

Golden Gate Bridge Bicycle Safety Study

Town Hall | October 6, 2021



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PRESENTATION SUMMARY



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- Study Overview
- Bridge Sidewalk Access Rules
- Bicycle and Pedestrian Activity
- Bicycle Crash Data
- Recommendations
- Next Steps and Additional Input Opportunities



PROJECT OVERVIEW



Project Overview

- Study of bicycle activity and crashes on bridge sidewalks
- Recommendations for signage, markings and access changes
- Not looking at structural modifications to bridge sidewalks or constrained areas



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BRIDGE SIDEWALK ACCESS RULES





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Access Rules - Pedestrians

- Pedestrians and wheelchairs allowed on East Sidewalk only
- 5am-6:30 pm PST, 5am-9pm PDT
- Automatic gates prevent access during nighttime hours
- Roller skates/blades, skateboards not permitted





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Access Rules - Bicyclists

- Bicycles have access 24 hours a day
- Weekdays – Pacific Standard Time
 - 5:00 am-3:30 pm – East Sidewalk
 - 3:30-6:30 pm – West Sidewalk
 - 6:30 pm – 5:00 am – East Sidewalk via remote gate
- Weekends and Holidays - PST
 - 5:00 am-6:30 pm – West Sidewalk
 - 6:30 pm-5:00 am – East Sidewalk via remote gate
- Weekdays – Pacific Daylight Time
 - 5:00 am-3:30 pm – East Sidewalk
 - 3:30-9:00 pm – West Sidewalk
 - 9:00 pm – 5:00 am – East Sidewalk via remote gate
- Weekends and Holidays - PDT
 - 5:00 am-9:00 pm – West Sidewalk
 - 9:00 pm-5:00 am – East Sidewalk via remote gate



West Sidewalk

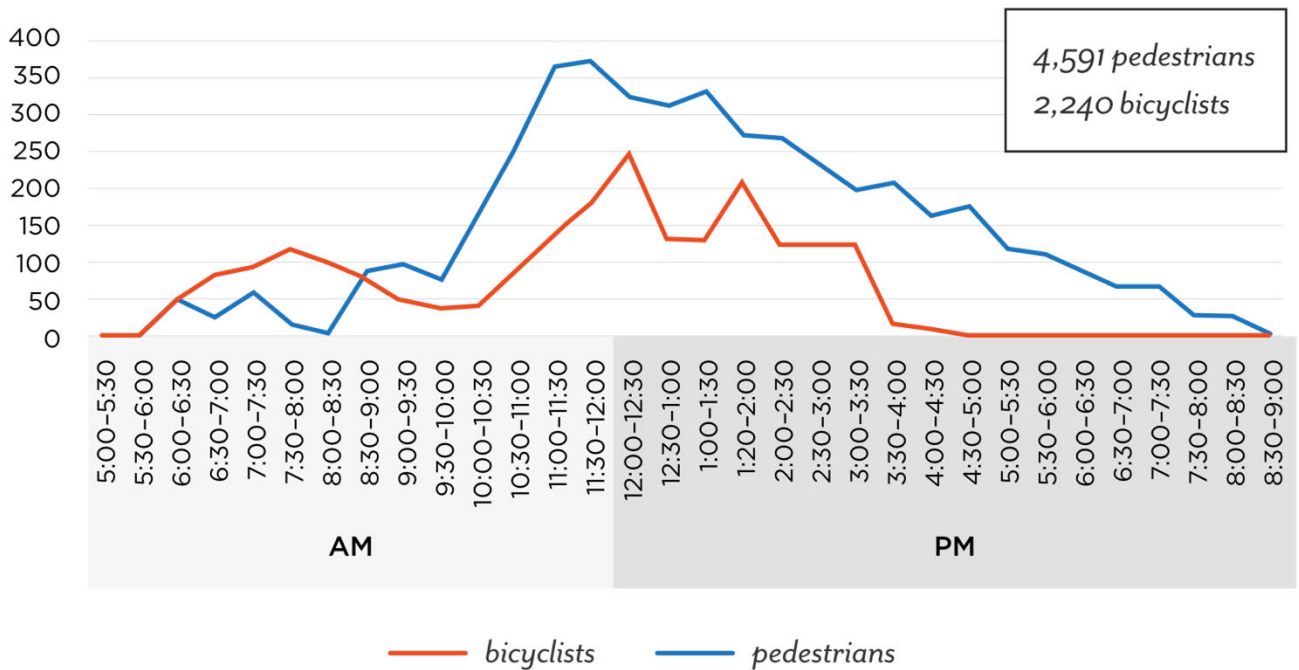


East Sidewalk

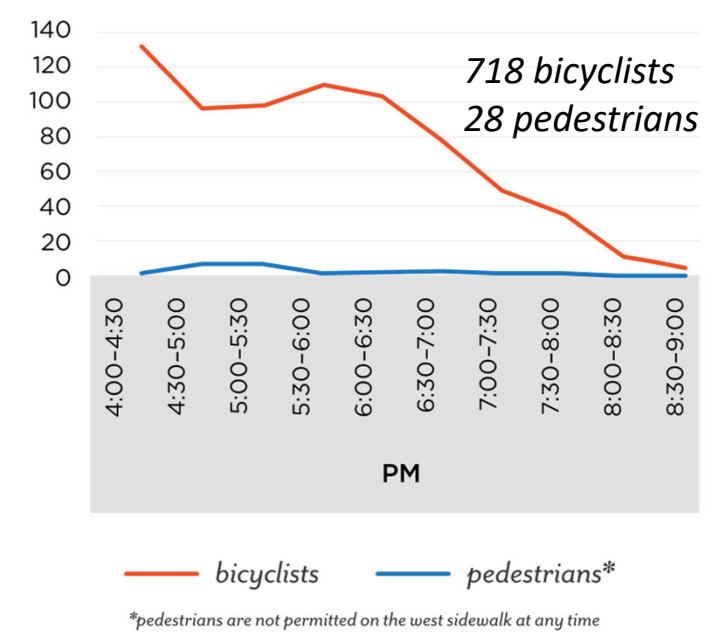
CURRENT BICYCLE AND PEDESTRIAN ACTIVITY



Weekday East Sidewalk Pedestrian and Bicycle Volumes

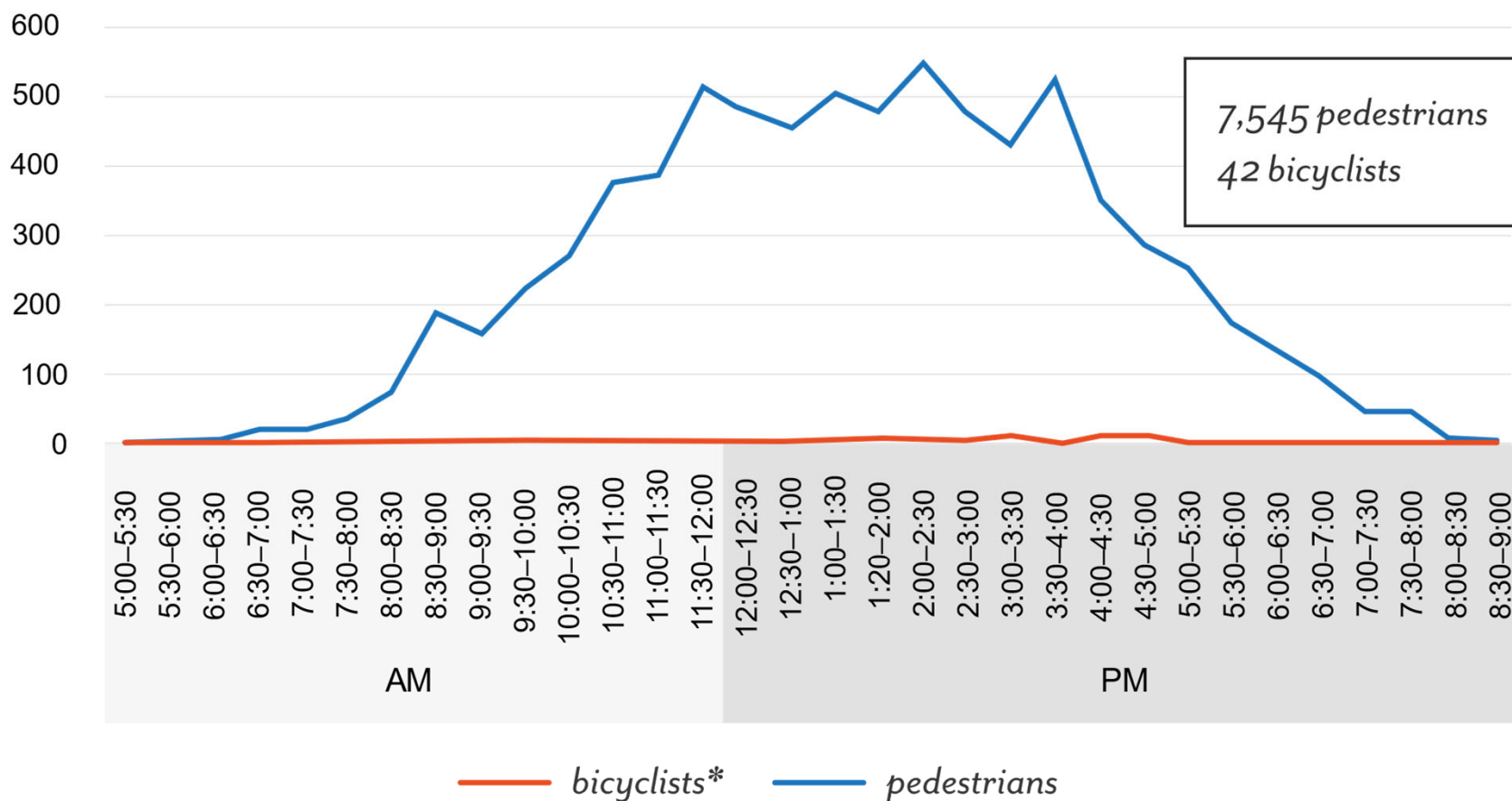


Weekday West Sidewalk Pedestrian and Bicycle Volumes



Counts Conducted Tuesday Sept 15, 2015

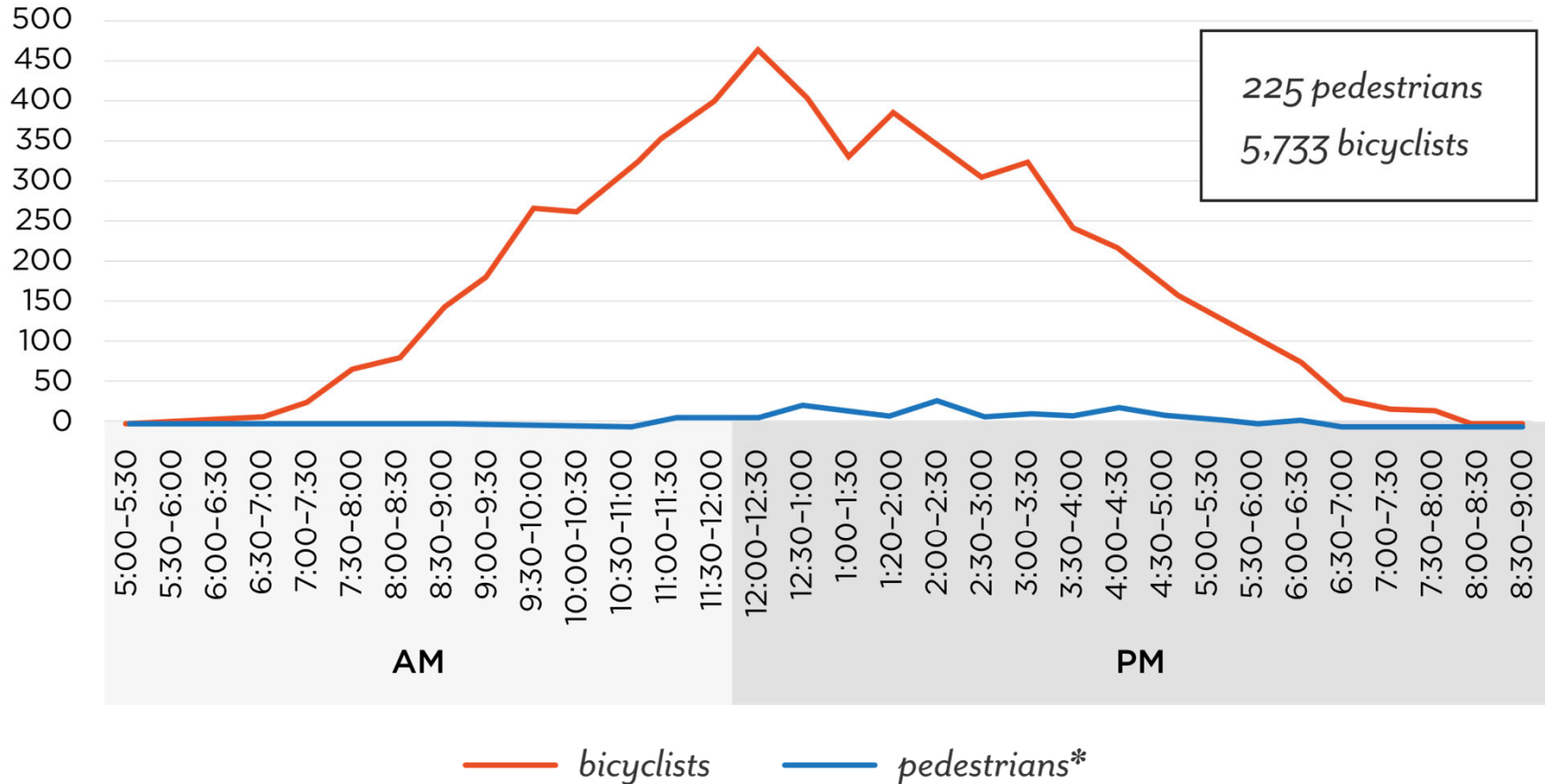
Sunday East Sidewalk Pedestrian and Bicycle Volumes



Counts Conducted
Sunday Sept 13, 2015

*bicyclists are not permitted on the east sidewalk on the weekends

Sunday West Sidewalk Pedestrian and Bicycle Volumes



Counts Conducted
Sunday Sept 13, 2015

*pedestrians are not permitted on the west sidewalk at any time

Bicyclist Speeds



West Sidewalk
Average Speed
17 mph

Hour	Average Speed
5:00 AM - 6:00 AM	17 mph
6:00 AM - 7:00 AM	17 mph
7:00 AM - 8:00 AM	17 mph
8:00 AM - 9:00 AM	18 mph
9:00 AM - 10:00 AM	17 mph
10:00 AM - 11:00 AM	17 mph
11:00 AM - 12:00 PM	17 mph
12:00 PM - 1:00 PM	15 mph
1:00 PM - 2:00 PM	17 mph
2:00 PM - 3:00 PM	16 mph
3:00 PM - 4:00 PM	17 mph
4:00 PM - 5:00 PM	18 mph
5:00 PM - 6:00 PM	18 mph
6:00 PM - 7:00 PM	18 mph
7:00 PM - 8:00 PM	17 mph
8:00 PM - 9:00 PM	21 mph

East Sidewalk
Average Speed
13 mph

Hour	Average Speed
12:00 AM - 1:00 AM	13 mph
1:00 AM - 2:00 AM	16 mph
2:00 AM - 3:00 AM	17 mph
3:00 AM - 4:00 AM	16 mph
4:00 AM - 5:00 AM	16 mph
5:00 AM - 6:00 AM	16 mph
6:00 AM - 7:00 AM	17 mph
7:00 AM - 8:00 AM	15 mph
8:00 AM - 9:00 AM	14 mph
9:00 AM - 10:00 AM	11 mph
10:00 AM - 11:00 AM	11 mph
11:00 AM - 12:00 PM	10 mph
12:00 PM - 1:00 PM	11 mph
1:00 PM - 2:00 PM	10 mph
2:00 PM - 3:00 PM	9 mph
3:00 PM - 4:00 PM	9 mph
East side closed to cyclists from 3:30 to 9:00 PM	
9:00 PM - 10:00 PM	16 mph
10:00 PM - 11:00 PM	17 mph
11:00 PM - 12:00 AM	15 mph

BICYCLE CRASHES



Bicycle Crash Data, 2010-2019

241 Crashes on Bridge Sidewalks

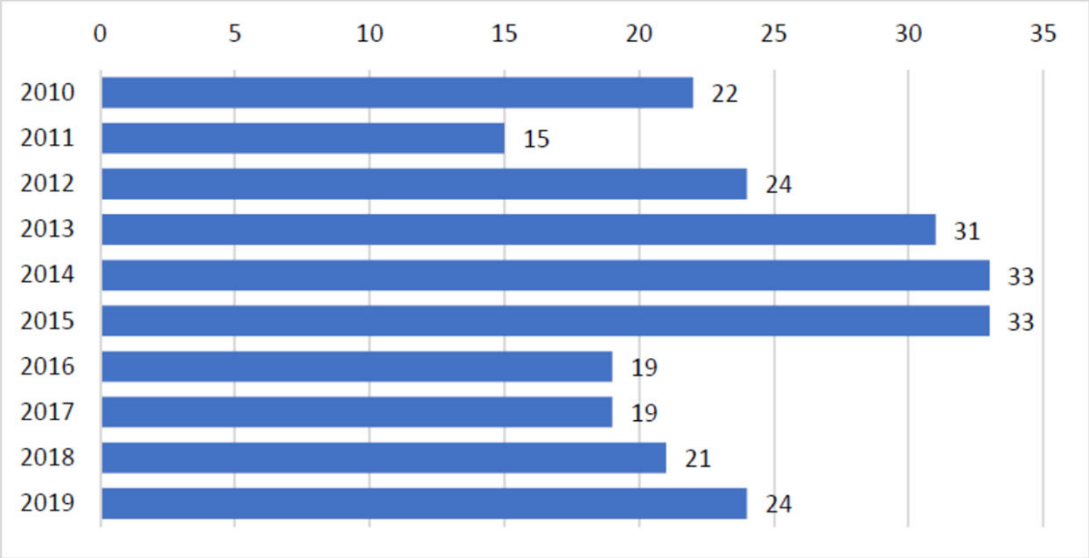
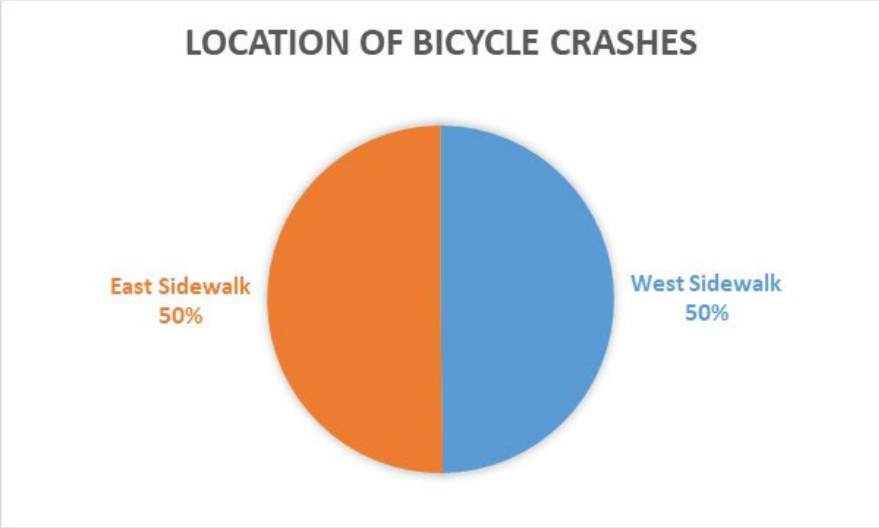
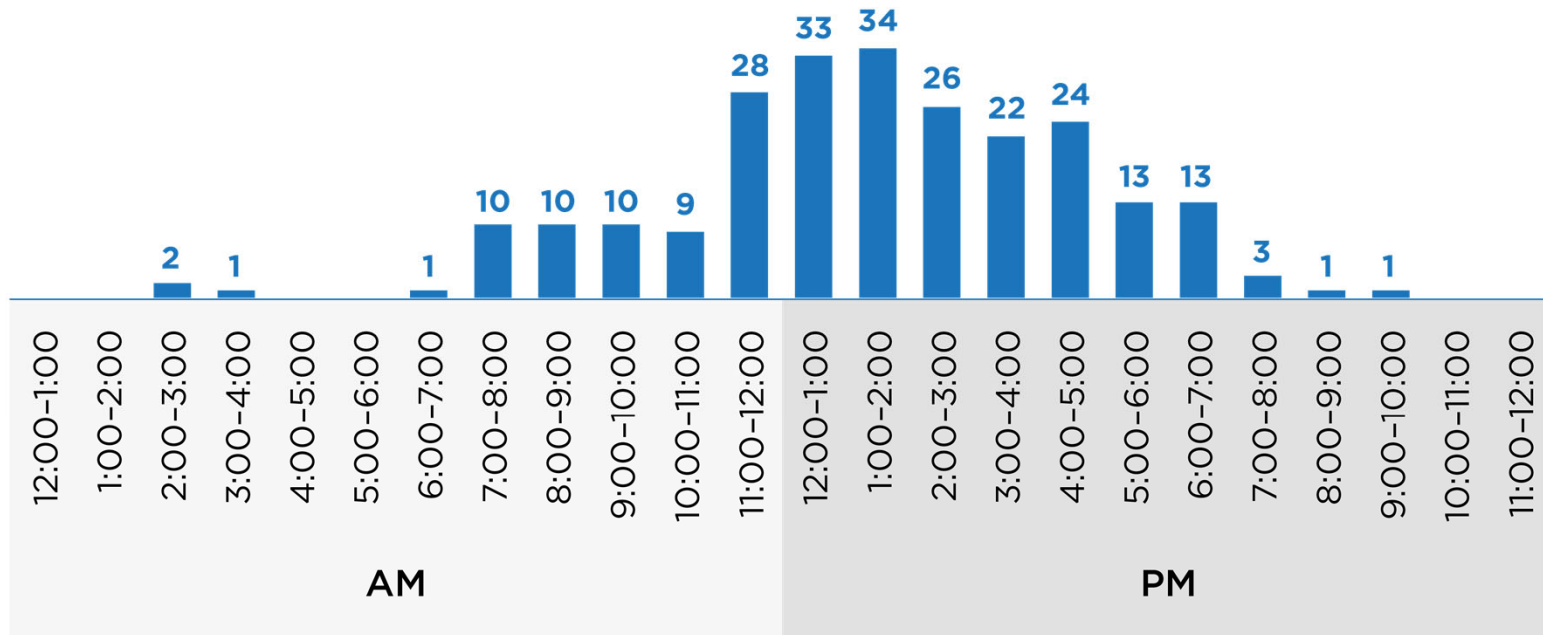


Figure 8: Bicycle Related Collisions on the Golden Gate Bridge



*Reported Bicycle Collision on Bridge Sidewalks,
By Hour of Occurrence*



Crash Types and Causes

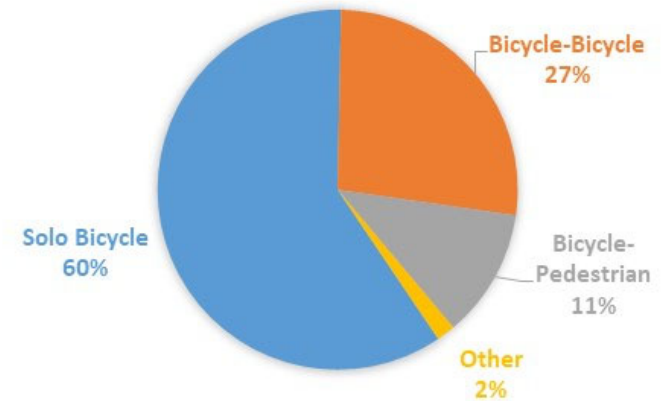
- East Sidewalk: 121 Total Bicycle Collisions

- 33 Maneuver Around Bicyclist – 27%
- 27 Maneuver Around Pedestrian – 22%
- 4 Construction Involved – 3%
- 2 Wind Involved – 2%
- 3 E-Bike Involved – 2%

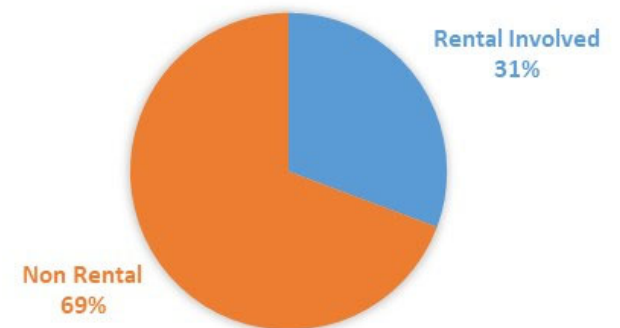
- West Sidewalk: 120 Total Bicycle Collisions

- 47 Maneuver Around Bicyclist – 39%
- 3 Maneuver Around Pedestrian – 3%
- 6 Construction Involved – 5%
- 7 Wind Involved – 6%
- 2 E-Bike Involved – 2%

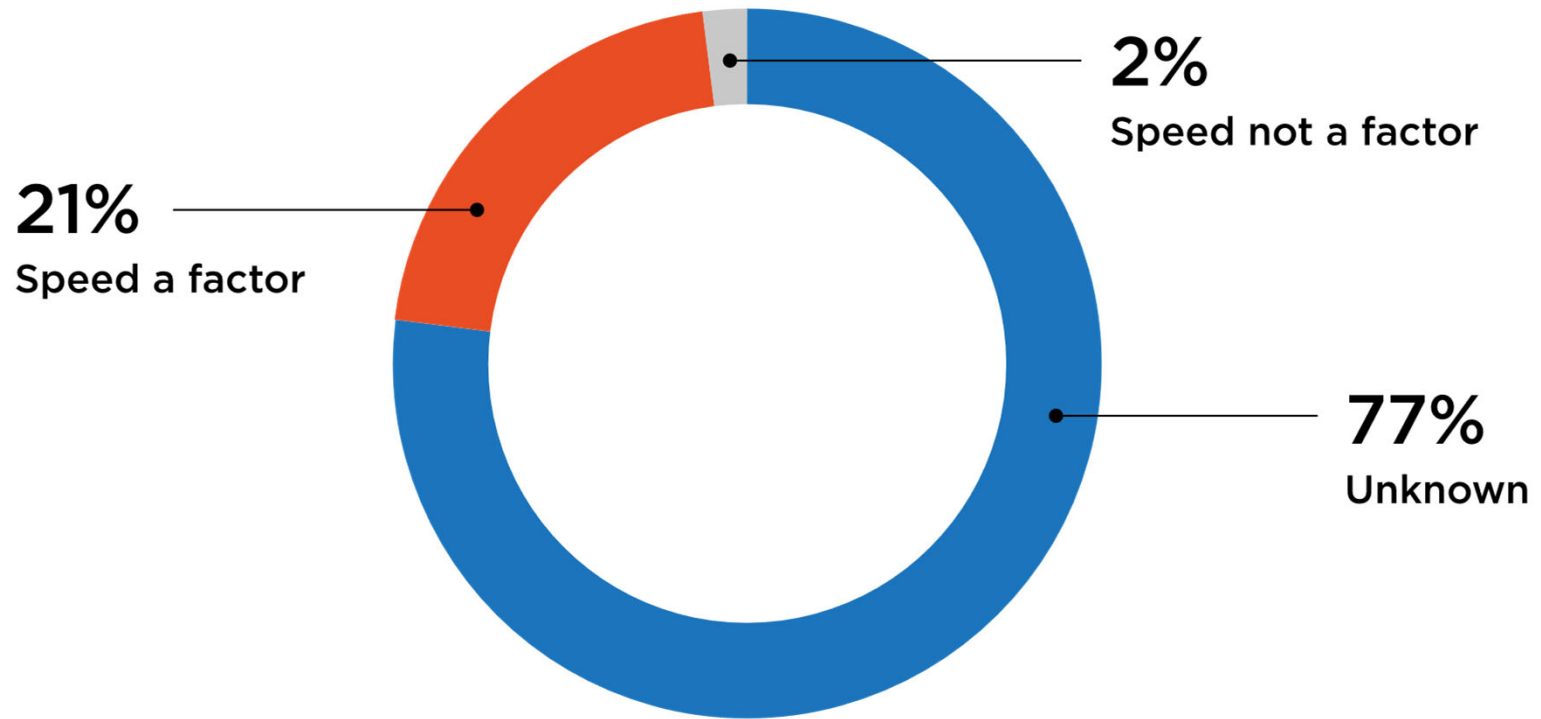
COLLISION BY TYPE, ALL CRASHES



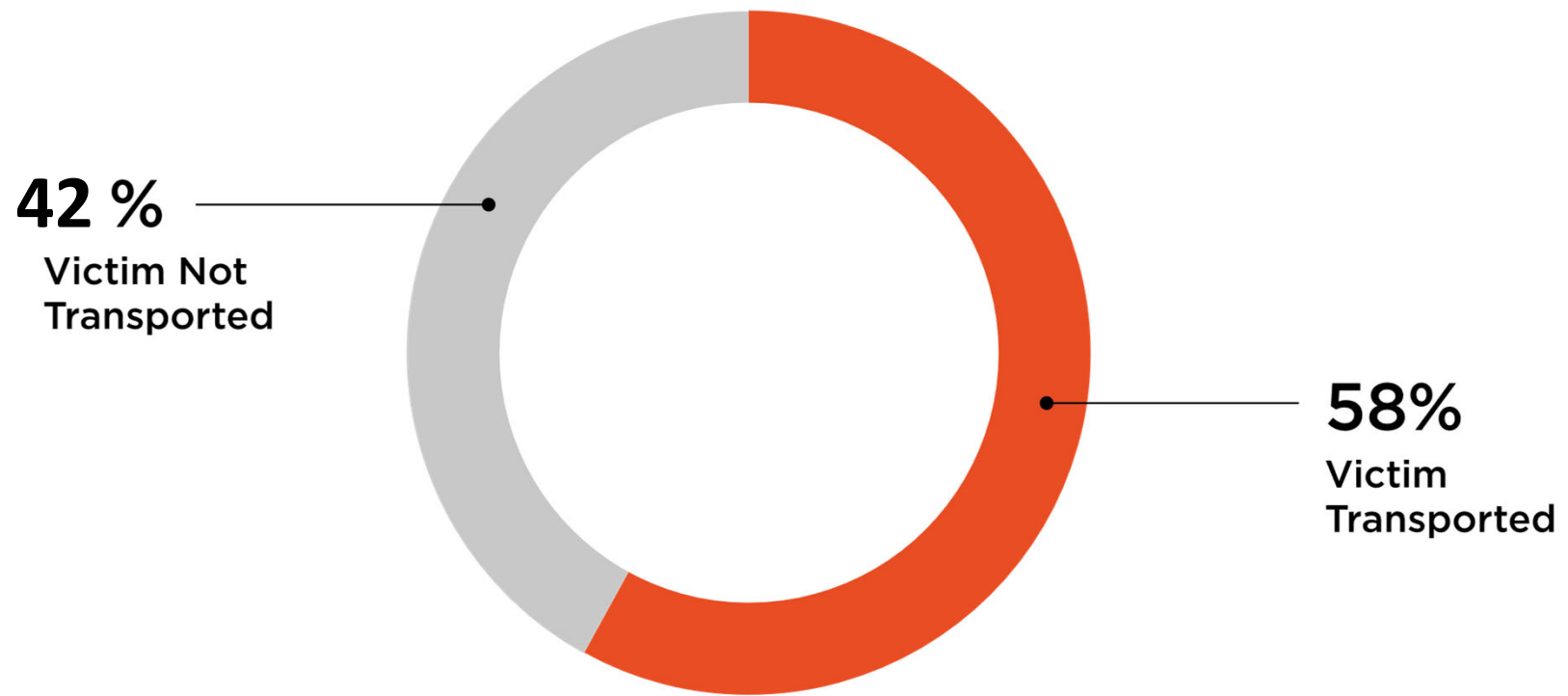
RENTAL BIKE INVOLVEMENT, ALL CRASHES



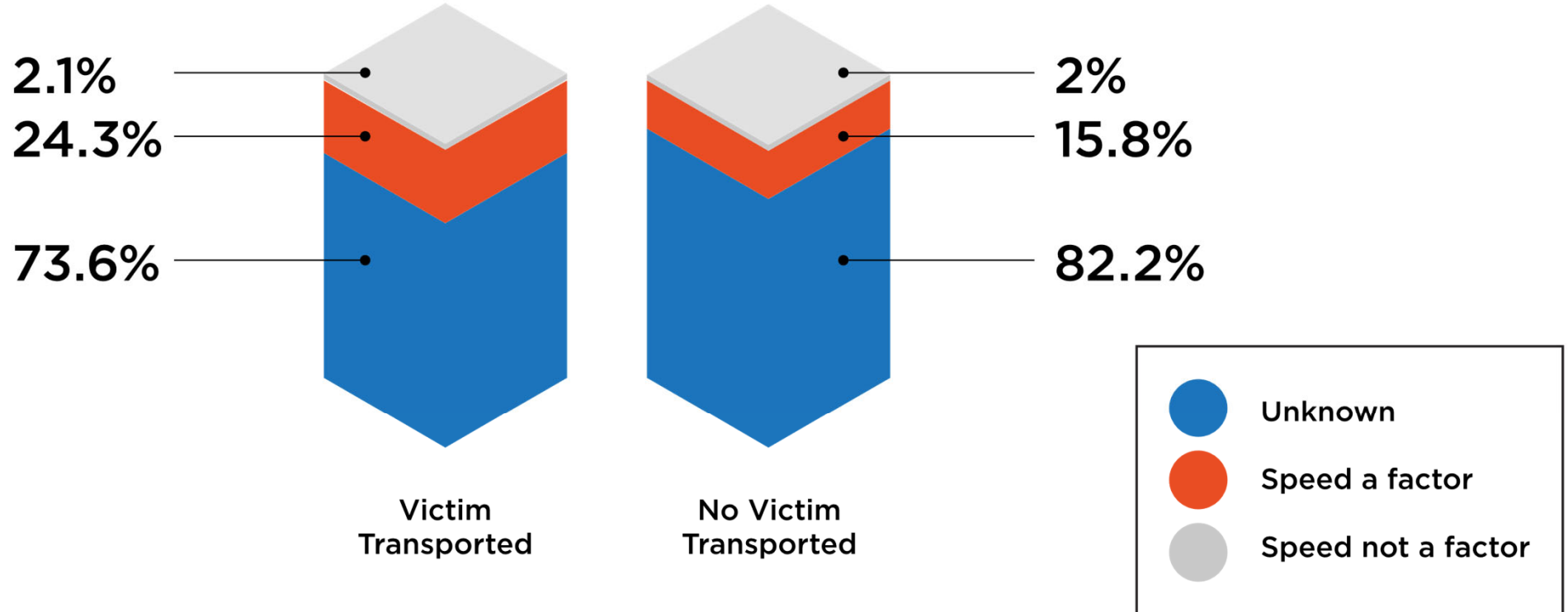
*Proportion of Bicycle Collisions
Where Speed Was a Recorded Factor*



*Proportion of Reported Bicycle Collisions
Where a Victim Was Transported by Ambulance*



*Role of Speed in Bicycle Collisions
Requiring Ambulance Transportation*





RECOMMENDATIONS





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Establish Bicycle Speed Limit

- 15 mph Bicycle Speed Limit on both east and west sidewalks
 - Consistent with other shared use paths in Bay Area and nationally
- 5 mph Speed Limit Around Towers
 - Limited sight distance, frequent congestion, and wind speeds





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Continue Signage and Pavement Markings to Delineate Space on East Sidewalk

- Continue signage to encouraging separation of bicycles and pedestrians on East Sidewalk with bicycles on inside and pedestrians on outside.





Additional Recommendations

- Radar Speed Signs
- Allow Pedal-Assist Electric Bikes
- Monitor Other Emerging Users
- Develop a Reporting System

Bicycle Safety Incident Report Form

Note: This form is intended to gather information regarding bicycle safety incidents only.

If you have a general safety question or concern to share with us, please send your comments via email to bridgecomments@goldengate.org or phone our Customer Service Center at (415) 455-2000 (Monday-Friday 7:00am – 6:00pm)

Please note: If Bridge Patrol personnel responded to assist with this incident, we will already have an incident report on file and it is not necessary to report it here.

* 1. Please enter your contact information

Name

Address

Address 2

City/Town

State/Province

ZIP/Postal Code

BRIDGE	BUS	FERRY
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Bicycle Access on East and West Sidewalks

Bicycle Rentals are NOT Available at the Golden Gate Bridge!

[Current Bicycle Access Alerts](#) | [Sign-up for Alerts](#) | [Cyclist Safety Instructions](#) | [Report a Safety Incident](#)

Cyclists have toll-free access to the Bridge's sidewalks 24-hours a day. Cyclists MUST yield to pedestrians and use caution in the areas of the towers as there is limited space to maneuver and sight distances are constrained.



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Light Poles 26-28 Area

- Light Pole 26 (west side) was the highest crash location with 10 reported crashes
- Sidewalk narrows to 5.5 feet due to pylons
- Light Poles 25-27 on East Sidewalk similarly constrained, and experience higher crash numbers



Light Pole 26-28 / 25-27

Recommendations

- Phase 1
 - Add Northbound Radar Speed Sign
 - Add 'Path Narrows' signage and pavement markings in both directions
 - 5 mph Advisory Speed Limit
- Phase 2
 - Study crash reports and behavior following phase 1 improvements and overall bicycle speed limit
- Phase 3
 - Consider northbound (downhill) yield to southbound (uphill)
 - Consider one-way directional with signal control





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Wind Retrofit Railing

- New west railing, designed to maintain structural integrity of bridge, allows increased air flow through the railing and creates a challenge of increased wind speed for bicyclists
- Recommended to increase awareness of potential wind speeds
 - Install additional wind warning signage along the West Sidewalk
 - Use Changeable Message signs to alert cyclists of appropriate sidewalk to use, and to alert cyclists if they need to use East Sidewalk during high wind event



NEXT STEPS AND ADDITIONAL INPUT OPPORTUNITIES





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Board of Directors Public Hearing

The District will also hold a formal Public Hearing with the Board of Directors to receive direct public comment regarding this matter:

Monday, October 18, 2021, 10:00 a.m.

Audio Conference Only (415) 569-6446 and (415) 636-8761

Written Comments may also be submitted to the Board of Directors by email: publichearing@goldengate.org

Or by standard mail to:

Secretary of the District

Golden Gate Bridge, Highway and Transportation District

P.O. Box 29000, Presidio Station,

San Francisco CA, 94129-9000

Written comments must be received no later than Monday, October 18, 2021, at 4:30 p.m.

Please note that summary of all comments received through the Virtual Open House, Virtual Town Hall Meeting, and Public Hearing will be submitted for Board of Directors consideration in this matter.



Schedule

- Virtual Open House
 - <https://goldengatebikestudy.altago.site>
 - Closes on Sunday October 10
- Bridge District Board of Directors Hearing
 - October 18, 10:00 a.m.
- Final Report Revisions
 - By 10/31/21
- Bridge District Building & Operating Committee
 - Present to Committee, November 18

QUESTIONS AND COMMENTS



thank you!