

**Final Project Summary Report  
Santa Monica/ Westside Bikeshare Program**

**Contract Number: MS12060B  
Contractor Organization: City of Santa Monica  
Date: July 30, 2019**



***Prepared for the Mobile Source Air Pollution Review Committee (MSRC) under the  
AB 2766 Discretionary Fund Work Program.***

## ACKNOWLEDGEMENTS

The City of Santa Monica would like to give special thanks to LA Metro and Air Quality Management District Mobile Source Air Pollution Reduction Review Committee, which awarded the City more more than \$2 million in funds through the Metro's Call for Projects and Clean Transportation Funding grant programs. The City would also like to thank regional partners in the Westside Cities Council of Governments, Metro, UCLA, Beverly Hills, West Hollywood and others who participated in the selection and launch process, and have work with Santa Monica in creating a regionally integrated westside bike share system.

The Breeze Bike Share System would not have been possible without [CycleHop](#), LLC is the City's contractor that maintains, operates and promotes Breeze Bike Share, and Social Bicycles provides the City with innovative smart bike technology that has transformed bike share systems.

The City would like to thank all City staff that has made the bike share system possible.

Lastly, we are excited and grateful to be working with community partners: the [Santa Monica Spoke](#), Community Corp of Santa Monica, a host of local business and neighborhood groups, and our local Santa Monica-based Presenting Sponsor—Hulu, LLC, which has supported the ongoing operations of the Breeze Bike Share system since the launch in 2015.

*This report was submitted in fulfillment of contract MS12060B Santa Monica/ Westside Bikeshare by (project title) by the City of Santa Monica under the partial sponsorship of the Mobile Source Air Pollution Reduction Review Committee (MSRC). Work was completed as of July 1, 2019.*

*The statement and conclusions in this report are those of the contractor and not necessarily those of the Mobile Source Air Pollution Reduction Review Committee (MSRC) or the South Coast Air Quality Management District (SCAQMD). The mention of commercial products, their sources or their uses in connection with material reported herein is not to be construed as either an actual or implied endorsement of such products.*

## SCOPE, PURPOSE AND BACKGROUND OF THE PROJECT

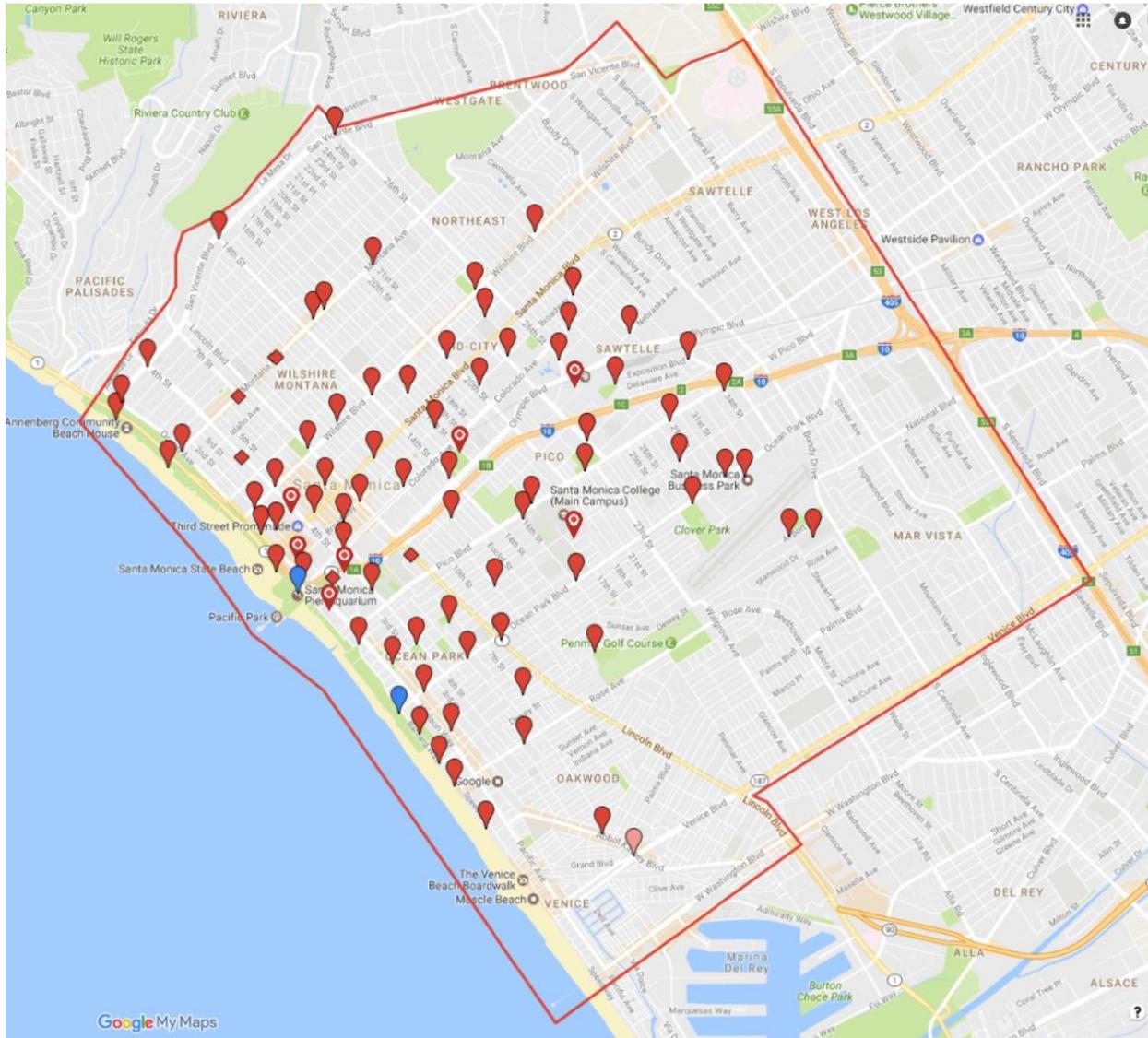
In 2011 the City of Santa Monica adopted the Bike Action Plan, which prioritized the creation of a local and regionally connected bike share system as a key strategy to reduce vehicle trips and emissions, encourage broader bicycle ridership, create a first/last mile connection to transit lines like the Expo Light Rail, and improve the overall quality of life in Santa Monica. With the help of MSRC Clean Transportation funding, on November 12, 2015 Santa Monica launched LA County's first bike share system—Breeze Bike Share—throughout Santa Monica and Venice. The grant supported initial equipment purchase, system expansion of 10 and 100 additional stations and bicycles, siting and installation of stations in Venice and Santa Monica Campuses, development of marketing strategy and program rollout, operational adjustments through the first years of operation, data collection and analysis, and integration of Breeze with other westside bike share systems in UCLA, Beverly Hills, and West Hollywood,

*Breeze Bikes Smart Bike Controller*

Through an open procurement process the City received seven bids from leading bike share service providers. The City selected Cyclehop LLC to operate a total of 500 “smart bikes” developed and provided by Social Bicycles (SoBi). SoBi’s “smart-bike” system (one in which the technology for renting, releasing and locking the bicycles is on the bikes rather than on the racks) was preferred for its advantage in offering a lower per-station capital cost than was anticipated because it does not require that a pay kiosk be incorporated into each station. Instead, each bike is capable of accepting payments and releasing the bike-locking mechanism independently via a mobile, web and administrative software that interacts with the smart-bike hardware. People who are not registered can sign up on-line using a computer or mobile device, at one of 10 outdoor pay kiosks at the larger, more central stations. Without need for a kiosk, smaller stations, consisting of as few as four racks, are feasible, which enabled the City to serve the entire City including residential areas as well as busy commercial areas and key destinations. The system’s GPS enables the operator to always track bike location, which improves the operational efficiency and costs, and provides the City with *real time* data about trips, ridership, and system operations. The system’s user flexibility expands the system to more areas since bikes can lock to standard racks and do not require specialized docking stations for pick-up or returns.



### Breeze Bike Share System Area Map and Station Locations



### Implementation Process

In August of 2015 the City started a phased marketing strategy by launching an initial three-month pilot roll-out with 35 bikes and 10 stations. The pilot period enabled City staff to conduct a comprehensive community engagement process to familiarize the community with the concept of bike share, crowd source community input regarding station locations and community needs, receive feedback on the bike share brand, and address any community concerns. Additionally, the pilot period enabled the City to procure and secure a title sponsorship for the program from a local company—hulu, which helps pay for the ongoing operations costs. The pilot phase also enabled the city to develop the *Breeze Bike Share* branding, website and marketing materials; and contract with *Global Green* to promote, publicize and build brand awareness in anticipation

of the full citywide launch through social media campaigns including promotional videos, working with local and national media outlets, and organizing a highly visible ribbon cutting launch event.



*Ribbon Cutting Event of Breeze Bike Share*

On November 12, 2015 the city rolled out the citywide system consisting of a total of 500 bikes, 75 stations, and 7 kiosks for in-street sign-up. The launch event attracted hundreds of participants and garnered news coverage from dozens of media outlets (see Attachment 1: Media Clips).

Over the subsequent 18 months the city worked with the operator to plan, site, and install an additional 11 stations including three more kiosks. The City created a facility use agreement with Santa Monica College (SMC) to place 4 stations on SMC property to ensure students would be able to utilize Breeze while commuting between various SMC sites throughout the City. The City also worked the Los Angeles Department of Transportation and Councilmember

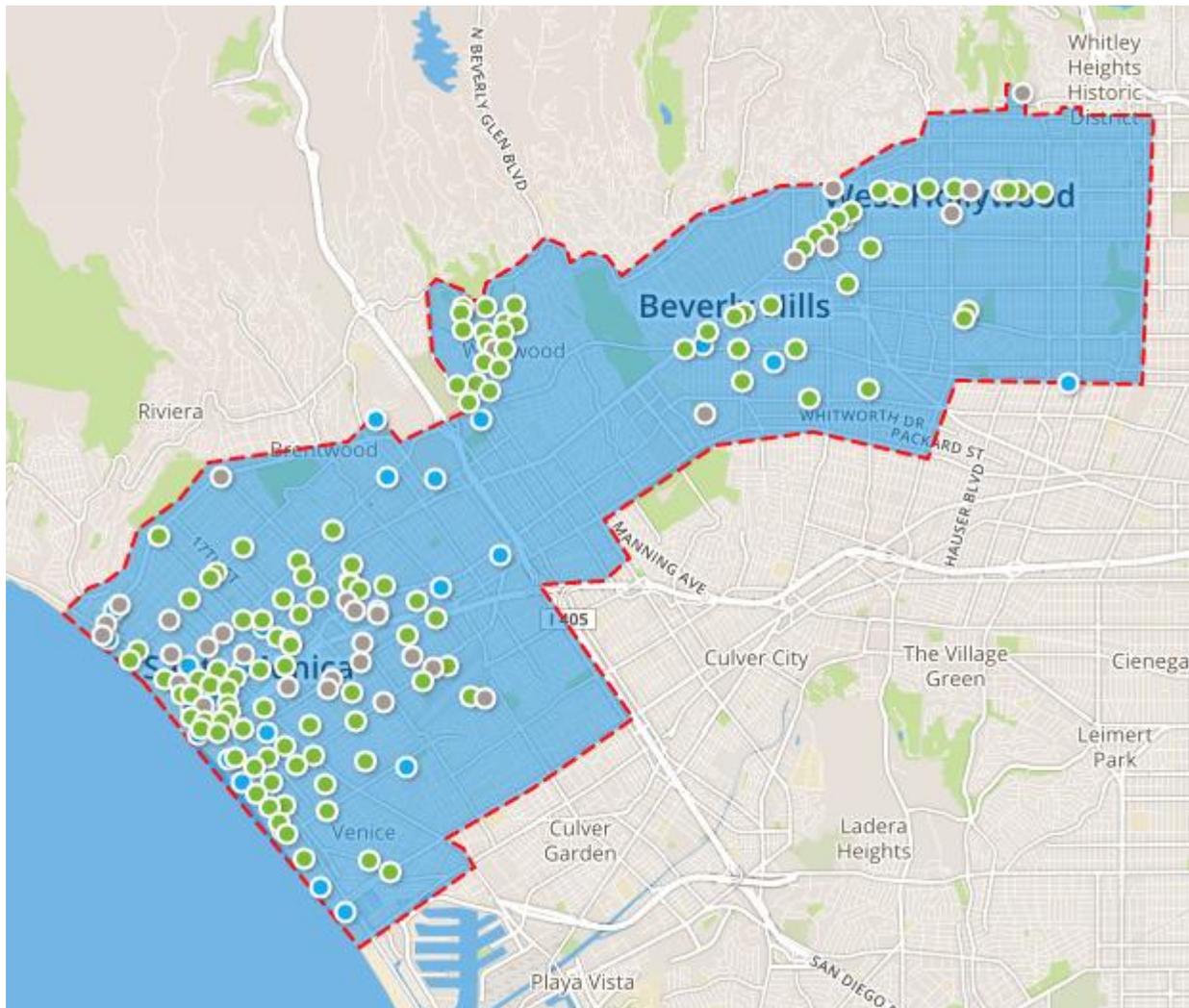
Mike Bonin’s Office to expand bike share beyond the Santa Monica border by installing five stations to the Venice neighborhood in Los Angeles. Further, the city made several adjustments to the system, which included expanding and relocating stations, adjusting the fare structure based on community feedback, upgrading equipment, and testing and adjusting all kiosk equipment. Throughout this process the City maintained an open dialog with community members and bike share users to fine-tune the system to improve operational efficiencies and provide the best bike share service possible.

Following the launch of Breeze, the cities of Beverly Hills and West Hollywood, and UCLA took advantage of the “regional guarantee” provision of Santa Monica’s bike share operations contract to launch local bike share systems with the same operator and terms and conditions in their jurisdictions. The City worked with these partner agencies, the operator, and technology provider to enable the integration of the four bike share systems into one contiguous Sub-regional Bike Share Network. The Sub-regional Bike Share Network was integrated in April 2018 and connected the bike share systems into a combined service area, gives users equal access to all bikes throughout the service area, improves the user experience by allowing users to travel between jurisdictions without incurring additional fees, and expands the reach of bike share regionally.

Facebook Post about New Venice Breeze Stations



Regional Bike Share System Area Map, which includes: Breeze, UCLA Bruin, Beverly Hills, and WeHo Pedals Bike Share Systems



### **Outreach and Education**

Beyond the implementation of the physical program, the City of Santa Monica and operator also worked to educate the public about bike share, encourage safe riding, and expand access to targeted community cohorts. This was done by providing opportunities for new users to try bike share at low or no cost, educating our users and the broader public about the program, riding etiquette, providing the tools necessary for making bike share part of people's commuting routine, and raising the visibility of cycling as a viable form of transportation in our community.

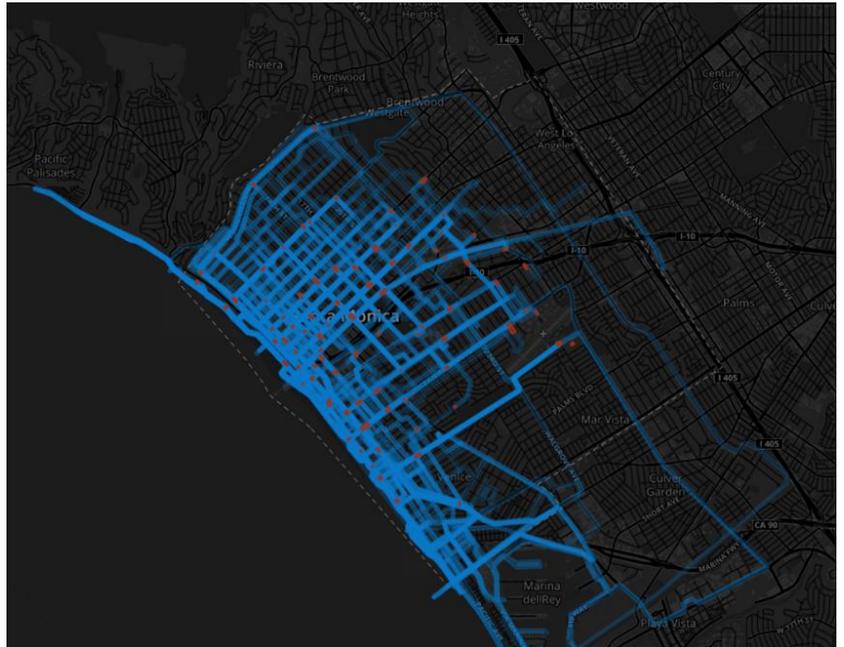
- *Community Engagement and Education*
  - *Community Rides*: In partnership with Santa Monica Spoke, Breeze hosted monthly Community Rides that attracted dozens of participants.
  - *Breeze Ambassadors Program*: In partnership with Santa Monica Spoke Breeze re-launched our community outreach program, where trained ambassadors engage with community members throughout the city and help promote the program, educate users, and collect community feedback at community events and popular stations—19 Trained Volunteers, over 50 hours of outreach completed.
  - *Helmet Give Away*: To promote safe cycling Breeze Bike Share and the City of Santa Monica gave helmets to new Breeze subscribers—to date 1,182 helmets have been given away.
  - *Media Fare*: Breeze worked with TAP to create branded GoSaMo TAP cards that are given away at outreach events and used to promote riding Breeze Bike Share to and from the Expo Light Rail and other transit lines—to date 2,654 TAP cards have been distributed.
  
- *Equity in Bike Share*: Santa Monica City Council approved a reduced rate annual membership of \$60 per year for individuals living in low-income housing. To promote the program Breeze established a partnership with Santa Monica Spoke and Community Corp of Santa Monica to host a over 15 classes for CCSM resident to learn about Breeze and cycling in general. As well, CCSM agreed to reimburse their residents for 90 percent of the annual membership cost.

## DATA SUMMARY OF PROJECT

As is mentioned above the Breeze Bike Share ‘Smart Bike’ system collect ridership, trips, memberships, and revenue data in real time, which the operator uses to manage operations and the City is able to access through an web portal interface.

Over the first three years of operation the bike share program has been wildly successful amongst residents, workers, and visitors in Santa Monica. Breeze Bikes are regularly ridden throughout the entire City of Santa Monica and beyond. Between the citywide launch and December 31<sup>st</sup>, 2018 the system attracted 86,720 subscribers who rode 1,881,806 miles on 819,160 trips. To date Santa Monicans account for roughly 48 percent of the total trips taken, while both LA County residents and visitors account for roughly 26 percent respectively.

Breeze Bike Share Trips Heat Map: October 10th, 2016



The program generates revenue from subscribers and the title sponsorship from hulu, which together pay for the program’s annual operating costs. Over this time period Breeze Bike Share operations have been financially self-sustaining. Below is a detailed summary of Breeze Bike Share operations, ridership, subscription plan types, and estimated impact on vehicle miles traveled and emission reduction (VMT).

### Santa Monica’s Transportation Demand Model

Due to time constraints the City was unable to complete *Task 5 (b) Evaluate metrics using Santa Monica’s Transportation Demand Model (TDM)* of the project statement of work. The City is currently in the process of updating the City’s TDM to reflect changes in state legislation (SB 743). While the task was not completed for the purposes of this grant evaluation, the City will continue to work with its consultant team to incorporate Breeze Bike Share, and other shared mobility data, into the model moving forward.

### **Citywide Bi-yearly Peak am/pm Weekday Bike Counts**

The City of Santa Monica conducts a bike rider count every two years to track overall bike ridership. The count showed a significant increase between 2015 and 2017 following the launch of Breeze Bike Share.

#### *Santa Monica Citywide Bi-annual Bike*

2013	2015	2017
14,229	11,866	15,001

### **Equipment**

Since the launch Breeze Bike Share has maintained a 500 bike fleet that provides citywide service at 87 stations. The sub-regional bike share system has a total fleet of 800 bikes and 136 stations.

#### *Breeze Bike Share Equipment Summary*

	Breeze Bike Share System	Sub-Regional Bike Share System (including Breeze Bike Share)
Total Bike Fleet	500	800
Active Stations	87	136
Active Drop Zones (virtual stations)	4	7
Total Racks On Street	942	1,468
Total Kiosks On Street	10	16

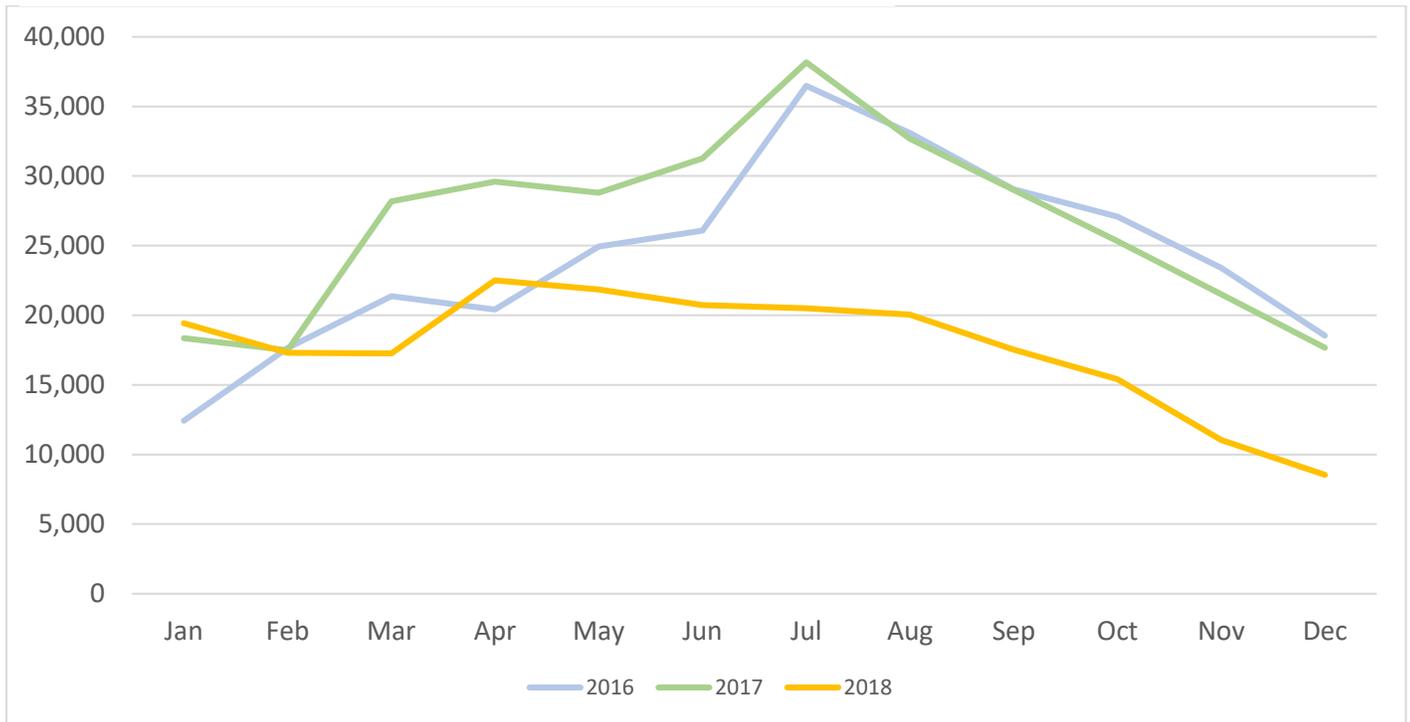
### **Total Number of Breeze Trips**

The Breeze Bike Share system shows peak ridership in summer months. Ridership steadily increased from 2016 to 2017, however due to the arrival of other shared mobility options (i.e. Metro Bike Share, Bird Scooters in 2017) and the launch of Santa Monica's Shared Mobility Pilot Program (2018), which permitted four companies—Bird, Jump, Lime, Lyft—to operate dockless shared e-scooters and e-bikes, Breeze ridership experienced declining ridership in 2018. The vast increase in shared mobility options in the City has led to lower monthly Breeze ridership overall.

#### *Breeze Total Trip Counts by Year*

	2016	2017	2018
Jan	12,424	18,352	19,421
Feb	17,651	17,489	17,309
Mar	21,376	28,186	17,249
Apr	20,413	29,593	22,512
May	24,938	28,804	21,854
Jun	26,075	31,275	20,734
Jul	36,478	38,170	20,515
Aug	33,086	32,679	20,056
Sep	29,040	29,012	17,526
Oct	27,090	25,326	15,403
Nov	23,406	21,521	11,053
Dec	18,543	17,660	8,543
<b>Total</b>	<b>289,159</b>	<b>317,826</b>	<b>212,175</b>

Total Breeze Bike Share Trip Count Year Over Year



**Total active subscriptions by plan type**

Pay-as-you-go subscriptions, in which users are charged \$0.12 / per minute only for the minutes they use, account for the vast majority (roughly 97 percent) of active account holders. Users have expressed that they prefer this option because of the lower upfront cost compared to annual or monthly plan options, flexibility, and limited long-term commitment.

Total Active Subscriptions by Plan Type Year Over Year

	Annual			Monthly			Student			Other			Pay-as-you-go		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
Jan	850	1,252	1,365	125	246	184	22	761	897	18	19	28	5,735	46,314	80,130
Feb	898	1,284	1,360	184	258	172	39	737	879	18	20	29	9,056	48,078	81,807
Mar	938	1,332	1,341	218	287	175	48	1051	945	17	20	28	12,724	51,511	83,813
Apr	984	1,367	1,430	227	346	212	53	1172	1,461	19	22	35	16,313	55,341	91,615
May	1,050	1,437	1,398	279	379	224	56	1,322	1,433	18	22	111	20,548	58,530	93,449
Jun	1,117	1,475	1,391	318	415	226	62	1,600	1,427	18	24	168	24,468	61,754	95,317
Jul	1,196	1,512	1,361	408	474	236	65	1,933	1,428	18	25	432	30,027	66,373	97,323

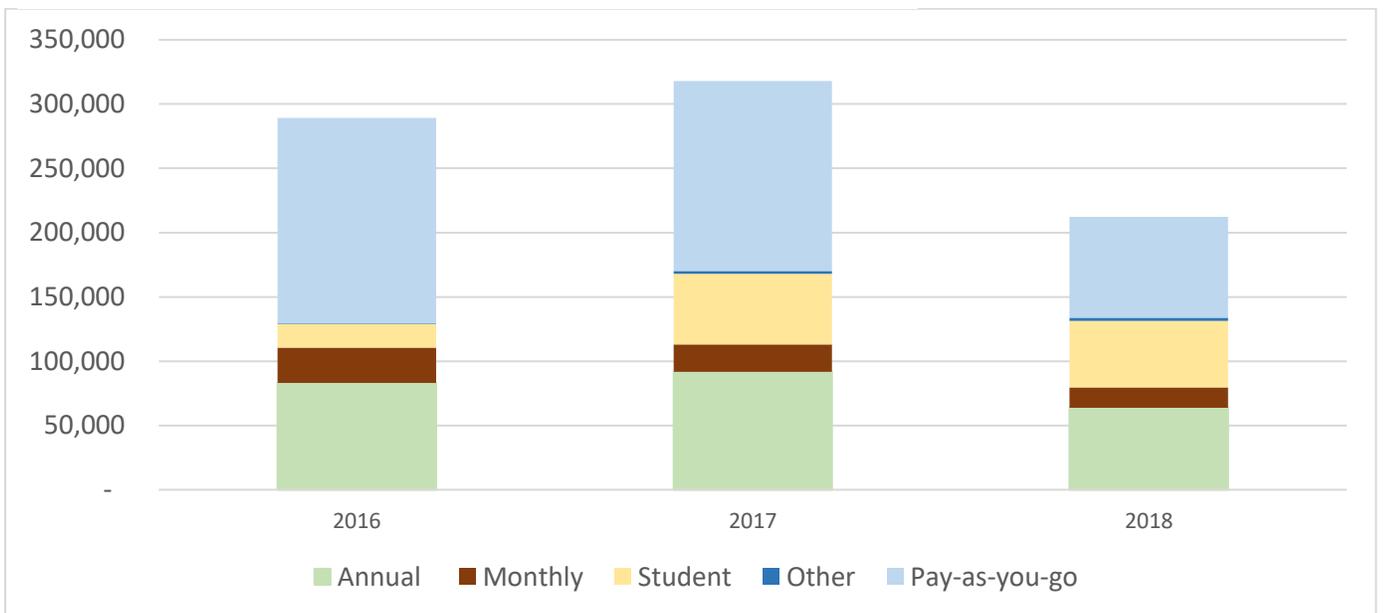


<b>Aug</b>	1,264	1,552	1,336	424	492	235	502	2,160	1,451	19	26	555	33,951	69,695	99,362
<b>Sep</b>	1,334	1,576	1,313	375	480	268	637	2,235	1,402	19	27	617	37,172	72,484	101,374
<b>Oct</b>	1,377	1,590	1,298	318	480	267	690	2,271	1,327	19	27	626	39,975	74,627	102,772
<b>Nov</b>	1,290	1,610	1,226	302	494	259	697	2,260	1,264	19	28	629	42,323	76,261	103,809
<b>Dec</b>	1,186	1,611	1,179	264	491	254	724	2,305	1,226	20	27	633	44,134	77,909	105,034

**Rides per membership by plan type**

Pay-as-you-go subscribers account for 47 percent of the trips taken over the three year period, while Annual, Monthly, Student, and Other plan types account for 29, 8, 15, and 1 percent respectively.

Total Trips Counts by Subscription Plan Type Year Over Year



	Annual			Monthly			Student			Other			Pay-as-you-go		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
<b>Jan</b>	4,518	5,678	6,418	908	1,274	1,260	125	2,907	3,965	14	65	88	6,859	8,428	7,690
<b>Feb</b>	5,472	5,567	5,834	1,570	1,329	1,030	312	2,805	3,460	47	108	78	10,250	7,680	6,907
<b>Mar</b>	5,614	8,193	5,165	1,807	1,636	1,318	526	4,271	3,493	15	158	98	12,053	13,928	7,175
<b>Apr</b>	5,947	7,784	6,413	1,807	2,198	1,434	246	3,820	5,558	19	143	82	12,394	15,648	9,025
<b>May</b>	7,031	8,268	6,305	2,021	2,101	1,505	298	4,746	5,827	92	175	204	15,496	13,513	8,013



Jun	7,218	8,755	6,252	2,704	1,892	1,500	326	5,177	5,003	2	249	328	15,825	14,975	7,651
Jul	8,880	9,192	5,923	3,517	2,479	1,707	270	6,122	4,739	23	380	428	23,788	19,989	7,718
Aug	9,029	8,828	5,699	3,537	2,505	1,555	2,447	6,256	5,111	33	219	442	18,040	14,871	7,249
Sep	8,437	8,613	5,027	2,788	1,682	1,513	3,447	5,875	4,398	13	278	302	14,355	12,562	6,286
Oct	8,002	8,016	4,570	2,808	1,532	1,452	3,866	5,287	4,683	48	202	253	12,366	10,286	4,445
Nov	7,030	7,198	3,515	2,304	1,556	927	3,664	4,327	3,243	78	141	195	10,330	8,299	3,173
Dec	5,761	5,576	2,691	1,827	1,224	606	2,744	3,396	2,150	66	83	143	8,145	7,381	2,953

### System Utilization, Holds, Trip End Metrics

The Utilization rate is the number of Trips / Bike / Day and is an important operational metric that the City uses to gauge how often each bike is ridden. The Breeze system experienced peak utilization in July 2017 of 2.5 Trips/Bike/Day. Additionally, the Breeze system tracks when a user pauses their trip (Holds), or ends a trip out of a station or out of the system area boundary. Over the three year period, roughly 11 percent and 1 percent of trips end outside of a station and outside of the system area respectively.

*System Utilization, Holds, Trip End Metrics Year Over Year*

	Utilization Rate (Trips/bike/day)			Holds			Trip Ended Out-of-Hub			Trips Ended Out-of-System Area		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
Jan	0.8	1.2	1.34	955	1,195	1,179	1,653	1,969	1,964	112	39	196
Feb	1.2	1.2	1.31	1,284	1,182	945	3,084	1,533	1,672	278	37	171
Mar	1.3	1.8	1.17	1,629	1,936	968	2,531	2,676	1,606	285	81	138
Apr	1.4	2.0	1.3	1,455	2,010	1,430	2,557	3,072	2,218	271	124	227
May	1.6	1.9	0.88	1,951	2,097	1,479	3,291	2,593	2,284	371	112	146
Jun	1.7	2.1	0.87	1,839	2,000	1,506	3,150	3,242	2,098	417	87	125
Jul	2.4	2.5	0.83	2,828	2,451	1,320	4,838	4,553	2,017	629	263	162
Aug	2.1	2.1	0.80	2,729	1,936	1,342	3,985	3,572	2,052	103	160	166
Sep	1.9	1.9	0.72	2,256	1,798	1,370	3,404	3,102	1,871	98	92	134
Oct	1.7	1.6	0.62	1,659	1,514	1,289	3,103	2,660	1,749	72	55	103
Nov	1.6	1.52	0.50	1,427	1,425	1,065	2,679	2,151	1,215	68	39	87
Dec	1.2	1.21	0.38	1,234	1,182	795	1,831	1,182	1,205	38	55	62
<b>TOTALS</b>	<b>1.6</b>	<b>1.7</b>	<b>0.9</b>	<b>21,246</b>	<b>20,726</b>	<b>14,688</b>	<b>36,106</b>	<b>32,305</b>	<b>21,951</b>	<b>2,742</b>	<b>1,144</b>	<b>1,717</b>

## **Carbon Emissions and Vehicle Miles Traveled Reduction Estimates**

Breeze Bike Share users rode a total of 1,881,806 miles over the 2016 – 2018 period with an average trip length of 1.9 miles. The City estimates that the Breeze ridership over this three-year period resulted in a reduction of between 715,000 and 941,000 vehicle miles traveled (VMT) and between 643,000 and 847,000 pounds of carbon emissions. The estimate range was calculated using responses to question about trip displacement in two recent surveys, and the Environmental Protection Agency’s (EPA) greenhouse gas equivalencies calculator. In a recent survey of Breeze Bike Share riders, conducted by Southern California Association of Governments (SCAG) for a soon to be released (Sept 2019) report on bike share systems in the region, 38 percent of survey respondents reported that their most recent bike share trip would have otherwise been taken in a car (including drive alone, ride share services, taxi, etc.). In a recent a survey that the City completed of shared mobility users as part of the Shared Mobility Pilot Program, 50 percent of respondents reported that their most recent shared mobility trip (including e-scooter, e-bikes) would have otherwise been taken in a car (including drive alone, ride share services, taxi, etc.). The below VMT reduction estimate range is calculated by multiplying assumed percent of displaced vehicle trips captured in these surveys by the total miles ridden on Breeze Bikes between 2016 and 2018. The carbon emissions reduction estimate range is calculated by multiplying the assumed displaced VMT by 0.9 lbs.

*Carbon Emissions and Vehicle Miles Traveled Reduction Estimates*

		2016	2017	2018	Total
Total Breeze Miles Ridden		<b>718,472</b>	<b>714,414</b>	<b>448,920</b>	<b>1,881,806</b>
SCAG Bike Share Survey Estimated Displaced Vehicle Miles (38% vehicle trip displacement)*	Low-End Estimate	273,019	271,477	170,590	<b>715,086</b>
Total lbs. of CO2 displaced by Breeze miles (~0.9 lbs./mile)**		245,717	244,330	153,531	<b>643,578</b>
Shared Mobility Pilot Program Survey Estimated Displaced Vehicle Miles (50% vehicle trip displacement)***	High-End Estimate	359,236	357,207	224,460	<b>940,903</b>
Total lbs. of CO2 Displaced by Breeze Miles (~0.9 lbs./mile)*		323,312	321,486	202,014	<b>846,813</b>

\*Source: Southern California Association of Governments. *Bike Share in a New Era of Mobility: An Analysis of LA Metro Bike Share and Santa Monica Breeze* (to be release September 2019).

\*\* Source: EPA: <https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references>

\*\*\* Source: City of Santa Monica Shared Mobility Device Pilot Program User Survey Results Conducted 01-25-2019 to 02-15-2019.

[https://www.smgov.net/uploadedFiles/Departments/PCD/Transportation/SharedMobility\\_UserSurveySummary\\_20190509\\_FINAL.PDF](https://www.smgov.net/uploadedFiles/Departments/PCD/Transportation/SharedMobility_UserSurveySummary_20190509_FINAL.PDF)

### **Fare Box Recovery\***

The Breeze Bike Share user generated revenue accounted for 84, 85, and 42 percent of the total operating expenses in 2016, 2017, and 2018 respectively. Over the three year period the user revenue and Hulu title sponsorship fee have combined to cover 100 percent of the Breeze operating cost, and in years 2016 and 2017 generated a net positive revenue for the City.

	User Revenue			Operating Expenses			Farebox Recovery Ratio		
	2016	2017	2018	2016	2017	2018	2016	2017	2018
Jan	\$48,886	\$56,945	\$61,871	\$87,645	\$89,398	\$91,185	56%	64%	68%
Feb	\$61,443	\$49,198	\$47,489	\$87,645	\$89,398	\$91,185	70%	55%	52%
Mar	\$62,620	\$78,412	\$45,333	\$87,645	\$89,398	\$91,185	71%	88%	50%
Apr	\$65,803	\$83,223	\$47,406	\$87,645	\$89,398	\$91,185	75%	93%	52%
May	\$68,316	\$93,155	\$37,277	\$87,645	\$89,398	\$91,185	78%	104%	41%
Jun	\$79,692	\$86,188	\$34,814	\$87,645	\$89,398	\$91,185	91%	96%	38%
Jul	\$99,890	\$109,367	\$37,692	\$87,645	\$89,398	\$91,185	114%	122%	41%
Aug	\$120,905	\$103,015	\$35,111	\$87,645	\$89,398	\$91,185	138%	115%	39%
Sep	\$88,859	\$74,044	\$32,074	\$87,645	\$89,398	\$91,185	101%	83%	35%
Oct	\$59,457	\$70,450	\$30,762	\$87,645	\$89,398	\$91,185	68%	79%	34%
Nov	\$72,137	\$58,994	\$26,758	\$89,398	\$91,185	\$91,185	81%	65%	29%
Dec	\$58,999	\$48,256	\$21,676	\$89,398	\$91,185	\$91,185	66%	53%	24%
<b>TOTALS</b>	<b>\$887,007</b>	<b>\$911,247</b>	<b>\$458,262</b>	<b>\$1,055,246</b>	<b>\$1,076,349</b>	<b>\$1,094,220</b>	<b>84%</b>	<b>85%</b>	<b>42%</b>

\*Note: the Fare Box Recovery does not include the Hulu Title sponsorship fee, which has contributed an additional \$2,086,357 toward Breeze Bike Share operations over the three year period.

### **Breeze Bike Share 2016 and 2017 User Survey**

The City conducted Breeze Bike Share user satisfaction surveys in 2016 and 2017 (Attachment 2: Breeze Bike Share 2016 User Survey Results and Attachment 3: Breeze Bike Share 2017 User Survey Results). These surveys helped the City understand who was riding Breeze, the purpose and frequency of Breeze trips, system functionality, and overall customer satisfaction. Specifically, these surveys informed decisions regarding adjustments through the initial years of operation, for example, fare changes and system regional expansion. In the Breeze Bike Share 2017 User survey 50 percent of respondents reported driving their car “somewhat” (28%) or “much less” (22%) often as a result of bike share; and 40 percent of annual survey respondents

reported taking Breeze to and from other forms of public transit, while 31 percent reported taking Breeze to work.

## **LESSONS LEARNED**

As a new service in Santa Monica, between 2016 and 2018 the City established program baseline expectation for ridership, revenue generation, and operations, and saw considerable ridership growth. During that time the City and operator worked to fine-tune the system to maximize operational efficiency, customer usefulness, and safety. The unforeseen arrival of other dockless shared mobility options to Santa Monica and the rapidly evolving shared mobility market place significantly impacted Breeze ridership in 2018. The City is in the process of evaluating the Shared Mobility Pilot Program and Breeze Bike Share. While a number of factors impact the bike share, several key elements can ensure the long-term success of the of Breeze Bike Share program.

**Bike Infrastructure and safe places to ride encourages ridership.** Bike share as a service alone will not grow bike ridership. Without adequate bike infrastructure people will feel unsafe and ridership will not grow. While Santa Monica boasts 110 miles of bike lanes and protected paths, and recently installed 20 miles of green high visibility lanes, in the Breeze annual user survey *lack of bike infrastructure* was the second most common barrier to using bike share cited by respondents. The most common barrier cited the *need for more bikes and bike share stations*. As the City continues to grow and invest in the bike network we anticipate that shared mobility ridership will continue to grow.

**Flexibility and clarity in pay structure encourages ridership.** 97 percent of the Breeze users subscribe to the Pay-as-you-go Plan because the plan has low upfront front costs. Many users are uncertain about how often they will use the system and the Pay-as-you-go plan allows them to try the bikes without making a financial commitment. Additionally, the Breeze Bikes allows the City to charge Pay-as-you-go users prorated by the minute instead of a fixed amount per trip. Under this structure users know that they will be charged for only what they use, whether its 10 minutes or 200 minutes a month. Because the Breeze system is a publicly owned system, the City is able to ensure a consistent fare structure that is not subject to potential rate hikes as has been seen in private shared mobility services.

**Flexible equipment improves the user experience and expands access for all users.** Breeze bikes allow users to lock their bikes at hubs, or at public bike racks outside of hubs for a \$1.00 fee. This flexibility does not limit users to a zone only served by stations. While system flexibility helps to drive ridership, it is not without complications. At times users “free lock” the bikes meaning that they do not affix the bike to a stationary object like a public bike rack or sign post. When free locking occurs bikes are more susceptible to being knocked over and damaged.

**Ongoing system sponsorship ensures the long-term solvency of the program.** The City of Santa Monica was able to procure a title sponsorship from Santa Monica based streaming service hulu during fall of 2015 in anticipation of the system launch. Over the first three years of

operation Breeze Bike Share has been self-sustaining—not requiring a city subsidy—because of the sponsorship fee in combination with a high farebox recovery. The financial success of the program has enabled the city to plan for growth by reinvesting any net revenue back into the program, which is being evaluated as part of the boarder shared mobility context.

**Lasting partnerships with local community based organizations is critical for the success of the system launch and program development overtime.** The City of Santa Monica relied heavily on community partners to assist city staff conduct outreach regarding the system launch and initial implementation. Community based organizations were essential in helping educate the broader community about the program in public meetings and planning workshops. As well, community partners have served as a conduit of ongoing feedback about various adjustments that have helped refine the user experience and operational experience. For instance, through relationships with Santa Monica Spoke and Community Corp of Santa Monica the city received feedback that lead to fare structure adjustments after the first six months of operation, the creation of the low-income rate, and targeted outreach/ education campaigns.

**Bike share is a tool to encourage cycling in general and should promote other local bike businesses.** After the system launch some bike businesses initially perceive bike share to be in direct competition with their business because it can serve as an alternative to owning a private bike or bike rental. The city views bike share as means of elevating and supporting the growth of all bike industries in Santa Monica. To address concerns, the City worked with local bike industry businesses to locate bike share stations away from bike shops and rental companies, put information about bike rentals and shops on the bike share website, and run cross-promotions to help drive bike share business to bike shops. Since the launch of Breeze the citywide bike count rebounded 26 percent from the previous year (2015) and grew 5 percent since a Santa Monica ridership high counted in 2013.

**Contending with the rapidly evolving shared mobility market place, municipally owned bike share can ensure stability of service.** In recent months many private shared mobility operators have doubled fares or unexpectedly pulled out of markets, leaving users without service or unable to afford the service that they have come to rely on. As largely venture capital funded shared mobility services continue to evolve, agency owned and/or operated bike share systems can ensure reliable service and consistent fare structures for users.

## Attachment 1: Media Clips

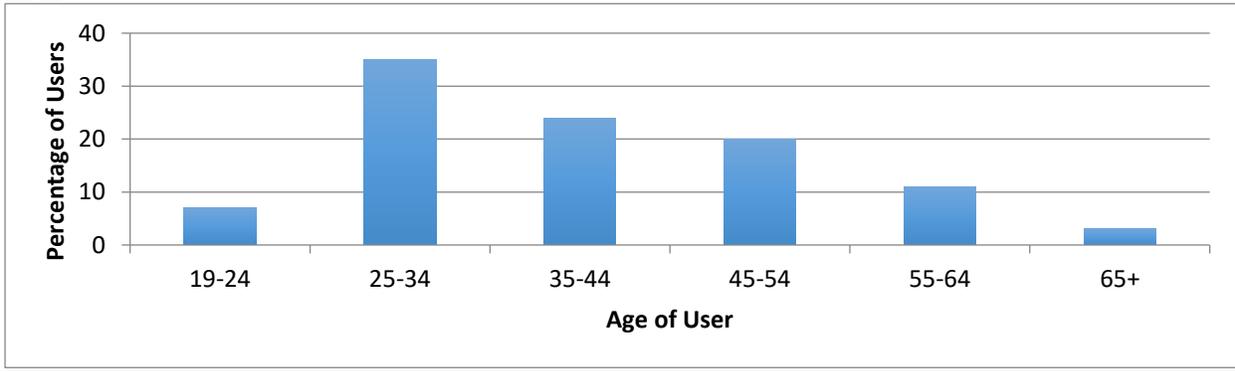
### Breeze Bike Share Launch Media

Date	Source	Link
11.18.2015	Argonaut Online	<a href="http://argonautnews.com/breeze-like-the-wind/">http://argonautnews.com/breeze-like-the-wind/</a>
11.12.2015	CBS Los Angeles	<a href="https://www.youtube.com/watch?v=2ReNe7HSkXM">https://www.youtube.com/watch?v=2ReNe7HSkXM</a>
11.19.2015	Clean Technica	<a href="https://cleantechnica.com/2015/11/19/los-angeles-bikesharing-service-launches-santa-monica/">https://cleantechnica.com/2015/11/19/los-angeles-bikesharing-service-launches-santa-monica/</a>
11.19.2015	BikoCity	<a href="http://bikocity.com/bikesharing-in-los-angeles-launches-in-santa-monica/">http://bikocity.com/bikesharing-in-los-angeles-launches-in-santa-monica/</a>
11.15.2015	NRDC Blog	<a href="http://switchboard.nrdc.org/blogs/fcazares/santa_monicas_breezebikeshare_.html">http://switchboard.nrdc.org/blogs/fcazares/santa_monicas_breezebikeshare_.html</a>
11.12.2015	Visalia Times-Delta	<a href="http://www.visaliatimesdelta.com/story/news/2015/11/12/santa-monica-rolls-bike-sharing-program/75655012/">http://www.visaliatimesdelta.com/story/news/2015/11/12/santa-monica-rolls-bike-sharing-program/75655012/</a>
11.12.2015	LA Times	<a href="http://www.latimes.com/local/california/la-me-santa-monica-bikeshare-20151111-story.html">http://www.latimes.com/local/california/la-me-santa-monica-bikeshare-20151111-story.html</a>
11.13.2015	Santa Monica Mirror	<a href="http://www.smmirror.com/articles/News/Breeze-Bike-Share-Launches-500-Bikes-75-Stations/44549">http://www.smmirror.com/articles/News/Breeze-Bike-Share-Launches-500-Bikes-75-Stations/44549</a>
11.12.2015	Laist	<a href="http://laist.com/2015/11/12/and_away_we_go.php">http://laist.com/2015/11/12/and_away_we_go.php</a>
11.12.2015	ABC 7 Eyewitness News	<a href="http://abc7.com/society/citywide-bike-share-program-kicks-off-in-santa-monica/1081455/">http://abc7.com/society/citywide-bike-share-program-kicks-off-in-santa-monica/1081455/</a>
11.16.2015	LA Curbed	<a href="http://la.curbed.com/archives/2015/11/los_angeles_county_first_bike_share_santa_monica.php">http://la.curbed.com/archives/2015/11/los_angeles_county_first_bike_share_santa_monica.php</a>
11.12.2015	Streets Blog	<a href="http://la.streetsblog.org/2015/11/12/bike-share-has-arrived-santa-monica-breeze-opens/">http://la.streetsblog.org/2015/11/12/bike-share-has-arrived-santa-monica-breeze-opens/</a>
11.20.2015	SM Daily Press	<a href="http://smdp.com/bike-share-program-great-cyclists-bad-pedestrians/152231">http://smdp.com/bike-share-program-great-cyclists-bad-pedestrians/152231</a>
12.3.15	Westside Today	<a href="http://westsidetoday.com/2015/12/03/metro-roll-bike-sharing-program-3-50-per-half-hour/">http://westsidetoday.com/2015/12/03/metro-roll-bike-sharing-program-3-50-per-half-hour/</a>
12.3.15	Canyon News	<a href="http://www.canyon-news.com/family-bike-festival-a-success/44210">http://www.canyon-news.com/family-bike-festival-a-success/44210</a>
12.4.15	Wire Reports	<a href="http://mynews1a.com/government/2015/12/03/metro-unveils-bike-share-plan/">http://mynews1a.com/government/2015/12/03/metro-unveils-bike-share-plan/</a>
12.17.15	Santa Monica Next	<a href="http://www.santamonicanext.org/2015/12/breeze-bike-share-still-booming-a-month-after-opening/">http://www.santamonicanext.org/2015/12/breeze-bike-share-still-booming-a-month-after-opening/</a>
12.14.2015	Global Green	<a href="https://www.globalgreen.org/breeze-bike-share/">https://www.globalgreen.org/breeze-bike-share/</a>
05.12.2016	Global Green	<a href="https://www.youtube.com/watch?v=uECbR4FWv-Q">https://www.youtube.com/watch?v=uECbR4FWv-Q</a>

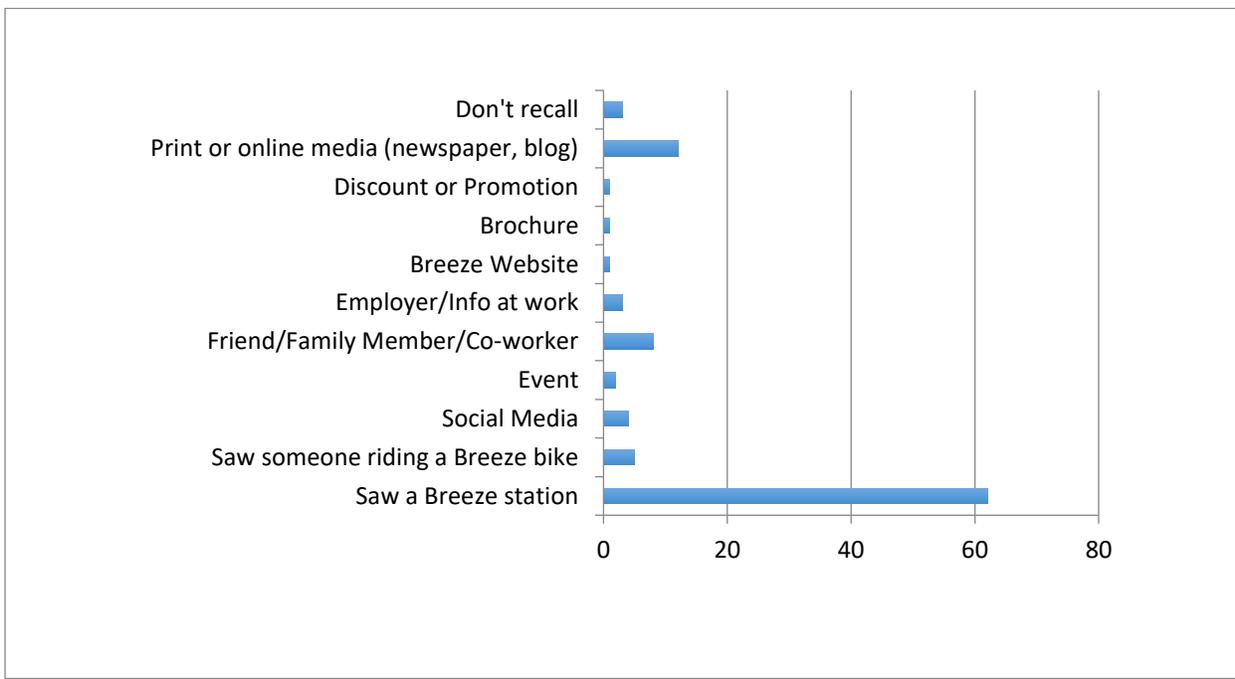
**Attachment 2: Breeze Bike Share 2016 Users Survey Results**

The first Breeze Bike Share User Survey was conducted in the Spring of 2016 and received a total of 702 complete survey responses. The survey was promoted to users through Breeze Bike Share monthly email newsletter, social media, and mobile app. Below is a summary of the survey responses.

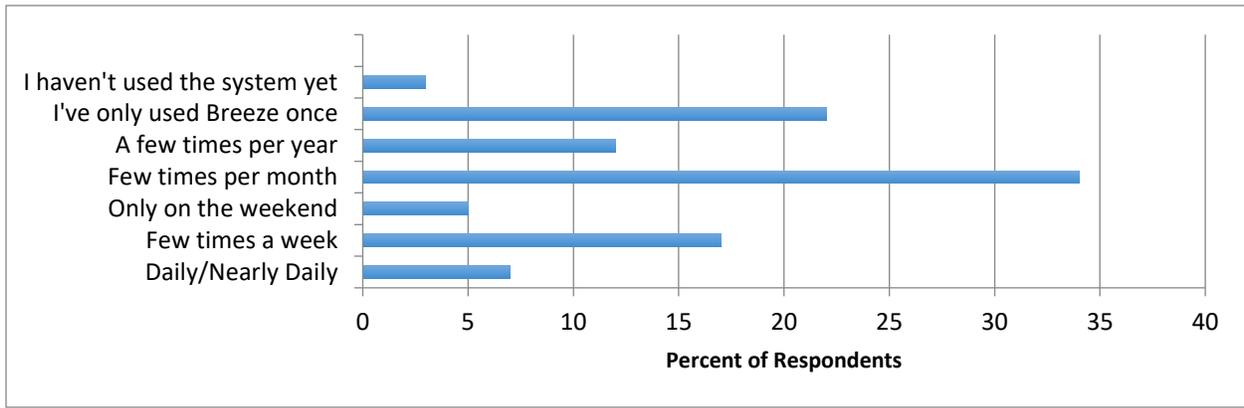
**Age**



**How did you first find out about Breeze?**



**How often do you use Breeze bikes?**



**What have you or do you use a Breeze Bike Share for?**

Response	Count	Percent
Socializing/entertainment/going out	318	31%
Shopping and errands	293	28%
Sightseeing	172	17%
To commute to or from work or meetings	143	14%
To connect to light rail, bus, or other transit	78	8%
To commute to or from school	29	3%
<i>Total</i>	1033	100%

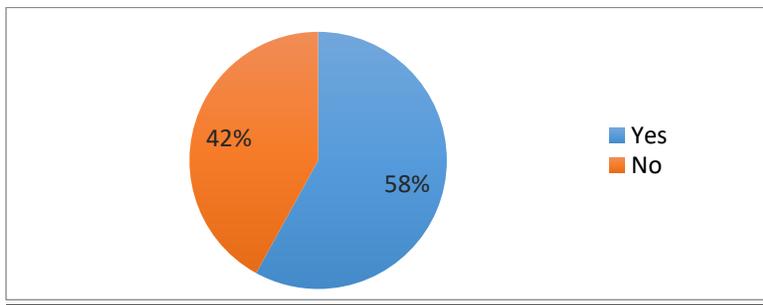
**What barriers prevent you from using bike share as much as you'd like?**

Response	Count	Percent
No stations near my home, work/school, or other destinations	270	32%
Lack of bike infrastructure where I want to ride	129	15%
Daily minutes in membership	112	13%
Financial constraints	107	13%
Driver behavior	99	12%
Bikes not available	85	10%
Availability of helmets	47	6%
<i>Total</i>	849	100%

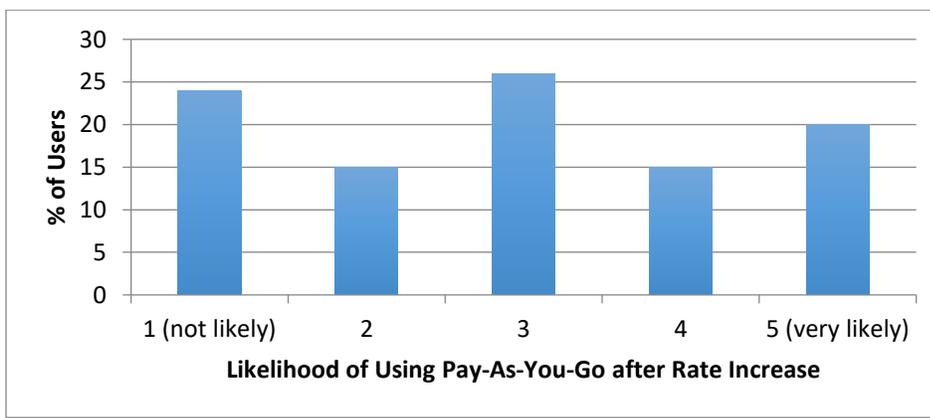
**Which of the following would make you choose bike share as a transportation option more often?**

Response	Count	Percent
More stations in residential neighborhoods	301	26%
Better bike infrastructure in the city	205	18%
Expanded daily ride time	202	17%
More stations in commercial areas	128	11%
More bikes available in the system	107	9%
More racks at current stations	75	6%
More stations in downtown Santa Monica	74	6%
More stations near schools	52	4%
Bike education classes more available	22	2%
<i>Total</i>	1166	100%

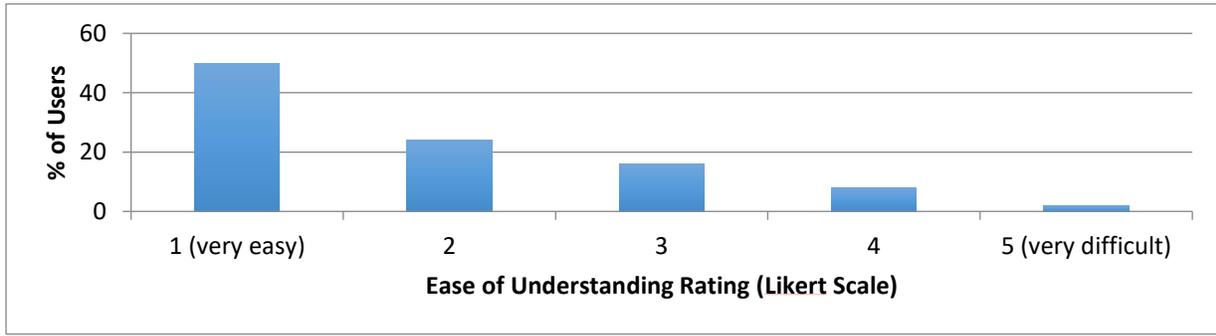
**Have you used the Pay-as-you-go Membership Plan?**



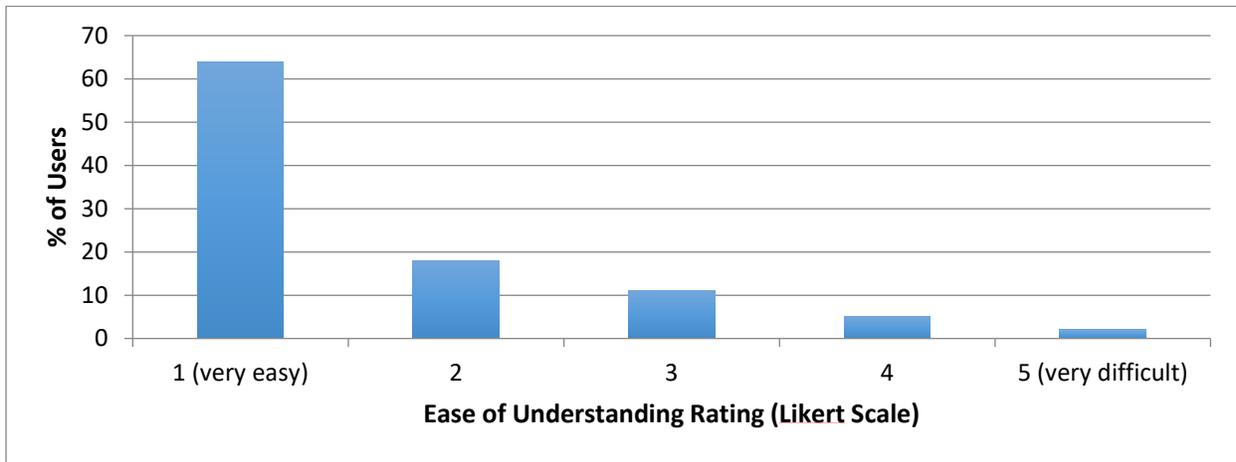
**How likely are you to continue to use the Pay-as-you-go plan if the rate increased from the current \$0.10/minute rate to \$0.12/minute?**



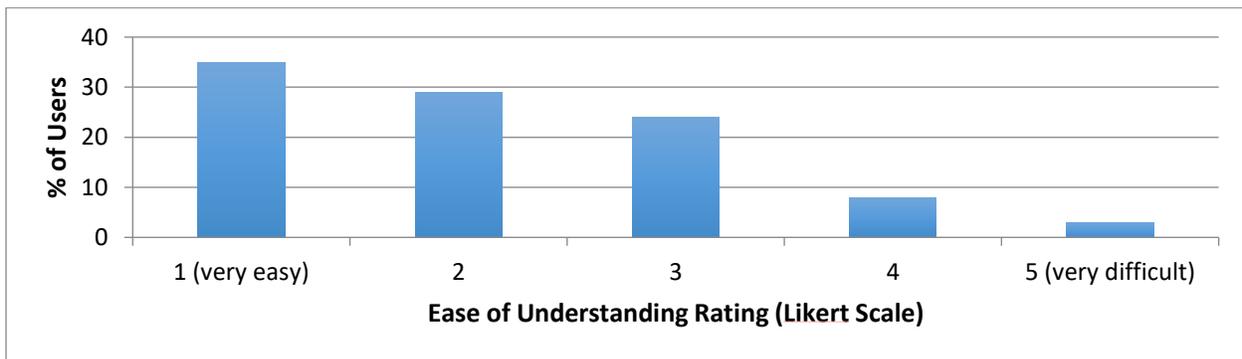
**How easy or difficult was it for you to understand the following while using Breeze: Signing up for an account?**



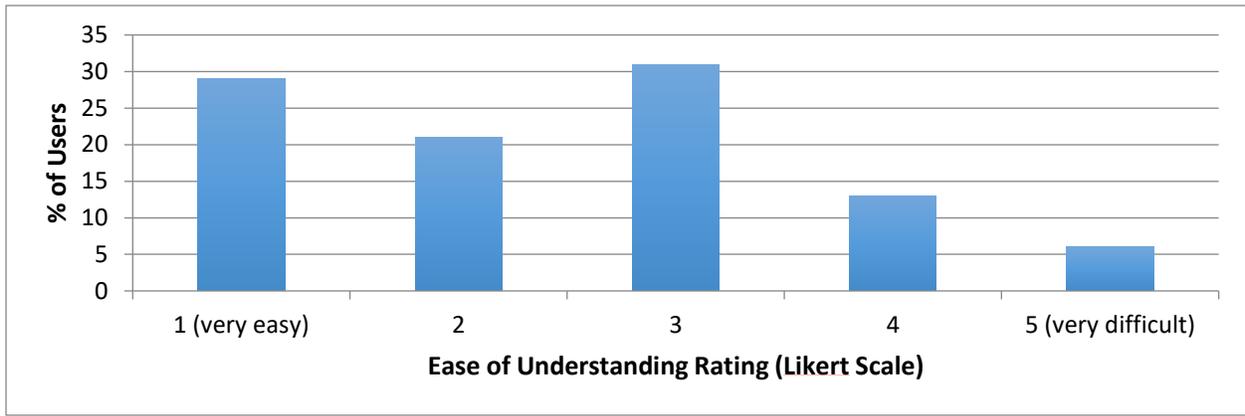
**How easy or difficult was it for you to understand the following while using Breeze: Finding a bike or station?**



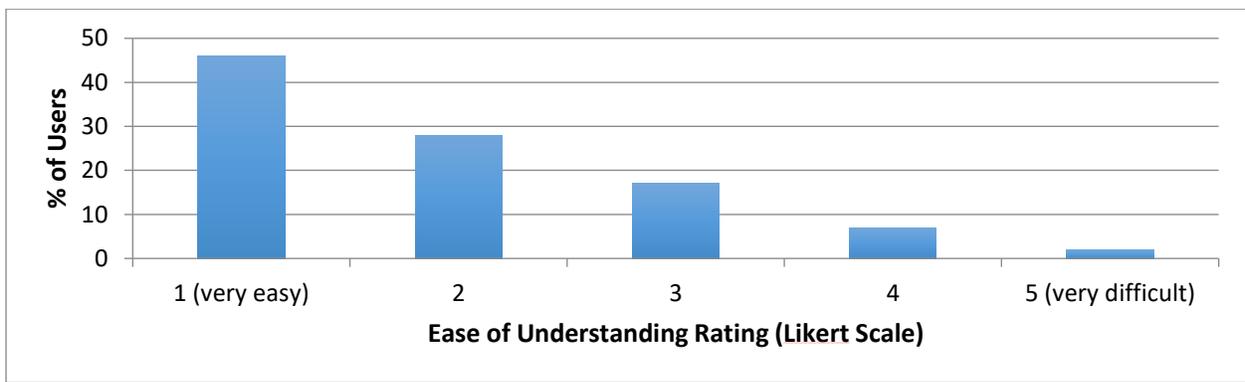
**How easy or difficult was it for you to understand the following while using Breeze: Plan Options and Pricing Information?**



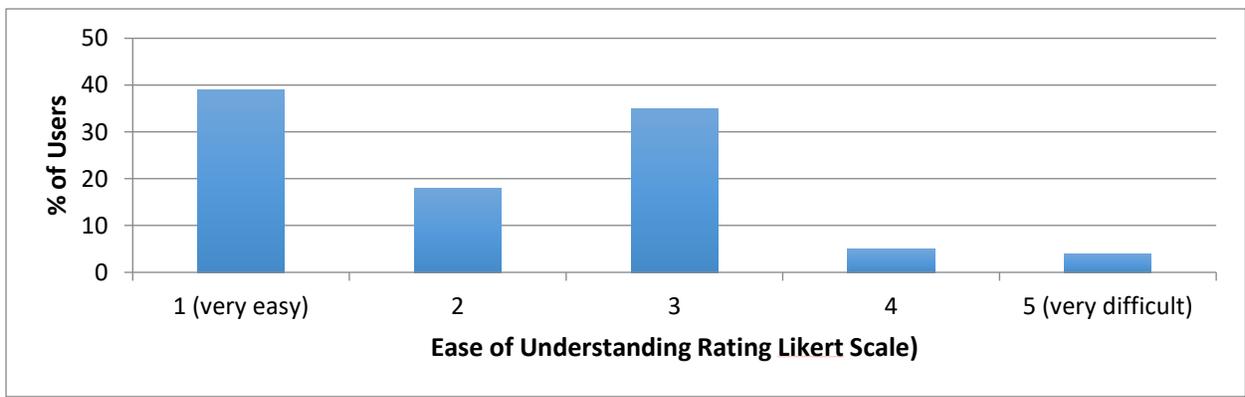
**How easy or difficult was it for you to understand the following while using Breeze: Overage Fees?**



**How easy or difficult was it for you to understand the following while using Breeze: Locking a Bike?**



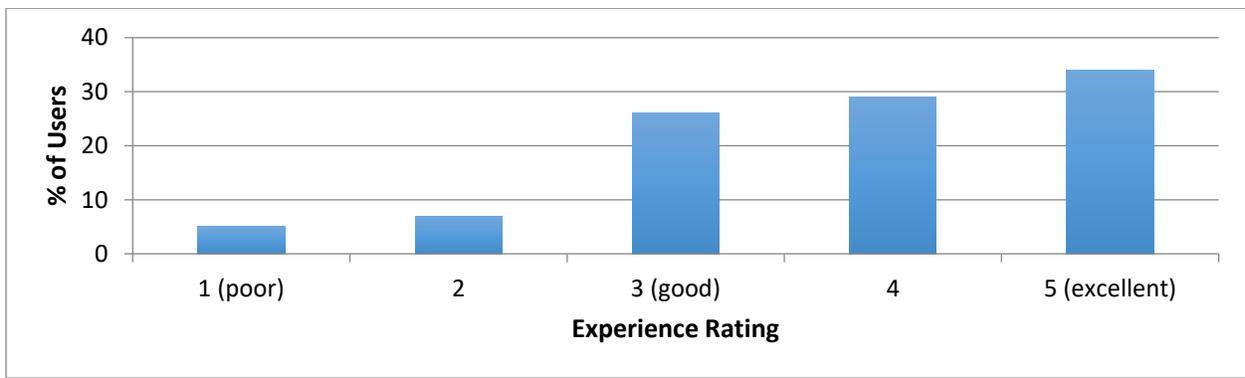
**How easy or difficult was it for you to understand the following while using Breeze: Contacting Customer Service?**



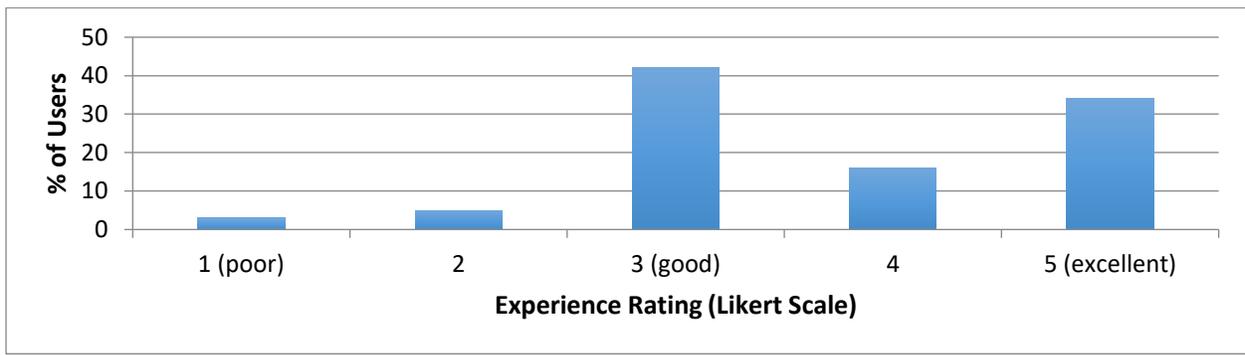
**How would you rate your experience with Breeze Bike Share in the following areas: Website?**



**How would you rate your experience with Breeze Bike Share in the following areas: Mobile App?**



**How would you rate your experience with Breeze Bike Share in the following areas: Customer Service?**



**How would you rate your experience with Breeze Bike Share in the following areas: Cleanliness of Equipment?**



**How would you rate your experience with Breeze Bike Share in the following areas: Overall Rating?**



### **Attachment 3: Breeze Bike Share 2017 Users Survey Results**

The first Breeze Bike Share User Survey was conducted in the Spring of 2017 and received a total of 173 complete survey responses. The survey was promoted to users through Breeze Bike Share monthly email newsletter, social media, and mobile app. Below is a summary of the survey responses.

#### **How did you first learn about Breeze Bike Share?**

Response	Count	Percent
	26	4%
Community center/faith-based organization	3	0%
Discount or promotion	5	1%
Employer/information at work or school	41	6%
Friend/family/coworker	61	9%
Newspaper or online	90	14%
Seeing the Bikes	133	20%
Seeing the stations/kiosks	260	40%
Social media (Facebook, Twitter, Instagram, etc)	38	6%
<i>Total</i>	<u>657</u>	<i>100%</i>

#### **What have you or do you use a Breeze Bike Share for?**

Response	Count	Percent
Sum of Errands / appointments	86	20%
Sum of Get to or from train / bus	70	16%
Sum of Go to / from work or school	54	13%
Sum of Social activities / dining / shopping	93	22%
Sum of Exercise / recreation	97	23%
Sum of Work meeting / appointments	30	7%
<i>Total</i>	430	100%

#### **What barriers, if any, prevent you from using bike share as often as you would like?**

Response	Count	Percent
Sum of Financial constraints (i.e Membership Costs)	18	7%
Sum of I worry that I'll have to pay for the bike if anything happens to it	7	3%
Sum of I prefer to ride my own bike	24	10%
Sum of I can't use Breeze Bike Share with my child(ren)	8	3%
Sum of Driver behavior	28	11%
Sum of Availability of helmets	19	8%
Sum of I worry that the Breeze bikes wouldn't adjust to fit me	1	0%
Sum of Lack of bikeways where I want to ride	28	11%

Sum of Daily minutes in membership	17	7%
Sum of Bikes not available at stations	31	13%
Sum of No stations near my home, work/school, or other destinations	58	23%
Sum of I don't know enough about how to use it	5	2%
Sum of I don't want to use a credit or debit card to use bike share	4	2%
<i>Total</i>	248	100%

**Rate how safe you feel while riding in Santa Monica (Scale of 1-5).**

Rating	Count	Percent
1	2	1%
2	4	2%
3	54	31%
4	70	40%
5	41	24%
n/a	2	1%
<i>Total</i>	173	100%

**Which of the following would make you choose bike share as a transportation option more often?**

Response	Count	Percent
More stations	101	36%
More racks at current stations	21	8%
Bike education classes more available	12	4%
More bikes available in the system	49	18%
Better bikeways in the city	95	34%
<i>Total</i>	278	100%

**Would you like to see Breeze Bike Share expand with more stations and bikes?**

Response	Count	Percent
No	13	8%
Yes	159	92%
<i>Total</i>	172	100%

**Please check the neighborhoods or areas where you would like to see more stations.**

Response	Count	Percent
Santa Monica Downtown	47	10%
Santa Monica Neighborhoods	76	16%
Brentwood	58	12%
Santa Monica Commercial Corridors	39	8%

Westwood	51	10%
West LA (Santa Monica Blvd / Sawtelle)	76	16%
Palms/ Culver City	61	12%
Venice/ Mar Vista	81	17%
<i>Total</i>	489	100%

On a scale of 1-5 (very difficult), how easy or difficult was it for you to understand the following while using Breeze: Count of Signing up for an account

Rating	Count	Percent	
	1	4	2%
	2	7	4%
	3	42	24%
	4	46	27%
	5	71	41%
	n/a	3	2%
<i>Total</i>		173	100%

On a scale of 1-5 (very difficult), how easy or difficult was it for you to understand the following while using Breeze: Plan options and pricing information

Rating	Count	Percent	
	1	5	3%
	2	14	8%
	3	44	25%
	4	55	32%
	5	55	32%
	n/a		0%
<i>Total</i>		173	100%

On a scale of 1-5 (very difficult), how easy or difficult was it for you to understand the following while using Breeze: Overage fees

Rating	Count	Percent	
	1	12	7%
	2	25	14%
	3	47	27%
	4	46	27%
	5	40	23%
	n/a	3	2%
<i>Total</i>		173	100%

On a scale of 1-5 (very difficult), how easy or difficult was it for you to understand the following while using Breeze: Locking a bike

Rating	Count	Percent
1	2	1%
2	11	6%
3	32	18%
4	61	35%
5	67	39%
n/a		0%
<i>Total</i>	173	100%

On a scale of 1-5 (very difficult), how easy or difficult was it for you to understand the following while using Breeze: Contacting customer service

Rating	Count	Percent
1	5	3%
2	7	4%
3	50	29%
4	38	22%
5	67	39%
n/a	6	3%
<i>Total</i>	173	100%

On a scale of 1-5 (very difficult), how easy or difficult was it for you to understand the following while using Breeze: Finding a bike or station

Rating	Count	Percent
1	1	1%
2	5	3%
3	22	13%
4	53	31%
5	89	51%
n/a	3	2%
<i>Total</i>	173	100%

**Have you visited a local bike shop or purchased additional bike equipment since you became a Breeze member?**

Response	Count	Percent
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No	120	70%
Yes	53	31%
<i>Total</i>	173	101%

### Do you own your own bicycle?

Response	Count	Percent
No	50	29%
Yes	123	72%
<i>Total</i>	173	101%

### As a result of using Breeze Bike Share, how much more or less often do you use each of the following transportation modes?

Rating Bus	Count	Percent
About the same	70	40%
Much less often	14	8%
Much more often	1	1%
N/A or never used	61	35%
Somewhat less often	16	9%
Somewhat more often	11	6%
(blank)		0%
<i>Total</i>	173	100%

Rating Train	Count	Percent
About the same	1	1%
Much less often	68	39%
Much more often	2	1%
N/A or never used	18	10%
Somewhat less often	38	22%
Somewhat more often	9	5%
(blank)	37	21%
<i>Total</i>	173	100%

Rating Car	Count	Percent
About the same	66	38%
Much less often	38	22%
Much more often	4	2%
N/A or never used	16	9%
Somewhat less often	49	28%
Somewhat more often		0%
(blank)		0%
<i>Total</i>	173	100%

Rating Car Share	Count	Percent
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About the same	31	18%
Much less often	11	6%
Much more often	118	68%
N/A or never used	10	6%
Somewhat less often	3	2%
Somewhat more often		0%
(blank)		0%
<i>Total</i>	173	100%

Rating Walk	Walk	
	Count	Percent
About the same	1	1%
Much less often	83	48%
Much more often	7	4%
N/A or never used	11	6%
Somewhat less often	6	3%
Somewhat more often	38	22%
(blank)	27	16%
<i>Total</i>	173	100%

Rating Other Bike Share	Count	Percent
About the same	1	1%
Much less often	26	15%
Much more often	4	2%
N/A or never used	1	1%
Somewhat less often	132	76%
Somewhat more often	2	1%
(blank)	7	4%
<i>Total</i>	173	100%

Rating TNC i.e. Uber, Lyft	Count	Percent
About the same	73	42%
Much less often	22	13%
Much more often	4	2%
N/A or never used	30	17%
Somewhat less often	34	20%
Somewhat more often	10	6%
(blank)		0%
<i>Total</i>	173	100%

Rating Personal Bike	Personal Bike	
	Count	Percent
About the same	63	36%
Much less often	29	17%

Much more often	6	3%
N/A or never used	47	27%
Somewhat less often	23	13%
Somewhat more often	4	2%
(blank)	1	1%
<i>Total</i>	173	100%

**Count of How has your perception of Hulu changed as a result of being the Breeze Bike Share title sponsor?**

Rating	Count	Percent
1	1	1%
2	2	1%
3	89	51%
4	46	27%
5	35	20%
<i>Total</i>	173	100%

**I identify my gender as...**

Response	Count	Percent
Decline to State	4	2%
Man	3	2%
Woman	95	55%
(blank)	71	41%
<i>Total</i>	173	100%

**Please select your age range.**

Response	Count	Percent
16-18	5	3%
19-24	2	1%
25-34	13	8%
35-44	48	28%
45-54	37	21%
55-64	36	21%
65+	25	14%
(blank)	7	4%
<i>Total</i>	173	100%

**Are you currently employed, either full or part time?**

Response	Count	Percent
n/a	7	4%

Full time	122	71%
Not employed	9	5%
Part time	26	15%
Retired	9	5%
<i>Total</i>	173	100%

**Which of the following describe your race or ethnicity?**

Response	Count	Percent
Sum of Asian	12	7%
Sum of Hispanic or Latino	18	11%
Sum of White	129	75%
Sum of Black or African American	4	2%
Sum of Native American	6	4%
Sum of Pacific Islander	2	1%
<i>Total</i>	171	100%

**How would you rate your experience with Breeze Bike Share in the following areas 1 (poor) 3 (good) 5 (excellent):**

Rating Website	Count	Percent
1	1	1%
2	6	3%
3	64	37%
4	49	28%
5	51	29%
n/a	2	1%
<i>Total</i>	173	100%

Rating Mobile App	Count	Percent
1	5	3%
2	7	4%
3	42	24%
4	61	35%
5	57	33%
n/a	1	1%
<i>Total</i>	173	100%

Rating Customer Service	Count	Percent
1	2	1%
2	6	3%
3	59	34%
4	34	20%
5	65	38%
n/a	7	4%

<i>Total</i>	173	100%
Rating Cleanliness of equipment	Count	Percent
	1	4
	2	9
	3	46
	4	56
	5	58
	n/a	0%
<i>Total</i>	173	100%
Rating Overall Rating	Count	Percent
	1	1
	2	0%
	3	28
	4	70
	5	74
	n/a	173
<i>Total</i>	173	100%

