

RECOMMENDATIONS TO IMPROVE PEDESTRIAN & BICYCLE SAFETY IN ROSEMONT



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BY TONY DANG, JAIME FEARER, MIHA TOMUTA, WENDY ORTIZ, CALIFORNIA WALKS;
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INTRODUCTION

At the invitation of Safety Center, the University of California at Berkeley's Safe Transportation Research and Education Center (SafeTREC) and California Walks (Cal Walks) facilitated a community-driven pedestrian and bicycle safety action-planning workshop in the unincorporated community of Rosemont in Sacramento County to improve pedestrian safety, bicycle safety, walkability, and bikeability across the City. The community is located to the east of the City of Sacramento and has a population of about 23,000 people.

Prior to the workshop, Cal Walks staff conducted an in-person site visit on March 30, 2017 to adapt the Community Pedestrian and Bicycle Safety Training Program curriculum to meet the local communities' needs and to provide context-sensitive example strategies for the community's existing conditions. Cal Walks facilitated the workshop on April 19, 2017, which consisted of: 1) an overview of multidisciplinary approaches to improve pedestrian and bicycle safety; 2) three walkability and bikeability assessments along three key routes; 3) a mapping exercise by middle school students to identify existing and desired walking/biking routes to school; and 4) small group action-planning discussions to facilitate the development of community-prioritized recommendations to inform Rosemont's active transportation efforts. This report summarizes the workshop proceedings, as well as ideas identified during the process and recommendations for pedestrian and bicycle safety projects, policies, and programs.

BACKGROUND

Community Pedestrian and Bicycle Safety Training Program

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

The half-day training is designed to provide participants with both pedestrian and bicycle safety best practices and a range of proven and promising strategies (the 6 E's: Empowerment & Equity, Evaluation, Engineering, Enforcement, Education, and Encouragement) to address and improve pedestrian and bicycle safety conditions and concerns. Participants are then guided on a walkability and bikeability assessment of nearby streets before setting pedestrian and bicycle safety priorities and actionable next steps for their community.

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

www.californiawalks.org/projects/cpbst and <https://safetrec.berkeley.edu/programs/cpbst>.

Selected Pedestrian & Bicycle Safety Conditions in Rosemont

Wide Roads & High Speeds

During our site visit, Cal Walks staff observed drivers exceeding the posted speed limit of 40-45 MPH on Kiefer Boulevard, Watt Avenue, Bradshaw Road, and Folsom Boulevard, major arterial streets that run through the community. The excessive width (2 automobile travel lanes in each direction, a center turn lane, and a minimum width bike lane in each direction) of these streets likely contribute to the high speeds of drivers. Research has demonstrated that wide streets and wide travel lanes are associated with higher vehicle speeds,¹ which affect safety for people walking and bicycling. Additionally, Jackson Road (State Route 16), which forms the southern boundary of the community, lacks sidewalks along large stretches, features few crossings, and has no bicycle facilities.

Aside from the arterial streets, Cal Walks staff also noted that residential and collector streets in the neighborhood are also quite wide, including the streets immediately adjacent to Albert Einstein Middle

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

School (Mirandy Drive, Huntsman Drive). In addition to challenges with driver speeds on these streets, the width of these residential streets results in more difficult crossings for residents and students, especially the numerous unmarked crossings surrounding the school.

Inadequate Bicycle Facilities

During our site visit, Cal Walks staff observed bike lanes installed on arterial streets such as Kiefer Boulevard, Watt Avenue, Bradshaw Road, and Folsom Boulevard that were not adequate for the traffic speeds and volumes of those corridors. These bike lanes appeared to be the minimum width of 4 feet, and on Kiefer Boulevard, for example, half of the bike lane's width was located in the gutter. The high speeds and traffic volumes of these streets discourage the use of the minimum standard bike lane. During both the site visit and the workshop, Cal Walks staff observed many people, especially youth, biking on the sidewalk rather than using these on-street facilities.



Wide road, high speeds, and minimum-width bike lanes on Kiefer Boulevard.

Additionally, there appeared to be a prevalent problem with residents and visitors along these corridors parking halfway on the sidewalk and halfway into the bike lane—creating difficult conditions for both people walking and biking.

Need for Crossing Enhancements

Throughout the neighborhood surrounding Albert Einstein Middle School, Cal Walks staff noted very few marked crossings on the neighborhood streets. One such marked crossing is immediately in front of the school, yet parked vehicles consistently obscure students attempting to cross from drivers. Marked crosswalks do, however, exist along the arterial roads in the community, though some are placed rather far apart (e.g., from Kiefer Boulevard/Watt Avenue, the next marked crossing is 0.6 miles away at Kiefer Boulevard/S. Port Drive). Additionally, along Kiefer Boulevard, Watt Avenue, Bradshaw Road, and Folsom Boulevard, Cal Walks staff noted many instances where only a single marked crossing across the arterial street exists, while the other is prohibited. This three-legged crossing design unnecessarily restricts pedestrian and bicyclist movement and crossings, particularly given its use by schoolchildren in the area. Current design standards and technological advancements alleviate the need to restrict crossings at signalized intersections. For example, implementing leading pedestrian intervals (LPI) at signalized pedestrian crossings greatly reduces the right- and left-turn vehicle-pedestrian conflicts that likely motivated the original crossing restriction.

Narrow Sidewalks

Throughout the community, on both arterial streets and residential neighborhood streets, Cal Walks

staff noted the narrow nature of the sidewalks. While the sidewalks meet minimum legal requirements for accessibility purposes, these sidewalks—particularly those immediately adjacent to Albert Einstein Middle School and along routes used by schoolchildren—are not wide enough for the pedestrian volumes associated with the school, especially at school arrival and dismissal times. Fortunately, aside from narrow widths, sidewalks in the community were generally in good condition.

Pedestrian & Bicyclist Collision History

Between 2011-2015,² there were 41 pedestrian collisions, including 2 fatalities and 3 severe injuries in the community of Rosemont, with collisions concentrated on Folsom Boulevard, Kiefer Boulevard, and Bradshaw Road. Fortunately, when examining the three-year moving average of pedestrian collisions,³ pedestrian collisions in the community are on a downward trajectory. The data also revealed that one-third of the victims in these pedestrian collisions were age 14 or younger, while the rest were roughly evenly distributed among age groups older than 20. When examining the Primary Collision Factors (PCF), pedestrian violations accounted for 46.6% of pedestrian collisions over the 5-year period, while driver violations accounted for 26.7%. Of the pedestrian violations, the vast majority of the violations involved a pedestrian failing to yield to a driver when crossing outside of a crosswalk, while under a third resulted from a pedestrian crossing outside of a crosswalk between two signalized intersections.⁴ Driver violations consisted entirely of pedestrian right-of-way violations.⁵

For bicyclist collisions between 2011-2015, there were 39 collisions, including 1 severe injury (but no fatalities), with collisions concentrated on Folsom Boulevard, Kiefer Boulevard, Bradshaw Road, and Mayhew Road. When examining the 3-year moving average of bicyclist collisions, bicyclist collisions in the community are on a steady trajectory. The data also revealed over half (52.5%) of the victims in these bicyclist collisions were aged 19 or younger, while the rest were roughly evenly distributed among age groups older than 20. When examining the Primary Collision Factors (PCF), 43.6% involved a bicyclist riding on the wrong side of the road.

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

APRIL 19, 2017 WORKSHOP

Safety Center, a local community organization whose goal is to reduce injuries and save lives, requested the workshop to 1) provide County staff, community organizations, residents, and youth

² Please note that 2014 and 2015 collision data are provisional and not yet final.

³ Pedestrian Right-of-Way Violations are defined as instances where a driver fails to yield to a pedestrian in a marked or unmarked crosswalk when the pedestrian has the right of way (e.g., when the pedestrian has a “Walk” signal at a signalized intersection).

⁴ Pedestrians have the right-of-way in marked and unmarked crossings, and drivers are legally required to yield to pedestrians in these instances. However, when pedestrians cross outside of marked or unmarked crossings, pedestrians must yield the right-of-way to drivers. This is not the same as the term “jaywalking,” which refers to crossing outside of a marked or unmarked crossing between two signalized intersections. A pedestrian is legally able to cross outside of a marked or unmarked crossing between two intersections where one or none of the intersections is signalized but only if the pedestrian yields the right-of-way to oncoming drivers.

⁵ The California Vehicle Code 21200(a) specifies that a person riding a bicycle “has all the rights and is subject to all the provisions applicable to the driver of a vehicle...” Accordingly, some primary collision factors are ambiguous as to whether the driver or bicyclist committed the violation without examining individual traffic incident reports.

with a toolkit for promoting pedestrian and bicycle safety to inform future active transportation projects; 2) strengthen working relationships between County agencies, community organizations, residents, and other stakeholders to ensure the best outcomes for the residents of Rosemont and 3) develop consensus regarding pedestrian and bicycle safety priority and actionable next steps.

The workshop was hosted from 10:00 am to 3:00 pm at Albert Einstein Middle School, and lunch was provided to acknowledge community investment in the half day of training. Fifty-one (51) individuals attended the workshop, including Sacramento County Supervisor Don Nottoli; Albert Einstein Middle School students and Principal Garrett Kirkland; and representatives from Safety Center, Rosemont Community Association, Sacramento County Public Works Department, California Department of Public Health, Sacramento City Unified School District, the Sacramento County Office of Education, California Highway Patrol, Office of Traffic Safety, and WALKSacramento.

Student Travel Survey & Mapping Exercise

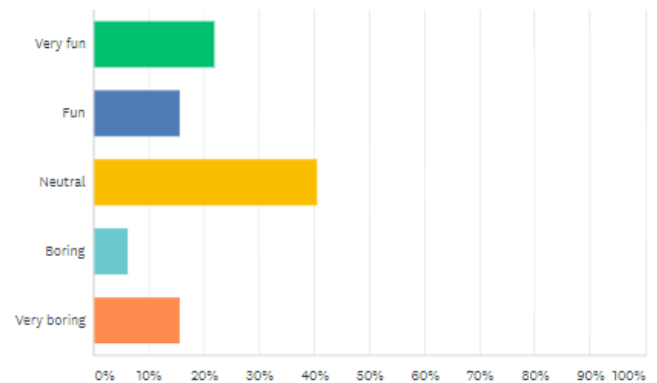
Cal Walks worked with the local planning committee to draft a 9-question Student Travel Survey for Einstein Middle School Leadership students to take the week of the workshop. Cal Walks shared the online link to the survey with teacher Brandon Parker, and 32 students participated; the full survey results can be found in Appendix B.

The purpose of the survey was to gauge current student travel behaviors and what factors may influence traveling by active modes more often. Some highlights from the survey include:

- An overwhelming majority of respondents currently travel to and from school in a family vehicle
- Physical and environmental factors appear to be the biggest barriers to walking and biking to school (e.g., distance to/from school from home, weather, convenience of getting a ride), and perceptions of personal safety also affect students' decisions to walk and bike to school (e.g., violence or crime, safety of intersections or crosswalks, speed of traffic along route)
- Respondents noted that having other students to walk and bike with would influence their decision in how they travel to and from school

How much fun is walking, biking, or scooting to/from school?

Answered: 32 Skipped: 0



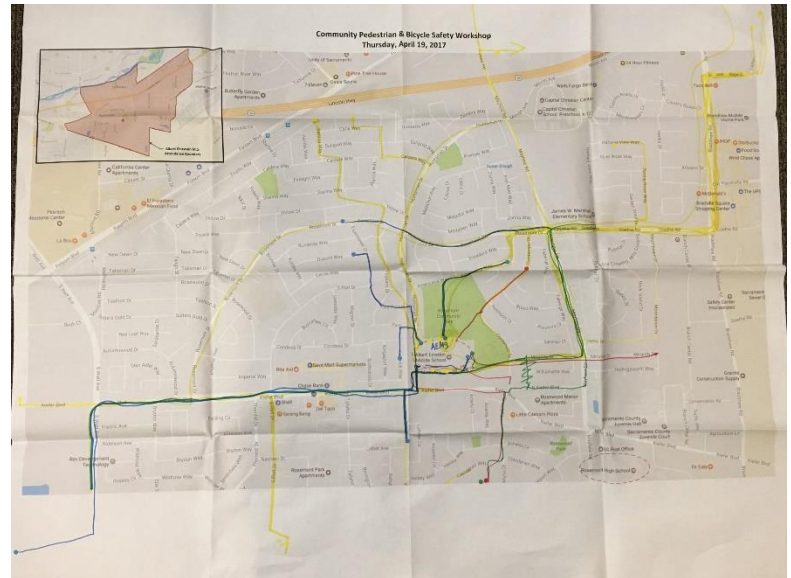
Question 8 from the Student Travel Survey. See Appendix B for the full results.

The mapping exercise served as a participatory activity for students during the workshop to collect data on how they travel to and from school by bike, by foot, or by scooter or skateboard. If students did not use an active mode to travel to school, they could participate by drawing their route if they were to bike, walk, or skate.

Mapping Exercise

Share How You Travel To & From School

- **I bike** – Use the **green dots** to show where you start and finish, and draw your route with the **green pen**.
- **I walk** – Use the **blue dots** to show where you start and finish, and draw your route with the **blue pen**.
- **I scooter or skate** – Use the **red dots** to show where you start and finish, and draw your route with the **red pen**.
- **If I were to walk, bike, or roll** – Use the **yellow dots** to show where you would start and finish, and draw your route with the **yellow pen**.



Mapping exercise instructions, and the map participating students filled out during the April 19 workshop.

Reflections from Walkability & Bikeability Assessment

Workshop participants conducted walkability and bikeability assessments along 3 routes:

- Route 1 traveled on Mirandy Drive, Huntsman Drive, and Americana Way, focusing on observing walking and biking conditions around Rosemont Community Park.
- Route 2 traveled on Mirandy Drive, Huntsman Drive, and Kiefer Boulevard, with a focus on observing walking and biking conditions on Kiefer Boulevard.
- Route 3 traveled on Mirandy Drive and Mayhew Road, focusing bicycle infrastructure on Mayhew Road as well as the width of the roadway and driver behavior and speeds.

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

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

- **Narrow Sidewalks & Obstructions:**

Participants commented that they found sidewalks in the neighborhood to be narrow for groups of people to navigate on foot, particularly sections of Mirandy Drive across from the school. The sidewalks immediately adjacent to the school, however, were highlighted as sufficiently wide for the school population and as a desired feature throughout the neighborhood. Additionally, participants noted challenges due to obstructions on the sidewalk, including signage and utility poles (e.g., at Kiefer Boulevard and Huntsman Drive). Participants appreciated that no sidewalk gaps exist in the community.



Narrow sidewalks along Kiefer Boulevard; obstructions, including utility poles, at the intersection with Huntsman Drive.

- **Driver Encroachment into Crosswalk:**

Participants observed drivers consistently failing to yield the right-of-way to pedestrians at both controlled and uncontrolled crossings. At signalized intersections, participants also observed drivers stopping in the middle of the crosswalk rather than at the stop bar or before the crosswalk itself.

- **Narrow Bike Lanes:** Participants also noted the narrow width of the bike lanes that existed throughout the community, including on Kiefer Boulevard. Participants did, however, highlight that the bike lanes on Kiefer Boulevard appeared to widen a bit at Tallyho Drive.
- **Lack of Shade and Bus Shelters:** Participants noted that there was a lack of trees and bus shelters along the arterial streets, including Kiefer Boulevard, which create uncomfortable walking conditions and could discourage more residents from walking or taking transit.
- **Difficult Crossings on Kiefer Boulevard:** Participants highlighted the difficulty of crossing Kiefer Boulevard due to its width. Relatedly, participants felt that there was not enough pedestrian crossing time at Kiefer Boulevard/Tallyho Drive given the width of the street. Lastly, participants noted that the pedestrian push button is not close enough to the crosswalk and may present challenges for those using wheelchairs or other mobility assistive devices.
- **Unsafe Walking, Biking and Driving Behaviors:** Participants shared their daily observations of parents using their phones while driving near the school, as well as students using their phones while walking to/from school. During the assessment, Route 2 participants also observed several people biking in an unsafe manner, including biking against traffic in the bike lane, swerving across the entirety of Kiefer Boulevard to make turns, and using a cell phone while biking.

Community Resident Recommendations

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

- The first set of questions focused on identifying non-infrastructure (education and encouragement) programs that would be most effective for the community, as well as strategies for engaging and sustaining parent and school community leadership.
- The second set of questions focused on identifying specific infrastructure projects for the school district and criteria for how the school district should prioritize these infrastructure projects.



Workshop participants discussing non-infrastructure and infrastructure priorities during small-group action planning

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

Non-Infrastructure Priorities

- **Establish/Expand Crossing Guard Program:** Participants expressed strong support for the establishment of a Sacramento City Unified School District crossing guard program and specifically within the Rosemont community. Participants identified the need for a crossing guard at Mirandy Drive and Contempo Drive. Additionally, participants would like to explore how to formalize parent participation as crossing guards.
- **Develop & Launch a Community Education Campaign Centered on Schools:** Participants identified the need for a broad community education campaign focused on distracted driving and distracted walking and for those educational efforts to be centered on the school community. Participants identified the following outreach strategies to reach different

audiences in the community:

- General Public: Street banners and posters with safety messages posted at school entrances and designed by student leadership team; radio and internet radio PSAs targeting drivers; stenciled safety messages on sidewalks and in crosswalks targeting walkers, as well as via social media;
- Parents: E-mails from schools and school district; message on campus portal; safe driving handout developed by student leadership team;
- Students: Safety messages/murals at school entrances/exits; distracted walking pledge; educational skits and shows through school plays and rallies; pedestrian/bicycle safety education coloring pages/books for elementary school students; and student-led surveys of their peers on walking/biking/driving behavior.

Participants also highlighted the opportunity to leverage the existing structure of the Club Live program at the middle school to lead these educational campaign efforts, including those focused on educating and training younger elementary school students.

- **Establish Youth-Led Walking School Bus & Bike Train Program:** Participants expressed strong support for establishing a walking school bus and bike train program to encourage more students to walk/bike to school. Some of the student participants expressed that street harassment was a strong deterrent from walking/biking to school, so the use of walking school buses and bike trains could help to combat this issue. Lastly, adult participants expressed interest in exploring how to establish these programs with middle school students leading or helping to lead walking school buses and bike trains for the younger elementary school students.
- **Establish a Pet Daycare Program:** Youth participants expressed interest in the schools establishing a pet daycare program to encourage students to walk to school with their pets. Then, students would be able to drop their pets off before class and pick them up after school and walk home with their pet.

Infrastructure Priorities

- **Low-Cost/High-Impact Approach & Prioritization based on Safety:** There was consensus among participants that the School District and the County should focus on quickly implementing low-cost and high-impact strategies in the near-term. These strategies included installing school zone speed limit signage and markings; left-turn restrictions; fluorescent yellow pedestrian warning signage with higher placement on poles; and trimming trees and other vegetation currently obscuring traffic safety warning signage. There was also consensus that the School District and County should use pedestrian/bicycle safety impacts as the overarching criteria for prioritizing projects.
- **Redesigning School Parking Lot and Arrival/Dismissal Areas:** Participants strongly felt that the school parking lot needs to be redesigned, including use of more permanent paint/markings rather than the current use of cones for the arrival/dismissal areas.
- **Widen Sidewalks & Bike Lanes:** Participants voiced their desire for wider sidewalks and bike lanes. Participants identified areas near Albert Einstein Middle School, and Mirandy and Huntsman Drives as two priority corridors where they would like to see sidewalks widened.
- **Enhance Existing Crossings:** Participants expressed support for making existing marked crossings more visible and effective through the use of high-visibility crosswalk markings,

advanced yield lines, and retiming crossings to provide pedestrians more time to cross the major arterial streets in the community. Participants also identified the need and desire for the third leg of the Mirandy Drive/Huntsman Drive intersection to be striped with a high-visibility crosswalk. Lastly, participants identified the need to implement daylighting/parking restrictions at existing marked crosswalks, especially at the mid-block crossing on Mirandy Drive in front of the Albert Einstein Middle School.

- **Creating a More Pleasant Walking and Biking Environment:** Participants expressed that changing driver behavior would be most effective through changes in the built environment that would also result in a more pleasant walking and biking environment. Participants identified strategies such as implementing road diets on more streets in the community; urban greening projects; and reducing speeds on Kiefer Boulevard that would all contribute to a much more pleasant environment for people walking and biking in the community.

California Walks/SafeTREC Recommendations

California Walks and SafeTREC also submit the following recommendations for consideration by the Sacramento City Unified School District, Sacramento County, Albert Einstein Middle School, Safety Center, and their partners:

- **Establish a Student Safety Patrol Program:** Given the challenges with school arrival/dismissal highlighted by the participants at Albert Einstein Middle School and the interest in cultivating student leadership among students, Cal Walks and SafeTREC recommend that Albert Einstein Middle School establish a formal Student Safety Patrol program to help address both of these community priorities. Student Safety Patrols help to improve school arrival/dismissal procedures and vehicle traffic flow by having Patrollers direct their fellow students under the guidance of a Safety Patrol Advisor—a committed teacher or parent volunteer who coordinates the student trainings and patrols. Patrollers can also teach other students about traffic safety on a peer-to-peer basis. The AAA Safety Patrol Program provides about \$200 worth of safety materials, such as belts, badges, vests, and instruction materials for Safety Patrol Advisors and Patrollers. The AAA Northern California office provides support and free materials for first time schools. For more information, visit: schoolsafetypatrol.aaa.com.
- **Pursue Funding for a Dedicated Safe Routes to School Coordinator:** Schools in Sacramento City Unified School District’s Rosemont cluster would benefit from a paid Safe Routes to School (SRTS) Coordinator. Cal Walks and SafeTREC recommend that the School District work with the County Public Works Department to establish and sustain a paid Coordinator position. SRTS Coordinator positions are funded in various ways, including local general funding, state and regional Active Transportation Program (ATP) funding, and through various public-health related grants. The upcoming 2018 ATP funding will be an important opportunity, and this workshop can serve as an early step in the planning process. The roles and responsibilities of a SRTS Coordinator—either part-time or full-time—vary by locality, and according to the recently released “Building Momentum for Safe Routes to School” toolkit co-authored by Safe Routes to School National Partnership, a SRTS Coordinator may:
 - Recruit and train volunteers to implement education and encouragement activities at individual schools;

- Coordinate district or county-wide activities such as special Walk and Bike to School Day events;
- Identify and prioritize safety concerns through walk assessments and community outreach;
- Work with engineers and planners on changes to the physical infrastructure around schools;
- Identify funding opportunities to expand SRTS programming; and
- Lead or implement a local SRTS task force.⁶



Daylighting this crosswalk in front of Einstein Middle School will increase pedestrian visibility.

• **Adopt a Standardized Daylighting Policy:** Cal Walks and SafeTREC strongly support the workshop participants' request for daylighting/parking restrictions to be applied to the mid-block crossing on Mirandy Drive in front of the Middle School to increase pedestrian visibility. Formal daylighting policies assist cities in improving visibility around marked crosswalks in school zones.

- **Enhance Existing Signalized Crossings on Arterial Streets:** During our site visit and the workshop, we observed numerous intersections on arterial streets (Kiefer Boulevard, Watt Avenue, Bradshaw Road, and Folsom Boulevard) with three-legged crossings, where only a single marked crossing across the arterial exists, while the other is prohibited. As we have previously noted in this report, this three-legged crossing design unnecessarily restricts pedestrian and bicyclist movement. Accordingly, we recommend that the County restore pedestrian crossings to all four legs of a signalized intersection on the community's arterial streets to enable pedestrians to cross these arterials safely at more intersections. We also recommend implementing leading pedestrian interval (LPI) these newly restored crossings to reduce the left-turn vehicle-pedestrian conflict that likely motivated the original crossing restriction.

⁶ See Safe Route to School National Partnership & Santa Clara County Public Health Department, "Building Momentum for Safe Routes to School: A Toolkit for School Districts and City Leaders," 2017. Available at: <http://www.saferoutespartnership.org/resources/toolkit/building-momentum-safe-routes-school>.

ACKNOWLEDGMENTS

We would like to thank Gail Kelly of Safety Center as well as Principal Garrett Kirkland and Leadership teacher Brandon Parker of Albert Einstein Middle School for inviting us into their community and for hosting the Community Pedestrian and Bicycle Safety Training. We would also like to thank Chick-fil-A and Chipotle for their generous lunch donations!

We would like to acknowledge the many youth, community members, and agencies present at the workshop and their dedication to pedestrian and bicycle safety. Their collective participation meaningfully informed and strengthened the workshop's outcomes.

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

Appendix A: Collision Data – Rosemont, CA – 4/19/17

Pedestrian and Bicycle Collision Analyses, 2006-15*

PEDESTRIANS

Number of Collisions Involving Pedestrians, 2006-15

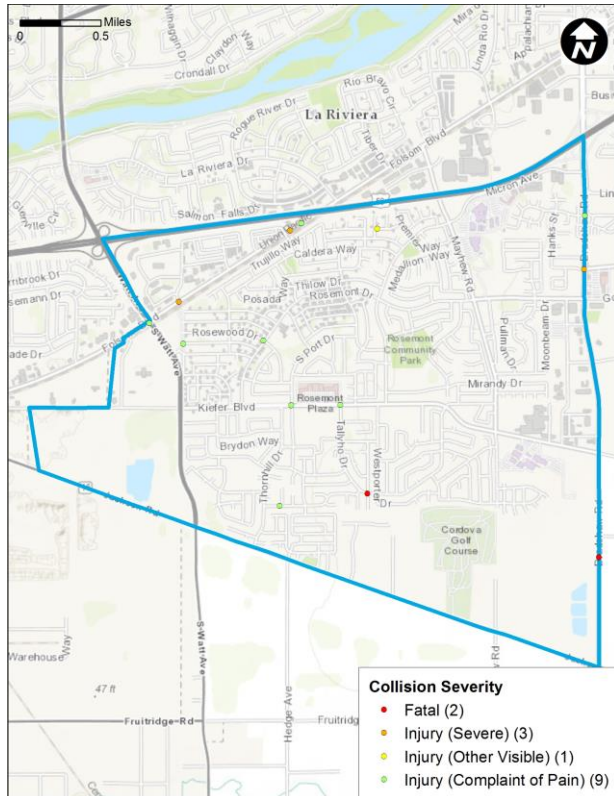


The blue line shows the number of pedestrian collisions where a fatality and/or injury occurred. There were 44 people injured or killed in 41 pedestrian collisions over the last 10 years.

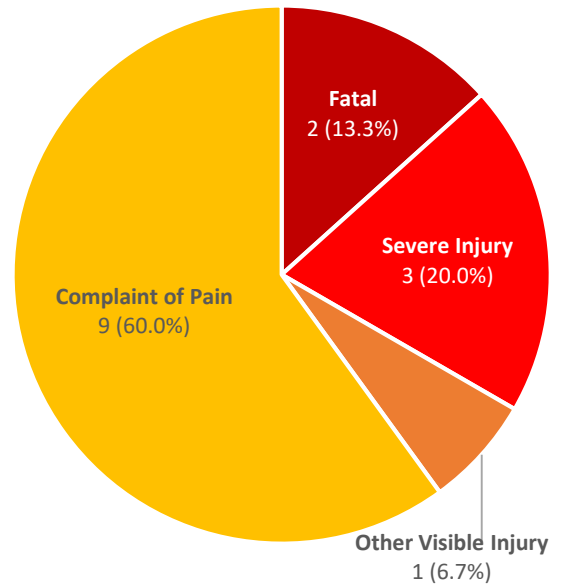
The green line shows the three-year moving average of the number of pedestrian collisions where a fatality and/or injury occurred. The moving average is useful for tracking trend change over time, especially when the number of collisions is subject to variability. Data points are the midpoint of the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

The following analyses are based on the most current five years, 2011 to 2015, of data for Rosemont, CA. There were 15 people killed or injured in 15 pedestrian collisions.

Collision Locations, 2011-15



Victim Injury Severity, 2011-15



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

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

Appendix A: Collision Data – Rosemont, CA – 4/19/17

Pedestrian and Bicycle Collision Analyses, 2006-15*

Top Violation Types for Collisions Involving Pedestrians

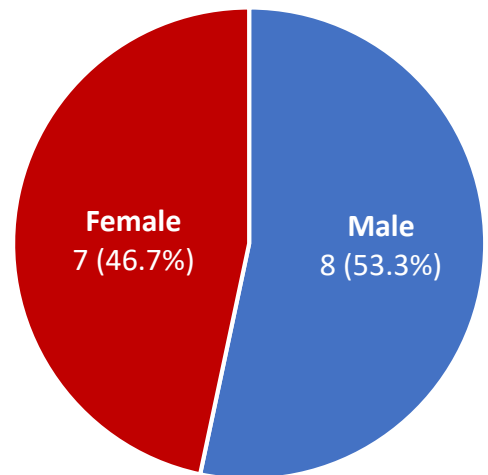
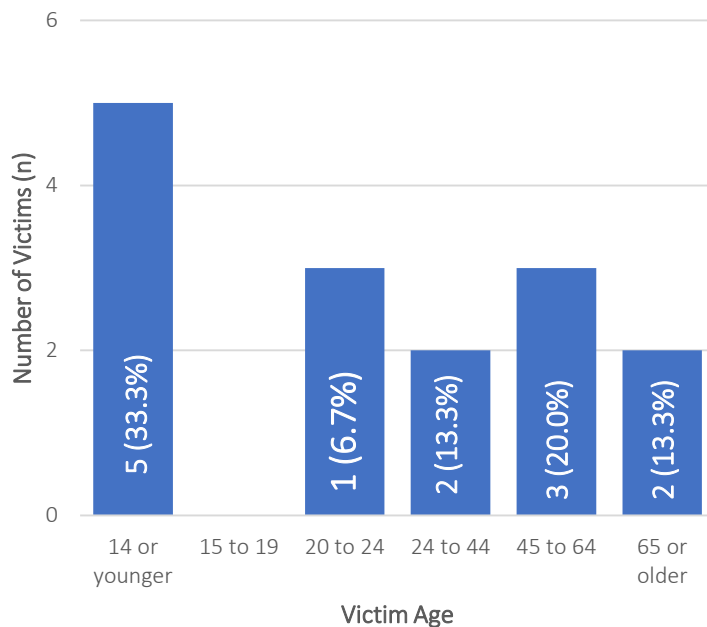
Type of Violation	Collisions N(%)
Pedestrian yield, upon roadway outside crosswalk	5 (33.3%)
Driver must yield pedestrian right of way in a crosswalk	4 (26.7%)
Jaywalking, between signal controlled intersections	2 (13.3%)
Other violation	3 (20.0%)
Unknown	1 (6.7%)
Total	15 (100.0%)

Pedestrian Actions in Collisions Involving Pedestrians

Pedestrian Action	Collisions N(%)
Crossing Not in Crosswalk	8 (53.3%)
Crossing in Crosswalk at Intersection	4 (26.7%)
In Road, Including Shoulder	3 (20.0%)
Total	15 (100.0%)

Pedestrian Victims Demographics

The age of pedestrian victims ranged considerably across all age groups, with youth age 14 or younger accounting for 33.3 percent of all victims. Victims were equally split between genders.

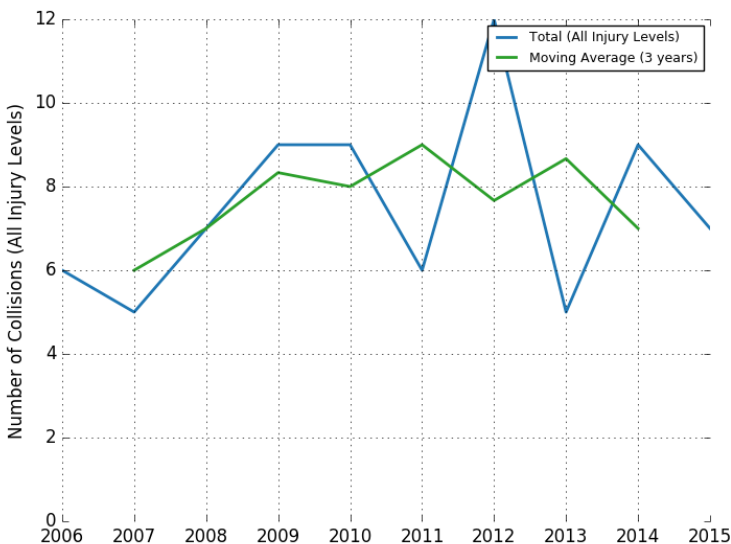


Appendix A: Collision Data – Rosemont, CA – 4/19/17

Pedestrian and Bicycle Collision Analyses, 2006-15*

BICYCLISTS

Number of Collisions Involving Bicyclists, 2006-2015

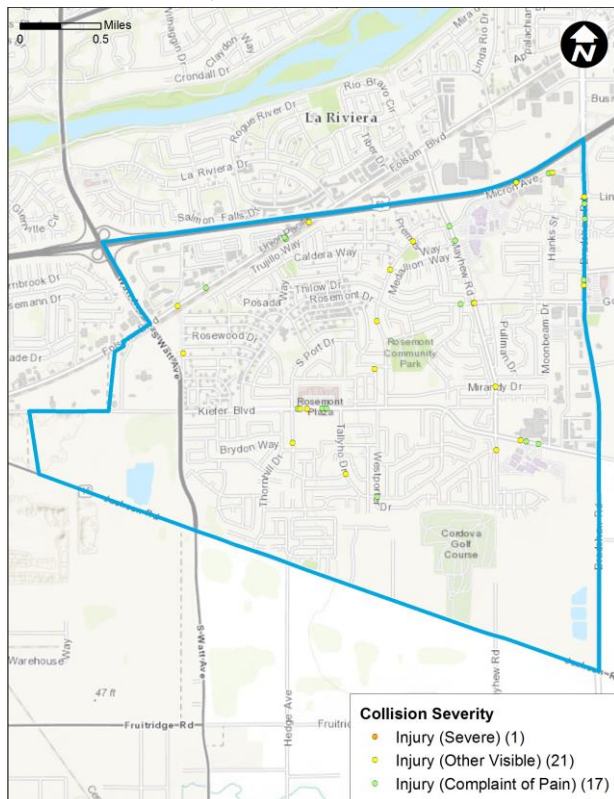


The **blue** line shows the number of bicycle collisions where a fatality and/or injury occurred. There were 77 people killed or injured in 75 bicycle collisions over the last 10 years.

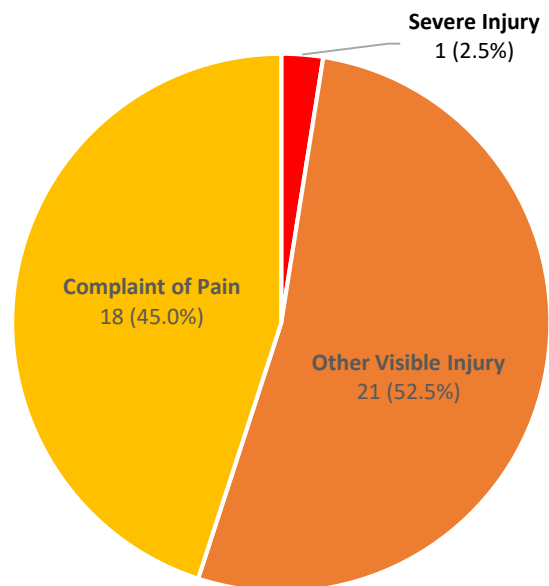
The **green** line shows the three-year moving average of the number of bicycle collisions where a fatality and/or injury occurred. The moving average is useful for tracking trend change over time, especially when the number of collisions is subject to variability.

The following analyses are based on the most current five years, 2011 to 2015, of data for Rosemont, CA. There were 40 people killed or injured in 39 bicycle collisions.

Collision Locations, 2011-15



Victim Injury Severity, 2011-15



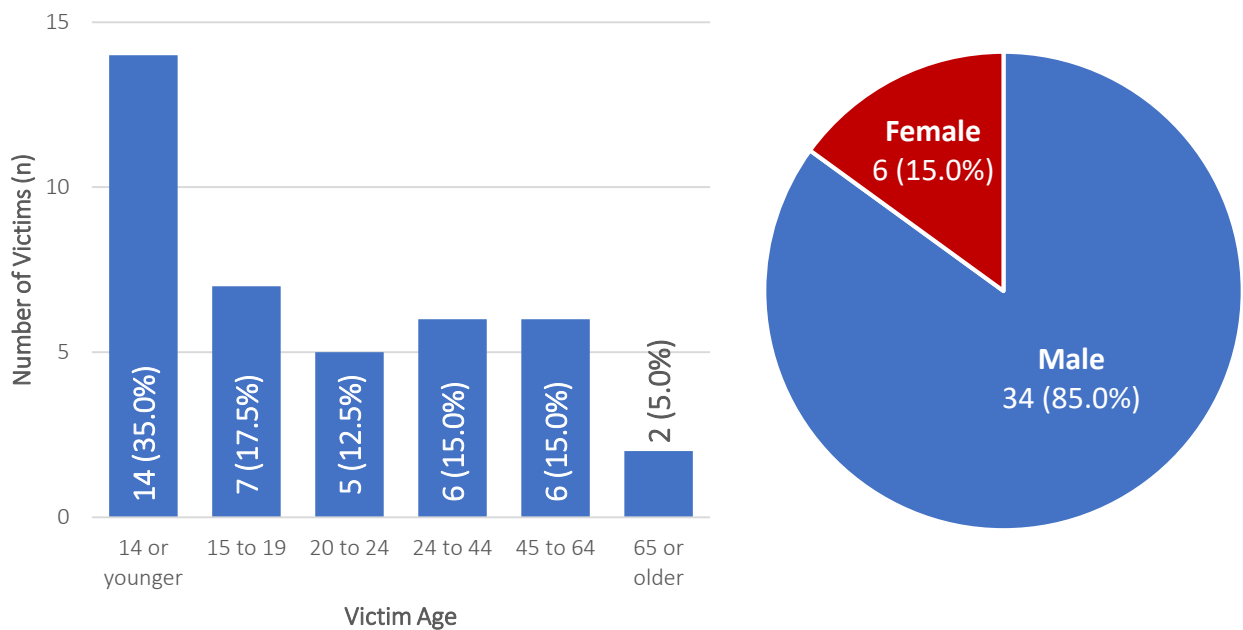
Appendix A: Collision Data – Rosemont, CA – 4/19/17 Pedestrian and Bicycle Collision Analyses, 2006-15*

Top Violation Types for Collisions Involving Bicycles

Type of Violation	Collisions N(%)
Wrong side of road	17 (43.6%)
Traffic signals and signs	6 (15.4%)
Improper turning	5 (12.8%)
Automobile right of way	5 (12.8%)
Other violations	4 (10.2%)
Unknown or not stated	2 (5.1%)
Total	39 (100.0%)

Bicycling Victim Demographics

The age of bicycling collision victims varied across all age groups, with youth age 19 or younger accounting for 52.5 percent of victims. Victims were primarily male.



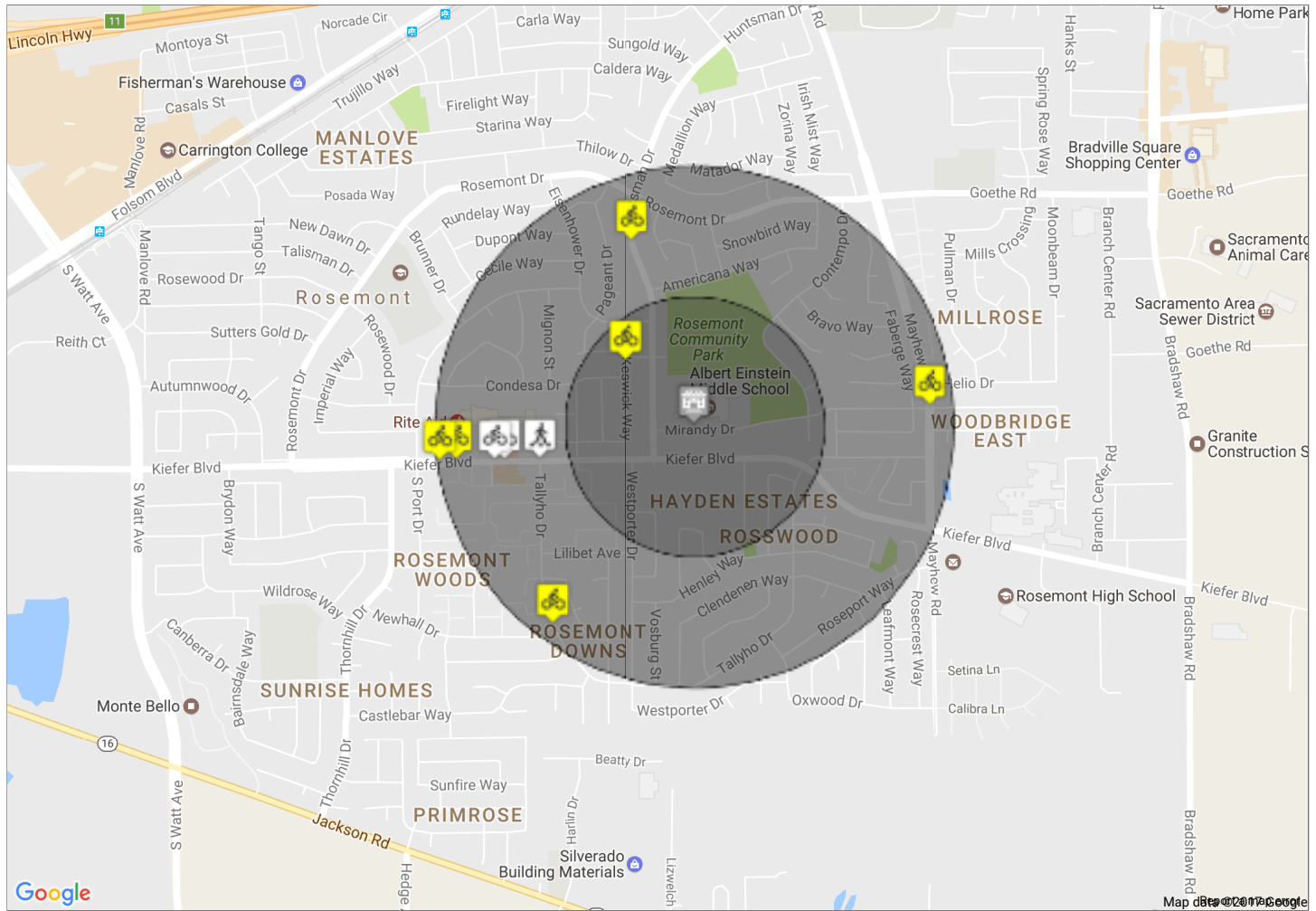
Safe Routes to School Collision Map Viewer

Interactive map and data summaries of bicycle and/or pedestrian collisions around school.

Types of Collisions: Bicycle Pedestrian
 Collision Severity: Fatal Severe Injury Other Visible Injury Complaint of Pain
 Years: 2011 - 2015 (2014 - 2016 data is provisional and incomplete.)

Albert Einstein Middle

9325 Mirandy Drive | Sacramento | Sacramento County | CDS: 34674396059273



Summary Statistics

Radius	Fatal	Severe Injury	Visible Injury	Complaint of Pain	Pedestrian	Bicycle	Total
< 1/4 mi.	0	0	1	0	0	1	1
1/4 - 1/2 mi.	0	0	5	3	1	7	8
Total	0	0	6	3	1	8	9

Collision List

Case ID	Date	Time	Primary	Secondary	Distance	Direction	Bike	Ped
5829769	2012-09-22	15:15	KESWICK WY	PARFAIT DR	87	S	Yes	No
5460820	2012-01-16	16:10	KIEFER BL	TALLYHO DR	350	W	Yes	No
6316141	2013-12-16	14:23	TALLYHO DR	NEWHALL DR	0	-	Yes	No
6096047	2013-05-18	14:00	HUNTSMAN DR	ROSEMONT DR	500	S	Yes	No
0056486	2015-11-13	17:15	KIEFER BLVD	TALLYHO DR	458	W	Yes	No
6851621	2015-03-10	8:00	KIEFER BL	SOUTHPORT DR	410	E	Yes	No
6777512	2015-01-06	7:45	MIRANDY DR	MAYHEW RD	0	-	Yes	No
6406062	2014-02-15	13:13	KIEFER BL	TALLYHO DR	0	-	No	Yes
6340877	2014-01-13	16:15	KIEFER BL	SOUTH PORT DR	235	E	Yes	No

Safe Routes to School Collision Map Viewer

Interactive map and data summaries of bicycle and/or pedestrian collisions around school.

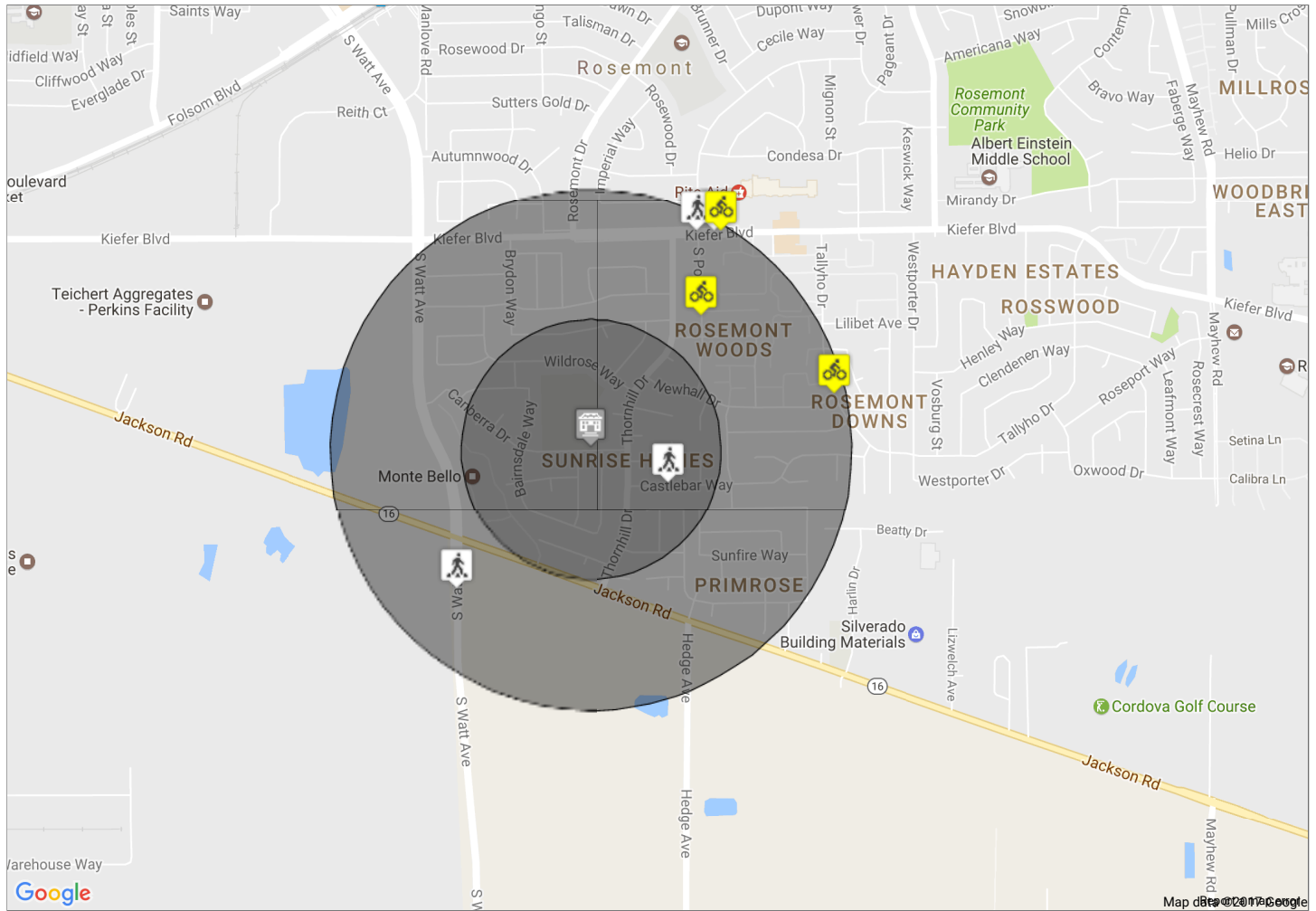
Types of Collisions: Bicycle Pedestrian

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

Years: 2011 - 2015 (2014 - 2016 data is provisional and incomplete.)

Golden Empire Elementary

9045 Canberra Drive | Sacramento | Sacramento County | CDS: 34674396097083



Summary Statistics

Radius	Fatal	Severe Injury	Visible Injury	Complaint of Pain	Pedestrian	Bicycle	Total
< 1/4 mi.	0	0	0	1	1	0	1
1/4 - 1/2 mi.	0	0	3	3	2	4	6
Total	0	0	3	4	3	4	7

Collision List

Case ID	Date	Time	Primary	Secondary	Distance	Direction	Bike	Ped
6323476	2013-12-21	15:30	SOUTH WATT AV	JACKSON RD	528	S	No	Yes
6316141	2013-12-16	14:23	TALLYHO DR	NEWHALL DR	0	-	Yes	No
6115681	2013-06-26	20:30	KIEFER BL	SOUTH PORT DR	170	E	Yes	No
6027991	2013-04-08	16:20	CASTLEBAR WY	CLARECASTLE CT	50	W	No	Yes
5992800	2013-03-02	19:15	SOUTH PORT DR	NASREEN DR	183	N	Yes	No
6989736	2015-07-01	17:01	KIEFER BL	SOUTH PORT DR	0	-	No	Yes
6340877	2014-01-13	16:15	KIEFER BL	SOUTH PORT DR	235	E	Yes	No

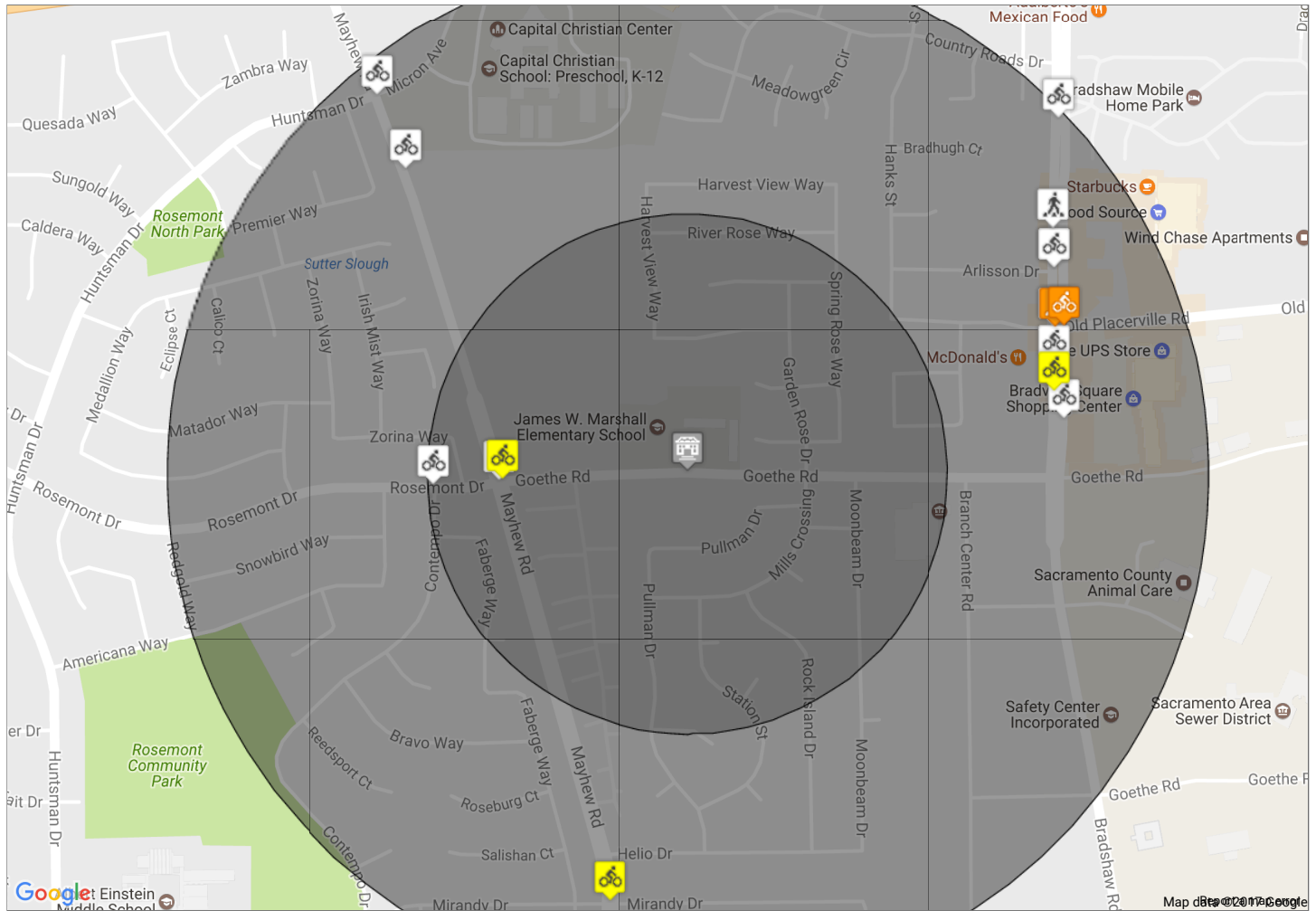
Safe Routes to School Collision Map Viewer

Interactive map and data summaries of bicycle and/or pedestrian collisions around school.

Types of Collisions: Bicycle Pedestrian
 Collision Severity: Fatal Severe Injury Other Visible Injury Complaint of Pain
 Years: 2011 - 2015 (2014 - 2016 data is provisional and incomplete.)

James Marshall Elementary

9525 Goethe Road | Sacramento | Sacramento County | CDS: 34674396096150



Summary Statistics

Radius	Fatal	Severe Injury	Visible Injury	Complaint of Pain	Pedestrian	Bicycle	Total
< 1/4 mi.	0	0	1	2	0	3	3
1/4 - 1/2 mi.	0	2	2	9	3	10	13
Total	0	2	3	11	3	13	16

Collision List

Case ID	Date	Time	Primary	Secondary	Distance	Direction	Bike	Ped
5149032	2011-03-28	22:30	BRADSHAW RD	OLD PLACERVILLE RD	0	-	No	Yes
5432348	2011-11-08	12:15	BRADSHAW RD	OLD PLACERVILLE RD	300	N	No	Yes
5966973	2012-10-15	16:45	ROSEMONT DR	MAYHEW RD	15	W	Yes	No
5839062	2012-09-14	7:20	MAYHEW RD	MICRON AV	400	S	Yes	No
5824424	2012-09-04	7:55	BRADSHAW RD	OLD PLACERVILLE RD	325	S	Yes	No
5795359	2012-07-31	19:42	OLD PLACERVILLE RD	BRADSHAW RD	0	-	Yes	No
5662450	2012-05-03	7:15	BRADSHAW RD	OLD PLACERVILLE RD	300	N	Yes	No
5515966	2012-01-30	15:00	BRADSHAW RD	OLD PLACERVILLE RD	190	S	Yes	No
6150040	2013-07-08	13:56	BRADSHAW RD	OLD PLACERVILLE RD	1056	N	Yes	No
6136442	2013-05-28	19:26	OLD PLACERVILLE RD	BRADSHAW RD	50	E	Yes	No
0051346	2015-11-13	8:09	MAYHEW RD	HUNTSMAN DR	0	-	Yes	No
7029719	2015-07-22	16:56	BRADSHAW RD	OLD PLACERVILLE RD	500	N	No	Yes
6777512	2015-01-06	7:45	MIRANDY DR	MAYHEW RD	0	-	Yes	No
6752577	2014-12-02	13:15	MAYHEW RD	GOETHE RD	0	-	Yes	No
6515327	2014-05-12	16:25	BRADSHAW RD	GOETHE RD	300	N	Yes	No
6403686	2014-02-24	8:40	CONTEMPO DR	ROSEMONT DR	0	-	Yes	No

Safe Routes to School Collision Map Viewer

Interactive map and data summaries of bicycle and/or pedestrian collisions around school.

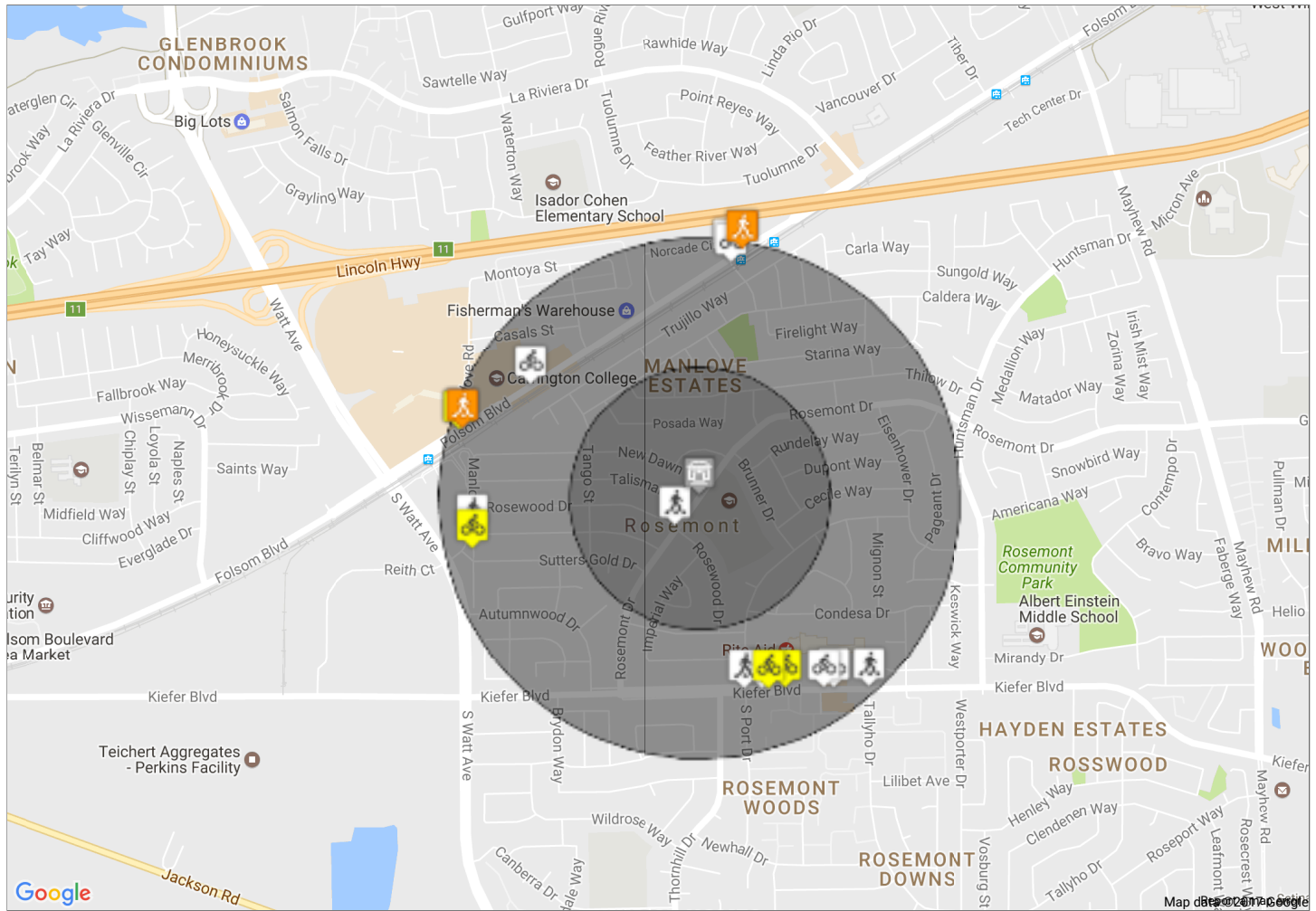
Types of Collisions: Bicycle Pedestrian

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

Years: 2011 - 2015 (2014 - 2016 data is provisional and incomplete.)

Sequoia Elementary

3333 Rosemont Drive | Sacramento | Sacramento County | CDS: 34674396034250



Summary Statistics

Radius	Fatal	Severe Injury	Visible Injury	Complaint of Pain	Pedestrian	Bicycle	Total
< 1/4 mi.	0	0	0	1	1	0	1
1/4 - 1/2 mi.	0	2	4	10	6	10	16
Total	0	2	4	11	7	10	17

Collision List

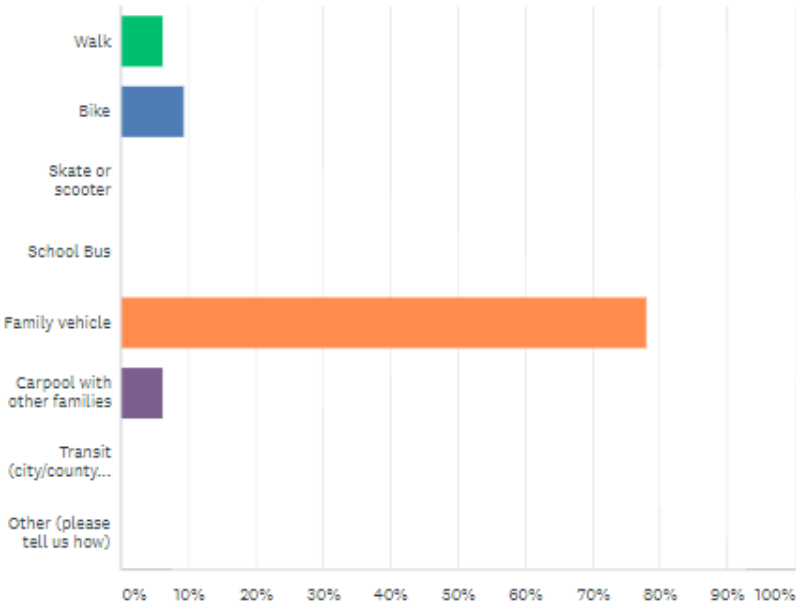
Case ID	Date	Time	Primary	Secondary	Distance	Direction	Bike	Ped
5079074	2011-01-29	20:25	FOLSOM BL	STARFIRE DR	172	E	No	Yes
5262863	2011-08-01	12:30	FOLSOM BL	STARFIRE DR	0	-	Yes	No
5279638	2011-08-11	13:10	FOLSOM BL	MANLOVE RD	0	-	No	Yes
5337601	2011-08-24	18:50	MANLOVE RD	FASHION DR	10	S	No	Yes
5350663	2011-09-12	9:15	FOLSOM BL	MANLOVE RD	0	-	No	Yes
5418410	2011-11-30	6:13	MANLOVE RD	SUTTERS GOLD DR	100	N	Yes	No
5425025	2011-11-08	22:10	FOLSOM BL	MANLOVE RD	28	W	Yes	No
5863278	2012-11-07	13:01	FOLSOM BL	MANLOVE RD	825	E	Yes	No
5460820	2012-01-16	16:10	KIEFER BL	TALLYHO DR	350	W	Yes	No
6115681	2013-06-26	20:30	KIEFER BL	SOUTH PORT DR	170	E	Yes	No
0056486	2015-11-13	17:15	KIEFER BLVD	TALLYHO DR	458	W	Yes	No
6989736	2015-07-01	17:01	KIEFER BL	SOUTH PORT DR	0	-	No	Yes
6851621	2015-03-10	8:00	KIEFER BL	SOUTHPORT DR	410	E	Yes	No
6806168	2015-01-26	15:10	ROSEWOOD DR	ROSEMONT DR	30	W	No	Yes
6564035	2014-07-28	14:00	STARFIRE DR	FOLSOM BL	50	S	Yes	No
6406062	2014-02-15	13:13	KIEFER BL	TALLYHO DR	0	-	No	Yes
6340877	2014-01-13	16:15	KIEFER BL	SOUTH PORT DR	235	E	Yes	No

Appendix B – Einstein Student Travel Survey, April 2017

Q1

On most days, how do you arrive to school?

Answered: 32 Skipped: 0

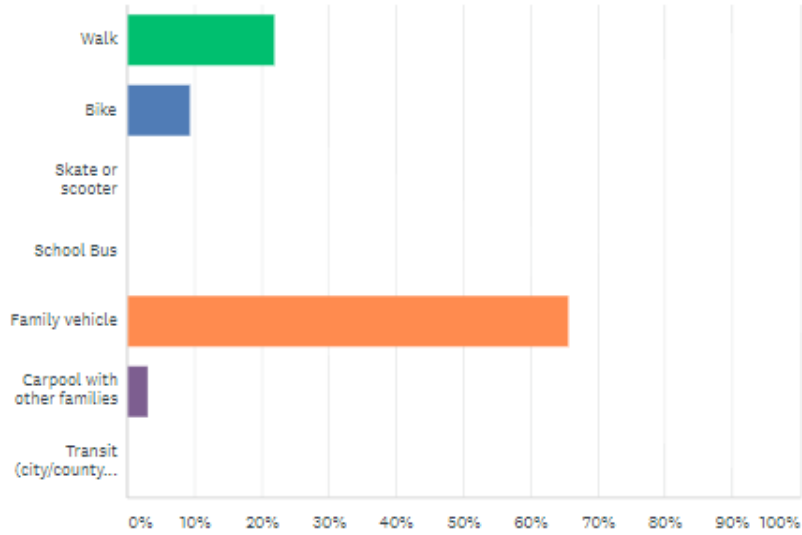


ANSWER CHOICES	RESPONSES
▼ Walk	6.25% 2
▼ Bike	9.38% 3
▼ Skate or scooter	0.00% 0
▼ School Bus	0.00% 0
▼ Family vehicle	78.13% 25
▼ Carpool with other families	6.25% 2
▼ Transit (city/county bus)	0.00% 0
▼ Other (please tell us how)	Responses 0.00% 0
TOTAL	32

Q2

On most days, how do you leave from school?

Answered: 32 Skipped: 0



ANSWER CHOICES	RESPONSES
▼ Walk	21.88% 7
▼ Bike	9.38% 3
▼ Skate or scooter	0.00% 0
▼ School Bus	0.00% 0
▼ Family vehicle	65.63% 21
▼ Carpool with other families	3.13% 1
▼ Transit (city/county bus)	0.00% 0
TOTAL	32

Comments (1)

Showing 1 response

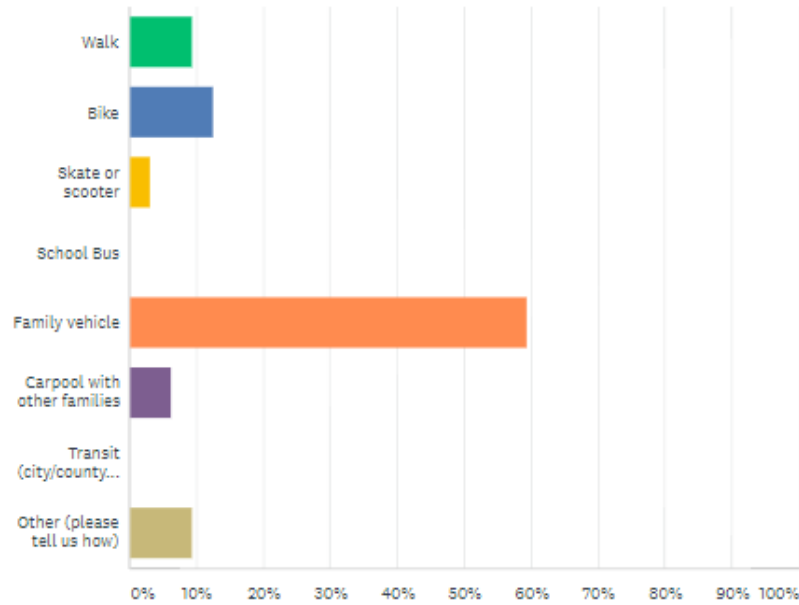
After school program sometimes

4/17/2017 2:04 PM

Q3

How would you prefer to travel to and from school?

Answered: 32 Skipped: 0



ANSWER CHOICES	RESPONSES
Walk	9.38% 3
Bike	12.50% 4
Skate or scooter	3.13% 1
School Bus	0.00% 0
Family vehicle	59.38% 19
Carpool with other families	6.25% 2
Transit (city/county bus)	0.00% 0
Other (please tell us how)	9.38% 3
TOTAL	32

Showing 3 responses

Family vehicle

4/17/2017 2:11 PM

N

4/17/2017 2:03 PM

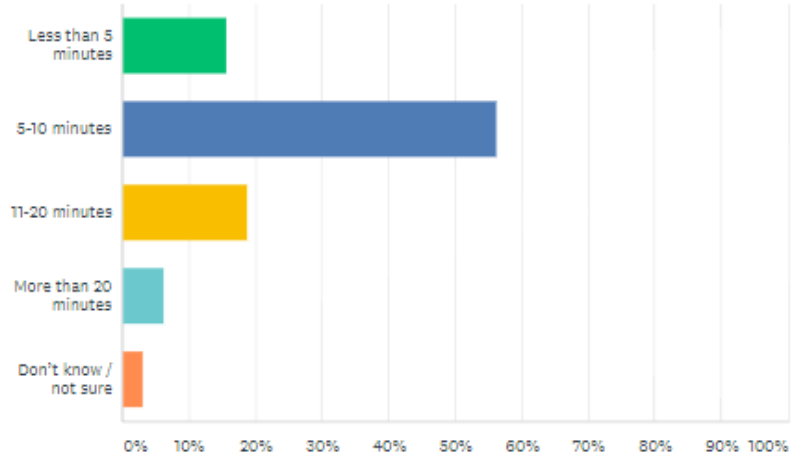
I

4/17/2017 2:01 PM

Q4

Your usual travel time to school:

Answered: 32 Skipped: 0

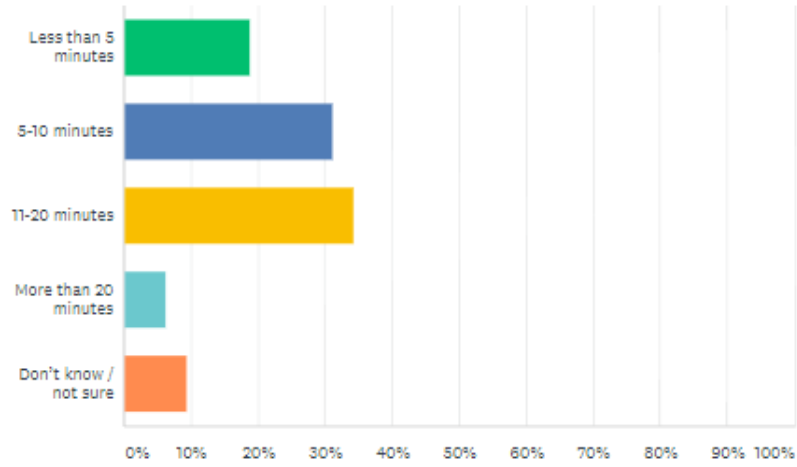


ANSWER CHOICES	RESPONSES
Less than 5 minutes	15.63% 5
5-10 minutes	56.25% 18
11-20 minutes	18.75% 6
More than 20 minutes	6.25% 2
Don't know / not sure	3.13% 1
TOTAL	32

Q5

Your usual travel time from school:

Answered: 32 Skipped: 0

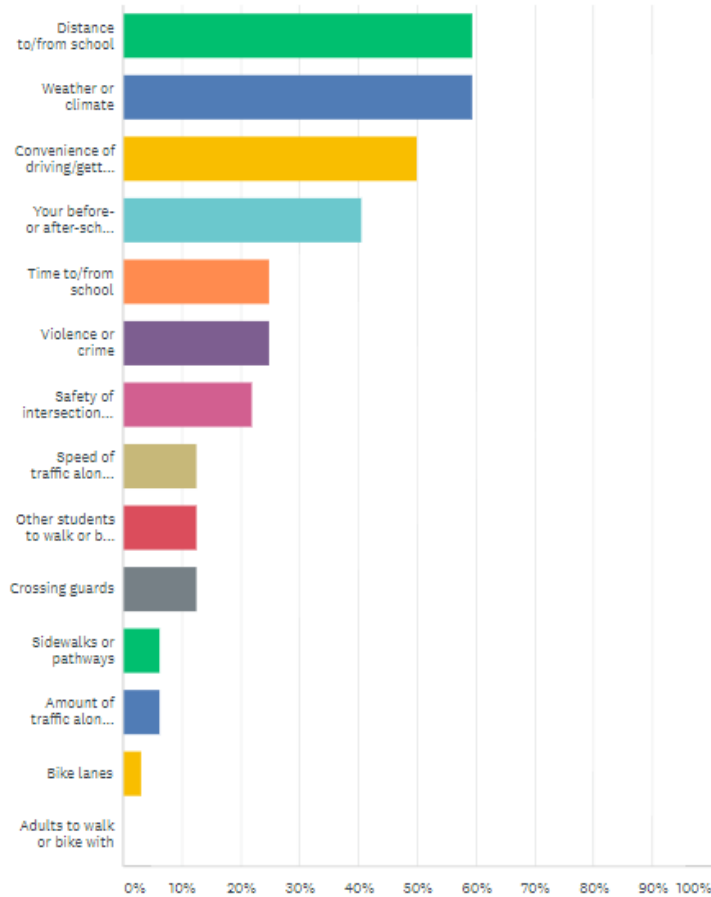


ANSWER CHOICES	RESPONSES
▼ Less than 5 minutes	18.75% 6
▼ 5-10 minutes	31.25% 10
▼ 11-20 minutes	34.38% 11
▼ More than 20 minutes	6.25% 2
▼ Don't know / not sure	9.38% 3
TOTAL	32

Q6

Which of the following affect your decision to walk, bike, or scoot to school, either positively or negatively? (Choose all that apply)

Answered: 32 Skipped: 0

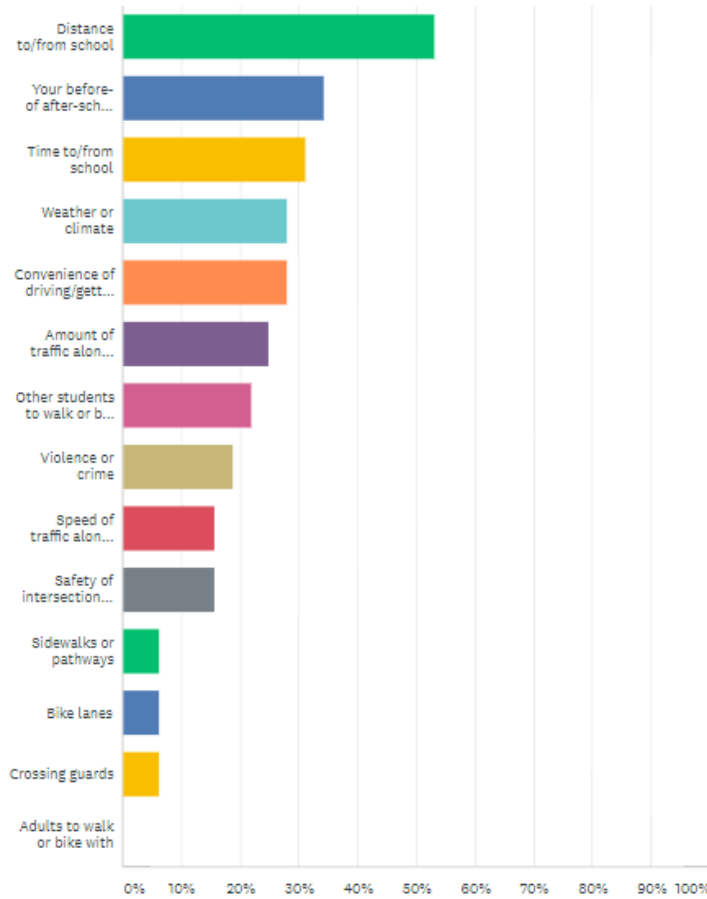


ANSWER CHOICES	RESPONSES
Distance to/from school	59.38% 19
Weather or climate	59.38% 19
Convenience of driving/getting a ride	50.00% 16
Your before- or after-school activities	40.63% 13
Time to/from school	25.00% 8
Violence or crime	25.00% 8
Safety of intersections or crosswalks	21.88% 7
Speed of traffic along the route	12.50% 4
Other students to walk or bike with	12.50% 4
Crossing guards	12.50% 4
Sidewalks or pathways	6.25% 2
Amount of traffic along the route	6.25% 2
Bike lanes	3.13% 1
Adults to walk or bike with	0.00% 0
Total Respondents: 32	

Q7

Would you decide to walk, bike, or scoot to school if any of the following were changed or improved? (Choose all that apply)

Answered: 32 Skipped: 0

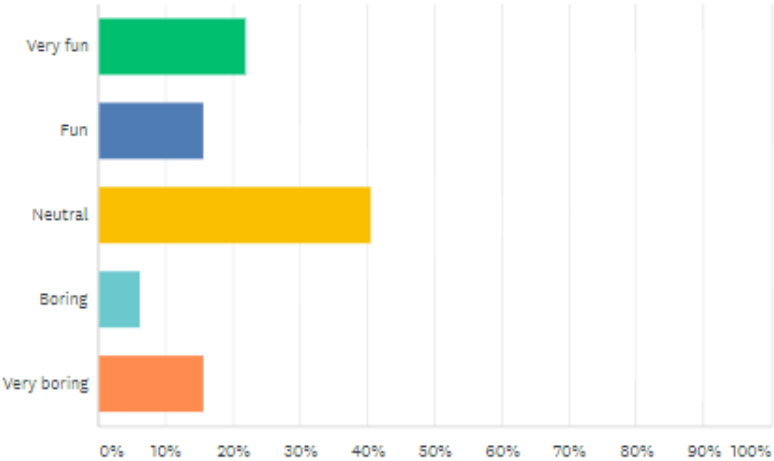


ANSWER CHOICES	RESPONSES
Distance to/from school	53.13% 17
Your before- of after-school activities	34.38% 11
Time to/from school	31.25% 10
Weather or climate	28.13% 9
Convenience of driving/getting a ride	28.13% 9
Amount of traffic along the route	25.00% 8
Other students to walk or bike with	21.88% 7
Violence or crime	18.75% 6
Speed of traffic along the route	15.63% 5
Safety of intersections or crosswalks	15.63% 5
Sidewalks or pathways	6.25% 2
Bike lanes	6.25% 2
Crossing guards	6.25% 2
Adults to walk or bike with	0.00% 0
Total Respondents: 32	

Q8

How much fun is walking, biking, or scooting to/from school?

Answered: 32 Skipped: 0

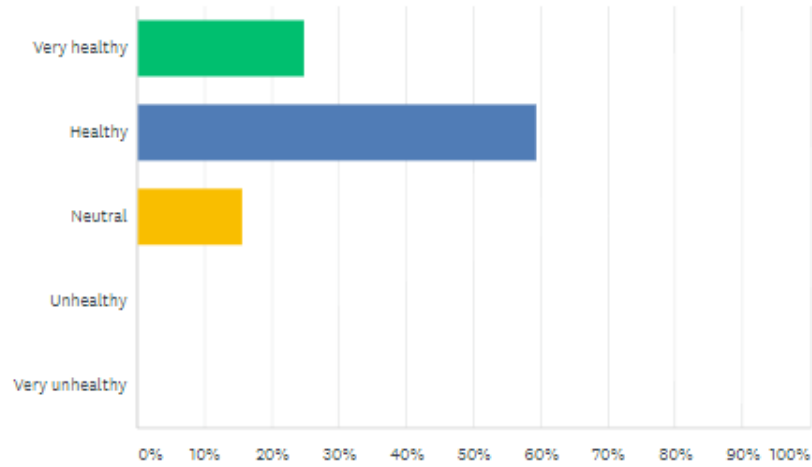


ANSWER CHOICES	RESPONSES
Very fun	21.88% 7
Fun	15.63% 6
Neutral	40.63% 13
Boring	6.25% 2
Very boring	15.63% 6
TOTAL	32

Q9

How healthy is walking, biking, or scooting to/from school?

Answered: 32 Skipped: 0



ANSWER CHOICES	RESPONSES
▼ Very healthy	25.00% 8
▼ Healthy	59.38% 19
▼ Neutral	15.63% 5
▼ Unhealthy	0.00% 0
▼ Very unhealthy	0.00% 0
TOTAL	32