



Alberta Traffic Collision Statistics Summary 2018

Traffic Safety, Alberta Transportation

www.alberta.ca/collision-vehicle-licence-statistics.aspx
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Alberta Traffic Collisions

2014 – 2018

Severity of Collisions	2018	2017	2016	2015	2014
Fatal Collisions	246	259	273	288	328
Non-Fatal Injury Collisions	12,852	13,082	12,465	13,531	14,244
Property Damage Collisions	129,498	129,126	120,386	126,886	130,168
Total Reportable Collisions	142,596	142,467	133,124	140,705	144,740

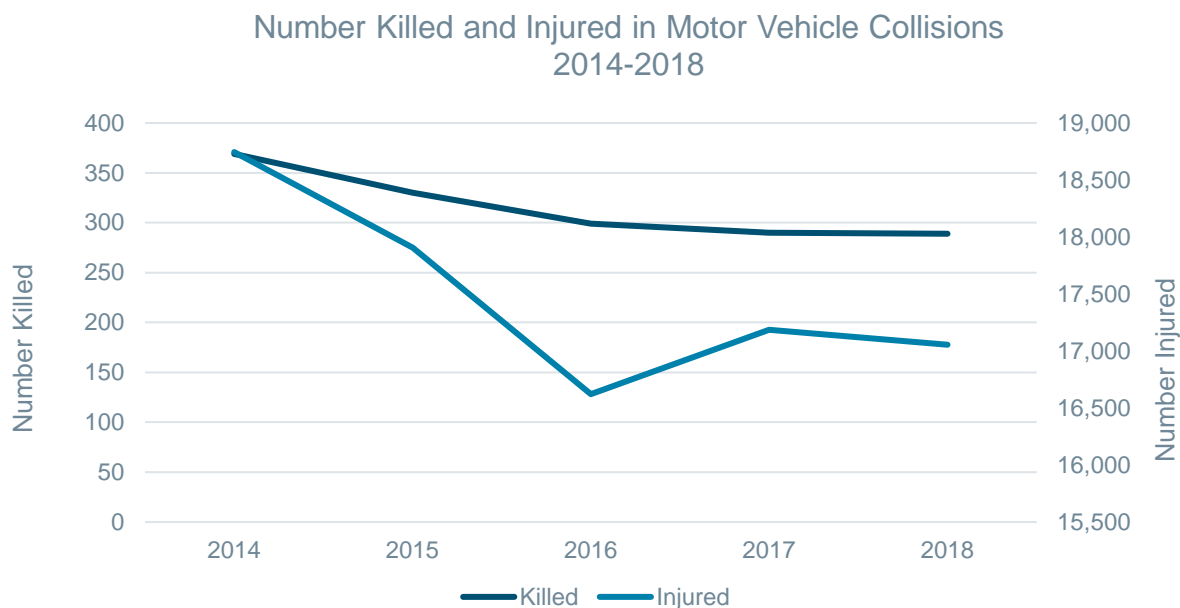
Injury Severity	2018	2017	2016	2015	2014
Number Killed	289	290	299	330	369
Number Injured	17,055	17,186	16,622	17,907	18,745
Total Number of Casualties	17,344	17,476	16,921	18,237	19,114

Total collisions for 2018 are up 0.1% compared to 2017:

- Fatal collisions decreased 5.0% (from 259 to 246)
- Injury collisions decreased 1.8% (from 13,082 to 12,852)
- Property damage collisions increased 0.3% (from 129,126 to 129,498)

Total casualties for 2018 are down 0.8% compared to 2017:

- The number of fatal injuries decreased 0.3% (from 290 to 289)
- The number of non-fatal injuries decreased 0.8% (from 17,186 to 17,055)



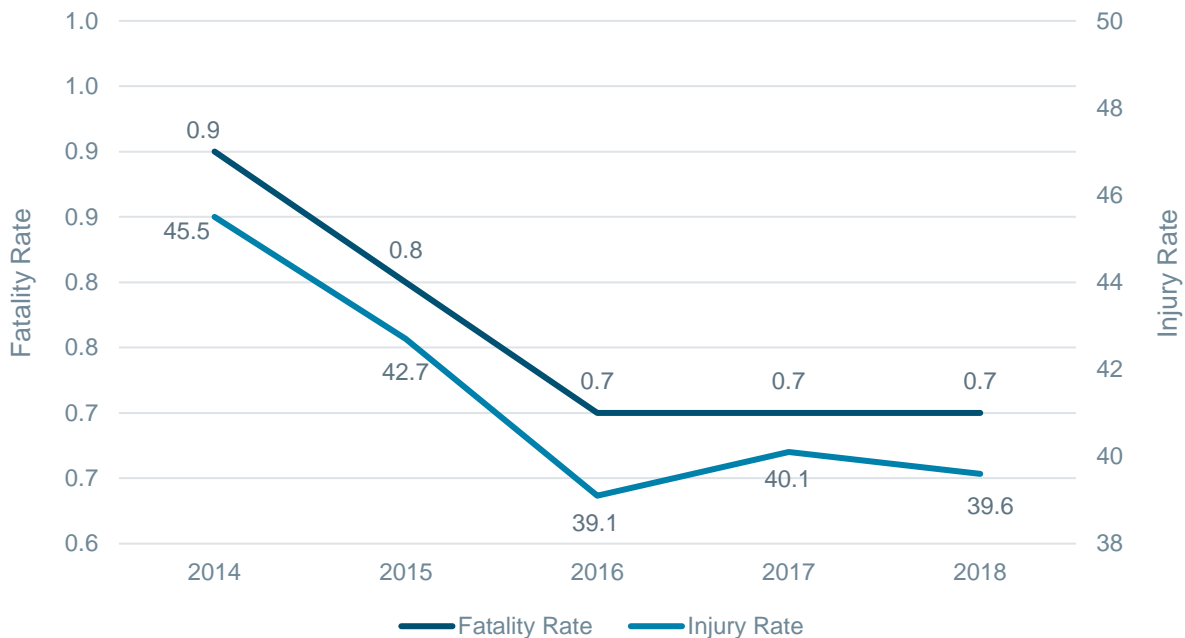
Alberta Traffic Collision Rates

2014 – 2018

Severity of Collision	Rate Per 10,000 Population					Rate Per 10,000 Licensed Drivers					Rate Per 10,000 Registered Vehicles				
	2018	2017	2016	2015	2014	2018	2017	2016	2015	2014	2018	2017	2016	2015	2014
Fatal Collisions	0.6	0.6	0.6	0.7	0.8	0.8	0.8	0.9	0.9	1.1	0.6	0.7	0.7	0.8	0.9
Number Killed	0.7	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.1	1.2	0.8	0.8	0.8	0.9	1.0
Non-Fatal Injury Collisions	29.8	30.5	29.3	32.2	34.6	39.8	41.1	39.6	43.3	46.6	33.6	34.6	33.3	37.1	39.5
Number Injured	39.6	40.1	39.1	42.7	45.5	52.9	53.9	52.9	57.3	61.3	44.5	45.4	44.4	49.1	52.0
Property Damage Collisions	300.7	301.3	283.1	302.4	315.8	401.5	405.3	382.8	405.8	425.7	338.2	341.1	321.5	347.9	360.8
Total Reportable Collisions	331.1	332.4	313.0	335.3	351.2	442.1	447.1	423.3	450.0	473.4	372.4	376.3	355.6	385.8	401.2

Fatal collision and fatality rates are down or have remained steady from 2017, in terms of population, drivers, and registered vehicles. Injury collision and injury rates have decreased slightly since 2017, and overall collision rates have gone down slightly.

Fatality and Injury Rates per 10,000 Population
2014-2018



Where Did Collisions Occur (Urban/Rural)?

2018

Location	Fatal Collisions		Non-Fatal Injury Collisions		Property Damage Collisions		Total Collisions	
	N	%	N	%	N	%	N	%
Urban	60	24.4	9,577	74.5	109,974	84.9	119,611	83.9
Rural	186	75.6	3,275	25.5	19,524	15.1	22,985	16.1
Total Number of Collisions	246	100.0	12,852	100.0	129,498	100.0	142,596	100.0

The majority of fatal collisions (75.6%) occurred in rural areas. Collisions occurring in urban areas resulted in the highest proportion of non-fatal injury collisions (74.5%) and property damage crashes (83.9%).

Where Did Collisions Occur (Intersection-Related)?

2018

Location	Fatal Collisions		Non-Fatal Injury Collisions		Property Damage Collisions		Total Collisions	
	N	%	N	%	N	%	N	%
Intersection Related	31	12.6	5,742	44.7	30,820	23.8	36,593	25.7
Non-Intersection Related	215	87.4	7,110	55.3	98,678	76.2	106,003	74.3
Total Number of Collisions	246	100.0	12,852	100.0	129,498	100.0	142,596	100.0

One in four (25.7%) collisions were intersection-related. During 2018, 37 people were killed and 7,707 were injured in intersection related collisions.

In Alberta, in 2018, three of the top five most frequently identified improper driver actions for drivers in casualty collisions were intersection-related: making a left turn across the path of an on-coming vehicle (11.9%), committing a stop sign violation (7.3%), and disobeying a traffic signal (6.5%).

See page 13 for a complete summary of all driver actions in casualty collisions.

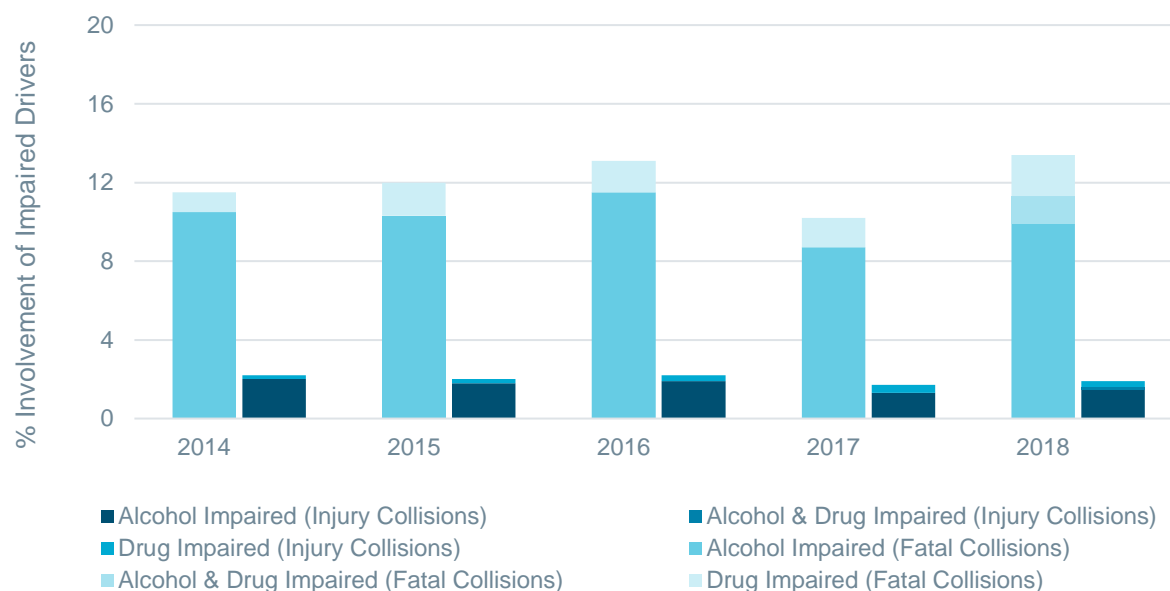
What was the Condition of Drivers in Casualty Collisions?

2018

Condition of Driver	Drivers in Fatal Collisions		Drivers in Non-Fatal Injury Collisions		Total Drivers in Casualty Collisions	
	N	%	N	%	N	%
Normal	227	77.7	19,646	95.5	19,873	95.2
Alcohol Impaired	29	9.9	316	1.5	345	1.7
Alcohol and Drug Impaired	4	1.4	26	0.1	30	0.1
Drug Impaired	6	2.1	72	0.3	78	0.4
Total Impaired Drivers	39	13.4	414	2.0	453	2.2
Fatigued/Asleep	6	2.1	152	0.7	158	0.8
Other	20	6.8	370	1.8	390	1.9
Total Number of Drivers	292	100.0	20,582	100.0	20,874	100.0

Of drivers involved in injury collisions, 2.0% were legally impaired by alcohol and/or drugs, compared to 13.4% in fatal collisions.

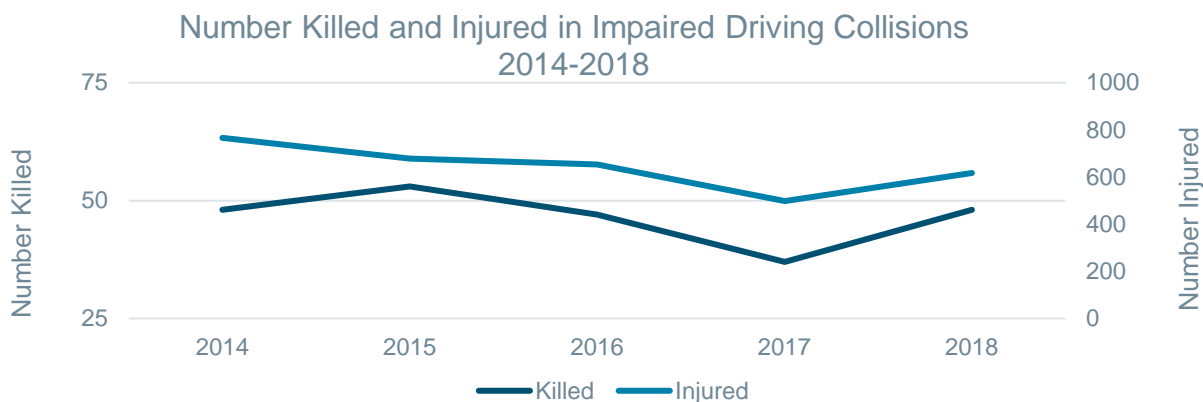
Impaired Drivers in Casualty Collisions 2014 - 2018



Note: collection of 'Impaired by Alcohol and Drugs' began on January 1, 2018

How Many People are Killed or Injured in Collisions Involving Impaired Drivers?

- During 2018, 48 people were killed in impaired driving collisions – this is up 29.7% from 2017, with 37. Another 617 people were injured in 2018 – up 23.9% over 2017 with 498.
- From 2014 to 2018, on average, each year 47 people were killed and 643 people were injured in collisions involving impaired driving.



Who is Driving Impaired then Crashing?

- In Alberta, one in eight drivers involved in fatal collisions were legally impaired. This compares to an average of about one in 50 drivers involved in injury collisions.
- Males between 20 and 21 years of age were most likely to have been impaired.
- Male drivers were much more likely to have been impaired compared to female drivers.
- As the severity of the collision increases, so does the likelihood the collision involved impairment.

When Do Impaired Driving Casualty Crashes Occur?

- In 2018, September saw the highest number of fatal collisions involving an impaired driver (20.5%). September also recorded the highest number of injury collisions involving impaired driving (10.2%).
- The most casualty collisions involving impaired driving occurred on the weekends. The most likely time period for these collisions, on any day of the week, was between 7 p.m. and 11 p.m.

How Big of an Issue is Drug-Impaired Driving?

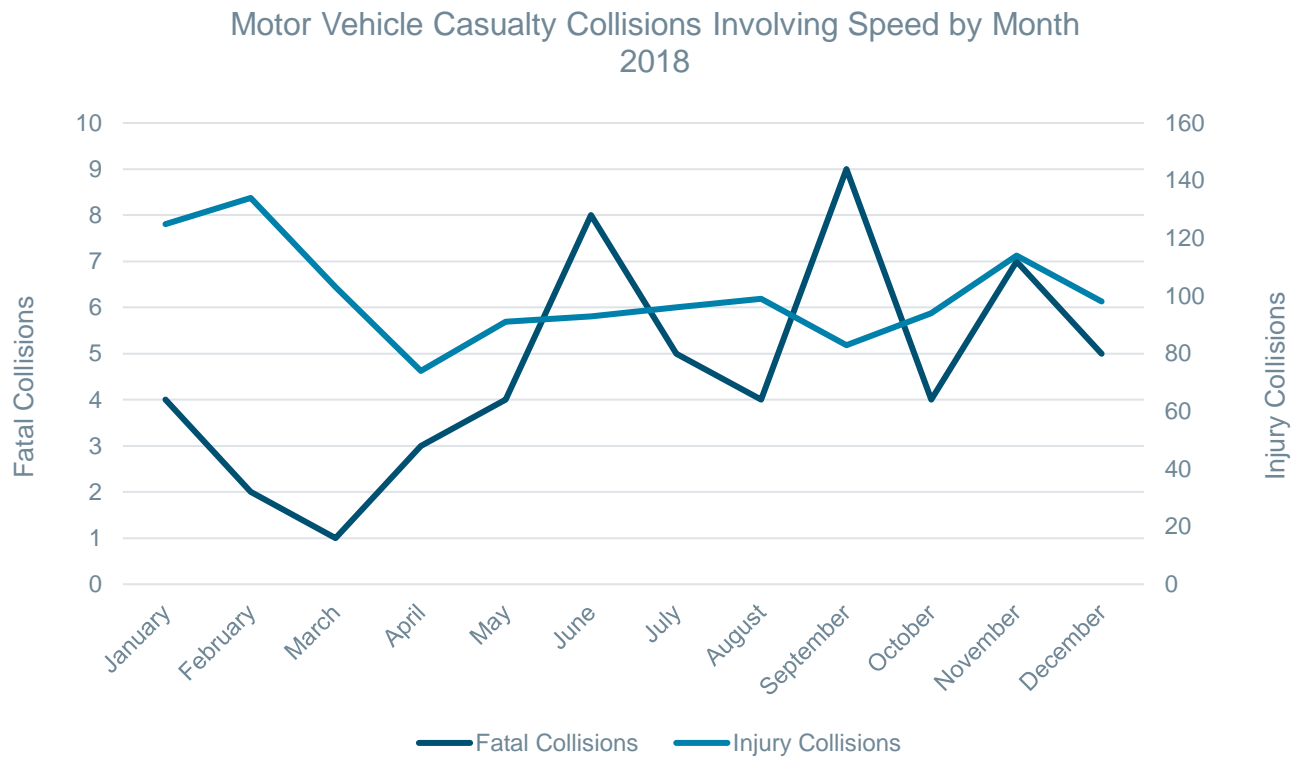
- A recent Canadian study of alcohol and drug use among drivers found that drug use in nighttime drivers exceeded that of alcohol use.
- In Alberta, drugs were found in more than 40% of fatally injured drivers (2015).

Speeding Drivers in Casualty Collisions 2018

Unsafe Speed	Drivers in Fatal Collisions		Drivers in Non-Fatal Injury Collisions		Total Drivers in Casualty Collisions	
	N	%	N	%	N	%
Yes	57	23.2	1,225	7.7	1,282	7.9
No	189	76.8	14,665	92.3	14,854	92.1
Total Number of Drivers	246	100.0	15,890	100.0	16,136	100.0

Nearly one quarter (23.2%) of drivers in fatal collisions were reported as travelling at an unsafe speed compared to 7.7% in injury collisions. Collisions involving these 1,282 drivers resulted in 71 fatalities and 1,795 injuries.

When are Speed-related Casualty Collisions Occurring?



The months of June and August saw the most speed-related fatal collisions. January recorded the most injury collisions involving unsafe speed.

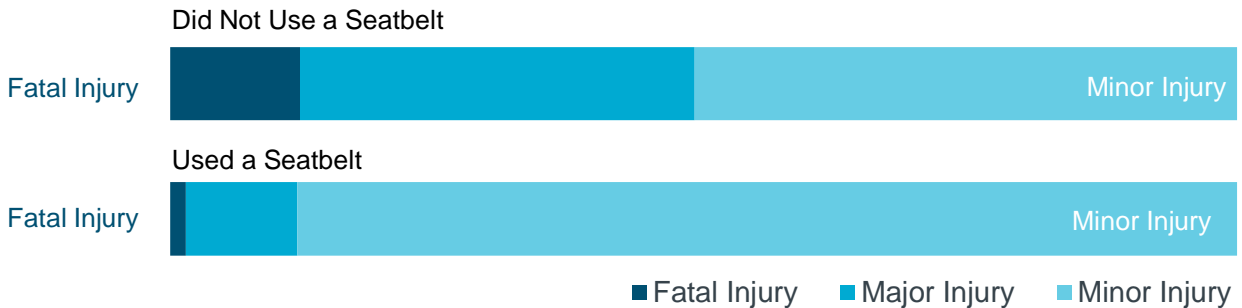
Restraint Use of Vehicle Occupants and Injury Severity (Use versus Non-Use)

2018

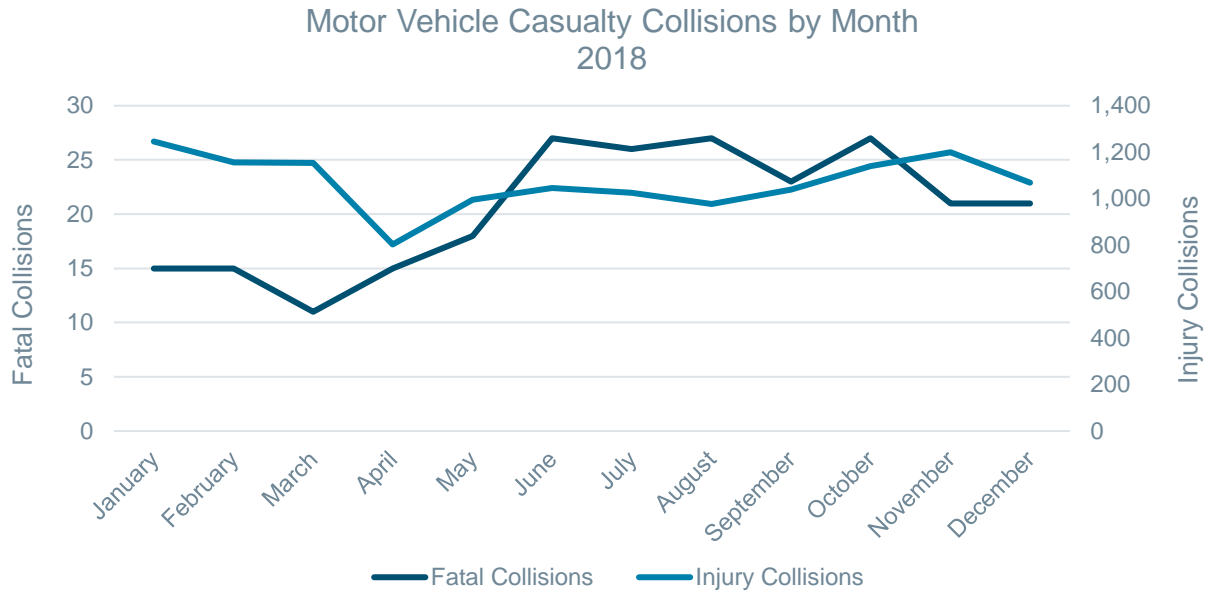
Injury Severity of Occupants	Percentage of Occupants Using Restraints %	Percentage of Occupants Not Using Restraints %
Fatal Injury	0.1	2.2
Major Injury	0.7	6.7
Minor Injury	5.9	9.2
Total Occupants Sustaining Injuries	6.7	18.1
No Apparent Injury	93.3	81.9
Total Occupants	100.0	100.0

Collision involved restraint users had a much lower injury rate (6.7%) than those not using restraints (18.1%). This table illustrates the moderating effect of seat belt use on injury severity. Occupants using a restraint reduce the likelihood of sustaining an injury and the severity of injury decreases.

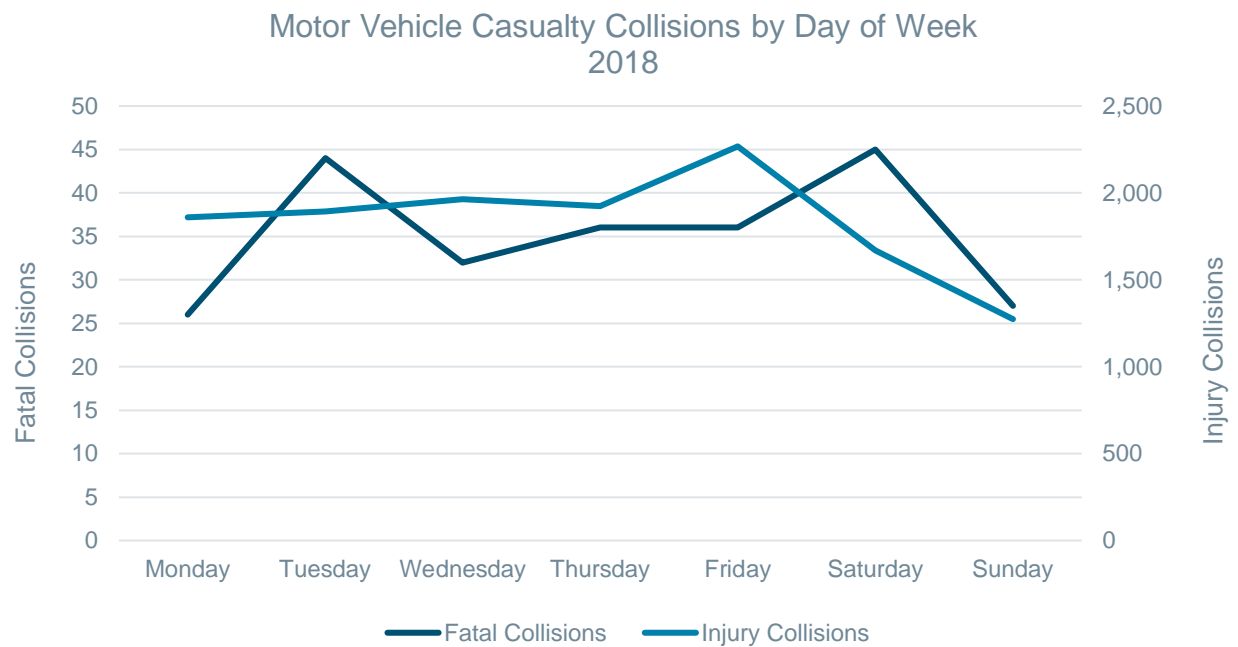
During 2018, 43 people who died and 310 people who sustained injuries were not properly restrained at the time of the collision.



When Did Casualty Collisions Occur?

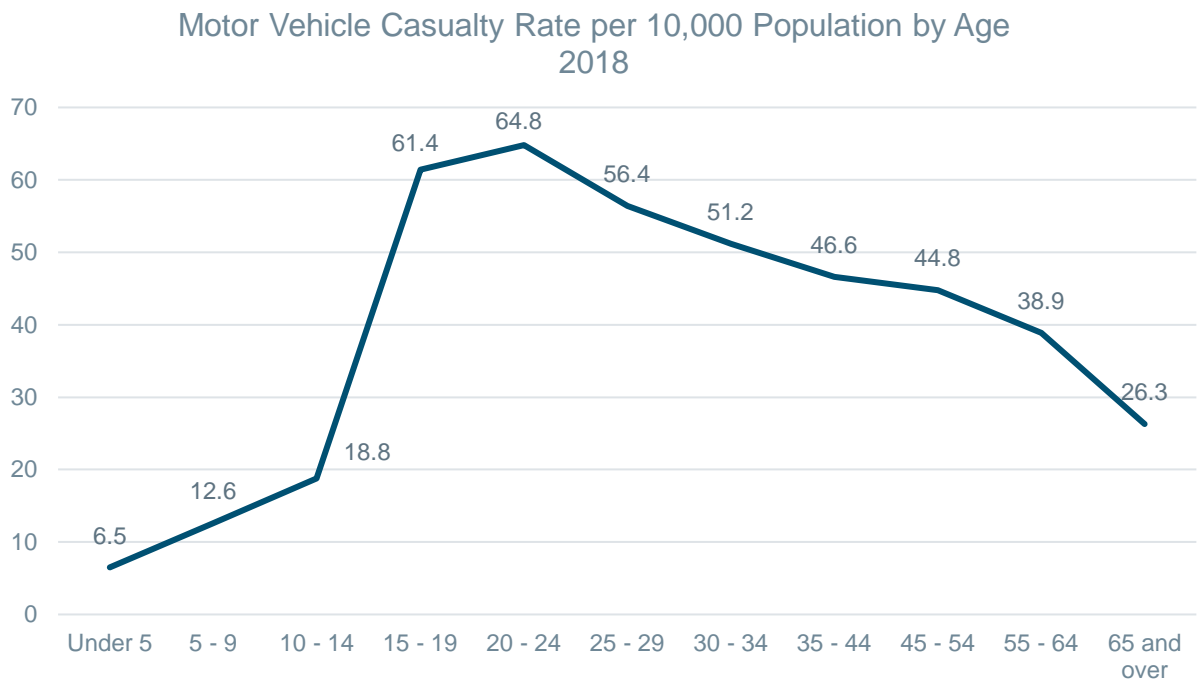
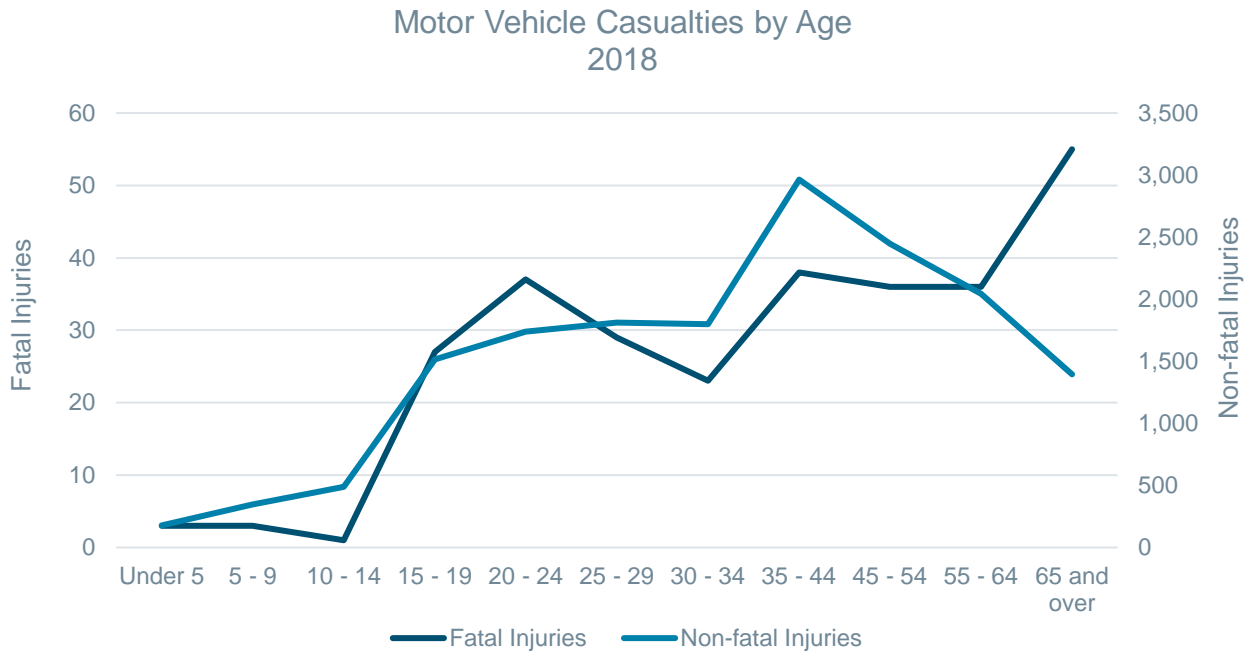


During 2018, June, August and October recorded the highest number of fatal collisions at 27 (11.0%) and January saw the highest number of injury collisions at 1,246 (9.7%).



Saturday recorded the most fatal collisions at 45 (18.3%) and Friday recorded the most injury collisions at 2,268 (17.6%).

Who Were the Victims in Casualty Collisions?



Casualty rates per 10,000 population continue to be highest for persons between the ages of 15 and 24. The lowest casualty rates were recorded for children 14 years of age and younger.

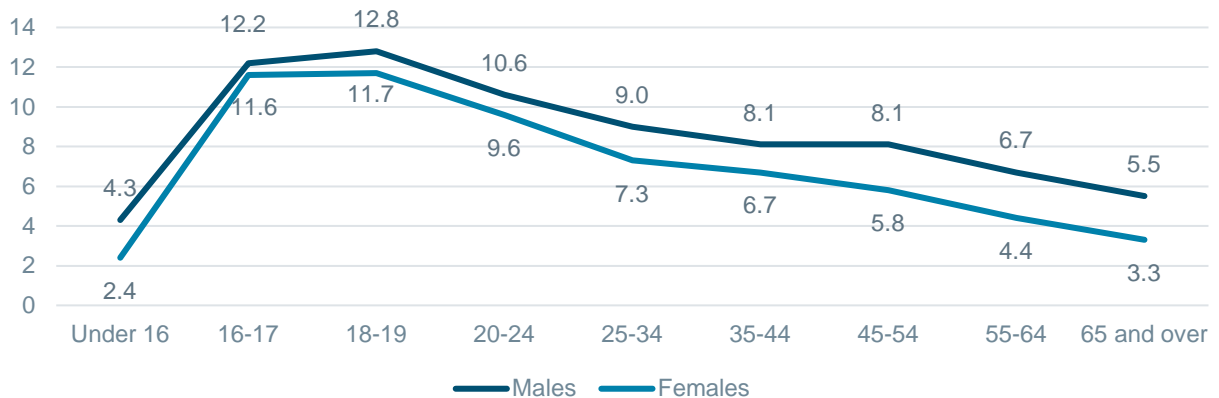
Who Were the Drivers in Casualty Collisions? 2018

Age of Driver	Male			Female			Total*		
	N	%	Rate Per 1,000** Licensed Drivers	N	%	Rate Per 1,000** Licensed Drivers	N	%	Rate Per 1,000** Licensed Drivers
Under 16	78	0.3	4.3	42	0.2	2.4	120	0.5	3.4
16 - 17	418	1.8	12.2	365	1.5	11.6	783	3.3	11.9
18 - 19	540	2.3	12.8	449	1.9	11.7	989	4.2	12.3
20 - 24	1,350	5.7	10.6	1,098	4.6	9.6	2,448	10.4	10.1
25 - 34	3,078	13.0	9.0	2,335	9.9	7.3	5,413	22.9	8.2
35 - 44	2,660	11.3	8.1	2,039	8.6	6.7	4,699	19.9	7.4
45 - 54	2,268	9.6	8.1	1,480	6.3	5.8	3,748	15.9	7.0
55 - 64	1,801	7.6	6.7	1,100	4.7	4.4	2,901	12.3	5.6
65 and over	1,316	5.6	5.5	725	3.1	3.3	2,041	8.6	4.5
Unspecified	80	0.3		26	0.1		494	2.1	
Total Number of Drivers	13,589	57.5	8.1	9,659	40.9	6.2	23,636	100.0	7.3

*Total includes drivers whose gender was other or unspecified on the collision report form. Includes bicyclists.

Collision rates per 1,000 licensed drivers indicate that males 18 to 19 years old were more likely to be involved in a casualty collision than any other age group. The next age group most likely to be involved in casualty collisions was males 16 to 17 years old.

Casualty Collision Rate per 1,000 Licensed Drivers by Age and Gender
2018



Improper Driver Actions in Casualty Collisions 2018

Improper Actions*	Drivers in Fatal Collisions		Drivers in Non-Fatal Injury Collisions		Total Drivers in Casualty Collisions	
	N	%	N	%	N	%
Followed Too Closely	4	2.1	3,282	35.6	3,286	34.9
Ran Off Road	71	38.0	1,400	15.2	1,471	15.6
Left Turn Across Path	6	3.2	1,117	12.1	1,123	11.9
Stop Sign Violation	17	9.1	674	7.3	691	7.3
Disobey Traffic Signal	1	0.5	611	6.6	612	6.5
Failed to Yield Right of Way to Pedestrian	8	4.3	413	4.5	421	4.5
Improper Turn	5	2.7	325	3.5	330	3.5
Improper Lane Change	1	0.5	290	3.1	291	3.1
Left of Centre	59	31.6	214	2.3	273	2.9
Backed Unsafely	2	1.1	241	2.6	243	2.6
Failed to Yield Right of Way - Uncontrolled Intersection	3	1.6	191	2.1	194	2.1
Yield Sign Violation	2	1.1	149	1.6	151	1.6
Improper Passing	6	3.2	101	1.1	107	1.1
Other	2	1.1	211	2.3	213	2.3
Total Number of Drivers	187	100.0	9,219	100.0	9,406	100.0

*Based on those cases where driver actions were specified on the collision report form. Includes bicyclists.

Note: There were a total of 20,763 drivers involved in casualty collisions for which a driver action was specified on the collision report form. 11,357 were indicated as driving properly at the time of the collision.

Following too closely (34.9%), running off the road (15.6%) and making a left turn across the path of an oncoming vehicle (11.9%) were the most frequently identified improper driver actions contributing to casualty collisions.

What Types of Vehicles Were Involved in Casualty Collisions?

2018

Type of Vehicle*	Vehicles in Fatal Collisions		Vehicles in Non-Fatal Injury Collisions		Total Vehicles in Casualty Collisions	
	N	%	N	%	N	%
Passenger Car	114	27.9	8,231	35.0	8,345	34.9
Mini-Van/MPV	86	21.0	7,844	33.4	7,930	33.2
Pick-up Truck/Van	108	26.4	5,021	21.4	5,129	21.4
Truck 4500 kg+	19	4.6	775	3.3	794	3.3
Tractor-Trailer	45	11.0	472	2.0	517	2.2
Motorcycle	17	4.2	479	2.0	496	2.1
Bicycle	2	0.5	354	1.5	356	1.5
Transit Bus	--	--	72	0.3	72	0.3
School Bus	2	0.5	66	0.3	68	0.3
Off-Highway Vehicle	6	1.5	59	0.3	65	0.3
Emergency Vehicle	--	--	44	0.2	44	0.2
Construction Equipment	2	0.5	24	0.1	26	0.1
Farm Equipment	2	0.5	17	0.1	19	0.1
Motorhome	3	0.7	14	0.1	17	0.1
Other Bus	1	0.2	13	0.1	14	0.1
Moped	--	--	8	0.0	8	0.0
Motorized Snow Vehicle	2	0.5	3	0.0	5	0.0
Intercity Bus	--	--	5	0.0	5	0.0
Other	--	--	2	0.0	2	0.0
Total Number of Vehicles	409	100.0	23,503	100.0	23,912	100.0

*Based on those cases where type of vehicle was specified on the collision report form.

Passenger cars (34.9%), mini-vans/MPVs (33.2%) and pick-up trucks/vans (21.4%) were the vehicles most frequently involved in casualty collisions.