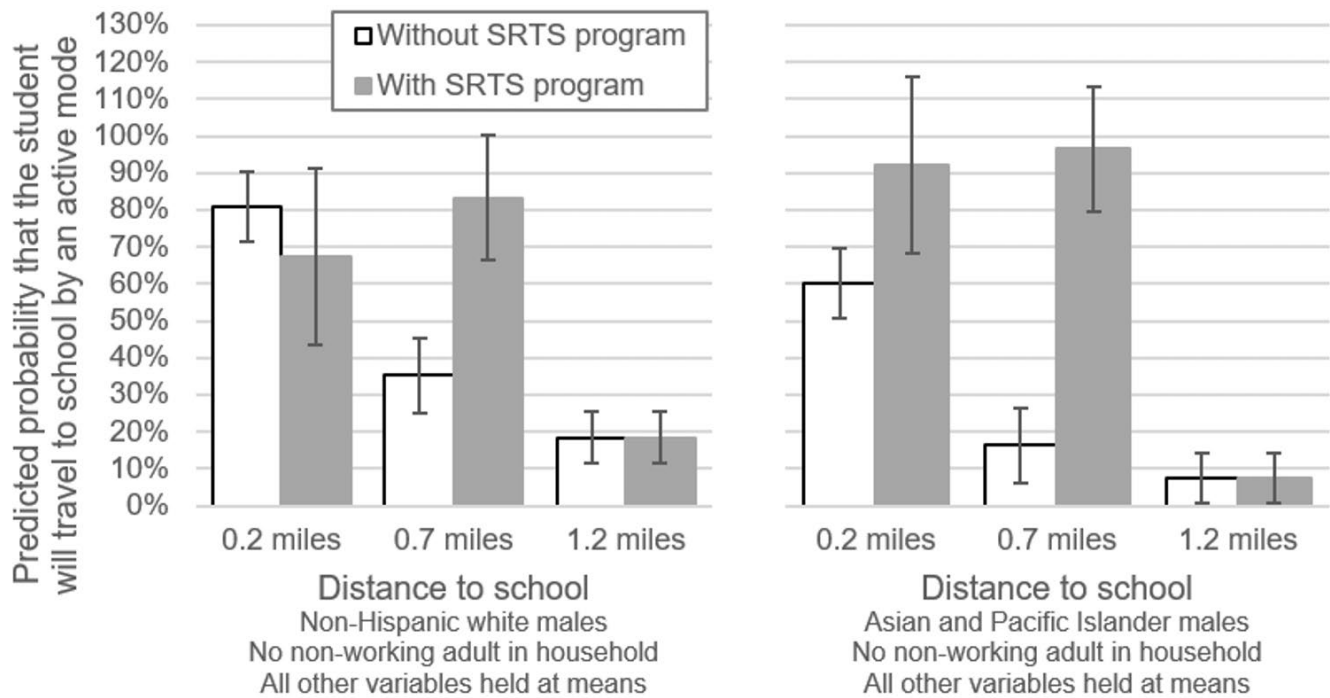


Measuring Success for Safe Routes to School Programs

Project 1821
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Carole Turley Voulgaris, PhD, Serena Alexander, PhD, Reyhane Hosseinzade, MUP, James Jimenez, Katherine Lee, and Anurag Pande, PhD



Predicted Probabilities of Active Travel to School, By Race/Ethnicity, Distance to School, and Presence of SRTS

Increasing the share of students who commute to school using active modes has the potential to improve children’s physical and mental health by increasing physical activity. Safe Routes to School (SRTS) programs aim to accomplish this goal through engineering, education, enforcement, encouragement, equity, and evaluation (6 Es). The purpose of this study is to determine the relationship between the presence of Safe Routes to School programs and the likelihood that children will travel to school by active modes.

Study Methods

The research includes two approaches: (i) quantitative analysis of land use and demographic factors affecting the success of the SRTS programs

and (ii) qualitative analysis involving in-depth interviews with individuals involved in planning and implementing the SRTS programs at individual school level. For quantitative analysis, the California household travel survey data from the Bay Area were used.

Findings

Key Findings (Quantitative Analysis):

- Students with longer commutes to school are less likely to use active modes.
- In terms of ethnicity, Asian/Pacific Islander students are less likely than their white peers to commute by active modes.
- The presence of SRTS programs at the school seems to reduce or even eliminate race-based and

- distance-based barriers to commuting to school by active modes.
- Bay Area white students are more likely to attend schools with SRTS programs compared to Hispanic students.

Key Findings (Qualitative Analysis):

Based on a qualitative analysis of interview responses, active modes could be promoted through each of the following five steps:

- *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),
- *Convenience and cost* (e.g., through long-term changes in land use; perhaps the most difficult to implement for the school context),
- *Enjoyment* (e.g., through the novelty of the SRTS events and social connections created by walking or bicycling together), and
- *Habit* (e.g., targeting information about sustainable transportation options to people making key life changes).

These five steps are based on Schneider's operational theory of routine mode choice decisions.

SRTS programs have the greatest impact on physical activity where commute lengths are close to the threshold of reasonable walking distance (0.7 miles) to school.

Policy/Practice Recommendations

- SRTS program infrastructure improvements at moderate distances from schools may benefit fewer students (compared to improvement closer to school) but have the most significant impact on the mode choice of those students. Projects located a mile or farther from schools might have minimal impact because students who would pass those projects on their way to school would be unlikely to travel to school by active modes under any circumstances.

- In the long-term, changes in land use brought about by policy choices that encourage more dense development (e.g., SB 743 in California) would be helpful.
- Enforcement as part of the SRTS program needs to be context-sensitive. As a result of recent massive protests against police brutality and discrimination, many communities are considering innovative alternatives to armed law enforcement. SRTS programs should provide support for such alternatives in the K-12 school context.
- Cultural context should also inform encouragement and education activities. For students or parents who speak a language other than English as a first language, it may be advisable to provide educational and promotional materials in their native language.

About the Principal Investigator

Anurag Pande is a Professor of Civil Engineering at California Polytechnic State University. At Cal Poly, he also serves as the faculty liaison for community engagement to foster partnerships between Cal Poly and nearby communities and non-profit organizations.

To Learn More

For more details about the study, download the full report at <http://transweb.sjsu.edu/research/1821>



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