Target marketing: the effectiveness of CA's transportation-oriented climate investments for low-income households

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October 20, 2019

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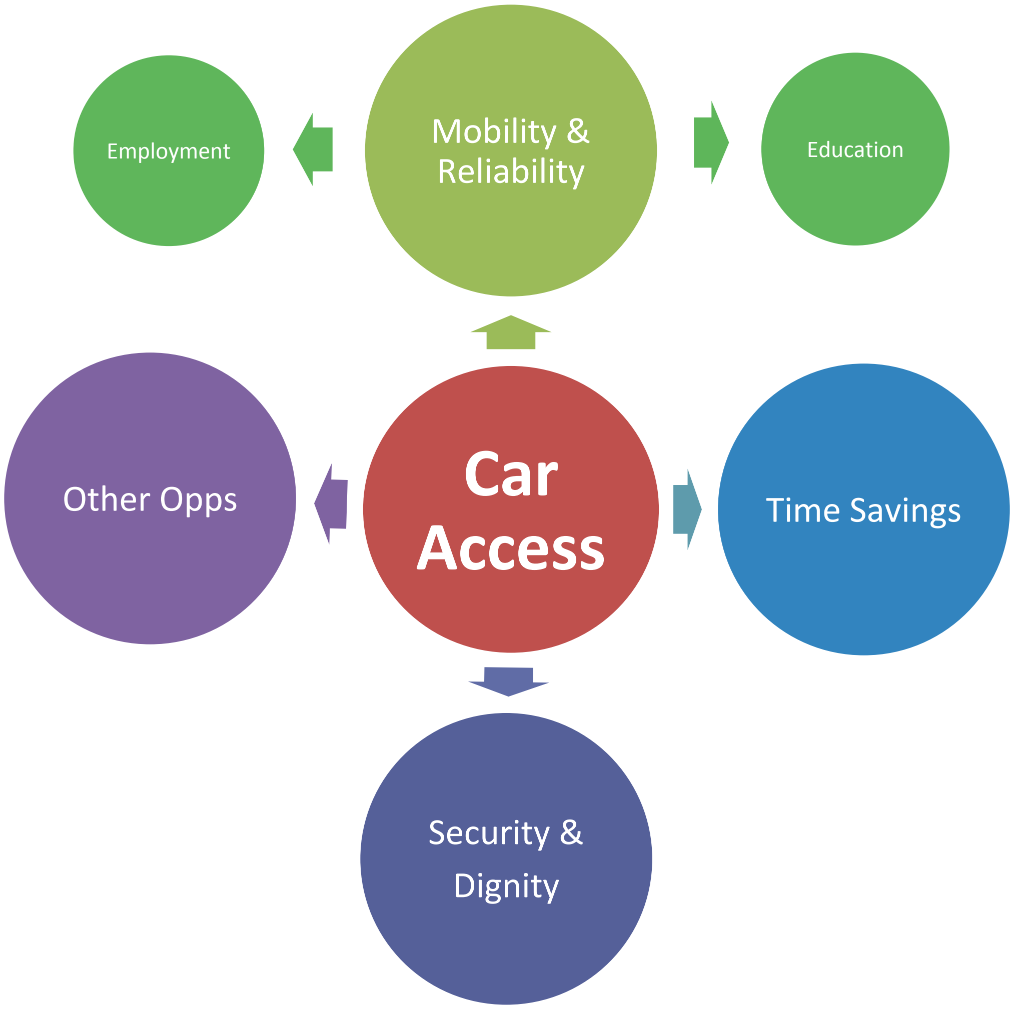
Overview

- Cars are basic infrastructure for LI-HH
- LI-HH cars pollute more
- Shortcomings of past approaches
- Present and emerging programs to support access

Cars as basic infrastructure

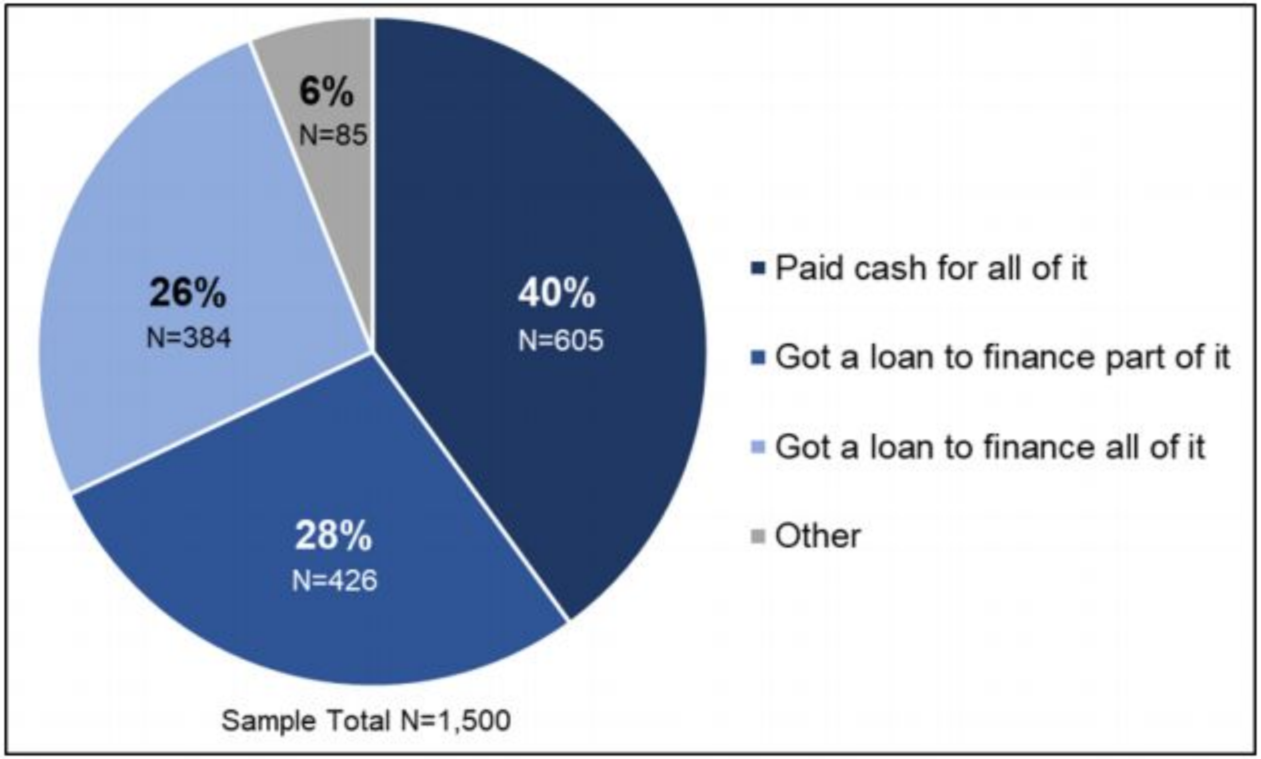


LI-HH cars pollute more

- Most planners don’t want to provide LI-HH with cars
- LI-HH tend to purchase cars which are older, less likely to be registered and to pass smog
- Previous programs which supported car ownership (WtW, TANF, IDAs) have not combated this problem

Car financing challenges for LI-HH

Figure 3-4. Method of Payment for Vehicle

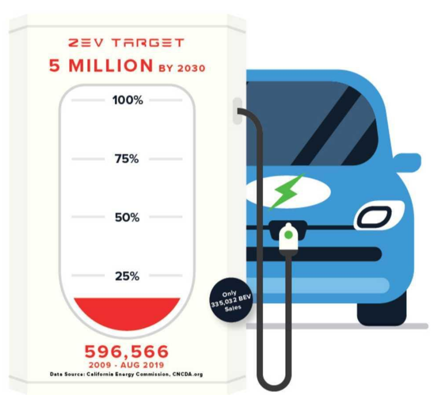


Source: Gregory Pierce, JR DeShazo, Tamara Sheldon, Evelyn Blumenberg and Britta Mccomber (2019). *Designing Light-Duty Vehicle Incentives for Low- and Moderate-Income Households*. California Air Resources Board 15RD011.

State and local policies to provide clean cars

California Climate Investments
Cap and Trade Dollars at Work

California Air Resources Board



Limitations of Biggest Programs

- Pure retirement programs
  - $3 billion for Cash for Clunkers
- Smog repair subsidies
  - Bureau of Automotive Repair’ CAP
- Clean Vehicle Rebate Project
  - $> other replacement programs

Clean Cars for All? Retire and Replace

Table 2. EFMP Plus-Up Participants by Household Income Category

Income Category	Valley Air	South Coast
Below 225% of FPL	99.7% (360)	88.4% (364)

Table 5. Replacement Vehicle Attributes

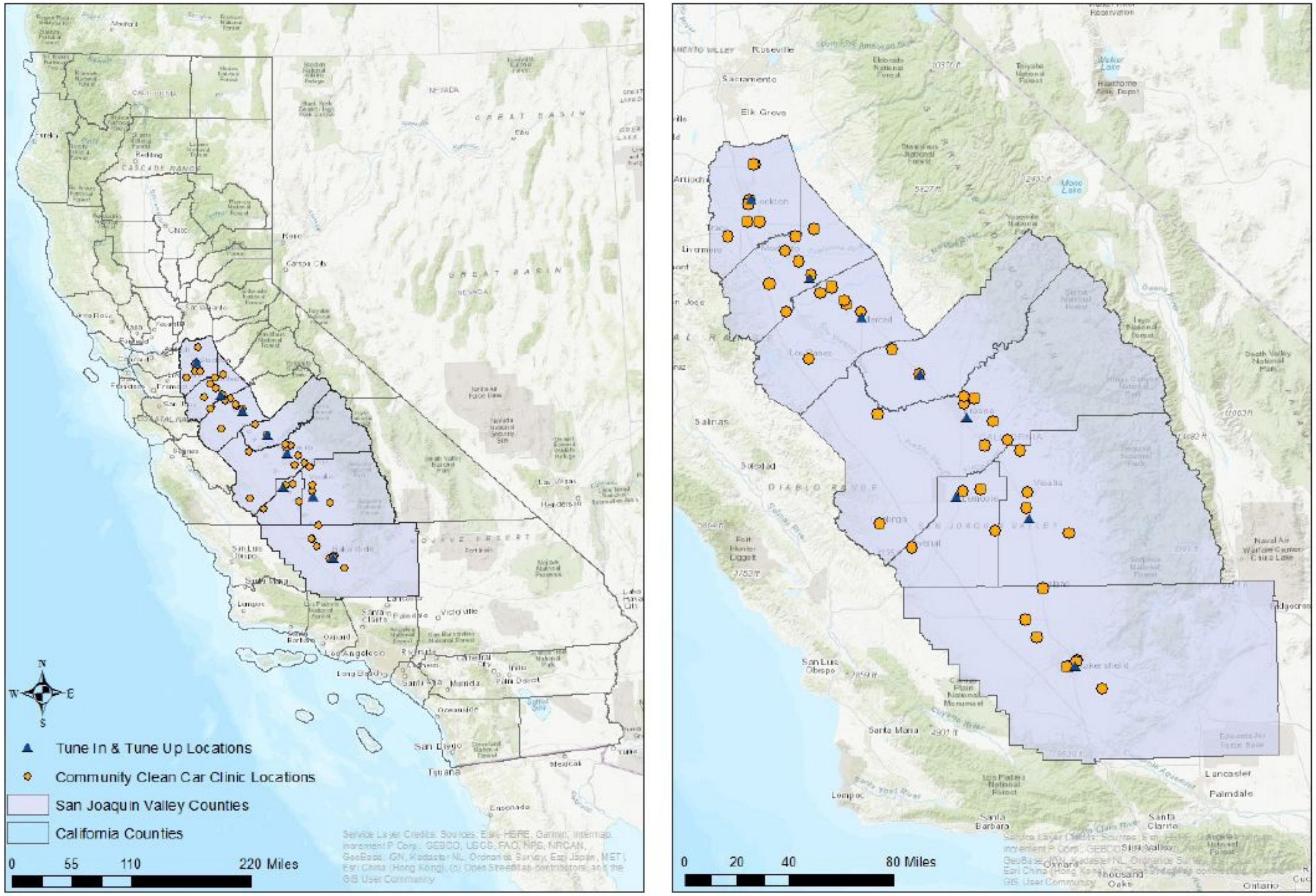
Vehicle Technology	Valley Air	South Coast
Average Model Year of Replacement Vehicle	2012	2013
Replacement vehicle is new[10]	0 (0%)	120 (29.1%)
Battery electric (BEV)	60 (16.6%)	88 (21.4%)
Hybrid	197 (54.6%)	210 (51.0%)
Plug-in Hybrid Electric (PHEV)	104 (28.8%)	114 (27.7%)

Source: Gregory Pierce and J.R. DeShazo (2017) *Design and Implementation of the Enhanced Fleet Modernization Plus-Up Pilot Program*. UCLA Luskin Center for Innovation.

Novel Equity in Opportunity

FIGURE 1

The geographic scope of Valley Clean Air Now programs: Clean Car Community Clinic Locations and Tune In & Tune Up locations



Source: Gregory Pierce and Rachel Connolly (2019). Initial Assessment of Valley Clean Air Now's Clean Car Community Clinic Initiative. UCLA Luskin Center for Innovation

Current expansion of approaches

- Choice experiments suggest offering rebates increase clean vehicle purchases by 20%-70% respectively

- Guaranteed interest rate financing (new CARB program)
    - initial results show could be more cost-effective than purchase incentives alone

- Pilot programs for EV ride sharing, car-sharing (Blue LA)

Source: Gregory Pierce, JR DeShazo, Tamara Sheldon, Evelyn Blumenberg and Britta Mccomber (2019). *Designing Light-Duty Vehicle Incentives for Low- and Moderate-Income Households*. California Air Resources Board 15RD011.

Next steps

- Overcoming enduring obstacles (MUDs and trip diversity)
- Quantifying LI-HH welfare impacts in the cost-benefit equation
- Remains a gap in program funding scale which supports clean vehicle access state-wide
  - Funding 5 year old Corollas as a complementary step to 2040?

Questions?

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