Parking Management

Background

Definition

Every automobile trip starts and ends at a parking space. Parking is provided in a variety of contexts: on-street public parking, off-street public parking, private pay lots, and on-site parking for the residents, customers, and employees of private development. In all its forms, parking is a dominant land use in most neighborhoods. There are many good reasons for this. Cars remain the primary mode of transportation in the U.S. and businesses and residents alike rely on parking availability at the start and finish of daily trips of all kinds. However, there are many downsides to the way in which parking supply, and particularly oversupply, has been shaped by public policy.

Health, equity, and sustainability considerations

Parking lots and structured parking contribute to a built environment that discourages walking, biking, and transit use. Rigid and excessive parking requirements for new development can result in inefficient use of urban land, reduced densities, and increased costs that drive up the cost of housing and commercial space and may even render compact development financially infeasible. Public policies that seek to ensure a ready supply of free parking create an incentive for single-occupant auto travel, with negative impacts on air quality, congestion, and public health. Finally, surface parking increases the square footage of impervious surfaces, leading to increased polluted runoff and higher stormwater volumes.

Most new developments provide 50% more parking than is needed.

According to Parking Evaluation by the Victoria Transport Policy Institute, a typical off-street parking space uses 300-400 square feet of land, whether in a surface lot or parking structure. On-street parking requires 140-160 square feet per space. As a result, up to half or more of the land in many U.S. cities is devoted to parking.

Research from the Victoria Transport Policy Institute also shows that construction costs for structured parking are estimated to total $20,000 for above ground and $40,000 for below ground parking per stall. These figures do not include the lost opportunity cost of land or development capacity for space that could have been occupied by additional housing or commercial space. Structured parking costs add an estimated 12.5% to the cost of housing for each stall required.

Local governments can address the need for automobile parking while mitigating many of its negative impacts by using a range of innovative parking management tools to ensure a tighter fit of parking supply to actual demand. The tools described in this overview of parking management encompass a range of approaches, from flexible regulations to pricing strategies to district-wide management of parking supply.

Program and Policy Examples

Program examples

Most local governments set minimum parking requirements for every land use while at the same time providing free on-street parking. These requirements typically ensure that developers will provide enough spaces to satisfy the peak demand for free parking. Some estimates suggest that 99% of all parking is provided at no cost to the user. The result is that parking is highly subsidized by the public, developers, consumers, and households through increased rents. There are examples, however, of fresh approaches to regulating and managing parking that achieve more balanced and sustainable outcomes.

King County Metro's Right Size Parking project focuses the best available data and innovative tools to inform the management of parking supply for multifamily residential projects. The project aims to reduce the oversupply of residential parking that compromises the ability of local communities to achieve sustainable, healthy, and transit-supportive outcomes.

The project has produced guidance on local best practices and for parking policies in multifamily residential development, including a summary table showing parking tools used by communities and a review of market-based and other innovative approaches to parking management as an alternative to mandatory minimums.

Right Size Parking carried out original research on parking utilization in multifamily projects throughout King County. Using a robust set of factors, including transit service, housing prices, and demographics, the project developed a model for predicting parking needs for different types of multifamily projects in a variety of urban locations. The model is at the heart of an online calculator that can be used to inform local policy discussions.

The City of Ithaca, New York, has eliminated minimum parking requirements in selected residential zones, and has established a committee to evaluate zoning assumptions about parking minimums for new developments (as well as off-street parking pricing). Additionally, the city hired its first Director of Parking to oversee implementation of changes to parking minimums and monitor pricing of public parking.

The City of Santa Monica, California, adopted policy that created an alternative parking provision, rather than eliminating minimum parking requirements. In 1986, the Santa Monica City Council approved a business assessment district to fund improvements for the downtown Promenade area. Part of that program included this critical piece: it gave developers the ability to opt out of providing the required on-site parking by paying an annual fee of $1.50 per square foot of floor area added for which there was no parking provided. This new policy allows small-scale developers and entrepreneurs to find and implement the most successful uses for those properties without having to worry about whether meeting the expensive minimum parking requirements was practical or cost-effective.

The City of Pasadena implemented higher prices per hour and longer metered times for on-street parking in the Old Town Pasadena commercial district. The parking revenue went directly to Old Town Pasadena to pay for building and sidewalk improvements and maintenance. The higher prices have led to a better balance between the supply and demand for parking, with more vacant parking spots now available, thus

reducing vehicles circling the block. The meter prices discourage many residents and visitors from driving and have led to an increase in other modes of transit to avoid paying for parking.

Another example of innovative on-street pricing for parking is the *SFPark* initiative in San Francisco, California. The program uses variable pricing to set rates based on demand as measured in real time by on-street sensors. The aim of this system is to achieve an optimal balance of supply and demand that results in approximately 85% of the parking spaces occupied at any one time.

Development regulations and model ordinances

As part of a larger reform of land-use regulations in 2012, Seattle's Ordinance No. 123939 (Seattle Municipal Code 23.54.015, Table B) reduced minimum parking requirements by 50 percent for new developments in multifamily and commercial zones with access to frequent transit service. Additionally, new or redeveloping office and manufacturing sites can lower parking minimums 40 percent if the worksite provides transportation alternatives to mitigate demand for single-occupancy travel. The ordinance also removed parking minimums altogether for residential development in urban centers, urban villages, or station overlays, allowing developers to calculate parking provision based on market demand.

The City of Berkeley enacted a Parking Requirement Reduction (Berkeley Municipal Code Section 23E.28.140) in coordination with its Transit-Oriented Development efforts. The city ordinance reduced the amount of needed off-street parking for new development within 1/3 mile of the Bay Area Rapid Transit (BART). Enacting the reduced parking requirements in close proximity to alternate modes of transit supported the new regulations by providing an alternative to travel by automobile for area residents and visitors alike.

Finally, King County's Right Size Parking project produced an extensive guide for local jurisdictions that highlighted model code language to enact a range of innovative parking tools.

Performance evaluation

Several aspects of performance management can help to support a parking management system. New technologies exist to track the utilization of on-street parking. Such data can be used as a basis for setting meter rates to match actual demand.

Studies of on-site parking utilization are crucial data sources for calibrating parking requirements (minimums or maximums) to actual needs. The research conducted by King County's program is an excellent model of how to approach this kind of evaluation.

Performance evaluation can and should go beyond actual parking outcomes, but also assess what difference parking reforms have made on the built environment and affordable housing. A study of parking deregulation in Los Angeles showed that removing parking requirements for even a subset of downtown buildings led to a greater number and variety of housing units, including more affordable housing and redevelopment in underused neighborhoods. (See Michael Manville, "Parking requirements as barrier to housing development: regulation and reform in Los Angeles," Lewis Center for Regional Policy Studies, University of California Los Angeles, 2010).

Implementation

Developing policy language

The Metropolitan Transportation Commission (greater San Francisco) published a useful guide for parking policy reform aimed at their region's smart growth goals. The guide provides resources for a variety of community types – from regional center to rural town – and transit access, and provides a table of potential strategies for each. Each policy strategy is defined and provided alongside best practices from the San Francisco metropolitan region.

The American Planning Association (APA) published a comprehensive best practices guide that outlines alternative parking management strategies that establish more accessible land-use patterns; reduce congestion, pollution, and accidents; and enhance mobility for non-drivers.

Considerations for local implementation

There are numerous local development incentives that influence parking requirements. According to the PSRC's Housing Innovations Program, reducing minimum parking requirements is most applicable in areas or districts that have good transit accessibility and offer amenities within walking/biking distance. In smaller jurisdictions, reduced parking requirements may be more appropriate in downtown locations or business districts where space is at a premium, congestion is most severe, more transit options are available, and the community wants to encourage a lively pedestrian atmosphere.

Challenges to implementation

- *Concerns about parking spillover.* Residents of districts where reducing or eliminating off-street parking minimums has been proposed will often oppose such reforms out of a concern that developers will not provide sufficient parking, and demand will spill over to take up parking space on surrounding streets. Reduced parking does not mean that a new development will not have parking; tools exist for local governments to address parking demand with better data and developers have strong market incentives to provide sufficient parking in their residential and commercial projects. With supportive regulations, parking may be accommodated with different forms, including tandem stalls, shared spaces, or first-come access parking. In addition, new developments with reduced parking requirements are most appropriately implemented in dense areas with more transit options. Finally, local governments can incorporate residential parking permit programs to ensure residents can access on-street parking.
- *Concerns about parking availability for small businesses.* Business owners may oppose the adoption of new or increased on-street parking charges for fear that it will drive away customers. However, if properly managed to achieve optimal occupancy (about 85%), fees charged for on-street parking can result in an increase in parking turnover and thus increased accessibility to nearby businesses.
- *Education.* Overcoming resistance to changes to existing and long-standing parking regulations and free or low-cost on-street parking can be furthered by educating policy makers, residents, and business owners about the many other policy goals that are affected and perhaps thwarted by policies that result in an oversupply of parking. Furthermore, the case for parking reforms can be strengthened by linking parking charges to tangible local improvements and by coupling parking reductions to enhanced transit service.

Resources

Puget Sound Regional Council's Parking Inventory Data (2013)

King County's Right-Size Parking Calculator (2013)