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PARKING IN THE GOLDEN TRIANGLE: HOW PITTSBURGH COMPARES TO SIMILAR CITIES

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Key Findings

Parking in the downtown areas of major cities is an often complained about topic, especially during the week. Complaints about the availability and cost of parking in the Central Business District of Pittsburgh are common. This report examines the parking situation in Pittsburgh, compares it with five similar cities (Baltimore, MD; Charlotte, NC; Cincinnati, OH; Denver, CO; and Indianapolis, IN) and finds the following:

- Average monthly and daily parking rates are higher in Pittsburgh parking facilities than in any of the peer cities, and by a *large* margin. The average monthly parking rate (for both garages and lots) is 55% higher than the next closest city (Baltimore), while the average daily parking rate (both garages and lots) is 21% higher than the next closest city (once again, Baltimore).
- Only 2 of the 6 cities have a parking tax—Pittsburgh and Baltimore. Pittsburgh has a 31% tax on all parking revenues, while Baltimore has a flat tax on monthly parking and an 11% tax on the parking revenues from daily and weekly parking. The high tax rate is part of the reason for the high average parking rates in the City of Pittsburgh.
- Of the six cities, Pittsburgh is in the middle in terms of number of parking spaces in its central business district (which includes spaces at parking garages, surface parking lots, and on-street metered spaces). Indianapolis has the most spaces (approximately 81,000) and Cincinnati has the fewest (approximately 34,000), while Pittsburgh has approximately 51,000 spaces.
- On the basis of parking spaces per 1,000 downtown employees, Pittsburgh has 50% fewer spaces than the peer group average.
- There are two major players in the Pittsburgh parking market--the Pittsburgh Parking Authority and Alco Parking Corporation.
- The Pittsburgh Parking Authority is a for-profit, independent agency that pays its expenses from the revenue generated at its parking facilities.
- All of the cities examined except for Baltimore had some sort of special parking program designed to either add convenience to parking downtown or allow parkers to pay a lower rate.
- Baltimore is the only other city besides Pittsburgh that has a Parking Authority, and Baltimore's was just created in early 2001. Parking functions in the other cities are part of the services provided by the city government.
- Publicly owned parking facilities generally have rates that are a little lower than privately owned parking facilities.

This indicates that there is a need for more parking in downtown Pittsburgh and the fringe areas of the North Shore around the stadiums, the Strip District, and Station Square. If the supply of spaces were to increase and the parking tax reduced, then the high average parking rates in Pittsburgh would drop and be more in line with the other peer cities.

Introduction

Most U.S. cities have two main complaints about parking: availability of convenient parking spaces and high rates. Both of these are common complaints in Pittsburgh, especially in the Golden Triangle where a large number of businesses and retail establishments are located. These complaints have often been mentioned in the discussions about redeveloping the downtown area, especially in the Fifth-Forbes Avenue corridor area. With redevelopment plans often being focused on drawing more retail establishments, restaurants/bars, and residents to the city, these parking issues are often cited as detriments to these plans. After all, why would people come to the city to shop or eat when one has to both find parking and then pay for it? Neither of these is an issue when you are out of the city, as there is ample free parking to be found in the suburbs.

In Pittsburgh, parking has been in the news quite often. This past holiday season, in an attempt to draw shoppers and visitors downtown, parking was free weekday evenings and all weekend long in all Pittsburgh Parking Authority facilities. Initiated by Mayor Murphy and endorsed by City Council, the free parking ran from November 16, 2001 through December 31, 2001. It was perceived to have been successful, and Pittsburgh City Council had been considering making this available every holiday shopping season. The idea of not limiting it to just the holiday season and offering it year-round has even been mentioned. The Pittsburgh Parking Authority has not yet officially weighed in on either of these issues. Recently, however, Pittsburgh City Council decided not to offer (at least at this time) the free parking for the upcoming holiday shopping season.

The parking situation is one of the deterrents to trying to get people to live downtown. In addition to the high rents charged for existing residential facilities, the lack of convenient, affordable parking also deters people from living in Pittsburgh. The parking problem also impacts developers, as they know that many potential residents will not even consider living in the city if parking will be a problem, as it would never be an issue with most suburban living.

The parking situation can also impact business location decisions. New businesses can compare the parking problems in Pittsburgh with the often ample and free parking available in the suburbs. They may realistically decide that having ample free parking provided for their employees is worth it and decide to locate in the suburbs. Existing businesses in town whose leases are up can also decide to move out of the city if parking has been a common complaint amongst its employees.

Sometimes it is said that having a parking problem is a good thing, as Ralph Horgan, Director of the Pittsburgh Parking Authority did in December 2000. "You don't have parking problems in areas where people don't want to be."[1] While this may have a grain of truth to it, if the problem becomes too large or is perceived to be too large, then it will negatively impact the city. Even Mayor Murphy has claimed that the parking issue could

[1] "New Parking Garages May Lure More Visitors". Pittsburgh Post-Gazette. December 31, 2000. http://www.post-gazette.com/businessnews/20001231parking9.asp.

be improved, as he said at the opening of the First Avenue Garage, "We've added 2,000 spaces. We probably could use another 5,000 spaces."[2]

Given all of this as a backdrop, it is beneficial to assess the parking supply in Pittsburgh and how it compares with other cities. This will help to determine if parking is a problem or just a convenient thing to complain about. This paper will describe and analyze the current state of the parking facilities in Pittsburgh. In addition, it will compare the Pittsburgh parking situation with those of a few similarly sized cities, namely Baltimore, MD; Charlotte, NC; Cincinnati, OH; Denver, CO; and Indianapolis IN.

Major Players in the Pittsburgh Parking Market

There are two major players in the parking market in the City of Pittsburgh: the Pittsburgh Parking Authority and Alco Parking Corporation. Of the 102 parking facilities in the Pittsburgh Downtown Central Business District and fringe areas (which include the facilities at Station Square, the Strip District, and the North Shore around the new stadiums), the Pittsburgh Parking Authority owns and operates 6, Alco Parking owns and operates 47, and 3 are owned by the Pittsburgh Parking Authority but are managed by Alco Parking.

Pittsburgh Parking Authority

The Pittsburgh Parking Authority owns and operates other parking facilities within the boundaries of the City of Pittsburgh. It owns both a parking garage and lot in Oakland, the former being operated by Samoris, Inc., and the latter being operated by the Authority itself. The Authority also owns and operates a 208-space parking garage in the Shadyside section of town. The Monongahela Wharf Parking Lot is also owned and operated by the Pittsburgh Parking Authority. This 850-space parking lot is currently closed, and will be for at least the next two years, because of the Fort Pitt Boulevard Reconstruction Project and the repairing of part of the Parkway East. When the facility does open back up, though, it will have approximately 400 fewer parking spaces because the Eliza Furnace jogging/hiking trail is going to be extended to Point State Park through part of the Wharf.

In addition to these facilities, the Authority operates 37 neighborhood parking lots. These parking lots are unattended, and provide metered parking spaces that are enforced 24 hours per day. The maximum length of time a meter provides varies depending on the location of the lot, from a minimum of 30 minutes to a maximum of 10 hours. These lots are located in East Liberty, Squirrel Hill, Shadyside, Bloomfield, South Side, Oakland, North Side, Mt. Washington, Lawrenceville, Carrick, West End, Allentown, Brookline, Homewood, and Beechview.

[2] "New Downtown Garage for Parking has Plenty That's New". Pittsburgh Post-Gazette. May 3, 2001. http://www.post-gazette.com/neigh_city/20010503parkingcity2.asp.

The on-street parking meters in the City of Pittsburgh are the responsibility of the Pittsburgh Parking Authority. Throughout the city, there are more than 5,900-metered spaces (not including the metered spaces located in the neighborhood parking lots) that the Authority installs and maintains. The revenue from these meters goes two places—a portion to the Authority, and the remaining portion "is pledged, on an annual basis, as security for the Series 1992 A Bonds."[3] This is because of a Meter Revenue Agreement between the City of Pittsburgh and the Parking Authority.

Alco Parking Corporation

Alco Parking Corporation is largest operator of parking facilities in the Pittsburgh area. In addition to the 47 lots it owns and operates in Pittsburgh's Central Business District (including the Strip District and the North Shore lots around the new stadiums), one of its affiliates, namely Grant Oliver Corporation, runs the parking facilities at the Pittsburgh International Airport. For its parking on the North Shore, it offers free shuttle service from Stadium Lot #1 to Stanwix Street and Stadium Lot #4 to Gateway Center. This service is provided Monday through Friday, 6am to 9:30am and 3pm to 6:30pm.

Alco Parking has parking facilities located close to several popular Pittsburgh destinations. It operates several parking facilities near PNC Park and Heinz Field, as well as Mellon Arena. In addition, it has several facilities near cultural attractions (Benedum Center, Heinz Hall, and Byham Theater), office buildings (including USX Tower, PPG Place, Fifth Avenue Place, Oxford Center), and retail shopping (Kaufmann's, Lazarus, Lord & Taylor, and Saks).

More on the Pittsburgh Parking Authority

According the web page for the Pittsburgh Parking Authority, the mission of the Authority is two-fold. First, it provides and maintains parking spaces for automobile parking throughout the City of Pittsburgh. Second, its mission also includes providing support for other city departments and agencies to aid the economic progress of the City of Pittsburgh.[4]

Created in 1947, the Pittsburgh Parking Authority oversees the city's parking facilities and services. The Authority was created to conduct the following:

> The necessary research activity to maintain current data leading to efficient operation of on-street parking facilities, and is authorized by law to plan, design, locate, acquire, hold, construct, improve, maintain and operate, own and lease, either in the capacity of lessor or lessee, land and facilities to be devoted to the parking of vehicles of any kind; to borrow money; to make and issue bonds and to

[3] Pittsburgh Parking Authority Facilities.
http://www.city.pittsburgh.pa.us/pghparkingauthority/facilities.html.
[4] Pittsburgh Parking Authority Homepage.
http://www.city.pittsburgh.pa.us/pghparkingauthority/pittsburgh_parking_authority.html.

> secure the payment of such bonds or any of its revenues and receipts; and to make such agreements with the purchasers or holders of such bonds, or with others in connection with any such bonds, as the Authority shall deem advisable.[5]

There are some other important things to note about the Pittsburgh Parking Authority. It has no taxing power, but it does have the power of eminent domain. All of its property is exempt from paying real estate taxes, unless the property is being used commercially.

The Pittsburgh Parking Authority has a 5-member, unpaid board. The Mayor appoints these members, each of whom serves 5-year staggered terms. It is important to note that the City does not run the Parking Authority. It receives no tax money to help defray its costs, but pays its expenses from the parking revenue earned in its facilities. The fines that are paid from parking meter violations are not part of the Authority's revenue stream, as that money goes to the City. The Pittsburgh Parking Authority is a for-profit, independent agency, which had $26.2 million in revenue and $1.3 million in profits for 2001.[6]

Also under the umbrella of responsibilities for the Pittsburgh Parking Authority is managing the Residential Parking Program. This involves the issuing of parking permits for on-street parking for residents in certain permit parking zoned areas. There are 26 such zoned areas in the city, such as Oakland, Shadyside, and Mount Washington, to name a few. The program also includes the purchase of a visitor's parking pass by the resident, which allows people visiting the neighborhood to park in the zoned area. Both of these parking permits involve an annual nominal cost, with the cost of a resident parking permit $20 and the cost of a visitor permit $1.[7]

Parking Data for Downtown Pittsburgh and Other Select Downtown Cities

As mentioned before, one of the major complaints of both visitors to and workers in cities is the lack of accessible parking. For this reason, it is important to compile an inventory of just how many parking spaces are in the Central Business District of Pittsburgh. These parking spaces include those in surface lots, garages, and on-street metered spaces. Then, it is beneficial to compare this data with that of some comparable cities. The cities that were chosen for comparison with Pittsburgh were the following: Baltimore, MD; Charlotte, NC; Cincinnati, OH; Denver, CO; and Indianapolis, IN. Table 1 details the number of parking facilities and spaces in each of these cities.

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[5] Pittsburgh Parking Authority History and Purpose. http://www.city.pittsburgh.pa.us/pghparkingauthority/history_and_purpose.html.

[6] "The Spotlight: Pittsburgh Parking Authority's Ralph Horgan". Pittsburgh Post-Gazette. March 24, 2002. http://www.post-gazette.com/businessnews/20020324spot0324bnp5.asp.

[7] Pittsburgh Parking Authority Residential Parking Permits. http://www.city.pittsburgh.pa.us/pghparkingauthority/residential_parking.html.

Table 1: Parking Facility and Space Inventory

City	Number of Parking Garages	Total Spaces in Parking Garages	Number of Surface Parking Lots	Total Spaces in Surface Parking Lots	Total Number of On-Street Metered Parking Spaces	Total Number of Parking Spaces
Pittsburgh, PA[a]	37	25,046	65[b]	20,006[b]	More than 5,900	More than 50,952
Baltimore, MD[c]	73	35,381	72	11,038	10,700[d]	57,119
Charlotte, NC[e]	N/A	24,570	N/A	20,520	More than 1,000	More than 46,090
Cincinnati, OH[f]	28	20,415	54	11,476	Almost 1,900	Almost 33,791
Denver, CO[g]	56	29,483	143	17,622	5,800	52,905
Indianapolis, IN[h]	46	37,463	120	40,352[i]	3,262	81,077

[a]: Data from several sources, including the Pittsburgh Downtown Partnership (http://www.downtownpittsburgh.com), the Pittsburgh Parking Authority (http://www.pittsburgh.pa.us/pghparkingauthority/facilities.html), and Alco Parking Corporation (http://www.alcoparking.com).
[b]: This number does not include the Monongahela Wharf (about 450 spaces) and the Seventh Street Lot (67 spaces), both of which are currently closed due to construction projects. When these are open, there will be two more surface parking lots and approximately 517 parking spaces.
[c]: Data from the Baltimore City Parking Authority.
[d]: Data from Baltimore City (http://www.ci.baltimore.md.us/government/transportation).
[e]: Data from the City of Charlotte Department of Transportation (http://www.ci.charlotte.nc.us/citransportation/onstreet/parktbl2.htm) and (http://www.charmeck.nc.us/citransportation/onstreet/rates.htm).
[f]: Data from Downtown Cincinnati Inc. (http://www.downtowncincinnati.com/parking.html) and the city of Cincinnati Parking Facilities Division (http://www.rcc.org/parking/public/).
[g]: Data from the Downtown Denver Partnership (http://www.downtwondenver.com/data_pkg.htm).
[h]: Data from Indianapolis Downtown Inc. (http://www.indydt.com).
[i]: Includes 16,855 parking spaces that are part of the IUPUI Parking Services, which were not identified as being parking garage spaces or parking lot spaces, but the majority are lots, so it was assumed they were all parking lot spaces.

It is important to note that these figures represent the parking facilities located in the Central Business District or Downtown Business Center for each city, along with any areas that are considered fringe-parking areas. That is, for Pittsburgh, spaces are in the Central Business District as well as the fringe areas of Station Square, the Strip District, and the North Shore around the new stadiums. As can be seen from the table, Pittsburgh has fewer parking spaces then all cities except for Charlotte and Cincinnati. This addresses on a basic level the first common complaint parking in downtown Pittsburgh—that there is not an abundance of spaces available for downtown workers and visitors, compared with some comparably sized cities.

For Indianapolis, the data includes parking facilities that are not generally open to the public, that is, they are most likely employer provided parking facilities that are only for specific employers, employees, or building tenants. It is important to note that the presence of these spaces frees up more of the other spaces for the general public. The breakdown of these restricted parking facilities is the following: 11 parking garages providing 12,233 spaces and 31 parking lots providing 6,668 spaces. If these are removed from the final totals, then Indianapolis has 35 parking garages with 25,230 spaces and 89 surface parking lots with 33,684 spaces. This is still more parking spaces than in Pittsburgh.

The second complaint that is often heard is the cost of downtown parking is too high. Table 2 addresses this issue for Pittsburgh and the sample cities. These average parking rates are derived from data associated with the total number of facilities in each city, but every facility did not provide data for both monthly and daily rates, and every facility may not provide that type of parking. See the appendix for a detailed breakdown of the methodology, including how many facilities were taken into account in the derivation of these average parking rates. The "Daily" rate is the maximum rate charged by the facility for daily parking.

Table 2: Average Parking Rates[a]

	Garages		Lots		On-Street Metered Spaces
City	Monthly	Daily	Monthly	Daily	Hours/Days of Enforcement
Pittsburgh, PA	$206.62	$12.28	$188.13	$9.35	8am to 6pm Monday to Saturday
Baltimore, MD	$139.11	$10.23	$113.12	$7.06	8am to 6pm Monday to Saturday
Charlotte, NC	N/A	N/A	N/A	N/A	7am to 6pm Monday to Friday[b]
Cincinnati, OH	$110.37	From $1.25 to $15.00[c]	$68.15	From $1.25 to $15.00[c]	9am to 5pm Monday to Saturday
Denver, CO	$134.44	$10.51	$99.88	$5.76	Varies[d]
Indianapolis, IN	$104.47	$8.84	$61.01	$4.10	7 am to 6pm Monday to Friday

[a]: Data sources are the same as those used in Table 1.
[b]: The 26 meters on South Boulevard are enforced 24 hours a day, seven days a week.
[c]: No source could be found that tracks the daily rates of parking facilities. Currently, the best that can be done is the range of rates given. This is from Downtown Cincinnati Inc., http://www.downtowncincinnati.com/parking.html.
[d]: Low demand areas are enforced from 8am-6pm Monday to Saturday; high demand areas are enforced from 8am-10pm Monday to Sunday.

From this information, it can be concluded that both monthly and daily average rates at either garages or lots are more expensive in Pittsburgh than in the other sample cities. In fact, the average monthly rate of $206.62 for a parking garage in Pittsburgh is approximately 48.5% higher than the next highest rate of $139.11 in Baltimore. For surface parking lots, the same two cities have the highest rates, but Pittsburgh's average monthly rate is approximately 66% higher than Baltimore's. As far as average daily parking rates go, Pittsburgh and Denver have the two highest average rates in garages, and Pittsburgh and Baltimore have the two highest averages rate for surface parking lots. An examination of the former reveals that Pittsburgh's average daily rate is approximately 16% higher, and for the latter it is approximately 32% higher.

Table 3 displays the overall average monthly and daily parking rates for each city, regardless of the type of parking facility.

Table 3: Overall Parking Rate Averages[a]

City	Average Monthly Parking Rate	Average Daily Parking Rate
Pittsburgh, PA	$197.80	$10.59
Baltimore, MD	$127.33	$8.69
Charlotte, NC	N/A	N/A
Cincinnati, OH	$82.22	N/A
Denver, CO	$113.70	$6.91
Indianapolis, IN	$77.37	$6.17

[a]: Data sources are the same as those used in Table 1.

Once again, Pittsburgh has the highest average parking rates of the sample cities. When looking at average monthly parking rates, Pittsburgh's is approximately 55% higher than the nearest city (Baltimore) and it is approximately 155% higher than the lowest city (Indianapolis). Similar results are found when looking at average daily rates, as Pittsburgh's rate is approximately 21% higher than the nearest city (Baltimore) and it is approximately 71% higher than the lowest city (Indianapolis).

Special Parking Programs in Pittsburgh and the Sample Cities

Pittsburgh

In Pittsburgh, as in several cities, there are special parking programs that to try to entice visitors and shoppers downtown during off-peak hours (often weekday evenings and weekends). As mentioned earlier, this past holiday shopping season the Pittsburgh Parking Authority offered free parking in all of its facilities weekday evenings after 4pm and all weekend long. The program started on November 16, 2001, and ran approximately 6 weeks, until the end of the year. The program was thought to be "successful", but it did mean foregoing approximately $520,705 in parking revenue for the Pittsburgh Parking Authority.[8] There are only two tangible and narrow ways that it can be thought to have been a success. First, compared to 2000, there were approximately 62,000 more cars parked in Authority facilities during the six weeks when

[8] "Council Weighs Free Downtown Parking". Pittsburgh Post-Gazette. February 19, 2002. http://www.post-gazette.com/neigh_city/20020219council0219p4.asp.

free parking was offered.[9] So, it did indeed bring people downtown. Second, the Authority asked parkers to complete a survey about their experience coming to town. This found that 40% of respondents claimed that they would not have come to town without the free parking.[10] The Pittsburgh Parking Authority said that they were going to do an economic impact study to detail the impacts of the free holiday parking program, which was to be completed by May of 2002. Attempts to obtain this study have been unsuccessful. Thus, it is not entirely clear that the program was an economic success.

The Pittsburgh Downtown Partnership created the "Easy Streets 'BurghBucks" program in late 1998 to try to draw shoppers into the city. The program works as follows: Customers who purchase at least $20 of merchandise at participating vendors (called an Easy Street Merchant) after 4pm during the week or all weekend long receive a $1 'BurghBuck token that can be used for $1 off parking at participating parking facilities, $1 off a Yellow Cab fare, or a free one-zone bus or trolley ride with the Port Authority. There are currently 47 merchants that participate in the program, and 35 parking facilities, according to the Pittsburgh Downtown Partnership.[11]

Another program started by the Pittsburgh Downtown Partnership, along with Alco Parking Corporation, is the "Reserve Parking Program." This program allows a person who is going to be visiting a downtown Easy Street Merchant during the hours of 9am to 3pm during the week to reserve a parking space prior to coming downtown. The person needs to call the Pittsburgh Downtown Partnership's parking receptionist at least one day before the planned visit. The receptionist will ask for some information from the visitor, call the closest participating parking facility to reserve a space, and then call the visitor back to let them know where the parking space has been reserved. The same 47 merchants in the "Easy Streets 'BurghBucks" program also participate in this program, along with 14 parking facilities.[12]

The Pittsburgh Parking Authority also has two programs to help the parking situation downtown. First, there is the "$20 Park Card", which is for certain on-street metered parking spaces that have a special meter. Holders of this plastic card can pay for metered parking with the card. The card starts with a cash value of $20. Gold-domed parking meters accept the card, which are located in the Central Business District as well as other areas of the city. The card has no expiration date, and once the $20 is exhausted, the card is thrown out.[13] Second, the Pittsburgh Parking Authority offers $3 parking weekday evenings and all day Saturday and Sunday.[14]

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[9] "City Parking Authority Lost More than $500,000 to Draw Shoppers Downtown". Pittsburgh Post-Gazette. January 5, 2002. http://www.post-gazette.com/neigh_city/20020105parking0105p4.asp.
[10] Ibid.
[11] Pittsburgh Downtown Partnership. http://www.downtownpittsburgh.com/03parking.html.
[12] Ibid.
[13] Pittsburgh Parking Authority. http://www.city.pittsburgh.pa.us/pghparkingauthority/park_card.html.
[14] "Free Holiday Parking Proposed by Murphy". Pittsburgh Post-Gazette. November 15, 2001. http://www.post-gazette.com/regionstate/20011115parking1115p4.asp.

Baltimore

The Baltimore Parking Authority does not have any special parking programs designed to draw visitors downtown at this time.

Charlotte

There are two programs in the city of Charlotte that are designed to help ease parking problems. The first program is "Park! Center City." This program is supposed to add convenience and make it cheaper to visit and park in the Center City area of Charlotte. This program is similar to the Pittsburgh Downtown Partnership's "Easy Streets 'BurghBucks" program. People who visit a participating merchant receive a Charlotte Coin that can be used at several places including on-street parking meters, participating parking facilities, Charlotte Area Transit system routes, and the Charlotte Trolley. There are 21 parking facilities that participate in the program, as well as at least 1000 on-street metered parking spaces. There is no minimum purchase required from participating merchants. In 2000, this program won the Award of Excellence in the "Innovation in a Parking Program or Operation Award" from the International Parking Institute.[15]

Charlotte's second program deals with on-street parking and is called the "Park It!" program. It is designed so that visitors to the city have convenient, inexpensive short-term parking during their visit. This is a public/private partnership between the Charlotte Department of Transportation and Central Parking Corporation. Central Parking handles the day-to-day operations of the program. The program has approximately 1000 metered and non-metered parking spaces located in the Center City area.[16] The rates charged at the meters varies according to location, with high demand area meters charging $0.25 for 15 minutes and lower demand areas (perimeter of the city) charging $0.50 per hour. The meters are enforced weekdays Monday through Friday from 7am to 6pm.

Cincinnati

At the city's nearly 1,900 on-street metered parking spaces, the first 10 minutes are free, allowing for quick visits to downtown merchants and businesses. The rate after the first 10 minutes is $0.75 per hour, and there is a two-hour maximum.[17] The city-owned parking facilities also provide some cheaper parking rates. At the Fountain Square Garages in the heart of the city, there is a $1 weekday evening and weekend rate. At the other city-owned parking facilities, the first 10 minutes are free (just like at the on-street metered parking spaces), and the rate for the first two hours of parking is just $1 weekday evenings and weekends.[18]

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[15] City of Charlotte Department of Transportation. http://www.ci.charlotte.nc.us/citransportation/onstreet/prkpress9.htm.
[16] City of Charlotte Department of Transportation. http://www.ci.charlotte.nc.us/citransportation/onstreet/.
[17] Downtown Cincinnati Inc. http://www.downtowncincinnati.com/parking.html.
[18] "City Exceeds Goal for Additional Parking Spaces". City of Cincinnati News Release. January 11, 2000. http://www.rcc.org/newsparking01122000.html.

Approximately 2,000 new parking spaces have opened during the past two years along the Cincinnati riverfront. Since it is a fairly healthy walk to downtown from these spaces, there is a shuttle service that takes parkers to town. The shuttle service is called "Parking Meeter," and each ride costs $0.25. The shuttle ride is approximately five minutes, and it runs weekdays from 6am to 7:30pm. During the peak morning hours of 6am to 9:30am, the shuttle runs every 5 minutes, and the other times of the day it runs every fifteen minutes.[19]

Denver

The on street metered parking spaces in the Central Business District of Denver now accepts both coins and the "CashKey". This is a key that electronically puts money on a meter when the key is inserted into the meter. Each time that the CashKey is inserted into the meter, $0.25 is deducted from the balance on the key. This eliminates the need to have change when parking at a metered space. The CashKey can be purchased for $15 (in the form of a refundable cash deposit), and money can easily be added to it at the offices of the Downtown Denver Partnership.[20] This program is similar to Pittsburgh's "$20 Park Card."

Indianapolis

There are several garages that offer special parking rates in downtown Indianapolis during Conseco Fieldhouse events. Conseco Fieldhouse is similar to Mellon Arena, as it hosts concerts and sporting events, among other things. There are 18 parking facilities that offer parking rates from $2 to $5 during these events, with no restrictions. To help bring shoppers to town, parking at the four garages associated with Circle Centre (a shopping mall) is $1 if $20 worth of merchandise is purchased from its merchants. Indianapolis also tries to draw visitors to the downtown area by having parking meters free after 6pm weekdays and all weekend long.[21]

Role of Private Enterprise

As discussed earlier, the City of Pittsburgh has the Pittsburgh Parking Authority to oversee parking issues and programs within the city. Of the other cities sampled, Baltimore is the only one that also has a parking authority, and this entity was just created in early 2001. The reason it was created was to streamline the city's parking functions. Prior to its creation, parking issues were the responsibility of the Department of Public Works.[22] The Baltimore Parking Authority, as of May 2001, has several new parking projects planned for the near future, which include approximately 2,000 new parking spaces.

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[19] "Shuttle Could Ease Downtown Parking Crunch. Big Question: Will Parkers Use It?" The Cincinnati Enquirer. December 5, 2000. http://enquirer.com/editions/2000/12/05/fin_shuttle_could.html.

[20] Downtown Denver Partnership, Inc. http://www.downtowndenver.com/fileB/ddpcrnt3_4_02.htm.

[21] "Indianapolis Region's Tempo." Newsletter, Special Edition, Winter 2001, Volume 5, Issue 4, pages 8 and 20.

[22] Greater Baltimore Committee. http://www.gbc.org/news/NewsWatch%20stories/Daily%20Record%206.13.01.html.

In the other cities, parking issues are handled as a part of the city's government. In Charlotte, it is part of the city's Department of Transportation. Cincinnati has a Division of Parking Facilities, whose mission is to provide professional facility management of the city's parking facilities. In Denver, there is a Parking Management Division in the Department of Public Works, and in Indianapolis it is also part of the services provided by the city government.

While collecting data on the types and number of parking facilities in the sample cities, it was also determined how many of the parking facilities are owned by a public entity (either the city, county, state, or a parking authority) to compare the number of publicly owned and privately owned facilities, and the corresponding number of spaces. Table 4 summarizes the results.

Table 4: Privately Owned versus Publicly Owned Parking Facilities[a]

	Garages				Lots			
City	Public	Spaces	Private	Spaces	Public	Spaces	Private	Spaces
Pittsburgh, PA	8	6,063	29	18,983	1	767	64	19,239
Baltimore, MD	10	6,096	63	29,285	7	1,087	65	9,951
Charlotte, NC	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cincinnati, OH	9	6,044	19	14,371	10	4,357	44	7,119
Denver, CO	0	0	56	29,483	2	188	141	17,434
Indianapolis, IN	17	18,828	29	18,635	23	6,100	97	34,252

[a]: Data sources are the same as those used in Table 1.

Denver, by far, is the market that is the least impacted by public ownership, as it has no publicly owned parking garages and only 1.4% of its surface parking lots are publicly owned. The two cities with the parking authorities (Pittsburgh and Baltimore) both have a fairly small percentage of their parking facilities publicly owned, namely 8.8% and 11.7%. The percentage of publicly owned facilities in the two remaining cities, Cincinnati and Indianapolis, is 23.2% and 24%, respectively. Thus, private enterprise provides at least 75% of all parking facilities in each of the cities.

From Table 2, it can be concluded that average parking rates in garages are higher than in surface parking lots, whether it is monthly or daily parking. It is important to examine whether the parking garage or lot rate (either monthly or daily) is impacted by being either privately owned or publicly owned. Table 5 provides the average parking rates for each type of parking facility by ownership type.

Table 5: Average Parking Rates by Facility and Ownership Type[a]

City	Public				Private			
	Garages		Lots		Garages		Lots	
	Monthly	Daily	Monthly	Daily	Monthly	Daily	Monthly	Daily
Pittsburgh	$198.75	$9.38	$70.00	$3.50	$209.04	$13.08	$192.07	$9.46
Baltimore	$108.00	$8.00	$115.00	$5.71	$144.30	$10.60	$113.08	$7.21
Cincinnati	$96.88	N/A	$45.50	N/A	$116.05	N/A	$73.30	N/A
Denver	N/A	N/A	$80.00	$4.25	$134.44	$10.51	$100.38	$5.79
Indianapolis	$103.75	$10.02	$66.07	$5.30	$104.85	$7.38	$59.40	$3.62

[a]: Data sources are the same as those used in Table 1.

In all but a few cases, the privately owned facilities charge higher monthly and daily average parking rates than the publicly owned facilities. Privately owned garages have a higher average monthly rate in all cities, and a higher average daily rate in all cities except for Indianapolis. Privately owned lots have higher average monthly rates in all cities except for Baltimore and Indianapolis. For Baltimore, however, note that there was only one public parking lot that offered monthly parking, which means that the average rate is the actual monthly rate charged at that the parking lot. Privately owned lots in Indianapolis also offer a lower average daily parking rate than publicly owned garages.

Employees in the Downtown Areas

While it is useful to have a count of the number of facilities and parking spaces that are in a city's downtown central business district, this data is more useful when combined with other data about the cities. Pittsburgh was in the middle of the five sampled cities in terms of the number of parking spaces (approximately 51,000), but this is not an issue if there is a demand for only 20,000 spaces per day. Thus, a more meaningful way to analyze this parking data is to compare it with the number of employees in the central business district of each city. Table 6 provides this information.

Table 6: Employees and Parking Spaces

City	Downtown Employees	Parking Spaces/1000 Downtown Employees
Pittsburgh, PA	130,000[a]	389.2
Baltimore, MD	95,000[b]	601.3
Charlotte, NC	58,000[c]	794.7
Cincinnati, OH	90,000[d]	374.7
Denver, CO	116,000[e]	456.1
Indianapolis, IN	106,500[f]	761.3

[a]: "Downtown Statistics". Pittsburgh Post-Gazette. December 31, 2000. http://www.post-gazette.com/businessnews/20001231dstats9.asp.
[b]: Downtown Partnership of Baltimore (http://www.godowntownbaltimore.com/economy/html).
[c]: Charlotte Center City Partners (http://www.charlottecentercity.org/nav800.cfm?cat=6&subcat=3).
[d]: "More Choices in Downtown Parking". The Cincinnati Enquirer. April 7, 2002. http://enquirer.com/editions/2002/04/07/fin_more_choices_in.html.
[e]: Downtown Denver Partnership (http://www.downtowndenver.com/ddpdata.htm).
[f]: Indianapolis Downtown Inc. (http://www.indydt.com/factsheet.htm).

As Table 6 shows, Pittsburgh has the second fewest parking spaces per 1,000 downtown employees, with only Cincinnati having fewer spaces. In fact, Pittsburgh has only approximately 3.9% more parking spaces per 1,000 downtown employees than Cincinnati. Charlotte has 104% more parking spaces per 1,000 downtown employees, while Indianapolis has 95.6% more. More importantly however, on the basis of parking spaces per 1,000 downtown employees, Pittsburgh has 50% fewer spaces than the peer group average. This implies that in Pittsburgh (as well as Cincinnati) parking for downtown workers is at a premium, relative to the other sample cities.

Impact of Parking Taxes

It has been shown that average parking rates (both monthly and daily) are higher in the City of Pittsburgh than in the other sample cities, and that the supply of spaces is also relatively low compared with the number of downtown workers in the city. Part of the higher average prices for parking in Pittsburgh can be attributed to the lack of supply of spaces, regardless of demand. Is this the only reason?

The City of Pittsburgh is one of the two cities in the survey with a parking tax, the other being Baltimore. The parking tax in the City of Pittsburgh is 31%, and it applies to any person who parks in a lot or garage for a fee, daily or monthly. The operator of the parking facility collects the tax from its customers, and then has to file a monthly parking tax form with the city with its payment. The reality of this tax is that the parking facility operator incorporates the parking tax into its daily or monthly rate, and then pays the city based on its total gross parking revenue. That is, the parking facility operator pays the reciprocal tax rate of 23.664%, as is shown on the City of Pittsburgh Parking Tax Form. For example, assume there was no tax, and a parking operator determined that a rate of $10.00 per day were optimal. When the 31% parking tax is implemented, the parking operator would have a $3.10 tax burden to pay to the city at its current rate. The parking operator only receives $6.90 at that rate, which would not be optimal. Thus, the parking operator tries to pass the tax burden onto the consumer, and incorporates this tax into the rate needed to cover costs. That means that the parking operator would then charge a rate of $13.10, and 23.664% of that is $3.10.

Baltimore has a similar tax, although it does not apply to all types of parking, and it was just passed at end of 2001. Until the end of June 2002, there was a flat tax on parking in Baltimore, depending on the type of parking. Daily parking had a rate of $0.60, weekly parking had a rate of $3.25, and monthly parking had a rate of $13.00. As such, if a parking facility had a rate of $100 for monthly parking, it would charge $113.00 to cover the tax. As of July 1, 2002, though, the monthly flat tax increased to $14, and it will increase to $15 one year after that. The daily and weekly tax rate is now 11% of gross revenues, and will increase to 12% as of July 1, 2003. This tax is exactly like Pittsburgh's parking tax, only Pittsburgh's applies to all types of parking. There was some negative reaction to this change, as corporate leaders claimed this will "stall the city's efforts to recruit and retain businesses downtown."[23] Sounds very similar to a problem often mentioned in Pittsburgh.

It comes as no surprise, when considering the Pittsburgh Parking Tax, that the average monthly and daily parking rates are so much higher in Pittsburgh than in the other cities considered in this paper. The presence of a parking tax in Baltimore also helps to explain why their average monthly and daily rates are the second highest in the sampled cities. It is also important to note that the Pittsburgh Parking Tax is quite high in the nation, as San Francisco's is 25% and New York City's is 18.25%.

The average monthly parking rate in Pittsburgh is $197.80. From this, the parking tax burden is $46.81, which means that if the parking tax were removed the average rate being charged would be $150.99, which is still higher than the next closest city (Baltimore). In fact, this rate is still 18.6 % higher than in Baltimore. The situation is similar with average daily parking rates, as $2.51 of the $10.59 is collected in parking tax. Thus, if the tax were removed, the average daily rate charged would be $8.08. This is higher than all but Baltimore, which is the only other city that had a parking tax. If the $3.25 flat tax were removed, though, then Baltimore's rate would be $5.44. Once again, Pittsburgh would have the highest rate.

What does all of this mean? If the Pittsburgh Parking Tax were removed, the average monthly and daily parking rates are still the highest and second highest of those cities surveyed. It can reasonably be inferred from the high parking rates that the supply-demand situation in downtown Pittsburgh is producing prices in the inelastic range of the demand schedule. This in turn points to a lack of real competition and a woefully inadequate supply response. Knowing the supply of spaces is limited relative to demand, the City of Pittsburgh is able to exploit the situation with the extremely high tax rate on parking, thereby producing a hefty revenue stream for the City. The high cost of parking is a likely deterrent to getting new businesses to locate downtown. They also hurt efforts to attract visitors and shoppers downtown, especially during the workweek--a particularly important point in light of the ongoing deterioration of retail in the Fifth-Forbes corridor.

Conclusions

Parking in most major cities is a regular complaint. The common rumblings are that it is hard to find a space, and when one is found the price is generally too high. These are two common grievances in the City of Pittsburgh. As was shown, these are valid complaints in Pittsburgh when compared to five peer cities.

Pittsburgh has approximately 51,000 parking spaces, which is the third fewest, ahead of only Cincinnati and Charlotte. In terms of the number of parking spaces per 1,000 downtown employees, though, Pittsburgh has 50% fewer spaces than the peer group average. The average rates in parking garages and lots are much higher in Pittsburgh

[23] "Garage Owners May Hike Costs to Cover Tax". Baltimore Business Journal. December 17, 2001. http://baltimore.bizjournals.com/baltimore/stories/2001/12/17/story6.html.

than the other cities. In Pittsburgh, the average monthly rate for a garage is 48.5 % higher than the next highest rate (Baltimore), and for lots it is 66% higher than the next highest rate (Baltimore). For average daily rates, the rate for garages in Pittsburgh is 16.8% higher than the next closest (Denver), and for lots it is 32.4% higher than the next closest (Baltimore).

Pittsburgh and Baltimore are the only two cities in the sample that have a parking tax. Thus, it is not surprising that both of these cities generally have the highest average parking rates (monthly or daily). The only exception was the average daily rate for a parking lot, where Denver has the second highest rate. This rate, however, is only 2.7% higher than Baltimore's. The parking tax rate in Pittsburgh is extremely high at 31%. While this may provide a nice revenue stream for the City of Pittsburgh, it does not help in attempts to get businesses to locate downtown, nor does it help with attracting visitors and shoppers downtown instead of going to the suburbs.

Appendix A –Data Collection

The data for the number of parking facilities, spaces, monthly and daily rates, and public/private ownership was collected from a number of different sources, including websites and telephone calls. The following details how the data was collected for each city.

Pittsburgh

There were three main sources of data for the City of Pittsburgh. The majority of data on the number of downtown parking facilities, facility type, spaces, and rates was from the Pittsburgh Downtown Partnership (http://www.downtownpittsburgh.com). Through a telephone call to this organization, their data was current as of January 2002. Similar information was collected from the Pittsburgh Parking Authority (http://www.pittsburgh.pa.us/pghparkingauthority/facilities.html), and Alco Parking Corporation (http://www.alcoparking.com). The information from the last two sources was current as of 2002. Some data on the number of parking spaces and whether the facility was a garage or surface lot were obtained by calling the facility directly.

Baltimore

The data for Baltimore came from discussions with the Baltimore City Parking Authority, as well as their annual parking survey. The data compiled from this survey included the type of facility, owner, spaces, and monthly and daily rates. This was e-mailed to the Allegheny Institute for use in this report, and the data was current as of the end of 2001.

Charlotte

Much of the data for this city was not as easily available as for the other cities. The data on the number of parking spaces by facility type (garage or surface lot) and on-street metered parking spaces was from the City of Charlotte Department of Transportation (http://www.ci.charlotte.nc.us/citransportation/onstreet/parktbl2.htm and http://www.charmeck.nc.us/citransportation/onstreet/rates.htm). Telephone calls to the Department of Transportation to gather information on the monthly and daily rates charged in parking facilities, or where this data could be found, were not beneficial. The data gathered was current as of 2000.

Cincinnati

Downtown Cincinnati, Inc. collects data about the parking facilities in the city, as part of its mission to manage and develop Cincinnati. Telephone calls, e-mails, and information from their Internet site were used to gather the parking figures (http://www.downtowncincinnati.com/parking.html). The organization does not track the maximum daily rate for parking facilities, and no other source could be found that has that information. Discussions with the Parking Facilities Division of the city of Cincinnati, as well as its web page, helped to identify which parking facilities were publicly owned (http://www.rcc.org/parking/public/). The data from both sources was current as of 2002. Some data on the number of parking spaces and whether the facility was a garage or surface lot were obtained by calling the facility directly.

Denver
All data for this city was provided by the Downtown Denver Partnership (http://www.downtowndenver.com/data_pkg.htm). Its web site provided the initial contact, which was followed up by e-mailing questions about public/private ownership. Most of the data is from their "2002 Parking Survey."

Indianapolis
Most of the data came from Indianapolis Downtown Inc. (http://www.indydt.com). This organization keeps an inventory of parking facilities, spaces, and rates for the downtown area. Indianapolis contracts out the day-to-day operations of its city owned parking facilities to Denison Parking, Inc., and discussions with organization determined the parking facilities that were publicly owned. The data was current as of 2002.

Appendix B--Calculating Average Parking Rates

The following table details how many facilities were used in the derivation of the average monthly and daily parking rates. The way to interpret each entry in the table is as follows: Looking at the first entry in the table, eight out of a total of eight publicly owned parking garages in Pittsburgh were used in the average monthly parking rate calculation.

Table 7

	Public				Private			
	Garages		Lots		Garages		Lots	
City	Monthly	Daily	Monthly	Daily	Monthly	Daily	Monthly	Daily
Pittsburgh	8/8	8/8	1/1	1/1	26/29	29/29	30/65	49/65
Baltimore	10/10	10/10	1/7	7/7	60/63	61/63	57/65	60/65
Cincinnati	8/9	N/A	10/10	N/A	19/19	N/A	44/44	N/A
Denver	0/0	0/0	2/2	2/2	54/56	44/56	79/141	136/141
Indianapolis	12/17	15/17	14/23	10/23	23/29	12/29	44/97	25/97

It is important to note a few things about Table 7. First, for the city of Baltimore, of the 7 publicly owned parking lots monthly rates, only 1 offers monthly parking as an option. The 6 other publicly owned lots only offer daily parking. Second, for the city of Indianapolis, there are 23 publicly owned parking lots. As seen from the table, 14 of these were used in the average monthly rate calculation, but of the 9 other lots, 5 of them did not offer a monthly parking option. For the average daily rate, 10 of the lots were used, but 9 of the 13 that were not used did not offer daily parking as an option. For the 29 privately owned parking garages, 9 of the 17 lots do not offer a daily parking option. Finally, when examining the privately owned parking lots, 16 of the 53 facilities that were not used in calculating the monthly average rate do not offer monthly parking, while 41 of the 72 facilities that were not used in calculating the average daily rate do not offer daily parking.

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