



San Mateo County
SAFE ROUTES TO SCHOOL
Healthy Kids • Green Communities • Safe Journeys



Youth-Based High Injury Network (HIN) for San Mateo County Safe Routes to School

C/CAG Technical Advisory Committee | February 17, 2022



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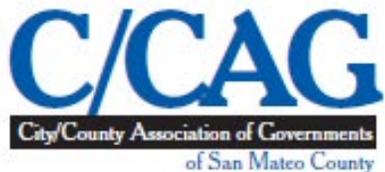
Project Overview



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1. Evaluation of SMCOE Safe Routes to Schools (2015/16-2019/20)
2. Develop 5 Year Strategic Plan for Safe Routes to School
3. Perform a High Injury Network analysis of roadways near San Mateo County schools



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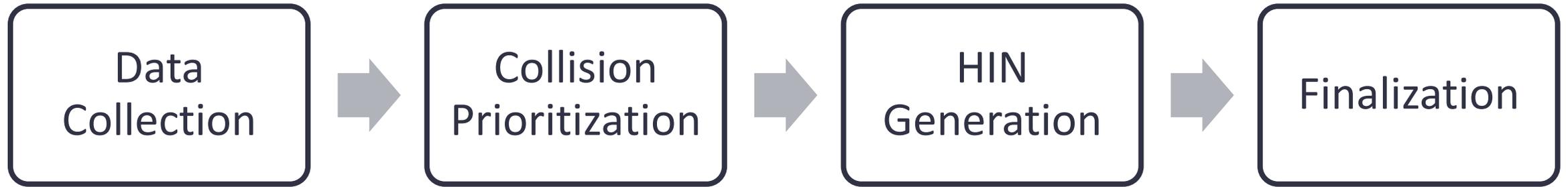


**SAN MATEO
COUNTY
OFFICE OF
EDUCATION**

High Injury Network Development



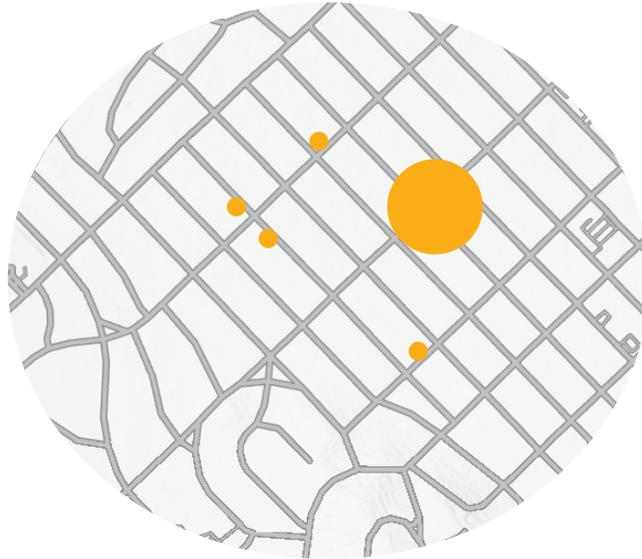
HIN Development



1. Data collection

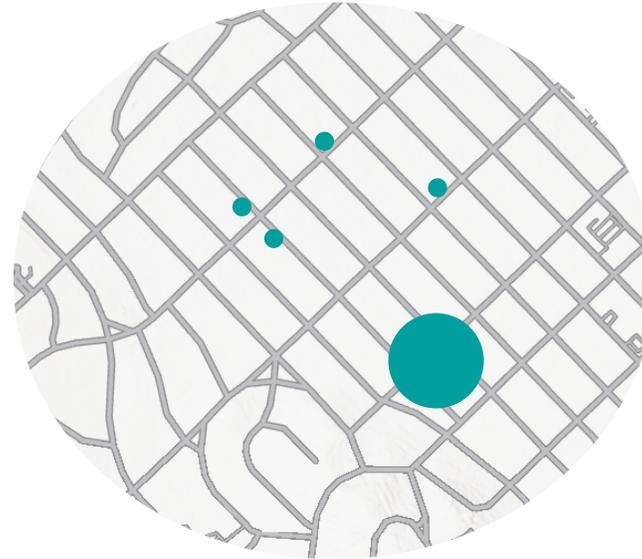
- **SWITRS Collision data**
 - Filtered to exclude collisions on freeways – except where Hwy 101 functions as an at-grade arterial (southeast part of the county)
- **Caltrans road centerline**
- California Department of Education (DOE) public and private schools
- DOE Free and Reduced Price Meal data
- MTC Equity Priority Communities layer

2 Collision Prioritization



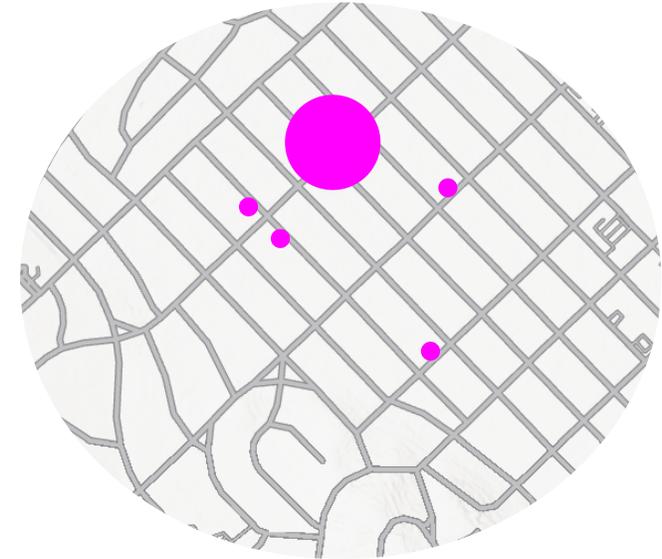
Severity

KSI (killed or severely injured) weighted above other collisions



Active Mode

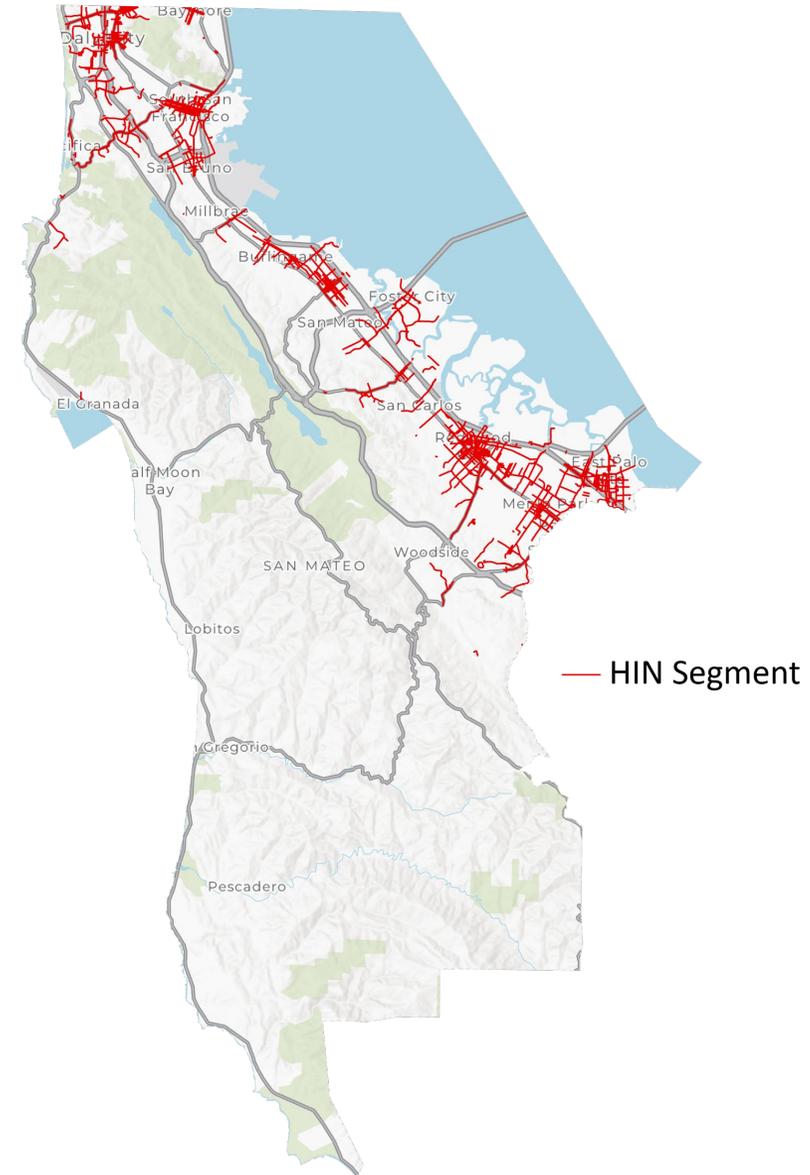
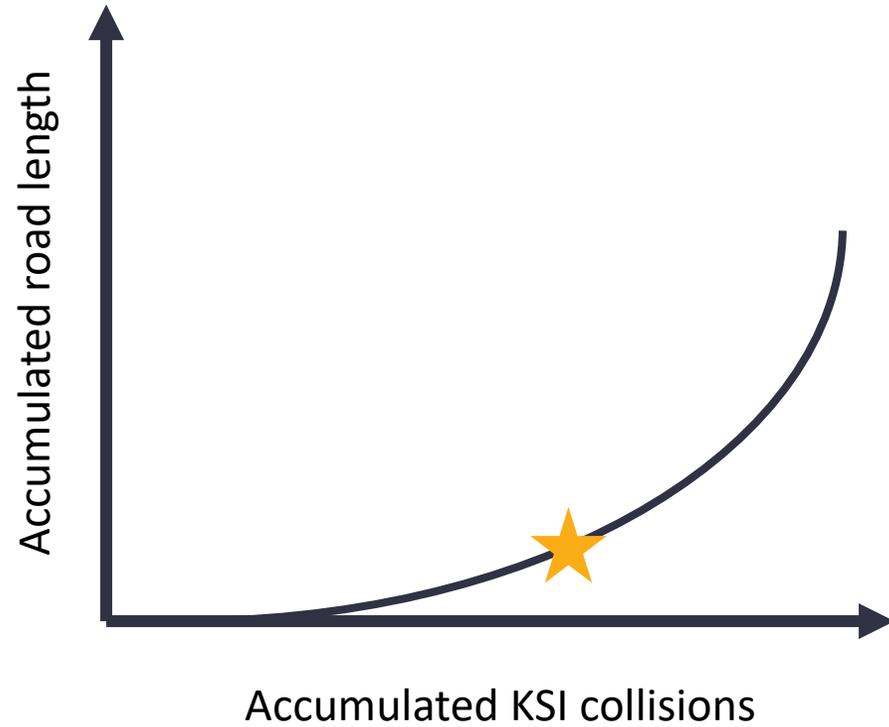
Collision involved a person walking or bicycling



Youth Involvement

Victim under 18

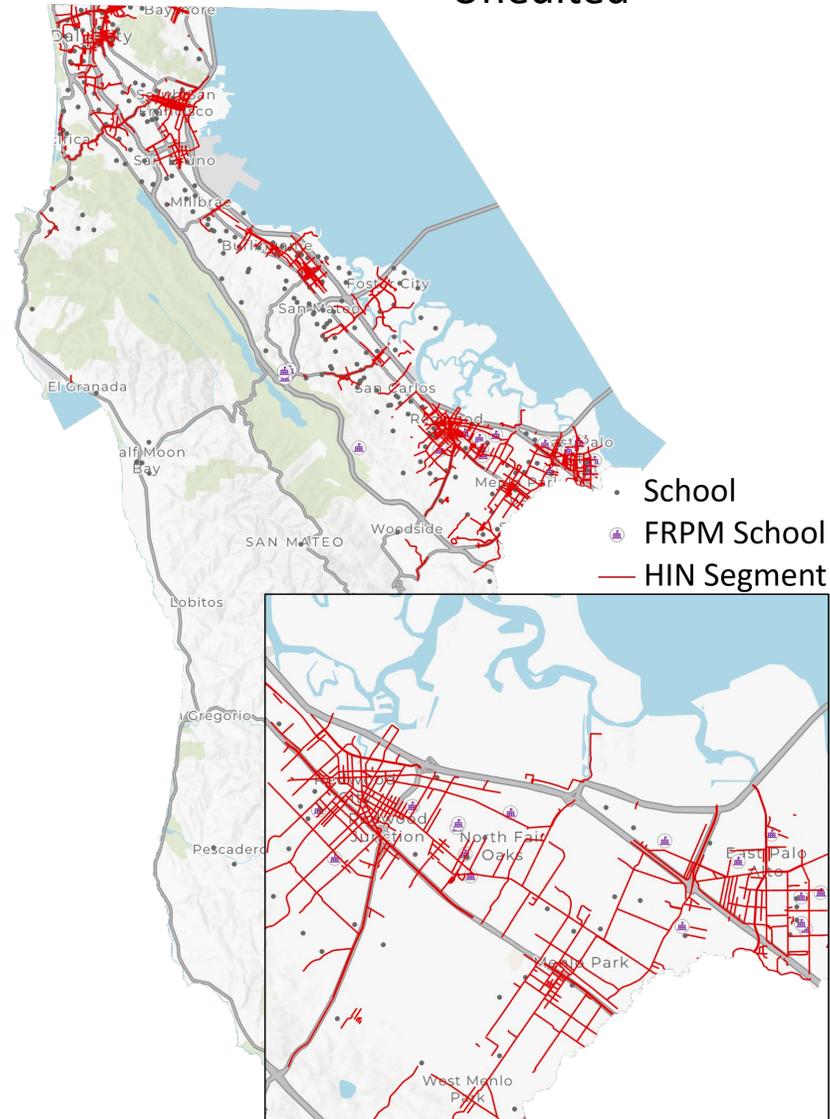
3. HIN Generation



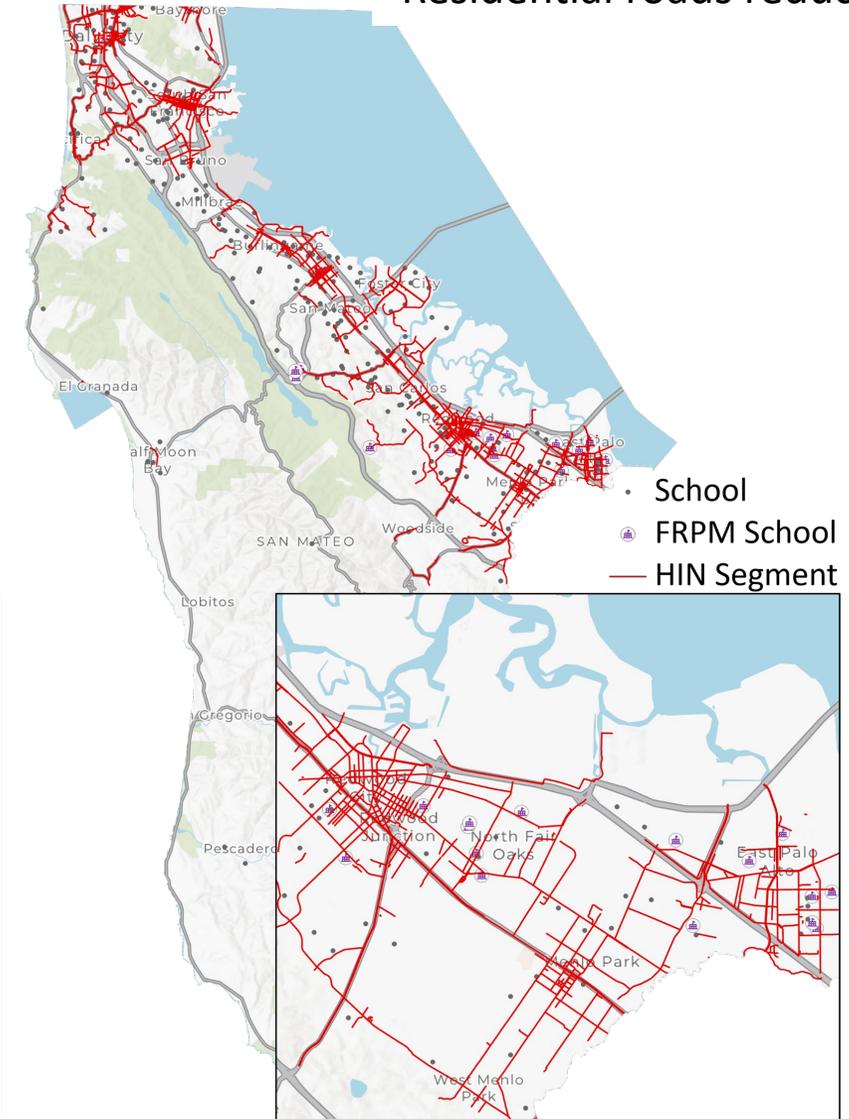
4. Finalization

- Network “bleeding” onto residential streets
- Manual edits based on feedback

Unedited



Residential roads reduced

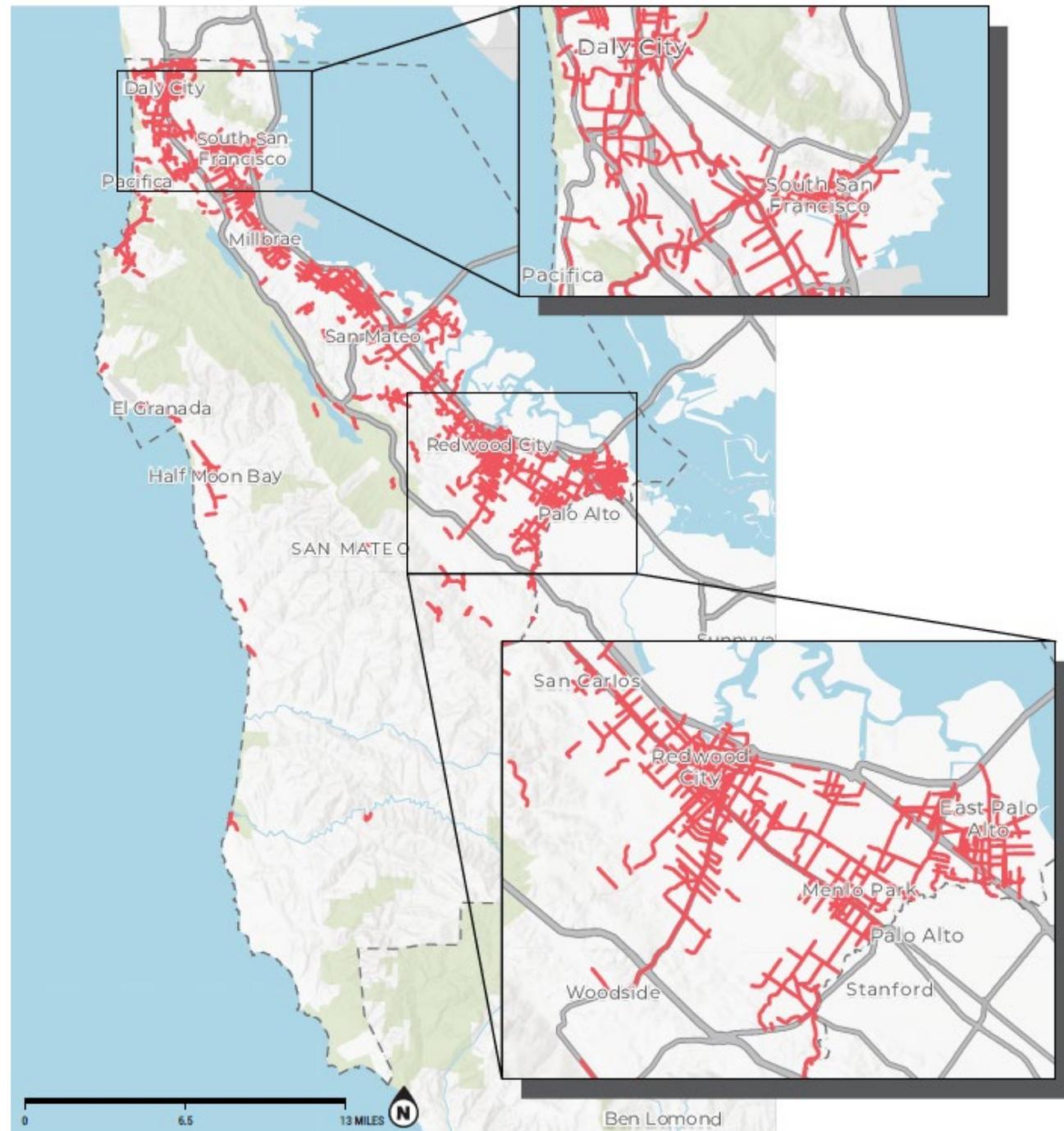


High Injury Network Findings



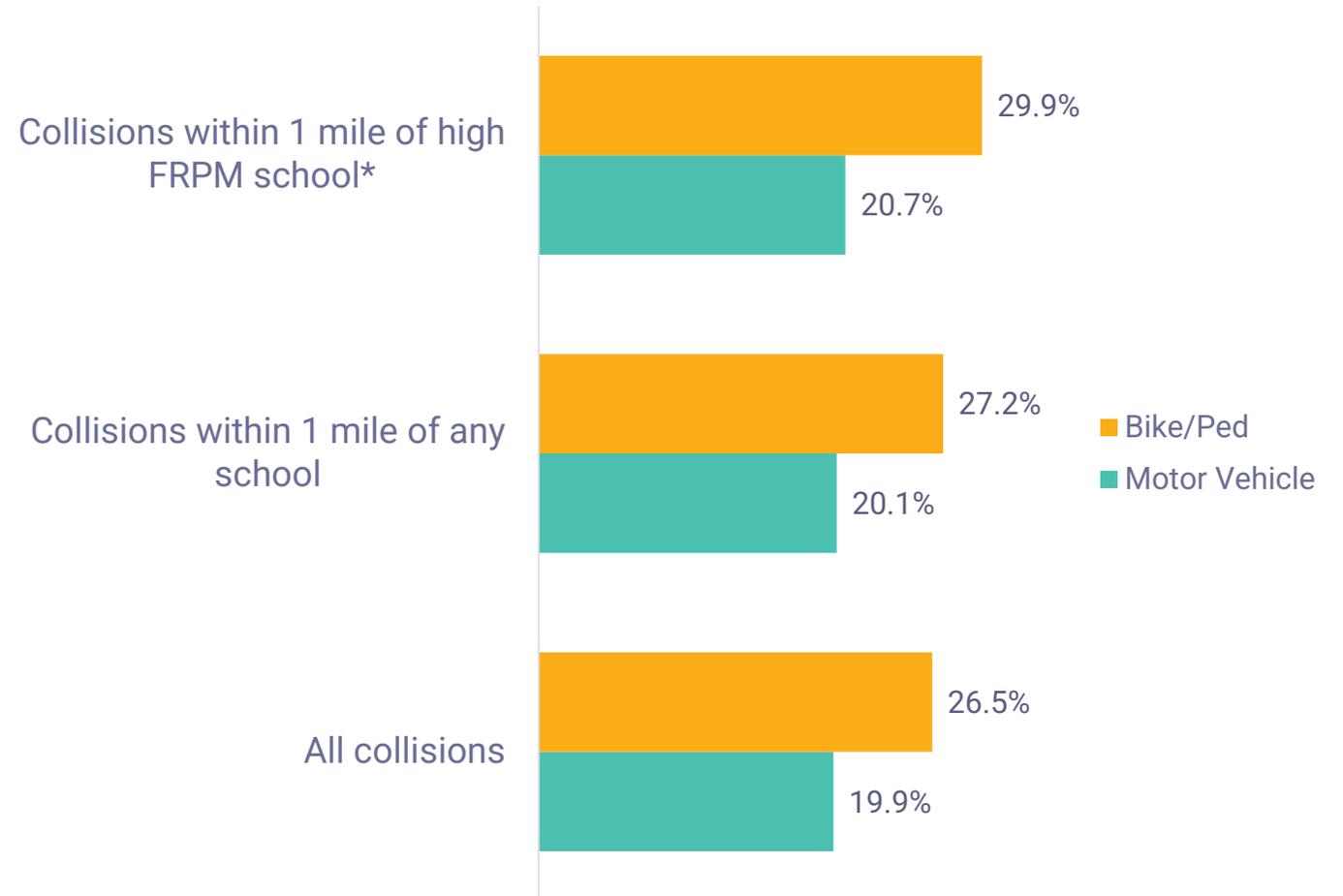
HIN Statistics

- 325.8 total miles (10.4% of total network)
- Majority is concentrated in population centers
- 96% is within 1 mile of a school
- 28% is within 1 mile of a high-FRPM school



Collision Location Statistics

- The percentage of collisions involving youth increases near schools, particularly FRPM schools

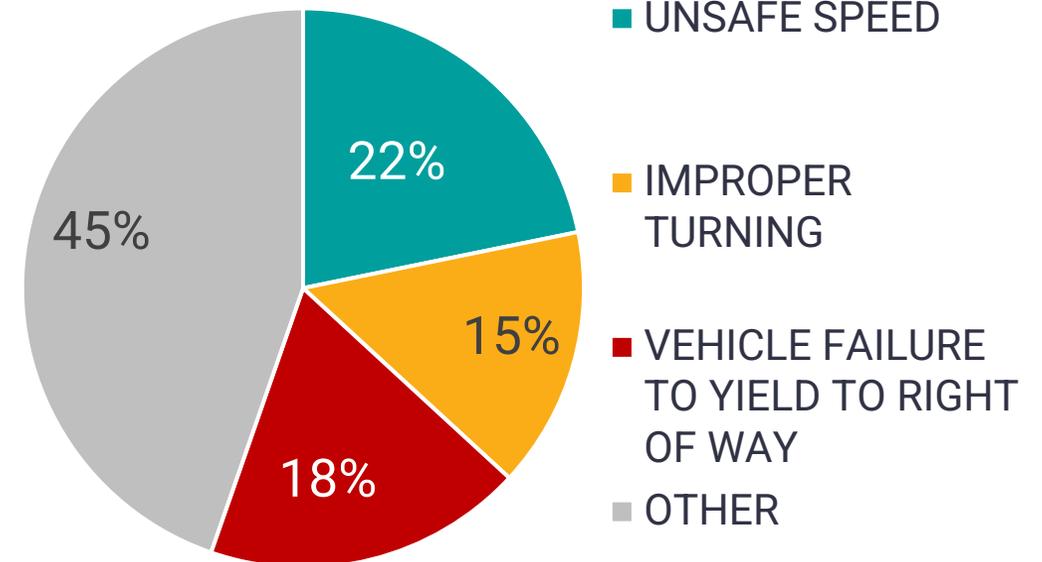


*HIGH FRPM IS DEFINED AS 75%+ ELIGIBILITY FOR FRPM

Collision Cause Statistics

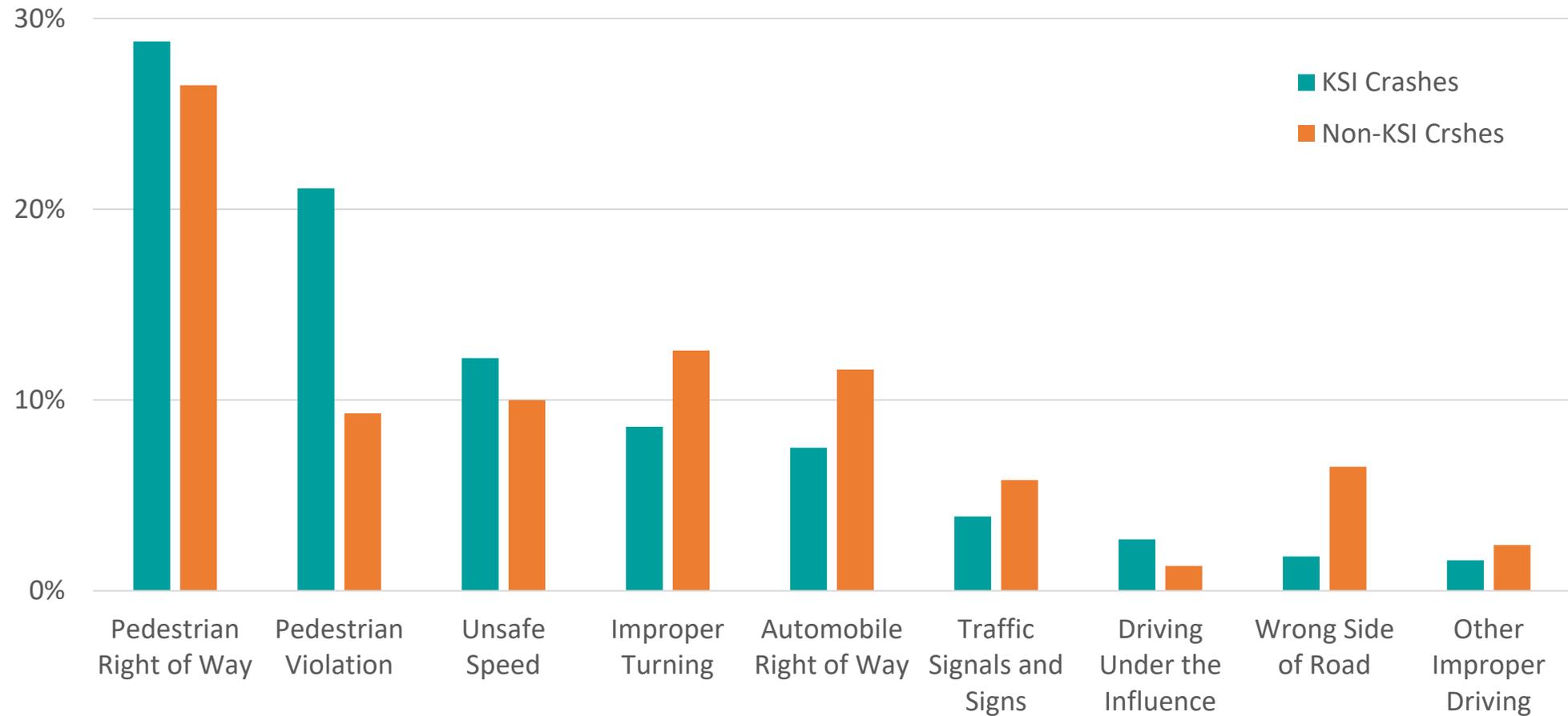
- Three crash factors account for 55% of all collisions:
 - Unsafe speed
 - Improper turning
 - Vehicle failure to yield right-of-way

PRIMARY CRASH FACTOR, ALL COLLISIONS



Top Active Mode Crash Causes

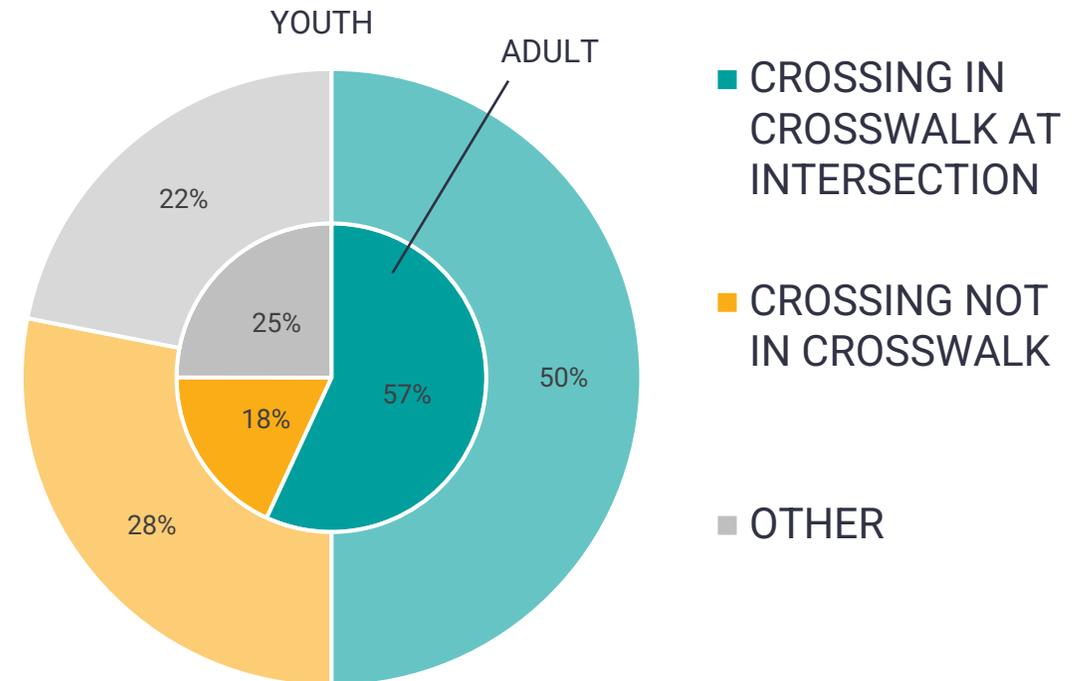
Causes of Active Killed or Severely Injured (KSI) Collisions Countywide



Pedestrian Collision Action Statistics

- For all pedestrians, most collisions occur while crossing at an intersection (blue)
- Youth pedestrians are more likely than adults to be hit while crossing outside of a crosswalk (yellow)

PEDESTRIAN ACTION IN ALL PEDESTRIAN COLLISIONS



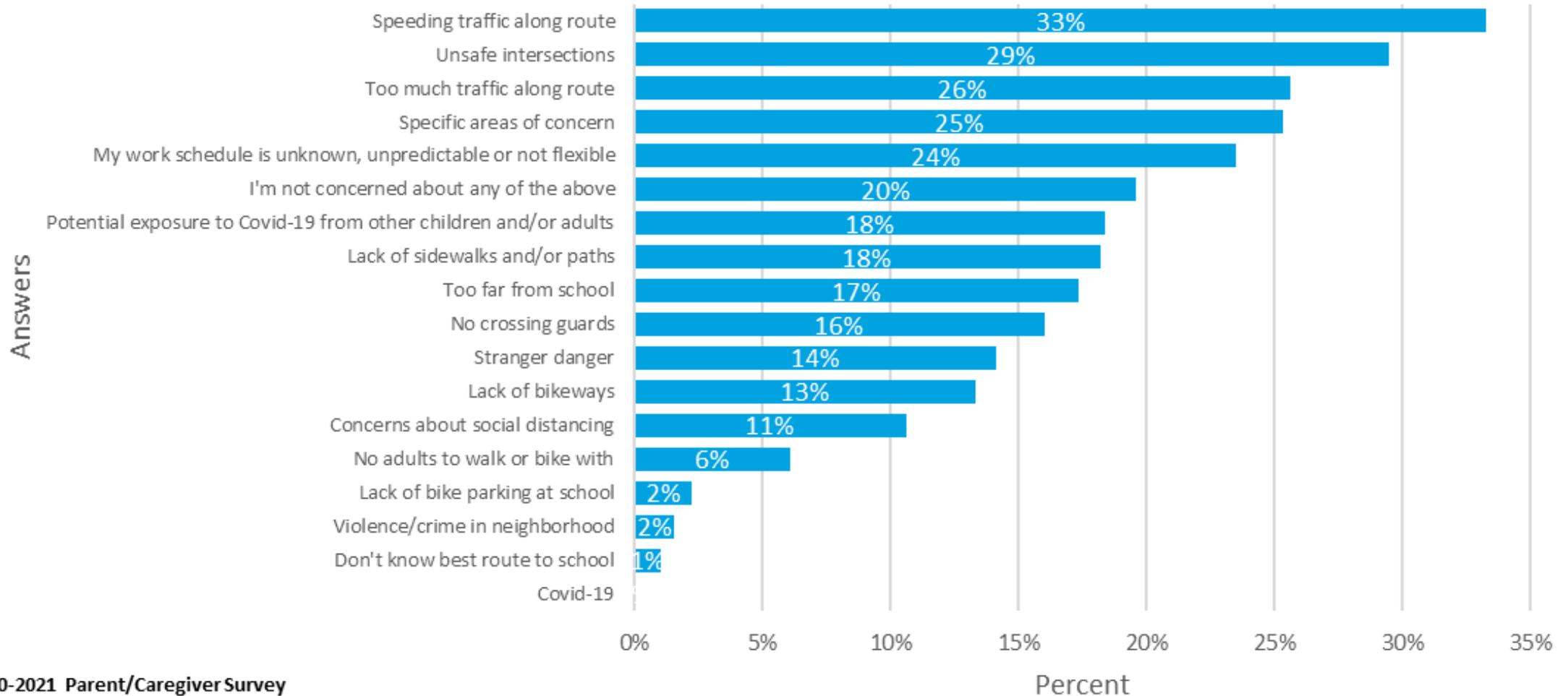
Parent/Caregiver Concerns with Walking/Biking to School



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The survey asked, "what concerns limit your child's ability to walk or bike from school?"



Source : 2020-2021 Parent/Caregiver Survey

Note: Percentages may not add up to 100% due to rounding.

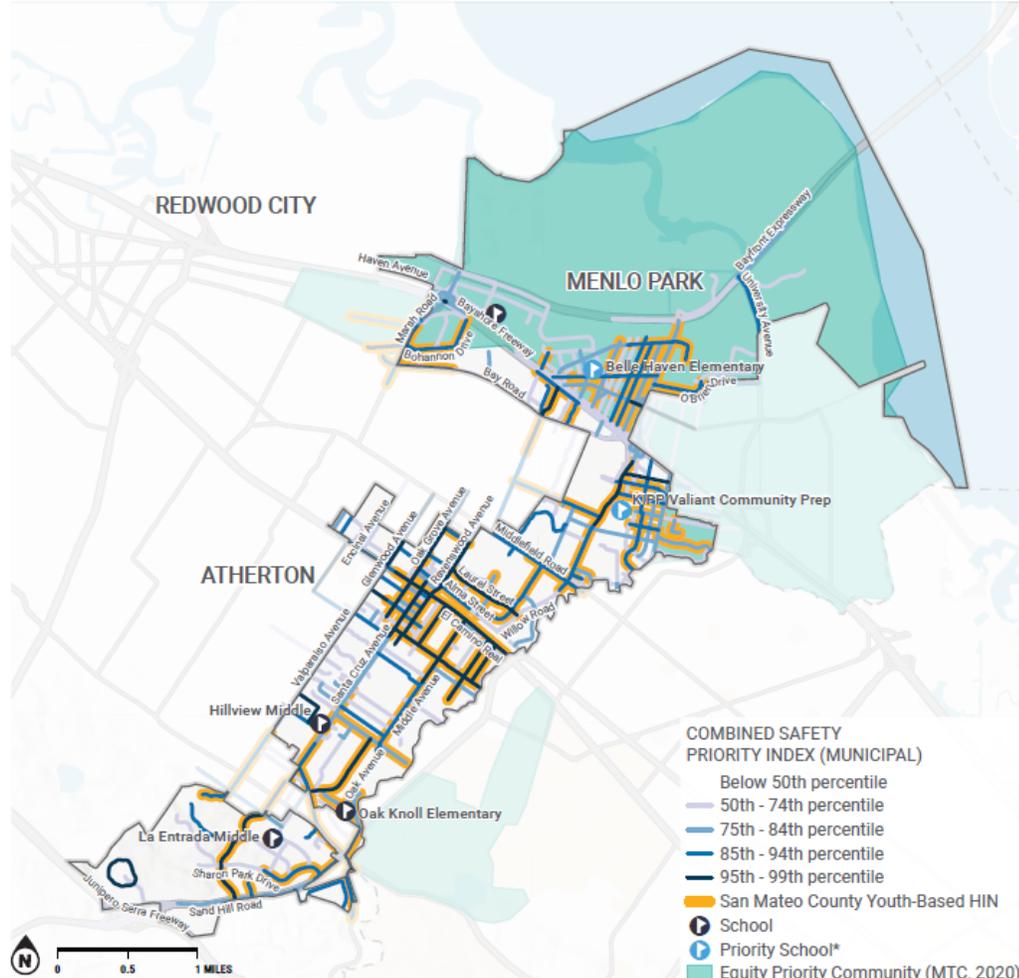
A yellow school bus is parked on the right side of a street. The bus has "SCHOOL BUS" written on its roof and "STOP WHEN RED LIGHTS FLASH" on its rear. The number "3" is visible on the back. The background shows a residential street with trees and other vehicles. The entire image is overlaid with a semi-transparent teal color.

Resources for San Mateo County Cities



MENLO PARK SCHOOL SAFETY ANALYSIS

YOUTH-BASED HIGH INJURY NETWORK (HIN) - TOP CORRIDORS



*Priority schools are defined as those with 75% or greater eligibility for Free and Reduced Price Meal (FRPM) programs during the 2020-2021 school year.

TOP 5 SAFETY PRIORITY CORRIDORS

Corridor	Number of Collisions				
	All Collisions	Fatal or Severe (KSI)	Pedestrian Involved	Bicyclist Involved	Youth Involved
Ravenswood Ave	22	1	3	6	6
Avey Ave	12	1	0	7	2
State Highway 82	59	2	3	8	14
Laurel St	20	3	1	6	9
Glenwood Ave	6	1	0	3	2

Segments are sorted by their Combined Safety Priority Index scores. Columns may not add up because collisions may be counted in multiple columns. Prepared 2/2/2022 5:09 PM

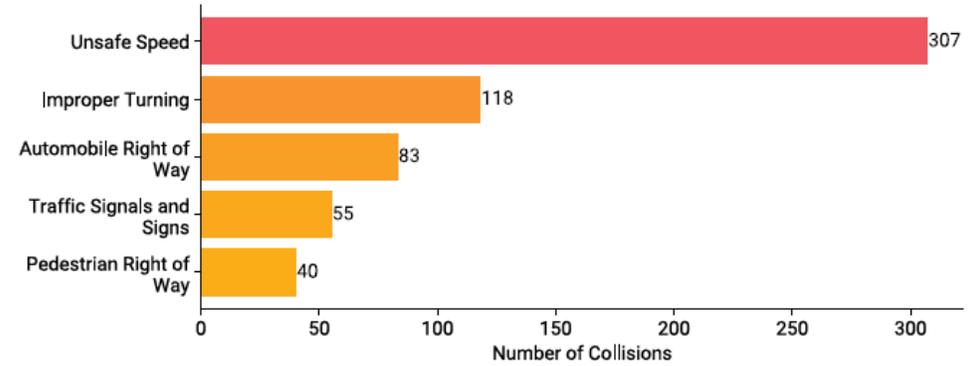
COLLISION STATISTICS FOR MENLO PARK, 2014-2020

See the San Mateo County SRTS High Injury Network Report for additional context and guidance on countermeasures.

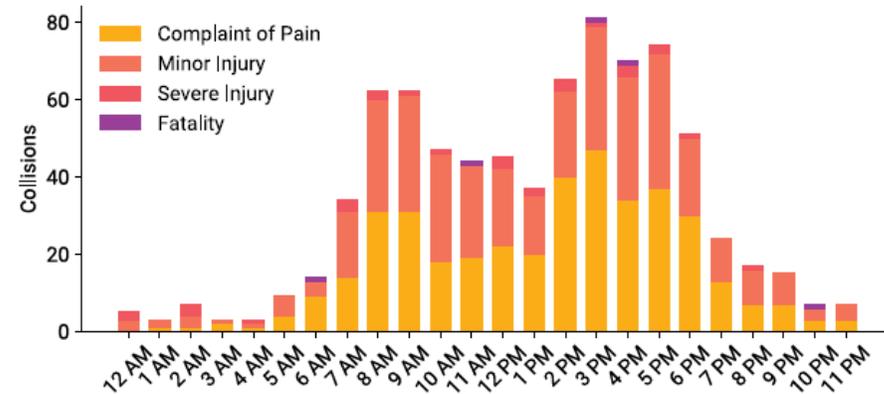
COLLISION TYPES BY LOCATION

	City-Wide				Within 1/4 Mile of a School				Within 1/4 Mile of a Target* School			
	All	KSI	Youth	Active	All	KSI	Youth	Active	All	KSI	Youth	Active
All Collisions	786	34	198	258	111	4	36	45	69	1	24	31
Alcohol Involved	53	8	9	19	12	1	3	5	8	0	2	4
Speeding Involved	307	11	69	39	47	2	15	9	26	0	9	3
Mid-Block Collision	403	21	103	101	59	3	20	19	37	1	12	11

TOP 5 COLLISION FACTORS, ALL COLLISIONS



ALL COLLISIONS BY TIME OF DAY



Collision data from 2014 to 2020 was downloaded from the statewide Transportation Injury Mapping System (TIMS) which reports all collisions resulting in an injury. 2020 data was provisional at the time of download.

Collision Causes – Mapping to Countermeasures

Countermeasures	Cost Efficiency ¹	Effectiveness ²	Co-benefits ³
Actuated Beacons (RRFB/PHB)	★ ★ ★	★ ★ ★	★
Speed Humps & Tables	★ ★	★ ★	★



Thank You!

*Please email me with questions or feedback at:
hannahday-kapell@altago.com
By March 1*