Breaking Barriers to Bike Share

OVERVIEW

Well-considered data metrics should enable bike share operators to identify equity gaps and to support program evaluation, including what is working, what isn't, and why. However, common sources of data for many systems, periodic member surveys and usage data, may not be enough to measure progress toward equity goals. Challenges include finding staff or partners with the skills to collect and analyze data, and paying for evaluation given already limited funding. The limited duration of most equity programming makes it hard to gather consistent data over time, but that's often what is needed to better measure equity outcomes.

CURRENT APPROACHES

About 61% of the equity efforts described in a recent survey of cities and operators included at least some data collection component. For certain popular program types, though, data collection was absent or too limited to provide much guidance – only 34% of marketing campaigns and 39% of ambassador programs included any data gathering effort. Many programs reported collecting only simple frequency data--number of events, stations, sign ups, trips, etc.—lacking the capability to translate into adequate program effectiveness measures. While a number of systems indicated using qualitative feedback (stories, examples, etc.) to gauge program effectiveness, they often do not have systems in place to collect that data in any regular or systematic way.

Setting measurable goals up front -- either overarching equity goals or program-specific -- is key to identifying specific dat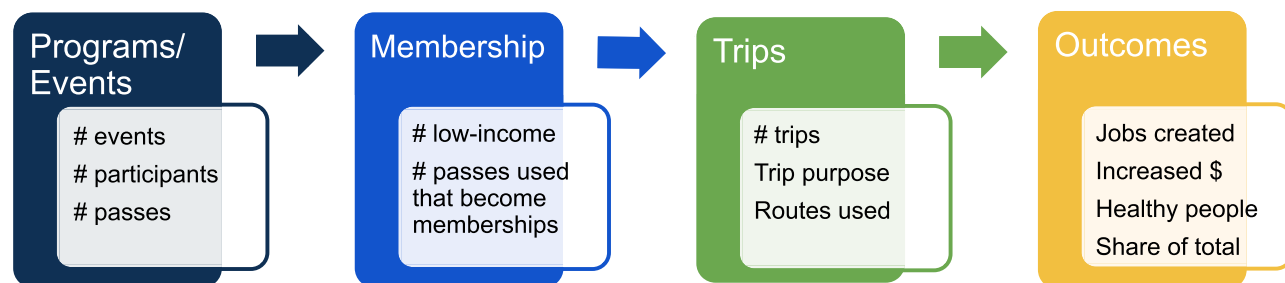a and analysis needs. Data and metrics should make it possible to tell the story of how a program or policy connects to specific equity goals and outcomes. To do so, different categories of data need to link -- to each other and to the people and groups that benefit.

Privately-provided dockless bikeshare is changing the landscape of equity programming and data collection in a number of ways. Such systems tend to generate a lot of data about the bikes but little about the people using them. Agencies that can anticipate data needs to support equity analysis up front will be at an advantage. One option is to set data-driven goals for private providers to meet and regularly report on.

"We know how many people are opting for this option, but we don't know how many of those people are low-income vs. simply prefer the monthly installment option."
-CoGo (Columbus, OH)

CREATING DATA STORIES

Programs/ Events
- # events
- # participants
- # passes

→

Membership
- # low-income
- # passes used that become memberships

→

Trips
- # trips
- Trip purpose
- Routes used

→

Outcomes
- Jobs created
- Increased $
- Healthy people
- Share of total

CONSIDERATIONS

Identifying suitable metrics and choosing a data collection approach should be integral parts of an equity program or strategy. Without careful consideration, it is easy to realize halfway through a program that there is no system in place to collect vital information, or at the end of the year discover that the data collected does not provide any measures that demonstrate program effectiveness. A few questions to keep in mind:

- Do we have technical capacity to access and use the data?
- Does trip data provided by vendors have the right information to measure our goals?
- Will we be able to link specific people or groups to program participation or bike share use?
- Will confounding factors like system expansion or neighborhood change make it hard to make comparisons before and after our program?
- Are some user groups or use types missing: casual (non-member) users? adaptive bikes?
- Could targeted intercept or residential surveys help us measure specific program impacts or reach groups otherwise left out?
- How are we addressing privacy concerns around user data?

Ensure that data collection itself doesn't become an obstacle to program participation. Some respondents use short, optional surveys for those enrolling as part of an equity program. MoGo bike share (Detroit) sent a survey link via text message so that new discount pass members could complete an intake survey at their convenience instead of slowing down sign up. In addition to initial information, several agencies noted the importance of tracking how membership and use evolves over time with follow up data collection and analysis.

"We can get subscription metrics from the bikeshare operator, but there is limited demographic information to evaluate this from an equity perspective." —UH Bikes (Cleveland)

RESOURCES

Data collection and analysis can require additional funding and technical skill, and many operators leverage local expertise via university partnerships. Indego (Philadelphia) partnered with Temple University to conduct equity panels and surveys. Divvy (Chicago) and Zyp (Birmingham) worked with local universities to conduct equity analyses.

An emerging option worth exploring is providing open bike share data to encourage others to conduct analyses. Agencies would need to strike a balance between providing enough user information to support equity analysis while protecting user privacy.

"Of those who activated their free DDOTxMoGo pass, we saw much higher ridership rates than the average MoGo rider." —Mogo (Detroit)
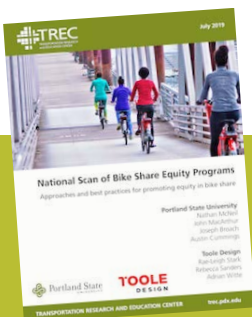
MEASURING AND EVALUATING

Agencies should consider evaluating data collection and metrics themselves in terms of their usefulness and impact. How did they work? Were the data collected able to answer key program questions including program delivery and equity outcomes? Did data and metrics inform future program decisions? Which metrics seem worth maintaining over time to capture longer-term trends for specific groups or programs? Of the system as a whole? Potential data points and metrics (see pgs. 87-88 in the full report):

- user surveys;
- membership data;
- trip data;
- outreach, education and events;
- bike data;
- payment, revenue and renewal;
- station and location data;
- community surveys;
- focus groups and interviews;
- and, employees and internal operations.

trec.pdx.edu/research/bikeshare