The untapped potential of bike parking in Boston

A Boston Cyclists Union report on current conditions and areas for improvement

Acknowledgments

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About the BCU

Founded in 2010, the BCU is a 501(c)(3) nonprofit whose mission is to transform the streets of greater Boston into equitable, inviting people-centered spaces affording access and connection for every body. The BCU's core work includes grassroots organizing for better bike infrastructure and safer streets; advocacy for sustainable transportation and climate change mitigation; Bike to Market, a free bike repair program at farmers markets in low-income neighborhoods; and social events to encourage city riding, build community, and spread the joy of biking.

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Executive Summary

Bike parking is a crucial—but often overlooked—element of bike infrastructure. Sufficient bike parking makes it more accessible and realistic for people to bike as their primary means of transportation, or to bike rather than drive for short trips. It can also help prevent theft, and ensure people lock bikes in designated locations, creating a more accessible and enjoyable experience for pedestrians and other users of the public right of way.

Bike parking is necessary in all neighborhoods, not just commercial hubs and central business districts, so people can choose to get around their communities by bike. As this report highlights, there are significant disparities in bike parking availability in Boston based on income and race. This is troubling because inequities in bike parking impact mobility overall, hampering access to jobs, food, and healthcare. Just as gaps in safe bike routes discourage people from riding, a paucity of bike parking is also a barrier for many people.

Although the City of Boston has focused in recent years on adding bike lanes and creating safe bike routes, bike parking has received far less attention. Therefore, the Boston Cyclists Union (BCU) created this report to assess the state of bike parking in Boston, benchmark where we are versus where we should be, identify innovative strategies other U.S. cities are using to efficiently and affordably add more bike parking, and provide suggestions to improve the state of bike parking in Boston. This report also emphasizes the importance of bike parking for Boston to meet its climate and transportation goals, such as quadrupling bike commute mode share by 2030. And it touches on the role of bike parking as Boston begins its recovery from COVID and as people begin to reconsider the ways in which they get around. This report concludes with policy recommendations for the City of Boston.

Source: MassInc Polling

Background & Context: Why Bike Parking?

Creating more sustainable, livable, and healthy cities requires dismantling car culture and undoing policies that encourage driving over all other ways of getting around. Doing so requires supporting efficient, reliable, and affordable alternatives to single-occupancy vehicles—including biking. In recent years, Boston and other cities around the world have begun building out bike networks to encourage more people to ride. As noted above though, getting more people to bike requires adding both bike lanes and bike parking. That way, people can safely get where they're going by bike and know they'll have safe places to store their bikes once they get there, whether "there" is work, school, home, an errand, meeting friends, or anything else.

There are many benefits to bike parking, including:

- Decreasing bike theft, which is more likely when people don't have secure, visible places to park.
- Encouraging people to bike rather than drive for shorter trips by making sure there are places to lock up close to key destinations (i.e. businesses, schools, restaurants/grocery stores, transit stops.)
- Making biking more inclusive. Bike parking, as with many other resources, is notably deficient in low-income neighborhoods and communities of color.
- Increasing visibility of biking as a transportation option by letting bike parking work as implicit "advertising" for biking.

In addition, bike parking...

- is a key way to help meet climate goals by getting more people to bike, which reduces both congestion and emissions.
- is significantly more cost-effective than car parking, both in terms of capital costs (construction/maintenance) and in terms of economical land use.
- supports small businesses by making it easier for people to reach places by bike.
- improves sidewalk accessibility and appearance so bikes are not locked in obtrusive or unsafe ways.

Decreasing bike theft

When bike parking is scarce, people are forced to lock bikes to less secure alternatives—such as street signs, fences, trees, or railings—which increases the risk of theft. And when people lose bikes to theft, they're less likely to keep biking. It's estimated that, among people who've had a bike stolen, one in seven will never return to riding a bicycle.[1] Furthermore, surveys show that the second-most common reason people choose not to bike

is fear of theft and not having a secure place to park.[2] In other words, if cities don't provide enough bike parking, people won't bike—and some people who do bike will get their bikes stolen and quit riding forever.

Theft also has a disproportionate impact on people with lower incomes who are more likely to rely on bikes as a primary means of transportation, yet who have fewer resources to replace a stolen bike.

Encouraging biking as an option for shorter trips

Bike parking must be as easy and convenient as car parking to get more people riding. According to a 2011 New Zealand research paper, for people to switch from regularly driving to biking for short trips, they need to first know they can make multiple trips by bike. If only one place is accessible by bike, they're more likely to stick with driving.

In Boston, an estimated 49% of all automobile trips are less than three miles, and 21% are less than one mile.[3] Those are comfortable biking distances for many people. Converting even just some of those car trips to bike trips would have a significant impact on Boston's worst-in-the-nation traffic problems.[4]

Making biking more equitable and inclusive

Low-income and BIPOC (Black, Indigenious, and People of Color) individuals place a higher priority on bike parking than other people.[5] In a 2013 League of American Bicyclists report, 47% of BIPOC respondents said they were more likely to bike if ample bike parking existed at their destination, compared with 30% of white respondents.[6] The same survey also revealed a significant gap based on income, with 45% of lower-income respondents saying they would be more likely to bike somewhere if there was readily accessible bike parking, compared to only 30% of respondents who make more than $75,000 a year. As we'll discuss later in this report, this problem is compounded by bike parking being least available in low-income areas and communities of color.

Increasing visibility of bicycling as a transportation option

In the same way that bike lanes and bike paths increase visibility of biking as a viable option, abundant and well-designed bike parking can also promote ridership. Bike parking signals that places are accessible by bike, which encourages more people to choose to bike the next time they visit an area. To take this a step further, ensuring bike parking is not just abundant but accessible to many different types of bikes, such as cargo bikes,

electric bikes, or recumbent bikes, creates a culture of inclusivity and belonging. This is especially important as cargo bikes become more prevalent as tools for families to get around and grocery shop.

Bike parking is necessary to help meet climate goals

Boston's worst-in-the-nation traffic congestion has serious environmental consequences. A 2017 City of Boston report on parking management estimates that 30% of Boston traffic is caused by drivers circling in search of parking.[7] As one tool to curb driving and emissions, Boston's master transportation plan, Go Boston 2030, has a goal of quadrupling bike commute mode share for residents and people commuting into the city.[8] Toward this same end, it also has goals for creating neighborhood mobility hubs, and building a better-connected bike network . As noted above, achieving these goals requires accessible and abundant bike parking to complement new bike lanes.

Bike parking can also be used to address climate justice. The Union of Concerned Scientists estimates that, on average, communities of color in the Northeast breathe 66% more air pollution from vehicles than do white residents.[9] Combatting this inequity will take a multi-strategy approach—including adding more bike parking—to give people transportation choices beyond single-occupancy motor vehicles.

Bike parking is more cost effective than car parking

Land devoted to car parking is often considered, incorrectly, to have no opportunity costs. In reality, the denser an area is, the higher the opportunity cost.[10] That's because car parking is highly subsidized; in the U.S., 99% of car trips end in a free parking spot.[11] Go Boston 2030 emphasizes this point, noting the high cost of parking and that it should, "only be for those who need it most—those who cannot use other means or are visiting for only a short time".[12]

Prioritizing car parking also means missed opportunities to use the same space for retail, housing, placemaking, and business.[13] Meanwhile, bike corrals (more on those later) that take up a single on-street parking space can accommodate 12-24 bikes.

Bike parking helps small businesses

Although converting car space into bike lanes is sometimes blamed for hurting businesses, prioritizing biking (and non-car travel in general) has been shown to boost local businesses. A

2013 study in New York City found that retail businesses near a range of pedestrian and bike projects saw an increase in their sales.[14] Similarly, in Toronto, researchers found that the number of customers and amount of spending at retail locations near new bike lanes increased.[15] In Boston, a 2019 survey by the BCU and JP Centre/South Main Streets found that two-thirds of all customers to area businesses arrived by bike, foot or transit—not car.[16]

Bike parking improves sidewalk accessibility and appearance

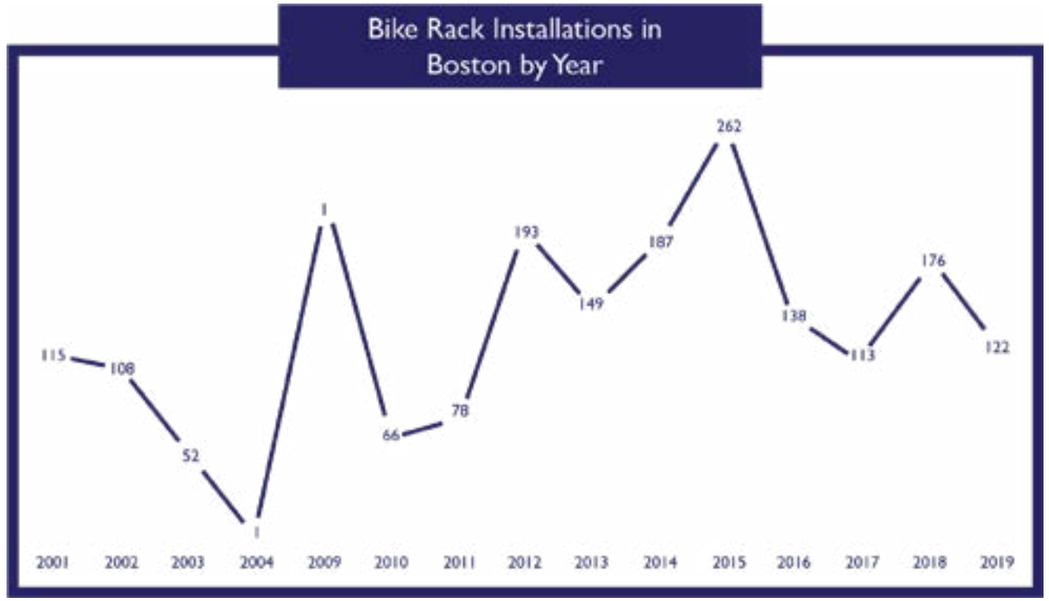
Bike parking shortages result in negative outcomes, such as damage to street trees and sidewalk obstructions, the latter of which is of particular concern for people who rely on mobility devices like wheelchairs.[17] Enforcing how bikes are locked up through fines or tickets, or by removing bikes, isn't the solution due to equity and civil rights concerns. (Data show that police issue tickets for minor bike infractions at far higher rates to BIPOC individuals than to white people.) Providing ample bike parking is a better way to prevent these negative outcomes.

The State of Bike Parking in Boston

The City of Boston has roughly 1,500 municipal bike racks. This compares to more than 100,000 free on-street parking spaces, metered parking spaces, and privately owned parking garage spaces situated across the city. The city maintains close to 7,000 metered car parking spaces and thousands of free parking spaces, according to Analyze Boston. An exact count of free on-street parking, such as time-bound (1-hr, 2-hr) spaces, is notoriously difficult as the city has not completed and published an inventory of them. As a rough estimate, a 2019 on-street count provided by BTD found close to 1,000 free parking spaces in the North End alone.

While meters do charge a fee, it should be noted that the majority of vehicle trips taken in the United States end in free spots, and with the availability of apps such as Spot Angels, it is easier than ever to find free parking. In addition, residential parking permits in Boston are available free of charge, which further incentivizes driving over sustainable transportation options, like biking and transit. As of January 2015, there were 94,000 residential parking permits in Boston—a 25% increase from one decade prior.

Data available from Analyze Boston show that installation totals for bike parking vary from year to year. Yet the overall trend of installations has remained relatively flat over the past 20 years, hovering around 120 racks per year—even though bike ridership soared over the same period. The result: In Boston, it's harder and harder for people who bike to find a safe place to lock up. Further compounding this problem, Boston's 2020 bike counts found a significant spike in bike ridership amid the COVID-19 pandemic. The pace of bike rack installation will need to increase to accommodate these new riders now, and encourage them to keep riding into the future.



Source: BostonMaps

Spatial distribution of bike racks in Boston

There are significant disparities in distribution of bike racks in Boston. The following maps visualize the locations of municipal bike racks, in the Right of Way, and do not include private racks or racks installed by developers. (Although private bike racks can supplement a city's own infrastructure, municipal bike racks are a reflection of the city's priorities.)

While bike racks are located throughout the city, they are most concentrated in the downtown business districts, as can be seen in Figure 1. The highest concentrations of bike racks are in downtown, central business areas, and also clustered near major transit hubs. This is expected, and also reveals that the city has

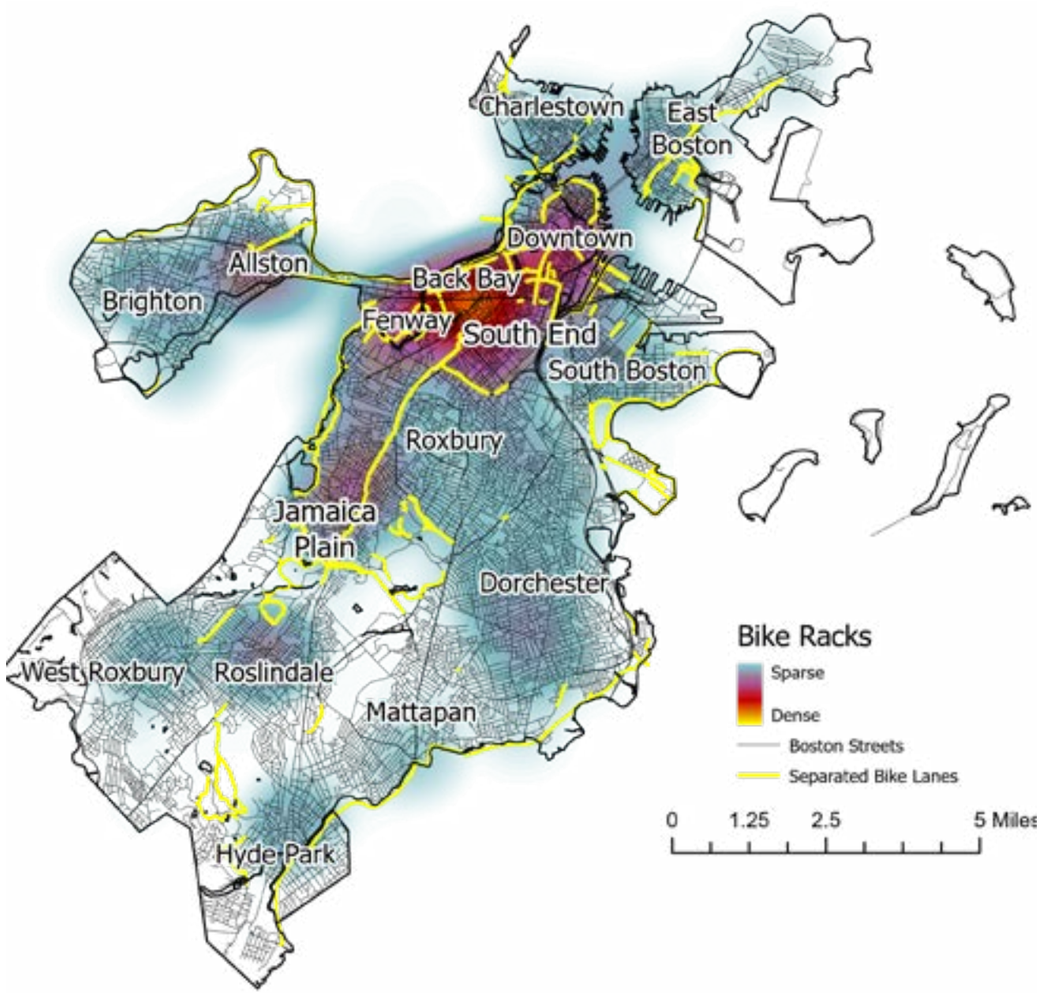


Fig 1. Heat map showing bike parking density

worked to ensure bike parking is available in high-traffic areas. Figure 2 shows bike parking per capita. Here, the imbalances are also readily apparent. Looking at Figure 3, which compares bike parking infrastructure with the Metropolitan Area Planning Council's car ownership data, there are indications that the availability of bike parking impacts the transportation choices individuals make, as areas with high car ownership rates have less bike parking—and, as we'll see later, fewer bike lanes, too.

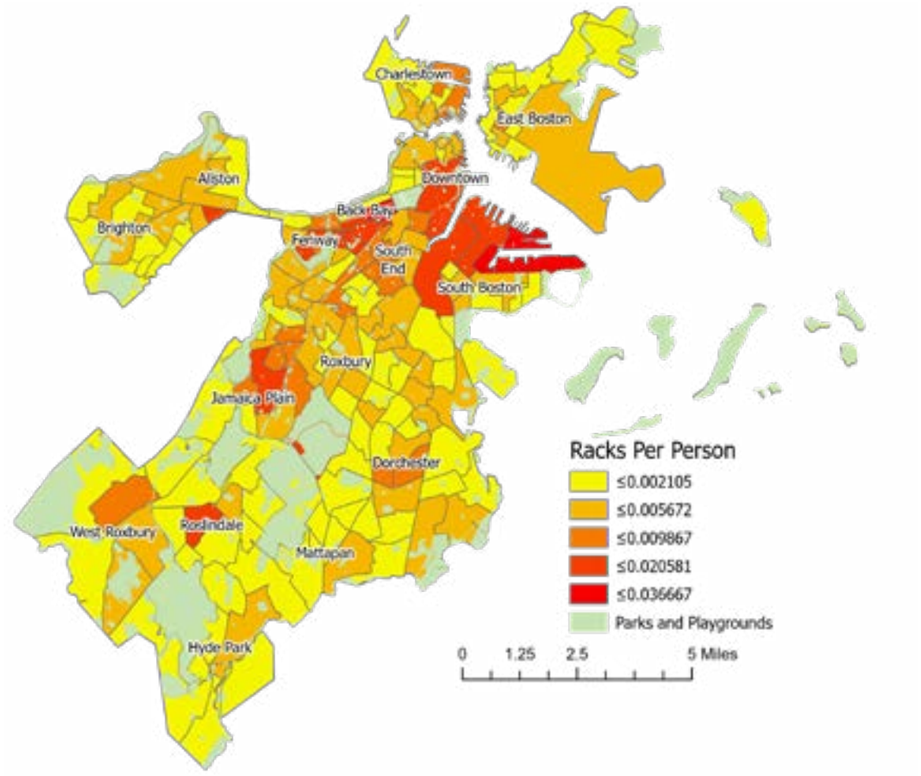


Fig 2. Racks compared with population

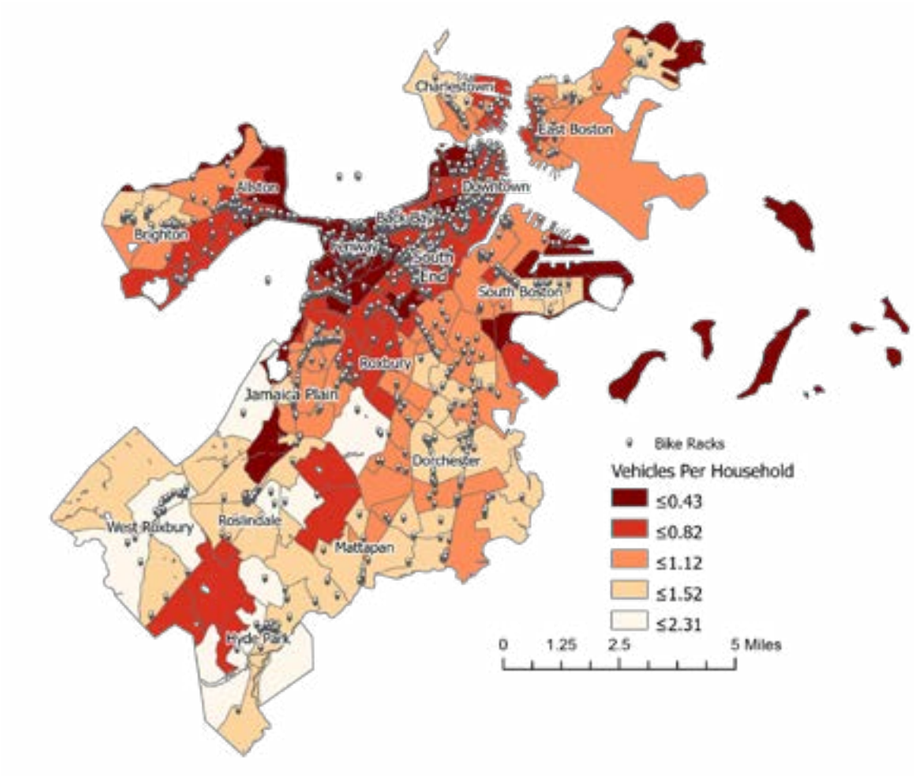


Fig 3. Bike racks and vehicles per household

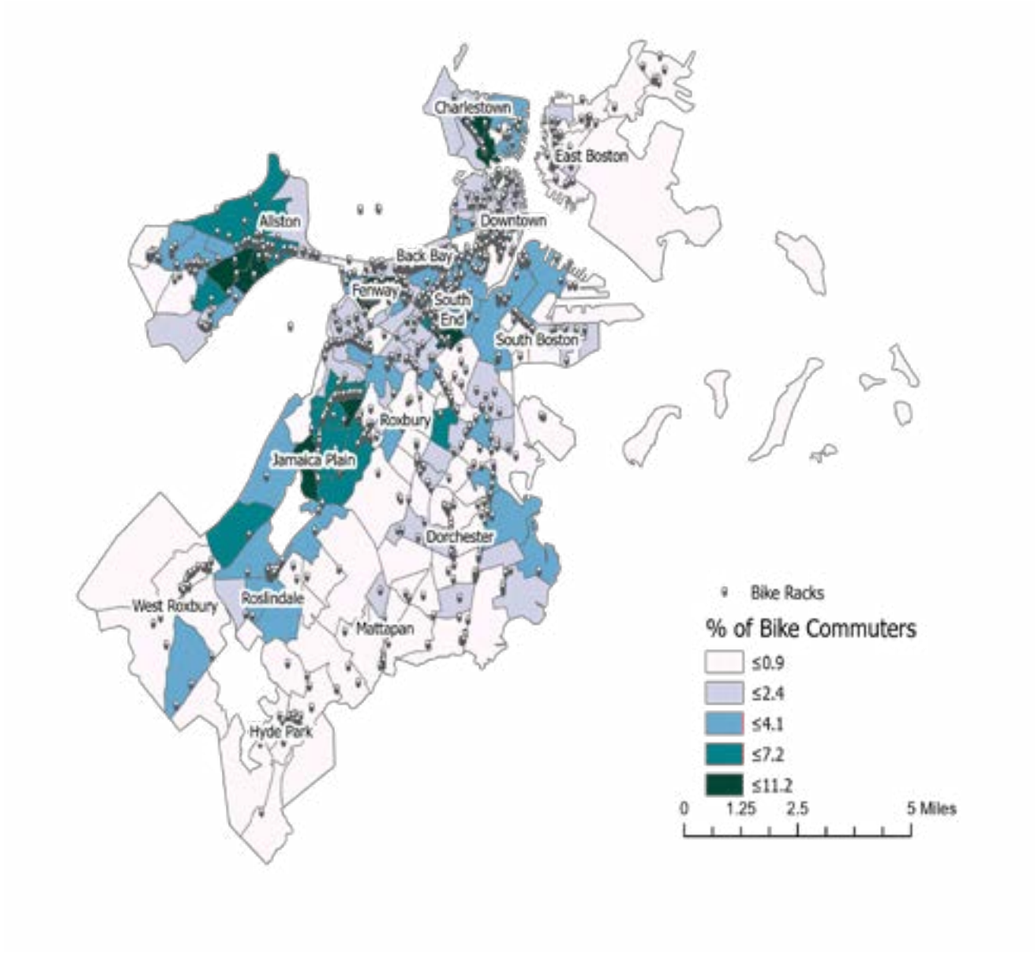


Fig 4. Percentage of bike commuter by census tract

Bike commuters are concentrated in areas where there are higher densities of bike racks. Meanwhile, the rates of bike commuting are lower in areas with less bike parking. These dynamics show the need for parallel strategies to add more bike parking in areas where there is already high demand, based on mode share, and to address existing imbalances by adding bike parking where there are lower rates of bike ridership to encourage more people to bike in those areas. It would be shortsighted and inequitable to only add bike parking where people are already biking under the false assumption that people in other parts of the city don't or won't want to bike.

To work toward these goals, it will be important to consider bike parking as part of an overall bike infrastructure plan. Figure 5 shows bike rack locations compared with Boston's current network of separated/protected bike lanes. Not only does this map show where gaps exist in that network, but also that many areas along the network lack bike parking.

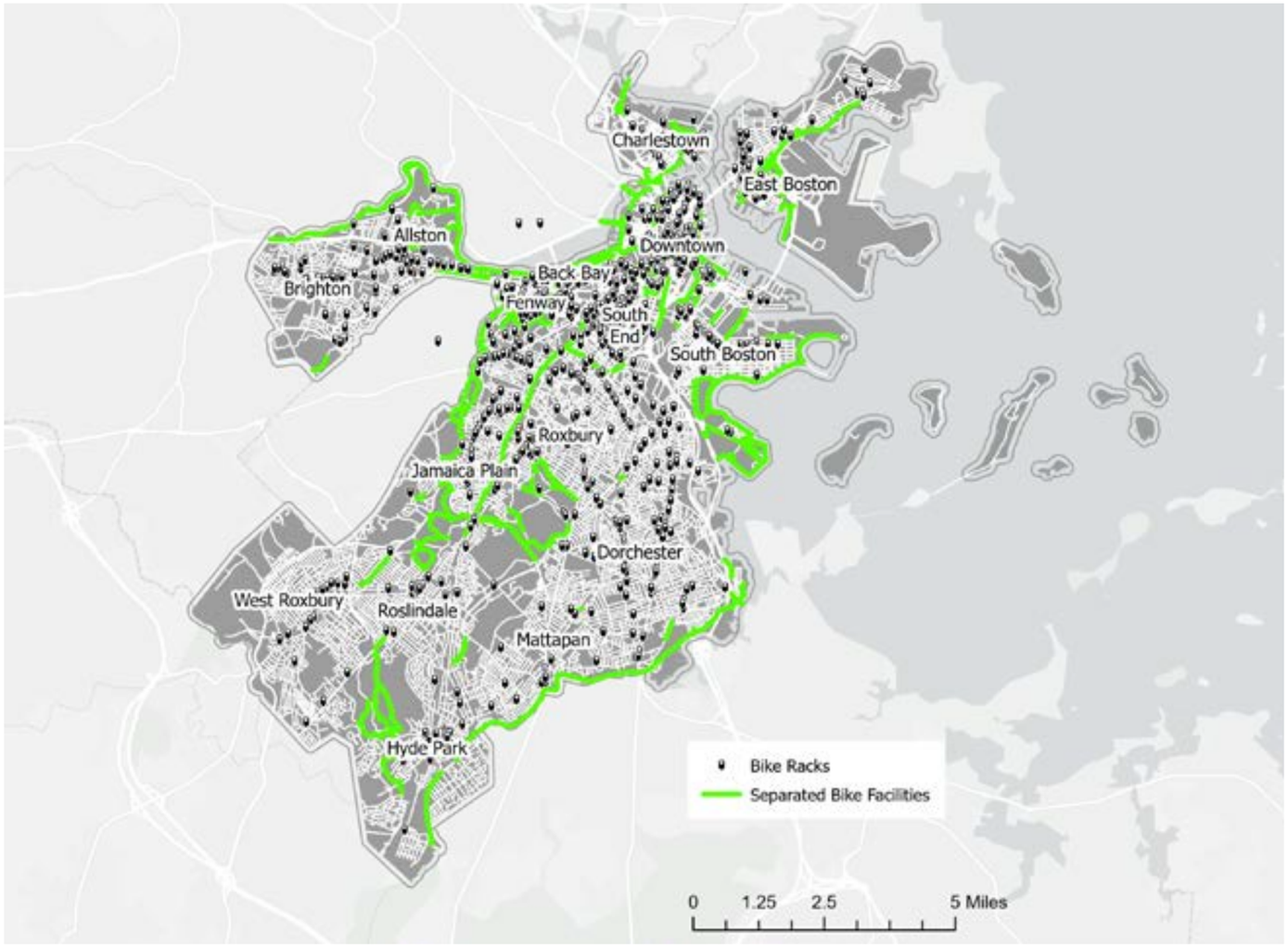


Fig 5. Map of bike facilities and bike rack locations

Figure 6 shows BIPOC populations by census tract compared with bike rack locations. As noted by the League of American Bicyclists, bicycle booms often overlook or pass by communities of color, especially when it comes to infrastructure improvements or innovations that promote biking as a transportation mode.[18] Gaps in bike parking not only result in or exacerbate inequities by increasing theft and creating a financial burden, but they also actively discourage people from choosing to bike in the first place. Considering the importance of equitable access to mobility, transportation justice should be a key part of siting decisions and long-term planning around bike parking.

The same League of American Bicyclists report also notes that lower-income individuals are more concerned than those with higher incomes about secure bike parking, because the burden of replacing a bike is much greater with less disposable income. Figure 7 shows how bike rack locations compare to median household income in the City of Boston, indicating where there are gaps in equitable distribution.

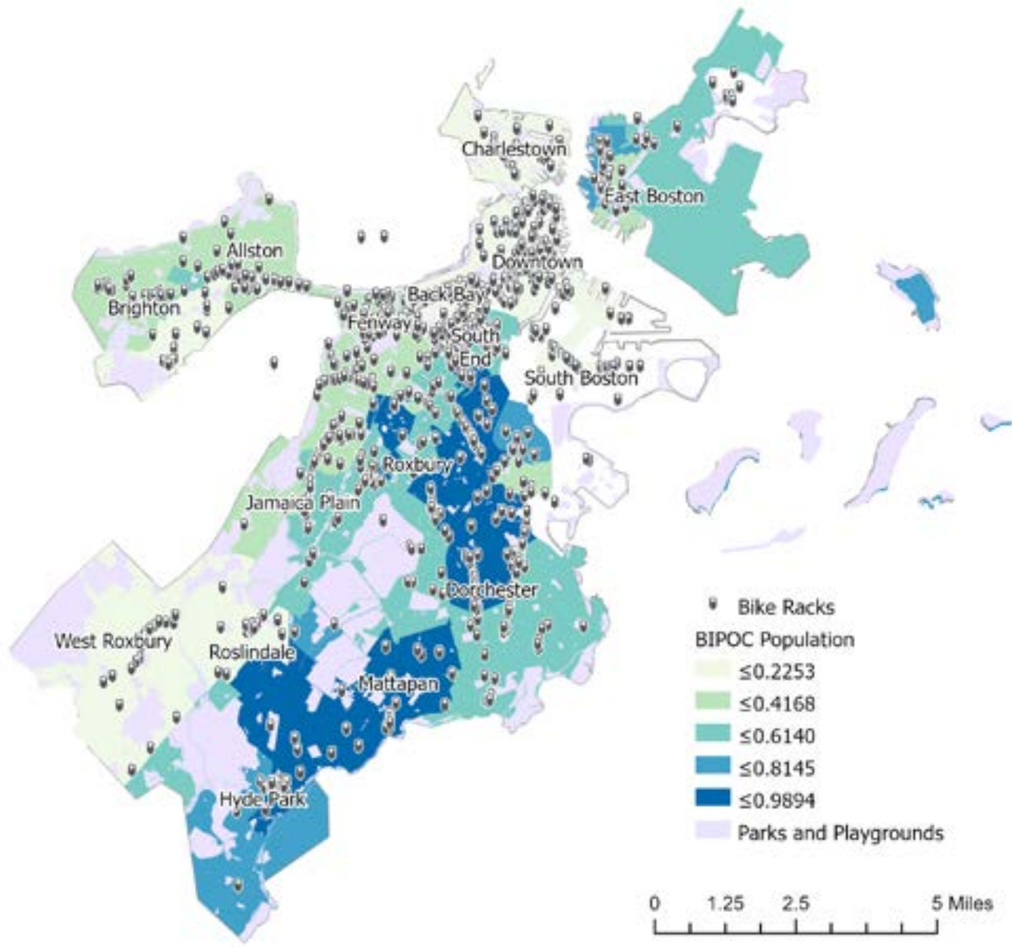


Fig 6. BIPOC people as percentage of total population, and bike parking

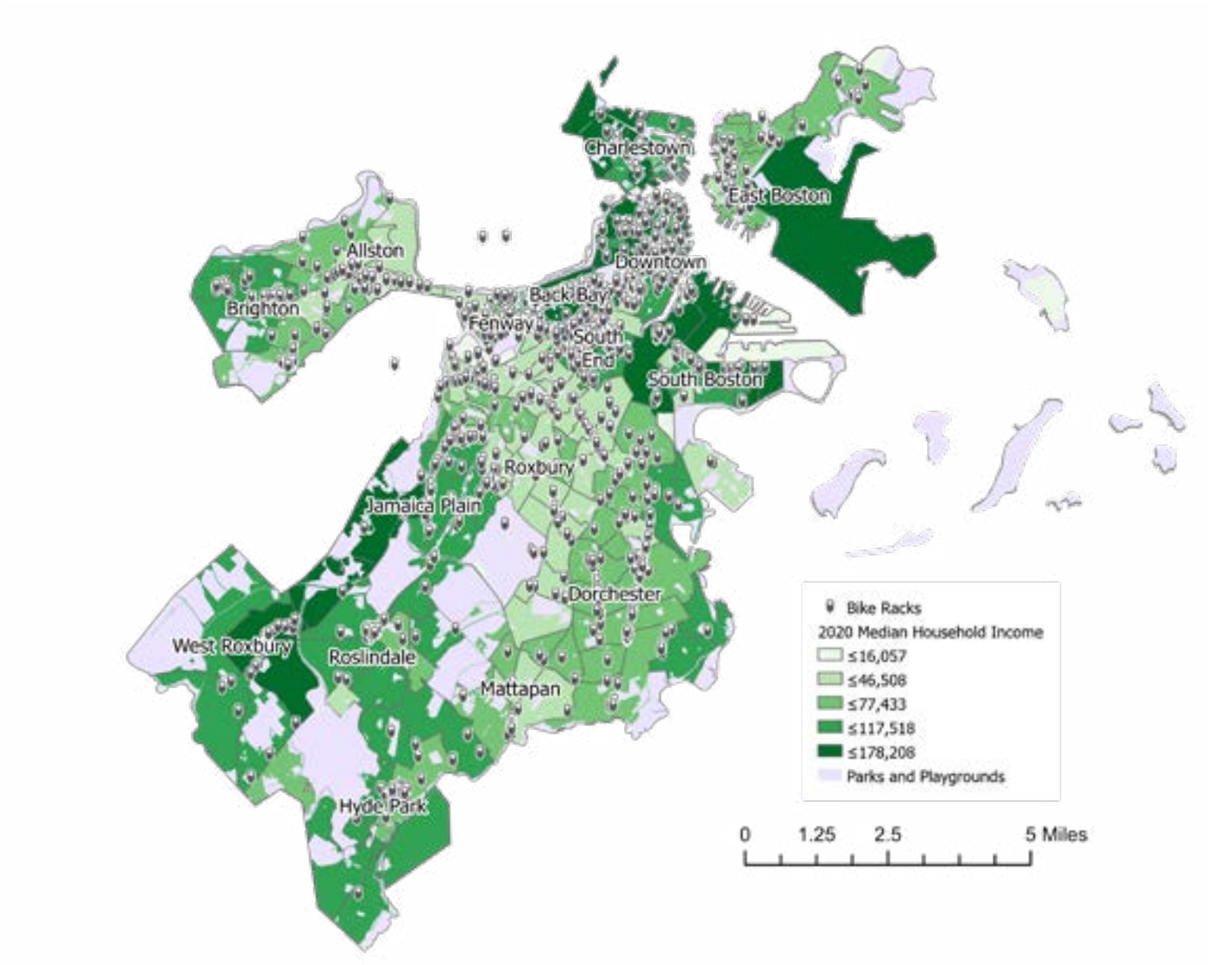


Fig 7. Median household income and bike parking

Neighborhood comparisons

As noted in the previous section, bike racks are not evenly distributed throughout the city. Zooming in on some of Boston's neighborhoods shows how different communities have different concentrations of bike parking. For example, Figure 8, covering the South End, shows "bike rack areas" bounded by a blue buffer. ("Bike rack areas" are defined as areas where a bike rack is 0.1 miles or less away).

Fig 8. Bike rack locations: South End

In contrast, Figure 9 shows bike rack areas in Roxbury. Even at a glance, it's readily apparent that there are significant differences in coverage and access between the two neighborhoods.

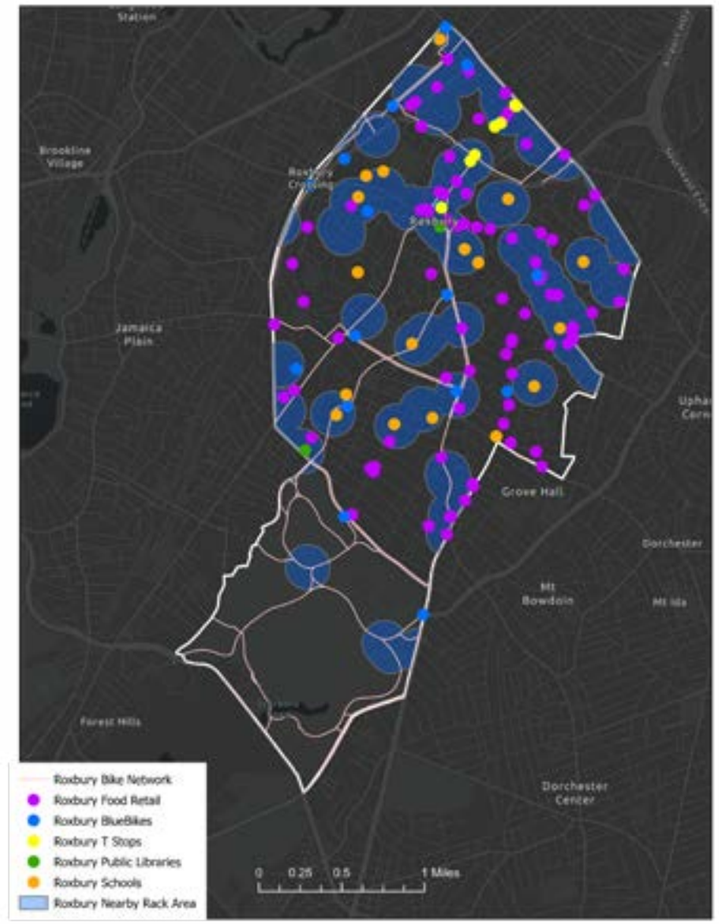


Fig 9. Bike rack locations: Roxbury

Siting opportunities

It is important for residents, businesses, and civic organizations to have a say in suggesting locations for additional bike parking. This aligns with our belief that people should shape the streets of their neighborhoods, and ensures a feedback channel on this issue of bike infrastructure.

At the same time, siting decisions should be rooted in analyses of existing and latent demand—where people are already riding, and where they would ride if more infrastructure existed. Toward that end, officials should be entrusted with some siting decisions to ensure parking is added expeditiously and in high-impact areas.

Finally, we believe all commercial areas should be within a comfortable walking distance from bike parking—something the maps below show is currently not the case.

Figure 10 and Figure 11 show two locations where there are gaps in bike parking. Again, "bike rack areas" are shaded in blue and represent areas that are within 0.1 miles of a bike rack.

In the Bowdoin/Geneva neighborhood, there are many food retail locations, both at the main intersection of Geneva and Bowdoin, as well as along Geneva Avenue, which has a bike lane.

Fig 10. Intersection of Bowdoin Street and Geneva Ave

However, many of these locations are far from bike parking, rendering them less accessible by bike. This would be a key location to add bike parking.

Similarly, Grove Hall—which has abundant food retail locations, several schools, BlueBike stations, and two Boston Public Library branches—lacks bike parking. Although bike racks are available on parts of Columbia Road and around the Blue Hill Avenue and Warren Street intersection, there are significant gaps elsewhere in the neighborhood.

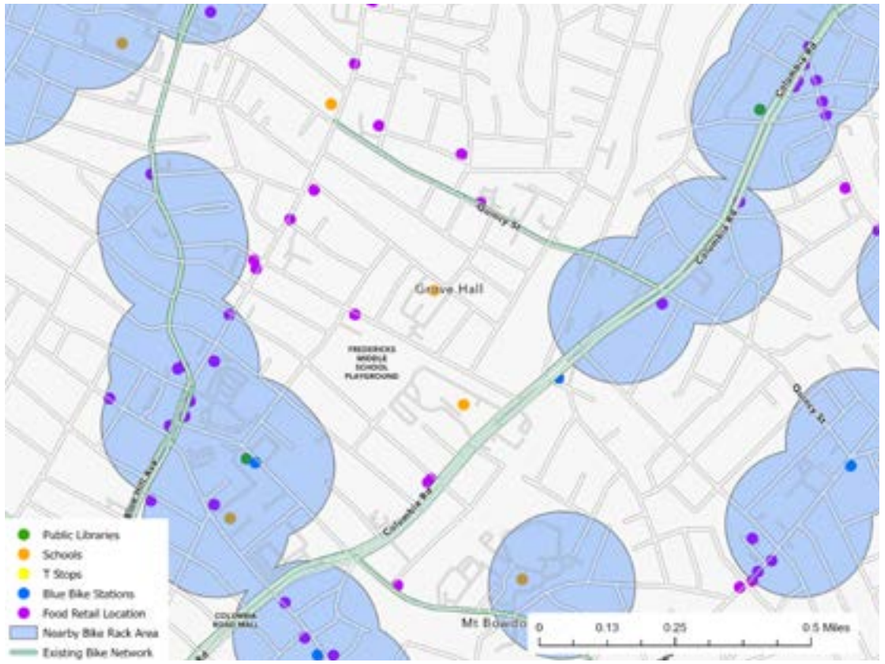


Fig 11. Grove Hall, between Dorchester and Roxbury

Bike parking capacity and installation

As of June 2021, Boston has about 1,500 municipal bike racks. (Though Boston has regulations requiring developers to include bike parking in new developments, those facilities are privately owned and maintained; more on this below.) According to the city's bike parking website, Boston installs or repairs about 120 new bike racks in the R.O.W. annually.[19]

The standard bike racks Boston uses are the hitch (or lollipop) for single racks, and inverted U (or arc) for multi racks. These racks are most likely to accommodate a variety of bike styles and sizes, and to keep bikes upright.[20] Although there are many other styles of bike racks on private property or in other cities—such as wave racks or schoolyard racks—the City of Boston does not install them because they are more difficult to use, and less capable of accommodating a range of bike types, such as cargo bikes.

In contrast to other cities, Boston has only a handful of bike corrals. There are three near Boston University—which the university funded to provide for their students—and two small corrals on Newbury Street, adjacent to parklets. (Although Boston's 2018 budget included funding for a bike corral on Centre Street in Jamaica Plain, it had yet to be installed as of summer 2021.)

Racks are sited both via community input through a form on Boston's bike parking website, and through strategic siting from the Boston Department of Transportation. The city prioritizes adding racks to commercial corridors, and working with civic institutions such as libraries and community centers.[21]

Some challenges Boston experiences when adding bike parking involve deploying installation teams through private contractors. This can be costly and burdensome. If this were handled in-house, as is the case with other streetscape installations like stop signs, BTD could more quickly and cost-effectively install bike racks, resulting in more parking citywide.

The city notes in its bike parking guide that the best surface for installing bike racks is concrete, which can use either in-ground or surface mounts. Brick, however, requires in-ground mounts in order to be theft proof.[22] Landmarks and Historic Districts also pose challenges when it comes to installing additional bike parking, because each individual installation must be approved, regardless of whether Boston is installing the same standard bike rack that is used throughout the rest of the city.

Bike parking and Go Boston 2030

Among other goals, Go Boston 2030 aims to increase mode share for biking fourfold, to 8%, by the end of this decade. However, to date mode share has barely budged; it now sits at 2.5%. That's in part because even though more people are biking, Boston's population is growing. (Likewise, although individuals are driving fewer miles, overall vehicle miles traveled (VMT) in Boston has held flat as more drivers take to the road.) Go Boston 2030 emphasizes the need to account for population growth and its impact on achieving mode share goals, noting that the city's population is expected to grow by about 15-17%.[23] Therefore, the pace of bike infrastructure installation must increase to accommodate population growth en route to meeting mode share goals.

Unfortunately, although Go Boston 2030 refers to bike parking when highlighting individual projects, there are no specific goals around adding bike parking to meet demand and encourage ridership. This is a major oversight. Bike parking must be considered essential "bike infrastructure" to be accelerated in tandem with bike lanes. As the latest People for Bikes City Ratings report states, "Making biking better means more than just building bike lanes—it's about improving the entire bicycling experience. Massive investments in safe, convenient and free bike parking ensures riders are prioritized on and off their bikes."

Bike parking policy for new developments

In addition to city-installed bike parking, Boston has guidelines, which it strongly enforces through a review process, for developers to install bike parking at new developments to ensure availability for residents, workers, students, and visitors.[24] In general, requirements are different for non-residential and residential

developments, and are also dependent on the size of developments. Larger residential developments need to include both visitor (or short term) and resident (or long term) parking spaces, and all non-residential developments need to include both visitor and resident/worker parking spaces.

The Boston Planning and Development Agency (BPDA) works with developers to ensure they design bike parking that is accessible and works for a wide range of bike types. This is especially important for long-term, indoor residential parking, which makes it easier for people in these developments to own and store bikes. (One reason some people don't bike is simply because they don't have space to store a bike in their home/building unit.)

Bike parking in other cities

The BCU connected with eight other cities as part of the research for this report. For most cities, we spoke with a representative from the municipal government's transportation department. In other cities, we connected with representatives from advocacy organizations who work on bike parking projects.

Bike parking was a priority in all cities, though there were significant differences in parking availability based on population. Figure 12 shows a graph of bike parking per capita in several U.S. cities, with Boston bringing up the rear.

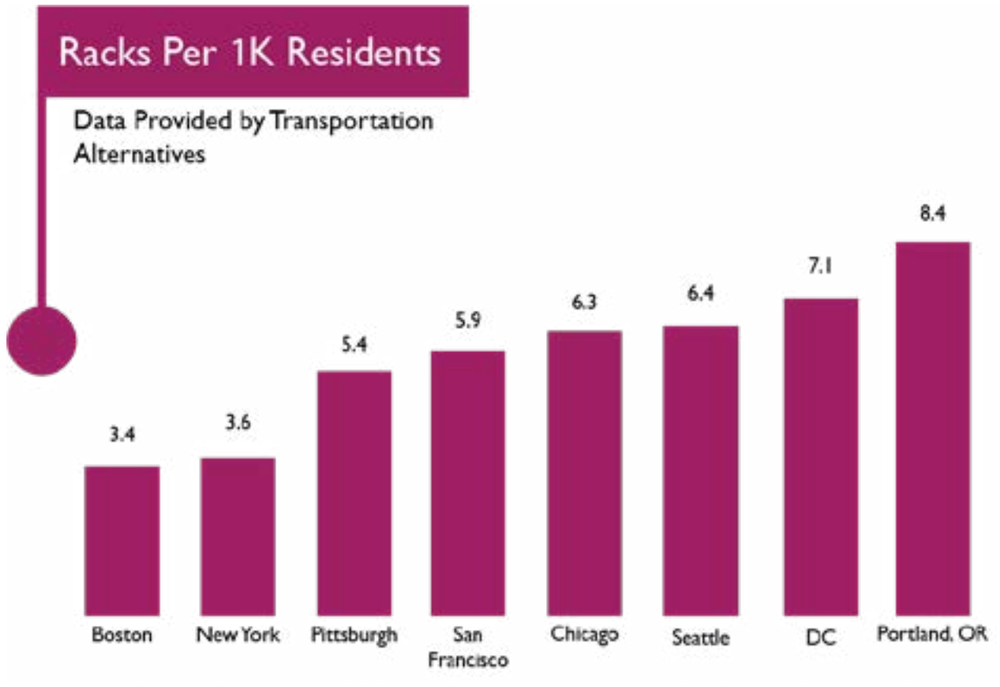


Fig 11. Bike parking per 1,000 residents in Boston and other U.S. cities (Data for cities other than Boston provided by Transportation Alternatives)

Beyond Lollipops: Types of bike parking and policies to support increased volume

Bike corrals

Many cities use bike corrals to increase parking capacity, particularly near businesses. In the City of Cambridge and in Minneapolis, corrals are added seasonally to account for increased ridership in warmer months. In Seattle, the city made the process for installing corrals more seamless by only requiring businesses where the corral will be located and adjacent businesses, rather than an entire block, to approve installations. In D.C. and Portland, corrals are used to provide space for both bike parking and micromobility parking.

On-street corrals are also useful for "daylighting," where they occupy space between the last parking spot and an intersection. Placing bike corrals in this way, as has been done in Seattle and San Francisco, increases visibility for cars approaching an intersection, which improves pedestrian safety and prevents collisions. Furthermore, on-street corrals provide bike parking without taking up sidewalk space, an important consideration in areas with narrower sidewalks.

Corrals also provide an opportunity to experiment with different design ideas, many of which could combine outdoor dining and bike parking, which will both be necessary as recovery from the pandemic begins and continues into the future. San Francisco, for example, has a parklet program that engages local businesses allowing them to take ownership of the design process. This could also be an opportunity to engage local artists, like in Portland, OR, where young artists can participate in corral planning processes by designing pavement markets on corral surfaces. Corralls can also help shorten the crossing distance for pedestrians when placed near crosswalks.

Innovative ways to add more bike parking

Many cities have unique partnerships that allow them to increase efficiency when adding more bike parking. For example, in Pittsburgh, the city partners with a local bike advocacy organization, BikePGH, to run the city's bike parking plan. Pittsburgh also has converted an unused section of a large parking garage into designated bike parking. In Seattle, the city works through the department in charge of crosswalk restriping to find opportunities for additional bike parking. And as micromobility becomes more commonplace, many cities are partnering with private bike share and scooter companies to support bike parking. One example of how micromobility companies can help with bike parking is by using their GPS data to better understand where more parking may be needed.

Increasing funding while cutting costs

Several cities have developed strategies to increase bike parking funding and/or cut the cost of implementation. For example, Seattle uses funds from micromobility permits to support its bike parking program. In D.C., funding from micromobility companies is earmarked for bike parking. Many cities have also gotten creative in how they install bike parking.

As one example, D.C. exclusively uses surface-mount bike racks, which they are able to install using battery-operated tools. Some of the racks are even installed using an electric cargo bike. Overall, innovation and willingness to try new approaches to installing bike racks ends up benefitting cities by reducing barriers to installation and saving costs.

Photo Credit: District Department of Transportation

Working with developers in other cities

Unlike Boston, other cities have bike parking requirements—rather than recommendations—for developers built into their zoning codes. In Portland, Ore., developers must adhere to the ordinance to complete the building permit process. Portland has also divided the city into two separate zones that require different levels of bike parking. These zones are determined by the city's master plan and the mode share that is expected in different parts of the city based on land use and density. One zone has more of the city's employment centers and business districts, and therefore requires more bike parking.

The City of Cambridge also requires bike parking in new developments. The requirements are in place for a range of use types, with the most stringent requirements designated for large residential developments. However, there are also requirements for retail, restaurants, theaters, churches, and many other types of uses. Somerville also requires all new developments, developments being expanded, or developments switching to a new use, to build bike parking as part of their zoning process.

Additional ideas for bike parking nfrastructure

Many other cities have implemented creative and innovative strategies to increase bike parking, particularly in areas where there might be limited open space or sidewalk space to add traditional bike parking. For example, London has partnered with the private company Cyclehoop to add enclosed protective parking structures that charge users a fee.[25] Similarly in New York City, the company Oonee offers Bike Parking pods that can be strategically placed in area where residents or workers have a particular need for bike parking.[26] In the future, as e-biking becomes more popular for leisure, commuting, child dropoff, and for delivery services, integrating charing stations in with more secure and theft-proof bike parking technology will be a crucial part of bike infrastructure as well.

Bike Parking demand in the context of the COVID-19 Pandemic

Bike ridership increased worldwide as a result of the pandemic, and this increase has exacerbated existing deficits in bike parking in many cities. In Boston, bike counts from a weekend in June 2019 compared with that same weekend in 2020 show that, in the vast majority of count locations, the percentage of people on bikes compared with the total "vehicle" count went up (Table 1).

In April 2020, bike market sales hit $1 billion, compared to typical April sales of $575 million, according to data from the NPD Group.[27] The same report revealed that the strongest gains were in bicycles for family use and neighborhood riding, and for bikes with more moderate price points. This provides further support for increasing the availability of secure bike parking, as well as a diversification of bike parking styles to accommodate larger bikes (i.e. cargo bikes, e-bikes) that are increasingly prevalent.[28]

More than one year into the pandemic, interest in biking has remained high. Demand for bicycles is so strong that there are major shipping delays for bikes and parts, and many bike retailers are reporting higher sales than ever.[29] Chicago and London are examples of cities that have made concerted efforts to increase bike parking due to the increased demand due to the pandemic. Chicago installed 300 bike racks and 19 on-street corrals in 2020 as part of an effort to support ridership resulting from the pan-

Table 1. Bike mode share percentages at various location in Boston in 2019 and 2020

Bikes as Percentage of total counts	2019	2020	% Change
A street north of Iron Street	6.4	6.9	+7.8%
Beacon Street east of Mountfort Street	3.3	4.2	+27%
Blue Hill Avenue north of Rexford Street	0.2	0.3	+5%
Brookline Avenue south of Francis Street	1.2	1.5	+25%
Cambridge Street east of Lincoln Street	0.7	0.9	+29%
Centre Street north of Harris Avenue	3.8	3.7	-2.6%
Columbus Avenue west of Holyoke Street	9.3	9.7	+4.3%
Commonwealth Avenue east of Berkeley Street	6.8	10.2	+33%
Commonwealth Avenue west of Silber Way	9	10.3	+13%
D Street south of Fargo Street	2.4	5	+108%
Dorchester Avenue north of Doris Street	1.8	2.1	+17%
Dorchester Avenue south of Greenwich Street	1.4	1.6	+14%
Franklin Street north of Alcott Street	29.6	31	+5%
Longwood Avenue east of Pilgrim Road	11.8	11	-7%
Main Street south of Sullivan Square	2	3.1	+55%
Massachusetts Avenue south of Newmarket Square	1.2	1.3	+8%
Massachusetts Avenue Bridge north of Back Street	13.1	13	-0.8%
Meridian Street south of Nay Street	0.2	0.5	+150%
Seaport Boulevard west of Sleeper Street	4.3	5.7	+33%
Washington Street north of Bexley Road	2.2	2.1	-5%
Western Avenue east of Hague Street	4.7	4.9	+4.2%

demic.[30] In London, the city's transportation department invested $1 million in bike parking, specifically to support people who started biking during the pandemic.[31]

Increased interest in biking is an exciting development that could accelerate Boston's path toward meeting its climate goals. However, bike shortages and low supplies of bike accessories/parts, including bike locks, have led to increased theft during the pandemic. Bike theft was up 24% nationwide in 2020 from the previous year.[32] Greater Boston saw a more significant spike: a 35% increase in bike theft in Boston, and a 71% increase in Brookline.[33] As noted above, bike theft can often result in a person abandoning biking as a transportation mode entirely. Boston needs to act quickly in order to avoid this happening on a large scale.

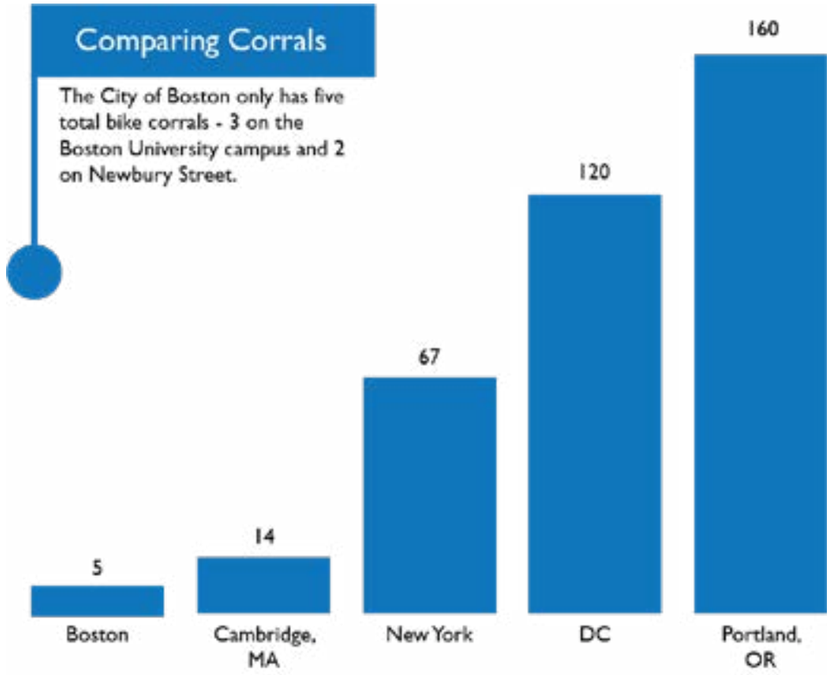
The pandemic has also shown that reallocating parking spaces for other uses can help businesses thrive and make cities more livable. Doing so is also a remarkably popular idea. In a May 2021 survey conducted by the MassINC Polling Group, 75% of Boston-area residents supported adding more protected bike lanes, and 72% supported adding bike parking—even if it meant reducing space for cars. There are already examples of combination parklet and bike rack structures on Newbury Street in Boston. Boston would be wise to expand on these efforts going forward.

Recommendations

The following recommendations for improving the state of bike parking in Boston are based on ideas from other cities as well as research into best practices.

1. Increase bike parking capacity by at least fourfold in Boston to better match mode shift goals outlined in GoBoston 2030 (increasing bike commute mode share from 2.5% to 8%.)
   a. The BCU recommends that Boston dedicate $300,000 in its budget to bike parking. Considering that Seattle, a city that already has a robust bike parking program, spends roughly $200,000 per year on bike parking, this funding would allow Boston to fill existing deficits while also allowing the city to develop a more sound bike parking plan for the future. This would also represent a 5x increase from current levels, putting it in line with Boston's goal of increasing bike commutership by 4x.
   b. Conduct an inventory of metered and on-street car parking to better understand current capacity, and use this as a starting point to better align car storage and pricing with Boston's mode shift goals

Examples of cities with a dedicated bike parking plan: London[34]



2. Build a robust bike corral strategy, and invest in and deploy them rapidly.
   a. Corrals have been particularly successful in many cities for increasing traffic to businesses and cultural events.
   b. Corrals can be switched out for car parking, and as outlined by A Better City, are a much more efficient use of space. They also promote Boston's sustainability goals related to pivoting away from an overabundance of car parking.

c. Corrals can strategically replace motor vehicle parking at intersections to provide daylighting, which has safety co-benefits. (Somerville, Portland and Seattle use this strategy.)
d. Corral and parklet combinations can provide opportunities to add both more bike parking and more space for outdoor dining.

Examples of cities with large corral programs: Somerville, Portland, Chicago

3. Fill gaps based on:
   a. Existing bike parking infrastructure
   b. Proximity to public transit, food retail, schools, libraries, and open space
   c. Low car ownership rates
   d. Number of BIPOC and/or low-income residents

4. Have the BTD Operations Division, not contractors, handle installations
   a. This would allow BTD to more quickly and cost-effectively add bike parking.
   b. BTD already installs stop signs, parking meters and more.

5. Make bike parking implementation a role for a dedicated city staff person.
   a. Dedicating staff to bike parking will create cohesion between three potential programs: City-installed racks, developer requirements, and corrals. This will also be a key position if and when Boston's micromobility program is built out
   b. This will also free up other city staff to focus solely on other important bike infrastructure projects, such as contraflow and separated bike lanes.
   c. The staff person can work on related policies, like snow clearance from bike parking, and more robust standards to be followed city-wide

6. Install surface-mount bike racks wherever possible.
   a. Surface-mount bike racks are not ideal everywhere (for example, they do not work well on brick surfaces) but they can be very secure on concrete. They are easier and cheaper to install than in-ground racks.
   b. Other cities have used electric cargo bikes and battery-operated equipment for these types of installations. This would be a more efficient and affordable way to add additional bike parking, while also aligning with Boston's transportation and climate goals.

Examples of cities that use surface-mounted bike racks: D.C., Seattle

7. If Boston chooses to advance micromobility programs, ensure that permitting funds and partnerships with these private companies are leveraged to add additional bike parking. Furthermore, micromobility data can be used to help determine locations where bike parking is most needed.

Examples of cities that secure funding through micromobility partnerships: D.C., Seattle, Denver

8. Implement a seasonal bike parking program to temporarily boost bike parking in warmer months, and have high-capacity bike parking equipment ready to deploy at one-off large events in the city.
   a. On the inveserse, make sure equipment and plans are in place to clear bike parking in the winter.

Examples of cities with seasonal bike parking: Cambridge, Minneapolis

9. Integrate bike parking into COVID-19 recovery planning. This should be done in collaboration with the business community and local residents and leaders with transparency about process, location selection, and project timelines.
   a. One of the many ways that new bikers can be encouraged to continue biking is by ensuring they have access to ample and secure bike parking.
   b. Combination corral/parklets could provide both outdoor dining spaces for takeaway food, while also providing additional bike parking.

10. Explore ways to make the installation process easier in Landmarks Districts.
    a. The City of Boston should name bike parking as bike infrastructure and relegate all bike rack installations in Landmarks Districts to staff review, or exempt them from the district commission review altogether.

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