URBAN PARKING

Rational Policy Approaches for Cities and Towns
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INTRODUCTION

Parking has been a contentious policy focus in cities and towns around the United States for decades. Residents, visitors, and business owners often lament what they see as parking shortages or unfair prices. Meanwhile, surface lots and parking garages have chipped away at once vibrant urban centers, taking up what is often the most valuable land in the region. Undoubtedly, parking is an important asset to many American cities and, as such, should be viewed as an integral piece of the each city's transportation and land use system. However, like any land use or any piece of transportation infrastructure, it must be managed properly to ensure it works efficiently and adds value to the community. City officials can accomplish this by leveraging municipally owned parking—both on-street and off—and by regulating and taxing privately owned parking.

WHY PARKING POLICY MATTERS

Minimum parking requirements are the most common tool that American cities use to manage parking supplies. These requirements, which came into full effect in the U.S. by around 1970,[1] are based loosely on a handful of studies and passed along from town to town.[2] They rely on a single assumption: that too little parking will keep visitors away or lead to traffic problems and disputes among property owners. However, while these are sometimes reasonable concerns, many other important considerations should be taken into account when crafting urban parking policies. Key issues to keep in mind are outlined below.

Parking Creates Traffic

Parking inevitably invites driving, even in places with a wide range of travel options. Research shows that the availability and price of parking are key factors affecting people's decisions to drive.[3] Excess parking, which encourages people to drive when they otherwise might not, can hurt a city's progress towards reducing greenhouse gas emissions, improving air and water quality, managing traffic, and encouraging the use of travel alternatives.

Underpriced and overcrowded on-street parking also worsens traffic. Drivers are willing to spend around eight minutes, on average, cruising to find a free on-street parking space, even when off-street parking is readily available for a nominal fee. These drivers account for around 30 percent of traffic at any given time in a typical city.[4] Setting the right price and encouraging drivers to use nearby off-street parking can get them off the street quickly and free up prime storefront spaces for those willing to pay.

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SUMMARY

Parking is an important part of urban transportation and land use systems, but it must be priced and managed properly.

Policies aimed at ensuring ample supplies of parking and keeping user costs low often exacerbate parking issues and other negative impacts.

Through rational parking policies, cities can manage existing parking supplies, reduce traffic, cut pollution, lower housing costs, encourage sensible development, and improve urban vitality.

This report offers guidance in balancing stakeholder interests and implementing rational approaches to parking policy.

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Parking Inflates Development and Housing Costs

Drivers… cruising to find a free on-street parking space… account for around 30 percent of traffic at any given time in a typical city.[4]

The costs of acquiring land, then building, operating, and maintaining parking facilities can be substantial, and are typically bundled together with other building costs. This can drive up housing costs by around 15 percent or more, which is especially detrimental in efforts to provide affordable housing.[5] In addition to driving up costs, required parking—or even simply the perception that ample onsite parking is needed—often forces developers to scale down their projects or makes their projects infeasible from the start.

Parking Takes Up Space

Cars spend most of their time parked, which puts huge demands on urban land.[6,7] In some downtowns, parking covers more than 20 percent of the total land area.[8] Research has shown that in major central business districts around the nation, parking would cover anywhere from 18 to 81 percent of land area if spread out horizontally (rather than being underground or in multi-level structures).[9]

This not only degrades the built environment and hurts developers and landowners who must offset the costs, but it can also hurt a city's bottom line. A recent study of six city centers around the country shows that parking earns only 15 to 40 percent of the tax revenues that other land uses do. Researchers determined that one city—Hartford, CT—could reclaim as much as $20 million in tax revenues by returning its downtown to 1950s land use patterns, when the city had 60 percent less surface parking.[10]

Parking Can Hurt Urban Vitality

…Parking earns only 15 to 40 percent of the tax revenues that other land uses do.

Contrary to popular belief, cities that devote too much land to parking may actually become less attractive to developers, residents, businesses, and visitors. Many cities have a long history of pushing for more parking in order to compete with nearby suburban plazas and shopping malls. Ultimately, this makes it easier to access some destinations by car, but it typically runs in stark contrast with the very qualities that make downtowns unique and attractive—namely, density and proximity.[11] As neighborhoods and downtowns grow and become more popular, they push up against the limits of parking capacity and then must rely on a wider variety of travel options than private vehicles.[12]

COMMON MISPERCEPTIONS ABOUT PARKING

Parking issues can be difficult to resolve because there are often many conflicting views and needs among residents, business owners, and policymakers. In tackling these issues, it is helpful to first understand and dispel of commonly held misperceptions about parking.

"Parking should be free"

Despite the high costs of parking—both direct and indirect, as discussed above—users often do not pay directly for its use. The costs are ultimately passed along through rents, lower wages, the prices of goods and services, or taxes.[13] This means that non-drivers often cover some portion of the costs and drivers typically do not take them into account when making travel decisions, which can lead to overuse and system congestion. Direct payment for parking, particularly at prime locations, helps drivers make more informed travel decisions and improves system efficiency.

"More parking is needed"

While parking shortages are often a real concern, they may also be overstated. Perceived shortages often stem from people's preference for close, convenient, inexpensive spaces, which are therefore also the most likely to be full.[14] Charging appropriately for the most desirable spaces, regulating their use, and improving access to nearby parking can sometimes address this. Persistent parking shortages may mean that an area has run up against the upper limits of its parking capacity—due simply on a lack of space or its inability to handle more vehicle traffic—and would be best served by a wider variety of transportation enhancements such as improved transit service or bicycle accommodations.

"New development will bring more cars"

Residents and developers often fear that new development will put added pressure on already-scarce parking supplies. This needn't always be the case. Different types of businesses and land uses require parking for different times of the day, meaning they can often share the same facilities. Many uses require very little parking at all, especially in areas with a good range of travel options. A typical multifamily housing unit can have anywhere from zero to two cars depending on factors such as housing type, neighborhood features, household characteristics, and available travel options.[15]

Cambridge, MA

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Cambridge, MA.

Cambridge—a city of around 100,000 people, bordering Boston—has one of the most ambitious parking management programs in the nation. In 1981 the city first implemented parking maximums in its zoning codes; these are comparable to many cities' current minimum requirements. A decade later, the city adopted an official policy goal of reducing single occupancy vehicle (SOV) trips and focused on its parking policy as a key mechanism for achieving that goal. The city's parking and transportation demand management (PTDM) program prohibits any property owner from adding non-residential parking spaces without developing a plan to reduce SOV trips and complying with that plan or else face a fine. Through these policies, Cambridge has begun to reverse the growth in parking that occurred during the 1960s and '70s, even while the number of residents and employees increased by one quarter.[28,29]

RATIONAL APPROACHES TO PARKING POLICY

Cities and towns have a variety of common policy tools available to help manage parking supplies and resolve parking-related issues, but each case is unique. Policymakers should review all of the following approaches, takes necessary steps to understand local issues and challenges, and develop a plan that best meets their specific goals.

1. Parking Audits

Cities typically keep careful track of buildings, land uses, and transportation infrastructure, but rarely have a good sense of how much parking exists or how it's used. Parking audits can fill this knowledge gap and help policymakers understand what steps should be taken to tackle parking-related issues. One of the most important components of an audit is an inventory of existing parking supplies, which should include publicly available parking, at a minimum, but also private parking for a more complete understanding of its role in the transportation-land use system. An audit should also include a review of any prior parking studies, a survey of

usage, and a review of current parking-related policies. Smart Growth America has led parking audit workshops in Newark, OH, and Missoula, MT.[16]

2. Employer-based Parking Management

Parking management programs typically touch upon zoning codes, building requirements, pricing, permitting, and regulation—as discussed below—but they can often begin with employer-based programs. Even though commuter travel needs are usually less flexible than those of discretionary drivers, large employers can sometimes achieve substantial reductions in parking demand through programs aimed at employees, which can also serve as trials for citywide programs. These programs might include rideshare coordination and incentives, guaranteed ride home programs, transit subsidies, flexible work schedules, and bicycle accommodations. Charging employees a moderate fee for parking or letting them cash out their parking space helps employers manage scarce parking supplies and lets commuters make informed travel decisions. Municipal agencies can work with employers to develop and implement these programs or even make them compulsory through transportation demand management policies. Cities can also take the lead by offering these programs to municipal employees.

3. Pricing

Parking prices should reflect demand and encourage efficient use of the system. Highly desirable on-street parking in retail areas should be priced somewhat higher than off-street facilities to discourage long-term use, and just high enough to keep at least one space per block open at all times. This demand-responsive approach improves system efficiency by allowing users to park quickly and helps to attract visitors who are either willing to pay for prime spots or deterred by having to search for parking. It can also help to encourage carpooling and alternative travel modes. Dynamic pricing techniques allow a city to adjust prices block-by-block according to demand during different times of the day, shifting the load from full blocks to emptier ones. Seattle, WA tracks parking usage each year and adjusts rates

San Francisco, CA

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San Francisco, CA.

San Francisco—a city of more than 800,000 people—is a national leader in the dynamic pricing of on-street parking. The city's program, called SFpark and sponsored by the U.S. DOT, incorporates in ground sensors to monitor and report occupancy. Prices vary by time of day and according to demand with the goal of maintain 60 to 80 percent occupancy on every block. After one year of initial price adjustments blocks that were very empty or very full achieved between 65 and 70 percent occupancy.[30]

The city also has a residential parking permit (RPP) program operating in 28 separate zones. RPP zones can be requested by neighborhood petitions in areas that are 80 percent occupied during the day with at least 50 percent of vehicles owned by non-residents.[31] Households may purchase up to four permits for $109 each exempting vehicles from posted time limits.[32] Temporary visitor permits and permits for business owners are also available. As in many jurisdictions, state law prohibits fees from exceeding the costs of program administration, operation, and enforcement. San Francisco has defended challenges to its parking rates by articulating through policy that its parking, traffic, and transit functions are all part of one program with shared costs and revenues.[33]

accordingly, marking less expensive blocks with green signs saying "VALUE."[17] Priced parking has been made more convenient and easier to implement through technologies such as multi-space meters, in-car transponders, and pay-by-phone applications.

Cities may not be able to regulate the price of private parking, but they may encourage the costs of parking to be unbundled from the sale price of residential and commercial units—an effective mechanism for pricing auxiliary parking. San Francisco, CA has implemented policies requiring parking prices to be unbundled from the sale of residential units, but has had difficulty enforcing the requirement. A more effective approach in other cities has been to impose maximum parking limits in their zoning codes, thereby encouraging owners to charge users accordingly.[18]

4. Parking Benefit Districts

Cities may initially face resistance from concerned residents and business owners in trying to raise parking prices, but they can gain support by establishing parking benefit districts, which ensure that a portion of revenues from parking will go toward making infrastructure and streetscape improvements within the district. Benefit districts typically correspond with central business districts or encompass retail destinations, but they can include nearby residential neighborhoods. While local regulations sometimes prevent parking fees from being raised above those needed to cover operation costs, higher meter prices can sometimes be justified if the revenues are used to offset the costs of off-street facilities or committed to local projects through appropriations.[19]

Pasadena, CA

Pasadena is a city of around 140,000 people just north of Los Angeles. Downtown Pasadena, now called "Old Pasadena," experienced continued decline between 1930 and 1980, despite urban renewal efforts and publicly subsidized retail development. Parking shortages were seen as one of the major obstacles to its revival. However, rather than bolstering its supply of free parking, the city devised a plan to install parking meters and eventually agreed to spend all of the revenues on revitalizing Old Pasadena. Meters were installed in 1993, with a one-dollar per hour rate. Under the new pricing scheme, on-street parking vacancies eventually reached a nearly ideal 17 percent and the 690 meters earned upwards of one million dollars per year, which was used to add more public services and repay the debt from earlier streetscape improvements. Private investment and property values in Old Pasadena subsequently increased and the area made a vibrant recovery. As of 2003, it earned more tax revenues than any other district in the city.

Source: By Adbar, Own work [CC BY-SA 3.0, http://commons.wikimedia.org/wiki/File:Old_Town_Pasadena_and_Metro_Local_bus.JPG#/media/File:Old_Town_Pasadena_and_Metro_Local_bus.JPG], via Wikimedia Commons -

Old Town Pasadena, CA and Metro Local bus.

5. Residential Parking Permits

Residential parking permit programs help preserve and manage on-street neighborhood parking supplies. These programs ensure that residents have primary access to parking and allow cities to manage, or even monetize, extra capacity by issuing permits to visitors and business owners at their discretion. As capacity fills, cities must carefully balance resident needs. This can mean limiting the number of permits available or even raising permit fees.[20] As with commercial parking, raising prices may require establishing parking benefit districts or committing the revenues to local transportation projects to conform to state laws.

Lowell, MA

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Lowell, MA City Hall.

Lowell is a former manufacturing town in northern Massachusetts whose population has recently regrown to just over 100,000 people. The city's zoning codes contain two key provisions that should help prevent unwanted parking growth over the long term and make more efficient use of existing supplies in the near term. One is a provision that reduces the minimum requirements for shared parking and another allows developers to meet requirements by leasing spaces from existing facilities. The city has a fairly low requirement of one parking space per residential unit, which can be located at any facility within 1,500 feet. This allows it to make better use of its six public parking garages located throughout the downtown, which are underutilized at night, rather than adding more residential parking.

The city's zoning code also includes a table outlining minimum requirements by use and time. As an example, Table 1 shows the minimum requirements by time of day for a theoretical project that incorporates both office and restaurant space, with each use requiring 20 parking spaces. The peak usage for office space is during weekdays, while peak usage for the restaurant space is weekend evenings. The largest combined requirement, therefore, is 28 spaces during weekdays—a 30 percent reduction. There is also unused capacity during evenings and nights, which could be used to meet additional residential parking needs.

table 1

Minimum requirements for a theoretical mixed-use project by time of day acording to Lowell zoning code.

Use	Assumed minimum requirement	Weekdays			Weekends		
		8am-5pm	6pm-12am	12am-6am	8am-5pm	6pm-12am	12am-6am
Office	20	20 (100%)	4 (20%)	1 (5%)	1 (5%)	1 (5%)	1 (5%)
Restaurant	20	8 (40%)	16 (80%)	2 (10%)	12 (60%)	20 (100%)	10 (50%)
Total	40	28 (70%)	20 (50%)	3 (8%)	13 (33%)	21 (53%)	11 (28%)

6. Reduce or Eliminate Parking Requirements

Minimum parking requirements rarely reflect actual demand in urban areas and they tend to artificially inflate supplies, making it difficult to set prices accordingly. Research has shown that parking facilities are often only 50 percent full during peak periods, even when they don't fully meet requirements.[21] Many cities have eliminated parking requirements in certain zones, such as near transit stations, and some have even implemented strict parking maximums. Cities may also allow developers to pay fees in lieu of meeting parking requirements or lease parking from existing facilities.

7. On-street Parking

On-street parking can help meet a substantial share of a city's parking needs and offers many advantages over surface lots or parking garages. On-street parking typically takes up about half as much area per space as off-street facilities and can meet anywhere from 20 to 80 percent of downtown parking needs.[22] It often provides the most convenient storefront access and has the added benefits of calming traffic and creating a safe barrier between moving cars and people on the sidewalk. On-street parking should be encouraged on low-speed roads and should be counted as an important component of any parking system.[23] Cities should treat existing on-street parking as a valuable asset that should be priced, regulated, and managed appropriately.

8. Shared Parking

In areas with mixed land uses, parking can often be shared among different uses during different times of the day and different days of the week. Cities should encourage shared parking through zoning codes and contract agreements among landowners in order to cut back on redundant supplies. Shared parking policies should also take into account any available public facilities, including on-street parking.

9. Design Guidelines

Parking policies tend to focus mainly on the quantity of parking provided and rarely on its quality, but parking facilities that aren't well designed or properly situated can degrade the built environment and make walking unpleasant. Cities can implement design guidelines or zoning codes that require parking to be located behind buildings or enhanced with aesthetic treatments, landscaping, pedestrian amenities, or pervious surfaces. Cities can also require parking garages to have appealing facades, be wrapped by buildings, or incorporate retail space on the ground level.[24]

10. Parking Taxes

When parking is taxed at a lower rate than other land uses, as is often the case, cities and may actually discourage landowners from converting existing lots into more productive land uses.[25] Tax rates that are too low can also cause congestion, limit community size, and lower land values.[26] Higher parking taxes—or alternatively some form land value tax—can help cities recoup external costs, encourage development on surface lots, make more efficient use of parking supplies, and even raise revenues.[27]

CONCLUSION

As cities grow and evolve, they often push up against the limits of their parking capacity and must look for ways to better manage their existing supplies and provide a range a travel options. The current policies in many cities don't address these issues particularly well and may actually exacerbate them but, as a growing number of cities have shown, there are a wide variety of rational policy approaches available. Through these policies, cities can better manage existing parking supplies, reduce traffic, cut pollution, lower housing costs, encourage sensible development, and improve urban vitality.

GETTING STARTED

1. Understand how much parking there is, how it's used, and the policies that govern it.
2. Recognize the costs of parking and the role that parking plays in meeting broad goals such as economic development, housing choice, transportation demand management, environmental quality, and fiscal responsibility.
3. Identify individual policies that are the most impactful and the most feasible to implement, involve stakeholders, and launch a pilot project.
4. Work toward comprehensive policies and programs that tie parking issues together with transportation system performance and land use considerations.

RESOURCES

» The High Cost of Free Parking (Donald Shoup 2005/2011): This book by UCLA professor Donald Shoup, published by the American Planning Association, is considered by many to be an essential introduction to parking issues and policy reform. Selected articles available for download at: http://shoup.bol.ucla.edu

» Contemporary Approaches to Parking Pricing: A Primer (FHWA 2012): This publication provides a broad overview of priced parking strategies, technologies, and implementation techniques. Available for download at: http://ops.fhwa.dot.gov/publications/fhwahop12026/index.htm

» U.S. Parking Policies: An Overview of Management Strategies (ITDP 2010): This report from the Institute for Transportation and Development Policy outlines the state of best practice in parking management in the U.S. Available for download at: https://go.itdp.org/download/attachments/51251185/ITDP_US_Parking_Report.pdf

» Parking Management: Comprehensive Implementation Guide (VTPI 2013): This report from the Victoria Transport Policy Institute discusses common parking issues and offers more than two-dozen parking management strategies in detail. Available for download at: http://www.vtpi.org/park_man_comp.pdf

» King County Multi-Family Residential Parking Calculator: This online tool shows parking demand at multifamily housing units throughout the Seattle metropolitan area and lets users adjust building and location characteristics to understand the impacts on demand and cost. Accessible at: http://www.rightsizeparking.org

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About us

The Mayors Innovation Project is a learning network among American mayors committed to "high road" policy and governance: shared prosperity, environmental sustainability, and efficient democratic government. We are a project of COWS (Center on Wisconsin Strategy). This work is generously supported by the Surdna Foundation. We can be contacted at:

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