

UCLA ECONOMIC LETTER

REAL ESTATE AND THE MACROECONOMY

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Monthly condensed analyses of crucial real estate and economic issues offered by UCLA Anderson Forecast and UCLA Ziman Center for Real Estate. In this April 2022 Letter, UCLA Department of Urban Planning Associate Professor, Adam Millard-Ball concludes that wide residential streets are an overlooked asset that could be turned into housing and other crucial uses.

The full version of Adam Millard-Ball's paper - "The Width and Value of Residential Streets" - is available here at the [Journal of the American Planning Association](#).

Wide Streets Are Wasted Real Estate: Unneeded Width Can be Used for Housing and Open Space

By *Adam Millard-Ball*

The width of street rights-of-way is normally determined by traffic engineering and urban design conventions, without considering the immense value of the underlying land. In this article, I use tax parcel data to quantify the widths, land areas, and land value of streets in 20 of the largest counties in the United States. In summary, residential street rights-of-way in the urbanized portion of these counties average 55 ft. wide, far greater than the functional minimum of 16 ft. required for access. The land value of residential streets totals \$959 billion in the urbanized portion of the 20-county sample. In most counties, subdivision regulations are binding. That is, few developers choose to build streets that are wider than code requirements, implying that softening requirements would mean more land devoted to housing and less to streets.

"Cities could repurpose their streets' excess right-of-way for more affordable housing or other community benefits."

Urban planners and designers are already rethinking how to use a city's most valuable asset, street rights-of-way. Parklets, protected bicycle lanes, and bioswales to capture stormwater runoff are just some of the innovations that have captured the interest of cities across the United States. Design and best practice guides increasingly recognize the value of streets as public spaces with functions that extend beyond the movement and storage of motor vehicles.

The planning and design discourse, however, has largely focused on how to divide up a given quantity of land between competing uses; that is, how to allocate a fixed street right-of-way. Less attention has been paid to how much urban land is or should be devoted to streets. The tradeoff between land for streets and land for other urban uses—parks, housing, commerce, public facilities, and so on—is implicit or ignored altogether.

In this study, I consider these tradeoffs directly, through quantifying the land devoted to street rights-of-way and the value of this land, at the margin, under streets and under housing. Particularly in places with high land values and housing costs, I find that reallocating street rights-of-way to housing would increase economic efficiency. In the most expensive county in the data set—Santa Clara (CA)—narrowing the right-of-way to 16 ft would save more than \$100,000 per housing unit through reduced land consumption. Where streets have little or no function for through traffic, the costs and benefits accrue almost exclusively to neighborhood residents. Thus, planners could reduce or even eliminate street-width requirements in subdivision ordinances, leaving developers to make the trade-off between land for streets and land for housing.

FIGURE: LAND VALUE OF STREETS

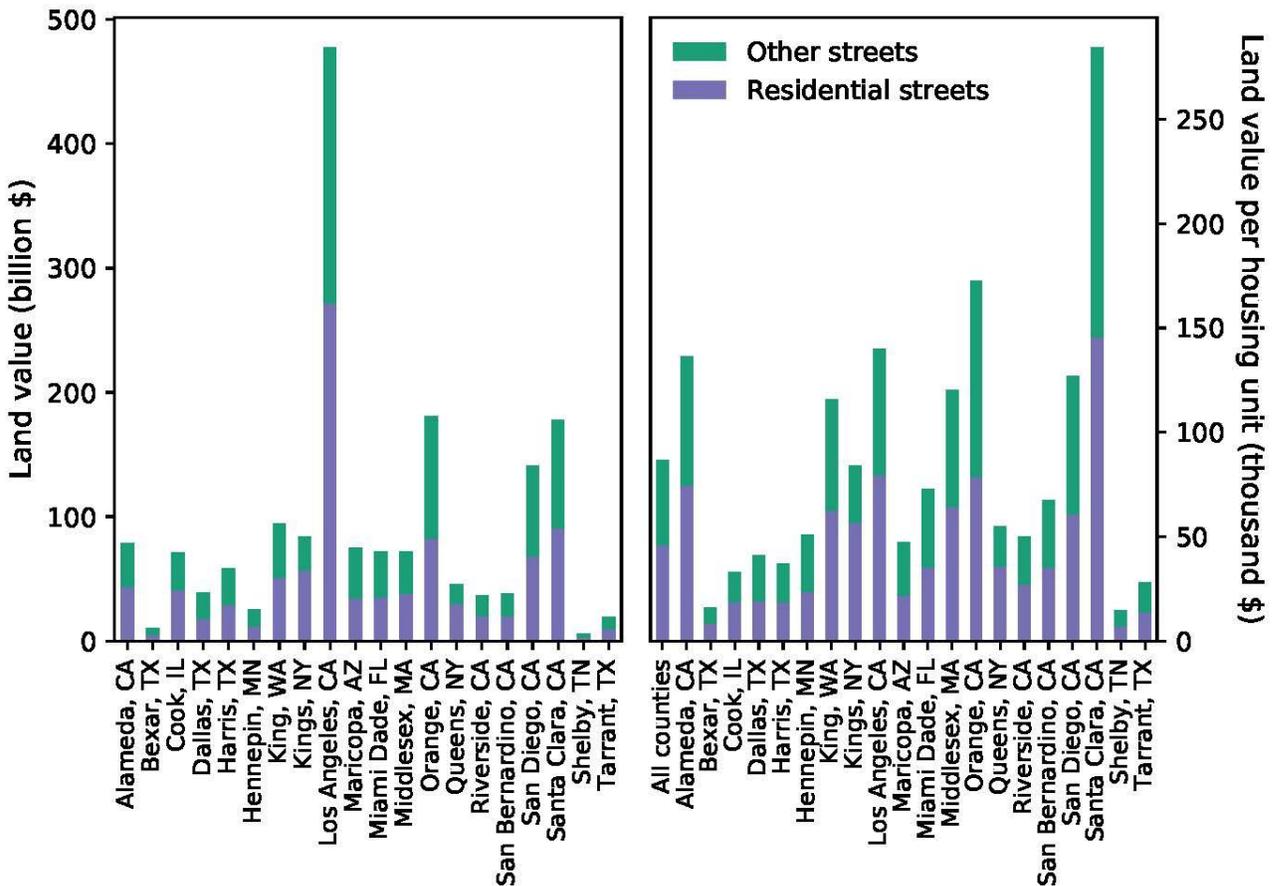


Figure: Land value of streets.

The chart shows the estimated value of land under street rights-of-way, both as a total for the urbanized area of each county (left panel) and on a per residential unit basis (right panel). The per unit figures provide a normalized measure of the value of land devoted to streets, which is particularly relevant in contextualizing the results from New York City (where streets are wide but divided among more households). In most counties, residential streets account for about half of the land value of rights-of-way. In absolute terms, the numbers are strikingly large, totaling \$1.8 trillion in the counties in the data set, of which just more than half (\$959 billion) is for residential streets.

My analysis suggests that in many U.S. cities, residential streets are too wide and too much land is devoted to the street right-of-way. Particularly in high-cost West Coast counties, housing costs are inflated, densities are constrained, and overall social welfare is reduced because too much land is devoted to streets instead of housing. U.S. streets are exceptionally wide by international comparison and from the perspective of urban economics.

The heavily modal distributions of street width provide compelling evidence that subdivision standards and similar regulations are a binding constraint. Remarkably, when rounded to the nearest foot and weighted by length, 41% of residential streets in the sample are exactly 50 ft. or 60 ft. wide. In Maricopa County (AZ), 62% of residential streets are 50 ft. wide, whereas in Cook County (IL), 48% are 66 ft. wide.

Many analysts have recognized the problem of overly wide traffic lanes from a safety and urban design perspective and proposed repurposing the right-of-way for parklets, bicycle lanes, medians, and stormwater management. In many respects, however, these analyses have been too conservative: They have vigorously questioned the allocation of a fixed right-of-way width but done little to challenge the overall amount of urban land that is devoted to streets. The question of how much land should be devoted to streets has attracted little attention outside of theoretical treatments in urban economics. Street design manuals ignore the simple economic prescription that the more valuable the urban land, the narrower a street should be.

The consequences of overprovision of streets are evident today: Street space is underused and unpriced, whereas residential and commercial rents and sale prices make many metropolitan regions increasingly unaffordable. The results of my study suggest that wide streets are not a choice by developers but rather a constraint imposed by planners through subdivision standards. Residents can normally make tradeoffs and choose a smaller yard or smaller home in exchange for other amenities or a lower price, but they cannot choose a smaller street.

A shared street with neither curbs nor delineated sidewalks is likely to be the most efficient layout on the lowest-volume streets; yield streets, with a single bidirectional lane and passing places, can be used where volumes are slightly higher. Street trees provide numerous benefits such as shade. But trees do not require a continuous strip; rather, they can be accommodated through slightly widening the right-of-way at intervals or can be interspersed with parking, garbage containers, and other infrastructure. Even fire access, often the primary rationale for wider streets, can be accomplished with much narrower rights-of-way by using smaller firefighting equipment, as seen in Japan and medieval European cities.

One potential remedy for overly wide streets would be to reduce or even eliminate street width requirements in subdivision ordinances, perhaps in exchange for more flexible and holistic design guidelines. Indeed, if minimal through traffic is expected, the rationale for government regulation of right-of-way widths is tenuous because the property owners internalize all access, parking, and local movement benefits. Certainly, narrower rights-of-way would be a financial windfall for landowners, but a city might capture and direct the surplus toward other municipal priorities. Rather than requiring the owner to effectively hand over a portion of their land via the street, a city could increase inclusionary housing requirements, require some land to be protected as natural habitat, or levy impact fees for contributions to parks, specialized firefighting equipment, and other public services.

A market-driven approach is certainly imperfect: Developers will internalize the short-term benefits to the initial purchasers of housing in a new subdivision but fail to consider longer-term demands for street space and potential changes in population and economic activity. Moreover, any public backlash against narrower streets might be directed against the cities that permitted them rather than the developers that designed them. However, it is questionable whether planners have the ability to weigh these long-term considerations either. And developers are better placed to respond to the idiosyncrasies of each particular street such as topography and the relationship between on- and off-street parking provision. Equalizing the marginal value of land under housing and streets is unlikely to be achieved through standards in subdivision codes but, in principle, is the type of tradeoff that developers are well-equipped to assess. Indeed, to the extent that narrow streets constrain vehicle travel, developers might still construct streets that are wider than socially optimal, given that developers and residents will not consider citywide and global externalities from transportation.

If cities consider the widening of streets as part of new development, why not allow their narrowing where the land could be put to more productive use? Cities could cede their excess right-of-way to a developer in conjunction with a new construction project perhaps in exchange for more affordable housing or other community benefits. Although

such practices may lead to streets with irregular widths, this is not necessarily problematic: Varying on-street parking provision, landscaping, and even lane widths may even add visual interest and calm traffic.

Minimum parking requirements provide a useful parallel. Whereas excess parking might be easier to repurpose than excessively wider streets, in both cases planners impose arbitrary standards that consume land, increase housing costs, and favor the private automobile. After decades of requiring developers to provide a certain amount of parking—a questionable practice on economic and environmental grounds—cities such as Buffalo (NY) and San Francisco (CA) have eliminated the requirements to reduce housing costs and spur the creation of more walkable, mixed-use neighborhoods. Perhaps the housing crisis in parts of the United States will provide the catalyst to reform an equally damaging practice—minimum street requirements.

