

Alberta

Traffic Collision Statistics

2015

Alberta  Government

Office of Traffic Safety
Transportation Services Division
May 2017

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**Alberta Traffic Collisions
2011 – 2015**

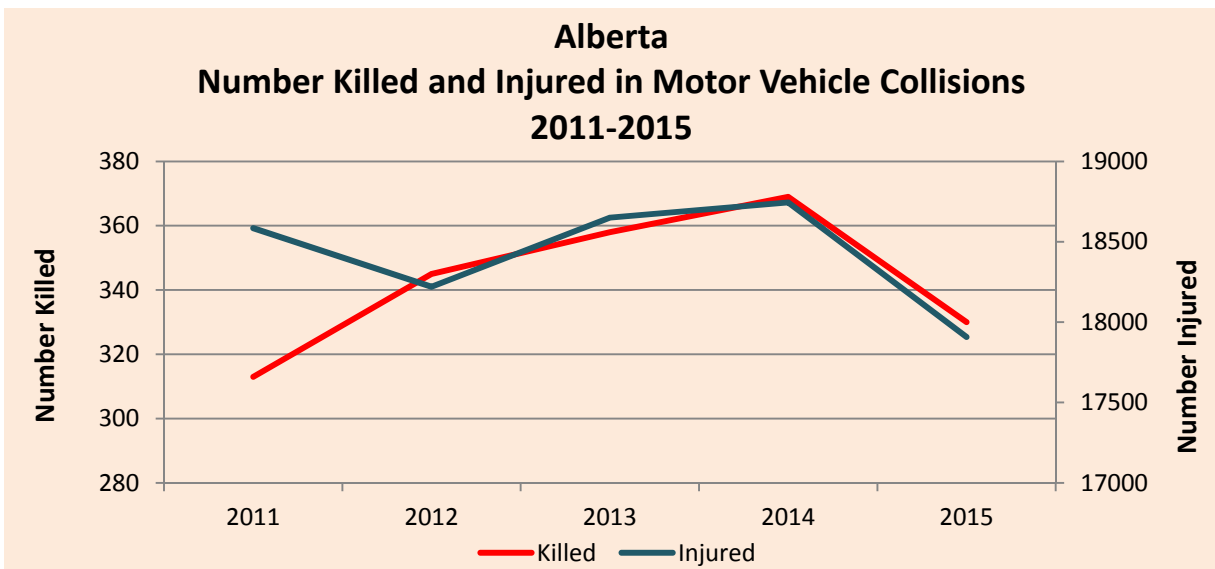
Severity of Collisions	2011	2012	2013	2014	2015
Fatal Collisions	285	307	331	328	288
Non-Fatal Injury Collisions	13,909	13,822	14,073	14,244	13,531
Property Damage Collisions	124,985	122,466	127,234	130,168	126,886
Total Reportable Collisions	139,179	136,595	141,638	144,740	140,705
Number Killed	313	345	358	369	330
Number Injured	18,584	18,220	18,650	18,745	17,907
Total Number of Casualties	18,897	18,565	19,008	19,114	18,237

Total collisions for 2015 are down 2.8% compared to 2014:

- Fatal collisions decreased 12.2% (from 328 to 288)
- Injury collisions decreased 5.0% (from 14,244 to 13,531)
- Property damage collisions decreased 2.5% (from 130,168 to 126,886)

Total casualties for 2015 are down 4.6% compared to 2014:

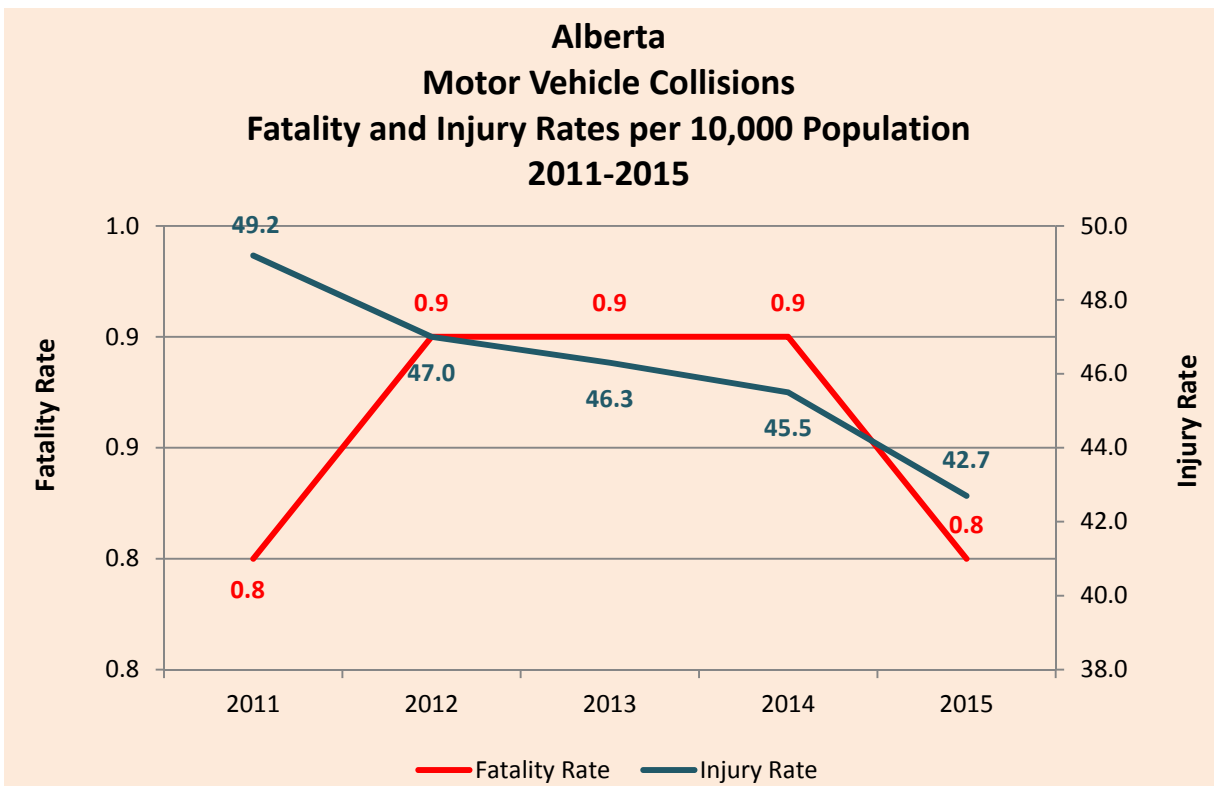
- The number of fatal injuries decreased 10.6% (from 369 to 330)
- The number of non-fatal injuries decreased 4.5% (from 18,745 to 17,907)



Alberta Traffic Collision Rates 2011 – 2015

Severity of Collision	Rate Per 10,000 Population					Rate Per 10,000 Licenced Drivers					Rate Per 10,000 Registered Vehicles				
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015
Fatal Collisions	0.8	0.8	0.8	0.8	0.7	1.0	1.1	1.1	1.1	0.9	0.9	0.9	1.0	0.9	0.8
Number Killed	0.8	0.9	0.9	0.9	0.8	1.1	1.2	1.2	1.2	1.1	1.0	1.0	1.0	1.0	0.9
Non-Fatal Injury Collisions	36.8	35.7	35.0	34.6	32.2	49.2	47.9	47.4	46.6	43.3	43.2	41.3	40.5	39.5	37.1
Number Injured	49.2	47.0	46.3	45.5	42.7	65.8	63.1	62.8	61.3	57.3	57.7	54.4	53.6	52.0	49.1
Property Damage Collisions	330.7	316.1	316.1	315.8	302.4	442.3	424.1	428.7	425.7	405.8	388.0	365.8	366.0	360.8	347.9
Total Reportable Collisions	368.3	352.6	351.9	351.2	335.3	492.6	473.0	477.2	473.4	450.0	432.1	408.0	407.4	401.2	385.8

Collision and casualty rates are down in terms of population, drivers and registered vehicles, with 2015 having the lowest rates across the board over the five year period 2011 to 2015.



Where Did Casualty Collisions Occur (Urban/Rural)? 2015

Location	Fatal Collisions		Non-Fatal Injury Collisions		Property Damage Collisions		Total Collisions	
	N	%	N	%	N	%	N	%
Urban	92	31.9	10247	75.7	107974	85.1	118313	84.1
Rural	196	68.1	3284	24.3	18912	14.9	22392	15.9
Total Number of Collisions	288	100.0	13531	100.0	126886	100.0	140705	100.0

The majority of fatal collisions (68.1%) occurred in rural areas. Collisions occurring in urban areas resulted in the highest proportion of non-fatal injury collisions (75.7%) and property damage crashes (85.1%).

Where Did Casualty Collisions Occur (Intersection-Related)? 2015

Location	Fatal Collisions		Non-Fatal Injury Collisions		Property Damage Collisions		Total Collisions	
	N	%	N	%	N	%	N	%
Intersection Related	56	19.4	6038	44.6	31025	24.5	37119	26.4
Non-Intersection Related	232	80.6	7493	55.4	95861	75.5	103586	73.6
Total Number of Collisions	288	100.0	13531	100.0	126886	100.0	140705	100.0

One in four (26.4%) collisions were intersection-related. During 2015, 65 people were killed and 8,138 were injured in intersection related collisions.

In Alberta, in 2015, 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 (11.3%), committing a stop sign violation (8.3%), and disobeying a traffic signal (6.7%).

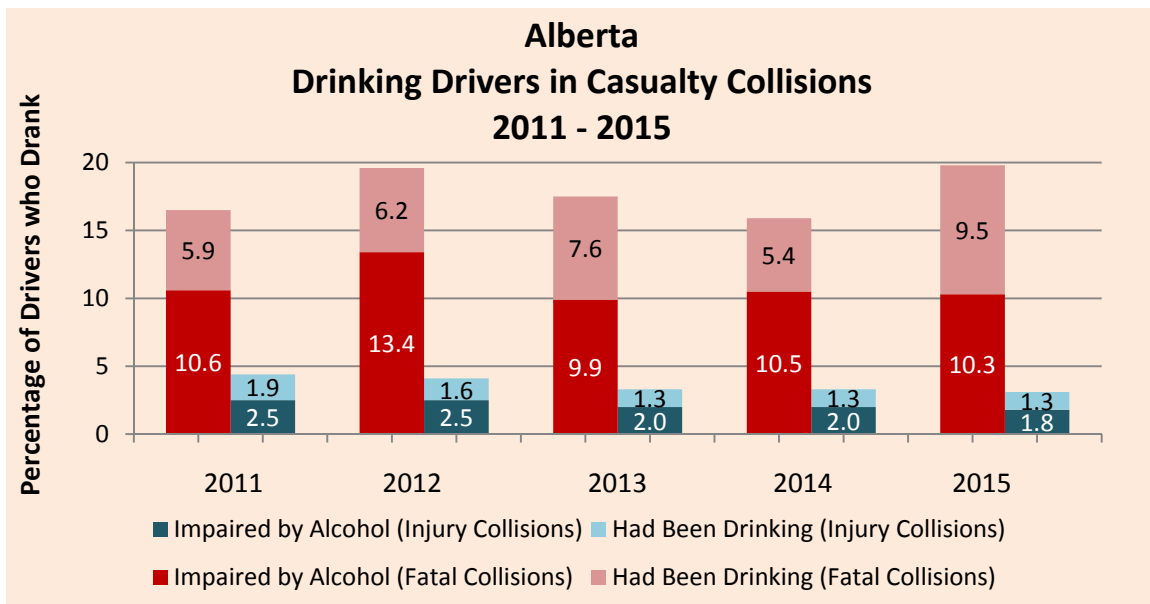
See Page 14 for a complete summary of all driver actions in casualty collisions.

What was the Condition of Drivers in Casualty Collisions? 2015

Condition of Driver	Drivers in Fatal Collisions		Drivers in Non-Fatal Injury Collisions		Total Drivers in Casualty Collisions	
	N	%	N	%	N	%
Normal	273	76.0	19812	94.7	20085	94.4
Had Been Drinking	34	9.5	279	1.3	313	1.5
Alcohol Impaired	37	10.3	370	1.8	407	1.9
Total Alcohol Involvement	71	19.8	649	3.1	720	3.4
Impaired by Drugs	6	1.7	52	0.2	58	0.3
Fatigued/Asleep	7	1.9	186	0.9	193	0.9
Other	2	0.6	226	1.1	228	1.1
Total Number of Drivers	359	100.0	20925	100.0	21284	100.0

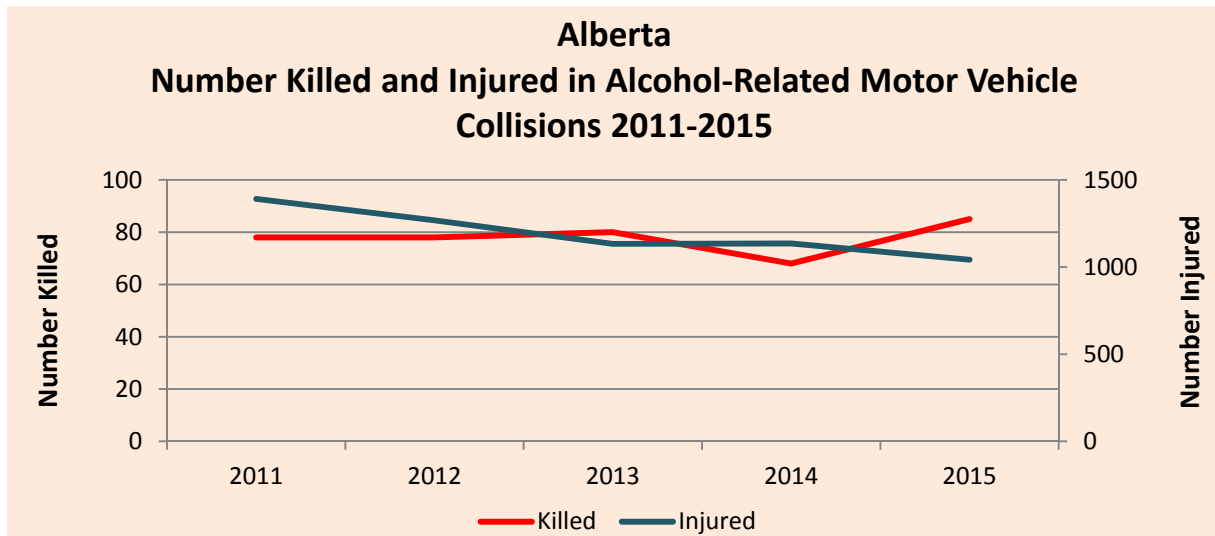
Of drivers involved in injury collisions, 3.1% had consumed alcohol, compared to 19.8% in fatal collisions. Over the five year period 2011 to 2015, the proportion of drivers in fatal collisions who had consumed alcohol before the crash was highest in 2015 (19.8%).

Traditionally, in fatal collisions, the majority of drinking drivers are identified as having been 'impaired by alcohol.' In 2015, nearly the same numbers of drivers were identified as having been 'impaired by alcohol' and 'had been drinking.' The increase for 2015 is in the 'had been drinking' category. The 'impaired by alcohol' drivers were on par with 2014. With only one year of data showing this change, more years of data will assist in determining if there is a transition to lower impairment levels or if there is an increase in the number of lower impairment levels.



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

- During 2015, 85 people were killed in alcohol-related collisions – this is up 25.0% from the record low of 68 in 2014. Another 1,042 were injured in 2015 – down 8.2% over 2014 with 1,135.
- From 2011 to 2015, on average each year 78 people were killed and 1,194 people were injured in collisions involving at least one driver who had consumed alcohol prior to the crash.



Who is Drinking and Driving then Crashing?

- In Alberta, one in five drivers involved in fatal collisions have been drinking prior to the collision. This compares to an average of about one in 32 drivers involved in injury collisions.
- Males between 18 and 21 years of age are most likely to have been drinking before the crash.
- Male drivers are much more likely to have consumed alcohol prior to a collision compared to female drivers.
- As the severity of the collision increases, so does the likelihood the collision will involve a drinking driver.

When Do Alcohol-Involved Crashes Occur?

- In 2015, July saw the highest numbers of fatal collisions involving alcohol (12) and May recorded the highest number of injury collisions (76).
- The most casualty collisions involving alcohol occur on the weekends. The most likely time period for these collisions, on any day of the week, is between 11 p.m. and 3 a.m.

How Big of an Issue is Drug-Impaired Driving?

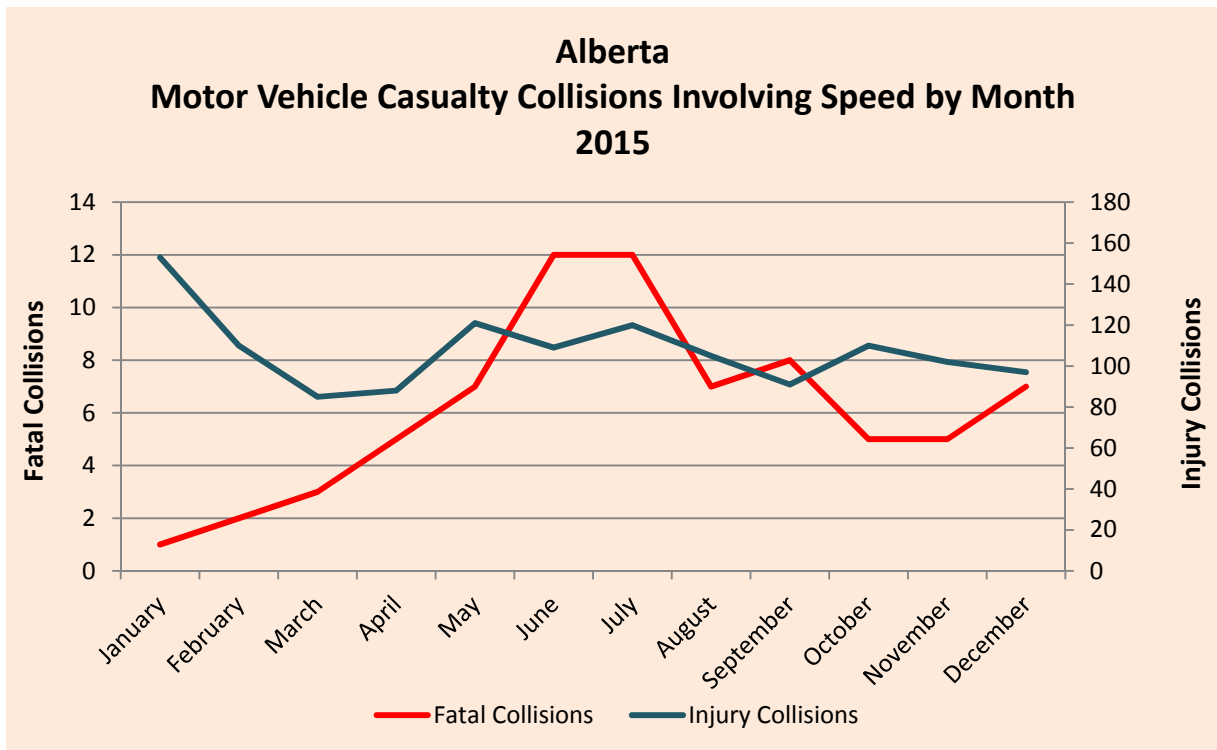
- A recent Canadian study of alcohol and drug use among drivers found that drug use in nighttime drivers exceeded that of alcohol use.
- In Canada, studies indicate that drugs are found in up to 40% of fatally injured drivers.

Speeding Drivers in Casualty Collisions 2015

Unsafe Speed	Drivers in Fatal Collisions		Drivers in Non-Fatal Injury Collisions		Total Drivers in Casualty Collisions	
	N	%	N	%	N	%
Yes	75	25.7	1331	8.3	1406	8.6
No	217	74.3	14664	91.7	14881	91.4
Total Number of Drivers	292	100.0	15,995	100.0	16,287	100.0

One quarter (25.7%) of drivers in fatal collisions were reported as travelling at an unsafe speed compared to 8.3% in injury collisions. Collisions involving these 1,406 drivers resulted in 96 fatalities and 1,976 injuries.

When are Speed-related Casualty Collisions Occurring?



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

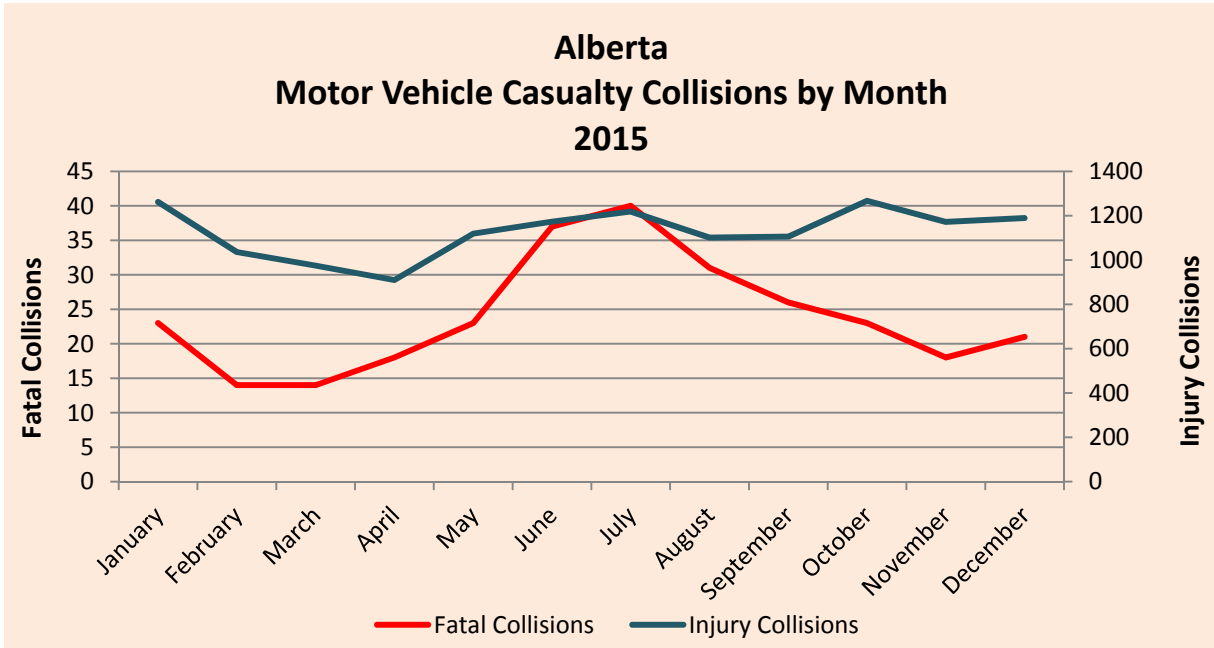
**Restraint Use of Vehicle Occupants and Injury Severity (Use versus Non-Use)
2015**

Injury Severity of Occupants	Percentage of Occupants Using Restraints %	Percentage of Occupants Not Using Restraints %
Fatal Injury	0.1	3.5
Major Injury	0.9	7.9
Minor Injury	5.9	11.0
Total Occupants Sustaining Injuries	6.8	22.4
No Apparent Injury	93.2	77.6
Total Occupants	100.0	100.0

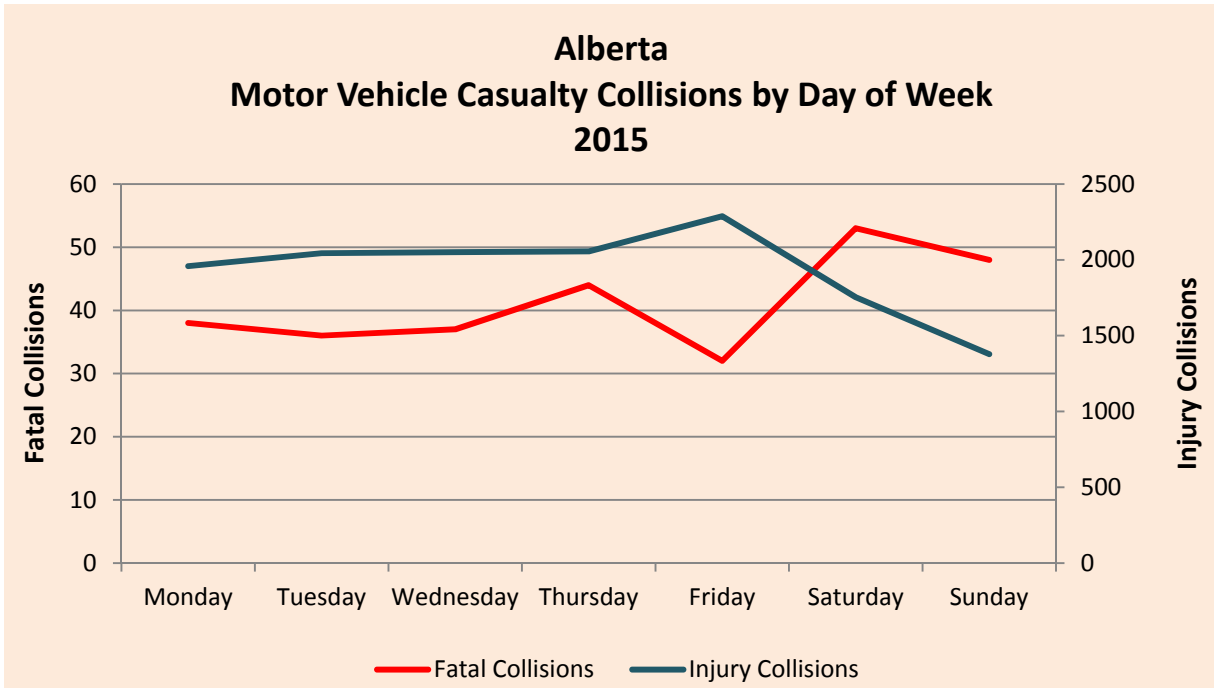
Collision involved restraint users had a much lower injury rate (6.8%) than those not using restraints (22.4%). This table illustrates the moderating effect of seat belt use on injury severity. Occupants using a restraint reduce the likelihood of sustaining an injury and the severity of injury decreases.

During 2015, 74 people who died and 400 people who sustained injuries were not properly restrained at the time of the collision.

When Did Casualty Collisions Occur?

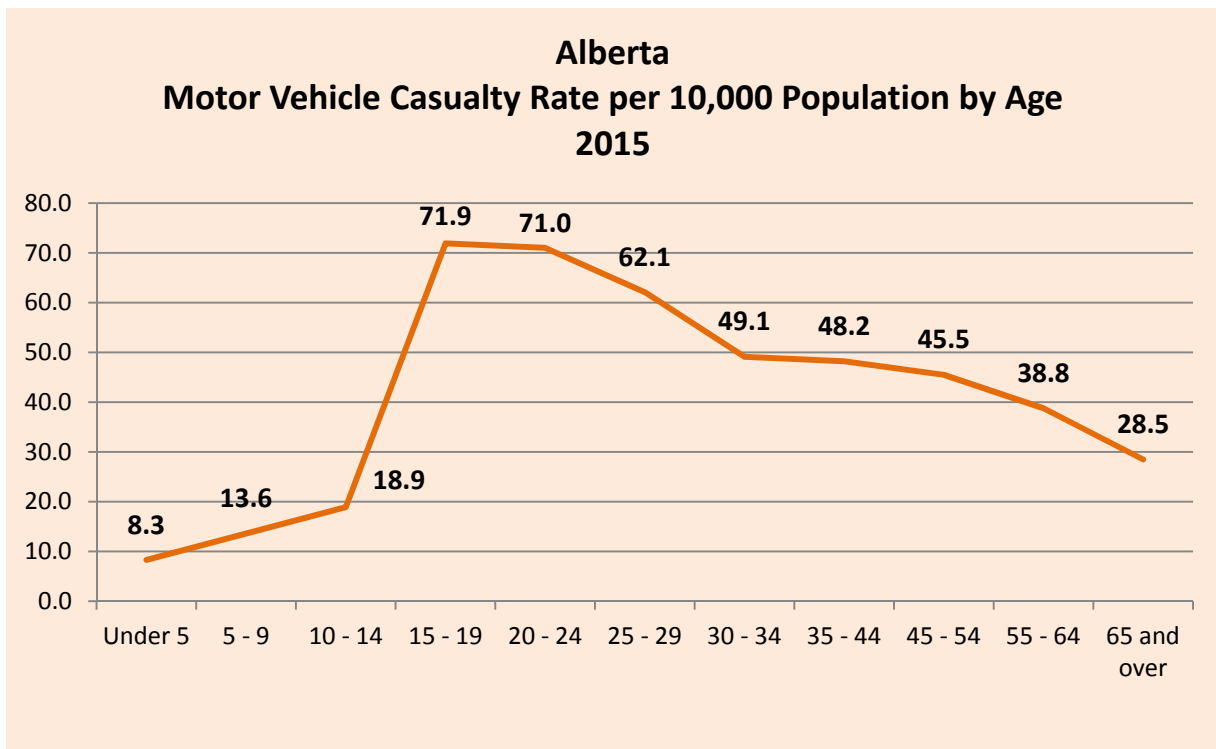
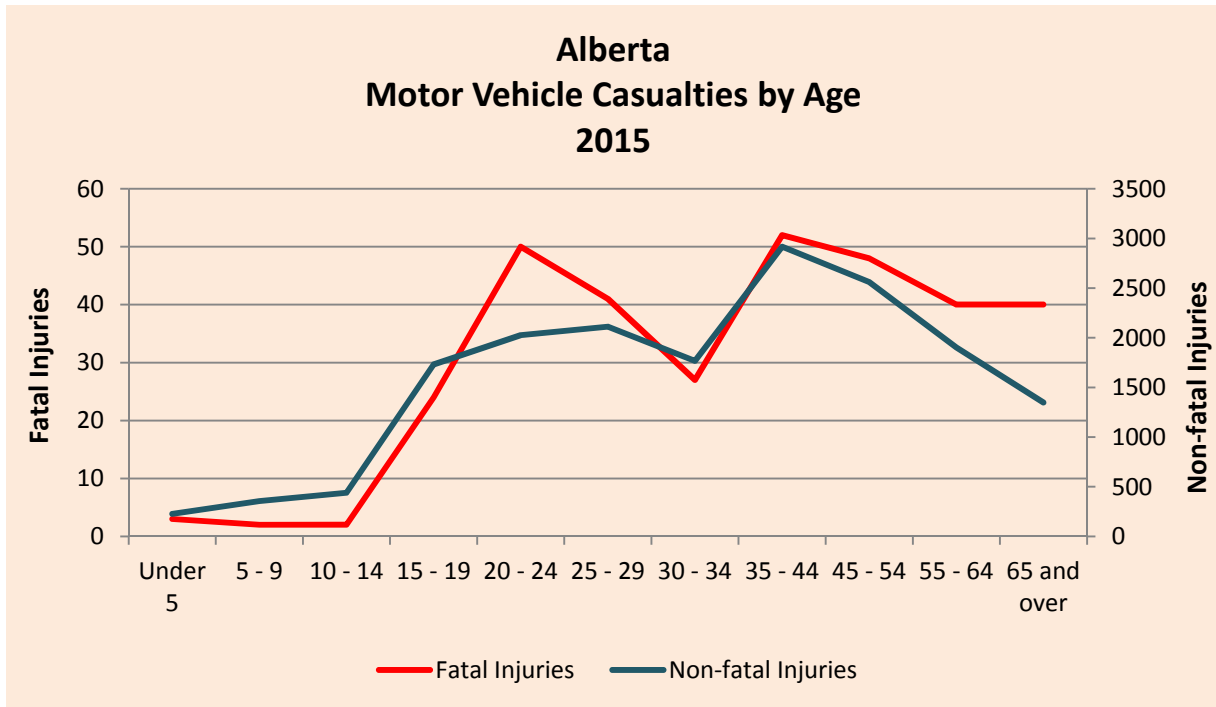


During 2015, July recorded the highest number of fatal collisions at 40 (13.9%) and October saw the highest number of injury collisions at 1,267 (9.4%).



Saturday recorded the most fatal collisions at 53 (18.4%) and Friday recorded the most injury collisions at 2,288 (16.9%).

Who Were the Victims in Casualty Collisions?

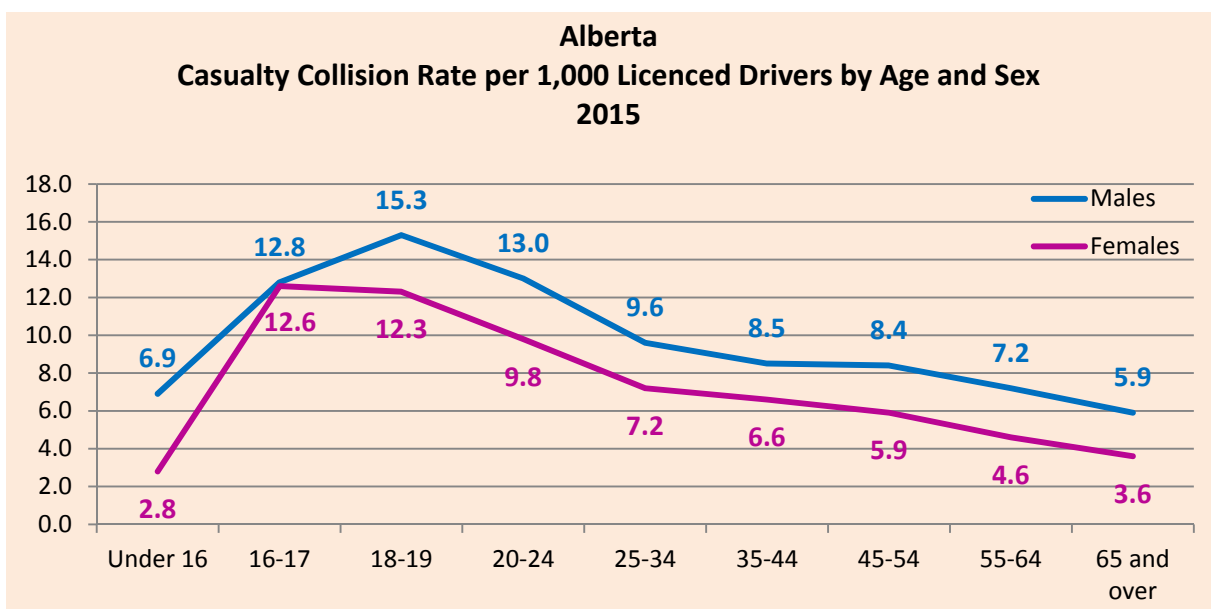


Casualty rates per 10,000 population continue to be highest for persons between the ages of 15 and 24. The lowest casualty rates were recorded for children 14 years of age and younger.

Who Were the Drivers in Casualty Collisions? 2015

Age of Driver	N	Male			Female			Total*	
		%	Rate Per 1000** Licenced Drivers	N	%	Rate Per 1000** Licenced Drivers	N	%	Rate Per 1000** Licenced Drivers
Under 16	114	0.5	6.9	43	0.2	2.8	159	0.6	5.0
16 - 17	428	1.7	12.8	382	1.6	12.6	810	3.3	12.7
18 - 19	638	2.6	15.3	459	1.9	12.3	1097	4.5	13.9
20 - 24	1764	7.2	13.0	1176	4.8	9.8	2942	12.0	11.5
25 - 34	3400	13.8	9.6	2313	9.4	7.2	5713	23.2	8.5
35 - 44	2673	10.9	8.5	1848	7.5	6.6	4522	18.4	7.6
45 - 54	2401	9.8	8.4	1542	6.3	5.9	3944	16.0	7.2
55 - 64	1831	7.5	7.2	1050	4.3	4.6	2882	11.7	5.9
65 and over	1230	5.0	5.9	660	2.7	3.6	1890	7.7	4.8
Unspecified	132	0.5		44	0.2		618	2.5	
Total Number of Drivers	14611	59.4		9517	38.7		24577	100.0	

Collision rates per 1,000 licenced drivers indicated 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 20 to 24 years old.



Improper Driver Actions in Casualty Collisions 2015

Improper Actions*	Drivers in Fatal Collisions		Drivers in Non-Fatal Injury Collisions		Total Drivers in Casualty Collisions	
	N	%	N	%	N	%
Followed Too Closely	7	3.0	3420	31.8	3427	31.2
Ran Off Road	104	43.9	1917	17.8	2021	18.4
Left Turn Across Path	19	8.0	1218	11.3	1237	11.3
Stop Sign Violation	22	9.3	886	8.2	908	8.3
Disobey Traffic Signal	9	3.8	730	6.8	739	6.7
Failed to Yield Right of Way to Pedestrian	6	2.5	592	5.5	598	5.4
Improper Turn	3	1.3	375	3.5	378	3.4
Improper Lane Change	2	0.8	348	3.2	350	3.2
Left of Centre	50	21.1	264	2.5	314	2.9
Backed Unsafely	1	0.4	276	2.6	277	2.5
Failed to Yield Right of Way - Uncontrolled Intersection	2	0.8	230	2.1	232	2.1
Yield Sign Violation	--	--	186	1.7	186	1.7
Improper Passing	7	3.0	103	1.0	110	1.0
Other	5	2.1	210	2.0	215	2.0
Total Number of Drivers	237	100.0	10755	100.0	10992	100.0

Following too closely (31.2%), running off the road (18.4%) and making a left turn across the path of an oncoming vehicle (11.3%) were the most frequently identified improper driver actions contributing to casualty collisions.

*Based on those cases where driver actions were specified on the collision report form. Includes bicyclists. Note: There were a total of 22,242 drivers involved in casualty collisions for which a driver action was specified on the collision report form. 11,250 were indicated as driving properly at the time of the collision.

What Types of Vehicles Were Involved in Casualty Collisions? 2015

Type of Vehicle	Vehicles in Fatal Collisions		Vehicles in Non-Fatal Injury Collisions		Total Vehicles in Casualty Collisions	
	N	%	N	%	N	%
Passenger Car	110	24.2	9201	37.6	9311	37.4
Mini-Van/MPV	83	18.2	6916	28.3	6999	28.1
Pick-up Truck/Van	134	29.5	5488	22.5	5622	22.6
Truck 4500 kg+	35	7.7	876	3.6	911	3.7
Motorcycle	31	6.8	622	2.5	653	2.6
Bicycle	3	0.7	536	2.2	539	2.2
Tractor-Trailer	39	8.6	457	1.9	496	2.0
Off-Highway Vehicle	9	2.0	95	0.4	104	0.4
Transit Bus	1	0.2	88	0.4	89	0.4
School Bus	4	0.9	46	0.2	50	0.2
Emergency Vehicle	--	--	35	0.1	35	0.1
Construction Equipment	2	0.4	18	0.1	20	0.1
Other Bus	--	--	16	0.1	16	0.1
Motorhome	1	0.2	14	0.1	15	0.1
Farm Equipment	2	0.4	11	0.0	13	0.1
Motorized Snow Vehicle	--	--	12	0.0	12	0.0
Moped	--	--	7	0.0	7	0.0
Intercity Bus	1	0.2	4	0.0	5	0.0
Other	--	--	1	0.0	1	0.0
Total Number of Vehicles	455	100.0	24443	100.0	24898	100.0

Passenger cars (37.4%), mini-vans/MPVs (28.1%) and pick-up trucks/vans (22.6%) were the vehicles most frequently involved in casualty collisions.