

Summaries of Multifamily Residential Parking Study  
2022

Research performed by urban planners and developers of affordable housing demonstrates that zoning regulations result in higher housing prices, with parking requirements being a key regulation. More studies that have come to this conclusion exist than can be included in this summary, but below are a few key findings (numbers in parentheses refer to citations listed below the summary):

- Economists Edward L. Glaeser and Joseph Gyourko, in their 2003 research paper for the Federal Reserve Bank of New York, (1) suggests that **zoning strictness is highly correlated with high housing prices.**
- Housing economist Brian Bertha, in 1964 (2), discovered the effects of parking minimums where they had not previously existed in Oakland, CA. **With the introduction of parking requirements in 1961, the construction cost per apartment increased by 18 percent, and the number of apartments on a typical lot fell by 30 percent.**
- UCLA professor Michael Manville's 2014 article (3), highlights the impact that parking requirements have on housing development in Los Angeles:
  - The article states that **when on-site parking is required for each housing unit, developers cannot build housing for people without a car.**
  - The article mentions the City of Los Angeles' Adaptive Reuse Ordinance (ARO) and concludes **that, by allowing for a more localized and context-specific approach to parking requirements, the City was successful in converting underutilized buildings into a significant number of residential housing units.**
  - The article clarifies that **removing parking requirements is not the same thing as prohibiting parking from being built.** Because many housing buyers want parking, developers will still provide parking to meet the market demand and rent for as much as they can. Eliminating parking minimums allows developers to provide parking in the way they think is best, rather than a one-size-fits-all requirement.
- A 2017 research study (4), conducted by C.J. Gabbe (University of Santa Clara) and Gregory Pierce (UCLA) concludes that the **costs of providing garage parking are high, and these costs are passed on to renters in the form of higher rents. "Today, we are in the midst of an urban housing affordability crisis, and outdated municipal parking requirements are partly to blame."** Their study found that structured parking adds \$35,945 per residential unit.
- A 2021 article by Anthony Dedousis, Mott Smith, and Michael Manville (5) featured on *Streetsblog Cal* highlights how the elimination of parking requirements for multifamily residential developments near transit could bolster the production of housing. Citing research in San Diego, CA, **parking reform helped make affordable housing developments more economically viable, thus proving that parking requirements in some cases add a considerable cost to housing development and preclude its development.**
- Jeffrey Spivak's 2018 article in *Planning Magazine* (6) discusses the City of Minneapolis' parking reform which included reducing multi-family parking requirements by half for larger apartment projects and eliminating requirements for developments with 50 or fewer units near transit. **As a result of Minneapolis' parking reform, developers proposed projects with fewer parking spaces, which in turn lowered the cost of construction, and lowered rents.** The article states "New studio apartments, which typically went for \$1,200 per month, were being offered for less than \$1,000 per month."

As more jurisdictions explore off-street parking reform, it is important to understand and acknowledge the overwhelming empirical evidence that supports that reform. Examples of this evidence, based on data Walker has collected at actual residential developments in Southern California:



- Based on a study of actual parking demand in Vista, CA, Walker Consultants concluded that **the actual parking demand generated by multifamily residential developments** (1.20 to 187 spaces per unit) was **lower than the code requirement** of 2.33 to 3.0 parking spaces per unit.
- Based on a study Walker conducted for the City of Orange, CA, Walker found that the demand for parking generated by multifamily developments with one or two units was less than code requirements (by 0.32 to 0.96 spaces per bedroom). Additionally, Walker concluded that **demand for parking can vary and depends on many factors, such as neighborhood context, location, and on-street parking policies and availability**. This suggests that a one-sized fits all parking requirement is likely inappropriate and can cause developers to devote more resources to parking and less to building housing on the parcels where they build.
- Since the completion of this study, Henry Grabar (7) introduces the subject by highlighting a developer who, after ten years, failed in her efforts to build eighteen Affordable housing units in Solana Beach because minimum parking requirements resulted in a need for a multilevel parking garage, making the project economically unfeasible.

List of Citations:

- (1) Glaeser, Edward L and Gyourko, Joseph. 2003. *The Impact of Building Restrictions on Housing Affordability*. Federal Reserve Bank of New York.
- (2) Bertha, Brian. 1964. "Appendix A." In *The Low-Rise Speculative Apartment*, by Wallace Smith. Berkeley: Center for Real Estates and Urban Economics, Institute of Urban and Regional Development, University of California.
- (3) Manville, Michael. 2014. *Parking Requirements and Housing Development: Regulation and Reform in Los Angeles*. Access Magazine Spring 2014 Edition.
- (4) Gabbe, C.J. and Price, Gregory. 2017. *The Hidden Cost of Bundled Parking*. Access Magazine Spring 2017 Edition.
- (5) Smith, Mott, Dedousis, Anthony, and Manville, Michael. 2021. *Parking Requirements Are Not a Useful Bargaining Chip for Increasing Affordable Housing*. Streetsblog Cal.
- (6) Spivak, Jeremy. 2018. *People Over Parking*. American Planning Association Planning Magazine October 2018.
- (7) Grabar, Henry. 2023. *Paved Paradise: How Parking Explains the World*. Penguin Press.

Walker Consultants (“Walker”) analyzed 2019 American Community Survey 5-Year Estimate data to present the socioeconomic and demographic data for the unincorporated areas of Los Angeles County.

In general, Walker found that while car reliance is high for residents of unincorporated communities regardless of housing tenure (i.e., owner vs. renter), there are slight differences. For example, **home ownership is slightly more correlated with driving alone than is renting**. When looking at all commute modes, homeowners are more likely to drive alone and work from home, while renters are more likely to utilize public transportation, walk, taxi, motorcycle, bike, or use other means, indicating that where other (non-single occupancy vehicle) commuting options are available, such as near high-frequency transit, residents of multifamily properties (typically renters) are more inclined to utilize those modes than owners. This may translate into less demand for parking as compared to owner-occupied units.

Walker found a strong relationship between housing tenure (home ownership versus renting) and vehicles available (vehicles kept at the home for use by members of the household). Based on the correlation analysis that Walker conducted, Walker infers in general terms that **homeowners typically have more vehicles available than renters**.

Despite these observed patterns that home ownership is slightly more correlated with driving alone than is renting and homeowners typically have more vehicles available than renters, **current Title 22 parking requirements for single-family homes (two spaces per single family home) are actually less than they are for apartments containing two or more bedrooms (two spaces plus one-fourth guest parking per dwelling unit)**. This finding indicates that **currently Title 22 parking requirements over-require parking for multifamily housing, impeding the production of much-needed housing units**.

Walker Consultants (“Walker”) studied existing parking demand by counting the number of cars parked and the number of dwelling unit per development at multifamily properties in a number of unincorporated communities within seven Planning Areas across Los Angeles County in order to calculate actual parking demand ratios in current multifamily developments. In analyzing the data, Walker found the following at market-rate multifamily developments:

- Demand for parking varied by Planning Area.
  - The lowest demand for vehicles per dwelling unit ratio was found in the West San Gabriel Valley Planning Area with a weighted average of 1.15 parked vehicles per dwelling unit. The lowest demand for vehicles per bedroom ratio was in East San Gabriel Valley Planning Area with 0.65 parked vehicles per bedroom, closely followed by 0.76 parked vehicles per bedroom found in the Metro Planning Area.
  - The highest demand for vehicles per dwelling unit ratio was found in the Gateway Planning Area with a weighted average of 1.80 parked vehicles per dwelling unit. The highest demand per bedroom ratio was found in the Santa Clarita Valley Planning Area with 1.33 parked vehicles per bedroom.
- In comparing the current parking requirements for multifamily developments per Title 22 (Planning and Zoning) of the Los Angeles County Code to the data that were collected at survey sites throughout the seven Planning Areas, Walker notes that **Title 22 requirements are higher than the current demand observed for all seven Planning Areas in the study.**
- In Walker’s evaluation of parking demand, Walker included parking demand generated by the multifamily developments that was observed in on-street parking spaces.
- In looking at the weighted<sup>1</sup> average of unincorporated LA County as a whole, Walker notes that **Title 22 requires 0.47 more parking spaces per unit (25 percent more parking spaces) than the actual observed demand.** Based on these findings, Title 22 typically requires more parking than is being used, and there are significant differences observed across the different Planning Areas. With these findings, Walker determined that a one-size-fits all approach to parking requirements was found to be inflexible, and not the most suitable standard to apply unilaterally to all unincorporated communities, especially given the County, regional and State goals and priorities currently placed on housing production.

Walker also carried out a similar study on parking demand for Affordable, mixed Affordable and market-rate, and senior Affordable multifamily housing developments. These properties are subject to Title 22 density bonus parking requirements (as required by the State of California), which are lower than Title 22 parking requirements for non-Affordable developments. Based on the data collected, Walker did not find evidence that parking demand was lower than the density bonus requirements, so does not recommend changes to current Title 22 parking minimums for Affordable housing developments.

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<sup>1</sup> Weighted average was used as it is a more accurate measure of central tendency for this study. For example, if a survey site has 400 units and a demand ratio of 1.5, and a second site has 100 units and a demand ratio of 1.2., a simple average results in a ratio of 1.35, while the weighted average results in a ratio of 1.44. The latter is more accurate as there are more units (“weight”) in the first survey site, thus that should be a factor in the calculation.

Walker conducted eight one-on-one interviews with developers of multifamily housing and County staff, with a focus on their experiences with existing LA County parking requirements for market-rate, Affordable multi-family housing, and mixed-use developments. Interviewees discussed challenges and solutions for streamlining site plan reviews related to parking to facilitate the production of housing units.

#### Challenges to Existing Parking Requirements:

The following key challenges were identified for current Title 22 parking requirements:

- Particularly for market-rate development projects, **parking requirements are an impediment to development and often result in fewer residential units being built.**
- **Parking requirements increase the amount of land needed to build housing.** Small development projects can become economically infeasible if a parking deck or multi-story configuration is needed.
- One of the most **significant cost impacts of parking requirements is when requirements result in the need to build additional levels of parking.** The need for one additional parking space can result in the need to build an additional parking level, resulting in an increase of millions of dollars to the project budget.
- **Project site constraints**, especially on infill sites, have a **significant impact on the extent to which projects can meet the parking requirements** on-site and the cost of meeting the requirements on-site.
- **Parking requirements impact housing affordability** because they often result in the need to build at the high end of the market, thus resulting in the need to charge higher rents.
- **Parking requirements can lengthen the amount of time projects are reviewed in the development process.** Zoning-related parking issues can result in lengthy reviews and more staff time to conduct the reviews.
- Title 22 currently has options to reduce parking requirements, but those options are discretionary approval processes. **Discretionary approvals often take longer and have less predictability for developers.**

#### Key Considerations

The following considerations were cited by interviewees:

- Criteria cited to reduce parking demand included **proximity to transit, walkability to neighborhood amenities (e.g. grocery store, pharmacy, etc.), and provision of bicycle parking or nearby bicycle facilities.**
- **Flexibility is important to developers in how they satisfy the parking requirement.** At the same time, the parking ordinance should be clearly articulated, defined, understood, and applied.
- The development market impacts the amount of parking that is required to serve a development. Developments in certain locations are marketed toward clientele that would be willing to have their parking unbundled and to use car share or other transportation options. Developments in other locations may need to be built with more parking spaces to accommodate the needs of the potential residents who may prefer to keep their personal cars. **Even if parking requirements are lowered or eliminated, developers may still elect to build parking or provide beyond the minimum to ensure that they can rent out all residential units they build.**



Walker identified and analyzed eight municipalities that have enacted parking reforms and where residents experience high housing costs that are similar to Los Angeles County. The eight municipalities that Walker evaluated included Santa Monica, CA, San Francisco, CA, Berkeley, CA, Los Angeles, CA, San Diego, CA, Oakland, CA, Portland, OR, and Minneapolis, MN. From the list of eight municipalities, four municipalities were selected that were determined by Walker and County staff to have the most relevance to LA County, which are Minneapolis, Berkeley, Oakland, and San Diego.

The following summarizes the key parking reform for each of the four selected municipalities:

- **Minneapolis:** The City has enacted several parking policy reforms that have had impacts on the production of multifamily residential uses. In 2021, the City eliminated parking minimums on all new developments citywide to align with the City's goals outlined in the Minneapolis 2040 Plan and the Transportation Action Plan. The City also expanded residential parking maximums.
  - Producing more housing units and reducing the cost of housing were major factors that informed the City's decision to eliminate parking minimums.
  - Along with the elimination of parking minimums, the City expanded its transportation demand management (TDM) program, which requires residential developments of at least 50 units to implement TDM measures designed to reduce automobile trips and increase walking, cycling, and transit trips.
- **Berkeley:** In 2021, the City eliminated parking minimums for residential properties citywide, with a few exceptions on hillside properties. The City also implemented parking maximums (restrictions on the number of parking spaces that can be built per residential unit) in transit-rich areas.
  - This parking policy is in support of the City's long-standing interest in reducing parking requirements to stimulate housing production and reduce greenhouse gas emissions.
  - Along with the elimination of parking minimums, the City established a TDM program which requires all residential developments with 10 or more units to implement certain TDM measures to address potential spillover of parking demand to on-street spaces and give people choices beyond driving and parking in their building.
- **Oakland:** The City updated its parking requirements in 2016, which included eliminating residential parking minimums in Downtown Oakland, implementing parking maximums for residential uses Downtown and near transit, and allowed for a reduction in parking minimums for multifamily developments by 50 percent with the provision of TDM measures.
  - The City's Equitable Climate Action Plan was the primary impetus behind the City's parking requirements update.
- **San Diego:** In 2019, the City eliminated parking minimums for residential units in close proximity to transit.
  - Increasing housing affordability and supply was a key impetus for the City's decision to enact the parking policy.
  - Along with the elimination of parking minimums, the City requires residential developments near transit to provide transportation amenities that reduce vehicle trips and inform, educate, and incentivize on transit use, biking, walking, and ridesharing.

The following key findings emerged from the case study analysis:

- Addressing **housing and/or climate goals** were key reasons cities enacted parking reforms.
- For two cities (Berkeley and Oakland), **having quantitative data helped municipalities to justify parking reforms.**
- Parking reform typically was **accompanied by transportation demand management (TDM) policies** that encourage people to use modes of transportation other than driving, such as walking, biking, or taking transit.