

# Single-Family Neighborhoods in Sacramento Have Sufficient Parking to Accommodate Accessory Dwelling Units

Jamey Volker | *University of California, Davis*  
Calvin Thigpen | *University of California, Davis (former)*

March 2022

POLICY BRIEF

## Issue

Accessory dwelling units (ADUs) are small, self-contained housing units that share the same lot as a primary dwelling, usually a single-family detached house. In places with major housing shortages ADUs can be an efficient and cost-effective way to increase supply. Over the last few years, the California Legislature has passed laws to reduce barriers to permitting ADUs, and some California cities have liberalized their regulations even further. The City of Sacramento, for example, does not require off-street parking spaces for ADUs. However, loosening ADU regulations—particularly those related to parking—can spark neighborhood opposition to ADUs. Recent surveys indicate that both homeowners and local government staff remain concerned that ADUs will overwhelm neighborhood parking supplies.

Whether these concerns are justified is unclear. Despite the prevalence of minimum residential parking standards across the country, there is a dearth of evidence on parking supply and demand in single-family neighborhoods (where ADUs are usually built). A UC Davis-led research team surveyed 396 homeowners in Sacramento and collected lot size and other data to investigate whether the total effective

parking supply of the average single-family detached home is sufficient to accommodate the vehicles associated with the residents of both a primary dwelling and a potential ADU. The researchers also scaled up their findings to the city block level to get a better sense of how ADU development could affect neighborhood parking availability.

## Key Research Findings

**Sacramento’s single-family detached homes have surplus parking available.**

Using their most conservative assumptions, the researchers found that more than 75% of households have enough off-street parking (garage spaces plus other off-street spaces such as driveways) to store all their vehicles. On average, households have 0.6 more off-street parking spaces available to them than they have vehicles. The average single-family detached home also has at least one on-street parking space available to it. Thus, the average single-family detached household in Sacramento has access to at least 1.6 more parking spaces (off-street plus on-street spaces) than it has vehicles (Figure 1).

**On average, Sacramento’s single-family detached homes have more than enough parking to accommodate ADU residents.**

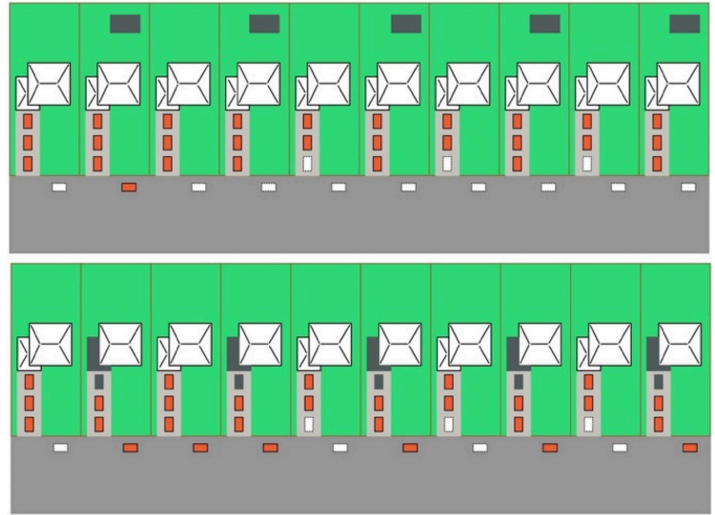
Previous research indicates that households living in ADUs have one vehicle on average.

Therefore, the average single-family home in Sacramento could add an ADU and still have at least 0.6 surplus parking spaces, even when all vehicles from both the primary home and ADU were parked at home at the same time.



Figure 1. Average parking supply and surplus estimated for Sacramento’s single-family detached homes

**A neighborhood block-level analysis of realistic ADU development scenarios found similar parking oversupply.** The researchers started with a hypothetical neighborhood block face with 10 single-family houses and 23 total vehicles (matching the average of 2.3 vehicles per household from the weighted survey sample). They then added five ADUs to the block, based on the estimate from a related study<sup>1</sup> that up to 47% of homeowners of single-family detached homes in Sacramento would at least consider adding an ADU. Even with five additional vehicles parked on the block (one for each ADU), the scenario still showed 12 vacant parking spaces (Figure 2, top panel).



*Figure 2. Block-level parking occupancy scenarios with ADUs. The top panel assumes ADUs are built in backyards while the bottom panel assumes the ADUs replace existing parking spaces. The large dark gray rectangles represent ADUs, the red rectangles represent occupied parking spaces, the dashed white rectangles represent vacant parking spaces, and the small dark gray rectangles represent parked cars displaced out of the garage.*

**Even ADUs that replace existing parking spaces would likely preserve adequate parking.** If the five ADUs in the scenario outlined above were converted from garages rather than built in backyards, the loss of those five garage parking spaces would still leave seven surplus spaces on the block (Figure 2, bottom panel). While it is possible that the addition of visitors, home help, delivery vehicles, and other non-residents could cause cumulative parking demand to exceed supply, previous research<sup>2</sup> indicates that on-street parking in single-family neighborhoods is oversupplied even during periods of peak occupancy.

can create residential parking permit districts or allow residents to park in front of their driveways.

## Policy Implications

The results are consistent with previous studies indicating that parking is oversupplied in single-family neighborhoods. They also provide evidence that ADUs might not overwhelm existing parking supplies, at least in Sacramento’s single-family neighborhoods. Furthermore, even in neighborhoods where parking is in greater demand, local governments have multiple tools to help ensure that residents have enough parking without having to impose onerous off-street parking requirements for ADUs. For example, they

## More Information

This policy brief is drawn from “Not Enough Parking, You Say? A Study of Garage Use and Parking Supply for Single-Family Homes in Sacramento and Implications for ADUs,” a paper in the *Journal of Transport and Land Use*, authored by Jamey Volker of the University of California, Davis and Calvin Thigpen. The published article is available at <https://doi.org/10.5198/jtlu.2022.1947>.

For more information about the findings presented in this brief or for copies of the underlying study and related research, contact Jamey Volker at [jvolker@ucdavis.edu](mailto:jvolker@ucdavis.edu).

<sup>1</sup>Volker, J.M.B. and Handy, S. (In Press). *Exploring Homeowners’ Openness to Accessory Dwelling Units in the Sacramento Metropolitan Area*. *Journal of the American Planning Association*. <https://doi.org/10.1080/01944363.2022.2036222>

<sup>2</sup>Thigpen, C.G. and Volker, J.M.B. (2017). *Repurposing the paving: The case of surplus residential parking in Davis, CA*. *Cities*. <http://dx.doi.org/10.1016/j.cities.2017.06.020>

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.

Visit us at  
[ncst.ucdavis.edu](http://ncst.ucdavis.edu)

Follow us:

