



# 2013 Capital Bikeshare Member Survey Report Executive Summary



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## EXECUTIVE SUMMARY

### Overview

This report presents the results of the November 2012 Capital Bikeshare Customer Use and Satisfaction Survey conducted for the Capital Bikeshare program (Capital Bikeshare). Capital Bikeshare, a program jointly owned and sponsored by the District of Columbia, Arlington County, VA, and the City of Alexandria, VA, and operated by Alta Bicycle Share, Inc., offers short-term use of more than 1,650 bicycles to registered members and day-pass users at more than 175 stations in the District of Columbia, Arlington County, and the City of Alexandria. 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 users' experience with the program and exploring bikeshare's impact on users' travel patterns. The survey was conducted for four primary purposes; to examine:

- 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

Capital Bikeshare staff sent an email to approximately 11,100 members, half of the total 22,200 members, informing them of the online survey and providing the link to the survey website. The email indicated that Capital Bikeshare was offering entry into a drawing to win an iPad to members who completed the survey. To increase the response rate further, Capital Bikeshare sent a reminder in the monthly e\_newsletter to all members. During the approximately four-week period that the survey website was active, 3,731 members completed the survey, for a total response rate of 34%.

At about the same time period, Capital Bikeshare staff distributed a second online survey, in cooperation with researchers at George Washington University, to study CB's health-related impacts. To enable the Travel Survey and Health Survey to be conducted simultaneously, members were randomly assigned to one of the two surveys. Thus, the health survey also was distributed to approximately 11,100 members, using the same email distribution and direct access survey link method as was used for the Travel Survey. A total of 3,111 Health Surveys were completed, for a response rate of 28%.

Several of the Travel Survey questions also were included in the Health Survey. Comparison of results for the Travel Survey and Health Survey populations on key demographic questions indicated that the populations were not statistically different, thus data for the 3,111 Capital Bikeshare members who participated in the Health Survey were added to the Travel Survey data for these questions, bringing the total sample for some Travel Survey questions to 6,842.

### Key Conclusions

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

- **Capital Bikeshare members benefit through easier, faster access to destinations and access to a wider range of destinations** – Four in ten respondents had made a trip in the past month that they would not have made without bikeshare. Of these respondents, 61% 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** – Over half (54%) of respondents said at least one of the bikeshare trips they made last month either started or ended at a Metrorail station and 17% had used bikeshare six or more times for this purpose. About a quarter (23%) of respondents said they used Capital Bikeshare to access 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 or simply because they enjoy biking. The opportunity to make one-way trips by bikeshare builds on the wealth of travel options – bikeshare, transit, taxi, walking, carshare – that bikeshare members can choose “in the moment,” increasing their travel flexibility.
- **Bikeshare serves both work-related and personal travel needs** – Seven in ten respondents reported that they at least occasionally use bikeshare for social/entertainment and errands/personal appointments trips, 66% use bikeshare to go out for a meal, and 55% use bikeshare for shopping trips, all non-work purposes. But 58% of respondents use bikeshare to go to/from work and 40% use bikeshare “often” for this purpose. Since commuting is a frequent and required trip, bikeshare is serving a valuable basic travel function for many members.
- **Capital Bikeshare enables members to give up the cost and hassle of car ownership and driving** – More than half of the Capital Bikeshare members surveyed said they don’t have access to a car or other personal vehicle. Five percent of members surveyed had sold a household vehicle since joining CB and 80% of these members said bikeshare was a factor in their decision to sell the vehicle. A quarter of respondents said they reduced their driving miles since joining Capital Bikeshare. Across all respondents, the average driving reduction was 198 miles per year, equating to about 4.4 million fewer driving miles by the 22,200 bikeshare members (in November 2012).
- **Bikeshare members appear to have shifted some trips to bicycle from driving, taxi, transit, and walking** – A quarter of respondents increased their use of bicycling since joining Capital Bikeshare. By comparison, respondents reduced use of all other transportation modes; 50% drove a car less often, 60% use a taxi less often, 61% ride Metrorail less often, 52% ride a bus less often, and 52% decreased their use of walking, suggesting some shifts to biking from other modes.
- **Bikeshare members who used Capital Bikeshare frequently reported the greatest reduction in use of non-bicycle modes** – More than seven in ten (72%) respondents who made 11 or more CB trips in the past month reduced their use of Metrorail, compared with 47% of respondents who made one or two CB trips in the past month, a net additional reduction of 25 percentage points. The results are similar for other non-bike mode groups; the share of respondents who reduced use of a non-biking mode since they joined Capital Bikeshare increases steadily as their bikeshare use increases.
- **On average, each Capital Bikeshare member saves \$800 per year on personal travel cost** – Respondents report saving an average of \$15.39 per week on personal transportation costs as a result of their bikeshare use, about \$800 over the course of the year. Across the estimated 22,200 Capital Bikeshare members in November 2012, the collective saving is almost \$18 million each year.

- **Respondents give high marks to most bikeshare features** – More than seven in tens gave ratings of 4 or 5 (Excellent) to Capital Bikeshare website, safety of stations, mechanical repair of bikes, call center, and map at Capital Bikeshare stations. Respondents were less satisfied with the nighttime lighting at the stations; 55% of respondents rated this feature as 4 or 5.
- **CB members are eager for expansion of Capital Bikeshare** – The most noted expansion need appears to be for more docks at existing stations; 47% of respondents chose this option for greater access to bikes in popular bikeshare pick-up and drop-off locations. The second highest priority is for new stations in residential neighborhoods (43%), perhaps indicating a desire for greater access to bikeshare for short trips within a home neighborhood. About a third (36%) of respondents said they wanted expansion to areas that bikeshare doesn't serve now (greater coverage) and a similar percentage (34%) indicated a need for expansion within the existing service area (greater infill or density of stations).

## Bikeshare Users Demographic and Membership Characteristics

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

**Bikeshare visibility and referrals are important marketing tools for Capital Bikeshare** – Respondents are most likely to have learned about Capital Bikeshare by seeing a CB station (31%) or through a referral from a friend or family member (27%). These two sources have become more important as the program has matured; 39% of members who joined CB in 2012 mentioned seeing a station, compared with only 20% who joined in the first seven months of the program (August 2010 – March 2011). Referrals also have doubled over that time, with 34% of 2012 members mentioning this source, compared with 17% of “first adopter” members.

**The primary motivations for joining Capital Bikeshare are for greater access and one-way travel flexibility** – More than nine in ten (91%) respondents said they were motivated to joining Capital Bikeshare by the ability to get around more easily or more quickly. Eight in ten (80%) were motivated by having a new travel option or a one-way travel option. Three-quarters (76%) were motivated simply by the enjoyment of biking. About six in ten cited a desire for exercise (57%) or a desire to save money on transportation (52%).



## Bikeshare Use Characteristics

**Capital Bikeshare use is distributed evenly across frequency categories, showing demand for the service at many use levels** – About 15% of respondents had made one or two bikeshare trips in the past month, 22% made between three and five trips, and 17% made between six and ten trips. About 35% are frequent users, making 11 or more trips in the past month. On average, respondents made about 8.6 trips per user in the past month, a slight increase over the 8.1 trips per month average reported in the 2011 CB survey.



**The top bikeshare trip purposes overall are for personal / non-work trips but a large share of members use bikeshare for their trip to work** – Seven in ten respondents reported that they at least occasionally use bikeshare for social / entertainment and errands / personal appointments trips and about four in ten use bikeshare “often” for these trips. Two-thirds said they use bikeshare for a trip to a restaurant or other location where they have a meal, 55% use bikeshare for shopping trips and 50% use bikeshare for an exercise or recreation trip. Nearly six in ten respondents use bikeshare to go to or from work and 40% often make a commute trip by bikeshare.

**Capital Bikeshare also serves as a feeder service to reach transit stops** – More than half (54%) of all respondents said that at least one of the Capital Bikeshare trips they made last month either started or ended at a Metrorail station and 17% had used bikeshare six or more times for this purpose. About a quarter (23%) of respondents said they used Capital Bikeshare to access bus in the past month.

**Respondents’ recent bikeshare trips were evenly divided between work and non-work trip purposes** – The most common recent trip purpose overall was to go to or from work; 42% of respondents noted this purpose. The most common recent non-work purpose trips were for a social / entertainment trip and errand / personal appointment trips, mentioned by 19% and 12% of respondents, respectively. As noted above, travel to work is a less common trip purpose overall than is non-work travel; more respondents report using CB for social / entertainment, errand / personal appointment, and restaurant / meal trips than work trips. This indicates that bikeshare work trips are concentrated among a smaller share of respondents, but are trips these respondents repeat frequently.

**Bikeshare was the choice for most recent trips because it was the fastest and easier way to travel** – Nearly eight in ten (78%) respondents chose bikeshare because it was a faster or easier way to reach their destination. Respondents noted other issues related to characteristics of the destination or the time they were traveling. Four in ten said the destination was too far to walk, 22% said public transportation is either not available or inconvenient to reach that destination, and 16% said that parking is very limited at that destination. Respondents also mentioned reasons related to the time of day they were traveling; 15% said that transit service doesn’t operate or that transit is inconvenient at that time of day. Two in ten used bikeshare because they don’t have a car.

**Bikeshare is attractive because it both offers a new travel option for members who don't have a car and an alternative to the disadvantages of driving for those who do** – Young respondents and respondents with lower incomes are 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 expands the range of destinations to include locations that are otherwise difficult to reach. Older respondents, those with higher incomes, and respondents who have a personal vehicle are more likely to mention reasons related to the disadvantages of driving to a particular destination. For these respondents, Capital Bikeshare makes the destination more attractive or less of a bother to reach than it otherwise would be.

**Forty-four percent of respondents would have ridden a bus or train if Capital Bikeshare had not been available for the most recent trip** – About four in ten (38%) would have walked to their destination. Only 4% would have driven or ridden in a personal vehicle, but since more than half of respondents did not have a personal vehicle regularly available, this would not have been an easy option for many. Six percent would have used a taxi and 5% would have ridden a personal bike.

**Respondents' options for making these trips differed by the type of trip they were making** – More than half of respondents whose last trip was to go to/from work would have used transit for the trip. Respondents whose last trip was for errands, shopping, or meals (restaurant) 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 was noted as a more likely alternative by respondents whose last Capital Bikeshare trip was to go to a meeting, perhaps indicating a choice of convenience over cost.

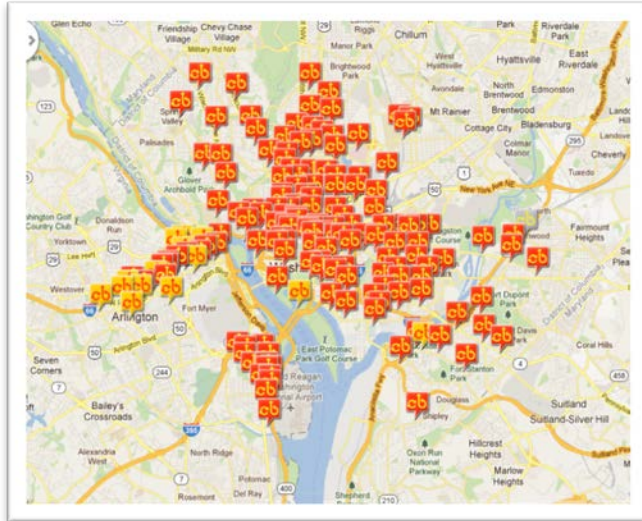


### Use of Capital Bikeshare to "Induce" Trips

**In the past month, 40% of respondents used bikeshare to make at least one trip they would not have made ("induced" trips) if bikeshare had not been available** – Two in ten respondents made an induced social/entertainment trip and 15% made an errand/personal appointment trip. About one in ten made induced trips to restaurants (12%), for exercise/recreation (9%), and shopping trip (9%). Induced trips for work purposes were less common, indicating they are typically not considered discretionary trips.

**The vast majority of induced trips were made to destinations in the District of Columbia** – Dupont Circle/Adams Morgan and Downtown DC were the most common induced destination; 15% of respondents made an induced trip to each of these areas. About one in ten made an induced trip to Capitol Hill (9%), Georgetown (8%), or Shaw / U Street (7%).

**More than six in ten (61%) respondents said they would not have made the trips without Capital Bikeshare because it was too far to walk** – This response suggests respondents might have substituted some induced trips to 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; 44% said bicycle is a faster or easier way to reach the destination and substantial percentages reported that public transportation is either not available or inconvenient to reach that destination (31%) or at that time of day (24%). Two in ten (21%) didn't have a car and 17% wanted to get exercise.

**Capital Bikeshare access makes establishments more attractive to Bikeshare members** – More than eight in ten respondents said they were either much more likely (37%) 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** – Two-thirds (67%) of respondents who said they were *much more likely* to patronize a Capital Bikeshare-accessible establishment had made in induced trip, compared with 48% who said they were *somewhat more likely*, and 33% of those who said they were *not more likely* to patronize the 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 reduced their car and taxi use since they joined Capital Bikeshare** – Half (50%) of all survey respondents drove a car less often. Six in ten (60%) said they use a taxi less often now than before they joined Capital Bikeshare. Bikeshare members also substantially reduced their use of Metrorail, and bus; 61% ride Metrorail less often and 52% ride a bus less often, and their use of walking, with 52% saying the reduced use of this type of transportation.

**Bikeshare members who used Capital Bikeshare frequently reported the greatest reduction in use of non-bicycle modes** – Seventy-two percent of respondents who made 11 or more CB trips in the past month said they reduced their use of Metrorail, compared with 47% of respondents who made one or two CB trips in the past month, a net additional reduction of 25 percentage points. The results are similar for other non-bike mode groups; the share of respondents who reduced use of a non-biking mode since they joined Capital Bikeshare increases steadily as their bikeshare use increases. The change is most pronounced for Metrorail and bus (net difference of 25 points and 26 points. The differences are less dramatic for use of walk (18 points), driving a car (14 points), and taxi (17 points), suggesting that bikeshare is substituted less often for these modes.



**A quarter of respondents reduced their annual driving miles** – Respondents were asked approximately how many miles they drive per month in the Washington region now and how many miles they drove in the year before they joined Capital Bikeshare. A quarter (26%) reduced their driving miles since joining Capital Bikeshare; 11% reduced driving by more than 1,000 miles. Two-thirds (65%) of respondents who reported their mileage made no change in driving miles; only 9% increased their driving miles.

**Capital Bikeshare members reduce 4.4 million driving miles annually** – On average, survey respondents who reported both a current and pre-Capital Bikeshare mileage drove about 1,805 miles per year before joining Capital Bikeshare and 1,607 miles per year since joining, for a reduction of about 198 miles annually. When these survey results are applied to the estimated 22,205 bikeshare member population in November 2012, the month in which the survey was conducted, the results are as follows:

- Number of Capital Bikeshare members (November 2012)      22,205
- Estimated annual VMT reduced per member                      198
- Estimated total annual VMT reduced                                **4,396,600 annual miles**

**On average, each Capital Bikeshare member saves \$800 per year on personal travel cost** – Nearly all (87%) respondents said they save money on weekly travel costs by using Capital Bikeshare. About six in ten save between one dollar and \$20 per week, 24% save more than \$20. On average, respondents save \$15.39 per week, or about \$800 over the course of a year. Across the estimated 22,205 Capital Bikeshare members in November 2012, the aggregate savings are nearly \$18 million per year:

- Number of bikeshare members (November 2012)              22,205
- Estimated annual cost saving per member                        \$800
- Estimated total annual cost saving                                    **\$17,764,000 annually**

## **Bikeshare Members' Commute Travel Patterns**

**Capital Bikeshare members travel an average of 6.3 miles to work one-way, less than half of the average 16.3 miles distance of commuters region-wide** – Two in ten bikeshare respondents travel fewer than two miles to work and 63% travel fewer than five miles. By contrast, only 17% of all regional commuters travel fewer than five miles.



### **Capital Bikeshare members drive alone to work much less than do commuters region-wide** –

The overwhelming majority of employed respondents use a non-drive-alone mode of travel to get to work; CB members make 41% of their work trips by public transit, 27% by biking, and 13% by walking. They make only 12% of commute trips by driving alone, well below the 65% drive alone mode share for all commuters in the Washington region. Bike commute use was particularly high for members who live close to work; among CB members who travel less than five miles to work, 33% primarily ride a bicycle.



**Nearly four in ten employed respondents started or increased use of a non-drive alone mode for their trip to work since joining bikeshare** – A quarter (25%) started or increased use of bicycle, 6% made a change to public transit, 4% started or increased use of walking, and 3% made a change to carpool or vanpool.

**Capital Bikeshare members reduce about 2.1 million commute driving miles annually, reducing traffic during the peak commuting periods** – The 38% of employed survey respondents who made a commute change each eliminate an average of 5.3 driving miles each week, for an annual total of 265 miles. When this per-person reduction is applied to the estimated 21,095 employed bikeshare member population in November 2012, the results are as follows:

- |   |                               |
|---|-------------------------------|
| • Number of employed CB members (November 2012)   | 21,095                        |
| • Members who made a commute change (x 38%)       | 8,016                         |
| • Estimated annual commute VMT reduced per member | 265                           |
| • Estimated total annual commute VMT reduced      | <b>2,124,000 annual miles</b> |

**Access to bicycle support services appears to influence use of bicycle for work travel** – Bikeshare survey respondents are twice as likely to report that their employers offer bike racks, showers, personal lockers, and other bicycle-support services (55%) as are all commuters region-wide (26%). They also are more likely to have bicycle services than are other commuters in the jurisdictions where they work. Respondents who have access to bicycle-support services bike to work at a higher rate than do respondent who do not have access to these services; 34% of respondents who said bicycle services are available bicycle to work, compared with 27% of those who do not have bicycle services.

## **Satisfaction with Capital Bikeshare**

**Respondents give generally high marks to bikeshare features** – More than seven in tens gave ratings of 4 or 5 (Excellent) to Capital Bikeshare website, safety of stations, mechanical repair of bikes, call center, and the map at Capital Bikeshare stations. Respondents were less satisfied with the nighttime lighting at the stations; 55% of respondents rated this feature as 4 or 5.



**About four in ten respondents reported some problem with using Capital Bikeshare services** – A quarter (26%) said they had a mechanical issue with the bike, 18% encountered issues accessing a bike with the membership key, and 17% said they had an issue with the bike dock.

**CB members want both more bikes at existing locations and expansion of Capital Bikeshare to new destinations** – The most pressing expansion need appears to be for more docks at existing stations; 47% of respondents chose this option for greater access to bikes in popular bikeshare pick-up and drop-off locations. The second highest priority is for new stations

in residential neighborhoods (43%), perhaps indicating a desire for greater access to bikeshare for short trips within a home neighborhood. About a third (36%) of respondents said they wanted expansion to

areas that bikeshare doesn't serve now (greater coverage) and a similar percentage (34%) indicated a need for expansion within the existing service area (greater infill or density of stations). Smaller percentages of respondents said they would like to see expansion in commercial and employment areas (23%) or near Metrorail (17%).

