

# Madera Safe Routes to School Action Plan

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FINAL 2019



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*Photo courtesy of Madera County Public Health Department*

## 1. INTRODUCTION

In Madera, the Madera County Public Health Department along with the City of Madera, the Madera County Transportation Commission (MCTC), individual schools, and other community partners have been working to improve the environment for and encouraging more students to safely walk and bicycle to school. Over the past few years, the Public Health Department has worked directly with schools to implement encouragement and education activities. The City and MCTC have assessed infrastructure for walking and bicycling and pursued funding to implement improvements. Community coalitions such as Live Well Madera are working on complementary efforts. Currently, the Public Health Department is looking for opportunities to expand efforts, cultivate existing and new partnerships, and create a robust Safe Routes to School program.

### A. THE SAFE ROUTES TO SCHOOL LAUNCH PROGRAM

In Spring 2019, the Madera County Public Health Department began participating in the Safe Routes to School Launch Program, a joint project of the Safe Routes Partnership and UC Berkeley Safe Transportation Research and Education Center (SafeTREC) designed to help start strong and sustainable Safe Routes to School programs in California communities. As part of the Safe Routes to School Launch Program, the project team gathered and analyzed data and local policies and interviewed key stakeholders. Two virtual town halls brought together public health staff, county, city and school district staff, and community members to learn about Safe Routes to School and strategies for developing a robust, comprehensive program in Madera.

## B. ABOUT THIS ACTION PLAN

This Safe Routes to School Action Plan is intended to guide Madera in developing a strong Safe Routes to School program that addresses local needs. The focus of the Action Plan is on the city of Madera, where the Public Health Department has focused most of its efforts to date, but also provides recommendations for establishing countywide structures to include other communities as interest and resources are available. The Action Plan was developed based on planning and input that took place at the Safe Routes to School virtual town halls, a series of conversations with key stakeholders, and the Safe Routes Partnership's assessment of current conditions, community needs, and capacity in the city, county, and community organizations. Recommendations in the Action Plan are based upon the components needed to build a successful Safe Routes to School initiative and sustainable program. The most successful Safe Routes to School initiatives incorporate the Safe Routes to School Six E's framework: education, encouragement, engineering, enforcement, evaluation, and equity.

The Action Plan begins with a summary of current conditions related to walking and biking to school, including existing policies, plans, programs, and infrastructure. The second section of the Action Plan outlines recommended strategies and actions to be undertaken in Madera during the first year of implementation (2019-2020) as well as additional longer-term actions to be considered over the next five years. Finally, a brief discussion of funding resources for implementation is provided. Additional information is provided in a number of appendices:

- Appendix A: Existing Policies and Plans
- Appendix B: Pedestrian and Bicycle Collision Data

### The Six E's of Safe Routes to School

Research shows that comprehensive Safe Routes to School initiatives are effective at increasing physical activity and reducing injuries for children.<sup>1</sup> A comprehensive approach requires embedding Safe Routes to School into many aspects of a community. The Six E's of Safe Routes to School are a convenient way to summarize the key components of a comprehensive, integrated approach. The Six E's of Safe Routes to School include:

- **Education** – Teaching students and community members about the broad range of transportation choices, providing them with the skills to walk and bicycle, and educating them about how to be safe from traffic, crime, and other threats while using different methods of transportation.
- **Encouragement** – Using events and activities to promote safe walking, safe bicycling, public transportation, and being physically active.
- **Engineering** – Creating physical improvements to the streetscape and built environment that make walking and bicycling more comfortable and convenient, and that also decrease the risk of injury from motor vehicles or people, increasing street safety.
- **Enforcement** – Addressing traffic dangers and crime concerns in the neighborhood around the school and along school routes through work with local law enforcement, crossing guards, and community members.
- **Evaluation** – Assessing which approaches are more or less successful, ensuring that a program or initiative is decreasing injuries and health disparities and increasing equity, and identifying unintended consequences or opportunities to improve the effectiveness of an approach for a given community.
- **Equity** – Ensuring that Safe Routes to School initiatives are benefiting all demographic groups, with particular attention to ensuring safe, healthy, and fair outcomes for low-income communities, communities of color, students of all genders, students with disabilities, and others.

<sup>1</sup> McDonald, N. Impact of Safe Routes to School Programs on Walking and Biking. San Diego, CA: Active Living Research; 2015. Available at [www.activelivingresearch.org](http://www.activelivingresearch.org)

## 2. MADERA TODAY

This section provides an overview of the current conditions in Madera. It describes the current policies and plans, Safe Routes to School and related programs, existing infrastructure for walking and bicycling, and collision history in the county.

### A. OVERVIEW

Currently, many students in Madera are driven to school by their families, or are bused. At two schools in particular (Monroe Elementary School and Washington Elementary School), students live close to school and many walk. While there is community interest in having students walk to school, families have concerns about safety such as missing sidewalks, high speeds and traffic volumes on streets adjacent to schools, and needing to cross busy intersections. MCTC and the City of Madera have plans which include infrastructure improvements around schools, and the City has and continues to pursue funding to implement the improvements. Education and encouragement activities have been provided at individual schools, primarily led by the County Public Health Department. Other partners such as the California Highway Patrol and Madera Police Department are continued supporters of the Safe Routes to School efforts. While the current activities and ongoing improvements are taking key steps in supporting safe walking and biking to school, this Action Plan examines opportunities to grow and sustain efforts.

### Community Profile: City of Madera

**Population\*:** 64,058

**Land area:** 15.8 square miles

**Race and ethnicity\*:**

White 14.9%  
Black or African American 3.0%  
Asian 1.7%  
American Indian and Alaska Native 0.4%  
Native Hawaiian or Other Pacific Islander 0.1%  
Two or more races 1.0%  
Other 0.2%  
Hispanic or Latino 78.6%

**Languages spoken at home\*:**

Spanish 60.0%  
Other Indo-European Languages: 1.7%  
Asian and Pacific Islander Languages 0.4%  
Other Languages 1.3%

*\*2017 Five-Year American Community Survey*

**Poverty status\*:**

General population: 26.9% living below poverty level  
Ages <18 years old: 36.5% living below poverty level

**School district:** Madera Unified School District

- Total enrollment: 21,040 (2018-2019)
- 14 elementary schools
- 4 K-8 schools
- 3 middle schools
- 2 high schools
- 5 non-traditional schools

## B. COMMUNITY HEALTH AND WELLNESS

Safe Routes to School has the potential to address health challenges related to physical inactivity for students as well as the broader community. Just under 30 percent of fifth graders, and approximately 31 and 41 percent of seventh and ninth graders, respectively, in Madera Unified School District are overweight or obese.<sup>1</sup> Only 17 percent of fifth graders and approximately 19 and 11 percent of seventh and ninth graders respectively in the school district met all fitness standards in 2017.<sup>2</sup> Madera County fares poorly in the County Health Rankings – ranking 51 out of the 58 counties in California for health factors and 36 out of 58 for health outcomes.<sup>3</sup> These health disparities have led the County Public Health Department and collaboratives such as Live Well Madera to take great interest in addressing transportation and Safe Routes to School within public health.

## C. EXISTING INFRASTRUCTURE FOR WALKING AND BIKING

The City of Madera is the larger of two incorporated cities in Madera County. The city encompasses approximately 16 square miles. Madera has a compact, grid street system with low-density residential neighborhoods surrounding a commercial core. Outskirts of the city are more rural. SR 145 bisects the city's downtown.

As shown in Figure 1, the 2018 Madera Active Transportation Plan identifies existing and proposed bicycle and pedestrian facilities. There are few dedicated bicycle facilities within the city. While many streets may have lower volumes, and be comfortable for cyclists, they are not consistently striped or signed as the preferred bicycle routes. Many of the existing bicycle facilities are located in the northern part of the city while the southern part has limited connectivity. The Vern McCullough Fresno River Trail along the dry river in Madera is approximately 3.5 miles long. This trail is used for walking and bicycling, but primarily by recreational users and not for transportation.

The downtown core of Madera is a dense grid with short, walkable blocks. This area is generally more pedestrian accessible with complete sidewalks, curb ramps, signalized crossings, and marked crosswalks. Outside of the core downtown area, marked crosswalks become spaced farther apart and crossings are not signalized. Sidewalk gaps are more frequent towards outlying areas where it is more rural.

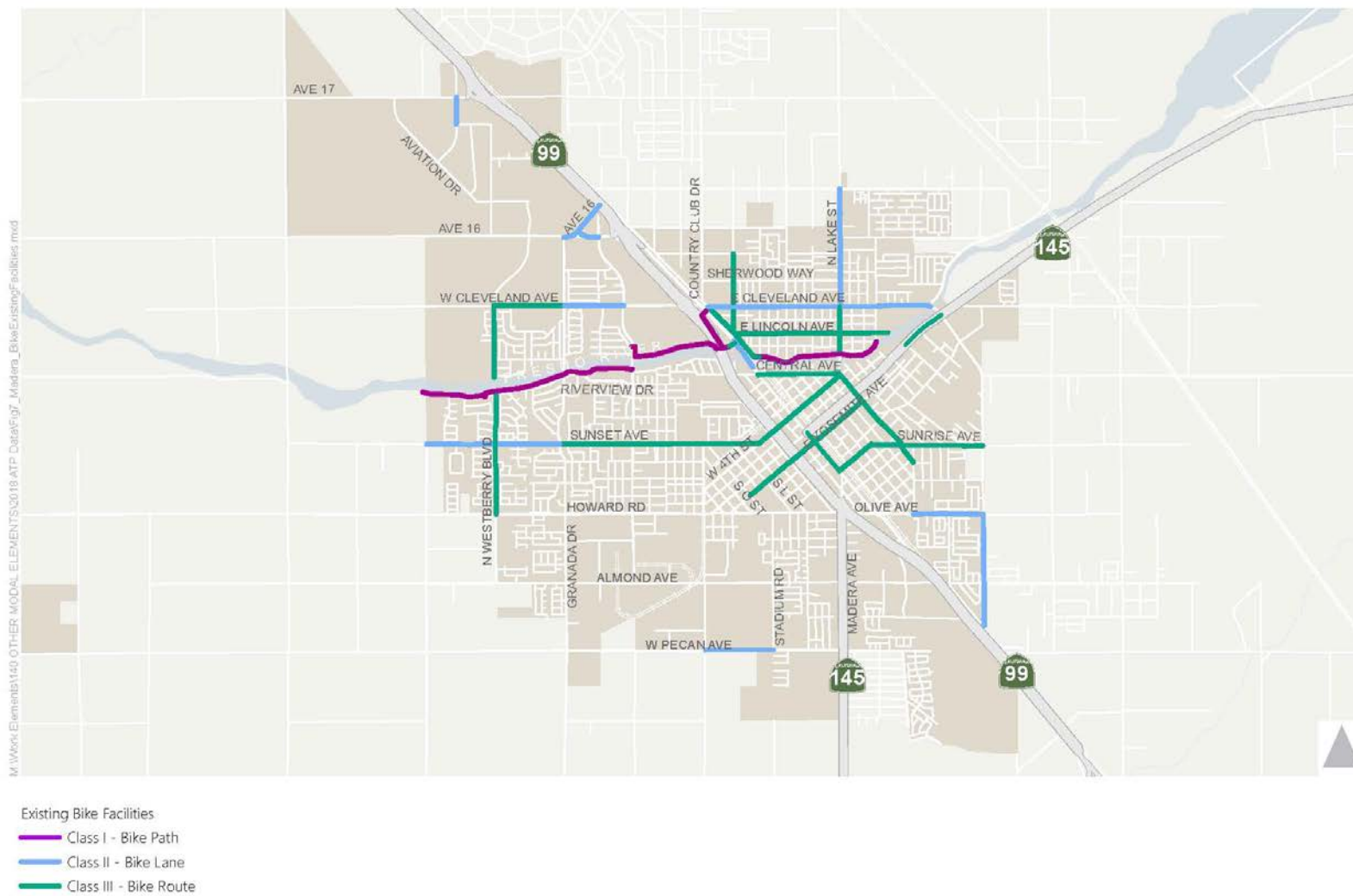
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<sup>1</sup> kidsdata.org

<sup>2</sup> kidsdata.org

<sup>3</sup> <https://www.countyhealthrankings.org/app/california/2019/rankings/factors/overall>

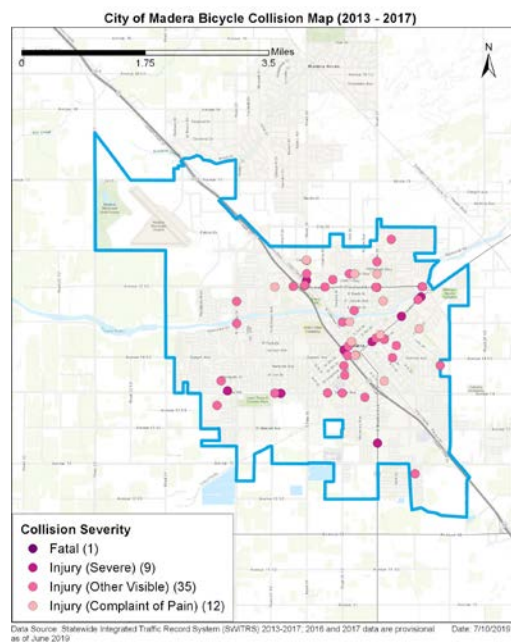




*Figure 1. Existing Bicycle Facilities – City of Madera, Madera Active Transportation Plan*



## D. PEDESTRIAN AND BICYCLE COLLISION HISTORY

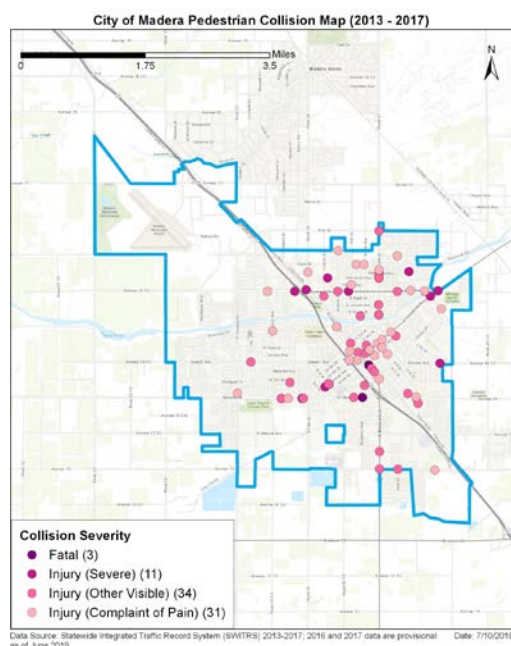


Between 2013 and 2017, there were 146 pedestrian injuries and fatalities in 140 collisions involving pedestrians and 110 bicyclist injuries and fatalities in 107 collisions involving bicycles in Madera County.

The vast majority of collisions occurred within the City of Madera, not surprisingly since the City of Madera is the largest population center in the county. Between 2013 and 2017, there were 89 pedestrian injuries and fatalities in 85 collisions involving pedestrians and 66 bicyclist injuries and fatalities in 64 collisions involving bicycles in the City of Madera. Unfortunately, there were three pedestrian fatalities and one bicyclist fatality during the time period in the city of Madera.

Generally, the collisions within the city of Madera occurred on major roads – Yosemite and Cleveland in particular. Pedestrian-involved collisions often occurred in the early morning (6 to 9 am) or evening (6 to 9 pm) hours. Bicyclist-involved collisions were more likely to occur in the afternoon and evening hours (3 to 9 pm). For bicycle-involved collisions, failure to drive/ride on the right half of the roadway and unsafe turning were the most common violations reported. For pedestrian-involved collisions, over half of the collisions were caused by the driver failing to yield right of way to pedestrians in a crosswalk.

More information about the collisions, including citywide and countywide maps, are provided in Appendix B.



## E. LOCAL POLICIES AND PLANS RELATED TO SAFE ROUTES TO SCHOOL

The City of Madera has strong policies and plans supporting active transportation; however, it could make a stronger connection to prioritizing schools within active transportation projects. The Madera Unified School District does not have a district Safe Routes to School policy and

contains fairly weak support for biking and walking.

Much of the City of Madera's support for active transportation comes from participation in the Madera Active Transportation Plan, which encompasses all of Madera County. The plan contains goals, policies, and actions aimed at maintaining and expanding pedestrian and bicycle infrastructure for residents and visitors across Madera County, increasing walking and bicycling mode share, decreasing injuries, and generating more public support for active transportation. The City also has strong walking and biking components in its General Plan, although there is some room to revise these to include stronger Safe Routes to School-specific language.



The policies and practices put in place by the Madera Unified School District (MUSD) have the potential to affect the travel habits and long-term health of students, their families, and the greater community. MUSD has a wellness policy, other board policies, and a Facilities Master Plan. These policies guide practices at the district and school level. The policies are fairly neutral. They avoid the strong negativity of some policies seen around the nation, but could be strengthened to add in positive language that is more supportive of Safe Routes to School and addresses specific issues and policy points.

More information about the existing policies and plans can be found in Appendix A.

## **F. SAFE ROUTES TO SCHOOL PROGRAMS AND OTHER SAFE ROUTES TO SCHOOL-RELATED EFFORTS**

The Madera County Public Health Department has taken the lead on implementing Safe Routes to School activities in Madera. The Public Health Department has worked directly with four MUSD elementary schools to conduct walk to school encouragement events and explore additional activities such as a walking school bus. In fall 2019, the Public Health Department plans to expand efforts to engage nine total schools and will be asking each school to select Safe Routes to School activities to implement. In addition, the Public Health Department along with Local Government Commission conducted walk audits around two elementary schools in spring 2019 and will continue to do walk audits at two additional schools per year through 2023. Community partners including local law enforcement have supported efforts with some educational activities. However, there is not a larger comprehensive Safe Routes to School effort currently.

## **G. VIRTUAL TOWN HALLS OVERVIEW**

Two virtual town halls were held during the development of the Action Plan. These town halls helped introduce Safe Routes to School to potential new program partners, provided information about strategies and actions communities can implement related to Safe Routes to School, and prompted discussion about program growth and sustainability in Madera. The first town hall was held as part of a Live Well Madera meeting on August 12, 2019. The second town hall was held with the Madera Unified School District Wellness Committee on September 18, 2019. Following the first town hall the Live Well Madera group decided to form a subcommittee focused on walkability. Input received at both town halls helped inform the recommended actions and strategies below.

# **3. THE PATH TO SAFE ROUTES TO SCHOOL: APPROACHES AND ACTIONS**

This Action Plan summarizes recommended strategies and actions for the Public Health Department and partners to grow Safe Routes to School efforts in Madera into a robust, comprehensive program. The Action Plan is structured around the Six E's of Safe Routes to School: education, encouragement, engineering, enforcement, evaluation, and equity. In addition, the Action Plan includes activities related to program structure, operations, and coordination, as well as policy improvements. The Action Plan includes activities to continue current education and encouragement activities and establish a more comprehensive program framework in the first year (2019-2020) and then expansion efforts for years two to five. While the plan is structured this way, it does not preclude the community from implementing a strategy from the longer-term sections earlier if an opportunity arises.

## A. PROGRAM STRUCTURE, OPERATIONS, AND COORDINATION

Establishing a formal program structure with identified responsibilities for various partners is a key component of an effective and sustainable Safe Routes to School Program. This involves determining which organization or agency will take the lead, who will be involved in making program decisions, and how coordination will occur between different groups working on different components of the program.



### *Recommended strategies and actions for year 1:*

1. Use fall 2019 activities with nine schools in MUSD to springboard the Public Health Department's role as a Safe Routes to School technical assistance provider, shifting from a focus on providing direct services.
2. Establish initial components of a countywide Safe Routes to School program that include:
  - A countywide Safe Routes to School taskforce/committee/working group that includes representatives from school districts, county/Madera County Transportation Commission (MCTC), cities, public health, law enforcement (police, sheriff and Highway Patrol), and community organizations such as SafeKids. Meet on a quarterly basis, or as needed. Refer to [Building Momentum for Safe Routes to School](#) for additional information on creating a taskforce, including sample materials such as an invitation letter.
  - Steps for onboarding a new school, such as establishing a school committee, identifying potential activities, identifying timelines, and identifying training or resources needed from the Public Health Department.
3. Continue to build school-based ownership of Safe Routes to School activities within the City of Madera, but also outreach to schools and groups in Chowchilla and unincorporated communities to see if there is strong local interest to start Safe Routes to School activities. Develop a prioritized list of schools outside of the City of Madera for future efforts. Include criteria related to need as well as readiness in prioritization.
4. Work with MUSD to include Safe Routes to School messaging and resources on the MUSD Transportation and Parent Resources webpages. Refer to [Safe Routes to School Messaging for Pros](#) for sample webpage content. Key messages are also available in [Spanish](#).

### *Recommended strategies and actions for years 2 to 5:*

5. Develop an online or in-person network for volunteers and other school Safe Routes to School leads to share info, resources, and ask questions of one another.
6. Explore additional funding needs for Safe Routes to School programmatic activities (staffing, events, materials, etc.) and pursue grants, donations, or other funding support.

7. Consider developing formal requirements for each school participating in the Safe Routes to School program such as conducting evaluation activities using templates or conducting a minimum number of activities each year.
8. Provide regular training opportunities for volunteers (once or twice per year).
9. Create branded program materials including templates for event flyers, educational handouts, etc.

## B. EDUCATION

Education activities include teaching students and community members about the broad range of transportation choices, providing them with the skills to walk and bicycle, and educating them about how to be safe from traffic, crime, and other threats while using different methods of transportation.

### *Recommended strategies and actions for year 1:*

1. Continue educational activities at the Walk to School Day and other encouragement events in partnership with law enforcement and other community groups.
2. Identify one to two schools to pilot in-school traffic safety education, whether that be in-class or through special events such as safety assemblies. Consider partnering with law enforcement agencies to obtain resources for in-school education. Use materials such as the [California Pedestrian and Bicycle Safety Curriculum \(4th and 5th grades\)](#).
3. Alongside conducting walk audits, use the opportunity to survey the school community and identify interest and capacity for programmatic activities (Walk to School Day, walking school bus, incentive programs, bicycle/pedestrian safety education, etc.).

### *Recommended strategies and actions for years 2 to 5:*

4. Hold bike rodeos (skills training) at individual schools or at community events. Coordinate with law enforcement and interested community members with bicycle skills training (preferably League of American Bicyclist certified instructors (LCIs) to conduct the events. Refer to [Roll Up to a Bicycle Skills Clinic](#) for more information on putting together an event.
5. Expand in-school traffic safety education to reach multiple schools, with the ultimate goal of providing on-campus education at every school for multiple grades.
6. Expand bike rodeos to reach multiple schools, with the ultimate goal of providing a bike rodeo or other skills practice opportunity for every student at their school or through a community event.
7. Provide additional education through family-oriented walking/biking events – i.e. family fun bike night or school-based walking clubs (can be after parents drop kids off at school).

## C. ENCOURAGEMENT

Encouragement strategies generate excitement about walking and bicycling safely to school. Children, parents, teachers, school administrators, and others can all be involved in special events like International Walk to School Day and ongoing activities like bike trains. Encouragement strategies can often be started relatively easily with little cost and a focus on fun.

### *Recommended strategies and actions for year 1:*

1. Continue to provide hands on support for Walk to School Day efforts at specific schools. Encourage other schools in Madera to participate in Walk to School Day and Bike to School Day and provide

information on a range of activities that could be organized for each day. Use information from the [Walk and Bike to School Day](#) website.

2. Pilot a walking school bus program at a single school. Refer to [Step by Step: How to Start a Walking School Bus at Your School](#) for information, tips, and resources. The guidebook is also available in [Spanish](#).

*Recommended strategies and actions for years 2 to 6:*

3. Survey each school's Safe Routes to School lead to identify what types of competition or incentive programs would likely be successful at individual schools. Support individual schools in implementing their own competition or incentive program or develop a district/city-wide program. Programs could include frequent walker punch cards or mileage competitions.
4. Expand walking school bus program to additional schools by providing training and materials to school staff, volunteers, and other leaders.

## **D. ENGINEERING**

Engineering strategies create physical improvements to the neighborhood that make walking and bicycling more comfortable, convenient, and safe.

*Recommended strategies and actions for year 1:*

1. Continue conducting walk audits at schools. Along with the walk audits, conduct school arrival and dismissal observations to identify improvements on and adjacent to school campuses.
2. Establish a process to present walk audit findings to school district, city and county decision makers to advance infrastructure improvements.
3. Work with the City of Madera and MCTC to explore any opportunities to include Safe Routes to School improvements in existing projects.
4. Work with the City of Madera, MCTC, and the school district to identify upcoming new plans, revisions to plans, funding opportunities, or other places to insert Safe Routes to School considerations.

*Recommended strategies and actions for years 2 to 5:*

5. Complete walk audits at remaining schools.
6. Implement recommendations from UC Berkeley Tech Transfer's 2015 Pedestrian Safety Assessment (City of Madera)
7. Develop suggested walking and biking route maps for each school.
8. Prioritize infrastructure problems identified through walk audits and other assessments.
9. Explore funding, resource needs, and opportunities for preparing plans to address the identified areas of concern along school routes and at schools.

## **E. ENFORCEMENT**

Enforcement activities deter unsafe behaviors of drivers, bicyclists, and pedestrians and encourage safe behaviors in the neighborhood around the school and along school routes. These activities can be conducted by law enforcement, in partnership with law enforcement, or may be structured to be community led.

*Recommended strategies and actions for year 1:*

1. Continue current focused traffic enforcement. Coordinate efforts with school as well as the school district and provide pre- and post-event communication to families and school staff.

*Recommended strategies and actions for years 2-5:*

2. As part of overall school route and improvement plans, assess needs for additional adult crossing guards at intersections near schools where students and families express difficulty crossing the street.
3. Explore schools' interest in developing school safety patrols where students in upper elementary grades and middle/junior high schools receive traffic safety training, teach their peers, and assist with on campus enforcement activities using program materials from AAA.

## **F. EVALUATION**

Evaluation involves data collection and program tracking to assess which approaches are more or less successful, ensure that a program is meeting its objectives, and identify unintended consequences or opportunities to improve the effectiveness of an approach for the community.

*Recommended strategies and actions for year 1:*

1. Conduct student travel tallies at the beginning and end of the school year, using the travel tally tool provided by the [National Center for Safe Routes to School](#).
2. Track Safe Routes to School education and encouragement program participation. Collect information on overall participation as well as grade level/age and other demographic information. Use this information to assess program effectiveness and identify any needs for improvement.

*Recommended strategies and actions for years 2 to 5:*

3. Begin conducting a yearly assessment of Safe Routes to School efforts at the end of the school year. Evaluate program effectiveness, including participation by different population groups, changes in behaviors or perceptions around walking and bicycling, and school and community receptiveness to the program components.
4. Use mapping tools available from [UC Berkeley's TIMS program](#) to map bicycle and pedestrian collisions near schools. Use the collision information to assess changes and identify any needs for improvements citywide or at specific locations.
5. Share program participation and evaluation results with schools and community members through newsletters or other materials.

## **G. EQUITY**

Equity involves ensuring that Safe Routes to School initiatives are benefiting all demographic groups, with particular attention to ensuring safe, healthy, and fair outcomes for low-income communities, communities of color, and others.

*Recommended strategies and actions for year 1:*

1. Continue to ensure that education and encouragement materials are provided in Spanish. Work with the schools to identify additional language needs.

#### *Recommended strategies and actions for years 2 to 5:*

2. Given limited ability to roll out a Safe Routes to School program at every school from the start, use equity measures, such as health disparities and eligibility for the free- and reduced-price lunch program, to develop a framework to prioritize schools for education and encouragement program implementation and/or infrastructure improvements.
3. Use the results of previous year's evaluation efforts to identify gaps in participation. Develop and implement a strategy to ensure all population groups can participate in the Safe Routes to School program. This strategy may include targeted outreach or adjustments to the programs. Look particularly at students generally underrepresented in active travel; e.g., students of color, female students, and students with disabilities.

## **H. POLICY**

Adopting Safe Routes to School policies or incorporating Safe Routes to School practices into existing city, school, and school district policies helps eliminate barriers and ensure long-term sustainability of the Safe Routes to School program. Policies help institutionalize supportive practices, broadening the reach beyond an individual school or activity to reach children and families across a community. This leads to more consistent implementation between schools and neighborhoods, creates accountability, and establishes formal relationships and responsibilities.

The recommendations below are intended to be included in plan and policy updates by different agencies that affect the walking and bicycling environment for students in Madera.

#### *For the Madera County Transportation Commission:*

1. Increase the focus of the Regional Transportation Plan on active transportation and decrease the focus on vehicular capacity.
2. Clarify that Complete Streets principles apply to transportation projects and funding generally, not simply to active transportation projects.
3. Develop a stronger, more detailed, and more intensive set of commitments in the Recommended Enhancements to the Safe Routes to School program.
4. Remove the car oriented Level of Service (LOS) approaches; replace with multimodal level of service metrics (MMLOS).

#### *For Madera County:*

1. Provide more detailed and proactive commitments regarding support for Safe Routes to School, both regarding infrastructure needs and also program support.

#### *For the City of Madera:*

1. Implement the actions outlined in the General Plan to support Safe Routes to School.
2. Include schools in prioritization of pedestrian and bicycle network projects and improvements.
3. Make more commitments and direct connections to Safe Routes to School throughout plans.
4. Remove the car oriented Level of Service (LOS) approaches; replace with multimodal level of service metrics (MMLOS).



*For the Madera Unified School District:*

1. Adopt a strong Safe Routes to School board policy.
2. Include Safe Routes to School support and considerations throughout board transportation policies.
3. Include a Safe Routes to School coordinator or city transportation professional in the School Wellness Committee.
4. Include a link to Safe Routes to School messaging and resources on the District website.
5. Include the following in future facilities planning/school siting policies:
  - Evaluating transportation options for students and staff during siting and design process.
  - Including Safe Routes to School staff, volunteers, health department, and city transportation staff in siting decisions.
  - Requiring new school sites have safe and accessible transportation options for students that include walking and biking to and from school.

#### **4. POTENTIAL FUNDING RESOURCES FOR IMPLEMENTATION**

The following are potential funding sources and mechanisms that may be used to implement the Safe Routes to School Action Plan. The list is not exhaustive as additional funding sources and innovative mechanisms may develop during the life of the plan.

##### **A. CALIFORNIA ACTIVE TRANSPORTATION PROGRAM**

The California Active Transportation Program (ATP) consolidates federal transportation funding with state funds to provide local communities with funding for programs and projects that support active transportation. Safe Routes to School non-infrastructure programs such as traffic safety education and encouragement activities, as well as infrastructure improvements, can be funded through the program. The funding is provided through a competitive application process.

##### **B. CALIFORNIA OFFICE OF TRAFFIC SAFETY**

The California Office of Traffic Safety (OTS) provides grants to local and state public agencies for programs that help them enforce traffic laws, educate the public in traffic safety, and provide means of reducing fatalities, injuries, and economic losses from collisions. Funding can be used for Safe Routes to School education and encouragement programs. Historically, OTS has funded numerous bike rodeo (bike skills practice) programs around the state, often led by law enforcement agencies. Grants are awarded annually. More information can be found here: <http://www.ots.ca.gov/Grants/default.asp>

##### **C. MEASURE T**

In Madera County, Measure T, a ½ cent sales tax for local transportation projects, can provide a strong funding source for Safe Routes to School infrastructure projects. Eligible projects include highway and road capital projects that improve traffic safety and/or relieve traffic congestion. Measure T can also be used as leverage for other state and federal funds. Approximately 44 percent of the funds (\$86.66 million) go towards the Safe Routes to Schools and Jobs Program (Local Transportation Program). Half of this money goes directly to local street maintenance and the remainder is available for a range of local uses, including biking and walking improvements.

#### **D. LOCAL FOUNDATIONS, HEALTH ORGANIZATIONS, AND BUSINESSES**

Local foundations, health organizations, and businesses may be sources of funding for implementing Safe Routes to School programs. The benefits of Safe Routes to School for students, families, schools, and communities often align with foundations and organizations looking to support community health, physical activity, youth development, and neighborhood improvement. In addition, local businesses may be willing to sponsor Safe Routes to School activities and provide monetary funding, volunteers, or giveaways.

### **5. CONCLUSION**

Building upon past and current efforts at schools in Madera, the County Public Health Department is well positioned to grow Safe Routes to School into a robust and comprehensive program. By engaging additional partners and creating a framework to scale up efforts citywide and ultimately countywide, the Safe Routes to School program has the potential to thrive. Implementing the activities set out in this Action Plan over the next five years will put the program on a path to becoming strong and sustainable.

## APPENDIX A. EXISTING POLICIES AND PLANS

### A. INTRODUCTION

Ensuring that Safe Routes to School efforts reach students throughout a school district or city and create changes in school travel over the long term requires that Safe Routes to School considerations be fully incorporated into city and school district policies. The Safe Routes Partnership conducted a policy scan for Madera, reviewing policies of the Madera County Transportation Commission, Madera County, the City of Madera, and the Madera Unified School District. This report provides an overview of the current policy landscape for Safe Routes to School in Madera and highlights promising opportunities for updating and improving the commitment to Safe Routes to School. Caltrans District 6 also have jurisdiction in this area and additional information may be found in their collected Bicycle and Complete Streets resources: <https://dot.ca.gov/caltrans-near-me/district-6/district-6-programs/d6-bicycle-complete-streets>.

### B. MADERA COUNTY TRANSPORTATION COMMISSION POLICIES

The Madera County Transportation Commission has policies and practices that affect the vitality of Safe Routes to School efforts in the county. The policies and practices put in place have a strong impact on needed Safe Routes to School infrastructure as well as Safe Routes to School program activities throughout Madera County.

#### 1. Madera County Transportation Commission Active Transportation Plan

The Madera County Transportation Commission adopted an Active Transportation Plan in May 2018.<sup>1</sup> The plan contains goals, policies, and actions aimed at maintaining and expanding pedestrian and bicycle infrastructure for residents and visitors across Madera County, increasing walking and bicycling mode share, decreasing injuries, and generating more public support for active transportation. The plan also contains a Complete Streets policy, setting out Complete Streets performance measures and explaining that these will be incorporated into future funding applications. One of the Complete Streets performance measures is: “The amount of active transportation infrastructure in proximity to schools in a region.”

The goals contain great specific references to Safe Routes to School opportunities:

- Goal 1.2: Improve [pedestrian and bicycle] safety and access to schools across Madera County.
- Goal 4.4: Promote Safe Routes to School programming across Madera County.

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<sup>1</sup> Madera County Transportation Commission, Active Transportation Plan, 2018, [https://www.maderactc.org/sites/default/files/fileattachments/transportation/page/2181/mctc\\_active\\_transportation\\_plan\\_and\\_complete\\_streets\\_policy\\_guide.pdf](https://www.maderactc.org/sites/default/files/fileattachments/transportation/page/2181/mctc_active_transportation_plan_and_complete_streets_policy_guide.pdf).

- Goal 5.2: Support programming at schools across Madera County to increase awareness of benefits and safe practices related to active transportation.

The Active Transportation Plan contains the proposed bicycle and pedestrian network for the City of Madera, the City of Chowchilla, and unincorporated Madera County. For the City of Madera, \$71 million worth of proposed bicycle projects purport to “provide access to sites across the city including commercial districts, schools, and residential neighborhoods,” but it is difficult to easily assess which of these projects are addressing dangerous bicycling conditions near schools. In contrast, the list of pedestrian projects for the City of Madera contains a checkbox for whether the project has a Safe Routes to School benefit, and the majority of projects appear to. \$445 million of bicycle infrastructure improvements were included on the unincorporated Madera County list.

The Active Transportation Plan also includes a section on “Educational Programs and Safe Routes to School.” The section contains the following recommended enhancement to the Safe Routes to School program:

- Create a unified Madera Region Safe Routes to School Program that conducts school safety walking audits at each school to identify engineering, education, enforcement, and encouragement programs that can be customized to the local context. This can be funded through grant programs.

In addition, the plan explores a variety of other policy and program interventions to improve safety and encourage walking and biking, such as safety campaigns, enforcement options, encouragement programs, and wayfinding.

*Support for Safe Routes to School could be strengthened in the MCTC Active Transportation Plan by:*

- Clarifying that Complete Streets principles will apply to transportation projects and funding generally, not simply to active transportation projects.
- Clarifying the Complete Streets performance measure regarding school access, which seems to focus on the amount of infrastructure, rather than the quality or whether it meets school transportation needs.
- Indicate Safe Routes to School benefits in project lists for bicycling as well as for pedestrian projects, and include Safe Routes to School as a prioritization factor for bicycle projects.
- Developing a stronger, more detailed, and more intensive set of commitments in the Recommended Enhancements to the Safe Routes to School program, including:
  - Description of who will take this on;
  - Structuring a supportive countywide program to include infrastructure and non-infrastructure components;
  - Developing countywide resources for local efforts;
  - Developing bike/ped safety/skills curricula for use in classrooms;
  - Creating countywide Safe Routes to School task force to build commitment and among districts and other stakeholders;
  - Providing walk audits, grant application assistance, and other support to local Safe Routes to School programs.



## 2. Regional Transportation Plan

The MCTC's 2042 Regional Transportation Plan (RTP) was adopted in 2018.<sup>2</sup> As a metropolitan planning organization, MCTC is required to complete a long range transportation plan with a planning horizon of at least 20 years regularly.

The RTP contains a number of provisions to benefit bicycling and walking, such as a Complete Streets orientation and new bike/ped projects, but retains a dominant focus on motor vehicle traffic (e.g. *New freeway and other street and highway capacity-increasing improvement projects have the greatest potential for causing significant adverse environmental effects versus other modes of transportation. This RTP/SCS proposes the widening or modification of existing streets and highways, changes to the designation of regional streets and highways, and new interchange facilities along new or existing freeways. Other projects include signalization improvements (new signals, signal modifications, and signal synchronization). The RTP and SCS contains over \$1.004 billion in capacity-increasing highway and arterial improvement projects.*).

The RTP sets out positive developments, such as the 51 percent increase in funding requested for active transportation projects since 2014,<sup>3</sup> but also notes the fact that only 6 percent of expenditures in the plan are designated for active transportation. In addition, the RTP continues to rely upon vehicle supportive LOS standards.

As far as Safe Routes to School related components, among the RTP objectives is:

- 9. Support access to areas of opportunity (jobs, education, etc.), healthy food, clinics and hospitals, and parks, regardless of race, income, national origin, age, location, physical ability, or any other factor.
- 25. Support transportation improvements that provide healthy and safe routes for children to schools and between activity centers consistent with the ATP.

Overall, the RTP continues a business as usual approach to transportation systems, with a slight nod to the increasingly importance of walking and biking.

*Support for Safe Routes to School could be strengthened in the Regional Transportation Plan by:*

- Increasing the focus of the RTP on active transportation and decreasing the focus on vehicular capacity;

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<sup>2</sup> Madera County Transportation Commission, Regional Transportation Plan/Sustainable Communities Strategy, 2018, [https://www.maderactc.org/sites/default/files/fileattachments/transportation/page/2381/we\\_100\\_-\\_mctc\\_2018\\_rtp\\_scs\\_final.pdf](https://www.maderactc.org/sites/default/files/fileattachments/transportation/page/2381/we_100_-_mctc_2018_rtp_scs_final.pdf).

<sup>3</sup> "To enable the vision of active transportation linkages to activity centers within the region, the local agencies have requested approximately \$54.5 million for non-motorized projects in the 2018 RTP/SCS (reference Table 5-8 in Chapter 5), representing a 51% increase in funding for nonmotorized improvement projects from the 2014 RTP."



- Conducting more detailed analyses and forecasting of school transportation patterns in light of regional growth, including different scenarios involving personal vehicles, walking and biking, and busing;
- Considering and investing in opportunities to build safe connections between schools and residential areas.

## B. MADERA COUNTY PLANS AND POLICIES

Madera County itself also has relevant practices that affect Safe Routes to School opportunities in unincorporated Madera County and may also influence activities within the incorporated cities.

### 1. Code of Ordinances

The Madera County Code of Ordinances contains what appears to be a very broad prohibition on micromobility:

- 10.14.010 - Prohibition against bicycling, skating, rollerblading and operating or riding skateboards and scooters in designated areas. No person shall rollerskate, rollerblade or operate or ride upon a bicycle, skateboard, scooter (whether propelled by human power, battery, or motor) or similar device on the premises, sidewalks or within the off-street parking facilities of any privately or publicly owned places which are open to the public, including, but not limited to, any places owned, operated, controlled, or under the jurisdiction of the county of Madera.

Particularly in considering the absence of protected or unprotected bike lanes in much of the county, it seems clear that parents biking or skating with elementary school age children might need the option of having them use a sidewalk, where available, or other types of public facilities; this blanket prohibition seems too broad.

*Support for Safe Routes to School could be strengthened by:*

- Removing the prohibition in 10.14.010 or modifying it significantly.

### 2. Madera County General Plan

The Madera County General Plan has not had a major update since its adoption in 1995.<sup>4</sup> The plan was revised in 2008 to incorporate Complete Streets principles within its Transportation Element. The plan contains some good language in support of walkable destinations, multimodal facilities, Complete Streets, and biking and walking. Limited language supports Safe Routes to School and smart school siting goals:

- 2E.11. The County shall promote non-motorized travel (bikeways, pedestrian, and equestrian) through appropriate facilities, programs, and information, including through the school system
- 2E.16. The County shall support bicycle safety programs for children and commuters in the County.
- 3.I.3. The County should plan and approve residential uses in those areas that are most accessible to school sites in order to enhance neighborhoods, minimize transportation requirements and costs, and minimize safety problems.

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<sup>4</sup> Madera County General Plan, <https://www.maderacounty.com/Home/ShowDocument?id=2850>.

- 3.1.5. The County shall encourage the location of schools in areas with safe pedestrian and bicycle access.

*Support for Safe Routes to School could be strengthened by:*

- Providing more detailed and proactive commitments regarding support for Safe Routes to School.

### **C. CITY OF MADERA PLANS AND POLICIES**

Policies and plans from the City of Madera were also reviewed as part of the Safe Routes Partnership's policy scan. The City does not have an Active Transportation Plan, but does have strong walking and biking components in its General Plan, although there is some room to revise these to include stronger Safe Routes to School-specific language. The Safe Routes Partnership found references to a city bicycle plan, but did not find the plan itself, which may have been superseded by the Madera County Active Transportation Plan.

#### **General Plan**

The City of Madera's General Plan was adopted in October 2009.<sup>5</sup> Overall, the General Plan contains strong supportive language for walking, bicycling, and Safe Routes to School. There are detailed policies and actions committing the City to a variety of policy changes and steps to create a walkable and bikeable city.

##### **a. Vision Includes strong emphasis on improved walking and bicycling opportunities**

As a rapidly growing city, the General Plan includes a vision of balancing change with the aspects of community that people value in Madera. Affordable housing, diversity, economic opportunities, conserving agricultural uses, great schools, and a healthy environment with access to parks and open space are all included in the General Plan vision. The Vision for 2025 includes an embrace of active transportation as a theme that connects the four vision components. The vision statement for a Well Planned City states:

"Madera's comprehensive transportation system connects local neighborhoods and districts with efficient, affordable mass transit. Madera is a friendly community for pedestrians and bicyclists. There is a well-developed system of walking and bicycle trails throughout the city. Safe, clean and attractive streets accommodate traffic, providing easy access to all parts of the city."

In addition, the vision for A Strong Community and Great Schools notes a desire that "Every neighborhood in Madera is served by a local school." The Vision for A Safe, Healthy Environment states:

"Maderans are healthy and fit. Safe, well-maintained parks and recreational centers are conveniently located throughout the community, and are accessible. The Vern McCullough

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<sup>5</sup> City of Madera General Plan, 2009, <https://www.madera.gov/wp-content/uploads/2016/05/COM-General-Plan.pdf>.

Fresno River Trail is a recognized feature of the city, providing valued recreation, access and mobility opportunities for pedestrians, runners and bicyclists.”

**b. Policies and actions expressly supporting Safe Routes to School**

Schools are included in the General Plan's Sustainability Element. This element reiterates support for walking and biking to school, stating a vision to "Ensure safe routes from residential areas to schools, including access by pedestrians, bicycles, buses, and personal vehicles." The Circulation Element also includes specific goals around walkable/bikeable schools:

- GOAL CI-4: An extensive, complete, smooth, interconnected, and continuous pedestrian and bicycle network that is a safe and attractive option ... and that connects to the City's ... schools.
- Policy SUS-2: The City shall work with the Madera Unified School District to coordinate the planning of future land use and school facilities and will encourage the District to identify school site locations and routes that are safe for children to walk or bike to school (also known as "Safe Routes to School").
  - Action Item SUS-2.1 Work with the Madera Unified School District to help the District identify and plan for the construction of all road, sidewalk, and other infrastructure improvements needed for new schools, and that these improvements are in place at the time the school opens.
- Policy SUS-3: Co-location of schools and parks is encouraged to allow for multiple uses and programs by the City and school districts.
- Action Item HS-2.1 Encourage schools to incorporate active living education in their curricula, such as health education and bicycle safety and skills programs.

**c. Other goals, programs, and policies that provide less explicit support for Safe Routes to School**

The Circulation Element contains a strong articulation of the importance to the city of walking, bicycling, and transit, and is full of goals, policies, and actions that provide for safety, comfort, and convenience for active transportation. The relevant goals include:

- GOAL CI-4: An extensive, complete, smooth, interconnected, and continuous pedestrian and bicycle network that is a safe and attractive option for local or regional trips or recreation and that connects to the City's neighborhoods, parks and schools, employment areas, and retail centers.
- GOAL CI-5: A viable transit system that connects all parts of the City and links with regional destinations.
- GOAL CI-6: A transportation system that assists in the City's goals for reducing air pollution and the generation of greenhouse gases.

Some examples of specific supportive policies and actions include:

- Policy CI-14: "Right-of-way" shall be defined as including the full paved roadway, landscape strip, utility easements, bicycle/pedestrian pathway/trail, and potential transit travel lanes along public roadways.
  - Action Item CI-14.1 Update the City's Standards and Specifications to implement Policy CI-14.
- Policy C1-24: ... Residential blocks shall be designed to limit traffic speeds and encourage pedestrian and bicycle safety through the design of the roadways or the use traffic calming measures (such as narrower streets).



- Policy CI-26: Projects providing significantly more than the required amount of parking shall be allowed only when the City determines that there is a demonstrated need for additional parking.
  - Action Item CI-26.1: Amend parking and other standards in the Zoning Code to reflect a balance between the need for parking and the desire of the City to achieve its goals regarding efficient land utilization, walkability, and increased opportunities to create additional space for landscaping and other amenities.
- Policy CI-27: The City shall encourage pedestrian circulation and access around the City and at the neighborhood level through the design of roadways and pedestrian facilities.
  - Action Item CI-27.1 Expand the availability and visibility of bicycle infrastructure such as bike racks and bike storage facilities.
  - Action Item CI-27.2 Consider opportunities for lower-income individuals to have access to bicycles, through community-sponsored programs such as “bicycle sharing” or bicycle giveaways to children.
- Policy CI-28: New development areas shall include pedestrian and bicycle facilities and connections to public transit systems, commercial centers, schools, employment centers, community centers, parks, senior centers, and highdensity residential areas.
  - Action Item CI-28.1 Establish a transit and/or multimodal impact fee to be applied to new development to fund public transit infrastructure and other multimodal accommodations.
- Policy CI-29: The City shall create a connected system of on- and off-street trails and paths for pedestrians and bicycles throughout Madera in both existing and new development areas, with a focus on on-street bike trails on collector roads, and off-street trails in parkways and along the Fresno River and other waterways.
- Policy CI-30: Where it deems appropriate, the City may require the dedication of additional right of way to accommodate pedestrian, bicycle, alternative transportation (transit), additional travel lanes, safety or efficiency-related improvements, or other similar uses.

Additional policies and actions provide for:

- Complete Streets
- New design features to protect pedestrians
- Regularly adding bicycling lanes whenever possible.

The Community Design Element contains a strong emphasis on walkability and pedestrian orientation as well, with goals including CD-5 (Walkable community), CD-6 (Design neighborhoods to foster interaction among residents and be responsive to human scale), and CD-11 (Design commercial development to enhance the pedestrian environment). A few specific policies include:

- Policy CD-19: Create streetscape designs with themes that are oriented toward and inviting to pedestrians and cyclists and that are unique in character to a district, corridor, or area within the City.
- Policy CD-21: Create safe, inviting, and functional pedestrian and cyclist environments in commercial, office, and mixed-use projects through a variety of techniques, including:
  - Planting trees to provide shade on pedestrian paths, sidewalks, and walkways;
  - Safe, separated pedestrian walkways;

- Safe, visible bicycle parking;
  - Shaded walkways;
  - Wide sidewalks.
- Policy CD-24: Wherever possible, the City shall use public rights of way and other features (including the Fresno River, utility easements, and drainage ways) as part of a citywide system of off-street walking and bicycling trails. The City will also encourage other agencies to do the same.
  - Policy CD-25: Sidewalks shall be provided on both sides of the street in commercial and residential areas, and where appropriate in industrial areas.
  - Policy CD-26: Street trees shall be planted in a parkway strip on all residential streets.
  - Policy CD-48: Buildings and building entrances shall be oriented to the pedestrian environment.

Other elements also contain supportive policies:

- Policy LU-37: “Walkability” shall include:
  - A safe walking environment that includes safety features, sidewalks, crosswalks, stopping places, shade, grade-separated crossings where necessary, and ample opportunities for pedestrians to see and be seen.
  - An overall community design in which the places that provide day-to-day needs (parks, local schools, daily shopping needs) are within a reasonable walking distance—generally one mile—of all homes.
  - A citywide system that allows for walking and bicycling throughout the community and that reduces or eliminates conflicts between these users and motor vehicles.

*Support for Safe Routes to School could be strengthened in the General Plan by:*

- Including additional specific policies and actions for Safe Routes to School, such as staffing a Safe Routes to School coordinator position, working more actively to support the District in taking strong steps to improve Safe Routes to School programming, embracing walk and bike to school events and activities, including walk and bike to school day, and so on.
- Removing the car oriented Level of Service (LOS) policy goals in C1-22; replace with multimodal level of service metrics (MMLOS).
- Adding more specific references to prioritizing improvements in the vicinity of schools to many of the excellent policies and actions noted above.

## D. MADERA UNIFIED SCHOOL DISTRICT

The policies and practices put in place by the Madera Unified School District (MUSD or the District) have the potential to affect the travel habits and long-term health of students, their families, and the greater community. The Madera Unified School District serves more than 20,000 children. 88 percent of students are Latino and the majority are low income. There are a total of 28 schools in the district: 14 elementary schools, four K-8 schools, three middle schools, two high schools, and five non-traditional schools.

The District has a wellness policy, other board policies, and a Facilities Master Plan. These policies guide practices at the district and school level. The policies are fairly neutral. They avoid the strong negativity of some policies seen around the nation, but could be strengthened to add in positive language that is more supportive of Safe Routes to School and addresses specific issues and policy points. A number of existing policies are described below, with some suggestions regarding how they could be strengthened.

### 1. District Wellness Policy

The MUSD board adopted its current wellness policy in September 2015. Per the Wellness Policy, 49 percent of MUSD fifth graders, 46 percent of seventh graders, and 44 percent of ninth graders are not in the healthy fit zone; 24 percent of children are obese, and 43 percent are overweight or obese.

Like many wellness policies, MUSD's has much more detail about nutrition than physical education and physical activity. The policy encourages moderate to vigorous activity in PE classes, physical activity breaks in classrooms, shared use, and other positive actions, but only contains two lines that refer to Safe Routes to School. One line states: "Work with the community to create safe routes for active transportation to school (e.g. walk, bike, rollerblade, or skateboard safety to and from school)." The second line says "Madera Unified School District will participate in activities that promote health such as: ... walk and bike to school days." The policy also states that each school in the district will conduct a baseline assessment of the physical activity environment and policies.

While it is good to have these provisions, they are very limited, providing a very minimal commitment by the District to take any actions to encourage walking and biking to school.

#### *Areas for Improvement:*

The District Wellness Policy could be more supportive of Safe Routes to School by:

- Including a city transportation professional or Safe Routes to School community leader on the School District Wellness Committee.
- Include Safe Routes to School as a specific charge for School Health Councils.
- Spelling out more detailed actions to support Safe Routes to School, including a commitment to working with the city and the county health department to support Safe Routes to School, support for walking school buses and bike trains, inclusion of bike/ped safety and skills education in required curricula, etc.

- Including active transportation when reinforcing students' understanding of healthy lifestyles in required health education.
- In suggesting physical activity opportunities for staff, include encouragement of using active transportation to get to school sites for work.
- Related to family involvement and volunteer opportunities, note the opportunity to build community, healthy habits for students, and health for families by leading walking and biking groups to school.
- Ensuring that school baseline assessments include consideration of: the walking/biking environment in the vicinity of the school, the active transportation friendliness of the school campus itself, the school's walking and biking skills and safety educational programs, the school's walking and biking supportive events and activities, etc.

## 2. Board Policies

Board policies related to Safe Routes to School, transportation generally, and site selection and design were assessed.

### a. No Safe Routes to School/Active Travel to School Policy

Unlike many districts in California, the MUSD Board of Education has neither adopted its own Safe Routes to School policy nor has it adopted the California School Board Association's suggested voluntary Safe Routes to School policy. This is a missed opportunity to spell out support for Safe Routes to School and the student health benefits of walking and biking to school, as well as the chance to detail roles, processes, and actions of the District for Safe Routes to School.

The strongest statements in support of Safe Routes to School in MUSD's board policies are found in policies on Green School Operations and PE and Physical Activity. The Green School Operations Policy recommends consideration of strategies, such as: "Reducing vehicle traffic by encouraging students to walk or bicycle to school or use district or public transportation."<sup>6</sup> The PE/Physical Activity regulation similarly states: "The Superintendent or designee shall implement strategies for increasing opportunities for physical activity outside the physical education program, which may include, but not be limited to: ... (7) Developing programs to encourage and facilitate walking, bicycling, or other active transport to and from school."<sup>7</sup> Unfortunately, by failing to incorporate these recommended strategies into the policies that actually address transportation, the Board has limited the likely utility of the provisions.

### *Areas for Improvement:*

The District could improve its support for Safe Routes to School by:

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<sup>6</sup> Madera Unified School District Board Policy 3510, Green School Operations, <http://www.gamutonline.net/district/madera/DisplayPolicy/733749/>.

<sup>7</sup> Madera Unified School District Administrative Regulation 6142.7, Physical Education and Activity, <http://www.gamutonline.net/district/madera/DisplayPolicy/734276/>.

- Adopting the California School Board Association Safe Routes to School policy as a minimum, or developing a stronger Safe Routes to School board policy version tailored to Madera Unified School District by using the Safe Routes Partnership’s Safe Routes to School District Policy workbook to develop a detailed version specific to local needs and opportunities.

## **b. Transportation Policy**

The Board of Education has a transportation policy with a number of separate components.<sup>8</sup> The basic policy states:

The Governing Board desires to provide for the safe and efficient transportation of students to and from school as necessary to ensure student access to the educational program, promote regular attendance and reduce tardiness. The extent to which the district provides for transportation services shall depend upon student and community needs and a continuing assessment of financial resources.

The Superintendent or designee shall recommend to the Board the most economical and appropriate means of providing transportation services.

The Superintendent or designee shall develop procedures to promote safety for students traveling on school buses.

The Superintendent or designee shall ensure the qualifications of bus drivers and related staff employed by the district, provide for the maintenance and operation of district-owned school buses and other equipment, and ensure adequate facilities for equipment storage and maintenance.

As is common with many such policies, the policy appears to largely treat “transportation” as including only school bus transportation. The policy on Transportation Routes and Services only mentions walking in passing: “The Superintendent or designee may authorize transportation within the walking distance when safety problems or hazards exist.”<sup>9</sup> Opportunities to support walking and biking and explore or commit to particular actions are lacking.

### *Areas for Improvement:*

Support for Safe Routes to School could be strengthened in the District’s transportation policies by:

- Including walking and bicycling as a means of transportation under the purview of the transportation department.

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<sup>8</sup> Madera Unified School District Board Policy 3540, Transportation, <http://www.gamutonline.net/district/madera/DisplayPolicy/733789/3>.

<sup>9</sup> Madera Unified School District Administrative Regulation 3541, Transportation Routes and Services, <http://www.gamutonline.net/district/madera/displayPolicy/733791/3>.

- Encouraging walking and bicycling as the healthiest ways to travel to school; noting health and physical activity among the considerations and goals of school transportation.
- Including walking and bicycling groups as a type of transportation service provided by the District
- Encouraging walking and bicycling to bus stops.
- Exploring opportunities for remote drop offs by school buses.
- Noting opportunities and committing to accommodation for students with disabilities regarding participation in Safe Routes to School and walking and bicycling activities in the policy on Transportation for Students with Disabilities.
- Including a link to Safe Routes to School messaging and resources on the Transportation Policy webpage.

### **c. Facilities Planning/School Siting Policy**

The Board of Education has facilities planning and school site selection policies. These policies provide a good start for basic facilities planning considerations, but fail to include any real consideration around minimizing distance between student residences and schools or related considerations around ability to walk or bicycle safely to school.

The Facilities Master Plan policy provides for the development of a facilities master plan in order to identify short and long term needs and priorities.<sup>10</sup> The policy states that the plan shall include: “Analysis of the safety, adequacy, and equity of existing facilities and potential for expansion, including the adequacy of classrooms, school cafeterias and food preparation areas, physical activity areas, playgrounds, parking areas, and other school grounds.” Considerations around Safe Routes to School could easily be added in here, and would be an appropriate complement to the inclusion of parking areas.

The Site Selection and Development policy has some beneficial provisions, including public input opportunities and considerations around not using cost of land as the only consideration when siting a school in an agricultural area.<sup>11</sup> There is a reference to state siting standards, which include consideration of traffic safety issues, but the policy doesn’t include any explicit recognition of the need to include supportiveness of active travel to school as a factor in site selection.

#### *Areas for Improvement:*

Support for Safe Routes to School could be provided in policy around facilities planning and school siting by including:

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<sup>10</sup> Madera Unified School District Board Policy 7110, Facilities Master Plan, <http://www.gamutonline.net/district/madera/DisplayPolicy/734395/7>.

<sup>11</sup> Madera Unified School District Board Policy 7150, Site Selection and Development, <http://www.gamutonline.net/district/madera/DisplayPolicy/734400/7>.



- A requirement that the Master Plan analysis of existing facilities to address adequacy of walking and biking facilities on and off campus and proximity of student residences to school.
- Add considerations regarding Safe Routes to School in to MUSD Administrative Regulation 7111 on evaluating existing buildings.
- Evaluation of transportation options for students and staff during siting and design processes.
- Inclusion of Safe Routes to School staff, volunteers, and City transportation staff in siting procedures.
- Requirement that new school sites have safe and accessible transportation options for students that include walking and biking to and from school.
- Inclusion of proximity to students' residences as a significant consideration.
- Requirement that school design to be supportive of biking and walking, through amenities on campus and prominently featured and abundant supportive connections to surrounding neighborhoods.
- Incorporation of consideration of the General Plan and other local plans into school siting policy as a mechanism for contributing to community needs.

### 3. Facilities Master Plan

As called for in its board policies, the Board of Education adopted a Facilities Master Plan in 2014. This plan is not available online, which makes it harder for the public to understand the considerations, status, and plans for the future for District facilities.

A review of the 2014 Facilities Master Plan and its less formalized update, the 12 Year Facilities Master Plan prepared in 2017, show that the District is working to thoughtfully address a growing population and inadequate classroom space. The plans seek to balance geographic needs, existing catchment areas, needs at existing schools, deteriorating portables, and needs for new schools.

The 2014 plan describes the first step of facilities planning as “Defining the facility needs by setting clear objectives” – but the objectives are not defined clearly in the document. Instead, the District’s existing mission principles are referenced, but it is unclear how these objectives or the objective of equity between sites are actually applied. Including this information would help the public understand tradeoffs and evaluate the options. In addition, there did not appear to be any life cycle or full cost analysis of school options; by including these analyses, the public would be better able to assess long term costs to the District, the City, and families.

School facilities analyses occasionally include needs related to safe walking and biking, but largely do not. An exception is seen for Lincoln Elementary: “Lincoln is a newer school facility in relatively good condition. Vehicular circulation and safe pedestrian access are this sites largest problems. Lack of a dedicated parent drop off creates congestion and safety issues at arrival and dismissal. Side-walks and cross-walks force pedestrians to cross lanes of traffic multiple times before reaching a school entrance.” Overall, although there was some reference to parking lots, feeder patterns, and geographic proximity in the documents, there was no clear analysis of student travel patterns or potential and these were not clearly or consistently factored into recommendations.

The 2017 update provides more detail regarding phases of anticipated construction over the 12 year period and sets out important priorities and required decisions. It does not address walking and biking to school.

#### *Areas for Improvement:*

- Clearly define objectives and how they influence recommendations to help the public understand tradeoffs and evaluate the options. Include walking and biking to school and their contributions to student health and attendance as objectives.
- Include life cycle and full cost analysis of school options.
- Assess current student travel patterns to each school.
- Include needs for bicycle parking and safe walking and biking to and through the campus in analysis of each school’s needs.

### E. SAFE ROUTES PARTNERSHIP RECOMMENDATIONS

The City of Madera has strong policies and plans supporting active transportation; however, it could make a stronger connection to prioritizing schools within active transportation projects. The Madera

Unified School District does not have a district Safe Routes to School policy and contains fairly weak support for biking and walking.

***Key Considerations to Improve Policy Commitment to Safe Routes to School in the City and County of Madera:***

For the Madera County Transportation Commission:

- Increase the focus of the RTP on active transportation and decrease the focus on vehicular capacity.
- Clarify that Complete Streets principles apply to transportation projects and funding generally, not simply to active transportation projects.
- Developing a stronger, more detailed, and more intensive set of commitments in the Recommended Enhancements to the Safe Routes to School program.
- Remove the car oriented Level of Service (LOS) approaches; replace with multimodal level of service metrics (MMLOS).

For Madera County:

- Providing more detailed and proactive commitments regarding support for Safe Routes to School, both regarding infrastructure needs and also program support.

For the City of Madera:

- Implement the actions outlined in the General Plan to support Safe Routes to School.
- Include schools in prioritization of pedestrian and bicycle network projects and improvements.
- Make more commitments and direct connections to Safe Routes to School throughout plans.
- Remove the car oriented Level of Service (LOS) approaches; replace with multimodal level of service metrics (MMLOS).

For the Madera Unified School District:

- Adopt a strong Safe Routes to School board policy.
- Include Safe Routes to School support and considerations throughout board transportation policies.
- Include a Safe Routes to School coordinator or city transportation professional in the School Wellness Committee.
- Include a link to Safe Routes to School messaging and resources on the District website.
- Include the following in future facilities planning/school siting policies:
  - Evaluating transportation options for students and staff during siting and design process.
  - Including Safe Routes to School staff, volunteers, health department, and city transportation staff in siting decisions.
  - Requiring new school sites have safe and accessible transportation options for students that include walking and biking to and from school.



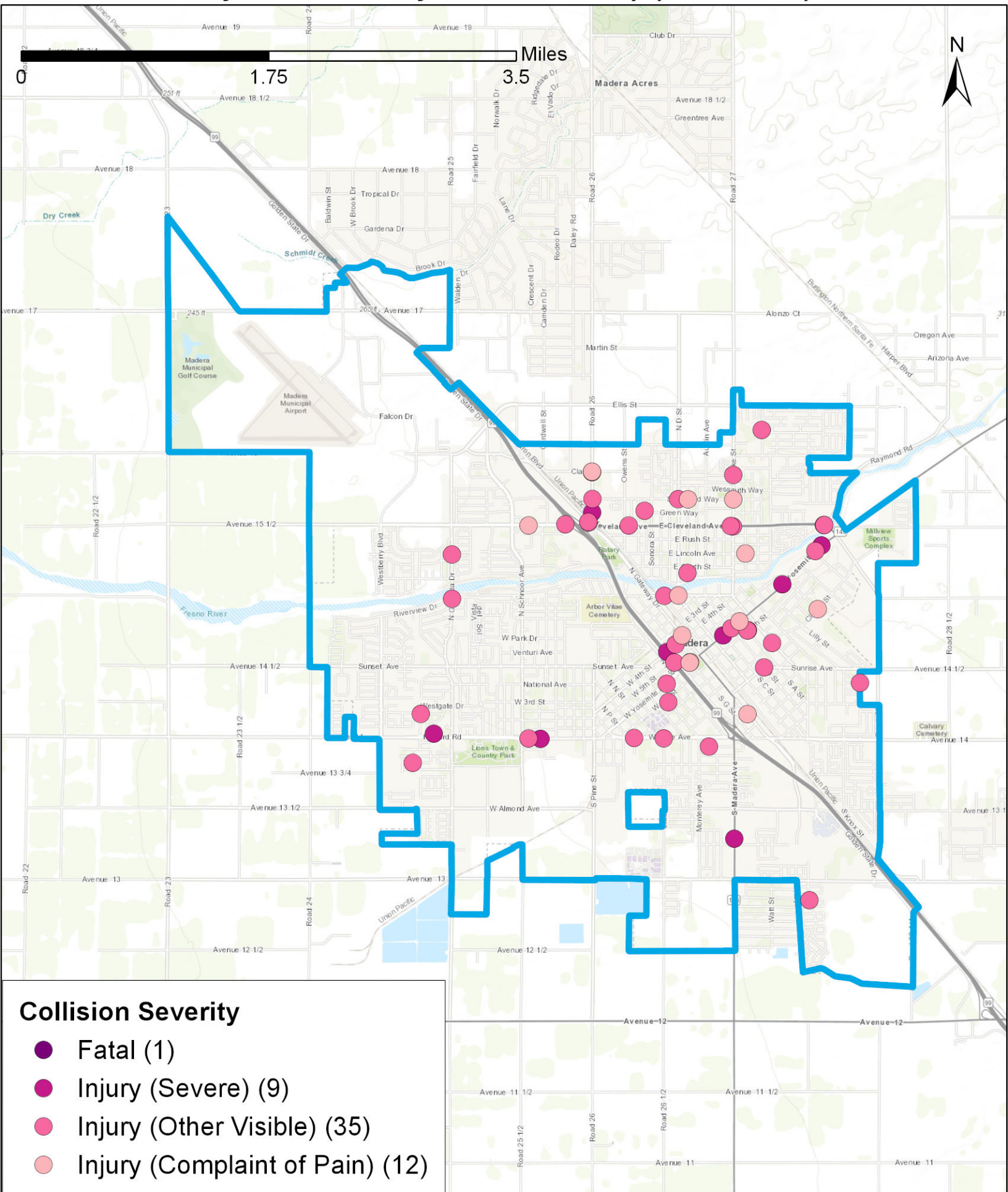
## APPENDIX B. COLLISION MAPS

### A. INTRODUCTION

This appendix contains additional information regarding collisions involving pedestrians and bicyclists in the City of Madera and the County of Madera, including:

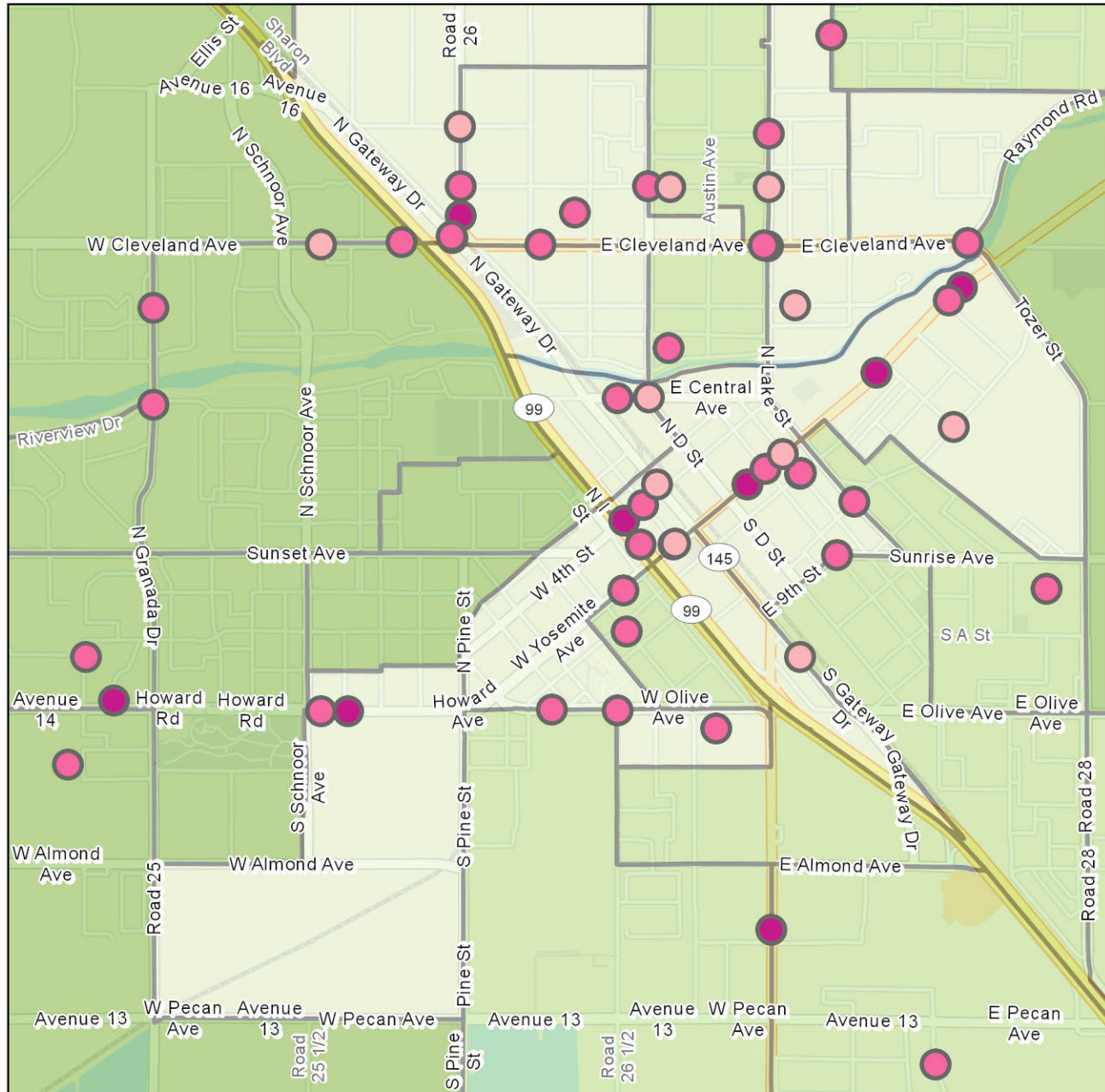
- Maps showing pedestrian and bicycle collisions and injury severity (2013-2017)
- Maps showing collisions in relation to median household income by census tract (2013-2017)
- Summaries by victim age and gender
- Collisions by time of day and day of week
- Type of violation
- Race/ethnicity of victim (City of Madera only)

# City of Madera Bicycle Collision Map (2013 - 2017)





# City of Madera Bicycle Collision Map with Income (2013 - 2017)



## Collision Severity (2013-2017)

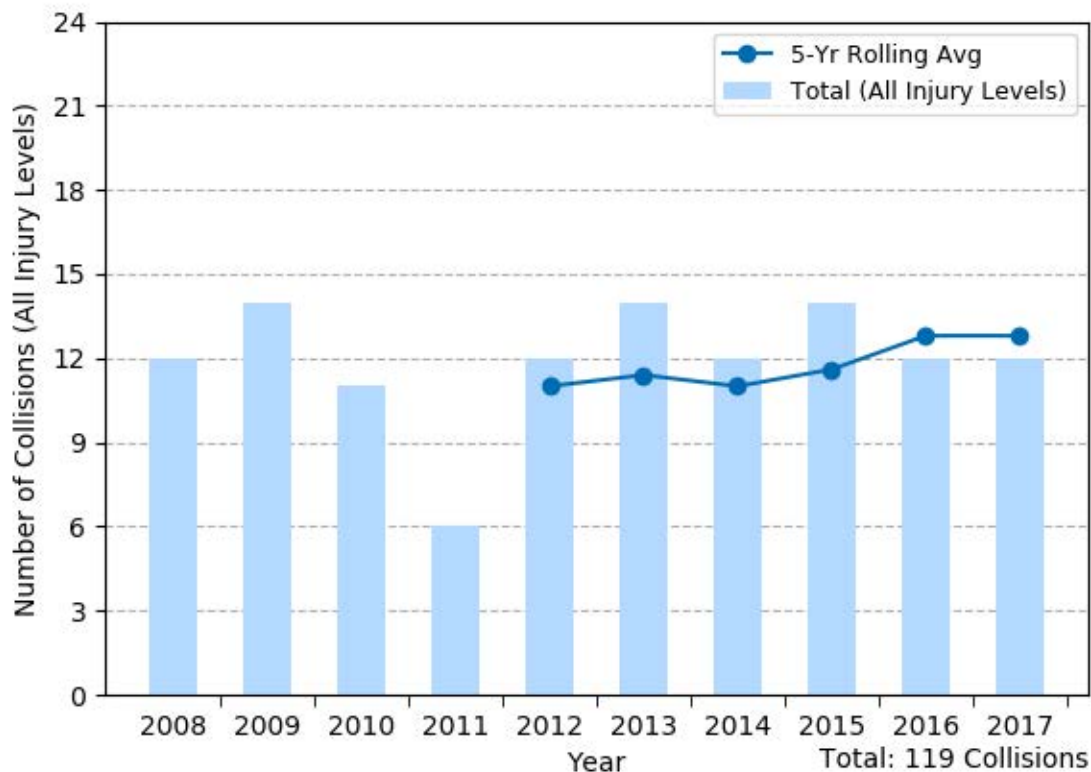
- Fatal (1)
- Injury (Severe) (9)
- Injury (Other Visible) (35)
- Injury (Complaint of Pain) (12)

## 2017 Median Household Income

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

Data Source: Collision - Statewide Integrated Traffic Record System (SWITRS)  
 2013-2017; 2016 and 2017 data are provisional as of June 2019  
 Demographics - Esri, US Census Bureau, and ACS  
 Date: 7/10/2019

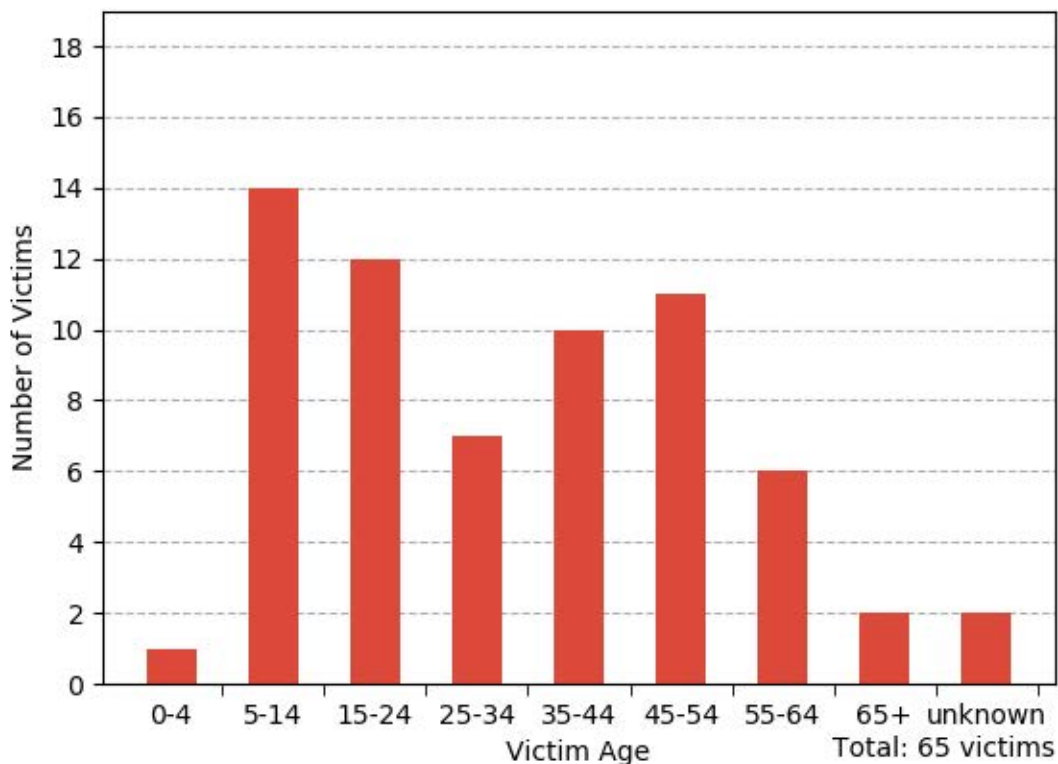
## City of Madera Bicycle Injury Collisions (2008 - 2017)



Data Source: Statewide Integrated Traffic Record System (SWITRS) 2008-2017; 2016 and 2017 data are provisional as of June 2019

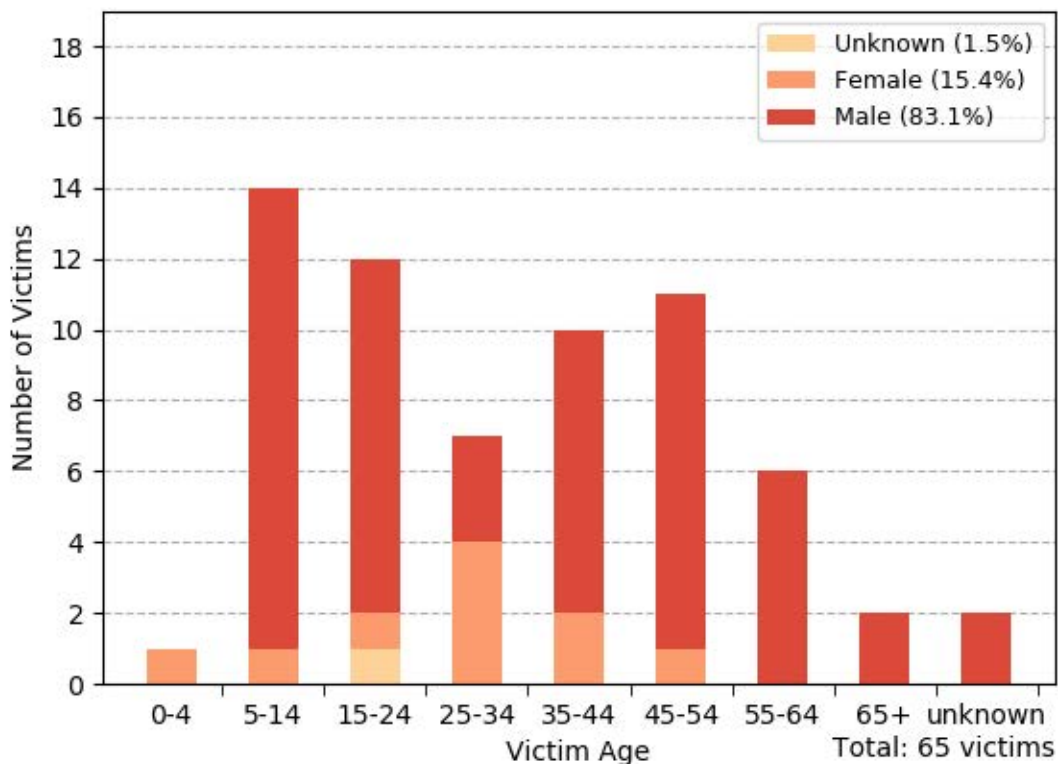


## City of Madera Bicycle Victims by Age



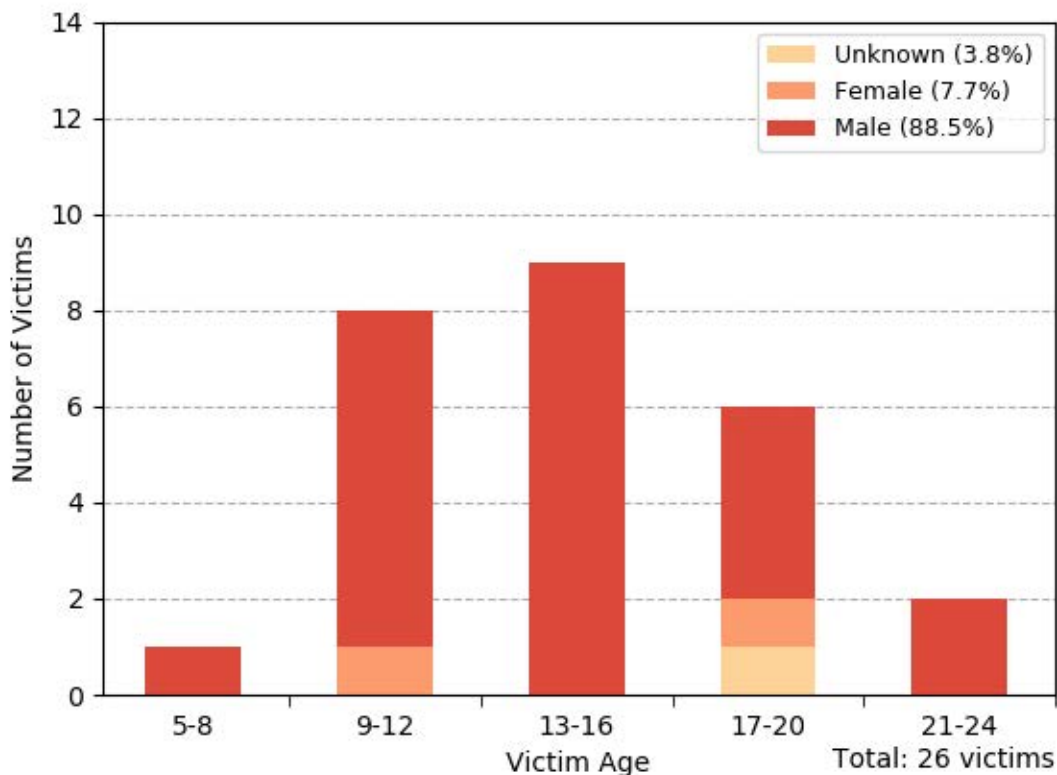
Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019

## City of Madera Bicycle Victims by Age and Gender



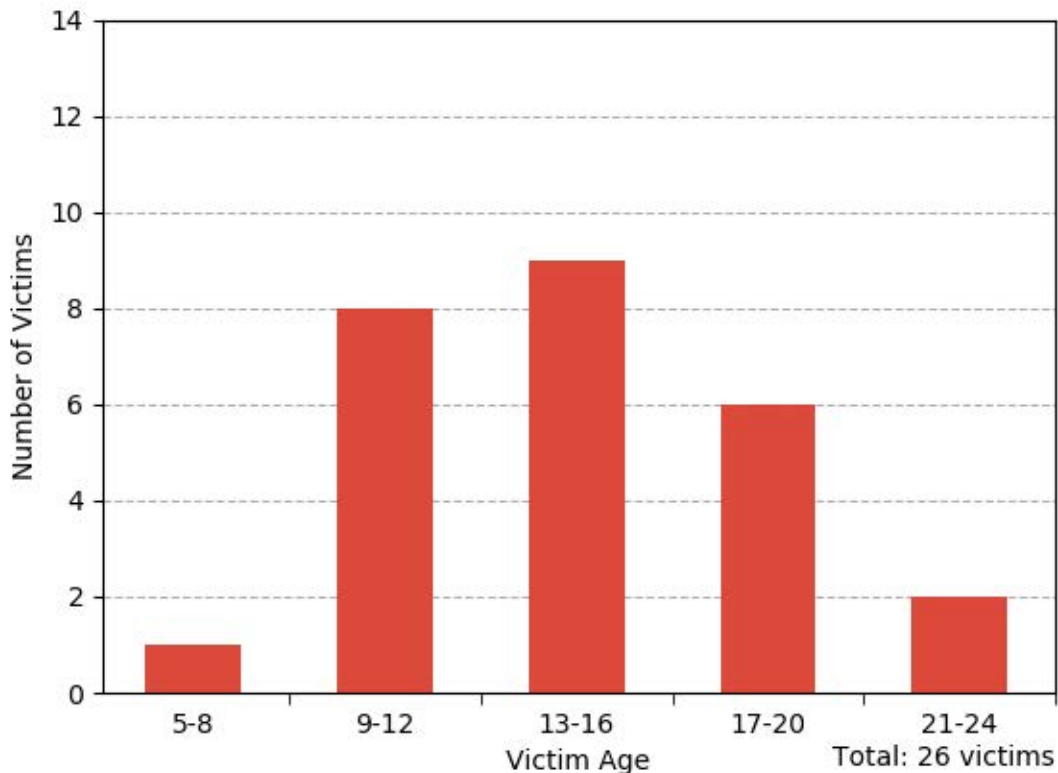
Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019

## City of Madera Bicycle Child and Youth Victims by Age and Gender



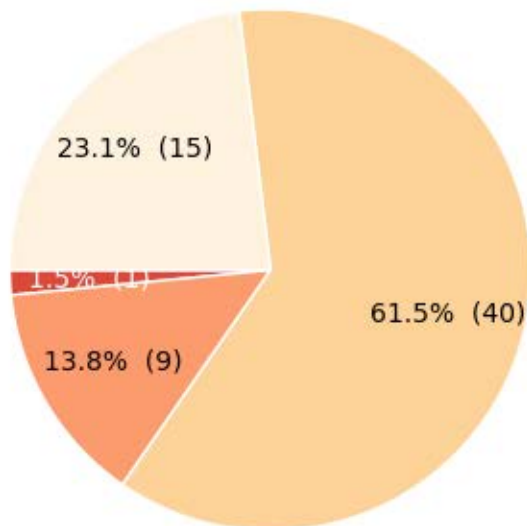
Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019

## City of Madera Bicycle Child and Youth Victims by Age



Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019

## City of Madera Bicycle Victims by Injury Severity



Total: 65 victims

Fatal

Suspected Serious Injury

Suspected Minor Injury

Possible Injury

Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019

# City of Madera Bicycle Collisions by Time of Day and Day of Week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
09:00PM-11:59PM -	0	1	0	0	1	1	0	3
06:00PM-08:59PM -	5	2	3	2	2	2	3	19
03:00PM-05:59PM -	4	3	6	4	1	2	1	21
Noon-02:59PM -	1	1	2	2	3	0	2	11
09:00AM-11:59AM -	0	0	1	0	1	0	0	2
06:00AM-08:59AM -	1	1	1	0	1	1	0	5
03:00AM-05:59AM -	0	0	0	1	0	0	0	1
Midnight-02:59AM -	0	0	0	0	0	0	1	1
Total	11	8	13	9	9	6	7	63

Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019

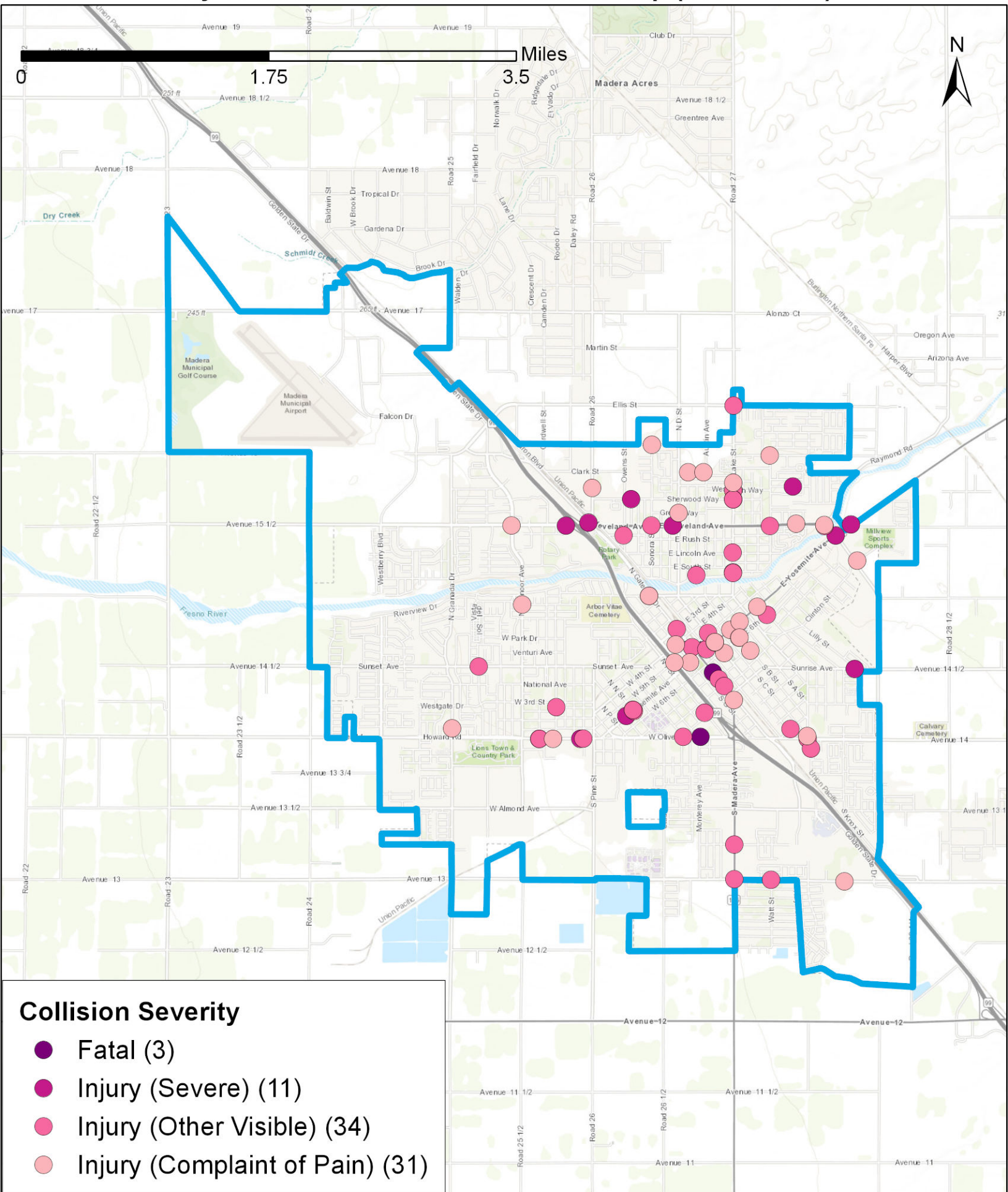
City of Madera Bicycle Collisions by Type of Violation  
Total: 64 Collisions

CVC No.	Description	Number of Collisions
21650	Failure to drive/ride on right half of the roadway (with some exceptions)	15 (23.4%)
22107	Unsafe turning or moving right or left on a roadway    Turning without signaling	11 (17.2%)
21453	Failure to stop at a limit line or crosswalk at a red light    Failure to yield right-of-way to pedestrian when turning on a red light	7 (10.9%)
21804	Driver failure to yield right-of-way when entering/crossing a highway	6 (9.4%)
22450	Driver failure to stop at a limit line or crosswalk at a stop sign / (ND ): Driver failure to stop for a stop sign before a limit line; otherwise, a crosswalk or intersection entrance    Driver failure to stop at limit line before railroad; or, before entering	5 (7.8%)
21801	Driver failure to yield right-of-way when making a left turn or U-turn	4 (6.2%)
21802	Failure to stop or yield right-of-way at a stop sign	4 (6.2%)
21800	Failure to yield right-of-way at intersection, including failure to yield to vehicles already in the intersection, on a continuing highway, or on their right side in an intersection, or safely when an intersection is controlled	3 (4.7%)
21658	Failure to drive vehicle in single lane	2 (3.1%)

Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019

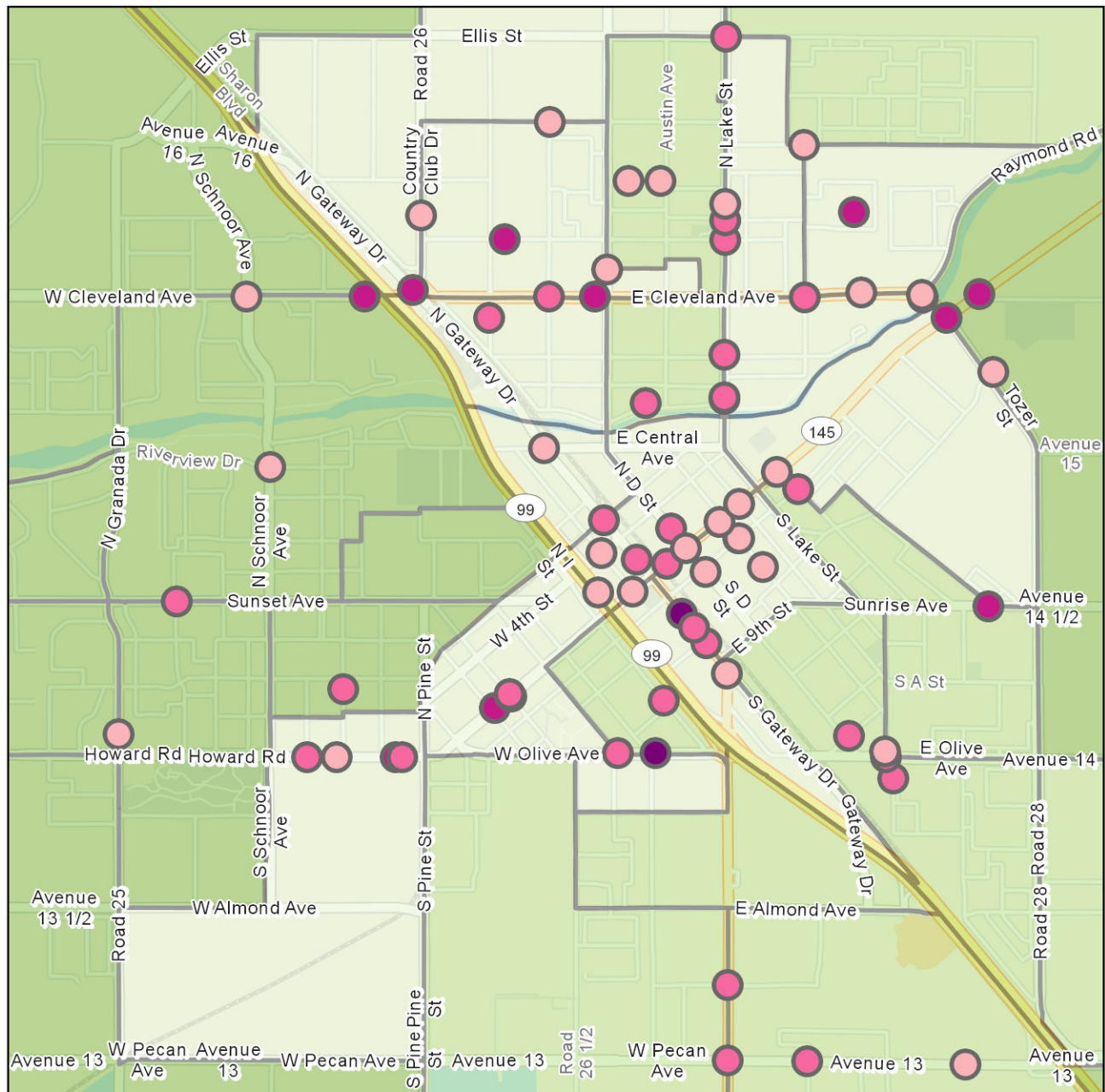


# City of Madera Pedestrian Collision Map (2013 - 2017)





# City of Madera Pedestrian Collision Map with Income (2013 - 2017)



## Collision Severity (2013-2017)

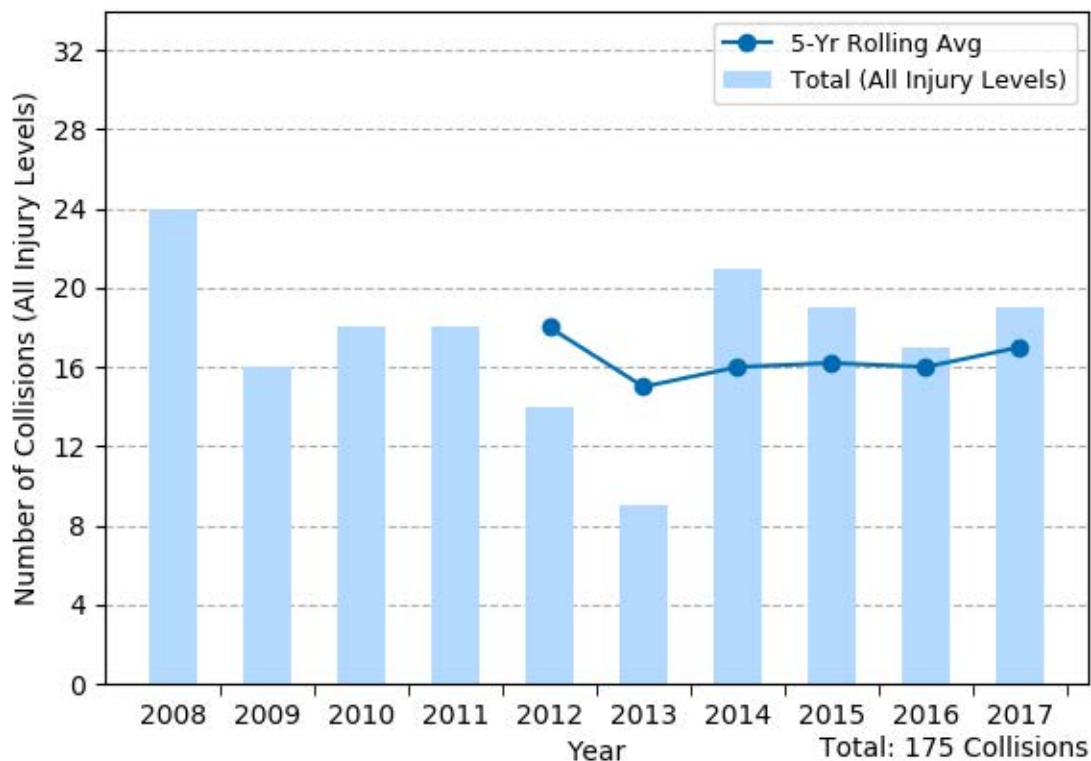
- Fatal (3)
- Injury (Severe) (11)
- Injury (Other Visible) (34)
- Injury (Complaint of Pain) (31)

## 2017 Median Household Income

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

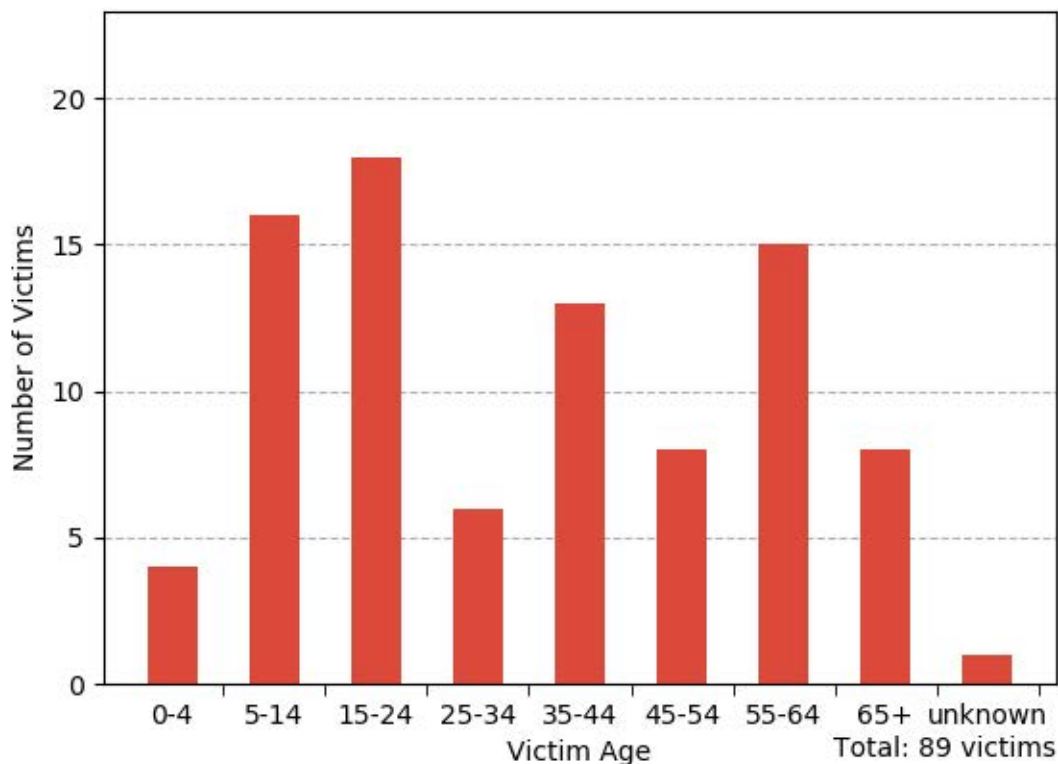
Data Source: Collision - Statewide Integrated Traffic Record System (SWITRS)  
 2013-2017; 2016 and 2017 data are provisional as of June 2019  
 Demographics - Esri, US Census Bureau, and ACS  
 Date: 7/10/2019

## City of Madera Pedestrian Injury Collisions (2008 - 2017)



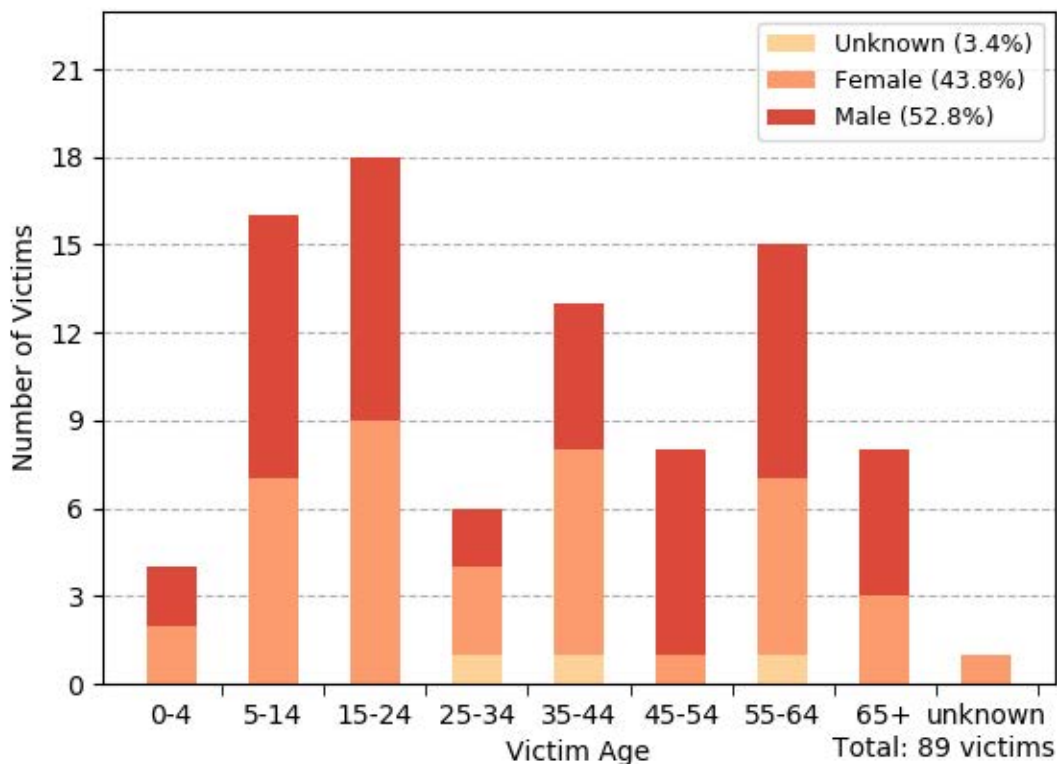
Data Source: Statewide Integrated Traffic Record System (SWITRS) 2008-2017; 2016 and 2017 data are provisional as of June 2019

## City of Madera Pedestrian Victims by Age



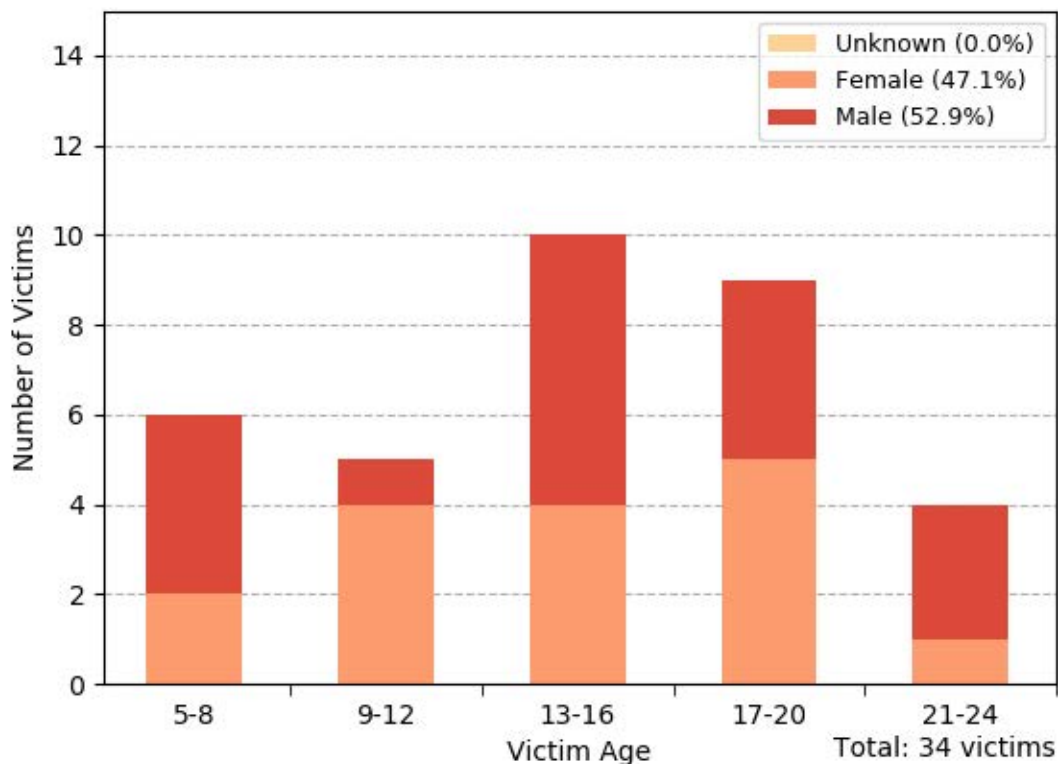
Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019

## City of Madera Pedestrian Victims by Age and Gender



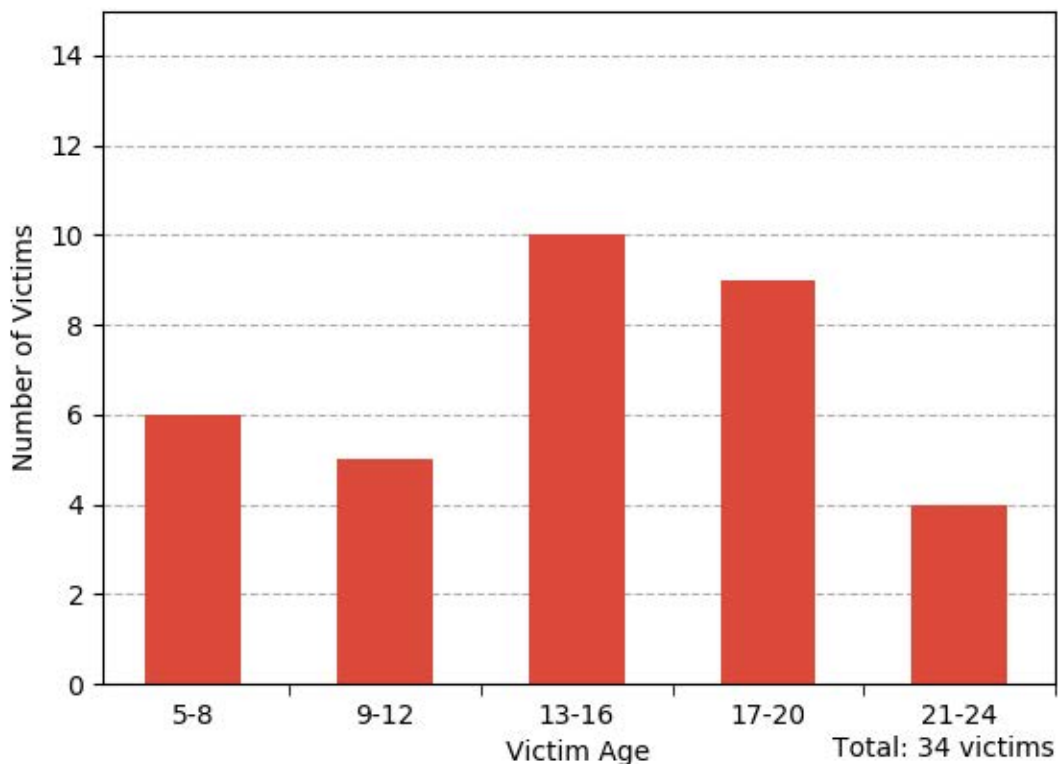
Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019

## City of Madera Pedestrian Child and Youth Victims by Age and Gender



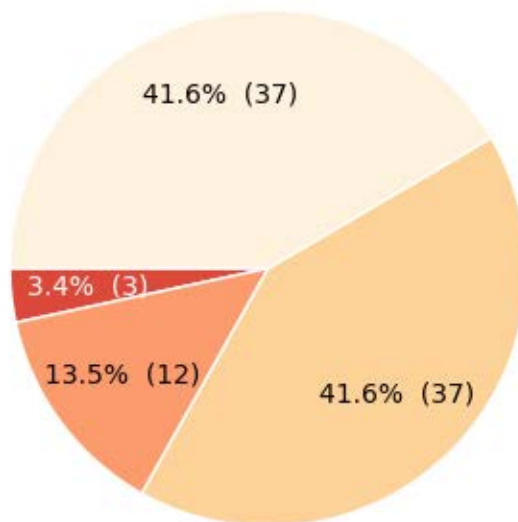
Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019

## City of Madera Pedestrian Child and Youth Victims by Age



Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019

## City of Madera Pedestrian Victims by Injury Severity



Total: 89 victims

Fatal

Suspected Serious Injury

Suspected Minor Injury

Possible Injury

Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019

# City of Madera Pedestrian Collisions by Time of Day and Day of Week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
09:00PM-11:59PM -	2	0	1	0	0	0	2	5
06:00PM-08:59PM -	5	3	3	5	4	4	1	25
03:00PM-05:59PM -	3	0	1	2	2	3	1	12
Noon-02:59PM -	2	0	2	3	2	0	0	9
09:00AM-11:59AM -	2	1	3	0	0	2	0	8
06:00AM-08:59AM -	5	2	2	9	2	0	0	20
03:00AM-05:59AM -	0	1	2	0	1	0	0	4
Midnight-02:59AM -	1	1	0	0	0	0	0	2
Total	20	8	14	19	11	9	4	85

Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019



City of Madera Pedestrian Collisions by Type of Violation  
Total: 85 Collisions

CVC No.	Description	Number of Collisions
21950	Driver failure to yield right-of-way to pedestrians at a marked or unmarked crosswalk	45 (52.9%)
21954	Pedestrian failure to yield right-of-way to vehicles when crossing outside of a marked or unmarked crosswalk	9 (10.6%)
21956	Pedestrian failure to walk close to the edge of the roadway when there is no sidewalk present / Pedestrian failure to walk on the left-hand edge of the roadway when outside of a business or resident district, unless crossing is not possible	7 (8.2%)
21955	Pedestrian failure to cross at crosswalks between adjacent traffic signal controlled intersections	5 (5.9%)
22107	Unsafe turning or moving right or left on a roadway Turning without signaling	3 (3.5%)
21453	Failure to stop at a limit line or crosswalk at a red light Failure to yield right-of-way to pedestrian when turning on a red light	2 (2.4%)
21456	Pedestrian failure to yield right-of-way at traffic signal / Failure of pedestrian to yield right-of-way to vehicles already in intersection Failure to obey crosswalk symbols or finish crossing before "countdown" ends	2 (2.4%)
22106	Unsafe starting or backing of a vehicle on a highway	2 (2.4%)
22350	Speeding on the highway / Driving at a dangerously high speed given highway conditions like weather, visibility, traffic, and highway measurements, or driving at a speed that endangers people or property	2 (2.4%)
22450	Driver failure to stop at a limit line or crosswalk at a stop sign / (ND ): Driver failure to stop for a stop sign before a limit line; otherwise, a crosswalk or intersection entrance Driver failure to stop at limit line before railroad; or, before entering	2 (2.4%)

Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of June 2019

City of Madera – Race/Ethnicity Breakdown by Age for police-reported collisions from 2013-2017\*

All Parties in Bicycle Collisions

Age Group	Asian	Black	Hispanic	Other	White	Unknown	Total
0-4			1				1
5-14			10		2		12
15-24		1	22		7		30
25-34		3	9	1	3		16
35-44			14	1	5		20
45-54		2	15	1	4		22
55-64		1	3		3	1	8
65+		1	4		1		6
Unknown			3		1	6	10
<b>Total</b>	<b>0</b>	<b>8</b>	<b>81</b>	<b>3</b>	<b>26</b>	<b>7</b>	<b>125</b>

Drivers in Bicycle Collisions

Age Group	Asian	Black	Hispanic	Other	White	Unknown	Total
0-4							0
5-14							0
15-24		1	13		2		16
25-34		1	5	1	2		9
35-44			9	1	1		11
45-54			8	1	1		10
55-64					1	1	2
65+		1	2		1		4
Unknown			2			2	4
<b>Total</b>	<b>0</b>	<b>3</b>	<b>39</b>	<b>3</b>	<b>8</b>	<b>3</b>	<b>56</b>

Bicyclists in Bicycle Collisions

Age Group	Asian	Black	Hispanic	Other	White	Unknown	Total
0-4			1				1
5-14			10	2			12
15-24			9	5			14
25-34		2	4	1			7
35-44			5	4			9
45-54		2	7	3			12
55-64		1	3	2			6
65+			2				2
Unknown			1	1		1	3
<b>Total</b>	<b>0</b>	<b>5</b>	<b>42</b>	<b>18</b>	<b>0</b>	<b>1</b>	<b>66</b>

All Parties in Pedestrian Collisions

Age Group	Asian	Black	Hispanic	Other	White	Unknown	Total
0-4			6				6
5-14			16			1	17
15-24		2	27		2	1	32
25-34		1	13		6		20
35-44		1	15		2	1	19
45-54	1	1	16		3	1	22
55-64		3	17		7		27
65+		2	12		5		19
Unknown			1		2	16	19
<b>Total</b>	<b>1</b>	<b>10</b>	<b>123</b>	<b>0</b>	<b>27</b>	<b>20</b>	<b>181</b>

Drivers in Pedestrian Collisions

Age Group	Asian	Black	Hispanic	Other	White	Unknown	Total
0-4							0
5-14							0
15-24			13		1		14
25-34			9		5		14
35-44			4		2		6
45-54	1	1	10		2	1	15
55-64		2	5		4		11
65+		1	6		4		11
Unknown			1		1	12	14
<b>Total</b>	<b>1</b>	<b>4</b>	<b>48</b>	<b>0</b>	<b>19</b>	<b>13</b>	<b>85</b>

Pedestrians in Pedestrian Collisions

Age Group	Asian	Black	Hispanic	Other	White	Unknown	Total
0-4			6				6
5-14			16				16
15-24		2	14		1	1	18
25-34		1	4		1		6
35-44		1	11			1	13
45-54			6		1		7
55-64		1	12		3	1	17
65+		1	6		1		8
Unknown					1		1
<b>Total</b>	<b>0</b>	<b>6</b>	<b>75</b>	<b>0</b>	<b>8</b>	<b>3</b>	<b>92</b>

\* 2016 and 2017 SWITRS provisional as of March 2019.

County of Madera – Race/Ethnicity Breakdown by Age for police-reported collisions from 2013-2017\*

All Parties in Bicycle Collisions

Age Group	Asian	Black	Hispanic	Other	White	Unknown	Total
0-4			2				2
5-14			12		6		18
15-24	1	1	25		16	1	44
25-34		4	15	1	5		25
35-44			15	1	11		27
45-54		2	21	1	11		35
55-64		1	7		9	1	18
65+		1	5		8		14
Unknown			3		1	13	17
<b>Total</b>	<b>1</b>	<b>9</b>	<b>105</b>	<b>3</b>	<b>67</b>	<b>15</b>	<b>200</b>

Drivers in Bicycle Collisions

Age Group	Asian	Black	Hispanic	Other	White	Unknown	Total
0-4							0
5-14							0
15-24		1	15		5		21
25-34		1	9	1	3		14
35-44			9	1	5		15
45-54			11	1	1		13
55-64			1		2	1	4
65+		1	3		5		9
Unknown			2			8	10
<b>Total</b>	<b>0</b>	<b>3</b>	<b>50</b>	<b>3</b>	<b>21</b>	<b>9</b>	<b>86</b>

Bicyclists in Bicycle Collisions

Age Group	Asian	Black	Hispanic	Other	White	Unknown	Total
0-4			2				2
5-14			12		6		18
15-24	1		10		11	1	23
25-34		3	6		2		11
35-44			6		6		12
45-54		2	10		10		22
55-64		1	6		7		14
65+			2		3		5
Unknown			1		1	1	3
<b>Total</b>	<b>1</b>	<b>6</b>	<b>55</b>	<b>0</b>	<b>46</b>	<b>2</b>	<b>110</b>

All Parties in Pedestrian Collisions

Age Group	Asian	Black	Hispanic	Other	White	Unknown	Total
0-4			7				7
5-14		1	18	1	3	3	26
15-24	1	2	42		8	1	54
25-34		1	23		14		38
35-44		1	21	1	9	1	33
45-54	1	1	19		10	1	32
55-64		5	23		14		42
65+	1	3	18	1	12		35
Unknown			1		2	32	35
<b>Total</b>	<b>3</b>	<b>14</b>	<b>172</b>	<b>3</b>	<b>72</b>	<b>38</b>	<b>302</b>

Drivers in Pedestrian Collisions

Age Group	Asian	Black	Hispanic	Other	White	Unknown	Total
0-4							0
5-14							0
15-24	1		22		5		28
25-34			16		7		23
35-44			5	1	7		13
45-54	1	1	11		5	1	19
55-64		3	7		9		19
65+		1	7		9		17
Unknown			1		1	21	23
<b>Total</b>	<b>2</b>	<b>5</b>	<b>69</b>	<b>1</b>	<b>43</b>	<b>22</b>	<b>142</b>

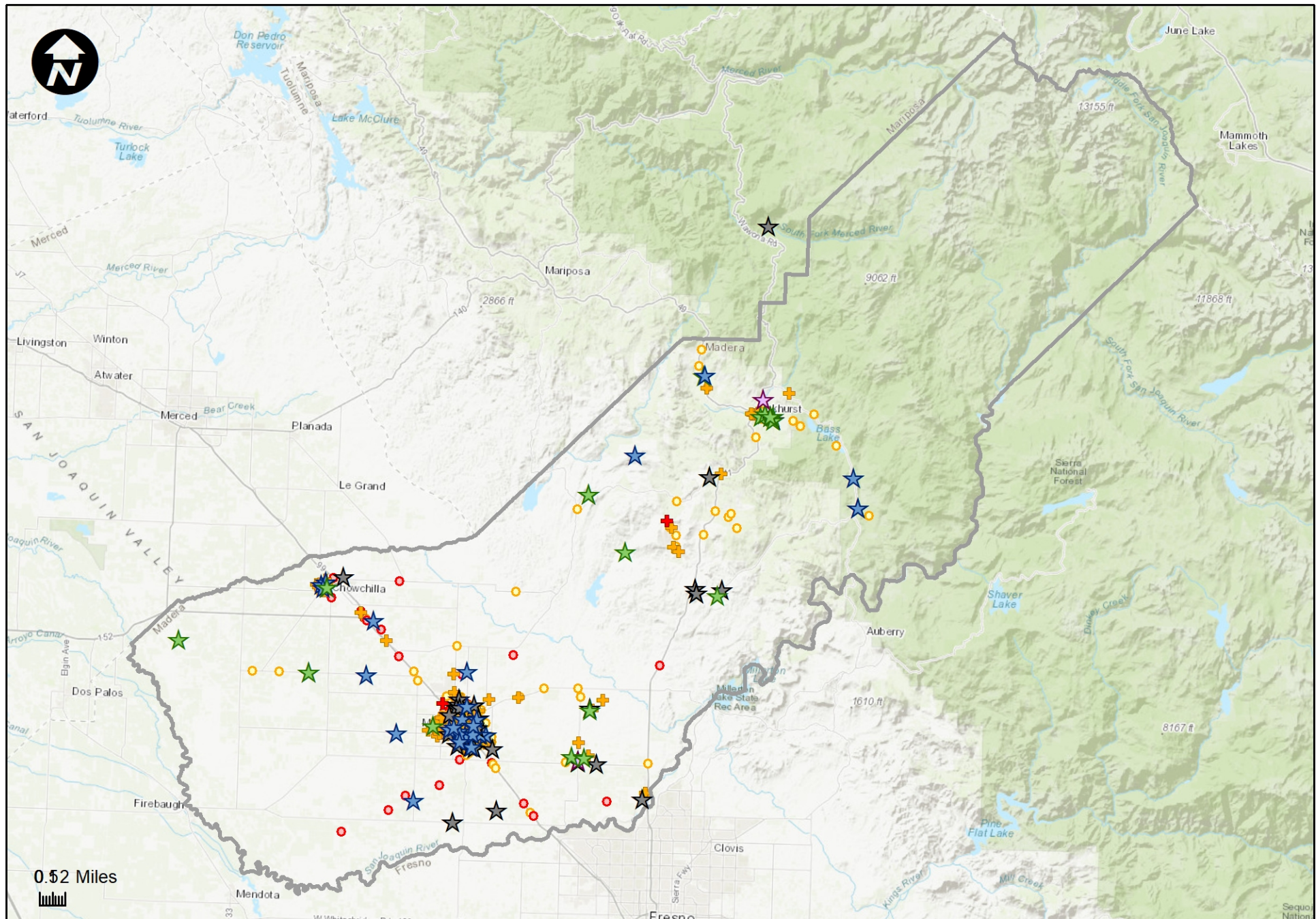
Pedestrians in Pedestrian Collisions

Age Group	Asian	Black	Hispanic	Other	White	Unknown	Total
0-4			7				7
5-14		1	18	1	3	3	26
15-24		2	20		3	1	26
25-34		1	7		7		15
35-44		1	16		2	1	20
45-54			8		5		13
55-64		2	16		5		23
65+	1	2	11	1	3		18
Unknown					1	2	3
<b>Total</b>	<b>1</b>	<b>9</b>	<b>103</b>	<b>2</b>	<b>29</b>	<b>7</b>	<b>151</b>

\*2016 and 2017 SWITRS provisional as of March 2019.



# Madera - Pedestrian or Bicycle Collisions (2008-2017)



## Schools by % FRPM

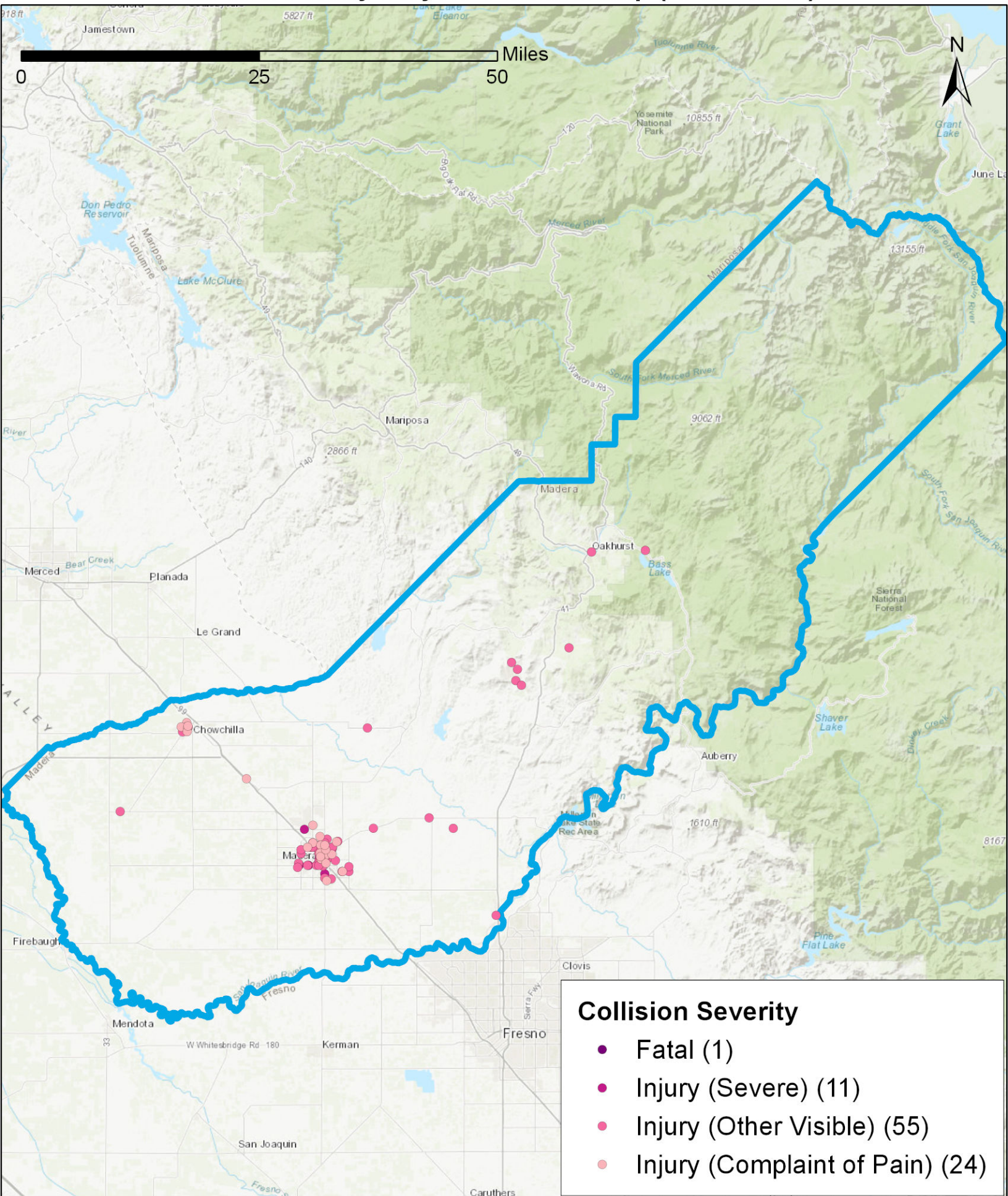
- ★ Unknown (44)
- ★ High Income (<40) (3)
- ★ Middle Income (40-75) (18)
- ★ Low Income (>75) (27)

## Pedestrian/Bicycle Collisions

- ✚ Fatality (age 5-18) (3)
- ✚ Injury (age 5-18) (150)
- Fatality (other) (35)
- Injury (other) (222)

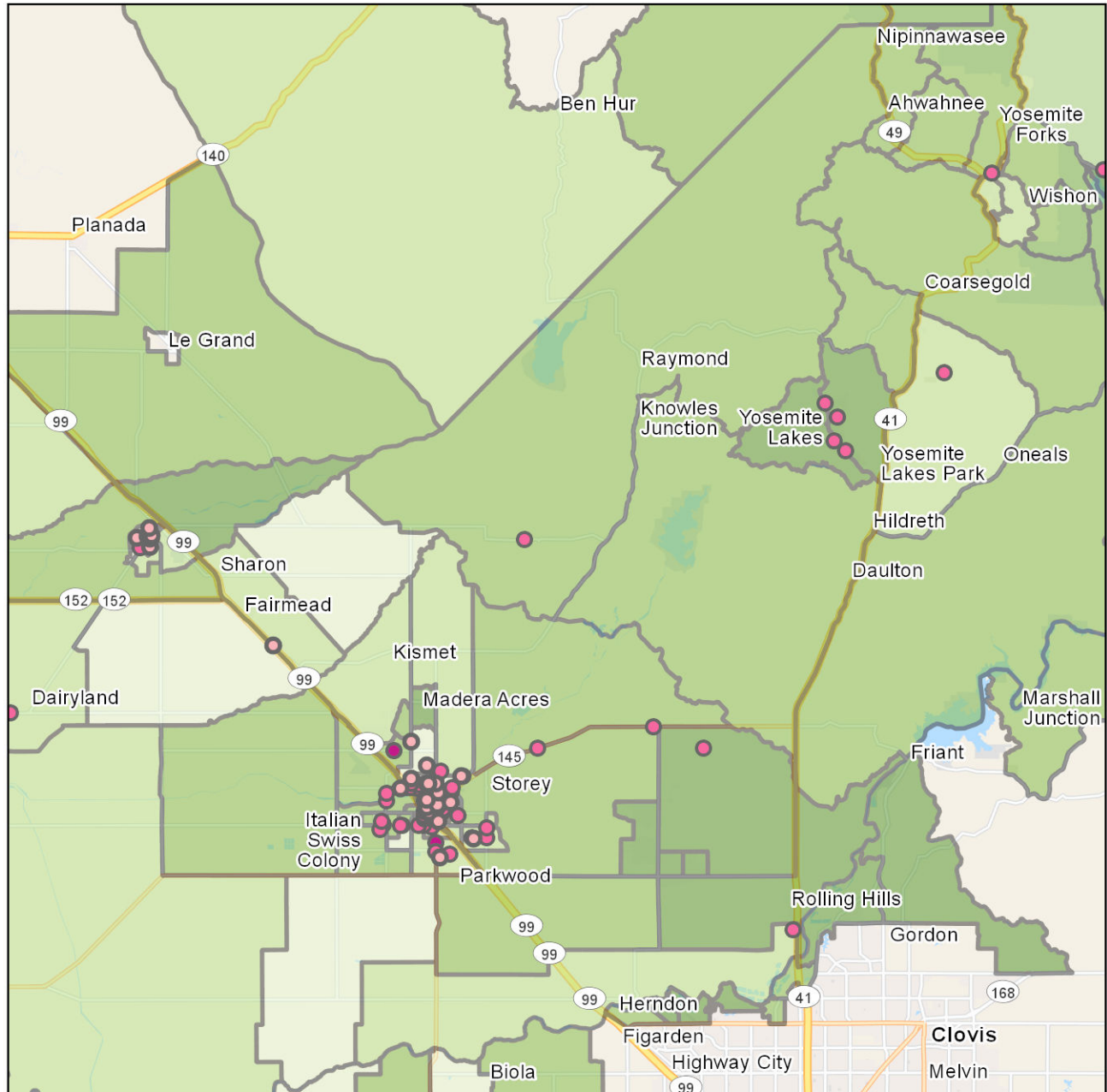


# Madera County Bicycle Collision Map (2013 - 2017)





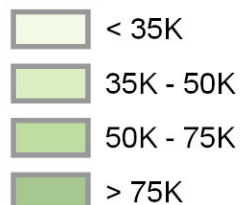
# Madera County Bicycle Collision Map with Income (2013 - 2017)



## Collision Severity (2013-2017)

- Fatal (1)
- Injury (Severe) (11)
- Injury (Other Visible) (55)
- Injury (Complaint of Pain) (24)

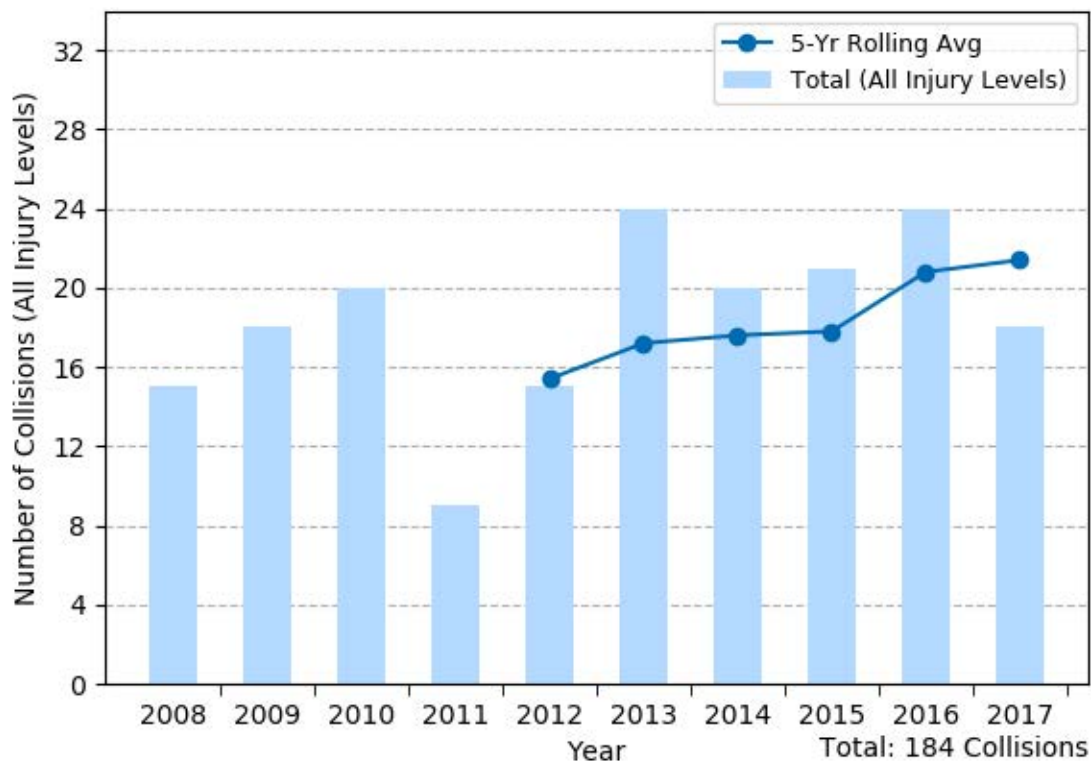
## 2017 Median Household Income



Data Source: Collision - Statewide Integrated Traffic Record System (SWITRS)  
 2013-2017; 2016 and 2017 data are provisional as of March 2019  
 Demographics - Esri, US Census Bureau, and ACS

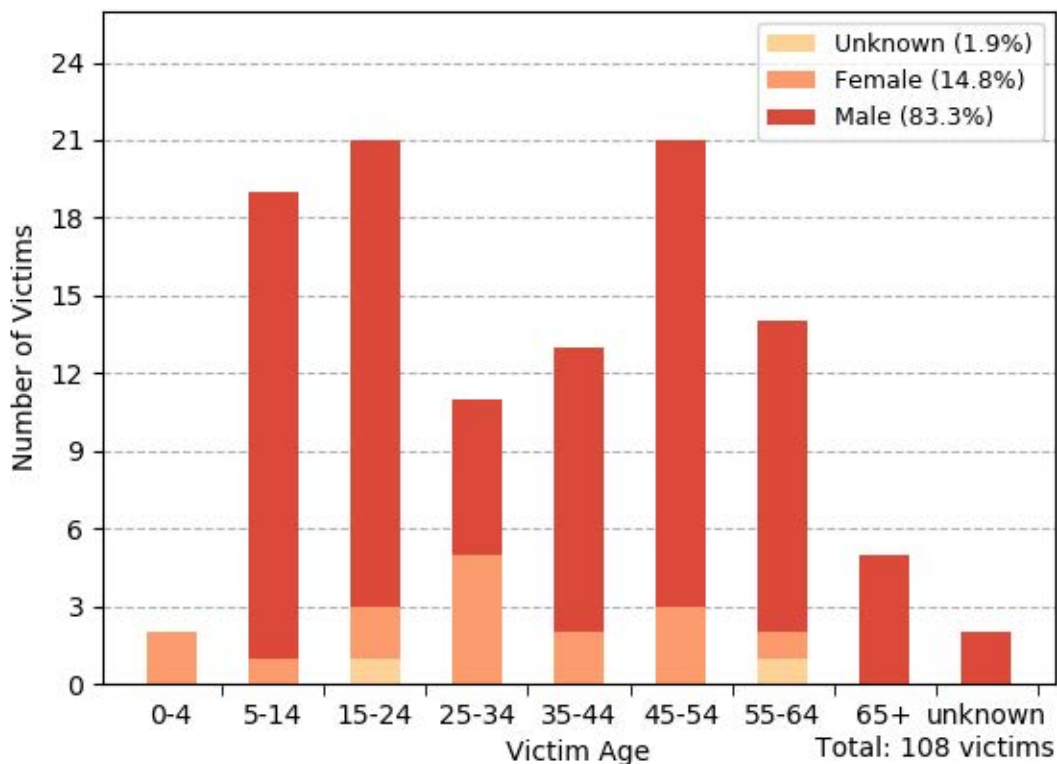
Date: 5/7/2019

## Madera County Bicycle Injury Collisions (2008 - 2017)



Data Source: Statewide Integrated Traffic Record System (SWITRS) 2008-2017; 2016 and 2017 data are provisional as of March 2019

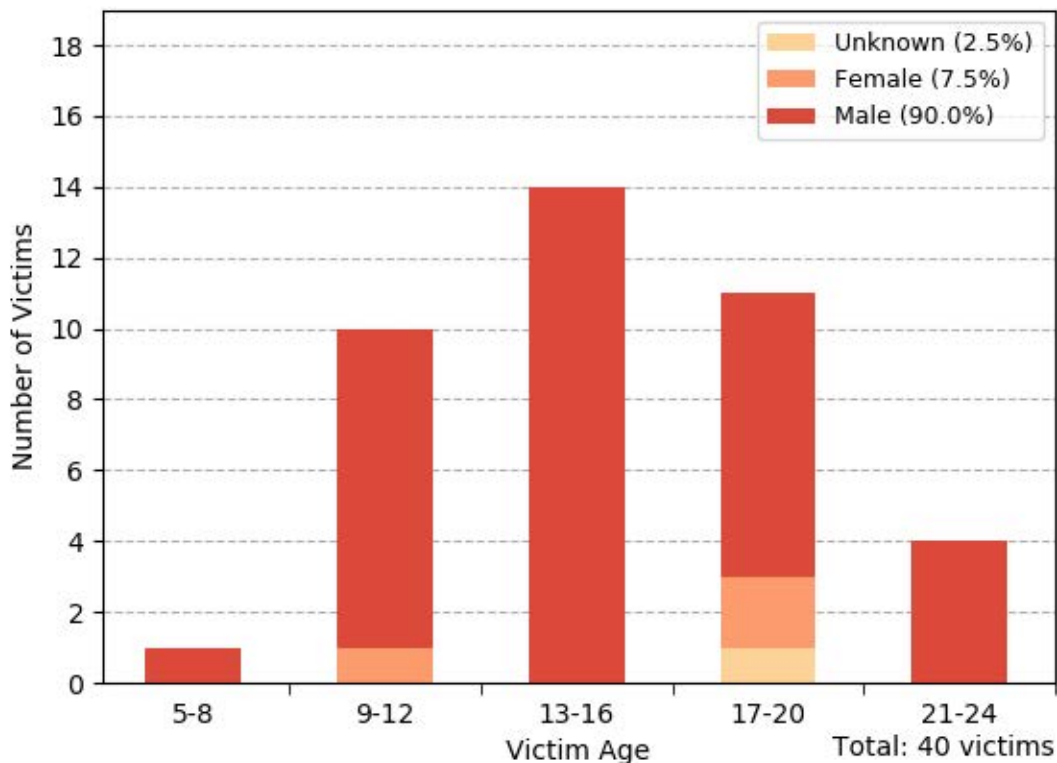
## Madera County Bicycle Victims by Age and Gender



Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of March 2019

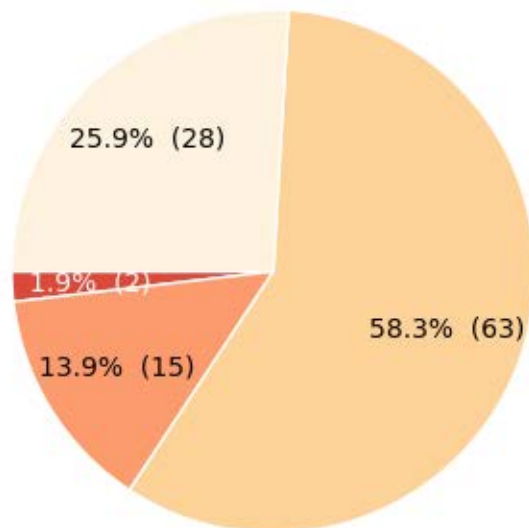


## Madera County Bicycle Child and Youth Victims by Age and Gender

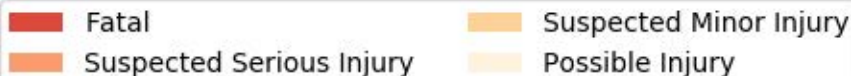


Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of March 2019

## Madera County Bicycle Victims by Injury Severity



Total: 108 victims



Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of March 2019

## Madera County Bicycle Collisions by Time of Day and Day of Week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
09:00PM-11:59PM -	0	2	0	0	2	1	0	5
06:00PM-08:59PM -	8	5	5	4	2	2	4	30
03:00PM-05:59PM -	6	9	6	5	2	5	3	36
Noon-02:59PM -	2	1	2	4	3	2	3	17
09:00AM-11:59AM -	0	1	2	0	1	0	0	4
06:00AM-08:59AM -	1	2	2	1	2	2	0	10
03:00AM-05:59AM -	1	0	0	1	0	0	0	2
Midnight-02:59AM -	0	0	0	0	0	0	2	2
Total	18	20	17	15	12	12	12	106

Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of March 2019

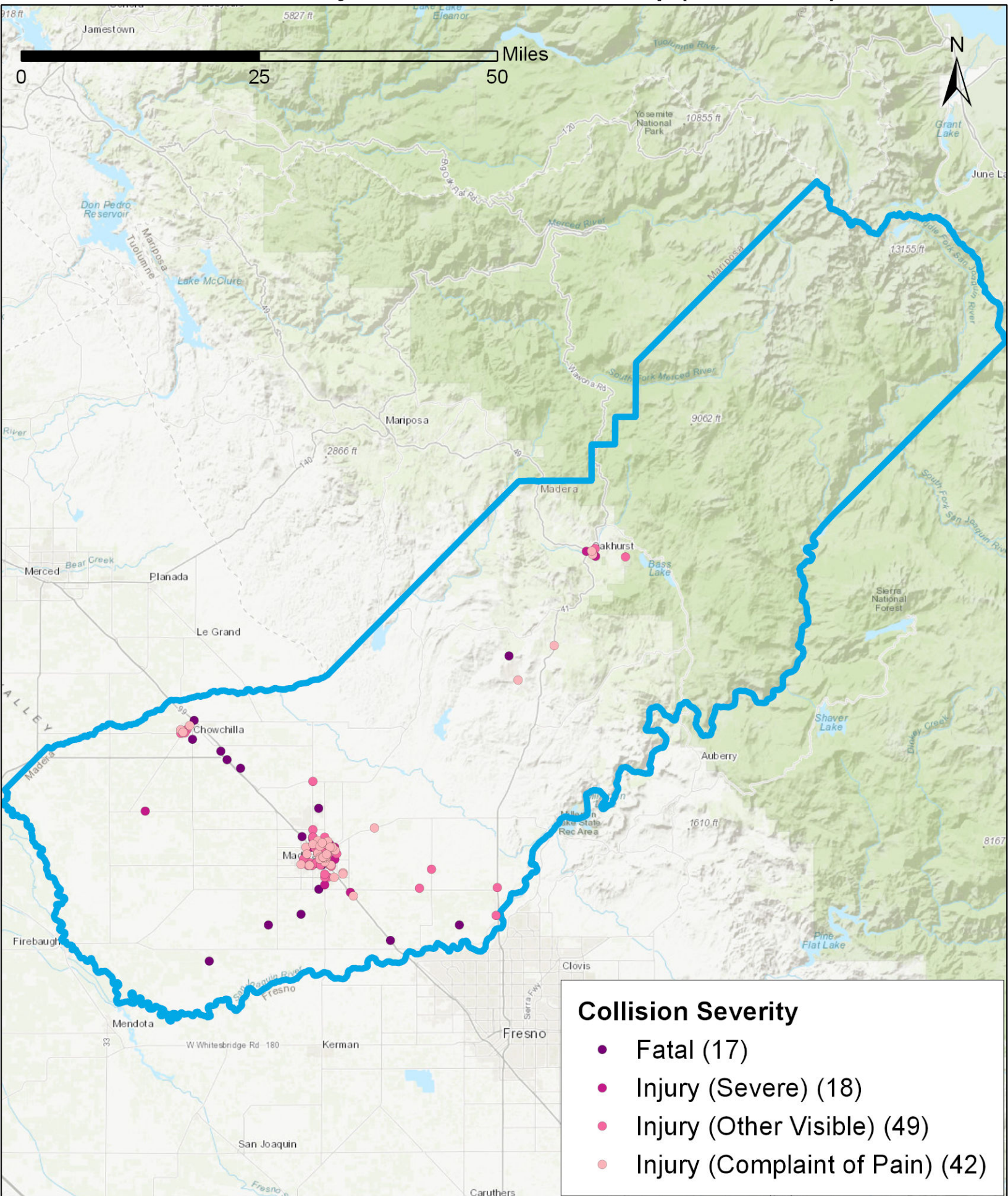
# Madera County Bicycle Collisions by Type of Violation

## Total: 107 Collisions

CVC No.	Description	Number of Collisions
21650	Failure to drive/ride on right half of the roadway (with some exceptions)	20 (18.7%)
22107	Unsafe turning or moving right or left on a roadway  Turning without signaling	16 (15.0%)
21804	Driver failure to yield right-of-way when entering/crossing a highway	9 (8.4%)
22450	Driver failure to stop at a limit line or crosswalk at a stop sign / (ND ): Driver failure to stop for a stop sign before a limit line; otherwise, a crosswalk or intersection entrance  Driver failure to stop at limit line before railroad; or, before entering	7 (6.5%)
21453	Failure to stop at a limit line or crosswalk at a red light  Failure to yield right-of-way to pedestrian when turning on a red light	7 (6.5%)
21802	Failure to stop or yield right-of-way at a stop sign	7 (6.5%)
21202	Bicyclist failure to ride on right edge of roadway if riding below the normal speed of traffic	5 (4.7%)
21800	Failure to yield right-of-way at intersection, including failure to yield to vehicles already in the intersection, on a continuing highway, or on their right side in an intersection, or safely when an intersection is controlled	4 (3.7%)
21801	Driver failure to yield right-of-way when making a left turn or U-turn	4 (3.7%)
22350	Speeding on the highway /  Driving at a dangerously high speed given highway conditions like weather, visibility, traffic, and highway measurements, or driving at a speed that endangers people or property	3 (2.8%)

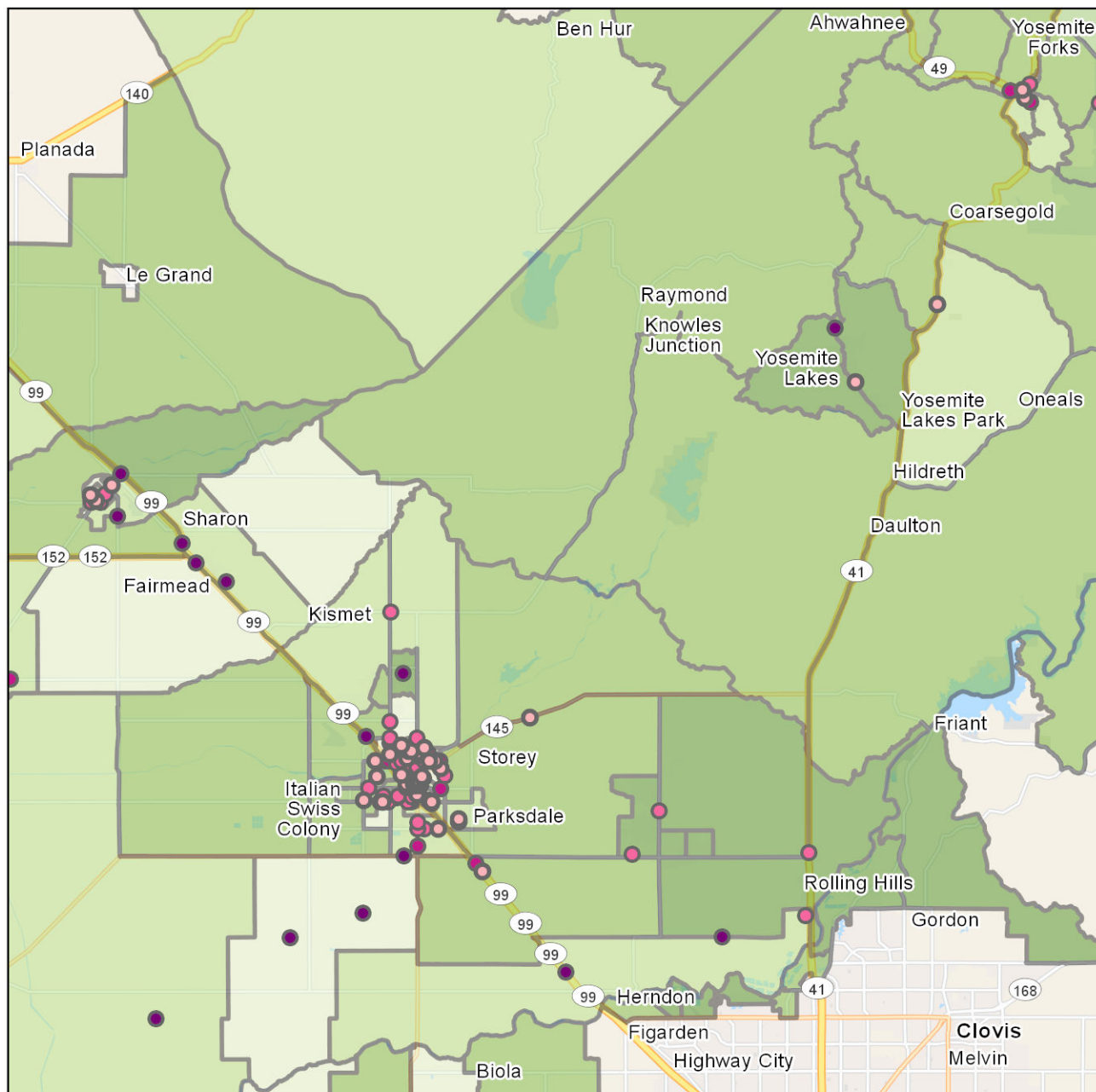


# Madera County Pedestrian Collision Map (2013 - 2017)





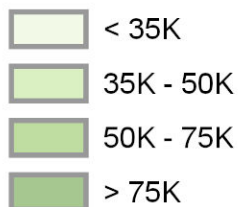
# Madera County Pedestrian Collision Map with Income (2013 - 2017)



## Collision Severity (2013-2017)

- Fatal (17)
- Injury (Severe) (18)
- Injury (Other Visible) (49)
- Injury (Complaint of Pain) (42)

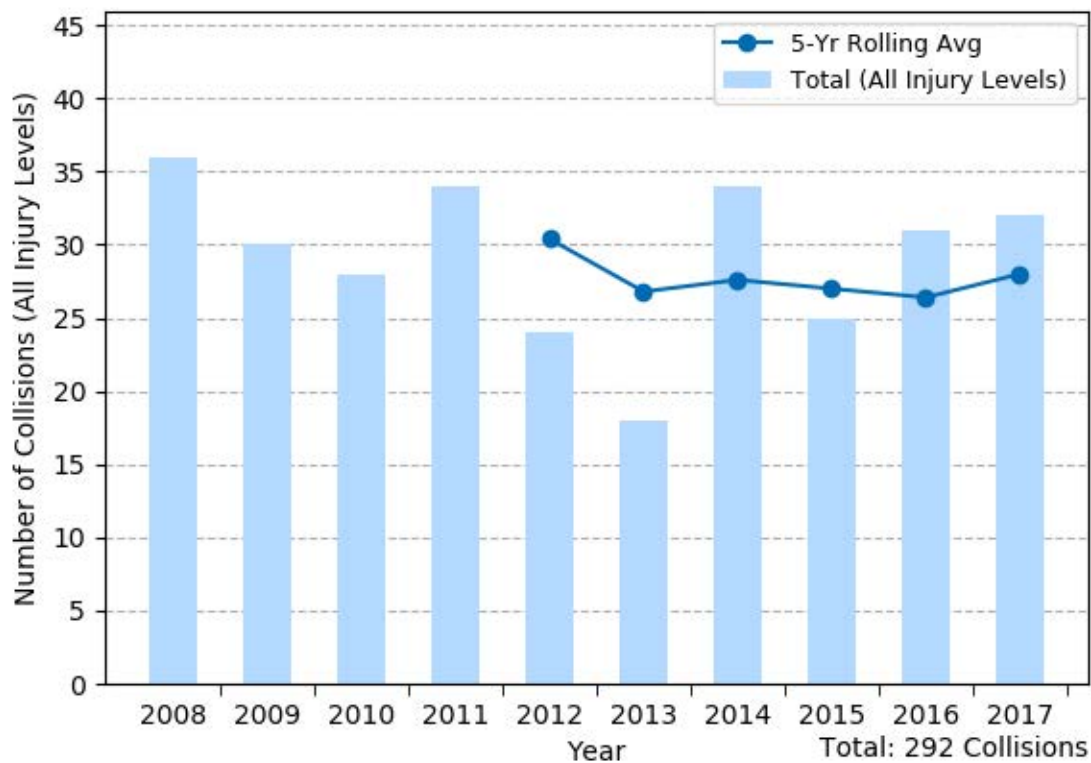
## 2017 Median Household Income



Data Source: Collision - Statewide Integrated Traffic Record System (SWITRS)  
 2013-2017; 2016 and 2017 data are provisional as of March 2019  
 Demographics - Esri, US Census Bureau, and ACS

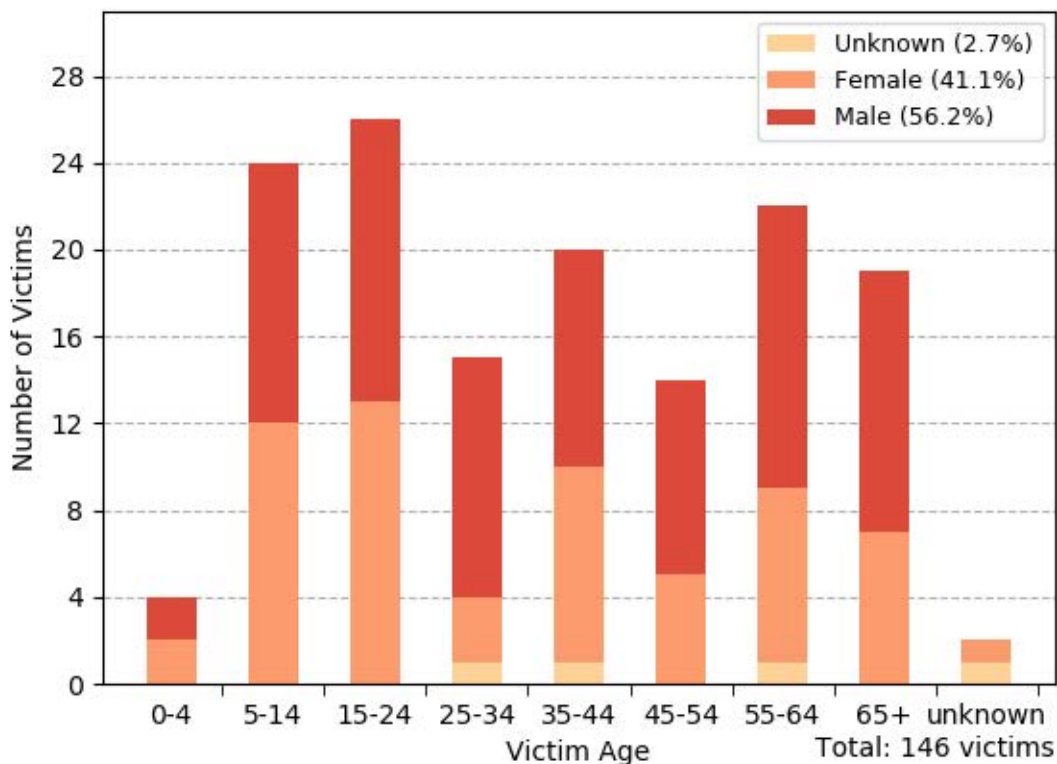
Date: 5/7/2019

## Madera County Pedestrian Injury Collisions (2008 - 2017)



Data Source: Statewide Integrated Traffic Record System (SWITRS) 2008-2017; 2016 and 2017 data are provisional as of March 2019

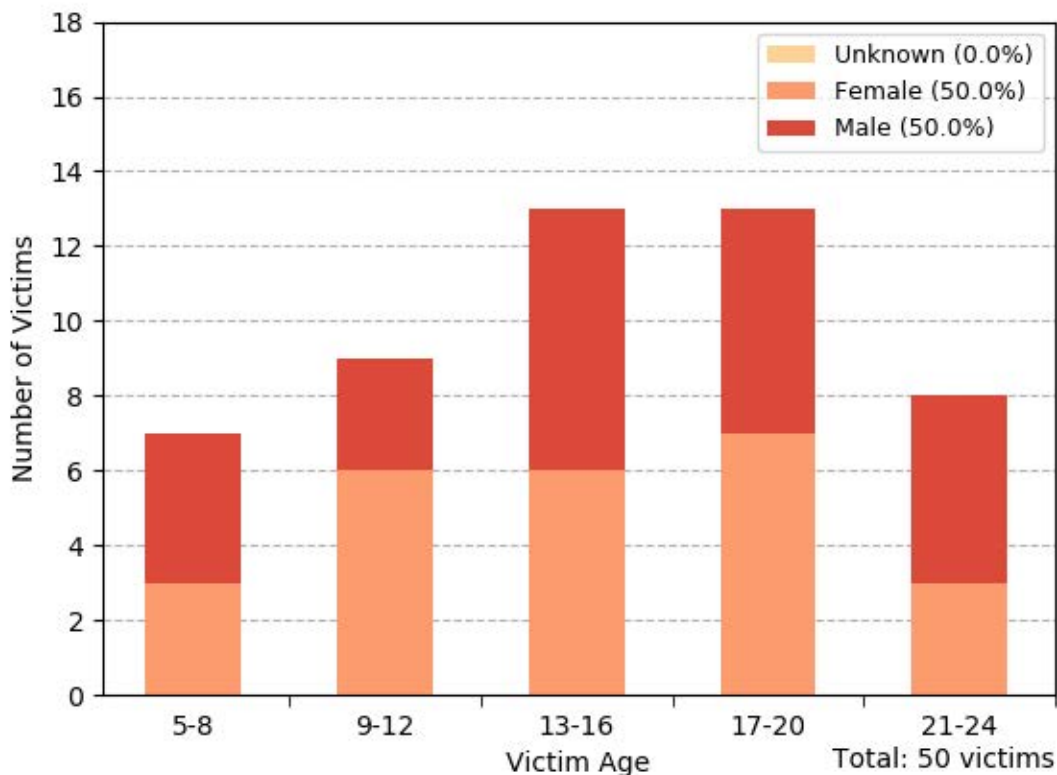
## Madera County Pedestrian Victims by Age and Gender



Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of March 2019

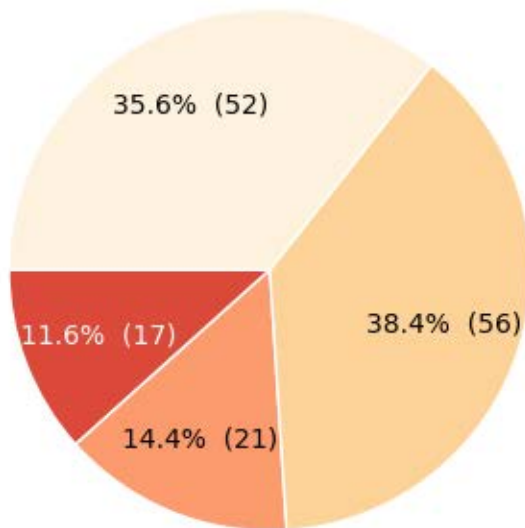


## Madera County Pedestrian Child and Youth Victims by Age and Gender

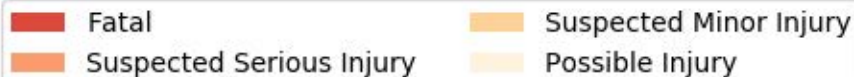


Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of March 2019

## Madera County Pedestrian Victims by Injury Severity



Total: 146 victims



Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of March 2019

# Madera County Pedestrian Collisions by Time of Day and Day of Week

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
09:00PM-11:59PM -	4	1	1	1	0	1	3	11
06:00PM-08:59PM -	6	3	5	6	7	7	5	39
03:00PM-05:59PM -	4	3	2	2	3	5	2	21
Noon-02:59PM -	3	1	2	5	3	2	0	16
09:00AM-11:59AM -	2	1	3	0	0	3	0	9
06:00AM-08:59AM -	5	3	4	12	5	0	0	29
03:00AM-05:59AM -	0	2	3	1	2	0	0	8
Midnight-02:59AM -	1	2	1	0	0	1	0	5
Total	25	16	21	27	20	19	10	138

Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional as of March 2019

# Madera County Pedestrian Collisions by Type of Violation

## Total: 140 Collisions

CVC No.	Description	Number of Collisions
21950	Driver failure to yield right-of-way to pedestrians at a marked or unmarked crosswalk	53 (37.9%)
21954	Pedestrian failure to yield right-of-way to vehicles when crossing outside of a marked or unmarked crosswalk	22 (15.7%)
21956	Pedestrian failure to walk close to the edge of the roadway when there is no sidewalk present / Pedestrian failure to walk on the left-hand edge of the roadway when outside of a business or resident district, unless crossing is not possible	15 (10.7%)
22107	Unsafe turning or moving right or left on a roadway  Turning without signaling	10 (7.1%)
22350	Speeding on the highway /  Driving at a dangerously high speed given highway conditions like weather, visibility,  traffic, and highway measurements, or driving at a speed that endangers people or property	6 (4.3%)
21955	Pedestrian failure to cross at crosswalks between adjacent traffic signal controlled intersections	5 (3.6%)
22450	Driver failure to stop at a limit line or crosswalk at a stop sign / (ND ): Driver failure to stop for a stop sign before a limit line; otherwise, a crosswalk or intersection entrance  Driver failure to stop at limit line before railroad; or, before entering	3 (2.1%)
21451	Driver or pedestrian failure to yield right-of-way at an intersection or adjacent crosswalk	2 (1.4%)
21453	Failure to stop at a limit line or crosswalk at a red light  Failure to yield right-of-way to pedestrian when turning on a red light	2 (1.4%)
21456	Pedestrian failure to yield right-of-way at traffic signal /  Failure of pedestrian to yield right-of-way to vehicles already in intersection  Failure to obey crosswalk symbols or finish crossing before "countdown" ends	2 (1.4%)
22106	Unsafe starting or backing of a vehicle on a highway	2 (1.4%)
23152	Driving under the influence of alcohol (BAC 0.08+) or drugs	2 (1.4%)