



Using Data to Support Altadena's Traffic Safety Goals

Summer 2024



Safe Transportation Research and Education Center

Acknowledgments

Thank you to the Planning Committee for inviting us back into their community and partnering with us to make Altadena a safer place to walk and bike.

Our work took place on the ethnohistoric territory of the Tongva (Gabrieleno) peoples. We recognize that every community member of Altadena has, and continues to benefit from, the use and occupation of Tongva (Gabrieleno) land.

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Introduction

In Summer 2024, California Walks ([Cal Walks](#)) and UC Berkeley Safe Transportation Research and Education Center ([SafeTREC](#)) provided follow-up technical assistance to Altadena to support the walking and biking safety goals identified during their [2018 Community Pedestrian and Bicycle Safety Training \(CPBST\)](#) program workshop. A group of community members, representatives from the Altadena Safe Streets Traffic Safety and Mobility Committee, Los Angeles County Department of Public Works, parents of local students, and other stakeholders were interested in developing Safe Routes to School (SRTS) programming. Specifically, they wanted to use data analysis and data narratives to demonstrate to decision makers the need for a formalized and funded townwide Safe Routes to School Action and Safety Plan.

On May 7, 2024 SafeTREC and Cal Walks (Project Team) conducted a virtual TIMS Training, followed by two further training sessions on data narrative building on June 12 and July 23, 2024. Together, these trainings aimed to provide participants with the knowledge and skills needed to query and analyze crash data and create a case study report with data visualizations that identifies the need for a townwide Safe Routes to School Action and Safety Plan.

Background

The Community Pedestrian and Bicycle Safety Training Program (CPBST) is a statewide project of Cal Walks and SafeTREC that uses the Safe System approach to engage residents and safety advocates in the development of a community-driven action plan to improve walking and biking safety in their communities and to strengthen collaboration with local officials and agency staff. The program also provides follow up technical assistance to past CPBST sites to support the implementation of the action plans and recommendations outlined in their initial CPBST Summary and Recommendations Report.

In September of 2018, Cal Walks and SafeTREC (Project Team) hosted a CPBST workshop in Altadena. The CPBST report highlighted the need for a Safe Routes to School Action and Safety Plan in Altadena that would:

1. Identify the main barriers to students walking and biking to school in a systematic way;
2. Develop infrastructure and non-infrastructure solutions to overcome these barriers;
3. Prioritize projects for implementation; and
4. Identify potential funding sources for implementation.

After the initial CPBST workshop, Altadena applied for and was chosen in 2020 and 2022 for follow-up technical assistance from Cal Walks and SafeTREC. In 2020, the Project Team partnered with Planning Committee members to conduct an on-bike assessment to identify biking safety concerns, foster community unity for safety improvements, and encourage more biking in the community. In 2022, the Project Team held a Train-the-Trainer event, where participants learned how to conduct walking and biking assessments. In 2020, during the COVID-19 shelter-in-place orders, safe routes to parks became another area of interest for the Planning Committee who saw more people walking and biking to parks in town. At the same time, there was an influx of community events hosted in these same parks, like National Bike and Roll to School Day and National Walk and Roll to School Day.

As a result of the original CPBST workshop and the follow-up technical assistance, the Planning Committee decided to focus its current efforts on formalizing a case study report that demonstrates the need for a Safe Routes to School Action and Safety Plan in Altadena. The Project Team aimed to provide the necessary training to the community to improve their data analysis skills and help kickstart their work on creating a data narrative and report. This report summarizes the discussions and outcomes of the technical assistance training. For more information on the CPBST, you can access the previous efforts in Altadena in [2018](#), [2020](#), and [2022](#).

Overview of the Technical Assistance

The Project Team provided an overview of crash data, including how to perform data analysis and visualization. Participants were then guided to use the data to create a narrative, with an emphasis on traffic safety projects near schools in Altadena. The end goal is for participants to apply what they learned through these training sessions to inform the development of a Safe Routes to School Safety and Action Plan for Altadena.

Transportation Injury Mapping Systems (TIMS) Training

[SafeTREC](#) developed the Transportation Injury Mapping Systems (TIMS) over the past ten-plus years to provide quick, easy, and free access to California crash data, [the Statewide Integrated Traffic Records System \(SWITRS\)](#), which SafeTREC has geo-coded to make it easy to map crashes. TIMS currently provides three statewide summaries as well as six different crash and geospatial analysis tools that allow users to visualize and compare SWITRS data across California. Interested parties can learn more about the tool at <https://tims.berkeley.edu/>.

On May 7, 2024, the Project Team conducted a TIMS training with the following learning goals:

1. Become familiar with each TIMS tool and identify which best fits their data query need(s);
2. Conduct crash queries;
3. Analyze the data queried in TIMS; and
4. Begin to conceptualize how to visualize and create narratives for the data.

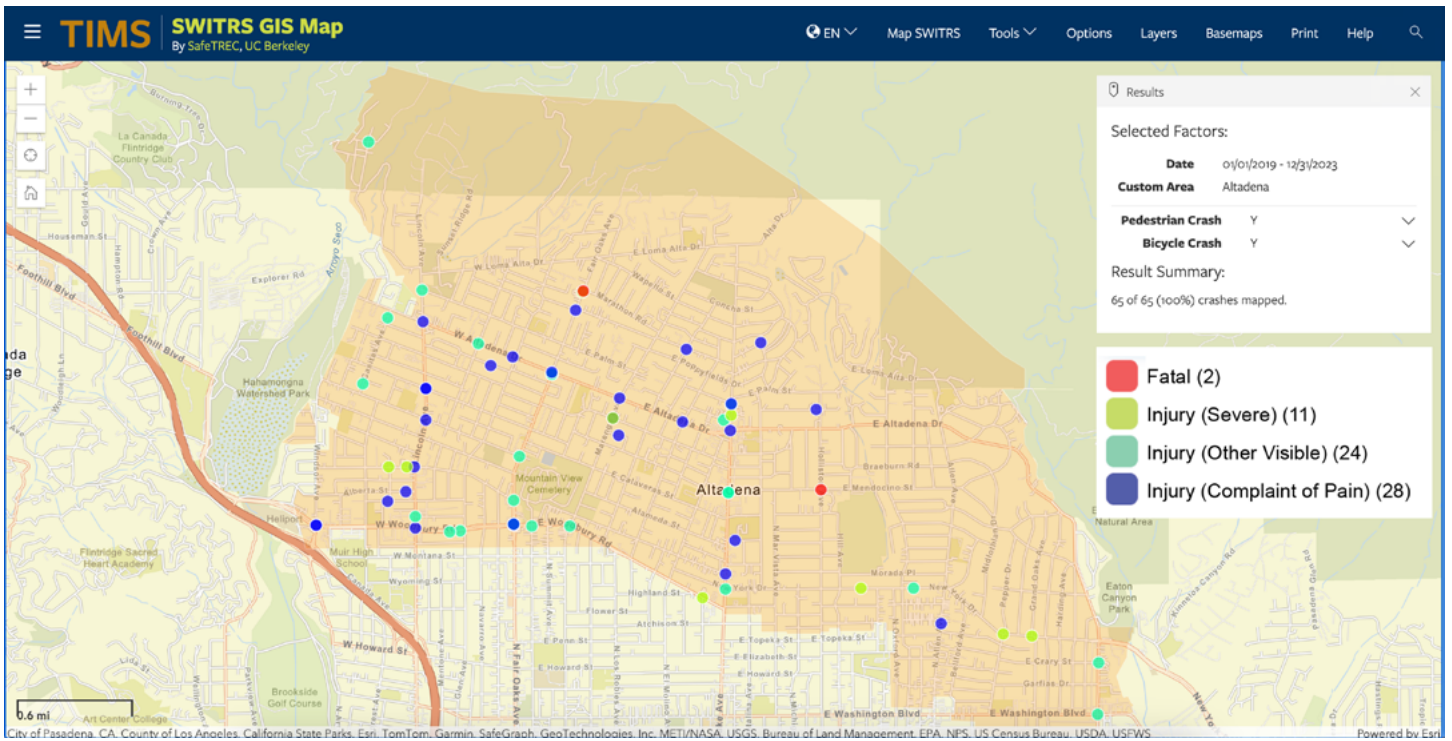
During the training, participants learned practical applications of TIMS including how to:

- Access pedestrian and bike crashes from SWITRS;
- Analyze pedestrian and bike crashes near schools and near identified community hotspots or areas of general interest;
- Visualize pedestrian and bike crashes by severity;
- Analyze individual crashes and their circumstances;
- Create crash diagrams; and
- Analyze crashes within a custom boundary they create.

See the Appendix for the presentation given to the Planning Committee during the TIMS training.

Altadena Custom TIMS Area

During the TIMS training, participants identified the custom boundary of the geographic area seen in the map as their area of interest. The town of Altadena's limit lines make up the custom boundary for the map to allow for the inclusion of any pedestrian or bike crashes in town.



ABOVE: Altadena Custom TIMS Area (Crashes by severity).

Between 2019 and 2023, there were 65 crashes in Altadena that involved either a pedestrian and/or a bicyclist. From this initial data query, the Planning Committee was tasked to do individual analysis to practice their understanding of TIMS and find trends, hotspots, and other data points they wanted to highlight in the data narrative.

In the first quarter of 2024, January to March, provisional SWITRS data names four pedestrian and/or bicycle crashes in Altadena. Three of the four crashes involved pedestrians, a 14-year-old boy, 16-year-old boy, and a 79-year-old woman. The fourth crash involved a 49-year-old male bicyclist. Fifty percent of these crashes involved school-aged children which continues to be a major concern named by the community. Another 25 percent included another vulnerable road user, a senior. All four crashes occurred on streets named by the Planning Committee as needing traffic safety improvements: Lincoln Avenue, Mariposa Avenue, Woodbury Road, and North Altadena Drive.

Data Narrative Training

Data narratives are a more widely accessible format to present data to an array of community members who have differing backgrounds and understandings of data and data analysis. Oftentimes data in itself is too specialized or data sets are too large to equally engage all stakeholders within the planning process for a project. Community members looking to get involved with transportation planning efforts may feel excluded because of the barriers that data can create, whether or not these barriers are real or presumed.

Once data queries are completed, it is important to identify what the data is communicating and find the most impactful way to communicate these findings to your target audience. The goal should be to take the data and turn it into a story and provide data visualizations that complement the story. Ideally, the data narrative should bring a human-centered approach to what would otherwise be just a large data set.

The Planning Committee requested support on how to create digestible and accessible narratives and visualizations for crash data so they could engage all community members and decision makers regardless of their transportation planning background. When done effectively, data narratives can lower barriers for those wanting to participate in the transportation planning process regardless of their background.

On June 12 and July 23, 2024, the Project Team conducted training on how to create data narratives where participants learned how to:

1. Create, draft, and formalize a data narrative;
2. Present their data to decision makers in the most effective format; and
3. Translate community concerns into a data narrative that would support the case for a townwide SRTS Safety and Action Plan.

Creating a Data Narrative

The Project Team reviewed the key steps needed to create an effective data narrative. Some key elements to consider include developing clear messaging, short and concise data findings, and clear and effective data visualizations.

When beginning to draft a data narrative, there are a few questions to consider:

- What does the data tell us and what story are you trying to tell?
- What data is missing and what data do we still need to collect?
- What kind of data best supports your narrative?
- How can you best package the data for your target audience?

When developing a data narrative, it is important to:

- Frame your problem and what you're trying to solve;
- Identify the question(s) you hope to answer with data queries and analyses;
- Involve community members personal experiences and other qualitative data, if possible;
- Inform the audience of the importance of the issue(s) identified and how it affects the community; and
- Close with a call to action to solve the issue(s) named.

There are many ways to present your data narratives including:

- Photo and/or VideoVoice projects;
- One-pagers, including data fact sheets;
- Written reports;
- Public letters of support, comments, or petitions;
- Powerpoints;
- Story Maps and more.

The end result should clearly showcase why the data included is important, what that data means within the larger context, and how the data can be applied to solve the issue(s) stated that need solving.

Next Steps

Throughout the follow-up process, the need for additional qualitative data arose as a much-needed complement to the quantitative data. The Planning Committee named the inclusion of people's personal stories and experiences walking to and from schools in Altadena as a key component of the data narrative.

To achieve this and the larger goal of finalizing the data narrative, the Planning Committee identified short-term (6-12 months) and long-term (1-plus years) next steps, including:

Short-Term

- The Planning Committee will prioritize planning and holding various community engagement events to gather feedback on what safety measures the community would like to see enacted and how the current infrastructure impacts their mobility and access to community spaces. These events should also prioritize ways to bring the community together to foster and strengthen relationships amongst each other.
- The Planning Committee will utilize upcoming outreach events to inform community members about [Street Story](#) and collect their experiences as part of their data collection process. The Project Team created a custom Street Story boundary for the Planning Committee to use when collecting this data. There is also an opportunity for the Planning Committee to collect photos and videos of these personal experiences to create Photo and VideoVoices to add to their data collection.
 - Before collecting Street Story data, the Planning Committee can request previously collected Street Story data as a starting point and a supplement to the data they collect. To request previously collected Street Story data, the Planning Committee can email the Street Story team at streetstory@berkeley.edu.
- The Planning Committee will coordinate a meeting between themselves, City and County agency representatives, and school and school district representatives to determine the process forward for a SRTS Action and Safety Plan. Topics may include which parties would run the program, potential funding sources, and how to create individualized plans for each school once the larger townwide plan is created.
- Draft and finalize crash data highlights, trends, and findings to include in the data narrative.

Long-Term

- The Planning Committee will seek collaborative opportunities to include community members in the decision-making process for formalizing a townwide SRTS Action and Safety Plan. As individual plans are created for each school, they will identify and determine who has jurisdiction and engage with either Altadena Unified School District, Pasadena Unified School District, or private school representatives to customize each plan.
- The Planning Committee will engage community members, in collaboration with Altadena stakeholders and Los Angeles County, to implement traffic safety projects near Altadena school campuses to improve the safety of those walking and biking to school. This includes ensuring projects provide safe connectivity for both those biking and walking to and from school.
- The Planning Committee will identify funding sources that support their efforts in unincorporated Altadena that meet the same engineering standards as local incorporated cities, Pasadena and Los Angeles.

- The Planning Committee will work with Los Angeles County as they update the area plan plan for Altadena to ensure it addresses the mobility needs of the community, with an emphasis on vulnerable road users.

The Planning Committee's dedication over the years and multiple processes demonstrates their continued commitment to prioritizing the safety of schoolchildren in Altadena. As the Planning Committee continues to advocate for their most vulnerable road users, the Project Team remains committed to continued support of their walking and biking efforts.

Appendix

- [TIMS Training Slide Deck](#)
- [SRTS Crash Data Spreadsheet](#)

**Thank you for your interest in the
Community Pedestrian and Bicycle
Safety Program.**

For more information, please visit:

<http://bit.ly/CPBSP>.

For questions, please email safetrec@berkeley.edu.

Visit SafeTREC on the Web at

<https://safetrec.berkeley.edu/>.