



## OVERVIEW

Technology-enabled new mobility options such as e-scooter and bike sharing, along with online/mobile information, reservation and payment platforms, are transforming how people conceptualize and navigate cities. Technology offers the potential of expanding connections to jobs, education and social opportunities on an efficient on-demand basis. This potential could be most valuable to those who may have fewer transportation options currently, including lower-income residents, immigrants and communities of color. However, that same technology has pitfalls and can create new barriers. Knowledge of available options and how to access them, having a smartphone and cell service, and being able to pay for services are among key barriers that could prevent these communities from participating in bike share and maximizing the value of new mobility options and services.

## CURRENT APPROACHES

Because of the premise of having a smartphone to locate and unlock a bike and a credit card to pay for a rental, bike share operators face the issue on how to serve unbanked or underbanked users who don't own a smartphone. Some bike share operators provide opportunities to pay with cash and check out bikes via text messaging services and codes or smart cards. In our recent survey of bike share systems, around a third of the systems had alternative payment options, which most felt was very effective.

**Alternative payments:** For some systems, cash payment programs are only available to low-income or other equity program members. Others will allow anyone to pay with cash. Some systems rely on a central bike share office or community center to collect cash payments. The more common approach is to go through a vendor network such as PayNearMe that accepts a cash payment and credits it to a user's account. Online payment systems, such as PayPal, were also mentioned as alternatives to credit or debit card payments. Lastly, a handful of systems waive the first month's fee so members can start riding or put down a cash deposit in lieu of a credit card number, which can be refunded in the future.

**Smartphone barriers:** Dockless bike share systems may require mobile technology for use. Even when not required, smartphones are often important in locating and unlocking bikes. Though smartphone ownership is high, even in lower-income communities, the expense of mobile data plans associated with smartphone use is another barrier to new mobility options for low-income individuals.<sup>7</sup> Golub et al. (2018) found that survey respondents were almost 40% more likely to have canceled cell service because of the costs and limits of their data plan. The lack of knowledge of how to use the system app, locate bikes and use the bicycle network are big barriers for individuals.

*“Having those who are unbanked given the opportunity to use bikeshare has been great. The cash payment option is often used as an entry point for users who are nervous about using a credit or debit card online. These users often switch to a digital payment option once trust in the bike share system is established.”*

# CONSIDERATIONS

Some considerations for addressing technology and payment barriers include:



**Provide a non-smartphone bike access option.** Potential options are using smart cards or account codes, which could be distributed by local partners and affiliated organizations. Work with the operator to minimize overhead cost. Consider partnering with transit agencies to allow integration into their payment system or cards. There may be a need to maintain bikes in certain locations that are easy to find, such as stations, so people without smartphones can locate bikes when needed.



**Accept cash payments.** In addition to discounted memberships, it is important to accept cash payments, particularly for unbanked and underbanked users. The PayNearMe program is an example of a program where individuals have widespread access to commercial or public locations that have wide-ranging operating hours and are easily accessible by public transit. Because users don't have a credit card on file, systems have accepted some of the damage liability as part of operating the system.



**Develop a policy for protecting customer privacy.** New technology, including smartphone enabled data collection, can help systems deliver better service, but also puts users at risk. A strong and clear privacy policy can help users, particularly those who may be wary of providing personal information, be more comfortable with using the system. This is particularly important for immigrant communities where concerns of privacy are of high importance.

## RESOURCES

Several survey respondents shared their need for education and resources on topics like organizational needs to better understand how to get software to facilitate their programming, including offering discounts, payments, and verification.

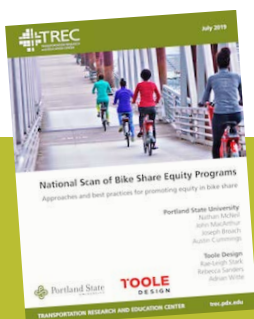
Some resources for understanding this population:

[Federal Deposit Insurance Corporation \(FDIC\) \(2018\). 2017 National Survey of Unbanked and Underbanked Households](#)

[Pew Research Center \(Pew\) \(2015\) The Smartphone Difference](#)

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<sup>1</sup> Golub, A., Serritella, M., Satterfield, V., & Singh, J. (2018). *Community-based assessment of smart transportation needs in the City of Portland, NITC-RR1163. Portland, OR: Transportation Research and Education Center (TREC).*



## MEASURING AND EVALUATING

Evaluating access and payment programs is critical to understanding how to better serve all users. Some ways to develop insights on the barriers facing potential users:

- Work with community partners to survey or conduct focus groups of non-users about barriers to using the system.
- Survey users that used cash payment options.
- Track engagement in marketing campaigns about understanding of and access to the system and payment options.

Examples of metrics to track:

- # of sign-ups by payment type; location of sign-ups
- # of rides by cash payers; location of rides by payment type (within target neighborhoods)
- Ride characteristics - ride duration; overage fees; etc.
- % of cash payers switching to credit payment (over time).

Adapted from the "National Scan of Bike Share Equity Programs" report, this is part of the "Breaking Barriers to Bike Share" resource series. Comprised of ten topics, this series looks at bike share through an equity lens and provides successful approaches and recommendations for stakeholders to implement.