

2016

# MOTOR VEHICLE COLLISIONS



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# 2016 QUICK FACTS

**Legal Note:**

The City of Edmonton provides this information in good faith but gives no warranty, nor accepts liability, from any incorrect, incomplete or misleading information, or its use for any purpose.

STATISTICS	2015	2016	% CHANGE
TOTAL COLLISIONS	25,517	23,139	▼ -9.3
FATAL COLLISIONS	30	21	▼ -30.0
INJURY COLLISIONS	3,033	2,656	▼ -12.4
FATAL AND INJURY COLLISIONS	3,063	2,677	▼ -12.6
PROPERTY DAMAGE ONLY (PDO) COLLISIONS	22,454	20,462	▼ -8.9
INTERSECTION COLLISIONS	14,516	13,384	▼ -7.8
NUMBER OF FATALITIES	32	22	▼ -31.3
NUMBER OF MAJOR INJURIES	383	325	▼ -15.1
NUMBER OF MINOR INJURIES	3,422	2,980	▼ -12.9
NUMBER OF MAJOR AND MINOR INJURIES	3,805	3,305	▼ -13.1
NUMBER OF FATALITIES AND MAJOR INJURIES	415	347	▼ -16.4
PEDESTRIAN COLLISIONS	316	292	▼ -7.6
NUMBER OF PEDESTRIAN INJURIES	317	297	▼ -6.3
NUMBER OF PEDESTRIAN FATALITIES	12	10	▼ -16.7
NUMBER OF PEDESTRIAN FATALITIES AND INJURIES	329	307	▼ -6.7
BICYCLE COLLISIONS	178	171	▼ -3.9
NUMBER OF CYCLIST INJURIES	158	145	▼ -8.2
NUMBER OF CYCLIST FATALITIES	0	0	N/A
NUMBER OF CYCLIST FATALITIES AND INJURIES	158	145	▼ -8.2
MOTORCYCLE COLLISIONS	208	191	▼ -8.2
NUMBER OF MOTORCYCLIST INJURIES	121	124	▲ 2.5
NUMBER OF MOTORCYCLIST FATALITIES	6	3	▼ -50.0
NUMBER OF MOTORCYCLIST FATALITIES AND INJURIES	127	127	0.0
POPULATION	895,000	932,546	▲ 4.2
PRIVATE PASSENGER VEHICLES	591,595	602,330	▲ 1.8
PRIVATE MOTORCYCLES	17,415	18,424	▲ 5.8
COLLISIONS PER 1,000 POPULATION	28.5	24.8	▼ -13.0
INTERSECTION COLLISIONS PER 1,000 POPULATION	16.2	14.4	▼ -11.5
NUMBER OF INJURIES PER 1,000 POPULATION	4.3	3.5	▼ -16.6
NUMBER OF FATALITIES AND INJURIES PER 1,000 POPULATION	4.3	3.6	▼ -16.8
COLLISIONS PER 1,000 VEHICLES <sup>1</sup>	41.9	37.3	▼ -11.0
INTERSECTION COLLISIONS PER 1,000 VEHICLES	23.8	21.6	▼ -9.5
NUMBER OF FATALITIES AND INJURIES PER 1,000 VEHICLES <sup>1</sup>	6.3	5.4	▼ -14.9

<sup>1</sup> Per 1,000 vehicles refers to private passenger vehicles and private motorcycles.

- There were 23,139 collisions in Edmonton in 2016. This figure represents a decrease of 9.3% from 2015.
- The number of collisions per capita in Edmonton decreased 13.0% from 2015 levels (28.5), to 24.8 collisions per 1,000 population.
- There were 2,677 collisions that resulted in injury or fatality, a decrease of 12.6% from 2015. These injury and fatal collisions resulted in 2,980 minor injuries, 325 major injuries, and 22 fatalities.<sup>2</sup>
- The 22 fatalities in 2016 included 9 vehicle occupants (6 drivers and 3 passengers) and 13 vulnerable road users: 10 pedestrians and 3 motorcyclists.
- Collisions at intersections made up 57.8% (13,384) of the collision total and resulted in 71.6% (2,367) of total injuries and 50.0% (11) of the fatalities sustained in 2016. Compared to 2015, the number of intersection collisions per 1,000 population decreased by 11.5%.
- The most common collision causes were: following too closely (38.6%, 8,928 collisions); struck parked vehicle (13.0%, 3,019); changing lanes improperly (10.8%, 2,497); left turn across path (6.9%, 1,593); and ran off road (6.4%, 1,483).

**23,139**  
**COLLISIONS** | **-9.3%**



**COLLISIONS AT INTERSECTIONS MADE UP 57.8% OF ALL COLLISIONS (13,384)**

**MOST COMMON CAUSE OF COLLISION: FOLLOWING TOO CLOSELY (38.6%)**

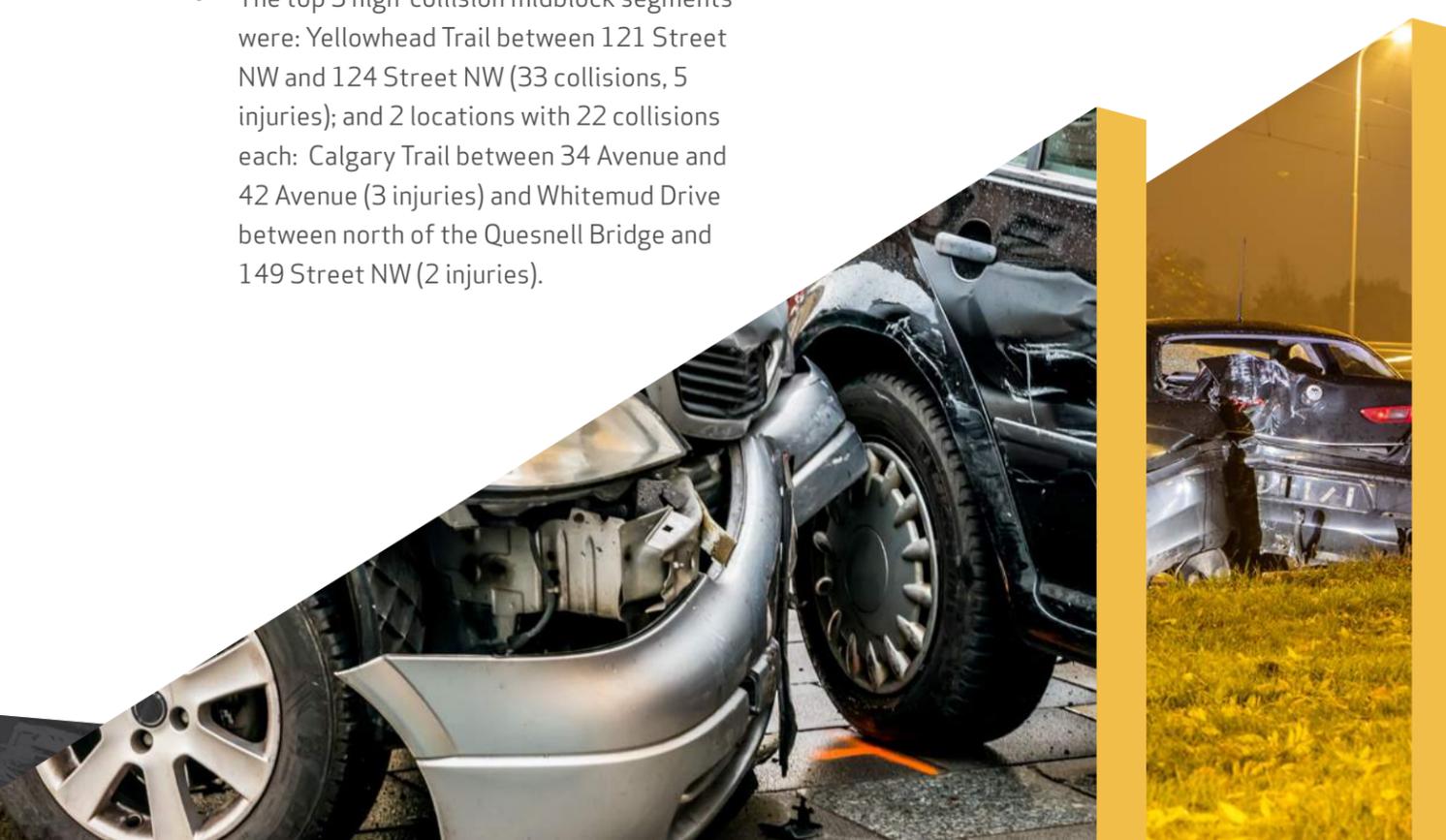


- The collision causes most likely to result in injury or fatality were: following too closely (39.9%, 1,068 collisions); left turn across path (10.2%, 272); and failing to yield to pedestrian (7.8%, 208).
- There were 292 pedestrian-involved collisions, resulting in 297 pedestrian injuries (a decrease of 6.3% over 2015), and there were 10 fatalities in 2016 compared to 12 fatalities in 2015. Of the pedestrian collisions, 50 injuries and 1 fatality occurred when pedestrians were crossing without the right of way (jaywalking).

- The number of cyclists injured or killed decreased 8.2% from 2015, with 171 cyclist collisions resulting in 145 injuries and no fatalities. The cyclist was deemed not at fault in 60.0% (87) of these injuries.
- The number of collisions involving motorcyclists decreased 8.2% to 191, compared to 208 collisions in 2015. The number of motorcyclists injured increased by 2.5% to 124. There were 3 motorcyclist fatalities, a decrease from 6 in 2015.
- The top 3 high-collision intersections in the City of Edmonton in 2016 were: 107 Avenue NW and 142 Street NW (134 collisions, 17 injuries); Yellowhead Trail NW and 127 Street NW (83 collisions, 13 injuries); and Yellowhead Trail NW and 149 Street NW (76 collisions, 13 injuries).
- The top 3 high-collision midblock segments were: Yellowhead Trail between 121 Street NW and 124 Street NW (33 collisions, 5 injuries); and 2 locations with 22 collisions each: Calgary Trail between 34 Avenue and 42 Avenue (3 injuries) and Whitemud Drive between north of the Quesnell Bridge and 149 Street NW (2 injuries).

*“The well-being of everyone who uses Edmonton roadways is the core of our business.”*

– LINDA COCHRANE, CITY MANAGER





## SECTION 1: INTRODUCTION

Edmonton's Traffic Safety section maintains the Motor Vehicle Collision Information System (MVCIS), a database of motor vehicle collisions that occur on public roads in the City of Edmonton. The information in the database is collected from the provincial Collision Report Form, which is completed by members of the Edmonton Police Service either on paper at the scene of the collision or electronically at the front counter of a divisional or community police station. The database reflects all reported collisions on public roadways that result in property damage of \$2,000 or greater, as well as any collision that results in a minor or major injury or fatality.

On January 1, 2011, Alberta Transportation implemented a change in its regulations that affected the requirement to report collisions; specifically, the estimated damage amount beyond which a collision is required to be reported to police increased from \$1,000 to \$2,000.

This report presents an overview of collisions that occurred in Edmonton from January 1 to December 31, 2016, based on causes, temporal information, high collision locations and injury severity. The report also provides information on collisions involving pedestrians, cyclists, and motorcyclists.

### VISION ZERO EDMONTON

Humans have limited tolerance to violent forces so we are physically vulnerable when involved in motor vehicle collisions. That's why everyone who uses our roadways has a shared responsibility for road safety. This accountability is also shared by those who design, maintain, and operate the road system.

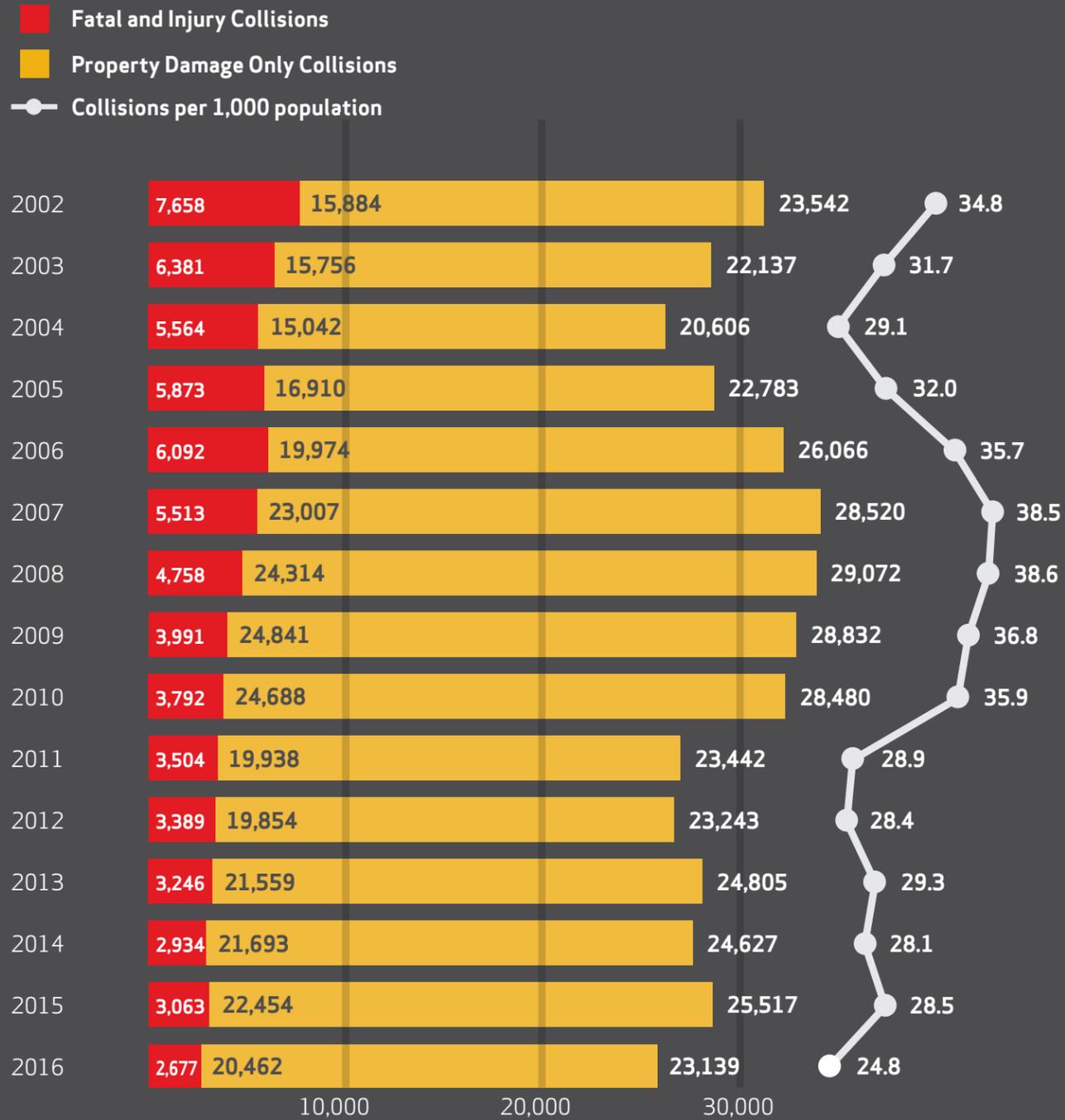
The Vision Zero approach to road safety can be summarized in one sentence: **No loss of life is acceptable.** The long-term goal of Vision Zero is zero traffic fatalities and major (serious) injuries. The City of Edmonton moves towards this goal by using a Safe Systems approach that includes engineering, education, enforcement, evaluation, and engagement. Everyone has a part to play in reaching our goal. By obeying the traffic rules and thinking about the safety of others, you prevent tragic deaths and serious injuries.

*"We are committed to  
Vision Zero Edmonton.  
Everyone leaves and comes  
home safely."*

— GERRY SHIMKO, TRAFFIC SAFETY

FIGURE 1:

HISTORICAL COLLISION STATISTICS FROM 2002 TO 2016

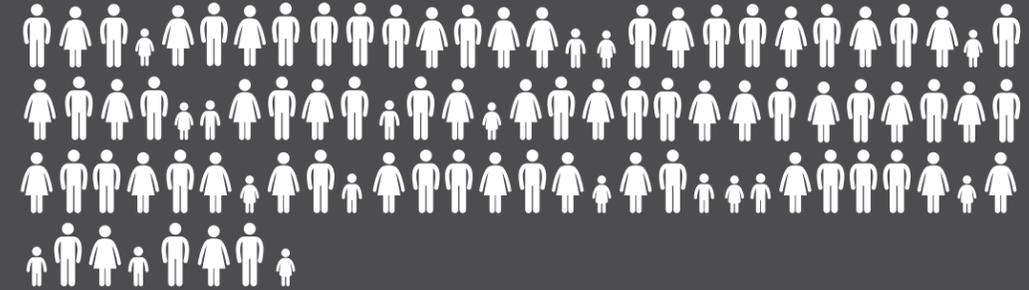


2016 POPULATION

932,546



+4.2%

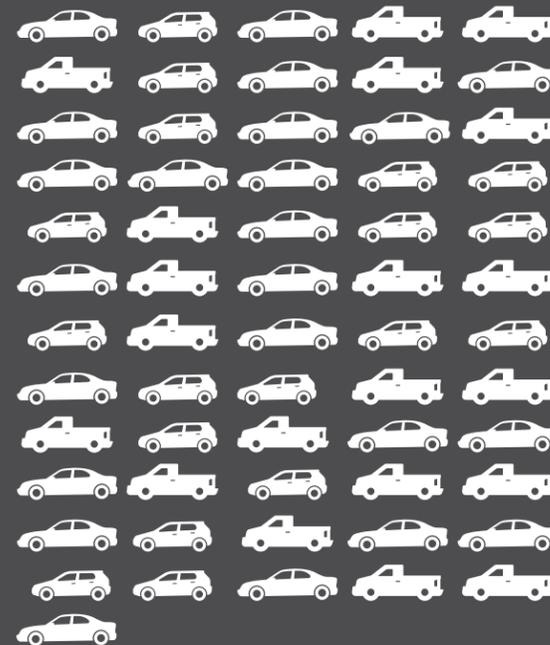


2016 PRIVATE PASSENGER VEHICLES

602,330



+1.8%



2016 PRIVATE MOTORCYCLES

18,424



+5.8%



= 10,000

TABLE 1:

**SUMMARY OF SELECTED COLLISION STATISTICS FROM 2002 TO 2016**

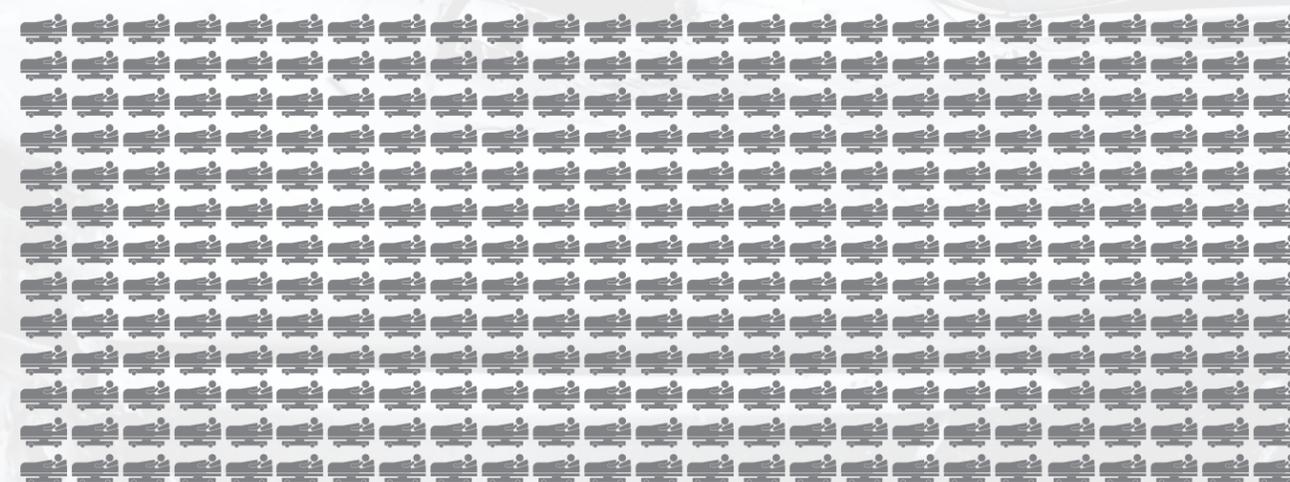
The population figure for 2016 is from the 2016 Census of Canada for the City of Edmonton. The population figure for 2015 is based on an estimate provided by the Chief Economist for the City of Edmonton. Population figures for previous years were primarily obtained from either Census of Canada or City of Edmonton Municipal Census. (See "Population History" of Edmonton Municipal Census).

Data on passenger vehicle and motorcycle registrations are based on the Alberta Vehicle Registration Statistics by Vehicle Registration Classes, and reflect the number of registrations as of March 31 of each year.

Year	Population	Private Passenger Vehicles	Private Motorcycles	Collisions per 1,000 Population	Intersection Collisions per 1,000 Population	Injuries per 1,000 Population	Collisions per 1,000 Vehicles
2002	676,300	376,157	6,346	34.8	17.9	16.3	61.5
2003	697,657	380,475	7,070	31.7	16.0	13.0	57.1
2004	707,271	381,456	8,278	29.1	15.0	10.9	52.9
2005	712,391	389,471	8,586	32.0	15.4	11.2	57.2
2006	730,372	407,732	9,236	35.7	18.2	11.3	62.5
2007	741,392	431,425	10,152	38.5	19.2	10.0	64.6
2008	752,412	452,101	12,686	38.6	18.2	8.3	62.5
2009	782,439	470,602	14,378	36.8	16.8	6.6	59.4
2010	793,000	479,194	15,605	35.9	17.0	6.2	57.6
2011	812,201	491,789	14,087	28.9	15.28	5.5	46.3
2012	817,498	509,655	14,945	28.4	15.5	5.3	44.3
2013	847,712	536,737	14,311	29.3	16.1	4.9	45.0
2014	877,926	563,829	16,003	28.1	15.4	4.2	42.5
2015	895,000	591,595	17,415	28.5	16.2	4.3	41.9
2016	932,546	602,330	18,424	24.8	14.4	3.5	37.3
% Chg*	4.2%	1.8%	5.8%	-13.0%	-11.5%	-16.6%	-11.0%

Year	Total Collisions	Injury Collisions	Injuries	Fatal Collisions	Fatalities	Pedestrian Collisions	Pedestrians Injured	Pedestrians Killed	Bicycle Collisions	Cyclists Injured	Cyclists Killed	Motorcycle Collisions	Motorcyclists Injured	Motorcyclists Killed
2002	23,542	7,638	11,013	20	20	348	365	9	201	199	0	157	141	3
2003	22,137	6,352	9,083	29	32	296	308	6	180	181	0	125	110	1
2004	20,606	5,530	7,686	34	37	296	308	10	196	195	2	161	137	9
2005	22,783	5,847	8,006	26	27	333	346	4	221	221	1	177	162	2
2006	26,066	6,067	8,221	25	25	347	364	0	199	198	0	177	144	1
2007	28,520	5,482	7,445	31	32	366	372	13	184	181	4	213	160	4
2008	29,072	4,730	6,270	28	29	395	395	9	235	234	2	255	186	7
2009	28,832	3,962	5,203	29	32	347	357	9	220	218	2	201	152	2
2010	28,480	3,768	4,910	24	27	306	326	4	182	182	2	211	135	4
2011	23,442	3,482	4,446	22	22	316	324	8	190	188	1	199	139	4
2012	23,243	3,363	4,338	26	27	296	302	8	177	176	1	157	126	4
2013	24,805	3,223	4,123	23	23	298	311	6	177	176	1	172	131	2
2014	24,627	2,912	3,660	22	23	319	336	9	177	177	1	163	114	0
2015	25,517	3,033	3,805	30	32	316	317	12	178	158	0	208	121	6
2016	23,139	2,656	3,305	21	22	292	297	10	171	145	0	191	124	3
% Chg*	-9.3%	-12.4%	-13.1%	-30.0%	-31.3%	-7.6%	-6.3%	-16.7%	-3.9%	-8.2%	N/A	-8.2%	2.5%	-50.0%

\* % Change from 2015 to 2016



**275**  
INJURED  
PER MONTH

On average, 275 people are injured each month in collisions in Edmonton. If they were all hospitalized, that is enough to fill all the beds in the Misericordia Hospital.



## SECTION 2: OVERVIEW

The total number of reported collisions decreased 9.3% between 2015 and 2016, and collisions resulting in injury and the number of people injured decreased 12.4% and 13.1% respectively. Collisions resulting in injury have been steadily decreasing since the establishment of the City of Edmonton Traffic Safety section in late October 2006 (with the exception of 2015). Overall, there has been a 56.2% decrease in injury collisions from 2006 (6,067) to 2016 (2,656) and a 59.8% decrease in the number of people injured from 2006 (8,221) to 2016 (3,305).

Collisions resulting in fatalities decreased from 30 in 2015 to 21 in 2016, with the number of fatalities decreasing from 32 to 22. Major injuries also saw a significant decrease of 15.1% in 2016 (325) from 2015 (383).

Injuries involving pedestrians and cyclists showed decreases in 2016 compared to 2015 (6.3%, 297 and 8.2%, 145 respectively). Although injuries involving motorcyclists increased 2.5% (124) from 2015, overall collisions involving motorcyclists decreased 8.2% (191), and there were 3 motorcycle fatalities in 2016 compared to 6 in 2015. Pedestrian fatalities decreased 16.7% from 2015 to 2016 (10). Cyclist collisions decreased from 178 in 2015 to 171 in 2016 (3.9%). There were no cyclist fatalities in 2015 or 2016.

Overall total collisions per 1,000 population decreased by 13.0% from 2015 to 2016, and fatalities and injuries per 1,000 population decreased 16.8%.

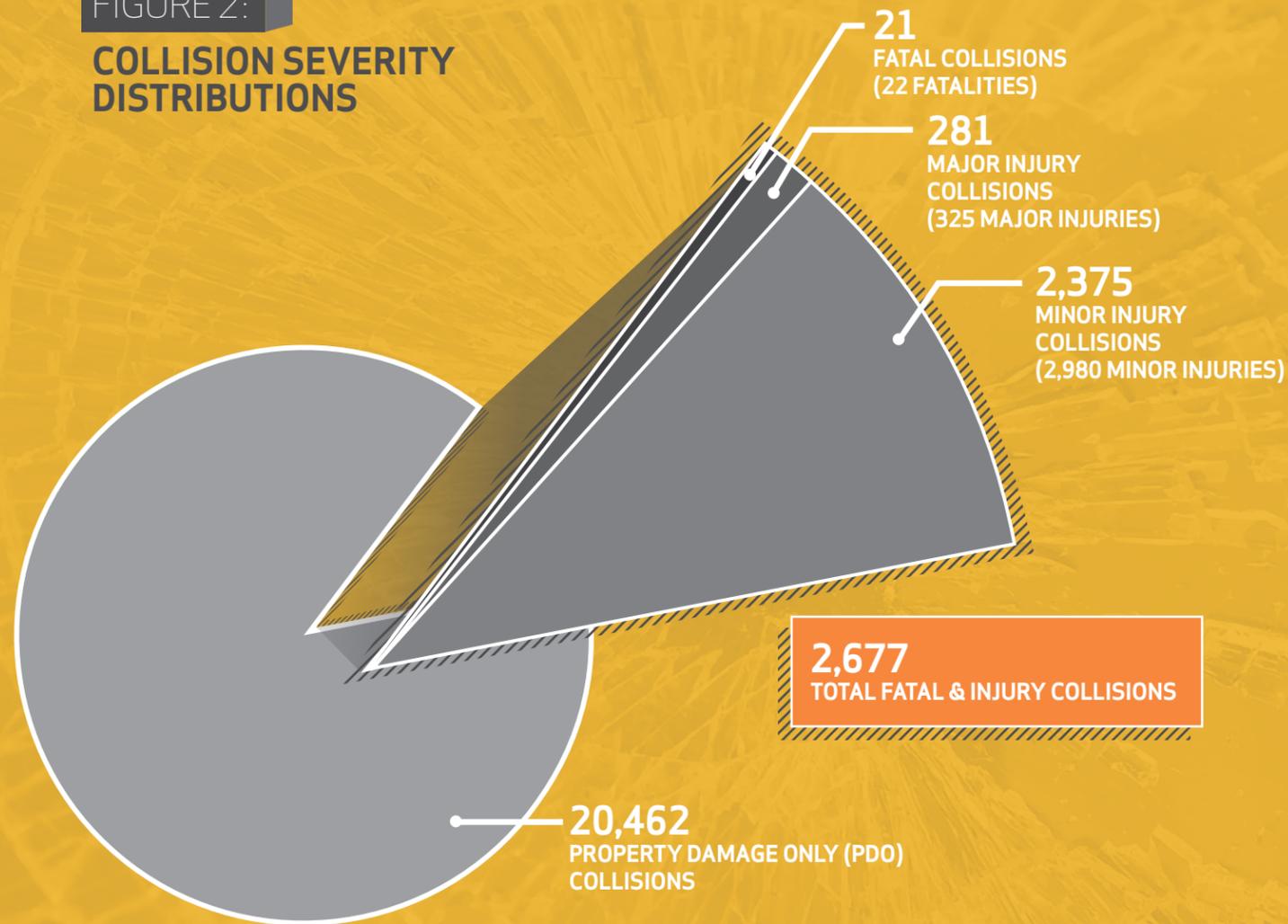
*“We are committed to protecting our most vulnerable citizens by using the best technology available to make our streets and roadways safe for everyone.”*

— COUNCILLOR BEV ESSLINGER

# 2016 COLLISIONS

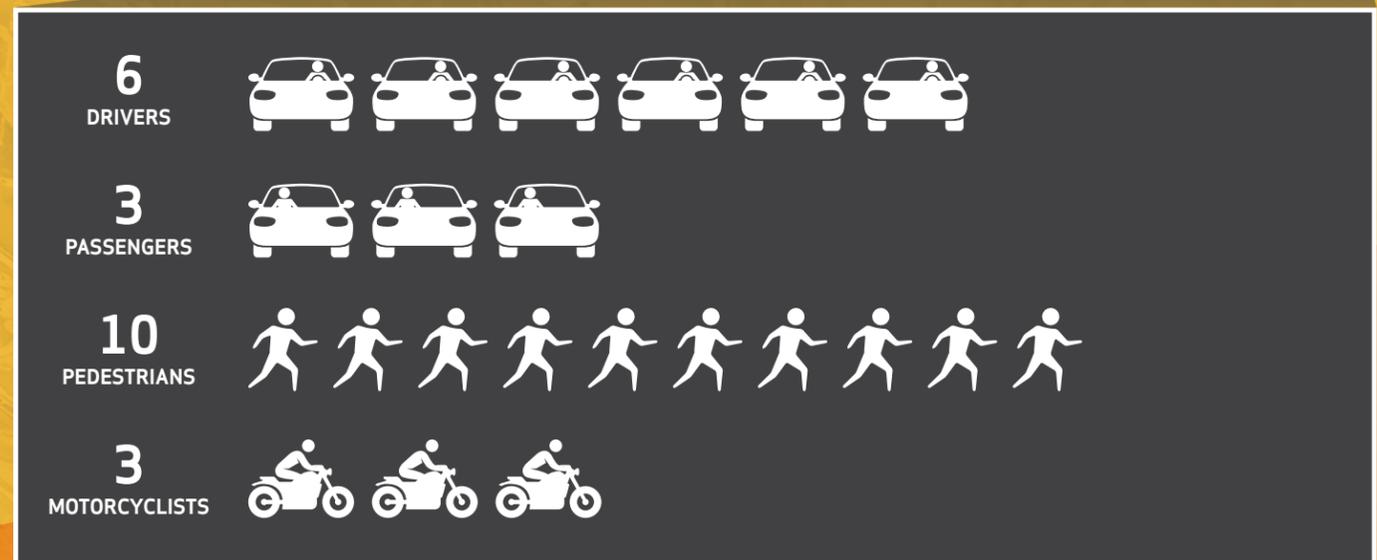
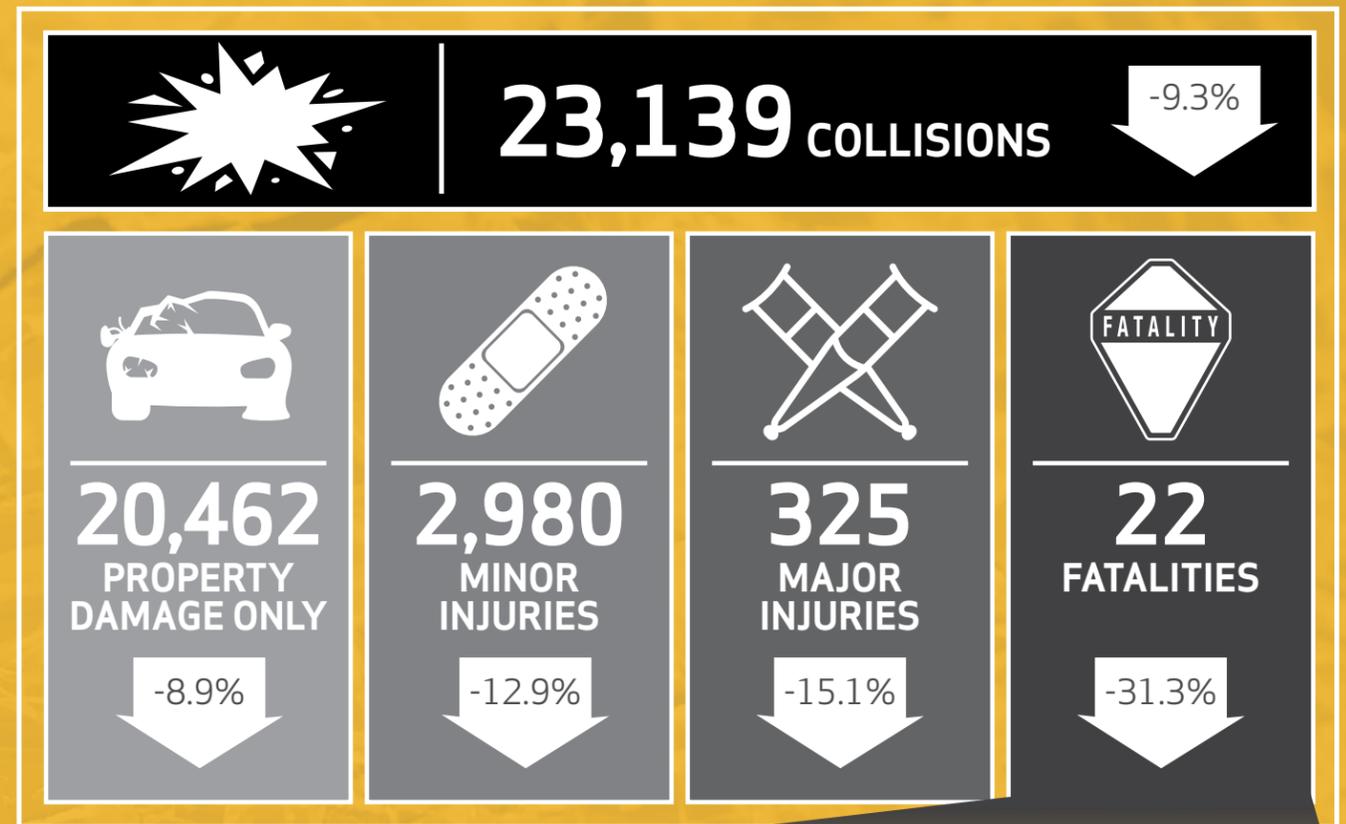
FIGURE 2:

## COLLISION SEVERITY DISTRIBUTIONS



Included in the 23,139 reported motor vehicle collisions on Edmonton streets in 2016 are 2,677 (11.6%) collisions that resulted in minor or major injury or death. These 2,677 collisions caused a total of 3,327 injuries or fatalities to drivers, passengers,

pedestrians, cyclists, and motorcyclists. Among them were 22 traffic fatalities, 325 major injuries and 2,980 minor injuries. The fatality figure includes 9 vehicle occupants (6 drivers and 3 passengers), 10 pedestrians, and 3 motorcyclists.



*“These are our mothers, fathers, wives, husbands, children, friends... any loss of life on our roads is unacceptable.”*

— MAYOR DON IVESON



## SECTION 3:

# COLLISION CAUSES

The most common collision cause<sup>3</sup> reported was following too closely, which was indicated in 38.6% (8,928) of all collisions. Other common collision causes included: struck parked vehicle (13.0%, 3,019); changing lanes improperly (10.8%, 2,497); left turn across path (6.9%, 1,593); and ran off road (6.4%, 1,483).

The collision causes most likely to result in injury or fatality were following too closely (39.9%, 1,068); left turn across path (10.2%, 272); and failed to yield to pedestrian (7.8%, 208). Others were: failed to observe traffic signal (7.6%, 204); stop sign violation (7.3%, 196); and ran off road (6.5%, 173).

<sup>3</sup> For a glossary of collision causes, please refer to Appendix 2.

*“Traffic safety is much more than just signs and paint lines. I look forward to the day when drivers realize they are responsible for lives both inside and outside of their car.”*

— COUNCILLOR DAVE LOKEN

FIGURE 3:

TOP COLLISION CAUSES AT INTERSECTIONS AND MIDBLOCK SEGMENTS

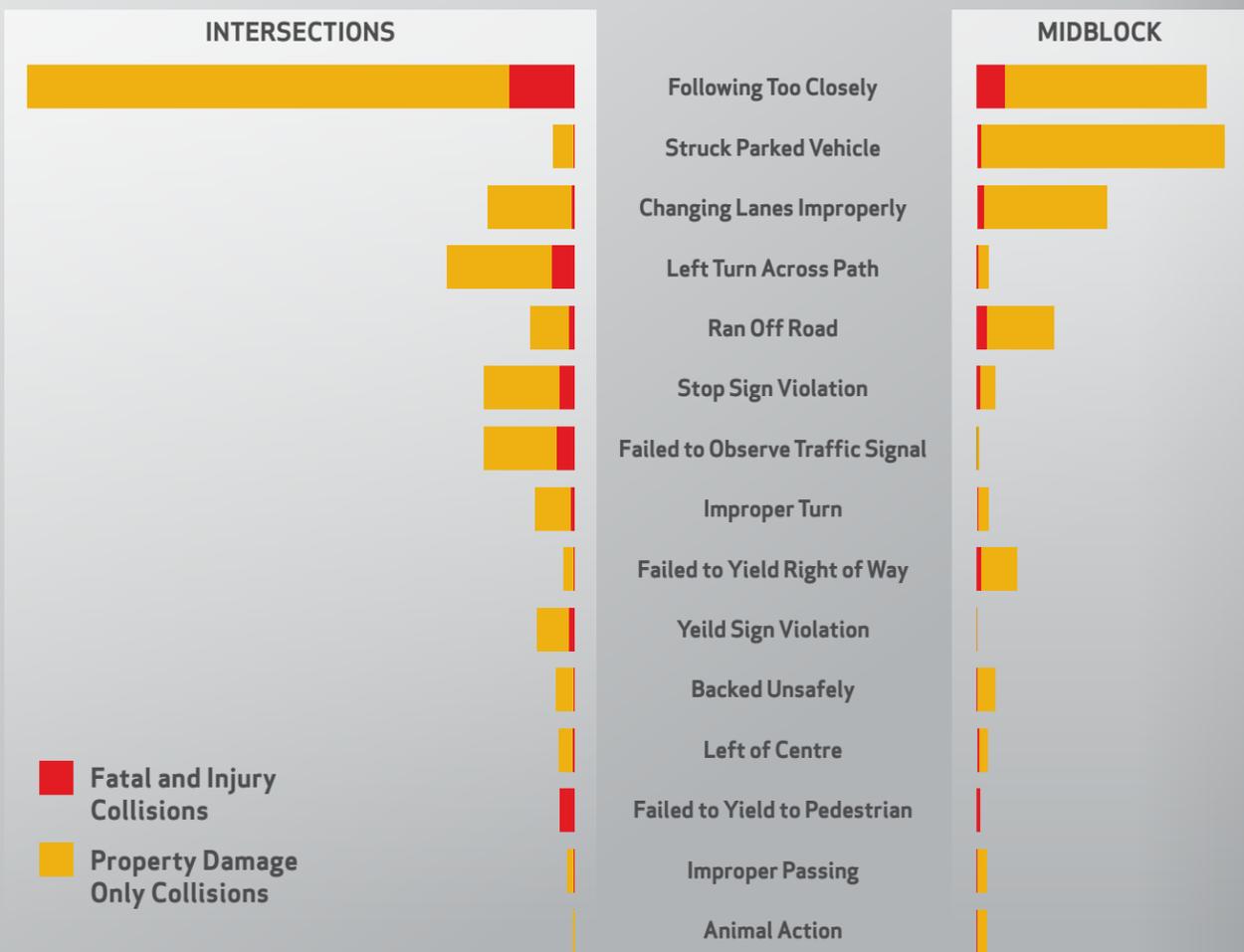


Figure 3 shows the considerable differences in the profile of collision causes at intersections versus midblock segments.<sup>4</sup> At intersections, following too closely was the reported cause in 46.9% (6,279) of all 13,384 intersection collisions. By comparison, following too closely was the reported cause in only 27.3% (2,113) of all 7,730 collisions along midblocks.

Of the 1,483 ran off road collisions in 2016, only 34.4% (510) occurred at intersections, versus 47.7% (708) along midblocks. On the other hand,

of the 1,593 left turn across path collisions, 91.7% (1,460) occurred at intersections, versus 7.0% (111) along midblock segments with vehicles turning onto private property or into alleys.

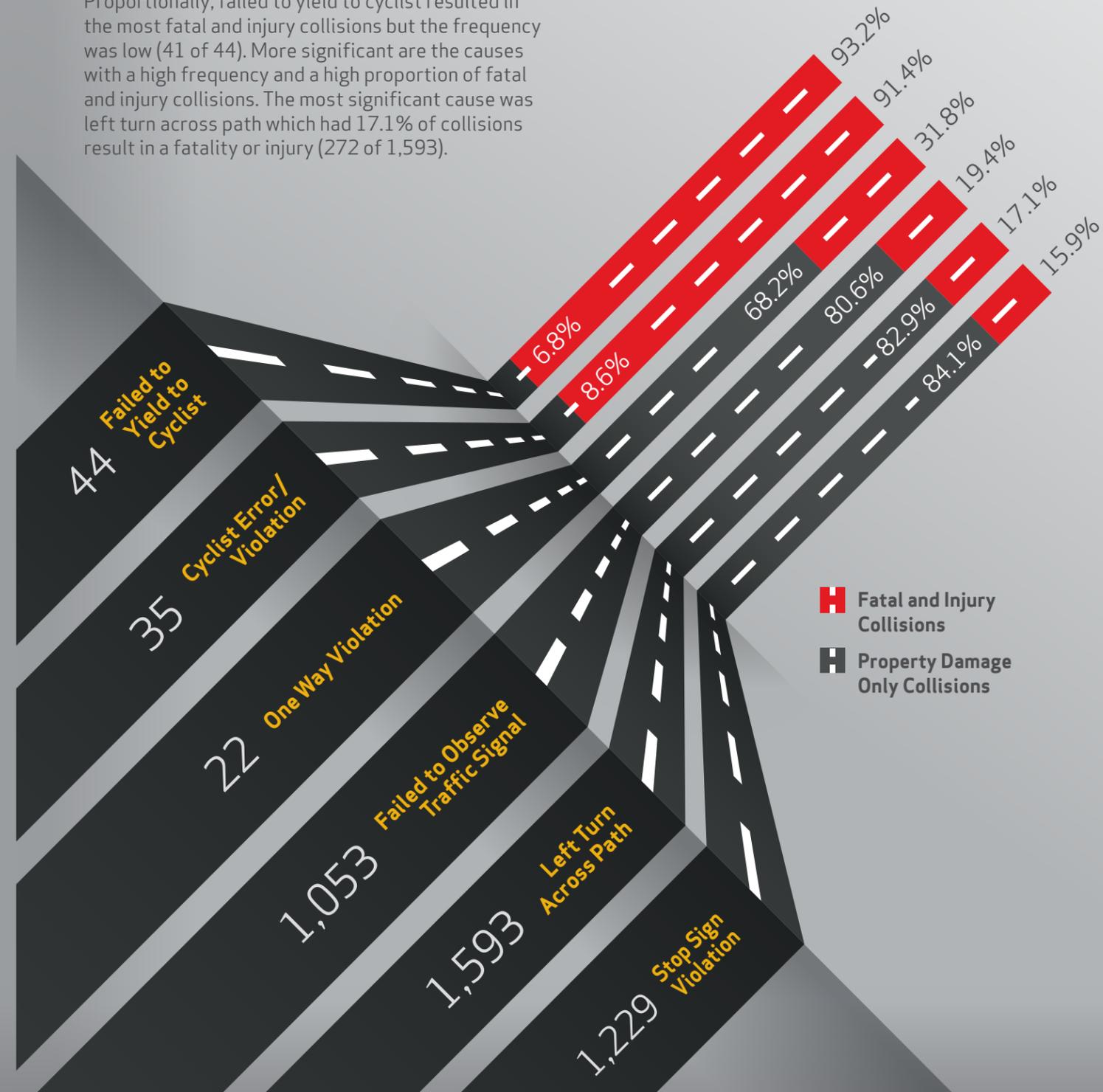
Ranked by the severity of outcome, there were two causes where 100% of collisions resulted in fatality or injury (i.e., no PDO collisions for these two causes). They were failed to yield to pedestrian (208), and pedestrian error/violation (71).

<sup>4</sup> The remaining 1,933 collisions occurred either on service roads, in alleys, or did not specifically report a location.

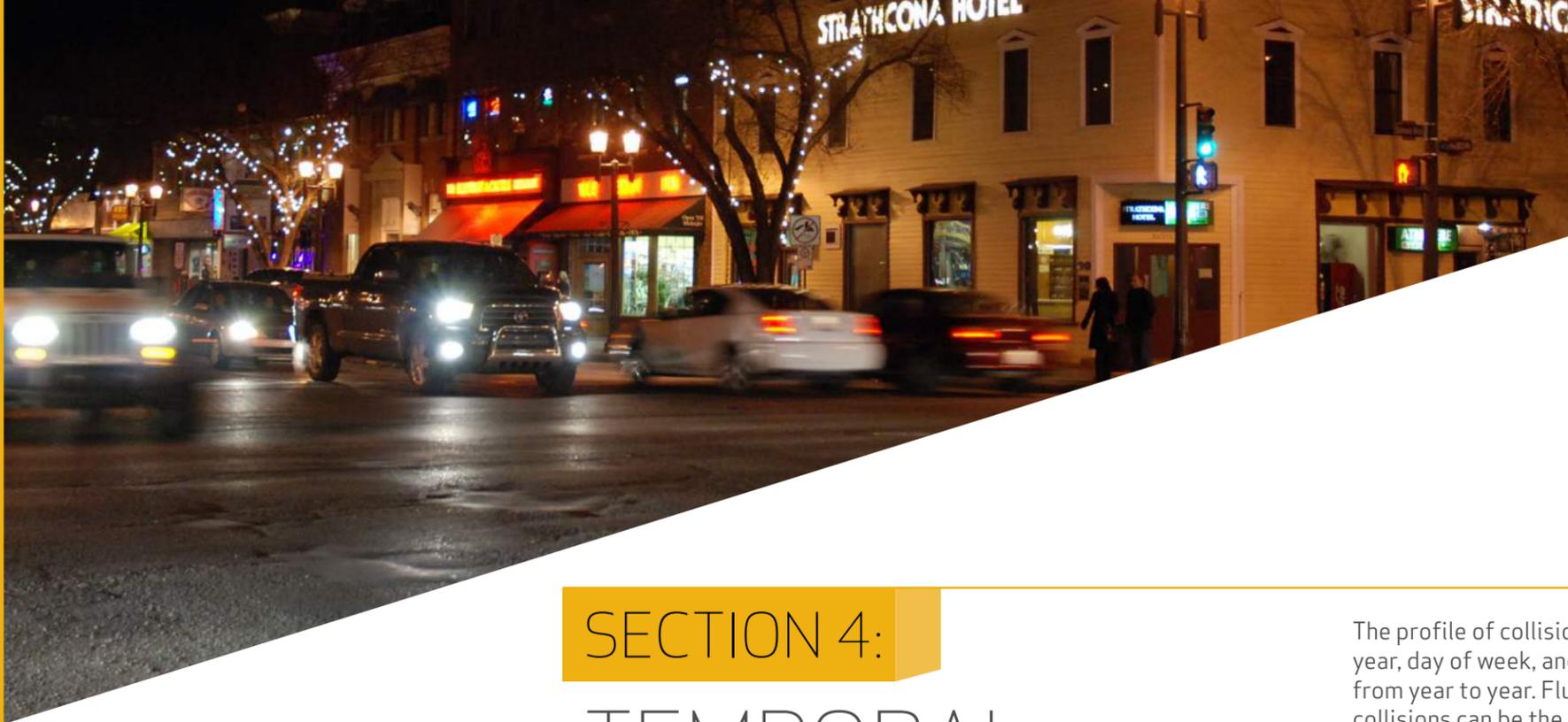
FIGURE 4:

COLLISION SEVERITY BY SELECTED CAUSES

Figure 4 shows other causes ranked by the severity of outcome (severity causes with 100% injury/fatality were not included in this figure). Proportionally, failed to yield to cyclist resulted in the most fatal and injury collisions but the frequency was low (41 of 44). More significant are the causes with a high frequency and a high proportion of fatal and injury collisions. The most significant cause was left turn across path which had 17.1% of collisions result in a fatality or injury (272 of 1,593).



**H** Fatal and Injury Collisions  
**H** Property Damage Only Collisions



## SECTION 4:

# TEMPORAL ANALYSIS

The profile of collisions in Edmonton by month of year, day of week, and hour of day are consistent from year to year. Fluctuations in the number of collisions can be the result of changing traffic volumes, weather and road conditions, number of

daylight hours, and roadway congestion, as well as many other factors. The following charts exhibit the overall patterns of collisions during the hours, days, and months of 2016.

*“Traffic collisions cost our society dearly, and the worst part is they are largely preventable.”*

— EPS CHIEF ROD KNECHT



FIGURE 5:

### COLLISIONS BY MONTH

In 2016, the number of collisions by month varied from a low of 1,525 collisions in April to 2,761 collisions in December. Overall, 54.5% (12,609) of collisions occurred in the fall and winter months (October to December and January to March). The percentage of collisions in fall and winter is consistent with prior years, and the top three collision months in 2016 were January, October, and December.

Fatal and injury collisions ranged from 160 in February to 266 in September. The proportion of collisions that resulted in fatality or injury was slightly higher in the spring and summer (April to September); while fatal and injury collisions made up 10.3% of all fall and winter collisions, they constituted 13.1% of all spring and summer collisions.

**Fatal and Injury Collisions**  
**Property Damage Only Collisions**

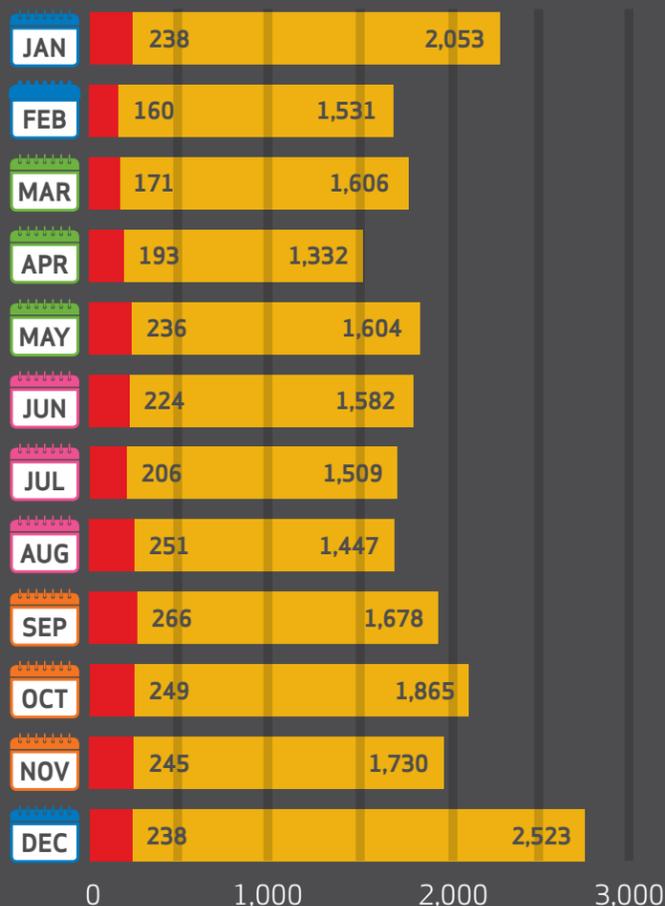
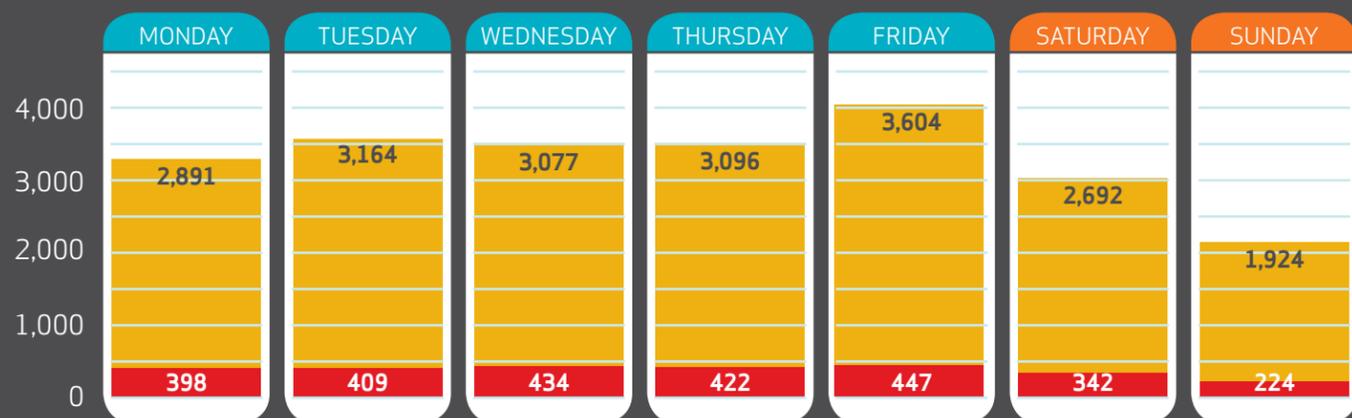


FIGURE 6:

### COLLISIONS BY DAY OF WEEK

Friday was the most common day of the week for collisions in 2016, accounting for 17.5% (4,051) of collisions. Least common was Sunday, with 9.3%

(2,148) of all collisions. As in previous years, there were fewer collisions on weekends than on weekdays.



**MORE COLLISIONS OVERALL**

**5 PM FRIDAY: COLLISION PRIME TIME**

FIGURE 7:

### COLLISIONS BY HOUR<sup>5</sup> OF DAY (WEEKDAY VS. WEEKEND)

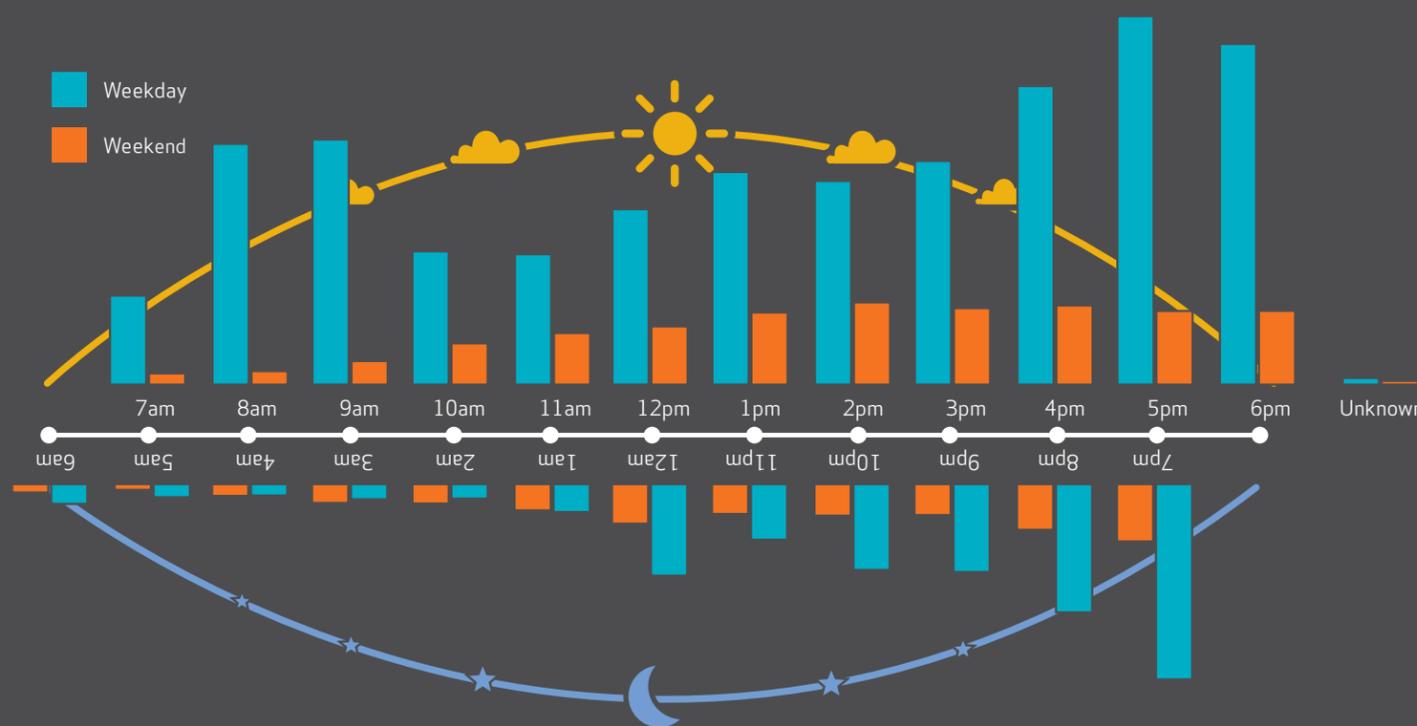


Figure 7 breaks down collisions by hour of day for both weekdays (Monday through Friday) and weekends (Saturday and Sunday). During the weekdays, peak collision times match peak travel times; the morning peak period of 6:00 to 9:00 AM accounted for 16.8% (3,021) of all weekday collisions, while collisions during the PM peak of 3:00 to 6:00 PM made up 29.5% (5,295) of all weekday collisions.

peaking between 1:00 and 2:00 PM. Collisions from Noon to 6:00 PM made up 46.4% (2,404) of weekend collisions. Collisions during the overnight hours were also more prevalent during the weekends; there were 431 collisions from Midnight to 5:00 AM on weekends, representing 8.3% of all weekend collisions. By comparison, in the same time period there were 432 collisions over the five weekdays, representing only 2.4% of all weekday collisions.

On weekends, collision patterns shifted in line with traffic patterns, with the number of collisions

<sup>5</sup> Hour name corresponds to "hour ending" in MVCIS, e.g., 6:00 AM refers to 5:01 AM - 6:00 AM inclusive.



SECTION 5:

INTERSECTION  
AND MIDBLOCK  
COLLISION  
HOT SPOTS

*“Whether we are designing roads or using them, we need to make safety our priority.”*

— DOUG JONES, DEPUTY CITY MANAGER



## MAP 1:

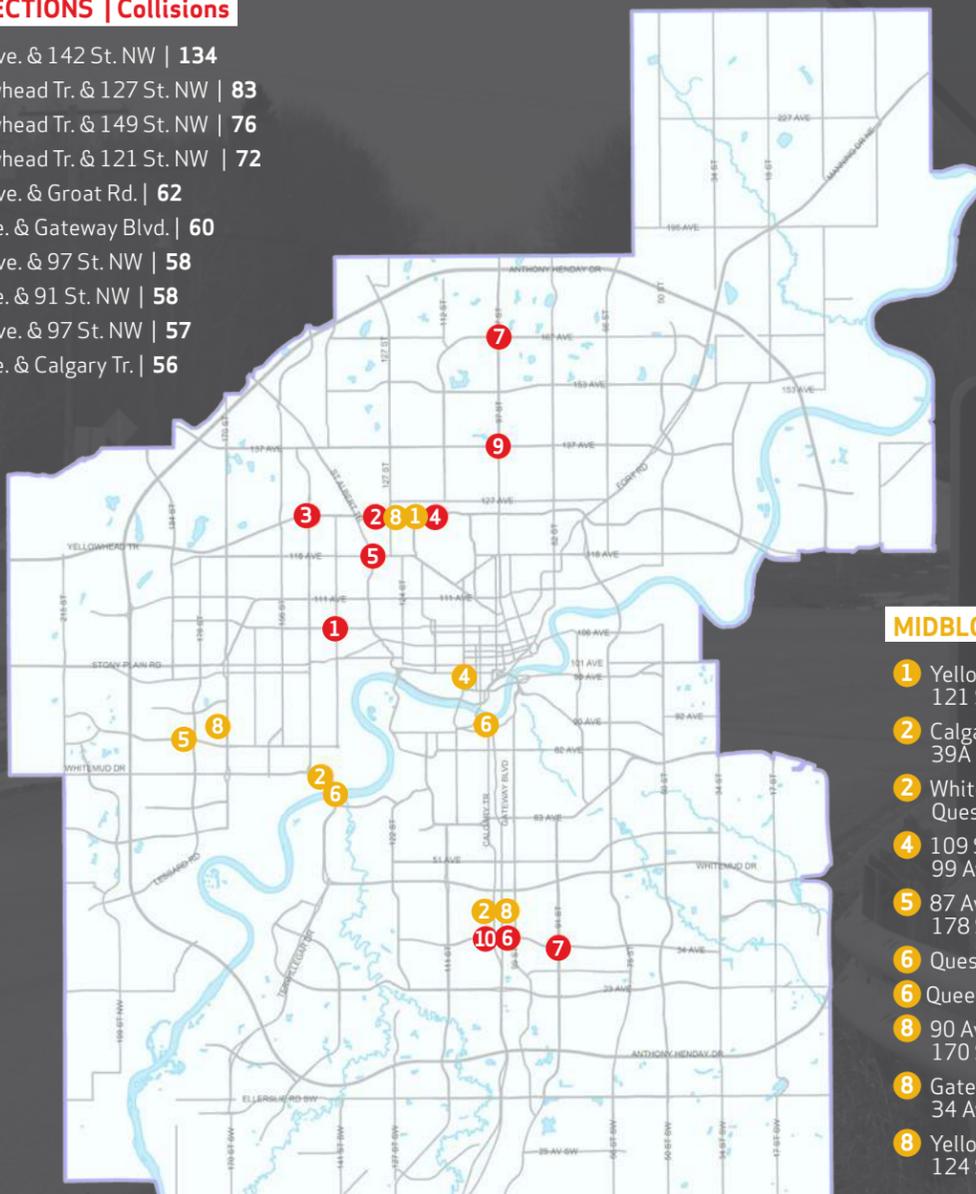
### TOP INTERSECTIONS AND MIDBLOCK SEGMENTS BY NUMBER OF COLLISIONS

Map 1 illustrates the top intersections and midblock segments with the highest numbers of collisions in

the city for 2016. A high collision location is also called a "hot spot."

#### INTERSECTIONS | Collisions

- 1 107 Ave. & 142 St. NW | 134
- 2 Yellowhead Tr. & 127 St. NW | 83
- 3 Yellowhead Tr. & 149 St. NW | 76
- 4 Yellowhead Tr. & 121 St. NW | 72
- 5 118 Ave. & Groat Rd. | 62
- 6 34 Ave. & Gateway Blvd. | 60
- 7 167 Ave. & 97 St. NW | 58
- 7 34 Ave. & 91 St. NW | 58
- 9 137 Ave. & 97 St. NW | 57
- 10 34 Ave. & Calgary Tr. | 56



#### MIDBLOCK | Collisions

- 1 Yellowhead Tr. between 121 St. & 124 St. | 33
- 2 Calgary Tr. between 39A Ave. & 34 Ave. | 22
- 2 Whitemud Dr. North of Quesnell Bridge & 149 St. | 22
- 4 109 St. between 99 Ave. & 100 Ave. | 21
- 5 87 Ave. between 178 St. & 182 St. | 19
- 6 Quesnell Bridge | 18
- 6 Queen Elizabeth Park Rd. | 18
- 8 90 Ave. between 170 St. & 175 St. | 17
- 8 Gateway Blvd. between 34 Ave. & 39A Ave. | 17
- 8 Yellowhead Tr. between 124 St. & 127 St. | 17

## TABLE 2:

### SUMMARY OF 2016 HOT SPOTS

Some intersections and midblock segments were also hot spots in 2015 while others were new hot spots for 2016.

TYPE	LOCATION NAME	2016 RANK	2016 COLLISIONS	2015 RANK	2015 COLLISIONS
INTERSECTION	107 Ave. NW & 142 St. NW	1	134	1	98
	Yellowhead Tr. & 127 St. NW	2	83	3	68
	Yellowhead Tr. & 149 St. NW	3	76	2	71
	Yellowhead Tr. & 121 St. NW	4	72	N/A <sup>6</sup>	33
	118 Ave. NW & Groat Rd.	5	62	4	67
	34 Ave. NW & Gateway Boulevard	6	60	9	54
	167 Ave. NW & 97 St. NW	7	58	5	64
	34 Ave. NW & 91 St. NW	7	58	N/A	39
	137 Ave. NW & 97 St. NW	9	57	8	59
	34 Ave. NW & Calgary Tr.	10	56	N/A	34
MIDBLOCK	Yellowhead Tr. - 121 St. & 124 St.	1	33	7	24
	Calgary Tr. - 39A Ave. & 34 Ave.	2	22	N/A	19
	Whitemud Dr. - North of Quesnell Bridge & 149 St.	2	22	3	27
	109 St. - 99 Ave. & 100 Ave.	4	21	N/A	9
	87 Ave. - 178 St. & 182 St.	5	19	N/A	6
	Quesnell Bridge	6	18	3	27
	Queen Elizabeth Park Rd.	6	18	N/A	20
	90 Ave. - 170 St. & 175 St.	8	17	N/A	14
	Gateway Blvd. - 34 Ave. & 39A Ave.	8	17	N/A	17
	Yellowhead Tr. - 124 St. & 127 St.	8	17	N/A	17

<sup>6</sup> These collision locations were not in the top 10 in 2015.



## SECTION 6:

# OBJECTS INVOLVED IN COLLISIONS

All collisions in the MVCIS database include at least one motor vehicle; collisions between two cyclists, for example, would not be entered in the database. Most collisions in 2016 involved two motor vehicles, or a single vehicle and a fixed object.

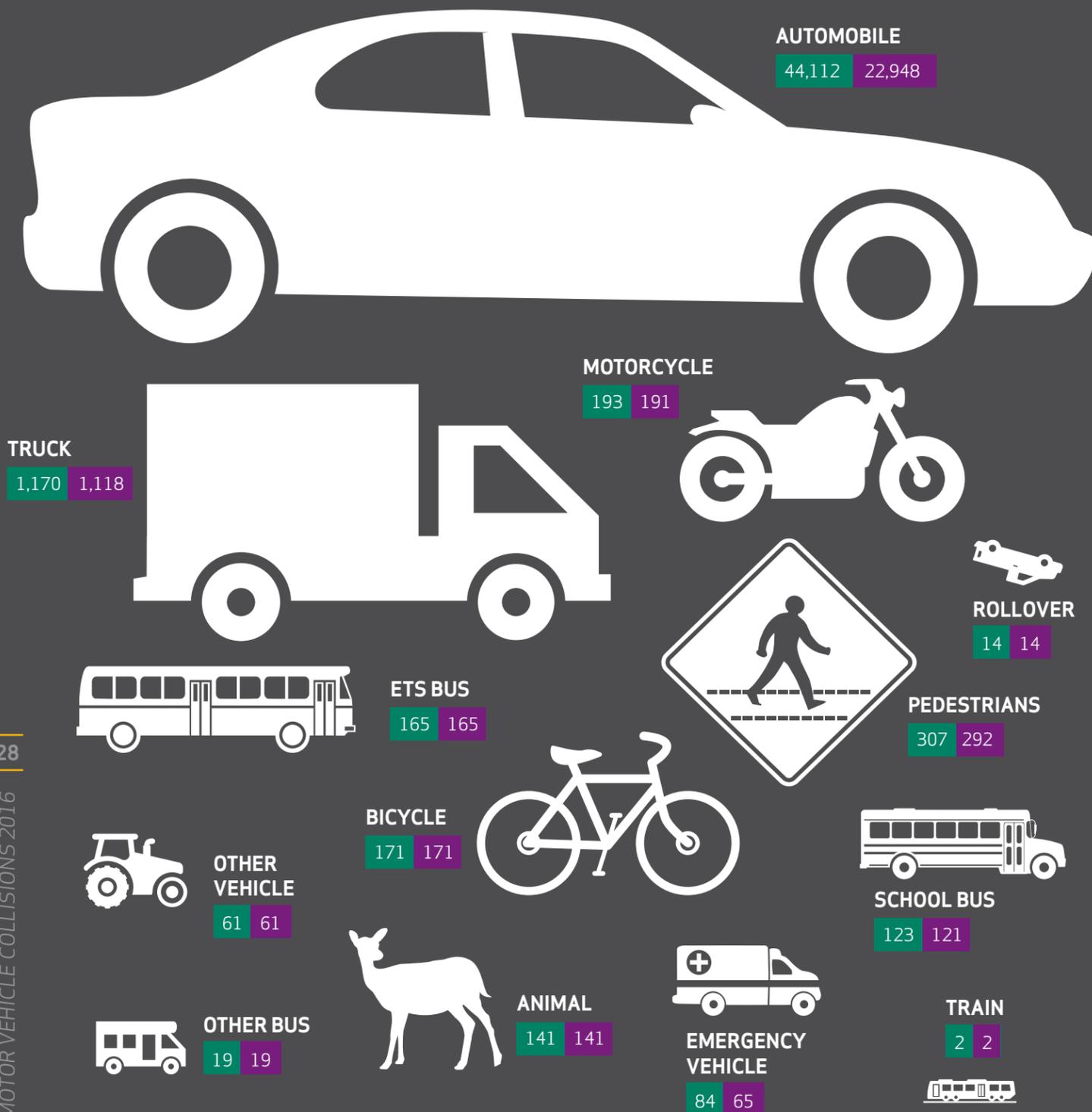
*“The day before distracted driving laws came into effect I checked a text on my phone and drove into a ditch. All I could think was, ‘Wow, no wonder this is becoming illegal.’”*

— TRAFFIC SAFETY CULTURE SURVEY COMMENT

FIGURE 8:

## OBJECTS INVOLVED IN COLLISIONS

Number of Objects    Number of Collisions



There were a range of objects involved in collisions in 2016. Automobiles — a category that includes passenger vehicles, pickup trucks, and SUVs, but excludes large trucks over 4,500 kg and buses — were involved in over 99.2% (22,948) of all 23,139 collisions in 2016.

Fixed objects were involved in 7.9% (1,821) of all collisions. Other object types included trucks greater than 4,500 kg (4.8%, 1,118 collisions), pedestrians (1.3%, 292 collisions), motorcycles (0.8%, 191 collisions), and ETS buses (0.7%, 165 collisions). Two collisions in 2016 involved a train.

Fixed objects are routinely involved in collisions,

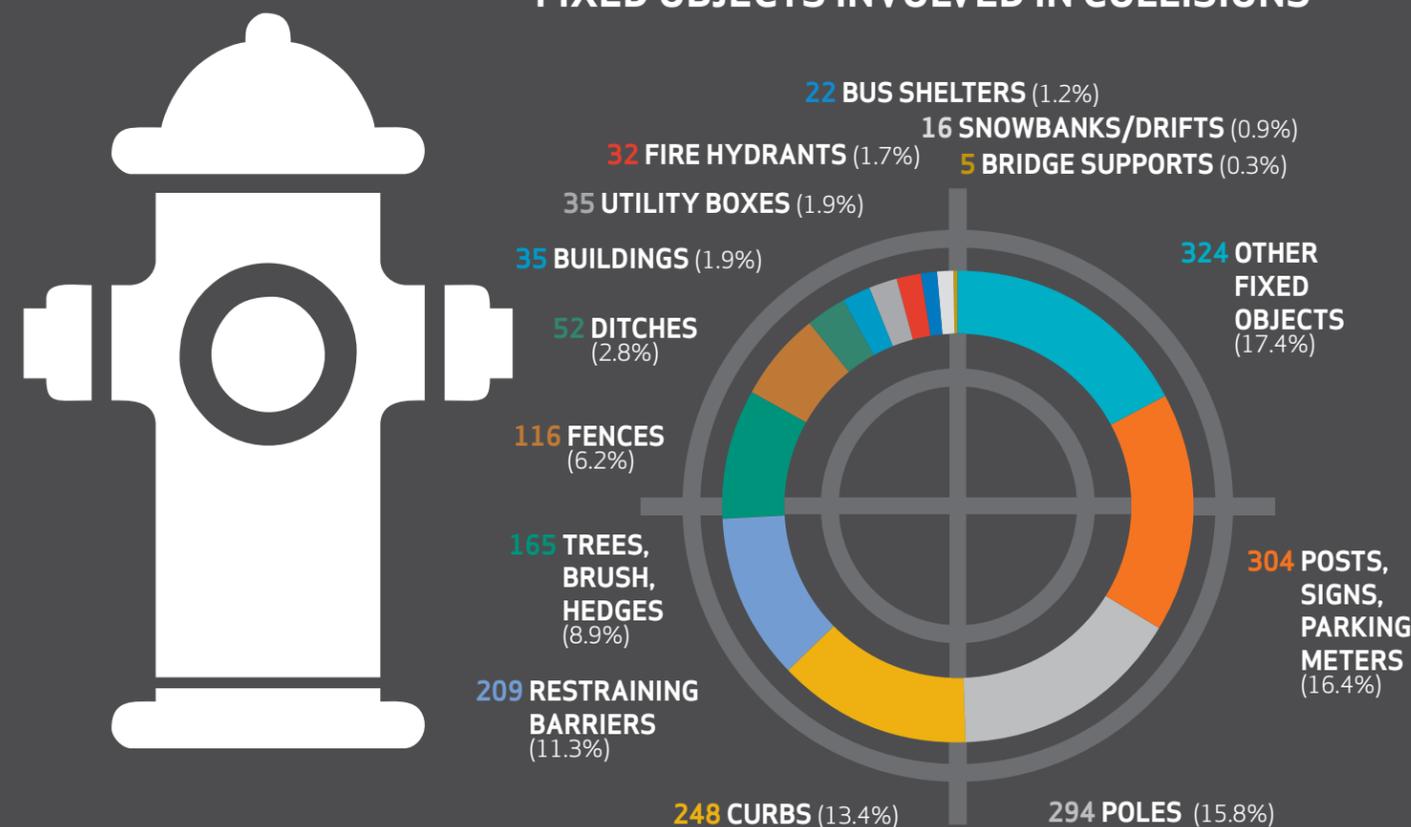
and Figure 9 summarizes the type and number of these objects for 2016. Unlike previous years, the most common fixed object involved in collisions was not a pole, but other fixed objects. In 2016, 324 other fixed objects — close to one a day on average — were struck. The second most common fixed object involved in collisions was posts, signs, or parking meters (304), followed by poles (294).

Some other fixed objects more frequently involved in collisions included: 248 curbs; 209 restraining barriers; 165 trees, brushes, or hedges; and 116 fences. Except for the above mentioned, other objects listed in Figure 9 were less frequently involved.

FIXED OBJECT  
1,857    1,821

FIGURE 9:

## FIXED OBJECTS INVOLVED IN COLLISIONS





SECTION 7:

DEMOGRAPHIC ANALYSIS

*"I ask myself how my actions on the road affect the safety of others."*



FIGURE 10:

### AGE AND GENDER BREAKDOWN OF LICENSED DRIVERS

The demographic makeup of licensed drivers in Edmonton (as of March 31, 2016) is shown in Figure 10. The graph shows that there are slightly more licensed male drivers than female drivers

across all age groups, and the age breakdown mirrors the population as a whole with a general decrease in the number of drivers after the 30 to 34 age group.

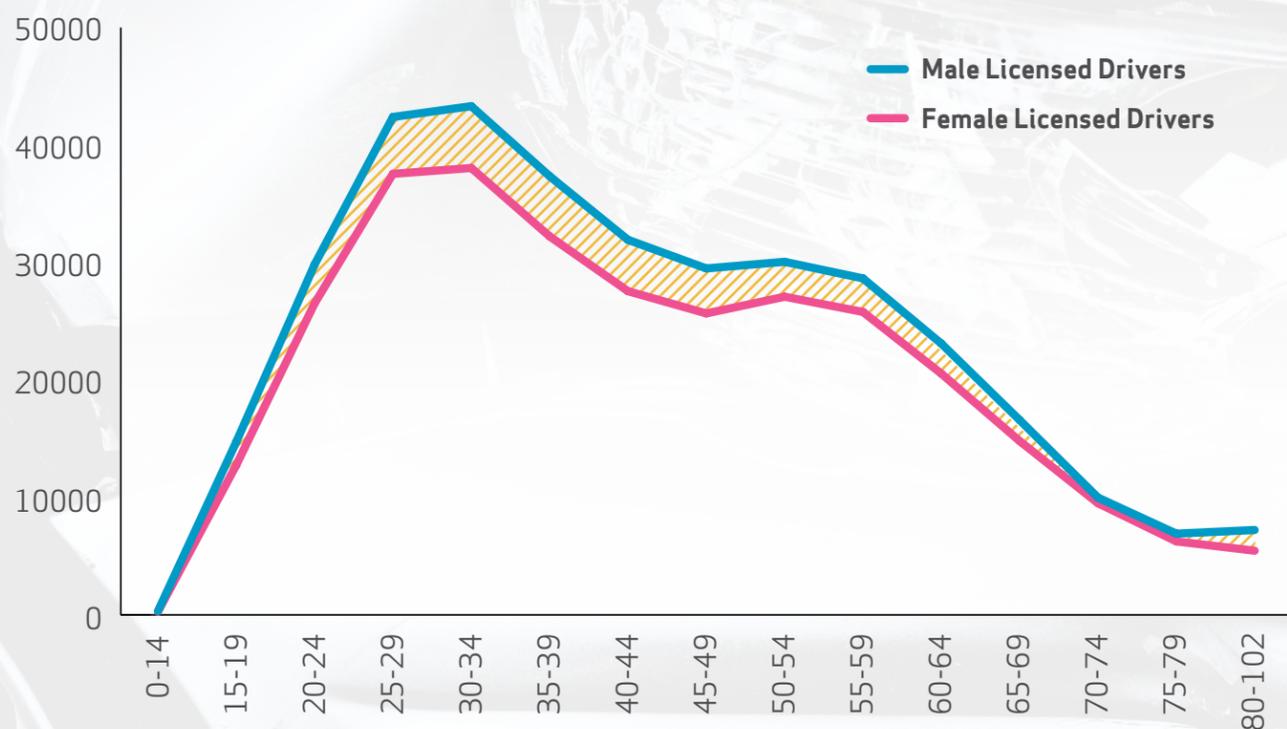


FIGURE 11:

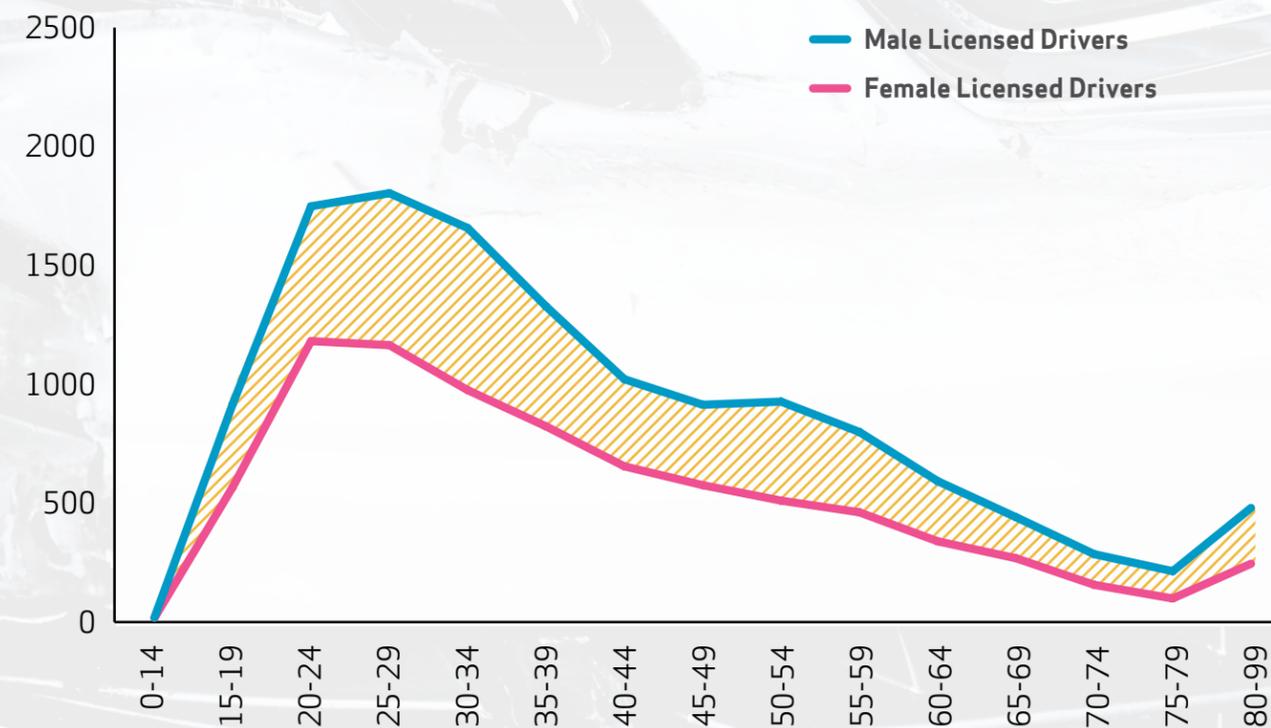
### AGE AND GENDER BREAKDOWN OF AT-FAULT DRIVERS

The demographic profile of drivers deemed at fault in a collision, as shown in Figure 11, is fairly consistent with the demographic profile in Edmonton. Young drivers were more likely to be deemed at fault for collisions in Edmonton. Drivers aged 15 to 24 made up 12.7% of Edmonton's licensed drivers in 2016, but were responsible for 21.0% of collisions. By comparison, drivers aged 25 to 34 constituted 24.2% of all licensed drivers and were deemed at fault in 26.7% of collisions.

Gender was also a factor in the likelihood of collision involvement. While males made up 53.1% of licensed drivers in Edmonton in 2016, they were deemed at fault in 62.2% of collisions.

Comparing different age/gender groups showed differences between the driving population and the population of at-fault drivers. Males aged 15 to 19 made up 2.2% of licensed drivers in Edmonton, but accounted for 4.3% of all at-fault drivers in 2016. Expanding the size of the group, males aged 15 to 24 make up 6.7% of the licensed driving population but 12.7% of at-fault drivers.

The demographic breakdown of collision figures and at-fault drivers reveals that approximately 1 in 17.3 licensed males aged 20 to 24 were involved in a collision for which they were deemed at fault in 2016. By comparison, 1 in 22.9 female drivers aged 20 to 24 were at-fault in a collision, while the ratio for all licensed drivers at-fault was approximately 1 in 32.2.



**MORE MALE THAN FEMALE LICENSED DRIVERS IN ALL AGE GROUPS**

**20- TO 29-YEAR-OLD DRIVERS HAVE THE MOST AT-FAULT COLLISIONS**



## SECTION 8:

# FATAL AND INJURY COLLISIONS

In 2016 a total of 3,305 injuries and 22 fatalities resulted from 2,677 collisions. The following section presents detailed information about fatal and injury collisions in 2016.

*“In a collision between a vehicle and a pedestrian, the pedestrian always comes out the loser.”*

FIGURE 12:

### FATAL AND INJURY COLLISIONS BY MONTH

The number of fatal and injury collisions by month varied from a low of 160 collisions in February to a high of 266 collisions in September. The pattern of fatal and injury collisions did not follow that of collisions overall. Figure 12 indicates that while the total number of collisions remained fairly steady through the winter months, the number of fatal and injury collisions is lower. The average percentage of fatal and injury collisions through the spring and summer months (April to September) is 13.1% compared to only 10.3% during the fall and winter months (January to March and October to December).

**Fatal and Injury Collisions**  
**% of Overall Collisions**

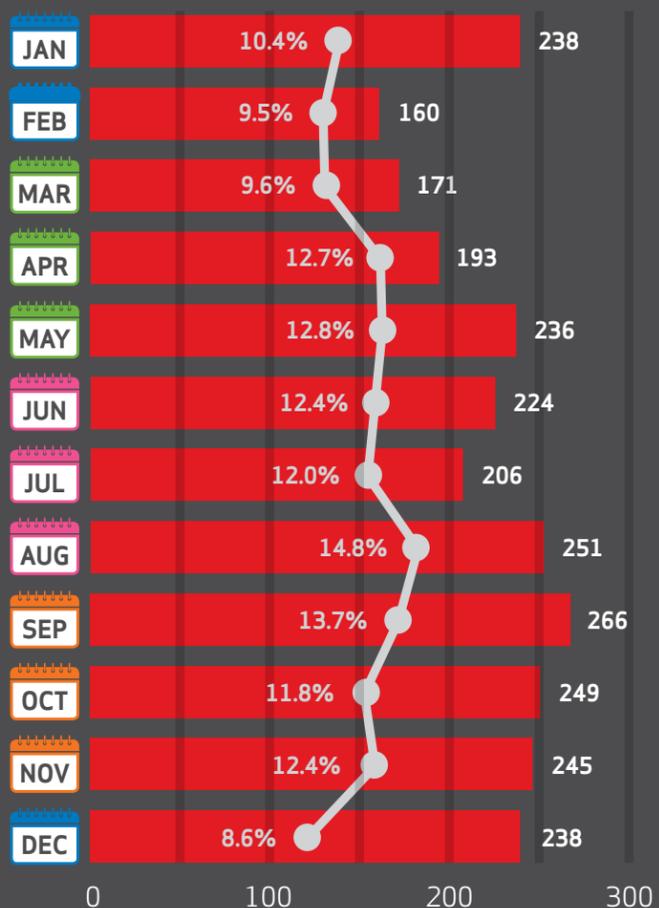
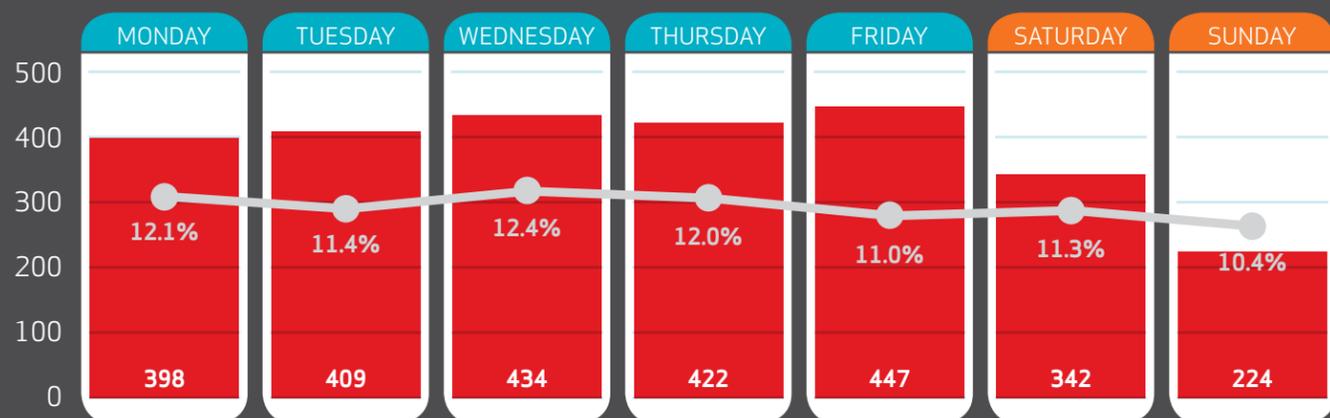


FIGURE 13:

### FATAL AND INJURY COLLISIONS BY DAY OF WEEK

Figure 13 indicates that Friday had the highest number of fatal and injury collisions with 447, followed by Wednesday and Thursday (434 collisions and 422 collisions, respectively). The

pattern in terms of raw numbers of fatal and injury collisions by day of week generally follows that of overall collisions, with an increase in collisions from Monday to Friday — with Friday being significantly



higher — and a decrease on the weekends. However, the pattern in terms of percentages of fatal and injury collisions of the overall collisions for each weekday tells a different story. The total percentage of collisions that involve a fatality or injury out of overall collisions is lower on Friday (11.0%) compared to other days of the week.

In previous years, where the collisions occurring on Sunday involved a higher percentage of fatality or injury than weekdays, in 2016 Sunday saw the lowest number (224) and percentage (10.4%) of fatal and injury collisions compared to other days of the week.

FIGURE 14:

### FATAL AND INJURY COLLISIONS BY HOUR<sup>7</sup> OF DAY (WEEKDAY VS. WEEKEND)

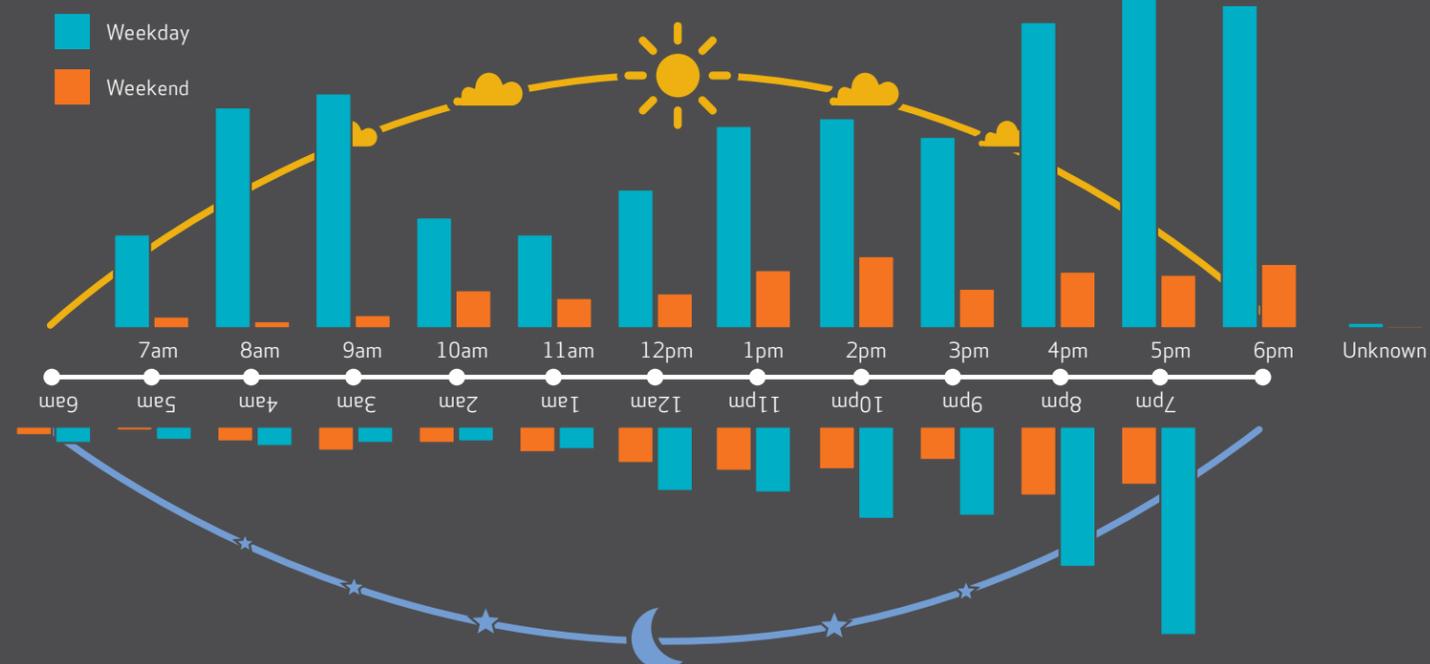


Figure 14 shows the profile of fatal and injury collisions by hour of day and is similar to the profile of overall collisions. On weekdays the same morning and evening spikes occurred with fatal and injury collisions; collisions during the morning peak (6:00 to 9:00 AM) accounted for 16.9% (356) of all fatal and injury collisions on weekdays, while the evening peak (3:00 to 6:00 PM) accounted for 30.2% (638) of all fatal and injury collisions.

made up 39.8% (225) of all weekend fatal and injury collisions.

The profile of fatal and injury collisions on weekends was generally the same as the profile of overall collisions, with a gradual increase during the daytime and a peak between 1:00 and 2:00 PM. Fatal and injury collisions from Noon to 6:00 PM

The most fatal and injury collisions occurred between the hours of 3:00 PM to 6:00 PM. Collisions between Midnight and 5:00 AM accounted for 3.7% of all collisions in 2016, and fatal and injury collisions at the same time period accounted for 4.3% of all injury and fatal collisions. Of the 115 fatal or injury collisions that occurred between Midnight and 5:00 AM, 57 (49.6%) occurred on Saturday or Sunday. Those 57 collisions represent 10.1% of all fatal and injury collisions that occurred on weekends.

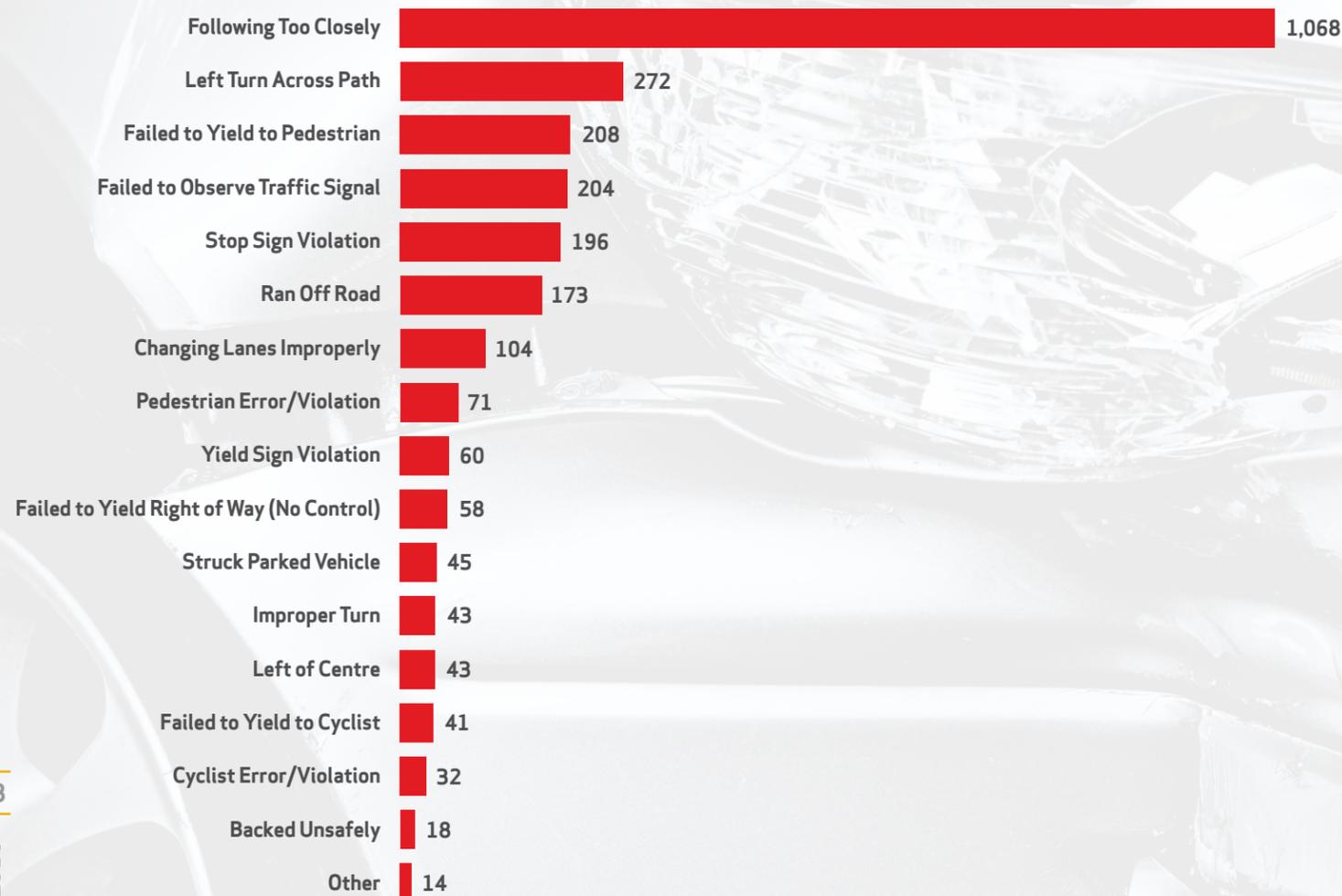
<sup>7</sup> Hour name corresponds to “hour ending” in MVCIS, e.g., 6:00 AM refers to 5:01 AM - 6:00 AM inclusive.

FIGURE 15:

### FATAL AND INJURY COLLISIONS BY CAUSE

As shown in Figure 15, collisions with the reported cause of following too closely made up 39.9% (1,068) of all injury and fatal collisions. Other collision causes with significant injury/fatality

counts included left turn across path (10.2%, 272), failed to yield to pedestrian (7.8%, 208), and failed to observe traffic signal (7.6%, 204).<sup>8</sup>



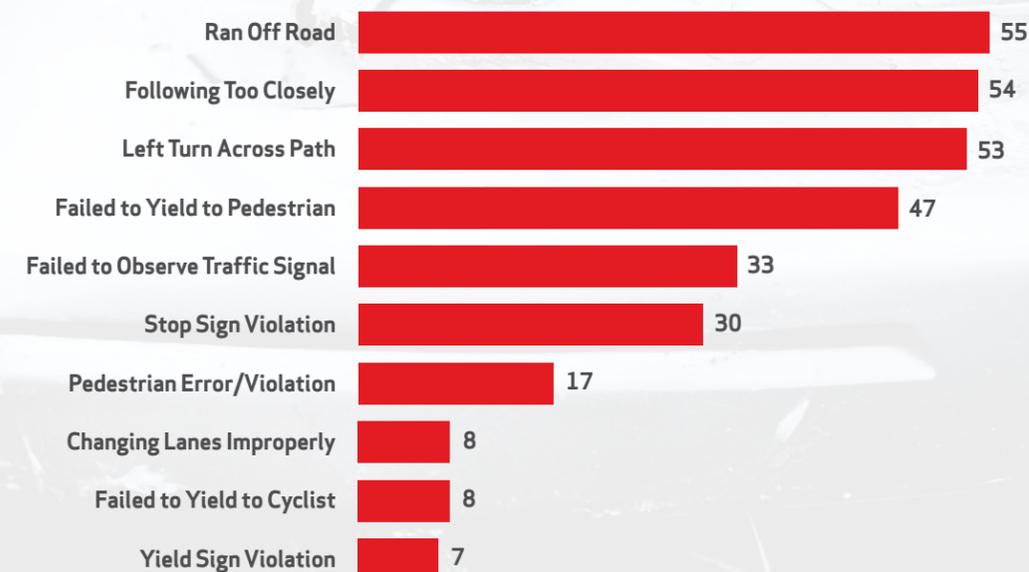

**FOLLOWING TOO CLOSELY CAUSED AS MANY COLLISIONS AS THE NEXT 5 TOP CAUSES COMBINED**

FIGURE 16:

### FATALITIES AND MAJOR INJURIES BY CAUSE

A single collision can result in multiple injuries and/or fatalities. Injuries are classified as minor or major depending on the level of treatment required.<sup>9</sup> Figure 16 displays the number of fatalities and major injuries for leading collision causes.

Ran off road collisions made up 15.9% (55) of all fatalities and major injuries. Other common collision causes of fatalities and major injuries included following too closely (15.6%, 54), left turn across path (15.3%, 53), and failed to yield to pedestrian (13.5%, 47).



<sup>8</sup> Other causes not listed on this chart are: improper passing (8 fatal or injury collisions), one-way violation (7), unknown (5), animal action (4), signed forced turn violation (2) and opened door into traffic (1).

<sup>9</sup> For a definition of minor and major injuries, please refer to Appendix 1.

TABLE 3:

**FATALITIES AND INJURIES BY MODE, SEVERITY, AND AGE GROUP**

A summary of all fatalities and injuries is presented in Table 3, broken out by age group and injury class. The largest number of fatalities and injuries were sustained by vehicle drivers, followed by vehicle passengers.

Among vehicle drivers, there were 2,013 fatalities or injuries in 2016, a rate of 3.0 per 1,000 licensed drivers in Edmonton and 0.2 fatalities or major injuries per 1,000 licensed drivers. However, these

figures increase to 4.1 fatalities or injuries per 1,000 licensed drivers and 0.3 fatalities or major injuries per 1,000 licensed drivers for those aged 19 to 24. Among those drivers aged 75 and over, the 2.3 fatalities or injuries per 1,000 licensed drivers and 0.4 fatalities or major injuries per 1,000 licensed drivers are lower than the overall rates respectively.

- Minor
- Major
- Fatal

	<14	14-15	16-18	19-24	25-34	35-44	45-54	55-64	65-74	75+	N/A	TOTAL
VEHICLE DRIVER	0	0	61	241	497	380	293	211	106	52	9	1,850
	0	0	6	20	45	19	29	15	13	10	0	157
	0	0	0	0	3	1	1	1	0	0	0	6
VEHICLE PASSENGER	112	29	52	80	97	77	47	49	34	22	56	655
	1	0	1	12	11	6	1	6	4	4	4	50
	0	0	0	0	1	0	0	0	0	0	0	1
PEDESTRIAN	26	7	14	29	45	30	38	34	7	4	8	242
	7	1	2	4	13	10	7	3	2	5	1	55
	1	0	0	1	1	0	1	1	3	2	0	10
CYCLIST	10	6	8	20	36	11	14	10	1	1	10	127
	1	0	1	2	7	1	2	4	0	0	0	18
	0	0	0	0	0	0	0	0	0	0	0	0
MOTOR-CYCLIST	0	0	0	5	12	10	6	5	1	1	0	84
	0	0	0	1	1	1	0	0	0	0	0	40
	1	0	2	3	5	1	2	1	0	0	6	3
UNKNOWN	1	0	0	0	3	1	0	0	0	0	0	21
	0	0	0	1	1	0	0	0	0	0	0	5
	0	0	0	0	0	0	0	0	1	0	0	2
OTHER <sup>10</sup>	0	0	0	0	0	0	0	0	1	0	0	1
<b>ALL MODES</b>	149	42	137	387	706	515	408	318	150	79	89	2980
	10	1	10	43	91	47	45	33	20	20	5	325
	1	0	0	3	7	2	2	2	3	2	0	22

10 Other refers to one scooter operator who sustained a minor injury in 2016.

TABLE 4:

**FATALITIES AND INJURIES BY MODE AND TRAFFIC CONTROL**

Collisions where the traffic control was a signal light made up 40.7% (1,354) of all fatalities and injuries, followed by no control (33.1%, 1,102),

which includes both intersections that have no traffic control and midblock segments, and yield signs (10.7%, 357). Five injuries occurred at rail crossings.

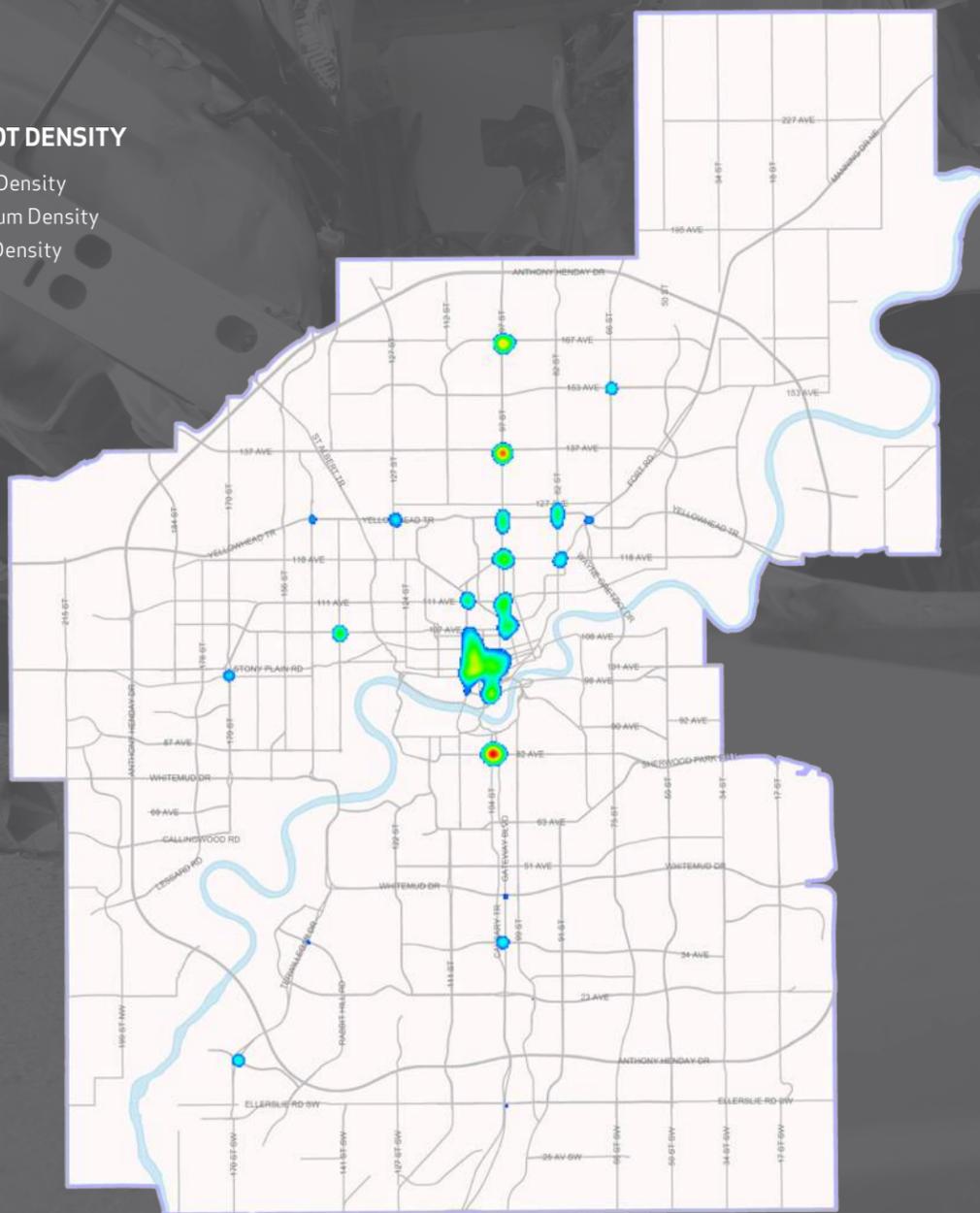
	VEHICLE DRIVER	VEHICLE PASSENGER	PEDESTRIAN	CYCLIST	MOTOR-CYCLIST	UNKNOWN	OTHER	TOTAL
Signal Light	816	322	113	49	43	10	1	1,354
No Control	670	203	105	49	66	9		1,102
Yield Sign	242	88	10	11	4	2		357
Stop Sign	194	65	25	20	10	6		320
Marked Pedestrian Crosswalk	40	7	40	11	1			99
Pedestrian-Actuated Signal	18	8	2		1			29
Pedestrian Amber Flasher	4	2	12	3				21
One Way Sign	11	3			1	1		16
Construction	6	2			1			9
Merge Sign	2	3		1				6
Rail Crossing	5							5
Police Control	1	2		1				4
Rectangular Rapid Flashing Beacon	2	1						3
Warning / Advisory Light	2							2
<b>Total</b>	<b>2,013</b>	<b>706</b>	<b>307</b>	<b>145</b>	<b>127</b>	<b>28</b>	<b>1</b>	<b>3,327</b>

MAP 2:

DENSITY MAP OF FATAL AND INJURY COLLISIONS<sup>11</sup>

HOTSPOT DENSITY

- High Density
- Medium Density
- Low Density



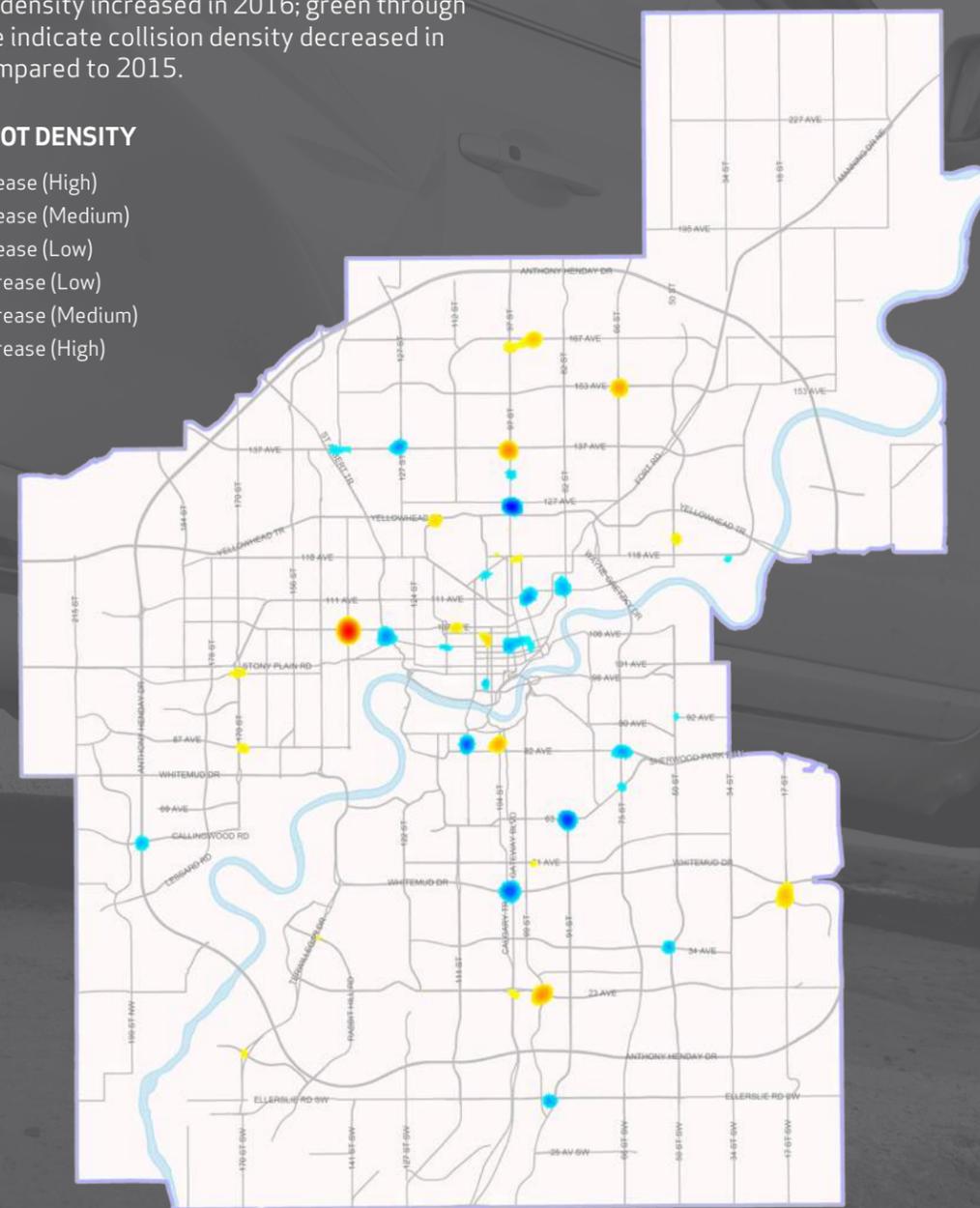
MAP 3:

DENSITY CHANGES IN FATAL AND INJURY COLLISIONS FROM 2015 TO 2016

The change map shows collision density difference from 2015 to 2016. Red through yellow indicate collision density increased in 2016; green through dark blue indicate collision density decreased in 2016 compared to 2015.

HOTSPOT DENSITY

- Increase (High)
- Increase (Medium)
- Increase (Low)
- Decrease (Low)
- Decrease (Medium)
- Decrease (High)



<sup>11</sup> Density maps represent areas identified as having higher concentrations of injury and fatal collisions in 2016.



## SECTION 9:

# VULNERABLE ROAD USER COLLISIONS

The term “vulnerable road users” refers to those most at risk in traffic. Pedestrians, cyclists, and motorcycle riders are vulnerable because they are unprotected by seatbelts, airbags, and the shell and metal frame of four-wheeled vehicles.

Children may put themselves at risk because of inexperience. The elderly and those with mobility issues are especially vulnerable due to decreased ability to take evasive actions.

*Pedestrians have a 90% chance of surviving a collision if the vehicle is going 30 km/h or less, but only a 10% chance of surviving if the vehicle is traveling over 50 km/h.*

# SECTION 9.1: PEDESTRIAN COLLISIONS

In 2016 there were 292 collisions involving pedestrians, resulting in 10 pedestrian fatalities and 297 injuries.



FIGURE 17:

## PEDESTRIAN FATAL AND INJURY COLLISIONS BY MONTH

Pedestrian collisions occurred throughout the year, with the highest number of collisions occurring in November (37) and the lowest in July (16).

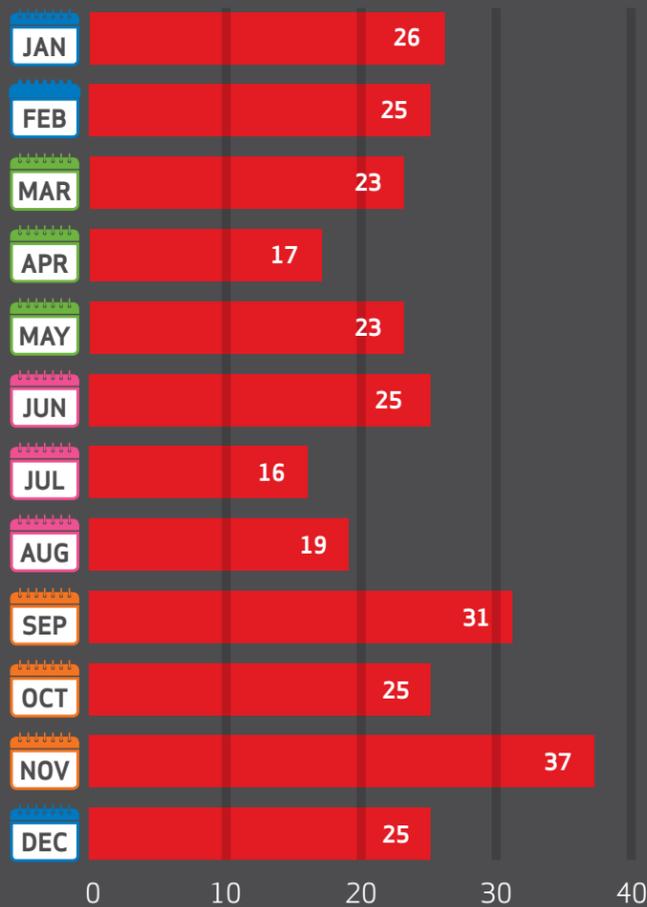


FIGURE 18:

## PEDESTRIAN FATAL AND INJURY COLLISIONS BY DAY OF WEEK

As shown in Figure 18, pedestrian collisions were slightly more likely to occur on Wednesday (18.8%, 55).

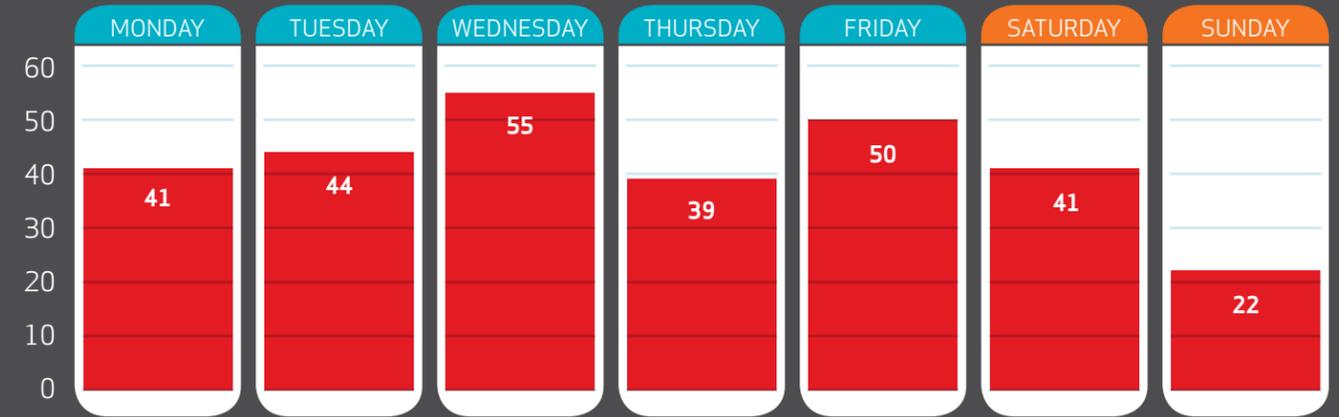
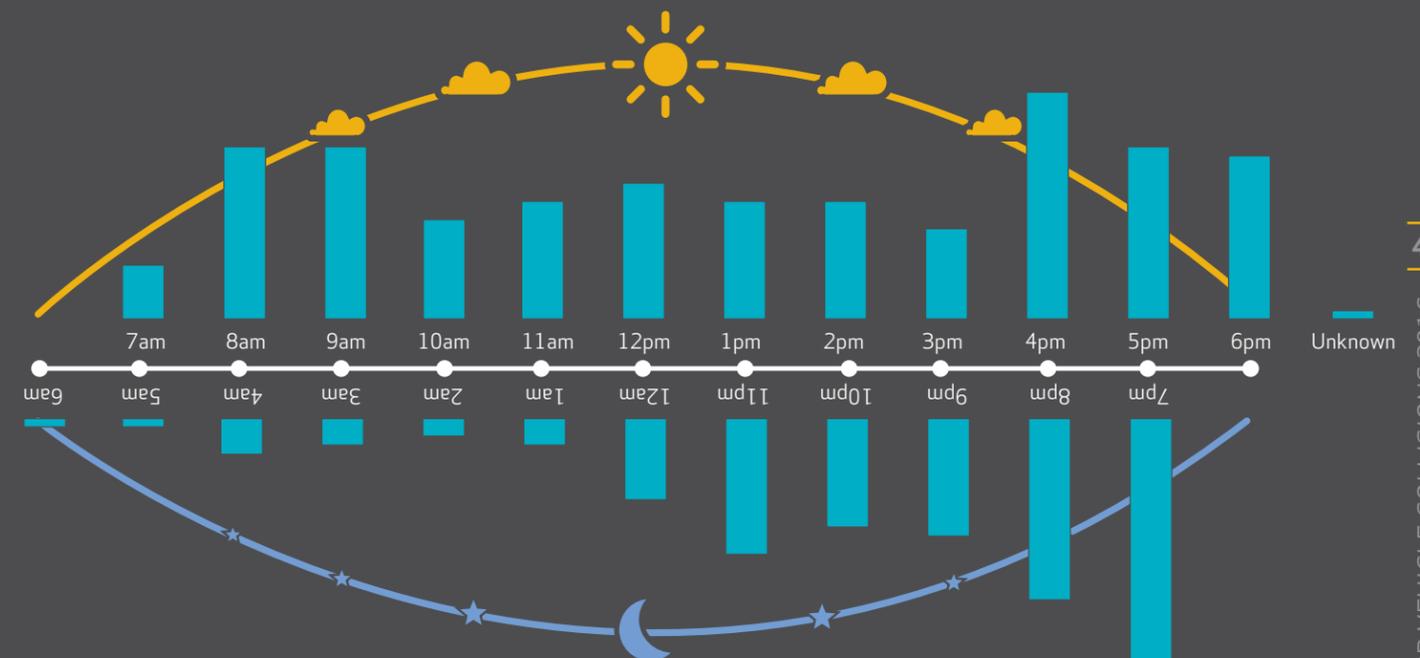


FIGURE 19:

## PEDESTRIAN FATAL AND INJURY COLLISIONS BY HOUR<sup>12</sup> OF DAY

Figure 19 reveals the most pedestrian collisions occurred between 6:00 and 7:00 PM (9.2%, 27).



<sup>12</sup> Hour name corresponds to "hour ending" in MVCIS, e.g., 6:00 AM refers to 5:01 AM - 6:00 AM inclusive.

FIGURE 20:

### ACTIONS OF PEDESTRIANS KILLED OR INJURED IN COLLISIONS

Pedestrians crossing the road with the right of way — either at a marked crosswalk, an unmarked crossing at an intersection, or at a signalized intersection with a walk sign — made up 68.4% (210) of all pedestrian fatalities and injuries. Pedestrians crossing without the right of way, either crossing at a midblock without a marked

crosswalk or crossing against the flow of traffic at a signalized intersection, accounted for 16.6% (51) of fatalities and injuries. Other actions — including entering or exiting vehicles, walking on the roadway, and running onto the roadway — made up 15.0% (46) of pedestrian fatalities and injuries.

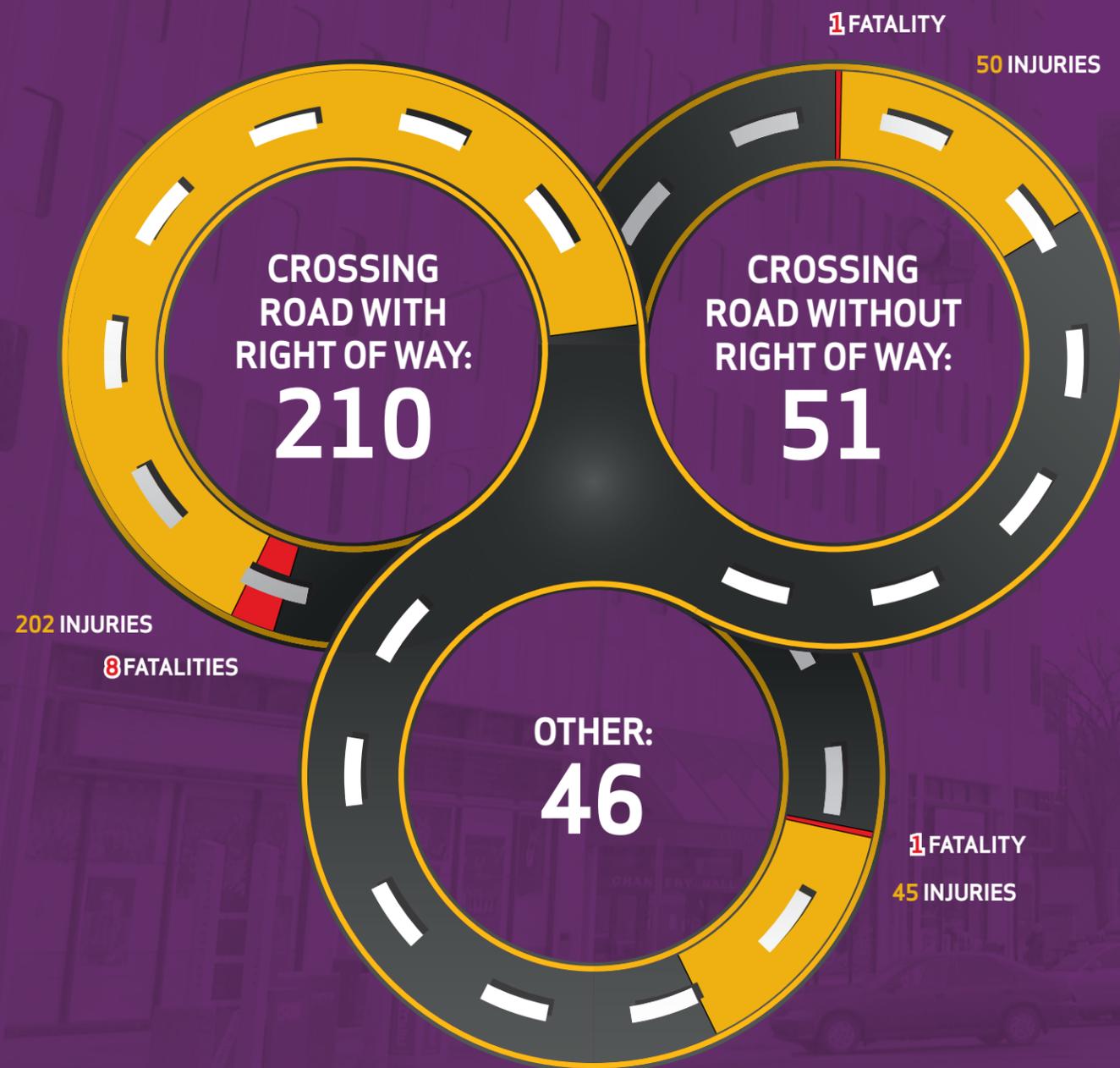


FIGURE 21:

### PEDESTRIAN FATALITIES AND INJURIES BY AGE

19.2% (59) of pedestrians involved in injury and fatality collisions were between the ages of 25 and 34, and 15.0% (46) between 45 and 54. Children 18 and younger made up 18.9% (58) of pedestrians

involved in injury and fatality collisions, while those aged 65 and older constituted 7.5% (23) of overall pedestrian fatalities and injuries.

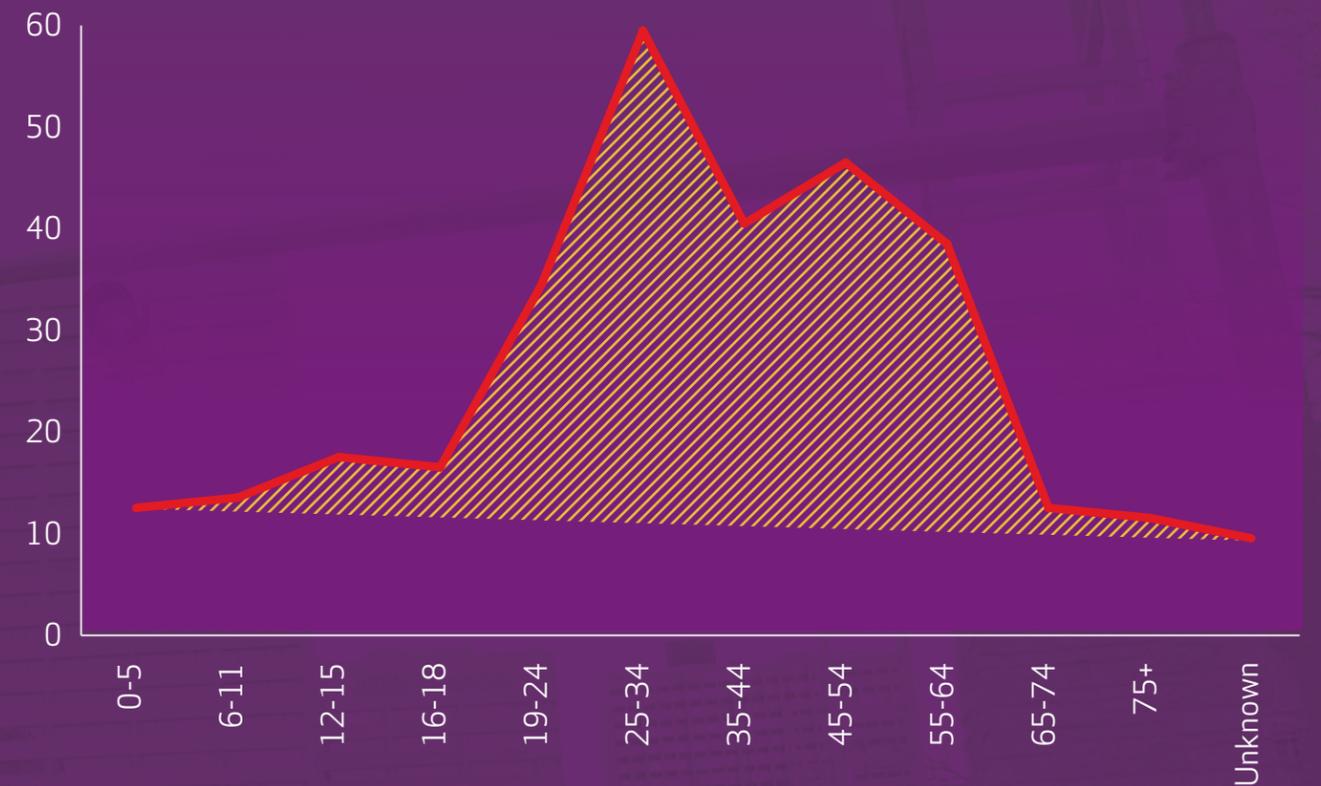
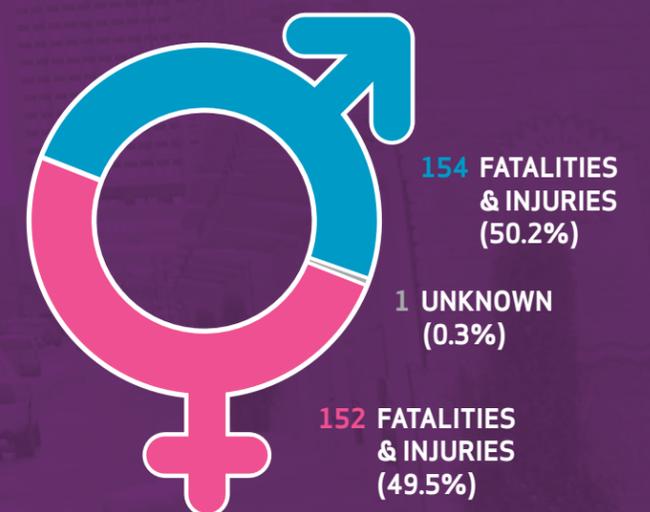


FIGURE 22:

### PEDESTRIAN FATALITIES AND INJURIES BY GENDER

Male pedestrians have a slightly higher likelihood of being injured or killed compared with female pedestrians (50.2% vs. 49.5%). Of the pedestrian fatalities, six were males and four were females.



# SECTION 9.2: CYCLIST COLLISIONS



In 2016 there were 171 collisions involving cyclists, which resulted in 145 injuries with no fatalities. The following information relates to the collisions in which cyclists were injured.

FIGURE 23:

## CYCLIST INJURY COLLISIONS BY MONTH

In 2016 cyclist collisions occurred nearly every month of the year, with the most occurring in the summer months when more cyclists tend to be on the roads. The number of collisions peaked at 29 in June, compared to 1 collision in February.

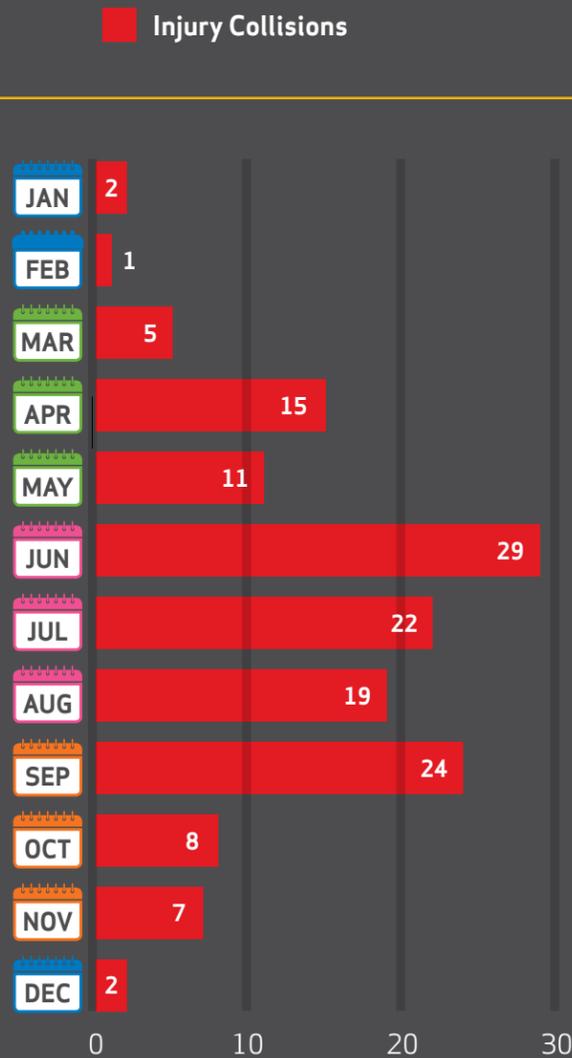


FIGURE 24:

## CYCLIST INJURY COLLISIONS BY DAY OF WEEK

Cyclist collisions were more likely to occur on Friday (22.1%, 32 collisions) and Wednesday (20.7%, 30). Fewer cyclist collisions occurred on Sunday (5.5%, 8).

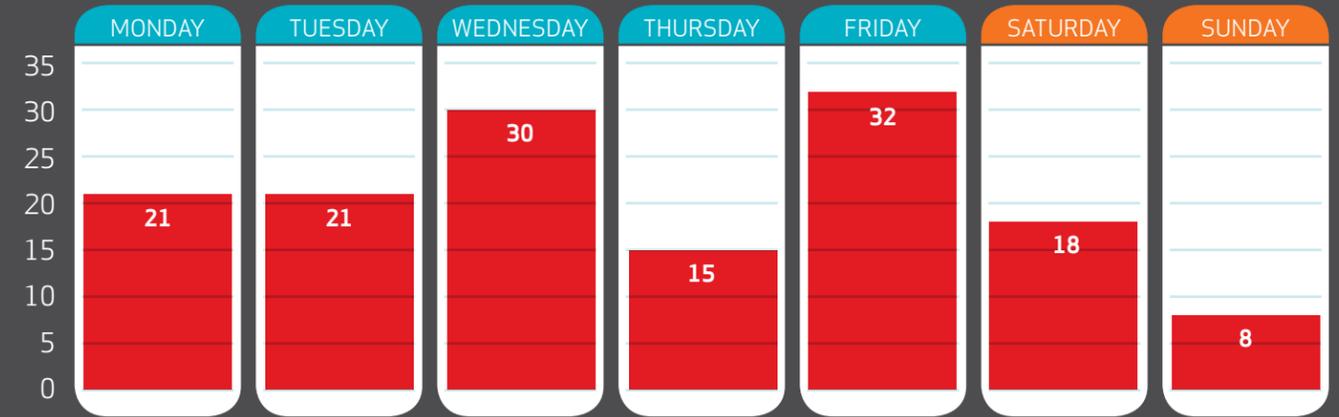
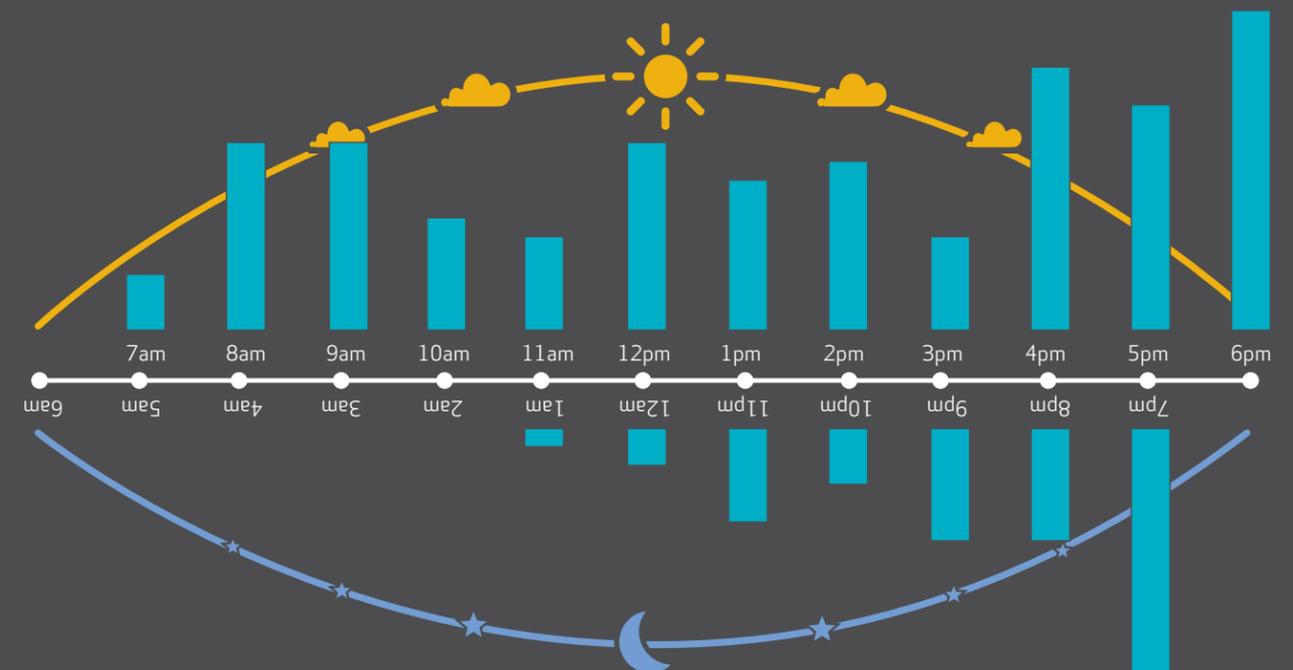


FIGURE 25:

## CYCLIST INJURY COLLISIONS BY HOUR<sup>13</sup> OF DAY

The highest number of cyclist injury collisions occurred between 5:00 and 6:00 PM (17, 11.7%), corresponding with the evening peak traffic hours.

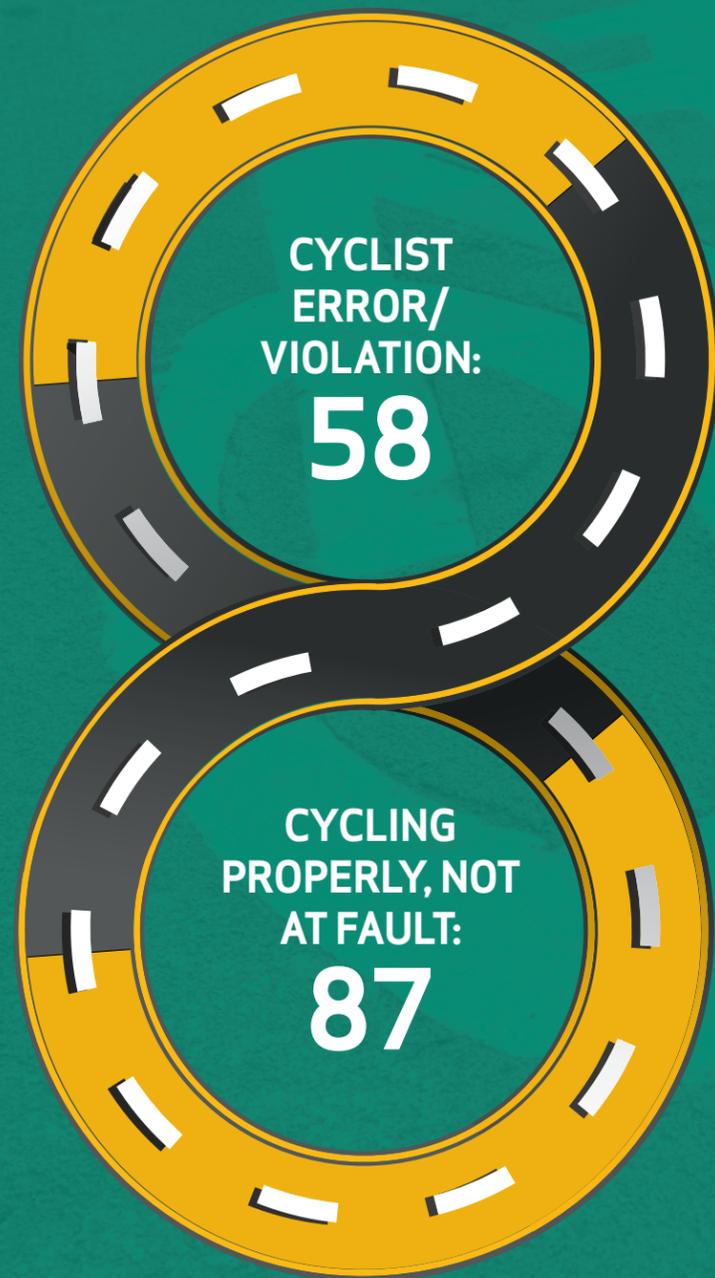


<sup>13</sup> Hour name corresponds to "hour ending" in MVCIS, e.g., 6:00 AM refers to 5:01 AM - 6:00 AM inclusive.

FIGURE 26:

### ACTIONS OF CYCLISTS INJURED IN COLLISIONS

Of the 145 cyclists involved in an injury collision, 60.0% (87) were deemed to be not at fault in the collision. Cyclists who were deemed to have committed errors or violations made up the other 40.0% (58).



Out of 171 bicycle collisions in 2016, 47 cyclists wore helmets and 87 did not wear helmets.<sup>14</sup>

<sup>14</sup> In 37 cases, this information is unknown (was not part of the police report).

FIGURE 27:

### CYCLIST INJURIES BY AGE

The age group with the highest number of cyclists involved in an injury collision was 25-34 (29.7%, 43).

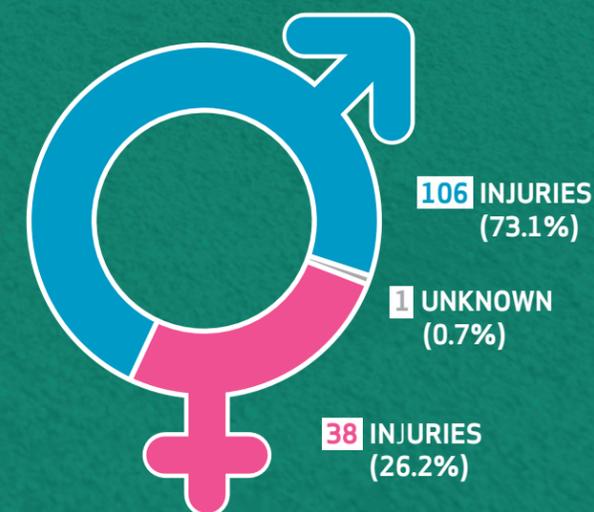
A total of 15.2% (22) of cyclists involved in injury collisions were 19 to 24 years of age.



FIGURE 28:

### CYCLIST INJURIES BY GENDER

Males are over-represented in cyclist collisions where the cyclist is injured or killed (male: 106, 73.1% vs. female: 38, 26.2%).



# SECTION 9.3: MOTORCYCLIST COLLISIONS

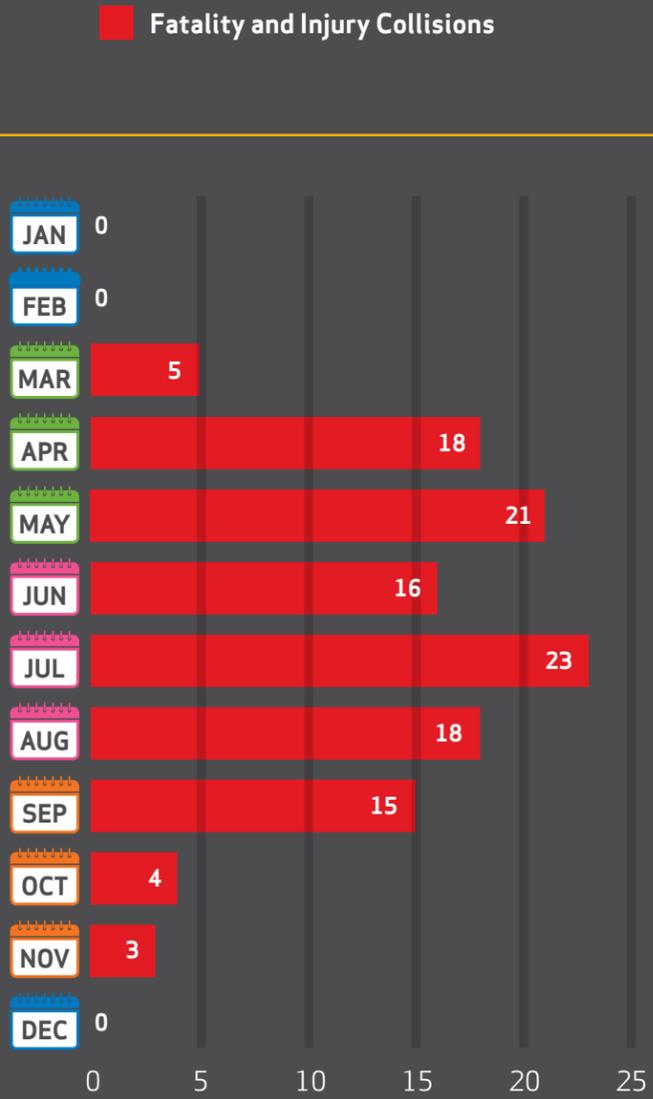


In 2016 there were 191 collisions involving motorcycles<sup>15</sup>, resulting in 3 fatalities and 124 injuries. The following information relates to the 123 collisions in which motorcyclists were injured or killed.

FIGURE 29:

## MOTORCYCLIST FATAL AND INJURY COLLISIONS BY MONTH

There were no motorcyclist collisions resulting in a fatality or injury in January, February, or December. The highest month for fatal or injury collisions is July (18.4%, 23 collisions).



15 The figure of 191 collisions includes 5 collisions where the motorcycle was struck while legally parked and unattended.

FIGURE 30:

## MOTORCYCLIST FATAL AND INJURY COLLISIONS BY DAY OF WEEK

A higher number of motorcyclist fatal and injury collisions occurred on Wednesday (20.0%, 25),

followed by Thursday (19.2%, 24).

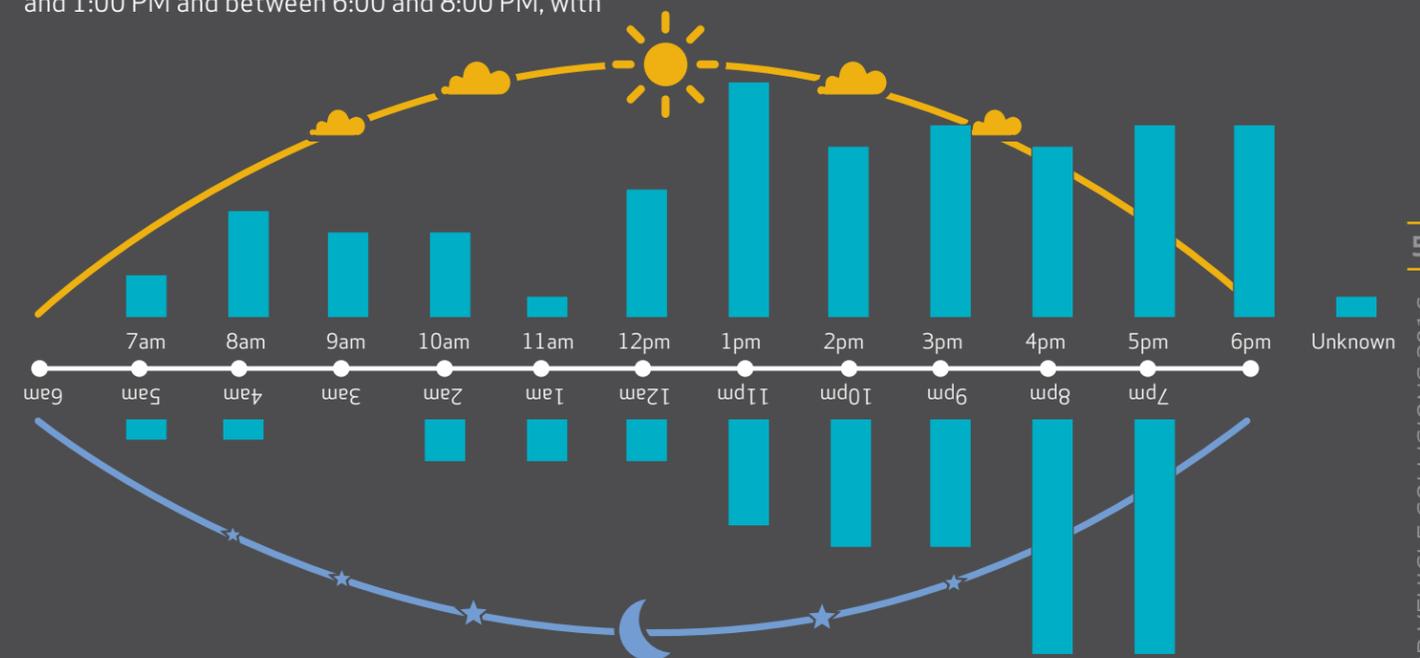


FIGURE 31:

## MOTORCYCLIST FATAL AND INJURY COLLISIONS BY HOUR<sup>16</sup> OF DAY

Figure 31 further shows that more motorcyclist fatal and injury collisions occurred between 12:00 and 1:00 PM and between 6:00 and 8:00 PM, with

11 fatal or injury motorcyclist collisions each hour (8.8%, 11).



16 Hour name corresponds to "hour ending" in MVCIS, e.g., 6:00 AM refers to 5:01 AM - 6:00 AM inclusive.

FIGURE 32:

### ACTIONS OF MOTORCYCLISTS KILLED OR INJURED IN COLLISIONS

Motorcyclists who were driving properly and deemed not at fault made up 40.9% (52) of motorcyclist fatalities or injuries. The remaining 59.1% (75) of fatalities and injuries occurred in collisions where the motorcyclist was deemed to

be at fault. Among these at-fault collisions, the most common collision cause was ran off road, which was the reported cause for 33.1% (42) of all motorcyclist fatalities and injuries.

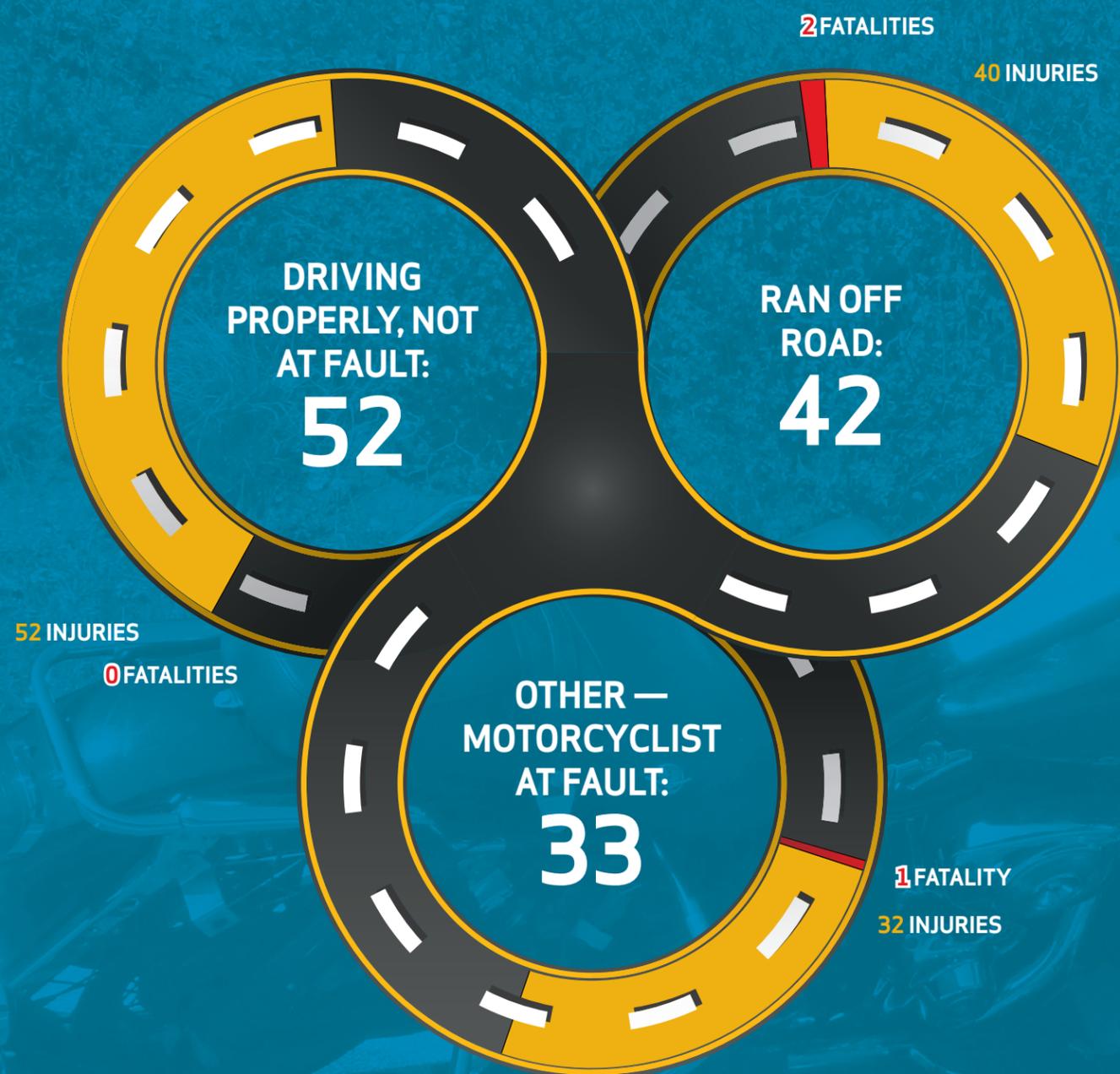


FIGURE 33:

### MOTORCYCLIST FATALITIES AND INJURIES BY AGE

Motorcyclists aged 25 to 34 made up 30.7% (39) of all injuries and fatalities in 2016, followed by

motorcyclists in the 35 to 44 age group (21.3%, 27). There were 3 motorcyclist fatalities in 2016.

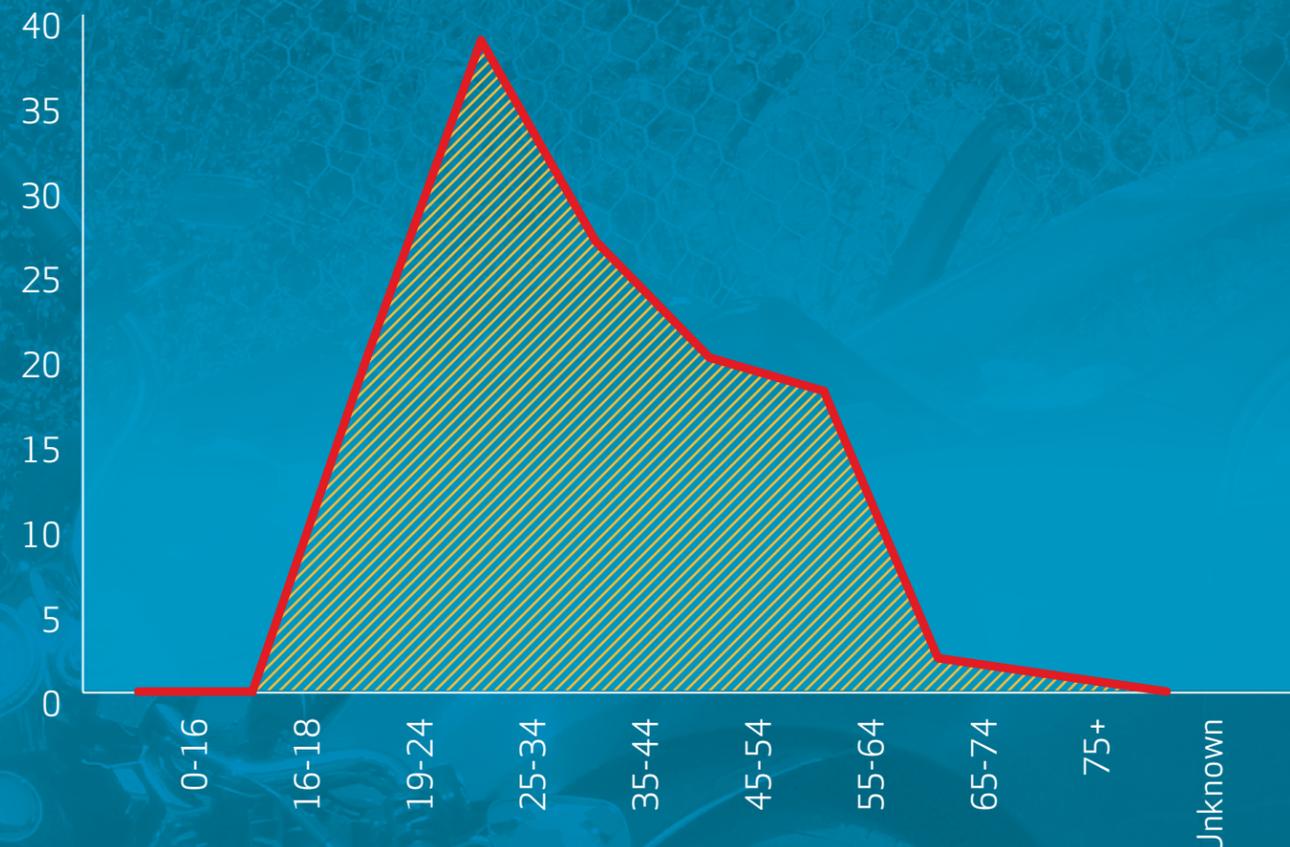
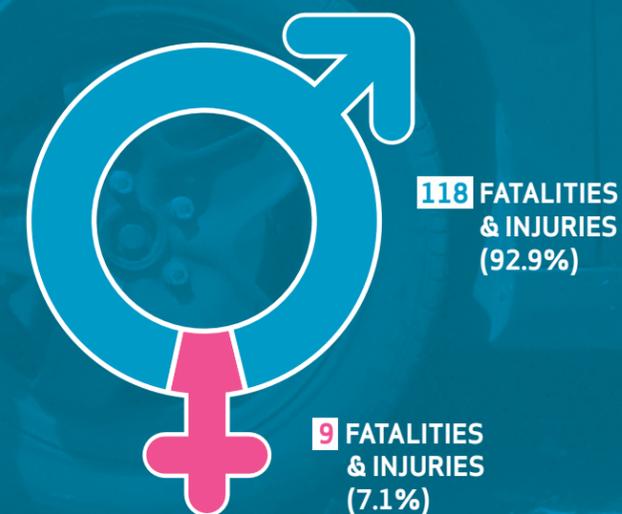


FIGURE 34:

### MOTORCYCLIST FATALITIES AND INJURIES BY GENDER

Males are highly over-represented in motorcyclist fatalities and injuries (male: 118, 92.9% vs. female: 9, 7.1%).



# APPENDIX 1: GLOSSARY OF TERMS

The following terms are used throughout this report.

<b>COLLISION</b>	<p>Police-reported collisions occurring on public roadways in the City of Edmonton which result in a minimum of \$2,000 property damage or which result in fatality or injury. The collision must include at least one (1) motor vehicle. This report includes all collisions where data was received by Traffic Safety from the Edmonton Police Service as of February 28, 2017.</p> <p>Non-vehicular collisions and collisions on private roadways are not included in this report.</p>
<b>INJURY</b>	<p>Injuries noted by police on the collision report form. Injuries are classified as minor (treated but not admitted to hospital - may include treatment at an emergency department) or major (result in admission to hospital).</p>
<b>FATALITY</b>	<p>On-scene fatalities, as well as any fatalities occurring within 30 days of and which are related to the collision.</p>
<b>AUTOMOBILE</b>	<p>Cars, pickup trucks, SUVs, and vans under 4,500 kg.</p>
<b>TRUCK</b>	<p>Tractor-trailers, trucks, and vans 4,500 kg and over.</p>
<b>INTERSECTION</b>	<p>Defined as extending 10 m past the legally defined limits of the outer crosswalk lines of an intersecting roadway.</p>
<b>MIDBLOCK</b>	<p>A section of roadway between two intersections. Bridges are also included as midblock segments.</p>
<b>BRIDGE</b>	<p>One of the 10 vehicle bridges over the North Saskatchewan River: Beverly, Capilano, Dawson, Low Level, James MacDonald, Walterdale, High Level, Groat, Quesnell, and Anthony Henday.</p>

## APPENDIX 2: GLOSSARY OF COLLISION CAUSES

The collision causes used throughout this report are derived from the provincial Collision Report Form. The following table provides an explanation of each of these causes.

<b>FOLLOWING TOO CLOSELY</b>	A vehicle rear-ends another vehicle due to a number of possible reasons, such as driver inattention, failure to maintain a safe distance between the vehicle and the one ahead, or failing to account for road conditions.
<b>STRUCK PARKED VEHICLE</b>	A moving vehicle collides with a legally parked or unattended vehicle.
<b>RAN OFF ROAD</b>	The vehicle leaves the roadway.
<b>CHANGING LANES IMPROPERLY</b>	A vehicle is involved in a collision while changing lanes.
<b>LEFT TURN ACROSS PATH</b>	A driver makes a left turn and is struck by an oncoming vehicle with the right of way.
<b>FAILED TO OBSERVE TRAFFIC SIGNAL</b>	At a signalized intersection, the driver fails to obey a signal and collides with another vehicle with the right of way.
<b>STOP SIGN VIOLATION</b>	A driver fails to stop at a stop sign, or fails to proceed safely after stopping, and collides with a vehicle with the right of way.
<b>BACKED UNSAFELY</b>	A driver strikes another vehicle while backing.
<b>FAILED TO YIELD RIGHT OF WAY (ROW) (NO CONTROL)</b>	A driver fails to yield the right of way at an uncontrolled intersection, striking or being struck by another vehicle.
<b>IMPROPER TURN</b>	A vehicle either turns from or to an incorrect lane (for example, turning from the inside lane to an outside lane) and causes a collision.
<b>LEFT OF CENTRE</b>	A vehicle driving left of the centre line on a roadway collides with another vehicle.

<b>YIELD SIGN VIOLATION</b>	A driver fails to stop at a yield sign and strikes a vehicle with the right of way.
<b>FAILED TO YIELD TO PEDESTRIAN</b>	A vehicle fails to yield to a pedestrian who has the right of way.
<b>ANIMAL ACTION</b>	An animal on the roadway causes a collision with a vehicle.
<b>PEDESTRIAN ERROR / VIOLATION</b>	A pedestrian is involved in a collision after failing to cross at an intersection or marked crosswalk, or after crossing against a “don’t walk” sign.
<b>IMPROPER PASSING</b>	A driver causes a collision while attempting to pass another vehicle.
<b>FAILED TO YIELD TO CYCLIST</b>	A vehicle fails to yield to a cyclist.
<b>CYCLIST ERROR / VIOLATION</b>	A cyclist commits an error or violation and is struck. (This code is typically used for cyclist actions such as entering the road improperly; collisions involving cyclists which can be classified as a vehicle-related cause are also used.)
<b>DRIVERLESS VEHICLE</b>	A vehicle not being controlled by a driver causes a collision.
<b>SIGNED FORCED TURN VIOLATION</b>	A vehicle in a lane signed for specific turns disobeys the sign and causes a collision.
<b>IMPROPER LOADING</b>	An improperly secured or unstable load causes a collision.
<b>ONE WAY VIOLATION</b>	A vehicle causes a collision by driving the wrong way down a one-way street.
<b>OVERSIZE VEHICLE</b>	A vehicle causes a collision after entering a roadway and exceeding posted height restriction.

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The logo for the City of Edmonton, featuring the word "Edmonton" in white, sans-serif font on a blue square background.

**Edmonton**

## CONTACT INFORMATION

**Ariel Luo, M.Sc.**  
Traffic Safety Analyst

**City of Edmonton Traffic Safety Section**  
Suite 200, 9304 - 41 Avenue NW  
Edmonton, Alberta T6E 6G8

Phone: 780-495-9905  
Fax: 780-495-0383

Email: [ariel.luo@edmonton.ca](mailto:ariel.luo@edmonton.ca)