

# From Perceptions To Best Practices: Next Steps For On-Street Bike Parking In Commercial Areas In Eugene, Oregon

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## Abstract

Quality short-term bike parking has a number of benefits including promoting bicycling as a means of transportation and creating an organized and predictable public streetscape which are both beneficial to businesses. In addition, on-street bike corrals are beneficial in commercial areas where bike parking is encroaching on the pedestrian realm. On-street bike corrals can also provide greater visibility for those driving, walking or bicycling when placed at an intersection. For this study I evaluated Eugene's bike parking and bike corral efforts and compared them to bike parking and corral programs in Portland and Seattle. To do this I interviewed key staff members in Eugene, Seattle and Portland. I also surveyed business owners and managers at businesses with and without corrals on their block in Eugene and their customers to find out business and customer perceptions of bike parking in Eugene. The seven interviews, 24 business surveys and 402 customer surveys I received provided 20 Key Findings and 4 Implications that helped inform 10 Recommendations for Eugene to have a more successful bike parking and corral program based on best practices and business and customer feedback.

# Table of Contents

- Executive Summary ..... 2**
- Introduction ..... 5**
  - Context..... 5
  - Defining Bike Parking ..... 6
  - Defining On-Street Bike Corrals..... 9
  - Regional Bike Parking Study ..... 10
- Literature Review ..... 11**
  - Infrastructure Increases Bicycling Rates ..... 11
  - Economic Impacts of Bicyclists ..... 12
  - Bike Corral Specific Studies ..... 13
  - Goals of this Study ..... 14
- Methodology..... 15**
  - Interviews..... 15
  - Surveys ..... 16
- Results and Analysis ..... 21**
  - Interviews..... 21
  - Business Survey ..... 30
  - Customer Survey..... 34
  - Comparisons between Business and Customer Survey Results ..... 54
- Key Findings ..... 59**
  - Interviews..... 59
  - Businesses With and Without Corrals..... 59
  - Customers ..... 60
  - Comparisons between Businesses and Their Customers..... 61
- Implications..... 62**
- Recommendations..... 64**
  - Possible Research Improvements For The Future ..... 66
  - Areas for Further Research ..... 67
- Works Cited..... 68**
- Appendices..... 70**



## Executive Summary

This report evaluates Eugene's on-street bike parking efforts. Eugene currently has five on-street bike corrals (four when this study began). Some research has been conducted showing that businesses with on-street bike had favorable perceptions of on-street corrals in Portland, Oregon. This research helps determine business perceptions at businesses both with and without an on-street bike corral on their block in Eugene, Oregon. The study also analyzes the differences with on-street bike parking efforts in Eugene compared to Portland, which has 126 on-street bike corrals and Seattle, which has 36 on-street bike corrals. The interviews with staff in all three cities and the business and customer surveys resulted in 20 Key Findings, 4 Implications and 10 Recommendations that could help Eugene improve its on-street bike parking efforts.

### Context

Bicycling is a healthy and sustainable form of transportation. Eugene recognizes this fact and encourages bicycling as a means of transportation through local policies. The City of Eugene's Pedestrian and Bicycle Master Plan Goal has a goal to double the percentage of trips made by bike from 2011 levels by 2031. The Plan recommends developing a bike-parking program to install bike parking including bike corrals in the public right of way at the request of business owners and members of the public. The Eugene Pedestrian and Bicycle Master Plan serves as the basis for the Pedestrian and Bicycle elements of the City's Transportation System Plan (TSP) which is being worked on now. The draft TSP also includes actions including "converting on-street automobile parking spaces to bicycle lanes and bike parking."

### Bike Parking and On-Street Bike Parking

Good short term bike parking that accommodates a parking duration of less than two hours promotes bicycling as a means of transportation, creates an organized and predictable public streetscape and benefits businesses. On-street bike corrals are beneficial in commercial areas where bike parking is encroaching on the pedestrian realm. On-street bike corrals also provide greater visibility for people driving, walking or bicycling when placed at an intersection.

Eugene has five on-street bike corrals (four when the study began). Out of those five, two are artistic and three were funded by the city. The newest two on-street corrals including one in front of the Bier Stein and one in front of Everyday People Yoga were funded privately by the business and through an online crowd funding campaign.

### Research Questions

The following three research questions guided my study:

1. What is Eugene doing for bike parking to meet its transportation plan goals?
2. What are the perceptions of business owners and managers with and without bike corrals and their customers regarding bike parking and corrals in Eugene?
3. What can be learned from businesses and customers to help Eugene provide bike parking that works for both the city's goals and the public?

## Methods

In order to answer my research questions I used the following three methods:

- Interviews with staff and stakeholders in Eugene, Seattle and Portland (7 total)
- Business owner/manager surveys at businesses with and without corrals on their blocks (24 total)
- Customer surveys at those businesses (402 total)

## Findings

The following are the 20 Key Findings based on each of the three methods and comparisons between the businesses and customers:

### Interviews

1. Seattle and Portland have established internal and external programs and policies for bike corrals and Eugene has not. Eugene has lacked time and staff to do so.
2. Portland and Seattle prioritize locating corrals at street corners. Eugene is not currently utilizing this space or the space designated as jockey spaces between every two-car parking spaces throughout parts of the city.
3. Artistic corrals are the exception in Portland and Seattle. All cities said they are difficult to install and maintain.
4. Seattle is attempting to be proactive rather than reactive to make quality bike parking available everywhere needed in the city.
5. Bike corrals installed in Eugene prompted the city to reevaluate the curb space and redesign streets. They are now safer for pedestrians and bicyclists, better for businesses and in some cases have even increased car parking on the streets.

### Business Surveys

6. 2/3 of businesses with corrals on their block said the corral has positively impacted the business.
7. 90% of businesses with corrals on their block said they would seek out a location with a corral or find a way to get one there if they opened a second business in downtown Eugene.
8. 86% of businesses without corrals said they would be interested in a bike corral on their block.
9. Businesses who have corrals suggested three ways the city could improve the process of getting a corral: (a) art not be a part of the racks themselves, (b) the city should pay for the corrals, and (c) the process should be shorter
10. For both businesses with and without corrals the most popular response to funding options for on-street bike corral installation and maintenance was “publicly funded and maintained.”

### Customer Surveys

11. The majority (94%) of all customers who bicycled said they think positively of businesses with bike corrals.
12. Customers who had ever bicycled do not have a specific preference for a particular bike parking option. The only clear difference was parking meter bike racks received only 60% “like it” and “love it” ratings, compared to 80%-95% for the other three options (on-street corral with basic racks, on-street corral with artistic racks, on-sidewalk basic racks and a parking meter post and ring rack).
13. Corrals with basic racks were not as popular as artistic corrals or sidewalk basic racks. 34% more customers who had ever bicycled said they would choose an artistic corral over a corral with basic racks. 22% more said they would choose a sidewalk bike rack with basic racks over a corral with basic racks.

14. At the businesses without corrals, a higher percentage (7% more) of customers indicated they parked their bike to “other.” This means wear and tear on city property and a less orderly public right of way.
15. Half of customers drove to the businesses and the other half used sustainable modes of transportation (walk, bicycle, transit and other modes.) 61% said they had ever bicycled to the business where they took the survey.
16. 52% of all customers said bike parking should be on the sidewalk.

## Comparisons

17. 75%-93% of businesses and customers selected “people walking” and business uses like “café seating and sidewalk displays” as preferred uses for the sidewalk space. As noted in Key Finding 16, 52% of customers said bike parking should be on the sidewalk. This shows that people have conflicting preferences, so it is likely that the city will face some resistance with whatever they attempt to do. However, some resistance does not mean that there is not also support for changing the existing infrastructure.
18. 89% of businesses with bike corrals were happy with the street space. They were happiest, compared to 50% of businesses without bike corrals and 37% of customers.
19. A majority of all types of respondents prefer alternative street space uses. 62% of all customers and 64% of businesses without corrals would prefer bicycle parking and/or parklets in the street space, with 89% of businesses with corrals happy with that street use.
20. Businesses with and without a bike corral and customers all selected “in a parking lot behind my business or the business they were visiting” as preferred car parking locations between 59%-70% of the time. There was over twice as much support from customers for car parking being nearby the business they were visiting compared to directly in front of a business, indicating the city has community support to use the street space for uses other than car-parking.

## Implications

From the findings, the following 4 Implications emerged:

1. Majority of businesses and customers support on-street bike corrals
2. Differences in opinions about artistic vs. basic corrals
3. Customers had conflicting preferences about how to use the sidewalk space
4. Cities should implement proactive bike parking programs

## Recommendations

The following 10 Recommendations are based off the 20 Key Findings and 4 Implications:

1. Adopt standard city bike rack and corral types
2. Prioritize corrals at corners of intersections
3. Make artistic corrals an exception to the rule
4. Use a standard methodology to choose appropriate bike parking type
5. Develop a clear, advertised process for business owners
6. Establish funding for bike parking/ improve existing parking code
7. Replace/remove non-compliant bike parking
8. Continue providing resources for sustainable transportation options
9. Increase efficiency of the street space
10. Create a bike parking program

## Introduction

### Context

Around the country, bicycling is becoming a more popular way to get around. A 2014 report put out by the United States Census Bureau with data from the American Community Survey showed that the number of U.S. workers who traveled to work by bicycle increased from about 488,000 in 2000 to about 786,000 in 2008–2012, a larger percentage increase than that of any other commuting mode.<sup>1</sup> In Eugene, Oregon, the percentage of those who commute to work by bike is 8.7%, the second highest rate in the country for a medium sized city.<sup>2</sup>

This puts Eugene in a unique situation as the City of Eugene’s Pedestrian and Bicycle Master Plan Goal is to double the percentage of trips made by bike from 2011 levels by 2031.<sup>3</sup> The goal of “Objective 3 – Support Facilities,” in the Pedestrian and Bicycle Master Plan, is to “provide support facilities in addition to the pedestrian and bicycle network that encourage walking and bicycling.” This includes Policy 3.2: “Provide support facilities for employees who are commuting by walking or bicycling (such as showers, lockers, and bike parking).”<sup>4</sup> The Plan recommends developing a bike parking program to install bicycle parking, including bike corrals, in the public right of way at the request of business owners and members of the public.

The Eugene Pedestrian and Bicycle Master Plan serves as the basis for the Pedestrian and Bicycle elements of the City’s Transportation System Plan (TSP) which is being worked on now. The TSP draft from January 5, 2015 included this same goal with a higher threshold to double bike trips by the 2014 level. The draft TSP also includes actions including “converting on-street automobile parking spaces to bicycle lanes and bike parking.”<sup>5</sup>

In addition, Eugene’s Climate Recovery Ordinance that includes the Climate Action Plan has an objective to create 20-minute neighborhoods, where 90 percent of Eugene residents can safely walk or bicycle to meet most basic, daily, non-work needs.<sup>6</sup>

Considering the current rate of Eugene residents’ bicycling and Eugene’s policy goals and objectives, I wondered if the current bike parking options in Eugene were actually helping to support and reach these goals? What were citizens’ perceptions of the current bike parking options?

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<sup>1</sup> McKenzie, B. (May 2014). “Modes Less Traveled — Bicycling and Walking to Work in the United States: 2008-2012.” U.S. Census Bureau.

<sup>2</sup> *Ibid.*

<sup>3</sup> City of Eugene. (March 2012). Eugene Pedestrian and Bicycle Master Plan.

<sup>4</sup> *Ibid.*

<sup>5</sup> City of Eugene. Transportation System Plan. <http://www.centallanertsp.org/EugeneTSP/Home>. Date Accessed: May 9, 2015.

<sup>6</sup> City of Eugene. (September 2010.) A Community Climate and Energy Action Plan.



## Defining Bike Parking

Bike parking can be divided into two general categories: short term and long term. According to the Association of Pedestrian and Bicycle Professionals (APBP) Bicycle Parking Guidelines, short-term bike parking accommodates a parking duration of less than 2 hours and long term accommodates a parking duration of more than 2 hours (Table 1).<sup>7</sup> This study focused primarily on short-term bicycle parking.

Table 1 Criteria for short-term and long-term bicycle parking

Criteria	Short-term	Long-term
Parking duration	Less than two hours	More than two hours
Fixture types	Simple bicycle racks	Lockers, racks in secured area
Weather protection	Unsheltered	Sheltered or enclosed
Security	Unsecured, passive surveillance (eyes on the street)	Secured, active surveillance
		Unsupervised:
		“Individual-secure” such as bicycle lockers
		“Shared-secure” such as bicycle room or cage
		Supervised:
		Valet bicycle parking
Typical land uses	Commercial or retail, medical/ healthcare, parks and recreation areas, community centers	Paid area of transit station
		Residential, workplace, transit

Source: APBP Bicycle Guidelines 2<sup>nd</sup> Edition

Bike parking is important because when people know there will be a safe, secure place to lock their bicycle when they get to their destination, it encourages people to ride. It also legitimizes bicycling as a transportation mode by providing opportunities equal to motorized modes.<sup>8</sup> Bicycle parking also has benefits to non-cyclists including benefits to businesses, which I will explain in more detail. Well-designed bicycle parking promotes an orderly streetscape and also preserves the pedestrian right of way. It prevents damage to trees and street furniture as well as keeping bicycles from falling over into the sidewalk.<sup>9</sup>

APBP defines a good bike rack as one that:

- Supports the bicycle in at least two places, preventing it from falling over.
- Allows locking of the frame and one or both wheels with a U-lock.
- Is securely anchored to the ground.
- Resists cutting, rusting, bending and deformation.<sup>10</sup>

<sup>7</sup> Association of Pedestrian and Bicycle Professionals. (2010). Bicycle Parking Guidelines, 2<sup>nd</sup> edition.

<sup>8</sup> *Ibid.*

<sup>9</sup> *Ibid.*

<sup>10</sup> *Ibid.*

Based on the APBP guidelines two of the recommended rack types are an inverted U, also known as a staple rack, and post and ring racks (Image 1, 2). Rack types that do not meet these qualifications include toast or wheel benders as they do not allow the frame to be locked and do not have two points of contact (Image 3). Ribbon or wave racks also do not have two points of contact and often end up blocking pedestrian space (Image 4).<sup>11</sup> More recommended and not recommended racks types are listed and described in both APBP’s Bicycle Parking Guide and the Regional Bike Parking Study.<sup>12 13</sup>

With that in mind, I was skeptical how the City of Eugene would reach its goal to double bicycling rates with some of the existing bike parking conditions around town that did not meet these standards (Image 5-9). These types of bike parking are not safe, convenient, intuitive or standard. As a result, bicyclists are locking their bicycles to sign posts, trees and building utilities (Image 10-12). This causes property damage and leads to an unpredictable public right of way.

**Good Bike Parking**



Image 1: Inverted U or Staple Bike Racks



Image 2: Post and Ring Bike Racks  
Source: <http://www.cambridgema.gov/CDD/transportation/projects/bikeparking.aspx>



Image 3: Wheel Bender Bike Rack at Ta Ra Rin in Eugene



Image 4: Wave Bike Racks  
Source: <http://www.dero.com/bike-parking-guide/>

**Bad Bike Parking**

<sup>11</sup> Anderson, Michael. (February 2015). *Comment of the Week: 43 words that perfectly define good bike parking.* Bike Portland.

<sup>12</sup> Association of Pedestrian and Bicycle Professionals. (2010). *Bicycle Parking Guidelines*, 2<sup>nd</sup> edition.

<sup>13</sup> Lane Transit District. (October 2013). *Regional Bike Parking Study.*

## Problematic Eugene Bike Parking Examples



Image 5: Bike Racks at the 5<sup>th</sup> St Market That Are Confusing To Use



Image 6: Wave Bike Racks On Broadway Street that Are Hardly Usable

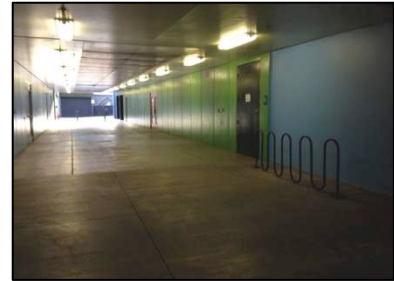


Image 7: Wave Bike Rack in a Dark Alley On Willamette Street Downtown



Image 8: Bike Racks Hidden Behind A Building on 5<sup>th</sup> Street



Image 9: Hanging racks outside the Hilton on 7<sup>th</sup>. These racks cater to the young, strong and able and not the 8 to 80 audience.

## Because of the problem



Image 10: Bikes locked to trees at Off The Waffle



Image 11: Bikes locked to signposts



Image 12: Bikes locked to building utilities at Everyday People Yoga



## Defining On-Street Bike Corrals

As someone who rides a bicycle and appreciates effective bike parking, I think one solution to get more people to bike is the on-street bike corral. A bike corral is more than one bike rack attached to “rails” or “skis” (Image 13). An on-street bike corral is a bike corral that is placed in the street instead of on the sidewalk (Image 14). For the purposes of this report I will use the terms on-street corral and corral interchangeably and will be referring to the on-street corral when I do. An on-street bike corral can replace an on-street car parking spot or depending on the city can even be placed in a street location where a car is not allowed to park (Image 15).



Image 13: Bike Corral



Image 14: On-Street Bike corral



Image 15: On-street bike corral placed at the corner of an intersection

On-street bike corrals are becoming popular around the country and world as bicycle rates and demand increase along with the growing movement to rethink our streets as places for more than moving and storing automobiles. On-street bike corrals are recommended in areas with high bicycle parking demand and where there are a lot of pedestrians on the sidewalk.<sup>14</sup> This is the case because removing bike parking from the sidewalk and placing it in the street frees up room in the pedestrian realm. If a bike corral does replace car parking, it typically fits in the space that one to two cars would have been parked. This is why some artistic on-street bike corrals are even shaped like a car (Image 16). When placed at the end of the block at an intersection, corrals have added benefits for pedestrians and drivers. They increase visibility since a bike corral is easier to see through than a car. The corral also shortens the crossing distance a pedestrian would need to make in front of automobile traffic.

Image 16: On-street bike corral with the silhouette of a car showing another use for the street space typically used for parking cars



Source:

<http://www.cyclehoop.com/product/bike-racks-and-cycle-stands/car-bike-port/>

<sup>14</sup> Association of Pedestrian and Bicycle Professionals. (2010). Bicycle Parking Guidelines, 2<sup>nd</sup> edition.

Since 2011, Eugene has installed four on-street bike corrals in the downtown core commercial areas with a fifth installed just outside of the downtown core in front of a yoga studio during this study. In comparison, Portland, OR has 126 on-street bike corrals and Seattle, WA has 34.<sup>15,16</sup> In Seattle and Portland the majority of corrals are inverted U racks with a few artistic exceptions. In Eugene, of the five corrals, two are artistic. Instead of the standard inverted U racks on rails recommended by APBP, the artistic corral is an art installation in the street where you can park and lock your bike. Understanding the differences between how each city makes decisions about what types of bike corrals to install, and business and user perceptions of those corrals, became one of the focuses of this study.

## Regional Bike Parking Study

To help decide what bicycle parking improvements need to be made, point2point Solutions at Lane Transit District (LTD) led a Regional Bike Parking Study in 2013. The study looked at both short and long-term bicycle parking supply and demand in the Eugene-Springfield region. The study provided key information about:

- Existing facility conditions and preferences
- Potential new facilities
- Bicycle parking for transit stations
- Recommended bicycle parking facility types
- Recommendations for bicycle parking installation, security, and management
- Recommended development code changes<sup>17</sup>

The study's recommendations are intended to be used by LTD and local jurisdictions including Eugene to secure and allocate funding to install new bicycle parking in ways that best meet the region's needs, and ensure that new private development appropriately provides for bicycle parking needs.<sup>18</sup> To get at local preferences the study included a visual preference survey of different short and long term bicycle parking types. Out of the 108 people who took the survey, 56.5% of respondents said they would prefer a staple rack or post and ring rack for short-term bicycle parking. Only 2.8% of respondents preferred a bike corral for short-term bicycle parking. However, 20.6% of respondents preferred a bike corral for shopping centers or destinations like Woodfield Station, Valley River Center, the Whiteaker neighborhood and the Fifth Street Market. I was curious to find out in interviews with city staff how the City of Eugene has used the Regional Bike Parking study findings to date. My study followed up on the Regional Bike Parking study findings to determine business owners'/managers' perceptions and their customers' perceptions regarding short-term bicycle parking in commercial areas in Eugene, including bike corrals specifically.

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<sup>15</sup> City of Portland. Existing On-Street Bicycle Corral Locations.

<https://www.portlandoregon.gov/transportation/article/250076#FAQ>. Date Accessed: May 9, 2015.

<sup>16</sup> Seattle Department of Transportation. On-Street Bike Parking.

<http://www.seattle.gov/transportation/bikeparking.htm>. Date Accessed: May 9, 2015.

<sup>17</sup> Lane Transit District. (October 2013). *Regional Bike Parking Study*.

<sup>18</sup> *Ibid.*



## Literature Review

In order to place this study in context of previous research, the following is a review of parallel research on bicycle infrastructure increasing the rates of cycling and the economic impacts of bicyclists, as well as studies specifically focused on bike corrals. This review concludes with the goals of this mixed-methods, perceptions-based study.

### Infrastructure Increases Bicycling Rates

Bicycling trips are increasing in the U.S. more than any other travel mode and younger generations are obtaining driver's licenses later in life because they prefer getting around by alternative means, instead of the single occupancy vehicle.<sup>19 20</sup> Also, even as the population increases, both national and state vehicle miles traveled rates are decreasing. While the economy may be a factor, it is not the sole reason for this decline.<sup>21 22</sup>

In order to support this changing use of public right of way, physical changes need to be made. National and local research has shown that bicycle infrastructure, including cycle-tracks, protected and separated bike lanes and bicycle boulevards, increases bicycling rates. The *National Institute for Transportation and Communities'* 2014 report, "Lessons from the Green Lanes: Evaluating Protected Bike Lanes in the US" showed in eight cities when a protected bike lane was added, bike traffic rose by 75% on average within one year.<sup>23, 24</sup>

The *Center for Transportation Studies Portland State University's* 2011, "Evaluation of Innovative Bicycle Facilities: SW Broadway Cycle Track & SW Stark/Oak Street Buffered Bike Lanes" found that over 70% of those bicycling indicated that the cycle track made cycling safer and easier.<sup>25</sup>

The "Resident Perceptions of Bicycle Boulevards: A Portland, Oregon Case Study" was submitted to the Transportation Research Board for its 89th Annual Meeting in 2009. This study surveyed residents along a specific bicycle boulevard in Portland, Oregon to determine their perceptions of the treatment. It showed there was overall support for bicycle boulevard treatments and determined that bicycle boulevards work as they are intended – making bicycling accessible and

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<sup>19</sup> McKenzie, B. (May 2014). "Modes Less Traveled — Bicycling and Walking to Work in the United States: 2008-2012." U.S. Census Bureau.

<sup>20</sup> AAA Foundation for Traffic Safety. (August 2013). "Timing of Driver's License Acquisition and Reasons for Delay among Young People in the United States, 2012." American Automobile Association Foundation.

<sup>21</sup> USPIRG Education Fund. (2013). "Moving Off the Road A State-by-State Analysis of the National Decline in Driving."

<sup>22</sup> Oregon Department of Transportation. "Seven trends that spell trouble for transportation funding." [http://www.oregon.gov/ODOT/GOVREL/Pages/Seven\\_Trends.aspx](http://www.oregon.gov/ODOT/GOVREL/Pages/Seven_Trends.aspx)

<sup>23</sup> Andersen, Michael. (June 2014). "The Protected Bike Lane Ridership Bump, City By City (Infographic)."

<sup>24</sup> Monsere, C., Dill, J., McNeil, N., Clifton, K., Foster, N., Goddard, T., Berkow, M., Gilpin, J., Voros, K., Van Hengel, D., Parks, J. (June 2014). "Lessons from the Green Lanes: Evaluating Protected Bike Lanes in the U.S." *National Institute for Transportation and Communities*.

<sup>25</sup> Monsere, C., McNeil, N., and Dill, J. (January 2011). "Evaluation of Innovative Bicycle Facilities: SW Broadway Cycle Track & SW Stark/Oak Street Buffered Bike Lanes." *Center for Transportation Studies Portland State University*.

a reality for bicyclists of all abilities.<sup>26</sup> These reports and others highlight that investing in infrastructure improvements is a way for cities to meet goals for improving bicycling rates.

One additional note from The Lessons from the Green Lanes report is that on NE Multnomah Street in Portland where an additional 27 on-street car parking spaces were added with the cycle-track, 30% of motorists surveyed still had negative perceptions of parking related to the change.<sup>27</sup> This is important because it shows that with any change a percentage of people, in this case motorists, will perceive it as negative even if it actually benefits them.

## Economic Impacts of Bicyclists

Additional recent studies from Portland and Seattle to Dublin, Australia and New York, have done research that evaluated the economic impact of bicycle users. All of the studies found that replacing an on-street car parking spot with a bike facility has little to no impact on businesses and in some cases has even increased business.<sup>28</sup> This is important, as a main argument against the installation of on-street corrals is that taking away car parking will be detrimental to businesses. However, the research has shown this is not the case. One example is PSU professor Dr. Kelly Clifton's research in Portland. Customers were surveyed at 89 businesses, which showed that people on bicycle spend less per trip but more per month overall than car drivers.<sup>29</sup> Since Clifton's research included both bike lanes and bicycle parking in her definition of facilities, no direct correlation can be made to bike corrals' specific economic impact on businesses as a result of her research.

In Seattle, Kyle Rowe used a methodology from New York City<sup>30</sup> utilizing taxable retail sales data to study the impacts that two bicycle projects in Seattle had on neighborhood business districts they occurred in. Rowe concluded that the bicycle infrastructure changes had no negative impact on the business districts for either case study. One of the projects, which removed 12 on-street car parking spots, experienced a 400% increase in sales index after the parking was removed in order to install a bike lane. Rowe could not directly pinpoint the economic success as a result of increased bicycle access without mode-split data before and after the project, but stated, "one could argue the economic success certainly was not the product of customers accessing the businesses by car."<sup>31</sup> This research shows that improved bicycle infrastructure is not only beneficial to bicyclists, but also to business owners.

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<sup>26</sup> VanZerr, M. (2009). "Resident Perceptions of Bicycle Boulevards: A Portland, Oregon Case Study." *Submitted to the Transportation Research Board For the 89th Annual Meeting.*

<sup>27</sup> Monsere, C., Dill, J., McNeil, N., Clifton, K., Foster, N., Goddard, T., Berkow, M., Gilpin, J., Voros, K., Van Hengel, D., Parks, J. (June 2014). "Lessons from the Green Lanes: Evaluating Protected Bike Lanes in the U.S." *National Institute for Transportation and Communities. Pg. 124.*

<sup>28</sup> City Lab. (March 2015). *The Complete Business Case for Converting Street Parking Into Bike Lanes.* <http://www.citylab.com/cityfixer/2015/03/the-complete-business-case-for-converting-street-parking-into-bike-lanes/387595/>

<sup>29</sup> Clifton, K. (2013). "Examining Consumer Behavior and Travel Choices." Oregon Transportation Research and Education Consortium.

<sup>30</sup> New York City Department of Transportation. "The Economic Benefits of Sustainable Streets."

<sup>31</sup> Rowe, Kyle. (July, 2013.) "Bikenomics: Measuring the Economic Impact of Bicycle Facilities on Neighborhood Business Districts." College of Built Environments, University of Washington.

## Bike Corral Specific Studies

As bike corrals are short-term parking options, they encourage a high rate of turnover. As a result, more customers are able to use the spots and frequent the nearby businesses. This connects to Donald Shoup's "The High Cost of Free Parking," which addresses changes to the way automobile parking and pricing should work in high demand areas. His recommendations include using pricing to ensure that car spots become short-term parking options in high demand areas.<sup>32</sup> Connecting Shoup's recommendations to Clifton's research, which describes bicyclists as competitive consumers, an argument can be made for the allocation of on-street parking space to different transportation modes. Alison Lee, a researcher in Melbourne, Australia also conducted a survey on shopping behaviors and determined that drivers spend more than bicyclists per hour, about \$27 to \$16.20 but since six bikes can fit into one on-street car space their value is greater and should be considered (Image 17).<sup>33</sup>

Two additional studies that focused on bike corrals were qualitative studies conducted by two separate graduate students at Portland State University (PSU). The first study by Nathan McNeil determined perceptions and habits of users for one bike corral on a specific street in Portland, Oregon and found that users would not use a corral if it were more than a block from their destination.<sup>34</sup> The second study by Drew Meisel followed up on McNeil's research and surveyed businesses within a half block of a bike corral. Miesel determined a number of business owners had favorable perceptions of the bike corrals that were outside of their businesses regarding sustainability, increased foot and bike traffic and neighborhood identity. However, this research only looked at perceptions after the corral was installed.<sup>35</sup>

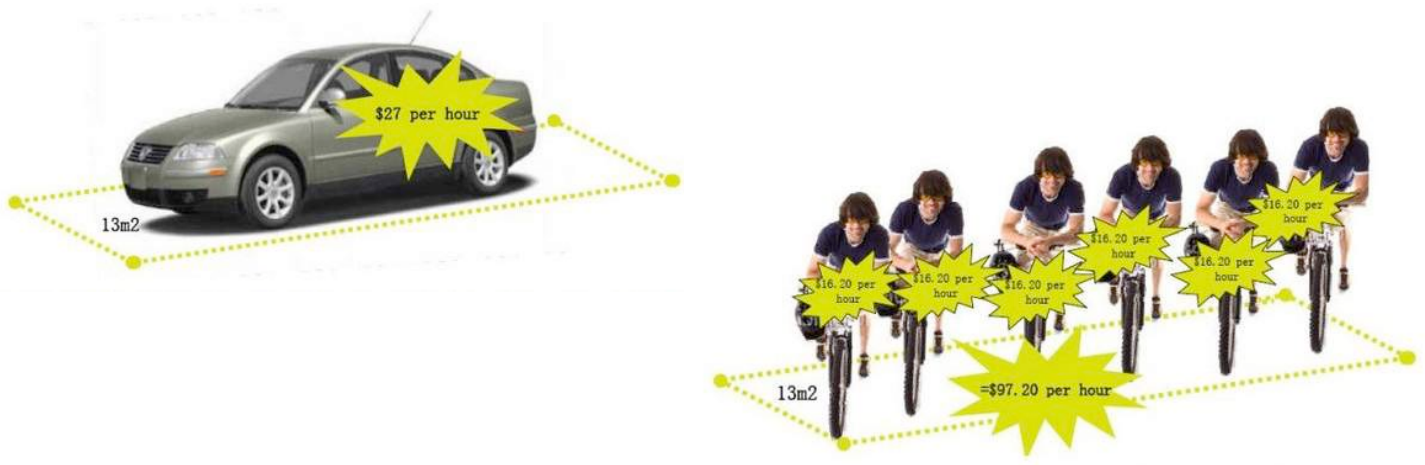


Image 17: Value of One On-Street Parking Spot

Source: [http://colabradio.mit.edu/wp-content/uploads/2010/12/Final\\_Thesis\\_Alison\\_Lee.pdf](http://colabradio.mit.edu/wp-content/uploads/2010/12/Final_Thesis_Alison_Lee.pdf)

<sup>32</sup> Shoup, D. C. (2005). "The high cost of free parking." Chicago: Planners Press, American Planning Association.

<sup>33</sup> Lee, Alison. (2008). "What Is The Economic Contribution Of Cyclists Compared To Car Drivers In Inner Suburban Melbourne's Shopping Strips?" The University Of Melbourne.

<sup>34</sup> McNeil, N. (2009). "Portland's Bicycle Corrals: A Case Study of East 28th Avenue." Portland State University School of Urban Studies and Planning

<sup>35</sup> Meisel, Drew. (2010). "Bike Corrals: Local Business Impacts, Benefits and Attitudes." Portland State University School of Urban Studies and Planning.

## Goals of this Study

Even with the studies conducted, business owners can still be weary of replacing a car parking spot with bicycle facilities, thinking along more traditional lines that a car parking spot in front of their business equals more money for their business than bike parking. Meisel's research yielded favorable perceptions of on-street bike corrals from the business' perspective of places with a corral but did ask businesses without a corral how they perceived them.

Since the economic case for replacing on-street car parking with bicycle facilities has been proven both locally and worldwide, and since Eugene does not have a sales tax, which would have helped in a quantitative study, I decided to follow up on both Meisel's and McNeil's perceptions based studies of bike corrals. Taking their recommendations for future research I included both business owners at businesses with and without corrals and a larger user sample to understand all of their perceptions in relation to bike corrals, bicycle parking in general and the use of the public right of way. I also wanted to follow up on the Regional Bike Parking Study and find out what Eugene's plans were for improving bike parking options and compare that to the bike parking efforts in Portland, OR and Seattle, WA.

Based on these findings, this study will make recommendations to help inform Eugene's decisions regarding what types of bike parking improvements can help to increase the number of bicycle users and what else can be done to help the city meet it's goal of doubling the number of bicycle riders by 2031.

## Methodology

My study took elements of the previous PSU studies about bike corrals, applied them to Eugene and built upon their research. A recommendation from Meisel's study was to determine if there is a difference in perception between businesses with a bike corral in front versus businesses without a bike corral in front. Since Eugene only has five bike corrals, it was an ideal opportunity to find out if both businesses and users feel a difference in patronage to a business with a bike corral in front versus a business without a bike corral. Specifically, does the on-street bike corral make more of a difference for users or businesses than sidewalk bike racks and are the artistic on-street bike corrals in Eugene more favorable than the non-artistic on-street corrals.

Another recommendation from Meisel's study was to determine the distance riders traveled to a corral. This evidence could support Eugene's 20-minute neighborhood plans if bicyclists are coming from less than 3 miles away. Bike corrals might encourage people to make shorter trips on bike instead of via car to commercial corridors.

This led me to a mixed methods study. The research methods included:

1. In person/phone interviews with staff and stakeholders in Eugene, Seattle and Portland who manage and are involved with bike parking including on-street bike corrals in their cities.
2. Business owner/manager surveys and customer surveys.

## Interviews

The in person and phone interviews with staff and stakeholders in Eugene, Seattle and Portland all lasted between 20 minutes to an hour and were conducted between February and April 2015. The interviews were semi-structured and included eight questions with sub questions to help me understand how bike parking works in each city and how the programs are going. See Appendix A and B for interview tools. Two other interviews took place with recommended stakeholders where I asked specific follow up questions. See appendix B for those interview questions. Not all interviewees were asked each question directly as some questions did not apply to their situation or they addressed the question in a different manner. The interviews were recorded and I also took notes to help with the synthesis of the findings. The interviews were analyzed by listening to the recordings and comparing answers for key insights and differences between Eugene, Seattle and Portland to inform the Key Findings and Implications Section.

Those interviewed included:

### Eugene

- Reed Dunbar - Bicycle and Pedestrian Planner, City of Eugene
- Jeff Petry - Parking Manager, City of Eugene
- Hugh Pritchard - Eugene Developer and Resident

### Portland

- Scott Cohen - Transportation Demand Management Specialist, Portland Bureau of Transportation



- Greg Raisman - Traffic Safety Specialist, Portland Bureau of Transportation
- Lindsay Walker - Employee Outreach and Bicycle Program, Go Llyod

### Seattle

- Kyle Rowe – Associate Transportation Planner, Seattle Department of Transportation

## Surveys

The surveys built upon the interviews to determine how business owners and managers and their customers perceive bike parking including on-street bike corrals in Eugene.

There were three different hard copy surveys:

1. A survey for business owners and managers with an on-street bike corral on the block their business is on.
2. A survey for business owners and managers on blocks without an on-street bike corral on their block.
3. A customer survey for customers at both of the business types above whom I surveyed the owner and manager.

The survey for business owners and managers with an on-street corral on their block consisted of 11 questions and took 5-10 minutes to complete. The survey for business owners and managers without a corral on their block consisted of 12 questions and also took 5-10 minutes to complete. The customer survey was the same for both business types and consisted of 16 questions and took approximately five minutes to complete. See Appendix C-E for the survey tools. In the surveys, inverted U racks were shown next to the term “basic racks” in order to use people friendly language. The analysis used the same language for consistency. All surveys were distributed in-person during the months of March and April 2015 and each business had them for 2-4 weeks for the business owner/manager and customers to complete. The survey answers were entered into spreadsheets with a coding system and analyzed using Microsoft Excel. Comments were not coded but analyzed and used to support the survey response findings.

## Business Surveys

In total 24 businesses were given hard copies of the survey for businesses owners/managers with and without a bike corral on their block to complete. Of those, 10 were businesses on the four blocks with an on-street bike corral and 14 were businesses without on-street bike corrals. It should be noted that during the study one of the businesses on a block without a bike corral installed an on-street bike corral.

The types of businesses surveyed with an on-street bike corral on their block included:

- 6 restaurants (breakfast, lunch and dinner)
- 3 bars
- 1 grocery store

The businesses surveyed on blocks without an on-street bike corral included:

- 7 restaurants (breakfast, lunch and dinner)

- 1 bar
- 3 coffee shops
- 1 ice cream parlor
- 1 bakery/restaurant
- 1 yoga studio

Businesses with an artistic corral on their block include:

- KIVA Grocery
- Jackalope
- Belly Taqueria
- Morning Glory

Businesses with a non-artistic corral on their block include:

- The Bier Stein
- Newmans's Fish Co
- Cornucopia
- Steelhead
- Tap and Growler
- Everyday People Yoga

The selection of businesses without corrals on their blocks to survey was decided by using the following criteria:

- Locations the Regional Bike Parking Study bicycle parking recommendations map (Image 18)
- Locations with an on-street car parking spots on the block their business is on.
- Locations with similar business types along the same Willamette Street and Pearl Street corridors to the locations surveyed with on-street bike corrals.
- Locations City of Eugene staff said had requested on-street bike corrals and one location that turned down an on-street bike corral previously.
- Locations both myself and other community members thought could use an on-street bike corral.

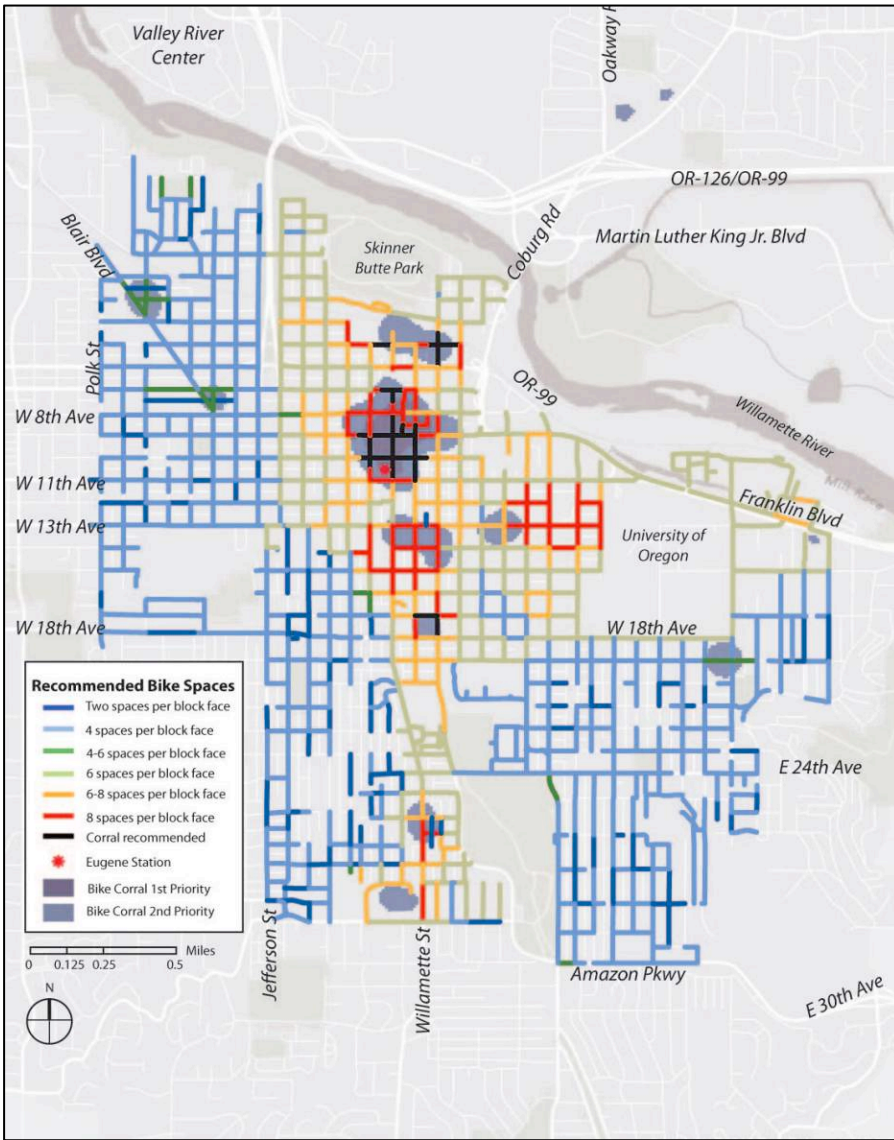
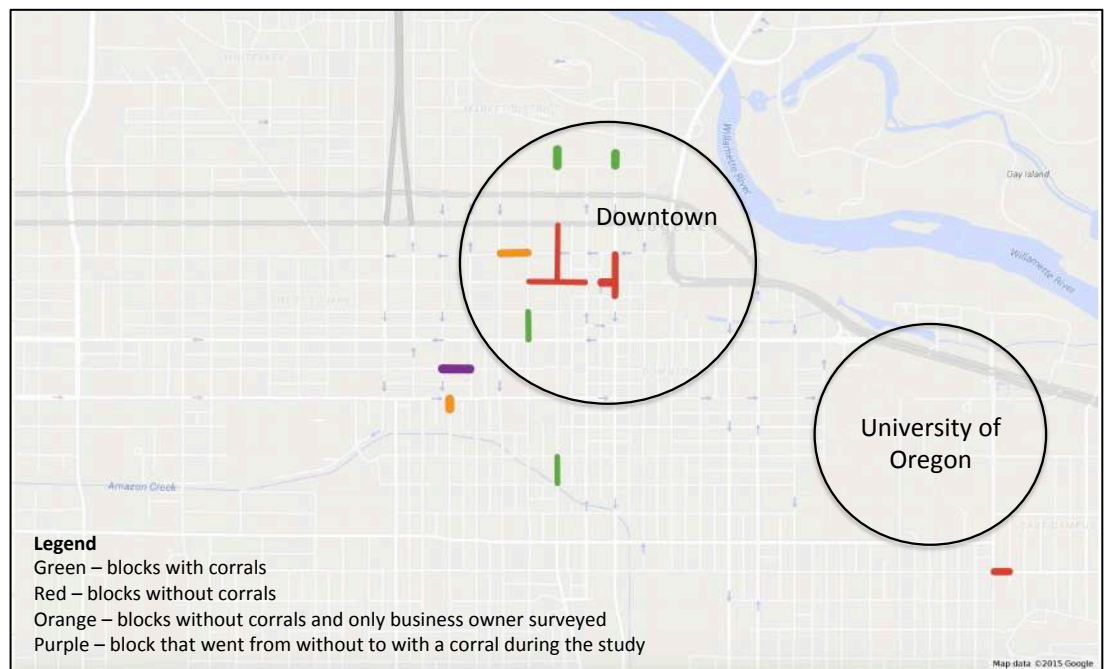


Image 18: Downtown Eugene Bike Parking Recommendations Map

Source: Regional Bike Parking Study

Image 19: Map Of Blocks With And Without On-Street Bike Corrals That Were Surveyed



## Customer Surveys

At the same time I delivered the business surveys I also delivered the customer surveys to 22 of the 24 businesses who received the business survey. Each business was provided an envelope with 40 customer surveys to hand out to their customers (Image 20). The surveys were separated into two groups of 20 with a note asking them to pass 20 out on a Monday, Tuesday and/or Wednesday and the other 20 on a Friday, Saturday and/or Sunday. However, businesses did not adhere strictly to this schedule and I decided this would not affect the analysis since the surveys asked customers to indicate the day of the week they took the survey.



Image 20: Packets with business and customer surveys to deliver

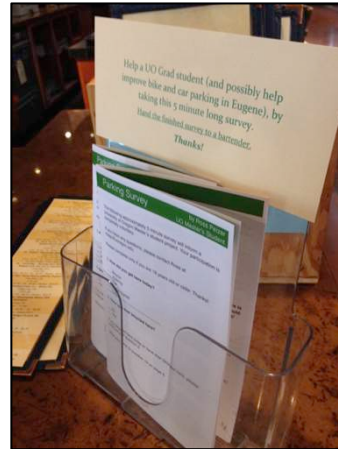


Image 21: How businesses with counter service dispersed the customer survey

When I delivered the surveys, I worked with the businesses to determine the best way to administer surveys to their customers. Most of the businesses with counter service placed the customer surveys on their counters for customers to complete (Image 21). A few table service restaurants passed the customer surveys out with the check. One business dispersed the surveys during a trivia night.

The yoga studio that had an on-street corral installed during this study requested I survey their customers as they left the studio. I administered the survey three times, twice before the install on and once afterward by standing on the sidewalk outside the studio with surveys, pens and clipboards. I also rubber banded a few surveys to bicycles locked to objects on the block the yoga studio is on and asked those individuals to fill them out and hand them back to me before they left. When analyzing the results I divided the yoga studio into two categories: before corral install and after corral install. I also administered surveys at the grocery store twice as the owner and I agreed that would be the best way to get responses.

At the grocery store I stood on the sidewalk next to the artistic on-street bike corral with surveys, pens and clipboards for customers to take. I also had whiteboard explaining what I was doing there as this is a busy intersection and the grocery store manager requested I have a sign instead of approaching their customers (Image 22).



Image 22: Administering customers surveys at one of the two locations that did not disperse the surveys themselves

The two businesses that received a business owner/manager survey but not customer surveys was an intentional decision. I wanted to capture the business owner's perceptions as the City of Eugene staff told me these two businesses had requested a corral. One of these businesses was being impacted by Lane Transit District's Emerald Express (EmX) construction so I did not think it was a good idea to also survey their customers. The second location has a travel lane in front of their business and the on-street parking is around the corner. In addition they have a wide sidewalk with three inverted U racks and room for more on the sidewalk so I chose to not survey the customers there.



## Results and Analysis

### Interviews

The following is a synthesis of what I was told and learned in the interviews with staff and stakeholders in Eugene, Portland and Seattle, broken out into categories.

#### What is the current program in each city?

Eugene does not currently have a bike corral program. City staff in the transportation department respond to requests on a case-by-case basis. A request starts a conversation between three departments: transportation, parking and traffic operations. In order to get a corral, approval is needed from both the parking and traffic departments. A maintenance agreement is signed with the City of Eugene Parking Manager for businesses to maintain the corral which includes sweeping leaves and garbage. The city wants to know businesses want the corral so the city wants the businesses to be the one to request the corral. With the newer corrals parking services asks for the business requesting the corral to get a petition signed by their neighbors. This petition is not a 51% majority wins, but rather it informs the transportation engineer whether or not a particular installation will be a controversial process.

This is different from Portland where there is a city staff member currently spends 5-10% of their time on corral requests and install process coordination. When the program first started it was closer to 30-50% of the staff member's time over the course of a year. The Portland Bureau of Transportation has set up internal and external processes, policies, standards and city codes regarding bike parking which also helps fund the program. In Portland, the corral program evolved from an on demand, who came in first model in addition to working with neighborhood associations and business districts to today's program where there are two clear ways of getting a corral.

The first way is proving that bike parking demand is exceeding space on the sidewalk, and the city's bike parking fund pays for the corral. The second way, since 2012, is if a business does not want to wait for demand to exceed the sidewalk they can pay a \$2,600 fee to get a corral installed. The majority of corrals today are getting installed the second way with businesses or developers paying the fee. In either case, there is an application that businesses must fill out that requests site information including existing bike parking demand, applicant information from the immediately adjacent business and property owners and a signed maintenance agreement. See Appendix F for Portland's full application for on-street bike corrals.

Seattle also has a pedestrian and bicycle transportation planner whose work includes managing the bike parking program which includes corrals. In Seattle, the city provides free bike racks including corrals in commercial areas based off requests if it makes sense for the location. The program is currently mostly reactive but trying to be more proactive. For example, the city does outreach to let communities know they can request bike racks and corrals.

Seattle's internal process, like Portland's, includes standards for corral types. Each corral location is determined on a case by case basis and includes checking with neighboring businesses'

property owner or manager depending on what makes sense. The property owner will be notified, but if the property owner lives elsewhere, Seattle staff try to talk to whomever works on the block everyday since they will have a better idea of what the day-to-day needs are in the location. Seattle staff encourages the business that requested the corral to have conversations with their neighbors if they have not already and to send a signed note to Seattle staff with all the businesses in agreement. Then staff members check with the city's curb space team and look at what is going on with the block related to upcoming development. Seattle Department of Transportation (SDOT) keeps up on the maintenance so there is no maintenance agreement on bike racks or corrals to date.

The City of Eugene has had interns put together ideas for how a program could function and City of Eugene transportation staff said their ideal program would include: standardization, a fee schedule, a standard drawing, a check list that applicants can use to know if they will qualify and a procedure including a signature and maintenance agreement. A program like this would be more in line with the programs in Portland and Seattle.

### How is the program funded in each city?

The two existing artistic corrals in Eugene were funded through the Parking Enterprise Fund which is where all parking meter, permit and citation fees go. Since then The Bier Stein and Everyday People Yoga paid for their corrals and installation themselves. The Bier Stein's five inverted U rack in-street corral on rails cost approximately \$1,600 and was made by a local company. This does not include the installation costs. Everyday People Yoga created a crowdfunding campaign on Indiegogo to raise the funds for their corral.

The City of Eugene transportation staff said they are trying to get to a cost share program for racks in the public right of way. Under this potential new program, the City of Eugene would pay 50% of the cost of any bike rack including corrals and businesses would pay the other 50%. The rack or corrals would then be Eugene property.

Portland has a bike parking fund that was created to provide developers with an alternative to placing required short-term bicycle parking on site – allowing them to "buy out" of their responsibility for the bike parking on site. Developers that cannot or choose not to provide code-required short-term bike parking pay into the fund instead. The fees are used by the Portland Bureau of Transportation to install bicycle parking in the right-of-way.<sup>36</sup>

This bike parking fund is what was used to pay for corrals up until 2012. Since 2012, a fee option was added so developers and businesses who want a corral but do not want to wait for the bike parking fund to pay for it can pay \$2,600 which covers the install cost and a bit of staff time.

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<sup>36</sup> Office of the Auditor. Bicycle Parking Fund Administrative Procedures Guide. <http://www.portlandonline.com/auditor/index.cfm?a=42959&c=31218>. Date Accessed: May 9, 2015.

Seattle’s 2006, \$365 million, voter approved transportation levy, called “Bridging the Gap,” funds almost all bike and pedestrian initiatives including bike racks and corrals. Seattle is finalizing the next levy package right now called “Move Seattle” to keep the funding for bike parking and corrals going. The money pays for standard corrals that have three inverted U racks with cross bars on rails. The corrals can also be configured to include six or nine racks depending on what makes sense (Image 23). If a business wants a different rack then they must purchase the rack or corral and get a one time street use permit to install it. Then they can either continually apply and pay for a permit each year to have their rack in the right of way or sign over the rack or corral to the city to take on as an asset of their own. Everyone who has a unique rack has chosen the second option to date. If the unique rack gets damaged the city will contact the business to see if they want to replace their unique rack; if they do not wish to replace it, the city will replace it with a standard inverted-u rack.

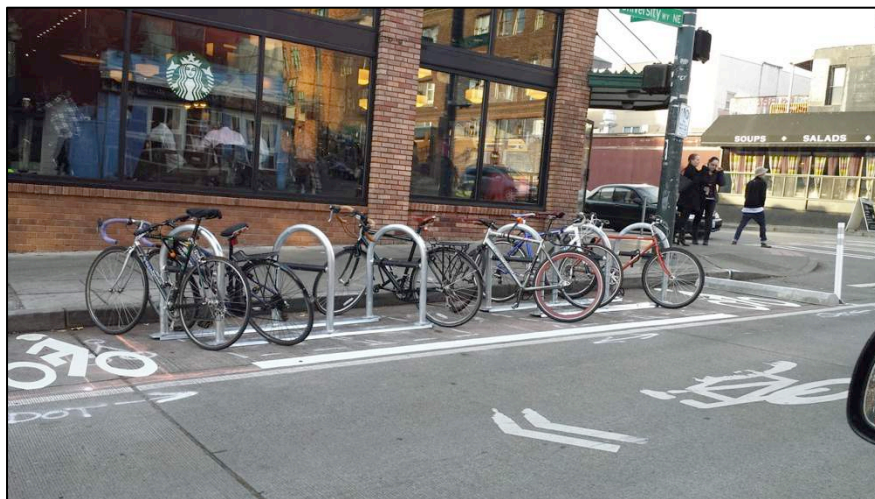


Image 23: Seattle bike corral with two standard corrals each with three inverted U racks that fit 12 bikes on rails at an angle and at an intersection  
*Source: <http://wabikes.org/2013/12/30/delivering-more-bike-parking-for-seattle/>*

### How is the program working in each city?

In Eugene, the program is currently ad hoc and primarily request based. The one time Eugene city staff approached a business about putting a corral on the street in front of their business, the owner said they thought that the existing short-term car parking drives a lot of their revenue. They felt that removing that short-term car parking would hurt their business. As a result of this interaction the city now wants business owners to request corrals. Since then, city staff have had some conversations internally about approaching businesses and funding models as the code works ok for commercial development but in downtown there might need to be a higher level of scrutiny.

In Portland, having internal and external standards and revenue makes the program work well. There are 126 corrals to date in Portland.

Seattle has installed 36 corrals to date and has only been met with opposition a few times due to parking. The solution has been putting the corral within 30 feet of a stop sign or intersection where it is illegal for cars to be parked anyway. With the request based program business owners and even customers can request racks which has lead to lots of requests for corrals. Each corral is a case by case situation to find the best possible location. It might be necessary to work with the neighboring businesses to determine a spot nearby to the requesting business, as around the corner or across the street from the requesting business may be better than directly in front, depending on the circumstances. Other times, SDOT suggests a corral when the original request was just for a bike rack, because of narrow sidewalks, anticipated demand and/or a 30 foot no park zone that exists and would make an ideal location for a corral.

### Local benefits of corrals in each city?

In Eugene, the installation of the first three bike corrals actually increased the on-street car parking spots because the corrals could go in spots that cars were not allowed, modified the yellow zones and reevaluated the on-street parking on those blocks. Those situations include the Morning Glory corral where there was a curb cut before and now Morning Glory has more room on the sidewalk for pedestrians and café seating (Image 24,25). The location of the KIVA corral at the end of the block is a benefit for bicyclists and pedestrians as it keeps cars from moving into and loading/unloading in that area. City staff also stated how bike corrals fit into the creative unique fabric that brings people downtown and the artistic corrals have branded businesses.



Image 24: Morning Glory before corral install  
Source: <https://veganmyway.wordpress.com/2010/11/23/morning-glory-cafe-glorious/>



Image 25: Morning Glory after corral install  
Source: <http://lynnrides.blogspot.com/2013/10/coffeeneur-6-morning-glory-eugene.html>

In Portland, the corrals have provided more room for pedestrians and those in wheelchairs on the sidewalk, outside seating space for businesses and public street furniture. The corrals have also provided more bicycle space for customers and employees than the average 1.5 people per car.

Likewise, In Seattle's commercial districts corrals have taken bike racks off the sidewalk and given space to pedestrians, sidewalk cafes and sandwich boards. The corrals in Seattle have

helped cut down on the time it takes to search for bike parking as a bicyclist. Since cars cannot park within 20 feet of any crossing and 30 feet where posted there is an opportunity to put a corral at many intersections if the funding and demand existed and there is nothing that prohibits a corral like a fire hydrant or curb bump out. The on-street bike corral is used as a tool to solve visibility issues at intersections and the city has proactively approached and placed corrals where vehicles consistently park in the 20 foot no-parking zone prior to a crosswalk or intersection and there is demand for bike parking. Most of the parklets in Seattle also include either the city's standard corrals or unique bike racks in their designs.

### Challenges facing staff in each city?

In Eugene, there is a small staff and a lot of tasks to perform so installing corrals has been working without a formal structure. Parking staff said they are balancing the interests of users, parking and the business community and if one business wants a corral it impacts the entire block face. They also felt downtown Eugene does not have a lot of public right of way to work with from curb to curb due to parallel parking streets; some blocks have just two or three parking spaces on the whole block face. Since downtown is pedestrian friendly with parallel parking and parking garages it is hard if one business wants a corral but others do not. Staff does not want to hurt the current downtown revitalization in Eugene.

Eugene transportation staff is looking at downtown as a system and would like to put corrals where it makes sense for the bike network but with the cost share it could happen differently. By leaving bike racks to the private sector, Eugene does not get bike parking coverage everywhere. The city is looking at code updates that could include a higher level of scrutiny downtown and reallocating bike parking to put it where it is needed.

Based on my conversations with city staff, I determined that the cost of the artistic racks is significantly higher, the process is longer and maintenance is more difficult as compared to using standard inverted U racks. Staff members explained that anything in the right of way needs to be "breakaway," not "immovable objects." The artistic corrals may be harder to make in compliance with this expectation. I was also told it is easier for the city if they install the corrals because they know where utilities are located underground. Finally, while the city told me it is easier for them to install the corrals due to payment laws for installing in the public right of way, the city often lacks time and funding to do so.

In Eugene's downtown each on-street parking spot has an individual meter and space on one end of the parking spot referred to as a "jockey space" (Image 26, 27). This allows for more room for larger vehicles to easily park on the streets downtown but also limits the available street space. Lane Council of Governments (LCOG) did a study that found there would be a 13% increase or 100 more on-street car parking spaces going from the current single meter per space system to pay stations. This is because the pay stations mean individual street spots no longer need to be marked or include the jockey space so cars can self select. However, not all locations with pay stations have gotten rid of the jockey spaces and individual spot markings (Image 28).





Image 26: 10 ft jockey space on Pearl Street in front of Mezza Luna Pizzeria in downtown Eugene



Image 27: Jockey space on Agate Street next to Hayward Field



Image 28: Pay station and right side unmarked parking spots on Alder Street between 12<sup>th</sup> and 13<sup>th</sup> Streets

In Portland, staff reported that corrals can be difficult to install in an area with on-street car parking demand. Lots of places have applied for a corral but they do not actually have the bicycle demand. The few artistic racks are harder to maintain.

In Seattle, the request-based system can have an equity issue with underserved communities not requesting racks at the same rate, according to city staff. To address this, Seattle Department of Neighborhoods works with businesses and community members and includes bike parking request information in their conversations. SDOT is also thinking about how to move to a prioritized methodology and a University of Washington planning class is working on the idea.

With development everywhere in Seattle, staff mentioned that coordinating internal efforts is important to make sure they do not have to take a corral out because of any upcoming development. Keeping up with demand is also difficult in Seattle since bike racks and corrals are installed by the same crew that does the striping. Since striping is done in the dry months, racks are installed in the wet months, meaning racks are mostly installed in the winter. Seattle is interested in planter boxes on the end of the corrals instead of the wheel stop but this would require someone to sign on to a maintenance agreement.

### Corral comparisons between each city

Corrals in Eugene fit 10 bicycles on five racks which requires about 19 feet or one car parking space. Portland and Seattle both use standard inverted U corrals that have three racks attached to rails. In Seattle, one, two or three corrals are placed together with three, six or nine racks depending on the situation. Portland uses closer to 30 feet for two corrals of six racks that fit 12 bikes. Portland also places three and four corrals together with nine and 12 racks that can fit 18-24 bikes. Both Seattle and Portland use the 20-30 feet of curb space near an intersection for bike corrals where cars are not allowed to park. Portland also places a bike parking sign next to the corral.

All three cities place reflective flex posts and wheel stops at the ends of the corrals. Portland and Seattle include room on the ends for painted bike symbols on the ground which also provides space for longer cargo bikes to park. The racks in Portland and Seattle are angled, not perpendicular, which helps with easy access from the street. See Image 29 and 30 for Portland's standard design.

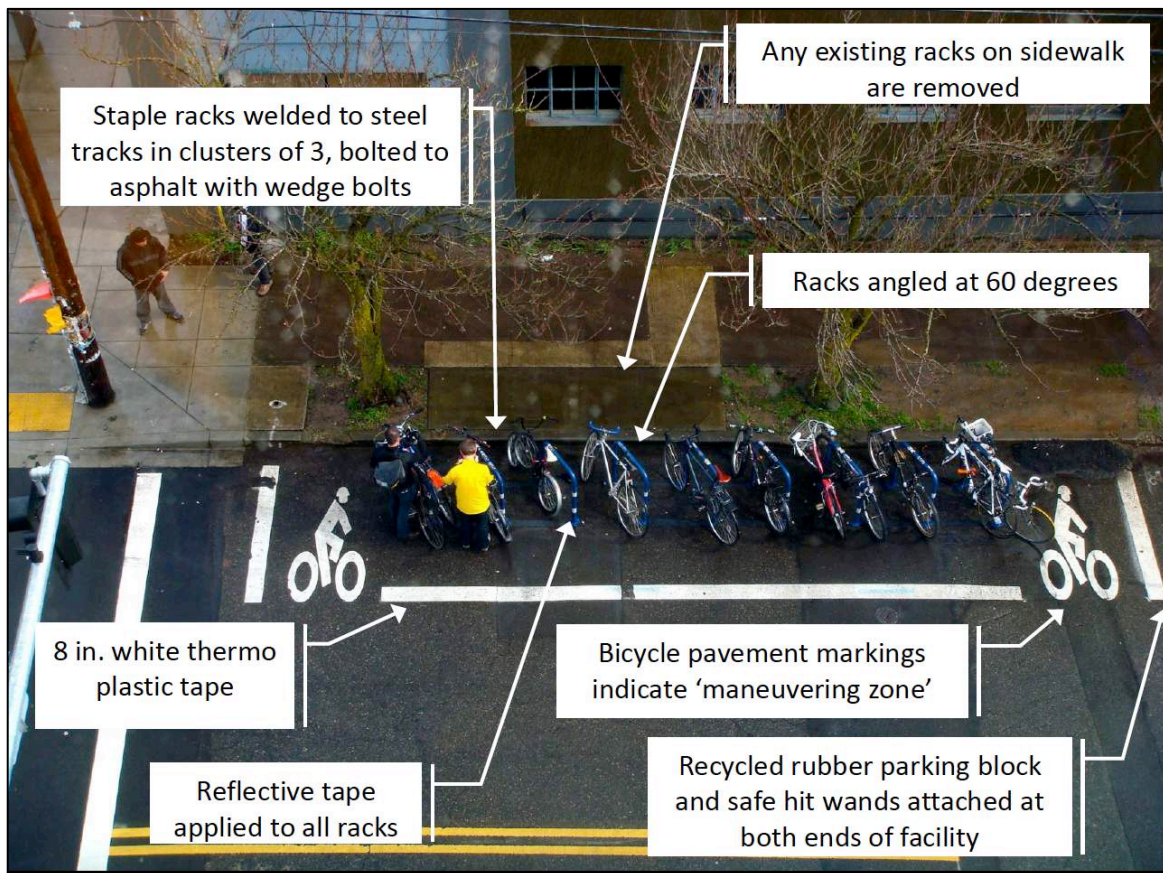


Image 29: Portland's bike corral elements

Source: Scott Cohen Portland Bureau of Transportation presentation at Seattle Rackathon event July 2014

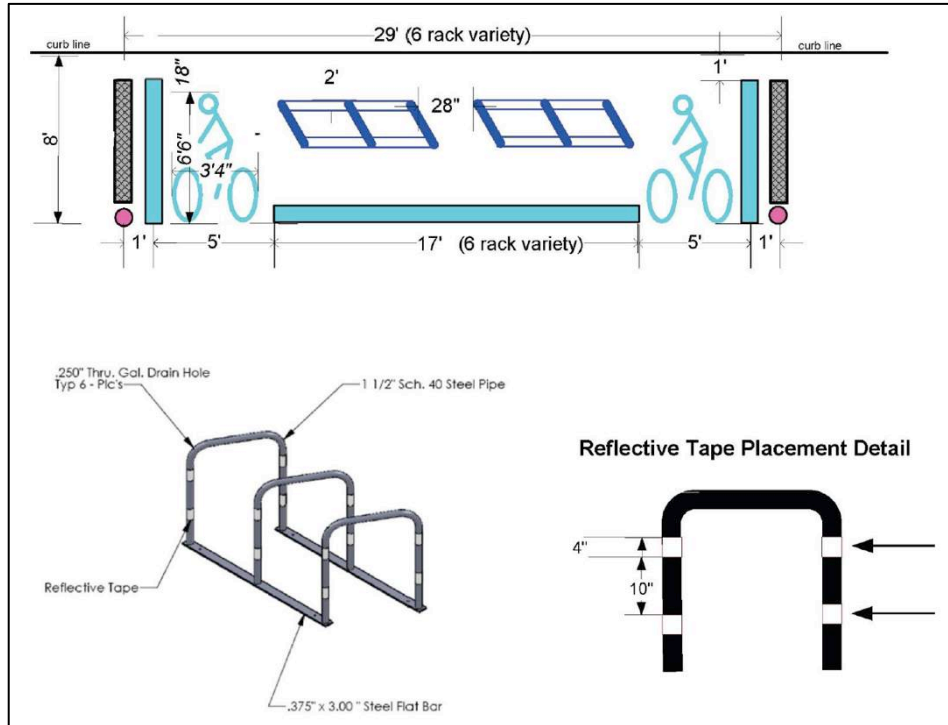


Image 30: Portland's bike corral design template

Source: Scott Cohen Portland Bureau of Transportation presentation at Seattle Rackathon event July 2014

Key differences between Portland and Eugene include the structured program and staff dedicated to the corral program in Portland. Portland has clear internal standards and processes for corrals. The bike parking fund on the books that says what Portland wants and how it will be paid for has been essential to the success of the bike corral program in Portland. Portland prefers locating on-street bike parking corrals at street corners in order to add additional benefits, such as creating defacto curb extensions to shorten pedestrian's crossing of the street and improving visibility for cars turning into traffic from side streets. Portland also prefers corrals to be located on the main street as close as possible to the main entrances of businesses. Portland requires that the immediately adjacent business owner and property owner approve of the corral installation and sign an agreement requiring regular sweeping of the corral to discourage the accumulation of debris. Eugene has asked business owners requesting a corral to get a signed petition from their neighbors as well.

Key differences between Seattle and Eugene include the staff time to work on the program. Advocacy groups in Seattle have also helped educate the community about Seattle's bike corral program. Seattle pays and keeps up on the maintenance including sweeping. Seattle is working on a way to prioritize bike parking instead of just request based. Seattle does proactively put corrals in though. Like Portland, Seattle also uses space near the intersections for bike corrals where cars are not allowed to park according to municipal code.

### Advice for Eugene and other cities from Portland and Seattle

Staff in Portland recommends a bike parking fund or some kind of funding so staff, materials and maintenance can be dedicated to bike parking. Secondly, create a hierarchy to spend bike parking funds and include bike corrals in this hierarchy. Portland staff recommends separating short term and long-term bike parking in the code. They also suggest it is important to provide funding options, so it is not only “pay to play,” meaning only businesses who can afford to install a corral can do so, or only based on bike parking demand. . More funding options allow for flexibility, which is good for neighborhoods and businesses. Staff in Portland recommend creating an internal process that includes a standard design for corrals and bike parking in the right of way. Doing pilot projects before coming up with final design is a good solution for corrals. Find an early adopter who wants and needs more bike parking and do a pilot. Then get the business district and businesses on board and aware of the program and to provide testimony that it has been good for their business.

Evaluate each corral on a case by case basis to determine if it is right in a certain location. Go through all inner bureau partners which includes checking the paving list so all departments are coordinated and do not put a corral in to pull it out for paving.

Seattle staff recommends not distinguishing corrals from other bike parking and doing what makes sense in each situation since different bike parking solutions are all part of the toolkit. Seattle moved from a previous cage style corral design that was not accessible from both sides to their current corrals that have been well received. A good time to think about a corral in the street is when bike parking encroaches on the pedestrian zone. Providing bike racks at no cost to the business has been a huge plus in Seattle and gets the city to the goals they have set out for end of trip facilities. Similar to Portland’s recommendations, Seattle staff also warns that it is important to separate and define short-term and long-term bike parking. Seattle puts short-term racks in locations that make sense where users will be there for a few hours and recommends long-term bike parking where it makes sense like at a transit station or somewhere where someone will be leaving their bike overnight. Finally, in Seattle advocacy groups have worked to get the word out about bike parking to businesses which has been helpful. Local advocacy groups even organized an event called “Rackathon” which was a day long brainstorming intensive event to raise awareness for bike parking policies and best practices.



## Business Survey

I received the business surveys back from all 24 of the businesses with and without bike corrals on their blocks. The surveys were completed by both business owners and business managers. The following table breaks down the 12 business owners and 12 business managers who completed the survey.

<b>Business Name</b>	<b>Who Completed the Survey</b>
Morning Glory	Owner
Jackalope	Owner
Belly Taqueria/Belly downtown	Owner
The Bier Stein	Owner
Newman's Fish Co	Owner
Tap and Growler	Manager
Steelhead	Manager
Lucky Noodle	Manager
Corucopia Bar N Burger	Manager
KIVA	Owner
Bon Mi	Manager
Mezza Luna	Owner
Togos	Manager
Full City Coffee Roasters	Manager
Killer Burger	Manager
Townshend's Tea	Manager
Doc's Pad	Manager
Perugino	Manager
Off The Waffle	Manager
Everyday People Yoga	Owner
Prince Puckler's Ice Cream	Owner
Eugene City Bakery	Owner

## Survey Results from Businesses With Corrals

**Where is the on-street corral located and has it had an impact on your business? (BWQ1, BWQ4)** *Note: Question code BWQ stands for business with corrals survey questions.*

Corral Location and Impact	Yes	Somewhat Yes	Somewhat No	No
Right In Front	1	3	1	0
On The Same Side Of The Street	0	1	2	0
On The Opposite Side Of The Street	0	1	0	0

This shows six respondents said yes or somewhat yes to the corral having an impact on their business. Three respondents said the corral had somewhat no impact on their business and no respondents said the corral had no impact on their business. Respondents explained that the corral has been good for their employees, customers and tourists.

### **What is your opinion about the bike corral and how do you like the location? (BWQ2, BWQ3)**

All businesses surveyed with corrals on their block responded that the corral was located in the ideal location. Opinions were coded into positive, negative and somewhere in between the two. Out of the responses six were positive, one negative and two in between.

#### **Responses included:**

**Positive:** Provides more space for bike parking, so it's great!

**Negative:** They might not be used as much because bikes are in the weather elements and may not be visible from nearby location.

**In Between:** Great idea. Maybe not artistic. Art component not part of racks themselves would be good. The racks have been good for cargo bikes though.

### **Were you involved in the process of getting the on-street bike corral installed? (BWQ5)**

Only 3 respondents said they were involved in the process. Those were Bier Stein, KIVA and Cornucopia. Of those who said they were involved, they said the process was, *"pretty easy."*

Ways they suggested improving the process included:

- *"The City should foot the bill for the entire project. They want it done, but they won't pay for it."*
- *"Art was lovely idea but I think the racks should be more basic. Art possibly could be as outer part of corral but not the racks themselves. A bike oasis on a curb and elevated would be good around the corner. It's ok without that on this street. Do more of these in high traffic areas. The process was lengthy - 1 year to do since initial mention of it."*

### **If you were to open up a second business in downtown Eugene would you seek out a location with on-street bike parking or find a way to get it there? (BWQ11)**

	Percent
Yes	90%
No	10%



## Survey Results from Businesses Without corrals

**Are you familiar with any blocks in Eugene that have on-street bike parking known as bike corrals? (BQ1)** *Note: Question code BQ stands for business without corrals survey questions.*

Responses	
Yes	11
No	3

**Are you interested in a bike corral on the block your business is on? (BQ7)**

Yes	Somewhat Yes	Somewhat No	No
7	5	2	0
50%	36%	14%	0%

This shows 86% of respondents said yes or somewhat yes that they were interested in a bike corral on the block their business is on. Only 14% said somewhat no and no one said they were no interested.

Explanations in support:

- *Most of our students ride bikes! It makes more efficient use of the street.*

Other explanations:

- *The problem is limited space. I only have 3 parking spaces in front of my business. This neighborhood is very difficult for parking, bikes included.*
- *I just think it would be difficult because of the intersection (7th and Willamette) But I welcome anything bike friendly.*
- *Worry about theft a bit of bikes and that generating distaste with us because "it happened at Off The Waffle" but, I think it would be great overall.*

**If you answered yes or somewhat yes to question number 7, where would you prefer the bike corral be located? (BQ8)**

Directly in front of my business	On the same side of the block my business is on but not directly in front		On the opposite side of the street from my business	Other
4	6		5	1
31%	46%		38%	8%

The highest percentage (46%) said they would like it on the same side of the block their business is on but not directly in front.

**Have you tried to get a bike corral installed on your block? (BQ9)**

No	Yes, but unsuccessful	Yes, the process is ongoing
12	0	1

**If yes, how was the process of working with the city and do you have any suggestions for improving the process?**

“Very slowly, generally unresponsive. Permission took approximately 7 month, mainly due to several repeated attempts being completely ignored by various officials. Communication was pretty much non-existent on the city's end, which was frustrating, considering there was an urgent need for the racks in our area. Unfortunately, the traffic engineer, who was needed for final approval, was somehow unavailable to speak with us directly throughout the 8 month process, either through email, phone, or mail. I sympathize with other businesses working to get approval to improve bike parking throughout Eugene.” *–Phoenix Desmond, Everyday People Yoga Program Director*

*Note: These results were interesting as I selected three businesses the City of Eugene told me had requested corrals. Possibly the person who completed the survey was unaware of this request.*

## Customer Survey

I received 403 customer surveys back from all businesses. From the businesses with bike corrals on their block I received 209 completed surveys and from the businesses without bike corrals on their block I received 194 completed customer surveys. The following shows the number of completed customer surveys received from each business:

Business Name	Completed Customer Surveys
Morning Glory	28
Jackalope	34
Belly Taqueria	7
The Bier Stein	26
Newman's Fish Co	29
Tap and Growler	33
Steelhead	12
Lucky Noodle	0
Cornucopia Bar N Burger	6
KIVA	34
Bon Mi	24
Mezza Luna	2
Togos	0
Full City Coffee Roasters	17
Killer Burger	23
Townshend's Tea	36
Belly downtown	13
Doc's Pad	15
Perugino	0
Off The Waffle	8
Everyday People Yoga	19
Prince Puckler's Ice Cream	20
Eugene City Bakery	17
<b>Total</b>	<b>403</b>

Of the returned surveys, two were invalidated based on inappropriate answers, eight were incomplete as the respondents failed to complete a page or more of the survey and another eight were also incomplete due to a printing error that did not include questions 4-12. I kept the incomplete surveys in the sample as I was able to use the completed questions in my analysis for those individual questions.

When entering the customer surveys if a respondent selected more than one answer for questions 3-7, 10 or 11, I did not enter in a response. If the respondent also wrote something on the "other" line in addition to selecting multiple answers on one of these questions, I entered what they wrote in the "other" line.

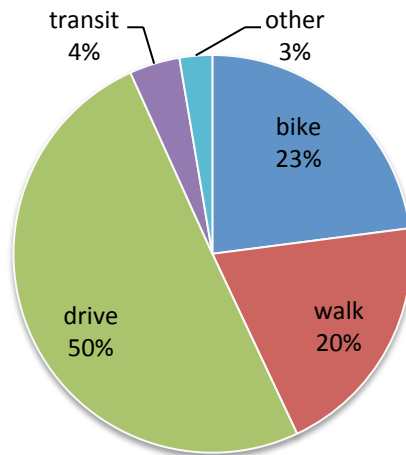
When entering responses for question 9 regarding how frequently respondents bicycle by season I converted written responses to numbers with certain responses to help in my analysis. Since the majority of respondents understood “times” equaled “days” I decided entering 30 for these responses was appropriate. I entered in 30 times per month for respondents who wrote in these responses:

- everyday
- all
- all year long
- always, I do not drive a car
- all year long everyday
- always
- all the time
- daily and all seasons
- 100% of the time
- mostly everyday

*Note: Question code CQ stands for customer survey questions.*

**CQ1. How did you get here today?**

Total Responses: 400



Bike	Walk	Drive	Transit	Other
95	83	208	17	11

*Note: 3% of respondents selected they took two or more modes of transportation to get to their destination.*

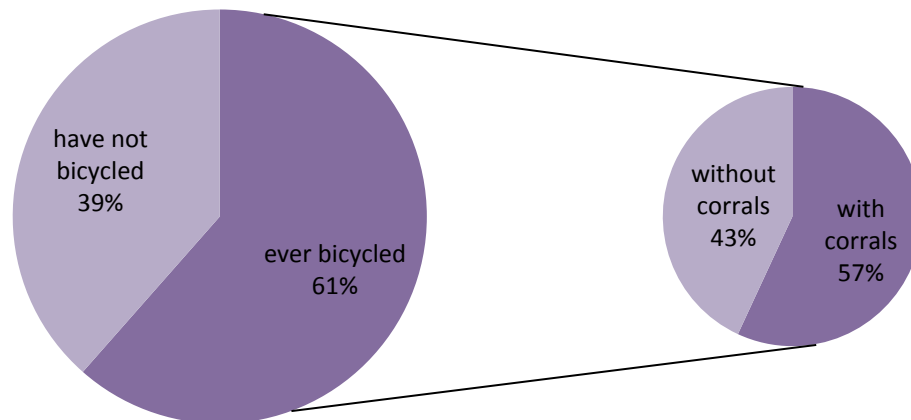
This shows that 50% of trips were by car and 47% were by foot, bike and transit and the remaining 3% used other modes. Other modes specified included motorcycles, skateboards, long distance train or bus and scooter.

## CORRIDOR COMPARISONS

Corridors	Bike	Walk	Drive	Transit	Other	Total Responses
<b>PEARL</b>						
With corral: Pearl and 5th	<b>29%</b>	22%	<b>47%</b>	0%	2%	51
Without corral: Pearl and Broadway	<b>16%</b>	19%	<b>58%</b>	2%	5%	43
<b>WILLAMETTE</b>						
With corral: Willamette and 16th	<b>24%</b>	5%	<b>69%</b>	0%	2%	55
With corral: Willamette and 5th	<b>13%</b>	20%	<b>57%</b>	3%	7%	70
Without corral: Willamette and 7th and Broadway	<b>24%</b>	22%	<b>42%</b>	9%	2%	99

In the Pearl Street downtown corridor 13% more respondents bicycled to businesses with a corral and 11% more respondents drove to a business without a corral. However, in the Willamette Street corridor downtown 11% fewer respondents bicycled to businesses with a corral. The numbers for the Willamette and 16<sup>th</sup> street corral make sense with a higher percent driving and less people walking and taking transit since this location is outside the downtown core. It is impressive that 24% of respondents bicycled to these destinations which proves the amount of bike parking The Bier Stein and Newman’s Fish Co provides is incentivizing bicycling to their locations.

### CQ2. Have you ever bicycled here?

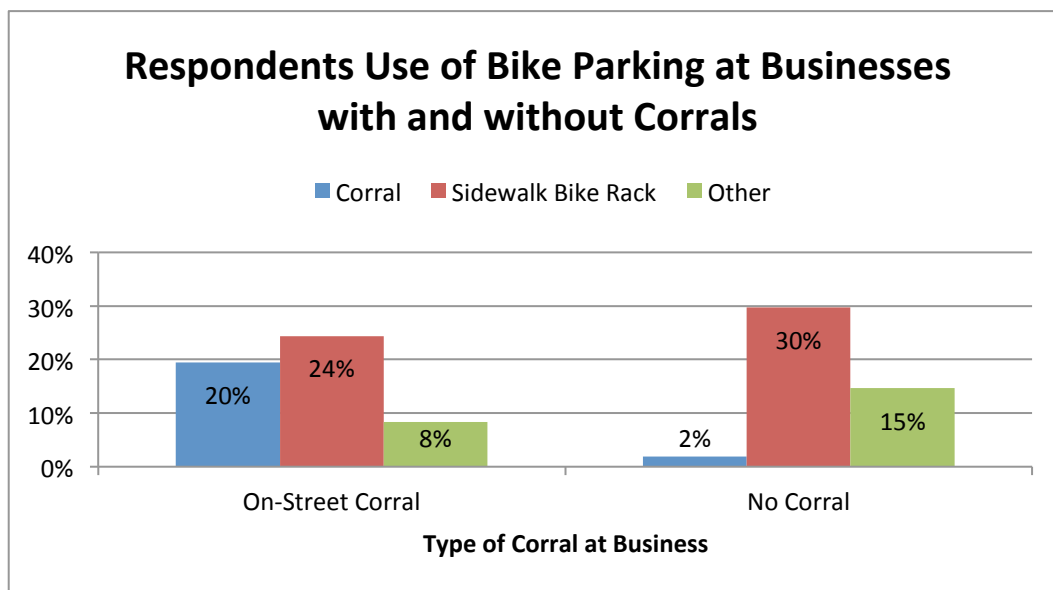


Responses: 400

This shows that 22% more customers said they had ever bicycled to the businesses where they completed the survey than had not. It also shows 14% more customers said they had bicycled to one of the businesses that had corrals than did not.

**Questions 3-9 were for those who bicycled or had ever bicycled to the business:**

**CQ3. Which type of bike parking did you use when you parked here?**



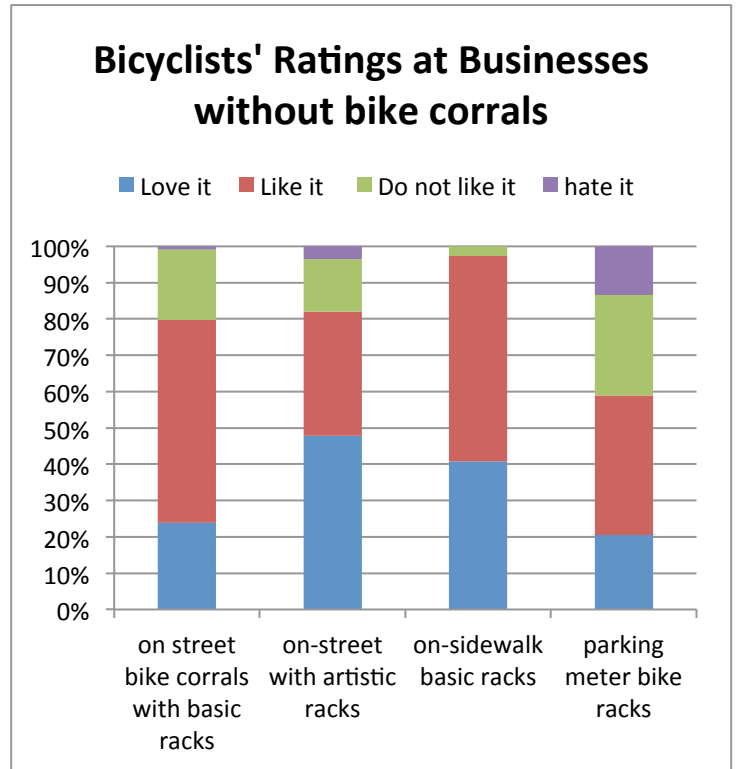
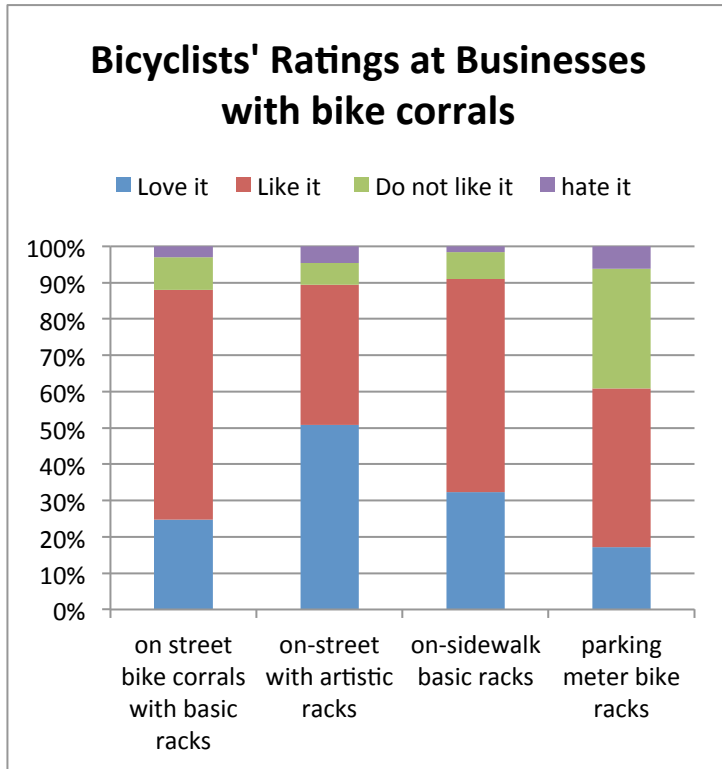
Responses: 205

At businesses without corrals a higher percentage (7%) of people used “other” to park their bicycles. At businesses with a corral a higher percentage used a corral or sidewalk bike rack to park their bicycles.

*Note: I did not enter in responses who selected multiple answers and recommend rephrasing this question as I believe a number of respondents selected multiple answers since they were not clear the question was specifically trying to get at where they parked today.*



**CQ4. Please rate each of the following types of bike parking:**



Responses: 248

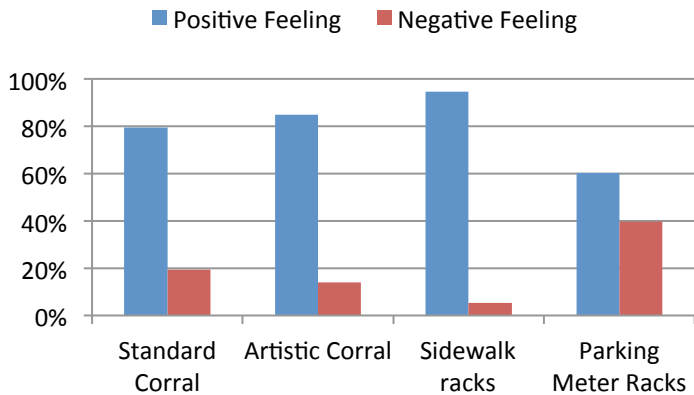
*Note: In Eugene there are three types of parking meters that could be used as a bike rack. The one shown in the survey is the post and ring with the parking meter head on, there is also a post and ring without a meter head on and then there are parking meters with no ring that some still use to lock their bike. A recommendation for future research into the customer preferences of these three similar meter type racks is recommended in the possible future research section.*

Both customers at businesses with and without corrals rated artistic and basic bike corrals highly with between 80-90% saying they “love” or like” on street bike corrals with basic or artistic racks. The percentages were slightly higher for businesses with bike corrals which shows customers who had used the corrals liked them.

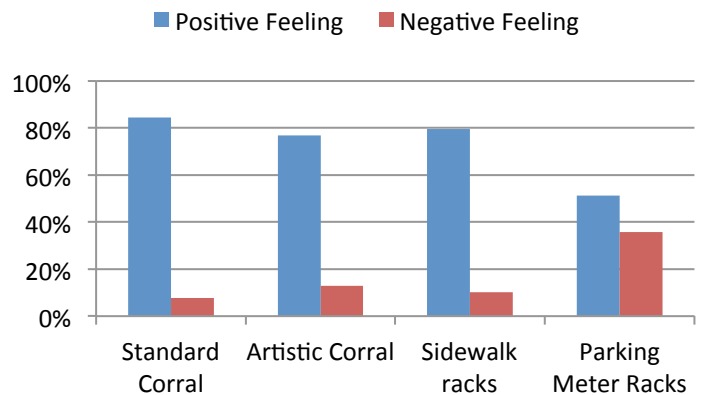
Respondents at businesses without bike corrals had an almost 100% favorable rating of on-sidewalk bike racks. This is approximately a 10% higher approval rating of sidewalk bike racks than the customers at businesses with bike corrals gave. This might be because customers at businesses without bike corrals did not have an on-street bike corral to use at the business where they took the survey.

Parking meter bike racks were rated low by customers at both businesses with and without bike corrals with approximately 60% of respondents at both business types saying they “do not like” or “hate” parking meter bike racks.

### Frequent Bicyclists Feelings about Types of Bike Parking



### Infrequent Bicyclists Feelings about Types of Bike Parking

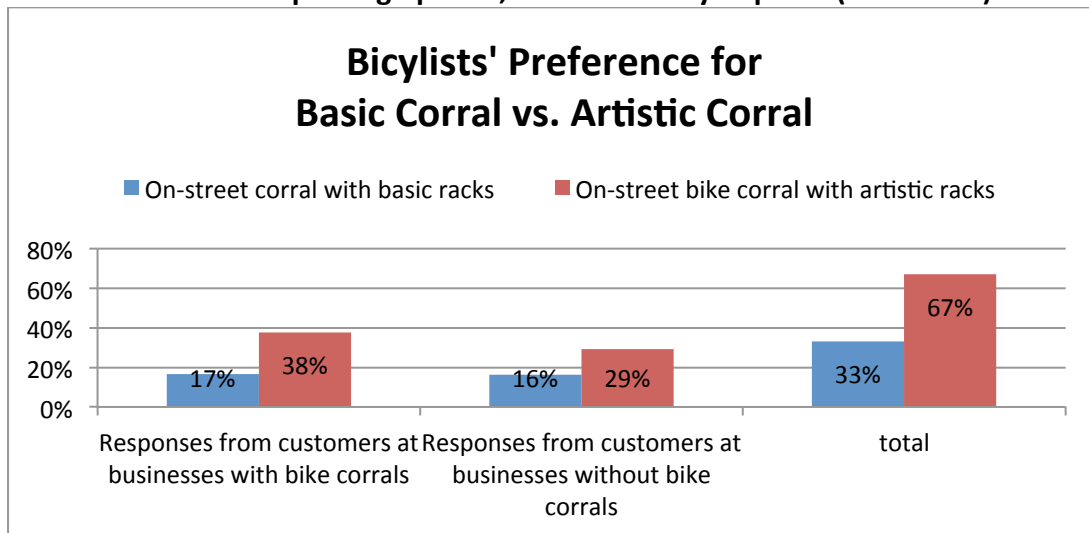


Responses: 132

Notes: Positive feeling is a “love it” or “like it” rating and negative feeling is a “do not like it” or “hate it” rating. Frequent bicyclists were defined as those who indicated they bicycled 25 times or more per month in the fall and infrequent were defined as those who indicated they bicycled less than 10 times per month in the fall.

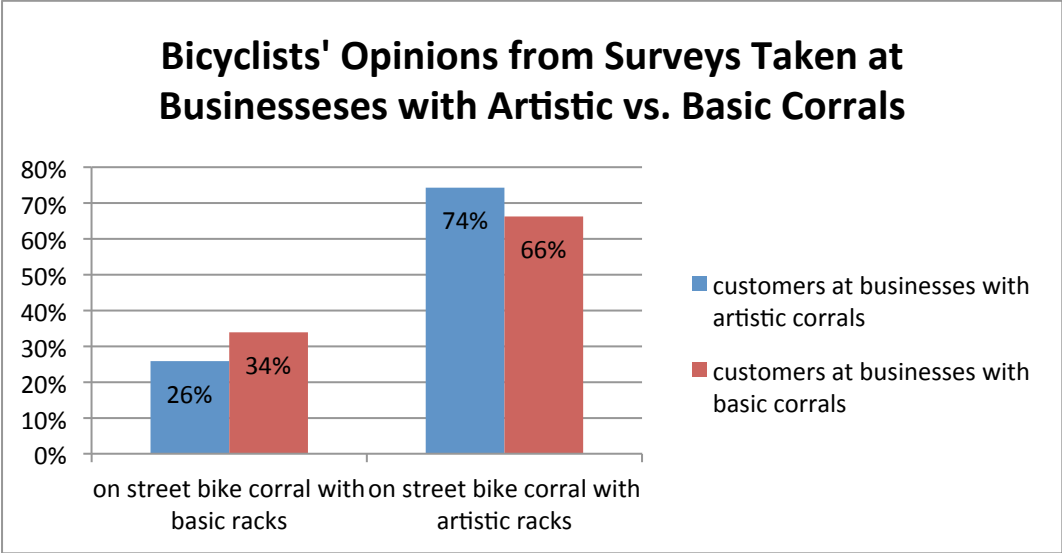
Frequent and infrequent bicyclists both indicated they felt positively (between 75%-85%) about corrals. Interestingly frequent bicyclists rated sidewalk bike racks 16% more positively than infrequent bicyclists. Frequent bicyclists felt 9% less positively about parking meter racks than infrequent bicyclists.

### CQ5. Given these two bike parking options, where would you park? (Check one)



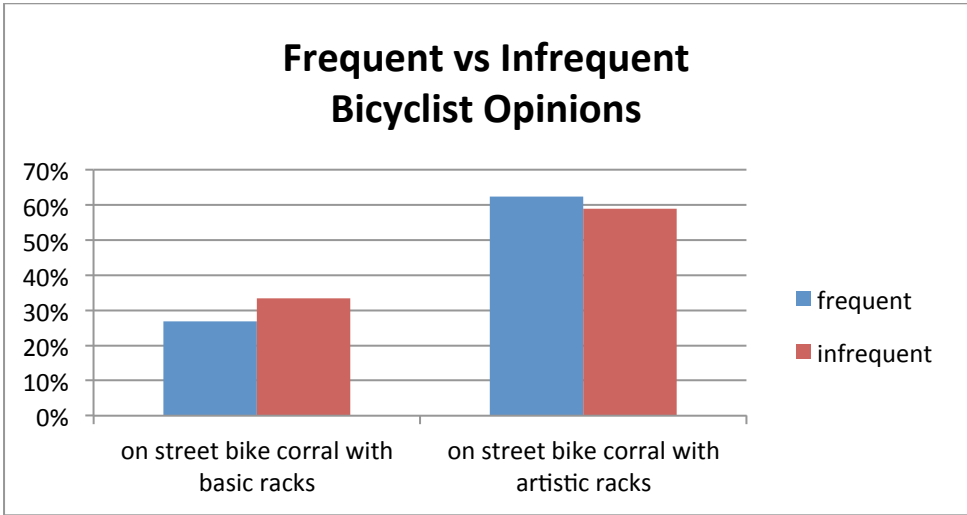
Responses: 239

Bicyclists at businesses with and without bike corrals both preferred the artistic corrals 34% more than basic corrals. The following chart breaks down bicyclists' opinions at businesses with artistic and basic corrals.



Responses: 130

This shows that bicyclists who took the survey at businesses with basic corrals said they preferred the basic corral 8% more than customers who took the survey at businesses with artistic corrals. At the same time bicyclists who took the survey at businesses with artistic corrals said they preferred the artistic corral 8% more than bicyclists who took the survey at businesses with a basic corral.

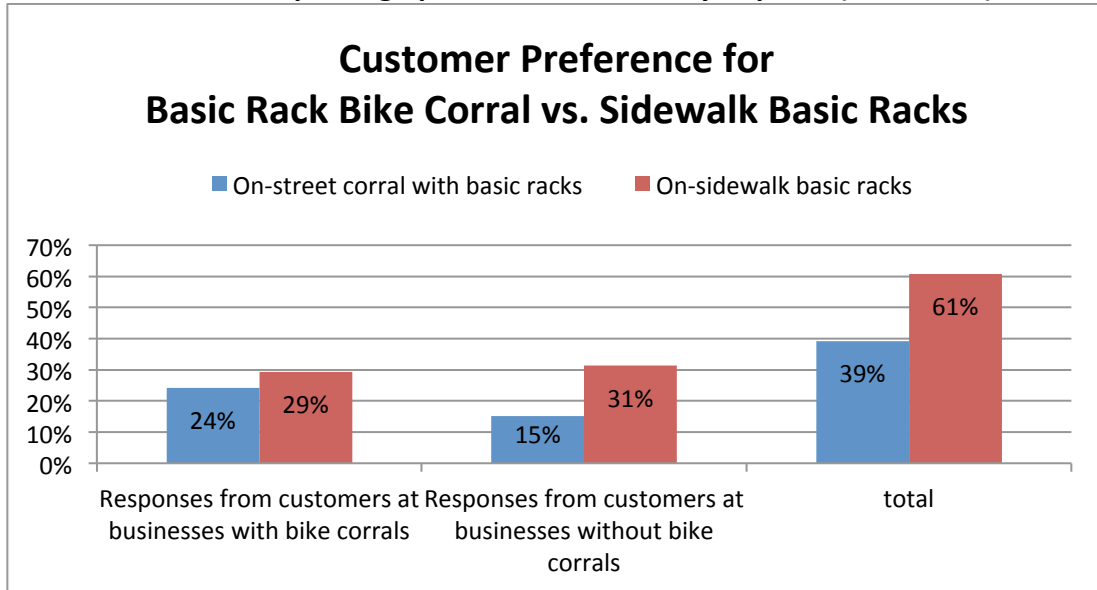


Responses: 132

This shows that both frequent and infrequent bicyclists prefer on street corrals with artistic racks over on street corrals with basic racks. Both frequent and infrequent bicyclists said they would

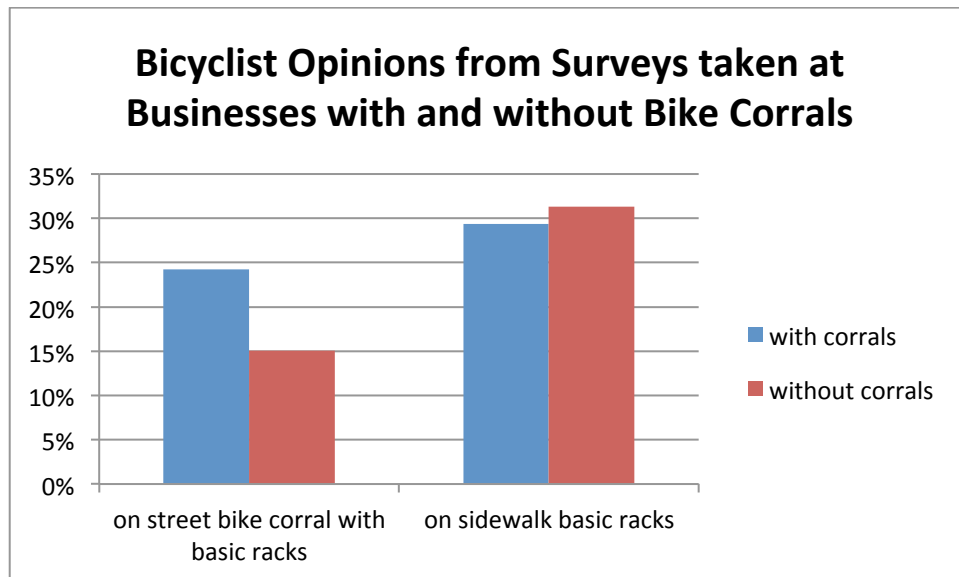
prefer an on street bike corral with basic racks and an on-street bike corral with artistic racks at almost the same amounts. I personally would have thought frequent bicyclists might prefer the on street basic racks to the artistic racks.

**CQ6. Given these two bike parking options, where would you park? (Check one)**



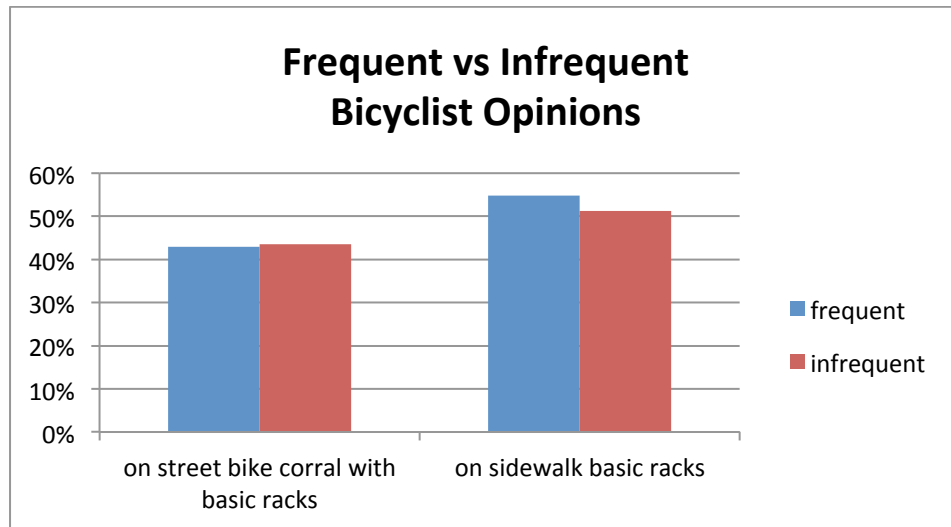
Responses: 252

This shows customers preferred sidewalk basic racks over basic rack bike corrals. At businesses with bike corrals, the difference in preference between basic rack bike corrals and sidewalk basic racks is 5% versus 16% at businesses without a bike corral.



Responses: 252

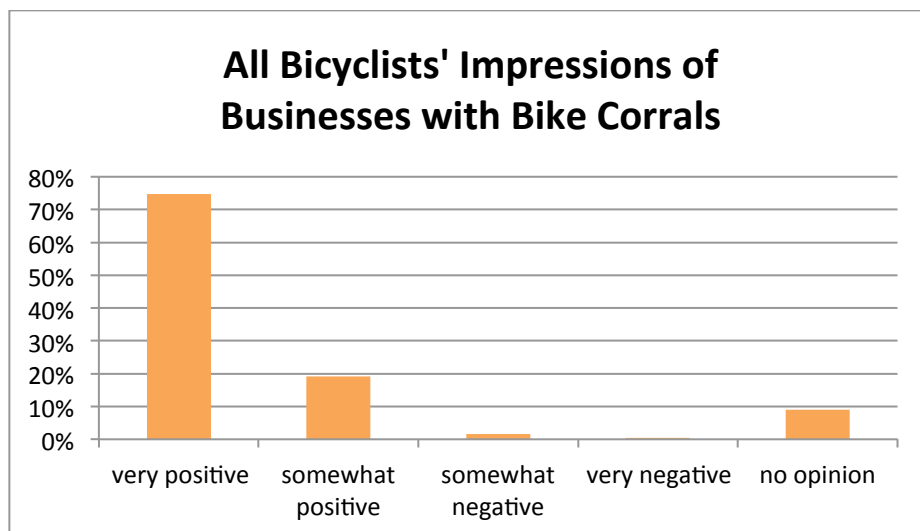
This shows that customers who took the survey at businesses without corrals preferred the on-street bike corral 9% less than customers at businesses with corrals. This might be because the customers at businesses without corrals were not as familiar with on-street bike corrals.



Responses: 132

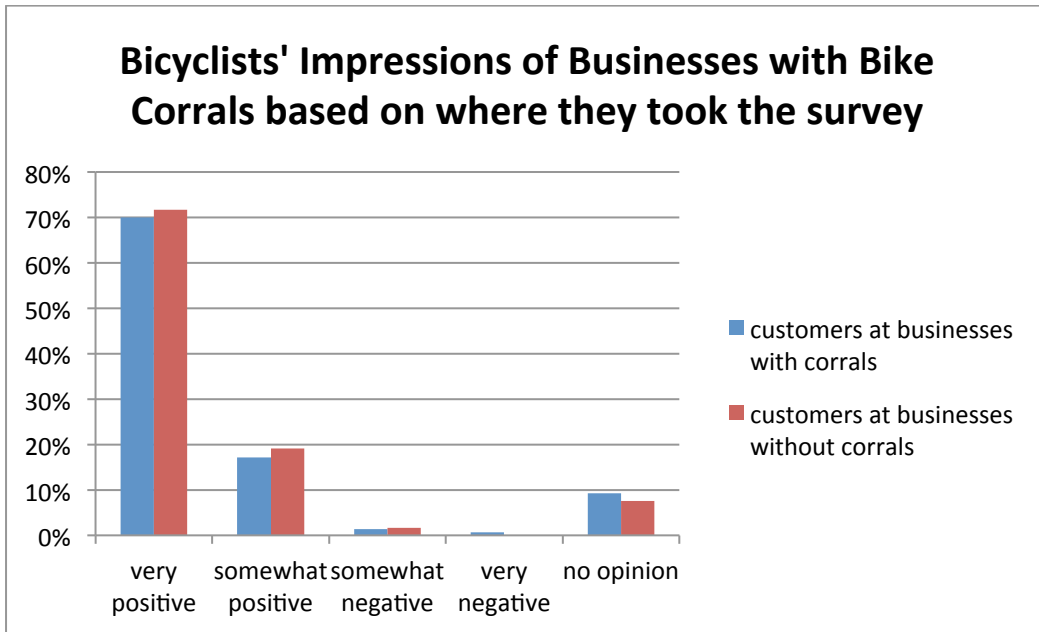
This shows that both frequent and infrequent bicyclists slightly prefer on sidewalk basic racks to on-street bike corrals with basic racks. However, both frequent and infrequent bicyclists said they would choose an on street bike corral with basic racks and a sidewalk bike rack at almost the same amounts.

**CQ7. What is your impression of a business that has an on-street bike corral in front of their business?**



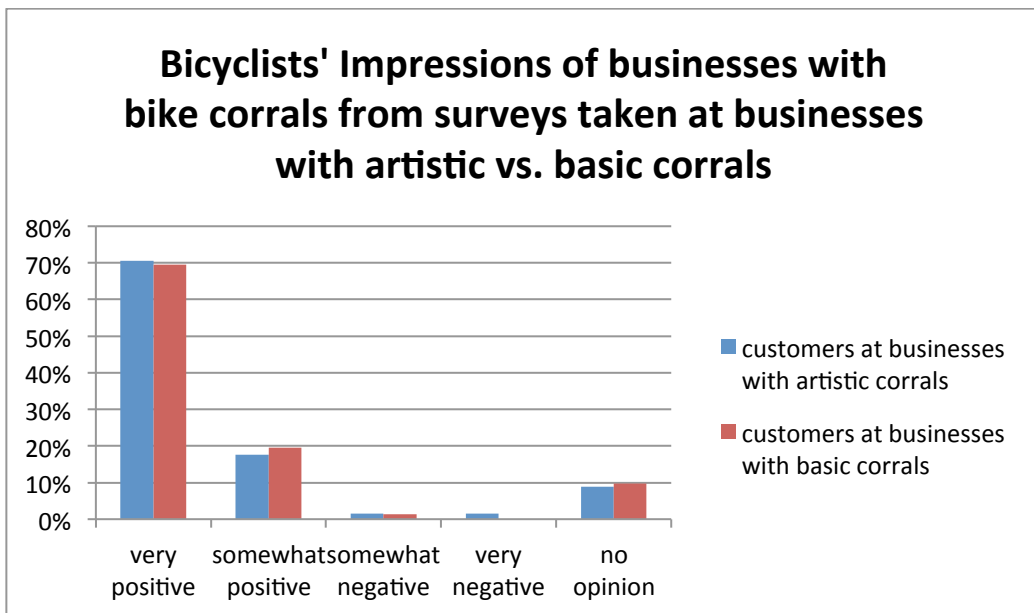
Responses: 246

This shows that bicyclists have a very favorable impression of businesses with a bike corral in front of their business.



Responses: 246

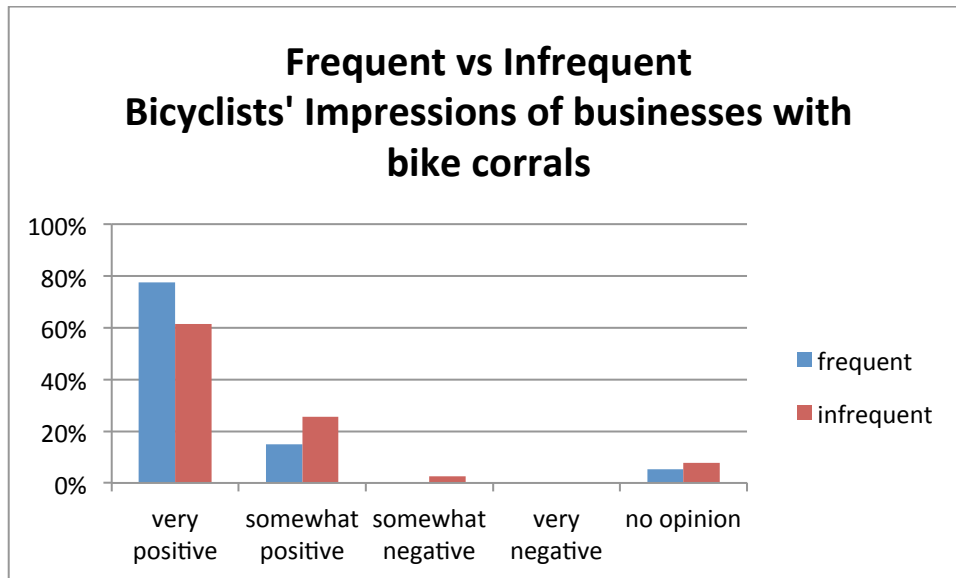
This shows bicyclists who took the survey at businesses without bike corrals have the same positive impressions of businesses with a bike corral as bicyclists who took the survey at businesses with bike corrals.



Responses: 140

This shows that both bicyclists who took the survey at a business with an artistic corral or a basic corral feel positively about a business with a bike corral in front of their business.





Responses: 132

This shows that frequent and infrequent bicyclists both feel positively about a business with an on-street bike corral in front of their business. Frequent bicyclists feel very positively 15% more than infrequent bicyclists, while infrequent bicyclists chose “somewhat positive” 11% more than frequent bicyclists. This discrepancy is addressed somewhat in the comments to the second part of the question below regarding why customers feel this way. I also think this might be because frequent bicyclists are thinking about bike parking more often than infrequent bicyclists.

The second part to question 7 asked, “why do you feel that way?” Overall those who checked “very positive” or “somewhat positive” felt the business was encouraging of alternative transportation, appreciates people who bicycle and is environmentally friendly. A lot of the written responses addressed general thoughts of a business with bicycle parking and not specifically an on-street bike corral. In regards to bike-corrals here are some of the comments that specifically address what it is about the corral that causes this impression:

Direct customer quotes:

Very Positive:

- *Usually more room than a single rack. Acknowledges bike riders' needs and possibly encourages more riders*
- *Close parking and less distance to carry panniers*
- *They support biking which is good for environment and especially good if it's a drinking establishment.*
- *It encourages bicycling by providing access to security.*
- *Bike transportation is on the rise especially in Eugene. A business with lots of bike racks says to me that you know your town.*
- *The corrals typically hold more bikes than sidewalk racks. Thus acting as a depot the business is seen as going above and beyond expectations to accommodate bikers.*

- Gives me a place to lock my bike where I can keep an eye on it.
- A greater feeling of "welcome" to all.
- Includes community, adds art to visual landscape, creates more space for people not cars
- They "get it"
- I go most places by bike and I tend to frequent businesses where it's easiest for me to park.
- Convenience and it shows support for bicycle transport. Also I can keep an eye on my bike.
- I feel like it encourages people to bike to the location. It's also nice to see parking options other than just for cars.
- Keeps out of the way of walkers.
- As a bike commuter/pedestrian, I need safe secure places to lock my bike. I also have to carry everything I bought with me (can't leave it on the bike) so parking near places helps.
- I don't have to walk as far.
- Feels more inviting, feels more modern, feels like a fun destination for a bike ride
- Business that promote bicycle usage show an interest and investment in a healthy and happy community. And a beautiful ornament
- I want to see more art everywhere, and functional art seems like a win-win. If a biz is supporting that, I think well of them.
- Promotes more bicycle use. Easier to keep eye on bike while @ business shows a willingness to compromise 1 parking spot for more bike parking
- Recognizes a lot of people get around by bike - an efficient use of space
- I enjoy having my bike near due to the downtown theft issue, mainly.
- It's nice to be able to park nearby and see my bike from the business
- It's convenient and doesn't take away space from sidewalks.
- That means they appreciate all modes of transportation to their establishment.

Somewhat positive:

- Thankful for a place to park but a lot of racks are useless for a lot of bike styles, bike with trailers, or are positioned weird or even dangerously.
- On street bike corrals or any bike infrastructure connects the businesses (in my mind) with sustainable practices and forward thinking urban planning.
- Businesses that have racks are thoughtful and share low-impact values. That said, I prefer on-sidewalk racks to street.
- Like having bike parking. Don't like mounting/dismounting so close to traffic.

Somewhat negative:

- Blocking view of oncoming traffic

No opinion:

- makes no difference
- It doesn't matter to me
- I don't bike enough to value a business's worth based on bike racks.

- *I don't judge a business by this.*

**CQ8. Are there businesses or blocks in Eugene where there is currently not an on-street bike corral that you think should have one? If so, please specify the business or address/intersection:**

The following were listed multiple times:

- *Whiteaker Neighborhood (Blair Boulevard at 4th and 5th)*
- *Ta Ra Rin*
- *wildcraft ciderworks (Lincoln at 3rd and 4th)*
- *Amazon park*
- *Kesey square area*
- *Broadway and Willamette*
- *UO area*
- *Downtown*
- *Townshends Tea*
- *5th street market*
- *VERO 14th and Pearl*

The following were listed just once:

- *newday bakery - they have a rack in the courtyard but it's hard to get in there with a trailer, also not enough parking (in most places) to fit a trailer*
- *cop shop*
- *11th and Chambers, anything along west 11th.*
- *5th street market*
- *13<sup>th</sup> and Alder*
- *11th at Goodwill Housing instead of single racks*
- *In front of public library, park blocks*
- *Broadway and Pearl*
- *Charnelton and 6<sup>th</sup>*
- *Blair Alley*
- *Dancing Weasel complex*
- *OSU extension*
- *Mini pet mart on 6<sup>th</sup>*
- *evergreen nutrition complex*
- *olive plaza UD medical center 1255 Hilyard, SE side of 13th and Olive*
- *Anywhere on west 11th, especially near the Fern Ridge bike path entrances.*
- *Maybe Oakway and DSW and Buffalo*
- *Ninkasi*
- *steelhead*
- *REI*
- *Brails - not enough by the diner, and a poorly designed rack in front by the coffee shop.*
- *every diamond lot*

- *High street brewery*
- *river road area can be more bike-friendly*
- *12th and Pearl*
- *8th street between charnelton and Lincoln*
- *Willamette and 7th*
- *5th street and river road*
- *everyday people yoga*
- *Soft Horizons on 13<sup>th</sup>*
- *farmers market downtown.*
- *eugene ballet academy*
- *4 corners*
- *olive and Broadway*
- *13th could use more.*
- *businesses around willamette from 24th to 29th, especially around Great Harvest - so in the parking lot, not on willamette*
- *19th and agate: 19th café and others - except Prince Puckers and Eugene Bakery which provide good parking for bikes*
- *11th and Willamette*
- *Around the courthouse/Saturday market*
- *mcdonalds*
- *all restaurants*
- *cornicopia 17th ave*
- *Could use more bike parking at Prince Pucklers/Eugene City Bakery. (Agate and 19th)*
- *W 18th and Chambers, the corner businesses lack any rack or corral.*
- *As You Like It on 11th and Chambers although any type of bike rack would be fine*
- *All of Southtown Shopping strip needs more - from The Glenwood to Off The Waffle*
- *broadway, olive to willamette*
- *Charnelton, 8th and Broadway, too many to count*
- *more between 7th and 13th and between high and charnelton. Lots of businesses/employees etc.*

*Note: From the responses it seems that some respondents answered the question related to all bicycle parking and not just on-street corrals.*

**CQ9. Thinking about the last year, by season, how frequently have you used a bicycle?**

	<b>Spring</b>	<b>Summer</b>	<b>Fall</b>	<b>Winter</b>
Bikes >24 times	42%	52%	40%	32%
Bikes 10-24 times	35%	35%	35%	22%
Bikes <10 times	21%	10%	17%	29%

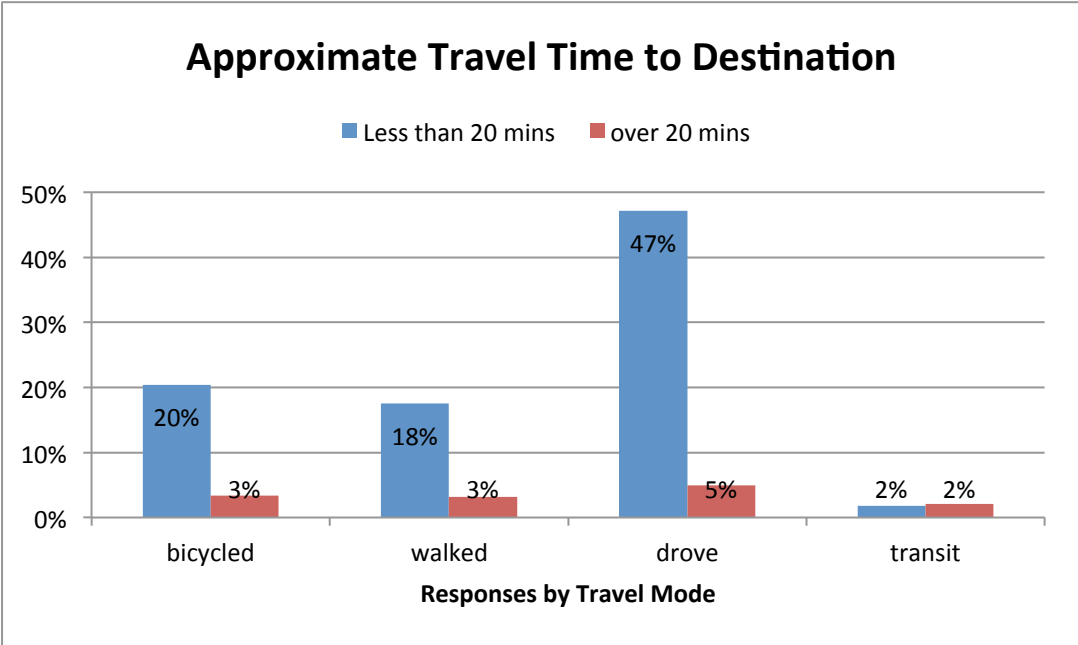
Responses: 231

This shows people bicycled more in the summer, spring and fall than the winter. Interestingly the customers who said they bicycle less than 10 times per season said they bicycled more in the winter than any other season.

*Note: This answer was used to correlate how experienced and less experienced bicyclists felt about certain types of bike parking*

**Questions 10-15 were for everyone regardless of how they traveled to the business:**

**CQ10. Please estimate the approximate time you traveled to get here today:**

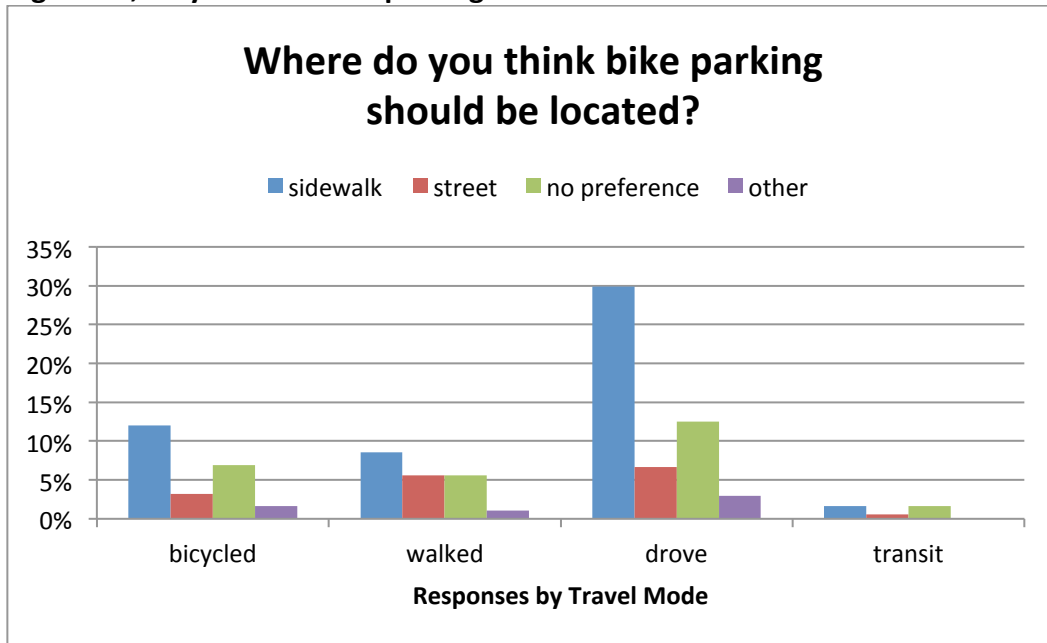


Responses: 382

This shows 40% of the total survey respondents biked, walked or took transit to their destination in less than 20 minutes. It also shows that 47% of those who drove took less than 20 minutes to get to their destination.

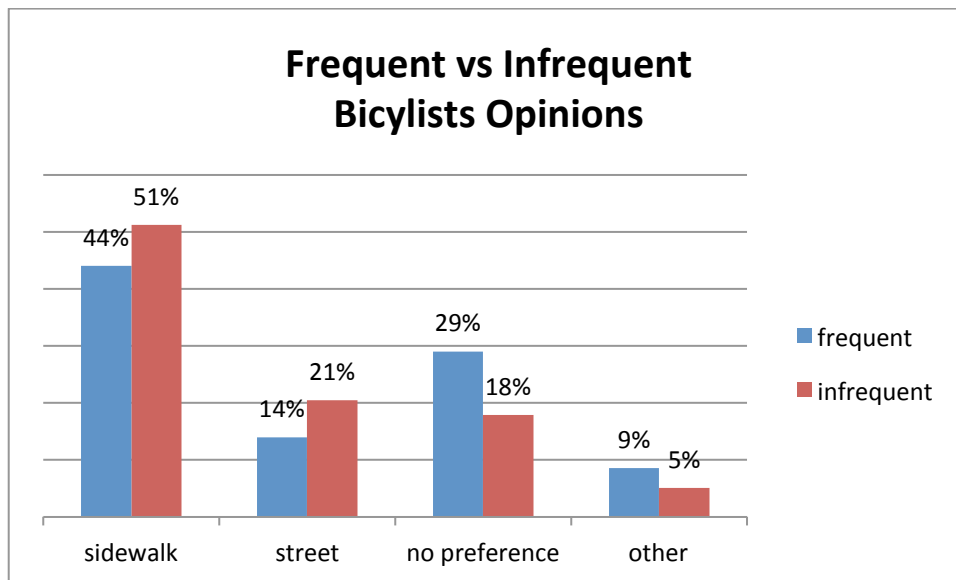


**CQ11. In general, do you think bike parking should be on the sidewalk or in the street?**



Responses: 375

Sidewalk was the most popular answer followed by no preference, street and other (in that order). It makes sense that those who drove think bike parking should be on the sidewalk. However I would have also thought those who walked would select street more than sidewalk to get bicycles off of their sidewalk space. A 4% higher amount of bicyclists’ selected “no preference” over “street.” The comments included a number of “it depends on the situation.” This shows bicyclists are open to the bike parking located in the street but it depends on the situation for them.



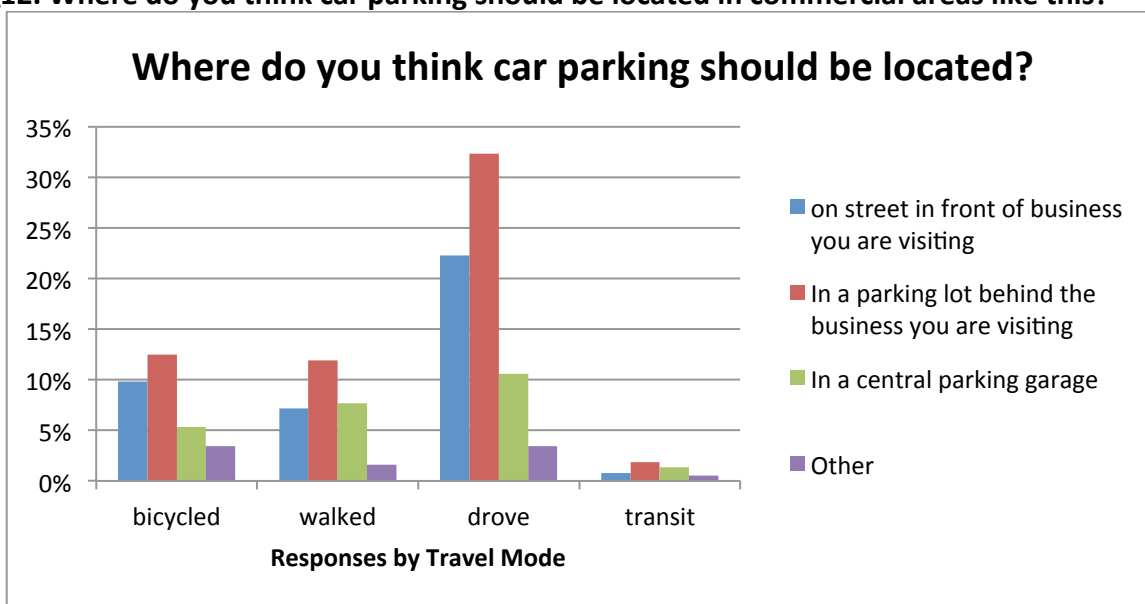
Responses: 132

As is seen infrequent bicyclists think bike parking should be located on the sidewalk 7% more than frequent bicyclists. Infrequent bicyclists also think bike parking should be located on the street 7% more than frequent bicyclists. Frequent bicyclists selected “no preference” 11% more than infrequent bicyclists.

The responses for those who selected other, included:

- *Depends on the breadth of the sidewalk*
- *Depends on the available street and sidewalk space.*
- *Both*
- *Where it is most practical, safe and bike promoting*
- *Either is fine if bikes are protected from where people are driving.*
- *Use good judgment, depending on width of sidewalk, street traffic, etc. should be close as possible to business entrance and should be covered if possible.*
- *sidewalk if room but out of the way*
- *Either works, street parking poses more risk to bike damage but also gives a more visible presence of bikes for motorists*

**CQ12. Where do you think car parking should be located in commercial areas like this?**



Responses: 377

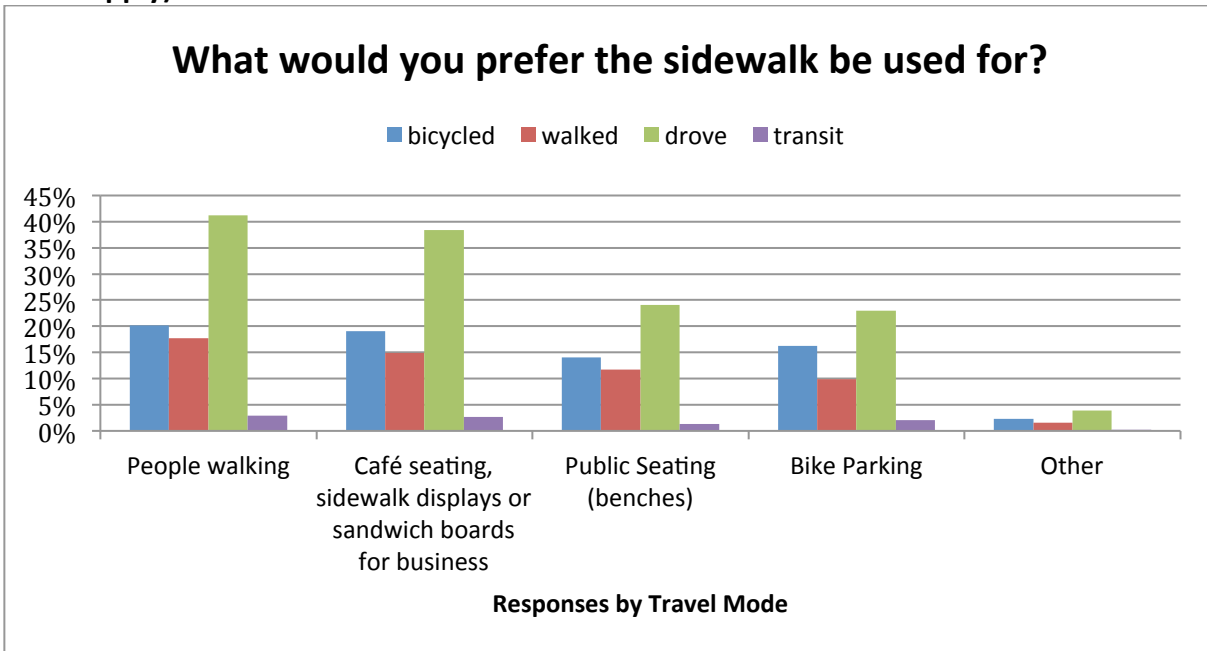
- Customers of all travel modes said car parking should be located in a parking lot behind the business they were visiting, followed by on street in front, central garage and other

Responses for other included:

- *A number of respondents said a variation of they do not care, wherever or no preference*
- *A number of respondents said it depends*
- *Under/above ground*

- *In a parking lot adjacent to the business I am visiting*
- *Doesn't matter/cars will be self driving soon, won't need parking.*
- *Centralized free lot*
- *Visible from business*

**CQ13. What would you prefer the SIDEWALK on the block you are visiting be used for? (check all that apply)**



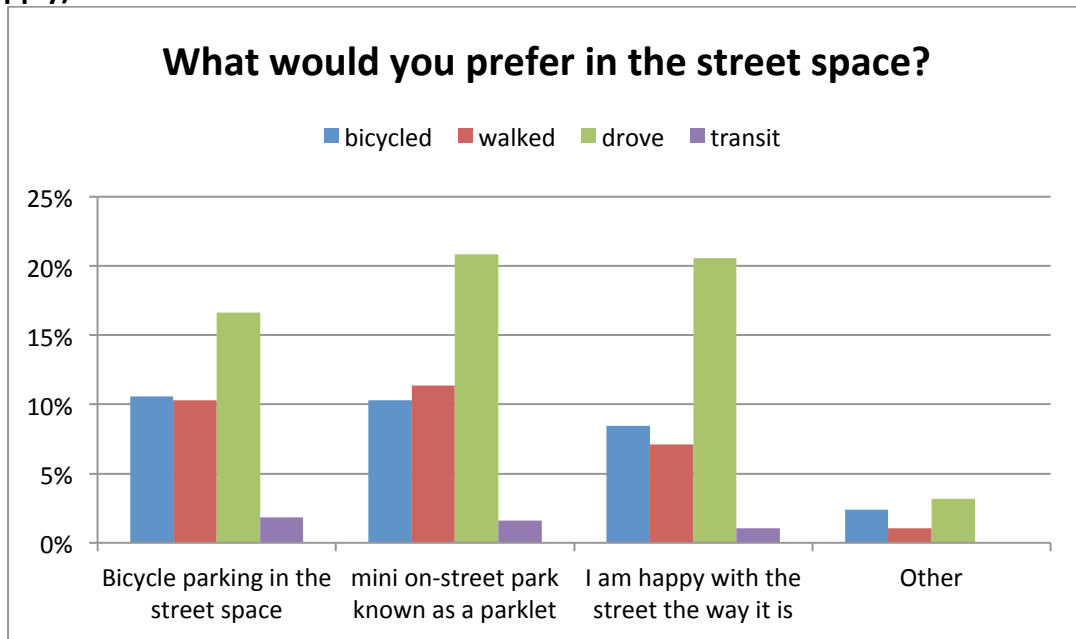
Responses: 383

Customers of all travel modes prefer people walking on the sidewalk followed by café seating, sidewalk displays or sandwich boards. Public seating and bike parking tied for third most popular response.

Responses for “other” included:

- *Displays or sandwich boards should not be in the way of foot traffic*
- *small kiosks for food/flowers*
- *Busking!*
- *Art*
- *Mixture of bike parking, café seating and walking. In front of sizzle pie and barnlight is a good example.*
- *skate boarder way*
- *A combination of all?*
- *café seating that is open to the public and not just patrons*
- *interactive displays about the life of the city, public art*

**CQ14. What would you prefer the STREET on the block you are visiting be used for? (check all that apply)**



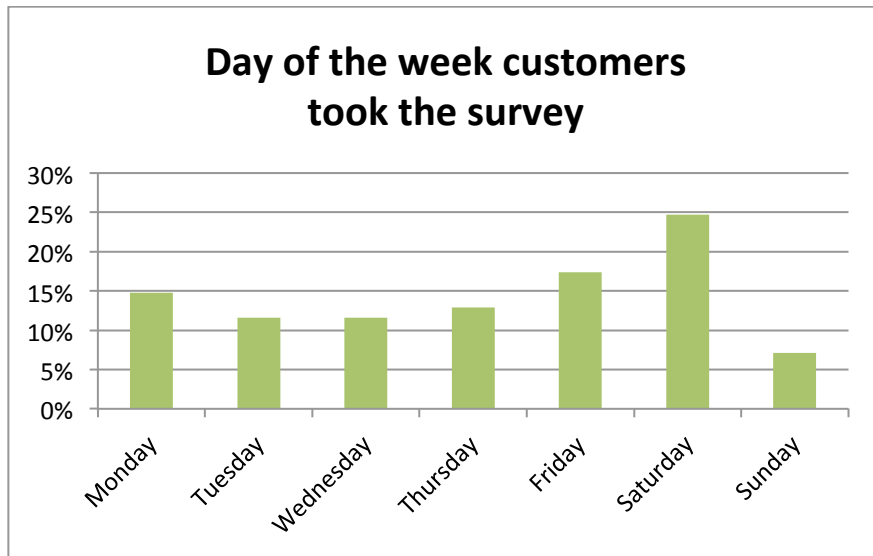
Responses: 379

Customers wanted bike parking and parklets in the street space 83% to the 37% who said they were happy the way it is. Of those who drove 38% said they would prefer bicycle parking or a parklet in the street space to the 21% who drove who said they were happy with the way the street is.

Responses for “other” included:

- *Needs more street parking. Restriped to use spaces more efficiently.*
- *More bike lanes*
- *Streets are for cars, bike lanes for bikes*
- *Whichever is more efficient*
- *More pedestrian/walking hang out/eat space less cars or central car parking near but not visible*
- *Parking for cars is somewhat difficult, so they should have street parking still. Though it could be improved.*

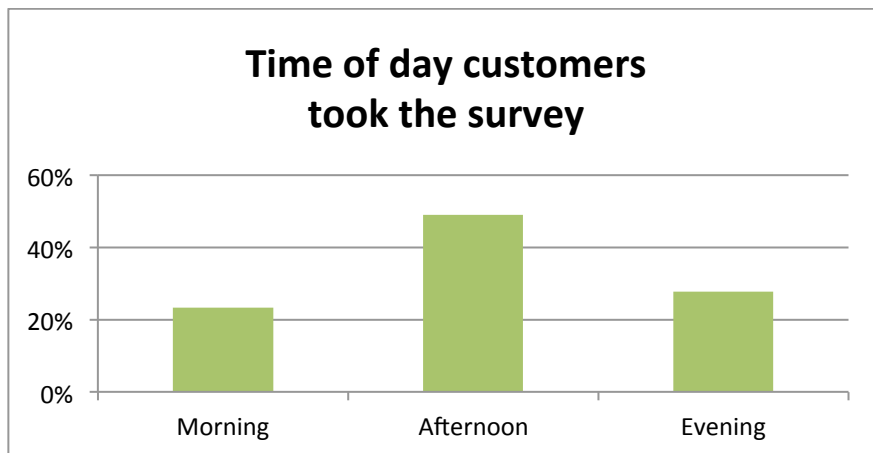
**CQ15. Please circle the current day of the week:**



Responses: 380

The survey was almost evenly divided in responses between the weekend (Friday – Saturday) with 49% of responses and a weekday (Monday – Thursday) with 51% of responses.

**CQ16. Please circle the time of the day when you arrived:**



Responses: 382

The survey was taken 49% of the time in the afternoon specified as noon-5pm), 23% of the time in the morning specified as before noon and 28% of the time in the evening which was specified as after 5pm on the survey.

## Comparisons between Business and Customer Survey Results

Currently how is the sidewalk on the block your business is on generally used? (check all that apply) and what would you prefer the sidewalk in front of your business be used for? (BWQ6, BWQ7 / BQ3, BQ4)

*Note: Question code BWQ stands for business with corrals survey questions, BQ stands for business without corrals survey questions and C stands for customer survey questions.*

	With Corrals		Without Corrals	
	Current Sidewalk Use	Preferred Sidewalk Use	Current Sidewalk Use	Preferred Sidewalk Use
People walking	90%	80%	100%	93%
Café seating, sidewalk displays or sandwich boards for business	80%	80%	79%	86%
Public Seating (benches)	20%	10%	7%	14%
Bike Parking	60%	50%	57%	57%
Other	10%	10%	0%	7%

*The percentages in each column of this table will not equal 100% because respondents selected multiple answers.*

This shows the businesses with and without bike corrals on their blocks are generally happy with the way their sidewalk space in front of their business is used.

What would you *prefer* the SIDEWALK in front of your business or the block you are visiting be used for? (check all that apply) (BWQ7, BQ4, CQ13)

	Business with Bike Corrals	Businesses without Bike Corrals	Customers at all Businesses
People walking	80%	93%	82%
Café seating, sidewalk displays or sandwich boards for business	80%	86%	75%
Public Seating (benches)	10%	14%	51%
Bike Parking	50%	57%	51%
Other	10%	7%	8%

*The percentages in each column of this table will not equal 100% because respondents selected multiple answers.*

This shows 75%-93% of businesses and customers selected people walking and business uses like café seating as preferred uses for the sidewalk space. In comparison, 50-57% of business and customer responses selected bike parking as a preferred use. Lastly, 51% of customers ranked public seating (benches) as a preferred use versus 10%-14% of businesses.



Other answers for customers included:

- *Displays or sandwich boards should not be in the way of foot traffic*
- *small kiosks for food/flowers*
- *Busking!*
- *Art*
- *Mixture of bike parking, café seating and walking. In front of sizzle pie and barnlight is a good example.*
- *skate boarder way*
- *A combination of all?*
- *café seating that is open to the public and not just patrons*
- *interactive displays about the life of the city, public art*

**What would you prefer the STREET space in front of your business or on the block you are visiting be used for? (check all that apply) (BWQ10, BQ6, CQ14)**

	<b>Business with Bike Corrals</b>	<b>Businesses without Bike Corral</b>	<b>Customers at all Businesses</b>
Bicycle parking and/or mini on-street park known as a parklet	11%	64%	62%
I am happy with the street the way it is	89%	50%	37%
Other	0%	0%	7%

*The percentages in each column of this table will not equal 100% because respondents selected multiple answers.*

This shows 89% of businesses with bike corrals were happy with the street space the way it is compared with 50% of businesses without bike corrals and 37% of customers. Out of the total respondents 62% of all customers and 64% of businesses without corrals would prefer bicycle parking and/or parklets in the street space. This shows a majority of all types of respondents prefer alternative street space uses.

**Whose responsibility do you think it is to pay to install and maintain on-street bike parking? (check all that sound acceptable to you) (BWQ12, BQ10)**

	<b>Businesses with Corrals</b>	<b>Businesses without Corrals</b>
<b>Publicly funded and maintained</b>	80%	71%
<b>Publicly funded and privately maintained</b>	30%	14%
<b>Shared cost between public agency and private business; maintained by business</b>	30%	7%
<b>Shared cost between public agency and private business; maintained by public agency</b>	30%	21%

<b>Privately funded and maintained</b>	20%	0%
<b>Nonprofit, chamber of commerce or other third party funded and maintained</b>	10%	0%

*The percentages in this table will not equal 100% because respondents selected multiple answers.*

Publicly funded and maintained is the most popular answer for both businesses with and without corrals. *Note: Maintained was not defined and could influence the answers in a future survey*

**Do you ever talk with neighboring businesses about issues like parking (bicycle or car) or other strategies to attract and retain customers? (BWQ13, BQ11)**

	<b>Businesses with Corrals</b>	<b>Businesses without Corrals</b>
Yes	40%	50%
No	60%	43%

Explanations from those who said yes:

- *Constant debate if parking should be free or have time limits. People park their bikes here instead of the library but then no spots for customers. Regarding our employees, we need a space for rain gear and a protected bike facility for employees to park bikes and shower.*
- *The City has a very tough parking policy for businesses in our district - lots of complaints*

Explanations from those who said no:

- *Vehicle parking is a touchy topic with our neighbors. Just learn not "to go there" in conversations.*

**Where do you think car parking should be located in commercial areas like this? (BWQ9, BQ5, CQ12)**

	<b>Businesses with Bike Corrals</b>	<b>Businesses without Bike Corrals</b>	<b>Customers at all Businesses</b>
<b>On the street in front of my business or the business you are visiting</b>	40%	71%	40%
<b>In a parking lot behind my business or the business you are visiting</b>	70%	64%	59%
<b>In a centralized parking garage</b>	30%	64%	25%
<b>Other</b>	20%	7%	9%

*The percentages in each column of this table will not equal 100% because respondents selected multiple answers.*

When asked where car parking should be located, “in a parking lot behind the business” was selected by 59% of customers, while “on the street in front of the business” was selected by 40% of customers. “On the street in front of the businesses” was also selected by 40% of businesses with bike corrals. However, this option was selected by 71% of businesses without bike corrals. “In a parking lot behind the business” was selected by 59%-70% of all respondent types showing that this option is popular with both businesses and customers.

The highest percentage that chose “centralized parking garage” was 64% by businesses without corrals. Businesses without corrals also selected “in a parking lot behind the business” at 64% and “on-street in front” at 71%. This shows businesses without corrals felt positively about all car parking options.

Business answers for those who said other included:

- *“In this community parking lot adjacent not behind. People shop here expect parking in front.”*

Customer answers for those who said other included:

- *A number of respondents said a variation of they do not care, wherever or no preference*
- *A number of respondents said it depends*
- *Under/above ground*
- *In a parking lot adjacent to the business I am visiting*
- *Doesn't matter/cars will be self driving soon, won't need parking.*
- *Centralized free lot*
- *Visible from business*
- *I wouldn't mind parking away from site if there was interesting sidewalk cafes, seating and attractions.*

**Please share any other thoughts on how you would prefer bicycle parking to be accommodated for customers:**

**From businesses with corrals:**

- *I would love covered bike parking. The expense and permit fees make it unreasonable. – Kristina, The Bier Stein Owner*
- *Bike parking must be safe and usable to deter thief also as close to business is important. –Dwight Collins, Newman's Fish Co Owner*
- *Any bike parking should be visible from inside of the establishment in order to prevent theft. Bike theft in Eugene is a huge issue. –Heather Bird, Steelhead Brewery General Manager*
- *I wish we received the sculptural bike rack that was intended for out front. I guess financial reasons caused it to be basic. I was disappointed. –Katie Courtney, Cornucopia Bar N Burger General Manager*

- More covered bike parking. Not cages. There should be lighting. If we put bike parking in car parking lot I worry about safety and lighting. We discuss a bicycle hub next door at cleaners for our employees. –*Melissa Brown, KIVA Owner*

**From businesses without corrals:**

- I think there should be citation for bike park on the sidewalk for more than 24 hours.
- I would be interested in having publicly maintained parklets. –*Ryan Reyna, Killer Burger General Manager*
- People lock their bikes to our fence which I don't prefer. A designated bike area would be preferred. –*Sarah Dosch, Doc's Pad Bar Manager*
- We have an indoor rack for employees and other people in the building, but the doors lock at certain times. A bike corral (something colorful) would be awesome. –*Michelle Nelson, Perugino Manager*
- Remove [bike parking] from alley ways. This is where theft typically occurs. –*Liz Connelly, Off The Waffle Personal Assistant to the Owner*
- I always enjoy seeing artistic racks downtown. Having to privately pay for and maintain a corral that benefits everyone (including the city) doesn't make the most sense. –*Phoenix Desmond, Everyday People Yoga Program Director*
- Our current bike rack is often overloaded, forcing people to park bikes in the way, tied to trees and telephone poles. Park them around the corner. –*Hall, Eugene City Bakery Owner*

## Key Findings

### Interviews

1. Seattle and Portland have established internal and external programs and policies for bike corrals and Eugene has not. These internal policies include funding and standards for corrals, installation and staff to handle requests and applications. External policies include an application process in order to see if a business qualifies for a corral. Eugene city staff acknowledged these are programs they want to put in place as well, but so far have lacked time and staff to do so.
2. Portland and Seattle allow and prefer locating corrals at street corners. This provides defacto curb extensions to shorten the pedestrian crossing of the street and improved visibility for cars, bicyclists and pedestrians, without removing existing car parking spaces. Eugene is not currently utilizing this space or the space currently designated as jockey spaces between every two-car parking spaces throughout parts of the city.
3. Artistic corrals have been installed in Portland, Seattle and Eugene. However, they are the exception not the expectation in Portland and Seattle and all three city's staff members said the artistic corrals are more difficult to install and maintain for various reasons.
4. A proactive approach to installation gives the city a role in deciding where bike parking is placed. One additional policy Seattle is working on are ways to be more proactive rather than reactive with their bike parking and corral program. This is important to get bike parking everywhere it is needed in the city.
5. When bike corrals have been installed in Eugene, it has prompted the city to reevaluate the curb space. As a result, the redesigned streets are now safer for pedestrians and bicyclists, better for businesses and in some cases have increased parking for cars on the streets.

### Businesses With and Without Corrals

6. Out of the nine businesses surveyed in Eugene with corrals on their block, six of them said the corral has had a positive impact on their business.
7. When asked if they would seek out a location with a corral or find a way to get one if they opened a second business in downtown Eugene, 90% of surveyed businesses with corrals on their block said yes.
8. When surveying businesses without corrals on their blocks, 86% of those businesses said they would be interested in a bike corral on their block. Of those, the highest percentage (46%) said they would like it on the same side of the block their business is on but not directly in front.
9. With regards to the current corral process, businesses who have corrals suggested three main improvements:

- Art not be a part of the racks themselves
- The city should pay for the corrals
- The process should be shorter

Additionally, a business owner who was going through the process of getting a corral at the time of this research said the process takes too long and the city was not responsive.

10. The most popular answer for both businesses with and without corrals regarding whose responsibility it should be to pay to install and maintain on-street bike corrals was “publicly funded and maintained.”

## Customers

11. The majority (94%) of customers who had bicycled said they think positively of businesses with bike corrals. This included a breakdown of frequent (above 25 trips per month) and infrequent bicyclists (under 10 trips per month), those who took the survey at businesses with and without a corral and those who took the survey at a business with an artistic corral and a business with a basic corral.
12. Customers who had ever bicycled do not have a specific preference for a particular bike parking option. They did not have a clear first choice preference for any of the four rack type options shown in the customer survey (on-street corral with inverted U racks, on-street corral with artistic racks, on-sidewalk inverted U racks and a parking meter post and ring rack). The only clear difference was that the parking meter bike rack received only 60% “like it” and “love it” ratings, compared to 80%-95% for the other three options.
13. Corrals with inverted U racks were not as popular as artistic corrals or sidewalk inverted U racks. When asked to choose between two bike parking options, 34% more customers who had ever bicycled to the businesses in the survey said they would choose an artistic corral over a corral with inverted U racks, while 22% more said they would choose a sidewalk bike rack with inverted U racks over a corral with inverted U racks. However, when broken out more specifically bicyclists who took the survey at a business with basic corrals were more likely to prefer that option than bicyclists who took the survey at a business with an artistic corral.
14. At the businesses without corrals, a higher percentage (7% more) of customers indicated they parked their bike to “other.” Responses for other included “signpost” and “tree.” This means wear and tear on city property not intended for bike parking as well as a less orderly public right of way.
15. People are using transportation options to get to the businesses included in the survey, with half of customers getting to the businesses by car and the other half by walking, bicycling, transit and other modes. More than half (61%) said they had ever bicycled to the business

where they took the survey. This shows the city is doing a good job promoting transportation options.

16. The most popular answer for where bike parking should be located for all survey respondents of all travel modes was the sidewalk.

### Comparisons between Businesses and Their Customers

17. Businesses and their customers primarily want the sidewalk to be used for pedestrian and business activity, which includes people walking and café seating. When asked what businesses and their customers would prefer on the sidewalks in front of businesses, 75%-93% of businesses and customers selected “people walking” and business uses like “café seating and sidewalk displays” as preferred uses for the sidewalk space. This is interesting because as mentioned in Key Finding 16, 52% of customers said bike parking should be on the sidewalk. This shows that people have conflicting preferences, so it is likely that the city will face some resistance with whatever they attempt to do. However, some resistance does not mean that there is not also support for changing the existing infrastructure.
18. Businesses and customers had differing opinions about the current configuration of street space, with businesses with bike corrals reporting being the happiest. When asked what you prefer the street space in front your business or the block the business you are visiting be used for, 89% of businesses with bike corrals were happy with the street space the way it is compared to 50% of businesses without bike corrals and 37% of customers.
19. While they differed on opinions of the space currently, businesses with and without corrals and customers all support including bike parking and/or parklets in the street space. Of businesses without corrals 64% said they would prefer bicycle parking and parklets in the street space, and 89% of businesses with corrals were happy with that street use, as noted in the previous finding. Finally, 62% of customers said they would prefer bike parking and parklets in the street space.
20. Businesses with and without a bike corral and customers all selected “in a parking lot behind my business or the business they were visiting” as preferred car parking locations between 59%-70% of the time. There was over twice as much support from customers for car parking being nearby the business they were visiting compared to directly in front of a business, indicating the city has community support to use the street space for uses other than car-parking.



## Implications

Analysis of the key findings revealed four implications as follows:

### 1. Majority of businesses and customers support on-street bike corrals

Changing the street space configuration is often seen as a controversial issue. However, the results of this study show that for the majority of businesses with and without a bike corral on their block and customers who were surveyed, this is not a controversial topic. The majority of both businesses and customers said they preferred including on-street bike parking and/or parklets in the street space in front of businesses. There was also twice as much support from customers to locate car parking nearby the business as opposed to directly in front, indicating additional support from the community for uses other than car parking in the street space. Finally, businesses with bike corrals on their blocks were the happiest of all respondents with the street space the way it currently is, while businesses without corrals showed interest in having a corral on their block. Key Findings 6-8, 11, 18-20 support these claims and show the City of Eugene has community backing to reimagine the street space in ways that are better for all users.

### 2. Differences in opinions about artistic vs. basic corrals

Staff in Eugene, Seattle and Portland all said maintaining artistic corrals is more challenging and expensive than basic corrals. In addition, Eugene staff and business owners both said the process takes significantly longer to install an artistic corral rather than a basic corral. The owner of KIVA also explained the artistic corral in front of her store is confusing to lock to and someone had their bike stolen as a result. Because of this, the KIVA owner suggested art not be a part of the racks themselves.

However, customers had a different opinion. Corrals with basic racks were not as popular as artistic corrals, with 34% more customers who had ever bicycled indicating they would choose an artistic corral over a corral with basic racks if given the option between the two. This was still the case even when the data was broken out further to compare frequent and infrequent bicyclist opinions.

This shows a clear difference in opinion, but there is also some ambiguity here. Artistic corrals were represented by a single photo in the surveys but “artistic” can mean a wide variety of things. What exactly customers want when they say they prefer artistic corrals is not clear from this study. This does imply though that customers want to include art throughout public spaces and they see bike parking as a place where this can occur. The city staff is aware of this, and also interested in incorporating art into everyday objects throughout the city. It will be important to balance customers’ desire for artistic corrals with the practical needs to making safe, reliable bike parking available in Eugene. For the specific results that support these claims, see Key Findings 3 and 9.

### **3. Customers had conflicting preferences about how to use the sidewalk space**

While 52% of all customers said bike parking should be on the sidewalk, 75%-93% of businesses and customers selected “people walking” and business uses like “café seating and sidewalk displays” as preferred uses for the sidewalk space. It is not always possible to fit people, bike parking and café uses onto the sidewalk. Ultimately, more than three quarters of the respondents indicated that people walking and café uses were their preferences for the sidewalk space, which means bike parking is the reasonable use to move into the street space.

The surveys showed that people have conflicting preferences about how to use the sidewalk and where to locate bike parking. While the first implication demonstrates clear support for bike corrals in the street and using the street space in alternative ways, it is likely that the city will face some resistance with whatever they attempt to do. This is a natural reaction to any change. However, some resistance does not mean that there is not also support for changing the existing infrastructure. For the specific results that support these claims, see Key Findings 16 and 17.

### **4. Cities should implement proactive bike parking programs**

Seattle is attempting to be proactive rather than reactive to make quality bike parking available everywhere needed in the city. When businesses apply for bike parking, city staff will evaluate their location and determine the best type of parking. Sometimes a business has only requested a single rack, but the staff members suggest a bike corral because they determine it will be more appropriate for the location. Utilizing the curb space at intersections where cars cannot park anyways is a way both Seattle and Portland have been able to more easily install corrals, because there is less reconfiguration of the existing street use that needs to be done. Seattle is also actively seeking out locations to install corrals in order to address the equity issues involved with the fact that some businesses may not know they can or should request a bike rack or corral from the city. By being proactive the city staff can work to create a network of appropriate, safe and reliable bike parking everywhere it is needed and not only using a request based model.

The bike corrals installed in Eugene to date have prompted the city to reevaluate the curb space and redesign streets. These blocks are now safer for pedestrians and bicyclists, better for businesses and in some cases have even increased car parking on the streets. This shows the benefits of proactively installing on-street bike corrals as being proactive supports the city’s transportation options and climate goals and creates an orderly streetscape. For the specific results that support these claims, see Key Findings 1, 2, 4, 5 and 9.

## Recommendations

The following are my 10 recommendations based off the key findings and implications. The recommendations serve as suggestions to the City of Eugene and other cities to improve their bike parking and on-street bike parking efforts.

### 1. Adopt standard city bike rack and corral types

Eugene should adopt a standard inverted U bike rack type and inverted U corral type, established with drawings on where and how they are to be installed in the public right of way. This will help streamline the installation and maintenance process because choosing the style of bike parking and how to maintain it is no longer a question. This recommendation is based on Key Finding 1, 3 and 9 and addresses Implication 2.

### 2. Prioritize corrals at corners of intersections

Eugene should prioritize placing corrals in the curb space near intersections where car parking is already not allowed. This recommendation is based on best practices from the interviews with staff in Seattle and Portland as noted in Key Finding 2. They recommend using this space since cars cannot park there anyway and it makes the intersection safer for all users by increasing visibility and decreasing the crossing distances. This recommendation addresses Implication 4.

### 3. Make artistic corrals an exception to the rule

The bike rack standards can include a policy to work with businesses on artistic racks as long as they meet the same standards as the inverted U rack. For artistic corrals, consider incorporating the art on the ends or in paint on the standard inverted U rack but not in the shape of the racks themselves. The timeline for incorporating art can vary based on the amount of need for the corral. For example, if a corral is needed immediately, install a standard corral first and then work through the process of including art into the rack with the business after the initial installation. This recommendation is based on Key Finding 3 and 9 and addresses Implication 2.

### 4. Use a standard methodology to choose appropriate bike parking type

The Regional Bike Parking Study provides a guide to methodology of where to put racks and corrals in addition to maps that show existing bike parking capacity and recommendations for how many racks to have per block face in downtown Eugene. This can help the city proactively determine where additional types of bike parking are needed. The next step is to determine where the bike parking will be installed. When asked about the sidewalk space, 82% and 75% of customers selected “people walking” and business uses but when asked where bike parking should go 52% said on the sidewalk. These conflicting viewpoints show a need for the city to use a standard methodology to choose appropriate bike parking for each location.

A sequential process can be used to determine where to install bike parking, on the street or sidewalk. First, evaluate the width of the sidewalk, pedestrian traffic, business activities, and bicycle parking demand on a block. Then determine if there is sufficient sidewalk space to support pedestrians, business uses and low demand bike parking. If so, install inverted U racks on the sidewalk. If there is either high demand for bike parking or lack of sidewalk space, determine feasibility of locating a corral in the street in front of the business or near the intersection curb space, maintaining the integrity of the sidewalk space and meeting the bike

parking demand. This recommendation is based on Key Finding 12 and 17 and addresses Implication 3.

### **5. Develop a clear, advertised process for business owners**

This will ensure business owners know who to contact, what to expect and how the appropriate rack type is determined. This recommendation is based on Key Finding 1, 7-9 and addresses Implication 1 and 4.

### **6. Establish funding for bike parking/ improve existing parking code**

Consider establishing a bike parking fund so developers can opt out of their code required bike parking by paying into a fund. The city can then use the funds to put bike parking where it is needed in the public right of way, as is currently done in Portland. Portland also has money in their transportation budget for bike racks. In Seattle, a voter approved levy funds bike parking and corrals. Eugene can follow one of these models or develop a model appropriate to the local context. This recommendation is based on Key Finding 10 and 11 and addresses Implication 1.

### **7. Replace/remove non-compliant bike parking**

City staff should be proactive about approaching businesses to install code compliant bike parking and work with developers, businesses and other stakeholders to replace non-code compliant bike parking. Replacing non-code compliant bike parking will help achieve a more predictable and safe public right of way as parked bikes are located in designated zones where they will not fall over and block the sidewalk or street. This will also help keep bikes from being locked to trees and signposts, which can damage city property. This recommendation is based on Key Finding 14 and Implication 4.

### **8. Continue providing resources for sustainable transportation options**

With half of customers arriving at the businesses surveyed by sustainable modes of transportation and local policies supporting increases in these modes of transportation, there should be appropriate and equitable distribution of resources to accommodate and encourage more customers to use these sustainable modes of transportation in Eugene. This recommendation is based on Key Finding 5-8, 10, 11, 15 and Implication 1 and 4.

### **9. Increase efficiency of the street space**

Remove the jockey spaces and consider putting in pay stations to more efficiently use the street and sidewalk space. If the jockey spaces are removed there will be more street space for cars, bicycles, bioswales and parklets without decreasing the existing amount of car-parking. As happened previously in Eugene, re-evaluating the use of the street space can fix the inefficiencies, including alternative uses and possibly resulting in additional car parking.

Pay stations are another way to use the street space more efficiently, as switching from individual meters to pay station would add 100 more on-street car parking spaces as an LCOG study showed. This is because pay stations no longer require marked parking spaces, as cars can self select their space and pay at the pay station. Pay stations would also mean removal of the individual parking meters and provide more room for bike parking and business uses on the sidewalk.

With the extra on street spots gained from switching to pay stations there would be opportunities for more on-street bike parking as well as bioswales to help with stormwater runoff. This would mitigate the need to add concrete for people to comfortably walk to the pay stations in areas including Agate Street by Hayward Field, which was mentioned as a possible requirement when adding a pay station. Bioswales and parklets in the gained public right of way from rethinking the on-street parking markings might also help other city goals including mitigating stormwater runoff and finding available open space for parks.

This recommendation is based on Key Finding 2, 5-8, 11 and 18-20 and addresses Implication 1 and 4.

## 10. Create a bike parking program

The City of Eugene's Pedestrian and Bicycle Master Plan recommends creating a bike parking program. This program should include the elements detailed in Recommendations 1-9 and be developed and supported by the Parking, Transportation Options and Traffic Engineering divisions within Eugene's Public Works Department. Creating a bike parking program is supported by the Key Findings and Implications that led to Recommendations 1-9 and will help the City of Eugene reach its goal of doubling the number of trips by bicycle by 2031.

## Possible Research Improvements For The Future

### Customer Surveys

- Include a question asking the customer's gender and age to compare other answers against
- No need to specify which days to pass surveys out.
- Administer all surveys by standing outside or passing surveys out. This could help gain more responses and also avoid invalid surveys that were not serious. In the two locations I administered surveys myself I got between 15-20 completed in an hour. Unfortunately, I did not have the time to administer all the surveys at the 25 locations.
- Include questions about covered bike parking
- The pictures of the in-street corrals throughout the survey does not show the bumper stop or flex post so some respondents may have not seen the protection from automobiles and this may have impacted their answers to questions 3, 4, 5, 6 and 14. However, questions 3, 4, 5, and 6 were for people who bicycled to the destination so in theory they may have been semi-familiar with on-street bike corrals and their level of protection from automobile traffic.
- Question #3, A number of respondents put in multiple answers for this question as I believe they slightly misunderstood the question and thought it was asking which type of bike parking have you ever used when you parked here. To correct this, the question could be rephrased to "which type of parking did you use when you parked here TODAY?"

- Question #4 d.) Perhaps was confusing since there are three kinds of parking meter racks in Eugene. The one shown in the survey is the post and ring with the parking meter head on, there is also a post and ring without a meter head on and then there are parking meters with no ring that some still use to lock their bike.
- Question #9 was possibly confusing to respondents as I did not define if “times” meant individual trips or an aggregate of all daily trips. Most people interpreted the question to mean “days” per month. I think replacing “times” with “days” in the answer choices would correct this issue.
- Question #12 word “commercial” may not have applied as directly for Everyday People Yoga, Price Pucklers, Eugene City Bakery and The Bier Stein.

### Business Surveys

- Include a follow up question to the funding of the corral question stating the average cost of a bike corral and if this would change their opinion about who should pay for it.
- Reordering who pays for bike corrals options to see if that makes any difference in responses.
- I could have asked them question 11 from the customer survey which was “in general, do you think bike parking should be on the sidewalk or in the street?” and then compared this to the customer responses.

### Areas for Further Research

A few of the ideas for further research that came out of this study included:

- Surveys for business employees about long term bike parking
- A survey specifically for those who used a corral to see what it is about the corral they like.
- Survey customer preferences of the three similar parking meter racks types.
- An evaluation of pay stations versus individual parking meters. This research could help support recommendation five in to rethink the on-street parking markings. This might include surveys to see which parking meter options users in Eugene prefer. Included in this evaluation could be a survey of users along Alder Street where pay stations currently exist. Possibly include an observation and analysis of the parking efficiency of the pay station model at 13<sup>th</sup> and Alder compared to individual meters as well. Lastly, a comparative revenue analysis to see if pay stations generate more revenue than the individual parking meters due to efficiency after the cost of purchasing and installing the new stations.

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# Appendices

## Appendix A: Interview Survey Questions for Staff in Eugene, Portland and Seattle

### Interview Guide for City Officials in Eugene, Portland and Seattle

#### *Before Interview, Consent Reminders:*

- *Remind interviewee you are a graduate student at UO studying urban planning and this 20-30 minute interview is part of a graduate student research project about on-street bicycle parking and involves qualitative research.*
- *Ask if it is ok to record the interview (so I don't have to scramble to take notes) and inform them the information they provide may be used in a written report unless they are not comfortable with this.*
- *If they do not give consent, determine the way they would like the information they provide to be attributed. (options in confidentiality section of consent form).*
- *Tell them their participation is voluntary and to contact me if they have any questions.*
- *Hope to be more of a conversation but some logistics questions so we're on the same page.*

1. Please describe your role in (Insert Cities) bike corral program.
2. How is your bike corral program going?

**For Eugene only:** What have you done to follow up on the Regional Bike Parking Study recommendations regarding on-street bike corrals?

#### Specifics so we're on the same page:

- Please describe the funding models you use for bike corrals?
  - Besides (insert what it says on their website) is there any further methodology you use when selecting where to put an on-street bike corral?  
*Prompts: specific counts, width of sidewalks*
3. What specific things have made the bike corral program in (Insert City) successful?
  4. What were the challenges when you first got started or any challenges that still exist?
    - How did you/are you working to overcome any challenges?
    - Are the challenges that you've actually faced the same as what you thought they would be originally?

5. Have standard staple racks vs. any artistic racks been received differently?
  - Has the process been different on your end for staple vs artistic racks? If so, how?
6. What do you wish you had known before you started the program/any advice for Eugene?
7. The next step in my research is to survey business owners and the public about on-street bike corrals, is there information from business owners and the public that would be helpful to your decision of where to place an on-street bike corral?
 

*Prompt: share questions from my surveys if they want to know what I am already intending to ask.*
8. Is there anyone else I should talk to? Parking Manager?

## Appendix B: Interview Questions for Individuals Staff Recommended Speaking To

### Interview Guide for Lindsay Walker Go Llyod Portland

1. Tell me about your experience with Portland's Bike Corral program.
  - Have other TMA's gotten corrals?
2. What made it successful or were there any challenges?
3. Scott told me you have 2 or 3 corrals, can you tell me how they have been received by users?
4. Are they standard inverted U racks or artistic?

### Interview with Greg Raisman PBOT

1. Can you provide me any info on the history and challenges of the first bike corrals in Portland?
2. Think about advice you would give to another city like Eugene who does not have an official bike corral program.
3. How did you overcome both internal and external challenges?

## Appendix C: Business Survey For Businesses With A Corral

Dear Local Business:

I would like your help with my University of Oregon Master's student project focused on the perceptions of on-street bicycle parking. This brief 5-10 minute survey will help me in my degree requirement and also may provide information for you, the City of Eugene and other cities on bicycle parking programs. Your participation is completely voluntary. If you choose not to participate, it will not affect your current or future relations with the University of Oregon or the City of Eugene.

**This survey is to be completed by the business owner or manager.** Once complete, please place this survey in the provided manila envelope and I will be happy to pick it up.

If possible, separately, I would also like to have customers in local businesses fill out brief surveys. Provided in the second envelope are customer surveys. I will follow up and work with you to determine the best way to distribute the customer surveys if you are interested. I hope that the information would be useful both for you and for city planning purposes.

I am happy to share my final report with you. On the last page you can indicate if you would like to see my results.

Thank you and if you have any questions, please contact me at:

Ross Peizer, Student  
Community and Regional Planning Program  
University of Oregon  
rossp@uoregon.edu  
(206) 719-4440

If you have any questions about your rights and the research process itself, you may contact:

Research Compliance Services  
University of Oregon  
(541) 346-2510  
ResearchCompliance@uoregon.edu

1. Your business was selected to participate in this study due to the on-street bike parking known as a bike corral that is on your block. Please mark where the on-street bike corral is located. *(See examples on last page if unclear about this type of bike parking)*

\_\_\_ Right in front of my business

\_\_\_ On the same side of the street as my business

\_\_\_ On the opposite side of the street from my business

2. What is your opinion about the bike corral?

---

---

---

3. How do you like the location of the bike corral?

\_\_\_ Ideal location

\_\_\_ Would prefer it to be placed elsewhere

If so, where:

---

---

4. Do you have a sense if the on-street bike parking has had an impact on your business?

- Yes
- Somewhat Yes
- Somewhat No
- No

Please explain your answer: (economically, socially, customers' satisfaction, business image, etc)

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5. Were you involved in the process of getting the on-street bike corral installed?

- No
- Yes

If yes, how were you involved and please reflect on how easy or difficult the process was:

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Are there ways you would suggest improving the process?

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---

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6. Currently, how is the SIDEWALK on the block your business is on generally used?  
(check all that apply)

- People walking
  - Café seating, sidewalk displays or sandwich boards for businesses
  - Public seating (benches)
  - Bike parking
  - Other: \_\_\_\_\_
- 

7. What would you *prefer* the SIDEWALK in front of your business be used for?  
(check all that apply)

- People walking
  - Café seating, sidewalk displays or sandwich boards for businesses
  - Public seating (benches)
  - Bike parking
  - Other: \_\_\_\_\_
- 

9. Where do you think car parking should be located in commercial areas like this?

- On the street in front of my business
- In a parking lot behind my business
- In a centralized parking garage
- Other: \_\_\_\_\_

**10.** What would you *prefer* to use the STREET space in front of your business for?  
(Check all that apply)

I would be interested in including bicycle parking in the street space  
(See last page for an example)

I would be interested in including space for seating or a mini on-street park known as a parklet in the street.  
(See last page for an example)

I am happy with the street the way it currently is

Other: \_\_\_\_\_

**11.** If you were to open up a second business in downtown Eugene would you seek out a location with on-street bike parking or find a way to get it there?

Yes

No

**12.** Whose responsibility do you think it should be to pay to install and maintain on-street bike parking? (Check all that sound acceptable to you)

Publicly funded and maintained

Publicly funded and privately maintained

Shared cost between public agency and private business; maintained by business

Shared cost between public agency and private business; maintained by public agency

Privately funded and maintained

Nonprofit, chamber of commerce or other third party funded and maintained

**13.** Do you ever talk with neighboring businesses about issues like parking (bicycle or car) or other strategies to attract and retain customers?

- Yes
- No

Please explain:

---

---

---

---

**14.** Please share any other thoughts on how you would prefer bicycle parking to be accommodated for your customers:

---

---

---

---

Thank you very much for your time and thoughts with this survey. If you would like a copy of my final results please provide your e-mail address:

---

[Optional] If you are comfortable with me quoting and attributing any of your responses to you, please fill out the following information:

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Business name)

Thank you again for your time and assistance with my research project.  
-Ross Peizer

## Examples

On-Street Bike Corral  
with Basic Racks



On-Street Bike Corral  
with Artistic Racks



Mini On-Street Park  
(known as a Parklet)  
with Bike Parking



## Appendix D: Business Survey For Businesses Without A Corral

Dear Local Business:

I would like your help with my University of Oregon Master's student project focused on the perceptions of on-street bicycle parking. This brief 5-10 minute survey will help me in my degree requirement and also may provide information for you, the City of Eugene and other cities on bicycle parking programs. Your participation is completely voluntary. If you choose not to participate, it will not affect your current or future relations with the University of Oregon or the City of Eugene.

**This survey is to be completed by the business owner or manager.** Once complete, please place this survey in the provided manila envelope and I will be happy to pick it up.

If possible, separately, I would also like to have customers in local businesses fill out brief surveys. Provided in the second envelope are customer surveys. I will follow up and work with you to determine the best way to distribute the customer surveys if you are interested. I hope that the information would be useful both for you and for city planning purposes.

I am happy to share my final report with you. On the last page you can indicate if you would like to see my results.

Thank you and if you have any questions, please contact me at:

Ross Peizer, Student  
Community and Regional Planning Program  
University of Oregon  
rossp@uoregon.edu  
(206) 719-4440

If you have any questions about your rights and the research process itself, you may contact:

Research Compliance Services  
University of Oregon  
(541) 346-2510  
ResearchCompliance@uoregon.edu

1. Are you familiar with any blocks in Eugene that have on-street bike parking known as bike corrals? (See examples on the last page)

- Yes
- No

2. What do you think of this type of bike parking?

---

---

3. Currently, how is the SIDEWALK on the block your business is on generally used? (check all that apply)

- People walking
- Café seating, sidewalk displays or sandwich boards for businesses
- Public seating (benches)
- Bike parking
- Other: \_\_\_\_\_

---

4. What would you *prefer* the SIDEWALK in front of your business be used for? (check all that apply)

- People walking
- Café seating, sidewalk displays or sandwich boards for businesses
- Public seating (benches)
- Bike parking
- Other: \_\_\_\_\_

---

5. Where do you think car parking should be located in commercial areas like this?

On the street in front of my business

In a parking lot behind my business

In a centralized parking garage

Other: \_\_\_\_\_

6. What would you *prefer* to use the STREET space in front of your business for?  
(check all that apply)

I would be interested in including bicycle parking in the street space  
(See last page for example)

I would be interested in including space for seating or a mini on-street park  
known as a parklet in the street.  
(See last page for example)

I am happy with the street the way it currently is

Other: \_\_\_\_\_

7. Are you interested in a bike corral on the block your business is on?

Yes

Somewhat Yes

Somewhat No

No

Please explain your answer and/or any information you would need to decide:

---

---

---



8. If you answered yes or somewhat yes to question number 7, where would you prefer the bike corral be located?

Directly in front of my business

On the same side of the block my business is on but not directly in front

On the opposite side of the street from my business

Other: \_\_\_\_\_

9. Have you tried to get a bike corral installed on your block?

No

Yes, but unsuccessful

Yes, the process is ongoing

If yes to either of the above, how was the process of working with the city and do you have any suggestions for improving the process?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. In Eugene and other cities bike corrals have been funded entirely by the city, with public-private partnerships or entirely by a private entity. Whose responsibility do you think it should be to pay to install and maintain on-street bike parking? (Check all that sound acceptable to you)

Publicly funded and maintained

Publicly funded and privately maintained

Shared cost between public agency and private business; maintained by business

Shared cost between public agency and private business; maintained by public agency

Privately funded and maintained

Nonprofit, chamber of commerce or other third party funded and maintained

**11.** Do you ever talk with neighboring businesses about issues like parking (bicycle or car) or other strategies to attract and retain customers?

- Yes
- No

Please explain:

---

---

**12.** Please share any other thoughts on how you would prefer bicycle parking to be accommodated for your customers:

---

---

---

Thank you very much for your time and thoughts with this survey. If you would like a copy of my final results please provide your e-mail address:

---

[Optional] If you are comfortable with me quoting and attributing any of your responses to you, please fill out the following information:

---

(Name) \_\_\_\_\_ (Title)

---

(Business name)

Thank you again for your time and assistance with my research project.  
-Ross Peizer

## Examples

On-Street Bike Corral  
with Basic Racks



On-Street Bike Corral  
with Artistic Racks



Mini On-Street Park  
(known as a Parklet)  
with Bike Parking



## Appendix E: Customer Survey

*Note: The customer survey was a two-page booklet, which is why the following pages are not in sequential order.*

### Examples

On-Street Bike Corral  
with Basic Racks



Mini On-Street Park  
(known as a Parklet)  
with Bike Parking



### Parking Survey

by Ross Peizer  
UO Master's Student

The following approximately 5 minute survey will inform a University of Oregon Master's student project. Your participation is completely voluntary.

If you have any questions, please contact Ross at [rossp@uoregon.edu](mailto:rossp@uoregon.edu).

Please complete only if you are 18 years old or older. Thanks!

#### 1. How did you get here today?

- Bicycle
- Walking
- Car
- Public transit
- Other: \_\_\_\_\_

#### 2. Have you ever bicycled here?

- No
- Yes

*If you bicycled here today or have ever bicycled here, please continue with question 3.*

*Otherwise, skip to question 10 on page 6.*

3. Which type of bike parking did you use when you parked here?

<input type="checkbox"/> On-street bike corral	
<input type="checkbox"/> Sidewalk bike rack	
<input type="checkbox"/> Other: (tree, signpost, etc.) Please specify:	

13. What would you *prefer* the SIDEWALK on the block you are visiting be used for? (check all that apply)

- People walking
- Café seating, sidewalk displays or sandwich boards for businesses
- Public seating (benches)
- Bike parking
- Other: \_\_\_\_\_

14. What would you *prefer* the STREET space on the block you are visiting be used for? (check all that apply)

- I would be interested in including bicycle parking in the street space. (See page 8 for an example)
- I would be interested in including space for seating or a mini on-street park known as a parklet in the street space. (See page 8 for an example)
- I am happy with the street the way it currently is
- Other: \_\_\_\_\_

15. Please circle the current day of the week:

M Tu W Th F Sat Sun

16. Please circle the time of day when you arrived:

Morning (before noon)      Afternoon (noon-5pm)      Evening (After 5pm)

Thanks for your time and assistance with my reseach project.

5. Given these two bike parking options, where would you park? (Check one)



a) On-street bike corral with basic racks \_\_\_\_\_



b) On-street bike corral with artistic racks \_\_\_\_\_

6. Given these two bike parking options, where would you park? (Check one)



a) On-street bike corral with basic racks \_\_\_\_\_



b) On-sidewalk basic racks \_\_\_\_\_

7. What is your impression of a business that has an on-street bike corral in front of their business?

- Very positive
- Somewhat positive
- Somewhat negative
- Very negative
- No opinion

Why do you feel that way?

8. Are there businesses or blocks in Eugene where there is currently not an on-street bike corral that you think should have one? If so, please specify the business or address/intersection:

9. Thinking about the last year, by season, how frequently have you used a bicycle?

Spring	Summer	Fall	Winter
____(times) per month	____(times) per month	____(times) per month	____(times) per month

**10. Please estimate the approximate time you traveled to get here today:**

- Less than 5 minutes
- 5-20 minutes
- Over 20 minutes

**11. In general, do you think bike parking should be on the sidewalk or in the street?**

- Sidewalk
- Street
- No preference
- Other: \_\_\_\_\_

**12. Where do you think car parking should be located in commercial areas like this?**

- On the street in front of the business you are visiting
- In a parking lot behind the business you are visiting
- In a centralized parking garage
- Other: \_\_\_\_\_

**4. Please rate each of the following types of bike parking:**

**a) On-street bike corral with basic racks**

- Love it
- Like it
- Do not like it
- Hate it



**b) On-street bike corral with artistic racks**

- Love it
- Like it
- Do not like it
- Hate it



**c) On-sidewalk basic racks**

- Love it
- Like it
- Do not like it
- Hate it



**d) Parking meter bike racks**

- Love it
- Like it
- Do not like it
- Hate it





## Appendix F: Portland's Application For On-Street Bike Corrals



### APPLICATION FOR ON-STREET BICYCLE PARKING CORRAL

Bicycle corrals are grouped bike parking installations placed in the parking lane. The City of Portland will prioritize on-street bike parking corrals at street block corners in order to add additional benefits, such as creating defacto curb extensions to shorten pedestrian's crossing of the street and improving visibility for cars turning into traffic from side streets.

**Installation Fee:** \$2,600 per FY 2012-2013 Transportation Fee Schedule A

- The fee helps off-set the City's subsidy and fulfill a corral request more quickly.
- The fee is required for corrals in areas with metered parking.
- Are you paying the fee?  Yes  No  Need more information

What is the intersection where the bike corral is requested? \_\_\_\_\_

What time of day is the **peak demand** for bike parking at this location? (e.g. 4-6pm) \_\_\_\_\_

How many existing bicycle racks are there? \_\_\_\_\_

How many bicycles are typically parked here? \_\_\_\_\_

**REQUIRED** >> Please email or include photos of typical bicycle parking demand.

#### Site Information

Length of Establishment's Storefront: \_\_\_\_\_

Is the on-street bike corral intended to span more than one business?  Yes  No

\*If the answer to this question is "yes", an application must be received from each sponsoring business.

What are the parking signage regulations at the proposed bike corral: \_\_\_\_\_

Are there metered parking spaces at the site?	yes	no
A moving lane of traffic directly next to the curb at any time of day?	yes	no
A fire hydrant?	yes	no
An active bus stop?	yes	no
An active driveway?	yes	no

#### Applicant Information

Applicant Name: \_\_\_\_\_ Job Title: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Email: \_\_\_\_\_



**APPLICATION FOR ON-STREET BICYCLE PARKING CORRAL**

**Business Information**

Name of Business: \_\_\_\_\_  
Type of Business: \_\_\_\_\_  
Street Address: \_\_\_\_\_ Zip: \_\_\_\_\_  
Cross-Street 1: \_\_\_\_\_ Cross Street 2 \_\_\_\_\_  
Neighborhood Association: \_\_\_\_\_  
Business Association: \_\_\_\_\_  
Owner/Mgr Name: \_\_\_\_\_ or  I am the owner of this business  
Owner/Mgr Phone: \_\_\_\_\_  
Owner/Mgr Email: \_\_\_\_\_

**Property Owner Information**

Name of Property Owner or Representative: \_\_\_\_\_  
Name of Property Owner Company: \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**Business and Property Owner's Affirmation**

*I, the undersigned, do affirm that I am the owner or a duly authorized representative of the corporation owning the above referenced property. I have been made aware of the Applicant's intent to install a curbside Bicycle Parking Area in the curb lane in front of the business listed on this application and have no objections.*

Business owner \_\_\_\_\_ {Signature\*}  
{Print Name} \_\_\_\_\_ {Date} \_\_\_\_\_

Property owner \_\_\_\_\_ {Signature\*}  
{Print Name} \_\_\_\_\_ {Date} \_\_\_\_\_

*Note that bicycle corral facilities are generally designed and installed in coordination with a commercial corridor bicycle parking review. After submission of the application, PBOT staff will contact the applicant to discuss location feasibility and bike parking demand.*  
*Bicycle corrals are established in partnership with the adjacent property owner and business through a Maintenance Agreement (sample attached, next page).*

Submit to:  
City of Portland, Bureau of Transportation, Attn: Scott Cohen  
1120 SW 5<sup>th</sup> Ave, Suite 800  
Portland, OR 97204  
Or by Fax: (503) 823-7576 or Email: [BikeParking@portlandoregon.gov](mailto:BikeParking@portlandoregon.gov)

\* Note: Alternatively written approval in the form of an email or letter can be attached to form.

Instructions: Please complete blue fields below, print, sign, and return via fax or email.

## **MAINTENANCE AGREEMENT ON- STREET BICYCLE PARKING FACILITY**

The Portland Bureau of Transportation (PBOT) will install an on-street bicycle parking facility outside of: \_\_\_\_\_ *Business Name, Business Address*

The facility will be located \_\_\_\_\_  
*for example: the east side of SE Name of St., north of SE St Name].*

This facility will be built under the auspices of a temporary and revocable permit. Because PBOT will be unable to maintain the facility to city standards, the tenants at the above property or the owner of said property are entering this agreement with PBOT.

To facilitate the installation of the facility, it is agreed that:

1. The facility will be swept and otherwise cleared of all debris at least once every other week. All trash will be removed from the facility and hauled with the regular trash hauling provided for by the subject property.
2. The facility will receive a visual inspection at least once per week. If debris and trash have collected to a noticeable degree during this inspection, the facility will be swept as described in item 1.
3. Evidence of damage, vandalism, or the presence of abandoned bicycles will be reported to PBOT staff. **The 24-Hour Maintenance & Repair hotline is (503) 823-1700.** Please also notify program staff by email/phone.
4. If citizen complaints are received by PBOT, the following steps will be taken:
  - a) A field investigation will be completed by Traffic Investigations
  - b) If the maintenance level is deemed unacceptable by Traffic Investigations, both the merchant and property owner will be sent a letter about the situation and given the opportunity to respond in writing.
  - c) Response to the complaint will result in either: 1) No action; 2) A warning; 3) A change to this agreement if both PBOT and the agreeing party sign the changes; or 4) Revocation of the permit by the City Traffic Engineer.
4. Future enhancements to this facility will be entertained. Any proposed enhancement must satisfy the requirements of all public agencies with jurisdiction over the request.
5. Evidence of damage, vandalism, or the presence of abandoned bicycles will be reported to

Primary responsibility for this agreement falls on \_\_\_\_\_

*[Business Name, Business Address]*. In the event that the general tenets of this agreement are not

fulfilled, the \_\_\_\_\_ *[Title of signee]*, currently \_\_\_\_\_

*[Name of signee]* will be responsible for fulfilling the requirements of this agreement.

\_\_\_\_\_  
*Signature* *Date*

Robert Burchfield

Portland Bureau of Transportation

City Traffic Engineer

\_\_\_\_\_  
*Signature* *Date*

Print Name: \_\_\_\_\_

Business Name: \_\_\_\_\_

Your Title: \_\_\_\_\_