Portland Parking Policy

Abstract

The city of Portland is facing a budget shortfall. A property tax increase would have a regressive effect and would make housing less affordable, particularly to lower wealth homeowners and renters, who will see their rent adjusted by landlords.. Data collected from the 2017 parking study shows that current policies under-leverage parking as a resource, as revenue is not collected at the times of highest demand. Extending hours of parking meters could raise close to $1.4M annually whereas a fee levy on lot and structured parking would raise an additional $1.3M. While ear-marking funds might be difficult, a portion of this revenue should be used to fund more frequent transit service.

Problems

City Revenue Shortfalls

Portland is projected to require a 7.9% tax increase to meet its current level of funding for programs [1]. This tax increase may make it difficult for residents to stay in their homes. Owners and renters are already facing higher assessments and will struggle to pay an additional 7.9% on an already highly assessed property. Renters are in an even worse position because they were disproportionately impacted by the previous assessment and Portland's rent control allows landlords to adjust rents based on a change in the city's mil rate. This tax increase represents a serious threat to housing affordability in Portland. If we can't find a way to raise revenue, we may be forced to cut much-needed government services that the people of Portland rely on.

Inefficient Parking Usage

Much of our downtown parking is not offered as hourly parking during the times of highest demand. This is because certain lots and garages are only open during business hours, targeting commuters, and don't make their spaces available to hourly parkers.

On weekdays (Thursdays in this case) metered parking usage increases throughout the day, peaking at around 7pm.

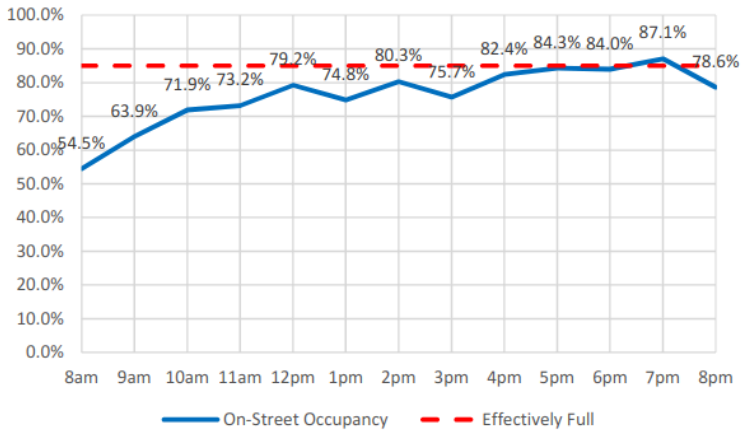


Figure 16: Overall Thursday 2-Hour Metered Occupancy

Meanwhile, surface and structured parking declines in usage into the evening.

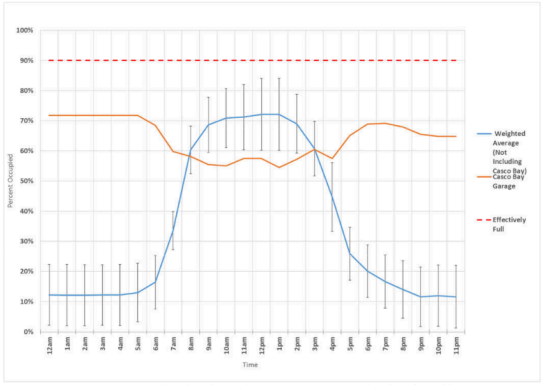


Figure 13: Thursday Observed Occupancy at Structured Parking for Public Use

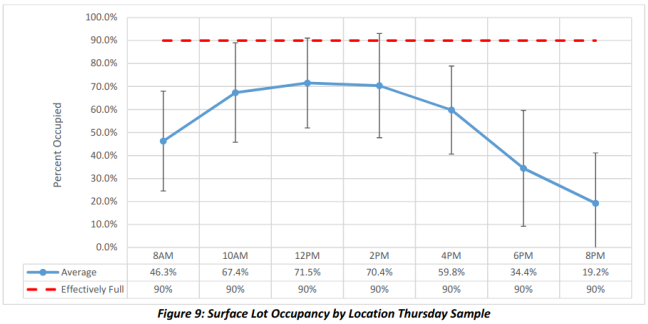


Figure 9: Surface Lot Occupancy by Location Thursday Sample

This is likely because surface parking is free after 6pm and many parking lots and garages close in the evenings. Note that the occupancy percentage does not account for spaces being unavailable to hourly parkers, if spaces are vacant for any reason they are considered vacant. So if we had a commuter lot that closed to new customers at 5pm and all of its spaces were empty it would be 0% occupied. These closures significantly decrease the availability of parking in the evenings.

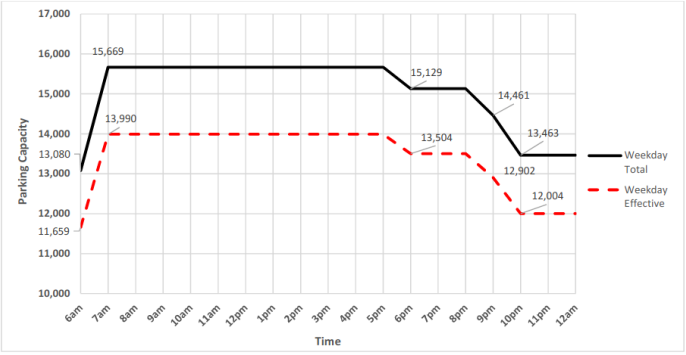
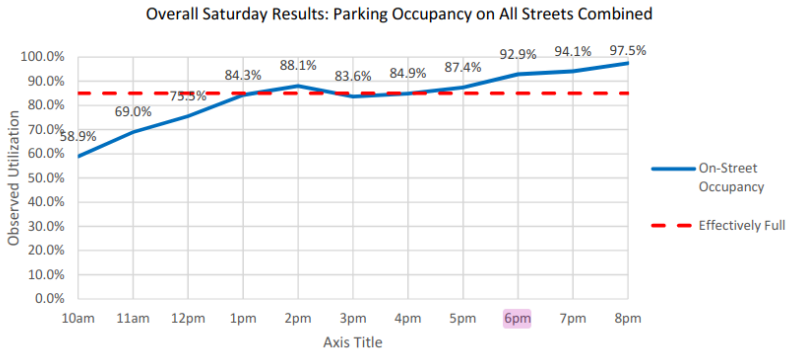


Figure 7: Weekday Parking Capacity by Time of Day

On weekends, we see the same effect but even more severely because some lots are closed the entire weekend and Saturday evening parking demand is very high, because people tend to go out.



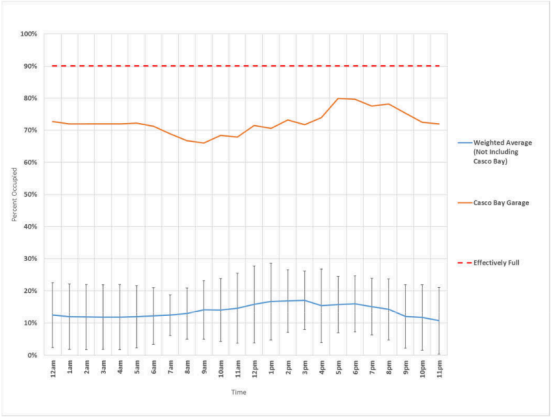


Figure 14: Saturday Observed Structured Parking Occupancy

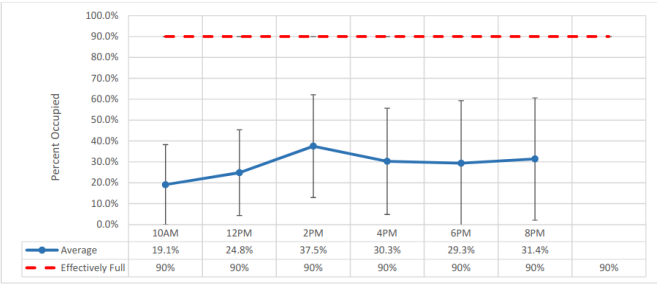


Figure 10: Surface Lot Occupancy by Location Saturday Sample

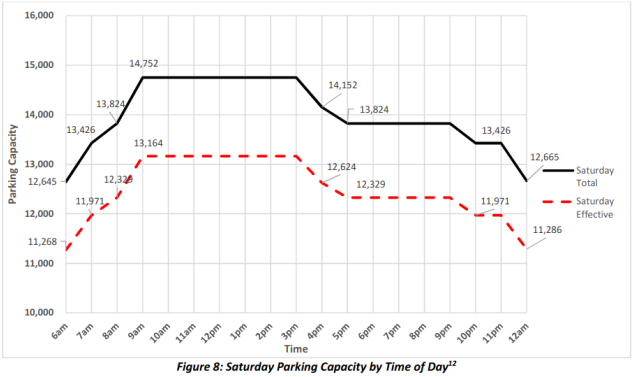


Figure 8: Saturday Parking Capacity by Time of Day[12]

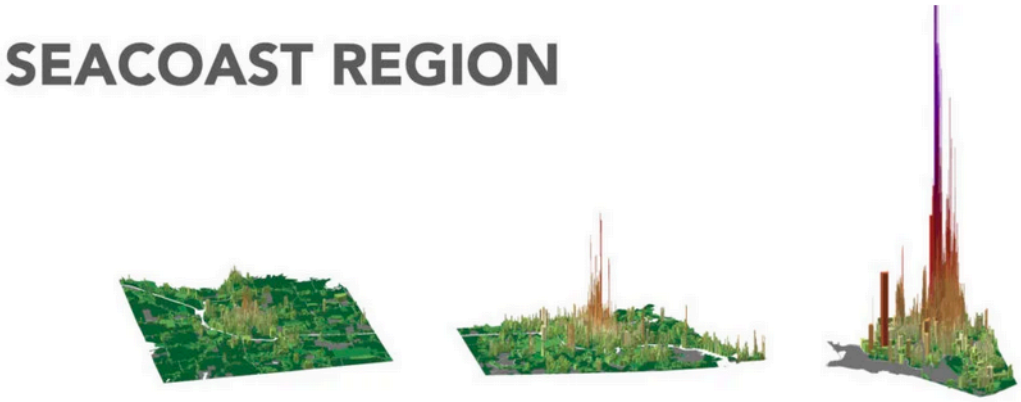
Current parking policies (both public and private) are inefficient because they encourage street parking over off street parking during peak times and allow parking to go unused in Portland's downtown .

Unused Parking

Unused parking can be a real problem, especially downtown. The less occupied parking is, the more of it we need to park the same number of cars. This can lead to a lot of wasted land in a

city's downtown. 22% of our city's downtown is currently devoted to parking [2]. This is unpleasant for pedestrians because it spaces everything out and makes for less pleasant walking, but punching out holes in the built environment is also wasteful for the city's budget. A city's downtown is a core contributor of property tax revenue.

The firm Urban3 recently did a revenue study of cities in New Hampshire and produced the following images to illustrate how important the downtown core is for city revenues [8]. In almost all cases the dense, urban core is propping up services in surrounding regions of the city, keeping them solvent.



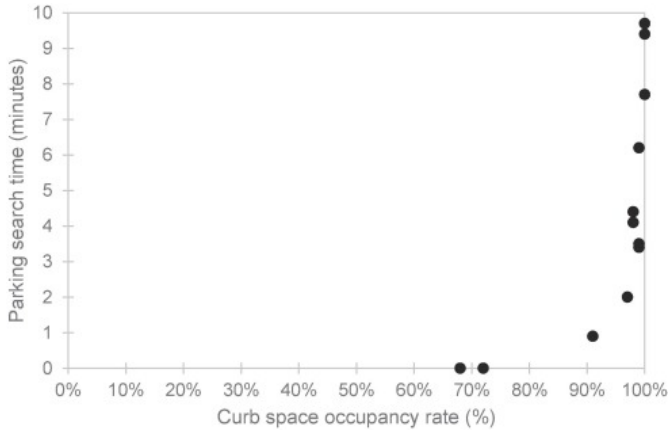
	Rochester	Dover	Portsmouth
Population	31,366	37,771	21,896
Avg. VPA	$88,371	$242,796	$557,719
Peak VPA	$5,203,925	$15,316,240	$51,157,466

The three Seacoast region communities, of Rochester, Dover, and Portsmouth compared.

It is critical that a city make the most use of its dense urban core. Property tax revenue is based on both the land value and the building value of properties in our city. Parking lots have almost no building value, seriously reducing revenue potential from prime areas of the city.

On-Street Parking vs Off-Street Parking

On-street parking imposes a lot of costs on the community that off-street parking does not. Most of these come from the increased congestion on-street parking causes. Not only does street parking slow down vehicles when they park, they also stay on the road longer looking for parking spaces. The more street parking is used, the longer motorists drive around looking for it. This theory is backed up in numerous studies that show the exponential relationship between occupancy and time spent looking for parking.



The congestion this causes is more than an inconvenience, it:

- Slows down buses making public transit less desirable encouraging even more automobile usage
- Pollutes the surrounding area with particulates resulting in increased cases of asthma, this can lead to equity issues as childhood asthma can lead to worse education outcomes
- Releases greenhouse gasses into the atmosphere, worsening climate change

Lack of Data on Parking Usage

The 2017 study is a valuable resource but it was conducted nearly five years ago. We can still gain insights from it but it is difficult to form a parking policy without more up-to-date information. There are also gaps in the study's data collection, such as Sunday usage and parking usage on streets without meters–which may be good candidates for metering. It is not necessary to constantly perform comprehensive studies, but a few targeted counts could help us keep our parking policy responsive to Portland's changing needs.

Policy Recommendations

Increase Hours of Parking Enforcement

Extend enforcement until 9pm

From the data, it is fairly clear we are leaving money on the table by not enforcing parking until at least 9pm. Street parking usage is consistently highest in the evenings and this increase is gradual, suggesting a natural pattern rather than a direct increase in usage because the parking is free. (If that were the case, there should be a noticeable jump in parking occupancy around the time it becomes free but none of the data shows such a jump).

This level of enforcement would not be a radical step, but fairly typical for a city like Portland. A number of similar cities in our region successfully enforce metered parking later than 6pm [2]:

- Portsmouth, NH (9am - 8pm)
- New Haven, CT (8am - 9pm)
- Providence, RI (8am - 9pm)
- Worcester, MA (8am - 8pm)
- Burlington, VT (8am - 10pm)
- Manchester, NH (8am - 8pm)

Potential Revenue

2,251 on street spaces x 70% occupied (very conservative estimate based on the data) x 3 days per week (most common days people go out, Thursday, Friday, Saturday) x 3 new hours per day x $2 per hour x 52 weeks per year = $1,474,855.2 per year

Consider limited enforcement (12pm - 8pm) on Sundays

Another option to consider is extending parking enforcement to Sundays. Portsmouth, NH enforces parking from 12pm - 8pm on Sundays. Unfortunately, without occupancy data we can't be certain that this will be worthwhile but anecdotally, downtown street parking seems fairly well occupied on Sundays.

Adaptive Parking Pricing

Adapting parking pricing to demand doesn't need fancy meters and constantly changing prices like they have in San Francisco. As a small city we can take appropriate steps to price parking right. This means continuously gathering parking data and making informed changes. For example, maybe one section of the city has much higher demand than others and could stand to be priced a little higher, maybe enforcing parking during certain times of the week isn't worth the cost of enforcement, maybe a street with two hour parking is a good candidate for meters. If we don't have the data then we won't be able to adapt accordingly.

Being that parking is a utility, we don't need to charge as much as we possibly can for parking, but we should get a good idea of what we could charge for parking, and make informed decisions about whether keeping parking cheaper is more or less valuable than other priorities such as funding transit, sidewalk maintenance, and bike lanes.

We should perform regular lightweight parking studies like counting occupancy at randomized dates and times. We should perform these studies in areas where we don't currently charge for parking, at dates and times we don't currently charge for parking. We should compile this data on a regular basis, maybe annually, and make parking decisions based on our City's priorities. If parking in an area passes 85% occupancy we should seriously consider a price increase to avoid the damaging effects of congestion that entails.

Based on the fact that the average price of parking in a lot downtown is $3.50 per hour it seems likely that the optimal price for parking, at least at peak times, is higher than $2.00 per hour. In

theory, street parking is more desirable than parking in a lot so the pricing should at least be comparable. We may want to evaluate a small increase in the hourly rate, for example $2.50, possibly only after 5pm or only in the summer.

Parking Lot and Parking Structure Surface Area Levy

It is also possible to capture more revenue from private parking structures. Parking is a unique use because properties have limited building value, yet they can generate good revenue for their owners. One way to capture some of that revenue back for the city is by introducing specific parking levies. Parking levies are taxes specific to parking that can help bring city revenues from parking more in line with other types of land use. There are several options used by cities around the world such as:

- A parking sales tax
- A parking levy based on spaces
- A parking levy based on area

The best option for Portland would probably be a per-area levy on the peninsula. The Victoria Transit Policy Institute conducted a review of various parking levy policies from around the world and found that per-area levies tend to have the most overall positive effects [4]. A per-area levy prevents parking structures from being over-taxed because they do have significant building value. Vancouver, for example, used their property tax assessment infrastructure as well as some satellite imagery to catalog the parking lots [4]. Portland already conducts a parking survey, counting numbers of available spaces in downtown parking lots, so the infrastructure for this is already at least partially in place to implement a per-area levy.

Legally, we could structure either the per-space levy or the per-area levy as a license. By requiring parking lot owners to get a license to operate, and pricing those licenses based on area, we can achieve the same effect as a direct tax. The City of Portland already issues several licenses, for example, the Brewery Distillery Winery Alcohol On Premise, so issuing a license like this would not be that unusual.

This levy should only apply to lots in our city's downtown (on the peninsula) and exempt parking lots and structures for residential buildings. This is in line with some other such levies:

- Montreal, QC charges downtown lots at a much higher rate than residential parking ($4.95 per square meter for neighborhood structured parking up to $19.80 per square meter)
- Vancouver, BC exempts residential parking as well as tax-exempt uses
- Nottingham, UK only applies their tax to commuter parking

The specific number can be tuned but something in the neighborhood of $10 per square meter seems reasonable.

Potential Revenue

34.2 acres of private surface lots in the 2017 parking study area x 4047 square meters per acre x $10 per square meter = $1,384,074

This is actually quite an underestimate as it is only for lots in the study area, not the entire peninsula and it does not include structured parking or public use parking at all.

Parking Transit Fund

We are currently in a budget crunch due, in part to stresses from COVID and the related economic effects. We need funds now, but we should also look to the future. In parallel with increasing parking costs we should also increase the amount spent on transit to provide people with alternatives to driving. Hopefully, a portion of this new revenue would allow us to increase our transit investment.

It is also critical that this money be focused on improving service rather than reducing fares. In order to reduce the number of vehicles on the road, transit must provide an attractive service to people who could otherwise afford to drive. Service improvements include: increased frequency, better quality vehicles, better quality stops, designated transit lanes, and more. These improvements can help us make our transit more than an option of last resort but a genuine competitor to driving. These parking policies may make the downtown of our city less accessible to some in the short term, but with investments in transit we can make our downtown even more accessible because we can bring far more people than we could if they all had to use space for parking.

This would require coordination with GPMetro but it seems reasonable to request service increases in exchange for increasing Portland's share of funding. In particular frequency increases will likely be the most impactful. According to a study of Saskatoon, Saskatchewan frequency based metrics are the strongest predictors of transit ridership [2].

Note: If affordability of transit is a reason why people are unable to use it, we can implement a reduced fare program for people with low incomes.

Case Study: Nottingham, UK

Nottingham in the United Kingdom enacted a £428 per space per year fee for spaces provided by employers in 2011. This is not the exact same as a per-area levy but the Victoria Institute review found the effects of a per-space levy are pretty similar to a per-area levy as we have proposed here. Through this levy, Nottingham was able to raise £83 million per year.

Nottingham is a larger city than Portland at ~300,000 people but it is still a small city and is only five times our size. It is not unreasonable to assume a smaller program in our city will produce similar, but smaller results. Nottingham was able to use this new transit money to [3]:

- Electrify 15 buses, saving over 350 tonnes of CO2
- Eliminate 3 million private car miles because of public transport infrastructure improvements.
- Fund Tram and train station redevelopments that led to the employment of 1,200 people.

Nottingham's program has been a massive success, resulting in [3]:

- By September 2021, a total of 7,840 tonnes of CO2 emissions had been saved since the levy's introduction.
- The levy has contributed to a 33% fall in carbon emissions in Nottingham since 2005.
- 350 tonnes of CO2 saved by electrification of 15 buses, paid for by the levy.
- Reduced levels of nitrogen oxides and particulate matter emissions, leading to fewer cases of respiratory illness.
- Congestion growth cut by 47%.
- The levy enabled Nottingham to become the first local authority in the country to have its Air Quality Management Plan approved by the UK government without needing to create a charging clean air zone.
- Tram and train station redevelopments led to the employment of 1,200 people.
- Public transport infrastructure has encouraged businesses to relocate to Nottingham.
- A more equal city, with more opportunities for residents with mobility challenges and/or who do not own private vehicles.
- More physical activity due to new opportunities for active travel.

References

1. Finance Committee Workshop, 8:50
2. Correlation of Public Transit Accessibility Measures with Actual Ridership
3. How Nottingham used a parking levy to cut congestion and raise millions
4. Parking Taxes Evaluating Options and Impacts
5. Parking Taxes as a Second Best Congestion Pricing Mechanism
6. Pricing curb parking
7. The price elasticity of parking: A meta-analysis (Semantic Scholar)
8. New Hampshire Urban3