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### Title

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# Community-Oriented Solutions May Help Rural Residents Adapt to Life Without a Car

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# POLICY BRIEF

## Issue

Rural residents face significant mobility challenges because travel destinations are far, opportunities like jobs and access to essential needs are limited, and rural roadways are more dangerous than their urban counterparts. These challenges are exacerbated when households have limited or no access to a vehicle because other transportation options are often expensive, inconvenient, or non-existent. Consequently, the confluence of not having access to a vehicle and living in rural areas is often associated with increased social isolation and difficulties in conducting basic activities like grocery shopping and accessing health care. Given California’s goal to reduce vehicle miles traveled as part of its larger strategy to reduce greenhouse gases, a deeper understanding of rural residents’ transportation needs is important for an equitable transition.

Researchers at UC Davis used US Census microdata to describe socioeconomic and mobility characteristics of carless households and residents in rural California and conducted

interviews with 22 San Joaquin Valley residents to understand the barriers to access and travel adaptations among individuals who have limited access to a vehicle.

## Key Research Findings

**Nearly half a million people who live in rural California do not have access to a vehicle when they might need one.** Across the state, about 1 million households (7%) have no vehicle and 2.9 million (22%) have fewer vehicles than household adults, also known as being in car deficit. In rural areas, about 110,000 households (5%) do not have a car and 387,000 households (18%) are in car deficit. Rural carless and car-deficit households are most concentrated in the Central Valley, where up to 8% of households do not have a car and over 30% are in car deficit in some areas. The highest shares of rural carless households are concentrated in the Imperial Valley, San Bernardino County, and Fresno County. The Imperial Valley also has a significant population of car-deficit households. Relatively fewer carless and car-deficit households are located in far northern rural California (Figure 1).

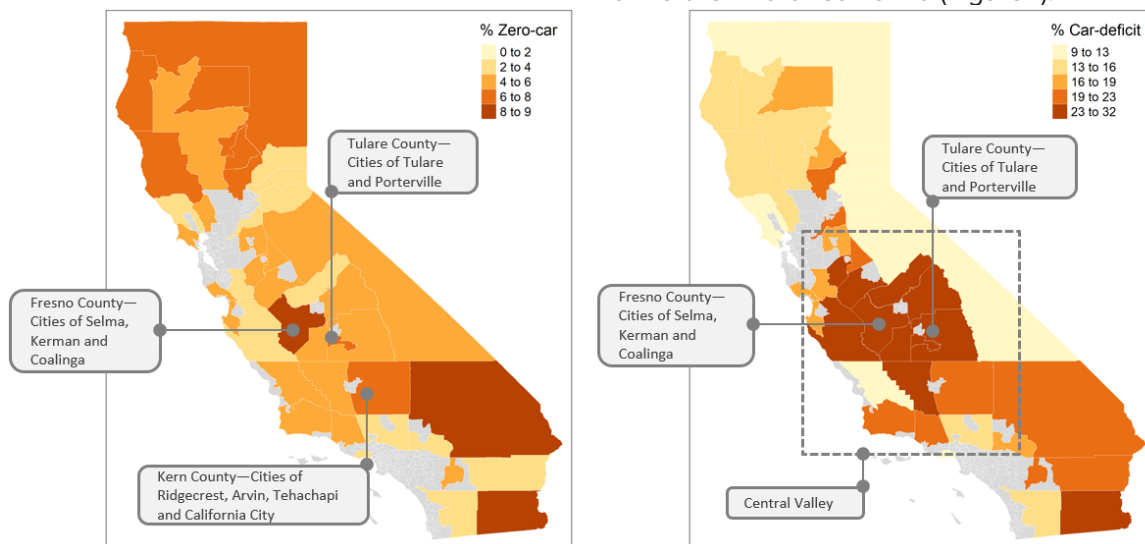


Figure 1. The geography of carless and car-deficit households in rural California. Public Use Microdata Areas and names are shown.

**Rural carless and car-deficit households are significantly more socioeconomically disadvantaged than others.** Rural carless households earn an average of \$33,000 annually, about two-thirds less than rural households that have at least one car per driver. Compared to their counterparts in nonrural areas, rural carless and car-deficit households earn 27% and 23% less, respectively. Differences are pronounced by race, employment, and disability status as well. About 8% of Black people living in rural areas do not have access to a car, about 2.5 times as many as white rural residents. About 35% of Latino and Asian rural residents are in car-deficit households, twice as many as white residents. Rural residents who are unemployed and have disabilities are 1.7 times and 1.3 times more likely to be carless, respectively.

**Car access is practically a necessity in getting around rural California, even for those who do not have a car at home.** Despite not having a car, half of rural carless residents drive alone to work in borrowed or shared vehicles compared to one quarter of their nonrural peers. Rural carless residents are two times more likely to drive or ride in a shared vehicle than their nonrural peers. Rural carless and car-deficit residents are substantially less likely to use public transit for their commutes than their nonrural peers. According to interview participants, not having a vehicle sometimes meant relying on unreliable and uncomfortable public transit options or forgoing important trips, like medical appointments, when they could not find rides or were outside the service area of medical transportation services.

**Negotiating vehicle access through family and social networks was a common, but complicated endeavor.** Interview participants relied on family, friends, and neighbors to get rides or borrow vehicles when they did not have one available for themselves. The process of obtaining a vehicle was often delicate, adding stress to relationships on top of the financial stressors that contributed to the reasons why individuals did not have cars. In certain communities, however, a sense of solidarity prevailed, which made it easier for

people to ask for rides and to return the favor when they had the means. The most significant challenge in getting around was the cost of transportation; high gas prices placed additional burdens on those giving and receiving rides.

**Community-focused transportation alternatives might best alleviate mobility and access challenges for rural carless residents.** Many residents would prefer flexible, community-oriented microtransit—for access to job sites, shopping destinations, and medical providers—as an alternative to private car ownership. Interview participants expressed desires for both informal options, like those organized by community coalitions and neighbors, and formal options, like on-demand ridehailing, publicly operated transit, and community-based car sharing. These potential solutions would need to be accompanied by meaningful engagement beforehand to determine what was appropriate for the community.

## More Information

This policy brief is drawn from “Mobility Justice in Rural California: Examining Transportation Barriers and Adaptations in Carless Households,” a report from the National Center for Sustainable Transportation (NCST), authored by Jesus M. Barajas and Weijing Wang of the University of California, Davis. The full report can be found on the NCST website at <https://ncst.ucdavis.edu/project/mobility-justice-rural-california-examining-transportation-barriers-and-adaptations-carless>.

For more information about the findings presented in this brief, please contact Jesus M. Barajas at [jmbarajas@ucdavis.edu](mailto:jmbarajas@ucdavis.edu).

The National Center for Sustainable Transportation is a consortium of leading universities committed to advancing an environmentally sustainable transportation system through cutting-edge research, direct policy engagement, and education of our future leaders. Consortium members: University of California, Davis; University of California, Riverside; University of Southern California; California State University, Long Beach; Georgia Institute of Technology; and the University of Vermont.

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