

# Muscoy Pedestrian & Bicycle Safety Workshop Summary and Recommendations

Community Pedestrian & Bicycle Safety Training and Action Planning  
Creating Safer Streets for Walking and Biking



**August 2019**



**Muscoy, California**

# Acknowledgements

We would like to thank the planning committee for inviting us into their community to host the Community Pedestrian and Bicycle Safety Training (CPBST) in Muscoy.

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Thank you to the Automobile Club of Southern California for providing refreshments, Rosa Loera for providing lunch, and KTI Translations International for providing simultaneous Spanish-to-English interpretation in support of this training. Thank you to Vermont Elementary School for providing the training venue. Thank you to Kris Fortin of Santa Ana Active Streets (SAAS) for serving as a Spanish-English facilitator for this training.

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This report summarizes the workshop proceedings, as well as recommendations for programs, policies, and infrastructure to improve walking and biking safety around Muscoy schools and throughout the community.



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Muscoy CPBST participants listening to the educational presentation. Source: Cal Walks

## Introduction

The Office of Assemblymember Eloise Gómez Reyes, California Walks (Cal Walks), the University of California at Berkeley's Safe Transportation Research and Education Center (SafeTREC), and the Planning Committee adapted and facilitated a Community Pedestrian and Bicycle Safety Training (CPBST) in the unincorporated community of Muscoy in San Bernardino County. Assemblymember Reyes' office requested the workshop to address the community's walking and biking safety concerns – especially the lack of pedestrian and bike infrastructure.

The workshop continued the momentum of collaborative efforts, which began in 2018, between Assemblymember Reyes' Office, San Bernardino County, Safe Routes Partnership, and other community partners. These efforts included: securing and implementing a Southern California Association of Governments (SCAG) GoHuman grant and submitting an Active Transportation Program (ATP) Cycle 4 grant application for pedestrian and bike safety improvements. Because the ATP grant application was not selected for funding, the Planning Committee identified the CPBST process as a forum to engage the community – especially Spanish-speaking parents – to gather school-specific safety concerns and develop recommendations to be used in support of a future ATP grant application.

The workshop was held on May 22, 2019 from 9:00 a.m. to 12:30 p.m. at Vermont Elementary School. The CPBST is a joint project of California Walks and SafeTREC (Project Team) that works with local residents and safety advocates to develop a community-driven action plan to improve walking and biking safety in their communities and strengthen collaboration with local officials and agency staff.

The Planning Committee identified the neighborhood surrounding Vermont Elementary School and Muscoy Elementary School as the geographic focus of the CPBST.

The training consisted of:

1. Walking and biking assessments along three key routes;
2. An overview of strategies to improve walking and biking safety using the intersectional six (6) E's framework including: Evaluation, Equity & Empowerment, Engineering, Education, Encouragement, and Enforcement; and
3. Small group action-planning discussions to prioritize and plan for needed programs, policies, and infrastructure projects.

We would like to acknowledge the 39 participants who attended the workshop including representatives from the Office of Assemblymember Eloise Gómez Reyes, the Office of Senator Connie Leyva, the Office of Supervisor Josie GonzalezMental, Health Systems (MHS), San Bernardino County Department of Public Health, the Office of Josie Gonzalez, San Bernardino City Unified School District, Safe Routes Partnership, Inland Empire Bicycle Alliance, and Vermont Elementary School staff, PTO members, and Centro de Padres parents. Their collective participation meaningfully informed and strengthened the workshop's outcomes.

# CPBST Planning Process

As part of the workshop planning process, the Planning Committee worked to ensure that the workshop outreach and delivery were inclusive and met the community's language needs. Although the planning process was conducted in English, the Committee determined that due to the high monolingual Spanish speaking and bilingual Spanish and English speaking population, it would be best to conduct outreach in both Spanish and English, facilitate the workshop in Spanish and provide simultaneous Spanish-to-English interpretation, and simultaneously project the Spanish and English presentations.



## Step 1: Assemble a Planning Committee - February 2019

- Enlist key stakeholders to serve as the Planning Committee to define the CPBST workshop goals and refine curriculum to meet the community's needs



## Step 2: Review and Analyze Existing Plans and Data - March 2019

- Review existing community documents (policies and plans)
- Analyze injury collision data and identify trends



## Step 3: Conduct CPBST Site Visit - March 28 2019

- Review current pedestrian and bicycle safety data and conditions
- Discuss workshop logistics
- Conduct preliminary walk assessments
- Identify instructional activities and goals for the workshop
- Develop outreach and recruitment plan for the workshop



## Step 4: Conduct CPBST Workshop - May 2, 2019

- Conduct a walking and/or biking assessment
- Participate in workshop instructional activities
- Develop an action plan, including identifying actionable next steps for advancing workshop goals



## Step 5: Implement CPBST Actions - Ongoing

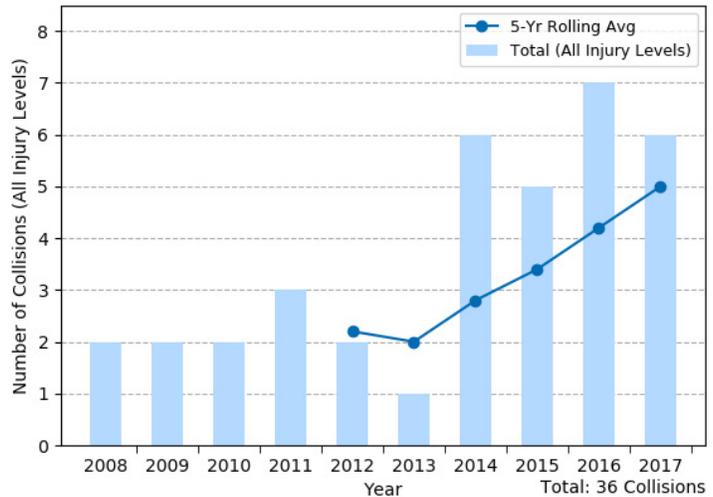
- Review CPBST report summarizing workshop proceedings and recommendations
- Work with partners to secure resources for programs/projects identified during the CPBST
- Update California Walks and SafeTREC about changes as a result of the CPBST workshop

# Pedestrian and Bicycle Collision History

The following data is based on police-reported pedestrian and bicycle collisions resulting in injuries to pedestrians<sup>1</sup> and bicyclists in Muscoy. Data reported in this section are from the Statewide Integrated Traffic Records Systems (SWITRS) for the years 2008 to 2017. Collision data for 2016 and 2017 are provisional as of December, 2018. A full discussion of the pedestrian and bicycle collision data can be found in Appendix C.

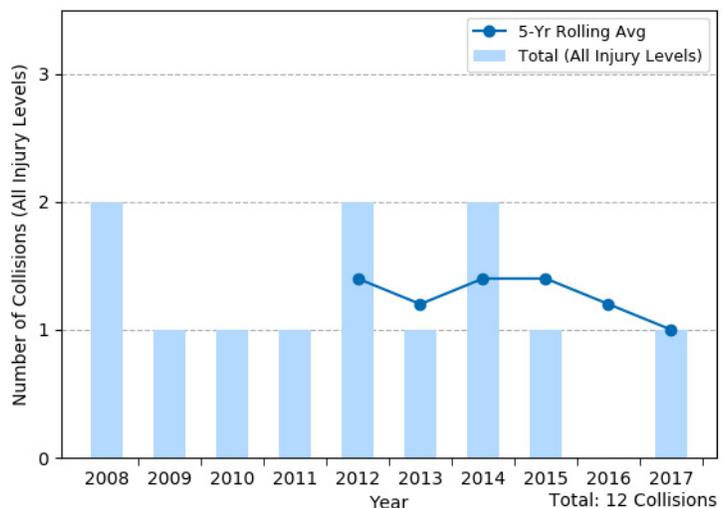
## Pedestrian Collisions

Over the 10-year period from 2008 to 2017, pedestrian collisions abruptly increased in 2014 and has remained at the higher level. In the most recent five years of data available, 2013 to 2017, pedestrian collisions occurred throughout the community, with a notable cluster in the southeastern region. Six (6) pedestrian collisions occurred on Macy Street in or around Mesa Street and Porter Street. Pedestrian collisions primarily occurred on weekdays, especially between 3:00 p.m. and 6:00 p.m. followed by between 12 p.m. and 3:00 p.m. on Wednesdays and Fridays also had a higher number of pedestrian collisions compared to other days of the week. The top two primary collision factors for pedestrian collisions were pedestrian failure to yield right-of-way to vehicles when crossing outside of a marked or unmarked crosswalk (36.0%)<sup>2</sup> and motorists performing unsafe turns or lane changes (20.0%). There were 25 collisions, which resulted in 29 pedestrian victims injured, including two (2) fatalities and five (5) serious injuries in Muscoy. Pedestrian victims spanned across all age groups with the largest concentration in the 15 to 24 age group (37.9%), followed by the 45 to 54 age group (20.7%).



## Bicycle Collisions

Over the ten year period from 2008 to 2017, the number of bicyclist collisions were relatively stable, between zero and two. Due to the small number of police-reported bicyclist collisions in Muscoy, SWITRS data revealed no particular pattern to bicycle collisions. In the most recent five years of data available, 2013 to 2017, the top primary collision factors for bicyclist collisions were driving at an unsafe speed for the conditions, such as weather, visibility, traffic (40%) and



1 A pedestrian is defined as any person who is afoot or using a non-motorized personal conveyance other than a bicycle. This includes skateboards, strollers, wheelchairs, and any electric assistive mobility device.

2 Pedestrians have the right-of-way at marked and unmarked crossings, and drivers are legally required to yield to pedestrians in these instances. However, when pedestrians cross outside of a marked or unmarked crosswalk, pedestrians must yield the right-of-way to drivers. A pedestrian is legally allowed to cross outside of a marked or unmarked crossing between two intersections where one or none of the intersections is signalized but only if the pedestrian yields the right-of-way to oncoming drivers. This is not the same as the term "jaywalking," which refers to crossing outside of a marked or unmarked crossing between two signalized intersections.

unsafe turning or lane changes (20%).<sup>3</sup> There were five (5) bicyclists injured in five (5) bicycle collisions in Muscoy. With regards to bicyclist victims, one victim was aged five to eight and two victims were between the ages of 17 to 20. All bicycle collisions resulted in minor injuries.

## Equity Concerns

Equity in this project means working to ensure that all groups of people, regardless of age, race, gender, ability or income, are considered in planning and decision making processes. For transportation, our overall goal is to address inequities in vulnerable communities, which have disproportionately high levels of injuries. Improving safety requires tackling the complicated interplay between inequities, the walking and biking built environment, and driver, bicyclist, and pedestrian behaviors.

Unincorporated communities face unique transportation safety planning and implementation challenges. Unlike cities, they typically do not have separate revenue streams to allocate towards local public works projects. Instead, they must compete against other unincorporated communities and overall county priorities for limited county transportation funds for such activities as street maintenance, traffic signals, and law enforcement. Often, they will also need to apply jointly with the county for state and federal funding.

## Walking and Biking Assessment

### Routes

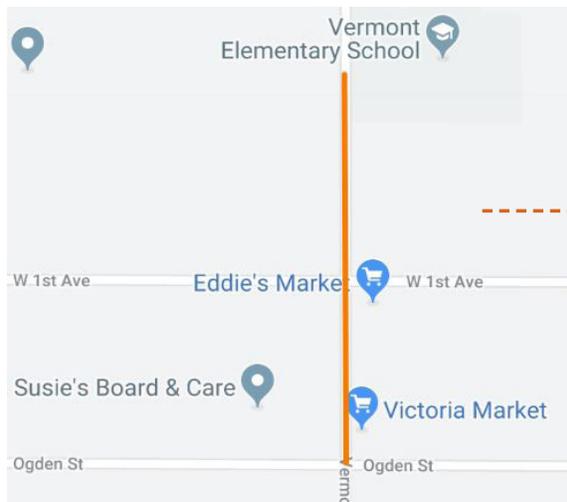
The Project Team led workshop participants on walking and biking assessments along three key routes. Participants were asked to:

1. Observe infrastructure conditions and the behavior of all road users;
2. Assess the qualitative and emotional experience of walking or biking along the route; and
3. Identify positive community assets and strategies which can be built upon.

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<sup>3</sup> These violations could have either been committed by a motor vehicle driver or bicyclist, since bicycles are considered vehicles and therefore must follow all the same rules of the road as vehicles.

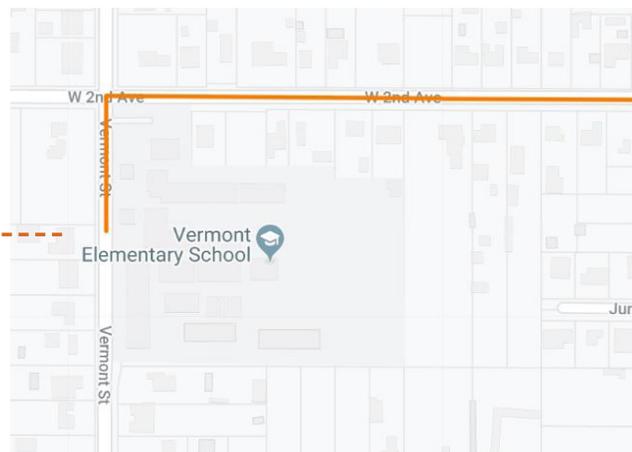
## Route 1: Vermont Street



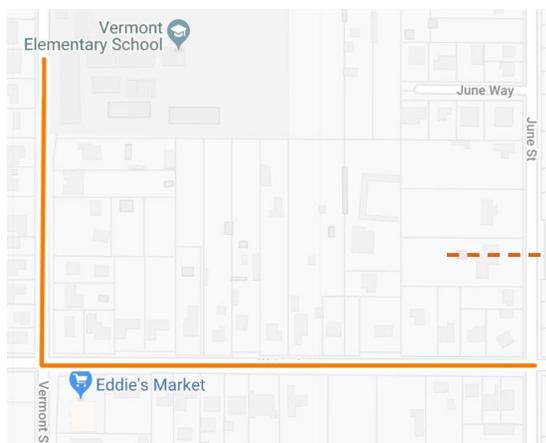
The first route focused on Vermont Street. Vermont Street is a key route used by students, parents, and community members to walk and bike to Vermont Elementary School, as well as to local markets, such as Eddie's Market and Victoria Market.

## Route 2: 2nd Avenue

The second route focused on West 2nd Avenue. This route is used by students and parents to walk to and from Vermont Elementary School.



## Route 3: 1st Avenue



The third route focused on West 1st Avenue. This route is used by students and parents to walk to and from school and by community members to access the local markets along Vermont Street.

## In-Class Activity: Street Story

Workshop participants were given the option to share their transportation safety experiences walking and biking in Muscoy as part of an in-class activity following the walking and biking assessments. The Project Team guided workshop attendees through a series of paper surveys and facilitated discussions on the participants' experiences with collisions, near-misses, unsafe and safe areas to travel. Their stories are integrated into the walking and biking assessment reflections section of this report. Additionally all of the stories collected were inputted into the online Street Story platform after the workshop. To view Street Story data collected in Muscoy, please visit the [Street Story, San Bernardino County site](#).<sup>4</sup> A more detailed interactive visualization of the workshop data was also developed and is available through ArcGIS online.<sup>5</sup>

**Street Story** is a community engagement tool that allows residents and community organizations to gather information that is important to transportation safety. Street Story is an online platform developed by UC Berkeley SafeTREC to collect stories about transportation collisions, near-misses, hazards and safe locations to travel. Street Story is also available in a paper version.

The platform and the information collected is free to use and publicly available. Street Story is available at: <https://streetstory.berkeley.edu>



Screen capture of the Street Story data collected at the Muscoy CPBST workshop visualized using ArcGIS online.

*“The piece of sidewalk near the school serves to walk safely. I wish it was all around.”*

- Street Story Participant

<sup>4</sup> To view Street Story data collected in San Bernardino County, including Muscoy, please visit: <https://streetstory.berkeley.edu/country/san%20bernardino>

<sup>5</sup> To view data collected during the Street Story activity at the Muscoy CPBST workshop, please visit: <http://cal.maps.arcgis.com/apps/webappviewer/index.html?id=199e26bc097b405c8f90b1b1dd9a015a>

## Reflections

Following the walking and biking assessments and the Street Story Activity, participants shared the following reflections:

### Sidewalks

- Participants noted the lack of sidewalks along streets leading to Vermont Elementary School, Muscoy Elementary, and throughout the community. In particular, 1st Avenue, 2nd Avenue, Macy Street, and Blake Street lack sidewalks and are used by children and parents to travel to and from school daily.
- Many participants shared that they and their children feel safe walking on the sidewalk near the school on Vermont Street. However, they feel vulnerable walking on the shoulder of the road next to vehicle traffic where the sidewalk ends on Vermont Street.
- Participants shared that their top safety priorities for the community are the installation of sidewalks – especially along common routes to schools – and traffic calming measures at Vermont Street/1st Avenue and Vermont Street/3rd Avenue intersections.



Top Left: 1st Avenue towards Vermont Street. This is the typical route children and families walk to get to Vermont Elementary School. Source: Cal Walks. Top right: Workshop participants on 2nd Avenue at the intersection of Vermont Street/2nd Avenue where the Muscoy Elementary sidewalk segment ends. Source: Cal Walks. Bottom: 2nd Avenue towards Vermont Street. This shows how parked cars and the lack of sidewalks could force pedestrians into the road. Source: UC Berkeley SafeTREC.

## Bus Benches and Shelters

- Bus stops at the intersection of Vermont Street/Ogden Street lack benches and shelters, which participants noted was typical of all bus stops in the community. Participants acknowledged that while the bus transit system is efficient and useful, the lack of benches and shelters makes using transit challenging and uncomfortable, especially during hot and rainy seasons.

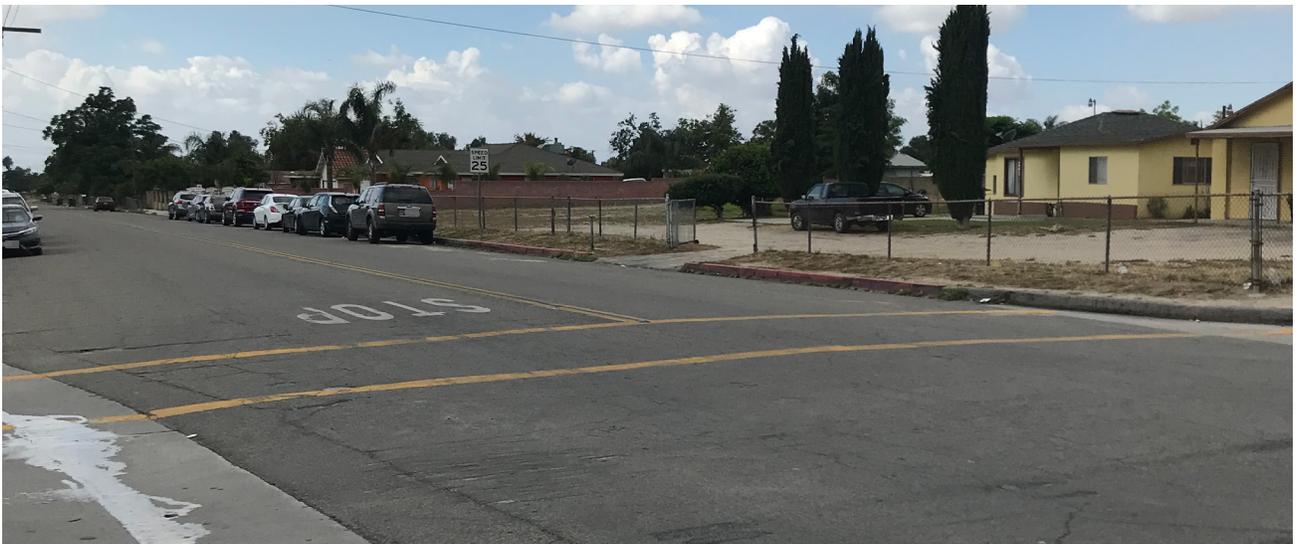


*Community-made transit benches provide a space for community members to sit while they wait for the bus.*  
Source: Cal Walks

## Lack of Signage and Road Markings

- Participants noted that there is a lack of speed limit signage in the community and that they felt residents and visitors drive at higher speeds without clear speed limit signage.
- The crosswalks at the intersections closest to Vermont Elementary (Vermont Street/1st Avenue) and Muscoy Elementary (Macy Street/Blake Street) lack high-visibility markings and have insufficient school zone signage to alert to motorists to slow down and expect to see students walking.
- The designated school bus drop-off and pick-up zone areas lack warning signage to alert motorists to the location of the bus zone. This particularly concerned parents because motorists were observed speeding along the school bus route on Vermont Street.
- The lack of street lighting in the community compounds conflicts between horse riders and pedestrians and bicyclists at night. Participants also expressed concern and disappointment that some people ride their horses under the influence, which puts their safety and the safety of other road users at risk.<sup>6</sup> There is also a lack of equestrian/horse warning signage given the high numbers of residents riding horses in the community. Participants shared that there have been a number of near-misses and collisions between equestrians and other road users.

<sup>6</sup> California Vehicle Code 21050 states that every person riding or driving an animal upon a highway has all of the rights and is subject to all of the duties applicable to the driver of a vehicle by this division and Division 10. Source: <https://leginfo.ca.gov>



Top: Lack of high visibility crosswalks on June and 2nd Avenue. Source: UC Berkeley SafeTREC. Middle: A concerned mother pointing towards the school bus drop-off and pick-up location along June Street; and horse warning signage and educational signage can alert other road users to the presence of horses. Bottom: The corner of Vermont Street and 2nd Avenue, which leads to Vermont Elementary School, lacks high-visibility crosswalks. Source: Cal Walks

## Motorist Behaviors

- Participants noted that parent drivers do not respect the 'No Parking' sign in front of the school and park in the bus loading zone during arrival and dismissal times.
- Parents observed motorists driving at high speeds along 1st Avenue and 2nd Avenue in both directions.
- Parents and school staff expressed worry and frustration at motorists who drop-off and pick-up their children in the middle of the street in front of Vermont Elementary School. As a result, students must cross mid-block and in between moving vehicles.
- During the Street Story activity, participants shared that they believe the near-misses and crashes were mostly due to motorists speeding and not yielding to other road users. There were several clusters of near-misses and crashes reported during Street Story that were consistent with police-reported SWITRS data along:
  - Vermont Street between Ogden Street and Portola Street;
  - Duffy Street; and
  - 3rd Avenue.
- Two participants described their experiences witnessing crashes that involved vehicles speeding and crashing into property, including their homes.



*Left: Motorists parked in the red zone in front of Vermont Elementary School on Vermont Street. Right: Parents and students cross midblock between vehicles along Vermont Street. Source: Cal Walks*

## Lighting

- There is a lack of lighting in the community, with entire street segments void of street lighting and pedestrian-scale lighting. Participants shared that much of the existing street lighting is not in working order, which makes it difficult to travel through the community at night. As a result, participants will not go outside of their property to walk or ride their bikes once it gets dark because they feel they will not be visible to drivers and horse riders.
- Parents shared that Vermont Elementary School has a Sunrise Program to support students walking to school when it is dark in the morning hours. Students and parents walk to school together in the dark.



*A lack of street lighting and pedestrian-scale lighting along Muscoy streets and at intersections near Muscoy Elementary School. Source: Cal Walks*

## Poor Drainage Systems

- A variety of vegetative debris – including leaves, grass, and tree branches – regularly clog street drains in the community, which can cause or worsen street flooding. Participants shared that water collects along the road shoulder after rainy days, which is a problem because residents generally walk and bike on the road shoulder. When shoulders are flooded, they are forced to walk in the vehicle travel lanes.

## Trash and Debris

- Participants made note of the trash and plant debris surrounding and leading up to Eddie’s Market and Victoria Market along Vermont Street.
- Additionally, participants noticed numerous large, illegally-dumped trash items along many gutters and curbs in the community.
- Participants were concerned about the amount of cigarette butts, marijuana paraphernalia, empty alcohol containers, and a dead animal in the community, especially along Vermont Street near the school.



*Large and bulky trash items illegally dumped on 2nd Avenue between Vermont Street and June Street. Source: Cal Walks*

## Lack of Enforcement

- Participants expressed concern with the lack of law enforcement in the community, especially with enforcement of speed limits. Participants felt that motorists speed and park where they are not permitted because there is a perception that there will not be any repercussions.

## **Recommendations to Improve Walking and Biking Safety**

Participants engaged in small-group action planning discussions to prioritize and outline preliminary plans for community programs and infrastructure projects aimed at reducing the number of injuries and fatalities, as well as increasing the number of people and the frequency of safe walking and biking in the community of Muscoy.

## **Community Recommendations**

The following tables summarize the recommendations developed by the community during the workshop.

## Education Project Name: Muscoy Bike Rodeo

**Project Description:** School-focused bike rodeo event to provide on-bike skills training to students and bike safety education to students, parents, and community members.

**Project Goals:**

- 1) Educate Muscoy youth on safe bike riding skills, bike maintenance skills, and the rules of the road;
- 2) Encourage Muscoy youth to use biking as a form of transportation; and
- 3) Identify parents as local champions for active transportation efforts.

Action Steps	Timeline	Responsible Party	Resources
<p>Establish Planning Team:</p> <ul style="list-style-type: none"> <li>● Recruit Vermont Elementary School and Muscoy Elementary School parents and staff, and representatives from San Bernardino City Unified School District staff, California Highway Patrol, Local Police Department and Fire Department, and Assemblymember Eloise Gomez Reyes' office as potential planning team.</li> </ul>	Summer-Fall 2019	Workshop Participants	Contact Information for staff members  Dates of local events to reach out to parents
<p>Logistics:</p> <ul style="list-style-type: none"> <li>● Identify ideal date, time, and location to host Muscoy Bike Rodeo</li> <li>● Determine materials that may be needed from Bike Rodeo Facilitators</li> <li>● Seek donations if Bike Rodeo cannot be implemented pro bono.</li> <li>● Obtain proper permitting for Bike Rodeo site</li> </ul>	Summer-Fall 2019	The Planning Team	Meeting Space  Donation Letter  Permit information
<p>Coordinate Facilitator:</p> <ul style="list-style-type: none"> <li>● Identify and reach out to potential facilitators</li> <li>● Once identified, planning team will discuss day of events with facilitator</li> </ul>	Summer-Fall 2019	The Planning Team	Organization/Agency Contacts for Bike Rodeo facilitators
<p>Outreach</p> <ul style="list-style-type: none"> <li>● Inform parents at both Muscoy elementary schools of upcoming Bicycle Rodeo</li> <li>● Send out flyers with students</li> <li>● Post flyers in local markets</li> <li>● Send automated message</li> <li>● Word of mouth</li> </ul>	Back to School Night, Fall 2019	The Planning Team  Muscoy Elementary School  Vermont Elementary School	Paper for print  Banners  Automated Messaging
<p>Host Bike Rodeo</p> <ul style="list-style-type: none"> <li>● Facilitators lead Rodeo</li> </ul>	Fall 2019	The Planning Team  Bike Rodeo Facilitator	Cones  Chalk  Water

## Education Project Name: Walking School Bus and Bike Train Aligned with a Temporary Crosswalk Demonstration

**Project Description:** Education and encouragement event with temporary crosswalk demonstration combined with walking school buses and bike trains to teach students how to walk and bike to school safely and provide a visual of potential crossing improvements.

**Project Goals:**

- 1) Strengthen safe routes to school programs for children;
- 2) Collect data during the temporary crosswalk demonstration to document all road user behaviors and conduct pedestrian and bicyclist counts; and
- 3) Sustain momentum built with partners like the County, Assemblymember, and local school board members

Action Step	Timeline	Responsible Party	Resources
Establish Planning Committee	Summer 2019	Workshop Participants Workshop Planning Committee	San Bernardino County Representative, Assemblymember Reyes' staff, and local elected officials can commit to attending meetings and sharing necessary additional contacts.
Coordinate Logistics: Planning Committee will finalize all details. <ul style="list-style-type: none"> <li>• Temporary crosswalk demonstration, including: <ul style="list-style-type: none"> <li>○ Date: prioritized for the beginning of the 2019-2020 school year</li> <li>○ Exact Location: Vermont Street/1st Avenue and Vermont Street/2nd Avenue</li> </ul> </li> <li>• Walking school bus and bike train, including: <ul style="list-style-type: none"> <li>○ Map routes</li> <li>○ Select stops</li> <li>○ Schedule pick-up and drop-off times</li> <li>○ Outreach plan</li> </ul> </li> </ul>	Summer 2019	Planning Committee Vermont Elementary School Principal	San Bernardino County Public Works can support with permit coordination.  Safe Routes National Partnership can share best practices regarding the walking school bus and bike train.
Host Temporary Crosswalk Demonstration with a Walking School Bus and Bike Train <ul style="list-style-type: none"> <li>• Take pictures during the event of all road users to document need</li> <li>• Conduct pedestrian and bicycle counts to measure increased walking and biking to/from school</li> </ul>	Early Fall 2019	Planning Committee School Volunteers San Bernardino County staff	Safe Routes Partnership and California Walks can provide data collection tools and tips.

## Enforcement Project: Crossing Guard Program

**Project Description:** Secure a crossing guard at Vermont Street & 1st Avenue.

**Project Goal:** Increase safety for students and families who use the Vermont and 1st Avenue crossing.

Action Steps	Timeline	Responsible Party	Resources
Request a crossing guard by contacting the San Bernardino City Unified School District (SBCUSD) Office of Safety & Emergency Management. SBCUSD will then evaluate.	Fall - Winter 2019	Vermont Elementary School Staff  Vermont Elementary School Parent Center  Supported by California Walks	Request a crossing guard by contacting the San Bernardino City Unified School District (SBCUSD) Office of Safety & Emergency Management. SBCUSD will then evaluate.
If it is determined that this intersection is not eligible for a crossing guard, identify if community members are available to serve as crossing guards and explore other opportunities for a crossing guard.	Winter 2019		<a href="#">California School Crossing Guard Training Guideline</a> , Chapter 2 <i>Identification of Where Crossing Guards are Needed</i>  CA MUTCD, <a href="#">Chapter 7D</a> Crossing Supervision

## Evaluation Project Name: VideoVoice Project

**Project Description:** Collect VideoVoice testimony to advocate for a 4-way stop at the intersection of Vermont Street and 1st Avenue.

**Project Goals:**

- 1) Increase safety for students and families who use the Vermont and 1st Ave crossing;
- 2) Reduce pedestrian and vehicle conflict at this intersection; and
- 3) Promote safe routes to school.

Action Steps	Timeline	Responsible Party	Resources
Attend Safe Routes to School Launch Workshop at King Middle School in San Bernardino County on June 14, 2019 from 9:00 a.m. to 1:00 p.m. and acquire tips on working with elected officials and city staff.	June 14, 2019	Community Safe Routes Partnership	Safe Routes to School Launch Workshop
Work with California Walks and parent center at Vermont Elementary to organize a group of individuals who will be responsible for gathering VideoVoice testimony.  Collect VideoVoice testimony of perceived unsafe conditions and behaviors at the intersection of Vermont Street and 1st Avenue, preferably during school drop-off and pick-up hours.	July to September 2019	California Walks Vermont Elementary School Community Parent Center Office of Assemblymember Eloise Gómez Reyes	
Determine group of individuals who will be responsible for presenting VideoVoice testimony.  Present VideoVoice testimony to the San Bernardino County Department of Public Works to demonstrate the need for a feasibility study or assessment at this intersection.	September 2019	Community supported by California Walks team	San Bernardino County Department of Public Works.

## Engineering Project Name: School Safety Zone and Signage Prioritization

**Project Description:** Identify area(s) around Vermont Elementary School eligible for and in need of school zone signage and markings.  
**Project Goals:**

- 1) Reduce driver speeds by alerting motorists to the presence of students; and
- 2) Improve safety for walking and biking around Vermont Elementary School.
- 3) Reduce driver speeds by alerting motorists to the presence of students; and
- 4) Improve safety for walking and biking around Vermont Elementary School.

Action Steps	Timeline	Responsible Party	Resources
<p>Develop local partnerships</p> <ul style="list-style-type: none"> <li>• Meet with parent group and PTO to define project goals and build support for the project.</li> <li>• Conduct a signage inventory around the school.</li> <li>• Discuss school zone regulations and resources in San Bernardino County with Planning Committee and Planning Team.</li> </ul>	July-August 2019	School Volunteers Planning Committee Project Team	Signage Inventory form, pens, clipboards, camera, paper
<p>Engage with County and decision-makers:</p> <ul style="list-style-type: none"> <li>• Meet with San Bernardino County Public Works about the project and recommendations.</li> <li>• Meet with San Bernardino Supervisor Josie Gonzalez and Board of Supervisors meeting to build support for the project.</li> </ul>	Early Fall 2019	School Volunteers Principal PTO Planning Committee	Talking points for meetings, including copy of CPBST Recommendations Report Board of Supervisors Calendar
<p>Develop an awareness campaign</p> <ul style="list-style-type: none"> <li>• Host a school community meeting to decide what signage should be installed and where.</li> <li>• With the coordination of parents create educational campaign around speeding and pedestrian activity.</li> <li>• Install campaign signage in locations that parents, students and community members will see them to bring awareness to the project and safety concerns.</li> </ul>	Late Fall 2019 -Early Spring	School Volunteers Vermont Elementary School staff PTO Planning Committee	Signage, markers, safety tips and data

## Cal Walks & SafeTREC Recommendations<sup>7</sup>

### Apply for Infrastructure Funds for Vermont Elementary

Sidewalks are needed along 1st Avenue, 2nd Avenue, and the west side of Vermont Street between 2nd Street and Ogden Street. High-visibility crosswalks, curb extensions, and the Americans with Disabilities Act (ADA) ramps are needed in much of the Muscoy community, especially at intersections around Vermont and Muscoy Elementary Schools. Although the County was not awarded infrastructure funding through the Caltrans Active Transportation Program (ATP) Cycle 4 Call for Projects, the community is committed to strengthening the grant application and reapplying. The Project Team **recommends continued collaboration between the School District, San Bernardino County, Assemblymember Eloise Gómez Reyes' office, and Vermont Elementary School to apply for infrastructure funding for pedestrian safety improvements through the ATP Cycle 5.** Pedestrian infrastructure improvements, such as sidewalks and drainage systems, will improve safety and address the flooding problems along these streets.

### Community-wide Lighting Assessment

The Project Team **recommends workshop participants collaborate with San Bernardino County Special Districts Department to perform a community-wide street lighting assessment.** This assessment would focus on pedestrian-scale lighting needs, especially around Vermont Elementary School, Muscoy Elementary School, Baker Family Learning Center, and local businesses. A lighting assessment can be used to identify pedestrian-scale lighting needs and identify fixtures in need of repair or replacement. Once developed, the inventory can be used to develop an equitable plan for streetlight maintenance which can provide a sense of safety and security and improve the overall well being of road users.

### Develop Student Arrival and Dismissal Program

The Project Team **recommends that Vermont Elementary School and parents improve traffic and safety conditions during drop-off and pick-up times by developing a Student Arrival and Dismissal Program.** Many parents drop-off and pick-up their children along and in the middle of Vermont Street in front of Vermont Elementary School rather than the designated parking lot behind the school. However, when parents do this, students must compete with vehicles, school buses, and other pedestrians to cross the street. The Project Team **encourages the school to develop an educational and incentive program to persuade parents to drop-off and pick-up their students in the designated parking lot.** In this parking lot, the school principal greets families and oversees safer coordination of arrival and dismissal activities.

### Installation of Four-Way Stops

The Project Team **recommends the San Bernardino County Planning Department explore opportunities to convert the current two-way stop intersections into four-way stop intersections at Vermont Street/3rd Avenue and Vermont Street/1st Avenue.** The qualitative data collected via the Street Story activity found that participants perceive these intersections as unsafe because they have seen or been involved in near-misses or crashes there. Converting these into four-way stop intersections would improve safety and perceived safety for the community.

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<sup>7</sup> For a list of resources see Appendix B

# Appendix A: Community Plans and Policies Review

## Community Plans and Policies Review:

Cal Walks conducted a review of current community planning documents to inform the training and prepare to build off existing efforts. The following documents were reviewed:

- [Muscoy Community Action Guide](#), 2019
- [Muscoy Community Plan](#), April 2007
- [San Bernardino County Active Transportation Plan – Regional Safe Routes to School Plan Phase II](#)
- [San Bernardino County Safe Routes to School Program Guide](#)
- [San Bernardino County, Muscoy Community Outreach Plan](#)

## Appendix B: Resources

- [Safe Routes to School Student Drop-off and Pick-up Guide](#)
- [An Organizer’s Guide to Bicycle Rodeos](#)
- [Safe Kids Bike Rodeo Stations Guide](#)
- [California School Crossing Guard Training Guidelines](#)
- [California MUTCD 2014 Chapter 7D – Crossing Supervision](#)
- [San Bernardino County Active Transportation Plan – Regional Safe Routes to School Plan Phase II, 5.1 Engineering Recommendation “Tool Box” 5.1.1 Pedestrian Facilities](#)
- [Small Town and Rural Design Guide: Facilities for Walking and Biking](#)

For a summary of outcomes from past CPBST workshops, please visit:

[www.californiawalks.org/projects/cpbst](http://www.californiawalks.org/projects/cpbst) and <https://safetrec.berkeley.edu/programs/cpbst>

# Appendix C: Data Analysis

## **Pedestrian and Bicycle Collision Data Analysis**

- Muscoy CPBST Workshop Data Factsheet
- Muscoy CPBST Site Visit Data Presentation

# Muscoy Pedestrian & Bicycle Collision Data Analyses

## Community Pedestrian and Bicycle Safety Training Workshop (CPBST)

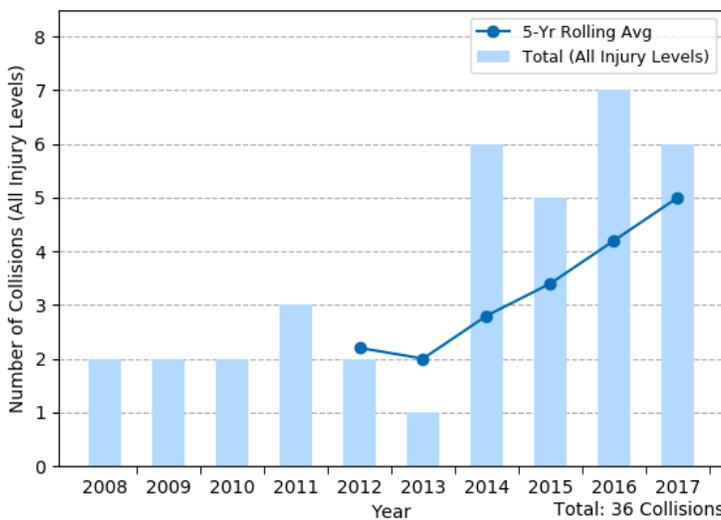
May 22, 2019

In California, more than one in four people who died in a collision is a pedestrian or bicyclist. There was a 13.9 percent increase in pedestrian deaths from 2015 to 2016 and a 14.0 percent increase in cycling deaths (FARS 2015 and 2016). In this workshop, we provide you with local collision data so that we can identify ways to make walking and biking safer in your community.

The local data seen below is based on collision data for Muscoy as defined by the members of the workshop's planning committee.

### PEDESTRIANS

How are pedestrian collisions changing over time?  
What could have caused an increase or decrease in collisions?



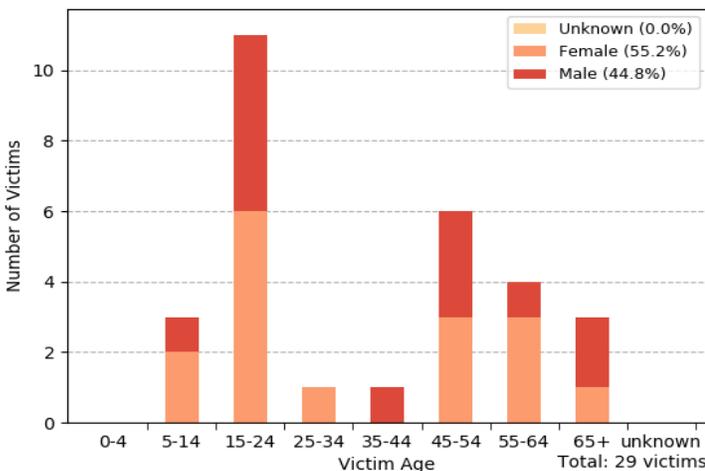
**40** people were injured or killed in **36** pedestrian collisions in the last 10 years (2008-2017).

The number of pedestrian collisions appear to be **increasing**, based on the five year rolling average\*.

\* The five-year rolling average is the average of five consecutive years of data. It provides an overall collision trend over time that accounts for the significant changes in the number of collisions per year.

The following are based on pedestrian collision data for the years 2013-2017:

Who were the victims in these collisions?

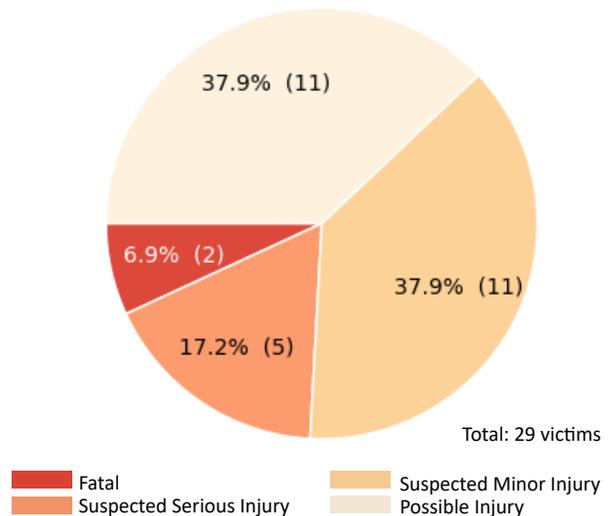


**More than 1/4** of the victims were **18 or younger**.

There were **more female victims** than male victims.

**1 in 5** victims were 60 or older

How severe were the victims' injuries?

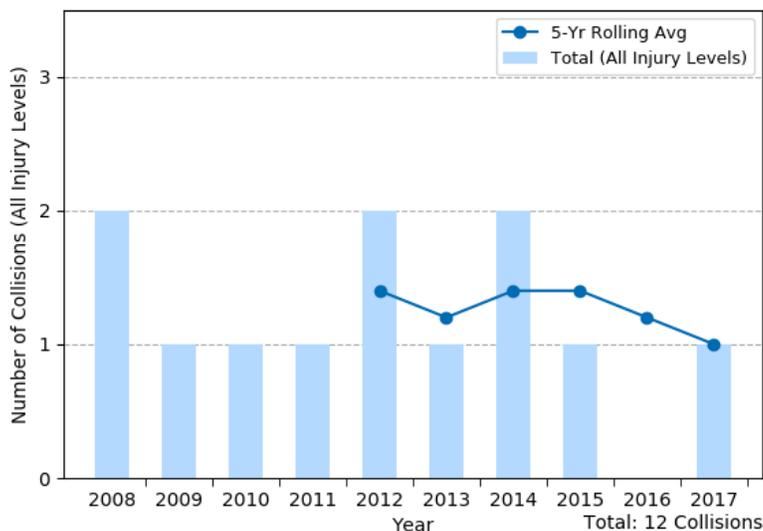


**Nearly 1/4** fatalities or suspected serious injuries

Data Source: California Statewide Integrated Traffic Records System (SWITRS). Collision data for 2016 and 2017 are provisional at this time. Funding for this program was provided by a grant from the California Office of Traffic Safety through the National Highway Traffic Safety Administration.

# BICYCLES

How are bicycle collisions changing over time?  
 What could have caused an increase or decrease in collisions?



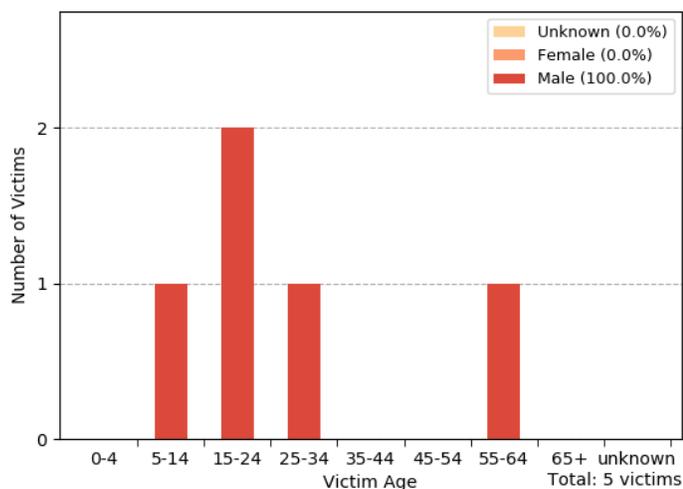
**12** people were injured or killed in **12** bicycle collisions in the last 10 years (2008-2017).

The number of bicycle collisions appear to be **decreasing**, based on the five year rolling average\*

\* The five-year rolling average is the average of five consecutive years of data. It provides an overall collision trend over time that accounts for the significant changes in the number of collisions per year.

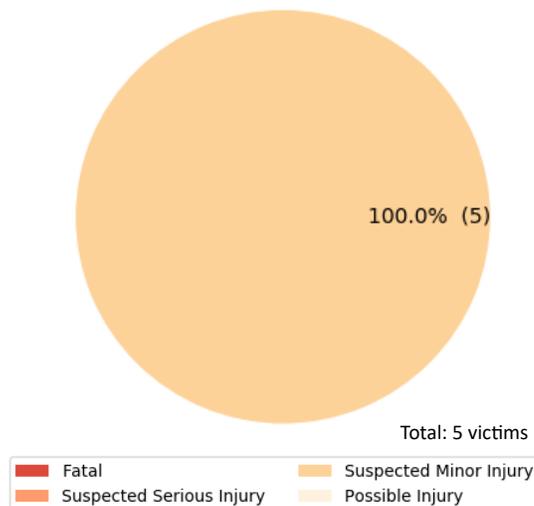
The following are based on bicycle collision data for the years 2013-2017:

Who were the victims in these collisions?



**3 of the 5** victims were 24 or younger  
**All** of the victims were male

How severe were the victims' injuries?

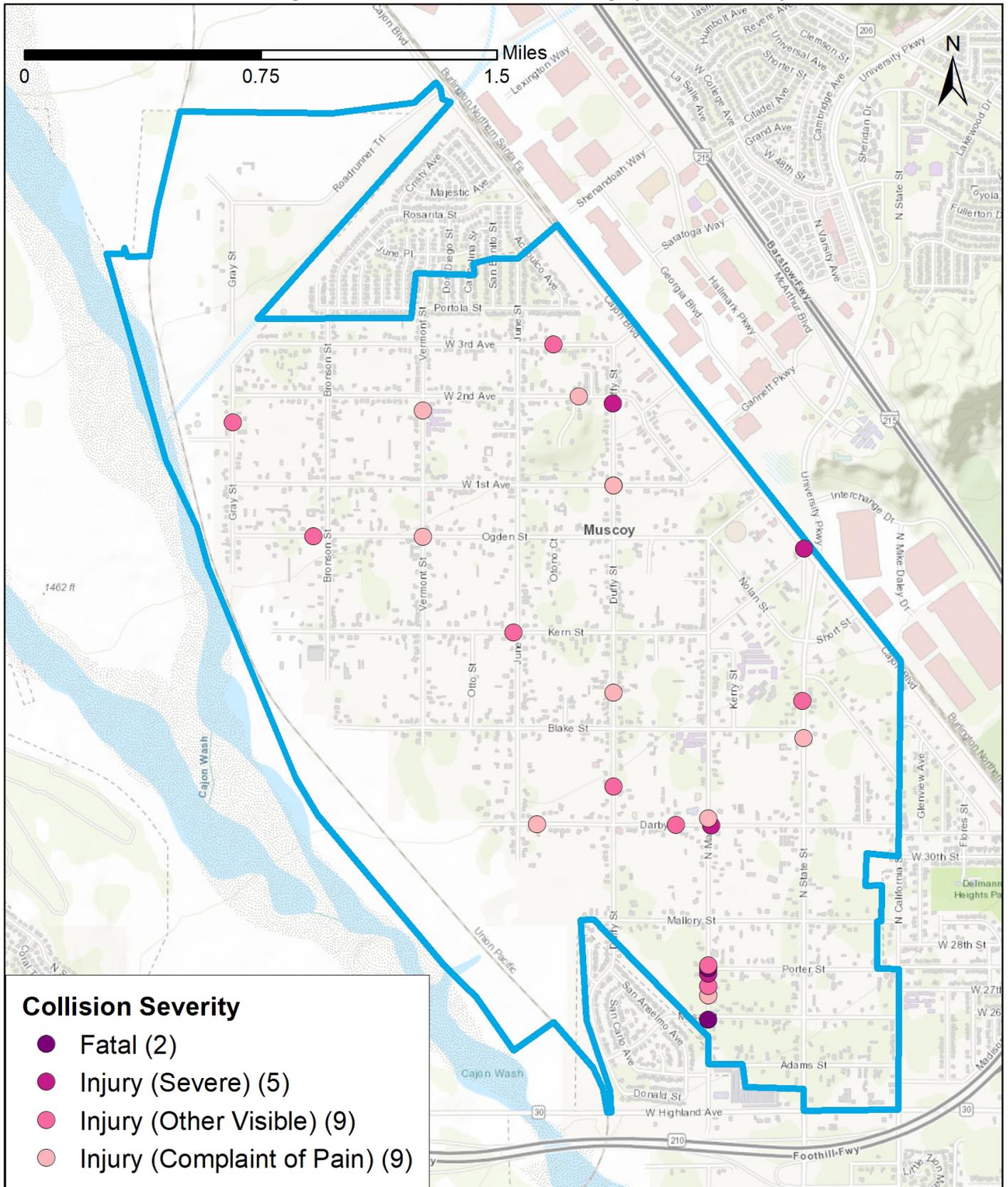


All bicycle collisions resulted in minor injuries.

- While these numbers do not tell the whole story, do they resonate with your experience in your community?
- What kinds of improvement do you think could help make walking and biking safer in your community?
- What other data could help inform decision-making?

To learn more about collision data in your community, visit the free tools available through the Transportation Injury Mapping System ([tims.berkeley.edu](https://tims.berkeley.edu)). For additional assistance, please email us at [safetrec@berkeley.edu](mailto:safetrec@berkeley.edu).

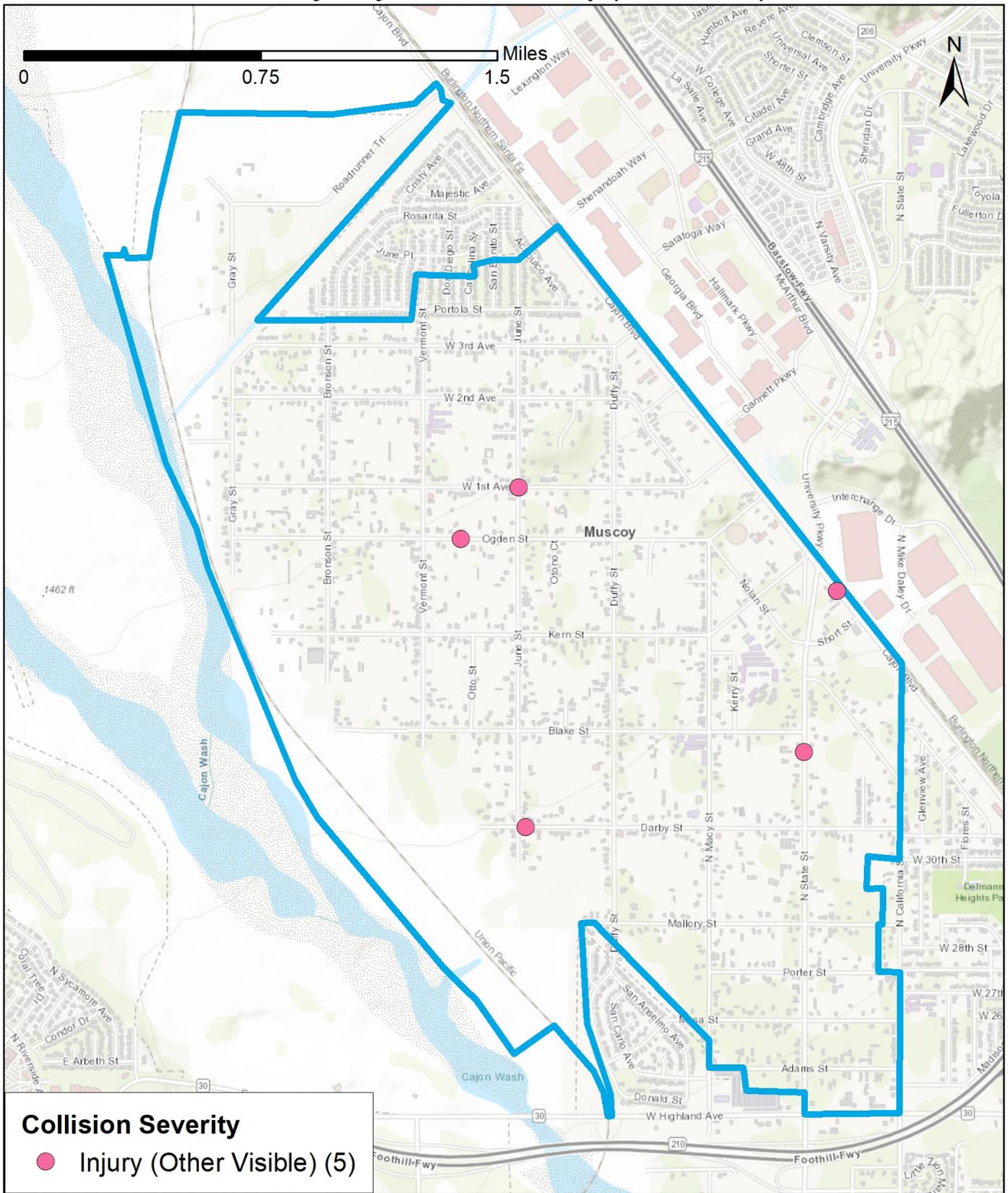
# Muscoy Pedestrian Collision Map (2013 - 2017)



Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of Dec. 2018

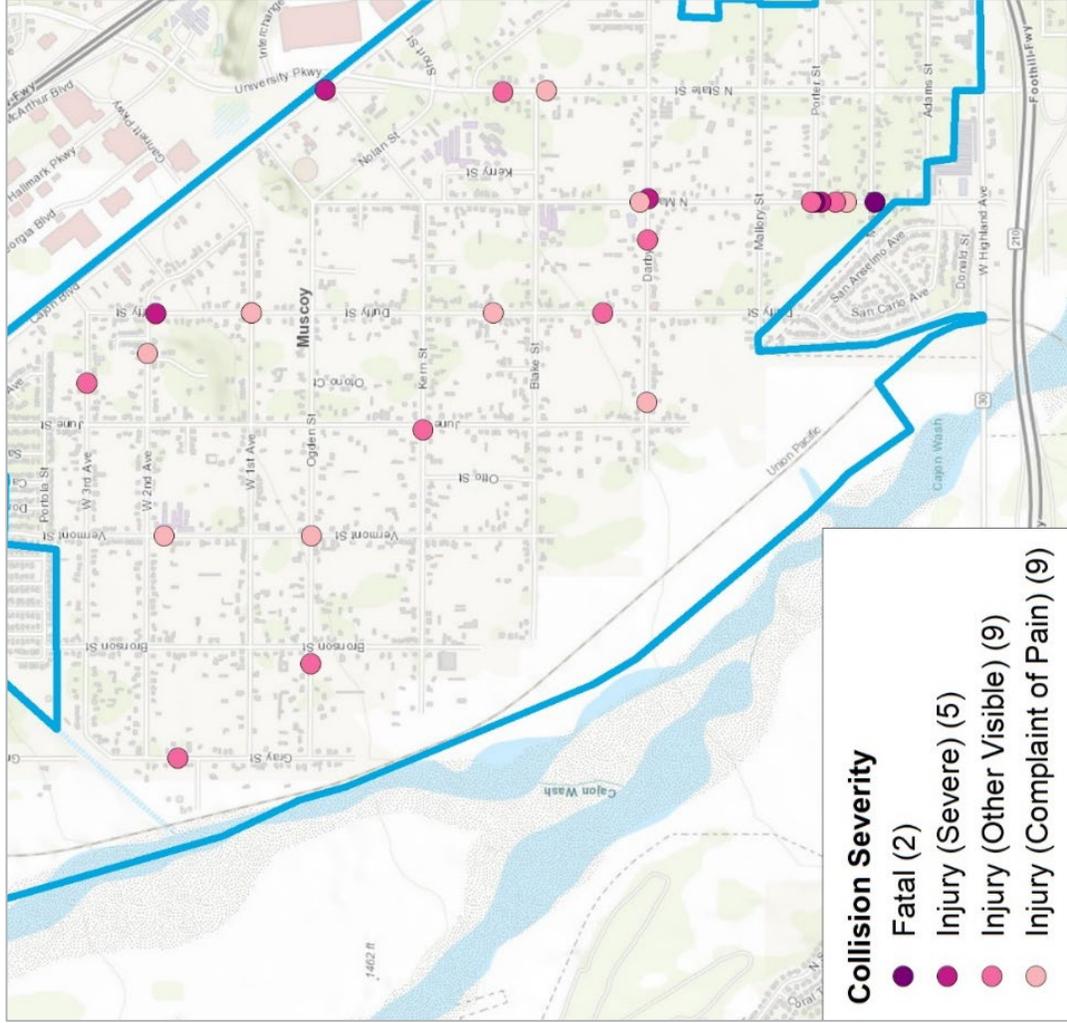
Date: 3/13/2019

# Muscoy Bicycle Collision Map (2013 - 2017)



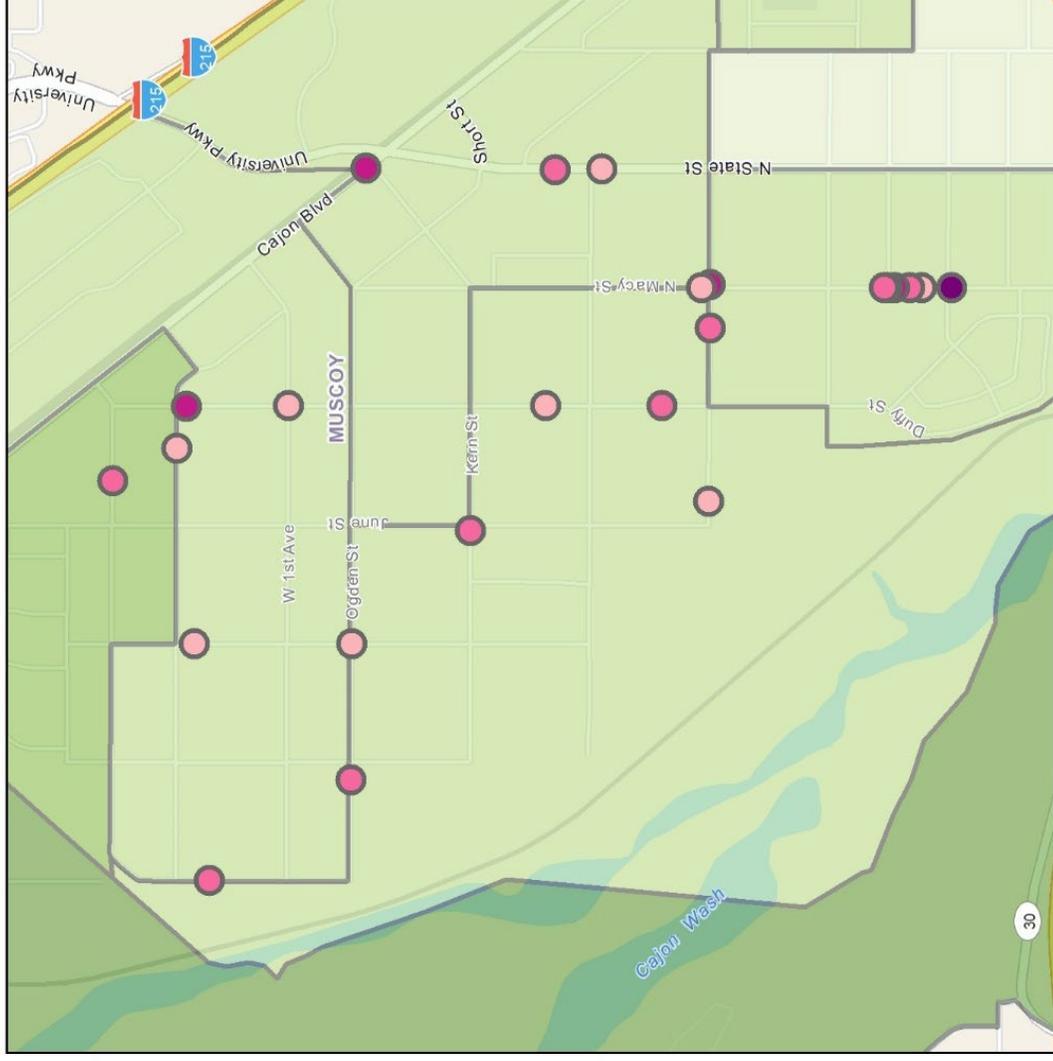
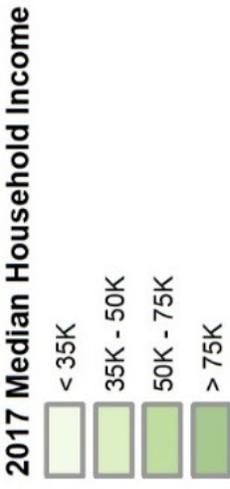
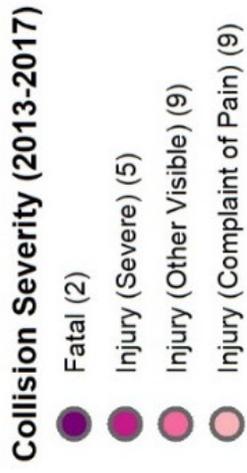
Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of Dec. 2018 Date: 3/13/2019

# Pedestrian Injury Collisions (2013-2017)



**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018

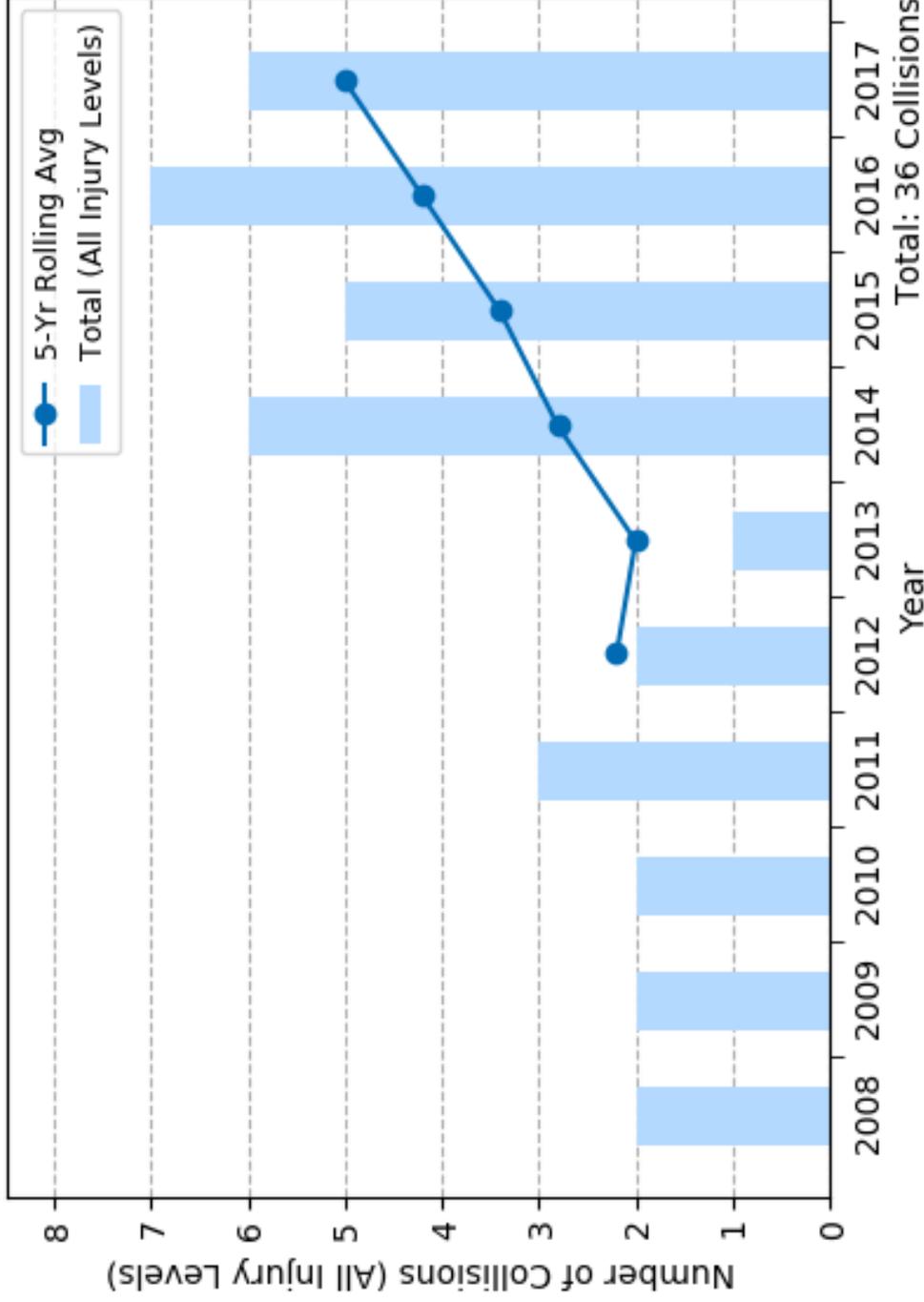
# Pedestrian Injury Collisions (2013-2017)



**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018

# Pedestrian Injury Collision Trend

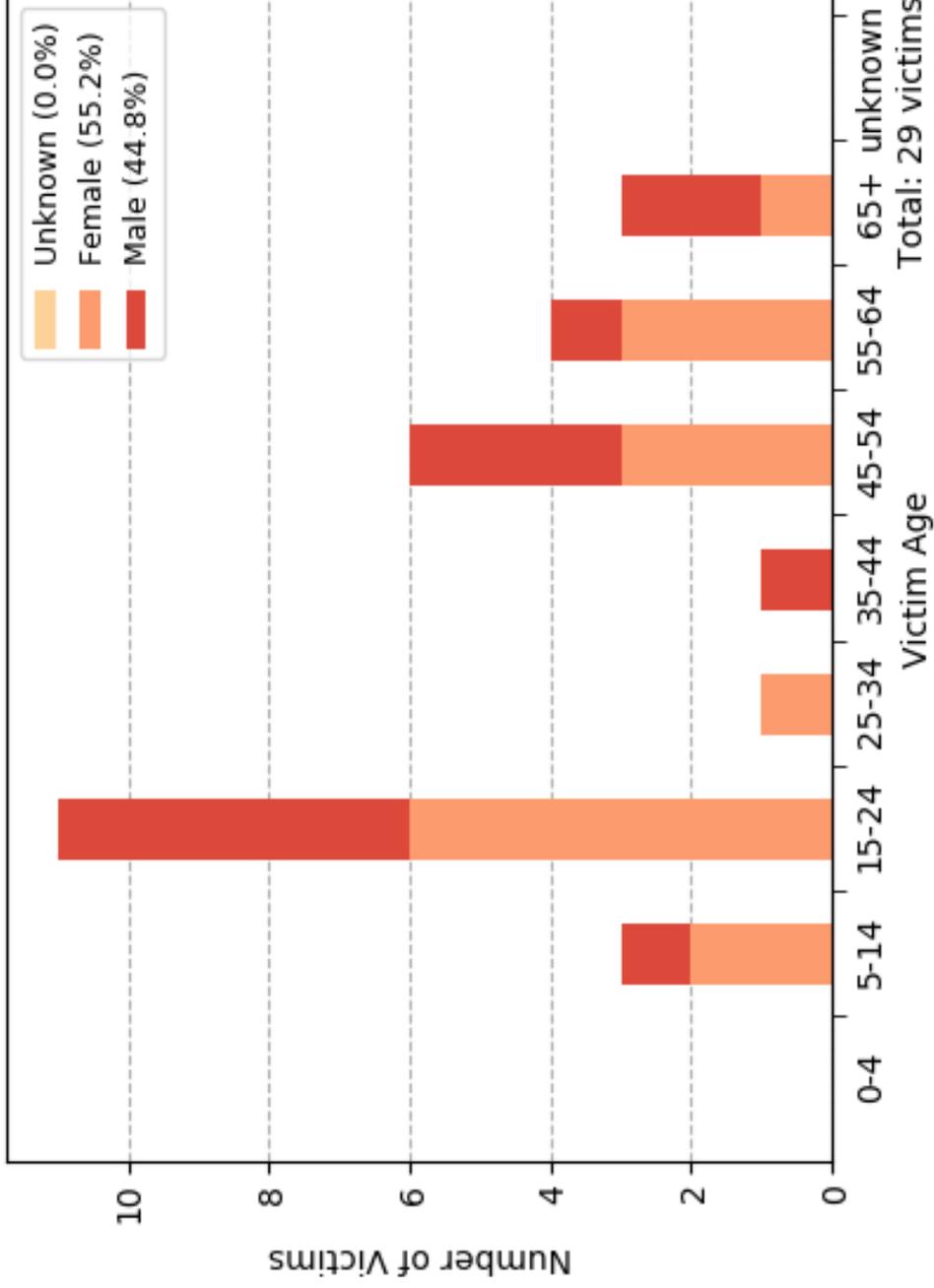
with 5-year rolling average



**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2008-2017. Collision data for 2016 and 2017 are provisional as of December 2018

# Pedestrian Victim Injury (2013-2017)

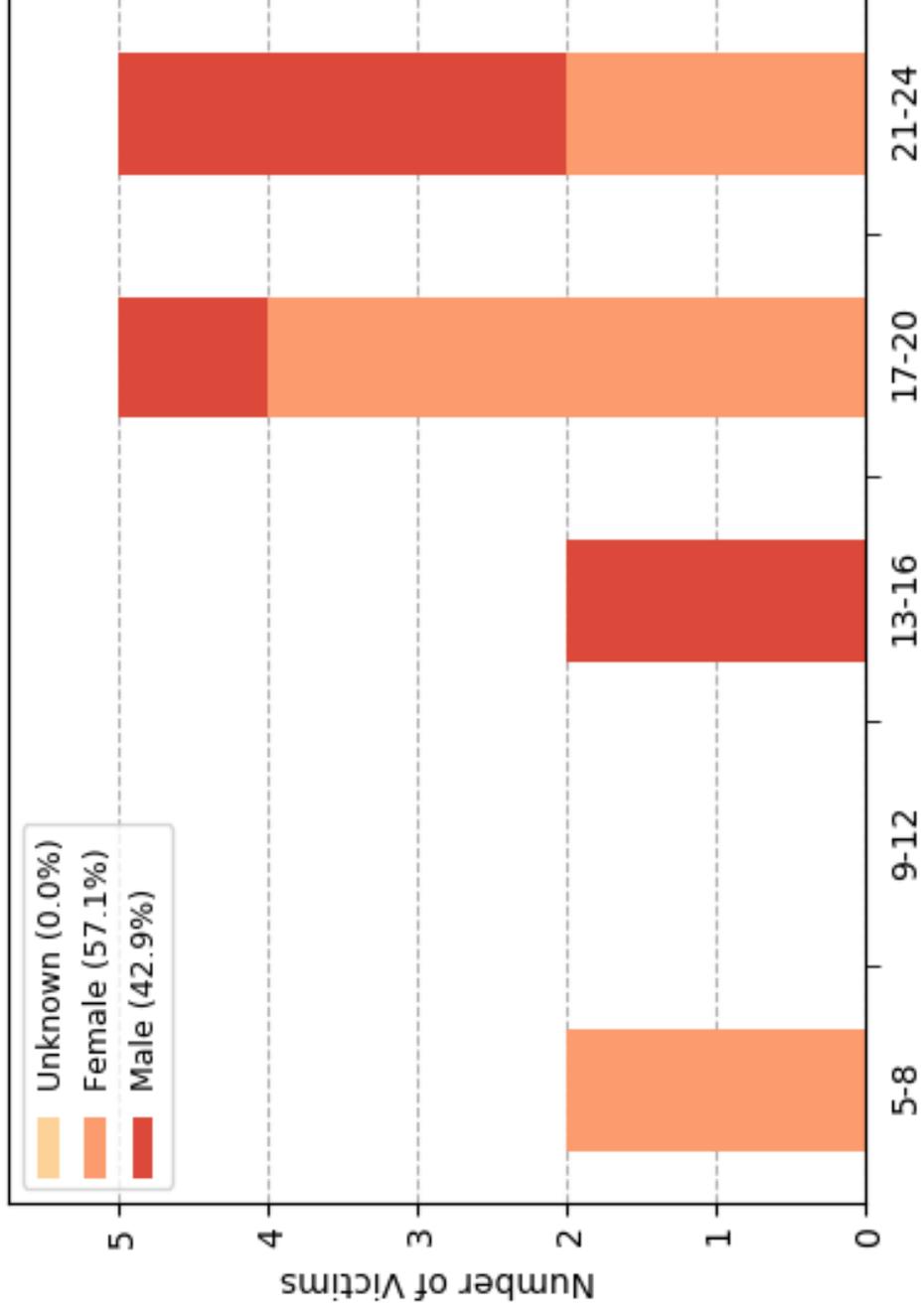
## by age and gender



**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018.

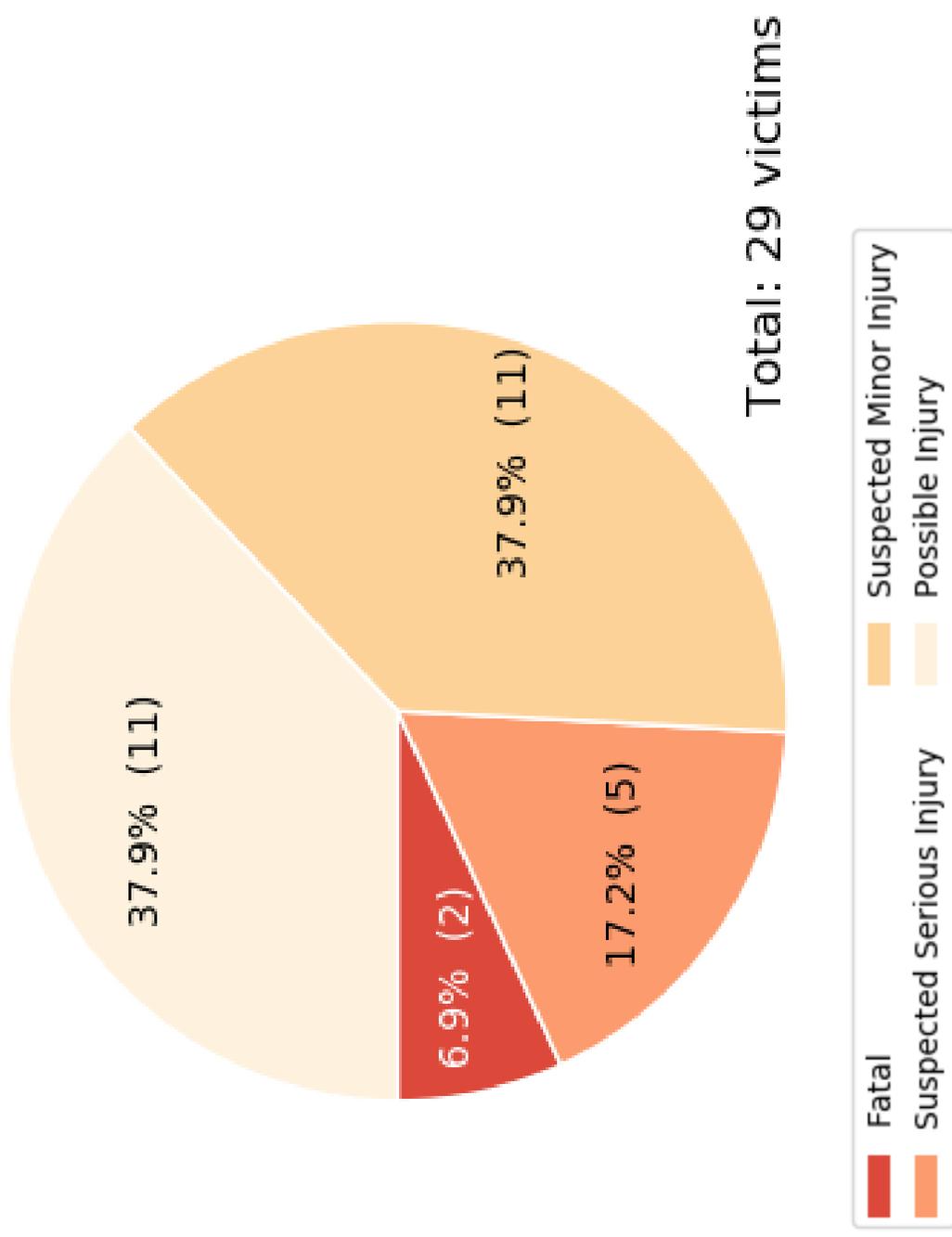
# Pedestrian Victim Injury (2013-2017)

by age and gender for children & youth



**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018.

# Pedestrian Victim Injury (2013-2017) by injury severity



**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018.

# Pedestrian Collisions (2013-2017)

by time of day and day of week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
09:00PM-11:59PM -	0	0	0	0	1	0	0	1
06:00PM-08:59PM -	3	1	3	1	0	0	1	9
03:00PM-05:59PM -	0	1	0	0	2	0	1	4
Noon-02:59PM -	0	0	0	1	2	1	1	5
09:00AM-11:59AM -	0	0	1	0	1	0	0	2
06:00AM-08:59AM -	0	0	0	1	0	0	0	1
03:00AM-05:59AM -	0	0	1	0	0	0	0	1
Midnight-02:59AM -	0	0	0	0	0	2	0	2
<b>Total</b>	<b>3</b>	<b>2</b>	<b>5</b>	<b>3</b>	<b>6</b>	<b>3</b>	<b>3</b>	<b>25</b>

**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018.

# Pedestrian Collisions (2013-2017)

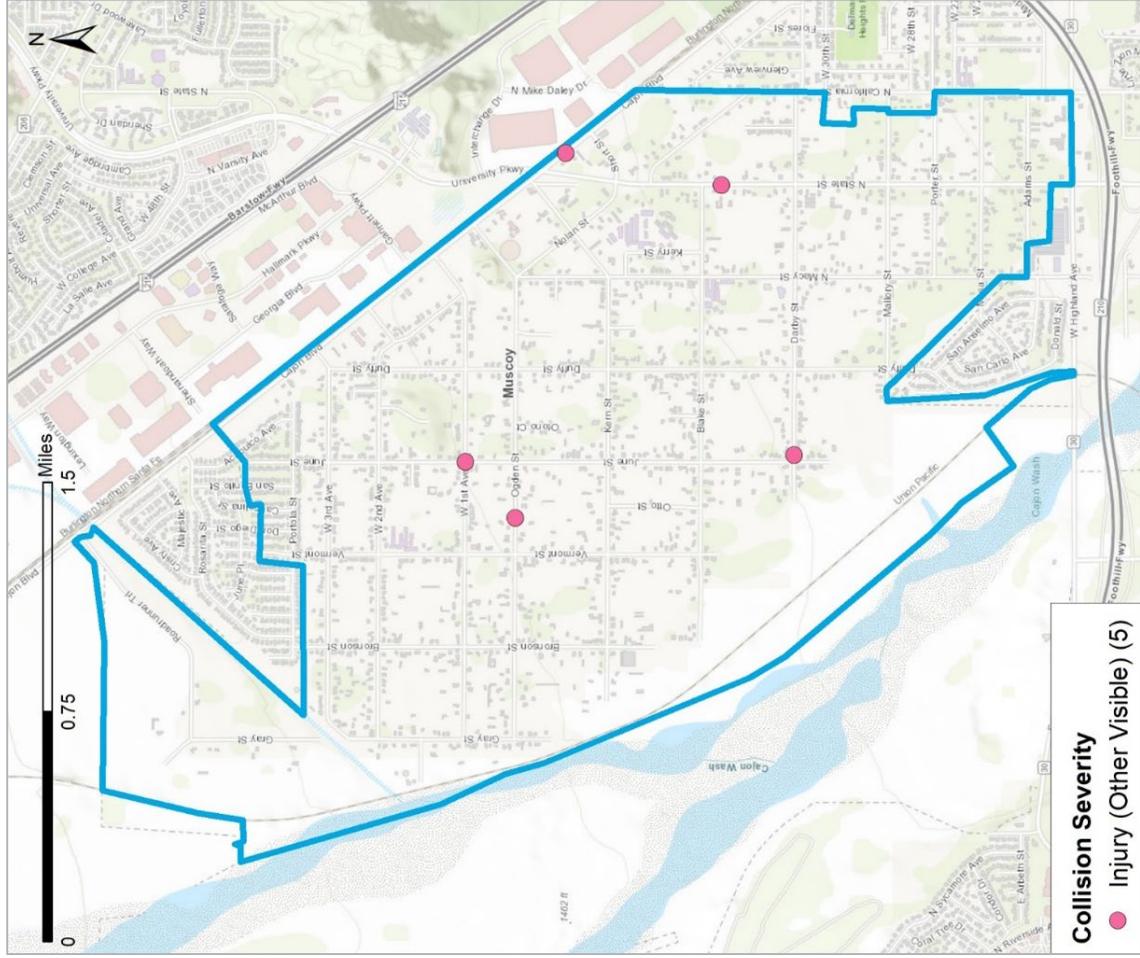
## by type of violation

Total: 25 Collisions

CVC No.	Description	Number of Collisions
21954	Pedestrian failure to yield right-of-way to vehicles when crossing outside of a marked or unmarked crosswalk	9 (36.0%)
22107	Unsafe turning or moving right or left on a roadway Turning without signaling	5 (20.0%)
22350	Speeding on the highway / Driving at a dangerously high speed given highway conditions like weather, visibility, traffic, and highway measurements, or driving at a speed that endangers people or property	3 (12.0%)
21950	Driver failure to yield right-of-way to pedestrians at a marked or unmarked crosswalk	2 (8.0%)
21956	Pedestrian failure to walk close to the edge of the roadway when there is no sidewalk present / Pedestrian failure to walk on the left-hand edge of the roadway when outside of a business or resident district, unless crossing is not possible	2 (8.0%)
22106	Unsafe starting or backing of a vehicle on a highway	2 (8.0%)
21801	Driver failure to yield right-of-way when making a left turn or U-turn	1 (4.0%)
23152	Driving under the influence of alcohol (BAC 0.08+) or drugs	1 (4.0%)

**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018.

# Bicycle Injury Collisions (2013-2017)



**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018.

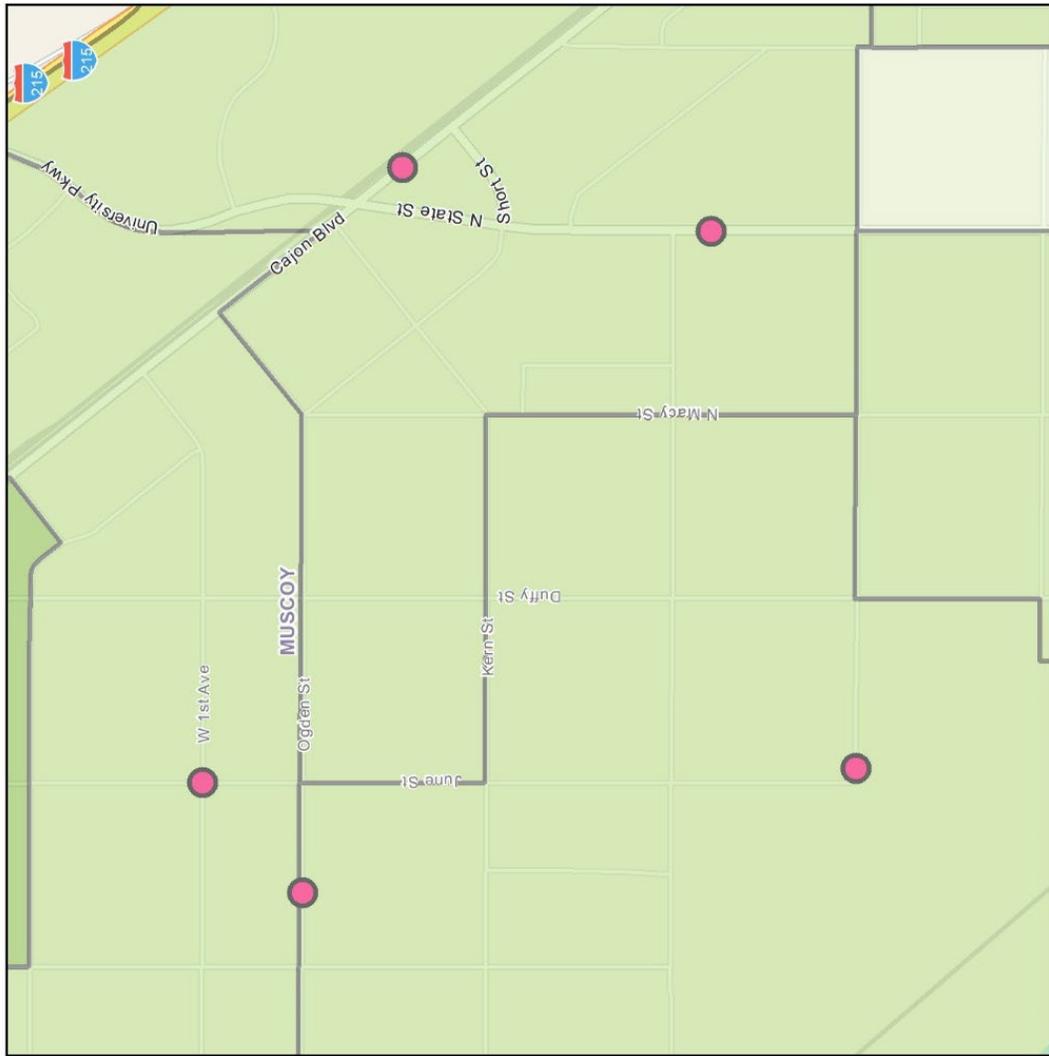
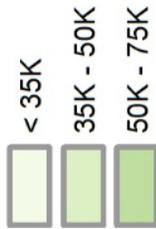
# Bicycle Injury Collisions

## (2013-2017)

### Collision Severity (2013-2017)

- Injury (Other Visible) (5)

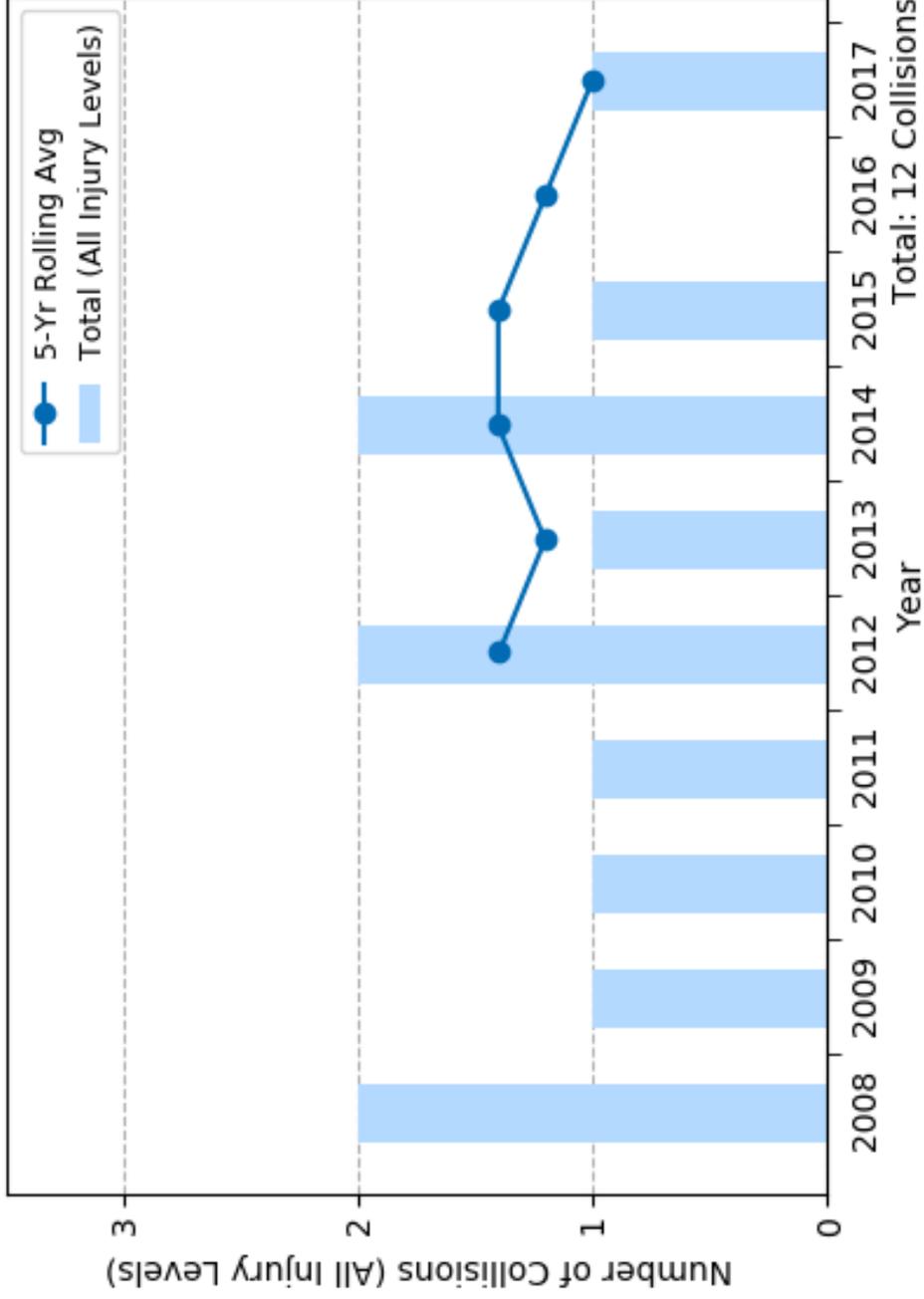
### 2017 Median Household Income



**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018.

# Bicycle Injury Collision Trend

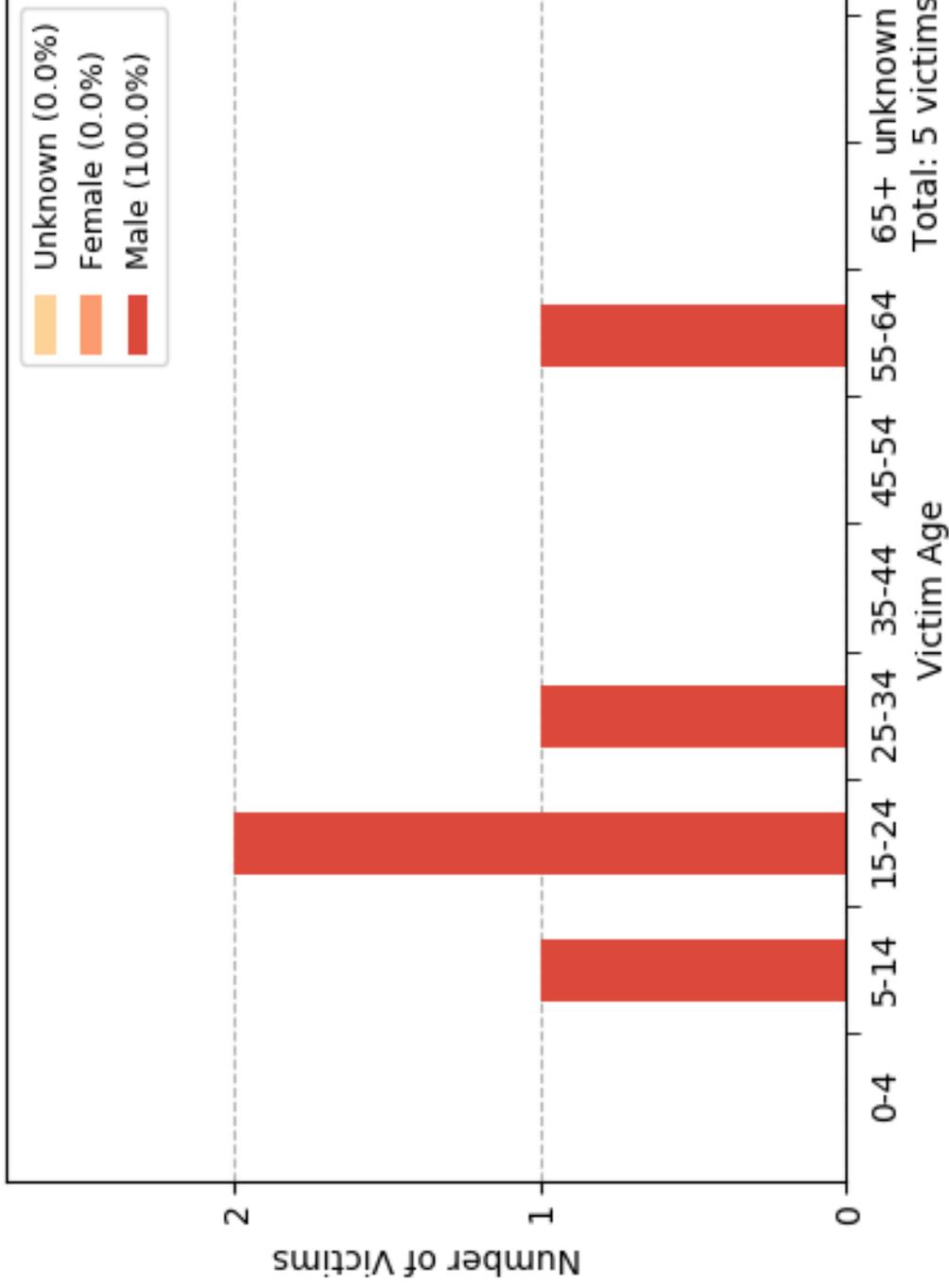
with 5-year rolling average



**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018.

# Bicycle Victim Injury (2013-2017)

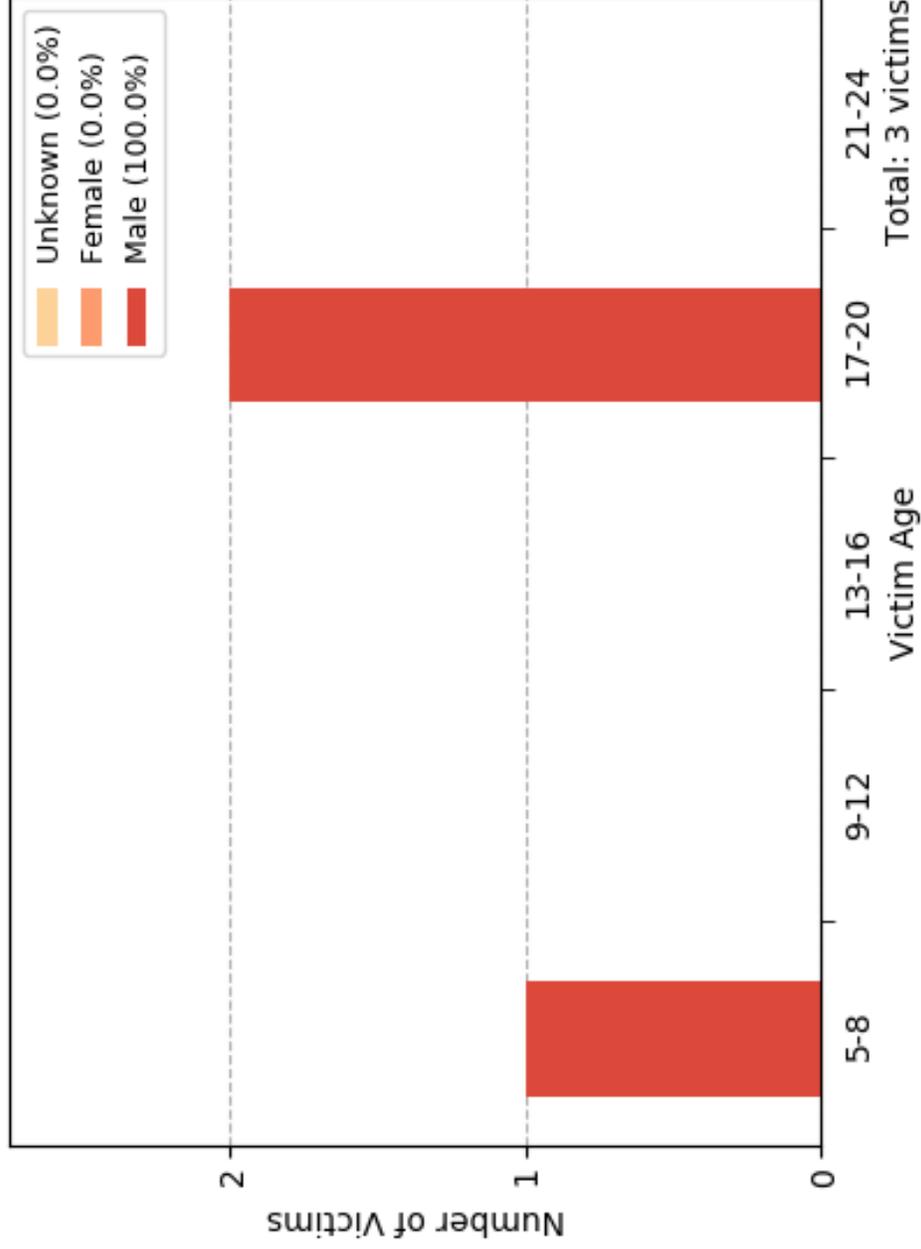
by age and gender



**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018.

# Bicycle Victim Injury (2013-2017)

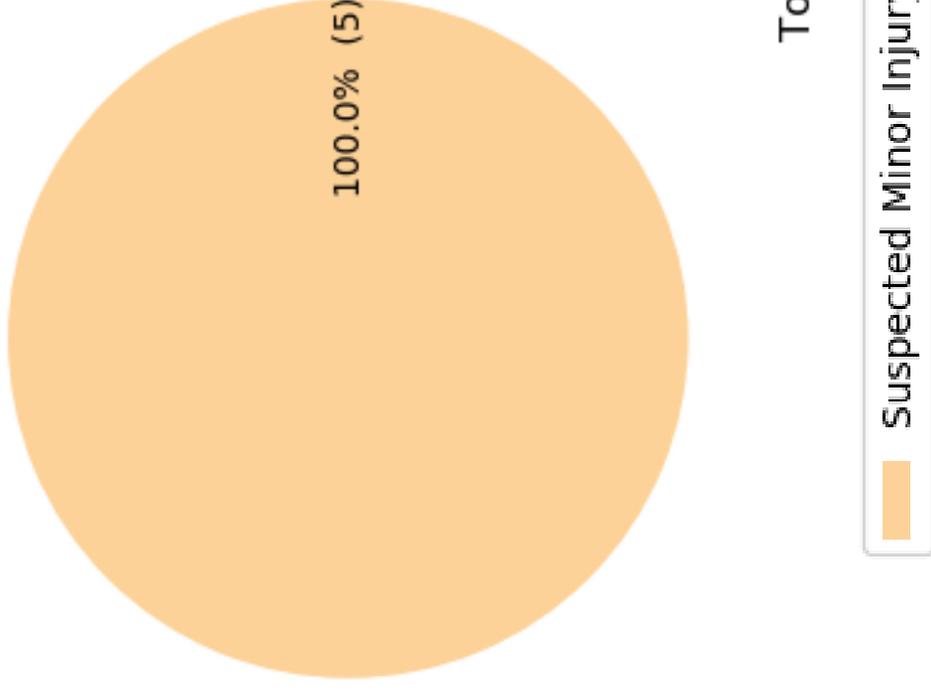
by age and gender for children & youth



**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018.

# Bicycle Victim Injury (2013-2017)

by injury severity



Total: 5 victims

**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018.

# Bicycle Collisions (2013-2017)

## by time of day and day of week

Muscoy Bicycle Collisions by Time of Day and Day of Week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
09:00PM-11:59PM -	0	0	0	0	1	0	0	1
06:00PM-08:59PM -	0	0	0	0	0	0	0	0
03:00PM-05:59PM -	1	0	0	0	1	0	0	2
Noon-02:59PM -	1	0	1	0	0	0	0	2
09:00AM-11:59AM -	0	0	0	0	0	0	0	0
06:00AM-08:59AM -	0	0	0	0	0	0	0	0
03:00AM-05:59AM -	0	0	0	0	0	0	0	0
Midnight-02:59AM -	0	0	0	0	0	0	0	0
<b>Total</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>5</b>

Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of Dec. 2018

**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018.

# Bicycle Collisions (2013-2017)

## by type of violation

Muscoy Bicycle Collisions by Type of Violation  
Total: 5 Collisions

CVC No.	Description	Number of Collisions
22350	Speeding on the highway / Driving at a dangerously high speed given highway conditions like weather, visibility, traffic, and highway measurements, or driving at a speed that endangers people or property	2 (40.0%)
22107	Unsafe turning or moving right or left on a roadway Turning without signaling	1 (20.0%)
22450	Driver failure to stop at a limit line or crosswalk at a stop sign / (ND ): Driver failure to stop for a stop sign before a limit line; otherwise, a crosswalk or intersection entrance Driver failure to stop at limit line before railroad; or, before entering	1 (20.0%)

Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of Dec. 2018

**Data Source:** Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of December 2018.

# Additional Resources



## Transportation Injury Mapping System (TIMS)

TIMS is a web-based tool that allows users to analyze and map data from California’s Statewide Integrated Traffic Records System (SWITRS).

To further explore collision data, register for a free account to access the tools and resources on TIMS.

<https://tims.berkeley.edu>



## Street Story

Street Story is a tool for collecting community feedback on transportation safety issues. Share stories on Street Story of where you’ve been in a crash or near miss, or where you feel safe or unsafe traveling.

<https://streetstory.berkeley.edu>

