Mineta Transportation Institute presents:

Safe Routes to School in 2021: Let's Walk the Walk

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#MTIResearchSnaps

#SRTSWalkTheWalk

Presented by
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February 16, 2021 | Moderated by Shiloh Ballard

MINETA TRANSPORTATION INSTITUTE

Safe Routes to School: 2021 and Beyond

Safe Routes PARTNERSHIP

Michelle Lieberman

Consulting and Program Support Director

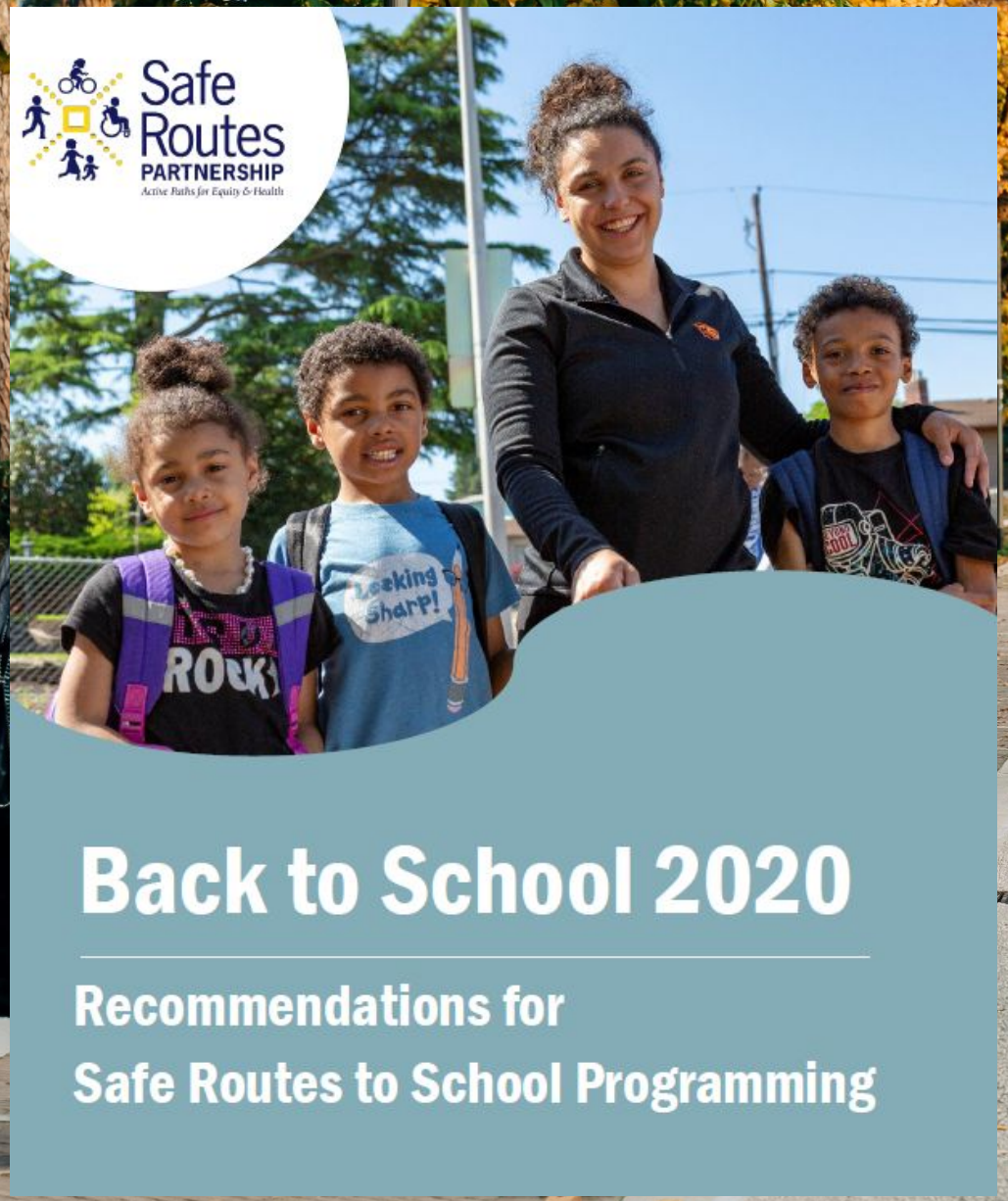
Safe Routes to School Around the Nation: A Snapshot from 2019

6 E's of Safe Routes to School

1. Engagement
2. Equity
3. Engineering
4. Encouragement
5. Education
6. Evaluation

State of Safe Routes to School Programs in 2020 and 2021

- Pivot, pivot, pivot!
- Confronting the unknown and moving forward together
- Responding to local community needs
- Continuing to raise up the importance of traffic safety and physical activity



Working Group and Guide

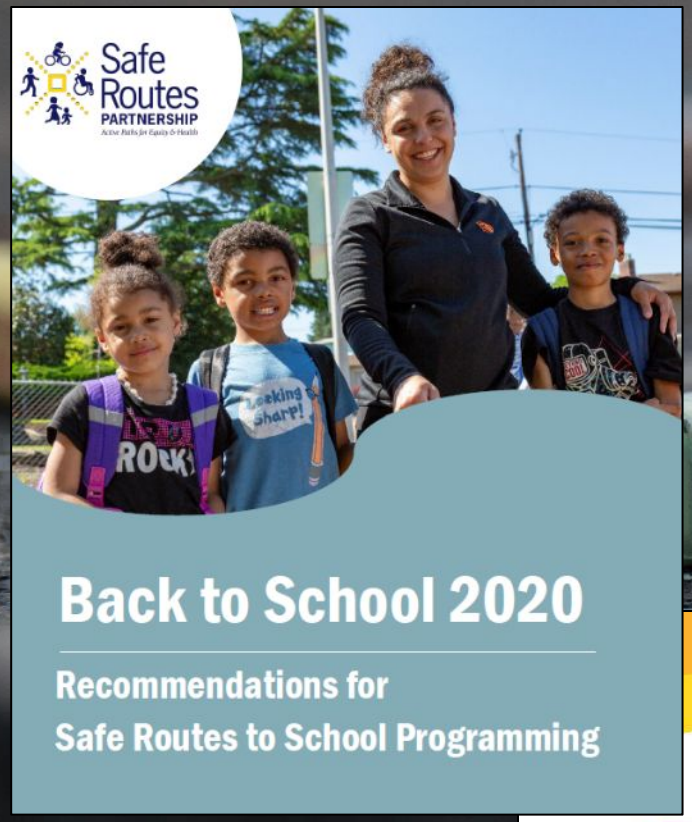
- Guiding Recommendations
- Strategies
- Tools
- Considerations
- Advice for long-term planning

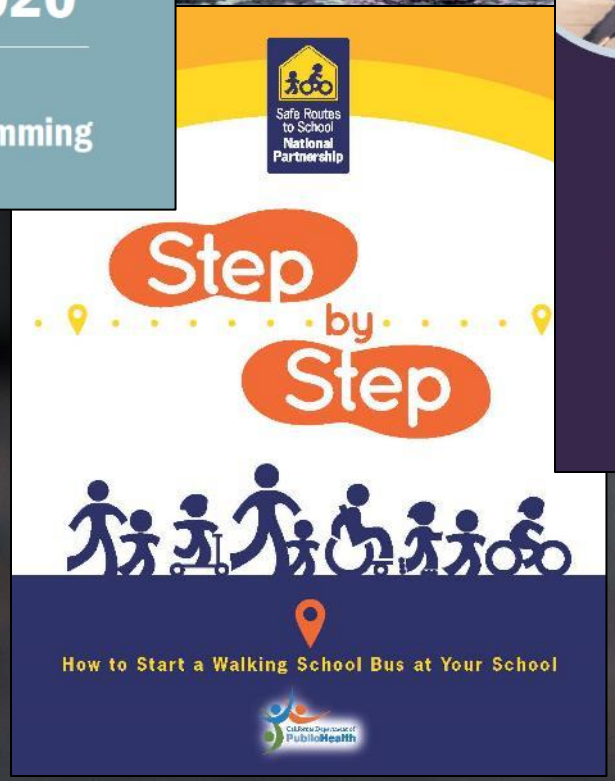
Short-term, actionable, designed to adapt and modify to fit the unique needs of individual school, district, or community

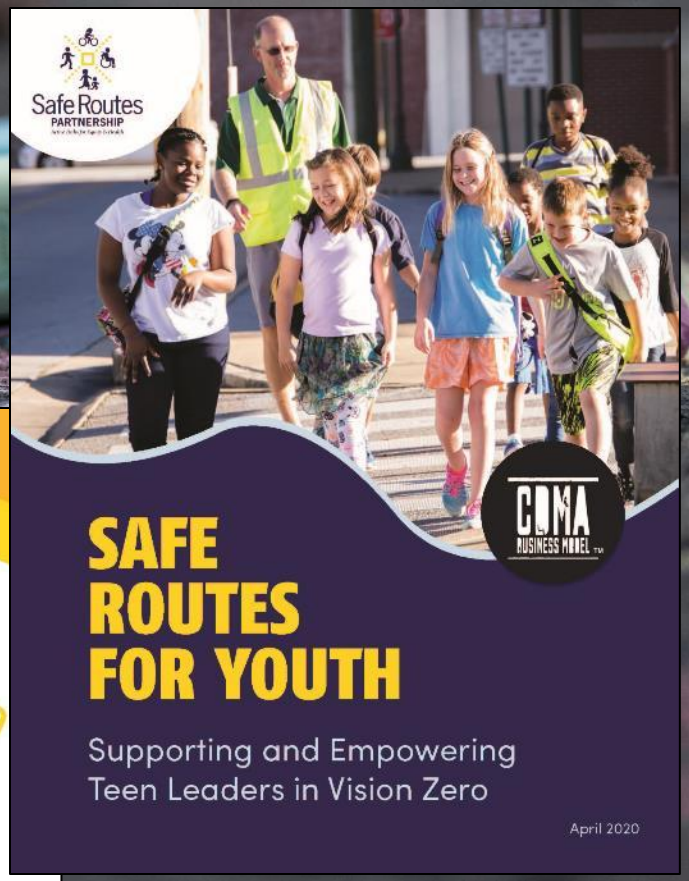
Importance of Safe Routes to School in 2021 and Beyond

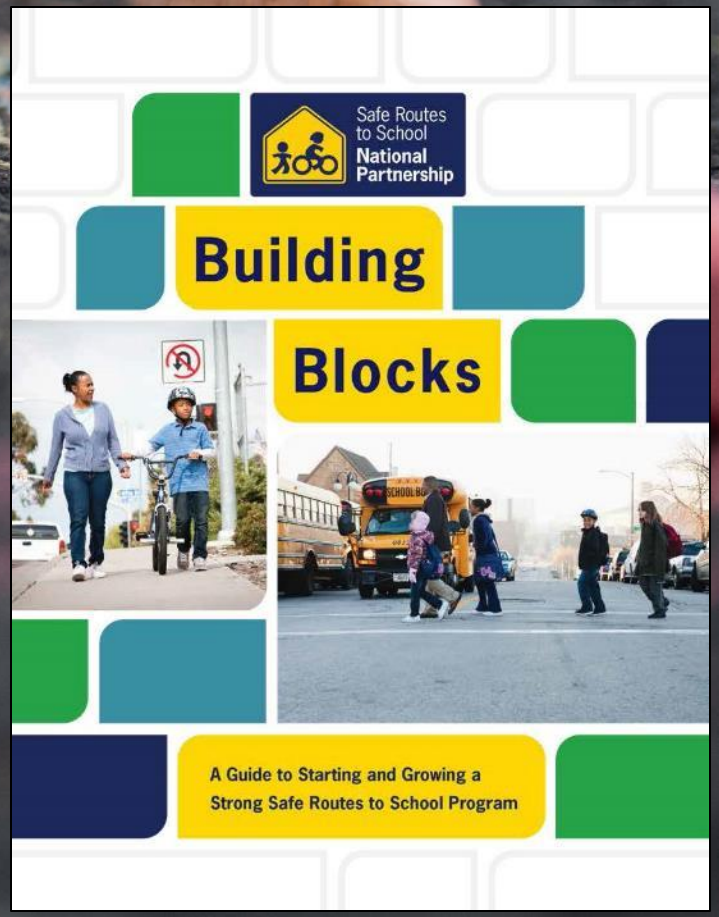
- Transportation and physical activity are essential needs
- More safety concerns around riding the bus; some families don’t own cars
- Student travel options need to be safe, convenient, and physically distant
- Treasure trove of strategies, tools, ideas, and lessons learned from 2020
- Safe Routes to School anticipates lifestyle changes and helps communities adapt

Resources on Our Website









Safe Routes PARTNERSHIP

Thank you!

Michelle Lieberman

Consulting and Program Support Director

michelle@saferoutespartnership.org

NEIGHBORHOOD EFFECTS OF SAFE ROUTES TO SCHOOL PROGRAMS ON THE LIKELIHOOD OF ACTIVE TRAVEL TO SCHOOL

Carole T. Voulgaris, PhD
Reyhane Hosseinzade
Anurag Pande, Ph.D
Serena E. Alexander, Ph.D.

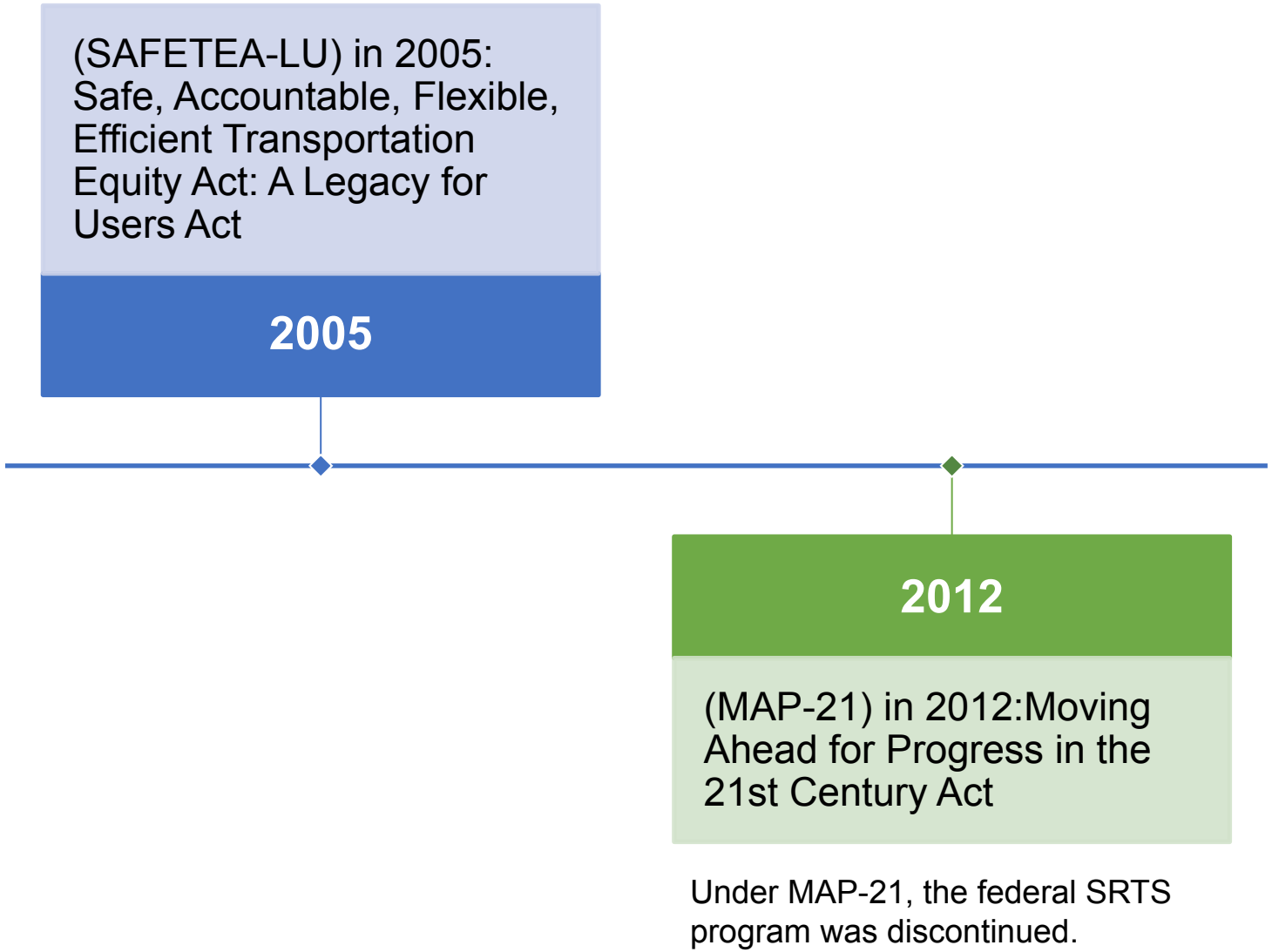
Study funded by the Mineta Transportation Institute at San Jose State University.

Photo credit: New York City Department of Transportation

Elements of Safe Routes to Schools programs (6 ‘E’s)

- Education (e.g., teaching drivers to yield to pedestrians and cyclists)
- Encouragement (e.g., Walk to School Day events)
- ~~Enforcement~~ > Engagement (e.g., the use of police officers and community volunteers to enforce traffic laws)
- Engineering (e.g., sidewalk and crosswalk improvements)
- Equity
- Evaluation

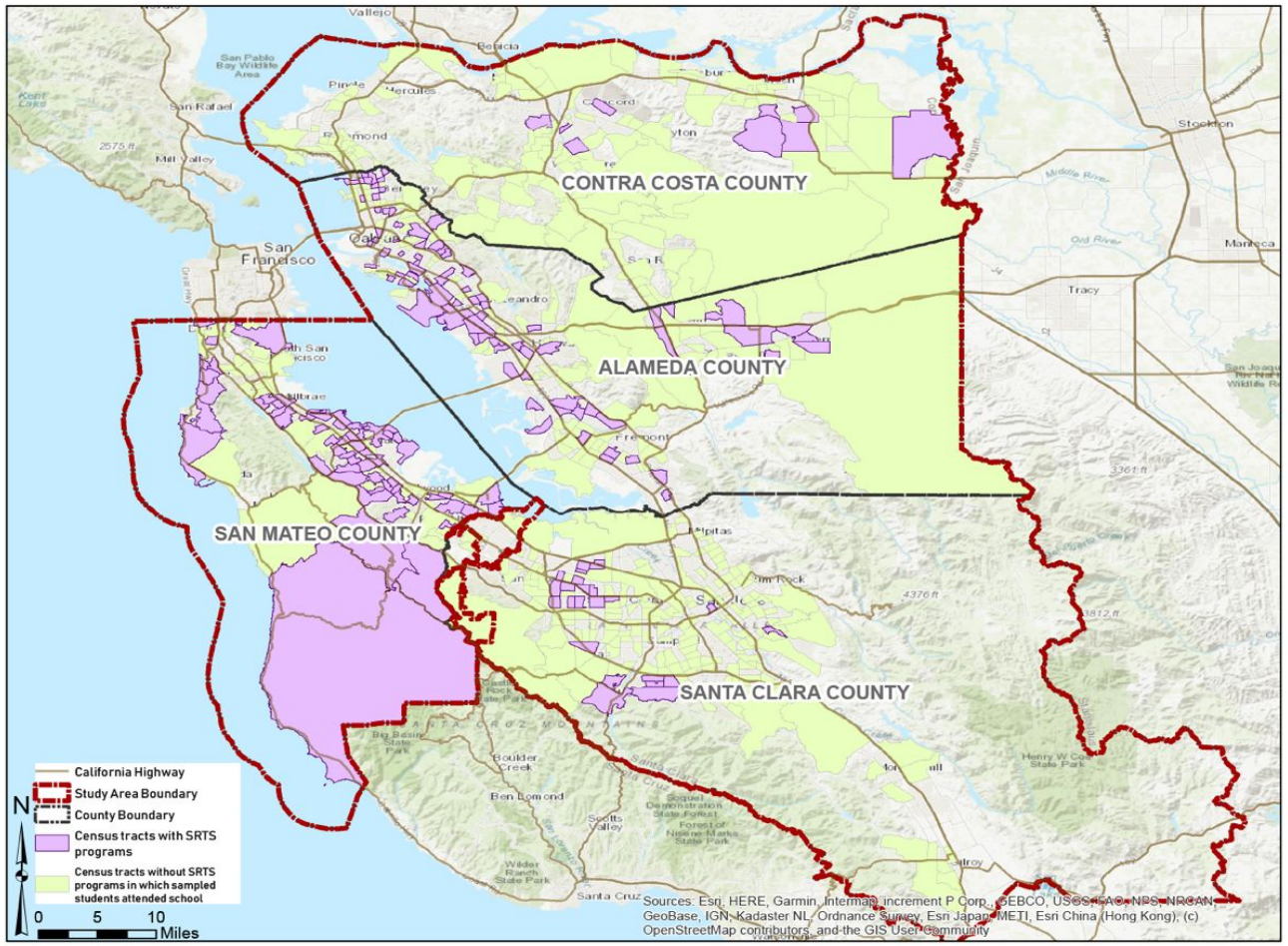
Federal role in Safe Routes to Schools



Methods

- Quantitative
  - Analysis of land use and demographic factors affecting the success of the SRTS programs (CHTS Data)
- Qualitative
  - In-depth interviews with individuals involved in planning and implementing the SRTS programs at individual school level

Quantitative Data and Methods



SRTS Tracts*	Non-SRTS Tracts
Santa Clara	Santa Clara
San Mateo	San Mateo
Alameda	Alameda
Contra Costa	Contra Costa

San Francisco Bay Area

- Those containing schools for which the National Center for Safe Routes to Schools (NCSRTS) Data Collection System included student travel data from 2012.
- This study only includes households living in the study area with children who attend grades kindergarten through eighth grade.
- SRTS tracts includes 24-30% of students.

Control Variables

- Commute distance to school
- Household income
- Race/ethnicity
- Gender
- Presence of non-working adult(s) in the household
- Housing unit density
- Average block length
- Share of the population between the ages of five and fourteen years old
- Percent of resident workers who walk to work in the tract

Statistical Analysis

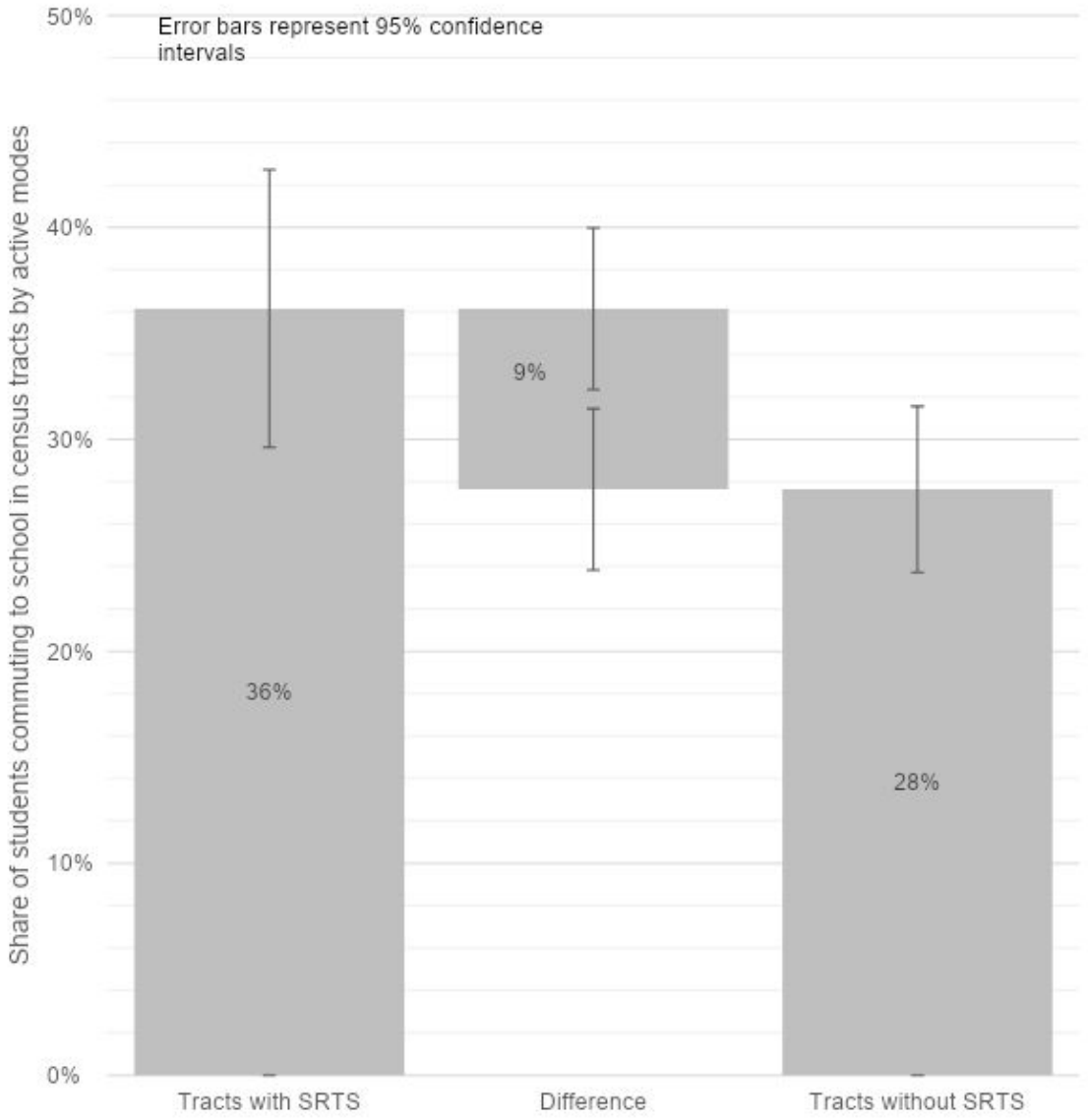
Binomial logistic regression models

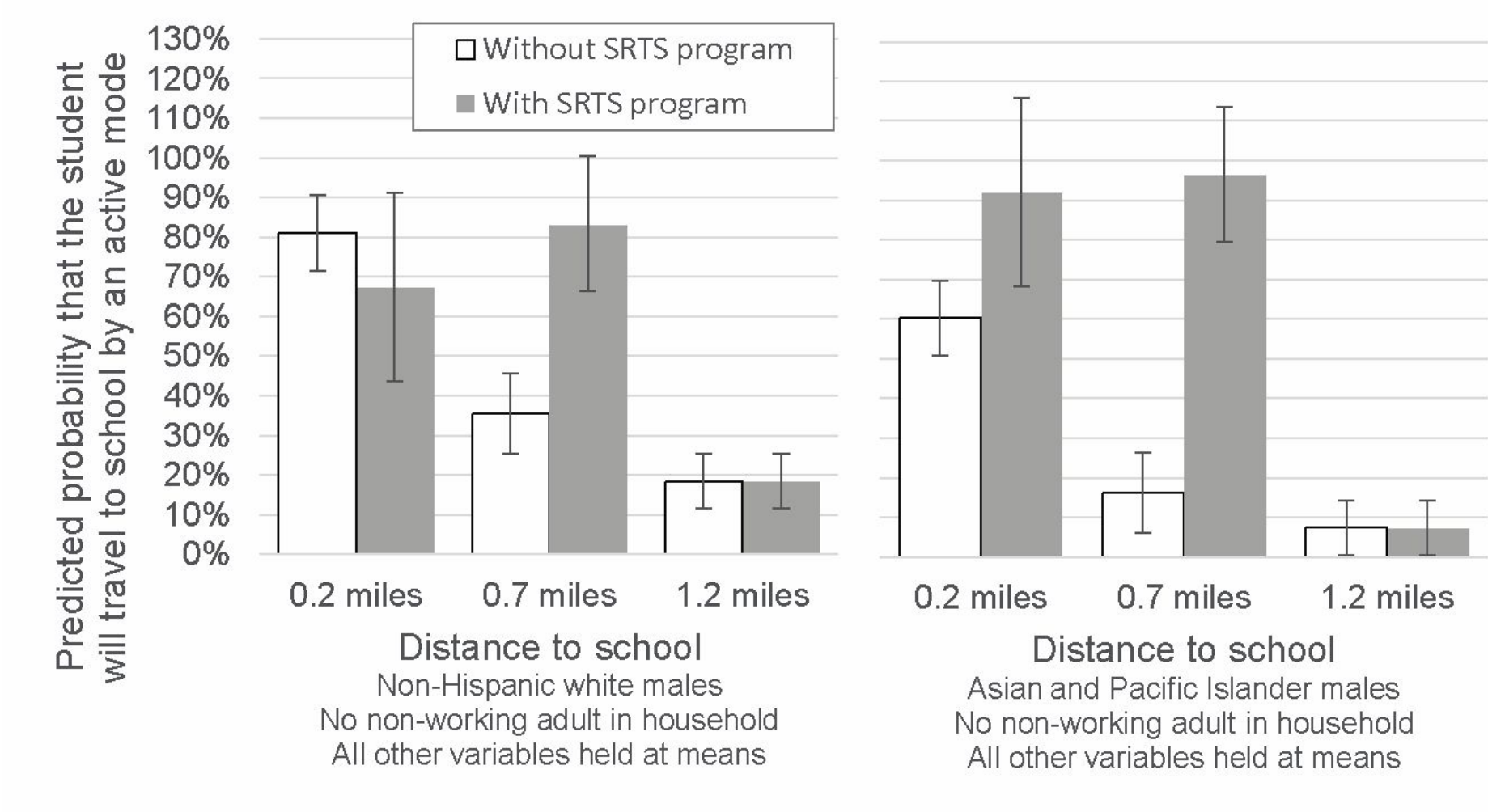
- Model 1: estimating the average difference in the probability of taking an active mode to school by the presence of SRTS program.
- Model 2: Including interaction terms between the presence of an SRTS program and each of the control variables in addition to all the terms included on model 1.
- Model 3: replacing the indicator variable for the presence of an SRTS program with an indicator if whether the student attends school in SRTS area and has a commute distance of less than the walking threshold.
- Models 4: including the same indicator variable as model 3, and all terms as model 2.

		Model Alternative			
		1	2	3	4
Distance to school (miles) (log transformed)		x	x	x	x
School neighborhood characteristics	Presence of SRTS program	x	x	-	-
	Presence of SRTS program *and* commute less than threshold	-	-	x	x
	Housing density (housing units / acre)	x	x	x	x
	Percent of population ages 5 to 14 years old	x	x	x	x
	Percent of the population that walks to work	x	x	x	x
	Average block length	x	x	x	x
Individual and household characteristics	Household income (in units of $10,000)	x	x	x	x
	Presence of non-worker adult in household	x	x	x	x
	Sex	x	x	x	x
	Race/ethnicity	x	x	x	x
Interactions with presence of SRTS program					
Distance students travel to school (miles)		-	x	-	-
School neighborhood characteristics	Housing density (housing units / acre)	-	x	-	-
	Percent of population ages 5 to 14 years old	-	x	-	-
	Percent of the population that walks to work	-	x	-	-
	Average block length	-	x	-	-
Individual and household characteristics	Household income	-	x	-	-
	Presence of non-worker adult in household	-	x	-	-
	Sex	-	x	-	-
	Race/ethnicity	-	x	-	-
Interactions with presence of SRTS program (only for commutes less than threshold)					
Distance students travel to school (miles)		-	-	-	x
School neighborhood characteristics	Housing density (housing units / acre)	-	-	-	x
	Percent of population ages 5 to 14 years old	-	-	-	x
	Percent of the population that walks to work	-	-	-	x
	Average block length	-	-	-	x
Individual and household characteristics	Household income	-	-	-	x
	Presence of non-worker adult in household	-	-	-	x
	Sex	-	-	-	x
	Race/ethnicity	-	-	-	x

Results

In 2012, students commuting to schools in SRTS tracts were significantly more likely to commute to school by active modes than students commuting to school in non-SRTS tracts, with a difference of about nine percentage points.





Predicted probabilities of using an active mode for the journey to school for non-Hispanic white students and Asian students attending school in tracts with and without SRTS programs, for three different trip distances: 0.2 miles, 0.7 miles, and 1.2 miles. All other variables from the regression model are held at their base values for categorical variables (male, no non-working adult in the household) or mean values for continuous variables.

Qualitative Analysis

- We conducted interviews with school administrators and parents involved with SRTS programs.
  - Within the study area, SRTS programs have generally emphasized education and encouragement
  - Some of the more unique recent initiatives part of SRTS programs include free bike repair services
  - One interviewee emphasized the need to increase visible safety measures within the community and near schools, such as having more parent volunteers, *adding speed bumps*, and increasing the number of teachers out on yard duty

Qualitative Analysis

Interviewees' responses align with the Schneider's operational theory of routine mode choice decisions

- Awareness and availability (e.g., through proper communication by the schools to parents),
- Basic safety and security (e.g., through improvements to the routes to school and increasing school staff and equitable enforcement and encouragement in the SRTS programs),
- Enjoyment (e.g., through the novelty of the SRTS events and social connections created by walking or bicycling together),
- Habit (e.g., targeting information about sustainable transportation options to people making key life changes), and
- Convenience and cost (e.g., through long-term changes in land use; perhaps the most difficult to implement for the school context).

Conclusion

- SRTS programs improves health and safety of students in two ways: safety for who would walk/ bike even in the absence of such program and increasing the share of students who walk/bike to school.

- With shorter distance of walking, the impact of race/ethnicity on choosing to walk/bike to school can be eliminated.

- Potential impacts of SRTS programs in alleviating racial and geographic barriers to commuting to school by active modes.

- Qualitative data suggests there is appreciation for engagement and education elements of the SRTS programs

Questions/Comments

- Carole Voulgaris (cvoulgaris@gsd.harvard.edu)

- Anurag Pande (apande@calpoly.edu or @PolyProfPande on Twitter)

Safe Routes to Schools Service-Learning Projects In San José Spark Longstanding Student Engagement In Community Planning

Richard Kos, AICP
Sue-Ellen Katz Atkinson, AICP
Branka Tatarevic
Justin Flynn

Service-Learning and Community Engagement at San Jose State University

Masters of Urban Planning program

Capstone Studio in Community Planning
Advanced GIS for Urban Planning

CommUniverCity partnership

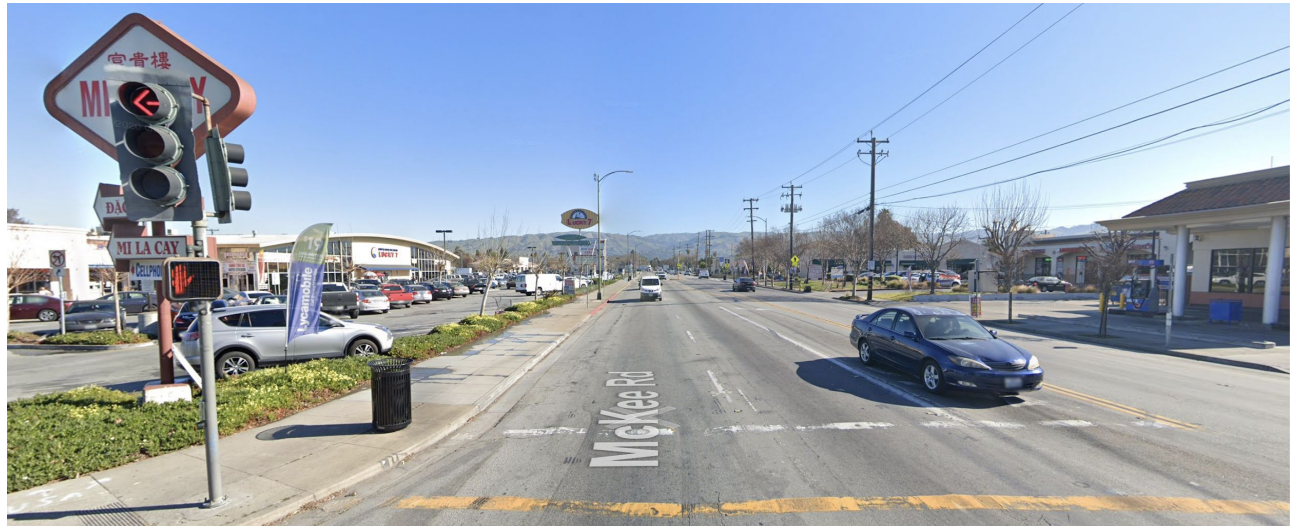
Mindset: Asset-Based Community Development

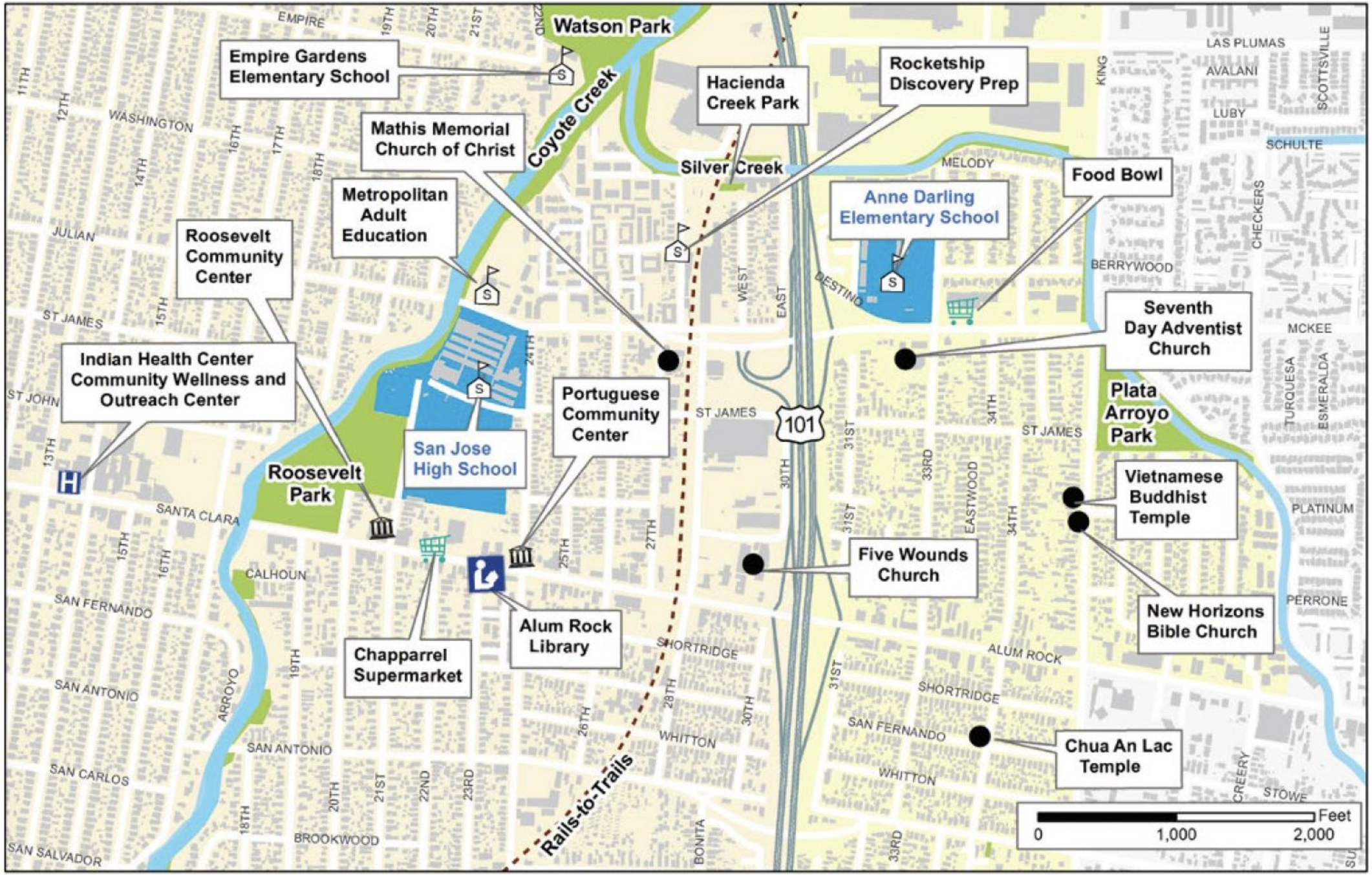
Approach: Collaborative Neighborhood Planning Model

- Community assessment
- Community building
- Implementation bridges

Benefits for students, communities, university


FOOD
BOWL
Atlas


MI LA CAY
McKee Rd

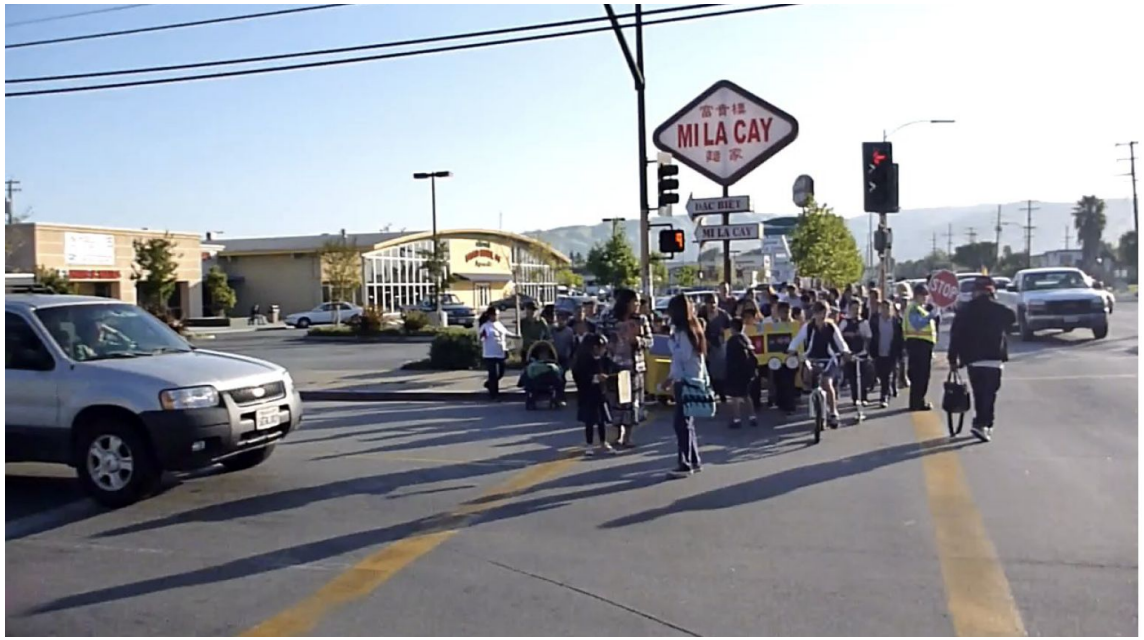

Watson Park
Empire Gardens Elementary School
Coyote Creek
Hacienda Creek Park
Rocketship Discovery Prep
Mathis Memorial Church of Christ
Silver Creek
Metropolitan Adult Education
Anne Darling Elementary School
Food Bowl
Roosevelt Community Center
Seventh Day Adventist Church
Indian Health Center Community Wellness and Outreach Center
Portuguese Community Center
San Jose High School
Plata Arroyo Park
Roosevelt Park
Vietnamese Buddhist Temple
Five Wounds Church
Chapparrel Supermarket
Alum Rock Library
New Horizons Bible Church
Chua An Lac Temple
Rails-to-Trails
101
EMPIRE
WASHINGTON
JULIAN
ST JAMES
ST JOHN
SANTA CLARA
CALHOUN
SAN FERNANDO
SAN ANTONIO
SAN CARLOS
SAN SALVADOR
BROOKWOOD
ARROYO
WHITTON
SHORTRIDGE
ALUM ROCK
BERRYWOOD
MELODY
LAS PLUMAS
AVALANI
LUBY
SCHULTE
MCKEE
PLATINUM
PERRONE
STOWE
CREERY
EASTWOOD
BONITA
WEST
EAST
KING
CHECKERS
SCOTTSVILLE
TURQUESA
ESMERALDA
Feet
0
1,000
2,000

Map Created by San Jose State Graduate Students in Urban and Regional Planning, 2010-2011
Data sources: City of San Jose, Santa Clara County VTA, SJUSD

- VTA Bus Stops
- Rails-To-Trails
- Good sidewalk condition
- Fair sidewalk condition
- Poor sidewalk condition
- Anne Darling Attendance Area
- SJHS Attendance Area
- Schools Studied for this Project

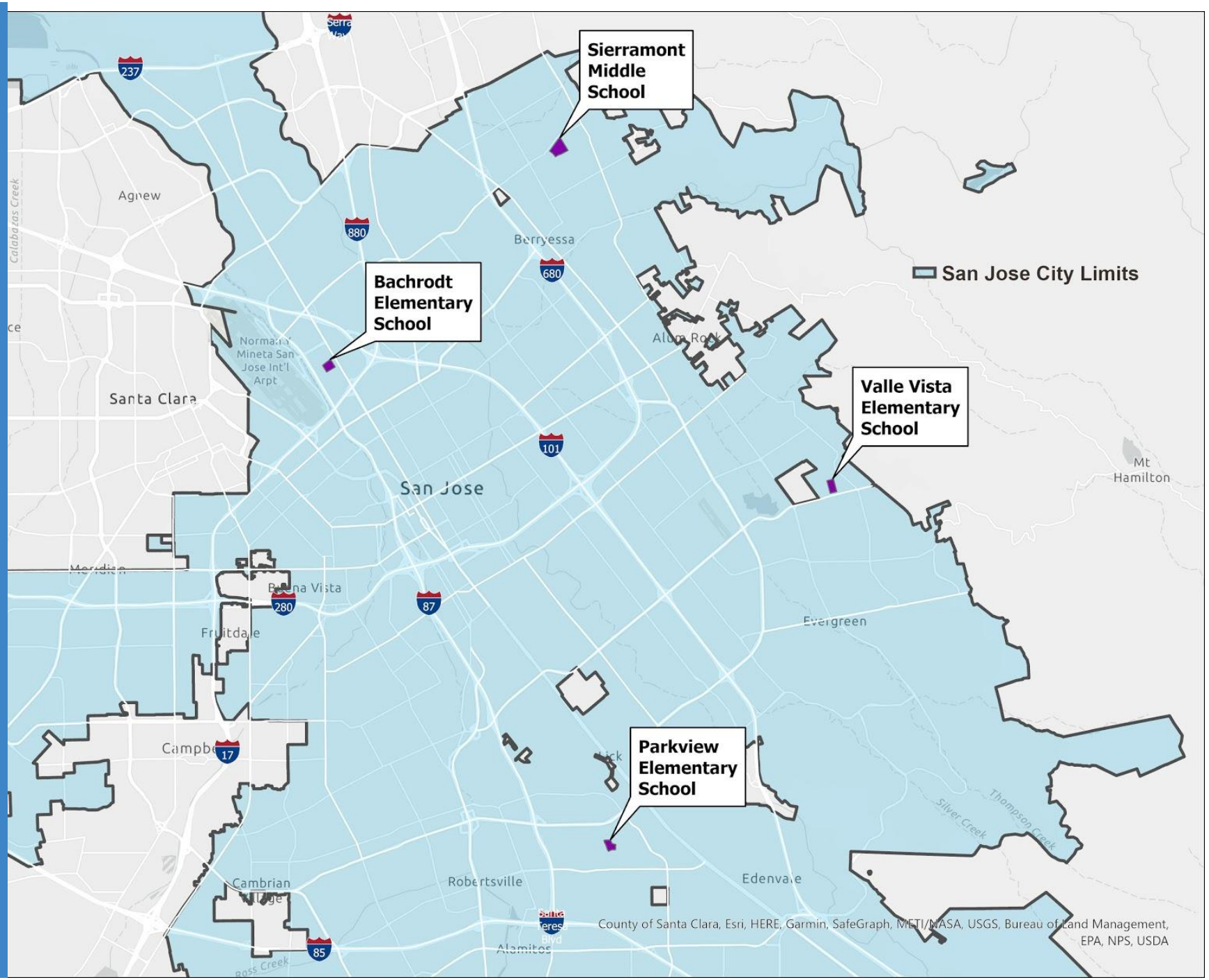

Station 1:
Controlled Riding,
Right Turn & Stop

- Bottom-up, community driven approach
- Families take ownership of the SRTS program
- Provides structure for a program that can be long-lasting and part of school culture
- Local jurisdictions can provide materials and support for programs

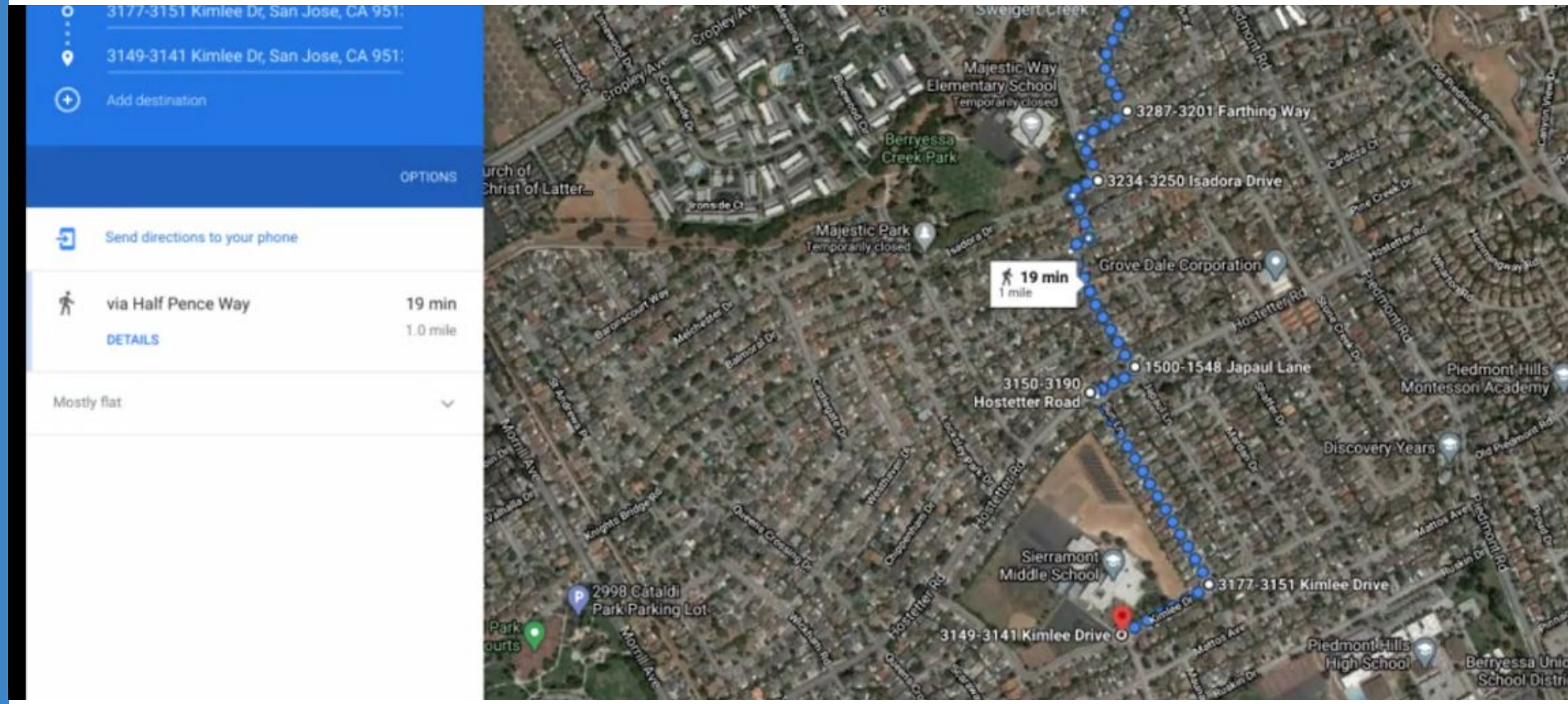


- Educates young residents how to walk and bike safely (and their families too!)
- Encourages a new generation to use multimodal options and not vehicles only
- Increases mode share for active transportation
- Builds pride in the community and a sense of ownership in the built environment

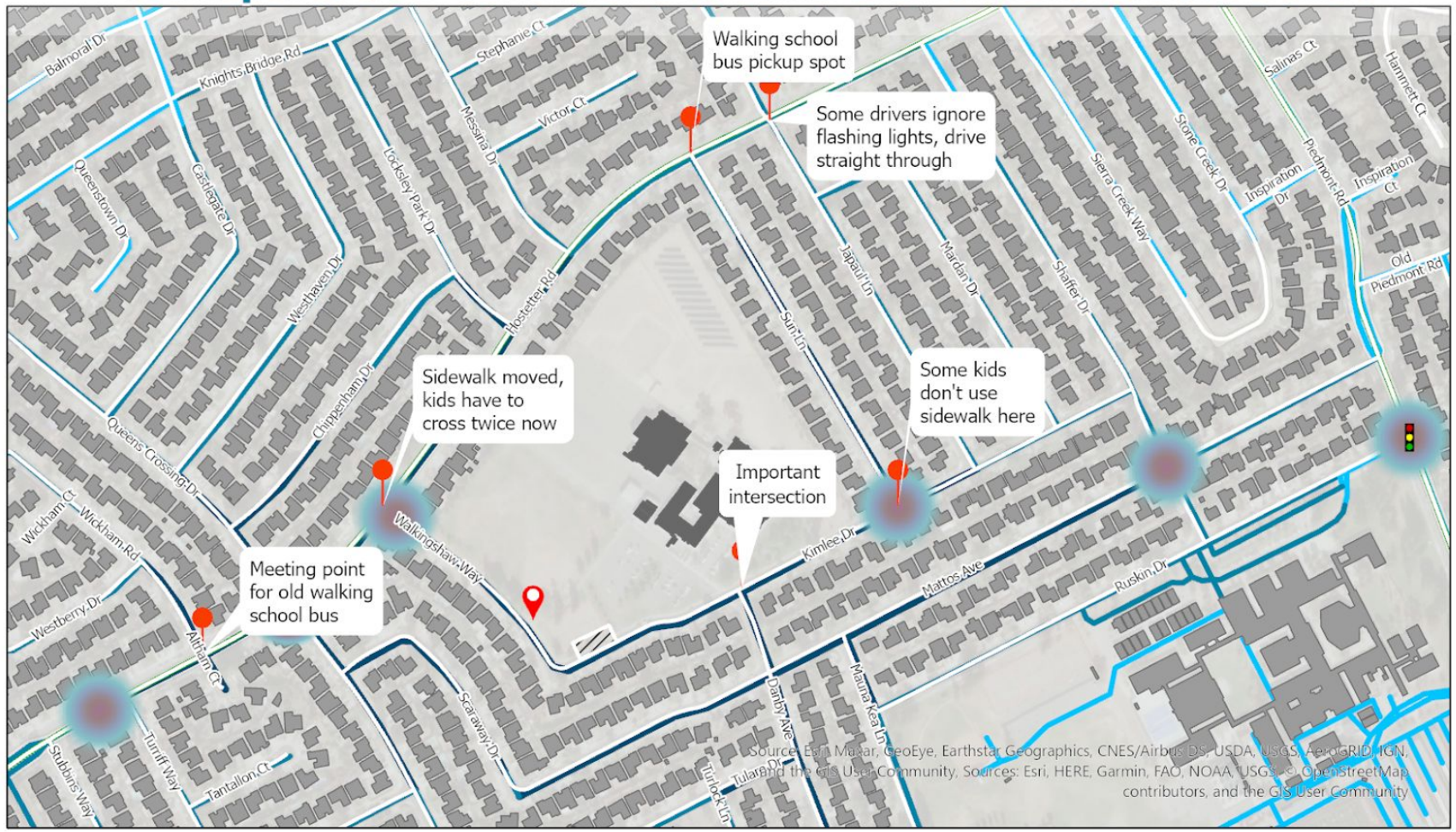
Subject Schools



Sierramont Site Visit



Transportation Conditions around Sierramont Middle School



Main school entrance
School entrances
Drop Off Areas
School Boundary

Bikeways
Class 1
Class 2
Class 3
Class 4

Walkable Streets & Paths
within 5 minutes
5 to 10 minutes
10 to 15 minutes

Streets missing sidewalks
Traffic Signals

0 500 1,000 Feet

N

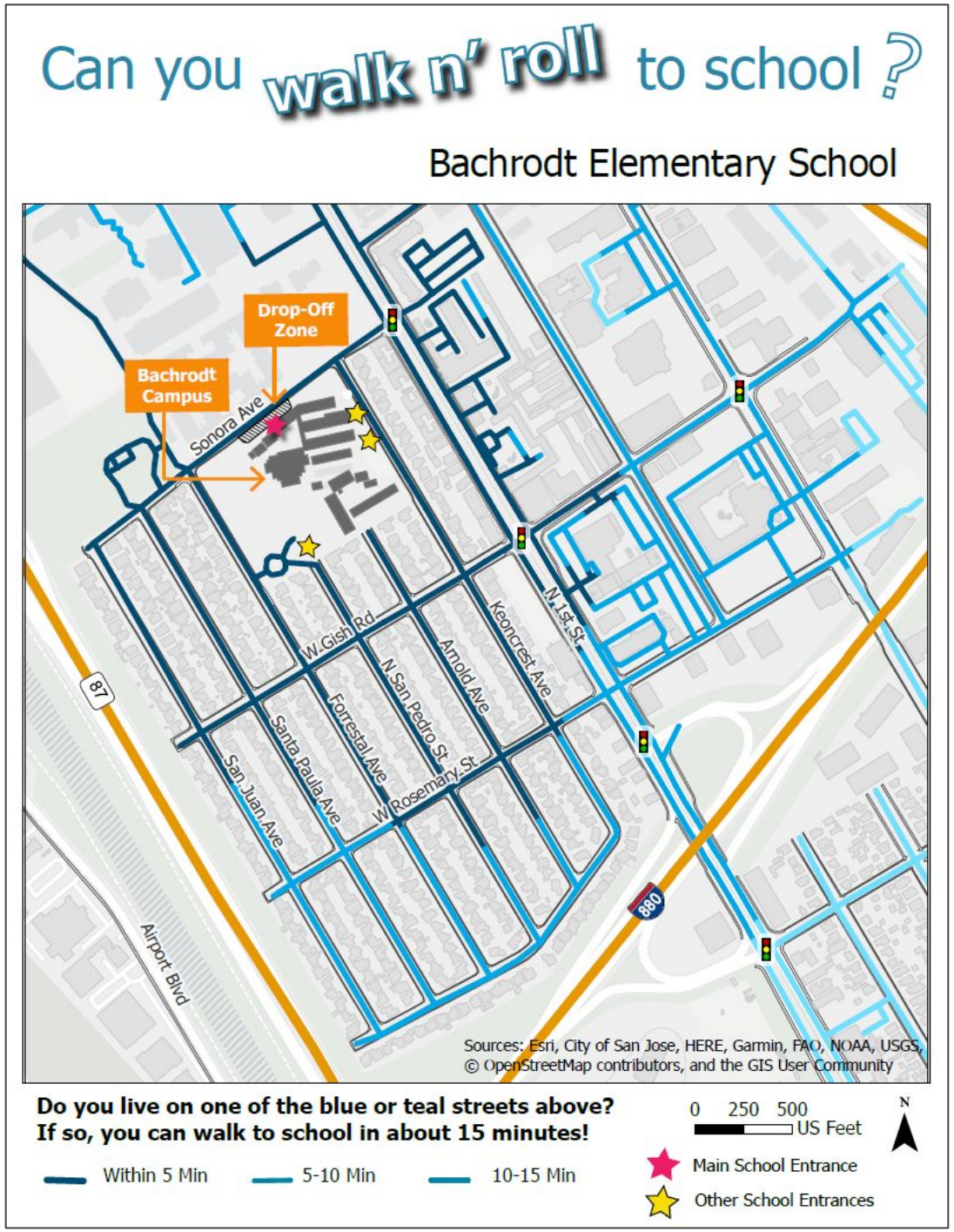
Map By: Lauren Anderson, Justin Flynn, Branka Tatarevic, Lingyu Mou, SJSU

Data sources: (1) GIS Open Data, City of San José, CA. URL: https://gisdata-csj.opendata.arcgis.com/datasets. Datasets: "Streets," "Sidewalks," "Bikeways," "Vision Zero Safety Corridors," "Building Footprint," "City Owned Traffic Signals," "School," "Crash Locations." (2) ESRI. (3) Sierramont Middle School. https://sierramont.berryessa.k12.ca.us/. (4) School

TRANSPORTATION CONDITIONS:

LARGE SCALE

- Sierramont site visit



PROMOTIONAL MAP:

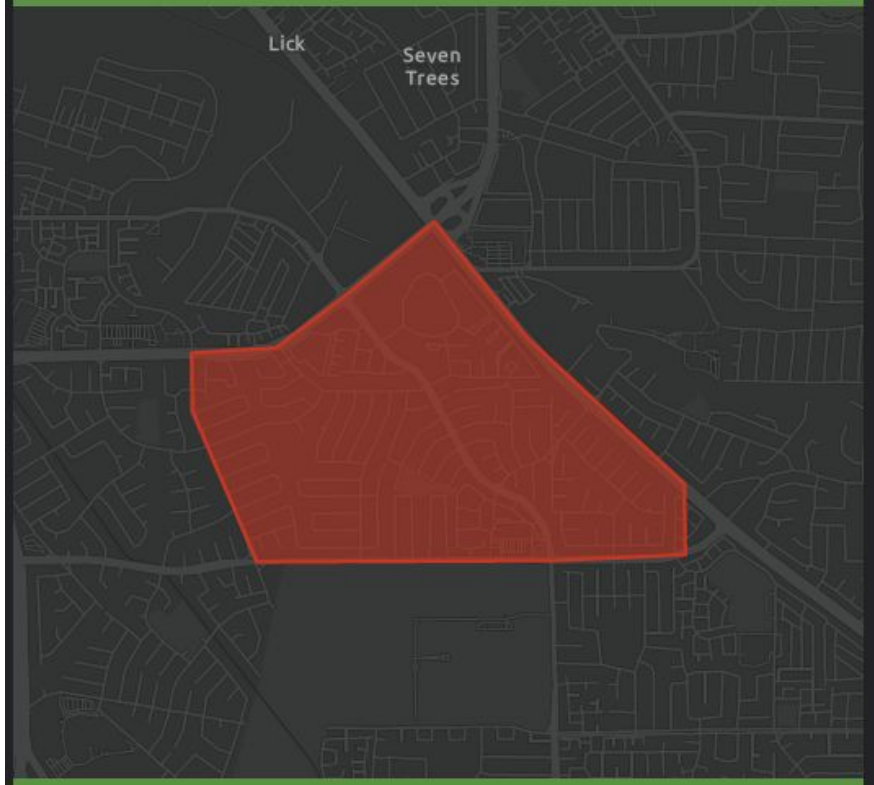
- Inform and remind students and families about the walkability of the neighborhood
- Simple design conveys more info because of iteration
- Could be printed at the school office

DEMOGRAPHIC PROFILE

Polygon

Parkview Elementary School

Area: 0.88 square miles



esri
THE SCIENCE OF WHERE

This infographic contains data provided by Esri.
The vintage of the data is 2020, 2025.

EDUCATION

No High School Diploma	High School Graduate	Some College	Bachelor's/Grad /Prof Degree
11%	15%	27%	48%

EMPLOYMENT

White Collar	74%
Blue Collar	14%
Services	12%

13.7% Unemployment Rate

KEY FACTS

12,601 Population	33.3 Median Age
4,250 Households	$82,101 Median Disposable Income

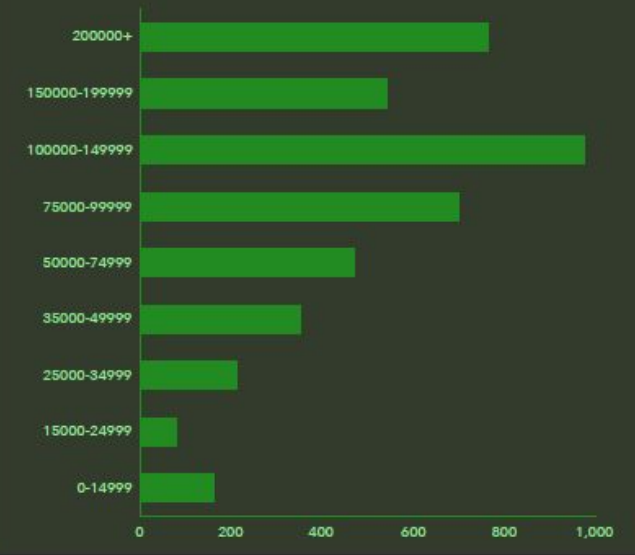
INCOME

$105,117 Median Household Income

$45,032 Per Capita Income

$79,703 Median Net Worth

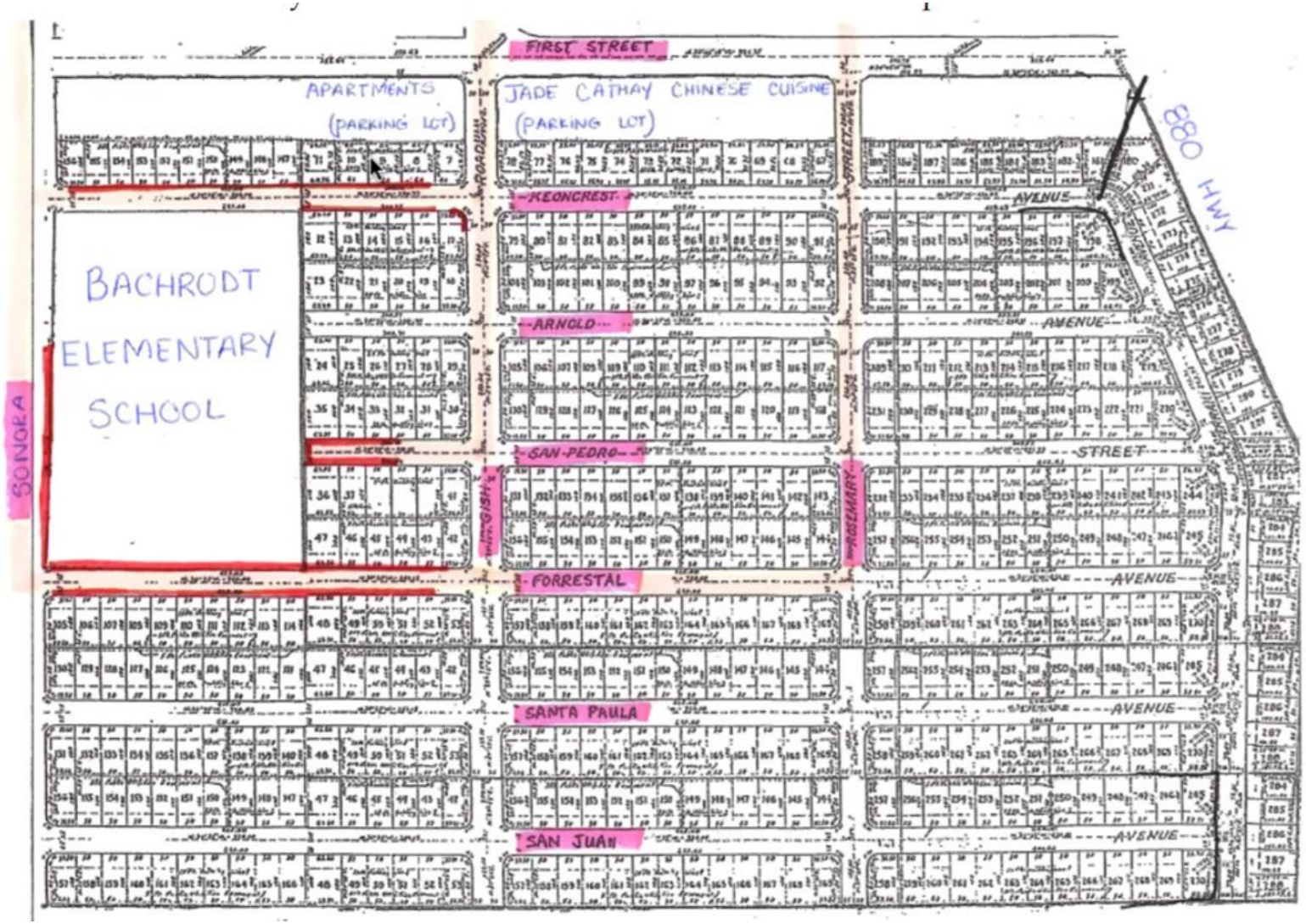
HOUSEHOLD INCOME ($)



Transportation Conditions within Bachrodt School Boundaries

- The school is close to the district boundary edge
- Bachrodt Area is divided by I-880
- Rosemary Gardens walkable

VIRTUAL COMMUNITY MEETING



WALK n' ROLL City of San José

SJSU SAN JOSÉ STATE UNIVERSITY

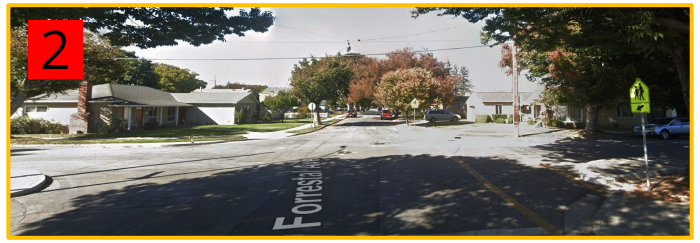
zoom

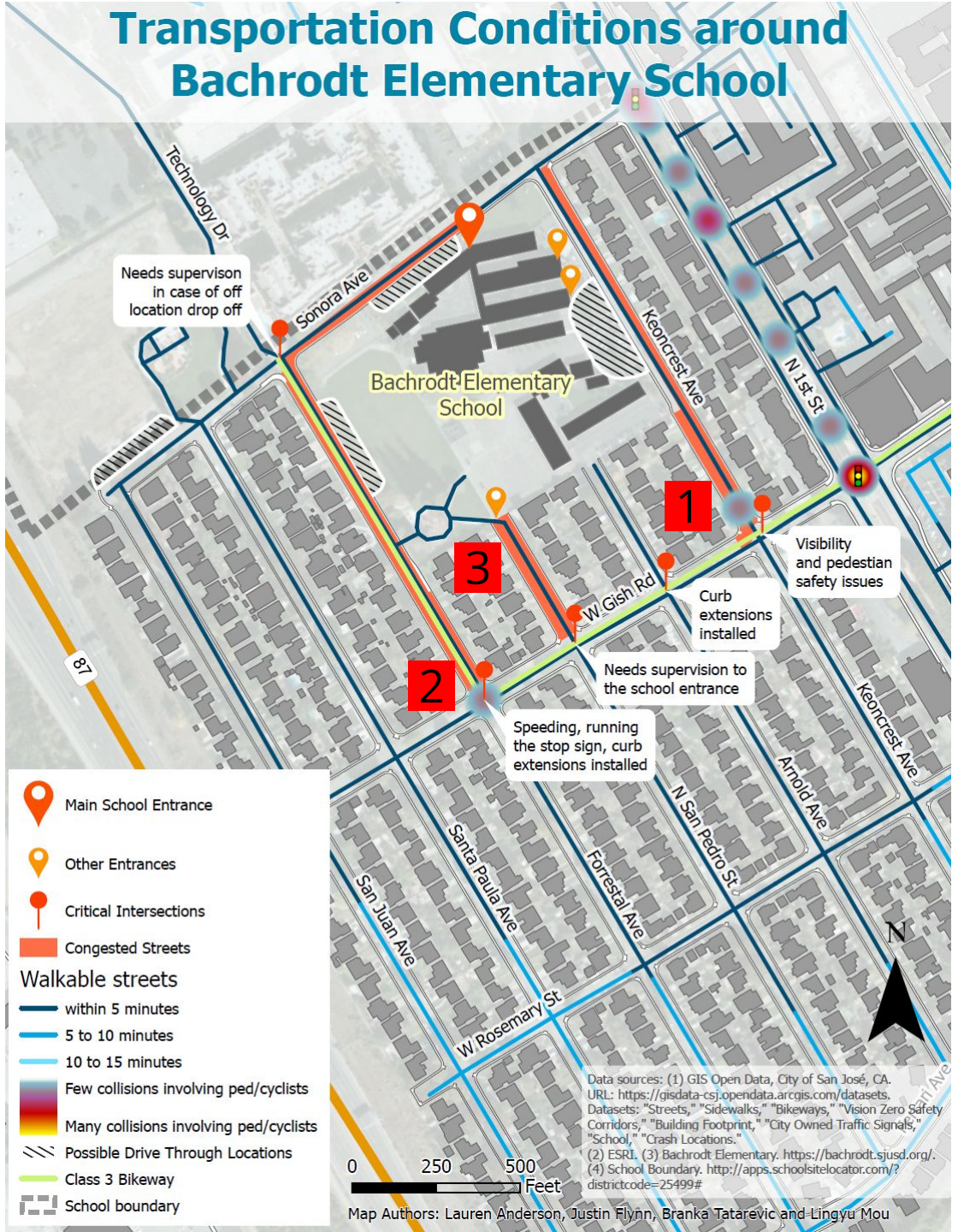
Walter L. Bachrodt Elementary

PTA Parent Teacher Association Bachrodt Academy

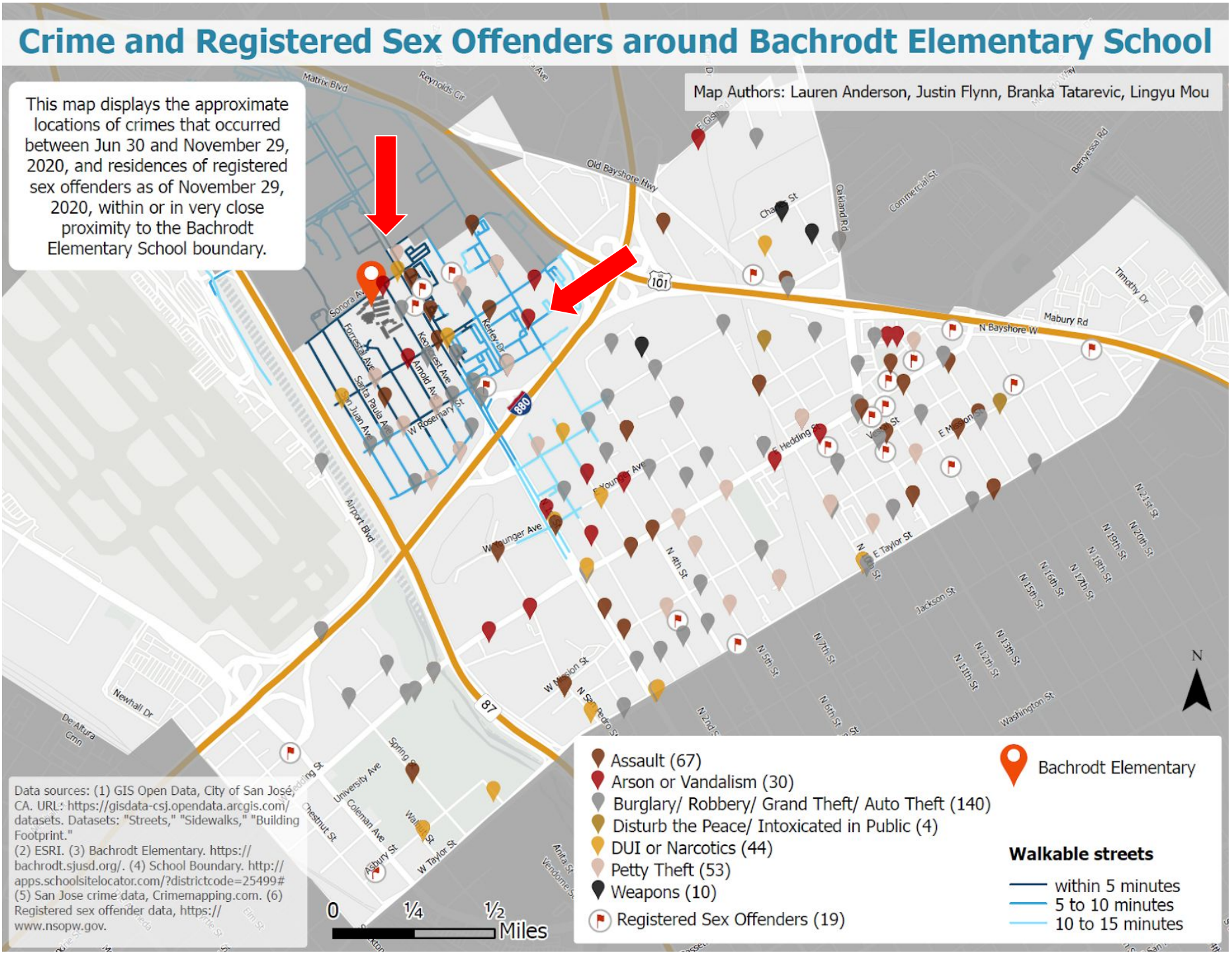
- Parent representative shared a map
- Many people drive (bilingual program; highways)
- Narrow streets
- Drive through for drop off

LARGE SCALE





- **Mapped input from the community**
- **Updated the Walkable streets with confirmed multiple entrances**
- **Automobile traffic as impediment for active transportation, even in the immediate neighborhood**



PUBLIC SAFETY

- **For internal use can inform route recommendations**
- **Crime concentrated along 1st Street, also scattered throughout Rosemary Gardens neighborhood (see red arrows)**
- **19 sex offenders in the neighborhood - only 3 right near the school**

Service-Learning and Community Engagement at San Jose State University

Benefits for Students

- Exposure to real-world challenges
- Integrating theory and practice
- Course is run as a small consulting firm
- Empathy and active listening
- Professional network building
- Students continue into jobs serving communities

Benefits for Communities

- Access to students with wide skill sets
- Turning aspirations into actions and advocacy
- Giving a voice to the marginalized
- Students continue into jobs serving communities

Thank you for joining us for:

Safe Routes to School in 2021: Let's Walk the Walk

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View the full reports at:

Pande and Volgaris et al: https://transweb.sjsu.edu/research/1821-Measuring-Success-Safe-Routes-School

Kos et al: https://transweb.sjsu.edu/research/2061-Safe-Routes-School-San-Jose

Tune in for our next MTI Research Snap "TODs and Park and Rides, Which is Appropriate Where?" on March 4, 2021 at 10a.m. (PST)! Visit https://transweb.sjsu.edu/events for details and registration.

Have a suggestion for a webinar topic you'd like to see featured? Email irma.garcia@sjsu.edu