Recommendations to Improve Pedestrian & Bicycle Safety for the Miguel Hidalgo Elementary School Community in Fresno

California Walks
Stepping Up for Health, Equity, & Sustainability

Berkeley SafeTREC
SAFE TRANSPORTATION RESEARCH AND EDUCATION CENTER

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CALIFORNIA OFFICE OF
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Acknowledgments

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Introduction

At the invitation of Cultiva La Salud, California Walks (Cal Walks) the University of California at Berkeley's Safe Transportation Research and Education Center (SafeTREC) and the Planning Committee collaboratively planned and facilitated a Community Pedestrian and Bicycle Safety Training (CPBST) in the Miguel Hidalgo Elementary School community in Fresno on August 23, 2018. The CPBST is a joint project of Cal Walks and SafeTREC 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.

Cultiva La Salud requested a workshop to 1) develop consensus regarding pedestrian and bicycle safety priority and actionable next steps; 2) strengthen working relationships between various agencies and organizations and other stakeholders to ensure the best outcomes for the residents of the Miguel Hidalgo Elementary School community in Fresno; and 3) provide the City of Fresno, community organizations, and residents with a toolkit for promoting pedestrian and bicycle safety to inform future active transportation projects.

Cal Walks and SafeTREC (the Project Team) facilitated the workshop from 8:30 a.m. to 12:00 p.m. on August 23, 2018 at Miguel Hidalgo Elementary School. Breakfast, simultaneous English-to-Spanish interpretation and a bike give-away were provided to maximize community participation. Thirty-one (31) individuals attended the workshop, including representatives from the City of Fresno Bicycle and Pedestrian Advisory Committee (BPAC), Cultiva La Salud, Every Neighborhood Partnership, Safe-to-School, Safe Routes to School National Partnership, Fresno Parks, After School, Recreation, and Community Service (PARCS) department, and the Central California Society for the Prevention of Cruelty to Animals (CCSPCA).

The three and a half (3.5) hour training consisted of: 1) three 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 the Miguel Hidalgo Elementary School community in Fresno'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 the Miguel Hidalgo Elementary School community in Fresno.

Background

For each training, the program convened a local multi-disciplinary planning committee to tailor and refine the training's curriculum and focus 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.

Planning Process

The Fresno- Miguel Hidalgo Elementary School community CPBST planning process was initiated in April 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:
  - Fresno County Regional Active Transportation Plan (R-ATP), 2018
  - Fresno Active Transportation Plan, 2017

- ○ [Fresno General Plan](), 2017
- ○ [Americans with Disabilities Act (ADA) Transition Plan](), 2016
- **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 pedestrian and bicycle collision injury data within a 1-mile radius of Miguel Hidalgo Elementary School, as well as census data to create rates based on population. Patterns of injury collisions, victim characteristics, and demographics were analyzed and presented at the site visit and during the workshop
- **Identification of Priority Discussion Topics for Training:** In addition to review of the pedestrian and bicycle collision data for the City of Fresno, the Planning Committee considered input from community residents and organizations about youth pedestrian and bicycle safety. Additionally, there had been a previous discussion at a Bicycle and Pedestrian Advisory Committee (BPAC) meeting regarding concerns for students' safety walking to and from school near Ann Leavenworth Elementary School and Miguel Hidalgo Elementary School. Both schools are located near arterials with heavy traffic, such as Belmont Avenue, Cedar Avenue, and First Street, as well as State Route 180. As a result, the Planning Committee identified the Miguel Hidalgo Elementary School community as the focus of the Fresno CPBST and developed the following goals for the training:
  - ○ To determine potential solutions to make walking and biking to and from Miguel Hidalgo Elementary School safer for students;
  - ○ Expand opportunities to support walking and biking programs such as Cultiva La Salud's Walking Groups and Cumbia Rides; and
  - ○ Integrate and link existing efforts to advance active transportation from community groups, such as those by Cultiva La Salud and the Neighborhood Revitalization Team of the City of Fresno, to inform infrastructure projects and community planning.
- **Site Visit:** The Project Team facilitated an in-person site visit on June 17, 2018 with the Planning Committee at Cultiva La Salud's office to 1) review existing pedestrian and bicycle collision data for the Miguel Hidalgo Elementary School community; 2) collect qualitative data based on in-person observations of existing conditions and travel behaviors and; 3) conduct preliminary walking assessments of the Miguel Hidalgo Elementary School community. The Project Team used the site visit findings to develop the workshop presentation, including featuring local infrastructure examples and developing the walking and biking assessment route maps. During the site visit, the Planning Committee identified parents from Ann Leavenworth Elementary School, Fresno Parks, After School, Recreation, and Community Service (PARCS) department, and the Central California Society for the Prevention of Cruelty to Animals as key stakeholders to invite to the CPBST.

Existing Conditions

Pedestrian & Bicycle Collision History[1]

From 2012-2016, there were twelve (12) pedestrian collisions, including two (2) fatalities and five (5) severe injuries, in the vicinity of Miguel Hidalgo Elementary School. Collisions in this time period were concentrated on Belmont Avenue and on North Cedar Avenue and primarily occurred during high traffic times on Wednesday afternoons and evenings between 3:00 p.m.-8:59 p.m. The primary collision factors for pedestrian collisions were pedestrian failure to yield the right-of-way to vehicles (63.6%).[2] Participants commented that both Belmont Avenue and North Cedar Avenue have marked crossings spaced at great distances from each other, resulting in many residents crossing where it is most convenient. While pedestrian collisions have generally been on a downward trajectory, there has been a recent upward trajectory over the past 5 years.

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[1] 2016 SWITRS data are provisional as of November 2017.

[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.

Pedestrian Injury Collision Trend
with 3-year moving average
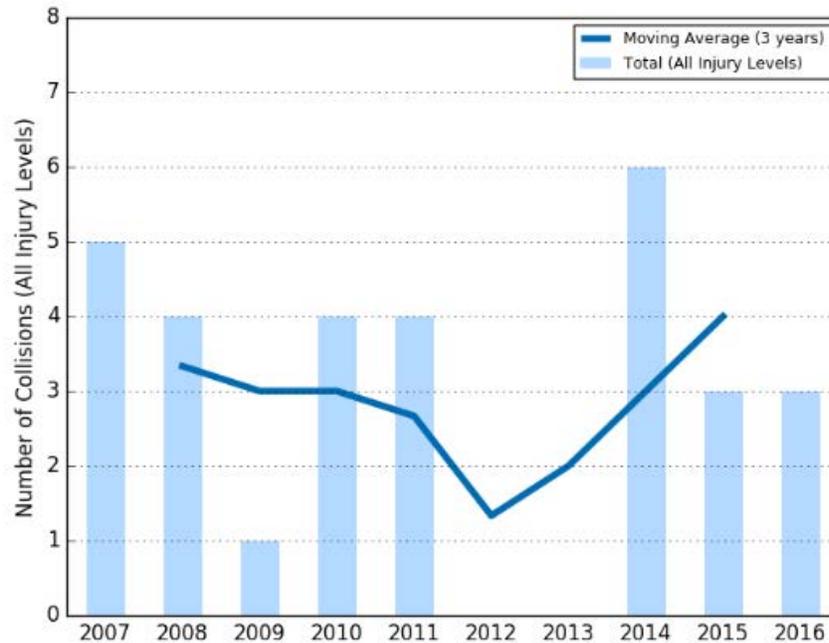
From 2012-2016, there were ten (10) bicycle collisions, including one (1) fatality and one (1) severe injury in the Miguel Hidalgo Elementary School community. Collisions in this time period were concentrated on North First Street. The primary collision factor for collisions involving bicycles were failure to drive on right half of the roadway, which includes riding against traffic (50%).[3] Bicycle collisions have generally been on a downward trajectory in the community during this time period.

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[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.

Bicycle Injury Collision Trend
with 3-year moving average
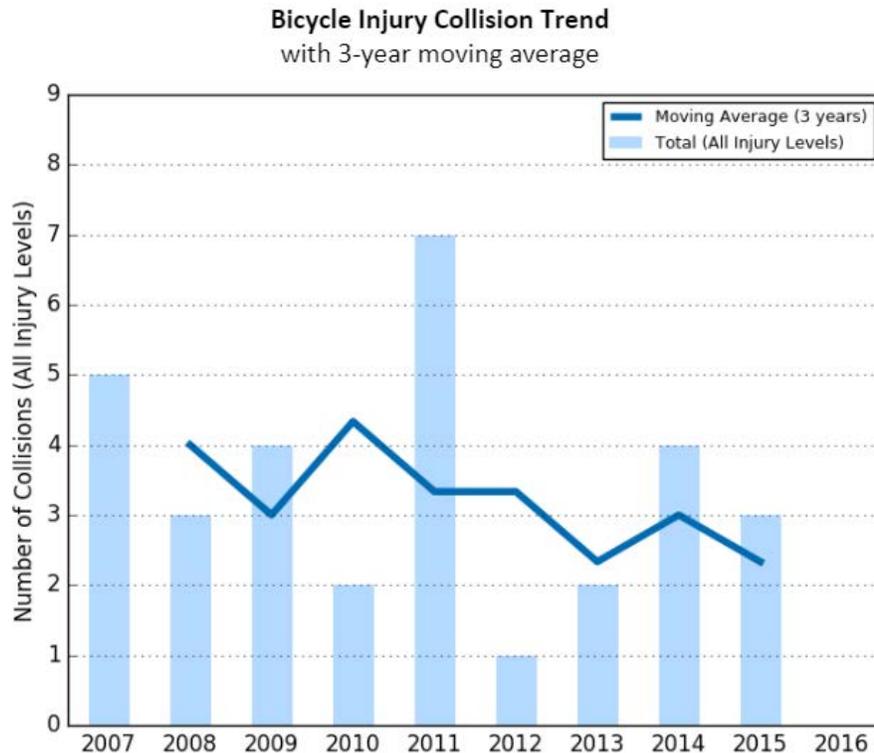
A full discussion of the pedestrian and bicyclist collision data prepared by UC Berkeley SafeTREC can be found in Appendix A and B.

Equity Concerns

Nationwide, pedestrian fatality rates in lower-income communities are generally higher—sometimes more than more than twice as high[4]—when compared to higher income communities. State funding programs generally define census tracts at or below 80% of the statewide median household income ($51,026) as disadvantaged communities. Pedestrian collisions in the Miguel Hidalgo Elementary School community show pedestrian collisions and collision severity disproportionately concentrated and occurring more frequently along corridors and in neighborhoods with lower median household incomes, mirroring nationwide trends. Many of the historical neighborhoods in low-income communities of Fresno have seen less investment in active transportation compared to more affluent and newly constructed neighborhoods. This lack of investment has created unsafe conditions for pedestrians and cyclists in communities where residents rely on active transportation as a primary method of

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

Available at http://www.governing.com/gov-data/pedestrian-deaths-poor-neighborhoods-report.html

transportation. The City's 2017 Active Transportation Plan highlighted the need to prioritize projects based not only on safety, but on equity to ensure all community residents of Fresno can benefit from infrastructure and program investments.

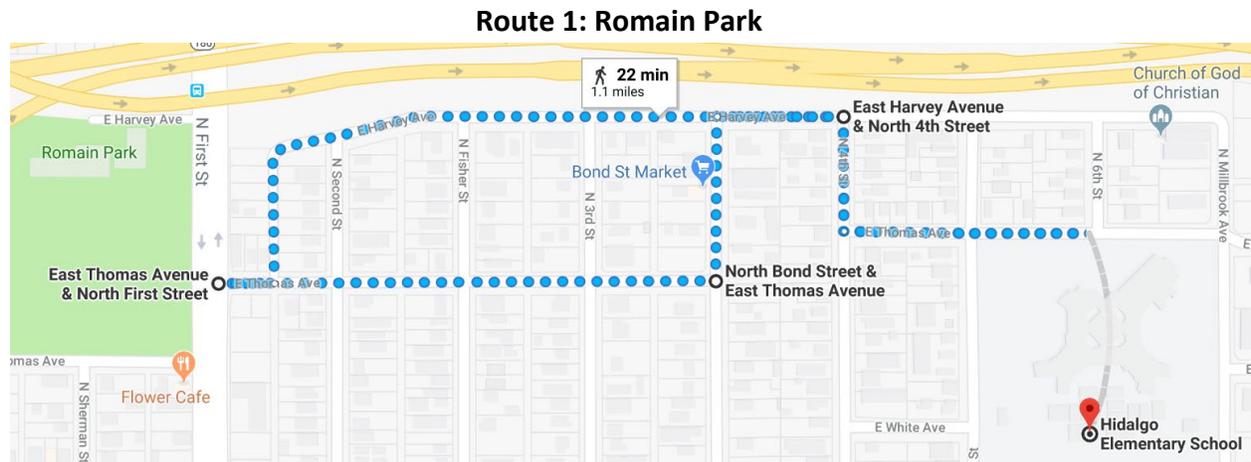## Miguel Hidalgo Elementary School Community Pedestrian Collision Map (2012-2016)

Collision Severity (2012-2016)
- ● Fatal (2)
- ● Injury (Severe) (5)
- ● Injury (Other Visible) (3)
- ○ Injury (Complaint of Pain) (2)

2017 Median Household Income
- ☐ < 35K
- ☐ 35K - 50K

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: Romain Park

The first walking route focused on Harvey Avenue, and East Thomas Avenue, which community residents use to access Romain Park located along North First Street. Starting the walking assessment at Miguel Hidalgo Elementary School, the group walked west on Thomas Avenue, north on 4th street, west on Harvey Avenue to North First Street, east on Thomas Avenue, north on Bond Street, east on Harvey, south on 4th street, and east on Thomas to Miguel Hidalgo Elementary School.

Route 2: Cedar Avenue
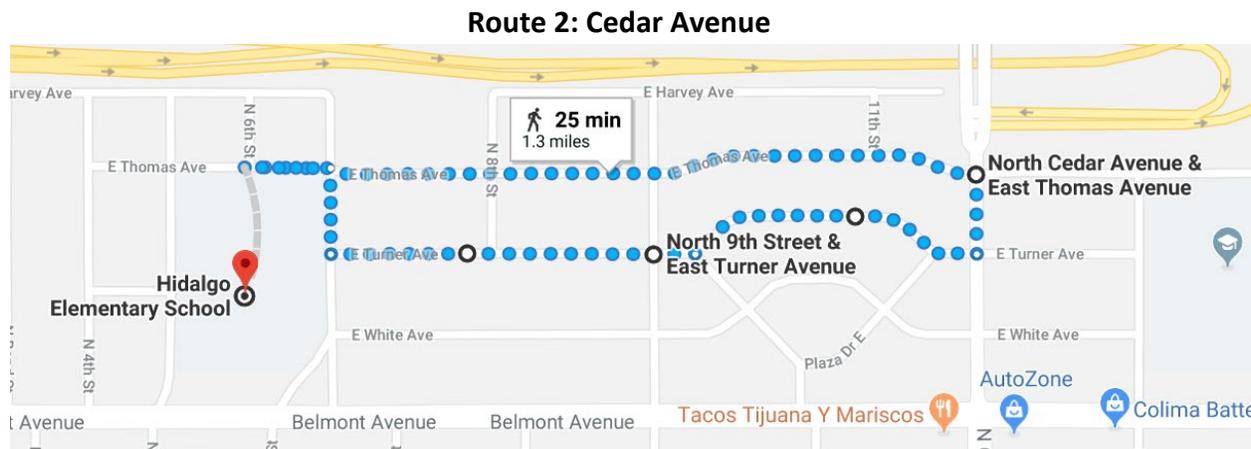
The second walking route focused on Thomas Avenue and Turner Avenue, which students use to access Miguel Hidalgo Elementary School. The route also allowed participants to observe the North Cedar Avenue and State Route 180 off-ramp, which causes challenges for walking and biking across North Cedar Avenue. This route was selected by the Planning Committee due to congestion and traffic issues connected to the high speed of traffic, wide lanes, and exit ramps from State Route 180. Starting the walking assessment at Miguel Hidalgo Elementary School, the group walked east on Thomas Avenue, south on North Cedar Avenue, east on Turner Avenue, and North on Millbrook Avenue before ending at Miguel Hidalgo Elementary School.

Route 3: Belmont Avenue
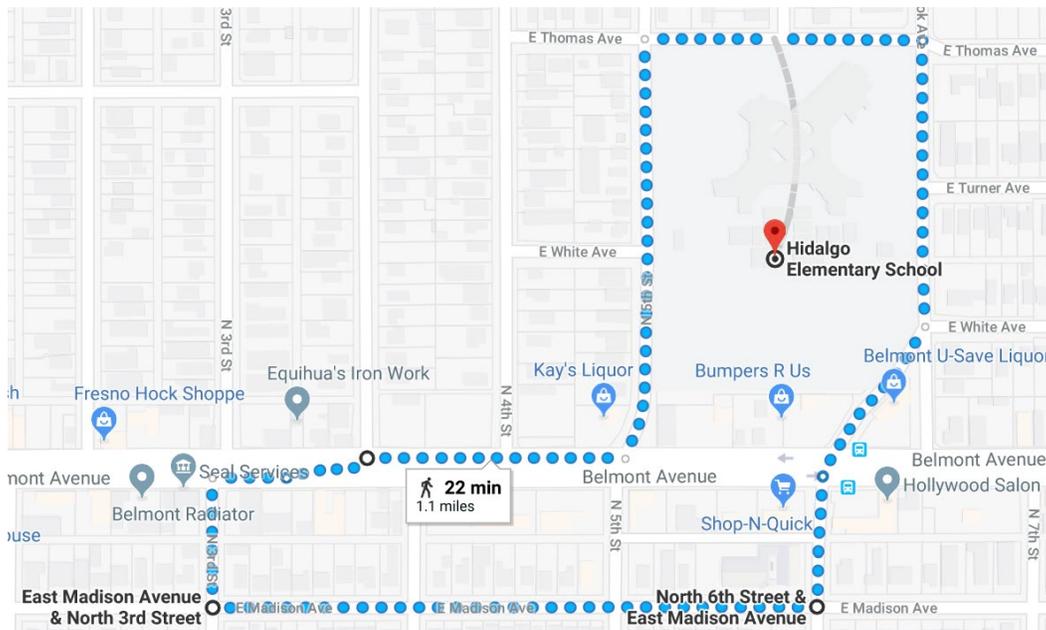
The third walking route focused on Belmont Avenue, which students use to access Miguel Hidalgo Elementary School. This route was chosen by the Planning Committee due to concerns for high speed traffic and unsafe road conditions, including multiple conflict zones for pedestrians and drivers. Starting the walking assessment at Miguel Hidalgo Elementary School, the group walked east on East Thomas Avenue, south on North Millbrook Avenue, south across Belmont Avenue, south on 6th Street, west on Madison Avenue, north on 3rd Street, east on Belmont Avenue, and north on 5th street ending at Miguel Hidalgo Elementary School.

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

- **Lighting Challenges & Assets:** Participants noted that many areas of the community, including Harvey Avenue, First Street, and, Thomas Avenue lack street lights and pedestrian-scale lighting. Although there are sections of the community with street lighting, the light fixtures are not consistently placed, and many are not functioning, have been vandalized or are obscured by overgrown tree foliage. Existing lighting infrastructure does not provide sufficient light to illuminate the sidewalk and bike lanes, particularly along streets leading to Romain Park, such as Harvey Avenue. Participants also observed that areas without sufficient lighting encourage illegal dumping and illicit activities. One particular area of concern is the end of Harvey Avenue toward First Street where the street ends into an unpaved path leading to a number of City utility boxes. Participants noted that residents often walk on the unpaved path during late evenings to access First Street and Romain Park.

1A UTILITY ROAD AT THE END OF HARVEY AVENUE LEADING TO ROMAIN PARK. COMMUNITY MEMBERS CUT ACROSS THE AREA TO REACH FIRST STREET.

PARTICIPANTS OBSERVE VARIED TEXTURE AND ACCESSIBILITY ISSUES ON BELMONT.

- **Poor Sidewalk Conditions and Accessibility Challenges:** Participants noted that although there are sidewalks along most streets, there are significant gaps in sidewalks along key routes used by the community, including along Thomas Avenue and Bond Street. Sidewalks also vary in texture, width, and condition. Portions of the sidewalk along Harvey Avenue, Thomas Avenue, and Bond Street are extremely narrow and many segments have uplifting, cracks, or are blocked by landscaping debris or illegal dumping. Participants noted that it is also common for residents to park in the driveway and leave fences open, blocking the sidewalk. These conditions impact access for parents with strollers and people using wheelchairs or other assistive mobility devices. Belmont Avenue presented

challenges including multiple driveways in close proximity to each other, creating the potential for conflict between pedestrians and drivers. Belmont Avenue also had segments where the parking lane obscured pedestrians on the sidewalk from drivers

VARIOUS SIDEWALK OBSTRUCTIONS IN THE COMMUNITY.

turning into driveways and businesses. On Route 3, participants also observed a community resident with an assisted mobility device struggle with a raised curb ramp on the north end of the Belmont and 4th Street crossing.

MISSING SIDEWALKS ALONG BOND STREET ACROSS FROM THE BOND MARKET.

LITTER AND DEBRIS SCATTERED ALONG THE LIGHT POLE ADJACENT TO THE SCHOOL SITE ON 5TH STREET.

- **Community Cleanliness:** Participants expressed concerns with the lack of community cleanliness. They expressed that the City of Fresno didn't prioritize their concerns and that the unkempt state of streets represented a lack of ownership by community. During the assessment, landscape debris, personal items, empty bottles, and dog waste were present on and along sidewalks, in the gutter and drainage areas, alleyways, and in front and side yards. Participants also noted a high number of loose dogs or dogs tied up with access to the sidewalk. During the assessment, Cal Walks staff observed nearly one dozen loose dogs along all of the routes. Community members also noted the presence of vacant and blighted homes on Route 3, which they felt often attract illicit activity and increase their worry for their children's safety walking or biking to school. Participants expressed community cleanliness as a safety concern for students and community members.

A SHOPPING CART FULL OF LANDSCAPE CLIPPINGS IS LEFT ON THE SIDE OF THE STREET WHILE A DOZEN GLASS BOTTLES ARE VISIBLE IN SEVERAL FRONT YARDS.

A LOOSE DOG ROAMS AROUND THE MIGUEL HIDALGO ELEMENTARY SCHOOL NEIGHBORHOOD.

- **High Vehicle Speeds, Wide Roads, and Unsafe Driver Behavior:** Participants noted that drivers travel at high speeds along arterials and residential roads. Participants on Route 1 expressed concern with walking along Harvey Avenue, Thomas Avenue, and First Street and crossing along First Street to access Romain Park due to unmarked crossings, high vehicle speeds, and inattentive drivers. On First Street, along Romain

Park, the posted speed limit is 25 miles per hour when children are present and 40 miles per hour otherwise, but participants felt that drivers were exceeding the posted speed limits. Along with high speeds, participants noted a lack of respect from drivers toward people walking and biking. Driver etiquette and attitudes toward pedestrians and bicyclists made participants feel unsafe as drivers often passed extremely close to

pedestrians at high speeds. Participants felt that many of the drivers were passing through their community without regard for the safety of the people who lived there. In addition, Cal Walks staff observed bicyclists riding on the sidewalk, likely due to their discomfort with traveling next to high speeds and unsafe driver behavior.

WIDE ROADS ENCOURAGE HIGH SPEEDS ON BELMONT AVENUE A CYCLISTS RIDES CLOSE TO THE GUTTER.

- **Challenging Unmarked and Uncontrolled Crossings:** Participants suggested high- visibility crosswalks be installed near Miguel Hidalgo Elementary School and Romain Park.They noted that drivers routinely encroach in and stop in the pedestrian crosswalk when stopping at a stop sign or making a turn. Standard marked crosswalks can be found along Thomas Avenue leading up to the school, but the majority of crossings in the neighborhood are

unmarked crosswalks, which can be difficult for drivers to see when traveling at high speeds. Further, many people do not know that

AN UNMARKED CROSSING AT THOMAS AVENUE AND FIRST STREET, WHERE RESIDENTS MUST CROSS FOUR LANES OF HIGH-SPEED TRAFFIC TO ACCESS ROMAIN PARK

unmarked crossings are legal crosswalks (unless indicated otherwise). Standard marked crosswalks are located at Belmont Avenue and First Street near Romain Park, but participants on Route 1 supported enhancing the unmarked crossing at Thomas

Avenue/First Street with high-visibility markings. Many community members cross First Street at Thomas Avenue to reach the park, rather than walk to Belmont Avenue or Olive Avenue, which are the closest signalized intersections with marked crossings. Participants on Route 2 and 3 noted faded crossings at Thomas Avenue and North Millbrook Avenue, a key intersection for children traveling to the school from the residential area east of the school site. Participants on Route 3 also mentioned the center median with plant barriers on Belmont Avenue and 3rd street was a challenge for connectivity. Participants shared that crossings on Belmont Avenue are often placed in areas that are inconvenient and often require community residents to follow a longer route to reach their destination.

- **Lack of Signage:** Participants noted a lack of signage including speed limit, school zone, and wayfinding signs throughout the neighborhood and supported additional signage to encourage drivers to slow speed and to keep children safe. In particular, participants on Route 1 suggested speed limit signs and school zone signs along Harvey Avenue leading towards First Street along with high-visibility fluorescent pedestrian crossing signage at Thomas Avenue/First Street. On Belmont Avenue, the posted speed limit is 35 miles per hour. While the street is located less than 250 feet away from two elementary schools, there is no signage warning drivers to decrease their speeds when children are present. Participants felt that signage was needed to communicate the reduced speed limit to drivers and the high likelihood of pedestrian crossings along the street.

Key Opportunities to Improve Walking and Biking Safety

Following the walking and biking assessment, the Project Team facilitated small-group action planning discussions where participants prioritized and outlined plans for infrastructure projects and community programs aimed at 1) reducing the number of injuries and fatalities, 2) increasing the number and the frequency of people walking and bicycling in the Miguel Hidalgo Elementary School community in Fresno.

Through a group prioritization process during the training, participants chose to focus on and outline ideas for building and maintaining sidewalks, school safety programs, and a community clean-up campaign focusing on pedestrian and bicycling safety. Participants discussed:
- The problem the infrastructure project/community program is intended to solve;
- The people, organizations and agencies that should be involved to implement the infrastructure project/community program;
- Resources needed to implement the infrastructure project/community program; and
- Short-term and long-term action steps to implement the infrastructure project/community program.

Community Recommendations

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

Infrastructure Improvements

- **Build and Maintain Sidewalks:** Participants identified sidewalk gaps and sidewalk maintenance needs surrounding Miguel Hidalgo Elementary School and residential areas in close proximity to the school site as a priority. Residents echoed prioritizing safe routes to school in overall implementation of infrastructure projects, a priority which was noted and included in the City of Fresno's Active Transportation Plan. The City of Fresno Neighborhood Revitalization team has been conducting outreach at school sites throughout the City of Fresno to determine infrastructure needs. A member of the Planning Committee shared the plan and schedule for the infrastructure investments in the Miguel Hidalgo Elementary School community. While residents were happy to hear of the future investments, the conversation on infrastructure shifted to one of improved communication, temporary demonstrations, and community programs as short-term action steps until the sidewalk projects are ready for construction. Participants highlighted preliminary steps to advance projects as follows:
    - Invite the Neighborhood Revitalization Team from the City of Fresno to provide an update at the next Parent Coffee Hour at Miguel Hidalgo Elementary School;
    - Encourage parents from both Miguel Hidalgo and Ann Leavenworth Elementary Schools to attend the meeting to lift up priorities and better understand planned investments by the City of Fresno; and
    - Invite a representative from the City of Fresno Bicycle and Pedestrian Advisory Committee to meet with residents of the Miguel Hidalgo Elementary School community to help inform needs of community related to walking and biking.

Community Programs, Policies, and Campaigns

- **Community Clean-Up Campaign:** Participants in this planning group worked to develop a plan for a community clean-up campaign, including forming a coalition of partners and hosting a community clean-up event. Several workshop participants noted that community cleanliness and improving the current state of sidewalks, gutters, roads, and front yards was a priority to increase walking and biking, and make it safer to do so. Several participants agreed to begin the process of forming a community clean-up group comprised of residents, school staff, local businesses, and church staff to 1) meet and discuss community clean-up goals and actionable next steps, 2) develop a cost-effective education campaign in English and Spanish in order to share two City resources: FresGo app where residents can report infrastructure and

non-emergency public safety issues using their smartphones or computers and the City's Bulky Item Pick-Up service, through which residents can request a free bulky item pick up; and 3) plan and execute a community clean-up event. Residents identified the City of Fresno, Miguel Hidalgo Elementary School, Bond Street Market, Ann Leavenworth Elementary School, Roosevelt High School, and neighborhood churches as potential partners in the effort. Residents plan to hold a community meeting with all those currently interested in the campaign to discuss and plan further.

- **School Safety Programs:** Participants in this planning group worked to develop a plan for implementing an adult crossing guard program. The group shared that a crossing guard program would have the most impact on the Miguel Hidalgo Elementary School students given feedback from participants on concerns for driver behavior, and the need for more adult supervision of children walking to and from school. The group's preliminary plans are as follows:

Target Completion Date	Activity
December 2018	Assembly a project team to plan, implement and lead an adult crossing guard program, including recruiting volunteers. Project team should include Fresno Unified School District (FUSD) Safety Officer, Miguel Hidalgo Elementary School Principal, adult/parent volunteers, 5th and 6th grade students, high school students (enrolled in a zero-period), Cultiva La Salud, and local businesses. Leverage joint-use participants at Miguel Hidalgo Elementary School as potential volunteers for crossing guards.
April 2019	Conduct outreach to school staff to recruit and identify teacher leads who will provide leadership to the volunteers on a rotating basis. Leverage existing connections to community by school support staff such

	as Parent and Student Liaisons.
August 2019	Provide training and educational opportunities for volunteers through the Safe2School efforts.
December 2019	Follow-up and evaluate the program to determine additional needs including: trainings, refreshers, and recruitment of additional volunteers.

Cal Walks/SafeTREC Recommendations

California Walks and SafeTREC also submit the following recommendations for consideration by the City of Fresno for the Miguel Hidalgo Elementary School community:

- **Miguel Hidalgo Elementary School SRTS Plan:** The Project Team *recommends the development of a Safe Routes to School (SRTS) Plan specific to the Miguel Hidalgo Elementary School community* to address the main infrastructure barriers and student behaviors to safe walking and biking*.* A SRTS Plan would help identify and prioritize projects and identify potential funding sources for implementation. Community members expressed concern for Belmont Avenue, North First Street, Cedar Avenue, which should be prioritized in the plan. The Project Team *recommends the Planning Committee apply for the [Safe Routes to School Launch Program](),* a joint project of the Safe Routes to School National Partnership and UC Berkeley SafeTREC. The program is designed to start and strengthen Safe Routes to School programs in California.
- **Lighting Assessment:** The Project Team *encourages and recommends Planning Committee members and the City of Fresno collaborate to perform a community-wide pedestrian scale lighting assessment focused around Ann Leavenworth Elementary School, Miguel Hidalgo Elementary School, Chester Rowell Elementary School, Romain Park, businesses, and along other key pedestrian and bicycle corridors*. Community members noted issues with lighting on Route 1 along North First Street adjacent to Romain Park. Proper street lights provide safety and security and improve the overall well-being of road users. A lighting assessment can be used to identify and inventory nighttime pedestrian-scale lighting needs in areas of high nighttime pedestrian activity. A nighttime assessment will also identify lighting fixtures in need of repair or replacement. With an inventory, the City can develop a proactive and equitable plan for streetlight maintenance that is not complaint-driven. Lighting should be uniform, consistent, and reduce glare and light pollution.
- **Recommendations related to pedestrian and bicycle safety and mobility:**

- **Tree and Landscaping Assessment:** The Project Team *recommends the City of Fresno conduct a tree and landscaping assessment of the Miguel Hidalgo and Ann Leavenworth Elementary School communities* to identify where trees can be planted along city property to provide shade for people walking and bicycling to and from schools, parks, and commercial areas nearby. Community members suggested shading along Harvey Avenue, First Street, Thomas Avenue, and 6th Street. The Project Team also **recommends that the City of Fresno apply for an [Urban Greening Grant Program](#)** during the next application cycle, especially for frequented walking and biking routes leading to community hubs along First Street. The Project Team *recommends collaboration with a local tree and urban greening organizations, such as Tree Fresno*, to ensure selection of native, drought tolerant, minimal seasonal foliage, and shade-providing species. Trees provide many benefits that can contribute to the overall health and vitality of a community, including absorption of air and water pollution, noise abatement, and urban cooling and energy conservation

- **Revitalize Vacant Lots & Blight:** The Project Team *recommends the City of Fresno collaborate with residents and local community partners to explore the feasibility of identifying vacant lots and unused land.* This information can be used to either fence off the land to curb unauthorized dumping and illicit activities or to collaborate with land owners, community partners, and schools to clean-up and revitalize vacant lots for community use, similar to the urban greening plans for the Pond Basin along Harvey Avenue. Vacant and Unused lots were noted on Madison Avenue between 3rd Street and 4th Street and along North First Street across from Romain Park. [insert Route 2 if applicable] The Project Team also *recommends the City of Fresno consider partnering with local organizations such as Fresno Arts Council to include bicycle art installations and other local art in the community* to create a greater sense of place and reflect the community.

Appendix A

Pedestrian and Bicycle Collision Data Analysis
Workshop Handout

2012-2016 HIDALGO AND LEAVENWORTH DATA ANALYSES

Community Pedestrian and Bicycle Safety Training Workshop
August 23, 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 some of the most recent pedestrian and bicycle collision data available to help your community better prioritize recommendations that emerge from this workshop.
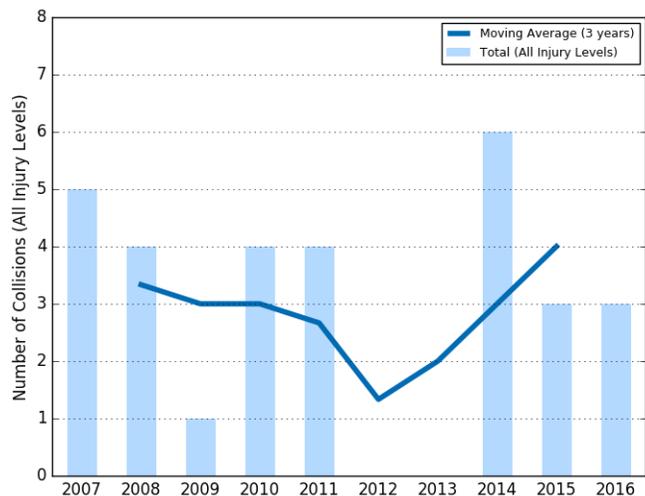
PEDESTRIANS

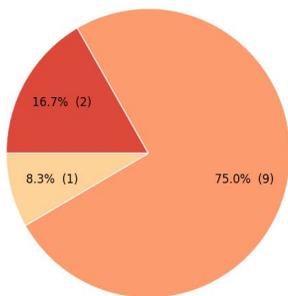**31** people were killed or injured in **30** pedestrian collisions in the last 10 years (2007-2016).

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

There were **3** pedestrian collisions in 2015, but an average of **4** pedestrian collisions per year for the 3-year rolling average between 2014 and 2016.

*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.

16.7% driver violations
VS.
75.0% pedestrian violations

Total: 12 collisions

*Unclear violations were committed either by the driver, pedestrian or bicyclist.
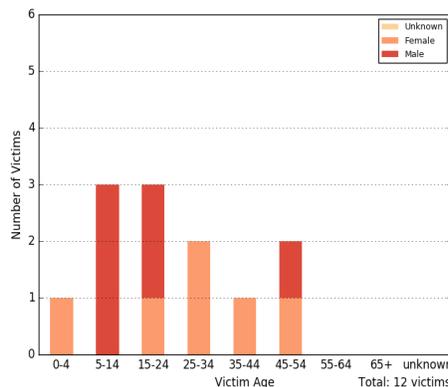
Total: 12 victims

50.0% of victims were male

58.3% of victims were under age 20
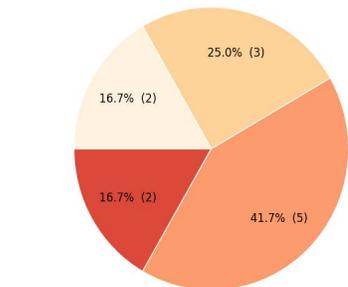
Total: 12 victims

58.4%
of victims (or 7 people) were KILLED or SEVERELY INJURED

BICYCLES

33 people were killed or injured in **31** bicycle collisions in the last 10 years (2007-2016).

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

There were **3** bicycle collisions in 2015, but an average of **2.3** bicycle collisions per year for the 3-year rolling average between 2014 and 2016.

* 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.
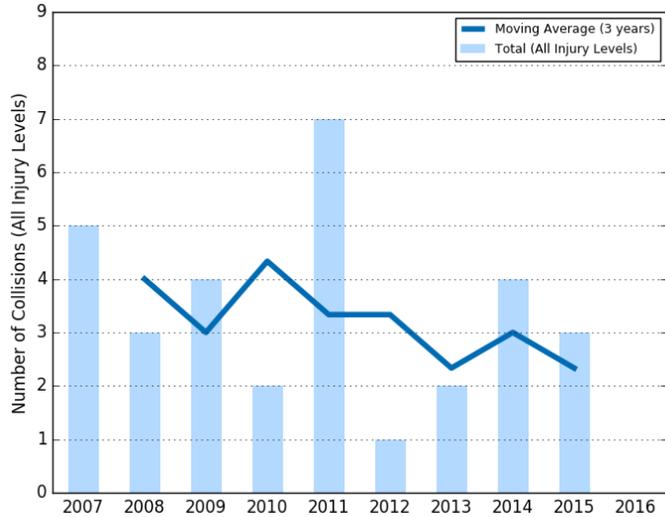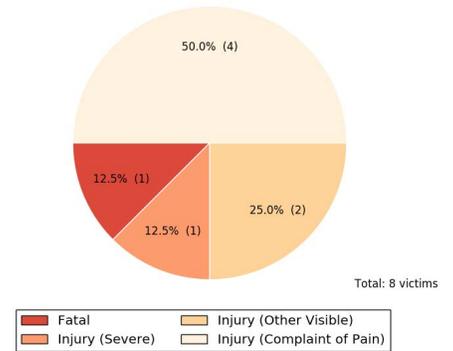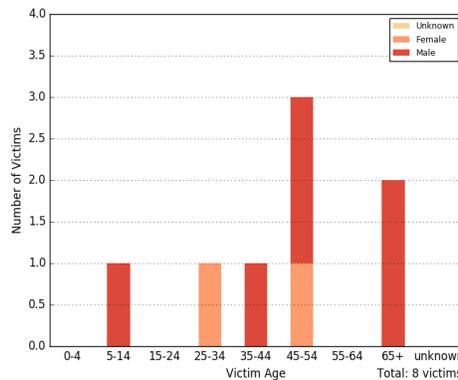

Bicycles **must follow all the same rules of the road as vehicles.** As a result, we can**not** break down violations by driver vs. bicyclist.

Total: 8 victims

75.0% of victims were male

12.5% of victims were under age 20

25.0% of victims were age 65+

Total: 8 victims

25.0%
of victims (or 2 people)
KILLED or SEVERELY INJURED

SUMMARY

16.0 pedestrian fatalities & injuries per 100,000 population in the City of Fresno over the last five years,

which is **0.6% less than** Fresno County and

55.4% less than California

10.3 bicyclist fatalities & injuries per 100,000 population in the City of Fresno over the last five years,

which is **8.0% less than** Fresno County and

69.0% less than California

	Yearly Population Rate of Fatalities & Injuries per 100,000 Population Calculated Over a 5-year Period*	
	Pedestrian	Bicyclist
Fresno	16.0	10.3
Fresno County	16.1	11.2
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.

BerkeleySafeTREC   OTS CALIFORNIA OFFICE OF TRAFFIC SAFETY   California Walks

Pedestrian Collisions 2012-2016

12 collisions mapped in the Hidalgo and Leavenworth community in Fresno, CA.
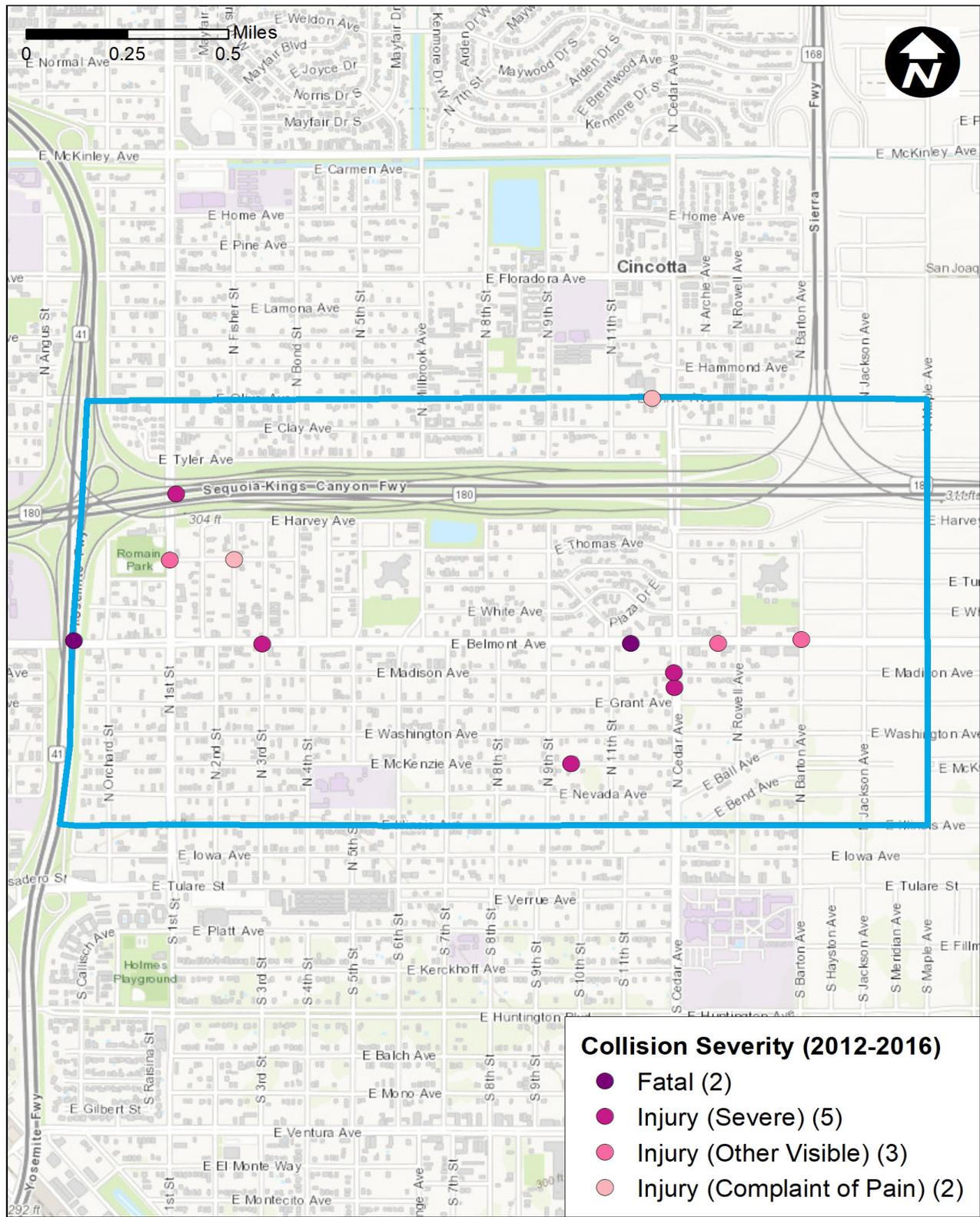
Collision Severity (2012-2016)

- Fatal (2)
- Injury (Severe) (5)
- Injury (Other Visible) (3)
- Injury (Complaint of Pain) (2)

Data Source: California Statewide Initegrated Traffic Records System (SWITRS). Collision data for 2015 and 2016 are provisional as of November 2017.

Bicyclist collision locations, 2012-2016

10 collisions mapped in the Hidalgo and Leavenworth community in Fresno, CA.
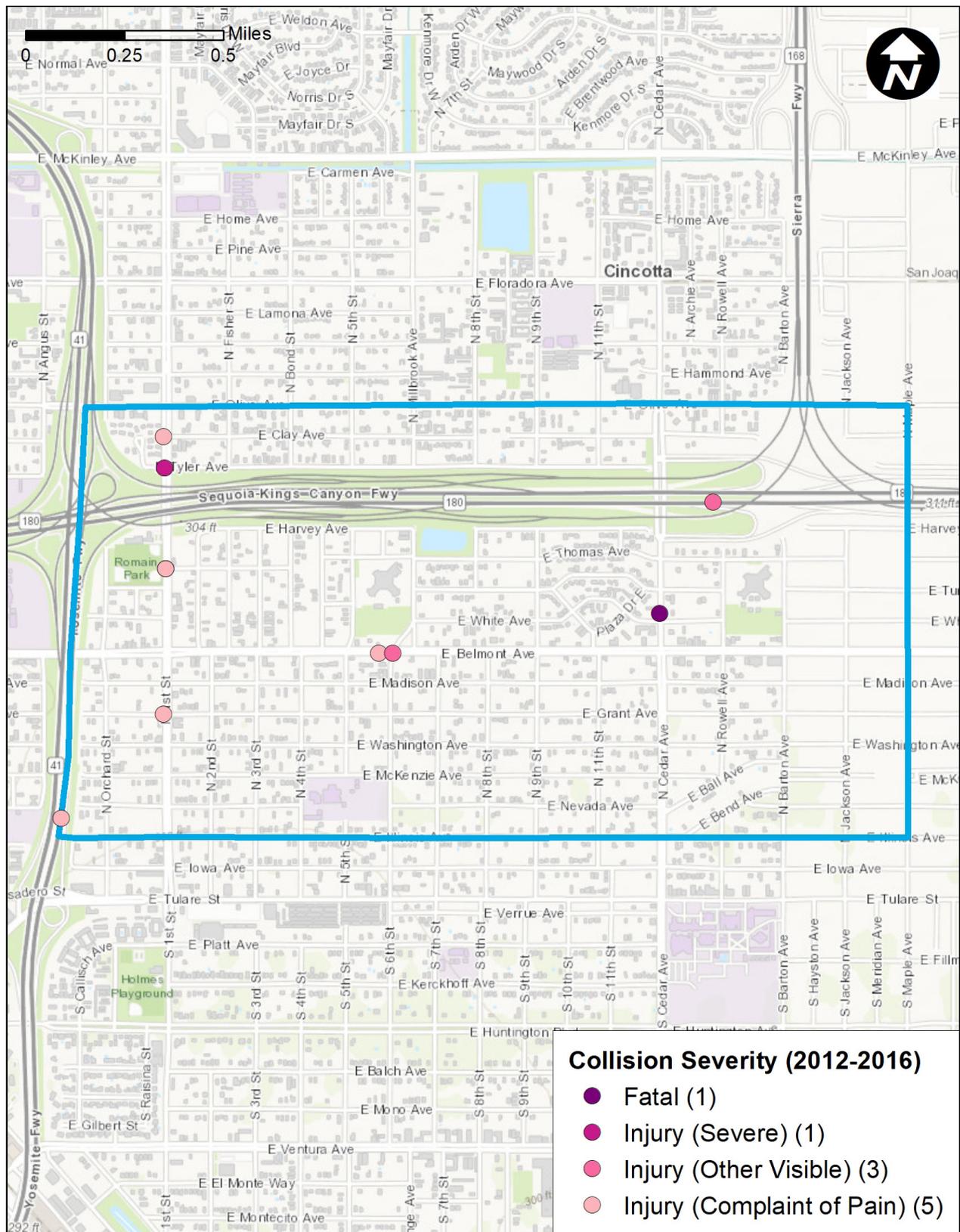
Collision Severity (2012-2016)
- Fatal (1)
- Injury (Severe) (1)
- Injury (Other Visible) (3)
- Injury (Complaint of Pain) (5)

Data Source: California Statewide Initegrated Traffic Records System (SWITRS). Collision data for 2015 and 2016 are provisional as of November 2017.

Appendix B

Pedestrian and Bicycle Collision Data Analysis
Site Visit Presentation

Community Pedestrian and Bicycle Safety Workshop Site Visit
Fresno, CA
7/17/18

Pedestrian Injury Collision Trend
with 3-year moving average

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

Pedestrian Collisions 2012-2016

12 of 12 collisions are mapped.

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

Collision Severity (2012-2016)
- Fatal (2)
- Injury (Severe) (5)
- Injury (Other Visible) (3)
- Injury (Complaint of Pain) (2)

Hidalgo and Leavenworth Pedestrian Collision Map (2012 - 2016)

Collision Severity (2012-2016)

- ⬤ Fatal (2)
- ⬤ Injury (Severe) (5)
- ⬤ Injury (Other Visible) (3)
- ◯ Injury (Complaint of Pain) (2)

2017 Median Household Income

- ▢ < 35K
- ▢ 35K - 50K

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Pedestrian Collisions by Time of Day and Day of Week (2012-2016)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
09:00PM-11:59PM	0	0	0	0	0	2	0
06:00PM-08:59PM	0	0	2	0	0	1	0
03:00PM-05:59PM	1	0	3	0	0	0	0
Noon-02:59PM	0	0	0	0	0	0	0
09:00AM-11:59AM	0	0	1	0	0	0	0
06:00AM-08:59AM	0	0	0	0	0	0	0
03:00AM-05:59AM	0	0	0	0	0	0	0
Midnight-02:59AM	0	0	0	0	0	0	2

*Color gradient corresponds to collision frequency.

Total: 12 collisions

Top 10 Violations in Pedestrian Collisions (with # and %)

CVC No.	Description	Freq.	Percent
21954	Pedestrian failure to yield right-of-way to vehicles	7	63.6%
21950	Driver failure to yield right-of-way to pedestrians at a crosswalk	1	9.1%
21955	At intersections, pedestrians can't cross anywhere except at a crosswalk	1	9.1%
21956	Pedestrian failure to walk close to the edge of the roadway when there is no sidewalk present	1	9.1%
22106	Unsafe starting or backing of vehicle	1	9.1%
Total		11	100.0%

* One is unknown

Total: 12 collisions

Pedestrian Victim Injury Severity (2012-2016)
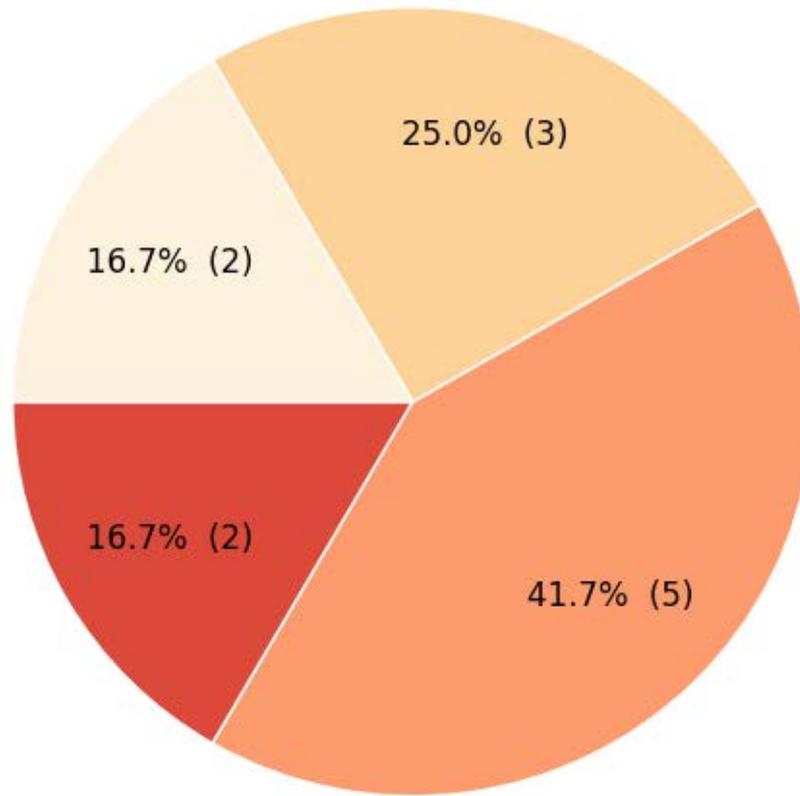
25.0% (3)

16.7% (2)

16.7% (2)

41.7% (5)

Total: 12 victims

■ Fatal	▢ Injury (Other Visible)
■ Injury (Severe)	▢ Injury (Complaint of Pain)
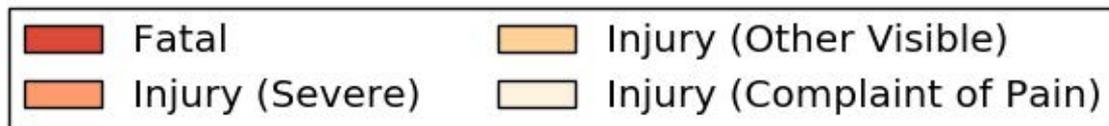
Note: 2015 and 2016 SWITRS data are provisional as of November 2017.

Pedestrian 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

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

Bicycle Collisions 2012-2016

10 of 10 collisions are mapped.

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

Collision Severity (2012-2016)

- ● Fatal (1)
- ● Injury (Severe) (1)
- ● Injury (Other Visible) (3)
- ● Injury (Complaint of Pain) (5)
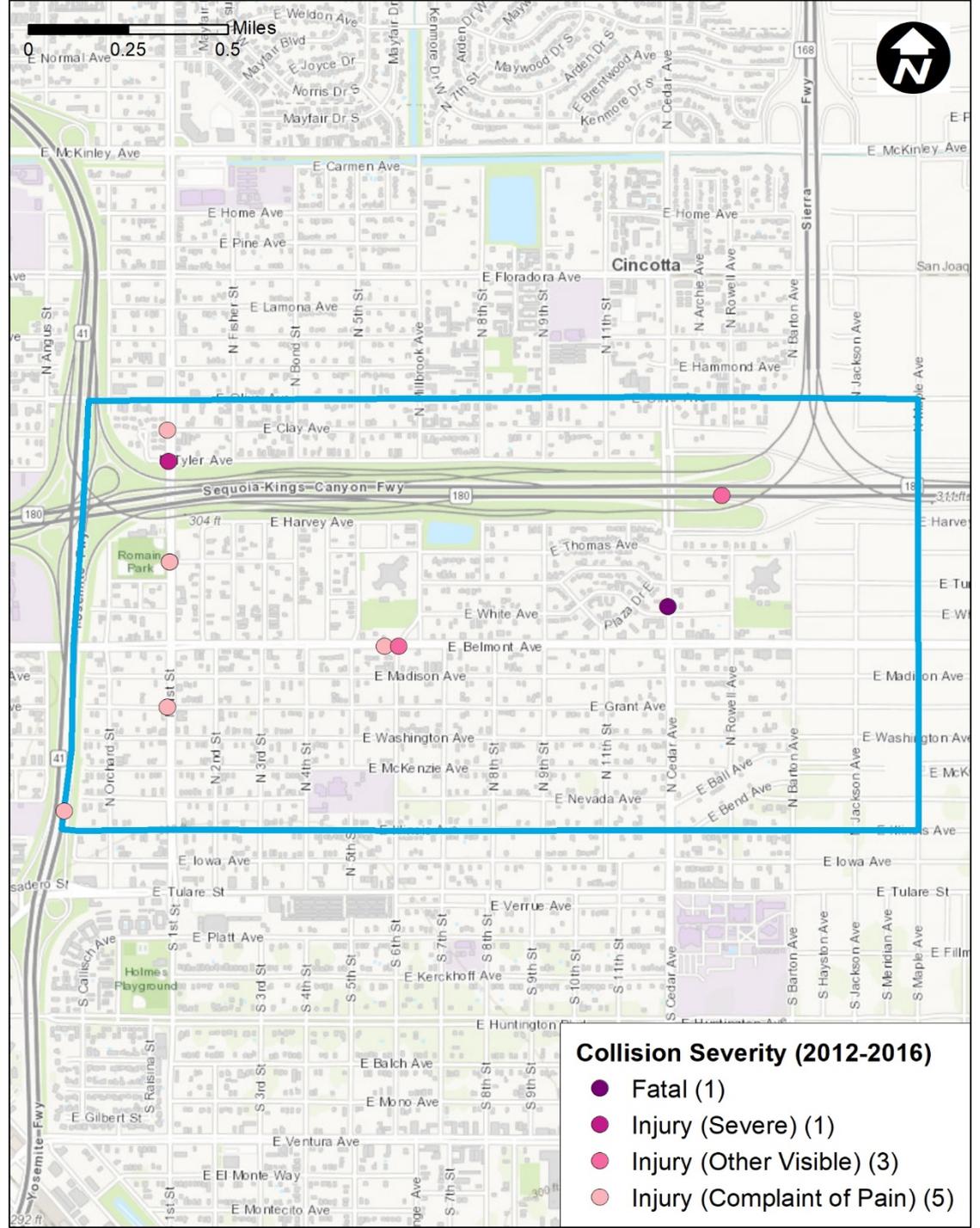
Hidalgo and Leavenworth Bicycle Collision Map (2012 - 2016)
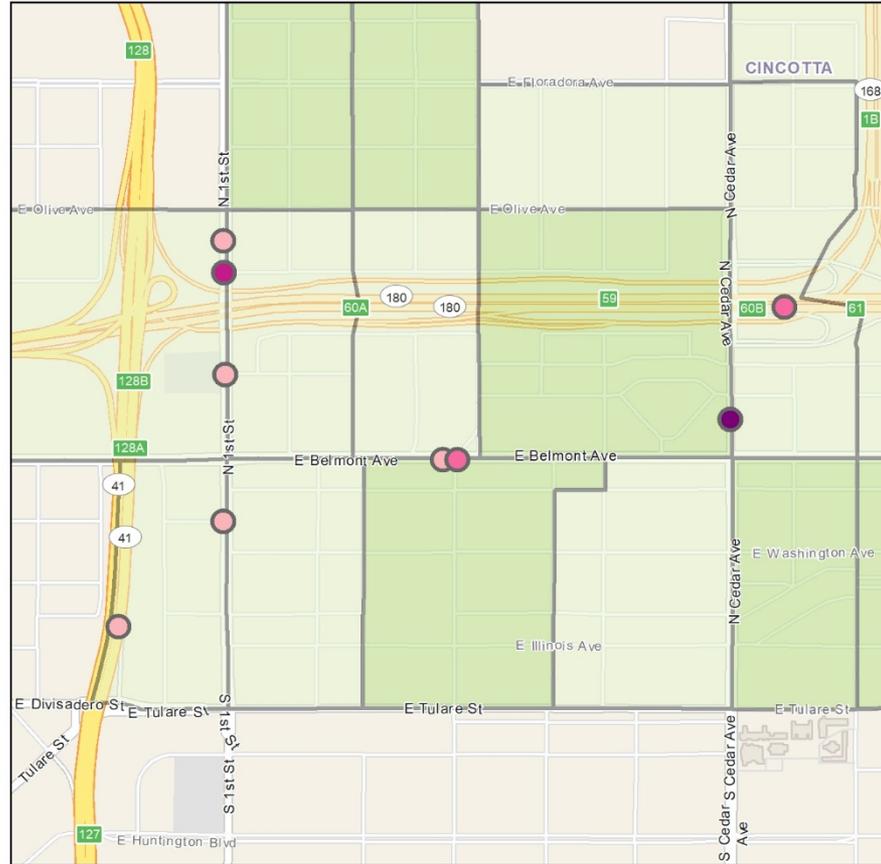
Collision Severity (2012-2016)

- ● Fatal (1)
- ● Injury (Severe) (1)
- ● Injury (Other Visible) (3)
- ○ Injury (Complaint of Pain) (5)

2017 Median Household Income

- ☐ < 35K
- ☐ 35K - 50K

Bicycle Collisions by Time of Day and Day of Week (2012-2016)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
09:00PM-11:59PM	0	0	0	0	0	0	0
06:00PM-08:59PM	0	0	0	1	1	0	1
03:00PM-05:59PM	0	1	1	0	0	0	0
Noon-02:59PM	0	0	3	0	0	1	0
09:00AM-11:59AM	0	0	0	0	0	0	0
06:00AM-08:59AM	0	0	0	1	0	0	0
03:00AM-05:59AM	0	0	0	0	0	0	0
Midnight-02:59AM	0	0	0	0	0	0	0

*Color gradient corresponds to collision frequency.

Total: 10 collisions

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

CVC No.	Description	Freq.	Percent
21650	Failure to drive on right half of the roadway (with some exceptions)	4	50.0%
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	1	12.5%
21801	Failure to yield right-of-way to incoming cars while turning left or making U-turn	1	12.5%
21802	Failure to stop or yield right-of-way at a stop sign.	1	12.5%
21804	Driver failure to yield right-of-way when entering/crossing a highway	1	12.5%
Total		8	100.0%

*two are unknown

Total: 10 collisions

Bicycle Victim Injury Severity
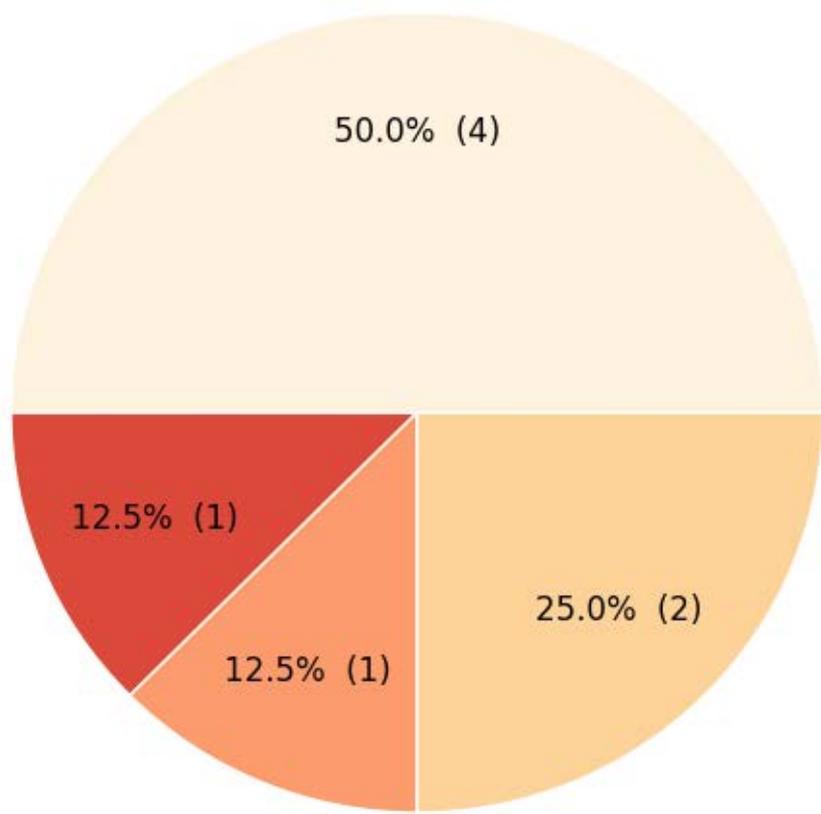
50.0% (4)

12.5% (1)

12.5% (1)

25.0% (2)

Total: 8 victims
*two are unknown

- Fatal
- Injury (Severe)
- Injury (Other Visible)
- Injury (Complaint of Pain)
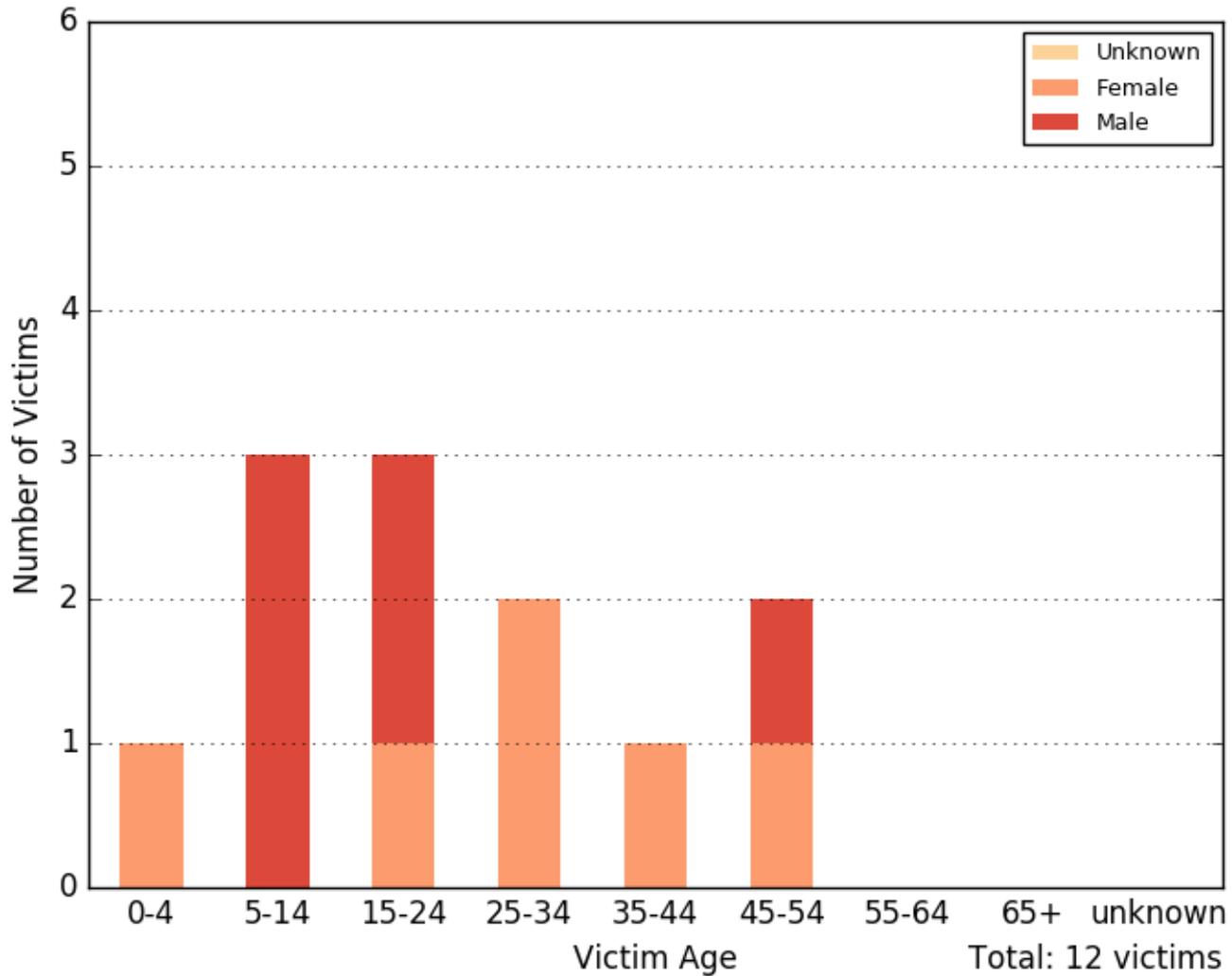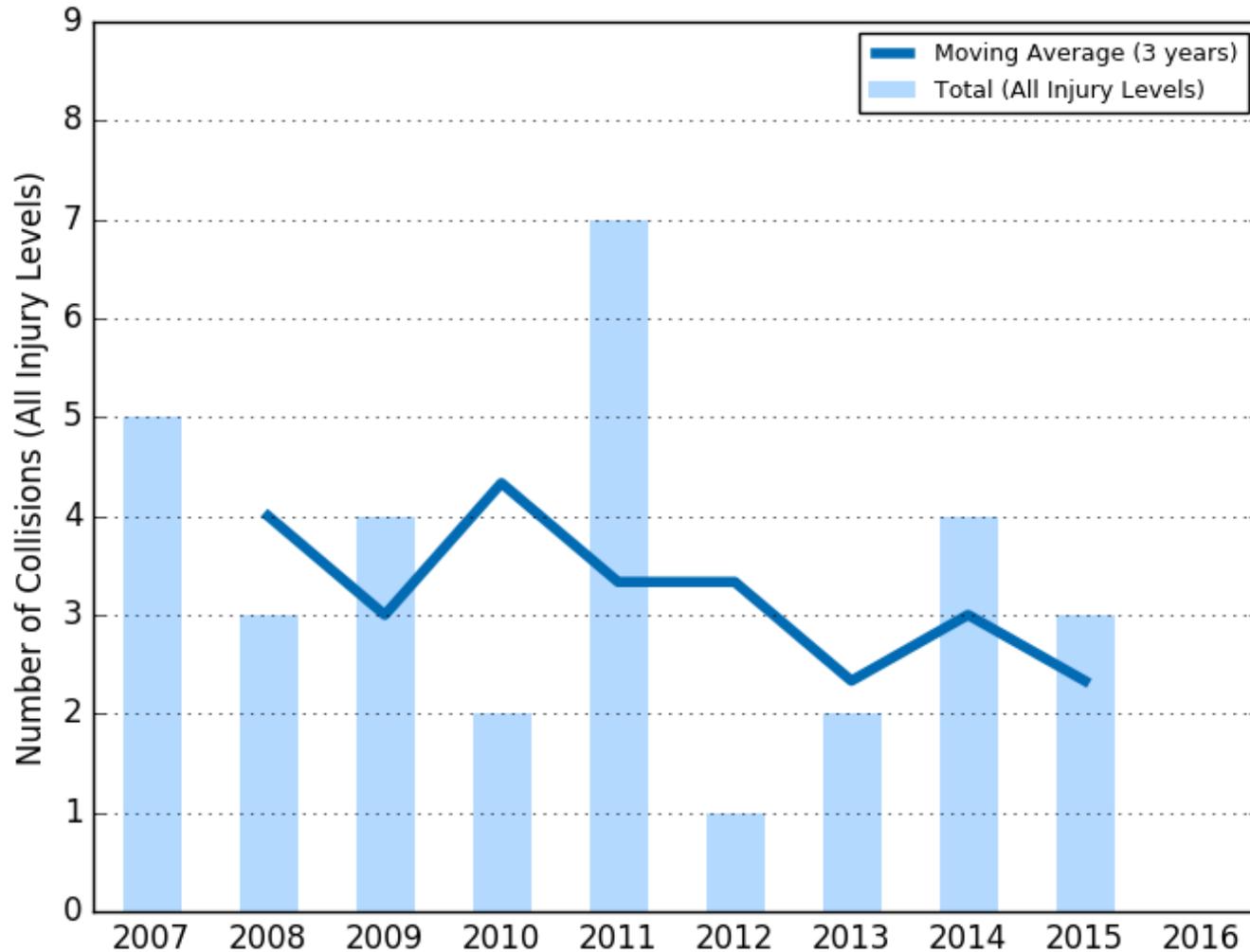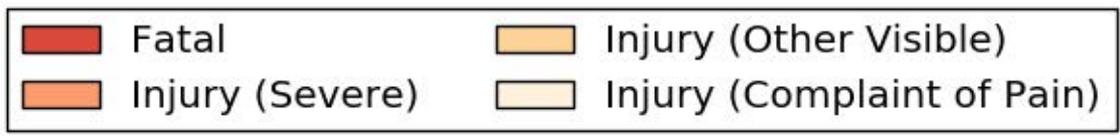
Note: 2015 and 2016 SWITRS data are provisional as of November 2017.

Bicycle Victims by Age and Gender
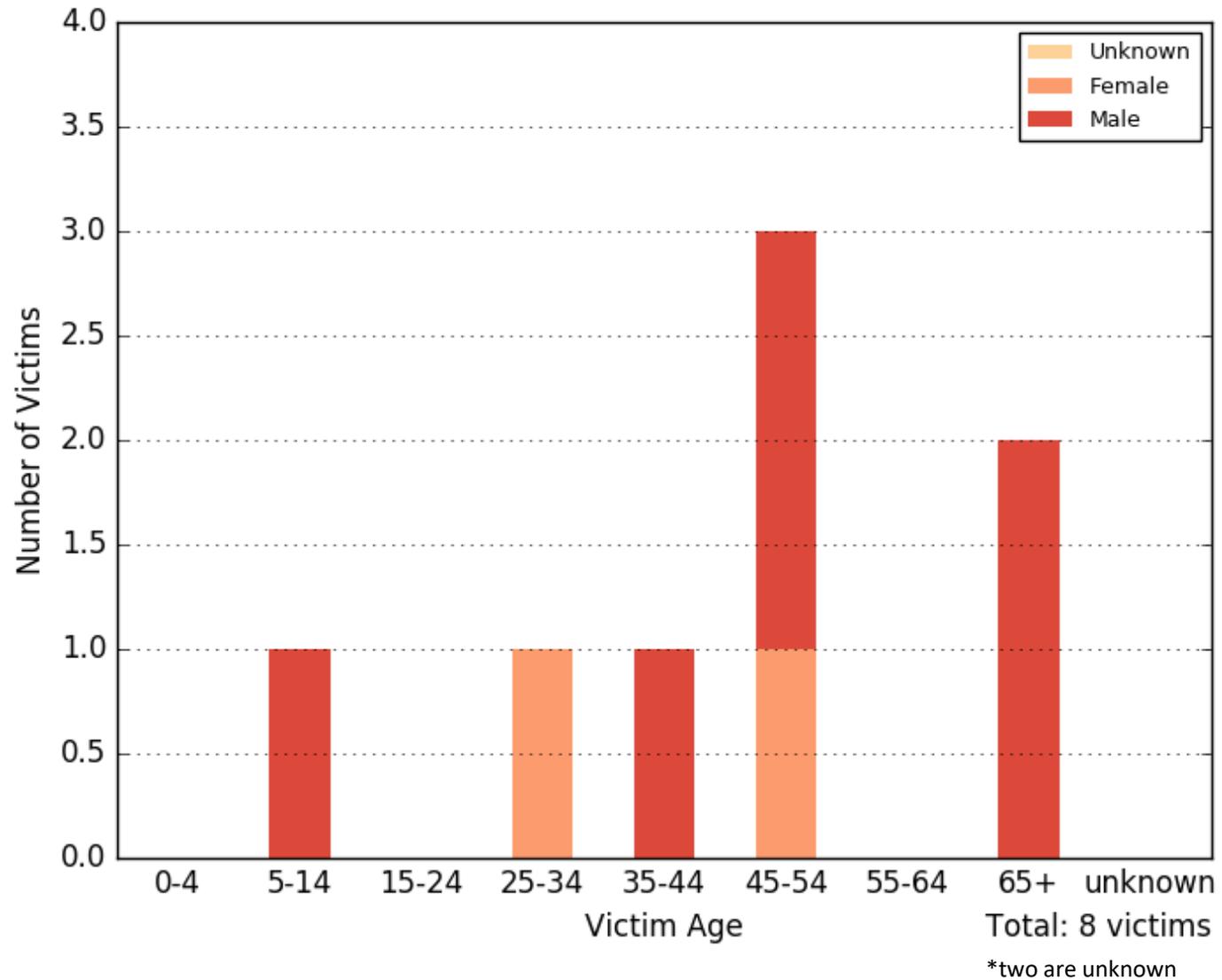
Note: 2015 and 2016 SWITRS data are provisional as of November 2017.

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. tims.berkeley.edu

Berkeley SafeTREC

Community Pedestrian and Bicycle Safety Workshop Site Visit
Fresno, CA
7/17/18

Pedestrian Injury Collision Trend
with 3-year moving average

No ped collisions
in 2012, 2013?

Note: 2015 and 2016 SWITRS data are provisional as of November 2017.
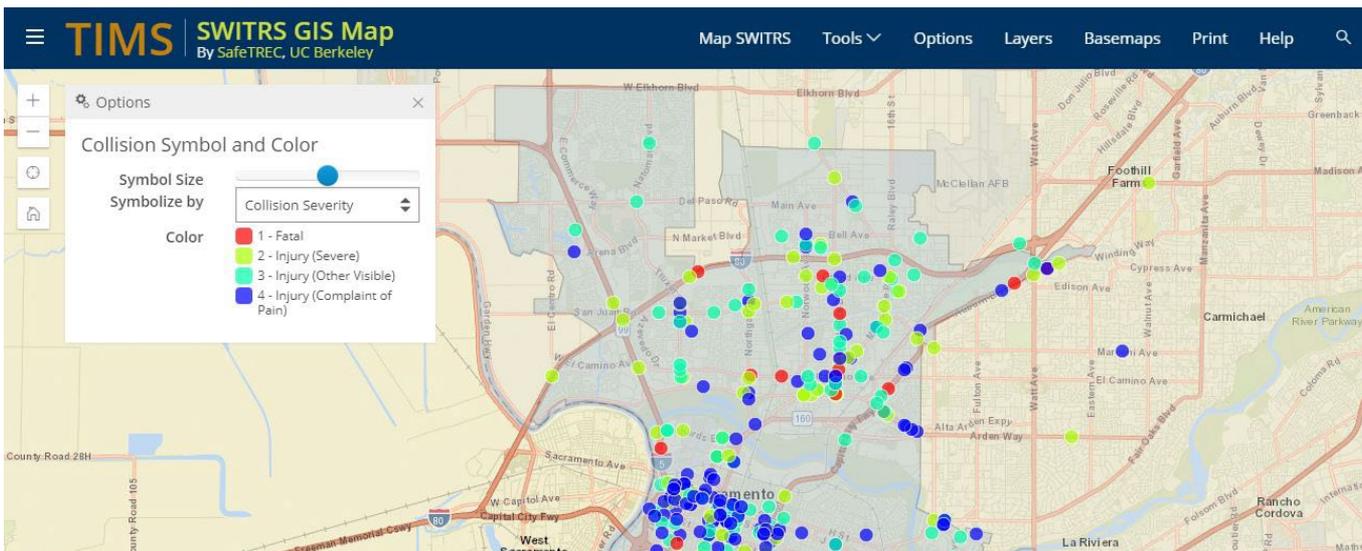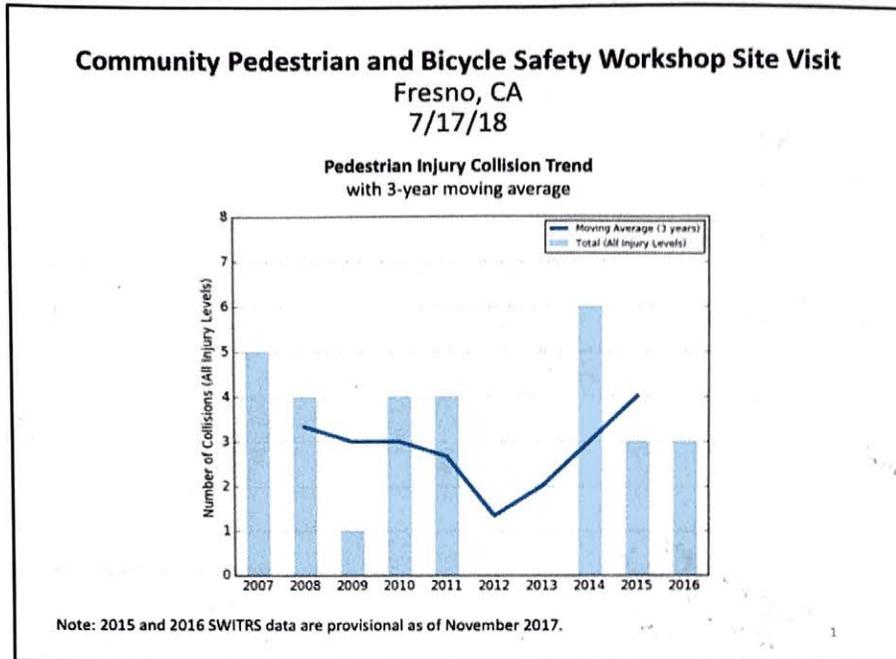
- 2 people were killed and 29 were injured in 30 pedestrian collisions over the past 10 years.
- In the past 5 years, 2 people were killed and 10 were injured in 12 pedestrian collisions.
- Three-year moving average tracks the trend over time because trends are often harder to see when numbers change so much year to year.
- For example, there were 6 pedestrian collisions in 2014 (bar) but an average of 4 pedestrian collisions for the three year moving average from 2014 to 2016. This is calculated from the 6 in 2014, 3 in 2015 and 3 in 2016. Looking at the trend line, you can see a slight upward trend, despite 2015 and 2016 having fewer collisions than 2014.

Leavenworth parent group put together ppt.
re: pedestrian issues
- signage
- paint
- signal timing

Pedestrian Collisions 2012-2016

12 of 12 collisions are mapped.

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

Collision Severity (2012-2016)
- Fatal (2)
- Injury (Severe) (5)
- Injury (Other Visible) (3)
- Injury (Complaint of Pain) (2)

Handwritten annotations:

Severe ped @ 1st St. Rt. 180 & westbound Post mile 58.880 17 yo female
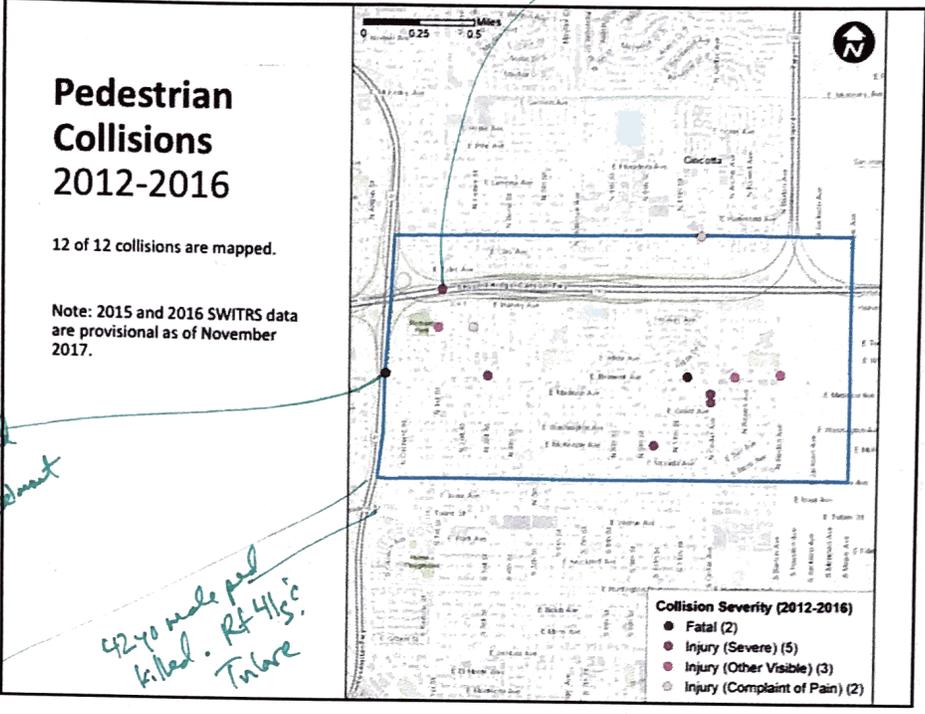
Fatal ped on State Hwy 41 Nbound 16 year old male @ on ramp

33 yo female ped on off ramp collector

42 yo male ped killed. Rt 41 @ Tulare

- There is a concentration of collisions (5 collisions) occurring on Belmont Ave and on N Cedar Ave.

- Land Use:
  - Auto Sales stores
  - Tire shops
  - Gas station
  - Restaurant
  - Bus stops
  - Elementary schools
  - Park

Handwritten notes:

Volume of ped collisions related

Collision details for fwy collisions

Ped collis

- cluster of collisions
- Collisions mainly occurring along arterials
- can help hone in on potential interventions

ATP - high priority in ped network

2

Hidalgo and Leavenworth Pedestrian Collision Map (2012 - 2016)

Collision Severity (2012-2016)
- Fatal (2)
- Injury (Severe) (5)
- Injury (Other Visible) (3)
- Injury (Complaint of Pain) (2)

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

Berkeley SafeTREC

Data Source: Collision - SWITRS 2012 - 2016 (2015 - 2016 data is provisional).
Demographics - Esri, US Census Bureau, and ACS
Date: 7/10/2018

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

3

- Collisions are concentrated in areas with lower median household income.
- For example, there is a high number of Pedestrian Collisions on N 1st ST and on E Belmont Ave

Majority of collisions have some degree of injury

Pedestrian Collisions by Time of Day and Day of Week (2012-2016)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
09:00PM-11:59PM	0	0	0	0	0	2	0
06:00PM-08:59PM	0	0	2	0	0	1	0
03:00PM-05:59PM	1	0	3	0	0	0	0
Noon-02:59PM	0	0	0	0	0	0	0
09:00AM-11:59AM	0	0	1	0	0	0	0
06:00AM-08:59AM	0	0	0	0	0	0	0
03:00AM-05:59AM	0	0	0	0	0	0	0
Midnight-02:59AM	0	0	0	0	0	0	2

*Color gradient corresponds to collision frequency.

Total: 12 collisions

4
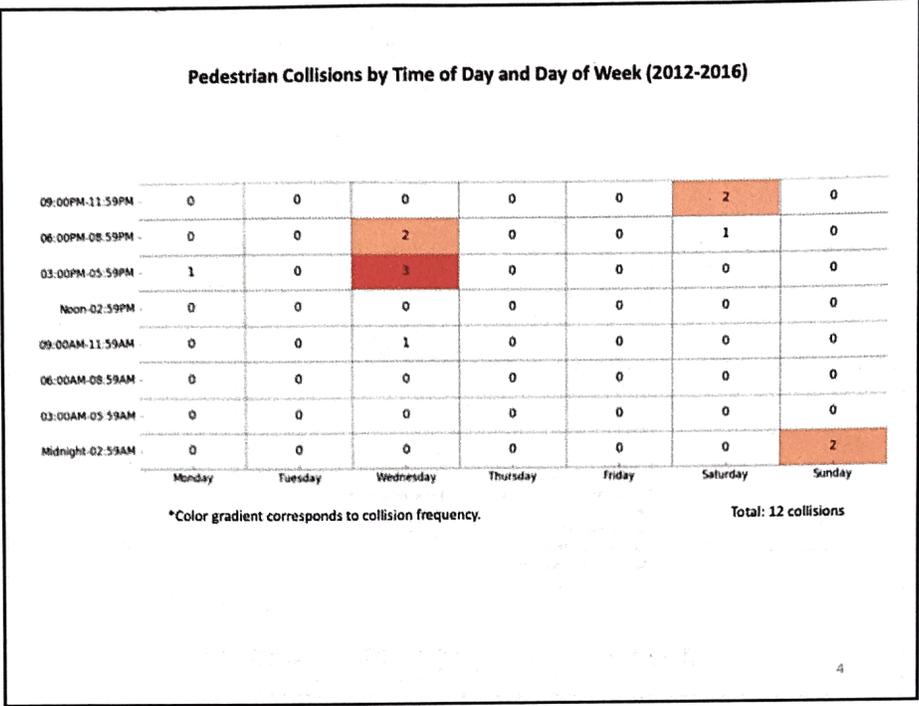
- Wednesday had the highest number of collisions (6 collisions), especially between 3PM-9PM (5 collisions).
- Saturday accounted for the second highest number of collisions occurring during the week with three collisions (6PM-12AM)

Community activity

Top 10 Violations in Pedestrian Collisions (with # and %)

CVC No.	Description	Freq.	Percent
21954	Pedestrian failure to yield right-of-way to vehicles	7	63.6%
21950	Driver failure to yield right-of-way to pedestrians at a crosswalk	1	9.1%
21955	At intersections, pedestrians can't cross anywhere except at a crosswalk	1	9.1%
21956	Pedestrian failure to walk close to the edge of the roadway when there is no sidewalk present	1	9.1%
22106	Unsafe starting or backing of vehicle	1	9.1%
Total		11	100.0%

* One is unknown

Total: 12 collisions

5

- Pedestrians failing to yield right-of-way to vehicles accounted for the highest number of violation with (63.6%)

[handwritten margin notes:] lot of ped fault - accurate? high rate of ped failing to yield. But ped often has ROW. Signalized crossing? Examine

Pedestrian Victim Injury Severity (2012-2016)

25.0% (3)

16.7% (2)

16.7% (2)

41.7% (5)

Total: 12 victims

| Fatal | Injury (Other Visible) |
| Injury (Severe) | Injury (Complaint of Pain) |

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

6
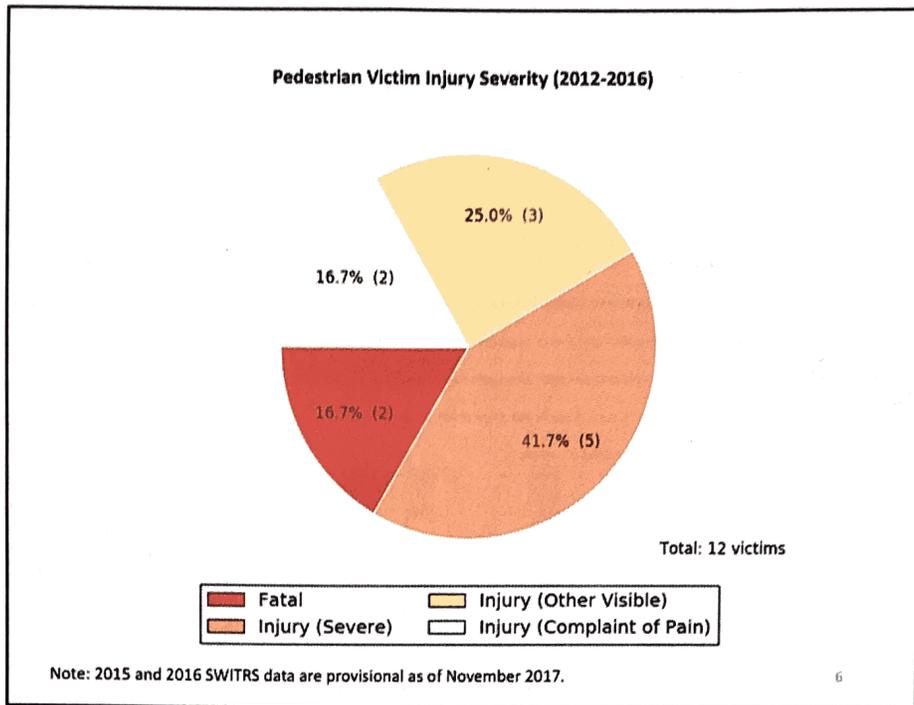
- ~~Over half of the victims (10 out of the 12) suffered from minor injuries.~~ 7/12 suffered fatal or severe injuries
- However, we want to point out that every minor injury could potentially be significantly more serious if the circumstances were just a little different, e.g. child or senior victims, a slightly higher speed, or different weather conditions..

Pedestrian Victims by Age and Gender

Note: 2015 and 2016 SWITRS data are provisional as of November 2017.
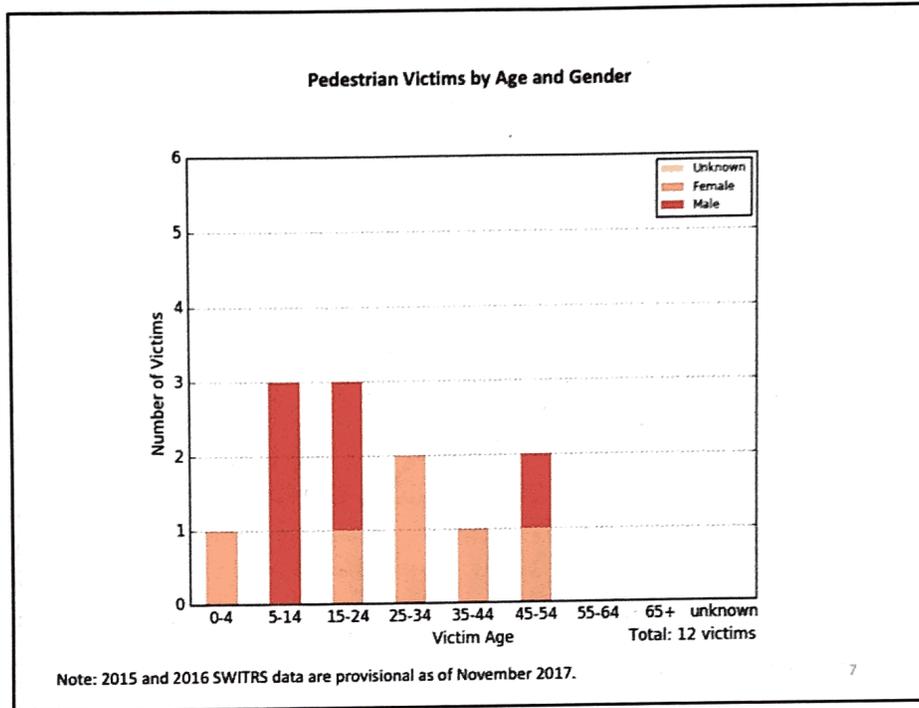
- Out of the 12 victims there was an even number among both females (6) and males (6).
- Males accounted for the most victims in the 5-14 age range, accounting for 100% of the victims (3 total victims) in that category.
- Females accounted for the most victims in the 25-34 (2 victims) and 35-44 (1 victim) category.

- Male youth most represented in this data (5 of 6 collisions ages 5-24)
- no older adults

Bicycle Injury Collision Trend
with 3-year moving average

Note: 2015 and 2016 SWITRS data are provisional as of November 2017.
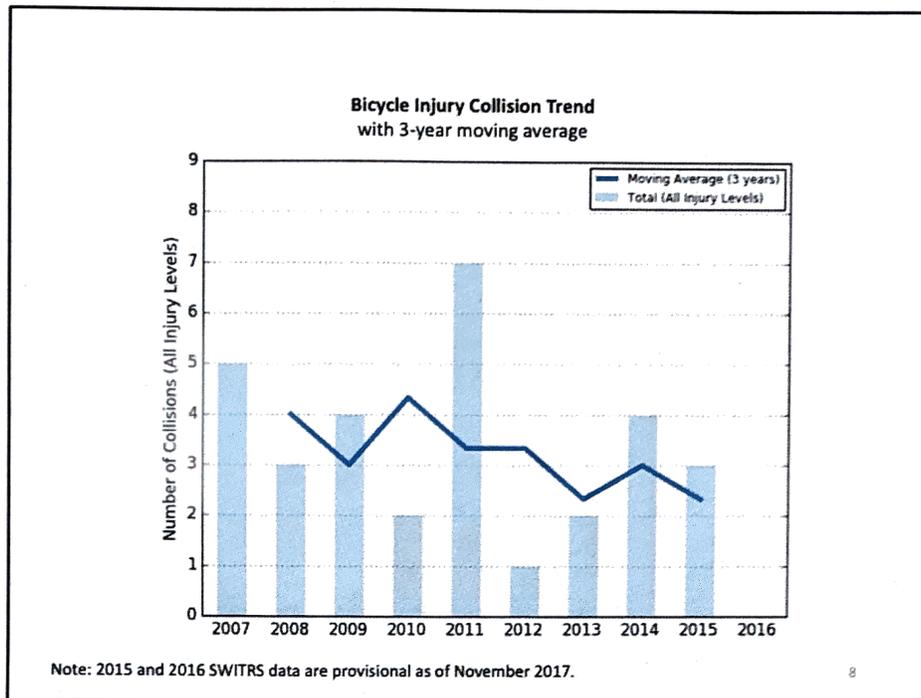
Handwritten notes: Collisions in 2012, 2013 lower, matching low/no ped #'s. Data issue? Nothing in 2016?

- In the years 2007-2016, there were 31 bicyclist collisions, where 3 people were killed and 30 were injured.
- In the past 5 yrs, 1 person was killed and 9 people were injured in 10 bicycle collisions.
- There were 4 bicycle collisions in 2014 (bar) but an average of 2.3 bicyclist collisions for the three year moving average from 2014 to 2016. This is calculated from the 4 in 2014, 3 in 2015, and 0 in 2016.

Hidalgo and Leavenworth Bicycle Collision Map (2012 - 2016)

Collision Severity (2012-2016)
- Fatal (1)
- Injury (Severe) (1)
- Injury (Other Visible) (3)
- Injury (Complaint of Pain) (5)

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

Berkeley SafeTREC Data Source: Collision - SWITRS 2012 - 2016 (2015 - 2016 data is provisional).
Demographics - Esri, US Census Bureau, and ACS
Date: 7/10/2018
This map shows where all the pedestrian/bicycle injury collisions occurred and may not extend to the city's boundaries

10

- Higher concentrations of collisions in lower income areas.
- Especially on N 1ST ST

is this commuter route? or — bike lanes

Spillover from state hwy?

related to intersection of state hwys or on/off ramps?

Bicycle Collisions 2012-2016

10 of 10 collisions are mapped.

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

[handwritten] bike lanes

[handwritten] vehicle making left turn / 28 yo male cyclist / Cedar @ 180E / @ postmile 59.989 / ramp collector

[handwritten] Verify

[handwritten] Ramp collector / Divisadero @ 41 / 67 yo male / wrong side of road

[handwritten] 42 yo male ped killed

Collision Severity (2012-2016)
- Fatal (1)
- Injury (Severe) (1)
- Injury (Other Visible) (3)
- Injury (Complaint of Pain) (5)

- There is a high concentration of collisions occurring in two corridors particularly on N FIRST ST with 5 collisions.
  - LAND USE:
    - Bus Stops
    - Markets   *[handwritten]* E. Schools
    - Restaurants
    - Park (Romain park)
- Belmont Av and 6th ST had two collisions
- One fatality on North Cedar Ave and E White Ave
- Two collisions on state highways
  - Divisadero St. and Route 41 *[handwritten]* ?
  - Route 180 and Cedar Ave *[handwritten]* ?

[handwritten] higher use on 1st / bike lanes

9

Bicycle Collisions by Time of Day and Day of Week (2012-2016)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
09:00PM-11:59PM	0	0	0	0	0	0	0
06:00PM-08:59PM	0	0	0	1	1	0	1
03:00PM-05:59PM	0	1	1	0	0	0	0
Noon-02:59PM	0	0	3	0	0	1	0
09:00AM-11:59AM	0	0	0	0	0	0	0
06:00AM-08:59AM	0	0	0	1	0	0	0
03:00AM-05:59AM	0	0	0	0	0	0	0
Midnight-02:59AM	0	0	0	0	0	0	0

*Color gradient corresponds to collision frequency.

Total: 10 collisions

11

- Wednesday had the highest number of bicyclist collisions in comparison to other days of the week. Especially between Noon-3PM.

What is happening on Wednesdays in Fresno?! 😮 :) :|

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

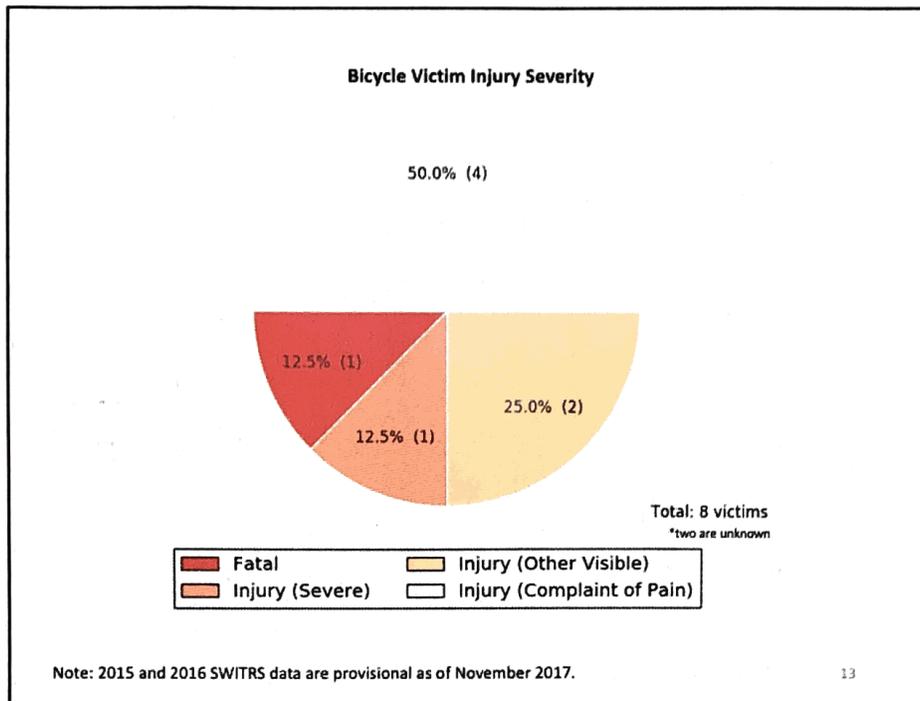| CVC No.	Description	Freq.	Percent
21650	Failure to drive on right half of the roadway (with some exceptions)	4	50.0%
21453	Red or Stop, vehicles stop at limit line or X-walk. When making right turn at a red light/stop sign driver required to yield to any vehicle approaching so closely as to constitute an immediate hazard	1	12.5%
21801	Failure to yield right-of-way to incoming cars while turning left or making U-turn	1	12.5%
21802	Failure to stop or yield right-of-way at a stop sign.	1	12.5%
21804	Driver failure to yield right-of-way when entering/crossing a highway	1	12.5%
Total		8	100.0%

*two are unknown

Total: 10 collisions

12

- Failure to drive on the right half of the roadway accounted for half of the bicycle collisions.

[Handwritten margin notes:]

Lack of Bicycle infrastructure

Traffic controls

User behavior
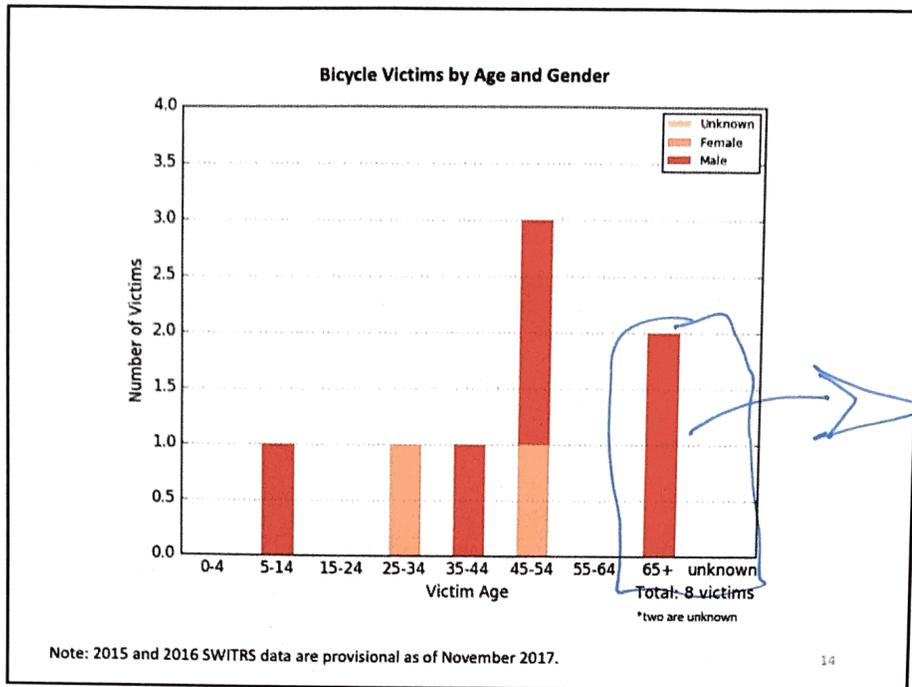
Esther commented on difference btwn. N & S. Fresno
- Lack of bike infrastructure
- Street design that leads to faster speeds

Bicycle Victim Injury Severity

50.0% (4)

12.5% (1)

25.0% (2)

12.5% (1)

Total: 8 victims
*two are unknown

| Fatal | Injury (Other Visible) |
| Injury (Severe) | Injury (Complaint of Pain) |

Note: 2015 and 2016 SWITRS data are provisional as of November 2017.   13

6/8 minor injury
2/8 severe/fatal

- Over half of the victims (7 out of 8) had minor injuries.
- However, we want to point out that every minor injury could potentially be significantly more serious if the circumstances were just a little different, e.g. child or senior victims, a slightly higher speed, or different weather conditions.

13

Bicycle Victims by Age and Gender

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

age & gender unknown? Shouldn't be in this column then.

- The age group (45-54) had the largest amount of victims (3 total) in comparison to the other age groups.
- Males accounted for the largest victims in bicycling collisions for all age groups (6 4 victims)
- Women accounted for 2 of total victims
- Two of the victims are unknown so we cannot determine their gender

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Berkeley SafeTREC