



Bicycle and Pedestrian Collision Data

Carson

Purpose of Study

This study is an information tool which South Bay cities can utilize to improve street safety. The study reports collision data so it can easily be viewed and accessed in one document. We hope this information and data will bring awareness and insights that can inform decision-making. Ultimately, this study looks to make our community safer for pedestrians and bicyclists.

Overview

This study analyzes collisions in Carson relative to ten other South Bay cities (El Segundo, Gardena, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Manhattan Beach, Palos Verdes Estates, Redondo Beach, and Torrance). Data for Lomita, Rancho Palos Verdes, Rolling Hills, and Rolling Hills Estates is not available in records noted below - further research is in work for these cities.

The study focuses on the following data sets: 1. Pedestrian victims due to vehicle collision. 2. Bicyclist victims due to vehicle collision. This data is summarized year-over-year, geographically, by intersection, and with respect to other South Bay cities.

Methodology

Records of collisions involving pedestrians and bicyclists were taken from the California Statewide Integrated Traffic Records System (SWITRS), accessed via the Transportation Injury Mapping System (TIMS)¹. A query was entered into TIMS to identify collisions involving pedestrians from January 1 2018, through December 31 2022, in Carson. The same search was made for bicycle victims involved in collisions. TIMS also provides the heatmaps and intersection rankings used in this report. The top ranked intersections by number of bicycle or pedestrian collisions were aggregated using a 150 ft search distance. Unless otherwise noted, collision counts refer to the raw count from 2018-2022.

Population-adjusted metrics are also provided using the historical E-4 population estimates from the California Department of Finance².

Collisions are coded in severity in the following order based on SWITRS:

1. Fatal
2. Severe (injury)
3. Visible (injury)
4. Complaint (of pain)

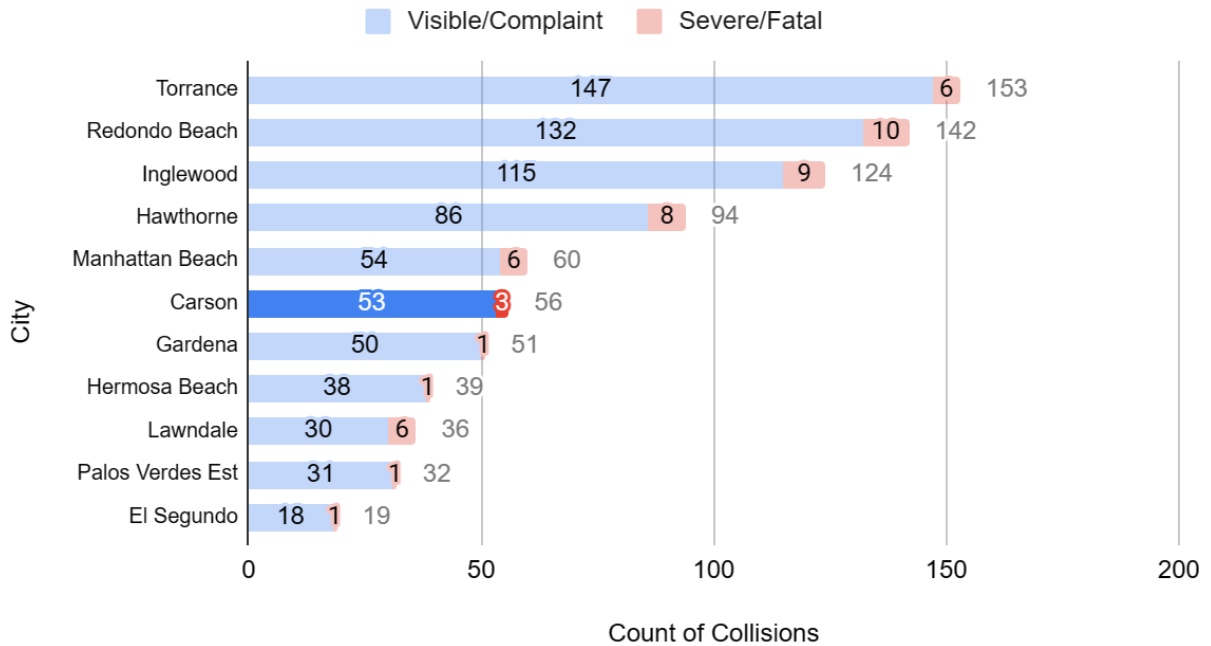
¹ <https://tims.berkeley.edu/>

² <https://dof.ca.gov/Forecasting/Demographics/Estimates/>

Bicycle Collision Data

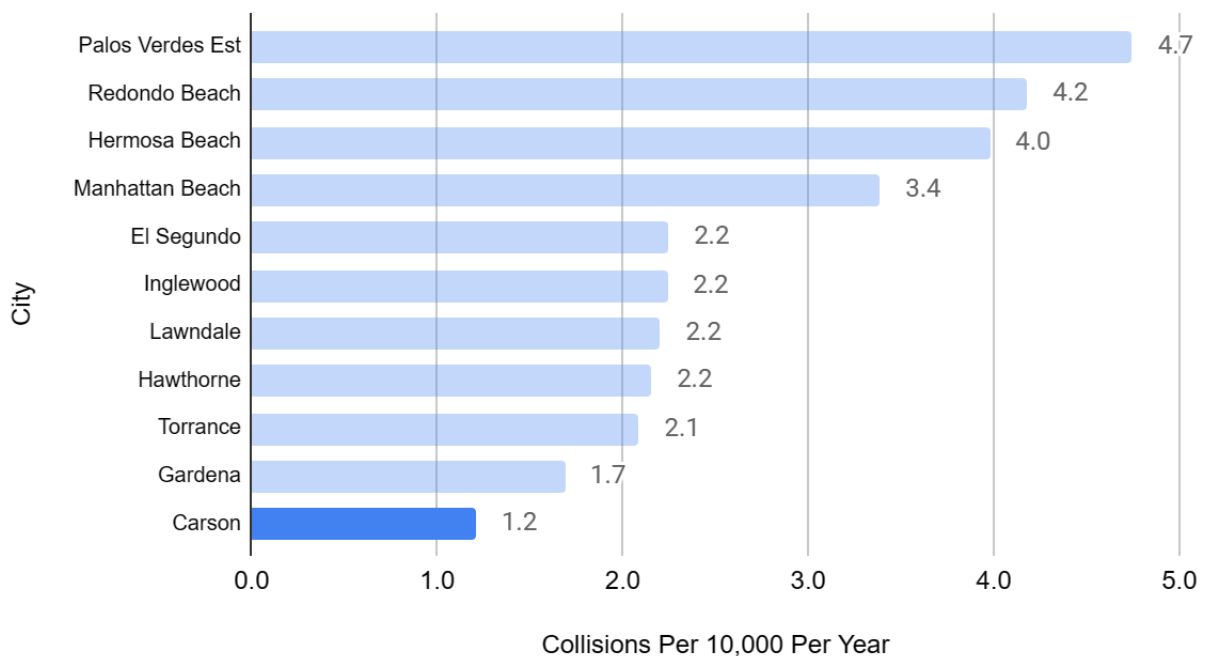
The chart below shows the total number of bicycle collisions between 2018-2022.

Total Bicycle Collisions, 2018-2022



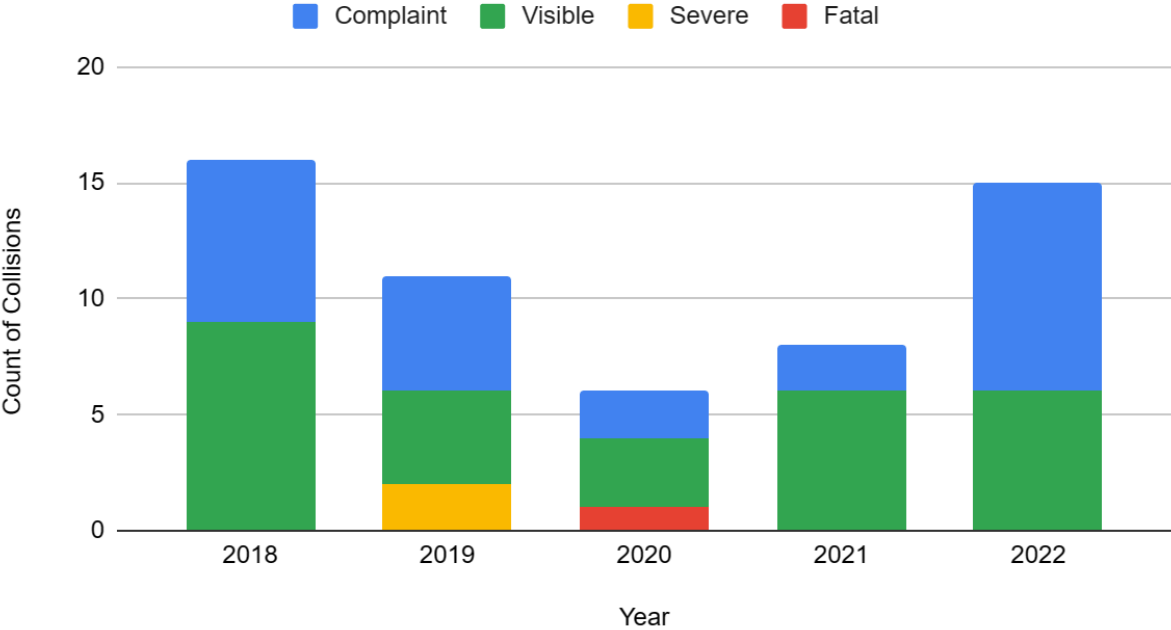
The chart below shows the average bicycle collision rate between 2018-2022, adjusted for population.

Bicycle Collision Rate, 2018-2022

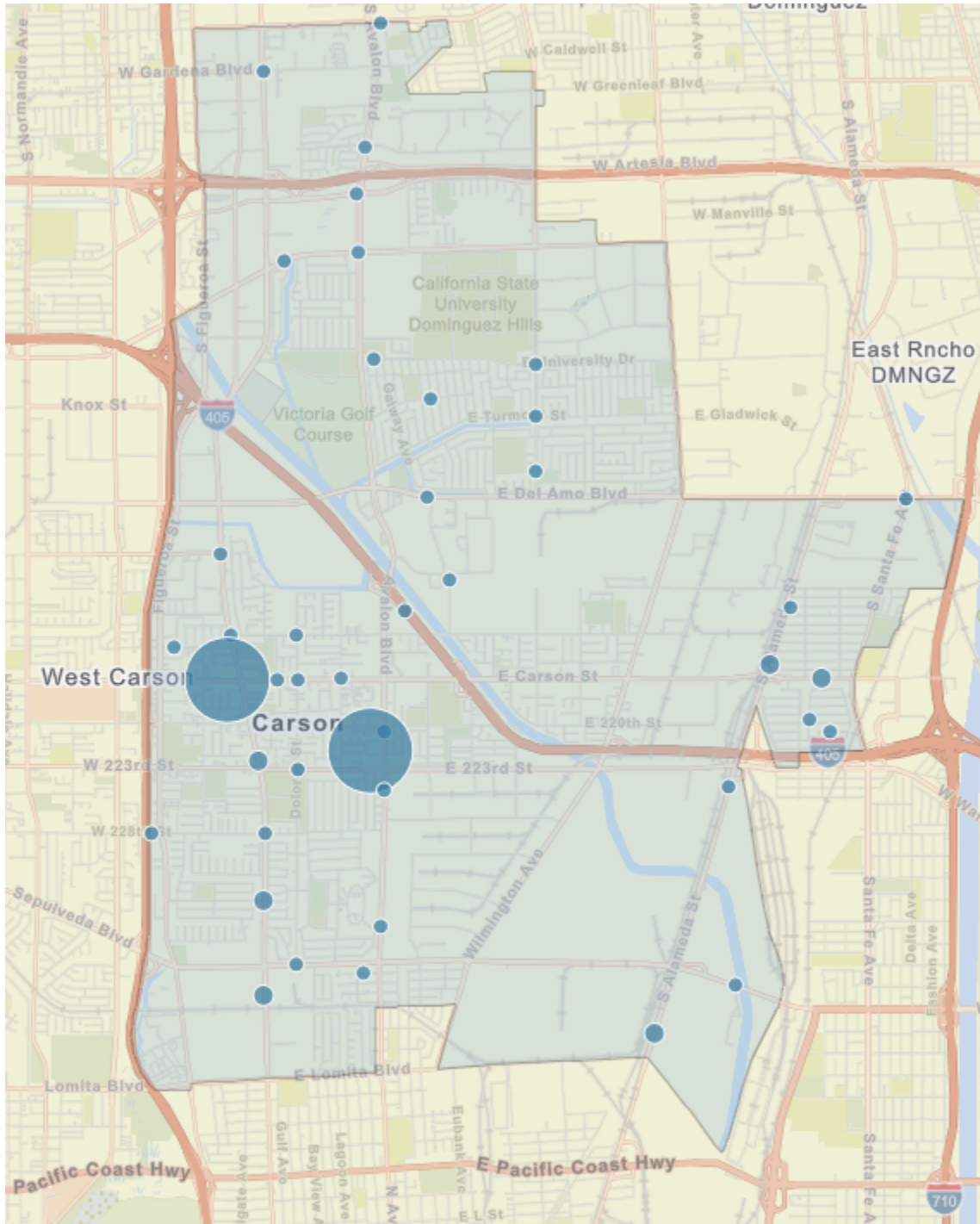


To understand this trend on a year-to-year basis, the absolute number of bicycle collisions in Carson for each year is plotted below.

Bicycle Collision History: Carson



The heatmap below shows where bicycle collisions between are most common in Carson from 2018-2022. For context, the largest circle represents 3 collisions in this period.



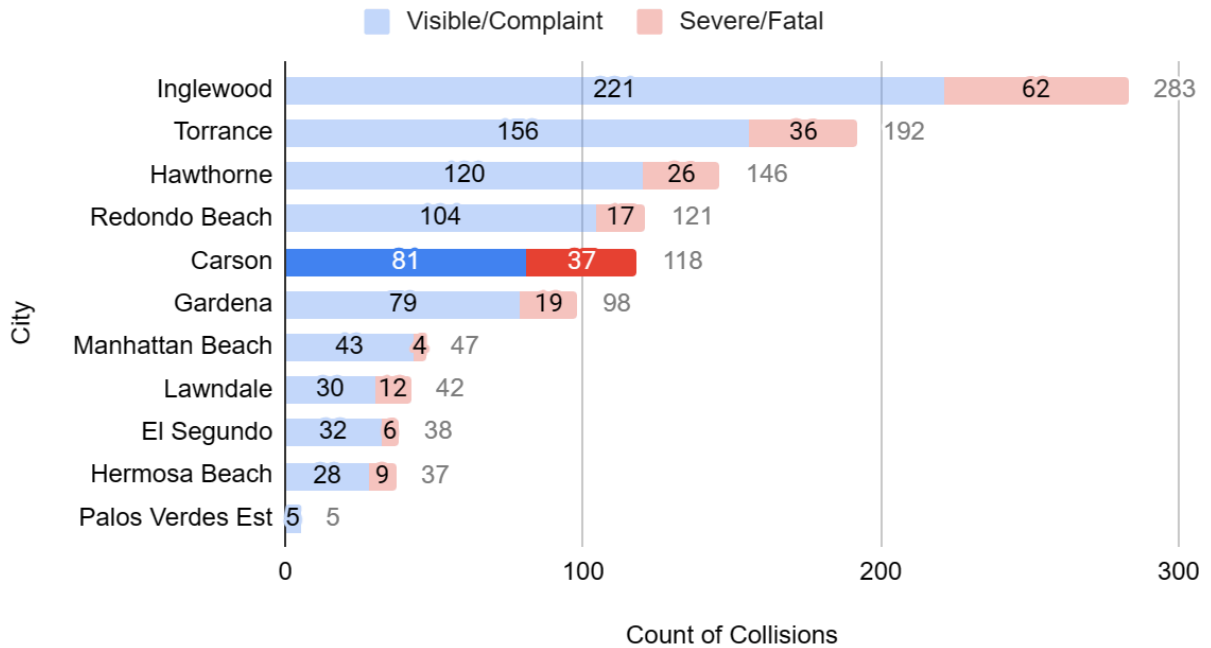
The table below shows the top ranked intersections in Carson for bicycle collisions.

Rank	Intersection	# of Collisions
1	221ST ST & AVALON BLVD	2
1	234TH ST & MAIN ST	2
1	CARSON ST & MAIN ST	2
2	213TH ST & MAIN ST	1
2	222ND ST & MAIN ST	1
2	223RD ST & DOLORES ST	1
2	223RD ST & GRACE AVE	1
2	223RD ST & MAIN ST	1
2	228TH ST & MAIN ST	1
2	ALAMEDA ST & HARRISON ST	1

Pedestrian Collision Data

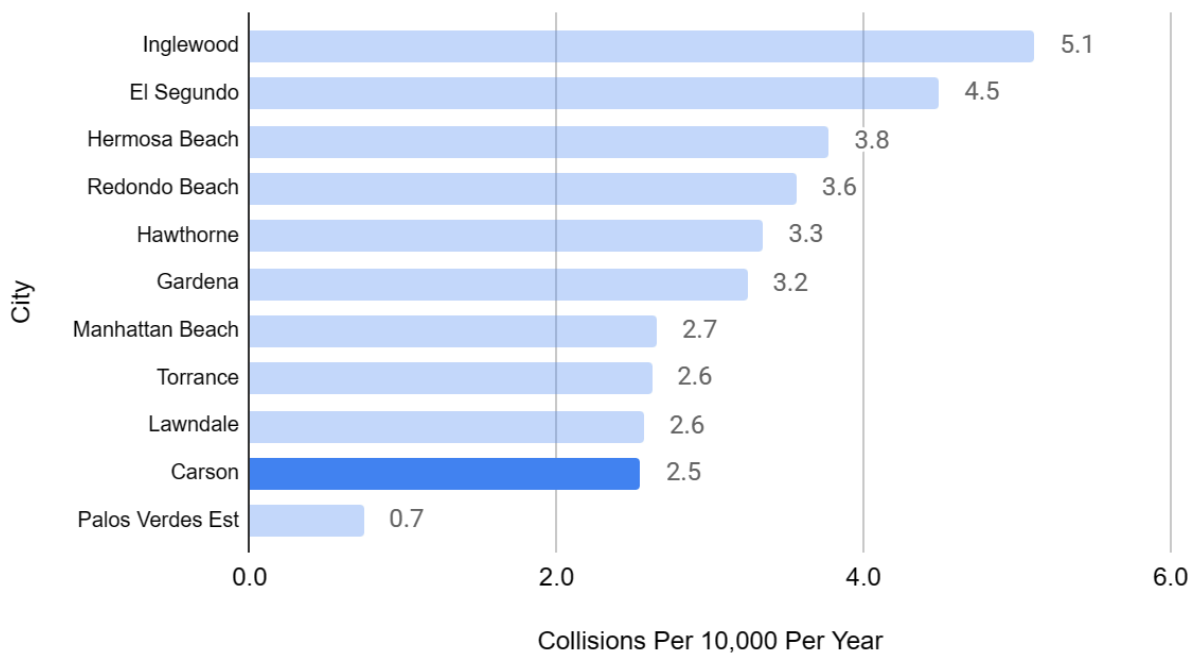
The chart below shows the total number of pedestrian collisions between 2018-2022.

Total Pedestrian Collisions, 2018-2022



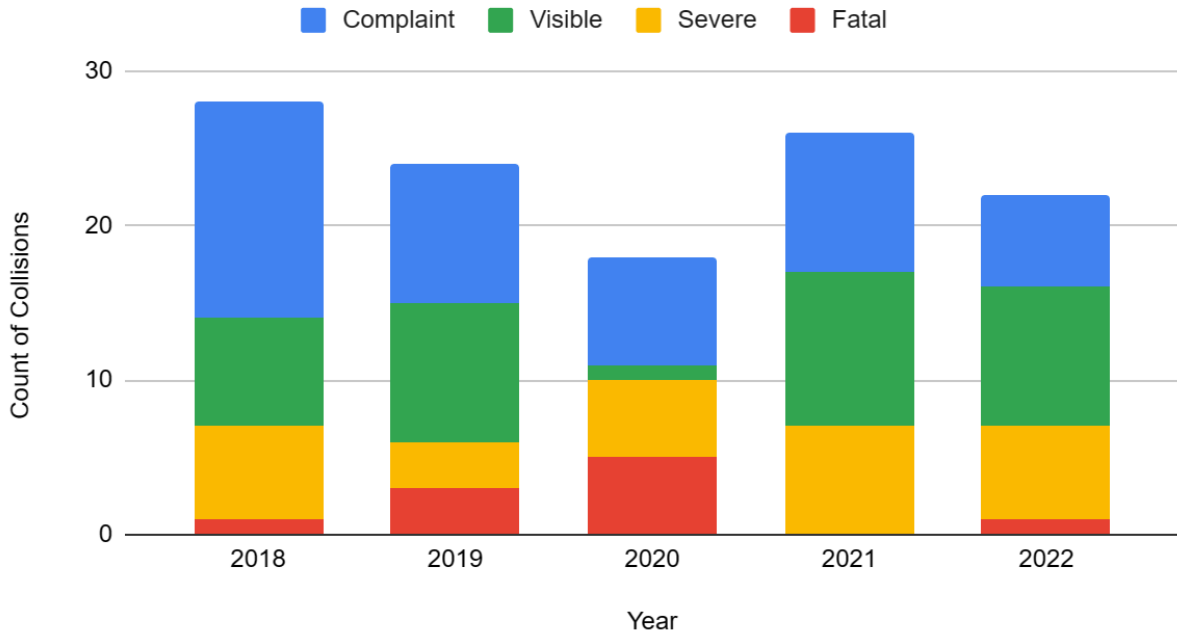
The chart below shows the average pedestrian collision rate from 2018-2022, adjusted for population.

Pedestrian Collision Rate, 2018-2022

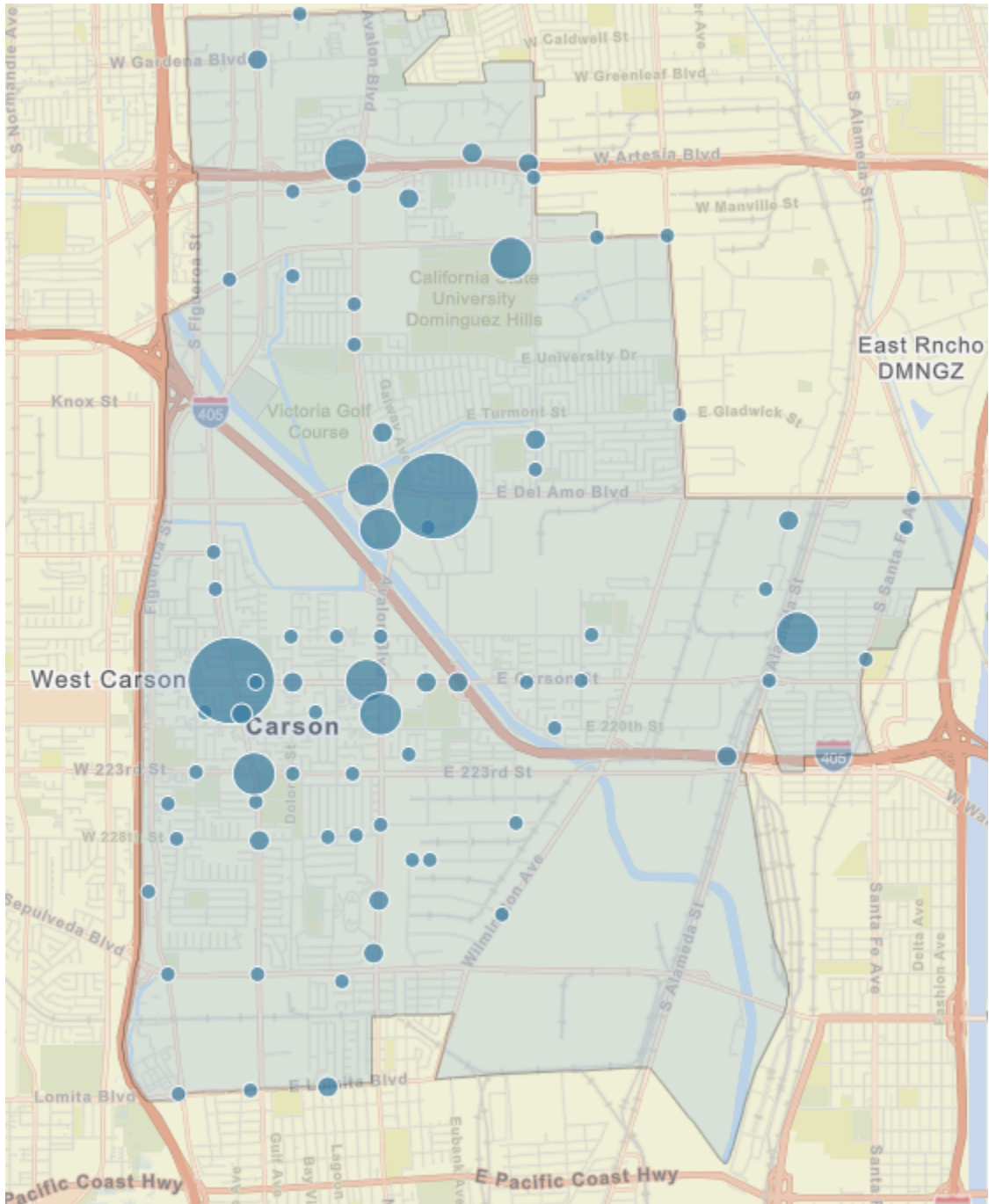


To understand this trend on a year-to-year basis, the absolute number of pedestrian collisions in Carson for each year is plotted below.

Pedestrian Collision History: Carson



The heatmap below shows where pedestrian collisions between are most common in Carson from 2018-2022. For context, the largest circle represents 5 collisions in this period.



The table below shows the top ranked intersections in Carson for pedestrian collisions.

Rank	Intersection	# of Collisions
1	DEL AMO BLVD & LEAPWOOD AVE	4
2	223RD ST & MAIN ST	3
2	AMO BLVD & AVALON BLVD	3
2	CARSON ST & MAIN ST	3
3	228TH ST & MAIN ST	2
3	AVALON BLVD & CARSON ST	2
3	CARSON ST & DOLORES ST	2
3	GARDENA BLVD & MAIN ST	2
3	BONITA ST & CARSON ST & CIVIC PLAZA DR	2
4	189TH ST & AVALON BLVD	1

Conclusions

Summary: Carson	Bicycle		Pedestrian	
<i>Metric</i>	<i>Value</i>	<i>Rank</i>	<i>Value</i>	<i>Rank</i>
Total Collisions from 2018-2022	56	6	118	5
Average Collisions per Year	11.2		23.6	
Collision Rate (per 10,000 pop.)	1.2	11	2.5	10

Carson ranks 6th across the studied South Bay cities for bicycle collisions, and 3rd for pedestrian collisions. While collisions reduced during the Covid pandemic, they are now back at pre-pandemic levels. Carson St, Main St, and Del Amo Blvd have some of the highest collision rates in Carson.

A few caveats should be understood with the summary of this data. The SWITRS data is compiled from police reports, meaning that close calls or unsafe acts that don't result in police assistance and investigation are not represented in this data. Additionally, some regions may have reduced bicycle or pedestrian traffic and therefore collisions based on an individual's risk tolerance as it pertains to the safety of the as-built environment. Thus it is important to not only reactively focus on hot-spots but also to proactively build a complete and connected network of safe bicycle and pedestrian infrastructure (South Bay Bicycle Master Plan). Lastly, the collision data was population-adjusted to allow for a more clear comparison between cities, as a proxy for the relative amount of people walking or biking. It is understood that this is not a perfect metric for normalizing based on total time or distance spent walking or biking, but provides normalization for the general size of cities.

South Bay Bicycle Coalition Plus Walking welcomes any questions, feedback, or additional sources of data to consider as part of this summary.