AGENDA - TRANSPORTATION ADVISORY BOARD
MONDAY, October 12, 2020, 6:00 – 8:00 P.M.
WebEx Virtual Meeting

TAB members - please contact Tyler Stamey at (303) 651-8737 or Tyler.Stamey@longmontcolorado.gov if you cannot attend this meeting.

CALL TO ORDER

ROLL CALL

APPROVE MINUTES OF PRECEDING MEETING – September 2020 Meeting Minutes *

COMMUNICATIONS FROM STAFF

PUBLIC INVITED TO BE HEARD

Public participation is an integral part of any government and deeply valued by Longmont's elected officials. If you wish to provide comments prior to the meeting, please send them to tyler.stamey@longmontcolorado.gov. Additional information will be provided on the Transportation Advisory Board webpage regarding public comment during the meeting.

Join by phone: +1-415-655-0003 US Toll
Access code: 1332415559##

ACTION ITEMS

-

INFORMATION ITEMS

- 2019 High Crash Report (Caroline Michael, Tyler Stamey)*
- Traffic Safety (Sgt. Eric Lewis)*

COMMENTS FROM BOARD MEMBERS

COMMENTS FROM CITY COUNCIL LIAISON

INFO ON UPCOMING TRANSPORTATION RELATED MEETINGS

ITEMS FOR UPCOMING AGENDAS (Next scheduled meeting is October 12, 2020)

- Transportation Roadmap (Anne Lutz, Phil Greenwald)*
- Neighborhood Traffic Mitigation

ADJOURN TAB Meeting

*Attachments

IF YOU NEED SPECIAL ASSISTANCE TO ATTEND THIS MEETING, PLEASE CONTACT STACY DEPE AT (303) 651-8309 PRIOR TO THE MEETING TO MAKE ARRANGEMENTS

Si necesita interpretación , servicios especiales u otra asistencia adicional para participar en alguna reunión, comuníquese con 48 horas de anticipación al 303-651-8330 para así hacer los pertinentes arreglos.

ACTION MINUTES
TRANSPORTATION ADVISORY BOARD
September 14, 2020

1. CALL TO ORDER

Chairperson Lurie called the September 14, 2020 meeting of the Transportation Advisory Board to order at 6:00 p.m., via WebEx.

2. ROLL CALL

Board members present were Neal Lurie, Jacques Livingston, Courtney Michelle Sandra Stewart, and Liz Osborn. Joe Long joined later in meeting. David Droege was absent.

City staff present were Tyler Stamey, Phil Greenwald, Ben Ortiz, Jane Madrid and Recording Secretary, Stacy Depe. Council Liaison Joan Peck joined later in meeting.

4. APPROVE MINUTES OF PRECEDING MEETING

Chairperson Lurie and Board Member Stewart requested correction to miss-spelling of their names.

BOARD MEMBER STEWART MOVED TO APPROVE THE AUGUST 10, 2020 MEETING MINUTES WITH SPELLING CORRECTIONS MADE. BOARD MEMBER OSBORN SECONDED THE MOTION. MOTION APPROVED 6-0.

5. COMMUNICATIONS FROM STAFF

- CIP Updates – Jim Angstadt
    - Traffic Signal at Mountain View & Alpine – Completed
    - Drainage project 17th Street to Main Street – Completed
    - Pike Road (Sunset to Main Street) – Widening, adding bike lanes and additional driving lane – 80 percent complete with expected completion in a few months
    - 9th Avenue Pavement Management/Hover Street to Airport Road - Widening and adding bike lanes – Nearing completion
    - County Line Road – Widening to add third lane, sidewalk and bike lanes – anticipated 2021 completion
    - Spring Gulch #2 – Drainage improvements and addition of trail – Nearing completion

Mr. Stamey added he has received mostly positive feedback with the barricades that were put in place to support the local businesses on Main Street. Those are expected to be removed by October 5, 2020.

Board Member Stewart asked if an extension through October with the barricades could be done to help the restaurants due to not being able to dine inside. Mr. Stamey indicated lots of discussions have been done to get a pulse on needs and based upon feedback, the extension is not being pursued currently. Some restaurants are likely going to utilize the alley ways for additional seating.

Board Member Livingston commented that the signal works great at Alpine Street and Mountain View. He added even though the kids are not yet in school, he has heard several positive comments, specifically from school staff.

Board Member Michelle added that next week starts restaurant week and she encourages all to go and support those downtown restaurants while they still have the outside seating available.

Chairperson Lurie said it has been fantastic to support local businesses during this very challenging time and indicated a huge thanks for the collaboration in making this possible. He asked if the impacts to transportation changed with the additional month of the Main Street narrowing and rerouting of traffic. Mr. Stamey indicated there was still some work to do with regards to quantification. The first week had the biggest impact with the lane changes. As drivers adjusted and other routes were determined, the backup at 3rd Street and North Main has remained the same and hasn't caused any additional delays. Improvements with traffic lights were also made to help the flow.

6. PUBLIC INVITED TO BE HEARD

None

7. ACTION ITEM

- 2020 Model Traffic Code (Tyler Stamey)

The un-amended traffic code presented in the packet was developed by Colorado Department of Transportation (CDOT). This code provides the uniformity of rules and regulations for the State, which are generally consistent overall to promote safety. The current version was adopted in 2010. Some updates have been made this year by CDOT including text updates and some new sections. One of the areas noted in the preparation is specific to Scooters, which we do not currently have in Longmont. This could be included as part of the traffic code or with individual licenses of Scooter companies that might come to town. Municipalities have the ability to delete sections from the code that are not applicable Longmont. Examples being mountain driving and toll roads. Longmont does have some additional requirements for parking that include clarification on left turns at a flashing yellow arrow. Upon TAB review, the code will be presented to City Council with any recommended changes.

Board Member Stewart asked if there are any parking meters in Longmont and if so, where are they located. Mr. Stamey responded there are none currently but there has been some discussion and they could be applicable at a future date within this code, as written.

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Board Member Stewart commented she has seen changes to the code over the years at various times and asked what would cause CDOT to update the document. Mr. Stamey responded that generally, changes to the document are driven by changes in state law.

Board Member Livingston asked if there are anything new that has been added for the City of Longmont with this version of amendments. Mr. Stamey responded that in large part, there are no new items or substantial changes, only relatively minor word text changes.

Chairperson Lurie asked Mr. Stamey what are he was looking for feedback on? Mr. Stamey said recommendations as presented or with changes determined during discussion.

Board Member Osborn added she was curious about speed racing indicated in the report at 1104-01-F why it was deleted and what it was replaced with. She then re-reviewed and said she sees the penalties were taken off, which answered her question. Mr. Stamey followed up on the comment stating the penalties are in the Municipal Code rather than the State penalties.

Chairperson Lurie pointed to page 14 of the PDF packet, page 4, line number 16 asking for clarification on a couple of sections about traffic regulations generally amended with motorized bicycles, animals, skis, and toy vehicles. There is also reference on line 17 that it is unlawful roller skates, a skateboard to go on any roadway. Is it correct that the existing language is being struck or is the language being added to the existing ordinance?
Mr. Stamey replied the modified section is being amended to say what is written.

Chairperson Lurie asked why a child wouldn't be able to ride a skateboard on residential local road. Mr. Stamey responded it is a safety aspect, drivers should be cautious of children but it is unlawful to do so and not uncommon it be worded this way.

Chairperson Lurie also pointed to page 11 in the packet referring to speed limits. The language reads 'In no event will the speed be less than 25 mph on all streets in any district' He has seen a growing number of communities beginning to pilot and test 20 mph in some sections such as high crash area's or those that coincide with local businesses being closer to streets. What options are there to amend from 20 mph maximum to 5 mph minimum so the transportation team has more flexibility to look at circumstances on their own merit?
Mr. Stamey said this is something that could be taken back to the legal team to see if it's an amendment they would need to make.

Board Member Stewart referenced a major crash with a child riding skateboard on her street several years ago that resulting in a fatality. While being understanding about the previous comment of children riding in the street, from a safety aspect, they shouldn't. She supports the ordinance as written.

Board Member Michelle pointed out there were some grammar corrections needed in the packet. The first one is on page 12 in the packet, page 2 in the document, line 5. "Three copes of the model section code is" and should say "are" instead. Also on page 16 in packet, page 6 in the document line 8 reads "My 8" and should be "May 8". Mr. Stamey thanked her for pointing out so corrections can be made.
Mr. Stamey added after looking more at the 25 mph discussion, it doesn't specifically read it can't be less than 25 mph, it indicates 'except when special hazards exist that requires a lower speed, the following speed shall be lawful' which does allow for some flexibility should

a need arise. Chairperson Lurie asked if there is any definition of special hazard or is that at the discretion of the legal team.

Mr. Stamey responded that it would be largely at the discretion of the transportation team.

Board Member Osborn asked if this packet be available online for Longmont residence to look at. Mr. Stamey replied that it would be online and available through City of Longmont's Municipal Code.

Chairperson Lurie asked if Mr. Stamey could consult with legal team to see what flexibility is there and if possible put the language in regarding the 25 mph discussion.

Board Member Stewart asked if the modifications Longmont has are similar to other communities here in Boulder County. Mr. Stamey said they are similar. He indicated both Ft. Collins and Boulder have made more amendments to adapt to the scooter changes.

BOARD MEMBER LIVINGSTON MOVED TO RECOMMEND AMENDMENTS WITH PROPOSED MODIFICATIONS AND COMMENTS TO EXPLORE THE CHANGE TO 20 MPH. BOARD MEMBER LONG SECONDED. ALL IN FAVOR – 6 - 0

8. INFORMATION ITEMS

Mr. Greenwald shared that we do have letters from the Mayor as part of the Mayor and Commissioner's Coalition. We also have the Northwest Chamber including Longmont Chamber and Boulder County all supporting keeping the RTD fast track internal savings account funds for bus projects. Most all the elected officials along the Northwest corridor and the Northwest Region agree.

Council Member Peck thanked Mr. Greenwald and added she is going to request City Council send a letter in support of keeping the fund intact. Hopefully, at least put a hold on those funds until the new director is in place and to see if any Federal funds are going to be available in January 2021.

9. COMMENTS FROM BOARD MEMBERS

Board Member Livingston commented on the north part of Main Street in the area of 17th Street and Highway 66, he sees people dangerously crossing the street, including elderly. In previous meetings improvements were discussed and the need is still there. He knows this area is in the plan but unsure how many dollars are allocated to it.

Board Member Osborn shared the Railroad crossing track problem on Highway 66 caused a lot of frustration this morning. Mr. Stamey responded this was the second closure in last couple of weeks for this broken panel issue. The previous damage was fixed with a temporary patch and plans are being made for a permanent repair towards the end of the month. They anticipate the road will be closed for two full days to complete and we are working with BNSF and CDOT on a traffic pattern during that closure.

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Board Member Long asked if the road closure could be communicated to community to mitigate some of the detour requirement. Mr. Stamey indicated when an emergent repair they don't have the luxury of the PSA unlike a planned closure. In regards to the upcoming planned closure, all will be done to get information out for drivers to be able to plan their routes accordingly.

Board Member Stewart had previously attended Boulder County local coordinating Council and noted they had used street light data to gain data for their transportation masterplan for the County. She asked if we use anything like this in Longmont to gain data for drivers coming in from other Towns or Counties. Mr. Stamey responded that we have not used currently although we have talked about getting a cost quote as that information would be helpful. There is other infrastructure being utilized where data is shared with both Greeley and Loveland but is limited to the communities that are using similar technology.

Board Member Stewart said as we are requesting transportation dollars, if the data is available, maybe we can work better together with requesting grants and determining transportation needs.

Mr. Greenwald added the County data was utilized for the Build Grant and we are hoping to hear by tomorrow if we are approved to receive that 26 million dollar Build Grant. We partnered with the County to assist in determining where traffic was coming from which reflected currently, about a 1/3 of the traffic is coming from outside of the Longmont/Boulder County area. In several areas cell phones are being tracked to determine traffic flow and volume. A Wi-Fi tracking device is also being utilized to track serial numbers in several points in town to also determine traffic flow and patterns.

Board Member Long asked based on trace an track, regardless of technology do we know if there is public awareness as this delves into privacy. Mr. Greenwald indicated he believes that the language in cell phone companies contracts indicate those types of tracking with Bluetooth and Wi-Fi. If either those or any type of GPS is on, a signal is being sent out and the serial number can be tracked by location.

10. COMMENTS FROM CITY COUNCIL LIAISON

Council Member Peck asked Mr. Greenwald to clarify if some of the traffic data being collected included Highway 119 from the North and Southwest Weld County.
Mr. Greenwald responded yes, that was the percentage he had shared earlier currently being 25% with expectation of 30% on the Diagonal from Southwest Weld County and Larimer County.

Council Member Peck added that her frustration has been with peak services indicating the collected data would not work when looking at the ridership for the Northwest Rail Corridor. Being aware the virus has had an impact on revenues and, regardless of what we do in Longmont, RTD has always used ridership numbers with local transportation. As we move forward, depending on what the new RTD director does and for the local free buyout transportation with RTD, would it warrant going to City Council, advising them to set up a task force? This task force could look at our own local transportation hub and bring in businesses and the community to look at other routes and modes of transportation as options. Several questions to ask include what would this look like in Longmont, would it be worth pulling together a task force to do a study and see if could impact the dollars being given to RTD and should we be ready with other options if we need to get out of the RTD district fast tracks since we are unsure if RTD can provide the service we want. This is only specific to the fast tracks operations, not the regional base operations. As no recent conversations have been discussed, would this be worth revisiting?

Mr. Greenwald added that there is a region wide committee looking at revamping of RTD altogether. The Governor commissioned this committee to look at the inner workings of RTD, how funded and how they are organized. Mr. Greenwald can send more information to show where are in the process and how it's tracking.

Chairperson Lurie added the additional information is helpful and it sounds like a lot of things going on.

Council Member Peck added the RTD Director position is open. The Boulder County Commissioners will be appointing the position due to not getting enough signatures on the ballot for the other interested party to have a ballot election. That Director will be picked before the first week of November. If interested, an application will need to be completed on the Boulder County Commissioner's website.

11. INFO ON UPCOMING TRANSPORTATION RELATED MEETINGS

None

12. ITEMS FOR UPCOMING AGENDAS (Next scheduled meeting is October 12, 2020)

- Equitable Transportation Roadmap
- 2019 High Crash Report
- County Wide Sales Tax
- Neighborhood Traffic Mitigation

CHAIRPERSON LURIE MOVED ADJOURNMTNT OF MEETING. NO ONE WAS OPPOSED. THE MEETING WAS ADJOURNED AT 7:00 P.M.

Respectfully Submitted,

TAB Chairperson/Vice Chairperson
/sd

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TRANSPORTATION ADVISORY BOARD COMMUNICATION

Meeting Date: October 12, 2020

Subject: 2015-2019 Crash Report

Type of Item: **Information** **Time for Presentation:** 30 Minutes

Presented By: Tyler Stamey, Transportation Engineering Administrator
Caroline Michael, Civil Engineer

Suggested Action: No Action Required (For Information Only)

BACKGROUND

PWNR staff maintains a database of traffic crash records for crashes on City public streets reported by the Longmont Police Department. This database includes more than 50,000 crashes dating back to 1990. PWNR staff reviews these records to ensure that data is as complete, accurate and consistent as possible. These records are used to identify trends and patterns which can help to identify areas for safety improvements and inform project decisions.

Staff will informally present this information and respond to questions and discussion.

Executive Summary

Safety is a top priority of the City of Longmont. The City strives to provide the safest and most efficient transportation system for all road users – Bicycles, pedestrians, vehicles, and other conveyances.

In 2019, the City of Longmont partnered with the Colorado Department of Transportation (CDOT) in support of our common goal to move toward zero deaths on our roadways.

This report includes overall data, crash type analysis, location evaluation and trends.

Overall Crash Trends

In 2019 there were 2,261 crashes, which is an increase over 2018. Even though overall crashes were up in 2019, our injury crash rate remained the same as in 2018.

2019 was an unprecedented year in terms of the number of fatal crashes in Longmont, with 12 fatal crashes. Our fatal crash rate is middle of the pack compared to other cities in Colorado.

Around 60% of all crashes in Longmont occur at intersections and around 40% of all crashes occur at signalized intersections.

Rear end crashes are the most frequent crash type in Longmont, while front to side crashes result in the most severe crashes. This report evaluated each crash type in more detail.

DUI crashes continue to increase in Longmont, while medical/asleep/fatigue crashes have declined in each of the past three years.

Fatal crashes have generally been increasing statewide and nationally, though Colorado saw a decrease in fatal crashes from 2018-2019.

Intersection Evaluations

City staff has completed a thorough evaluation of all intersection crashes to determine high crash locations. This information is used to guide intersection improvements.

BOARD ACTION

No board action is required. Staff is providing this report as an information item to update TAB.

CITY OF LONGMONT

PUBLIC WORKS AND NATURAL RESOURCES – TRAFFIC ENGINEERING

2015 – 2019 CRASH REPORT

Presented to the Transportation Advisory Board October 12, 2020

INTRODUCTION

Traffic engineering staff maintains a database of crash records for all collisions on City public streets reported by the Longmont Police Department. This database includes about 54,000 crashes dating back to 1990.

This report focuses on the past five years of crashes in the City of Longmont, from January 1, 2015 to December 31, 2019. Information from previous years is included on some figures in order to determine long-term trends.

The City of Longmont is committed to building and maintaining safe infrastructure for all roadway users, including drivers, bicyclists, and pedestrians. This report is used to identify trends in crash patterns so that the City can better serve the needs of the community by building a safe transportation network.

SECTION 1 – OVERALL CRASH TRENDS

Figure 1.0 summarizes crashes by year and severity in Longmont from 1990 to 2019. In 2019, there were 2,261 crashes, an increase from 2018. Longmont saw an uptick in injury or worse crashes in 2019 and fatal crashes in particular.

Figure 1.0 – Crashes by Severity, 1990 – 2019

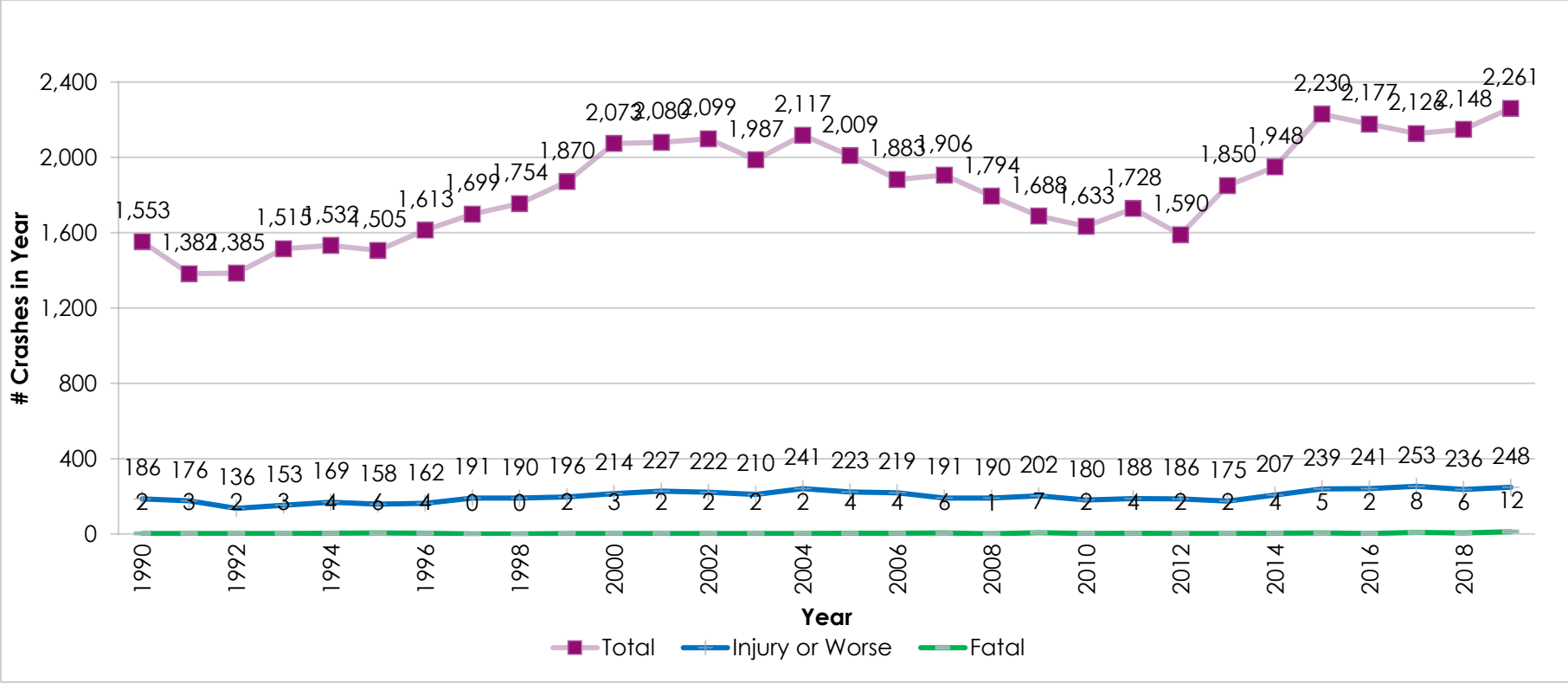
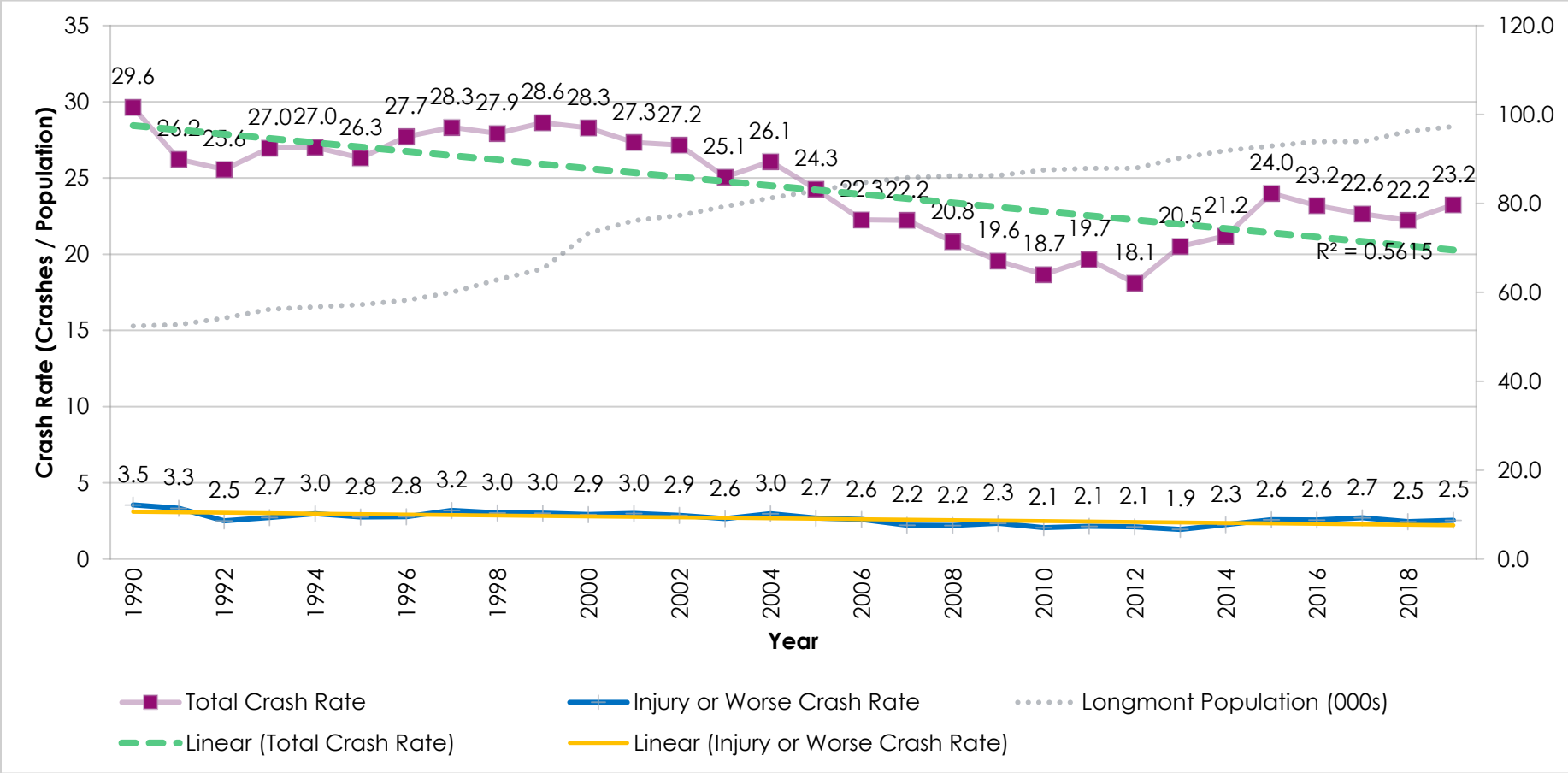


Figure 1.1 summarizes crash rates, measured as crashes per 1000 population in Longmont. In 2019, there were 23.2 crashes per 1000 population, slightly higher than in 2018. The 2019 injury crash rate was 2.5 crashes per 1000 population. Crash rates have been on a slight downward trend since a peak in 2017 and are consistent with pre-recession values.

Figure 1.1 – Crash Rates by Severity, 1990 – 2019



SECTION 2 – CRASH LOCATIONS

Around 60% of all crashes in the past five years occurred at public street intersections. Around 68% of all these were at signalized intersections. See **Figure 2.0** and **Table 2A** for more details on intersection crashes.

Figure 2.0 – Intersection Crash Breakdown, Signalized vs. Unsignalized, 2015 – 2019

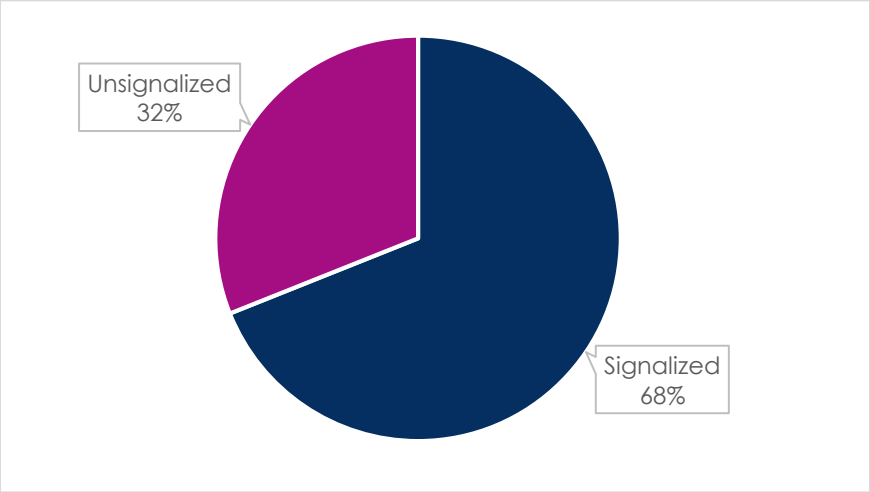


Table 2A. Yearly Crash Breakdown, Signalized vs. Unsignalized by Year

Description	2015	2016	2017	2018	2019	Total
Intersection Crashes	**1,366**	**1,300**	**1304**	**1,292**	**1,311**	**6,573**
Signalized	935	916	917	852	831	**4,451**
Unsignalized	431	384	387	440	480	**2,122**

The remaining 40% of crashes were at non-intersection locations. This category includes all crashes at commercial and residential driveways, midblock crosswalks, and railroad crossings.

SECTION 3 – CRASH TYPES

All crashes in the City are categorized by type. Most of these types are derived from the State of Colorado's Traffic Accident Report form, but others are specific to the City's crash database. Below you will find definitions for the most common crash types:

- **Approach Turn** – Occurs when a vehicle turning left (or u-turning) is struck by a car traveling in the opposite direction
- **Bicycle Collision** – Any crash involving a bicyclist
- **Front to Rear** – Occurs when two vehicles are traveling in the same direction and one vehicle is struck by the other from behind
- **Front to Side** – Occurs when one vehicle strikes the other in the side perpendicularly, usually as a result of failing to yield to a traffic control device (colloquially referred to as a "T-bone" crash)
- **Fixed Object** – Occurs when a single vehicle strikes any type of fixed object other than a parked vehicle
    - **Median – Center**: A sub-type wherein the fixed object is a center median. The City tracks this type independently
- **Parked Vehicle** – Any crash involving a parked vehicle being struck, often due to another vehicle backing out or pulling into a parking space
- **Pedestrian** – Any crash involving a pedestrian
- **Opposite Direction Side-Side** – Occurs when one vehicle veers into the wrong lane and sideswipes a vehicle traveling in the opposite direction
- **Same Direction Side-Side** – Occurs when one vehicle veers into the wrong lane and sideswipes a vehicle traveling in the same direction, usually when changing lanes
- **Other** – Crashes that don't fit into any other categories
    - **Note**: The "Other" category on **Figure 3.0, Figure 3.1**, **Table 3A,** and **Table 3B** includes "Other" type crashes as well as tracked categories with very low crash numbers

Front to Rear type crashes make up the largest percentage of all crashes in the City, followed by Front to Side types. Parked Vehicle, Fixed Object, and Approach Turn crashes make up 10% of all crashes in the City each. All other crash types account for less than 10% of all crashes. See **Figure 3.0** and **Table 3A** for more details on overall crash type trends.

Figure 3.0 – All Crashes by Type, 2015 – 2019

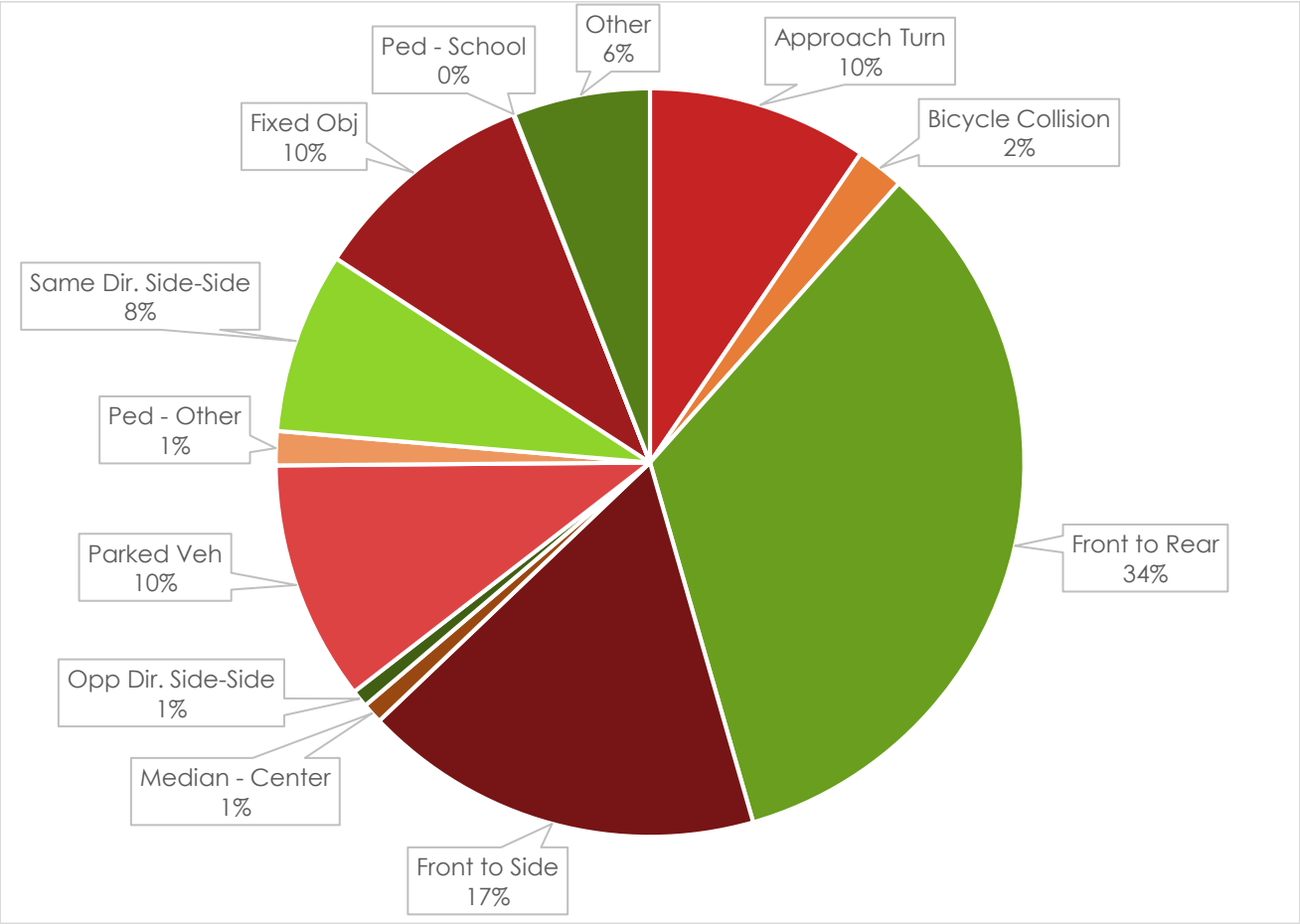


Table 3A – All Crashes by Type by Year, 2015 – 2019

Crash Type	2015	2016	2017	2018	2019	Total
Approach Turn	183	169	141	309	240	**1042**
Bicycle Collision	53	44	45	35	49	**226**
Front to Rear	758	743	746	736	734	**3717**
Front to Side	368	394	393	329	411	**1895**
Median – Center	27	34	26	7	3	**97**
Opposite Direction Side-Side	36	8	14	13	11	**82**
Parked Vehicle	273	241	234	159	228	**1135**
Pedestrian	37	37	34	29	29	**166**
Same Direction Side-Side	149	161	145	215	187	**857**
Fixed Object	212	208	219	200	240	**1079**
Other	135	138	129	116	129	**647**
						10943

Figure 3.1 and **Table 3B** present all crashes by type that resulted in some level of injury (including non-incapacitating injuries, incapacitating injuries, and fatalities). Bicycle Collision, Pedestrian, and Approach Turn type crashes are notably more represented in these numbers.

Figure 3.1 – All Injury or Worse Crashes by Type, 2015 – 2019

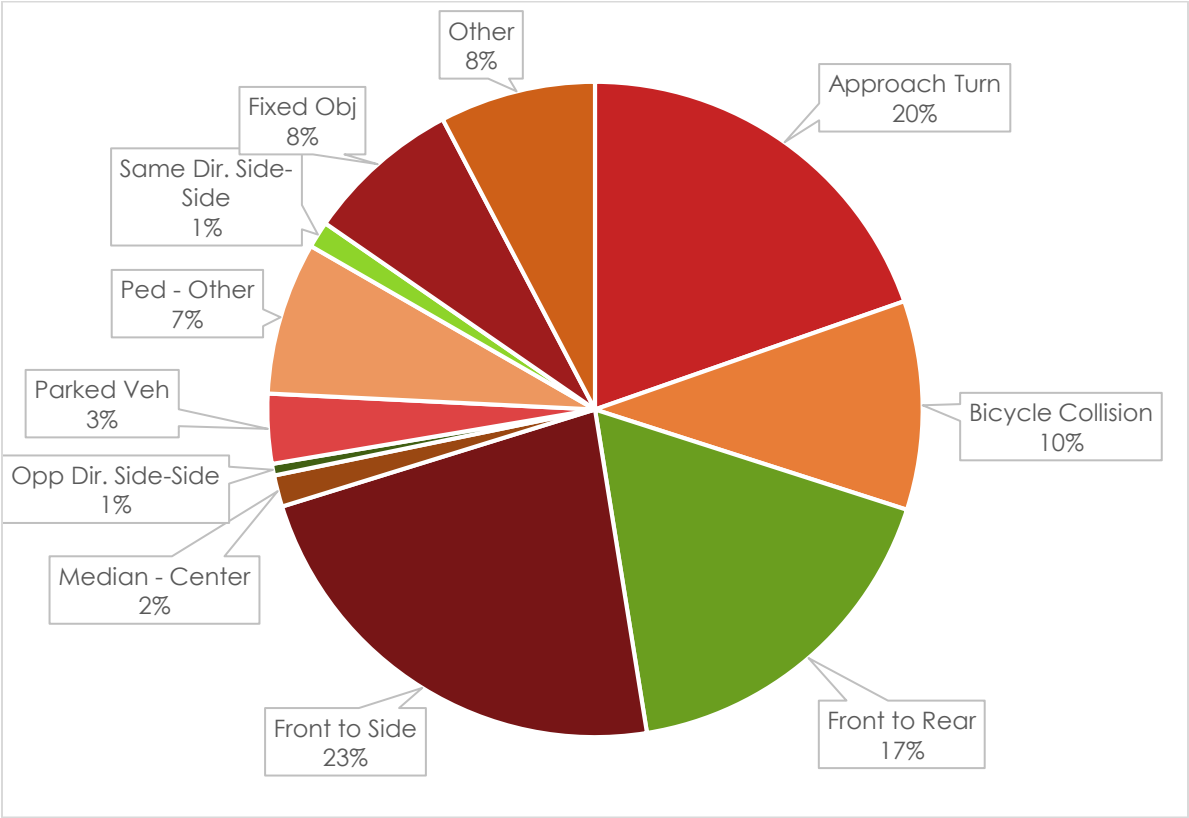


Table 3B. 2015 – 2019 All Injury or Worse Crashes by Type

Crash Type	2015	2016	2017	2018	2019	Total
Approach Turn	45	32	36	71	56	**240**
Bicycle Collision	27	24	26	22	27	**126**
Front to Rear	41	44	50	44	35	**214**
Front to Side	47	52	61	52	66	**278**
Median – Center	8	3	5	2	1	**19**
Opposite Direction Side-Side	1	0	4	0	2	**7**
Parked Vehicle	12	12	10	3	5	**42**
Pedestrian	20	23	16	15	19	**93**
Same Direction Side-Side	3	3	5	4	1	**16**
Fixed Object	14	28	21	8	23	**94**
Other	22	20	17	15	20	**94**
						1223

SECTION 4 – CRASH TIMES

Figures 4.0 and **4.1** present crash incidence by time of day. **Figure 4.0** shows that most crashes in Longmont occur between 7:00 AM and 7:00 PM, with noticeable peaks between 3-4 PM and 5-6 PM. **Figure 4.1** presents time of day trends by year. Overall, peak crash times have remained relatively consistent in the past 5 years.

Figure 4.0 – All Crashes by Time of Day, 2015 – 2019

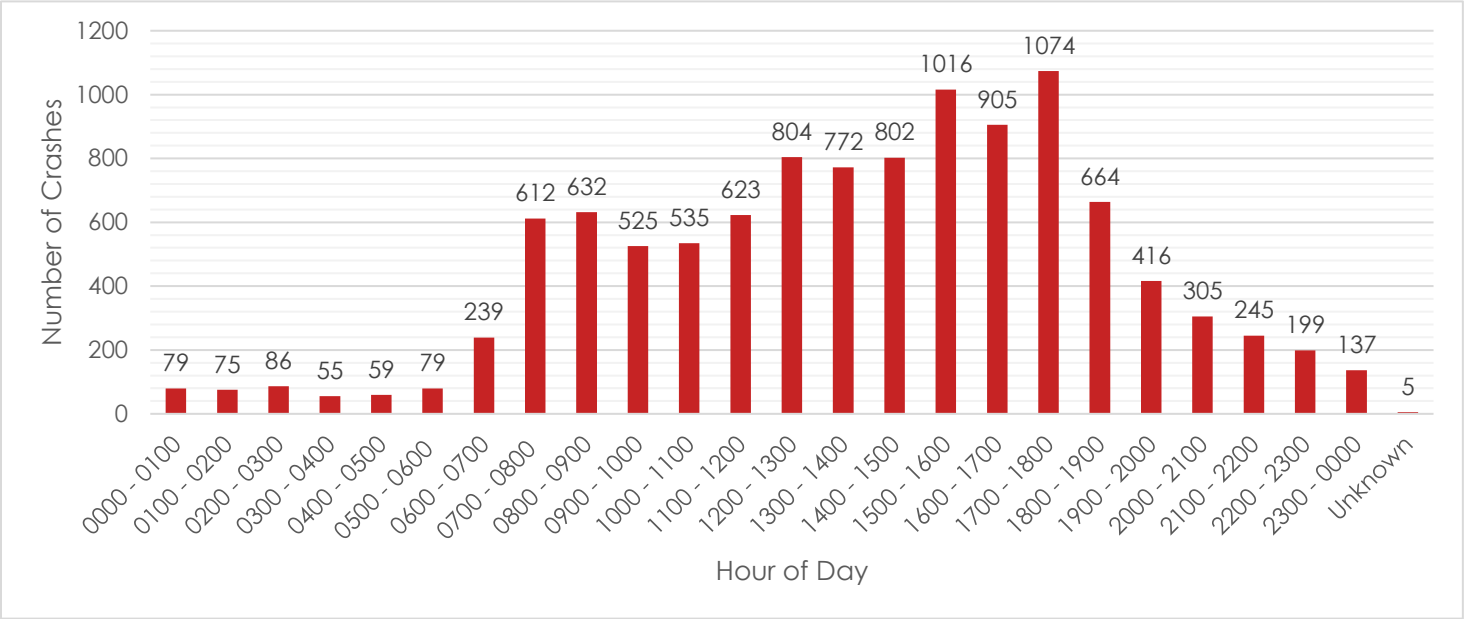
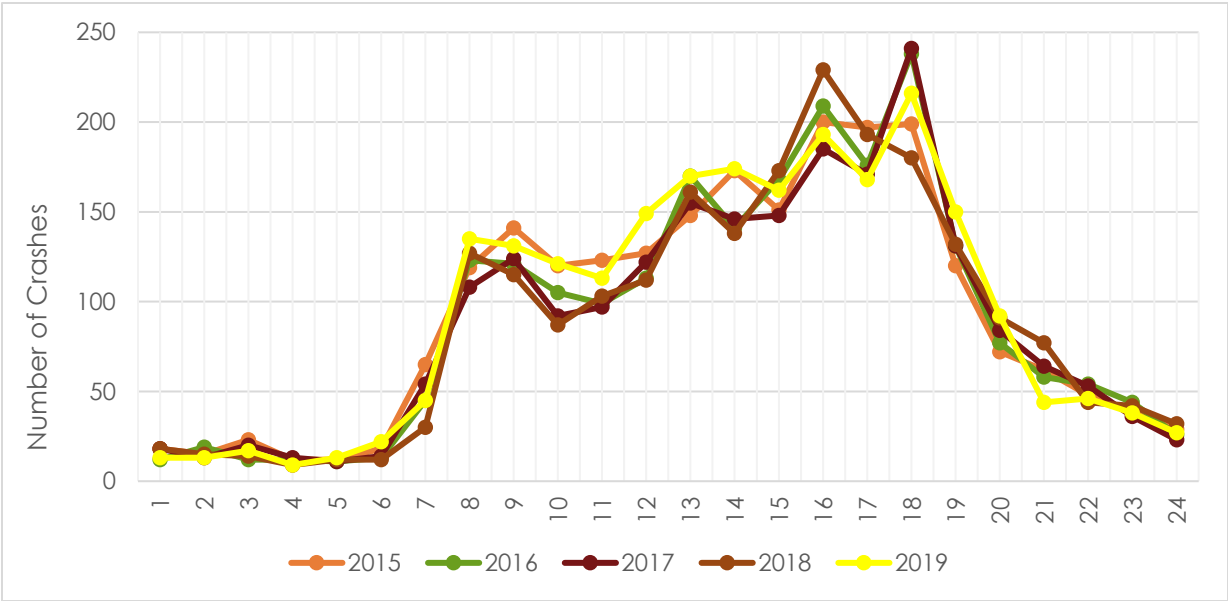


Figure 4.1 – All Crashes by Hour of Day by Year, 2015 – 2019



Figures 4.2 and **4.3** present crash incidence by day of week. Most crashes in Longmont occur on weekdays, with the highest incidence on Friday. The drop in crashes on Saturdays and Sundays is likely attributable to lower overall traffic volumes. **Figure 4.3** demonstrates that these weekday trends have remained relatively consistent in the past five years.

Figure 4.2 – All Crashes by Day of Week, 2015 – 2019

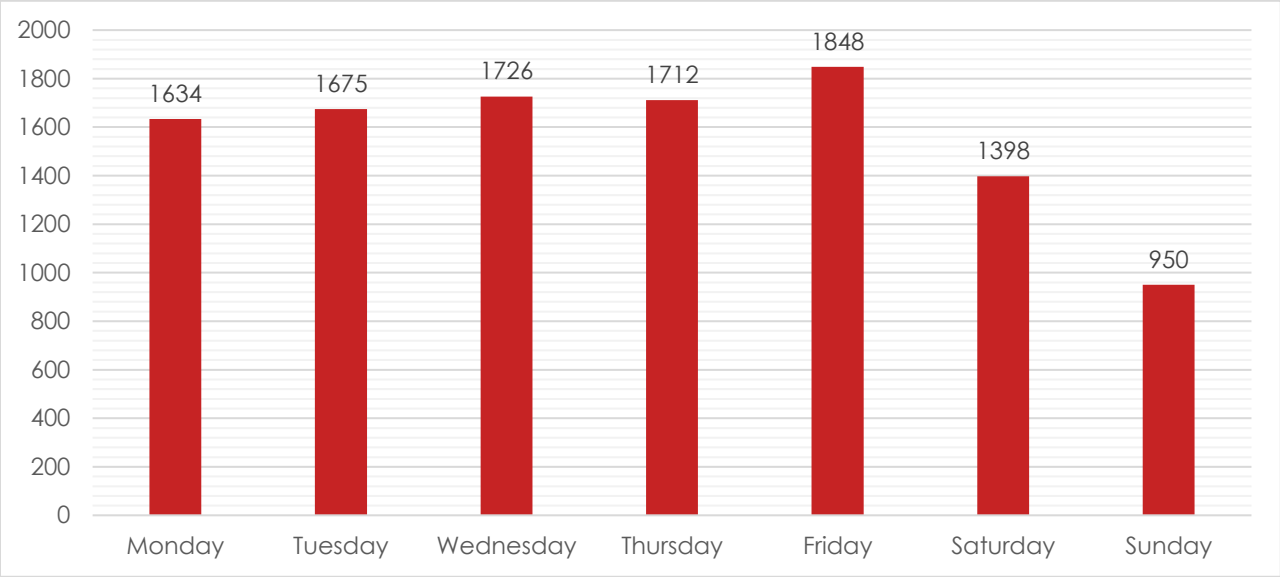
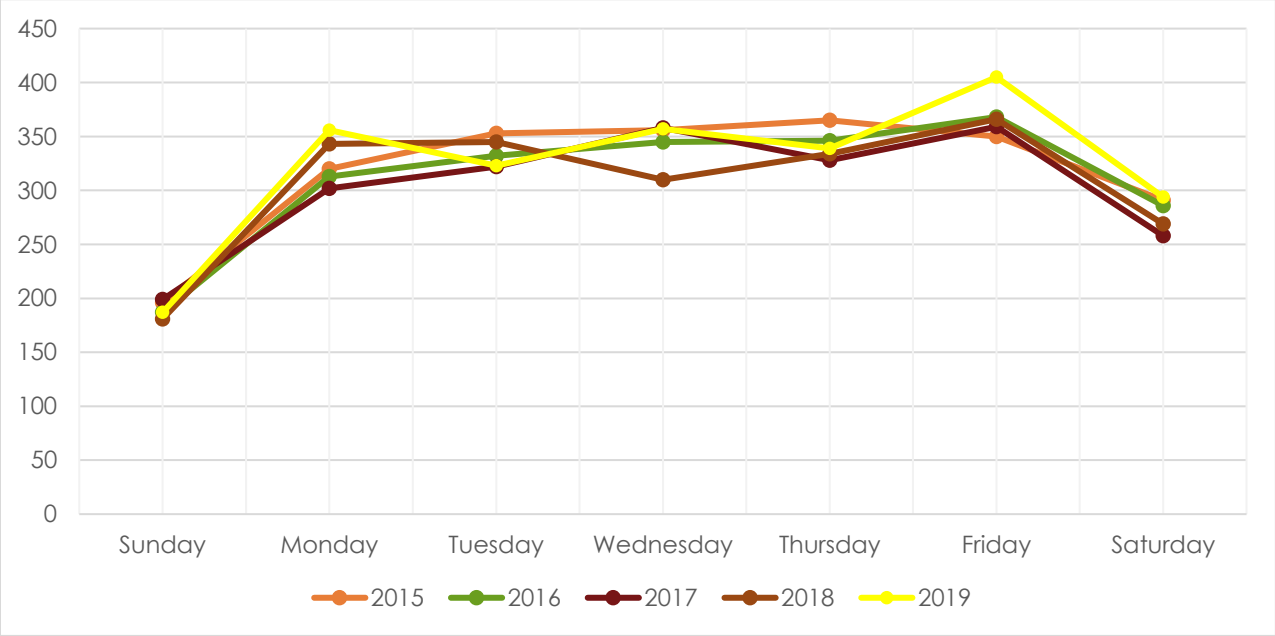


Figure 4.3 – All Crashes by Day of Week by Year, 2015 – 2019



Figures 4.4 and **4.5** present crash incidence by month. The highest month for crashes is December and the lowest month is April. There is a noticeable increase in crash numbers in the last five months of the year, where numbers consistently exceeded 900 crashes a month, with October and December being the only months to exceed 1000 crashes in a five year period.

Figure 4.4 – All Crashes by Month, 2015 – 2019

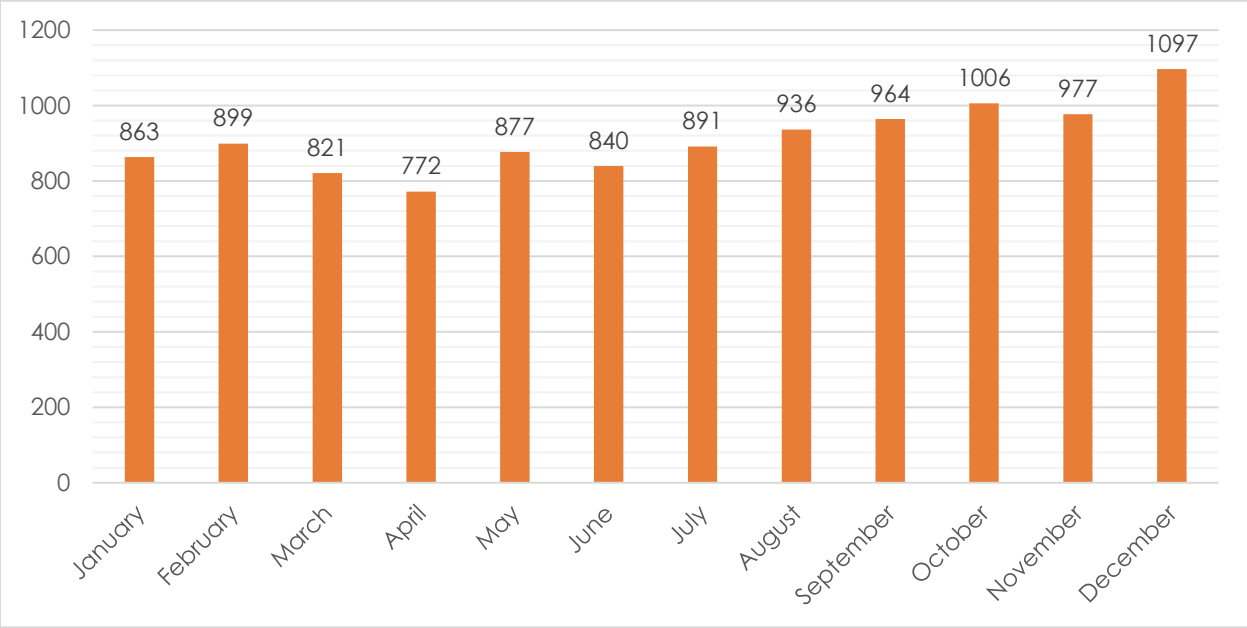
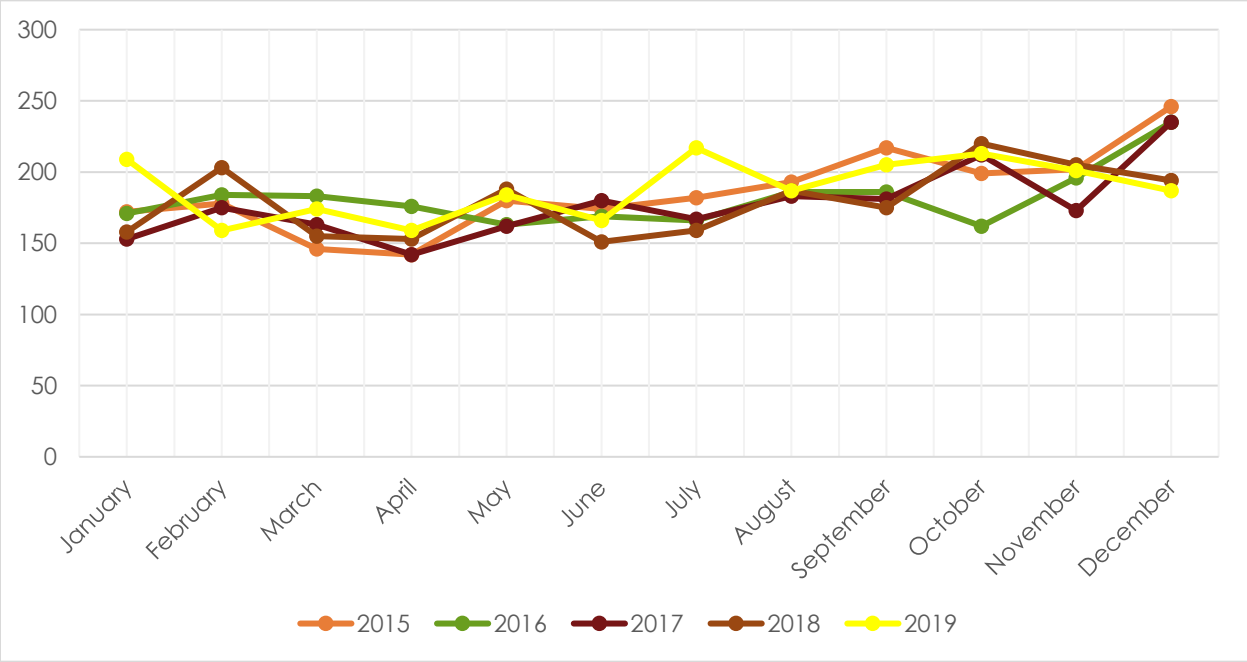


Figure 4.5 – All Crashes by Month by Year, 2015 – 2019

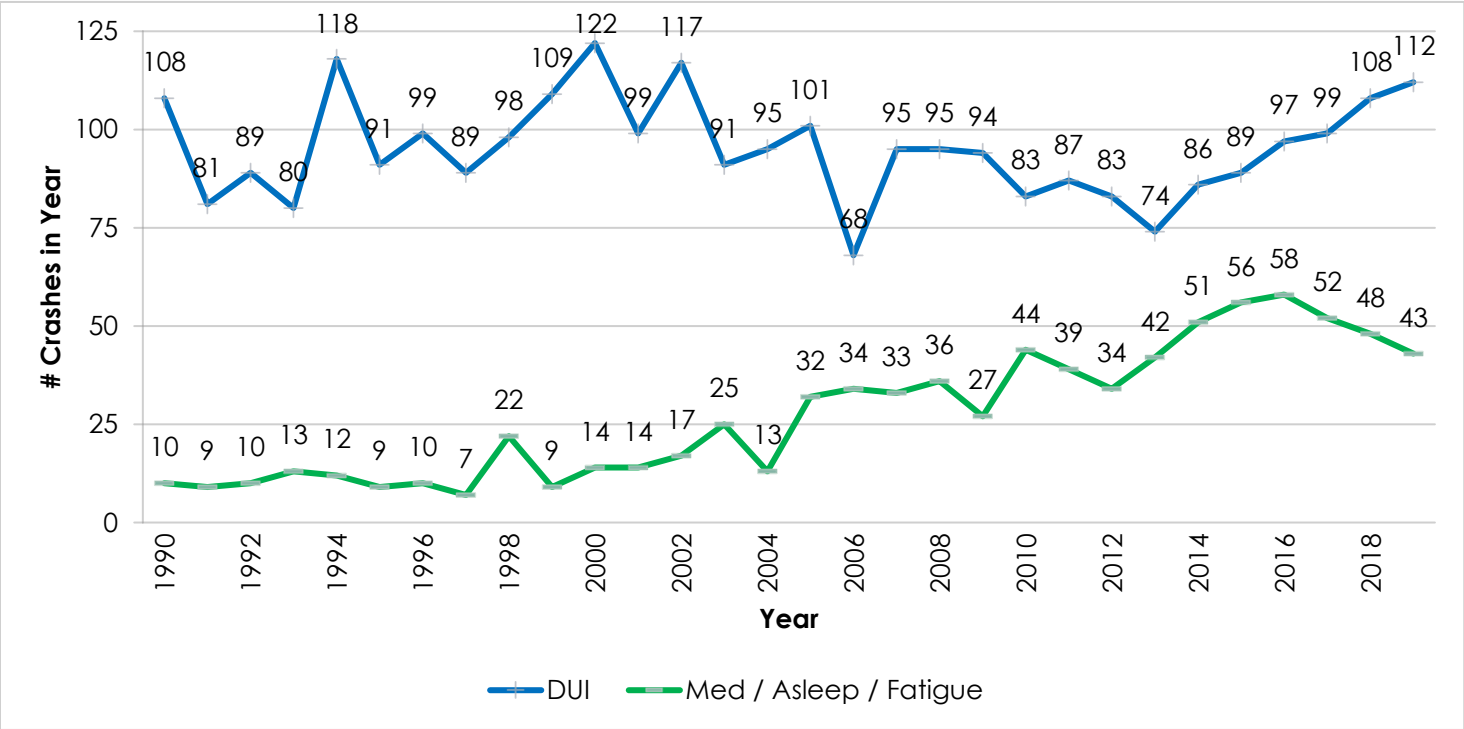


SECTION 5 – DRIVING UNDER THE INFLUENCE (DUI / DWI / DUID) AND OTHER IMPAIRMENT-RELATED CRASHES

From 2015 to 2019, there were 505 crashes involving a driver under the influence of alcohol or drugs. The incidence of DUIs has been increasing in the City since 2013, with 2019 being the highest year for DUI accidents since 2002. **Figure 5.0** shows DUI crash trends in the City from 1990 to 2019.

Other types of impairment crashes are also reported, including drivers that are asleep or fatigued or otherwise impaired by an illness or medical condition. When taken as a combined whole, these types of impairment crashes have been on an overall upward trend but have decreased every year since 2016. **Figure 5.0** shows medical, asleep, and fatigue impairment crashes in the City from 1990 to 2019.

Figure 5.0 – DUI & Medical/Asleep/Fatigue Crashes, 1990 – 2019



ALCOHOL AND DRUG IMPAIRMENT (DUI/DWI/DUID) DETAILS:

Figure 5.1 shows all DUI/DWI/DUID crashes in the City by severity from 2015 to 2019. Almost a quarter (24%) of all DUI crashes in that time frame resulted in some degree of injury, with four of those crashes resulting in a fatality.

Figure 5.1 – All DUI / DWI / DUID Crashes by Severity, 2015 – 2019

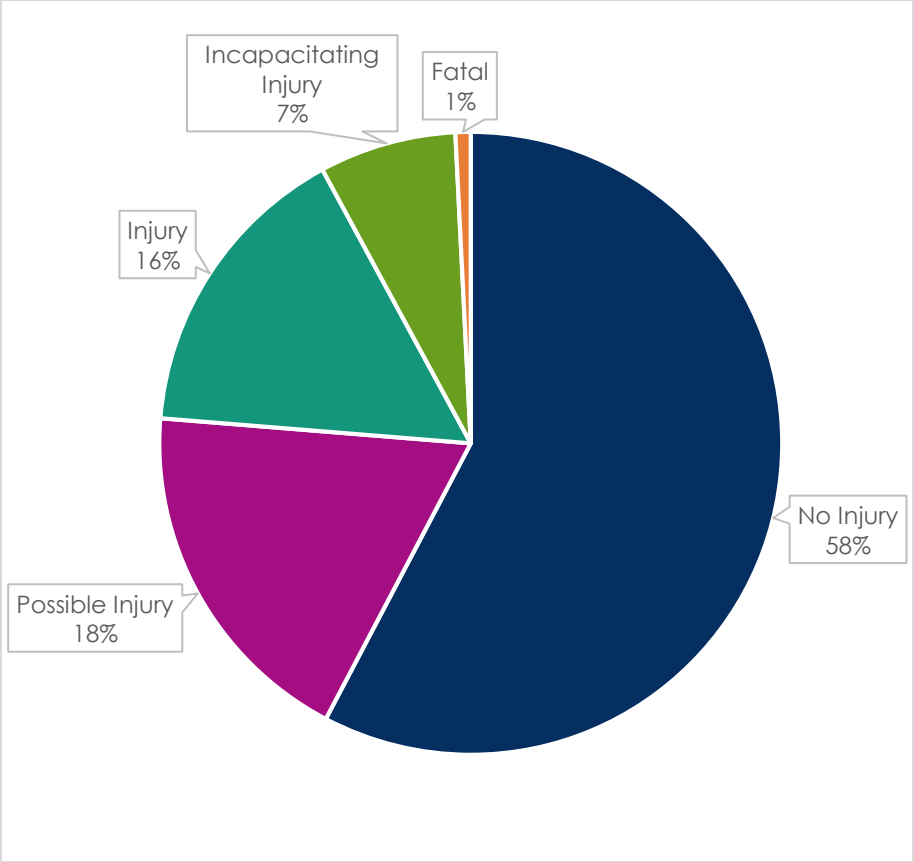


Figure 5.2 and **Table 5A** break down DUIs by the sex of the driver cited. Significantly more men than women were cited for DUIs from 2015 to 2019. A portion (4%) of DUI crashes did not have information about the sex of the driver.

Figure 5.2 – Sex of Driver Cited for DUI, Percentage, 2015 – 2019

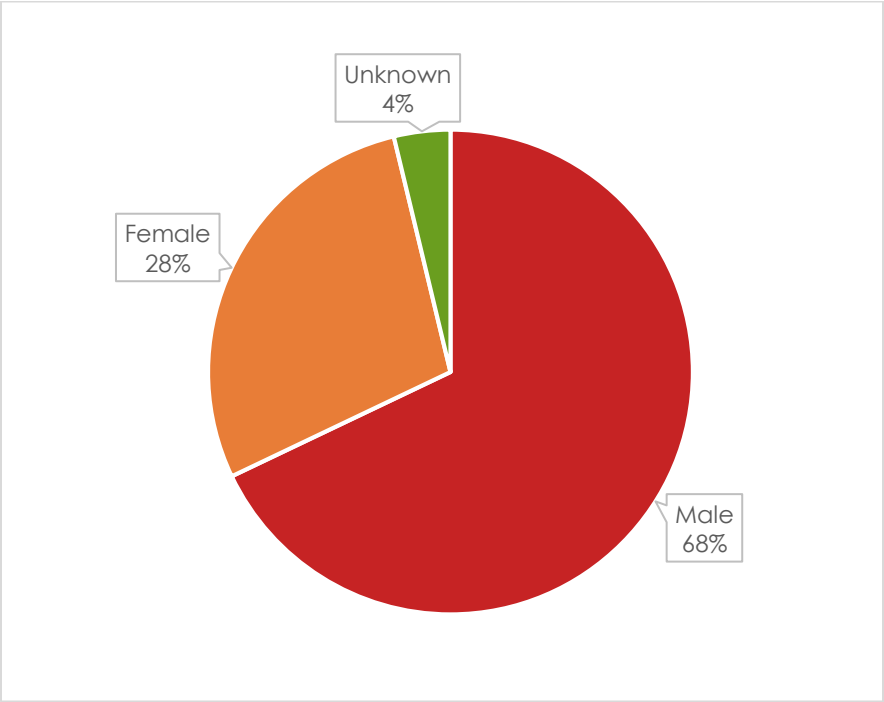


Table 5A – Sex of Driver Cited for DUI, Numerical

Year	Male	Female	Unknown	Total
2015	61	28	0	89
2016	68	26	3	97
2017	63	30	6	99
2018	78	28	2	108
2019	73	31	8	112
Total	**343**	**143**	**19**	**505**

Similarly, **Figure 5.3** and **Table 5B** present DUIs by the age of the driver cited. Persons aged 21 to 29 made up the largest portion of drivers at 33%. 10% of drivers cited for a DUI were under the legal drinking age of 21. Drivers aged 30 to 39 made up 23% of drivers and drivers over the age of 40 made up a collective 29% of DUI offenses. 5% of DUI crashes did not have sufficient information available about the age of the driver.

Figure 5.3 – Age of Driver Cited for DUI, 2015 – 2019

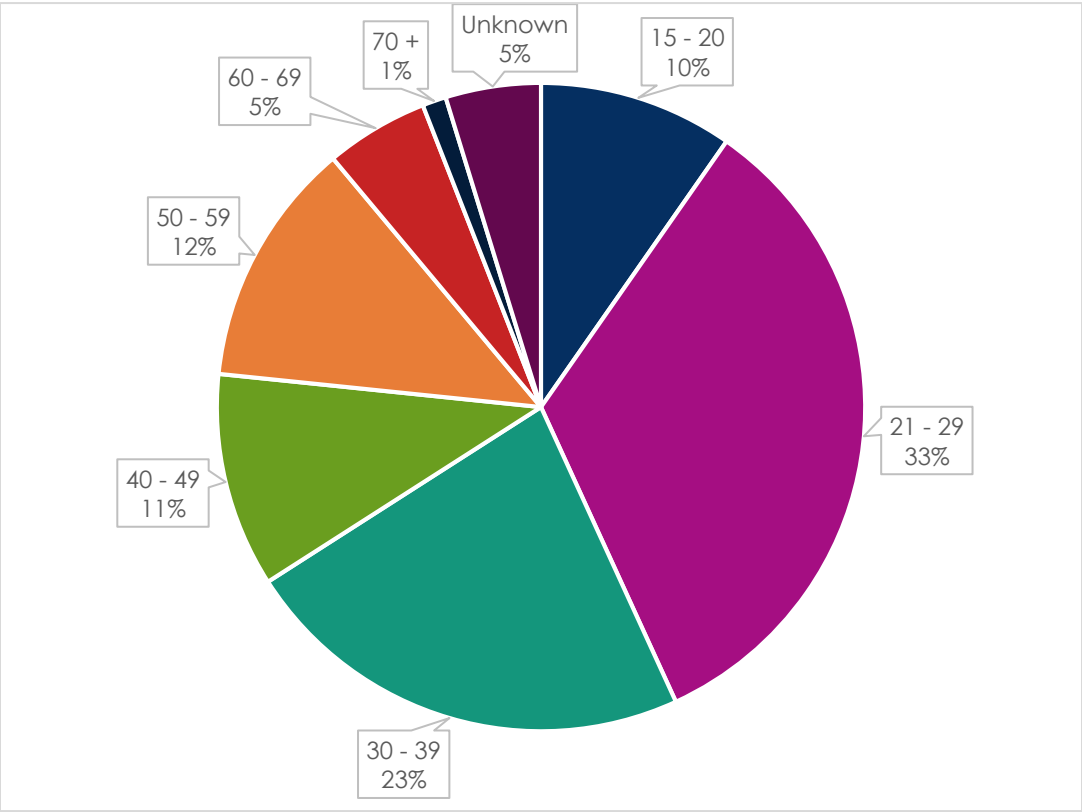


Table 5B – Age of Driver Cited for DUI

Age Range	2015	2016	2017	2018	2019	Total
15 – 20	10	7	9	15	8	**49**
21 – 29	35	35	31	30	38	**169**
30 – 39	15	26	19	29	26	**115**
40 – 49	12	11	8	15	8	**54**
50 – 59	10	12	18	9	13	**62**
60 – 69	5	2	4	6	9	**26**
70 +	2	0	0	2	2	**6**
Unknown	0	4	10	2	8	**24**
Total	**89**	**97**	**99**	**108**	**112**	**505**

ASLEEP / FATIGUE IMPAIRMENT DETAILS

Sleepiness and fatigue impairments contributed to 169 crashes in the City of Longmont from 2015 to 2019. **Figure 5.4** and **Table 5C** present sleep and fatigue-related crashes by severity. The majority of these crashes (81%) were not severe, with the remaining 19% resulting in an injury. There were no fatalities from 2015 to 2019 attributable to sleepiness or fatigue impairments.

Figure 5.4 – All Asleep/Fatigue Crashes by Severity, 2015 – 2019

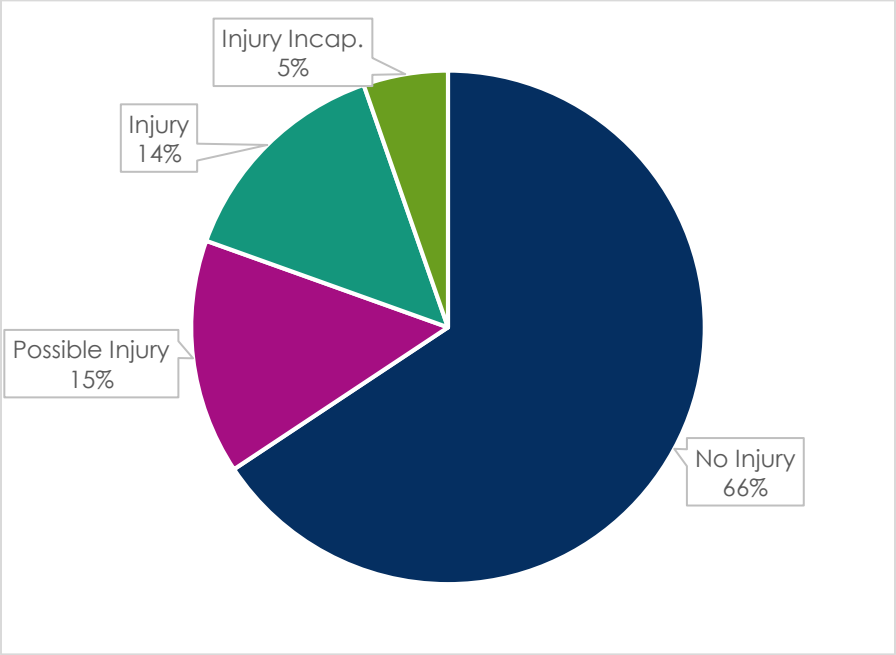


Table 5C – All Asleep/Fatigue Crashes by Severity

Year	No Injury	Poss. Injury	Injury Non-Incap.	Injury Incap.	Fatal	Total
2015	25	9	4	0	0	**38**
2016	21	2	9	2	0	**34**
2017	21	6	6	1	0	**34**
2018	23	6	3	5	0	**37**
2019	21	2	2	1	0	**26**
Total	**111**	**25**	**24**	**9**	**0**	**169**

Figure 5.5 and **Table 5D** present the sex of all drivers with observed sleepiness or fatigue impairments. Men made up a larger portion of these drivers (65%) than women (30%). 5% of reports had insufficient information about the sex of the driver.

Figure 5.5 – Sex of Driver Observed Asleep/Fatigued, 2015 – 2019

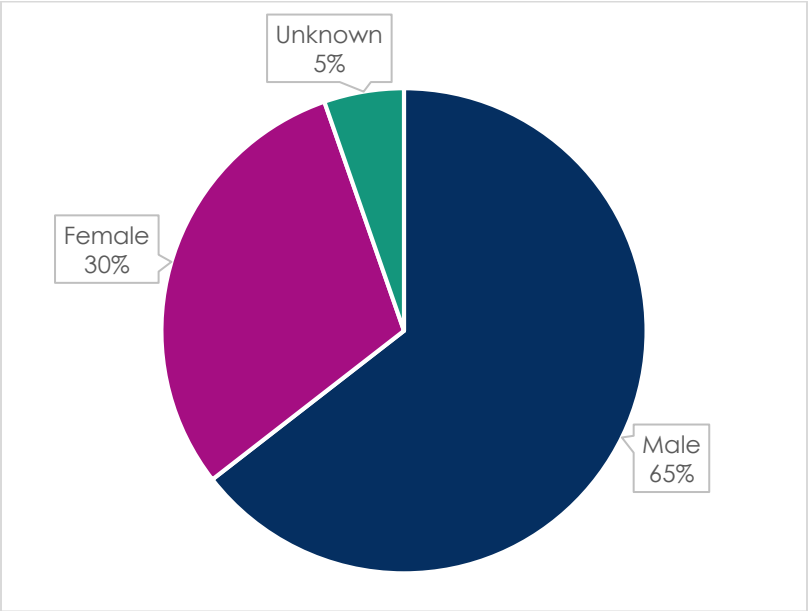


Table 5D – Sex of Driver Observed Asleep/Fatigued

Year	Male	Female	Unknown	Total
2015	25	12	1	**38**
2016	26	6	2	**34**
2017	16	17	1	**34**
2018	24	11	2	**37**
2019	18	5	3	**26**
Total	**109**	**51**	**9**	**169**

Figure 5.6 and **Table 5E** present the age of all driver observed asleep or fatigued. Persons aged 20 to 29 made up a large majority of these crashes at 36%.

Figure 5.6 – Age of Driver Observed Asleep/Fatigued, 2015 – 2019

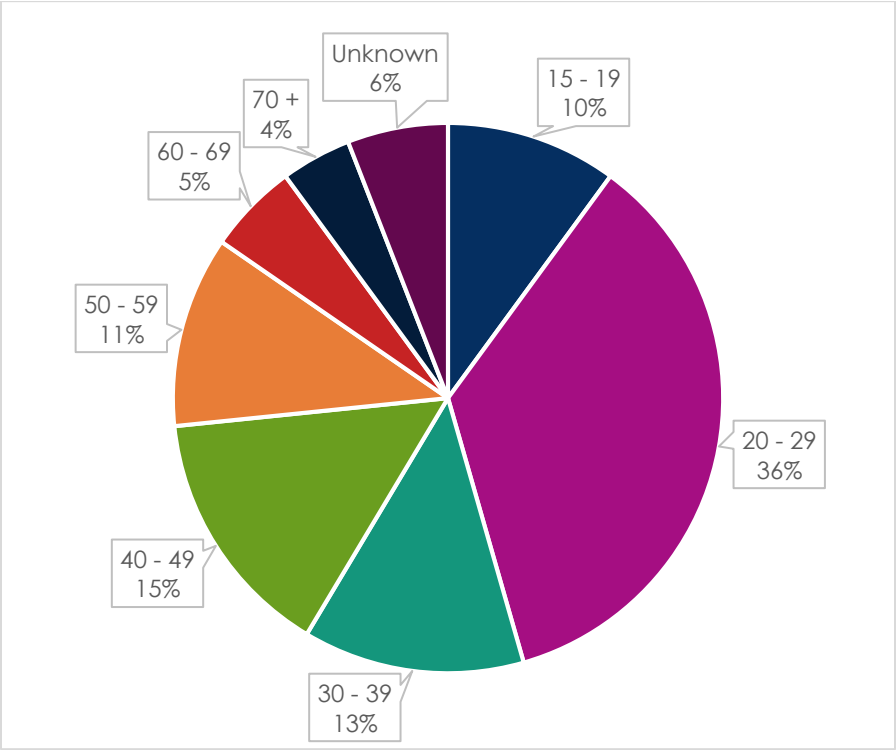


Table 5E – Age of Driver Observed Asleep/Fatigued

Age Range	2015	2016	2017	2018	2019	Total
15 – 19	3	4	7	3	0	**17**
20 – 29	13	16	11	13	7	**60**
30 – 39	8	4	3	5	2	**22**
40 – 49	5	3	5	7	5	**25**
50 – 59	4	3	5	5	2	**19**
60 – 69	3	2	0	0	4	**9**
70 +	1	0	2	2	2	**7**
Unknown	1	2	1	2	4	**10**
Total	**38**	**34**	**34**	**37**	**26**	**169**

MEDICAL / ILLNESS IMPAIRMENT DETAILS

The last type of impairment tracked by the City involves impairments related to illnesses and medical conditions. **Figure 5.7** and **Table 5F** show all of these crashes by severity. Approximately two-thirds of these crash types were non-severe (66%) while the remaining third (34%) resulted in some level of injury. Between 2015 and 2019, three fatality crashes were linked to medical and illness-related impairments.

Figure 5.7 – All Illness/Medical Crashes by Severity, 2015 – 2019

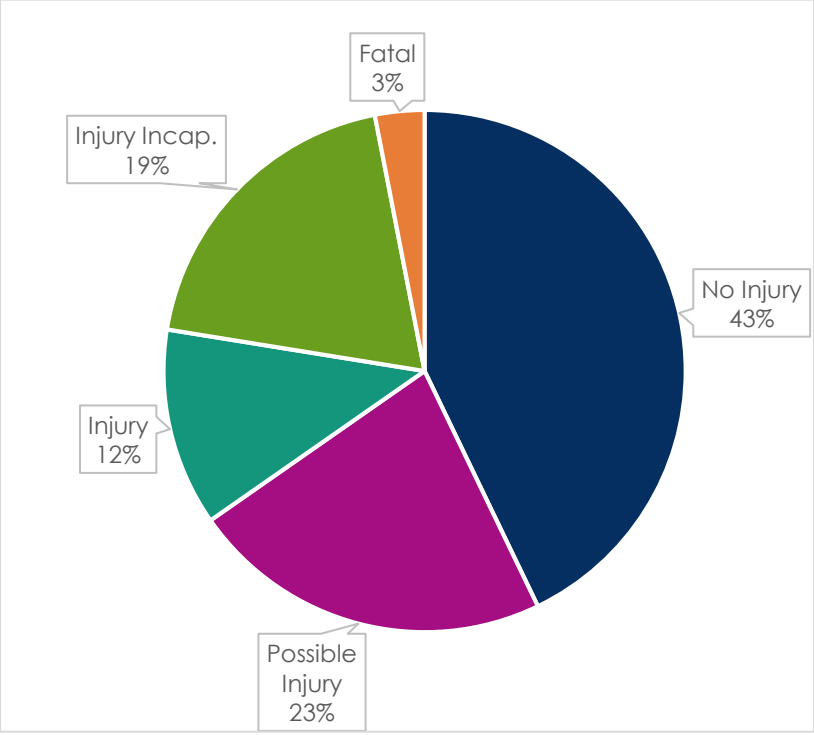


Table 5F – All Illness/Medical Crashes by Severity

Year	No Injury	Poss. Injury	Injury Non-Incap.	Injury Incap.	Fatal	Total
2015	4	4	5	6	0	**19**
2016	12	4	4	7	0	**27**
2017	12	2	1	1	2	**18**
2018	6	6	0	1	0	**13**
2019	8	6	2	4	1	**21**
Total	**42**	**22**	**12**	**19**	**3**	**98**

Figure 5.8 and **Table 5G** present all drivers with observed medical or illness related impairments by sex. Unlike the other impairments represented in this report, the sex ratio between drivers with observed medical impairments is relatively equal. Men are still slightly ahead of women at 53% and 47% respectively.

Figure 5.8 – Sex of Driver Observed with Illness/Medical Impairment, 2015 – 2019

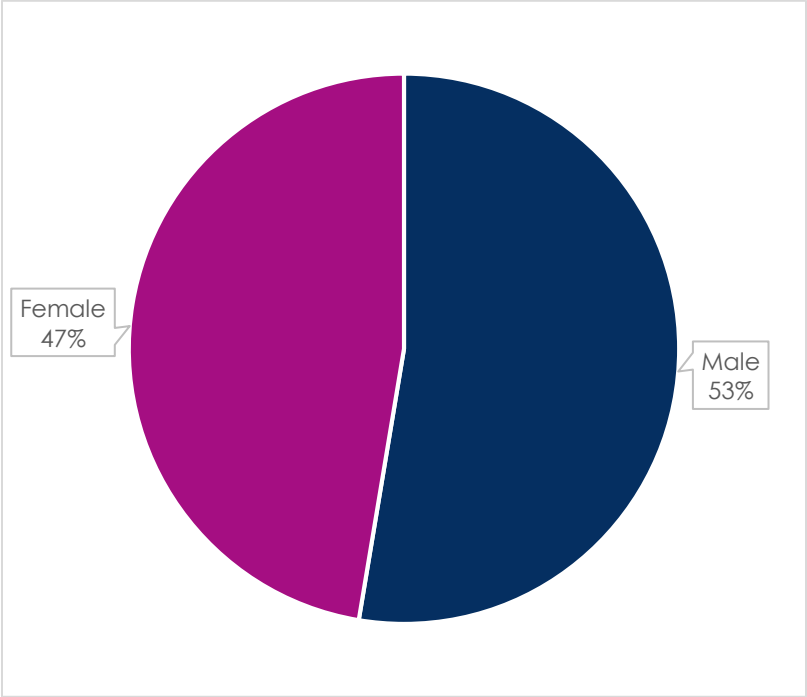


Table 5G – Sex of Driver Observed with Illness/Medical Impairment

Year	Male	Female	Unknown	Total
2015	11	8	0	**19**
2016	17	9	0	**26**
2017	10	7	0	**17**
2018	5	8	0	**13**
2019	7	13	0	**20**
Total	**50**	**45**	**0**	**95**

Figure 5.9 and **Table 5H** present all drivers with observed medical or illness related impairments by age group. The age group most represented in this category was 50 to 59 year-olds (21%). Drivers in their 80's made up a notable percentage of these crashes (12%) compared to other types of impairment.

Figure 5.9 – Age of Driver with Observed Illness/Medical Impairment, 2015 – 2019

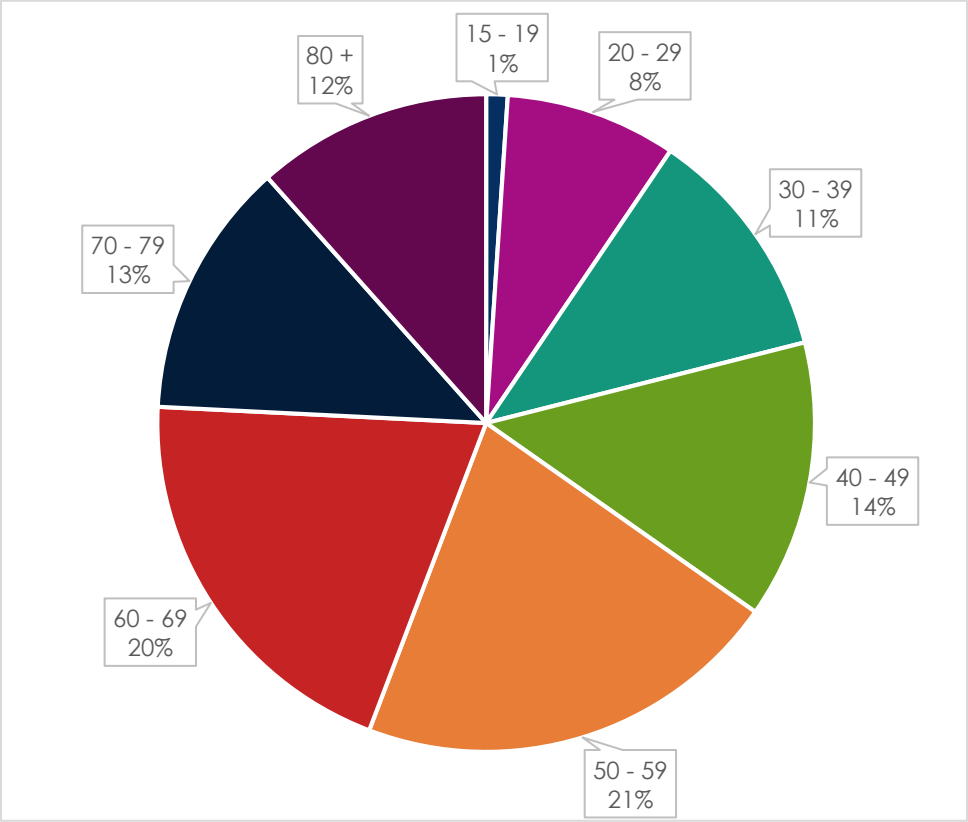


Table 5H – Age of Driver Observed with Illness/Medical Impairment, Numerical

Age Range	2015	2016	2017	2018	2019	Total
15 – 19	0	0	1	0	0	**1**
20 – 29	1	1	1	3	2	**8**
30 – 39	2	6	0	0	3	**11**
40 – 49	3	4	3	0	3	**13**
50 – 59	7	1	5	2	5	**20**
60 – 69	3	4	4	4	4	**19**
70 – 79	1	6	1	2	2	**12**
80 +	2	4	2	2	1	**11**
Unknown	0	0	0	0	0	**0**
Total	**19**	**26**	**17**	**13**	**20**	**95**

SECTION 6 – VULNERABLE ROAD USERS

Certain road users – such as pedestrians, bicyclists, and motorcyclists – are more vulnerable than drivers in vehicles. Although these vulnerable road users are involved in a small percentage of crashes as a whole (Figure 6.4), they make up 18% of non-incapacitating injuries, 31% of incapacitating injuries, and over half of fatalities (51%). Figures 6.0, 6.1, and 6.2 show all bicycle, pedestrian, and motorcycle crashes since 1990 by total number and severity. Figure 6.4 shows overall trends in the crash rates for vulnerable road users.

Figure 6.0 – Bicycle Crashes, 1990 – 2019

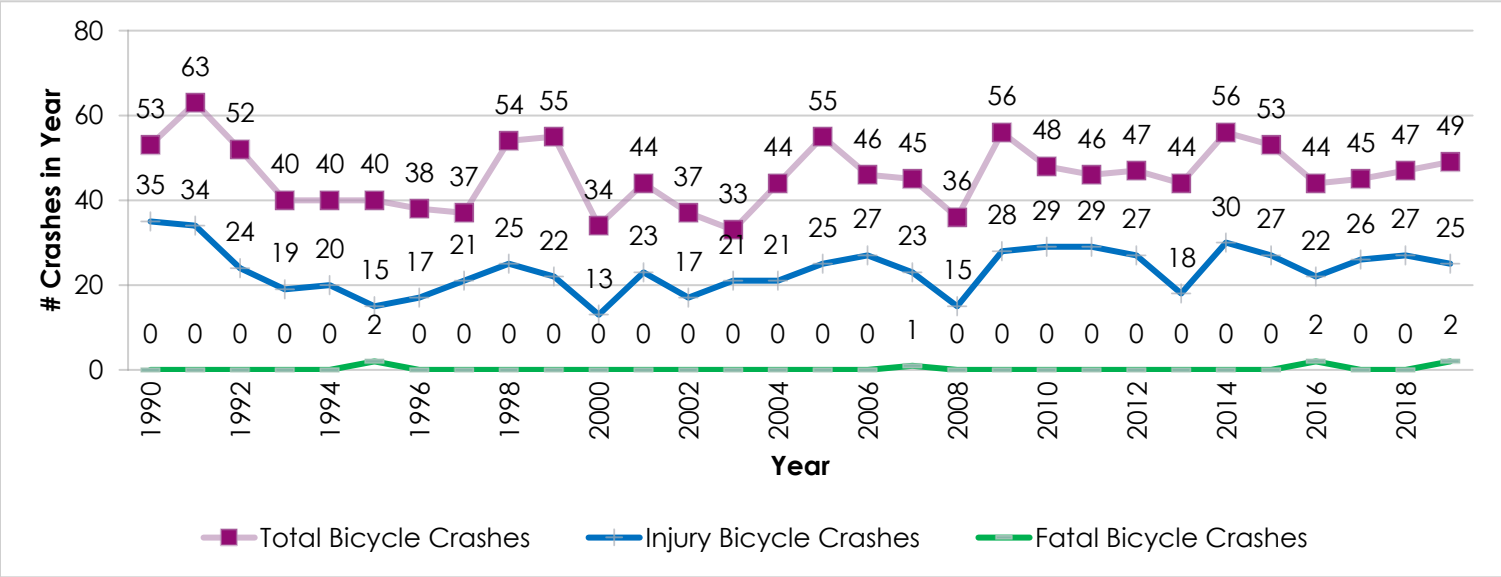


Figure 6.1 – Pedestrian Crashes, 1990 – 2019

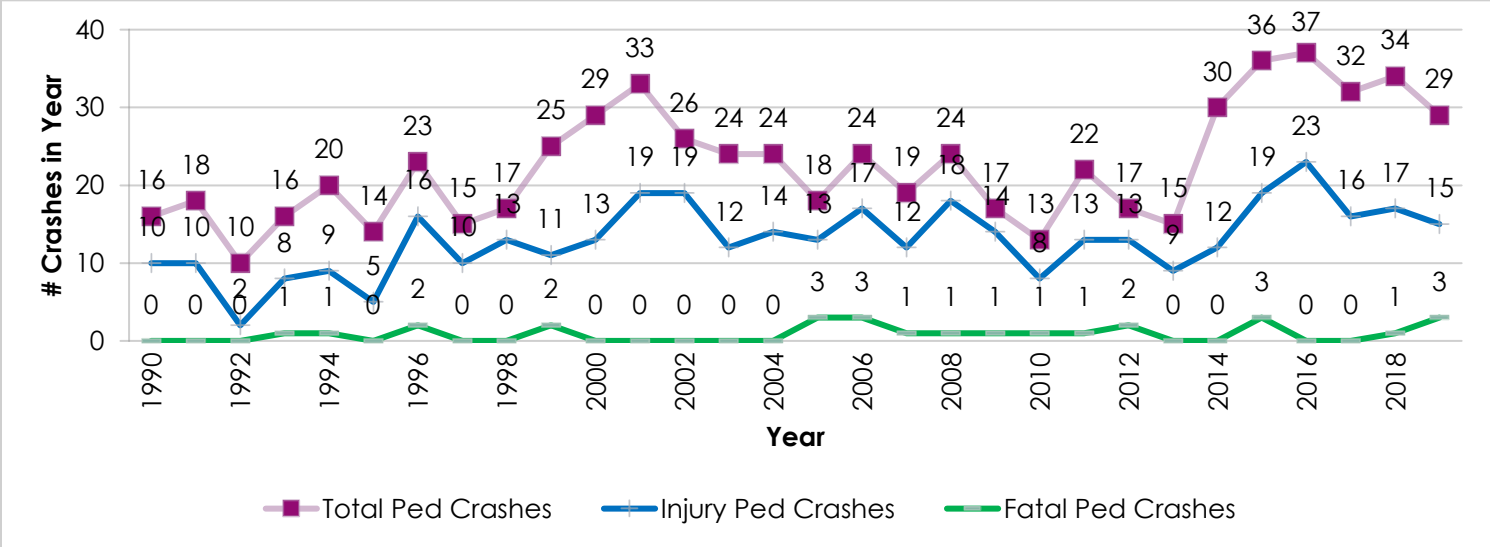


Figure 6.2 – Motorcycle Crashes, 1990 – 2019

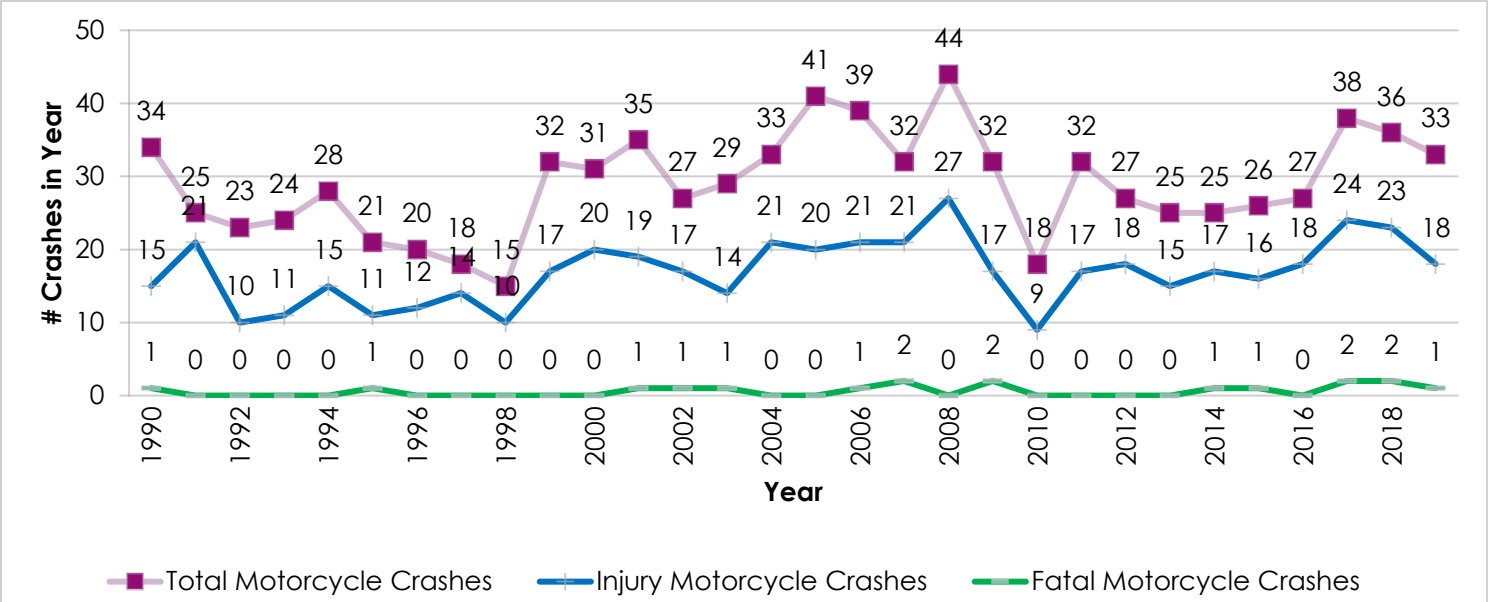


Figure 6.3 – Bicycle, Pedestrian, and Motorcycle Crash Rates, 1990 – 2019

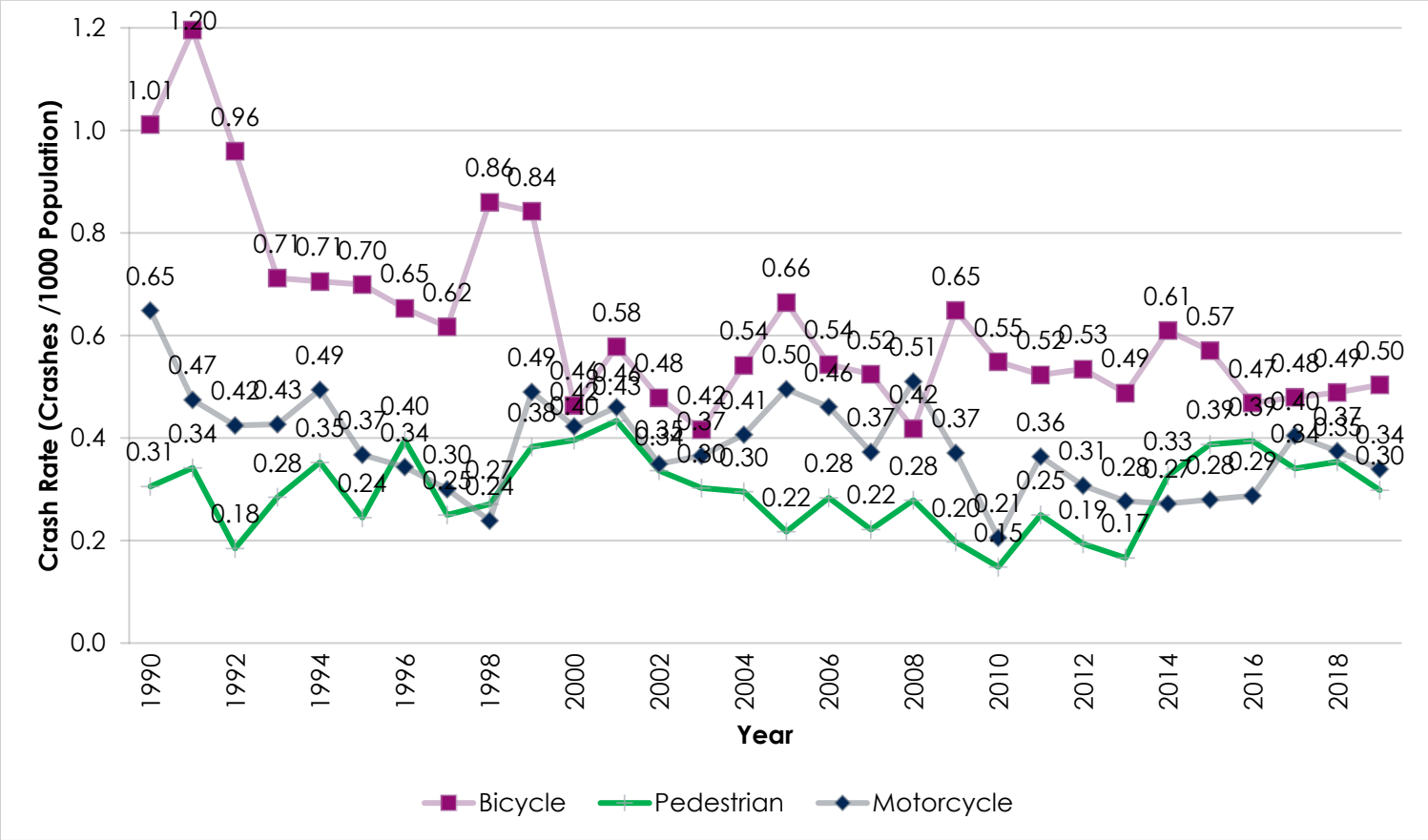


Table 6A – Vulnerable Road Users Involved in Crashes

Year	Bicycles	Pedestrians	Motorcycles	Total
2015	53	35	26	**114**
2016	47	37	27	**111**
2017	48	32	38	**118**
2018	47	33	36	**116**
2019	49	29	33	**111**
Total	**244**	**166**	**160**	**570**

Figure 6.4 – Vulnerable Road Users as a Percentage of All Road Users, 2015 – 2019

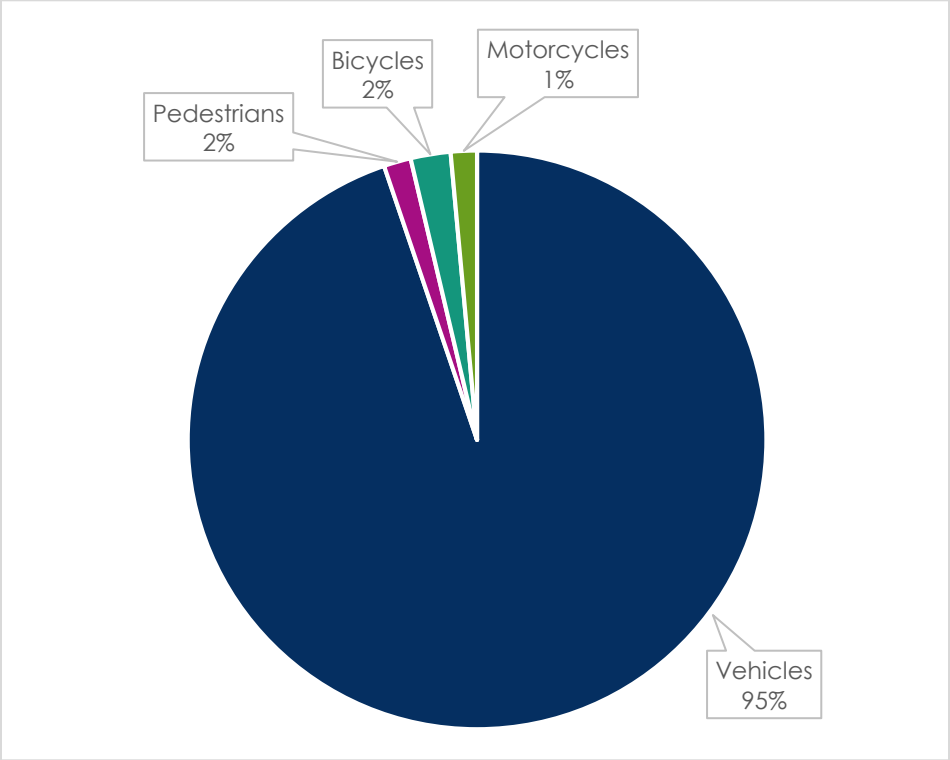


Figure 6.5 – Vulnerable Road Users as a Percentage of all Non-Incapacitating Injuries, 2015 – 2019

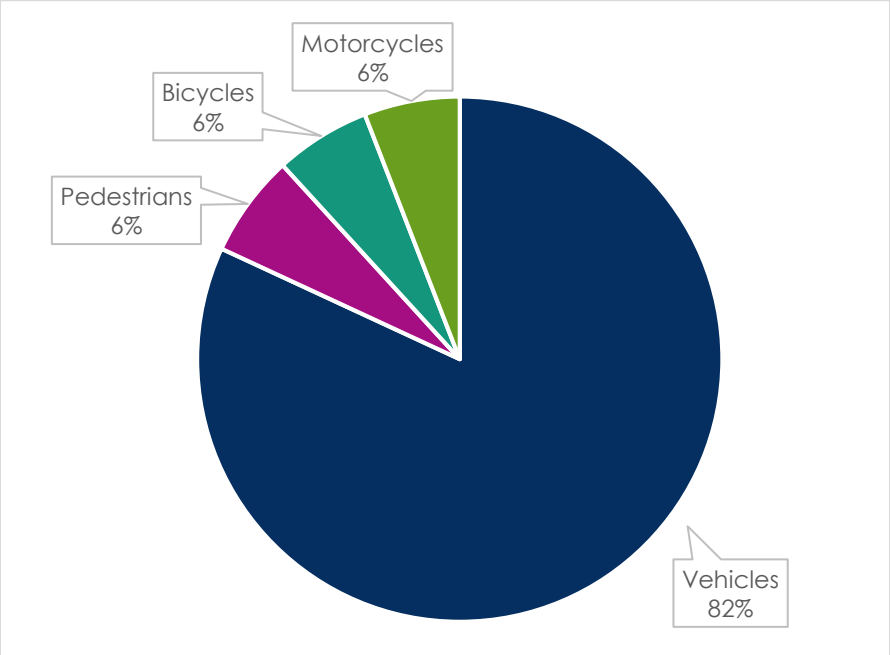


Figure 6.6 – Vulnerable Road Users as a Percentage of all Incapacitating Injuries, 2015 – 2019

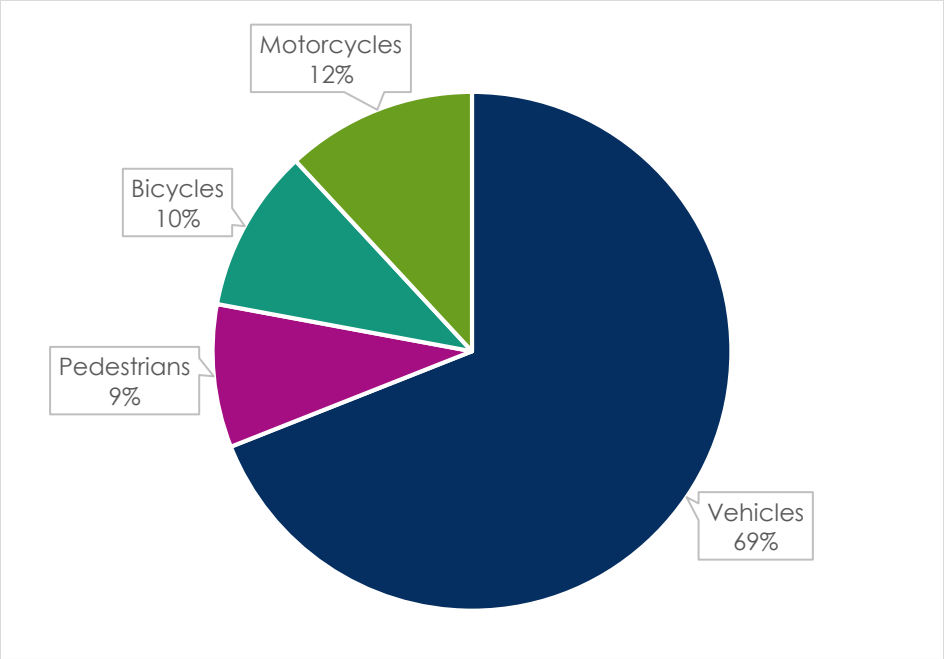
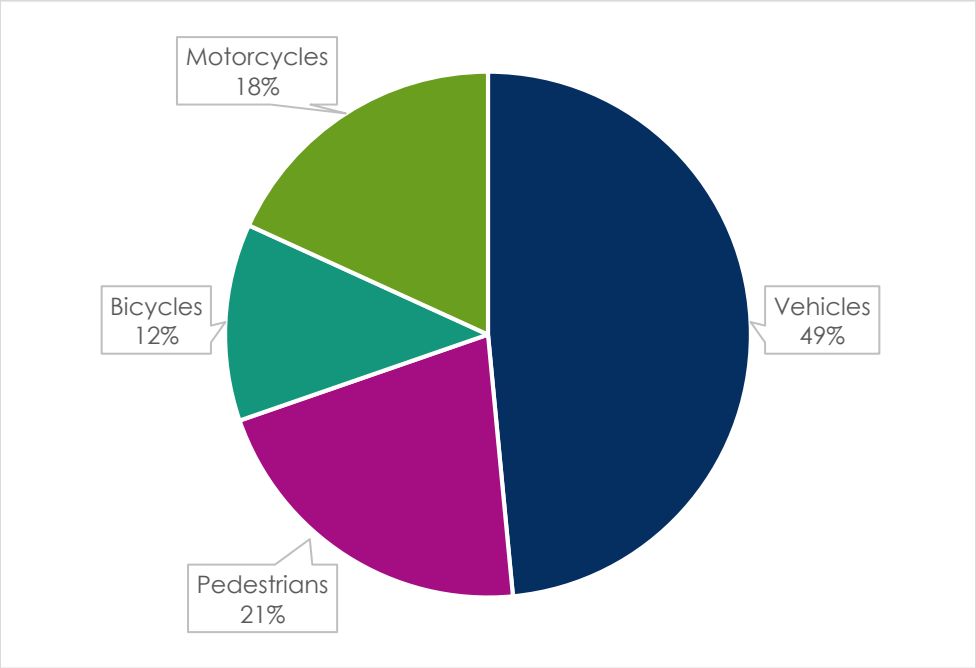


Figure 6.7 – Vulnerable Road Users as a Percentage of all Fatalities, 2015 – 2019



Figures 6.8 and **6.9** breakdown vulnerable road users by age. The young are more likely to be the vulnerable party in a crash, with the 20 to 29 demographic being the most represented followed by the 10 to 19 age group. Persons aged 50 to 59 make up the third largest category of vulnerable road users. Bicyclists aged 10 to 19 are the most represented group among vulnerable road users.

Figures 6.10 and **6.11** show the breakdown of vulnerable road users by sex. Men are significantly more likely to be involved in a crash as a vulnerable road user, especially as bicyclists or motorcyclists. The sex representation among pedestrians is more equal.

Figure 6.8 – All Vulnerable Road Users by Age, 2015 – 2019

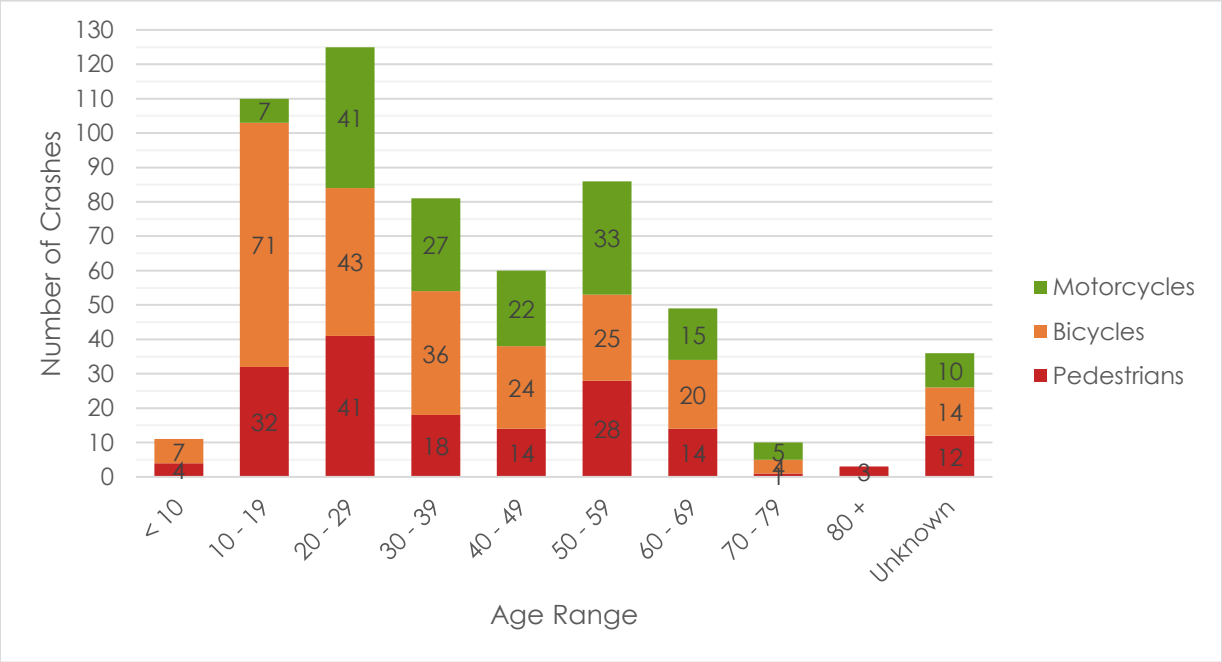


Figure 6.9 – Vulnerable Road Users Involved in Injury or Worse Crashes by Age, 2015 – 2019

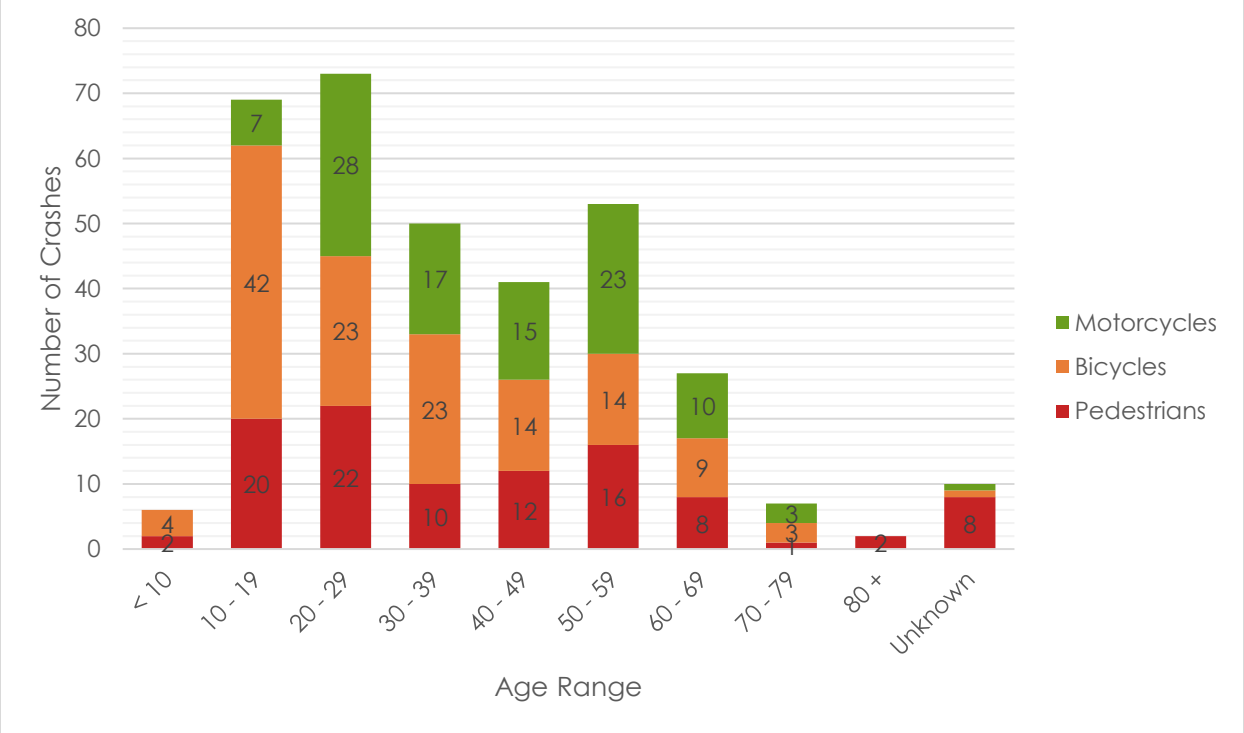


Figure 6.10 – All Vulnerable Road Users by Gender, 2015 – 2019

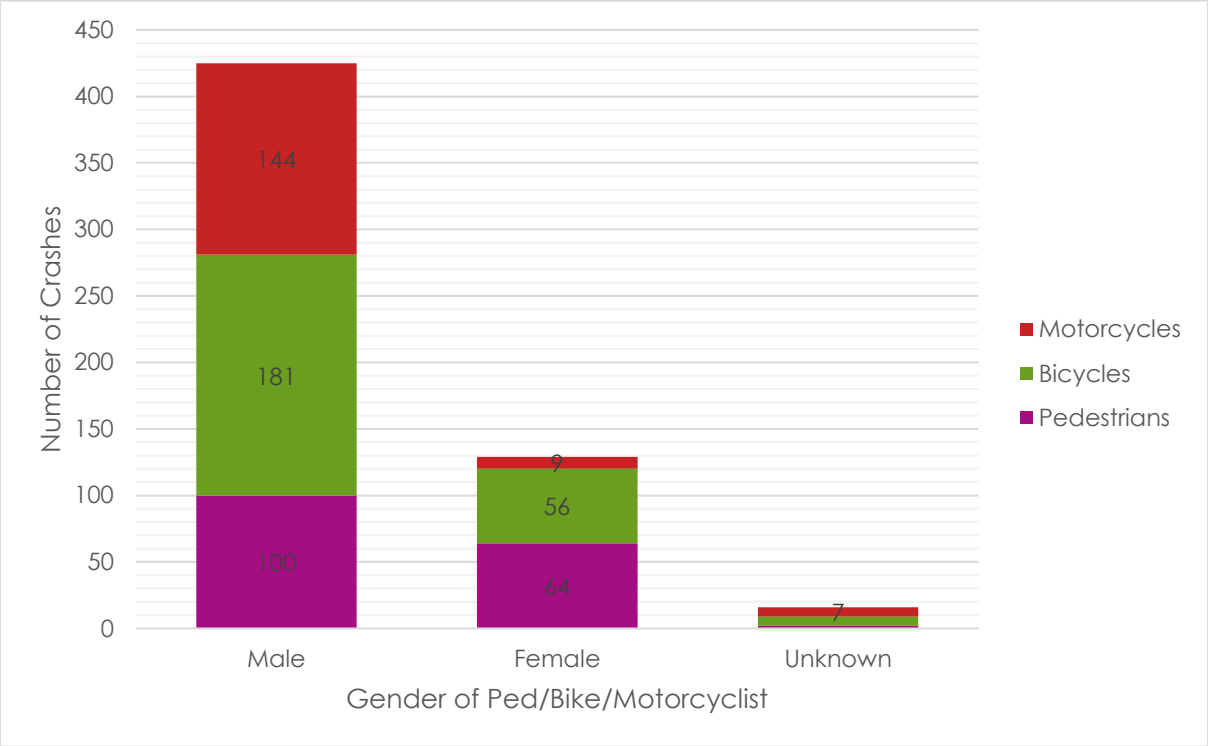
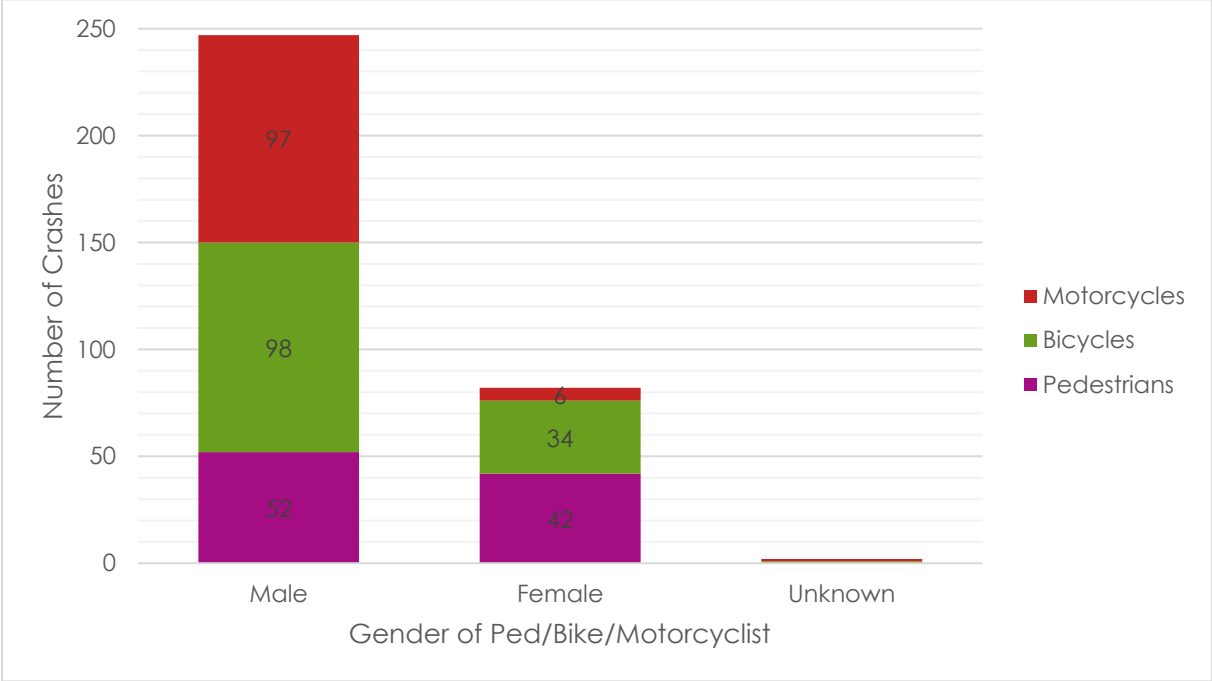


Figure 6.11 – Vulnerable Road Users Involved in Injury or Worse Crashes by Gender, 2015 – 2019



SECTION 7 – COMPARISON WITH OTHER CITIES

Colorado Cities								
City	**Population**	**Fatal Crashes**					**Avg. last 5 years**	**Fatal Crash Rate** (crashes per 100,000 population)
		2015	**2016**	**2017**	**2018**	**2019**		
Lakewood	157,935	15	13	8	17	19	14.4	9.1
Pueblo	111,750	4	5	16	6	12	8.6	7.7
Westminster	113,476	6	7	11	10	5	7.8	6.9
Greeley	108,649	5	7	11	9	4	7.2	6.6
Longmont	97,261	5	2	6	6	12	6.2	6.4
Loveland	77,466	4	6	3	4	2	3.8	4.9
Arvada	121,272	6	10	4	5	3	5.6	4.6
Boulder	105,673	1	6	0	2	2	2.2	2.1
Total CO Cities	893,482	46	56	59	59	59	55.8	6.2

SECTION 8 – OTHER CATEGORIES

Figure 8.0 – Snowy / Icy Crashes, 1990 – 2019

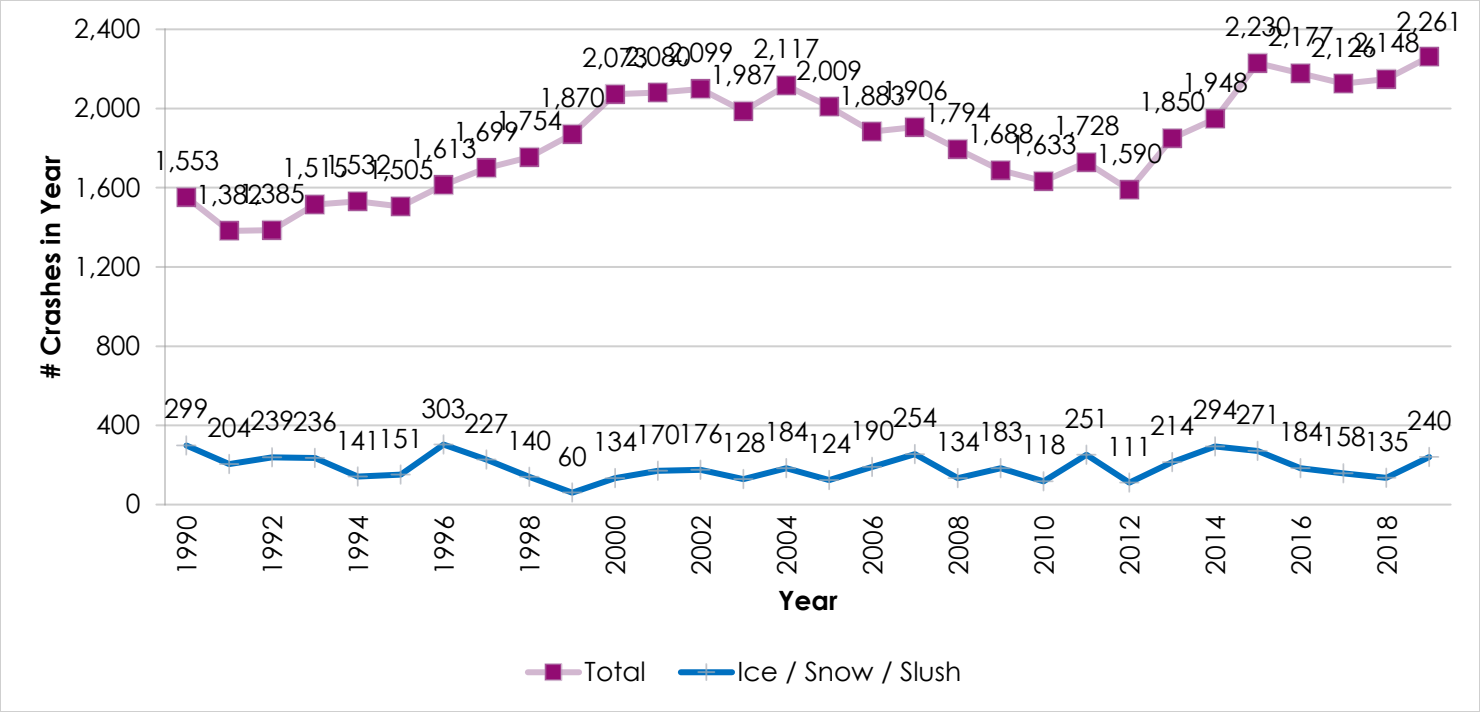


Figure 8.1 – Total Crashes Involving Young and Old Drivers, 1990 – 2019

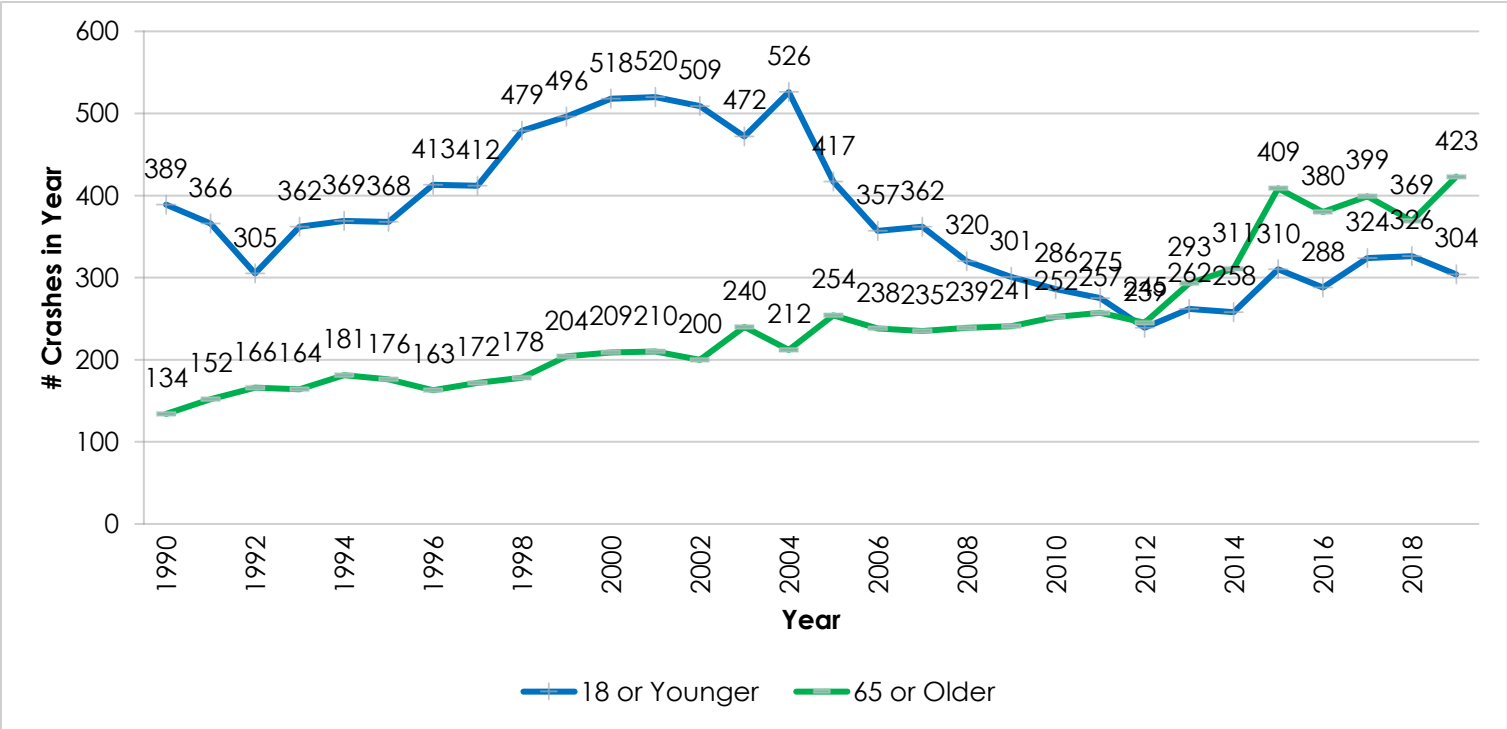


Figure 8.2 – Crashes with Young and Old Drivers at Fault, 1990 – 2019

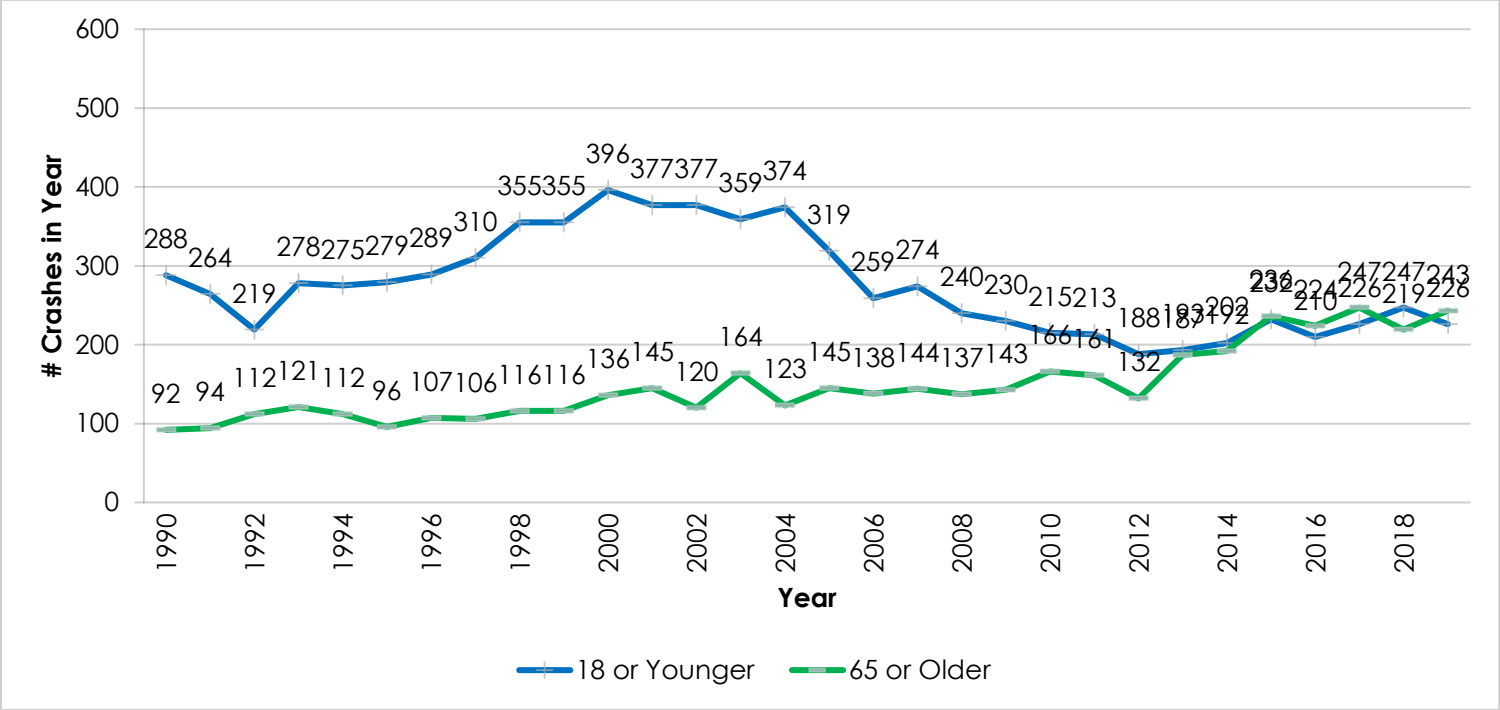
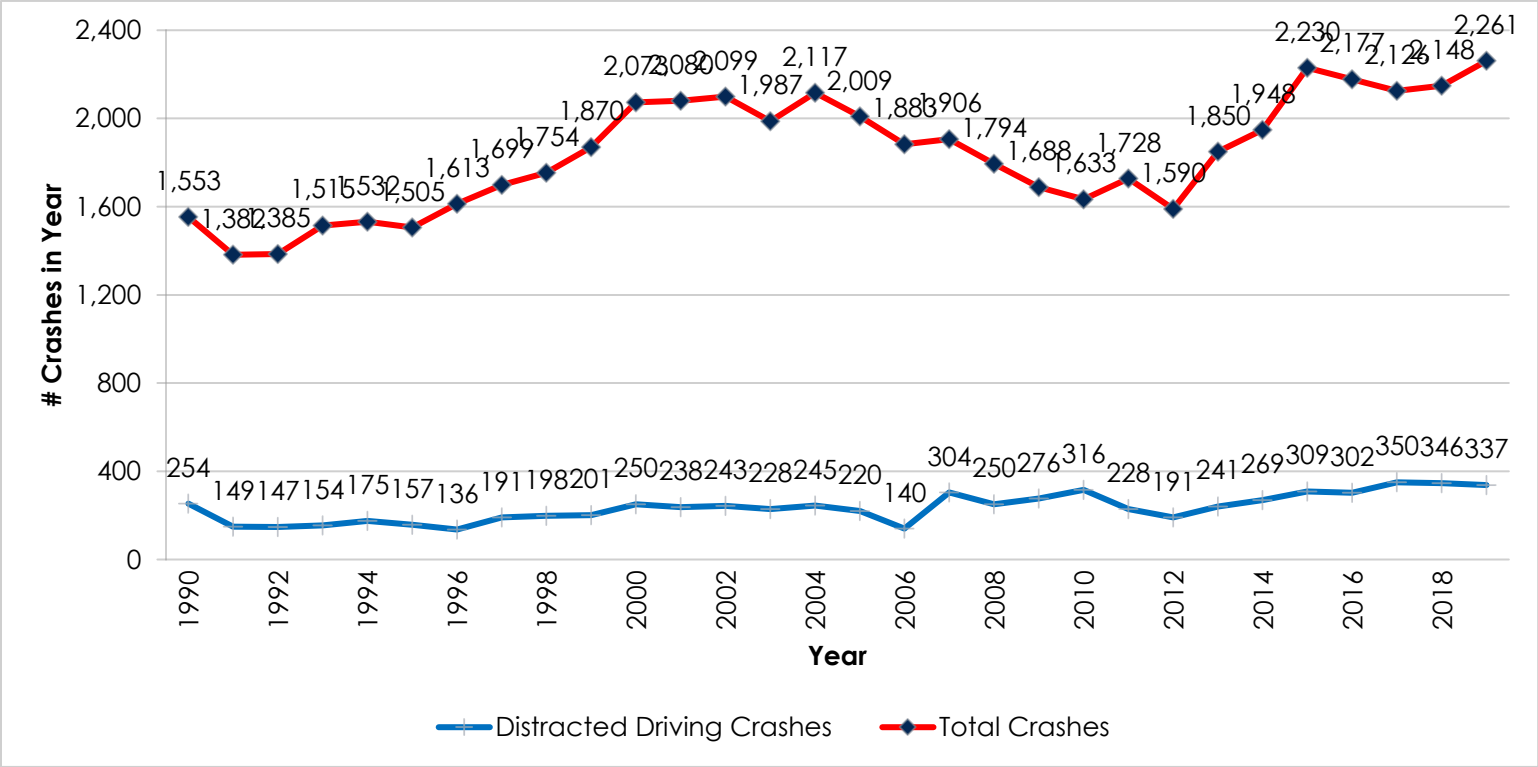


Figure 8.3 – Distracted Driver Crashes, 1990 – 2019



SECTION 9 – HIGH CRASH LOCATIONS

This review of crash data helps identify locations with a relatively high number of crashes. These locations can then be further evaluated and targeted for improvements.

The following methodology is used to identify high crash locations:

- Compile all reported crashes on public streets during the years 2015-2019,
- Separate intersection related crashes from non-intersection crashes,
- Stratify into Classes based on signalization and volumes (Intersection Crashes), or average daily traffic volumes (ADT) and Facility Type (Non-Intersection Crashes),
- Calculate *Composite Crash Index* based on Crash Frequency (# crashes), Crash Rate (crashes per volume/vehicle miles of travel), and Weighted Crash Rate (Crash Rate weighted by crash severity)

High crash locations have a Composite Crash Index greater than 1.0, which means that intersection or street section has a significantly higher crash index than average for their respective class. All indexes (Composite Crash, Crash Frequency, Crash Rate, and Weighted Crash Rate) greater than 1.0 are shown in bold.

INTERSECTION CRASHES

Intersection crashes are directly related to an intersection, regardless of where the crash occurs. For example, if a rear end crash occurs 500 feet from a signalized intersection between two cars at the back of the queue, that crash would be considered an intersection crash. Similarly, a sideswipe crash that occurs at an intersection might not be considered an intersection crash. When intersection traffic control, intersection geometry, or intersecting traffic movements contributed to the crash, then the crash is identified as an intersection crash.

Tables 9.0, 9.1, 9.2, and 9.3 list high crash intersections with a Composite Crash Index greater than 1.0, based on 2015-2019 crash data. Notably, no intersections in Class 4 intersections (unsignalized with an ADT of less than 3,000 veh/day) ranked high enough to be considered a high crash location, thus there is no table representing that class.

NON-INTERSECTION CRASHES

Non-intersection crashes are unrelated to intersections regardless of where the crash occurs. For example, a sideswipe crash might be non-intersection related even though it occurs in the vicinity of an intersection as long as the intersection did not play a role in the crash.

Tables 9.4, 9.5, and 9.6 list high crash (non-intersection) street sections with a Composite Crash Index greater than 1.0, based on 2015-2019 crash data.

Main Street continues to have a high number of non-intersection crashes, comprising the majority of high crash locations for high volume Arterial roadways (Class 5).

TABLE 9.0											
Intersection & Volume		**Crashes by Severity**						**Crash Indexes**			
Intersection	Entering Daily Volume (veh/day in 000s)	Total (All)	Property Damage Only	Possible Injury	Evident Non-Incap Injury	Incap Injury	Fatal	Crash Frequency Index	Crash Rate Index	Weighted Crash Rate Index	Composite Crash Index
Class 1A – Signalized, Average Daily Traffic 25,000+ veh / day											
Hwy 119 & Main St	70.6	290	203	71	12	4	0	8.67	1.92	1.72	**3.19**
Hover St & Hwy 119	59.0	199	140	41	9	9	0	5.95	1.55	1.49	**2.41**
Hover St & Nelson Rd	54.2	180	122	43	12	3	0	5.38	1.51	1.45	**2.26**
Hwy 66 & Main St	56.5	172	112	39	15	5	**1**	5.14	1.40	1.47	**2.18**
17th Av & Main St	49.4	168	119	40	7	2	0	5.03	1.53	1.37	**2.17**
Hwy 119 & Pratt Pkwy	46.9	153	103	37	9	4	0	4.58	1.46	1.43	**2.07**
Clover Basin Dr & Hover St	40.9	123	76	31	9	7	0	3.68	1.33	1.48	**1.86**
Emery St & Hwy 119	42.5	112	73	25	8	5	**1**	3.35	1.17	1.28	**1.65**
Hwy 119 & Martin St	42.3	110	69	25	10	5	**1**	3.29	1.15	1.32	**1.65**
County Line Rd & Hwy 119	40.0	108	70	25	6	7	0	3.23	1.19	1.29	**1.64**
Bowen St & Hwy 119	40.8	101	66	25	7	3	0	3.02	1.09	1.11	**1.49**
9th Av & Main St	45.8	101	70	19	5	6	**1**	3.02	0.99	1.05	**1.42**
Airport Rd & Nelson Rd	29.6	76	46	18	9	3	0	2.27	1.09	1.25	**1.39**
9th Av & Hover St	46.5	95	56	30	4	5	0	2.84	0.92	1.01	**1.34**
17th Av & Hover St	44.9	91	60	18	8	5	0	2.72	0.90	0.98	**1.30**
Bent Way & Hover St	40.2	78	44	19	8	7	0	2.33	0.85	1.09	**1.24**
3rd Av & Main St	39.0	82	58	18	2	4	0	2.45	0.92	0.88	**1.21**
Main St & Park Ridge Av	31.0	56	27	11	8	10	0	1.68	0.77	1.23	**1.14**
23rd Av & Main St	31.3	59	33	13	8	5	0	1.76	0.80	1.06	**1.10**
Main St & Mountain View Av	38.2	66	36	17	6	7	0	1.97	0.76	1.00	**1.10**
3rd Av & Hwy 119	41.7	72	45	16	6	5	0	2.15	0.76	0.88	**1.09**

TABLE 9.1											
Intersection & Volume		**Crashes by Severity**						**Crash Indexes**			
Intersection	Entering Daily Volume (veh/day in 000s)	Total (All)	Property Damage Only	Possible Injury	Evident Non-Incap Injury	Incap Injury	Fatal	Crash Frequency Index	Crash Rate Index	Weighted Crash Rate Index	Composite Crash Index
Class 1B – Signalized, Average Daily Traffic <25,000 veh / day											
9th Av & Francis St	17.7	57	36	13	5	3	0	1.70	1.81	2.07	**1.89**
Francis St & Mountain View Av	16.4	35	20	7	6	2	0	1.05	1.18	1.56	**1.30**
3rd Av & Pace St	20.4	38	24	7	1	5	**1**	1.14	1.07	1.47	**1.25**
9th Av & Pace St	23.5	47	31	12	3	1	0	1.41	1.18	1.19	**1.23**
Airport Rd & Clover Basin Dr	22.0	36	20	4	4	8	0	1.08	0.96	1.54	**1.21**
2nd Av & Terry St/Pratt Pkwy	13.5	30	18	10	0	2	0	0.90	1.18	1.33	**1.18**
9th Av & County Line Rd	17.7	37	32	4	0	1	0	1.11	1.17	0.87	**1.04**
9th Av & Kimbark St	18.6	26	10	8	3	5	0	0.78	0.79	1.38	**1.02**

TABLE 9.2											
Intersection & Volume		**Crashes by Severity**						**Crash Indexes**			
Intersection	Entering Daily Volume (veh/day in 000s)	Total (All)	Property Damage Only	Possible Injury	Evident Non-Incap Injury	Incap Injury	Fatal	Crash Frequency Index	Crash Rate Index	Weighted Crash Rate Index	Composite Crash Index
Class 2 – Unsignalized, Average Daily Traffic 12,000+ veh / day											
Grand Av & Main St	32.0	64	42	11	6	5	0	1.91	2.98	3.46	**2.96**
Clover Basin Dr & Fordham St	15.0	30	18	3	8	1	0	0.90	2.45	3.35	**2.50**
3rd Av & Sunset St	12.0	24	17	2	3	2	0	0.72	2.29	2.79	**2.18**
21st Av & Terry St	12.0	27	22	3	1	1	0	0.81	2.58	2.30	**2.11**
Jersey Av/Emery St & Main St	30.0	31	15	12	2	2	0	0.93	1.52	1.95	**1.57**
Hover St & Lykins Gulch Rd	40.9	36	22	5	4	5	0	1.08	1.39	1.85	**1.51**
17th Av & County Line Rd	16.7	24	19	4	0	1	0	0.72	1.82	1.58	**1.50**
17th Av & Airport Rd	15.0	20	14	4	1	1	0	0.60	1.63	1.72	**1.46**
3rd Av & Alpine St	17.0	14	7	1	2	3	**1**	0.42	1.05	2.18	**1.37**
9th Av & Martin St	17.6	18	10	5	2	1	0	0.54	1.31	1.68	**1.30**
Hwy 119 & Sherman St	33.0	31	21	8	1	1	0	0.93	1.41	1.37	**1.30**
Clover Basin Dr & Dry Creek Dr	16.0	18	11	6	1	0	0	0.54	1.40	1.46	**1.25**
9th Av & Gay St	14.0	10	2	4	1	3	0	0.30	0.86	1.91	**1.17**
18th/Wedgewood Av & Hover St	32.7	25	19	2	2	2	0	0.75	1.15	1.19	**1.08**
Delaware Av & Pratt Pkwy	13.0	13	9	3	1	0	0	0.39	1.17	1.16	**1.01**
Boston Av & Pratt Pkwy	13.0	11	5	4	2	0	0	0.33	0.99	1.36	**1.01**

TABLE 9.3											
Intersection & Volume		**Crashes by Severity**						**Crash Indexes**			
Intersection	Entering Daily Volume (veh/day in 000s)	Total (All)	Property Damage Only	Possible Injury	Evident Non-Incap Injury	Incap Injury	Fatal	Crash Frequency Index	Crash Rate Index	Weighted Crash Rate Index	Composite Crash Index
Class 3 – Unsignalized, Average Daily Traffic 3,000 – 11,999 veh / day											
Alpine St & Mountain View Av	9.2	32	22	1	6	3	0	0.96	2.71	3.79	**2.79**
15th Av & Collyer St	4.9	18	11	5	1	1	0	0.54	2.34	3.01	**2.25**
Collyer St & Mountain View Av	9.5	30	23	5	1	1	0	0.90	2.48	2.43	**2.15**
5th Av & Kimbark St	4.5	12	6	5	1	0	0	0.36	1.65	2.19	**1.61**
2nd Av & Pratt St	8.0	19	12	7	0	0	0	0.57	1.77	1.83	**1.55**
19th Av & Terry St	6.5	15	11	3	0	1	0	0.45	1.61	1.75	**1.43**
Collyer St & Longs Peak Av	3.9	13	12	1	0	0	0	0.39	1.95	1.40	**1.42**
Gay St & Mountain View Av	9.7	14	8	1	2	3	0	0.42	1.14	2.01	**1.34**
19th Av & Gay St	3.6	9	6	2	1	0	0	0.27	1.42	1.67	**1.29**
Kimbark St & Longs Peak Av	4.9	9	6	1	1	1	0	0.27	1.17	1.67	**1.19**
21st Av & Collyer St	8.0	13	8	4	0	1	0	0.39	1.21	1.50	**1.16**
Gay St & Longs Peak Av	4.2	8	4	3	1	0	0	0.24	1.15	1.59	**1.14**
3rd Av & Bowen St	9.0	16	13	2	1	0	0	0.48	1.38	1.22	**1.13**
15th Av & Gay St	3.4	7	5	0	2	0	0	0.21	1.16	1.55	**1.13**
6th Av & Kimbark St	4.8	10	8	1	1	0	0	0.30	1.32	1.29	**1.10**
3rd Av & Gay St	9.5	14	9	3	2	0	0	0.42	1.16	1.36	**1.09**
Monarch Dr & Mountain View Av	4.3	4	0	1	0	3	0	0.12	0.57	2.09	**1.09**
2nd Av & Coffman St	9.0	17	16	1	0	0	0	0.51	1.47	0.97	**1.08**
Missouri Av & Pratt Pkwy	5.4	9	5	3	1	0	0	0.27	1.10	1.41	**1.05**
5th Av & Collyer St	3.0	5	2	2	0	1	0	0.15	0.89	1.67	**1.05**
12th Av & Francis St	9.5	11	5	2	4	0	0	0.33	0.91	1.51	**1.03**

TABLE 9.4												
Location & Volume			**Crashes by Severity**						**Crash Indexes**			
Street	Segment	Est. ADT (veh/day in 000s)	Total (All)	Property Damage Only	Possible Injury	Evident Non-Incap Injury	Incap Injury	Fatal	Crash Frequency Index	Crash Rate Index	Weighted Crash Rate Index	Composite Crash Index
Class 5 – Non-intersection, Average Daily Traffic 14,000+ veh / day or Major Arterial												
MAIN ST	**3RD – LONGS PEAK**	25.5	218	193	18	4	3	0	6.02	4.46	3.60	**4.43**
HWY 119	**BOWEN – MAIN**	41.0	128	82	31	9	6	0	3.53	2.98	3.75	**3.40**
MAIN ST	**1ST – 3RD**	25.3	66	57	7	2	0	0	1.82	2.28	1.90	**2.03**
MAIN ST	**LONGS PEAK – 9TH**	26.0	59	55	3	1	0	0	1.63	2.20	1.62	**1.85**
MAIN ST	**15TH – 17TH**	30.4	53	35	12	3	3	0	1.46	1.58	1.98	**1.71**
HWY 119	**NELSON – BOWEN**	39.0	67	50	15	0	2	0	1.85	1.26	1.25	**1.37**
HOVER ST	**NELSON – 3RD**	39.0	115	78	30	3	4	0	3.17	0.84	0.92	**1.34**
MAIN ST	**9TH – 15TH**	32.5	88	69	7	9	2	**1**	2.43	0.98	1.07	**1.31**
MAIN ST	**17TH – 19TH**	32.0	33	16	11	5	1	0	0.91	0.94	1.43	**1.13**
3RD AV	**MAIN – COLLYER**	16.5	24	21	0	2	1	0	0.66	1.23	1.24	**1.12**
MAIN ST	**MISSOURI/QUAIL – HWY 119**	31.3	55	35	13	4	3	0	1.52	0.90	1.14	**1.12**
MAIN ST	**HWY 119 – 1ST**	30.2	60	47	13	0	0	0	1.66	0.95	0.82	**1.04**
HOVER ST	**PIKE – HWY 119**	21.1	27	19	8	0	0	0	0.75	1.08	1.08	**1.01**

TABLE 9.5												
Location & Volume			**Crashes by Severity**						**Crash Indexes**			
Street	Segment	Est. ADT (veh/day in 000s)	Total (All)	Property Damage Only	Possible Injury	Evident Non-Incap Injury	Incap Injury	Fatal	Crash Frequency Index	Crash Rate Index	Weighted Crash Rate Index	Composite Crash Index
Class 6 – Non-intersection, Remaining Arterials & Collectors w/ Average Daily Traffic 3,000 – 11,999 veh / day												
BENT WAY	**DRY CREEK – HOVER**	6.3	17	13	3	0	0	**1**	0.47	2.23	2.77	**2.09**
COFFMAN ST	**3RD – 9TH**	8.8	55	44	8	1	2	0	1.52	2.04	1.82	**1.85**
3RD AV	**TERRY – MAIN**	12.4	16	11	2	0	3	0	0.44	1.44	2.06	**1.49**
TERRY ST	**2ND – LONGS PEAK**	8.0	29	20	6	0	3	0	0.80	1.30	1.52	**1.29**
LASHLEY ST	**3RD – 9TH**	10.0	35	26	5	2	2	0	0.97	1.20	1.25	**1.17**

TABLE 9.6												
Location & Volume			**Crashes by Severity**						**Crash Indexes**			
Street	Segment	Est. ADT (veh/day in 000s)	Total (All)	Property Damage Only	Possible Injury	Evident Non-Incap Injury	Incap Injury	Fatal	Crash Frequency Index	Crash Rate Index	Weighted Crash Rate Index	Composite Crash Index
Class 7 – Non-intersection, Collectors w/ Average Daily Traffic <6,000 veh / day												
KIMBARK ST	**3RD – 9TH**	4.1	31	26	2	1	1	**1**	0.86	1.38	1.69	1.40
COLLYER ST	**17TH – 23RD**	3.5	25	20	3	2	0	0	0.69	1.19	1.26	1.12
KIMBARK ST	**9TH – 11TH**	1.0	2	0	0	1	1	0	0.06	0.46	2.07	1.02
MARTIN ST	**3RD – 9TH**	3.1	18	12	5	1	0	0	0.50	1.01	1.23	1.00

SECTION 10 – COMPLETED AND PLANNED SAFETY PROJECTS

SAFETY PROJECTS COMPLETED IN 2018

- New Traffic Signal at the intersection of 9th Avenue & Deerwood Drive
    - After turning on the signal in December 2018, there were no recorded crashes at 9th Avenue and Deerwood Drive in 2019.

SAFETY PROJECTS COMPLETED IN 2019

- New traffic signal at the intersection of Airport Road & Pike Road
- Installation of Stop bars on 3rd Avenue at Gay St
- Sunset Street 4-lane to three lane conversion
- Mountain View Avenue – Enhanced Multi-Use Corridor, included pedestrian refuge island and Rectangular Rapid Flashing Beacons (RRFBs)

PLANNED SAFETY PROJECTS IN 2020

- New traffic signal at the intersection of Mountain View & Alpine
- New traffic signal at the intersection of Pike & South Coffman
- Re-construction of Pike Road & Main St intersection
- Main St & Grand Avenue access restrictions
- Main St & 17th Avenue access restrictions
- Various low cost safety measures identified in prior reports

PLANNED SAFETY PROJECTS IN 2021

- City staff applied for and received a grant through CDOT in the amount of $805,860 for various safety improvements at 17 signalized intersections. The grant requires a 10% (of the total project cost local match).
- 9th Avenue - Hover to Coffman multi-modal improvements. This project will add on street bike lanes and improve access for adjacent residents by providing a center left turn lane. The intersection of 9th & Francis will benefit from new dedicated left turn lanes for east and westbound traffic. Currently, westbound left turns are prohibited during certain hours of the day.
- Ken Pratt & Sunset – staff will continue design efforts to provide dedicated north and southbound left turn lanes and add bike lanes on Sunset St. through the intersection.

POTENTIAL SYSTEM WIDE SAFETY IMPROVEMENTS

There are relatively low cost improvements that can improve safety where a high number of various types of crashes occur. Following are some examples of improvements that staff will continue to evaluate and implement:

Signs & Markings:

- Oversized Stop Signs & Stop Bars – fail to stop right angle crashes
- Cross Traffic Does Not Stop Signs – fail to yield right angle crashes
- Oversized Speed Limit Signs – speeding related crashes, or where speed limit is reduced
- Turning Vehicles Yield to Pedestrian Signs – crashes involving turning vehicles and pedestrians or bicycles in crosswalks at signalized intersections
- Advance Intersection Signs – crashes at intersections along rural / higher speed roadways
- Double Sided School Crossing Signs – install signs back to back so that drivers see signs on left and right side of road when approaching a school crossing.

Traffic Signals:

- Leading Pedestrian Interval – crashes involving turning vehicles and pedestrians or bicycles in crosswalks at signalized intersections; pedestrian WALK signal begins about 3-4 seconds before the side street green light for traffic
- Left Turn Phases – fail to yield right angle crashes, usually with high left turn / opposing through volumes; implement protected - permissive left turn phases, change from protected – permissive to protected only left turn phases, or implement longer left turn green time
- Corridor signal timing – rear end or right angle crashes; evaluate offsets or other signal timing parameters to improve traffic progression and reduce sudden stops (rear end), or increase gaps along major corridors for side street traffic at unsignalized intersections between signals (right angle)

Fixed Object Crashes:

- Delineator signs on islands, poles, or signs – fixed object crashes involving raised islands, poles, or signs
- Restrict parking near intersection corners – fail to yield right angle crashes where driver visibility is limited by parked vehicles, or fixed object crashes where turning vehicles hit parked cars

SECTION 11 – 2019 FATAL CRASH DESCRIPTIONS & LOCATIONS

Mountain View & Harvard: At the intersection on 1/11/2019 a southbound vehicle stopped at the stop sign and then proceeded into the path of a westbound trash truck. According to the crash report, seatbelts were in use.

Hover St & Village at the Peaks Access: at the intersection on 1/18/2019 a vehicle was traveling northbound on Hover St at an estimated 76 MPH in a 40 MPH speed zone and crashed into a vehicle making a southbound left turn at the intersection. The crash report indicates drug impairment was suspected.

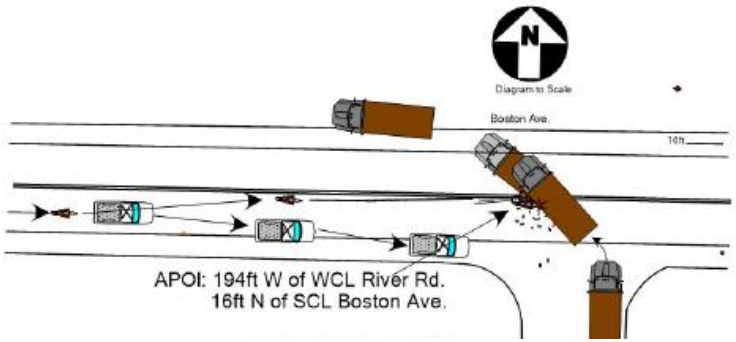
Jersey Avenue: 138 feet east of Terry St on 7/15/2019, a resident was attempting to start a vehicle on the back yard of a private residence. Vehicle had significant mechanical issues, including a disconnected throttle according to the police report. Vehicle was eventually push started and accelerated into ROW, where driver was ejected and pedestrian was hit by vehicle.

Hover St at Purdue Drive: At the intersection on 7/18/2019. According to the crash report the driver of vehicle 1 was stopped on southbound Hover, partially in the center multi-use lane and the inside lane north of Purdue Dr. Witnesses indicate the driver of vehicle 1 suddenly turned in front of vehicle 2, a large truck heading northbound on Hover. The crash occurred at approximately 3:24 PM.

9th Avenue & Main St: On 7/24/2019, a bicyclist was riding northbound on the sidewalk on the west side of Main St, approaching 9th Avenue. The signal was green for north/south traffic and the cyclist crossed the west leg of the intersection and proceeded to turn in front of southbound traffic.

Francis St: 192 feet south of 16th Avenue at approximately 1:53 AM on 8/17/2019, a driver was southbound on Francis Street and ran off the right side of the roadway, re-entered the roadway and crossed all lanes of travel before ultimately colliding with fence and concrete post. The crash report indicates that alcohol was suspected and the primary violation is noted as DUI.

Boston Ave & Access to Colorado Materials: On 8/22/2019, a motorcyclist was traveling eastbound on Boston Ave, approaching the access for Colorado materials. The motorcyclist was behind a pickup truck, which was slowing to enter the access. As the truck slowed, the motorcyclist moved to the left side of the travel lane at the same time a large truck was leaving the business.



South Main St: Approximately 111 feet south of Tenacity Drive on 9/6/2019, a pedestrian was walking southbound in the northbound travel lanes on Main St. At approximately 10:17 PM a northbound RTD bus crashed with the pedestrian.

Mountain View Avenue & Judson St: At the intersection on 9/11/2019, an eastbound driver failed to stop when approaching stopped traffic. According to the crash report, witness statements indicate that the brakes may have failed.

Kimbark Street & 11th Avenue: At the intersection on 9/28/2019. After stopping at a stop sign, a northbound driver failed to yield the right of way to a westbound vehicle that did not have a stop sign.

Ken Pratt Boulevard: 37 feet west of 119th St on 10/3/2019, a pedestrian was crossing Ken Pratt Boulevard from north to south and was struck by a westbound vehicle. Crash occurred at approximately 7:19 PM.

Main St: Approximately 167 feet south of 11th Avenue on 11/4/2019. Bicyclist was riding north on the sidewalk on the east side of Main St. The bicyclist left the sidewalk and entered the roadway, south of 11th Ave. Bicycle fell down and was hit by northbound vehicle. The primary violation noted on the crash report is DUI for the bicyclist. The crash occurred at approximately 5:12 PM.

TRANSPORTATION ADVISORY BOARD COMMUNICATION

Meeting Date: October 12, 2020

Subject: Traffic Safety

Type of Item: **Information** **Time for Presentation:** 20 Minutes

Presented By: Sergeant Eric Lewis

Suggested Action: No Action Required (For Information Only)

BACKGROUND

Traffic safety is made up of several key components. The most notable are: Engineering, Enforcement, and Education.

Sergeant Lewis will provide a perspective from the Police Department in regards to roadway safety.

BOARD ACTION

No board action is required. Staff is providing this report as an information item to update TAB.