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Auto-Deficit Households: Determinants, Travel Behavior, and the Gender Division of Household Car Use

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Auto-Deficit Households: Determinants, Travel Behavior, and the Gender Division of Household Car Use

Evelyn Blumenberg, Anne Brown, and Andrew Schouten (2018)

Research Topic

Cars are a lifeline for many households, often providing improved access to destinations over other modes of travel and, ultimately, improving quality of life. It is no surprise, then, that the vast majority of households in the United States own at least one automobile, including 65 percent of households that own two or more cars. And while zero-car households have received increasing attention from scholars, the 15 percent of households with fewer vehicles than drivers have received less attention. How do these “car-deficit” households differ from other households, and what are the implications for planners and policymakers?

To explore the characteristics of car-deficit households, researchers at UCLA examined California household travel survey data. Their findings can inform discussions on the factors that lead to car-deficit households, the mobility outcomes of car-deficit households, and the role of gender in access to household vehicles. Planners and policymakers can use these findings to better accommodate car-deficit households in the transportation system.

Main Findings

- **Car-deficit households are different than households that are fully-equipped.** These households tend to be larger, have lower incomes, travel fewer miles, take fewer trips, and are more likely to use public transit.
- **The amount of travel in car-deficient households varies with income.** High-income car-deficit households travel twice as much as low-income car-deficit households (see Figure 1), reflecting their ability to move to neighborhoods with diverse transportation options.
- In car-deficit households, **women have substantially greater access to the household vehicle than their male partners**, likely stemming from their disproportionate responsibility for household labor. Women’s wide range of work and non-work household tasks are often better suited for car trips than by other modes.

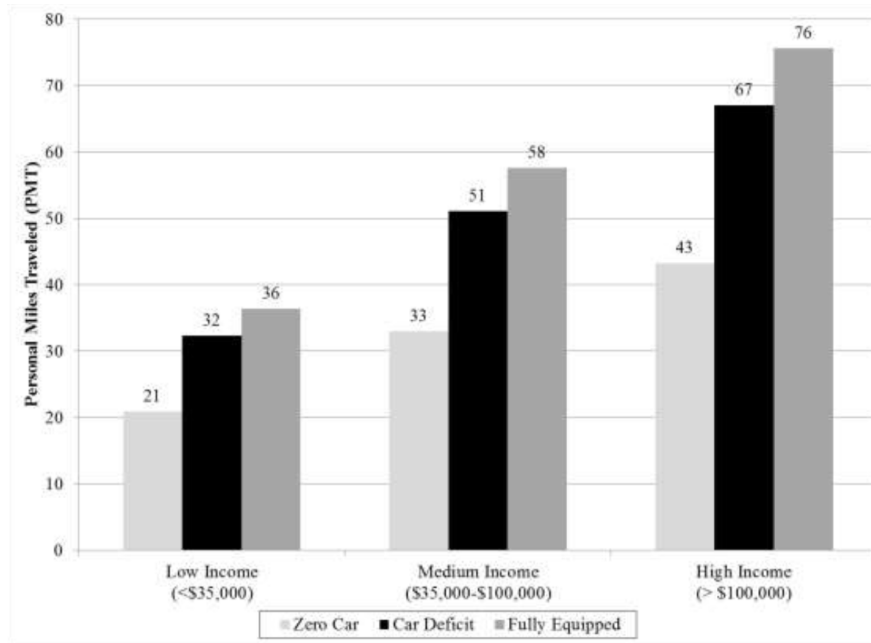


Figure 1: Income, Vehicle Ownership Status, and Personal Miles Traveled (Predicted Values)

Study

Researchers used household-, person-, and trip-level data from the California Household Travel Survey (CHTS) to explore the characteristics of car-deficit households, including household income and intra-household car sharing. To examine the role of residential location, they matched households in the survey to data on the characteristics of the neighborhoods in which they lived using a census-tract identifier. Researchers then constructed a set of statistical models to better understand the relationship between vehicle ownership status and travel behavior.

Recommendations

- In neighborhoods where it is difficult to reach opportunities without driving, policymakers should support **increasing automobile access among households that do not have cars**. Planners should support interventions that support car access among low-income households, like car sharing.
- Because the benefits of being a “fully-equipped” household with one car for every driver are limited, policymakers should support policies to **offset the potential difficulties of sharing household vehicles**, particularly for low-income households.

For More Information

Blumenberg, E., Brown, A., & Schouten, A. (2018). Auto-deficit households: Determinants, travel behavior, and the gender division of household car use. Berkeley, CA: University of California Center on Economic Competitiveness in Transportation. Retrieved from: <http://ucconnect.berkeley.edu/sites/default/files/research-papers/2017-TO-052.1-65A0529.pdf>