

# Creating Safer Communities for the Use of Active Transportation Modes in California: The Development of Effective Communication Message Strategy for Vulnerable Road Users

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Project 2030  
July 2022



## Introduction

California has a high rate of pedestrian and bicyclist fatalities, and many of California's cities (e.g. Fresno, Bakersfield and others) are among the nation's least safe cities for pedestrians and bicyclists. In fact, in 2015 the Federal Highway Administration, FHWA, included many California cities to the list of cities with the highest bicycle and pedestrian fatalities. As a result, the Focus Cities Program in California (a program supported by California Office of Traffic Safety, OTS) was created with the aim of supporting community efforts geared towards the development of safe walking and biking communities and programs. Yet, today, California remains among the least safe states for pedestrians and cyclists. The state also lacks a cohesive messaging strategy related to improving behaviors related to pedestrian and cyclist traffic safety practices.

Current messaging strategies—and their framing in most cases—seem to be conducted on an ad-hoc basis, lacking effectiveness, and forgoing the benefit of building

on the vast academic research and successful practice experiences on message strategy and framing. Attitudes and perceptions are important factors contributing to accidents involving vulnerable road users. Strategic communication messages can change attitudes and, consequently behaviors, hence enhancing the safe use of active transportation modes.

## Study Methods

This research developed a greater breadth of understanding for risky behaviors of vulnerable road users and motorists, most helpful interventions in reducing accidents involving vulnerable road users, and the current practices related to communication strategies aimed at enhancing the safety of vulnerable road users. It also examined safety messages employing different framing to determine their effectiveness in targeting a wider audience across the state of California.

## Findings

Messages framed with a limited time horizon—priming recipients to focus on the moment—had a positive significant impact on their perceptions of the effectiveness of the message to enhance safety of vulnerable road users. The message with the limited time horizon frame seems to resonate better with the audience when it comes to encouraging drivers to reduce speed and pedestrians to exercise caution when crossing. Also, the participants perceived the information in the limited-time horizon message to be more useful in decreasing pedestrians' and cyclists' accidents.

To improve the safety of vulnerable road users, the industry needs evidence-based and theory-driven communication messages strategies.

## Policy/Practice Recommendations

California transportation authorities, professionals, and advocacy groups will be able to use the results of this research to effectively allocate the communication effort and spending to induce attitudinal and behavioral change that shall impact the safety of active transportation modes. The insights of this research can enable policymakers to build capacity to more effectively and efficiently change behaviors on the road, utilizing communication messaging strategy.

## About the Authors

### Samer Sarofim, Ph.D.

Dr. Samer Sarofim is an award-winning marketing scholar and educator. He served as a Faculty Fellow at Fresno State Transportation Institute and is an Assistant Professor of Marketing at the Craig School of Business, California State University, Fresno. His research was honored by the Best Paper Award in the Consumer Behavior Track at the American Marketing Association summer conference. Sarofim is also the recipient of Pearson Education Michael Solomon Consumer Behavior Best Paper Award and the Society for Marketing Advances Conference, Retailing Track Best Paper Award. Dr. Sarofim's research has appeared in multiple prestigious academic journals, including the Journal of Consumer Affairs, Journal of Business Research, and Marketing Letters.

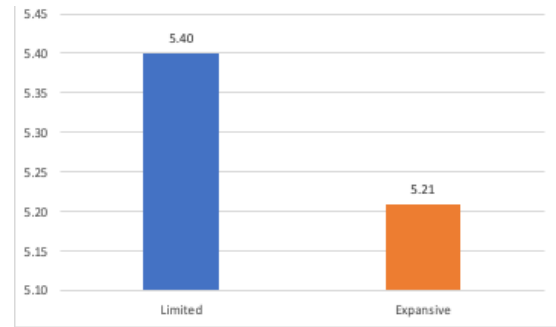


Figure1: Effectiveness of adopting the Message's Recommendations in Reducing Accidents Involving Pedestrians and Cyclists

### Aly M. Tawfik, Ph.D., PTP

Dr. Tawfik is an Associate Professor of Transportation Systems Engineering and the Founding Director of the Transportation Institute at California State University, Fresno. While his area of expertise includes modeling, simulation, and optimization of individual travel behavior and of transportation systems, he has a particular passion for transportation sustainability and the future of transportation. He is active on research projects and grants focusing on travel data innovation, GIS applications in transportation, and using technology to minimize commute footprints. His other research projects focus on automated transportation systems, particularly shared autonomous vehicles (SAVs). He serves on local, national, and international transportation boards and committees. He is the author of many peer-reviewed publications and has given keynote presentations at local, national, and international conferences.

### To Learn More

For more details about the study, download the full report at [transweb.sjsu.edu/research/2030](https://transweb.sjsu.edu/research/2030)



MTI is a University Transportation Center sponsored by the U.S. Department of Transportation's Office of the Assistant Secretary for Research and Technology and by Caltrans. The Institute is located within San José State University's Lucas Graduate School of Business.