UCLA Luskin Center for Innovation

Transportation Projects at a Glance

RECENTLY COMPLETED

Evaluating the Largest Smog Repair Program for Low-income Households

Funder: UCLA Institute of Transportation Studies

The Luskin Center for Innovation (LCI) analyzed data from the San Joaquin Valley's smog test and vehicle repair program known as Tune In & Tune Up. We found that the program is a model that other regions could use to efficiently reduce emissions from cars and other light-duty vehicles while addressing the mobility needs of low-income households.

Designing Clean Vehicle Incentive Programs for Low-income Households

Funder: California Air Resources Board

LCI is helping California improve clean transportation access for disadvantaged communities. Recent studies have 1) surveyed low- and moderate-income households about their vehicle history and travel preferences and 2) assessed how existing state incentive programs are helping lower-income households replace their polluting vehicle with a cleaner one. The findings provide a roadmap for other parts of the state to implement pilot programs already operating in the South Coast and San Joaquin Valley areas, and the optimal incentive levels to induce low- and moderate-income households to purchase a clean car.

Understanding Electric Vehicle Awareness and Designing Vehicle Rebates for All

Funder: California Air Resources Board and Luskin Center for Innovation's foundation

More Californians can now afford clean vehicles, in part thanks to LCI research. We assessed the performance of alternative rebate designs for plug-in electric vehicles (PEVs) and compared these alternatives in terms of cost effectiveness and equity. Based in part on the findings, the State of California adopted a progressive rebate system in which low- and moderate-income drivers receive extra financial incentives to purchase a clean vehicle. There is now also a cap on rebates based on income.

Shaping Policy on Carpool Lane Access for Clean Vehicles

Funder: California Air Resources Board

Governor Brown signed a law extending access to carpool lanes for some alternative fuel vehicles with only a single occupant. The bill's legislative analysis cites a study by LCI that found roughly one quarter of California PEV registrations during 2010-2013 were a result of the carpool (i.e. high-occupancy vehicle) lane policy. The research is part of the LCI report: ***Factors Affecting Plug-in Electric Sales in California***.

CURRENT RESEARCH

Planning for Electric Vehicle Charging Infrastructure Investments

Funder: South Coast Air Quality Management District - Mobile Source Air Pollution Reduction Review Committee (MSRC)

LCI's study will provide planning guidance for electric vehicle charging equipment for the diverse range of communities across the South Coast, focused specifically on charging opportunities at workplaces and multi-unit dwellings.

Evaluating the Use of Fast-charging Stations to Support Electric Vehicle Drivers in Multi-unit Dwellings (MUD)

Funder: EVgo Services

LCI is evaluating a fast-charger pilot program to examine whether such installations can provide critical charging support to MUD residents who may not have off-street parking or on-site charging. The research adds to LCI's existing body of work on ***Overcoming Barriers to Electric Vehicle Charging in Multi-unit Dwellings***.

Estimating Grid Impacts from the Electrification of Transit Buses, Drayage Trucks, and Light-Duty Commuter Vehicles

Funder: County of Los Angeles, through an agreement sponsored by the California Energy Commission

Maximizing public benefits of transportation electrification, as well as managing grid impacts requires careful infrastructure planning. The study focuses on light-duty commuter vehicles, transit buses and drayage trucking in LA County to develop spatially resolved forecasts of charging demand and assess the opportunities and constraints presented by current distribution grid infrastructure.

Estimating Cost-Effectiveness of California's Largest Grassroots Transport-focused Environmental Justice Initiative

Funder: UCLA Institute of Transportation Studies

LCI is evaluating the cost-effectiveness and health benefits of San Joaquin Valley's Tune In & Tune Up program, currently California's largest (in terms of household participation) transportation-focused environmental justice initiative.

Designing Policies to Support Electrification of Ridesharing Fleets and Drayage Trucks

Funder: Strategic Growth Council and Earthjustice

Beginning with the opportunities and challenges for zero-emission trucks at the San Pedro Bay Ports, LCI is conducting analyses that could inform the development of policies to support a transition to zero-emission heavy-duty trucks. As part of a grant from the Strategic Growth Council, we are also analyzing policy approaches to spur greater use of PEVs for ridesharing services like Uber and Lyft.

UPCOMING AND PROPOSED

Planning to Support Electric Ridesharing Vehicles

This proposed research will provide siting guidance for the targeted deployment of fast-charging electric vehicle service equipment to fuel electric ridesharing vehicle fleets. LCI will utilize ride data provided by Lyft to inform this analysis.

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