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Technical Memorandum

July 12, 2023 Project# 21385.003

To: David Berman, AICP, Senior Transportation Planner
Alameda-Contra Costa Transit District
1600 Franklin Street
Oakland, CA 94612

From: Transportation Management & Design, Inc. (TMD)

RE: AC Transit Realign – Survey Results

AC TRANSIT REALIGN SURVEY RESULTS

Background

As part of the AC Transit Realign project, AC Transit conducted a community-wide survey to understand local travel behavior and customer priorities for transit improvements. The survey was available online between April 17 and June 7, 2023. Paper surveys were also available at all AC Transit Realign tabling events and through community-based organization (CBO) partners. In total, 15,718 valid responses were collected, 14,583 online and 1,135 paper. Out of these, 14,011 were completed in English, 937 in Spanish, and 770 in Chinese. The survey was promoted on bus stop signs throughout the region, on QR codes handed out at tabling events, through AC Transit social media channels, and through CBO partners.

After initial analysis of the survey responses, it was found that the survey demographics did not reflect the demographics of the AC Transit service area. Efforts by CBO partners to obtain additional responses from key demographic groups are highlighted in the following sections as a comparison between online survey responses and paper survey responses. The questions are the same across both formats.

Location Information

Respondents were asked to give their home zip code, and these responses were grouped into five sub-areas: Oakland/Alameda/Berkeley (60% from online surveys, 31% from paper surveys), San Leandro/Hayward (8% from online surveys, 45% from paper surveys), Union City/Fremont/Newark (4% from online survey, 4% from paper surveys), West Contra Costa County (7% from online surveys, 10% from paper surveys), and Unknown (21% from online surveys, 10% from paper surveys). Unknown included zip codes from out of area – these respondents could have been long-distance commuters, visitors to the area, or students – as well as blank responses. Table 1 shows the 10 zip codes with the highest number of responses by survey type.

Table 1: Top 10 Zip Codes by Number of Responses

Zip Code		94501	94611	94610	94602	94608	94618	94706	94708	94609	94707
Online Survey	Count	862	744	719	515	473	375	371	371	356	355
	Percentage	7%	6%	6%	4%	4%	3%	3%	3%	3%	3%
Zip Code		94541	94612	94806	94621	94603	94605	94546	94544	94577	94580
Paper Survey	Count	241	71	67	62	56	48	41	38	37	33
	Percentage	23%	7%	6%	6%	5%	5%	4%	4%	4%	3%

General Travel Behavior

Overall, 80% of respondents said they had taken a trip on AC Transit in the past month. This varied by sub-area: Oakland/Alameda/Berkeley – 83%; Union City/Fremont/Newark – 72%, West Contra Costa County – 70%, and San Leandro/Hayward – 62%. For surveys where the subarea is unknown, 87% of respondents had taken a trip on AC Transit in the past month.

Respondents were asked to list three AC Transit routes they ride often, and responses represented all AC Transit routes. The top 10 listed routes by survey type are outlined in Table 2.

Table 2: Top 10 Responses by Route

Route		12	18	51B	51A	6	57	72	NL	72R	F
Online Survey	Count	437	394	354	352	343	312	255	249	240	232
	Percentage	5%	5%	4%	4%	4%	4%	3%	3%	3%	3%
Route		72	51A	40	20	10	57	34	74	90	93
Paper Survey	Count	16	14	13	8	7	7	5	5	5	5
	Percentage	10%	8%	8%	5%	4%	4%	3%	3%	3%	3%

In terms of accessing bus stops, respondents were asked how they got to the first transit stop for their trip (and how they got to their destination from the last transit stop). There was no significant difference in access mode to and from the bus stop. Overall, 11,600 respondents answered the question, and 77% accessed the stop by walking (or rolling with a mobility device). The next most popular modes were riding own bike/scooter (5%), getting dropped off by friends/family (4%), using bike or scooter share (4%), or taking a Taxi/Uber/Lyft (3%).

Travel Behavior – COVID-19 Impacts

The following series of questions asked respondents to compare their use of AC Transit before the COVID-19 pandemic to now.

How Often Riders Use AC Transit (N=13,823)

Respondents were asked how often they use AC Transit services both now and pre-pandemic. Out of the respondents who answered both questions, most are frequent riders, using AC Transit a few times per week (30%) and 5-7 days per week (28%). Only 11% of respondents said they never use AC Transit services.

Overall, riders are using AC Transit less than they did pre-pandemic. Table 3 compares the percentage of riders using AC Transit at different frequencies pre-COVID and now. The dataset was filtered to only include respondents who answered both questions for a direct comparison. Pre-pandemic, 39% of respondents used AC Transit 5-7 days per week, and this dropped to 28% post-pandemic. Of the respondents who rode 5-7 days a week pre-pandemic, only 46% still ride that frequently; 30% now ride a few times per week and 14% only a few times per month.

However, the survey did capture a fair number of new riders. Out of the 2,022 respondents who said they never rode AC Transit pre-pandemic, 1,075 now ride at least a few times per week.

Table 3: Frequency of Using AC Transit

How Often Do You Ride AC Transit?	Pre-COVID	Now
Most days (5-7 days per week)	39%	28%
A few times per week	20%	30%
A few times per month	14%	20%
A few times per year	12%	11%
Never	15%	11%
Total	100%	100%

Trip Purpose (N=10,780)

Respondents were asked to check all of the trip purposes they use AC Transit for, both now and pre-pandemic. Responses were filtered to only include those that answered both questions for a more direct comparison. As shown in Figure 1, there was not a significant shift in pre- and post-pandemic trip purposes. Currently 55% of respondents use transit for work, 50% for social or recreational activities, and 39% for shopping and dining. The largest change was in work trips which declined from 59% pre-pandemic. This is expected given the large increase in people working from home over the last three years. The responses also show that AC Transit does a good job of providing services that cater to lifestyle transit use as riders use transit for multiple types of trips. On average, respondents selected 2.2 trip purposes pre-pandemic and 2.1 trip purposes now.

Figure 1: Change in Trip Purpose

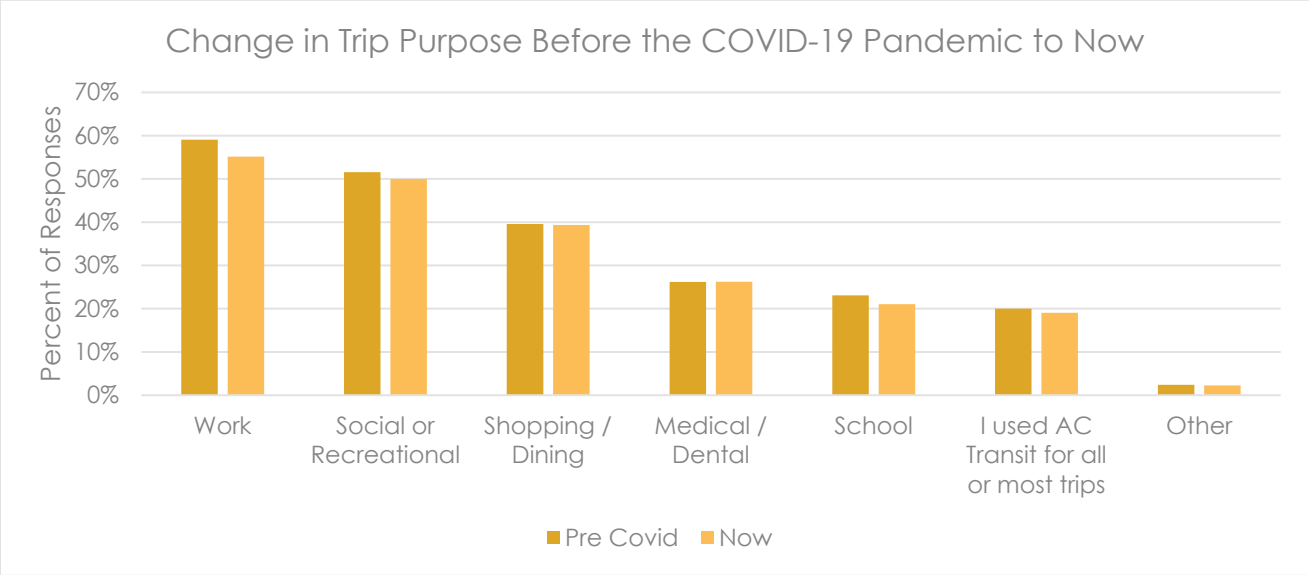


Figure 2 shows how trip purpose varies by sub-area. School trip purposes are highest in Union City/Fremont/Newark, and Medical/Dental trips are highest in West Contra Costa County. There were a few variations in changes in trip purpose by sub-area. West Contra Costa County saw the largest decrease in work trips at 7% (5% in Oakland/Alameda/Berkeley). Union City/Fremont/Newark saw a 6% decrease in school trips but also saw a 3% increase in riders saying they use transit for all or most trips and a 2% increase in shopping/dining trips.

Figure 2: Trip Purpose by Sub-Area

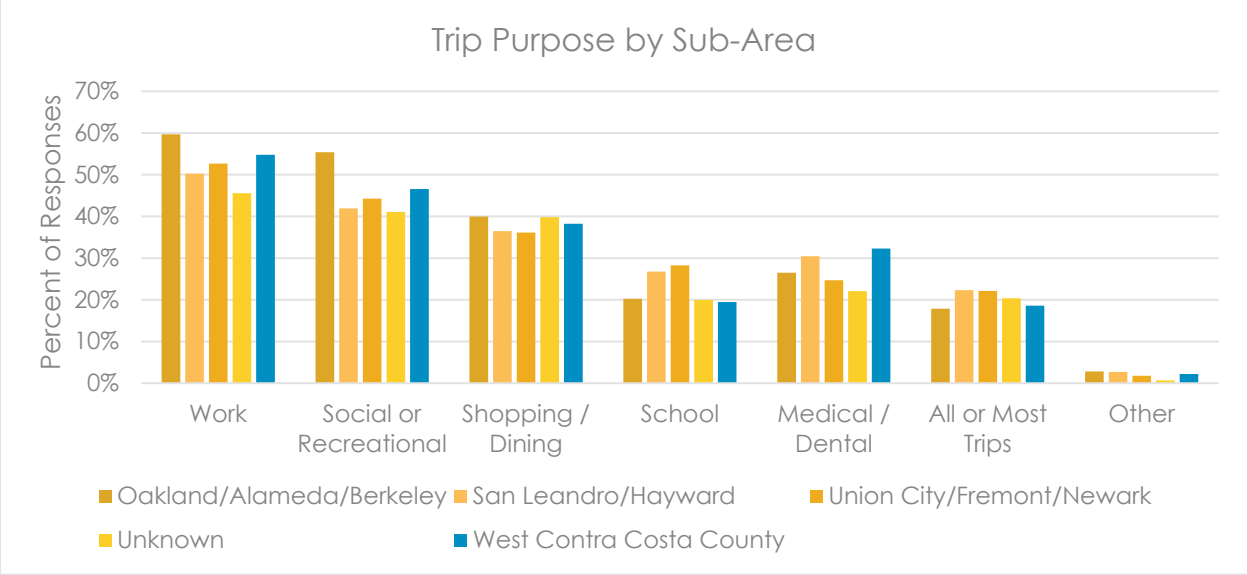
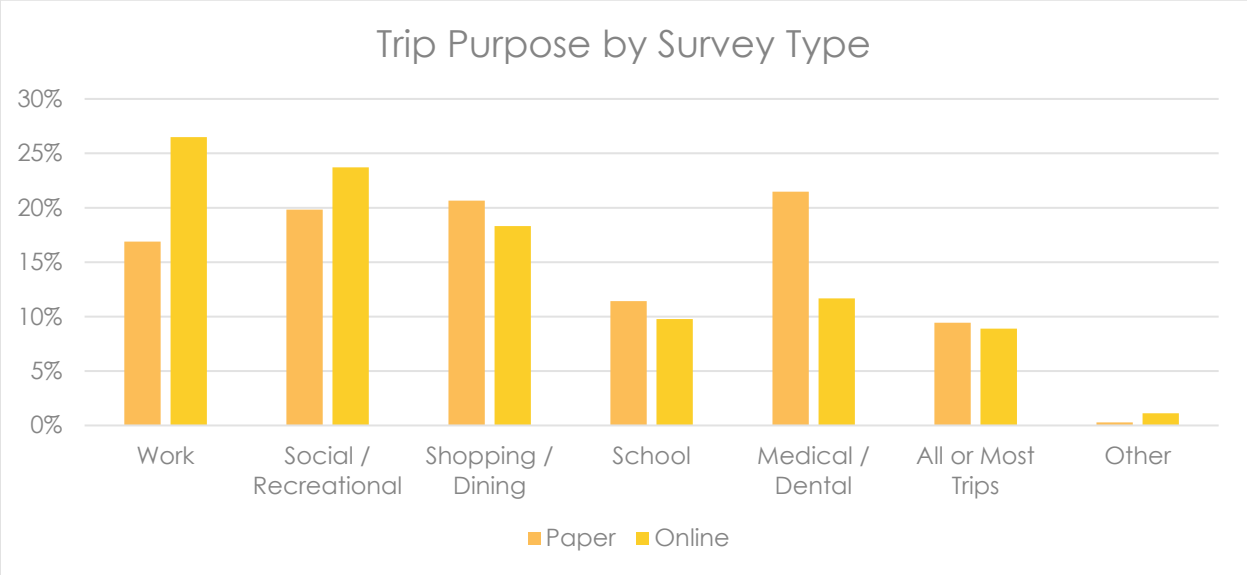


Figure 3 highlights the differences between trip purpose for respondents that either answered the survey online or the paper version. The most obvious difference between paper responses and online responses is that 21% of paper survey respondents use transit for medical and dental appointments compared to only 12% of online respondents. Additionally, 26% of online respondents use AC transit to commute compared to 17% of paper survey respondents.

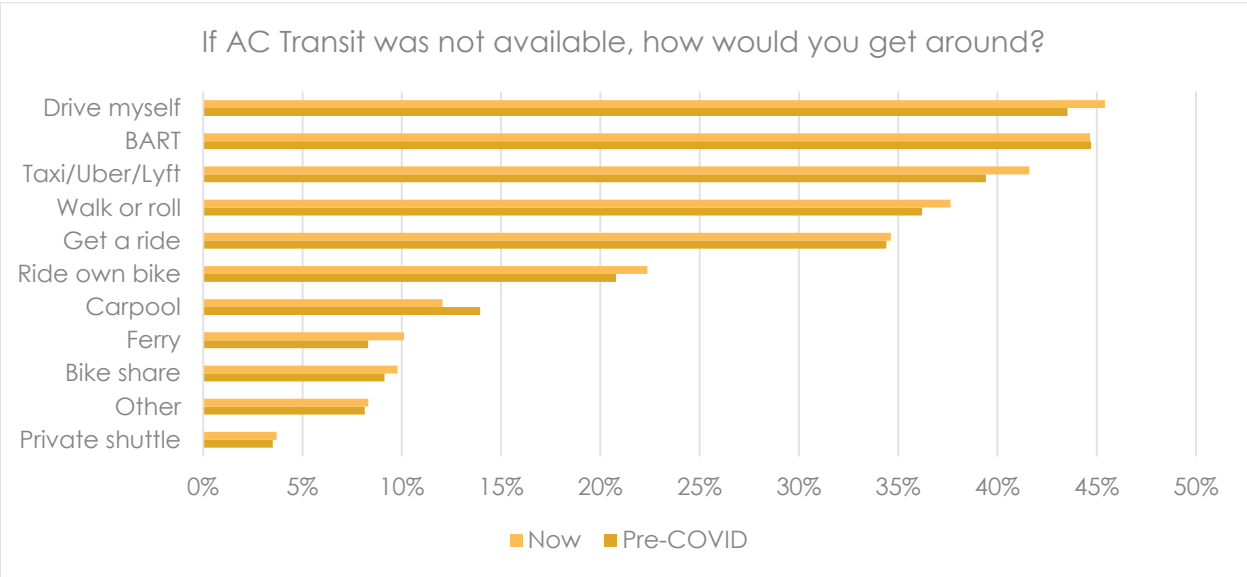
Figure 3: Trip Purpose by Survey Response Type



Alternative Mode if AC Transit was not Available (N=13,612)

Respondents were asked how they would get around if AC Transit was not available and could select all that applied. The data was filtered to only include respondents who answered questions about alternative modes both pre- and post-pandemic for a direct comparison. Before the COVID-19 pandemic, the most common alternative was BART (45% of respondents), closely followed by driving alone (44%) and taking a Taxi, Uber, or Lyft (39%). Post-COVID, driving alone became the most popular alternative. The availability of alternative modes generally increased; respondents selected an average of 2.62 alternative modes pre-pandemic and 2.70 alternative modes currently. The use of all alternatives increased, except for carpooling which saw a two-percentage point decrease.

Figure 4: Alternative Mode if AC Transit was not Available



DESIRED IMPROVEMENTS, PREFERENCES, TRADEOFFS

Respondents were asked a series of questions about their preferences for the design of AC Transit service, as well as their input on aspects of service that work well and that could be improved.

Walk Distance vs. Frequency (N=12,683)

I prefer a shorter walk to/from the bus stop even if that means waiting longer.
I prefer waiting less time even if that means a longer walk to/from the bus stop.
Overall, 60% of respondents prefer shorter wait times (better frequency) and longer walks compared to 40% who want a shorter walk and longer wait times. Table 4 summarizes the responses by respondent sub-category. Non-riders have a stronger preference (63%) for shorter wait times and longer walks to/from the bus stop compared to frequent riders (57%), but both agree that shorter walks and longer wait times are not preferred.

Replies varied greatly by subarea. Respondents from Oakland/Alameda/Berkeley have a strong preference (65%) for shorter wait times and longer walks compared to Union City/Fremont/Newark (51%) and West Contra Costa County (48%) where respondents only marginally preferred longer walks and shorter wait times. In particular, respondents from the San Leandro/Hayward subarea prefer shorter walks and longer waits, which stands in contrast to respondents from the rest of the service area.

By age group, respondents 45-54 had the strongest preference for better frequency and longer walks (69%), but even seniors favored better frequency over shorter walks, with respondents ages 75 and older at 56% in favor.

Respondents who have a disability limiting their mobility preferred shorter walks to the stops and longer waits with 60% in favor of shorter walks.

Students had a relatively stronger preference for shorter walks and longer waits. While non-students were 64% in favor of longer walks and shorter waits, this range was only 45-57% for the various student categories.

Sensitivity to frequency tends to correspond with income, the higher the annual income category, the less someone is willing to wait at the stop.

Finally, when looking at the differences between survey response types, those that answered online significantly prefer better frequency (61%) compared to those who filled out a paper survey who were more evenly split (51%).

Table 4: Walk Distance vs. Wait Time Responses by Sub-Category

I prefer:	A shorter walk to/from the bus stop even if that means waiting longer	Waiting less time even if that means a longer walk to/from the bus stop
Overall	40%	60%
Frequent Riders	43%	57%
Non-Riders	37%	63%
Oakland/Alameda/Berkeley	35%	65%

I prefer:	A shorter walk to/from the bus stop even if that means waiting longer	Waiting less time even if that means a longer walk to/from the bus stop
San Leandro/Hayward	52%	48%
Union City/Fremont/Newark	49%	51%
West Contra Costa County	45%	55%
Under 18	42%	58%
18-24	43%	57%
25-34	38%	62%
35-44	35%	65%
45-54	31%	69%
55-64	34%	66%
65-74	36%	64%
75+	44%	56%
Not Disabled	36%	64%
Has Disability	60%	40%
Full Time College Student	43%	57%
K-12 Student	43%	57%
Part-Time College Student	44%	56%
Vocational/Tech Student	55%	45%
Not a Student	36%	64%
Other	44%	56%
Income Less Than $35,000	50%	50%
$35,000-$75,000	45%	55%
$75,000+	33%	67%
Online Survey	39%	61%
Paper Survey	49%	51%

Transfers vs. Frequency (N=12,690)

I prefer a network with fewer transfers needed, even if that means buses coming less often.
I prefer a network with buses that come more often, even if that means more transfers are needed.

Overall, respondents are split 50-50 on their preference for fewer transfers of more frequent buses. Table 5 summarizes the responses by sub-category. Responses begin to vary when broken down by sub-area. Respondents from San Leandro/Hayward have the strongest preference for a frequent bus network

compared to their neighbors (63%). Oakland/Alameda/Berkeley is the one sub-area that has a slight preference for fewer transfers, but the split is almost 50-50.

Generally, students seem to have a slight preference for fewer transfers and less frequent service compared to the overall responses. Based on responses split by income, as income increases, so does the preference for a network for fewer transfers.

Contrary to the walk distance vs. frequency trade-off, the higher someone's income, the more likely they are to prefer fewer transfers over better frequency.

Again, responses differ between respondents who answered online versus filled out a paper survey. Paper survey respondents prioritize frequency (59%) over fewer transfers (41%) which is in contrast with the online survey respondents who are split 51% to 49% in favor of fewer transfers.

Table 5: Transfers vs. Frequency Responses by Sub-Category

I prefer:	A network with fewer transfers needed, even if that means buses coming less often	A network with buses that come more often, even if that means more transfers needed
Overall	50%	50%
Frequent Riders	50%	50%
Non-Riders	51%	49%
Oakland/Alameda/Berkeley	51%	49%
San Leandro/Hayward	37%	63%
Union City/Fremont/Newark	46%	54%
West Contra Costa County	44%	56%
Under 18	53%	47%
18-24	46%	54%
25-34	51%	49%
35-44	54%	46%
45-54	49%	51%
55-64	49%	51%
65-74	45%	55%
75+	46%	54%
Female	52%	48%
Male	50%	50%
Non-Binary	45%	55%
Full Time College Student	50%	50%

I prefer:	A network with fewer transfers needed, even if that means buses coming less often	A network with buses that come more often, even if that means more transfers needed
K-12 Student	53%	47%
Part-Time College Student	55%	45%
Vocational/Tech Student	53%	47%
Not a Student	51%	49%
Other	42%	58%
Income Less Than $35,000	45%	55%
$35,000-$75,000	50%	50%
$75,000+	53%	47%
Online Survey	51%	49%
Paper Survey	41%	59%

Coverage vs. Frequency (N=12,543)

Resources should be used to cover areas that are more spread out with low frequency service. Resources should be used to maintain service on routes where many people ride.
When asked which is best, 60% of respondents agree that resources should be used to maintain service on routes where many people ride rather than to cover spread out areas with low frequency service (40%).

By sub-area, Oakland/Alameda/Berkeley has the greatest variance, with 64% of responses favoring investment in frequency.

There is a general, but not perfect, correlation with age – the older someone is the more likely they are to prefer frequency over coverage. This trend breaks for respondents over the age of 75 who are more in favor of coverage than other age groups.

Students range significantly in their responses, but generally favor more coverage compared to non-students.

Income is once again correlated with frequency – the higher the income category, the more respondents advocate for more frequent service.

Respondents who filled out the survey online agree with paper survey respondents that resources should be focused on adding frequency over maintaining or increasing coverage.

Table 6: Coverage vs. Frequency Responses by Sub-Category

This option is best:	Resources should be used to cover areas that are more spread out with low frequency service	Resources should be used to maintain service on routes where many people ride
Overall	40%	60%
Frequent Riders	41%	59%
Non-Riders	38%	62%
Oakland/Alameda/Berkeley	36%	64%
San Leandro/Hayward	42%	58%
Union City/Fremont/Newark	39%	61%
West Contra Costa County	42%	58%
Under 18	38%	62%
18-24	43%	57%
25-34	41%	59%
35-44	38%	62%
45-54	34%	66%
55-64	35%	65%
65-74	34%	66%
75+	40%	60%
Full Time College Student	46%	54%
K-12 Student	38%	62%
Part-Time College Student	57%	43%
Vocational/Tech Student	53%	47%
Not a Student	38%	62%
Other	40%	60%
Less Than $35,000	43%	57%
$35,000-$75,000	45%	55%
$75,000+	37%	63%

This option is best:	Resources should be used to cover areas that are more spread out with low frequency service	Resources should be used to maintain service on routes where many people ride
Online Survey	33%	67%
Paper Survey	40%	60%

Time of Day Priorities – Weekdays (N=10,912 online, 870 paper)

Respondents were asked to rank different times of day on weekdays in terms of when more service was needed. Since peak-period trips are typically most served, this question focused on off-peak periods. For this question, the online and paper survey responses were analyzed separately due to variances in how respondents completed the survey.

As shown in Figure 4, 53% of respondents ranked 10 am -3 pm as the most important time of day to add more service. Earlier morning service was ranked first by 24% of respondents. When looking at the average rank of each option in Figure 5, later evening service ranks higher than earlier morning service, due to the fact that 47% of respondents ranked 7 pm – 10 pm as their second preferred option.

Figure 5: #1 Rank Weekday Time Periods for More Service

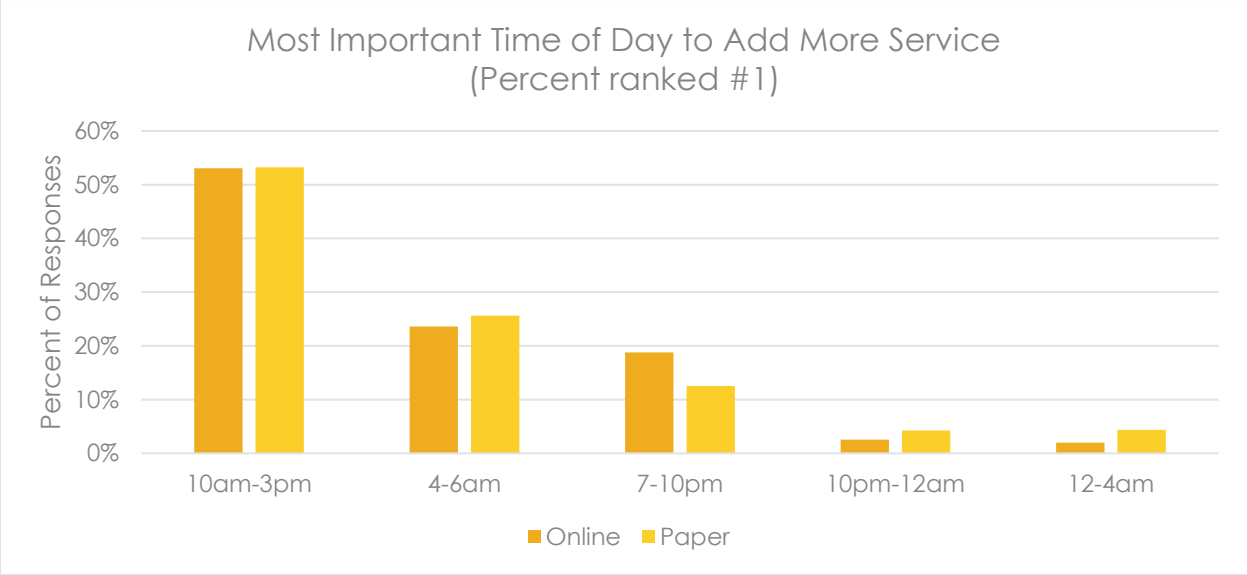
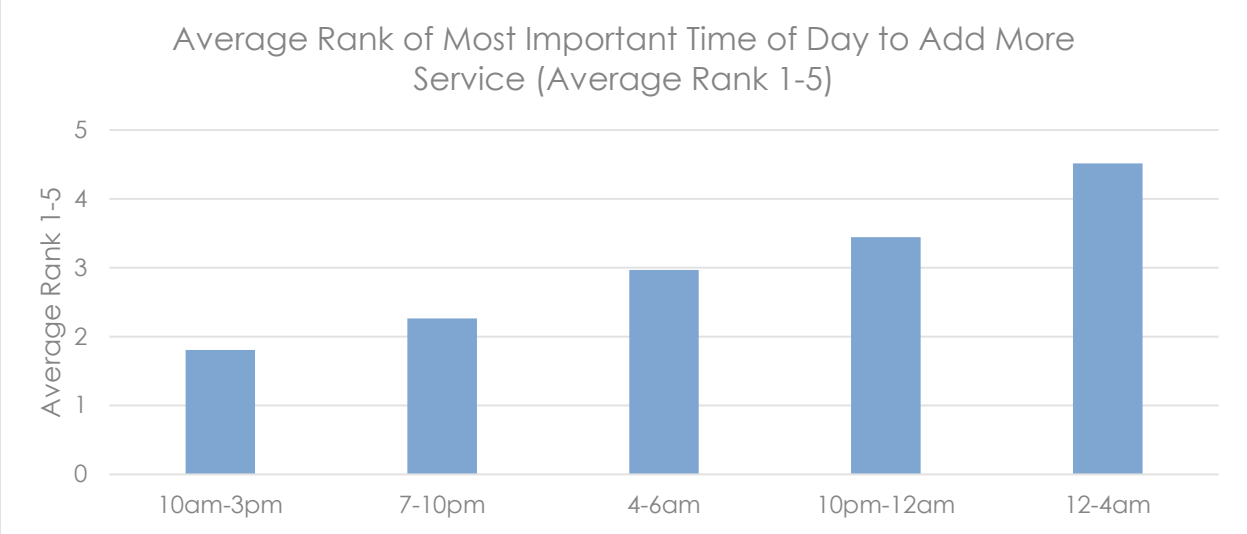


Figure 6: Average Rank Weekday Time Periods for More Service (online surveys only)



The variance between responses from frequent riders and non-riders is small, but non-riders have a stronger preference for midday service than frequent riders. A greater share of frequent riders (19%) selected evening service as the most important time window compared to non-riders (15%).

Compared to the other sub-areas, San Leandro/Hayward had a stronger preference for service between 12:00-6:00 AM. Oakland/Alameda/Berkeley had the strongest preference for midday service at 57%.

Full-time college students and K-12 students have a higher-than-average preference for midday service. Vocational/tech/trade school students said that early morning service is the most important time of day for additional service at 39%, compared to 24% overall. They also had a relatively strong preference for more service between 10:00 PM and 4:00 AM.

Respondents making under $35,000 have a slightly stronger preference for overnight service – 4% compared to 2% overall. Respondents making over $75,000 have a stronger preference for evening service 7:00 PM to 10:00 PM at 24% compared to 18% overall.

Table 7: Most Important Time of Day to Add More Service

Most Important Time of Day to Add More Service	4:00 AM to 6:00 AM	10:00 AM to 3:00 PM	7:00 PM to 10:00 PM	10:00 PM to 12:00 AM	12:00 AM to 4:00 AM
Overall	24%	53%	18%	3%	2%
Frequent Riders	26%	51%	19%	3%	2%
Non-Riders	25%	55%	15%	2%	2%
Oakland / Alameda / Berkeley	19%	57%	20%	2%	1%
San Leandro / Hayward	34%	46%	12%	3%	4%
Union City / Fremont / Newark	29%	53%	14%	2%	3%

Most Important Time of Day to Add More Service	4:00 AM to 6:00 AM	10:00 AM to 3:00 PM	7:00 PM to 10:00 PM	10:00 PM to 12:00 AM	12:00 AM to 4:00 AM
West Contra Costa County	27%	54%	15%	1%	2%
Full Time College Student	15%	63%	16%	3%	3%
K-12 Student	22%	59%	14%	2%	3%
Part-Time College Student	30%	46%	18%	3%	3%
Vocational/Tech Student	39%	37%	12%	6%	6%
Not a Student	23%	53%	20%	2%	2%
Other	35%	47%	12%	4%	3%
Less Than $35,000	28%	54%	11%	4%	4%
$35,000-$75,000	26%	51%	16%	4%	3%
$75,000+	20%	52%	24%	2%	1%

Time of Day Priorities – Weekends (N=9,549 online, 806 paper)

Respondents were asked to rank different times of day on weekends in terms of when more service was needed. For this question, the online and paper survey responses were analyzed separately due to variances in how respondents completed the survey.

By a large margin most respondents (71%) selected Saturday daytime service as the most important day and time of the week to increase service. While Saturday evening service ranks second overall, 48% of respondents chose Sunday daytime service as their second highest priority. Later evening service on Sundays was by far the lowest priority, with 77% of respondents ranking this category fourth.

Figure 7: #1 Rank Weekend Time Periods for More Service

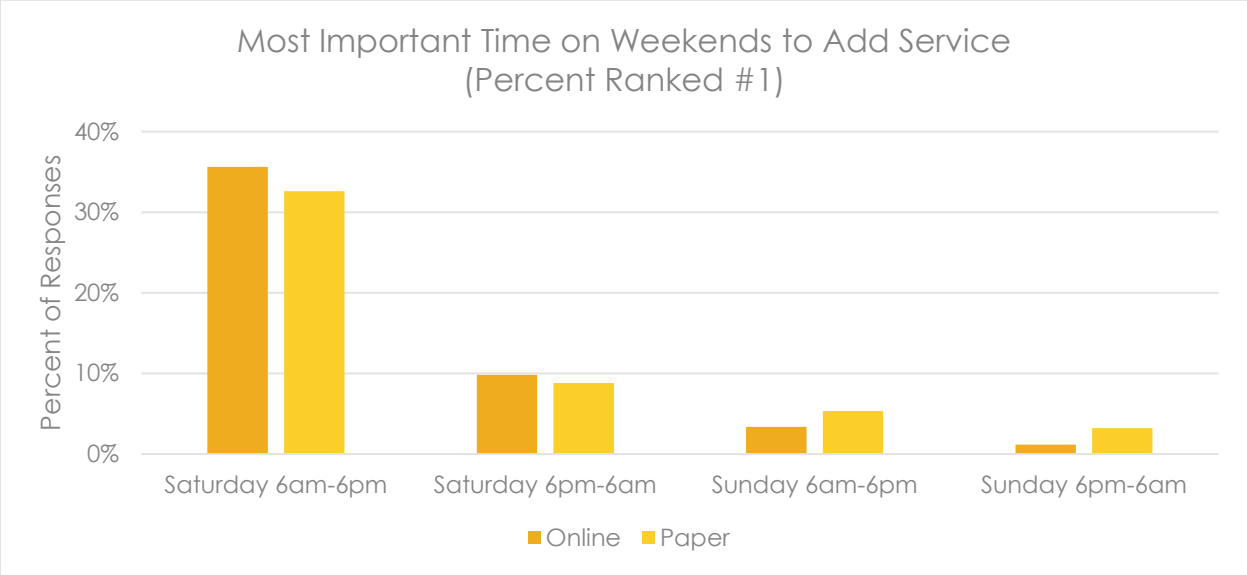
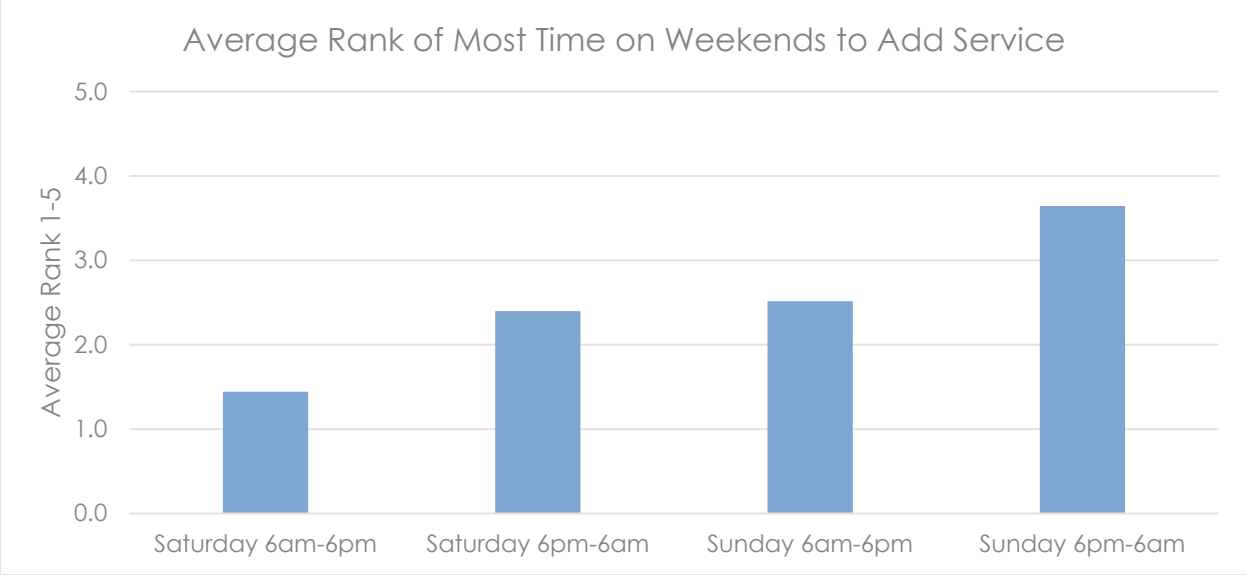


Figure 8: Average Rank Weekend Time Periods for More Service (online surveys only)



Compared to the respondents overall, there is no difference in the preferences of frequent riders and non-riders for the most important day of the week to add more service.

However, responses between sub-areas vary more with San Leandro/Hayward standing out as feeling less strongly about Saturday 6 AM – 6 PM service (67%) compared to the rest of the service area. It has the strongest preference for Sunday evening service at 5% compared to 2% overall. Union City/Fremont/Newark had the strongest priority for Saturday daytime service at 78%.

College and vocational students have a stronger preference for weekend evening service than non-student groups. Part-time college students and vocational students also have a stronger preference for Sunday daytime service than other groups.

By income, lower income groups tend to have a stronger preference for more Sunday service than higher income groups.

Table 8: Most Important Day of the Week to Add More Service

Most Important Day of the Week to Add More Service (#1 Rank)	Saturday 6am-6pm	Saturday 6pm-6am	Sunday 6am-6pm	Sunday 6pm-6am
Overall	71%	20%	7%	2%
Frequent Riders	71%	19%	7%	3%
Non-Riders	73%	18%	6%	3%
Oakland / Alameda / Berkeley	75%	18%	6%	2%
San Leandro / Hayward	67%	20%	8%	5%
Union City / Fremont / Newark	78%	13%	5%	3%
West Contra Costa County	70%	21%	6%	3%
Full Time College Student	64%	24%	9%	4%
K-12 Student	74%	15%	9%	2%
Part-Time College Student	66%	20%	11%	2%
Vocational/Tech Student	57%	23%	14%	6%
Not a Student	72%	19%	6%	3%
Other	75%	15%	8%	2%
Less Than $35,000	68%	21%	7%	4%
$35,000-$75,000	64%	22%	10%	4%

$75,000+	73%	20%	6%	2%

What Aspects of AC Transit Service Work Well for You? (N=8,390)

Out of the 8,390 respondents who left comments on what aspects of AC Transit service works well for them, 31% mentioned the network coverage – where routes go and having routes close to home, work, or school. Several respondents noted that they like the access to places like Oakland, Berkeley, BART, and San Francisco via Transbay routes. Others like the option to take different bus routes from the same stop. Related to coverage, Transbay service was mentioned positively in 8% of responses.

The next three categories are all tied at 14% - frequency of service, reliability (buses being on time), and convenience. The fifth most common category was connections to other modes, mentioned in 12% of comments. Other notable themes include excellent customer service from the drivers (8%), payment options (7%), cleanliness of buses (6%) and affordability (6%).

Accessibility was mentioned in 3% of responses, with references to the service's ability to provide mobility for the population in general and accommodations for the disabled.

These were consistently the top five categories mentioned by most sub-groups with a few exceptions.

- Those who ride 5-7 days a week mentioned school more often than connections to other modes, and this was also true for respondents under the age of 18 and those who said they use AC Transit to get to school.
- The 45-54 age group did not have frequency in their top five and mentioned Transbay service instead.
- For income groups, those earning under $10,000 a year mentioned affordability more than connections to other modes.
- Those earning over $150,000 mentioned Transbay service over convenience.

While the top five categories generally remain the same across sub-groups, some sub-groups weight different categories more heavily than others.

- 36% of respondents in Oakland/Alameda/Berkeley mentioned coverage compared to 31% of respondents overall.
- Riders who use AC Transit for shopping/dining and medical/dental mentioned frequency more often (18% and 17% respectively) compared to 14% overall.
- Connections to other modes were mentioned by respondents ages 65-74 19% of the time and by respondents with incomes over $100,000 17% of the time compared to 12% overall.
- Riders ages 18-24 mentioned affordability 9% of the time compared to 6% overall.
- Transbay service was mentioned most by respondents ages 35-44 and 45-54 (12%) and respondents with incomes over $150,000 (16%) compared to 7% overall.

Out of the paper surveys, 590 responded to this question. Although the respondents provided less detail about what works well, many mentioned coverage (12%), reliability (11%), and frequency (7%). Affordability was mentioned by 6% of respondents who provided an answer, similar to the survey respondents overall.

What Aspects of AC Transit Service Could be Improved? (N=8,256)

Out of the 8,256 respondents who left comments on what aspects of AC Transit service could be improved, 39% mentioned reliability – buses being dependable, on-time, not departing early or late, or canceling without notice. Riders often noted that the real-time information predictions on the AC Transit Official Mobile App does not provide accurate information. Some passengers mentioned the need to take ride-share services when their bus did not arrive.

This was followed by the need for more frequent bus service (28%), with respondents also commenting on long wait times and the need for more buses due to crowded buses.

The need for more coverage was the third most mentioned aspect (15%). Relating to coverage was the desire to return the routes that were discontinued during the pandemic (4%).

Improving Transbay service (9%) was the fourth most mentioned aspect, with respondents citing a need for more coordinated schedules with BART, more service outside of conventional commuting times, and more bike racks on Transbay buses.

Connections to other modes were mentioned by 8% of respondents who mentioned the need for better timing with BART, the ferry and Amtrak. Similar to respondents who mentioned the need to improve Transbay service, several respondents indicated a need for more bike storage on buses, as well as bike racks that allow e-bikes or bikes with thicker tires. Some mentioned difficulty accessing bus stops by walking and biking while others suggested having bike-share or scooter-share connections at bus stops.

Other themes observed include the need for better customer service (7%), more safety (7%) (especially while on the bus), and more amenities (6%) (e.g., benches, shelters, bike racks). Accessibility for elderly and/or disabled persons was mentioned by 2% of respondents.

Of the paper surveys, 608 responded to the question. Compared to all responses, paper survey respondents mentioned the same topics at lower rates with the exception of safety and bus cleanliness; the need for more safety was mentioned in 16% of responses and the need for cleaner buses was mentioned in 15% of CBO responses (compared to 5% of all responses).

These are very similar to the categories mentioned in the "what works well" section, as they tend to be the aspects of transit service most important to riders.

These were consistently the top five categories mentioned by most sub-groups with a few exceptions.

- Those who ride 5-7 days a week mentioned safety and customer service more often than connections to other modes and Transbay. Those who never ride AC Transit also mentioned safety.
- By sub-area, Oakland/Alameda/Berkeley was the only one that mentioned Transbay in the top five categories. San Leandro/Hayward, West Contra Costa County, and Unknown sub-areas all had safety in the top five. San Leandro/Hayward mentioned cleanliness of vehicles and facilities, and Union City/Fremont/Newark mentioned amenities and customer service.
- By trip purpose, Transbay was only mentioned in the top five for respondents using AC Transit for work. The other categories all mentioned customer service in the top five themes observed, especially regarding driver behavior. Respondents using AC Transit for school mentioned safety above connections to other modes.
- By age group, all included frequency, reliability, and coverage in their top five categories but not all included connections to other modes or Transbay service. Transbay was mentioned in the top five categories by respondents ages 35-64. Respondents under 18 mentioned cleanliness and

school service. Respondents 18-24 mentioned real-time information and customer service. Respondents 25-34 mentioned amenities, and 45-54 mentioned safety.

- There was a large range in responses by race. All included frequency, reliability, and coverage in their top five categories but not all included connections to other modes or Transbay service. Transbay was mentioned by White, Asian, and Middle Eastern/North African respondents while connections to other modes were only mentioned by White and Native Hawaiian/Pacific Islanders. Customer service was mentioned by Black/African American, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander respondents. Cleanliness was mentioned by Latino/Hispanic, Middle Eastern/North African, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander respondents. Safety was mentioned by Latino/Hispanic, Black/African American, and Middle Eastern/North African respondents. Finally, real-time information was mentioned by Asian respondents.
- By gender, the largest variance was that those who identify as female ranked safety in their top five while males did not.
- By income, all categories ranked frequency, reliability, and coverage in the top five. Only those with incomes over $150,000 ranked Transbay service in the top five. All income categories below $75,000 a year ranked customer service. Most groups with incomes below $100,000 a year ranked safety. Those with incomes $100,000-$149,999 ranked real-time information while those with incomes $10,000-$24,999 ranked cleanliness.

While the top five categories generally remain the same across sub-groups, some sub-groups weight different categories more heavily than others.

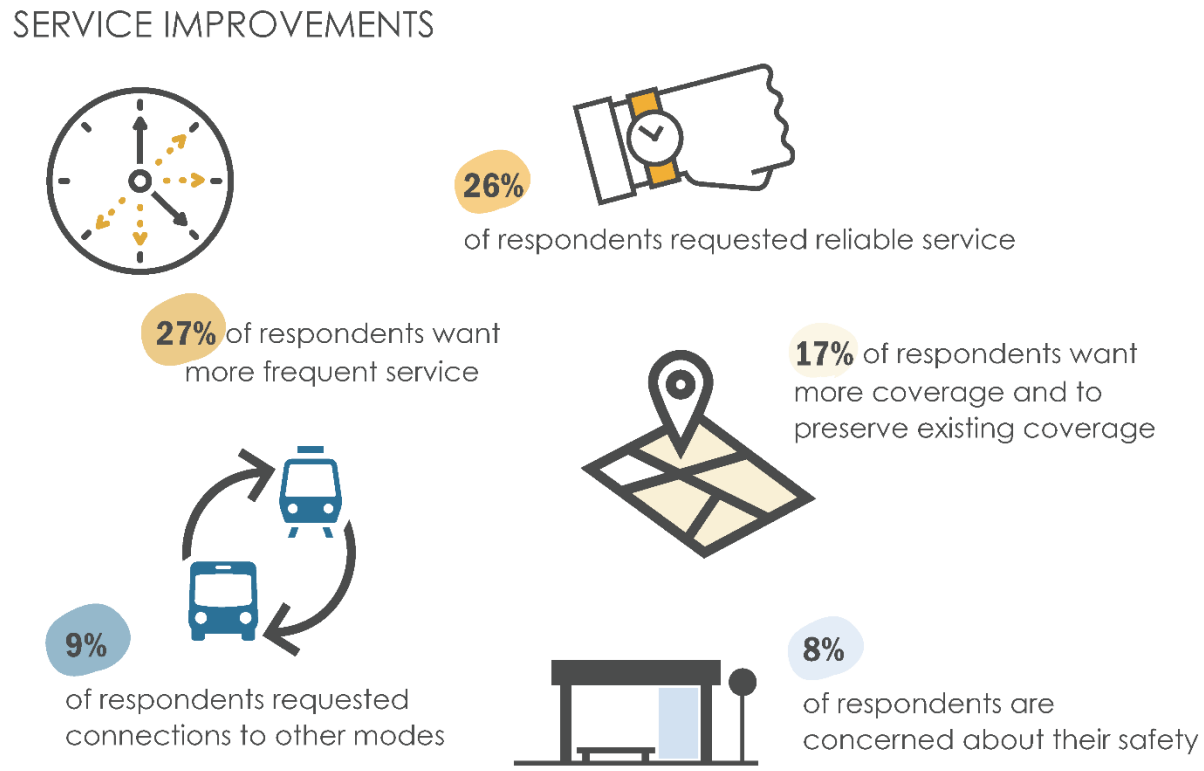
- 28% of all respondents mentioned frequency, compared to 32% of respondents in Union City/Fremont/Newark, 32% who use AC Transit for social or recreational trips, 33% of respondents ages 25-44, and 33% of respondents with incomes over $150,000.
- 39% of all respondents mentioned reliability, compared to 45% of respondents who use AC Transit 5-7 days a week, 44% of respondents in Oakland/Alameda/Berkeley, 44% of respondents who use AC Transit for work, and 46% of respondents ages 25-34. Those in San Leandro/Hayward only mentioned reliability 29% of the time.
- 22% of respondents in Union City/Fremont/Newark mentioned network coverage compared to 15% overall.
- 7% of all respondents mentioned safety, compared to 10% of respondents in San Leandro/Hayward, 11% of Black/African American respondents, and 13% of respondents who never ride AC Transit.
- 7% of all respondents mentioned customer service, compared to 11% of respondents who use AC Transit 5-7 days/week, 12% of Black/African American respondents, and 13% of respondents with incomes between $25,000-$34,999.
- 10% of respondents in San Leandro/Hayward mentioned cleanliness compared to 5% overall.
- 9% of respondents who never ride AC Transit mentioned bringing back discontinued routes compared to 4% overall. This suggests that many of them may be former riders who no longer ride because their route was discontinued.
- 5% of those who use AC Transit for work mentioned wanting earlier service compared to 3% overall.
- 5% of those who never use AC Transit mentioned speed/fast service compared to 3% overall.

What is the Single Most Important Improvement that AC Transit Could Make to Improve Your Travel? (N=8,154)

In addition to asking what aspects of AC Transit could be improved, respondents were also asked about the single most important improvement AC Transit could make to improve their trip. The top five factors are shown in Figure 9 below.

These findings are consistent with industry-wide research that has found frequency of service to be the number one factor in attracting people to transit and on-time performance/service reliability the most important factor in retaining riders. There are many similar findings between this question and the one that asked about all aspects that could be improved.

Figure 9: Single Most Important Service Improvement



These were consistently the top five categories mentioned by most sub-groups with a few exceptions. As with the previous question, all sub-groups mentioned improvements relating to frequency, reliability, and coverage the most.

- Those who never ride AC Transit mentioned bringing back discontinued routes more than connections to other modes. As inferred above, many may be former riders whose route was discontinued.
- By sub-area, Transbay service outweighed safety in Oakland/Alameda/Berkeley.
- By trip purpose, Transbay service was important for those using AC Transit to get to work, and scheduling of service (timing of routes, hours of operation) was important for discretionary travel – social/recreational, shopping/dining, and medical/dental trips.
- By age, real-time information outweighed safety for those 18-24. Transbay was important for those ages 35-64.
- By race, Transbay service outweighed safety for those who identify as White.

Of the paper surveys, 513 respondents provided an answer. Safety (23%) and cleanliness (8%) were mentioned at higher proportions compared to all respondents (8% and 3% respectively).

Demographics

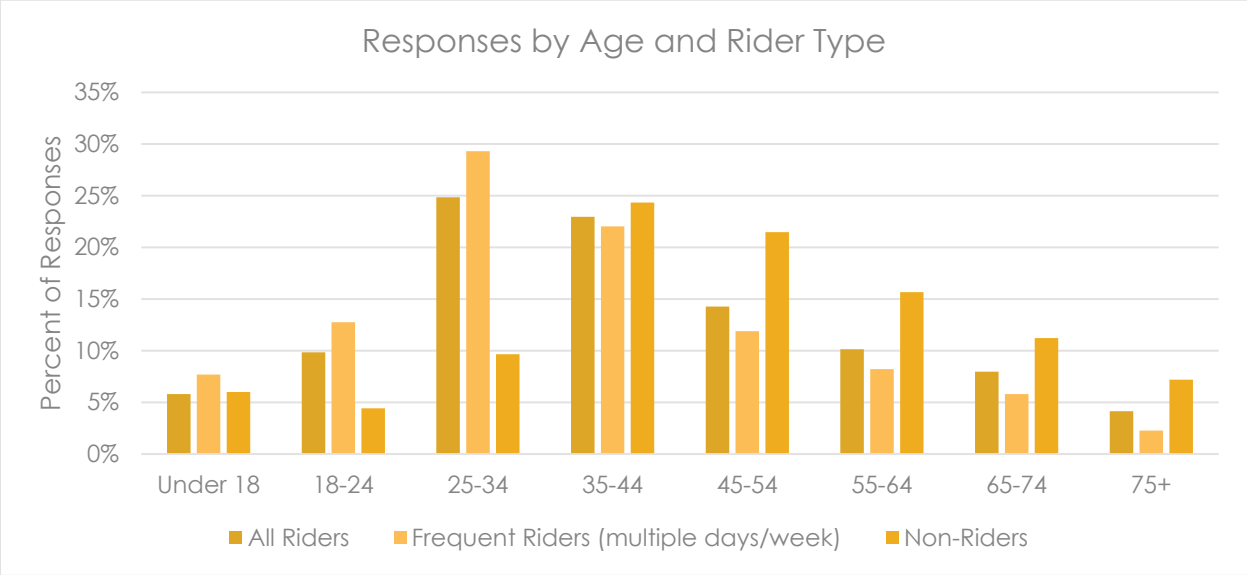
In addition to questions about AC Transit service, the survey also asked respondents to answer questions about their identity, to understand their preferences and ensure that all community members were being heard. The following information summarizes the respondent demographics.

- **Vehicle Availability (N=11,013):** 18% of respondents come from zero-vehicle households, while 44% of households have one working vehicle and 29% have two working vehicles. Those who ride AC Transit 5-7 days a week have less vehicle availability, with 29% of respondents reporting they live in zero-vehicle households. When broken down by survey type, responses were only slightly different between the paper and online surveys. 44% of online survey respondents have 1 car per household compared to 37% of paper survey respondents. Both types of survey have the same share of zero-vehicle households with about 20% of respondents.
- **Valid Driver's License (N=11,574):** 78% of respondents have a valid driver's license. This drops to 61% for riders who use AC Transit 5-7 days per week. The majority of online respondents have a valid driver's license, while only 57% of paper survey respondents have a valid driver license.
- **Household Size (N=11,070):** 16% of respondents are the only person in their household, 29% live in two-person households, 19% three-person households, 20% four-person households, and the remaining 16% in five+ person households. Amongst online survey respondents, there is a greater concentration of two-person households (30%) compared to paper survey respondents (20%). There is also a larger share of five-person households (14%) from paper survey respondents compared to 8% of online survey respondents.
- **Student Status (N=11,646):** 74% of respondents said they were not a student, 14% are college students, 7% K-12 students, and the remaining are other or vocational/technical students. The majority of respondents from both the paper and online versions of the survey are not students, 72% and 74% respectively. There is a slightly larger share of full-time college students from the online survey compared to the paper survey, 11% compared to 7%. The largest difference is 10% of paper survey respondents indicated other compared to only 2% other from the online survey.
- **Mobility-Limiting Disability (N=11,550):** 13% of respondents have a mobility-limiting disability. 23% of paper survey respondents and 12% of online survey respondents have a mobility-limiting disability.
- **Gender (N=11,445):** 51% of respondents identify as female, 45% as male, 3% as non-binary, and 1% as other. 61% of paper survey respondents identify as female, 34% male, and 1% non-binary compared to 49% of online survey respondents identifying as female, 46% as male, 3% as non-binary and 1% as other.
- **English Proficiency (N=11,510):** Overall, 94% of respondents speak English "well" or "very well." 97% of online survey respondents said they speak English "well" or "very well" compared to only 64% of paper survey respondents.

Age (N=10,211)

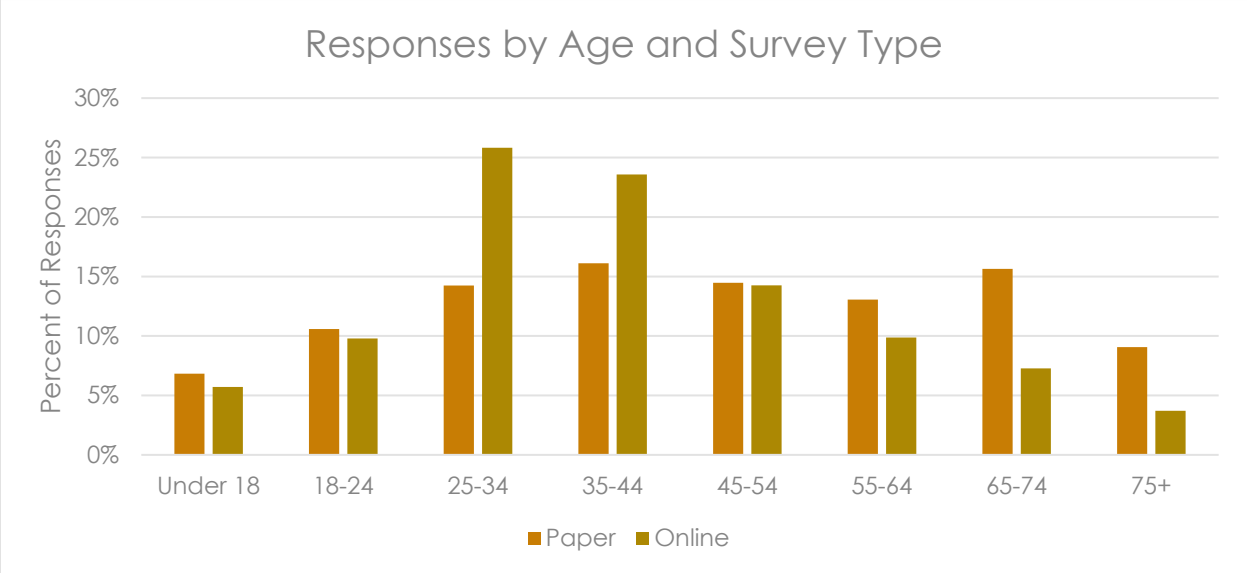
Overall, the survey captured a broad spectrum of ages, with over 50 responses from every age between 15 and 75. Frequent riders tend to be younger on average than survey respondents who do not ride AC Transit. Overall, the median age of a frequent rider who uses AC Transit at least a few days a week was 35 while the median age of a non-rider was 47. Ages 25-34 is the largest group for riders, with over a quarter of respondents falling into this age group. 50% of riders are under the age of 34 compared to only 20% of non-riders and 41% of all respondents.

Figure 10: Responses by Age and Rider Type



Responses by age were very different between the online survey respondents and paper survey respondents. Online survey respondents are a much greater share of 25–44-year-olds (50% compared to 30%). The paper survey respondents contain more spread and a greater share of them identify as 65+ (27% compared to 11%).

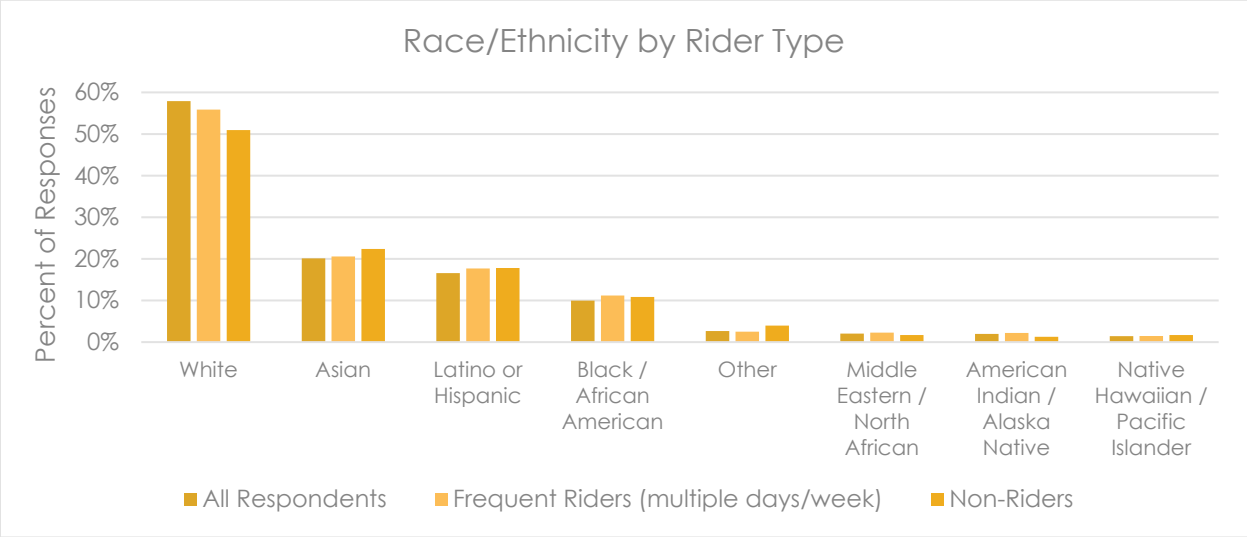
Figure 11: Responses by Age and Survey Type



Race/Ethnicity (N=11,265)

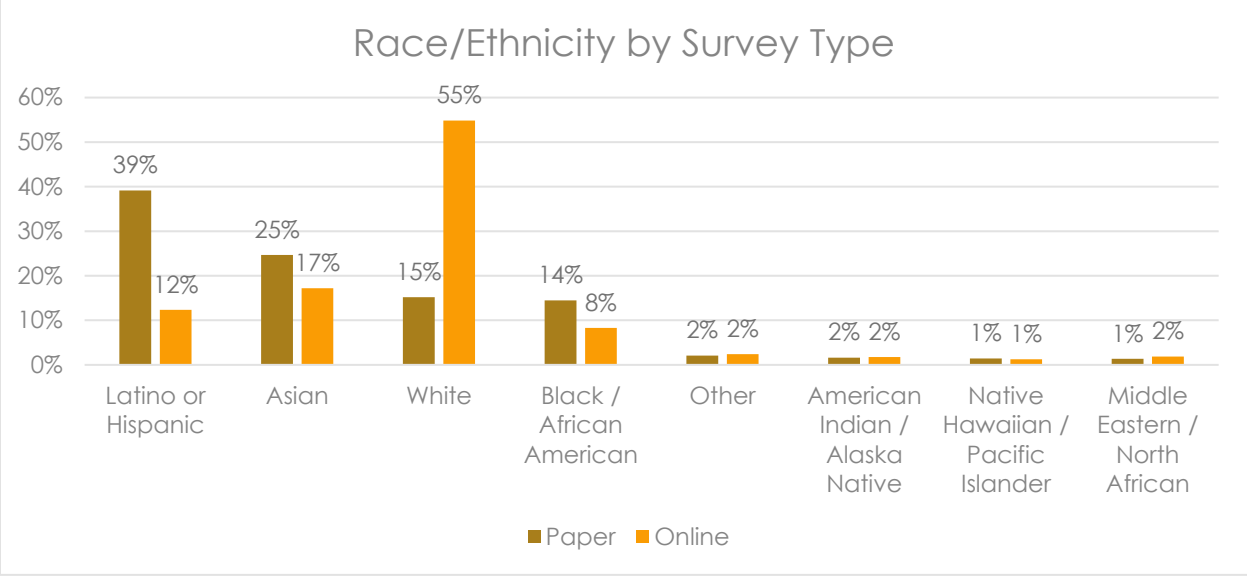
Respondents were asked to select all races/ethnicities that applied to them, so percentages for each category exceed 100%. Overall, 58% of respondents identified as White, 20% as Asian, 17% Latino or Hispanic, and 10% African American. The racial/ethnic composition of frequent riders and non-riders does not vary significantly, but frequent riders have a lower tendency to identify as White and have stronger representation of Asian, Latino/Hispanic, and African American groups.

Figure 12: Race/Ethnicity By Rider Type



The racial/ethnic identity of online versus paper survey respondents varies greatly. 55% of online respondents identify as white compared to only 15% of paper respondents. The share of Latino or Hispanic respondents from the paper survey is also higher with 39% of respondents compared to only 12% from the online survey. Additionally, the share of Black/African American and Asian respondents was higher from the paper survey than from the online survey.

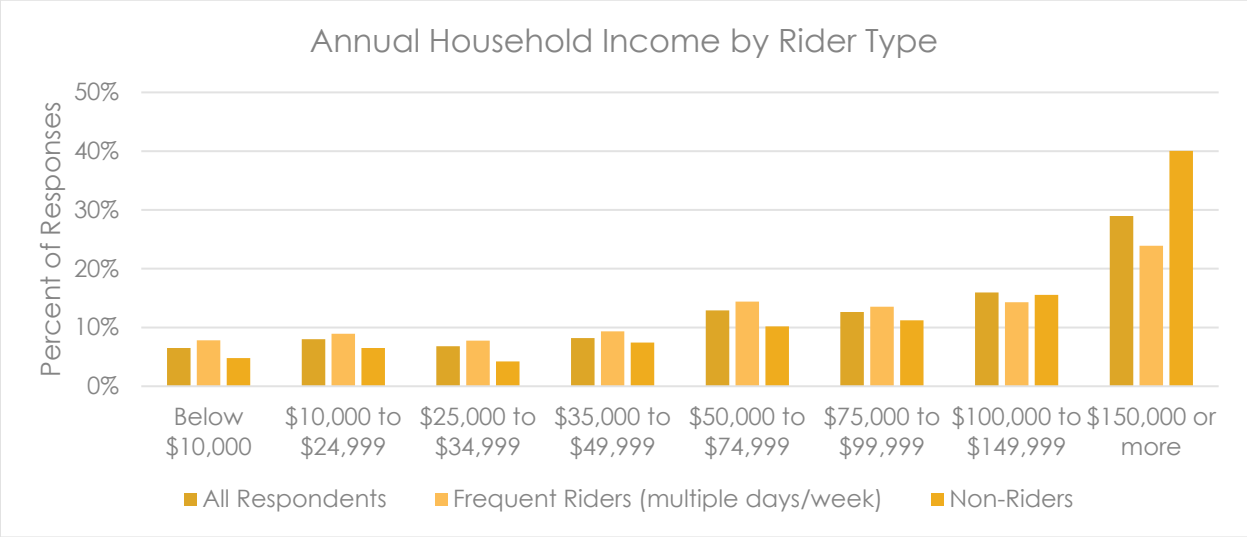
Figure 13: Race/Ethnicity by Survey Type



Annual Household Income (N=9,757)

Overall, frequent riders have lower annual household incomes than non-riders and the rest of the respondents – 25% of frequent riders have incomes below $35,000 compared to only 16% of non-riders and 21% of respondents overall.

Figure 14: Annual Household Income by Rider Type



The split in share of income by survey type can clearly be seen in Figure 15. The share of respondents from the paper survey skew towards the lower income ranges while the share of respondents from the online survey skew towards the higher income ranges.

Figure 15: Annual Household Income by Survey Type