



2014 Capital Bikeshare Member Survey Report Executive Summary



Prepared by:
LDA Consulting
Washington, DC 20015
(202) 548-0205

April 3, 2015

EXECUTIVE SUMMARY

Overview

This report presents the results of the November 2014 Capital Bikeshare Customer Use and Satisfaction Survey conducted for the Capital Bikeshare program (Capital Bikeshare), a program jointly owned and sponsored by the District of Columbia, Arlington County, VA, the City of Alexandria, VA, and Montgomery County, MD, and operated by Motivate International, Inc. Capital Bikeshare offers short-term use of more than 2,500 bicycles to registered members and day-pass users at more than 350 stations in the District of Columbia, Arlington County and the City of Alexandria in Virginia, and Montgomery County in Maryland. Users register for an annual or 30-day membership and receive a Capital Bikeshare key that allows them to unlock a bike at any station. Users can return the bike to the same station or to any other station in the network, facilitating both return and one-way trips.

Capital Bikeshare's management was interested in examining users' experience with the program and bikeshare's impact on users' travel patterns. The survey was conducted for the following primary purposes; to explore:

- Demographic characteristics of Capital Bikeshare users
- Characteristics of Capital Bikeshare trips
- Travel changes made in response to Capital Bikeshare availability
- Users' satisfaction with Capital Bikeshare features

On October 23, 2014, Capital Bikeshare staff sent an email to all of the approximately 27,600 annual/30-day members, informing them of the online survey and providing the link to the survey website. The email indicated that Capital Bikeshare would enter members who completed the survey entry into a drawing for one of five annual memberships. To increase the response rate further, Capital Bikeshare sent a reminder in the monthly e-newsletter that is distributed to all members. During the approximately four-week period that the survey website was active, 4,314 members completed the survey, for a total response rate of 16%.

Key Conclusions

Several overall conclusions, generally related to the personal travel benefits and travel impacts of bikesharing rise to the top of importance.

- **Capital Bikeshare (CB) members benefit through easier, faster access to destinations and access to a wider range of destinations** – Half of the respondents had made a trip in the past month that they would not have made without bikeshare. Of these respondents, 65% said they would not have made the trip because it was too far to walk, so bikeshare broadened their travel destination options. Other respondents reported reasons related to the difficulty of travel or disadvantages of driving to a particular destination or at a particular time of day. For these members, bikeshare expands their easy and convenient travel options.
- **The “transit access” role that bikeshare offers expands travel range even further** – Nearly two-thirds (64%) of respondents said at least one of the bikeshare trips they made last month either started or ended at a Metro-rail station; 21% had used bikeshare six or more times for this purpose. About a quarter (24%) of respondents used Capital Bikeshare to access a bus in the past month.
- **Capital Bikeshare makes travel fun and more flexible** – More than three-quarters of members said they were motivated to join Capital Bikeshare to have access to a new travel option or a one-way travel option (84%), or simply because biking is a fun way to travel (77%). The opportunity to make one-way trips by bikeshare is particularly valuable to many members, who now have a wealth of travel options – bikeshare, transit, taxi, walking, carshare – that they can choose “in the moment,” increasing their travel flexibility.
- **Bikeshare serves both work-related and personal travel needs** – More than eight in ten (85%) respondents reported that they at least occasionally used bikeshare for social/entertainment trips. Respondents used

bikeshare for other non-work trips at nearly as high a rate; personal appointments (79%), shopping/errands (78%), and to go to a restaurant/out for a meal (77%). But use of bikeshare was nearly as high for commuting; 74% of respondents at least occasionally used bikeshare to go to or from work. And commuting was a particularly frequent bikeshare purpose for these respondents; 49% commuted by bikeshare three or more times per month and 36% rode bikeshare to or from work six or more times per month.

- **Bikeshare allows members to give up the cost and hassle of car ownership and driving** – Four in ten Capital Bikeshare members didn't have access to a car or other personal vehicle. Eight percent of all members surveyed had sold a household vehicle since joining CB and 81% of these members said bikeshare was a factor in their decision to sell the vehicle. A quarter (24%) of respondents said they reduced their driving miles since joining Capital Bikeshare. Across all respondents, the average driving reduction was 158 miles per year, equating to about 4.4 million fewer driving miles by the 27,600 bikeshare members (in November 2014).



- **Bikeshare members shift some trips to bicycle from taxi, transit, and walking** – Eighty-six percent of respondents increased their use of bicycling since joining Capital Bikeshare and 50% said they ride a bike much more often. By comparison, respondents reduced use of all other transportation modes; 55% drove a car less often, 59% used a taxi less often, 58% rode Metrorail less often, 52% rode a bus less often, and 51% decreased their use of walking, suggesting some shifts to each of these modes to biking.
- **Bikeshare members who used Capital Bikeshare frequently reported the greatest reduction in use of non-bicycle modes** – For example, 70% of respondents who made 11 or more CB trips in the past month reduced their use of Metrorail, compared with 46% of respondents who made between one and five CB trips in the past month, a net additional reduction of 28 percentage points for frequent riders. The results were similar for other non-bike mode groups; the share of respondents who reduced use of a non-biking mode since they joined Capital Bikeshare increased steadily as their bikeshare use increased.
- **Capital Bikeshare members save on personal travel cost** – Respondents reported saving an average of \$13.65 per week on personal transportation costs as a result of their bikeshare use, about \$710 over the course of the year. Across the estimated 27,600 Capital Bikeshare members in November 2014, the collective saving was nearly \$20 million each year.
- **Respondents give high marks to most bikeshare features** – More than six in ten gave ratings of 4 or 5 (Excellent) to safety of stations, Capital Bikeshare website, call center, mechanical repair of bikes, and maps at Capital Bikeshare stations. Respondents were least satisfied with the availability of bikes when they want to pick-up a bike and availability of open docks when they want to return it; only about four in ten respondents rated these features as 4 or 5.

- **CB members were eager for expansion of Capital Bikeshare** – The most noted expansion need appeared to be for more docks at existing stations; 54% of respondents chose this option for greater access to bikes in popular bikeshare pick-up and drop-off locations. The second highest priority was for new stations in residential neighborhoods (44%), perhaps indicating a desire for greater access to bikeshare for short trips within or from a home neighborhood. About the same share (43%) also noted a need for expansion within the existing service area (greater infill or density of stations). A third (32%) of respondents said they wanted expansion to areas that bikeshare doesn't serve now (greater coverage).

Bikeshare Users Demographic and Membership Characteristics

Bikeshare users did not mirror the adult population of the Washington metropolitan region – More than nine in ten survey respondents were employed, while the U.S. Census reports that only about seven in ten adults in the Washington region are employed. But bikeshare survey respondents also differed from the general employed population. Compared with all commuters in the region, they were, on average, considerably younger, more likely to be male, Caucasian, and slightly less affluent.



Bikeshare visibility and referrals were important marketing tools for Capital Bikeshare – Respondents were most likely to have learned about Capital Bikeshare by seeing a CB station (30%) or through a referral from a friend or family member (26%). These two sources have become more important as the program has matured; 35% of members who joined CB in 2014 mentioned seeing a station, compared with only 11% who joined in 2010 and 24% who joined in 2011. Referrals also have grown, with 35% of 2014 new members mentioning this source, compared with 11% of members who joined in 2010 and 24% of member who joined in 2011.

The primary motivations for joining Capital Bikeshare were for greater access and one-way travel flexibility – Ninety-four percent of respondents said they were motivated by the ability to get around more easily or more quickly. Eight in ten (84%) were motivated by having a new travel option or a one-way travel option. But 77% were motivated simply by the enjoyment of biking and because it was a fun way to travel. About six in ten cited a desire for exercise (60%) or a desire to save money on transportation (57%).

Bikeshare Use Characteristics

Capital Bikeshare use was distributed evenly across frequency categories, showing demand for the service at many use levels – About 20% of respondents had made two or fewer bikeshare trips in the month before the survey, 21% made between three and five trips, and 19% made between six and ten trips. About 40% were frequent users, making 11 or more trips in the past month. Respondents made an average of 13 trips in the past month.

The top bikeshare trip purposes overall were for personal/non-work trips – Eighty-five percent of respondents reported that they at least occasionally used bikeshare for social/entertainment trips and four in ten used bikeshare three or more times per month for this purpose. Eight in ten respondents used bikeshare for three other personal or non-work trip purposes: to reach personal appointments, shopping/errands, and restaurants/meals and about one-quarter of respondents used bikeshare for each of these purposes at least three times per month.

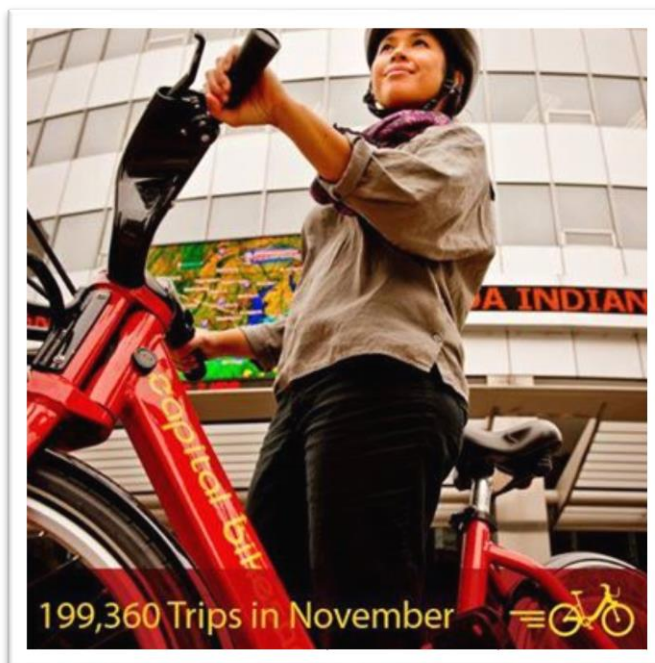
A large share of members used bikeshare for their trip to work – Commuting was an important bikeshare purpose also; 74% of respondents used bikeshare to commute to or from work at least occasionally. But commuting was a

particularly frequent bikeshare purpose for these respondents; 49% commuted by bikeshare three or more times per month and 36% rode bikeshare to or from work six or more times per month.

Capital Bikeshare also served as a feeder service to reach transit stops – Two-thirds (64%) of respondents said that at least one of the Capital Bikeshare trips they made last month either started or ended at a Metrorail station and 21% had used bikeshare six or more times for this purpose. About a quarter (24%) of respondents used Capital Bikeshare to access a bus in the past month.

Respondents' recent bikeshare trips were evenly divided between work and non-work trip purposes – The single most common recent trip purpose overall was to go to or from work; 46% of respondents noted this purpose. The most common recent non-work trip purposes were social/entertainment and personal appointment, mentioned by 19% and 9% of respondents, respectively. As noted above, a slightly smaller share of respondents reported using bikeshare for commuting than for non-work travel. But a larger share of respondents reported using bikeshare frequently for commuting than reported frequent use for any individual non-work purpose.

Bikeshare was the choice for most recent trips because it was the fastest and easier way to travel – Eight in ten (80%) respondents chose bikeshare for the recent trip because it was a faster or easier way to reach their destination. Four in ten said the destination was too far to walk and an equal share said bicycling was the least costly option. Respondents also noted other issues related to characteristics of the destination or the time of day they were traveling; 23% said public transportation was not available or inconvenient to reach that destination, 21% said that parking was very limited at that destination, and 20% said that transit service didn't operate or was inconvenient at that time of day. About one-quarter used bikeshare because they didn't have a car.



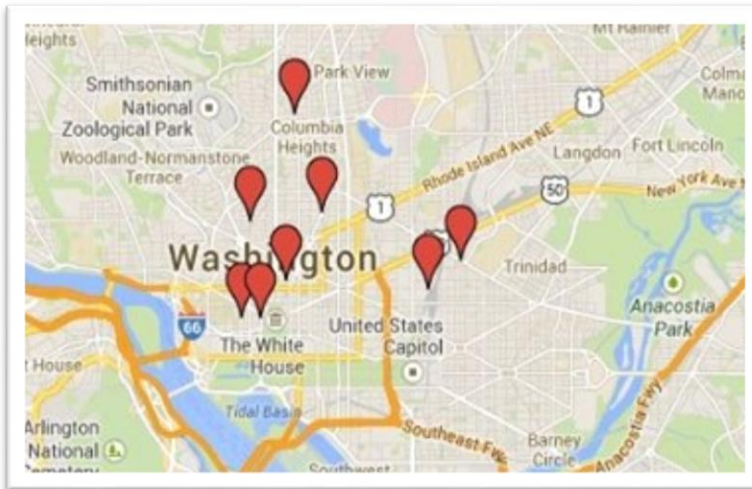
Bikeshare offered a new travel option for members who didn't have a car and an alternative to driving for those who did – Young respondents and respondents with lower incomes were more likely to say they chose bikeshare for a recent trip for reasons related to their lack of transportation options: too far to walk, unavailable or inconvenient transit, or lack of a car. These respondents also noted reasons related to the time and cost advantage of Capital Bikeshare in comparison with other travel options. For these members, bikeshare expanded the range of destinations to include locations that were otherwise difficult to reach. Older respondents, those with higher incomes, and respondents who had a personal vehicle were more likely to mention reasons related to the disadvantages of driving to a particular destination. For these respondents, Capital Bikeshare made the destination more attractive or less of a bother to reach than it otherwise would be.

Forty percent of respondents would have ridden a bus or train if Capital Bikeshare had not been available for the most recent trip – Another four in ten (37%) would have walked to their destination. Only 6% of respondents would have driven or ridden in a personal vehicle, but since 43% of respondents did not have a personal vehicle regularly available, this would not be an easy option for many. Six percent would have used a taxi and 5% would have ridden a personal bike.

Respondents' alternate mode choices for these trips differed by the type of trip they were making – More than half of respondents whose last trip was to go to or from work would have used transit for the trip. Respondents

whose last trip was for shopping/errands and exercise/recreation were more likely to say they would have walked than were respondents generally, suggesting they would have substituted a trip to a local shop for a trip to a shop farther away. Taxi would have been the choice for a higher than average share of social/entertainment and personal appointment trips.

Use of Capital Bikeshare to “Induce” Trips



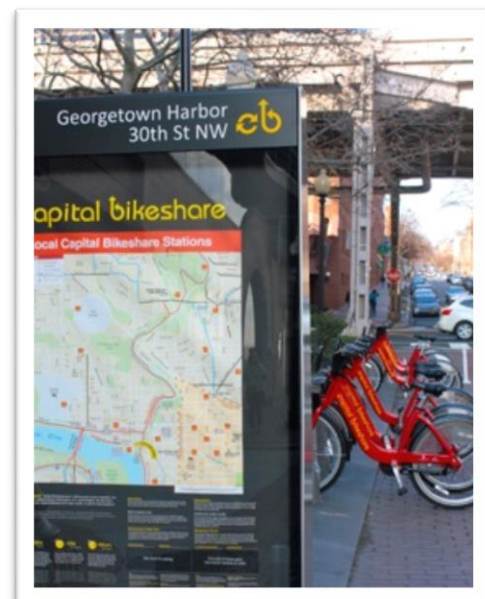
In the past month, 49% of respondents used bikeshare to make at least one trip they would not have made (“induced” trips) if bikeshare had not been available

– Nearly all induced trips were made for non-commute trip purposes. One-quarter made an induced social/entertainment trip and 21% made a shopping/errand trip. Respondents also reported making induced trips to restaurants (16%), for personal appointments (14%), and for exercise/recreation (13%). Only 9% said they made an induced trip to go to or from work, indicating these trips were typically not considered discretionary trips.

Two-thirds (65%) of respondents said they would not have made the induced trips without Capital Bikeshare because it was too far to walk – This suggests respondents might have substituted some induced trips to a distant destination for trips they might have made to locations closer to their origin location. In this way, Capital Bikeshare broadened the travel destination options. Other common reasons were related to characteristics of the destination or time of travel; 48% said bicycle was a faster or easier way to reach the destination and substantial percentages reported that public transportation was either not available or inconvenient to reach that destination (37%) or at that time of day (23%). One-quarter (25%) didn’t have a car and 18% wanted to get exercise.

Capital Bikeshare access made establishments more attractive to Bikeshare members – More than eight in ten respondents said they were either much more likely (34%) or somewhat more likely (48%) to patronize an establishment that was accessible by Capital Bikeshare.

Respondents who gave high ratings for the value of bikeshare access made induced trips at a much higher rate than did those who gave lower ratings – Among respondents who were much more likely to patronize a CB-accessible establishment, 96% made at least one bikeshare trip last month, compared with 91% of those who were not more likely. But a more interesting finding is that respondents who said they were much more likely were the most frequent users of the Capital Bikeshare service; 50% made six or more trips, compared with about one-third of those who were somewhat more likely or not more likely to patronize the bikeshare-accessible establishment. This suggests that the decision to make some, and perhaps many, of the induced trips was motivated by the establishments’ accessibility.



Change in Mode Use Since Joining Capital Bikeshare

Bikeshare members substantially increased their bicycle use and substantially reduced their car and taxi use since they joined Capital Bikeshare – More than eight in ten respondents said they bicycled more often since joining; 34% said they bicycled “somewhat more often” and 50% bicycled “much more often.” More than half (55%) of all survey respondents drove a car less often. Six in ten (59%) said they used a taxi less often than before they joined Capital Bikeshare. Bikeshare members also substantially reduced their use of public transit; 58% rode Metrorail less often and 52% rode a bus less often. And 51% of respondents decreased their walking trips.

Bikeshare members who used Capital Bikeshare frequently reported the greatest reduction in use of non-bicycle modes – For example, 74% of respondents who made 20 or more CB trips in the past month said they reduced their use of Metrorail, compared with 46% of respondents who made fewer than six CB trips, a net additional reduction of 28 percentage points. The results were similar for other non-bike mode groups; the share of respondents who reduced use of a non-biking mode since they joined Capital Bikeshare increased steadily as their bikeshare use increased. The change was most pronounced for Metrorail and bus (net differences of 28 points



and 26 points, respectively). The differences were less dramatic for use of walking (11 points), driving a car (12 points), and taxi (8 points), suggesting that bikeshare was substituted less often for these modes.

A quarter of respondents reduced their annual driving miles – Respondent also were asked approximately how many miles they drove per year in the Washington region at the time of the survey and how many miles they drove in the year before they joined Capital Bikeshare. A quarter (24%) reduced their driving miles; 8% reduced driving by more than 1,000 miles. Two-thirds (64%) of respondents who reported their mileage made no change in driving miles and only 12% increased their driving miles.

Capital Bikeshare members reduced 4.4 million driving miles annually – On average, survey respondents who reported both a current and pre-Capital Bikeshare mileage drove about 2,830 miles per year before joining Capital Bikeshare and 2,672 miles per year at the time of the survey, for a reduction of about 158 miles annually. When these survey results were applied to the estimated 27,600 bikeshare member population in November 2014, the month in which the survey was conducted, the results were as follows:

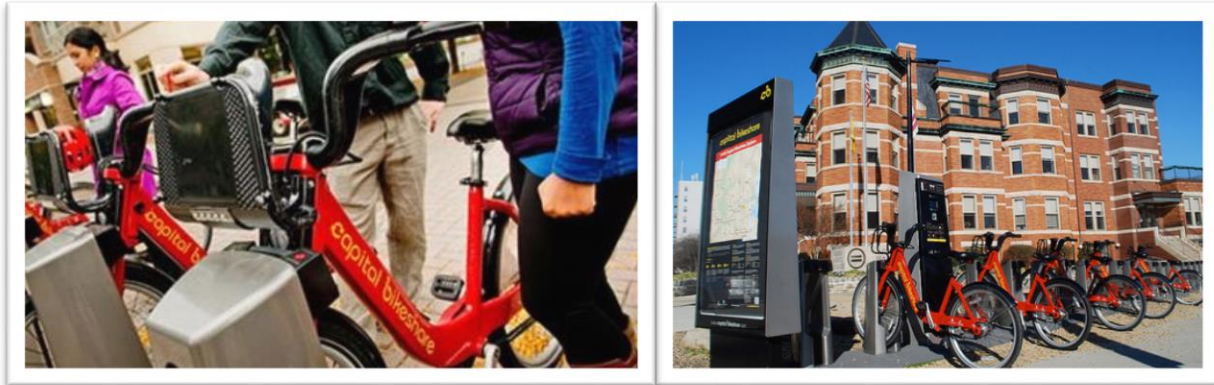
- Number of Capital Bikeshare members (November 2014) 27,600
- Estimated annual VMT reduced per member 158
- Estimated total annual VMT reduced 4,360,000 annual miles (rounded)

On average, each Capital Bikeshare member saved \$710 per year on personal travel cost – More than eight in ten (83%) respondents said they saved money on weekly travel costs by using Capital Bikeshare. About six in ten said they saved between \$1 and \$20 per week, 16% saved between \$21 and \$40, and 5% saved more than \$40. Across all respondents, the average weekly saving would be \$13.65, or about \$710 annually. Collectively, the estimated 27,600 Capital Bikeshare members in November 2014 were saving nearly \$20 million per year:

- Number of bikeshare members (November 2014) 27,600
- Estimated annual cost saving per member \$710
- Estimated total annual cost saving \$19,600,000 annually (rounded)

Bikeshare Members' Commute Travel Patterns

Bikeshare members traveled an average of 6.2 miles to work one-way, well under the average 16.0 miles distance of commuters region-wide – Two in ten bikeshare respondents traveled fewer than two miles to work and 61% traveled fewer than five miles. By contrast, only 17% of all regional commuters traveled fewer than five miles.



Capital Bikeshare members drove alone to work much less than did commuters region-wide – The overwhelming majority of employed respondents used a non-drive-alone mode of travel to get to work: 43% of CB members primarily used public transit to get to work, 29% primarily biked to work, and 12% commuted by walking. Only 11% primarily drove alone to work. Bike commute use was particularly high for members who lived close to work; among CB members who traveled less than five miles to work, 39% primarily rode a bicycle.

About three in ten employed respondents started or increased use of biking for their trip to work since joining Capital Bikeshare – Thirteen percent started or increased use of bicycle as their primary mode, the mode they used most often for commuting. Another 19% started using bike as a secondary mode, defined as a mode they used one or two days per week or as a way to access their primary mode. As a result of this increased use of bike, the share of respondents who primarily biked to work increased from 9% of employed respondents to 29%.

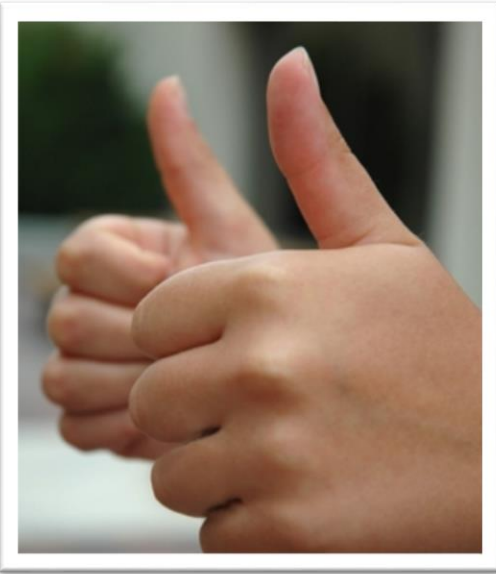
Access to bicycle support services appeared to influence use of bicycle for work travel – Bikeshare survey respondents were twice as likely to report that their employers offered bike racks, showers, personal lockers, and other bicycle-support services (56%) as were all commuters region-wide (27%). They also were more likely to have bicycle services than were other commuters in the jurisdictions where they worked. Respondents who had access to bicycle-support services biked to work at a higher rate than did respondents who did not have access to these services; 35% of respondents who said bicycle services were available bicycled to work, compared with 23% of those who did not have bicycle services.

Satisfaction with Capital Bikeshare

Respondents gave generally high marks to bikeshare features – At least six in ten gave ratings of 4 or 5 (Excellent) to safety of stations, Capital Bikeshare website, call center, mechanical repair of bikes, and the map at Capital Bikeshare stations. Respondents were least satisfied with the availability of bikes at docks and the availability of open docks when they were returning bikes; these features were rated as a 4 or 5 by only 39% and 38% of respondents, respectively.

About two-thirds of respondents reported some problem with using Capital Bikeshare services – Thirty-five percent had a mechanical issue with the bike, 34% said they had an issue with the bike dock, and 28% encountered issues accessing a bike with the membership key.

Respondents expressed substantial interest in a card that could be used to access both Capital Bikeshare and public transit – Ninety-one percent of respondents said they would be somewhat interested (31%) or very interested (60%) in a Capital Bikeshare fob or SmarTrip card that they could use to access both Capital Bikeshare and



public transit service. Only 6% said they were not interested in this service. Members were less interested in a no annual fee, pay-per-ride membership option; only 32% were either somewhat interested (25%) or very interested (7%) in this option. But an additional 28% said their interest would depend on the cost per ride.

CB members wanted both more bikes at existing locations and expansion of Capital Bikeshare to new destinations – The most

often noted expansion need was for more docks at existing stations; 54% of respondents selected this option for greater access to bikes in popular bikeshare pick-up and drop-off locations. The second highest priority was for new stations in residential neighborhoods (44%), perhaps indicating a desire for greater access to bikeshare for short trips within or from a home neighborhood. A similar percentage (43%) indicated a need for expansion within the existing service area (greater infill or density of stations and 32% of respondents said they wanted expansion to areas that bikeshare doesn't serve now (greater coverage).