

Fatal and Serious Injury Motor Vehicle Crashes:

Bicyclist Crashes

On Minnesota roadways, there were 364 crashes involving a bicyclist resulting in fatality or serious injury between 2019 and 2023. This is an average of 73 crashes per year and accounted for 3.9% of all the fatal and serious injury crashes in this period.

Bicyclists are a Connected Focus Area. Most crashes in connected focus areas are correlated with core and strategic focus areas.

Focus Area definitions are published in the SHSP Technical Report. (www.mndot.gov/trafficeng/safety/shsp/technical-report.pdf)

Distribution of Bicyclist Crashes by Roadway Jurisdiction

	Rural		Urban		Total	
Trunk Highway	12	6%	22	11%	34	17%
County	21	11%	38	19%	59	30%
City	4	2%	95	48%	99	51%
Township	1	1%	0	0%	1	1%
Other	0	0%	2	1%	3	2%
Total	38	19%	157	80%	196	100%

Crashes involving a bicyclist occur most frequently on the municipal system.

Rural is defined as a population less than 5,000, per Crash Facts; crashes that are not geolocated are included in total but not rural/urban columns.

Distribution of Bicyclist Crashes by TZD Region

	Rural		Urban		Total	
Northeast	1	11%	8	89%	9	100%
Northwest	5	63%	2	25%	8	100%
East Central	10	40%	15	60%	25	100%
West Central	1	33%	2	67%	3	100%
Southeast	2	18%	9	82%	11	100%
South Central	6	55%	5	45%	11	100%
Southwest	3	75%	1	25%	4	100%
Metro	10	8%	115	92%	125	100%
Total	38	19%	157	80%	196	100%

Crashes involving a bicyclist occur most frequently in urban areas.

36% of these crashes occurred in Greater Minnesota.

Rural is defined as a population less than 5,000, per Crash Facts; crashes that are not geolocated are included in total but not rural/urban columns.

Light Conditions

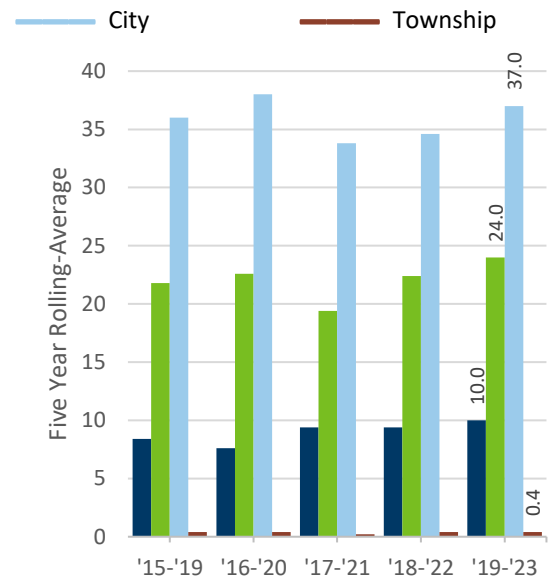
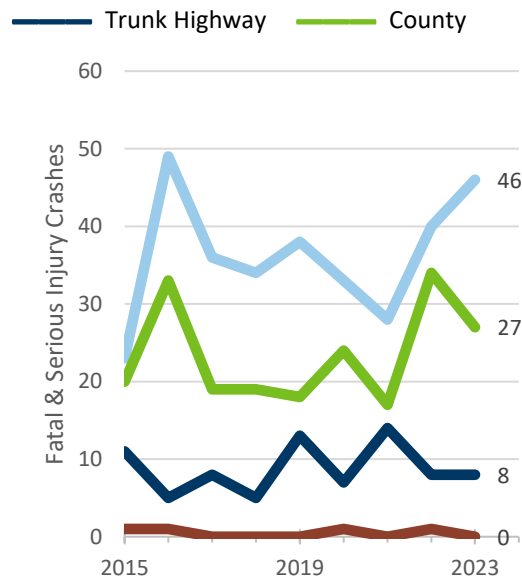
	Focus Area	All KA
Daylight	68.1%	59.7%
Sunrise/Sunset	5.5%	6.2%
Night/Dark	25.3%	33.6%
Street Lights On	18.7%	18.7%
Street Lights Off	1.4%	0.9%
Unknown/No Lighting	5.2%	14.0%
Other/Unknown	1.1%	0.5%

Roadway Conditions

	Focus Area	All KA
Dry	87.4%	78.3%
Wet	8.8%	8.8%
Snow/Slush/Ice	1.1%	8.8%
Other	2.7%	4.1%

Trends in Bicyclist Crashes

Statewide, the percent of all fatal and serious injury crashes involving a bicyclist is decreasing.



NOTE: In 2016, Minnesota modified the injury severity definitions to align with Federal Standards. This change resulted in an 80% increase in reported serious injury crashes.

Interaction with other Strategic Highway Safety Plan focus areas

Focus Area	Bicyclist Crashes		All K+A Crash Types		Difference	Rank*
Intersection	274	75.3%	4,575	48.8%	+ 26.4%	↑ #1
Work Zone	8	2.2%	197	2.1%	+ 0.1%	—
Train	0	0.0%	18	0.2%	- 0.2%	—
Older Driver	59	16.2%	1,771	18.9%	- 2.7%	↓
Inattentive Driver	18	4.9%	735	7.8%	- 2.9%	↓
Commercial Vehicle	15	4.1%	824	8.8%	- 4.7%	↓
Younger Driver	33	9.1%	1,495	16.0%	- 6.9%	↓
Pedestrian	0	0.0%	1,037	11.1%	- 11.1%	↓
Head-on	0	0.0%	1,057	11.3%	- 11.3%	↓
Unlicensed Driver	22	6.0%	1,918	20.5%	- 14.4%	↓
Unbelted Occupant	0	0.0%	1,346	14.4%	- 14.4%	↓
Motorcycle	3	0.8%	1,572	16.8%	- 16.0%	↓
Impaired User	43	11.8%	2,616	27.9%	- 16.1%	↓
Speed	11	3.0%	2,154	23.0%	- 20.0%	↓
Single Veh. Run-off-road	0	0.0%	2,980	31.8%	- 31.8%	↓
Bicyclist	364	100.0%	364	3.9%	N/A	N/A

* Rankings shows areas with greatest overrepresentation compared to all fatal and serious injury crashes.

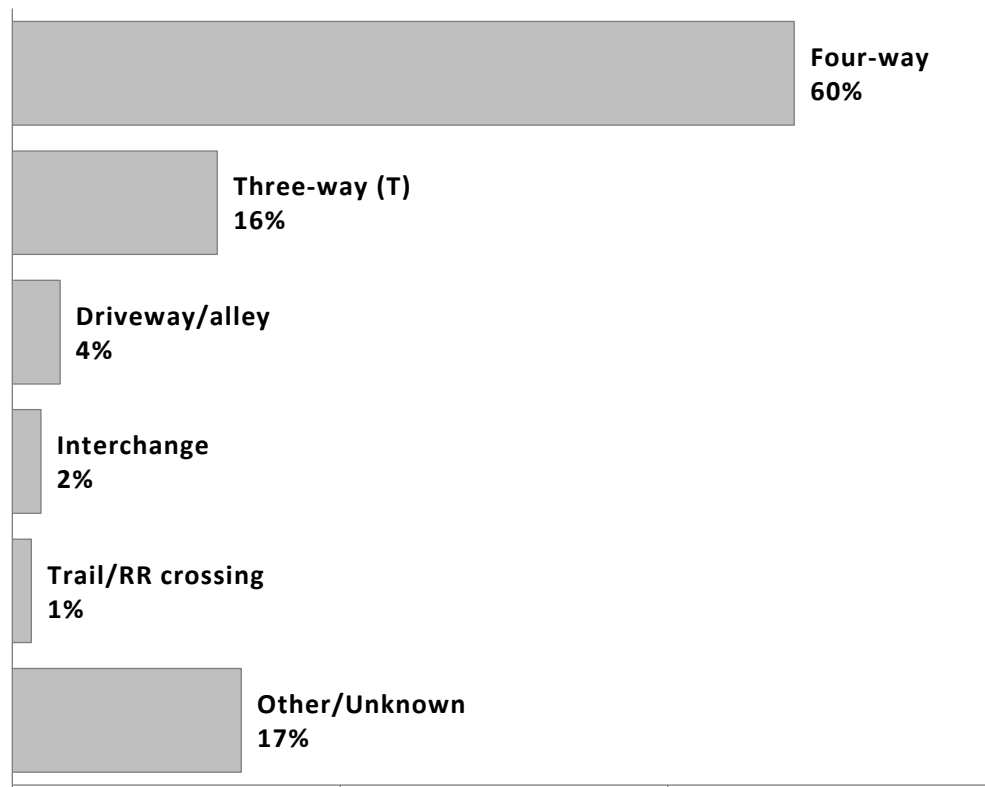
Compared to all fatal and serious injury crashes, the Intersection focus area is over-represented in crashes involving a bicyclist. This focus area may present a unique challenge and opportunity for reducing Bicyclist Crashes in Minnesota.

Seasonality of Bicyclist Crashes

	3 AM to 6 AM	6 AM to 9 AM	9 AM to 12 PM	12 PM to 3 PM	3 PM to 6 PM	6 PM to 9 PM	9 PM to 12 AM	12 AM to 3 AM	Σ
January	0.0%	0.0%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	2%
February	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0%
March	0.0%	0.3%	0.3%	0.3%	0.5%	0.8%	0.5%	0.0%	3%
April	0.0%	0.5%	0.5%	1.1%	0.8%	1.1%	0.5%	0.0%	5%
May	0.0%	0.3%	0.3%	2.7%	3.0%	1.1%	0.0%	0.0%	7%
June	0.0%	1.4%	2.7%	3.6%	3.8%	2.5%	1.1%	0.3%	15%
July	1.1%	2.5%	1.4%	1.6%	3.3%	2.7%	2.2%	0.5%	15%
August	0.8%	1.1%	2.2%	2.5%	4.7%	1.6%	2.7%	0.5%	16%
September	0.5%	1.4%	1.6%	3.6%	3.8%	3.6%	1.6%	0.8%	17%
October	0.0%	1.9%	1.6%	1.6%	3.3%	3.0%	1.1%	0.3%	13%
November	0.0%	0.5%	0.5%	0.3%	1.6%	0.5%	0.5%	0.3%	4%
December	0.3%	0.0%	0.3%	0.3%	0.8%	0.3%	0.0%	0.0%	2%
Σ	3%	10%	12%	18%	26%	18%	11%	3%	100%

A fatal or serious injury crash involving a bicyclist occurred approximately every 5 days. These crashes are more prevalent in the summer and autumn & during the afternoon and evening hours; this analysis does not control for existing traffic patterns.

Top Five Intersection Types (where intersection/interchange related)



About 3 in 4 fatal and serious injury crashes involving a bicyclist (76%) were intersection or interchange related.