



35 MILLION TRIPS IN 2017

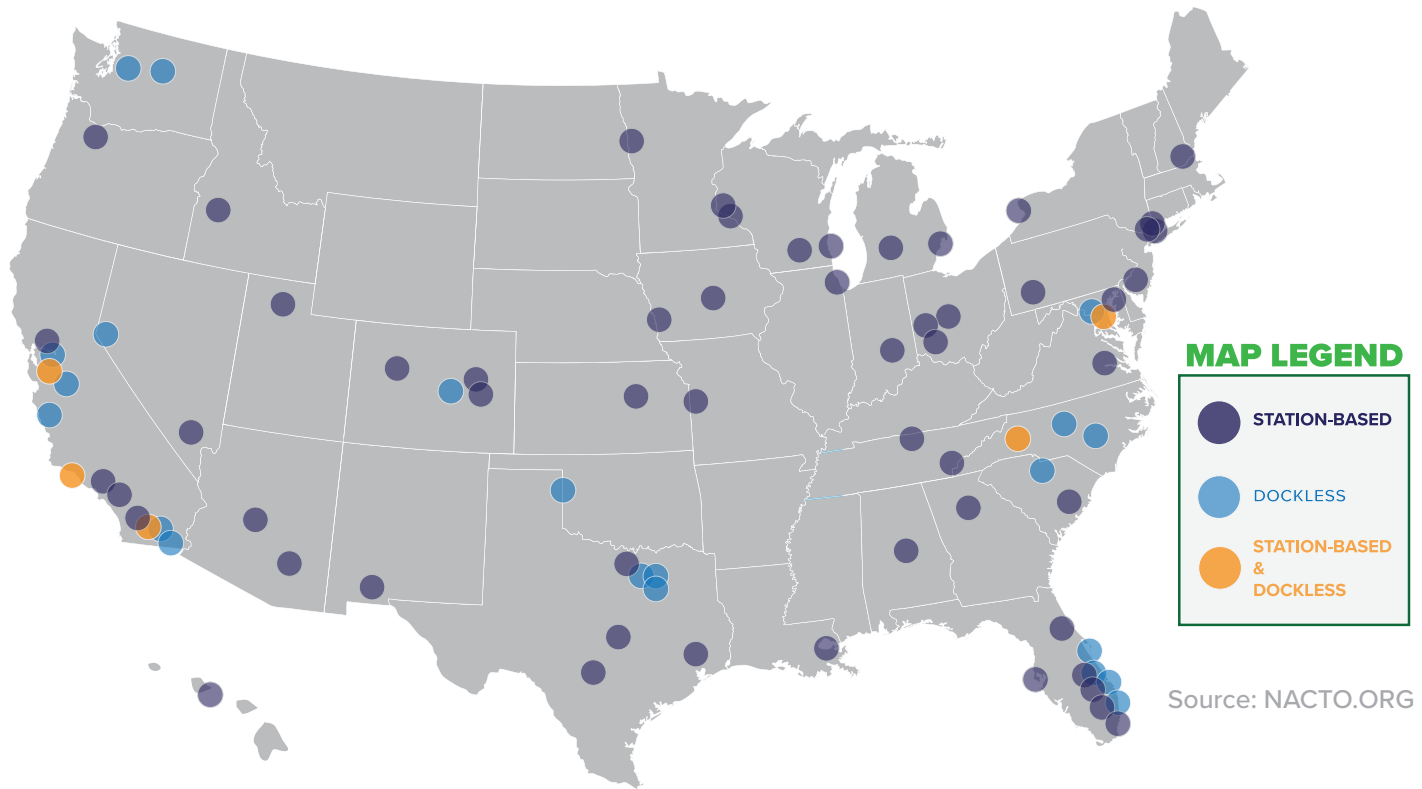
Source: NACTO.ORG

35 Million Bike Share Trips In The U.S. In 2017

Bike share in the U.S. has continued its brisk growth, with **35 million trips taken in 2017**, 19% more than in 2016. This growth is attributable to increasing ridership in existing systems as well as the launch of several major new bike share systems across the country. Since 2010, 123 million trips have been taken on bike share bikes in the U.S.

2017 also saw the advent of a new bike share customer interface, commonly known as dockless bike share. Rollout has been uneven: after a series of unpermitted systems launched (and subsequently closed) in various cities across the U.S., numerous cities responded with pilot programs to permit dockless bike share operations. By the end of 2017, five major dockless bike share companies reported operating about 44,000 bikes in approximately 25 cities and suburbs.

BIKE SHARE SYSTEMS IN THE US: 2017



More Systems, More Cities, More Bikes, More Companies

The number of bike share companies operating in the U.S. grew dramatically in 2017. From 2010 to 2016, most U.S. bike share equipment and services were provided by three major companies, B-Cycle, Motivate, and Social Bicycles, with a few cities using equipment and services from smaller companies such as NextBike and Bewegen.

As of the end of 2017, five new major dockless companies – Jump (formerly Social Bicycles), Limebike, MoBike, Ofo, and Spin – and a number of smaller systems – e.g. Pace (formerly Zagster), Donkey Republic, VBike, LennyBike and Riide – opened systems in the U.S. A sixth new major company, BlueGoGo, which was the first to roll out dockless bike share bikes in the U.S., declared bankruptcy over the summer.

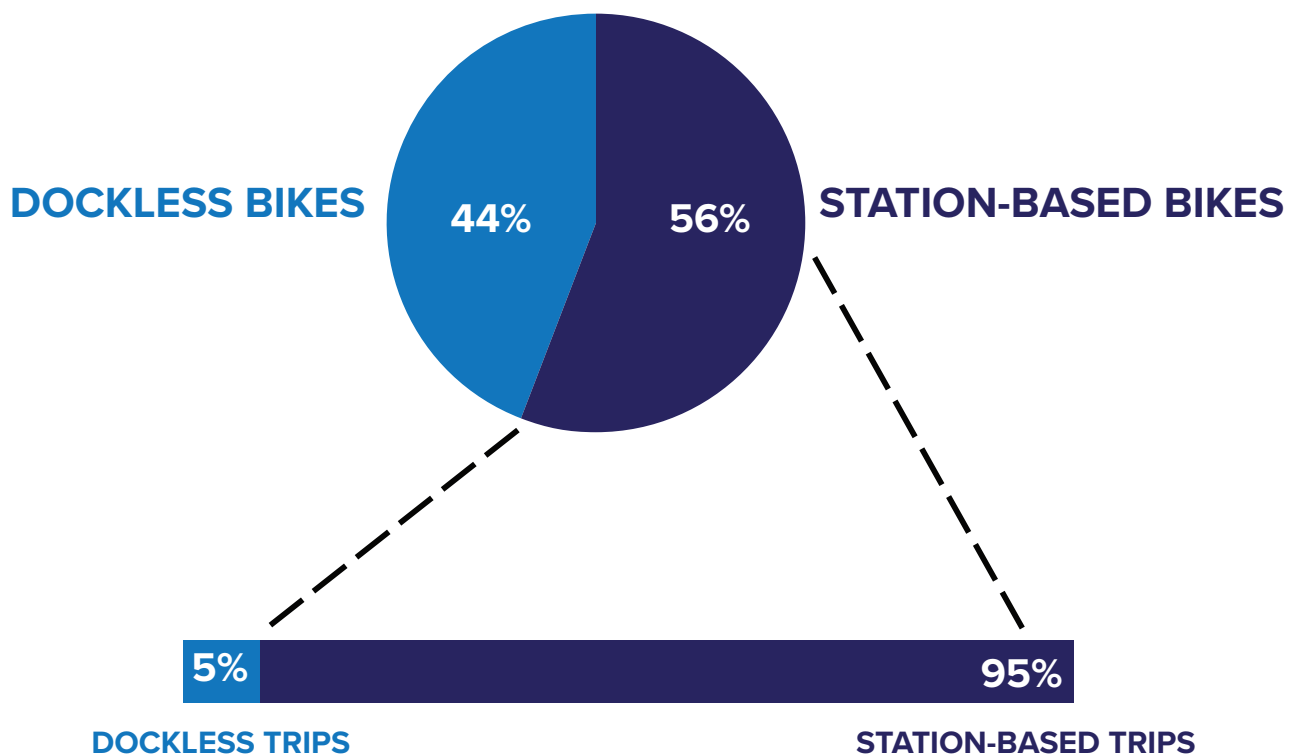


Dockless bike share bikes in Washington DC

In 2017, the number of bike share bikes in the **U.S. almost doubled – from 42,500 bikes at the end of 2016 to about 100,000 bikes by the end of 2017.** The majority of the increase in bikes came from new dockless systems. During the second half of 2017, dockless bike share companies introduced around 44,000 bikes in cities across the country. Station-based systems added approximately 14,000 bikes to their fleets, bringing the 2017 total to 54,000 station-based bikes. As of the close of 2017, dockless bike share bikes accounted for about 44% of all bike share bikes in the U.S.

The large influx of dockless bike share bikes across the U.S. has not yet translated into substantial mobility gains. **NACTO estimates that 1.1-1.6 million trips were made on dockless bike share bikes in the U.S. in 2017, making up 3-5% of all U.S. bike share trips in 2017.** NACTO's methodology for counting dockless bike share trips is provided below.

PERCENT OF TOTAL BIKES AND TRIPS STATION-BASED V. DOCKLESS



Source: NACTO.ORG

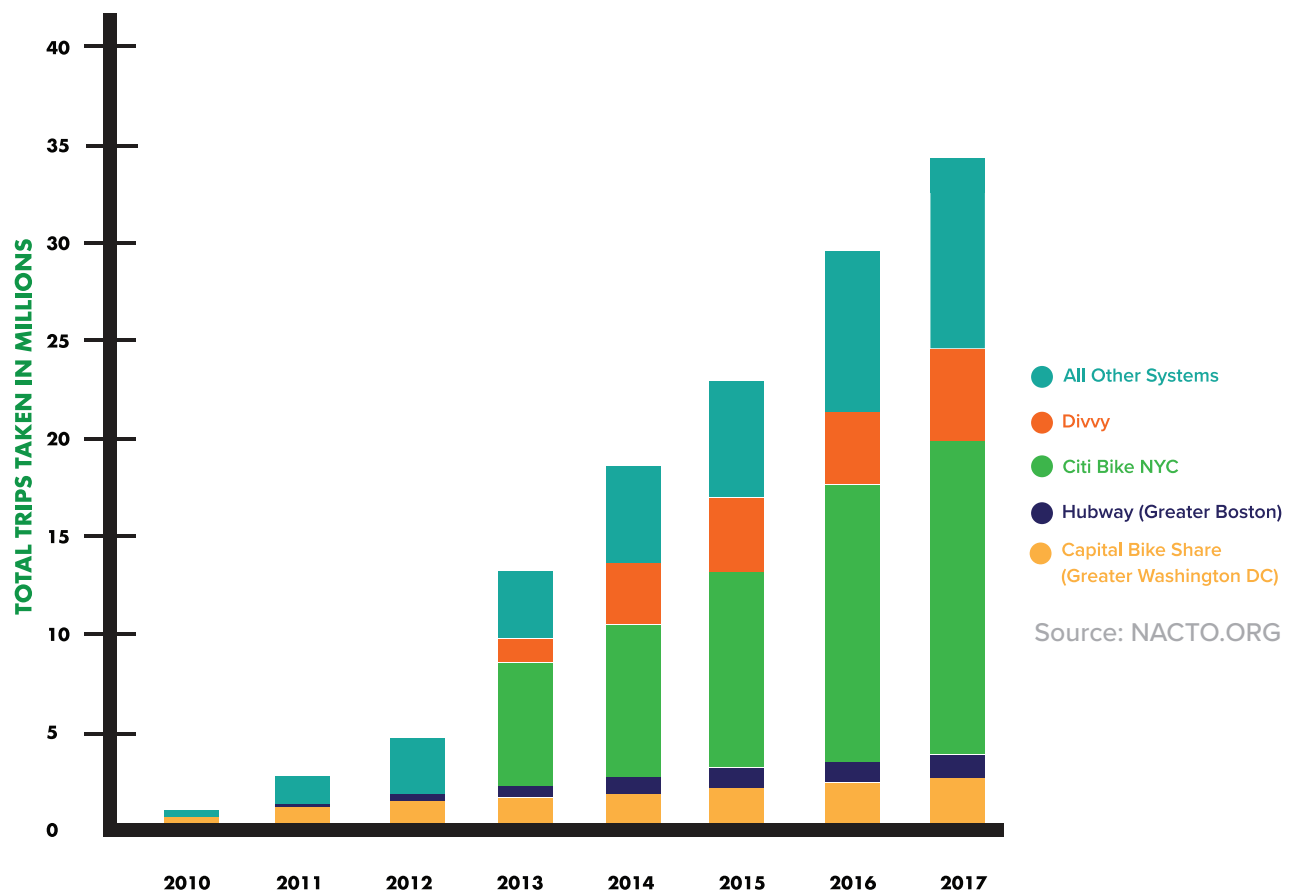
Using the intensity metric of rides per bike per day (r/b/d), **U.S. station-based systems produced an average of 1.7 r/b/d. In contrast, dockless bike share systems nationally had an average of 0.2-0.3 r/b/d.** Results from the Seattle dockless pilot (July 2017-December 2017) show 0.3 r/b/d.

Growing Ridership

2017 saw the launch of a number of new station-based systems; notably in Honolulu (Biki), Detroit (MoGo), New Orleans (Blue Bikes), and Charleston (HolySpokes). The San Francisco Bay Area system re-launched as Ford GoBike with 7,000 bikes, a ten-fold increase from the area's prior system. In addition, dockless companies rolled out bikes in approximately 25 cities across the U.S. including Seattle, Washington, DC, Dallas, Aurora, CO, and Charlotte, NC.

Four large station-based systems – Citi Bike NYC, Divvy, Capital Bikeshare, and Hubway – generated the majority (74%) of all rides taken in the United States in 2017, similar to previous years. However, bike share growth is widespread across many cities. In Philadelphia, for example, the Indego bike share system has increased ridership by 84% over 2016.

BIKE SHARE RIDERSHIP IN THE US SINCE 2010



Several recently-launched systems have attracted substantial numbers of riders. Biki in Honolulu launched in July 2017, and quickly became the eighth-most heavily used bike share system in the U.S., with 365,000 rides taken to date. Detroit's MoGo system saw 112,000 trips taken in six months, including during some of the lowest November and December temperatures on record.

More Systems Have Subsidized Low Income Passes

The national increase in ridership also comes from work in cities around the country to make bike share more affordable to a wide cross-section of people. Many of these efforts are documented by the Better Bike Share Partnership. For example, in Philadelphia, work to develop and promote a \$5 AccessPass, available to Pennsylvanians receiving food assistance, has resulted in an increase in low-income Philadelphians using the Indego Bike Share system. In 2017, AccessPass sales made up about 15% of all sign ups and AccessPass users took 9% of all trips.

Among cities with station-based bike share systems, **32% have an income-based discount program**, using income thresholds or living in affordable housing as criteria. This is a 33% increase over 2016 when about 1/4 of all cities had income-based discounts programs.

Newer systems, such as Detroit's MoGo, have followed this model. MoGo launched with a widely-publicized \$5 annual AccessPass, available to Detroiters who receive state food assistance. After six months, **AccessPass sales make up 18% of all long-term pass sales**. The \$5 MoGo AccessPass also makes up 70% of all cash payments – both options providing fast, flexible and convenient access to transportation for hundreds of residents.



New riders on Detroit's MoGo bike share system.

Further north, the Citi Bike program in New York City completed its 5th year of providing \$5/month annual memberships for New York City Housing Authority (NYCHA) residents and select community-based credit unions. In addition, in tandem with a partnership effort managed by the community development organization, Bed-Stuy Restoration, Citi Bike opened a new operational facility, hiring NYCHA residents as mechanics and 'Community Champions'. The number of NYCHA residents using Citi Bike nearly doubled in 2017 to 1,500 active members. ¹

¹ NYCHA and Citi Bike Announce Partnership to open Citi Bike Operations Facilities at Riis Houses. (2017, August 22). Retrieved from <http://www1.nyc.gov>

How is Bike Share Used?

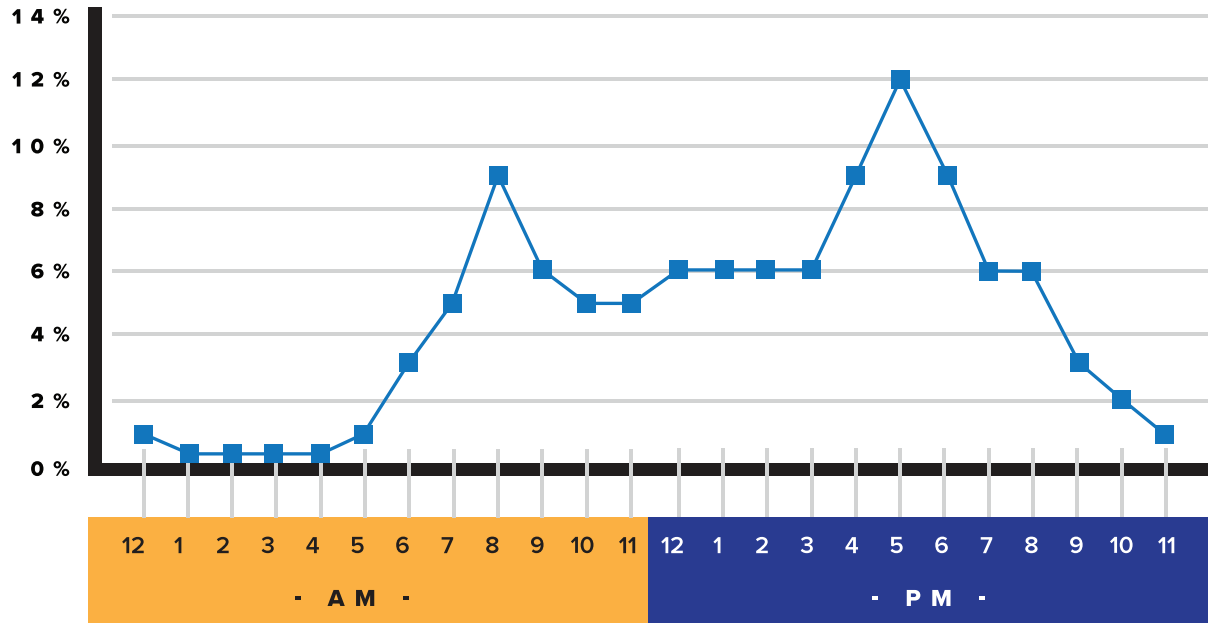
Understanding who is riding and how bike share is used can be difficult. Most station-based systems collect some demographic data on annual or monthly pass holders but almost no data on one-time users. Conducting bike share intercept surveys is not yet widespread practice. Dockless bike share companies do not share demographic data, making it hard to get beyond anecdote.

In July 2017, the city of Seattle launched a pilot program to allow dockless bike share companies to operate in the city. At the end of 2017, this pilot program included four dockless bike share companies and approximately 9,000 bikes. To accommodate the companies' concerns about proprietary data and address Washington's FOIA laws, independent researchers at the University of Washington were employed to gather and analyze the dockless bike share data. To date, the Seattle pilot provides some of the best available data on how dockless bike share is used and how use may differ from station-based systems.

Data from Seattle suggests that dockless bike share may be used differently from station-based bike share systems in other places around the U.S. and world. For example, typically station-based systems generate the most trips on weekdays and use within the average day follows 9-5 commuting patterns. **In 2017, 48% of all station-based bike share trips took place during rush-hours (7-9AM or 4-6PM), and 76% of all trips took place on weekdays.** These use patterns suggest that most existing station-based systems are part of a city's overall transportation network and are used in the course of a typical commute to work or school. Furthering this hypothesis, annual member surveys from Washington, DC and Chicago also show significant bike share to transit crossover: 65% of Capital Bike Share members and 42% of Divvy members respectively report using bike share as part of longer transit commutes.²

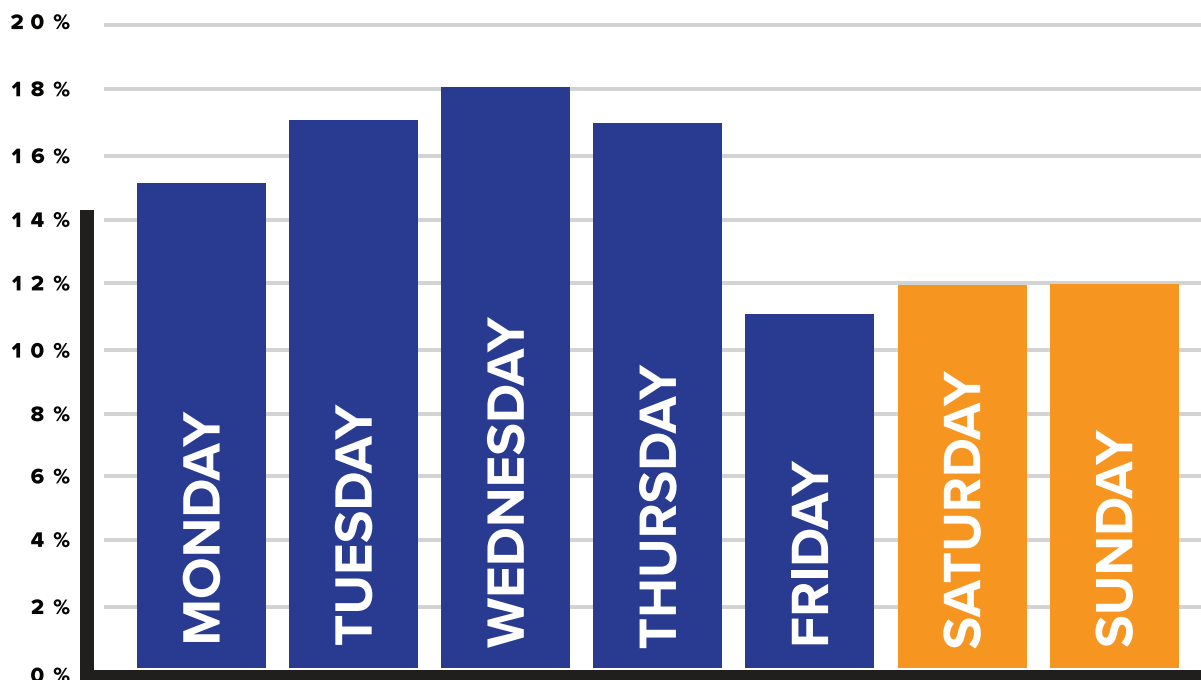
² How Do People Use Bike Share? (2017, May 4). Retrieved from <https://www.motivateco.com>

TRIPS BY HOUR: STATION-BASED SYSTEMS



Source: NACTO.ORG

TRIPS BY DAY OF THE WEEK: STATION-BASED SYSTEMS

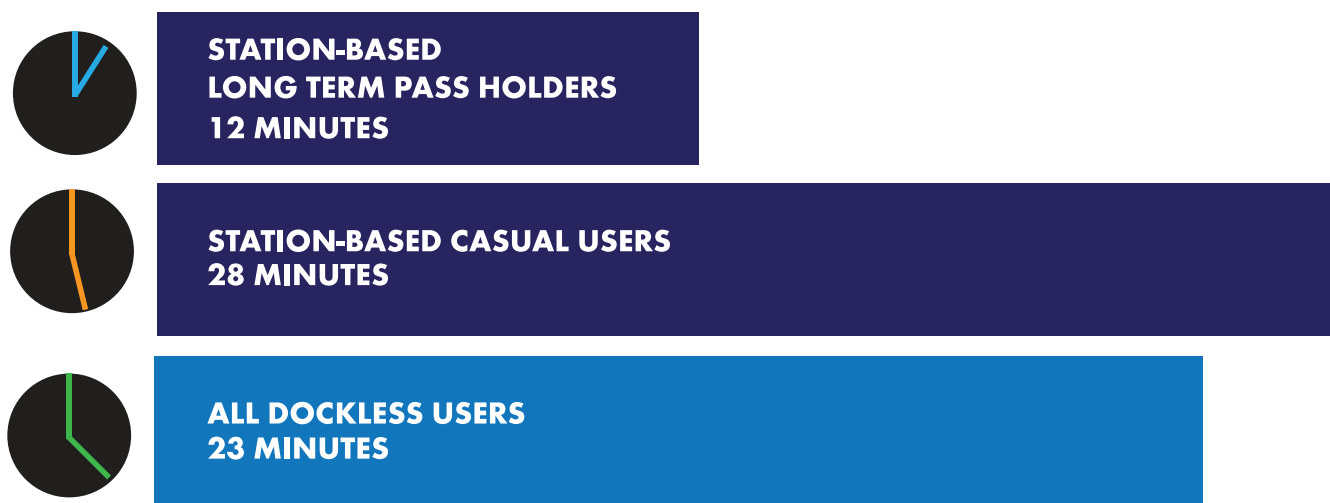


Source: NACTO.ORG

In contrast, data from Seattle does not show a morning rush-hour peak for dockless bike share use and only a limited evening peak.³ Rather, trips are spread out over the day with highest use seen on weekends, suggesting more recreational use.

The difference in what kinds of trips people take on station-based or dockless bike share can also be seen in trip durations. Across the U.S., the typical bike share trip is short. The average trip time for long-term pass holders (about 88% of all trips nationally) is **12 minutes**, on par with national bike commuting times. In contrast, the average trip length for single and day-pass users, who are more likely to be riding for recreation, is more than double that: **28 minutes**.⁴ In Seattle, the average dockless bike share trip is around **23 minutes**, closer to

AVERAGE TRIP TIMES STATION-BASED V. DOCKLESS



Source: NACTO.ORG

³ Interviews with Seattle Department of Transportation and University of Washington

⁴ Seattle Department of Transportation

Looking Forward



Checking out a B-Cycle in Austin, TX

With 35 million trips in 2017 and strong year-on-year growth since 2010, bike share is gaining hold as a transportation option in more cities across the U.S. Significant ridership in an ever-widening collection of cities and clear indications of cross-over use between bike share and traditional bus and rail transit indicate that bike share can provide an essential mobility option for people in U.S. cities.

The landscape around dockless bike share is less clear. In less than a year of existence, one U.S.-focused company, BlueGoGo, and a number of China-based companies have filed for bankruptcy, merged with other companies, or ceased operations.⁵ The extreme degree of venture capital funding, coupled with generally low ridership brings questions as to the overall sustainability and volatility of the dockless bike share market.

⁵ Tchegotarev, E. (2017, December 16). With Hundreds of Millions of Dollars Burned, The Dockless Bike Sharing Market Is Imploding. Retrieved from <https://www.forbes.com/>

Methodology: Dockless Bike Share – What do we Know and How do we Know it?

Most dockless bike share companies claim their trip data as proprietary. How and what data is shared with cities varies by city and company. There are no comprehensive mechanisms in place to ensure data quality or comparability across markets. As a result, it is difficult to know how many trips have been made or who is riding dockless systems. To date, the Seattle pilot, where trip data is compiled and analyzed by independent/third party data analysts at the University of Washington, provides some of the best information about whether dockless bike share is helping to improve mobility and who is benefiting.

NACTO's estimate of 1.1-1.6 million dockless trips reflects much of the uncertainty about this data. Most of the dockless companies publicly provide information about total mileage traveled but not total trips. NACTO's total dockless trip estimate combines two sources:

1. total number of trips recorded by company (if available)
2. total miles traveled by company divided by average trip length

Because data from Seattle suggests that the average dockless bike share trip is longer (3 miles) than the average station-based bike share trip (about 1 mile), NACTO assumed two possible average trip lengths to create a "high" and "low" estimate for the total number of dockless bike share trips. The "high" estimate assumes a one mile average trip length, on par with station-based systems. The "low" estimate assumes a three mile average, the average distance of a dockless bike share trip as measured in Seattle by the University of Washington. The final estimates were cross-checked against the number of trips reported in the media by city or by company, to test for reasonableness.



National Association of City Transportation Officials

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