Caltrain Fare Study Update

Board of Directors
May 3, 2018
Agenda Item 8
Overview

- Fare Study Update
- Update on MTC’s Regional Means-Based Fare Study
Study Overview
Study Overview

• Currently, Caltrain has no fare policy in place
• Fare Study objectives:
  - Identify potential opportunities to maximize revenue;
  - Enhance ridership; and
  - Safeguard social and geographic equity
• Explore the trade-offs with Caltrain’s current funding structure
• Promulgate policy
Estimated Elasticity of Demand for Caltrain’s System
Price Elasticity of Demand

- Demand elasticity is the relationship between the price of a good and the quantity of the good that is consumed.
  - How price sensitive is a good?
- Elastic = a small change in price results in large changes in consumption (high price sensitivity)
- Inelastic = price changes have little effect on consumption (low price sensitivity)
- Best understood as a range of values, because demand elasticities generally increase as prices increase.
Caltrain System’s Demand Elasticity

• Calculated using Caltrain’s new fare elasticity model.

• **Ridership demand for Caltrain is inelastic.**
  - Caltrain’s estimated range of demand elasticity: -0.1 to -0.3
  - Overall system elasticity: estimated to be -0.2
Caltrain System’s Demand Elasticity, cont.

- Caltrain’s higher income riders are estimated to have *more* elastic demand than lower income riders.
- Explained by difference between types of riders:
  - Transit-dependent riders (usually lower income riders in the US) have more inelastic demand for transit because they may not have mobility alternatives.
  - “Choice” riders have other transportation options and have more elastic demand for transit.
- Finding is consistent with trends observed in other transit systems, especially commuter rail.
Caltrain System’s Demand Elasticity, cont.

• Fare increases are unlikely to result in steep drops in ridership on Caltrain and should be revenue positive

• Equity implications of inelastic demand from lower income riders: riders with the least means to pay for Caltrain are more likely to stick with the system and absorb higher fares

• Resulting policy question: how much revenue should Caltrain generate from its fares?
Testing and Analysis of Potential Fare Changes
# Goals for Caltrain’s fares

<table>
<thead>
<tr>
<th>Goal</th>
<th>Metrics</th>
</tr>
</thead>
</table>
| Enhance Ridership                         | - Average weekday ridership  
|                                          | - Total annual ridership      |
| Increase Operating Revenue                | - Total annual revenue         
|                                          | - Total annual revenue per passenger |
| Safeguard Social and Geographic Equity    | - Percentage of low income riders projected vs. percentage of low income riders in Caltrain-serving counties  
|                                          | - Caltrain’s average fare per mile vs. other transit agencies’ average fare per mile |

Note: Title VI analysis would be updated/performed for any future proposed fare changes
Testing and Analysis of Five Scenarios of Potential Fare Changes

- Scenario 1: Increase the base fare by $0.25
- Scenario 2: Increase the zone fare by $0.25
- Scenario 3: Reduce the Clipper Card discount to $0.20, instead of current $0.55 discount
- Scenario 4: Remove the Clipper Card discount
- Scenario 5: Introduce a 25% discount off of the base fare for off-peak travel
Ridership Results

• All scenarios resulted in ridership declines compared to the baseline of September 2017
  - Due to highly inelastic demand, ridership losses are not expected to be substantial
  - Ridership is strongest under the lowest fare prices

• Results related to total annual ridership and average weekday ridership:
  - Highest: Scenario 5 – Off Peak Discount
  - Lowest: Scenario 4 – Removing Clipper Discount
Revenue Results

• All scenarios resulted in revenue increases compared to the baseline of September 2017
  - Due to highly inelastic demand, increased fares are expected to result in increased fare revenue for Caltrain (even with some ridership losses)

• Results related to total annual revenue and average annual revenue per passenger:
  - Highest: Scenario 2 – Increasing Zone Upgrade Fare and Scenario 4 – Removing Clipper Discount
  - Lowest: Scenario 5 – Off-Peak Discount
Social and Geographic Equity Results

• Social equity: Majority of scenarios resulted in very slight declines for social equity indicators compared to the baseline of September 2017
  - Only Scenario 5 – Off-Peak Discount resulted in ridership growth of low income passengers, thus resulting in positive social equity results

• Geographic equity: All scenarios resulted in similar performance and were slightly worse than the September 2017 baseline
  - Compared to other scenarios, Scenario 2 – Increase Zone Upgrade Fare resulted in slightly worse results
Summary of Analysis of Results

- Increased prices are expected to result in increased fare revenue for Caltrain.
- At the same time, increased fares are expected to have ridership and equity impacts.
  - Ridership is strongest under the lowest fare prices.
  - Lower income riders are best served with lower income fares and off-peak discounts.
  - Geographic equity is best served with low fares.
Next Step Recommendations
Phase 2 Recommended Next Steps

1. Development of a foundational Caltrain Fare Policy:
   - Study peer agencies’ best practices for setting or changing fare policy
   - Draft a Caltrain Fare Policy for Board adoption, which would likely include the following:
     - Establishing goals and principles for Caltrain’s fares (ridership, revenue, equity), to guide decision-making
     - Determining frequency of fare increases
     - Establishing procedures for fare increases
     - Developing a multi-year plan for Caltrain fares
   - Timing: Fall 2018
Phase 2 Recommended Next Steps

2. Parking Pricing Study
   - Market study of parking pricing at Caltrain stations
   - Consideration of variable, demand-based parking prices

3. Go Pass Program Study:
   - Value of Go Pass to companies, to Peninsula communities
   - Peer agencies’ deep discount programs
   - Potential changes to Go Pass program, including program structure, pricing, and requirements

• Timing: Winter/Spring 2019
Other Recommended Next Steps

• Consider near-term opportunities to improve equity performance of Caltrain’s fare system, including:
  - Mechanisms to improve equity through changes to the current fare structure and pricing
  - Participation in potential regional means-based fare program

• Consider introducing an off-peak discount in the future, but only after off-peak train service is adjusted

• Coordinate with the Caltrain Business Plan regarding longer-term fare policy issues:
  - Fare structure (zone-based vs. point-to-point)
  - Integration with regional and statewide ticketing innovations
  - Technological improvements to fares
MTC’s Regional Means-Based Fare Program
MTC Means-Based Fare Study

- MTC study for region commenced in 2015
  - Caltrain staff continues to participate in regional conversations with MTC and transit operators

- Study goals:
  - Make transit more affordable for low-income residents
  - Move toward a more consistent regional standard for fare discounts
  - Develop implementation options that are financially viable and administratively feasible
MTC/Operators’ Current Proposed Program Framework

• Potential program is being developed, involving both MTC and transit operator staff
• Proposed as pilot program initially
• Agencies considering participation, pending Board adoption:
  - Bay Area Rapid Transit (BART)
  - Caltrain
  - Golden Gate Transit (Buses and Ferry)
  - San Francisco Municipal Transportation Agency (SFMTA)
MTC/Operators’ Current Proposed Program Framework, continued

- Fare Discount: 20% per trip discount offered to eligible persons
- Eligibility: Adults earning less than 200% Federal Poverty Level (FPL)
  - No cap on participation proposed; all eligible could participate in program
- Implementation: Centrally administered on behalf of all participating operators; participants would use a special Clipper Card
MTC/Operators’ Current Proposed Program Framework, continued

- Program Funding: SB 1 + LCTOP funds from MTC, estimated at $11 million per year
  - Funds from MTC would be used for administrative costs first, estimated at $3 million annually
  - Remaining funds from MTC would defray operators’ revenue losses, estimated at a total of $8 million annually to be distributed among operators
MTC/Operators’ Current Proposed Program Framework, continued

- Operators’ revenue losses depend on:
  - The level of discount offered
  - The number of participating riders
  - The number of participating transit agencies

- Revenue reimbursement formula for operators in development currently
  - Likely will refund up to 50% of operators’ revenue losses
MTC/Operators’ Current Proposed Program Framework, continued

- Proposed timeline for implementation:
  2018:
  - MTC adopts program framework
  - Transit agency boards consider means-based fare discount program participation
    - Recognizes that Board actions occur in multiple steps and that final program participation is subject to Title VI analysis
  2019:
  - Program design and development
  - Transit agency boards approve program participation and adopt new fare change for program
  - FY20: pilot program start-up
Considerations for Caltrain

• Weigh trade-offs: equity gains vs. potential revenue losses

• Regional effort/coordination makes Caltrain’s participation in program an actual option (Caltrain could not undertake this on its own)

• Equity benefits could be substantial for Caltrain:
  - Could provide a meaningful discount for Caltrain’s low income riders
  - Could also help attract new riders and increase low income ridership on Caltrain
  - Could help address current equity issues with Caltrain’s fare system
Considerations for Caltrain

• At the same time, need to consider Caltrain’s potential revenue losses, in light of recent fiscal issues

• Current estimated annual revenue loss for Caltrain from program with 20% discount:
  - With 100% participation: $1,750,000
  - With 50% participation: $875,000
  - With 25% participation: $437,000

Note: no participation cap is being considered; instead mechanism to limit revenue losses is the level of discount offered through the program. Pilot program would be implemented in FY20.
MTC’s Programming & Allocations Committee (PAC)

• April 2018 Programming/Allocation Meeting:
  - MTC/Operators’ Proposed Framework was presented to MTC Committee
  - Strong support for program conceptually
  - Commissioners requested MTC staff return to PAC in May 2018 with additional program options, including:
    - Considering which agencies participate
    - Level of discount offered
Caltrain Staff Recommendation

- MTC PAC in May, indicate support for program; an interest in participating; and support for continuing to develop and refine regional program framework
- Continue participating in program development with MTC and other operators
- Continue analysis of potential trade-offs for Caltrain regarding choice to participate or not participate
- Return to Board with additional information when program is further along in development and for consideration of adoption of fare program
- If appropriate, Board adoption of fare change to facilitate Caltrain’s participation in program (likely spring 2019)
Questions?