

2020



Photo by PCPC

Center City, Philadelphia

PARKING INVENTORY



City of
Philadelphia

PHILADELPHIA CITY PLANNING COMMISSION

Introduction

The Center City Parking Inventory is completed every five years by the Philadelphia City Planning Commission (PCPC). 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 is compatible with other public objectives.

Although COVID-19 had a massive impact on travel patterns in Philadelphia, this report provides a snapshot for 2020 and describes trends related to the condition of public parking in Center City Philadelphia, including parking costs, capacity, and parking facility development patterns. 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.

2020 Center City Parking Data

The survey conducted as part of this 2020 Center City Parking Inventory included public facilities that contained 30 or more spaces. The 2020 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 2020 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 included. This data is accurate through December 2020.

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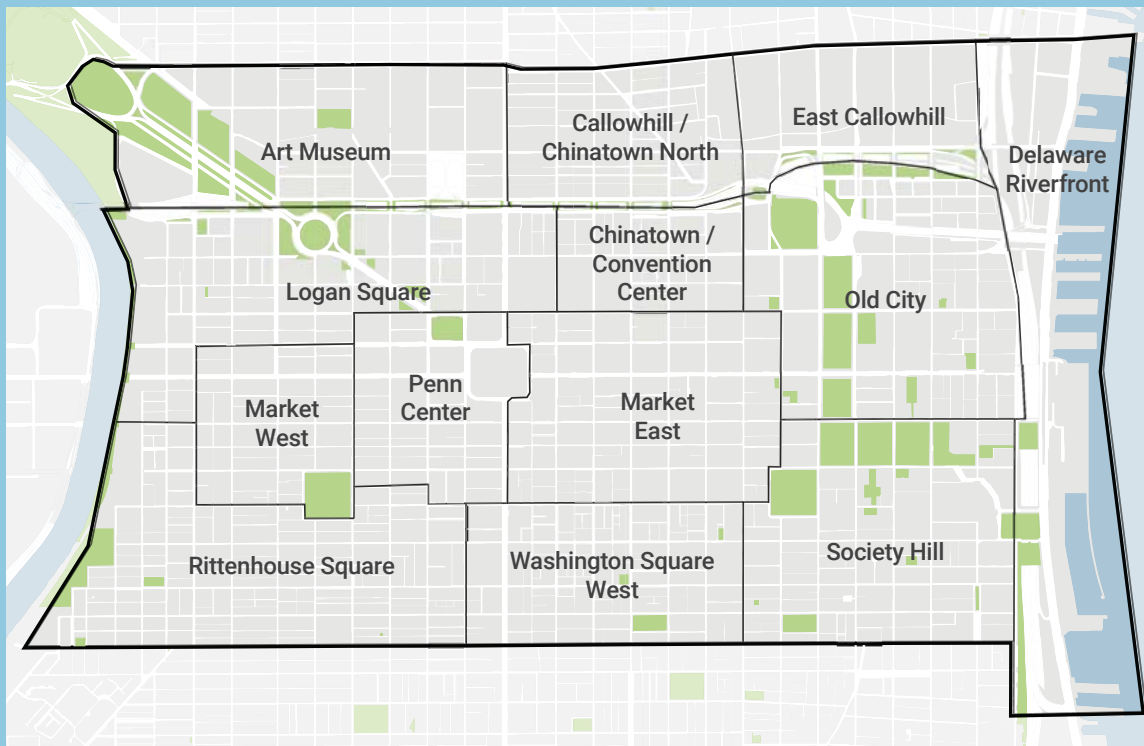


Context

Over the past five years, significant new construction occurred at sites in Center City that were recorded as public garages and surface parking lots in the 2015 Center City Parking Inventory, including major projects such as the Morgan Lewis & Brockius headquarters, the new Philadelphia Police Department Headquarters, and 1620 Sansom St. The parking components of these new developments vary widely: for example 1620 Sansom St replaces an above ground public garage with a mixed use development with 67 private below ground parking spaces, while the PPD Headquarters converted 500 public parking spaces to private use coinciding with the nearby closure of Hahnemann Hospital. Increasing the impact of new development on parking are the simultaneous changes to the ten-year tax abatement and institution of a 1% construction tax at the start of 2022, which are coinciding with historically low interest rates. Taken together, the redevelopment of public parking in Center City is likely to continue, pursuant to building permits acquired in 2021, with several sites scheduled for groundbreakings later this year and beyond.

The 2015 Parking Inventory was the first update since the new Zoning Code went into effect in 2012. This reduced minimum off-street parking requirements in several zones. A trend has emerged in various cities around the country to eliminate parking minimums for residential development. In Philadelphia in CMX-3 zones, multi-family residential buildings continue to require 3 parking spaces for every 10 units. 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 provisions in high density development, allowing for the design and programmatic decisions to more directly reflect private market assessments of parking need.

Neighborhoods



Impact of COVID-19 on Parking

Due to the ongoing COVID-19 pandemic, PCPC determined that it was necessary to postpone the release of the 2020 parking inventory until 2021.

Based on this reduction in demand, parking revenues were greatly reduced in 2020 compared to 2019, due to the ongoing pandemic. With stay-at-home orders and other national and local restrictions, many parking spaces were no longer used. Off-street parking occupancy rates for PPA facilities dropped from almost 90% in early 2020 and hovered between 41-51% for the rest of the year. (Graph 1) Another example of the impact of COVID-19 on parking was the 97.8% decrease in April 2020 revenues compared to April 2019 for on-street parking revenue in Center City, including a temporary moratorium on parking meter enforcement. (Graph 2) However, as restrictions eased, vaccination rates increased, and workers and visitors slowly returned to Center City, revenues increased for on-street parking.

In the revised FY2021 City of Philadelphia operating budget the City raised the parking tax on July 1, 2020 from 22.5% to 25% of the price charged by the facility.

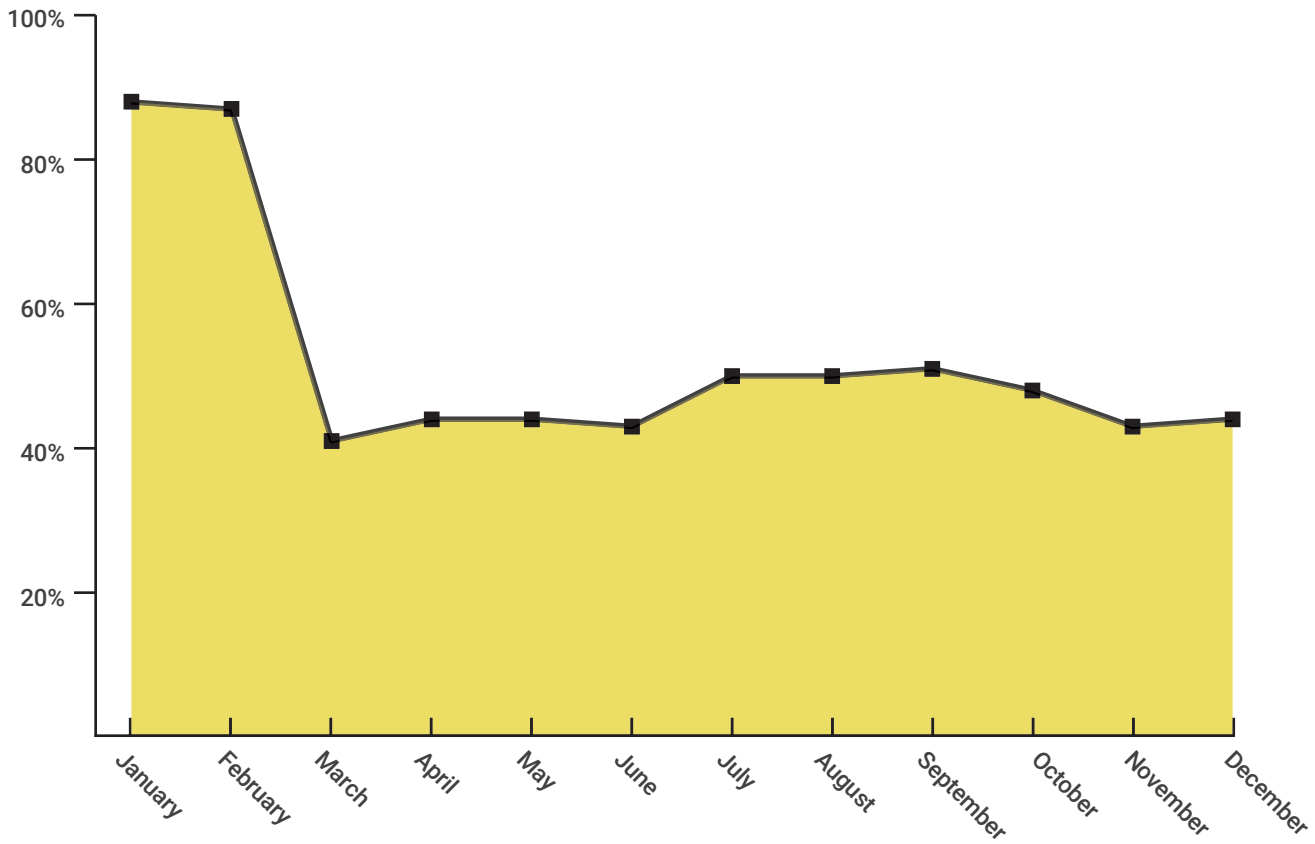
Reduction in parking demand resulted from the major

decrease in travel volume during the pandemic. All other travel modes experienced serious changes too. SEPTA lost approximately \$1 million per day in revenue due to major ridership decreases on subway, bus, and especially regional rail lines and responded by reducing service levels. By June 2020, PATCO's ridership had dropped to 8% of normal levels. While transit ridership decreased, recreational bike ridership and multi-use trail activity increased due to demand for exercise. Indego bikeshare use increased as well.

Both SEPTA and ridesharing companies like Uber and Lyft experienced a shortage of drivers. For SEPTA, this labor shortage has created an obstacle to a return to pre-pandemic bus service levels as ridership slowly returned. For Uber/Lyft, this means that fares increased as demand for non-transit options remained high. Locally, increased car ownership occurred because of a reduction in reliance on transit, while car rental rates increased sharply as availability of rental cars and car sharing services, like Zipcar, decreased, both of which corresponded to similar national trends.

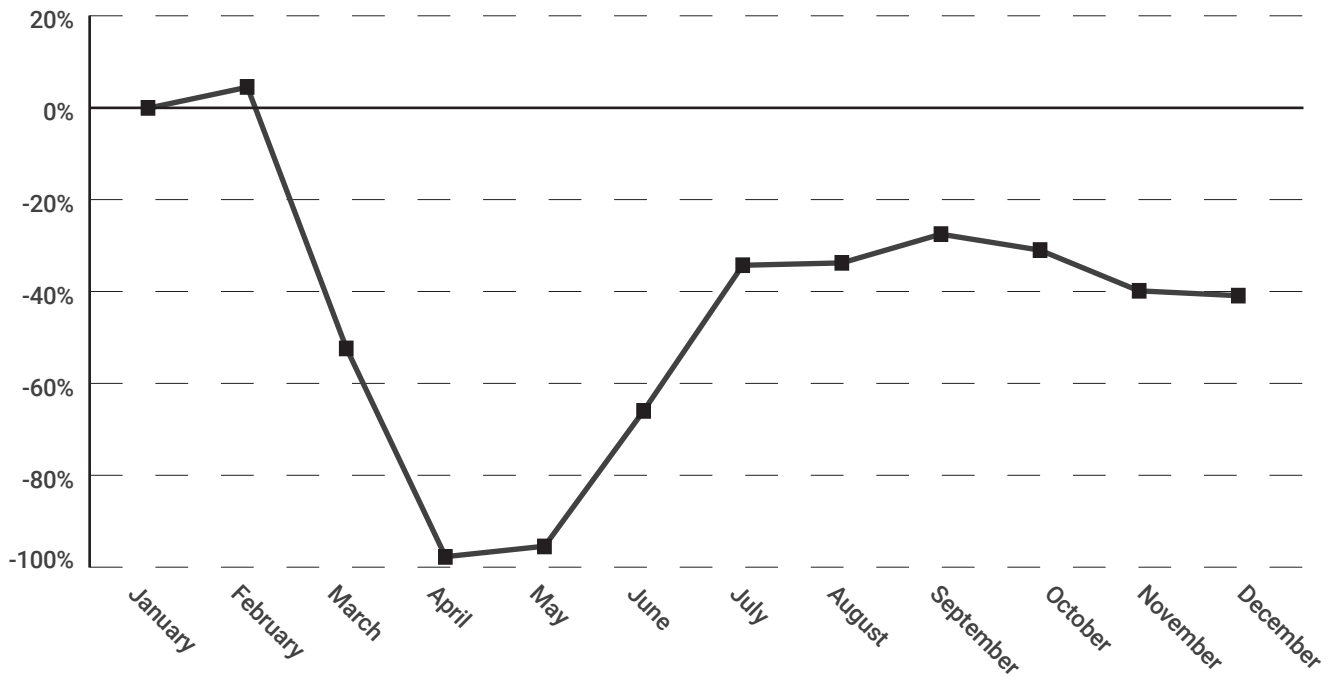


Graph 1 Off-Street Occupancy Rate at Center City PPA Facilities, 2020



Source: Philadelphia Parking Authority

Graph 2 Impact of COVID-19 on monthly revenue for on-street parking, 2020



Source: Philadelphia Parking Authority



Center City Parking Capacity

The 2020 Parking Inventory included 183 total public parking facilities (74 lots and 109 garages) with a combined total of 45,898 parking spaces. (See map below) This included 75 self-park facilities, 53 valet facilities, and 55 that had both self-park and valet components. The total number of public parking spaces decreased in the past five years, down 1.1% from 46,400 in 2015. 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 2015. The decrease in public parking supply may be mitigated by the inclusion of private parking spaces in many of the recent developments. Most of the change in parking capacity is concentrated in a few neighborhoods, with large decreases in Rittenhouse Square, Logan Square, and Chinatown, but significant increases in the three subareas north of Vine Street.

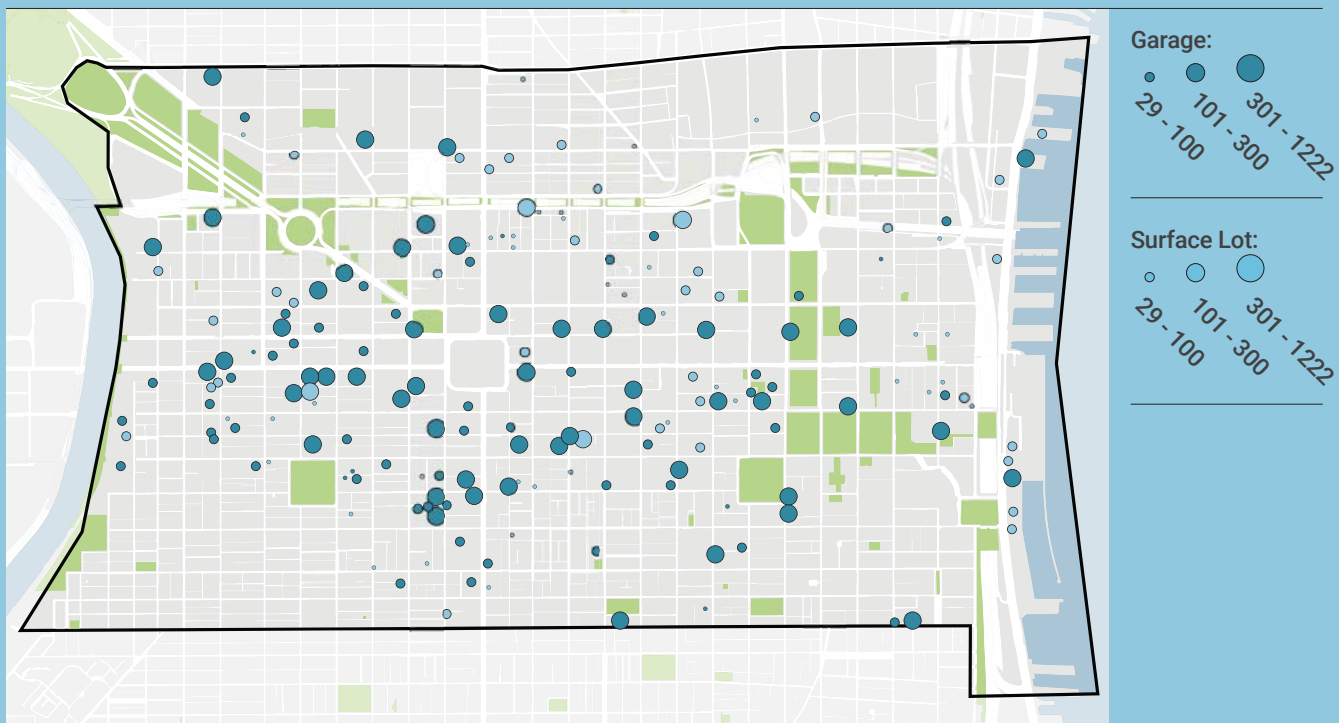
The neighborhood with the largest parking supply in Center City is Market East with 11,275 spaces, followed by Logan Square with 6,454 spaces. The lowest parking capacity in a neighborhood is 222 spaces, located in just two lots in East Callowhill.

Parking Capacity by Neighborhood

Market East	11,275
Logan Square	6,454
Penn Center	5,461
Market West	4,383
Old City	3,889
Society Hill	3,253
Rittenhouse Square	2,668
Delaware Riverfront	2,524
Washington Square West	2,102
Chinatown / Convention Center	1,360
Art Museum	1,287
Callowhill / Chinatown North	991
East Callowhill	222
Total Public Spaces: 45,898	

Parking Facilities

By Capacity & Type



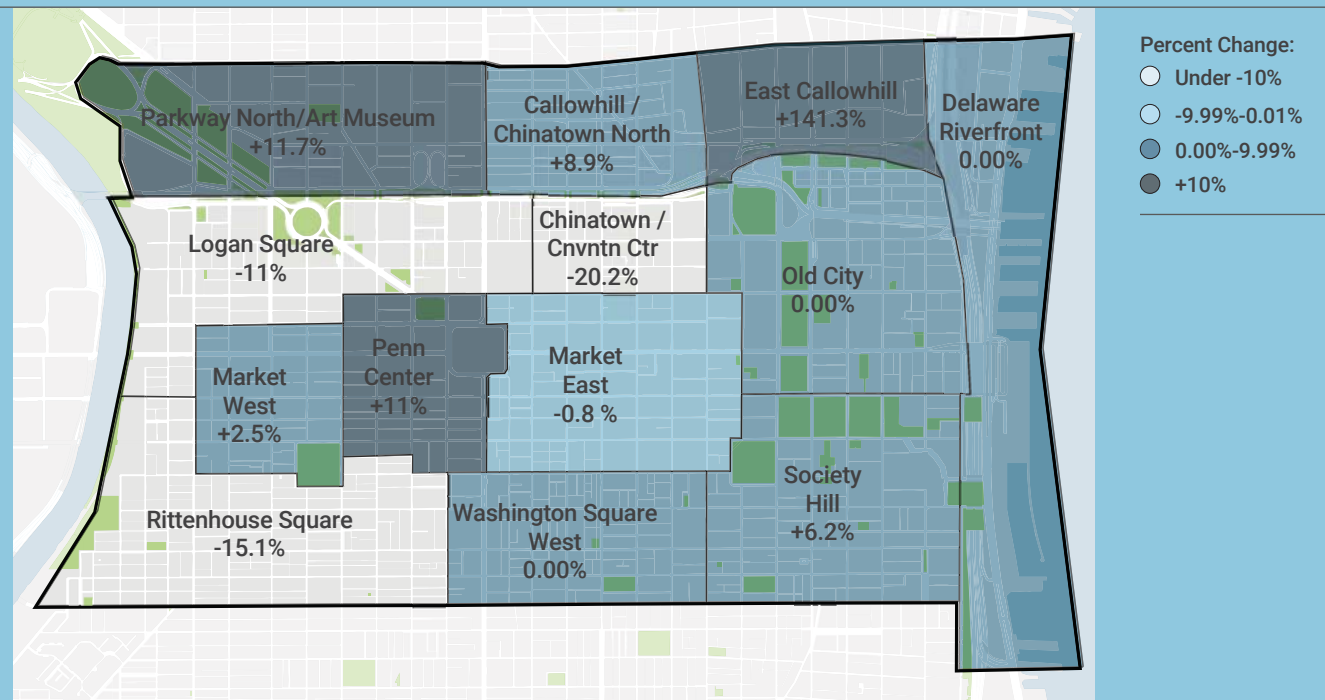
Change in the number of parking spaces from 2015-2020

By Neighborhood

	2015	2020	Percent Change
Market East	11,365	11,275	-0.8 %
Logan Square	7,251	6,454	-11 %
Penn Center	4,927	5,461	11%
Market West	4,278	4,383	2.4 %
Old City	3,889	3,889	0.00 %
Rittenhouse Square	3,143	2,668	-15.1%
Society Hill	3,063	3,253	6.2%
Delaware Riverfront	2,524	2,524	0.00 %
Washington Square West	2,102	2,102	0.00 %
Chinatown /Convention Center	1,704	1,360	-20.2 %
Art Museum	1,152	1,287	11.7 %
Callowhill/ Chinatown North	910	991	8.9%
East Callowhill	92	222	141.3%

Percent Change in Parking Capacity, 2015-2020

By Neighborhood



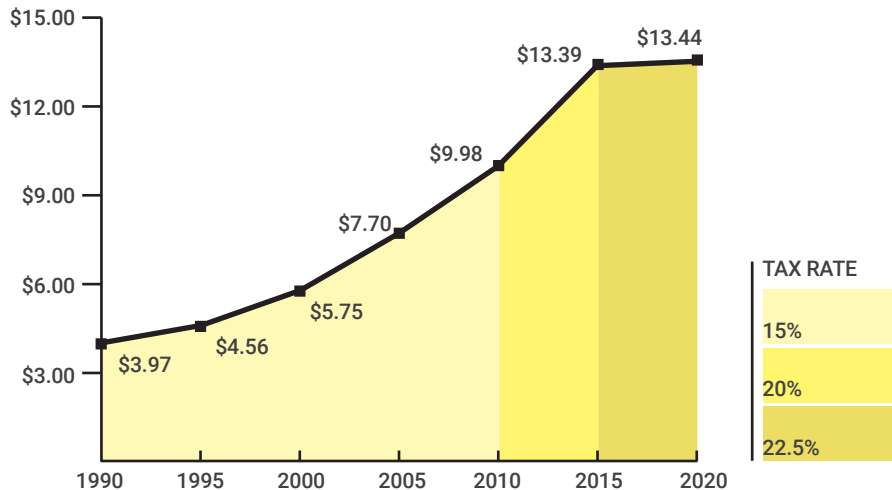
Center City Parking Rates

One-Hour Rate

From 2015 to 2020 there was an increase in the One-Hour Parking Rate at the 79 public parking facilities that specifically offer one hour parking in Center City. This follows a trend of parking rates increasing with every survey. However, the average rate of \$13.54 was an increase of only 1%. 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. (Note: The one-hour rates were collected prior to the on-set of COVID-19 and before the one-year tax rate increase.)

Average One-Hour Parking Rate

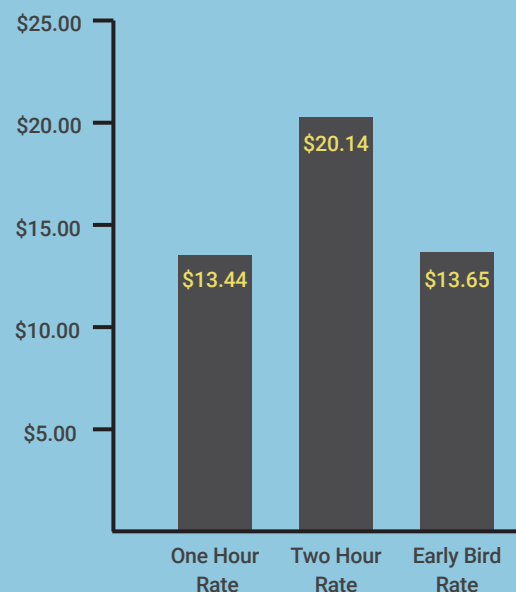
Nominal Dollars with Parking Tax Rate



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

The adjacent graph shows a comparison of the average one-hour, two-hour and Early Bird rates from the 2020 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 \$0.21 more expensive than the average one-hour rate. The average rate to park for two hours is \$6.49 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 Early Bird parking rates that incentivize commuting into the downtown core by private vehicle rather than by public transit.

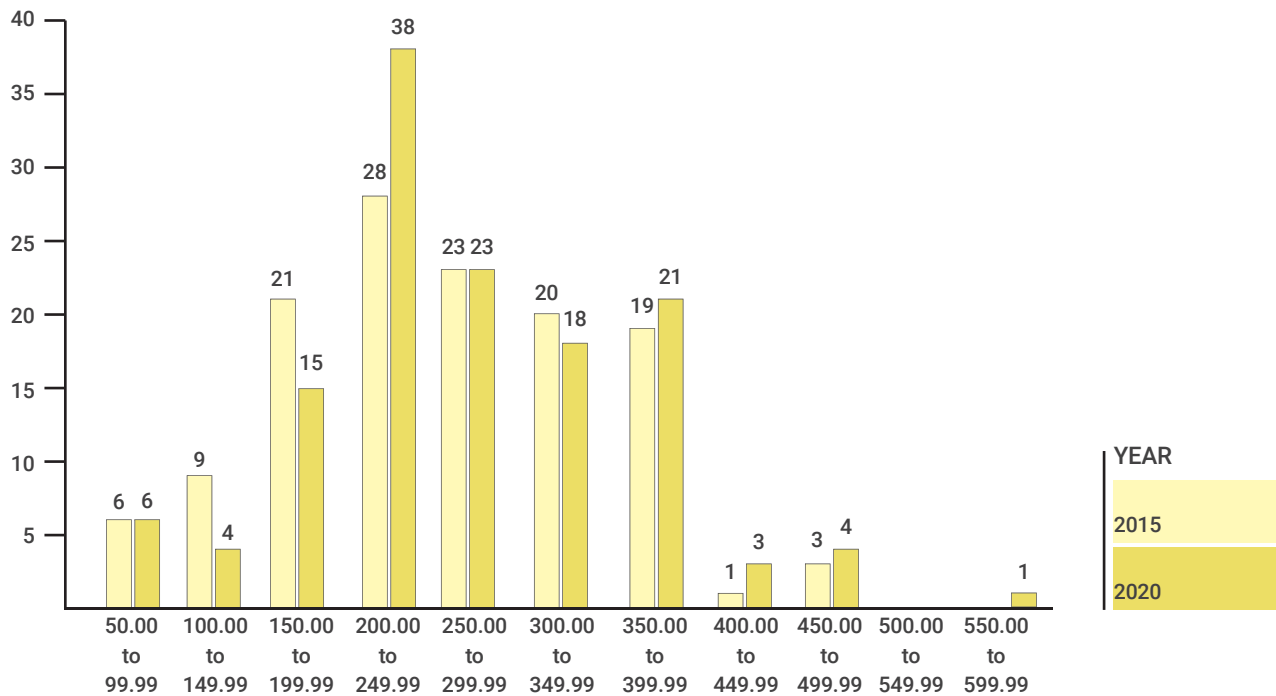
Rate Comparison



Facilities by Monthly Rates

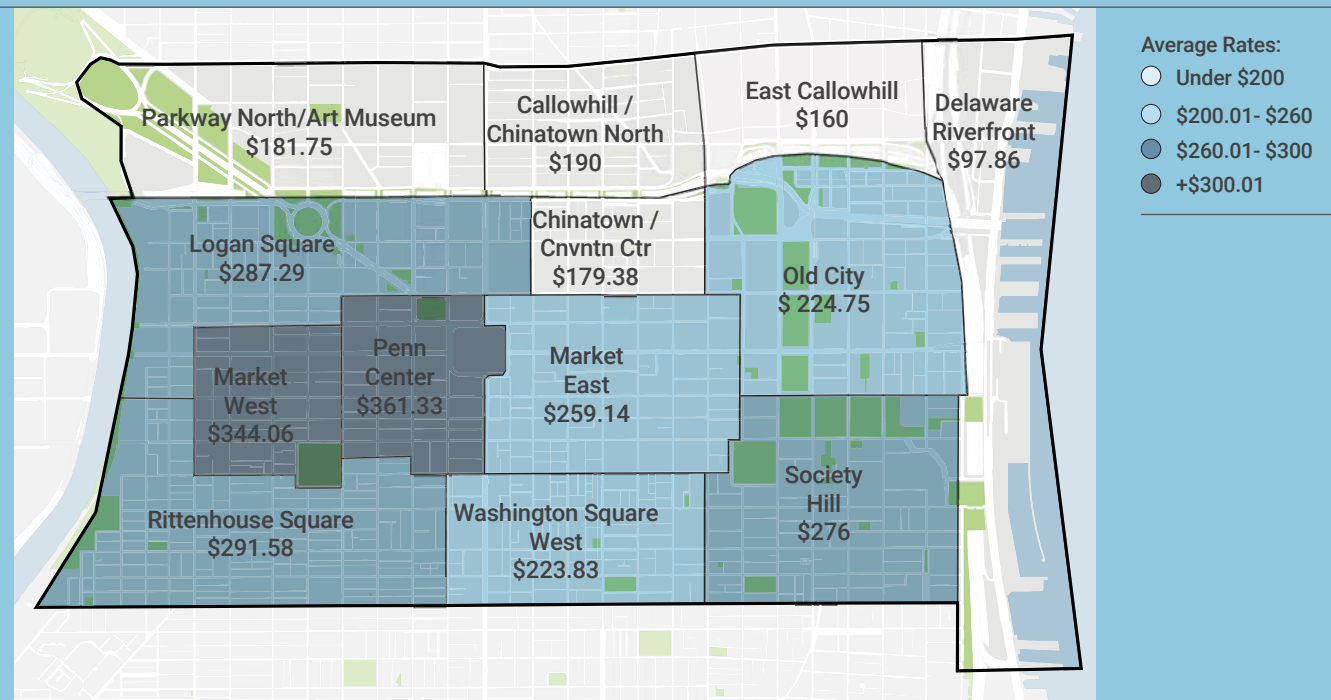
Nominal Dollars

The 2020 survey revealed a slight increase in the number of parking facilities offering monthly rates with 133 facilities in 2020 compared to 130 in 2015. The monthly rate increased from \$253.90 in 2015 to \$267.00 in 2020, and the \$200-\$249.99 range remains the most common range as shown in the figure. This increase could be attributed to new luxury developments with advanced parking technologies. Market West and Penn Center remain the most expensive neighborhoods to park monthly with rates of \$344.06 and \$361.33 respectively.



Monthly Rates

By Neighborhood



New Developments

New Developments on

Previous Parking Facility Sites

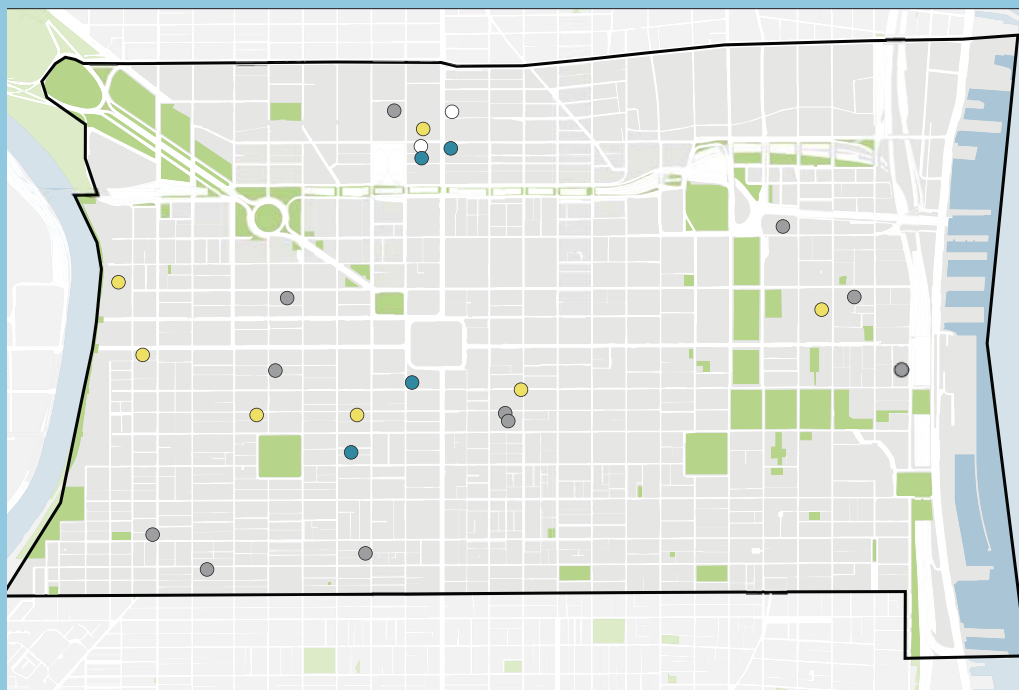
The 2020 parking inventory revealed a net loss of 632 public parking spaces to commercial, office, and tourism development mostly in the Logan Square and Rittenhouse Square neighborhoods. By December 31, 2020, 24 public parking facilities were redeveloped or in the process of being redeveloped. Overall, these new developments reflect a strong market for in-fill development in Center City.

New Development Facts

- Twelve sites were redeveloped without public parking.
- Four new developments opened with public parking.
- Five sites were under construction that will not include public parking.
- One site was under construction with plans to include public parking.
- Two public parking facilities were permanently closed pending plans for future development.

New Developments on Former Parking Facilities

2015 - 2020



New Developments:

- Closed For Future Development
- Redeveloped with Parking
- Redeveloped without Parking
- Under Construction



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.

A



Morgan Lewis & Bockius (completion expected in 2023)

- Location: 2222 Market St
- 19-story tower with 325,000 ft² office building and 4,000 ft² commercial.
- 47-space subsurface private parking garage.
- Replaced a 95-space public surface parking lot.

B



1620 Sansom Street (completion expected in 2023)

- 28-story mixed use building with 306 residential units and 25,000 ft² of retail/restaurant.
- Project includes 67 below ground parking spaces that will replace a 150-space parking garage.

Philadelphia Police Department Headquarters

- Location: 400 N. Broad Street
- New home of the Philadelphia Police Department Headquarters.
- 500 parking space garage converted from public to private.
- Designed to meet LEED Silver certification.

C



Sources:

A. Parkway Corp.

B. SCB Architects

C. Hidden City



Growth in Central Philadelphia

Population Growth & Car Registrations

Based on the 2015-2019 American Community Survey (ACS) 5-Year data, the population growth of the Central Philadelphia study area grew approximately 10% over the previous five years. Due to the building boom currently occurring in Center City, this is an expected outcome. With higher population growth, PCPC would naturally expect to see an increase in overall car ownership. However, with Center City's rich access to transit and walkable neighborhoods, it is worrying to see the percentage of car-free households decreased from 47% to 44%.

Since 2015, the number of car registrations for residents within the census block groups for the study area grew approximately 30% based on PennDOT data. This increase occurred especially from 2017-2020, concurrent with national trends, and is very likely attributable to higher car demand due to COVID-19. The total number of vehicles owned by residents in this area is likely even greater as many residents of the study area are more likely to have recently relocated to this area, such as students or recent graduates who may have their car registered in another locale other than Center City.

Conclusions

Since PCPC completed the 2015 Central Philadelphia Parking Inventory, many changes have occurred in the parking landscape. Redevelopment of parking lots and garages had already begun prior to 2015, but this trend accelerated in the past five years due to positive momentum in the Center City real estate market as well as historically low interest rates that incentivized the construction of mixed-use residential and even office towers. Most of these developments (and future developments) only include private parking, so public parking capacity has decreased.

In 2015, for the first time we saw a decrease in occupancy of parking garages combined with a slight decrease in capacity. Congestion on Center City roads increased from 2015-2019 because of the introduction of transportation network companies (TNCs), such as Uber and Lyft. Typical commuting patterns shifted slightly, with a decrease in bus ridership and curbside management became a critical issue for Philadelphia to address. Because of TNCs, parking garages experienced a reduction in demand in the entertainment and hospitality sector.

However, the COVID-19 pandemic has interrupted all trends in transportation, including parking, while future travel patterns are still to be determined. Transit ridership, TNC ridership, and vehicle miles traveled all decreased while car ownership increased. What we do know is that in 2020, the reduction of parking capacity in Center City lots and garages was overshadowed by the incredible reduction in parking facility occupancy while our region attempted to limit the spread of COVID-19. In 2021, the occupancy of parking facilities rebounded but not to pre-pandemic levels. Travel patterns are certainly disrupted in the short-term, with more work from home, and less demand for public parking, than occurred prior to 2020.

Looking forward, we see advances in technology by parking operators, efforts by SEPTA to increase transit ridership, and office policies that support work from home as indicators that there are uncertainties about the future demand for parking.



Recommendations

In 2020, all parking facilities experienced dramatic declines in occupancy. The recommendations in this report follow the premise that vehicular travel patterns do not depend on a full return to pre-pandemic levels resulting in previous demands for parking. While parking in Central Philadelphia is currently in a moment of disruption, there are lessons from 2020 that can provide guidance to improve parking operations and determine future parking capacity needs. Indeed, 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.

- **Technology** continues to play a role in the improvement of parking operations at downtown facilities. In 2015, PCPC recommended that Philadelphia follow the lead of LA, San Francisco, and Seattle with dynamic pricing and use of apps to identify available parking spaces. In the past five years, Washington, DC and Boston, among other cities, have included experimental pilots or dynamic pricing areas. The City of Philadelphia should embark on 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. The new on-street kiosks that PPA installed in 2019-2020 provide a fertile opportunity to implement a pilot.
- Since the 2015 inventory, **mobile app development**, including SpotHero, ParkWhiz, ParkMe, Parkopedia and SpotAngels has continued to provide an opportunity for drivers to identify available parking in lots and garages. The meterUP app has evolved to provide an on-street parking solutions with tiered pricing as a way to provide convenience at a cost.
- In 2020, changes occurred to travel patterns that may have longer lasting impacts on an individuals parking decision making. For example, if work from home behavior patterns increase in certain employment sectors, monthly permits may no longer be as relevant. Parking garages should provide more **payment options based on demand through reservation systems**. Parking facilities with enhanced technology for spaces may lead the way to more flexible parking cost structure options for commuters while a monthly parking rate will remain an option for residents or institutions who need predictable car storage. Dynamic pricing would also be possible as parking demand increases or decreases throughout the day.
- Center City's employment growth has centered on the Eds & Meds sector. During 2020, the City's appreciation for the dedication of front line workers was more profound than ever before. Frequent transit options and institutional parking served to assist these workers to get to work and parking for patients is still a desired amenity that is often subsidized. On the flip side, the education sector has a better understanding of flexibility with virtual learning that could lead to a reduction in overall demand for parking spaces. An **analysis of critical parking needs by different employment sectors** could help answer questions about future parking demand.
- **Continued market analysis** is needed to determine if the large number of developments that replace public parking facilities will lead to a restriction on parking availability. If work from home policies lead to reductions in daily commuters to Center City, then reductions in total public parking spaces will be offset. Likewise, the increase in car ownership within Center City is a concern as this area of the city has ample transit alternatives, easy pedestrian connections, Indego Bike Share stations, and increasing bike infrastructure. Removing parking requirements for new developments and focusing on managing on-street parking could lead to an increase in the use of public transportation, walking, and biking.
- Effective in July 2016, the zoning code provided guidance on the number of spaces required for Electric Vehicle (EV) parking at new developments. The number of spaces provided in new development has slowly expanded at off-street parking facilities throughout Center City, although rarely exceeding 5% of total number of new spaces built. **More EV parking** accommodations will likely be needed in parking facilities throughout Philadelphia.



Sources

Bisnow. "Parking Garages Are Bouncing Back From The Pandemic, But The Old Way Of Doing Business May Need To Change." Accessed September 8, 2021.
<https://www.bisnow.com/chicago/news/office/parking-garages-110064>.

Calvert, Scott. "No Parking: Cities Rethink Garages for a World With Fewer Personal Cars." Wall Street Journal, June 5, 2021.
<https://www.wsj.com/articles/no-parking-cities-rethink-garages-for-a-world-with-fewer-personal-cars-11622901616>.

Center City District. Monitoring Philadelphia's Economic Recovery,
<https://centercityphila.org/uploads/attachments/ckkxlc0331mo2ujqd1ix2598g-monitoring-philadelphias-economic-recovery-feb-2021.pdf>.

CT Mirror. "What Is the Post-Pandemic Future of Parking?" The CT Mirror, September 8, 2020
<http://ctmirror.org/category/ct-viewpoints/what-is-the-post-pandemic-future-of-parking/>.

Daniel Baldwin Hess and Jeffrey Rehler. "America Has Eight Parking Spaces for Every Car. Here's How Cities Are Rethinking That Land." Fast Company, June 15, 2021.
<https://www.fastcompany.com/90645900/america-has-eight-parking-spaces-for-every-car-heres-how-cities-are-rethinking-that-land>.

"How the Pandemic Is Bringing Dining to Streets, Sidewalks, and Parking Lots in the United States." The Centre for Evidence-Based Medicine, August 24, 2020.
<https://www.cebm.net/2020/08/how-the-pandemic-is-bringing-dining-to-streets-sidewalks-and-parking-lots-in-the-united-states/>.

Laughlin, Jason. "A Citywide Parking Dilemma: Vehicles on Sidewalks and in Intersections Are Rampant. Enforcement Is Negligible." Philadelphia Inquirer, January 19, 2020.

Madej, Patricia. "No More Free Parking: PPA Plans to Enforce Meters Again in June." May 29, 2020.
<https://www.inquirer.com/transportation/ppa-philadelphia-parking-authority-meter-enforcement-tickets-coronavirus-20200529.html>.

McCarthy, Erin. "SEPTA Requires Riders to Wear a Mask, While PPA Delays Restarting Metered Parking in Center City." Accessed February 16, 2021.
<https://www.inquirer.com/health/coronavirus/coronavirus-philadelphia-septa-face-masks-ppa-yellow-phase-20200608.html>.

"PATCO Weekday Service Increases Again to Keep Pace with Increasing Ridership Demand," Accessed June 24, 2020.
<http://www.ridepatco.org/news/news.asp?param=2&archive=1&publication=19&pubnumber=4614>.

Reinventing Parking. "How Parking Mandates Got Nixed with Minimal Fuss in an Area in Sydney." Accessed September 8, 2021.
<https://www.reinventingparking.org/2021/09/nixingminimumsSydney.html>.

Saffron, Inga. "Why Losing Little Pete's Diner Is Good for Philadelphia." Accessed February 16, 2021.
https://www.inquirer.com/philly/columnists/inga_saffron/why-losing-little-petes-diner-is-good-for-philadelphia-20170713.html.

Smarking. "The State of the Parking Industry: Recovery Signals & Early Trends." Accessed May 28, 2020.
<https://www.smarking.com/post/parking-state-of-the-industry-early-recovery-signals-next-steps>.

Symone Graham. "How Does Lafayette's Downtown Parking Compare to Others? Lack of Technology Might Be Biggest Difference." Accessed March 2, 2021.
https://www.theadvocate.com/acadiana/news/business/article_73f2f110-7904-11eb-8bc7-332eb19bab99.html.

WHYY. "Empty Trains Push SEPTA to Explore Changes to Regional Rail." Accessed September 8, 2021. <https://whyy.org/articles/septa-to-explore-regional-rail-fare-restructuring-as-agency-faces-a-future-with-fewer-suburban-commuters/>.

