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Chapter 1. Introduction

AC Transit is in the process of implementing Bus Rapid Transit (BRT) service on one of its highest-ridership corridors, consisting primarily of East 14th Street, International Boulevard and Telegraph Avenue. Phase One of the project is Rapid Bus service, consisting of a Rapid line (Route 1R), and a local line (Route 1). The corridor extends from the UC-Berkeley campus and Downtown Berkeley in the north, south through South Berkeley, North Oakland, Downtown Oakland, East Oakland and San Leandro to the Bay Fair BART station. Approximately 17.2 miles in length, it connects dense and relatively transit-dependent residential neighborhoods to large employment centers and other major destinations, as well as several BART stations providing regional rail access.

The objectives of BRT include improving speed and reliability, and to generally enhance the quality of transit service offered. Key features of Rapid Bus service include greater distances between stops, far-side bus stops, traffic signal coordination, transit signal priority, distinct branding, and enhanced marketing. In a future phase, International/Telegraph BRT may include some exclusive right-of-way BRT stations, with a pre-paid fare controlled area, and greatly increased service.

AC Transit retained Nelson\Nygaard to conduct a multi-phase data collection effort, analysis of operations and summary performance reports for the routes that formerly served the corridor (the 40, 43 and 82 local routes, and the 40L and 82L limited-stop lines) as well as their replacements (the 1 local and 1R rapid). Each phase was to feature a ridecheck including elements of both observation and survey-gathering. Resulting reports would be used to evaluate the effectiveness of Rapid Bus service and assist in future planning efforts.

Phase One of the evaluation was completed in May 2005, before any Rapid Bus features were implemented. In April and May of 2006, AC Transit implemented a first phase of relatively minor changes, and Phase Two of the evaluation was subsequently completed. Prior to Phase Three of the evaluation in October 2007, the agency completed a more extensive reconfiguration of services, including introduction of the Route 1R Rapid Bus line. This reconfiguration was detailed at length in the Phase Three report. This report summarizes results of the final, Phase Four ridecheck of Route 1R Rapid service, conducted in November 2008.

Nelson\Nygaard conducted its 2008 ridecheck of Route 1R on November 18 and 19. Surveyors under Nelson\Nygaard supervision\(^1\) rode almost every run of the 1R on a Tuesday and Wednesday, between approximately 5:30 a.m. and 7 p.m. Surveyors counted numbers of passengers boarding and alighting at each stop, as well as total numbers of passengers on-board following each stop. They also noted arrival and departure times at key stops. Finally, on-board surveys were completed by approximately 1,500 passengers. Data was then analyzed by Nelson\Nygaard staff.

\(^1\) A small amount of ridecheck data (less than 10 percent) was collected by AC Transit staff.
Chapter 2. Ridership and Reliability

Route 1R Overview

Route 1R operates between the west entrance of the University of California, Berkeley campus and the Bay Fair BART station just south of San Leandro on weekdays from approximately 6 a.m. to 8 p.m., on 12-minute headways. On weekends, it operates between 12th Street and Broadway in Downtown Oakland and Bay Fair from approximately 7:30 a.m. to 7 p.m. on 15-minute headways. The ridecheck that serves as the basis for this report was conducted on a pair of weekdays.

As Route 1R is a rapid service, there are no scheduled arrival times at interim stops, only scheduled departures at the beginning of each run and scheduled arrivals at the end of each run. Scheduled run times are generally 1 hour and 13 minutes, with a few 1 hour and 18-minute runs in the afternoon peak. As a rapid service, the 1R also makes only limited stops, a total of 37 in each direction.

Route 1R service is provided primarily by 60-foot articulated buses with four sets of doors and continuous low floors. These features are designed to reduce “dwell” (loading and unloading) times.

For purposes of this analysis, the route has been divided into three roughly equivalent segments reflecting the distinct characters of the different sections of the corridor.

- The northern segment is primarily in Berkeley and North Oakland along Telegraph Avenue, from UC-Berkeley to a midpoint between 20th and 14th streets along Broadway in Downtown Oakland. This is a distance of approximately 5.3 miles, with 12 stops in each direction. It is anchored on its northern end by UC-Berkeley and Downtown Berkeley and includes the northern part of Downtown Oakland. Connections can be made to three BART stations: Downtown Berkeley, MacArthur, and 19th Street Oakland.

- The central segment is primarily in East Oakland along International Boulevard, from a midpoint between 20th and 14th streets along Broadway to a midpoint between Havenscourt Boulevard and 73rd Avenue along International. This is a distance of approximately 5.8 miles, with 13 stops in each direction. It is anchored on its northern end by the central and eastern parts of Downtown Oakland and includes relatively dense, transit-dependent neighborhoods in East Oakland. Connections can be made to two BART stations: 12th Street Oakland City Center and Fruitvale.

- The southern segment is primarily in East Oakland and San Leandro along International and East 14th Street, from a midpoint between Havenscourt Boulevard and 73rd Avenue along International Boulevard to Bay Fair BART. This is a distance of approximately 6.1 miles, with 12 stops in each direction. Other than the Bayfair Mall and adjacent Bay Fair BART station, a major hub for AC Transit, there are no significant anchors along this segment, although it includes parts of transit-dependent East Oakland. The one BART connection is at Bay Fair.

For the analysis of origins and destinations, the three segments have been further divided into nine sub-sections, which will be discussed under the analysis of origins and destinations.
Boardings, Productivity, Load Factors and Origins & Destinations

Ridership totals for all services operating in the corridor between 2005 and 2007 were detailed at length in the Phase Three report. As this report is concerned exclusively with Route 1R rapid service, the tables below include boardings for Route 1R only in 2007 and 2008.

**Figure 2-1 Average Weekday Boardings for Route 1R, 2007-2008**

<table>
<thead>
<tr>
<th></th>
<th>Total 1</th>
<th>% Change</th>
<th>Per Revenue Service Hour 2</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>10,791</td>
<td>-</td>
<td>58.4</td>
<td>-</td>
</tr>
<tr>
<td>2008</td>
<td>12,023</td>
<td>+11.4%</td>
<td>61.6</td>
<td>+5.6%</td>
</tr>
</tbody>
</table>

The following table compares numbers of boardings in the three segments of the corridor, which are of roughly equivalent distance and include roughly equivalent numbers of stops.

**Figure 2-2 Average Weekday Boardings by Segment, 2007-2008**

<table>
<thead>
<tr>
<th></th>
<th>Northern (Telegraph)</th>
<th>Central (International)</th>
<th>Southern (E. 14th)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Boardings in Segment</td>
<td>2,615</td>
<td>4,817</td>
</tr>
<tr>
<td></td>
<td>% of Total for Route</td>
<td>24%</td>
<td>45%</td>
</tr>
<tr>
<td>2008</td>
<td>Boardings in Segment</td>
<td>3,268</td>
<td>5,139</td>
</tr>
<tr>
<td></td>
<td>% of Total for Route</td>
<td>27%</td>
<td>43%</td>
</tr>
<tr>
<td></td>
<td>% Change from 2007</td>
<td>+25.0%</td>
<td>+6.3%</td>
</tr>
</tbody>
</table>

Two major trends are immediately apparent: in 2008, ridership increased significantly for the entire route; and the greatest increase, by far, was in the route’s northern segment.

Closer analysis of the increase in the northern segment indicates that much of the rise can be attributed to a single stop: the Uptown Transit Center at 20th Street and Telegraph Avenue. It should be noted, prior to any analysis of year-over-year changes in boardings at individual stops, that such findings should be viewed somewhat skeptically. As all data for this analysis

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1 Route 1R is scheduled to make 132 full one-day runs per weekday and an additional two early-morning short runs, from Downtown Oakland to UC-Berkeley. The two short runs were not observed and are not included in ridership totals. Of the remaining 132 full runs, boarding counts on nine (just less than 7%) were estimated rather than observed, either because surveyors missed the runs or because data was incorrectly recorded. In these cases, estimated boardings are an average of counts on the previous and following runs (this formula is applied at both the route and stop level). Finally, on the days of observation, buses missed parts of three runs due to mechanical problems. In these cases, no estimates of additional potential ridership were made.

2 Productivity calculations are based on scheduled hours of service (including layover and recovery), which were increased between the ridechecks.
was collected over a two-day period, the entire exercise was, in effect, a snapshot. Ridership on one day might be higher or lower than on another for any number of reasons. However, given the relatively low numbers of boardings at each individual stop -- representing much smaller datasets -- an additional caveat should apply: observed increases or decreases in stop-level boardings are highly variable and somewhat unreliable.

That notwithstanding, the increase in boardings at the Uptown Transit Center is notable: 159 percent, including a 207 percent increase in the southbound direction. The Center opened in November 2007, just after the Phase Three ridecheck, and its opening did not alter the route network; riders were previously able to make the same transfers that they make today, including transfers to and from BART at the adjacent 19th Street Oakland station. However, the waiting environment has been greatly improved, with spacious shelters and real-time bus arrival displays. New development nearby, such as the Uptown Apartments, may also have contributed to the ridership increase.

Even without the Uptown Transit Center, boardings along the northern segment of the route increased at a much greater rate than in the rest of the corridor -- 15.4 percent. Other than the Center, the most notable single-stop increases in the northern segment were at Telegraph and 49th Street (northbound) and Telegraph and 50th Street (southbound) in Oakland’s Temescal District, where combined boardings increased 72 percent, and in South Berkeley along Telegraph at Webster and Dwight, where boardings were up 34 and 38 percent, respectively.

A number of possible explanations exist for the ridership increases in both the northern segment and along the length of the alignment, some of them general and some involving circumstances unique to the 1R:

- While gas prices had declined significantly from their summer 2008 peak by the time of the November ridecheck, transit systems in the Bay Area and elsewhere continued to report increased ridership in the 3rd quarter of 2008 even as prices fell.
- As previously mentioned, new development may have played a role in parts of the corridor.
- Prior to introduction of rapid service to the corridor there had been limited-stop service south of Downtown Oakland (Route 82L), but only local service north of Downtown Oakland (Route 40L made limited stops along part of its route, but local stops along Telegraph). Rapid service wasn’t introduced to the corridor until June 2007, just four months before the Phase Three ridecheck in October, and awareness of the new service may still have been relatively low at the time of the Phase Three ridecheck.
- It is also possible that as awareness of the rapid service has increased, there has been some shift in ridership from Route 1 local buses, which by making more stops provide greater access but are significantly slower. (A count of Route 1 local ridership was not conducted in this phase of the study; in Phase Three, ridership in the corridor was almost evenly divided between rapid and local buses.)

Despite the greater increase in ridership in the route’s northern segment, its central segment remains its most productive, accounting for 43 percent of boardings despite including just 34 percent of the route’s mileage and 35 percent of its stops. This is perhaps unsurprising given that the East Oakland neighborhoods it serves have both the highest population densities and highest proportions of transit-dependent residents in the corridor. It is also in this central
segment, as one might expect, that the highest load factors are found: 1.88 in the southbound direction and 2.18 northbound.  

On the following page are charts displaying numbers of boardings for every run in both directions (Figures 2-3 and 2-4). As the major employment centers of Downtown Oakland and UC-Berkeley are located in the northern part of the corridor, northbound travel is highest in the AM peak. In the southbound direction, the peak occurs in mid-to-late afternoon, around the time schools let out, although a pair of mid-day runs experienced the highest totals on the days of observation. In both directions, ridership remains relatively constant throughout the day, suggesting that Route 1R is used for all kinds of trips, and not just commute purposes.

Figures 2-5 and 2-6 on page 2-6 illustrate numbers of boardings and alightings at each individual stop. The busiest stops are generally those in busy commercial areas and adjacent to BART stations – including Center Street and Allston Way in Downtown Berkeley, 14th Street and 11th Street/Broadway for in Downtown Oakland by 12th Street Oakland City Center BART, 34th Avenue and Avenida de La Fuente in Fruitvale, and Bay Fair – followed by stops along International Boulevard between 73rd and 104th avenues in East Oakland and the northbound stop at Telegraph and Bancroft Street, by the Sather Gate entry to the UC-Berkeley campus.

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3 Load factors are calculated by determining the average number of passengers aboard each bus as it departs the maximum load point during the peak hour, then dividing that average by the number of seats per bus (37 for the standard vehicle in operation on Route 1R, the Van Hool AG330). In the southbound direction, the peak hour is 3 to 4 p.m., and the maximum load point is International Boulevard at High Street. In the northbound direction, the peak hour is 7 to 8 a.m., and the maximum load point is International Boulevard at 5th Avenue. The southbound load factor of 2.18 represents an average of 81 passengers per bus, of whom 44 would be standees if all seats were filled, while the northbound load factor represents an average of 69 passengers per bus, of whom 32 would be standees.
Figures 2-3 & 2-4  Weekday Boardings by Run

Weekday Boardings by Run: Southbound

Weekday Boardings by Run: Northbound
Figures 2-5 & 2-6  Weekday Boardings & Alightings by Stop

Weekday Boardings & Alightings by Stop: Southbound

Weekday Boardings & Alightings by Stop: Northbound
Origins and Destinations

As part of the on-board survey (see Chapter 3), riders were asked where they had boarded the bus, and where they would be getting off of the bus. A total of 899 legible responses were identified, out of 1,676 completed surveys. These were mapped, assigned to the nearest stop, and the three route segments were subdivided into three segments each.

**Figure 2-7 Definitions of “Small” Segments Used in Origins and Destinations Analysis**

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<tr>
<th>Segment</th>
<th>Stops (each way)</th>
<th>Boundaries</th>
</tr>
</thead>
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<tr>
<td><strong>North</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berkeley</td>
<td>5</td>
<td>UC-Berkeley West Gate to Telegraph/Webster</td>
</tr>
<tr>
<td>North Oakland</td>
<td>4</td>
<td>Telegraph/Alcatraz to Telegraph/40th St.</td>
</tr>
<tr>
<td>Uptown/Pill Hill</td>
<td>3</td>
<td>Telegraph/31st St. to Telegraph/20th St.</td>
</tr>
<tr>
<td><strong>Central</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downtown Oakland</td>
<td>4</td>
<td>Broadway/14th St. to 11th St./Madison (SB) and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12th St./Oak (NB)</td>
</tr>
<tr>
<td>Eastlake/San Antonio</td>
<td>5</td>
<td>International/1st Ave. to International/26th Ave.</td>
</tr>
<tr>
<td>Fruitvale/Seminary</td>
<td>4</td>
<td>International/34th Ave. to International/Havenscourt</td>
</tr>
<tr>
<td><strong>South</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elmhurst</td>
<td>5</td>
<td>International/73rd Ave. to International/104th Ave.</td>
</tr>
<tr>
<td>Northern/Central San Leandro</td>
<td>3</td>
<td>E. 14th St./Dutton to E.14th St./Dolores</td>
</tr>
<tr>
<td>Southern San Leandro</td>
<td>4</td>
<td>E. 14th St./San Leandro Blvd. to Bay Fair BART</td>
</tr>
</tbody>
</table>

Analysis of travel patterns within and between cities, among larger segments, and among the smaller segments is summarized in Figures 2-8 through 2-10. Only trip ends – boarding and alighting locations – were part of the analysis; in other words, trips from Berkeley to San Leandro, through Oakland, are “Berkeley-San Leandro” trips. The most popular trip-pairs – those in the highest tier according to a pattern of “natural breaks” – have been bold-faced.

**Figure 2-8 Percentage of All Trips Within or Between Cities**

<table>
<thead>
<tr>
<th></th>
<th>Berkeley</th>
<th>Oakland</th>
<th>San Leandro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berkeley</td>
<td>6.0%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Oakland</td>
<td>28.9%</td>
<td>42.0%</td>
<td>--</td>
</tr>
<tr>
<td>San Leandro</td>
<td>2.4%</td>
<td>19.5%</td>
<td>1.1%</td>
</tr>
</tbody>
</table>
Figure 2-9 Percentage of All Trips Within or Between Large Segments

<table>
<thead>
<tr>
<th></th>
<th>North</th>
<th>Central</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>27.6%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Central</td>
<td>20.9%</td>
<td>7.6%</td>
<td>--</td>
</tr>
<tr>
<td>South</td>
<td>9.6%</td>
<td>24.7%</td>
<td>9.7%</td>
</tr>
</tbody>
</table>

Figure 2-10 Percentage of All Trips Within or Between Small Segments

<table>
<thead>
<tr>
<th></th>
<th>Berkeley</th>
<th>North Oakland</th>
<th>Uptown/Pill Hill</th>
<th>Downtown Oakland</th>
<th>Eastlake/San Antonio</th>
<th>Fruitvale/Seminary</th>
<th>Elmhurst</th>
<th>North/Central San Leandro</th>
<th>Southern San Leandro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berkeley</td>
<td>6.0%</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>North Oakland</td>
<td>12.8%</td>
<td>1.1%</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Uptown/Pill Hill</td>
<td>5.5%</td>
<td>2.2%</td>
<td>0.0%</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Downtown Oakland</td>
<td>6.0%</td>
<td>2.8%</td>
<td>1.6%</td>
<td>0.2%</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Eastlake/San Antonio</td>
<td>2.3%</td>
<td>2.1%</td>
<td>0.6%</td>
<td>1.3%</td>
<td>0.8%</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Fruitvale/Seminary</td>
<td>1.1%</td>
<td>2.6%</td>
<td>1.9%</td>
<td>3.0%</td>
<td>1.6%</td>
<td>0.7%</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Elmhurst</td>
<td>1.2%</td>
<td>2.7%</td>
<td>1.2%</td>
<td>4.6%</td>
<td>2.7%</td>
<td>6.5%</td>
<td>1.6%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>North/Central San Leandro</td>
<td>0.9%</td>
<td>0.0%</td>
<td>0.2%</td>
<td>0.7%</td>
<td>0.3%</td>
<td>1.1%</td>
<td>1.2%</td>
<td>0.0%</td>
<td>--</td>
</tr>
<tr>
<td>Southern San Leandro</td>
<td>1.6%</td>
<td>0.4%</td>
<td>0.8%</td>
<td>2.1%</td>
<td>1.6%</td>
<td>5.2%</td>
<td>5.8%</td>
<td>0.9%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

The most notable pattern among the responses is a disproportionate response rate among passengers going to or coming from Berkeley. While just 11.2 percent of observed boardings took place at stops in Berkeley, and just 12.6 percent of alightings, 37.4 percent of survey respondents who provided a legible origin and destination identified either or both as being in Berkeley. (It should be noted that language may have been a factor - while surveys were provided in both English and Spanish, they were not available in other languages.) Whatever the reason for this, it suggests that origin and destination findings might need to be viewed with caution.

Nonetheless, a number of interesting patterns emerge:

- As might be expected, more than two out of five respondents said they were taking trips within the City of Oakland, which accounts for most of the route, and nearly half were taking trips between Oakland and the neighboring cities of Berkeley and San Leandro.
- More than one-quarter of respondents said they were taking trips within the route's northern segment, from the 20th and Telegraph stop on the edge of Downtown Oakland north to Downtown Berkeley and UC-Berkeley. Nearly one-quarter and slightly more than one in five respondents, respectively, said they were taking trips between the
central and southern segments, and between the central and northern segments. About one out of 13 said they were taking trips within the route's central segment, which extends from Downtown Oakland through East Oakland nearly to Hegenberger Road, suggesting that riders in this segment typically use the rapid service for longer trips.

- Finally, about one out of eight respondents said they were taking trips between one of the five stops in Berkeley and one of the four stops along Telegraph between the Berkeley border and Highway 580 that were labeled “North Oakland” for purposes of this exercise. Trips within Berkeley or between Berkeley and points in Oakland from downtown north accounted for more than 3 out of every 10 responses. Other notable trip-pairs included Downtown Oakland and Elmhurst (East Oakland from 73rd Avenue south), Fruitvale/Seminary (from 34th Avenue to Havenscourt) and Elmhurst, Fruitvale/Seminary and southern San Leandro (from San Leandro Boulevard to Bay Fair BART), and Elmhurst and southern San Leandro. These latter patterns suggest a relatively high number of trips over long distances with origins or destinations in East Oakland, including many trips to or from Bay Fair BART.
On-Time Performance and Speed

Figures 2-11 through 2-14 below illustrate various methods of gauging Route 1R’s speed and reliability. Figures 2-11 and 2-12 apply the following standards: for schedule adherence, buses are considered on-time if they depart from the first stop or arrive at the last stop no more than 1 minute earlier or 5 minutes later than scheduled; and for headway adherence, buses are considered on-time if they depart or arrive no more than 15 minutes after the previous bus (25 percent greater than the scheduled headway of 12 minutes).

Figure 2-11 Average Schedule Adherence for Route 1R

<table>
<thead>
<tr>
<th></th>
<th>Southbound</th>
<th>Northbound</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Stop</td>
<td>68.2%</td>
<td>65.1%</td>
<td>66.7%</td>
</tr>
<tr>
<td></td>
<td>30.3%</td>
<td>22.2%</td>
<td>26.4%</td>
</tr>
<tr>
<td></td>
<td>49.2%</td>
<td>43.7%</td>
<td>46.5%</td>
</tr>
<tr>
<td>Last Stop</td>
<td>68.2%</td>
<td>65.1%</td>
<td>66.7%</td>
</tr>
<tr>
<td></td>
<td>30.3%</td>
<td>22.2%</td>
<td>26.4%</td>
</tr>
<tr>
<td></td>
<td>49.2%</td>
<td>43.7%</td>
<td>46.5%</td>
</tr>
<tr>
<td>Combined</td>
<td>68.2%</td>
<td>65.1%</td>
<td>66.7%</td>
</tr>
<tr>
<td></td>
<td>30.3%</td>
<td>22.2%</td>
<td>26.4%</td>
</tr>
<tr>
<td></td>
<td>49.2%</td>
<td>43.7%</td>
<td>46.5%</td>
</tr>
</tbody>
</table>

Figure 2-12 Average Headway Adherence for Route 1R, 2007-2008

<table>
<thead>
<tr>
<th></th>
<th>Southbound</th>
<th>Northbound</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007 First Stop</td>
<td>79.6%</td>
<td>76.1%</td>
<td>77.9%</td>
</tr>
<tr>
<td>2007 Last Stop</td>
<td>59.2%</td>
<td>56.5%</td>
<td>57.9%</td>
</tr>
<tr>
<td>2007 Combined</td>
<td>69.4%</td>
<td>66.3%</td>
<td>67.9%</td>
</tr>
<tr>
<td>2008 First Stop</td>
<td>78.5%</td>
<td>82.1%</td>
<td>80.6%</td>
</tr>
<tr>
<td>2008 Last Stop</td>
<td>58.5%</td>
<td>62.3%</td>
<td>60.3%</td>
</tr>
<tr>
<td>2008 Combined</td>
<td>68.5%</td>
<td>72.5%</td>
<td>70.4%</td>
</tr>
</tbody>
</table>

Figure 2-13 Average Running Times for Route 1R, 2007-2008

<table>
<thead>
<tr>
<th></th>
<th>Southbound</th>
<th>Northbound</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007 Scheduled</td>
<td>1:10</td>
<td>1:11</td>
<td>1:11</td>
</tr>
<tr>
<td>2007 Actual</td>
<td>1:16</td>
<td>1:14</td>
<td>1:15</td>
</tr>
<tr>
<td>% Difference</td>
<td>8%</td>
<td>4%</td>
<td>6%</td>
</tr>
</tbody>
</table>

4 All times were recorded to the minute. Observers were provided with watches that had been synchronized in advance to official United States time; however, some minor variability may exist. Valid departure and arrival time data for three of the 132 observed runs, or about 2 percent, was not collected (all three runs were in the northbound direction). Additionally, the two early-morning short runs were not observed.
Figure 2-14 Percentage of Route 1R Runs That Are Not 5 or 10 Minutes Longer Than Scheduled

<table>
<thead>
<tr>
<th></th>
<th>Southbound</th>
<th>Northbound</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than 5 Minutes Longer</td>
<td>71.2%</td>
<td>36.5%</td>
<td>54.3%</td>
</tr>
<tr>
<td>Less Than 10 Minutes Longer</td>
<td>81.8%</td>
<td>63.5%</td>
<td>72.9%</td>
</tr>
</tbody>
</table>

As Route 1R is essentially a headway-based service – that is, published schedules include only the first and last stops of every run, and buses are scheduled to arrive at all other stops “every 12 minutes” – schedule adherence is not a meaningful measure of on-time performance for the vast majority of the riding public. Put simply, only those boarding at or near the beginning of a run can practically refer to published schedules. Headway adherence, however, is a valuable metric. In this area, Route 1R performance improved slightly in 2008: while data on “gaps” and “bunching” was not available for interim stops, approximately 80 percent of buses began their runs within 15 minutes of the previous bus, and approximately 60 percent arrived at their terminals within 15 minutes of the previous bus.

Speeds, meanwhile, declined somewhat, to 13.4 miles per hour in the southbound direction and 12.5 mph in the northbound direction, for an average commercial speed (including stops) of 12.9 mph. After the 2007 ridecheck, schedules were adjusted to account for longer running times. However, southbound buses still typically take about 2 minutes longer to complete their runs than scheduled, and northbound buses take approximately 9 more minutes. On average, Route 1R buses take about 1 hour and 20 minutes to complete their 17.2-mile runs, approximately 6 minutes longer than scheduled. Since only a fraction of passengers ride routes such as the 1R end-to-end or even for most of a run, actual average on-board delay for riders would be significantly less. Just more than half of Route 1R runs are less than 5 minutes longer than scheduled, and nearly three-quarters are less than 10 minutes longer than scheduled.

On the following page are charts illustrating observed vs. scheduled run times for every run of the 1R in each direction (Figures 2-15 and 2-16). Generally, the pattern is one of relatively high, yet predictable variability – long runs are often followed by shorter ones in a rhythm of regularly alternating peaks and valleys. This pattern of “consistent inconsistency” is typical of high-volume transit routes operated in mixed-flow rights-of-way shared with autos: as congestion causes delays, more and more riders arrive at downstream stops in advance of the run, lengthening dwell times and compounding both delays and crowding. Conversely, the following bus is left with fewer and fewer passengers to pick up and drop off, and might eventually catch up to the preceding bus, resulting in the phenomenon of “bunching.” While no data on bunching was collected, where differences in run times between adjacent trips are greater than scheduled headways, it is reasonable to assume that bunching is occurring. In any case, the variability seen in running times is an expression of the schedule and headway adherence issues that were observed.
Figures 2-15 & 2-16  Actual vs. Scheduled Run Times, Route 1R

5 Runs were omitted from these figures when data was not available.
**Summary**

On the whole, Route 1R performance showed significant improvement in this, the final phase of the International/Telegraph study. Ridership increased substantially over the previous year -- more than 11 percent – leading to a nearly 6 percent increase in productivity even as schedules were lengthened and service hours added to more accurately reflect operating conditions. Speed and reliability issues, however, remain challenging, and seem likely to remain so unless or until congested segments of the alignment can be converted to exclusive right-of-way, as is planned over the long term.
Chapter 3. On-Board Survey

In addition to the ridecheck conducted on Route 1R, surveyors distributed and collected onboard surveys featuring questions on travel behavior and personal profile. A total of 1,676 passengers were surveyed on Tuesday and Wednesday, November 18 and 19, 2008. The survey was administered in both English and Spanish. Copies of the survey can be found in the Appendix.

Figure 3-1 Survey Distribution

<table>
<thead>
<tr>
<th></th>
<th>English</th>
<th>Spanish</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1R</td>
<td>1,477</td>
<td>199</td>
<td>1,676</td>
</tr>
</tbody>
</table>

Impacts of Introduction of Rapid Service

The survey’s primary goal was to determine whether the introduction of Route 1R Rapid service has changed passengers’ perceptions of service in the International/Telegraph corridor, and to compare these findings with findings of a similar survey conducted in 2007 to examine trends. We were particularly interested in riders’ views of how the service has affected travel times, as well as areas for improvement. The results indicate a generally positive perception of the 1R, with improved service ratings year-over-year in almost all categories.
Changes in Travel Time

A strong perception exists among riders that the introduction of rapid service has reduced their travel times. Over 70 percent indicated that the 1R had made their trips at least 1 minute faster, an increase of almost 6 percent over last year. Almost 60 percent indicated that the 1R had made their trips at least 6 minutes shorter, a gain of almost 3 percentage points over last year. Similar to last year, close to 30 percent indicated that it had shortened their trips by 15 or more minutes. Only 6 percent reported that the service lengthened their travel time, a drop of over 3 percentage points from last year. The proportion of 1R respondents who described travel times as “good” or “excellent” has risen each year, from 57 percent in 2006 (on Route 82L, which operated over most of the 1R alignment), to 61 percent in 2007, to 63 percent in this latest survey.

Figure 3-2 Has Your Travel Time Changed with the 1R?
Mode Prior to Introduction of the 1R

Over 60 percent of respondents took the bus (49 percent) or BART (13 percent) prior to 1R service being instituted. Significant changes from last year include a drop of 11 percent in those who said they previously took the bus, and a 5 percent rise in the proportion of respondents who would not have made the trip at all. Over time the proportion of those saying they previously took the bus might be expected to drop as those for whom these trips are new choose the 1R. Over 14 percent - up 3 percent from last year – said they made similar trips by car. The shift from cars to Rapid Bus is especially noteworthy given the service improvement goal of automobile trip reduction, and may suggest that large numbers of riders feel that the level of service provided by the 1R is preferable to BART or to driving.

Figure 3-3   How did you make this trip before the 1R?
Marketing of the 1R

The greatest number of respondents, 34 percent, said they had learned of the 1R “on the street”, up over 5 percent from last year. Another 24 percent had learned of the service through “word of mouth. Ads and other promotional efforts were cited in 17 percent of responses, down almost 7 percentage points from last year, while 18 percent checked “Other.”

Figure 3-4  How did you find out about the 1R?

[Bar chart showing percentages for 2007 and 2008, with categories for 'On the street', 'Word of mouth', 'Other', 'Ads/promotion', 'Bus driver'.]
Quality of Service

Riders on the 1R were asked to rate the service in 15 separate areas of service quality as well as to give an overall rating. Generally, satisfaction with the service is high; over 70 percent of respondents rated the service overall as Good or Excellent, an increase of 4 percentage points over last year, with a corresponding decrease in proportion for all negative rating categories (Fair, Poor or Very Poor). The following figure shows responses to the rating for “1R service overall”.

Figure 3-5  Service Overall, Route 1R

Additionally, ratings in 11 of the 15 subcategories improved; that is, fewer respondents rated the service aspect as Very Poor or Poor, and more rated the aspect as Good or Excellent. Figure 3-6 below gives an overview of the Good or Excellent ratings for the 15 subcategories, for both 2007 and 2008.
Figure 3-6 Percent “Good” and Excellent” Ratings on Aspects of 1R Service, 2007 and 2008

* = Ratings of Good or Excellent lower in 2008 than in 2007

Notable among positive findings:

- 76 percent of Route 1R respondents selected Good or Excellent for Routes, an increase of 6 percentage points over last year
- Just over 59 percent of respondents rated the Service Frequency as Good or Excellent, an increase of 6 percentage points from 2007
- 71 percent of Route 1R respondents rated the Location of Bus Signs as Good or Excellent, an increase of almost 4 percentage points from 2007
- Ratings of Good or Excellent for Wheelchair Securement were 76 percent, up over 3 percentage points from 2007
- Good or Excellent ratings for Reliability were 55 percent, up 3 percentage points from last year

Less positive findings:
The greatest change in ratings was a drop of 9 percentage points of Good or Excellent ratings for *Cleanliness* (to 40 percent), with a corresponding increase of 6 percentage points in ratings of Poor or Very Poor (27 percent) for this aspect of service.

*Information at Stops* was rated Good or Excellent by 45 percent of respondents, a drop of 2 percentage points from last year.

*Safety* was rated slightly less positively than last year, with 53 percent of respondents rating this Good or Excellent, down 1 percentage point from last year.

Fifty-three percent of respondents rated *Seat Availability* as Good or Excellent, a 1 percentage point increase from last year; however, 17 percent rated this aspect as Poor or Very Poor, an increase of one percentage point.

The change in these ratings may be related to the increase in ridership. Bus service with high ridership will have fewer available seats, and the vehicles may accumulate more debris over the course of the run. With greater demand, more passengers will look for information on schedules and service span at the bus stop.

The charts on the following pages (Figures 3-7 – 3-20) illustrate respondents' ratings of the performance of Routes 1R in the 15 service quality subcategories, comparing 2007 and 2008.
Figure 3-7  Frequency of buses (how often they run)

<table>
<thead>
<tr>
<th>Year</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Very Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>8.8%</td>
<td>33.2%</td>
<td>18.9%</td>
<td>4.5%</td>
<td>8.8%</td>
</tr>
<tr>
<td>2008</td>
<td>8.0%</td>
<td>30.8%</td>
<td>18.0%</td>
<td>4.5%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>
Figure 3-8  Quality of bus shelters

- 2007:
  - Excellent: 15.1%
  - Good: 30.0%
  - Fair: 34.6%
  - Poor: 13.4%
  - Very Poor: 6.9%

- 2008:
  - Excellent: 13.6%
  - Good: 33.0%
  - Fair: 37.1%
  - Poor: 11.9%
  - Very Poor: 4.3%
Figure 3-9  Quality of buses

2007

2008

Excellent
Good
Fair
Poor
Very Poor
Figure 3-10  Routes go where I need them to go

- 2007:
  - Excellent: 32.6%
  - Good: 37.3%
  - Fair: 22.8%
  - Poor: 4.4%
  - Very Poor: 2.9%

- 2008:
  - Excellent: 33.0%
  - Good: 42.9%
  - Fair: 19.2%
  - Poor: 3.6%
  - Very Poor: 1.3%
Figure 3-11  Reliability

- 2007:
  - Excellent: 33.1%
  - Good: 10.9%
  - Fair: 33.5%
  - Poor: 4.0%
  - Very Poor: 8.9%
- 2008:
  - Excellent: 33.3%
  - Good: 8.9%
  - Fair: 36.5%
  - Poor: 3.2%
  - Very Poor: 10.1%
Figure 3-12  Travel time on the bus

<table>
<thead>
<tr>
<th>Year</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Very Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>22.8%</td>
<td>38.3%</td>
<td>28.2%</td>
<td>8.0%</td>
<td>2.7%</td>
</tr>
<tr>
<td>2008</td>
<td>21.1%</td>
<td>41.9%</td>
<td>28.8%</td>
<td>5.9%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>
Figure 3-13  Value for fare paid

- 2007:
  - Excellent: 23.5%
  - Good: 29.6%
  - Fair: 11.1%
  - Poor: 8.2%
  - Very Poor: 6.0%

- 2008:
  - Excellent: 22.4%
  - Good: 31.0%
  - Fair: 10.0%
  - Poor: 10.0%
  - Very Poor: 6.0%
Figure 3-14  Availability of seats

<table>
<thead>
<tr>
<th>Year</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Very Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>20.1%</td>
<td>32.5%</td>
<td>31.5%</td>
<td>9.5%</td>
<td>6.5%</td>
</tr>
<tr>
<td>2008</td>
<td>17.1%</td>
<td>35.9%</td>
<td>30.1%</td>
<td>11.8%</td>
<td>5.1%</td>
</tr>
</tbody>
</table>
Figure 3-15  Cleanliness

<table>
<thead>
<tr>
<th>Year</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Very Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>14.9%</td>
<td>33.9%</td>
<td>30.1%</td>
<td>13.4%</td>
<td>7.7%</td>
</tr>
<tr>
<td>2008</td>
<td>9.9%</td>
<td>29.9%</td>
<td>33.4%</td>
<td>17.8%</td>
<td>9.0%</td>
</tr>
</tbody>
</table>
Figure 3-16  Information at bus stops

- 2007:
  - Excellent: 31.7%
  - Good: 15.2%
  - Fair: 6.6%
  - Poor: 15.4%
  - Very Poor: 0%

- 2008:
  - Excellent: 31.1%
  - Good: 16.8%
  - Fair: 7.2%
  - Poor: 29.4%
  - Very Poor: 0%
Figure 3-17  Driver courtesy

- 2007:
  - Excellent: 21.7%
  - Good: 32.9%
  - Fair: 29.7%
  - Poor: 8.8%
  - Very Poor: 6.9%

- 2008:
  - Excellent: 20.5%
  - Good: 35.0%
  - Fair: 29.2%
  - Poor: 8.9%
  - Very Poor: 6.5%
Figure 3-18  Personal safety on buses

- 2007:
  - Excellent: 18.4%
  - Good: 36.0%
  - Fair: 31.1%
  - Poor: 8.7%
  - Very Poor: 5.8%

- 2008:
  - Excellent: 15.8%
  - Good: 37.5%
  - Fair: 30.5%
  - Poor: 10.2%
  - Very Poor: 6.0%
Figure 3-19  Easy to identify the right bus

- 2007:
  - Excellent: 36.3%
  - Good: 19.4%
  - Fair: 2.7%
  - Poor: 2.9%
  - Very Poor: 0%

- 2008:
  - Excellent: 38.7%
  - Good: 17.9%
  - Fair: 3.3%
  - Poor: 1.4%
  - Very Poor: 0%

Categories:
- Excellent
- Good
- Fair
- Poor
- Very Poor
Figure 3-20  Wheelchair securement

- 2007:
  - Excellent: 23.3%
  - Good: 34.4%
  - Fair: 2.8%
  - Poor: 1.3%
  - Very Poor: 1.4%

- 2008:
  - Excellent: 19.8%
  - Good: 40.2%
  - Fair: 3.0%
  - Poor: 1.4%
Figure 3-21  
Location of bus signs

<table>
<thead>
<tr>
<th>Year</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Very Poor</th>
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<tr>
<td>2007</td>
<td>28.1%</td>
<td>38.8%</td>
<td>25.3%</td>
<td>5.6%</td>
<td>2.2%</td>
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<tr>
<td>2008</td>
<td>27.8%</td>
<td>42.7%</td>
<td>22.8%</td>
<td>4.6%</td>
<td>2.1%</td>
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</tbody>
</table>

Legend:
- Excellent
- Good
- Fair
- Poor
- Very Poor
Trip Behavior

The survey requested information from passengers on travel behavior, including trip purposes, modes of access, and fare payment.

Trip Purpose

The survey asked riders why they were riding this bus today, and were provided with five possible reasons. The figure below compares reasons for riding limited-stop buses in the corridor over the three years of 2006 (Route 82L), 2007 and 2008 (Route 1R). Trip purposes on the routes were similar. Respondents were asked to check all that applied; while not having a car available remains the most common reason, the expense of driving and traffic issues continue to receive a greater number of responses year over year.

Figure 3-22 Why are you riding this bus today?

Note: Values sum to more than 100 percent because respondents had the option of choosing multiple responses.
When asked the main purposes of their trip, most respondents said that their trips were for work (40 percent in 2007 and 38 percent in 2008) or school (25 percent in 2007 and 30 percent in 2008).

**Figure 3-23  What is the main purpose of your trip today?**
Accessing the Bus

Over the two years there was little change in how riders accessed the 1R. A large majority (68 percent) walked to the bus stop: the next most popular way of accessing the routes was by transferring from another bus (19 percent). Only 5 percent of those on the 1R accessed their buses via BART.

Figure 3-24  How did you get to the bus stop for this bus today?
Completing the Trip

As with access to bus stops, large majorities (close to 70 percent) of respondents said they would walk to their final destinations, with the next most popular mode being buses (22 percent). A small proportion of riders use BART to get to their final destination – 4 percent in 2008, a drop of over 1 percentage point from last year. Fewer than 1 percent of riders use a car to drive from the 1R to their destination.

Figure 3-25  How will you get from the bus stop to your destination today?
Fare Payment

From 2007 to 2008, fare payment methods for the Route 1R changed somewhat. The largest number of respondents paid full cash fares for their rides; this finding is consistent with other lower-income corridors where many riders cannot afford the up-front costs of monthly passes, and is higher than the system-wide figure of 37 percent found in a 2002 survey conducted by AC Transit and the Public Research Institute. However, pass usage appears to be increasing. In 2008, cash payments dropped by 7 percentage points to 34 percent, while 9 percent used a Senior or Disabled Monthly pass, up from 0 percent last year. Use of the UC Bear/Class Pass increased 4 percentage points to 15 percent; and 3 percent of riders used the Translink Easy Pass, up from 0 percent last year. Translink is now available on these buses, but only 1 percent of riders used it.

Figure 3-26  How did you pay for your fare on this bus?
Of those paying a cash fare, the majority, or 64 percent, paid the regular adult fare. The category showing the largest growth from last year was student fares; in 2007, 19 percent paid a student fare using cash, compared to 26 percent in 2008. Those paying a cash senior fare dropped by 3 percentage points, but as shown above, many more senior passes were in use in 2008.

**Figure 3-27  If cash, what kind of fare did you pay on the bus?**
Passenger Profile

This section provides demographic information on Route 1R riders, including frequency and length of AC Transit use, age, ethnic origin, auto availability, and household income.

Frequency of Use

Survey results from 2007 and 2008 show virtually no difference in the frequency with which riders use the Route 1R. There was a slight gain in those taking it 5 days per week, and slightly fewer riders were using the service for the first time.

Figure 3-28  How often do you ride the 1R?
Tenure of Use

This question was not specific to the Route 1R, but asked how long the rider had been using AC Transit bus service. The great majority of respondents, 72 percent, have been riding AC Transit for over a year, with 42 percent being long-time customers, using the service for over 5 years. Comparing 2007 and 2008 survey results, there were fewer new users and long-term users, but a gain of 5 percentage points for those using the bus for six months to five years.

Figure 3-29  How long have you been using AC Transit service?
Age

The largest group of riders, 52 percent, are between 25 and 64 years of age; the next largest group are those 24 and under (44 percent). Relatively few riders were 65 or older (4 percent). The 20 percent of riders under 18 matches closely the 21 percent of riders who were found to be between the ages of 13 and 17 in the 2002 system-wide survey. There was a gain of over 9 percentage points among those 34 or younger, half of that for people under 18.

Figure 3-30  Age of Respondents
Ethnic Origin

A plurality of respondents on Route 1R identified themselves as African-American (42 percent), 5 percentage points less than in 2007. The next largest ethnic group, Hispanic or Latino, made up 26 percent of riders, or almost 3 percentage points higher than last year. Note that in 2007, the “Asian” category included native Hawaiians and other Pacific Islanders, suggesting a notable increase in 2008 in the number of Asian respondents. Note also that the “Other” category includes all those who chose not to identify a specific racial category, such as multiethnic individuals.

Figure 3-31  Ethnic origin of Survey Respondents

Nancy—I don’t understand this chart. What are the small white boxes at the top (5.3% and 4.2%, respectively)? If those represent Hawaiians and Pacific Islanders, then it looks like we did break out the categories. If not, what? Can this be made more clear?
Gender

Survey respondents were more likely to be female than male, with the proportion of females growing by 3 percentage points for 2008.

Figure 3-32   Gender of Route 1R Riders
Auto Availability

More than two out of five respondents on both routes (41 percent) indicated that they have no access to a car. An additional third have access to one auto in their household. These proportions stayed virtually the same from the 2007 survey.

Figure 3-33  How many working motor vehicles are available in your household?

<table>
<thead>
<tr>
<th>2007</th>
<th>2008</th>
</tr>
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<tbody>
<tr>
<td>Three +</td>
<td>8.2%</td>
</tr>
<tr>
<td>Two</td>
<td>17.3%</td>
</tr>
<tr>
<td>One</td>
<td>31.6%</td>
</tr>
<tr>
<td>None</td>
<td>42.9%</td>
</tr>
</tbody>
</table>
Household Income

Respondents on the Route 1R are generally low income. Sixty-six percent of Route 1R respondents indicated household incomes of less than $30,000 per year, and a third of those were very low income, with household earnings of less than $10,000 annually. Survey questions about income, however, are the least likely to be answered at all and are often answered falsely. A third of survey respondents left this question blank.

Figure 3-34  Annual Household Income
Summary

Overall, the survey results show that riders are generally satisfied with the quality of the Route 1R service, and that their satisfaction is higher this year than last, except for a few specific categories. Where perceptions are negative, higher ridership may be a significant contributor, as it is related to overcrowding and vehicle cleanliness. Positive ratings for important aspects of service, such as routes and frequency, increased in 2008.
Appendix A. Onboard Surveys
Dear AC Transit Rapid Bus Rider:
Take a minute to fill this out and help us evaluate our service. Please complete this survey while you are on the bus and return the form to the surveyor.

1. Why are you riding this bus today?
   (Check all that apply)
   ☐ 1 Avoid traffic  ☐ 4 No car available
   ☐ 2 Less expensive  ☐ 5 Parking problems
   ☐ 3 More convenient  ☐ 6 Other (Specify):________

2. What is the main purpose of your trip today?
   ☐ 1 Work  ☐ 4 Visit/Personal
   ☐ 2 Medical  ☐ 5 School
   ☐ 3 Shopping  ☐ 6 Other (Specify):________

3. How did you make this trip before the 1R?
   ☐ 1 Bus  ☐ 4 Car
   ☐ 2 Did not make trip  ☐ 5 Other (Specify):________
   ☐ 3 BART

3a. If you answered “Bus” on Question 3, what bus line or lines did you use previously?
   ☐ 1 82
   ☐ 2 82L
   ☐ 3 Other - Line #:________________________

4. How did you get to the bus stop for this bus today?
   ☐ 1 Transferred from Bus Line#:________________________
   ☐ 2 Transferred from BART  ☐ 4 Walked
   ☐ 3 Drove  ☐ 5 Got a ride
   ☐ 4 Bicycle  ☐ 6 Get a ride
   ☐ 7 Other (Specify):________________________

5. How did you pay for your fare on this bus?
   ☐ 1 Cash  ☐ 3 Translink E-Cash
   ☐ 2 10-Ride Ticket  ☐ 4 Translink EasyPass
   ☐ 3 31-Day Ticket  ☐ 5 Berkeley Ecopass
   ☐ 4 AC Transfer  ☐ 6 Senior/Disabled
   ☐ 5 BART Transfer  ☐ 7 Monthly Sticker
   ☐ 6 UC Bear/Class Pass  ☐ 8 Don’t Know
   ☐ 9 Other (Specify):________________________

6. If cash, what kind of fare did you pay on the bus?
   ☐ 1 Youth  ☐ 4 Senior  ☐ 2 Adult  ☐ 5 Disabled

7. Has your travel time changed with the 1R?
   ☐ 1 15+ min. faster  ☐ 4 1-5 min. faster
   ☐ 2 11-15 min. faster  ☐ 5 About the same
   ☐ 3 6-10 min. faster  ☐ 6 Slower

8. Where did you get on this bus?
   Street Address/Name or Landmark (like Bayfair BART)
   Cross Street
   City

9. Where will you get off this bus?
   Street Address/Name or Landmark (like Bayfair BART)
   Cross Street
   City

10. How will you get from the bus stop to your destination today?
    ☐ 1 Transfer to Bus Line#:________________________
    ☐ 2 Transfer to BART  ☐ 5 Walk
    ☐ 3 Drive  ☐ 6 Get a ride
    ☐ 4 Bicycle  ☐ 7 Other (Specify):________________________

11. How did you find out about the 1R?
    ☐ 1 Ads/promotion  ☐ 4 Bus Driver
    ☐ 2 On the street  ☐ 5 Other (Specify):
                  _______________________
    ☐ 3 Word of mouth

AC Transit Rider Survey – Route 1R
12. Please Rate AC Transit’s 1R performance on a 1-5 scale, with 1 being very poor and 5 being excellent.

<table>
<thead>
<tr>
<th></th>
<th>Very Poor</th>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
</table>
a. Frequency of buses (how often they run) | 1 | 2 | 3 | 4 | 5 |
b. Quality of bus shelters | 1 | 2 | 3 | 4 | 5 |
c. Quality of buses | 1 | 2 | 3 | 4 | 5 |
d. Routes go where I need to go | 1 | 2 | 3 | 4 | 5 |
e. Reliability | 1 | 2 | 3 | 4 | 5 |
f. Travel time on the bus | 1 | 2 | 3 | 4 | 5 |
g. Value for fare paid | 1 | 2 | 3 | 4 | 5 |
h. Availability of seats | 1 | 2 | 3 | 4 | 5 |
i. Cleanliness | 1 | 2 | 3 | 4 | 5 |
j. Information at bus stops | 1 | 2 | 3 | 4 | 5 |
k. Driver courtesy | 1 | 2 | 3 | 4 | 5 |
l. Personal safety on buses | 1 | 2 | 3 | 4 | 5 |
m. Easy to identify the right bus | 1 | 2 | 3 | 4 | 5 |
n. Wheelchair securement | 1 | 2 | 3 | 4 | 5 |
o. Location of bus signs | 1 | 2 | 3 | 4 | 5 |
p. 1R service overall | 1 | 2 | 3 | 4 | 5 |

13. Which of the features in Question 12 is the most important in your decision to ride 1R?


Finally, for statistical purposes, please tell us a little about yourself. All replies are confidential.

14. How often do you ride the 1R? (Check one)
   - [ ] 5+ days per week
   - [ ] 1-2 days per week
   - [ ] 3-4 days per week
   - [ ] Less than once a week
   - [ ] First time riding

15. How long have you been using AC Transit service?
   - [ ] Less than 3 months
   - [ ] 1 to 5 years
   - [ ] Less than 6 months
   - [ ] More than 5 years
   - [ ] 6 months to 1 year

16. Your age is . . .
   - [ ] Under 18 years
   - [ ] 18 to 24 years
   - [ ] 25 to 34 years
   - [ ] 35 to 49 years
   - [ ] 50 to 64 years
   - [ ] 65 year or more

17. Your ethnic origin is . . .
   - [ ] Hispanic or Latino
   - [ ] Black or African American
   - [ ] White
   - [ ] Asian
   - [ ] Native Hawaiian or Other Pacific Islander
   - [ ] Native American or Alaska Native
   - [ ] Other (Describe): ____________________

18. You are:
   - [ ] Female
   - [ ] Male

19. How many working motor vehicles are available in your household?
   - [ ] None
   - [ ] One
   - [ ] Two
   - [ ] Three+

20. Your total annual household income is . . .
   - [ ] Less than $10,000
   - [ ] $10,000-$29,999
   - [ ] $30,000-$49,999
   - [ ] $50,000-$74,999
   - [ ] $75,000-$99,999
   - [ ] $100,000 and over

21. Please give us any other comments you have on the 1R service.


Thank you for your participation in this survey. Your responses will be kept strictly confidential.
Querido viajero de la Ruta 1R de AC Transit:
Complete esta encuesta y ayúdenos a evaluar nuestro servicio. Por favor complete esta encuesta mientras usted está en el bus y devuélvala al encuestador.

1. ¿Por qué tomó el autobús hoy? (marque todas sus opciones)
   - Evitar tráfico
   - Más barato
   - Es más conveniente
   - No tengo auto (carro)
   - Problemas de estacionamiento
   - Otro (especifique):

2. ¿Cuál es la razón principal de su viaje hoy?
   - Al trabajo
   - Al médico
   - De compras
   - Visita/Personal
   - Escuela
   - Otro (especifique):

3. ¿Cómo hacía este viaje antes del 1R?
   - En autobús
   - Auto (carro)
   - No hacia este viaje
   - Otro (especifique):

3a. Si selecciono “En autobús” en la pregunta 3, ¿Qué ruta o rutas tomaba? 
Ruta #:

4. ¿Cómo llegó a la parada del autobús hoy?
   - Transferencia de la Ruta del Autobús #
   - Transferencia del BART
   - Manejando
   - Por bicicleta
   - Otro (especifique):

5. ¿Cómo pagó por su boleto?
   - En Efectivo
   - Boleto 10-Ride
   - Boleto De 31-Días
   - AC Transfer
   - BART Transfer
   - Pase UC Bear para
     Empleados de UC o
     Estudiantes de UC
   - Translink E-Cash
   - Translink EasyPass
   - EcoPass de La Ciudad
     de Berkeley
   - Sticker Mensual para
     Mayores de Edad/Discapacitados
   - Otro (especifique):

6. Si pago en efectivo, ¿Qué tipo de tarifa pagó?
   - Adolecente
   - Adulto
   - Persona de la Tercera Edad
   - Desabilitado

7. ¿Le ha cambiado su tiempo de viaje con 1R?
   - 15 minutos más rápido
   - 11-15 min. más rápido
   - Más lento

8. ¿En dónde tomó el autobús?
   Nombre/Dirección de la calle o punto de referencia
   Calle que cruza
   Ciudad

9. ¿En dónde se bajará del autobús?
   Nombre/Dirección de la calle o punto de referencia
   Calle que cruza
   Ciudad

10. ¿Cómo llegará de la parada del autobús a su destino final?
    - Transferencia a la Ruta del Autobús #:
    - Transferencia al BART
    - Manejando
    - En bicicleta
    - Otro (especifique):

11. ¿Cómo se enteró del 1R?
    - Anuncios/promoción
    - En la calle
    - Por otra persona

Encuesta para el Viajero de AC Transit – Ruta 1R
12. Por favor califique el servicio del 1R de AC Transit en una escala del 1 al 5, donde 1 equivale a muy mal servicio y 5 a un excelente servicio.

<table>
<thead>
<tr>
<th></th>
<th>Muy Malo</th>
<th>Malo</th>
<th>Regular</th>
<th>Bueno</th>
<th>Excelente</th>
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13. De todo lo indicado en la pregunta 12, ¿Cuál es la razón importante para que se decida a tomar el 1R?