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Bundled Parking and Travel Behavior

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Bundled Parking and Travel Behavior

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Research Topic

Driving has a host of known negative consequences, including traffic congestion and pollution, that planners and policymakers often aim to mitigate by encouraging people to use alternative modes of transportation or through disincentives such as gas taxes and tolls. The housing practice of “bundled parking” does the opposite, actively encouraging driving by including the cost of a parking space in the rent or sales price of a unit and presenting it as “free.”

Bundled parking obscures the true cost of vehicle ownership and use and makes driving much easier by reducing the time and energy associated with finding a place to park. A previous UCLA study confirmed that bundled parking has a positive relationship with owning a car. Does it also make people more likely to drive or less likely to use other modes of transportation?

Study

The 2013 American Housing Survey, a nationwide survey of housing units which includes both unit characteristics and household travel behavior, provided the primary data used for this study. The researcher used gas expenditure as a proxy to measure how much people use their vehicles, and conducted numerous regressions to see whether bundled parking affects resident driving.

Regression analyses tested for two relationships:

- Is bundled parking associated with how often a household drives?
- Does bundled parking affect whether a household uses alternative modes of transit (and with what frequency)?

Main Findings

- After controlling for differences in socioeconomic and built environment characteristics, bundled parking is associated with a 27-percent increase in vehicle miles traveled.
- Annually, households with bundled parking drive approximately 3,800 more miles, spend nearly \$580 more on gasoline, and emit 1.4 more metric tons of carbon dioxide than households with unbundled parking.

KEY TAKEAWAYS

- Bundled parking is negatively correlated with transit use, and households with unbundled parking are significantly more likely to be frequent transit users.
- Even after controlling for factors such as vehicle ownership and built environment characteristics, households with bundled parking drive 27 percent more than households without bundled parking.
- Zoning and building code regulations that require developers to provide bundled residential parking encourage driving and discourage transit ridership.

Impact on VMT

	Average Monthly Gas Expenditure	VMT Estimate	GHG Estimate
Without Bundled Parking	\$185.7***	1,245	472,046 grams CO ₂
With Bundled Parking	\$233.8***	1,567	594,271 grams CO ₂
Difference (Bundled - Unbundled)	\$48.1	322 miles	122,225 grams CO ₂

VMT estimate based on 2013 average fuel economy (24 mpg) and average cost of gas (\$3.50 per gallon). CO2 emission calculation based on EPA estimate of 8,887 grams CO2 per 1 gallon of gasoline.

Figure 1. Impact on vehicle-miles traveled

Conclusion/Recommendations

- When parking is included in the cost of housing, households are disincentivized from using transit.
- Obscuring the cost of parking by including it in the cost of housing encourages people to drive significantly more. By unbundling parking, the cost of vehicle ownership would be made explicit, and many households may be more likely to forgo that expense and use other modes.
- Policymakers concerned with climate change, as well as falling transit ridership, must consider the consequences that parking requirements have on travel behavior.

Main Findings (continued)

- Bundled parking is negatively correlated to transit use. Households with unbundled parking are significantly more likely to be frequent transit users.

For More Information

Manville, M. (2017). Bundled parking and vehicle ownership: Evidence from the American Housing Survey. *Journal of Transport and Land Use*, 10(1). <https://doi.org/10.5198/jtlu.2016.730>

Pinski, M. (2018). *Does bundled parking influence travel behavior?* (Masters capstone, UCLA) Retrieved from <https://drive.google.com/file/d/1UvfIuxzpz4URobIEFMOT2DbhP6WQytOx/view>

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