Bicycle Crashes

The City of Fort Collins is well known for its bike culture, and there is a strong focus on encouraging increased riding. Bike safety is an important component of supporting these efforts.

The chart below shows the historical trend of bike crashes in Fort Collins. The general trend for bike crashes has been downward for several years. Both total and severe bicycle crashes are down about 40% since 2012 (the year with the most crashes).

Total and severe bike crashes are down **40%** since highs in 2012
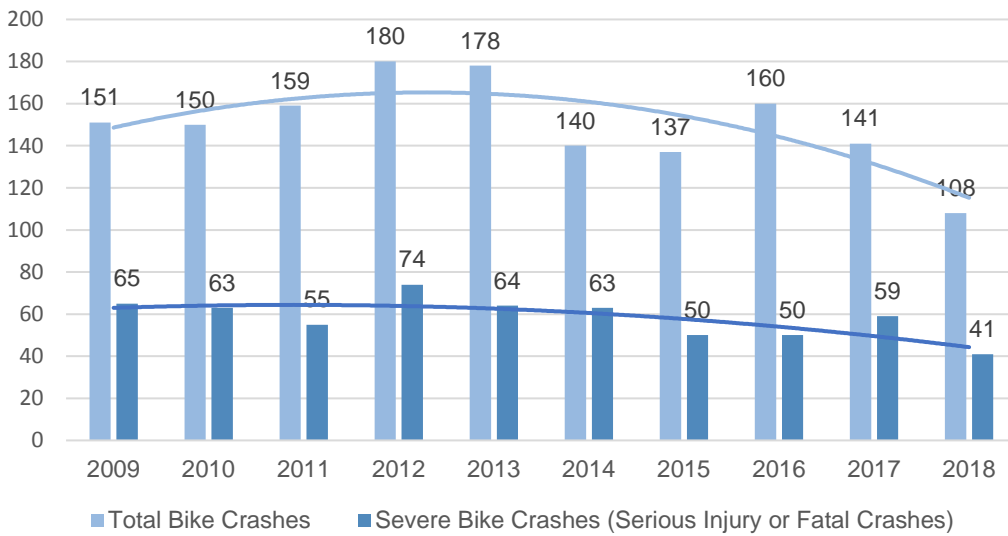
Number of Bike Crashes

Figure 23

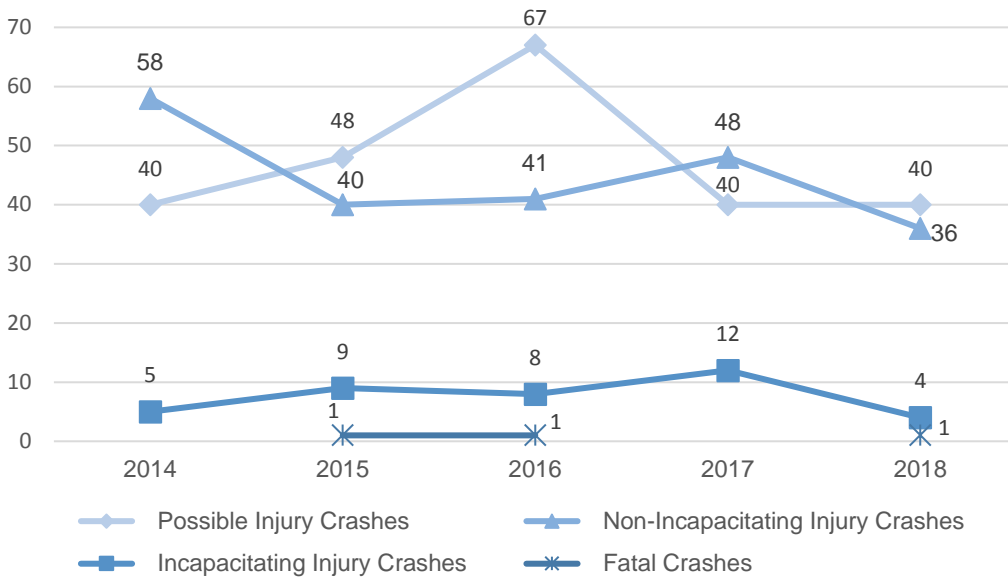*Historical bike crash data (10 years)*

Figure 24

Bike crashes involving some level of injury (2014-2018)

Bike Crash Severity

Overall bike crashes account for 3.25% of all crashes in the City of Fort Collins. However, they account for 20% of serious injury (non-incapacitating injury and incapacitating injury) and 9% of fatal crashes. This illustrates that bike crashes, when they do occur tend to be more serious than motor vehicle crashes.
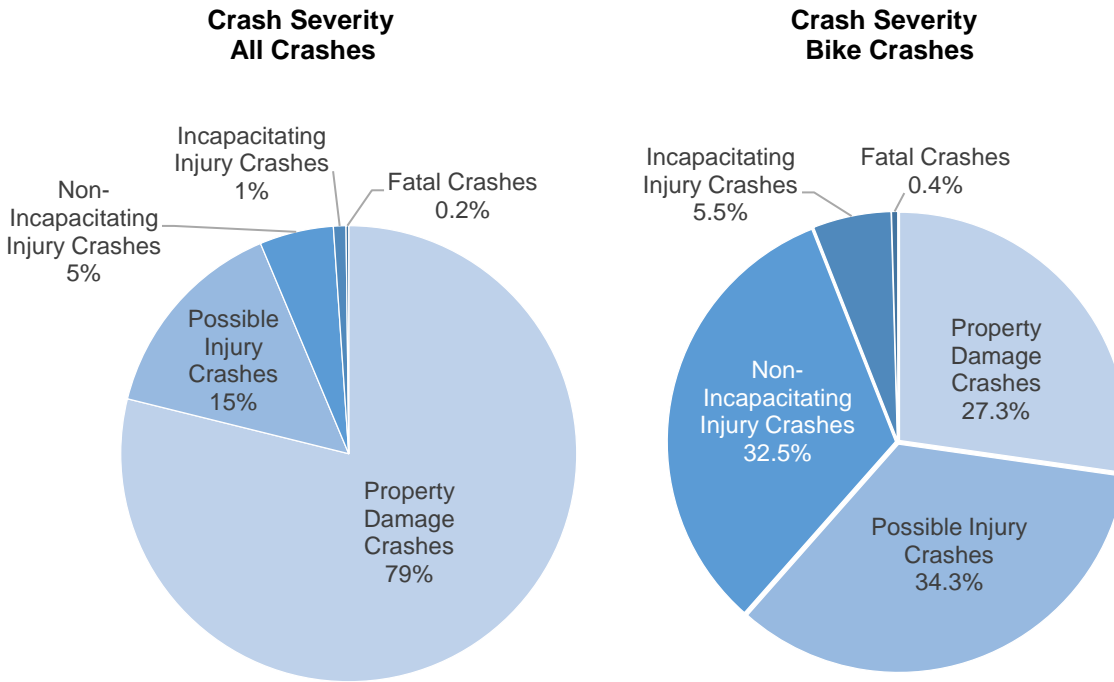
Crash Severity All Crashes

- Non-Incapacitating Injury Crashes 5%
- Incapacitating Injury Crashes 1%
- Fatal Crashes 0.2%
- Possible Injury Crashes 15%
- Property Damage Crashes 79%

Crash Severity Bike Crashes

- Incapacitating Injury Crashes 5.5%
- Fatal Crashes 0.4%
- Non-Incapacitating Injury Crashes 32.5%
- Property Damage Crashes 27.3%
- Possible Injury Crashes 34.3%

Figure 25

Comparison of crash severity between all crashes and bike crashes (2014-2018)

Bike Crashes by Age and Gender

The chart below shows the age of cyclists involved in crashes in Fort Collins as well as the percentage of population by age. Cyclists aged 15 - 34 years old are all significantly overrepresented in crashes. Male cyclists are involved in 70% of all bike crashes.
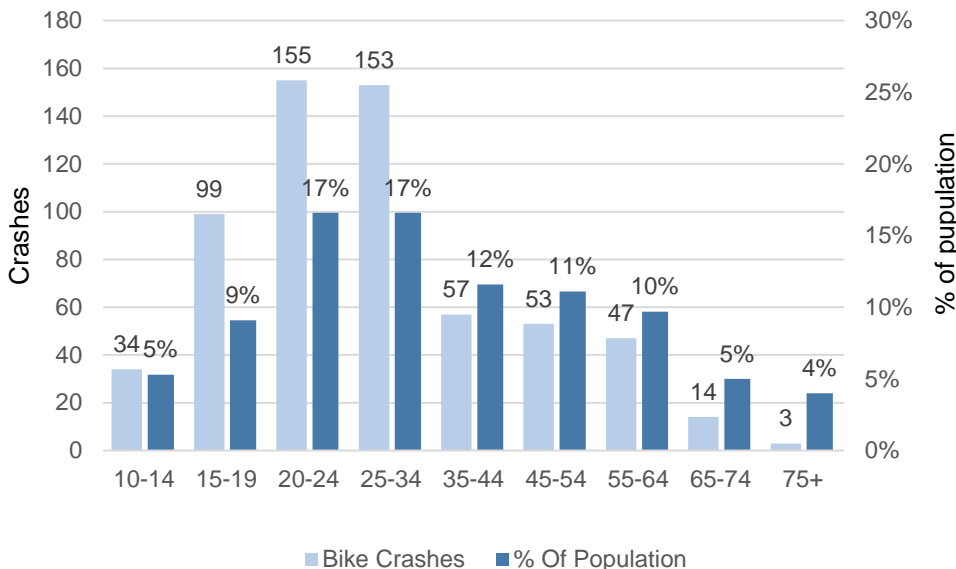
Bike Crashes / % Of Population by age group:
- 10-14: 34 crashes, 5%
- 15-19: 99 crashes, 9%
- 20-24: 155 crashes, 17%
- 25-34: 153 crashes, 17%
- 35-44: 57 crashes, 12%
- 45-54: 53 crashes, 11%
- 55-64: 47 crashes, 10%
- 65-74: 14 crashes, 5%
- 75+: 3 crashes, 4%

Legend: ■ Bike Crashes ■ % Of Population

Figure 26

Bike crashes by age and percentage of popoulations (2014-2018)

70% of all reported bike crashes involve a male cyclist

Bike Crash Location and Types (2014-2018)

Bike crashes can be further classified by location and type of collision.
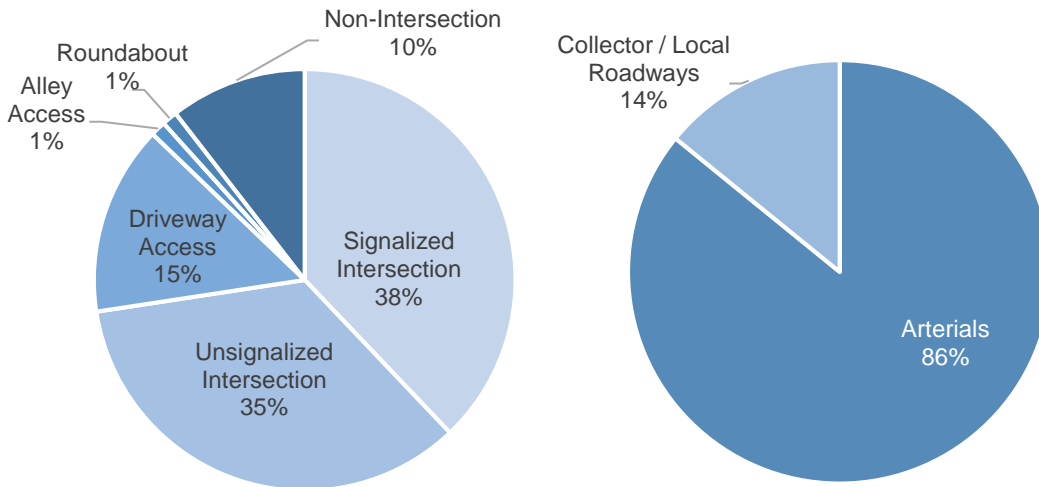
89%
of all bike crashes occur at intersections or driveways

86%
of all bike crashes occur at a location that involves an arterial

Figure 27

Bike crashes by location (2014-2018)

Crashes at intersections, alleys or driveways account for almost 90% of all bike crashes. It is critical to note that intersections are the locations of greatest risk for bicycle riders. While corridor projects such as buffered or protected bike lanes support greater comfort and perceived safety, an emphasis on intersection safety is needed.

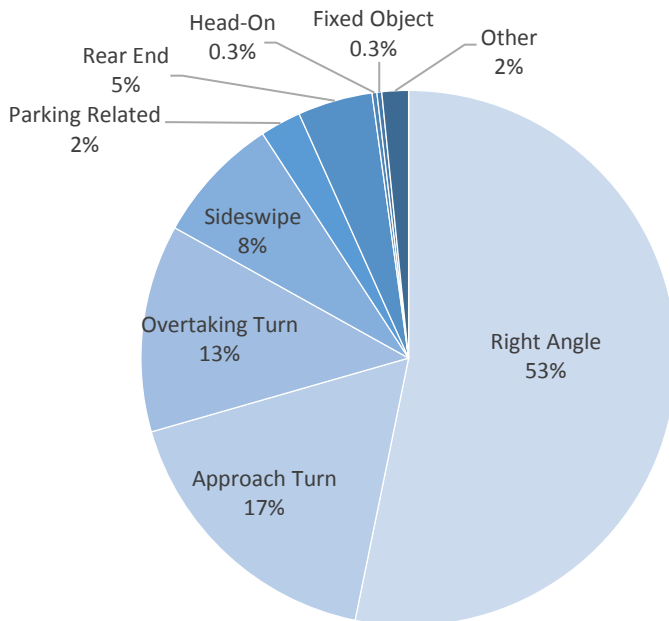The figure below shows the type of bike crash in the past five years.

Figure 28

Bike crashes by type (2014-2018)

23%
of all bike crashes involve cyclists riding against traffic

Right angle crashes are the most common type of bike crash, and represent more than half of all bike crashes. Significant contributing circumstances in bike crashes include riding against traffic on the sidewalk or street (this includes almost 23% of all crashes, and 37% of right angle crashes).

Bike crashes along roadways are 2.5% parking related (i.e. "door zone" crashes) and 12% rear-end or sideswipe.

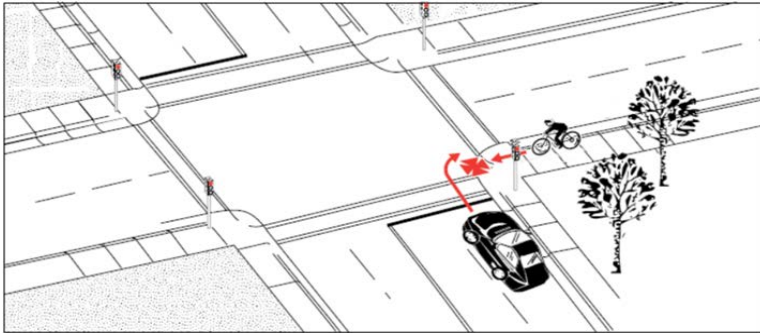## Graphical Depiction of Typical Bike Crashes

Figure 29

Right angle crash

Right angle crashes are by far the most common type of bike crash representing more than half of all bike crashes. Thirty eight percent (38%) of right angle crashes involve a bike riding against traffic on the sidewalk or street. (2014-2018)
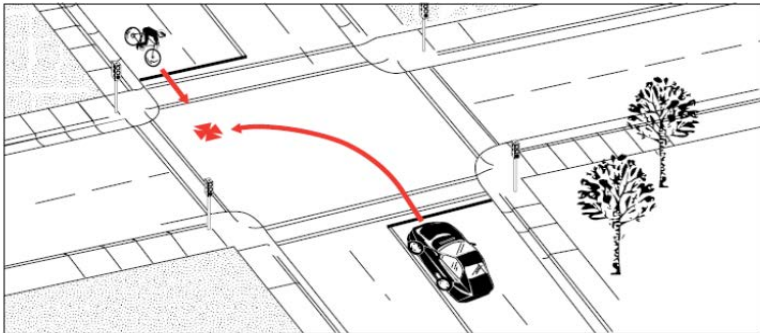

Figure 30

Approach turn crash

This type of crash represents 17% of all crashes. Forty-three percent (43%) of approach turn crashes result in a severe crash (serious injury of fatal). (2014-2018)
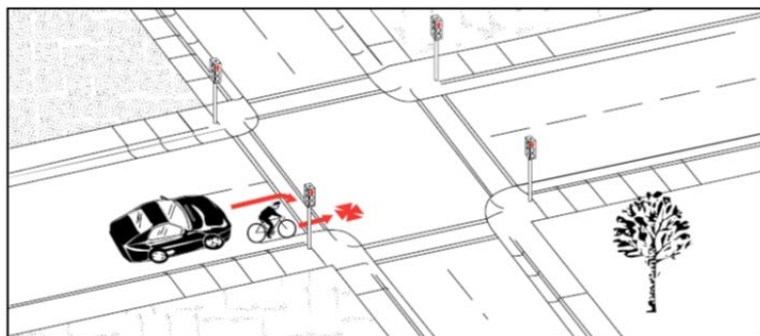

Figure 31

Overtaking turn crash

Also known as the "right hook" crash. This represents 13% of all bike crashes. (2014-2018)

Trends for Bike Crashes By Type (2014-2018)

The figure below shows the general trend of bike crash types for the past five years (as a percentage of total bike crashes). This depicts that right angle crashes remain the most prevalent crash type. The percent of overtaking turn crashes (i.e 'right hooks) increased in the last year.
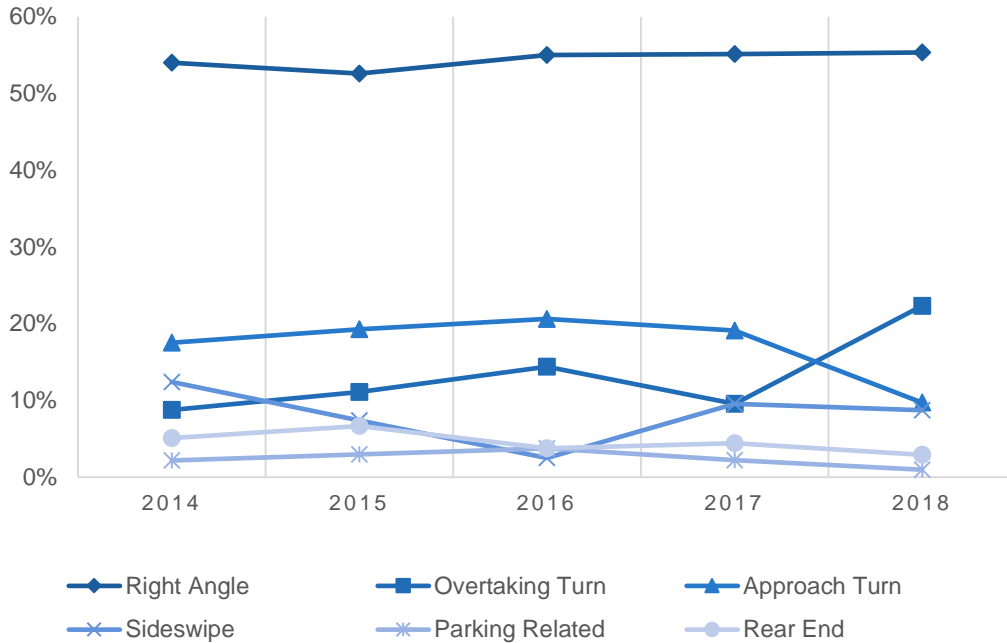

Figure 32

Trends for bike crashes by type

Bike Crashes By Month (2014-2018)

The figure below compares bike crashes by month with aggregated bike volumes from a series of continuous bike counters in Fort Collins. The strong similarity of the trends would indicate that as bike volume increase, bike crashes also increase. The pronounced peak in September is likely related to the start of the university school year.
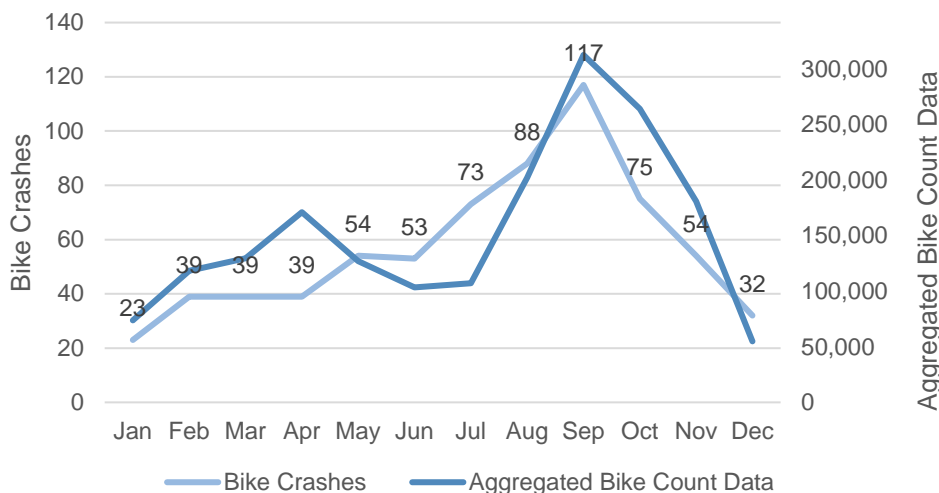

Figure 33

Bike crashes by month (2014-2018) compared with bike volumes

Detailed Bike Crash Tabulation (2014–2018)

Type of Crash	Total Crashes	Severe Crashes
Right Angle		
Bike riding with traffic on street	115	53
Bike riding against traffic on street	25	10
Bike riding with traffic on sidewalk/crosswalk	60	24
Bike riding against traffic on sidewalk/crosswalk	110	35
Bike crossing street mid-block	9	7
Unknown Location	46	10
Right Angle Total	**365**	**139**
Overtaking Turn		
Bike riding with traffic on street	54	18
Bike riding against traffic on street	4	1
Bike riding with traffic on sidewalk/crosswalk	12	3
Bike riding against traffic on sidewalk/crosswalk	7	1
Unknown Location	9	1
Overtaking Turn Total	**86**	**24**
Approach Turn		
Bike riding with traffic on street	83	38
Bike riding against traffic on street	1	1
Bike riding with traffic on sidewalk/crosswalk	21	8
Bike riding against traffic on sidewalk/crosswalk	6	2
Unknown Location	8	2
Approach Turn Total	**119**	**51**
Sideswipe		
Bike riding with traffic on street	44	19
Bike riding against traffic on street	4	3
Bike riding with traffic on sidewalk/crosswalk	1	1
Bike crossing street mid-block	1	0
Unknown Location	3	1
Sideswipe Total	**53**	**24**
Parking Related		
Bike riding with traffic on street	15	7
Bike riding against traffic on street	1	0
Unknown Location	1	0
Parking Related Total	**17**	**7**
Rear End		
Bike riding with traffic on street	30	12
Unknown Location	1	0
Rear End Total	**31**	**12**
Head-On		
Bike riding against traffic on street	2	1
Head-On Total	**2**	**1**
Fixed Object Total	**2**	**2**
Other Total	**11**	**4**
Total Bike Crashes	**686**	**264**

Table 4

Detailed bike crash tabulation (2014-2018)