

**Alberta
Traffic Collisions Involving
Motorcycles**

2004 - 2008

**Government
of Alberta ■
Transportation**

Alberta Transportation
Office of Traffic Safety
June 2009

**ALBERTA
TRAFFIC COLLISIONS INVOLVING
MOTORCYCLES
2004 - 2008**

SUMMARY

This document was prepared under the Alberta Traffic Safety Plan, Strategic Research Plan for 2008 – 2010, with the objective of examining the scope of collisions involving motorcyclists as well as a profile of motorcyclists involved in collisions.

Over the five-year period, 2004 - 2008, there were 6083 collisions involving 6266 motorcycles. A total of 3766 (61.9%) of these collisions resulted in either death or injury. Overall, 152 people were killed and 4001 were injured in collisions involving a motorcycle over the five years (Table 1).

The month of July (19.3%) experienced more casualty collisions involving motorcycles than any other month. The month of July (17.0%) also had the highest number of property damage collisions (Table 2).

The daily distribution of collisions indicated that Saturday (16.7%) was the most collision-prone day of the week for motorcycles (Table 3).

The afternoon hours of 3 p.m. to 6:59 p.m. experienced one-third (33.7%) of all collisions involving a motorcycle (Table 4).

The majority of collisions involving motorcycles occurred in urban areas (79.6%). Almost half (47.3%) of fatal motorcycle collisions occurred in rural areas (Table 5).

The majority (85.5%) of casualty collisions involving a motorcycle occurred on dry surface conditions. Loose surface material was present in 4.8% of casualty collisions involving a motorcycle (Table 6).

The majority (91.6%) of casualty collisions involving a motorcycle occurred during clear weather conditions (Table 7).

The most common points of impact on motorcycles were front centre (37.1%) and rollover (12.7%) (Table 8).

Two in five motorcycle collisions (40.8%) are single vehicle crashes (Table 9).

The majority (93.6%) of the other vehicles involved in a collision with a motorcycle were passenger vehicles (i.e., car, pick-up, or mini-van) (Table 10).

The majority (90.7%) of motorcycle collisions involved male drivers (Table 11).

Motorcycle drivers under the age of 25 had the highest involvement rate per 1000 licensed motorcyclists. In particular, 16-17 year old motorcycle drivers had an involvement rate per 1000 licensed motorcyclists of 91.1, a rate almost three and a half times greater than that of the 20-24 year old motorcycle drivers (Table 12).

Based on the information collected on the Alberta collision report form, motorcyclists involved in fatal collisions were most commonly identified as not having the proper class of licence for operating a motorcycle (13.1%) compared to motorcyclists in injury or property damage collisions. Overall, 5.7% of motorcyclists involved in collisions did not have the correct class of licence (Table 13).

Of motorcyclists involved in casualty collisions, 7.6% had consumed alcohol prior to the collision. In fatal collisions, 29.2% of motorcyclists had been drinking prior to the crash (Table 14).

Of all motorcyclists involved in casualty collisions, motorcyclists aged 25 to 34 (7.9%) and 35 to 44 (7.2%) had the highest proportion of alcohol consumption. Overall, 88.3% of drinking motorcyclists were between the ages of 20 and 54. However, in terms of rate per 1000 licensed motorcyclists, motorcycle drivers under the age of 20 had the highest alcohol involvement rate (Table 15).

Almost half (44.8%) of motorcyclists involved in casualty collisions made an improper action. The most common errors were running off road (17.8%) and following too closely (6.3%) (Table 16).

The majority (60.4%) of the drivers of other vehicles involved in casualty collisions with motorcycles committed a driver error that contributed to the collision. Making a left turn across the path of a vehicle (22.2%) and making an improper lane change (7.7%) were the most common errors made by the drivers of other vehicles involved in collisions with motorcycles (Table 17).

An intersection-related traffic control device was present for 24.4% of the motorcyclists involved in collisions (Table 18).

An intersection-related traffic control device was present for 39.1% of the other drivers involved in a collision with a motorcycle (Table 19).

Over one quarter (25.6%) of motorcyclists in casualty collisions were indicated as travelling at an unsafe speed. This compares to 65.9% in fatal collisions (Table 20).

Of the other drivers involved in casualty collisions with motorcycles, 4.3% were indicated as travelling at an unsafe speed (Table 21).

Casualty rates per 10,000 population were highest for persons between the ages of 20 and 24 - almost twice that of any other age group (Table 22).

Of the motorcyclists who were killed or injured, 85.9% were identified as having been wearing a helmet at the time of the collision (Table 23).

Over half (57.5%) of motorcycle casualties sustained their injuries in front centre or rollover collisions (Table 24).

Table 1

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
2004 - 2008**

Severity of Collisions	2008	2007	2006	2005	2004	TOTAL COLLISIONS
Fatal Collisions	42	31	31	20	24	148
Injury Collisions	784	755	742	696	641	3618
Property Damage Collisions	590	554	433	398	342	2317
Total Number of Collisions	1416	1340	1206	1114	1007	6083
						TOTAL CASUALTIES
Casualties*						
Number Killed	42	32	32	21	25	152
Number Injured	852	833	830	771	715	4001
Total Casualties in Collisions Involving Motorcycles	894	865	862	792	740	4153

* This refers to the total number of people killed and injured in collisions in which a motorcycle was involved. It does not refer to only motorcycle operators and passengers.

Number of Motorcycles	2008	2007	2006	2005	2004	TOTAL MOTORCYCLES
# Motorcycles in Fatal Collisions	43	34	31	22	26	156
# Motorcycles in Injury Collisions	807	773	764	718	661	3723
# Motorcycles in Property Damage Collisions	611	571	445	409	351	2387
Total # Motorcycles in Collisions	1461	1378	1240	1149	1038	6266

Table 2

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
MONTH OF OCCURRENCE
2004 - 2008**

Month	Fatal Collisions		Injury Collisions		Property Damage Collisions		Total Collisions	
	N	%	N	%	N	%	N	%
January	--	--	11	0.3	10	0.4	21	0.3
February	--	--	5	0.1	12	0.5	17	0.3
March	2	1.4	66	1.8	59	2.5	127	2.1
April	12	8.1	291	8.0	172	7.4	475	7.8
May	19	12.8	567	15.7	348	15.0	934	15.4
June	19	12.8	561	15.5	388	16.7	968	15.9
July	28	18.9	698	19.3	393	17.0	1119	18.4
August	31	20.9	602	16.6	377	16.3	1010	16.6
September	25	16.9	453	12.5	315	13.6	793	13.0
October	10	6.8	273	7.5	183	7.9	466	7.7
November	2	1.4	78	2.2	43	1.9	123	2.0
December	--	--	11	0.3	13	0.6	24	0.4
Unspecified	--	--	2	0.1	4	0.2	6	0.1
Total Number of Collisions	148	100.0	3618	100.0	2317	100.0	6083	100.0

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Table 3**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
OCCURRENCE BY DAY OF WEEK
2004 - 2008**

Day of Week	Fatal Collisions		Injury Collisions		Property Damage Collisions		Total Collisions	
	N	%	N	%	N	%	N	%
Monday	19	12.8	459	12.7	310	13.4	788	13.0
Tuesday	21	14.2	460	12.7	259	11.2	740	12.2
Wednesday	7	4.7	446	12.3	317	13.7	770	12.7
Thursday	20	13.5	489	13.5	325	14.0	834	13.7
Friday	25	16.9	581	16.1	400	17.3	1006	16.5
Saturday	30	20.3	584	16.1	401	17.3	1015	16.7
Sunday	26	17.6	595	16.4	297	12.8	918	15.1
Unspecified	–	--	4	0.1	8	0.3	12	0.2
Total Number of Collisions	148	100.0	3618	100.0	2317	100.0	6083	100.0

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Table 4

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
TIME PERIOD OF OCCURRENCE
2004 - 2008**

Time of Day	Fatal Collisions		Injury Collisions		Property Damage Collisions		Total Collisions	
	N	%	N	%	N	%	N	%
11:00 p.m. - 2:59 a.m.	16	10.8	262	7.2	172	7.4	450	7.4
3:00 a.m. - 6:59 a.m.	6	4.1	97	2.7	63	2.7	166	2.7
7:00 a.m. - 10:59 a.m.	13	8.8	324	9.0	262	11.3	599	9.8
11:00 a.m. - 2:59 p.m.	30	20.3	770	21.3	541	23.3	1341	22.0
3:00 p.m. - 6:59 p.m.	32	21.6	1226	33.9	795	34.3	2053	33.7
7:00 p.m. - 10:59 p.m.	50	33.8	901	24.9	457	19.7	1408	23.1
Unspecified	1	0.7	38	1.1	27	1.2	66	1.1
Total Number of Collisions	148	100.0	3618	100.0	2317	100.0	6083	100.0

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Table 5

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
LOCATION
2004 - 2008**

Location	Fatal Collisions		Injury Collisions		Property Damage Collisions		Total Collisions	
	N	%	N	%	N	%	N	%
Urban	78	52.7	2722	75.2	2040	88.0	4840	79.6
Rural Highways Numbered 1 - 986	59	39.9	650	18.0	203	8.8	912	15.0
Other Rural Roads	11	7.4	246	6.8	74	3.2	331	5.4
Total Number of Collisions	148	100.0	3618	100.0	2317	100.0	6083	100.0

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Table 6

**ALBERTA
CASUALTY COLLISIONS INVOLVING MOTORCYCLES
SURFACE CONDITION
2004 - 2008**

Surface Condition	Fatal Collisions		Injury Collisions		Total Casualty Collisions	
	N	%	N	%	N	%
Dry	128	86.5	3092	85.5	3220	85.5
Loose Surface Material	3	2.0	178	4.9	181	4.8
Wet	6	4.1	153	4.2	159	4.2
Slush/Snow/Ice	--	--	11	0.3	11	0.3
Muddy	--	--	9	0.2	9	0.2
Other	2	1.4	15	0.4	17	0.5
Unspecified	9	6.1	160	4.4	169	4.5
Total Number of Casualty Collisions	148	100.0	3618	100.0	3766	100.0

Table 7

**ALBERTA
CASUALTY COLLISIONS INVOLVING MOTORCYCLES
ENVIRONMENTAL CONDITION
2004 - 2008**

Environmental Condition	Fatal Collisions		Injury Collisions		Total Casualty Collisions	
	N	%	N	%	N	%
Clear	130	87.8	3320	91.8	3450	91.6
Raining	4	2.7	115	3.2	119	3.2
High Wind	1	0.7	15	0.4	16	0.4
Fog/Smog/Smoke/Dust	1	0.7	4	0.1	5	0.1
Snow	1	0.7	1	0.0	2	0.1
Hail/Sleet	--	--	1	0.0	1	0.0
Other	3	2.0	14	0.4	17	0.5
Unspecified	8	5.4	148	4.1	156	4.1
Total Number of Casualty Collisions	148	100.0	3618	100.0	3766	100.0

Table 8

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
POINT OF IMPACT ON MOTORCYCLES*
2004 - 2008**

Point of Impact	Fatal Collisions		Injury Collisions		Property Damage Collisions		Total Motorcycles	
	N	%	N	%	N	%	N	%
Front Centre	81	59.1	1224	39.0	651	32.6	1956	37.1
Rollover	23	16.8	521	16.6	128	6.4	672	12.7
Right Front	8	5.8	326	10.4	261	13.1	595	11.3
Right Centre	8	5.8	239	7.6	197	9.9	444	8.4
Left Centre	5	3.6	239	7.6	190	9.5	434	8.2
Left Front	8	5.8	250	8.0	172	8.6	430	8.2
Rear Centre	2	1.5	171	5.4	250	12.5	423	8.0
Left Rear	--	--	71	2.3	75	3.8	146	2.8
Right Rear	1	0.7	38	1.2	38	1.9	77	1.5
Undercarriage	1	0.7	42	1.3	13	0.7	56	1.1
Roof	--	--	12	0.4	11	0.6	23	0.4
Attachment	--	--	6	0.2	12	0.6	18	0.3
Total Motorcycles	137	100.0	3139	100.0	1998	100.0	5274	100.0

*Includes only those cases where point of impact was specified on the collision report form.

Table 9

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
NUMBER OF VEHICLES INVOLVED
2004 - 2008**

Number of Vehicles	Fatal Collisions		Injury Collisions		Property Damage Collisions		Total Collisions	
	N	%	N	%	N	%	N	%
One Vehicle	60	40.5	1766	48.8	654	28.2	2480	40.8
Two Vehicles	79	53.4	1740	48.1	1564	67.5	3383	55.6
Three Vehicles	7	4.7	96	2.7	77	3.3	180	3.0
Four+ Vehicles	2	1.4	16	0.4	22	0.9	40	0.7
Total Number of Collisions	148	100.0	3618	100.0	2317	100.0	6083	100.0

Table 10

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
OTHER VEHICLES INVOLVED*
2004 - 2008**

Type of Vehicle	Vehicles in Fatal Collisions		Vehicles in Non-Fatal Injury Collisions		Vehicles in Property Damage Collisions		Total Other Vehicles in Collisions	
	N	%	N	%	N	%	N	%
Passenger Car	26	31.3	964	54.6	759	51.2	1749	52.5
Pick-up Truck/Van	29	34.9	348	19.7	315	21.3	692	20.8
Mini-Van/MPV	13	15.7	347	19.7	316	21.3	676	20.3
Truck 4500 kg+	8	9.6	55	3.1	49	3.3	112	3.4
Truck Tractor	4	4.8	24	1.4	15	1.0	43	1.3
Transit Bus	--	--	9	0.5	4	0.3	13	0.4
Bicycle	--	--	4	0.2	5	0.3	9	0.3
Emergency Equipment	--	--	3	0.2	4	0.3	7	0.2
Construction Equipment	--	--	1	0.1	5	0.3	6	0.2
Motorhome	--	--	3	0.2	2	0.1	5	0.2
Farm Equipment	2	2.4	1	0.1	1	0.1	4	0.1
Off Highway Vehicle	--	--	3	0.2	1	0.1	4	0.1
Other	1	1.2	3	0.2	5	0.3	9	0.3
Total Other Vehicles	83	100.0	1765	100.0	1481	100.0	3329	100.0

*Based on those cases where type of vehicle was specified on the collision report form.
Note: Does not include 261 parked vehicles involved in collisions with motorcycles.

Table 11

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
SEX OF MOTORCYCLISTS*
2004 - 2008**

Sex of Operator	Motorcyclists in Fatal Collisions		Motorcyclists in Injury Collisions		Motorcyclists in Property Damage Collisions		Total Motorcyclists in Collisions	
	N	%	N	%	N	%	N	%
Male	151	96.8	3382	91.1	1672	89.5	5205	90.7
Female	2	1.3	299	8.1	108	5.8	409	7.1
Unspecified	3	1.9	31	0.8	89	4.8	123	2.1
Total Motorcyclists	156	100.0	3712	100.0	1869	100.0	5737	100.0

*Does not include 529 parked motorcycles involved in collisions.

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Table 12

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
AGE OF MOTORCYCLISTS*
2004 - 2008**

Age of Motorcyclist	Motorcyclists in Fatal Collisions		Motorcyclists in Injury Collisions		Motorcyclists in Property Damage Collisions		Total Motorcyclists in Collisions		Rate Per 1,000 Licensed Motorcyclists**
	N	%	N	%	N	%	N	%	
Under 16	--	--	37	1.0	9	0.5	46	0.8	--
16 - 17	--	--	76	2.0	29	1.6	105	1.8	91.1
18 - 19	9	5.8	201	5.4	95	5.1	305	5.3	58.0
20 - 24	36	23.1	808	21.8	404	21.6	1248	21.8	26.4
25 - 34	34	21.8	851	22.9	474	25.4	1359	23.7	7.5
35 - 44	24	15.4	682	18.4	295	15.8	1001	17.4	3.6
45 - 54	31	19.9	724	19.5	344	18.4	1099	19.2	2.9
55 - 64	18	11.5	240	6.5	105	5.6	363	6.3	1.9
65 and over	3	1.9	72	1.9	18	1.0	93	1.6	1.4
Unspecified	1	0.6	21	0.6	96	5.1	118	2.1	
Total Motorcyclists	156	100.0	3712	100.0	1869	100.0	5737	100.0	

*Does not include 529 parked motorcycles involved in collisions.

Note: In Alberta, Class 6 (motorcycle) licenses are not issued to operators under 16 years of age.

**Source: Licensed Drivers – Service Alberta – Registries Services, as of December 31, 2004 - 2008.

Table 13

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
PROPER LICENCE CLASS OF MOTORCYCLISTS*
2004 - 2008**

Proper Class of Licence	Fatal Collisions		Injury Collisions		Property Damage Collisions		Total Motorcyclists	
	N	%	N	%	N	%	N	%
Yes	119	86.9	3255	93.4	1623	97.0	4997	94.3
No	18	13.1	231	6.6	51	3.0	300	5.7
Total Motorcyclists	137	100.0	3486	100.0	1674	100.0	5297	100.0

*Based on those cases where proper licence class was specified on the collision report form.
Does not include 529 parked motorcycles involved in collisions.

Table 14

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
CONDITION OF MOTORCYCLISTS*
INVOLVED IN CASUALTY COLLISIONS
2004 - 2008**

Operator Condition	Motorcyclists in Fatal Collisions		Motorcyclists in Injury Collisions		Total Motorcyclists in Casualty Collisions	
	N	%	N	%	N	%
Apparently Normal	84	70.0	2908	92.8	2992	91.9
Had Been Drinking	15	12.5	135	4.3	150	4.6
Alcohol Impaired	20	16.7	77	2.5	97	3.0
Total Alcohol Involvement	35	29.2	212	6.8	247	7.6
Other	1	0.8	15	0.5	16	0.5
Total Motorcyclists	120	100.0	3135	100.0	3255	100.0

*Based on those cases where driver condition was specified on the collision report form.
Does not include eleven parked motorcycles involved in casualty collisions.

Table 15

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
AGE OF DRINKING MOTORCYCLISTS
INVOLVED IN CASUALTY COLLISIONS*
2004 - 2008**

Age of Motorcyclist	All Motorcyclists in Casualty Collisions		Drinking Motorcyclists in Casualty Collisions		Percent of Casualty Collision Involved Motorcyclists that had Consumed Alcohol	Drinking Motorcyclists Rate Per 1,000 Licensed Motorcyclists**
	N	%	N	%	%	
Under 16	37	1.0	--	--	--	--
16 - 17	76	2.0	5	2.0	6.6	4.3
18 - 19	210	5.4	10	4.0	4.8	1.9
20 - 24	844	21.8	44	17.8	5.2	0.9
25 - 34	885	22.9	70	28.3	7.9	0.4
35 - 44	706	18.3	51	20.6	7.2	0.2
45 - 54	755	19.5	53	21.5	7.0	0.1
55 - 64	258	6.7	10	4.0	3.9	0.1
65 and over	75	1.9	2	0.8	2.7	0.0
Unspecified	22	0.6	2	0.8		
Motorcyclists in Casualty Collisions	3868	100.0	247	100.0		

*Based on those cases where driver condition was specified on the collision report form. Does not include eleven parked motorcycles involved in casualty collisions.

Note: In Alberta, Class 6 (motorcycle) licenses are not issued to operators under 16 years of age.

**Source: Licensed Drivers – Service Alberta – Registries Services, as of December 31, 2004 - 2008.

Table 16

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
ACTION OF MOTORCYCLISTS
INVOLVED IN CASUALTY COLLISIONS*
2004 - 2008**

Motorcyclist Actions	Motorcyclists in Fatal Collisions		Motorcyclists in Injury Collisions		Total Motorcyclists in Casualty Collisions	
	N	%	N	%	N	%
Driving Properly	36	28.6	1608	56.4	1644	55.2
Ran Off Road	43	34.1	488	17.1	531	17.8
Followed Too Closely	6	4.8	183	6.4	189	6.3
Improper Passing	7	5.6	59	2.1	66	2.2
Left of Centre	10	7.9	44	1.5	54	1.8
Left Turn Across Path	3	2.4	45	1.6	48	1.6
Disobey Traffic Signal	3	2.4	38	1.3	41	1.4
Improper Lane Change	1	0.8	33	1.2	34	1.1
Improper Turn	--	--	32	1.1	32	1.1
Stop Sign Violation	1	0.8	17	0.6	18	0.6
Failed to Yield Right of Way - Uncontrolled Intersection	--	--	14	0.5	14	0.5
Yield Sign Violation	--	--	11	0.4	11	0.4
Failed to Yield Right of Way to Pedestrian	1	0.8	3	0.1	4	0.1
Other	15	11.9	276	9.7	291	9.8
Total Motorcyclists in Casualty Collisions	126	100.0	2851	100.0	2977	100.0

*Based on those cases where driver action was specified on the collision report form.
Note: Does not include eleven parked motorcycles involved in casualty collisions.

Table 17

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
ACTIONS OF OTHER DRIVERS*
INVOLVED IN CASUALTY COLLISIONS
2004 - 2008**

Actions of Other Drivers	Other Drivers in Fatal Collisions		Other Drivers in Injury Collisions		Total Other Drivers in Casualty Collisions	
	N	%	N	%	N	%
Driving Properly	40	50.6	616	39.1	656	39.6
Left Turn Across Path	21	26.6	347	22.0	368	22.2
Improper Lane Change	--	--	128	8.1	128	7.7
Stop Violation	12	15.2	104	6.6	116	7.0
Followed Too Closely	--	--	106	6.7	106	6.4
Improper Turn	2	2.5	65	4.1	67	4.0
Failed to Yield Right of Way - Uncontrolled Intersection	--	--	43	2.7	43	2.6
Yield Violation	1	1.3	31	2.0	32	1.9
Disobey Traffic Signal	--	--	32	2.0	32	1.9
Backed Unsafely	--	--	18	1.1	18	1.1
Left of Centre	3	3.8	15	1.0	18	1.1
Improper Passing	--	--	11	0.7	11	0.7
Ran off Road	--	--	9	0.6	9	0.5
Failed to Yield Right of Way to Pedestrian	--	--	2	0.1	2	0.1
Other	--	--	50	3.2	50	3.0
Total Other Drivers in Casualty Collisions	79	100.0	1577	100.0	1656	100.0

*Based on those cases where driver action was specified on the collision report form.

Note: Includes bicyclists. Does not include 127 parked vehicles involved in casualty collisions with motorcycles.

Table 18

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
TRAFFIC CONTROL DEVICE PRESENT FOR MOTORCYCLIST*
INVOLVED IN COLLISIONS
2004 - 2008**

Traffic Control Device	Motorcyclists in Fatal Collisions		Motorcyclists in Non-Fatal Injury Collisions		Motorcyclists in Property Damage Collisions		Total Motorcyclists in Collisions	
	N	%	N	%	N	%	N	%
None Present	129	83.8	2643	75.2	1102	66.4	3874	72.7
Traffic Lights	19	12.3	606	17.2	372	22.4	997	18.7
Stop Sign	3	1.9	95	2.7	86	5.2	184	3.5
Yield Sign	--	--	55	1.6	46	2.8	101	1.9
Crosswalk	--	--	57	1.6	32	1.9	89	1.7
Merge Sign	2	1.3	9	0.3	7	0.4	18	0.3
Lane Control	--	--	4	0.1	3	0.2	7	0.1
Rail Crossing	--	--	4	0.1	2	0.1	6	0.1
Other	1	0.6	43	1.2	10	0.6	54	1.0
Total Motorcyclists	154	100.0	3516	100.0	1660	100.0	5330	100.0

*Based on those cases where traffic control device was specified on the collision report form.
Note: Does not include 529 parked motorcycles involved in collisions.

Table 19

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
TRAFFIC CONTROL DEVICE PRESENT FOR OTHER DRIVERS*
INVOLVED IN COLLISIONS
2004 - 2008**

Traffic Control Device	Other Drivers in Fatal Collisions		Other Drivers in Non-Fatal Injury Collisions		Other Drivers in Property Damage Collisions		Total Other Drivers in Collisions	
	N	%	N	%	N	%	N	%
None Present	46	56.1	897	52.8	906	64.3	1849	57.9
Traffic Lights	18	22.0	497	29.3	318	22.6	833	26.1
Stop Sign	17	20.7	207	12.2	98	7.0	322	10.1
Yield Sign	--	--	48	2.8	46	3.3	94	2.9
Crosswalk	--	--	39	2.3	31	2.2	70	2.2
Other	1	1.2	11	0.6	11	0.8	23	0.7
Total Other Drivers	82	100.0	1699	100.0	1410	100.0	3191	100.0

*Based on those cases where traffic control device was specified on the collision report form.
Note: Includes bicyclists. Does not include 261 parked vehicles involved in collisions with motorcycles.

Table 20

**ALBERTA
CASUALTY COLLISIONS INVOLVING MOTORCYCLES
MOTORCYCLISTS' SPEED
2004 - 2008**

Unsafe Speed	Motorcyclists in Fatal Collisions		Motorcyclists in Injury Collisions		Motorcyclists in Total Collisions	
	N	%	N	%	N	%
Yes	54	65.9	530	24.1	584	25.6
No	28	34.1	1670	75.9	1698	74.4
Total Number of Motorcyclists	82	100.0	2200	100.0	2282	100.0

*Based on those cases where unsafe speed was specified on the collision report form.

Note: Does not include eleven parked motorcycles involved in casualty collisions.

Note: For the purposes of collision reporting, unsafe speed is defined as speed too great under the given conditions (e.g. road, weather and light conditions, traffic density, etc.). Whether or not the driver exceeded a legal speed limit is irrelevant.

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Table 21

**ALBERTA
CASUALTY COLLISIONS INVOLVING MOTORCYCLES
OTHER DRIVER'S SPEED
2004 - 2008**

Unsafe Speed	Other Drivers in Fatal Collisions		Other Drivers in Injury Collisions		Other Drivers in Total Collisions	
	N	%	N	%	N	%
Yes	1	1.5	56	4.5	57	4.3
No	64	98.5	1201	95.5	1265	95.7
Total Number of Other Drivers	65	100.0	1257	100.0	1322	100.0

*Based on those cases where unsafe speed was specified on the collision report form.

Note: Includes bicyclists. Does not include 127 parked vehicles involved in casualty collisions with motorcycles.

Note: For the purposes of collision reporting, unsafe speed is defined as speed too great under the given conditions (e.g. road, weather and light conditions, traffic density, etc.). Whether or not the driver exceeded a legal speed limit is irrelevant.

Table 22

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
AGE OF MOTORCYCLE CASUALTIES*
2004 - 2008**

Age of Casualties	Fatal Injury		Major Injury		Minor Injury		Total Motorcycle Casualties		Casualty Rate Per 10,000 Population**
	N	%	N	%	N	%	N	%	
Under 10	--	--	4	0.3	6	0.2	10	0.3	0.0
10 – 14	--	--	7	0.5	20	0.8	27	0.7	0.2
15 – 19	9	6.0	78	6.1	226	8.9	313	7.9	2.5
20 – 24	35	23.5	222	17.4	598	23.5	855	21.5	6.3
25 – 29	22	14.8	162	12.7	352	13.8	536	13.5	4.0
30 – 34	11	7.4	120	9.4	214	8.4	345	8.7	2.7
35 – 44	23	15.4	251	19.7	429	16.9	703	17.7	2.6
45 – 54	29	19.5	292	22.9	449	17.6	770	19.4	3.0
55 – 64	18	12.1	98	7.7	149	5.9	265	6.7	1.6
65 +	2	1.3	23	1.8	44	1.7	69	1.7	0.4
Unspecified	--	--	20	1.6	58	2.3	78	2.0	
Total Motorcycle Casualties	149	100.0	1277	100.0	2545	100.0	3971	100.0	

*Includes only those cases where injury severity was specified on the collision report form. Does not include the 182 other persons who were injured as a result of the collisions but who were not operators or passengers of motorcycles.

**Table 1. Stats Canada, DEM5128 - Annual population estimates by age, sex and census division based on 2006 census.

Table 23

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
HELMET USE OF MOTORCYCLE CASUALTIES*
2004 - 2008**

Helmet Use	Fatal Injury		Major Injury		Minor Injury		Total Motorcycle Casualties	
	N	%	N	%	N	%	N	%
Helmet Not Used	10	6.7	118	9.2	195	7.7	323	8.1
Helmet Used	135	90.6	1080	84.6	2196	86.3	3411	85.9
Unspecified	4	2.7	79	6.2	154	6.1	237	6.0
Total Motorcycle Casualties	149	100.0	1277	100.0	2545	100.0	3971	100.0

*Includes only those cases where injury severity was specified on the collision report form. Does not include the 182 other persons who were injured as a result of the collisions but were not operators or passengers of motorcycles.

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Table 24

**ALBERTA
COLLISIONS INVOLVING MOTORCYCLES
POINT OF IMPACT ON MOTORCYCLE
BY INJURY SEVERITY*
2004 - 2008**

Point of Impact	Fatal Injury		Major Injury		Minor Injury		Total Motorcycle Casualties	
	N	%	N	%	N	%	N	%
Front Centre	79	59.8	477	44.3	799	37.1	1355	40.3
Rollover	23	17.4	248	23.0	306	14.2	577	17.2
Right Front	8	6.1	89	8.3	243	11.3	340	10.1
Left Front	8	6.1	69	6.4	185	8.6	262	7.8
Left Centre	4	3.0	68	6.3	179	8.3	251	7.5
Right Centre	8	6.1	61	5.7	179	8.3	248	7.4
Rear Centre	--	--	24	2.2	144	6.7	168	5.0
Left Rear	--	--	21	1.9	45	2.1	66	2.0
Undercarriage	1	0.8	10	0.9	32	1.5	43	1.3
Right Rear	1	0.8	5	0.5	28	1.3	34	1.0
Roof	--	--	3	0.3	9	0.4	12	0.4
Attachment	--	--	2	0.2	3	0.1	5	0.1
Total Motorcycle Casualties	132	100.0	1077	100.0	2152	100.0	3361	100.0

*Includes only those cases where injury severity and point of impact was specified on the collision report form. Does not include the 182 other persons who were injured as a result of the collisions but were not operators or passengers of motorcycles.