportion of ORV collisions happening at specific locations in 2012 shows small differences when compared to the previous five year (2007 to 2011) annual average.

- "Public Roadway" – 34% in 2012; 20% in the previous five years.
- "Ditches" – 19% in 2012; 19% in the previous five years.
- "Trail" – nearly 11% in 2012; 25% in the previous five years.
- "Field" – 6% in 2012; nearly 7% in the previous five years.
- "River/Lake" – 4% in 2012; 8% in the previous five years.
- "Farm Yard/Private Property" – 4% in 2012; 7% in the previous five years.

NOTE: For a detailed count of ORV collisions by location in each year from 2007 to 2012, please refer to "Table 11-20 Historical Summary of ORV Collisions by Location" at the end of this section.

**Table 11-12 ORV Collision Victims by Age Group and Casualty Type**Table 11-12  
ORV Collision Victims by Age Group and Casualty Type: 2012, 2007-2011 Average

Age Group	2012 Casualty Type				2012 Total Victims	% of 2012 Total Victims	2007-11 Average			
	Killed	% of Total Killed	Injured	% of Total Injured			Killed	Injured	Total Victims	% of Total Victims
0-4	0	-	0	-	0	-	0	1	1	0.6%
5-9	0	-	0	-	0	-	<1	2	3	2.7%
10-14	2	22.2%	0	-	2	3.7%	<1	8	9	9.0%
15-19	1	11.1%	7	15.6%	8	14.8%	1	16	17	18.2%
20-24	1	11.1%	10	22.2%	11	20.4%	1	10	11	11.3%
25-34	0	-	8	17.8%	8	14.8%	1	14	16	16.5%
35-44	2	22.2%	9	20.0%	11	20.4%	1	14	15	15.5%
45-54	3	33.3%	4	8.9%	7	13.0%	2	11	13	13.6%
55-64	0	-	2	4.4%	2	3.7%	1	4	5	5.2%
65+	0	-	5	11.1%	5	9.3%	<1	2	2	2.3%
Not Stated	0	-	0	-	0	-	0	5	5	5.0%
Total	9	100%	45	100%	54	100%	9	87	96	100%

The majority of ORV collision victims are under the age of 45 (74% of all victims). In 2012, nearly 19% of ORV collision victims are under age 20 while 20% are age 20 to 24, 15% are age 25 to 34 and 20% are age 35 to 44 (20%). One quarter of victims are age 45 and older (13% age 45 to 54; 4% age 55 to 64; 9% aged 65 and older).

ORV collision victims in 2012 are, for the most part, consistent in terms of overall age demographic when compared with the previous five year (2007 to 2011) annual average. In the previous five years:

- Persons under the age of 15 account for 12% of all victims in ORV collisions, compared to 4% in 2012;
- Persons aged 15 to 44 account for nearly 62% of all victims in ORV collisions, compared to 70% in 2012;
- Persons aged 45 and above account for 21% of all victims in ORV collisions, compared to 26% in 2012.

NOTE: The classification of victims is different from that of drivers (see Table 11-16) as victims may be any age. Therefore, they are classified by 5-year age cohort up to age 24. While drivers of off-road vehicles may not be required to be licensed as for public roadway vehicles, 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 2006 to 2012, please refer to "Table 11-21 Historical Summary of ORV Collision Victims by Age Group" at the end of this section.

**Table 11-13 ORV Collision Victims by Gender and Casualty Type**

Table 11-13

ORV Collision Victims by Gender and Casualty Type: 2012, 2007-2011 Average

Gender	2012 Casualty Type				2012 Total Victims	% of 2012 Total Victims	2007-11 Average			
	Killed	% of Total Killed	Injured	% of Total Injured			Killed	Injured	Total Victims	% of Total Victims
Male	7	77.8%	28	62.2%	35	64.8%	8	64	72	75.7%
Female	2	22.2%	17	37.8%	19	35.2%	1	22	23	24.3%
Total	9	100%	45	100%	54	100%	9	87	96	100%

The majority of people killed in ORV collisions in 2012 are male. Males account for 35 of 54 ORV collision victims (65% of all victims). This is a decrease from the previous five year (2007 to 2011) annual average (nearly 76%).

**Table 11-14 ORV Collision Victims by Safety Equipment Use and Casualty Type**

Table 11-14

ORV Collision Victims by Safety Equipment Use and Casualty Type: 2012, 2007-2011 Average

Safety Equipment	2012 Casualty Type				2012 Total Victims	% of 2012 Total Victims	2007-11 Average				% Change 2012 to 2007-11 Average
	Killed	% of Total Killed	Injured	% of Total Injured			Killed	Injured	Total Victims	% of Total Victims	
Safety Helmet Worn	3	33.3%	15	33.3%	18	33.3%	3	37	40	39.2%	-55.0%
Safety Helmet Not Worn	3	33.3%	10	22.2%	13	24.1%	3	16	19	19.0%	-33.0%
Seat Belt Assembly Used	0	-	3	6.7%	3	5.6%	0	8	8	7.8%	-62.5%
Seat Belt Assembly Not Used	1	11.1%	0	-	1	1.9%	0	0	0	-	-
Not Stated	1	11.1%	11	24.4%	12	22.2%	1	19	20	19.2%	-38.8%
Not Applicable*	1	11.1%	6	13.3%	7	13.0%	2	13	15	14.7%	-53.3%
Total	9	100%	45	100%	54	100%	9	87	102	100%	-47.1%

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

In 2012, 18 victims (33%) in ORV collisions were wearing a safety helmet; 13 were not. This includes 3 people killed while wearing a helmet and 3 people killed while not wearing a helmet. The proportion of victims who were wearing a helmet (33%) has decreased relative to the previous five year annual average (2007 to 2011; 39%).

**Table 11-15 ORV Victims Killed vs. Injured for Helmeted and Non-helmeted ORV Occupants**

Table 11-15

ORV Victims Killed vs. Injured for Helmeted and Non-helmeted ORV Occupants (2007-2012)

	Helmet worn		Helmet not worn		Helmet Effectiveness
	Number	Percent	Number	Percent	(Ratio of % helmet not worn to % helmet worn)
Killed	19	8.7%	20	17.2%	1.98
Injured	199	91.3%	96	82.8%	0.91
Total	218	100%	116	100%	-

\* Data have been presented in aggregate for the years 2007 – 2012.

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 11-15 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, 9% are killed. Among people not wearing helmets when they sustain an injury from an ORV collision, 17% are killed. This indicates that an ORV collision victim is twice as likely to be killed if they are not wearing a helmet at the time of a collision.

**Table 11-16 Drivers Involved in ORV Collisions by Age Group and Collision Severity**

Table 11-16

Drivers Involved in ORV Collisions by Age Group and Collision Severity: 2012, 2007-2011 Average

Age Group	Collision Severity						2012 Total	% of 2012 Total*	2007-11 Average	% Change 2012 to 2007-11 Average
	Fatal	% of Total Fatal*	Injury	% of Total Injury*	PDO	% of Total PDO*				
<16	2	22.2%	1	2.7%	1	20.0%	4	7.8%	14	-72.2%
16-19	0	-	6	16.2%	0	-	6	11.8%	17	-65.5%
20-24	1	11.1%	6	16.2%	0	-	7	13.7%	16	-55.1%
25-34	1	11.1%	8	21.6%	4	80.0%	13	25.5%	25	-48.0%
35-44	2	22.2%	6	16.2%	0	-	8	15.7%	26	-69.7%
45-54	3	33.3%	2	5.4%	0	-	5	9.8%	21	-76.2%
55-64	0	-	3	8.1%	0	-	3	5.9%	10	-69.4%
65+	0	-	5	13.5%	0	-	5	9.8%	3	78.6%
Not Stated	0	-	2	-	1	-	3	-	10	-
Total	9	100%	39	100%	6	100%	54	100%	142	-62.1%

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

In 2012, drivers under the age of 45 account for three-quarters of drivers involved in ORV collisions (<16, 8%; 16 to 19, 12%; 20 to 24, 14%; 25 to 34, nearly 26%; 35 to 44, 16%), while drivers aged 45 and above account for one-quarter (45 to 54, 10%; 55 to 64, 6%; 65 and above, 10%).

Compared to previous five year (2007 to 2011) annual average, the 2012 distribution of drivers involved in ORV collisions are clustered more in the middle age groups, namely, the 25 to 34 age group.

**Table 11-17 ORV Collisions by Contributing Factors and Collision Severity**

Table 11-17

Drivers Involved in ORV Collisions by Contributing Factors and Collision Severity: 2012

Contributing Factor	2012 Collision Severity						2012 Total Collisions	% of 2012 Total Collisions
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Driver Action - Driving Properly and Human Condition - Apparently Normal	2	22.2%	6	15.4%	0	-	8	14.8%
Driver Action - Driving properly	1	11.1%	2	5.1%	0	-	3	5.6%
Any At-fault Driver Action	3	33.3%	13	33.3%	0	-	16	29.6%
Follow too closely	0	-	1	2.6%	0	-	1	1.9%
Turning improperly	0	-	0	-	0	-	0	-
Passing improperly	0	-	0	-	0	-	0	-
Changing lanes improperly	0	-	0	-	0	-	0	-
Fail to yield right-of-way	0	-	0	-	0	-	0	-
Disobey traffic control device/officer	0	-	0	-	0	-	0	-
Drive wrong way on roadway	0	-	0	-	0	-	0	-
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-
Back unsafely	0	-	0	-	0	-	0	-
Parking improperly	0	-	0	-	0	-	0	-
Lost control/Drive off road	0	-	3	7.7%	0	-	3	5.6%
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	-	0	-	0	-
Driver inexperience	1	11.1%	5	12.8%	0	-	6	11.1%
Pedestrian error/confusion	0	-	0	-	0	-	0	-
NET Speed	2	22.2%	5	12.8%	0	-	7	13.0%
Exceeding speed limit	1	11.1%	1	2.6%	0	-	2	3.7%
Driving too fast for conditions	0	-	2	5.1%	0	-	2	3.7%
Unsafe operating speed (Too fast or too slow)	2	22.2%	2	5.1%	0	-	4	7.4%
NET Distracted driving	0	-	2	5.1%	0	-	2	
Careless Driving	0	-	1	2.6%	0	-	1	1.9%
Distraction/Inattention	0	-	1	2.6%	0	-	1	

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Section 11

Off-Road Vehicle Collisions

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Contributing Factor	2012 Collision Severity						2012 Total Collisions	% of 2012 Total Collisions
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Human Condition - Apparently Normal	2	22.2%	12	30.8%	2	33.3%	16	29.6%
Any At-fault Human Condition	5	55.6%	6	15.4%	1	16.7%	12	22.2%
Loss of consciousness/Blackout prior to collision	0	-	0	-	0	-	0	-
Extreme fatigue/Fell asleep	0	-	0	-	0	-	0	-
Defective eyesight	0	-	0	-	0	-	0	-
Defective hearing	0	-	0	-	0	-	0	-
Medical disability	0	-	0	-	0	-	0	-
Physical disability	0	-	0	-	0	-	0	-
Mental disability	0	-	1	2.6%	0	-	1	1.9%
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	5	55.6%	4	10.3%	1	16.7%	10	18.5%
Ability impaired alcohol	4	44.4%	2	5.1%	1	16.7%	7	13.0%
Ability impaired drugs	0	-	0	-	0	-	0	-
Had been drinking/Suspected alcohol use	1	11.1%	2	5.1%	0	-	3	5.6%
No Apparent (Vehicle) Defect	4	44.4%	20	51.3%	3	50.0%	27	50.0%
Any At-fault Vehicle Defect	0	-	1	2.6%	0	-	1	1.9%
Defective brakes	0	-	0	-	0	-	0	-
Defective steering	0	-	0	-	0	-	0	-
Defective headlights	0	-	0	-	0	-	0	-
Defective brake lights	0	-	0	-	0	-	0	-
Defective lighting (unspecified)	0	-	0	-	0	-	0	-
Defective engine controls/drive train	0	-	0	-	0	-	0	-
Defective suspension/wheels	0	-	0	-	0	-	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	-	1	2.6%	0	-	1	1.9%
Load shifted/spilled	0	-	0	-	0	-	0	-

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## Section 11

## Off-Road Vehicle Collisions

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Contributing Factor	2012 Collision Severity						2012 Total Collisions	% of 2012 Total Collisions
	Fatal	% of Total Fatal	Injury	% of Total Injury	PDO	% of Total PDO		
Jack-knife/trailer swing	0	-	0	-	0	-	0	-
Hydroplaning tires	0	-	0	-	0	-	0	-
Any At-fault Environmental Condition	1	11.1%	7	17.9%	1	16.7%	9	16.7%
Animal action - Wild	0	-	0	-	0	-	0	-
Animal action - Domestic	0	-	0	-	1	16.7%	1	1.9%
Slippery road surface	0	-	0	-	0	-	0	-
Snow drift	0	-	1	2.6%	0	-	1	1.9%
Obstruction/debris on roadway	0	-	0	-	0	-	0	-
View obstructed/limited	0	-	4	10.3%	0	-	4	7.4%
Glare/reflection	0	-	0	-	0	-	0	-
Construction zone	0	-	0	-	0	-	0	-
Defective driving surface	1	11.1%	2	5.1%	0	-	3	5.6%
Shoulders defective	0	-	0	-	0	-	0	-
Lane markings inadequate	0	-	0	-	0	-	0	-
Defective/inoperative traffic control device	0	-	0	-	0	-	0	-
Weather	0	-	1	2.6%	0	-	1	1.9%
Pedestrian corridor in use	0	-	1	2.6%	0	-	1	1.9%
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	-	3	7.7%	2	33.3%	5	9.3%
Not Applicable/Not Stated	0	-	0	-	0	-	0	-
<b>Total</b>	<b>9</b>	<b>100%</b>	<b>39</b>	<b>100.0%</b>	<b>6</b>	<b>100.0%</b>	<b>54</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.

In 2012, at least one at-fault driver action is recorded for 16 of the 54 drivers involved in ORV collisions (nearly 30%), including:

- 3 of 9 drivers involved in fatal collisions;
- 13 of 39 drivers involved in injury collisions (33%); and,
- None of the drivers involved in PDO collisions.

The most prevalent at-fault driver actions include:

- Speed (including “Exceeding speed limit”, “Driving too fast for conditions” and “Unsafe operating speed”) – 13% of drivers involved;
- “Driver inexperience” – 11% of the drivers involved; and
- “Loss of control/drive off road” – nearly 6%.

At-fault human conditions were recorded for 22% of the drivers involved in ORV collisions. The most prevalent of these include:

- Impaired (including “ability impaired by alcohol”, “ability impaired by drugs” and “had been drinking/suspected alcohol use”) – nearly 19% of the drivers involved; and,
- “Mental disability” – 2% of the drivers involved.

At-fault environmental conditions were recorded as contributing for 17% of the drivers involved in ORV collisions. The most prevalent of these include:

- “View obstructed/limited” – 7% of the drivers involved; and,
- “Defective driving surface” – nearly 6% of the drivers involved.

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

In the previous five year (2007 to 2011) annual average of the drivers involved in ORV collisions:

- 45% had an at-fault driver action recorded, with 15% being distracted (“careless driving” and “distraction inattention”), 15% speed, and 10% “lost control/drive off road”;
- Nearly 15% had an at-fault ‘human condition’ recorded, with the most common being impaired (8%);
- 26% had an environmental condition recorded, with the most common being “obstruction/debris on roadway” (6%), “snow drift” (6%), “defective driving surface” (5%) and “slippery road surface” (4%); and,
- 4% had a vehicle defect recorded as a contributing factor.

In 2012, 3 of 9 fatal collisions had an at-fault driver action and 5 of 9 had an at-fault human condition. The most common at-fault contributing factors recorded for drivers involved in fatal ORV collisions in 2012 include:

- Impaired (including “ability impaired by alcohol”, “ability impaired by drugs” and “had been drinking/suspected alcohol use”) – 5 of 9 drivers.
- Speed (including “Exceeding speed limit”, “Driving too fast for conditions” and “Unsafe operating speed”) – 2 of 9 drivers;

NOTE: For a detailed count of ORV collisions by the contributing factors recorded in each year from 2007 to 2012, please refer to “*Table 11-22 Historical Summary of ORV Collisions by Contributing Factors*” at the end of this section.

**Table 11-18 Historical Summary of ORVs Involved in Collisions by Vehicle Type and Active Registration**

Table 11-18  
Summary of ORVs Involved in Collisions by Vehicle Type and Active Registration: 2007 to 2012

Vehicle Type	2007		2008		2009		2010		2011		2012	
	Active Registrations Involved	% Known to be Registered**	Active Registrations Involved	% Known to be Registered**	Active Registrations Involved	% Known to be Registered**	Active Registrations Involved	% Known to be Registered**	Active Registrations Involved	% Known to be Registered**	Active Registrations Involved	% Known to be Registered**
Snowmobile	94	76%	74	80%	64	70%	63	75%	52	87%	22	64%
ATV	37	54%	51	57%	57	58%	39	64%	20	65%	23	48%
Motorcycle	6	17%	7	29%	6	50%	2	50%	3	33%	1	-
Other*	37	84%	34	82%	26	81%	23	57%	25	56%	8	75%
Total	174	70.7%	166	71.1%	153	66.7%	127	67.7%	100	73%	54	57%

\* 'Other' includes: vehicles not registered as an off-road vehicle, dune /sport buggy, 4 wheel drive motor vehicle (operated off-road), amphibious vehicle, and those listed under "not stated" category.

\*\* The "% known to be registered" is calculated as active registrations as indicated on the TAR as a proportion of total ORVs in the category.

**Table 11-19 Historical Summary of ORV Collisions by Month of Occurrence**Table 11-19  
Summary of ORV Collisions by Month of Occurrence: 2007 to 2012

Month	2007 Total	% of 2007 Total	2008 Total	% of 2008 Total	2009 Total	% of 2009 Total	2010 Total	% of 2010 Total	2011 Total	% of 2011 Total	<b>2012 Total</b>	<b>% of 2012 Total</b>
January	27	20.5%	20	14.6%	23	14.6%	31	1.9%	14	19.4%	<b>2</b>	<b>4.3%</b>
February	17	12.9%	24	17.5%	16	17.5%	12	1.9%	18	25.0%	<b>2</b>	<b>4.3%</b>
March	17	12.9%	18	13.1%	10	13.1%	14	0.9%	18	25.0%	<b>1</b>	<b>2.1%</b>
April	9	6.8%	2	1.5%	6	1.5%	13	1.9%	6	8.3%	<b>2</b>	<b>4.3%</b>
May	4	3.0%	15	10.9%	6	10.9%	1	1.9%	3	4.2%	<b>2</b>	<b>4.3%</b>
June	4	3.0%	9	6.6%	14	6.6%	8	7.5%	2	2.8%	<b>8</b>	<b>17.0%</b>
July	2	1.5%	10	7.3%	14	7.3%	3	2.8%	4	5.6%	<b>3</b>	<b>6.4%</b>
August	7	5.3%	12	8.8%	7	8.8%	4	1.9%	1	1.4%	<b>2</b>	<b>4.3%</b>
September	6	4.5%	3	2.2%	7	2.2%	6	4.7%	1	1.4%	<b>5</b>	<b>10.6%</b>
October	7	5.3%	3	2.2%	6	2.2%	2	1.9%	3	4.2%	<b>2</b>	<b>4.3%</b>
November	5	3.8%	5	3.6%	5	3.6%	1	6.5%	1	1.4%	<b>7</b>	<b>14.9%</b>
December	27	20.5%	16	11.7%	12	11.7%	12	10.3%	1	1.4%	<b>11</b>	<b>23.4%</b>
<b>Total</b>	<b>132</b>	<b>100%</b>	<b>137</b>	<b>100%</b>	<b>126</b>	<b>100%</b>	<b>107</b>	<b>44%</b>	<b>72</b>	<b>100.00%</b>	<b>47</b>	<b>100%</b>

**Table 11-20 Historical Summary of ORV Collisions by Location**Table 11-20  
Summary of ORV Collisions by Location: 2007 to 2012

Location	2007 Total	% of 2007 Total	2008 Total	% of 2008 Total	2009 Total	% of 2009 Total	2010 Total	% of 2010 Total	2011 Total	% of 2011 Total	<b>2012 Total</b>	<b>% of 2012 Total</b>
Public Roadway	27	20.5%	27	19.7%	23	18.3%	17	15.9%	22	30.6%	<b>16</b>	<b>34.0%</b>
Ditches	23	17.4%	30	21.9%	25	19.8%	22	20.6%	9	12.5%	<b>9</b>	<b>19.1%</b>
River/Lake	9	6.8%	19	13.9%	9	7.1%	4	3.7%	6	8.3%	<b>2</b>	<b>4.3%</b>
Field	9	6.8%	12	8.8%	4	3.2%	7	6.5%	6	8.3%	<b>3</b>	<b>6.4%</b>
Farm Yard/Private Property	17	12.9%	7	5.1%	8	6.3%	9	8.4%	0	-	<b>2</b>	<b>4.3%</b>
Parking Lot	6	4.5%	1	0.7%	0	-	2	1.9%	1	1.4%	<b>0</b>	<b>-</b>
Embankment	0	-	1	0.7%	0	-	1	0.9%	0	-	<b>1</b>	<b>2.1%</b>
Gravel Road	0	-	2	1.5%	3	2.4%	3	2.8%	1	1.4%	<b>1</b>	<b>2.1%</b>
Trail**	33	25.0%	25	18.2%	36	28.6%	25	23.4%	23	31.9%	<b>5</b>	<b>10.6%</b>
Other	4	3.0%	0	-	2	1.6%	5	4.7%	1	1.4%	<b>1</b>	<b>2.1%</b>
Not Stated	4	3.0%	13	9.5%	16	12.7%	12	11.2%	3	4.2%	<b>7</b>	<b>14.9%</b>
<b>Total</b>	<b>132</b>	<b>100.0%</b>	<b>137</b>	<b>100.0%</b>	<b>126</b>	<b>100.0%</b>	<b>107</b>	<b>100.0%</b>	<b>72</b>	<b>100.0%</b>	<b>47</b>	<b>100.0%</b>

**Table 11-21 Historical Summary of ORV Collision Victims by Age Group**

Table 11-21  
 Historical Summary of ORV Collision Victims by Age Group: 2007 to 2012

Age Group	2007 Total	% of 2007 Total	2008 Total Victims	% of 2008 Total Victims	2009 Total	% of 2009 Total	2010 Total	% of 2010 Total	2011 Total	% of 2011 Total	2012 Total	% of 2012 Total
0-4	2	1.9%	0	-	1	1.0%	0	-	0	-	0	-
5-9	3	2.9%	5	4.7%	3	2.9%	1	1.1%	1	1.3%	0	1.3%
10-14	15	14.6%	12	11.3%	5	4.9%	7	7.6%	4	5.3%	2	5.3%
15-19	16	15.5%	23	21.7%	20	19.6%	14	15.2%	14	18.7%	8	18.7%
20-24	9	8.7%	11	10.4%	16	15.7%	9	9.8%	9	12.0%	11	12.0%
25-34	24	23.3%	16	15.1%	13	12.7%	18	19.6%	8	10.7%	8	10.7%
35-44	15	14.6%	17	16.0%	15	14.7%	14	15.2%	13	17.3%	11	17.3%
45-54	12	11.7%	9	8.5%	15	14.7%	16	17.4%	13	17.3%	7	17.3%
55-64	3	2.9%	5	4.7%	4	3.9%	9	9.8%	4	5.3%	2	5.3%
65+	1	1.0%	2	1.9%	1	1.0%	2	2.2%	5	6.7%	5	6.7%
Not Stated	3	2.9%	6	5.7%	9	8.8%	2	2.2%	4	5.3%	0	5.3%
<b>Total</b>	<b>103</b>	<b>100%</b>	<b>106</b>	<b>100%</b>	<b>102</b>	<b>100%</b>	<b>92</b>	<b>100%</b>	<b>75</b>	<b>100%</b>	<b>54</b>	<b>100.0%</b>

**Table 11-22 Historical Summary of ORV Collisions by Contributing Factors**

Table 11-22  
 Historical Summary of ORV Collisions by Contributing Factors: 2007 to 2012

Contributing Factor	2007 Total Collisions	% of 2007 Total Collisions	2008 Total Collisions	% of 2008 Total Collisions	2009 Total Collisions	% of 2009 Total Collisions	2010 Total Collisions	% of 2010 Total Collisions	2011 Total Collisions	% of 2011 Total Collisions	2012 Total Collisions	% of 2012 Total Collisions
Driver Action - Driving Properly and Human Condition - Apparently Normal	68	39.8%	59	36.9%	35	23.6%	27	21.3%	30	30.9%	8	14.8%
Driver Action - Driving properly	4	2.3%	5	3.1%	8	5.4%	9	7.1%	8	8.2%	3	5.6%
Any At-fault Driver Action	98	57.3%	92	57.5%	61	41.2%	36	28.3%	28	28.9%	16	29.6%
Following too closely	4	2.3%	3	1.9%	3	2.0%	0	-	0	-	1	1.9%
Turning improperly	1	0.6%	1	0.6%	1	0.7%	1	0.8%	2	2.1%	0	-
Passing improperly	0	-	0	-	0	-	0	-	0	-	0	-
Changing lanes improperly	0	-	0	-	0	-	0	-	1	1.0%	0	-
Fail to yield right-of-way	7	4.1%	4	2.5%	2	1.4%	2	1.6%	2	2.1%	0	-
Disobey traffic control device/officer	2	1.2%	1	0.6%	1	0.7%	0	-	1	1.0%	0	-
Drive wrong way on roadway	0	-	1	0.6%	2	1.4%	1	0.8%	0	-	0	-
Passing a vehicle at pedestrian X-walk	0	-	0	-	0	-	0	-	0	-	0	-
Back unsafely	2	1.2%	1	0.6%	1	0.7%	1	0.8%	0	-	0	-
Parking improperly	0	-	0	-	0	-	0	-	1	1.0%	0	-
Lost control/Drive off road	14	8.2%	20	12.5%	22	14.9%	10	7.9%	6	6.2%	3	5.6%
Driverless vehicle ran out of control	0	-	1	0.6%	0	-	0	-	0	-	0	-
Leave stop sign before safe to do so	2	1.2%	0	-	0	-	0	-	1	1.0%	0	-
Failed to signal	0	-	0	-	0	-	1	0.8%	0	-	0	-
Take avoiding action	4	2.3%	0	-	3	2.0%	1	0.8%	0	-	0	-
Driver inexperience	16	9.4%	8	5.0%	7	4.7%	6	4.7%	4	4.1%	6	11.1%
Pedestrian error/confusion	2	1.2%	0	-	0	-	0	-	0	-	0	-
NET Speed	32	18.7%	32	20.0%	19	12.8%	13	10.2%	6	6.2%	7	13.0%
Exceeding speed limit	5	2.9%	6	3.8%	1	0.7%	3	2.4%	1	1.0%	2	3.7%
Driving too fast for conditions	23	13.5%	14	8.8%	6	4.1%	6	4.7%	2	2.1%	2	3.7%
Unsafe operating speed (Too fast or too slow)	4	2.3%	12	7.5%	12	8.1%	5	3.9%	4	4.1%	4	7.4%
NET Distracted driving	23	13.5%	30	18.8%	26	17.6%	18	14.2%	11	11.3%	2	3.7%
Careless Driving	12	7.0%	21	13.1%	17	11.5%	12	9.4%	8	8.2%	1	1.9%
Distraction/Inattention	12	7.0%	12	7.5%	9	6.1%	7	5.5%	3	3.1%	1	1.9%

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## Section 11

## Off-Road Vehicle Collisions

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Contributing Factor	2007 Total Collisions	% of 2007 Total Collisions	2008 Total Collisions	% of 2008 Total Collisions	2009 Total Collisions	% of 2009 Total Collisions	2010 Total Collisions	% of 2010 Total Collisions	2011 Total Collisions	% of 2011 Total Collisions	2012 Total Collisions	% of 2012 Total Collisions
Human Condition - Apparently Normal	74	43.3%	69	43.1%	26	17.6%	19	15.0%	12	12.4%	16	29.6%
Any At-fault Human Condition	28	16.4%	27	16.9%	22	14.9%	18	14.2%	7	7.2%	12	22.2%
Loss of consciousness/Blackout prior to collision	0	-	0	-	0	-	0	-	0	-	0	-
Extreme fatigue/Fell asleep	0	-	0	-	0	-	0	-	0	-	0	-
Defective eyesight	0	-	0	-	1	0.7%	0	-	0	-	0	-
Defective hearing	0	-	0	-	0	-	0	-	0	-	0	-
Medical disability	0	-	1	0.6%	0	-	0	-	0	-	0	-
Physical disability	0	-	0	-	1	0.7%	0	-	0	-	0	-
Mental disability	0	-	0	-	0	-	0	-	0	-	1	1.9%
Mental confusion/Inability to remember	0	-	3	1.9%	0	-	0	-	0	-	0	-
Sudden illness	0	-	0	-	0	-	0	-	1	1.0%	0	-
Exceed hours of service (commercial drivers only)	0	-	0	-	0	-	0	-	0	-	0	-
NET Impaired	16	9.4%	11	6.9%	14	9.5%	11	8.7%	3	3.1%	10	18.5%
Ability impaired alcohol	8	4.7%	7	4.4%	7	4.7%	7	5.5%	2	2.1%	7	13.0%
Ability impaired drugs	1	0.6%	1	0.6%	1	0.7%	0	-	0	-	0	-
Had been drinking/Suspected alcohol use	7	4.1%	4	2.5%	6	4.1%	5	3.9%	1	1.0%	3	5.6%
No Apparent (Vehicle) Defect	104	60.8%	99	61.9%	63	42.6%	40	31.5%	45	46.4%	27	50.0%
Any At-fault Vehicle Defect	10	5.8%	10	6.3%	3	2.0%	2	1.6%	2	2.1%	1	1.9%
Defective brakes	1	0.6%	1	0.6%	0	-	1	0.8%	0	-	0	-
Defective steering	1	0.6%	0	-	0	-	0	-	0	-	0	-
Defective headlights	2	1.2%	0	-	0	-	0	-	0	-	0	-
Defective brake lights	0	-	0	-	0	-	0	-	0	-	0	-
Defective lighting (unspecified)	1	0.6%	0	-	0	-	0	-	2	2.1%	0	-
Defective engine controls/drive train	2	1.2%	4	2.5%	0	-	0	-	0	-	0	-
Defective suspension/wheels	0	-	1	0.6%	1	0.7%	0	-	0	-	0	-
Defective tires	1	0.6%	0	-	0	-	1	0.8%	0	-	0	-
Tow hitch/yoke defective	0	-	0	-	1	0.7%	0	-	0	-	0	-
Defective exhaust system	0	-	0	-	0	-	0	-	0	-	0	-
Hood/tailgate/door/covering opened	0	-	0	-	0	-	0	-	0	-	0	-
Defective glazing (obscured windows)	0	-	0	-	0	-	0	-	0	-	0	-
Vehicle modifications	0	-	1	0.6%	0	-	0	-	0	-	0	-
Fire	2	1.2%	3	1.9%	0	-	0	-	0	-	0	-

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## Section 11

## Off-Road Vehicle Collisions

(continued from previous page)

Contributing Factor	2007 Total Collisions	% of 2007 Total Collisions	2008 Total Collisions	% of 2008 Total Collisions	2009 Total Collisions	% of 2009 Total Collisions	2010 Total Collisions	% of 2010 Total Collisions	2011 Total Collisions	% of 2011 Total Collisions	2012 Total Collisions	% of 2012 Total Collisions
Overloaded/oversized	0	-	0	-	0	-	0	-	0	-	1	1.9%
Load shifted/spilled	0	-	0	-	0	-	0	-	0	-	0	-
Jack-knife/trailer swing	0	-	0	-	0	-	0	-	0	-	0	-
Hydroplaning tires	0	-	0	-	1	0.7%	0	-	0	-	0	-
Any At-fault Environmental Condition	55	32.2%	46	28.8%	30	20.3%	39	30.7%	15	15.5%	9	16.7%
Animal action - Wild	1	0.6%	2	1.3%	2	1.4%	1	0.8%	0	-	0	-
Animal action - Domestic	1	0.6%	0	-	1	0.7%	0	-	0	-	1	1.9%
Slippery road surface	8	4.7%	7	4.4%	4	2.7%	4	3.1%	5	5.2%	0	-
Snow drift	12	7.0%	12	7.5%	2	1.4%	10	7.9%	4	4.1%	1	1.9%
Obstruction/debris on roadway	10	5.8%	16	10.0%	11	7.4%	6	4.7%	2	2.1%	0	-
View obstructed/limited	6	3.5%	0	-	1	0.7%	6	4.7%	3	3.1%	4	7.4%
Glare/reflection	1	0.6%	1	0.6%	1	0.7%	2	1.6%	1	1.0%	0	-
Construction zone	0	-	0	-	0	-	0	-	0	-	0	-
Defective driving surface	10	5.8%	5	3.1%	8	5.4%	11	8.7%	1	1.0%	3	5.6%
Shoulders defective	0	-	0	-	0	-	0	-	0	-	0	-
Lane markings inadequate	1	0.6%	0	-	0	-	2	1.6%	0	-	0	-
Defective/inoperative traffic control device	2	1.2%	0	-	0	-	1	0.8%	0	-	0	-
Weather	3	1.8%	2	1.3%	1	0.7%	6	4.7%	0	-	1	1.9%
Pedestrian corridor in use	0	-	0	-	0	-	0	-	0	-	1	1.9%
Uninvolved vehicle	0	-	0	-	0	-	0	-	0	-	0	-
Uninvolved pedestrian	0	-	0	-	0	-	0	-	0	-	0	-
Presence of prior accident	0	-	1	0.6%	0	-	0	-	0	-	0	-
No Contributing Factor(s) Identified	1	0.6%	3	1.9%	3	2.0%	7	5.5%	7	7.2%	5	9.3%
Not Applicable/Not Stated	0	-	0	-	5	3.4%	1	0.8%	1	1.0%	0	-
<b>Total</b>	<b>171</b>	<b>100.0%</b>	<b>160</b>	<b>100.0%</b>	<b>148</b>	<b>100.0%</b>	<b>127</b>	<b>100.0%</b>	<b>97</b>	<b>100.0%</b>	<b>54</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.



## **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 2011 by age at the time of the offence and includes historical statistics for the period 1992 to 2011. There is a one-year lag in the statistics reported to allow for court processing time. Therefore, 2011 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 2011, there are a total of 1,956 alcohol-related Criminal Code offence convictions, including:

- 1,260 convictions for driving with a BAC over .08<sup>5</sup>;
- 577 convictions for impaired driving<sup>6</sup>; and,
- 95 convictions for refusing to provide a breath or blood sample<sup>7</sup>.

In the 20-year period from 1992 to 2011, the total alcohol-related Criminal Code convictions declined by 48%, from 3,752 in 1992 to 1,956 in 2011. 2011 is the first year since 2005 where a decrease in the number of alcohol-related Criminal Code convictions has been recorded from the previous year. Total convictions in 2011 (1,956 convictions) are down nearly 12% compared to 2010 (2,211 convictions) and 4% compared to the previous five year (2006 to 2010) annual average (2,042 convictions).

Over the past twenty years, alcohol-related Criminal Code convictions have declined in all age groups in Manitoba. Comparing the total number of convictions in 2011 to 1992 among drivers:

- Under 25 years of age, convictions declined by 46%;
- 25 to 44 years of age, convictions declined by 56%;
- 45 to 64 years of age, convictions declined by 16%; and,
- 65 years of age and older, convictions declined by 62%.

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

- Licensed drivers under age 25 represented 14% of the licensed drivers in 2011, but accounted for 31% of convictions.
- Drivers between the ages of 25 to 44 represented 33% of the licensed drivers in 2011, but accounted for 47% of convictions.

Rates of recidivism, indicated by second and third and subsequent offences, decreased substantially from 2001 to 2011. There was a 31% reduction in drivers convicted of a second alcohol-related Criminal Code offence, and a nearly 51% reduction in drivers convicted of a third and subsequent offence in 2011 when compared to 2001.

### **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 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.

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<sup>5</sup> Includes s.253B and s.253BC

<sup>6</sup> Includes s.253A and s.253AC

<sup>7</sup> Includes s.254-5 and s.254-5C

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 accident. Until 2004, Driver Records had noted whether the conviction was associated with an accident; that procedure has been discontinued and this report no longer includes a separate count for convictions occurring with or without an accident.

### 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>8</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”<sup>8</sup>: 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”<sup>8</sup>: 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>8</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: 1992 to 2011\*

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	
1992	3,018	N/A	324	N/A	41	3	366	N/A	3,752
1993	2,518	N/A	334	N/A	29	3	333	N/A	3,217
1994	2,516	N/A	405	N/A	34	2	362	N/A	3,319
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
<b>2011</b>	<b>1,252</b>	<b>8</b>	<b>577</b>	<b>0</b>	<b>19</b>	<b>5</b>	<b>94</b>	<b>1</b>	<b>1,956</b>
2006-10 Average	1,333	4	602	4	17	2	82	<1	2,042
% Change 2010 to 2011	-12.1%	166.7%	-13.0%	-100.0%	-17.4%	150.0%	4.4%	-	-11.5%
% Change 2006-10 Average to 2011	-6.0%	113.3%	-4.1%	-100.0%	9.2%	127.3%	14.6%	N/A	-4.2%
% Change 1992 to 2011	-58.5%	N/A	78.1%	N/A	-53.7%	66.7%	-74.3%	N/A	-47.9%

\*There is a one-year lag in the statistics reported to allow for court processing time. Therefore, 2011 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.

For the first time since 2005, convictions have decreased in 2011. Prior to the period of increases between 2006 and 2010 (1,831 in 2006, 2,211 in 2010), the total number of drivers convicted of an alcohol-related Criminal Code offence saw a general downward trend (3,752 in 1992, 1,681 in 2005).

In 2011, drivers convicted of alcohol-related Criminal Code offences (1,956) decreased by nearly 12% compared to 2010 (2,211) and by 4% compared to the previous five year (2006 to 2010) annual average (2,042). The average rate of change in the total count of alcohol-related Criminal Code convictions in the previous five-year period (2006 to 2010) is an increase of 6% each year.

Comparing 2011 to the previous five year (2006 to 2010) annual average:

- Convictions for "alcohol concentration over .08" decreased by 6%;
- Convictions for "impaired driving" decreased by 4%; and,
- Convictions for "refuse sample" increased by nearly 15%.

There were 8 convictions for driving with a "BAC over .08" with a youth in the vehicle, none for "impaired driving" with a youth in the vehicle and 1 for "refusing to provide a breath sample" with a youth in the vehicle in 2011. Because 2011 is only the fifth year in which it was possible to be charged with these offences, there is no historical data available for the years 1992 to 2006 to determine any long term trends in these convictions.

In the 20-year period from 1992 to 2011, total alcohol-related Criminal Code convictions declined by 48%, from 3,752 in 1992 to 1,956 in 2011.

- Convictions for "alcohol concentration over .08" decreased by nearly 59% (3,018 in 1992 to 1,252 in 2011).
- Convictions for "impaired driving" increased by 78% (324 in 1992 to 577 in 2011).
- Convictions for "refuse sample" decreased by 74% (366 in 1992 to 94 in 2011).

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

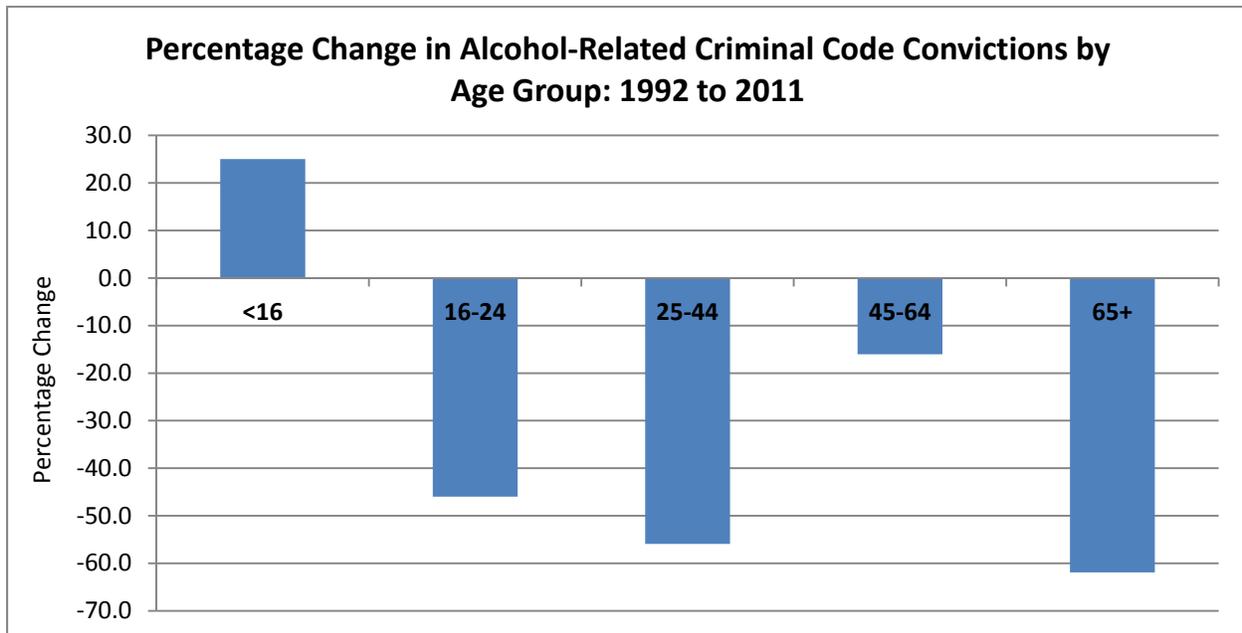
Table 12-2  
Total Alcohol-Related Criminal Code Convictions by Age Group: 1992 to 2011

	<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
1992	4	86	426	606	667	624	431	365	206	129	83	62	42	13	8	3,752
1993	7	64	286	494	584	543	402	292	194	146	79	67	31	22	6	3,217
1994	5	49	363	473	553	566	435	288	205	138	88	86	42	24	4	3,319
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
<b>2011</b>	<b>5</b>	<b>36</b>	<b>235</b>	<b>333</b>	<b>334</b>	<b>220</b>	<b>200</b>	<b>166</b>	<b>157</b>	<b>122</b>	<b>88</b>	<b>36</b>	<b>15</b>	<b>7</b>	<b>2</b>	<b>1,956</b>
2006-10 Average	6	49	262	321	319	245	217	198	172	112	67	41	22	7	5	2,042
% Change 2010 to 2011	-37.5%	-16.3%	-17.8%	-6.5%	-5.4%	-8.7%	-20.0%	-16.2%	-7.1%	-8.3%	15.8%	-34.5%	-54.5%	0.0%	-33.3%	-11.5%
% Change 2006-10 Average to 2011	-13.8%	-27.1%	-10.2%	3.8%	4.8%	-10.1%	-7.8%	-16.2%	-8.8%	8.5%	31.7%	-12.2%	-30.6%	-5.4%	-58.3%	-4.2%
% Change 1992 to 2011	25.0%	-58.1%	-44.8%	-45.0%	-49.9%	-64.7%	-53.6%	-54.5%	-23.8%	-5.4%	6.0%	-41.9%	-64.3%	-46.2%	-75.0%	-47.9%

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

During the twenty-year period 1992 to 2011, all age groups recorded declines in alcohol-related Criminal Code convictions with the exception of those drivers under the age of 16. Convictions among drivers under the age of 16 increased from 4 in 1992 to 5 in 2011. Alternatively, convictions among drivers aged: 16 to 24 decreased by 46%; 25 to 44 decreased by 56%; 45 to 64 decreased by 16%; and, 65 and older decreased by 62%.

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



Comparing convictions in 2011 to the previous five year (2006 to 2010) annual average:

- There are 4% fewer convictions in total (a count of 86);
- The youngest and oldest age groups show decreases in the number of convictions (under age 16 down by a count of 1; aged 65 and older down by a count of 10);
- 16 to 24 year olds decrease by 4% (a count of 28);
- 25 to 44 year olds decrease by 6% (a count of 58); and,
- 45 to 64 year olds increase by 3% (a count of 11).

**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: 2011

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	3	0	1	0	1	0	0	0	5
16-17	22	0	9	0	1	1	3	0	36
18-20	170	1	57	0	3	0	4	0	235
21-24	219	1	99	0	1	0	13	0	333
25-29	208	1	104	0	3	1	17	0	334
30-34	144	2	61	0	3	0	10	0	220
35-39	121	1	59	0	2	1	15	1	200
40-44	105	1	46	0	1	0	13	0	166
45-49	98	0	49	0	3	2	5	0	157
50-54	78	1	36	0	0	0	7	0	122
55-59	49	0	36	0	1	0	2	0	88
60-64	22	0	13	0	0	0	1	0	36
65-69	6	0	6	0	0	0	3	0	15
70-74	6	0	1	0	0	0	0	0	7
75+	1	0	0	0	0	0	1	0	2
<b>Total</b>	<b>1,252</b>	<b>8</b>	<b>577</b>	<b>0</b>	<b>19</b>	<b>5</b>	<b>94</b>	<b>1</b>	<b>1,956</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: 2001, 2006 and 2011

Age Group	2001			2006			2011		
	# Alcohol Convictions	% Total Alcohol Convictions	% Licensed Drivers	# Alcohol Convictions	% Total Alcohol Convictions	% Licensed Drivers	# Alcohol Convictions	% Total Alcohol Convictions	% Licensed Drivers
<16-24*	838	32.5%	14.6%	623	34.0%	14.4%	609	31.1%	14.3%
25-44	1,299	50.3%	39.2%	837	45.7%	35.1%	920	47.0%	33.4%
45-64	403	15.6%	31.7%	345	18.8%	35.3%	403	20.6%	36.2%
65+	40	1.6%	14.5%	26	1.4%	15.2%	24	1.2%	16.0%
<b>Total</b>	<b>2,580</b>	<b>100%</b>	<b>100%</b>	<b>1,831</b>	<b>100%</b>	<b>100%</b>	<b>1,956</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.

Overall, alcohol-related convictions decreased by 24% from 2001 (count of 2,580) to 2011 (count of 1,956).

#### <16 to 24 Age Group

Licensed drivers up to the age of 24 accounted for nearly 15% of all licensed drivers in 2001, but they accounted for 34% of alcohol offence convictions. In 2011, these drivers represented 14% of the licensed drivers, but accounted for 31% of convictions.

#### 25 to 44 Age Group

Drivers between the ages of 25 to 44 account for the largest proportion of alcohol-related Criminal Code convictions and of licensed drivers, but continue to be overrepresented in alcohol-related Criminal Code convictions. In the years 2001, 2006 and 2011, drivers in this group made up 39%, 35% and 33% of licensed drivers, respectively. However, these drivers accounted for 50%, 46% and 47% 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 2001, 2006 and 2011, drivers in this group made up 32%, 35% and 36%, respectively, of licensed drivers. At the same time, these drivers accounted for nearly 16%, 19% and 21%, 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 2001, 2006 and 2011, drivers 65 years of age and older made up nearly 15%, 15% and 16% of licensed drivers, respectively, but accounted for only nearly 2%, 1% and 1% 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: 2001, 2006 and 2011

Age Group	2001			2006			2011		
	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	838	101,633	8.2	624	104,452	6.0	609	116,463	5.2
25-44	1,299	272,414	4.8	838	254,445	3.3	920	271,832	3.4
45-64	403	220,652	1.8	344	255,534	1.3	403	294,885	1.4
65+	40	101,048	0.4	25	109,899	0.2	24	130,511	0.2
<b>Total</b>	<b>2,580</b>	<b>695,747</b>	<b>3.7</b>	<b>1,831</b>	<b>724,330</b>	<b>2.5</b>	<b>1,956</b>	<b>813,691</b>	<b>2.4</b>
<b>First Occurrence</b>									
<16-24	752	101,633	7.4	576	104,452	5.5	553	116,463	4.7
25-44	1103	272,414	4.0	732	254,445	2.9	812	271,832	3.0
45-64	362	220,652	1.6	312	255,534	1.2	359	294,885	1.2
65+	37	101,048	0.4	22	109,899	0.2	23	130,511	0.2
<b>Total</b>	<b>2,254</b>	<b>695,747</b>	<b>3.2</b>	<b>1,642</b>	<b>724,330</b>	<b>2.3</b>	<b>1,747</b>	<b>813,691</b>	<b>2.1</b>
<b>Second Occurrence</b>									
<16-24	71	101,633	0.7	43	104,452	0.4	51	116,463	0.4
25-44	145	272,414	0.5	83	254,445	0.3	84	271,832	0.3
45-64	27	220,652	0.1	25	255,534	0.1	34	294,885	0.1
65+	2	101,048	<0.1	3	109,899	<0.1	0	130,511	-
<b>Total</b>	<b>245</b>	<b>695,747</b>	<b>0.4</b>	<b>154</b>	<b>724,330</b>	<b>0.2</b>	<b>169</b>	<b>813,691</b>	<b>0.2</b>
<b>Third and Subsequent Occurrence</b>									
<16-24	15	101,633	0.1	5	104,452	0.0	5	116,463	0.0
25-44	51	272,414	0.2	23	254,445	0.1	24	271,832	0.1
45-64	14	220,652	<0.1	7	255,534	<0.1	10	294,885	<0.1
65+	1	101,048	<0.1	0	109,899	-	1	130,511	<0.1
<b>Total</b>	<b>81</b>	<b>695,747</b>	<b>0.1</b>	<b>35</b>	<b>724,330</b>	<b>&lt;0.1</b>	<b>40</b>	<b>813,691</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 relative involvement rate of drivers in alcohol-related Criminal Code convictions has declined by 35% (3.7 per 1,000 licensed drivers in 2001; 2.4 per 1,000 licensed drivers in 2011).<sup>9</sup>

<sup>9</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 8.2, 6.0 and 5.2 alcohol-related Criminal Code convictions in 2001, 2006 and 2011, respectively. The 2011 rate for this age group is nearly 37% below the 2001 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 4.8 in 2001, 3.3 in 2006, and 3.4 in 2011. The 2011 rate for this age group is 29% below the 2001 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 1.8 in 2001, 1.3 in 2006, and 1.4 in 2011. The 2011 rate for this age group is 25% below the 2001 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 0.4 in 2001, 0.2 in 2006, and 0.2 in 2011. The 2011 rate for this age group is nearly 54% below the 2001 rate.

First Occurrence

In 2011, the number of drivers convicted of an alcohol-related Criminal Code offence for the **first** time has decreased by nearly 23% compared to ten years ago (2,254 in 2001; 1,747 in 2011).

Comparing the involvement rates (per 1,000 licensed drivers) for 2001 and 2011, first occurrence Criminal Code convictions for all age groups decreased.

- Age 24 and under – a 36% decrease in 2011 compared to 2001
- Age 25 to 44 – a 26% decrease in 2011 compared to 2001
- Age 45 to 64 – a 26% decrease in 2011 compared to 2001
- Age 65 and older – a 52% decrease in 2011 compared to 2001

Second Occurrence

In 2011, the number of drivers convicted of an alcohol-related Criminal Code offence for the **second** time has decreased by 31% compared to ten years ago (245 in 2001; 169 in 2011).

Comparing the involvement rates (per 1,000 licensed drivers) for 2001 and 2011, second occurrence Criminal Code convictions for all age groups decreased or remained the same.

- Age 24 and under – a 37% decrease in 2011 compared to 2001
- Age 25 to 44 – a 42% decrease in 2011 compared to 2001
- Age 45 to 64 – a 6% decrease in 2011 compared to 2001
- Age 65 and older – was less than 0.1 per 1,000 drivers in 2001 and 0 per 1,000 drivers 2011

Third and Subsequent Occurrence

In 2011, the number of drivers convicted of an alcohol-related Criminal Code offence for the **third and subsequent** time has decreased by nearly 51% compared to ten years ago (81 in 2001; 40 in 2011).

Comparing the involvement rates (per 1,000 licensed drivers) for 2001 and 2011, third and subsequent occurrence Criminal Code for all age groups decreased or remained the same.

- Age 24 and under – a count of 5 in 2011 compared to 15 in 2001
- Age 25 to 44 – a count of 24 in 2011 compared to 51 in 2001
- Age 45 to 64 – a count of 10 in 2011 compared to 14 in 2001
- Age 65 and older – a count of 1 in 2011 compared to 1 in 2001

CAUTION: Please interpret numbers of convictions for 'second' and 'third and subsequent' offences with care. Due to the small numbers of these convictions overall, small shifts in the counts can produce relatively large percentage change difference.



# **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>10</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>10</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.

