STAFF REPORT

TO: AC Transit Board of Directors
FROM: Michael A. Hursh, General Manager
SUBJECT: 2017-18 Onboard Rider Survey

Recommendations (Recommended Action(s)):

Consider receiving the results of 2017-18 onboard rider survey administered by the Metropolitan Transportation Commission (MTC) and conducted by ETC Institute.

Budgetary/Fiscal Impact:

There are no fiscal impacts associated with the recommended action. The District budgeted and spent $160,000 in FY2017/18 as its 20% share of the cost with MTC to conduct the survey.

Background/Rationale:

Introduction

AC Transit regularly undertakes efforts to obtain an updated profile of its ridership. This helps the District assess service-related issues, such as policies or plans that may impact ridership. With this information, the District can investigate ways to increase ridership, improve engagement with communities of color, low-income populations, and people with limited English proficiency, and explore the possibilities of new fare policies and fare-payment technologies. The ridership profile data is helpful when applying for grants, sharing with other local and national agencies, and responding to public requests for information.

Federal Transit Administration Title VI (Civil Rights Act) compliance guidelines require larger transit providers to collect and report survey data regarding customer demographics and travel patterns at least once every 5 years. The survey data collected in this ridership survey will be critical when conducting Title VI equity analyses, and will be used to determine impacts associated with proposed fare and service changes in the coming period.

Since 2012, the Bay Area’s metropolitan planning organization (MPO), MTC, has been conducting a coordinated effort among Bay Area Transit agencies to collect transit passenger data as part of the region’s Transit Sustainability Project (TSP). The current survey represents the second cycle of that effort, and provides a view of ridership from 2013 to 2018, as well as consistency and comparability of data between transit properties in the Bay Area. It also provides a financial benefit, because MTC shoulders most of the financial burden, with the District only needing to cover 20% of the cost of the survey or $160,000. The contractor procured by MTC, ETC Institute, has much experience conducting onboard transit research, including with BART, SFMTA, and VTA here in the Bay Area.
Methodology

The survey consisted of an interview conducted with a tablet computer and using random sampling methods to select participants. Selected respondents who were unable to complete the survey using this method — because of lack of time, a language barrier or disability, etc. — were able to complete the survey later by print/mail or phone interview.

The survey was designed to capture each component of a rider’s trip, including all trip segments, transfers, and access and egress information. In addition to travel data, the survey collected information about the rider’s demographics, including languages spoken, self-identified race and ethnicity, and household income. The survey also asked how riders paid for their transit trips. ETC Institute conducted the survey onboard AC Transit buses between October 2017 and March 2018. Because the survey was conducted mostly via tablet, it enabled ETC Institute to monitor the progress of the survey in close to real time, and provide District staff with a dashboard showing that progress.

The goal of the survey was to collect a representative sample of 5% of all boardings for riders age 16 and older. The actual number of weekday surveys completed was 13,052, or 8.2% of weekday riders. A sample size of 1,000 was selected for weekend boardings and surveys were collected in proportion to weekend boardings by route. The actual number of weekend surveys completed was 1,824 or 6.3% of weekend riders. Like the District’s 2012-13 survey, this survey was rigorous in its approach to meeting statistical sampling goals.

Prior to the main onboard intercept survey, ETC Institute conducted two additional smaller surveys to prepare for the full intercept survey. The first (called the On-to-Off or O2O survey) was a pretest to ensure the survey would be properly conducted; to evaluate the sampling plan and data collection methods in order to identify and address any potential problems.

A second small survey (called the Title VI survey) was administered on a subset of AC Transit routes to assist with validating and expanding the main survey data. In particular, this survey was used to support an income imputation process for respondents who did not provide household income information in the main survey. Utilizing data from this survey and US Census Bureau data, the contractor was able to estimate imputed income for the over 22% of respondents in the main onboard rider intercept survey who did not provide household income information. MTC paid for the additional cost of this survey because this type of survey had not been conducted in the Bay Area previously. Going forward, results and analysis of this survey will contribute to the literature and best practices of transit rider surveying.

The two small pre-surveys were conducted onboard buses in August and September 2017.

New Queries

Several new questions and answer options were included in the 2017-18 survey:
Method of payment: riders who paid their fare with cash or paper were asked how else they might pay if they didn’t have a cash option. Because of the privacy concerns associated with asking people about their banking habits, the survey did not ask if people had bank accounts or online banking systems (such as PayPal), however approximately 5-8% of riders said they might use some other form of payment that required online banking or mobile apps.

Mode of Transportation: the survey asked riders to indicate what modes of transportation they used apart from AC Transit. Among the options were ride hailing services, carpools, including casual carpools, and personal or shared bikes.

Smart Phone Use: For the first time, the survey asked riders if they had a smart phone, and a very large percentage of riders indicated that they did. This aligns with research which shows that a very large majority of people in the US have smart phones. The survey also asked if smart phone owners had enough available data on the day they were surveyed to go on the internet; because research (most notably by the Pew Research Center) shows that while people of color own smart phones in larger percentages than white people, they have the experience of running out of data more often than white people throughout the month. Staff wanted to understand if this affected AC Transit riders. Again, because of the limitations of the survey, this subject wasn’t explored more deeply.

Race and Ethnicity: Some changes were made to how demographic questions were asked. In past surveys, race and ethnicity were separated into two questions: “Are you Latino or Hispanic?” and “What is your race?” This followed Census Bureau methodology, which assumed that ethnicity was separate from race (and that, for example, a Latino person could also identify as white). In preparation for the 2020 census, the Census Bureau has been exploring other approaches to get at peoples’ racial and ethnic identity, including combining the two questions into one and adding new categories. Staff made the decision to combine the two questions – in part because people who identify as Latino or Hispanic are protected under Title VI even if they also identify as white – and also to add one new category – Middle Eastern or North African.

English Language Proficiency: In this survey, riders who indicated they spoke a language other than English at home were also asked how well they spoke English. This was to supply information about what percentage of the ridership could be classified as Limited English Proficient or LEP. Limited English Proficiency – defined as speaking English “less than very well” – is a protected class under Title VI because of the protection against discrimination on the basis of national origin.

Selected Findings

The following selection of information is based upon weekday responses from the 2017-18 on-board ridership profile survey, and includes some comparisons with findings from the previous survey:
Demographics:

- Riders between 25 and 34 represented the largest portion of riders (26%), followed by people in the 18-24 age category (21%). These findings are similar to the 2012-13 survey.
- From 2012-13 to today there has been a slight decrease in the percentage of riders who are people of color, from 76% to 73%. The largest groups were identified as Black/African American (34%), Latino/Hispanic (20%), and Asian (18%). There is overlap in these categories because respondents were allowed to select all that applied.
- 26% of riders said they speak a language other than English at home, a decline since the last survey (32%). Of these riders, almost a quarter reported that they speak English less than very well, and are considered to have limited English proficiency.
- The percentage of low income riders has decreased since the last survey. A third of riders (33%) reported they had very low household incomes (less than $25,000), a decrease from 2012-13 where almost 50% of riders said they had very low household income. AC Transit typically uses under $50,000 to define low-income, and 65% of riders fell within this category (a smaller decrease compared to 74% in 2012-13). The median household income of AC Transit riders is approximately $35,350.
- From the data alone, we can’t say why income levels have changed, but some possible explanations might be inflation, gentrification and displacement, or declining unemployment in the five years since the last survey. Also, income data in this survey have not yet been broken out by Race/Ethnicity or English proficiency so we are unable to see if there is a correlation between these factors and incomes.
- Approximately 42% of AC Transit riders are transit dependent, as indicated by riders who have no drivable vehicles in their household. This is slightly higher than the last survey (40%).
- Most AC Transit riders (80%) are either employed, students, or both. This is almost the same as 2012-13 (81%).
- The large majority of AC Transit riders (86%) reported owning a smart phone, and of those, almost all (91%) had enough data to use the internet on the day they were surveyed.

Fare Payment

- A majority of riders (81%) pay the adult fares, with the largest other groups consisting of youth (9%), seniors (6%), and disabled riders (3%).
- A much smaller percentage of riders pay their fare using cash or paper (26%) compared to 50% in 2012-13, and a growing number of riders use Clipper (70%).
- When cash-paying riders were asked what other payment method they might use if they couldn’t use cash, the largest number (50%) said they wouldn’t ride AC Transit, followed by those who would use a Clipper card with cash they added at a store or BART station (29%), and those who would prefer to use a credit or debit card (25%).
Trips

- Walking was overwhelmingly the mode riders used to reach transit: 93% reported walking to their first transit stop, almost the same as in 2012-13. Four percent reached the bus stop by bicycle, four times the 2012-13 rate, and just 2% drove themselves or were dropped off.
- 66% of riders were able to complete their trips without making a transfer (including to/from another transit agency), an increase of 10% since 2012-13. Counting AC Transit-only trips, 83% of riders had a one-bus trip. This improvement might be attributed to efficiencies achieved by AC Go.
- Trips that started at home most often were destined for work (21%), and most trips (89%) had home as either the origin or the destination.
- The largest number of riders (42%) said they rode AC Transit 5 days per week, followed by riders that use AC Transit 2-4 days per week (30%).
- When asked what other modes of transportation they might use when not riding AC Transit, the most popular answers were walking and riding other forms of public transit (both 79%). Riders also said they used a ride hailing service such as Uber/Lyft (24%), drove themselves (22%), were dropped off (15%), or biked (12%).

ADVANTAGES/DISADVANTAGES:

The advantage of accepting this survey is that it is an effective and efficient use of resources already spent. MTC co-sponsored and bore 80% of the cost of this effort, including identifying qualified surveying contractors through the competitive procurement process. Because the same process was used for the last onboard survey (2012-13), questions asked in the survey were largely the same as last time, which supports data comparisons. Additionally, accepting these findings means the District will have a stream of ridership data now, which will make it possible to conduct fare equity analyses soon for Title VI requirements.

The disadvantage of using this survey is that because the survey was co-sponsored by MTC, the District had little say in exactly what questions were asked – in particular, there are basically no questions related to customer satisfaction. However, by spending fewer resources on this survey now, the District will have more resources in the future to conduct surveys, including more specifically focused surveys depending on data needs going forward.

ALTERNATIVES ANALYSIS:

Instead of accepting this survey to serve as the AC Transit Onboard Rider Survey, the District could conduct its own independent onboard survey, however this alternative would result in increased costs and delays, and is not recommended.

PRIOR RELEVANT BOARD ACTION/POLICIES:

Staff report 13-114a, Results of the 2012 Onboard Rider Profile Survey
Staff report 17-231, Passenger Survey Funding and Implementation Agreement
ATTACHMENTS:

1. AC Transit 2017-18 Passenger Survey

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