
# Recommendations to Improve Pedestrian & Bicycle Safety for the City of Pomona



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California Walks
Stepping Up for Health, Equity, & Sustainability

Berkeley SafeTREC
SAFE TRANSPORTATION RESEARCH AND EDUCATION CENTER

# Recommendations to Improve Pedestrian & Bicycle Safety for the City of Pomona

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## Introduction

At the invitation of Day One and Bike San Gabriel Valley, the University of California at Berkeley's Safe Transportation Research and Education Center (SafeTREC) and California Walks (Cal Walks) facilitated a community-driven pedestrian and bicycle safety action-planning workshop in Pomona to improve pedestrian safety, bicycle safety, walkability, and bikeability across the City.

Prior to the workshop, Cal Walks staff conducted an in-person site visit on Wednesday, August 2, 2017, to adapt the Community Pedestrian and Bicycle Safety Training program curriculum to meet the local communities' needs and to provide context-sensitive example strategies for the community's existing conditions. Cal Walks facilitated the workshop on September 18, 2017, which consisted of: 1) an overview of multidisciplinary approaches to improve pedestrian and bicycle safety; 2) a walkability and bikeability assessment along one key route; and 3) small group action-planning discussions to facilitate the development of community-prioritized recommendations to inform Pomona's active transportation efforts. This report summarizes the workshop proceedings, as well as ideas identified during the process and recommendations for pedestrian and bicycle safety projects, policies, and programs.

## Background

### Community Pedestrian and Bicycle Safety Training Program

The Community Pedestrian and Bicycle Safety Training (CPBST) program is a joint project of UC Berkeley SafeTREC and Cal Walks. Funding for this program is provided by a grant from the California Office of Traffic Safety (OTS) through the National Highway Traffic Safety Administration (NHTSA). The purpose of the CPBST program is to train local neighborhood residents and safety advocates on how to improve pedestrian and bicycle safety and to strengthen their collaboration with local officials and agency staff to make communities safer and more pleasant to walk and bike. For each training, the program convenes a multi-sector, multi-disciplinary local planning committee to tailor and refine the training's curriculum and focus to meet the community's needs. Additionally, Cal Walks staff conduct pre-training site visits to collect on-the-ground observations of existing walking and biking conditions to inform the training's scope and focus.

The half-day training is designed to provide participants with both pedestrian and bicycle safety best practices and a range of proven strategies (the 6 E's: Empowerment & Equity, Evaluation, Engineering,

Enforcement, Education, and Encouragement) to address and improve pedestrian and bicycle safety conditions and concerns. Participants are then guided on a walkability and bikeability assessment of nearby streets before setting pedestrian and bicycle safety priorities and actionable next steps for their community.

For a summary of outcomes from past CPBST workshops, please visit:
www.californiawalks.org/projects/cpbst and https://safetrec.berkeley.edu/programs/cpbst

# Selected Pedestrian & Bicycle Safety Conditions in Pomona

## High Speeds & Wide Streets

While the posted speed limits along many of the arterial roads that run through the City are 30 or 35 miles per hour (MPH)—including Holt Avenue, Mission Boulevard, Garey Avenue, Park Avenue—the width of the streets and travel lanes are documented to encourage drivers to travel at higher speeds. These streets are characterized by two wide lanes in each direction with a stripped center left turn lane or dedicated left turn lane to allow for turns without impeding vehicle traffic flow. Research has demonstrated that wide streets and wide travel lanes are associated with higher vehicle speeds[1], which affect the safety of people walking and bicycling. Cal Walks staff observed bicyclists riding on the sidewalk, likely due to their lack of comfort with traveling next to fast moving vehicle along these roads.

East Holt Avenue looking east towards North Gibbs Street is a wide multi-lane road that encourage speeding.

[1] See Kay Fitzpatrick, Paul Carlson, Marcus Brewer, and Mark Wooldridge, “Design Factors That Affect Driver Speed on Suburban Arterials": Transportation Research Record 1751 (2000):18–25.

## Poor Roadway Conditions

Cal Walks staff observed poor roadway conditions, including cracked and uneven asphalt, potholes, debris, and faded road and crosswalk markings along arterials and adjacent streets. Near the intersection of East Holt Avenue and North Palomares Street, Cal Walks staff observed inconsistent pavement conditions between vehicles lanes along East Holt Avenue, several of the lanes appear to have been recently repaved while others have not. Also, the pavement appeared to have resulted in an uneven road surface as the asphalt created a raised lip along the roadway, creating unsafe conditions for bicyclists.

East Holt Avenue looking east towards North Gibbs Street is a wide multi-lane street with faded markings, cracked pavement, and potholes.

## Pedestrian Crossing Challenges

Cal Walks staff observed a number of pedestrian crossing challenges throughout the community. Several high-visibility crosswalks can be found in the central business district along Main Street and other adjacent streets, but the majority of crossings are unmarked or standard transverse crosswalks (stripes perpendicular to the direction of vehicle travel and parallel to the direction of pedestrian travel) which can be difficult for drivers to see when traveling at high speeds. Many stop bars and marked crossings are faded making them nearly impossible to see at night or until a vehicle or pedestrian is within only a few feet of them. Some high volume intersections do not have marked crossings near pedestrian amenities like restaurants and local shops. Several curbs at intersections, including at Mission Avenue and Palomares Street, are flush with the roadway and have no curb ramps or have older style curb ramps that do not conform with current ADA standards and best practices.

Example of multiple curb ramps that are flush with the street and that lack truncated domes for blind or visually-impaired pedestrians (left) and example of an intersection with a cracked curb and missing curb ramps (right).

Faded crosswalk markings make it difficult for drivers to see and respect the crosswalk.

Due to high vehicle speeds and lack of bicycle facilities, some bicyclists prefer to ride on the sidewalk.

## Bicycle Network Gaps and Lack of Wayfinding

Existing bike lanes appear to be limited, yet some are identified by road markings or traditional signage. In several locations, bike lanes were narrow and difficult to see in areas with high vehicle traffic. Limited bicycle roadway markings and signs and wayfinding make it difficult to identify bicycle routes and major destinations. Cal Walks staff also observed bicyclists riding on the sidewalk or riding in the bike lane against traffic. Community members noted that a main safety concern for residents who bike along Holt Avenue is the high speed of vehicles, which results in many people riding on the sidewalk instead of in the street.

## Sidewalks in Disrepair and Debris

Many sidewalks in the community are in various states of disrepair and in general, sidewalk conditions worsened the further one walked away from the central business and civic center district. Sidewalks vary in width depending on the presence or absence of a landscape buffer of trees located between the sidewalk and the street, and the presence of street furniture, for example, fire hydrants, benches, light poles, and transit shelters. In general, sidewalks were wide enough to allow for two adults to walk side by side and pass comfortably. Sidewalk safety is affected greatly by cracks, uneven and broken concrete, and holes which increase tripping hazards for pedestrians and affect the safety of bicyclists using the sidewalk. Many trash receptacles near transit stops and at intersections were overflowing, creating an unpleasant walking experience.

Extremely cracked sidewalk creates a hazard for pedestrians and bicyclists using the sidewalk.

An upheaved sidewalk that has been repaired in patchwork fashion.

## Inadequate Lighting

A lack of pedestrian-scale lighting was observed during the site visit, especially at transit stops, near storefronts and restaurants, and community spaces. A lack of adequate and functioning pedestrian-scale lighting was especially evident at the transit center where structures create many areas of concealment for pedestrians connecting to and from the transit center. The area around the 777 Place Apartments along 3rd Street and Towne Avenue had consistent pedestrian-scale lighting around the entire complex, but the light fixtures were placed in the middle of the sidewalk, narrowing the walking space, affecting accessibility by people in wheelchairs, and creating a hazard to pedestrians and bicyclists at night.

No pedestrian-scale lighting along Garey Avenue leading the Pomona Transit Center.

A dark pedestrian tunnel near the Pomona Transit Center.


Vehicle-oriented street lighting.

## Landscaping Challenges

A variety of landscape buffers were observed along sidewalks, some were empty while others were filled with trees or shrubs. Where they exist, tree wells were usually filled with a variety of tree species, but many were also uplifted and filled with debris. Many tree wells along East Holt Avenue were empty and provided no shade to pedestrians walking along the storefronts. Tree species varied from street to street and sometimes from one side of the street to another, offering varying shade; some sidewalks were adequately shaded, depending on the tree and foliage type. Landscaping debris was observed collecting in the gutter, tree wells, driveways, and adjacent to sidewalks.

Overgrown shrub blocks sidewalk and narrows walking path.


Empty tree wells along Holt Avenue provide no shade to pedestrians and can create challenges to pedestrians with disabilities.

Tree wells filled with debris and uplifted from expanding tree routes.

Various tree species provide little to no shade for pedestrians.

# Pedestrian & Bicycle Collision History

Between 2011-2015,[2] there were 330 pedestrian collisions including 27 fatalities and 33 severe injuries in Pomona, with collisions concentrated on Mission Boulevard, Garey Avenue and Holt Avenue. The top two primary collision factors in pedestrian collisions were drivers failing to yield to a pedestrian with the right-of-way (36% of pedestrian collisions) and pedestrians failing to yield to a driver when crossing outside a marked or unmarked crosswalk,[3] (29.4% of pedestrian collisions). Over the 10-year period between 2006-2015, pedestrian collisions appear to be on an upward trajectory.

Between 2011-2015, there were 380 bicycle collisions, including 6 fatalities and 25 severe injuries in Pomona, with collisions concentrated on Mission Boulevard, Garey Avenue and Holt Avenue. The top two primary collision factors in bicyclist collisions were bicyclists riding on the wrong side of the road (27.6% of bicycle collisions) and bicyclists failing to yield the right-of-way to a driver (23.7% of bicycle collisions). Over the 10-year period between 2006-2015, bicycle collisions appear to be on a downward trajectory.

A full discussion of the pedestrian and bicyclist collision data prepared by UC Berkeley SafeTREC can be found Appendix A.

# September 18, 2017 Workshop

Pomona Mayor Tim Sandoval welcoming training participants

Day One and Bike San Gabriel Valley requested a workshop to 1) provide City staff, community organizations, and residents with a toolkit for promoting pedestrian and bicycle safety to inform future active transportation projects; 2) strengthen working relationships between local advocacy organizations and the City and other stakeholders to ensure the best outcomes for the residents of Pomona; and 3) develop consensus regarding pedestrian and bicycle safety priorities and actionable next steps.

The workshop was hosted from 4:00 pm to 8:00 pm, and dinner, child watch, and simultaneous interpretation from English to Spanish were provided to maximize community participation. Nine (9) individuals attended the workshop, including representatives from the community, Bike San Gabriel Valley, Pomona Valley Bicycle Coalition, Cal Poly Pomona, Los Angeles County Supervisor Hilda L. Solis' Office, and Inland Communities Organizing Network.

[2] Please note 2014 and 2015 data is provisional.

[3] Pedestrians have the right-of-way in marked and unmarked crossings, and drivers are legally required to yield to pedestrians in these instances. However, when pedestrians cross outside of marked or unmarked crossings, pedestrians must yield the right-of-way to drivers. A pedestrian is legally able 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.

## Reflections from Walkability & Bikeability Assessment

Workshop participants conducted walkability and bikeability assessments along a main route. The route traveled west on 3rd Street, south on Park Avenue, east on Mission Avenue, north on Palomares Street, and west again on 3rd Street.

Participants preparing to head out for walkability and bikeability assessment.

Participants were asked to 1) observe infrastructure conditions and the behavior of all road users; 2) apply strategies learned from the 6 E's presentation that could help overcome infrastructure concerns and unsafe driver, pedestrian, and bicyclist behavior; and 3) identify positive community assets and strategies which can be built upon.

Following the walkability and bikeability assessment, the participants shared the following reflections:

- **Lack of Marked Crossings**: Assessment participants noted a lack of marked crossings throughout the community, particularly along Mission Avenue in the civic center, which is characterized by long blocks. Participants commented on how prior to the workshop, they were not aware of that pedestrian use of unmarked crossing is legal, unless otherwise stated. They identified locations along Mission Avenue where a marked crossing or pedestrian signal can be installed to increase the frequency of marked crossings between signalized intersections.

Long blocks without marked pedestrian crossings or signage.

Lack of current style ramps.

- **Need for ADA & Accessibility Improvements**: Participants also noted that many curb ramps in the community appear to be the older apex style ramps and do not conform with current ADA standards and best practices. A variety of ramp sizes and styles were observed, with some curb ramps being flush with the roadway. Some curb ramps appeared to be too steep for ADA standards and safe access by residents with mobility assistance devices.
- **Inconsistent Sidewalk Shading:** The walking route revealed that the majority of streets had some type of landscape buffer. However, the buffer was often empty or filled with small shrubs and tree varieties that added visual interest to the streetscape, but offered no shade to pedestrians.

Empty landscape buffers offer no shade to pedestrians.

Underutilized parking spaces are common throughout the downtown area.

- **Excessive Amounts of Parking & Empty Lots:** Assessment participants pointed out the over abundance of empty parking spaces throughout the downtown area. The majority of parking lots are underutilized and lay vacant for much of the day. Participants commented on the potential that repurposing parking lots in the area would have on activity in the downtown space and the overall walkability of downtown.
- **Lack of Pedestrian-Scale Lighting**: On the assessment route, participants noted a lack of pedestrian-scale lighting. The absence of lighting was particularly evident as the sun began to set during the assessment, and many sidewalks were darkened and left with only large vehicle-oriented street light poles to light them. This lighting is high off the ground, and is focused on lighting the roadway rather than the sidewalk. Where pedestrian-scale lighting existed, it was sparse and sometimes blocked by tree foliage.

Typical lighting infrastructure along many arterial and neighborhood streets.

## Community Resident Recommendations

Following the walkability and bikeability assessment, Cal Walks facilitated small-group action planning Following the walkability and bikeability assessment, Cal Walks facilitated small-group action planning discussions. Workshop participants discussed two sets of questions:

- The first set focused on prioritizing educational and encouragement strategies for non-infrastructure projects
- The second set focused on potential infrastructure improvements on routes frequented by walking, biking or taking public transit.

Participants engaged in action planning discussions.

Workshop participants provided the following recommendations for overall pedestrian and bicyclist safety improvements:

- **Integrate Walking and Biking Priorities Into Existing Programs**: Residents at the training sought to use existing programs to prioritize walking and biking safety in their community. RAP! (Ride Around Pomona) and Operation Firefly with the Pomona Valley Bicycle Coalition (PVBC), and We Run Pomona were identified as existing programs that can serve as educational platforms and organizing spaces for continued pedestrian and bicycle advocacy. Participants considered creating a Back to School Ride as part of the RAP! ride series as a way to engage youth and expand on continued Safe Route to School efforts. Participants were interested in adding a pedestrian component to the We Run Pomona program wherein they could target projects for pedestrian safety. Currently, PVBC's Operation Firefly project focuses on providing bike lights to bicyclists; however, participants expressed interest in providing lights for people on scooters, wheelchairs and pedestrians.
- **Increase Visibility of Bicyclists**: Participants expressed interest in using the momentum of the upcoming CicLAvia on April 22, 2018, which will connect the cities of San Dimas, La Verne, Pomona and Claremont, to create educational programs that target pedestrians, bicyclists, and drivers. The goal is to create a cultural shift that prioritizes multimodal streets that are shared by everyone. Additionally, they were interested in expanding their bicycle safety classes to seniors and at various parks and recreation centers in Pomona.
- **Manage Conflicts at Highway On- & Off- Ramps**: State Route 57, 71, and Interstate 10 travel through Pomona and create numerous conflict zones and challenging conditions for pedestrians and bicyclists at on- and off-ramps. Participants were particularly concerned with Interstate 10's on- and off-ramp at Fairplex Drive. Fairplex Drive is a major arterial often used by bicyclists to connect to adjacent cities. The posted speed limit in this area is 45 mph, yet participants noted that vehicles travelling downhill on Fairplex Drive travel at much higher speeds, creating dangerous conditions for bicyclists riding alongside vehicles. Participants were interested in traffic calming measures such as the installation of speed feedback radar units on Fairplex Drive and physically separated on-street bicycle lanes on adjacent streets.

## California Walks/SafeTREC Recommendations

California Walks and SafeTREC also submit the following recommendations for consideration by the City of Pomona and the workshop Planning Committee:

- **Bicycling Infrastructure Improvements**: We recommend that the Planning Committee work with the City to develop a complete streets/paving project checklist[4] to help ensure regular road maintenance projects include the restriping of existing bicycle lanes, the installation of new bicycle lanes, and the installation of conflict zone markings and buffers during a standard repavement project. This is a cost-effective approach that we have seen work in other communities to dramatically expand bicycle networks. More and improved bicycling signage and wayfinding is necessary to ensure safe travel and direct cyclists to existing and preferred bike routes and destinations.
- **Crossing Enhancements:** Crossing signal timing varied along the walk assessment route, and consequently, we recommend the City conduct a citywide analysis of pedestrian signal timing at

[4] See City of Oakland Checklist for Complete Streets/Paving Project Coordination as an example. Available at https://safety.fhwa.dot.gov/road_diets/guidance/docs/oakland_chklist.pdf

all signalized intersections or at a minimum at signalized intersections near schools and senior facilities. These signals should be inspected and retimed at no more than 2.8' per second as needed to providing the adequate time for seniors and children to safely cross. We have seen the City of San Jose take this approach, where the City evaluated the signal timing for pedestrian crossings at 13 senior/community center hub sites, 43 senior housing complexes, and 256 schools, resulting in retiming of 195 signals across the City to provide seniors and children with more time to safely cross busy streets to access schools, congregate meals, socialization opportunities, and other social services.

We also recommend the Planning Committee work with the City to develop crosswalk installation guidelines to establish standards for marked crosswalk frequency (between 0.25 to 0.33 miles apart) and minimum safety enhancements to be considered for marked crosswalk installation (such as high-visibility crosswalk markings, pedestrian median islands, rectangular rapid flashing beacons, corner parking restrictions/daylighting, etc.)[5]. A publicly available guideline can clarify decision-making and prioritization for new crosswalk marking installations or crosswalk enhancement requests and can communicate this process for all stakeholders.

- **Traffic Calming Measures:** Traffic calming measures, including a road diet, the addition of curb extensions, pedestrian safety islands, enhanced crossings, and on-street bicycle infrastructure, can decrease driver's speed along Pomona's major arterials. Rightsizing on Holt Avenue, a major thoroughfare in Pomona with high rates of collisions, can create space for separated bicycle lanes highlighted with green pavement to enhance visibility. We recommend that the City of Pomona work with community-based organizations and residents to submit an application to the Caltrans Sustainable Transportation Planning Grant Program to develop a focused Complete Streets plan for Holt Avenue, including a shared vision for the corridor and identified priority projects to improve walking and biking conditions in Pomona. We recommend that participants review the City of El Cerrito San Pablo Avenue Specific Plan and Complete Streets Plan to inform how they could structure a similar planning process for Holt Avenue in Pomona.
- **Safe Routes to School Education and Encouragement Activities:** Workshop participants expressed a need to engage school age students, parents, and school staff in pedestrian and bicycle safety through education and encouragement campaigns and building capacity through local Safe Routes to School (SRTS) advocates at the district level, school level, and with parents. These advocates could explore and support ways to involve youth and school communities in pedestrian and bicycle efforts.

# Acknowledgments

We would like to thank Adriana Pinedo from Day One and Monica Curiel from Bike San Gabriel Valley for inviting us into their community and the dA Center for the Arts for hosting the Community

[5] We recommend looking at other cities crosswalk guidelines, including the City of Sacramento's Pedestrian Crossing Guidelines, available at https://www.cityofsacramento.org/-/media/Corporate/Files/Public-Works/Publications/Transportation/Bicycle-Pedestrian/Ped-Safety.pdf; the City of El Cerrito Active Transportation Plan Appendix A Crosswalk Policy (2016), available at http://ca-elcerrito.civicplus.com/DocumentCenter/View/6291; and the City of Oakland's Crosswalk Policy and accompanying Crosswalk Location Decision Matrix and Crosswalk Treatment Options Chart, available at www2.oaklandnet.com/oakca1/groups/pwa/documents/report/oak025058.pdf

Pedestrian and Bicycle Safety Training. We would also like to thank Cardenas Market for donating the food for the training.

We would like to acknowledge the many community members and representatives from Bike San Gabriel Valley, Pomona Valley Bicycle Coalition, Cal Poly Pomona, Supervisor Hilda L. Solis' Office from the First District, and Inland Communities Organizing Network for participating in the workshop and for their dedication to pedestrian and bicycle safety. Their collective participation meaningfully informed and strengthened the workshop's outcomes.

Funding for this program was provided by a grant from the California Office of Traffic Safety through the National Highway Traffic Safety Administration.

# Appendix A

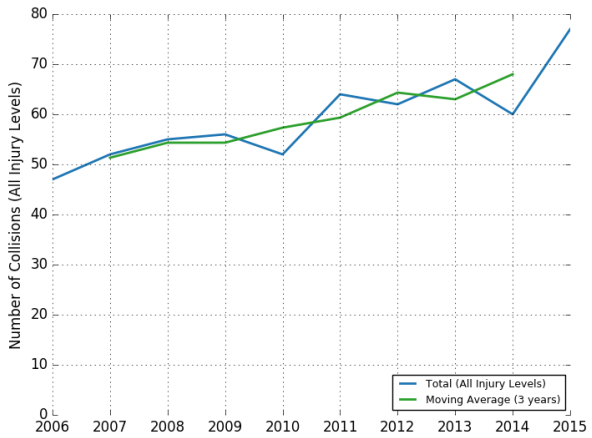
# Pedestrian and Bicycle Collision Data Analysis

# Community Pedestrian and Bicyclist Safety Workshop – Pomona, CA – 09/18/17

Pedestrian and Bicycle Collision Analyses, 2006-15*

## PEDESTRIANS

### Number of Collisions Involving Pedestrians, 2006-15




The blue line shows the number of pedestrian collisions where a fatality and/or injury occurred. There were 660 people injured or killed in 592 pedestrian collisions over the last 10 years.

The green line shows the three-year moving average of the number of pedestrian collisions where a fatality and/or injury occurred. The moving average is useful for tracking trend change over time, especially when the number of collisions is subject to variability. Data points are the midpoint of the three years of data specified.

The following analyses are based on the most current five years, 2011 to 2015, of data for Pomona, CA. There were 362 people killed or injured in 330 pedestrian collisions.

### Top Violation Types for Collisions Involving Pedestrians

| Type of Violation | Collisions N (%) |
|---|---|
| Driver must yield pedestrian right of way in a crosswalk | 119 (36.0%) |
| Pedestrian yield, upon roadway outside crosswalk | 97 (29.4%) |
| Unsafe turn with/without signaling | 16 (4.9%) |
| 'Walk' pedestrian failure to yield right-of-way to vehicles already in crosswalk | 15 (4.5%) |
| Red or stop, vehicle stop at limit line or X-walk. When making right turn at a red light/stop sign driver required to yield to any vehicle approaching so closely as to constitute an immediate hazard | 14 (4.2%) |
| Unsafe speed for prevailing conditions (use for all prima facie limits) | 13 (3.9%) |
| Other violation | 56 (17.0%) |
| **Total** | **330 (100.0%)** |

### Pedestrian Actions in Collisions Involving Pedestrians

| Pedestrian Action | Collisions N (%) |
|---|---|
| Crossing in Crosswalk at Intersection | 148 (44.8%) |
| Crossing Not in Crosswalk | 110 (33.3%) |
| In Road, Including Shoulder | 49 (14.8%) |
| Not in Road | 14 (4.2%) |
| Not stated | 5 (1.5%) |
| Crossing in Crosswalk Not at Intersection | 4 (1.2%) |
| **Total** | **330 (100.0%)** |

* Data Source: California Statewide Integrated Traffic Records System (SWITRS). Collision data for 2014 and 2015 are provisional at this time.

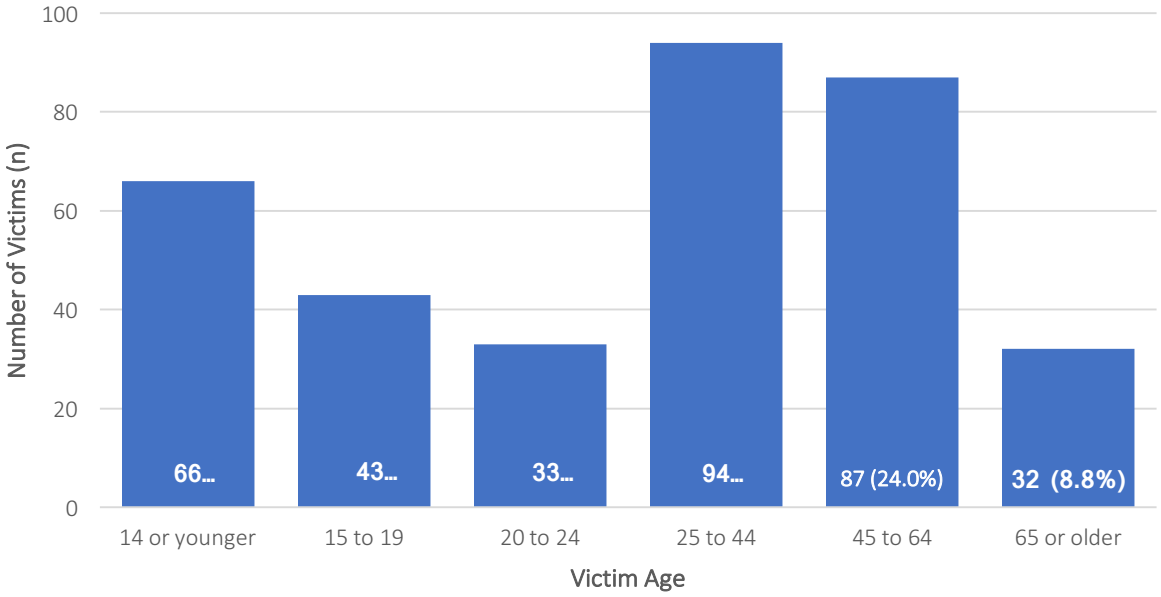
Funding for this project was provided by a grant from the California Office of Traffic Safety through the National Highway Traffic Safety Administration.

# Community Pedestrian and Bicyclist Safety Workshop – Pomona, CA – 09/18/17

## Pedestrian and Bicycle Collision Analyses, 2006-15*

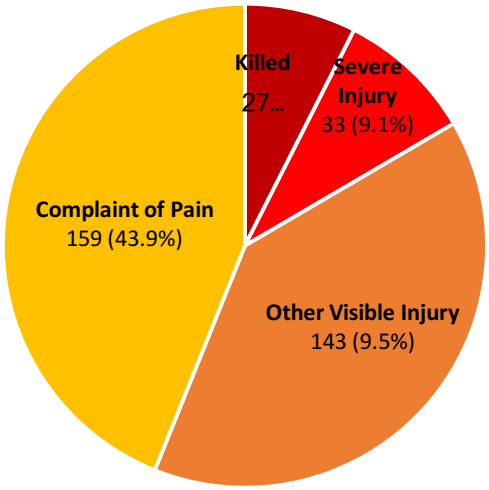
### Pedestrian Victim Demographics

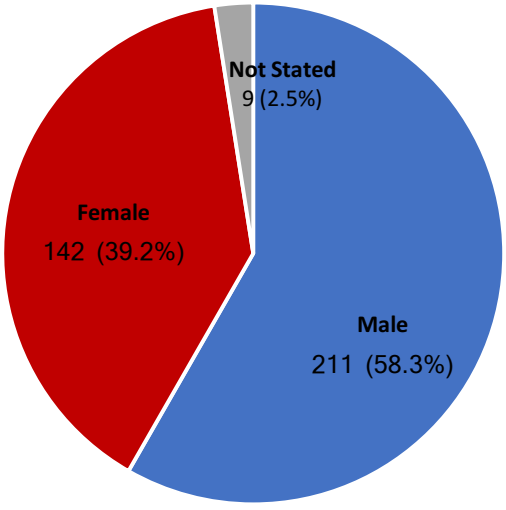
The age of pedestrian victims ranged considerably across all age groups, youth age 19 or younger accounting for 30.1 percent of victims. Victims were primarily male.




### Victim Injury Severity, 2011-15

Most collisions resulted in minor injuries.




* Data Source: California Statewide Integrated Traffic Records System (SWITRS). Collision data for 2014 and 2015 are provisional at this time.

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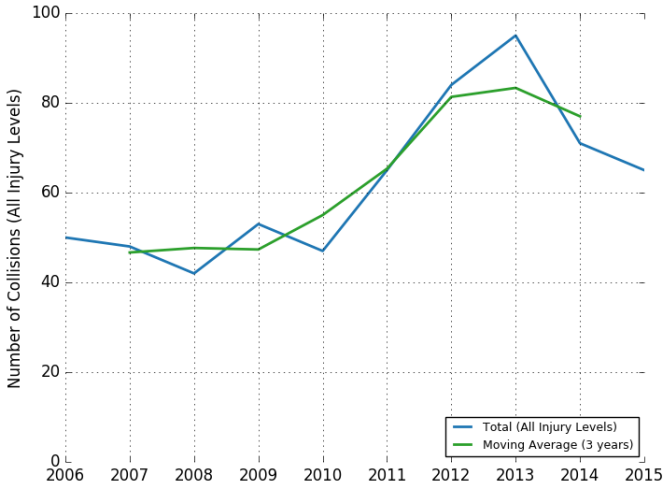
# Community Pedestrian and Bicyclist Safety Workshop – Pomona, CA – 09/18/17

Pedestrian and Bicycle Collision Analyses, 2006-15*

## BICYCLISTS

### Number of Collisions Involving Bicyclists, 2006-2015




The blue line shows the number of bicycle collisions where a fatality and/or injury occurred. There were 642 people injured in 620 bicycle collisions over the last 10 years.

The green line shows the three-year moving average of the number of bicycle collisions where a fatality and/or injury occurred. The moving average is useful for tracking trend change over time, especially when the number of collisions is subject to variability.

The following analyses are based on the most current five years, 2011 to 2015, of data for Pomona, CA. There were 390 people injured in 380 bicycle collisions.

### Top Violation Types for Collisions Involving Bicycles

| Type of Violation | Collisions N (%) |
|---|---|
| Wrong side of road | 105 (27.6%) |
| Automobile right of way | 90 (23.7%) |
| Traffic signals and signs | 55 (14.5%) |
| Improper turning | 53 (13.9%) |
| Unsafe speed | 28 (7.4%) |
| Other Violations | 49 (12.9%) |
| **Total** | **380 (100.0%)** |

* Data Source: California Statewide Integrated Traffic Records System (SWITRS). Collision data for 2014 and 2015 are provisional at this time.

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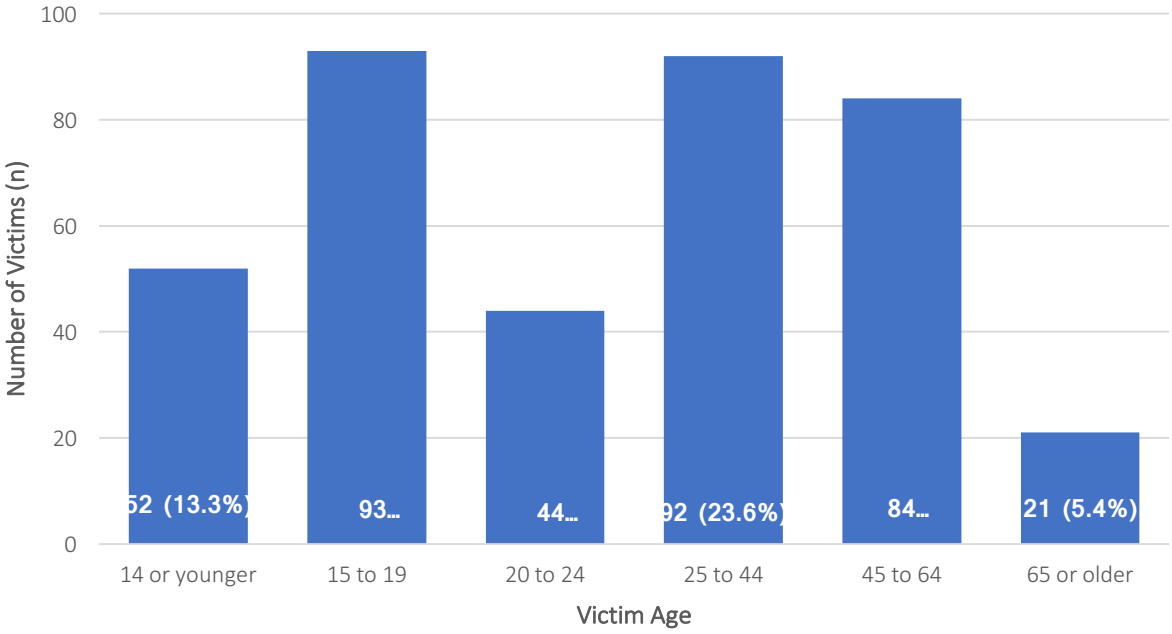
# Community Pedestrian and Bicyclist Safety Workshop – Pomona, CA – 09/18/17

## Pedestrian and Bicycle Collision Analyses, 2006-15*

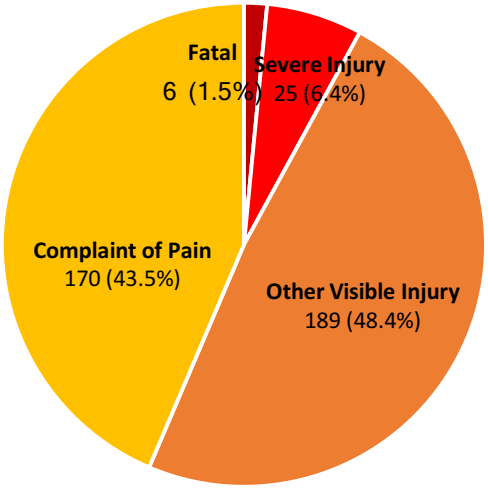
### Bicycling Victims Demographics

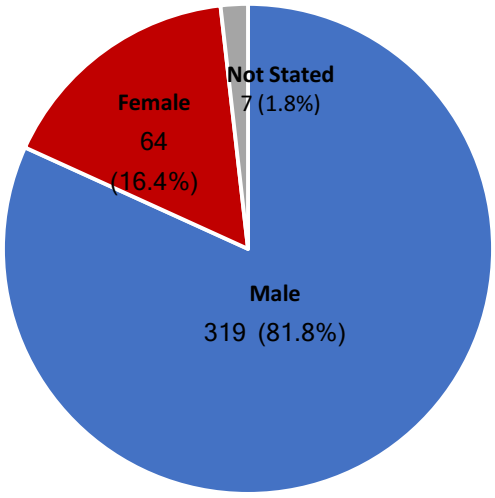
The age of bicycling collision victims varied across all age groups, with youth age 19 or younger accounting for 37.1 percent of victims. The majority of victims were male.




### Victim Injury Severity, 2011-15

Most collisions resulted in minor injuries.




* Data Source: California Statewide Integrated Traffic Records System (SWITRS). Collision data for 2014 and 2015 are provisional at this time.

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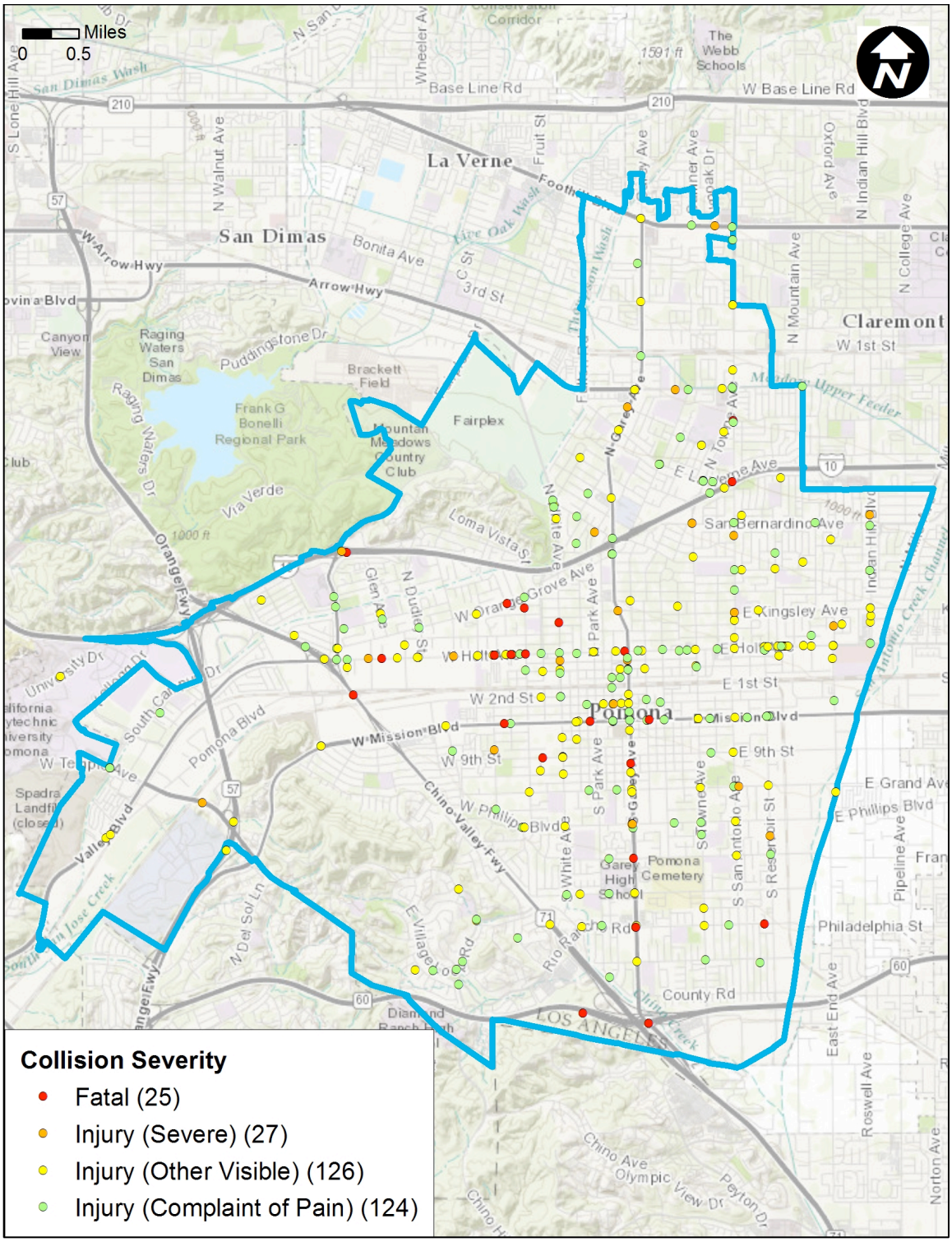
# Community Pedestrian and Bicyclist Safety Workshop – Pomona, CA – 09/18/17

## Pedestrian and Bicycle Collision Analyses, 2006-15*

### Pedestrian Collision Locations, 2011-15

Note: Only 302 of 330 collisions are geo-coded.

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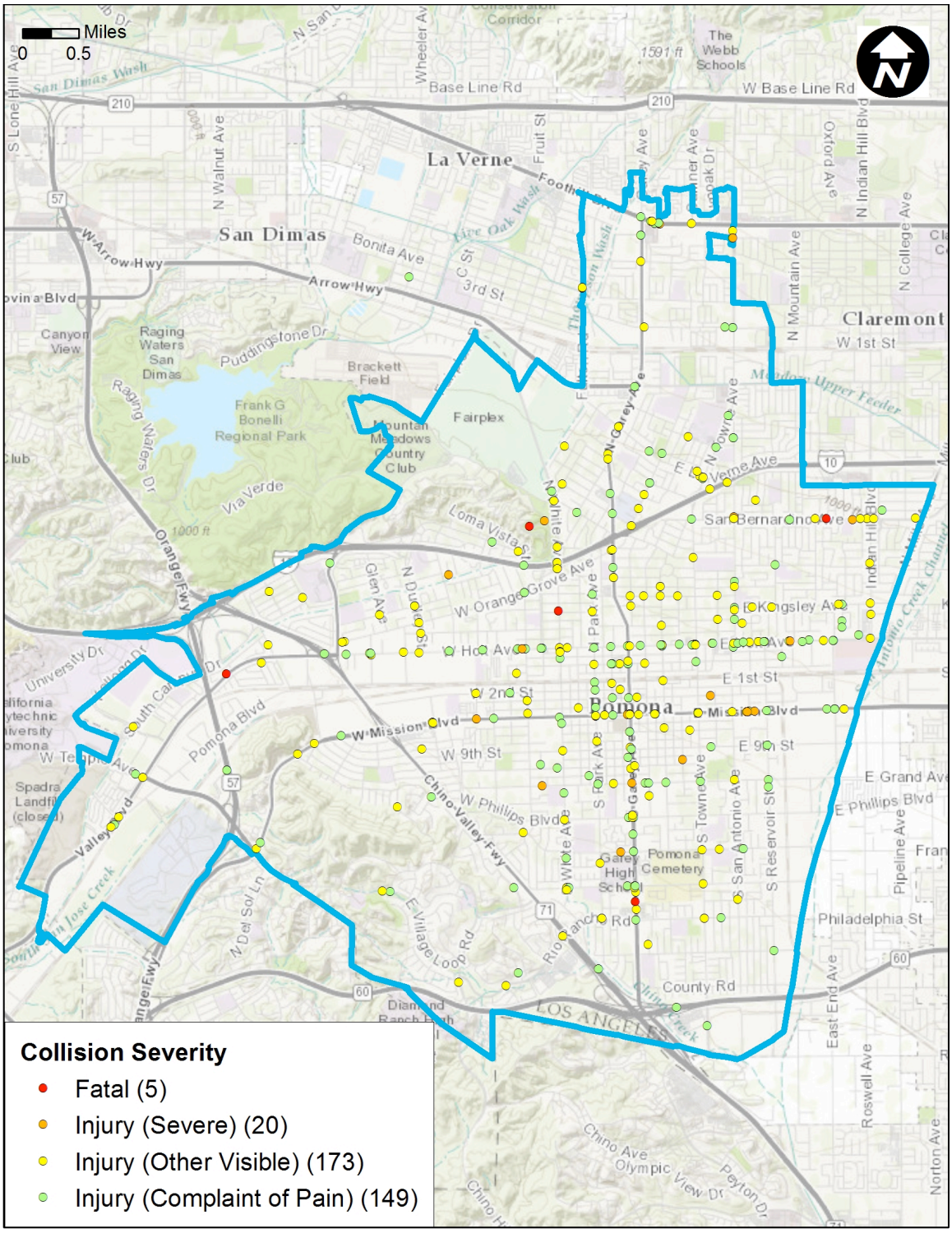
# Community Pedestrian and Bicyclist Safety Workshop – Pomona, CA – 09/18/17

## Pedestrian and Bicycle Collision Analyses, 2006-15*

### Bicyclist Collision Locations, 2011-15

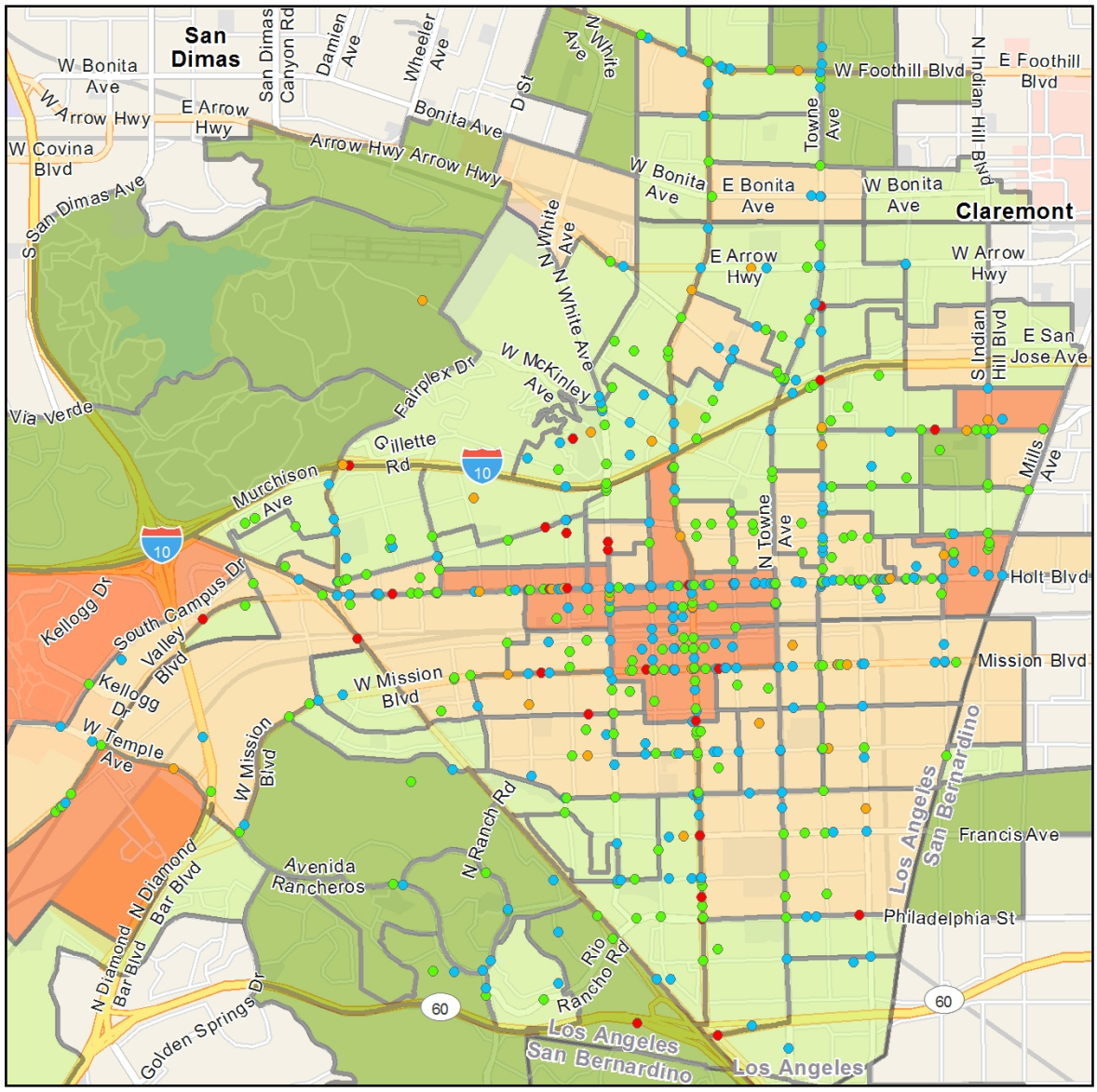
Note: Only 347 of 380 collisions are geo-coded.




* Data Source: California Statewide Integrated Traffic Records System (SWITRS). Collision data for 2014 and 2015 are provisional at this time.

Funding for this project was provided by a grant from the California Office of Traffic Safety through the National Highway Traffic Safety Administration.

# Pomona Bicycle/Pedestrian Collision Map (2011 - 2015)




**Collision Severity (2011-2015)**

- Fatal (30)
- Injury (Severe) (47)
- Injury (Other Visible) (300)
- Injury (Complaint of Pain) (280)

**2016 Median Household Income**

- < 35K
- 35K - 50K
- 50K - 75K
- > 75K

Berkeley SafeTREC

Data Source: Collision - SWITRS 2011 - 2015 (2014 - 2015 data is provisional)
Demographics - Esri, US Census Bureau, and ACS
Date: 5/12/2017

This map shows where all the pedestrian/bicycle injury collisions occurred and may not extend to the city's boundaries.

# POMONA CBPST – Holt Avenue

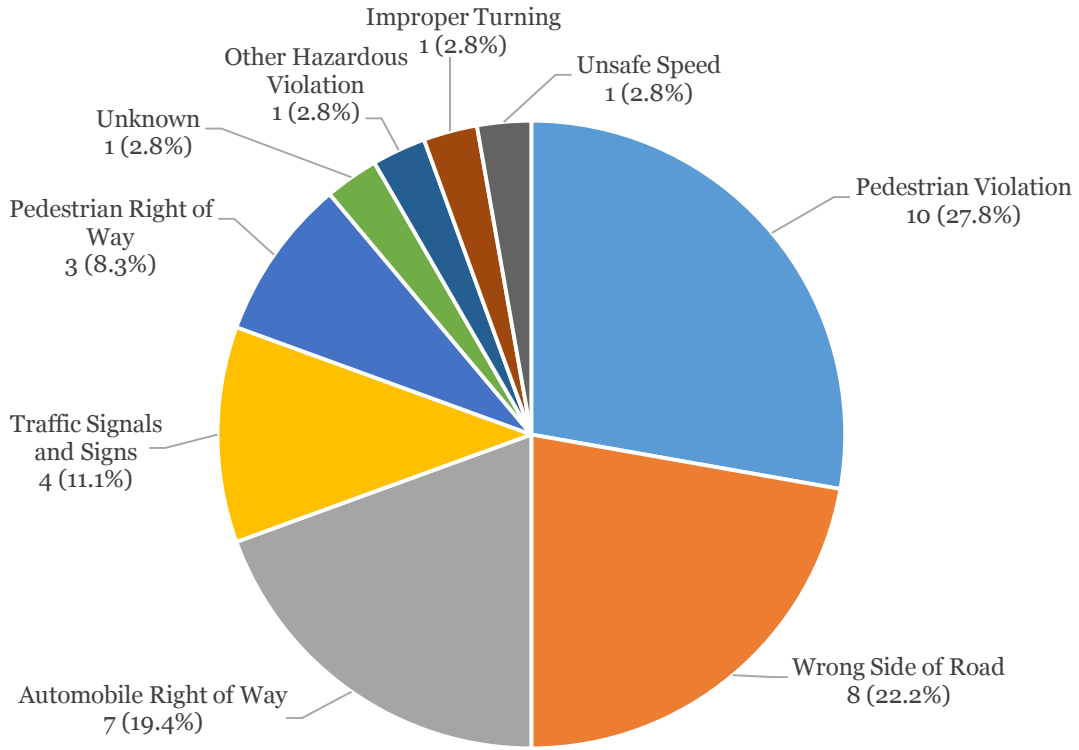
The following is a data summary for the city of Pomona for Holt Avenue between San Antonio Avenue and South White Avenue looking at pedestrian or bicycle collisions reported in SWITRS from 2011 to 2015.*

There were 36 crashes, of which 14 (38.9%) were pedestrian collisions and 22 (61.1%) were bicycle collisions. There were 36 victims, of which only one was killed and 35 were injured.

## Collision: Time of Day & Day of Week

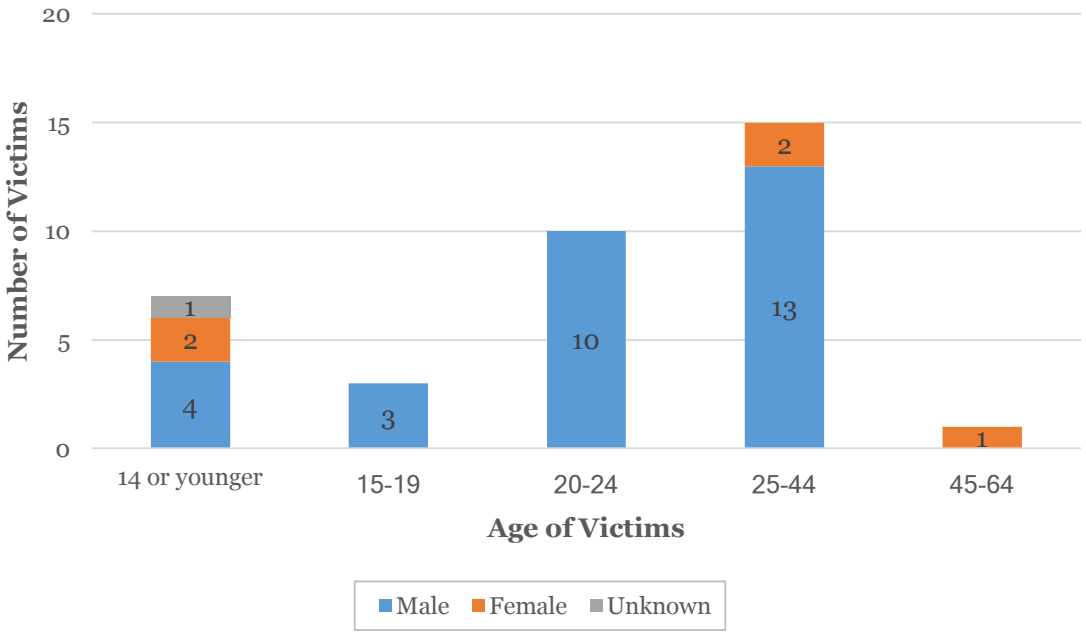
| | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Total |
|---|---|---|---|---|---|---|---|---|
| Midnight-2:59AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **1** |
| 3AM-5:59AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | **1** |
| 6AM-8:59AM | 1 | 1 | 0 | 0 | 0 | 0 | 0 | **2** |
| 9AM-11:59AM | 1 | 2 | 2 | 1 | 0 | 0 | 0 | **6** |
| Noon-2:59PM | 3 | 0 | 1 | 1 | 0 | 0 | 0 | **5** |
| 3PM-5:59PM | 2 | 1 | 1 | 2 | 0 | 1 | 0 | **7** |
| 6PM-8:59PM | 1 | 0 | 0 | 5 | 1 | 1 | 1 | **9** |
| 9PM-11:59PM | 0 | 0 | 1 | 0 | 2 | 0 | 2 | **5** |
| Total | **8** | **4** | **5** | **9** | **4** | **3** | **3** | **36** |

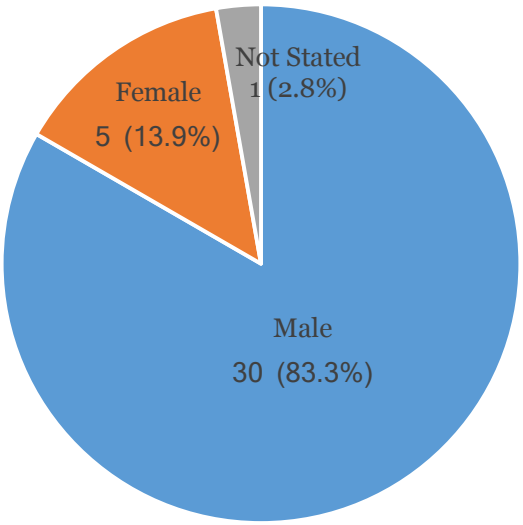
## Collision: Primary Collision Factor




* NOTE: SWITRS data for 2014 and 2015 are provisional.

## Victim: Age & Gender




* NOTE: SWITRS data for 2014 and 2015 are provisional.