

Accurately Documenting & Analyzing  
Cyclists' Threat Environment  
For SMCPW's LRSP

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# CVE's Mission

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Create Safe, Shared Streets

by

Preventing

**near misses, collisions, injuries and fatalities**

# The only way to **prevent collisions** is by **objectively** documenting cyclists' **actual threat environment**

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- CVE advocates cyclists ride with a camera to generate authenticated, objective, first hand, and high resolution **near miss data**
- Cyclists are the only ones who are always there when near miss incidents endanger their lives
- Video evidence is objective and without bias. This is why officers wear bodycams.
- CVE provides cyclists with a free online Incident Management System so they can track, map, update and analyze all of their near miss incidents, search for repeat offenders, establish potential patterns of dangerous driver behavior, and generate near miss data, to mitigate threats - **before collisions occur!**
- Cyclists have no access to their incident reports once they are submitted to law enforcement.
- CVE presented to the California Transportation Commission's Active Transportation Program's Technical Advisory Committee. They stated that near miss data can be used when applying for ATP grant funding.

# Collisions represent the catastrophic failure of all cycling safety measures at the moment of impact

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- The Unincorporated San Mateo County's Local Road Safety Plan (LRSP) is entirely based on subjective, and massively underreported, collision data from the SWITRS database
- The "Local Road Safety Plan (LRSP) provides the framework for identifying, analyzing, and prioritizing roadway safety improvements on local roads and results in a prioritized list of issues, risks, actions, and improvements that can be used to reduce **fatalities and serious injuries** on the local road network."
- Cyclists don't want **any injuries and collisions** just to ride on the streets!
- The data in the LRSP states: **from 2014 through 2020**, there were **13 fatal collisions and 76 severe injury collisions**
- The LRSP dataset is so small they included **six years to identify 89 collisions**, for **both** pedestrians and cyclists
- This in no way documents the actual experienced and perceived **threat environment** faced by cyclists
- In fact, the LRSP data represents only **a sliver, 3.45%**, of the SWITRS collision data for that time frame as show in the following slide

# Transportation Injury Mapping System

## SWITRS Query & Map

### Result Summary

[New Query](#) / [Query by Case ID\(s\)](#) / [Help](#)

Date 01/01/2014 - 01/01/2020 *2014 - 2020*  
 County San Mateo  
 City All

#### Selected Filters

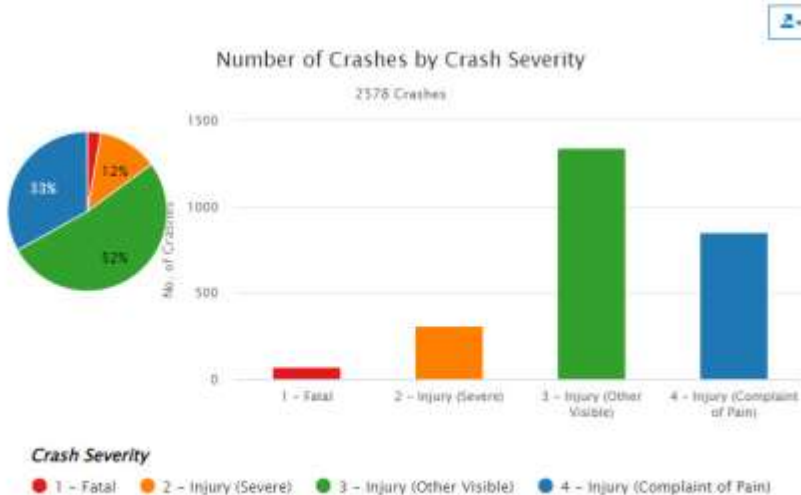
Motor Vehicle Involved with *Motor Vehicle Involved with*  
 B - Pedestrian *B - Pedestrian*  
 G - Bicycle *G - Bicycle*

[Change Filters](#) [Download Raw Data](#)

Total Crashes	2,578	Total Victims	71 Killed & 2,638 Injured	State Highway	447 (17.3%)
Ped Crashes	1,423 (55.2%)	Bike Crashes	1,164 (45.2%)	Motorcycle Crashes	10 (0.4%)

Overall [Victim Summary](#) [Ped Crash Summary](#) [Map](#)

#### By Crash Severity



*89 / 2,578 = 3.45%*

*Total Crashes - 2,578*  
*Ped Crashes - 1,423 (55.2%)*  
*Bike Crashes - 1,164 (45.2%)*  
*Total Victims - 71 Killed & 2,638 Injured*

*Crash Severity*  
*Fatal - 71 - 2.75%*  
*Injury (Severe) - 313 - 12.14%*  
*Injury (Other Visible) - 1342 - 52.06%*  
*Injury (Complaint of Pain) - 852 - 33.05%*

# On top of all that:

## Collisions are the worst possible lagging indicator of cycling safety

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- This summer CVE hosted and facilitated meetings with the CDC and NHTSA that document **over 70%** of cyclists injured in motor-vehicle collisions, that land them in the **emergency room**, do not report their incidents to law enforcement. Therefore, those incidents are **not** in SWITRS data.
- **Many orders of magnitude** more cyclists injured in motor-vehicle collisions do not go to the ER.
  - They are either treated in outpatient, by their doctor, or not at all, and they do not report to law enforcement.
- SWITRS collision data elements are subjective, driver centric, and nebulous, such as speed, which is often listed as the most common *Primary Collision Factor*: the speed of the vehicle or the speed of the cyclist, and how could they know a cyclist's speed?
- Officers very rarely witness a collision, and if they do, they have biases. That is why officers wear bodycams: to have objective, video evidence.
- Collisions are the worst possible lagging indicator of cycling safety, are horribly underreported and do not accurately document cyclists' **actual experienced and perceived threat environment**.

On top of all that:  
Collisions are not the top reasons cyclists  
cycling and potential cyclists refuse to start

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- The top reasons are near misses and perceived risk.
- This, and many other factors, make collisions the worst possible measure of cyclists' threat environment.

## Unincorporated San Mateo County's Local Road Safety Plan needs to be based on cyclists' actual threat environment

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- **Working together**, we can create Safe, Shared Streets by preventing **near misses, collisions, injuries and fatalities**
  - San Mateo County needs to publicly promote cyclists riding with cameras and submitting all near miss incidents to CVE's free Incident Management System
  - This will provide law enforcement with the opportunity to proactively change dangerous drivers' behavior via education or citation, depending on the violation
  - Changing dangerous drivers' behavior is the best way to prevent **near misses, collisions, injuries and fatalities**



Working together,  
we can create  
Safe, Shared Streets  
for all vulnerable road users!

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