2015

PHILADELPHIA CITY PLANNING COMMISSION

Center City, Philadelphia

PARKING INVENTORY

Introduction

A Center City Parking Inventory is completed every five years by the Philadelphia City Planning Commission. This report assesses patterns and trends in the characteristics of the Center City parking supply, focusing on capacity, occupancy rates, and prices. This inventory focuses on public parking facilities in an area bounded by Spring Garden and South Streets and the Schuylkill and Delaware Rivers.

The purpose of this Parking Inventory Report is to equip policymakers, community members, developers, and parking facility operators with information about an issue that is often the source of conflict, cost, and congestion within Center City. The information offered in this report can help guide decisions to ensure that parking is provided and priced at rates that meet the needs of commuters, visitors, businesses, and residents, while also advancing the City's broader goals of economic development and sustainability.

Parking supply has many implications for the accessibility and built form of the downtown area. An abundance of low-priced parking in Center City can serve as an incentive to drive personal vehicles when commuting or visiting. This can serve to elevate the amount of tail-pipe emissions and traffic congestion, while decreasing the economic demand and political support for a robust public transit network. This can also induce a shift toward the development of auto-oriented buildings and uses both in Center City and in the surrounding neighborhoods and region, resulting in higher housing costs and inefficient land utilization as space and capital is devoted to parking.

Conversely, undue parking scarcity in Center City can also lead to increased traffic congestion and pollution caused by cars circling to find available parking spaces. It can also serve to drive out businesses and residents who rely on auto mobility to attract customers and to access employment and services. A well-managed parking supply can help strike a balance between these two scenarios. For example, when on-street parking is priced competitively with garages there is less incentive to "circle" in search of cheap parking. Prominent yet visually appealing signage can guide drivers to off-street parking facilities. Further, when public parking is managed in a way that promotes higher density development and alternative modes of transportation, associated social, economic, environmental, and health benefits can be achieved. Recognizing that the automobile continues to play an essential role for many residents and businesses, Center City's parking inventory must continue to provide for a total supply and distribution of garage parking that accommodates future market demand, yet it compatible with other public objectives.

The report provides a snapshot for 2015 and describes trends related to the condition of public parking in Center City Philadelphia, including parking costs, occupancy rates, and parking facility development patterns over the past 25 years. These data were assessed relative to Center City as a whole, as well as in the context of its various component neighborhoods. Following the analysis, the report provides recommendations for improvements and best practices for the future of Center City Philadelphia's parking supply.

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Context

Over the past five years, significant new construction occurred at sites in Center City that were recorded as surface parking lots in the 2010 Center City Parking Inventory, including major projects such as the future Comcast Innovation and Technology Center (1800 Arch St), the Family Court Building (1501 Arch St), and Lombard Estates (1803-1823 Lombard St). The parking components of these new developments vary widely: while the Family Court Building includes an underground garage with 223 public parking spaces, the Comcast Center does not supply any public parking and instead will include a direct underground connection to the Suburban Station transit node. The elimination of surface lots in Center City is projected to continue, with ground-breakings for new development on several of these sites scheduled in late 2015 and early 2016.

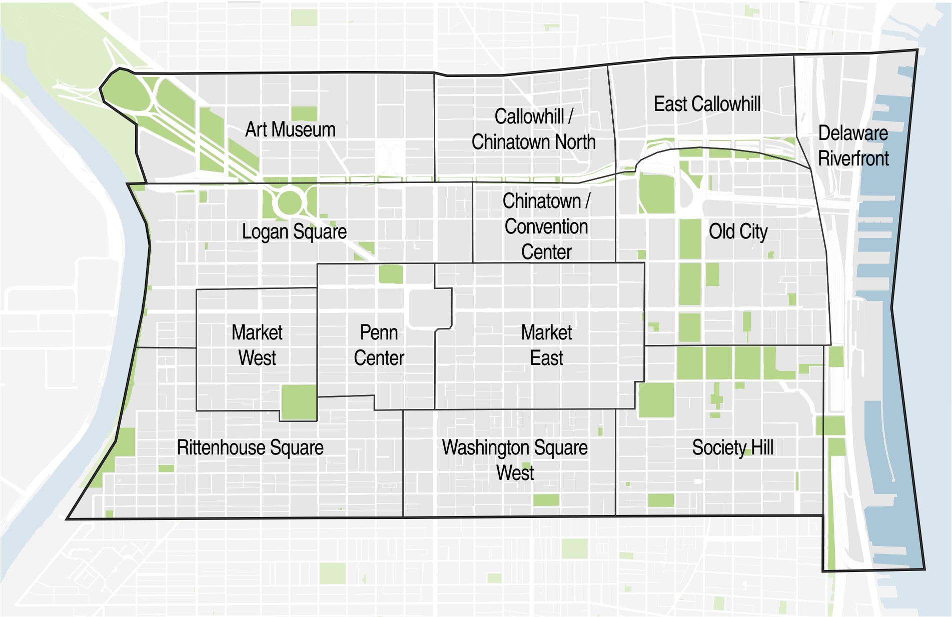
The 2015 Parking Inventory is the first update since the new zoning code, which reduced minimum requirements in several zones, was put into place in 2012. For example, in CMX-3 zones, multi-family residential buildings now require only 3 parking spaces for every 10 units. This is a reduction from a previous one-to-one ratio in the equivalent zone under the old zoning code. For office, retail, or commercial uses (except for assembly or entertainment) in districts zoned CMX-2/2.5, CMX-3, CMX-4 or CMX-5 there is no minimum parking requirement. This reduces the legal requirements for parking provision in high density development, allowing for the design and programmatic decisions to more directly reflect private market assessments of parking need.

The City raised the parking tax on July 1, 2015 from 20% to 22.5% of the price charged by the facility. Because this new tax was enacted midway through the inventory survey, the parking costs recorded for 2015 reflect a mix of prices pre- and post-tax increase. Prior to 2015, the last change in the parking tax was in 2008, when the rate was increased from 15% to 20%. For all parking surveys conducted before 2008, the parking tax rate was constant at 15% of the price charged for parking by the facility.

The 2015 Center City Parking Data

The survey conducted as part of this Center City Parking Inventory 2015 included public facilities that contained 30 or more spaces. Whereas previous Parking Inventories have assessed both public and private parking facilities, the 2015 Parking Inventory only includes data and analyses for parking facilities that are available for use by the general public; parking facilities that are only accessible by building residents or by employees or clients of a specific business or institution were not included in the 2015 survey. In facilities that include both private and public parking, such as a garage with certain levels gated off and reserved for specific clients, only the spaces available for public parking were surveyed.

Neighborhoods



Center City Parking Capacity & Occupancy

Capacity

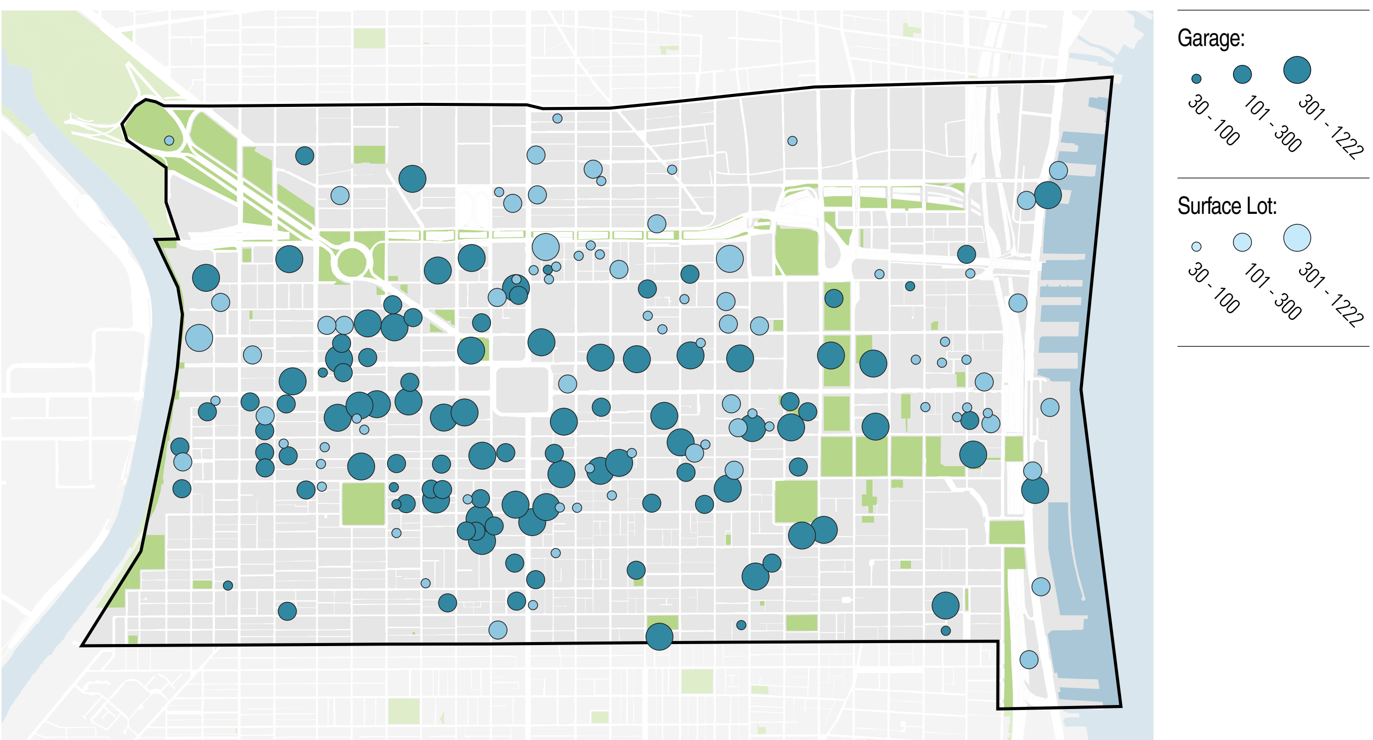
The 2015 Parking Inventory included 189 total public parking facilities (82 lots and 107 garages) with a combined total of 46,400 parking spaces. (See Map 1.) This included 68 self-park facilities, 59 valet facilities, and 62 that had both self-park and valet components. The total number of public parking spaces decreased in the past five years, down 7.2% from 50,023 in 2010. This reduction in supply is due in part to the recent and on-going development taking place on the sites of many of the facilities surveyed in 2010. The decrease in public parking supply may be mitigated in some ways by the inclusion of private parking spaces in many of the recent developments as well as a 5% increase in available on-street parking spaces due to the replacement of metered spaces with parking kiosks that was completed in 2010.

The neighborhood with the largest parking supply in Center City is Market East with 11,365 spaces, followed by Logan Square with 7,251 spaces. The lowest parking capacity in a neighborhood is 92 spaces, located in just one lot in East Callowhill. There is a significant supply of private parking located in this area of the city, however the public parking capacity is very small.

Parking Capacity by Neighborhood

Market East	11,365
Logan Square	7,251
Penn Center	4,927
Market West	4,278
Old City	3,889
Rittenhouse Square	3,143
Society Hill	3,063
Delaware Riverfront	2,524
Washington Square West	2,102
Chinatown / Convention Center	1,704
Art Museum	1,152
Callowhill / Chinatown North	910
East Callowhill	92
Total Public Spaces:	**46,400**

Parking Facilities
By Capacity & Type

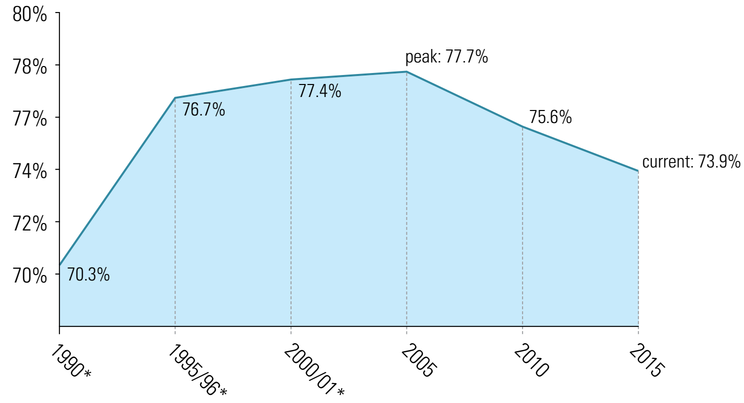


Center City Parking Capacity & Occupancy

Occupancy [1]

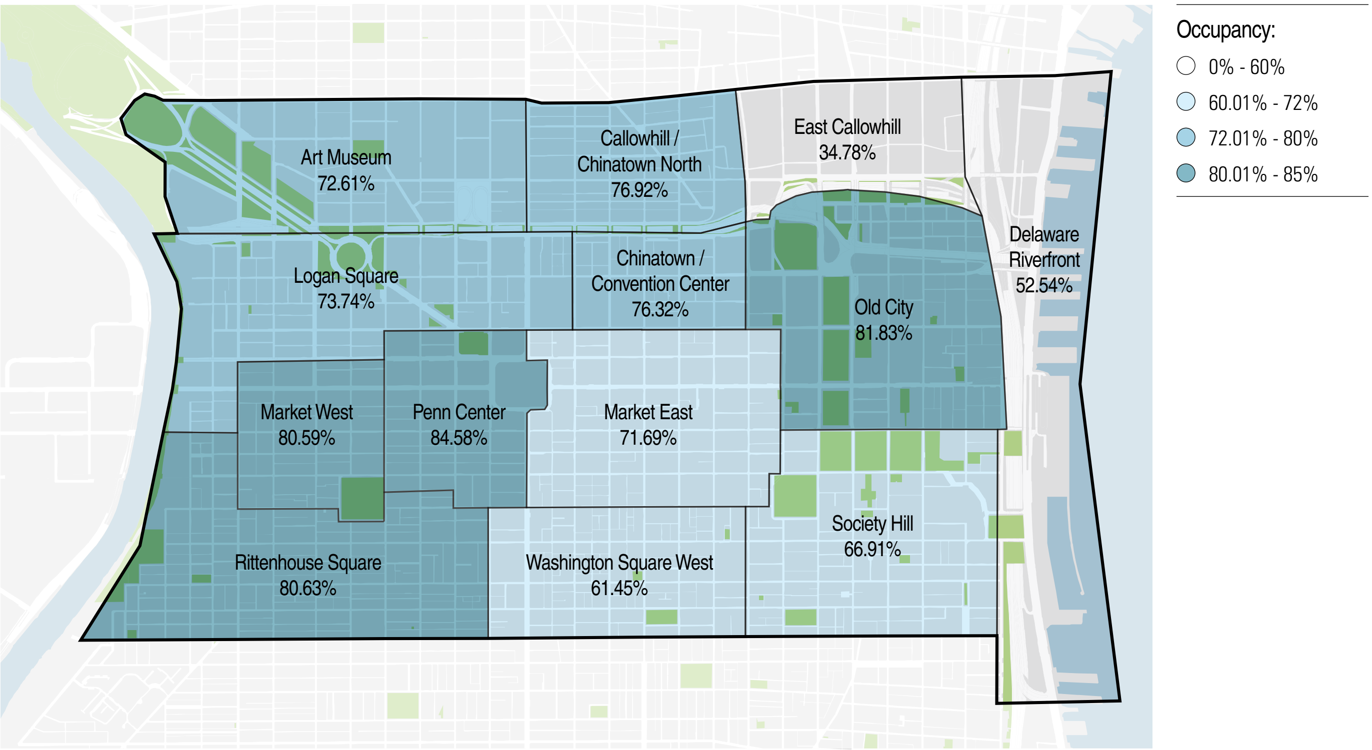
Due to inaccessibility of some sites, data on occupancy rates was not collected at 20 of these facilities. Among the remaining 169 sites surveyed, the occupancy rate was 73.9%. In spite of the overall decrease in supply of parking spaces since 2010, occupancy rates did not increase; in fact, this is a slight decrease from 2010, when the occupancy rate for public facilities was 75.6%. This reflects a drop in demand for public parking spaces that is commensurate with the decrease in supply. While private parking facilities may have absorbed some of the demand, new Center City developments have also been associated with increases in employment and other daytime trip generators. Therefore, the stable occupancy rates in the face of a decreased supply suggest the presence of a modest shift away from the use of private vehicles.

Public Parking Occupancy Rate



** Combined Public and Private Parking Occupancy Rate*

Parking Occupancy
By Neighborhood



1. The survey data was collected from June 3, 2015 to August 3, 2015 to retain consistency with all previous Center City Parking Inventories, which were also conducted during summers. Occupancy rates from this inventory may be slightly lower than the annual average due to the lower demand associated with this season.

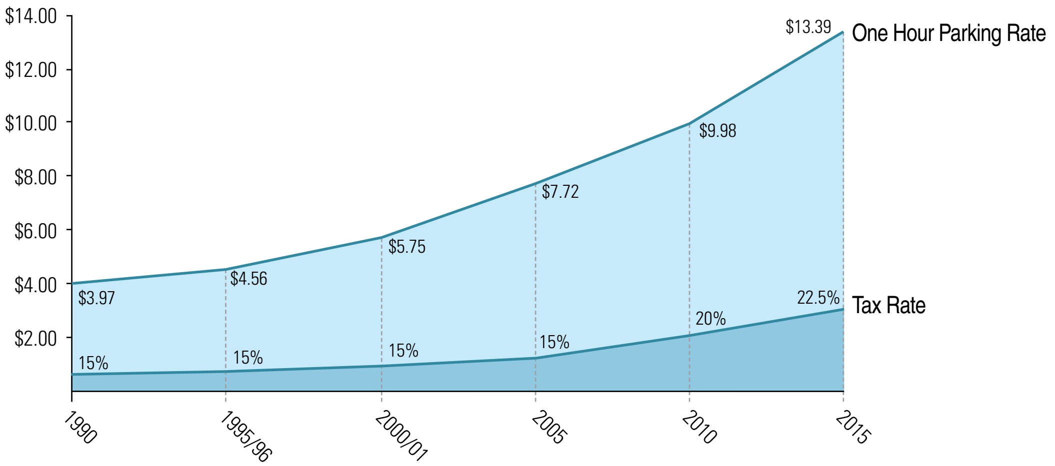
Center City Parking Rates

One-Hour Rate

From 2010 to 2015 there was an increase in the One-Hour Parking Rate at public parking facilities in Center City. This follows a trend of parking rates increasing with every survey. However, the increase has become steeper in more recent years. The 23% increase recorded from 2010 to 2015 represents the highest rate increase over a five-year period since 1990, which includes the 2.5% tax rate increase.

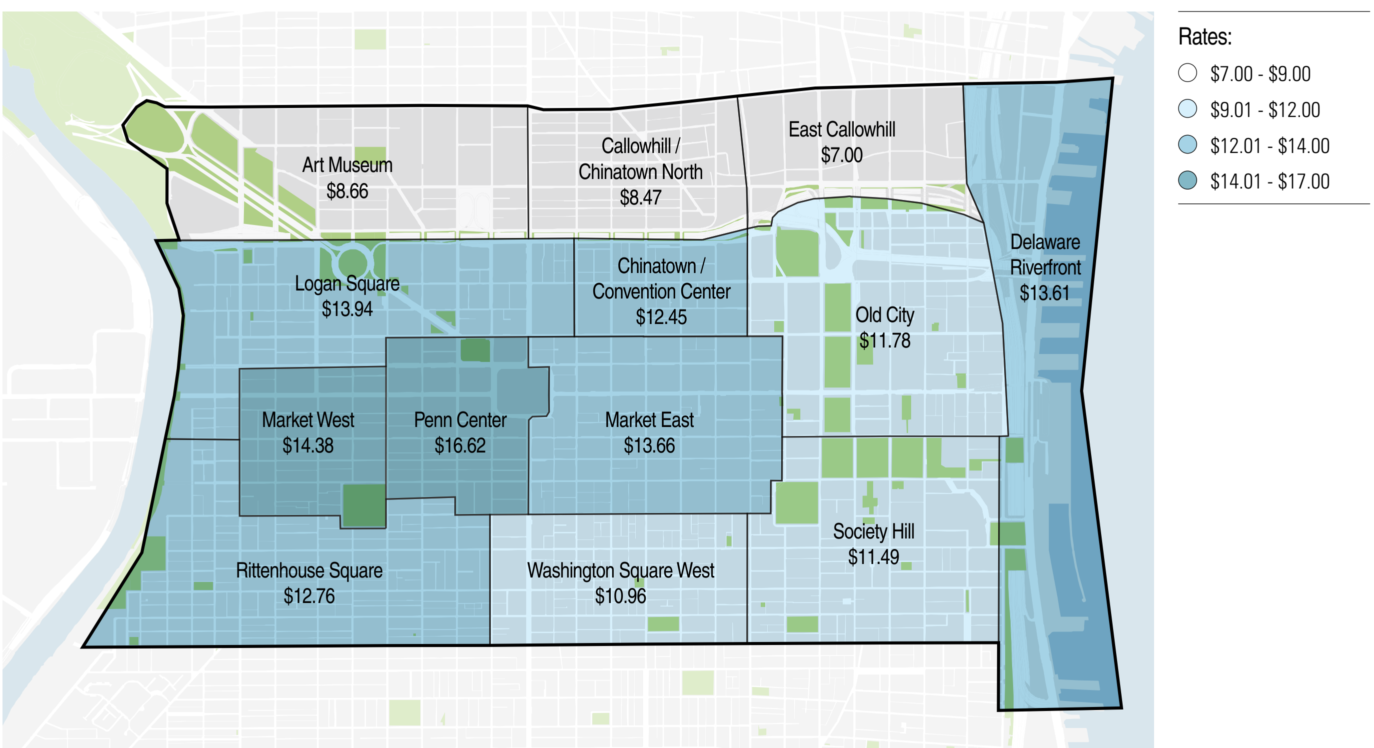
Average One-Hour Parking Rate

Nominal Dollars with Parking Tax Rate

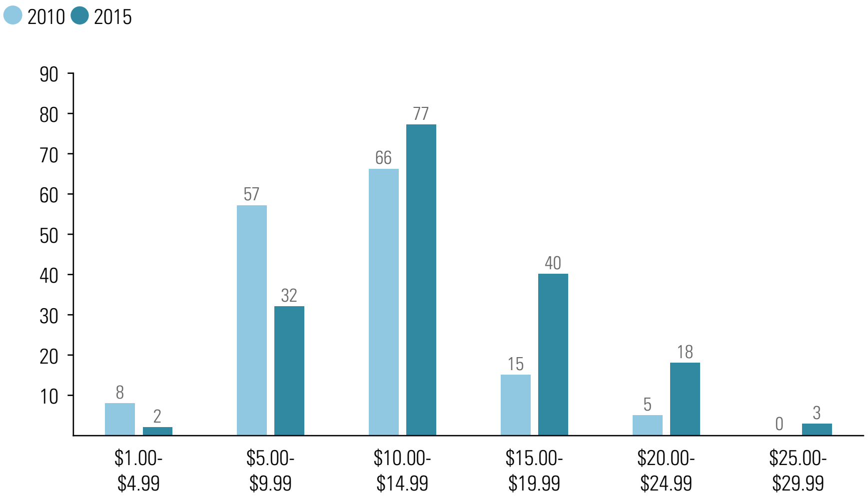


One-Hour Rates

By Neighborhood



Facilities by One-Hour Rates
Nominal Dollars



The figure above compares the One-Hour rates of public facilities in 2010 and 2015, with rates shown in nominal dollars for those years. While $10.00 - $14.99 remains the most-common range for rates, there is a shift towards more expensive one-hour parking rates from 2010 to 2015. In 2010, 65 facilities charged less than $10.00 to park for one hour, but in 2015 only 34 facilities did the same. In addition, many more facilities are charging exceptionally high rates: while only 5 facilities in the 2010 survey had one-hour rates greater than or equal to $20.00, 21 facilities posted one-hour rates in this range during the 2015 survey.

Despite large increases in parking costs, there has not been an equally large decrease in occupancy between 2010 and present. This may be due in part to a lack of alternatives such as available on-street parking or convenient public transit connections. This trend may also suggest that, even with recent increases in parking costs, drivers are willing to pay more for parking in lots and garages.

The two most expensive neighborhoods to park in for one hour are Penn Center and Market West, both with an average rate over $14.00. With the exception of the Delaware Riverfront, the more expensive areas to find parking for one hour are within the more high density developed neighborhoods of Center City.

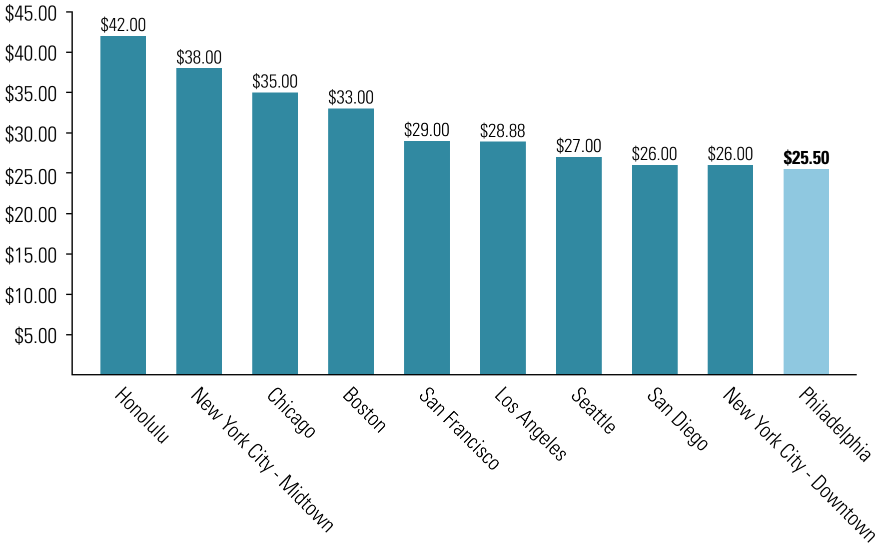
One-Hour, Two-Hour, and Early Bird Rate Comparison

The figure above shows a comparison of the average one-hour, two-hour and Early Bird rates from the 2015 survey. Early Bird rates are offered at many public parking facilities and typically provide a discounted cost for parking for those who arrive before 9:00 am and leave by 6:00 pm. The average Early Bird rate is only $0.32 more expensive than the average one-hour rate. The average rate to park for two hours is $6.67 more expensive than the Early Bird rate, even though the Early Bird rate covers the cost of parking for more than four times the amount of time as the two-hour rate. This highlights a strong pattern of parking facilities in Center City favoring commuters over others who park for a shorter time period. Facilities offer relatively low parking rates that incentivize driving into the city and thus compete favorably with public transit as a commuting mode.

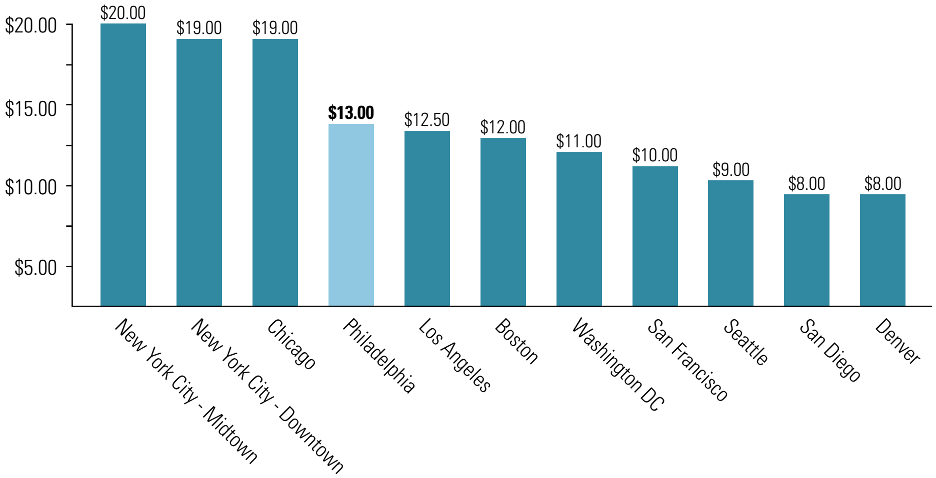
Comparison with other Central Business Districts

A recent parking rate survey for central business districts in North America was completed in 2012 by Colliers International. Philadelphia's average daily parking rate was reported at $25.50, which ranked tenth highest, and did not include early bird offers. Philadelphia's average hourly rate for downtown parking facilities was $13, which ranked 4th highest.

Top Daily Parking Rates in US[2]



Top Hourly Parking Rates in US[2]



2. Source: Colliers International 2012

New Developments

New Developments on Previous Parking Facility Sites

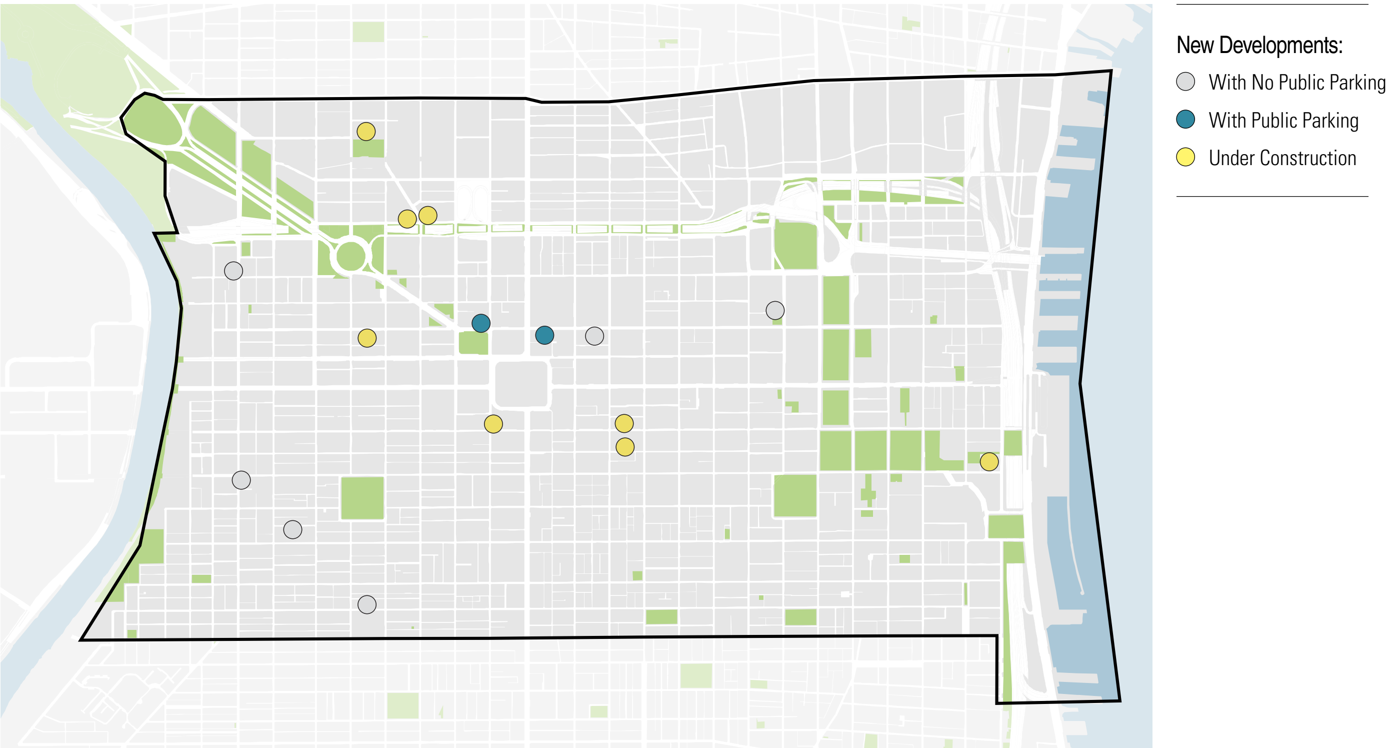
Based on the 2015 Center City Parking Survey, sixteen public parking facilities that existed in 2010 were redeveloped or were in the process of undergoing redevelopment. Overall, these new developments reflect a strong expansion of in-fill development in Center City, as thirteen of these replaced surface parking lots and the other three replaced above-ground parking garages with higher value uses. Three additional surface lots, in operation at the time of the Parking Survey, have plans for redevelopment that are scheduled to break ground by 2016.

New developments that include public parking facilities are located in proximity of public institutions, such as the Family Court Building and Pennsylvania Convention Center, while those that included no public parking were near more residential neighborhoods like Rittenhouse Square. While two of the eight completed new buildings included public parking within their development program, six of these included no public parking.

New Development Facts

- Since 2010, developments on previous parking facility sites eliminated 2,426 parking spaces from the Center City public parking supply.
- Two completed new developments include public parking and provide a combined 763 parking spaces.
- There are five sites under construction with plans to include public parking in their design.

New Developments on Former Parking Facilities
2010 - 2015

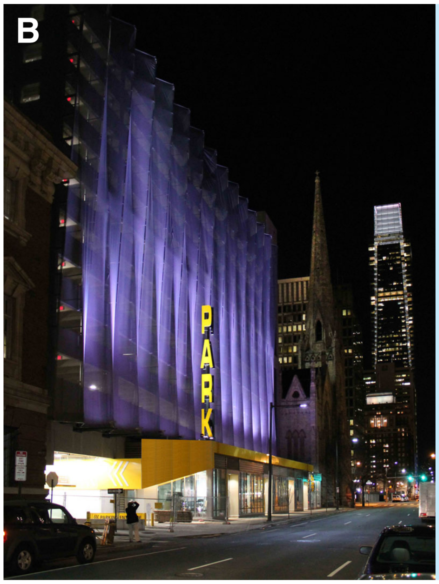


New Development Highlights

A sample of new developments are highlighted below to showcase the ways in which they are transforming the urban landscape and modernizing the Center City Parking supply.

Comcast Innovation & Technology Center
(completion expected in 2018)

- Location: 1800 Arch Street
- 1,121 foot tall skyscraper with office, hotel, and retail space.
- 70-space subsurface private parking garage.
- Replaced a 360-space public surface parking lot.



Convention Center Parking Facility

- Location: 1324 Arch Street
- 540-space above-ground public parking garage with ground floor retail space.
- Replaced a 110-space surface parking lot.
- 2015 Occupancy Rate: 56% full
- Sustainable design with green roof technology, LED lighting, and EV charging stations.

Family Court Building

- Location: 1501 Arch Street
- New home of the Philadelphia Family Court.
- Sub-surface parking garage operated by the Philadelphia Parking Authority.
- Mixture of public and private parking with 260 total spaces, 223 of which are public.
- 2015 Occupancy Rate: 65% full
- Replaced a 115 space surface parking lot.
- Designed to meet LEED Silver certification.

A. Foster + Partners
B. EM Architecture
C. Ewing Cole

Interviews with Parking Operators

Interviews were conducted with six parking operators in Philadelphia. The results reflect data from roughly 50 percent of the total 189 public parking facilities within Center City.

Monthly Passes and Early Bird Rates

All of the respondents offer monthly passes and early bird rates at the majority of their facilities. Based on the interviews conducted, over 80 percent of weekday customers are commuters taking advantage of a discounted early bird rate or a monthly pass. By offering comparatively low commuter parking rates, parking operators encourage the use of their garages for those that opt to drive instead of using transportation alternatives. The low percentage of spaces being occupied by non-commuters reflects the availability of inexpensive on-street meter parking and inconsistencies between different facilities in terms of costs and rate increments.

Of all the parking operators that were interviewed, none take the cost for on-street parking into account when setting their own prices. Because on-street parking is relatively underpriced it is almost always at full capacity, especially in the densest areas of Center City and, as such, drivers are often forced to park in a garage or lot to avoid lengthy or fruitless searches for on-street parking. Therefore, garage operators need only compete with one another and not with the price of metered parking.

Conclusions

The 2015 Center City Parking Inventory revealed that overall occupancy of public parking spaces declined slightly compared with 2010. This may indicate that more people are utilizing private parking facilities that have been constructed following the removal of a public parking facility. It also may point to more commuters opting to use public transit to travel to work. However, partly in response to the updated parking tax, overall costs to park increased while the resulting decrease in occupancy was not as great as one might have expected. Significant numbers of commuters, visitors, and residents of the city are continuing to choose to drive to and park in Center City.

Public parking facility rates still heavily favor commuters over those only parking for a couple of hours. On average, it is only $0.32 more expensive to park for eight or nine hours using an early bird discounted rate than to park for just one hour. On average, parking for two hours costs $6.67 more than to park all day as a commuter. With plentiful all-day parking for commuters that is in some cases less expensive than public transit, driving a car and parking every day may be more appealing than taking SEPTA, PATCO or NJT, especially with lower gas prices in 2015.

Significantly underpriced metered parking may also play a role in why only 73.9% of available public parking spaces were occupied. Parking for only several hours at a meter is much less expensive than parking in a garage or lot and if available, the visitor will search for on-street parking.

As more surface lots and garages are taken out of service in favor of higher intensity uses, the management of the city's parking resources will become increasingly critical. Attention to the pricing, supply, and occupancy of existing parking will help to ensure new development can contribute to the city's broader economic development, transportation, and environmental sustainability goals without placing an undue burden on residents, commuters, and businesses.

Recommendations

Several improvements can be made to the parking supply in Center City Philadelphia to reduce traffic congestion, improve air quality, and create a better parking experience for employees, residents, and visitors to downtown.

Many other cities have begun to transform their parking system with new technology. Los Angeles has implemented the LA Express Park TM program which uses new meters and parking space vehicle sensors to dynamically price on-street parking and mobile apps to allow drivers to locate available parking at the price they desire. The Seattle Department of Transportation has begun to adjust on-street parking rates to ensure balanced occupancy and space availability on every block throughout the city. We recommend that the City of Philadelphia consider a pilot program similar to SFpark that dynamically prices on-street parking to reflect demand and increases the use of public lots and garages as alternatives to metered parking.

New technology can also have a positive impact on the parking experience in Center City.

- The Philadelphia Parking Authority introduced a new app called meterUP in November 2015 to allow consumers to pay for their on-street parking using the app. There is also the option to use the app to pay for extended time at a higher per hour price without the need to return to one's car.
- There are several mobile apps that provide information for users to compare parking costs at different facilities throughout Center City; ParkMe, ParkWhiz, and BestParking. ParkMe and ParkWhiz also allow drivers to reserve a space in a parking facility online and pay for it ahead of time with a credit card.
- Valet parking programs, using a mobile app, create a bridge between parking facilities and consumers driving to Center City in search of parking. Currently one such company, Luxe, is operating in Center City. Valet drivers associated with the app-based company will meet at a specified location, park the car, and return it to the owner all starting at an average price of $5.00 per hour. Programs like these work to further simplify the parking experience for the consumer. All solutions to Center City's parking management should not rely on apps however, since there is still an "app gap" among different socio-economic and demographic groups as well as visitors who may not know about the various options available to them at the time of arrival.
- Technology used in the SFpark pilot program would benefit drivers in Philadelphia by providing real-time data on the precise location of available spaces. This helps consumers to determine where parking is available ahead of time thus further reducing traffic congestion downtown created by vehicles circling for parking. In addition, by allowing for the dynamic adjustment of parking pricing, this type of program can help increase the efficient utilization of metered spaces, increasing the prices to limit dwell time in congested areas while decreasing the prices to attract drivers to areas with greater parking availability.
- Parking lots and garages are rarely the final destination for those parking downtown. Instead, parking facilities serve as a starting point for a visit to Center City. Efforts to create an app for parking alone misses an opportunity to integrate parking information with pedestrian, bike share, and transit wayfinding. One example of an integrated transportation app is ParkitDTSD, which was custom built by Downtown San Diego and that provides real time information for parking availability but also multimodal real-time information to assist in creating an approachable visitor's experience to downtown.

Better signage at all garages and lots in Center City will help drivers make a smart decision on where to park. A recommendation for more visible and easy to understand signs was first made in PCPC's 2000 Parking Inventory. The current zoning code for signage at public garages, as amended in 2013, calls for a standard sign to be displayed prominently at the entrance of each facility with basic information such as cost per hour, maximum cost per day, and Early Bird rate if applicable. Increased compliance with the current code would be a first step, but an opportunity exists for the creation of a signage design standard to ensure visibility and consistency and to assist Licenses and Inspections with regulation. A live count of free spaces within each facility should be displayed as well to show how full or empty it is. This technology is already in place at some facilities in Center City. It is necessary that signs are also visible from a distance so that drivers approaching the facility can easily read them. These changes will improve the parking experience by allowing consumers to easily compare costs for parking in different facilities.

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