Ridership: Short Term Responses

Board of Directors
Study Session
October 11, 2016

Multi-modal services for our customers

Shuttles
Ridership

**Mission**: To supply the public with a high-quality, safe and efficient transportation system that should enhance quality of life by increasing access and mobility, reducing congestion, improving the environment and promoting economic vitality.

**Vision**: The District is a mobility leader, providing transportation choices and a sustainable future that meets the needs of our diverse communities.
Ridership

- What ridership trends has the District experienced in the last year?
Ridership

• What effect do sustained low fuel prices have on ridership?

Ridership vs. Gasoline Prices

[Graph showing ridership vs. gasoline prices with data points for different quarters from 2014 to 2016, including National, SamTrans, and CA Gas Price curves.]
Ridership by Mode

Ridership Status

- Percent Change from FY15 to FY 16
  - Caltrain (3.58%)
  - Shuttles (9.87%)
  - Paratransit (8.60%)
  - SamTrans (2.58%)

- System Wide (1.79%)
• Factors that affect ridership:
  o Fuel Prices
  o National and Local economy
  o Job market
  o Usefulness and convenience
  o Cost
  o Safety
  o Others?

• How can we design a smart motor bus system?

• What performance indicators should we be considering/evaluating?
Performance Measures

- The National Transportation Database (NTD) and the Metropolitan Transportation Commission (MTC) share similar performance measures
  - Operating cost per revenue-vehicle hour (cost/hr)
  - Operating cost per passenger (cost/pass)

Performance Measures

- Passenger per revenue-vehicle hour (pass/hr)
- Passenger per revenue-vehicle mile (pass/mi)
- Farebox recovery (fare/cost)
- Safety (miles/accidents)
Performance Measures

• How do we identify, evaluate and select low performing routes?
• What performance measures are most suitable for route elimination?
• How many resources can we redistribute if we eliminate low-performing routes?

Tensions

• We cannot grow our way out of deficit
• There is an inherent tension between coverage and frequency, and social justice and costs
Title VI

• Using Title VI categories to identify unique trends within SamTrans
  • Coastal
  • Community
  • Local
  • Multi-city
  • Mainline

Performance Standards

• Example: Calculate the median value of passengers per service hour (pass/hr) for each Title VI category and then set a standard to identify low performing routes, i.e. 50% below the median value
Ridership – Title VI Categories

Percentage of Service Hours By Category

- Coastal Routes: 16, 18, 15, 294, 0, XP
- Community Routes: 11, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69
- Coastal Routes: 220, 221, 222

Ridership – Coastal

Coastal Routes - Passenger Per Service Hour

<table>
<thead>
<tr>
<th>Route</th>
<th>Passengers</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>45</td>
</tr>
<tr>
<td>18</td>
<td>22</td>
</tr>
<tr>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>FLXP</td>
<td>11</td>
</tr>
<tr>
<td>294</td>
<td>7</td>
</tr>
</tbody>
</table>

Median = 14
Ridership – Multi-city

Multi-City Routes - Passengers Per Service Hour

- Routes: 296, 297, XX, 998, 397, 296
- Counts: 20, 18, 16, 15, Median = 15, 10

Ridership – Mainline

Mainline Routes - Passengers Per Service Hour

- Routes: ECR, 292
- Counts: 32, Median = 26, 21
Performance Standards

- Evaluate low performing routes against other measurements such as, average weekday passengers (AWR), cost per passenger (cost/pass), cost per passenger mile (cost/mi), and farebox recovery
- Use a dashboard to measure and illustrate trends and historical performance (see Appendix A)

How we measure up

- System wide ridership was up in FY16, but starting to measure a slight decline in FY17
- MTC measurements for 25 Bay Area Transportation Systems during FY15
  - Service effectiveness (pass/hr), Caltrain ranked 2nd and SamTrans ranked 8th
How we measure up

- Cost efficiency (cost/hr) – Caltrain ranked 3rd, and SamTrans ranked 7th
- Cost effectiveness (cost/pass) – Caltrain ranked 15th, and SamTrans ranked 10th
- Farebox recovery ratio (rev/cost) – Caltrain ranked 2nd, and SamTrans ranked 16th

Next Steps

- Set Performance Metric
- Evaluate Routes
- Assess Resources/Human Impacts
Appendix A

2016 SamTrans Service Statistics
**2016 SamTrans Service Statistics**

Quarterly Report (Apr-Jun)

<table>
<thead>
<tr>
<th>TOTAL PASSENGERS</th>
<th>AVERAGE WEEKDAY PASSENGERS</th>
<th>WEEKDAY PASSENGERS/HOUR</th>
<th>WEEKDAY COST/PASSENGER</th>
<th>WEEKDAY ON-TIME PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System</strong></td>
<td><strong>Total Mileage</strong></td>
<td><strong>Cost/Passenger</strong></td>
<td><strong>On-Time Performance</strong></td>
<td></td>
</tr>
<tr>
<td>South Base</td>
<td>1,482,011</td>
<td>1,446,107</td>
<td>1,167,865</td>
<td>72,032</td>
</tr>
<tr>
<td>North Base</td>
<td>830,832</td>
<td>3,327</td>
<td>64,508</td>
<td>5</td>
</tr>
</tbody>
</table>
| Multi-City | 254,677 | 1,146,148 | 2,037,317 | 26 | *Only includes service that is directly operated by SamTrans*

**Total Miles Travelled**

<table>
<thead>
<tr>
<th>TOTAL MILES TRAVELLED</th>
<th>PREVENTABLE ACCIDENTS</th>
<th>MILES BETWEEN PREVENTABLE ACCIDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System</strong></td>
<td><strong>Preventable Accidents</strong></td>
<td><strong>Mileage</strong></td>
</tr>
<tr>
<td>South Base</td>
<td>830,832</td>
<td>17</td>
</tr>
</tbody>
</table>
| North Base | 651,179 | 5 | 170,615 | *Only includes service that is directly operated by SamTrans*