Bicycle and Pedestrian Collision Data

Gardena

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 Gardena relative to ten other South Bay cities (Carson, El Segundo, 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

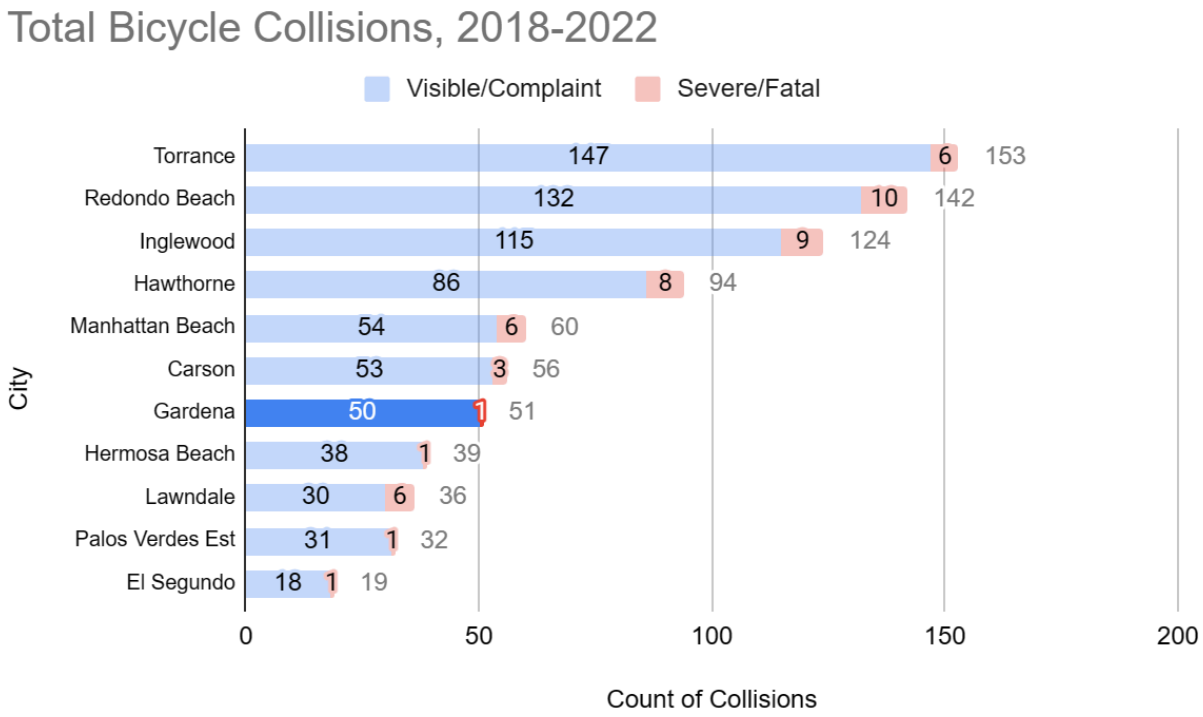
Records of collisions involving pedestrians and bicyclists were taken from the California Statewide Integrated Traffic Records System (SWITRS), accessed via the Transportation Injury Mapping System (TIMS)[1]. A query was entered into TIMS to identify collisions involving pedestrians from January 1 2018, through December 31, 2022, in Gardena. 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 Finance[2].
Collisions are coded in severity in the following order based on SWITRS:

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

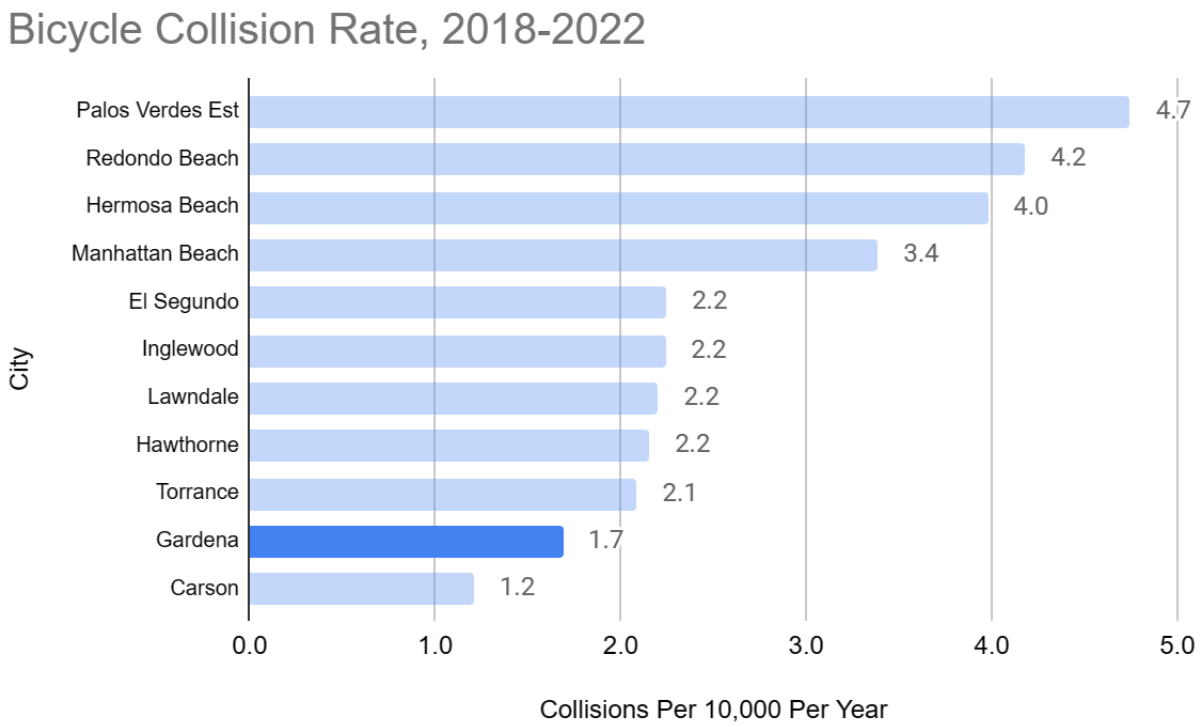
[1] https://tims.berkeley.edu/
[2] https://dof.ca.gov/Forecasting/Demographics/Estimates/

Bicycle Collision Data

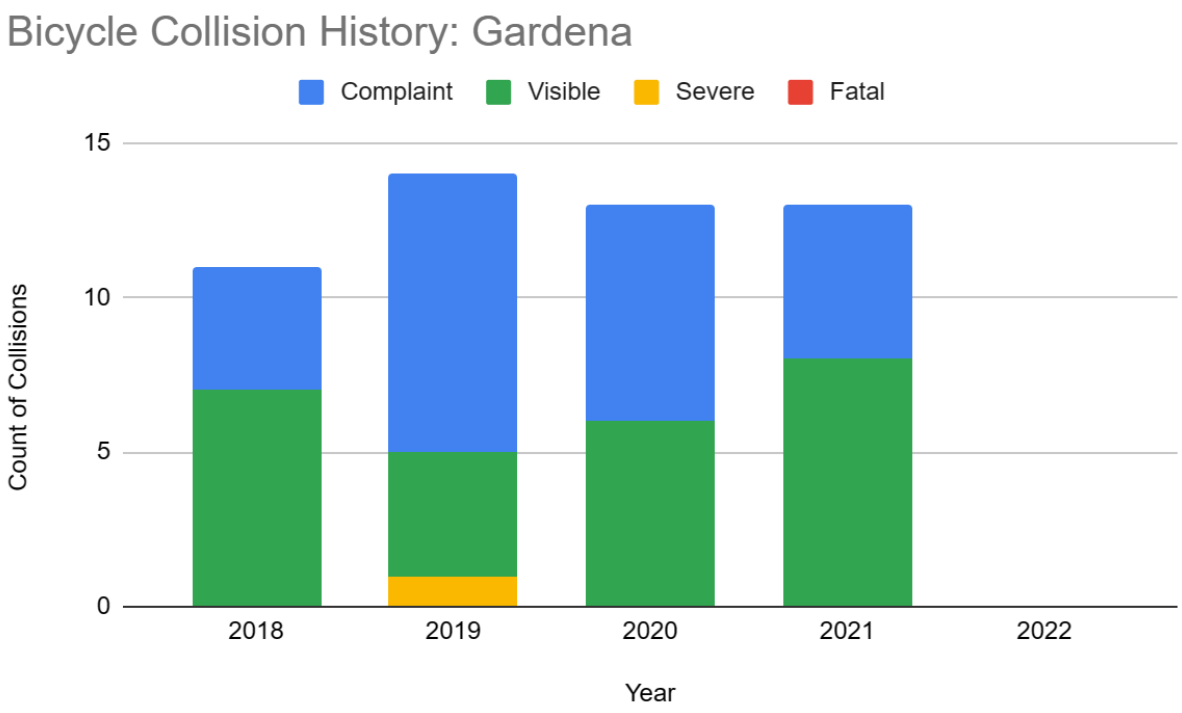
The chart below shows the total number of bicycle collisions between 2018-2022.



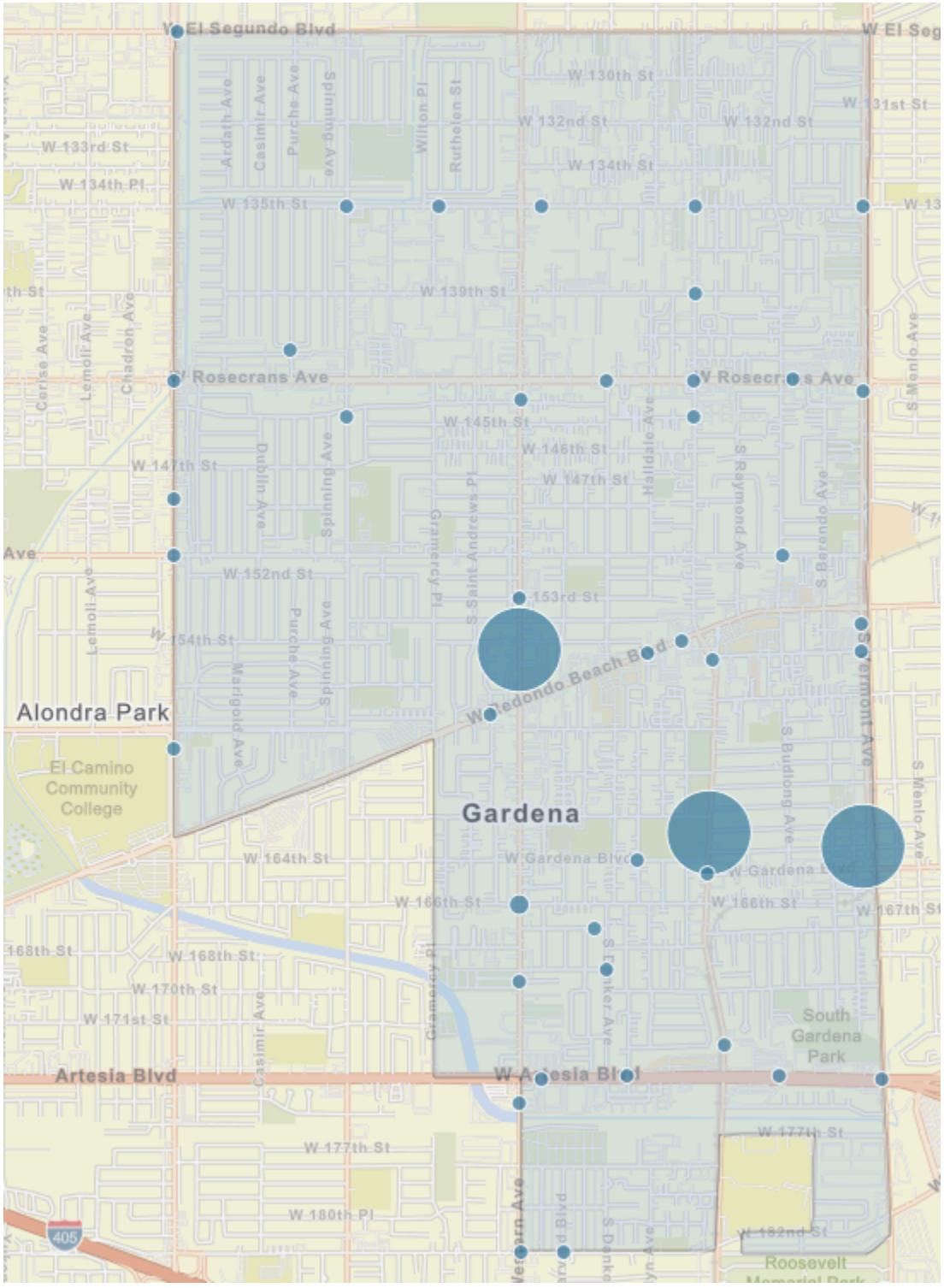
The chart below shows the average bicycle collision rate between 2018-2022, adjusted for population.



To understand this trend on a year-to-year basis, the absolute number of bicycle collisions in Gardena for each year is plotted below. Note: no bicycle collisions were reported to SWITRS in Gardena in 2022.



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

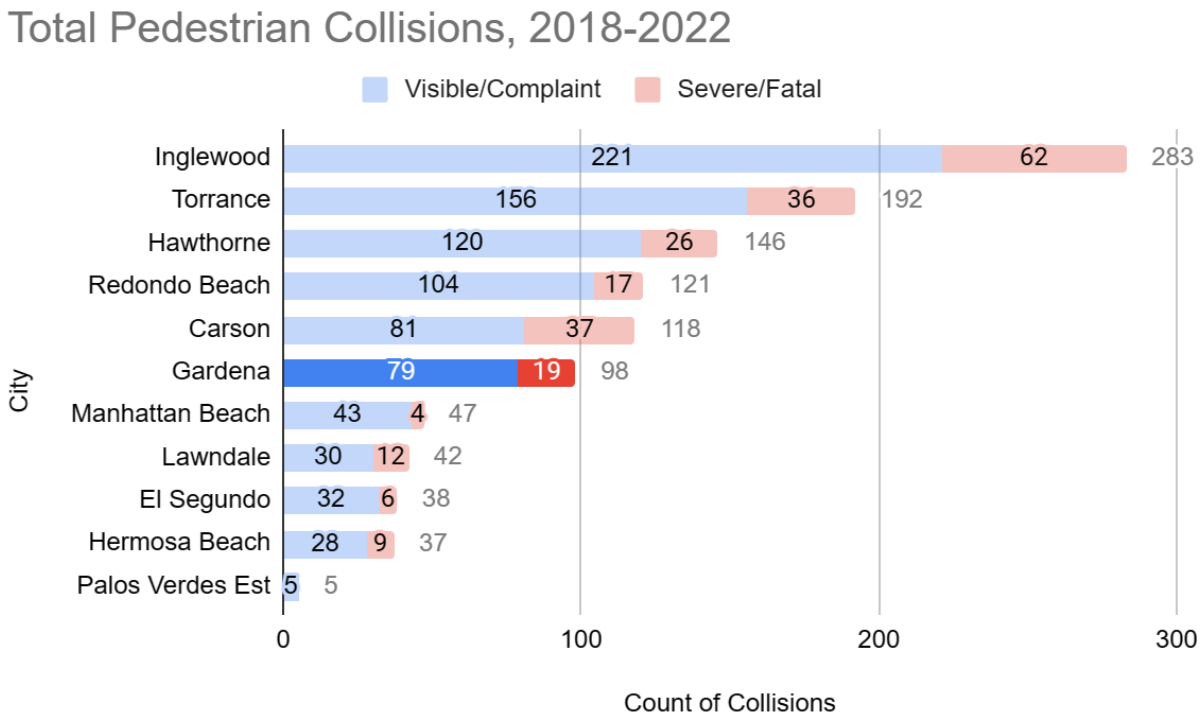


The table below shows the top ranked intersections in Gardena for bicycle collisions.

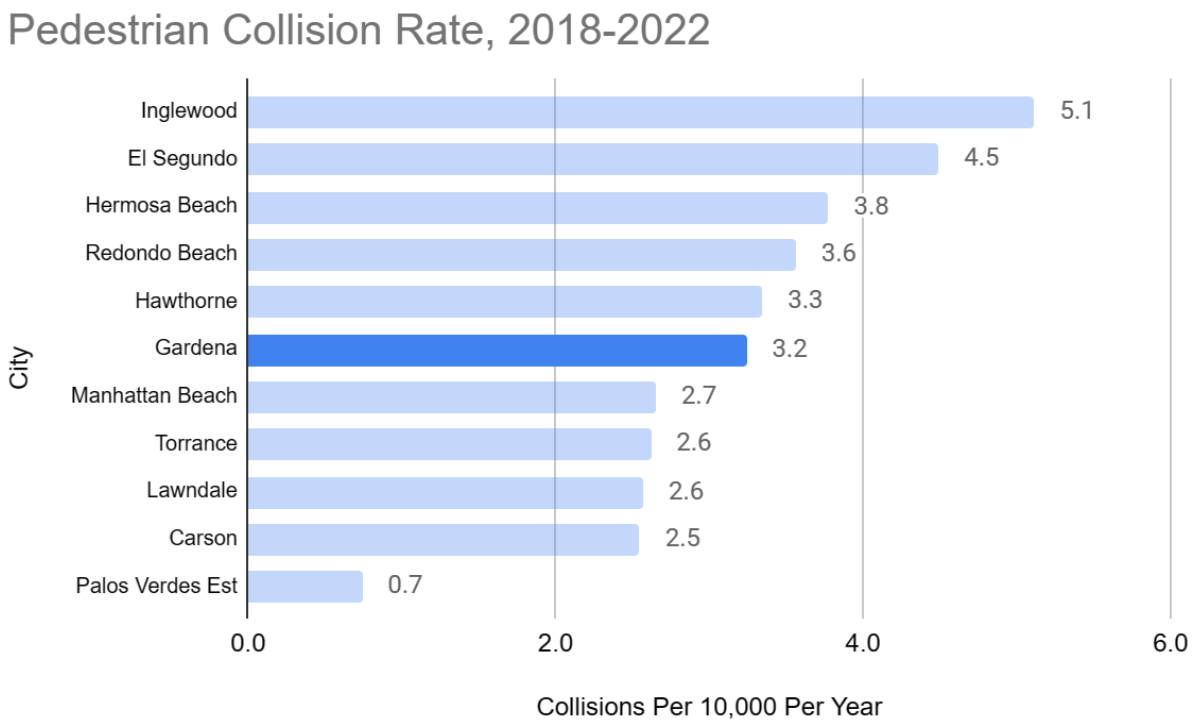
Rank	Intersection	# of Collisions
1	154TH PL & WESTERN AVE	2
1	162ND ST & NORMANDIE AVE	2
1	164TH ST & VERMONT AVE	2
1	166TH ST & WESTERN AVE	2
2	135TH ST & VAN NESS AVE	1
2	135TH ST & VERMONT AVE	1
2	155TH ST & VERMONT AVE	1
2	144TH ST & WESTERN AVE	1
2	144TH ST & VAN NESS AVE	1
2	153RD ST & WESTERN AVE	1

Pedestrian Collision Data

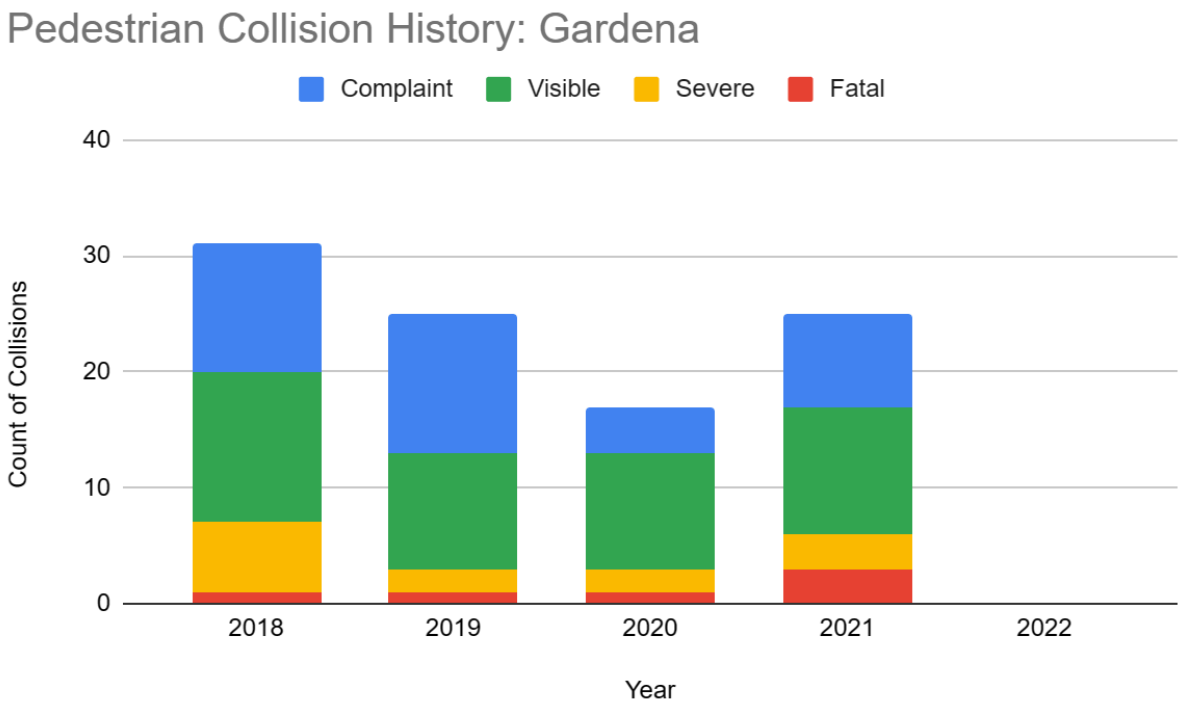
The chart below shows the total number of pedestrian collisions between 2018-2022.



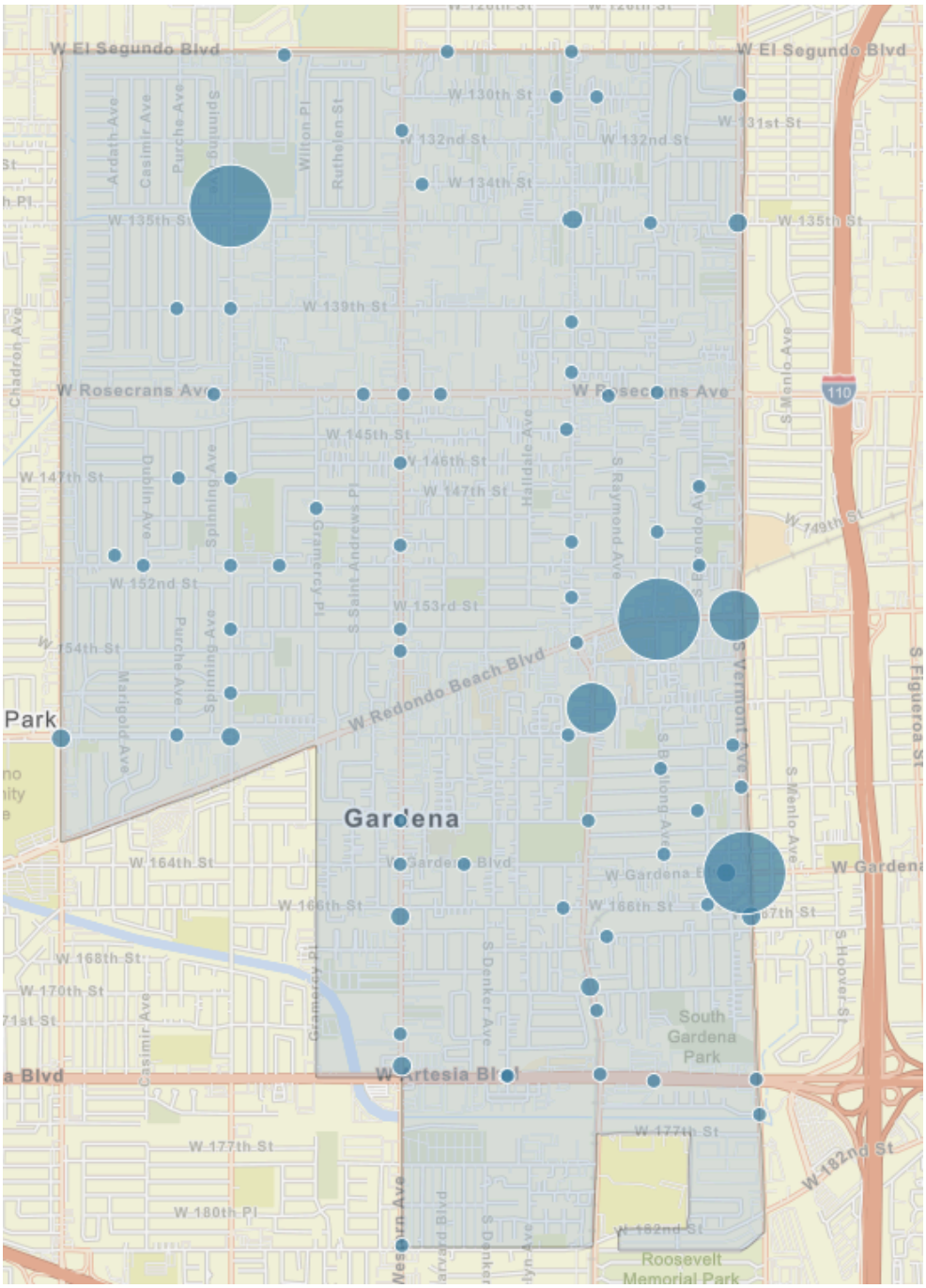
The chart below shows the average pedestrian collision rate from 2018-2022, adjusted for population.



To understand this trend on a year-to-year basis, the absolute number of pedestrian collisions in Gardena for each year is plotted below. Note: no pedestrian collisions were reported to SWITRS in Gardena in 2022.



The heatmap below shows where pedestrian collisions between are most common in Gardena from 2018-2022. For context, the largest circle represents 4 collisions in this period.



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

Rank	Intersection	# of Collisions
1	BUDLONG AVE & REDONDO BEACH BLVD	3
1	MAGNOLIA AVE & NORMANDIE AVE	3
1	REDONDO BEACH BLVD & VERMONT AVE	3
2	134TH PL & VAN NESS AVE	2
2	135TH ST & VERMONT AVE	2
2	170TH ST & NORMANDIE AVE	2
2	CRENSHAW BLVD & MANHATTAN BEACH BLVD	2
2	MANHATTAN BEACH BLVD & VAN NESS AVE	2
3	135TH ST & VAN NESS AVE	1
3	139TH ST & VAN NESS AVE	1

Conclusions

Summary: Gardena	Bicycle		Pedestrian	
Metric	***Value***	***Rank***	***Value***	***Rank***
Total Collisions from 2018-2022	51	7	98	6
Average Collisions per Year	10.2		19.6	
Collision Rate (per 10,000 pop.)	1.7	10	3.2	6

Gardena ranks 7th across the studied South Bay cities for bicycle collisions, and 6th for pedestrian collisions. Van Ness Ave, Western Ave, Vermont Ave, Normandie Ave and Redondo Beach Blvd have some of the highest collision rates in Gardena.

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.