



Bicycle and Pedestrian Collision Data

Palos Verdes Estates

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 Palos Verdes Estates relative to ten other South Bay cities (Carson, El Segundo, Gardena, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Manhattan Beach, 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 Palos Verdes Estates. 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)

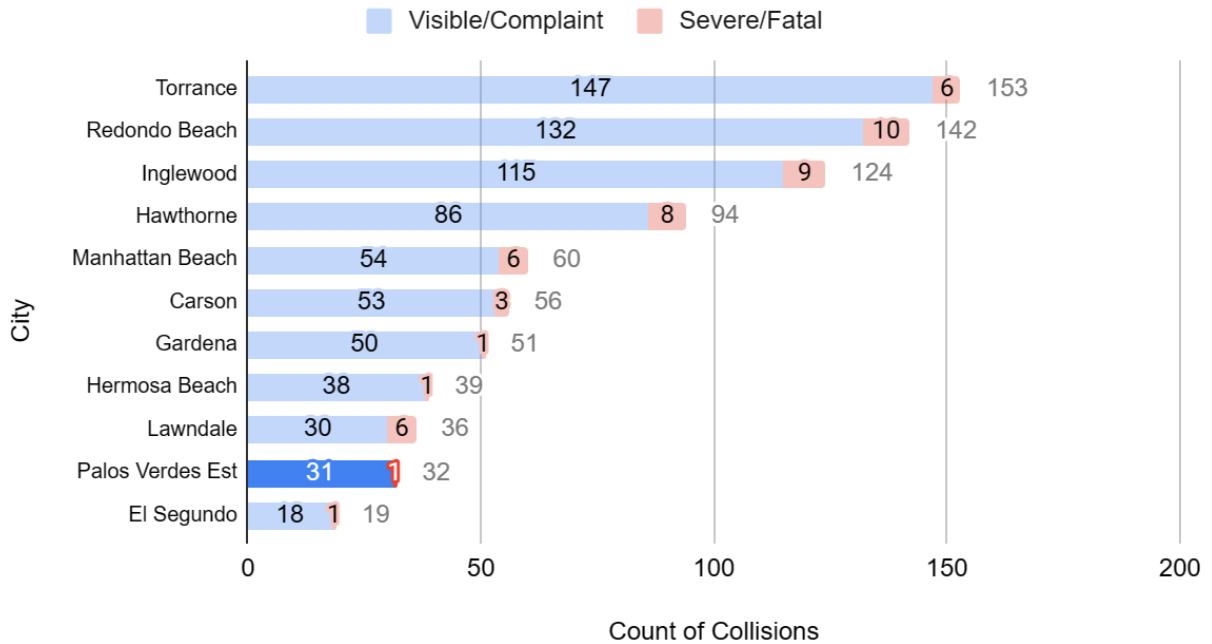
¹ <https://tims.berkeley.edu/>

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

Bicycle Collision Data

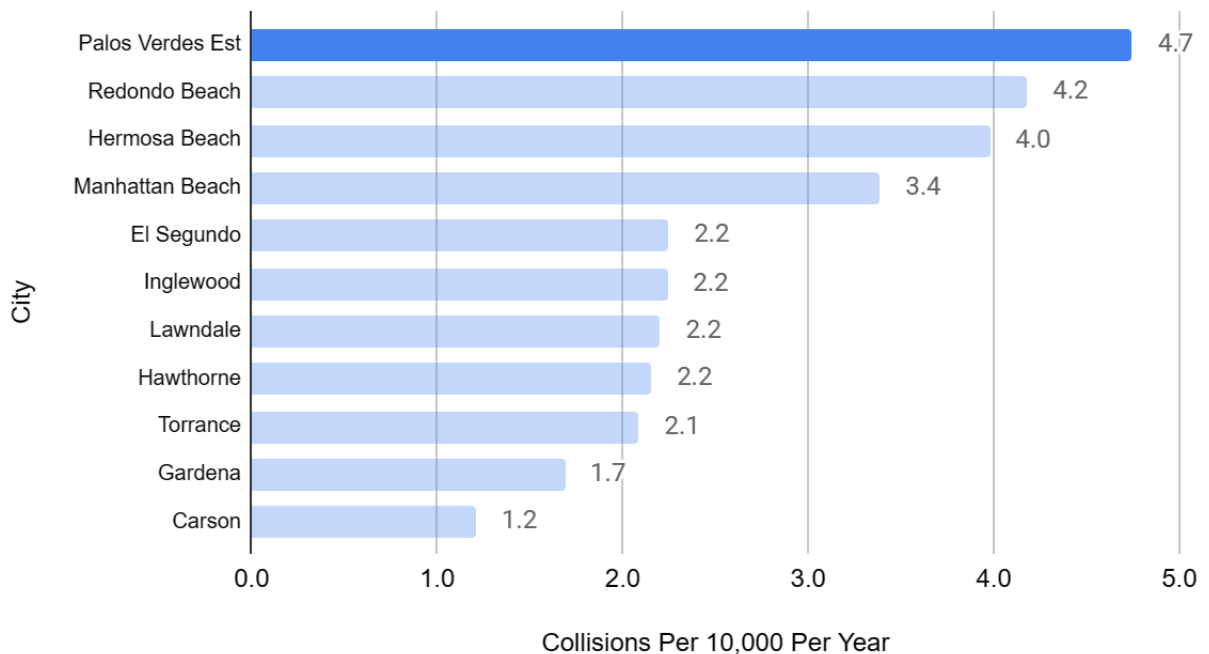
The chart below shows the total number of bicycle collisions between 2018-2022.

Total Bicycle Collisions, 2018-2022



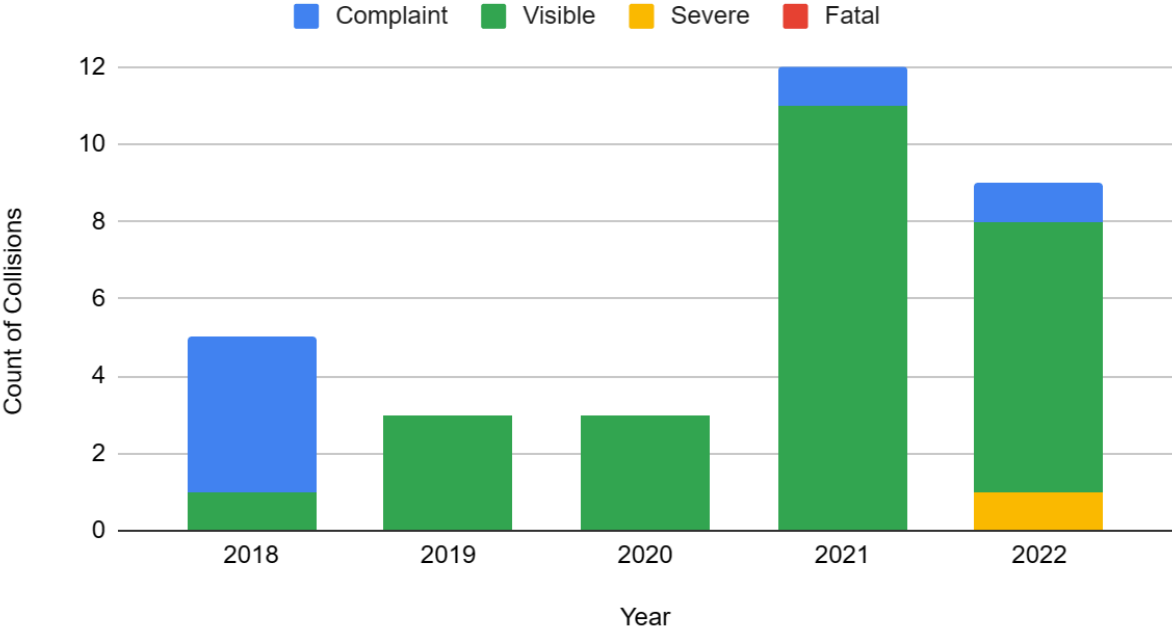
The chart below shows the average bicycle collision rate between 2018-2022, adjusted for population.

Bicycle Collision Rate, 2018-2022

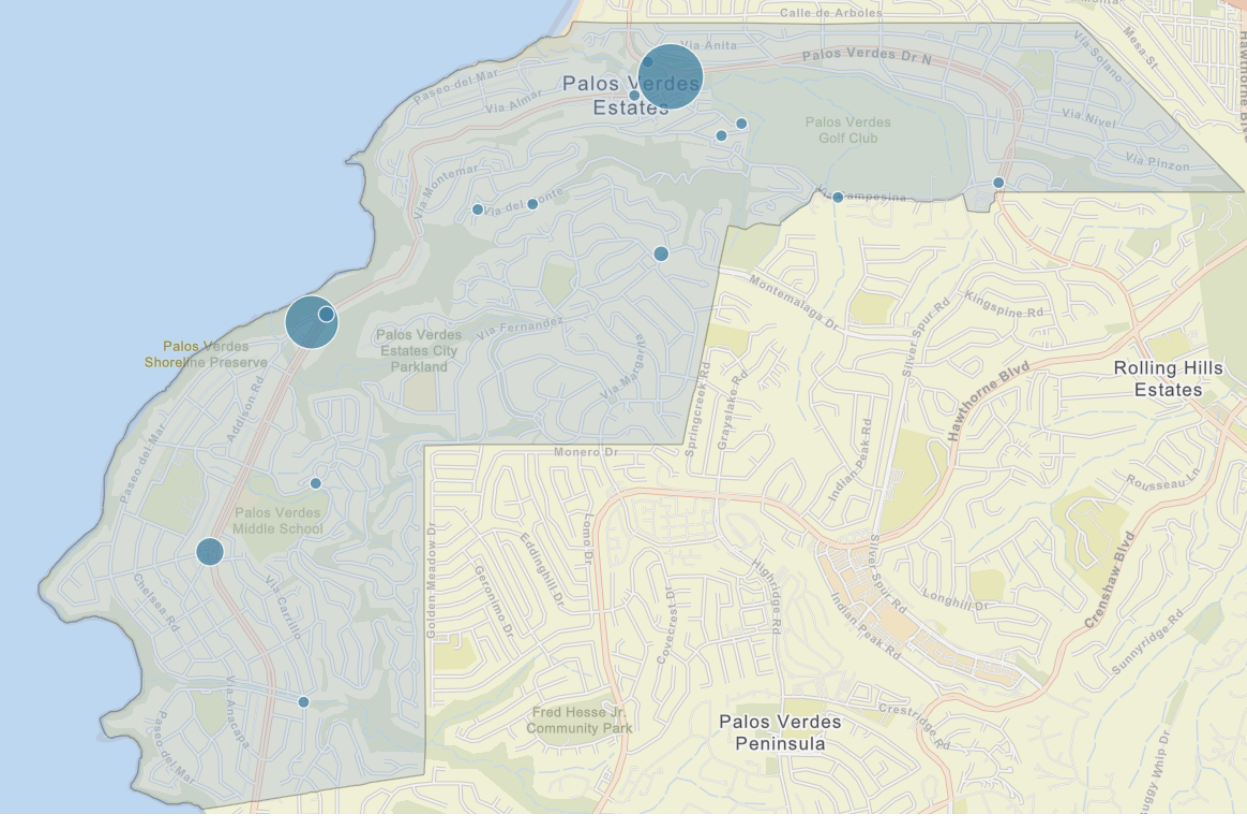


To understand this trend on a year-to-year basis, the absolute number of bicycle collisions in Palos Verdes Estates for each year is plotted below.

Bicycle Collision History: Palos Verdes Estates



The heatmap below shows where bicycle collisions between are most common in Palos Verdes Estates from 2018-2022. For context, the largest circle represents 6 collisions in this period.



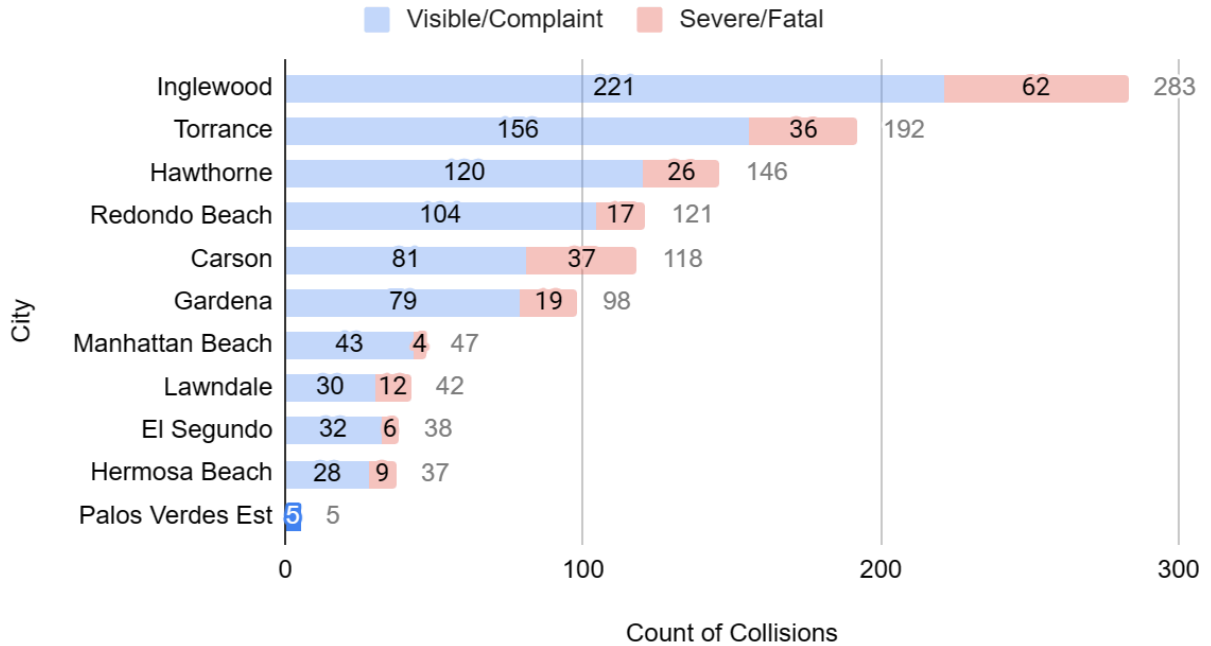
The table below shows the top ranked intersections in Palos Verdes Estates for bicycle collisions.

Rank	Intersection	# of Collisions
1	PALOS VERDES DR & PALOS VERDES BLVD	6
2	PALOS VERDES DR & PASEO DEL MAR	4
3	PALOS VERDES DR & YARMOUTH RD	3

Pedestrian Collision Data

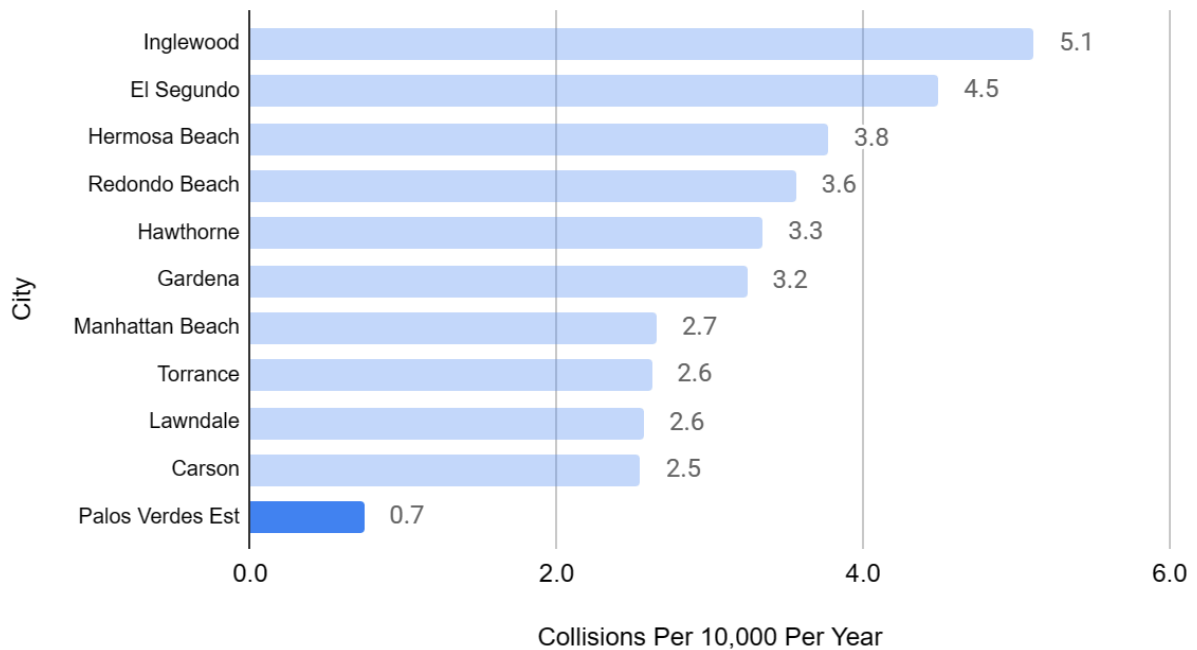
The chart below shows the total number of pedestrian collisions between 2018-2022.

Total Pedestrian Collisions, 2018-2022



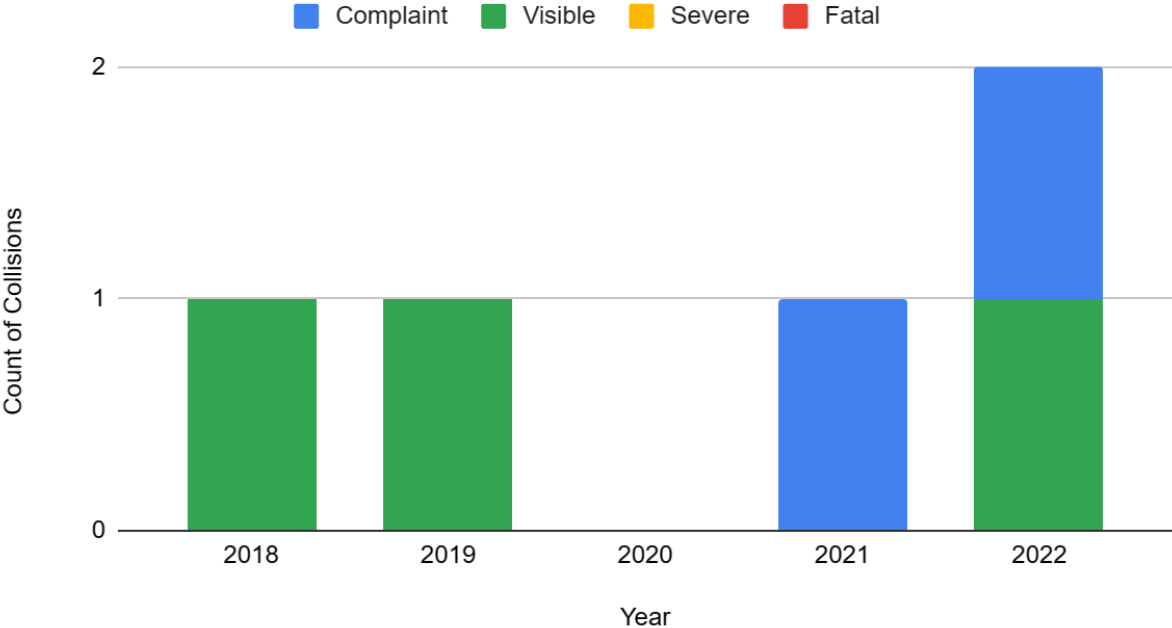
The chart below shows the average pedestrian collision rate from 2018-2022, adjusted for population.

Pedestrian Collision Rate, 2018-2022

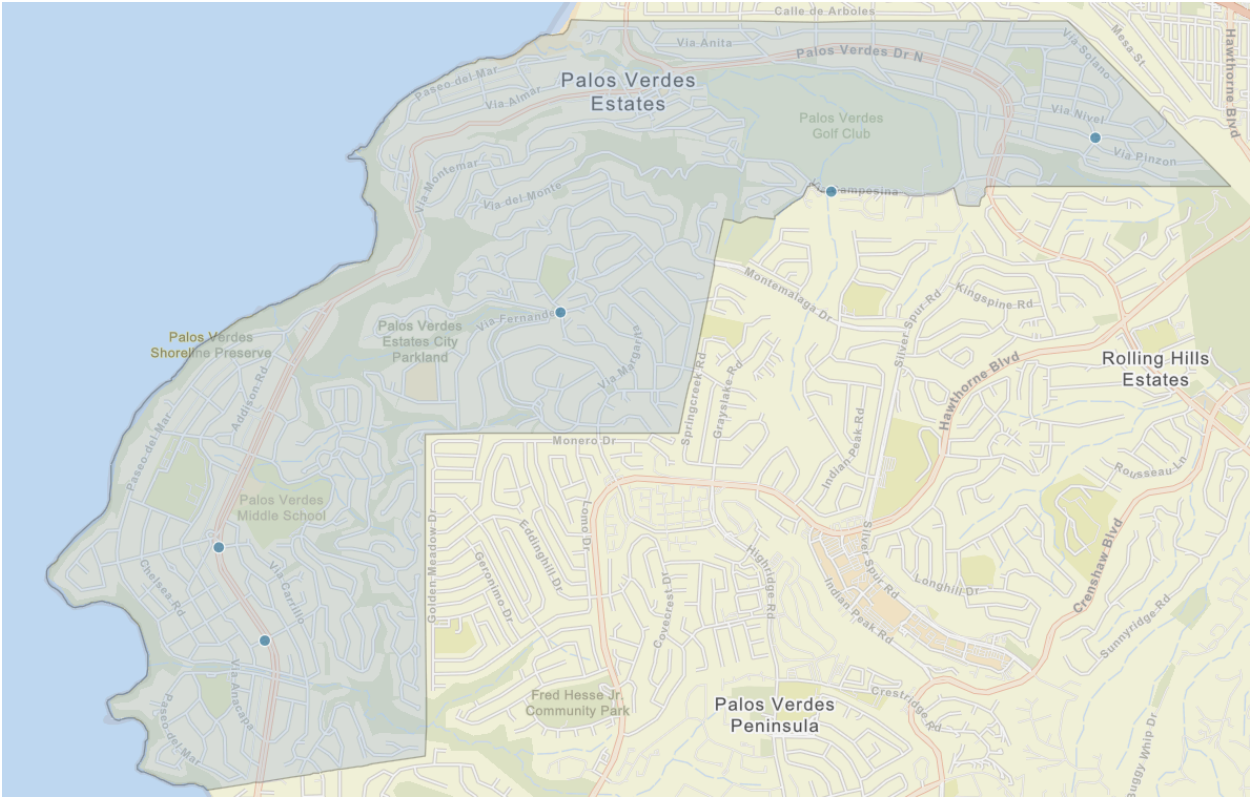


To understand this trend on a year-to-year basis, the absolute number of pedestrian collisions in Palos Verdes Estates for each year is plotted below.

Pedestrian Collision History: Palos Verdes Estates



The heatmap below shows where pedestrian collisions between are most common in Palos Verdes Estates from 2018-2022. For context, each circle represents a single collision.



Due to low sample size, a ranked intersection table is not provided as each instance is visible in the above map.

Conclusions

Summary: Palos Verdes Estates	Bicycle		Pedestrian	
<i>Metric</i>	<i>Value</i>	<i>Rank</i>	<i>Value</i>	<i>Rank</i>
Total Collisions from 2018-2022	32	10	5	11
Average Collisions per Year	6.4		1.0	
Collision Rate (per 10,000 pop.)	4.7	1	0.7	11

Palos Verdes Estates ranks 1st across the studied South Bay cities for bicycle collision rate, and 11th for pedestrian collisions. Palos Verdes Drive has some of the highest collision rates in Palos Verdes Estates. While the high population-adjusted bicycle collision rate may seem skewed by low population and high ridership, the recent years (2021-2022) have demonstrated an increasing trend in collisions compared to pre-pandemic 2018-2019.

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.