

Report Card on Bicycling



Seattle 2009

bicycle club
Cascade

Produced by the Cascade Bicycle Club

Report Card on Bicycling

Contents

Overview	3
Participation	4
Network.....	6
Support Facilities.....	8
Safety	9
Conclusions	11
Contributions.....	13



Bicycling in Seattle



Overview

Seattle has made significant progress with respect to bicycling in recent years. With less than 70 miles of bicycle routes in 2006, Seattle now boasts over 130 miles. In 2007, the City adopted the Seattle Bicycle Master Plan (hereafter, SBMP), driving its efforts toward the development of a 450-mile network of bicycle routes by 2017.

The City's hard work is paying off. The number of people who bicycle in Seattle is increasing every year, and bicycling continues to gain recognition as a viable mode of transportation. In 2008, the League of American Bicyclists identified Seattle as a Gold-level Bicycle Friendly Community, confirming the City's progress.

However, there is still work to be done if Seattle is to reach its 10-year milestone. With only 4.2 percent of Seattle's population commuting to work by bicycle, the bicycling potential for a large segment of the population remains untapped. In response to this, one of Cascade Bicycle Club's (CBC) top priorities is to identify

opportunities to engage new cyclists. However in order for CBC to be most effective in its endeavor, it is important to understand the perceptions of cycling in Seattle.

We have developed the Report Card on Bicycling in Seattle as a way to present the City's progress toward becoming a bike-friendly community, but also to bring awareness to relevant issues as they pertain to bicycling-----from the perspective of those who bike. Ultimately, the findings identified in this Report Card will drive Cascade's future advocacy efforts to ensure that our cyclists' concerns are at the forefront of our agenda.

The Report Card presents both City of Seattle bicycle data and perceptions from a sample population of Seattle's cyclists, derived from Cascade's on-line Bicycle Report Card Survey. While the survey was distributed to our Central Puget Sound constituents, the data used for this report relied on the 600 responses from Seattle residents. Report Card Grades were compiled

using survey data as well as data from the City of Seattle. A lower grade (C and below) reflects facets of the bicycle environment that may need more attention as the City and CBC prioritize their efforts. Categories that received higher grades (A or B) indicate areas in which the City is making progress toward its goals as established in the SBMP.

The Report Card on Bicycling in Seattle follows a unique methodology, however inspiration and guidance was drawn from other Bicycle Accounts, such as the San Francisco Bicycle Coalition's Report Card on Bicycling (2006 and 2008).

The Seattle Report Card is divided into four categories: 1) Participation, 2) Network, 3) Support Facilities, and 4) Safety. Within each category are sub-categories derived from citywide data and survey data. Each sub-category is given a grade, and then an overall grade is given to each of the four categories, based on sub-category averages. Finally, all grades were averaged to create an overall grade for the City.

B..... Bicycle participation
C+..... Bicycle network

B..... Bicycle support facilities
B..... Bicycle safety

Participation



Bicycle Counts

More people are bicycling in Seattle every year. The City estimated that between 4,000 and 8,000 people currently commute by bicycle every day,

though we believe it to be closer to 15,000 (based on a 4.2% bike mode split).

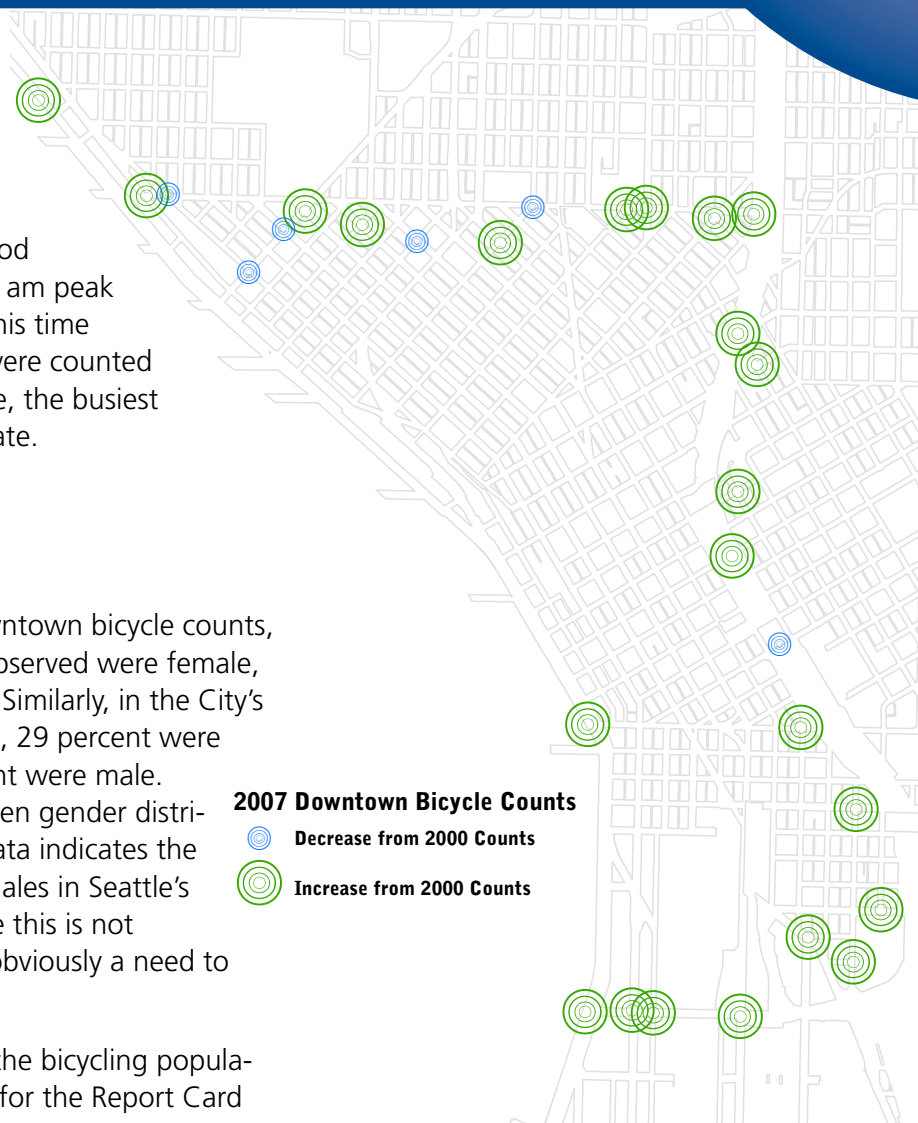
According to the American Communities Survey and the U.S. Census Bureau, bicycling trips grew 27 percent in Seattle in five years (2000 -2005), making bicycling the City's fastest-growing form of transportation. The City began collecting bike counts in 1992 at 29 downtown locations to serve as an index to the number of people bicycling. In 1992, during a 2.5-hour time period, 1104 bicyclists were observed at these locations. By 2007, the number of bicyclists observed at these same locations had more than doubled, with 2273 cyclists. The City will be conducting bicycle counts every two years, using the 2007 downtown bicycle count data as a baseline, to gauge its progress toward tripling the amount of bicycling by 2017 (SBMP goal). Thus by 2017, there should be around 6,800 cyclists counted during the City's downtown bike counts.

In the fall of 2008, Seattle instigated neighborhood counts, with 4,686 cyclists observed at 32 neighborhood locations during a 2.5-hour am peak commute period. During this time period, 801 cyclists alone were counted crossing the Fremont Bridge, the busiest bike-bridge in the entire State.

Gender Distribution

During the City's 2007 downtown bicycle counts, 21 percent of the cyclists observed were female, and 79 percent were male. Similarly, in the City's 2008 neighborhood counts, 29 percent were female riders and 71 percent were male. Given Seattle has a fairly even gender distribution, the bicycle count data indicates the underrepresentation of females in Seattle's bicycling population. While this is not unique to Seattle, there is obviously a need to encourage female cyclists.

The gender distribution of the bicycling population is used as an indicator for the Report Card in order to gauge the progress made toward balancing the cycling demographics in Seattle. Research has found that the barriers to cycling disproportionately affect women, indicating that



2007 Downtown Bicycle Counts

Blue concentric circles: Decrease from 2000 Counts

Green concentric circles: Increase from 2000 Counts

B..... Bicycle counts
C..... Gender distribution
A..... Level of bicycling

Participation



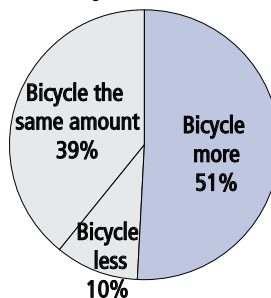
by addressing such barriers, we may motivate women to bicycle more. A survey conducted by San Francisco Bicycle Coalition found that the number one reason women don't bike is because they feel unsafe riding in close proximity to cars. In CBC's Report Card survey, women indicated that disconnected bike routes and lack of bike lanes were the number one issue with bicycling in Seattle. We hope to see the number of women riders increase, as the City adds new bike lanes and separated bicycle facilities.

Level of Bicycling

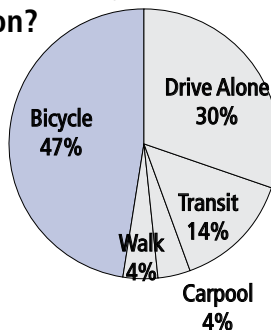
CBC's survey provided valuable information about the types, frequency, and duration of trips Seattleites are making by bicycle. We found that bicycling was the primary means of transportation for almost half of all respondents, and the majority identified 'commute' trips as their primary bicycle trip type. What's even more encouraging is that 51 percent of respondents indicated that they bicycled more in 2008 than in 2007, with only 10 percent reporting a decrease in their level of bicycling.

B..... Bicycle counts
C..... Gender distribution
A..... Level of bicycling

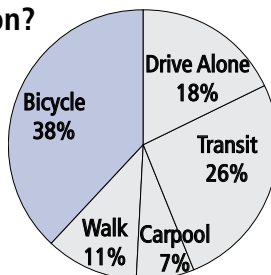
*How have your bicycle habits changed since 2007?



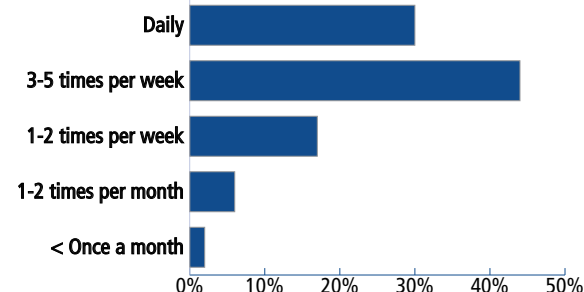
*What is your primary means of transportation?



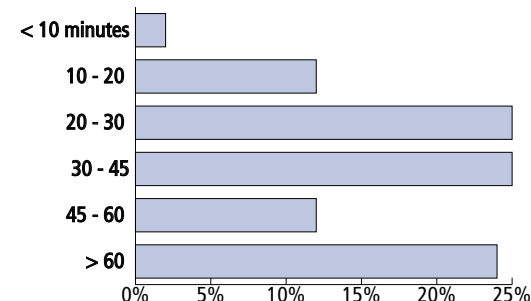
*What is your secondary means of transportation?



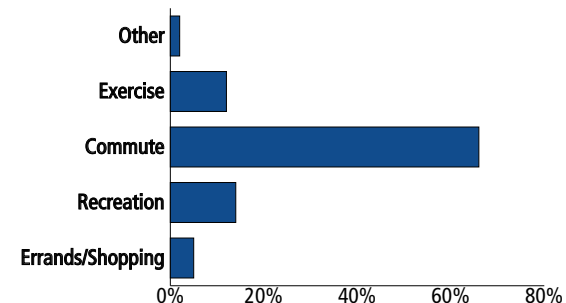
*On average, how often do you ride a bike?



*How long is your average bike trip?



*What is your primary type of bike trip?



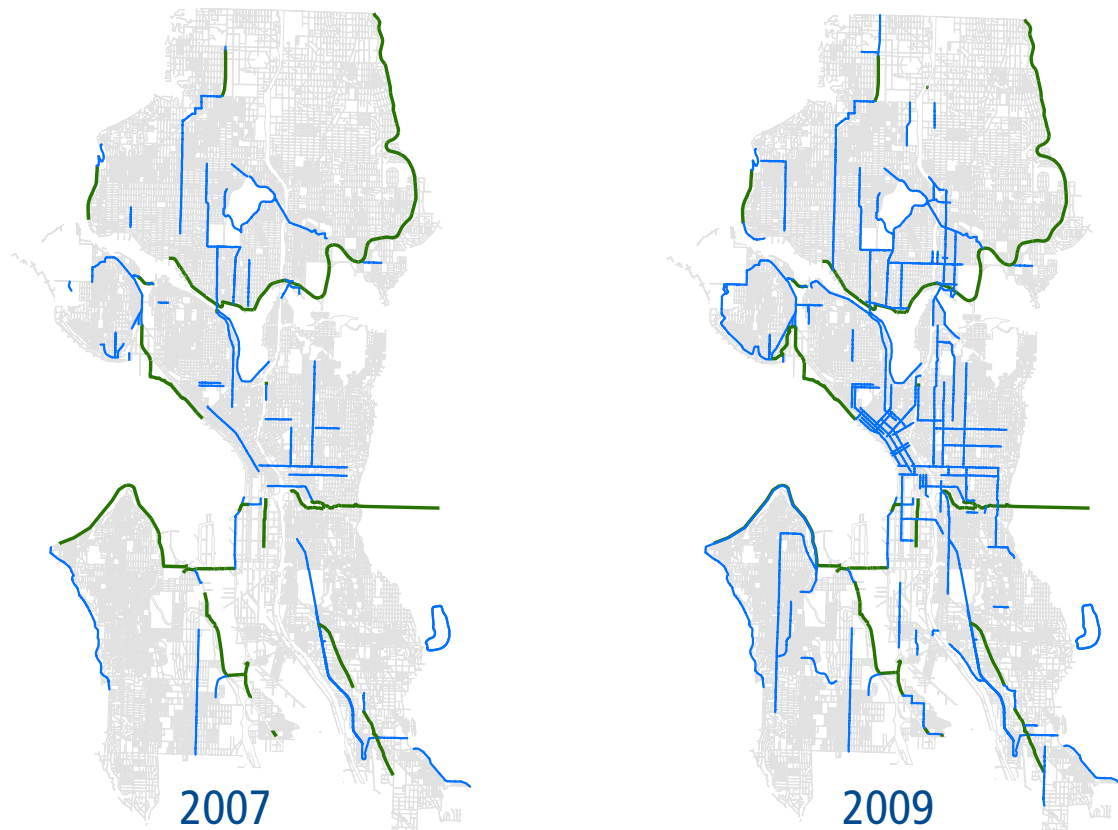
*graphs reflect data from CBC's on-line survey

Network

C+

Bicycle Master Plan Implementation

Establishing a network of safe and connected bicycle facilities is one of the most important considerations in encouraging people to bicycle. When the City adopted the SBMP in 2007, it laid the foundation for a 450-mile network of bicycle routes of varying types throughout Seattle over the next decade. The Plan provides direction, however CBC sought to determine if implementation of the SBMP has been followed according to the City's goals. With approximately 82 miles of bicycle lanes and sharrows, and 42 miles of multi-use trails, according to our calculations, Seattle is just a few miles shy of their target for 2008.



LEGEND

- On-Street Bicycle Facilities
- Multi-use Trails

B+..... Bicycle Master Plan implementation
C..... Satisfaction with bicycle routes
D+..... Satisfaction with pavement quality

Network

C+

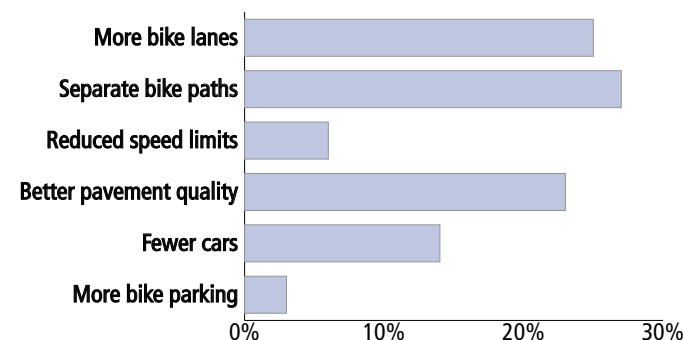
Satisfaction with Bicycle Routes

Through CBC's survey, we wanted to know how satisfied people were with six selected elements that comprise the bicycling environment in Seattle. People were asked to rate their level of satisfaction with each element on a scale of 1 to 5, with 5 being the highest. One question regarded the level of satisfaction with bicycle facilities, such as bicycle lanes and multi-use trails. The majority of participants indicated a moderate level of satisfaction with Seattle's bicycle facilities. But when we asked what the main issue with bicycling in Seattle was, the highest response was 'disconnected bicycle routes.' When asked what would make the City better for bicycling, 27 percent of respondents identified 'more separate bicycle facilities,' such as paths and trails, followed closely by 'more bicycle lanes.'

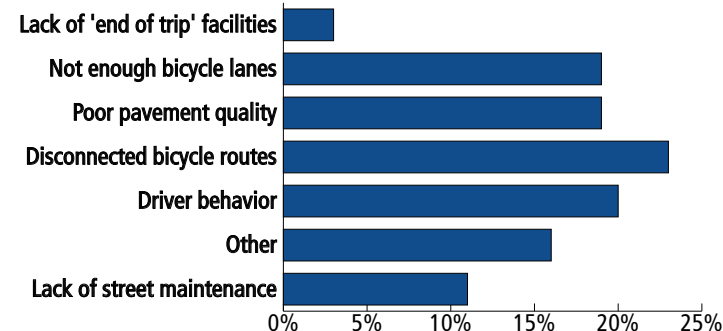
Satisfaction with Pavement Quality

The CBC Survey results indicated that poor pavement quality and street maintenance was one of the major concerns for Seattle cyclists. Out of the six categories in which respondents were asked to rate their level of satisfaction, Pavement Quality received the lowest ranking, with the majority of respondents scoring this category a 1. Twenty percent of survey participants identified 'pavement quality' as their main issue with cycling in Seattle.

*What would make Seattle better for bicycling?



*What is the main issue with bicycling in Seattle?



*graphs reflect data from CBC's on-line survey

B+..... Bicycle Master Plan implementation
C..... Satisfaction with bicycle routes
D+..... Satisfaction with pavement quality

Support facilities



New Bicycle Racks

Bicycle parking, way-finding signs, showers at employment centers, and effective coordination among public transit agencies, are all facets of a supportive environment for cycling. Without safe bicycle parking at destinations, there is a decreased likelihood that one will travel there by bike. The City has established a goal to have a total of 6,000 bicycle racks by 2017, which would mean installing approximately 300 bicycle racks a year. Since 2007, the City has installed 429 new bike racks, putting them shy of their benchmark of 600 over the 2-year period. We are impressed however with the City's innovation in integrating bicycle parking in the public realm, reflected through their on-street bicycle parking program, in which they have converted car parking spaces to bicycle parking corrals.

Parking and 'End Of Trip' Facilities

Without proper 'end of trip' facilities, such as storage lockers and showers, bicycling through the rain and dramatic topography of Seattle becomes less desirable. Encouraging people to commute by bike goes hand in hand with having the right facilities at destinations to provide the necessary support. In the SBMP, the City recommended requiring office facilities to provide 2 showers for every 100,000 square feet of office space. While the Seattle Municipal Code has not been changed to reflect this recommendation, CBC was interested to know how the cyclists felt about the provision of 'end of trip' facilities at their destinations. Combined with bicycle parking, survey participants reported being moderately satisfied with these types of facilities at Seattle destinations.

Bicycle Service on Public Transit

As increased and improved transit services continue to unfold in Seattle, effectively integrating bicycles into these operations is a very important consideration to further the vision of establishing an interconnected system of sustainable transportation in the City. In Seattle, where it rains an average 150 days a year, and bicycling may not always be the desirable transportation option, having a public transit system that encourages access by bicycle is imperative.

In the SBMP, the City identified several action items, as opportunities for improving connections between bicycling and transit. We asked survey respondents to rate their satisfaction with bicycle service on public transit, which received a relatively positive response. In comparison to the other categories in which survey participants were asked to rate their level of satisfaction, 'bike service on public transit' received the highest ranking. By the time we produce the 2011 Report Card on Bicycling in Seattle, Sound Transit will be running Light Rail service from Downtown Seattle to the Airport, for which we hope to see a stronger integration of bicycles and transit, as this has been a high priority for CBC's advocacy efforts.

- A New bicycle racks
- B Bicycle service on public transit
- C+ Parking & 'end of trip' facilities

Safety



Bicycle Crash Rate

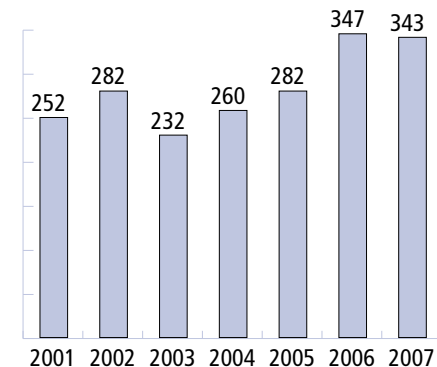
The two guiding goals in the SBMP to be achieved by 2017 are 1) to triple the number of cyclists, and 2) reduce the bicycle crash rate by 1/3. The bicycle crash rate exhibits a linear relationship to the number of people bicycling. For instance, if the number of people bicycling is increasing, and the number of crashes is staying constant, it would indicate that there are fewer crashes per volume of cyclists, which strongly suggests that the 'Safety in Numbers' concept is taking hold.

However because the most recent bicycle counts were conducted in 2007, we are unable quantify the city's progress toward these goals over the past two years. Regardless, CBC was interested to see what the direction of the crash rate trend was prior to establishing these goals and to come up with a baseline indicator for future progress reports. Thus, we calculated the crash rate using the City's 2000 and 2007 bicycle count data and bicycle collision data for these years, producing a relatively constant crash rate.

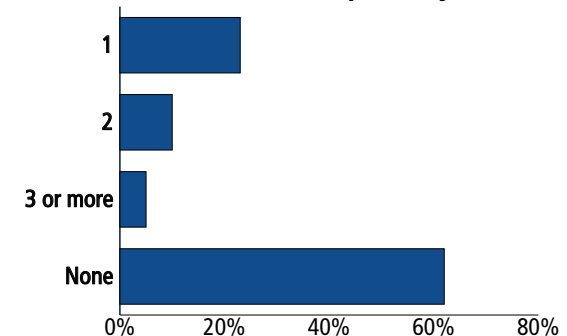
Like any city, Seattle pushes for no bicycle fatalities. We did not grade the city on the number of bicycle fatalities, but we did find that in comparison to similarly sized municipalities around the country, Seattle has a very low bicycle fatality rate, with approximately one fatality per year. As one of CBC's primary goals, we will continue to advocate for efforts that emphasize the prevention of cycling fatalities and injuries in Seattle.

Bicycle crash data, fatal or not, can help to identify barriers toward bicycle travel. Crash analyses are useful in identifying locations of high risk and heavy use, which can validate safety intervention measures or facility improvements. It's worth noting, however, that there is strong evidence indicating bicycle crashes are underreported. For example, in our survey, 355 respondents (out of 966 total) identified being in a bike crash in the past 2 years. 82 percent said they did not report it. Providing consistent and accessible reporting mechanisms, and encouraging cyclists to report incidents, regardless of their severity, will strengthen Seattle's ability to respond to and prioritize improvement efforts.

Reported Bicycle Crashes in Seattle



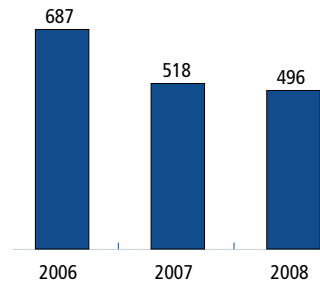
*How many bicycle crashes have you been in over the past 2 years?



*graphs reflect data from CBC's on-line survey

B..... Bicycle crash rate
A+..... Reported bicycle thefts
C..... Satisfaction with bicycle safety

Reported Thefts



Reported Bicycle Thefts in Seattle

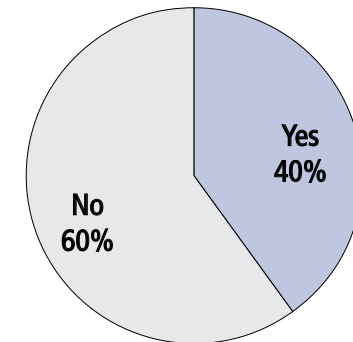
Having safe places for people to park their bicycles is an important provision for establishing a safe and conducive environment for bicycling. Inadequate parking facilities contribute to an increased fear

of bicycle theft, a major deterrent to bicycling. We chose to use 'reported bicycle thefts' as an indicator of the overall safety of Seattle's bicycle environment, as this is something that can be tracked over time. Ideally, as the number of reported thefts decreases, people's overall sense of security and safety will increase. In 2000 there were 702 reported bicycle thefts, and in 2008 there were 496. With bicycling on the rise, we are encouraged that bicycle thefts have consistently decreased each year.

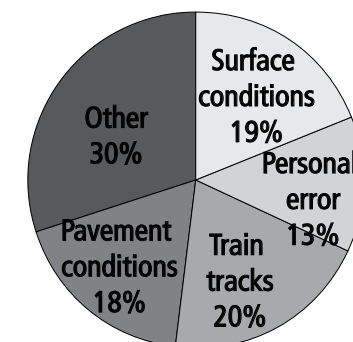
Satisfaction with Bicycle Safety

While the City may be adding new miles of bicycle facilities, ultimately enhancing bicycle safety in Seattle, we were interested to see if cyclists' perception of safety is increasing as well. While 'Bicycle Safety' may be interpreted differently depending on the individual, it provides a baseline indicator of people's overall perception of safety when bicycling in Seattle. The majority of survey respondents fell on the side of being 'moderately' to 'not satisfied' with bicycle safety in Seattle. In subsequent Report Cards, we foresee people's perception of safety increasing as the City continues to improve conditions for cyclists.

***Have you had a serious fall while biking in the past 2 years?**



***If so, what caused the fall?**



**graphs reflect data from CBC's on-line survey*

B..... Bicycle crash rate
A+ Reported bicycle thefts
C..... Satisfaction with bicycle safety

Conclusions

B

Based on both objective and subjective data, Seattle received an overall grade of a B, as a City for Bicycling. We set out to develop this report, not knowing what our findings would be, and we are pleased with the results. After only 2 years with an adopted Bicycle Master Plan, the City's service toward cycling has been commendable. Seattle has nearly doubled the miles of bicycle routes since 2006, added several hundred bicycle racks, decreased the number of bicycle thefts, and maintained a consistent, if not decreasing, bicycle crash rate. From our perspective, the transition between 2007 and 2009 has been significant; not only has integrating cycling infrastructure become routine to the City's efforts, but we are also beginning to see the City's support for cycling applied throughout Seattle in innovative and expressive ways. In other words, cycling is becoming an icon to Seattle.

For the most part, we can happily report our conclusions from this account on bicycling.

However, from our survey findings, it is clear that there are facets of Seattle's bicycle environment that demand further attention. At CBC, while we'd love to have reported that Seattle was an A+ City for Bicycling, if this were the case, we'd be out of jobs. Fortunately, the cycling community has directed us to our advocacy priorities for the next couple years – and they go as follows:

1) Pavement Quality and Maintenance

We regularly hear from cyclists that poor pavement quality and lack of street maintenance is the number one issue with bicycling in their community. While having bike lanes in the City is ideal, if the bike lanes are filled with debris or the pavement is riddled with potholes and cracks, cycling becomes unsafe and undesirable. In situations like this, cyclists are forced to ride unpredictably in order to avoid hazardous conditions. We recognize that Seattle's

infrastructure is old, however we advocate to 'fix it first,' before building new roads; our streets must be maintained to afford cyclists a safe place to ride. The number of cyclists who indicated falling due to poor street conditions is enough evidence to influence prioritization of this category as we work to encourage cycling in the City.

In 2006, Seattle voters passed the Bridging the Gap streets levy, increasing available funds for infrastructure maintenance. Over the next nine-years, Bridging the Gap will resurface, restore, or replace approximately 200 lane-miles of arterial streets. Through these provisions, and CBC's advocacy efforts, we hope to see Seattle street conditions dramatically improve for cyclists.

B..... Bicycle participation
C+..... Bicycle network

B..... Bicycle support facilities
B..... Bicycle safety

Conclusions



2) Bicycle Safety

While the number of reported bicycle crashes in Seattle is relatively low, cyclists' perceptions of bicycle safety is not as high as we would like it to be. While we cannot pinpoint the exact factor that is contributing to a lower perception of bicycle safety, we do believe that by focusing on the factors that were identified as the main issues with cycling in Seattle, we will be able to increase the perception of bicycle safety. Our findings from this report indicated the main issues with cycling in Seattle center around infrastructure and behavior, specifically disconnected bicycle routes and insufficient bicycle lanes, poor pavement quality, and driver behavior.

3) Gender Distribution

By the time we conduct our next version of the Report Card on Bicycling in Seattle (2011), we hope to report back a higher percentage of women cyclists. Through existing research,

we are fully equipped with the data to inform our efforts to encourage more female cyclists. By providing the types of facilities, specifically separated bicycle paths and lanes, that respond to the concerns of the underrepresented populations in the cycling community, we hope to see an increase in ridership.

A final note

Survey data must be considered with the understanding that it is never perfect, however with over 600 responses from Seattle's cycling population, we were able to gain significant insight into the concerns as they relate to the bicycling environment. Overall, the trends were positive, however as we strive to make bicycling the most desirable mode of transportation in our City, it's only logical that our cyclists' concerns should fuel our bicycle advocacy efforts at CBC. We look forward to 2 years from now, when we can report back to our readers the progress that Seattle has made, as a City for Bicycling.

B..... Bicycle participation
C+..... Bicycle network

B..... Bicycle safety
B..... Bicycle support facilities

Contributions



Cascade Bicycle Club would like to thank the City of Seattle and the Cycling Community for making the Report Card on Bicycling in Seattle a possible endeavor. The Seattle Department of Transportation, the Seattle Police Department and the Washington State Department of Transportation provided valuable data, which is reflected in this Report. And as always, many thanks to Cascade's members who are instrumental to making our vision of creating a better community through bicycling a reality.

DATA SOURCES

Seattle Department of Transportation

Bicycle Master Plan Data

Bicycle Count Data

GIS Data

Seattle Police Department

Bicycle Theft Data

Washington State Department of Transportation

Bicycle Crash Data

San Francisco Bicycle Coalition

Report Card Inspiration



PO Box 15165, Seattle, WA 98115
www.cascade.org • 206-522-3222