DRISI

CALTRANS DIVISION OF RESEARCH, INNOVATION AND SYSTEM INFORMATION

Research Notes

Latent Demand for Active Transportation

Evaluating opportunities and locations for building active transportation facilities near California state highways.

Planning, Policy and Programming

FEBRUARY 2023

Project Title:
Latent Demand for Active Transportation

Task Number: 3524

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Completion Date: December 31, 2024

Task Manager:
Kevin Spiker
Associate Transportation Planner
Kevin.spiker@dot.ca.gov

WHAT IS THE NEED?

Identifying locations for potential active transportation facilities is a challenging task due to the scarcity of existing data on pedestrian travel and bicyclists' trips in the USA. A lack of relevant literature aggravates the challenge; current research suggests that walking is limited to the poor, young, and the old in places other than the densest urban centers. Research suggest that several factors affect choice of active transportation including personal factors, environmental factors and trip characteristics, plus a combination of unknown factors that need to be identified through more research.

WHAT ARE WE DOING?

While Identifying optimum transportation facility locations, various datasets will be used, such as census data, aerial photographs data, data from urban planning organizations with population density and projected growth in different zones/sip codes, and geographical information system (GIS) software. Furthermore, key trip generators or attractors will be identified, such as proximity of schools, parks, neighborhood trails, services and social establishments. Upon collection those data and based on the scatterings of population and land use, a specific formula (different for pedestrians versus bicyclists) will be defined using an latent demand methodology (LDM) approach.

WHAT IS OUR GOAL?

The goal of this proposed research is to create an actionable research plan based on LDM for Caltrans to successfully evaluate opportunities and locations for building active transportation facilities near the state highway system.

Caltrans

DRISI provides solutions and knowledge that improves California's transportation system

WHAT IS THE BENEFIT?

Upon collection of those data and based on the scatterings of population and land use, a specific formula (different for pedestrians versus bicyclists) will be defined using an LDM approach. LDM can be used to determine the potential of roadway corridors to serve bicycles and/or pedestrian trip activities.

WHAT IS THE PROGRESS TO DATE?

- Kick-off meeting with researcher and panel members.
- Literature review analysis memo: due date 11/17/2023.

IMAGES

Image 1: Sample active transportation infrastructure and user, photo courtesy of Sacramento Area Council of Governments (SACOG)