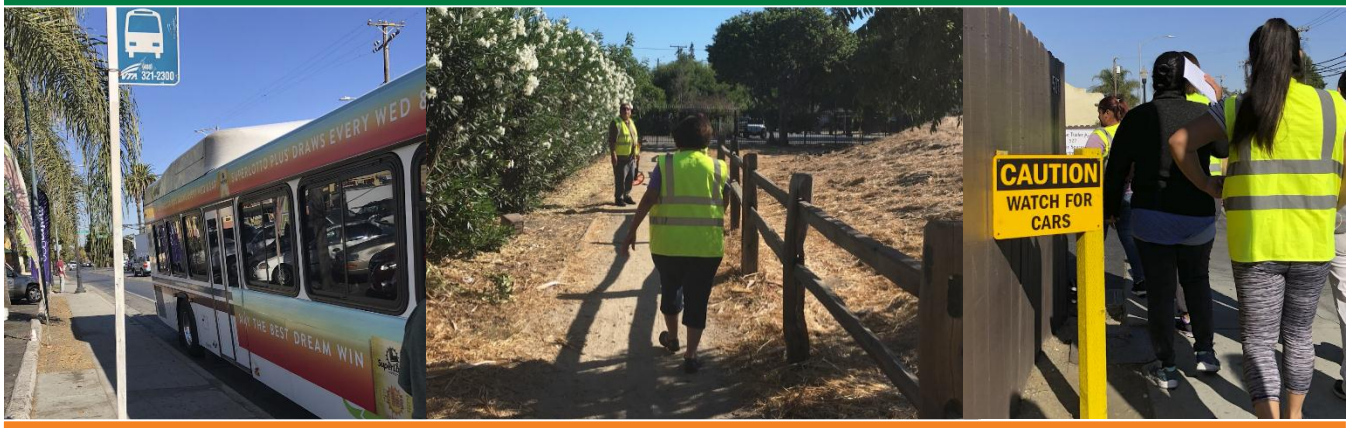
Recommendations to Improve Pedestrian & Bicycle Safety for the San José McKinley-Bonita Community



October 2018

California Walks
Stepping Up for Health, Equity, & Sustainability

Berkeley SafeTREC
SAFE TRANSPORTATION RESEARCH AND EDUCATION CENTER

OTS
CALIFORNIA OFFICE OF TRAFFIC SAFETY

Acknowledgements

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We would like to thank the Planning Committee for inviting us into their community and for hosting the Community Pedestrian and Bicycle Safety Training in the San José McKinley-Bonita Community.

We would like to thank Imelda Rodriguez and the Silicon Valley Bicycle Coalition for providing breakfast, lunch, and refreshments in support of this training, and CommUniverCity San José for providing the facilities to host the workshop.

We would like to acknowledge the many community members and agencies present at the workshop and 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.

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Recommendations to Improve Pedestrian & Bicycle Safety for the San José McKinley-Bonita Community

By Jaime Fearer, Chris J. Johnson, Wendy Ortiz, California Walks;
Katherine Chen, Garrett Fortin, UC Berkeley Safe Transportation Research & Education Center

Introduction

At the invitation of the McKinley-Bonita Neighborhood Association, California Walks (Cal Walks), the University of California at Berkeley's Safe Transportation Research and Education Center (SafeTREC) and the Planning Committee collaboratively developed and facilitated a Community Pedestrian and Bicycle Safety Training (CPBST) in the San José McKinley-Bonita Community. The CPBST is a joint project of Cal Walks and SafeTREC (Project Team) that aims to leverage a community's existing strengths to develop a community-driven pedestrian and bicycle safety action plan and to identify pedestrian and bicycle safety priorities and actionable next steps in collaboration with community partners.

The McKinley-Bonita Neighborhood Association 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 various agencies and organizations and other stakeholders to ensure the best outcomes for the residents of McKinley-Bonita; and 3) develop consensus regarding pedestrian and bicycle safety priority and actionable next steps.

The workshop was facilitated in English with simultaneous Spanish interpretation.

The Project Team facilitated the workshop from 9:00 am to 12:30 pm on September 20, 2018 at McKinley Elementary School. Light breakfast and simultaneous interpretation from English to Spanish were provided to maximize community participation. Twenty-one (21) individuals attended the workshop, including residents, and representatives from McKinley-Bonita Neighborhood Association, Franklin-McKinley School District, City of San José Mayor's Office, District 3 Office of Council Member Karl Peralez, City of San José Department of Transportation, San José Police Department School Safety Unit, Olinder neighborhood, CommUniverCity San José, San José Walks, Language Connection, Caltrans District 4, and the Silicon Valley Bicycle Coalition.

The three and a half (3.5) hour training consisted of: 1) walking assessments along three key routes; 2) an overview of multidisciplinary approaches to improve pedestrian and bicycle safety using the intersectional 6 E's framework including: Equity & Empowerment, Evaluation, Engineering, Education, Encouragement, and Enforcement and; 3) small group action-planning discussions to prioritize recommendations for McKinley-Bonita's active transportation efforts. This report summarizes the workshop proceedings, as well as recommendations for projects, policies, and programs for pedestrian and bicycle safety in McKinley-Bonita.

Planning Process

For each training, the program convenes a local planning committee to tailor and refine the training's curriculum to meet the community's needs. The Project Team conducts pre-training site visits to collect on-the-ground observations of existing walking and biking conditions to adapt the CPBST curriculum and to provide context-specific strategies for the community's existing conditions. The San José McKinley-Bonita community CPBST planning process was initiated in August 2018. The planning process consisted of:

- **Community Plans and Policies Review:** Cal Walks conducted a review of current community planning documents to inform the training with local context and prepare to build off existing efforts. The following documents were reviewed prior to the site visit:
    - Vision Zero San José Two-Year Action Plan, 2017
    - Envision San José 2040 General Plan, 2011
    - Caltrans District 4 Bike Plan, 2018
- **Analysis and Mapping of Pedestrian and Bicycle Injury Data:** SafeTREC used the Statewide Integrated Traffic Records System (SWITRS) and the Transportation Injury Mapping System (tims.berkeley.edu) to analyze injury data in the McKinley Elementary School catchment area as well as census data to create collision rates based on population. Patterns of injury collisions, victim characteristics, and demographics were analyzed and presented to inform the planning process for the CPBST.
- **Identification of Priority Discussion Topics for Training:** The Planning Committee identified pedestrian and bicycle access to McKinley Elementary School, general pedestrian and bicycle access along and across McLaughlin Avenue, and the Lotus Street/Herald Avenue footpath as the priority discussion topics for the training. This area was identified as the geographic focus of

the San José McKinley-Bonita Community CPBST because McLaughlin Avenue is designated as a Vision Zero Priority Safety Corridor just south of I-280, the San José Police Department's School Safety & Education Unit canceled the crossing guard at the Melbourne Boulevard/McLaughlin Avenue intersection in January 2018, and Caltrans recently fenced off access to the Lotus Street/Herald Avenue footpath. Additionally, the Planning Committee identified the following goals for the CPBST:

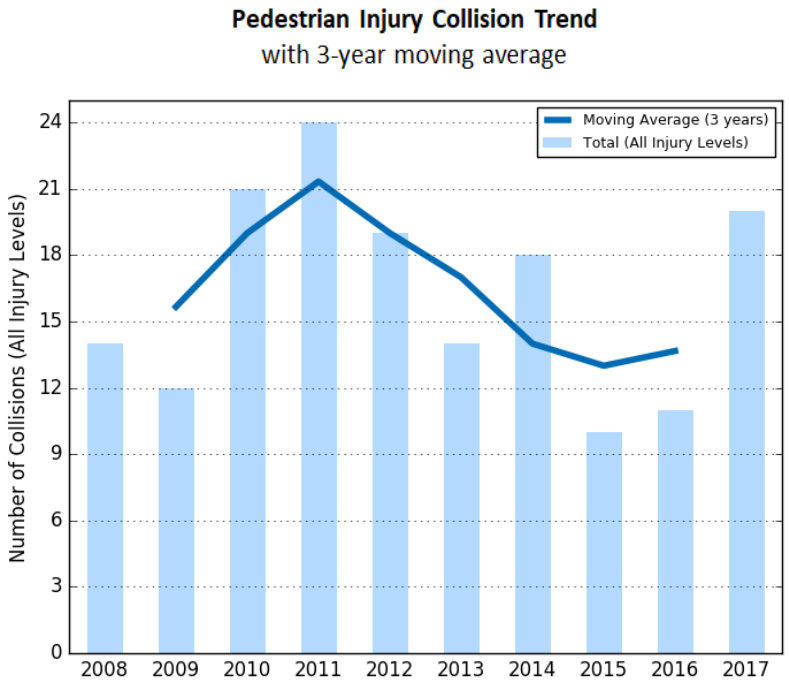
  - To identify priority risk areas for immediate and long-term safety efforts. Using community experience and input, rank vulnerabilities and opportunities to:
    - Improve existing conditions along the neighborhood streets that lead to McKinley Elementary School's pick-up/drop off area;
    - Engage and encourage parent and community involvement in traffic safety processes with the City; and
    - Identify additional route improvements.

- **Site Visit:** The Project Team facilitated an in-person site visit on August 24, 2018, with the Planning Committee at the CommUniverCity San José office on the McKinley Elementary School campus to: 1) review existing pedestrian and bicycle collision data; 2) collect qualitative data based on in-person observations of existing conditions and travel behaviors; and 3) conduct preliminary walking assessments of the focal neighborhood. Site visit findings were used to develop the workshop presentation, including providing local infrastructure examples and developing the walk/bike assessment route maps. During the site visit, the Planning Committee identified McKinley Elementary School parents, Franklin-McKinley School District, McKinley-Bonita Neighborhood Association members, San José Department of Transportation, San José Vision Zero program, San José Police Department's School Safety & Education Unit, San José Council District 3, San José Mayor's Office, and Caltrans District 4 as key stakeholders to invite to the CPBST.

Existing Conditions

Pedestrian & Bicycle Collision History[1]

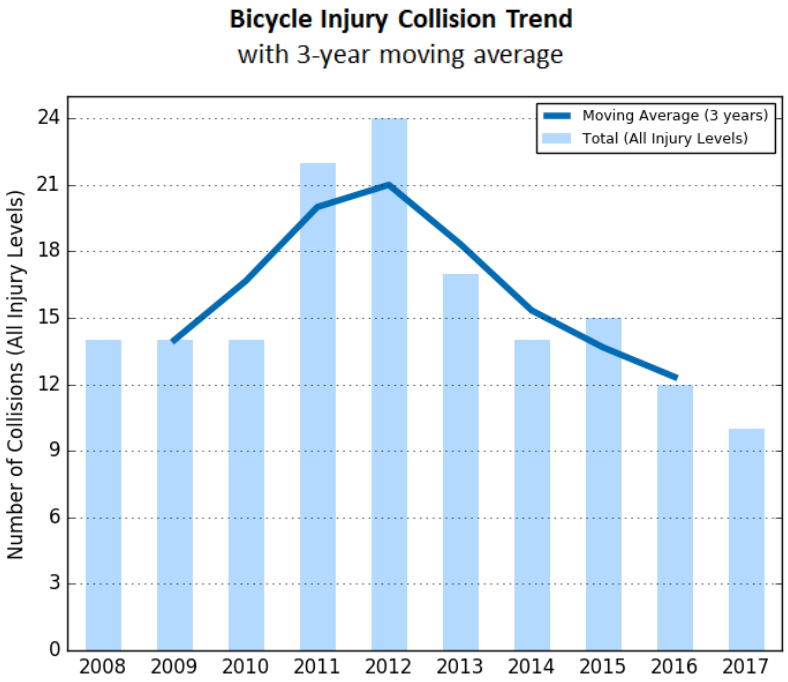
Between 2013-2017, there were 73 pedestrian collisions, including 4 fatalities and 10 severe injuries within a 1-mile radius of McKinley Elementary School. Collisions in this time period are concentrated on East Santa Clara Street, Highway 101, South 24th Street/McLaughlin Avenue, and Story Road. The top three primary collision factors for collisions involving pedestrians were driver failure to yield right-of-way to pedestrians at a crosswalk (32.9%), and pedestrian failure to yield right-of-way to vehicles (19.2%)[2], and speeding on the highway (11.9%). Over the 10-year period between 2008-2017, pedestrian collisions appeared to be on an upward trajectory after a period of decline, as seen in the three-year moving average line.



[1] 2016 and 2017 SWITRS data are provisional as of March 2018.

[2] 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.

Between 2013-2017, there were 68 bicycle collisions, including 5 severe injuries within a 1-mile radius of McKinley Elementary School. Collisions in this time period are concentrated on East Santa Clara Street, South 24th Street/McLaughlin Avenue, and Story Road. The top three primary collision factors for collisions involving bicycles were bicyclists' or drivers' failure to drive on the right half of the roadway (23.5%, with some exceptions), speeding (7.4%)[3] and bicyclists or drivers failing to stop at the limit line or crosswalk (7.4%). Over the 10-year period between 2008-2017, bicycle collisions appear to be on a downward trajectory.



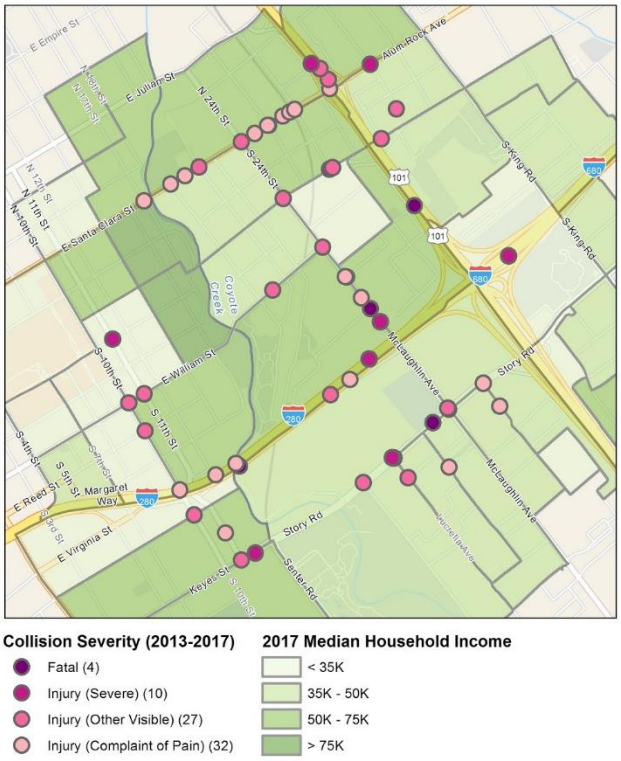
A full discussion of the pedestrian and bicyclist collision data prepared by SafeTREC can be found in Appendix A and B.

[3] According to California Vehicle Code 21200, bicycles are considered vehicles, therefore, bicyclists on public streets have the same rights and responsibilities as automobile drivers. This makes it difficult to discern whether a bicyclist or driver is at fault.

Equity Concerns

A 2014 Governing Study found that nationwide pedestrian fatality rates in lower-income communities were more than twice that of higher income communities.[4] The Pedestrian Collision and Income Map (2013-2017) highlights this inequity within a one-mile radius of McKinley Elementary School reflect the nationwide study as pedestrian and bicyclist collisions are concentrated in or border areas with census block median household income of less than $35,000 or between $35,000 and $50,000.

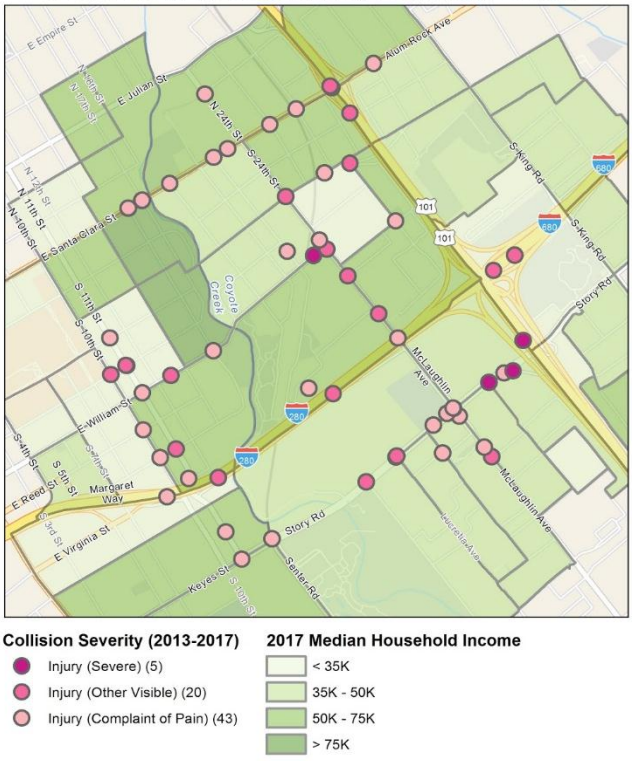
San Jose Pedestrian Collision Map (2013 - 2017)
1 - mile radius around McKinley Elementary School



Collision Severity (2013-2017)
- Fatal (4)
- Injury (Severe) (10)
- Injury (Other Visible) (27)
- Injury (Complaint of Pain) (32)

2017 Median Household Income
- < 35K
- 35K - 50K
- 50K - 75K
- > 75K

San Jose Bicycle Collision Map (2013 - 2017)
1- mile radius around McKinley Elementary School



Collision Severity (2013-2017)
- Injury (Severe) (5)
- Injury (Other Visible) (20)
- Injury (Complaint of Pain) (43)

2017 Median Household Income
- < 35K
- 35K - 50K
- 50K - 75K
- > 75K

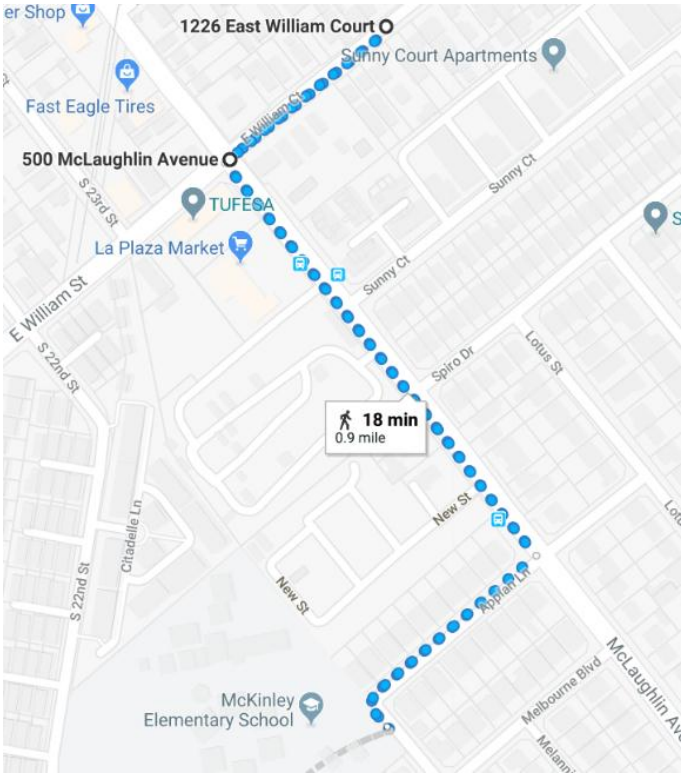
[4] Pedestrian Deaths in Poorer Neighborhoods Report, "Governing," August 2014.

Walking & Biking Assessment Reflections

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; 3) identify positive community assets and strategies which can be built upon; and 4) consider how the walking and biking experience might feel different for other vulnerable users. Workshop participants conducted walking and biking assessments along three key routes:

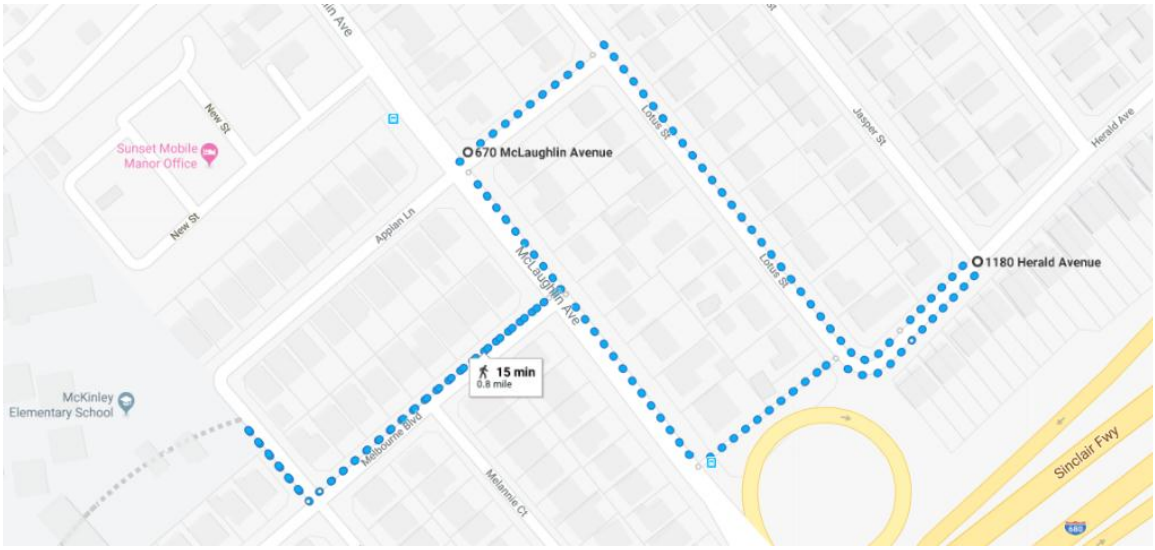
Route 1: Appian Lane & McLaughlin Avenue

The first walking route focused on Appian Lane and McLaughlin Avenue. Starting the assessment at McKinley Elementary School, the group of observers walked northeast on Appian Lane, northwest on McLaughlin Avenue, northeast on East Williams Court, southwest on East Williams Court, southeast on McLaughlin Avenue, and southwest on Appian Lane back to McKinley Elementary School



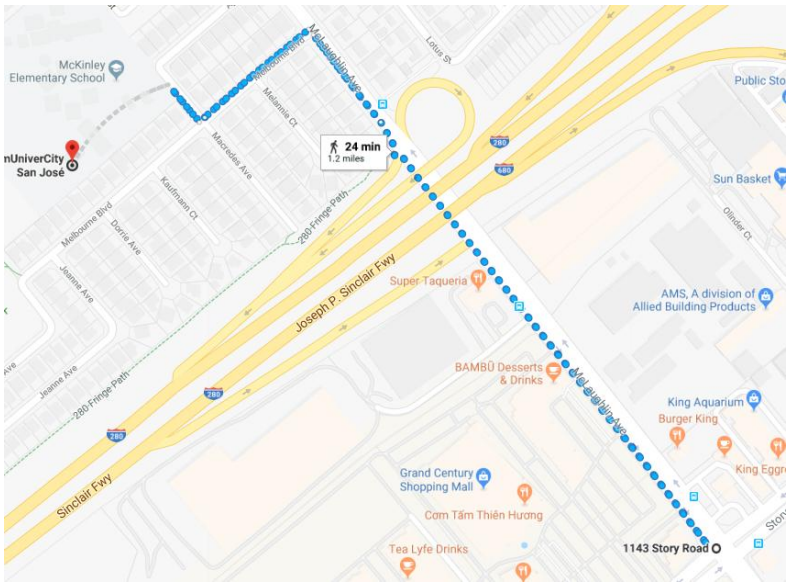
Route 2: McLaughlin Avenue & Lotus Street/Herald Avenue

The second walking route focused on the Melbourne Boulevard/McLaughlin Avenue intersection, Lotus Street and Herald Avenue, as well as the footpath that connects the McKinley-Bonita Community to transit, McLaughlin Avenue, and access to McKinley Elementary School. Starting the walk assessment at McKinley Elementary School, the group of observers walked southeast on Macredes Avenue, southeast on McLaughlin Avenue, northeast on the Lotus Street/Herald Avenue footpath, and northeast on Herald Avenue. Participants turned around at the corner of Jasper Street and walked southwest on Herald Avenue, northwest on Lotus Street, southeast on McLaughlin Avenue, southeast on Melbourne Boulevard, and northwest on Macredes Avenue to return to McKinley Elementary School.



Route 3: McLaughlin Avenue & Story Road

The third walking route focused on two high injury corridors within a 1-mile radius of McKinley Elementary School, McLaughlin Avenue and Story Road. Starting the walk assessment at McKinley Elementary School, the group of observers walked southeast on Macredes Avenue, northeast on Melbourne Boulevard, southeast on McLaughlin Avenue to Story Road, before returning northwest on McLaughlin Avenue, southwest on Melbourne Boulevard, and northwest on Macredes Avenue to McKinley Elementary School.



Following the walking and biking assessment, the participants shared the following reflections:

- **Sidewalk Conditions:** Macredes Avenue has rolled, red-painted curbs which encourages parents to park in the red zone or encroach on the sidewalks. Consequently, motorists parked in the red zone cause visibility issues between motorists and pedestrians at the four-way stop at the Macredes Avenue/Melbourne Boulevard intersection and block students from walking on the sidewalk. Sidewalks along Appian Lane are narrow and separated from the street by landscape and tree planters. While the street trees provide ample shade, the planters muddy the sidewalk when it rains and some sidewalks are in disrepair due to tree roots heaving. In the Bonita neighborhood, the sidewalk network is disconnected, with many missing segments, including on Lotus Street and Herald Avenue.

Root heaves like this are common on the narrow sidewalks on Appian Lane. Sidewalks are detached and separated by landscaping (left). In the Bonita neighborhood, the sidewalk network is disconnected, with many missing segments, including on Lotus Street and Herald Avenue (right).

- **Road Markings:** Participants are concerned with the lack of high-visibility crosswalk markings at the Macredes Avenue/ Melbourne Boulevard intersection and McLaughlin Avenue/Melbourne Boulevard intersection. Both intersections are widely used by parents and students walking to and from school. Participants are concerned with motorists stopping in the crosswalk and being unaware that they are driving through a school zone. While participants regard the McLaughlin Avenue bike lane as a community asset, they are concerned with the faded striping and lack of green paint, which can create greater visibility between motorists and bicyclists as

At Appian Lane and McLaughlin Avenue approaching McKinley Elementary, there is only one small speed limit sign which is partially obscured by a smaller parking sign. There are no road markings and no school zone signage.

well as identify conflict zones, especially at the I-280 on-ramps. At the Appian Lane/McLaughlin Avenue intersection, there are no southwest-northeast marked crosswalks or traffic controls for a pedestrian crossing, despite this route being considered more direct for families and students walking to and from McKinley Elementary School. The crosswalk markings at the East Williams Court/McLaughlin Avenue intersection is also completely worn away in most spots.

- **Lighting/Visibility Issues:** Conditions under the I-280 underpass during the morning hours were very dark, despite there being between six and eight lights on the ceiling of the underpass. Participants shared that this area is very dark at night, which makes walking through the underpass in the evening and nighttime feel unsafe. Participants also noted the lack of pedestrian-scale lighting along McLaughlin Avenue, especially around the commercial area on McLaughlin Avenue and approaching Story Road. In general, the street lights are oriented towards the street and provide very little lighting on the sidewalks and at crossings. Heavy tree cover on Appian Lane blocks the streetlights and makes it very dark at night. Additionally, some school zone signs around McKinley Elementary School were partly obscured by overgrown trees on private properties. The Lotus Street/Herald Avenue footpath opens near a blind curve where Lotus Street and Herald Avenue intersect and where the sidewalk network is disconnected. This forces people to walk into the street with limited visibility between them and drivers.

The lack of daylighting at corners, as well as the lack of parking enforcement, creates blind spots that can be potentially dangerous for people walking, particularly for students.

Key Opportunities to Improve Walking and Biking Safety

Following the walking and biking assessments, the Project Team facilitated small-group action planning discussions where participants prioritized and preliminarily planned infrastructure projects and community programs aimed at reducing the number of injuries and fatalities, as well as increasing the number of people and the frequency of walking and biking in the San José McKinley-Bonita Community.

Through a voting and self-selecting process during the training, participants chose to focus on and preliminarily plan for Enhanced Crosswalks, Traffic Calming at the Appian Lane/Macredes Avenue Intersection, and the Reinstatement of the Crossing Guard Program. Participants self-selected which project they wanted to collaboratively plan for with their fellow participants and discussed:

- The problem the project is intended to solve;
- The people, organizations, agencies, and resources needed to implement the project; and
- Short-term and long-term action steps to implement the project.

Community Recommendations

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

Infrastructure Projects

- **Traffic Calming at the Appian Lane/Macredes Avenue Intersection:** The corner of Appian Lane and Macredes Avenue is often a conflict zone between vehicular through traffic, arrival/dismissal school traffic, and students walking and biking to and from school. In the short-term, a number of opportunities for temporary demonstration traffic calming exist, including lane-width reduction using planters, wooden curbs, orange cones, soft-hit posts, and even street chalk. A combination of these approaches could be employed to encourage community participation and to engage the Department of Transportation in exploring low-cost improvements.

- **Enhanced Crosswalks:** Residents noted the lack of enhanced crossings and signage throughout the McKinley-Bonita community. They prioritized two areas for near-term improvements that are critical for pedestrian and bicycle access to McKinley Elementary School:
    - Macredes Avenue/Melbourne Boulevard intersection; and
    - McLaughlin Avenue/Melbourne Boulevard intersection.

  The group identified the need for establishing a multi-sectoral stakeholder team to oversee the development and implementation of crossing improvements and signage in the community. The stakeholder team would include: McKinley Elementary School principal, staff, parents, and students, Franklin-McKinley School District, City of San José Department of Transportation Neighborhood Traffic Management and Vision Zero staff, San José Police Department's School Safety & Education Unit, San José Council District 3, McKinley-Bonita Neighborhood Association, and CommUniverCity San José. This stakeholder team would also be the body to establish a concrete timeline with short-, mid-, and long-term steps that would culminate in construction of improvements in the next three to four years. This group developed the following initial actions and desired improvements for the stakeholder team to build off of and refine:
    - **Short-term Actions**
        - Check pedestrian signal timing at the McLaughlin Avenue/Melbourne Boulevard intersection;
        - Update the pedestrian signals at the McLaughlin Avenue/Melbourne Boulevard intersection to include a Leading Pedestrian Interval (LPI) during school arrival and dismissal;
        - Install temporary curb extensions at the Macredes Avenue/Melbourne Boulevard intersection using flexible bollards/soft-hit posts; and
        - Update the school-zone crosswalk striping to high-visibility at both the Macredes Avenue/Melbourne Boulevard and McLaughlin Avenue/Melbourne Boulevard intersections.
    - **Mid-term Actions**
        - Research the feasibility of a Rectangular Rapid Flash Beacon (RRFB) or HAWK signal at the McLaughlin Avenue/Appian Lane intersection

Community Programs, Policies, and Campaigns

- **Reinstatement of the Crossing Guard Program:** The San José Police Department's School Safety & Education Unit removed McKinley Elementary School's crossing guard at the Melbourne Boulevard/McLaughlin Avenue intersection in January 2018 due to the perception that not enough children were walking to and from school to warrant a crossing guard. However, the McKinley Elementary School community would like to advocate for the program's return because many students walk by themselves or in small groups to and from school. Furthermore, participants noted the short crossing time at the Melbourne Boulevard/McLaughlin Avenue intersection and are concerned about children getting stuck in

the crosswalk when the signal turns green for motorists. A crossing guard could direct motorist traffic traveling along McLaughlin Avenue to help children cross safely. Participants learned that the San José Police Department (SJPD) has funding for a crossing guard program that the community could apply for, but they would need to identify their own community crossing guards. Participants from the McKinley-Bonita Neighborhood Association volunteered to draft a letter petitioning for a crossing guard program with the SJPD and gather parent and community signatures in support of the program. The McKinley-Bonita Neighborhood Association will reach out to the San José City Council, the Community Policing Officer, residents, parents, McKinley Elementary School, Franklin-McKinley School District School Board and staff, and the San José Department of Transportation Vision Zero team in order to demonstrate community-wide support for the program. Participants envisioned partnering with nearby college students in the Education or Urban Planning Departments and/or senior citizens for potential community crossing guards. Having a crossing guard from the community would be ideal as this person would be more invested in the overall safety of all road users travelling through the neighborhood. Finally, participants discussed partnering the efforts with the San José Vision Zero team to coordinate efforts and meet community-specific goals for the McLaughlin Avenue corridor.

The San José Police Department's School Safety & Education Unit removed McKinley Elementary School's crossing guard at the Melbourne Boulevard/McLaughlin Avenue intersection in January 2018.

Cal Walks/SafeTREC Recommendations

The Project Team also submit the following recommendations for consideration by the City of San José and the Mckinley-Bonita Community:

- **Lighting Assessment:** The Project Team noted a lack of pedestrian-scale lighting along McLaughlin Avenue, Appian Lane, Melbourne Boulevard, Lotus Street, Herald Avenue, and East William Court. The majority of lighting is vehicle-oriented street lighting and in a few cases the street lighting has been damaged and is not in working order. The Project Team ***encourages and recommends the workshop participants collaborate with the City of San José, community-based partners, and residents to perform a citywide night-time lighting assessment*** focused on pedestrian and bicycle lighting needs around schools, parks, businesses, community assets, and along key pedestrian and bicycle corridors. A lighting assessment can be used to identify and inventory nighttime pedestrian-scale lighting needs in areas of high night-time pedestrian activity. A nighttime assessment will also identify lighting fixtures in need of repair or replacement. Proper street lights provide a sense of safety and security and improve the overall well-being of road users. Lighting should be uniform, consistent, and reduce glare and light pollution.
- **Re-open the Lotus Street/Herald Avenue Footpath:** The Lotus Street/Herald Avenue footpath provides a critical connection between the McKinley-Bonita Community and transit on McLaughlin Avenue and more direct access McKinley Elementary School. Caltrans fenced off the entrance to the footpath along McLaughlin Avenue, and directly behind a Santa Clara Valley Transportation Authority (VTA) bus stop for the high-frequented 72 bus route. Site visit participants and the Project Team observed families with children walking around the fence, close to the I-280 on-ramp, in order to walk home from McKinley Elementary School. According to the McKinley-Bonita Neighborhood Association—whose members have been maintaining the footpath for nearly a decade—a survey conducted four years ago showed 128 people per day using the footpath between 7:00 am and 7:00 pm. While the City and Caltrans have had some communication over access to the footpath, the Project Team ***encourages both San José City staff and Caltrans staff to prioritize these discussions to re-open the footpath as soon as possible*** to mitigate this new barrier to pedestrian and bicyclist mobility.

Despite Caltrans fencing off the entrance on McLaughlin Avenue community members still use the Lotus Street/Herald Avenue footpath regularly, and the McKinley-Bonita Neighborhood Association continues to maintain it.

- **Bike Lane Improvements:** Workshop participants shared that bike lanes on McLaughlin Avenue were underutilized due to high motorist speeds, and potential conflict zones between bicyclists and motorists at the I-280 on-ramps. Consequently, workshop participants observed many bicyclists riding on the sidewalk despite the presence of bike lanes on McLaughlin Avenue. The Project Team ***recommends San José Department of Transportation paint high-visibility green conflict zone markings for the McLaughlin Avenue bike lanes*** to mark potential conflict zones between bicyclists and motorists, especially at highway on- and off-ramps. This is particularly important, as McLaughlin Avenue is one of the City's Vision Zero Priority Safety Corridors.
- **Join the Walk n' Roll San José Program:** McKinley Elementary School is not one of the current Walk n' Roll San José schools. The City supports participating schools by hosting bike rodeos and safety assemblies, by participating in International Walk to School Day and Bike to School Day, and by increasing traffic enforcement through the San José Police Department's Operation Safe Passage program. The Project Team ***recommends that the McKinley Elementary School apply to become a Walk n' Roll San José school, and that the San José Department of Transportation prioritize that application***, given the challenges the school faces adjacent to McLaughlin Avenue, a Vision Zero Priority Safety Corridor.
- **School Safety Patrol Program:** Participants were concerned with the arrival and dismissal conditions at McKinley Elementary School and the unsafe behaviors the current conditions promote. The Project Team ***recommends the Planning Committee members collaborate with the Franklin-McKinley School District and AAA to establish a School Safety Patrol Program to improve the traffic flow of vehicles through the arrival and dismissal zone.*** School Safety Patrol programs educate and train upper grade students on safe walking and biking skills and help serve as walking ambassadors and valets who encourage students to exit along the sidewalk of the arrival and dismissal zone.

Appendix A

Pedestrian and Bicycle Collision Data Analysis

Workshop Handout

2013-2017 MCKINLEY ELEMENTARY DATA ANALYSES

Community Pedestrian and Bicycle Safety Training Workshop
San Jose, CA | September 20, 2018

The goal of the Community Pedestrian and Bicycle Safety Training (CPBST) is to make communities safer and more pleasant for walking and bicycling. This workshop will train local residents and safety advocates in pedestrian and bicycle safety as well as create opportunities for collaboration with local officials and agency staff.

This fact sheet highlights 2013-2017 pedestrian and bicycle collision data to help the community better prioritize recommendations that emerge from this workshop. The data presented here is based on a one-mile radius from McKinley Elementary School, and not the city of San Jose as a whole.

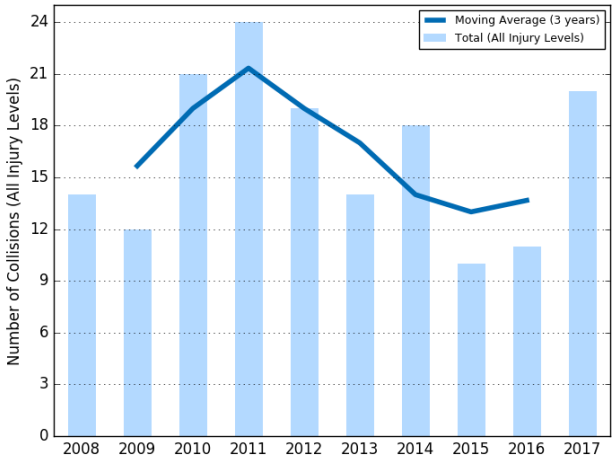
PEDESTRIANS

173 people were killed or injured in **163** pedestrian collisions in the last 10 years (2008-2017).

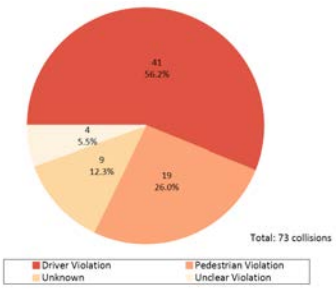
The **three-year moving average** line shows an **upward** trend in pedestrian collisions.*

There were **11** pedestrian collisions in 2016, but an average of **13.67** pedestrian collisions per year for the 3-year rolling average between 2015 and 2017.

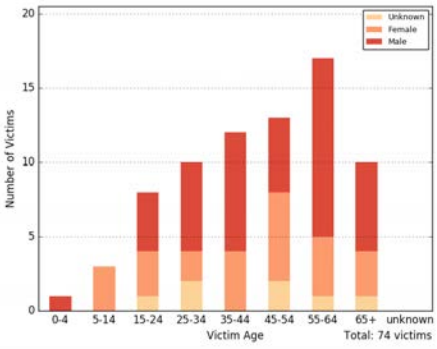
*This line is useful for tracking change over time, especially when the number of collisions changes a lot between years. Data points are at the midpoint of the three years of data specified.



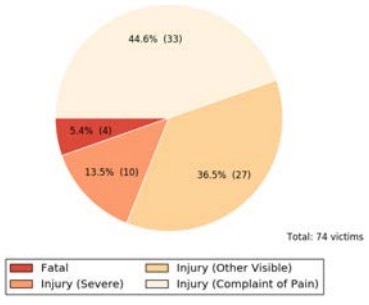
56.2% driver violations
VS.
26.0% pedestrian violations



*Unclear violations were committed either by the driver, pedestrian or bicyclist. Unknown is when we do not know what the violation was.



56.8% of victims were male
12.2% of victims were under age 20
13.5% of victims were age 65+



18.9%
of victims (or 14 people) were KILLED or SEVERELY INJURED

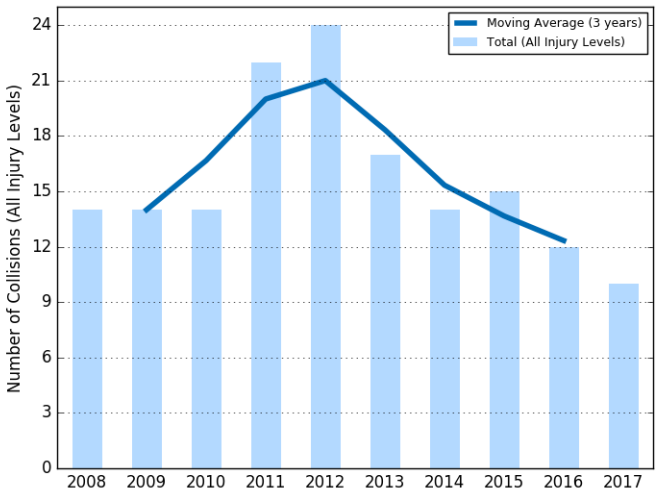
Data Source: California Statewide Integrated Traffic Records System (SWITRS). Collision data for 2016 and 2017 are provisional at this time.
Funding for this program was provided by a grant from the California Office of Traffic Safety through the National Highway Traffic Safety Administration.

BICYCLES

158 people were injured in **156** bicycle collisions in the last 10 years (2008-2017).

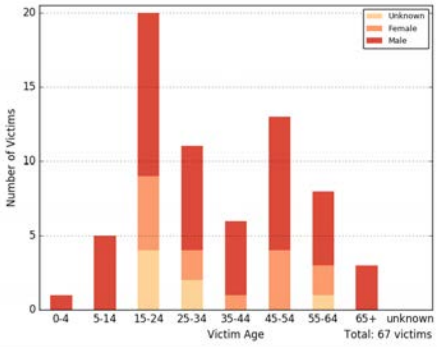
The **three-year moving average** line shows a **downward** trend in bicycle collisions.*

There were **12** bicycle collisions in 2016, but an average of **12.33** bicycle collisions per year for the 3-year rolling average between 2015 and 2017.

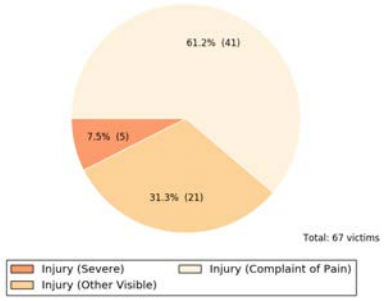


* This line is useful for tracking change over time, especially when the number of collisions changes a lot between years. Data points are at the midpoint of the three years of data specified.

Bicycles **must follow all the same rules of the road as vehicles.** As a result, we can**not** break down violations by driver vs. bicyclist.



68.7% of victims were male
29.9% of victims were under age 19
4.5% of victims were age 65+



7.5%
of victims (or 5 people)
SEVERELY INJURED

SUMMARY

32.5 pedestrian fatalities & injuries per 100,000 population over the last five years in the City of San Jose,
which is **11.7% more than** Santa Clara County and
9.5% less than California

32.3 bicyclist fatalities & injuries per 100,000 population over the last five years in the City of San Jose,
which is **18.0% less than** Santa Clara County and
3.0% less than California

	Yearly Population Rate of Fatalities & Injuries per 100,000 Population Calculated Over a 5-year Period*	
	Pedestrian	Bicyclist
San Jose	32.5	32.3
Santa Clara County	29.1	39.4
California	35.9	33.3

Source: U.S. Census Bureau, Population Division (intercensal population data for 2016).

* The rate per population is calculated by adding the number of fatalities and injuries from 2012 to 2016 divided by five times the population in 2016.

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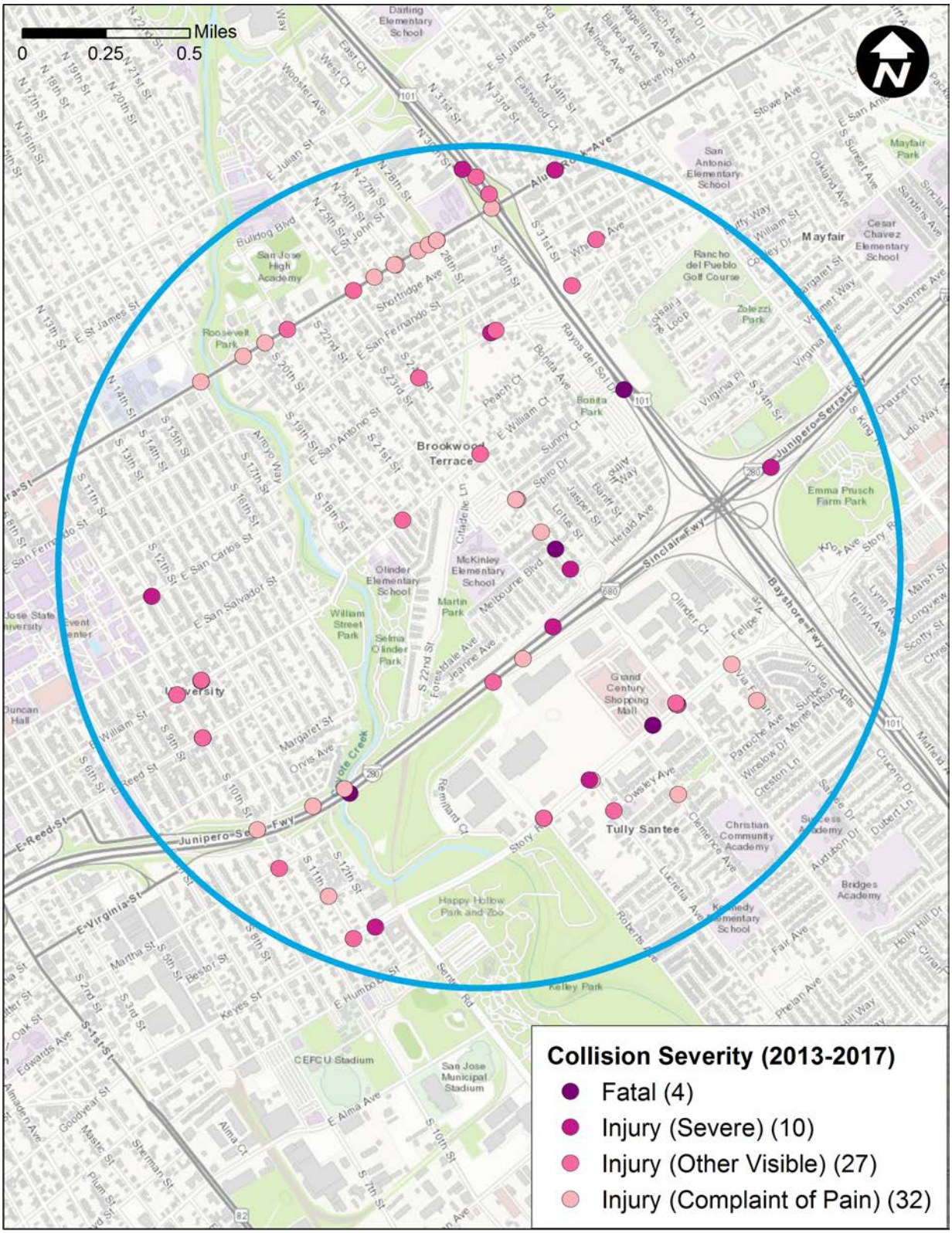
Pedestrian Collisions 2013-2017

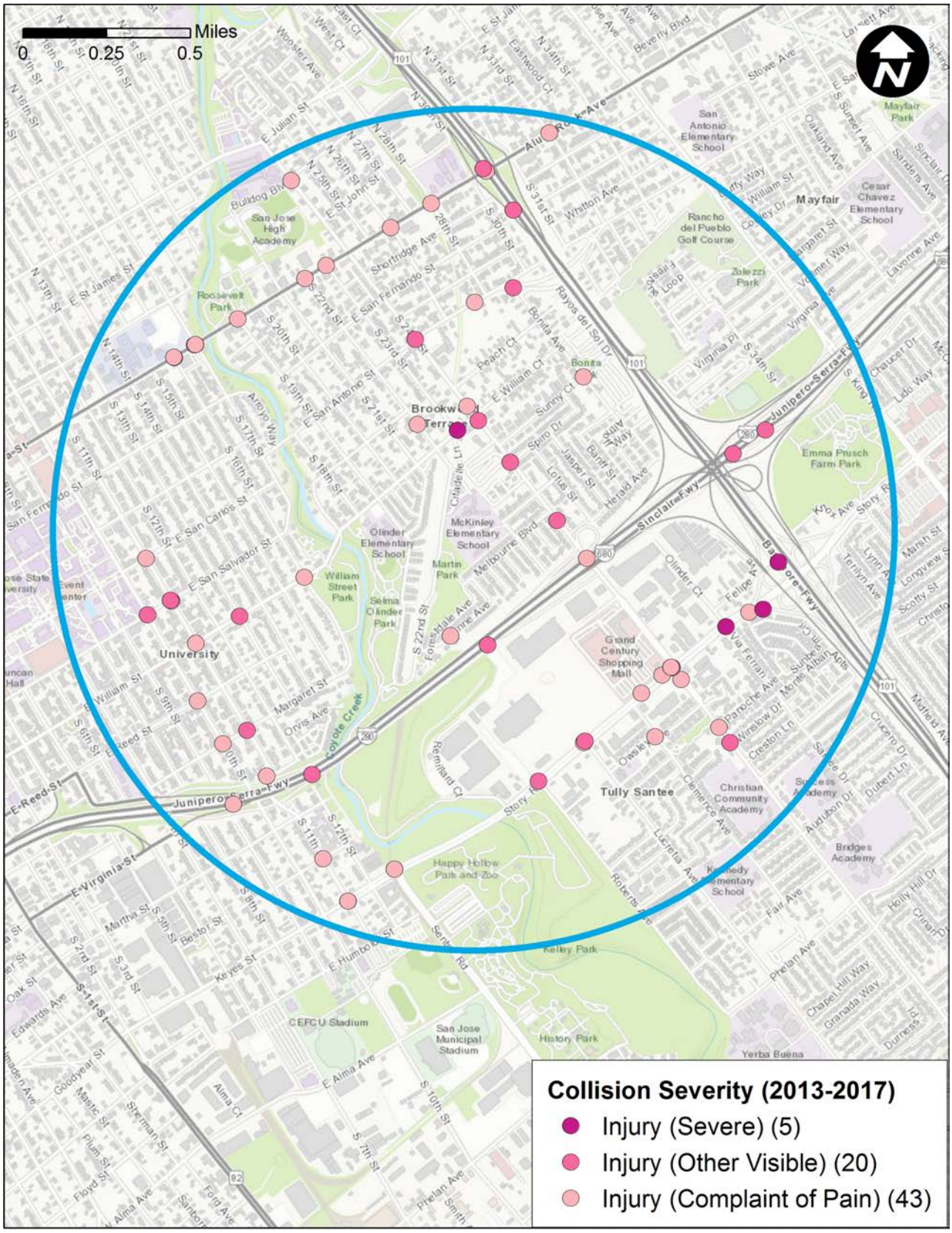
one-mile radius from McKinley Elementary School in San Jose, CA



Data Source: California Statewide Initegrated Traffic Records System (SWITRS). Collision data for 2016 and 2017 are provisional as of June 2018.

Bicyclist collision locations, 2013-2017

one-mile radius from McKinley Elementary School in San Jose, CA



Data Source: California Statewide Initegrated Traffic Records System (SWITRS). Collision data for 2016 and 2017 are provisional as of June 2018.

Appendix B

Pedestrian and Bicycle Collision Data Analysis

Site Visit Presentation

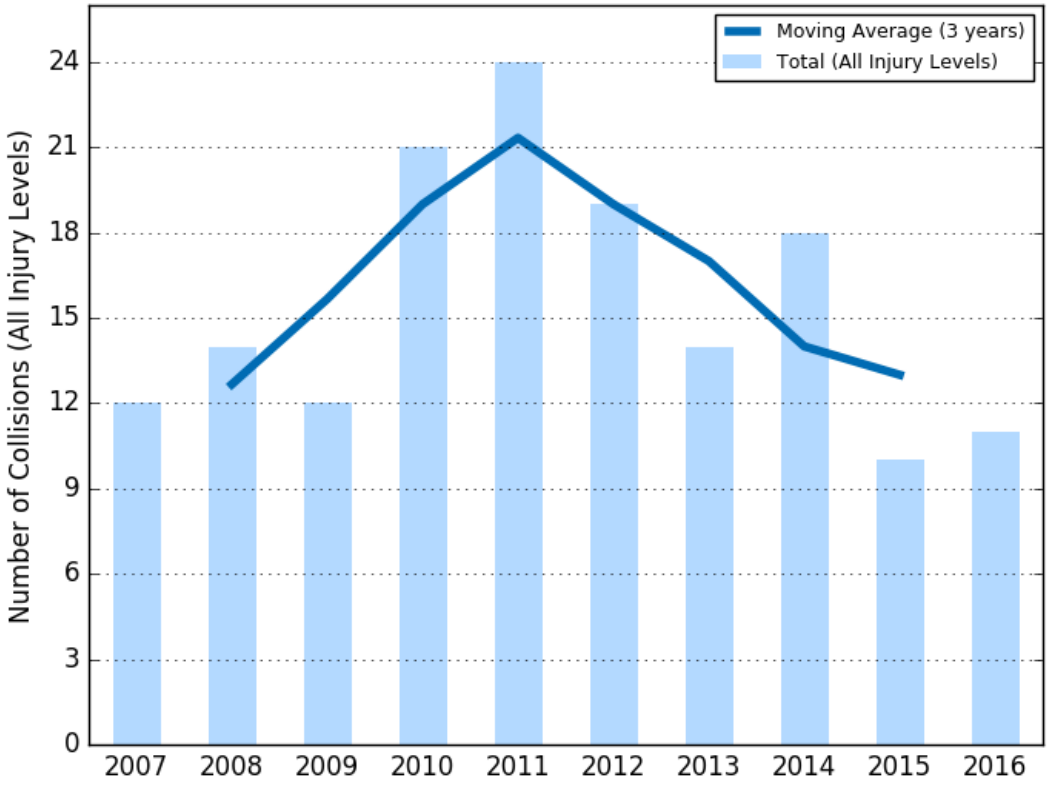
Community Pedestrian and Bicycle Safety Workshop - Data

San Jose McKinley Elementary School – San Jose, CA

August 24, 2018

Pedestrian Injury Collision Trend

with 3-year moving average



Total: 155 collisions

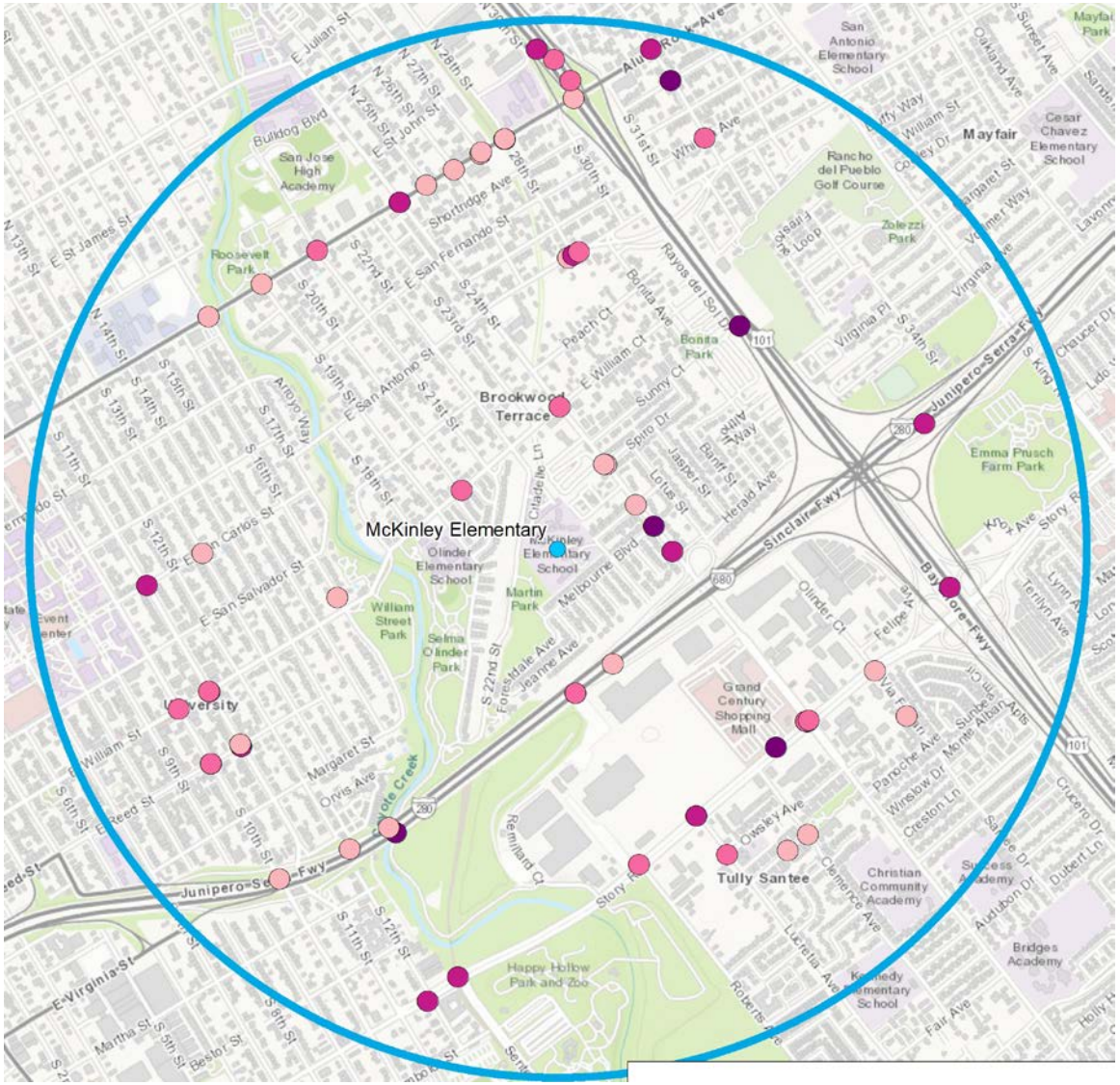
Note: 2015 and 2016 Statewide integrated Traffic Records Systems (SWITRS) data are provisional as of November 2017.

Pedestrian Injury Collisions
2012-2016

Total: 72 collisions mapped

Collision Severity (2012-2016)

- Fatal (5)
- Injury (Severe) (14)
- Injury (Other Visible) (20)
- Injury (Complaint of Pain) (33)



Note: 2015 & 2016 SWITRS data is provisional as of November 2017.

Pedestrian Collisions and Income

2012-2016

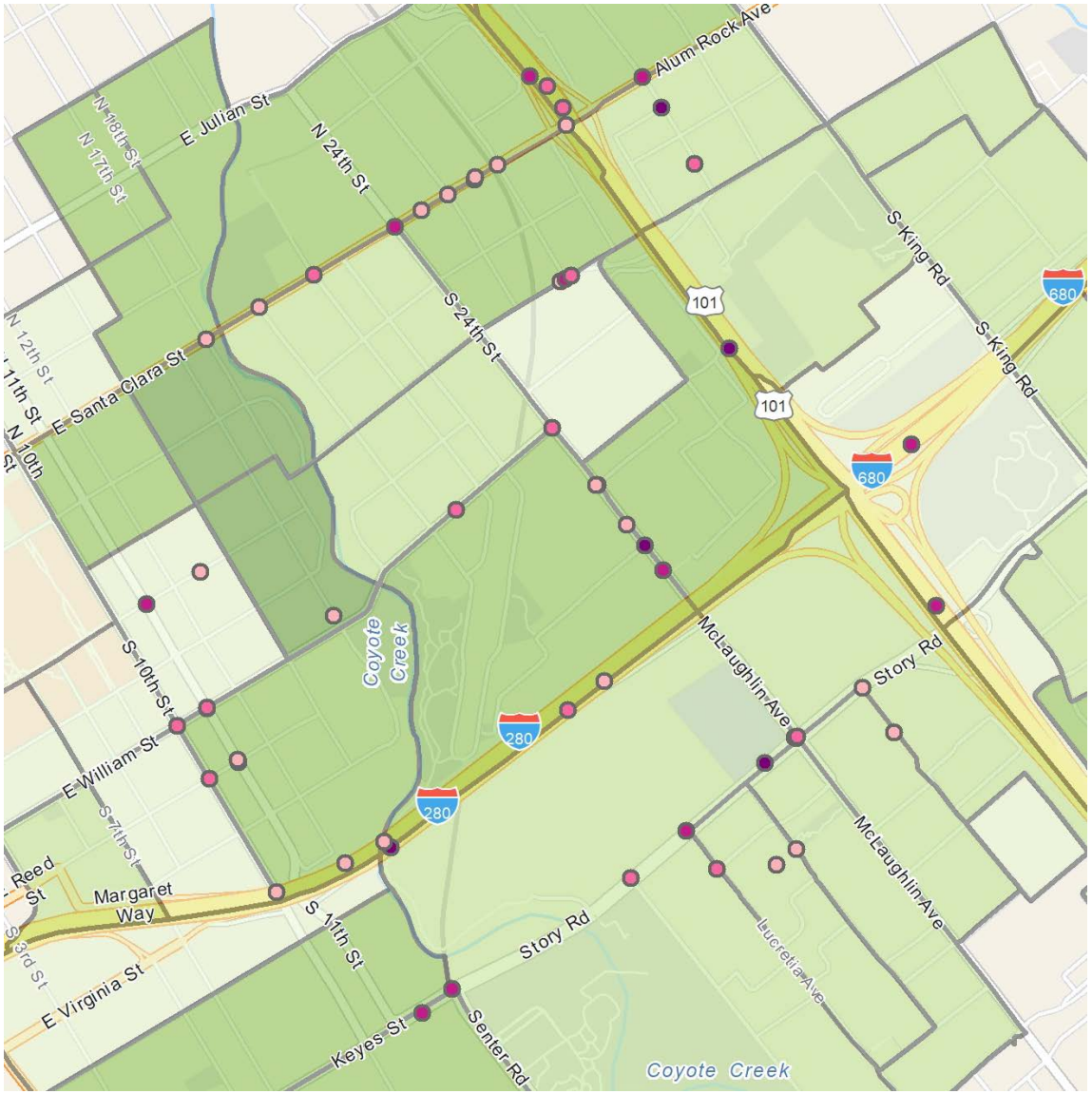
Total: 72 collisions mapped

Collision Severity (2012-2016)

- Fatal (5)
- Injury (Severe) (14)
- Injury (Other Visible) (20)
- Injury (Complaint of Pain) (33)

2017 Median Household Income

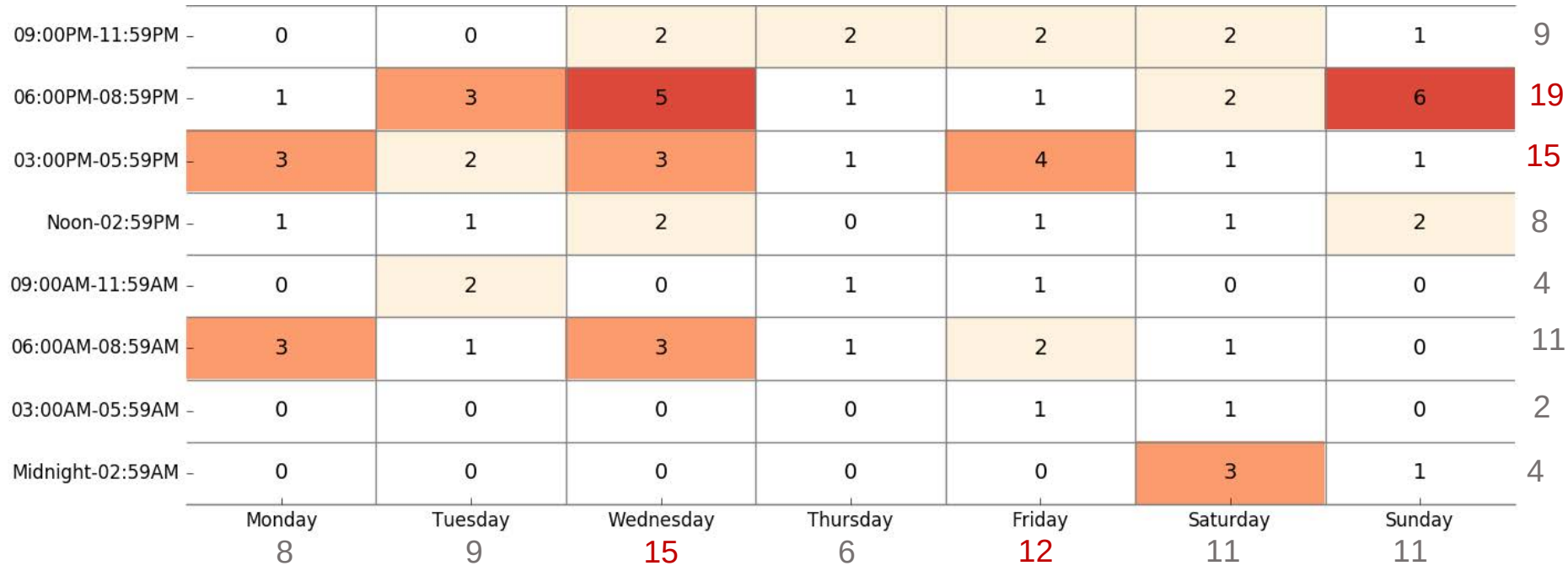
- 35K - 50K
- 50K - 75K
- > 75K



Source: SWITRS, 2012-16; Demographics – ESRI, US Census Bureau; ACS

Note: 2015 & 2016 SWITRS data is provisional as of November 2017.

Pedestrian Injury Collisions by Time of Day and Day of Wee Total: 72 collisions



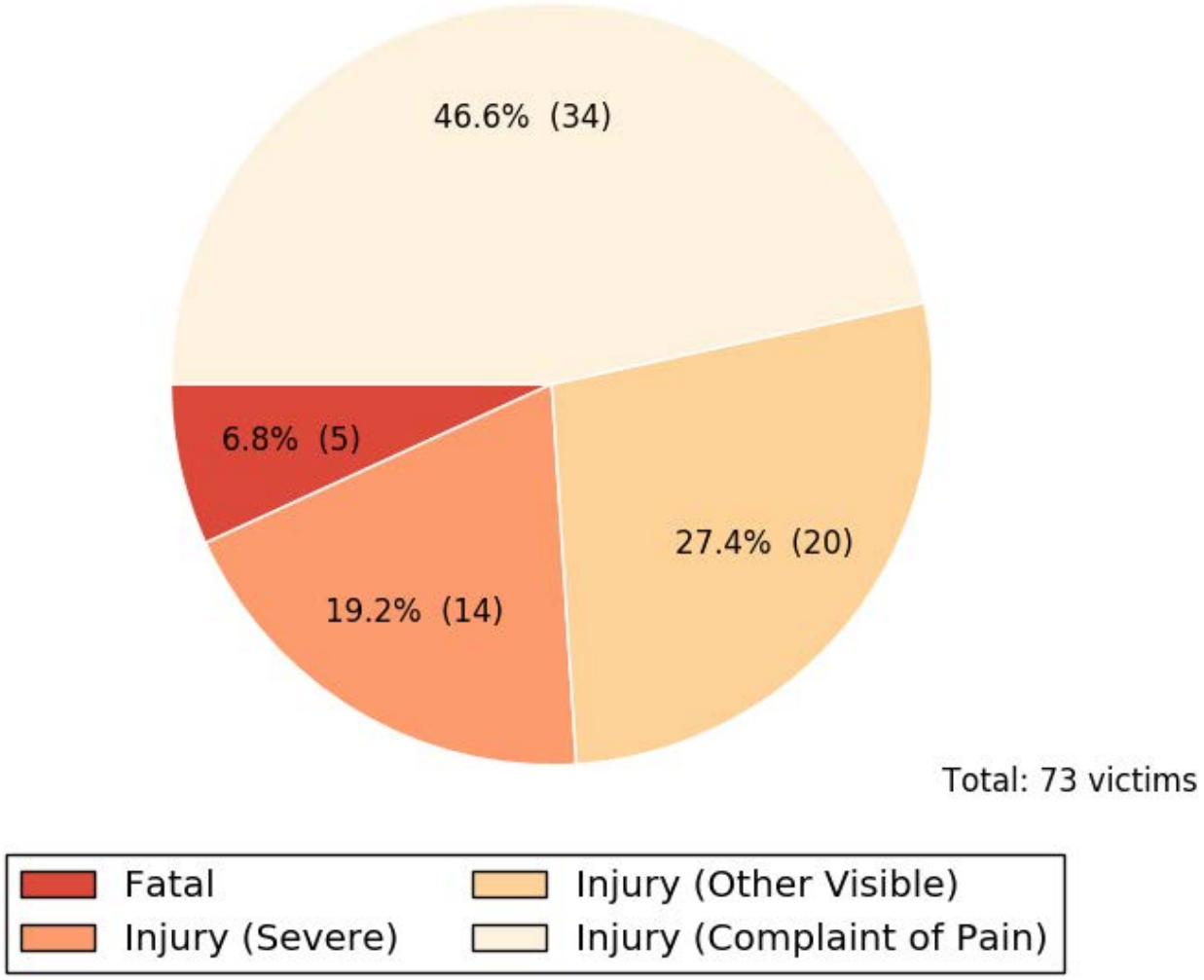
*The color in this graph refer to how frequently a collision occurs at that time and day

Top Violations in Pedestrian Injury Collisions (with # and %)

Total: 54 collisions

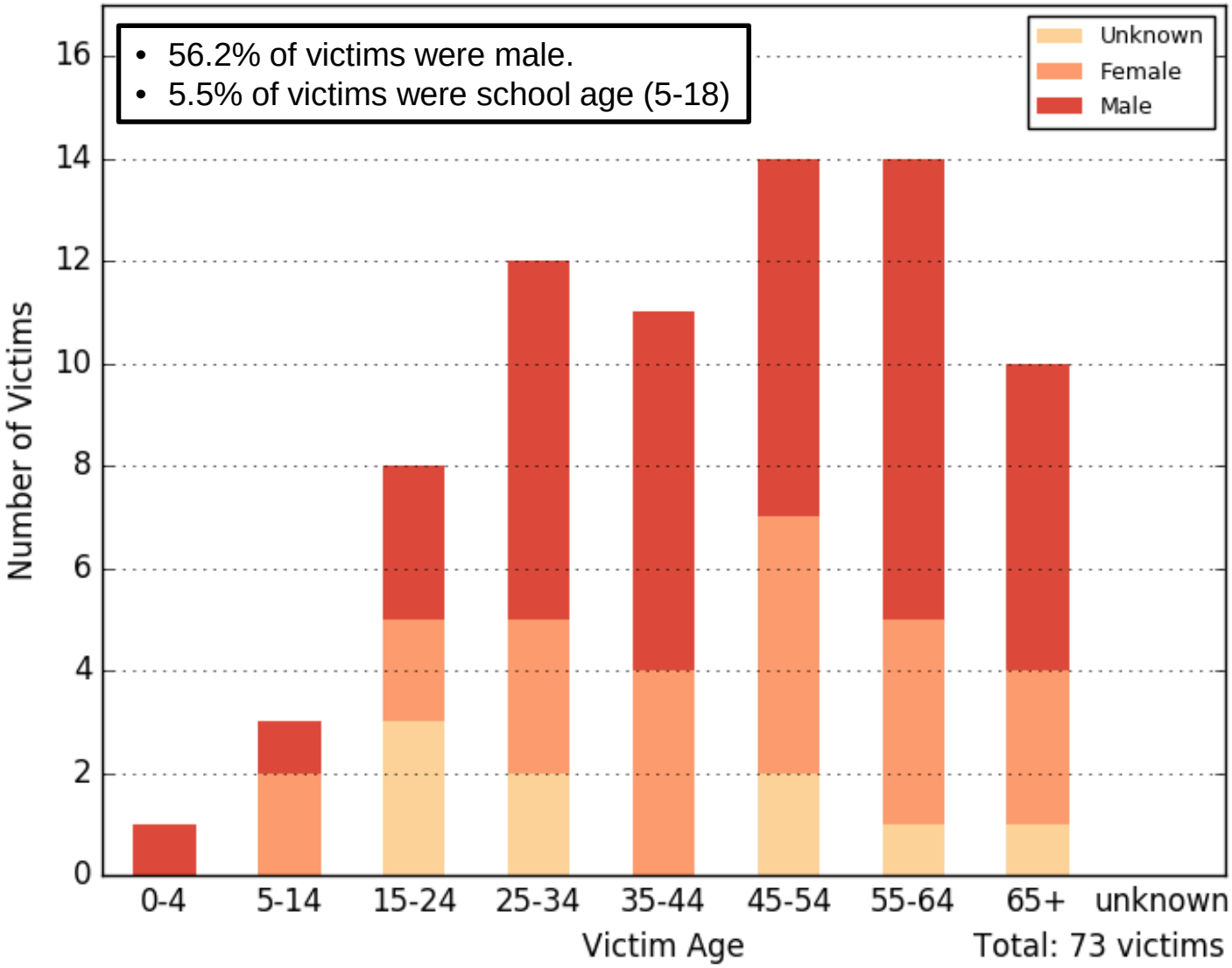
CVC No.	Description	Freq.	Percent
21950	Driver failure to yield right-of-way to pedestrians at a crosswalk	25	41.7%
21954	Pedestrian failure to yield right-of-way to vehicles	10	16.7%
22350	Speeding on the highway	8	13.3%
21955	At intersections, pedestrians can't cross anywhere except at a crosswalk	3	5.0%
21456	"Walk" pedestrian failure to yield right-of-way to vehicles already in crosswalk	2	3.3%
22107	Unsafe turning with or without signaling	2	3.3%
12500	Driver may not drive a vehicle without valid driver's license	1	1.7%
21451	Circular green signal, shall proceed but shall yield to vehicles and pedestrians lawfully within intersection	1	1.7%
21453	Red or Stop, vehicles 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	1	1.7%
21460	Driver shall not cross double parallel solid yellow lines	1	1.7%
Total		54	90.0%

Pedestrian Victim Injury Severity



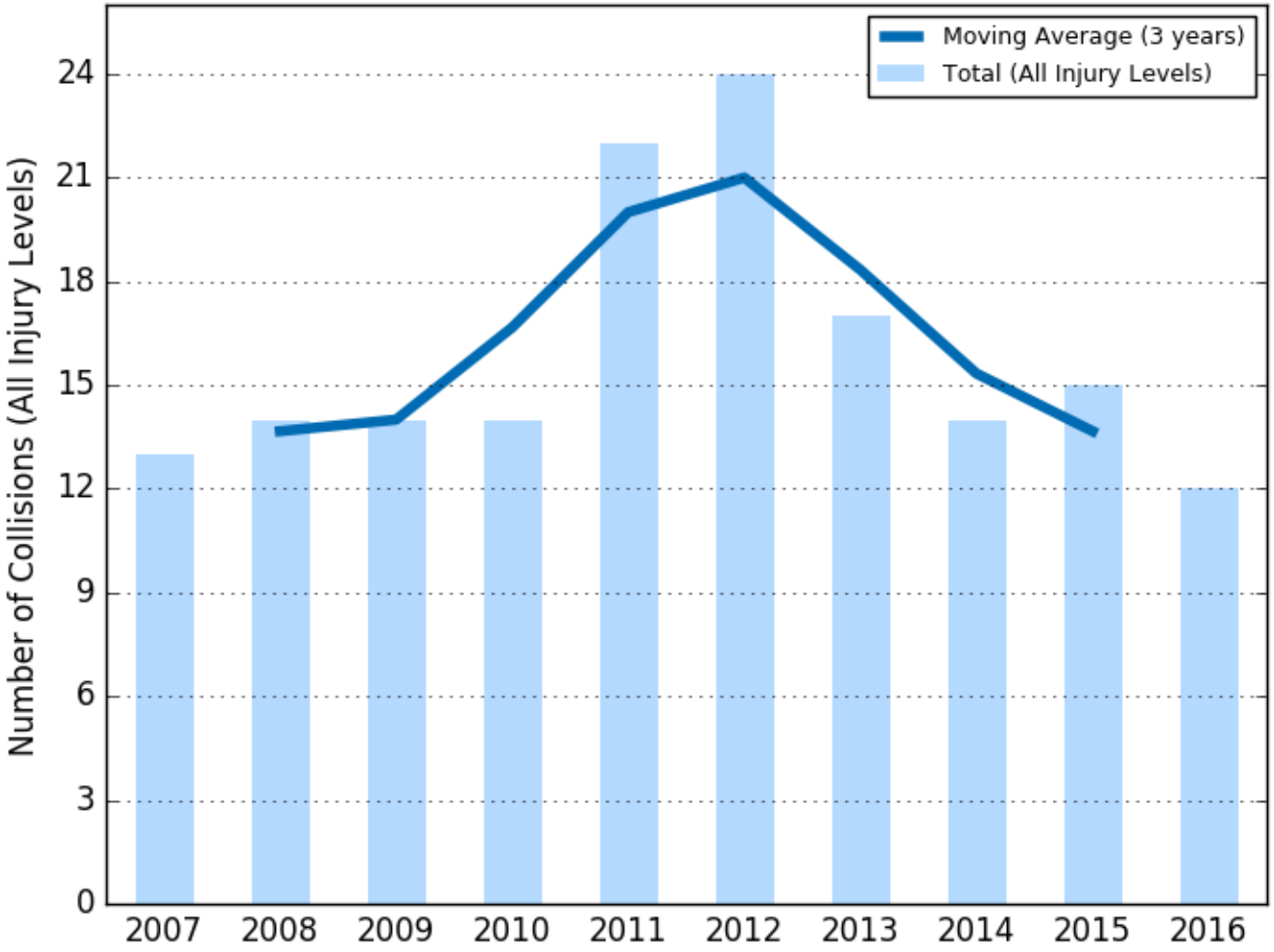
Note: 2015 and 2016 SWITRS data are provisional as of November 2017.

Pedestrian injury Victims by Age and Gender



Note: 2015 and 2016 SWITRS data are provisional as of November 2017.

Bicycle Injury Collision Trend
with 3-year moving average



Total: 159 collisions

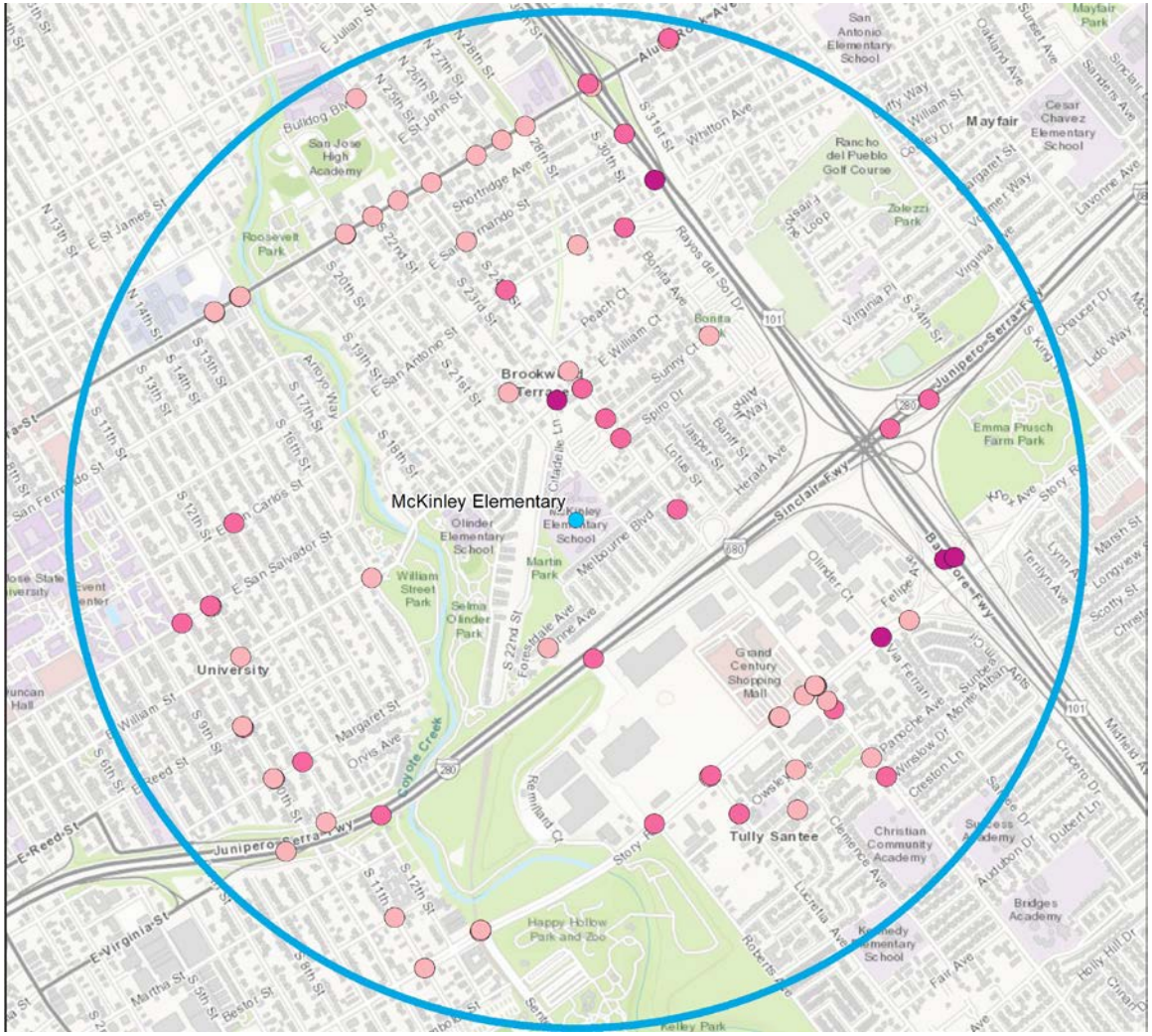
Note: 2015 and 2016 SWITRS data are provisional as of November 2017.

Bicycle Injury Collisions
2012-2016

Total: 82 collisions mapped

Collision Severity (2012-2016)

- Injury (Severe) (5)
- Injury (Other Visible) (26)
- Injury (Complaint of Pain) (51)



Note: 2015 & 2016 SWITRS data is provisional as of November 2017.

Bicycle Collisions and Income 2012-2016

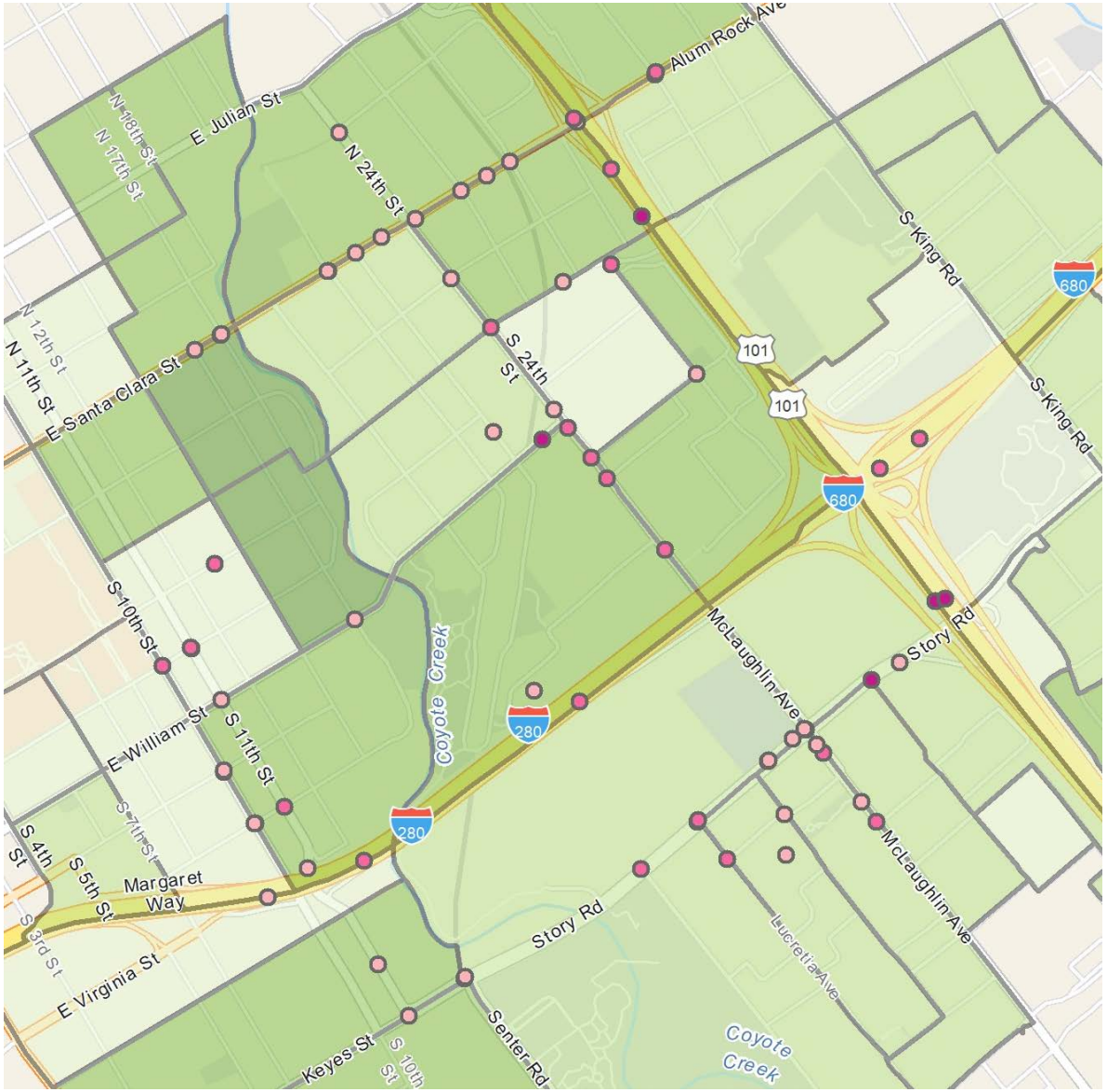
Total: 82 collisions mapped

Collision Severity (2012-2016)

- Injury (Severe) (5)
- Injury (Other Visible) (26)
- Injury (Complaint of Pain) (51)

2017 Median Household Income

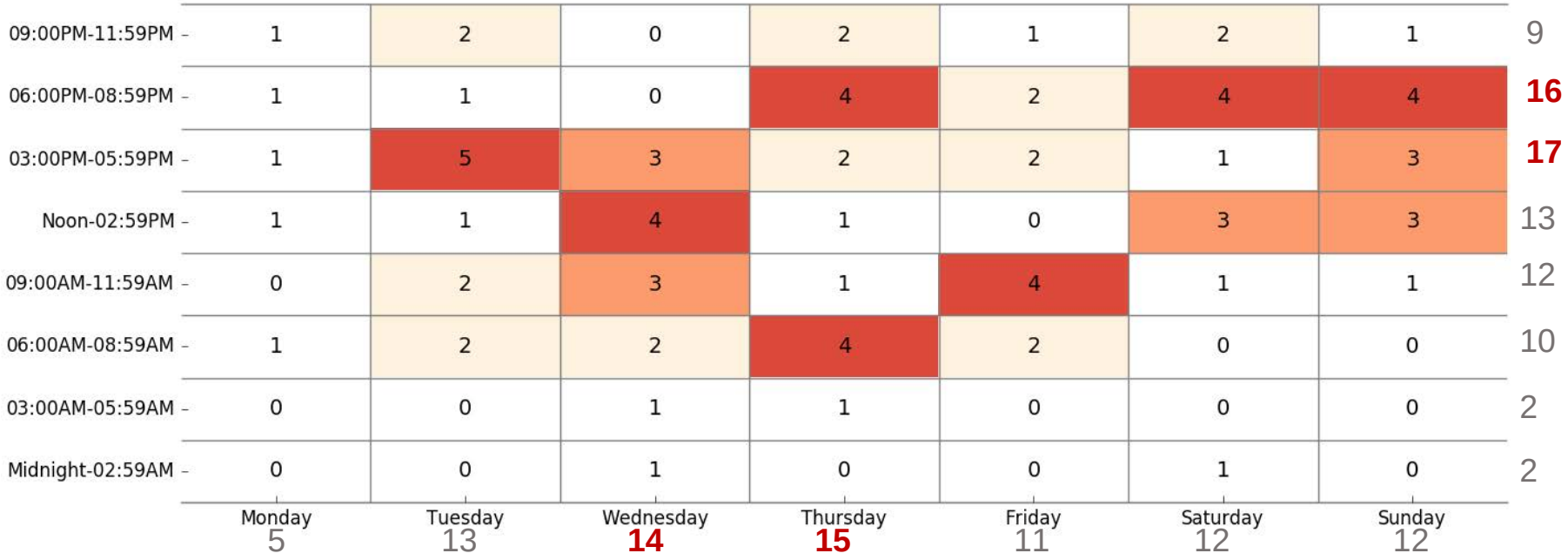
- 35K - 50K
- 50K - 75K
- > 75K



Source: SWITRS, 2012-16; Demographics – ESRI, US Census Bureau; ACS

Note: 2015 & 2016 SWITRS data is provisional as of November 2017.

Bicycle Injury Collisions by Time of Day and Day of Week



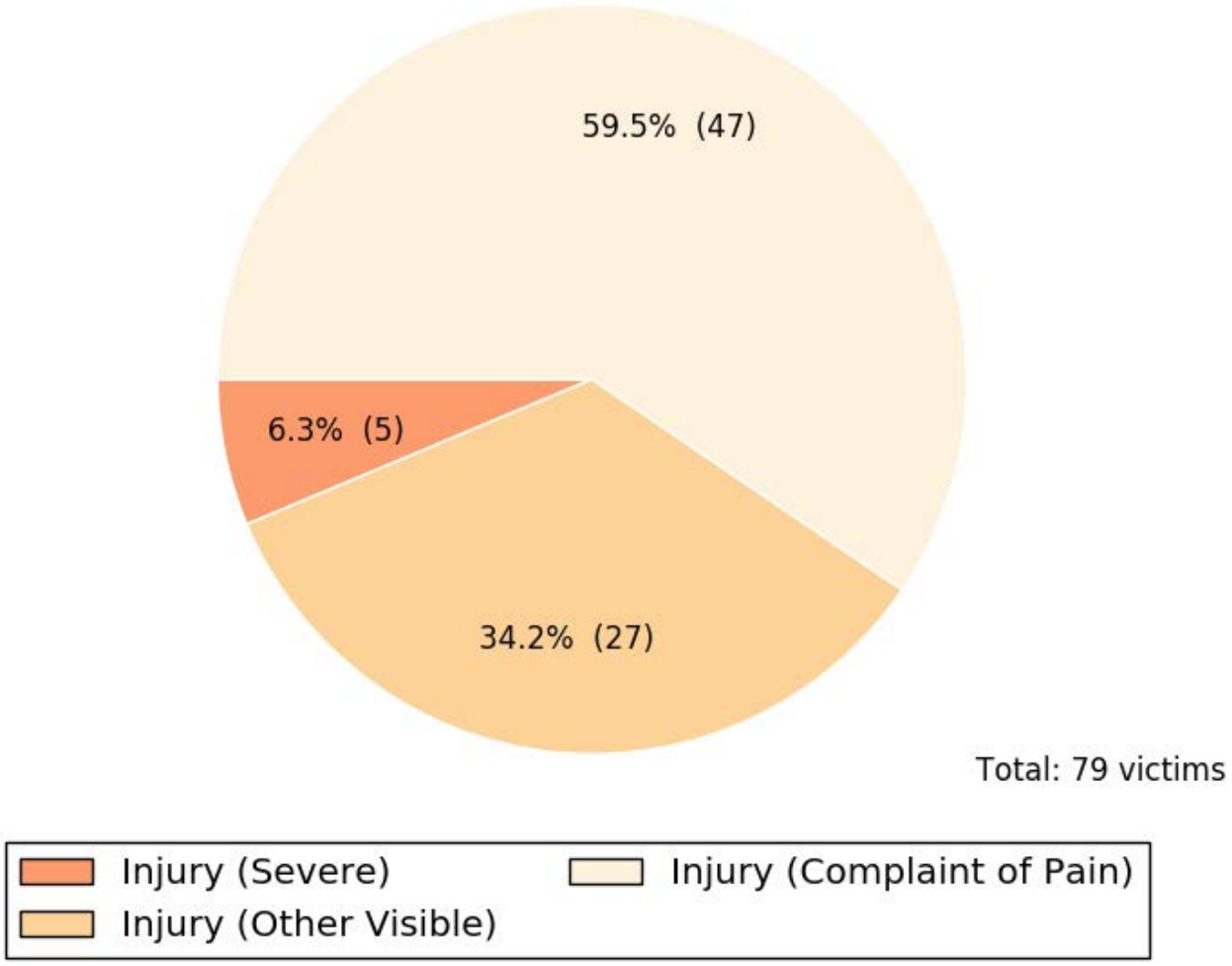
Total: 82 collisions

*The color in this graph refer to how frequently a collision occurs at that time and day

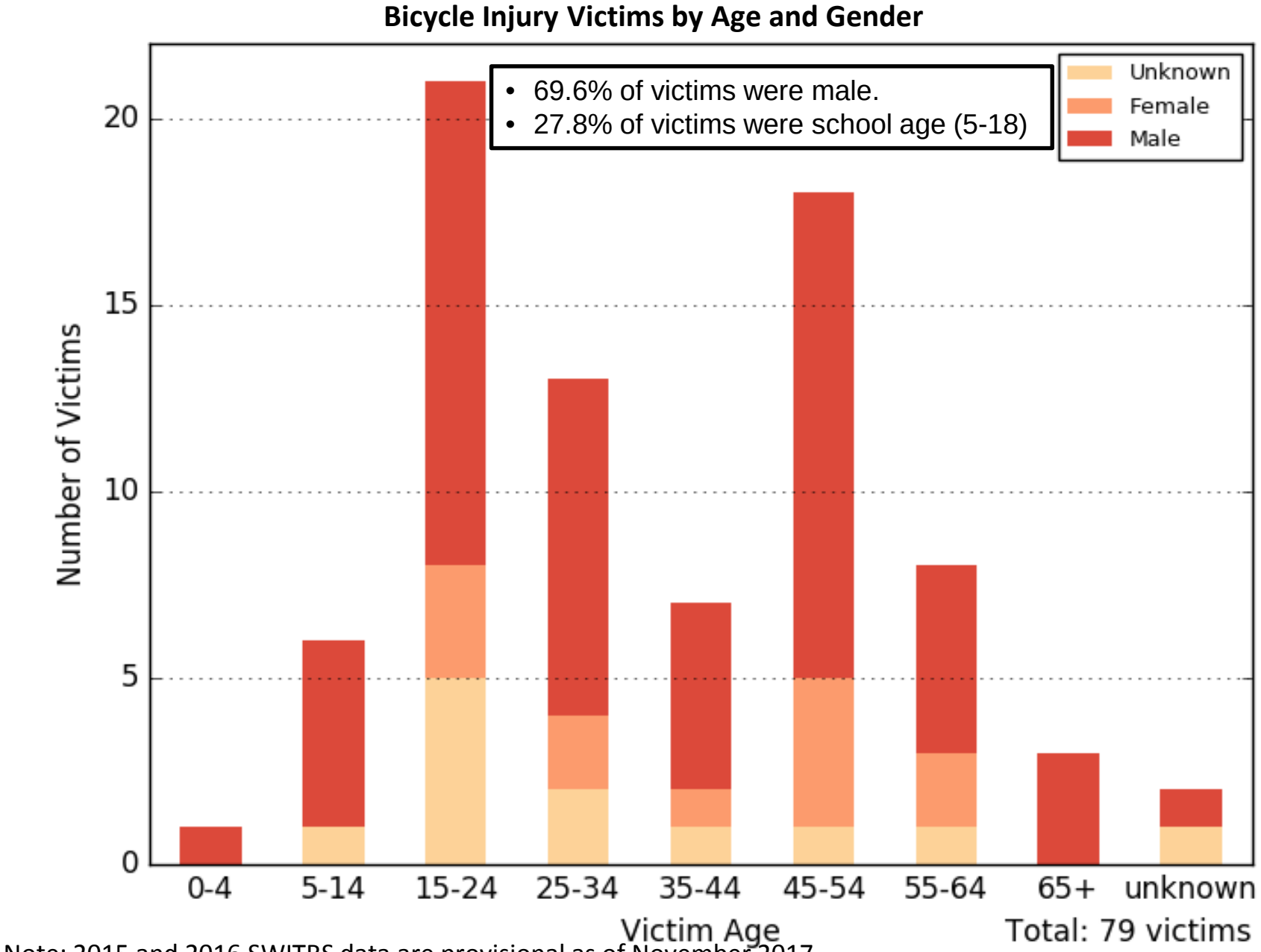
Top 10 Violations in Bicycle Injury Collisions (with # and %)

CVC No.	Description	Freq.	Percent
21650	Failure to drive on right half of the roadway (with some exceptions)	13	21.0%
21453	Red or Stop, vehicles 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	7	11.3%
21804	Driver failure to yield right-of-way when entering/crossing a highway	5	8.1%
22350	Speeding on the highway	5	8.1%
21950	Driver failure to yield right-of-way to pedestrians at a crosswalk	5	8.1%
22450	Driver failure to stop at a limit line or crosswalk at a stop sign	4	6.5%
21801	Failure to yield right-of-way to incoming cars while turning left or making U-turn	3	4.8%
20001	Hit-run, injury or death, immediate report of fatal	2	3.2%
22107	Unsafe turning with or without signaling	2	3.2%
21954	Pedestrian failure to yield right-of-way to vehicles	2	3.2%
Total		48	77.4%

Bicycle Victim Injury Severity



Note: 2015 and 2016 SWITRS data are provisional as of November 2017.



Note: 2015 and 2016 SWITRS data are provisional as of November 2017.

McKinley Elementary

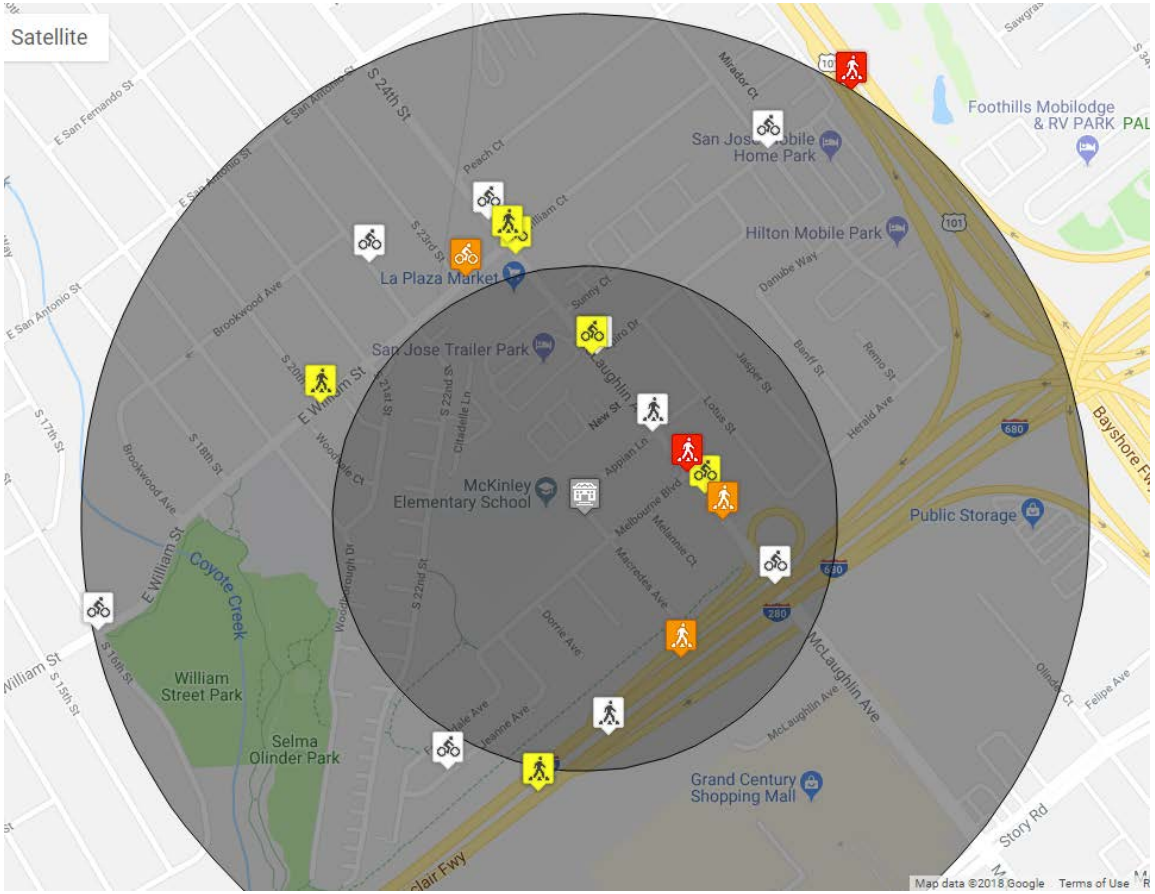
251 Macredes Avenue | San Jose | Santa Clara County | CDS: 43694506047245

Types of Collisions: Bicycle, Pedestrian

Collision Severity: Fatal, Severe Injury, Other Visible Injury, Complaint of Pain

Years: 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 * 2017 *

* 2016 - 2017 data is provisional and subject to change.

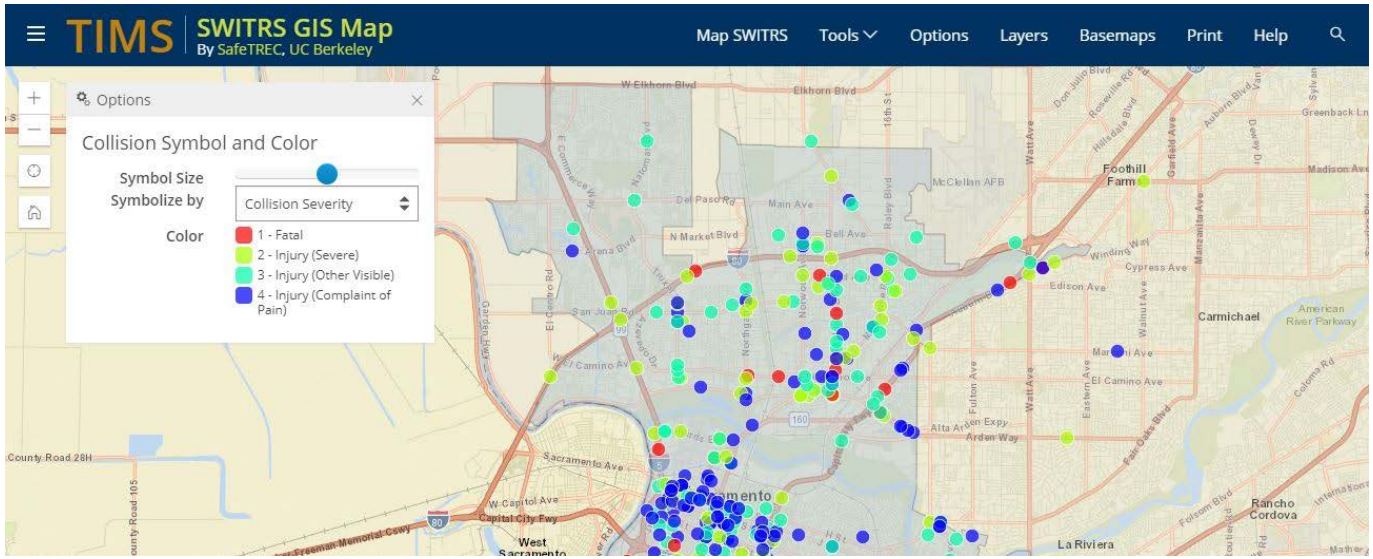


Summary Statistics

Radius	Fatal	Severe Injury	Visible Injury	Complaint of Pain	Pedestrian	Bicycle	Total
<¼ mi.	1	2	2	5	7	3	**10**
¼ - ½ mi.	1	1	5	5	4	8	**12**
Total	2	3	7	10	11	11	**22**

The Transportation Injury Mapping System (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/



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