

# Regional Transit Fare Structure and Revenue Sharing Study

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*Final Report*

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**Submitted to**

San Diego Association of Governments



**Prepared by**

TranSystems

**In association with**

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## Executive Summary

This Executive Summary presents the results of the *Regional Transit Fare Structure and Revenue Sharing Study*. The purpose of the study was to develop a unified and simplified regional fare structure for the San Diego region. The study began in October 2006. The study has been conducted by TranSystems Corp., in conjunction with Parsons Transportation Group. The study tasks and key findings are summarized below.

### Staff/Stakeholder Review

#### Staff and Stakeholder Input

The initial task entailed obtaining input from management and staff of SANDAG, MTS and NCTD – as well as from customers and potential customers -- on issues related to fare policy, levels and structure. This effort consisted of three elements: (1) Agency staff survey, (2) Agency staff Interviews and (3) Customer/potential customer interviews

The first step in obtaining input from agency management and staff regarding the current fare structure and possible changes consisted of a written survey. The survey asked respondents to (1) rate the relative importance of each of 15 factors potentially influencing someone's decision to ride transit, (2) rate the relative importance of each of a set of 15 fare-structure-related goals, (3) rate how well the current fare structure meets each of these 15 goals and (4) rate each of 30 possible changes to the existing fare structure and payment options. The survey was distributed to staff at each of the three agencies in early November 2006, and 28 surveys were completed. The key results of the staff survey are presented in Attachment A. Following the survey effort, the consultant team conducted interviews with a total of 39 managers and staff representing various departments within SANDAG, MTS and NCTD. The consultant team also conducted interviews with a sample of transit customers and potential customers.

#### Peer System Review

The San Diego region's fare structure/levels and policies were compared to those in eight multi-operator peer regions: Chicago, Los Angeles, Minneapolis/St. Paul, Portland, Sacramento, Seattle, Toronto and Vancouver. The analysis revealed that, while the peer regions each have their own fare structure/policy complexities and anomalies, the San Diego region's overall fare structure and policies are more complicated than any of the peer regions'.

### Development of Evaluation Criteria and Fare Model

#### Development of Evaluation Criteria and Guidelines

To facilitate evaluation of alternative fare structures, the consultant team developed a set of evaluation criteria and guidelines, in accordance with guidance contained in SANDAG Board Policy 29 and reflecting the results of agency staff input. These criteria were then to be applied to develop relative ratings of the different alternatives. The evaluation methodology included both quantitative (i.e., related to ridership and revenue impacts) and qualitative criteria (i.e., related to goals such as increasing simplicity or convenience). The evaluation guidelines were subsequently used to construct evaluation matrices comparing the fare structure alternatives.

#### Development of Fare Model

In order to facilitate the quantitative aspect of the evaluation of fare structure options, the team developed a spreadsheet-based *Fare Model* for estimating the ridership and revenue impacts of alternative fare structures. The model was designed to estimate ridership and revenue impacts for each agency as well as for the region as a whole.

## Development of Fare Structure Recommendations

### Key Steps

The key steps in this phase of the study were as follows:

- *Development and Evaluation of Fare Structure Alternatives* -- The consultant team developed several sets of initial fare structure options, each focused on one element of the fare structure. The team and the Technical Advisory Committee (TAC) next combined individual options from each category to develop a number of detailed fare structure alternatives.
- *Community Outreach* -- In order to inform the public and get input on the potential types of fare structure changes under consideration, the consultant team held five "open houses" at which the types of potential changes were presented and discussed. Approximately 150 people attended the five sessions, which were held throughout the MTS and NCTD service areas.
- *Development of Fare Structure Recommendations* -- Based on the evaluation of the alternatives (including estimation of revenue and ridership impacts), coupled with the stakeholder/staff/public input and peer review results, recommendations for a new regional fare structure were developed; these are summarized below.

### Recommendations

In developing and evaluating fare structure alternatives, several key structural and policy issues had to be resolved. Based on the review of the estimated revenue and ridership impacts and further discussion with management and staff of the three agencies, consultant team developed a number of recommendations for modifying the current fare structures of the two agencies. Many of the recommendations have already been adopted and implemented, others have been adopted but not yet implemented and some have yet to be adopted by SANDAG. The recommended changes are summarized in Table 1.

These recommended changes have been designed to create a uniform regional fare structure, with common fares within the major service categories (Local, Corridor and Regional). The changes are also projected to generate a substantial revenue increase compared to the current fare structure: an estimated combined 5% gain in fare revenue for MTS and NCTD, coupled with, coupled with a 1% ridership loss. By 2013, the revenue increase for the region is estimated to be roughly 11% (compared to current totals), with a relatively small loss of ridership (approximately 2%).

## Development of Revenue-Sharing Recommendations

### Revenue-Sharing Options

In this task, the consultant team developed revenue-sharing options that facilitate the equitable allocation of fare revenue between MTS and NCTD. The team reviewed the existing goals and procedures for revenue-sharing in the San Diego region, the data that is --- and will in the future be -- available for revenue-sharing calculations, and revenue-sharing methodologies that are used in other regions. Based on this information, as well as consideration of the operating agencies' concerns, the team developed five revenue-sharing options for the region:

- **Option A** -- This Option generally reflects a continuation of the current regional revenue-sharing strategy, i.e., most fare media are allocated based on total boardings by fare medium at MTS versus NCTD.
- **Option B** -- SANDAG would allocate revenue each year as part of the general budgeting process. The allocation would be applied to all fare revenue, regardless of the type of fare medium or where it was used.
- **Option C** -- This Option would group passes into three categories -- MTS only, NCTD only, and used on both agencies -- with only the revenue from passes used on both agencies being allocated between the agencies based on boardings. The grouping would initially be done based on surveys and the location of pass sales (especially onboard sales of Day Passes), but could eventually be done based on data from Compass Card. For premium fare media (e.g., COASTER passes and Premium Day Passes) only an

Table 1: Summary of Recommendations and Implementation Status

Recommendations adopted by SANDAG and implemented by January 2009		
1	Eliminate MTS and NCTD to MTS transfers and replace with Day Pass	January 2008
2	Eliminate MTS Express Bus Pass	January 2008
3	Increase fare for Regional Premium Monthly Pass	Pass raised from \$85 to \$90 in January 2008
4	Increase MTS Cash Bus fares	Urban fare raised to \$2.25 in January 2008
5	Unify MTS Bus fares except Comm. Shuttle, Express, and Prem. Express at \$2.25	Fares unified at \$2.25 in January 2008
6	Increase Regional Premium Cash fare	Fare raised to \$5.00 January 2008
7	Eliminate Trolley Zone Fares (keep Downtown fare)	Flat fare implemented July 2008
8	Increase all COASTER fares	15% increase in Jul 2008, again in January 2009
9	Adopt federal language for ADA Paratransit fares	Language adopted for July 2008
10	Standardize Senior/Disabled/Medicare (S/D/M) cash fares at 50% of regular fare	S/D/M Fares adopted September 2008
11	Allow COASTER and Premium monthly passes to be accepted on rural services	Change adopted July 2008
12	Increase price of Regional Monthly Pass	Pass raised to \$64 in Jan. 2008, to \$68 in Jan. 2009
13	Eliminate \$4.50 NCTD Day Pass in favor of Regional Day Pass of \$5.00	Implemented January 2009
14	Create separate Premium Senior/Disabled/Medicare 30-Day Pass for Seniors and Youth	Implemented January 2009
15	Convert regional Monthly Passes to 30-Day Rolling Passes	Implemented January 2009
16	Introduce 14-Day Regional Pass priced at 60% of 30-Day Pass	Implemented January 2009
Recommendations from Consultant for Adoption in Next Fare Ordinance Revision (Post-January 2009)		
17	Create a COASTER Day Pass and unification with MTS Premium Day Pass	July 2009
18	Raise BREEZE/SPRINTER 30-Day Pass to \$63 by '10, eliminate in favor of Regional Pass (\$68) by '13.	Begin transition July 2009
19	Create Senior/Disabled/Medicare Regional Day Pass at \$2.50	July 2010
20	Raise NCTD fare from \$2.00 to \$2.25 by 2010, then \$2.25 for bus, \$2.50 for SPRINTER by 2013	Begin transition July 2009
21	Add Compass Card stored value bonus (when loading \$10 or more) = 5% of value loaded	July 2009
22	Increase Premium Express Monthly Pass to \$120 by January 2010, and \$140 by January 2011	January 2010 - January 2011
23	Incr. senior eligibility age from current age (60) 1 yr per yr over 5 yrs (to 65) so no one loses existing eligibility	Begins 2010, requires amendment of <i>TransNet</i> Ord
23	Set fares for I-15 BRT Premium Express equivalent to first 3 zones of COASTER	Implement with opening of BRT in 2012
25	Set fares for I-15 BRT Local Express to be equivalent to MTS Express	Implement with opening of BRT in 2012
26	Eliminate Hotel Passes and Tokens	Eliminate by July 2009

- amount equal to the base regional pass (i.e., the \$68 30-Day Pass or \$5 Day Pass) would be shared, while the rest of the cost of the pass would be allocated to the premium service.
- **Option D** – This Option utilizes data on individual pass use that will be available with Compass Card to allocate the revenue from each pass separately. Surveys of payment methods would also be used, at least initially, to determine the accuracy of the data. Each pass would be allocated based on boardings made and the base cash fare of the services boarded, so that revenue from passes used entirely on one agency would be allocated to that agency.
- **Option E** – This Option utilizes data on individual pass use that will be available with Compass Card to allocate the revenue from a sample of passes. Surveys of payment methods would also be used, at least initially, to determine the accuracy of the data. Each pass would be allocated based on boardings made and the average fare of the classes of service boarded, so that revenue from passes used entirely on one agency would be allocated to that agency.

## Recommendations

Based on the relative advantages and disadvantages of these options, including a comparison of potential revenue impacts on MTS and NCTD, the consulting team has identified a recommended new revenue-sharing strategy for the region based on Option E. This strategy would be phased in, with the existing approach continuing until such time as Compass Card has been completely rolled out and all passes are available on the card.

It should be noted that the implementation of the recent fare changes, including the elimination of almost all transfers between the agencies and the implementation of fares on Coaster Connection services, has greatly reduced the magnitude of revenue-sharing needed. The detailed data is not yet available to predict the precise impact of implementing Option E. However, it appears that impacts on different fare media would be largely offsetting (e.g., MTS would get a larger share of COASTER pass revenue, while NCTD would get a larger share of Regional 30-Day and 1- Day Pass revenue). The likely impact of the recent – and planned – fare changes would be a reduction in the amount of shared revenue to less than \$100,000 per year, a small fraction of the combined regional operating budgets.

# 1. Project Initiation and Staff/Stakeholder Review

## 1.1 Introduction

This draft report presents the results of the *Regional Transit Fare Structure and Revenue Sharing Study*. The purpose of the study was to develop a unified and simplified regional fare structure for the San Diego region. The study began in October 2006. The study has been conducted by TranSystems Corp., in conjunction with Parsons Transportation Group. Dan Fleishman of TranSystems served as Project Manager, assisted by Rick Halvorsen of TranSystems and Karen Konecky of Parsons. Dan Levy served as the Project Manager for SANDAG.

## 1.2 Project Initiation

Task 1 of the study covered the initiation of the study. The key activities in this task were as follows:

- *Study Kickoff Meetings* - The study Kick-off Meetings were held at SANDAG's office on October 18, 2006. The purpose of the meetings was to review the Work Plan and Schedule for the study with both the Technical Advisory Committee (TAC) for the study and with the Regional Transit Fare Structure Task Force. At both meetings, the consultant team presented an overview of the study, identifying the qualifications and experience of the team members and discussing the study objectives, tasks and schedule. There was also a review of the status of the Compass Card project and discussion of specific issues related to fare payment – particularly the complexity of the region's overall fare structure and the various anomalies that have resulted from this complexity.
- *Finalization of Work Plan and Schedule* – The study Work Plan and Schedule were discussed during the Kickoff Meetings. No changes were made at that time to the Work Plan. A schedule for completing the Task 2 activities was established. This task was proposed to include (1) interviews of staff at SANDAG, MTS and NCTD and (2) customer and potential customer focus groups and observations of passenger behavior (i.e., buying and using fare options).<sup>1</sup> Dates were identified for holding the staff interviews: November 14<sup>th</sup> at MTS, November 15<sup>th</sup> at NCTD, and November 16<sup>th</sup> at SANDAG. Regarding the focus groups, the attendees agreed that these would occur in December if feasible, but could possibly be held in January instead.
- *Compilation and Review of Key Reports and Data* -- SANDAG, MTS and NCTD provided the consulting team with key data/information regarding ridership, fare media sales, and fare revenue for the region. Considerable information was provided initially, and once the team had an opportunity to review this information, additional data still needed was identified and subsequently supplied by the operators. Exhibit 1 identifies the types of data and specific documents that were reviewed during Task 1. The information contained in these items was then used in developing the Base Case for the Fare Model, and subsequently was used in development and evaluation of new fare structure and revenue sharing scenarios.

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<sup>1</sup> Subsequent to this discussion, a decision was made to switch the format for obtaining input from customers and potential customers from focus groups to individual interviews. After discussions among the consulting team and staff of SANDAG, NCTD and MTS, it was decided that pre-selecting key transit centers and targeting customers for one on one interviews would not only improve the team's ability to gather perceptions and opinions from a diverse mix of customers, but that this approach would also increase the likelihood of interviewing customers who transfer between the two systems. The methodology and results of these interviews are discussed in this report.

- *Identification of Peer Review Locations* -- Task 3 was to involve a review of peer region fare structures and issues. After a discussion of the objectives of the peer review and the characteristics of the various potential peer regions, the attendees agreed on the following regions for the review:
  - Chicago, IL
  - Los Angeles, CA
  - Minneapolis, MN
  - Portland, OR
  - Sacramento, CA
  - Seattle, WA
  - Toronto, ON
  - Vancouver, BC

Following the Kickoff Meetings, the consulting team submitted a brief memorandum summarizing the discussions that took place and the decisions made at the meetings.

### 1.3 Staff and Stakeholder Input

The purpose of *Task 2* was to obtain input from management and staff of SANDAG, MTS and NCTD – as well as from customers and potential customers -- on issues related to fare policy, levels and structure. This effort consisted of three elements:

- Agency staff survey
- Agency staff Interviews
- Customer and potential customer interviews

These elements are discussed below.

#### Agency Staff Survey

In order to facilitate input from agency staff regarding the current fare structure and possible changes, the consultant team developed (with input from SANDAG) and administered a short survey (see Appendix A) to staff of MTS, NCTD and SANDAG. In this survey, respondents were asked to do the following:

- Rate (from 1 – 5) the relative importance of each of 15 factors potentially influencing someone's decision to ride transit
- Rate (from 1 – 5) the relative importance of each of a set of 15 fare-structure-related goals

### Exhibit 1: Documents/Data Reviewed

*SANDAG Board Policy 029: Regional Fare Policy and Comprehensive Fare Ordinance Fare Ordinance* – June 2006

Selected Results of Onboard Passenger Survey for the San Diego Region – March 2004  
Revenue Sharing Agreements

San Diego Trolley Monthly Ridership Estimates – September 2006

NCTD Revenue Report for 12 Months Ending June 30, 2006 – detail for COASTER

NCTD Ticket Office Machine Sales FY 06

NCTD Ticket Office Machine Sales FY 06 Annual Summary

NCTD Bus Pass Sales FY 2006 – Annual Summary

Selected Survey Results from:

- 2003 NCTD Survey
- 2003 Onboard Survey
- 2005 Green Line Survey
- 2006 COASTER Survey

Summary Fare Category Data – FY 06

*2006 – 2010 Short Range Transit Plan (Draft:)*

- Appendix C: 2005 Transit Service Data by Operator
- Appendix D: Historical Operating Statistics for MTS Operators

SANDAG Ridership Database (pass2007.mdb)

SANDAG, MTS & NCTD websites, including the SANDAG Data Warehouse

MTS publications regarding MTS, SD Trolley, South Bay Transit, and Taxicab Administration

NCTD *BREEZE Rider's Guide*

*SANDAG Fare Facts*

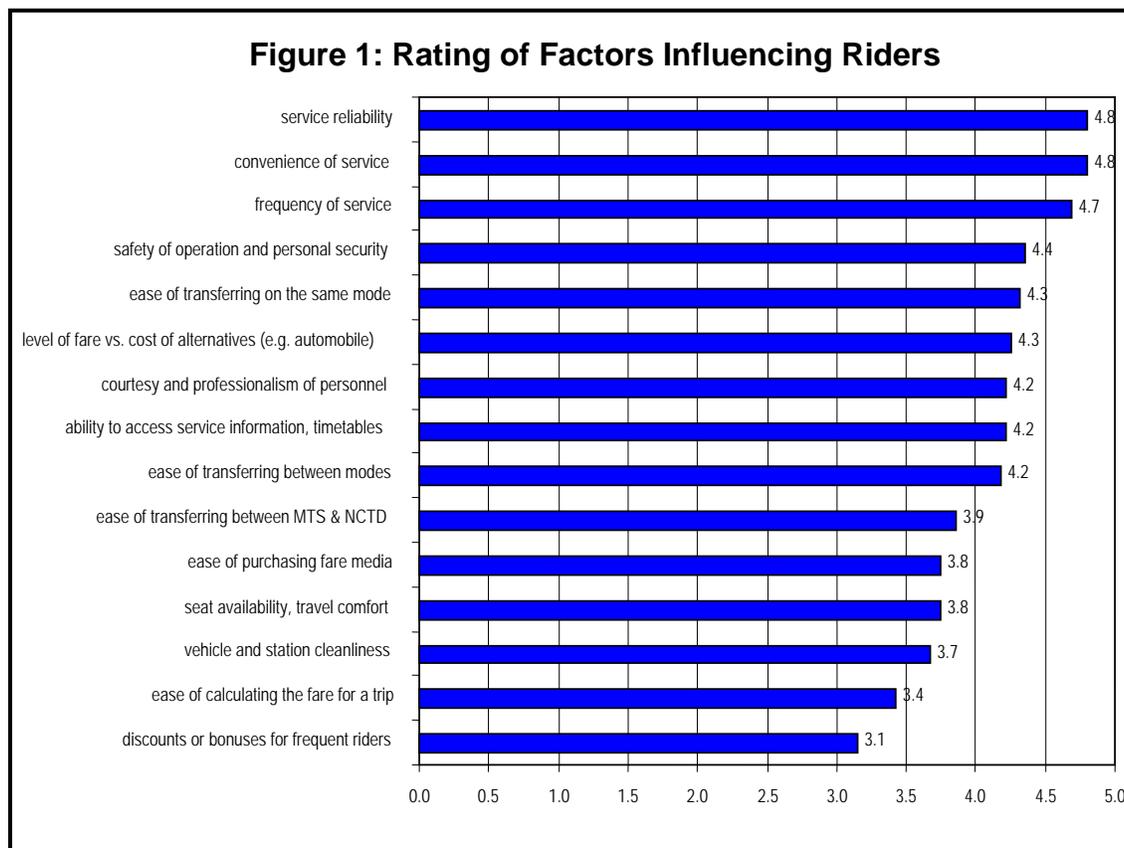
*Note:* MTS staffers have noted that the agency has been modifying its route structure and changing the fares charged on some restructured routes, and expects to continue to do so during the course of the study. It was agreed that the study would use MTS' FY2006 route structure and fares as part of the Base Case for the study, rather than any subsequent route or fare modifications.

- Rate (from 1 – 5) how well the current fare structure meets each of these 15 goals
- Rate (from 1 – 5) each of 30 possible changes to the existing fare structure and payment options

The survey was distributed to staff at each of the three agencies in early November 2006. In all, 28 surveys were completed and returned. The results of the survey effort are shown in Figures 1-4. The key points based on these results are as follows.

**Rating of Factors Influencing Riders**

As indicated in Figure 1, the survey respondents felt that all of these factors are relatively important in influencing people’s decision to use transit, given that even the lowest-rated factor received an average rating of over 3.0, and 9 of the 15 factors received average ratings of 4.2 or higher. The most important factors according to these respondents are *service reliability*, *convenience of service* and *frequency of service*. The highest rated fare-related factors were *ease of transferring on the same mode*, *level of fare vs. cost of alternatives*, and *ease of transferring between modes*. The lowest rated factors overall were related to fares: *discounts/bonuses for frequent riders* and *ease of calculating the fare for a trip*. Thus, while fare-related factors are certainly among the many factors influencing transit usage, the survey respondents felt, overall, that service quality-related factors rate higher in people’s decision-making than do fare factors.

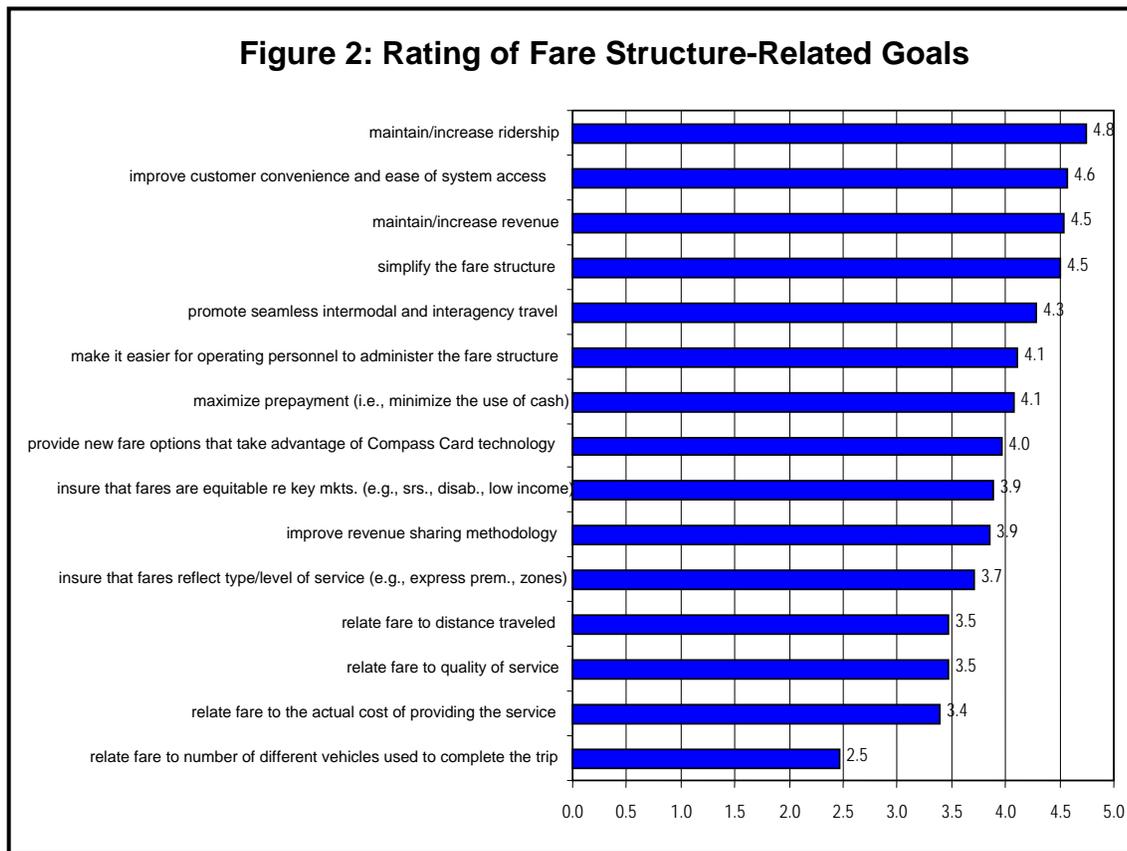


**Rating of Fare Structure-Related Goals**

As indicated in Figure 2, the respondents felt that the most important fare-related goals are *maintain/increase ridership*, *improve customer convenience and ease of system access*, *maintain/increase revenue* and *simplify the fare structure*. The least important goals all deal with fare differentiation: *relate fare to number of vehicles used*, *relate fare to actual cost of providing the service*, *relate fare to quality of service* and *relate fare to distance traveled*.

**Rating of Current Fare Structure vs. Goals**

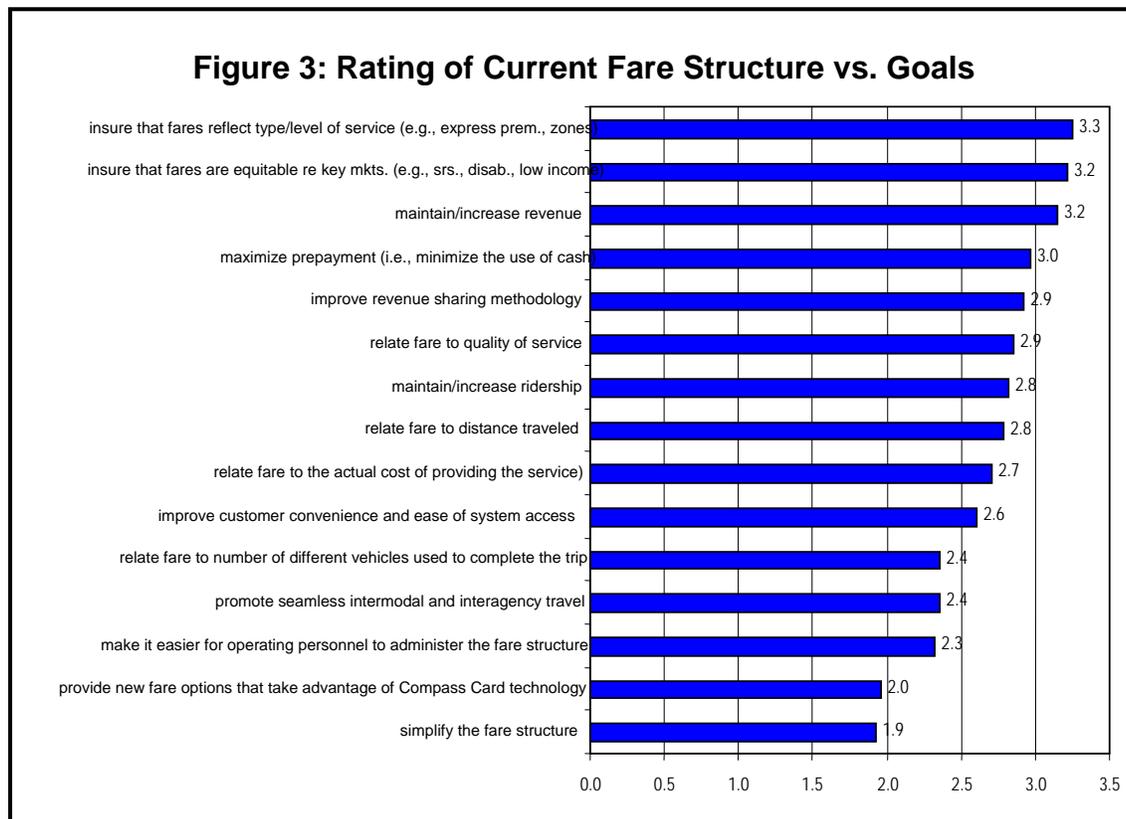
Figure 3 shows the survey respondents' ratings of the extent to which the current fare structure meets each of the fare-related goals. It is noteworthy that these ratings were, by and large, lower than the ratings of the importance of the goals. In other words, the respondents generally felt that the current fare structure is not doing a great job at meeting the goals. The respondents felt that the current fare structure is doing the best job vis a vis the following goals: *insure that fares reflect type/level of service*, *insure that fares are equitable re key markets* and *maintain/increase revenue*. In contrast, the respondents felt that the current fare structure rates worst regarding the goal to *simplify the fare structure*. Other low-rated items in this category included *provide new fare options that take advantage of Compass Card technology* (of course, since Compass Card had not yet been implemented, this low rating was to be expected), *make it easier for operating personnel to administer the fare structure*, *promote seamless intermodal and interagency travel*, and *relate fare to number of vehicles used*.

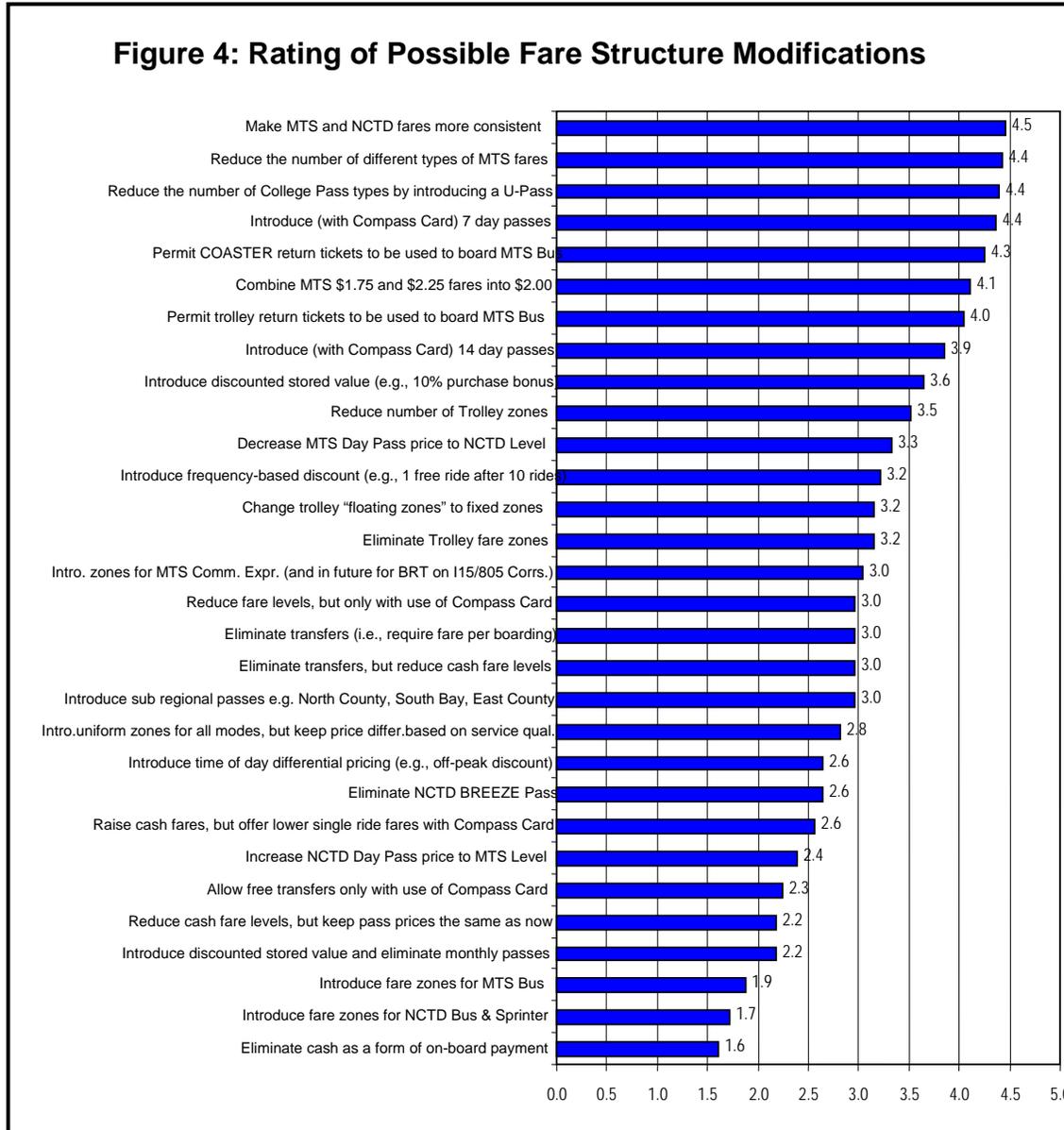


### Rating of Possible Fare Structure Modifications

The final question on the survey identified thirty possible modifications to the current fare structure and types of payment options. These included both general types of changes (e.g., *eliminate transfers* or *reduce cash fare levels, but keep pass prices the same as now*) and specific structural changes (e.g., *combine MTS \$1.75 and \$2.25 fares into \$2.00* or *increase NCTD Day Pass price to MTS level*). In addition, space was provided to suggest other possible changes. As indicated in Figure 4, a third of the items were rated 3.5 or better, while nearly another third received average ratings of 3.0 or higher. The highest rated modifications (i.e., those rated 4.0 or higher) were:

- Make MTS and NCTD fares more consistent
- Reduce the number of different types of MTS fares
- Reduce the number of College Pass types by introducing a U-Pass
- Introduce (with Compass Card) 7-day passes
- Permit COASTER return tickets to be used to board MTS Bus
- Combine MTS \$1.75 and \$2.25 fares into \$2.00
- Permit Trolley return tickets to be used on board MTS Bus





The lowest rated modifications (i.e., those rated below 2.5) were:

- Eliminate cash as a form of on-board payment
- Introduce fare zones for NCTD bus and Sprinter
- Introduce fare zones for MTS Bus
- Introduce discounted stored value and eliminate monthly passes

- Reduce cash fare levels, but keep pass prices the same as they are now
- Allow free transfers only with Compass Card
- Increase NCTD Day Pass price to MTS level

Finally, the additional possible modifications suggested by individual respondents were as follows:

- Introduce U-Pass good for 18-23 year olds, same price regionwide and usable regionwide on proof of attending college
- Introduce regional Day Pass, suggested at \$15-20 and good on all services
- Offer ability to buy passes (1-day, 1-week, etc. ) with cash on bus

In general, the ratings of possible modifications and new payment options underscored the high ratings given the goals to *simplify the fare structure* and *improve customer convenience*. There was little support, for instance, in introducing new fare zones or eliminating monthly passes.

The results of this survey, coupled with the staff and stakeholder interviews, were subsequently used in the development of alternative fare structure scenarios and the establishment (and weighting) of evaluation criteria to be used in assessing the scenarios. The results of the staff interviews are discussed below.

## Agency Staff Interviews

The second element of the staff and stakeholder input process was a series of interviews with key managers and staff representing various departments within SANDAG, MTS and NCTD. For each agency, meetings were set up with representatives of each of several administrative and operating departments or functional areas. In some cases, the consultant team interviewed one person at a time, while other meetings included several staff (i.e., in related departments or functional areas). For each agency, the particular staff – and the groupings – were identified by a staff person at that agency. Interviews were conducted with a broad range of departments at all three agencies, over a period of three days (roughly one day devoted to each agency). In all, 39 individuals were interviewed. Two or three members of the consultant team attended each meeting.

To guide the interviews, the consultant team prepared a *Discussion Guide* (see Appendix A) that identified the key discussion areas and issues to be addressed. While this Guide provided a useful general framework for the interviews, the discussions tended to be fairly open-ended, as staff representing different agencies and functions often focused on the issues most germane to their own agency and area. The list of people interviewed in each session, along with the raw notes from each meeting, is provided in Appendix B. The key points from the discussions, presented by agency, are summarized below. A summary of the overall results from all of the interviews is provided below, under *Summary of Staff/Stakeholder Review Findings*.

### *MTS Interviews*

Interviews were conducted with representatives of the following departments/functional areas within MTS; these included the overall MTS organization, as well as San Diego Transit and San Diego Trolley:

- Executive Management

- Marketing
- Customer Service
- Revenue Collection
- Operations
- Finance
- Planning

The key points raised were as follows:

**Issues/Problems with Current Fare Structure/Policy** --The issues and problems with the current fare structure/levels/policy identified by MTS representatives included:

- The current fare structure is too complicated, both for customers and operators; it is difficult to communicate to customers, and operators have trouble enforcing fare payment because of complexity. Fare elements contributing to this complexity include:
  - The three separate bus cash fares (\$1.75, \$2.00 and \$2.25) -- distinctions are nebulous, and there is no clear labeling of routes to identify the applicable fare; also, \$2.25 is too high a fare for bus service.
  - The station to station fare structure for Trolley -- counting stations is confusing to customers, and the Downtown Zone adds to the confusion; also this pricing promotes fare evasion.
  - Two different transfers – the farebox-issued transfer is good for 2 hrs, the paper transfer is good for 90 minutes; also, while Trolley transfers do not allow travel in the opposite direction, bus transfers do.
  - Trolley roundtrip ticket that is good for 2 hrs on bus, but all day on Trolley.
  - Transfer Inconsistencies between NCTD and MTS
- Pricing based on type of service (e.g., local, express) has become inconsistent, as there has been a blurring of service distinctions.
- There needs to be a better balance in terms of form of payment and revenue received: the use of cash is currently too high, and the use of passes too low.
- The cash fare is becoming too high. However, while the agency has considered reducing the cash fare (and increasing the pass price), a decreased cash fare would require lowering the senior/disabled fare as well.

- Senior/disabled pass pricing is too low, leading to unreasonably low revenue for this market. Moreover, senior/disabled tickets can be purchased at TVMs and at many retail outlets without showing proper ID.
- The School Pass is mandated by the Board of Directors, and is growing in use.
- The major barrier to changing the fare structures/levels is the need to maintain or even increase revenue.

**Recommended Changes** -- Suggestions for possible changes to the current fare structure/policy were as follows:

- Eliminate bus-bus transfers; replace with on-board Day Pass.
- Eliminate issuance of a transfer for a pass upgrade; transfers/upgrades should only be for cash customers.
- Consolidate/simplify the bus cash fare (e.g., \$2 for all rides instead of three levels).
- Unify fares between MTS and NCTD.
- Provide a single regional pass, rather than three different priced passes.
- Institute flat fare within designated areas (e.g., travel anywhere on the Blue Line for a single fare).
- Introduce a Downtown Pass or reduced fare for downtown travel (e.g., \$0.25 or \$0.50).
- Offer a Weekly Pass, perhaps targeted to visitors.
- Institute rolling -- instead of calendar-period -- passes.
- Use Compass Card to simplify fares rather than offering a multitude of fare products.
- Fare structure should reflect increasing market segmentation basis for designing services.
- Consider peak/off-peak pricing. This would allow charging seniors/disabled full fare in peak, half fare in off-peak.
- Establish multiapplication partnerships with universities (e.g., get them to use Compass Card as campus ID as well as for transit fare payment).
- Stop accepting pennies in the farebox; this causes a lot of jams.

**Revenue Sharing Issues and Suggestions** -- Key points related to revenue sharing were as follows:

- MTS does not receive revenue from use of the NCTD Day Pass or interagency transfers on MTS services – and NCTD does not receive revenues from the use of the interagency transfer on NCTD services.

- Formula for apportionment between MTS and NCTD related to COASTER needs to be revisited (has not been adjusted since 1995).
- SANDAG should inform MTS how much it owes, rather than requiring MTS to send \$ from fare product sales to be apportioned. Currently, MTS makes about 95% of regional pass sales, but gives the money to SANDAG and then gets a large part of it back.
- The likelihood that some Compass Card users will not tag on/tag off on Trolley will make measuring usage – and thus revenue split -- inaccurate; this will mean that surveys will continue to be needed, at least on Trolley.
- Some services are designed so as to maximize revenue for one operator or another, and do not necessarily best address needs of customers.

### ***NCTD Interviews***

Interviews were conducted with representatives of the following departments/functional areas within NCTD:

- Executive Management
- Marketing
- Communications
- Customer Service
- Revenue Collection
- Operations and Maintenance
- Finance
- Planning
- Mobility Services
- Rail Division

The key points raised were as follows:

**Issues/Problems with Current Fare Structure** -- The issues and problems with the current fare structure/levels/policy identified by NCTD representatives included:

- There are too many different fares and payment options in the region; it takes 6 pages of Riders Guide to communicate fares/policies:

- This increases the cost of communicating fares to customers and training drivers, and also creates a barrier to attracting new riders.
- Different types of passes – as well as stickers on college IDs -- are a problem for bus operators: there are too many different fare media for them to recognize.
- There seems to be a new ticket for every special event.
- Bus fares are too high, but they need to cover increased costs. COASTER fares are appropriate – maybe even a little low (especially since nearly half of COASTER riders have fares subsidized by employers).
- The NCTD fare structure is simple enough and understandable. Fare-related complaints tend to be about transfer issues.
  - Transfer to COASTER or MTS is problem. Transfer between NCTD & MTS not seamless or easy unless customer has a regional pass. The transfer is 2 hours at point of issue and long hauls between North County and San Diego can exceed 2 hours.
  - Customers often do not want to pay an upgrade fare, causing conflicts with operators.
- There are too many fare-related inconsistencies between NCTD and MTS. Key inconsistencies include:
  - MTS has bulk purchase pass discounts for employers (i.e., EcoPass), NCTD does not.
  - MTS sells a half-month pass, NCTD does not.
  - NCTD's Day Pass (issued on-board buses) costs \$4; MTS sells scratch off "Day Tripper" for \$5. The Day Tripper is also valid on NCTD, while the NCTD Day Pass can be used on MTS service only as a transfer (good for 2 hours). Customers often assume that NCTD Day Pass is also good on MTS (i.e., as a Day Pass).
  - NCTD sells a NCTD-only monthly pass for \$54, but there is also a regional monthly pass (\$60, \$64 or \$84).
  - A single cash fare on NCTD does not qualify the customer for a discount on COASTER, but a single cash fare on MTS does.
- Regional travel to the airport is an issue. It's seamless if the customer has a COASTER pass, but if he/she pays a single fare, it's confusing and costs different amounts depending on direction. If a customer starts on COASTER, it's less expensive than starting on MTS.
- COASTER monthly pass is supposed to be good on Trolley, but doesn't seem to be accepted often.
- There are also complexities/nuances associated with different transfer policies with Riverside, Metrolink, OCTA and Rail2Rail (Amtrak).

- Considerable fare abuse results from ability to use Day Pass to transfer to COASTER: customers with Day Pass can get a discount on fare at TVM for COASTER: however, many people get a discounted fare even though they do not have a Day Pass -- and never get caught.
- Screening is too loose for obtaining Senior/Disabled pass. Anyone can buy a Senior/Disabled pass anywhere.

**Recommended Changes** -- Suggestions for possible changes to the current fare structure/policy were as follows:

- Establish multiapplication partnerships with universities (e.g., get them to use Compass Card as campus ID as well as for transit fare payment).
- Eliminate discounted transfer to COASTER with Day Pass; this would significantly increase revenue.
- There should be a round trip ticket good for COASTER, and also good on Trolley (this is now available for Padres games).
- A Regional Day Pass (priced at \$5 for use on any bus – sold on-board -- or the Trolley, or \$15-20 for use on any service in region – including COASTER) should be considered.
- There should be a uniform regional paratransit fare; it's currently confusing when a customer has to transfer through multiple zones.
- Consider rolling period pass vs. fixed month. Staffing peaks are difficult to manage.
- Consider long-term (e.g., quarterly, or even annual) passes.
- Would like to see scratch-off NCTD pass (e.g., good for 4 days, not necessarily consecutive days).
- Consider bonus/discount for bulk purchase, or even "best fare" arrangement (i.e., if you ride the number of times that equals the cost of the pass, then the system stops decrementing from stored value and the farecard becomes a pass).
- A lower single ride fare with Compass Card than without could cause an equity issue.
- Consider charging a deposit – rather than a fee – for the Compass Card; NCTD client base won't pay a \$5 fee for the card.
- A Weekly Pass would be good for the visitor market.
- There should be a single U-Pass arrangement (at least within North Co.); there are currently a number of different arrangements. The U-Pass should be for students only, not faculty.
- MTS should go to a flat fare.

- Although the Sprinter fare is currently set to be the same as the NCTD bus fare, a higher fare for Sprinter should be considered.

**Revenue Sharing Issues and Suggestions** -- Key points related to revenue sharing were as follows:

- Need to address issue of sharing revenue when new cross-jurisdictional services are implemented.
- MTS gets 5% of all COASTER ticket sales. If NCTD pass isn't accepted on Trolley, why does NCTD have to pay 5%? NCTD does receive some money from sales of regional pass, but it entails complex accounting for a minimal amount of money.  $\$64 - \$54 = \$10$  x some percentage (based on 70:30 population split). NCTD feels its population share is more like 33%, not 30% --.but no one has reviewed it.

### ***SANDAG Interviews***

Interviews were conducted with representatives of the following departments/functional areas within SANDAG:

- Executive Management
- Communications
- Finance
- Planning
- Mobility Services

The key points raised were as follows:

**Issues/Problems with Current Fare Structure** -- The issues and problems with the current fare structure, levels and policy raised by SANDAG representatives included:

- Fare structure is too complicated – too many different fare products and brand names; it's a barrier to people riding.
- Anomalies and exceptions are the real problem with the current fare structure.
- Abuse of Sr./Disabled passes a problem – can buy at TVM or some outlets without having to show an ID (this depends on individual outlet)

**Recommended Changes** -- Suggestions for changes to the current fare structure/policy that should at least be considered were as follows:

- Eliminate anything above 2 day pass – all should go to Compass Card.
- Change to pay per boarding: free transfer with Compass Card, otherwise get rid of transfers.
- Consider flat fares (i.e., no zones).

- Eliminate Social Service Agency and Hotel/Convention Day Tripper; SSA's don't sell many Day Trippers but do sell a lot of tokens.
- Have different fare levels for Compass Card -- i.e., incentive programs to move people to card; examples include free transfers only with Compass Card or lower single ride fare with Compass Card than with cash.
- They are pursuing multiapplication opportunities with Compass Card, including (1) Universities are interested in joint use cards; some of larger ones have plans to go to smart cards; (2) E-Lockers for bikes at transit parking lots; (3) parking applications; (4) they've talked to Starbucks. Starbucks said to come back once program is up and running. Also thinking about universal transportation account (e.g., transit and FasTrak).

**Revenue Sharing Issues and Suggestions** -- Key points related to revenue sharing were as follows:

- SANDAG wants to get out of doing detailed revenue allocation – should just allocate to MTS and NCTD; let MTS decide how to allocate to individual operators (SDTC, Trolley, National City, Chula Vista).
- It is hoped that the Compass Card will simplify the currently tedious process of revenue allocation.

The overall results of both the interviews and the survey are presented below, under *Summary of Staff/Stakeholder Review Findings*, below.

## Customer/Potential Customer Interviews

### *Interviews of Customers*

Customer interviews were conducted December 19, 2006 and January 4, 2007 at pre-selected stations and transit centers. Table 1 shows the number of customers interviewed, the number of customers identified as NCTD and MTS users and, how many customers transfer between the two systems. Table 2 compares the general composition of each system to the profiles of the customers interviewed for both NCTD and MTS. The detailed results of the interviews are presented in Appendix C; these results can be summarized as follows:

- Based on these interviews, those customers who ride regularly are fairly savvy about fare payment options. Most customers, if they can afford the out-of-pocket expense and believe they'll ride often enough in a given month, prefer a monthly pass. This preference is not just because it's a better value, but because it makes fare payment easier overall: they don't need exact change, they don't need to insert coins and bills into the farebox (this is difficult), they don't need to deal with transfers or worry about the rules (MTS), or they don't need to worry about paying the right Trolley fare.
- Most of the customers interviewed did not know that there are two major transit agencies in the County of San Diego. When those who told the interviewer that yes, they knew this, were asked the names of the agencies, nearly all got the names wrong.
- Most customers interviewed told the interviewer that they have experienced some confusion with the fare pricing/structures. Some customers told us they were confused by the price differentials on the buses – they didn't know what to pay until they asked a driver and they also don't understand what is meant by local, urban, express and why the pricing is different. Some South Bay customers expressed frustration about the transfers – they don't often know how much time they'll have to use them, as some are good longer than others.

Table 1: Customers Interviewed, by System

Interview Location	No. of Customers Interviewed	Primary System		Transfer b/t Both
		NCTD	MTS	
Old Town Transit Center	4	0	4	1
Iris Avenue	4	0	4	0
El Cajon Transit Center	3	0	3	0
Fashion Valley Transit Center	2	0	2	0
Palomar College	3	3	0	0
Escondido Transit Center	5	4	1	0
North County Fair	3	2	1	2
University Towne Center	5	2	3	1
Oceanside Transit Center	3	3	0	0
<b>Total</b>	<b>32</b>	<b>14</b>	<b>18</b>	<b>4</b>

Table 2: Profile of Customers Interviewed

Profile	NCTD			MTS		
	Comp	Interviewed		Comp	Interviewed	
Female	51%	7	50%	52%	8	44%
Hispanic	46%	8	57%	37%	4	22%
Non Hispanic (White)	36%	4	29%	37%	9	50%
Asian/Pacific Islander	10%	1	7%	7%	1	6%
African American	5%	1	7%	15%	4	22%
12 to 18 years	23%	2	14%	13%	3	17%
60 + years	5%	2	14%	9%	2	11%
Other ages	72%	10	71%	78%	13	72%
<b>Total Interviewed</b>		<b>14</b>			<b>18</b>	

Source of general composition by system: *Results of Onboard Transit Passenger Survey for San Diego Region, March 2004*

- Many customers interviewed have observed others confused by what fare to pay, especially on the Trolley. Customers told the interviewer that, at least on the bus, the driver can assist customers with what they need to pay, whereas at a Trolley station, very often there is no assistance.
- Most customers told the interviewer that they have not observed drivers confused by fares, but some NCTD customers said that they have observed drivers unable to communicate effectively with customers who cannot speak or understand English. Another customer explained drivers are "not confused, just overwhelmed, so they wave people on." (This is consistent with what the NCTD bus operators expressed to interviewers.)

- As for suggestions for improving fare payment, NCTD customers tended to focus on communications (improving the Rider's Guide and signage on the farebox). Another challenge is how to effectively communicate to people who are unable to read. One customer exclaimed throughout the interview that she "knew nothing from nothing", so elects to pay cash for each ride. She is unable to speak or understand English and it was the interviewer's opinion that she may also be illiterate. Suggestions by a few MTS customers focused on improving the price differentials and the ease of fare payment on the bus.
- When asked about zone or distance based pricing strategies, most based their opinions on their experience with the Trolley. Many customers believe the pricing strategy is too confusing. Many would prefer a flat fare. When asked about higher peak hour pricing, the majority of customers were against the strategy, primarily because they don't believe it's fair to those who have to travel during these times.
- Some of the customers interviewed had heard about the plans for implementing a smart card system. Nearly all customers believe it will make fare payment easier and more convenient and most expressed willingness to provide personal information for the security of balance protection; this includes one customer who told the interviewer that she lives in Tijuana. Most believe providing information like this is just "a way of life" now – required for signing up for an email account, applying for loyalty cards, etc. One customer expressed a caveat to this, however – "as long as they don't ask for social security or driver's license numbers."

### *Interviews of Potential Customers*

Telephone interviews of 12 potential customers were conducted January 12– 17, 2007. All interviewees were San Diego County residents, and were selected to represent variation in a range of factors, including geographic location, gender, age and race. Tables 3 - 5 provide an overview of the interviewee demographic profiles.

The detailed results of the interviews are presented in Appendix C; these results can be summarized as follows::

- Every person interviewed believes public transportation is a good investment for the County. Most see it as a solution to freeway congestion and an environmental imperative.
- Very few knew there were two major transit agencies in the County and one expressed alarm that residents should have to know this; she feels that public transportation and mobility of the residents of the County should be seamless and that they should not have to be concerned about different fare payment rules.

**Table 3: Gender**

Female	6	50%
Male	6	50%

**Table 4: Race**

Hispanic	4	33%
Non-Hispanic (White)	6	50%
Asian/Pacific Islander	1	8%
African American	1	8%

Table 5: Age

12-18	1	8%
60+	2	17%
Other ages	9	75%

- Most knew where either a transit station or bus stop was located near their home, although most answered with a rail station or park and ride, not a bus stop. Most have used some form of rail in the County (mostly Trolley) at one time or another. Very few had ever taken a bus. Most had a pretty good idea how they would travel from Escondido to downtown – express bus – but a few indicated they would take the bus across town to a COASTER station and a few stated that they would try to find a Trolley or train and, as a last resort, a bus. As for how to travel from Fashion Valley to downtown, most answered that they would take the Trolley – although a few said that they would take a bus.
- The top three reasons for not using public transportation are (1) they need their car during the day, (2) it's too slow/takes too long and (3) it doesn't serve their work or area. One person said that confusion about fares made her less inclined to use public transportation.
- When asked about what they thought the price of fares on the bus, Trolley and COASTER are, a wide range of fares was given for each; the fares were clearly skewed lower for bus, higher for Trolley and even higher for COASTER. Only a few people perceive fares to be the same for the bus and Trolley. Half of the interviewees knew that Trolley and COASTER pricing is based on distance or number of stations.
- The majority of people interviewed stated that making fares easier to understand would not cause them to use public transportation more often. – i.e., this was not a major consideration for them in not using transit. The majority stated they would ride more often only if public transportation were to better serve their needs better than it does now.
- Many of the people interviewed knew about the future implementation of the smart card and, when informed how it worked, everyone believed it would make fare payment easier; however, the majority said that the card would not cause them to ride more often.

#### 1.4 Summary of Staff/Stakeholder Review Findings

The process of obtaining input from agency management and staff regarding the current fare structure and possible changes consisted of two elements: a written survey and a series of face to face interviews. The survey asked respondents to (1) rate the relative importance of each of 15 factors potentially influencing someone's decision to ride transit, (2) rate the relative importance of each of a set of 15 fare-structure-related goals, (3) rate how well the current fare structure meets each of these 15 goals and (4) rate each of 30 possible changes to the existing fare structure and payment options. The survey was distributed to staff at each of the three agencies in early November 2006, and 28 surveys were completed. Following the survey effort, the consultant team conducted interviews with a total of 39 managers and staff representing various departments within SANDAG, MTS and NCTD. The consultant team also conducted interviews with a sample of transit customers and potential customers. The results of these three elements are summarized below:

## Staff Survey Results

The results of the staff survey were as follows:

### *Factors Influencing Riders*

- The survey respondents felt that the most important factors influencing decisions to use transit are *service reliability, convenience of service and frequency of service*. The highest rated fare-related factors are *ease of transferring on the same mode, level of fare vs. cost of alternatives, and ease of transferring between modes*.
- The lowest rated factors overall were related to fares: *discounts/bonuses for frequent riders and ease of calculating the fare for a trip*. Thus, while fare-related factors are certainly among the many factors influencing transit usage, the agency staff responding to the survey felt, overall, that service quality-related factors rate higher in people's decision-making than do fare factors.

### *Fare Structure-Related Goals*

- The survey respondents felt that the most important fare-related goals are *maintain/increase ridership, improve customer convenience and ease of system access, maintain/increase revenue and simplify the fare structure*.
- The least important goals all deal with fare differentiation: *relate fare to number of vehicles used, relate fare to actual cost of providing the service, relate fare to quality of service and relate fare to distance traveled*.

### *Current Fare Structure vs. Goals*

- The survey respondents' ratings of the extent to which the current fare structure meets each of the fare-related goals were, by and large, lower than the ratings of the importance of the goals. Thus, the respondents generally felt that the current structure is not doing a great job at meeting the goals.
- The respondents felt that the current structure is doing the best job vis a vis the following goals: *insure that fares reflect type/level of service, insure that fares are equitable re key markets and maintain/increase revenue*. In contrast, the respondents felt that the current fare structure rates worst regarding the goal to *simplify the fare structure*. Other low-rated items in this category included *provide new fare options that take advantage of Compass Card technology* (of course, since Compass Card had not yet been implemented, this low rating was to be expected), *make it easier for operating personnel to administer the fare structure, promote seamless intermodal and interagency travel, and relate fare to number of vehicles used*.

### *Possible Fare Structure Modifications*

- The final question on the survey identified a broad range of possible modifications to the current fare structure and types of payment options. In general, the ratings of possible modifications and new payment options underscored the high ratings given the goals to *simplify the fare structure and improve customer convenience*. There was little support, for instance, in introducing new fare zones or eliminating monthly passes.
- The highest rated modifications, all receiving ratings of 4.0 or higher, were: *make MTS and NCTD fares more consistent, reduce the number of different types of MTS fares, reduce the number of College Pass*

*types by introducing a U-Pass, introduce (with Compass Card) 7-day passes, permit COASTER return tickets to be used to board MTS Bus, combine MTS \$1.75 and \$2.25 fares into \$2.00, and permit Trolley return tickets to be used on board MTS Bus.*

- The lowest rated modifications (i.e., those rated below 2.5) were: *eliminate cash as a form of on-board payment, introduce fare zones for NCTD bus and Sprinter, introduce fare zones for MTS Bus, introduce discounted stored value and eliminate monthly passes, reduce cash fare levels, but keep pass prices the same as they are now, allow free transfers only with Compass Card, and increase NCTD Day Pass price to MTS level.*

## Staff Interview Results

The key points raised in the staff interviews were as follows:

- The interviews with representatives of all three agencies confirmed the notion that the region's fare structure is overly complex. While there was some disagreement among the interviewees as to the extent to which the complexity represents an actual *barrier* to use of transit in the region, there was a general consensus that it makes it difficult for would-be customers to use the different services -- and also causes problems with operators trying to collect the proper fare. This complexity is caused by two major problems with the current structure:
  - There are too many different types of fares and payment options within the region. Although in some cases (particularly NCTD's BREEZE) the fare structures and payment options for individual types of service are relatively simple, the overall number of options -- and knowing what can be used on which types of service -- can be bewildering. Moreover, the fares for some of the individual services (e.g., the three different fare levels for MTS buses or the station to station fares on the Trolley) are themselves overly complicated.
  - There are too many fare anomalies and inconsistencies between NCTD and MTS. This includes the differences in pass prices -- and the fact that some passes are "regional" in nature, while others cover only one of the agencies -- and differences in transfer and upgrade rules, both within and between the two agencies' services. Representatives of both operating agencies expressed concerns that upgrades and transfer discrepancies tend to cause customer confusion and conflicts with operators.
- There were also significant concerns, shared by staff at all three agencies, related to reduced fares for seniors and persons with disabilities. The principal issues were that:
  - Reduced fare pricing, particularly for passes, is unreasonably low, resulting in inadequate revenue recovery from this market.
  - There is apparently a significant amount of fare abuse resulting from inadequate screening of individuals seeking to buy -- and use -- reduced fare passes.
- The interviewees recommended a broad range of possible modifications to the existing fare structure/policy. These included both general and very specific changes.

- The suggested improvements addressed simplification of the current structure (e.g., consolidate/simplify MTS bus cash fare, unify MTS and NCTD fares, offer a single regional pass), as well as introduction of new payment options (e.g., weekly pass, downtown pass).
- Several recommendations pertained specifically to pricing and payment options offered with Compass Card (e.g., establish consistent U-Pass arrangement with all participating universities, or offer free transfers only with Compass Card).
- Given that many of those staff interviewed had also completed the survey, it was not surprising that the recommendations identified in the interviews included the higher rated modifications from the survey (as well as some of the others mentioned in the survey).
- Finally, with regard to revenue sharing issues, the concerns and recommended changes differed somewhat among the three agencies. However, representatives of both MTS and NCTD generally felt that their agencies are not currently receiving their proper share of the revenue, and more specifically, the basis of the formula for apportionment of COASTER revenue between them was mentioned by representatives of both of those agencies.

## Customer and Potential Customer Interview Results

Interviews were also held with transit customers and potential customers, to elicit opinions regarding fare issues in the San Diego region. The key findings from these interviews can be summarized as follows:

### *Customer Interviews*

- Those customers who ride regularly are fairly savvy about fare payment options. Most customers stated that, if they could afford the out-of-pocket expense and thought they'd ride often enough in a given month, they would buy a monthly pass.
- Most customers interviewed had experienced some confusion with the fare pricing/structures. Some customers were confused by the price differentials on the buses (e.g., don't understand what is meant by local, urban, express and why the pricing is different). Some customers expressed frustration about the transfers – they don't often know how much time they'll have to use them, as some are good for longer time periods than others. Many customers interviewed had also observed others confused by what fare to pay, especially on the Trolley.
- Most customers had not observed drivers confused by fares, but some NCTD customers said that they had observed drivers unable to communicate effectively with customers who cannot speak or understand English.
- As for suggestions for improving fare payment, NCTD customers tended to focus on communications (improving the Rider's Guide and signage on the farebox). Another challenge is how to effectively communicate to people who are unable to read or understand English and/or are illiterate. Suggestions by a few MTS customers focused on improving the price differentials and the ease of fare payment on the bus.
- When asked about zone or distance based pricing strategies, most based their opinions on their experience with the Trolley. Many customers believed that the current pricing strategy is too confusing. Many would prefer a flat fare regardless of perceived fairness to those traveling short distances. When asked about higher

peak hour pricing, the majority of customers were against the strategy, primarily because they did not think it is fair to those who have to travel during these times.

- Some of the customers interviewed had heard about the plans for implementing a smart card system. Nearly all customers believed it will make fare payment easier and more convenient and most expressed willingness to provide personal information for the security of balance protection. Most believed providing information like this is just “a way of life” now – required for signing up for an email account, applying for loyalty cards, etc.

### *Potential Customer Interviews*

- The top three reasons for not using public transportation were (1) they need their car during the day, (2) it's too slow/takes too long and (3) it doesn't serve their work or area. Most knew where a transit station or bus stop was located near their home. Most had used some form of rail in the County (mostly Trolley) at one time or another. Very few had ever taken a bus.
- When asked about what they thought the price of fares on the bus, Trolley and COASTER were, a wide range of fares was given for each. Only a few people perceived fares to be the same for the bus and Trolley. Half of the interviewees knew that Trolley and COASTER pricing is based on distance or number of stations. The split between those who thought that tickets and passes of one system are accepted on another was 50:50, but less than half were not sure of their answer.
- The majority of people interviewed stated that making fares easier to understand would not cause them to use public transportation more often -- i.e., this was not a major consideration. The majority stated they would ride more often only if public transportation better served their needs.
- Few interviewees knew about the future implementation of the smart card, but when how it worked was explained, everyone felt it would make fare payment easier. However, most told the interviewer that the card would not cause them to ride more often.

The findings from the survey and interviews, combined with the results of the interviews of customers and potential customers, provided an important input to the development of alternative fare level/structure and revenue sharing options – as well as evaluation criteria – carried out in subsequent tasks.

## 2. Peer System and Industry Trend Review

The key activities in this task were as follows:

- *Comparison of San Diego-Area and peer region fare structures/levels* -- Following identification of a set of peer regions, the consulting team compiled and documented the details of each region's current fare structures and levels – as well as revenue allocation methods. The peer structures, levels and methods were then compared to those in the San Diego region, to assess the relative strengths and weaknesses of the San Diego fares. (Revenue allocation issues are addressed in Chapter 5.)
- *Identification of industry trends* – The findings from the peer review were supplemented by a review of transit industry fare-related trends and policies.

### 2.1 The Peer Regions

The following regions were selected for review and comparison with the San Diego region's fare structure:

- **Chicago, IL** – The Chicago region is served by three transit operators. The *Chicago Transit Authority (CTA)* operates bus and heavy rail service within the City of Chicago. *Pace Suburban Bus Division (Pace)* operates bus service in the suburban areas surrounding the City of Chicago. The *Northern Illinois Regional Commuter Railroad Corp.* (commonly known as *Metra*) operates commuter rail service in the region. All three operators are under the aegis of the Regional Transportation Authority (RTA).
- **Los Angeles, CA** – The Los Angeles region is served by more than 20 different transit operators. The *Los Angeles County Metropolitan Transit Authority (Metro)* is the largest operator, providing bus, LRT, heavy rail and BRT service. Metro also funds 16 *municipal bus operators* (the "munis"), and provides funding to *Southern California Regional Rail Authority*, which operates the *Metrolink* commuter rail service.
- **Minneapolis/St. Paul, MN** – The Metropolitan Council funds and operates most of the region's transit service; the Metro Council service is provided by *Metro Transit* (bus and LRT) and a variety of local and express service contracts (9 different providers). In addition, 12 "opt-out" communities within the Metro Council's transit taxing district provide their own transit service (through contracts with private operators).
- **Portland, OR** – The primary transit operators in the Portland-Vancouver (WA) region are the *Tri-County Metropolitan Transportation District of Oregon (TriMet)* and *C-TRAN*. TriMet provides bus and LRT service in three counties in the Portland metropolitan area, while C-TRAN provides bus service in Clark County, WA. There are also several smaller local and express bus operators in the region.
- **Sacramento, CA** – There are 14 transit service providers in the six-county Sacramento region. *Sacramento Regional Transit District (RT)* is the largest, operating bus and LRT. *Capitol Corridor Intercity Rail* provides commuter rail. The others are relatively small bus or paratransit operators.

- **Seattle, WA** – The Seattle/ Central Puget Sound region is served by five municipal bus systems and a regional bus/LRT/commuter rail system (*Sound Transit*). *King County Metro*, a division of the King County Department of Transportation, is the largest of the municipal systems.
- **Toronto, ON** – The Greater Toronto region is served by two large agencies, *Toronto Transit Commission (TTC)* and *Greater Toronto Transit Authority (GO Transit)*, as well as an extensive network of local transit operations. TTC provides bus, light rail and heavy rail service within Toronto, while GO Transit provides commuter rail and bus services throughout the region.
- **Vancouver, BC** – The Greater Vancouver Transportation Authority (GVTA), more commonly known as *TransLink*, is responsible for transportation (highway as well as transit) planning, funding, and operation of transit services in the Vancouver region. The transit services are operated by TransLink subsidiary companies – Coast Mountain Bus Co. (bus), SkyTrain (LRT) and West Coast Express (commuter rail) – and contract operators (the HandyDART paratransit service, six community shuttle services and West Vancouver Transit).

General information on each region's transit services is summarized in Table 6. Key points are as follows:

- As indicated in Table 6, each region includes bus service as well as one or more types of rail. Seven of the peer regions (all but Chicago) have light rail, and six regions (all but Minneapolis/St. Paul and Portland) feature commuter rail. The *populations* of these locations vary considerably, with San Diego falling roughly in the middle – equivalent to Seattle and larger than four of the regions. There is similarly a wide range of *annual ridership* and *fare revenue* totals, more or less reflecting the size of the urbanized area (Vancouver is a notable exception, as its annual ridership is much higher than that of the US cities of comparable size.)
- As shown in Figure 5, MTS' overall *fare recovery ratio* (37%) is one of the higher figures among the non-Commuter Rail services, while NCTD's ratio (22% without COASTER) is among the lower figures in this group. Of course, it should be noted that NCTD's fare recovery ratio is roughly the same as that for Sacramento RT, and higher than those for KC Metro and the smaller operators in the Twin Cities. In general, the systems with the highest recovery ratios are in larger regions (i.e., all three in Chicago), in Canadian cities (i.e., those in both Toronto and Vancouver) and/or are standalone commuter rail systems (i.e., Metrolink and Capitol Corridor).
- The commuter rail services' fare recovery ratios, including COASTER, are shown in Figure 6; COASTER's (37%) is relatively close to those of Metra, Capitol City and Metrolink.
- With regard to *average fare per ride*, Figure 7 indicates that MTS (\$0.87) and NCTD (\$0.89 without COASTER) are very close to each other, and also close to several of the peers (CTA, Pace, TransLink and Minn. Metro). As shown in Figure 8, COASTER's average fare per ride (\$4.03) falls roughly in the middle of the pack, very close to that of GO Transit.

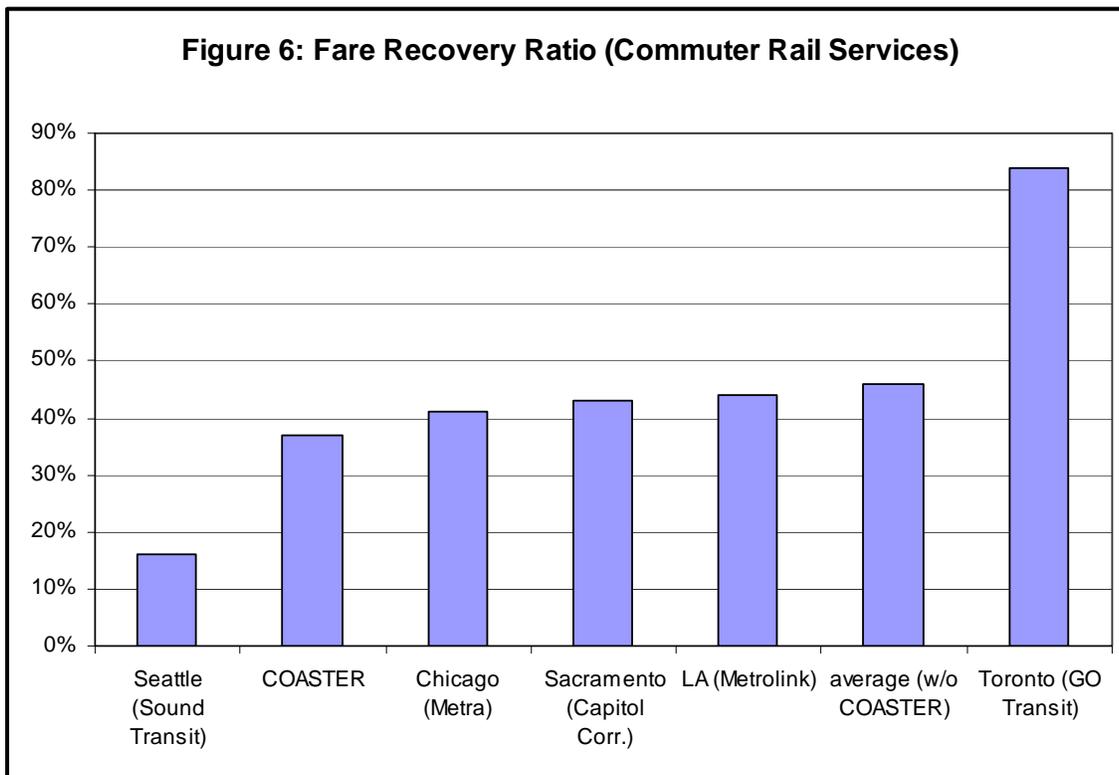
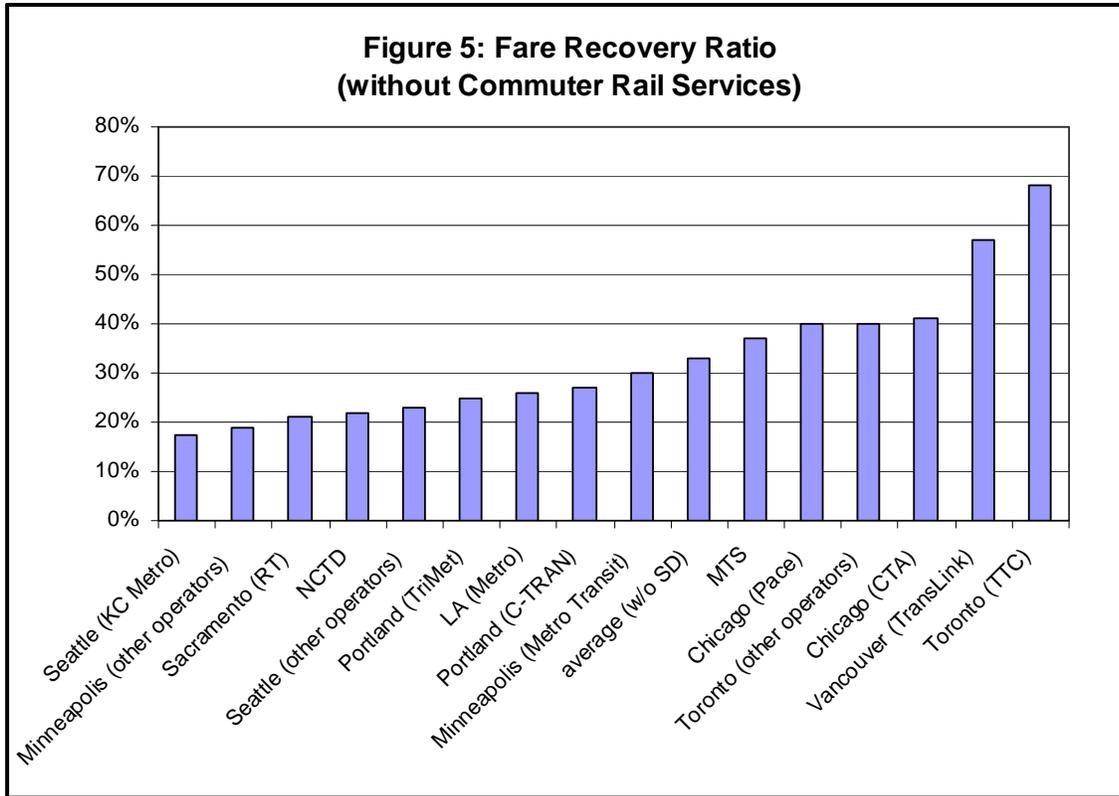
Table 6: Peer System Summary Information

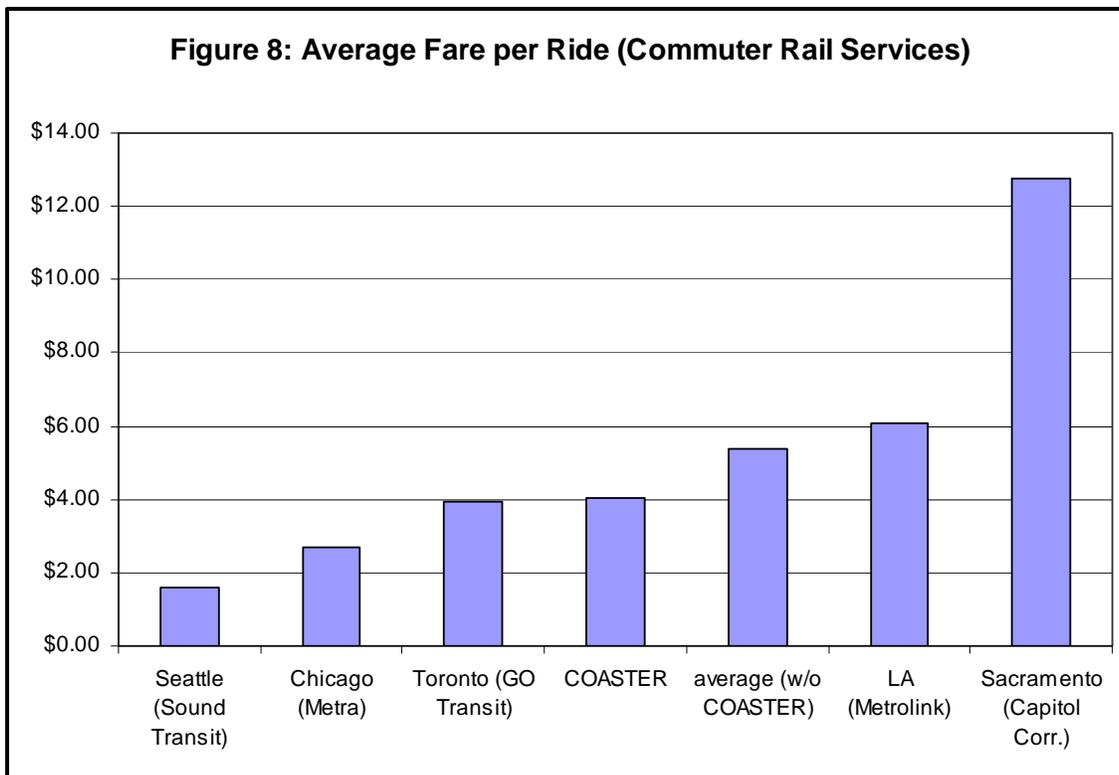
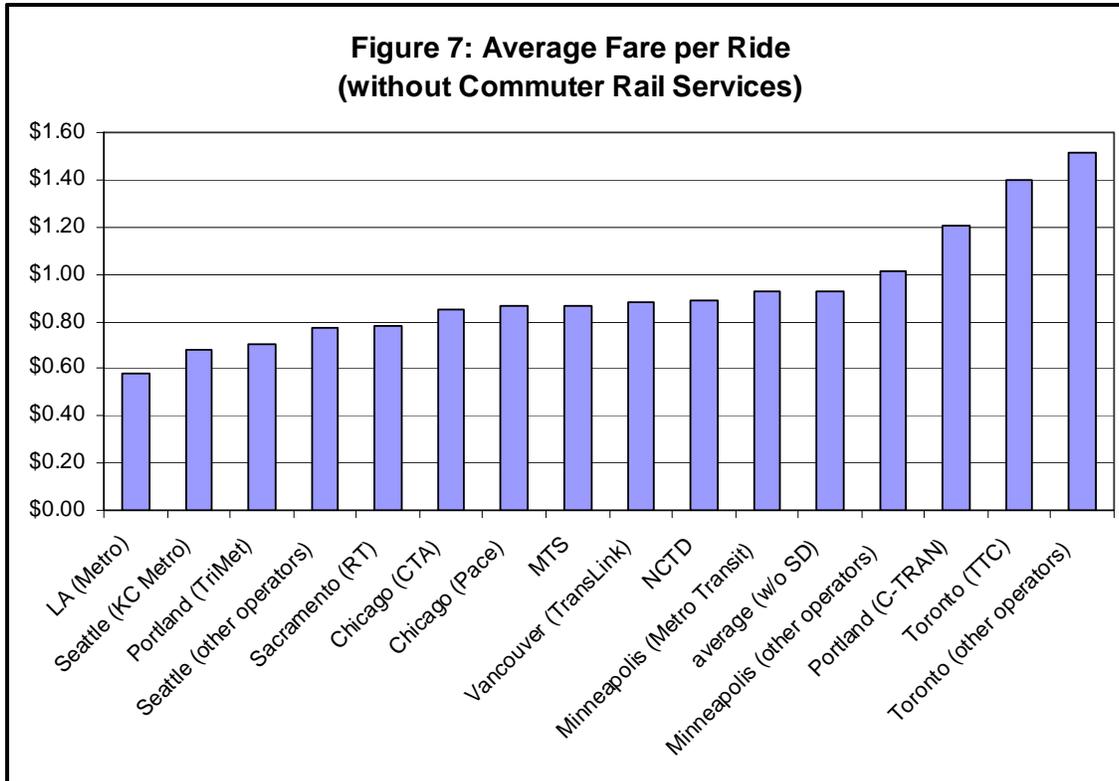
Metropolitan Area	Transit System	Mode					Urbanized Area Population (millions)	Annual Ridership (millions)	Fare Revenue (millions)	Fare Recovery Ratio	Avg. Fare per Ride
		Bus	Light Rail	Heavy Rail	Comm. Rail	BRT					
San Diego, CA	MTS	X	X				2.7	71.8	\$62.3	37%	\$0.87
	NCTD	X			X			11.7	\$14.9	26%	\$1.27
Chicago, IL	CTA	X		X			8.3	492.4	\$417.4	41%	\$0.85
	Pace	X						36.9	31.9	40%	\$0.86
	Metra				X			80.1	217.1	41%	\$2.71
Los Angeles, CA	Metro	X	X	X		X	11.8	451.5	\$260.0	26%	\$0.58
	Metrolink				X			9.8	\$59.4	44%	\$6.06
	municipal operators*	X						120.0	NA	NA	NA
Minneapolis/St. Paul, MN	Metro Transit	X	X				2.4	69.7	64.4	30%	\$0.92
	other operators in region*	X						10.2	10.3	19%	\$1.01
Portland, OR	TriMet	X	X				1.6	96.6	67.6	25%	\$0.70
	C-TRAN*	X						5.8	\$7.0	27%	\$1.21
Sacramento, CA	RT	X	X				1.4	31.9	\$24.8	21%	\$0.78
	Capitol Corridor Intercity Rail				X			1.2	\$15.3	43%	\$12.75
	other operators in region*	X						3.5	NA	NA	NA
Seattle, WA	KC Metro	X					2.7	106.4	\$72.0	17%	\$0.68
	Sound Transit	X	X		X			10.2	\$15.9	16%	\$1.57
	other operators in region*	X						45.4	\$35.0	23%	\$0.77
Toronto, ON*	TTC	X	X	X			5.3	431.2	\$603.4	68%	\$1.40
	GO Transit	X			X			46.8	\$183.9	84%	\$3.93
	other operators in region*	X						6.8	\$10.3	40%	\$1.51
Vancouver, BC*	TransLink	X	X		X	X	2.2	275.8	\$285.5	57%	\$1.04

\*(All \$ figures expressed in US\$.)

\*Other operators in region: LA -- Arcadia Transit, Antelope Valley TA, Claremont DAR, Culver City Bus, Foothill Transit, Gardena MBL, LaMirada Transit, Long Beach Transit, LADOT, Montebello Bus, Norwalk TD, Redondo Beach WAVE, Santa Clarita Transit, Santa Monica Big Blue Bus, Torrance Transit, Commerce BL  
 Minneapolis/St. Paul -- Maple Grove Transit, Southwest Metro, Minnesota Valley TA, Plymouth Metrolink, Northstar Commuter Coach, Shakopee Area Transit, U. of Minnesota Service, and Laker Lines  
 Portland -- C-TRAN and TriMet form a regional network; there are also several small services connecting w/ TriMet: Canby Area Transit, South Clackamas TD, Sandy Area Metro, South Metro Area Rapid Transit  
 Sacramento -- E-Trans (Elk Grove), Folsom Stage Lines, South Co. Transit, Auburn Transit, Lincoln Transit, Placer Co. Transit, Davis Comm. Transit, Unitrans, YoloBus, Yuba/Sutter Transit, Roseville Transit, El Dorado Transit  
 Seattle -- Community Transit, Everett Transit, Pierce Transit, Washington State Ferries  
 Toronto -- Mississauga Transit, Brampton Transit, Durham Region Transit, York/VIVA Region Transit  
 Vancouver -- TransLink operates bus, LRT, CR and ferry service through subsidiaries, and also contracts to provide six Community Shuttle services and West Vancouver Transit.

Sources: individual agencies (direct contact and websites/reports)





## 2.2 Overview of Fare Structures and Payment Technologies

An overview of the types of fare structures and current payment technologies at each of the key transit agencies in each region is shown in Table 7. Key points are as follows:

- Table 7 shows that the peer agencies and regions have a wide range of basic fare structures (i.e., types of fare differentials). Moreover, as is the case in San Diego, most of the regions feature different structures among the individual transit providers. The details of these fare structures, including fare levels and prepaid fare options are presented in Tables 8 -- 11, and are discussed below.
- With regard to *payment technology*, most of the agencies currently have magnetic farecard technology on their buses. A number of the regions are in the process of implementing smart card systems. The status of smart card implementation varies, from feasibility study (i.e., Sacramento, Toronto) to full implementation (i.e., Chicago's CTA and Pace; Vancouver's West Coast Express). Regional smart cards are currently being tested by riders in the LA area, the Twin Cities, and the Seattle region. Finally, as in San Diego, a Greater Toronto system pilot is scheduled to begin later this year (this system does not include TTC at this point; TTC is doing its own feasibility study).
- In some cases, the agencies have revised (or are considering revisions to) the fare structure to take advantage of the capabilities of the smart card. The CTA has implemented a significant fare change in conjunction with smart cards. The CTA now (since January 2006) offers a lower fare (\$1.70) with use of a smart card than with cash (\$2.00); on buses, riders can also take advantage of the lower fare with magnetic farecards, but on rail, the fare with magnetic farecards is \$2.00. In addition, reduced-price transfers (\$0.25) are available only with smart cards or magnetic farecards.<sup>2</sup> CTA has also implemented an account-based "autoload" system for adding value to its Chicago Card Plus. LA Metro is considering offering its day passes only on the TAP card. As discussed further under University Programs, LA Metro has also implemented a partnership with UCLA, in which students, faculty and staff use a version of the TAP smart card; USC has also signed up for the program, but only for staff thus far.

## 2.3 Fare Structure/Level Details

Table 8 presents the single-ride fare structure details for the peer systems and those in San Diego. The different fares structure elements are compared to those in San Diego in this section.

### Full Cash Fare Levels and Fare Differentials

- Figure 9 shows the minimum and maximum adult cash fares for local bus and rail services (i.e., excluding express surcharges and commuter rail fares). As indicated, the bus fare levels at both MTS and NCTD are quite consistent with those of the peer agencies. The BREEZE's \$2 flat fare matches the fares at CTA, Minn. Metro (and the other operators in the region) and Sacramento RT, and LA Metro and TTC (and several other operators in the region) also feature flat fares for their bus systems.

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<sup>2</sup> This strategy of offering a lower fare with use of a smart card than with other means of payment has subsequently been adopted by three other US transit agencies: MARTA (Atlanta), MBTA (Boston) and Metro (Houston).

Table 7: Overview of Fare System Characteristics

Metropolitan Area	Mode (Operator)	Minimum Peak Cash Adult Fare	Maximum Peak Cash Adult Fare (non-Express)	Differential Fare Structure Elements				Free or Disc. Transfer (own system)	Payment Technology	
				Zone or Distance-based Premiums	Free or Discounted Downtown Zone	Service-based Premiums	Off-Peak Discount		Smart Card	Magnetic Farecard
San Diego	Bus (MTS/SDTC)	\$1.75	\$2.25			Y		Y	Regionwide Compass Card to be tested Spring 2007. Tag on/tag off to be used on Trolley.	Yes
	LRT (Trolley)	\$1.50	\$3.00	Y	Y			Y		
	Bus (BREEZE)	\$2.00	\$2.00							Yes
	Comm. Rail (COASTER)	\$4.00	\$5.50	Y						
Chicago	Bus (CTA)	\$2.00*	\$2.00*					Y*	Two cards (Chicago Card, Chicago Card Plus) in use for several years. Accepts CTA cards on most routes	Stored value and activate on use passes
	Heavy Rail (CTA)	\$2.00*	\$2.00*							Activate on use passes
	Bus (Pace)	\$1.25	\$1.50			Y		Y		
	Comm. Rail (Metra)	\$1.95	\$7.30	Y						
Los Angeles	Bus/BRT (Metro)	\$1.25	\$1.25	(Express only)		Y	Y		TAP card being tested at Metro, and will soon be tested at 3 munis; in all, 11 agencies in region have agreed to participate.	Yes
	LRT/Heavy Rail (Metro)	\$1.25	\$1.25							Some operators
	Bus (Other)	\$0.25	\$1.25	(Express only)		Y		Y		
	Comm. Rail (Metrolink)	\$4.75	\$11.00	Y			Y			
Minn./St. Paul	Bus (Metro)	\$2.00	\$2.00		Y	Y	Y	Y	Go-To-Card system being tested.	Yes
	LRT (Metro)	\$2.00	\$2.00		Y		Y	Y		Yes
	Bus (Other)	\$2.00	\$2.00	(Express only)		Y	Y	Y		Yes
Portland	Bus (TriMet)	\$1.70	\$2.00	Y	Y			Y	No immediate plans for smart cards.	
	LRT (TriMet)	\$1.70	\$2.00	Y	Y			Y		
	Bus (C-TRAN)	\$1.25	\$2.25	Y		Y				
Sacramento	Bus (RT)	\$2.00	\$2.00		Y			Y	Regional smart card study underway; RT and others plan to add smart cards.	Yes
	LRT (RT)	\$2.00	\$2.00		Y			Y		
	Bus (Other)	\$0.75	\$1.75	Y (1 agency)		Y		Y		Some
	Comm. Rail (CC)	\$3.00	\$27.00	Y						
Seattle	Bus (KC Metro)	\$1.50	\$2.00	Y	Y		Y	Y	Regional smart card being implemented by 7 transit agencies. Cards will accommodate an e-purse, a regional pass, and single-agency passes.	Swipe passes.
	Bus (Sound Transit)	\$1.50	\$3.00	Y				Y		Swipe passes.
	LRT (Sound Transit)	Free	Free							
	Comm. Rail (Sound Transit)	\$2.00	\$4.00	Y				Y		
	Bus (Other)	\$0.50	\$1.50			Y		Y		Some swipe passes.
Toronto**	Bus (TTC)	\$2.33	\$2.33					Y	Feasibility study underway; decision to be made '07	Mo. pass only. Swiped at turnstiles or flashed.
	LRT/Heavy Rail (TTC)	\$2.33	\$2.33					Y		
	Comm. Rail (GO)	\$4.15	\$7.50	Y				Y		
	Bus (GO)	\$4.15	\$7.50	Y		Y		Y		
	Bus (Other)	\$2.12	\$2.12			Y		Y		
Vancouver**	Bus (Coast Mt. Bus)	\$1.91	\$3.81	Y			Y	Y	Feasibility study underway; in 3-year plan.	Yes
	LRT (SkyTrain)	\$1.91	\$3.81	Y			Y	Y		Yes
	Comm. Rail (WCE)	\$3.81	\$8.69	Y						Xpress Card provides stored value.
Average (\$US) (excludes SD)	Local Bus/LRT/HR	\$1.52	\$2.05							
	Commuter Rail	\$3.28	\$10.92							

\*On CTA buses, fare \$1.75 w/ either magnetic or smart card; on rail, fare \$2 w/ magnetic card, \$1.75 w/ smart card. A reduced price transfer is available only w/ use of smart card or magnetic card.

\*\* (All \$ figures expressed in US\$.)

Table 8: Fare Structure Details

Metropolitan Area	Mode (Operator)	Peak Cash Fare			Differential Fares		
		Full	Senior/ Disabled	Youth	Fare Zone or Distance-Based Premiums	Service-Based Premiums	Off-Peak Discount
San Diego	Bus (MTS/SDTC)	\$1.75 - \$2.25	\$1.00	\$1.75 - \$2.25		Shuttle (\$1.00), local (\$1.75), urban (\$2.25), expr. (\$2.50)	
	LRT (Trolley)	\$1.50 - \$3.00	\$1.00	\$1.50 - \$3.00	Downtown zone (\$1.25); fare by station		
	Bus (BREEZE)	\$2.00	\$1.00	\$2.00			
	Comm. Rail (COASTER)	\$4.00 - \$5.50	\$2.00 - \$2.75	\$2.00 - \$2.75	4 zones		
Chicago	Bus (CTA)	\$2.00	\$1.00	\$1.00			
	Heavy Rail (CTA)						
	Bus (Pace)	\$1.25 - \$1.50	\$0.75	\$0.75		Express: \$2.00 - \$3.00	
	Comm. Rail (Metra)	\$1.95 - \$7.30	\$0.95	\$0.95	11 zones (\$0.40-0.45 per zone)		
Los Angeles	Bus/BRT (Metro)	\$1.25	\$0.45	\$1.25		3 Freeway express zones (\$1.75-2.25)	\$0.75 (evenings)
	LRT/Heavy Rail (Metro)						
	Bus (Other)	\$0.25 - \$1.25	\$0.15 - \$0.60	\$0.45 - \$1		LADOT Exp: 5 zones. Several others have expr. service.	
	Comm. Rail (Metrolink)	\$4.75 - \$11.00	\$2.50 - \$5.50	\$2.50 - \$5.50	12 zones		\$3.50-\$8.25 (weekend)
Minn./St. Paul	Bus (Metro)	\$2.00	\$2/\$.50 (see Notes)	\$2/\$0.50	Downtown zone (\$0.50)	Express: \$2.75 (pk)	\$1.50 (local), \$2 (express)
	LRT (Metro)						
	Bus (Other)				Northstar 2 zones (\$2.75/\$4.50)	Express: \$2.75 (pk)	\$1.50 (local), \$2 (express)
Portland	Bus (TriMet)	\$1.70 - \$2.00	\$0.85	\$1.35	3 zones, 1 & 2 zones is base fare, 3 zones \$2.00; Downtown zone (free)		
	LRT (TriMet)						
	Bus (C-TRAN)	\$1.25 - \$2.25	\$0.60	\$1.25	3 zones \$2.25	Express: \$3.00	
Sacramento	Bus (RT)	\$2.00	\$1.00	\$1.00	Central City Zone (\$1)		
	LRT (RT)						
	Bus (Other)	\$0.75 - \$1.75	half fare	half fare	Most are flat; El Dorado has zones	Express: \$2.00 - \$6.00	
	Comm. Rail (CC)	\$3.00 - \$27.00	15% discount	(see Notes)	16 zones		
Seattle	Bus (KC Metro)	\$1.50 - \$2.00	\$0.50	\$0.50	2 zones (\$0.50); Downtown zone (free)		\$1.25
	Bus (Sound Transit)	\$1.50 - \$3.00	\$0.50	\$1.00	3 zones (\$0.50 surcharge)		
	LRT (Sound Transit)	Free	Free	Free			
	Comm. Rail (Sound Transit)	\$2.00 - \$4.00	\$1.50	\$1.00	3 zones (\$1.00 surcharge)		
	Bus (Other)	\$0.50 - \$1.50	Free to \$0.75	\$0.50 - \$0.75		Express: up to \$3.75	
Toronto*	Bus (TTC)	\$2.33	\$1.57	\$0.60			
	LRT/Heavy Rail (TTC)						
	Comm. Rail (GO)	\$4.15 - \$7.50	\$2.08 - \$3.77	\$1.53 - \$6.59	7 zones		
	Bus (GO)				(same as for GO CR)	Express: \$4.45	
	Bus (Other)				\$2.12	\$1.06 - \$2.12	Free - \$2.12
Vancouver*	Bus (Coast Mt. Bus)	\$1.91-\$3.81	\$1.27-\$2.54	\$1.27-\$2.54	3 zones		\$1.91 (full) eves./Sat/Sun
	LRT (SkyTrain)						
	Comm. Rail (WCE)	\$3.81-\$8.69	\$2.54 - \$5.76	\$2.54 - \$5.76	8 zones		

(All \$ figures expressed in US\$.) sources: individual agencies websites and reports.

San Diego: MTS rural fares are \$5 and \$10.  
 Chicago: On CTA buses, single ride is \$1.75 w/ magnetic or smart card, \$2 w/ cash; on rail, fare is \$1.75 w/ smart card, but \$2 w/ magnetic card or cash. Pace has several shuttle rtes. w/ fares of \$0.25, \$0.50 or \$1.  
 Los Angeles: Commuter/express service fares at munis range from \$0.90 (LADOT) to \$4 (Santa Clarita)  
 Minneapolis: Reduced fare for srs., youth, Medicare clients is \$2 in peak, \$0.50 off-peak & wkends; disabled fare is \$0.50 at all times. All transit systems in region part of the regional fare system  
 Portland: TriMet has a 3 zone system where the base fare is valid for a 1 or 2 zone trip. The zone surcharge only applies to 3 zone trips.  
 Sacramento: RT has central city/shuttle fare of \$1. Several other agencies have comm.bus service, w/ fares \$2 - 6/trip. Children (2-15) 1/2 price when traveling w/ adult. Students 15% disc. w/Student Advantage Card.  
 Seattle: For KC Metro, the City of Seattle is one zone; the rest of King Co. is the second zone.  
 Toronto: GO fares are calculated based on distance traveled and category of rider. Riders pay same fare whether traveling by train, bus, or combination.  
 Vancouver: High sch. students need "GoCard" strip (w/ photo) on student ID to get reduced fares. GoCard has \$10 acquisition fee. Base fare for bus/LR1 (\$1.91) applies to all zones weekends/evenings (after 6:30).

Table 9: Transfer/Upgrade Policies		
Metropolitan Area	Mode (Operator)	Transfer or Upgrade Policy
San Diego	Bus (MTS/SDTC)	Free (or upgrade where second fare is higher)
	LRT (Trolley)	Ticket valid for free transfer (or upgrade)
	Bus (BREEZE)	None (within NCTD), free to MTS (or upgrade)
	Comm. Rail (COASTER)	Free to BREEZE or MTS/Trolley; discounted to COASTER
Chicago	Bus (CTA)	None with cash, \$0.25 with smart card or magnetic stripe card
	Heavy Rail (CTA)	
	Bus (Pace)	\$0.25
	Comm. Rail (Metra)	
Los Angeles	Bus/BRT (Metro)	None (within Metro), \$0.25 Metro to/from others
	LRT/Heavy Rail (Metro)	
	Bus (Other)	Some free, some \$0.25; most \$0.25 to/from others
	Comm. Rail (Metrolink)	Transfer agreements with other agencies
Minn./St. Paul	Bus (Metro)	Free, good for 2.5 hours (any direction); upgrade needed for express bus
	LRT (Metro)	
	Bus (Other)	
Portland	Bus (TriMet)	Free
	LRT (TriMet)	Free
	Bus (C-TRAN)	None
Sacramento	Bus (RT)	\$0.25
	LRT (RT)	
	Bus (Other)	\$0.25 (to/from RT)
	Comm. Rail (CC)	
Seattle	Bus (KC Metro)	Free (or upgrade where second fare is higher)
	Bus (Sound Transit)	
	LRT (Sound Transit)	
	Comm. Rail (Sound Transit)	
	Bus (Other)	Free (none on Everett Transit)
Toronto	Bus (TTC)	Free for one way continuous trip
	LRT/Heavy Rail (TTC)	
	Comm. Rail (GO)	Free if transfer between GO bus or rail in same zone
	Bus (GO)	Free - 2hrs
	Bus (Other)	
Vancouver	Bus (Coast Mt. Bus)	Free within a zone between bus and LRT; upgrade required for greater than 1 zone
	LRT (SkyTrain)	
	Comm. Rail (WCE)	Free to TransLink; upgrade to WCE.
<p>notes:</p> <p>San Diego: Special transfer agreements exist between NCTD and Greyhound, Metrolink and OCTA, and there is a Rail-2-Rail arrangement between Coaster and Amtrak.</p> <p>Portland: C-TRAN accepts TriMet All-Day Tickets and annual employer and college passes without upgrade. TriMet 2 and 3 zone tickets and passes are accepted with an upgrade (\$0.55 and \$0.25 respectively). C-TRAN does not accept any TriMet fare media on its Premium Express service. TriMet accepts C-TRAN's all-zone Day Pass and Premium Express Pass without upgrade. TriMet accepts C-TRAN's one zone fare media for 2 zones with a \$0.45 upgrade, or all zones with a \$0.75 upgrade.</p> <p><i>sources:</i> Individual agencies' websites and reports</p>		

Table 10: Unlimited Ride Passes

Metropolitan Area	Mode (Operator)	Unlimited Ride Passes (full fare)				Regional Pass
		1-month	1-week	1-day	Other	
San Diego	Bus (MTS/SDTC)				2-4 Day (\$9-\$15); half-mo. (\$30-\$42)	\$60-\$84 (monthly), \$30-\$42 (half-mo.), \$5-\$15 (1-4 day)
	LRT (Trolley)	\$60 - \$84		\$5		
	Bus (BREEZE)	\$54		\$4		
	Comm. Rail (COASTER)	\$115-\$154				
Chicago	Bus (CTA)				2 (\$9), 3 (\$12), and 5 (\$18) day passes	All CTA unlimited ride passes are valid on most Pace routes
	Heavy Rail (CTA)	\$75	\$20	\$5		
	Bus (Pace)	\$50				
	Comm. Rail (Metra)	\$52.65 - \$197.10				
Los Angeles	Bus/BRT (Metro)	\$52	\$14	\$3	2-wk: \$27	\$58 (EZ transit pass)
	LRT/Heavy Rail (Metro)					
	Bus (Other)	\$58		\$2.50 - \$3.75	AVTA: 4-hr. pass (\$2)	
	Comm. Rail (Metrolink)	\$102.25-\$310.25				
Minn./St. Paul	Bus (Metro)	\$50 - \$104		\$6	6-hr. pass (\$3.50)	All transit systems accept common passes and stored value cards.
	LRT (Metro)					
	Bus (Other)					
Portland	Bus (TriMet)	\$63	\$17	\$4.25	1/2 month \$32.50, Annual \$693	Most TriMet and C-TRAN fare media accepted on both services, generally with upgrade charge.
	LRT (TriMet)					
	Bus (C-TRAN)					
Sacramento	Bus (RT)	\$85		\$5	2-wk -- \$42.50	RT passes are accepted on 6 partner agencies.
	LRT (RT)					
	Bus (Other)	\$15 - \$85		\$3.50 - \$5		
	Comm. Rail (CC)	\$57 - \$461				
Seattle	Bus (KC Metro)	\$54 - \$108		\$5	3 month passes (3 times the monthly pass) & 12 month passes (11 times the monthly pass)	13 diff. Puget Passes w/ "face values" of \$0.50 and \$4.00, priced at 36 times face value. Each is valid for its face value as a credit toward any service.
	Bus (Sound Transit)	\$54 - \$108				
	LRT (Sound Transit)	Free				
	Comm. Rail (Sound Tran.)	\$72 - \$144		Round-trip		
	Bus (Other)	\$18 - \$63				
Toronto*	Bus (TTC)	\$85.00	\$26	\$7.23		\$37 (good, with upgrade, on TTC, Miss., York, Brampton)
	LRT/Heavy Rail (TTC)					
	Comm. Rail (GO)	\$100 - \$420		\$6.03 - \$26.27		
	Bus (GO)	\$68 - \$102	\$19			
Vancouver*	Bus (Coast Mt. Bus)	\$59 - \$111		\$6.80		TransLink's passes are accepted on the Community Shuttles.
	LRT (SkyTrain)					
	Comm. Rail (WCE)	\$98 - \$217	\$31 - \$71			

(All \$ figures expressed in US\$.) sources: individual agencies' websites and reports

notes:

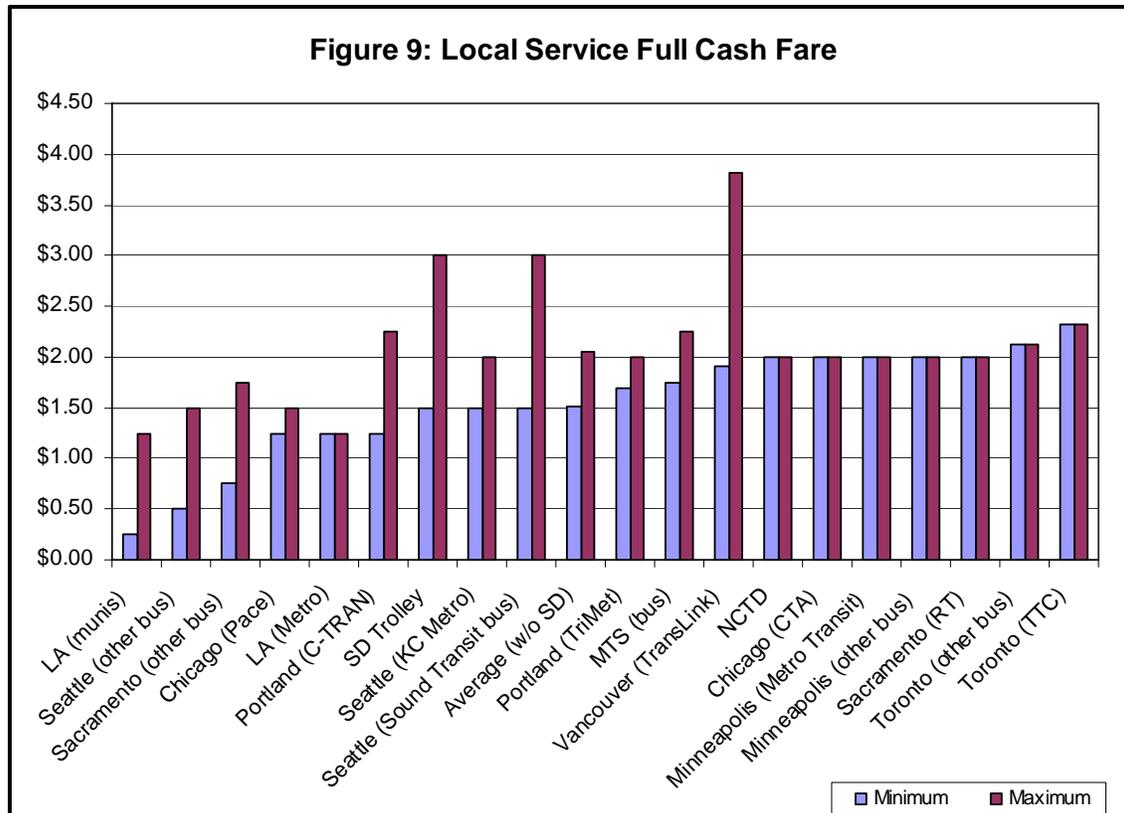
- San Diego: A rider with a Regional Pass can get a \$2 credit toward purchase of ticket on Coaster. Coaster passes are good for unlimited trips within the zones designated and are honored on all services (except paratransit). A "Classroom Day Tripper" is available students and youth for \$1.50; this day pass provides unlimited rides (during off-peak hours) on all MTS, NCTD and Trolley routes.
- Chicago: All CTA passes valid on Pace rtes., except for Pace subscription buses. CTA/Pace Link-Up Pass \$36 + Metra pass price) and allows unltid rides on connecting Pace buses at any time, and on CTA buses during pk hrs. Metra/Pace pass \$30 (plus the Metra pass price and allows unltid. Rides on all Pace suburban rtes.
- Los Angeles: EZ transit pass is a regional pass, accepted by Metro and 21 other agencies in region. Most agencies (including Metro) also offer their own, lower-cost passes. Metrolink doesn't accept EZ transit pass, but Metrolink tickets and passes are accepted by every agency that accepts EZ transit pass (except Santa Monica).
- Minneapolis: Metropass heavily disc.annual pass distrib. by employers; price of pass depends on no. of employees and current bus use. SuperSaver Stored Value cards not accepted on LRT; paper transfer required to transfer from bus.
- Portland: Universal employer pass program with price based on Employee Commute Options survey; also discounted annual pass (cost equal to 11 monthly passes).
- Sacramento: Monthly passes for commuter bus services range from \$80 - \$168. A student sticker (for RT) is \$34/month.
- Seattle: There are 13 different Puget Passes with single ride "face values" between \$0.50 and \$4.00, priced at 36 times the face value. Each is valid for its face value as a credit toward any service operated by any agency. Ship-to-Shore passes are a combination of a specific Puget Pass together with a monthly pass for a specific Washington State Ferry route. Flex Pass is a heavily discounted employer based pass with the price determined by the no. of employees and the location of the employer's facility -- honored on KC Metro, Sound Transit, and some Community Transit routes. GoPass is a school based pass valid on all Metro and Sound Transit service within King Co.
- Toronto: GO passes allow unltid. rides b/t 2 zones; price varies by partic.zones. GO has 2-ride tickets, priced same as Day Pass. Others: Mississauga \$92 (mo.), \$22 (wk); Brampton \$92 (mo.), \$22 (wk); York & VIVA \$80-120 (mo.); Durham \$88 (mo.)
- Vancouver: Monthly passes and tickets for bus and LRT allow unlimited travel within selected zones on weekdays (until 6:30 pm), and across all zones on weekends and evenings.

Table 11: Multi-Ride Options and University Programs

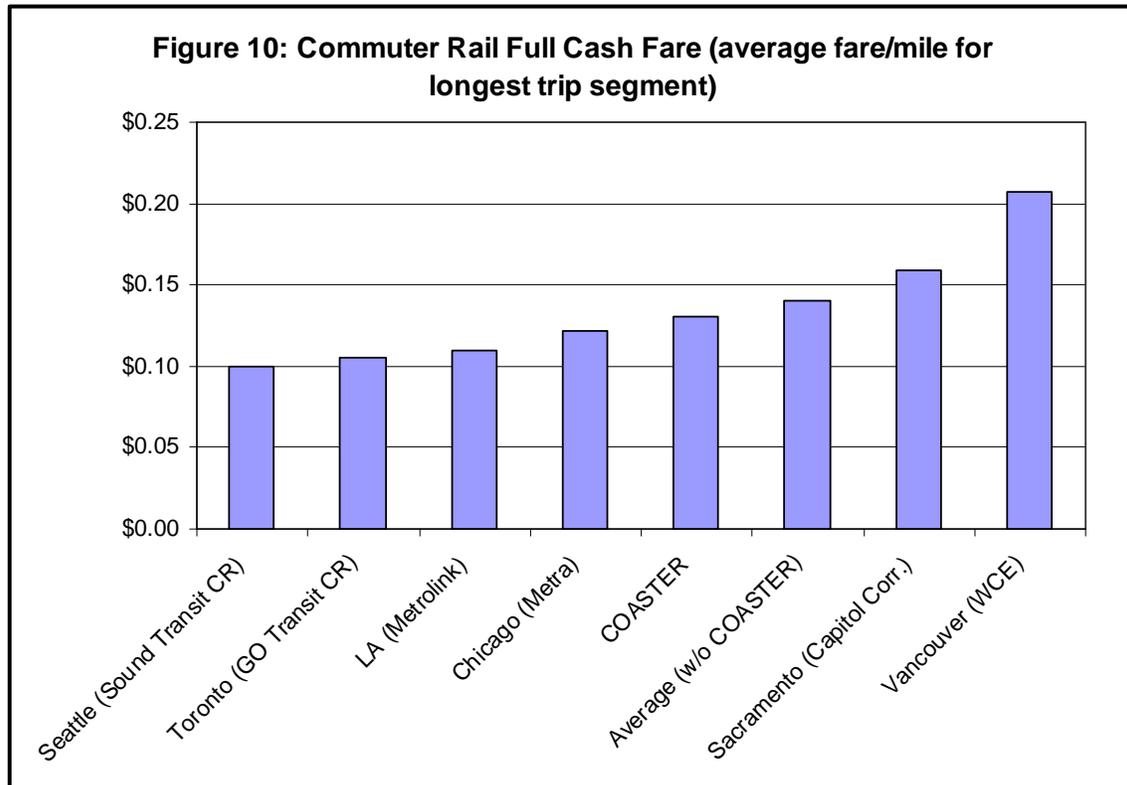
Metropolitan Area	Mode (Operator)	Multi-Ride Options (% discount)	University Programs	
San Diego	Bus (MTS/SDTC)	tokens: 20/\$41.8 (7%), 40/\$83.60 (7%)	College Ready Pass Program provides monthly/semester passes to eligible students. There are also arrangements between specific agencies and colleges (e.g., NCTD-UCSD unlimited access on Rte. 101, MTS-SDSU Day Tripper).	
	LRT (Trolley)			
	Bus (BREEZE)	10 day passes (no discount)		
	Comm. Rail (COASTER)	10/\$36-\$50 (10%)		
Chicago	Bus (CTA)	stored value: 10% bonus with smart cards (with \$20)	U-Pass for full-time students at 26 participating schools - valid on all CTA and Pace buses and trains; priced at \$0.65 per day. Pace-only U-Pass \$150 for 5 months.	
	Heavy Rail (CTA)			
	Bus (Pace)			11/\$15 - \$30 (9% discount)
	Comm. Rail (Metra)			10 rides (15% discount)
Los Angeles	Bus/BRT (Metro)	tokens: 10/\$11 (12%)	Metro has general college/vocational pass for \$30. Metro also has progs. w/ UCLA (students, staff, faculty) and USC (staff, faculty) to use Metro smart card. Santa Monica accepts UCLA ID cards swiped at farebox. 25% college student discount program	
	LRT/Heavy Rail (Metro)			
	Bus (Other)	most have tickets or st. value but with no discount; Santa Monica st. value 6.7%		
	Comm. Rail (Metrolink)	10/\$32.25-\$97.25 (12-32%); round trip: 5-21%		
Minn./St. Paul	Bus (Metro)	stored value: 9% bonus	TransitSchools program -- added 5-10% off retail pass prices.	
	LRT (Metro)			
	Bus (Other)			
Portland	Bus (TriMet)	10 tickets (no discount)	Discussions with Portland State about establishing a program. Lewis & Clark U. provides 50% subsidy of TriMet passes. BackPASS - prices vary, valid only in Clark County	
	LRT (TriMet)			
	Bus (C-TRAN)			
Sacramento	Bus (RT)	10/\$20 (no discount)	Several operators honor college IDs.	
	LRT (RT)			
	Bus (Other)	various options		
	Comm. Rail (CC)	10/\$23 - \$166 (23-39%)		
Seattle	Bus (KC Metro)	10, 16, or 20 (no discount)	U-Pass offered at some universities for \$35 per quarter - valid on all King County Metro, Sound Transit, and Community Transit service. Some schools also participate in the GoPass, FlexPass or Puget Pass programs.	
	Bus (Sound Transit)			
	LRT (Sound Transit)			
	Comm. Rail (Sound Transit)			
	Bus (Other)			11 or 20 tickets, generally no discount
Toronto*	Bus (TTC)	5/\$8.93 (24%), 10/\$17.85 (24%)	Must show student ID	
	LRT/Heavy Rail (TTC)			
	Comm. Rail (GO)	\$27.84-\$119.21 (8-9%): 10 trips between 2 zones	Must apply GO ID to pass.	
	Bus (GO)			
	Bus (Other)			5 and 10 Trip Tickets (5-16%)
Vancouver*	Bus (Coast Mt. Bus)	10/\$15.30-\$30.60 (20%)	U-Pass w/ UBC and SFU; students pay fee, get unlimited access to transit.	
	LRT (SkyTrain)			
	Comm. Rail (WCE)	round trip: 5.5 - 6.7%		

\*(All \$ figures expressed in US\$.)

sources: Individual agencies' websites and reports



- In contrast, MTS' bus fare structure is relatively complex, with its local vs. urban vs. express vs. commuter express fares. Several other systems have express surcharges, and three (TriMet, KC Metro, TransLink) have zone charges, but only MTS has more than two different categories – and price levels -- of bus service.
- One type of differential that can add to fare complexity is seen at several of the peers, but not in San Diego: an off-peak discount. Two of the peer agencies with this option (LA Metro and Minn. Metro) have flat fares, while the other two (KC Metro and TransLink) are zone-based systems. Of course, in both of the latter systems, the zone charges are removed in the off-peak: TransLink charges its regular one zone fare for all trips during evening and weekend hours, while KC Metro charges a flat \$1.25 in off-peak hours.
- As for the Trolley, its maximum fare is higher than all other maximum fares except for Sound Transit (also \$3.00) and TransLink (US\$3.81). Moreover, the Trolley has one of the few zone/distance-based LRT fare structures among the agencies included in this analysis. LA Metro, Minn. Metro, Sacramento RT, Sound Transit and TTC all have flat LRT fares, while TriMet and TransLink each have three zones on their LRT systems. The Trolley thus has the most complicated LRT fare structure here, with 7 fare "zones" (based on number of stations traveled).



- Figure 10 shows the average adult fare per mile (for the longest segment) for the commuter rail systems. As shown, most of these systems' fares per mile fall within a range of \$0.10 and \$0.16; West Coast Express' fare/mile, at \$0.21, is considerably higher than the others. COASTER, at \$0.13, is close to the average (\$0.14). With regard to the minimum fare, COASTER's minimum fare (\$4) is among the highest, exceeded only by GO Transit (\$4.15) and Metrolink (\$4.75). COASTER's maximum fare (\$5.50), in contrast, is one of the lowest; only Sound Transit is lower, and the others (ranging from \$7.30 to \$27) are substantially higher.

### Reduced Fare Levels

- Most of the agencies reviewed here – including NCTD -- have reduced fares that are roughly half (or no more than half) the full peak period adult fare, and these fares apply throughout the day. However, there are a number of exceptions to this general rule. Since MTS charges \$1 for all reduced fare riders, this represents more than 50% of the lowest fares on bus and Trolley (\$1.75 and \$1.50, respectively). In Seattle and at LA Metro, the reduced fare is less than half the full fare, while at TTC and the Vancouver systems, the reduced fare is greater than 50% of the full fare. In Minneapolis, a reduced fare is offered only during off-peak periods; in the peak, everyone pays the full adult fare.

- There are also differences among the regions in terms of who is eligible for a reduced fare (e.g., are youth included? What is the minimum age for a “senior”?) While children 6 and over pay the full fare on MTS and NCTD, children of other ages are eligible for the same reduced fares as seniors and persons with disabilities in the majority of the regions (Chicago, Minneapolis, Sacramento, Seattle and Vancouver) and for even lower fares in Toronto. In Portland, youth fares are lower than full fares, but higher than those for seniors/disabled. At LA Metro, there is no reduced youth fare. The age range of eligibility for youth or student reduced fares varies from region to region (e.g., 6-12 in Minneapolis, 5-18 in Sacramento, 5-19 in Vancouver, 6-17 in Seattle, 7-17 in Portland).
- In defining a senior, the minimum age varies from region to region. However, San Diego’s 60 is the lowest; the majority define senior as 65 or over, while in several regions the minimum age is 62. In Sacramento, anyone over 75 can ride free.
- With regard to reduced price passes, Table 10 indicates that the agencies and regions also show considerable differences. All regions include at least some form of reduced price monthly pass for seniors/disabled, and several (including San Diego) offer reduced price youth/student passes as well. The discount (compared to a full price monthly pass) for senior/disabled passes ranges from 42% (Vancouver) to 77% (LA); the 75% discount on the regional monthly pass in San Diego is thus one of the largest. For youth/student passes, the discount ranges from San Diego’s 50% to Seattle’s 67%.
- The availability of reduced price multi-ride options that are discounted from the single ride reduced fare (see Table 11) is very limited among these regions.

## Transfers and Upgrades

- Transfer and upgrade pricing and policy information is presented in Table 9. Transfer and upgrade policies differ in most regions for internal transfers (i.e., between vehicles or types of service in their own systems) vs. external transfers (i.e., to/from other agencies’ services). Three regions each have standard inter-agency transfer policies throughout the region: Minneapolis, Seattle and Vancouver.
- Most agencies offer free or reduced price transfers between vehicles in their own systems. The BREEZE is one of 4 systems reviewed here that charges a full fare per boarding; LA Metro, C-TRAN and Everett Transit (Seattle area) are the others. CTA has no transfer if the fare is paid in cash (i.e., a reduced price transfer is only available with use of a smart or magnetic farecard).
- Three agencies (Sacramento RT, Pace and CTA – only with use of a smart or magnetic farecard) charge \$0.25 for an internal transfer. The rest of the agencies, like MTS, offer free internal transfers to a vehicle or service with the same fare as the original fare paid. Most of these agencies, like MTS, require an upgrade fare if the second vehicle has a higher fare (e.g., transferring from a local to an express bus).
- In all of these regions, free or reduced price transfers are allowed between most systems. As with internal transfers, upgrades are typically required where the second vehicle/service has a higher

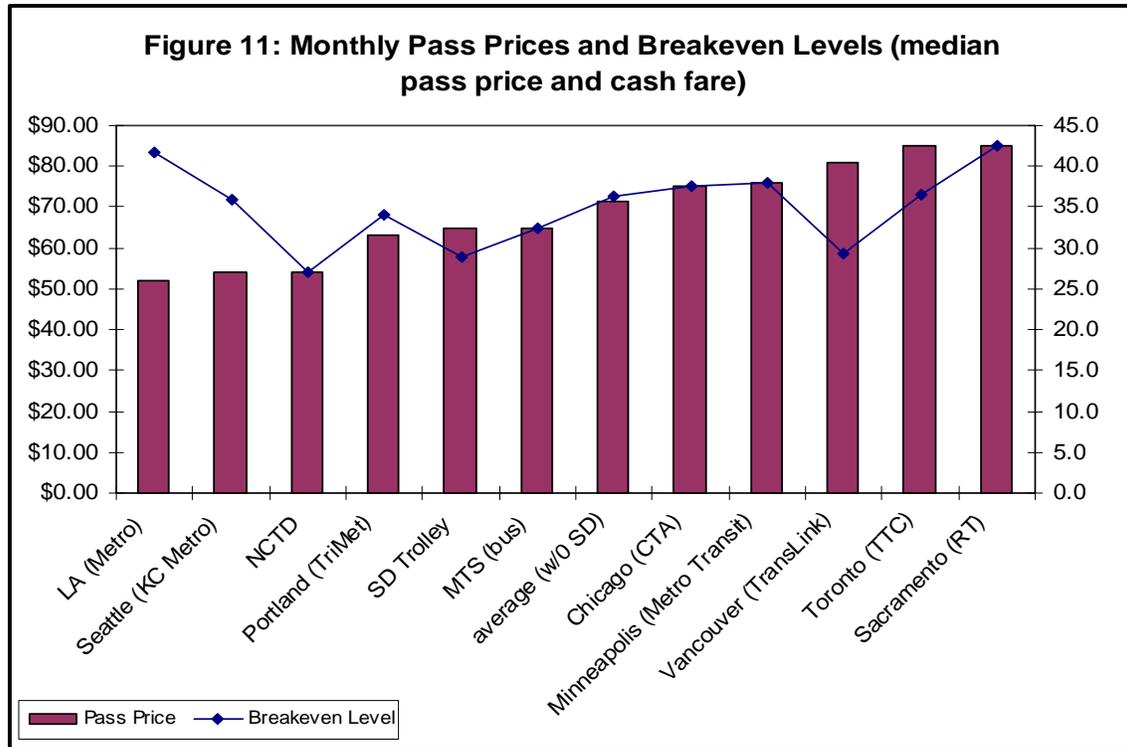
- fare. There are a few exceptions (e.g., in Portland, C-TRAN accepts TriMet fare media on its local service but not on its express service, and transferring between Metra and CTA or Pace requires a special “Link-up” pass).
- There are various policies regarding upgrades with use of a pass vs. tickets/tokens vs. cash. In Portland, for instance, the amount of the upgrade (for allowable transfers between TriMet and C-TRAN) depends on the type of fare medium (i.e., all-zone day passes and annual passes vs. zone-based tickets and passes).
  - Transfer policies, in terms of length of time the transfer is valid and route and directional restrictions on the transfer (e.g., cannot be in reverse direction), vary from one agency or region to the next. In Minneapolis, for instance, the regional policy is very straightforward: any transfer is good for travel in any direction and on any route in the region for 2.5 hours after issuance (an upgrade is needed to transfer from local to express service). In contrast, the San Diego region has significant differences – as well as several exceptions to the general rules -- in the policies for different types of transfers; for instance, a farebox-issued transfer is valid for 2 hours from the time of issuance, but a paper transfer is good for only 90 minutes. Moreover, a Trolley ticket can be used for a transfer to a bus, but only for travel in the same direction; this contrasts with a transfer received on a bus, which can be used for travel in either direction. Transfers in other regions vary from 1 to 2 hours.
  - In general, the regions have a wide range in terms of complexity of overall transfer policies. The simplest transfer structure is in Minneapolis, while those in Sacramento, Seattle, Los Angeles and Chicago are also quite straightforward. The existence of zone-based fares introduces some complexity in Portland, Toronto and Vancouver. However, the differences between operators and the service-related exceptions make the interagency transfer pricing structure/policy within the San Diego region the most complicated of any of these regions.

## 2.4 Prepaid Fare Options

Table 10 presents details on the various types of prepaid full/adult fare options for the peer agencies. Key points are as follows:

### Unlimited Ride Passes

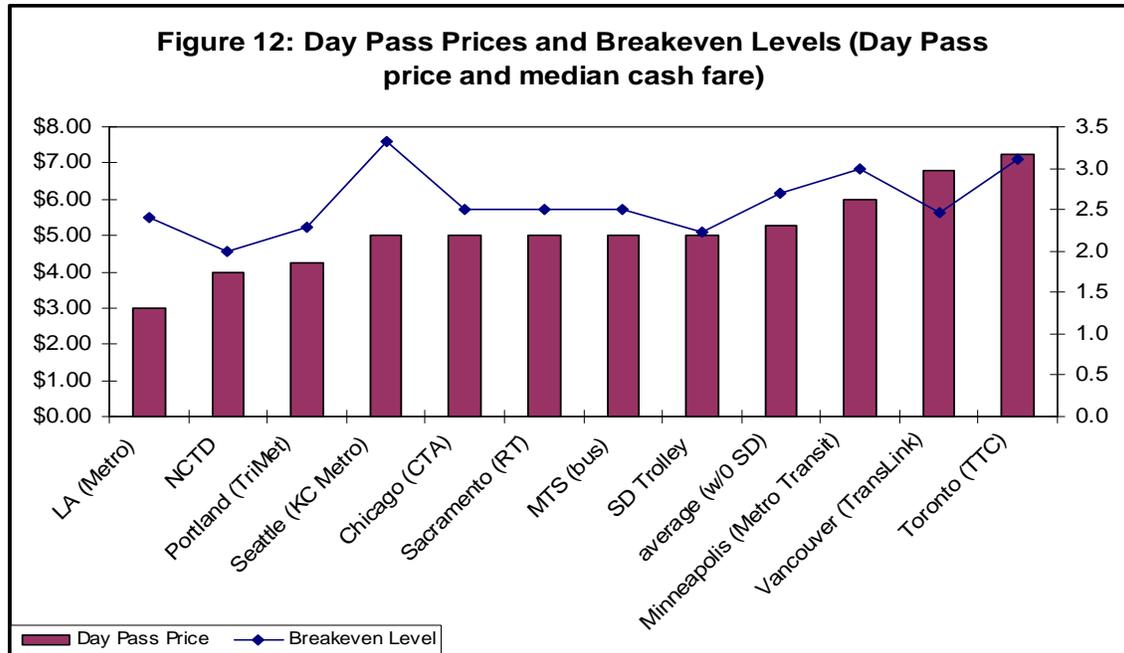
- All of the regions, like San Diego, offer at least monthly and day passes. About half of the regions also offer a one-week pass, and several sell two-week passes.
- As indicated in Table 10, the lowest monthly pass prices range from \$50 at Minn. Metro to \$85 at TTC and Sacramento RT. NCTD has one of the lower priced passes (\$54), equal to KC Metro's and just over LA Metro's. MTS' lowest cost pass (\$60) falls in the middle of the pack, just over TransLink's and below TriMet's. The average (excluding those in San Diego) is \$65.38
- MTS is one of four agencies that have a range of monthly pass prices. MTS' highest cost pass (\$84) is still lower than TTC's and RT's only pass, and considerably lower than the highest cost



passes sold by Minn. Metro, KC Metro and TransLink (\$104, \$108, and \$111, respectively). The average (excluding those in San Diego) is \$85.38

- Figure 11 compares the median monthly pass prices and pass “breakeven levels” for the major local service providers in each region.<sup>3</sup> Monthly pass breakeven levels range from NCTD’s 27.0 to RT’s 42.5. This means that the NCTD pass is a relative bargain: a rider need only make 14 round trips in a month to break even on the cost of the pass. The Trolley’s figure (28.9) is the second lowest, and MTS’ 32.5 (for bus) is the fourth lowest. The average breakeven level (excluding the three SD figures) is 36.4.
- Figure 12 shows day pass prices and breakeven levels. NCTD’s day pass (\$4) is the second lowest (LA Metro’s is \$3), but has the lowest breakeven level (2.0). MTS’ \$5 matches the price at KC Metro, CTA, and RT, and falls just under the average (\$5.29). The Trolley’s 2.2 is the second lowest breakeven level while MTS’ breakeven level for bus, at 2.5, equals that of three others (CTA, RT and TransLink), and falls just under the peer average (2.7). Only at NCTD and LA Metro are day passes available on-board buses.

<sup>3</sup> The breakeven level indicates the number of rides a pass user has to take to break even on the cost of the pass. The breakeven levels shown in Figure 11 are based on the median pass price and median cash fare at each agency (the exception to this is KC Metro: since it has only two fare levels, we have used the lower fare and pass price here).



- An interesting variation on the day pass is the 6-hour pass offered by Minn. Metro for \$3.50 – considerably less than the day pass (\$6). TriMet formerly offered a similar option (at \$3, vs. the then price of \$4 for a day pass), but discontinued it in the name of fare simplification.
- All of the regions offer some type of “regional” monthly pass – i.e., a pass that is accepted on more than one system. The regional nature of the specific arrangements range from the Twin Cities, where all transit systems in the region accept a common pass (and stored value farecards), to Chicago, where Pace accepts CTA’s passes – but not on all routes. Similar to the situation in San Diego, where NCTD offers its own pass in addition to accepting the regional passes, the LA area has a regional pass (the \$58 EZ transit pass) that can be used on Metro and 21 other systems, and most of these systems also offer their own, lower-priced passes. The most complicated regional pass scenario can be found in Seattle, where there are thirteen different Puget Passes, each priced at 36 times the “face value” – i.e., the base fare – associated with a particular service.

## Multi-Ride Options

- Multi-ride options (i.e., other than passes) take the form of tickets, tokens and stored value/stored rides. As shown on Table 11, all but one of the agencies in the peer regions (Sound Transit) offer some form of multi-ride payment; these may or may not offer discounts compared to paying the regular single ride fare.

- Three of the agencies (CTA, several of the LA munis and Minn. Metro) offer a stored value farecard, two (MTS and LA Metro) have tokens, and the rest use tickets. NCTD offers a ten-pack of day passes, rather than individual ride tickets, for the BREEZE.
- Several agencies (including NCTD, for the BREEZE) offer multi-ride options with no discount or bonus. Among the others, the percentage discount/bonus ranges from 5% (some of the local bus operators in Toronto) to 39% (maximum discount at Capitol Corridor). MTS' 7% token discount is one of the lower discount levels. COASTER's 10% is consistent with several others that are in the 8-12% range. As indicated in Table 11, though, there is little overall consistency among the different regions – or even within particular regions -- on this subject.
- With regard to number of rides required to obtain the discount, 10-11 rides is by far the most common requirement. COASTER (10 tickets) is thus consistent with the peers in this area.

## University Programs and Partnerships

- As shown in Table 11, there is a range of types of transit-university partnerships and reduced fare programs. Some regions feature arrangements between specific agencies and specific schools, while others offer general programs available to all college students; San Diego includes both types of program, with individual arrangements (e.g., NCTD-UCSD, MTS-SDSU), as well as the general College Monthly and Semester/Quarter Pass Programs. Both types of approaches are also in use. In Los Angeles, for instance, where Metro offers a college/vocational pass to any registered student for \$30, but has also implemented a program that provides passes on the new TAP smart card; under the "I-TAP" program, UCLA students, faculty and staff pay half price for monthly passes, with the university covering the other half.
- The most comprehensive program is in Chicago, where the U-Pass is available to students at 26 participating schools. The U-Pass is accepted on all CTA and most Pace routes (not commuter/express routes); each school pays CTA \$0.65 per day per student (for all students), and each student can then take unlimited rides.

## 2.5 Industry Trends

In conjunction with the peer region review, the consultant team reviewed fare structure trends regarding fare strategies among North American transit agencies. These trends can be summarized as follows:

### Flat Fare vs. Fare Differentials

Basic fare strategies fall into two general categories: flat and differentiated. Differentiating fares by distance, time of day or type of service has certain advantages and disadvantages, mainly related to simplicity/ease of use and ease of administration and impact on ridership and revenue. Arguments in favor of differentiation have often focused on issues related to efficiency and equity. In particular, it has been argued that a higher fare should be charged to cover the higher operating costs associated with serving longer trips, operating peak period service and providing premium service such as express bus or rail. In practice, most transit agencies (except for commuter rail operators) have decided that the advantages of ease of use and administration outweigh the efficiency/equity arguments, as the percentage of agencies using all types of differentiation is relatively low, and, for most modes, has declined in the past decade:

- Approximately 30% of North American transit agencies use zonal/distance-based pricing on their bus services; this percentage is down from 37% in 1994.<sup>4</sup> the figure for heavy rail is 20%, down from 33% in 1994. For LRT, the percentage is roughly 27%, actually an increase from 21% in 1994. In contrast, nearly 90% of commuter rail systems have zones or other forms of distance-based pricing; this figure is down slightly, from 95% in 1994. As indicated by the change in use of zones, a number of agencies have sought to simplify their fare structures in recent years by eliminating or at least reducing the number of zones; examples include agencies in Baltimore, Norfolk (VA), Raleigh-Durham (NC), Albany (NY), Rochester (NY), Hartford (CT), the State of Delaware, and Washington (bus service only).
- The use of time of day differentials (e.g., off-peak discounts) is even lower, found on only 4% of bus systems (down from 6% in 1994), 7% of heavy rail systems (no change from 1994), 14% of LRT systems (up from 11%) and 28% of commuter rail systems (up from 24%). The CTA is an example of an agency that has removed a peak/off-peak differential.
- The use of service-based premiums (i.e., for express service) has also dropped somewhat: 23% of bus systems have an express premium (down from 27% in 1994). No heavy rail or commuter rail systems use such a premium; 7% of heavy rail systems did so in 1994. For LRT, 5% currently use an "express" premium; this is unchanged since 1994.

Thus, while there are reasonable arguments in favor of using fare differentiation for all types of service, the majority of transit agencies have decided that the ease of use and administration of a flat fare outweighs any advantage offered by differentiation. For commuter rail, on the other hand, the prevailing practice is clearly to use some form of distance-based pricing.

### Transfer Pricing and Policy

Another basic element of the fare structure is transfer pricing and policy. The issues related to transfers include the price of the transfer (i.e., free vs. a relatively small charge) as well as the rules (amount of time, direction of travel) governing its use.

- Regarding rules on transfer usage, the peer review highlighted several different approaches. Several of the peer agencies – and MTS -- provide a 2-hour transfer period, although some agencies allow only 1 or 1.5 hours. The rules on allowable routes or direction of travel also vary. One noteworthy approach is that used in the Twin Cities: a transfer is good for travel in any direction and on any route for a period of 2.5 hours. A similar strategy can be found in Bridgeport, CT, which recently eliminated transfers in favor of a 90-minute "pass" (as well as a day pass). In other words, rather than offering a free transfer with restrictions on use, the agency opted for a very short-term unlimited-ride pass, good for use on any route and in either direction within the 90-minute window. The 90-minute "ziptrip" is priced at \$1.50, i.e., the cost of a single ride; the day pass is \$3.
- Nearly 90% of North American transit agencies offer free or low-priced transfers. However, a number of agencies (including NCTD) have in recent years eliminated such transfers (i.e., bus-

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<sup>4</sup> These percentages are taken from the *APTA Fare Summary* (1994 and 2004).

bus), replacing them with one-day passes sold on-board buses. Other agencies that have implemented this strategy include the Nashville MTA, Maryland MTA (Baltimore), OCTA (Orange County, CA), DART (Dallas), RGRTA (Rochester, NY), CDTA (Albany, NY), First State Transit (State of Delaware), and VTA (San Jose, CA).

- A newer practice is to offer transfers only when the fare is paid with a smart card or magnetic farecard – i.e., not with cash. Such a strategy has been implemented by CTA, MBTA (Boston) and WMATA (Washington, DC).

Thus, although the vast majority of transit agencies continue to offer free or reduced price transfers, the recent trend has been to move away from the traditional transfer policy (i.e., with a limit on transfer routes/direction). Instead, agencies are increasingly eliminating limited use transfers in favor of selling periods of time, replacing transfers with day passes and/or very short-term passes -- good for use on any route and in either direction – sold on-board buses.

### Cash Fare Levels and Pass Pricing

Besides the fares strategy elements discussed above, the key aspect of the fare structure is the actual fare levels (i.e., for cash payments as well as passes). The relationship between these two items (i.e., the pass breakeven level) is also important, as it affects the usage of passes. As indicated above, the minimum adult cash fares of the peer agencies average to just over \$1.50, while the average of the maximum fares is just over \$2.00. As discussed earlier, the average monthly pass breakeven level (assuming the median pass and cash prices for those systems with multiple levels) for the peer agencies is 36.4. For another point of comparison, the average breakeven level for 26 California bus operators that reported to the *APTA Transit Fare Summary* is comparable, at 35.3.

## 2.6 Summary of Peer Review Results

The comparison of the San Diego region's fare structure/levels and policies to those in eight peer regions revealed the following key findings:

- **Full/Adult Cash Fare** -- The single ride adult bus fare levels at both MTS and NCTD are quite consistent with those of the peer agencies. As for the Trolley, its maximum fare is higher than all but two agencies' maximum fares. COASTER's minimum fare is among the highest for commuter rail systems. COASTER's maximum fare, in contrast, is one of the lowest. COASTER's average fare per mile falls just under the average of all of the peer systems.
- **Reduced Cash Fare** -- The BREEZE is like most of the systems in offering reduced fares (for seniors, persons with disabilities and Medicare recipients) that are roughly half (or no more than half) the full peak period adult fare, and these fares apply throughout the day. In contrast, MTS' reduced fare represents more than 50% of the lowest fares on bus and Trolley (since there is only one reduced fare level, compared to a range of full fares). While children 6 and over pay the full fare on MTS and NCTD, children of elementary through high school age are eligible for reduced cash fares at most other agencies. In contrast, the San Diego agencies have the lowest minimum age (60) for classification as a "senior;" the majority of the regions define senior as 65 or over, while in several regions the minimum age is 62. In Sacramento, anyone over 75 can ride free.

- **Full/Adult Monthly Passes** – The BREEZE has one of the lower priced monthly passes, while MTS' lowest price pass falls in the middle of the pack. The pass breakeven levels for the BREEZE and the Trolley are the lowest of the agencies reviewed, indicating that these passes are a relative bargain. The breakeven level for MTS' bus service is also one of the lower figures.
- **Day Passes** -- NCTD has the second lowest priced day pass, and has the lowest breakeven level. MTS' Day Tripper price matches the day pass price at several other agencies, and falls just under the peer average. The Trolley has the second lowest breakeven level, while MTS' breakeven level for bus equals that of three others, and falls just under the peer average. NCTD is one of only two agencies that sells day passes on-board buses.
- **Reduced Monthly Passes** -- With regard to reduced price passes, the agencies and regions also show considerable differences. All regions include at least some form of reduced price monthly pass for seniors/disabled, and several (including San Diego) offer reduced price youth/student passes as well. The discount (compared to a full price monthly pass) for senior/disabled passes ranges from 42% (Vancouver) to 77% (LA); the 75% discount on the regional monthly pass in San Diego is thus one of the largest. For youth/student passes, the discount ranges from San Diego's 50% to Seattle's 67%.
- **Multi-Ride Options** – NCTD and MTS, like all but one of the peer agencies, offer a multi-ride option (e.g., tickets, tokens, stored value, multiple day passes). the majority of these – including MTS – offer a purchase discount or bonus; MTS' discount on tokens is one of the lower discount levels. COASTER's multi-ride discount is commensurate with several peer agencies'. It should be noted, though, that there is little overall consistency among the different regions – or even within particular regions – regarding this category.
- **University Programs** -- There is a broad range of types of transit-university partnerships and reduced fare programs. The most common types of programs are individual arrangements between specific agencies and specific schools or general programs available to all college students; the San Diego region includes both approaches, with individual arrangements (e.g., NCTD-UCSD, MTS-SDSU), as well as the general College Ready Pass Program.
- **Overall Fare Structure** -- The significant differences between the BREEZE and MTS fare structures complicates fare payment in the region. While the BREEZE on its own has one of the more straightforward and simplified fare structures of any of the agencies reviewed, MTS has one of more complicated fare structures; the key differences include the following:
  - The BREEZE charges a single flat fare, while MTS' bus fare structure is relatively complex, with different local, urban, express and commuter express fares. Several of the peer systems have express surcharges, and three have zone charges, but only MTS has more than two different categories – and price levels -- of bus service.
  - The Trolley has the most complicated of the LRT fare structures, with its seven fare zones. Only two of the peer LRT systems have zones, and they each have only three zones.

- The BREEZE has a single monthly pass, not accepted on MTS, while MTS issues a higher priced "regional pass" that can be used on the BREEZE. The existence of three pass price levels also adds to the overall complexity. Only four of the non-commuter rail peer agencies have multiple pass prices.
- **Transfer Policy**-- The interagency transfer pricing structure/policy within the San Diego region is the most complicated of any of these regions. There are differences in the policies for different types of transfers, as well as a number of service and direction-related anomalies and exceptions to the general transfer rules. For instance, a farebox-issued transfer is good for 2 hours from time of issuance, a paper transfer for only 90 minutes. Also, a Trolley ticket can only be used for transferring for travel in the same direction as opposed to a transfer received on a bus, which can be used for travel in either direction.

In conclusion, while the peer regions each have their own fare structure/policy complexities and anomalies, the San Diego region's overall fare structure and policies are more complicated than any of the peer regions'. This is due to a combination of

- *The complexities within MTS' fare structure* -- As noted under **Industry Trends**, the trend in the industry has generally been toward fare simplification, as increasing numbers of agencies are taking such actions as eliminating zonal/distance-based fare differentials and modifying transfer policies.
- *The significant differences between the basic fare structures, payment options and fare levels, and internal transfer policies at MTS and NCTD* – This has resulted in a confusing array of fare payment options and fare levels.
- *The complex policies and exceptions governing transfers between the various services* – This has also led to confusion on the part of customers.

The findings from the peer review and identification of industry trends, coupled with the input from staff and stakeholders, were used in subsequent tasks in the development of alternative fare structure scenarios for the San Diego region.

### 3. Development of Fare Structure Evaluation Criteria and Fare Model

This chapter presents the results of Task 4 (*Development of Fare Structure Evaluation Criteria and Fare Model*). The key activities in this task were as follows:

- *Development of fare structure evaluation criteria* -- The consultant team developed a set of evaluation criteria and guidelines, in accordance with guidance contained in SANDAG Board Policy 29 and reflecting the results of agency staff input (Task 2). These criteria were subsequently used in evaluating fare structure options.
- *Development of Fare Model* – The team also developed a spreadsheet-based Fare Model for estimating the ridership and revenue impacts of alternative fare structures. This model was subsequently used in evaluating fare structure options.

#### 3.1 Development of Evaluation Criteria

##### Introduction: Evaluation Methodology

To facilitate evaluation of alternative fare structures (discussed in Chapter 4), it was necessary to establish a set of *evaluation criteria and guidelines*. These criteria were then be applied to develop relative ratings of the different alternatives. The evaluation methodology included both quantitative (i.e., related to ridership and revenue impacts) and qualitative criteria (i.e., related to goals such as increasing simplicity or convenience). Ridership and revenue criteria can be applied in an objective manner, based on estimated impacts as produced in the Fare Model. Qualitative criteria, on the other hand, must be applied more subjectively. The evaluation guidelines facilitate the application of qualitative criteria. These guidelines were used to construct evaluation matrices comparing the fare structure alternatives; the actual evaluation of the alternatives is discussed in Chapter 4.

##### Evaluation Criteria

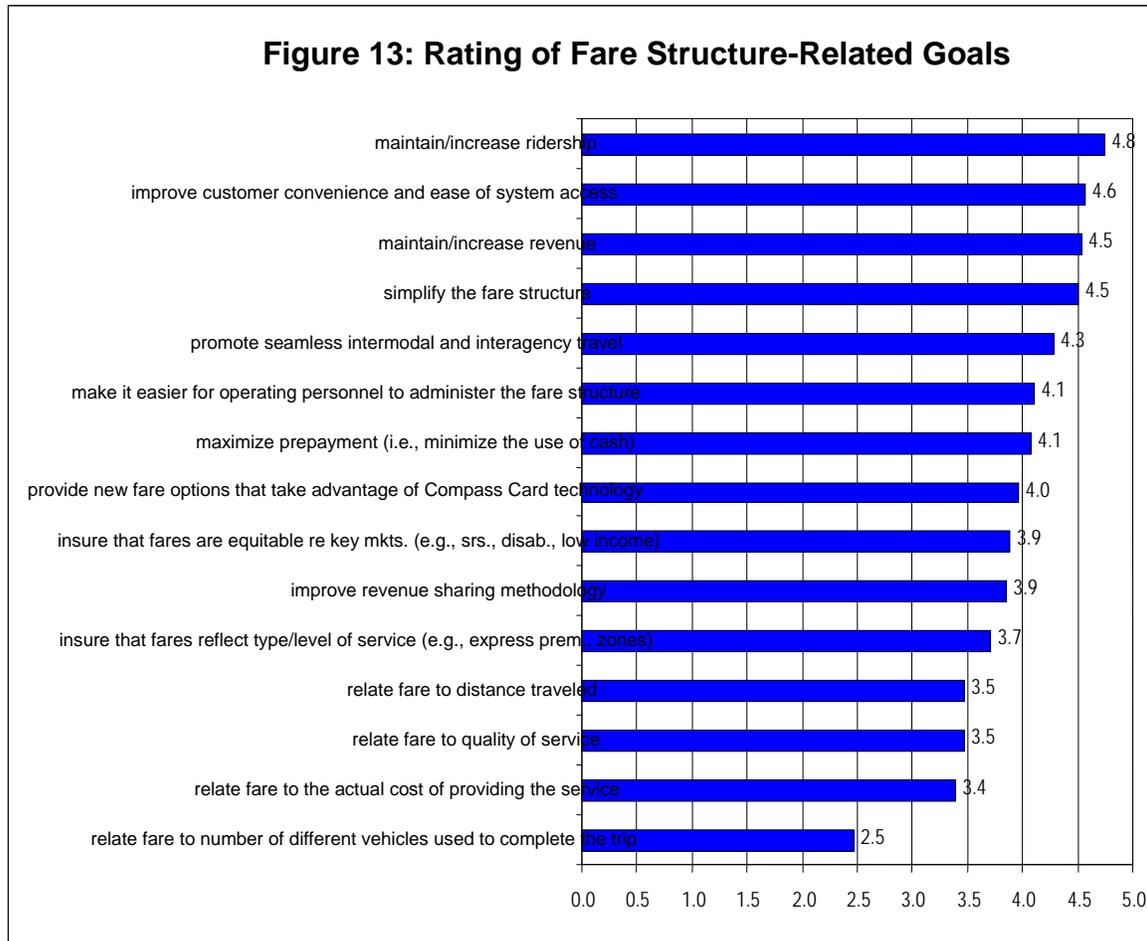
*SANDAG Board Policy 29 (Regional Fare Policy and Comprehensive Fare Ordinance)* established “. . . guidelines for setting a uniform, fair, and equitable areawide fare structure consistent with revenue-producing requirements and established budgets.” The guiding principles presented in Policy 29 – and thus key issues to be considered in developing evaluation criteria – can be summarized as follows:

- *A single unified regionwide fare policy and transfer system will be maintained* (e.g., all operators must use and accept regional fare media).
- *Fare revenues must meet or exceed the level necessary to support the level of service provided* (e.g., fare levels should address farebox recovery requirements; and the annual average fare shall generally be consistent with regional cost indicators or the inflation rate).
- *The fare structure should be fair and equitable to all operators and customers in the region* (e.g., fare levels should be consistent for similar types of service and similar service areas; fare levels

should reflect a combination of the type of service, distance, speed of travel and amenities; and transfers between all routes should be facilitated)

- *The fare policy should promote seamless travel throughout the region by developing one common and easily understood fare structure throughout the region (e.g., the fare/transfer system should be as simple and easy to understand as possible; the fare collection process on a vehicle should be as expeditious as possible; and use of prepaid fare should be encouraged.)*

In order to evaluate alternative fare structures, it was necessary to identify a discrete set of criteria that address the above issues. A useful source of criteria was the list of fare structure-related goals identified in Chapter 1. A total of 15 goals was listed; these goals, along with the staff ratings of their relative importance, are repeated here in Figure 13. All but one of these goals directly correspond to – or at least address -- items included in the Policy 29 guidelines; “improve revenue sharing methodology,” listed as a goal in Figure 1, is not specifically included in Policy 29 – and was not used as a criterion for evaluating alternative fare structures. (This was clearly an important goal for the study, though, and would be addressed separately in the study.)



The other goals were felt to represent reasonable bases for evaluation criteria, although the five lowest-rated goals addressed a similar issue (fare differentiation) and were combined into a single criterion that better matched one of the guidelines in Policy 29 (i.e., that “fare levels shall reflect a combination of the type of service, distance, speed of travel and customer amenities.”) In addition, the wording of the criterion based on the goal “insure that fares are equitable re key markets” was modified somewhat to better allow evaluation of fare structure options; this criterion became: “Impact on reduced fare discounts (e.g., for seniors and persons with disabilities).” All of the proposed criteria, along with measures, guidelines and Policy 29 category with which each criterion is associated, are presented in Table 12.

## Evaluation Measures and Guidelines

As indicated in Table 12, each criterion is primarily linked to one of the categories from Policy 29: *Production*, *Simplicity* and *Fairness*. Each criterion is also more or less associated with at least one item in Policy 29; the table shows the reference number for the particular item(s) in Policy 29 addressed by each criterion.

In order to provide a basis for evaluating fare structure alternatives, we also identified, for each criterion, evaluation guidelines and measures; these are shown in Table 12. As indicated in the Table, several of the measures apply to more than one criterion. For instance, “change in use of fare differentials” was included as a measure for three different criteria: “Extent to which it simplifies the fare structure,” “Impact on ease of operating personnel to administer” and “Extent to which it insures that fares reflect distance, type/ level/ speed of service, customer amenities, or cost of service.” However, that particular measure was treated differently in these criteria: a reduction in the use of fare differentials was considered *positive* (i.e., rated as a “1” or “2”) for the two criteria in the *Simplicity* category, but received a *negative* rating (“-1” or “-2”) for the third criterion (i.e., under the *Fairness* category). The other measures each used in three different criteria were “change in ease of transferring” and “change in number of types of prepaid option.” However, unlike the case with fare differentials, these measures were each treated similarly (positive vs. negative) for each of the criteria with which they were associated.

Table 12 also includes relative *weights* for the criteria. The weights shown are based on the ratings of the respective goals in the agency survey. Based on discussions with the members of the study TAC, these ratings were grouped to produce the following weights:

- For goals rated “4.5” or higher, the Weight = “3”
- For goals rated “4.0 – 4.4”, the Weight = “2”
- For goals rated under “4.0”, the Weight = “1”

These weights were applied as part of the evaluation process, discussed in Chapter 4.

## Applying the Evaluation Methodology

For the *qualitative criteria* (i.e., those in the *Simplicity* and *Fairness* categories), a rating (“-2,” “-1,” “0,” “1” or “2”) was to be assigned for each of these criteria, based on the guidelines for that criterion. These ratings would then be summed for each alternative.

Table 12: Evaluation Criteria and Guidelines

Policy 29 Category/Criterion	Policy 29 Item	Weight	Evaluation Guideline	Measures
<b>Production</b>				
Impact on ridership	2	3	% change in ridership	Ridership estimate (from Fare Model)
Impact on revenue	2	3	% change in revenue	Revenue estimate (from Fare Model)
<b>Simplicity</b>				
Impact on convenience and ease of system access	4.3, 4.5	3	-2 = greater reduction in number of types of prepaid option or ease of payment	Change in (1) number of types of prepaid option (e.g., new 7-day pass), and/or (2) ease of payment (e.g., avail. of o-b day pass for MTS)
			-1 = reduction in number of types of prepaid option or ease of payment	
			0 = no significant change from existing structure	
			1 = increase in no. of types of prepaid option or ease of payment	
			2 = greater increase in no. of types of prepaid option or ease of payment	
Extent to which it simplifies the fare structure	4.1, 4.2	3	-2 = greater increase in number of options or differentials	Change in (1) uniformity of fares, (2) overall no. of different pay options, (3) use of fare differentials (e.g., zones, type of service premium), or (4) consistency re transferring
			-1 = increase in number of options or differentials	
			0 = no significant change from existing structure	
			1 = increase in uniformity and/or reduction in no. of options/ differentials	
			2 = greater increase in uniformity and/or reduction in no. of options/differentials	
Impact on ease of operating personnel to administer	4.4	2	-2 = greater increase in number of options or differentials	Change in (1) overall no. of different pay options, (2) use of fare differentials, (3) consistency re transferring, or (4) no. prepaid options
			-1 = increase in number of options or differentials	
			0 = no significant change from existing structure	
			1 = red. in options/differentials and/or incr. in consistency or prepaid options	
			2 = greater red. in options/differentials and/or incr. in consistency or prepaid options	
Impact on prepayment (i.e., minimizes use of cash)	4.5	2	-2 = reduced number of prepaid options and discount/bonus levels	Change in (1) number of types of prepaid options (e.g., new 7-day pass), (2) discount/bonus levels, or (3) availability of on-board purchase options (e.g., MTS day pass)
			-1 = reduced number of prepaid options or discount/bonus levels	
			0 = no significant change from existing structure	
			1 = increase in no. prepaid options, disc./bonus levels, or o-b avail.	
			2 = greater increase in no. prepaid options, disc./bonus levels, or o-b avail.	
Extent to which it includes new fare options that take advantage of Compass Card technology	4.6	2	-1 = <i>(not applicable)</i>	Introduction of (1) new options (e.g., Upass, annual pass) and/or (2) lower fare and/or transfers only w/ Compass Card
			0 = no change from current plan for Compass Card	
			1 = one or more new options or lower fare/transfer	
			2 = two or more new options and/or lower fare/transfer	

Table 12: Evaluation Criteria and Guidelines (cont.)

Policy 29 Category/Criterion	Policy 29 Item	Weight	Evaluation Guideline	Measures
<i>Fairness</i>				
Extent to which it promotes intermodal and interagency travel	3.2	2	-2 = greater increase in exceptions/anomalies	Change in ease of transferring between (1) agencies and (2) modes or services (e.g., increased consistency and reduction in exceptions/anomalies)
			-1 = increase in exceptions/anomalies	
			0 = no significant change from existing structure	
			1 = increase in consistency and reduced exceptions/anomalies	
			2 = greater increase in consistency and reduced exceptions/anomalies	
Impact on reduced fare discounts (e.g., for seniors and persons with disabilities)	3.3	1	-2 = greater decrease in extent of fare reduction	Change in (1) level (%) of discounts compared to full fare levels, (2) pass prices and/or (3) age of eligibility for reduced fare
			-1 = decrease in extent of fare reduction	
			0 = no significant change from existing structure	
			1 = increase in extent of fare reduction	
			2 = greater increase in extent of fare reduction	
Extent to which fares reflect distance, type/level/speed of service, customer amenities, or cost of service	3.1	1	-2 = reduced use of two or more types of differentials	Change in use of fare differentials. Differentials can be based on distance, type/level/speed (e.g., local vs. urban), amenities or cost of service (e.g., peak vs. off-peak)
			-1 = reduced use of one or more type of differentials	
			0 = no significant change from existing structure	
			1 = increased use of one or more type of differentials	
			2 = increased use of two or more types of differentials	

For the *quantitative* criteria, the ridership and revenue impacts of each of the fare structure alternatives were determined using the Fare Model. The estimated percent changes (compared to the Base Case) in both measures would then be considered in conjunction with the qualitative evaluation results to select a recommended alternative. Depending on the nature of the alternative selected, the specific fare levels associated with certain fare structure elements (e.g., passes, express premiums) would then be varied (and tested in the Fare Model) in an effort to optimize the balance between ridership and revenue impacts. The results of this evaluation process are discussed in Chapter 4.

### 3.2 Development of the Fare Model

The purpose of the Fare Model was to provide a tool for estimating the ridership and revenue impacts of alternative fare structures. In order to accommodate a broad range of options, the Model had to be able to estimate, for instance, (1) the effect of a change in relative fares on the choice of payment method, and (2) the effect of changes in fares on the frequency with which a payment method is used. The Fare Model also needed to reflect the combination of services currently used by transit riders in the San Diego area, and had to provide a reasonable estimate of the impacts of a fare change on each of the agencies.

## Analysis Categories

The basic process followed for developing a Fare Model to estimate ridership and revenue impacts involved, first, establishing a set of NCTD and MTS ridership analysis categories based on the services used (i.e., BREEZE, COASTER, MTS bus, and the Trolley) and the fare category (i.e., full fare riders, students, or seniors/individuals with disabilities). The impact of a fare change on each of these analysis categories would then be estimated, and the impacts summed to produce the total impact. The categories used for services included all of the services individually, as well as the most common combinations of different services (e.g., COASTER and COASTER Connection, COASTER and Trolley).

The number of trips initially assigned to each of these categories (i.e., the Base Case) was estimated based on data provided by SANDAG, MTS, and NCTD for FY 2005 (prior to MTS's recent service restructuring). The total number of trips using each service was equal to the number provided by the operating agencies. Allocations between single rides on services and rides using multiple services were based on the results of recent surveys provided by all three agencies.

## Estimation Process Used in the Fare Model

The procedure used in the Fare Model to estimate the impact of fare structure alternatives on ridership and revenue consists of the following principal steps:

- First, the Base Case ridership in each analysis category is reallocated among the available fare payment options based on the new fares. In other words, this step calculates the "shifts" from one form of payment (e.g., cash) to others (e.g., pass or farecard). This step consists of the following substeps:
  - The monthly cost of travel for an average rider in each analysis category is calculated using each of the available payment options (i.e., cash and fare media). This is performed for pass alternatives by multiplying the cost of the pass by a factor based on the time period for which the pass is valid (e.g., the cost of a weekly pass is multiplied by 4.3, while the cost of a monthly pass is multiplied by 1); for other alternatives, the number of trips of each type (e.g., a peak trip on a single bus or an off-peak trip involving two bus links and a rail link) is multiplied by the cost of that type of trip (based on the proposed fares).
  - Using these costs and information on the modes used by the riders and their frequency of travel, the utility of each payment option for each subcategory is calculated.<sup>5</sup>
  - The utility of each fare option is used to estimate percentage allocations for riders using each of the options, based on a nested logit model.<sup>6</sup>

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<sup>5</sup> This calculation is done using "fare media choice coefficients." The source of these coefficients is discussed below.

<sup>6</sup> A *nested multinomial logit model* is similar to a regression model in that it looks for statistical relationships between independent variables (demographic and trip characteristics) and a dependent variable (choice of payment option). In the nested structure, separate equations are used to evaluate the choices within different categories (e.g., one equation addresses the choice among the different types of passes, a second equation addresses the choice among single-ride options). A final upper level equation then uses information from these lower level equations to gauge a person's preference among the full range of payment options.

- These percentages are then applied to allocate the ridership in each analysis category among the alternative fare options.
- The second step consists of estimating the change in ridership of each analysis category resulting from the change in average fare faced by the riders using each payment option in that category. This consists of the following substeps:
  - An average cost per linked trip, using existing fares, is calculated for all payment options that currently exist.
  - Drawing on the results of the preceding step and the above substep, the average cost per linked trip paid by all riders who are changing payment options is calculated.
  - An adjusted “old” (i.e., existing) average cost per linked trip is calculated, based on (1) the percentage of people using a payment option who previously used the option and (2) the percentage changing fare options.
  - Using the new and adjusted old average costs, the change in ridership for each payment option in each analysis category is estimated using a “midpoint arc elasticity” formula.<sup>7</sup>
  - The ridership by payment option is summed for all subcategories.
  - Ridership figures for stored value farecards and passes are adjusted by the estimated number of “induced” trips. Induced trips are those made using a specific payment option that would not otherwise have been made.

Revenue is calculated based on the number of individuals using each payment option and the calculated monthly cost of travel for that option. Additional trips generated by stored value cards generate additional revenue while additional trips generated by passes do not generate any additional revenue (i.e., since all passes can be used for unlimited rides during the pass's period of validity).

### Source of Fare Model Coefficients

TranSystems has developed fare change models for a number of other transit properties across the US, including Metro (LA), SEPTA (Philadelphia), CTA (Chicago), BART (Oakland), Metro (St. Louis), DART (Dallas), RTD (Denver), Sound Transit (Seattle) and OCTA (Orange CO., CA). While in all cases we have used the same basic model structure, the *fare media choice coefficients* have been developed individually for each model. These coefficients are typically based on the agency's current mix of payment options, the impacts of past fare changes by the agency, our analysis of fare impacts at other transit agencies and surveys of riders of other agencies, and in some cases a survey of the agency's riders. For the San Diego region's Fare Model, we incorporated information on the frequency with which the various payment options

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<sup>7</sup> *Fare elasticity* is a measure of the percentage increase or decrease in ridership due to percentage changes in the cost of using transit; for instance, an elasticity of -0.3 means that a 10% fare increase would be expected to result in a 3% loss of ridership. A *midpoint arc elasticity formula* is one of several types of elasticity formulas used in the transit industry. It is applicable over a greater range of conditions and changes than the simpler “shrinkage ratio” sometimes used in conjunction with small fare changes.

are currently used by riders, as well as information from other agencies, especially LA Metro and CTA, regarding how riders may react to options that are not currently available (e.g., stored value cards).

In every study we have conducted regarding fares and the choice of fare options, the most important variable has been found to be the monthly cost to a rider of the available options. The Fare Model therefore focuses on that variable. Other consistently important factors have included the upfront cost of each payment option, the frequency of using transit, and the convenience of obtaining each type of payment option.

In this Fare Model, we began with the fare model coefficients we had developed for LA Metro. We then eliminated those coefficients that relied on detailed demographic data or had comparatively low statistical significance, such as gender and income group. We also adjusted several of the coefficients to be more consistent with the results of more recent fare studies. Following this, we adjusted the coefficients for the upfront cost of passes and stored value fare media. These were set consistent with those used in previous studies, which have indicated that while the upfront cost of passes is important, it has less relative importance than the upfront cost of stored value farecards.

We also added coefficients regarding convenience, primarily based on our recent work in Chicago. Our most recent study for the CTA showed that the use of prepaid options, and especially stored value fare media, was far higher among riders who used rail than among riders who did not use rail. This was because the rail stations sold passes and sold and allowed revaluing of stored value farecards, making these fare media more convenient for rail riders than for riders who used only bus. This was true even though passes and stored value farecards are sold at numerous other locations through the Chicago area. Similarly, it was assumed here that riders who use COASTER or the Trolley would be the most likely to use stored value fare media (i.e., Compass Cards), since it will be convenient to load value at the stations.

The other principal coefficients in the Fare Model are the *fare elasticity coefficients*. These determine how likely riders are to reduce their use of transit as their fare increases, or how likely they are to increase their use of transit if their fare decreases. In the Fare Model we developed for LA Metro, we used a single coefficient for fare increases (-0.22) and a single coefficient for fare decreases (-0.15), regardless of the payment option used. We have decided to use these same elasticities as the base elasticities for the San Diego regional model, as the two areas are geographically close and the demographics of their ridership have many similarities. Other recent fare analysis/modeling work (especially in Chicago) has established that riders paying with passes and stored value fare media are generally less elastic with respect to fares than are riders paying with cash. Thus, we have used the relationship between cash and pass elasticities established in the recent Chicago work to develop the fare media specific elasticities for this model. The resulting elasticities used in the San Diego Regional Fare Model are as follows:

- Fare Increase: Cash -.25; Passes & Stored Value -.19
- Fare Decrease: Cash -.17; Passes & Stored Value -.13

The next chapter discusses the evaluation of alternative fare structure scenarios and recommendation of changes to the existing fares.

## 4. Development Fare Structure Recommendations

This chapter discusses the *Development of Fare Structure Recommendations*.

### 4.1 Key Steps

The key steps in this phase of the study were as follows:

- *Development and Evaluation of Fare Structure Alternatives* – Using the findings of the previous tasks, the consultant team worked with the TAC to develop and evaluate fare structure alternatives.
- *Community Outreach* – In order to inform the public and get public input on the potential fare structure changes, the consultant team conducted a series of public meetings and “open houses” at which the types of potential changes were presented and discussed.
- *Development of Consensus on Key Fare Structure Issues* -- Based on the findings of the above steps, the consultant team and the TAC considered key unresolved fare structure issues and developed consensus on preliminary near-term recommendations regarding each of these issues.
- *Development of Fare Structure Recommendations* – Based on the near-term recommendations, recommendations for future changes to the regional fare structure were developed.

### 4.2 Development and Evaluation of Fare Structure Alternatives

Based on the findings of the staff/stakeholder review, the peer agency review and the development of evaluation criteria/guidelines, the consultant team and the TAC developed and evaluated a series of possible fare structure alternatives. This effort entailed several steps:

- *Development of New Fare Structure Options* -- The consultant team developed several sets of initial fare structure options, each focused on one element of the fare structure.
- *Development of Basic Fare Structure Alternatives* – The team next combined individual options from each category to form a set of four initial basic fare structure alternatives. The team then developed variations on the basic alternatives.
- *Modeling of Alternative MTS Interim Fare Change Scenarios* – During the study, MTS management identified the need for an interim fare increase for its own services. This increase was needed to bridge a major revenue gap. The consultant team was asked to identify the revenue/ridership impacts of a range of fare change scenarios.
- *Development of Detailed Fare Structure Scenarios* – Based on an assessment of the basic fare structure alternatives, the consultant team worked with the TAC to identify a set of three detailed fare structure scenarios; one of these was based on the recommended MTS fare change scenario.
- *Evaluation of Scenarios and Development of Preliminary Recommendations* -- These scenarios were then evaluated (using the Fare Model and the evaluation criteria and guidelines described in Chapter 3), and a preliminary recommendation of a new fare structure for the region was identified.

The methodologies and results of these steps are presented in Appendix D. These steps ultimately led to the development of recommendations for fare structure changes for the region, which are discussed below.

### 4.3 Community Outreach

In order to inform the public and get customer input on the potential fare structure changes, the consultant team conducted a series of “open houses” at which the types of potential changes were presented and discussed. Open Houses were held, in April 2008, in five different areas of San Diego County: Old Town, Escondido, Chula Vista, Oceanside and El Cajon. These locations were selected to represent NCTD’s east and west service areas and MTS’ central, south and east service areas. A total of approximately 150 individuals attended the Open House events. Nearly two-thirds were split between Old Town and El Cajon, while the remaining third was divided among the Escondido, Oceanside and Chula Vista events. The attendees were generally supportive of all of the proposed fare structure changes, although there was some concern about possible increases in pricing levels. The outreach effort was, overall, quite useful in giving customers throughout the County an opportunity to learn about and comment on the types of changes under consideration. Details on the Open House effort, including the key findings and copies of the informational posters displayed, are provided in Appendix D.

### 4.4 Development of Consensus on Key Fare Structure Issues

#### Fare Structure Issues to be Resolved

Based on the results of the fare structure development/ analysis steps described in Appendix D, coupled with input from the community outreach effort, a number of fundamental fare structure issues emerged that needed to be resolved among the agencies. The key issues/differences were as follows:

- *Trolley zone structure:* (1) no zones (other than a Downtown Zone), with each line considered a separate service, requiring a separate fare, (2) no zones, but retention of free transfers between Trolley lines, (3) a reduced number of zones (3 or 4 zones), or (4) retention of existing zone structure.
- *Compass Card differential:* (1) a discount when using a Compass Card as compared to the base cash fare, (2) a premium for using cash rather than Compass Card (i.e., the Compass Card fare level is considered the “base fare”) or (3) no difference for Compass Card relative to cash.
- *14-Day vs. 7-Day pass:* (1) a 14-day regional pass (in addition to continuation of monthly/30-day passes) or (2) a 7-day regional pass (in addition to continuation of monthly/30-day passes).
- *Retention of NCTD-only Day Pass:* (1) retention of NCTD-only Day Pass, along with Regional Day Pass, (2) immediate elimination of NCTD-only Day Pass, or (3) phasing out of NCTD-only day Pass
- *Introduction of a COASTER Day Pass:* (1) introduction of a COASTER Day Pass, or (2) no COASTER Day Pass.
- *Senior age:* (1) increase in the senior-eligibility age by a year at a time, to a final level of 65 or (2) keep the senior age at 60, as it is now.
- *ADA Paratransit fare (for MTS Access and NCTD Lift services):* (1) amend the Fare Ordinance to reflect the FTA regulations that allow paratransit fares to be up to double the corresponding fixed route fare (including transfers), but implement a cap (\$5) on the fare, or (2) amend the Fare Ordinance, but do not implement a cap.

- *Calendar period vs. "rolling" passes:* (1) retention of the calendar period for passes (i.e., specific months or specific dates covering each one or two-week period), or (2) conversion of passes to a rolling, activate on first use basis (i.e., a pass is valid for 30 – or 14 or 7 -- days beginning on the day it is first used).

The preliminary recommendations regarding each of these elements are discussed below, following a review of several specific issues and suggested alternative pricing strategies.

## Specific Payment Issues

In seeking to develop recommendations, several specific payment issues were identified; these were as follows:

- *Implications of switching to rolling passes* -- There was some concern on the part of the agencies that changing to a rolling pass would result in lost revenue. It was also suggested that a variation on the standard rolling pass be considered (i.e., rather than always being valid for exactly 30 days, have each "monthly" pass be valid for the number of days in the month in which it was activated); this suggestion is discussed in Section 4.5.
- *University pass arrangements* – The region has had several different arrangements between the transit agencies and local universities. The alternative approaches and recommendations are discussed.
- *Continued use of tokens* – The question of whether or not to continue the use of tokens was raised.
- *Use of limited-use smart cards* – The possible applications for less expensive "limited-use" smart cards were considered.

These issues and strategies are discussed below.

### *Implications of Switching to Rolling Passes*

#### Revenue Concerns

The operating agencies expressed the concern that changing from a calendar-based to a rolling pass structure would result in lost revenue. The main arguments supporting that position are as follows:

- During months in which regular passbuyers have vacations, many of them would probably not buy a pass that month. Instead, they would pay for individual rides (or buy Day Passes) for the weeks they were commuting. If, instead, such a rider could buy a rolling pass and then not activate it until returning from vacation, he/she would have no reason to pay for individual rides.
- Given the greater convenience and flexibility of rolling passes in comparison to calendar period passes, more people in general would shift from paying for individual rides to passes; this would produce less revenue than if these people continued to pay for each ride.

The reality is that instituting a rolling pass will likely produce a small – if any – revenue loss, compared with calendar period passes. The reasons are as follows:

- Offering a 30-Day Pass, a year's worth of the passes covers 5 fewer days than does a year's worth of calendar month passes (i.e., 360 days vs. 365 days); therefore, a rider would have to buy a 13<sup>th</sup> pass to cover the entire year. This would produce more revenue from pass sales.
- The existence of the Half-month Pass has meant that people taking vacation in the first half of a month could still buy a pass -- covering the second half of the month -- instead of paying for individual rides. Such people will now simply buy a rolling pass (a 30-Day Pass or possibly a 14-Day Pass once they become available). Since the 14-Day Pass is proposed to be priced at 60% the cost of the 30-Day Pass, sale of that pass will also generate increased revenue.
- Most regular riders (i.e., those at or above the breakeven level) already buy passes and will continue to do so on a monthly basis: according to the 2003 On-board Survey, 57% of boardings in San Diego involve monthly passes. It is unlikely that there will be a significant increase in the number of riders *above* the breakeven level buying passes; it is this market that would produce a loss of revenue if they switched from paying per ride to buying passes. However, the greater convenience offered by rolling passes will likely influence at least some riders who are currently slightly *below* the breakeven level to switch to passes; this type of switch results in a revenue increase.
- The agencies should recognize some savings related to the costs of selling and distributing passes by converting to rolling passes. Since rolling passes can be purchased in advance -- and in bulk -- administrative requirements (i.e., related to heavy demand at the end of the month and distribution to retail outlets) will drop. The cost of printing calendar month-specific passes will also be reduced. In addition, the sale of rolling passes will reduce lines at TVMs caused by riders waiting to buy passes for the next calendar month.

Thus, while it is impossible to predict with any certainty the actual revenue impact of switching from calendar to rolling passes, our experience analyzing pass buying behavior at a range of transit agencies suggests that the net revenue impact will be minimal.

### *University Pass Arrangements*

Many universities across the US have established partnerships with local transit agencies to provide specially-priced passes or other reduced cost payment arrangements for students, faculty and staff. These types of programs, often called "U-Pass" or something similar, have proven to be capable of generating significant increases in ridership for the transit system, while providing a stable, and depending on the contract, possibly increasing, source of revenue. Universities have benefited in various ways, including the potential to ease on-campus parking requirements if sufficient travel can be shifted from auto to transit. The greatest benefits to transit agencies and to universities have come from programs that cover all of the students at each participating school, as these cause the highest number of trips to convert from automobile to transit.

As noted in Chapter 2, transit agencies use several different types of university partnerships and reduced fare programs. The most common types of programs include arrangements between specific agencies and specific schools, and programs that are open to students at any participating school. The San Diego region includes individual arrangements (e.g., with UCSD), as well as the general College Monthly and Semester/Quarter Pass programs. The UCSD program covers all students and the university pays MTS a set amount (\$1.10) for each trip taken in the university neighborhood. Unlike most pass programs it does not cover all non-premium transit in the region and, as a result, it is reported to have increased on-street parking in the neighborhoods around UCSD.

The College Semester/Quarter Pass program offers any school the opportunity to participate, and their students can purchase passes at a price determined by the length of the semester or quarter. Ten schools are currently taking part, and the price varies from \$139 to \$166; the price is based on a rate of \$1.34 per day per participating student has been set to a level that offers approximately a 30% discount from the price of the full Regional Monthly Pass. The College Monthly Pass price is currently \$51.20 for MTS' service area; a total of 21 institutions sell passes to their students, and the Monthly Pass price is set at a 20% discount from the price of the full Regional Monthly Pass. For NCTD, the College Monthly Pass price is \$45 - \$48, depending on the school; there are three schools in the program at present.

A key issue in establishing pricing for a U-Pass program is whether or not all students at a school must participate (i.e., pay for a pass as part of their student fees) -- or is the price based only on those who actually use the pass. For example, the Chicago Transit Authority's Upass program requires that all students at a participating school buy a pass (i.e., as part of the student fees). Each school then pays CTA a daily rate (\$0.65) for every student enrolled at the school. In contrast, the San Diego transit agencies currently receive reimbursement (\$1.34 per day) from the participating schools only for those students who buy a College Semester/Quarter Pass.

Another issue for U-Pass programs at large universities is how to handle potential increases in demand as a result of implementing a university pass, especially one covering all students. There are three basic approaches that are typically followed:

- Make an estimate in advance and set the price of the pass such that the transit agency would receive enough revenue to subsidize some additional service.
- Agree in advance to specific service standards (e.g., acceptable levels of crowding) for service to the university and for the transit agency and the university to share the costs of any additional service that is necessary to meet the agreed-upon service standards. At most agencies that have instituted such an approach, the university pays at least a percentage of the cost equal to the agency's overall farebox recovery ratio.
- Revisit pricing every year and make adjustments so that the agency's average revenue per boarding meets a certain standard (e.g., a specific fraction of the agency's average revenue per pass boarding). The revisions to pricing may be limited each year, so that a substantial increase in ridership from implementing the university pass does not result in so large an increase in the cost of the program as to make continuing it untenable.

It is recommended that the region consider implementing a program that covers all eligible individuals at each participating school, as this approach has been shown to generate more ridership (and generally more revenue) than programs in which each student decides whether to participate. It is also recommended that the transit agencies negotiate with UCSD regarding making that pass apply to all non-premium trips in the region, with the objective of reducing the number of automobile trips into the neighborhoods surrounding UCSD. Finally, SANDAG and the operating agencies should consider the above approaches to handling increases in demand; for the arrangements with UCSD that restrict usage to a specific route or group of routes, the second approach (i.e., sharing the costs of additional service) may be most appropriate. However, the third approach (i.e., making annual price adjustments) should also be considered.

### *Continued Use of Tokens*

Tokens are currently available for \$2.25 apiece or via bulk purchase at 20 for \$45 or 40 for \$90. They have generally been purchased by social service agencies and other groups as a means of providing individual

rides to clients. Tokens can be used to pay up to \$2.25 toward the fare on any MTS or NCTD service (excluding COASTER, Sprinter and ADA paratransit services).

Whereas tokens represent a seemingly easy means of distributing subsidized transit trips on an individual basis, they apparently see very little use. For instance, the 2003 On-Board Survey reported the use of only 3 tokens, out of a total sample of nearly 9300 boardings. Given the cost and staff time required to purchase, package and distribute tokens, the minimal usage suggests that it is not cost-effective to continue offering them as an option. Moreover, the use of tokens is inconsistent with the region's impending move to a very modern smart card-based electronic payment system. One possible replacement means of providing individual prepaid rides is limited use smart cards, as discussed below. Our recommendation is that tokens be phased out as a fare medium in San Diego. An announcement should be made that the operators will continue to accept tokens through the end of 2009, but not after that. In the mean time, no additional tokens should be sold to agencies.

### *Limited-Use Smart Cards*

The Compass Card program will rely primarily on hard plastic cards similar in structure and durability to normal credit or debit card stock. The Compass Cards are "smart cards" that contain a small embedded computer chip and an antenna that allows contactless fare payment. These cards are intended to be kept and reused for long periods of time (each card is designed to last for several years). Their unit cost (approximately \$0.90 -- \$1 for a blank card; preparation for distribution and use, including adding graphics, is extra) makes them inappropriate for single rides or very short-term use (e.g., by tourists).

However, there is also a much less expensive contactless card option available for short-term uses. The "limited use" or "disposable" paper smart card costs \$0.30-\$0.40 apiece (depending on volume purchased). Some agencies have begun to issue these cards for one-time or short-term use. For instance, MARTA (Atlanta) and Houston Metro are the first examples of smart card-only (as well as cash on buses) fare systems. Both agencies provide both hard plastic and paper disposable cards; the latter are primarily for single rides, although the paper tickets can be reloaded with additional value.

In San Diego, it is suggested that paper limited-use cards be considered for such options as the Hotel Scratch Day Pass (i.e., for out-of-town visitors), the Juror Ticket and the Classroom Day Pass. Other short-term options, such as group event passes (valid for 1-7 days) should also be considered. Limited use cards could also be considered for Day Passes, but this application would be appropriate only if the cards are dispensed from the fareboxes. GFI claims that its Odyssey fareboxes should be able to dispense such fare media – similar to the dispensing of the current magnetic Day Passes – but we are not aware of any agencies that are currently doing this. SANDAG would have to determine the feasibility – and additional cost – of such a strategy through consultation with the Compass Card vendor (Cubic) and GFI. Finally, limited use cards, pre-loaded with sufficient value for one or two rides, could also be considered as a replacement for tokens, for bulk sale to social service agencies.

## 4.5 Other Fare Structure Issues

During the study, presentations were given to transit policy boards or committees and the Transportation Committee at SANDAG. Policy makers and staff requested that certain other options and concepts be examined. These included the following

- *Rolling passes with validity based on length of month (rather than fixed number of days)* – As mentioned above, an alternative to the typical rolling pass scheme was suggested for consideration. The idea is that, rather than always being valid for exactly 30 days, each "monthly" pass would be valid for the number of days in the month in which it was activated.

- *Strategies for addressing the needs of low-income riders* – Concerns were expressed regarding how best to address the challenges facing low-income people seeking to buy prepaid unlimited-ride passes. The strategies suggested included introduction of a shorter-term (e.g., 14-Day) pass, moving to a rolling pass structure and a “best fare” strategy.
- *Potential for a “market-based” pricing strategy* -- It was suggested that there may be potential to increase fare revenue by increasing the current differential between local/urban and premium services.
- *Accelerated unification of MTS and NCTD fares* -- The initial recommendation was that NCTD cash and monthly pass prices should be increased over 5 years to bring them into convergence with those of MTS. However due to growing financial issues, it was decided that alternative timetables for unification of the two agencies’ fares should be examined. The ridership and revenue impacts of two scenarios were evaluated.

These issues are discussed below.

### ***Consideration of Rolling Passes with Validity Period Based on Length of Month in Which Activated***

As defined for purposes of this study – and throughout the transit industry -- a *rolling pass* is valid for a predefined number of consecutive days, regardless when activated; the recommended time periods here are 14 and 30 days. However, an alternative scheme has been suggested by a stakeholder in the region: rather than always being valid for exactly 30 days, why not have each “monthly” pass be valid for the number of days in the month in which it was activated? In other words, the pass would be valid for 28 (or 29) days if first used in February; 30 days in April, June, September or November; and 31 days if activated during one of the other months.

While an interesting concept, this approach is not recommended for the following reasons:

- It may create some confusion on the part of the passholder. A fixed duration (e.g., 30 days) is easily understood and predictable; the customer always knows that, once he/she activates the pass, it will be good for 30 days. A variable length pass tends to be more confusing.
- A fixed length also means that the customer will always get the same value out of the pass. For instance, using the pass in a 31-day month he/she will benefit more than using the pass in a 30-day month. (This also applies to the existing calendar month passes, but that is one advantage of switching to a 30-day rolling pass.) Moreover, the rationale for differences in duration is not always clear: for instance, why should a customer get 31 days of use when activating the pass on, say, January 30, even though it will be used mostly in February (a short month)? Conversely, activating it on February 27 would yield only 28 (or 29) days of use, even though it would be used primarily in a 31-day month (March).
- Since more than half of the months are 31 days in length, the agencies would suffer some revenue loss by converting to such an approach. In other words, a rider who used a variable length rolling pass every month would end up getting 5 extra “free” days a year.
- While presumably technologically feasible, reprogramming the Compass Card system to accommodate such a scheme would carry some additional expensive (potentially substantial, given the typical cost of making any programming changes). The fixed number of days rolling pass is fairly simple (and is already programmed into the system). Given the above concerns, changing to a variable length period simply does not seem worth the cost.

### *Strategies for Addressing the Needs of Low-income Riders*

One particular area of concern was how best to address the challenges facing low-income people seeking to buy prepaid unlimited-ride passes. The strategies suggested included introduction of a shorter-term (e.g., 14-Day) pass, moving to a rolling pass structure and a “best fare” strategy. These are discussed below.

#### **Changes to the Current Monthly Pass Structure**

It has been suggested by the agencies as well as members of the riding community that many low-income riders lack the financial resources to buy a monthly pass. Two of the fare structure changes under consideration in this study are seen as a strategy for addressing this concern: (1) the introduction of a 14-Day Pass and (2) the switch from calendar-based to rolling passes. The former simply offers a prepaid option significantly lower in cost than a full monthly pass. The benefit of moving to rolling passes lies in riders being able to decide when to purchase a pass each month – i.e., the ability to avoid having to pay for a pass at the same time that other bills are due (e.g., rent, utilities); some riders have cited this as a significant problem with the current calendar-based passes.

This concern represents a key reason behind the recommendation of providing a 14-Day Pass and moving from calendar-based to rolling passes. However, another possible approach designed to benefit low-income riders is the “best fare” strategy, discussed below.

#### **Best Fare Strategy**

The *best fare* – or *guaranteed lowest fare* -- strategy, feasible on a technical basis with smart cards, essentially assures riders that they will automatically be charged the lowest fare for which they are eligible (i.e., based on their extent of usage of their farecards). A counter on the Compass Card would keep track of each card's use within a certain time period. Once a cardholder has taken a certain minimum number of rides during a day (probably either 2 or 3), his/her card would automatically become a Day Pass, and all subsequent rides that day would be free. The best fare strategy could be set up for Day Passes only, or rides could continue to be tracked over a two-week period until the card turned into a 14-day pass or even for 30 days and possibly turned into a 30-day pass.

There has been limited use of this strategy to-date in the transit industry. Transport for London has what it calls the “daily capping” scheme, which, as the name suggests, does not go beyond day passes. In North America, GO Transit in the Toronto area has proposed a best fare scheme, and Utah Transit Authority (Salt Lake City) is considering the approach. Washington (DC) Metro and Maryland MTA considered the approach in conjunction with their regional smart card program, but both agencies decided against it, due primarily to its potential revenue implications.

The most common arguments in favor of the best fare strategy are as follows:

- A best fare strategy allows low-income riders who may not be able to afford to purchase an unlimited ride pass to take advantage of a pass even if they pay for their initial rides individually.
- A best fare strategy makes it easy for riders pay their fares economically, as they do not have to figure out the most cost-effective payment method. This can be used in marketing the service.

The arguments against the concept are as follows:

- A best fare strategy has the potential to result in significant revenue loss to the transit agency, as it converts rides that would otherwise have been paid for to free rides. An agency might then have to increase fares to make up the lost revenue.

- While the rider does not have to calculate the best payment option, the strategy may cause confusion or uncertainty on the part of a rider: for instance, the rider will have to keep track of how many rides he/she has taken to know exactly which ride is the last he/she has to pay for. This can particularly be an issue in a system having multiple single-ride fares (e.g., \$2 for Local Bus, \$2.25 for Urban Bus, \$2.50 for Trolley) and/or multiple day passes (e.g., \$5 for the Regional Day Pass and \$4.50 for the NCTD Day Pass).
- The strategy can significantly complicate revenue sharing arrangements, particularly those that allocate revenues from sale of passes: for instance, on which transit system is a best fare pass “purchased?”

Thus, there are advantages and disadvantages. However, the decision whether to consider best fare ultimately comes down to considerations of equity (regarding ability to pay) vs. potential revenue loss. With regard to equity concerns, the fact is that only about 31% of transit riders in San Diego pay cash (i.e., pay for rides on an individual basis); the remaining 69% prepay in some form – and thus would not necessarily benefit from a best fare arrangement.<sup>8</sup> Moreover, some portion of those now paying cash do so simply because they are occasional riders and do not wish to prepay; an occasional rider is unlikely to benefit from a best fare arrangement because he/she would probably not ride enough times during the subject period. According to the 2003 On-Board Survey, the distribution of monthly pass users by income level is actually very consistent (see Table 13). Thus, the percentage of riders unable to afford any form of prepayment is felt to be quite low.

The best fare strategy also requires that a rolling pass be implemented as planned. If a rolling pass is not adopted someone who begins riding later in a calendar month would be unable to complete enough days to qualify for the change up to a fourteen or thirty day pass.

With regard to potential revenue loss, recent research on the London system estimates that the agency would suffer a revenue loss of over 6% if it extended its capping strategy to 7 and 30 day pass periods.<sup>9</sup> As discussed above, we have projected a 5% revenue increase for the fare restructuring recommended here for the San Diego region. Thus, a revenue loss comparable to what was estimated for London would offset any revenue gain.

Type of fare payment	Under \$10,000	\$10,000 - \$19,999	\$20,000 - \$29,999	\$30,000 - \$39,999	\$40,000 - \$49,999	\$50,000 - \$59,999	\$60,000 or more	Total
Monthly Pass	55.3%	55.6%	54.2%	54.8%	56.4%	54.5%	55.1%	55.2%
Cash	32.0%	33.9%	34.0%	32.7%	32.4%	34.0%	33.9%	33.2%
Transfer	8.6%	7.2%	9.1%	8.4%	8.1%	7.8%	6.2%	8.0%
Other	4.1%	3.3%	2.7%	4.1%	2.9%	3.6%	4.8%	3.6%
Total	100%	100%	100%	100%	100%	100%	100%	100%

<sup>8</sup> Data from 2003 On-Board Survey: *Results of On-Board Passenger Survey for the San Diego Region*, 2004, p. 24.

<sup>9</sup> M. Frumin, “The Choice Between Period Tickets and Pay As You Go on London’s Public Transport System: Implications for Efficiency, Revenue and Best Value,” Massachusetts Institute of Technology, January 2008

In summary, given (1) the potential for significant loss of revenue, (2) the small number of riders that would likely see a real benefit, (3) the fact that Day Passes are, for many rides, the equivalent of a round trip – and at most 2.5 trips, and (4) the complications it would impose on revenue sharing, we do not recommend implementation of a best fare strategy in San Diego at the present time. For riders unable or unwilling to purchase a full 30-Day Pass, the introduction of the 14-Day Pass offers a reasonable alternative. Moving to rolling passes also relieves riders of the need to lay out the pass payment at the same time of the month that they have other large payments. Thus, it is felt that these two strategies should be implemented now, and their impact on low-income riders' use of passes should be monitored through questions included in future on-board surveys. The potential to introduce some form of best fare should be revisited once Compass Card has been fully implemented, and the revenue implications can be better understood.

### ***Potential for Market-Based Pricing***

The pricing of transit services is generally based on a combination of *policy* and *market*-based considerations. On the policy side, fare levels are driven by the balance between the need to cover some portion of the cost of providing service and the need to stay within publicly- (and politically) acceptable and affordable limits. This balance reflects the transit agency's unique position as providing what is essentially a public good while being forced to operate as a business. Although transit is substantially subsidized, the agencies must carefully manage their costs and maximize their revenues – while simultaneously seeking to maximize ridership. Fares are an important element affecting both the revenue and ridership side of the equation.

### **Potential for Expanding Market-Based Pricing**

Of course, most transit agencies offer a range of services, and serve a range of markets. Fares may be differentiated based on *type of service* (e.g., local vs. express bus or bus vs. rail), *distance* (e.g., zones) and/or *time of day* (peak premium or off-peak discount). Indeed, fares in the San Diego region are differentiated by type of service as well as distance. In differentiating by type of service, an agency is also typically practicing a form of *market-based* pricing.<sup>10</sup> For example, the fact that services such as COASTER and MTS Premium Express have much higher fares than local and urban services is attributed to a large extent to the longer trips served as well as the higher quality of service provided (fewer stops, more comfortable seats, etc.) However, the reality is that the more expensive commuter-oriented services also tend to serve more affluent communities than do the local and urban services. Users of the high quality commuter services generally have higher incomes – often much higher – than regular users of other services. For instance, according to the 2003 On-Board Survey, 61% of COASTER riders had household incomes of \$60,000 or more. This is in stark contrast to the overall ridership on all services: only 10% had household incomes of \$60,000 or more; 67% of overall riders reported household incomes under \$30,000, as compared to only 13% of COASTER riders. This raises the question as to whether there is potential to charge even higher fares for the premium services.

With regard to willingness to pay, research on the elasticities of different types of service indicates that local bus fare elasticity tends to be on the order of twice the typical elasticity for heavy and commuter rail service.<sup>11</sup> In other words, the higher income users of premium services are considerably less sensitive to

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<sup>10</sup> Note that the phrase “market-based pricing” has previously been defined somewhat differently in the literature. In particular, TCRP Report 10 (*Fare Policies, Structures and Technologies*) identified market-based pricing as “another type of differentiated pricing. . . This strategy offers differential fares according to frequency of use and willingness to prepay.” As described in that report, market-based pricing strategy typically includes some combination of period passes and discounted tickets, tokens or stored value farecards. Such a strategy provides the agency an opportunity to target different market segments (e.g., frequent vs. occasional riders). We use the phrase in a different sense here.

<sup>11</sup> TCRP Report 95, *Traveler Response to Transportation System Changes -- Chapter 12: Transit Pricing and Fares*, TRB, 2004, p. 12-11.

price than are users of local services. This suggests a willingness to pay higher fares, but in fact the fares for COASTER and MTS Premium Bus are already more than twice the BREEZE and MTS Local Bus fares. Whether there is a tolerance for an even greater differential for the premium services will depend on factors such as the following:

- *The perceived quality of the services* – To what extent do riders and potential riders view services such as COASTER, MTS Premium Bus and the forthcoming BRT service as being of very high quality (in terms of such factors as reliability of service, cleanliness of vehicles and waiting areas, comfort in vehicles and waiting areas, in-station and in-vehicle traveler information, perceived safety and security)? Can additional amenities be provided (e.g., personalized traveler information service, in-vehicle wi-fi service, more comfortable seats, more leg room, in-seat food/beverage service)?
- *The cost of competing service* – What is the prevailing cost of gasoline? What is the cost of parking at the destination locations (e.g., downtown)?
- *Travel conditions* – Has traffic congestion increased in the major travel corridors?

With regard to the nature of possible fare adjustments, two basic approaches might be considered,:

- Raise the price on all fare options on the premium services -- For instance, the COASTER/Premium Express/BRT fare could be increased from its projected 2013 levels (\$5-6.50 single ride fare, \$14 Day Pass and \$144-182 Monthly Pass) to \$6-8/\$17/\$175-220. An even greater increase to \$7-9/\$20/\$200-255 would produce additional revenue.
- Increase only the Monthly Pass price – The breakeven level for the Premium Monthly Passes (at 2013 recommended pricing) is lower than that for local service (28-28.8 vs. 30.2). If the Premium Monthly Pass breakeven level were increased to 30, the new pass price would be \$150-195. Raising the breakeven level to, say, 33 would result in a pass price of \$165-215, for additional revenue.

Thus, market-based pricing adjustments offer the potential to produce considerable revenue.

### Concerns Regarding Market-Based Pricing

While expanded market-based pricing certainly has merit as a means of generating additional revenue, there are also arguments for keeping fares relatively low (i.e., at or near the current levels), even on the commuter services. Maximizing ridership helps to achieve regional, state and federal goals related to single occupant vehicle trip reduction – and thus reducing greenhouse gas emissions and traffic congestion. Contributing to these goals may not directly contribute to the transit agencies' revenue, but it represents a key element of the region's overall demand management strategy. While many commuters may be willing to pay higher fares for commuter services, very high fares will inevitably depress demand.

The transit agencies must also consider the fact that these services also have a significant number of low income riders – particularly reverse commuters traveling to jobs in the suburbs. Since there are very limited alternative low fare services between north and south parts of the county, charging very high fares for reverse commuting would present an equity issue. Higher fares on the commuter services would therefore likely have to be offset by offering reduced fares for reverse commuters – or reduced fares on these services for low-income riders regardless of direction. Introducing directional pricing differentials could prove confusing to riders, especially since the differentials would be reversed in the afternoon. Offering reduced fares for low-income riders would require some form of means testing, and, as explained above,

two-thirds of transit users in the region – and 13% on the COASTER alone -- have household incomes under \$30,000, and would thus presumably qualify for reduced fare status. Certifying low-income riders would therefore be an administrative nightmare. A longer-term alternative to these options might be to implement two classes of service on the commuter routes, similar to the situation on many intercity rail lines and on some European and Asian transit services. This would allow riders willing to pay more for higher quality service to opt for the “first-class” car or section. This approach should be feasible on multi-vehicle services such as COASTER, but could be difficult to achieve on an individual bus (i.e., MTS’ Premium Express).

Thus, SANDAG, MTS and NCTD could certainly consider charging higher premiums for the highest quality services in future years (perhaps once the BRT lines have been implemented). However, in doing so, the agencies would have to address the impact of such a strategy on low-income riders. A potential method for implementing market-based pricing is described below.

### **Implementing Market-Based Pricing through Fare Adjustment Guidelines**

One possible approach for implementing market-based pricing would be to establish a set of fare adjustment guidelines. Such guidelines can be based on various factors (e.g., inflation, availability of transit funding, ridership trends among key market segments, other economic indicators such as unemployment levels or sales tax receipt levels.) However, one method that would explicitly facilitate the application of market-based pricing would be to establish minimum farebox recovery ratios that differ by service category. For instance, SANDAG could establish two different farebox ratios: one for premium services and a lower one for other services. Under the terms of this guideline, SANDAG would be directed, say, to review the farebox recovery ratios of the two groups of service once a year. One or more fare elements (single ride fare, Day Pass, 14- and 30-Day Pass) in each category would then be adjusted as needed to achieve the minimum farebox ratio (i.e., based on the use of the Fare Model to estimate revenue and comparison with projected operating costs). The key to achieving a more market-based pricing structure would be to set the premium service farebox ratio at a high enough level (perhaps as high as 50%) to drive those fares higher than they are now.

An alternative fare adjustment guideline would be to annually review the rate of inflation (e.g., Consumer Price Index or some other indicator of the cost of living) in the region since the most recent fare adjustment. SANDAG, in conjunction with the operating agencies, would then decide whether any (or all) fare elements should be raised to keep pace with inflation. In any type of fare guideline, though, fare changes should be done in “round numbers” or convenient increments; for example, changes to the single ride fare should be in \$0.05 increments, day passes in \$0.25 increments, and multi-day passes in dollar increments. The inflation approach could be used to facilitate market-based pricing by perhaps deciding to adjust only the premium service fares at the time of the annual review. A third alternative is to essentially combine the first two. In such an approach, the farebox recovery ratios would represent the primary factors driving possible fare increases. However, even if the ratios were found to be meeting the minimum levels, the inflation levels would also be considered, and fares could be adjusted accordingly.

In summary, expanding the use of market-based pricing appears to be theoretically feasible, given the lower sensitivity to fares of users of premium services. The extent to which riders will be willing to pay even higher fares than are currently in place will depend on the perceived quality of the services (e.g., can amenities been improved), as well competing costs such as the price of gasoline. One way to facilitate setting higher fares for these services (i.e., increasing the differential compared to local/urban fares) would be to establish fare adjustment guidelines that set minimum farebox recovery ratios – and with a higher requirement for premium services than for non-premium services. However, if this approach is pursued, it may also be necessary to somehow offer lower fares for low-income reverse commuters.

SANDAG intends to further pursue the concept of market based fares and has applied for a grant from the Federal Highway Administration under a program to develop value pricing for urban transportation. The grant application was submitted in November 2009, and SANDAG is now awaiting a decision. The grant application covers economic and behavioral research into the impact of market based fares on transit ridership in face of the new reality of high gasoline prices and competition with managed lanes in the I-15 Corridor. The grant seeks funds for research and development of a pilot program to assess the impact of market based fares on ridership and the potential to use the additional revenue to fund more non-market based transit services.

### *Accelerated Unification of Fares*

The initial proposal was that NCTD cash and monthly pass prices should be increased over 5 years to match the level of MTS. However due to the current financial problems at NCTD, it was decided that two alternative timetables for unification should be examined. The first alternative proposes attaining unification in a single year with replacement of the BREEZE/SPRINTER monthly pass with the Regional Monthly Pass and bus and light rail fares rising to \$2.25 and \$2.50 respectively. The projected impacts for 2010 are a 13% revenue increase and a 3% ridership loss. This represents approximately \$200,000 more revenue and loss of 46,000 additional riders than is projected for that year in the recommended structure. Alternative 2 assumes implementation of all recommended changes by 2011, rather than 2013. The projected impacts for 2011 are a 14% revenue increase and a 4% ridership loss. This represents approximately \$27,000 more revenue and loss of 13,000 additional riders than is projected for that year in the recommended structure. (Additional detail on the results of the modeling of these two alternatives is shown in Appendix F.)

## 4.6-Preliminary Fare Structure Recommendations

Using the revised MTS fare structure as the new baseline, the consulting team next recalibrated the Fare Model to reflect the revisions. A number of new scenarios were developed and modeled to gauge the relative impact on revenue and ridership of changes in each of the above elements. In particular, extensive modeling of Trolley pricing alternatives was done. Alternatives were developed involving no zones, 2 zones (+ the Downtown Zone), 3 zones (+ the Downtown zone), 4 zones (+ the Downtown Zone), and retention of all current zones. A comparison of the ridership and revenue results revealed that a "3 zones" alternative would generate the most revenue in Years 1 and 2, but beginning in Year 3 (2011), a "no zones" alternative would produce considerably more revenue each year than any of the zoned alternatives. A no zones alternative was projected to lose fewer riders than both the 3 zone and 4 zone alternatives in Years 1 and 2, but then would lose the greatest number of riders in the subsequent years; however, the number of riders lost in those years was estimated to be very close to the other alternatives. Based on the estimated impacts, coupled with the qualitative evaluation results described in Appendix D, a no zone structure (retaining the Downtown Zone) was selected as the preferred alternative; the actual pricing details are discussed below.

Thus, based on the review of the revised modeling results and further discussion among representatives of the three agencies – with input from the consulting team -- the following preliminary recommendations were made regarding the above fare elements:

- *Trolley Zones* -- It was agreed that the Trolley zones should be eliminated -- except that the Downtown Zone should be retained. However, there remained two alternatives regarding the fare level and transfer policy:
  - \$2.50 single ride fare, with free transfers (for 2 hours) among Trolley lines, or
  - \$2.25, with no free transfers.

Ultimately, the former alternative was selected, and implemented in July 2008. This was seen as positioning Trolley in line with MTS' Express bus (also priced at \$2.50) as a class of service that is superior in quality to Local or Urban bus.

- *Compass Card differential:* The operating agencies opposed any discount or bonus associated with using Compass Card, feeling that it would result in lost revenue. Thus, it was agreed that, at least initially, there would be no differential when using Compass Card, including no stored value purchase bonus. However, as discussed below, the consulting team's final recommendations call for introduction of a 5% bonus (when loading \$10 or more of stored value on a Compass Card), to be implemented in July 2009.
- *14-Day vs. 7-Day pass:* It was recommended that a 14-Day pass be introduced once Compass Card has been fully rolled out.
- *Retention of NCTD-only Day Pass:* The preliminary recommendation was to initially retain the NCTD-only Day Pass, with a small price increase over the current level -- \$4.50 vs. the current \$4. This change was accepted and implemented in July 2008. However, as discussed below, the consulting team's final recommendations call for elimination of the NCTD-only Day Pass in January 2009; this recommendation has been adopted by SANDAG.
- *Introduction of a COASTER Day Pass:* The preliminary recommendation was to not offer a separate COASTER Day Pass at the present time. However, as discussed below, the consulting team's final recommendations call for introduction of a COASTER Day Pass in July 2009.
- *Senior Age:* It was recommended that the senior age be increased a year at a time beginning in 2010, but to leave it at the current age 60 until then. As noted in the Peer Review, the San Diego agencies have the lowest minimum senior age among the regions reviewed; the majority define senior as 65 or over. The projected revenue and ridership impacts of adopting this recommendation are summarized in the following table; as indicated, it is expected to generate substantial revenue (2% increase region-wide), with a relatively small ridership loss (1%).

#### Impact of Increasing Senior Eligibility Age

Year and Senior Eligibility Age	MTS		NCTD		Region	
	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
<b>Year 1 -- Senior Age 61</b>						
Total	\$64,525,690	74,925,719	\$11,815,884	10,073,606	\$76,341,574	84,999,324
Impact of Change	\$274,794	-133,071	\$36,356	-15,053	\$311,150	-148,124
Percent Impact	0%	0%	0%	0%	0%	0%
<b>Year 2 -- Senior Age 62</b>						
Total	\$64,800,484	74,792,648	\$11,852,240	10,058,553	\$76,652,724	84,851,201
Impact of Change	\$549,588	-266,142	\$72,712	-30,106	\$622,301	-296,247
Percent Impact	1%	0%	1%	0%	1%	0%
<b>Year 3 -- Senior Age 63</b>						
Total	\$65,075,279	74,659,577	\$11,888,596	10,043,500	\$76,963,875	84,703,077
Impact of Change	\$824,383	-399,213	\$109,069	-45,158	\$933,451	-444,371
Percent Impact	1%	-1%	1%	0%	1%	-1%
<b>Year 4 -- Senior Age 64</b>						
Total	\$65,350,073	74,526,506	\$11,924,952	10,028,447	\$77,275,025	84,554,953
Impact of Change	\$1,099,177	-532,283	\$145,425	-60,211	\$1,244,602	-592,495
Percent Impact	2%	-1%	1%	-1%	2%	-1%
<b>Year 5 -- Senior Age 65</b>						
Total	\$65,624,867	74,393,435	\$11,961,308	10,013,394	\$77,586,175	84,406,830
Impact of Change	\$1,373,971	-665,354	\$181,781	-75,264	\$1,555,752	-740,618
Percent Impact	2%	-1%	2%	-1%	2%	-1%

- *ADA Paratransit fare:* A recommendation was made to amend the Fare Ordinance to say “up to double the fixed route fare,” but to not specify a cap on the ADA fare. This recommendation was adopted by SANDAG in July 2008.
- *Calendar period vs. “rolling” passes:* The recommendation was that the new 14-Day pass should be of the rolling, activate on first use variety, and that monthly passes should be converted to 30-Day rolling passes. This recommendation has been adopted by SANDAG.

The resulting structure, presented in Table 14, represents more or less a consensus among management/staff of the three agencies. This table thus shows the fare structure changes that have been implemented as of September 2008. As indicated in the table, these changes are projected to result in an estimated combined 5% gain in fare revenue for MTS and NCTD, coupled with a 1% ridership loss; these figures covered through the end of 2008. Longer-term recommendations and estimated revenue/ridership impacts are discussed below.

#### 4.7 Development of Final Fare Restructuring Recommendations

Based on the recommended – and adopted -- fare structure changes described above, the consulting team developed recommended fare restructuring scenarios for future years (through January 2013). Some of these recommendations have been adopted by SANDAG, while others are still under consideration at this point. If ultimately adopted, the latter recommendations will be addressed in the next Fare Ordinance revision. Table 15 summarizes the fare structure changes developed during this study; the recommendations are separated into three categories, as shown: (1) those adopted by SANDAG and already implemented, (2) those adopted by SANDAG and scheduled to be implemented within the next year and (3) those that have not yet been adopted. A few optional recommendations are also shown; these are still under discussion.

The key recommended future changes are summarized below, by fare category. For each recommendation, the basic rationale – with regard to the goals/evaluation criteria addressed -- is also provided. The recommended future fare structure scenarios, by year, are presented in Tables 16-20.

##### Single Ride Fares

- The MTS Local Bus fare would rise to equal the Urban Bus fare (\$2.25). This ties into the goals to (1) simplify the fare structure, by establishing uniform fares by service category, and (2) make it easier for operating personnel to administer fares, by reducing the number of fare differentials. *Status: implemented Jan. 2009.*
- The COASTER fare would rise to \$5.00-6.50; the low end would thus equal the MTS Premium Express fare. This ties into the goals to simplify the fare structure, by establishing uniform fares by service category. *Status: implemented Jan. 2009.*
- A 5% stored value bonus would be introduced. The bonus would be received when loading \$10 or more of value to a Compass Card. This ties into the goals to (1) maximize prepayment, by providing a financial incentive to prepay, and (2) to provide new fare options that take advantage of Compass Card technology. *Status: recommended for implementation in July 2009.*

The BREEZE and Sprinter fares would rise to \$2.25; this would bring the BREEZE and MTS Bus fares in line. This ties into the goal to (1) simplify the fare structure, by establishing uniform fares by service category, and (2) promote seamless interagency travel, by reducing the differences between the agencies' fares. *Status: recommended for implementation by Jan. 2011. (Optional recommendation: unify MTS Bus/BREEZE fare at \$2.25 and Sprinter/Trolley fare at \$2.50 in July 2009).*

Table 14 -- New Fare Structure (July 2008; min. senior age = 60)

*indicates change from existing*

Service Category	Service	Single Ride Fare*		Day Pass		14-Day Pass		30-Day Pass		
		Regular/ Youth	Sr/ Dis/ Med	Regular/ Youth	Sr/ Dis/ Med	Regular	Sr/ Dis/ Med	Regular	Sr/ Dis/ Med	Youth
Local	MTS Bus Local	\$2.00	\$1.00	\$5.00	N/A	NA	N/A	\$64.00	\$16.00	\$32.00
	MTS Bus Urban	\$2.25	\$1.10	\$5.00	N/A	NA	NA	\$64.00	\$16.00	\$32.00
	BREEZE	\$2.00	\$1.00	\$4.50	\$2.25	NA	N/A	\$59.00+	\$16.00	\$32.00
Corridor	Trolley**	\$2.50	\$1.25	\$5.00	N/A	NA	N/A	\$64.00	\$16.00	\$32.00
	Sprinter	\$2.00	\$1.00	\$4.50	\$2.25	NA	N/A	\$59.00	\$16.00	\$32.00
	MTS Express	\$2.50	\$1.25	\$5.00	N/A	NA	N/A	\$64.00	\$16.00	\$32.00
Regional	MTS Prem. Express	\$5.00	\$2.50	\$11.00	N/A	NA	N/A	\$90.00	NA	\$45.00
	COASTER***	\$4.50-6.00	\$2.25-3.00	NA	N/A	N/A	N/A	\$129-168	\$42.00	\$84.00
Rural	MTS (2 zones)	\$5.00-10.00	\$2.50-5.00	N/A	N/A	N/A	N/A	\$90.00	NA	\$45.00
	NCTD	\$2.00	\$1.00	N/A	N/A	NA	N/A	\$59.00	\$16.00	\$32.00
Community	MTS Shuttle	\$1.00	\$0.50	\$5.00	N/A	NA	N/A	\$64.00	\$16.00	\$32.00
	MTS Downtown	\$1.25	\$0.60	\$5.00	N/A	NA	N/A	\$64.00	\$16.00	\$32.00
	MTS COASTER Conn.	\$1.00	\$0.50	\$5.00	N/A	N/A	N/A	\$40.00	\$10.00	\$20.00
Paratransit	MTS Access	\$4.50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	MTS Suburban Access	\$4.00	NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NCTD LIFT	\$4.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\*No transfers between vehicles or services (except between Trolley lines); separate fare (or pass) required for each boarding. No Compass Card bonus.

\*\*Trolley -- No "zones;" but free transfers between Trolley lines. Downtown Zone retained.

\*\*\*COASTER -- 4 zones (same as current structure)

+NCTD-only: Regional/MTS passes also accepted on BREEZE, Sprinter and NCTD Rural service; no NCTD-only S/D or Youth passes

College passes: College Monthly Pass (MTS) = \$51.20, BREEZE College Pass = \$49; College Semester Pass = \$1.34/day

Estimated Revenue and Ridership Impacts (4 months: September 2008 - December 2008)

Adult/ Youth	MTS		NCTD		REGION	
	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$13,145,353	9,098,213	\$2,727,299	1,928,347	\$15,872,652	11,026,560
Alternative	\$14,027,634	8,953,580	\$2,937,965	1,877,042	\$16,965,599	10,830,621
Change	\$882,281	-144,633	\$210,666	-51,306	\$1,092,947	-195,939
% Change	7%	-2%	8%	-3%	7%	-2%
Total (with Sr./Dis.)	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$20,638,001	25,199,743	\$3,801,242	3,392,115	\$24,439,243	28,591,858
Alternative	\$21,583,223	25,042,805	\$4,016,951	3,341,196	\$25,600,174	28,384,001
Change	\$945,222	-156,938	\$215,710	-50,919	\$1,160,931	-207,857
% Change	5%	-1%	6%	-2%	5%	-1%

Table 15 -- Summary of Fare Recommendations and Implementation Schedule

Recommendation		Recommendations Adopted by SANDAG, Implemented Prior to July '08	Recommendations Adopted by SANDAG, Implemented/to be Implemented by Jan. '09	Recommendations from Consultant for Adoption in Next Fare Ordinance Revision (Post-Jan. '09)
1	Eliminate MTS & NCTD to MTS Transfers & Replace with Day Pass	Jan-08		
2	Eliminate MTS Express bus pass	Jan-08		
3	Increase Fare for Regional Premium Monthly Pass	Pass raised from \$85 to \$90 Jan-08		
4	Increase MTS Cash Bus Fares	Urban fare raised to \$2.25 Jan-08		
5	Unify MTS bus fares except Comm. Shuttle, Express and Prem. Express at \$2.25		Fares unified at \$2.25 Jan-09	
6	Increase Regional Premium Cash Fare	Fare raised to \$5.00 Jan-08		
7	Eliminate Trolley Zone Fares (Keep Downtown Fare)		Flat fare implemented Jul-08	
8	Increase all COASTER fares		15% increase in Jul 08, again in Jan-09	
9	Adopt federal language for ADA Paratransit fares		Language adopted for July-08	
10	Standardize Senior/Disabled/Medicare cash fares at 50% of regular fare		S/D/M Fares adopted by Sep-09	
11	Allow COASTER and Premium monthly passes to be accepted on rural services		Change adopted Jul-08	
12	Increase Price of Regional Monthly Pass	Pass raised to \$64 Jan -08	Pass Raised from \$68 Jan-09	
13	Eliminate \$4.50 NCTD Day Pass in favor of Regional Day Pass of \$5.00		To be Implemented Jan-09	
14	Create separate Premium Senior/Disabled/Medicare 30 day Pass for seniors and youth		To be implemented Jan-09	
15	Convert regional monthly passes to 30 day rolling passes (activate on first use)		Jan-09	
16	Introduce 14 Day Regional Pass priced at 60% of 30 day pass		Jan-09	
17	Create a COASTER Day Pass and unification with MTS Premium Day Pass			Jul-09
18	Raise Breeze/Sprinter 30 day Pass to \$63 by '10, eliminate in favor of Regional Pass (\$68) by '13.			Jul-09 begin transition
19	Create Senior/Disabled/Medicare Regional Day Pass at \$2.50			Jul-10
20	Raise NCTD fare from \$2.00 to \$2.25 by 2010, then \$2.25 for bus, \$2.50 for Sprinter by 2013			Jul-09 begin transition
21	Add Compass Card stored value bonus (when loading \$10 or more) = 5% of value loaded			Jul-09
22	Increase Premium Express Monthly Pass to \$120 by January 2010, and \$140 by January 2011.			Jan-10 - Jan-11
23	Inc. senior.-eligibility age from current age (60) 1 yr per yr. over 5 years (to 65) so no one loses existing eligibility			Begins '10, requires amendment of TransNet Ord.
24	Set fares for I-15 BRT Premium Express equivalent to first 3 zones of COASTER			Implement with Opening of BRT in 2012
25	Set fares for I-15 BRT Local Express to be equivalent to MTS Express .			With Opening of BRT in 2012
26	Eliminate Hotel Passes and Tokens			Eliminate by July 2009
<b>Optional Recommendations</b>				<b>Optional SANDAG Recommendations for Adoption in Next Ordinance Rev. (Post-Jan.'09)</b>
27	Unify MTS Bus/BREEZE and SPRINTER/Trolley Cash Fares			Breeze to \$2.25 ; Sprinter to \$2.50 July 09
28	Replace BREEZE/SPRINTER Pass with Regional Pass			Jul-09
29	Increase Premium Express Pass to \$120 in July-09, \$140 in July-10			Jul-09

Table 16 -- Recommended New Fare Structure (Jan. 2009; min. senior age = 60)

*indicates change from existing*

Service Category	Service	Single Ride Fare		Day Pass		14-Day Pass*		30-Day Pass		
		Regular/ Youth	Sr/ Dis/ Med	Regular/ Youth	Sr/ Dis/ Med	Regular	Sr/ Dis/ Med	Regular	Sr/ Dis/ Med	Youth
Local	MTS Bus (Local/Urban)	\$2.25	\$1.10	\$5.00	N/A	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	BREEZE	\$2.00	\$1.00	\$5.00	\$2.25	\$41.00	N/A	\$59.00+	\$17.00	\$34.00
Corridor	Trolley	\$2.50	\$1.25	\$5.00	N/A	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	Sprinter	\$2.00	\$1.00	\$5.00	\$2.25	\$41.00	N/A	\$59.00	\$17.00	\$34.00
	MTS Express	\$2.50	\$1.25	\$5.00	N/A	\$41.00	N/A	\$68.00	\$17.00	\$34.00
Regional	MTS Prem. Express	\$5.00	\$2.50	\$11.00	N/A	NA	N/A	\$90.00	\$22.50	\$60.00
	COASTER	\$5-6.50	\$2.50-3.25	NA	N/A	N/A	N/A	\$144-182	\$45.00	\$91.00
Rural	MTS (2 zones)	\$5.00-10.00	\$2.50-5.00	N/A	N/A	N/A	N/A	\$90.00	\$22.50	\$60.00
	NCTD	\$2.00	\$1.00	N/A	N/A	\$41.00	N/A	\$59.00	\$17.00	\$34.00
Community	MTS Shuttle	\$1.00	\$0.50	\$5.00	N/A	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	MTS Downtown	\$1.25	\$0.60	\$5.00	N/A	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	MTS COASTER Conn.	\$1.00	\$0.50	\$5.00	N/A	N/A	N/A	\$40.00	\$10.00	\$20.00
Paratransit	MTS Access	\$4.50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NCTD LIFT	\$4.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\*14- and 30-Day passes are "rolling passes" (i.e., activated on first use and valid for 14 or 30 consecutive days beginning at that point).  
 +NCTD-only; Regional/MTS passes also accepted on BREEZE, Sprinter and NCTD Rural service

Estimated Revenue and Ridership Impacts (2009)

Adult/ Youth	MTS		NCTD		REGION	
	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$ 39,436,059	27,294,638	\$ 8,181,898	5,785,042	\$ 47,617,957	33,079,680
Alternative	\$ 42,821,872	26,657,492	\$ 9,291,709	5,528,084	\$ 52,113,580	32,185,576
Change	\$ 3,385,813	-637,146	\$ 1,109,811	-256,959	\$ 4,495,623	-894,104
% Change	9%	-2%	14%	-4%	9%	-3%
Total (with Sr./Dis.)	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$ 61,914,004	75,599,229	\$ 11,403,725	10,176,346	\$ 73,317,729	85,775,574
Alternative	\$ 66,307,262	74,722,921	\$ 12,660,622	9,892,485	\$ 78,967,884	84,615,406
Change	\$ 4,393,258	-876,307	\$ 1,256,897	-283,861	\$ 5,650,155	-1,160,168
% Change	7%	-1%	11%	-3%	8%	-1%

Table 17 -- Recommended New Fare Structure (Jan. 2010; min. senior age = 61)

*indicates change from existing*

Service Category	Service	Single Ride Fare*		Day Pass		14-Day Pass		30-Day Pass		
		Regular/ Youth	Sr/ Dis/ Med	Regular/ Youth	Sr/ Dis/ Med	Regular	Sr/ Dis/ Med	Regular	Sr/ Dis/ Med	Youth
Local	MTS Bus (Local/Urban)	\$2.25	\$1.10	\$5.00	\$2.50+	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	BREEZE	\$2.25+	\$1.10+	\$5.00	\$2.50+	\$41.00	N/A	\$63.00++	\$17.00	\$34.00
Corridor	Trolley	\$2.50	\$1.25	\$5.00	\$2.50+	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	Sprinter	\$2.25+	\$1.10+	\$5.00	\$2.50+	\$41.00	N/A	\$63.00++	\$17.00	\$34.00
	MTS Express	\$2.50	\$1.25	\$5.00	\$2.50+	\$41.00	N/A	\$68.00	\$17.00	\$34.00
Regional	MTS Prem. Express	\$5.00	\$2.50	\$14.00	N/A	NA	N/A	\$120.00	\$22.00	\$60.00
	COASTER**	\$5-6.50	\$2.50-3.25	\$14.00	N/A	N/A	N/A	\$144-182	\$45.00	\$91.00
Rural	MTS (2 zones)	\$5.00-10.00	\$2.50-5.00	N/A	N/A	N/A	N/A	\$120.00	\$22.00	\$60.00
	NCTD	\$2.00	\$1.00	N/A	N/A	\$41.00	N/A	\$63.00++	\$17.00	\$34.00
Community	MTS Shuttle	\$1.25	\$0.60	\$5.00	\$2.50+	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	MTS Downtown	\$1.75	\$0.85	\$5.00	\$2.50+	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	MTS COASTER Conn.	\$1.00	\$0.50	\$5.00	\$2.50+	N/A	N/A	\$40.00	\$10.00	\$20.00
Paratransit	MTS Access	\$4.50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NCTD LIFT	\$4.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\* 5% bonus when loading \$10 or more on Compass Card.

\*\*COASTER Day Pass to be implemented July 2009.

+Implemented July 2009

++NCTD-only; Regional/MTS passes also accepted on BREEZE, Sprinter and NCTD Rural service

Estimated Revenue and Ridership Impacts (2010)

Adult/ Youth	MTS		NCTD		REGION	
	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$ 39,436,059	27,294,638	\$ 8,181,898	5,785,042	\$ 47,617,957	33,079,680
Alternative	\$ 43,807,625	26,496,248	\$ 9,267,834	5,528,750	\$ 53,075,459	32,024,999
Change	\$ 4,371,566	-798,390	\$ 1,085,936	-256,292	\$ 5,457,502	-1,054,682
% Change	11%	-3%	13%	-4%	11%	-3%
Total (with Sr./Dis.)	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$ 61,914,004	75,599,229	\$ 11,403,725	10,176,346	\$ 73,317,729	85,775,574
Alternative	\$ 67,564,293	74,429,473	\$ 12,683,733	9,874,307	\$ 80,248,026	84,303,781
Change	\$ 5,650,289	-1,169,755	\$ 1,280,008	-302,038	\$ 6,930,297	-1,471,794
% Change	9%	-2%	11%	-3%	9%	-2%

Table 18 -- Recommended New Fare Structure (Jan. 2011; min. senior age = 62)

*indicates change from existing*

Service Category	Service	Single Ride Fare		Day Pass		14-Day Pass		30-Day Pass		
		Regular/ Youth	Sr/ Dis/ Med	Regular/ Youth	Sr/ Dis/ Med	Regular	Sr/ Dis/ Med	Regular	Sr/ Dis/ Med	Youth
Local	MTS Bus (Local/Urban)	\$2.25	\$1.10	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	BREEZE	\$2.25	\$1.10	\$5.00	\$2.50	\$41.00	N/A	\$63.00*	\$17.00	\$34.00
Corridor	Trolley	\$2.50	\$1.25	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	Sprinter	\$2.25	\$1.10	\$5.00	\$2.50	\$41.00	N/A	\$63.00	\$17.00	\$34.00
	MTS Express	\$2.50	\$1.25	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
Regional	MTS Prem. Express	\$5.00	\$2.50	\$14.00	N/A	NA	N/A	\$140.00	\$22.00	\$75.00
	COASTER	\$5-6.50	\$2.50-3.25	\$14.00	N/A	N/A	N/A	\$144-182	\$45.00	\$91.00
Rural	MTS (2 zones)	\$5.00-10.00	\$2.50-5.00	N/A	N/A	N/A	N/A	\$140.00	\$22.00	\$75.00
	NCTD	\$2.25	\$1.10	N/A	N/A	\$41.00	N/A	\$59.00	\$17.00	\$34.00
Community	MTS Shuttle	\$1.25	\$0.60	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	MTS Downtown	\$1.75	\$0.85	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	MTS COASTER Conn.	\$1.00	\$0.50	\$5.00	\$2.50	N/A	N/A	\$40.00	\$10.00	\$20.00
Paratransit	MTS Access	\$4.50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NCTD LIFT	\$4.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\*NCTD-only; Regional/MTS passes also accepted on BREEZE, Sprinter and NCTD Rural service; no NCTD-only S/D or Youth passes

Estimated Revenue and Ridership Impacts (2011)

Adult/ Youth	MTS		NCTD		REGION	
	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$ 39,436,059	27,294,638	\$ 8,181,898	5,785,042	\$ 47,617,957	33,079,680
Alternative	\$ 43,808,031	26,496,143	\$ 9,431,742	5,485,220	\$ 53,239,773	31,981,362
Change	\$ 4,371,972	-798,495	\$ 1,249,844	-299,823	\$ 5,621,816	-1,098,318
% Change	11%	-3%	15%	-5%	12%	-3%
Total (with Sr./Dis.)	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$ 61,914,004	75,599,229	\$ 11,403,725	10,176,346	\$ 73,317,729	85,775,574
Alternative	\$ 68,048,360	74,258,220	\$ 12,923,746	9,806,611	\$ 80,972,106	84,064,832
Change	\$ 6,134,356	-1,341,008	\$ 1,520,021	-369,734	\$ 7,654,377	-1,710,743
% Change	10%	-2%	13%	-4%	10%	-2%

Table 19 -- Recommended New Fare Structure (Jan. 2012; min. senior age = 63)

*indicates change from existing*

Service Category	Service	Single Ride Fare		Day Pass		14-Day Pass		30-Day Pass		
		Regular/ Youth	Sr/ Dis/ Medicare	Regular/ Youth	Sr/ Dis/ Medicare	Regular	Sr/ Dis/ Medicare	Regular	Sr/ Dis/ Medicare	Youth
Local	MTS Bus (Local/Urban)	\$2.25	\$1.10	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	BREEZE	\$2.25	\$1.10	\$5.00	\$2.50	\$41.00	N/A	\$63.00**	\$17.00	\$34.00
Corridor	Trolley	\$2.50	\$1.25	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	Sprinter	\$2.25	\$1.10	\$5.00	\$2.50	\$41.00	N/A	\$63.00**	\$17.00	\$34.00
	MTS Express/BRT (Local)*	\$2.50	\$1.25	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
Regional	MTS Prem. Exp/BRT (Premium)*	\$5-6.00	\$2.50-3.00	\$14.00	N/A	NA	N/A	\$144-172	\$22.00	\$75.00
	COASTER	\$5-6.50	\$2.50-3.25	\$14.00	N/A	N/A	N/A	\$144-182	\$45.00	\$91.00
Rural	MTS (2 zones)	\$5.00-10.00	\$2.50-5.00	N/A	N/A	N/A	N/A	\$144.00	\$22.00	\$75.00
	NCTD	\$2.25	\$1.10	N/A	N/A	\$41.00	N/A	\$63.00**	\$17.00	\$34.00
Community	MTS Shuttle	\$1.25	\$0.60	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	MTS Downtown	\$1.75	\$0.85	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	MTS COASTER Conn.	\$1.00	\$0.50	\$5.00	\$2.50	N/A	N/A	\$40.00	\$10.00	\$20.00
Paratransit	MTS Access	\$4.50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NCTD LIFT	\$4.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\*BRT lines expected to open in late 2011 or 2012. Local Express fare = MTS Express fare; Premium Express will be 3 fare zones, matching 1st 3 COASTER fare zones.

\*\*NCTD-only; Regional/MTS passes also accepted on BREEZE, Sprinter and NCTD Rural service; no NCTD-only S/D or Youth passes

Estimated Revenue and Ridership Impacts (2012)

Adult/ Youth	MTS		NCTD		REGION	
	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$ 39,436,059	27,294,638	\$ 8,181,898	5,785,042	\$ 47,617,957	33,079,680
Alternative	\$ 43,846,427	26,491,441	\$ 9,431,742	5,485,220	\$ 53,278,169	31,976,661
Change	\$ 4,410,368	-803,197	\$ 1,249,844	-299,823	\$ 5,660,212	-1,103,020
% Change	11%	-3%	15%	-5%	12%	-3%
Total (with Sr./Dis.)	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$ 61,914,004	75,599,229	\$ 11,403,725	10,176,346	\$ 73,317,729	85,775,574
Alternative	\$ 68,354,248	74,122,316	\$ 12,958,957	9,791,788	\$ 81,313,204	83,914,104
Change	\$ 6,440,244	-1,476,912	\$ 1,555,232	-384,558	\$ 7,995,475	-1,861,470
% Change	10%	-2%	14%	-4%	11%	-2%

Table 20 -- Recommended New Fare Structure (Jan. 2013; min. senior age = 64)

indicates change from existing

Service Category	Service	Single Ride Fare*		Day Pass		14-Day Pass*		30-Day Pass*		
		Regular/ Youth	Sr/ Dis/ Med	Regular/ Youth	Sr/ Dis/ Med	Regular	Sr/ Dis/ Med	Regular	Sr/ Dis/ Medicare	Youth
Local	MTS Bus (Local/Urban)	\$2.25	\$1.10	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	BREEZE	\$2.25	\$1.10	\$5.00	\$2.50	\$41.00	N/A	\$68.00*	\$17.00	\$34.00
Corridor	Trolley	\$2.50	\$1.25	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	Sprinter	\$2.50	\$1.25	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	MTS Express/BRT (Local)	\$2.50	\$1.25	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
Regional	MTS Prem. Exp/BRT (Premium)	\$5-6.50	\$2.50-3.25	\$14.00	N/A	NA	N/A	\$144-172	\$22.00	\$75.00
	COASTER	\$5-6.50	\$2.50-3.25	\$14.00	N/A	N/A	N/A	\$144-182	\$45.00	\$91.00
Rural	MTS (2 zones)	\$5.00-10.00	\$2.50-5.00	N/A	N/A	N/A	N/A	\$144.00	\$22.00	\$75.00
	NCTD	\$2.25	\$1.10	N/A	N/A	\$41.00	N/A	\$68.00	\$17.00	\$34.00
Community	MTS Shuttle	\$1.25	\$0.60	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	MTS Downtown	\$1.75	\$0.85	\$5.00	\$2.50	\$41.00	N/A	\$68.00	\$17.00	\$34.00
	MTS COASTER Conn.	\$1.00	\$0.50	\$5.00	\$2.50	N/A	N/A	\$40.00	\$10.00	\$20.00
Paratransit	MTS Access	\$4.50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NCTD LIFT	\$4.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\*NCTD-only pass eliminated

Estimated Revenue and Ridership Impacts (2013)

Adult/ Youth	MTS		NCTD		REGION	
	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$ 39,436,059	27,294,638	\$ 8,181,898	5,785,042	\$ 47,617,957	33,079,680
Alternative	\$ 43,846,427	26,491,441	\$ 9,502,422	5,465,859	\$ 53,348,849	31,957,300
Change	\$ 4,410,368	-803,197	\$ 1,320,524	-319,184	\$ 5,730,892	-1,122,381
% Change	11%	-3%	16%	-6%	12%	-3%
Total (with Sr./Dis.)	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$ 61,914,004	75,599,229	\$ 11,403,725	10,176,346	\$ 73,317,729	85,775,574
Alternative	\$ 68,621,740	73,991,114	\$ 13,064,847	9,757,604	\$ 81,686,586	83,748,718
Change	\$ 6,707,736	-1,608,115	\$ 1,661,122	-418,742	\$ 8,368,857	-2,026,857
% Change	11%	-2%	15%	-4%	11%	-2%

- MTS' BRT service is expected to open in late 2011 or 2012. The fare for the Premium Express portion of this service would be set equal to COASTER's first 3 zones, or \$5.00-6.00. This ties into the goals to (1) simplify the fare structure, by establishing uniform fares by service category, and (2) relate fare to distance traveled. The fare for the Local Express portion of the service would be set equal to the MTS Express fare (\$2.50). *Status: recommended for implementation by Jan. 2012.*
- The Sprinter fare would eventually rise to \$2.50, equaling the Trolley and MTS Express Bus fares. This ties into the goals to (1) simplify fares, by establishing uniform fares by service category, and (2) promote seamless interagency travel, by reducing the differences between the agencies' fares. *Status: recommended for implementation by Jan. 2013.*

## Day Passes

- The BREEZE-only Day Pass would be eliminated in favor of the Regional Day Pass. This ties into the goals to (1) simplify fares, by establishing uniform fares by service category, (2) promote seamless interagency travel, by reducing the differences between the agencies' fares, and (3) make it easier for operating personnel to administer fares, by reducing the number of fare differentials. *Status: implemented in Jan. 2009.*
- A Senior/Disabled/Medicare Regional Day Pass (\$2.50) would be introduced. This ties into the goal to insure that fares are equitable re key market segments, and also relates to concern re meeting FTA half-fare requirements. The impact of a senior/disabled day pass was estimated by identifying which categories of riders would benefit from the day pass (i.e., generally individuals making round trips 6 or fewer times per month) and estimating the percentage of revenue lost from each rider (i.e., after considering that the lower fare will encourage these riders to travel more often). We then used past survey data to estimate what portion of the senior/disabled riders fall into these categories and calculated the resulting loss in senior/disabled revenue. Our final estimate of revenue loss from a senior/disabled Day Pass is approximately \$200,000 per year. This loss will decrease incrementally each year that the minimum age to qualify as a senior rises. *Status: recommended for implementation in July 2010.*
- A Premium Regional Day Pass (\$14), accepted on MTS Premium Express and COASTER, would be introduced.. This ties into the goal to promote seamless interagency travel, by establishing a uniform transfer policy and making fares the same in both directions. *Status: recommended for implementation by July 2009.*

## 14- and 30-Day Passes

- A rolling Regional 14-Day Pass would be introduced in conjunction with the rollout of the Compass Card program. The 14-Day Pass would be defined in the Fare Ordinance to be priced at approximately 60% of the price of the Regional 30-Day Pass (rounded to the nearest dollar). Thus, the initial 14-Day Pass would be \$41. This ties into the goals to (1) insure that fares are equitable re key market segments, by addressing the needs of low-income riders,(2) improve customer convenience, and (3) provide new fare options that take advantage of Compass Card technology. *Status: to be implemented with Compass Card implementation.*
- The regular adult Regional 30-Day Pass would be increased to \$68 in Jan. 2009. This ties into the goal to maintain/increase revenue. *Status: implemented in Jan. 2009.*

- The COASTER 30-Day Pass would be increased to \$144-182 (in line with the single ride increase). This ties into the goal to maintain/increase revenue. *Status: implemented in Jan. 2009.*
- Regional 30-Day Passes would become rolling, activate on first use in conjunction with the rollout of the Compass Card program. This ties into the goals to (1) improve customer convenience, and (2) provide new fare options that take advantage of Compass Card technology. *Status: SANDAG has adopted plan to offer both calendar and rolling passé; a rolling pass will be activated on purchase.*
- MTS Premium Express and Rural 30-Day Passes would rise to \$120 in 2010, and then to \$140 in 2011. In 2012, Rural passes would increase to \$144, and MTS Premium Express/BRT passes would be set at \$144-172. This ties into the goals to (1) simplify fares, by establishing uniform fares by service category, (2) promote seamless interagency travel, by reducing the differences between the agencies' fares, and (3) maintain/increase revenue. *Status: recommended for implementation by Jan. 2012. (Optional recommendation: increase Premium Express Pass to \$120 in July 2009 and to \$140 in July 2010).*
- The NCTD-only 30-Day Pass would rise to \$63 in 2011, and then be eliminated in 2013 (i.e., in favor of the Regional Pass.) This ties into the goals to (1) simplify fares, by establishing uniform fares by service category, (2) make it easier for operators to administer fares, by reducing the number of fare differentials, (3) promote seamless interagency travel, by reducing the differences between agencies' fares, and (4) maintain/increase revenue. *Status: recommended for implementation by Jan. 2013. (Optional recommendation: eliminate NCTD-only Pass in July 2009).*

Thus, these changes are designed to eventually (by 2013) create a uniform regional fare structure, with common fares throughout the region within the major service categories (Local, Corridor and Regional; Rural, Community and Paratransit would continue to have some differences in fares). As indicated in the tables, the changes are also projected to generate a substantial revenue increase compared to the current fare structure (roughly 11% for MTS and NCTD combined by 2013), and with a relatively small loss of ridership (approximately 2% by 2013).

## 5. Development of Revenue-Sharing Recommendations

This chapter discusses the development of *revenue-sharing options* for the San Diego region.

### 5.1 Task Activities

In this task, the consultant team developed revenue-sharing options that facilitate the equitable allocation of fare revenue between MTS and NCTD. The key activities in the task were as follows:

- *Identify revenue-sharing issues and types of approaches* -- The consulting team reviewed the existing goals and procedures for revenue-sharing in the San Diego region, the data that is --- and will in the future be -- available for revenue-sharing calculations, and revenue-sharing methodologies that are used in other regions. Based on this information, the team identified revenue-sharing issues and alternative types of approaches that could be used to allocate fare revenue between MTS and NCTD.
- *Develop revenue-sharing options for the region* -- Based on the above, as well as consideration of the operating agency concerns regarding revenue-sharing, the team developed a set revenue-sharing options for the region.
- *Identify recommended strategy* -- The consultant team evaluated the four options and identified a recommended new revenue-sharing strategy for the region.

### 5.2 Identify Revenue-Sharing Issues and Types of Approaches

#### Goals of Revenue-Sharing

Revenue-sharing strategies are designed to address two very different goals. One common goal is to fairly allocate revenue from a fare medium that is used by two or more transit agencies. "Equity" is generally seen as considering both the amount of service consumed by riders and the value of the service consumed. The other common goal is to at least partially subsidize service operated by one agency that has a disproportionate benefit to another agency. In the San Diego region, the current revenue allocation methodology for the Regional Monthly Pass is focused on achieving the first goal, while the 5% allocation to MTS from COASTER revenues was designed to achieve both goals: compensating MTS for allowing riders to transfer from COASTER, and especially for providing COASTER Connection service, which has not had a separate fare. With the introduction of a fare on all COASTER Connection service, there is no longer a need for either agency to subsidize service provided by the other. The principal goal of the revenue-sharing strategies therefore becomes to equitably allocate revenue from fare media that can be used by riders on both agencies. In addition, SANDAG, MTS and NCTD have all expressed a strong desire for a verifiable and auditable revenue-sharing methodology.

#### Current San Diego Revenue-Sharing Strategies

Currently, the San Diego region has separate revenue-sharing formulas for the Adult Pass, the Senior/Disabled and Youth Passes, each type of ticket revenue, token revenue and COASTER fare revenue. For all of the formulas, except for some types of tickets and the COASTER revenue, the allocation is in proportion to the actual number of trips on each agency's services using that fare medium -- or for special event scratch-off tickets based on the use of Day Trippers. Some ticket revenue is allocated only to the Trolley, as it is the principal (or in one case, the only) place these tickets are used. COASTER revenue is allocated according to a formula, in part to subsidize COASTER Connection service operated by MTS.

## Revenue-Sharing Strategies Used by Other Agencies

A wide-variety of revenue-sharing strategies are used in other regions in North America. Table 21 summarizes the basic revenue-sharing strategies utilized at the peer agencies/regions reviewed earlier in this study. In general, the selection of revenue-sharing strategies is primarily driven by the objectives of the revenue-sharing and by the availability of ridership data. When the objective of revenue-sharing is to subsidize a service benefiting a different agency, or when ridership data is extremely limited, the revenue-sharing strategy tends to be based on a simple ratio. Examples of this are the current 5% allocation to MTS from the COASTER fare revenues and the CTA/Pace (Chicago) agreement, where CTA pays Pace a set amount annually to honor its passes.

Where better ridership information is available, revenue-sharing strategies are generally driven more by this information. For example, in the Los Angeles area agencies submit the number of boardings made using the regional fare media and they are paid an amount equal to the number of boardings times the agency's average fare. In Portland, at the end of the year, each of the two agencies bills the other for trips taken using the other agency's fare media. The amount each owes equals the number of boardings multiplied by an agreed-upon price per trip. Interestingly, though, Tri-Met and C-TRAN use different methods for determining the number of trips: Tri-Met does an annual survey of riders, while C-TRAN deploys a dedicated button on the farebox for accepting Tri-Met fare media. The other regions show variations on these methods.

The best ridership information should come with use of a smart card, like Compass Card, where the agencies will not only have accurate totals of ridership with the smart cards (provided that the fare collection rules are enforced), but also information on how frequently each specific card is used.

## Data Available

With the implementation of the new fareboxes and Compass Card, it is our understanding that the following information will be available for use in revenue-sharing formulas:

- Boardings by route by fare medium
- Fare media sold on board by route
- Fare media sold other than on board
- Compass Card boardings by route and fare medium

In addition, the use of each Compass Card can be tracked separately. For example, if a rider loads a pass on a Compass Card, it will be possible to tell how frequently the rider uses the services of each of the operating agencies, and thus to calculate the equivalent of the total single ride fares that the rider would have paid to each agency if he/she had not used the pass. This will allow the agencies to calculate whether passes purchased and used primarily in North County are used with a different average frequency than those passes that are purchased and used primarily in South County.

Table 21 -- Peer Agency Revenue Allocation Arrangements

	Operators	Revenue Allocation Arrangement/Methodology
San Diego	MTS NCTD	SANDAG is responsible for allocating and distributing revenue from all regional fare media to MTS and NCTD. Revenue is distributed based on a set of formulae covering the different fare media; there are different formulae for different types of media (e.g., adult passes, senior/disabled/youth passes, tickets, tokens, COASTER tickets/passes), as well as TransNet pass subsidies.
Chicago	CTA Pace Metra	Pace agreed to honor all CTA unlimited ride passes for a specific lump sum payment each year, which is not tied to ridership or fare levels. As a result of CTA's fare change in January 2006, the use of CTA passes on Pace has greatly increased and the agencies are negotiating changes to their agreement. Pace also honors CTA Chicago Card and Chicago Card Plus on most Pace routes under a separate agreement calling for CTA to reimburse Pace the full Pace fare for each such trip. Pace and CTA also both have agreements with Metra to sell Metra riders a deeply discounted pass, but there is no revenue sharing between Metra and the other agencies for these passes; Metra receives its ticket or pass revenue and CTA or Pace receive the revenue from their transit pass.
Los Angeles	Metro Metrolink municipal operators	A total of 21 agencies (Metro and 20 local bus operators) accept a common monthly pass (EZ transit pass). Certain express/commuter services (e.g., Metro's Freeway Express) require a premium stamp or zone fare upgrade. EZ transit pass isn't accepted on Metrolink, but valid Metrolink tickets/passes are accepted by most of the participating agencies. Each participating agency submits monthly boardings (i.e., those made using EZ transit pass) to Metro. They then receive payment equal to the number of boardings X their average fare (as calculated based on the previous year).
Minn./St. Paul	Metro Transit other operators in region	All of the operators in the region are part of the regional fare system, and thus have a common fare structure and accept common fare media. Metro Council is responsible for allocating and distributing regional fare revenue among the operators.
Portland	TriMet C-TRAN	TriMet and C-TRAN accept certain of each other's fare media. The agencies have simplified their revenue allocation method. The basic process is that, at the end of each year, each agency bills the other for trips taken using the other's fare media. Each bill is calculated by multiplying the number of trips by an agreed-upon price per trip. Each agency has retained the right to use its own method for determining the number of trips taken using the other's media. C-TRAN uses a specific button on its fareboxes for accepting TriMet fare media. TriMet uses an annual survey of ridership and fare media use to estimate the number of trips taken using C-TRAN fare media.
Sacramento	RT Capitol Corridor Inter. Rail other local operators	Six agencies have transfer connections and agreements with RT. In most of these cases, RT fare media are accepted for boarding partner agency buses. Agencies with commuter bus service typically levy a surcharge on RT media (paid in cash or with a sticker on RT pass). Transferring to RT generally requires RT fare media. For cash fares transferring to RT, agencies are provided with RT transfers to distribute as needed. Where an RT pass is honored on connecting service, rider must generally have an RT pass for riding both services. Interagency agreements define formulae for revenue sharing; typically involves RT paying other agency (based on periodic surveys or passenger counts) for riders boarding agency's bus with RT fare media. Formula deducts revenue in those cases where RT transfers are issued on partner agency buses.
Seattle	KC Metro Sound Transit other operators in region	All of the agencies have a common basic fare structure with fares that are multiples of \$0.25. The region offers a total of 13 passes with "face values" of \$0.50 - \$4.00, each of which is valid on all services with a fare below the face value of the pass, and as a credit against the fare on all services with fares greater than the pass. Each pass is priced 36 times its single-ride face value. Each agency retains all revenue from cash payments (initial boardings, transfers and upgrades) and from fare media valid only on that system. Most agencies don't record which regional pass is accepted, so revenue from sales of each of the 13 passes is separately allocated among the agencies based on results of a 2004 regional on-board survey. If an agency changes its fare structure, the agencies have agreed to modify the values of the passes available and renegotiate the revenue allocation. For FlexPass, GoPass and U-Pass, KC Metro collects all revenue and pays other agencies that honor those passes an agreed on price per boarding.
Toronto	TTC GO Transit other operators in region	Greater Toronto Area (GTA) weekly regional pass (\$43) is good for unlimited rides on TTC Subway/Bus, and Brampton, Mississauga, and York RT buses. TTC gets 1/4 of cost of its monthly Metropass; balance is dist. among the other 3 operators. (the amount factored into the cost of the pass has been determined by each operator). If cash customers wish to cross jurisdictions, they must pay appropriate full fare with each boarding; however, GO Transit has an agreement with each of the other operators. (not TTC) - called "co-fare" - whereby customers pay \$0.50 to ride to or from a GO station on another operator's bus. GO reimburses the operator the difference between \$0.50 and the full cash fare; GO does this to avoid expanding parking facilities. TTC operates some bus service within York Region. TTC is reimbursed full cost of service minus fares collected.
Vancouver	TransLink	All services administered and supported financially by TransLink. All TransLink fare media accepted on Community Shuttles and W. Vancouver Transit. All fare revenue from TransLink fare media comes back to TransLink; subsidies are provided to the subsidiary operating companies, and there are revenue-sharing agreements between TransLink and the contract operators (i.e., Community Shuttles and W. Vancouver Transit).

sources: Individual agencies

Passes that are not loaded on a Compass Card, such as Day Passes bought on board buses, will not be able to be tracked individually. Thus, it will be possible to identify the number of Day Passes sold by each agency --- as well as the number of boardings using Day Passes on each service -- but not to conclusively determine whether there are different patterns of use in North County vs. South County.

## Revenue-Sharing Issues and Types of Approaches

There are three basic strategic issues in developing revenue-sharing approaches for the region:

- Whether to allocate all revenue together or to allocate the revenue from each fare medium separately
- To what extent revenue allocation should be based on actual use or sales of fare media
- How revenue should be allocated when riders transfer from an expensive corridor service (e.g., COASTER or the future BRT service) to a less expensive collector / distributor service.

The current procedure in the San Diego region is to allocate the revenue from each fare medium separately. An alternative would be to allocate all revenue together, which would be a simpler and cleaner process. For example, it could be as simple as taking the total revenue from regionally-honored fare media and allocating it to each agency based on value of all trips provided by that agency to riders with regionally-honored fare media. However, this approach would have several significant disadvantages. First, it would ignore differences in trip-making behavior, such as the frequency of use of passes, between the two agencies and among different fare media. Second, it would not take advantage of Compass Card data, which will allow the agencies to identify these differences in ridership behavior between the two agencies. Third, it would interject considerable uncertainty into the revenue allocation process at a time when the fare structure is changing significantly, and riders will thus be changing their choice of fare media and frequency of using transit.

The issue of basing revenue-sharing on the use or sale of fare media also reflects the concern regarding differences in ridership patterns between South County and North County. Such differences represent a common concern with agencies entering into regional fare agreements, and is commonly addressed through the use of average revenue per boarding in the fare allocation formulas. For fare media based on the Compass Card, it will be possible to allocate revenue based on the actual use of each fare medium, and also to calculate an average revenue per boarding that can then be used to allocate the revenue from fare media that are not on Compass Card.

It has been proposed that all passes -- other than Day Passes purchased on a bus by an individual without a Compass Card -- will eventually be provided only on a Compass Card. Therefore, in the future there will be three basic categories of fare payment method:

- *Cash*, which will always be retained by the agency receiving it
- *Paper Day Passes*, including both the current Regional Day Pass and the potential future Premium Day Pass
- *Compass Card-based Passes*, including all passes other than Paper Day Passes

Within both the Paper Day Passes and the Compass Card-based Passes categories, there will be two subcategories:

- Regular Regional Passes, valid for the full fare only on Local Bus, Trolley and Sprinter, although they are accepted on some premium services with the payment of an upgrade charge (e.g., Transfer to COASTER tickets)
- Premium Regional Passes, including COASTER Passes and Premium Express Passes

For Compass Card-based payment options, the fare system will be able to track and report the number of boardings made by each pass, by service and operator. For paper Day Passes, the fare system will be able to report the total number of Day Pass boardings pass on each route, but will be unable to identify the number and type of boardings made by each individual pass.

Alternative revenue-sharing options are discussed in the next section.

### 5.3 Develop Revenue-Sharing Options for the Region

Thus, there is a range of possible revenue-sharing strategies that could be adopted by the region. Based on the above information, as well as consideration of the concerns of the operating agencies, the consulting team developed four revenue-sharing options for the region:

- **Option A** – This Option generally reflects a continuation of the current regional revenue-sharing strategy, i.e., most fare media are allocated based on total boardings by fare medium at MTS versus NCTD.
- **Option B** – SANDAG would allocate revenue each year as part of the general budgeting process. The allocation would be applied to all fare revenue, regardless of the type of fare medium or where it was used.
- **Option C** – This Option would group passes into three categories -- MTS only, NCTD only, and used on both agencies -- with only the revenue from passes used on both agencies being allocated between the agencies based on boardings. The grouping would initially be done based on surveys and the location of pass sales (especially onboard sales of day passes), but could eventually be done based on data from Compass Card. For premium fare media (e.g., COASTER passes and Premium Day Passes) only an amount equal to the base regional pass (i.e., the \$68 30-Day Pass or \$5 Day Pass) would be shared, while the rest of the cost of the pass would be allocated to the premium service.
- **Option D** – This Option utilizes data on individual pass use that will be available with Compass Card to allocate the revenue from each pass separately. Surveys of payment methods would also be used, at least initially, to determine the accuracy of the data. Each pass would be allocated based on boardings made and the base cash fare of the services boarded, so that revenue from passes used entirely on one agency would be allocated to that agency.

Following a discussion of these options with the Technical Advisory Committee, a fifth revenue-sharing option was developed:

- **Option E** – This Option utilizes data on individual pass use that will be available with Compass Card to allocate the revenue from a sample of passes. Surveys of payment methods would also be used, at least initially, to determine the accuracy of the data. Each pass would be allocated based on boardings made and the average fare of the classes of service boarded, so that revenue from passes used entirely on one agency would be allocated to that agency.

In addition to the above options, the consultant team considered other approaches for allocating revenue on shared trips between the agencies. Our review of the potential basic approaches looked at whether the approach:

- In some way relates to the value of the service consumed by the rider
- Would require significant data collection
- Is based on a clear, verifiable formula and would not require excessive calculation
- Could reasonably be applied to each separate fare instrument (i.e., each individual pass or stored value card)

One of the approaches considered – and ultimately rejected -- was to allocate revenue on interagency trips on the basis of the distance traveled on each agency's service. This approach does relate to some extent to the value of the service consumed by the rider. However, applying this to all interagency trips would require a significant data collection effort to identify the average length of travel of riders making interagency transfers; the alternative would be to use average trip length data developed for the FTA National Transit Database (NTD) reporting purposes for *all* riders on each type of service. For some services, such as COASTER, there is probably not a significant difference between the average trip length of all riders and the average trip length of riders making interagency transfers, but on other services, such as the Trolley, there is probably a significant difference in trip lengths. Therefore, there would likely be a need for significant data collection regarding average trip length by transferring riders. Furthermore, if the agencies wanted to allocate the revenue from each rider based on his or her actual travel, it would be desirable to know the distance that rider traveled on each service, rather than rely on averages from surveys. This travel distance could theoretically be calculated for riders using the Compass Card – but only if the agencies implemented a requirement that riders tap their card when entering and leaving each transit vehicle. A “tap on/tap off” requirement was considered in conjunction with the introduction of Compass Card, but was rejected because of the concern that it would significantly slow the alighting process on both rail and bus; it would also add significantly to the cost of implementing Compass Card (i.e., due to the need to install smart card readers at all bus rear doors and likely adjacent to every Trolley door). Indeed, the decision to eliminate the Trolley zones obviated the need for tap on/tap off. The data and calculation issues with this approach could be resolved if the agencies simply agreed on a value for the average length of transfer trips, but in that case this would really become an example of revenue-sharing based on an agreed upon formula -- not one based directly on trip data. For these reasons, a distance-based revenue sharing approach was not considered further.

Options A-E are discussed below. The advantages/disadvantages are discussed in Section 5.4.

### Option A – Continuation of Current Approach

Revenue-sharing Option A generally reflects the current revenue-sharing strategy, except where there is a major change proposed to a fare medium, such as the proposed eventual elimination of the NCTD-only Day Pass. The approach under this Option for each type of fare medium is as follows:

**Cash and Stored Value:** Continue current process of each agency retaining all cash received, including cash from sales of upgrades (e.g., Transfer to COASTER tickets), as well as all stored value fare payments received.

**Compass Card-Based Passes, except Premium Express and COASTER Passes:** Continue current process for allocating revenues:

- Allocate the revenue from the adult Regional Passes in proportion to boardings with each pass
- Allocate 5% of the revenue from Premium Express Pass in proportion to the allocation of revenue from the adult regional pass of the same length
- Allocate the revenue from senior/disabled/Medicare and youth Regional Passes in proportion to boardings with each pass

**Compass Card-Based Premium Fare Media (i.e., Premium Express and COASTER Passes):** Continue current process for allocating revenues:

- Allocate 95% of the revenue from Premium Express Passes in proportion to boardings with this pass
- Allocate 5% of the revenue from the COASTER Passes to MTS and 95% to NCTD

**Paper Day Passes, excluding the Premium Day Pass:** Allocate all revenue from each pass to the agency in whose service area the pass was sold. (The most recent survey of Routes 101 & 350 showed that NCTD sold 11 more Regional Day Passes that were used on MTS than MTS sold that were used on NCTD – a difference of \$55 on that day. Assuming that this day was generally representative, this means that this simple method would misallocate only approximately \$11,000 per year, which could easily be exceeded by the cost of administering a more complex and accurate method of allocating revenue.)

**Paper Premium Day Passes:** Match current process for allocating revenues from the Premium Express Monthly Pass:

- Allocate 95% of the revenue from Premium Day Passes in proportion to boardings on premium services with this pass.
- Allocate 5% of the revenue from Premium Day Passes in proportion to boardings on non-premium services with this pass.

Thus, this Option essentially represents a continuation of the current revenue-sharing strategy. It does not rely on detailed information being available regarding the use of each separate Compass Card.

## **Option B – Allocation Based on Total Fare Revenue**

Revenue-sharing Option B would entail each agency retaining all cash and stored value used on its system and SANDAG allocating regional revenue each year as part of the budgeting process. In doing this SANDAG would, after consulting with the MTS and NCTD:

- (1) Establish target revenue allocations for each agency from all regional fare media and
- (2) Establish a formula for how all agencies would share any deficit or surplus in total revenue.

For example, the target allocation for each agency that is developed during budgeting could be based on the total ridership at each agency or could be the amount that SANDAG estimates would be distributed to each agency during the current year, adjusted for any fare increase. The formula for allocating and deficit or

surplus could be to share those in the same proportion as the target revenue allocations. Therefore, if, for instance, SANDAG estimated that \$50,000,000 in regional pass revenue would be distributed in a particular year -- \$40,000,000 to MTS and \$10,000,000 to NCTD -- and there are no planned fare changes that year, the target revenue allocation for the following year would be the same and any deficit or surplus would be shared in the same proportion: in this case, 80% to MTS and 20% to NCTD.

In contrast to Option B the other three options all allocate revenue from each fare medium separately.

### Option C – Allocation Based on Fare Categories and Surveys

Revenue-sharing Option C uses additional data from surveys (or eventually the Compass Card) to supplement the data on total boardings by fare medium that is used in Option B. By doing so, it attempts to address some of the concerns regarding the current strategy and the differences in ridership behavior between users of the two agencies' services. It does this by dividing riders using each type of pass into three groups -- those using MTS services only, those using NCTD services only, and those using services of both agencies -- and then allocating revenue from each group of pass riders separately. For premium passes, it only allocates revenue equal to the price of the non-premium pass (e.g., the \$68 30-Day Pass and the \$5 Day Pass) to all trips, while the revenue from the balance of the pass price is only allocated to premium service. The approach under this Option for each type of fare medium is as follows:

**Cash:** Continue current process of each agency retaining all cash received, including cash from sales of upgrades (e.g., Transfer to COASTER tickets), as well as all stored value fare payments received

#### *Compass Card-Based Passes, except Premium and COASTER Passes:*

1. Based on an annual survey or Compass Card data, split riders into three categories: NCTD services only, MTS services only, and both services. Calculate the average boardings by the surveyed riders for each category of pass on each type of service provided. Then calculate the average revenue per boarding (price of the pass divided by average total boardings) for each category of riders for each service.
2. Multiply the total pass boardings each month on each service by the average pass revenue per boarding to calculate a tentative allocation.
3. If the total revenue received from the sale of passes is different from the total of the tentative allocations, allocate total pass revenue in proportion to the tentative allocations to each agency.

For an example of this strategy for this category, assume that the annual survey reports that, for 30-Day Pass riders: (1) 10% use both services and average 50 boardings on each agency (100 total), (2) 15% use NCTD only and average 50 boardings and (3) 75% use MTS only and average 64 boardings

- With a \$64 pass, the average revenue per boarding for each group is: (1) Riders using both services \$0.64, (2) Riders using only NCTD \$1.28, and (3) Riders using only MTS \$1.00
- The average revenue per boarding is (1) \$0.966 on MTS and (2) \$1.024 on NCTD
- If there are 5,000,000 30-Day Pass boardings on MTS and 1,250,000 30-Day Pass boardings on NCTD, the tentative allocations would be: (1) MTS -- 5,000,000 boardings \* \$0.966 = \$4,830,000 (or 79% of the total); and (2) NCTD -- 1,250,000 boardings \* \$1.024 = \$1,280,000 (or 21% of the total)
- Actual revenue from the 30-Day Pass would be allocated in proportion to these tentative allocations

***Compass Card-Based Premium Fare Media (i.e., Premium Express and COASTER Passes):***

1. Based on an annual survey or Compass Card data, split riders into four categories: COASTER only, COASTER plus bus/Trolley/SPRINTER, MTS Premium Express only, and MTS Premium Express plus other bus/Trolley/SPRINTER. Calculate the average boardings by the surveyed riders for each category of pass on each type of service provided. Calculate separate allocations of an amount equal to the non-premium, Regional 30-Day Pass (allocated across all boardings) and the premium amount of the pass (allocated only to the premium service).
  - a. Use an amount equal to the price of the non-premium Regional 30-Day Pass to calculate an average revenue per boarding (price of the Regional 30-Day Pass divided by average total boardings), counting each boarding on a non-premium service as ½ of a boarding to reflect the differences in the fares.
  - b. Use the difference between the price of the premium pass and the price of the non-premium Regional Pass to calculate the additional revenue per boarding for the premium services, considering only premium (Premium Express and COASTER) services.
2. Perform the same calculations for the Premium Day Pass
3. Multiply the total pass boardings each month on each service by the average pass revenue per boarding to calculate a tentative allocation.
4. If the total revenue received from the sale of a category of passes is different from the total of the tentative allocations, allocate total pass revenue in proportion to the tentative allocations to each agency

For an example of this strategy for this category, assume that the annual survey reports that for 30-Day 3-Zone COASTER Pass riders: (1) 50% use both services and average 40 COASTER boardings and 40 Trolley boardings (80 total); and (2) 50% use COASTER only and average 40 COASTER boardings

- Allocate the non-premium portion of the revenue across all trips taken -- With a \$64 pass, the average revenue per boarding for each group would be: (1) Riders using both services -- \$1.067 on COASTER and \$0.533 on Trolley; and (2) Riders using only NCTD -- \$3.875 on COASTER
- Allocate the premium portion of the revenue across the premium trips taken -- \$2.275 for each COASTER boarding
- If there are 500,000 30-day COASTER 3-Zone Pass boardings on MTS Trolley and 1,000,000 30-Day 3-Zone Pass boardings on COASTER, the tentative allocations would be: (1) MTS -- 500,000 boardings \* \$0.533 = \$266,500; and (2) NCTD -- 1,000,000 boardings \* \$3.875 = \$3,875,000
- Revenue from the 30-Day 3-Zone Pass would be allocated in proportion to these tentative allocations.

***Paper Day Passes:*** At least once a year SANDAG would conduct a survey of Day Pass use on bus routes that cross the transit service area boundary between MTS and NCTD. Each transit operator would retain 100% of the revenue earned from the sale of paper Regional Day Passes within its service area on board buses and at TVMs -- unless the following conditions have occurred (as determined by the SANDAG survey)

- (1) The number of paper Regional Day Passes purchased on NCTD and used on MTS buses exceeds by more than 10% the number of paper Regional Day Passes sold by MTS and used on NCTD buses; or (2) the number of paper Regional Day Passes purchased on MTS and used on NCTD buses exceeds by more than 10% the number of paper Regional Day Passes sold by NCTD and used on MTS buses.
- If the 10% margin is exceeded and there is a difference of more than 25 passes per weekday between the number of passes sold on each system, the revenue from the number of passes in the imbalance would be shared equally between the two operators. The number of Day Passes used annually would be calculated by SANDAG based on the ratio of Day Passes to other fares and applied to the annual ridership.

For an example of the process for this fare media category, we have used data from a recent survey of routes 101 and 350. This survey found that NCTD sold 11 more Regional Day Passes that were used on MTS than MTS sold for use on NCTD. The 11 Day Passes represent 10% of the total number of Day Passes bought on NCTD and used on MTS. Therefore no revenue sharing would be required. The total difference in passes per weekday is also less than 25, which again would mean that no revenue sharing would be required.

A second example assumes that a survey found that NCTD sold 28 more Regional Day Passes used on MTS than MTS sold that were used on NCTD – and that this represents 11% of the total passes sold by MTS that were used on NCTD. Revenue sharing would be required as it exceeds 10% and 25 passes.

Thus, Option C uses a combination of data sources to address some of the concerns with Option A. Like Options A and B, it does not rely on detailed information being available regarding the use of each separate Compass Card.

### Option D – Rate Prorate Allocation Based on Individual Riders, Cash Fares and Surveys

In revenue-sharing Option D, the full value of each pass is allocated among all the trips made with it, with the allocation based on boardings and the price of each service. In addition, revenue-sharing Option D takes advantage of the data on ridership by each individual pass that will be available with the implementation of Compass Card. This option has the potential to most accurately reflect actual use of each fare medium at each agency. However, the accuracy of the detailed use data from the Compass Card cannot be determined until the system is in actual use. Surveys of fare payment methods would thus be necessary, at least initially, to corroborate the accuracy of Compass Card data. Moreover, given that, for the foreseeable future, Day Passes will be available in both a paper/magnetic and a Compass Card version, it would be necessary to establish a separate strategy for paper passes.

**Cash:** Continue current process of each agency retaining all cash received, including cash from sales of upgrades (e.g., Transfer to COASTER tickets), as well as all stored value fare payments received.

#### *Compass Card-Based Passes, except Premium Express and COASTER Passes:*

- Calculate for each individual pass the value of the service consumed (number of boardings times the base cash fare) on each agency's services. Revenue from each pass would be split between MTS and NCTD in proportion to the value of services consumed. Therefore, if a pass were used entirely on a single agency, all revenue from that pass would be allocated to that agency.

- If ridership on a specific service were determined to be systematically underreported by the fare system (i.e., as shown by a survey jointly conducted and paid for by SANDAG and the concerned agency), an adjustment factor would be applied to all trips taken on that service. For instance, if the survey showed that the fare system underreported Trolley trips by 10%, all trips taken on the Trolley system would be valued as 1.1 boardings for the purposes of the above calculation. Passes that are not used for any trips on the Trolley would be unaffected by this adjustment.

Examples of this strategy for this category are as follows:

- A 30-Day Pass is used to board NCTD buses 28 times – all revenue from that pass would be allocated to NCTD.
- A 14-Day Pass is used to board NCTD buses 22 times (value of service is  $22 * \$2.25$  in 2009) and Trolley 10 times (value of service is  $10 * \$2.50$ ) AND a survey has been conducted showing that the fare system is underreporting Trolley pass boardings by 10% -- revenue from that pass would be allocated 64% to NCTD (\$50 value of service) and 36% to MTS (\$27.50 value of service (after adjusting for the undercount)).

***Compass Card-Based Premium Fare Media (i.e., Premium Express, COASTER, and Premium Regional Day Passes):***

- Calculate for each pass the value of the service used on each agency, boardings times cash fare. Revenue from each pass would be split between MTS and NCTD in proportion to the value of service provided that rider. Therefore, if a pass is used entirely on a single agency, all revenue from that pass would be allocated to that agency.
- If ridership on a specific service were determined to be systematically underreported by the fare system (i.e., as shown by a survey jointly conducted and paid for by SANDAG and the concerned agency), an adjustment factor would be applied to all trips taken on that service. For instance, if the survey showed that the fare system is underreporting Premium Bus trips by 10%, all trips taken on Premium Bus service would be valued as 1.1 boardings for the purposes of the above calculation. Passes that are not used for any trips on the Premium Bus service would be unaffected by this adjustment.

Examples of this strategy for this category are as follows:

- A 30-Day COASTER Pass is used to board COASTER 40 times – all revenue from that pass would be allocated to NCTD/COASTER.
- A 30-Day 3-Zone COASTER Pass is used to board COASTER 40 times and Trolley 40 times, and the survey shows there is no underreporting: (1) The value of service on COASTER is  $40 * \$5.50 = \$220$ ; and (2) The value of service on Trolley is  $40 * \$2.50 = \$100$ . Thus, the \$155 pass would be allocated 68.8% ( $220/320$ ) to NCTD (\$106.56) and 31.2% ( $100/320$ ) to MTS (\$48.44).
- A 30-Day 3-Zone COASTER Pass is used to board COASTER 40 times and Trolley 40 times, AND a survey has been conducted showing that the fare system is underreporting Trolley pass boardings by 10%: -- (1) The value of service on COASTER is  $40 * \$5.50 = \$220$ ; and (2) The value of service on Trolley is  $40 * 1.1 * \$2.50 = \$110$ . Thus, the \$155 pass would be allocated 2/3 ( $220/330$ ) to NCTD (\$103.33) and 1/3 ( $110/330$ ) to MTS (\$51.67)

*Paper Day Passes:*

- Calculate separate average revenue allocations for Compass Card-based non-premium Day Passes that are sold on NCTD and on MTS, based on the process discussed above for non-premium passes (including valuing every boarding equally).

Examples of this strategy for this category are as follows:

- Assume Compass Card-based non-premium Day Passes that are sold on NCTD are used 98% on NCTD and 2% on MTS -- all revenue from non-premium Day Passes sold on NCTD that are not on Compass Card would be allocated in the same proportions.
- Assume Compass Card-based non-premium Day Passes that are sold on MTS are used 99% on MTS and 1% on NCTD -- all revenue from non-premium Day Passes sold on MTS that are not on Compass Card will be allocated in the same proportions.

Thus, unlike the other three, this Option would rely on the types of detailed information that will be available regarding the use of each separate Compass Card.

### **Option E – Rate Prorate Allocation Based on Sampled Individual Riders, Average Fare and Surveys**

Revenue-sharing Option E was derived from Option D to address a concern that Option D comparatively undervalued COASTER service. This issue is addressed by using average revenue per trip on COASTER and other services. This option also entails analyzing a 10% sample of Compass Card passes. Like Option D, it takes advantage of the data on ridership by each individual pass that will be available with the implementation of Compass Card, and also uses surveys, at least initially, to corroborate the accuracy of Compass Card data.

**Cash:** Continue current process of each agency retaining all cash received, including cash from sales of upgrades (e.g., Transfer to COASTER tickets), as well as all stored value fare payments received.

#### *Compass Card-Based Passes, except Premium Express and COASTER Passes:*

- Identify the percentage of passes in each category that are used solely on MTS or solely on NCTD service, and allocate the revenue from those passes to the appropriate agency.
- For each other pass, allocate revenue based on the number of rides used on each agency's services.
- If ridership on a specific service were determined to be systematically underreported by the fare system (i.e., as shown by a survey jointly conducted and paid for by SANDAG and the concerned agency), an adjustment factor would be applied to all trips taken on that service. For instance, if the survey showed that the fare system underreported Trolley trips by 10%, all trips taken on the Trolley system would be valued as 1.1 boardings for the purposes of the above calculation. Passes that are not used for any trips on the Trolley would be unaffected by this adjustment.

Examples of this strategy for this category are as follows:

- A 30-Day Pass is used to board NCTD buses 28 times – all revenue from that pass would be allocated to NCTD.
- A 14-Day Pass is used to board NCTD buses 22 times and Trolley 10 times AND a survey has been conducted showing that the fare system is underreporting Trolley pass boardings by 10% -- revenue from that pass would be allocated 66.6% to NCTD (22 of 33 trips) and 33.3% to MTS (11 of 33 trips, after adjusting for the undercount).

***Compass Card-Based Premium Fare Media (i.e., Premium Express, COASTER, and Premium Regional Day Passes):***

- Identify the percentage of passes in each category that are used solely on MTS or solely on NCTD service, and allocate the revenue from those passes to the appropriate agency.
- For each other pass, allocate revenue based on a ratio of the value of service used on each agency's services. The value of service will be calculated by multiplying the number of trips taken on each class of service (COASTER, MTS Premium, or non-premium) by the average revenue per boarding for that class of service. The average revenue per boarding of each service will be calculated by dividing the fare revenue by revenue passengers as reported by each agency. The average revenues based on the data included in the 2006-2010 SRTP (Appendix C) are as follows:

<b>Average COASTER Fare</b>	<b>\$4.080</b>
<b>Average MTS Premium Fare</b>	<b>\$2.685</b>
Average MTS Bus Fare	\$0.853
Average MTS Trolley Fare	\$0.780
Average NCTD BREEZE/Sprinter Fare.	\$0.950
<b>Average of all Non Premium Service Fares</b>	<b>\$0.861</b>

- If ridership on a specific service were determined to be systematically underreported by the fare system (i.e., as shown by a survey jointly conducted and paid for by SANDAG and the concerned agency), an adjustment factor would be applied to all trips taken on that service. For instance, if the survey showed that the fare system underreported Trolley trips by 10%, all trips taken on the Trolley system would be valued as 1.1 boardings for the purposes of the above calculation. Passes that are not used for any trips on the Trolley would be unaffected by this adjustment.

Examples of this strategy for this category are as follows:

- Passenger walks to COASTER, rides to Santa Fe, walks to work – all revenue from that pass would be allocated to NCTD/COASTER.
- Passenger walks to COASTER, rides to Santa Fe, rides trolley to work each day – COASTER trip is valued at \$4.080 while the Trolley trip is valued at \$0.861, revenue is allocated 82.6% to NCTD and 17.4% to MTS
- Passenger walks to COASTER, rides to Santa Fe, rides MTS bus to work each day -- COASTER trip is valued at \$4.080 while the bus trip is valued at \$0.861, revenue is allocated 82.6% to NCTD and 17.4% to MTS

- Passenger rides Sprinter to COASTER, rides COASTER to Old Town, Rides Trolley to Fashion Valley each day -- COASTER trip is valued at \$4.080 while each bus trip is valued at \$0.861, revenue is allocated 88.2% to NCTD and 14.8% to MTS
- Passenger walks to Premium Express, rides to Downtown, walks to work each day – all revenue from that pass would be allocated to MTS
- Passenger walks to Premium Express, rides to downtown, rides Trolley to work each day – all revenue from that pass would be allocated to MTS
- Passenger rides BREEZE to Premium Express, Premium Express to downtown, and walks to work each day – Premium Express trip is valued at \$2.685 while the bus trip is valued at \$0.861, revenue is allocated 24.3% to NCTD and 75.7% to MTS

*Paper Day Passes:*

- Calculate separate average revenue allocations for Compass Card-based non-premium Day Passes that are sold on NCTD and on MTS, based on the process discussed above for non-premium passes (including valuing every boarding equally).

Examples of this strategy for this category are as follows:

- Assume Compass Card-based non-premium Day Passes that are sold on NCTD are used 98% on NCTD and 2% on MTS -- all revenue from non-premium Day Passes sold on NCTD that are not on Compass Card would be allocated in the same proportions.
- Assume Compass Card-based non-premium Day Passes that are sold on MTS are used 99% on MTS and 1% on NCTD -- all revenue from non-premium Day Passes sold on MTS that are not on Compass Card will be allocated in the same proportions.

Thus, like Option D, this Option would rely on the types of detailed information that will be available regarding the use of each separate Compass Card. The advantages and disadvantages of the five Options are compared in the next section. Based on this comparison, a recommended revenue-sharing strategy is presented.

## 5.4 Identify Recommended Strategy

### Comparison of Advantages and Disadvantages

Each of these Options has advantages and disadvantages relative to the others. The key advantages and disadvantages are as follows:

### *Option A*

- Since Option A is basically the process currently used for revenue allocation, the principal advantage of this method is that it already exists and can thus clearly be implemented. This option also maintains a link between an agency's performance (as shown by its ridership) and its revenue.
- Option A also has significant disadvantages. First, the agencies are uncertain whether the allocations between premium and non-premium services accurately reflect current use – for example, does 5% of COASTER revenue accurately reflect the amount of MTS service used by COASTER pass riders, and does allocating 5% of Premium Express Pass revenue based on adult regional pass boardings accurately reflect the amount of NCTD service used by Premium Express Pass riders? Second, this option does not address the possibility that monthly passes are used with different frequencies on the services of the two operating agencies. For instance, if riders currently using NCTD-only Monthly and Day Passes ride less frequently than riders who currently use the Regional Passes only on MTS or on both agencies, NCTD's revenue could drop with the elimination of the NCTD-only passes. Furthermore, NCTD's riders would be paying a fare increase that would primarily support MTS services that they may never use.

### *Option B*

- Option B's greatest advantage is its simplicity. Each agency would have a clear idea of the amount of revenue expected, and it would be easy to monitor whether regional revenue (and thus each agency's revenue) was on track. It also has the potential to best promote an overall *regional* ridership approach, since both operating agencies would benefit from encouraging (and facilitating) ridership – and thus overall regional revenue -- not just on their own services but on the services provided by the other agency. In addition, SANDAG and the operating agencies would have the option to decide that specific services have exceptional regional significance and that additional revenue should go to supporting those services.
- Option B also has two very significant disadvantages. First, it would decrease the linkage between an operating agency's performance and the revenue it receives. For example, if an agency were to implement a new marketing or service initiative and was successful in obtaining a significant increase in ridership, that agency would not receive all of the revenue associated with the ridership increase and may find it more difficult to provide those new riders with high quality service. The second disadvantage is that there could well be disagreements over the annual revenue allocation, shifting the agencies' focus from collaborating to provide the best regional transit service to fighting over the proportion of revenue each receives.

### *Option C*

- Option C uses a combination of surveys (or in the future Compass Card data) and actual data on ridership from each fare medium on each type of service to address the major disadvantages with Option A. Option C's principal advantage over Options A & B is that it allows revenue from riders who exclusively use one agency's service to be allocated entirely to that agency, and only revenue from riders who use both agencies will be allocated between the agencies. It achieves this because the survey allows it to divide riders into three groups (NCTD only riders, MTS only riders, and riders using both services) so that the allocations can reflect differences in rider behavior between the agencies. In other words, its objective is that revenue from riders who exclusively use one agency's service will be allocated to that agency, and only revenue from riders who use both agencies will be allocated between the agencies. The use of these three groups (and for premium

passes further dividing the riders using both services based on whether they principally use COASTER or MTS Premium Express) also enables this method of allocation to specifically calculate a reasonable allocation of fare revenue between the premium services (COASTER and MTS Premium Express) and the other services used by riders. Option C's advantage over Option D is that it does not rely on detailed data on the use of each pass, which can only come from the Compass Card system, and therefore Option C can be implemented before passes are fully transitioned to the Compass Card.

- The principal disadvantages of Option C are that it lacks simplicity/clarity and that it is more expensive to administer than the current strategy (i.e., Option A). The expense comes from the requirement for surveys at least annually (more often if fare changes occur more often) and the need for considerable calculation to develop the average revenues per boarding for each fare medium for each service.

### *Option D*

- Option D has many of the same advantages as Option C, in that it addresses the agencies' concerns with the current system. It allocates revenue from a pass used only on one agency to that agency and only shares the revenue between the agencies if a pass is used on both agencies. Furthermore, it allocates revenue based on the price of the services used, thereby allocating more revenue to premium services. In addition, the methodology is simpler than Option C. Finally, by using the data collected from the actual use of Compass Card – coupled with survey data -- it offers the potential to provide the most accurate indication of the use of each fare medium at each agency.
- The key disadvantage of Option D, at least initially, is that the accuracy of the detailed use data from the Compass Card cannot be realistically determined until the system is in actual use. Moreover, given that, for the foreseeable future, Day Passes will be available in both a paper/magnetic and a Compass Card version, it would be necessary to establish a separate strategy for paper passes.

### *Option E*

- Option E has the advantages of Options C & D, in that it addresses the agencies' concerns with the current system. It allocates revenue from a pass used only on one agency to that agency and only shares the revenue between the agencies if a pass is used on both agencies. Its advantages over Option D is that it allocates revenue on passes based on average revenue per boarding and actual use, addressing the concern that the cash fare on COASTER may not accurately reflect the comparative value of the service. In addition, the methodology has been simplified from Options C & D. Finally, like Option D, by using the data collected from the actual use of Compass Card – coupled with survey data -- it offers the potential to provide the most accurate indication of the use of each fare medium at each agency.
- The key disadvantage of Option E, at least initially, is that the accuracy of the detailed use data from the Compass Card cannot be realistically determined until the system is in actual use. Moreover, given that, for the foreseeable future, Day Passes will be available in both a paper/magnetic and a Compass Card version, it would be necessary to establish a separate strategy for paper passes.

## Recommendation

Based on the relative advantages/disadvantages of these options, it is recommended that the San Diego Region ultimately adopt *Option E* (i.e., once Compass Card has been fully implemented – and all paper passes, other than Day Passes, have been discontinued). However, before such time that Compass Card is fully implemented and all passes (except Day Passes) have been transitioned to it, we recommend that no change be made, as Compass Card passes are to be implemented in the near future and, as a result of the recent fare changes, the amount of revenue involved is small with respect to the agencies' operating budgets. SANDAG should annually review the share of Day Passes being loaded onto Compass Cards. If only a small share of Day Passes are being loaded onto Compass Cards and the majority continue to be paper-based – particularly if there are significant differences in where and how frequently riders use Compass Card-based Day Passes compared to paper Day Passes – the surveys discussed under Option C should be used to obtain the information needed to allocate revenue from paper Day Passes, even once the region otherwise moves to adopting Option E.

A key factor for using Compass Card data in any revenue allocation strategy will be insuring that the data accurately reflects actual ridership and, if not, establishing a methodology for making the necessary adjustments in the allocations. For example, concerns have been expressed regarding whether pass users on the Trolley will make proper use of the validators so that their trips are recorded. In addition, some agencies that have implemented smart card systems have had difficulties insuring that all bus riders interact properly with the farebox, especially riders who previously only needed to flash a pass to the operator. Therefore, we recommend that SANDAG and the operating agencies initially implement a regular survey plan, in which surveyors with handheld data units inspect fare payment methods at specific stations and on specific routes. The records of observed use of Compass Cards should then be compared with the records generated by the fare system itself. This will allow the agencies to confirm the extent to which Compass Cards are being accurately recorded in the system. The plan should be to conduct these manual surveys during FY2009 and 2010; by 2011, the system should be able to function primarily on Compass Card data.

The next section discusses the revenue impacts of the recommended strategy as compared to a continuation of the current strategy.

## Impacts of Recommended Strategy versus Continuation of Current Strategy

The revenue impacts of any revenue-sharing strategy will ultimately depend on how riders react to the planned and proposed changes in the regional fare structure; thus, the impacts of the recommended strategy can only be determined after riders are surveyed on the changes in their ridership behavior. However, the general impacts can be estimated based on current use and probable changes in behavior. Below is a general discussion of the alternative strategies with respect to each of the categories of fare media. Table 22 then presents the estimated impacts of the recommended strategy under different potential assumptions.

- *Regional Day Passes:* In 2009 the price of Day Passes for NCTD riders will increase with respect to the cash fare on BREEZE. As a result, paying cash and purchasing a Day Pass will no longer cost the same for riders who are making a single round trip on NCTD, and the vast majority of these riders will no longer purchase a Day Pass. This, in turn, will result in the average number of trips taken with a Day Pass on NCTD becoming much closer to the average number of trips taken with a Day Pass on MTS, reducing the difference in impacts between a continuation of the current strategy and the recommended strategy. The impact of the recommended strategy will ultimately depend on how the number of boardings per pass varies between MTS and NCTD

Table 22 -- Estimated Impact of Recommended Strategy, Compared to Current Strategy

Fare Medium and Alternative Assumptions	Impact of Recommended Strategy
<b><i>Regional Day Pass</i></b>	
NCTD Average Boardings / Pass = 95% of MTS	\$104,000 / year Additional Revenue to NCTD
NCTD Average Boardings / Pass = same as MTS	No impact
NCTD Average Boardings / Pass = 105% of MTS	\$96,000 / year Additional Revenue to MTS
<b><i>COASTER Passes</i></b>	
MTS Boardings with COASTER Pass = 75% of COASTER Boardings	\$125,000 / year Additional Revenue to MTS (13.1% of COASTER Pass Revenue to MTS instead of 5%)
MTS Boardings with COASTER Pass = 50% of COASTER Boardings	\$57,000 / year Additional Revenue to MTS (8.7% of COASTER Pass Revenue to MTS instead of 5%)
MTS Boardings with COASTER Pass = 30% of COASTER Boardings	\$4,000 / year Additional Revenue to MTS (5.2% of COASTER Pass Revenue to MTS instead of 5%)
MTS Boardings with COASTER Pass = 15% of COASTER Boardings	\$40,000 / year Additional Revenue to NCTD (2.6% of COASTER Pass Revenue to MTS instead of 5%)
<b><i>Regional 30-Day Pass</i></b>	
Until 2013, and the elimination of the NCTD 30-Day Pass	No significant impact
NCTD Average Boardings / Pass = 95% of MTS (as of 2013)	\$60,000 / year Additional Revenue to NCTD
NCTD Average Boardings / Pass = same as MTS (as of 2013)	No impact
NCTD Average Boardings / Pass = 105% of MTS (as of 2013)	\$63,000 / year Additional Revenue to MTS
<b><i>Regional Premium 30-Day and Day Pass</i></b>	
Before BRT	\$900 / year Additional Revenue to NCTD
With I-15 BRT	\$91,000 / year Additional Revenue to NCTD (5.9% instead of 0.5%)

- COASTER Passes:*** Under the current strategy, MTS would continue to receive 5% of COASTER Pass revenue. Under the recommended strategy, the share of revenue going to MTS will depend on the share of COASTER riders that use MTS services, and to a lesser extent the number of COASTER riders that use other NCTD services. The impact of the recommended strategy will primarily depend on the extent to which COASTER riders use MTS bus and Trolley.
- Regional 14 and 30-Day Passes:*** There would be no significant difference between the two strategies until 2013, with the elimination of the NCTD-only 30-Day Pass. Even then, since the fares for bus service will be the same, as will the fares for Trolley and SPRINTER, the average number of boardings per pass should be approximately the same for both MTS and NCTD. The impact of the recommended strategy will ultimately depend on how the number of boardings per pass varies between MTS and NCTD.
- Regional Premium 30-Day and Day Passes:*** Under the current strategy, 5% of the revenue from the Premium 30-Day Pass is allocated in accordance with Regional (non-premium) 30-Day Pass boardings. As NCTD's Regional 30-Day Pass Boardings are about 10% that of MTS, NCTD receives about 0.5% of Premium 30-Day Pass revenues. In 2012, with the opening of the I-15 BRT, the use of the Premium Express Pass will greatly increase, as will the use of NCTD as a

feeder service to the Premium Express (about 46% of the ridership of I-15 BRT is expected to use NCTD as a feeder or distributor service).

Finally, it should be noted that the implementation of the recent fare changes, including the elimination of almost all transfers between the agencies and the implementation of fares on COASTER Connection services, has greatly reduced the magnitude of revenue-sharing needed. The detailed data is not yet available to predict the precise impact of implementing revenue-sharing Option E. However, it appears that impacts on different fare media would be largely offsetting (e.g., MTS would get a larger share of COASTER pass revenue, while NCTD would get a larger share of Regional 30-Day and 1-Day Pass revenue). In the future, the COASTER and I-15 BRT service revenue impacts are expected to largely offset each other, while the regional passes will be allocated based on where passes are sold. The likely impact of the recent – and planned – fare changes would be a reduction in the amount of shared revenue to less than \$100,000 per year, a small fraction of the combined regional operating budget of several hundred million dollars.

## Appendix A: Agency Survey and Discussion Guide

## Regional Transit Fare Structure Study -- Agency Survey November 2006

SANDAG, MTS and NCTD have embarked on a study of fares, fare payment and fare revenue sharing in the San Diego region. An important first step in this process is for agency management and staff to provide input regarding the relative importance of various fare-related issues and goals.

Your responses to the following questions will assist the fare study team in establishing criteria for developing and evaluating alternative fare scenarios. Please complete this questionnaire and return it to Phil Trom at SANDAG by November 20, 2006.

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1. A variety of factors may influence someone's decision to ride transit for the first time, as well as an existing customer's frequency of use. Please rate the relative importance of each of the following factors to riders in your service area on a scale of 1 to 5, with "5" representing very important and "1" relatively unimportant.:

- |    |  |       |
|----|--|-------|
| a. | Convenience of service                                   | _____ |
| b. | Frequency of service                                     | _____ |
| c. | Ease of calculating the fare for a trip                  | _____ |
| d. | Ease of purchasing fare media                            | _____ |
| e. | Seat availability, travel comfort                        | _____ |
| f. | Safety of operation and personal security                | _____ |
| g. | Level of fare vs. cost of alternatives (e.g. automobile) | _____ |
| h. | Vehicle and station cleanliness                          | _____ |
| i. | Ability to access service information, timetables        | _____ |
| j. | Discounts or bonuses for frequent riders                 | _____ |
| k. | Service reliability                                      | _____ |
| l. | Courtesy and professionalism of personnel                | _____ |
| m. | Ease of transferring on the same mode                    | _____ |
| n. | Ease of transferring between modes                       | _____ |
| o. | Ease of transferring between MTS & NCTD                  | _____ |
| p. | Other _____  | _____ |

2. Please rate the relative importance of each of the following fare structure-related goals on a scale of 1 to 5, with "5" representing very important and "1" relatively unimportant.

- a. maintain/increase ridership \_\_\_\_\_
- b. maintain/increase revenue \_\_\_\_\_
- c. simplify the fare structure \_\_\_\_\_
- d. improve customer convenience and ease of system access \_\_\_\_\_
- e. insure that fares are equitable re key markets (e.g., seniors, disabled, low income) \_\_\_\_\_
- f. make it easier for operating personnel to administer the fare structure \_\_\_\_\_
- g. maximize prepayment (i.e., minimize the use of cash) \_\_\_\_\_
- h. promote seamless intermodal and interagency travel \_\_\_\_\_
- i. provide new fare options that take advantage of Compass Card technology \_\_\_\_\_
- j. insure that fares reflect type/level of service (e.g., express premiums, zones) \_\_\_\_\_
- k. improve revenue sharing methodology \_\_\_\_\_
- l. relate fare to quality of service) \_\_\_\_\_
- m. relate fare to distance traveled ) \_\_\_\_\_
- n. relate fare to number of different vehicles used to complete the trip \_\_\_\_\_
- o. relate fare to the actual cost of providing the service) \_\_\_\_\_
- p. other: \_\_\_\_\_

3. Please consider how well the current fare structure meets each of the same goals, using the same rating scale (1-5); "5" would indicate that the current structure does an excellent job at meeting the goal, "1" would indicate that it does a poor job:

- a. maintain/increase ridership \_\_\_\_\_
- b. maintain/increase revenue \_\_\_\_\_
- c. simplify the fare structure \_\_\_\_\_
- d. improve customer convenience and ease of system access \_\_\_\_\_
- e. insure that fares are equitable re key markets (e.g., seniors, disabled, low income) \_\_\_\_\_
- f. make it easier for operating personnel to administer the fare structure \_\_\_\_\_
- g. maximize prepayment (i.e., minimize the use of cash) \_\_\_\_\_
- h. promote seamless intermodal and interagency travel \_\_\_\_\_
- i. provide new fare options that take advantage of Compass Card technology \_\_\_\_\_

- j. insure that fares reflect type/level of service (e.g., express premiums, zones) \_\_\_\_\_
- k. improve revenue sharing methodology \_\_\_\_\_
- l. relate fare to quality of service) \_\_\_\_\_
- m. relate fare to distance traveled ) \_\_\_\_\_
- n. relate fare to number of different vehicles used to complete the trip \_\_\_\_\_
- o. relate fare to the actual cost of providing the service) \_\_\_\_\_
- p. other: \_\_\_\_\_

**4. The fare study will consider a broad range of possible fare structure modifications (e.g., modify transfer policies, modify the zonal structure) and new types of Compass Card-based payment options (e.g., discounted stored-value options, frequency-based discounts). Please consider the following list of general types of modifications and rate on a scale of 1 to 5, with "5" representing strong agreement and "1" strong disagreement.**

- a. Eliminate Trolley fare zones \_\_\_\_\_
- b. Change trolley "floating zones" to fixed zones \_\_\_\_\_
- c. Reduce number of Trolley zones \_\_\_\_\_
- d. Introduce fare zones for NCTD Bus & Sprinter \_\_\_\_\_
- e. Introduce fare zones for MTS Bus \_\_\_\_\_
- f. Combine MTS \$1.75 and \$2.25 fares into \$2.00 \_\_\_\_\_
- g. Eliminate NCTD BREEZE Pass \_\_\_\_\_
- h. Introduce sub regional passes e.g. North County, South Bay, East County \_\_\_\_\_
- i. Increase NCTD Day Pass price to MTS Level \_\_\_\_\_
- j. Decrease MTS Day Pass price to NCTD Level \_\_\_\_\_
- k. Permit COASTER return tickets to be used to board MTS Bus \_\_\_\_\_
- l. Permit trolley return tickets to be used to board MTS Bus \_\_\_\_\_
- m. Introduce (with Compass Card) 7 day passes \_\_\_\_\_
- n. Introduce (with Compass Card) 14 day passes \_\_\_\_\_
- o. Introduce Zones for MTS Commuter Express buses (and in future  
for BRT on I-15/I-805 Corridors) \_\_\_\_\_
- p. Introduce uniform zones for all modes, but maintain price  
differential based on quality of service. \_\_\_\_\_
- q. Introduce time of day differential pricing (e.g., off-peak discount) \_\_\_\_\_

- r. Eliminate transfers (i.e., require fare per boarding) \_\_\_\_\_
- s. Eliminate transfers, but reduce cash fare levels \_\_\_\_\_
- t. Reduce cash fare levels, but keep pass prices the same as now \_\_\_\_\_
- u. Reduce fare levels, but only with use of Compass Card \_\_\_\_\_
- v. Raise cash fares, but offer lower single ride fares with Compass Card \_\_\_\_\_
- w. Allow free transfers only with use of Compass Card \_\_\_\_\_
- x. Eliminate cash as a form of on-board payment \_\_\_\_\_
- y. Introduce discounted stored value (e.g., 10% purchase bonus) \_\_\_\_\_
- z. Introduce discounted stored value and eliminate monthly passes \_\_\_\_\_
- aa. Introduce frequency-based discount (e.g., 1 free ride after 10 rides) \_\_\_\_\_
- bb. Make MTS and NCTD fares more consistent \_\_\_\_\_
- cc. Reduce the number of different types of MTS fares \_\_\_\_\_
- dd. Reduce the number of College Pass types by introducing a U-Pass \_\_\_\_\_
- ee. other: \_\_\_\_\_
- ff. other: \_\_\_\_\_
- gg. other: \_\_\_\_\_

Comments/explanation of any of above ratings:

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*Thank you for participating in this effort.*

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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Agency: \_\_\_\_\_

Department: \_\_\_\_\_

Name(s)/  
Title(s) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### 1. Responsibilities as they relate to fare policy/structure and revenue sharing

#### 2. Current fare level/structure and administration issues/concerns

- a. Issues related to the current regional fare structure/levels (e.g., regarding equity, complexity, convenience, transfer policies, relationship to service types, need for additional revenue)
- b. Issues related to communicating current fare structure/levels to riders and potential riders
- c. Issues related to pass administration and sales
- d. Issues related to operator administration of fare system
- e. Barriers/obstacles to changing current fare structure/levels, and how they can be overcome

#### 3. Potential fare level/structure changes

- a. Types of changes to current fare structure that should be considered (e.g., reduce or eliminate Trolley zones, introduce bus zones, introduce time of day differentials, introduce sub-regional passes, eliminate cash on-board buses, eliminate transfers, raise fares, offer free transfers only with Compass Card, lower fares only with Compass Card)
- b. New payment options/fare products that should be considered with Compass Card (e.g., stored value/e-purse, frequency-based discount, negative balance, U-Pass, Eco-Pass)

#### 4. Revenue sharing issues/concerns

- a. Issues with the current regional revenue sharing agreements, both in terms of share of revenues received by each agency and methodology (i.e., data and equations used to calculate the shares)
- b. Barriers/obstacles to changing the current regional revenue sharing agreements and methodology, and how they can be overcome

#### 5. Other comments and recommendations

## Appendix B: Meeting Attendees and Discussion Notes

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** Metropolitan Transit System

**Department:** Executive

**Name(s):** Paul Jablonski, Chief Executive Officer

### Issues

- The Senior/Disabled pass is killing us.
  - Is the age defined in TransNet? Can the age of "seniors" be increased?
  - Need to crack this one.
- Difficult to go to flat fare on Trolley because of distances. Customers who go shorter distances will complain. Estimate that about 25,000 people ride each day from the border, almost all probably legal. Difficult sale.
- SANDAG is using fare revenue as float to avoid issuing revenue anticipation notes.
- About 70% of riders on monthly pass. Originally wanted to reduce the cash fare and increase the pass price, but decreases in the cash fare mean decreased paratransit fares.
- Guiding Principles
  - Ridership is important
  - Increase the average fare and farebox recovery
  - Keep it simple and consistent – one fare structure to minimize anxiety for new riders
  - Have a high confidence in the revenue impact
  - Board is willing to accept some potential changes, but concerned there might be too big a hole in the revenue
  - Board is always asking about the farebox recovery
- Compass Card: Prefers a flash pass to smart card. Concerned about proof of payment on Trolley and a relatively unsophisticated market of riders at the border. Minneapolis experience shows 8 out of 10 customers tap card. If this is true, fare enforcement and data collection will be a problem. (And SANDAG wants to use the data for revenue allocation.) He wants to know – what is the best way to make people tag on/off? He'll be suspicious of the reliability of data; however, if data is good, he thinks that MTS' revenue share should go up.

### Suggestions

- Go to Day Pass and get rid of the transfer. – will simplify the systems and reduce abuse
- Too much abuse relevant to transfer.
- Maybe eliminate the senior/disabled pass and just use a S/D cash fare of \$0.50; would TransNet cover half of this cost?

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** MTS/San Diego Transit

**Department:** Marketing, Customer Service, Revenue Collection

**Name(s):** Rob Schupp, Director of Marketing; Mark Lowthian, Manager of Passenger Services; Susie Gutschmidt, Revenue Collections

### 1. Responsibilities as they relate to fare policy/structure and revenue sharing

- Passenger Services - \$5 - \$6 million annually at TransitStore. Telephone Info, Customer Communications
- Revenue Collection and Reconciliation, Ridership by type from Susie to Teresa
- Marketing

### 2. Current fare level/structure and administration issues/concerns

- It's a disaster, a nightmare. Operator training is so difficult. Operators don't know how to enforce fares because they are too complex, difficult to grasp by customers. Too much for anyone to figure out.
- There are three separate cash fares - \$1.75, \$2.25. Need a single fare. Distinctions are nebulous – no clear labeling of routes to identify the applicable fare. Used to have single flat rate fare, but decided they needed different pricing for different types of services. It's very confusing.
- There are two different transfers. Good for two hours, if the transfer is issued from automated fare boxes. If not, then transfer is good for 90 minutes from end of line. Trolley transfers do not allow you to go the opposite direction, bus transfers do.
- Trolley sells roundtrip ticket good for 2 hours on bus (although not enforced), but all day on trolley. This is confusing.
- North County Day Pass expires in 2 hours on MTS, but this is only documented on the magnetic stripe (the date of issue is clearly printed on the pass)
- Tokens are used by Social Service organizations to provide rides to their clients. If we move away from tokens, there will be a plea for some kind of corollary media. Day pass???
- Customers don't have a problem with repeat trips, the problem is with initial access to the system
- School pass is mandated by the board and growing in use
- Issue 1,000 IDs a month, 900 for disabled (mainly cognitive) and 100 senior
- Have a one-half month pass, but only for the last half of the month

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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### 3. Potential fare level/structure changes

- Consider a tiered structure that gives bonus on value rather than offering passes. Maybe get away from passes altogether.
- Go to a regional pass that is one price instead of three different pricing structures. Customers choose the lower priced pass, but then don't want to pay upgrade.
- Now there is no documentation when someone with a pass buys an upgrade, but some drivers issue a transfer. Don't issue a transfer for a pass upgrade. Designed for cash customer, not pass customer, and it can be easily resold
- Compass Card: Use it to simplify rather than to offer a multitude of fare products.
- What happens if make Compass Card a S/D ID and pass (with name and photo) – does this violate the ADA (probably not if allow other IDs for use with the cash fare)
- Day pass is interesting, but would need to give drivers an emergency override to issue the pass and then monitor the vault versus the farebox
- Stop taking pennies – cause a lot of coin jams

### 4. Revenue sharing issues/concerns

- Upon payment of tuition, students get a sticker on their Student ID. UCSD prepays fare for entire school year. There is a key on the DCU that says UCSD on it. There are only 4 routes, but drivers are pushing this button instead of College Pass button on routes outside UCSD system so not getting full share of monthly pass income.
- NCTD Day Pass does not show expiration on card itself, so must be dipped at MTS farebox. Operators are not arguing. MTS doesn't get revenue from this card.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** MTS/San Diego Trolley

**Department:** Operations

**Name(s):** Tom Tupta, Trolley Superintendent; Tom Doogan, Trolley Special Events/Operations Coordinator

### 1. Responsibilities as they relate to fare policy/structure and revenue sharing

- Tom Doogan oversees the agreements with NCTD for serving Petco Park. Only have to purchase 1 Roundtrip – no special surcharge for game day service. \$1.15 goes to the Trolley – the downtown zone is \$1.50. COASTER estimates a percentage of ridership as Petco event ridership and pays Trolley. COASTER runs extra trains at the end of the game. Normally, downtown zone is \$1.50.

### 2. Current fare level/structure and administration issues/concerns

- The station by station fare structure is confusing to some passengers. Counting stations is confusing, then add to that, the downtown zone. The entire downtown zone counts as one station. Maps at machines help, but they still see people at TVMs whose eyes “ just glaze over.”
- Currently, 20+ stations equal \$3.00 one way, \$6.00 round trip. The Day Tripper is \$5.00. The pricing doesn't make sense to customers. Why would they buy a limiting round trip for \$6.00 when they can buy a Day Tripper (Day Pass) for \$5.00?
- Senior/Disabled tickets can be purchased at the TVMs. There is no screening there. They are sure there is misuse with concession fares.
- Fare evasion is measured at 1.5%; however, they know station by station pricing promotes cheating. Customers will travel within 4-10 stations, get off at station 7 and give their ticket to someone going farther. People sell the other half of the round trip ticket because it's good any time of the day.
- The Trolley is using a fare structure that was built for a single line. The system has grown and become more complex. The fare structure didn't change but expanded.
- Enforcement during special events is very difficult because cars are too crowded.
- The downtown zone fare is very confusing. Many customers do not understand that it's basically a 2 hour pass. It's not described as such.
- Fares are inconsistently defined. The Roundtrip ticket on the Trolley is not good on bus outside of two hours, but good for return any time on trolley.
- TVM software is not intuitive
  - Buttons are lettered differently than zones
  - There is an option for zero tickets
  - Must hit proceed to purchase ... people are ready to purchase

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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### 3. Potential fare level/structure changes

- Perhaps institute flat fare within an area. Such as travel any where on the Blue Line for a flat fare.
- Offering a weekly pass would be good.
  
- Offer products that tie into sporting events. Offer a half season pass good on game days. Very few people go to all home games. Want something they can pre-purchase for those days. Work with the clubs to sell with season passes.
  
- Guiding principles for defining recommendations:
  - Must be simple for tourists, infrequent/special event riders to understand
  - Must be adaptable to selling out of TVMs. Customers must be able to easily identify the right fare when at a TVM.
  - Must be interoperable.
  
- Compass Card
  - Tag on and tag off will be a challenge for the Trolley. Potentially a customer can tag on at one station and tag off at the same station. They'd be charged \$0.
  - Perhaps it should be based on time instead of by station.
  - Special events will be difficult. Maybe install readers on temporary turnstiles. The cards will cause a beep if invalid vs. valid. Trolley processes 15,000 customers per hour at 10 turnstiles. The rush generally averages 90 minutes. They average 25% of Charger gate.

### 4. Revenue sharing issues/concerns

- Senior management likes the Trolley fare structure, operators do not. Fare apportionment between COASTER and MTS originally established in 1995. NCTD is getting 3 ½ % of Day Tripper revenue, but Day Trippers are not good on the COASTER. The agreements were built on the estimate that 12 1/2 % of COASTER riders transfer to SDTC or SDTI. This estimate has not been adjusted since 1995 and NCTD is not interested in revisiting the estimates.
  
- The SANDAG process for apportionment --- random sampling -- has fatal flaws. The sampling methodology underreports Trolley ridership.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** MTS  
**Department:** Finance  
**Name(s):** Cliff Telfer, Interim Chief Financial Officer

### 1. Responsibilities as they relate to fare policy/structure and revenue sharing

- Cliff was with San Diego Transit Corporation (SDTC) for 27 years. He was the finance officer for the agency. He now oversees finances for MTS (SDTC, San Diego Trolley, Contract Services).
- His responsibilities include sending cash from the sales of fare products (such as regional passes) to SANDAG, where the revenue is apportioned and distributed to each agency -- MTS and NCTD.

### 2. Current fare level/structure and administration issues/concerns

- Fundamentally, the fare policies between the two agencies are consistent. For instance, both agencies have agreed on the ages defining seniors, children and students, but there are inconsistencies as they relate to
  - Transfers: NCTD does not issue transfers. They have a Day Pass. MTS has transfers.
  - Farebox technology is not the same across all operators. Contract Services will not get new fareboxes (but they will get smartcard readers), so transfers issued from their vehicles are tear-offs (good for 90 minutes from start of route), whereas transfers from SDTC and NCTD buses are issued by the farebox, printed, good for two hours from point of issue.
- There are too many fare products, making it very difficult to communicate to customers reducing ridership. Rules vary between operator – such as a roundtrip on trolley works differently when used on the bus.
- The big barrier to changing the fare structures is maintaining/increasing total revenue.
- Cash fare is getting too high (cash is less than 1/3 of ridership)
- When asked why he thinks the fare structure is so complex, he said much of it is historical – the old MTS mergers happened without changes to the various fare structures. Each operator now defines its service differently and, as a result, perceives different needs. . The fare structure has been built around these different needs. Trolley perceives a need for distance-based fares, while Transit perceives a need for fares that reflect each type of service – local, urban, express, etc.

### 3. Potential fare level/structure changes

- Greatest improvement would be to unify the fares. Unification would result in the following improvements:
  - Improved ease of use and understanding for customers
  - Increased ridership
  - Ability to better enforce fares. Currently, operators can't determine what fare is good and what is invalid.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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- Suggestions:
  - Eliminate transfers. All operators are in favor of getting rid of transfers.
    - o 30% of complaints are operator/customer conflicts regarding transfers
    - o It would reduce fare misuse. He told us that they have had problems with employees/customers stealing and selling transfers --- even the printer of the transfers.
    - o It would increase the growth of prepaid fares
    - o Pay per boarding would enable MTS to lower cash fares
    - o It would decrease the amount of time operators spend punching transfers each day
  - Keep day pass. All Operators are in favor of getting rid of transfers, but the system forces passengers to transfer.
- Possibilities with Compass Card technology:
  - Leveraging University and College student cards or making the Compass Card their student ID card.
  - Promoting seamless mobility with all of Southern California as well as Tijuana.
  - Potential for partnering with lots of groups
  - Generating new revenue as well as reducing cost – reduce cash and coins (interested in the fare differentials at CTA and in London).
  - Rolling period passes will be a plus.
  - Improving revenue security.
  - Improving boarding time.
- Challenges will be the tag on/tag off on the trolley, especially for customers with passes. Why should customers tag on and off? What's in it for them?
- He would like to get rid of tokens for Social Service agencies, but doesn't see how Compass Card will enable them to do so.
- Guiding principles for defining new fare structure/levels
  - It must be easier for operators to enforce fares
  - It must generate more revenue

#### 4. Revenue sharing issues/concerns

- Why must they send cash from product sales to SANDAG to be apportioned? Currently they make about 95% of pass sales, give the money to SANDAG, and then get a large part of it back. Suggest instead that SANDAG inform MTS how much they owe.
- He feels that the Compass Card data collected will enable fares to be more fairly apportioned, but he doesn't feel it will negatively impact MTS.
- If customers do not tag on and off Trolley it will make measuring usage for revenue splits inaccurate, so may need to continue to use surveys on the Trolley. No Automated Passenger Counters are planned for Trolley.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** MTS

**Department:** Planning

**Name(s):** Conan Cheung, Director of Planning  
Mark Thomsen

### 1. Responsibilities as they relate to fare policy/structure and revenue sharing

- Now that planning and scheduling has shifted from SANDAG back to MTS, they're taking more of a dominant role on defining fare structure and pricing. Conan and Mark take the lead role with SANDAG and bring in operators when they need to. They lead negotiations related to special types of fares such as UCSD and took the lead in developing the fare ordinance.

### 2. Current fare level/structure and administration issues/concerns

- Issues related to current fare structure/level
  - Too complicated
  - \$2.25 fare is out of balance -- too high
  - They are not optimizing revenue and ridership
  - Not consistently priced according to type of service. There has been a blurring of service distinctions. This has been true for pricing, too.
- It is a problem communicating fare structure/levels to the community. The fare structure is very difficult to understand internally so even more so externally.
- Not every fare program is in the fare ordinance -- such as the UCSD program.
- The Senior/Disabled pass is negatively impacting revenue. Seniors/Disabled account for 25% of ridership and the pass is only \$15 per month. TransNet pays a quarter of the pass fare and this subsidy is capped at \$5 million, which runs out half-way through the year. TransNet's condition is to maintain the Senior/Disabled cash fare at a \$1. This has been set and can't be changed.
- MTS has always focused on maximizing revenues, but NCTD has always focused on making the fares easier to use.

### 3. Potential fare level/structure changes

- Market segmentation has become a stronger factor in driving service, and the fare structure should reflect the market segmentation efforts. Services that have been replaced were hybrids of locals and expresses. Services will now be more crisply defined and therefore easier to price.
- Four classes of services:
  - Regional: traditional express routes, point to point, peak service
  - Corridor: streamlined, limited stop services on major corridors (example: University Ave)
  - Local: bulk of system. Feeder, local, crosstowns -- stop at all stops
  - Community based: Localized shuttles. Only operate select days or times for select markets.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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- NCTD has redefined its services, too; they are now more tripper-oriented. NCTD's bus routes will connect to MTS' local and express. If MTS can isolate scenarios, we can price accordingly. Niche market-oriented routes will probably not be a challenge.
- Peak and off peak pricing should be considered. It's a way around the Sr./Disabled fare issue – i.e., have Sr./Disabled pay full fare in peak period, half fare in off-peak.
- Eliminate transfers
- Combine \$1.75 and \$2.25 fare pricing.
- Introduce a Downtown pass. Isolate areas like this, create market niches and fare products relevant to those niches. Price them accordingly.
- Guiding principles for defining recommendations:
  - Improve ease of use for both customers and drivers
  - Optimize revenue

#### 4. Revenue sharing issues/concerns

- Since revenue sharing is driven by ridership, some service decisions are not made so as to maximize ridership. Instead, service is designed to help revenue for one operator or another. This philosophy/approach influences decisions -- not necessarily for the good of customers.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** MTS/San Diego Transit Corporation

**Department:** Executive

**Name(s):** Claire Spielberg, Chief Operating Officer

### Issues

- Senior/Disabled
  - S/D fares skews revenue stream; half of San Diego is riding for half fare
  - S/D passes are too easily accessible; there should be better controls
  - Best way to improve revenue is increase pass price - \$15 is too cheap -- far greater value than what it is portrayed to be
- Balance
  - Use of cash is too high
  - Use of pass is too low
- Too much variety / breadth in the fares being offered
- Rollout of farebox equipment
  - Bill jams
  - Bad fare transactions
  - Validating box – validating \$1 bills is too big of an inconvenience for the value of catching fake bills.
- Reconciliation with new fareboxes
  - A year of problems; sometimes bypass wouldn't even work
  - Couldn't accept revenue for 3 months - \$60,000
  - Now it is working well
- Communication to customers is easy if they go to Transit Store or Web Site or call. It's fairly simple to understand.
- Tokens have been kept for Social Services. Small applications like this don't make sense any more.
- People generally don't like change; changes must be simple and must simplify the system.

### Suggestions

- Downtown circulator pass (i.e., significantly reduced fare for circulator, like \$0.25 or \$0.50 -- not free)
  - Like Seattle or Long Beach
  - Would encourage people to ride the bus
  - Reduces congestion
- UCSD pass for faculty and students
  - Niche service
  - Should be priced accordingly
- Sorrento Valley Shuttle

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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- Niche service
- Should be priced accordingly
  
- Hotels – visitor service
  - Niche service
  - Should be priced accordingly
  
- Combine \$1.75 and \$2.25 to \$2. Easier than finding change.
  
- Revenue sharing
  - Data collection
  - There's a formula for sharing with NCTD, but don't know how to improve on it
  
- Guiding principles for defining recommendations:
  - Simplify
  - Balance

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** North County Transit District

**Department:** Executive Management

**Name(s):** Rick Howard, Deputy Exec Director; Brian Graham, Dir of Bus Operations and Maintenance; Pete Aadland, Dir of Communications; Richard Hannasch, Dir. Of Fiscal Support Services; Stefan Marks, Director of Planning

### 1. Current fare level/structure and administration issues/concerns

- There's a concern about NCTD's ability to maintain autonomy and establish/change own fare levels to meet market demands if all fares are set regionally.
- Fares are too high, but they need to cover increased costs. Pricing has changed several times over the last 5 years. 11/03, implemented Day Pass for \$3 and cash fare \$1.50. Now, Day Pass is \$4 and cash fare is \$2. COASTER fares are well-set or maybe even too low, and nearly half of COASTER riders have fares subsidized by employers. NCTD doesn't get complaints about the level of fares. Instead, complaints are about transfer issues.
- The 2002 guiding principles about defining fares – keep them simple and tie to inflation. Farebox recovery 22% on bus, 38% on COASTER, 10% on Paratransit, 8% on FAST.
- Right now, there are too many different fares in the region. As a result, it increases the cost of training, communicating and gets in the way of attracting new riders.
- The new fareboxes have been a problem with recording fares. Drivers take the easiest way out to recording fares and often record inaccurately. Currently, there are six buttons for the most common fares.
- It was big step in the right direction to eliminate transfers and introduce the Day Pass.
  - Day Pass usage has gone from 2.2 to 3 trips for regular riders and from 2.4 to 2.8 trips for senior/disabled riders.
  - Cash is now 10%.
  - Drivers were relieved of transfer conflicts with customers.
  - Day Pass led to selling more monthly passes. Pass sales report.
- The \$6.00 difference between NCTD monthly pass and the regional pass encourages purchase of the NCTD pass. Plus NCTD wants to offer a product to a customer who does not typically travel outside the area.
- Inconsistencies between MTS and NCTD:
  - Temporary disabilities (drug rehab), NCTD gives customers 3 or 6 months at a heavily reduced rate. Sell 100's a month. MTS doesn't do this.
  - NCTD doesn't sell a ½ month pass, but MTS does. Customers must go to San Diego to buy a ½ month (regional) pass.
  - MTS has a semester pass, NCTD has monthly pass program for Colleges.
  - No employer bulk purchases.
  - NCTD doesn't have scratch off Day Pass (Day Tripper).

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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- NCTD does not want to discount bulk purchases. Philosophy is different than MTS. Constrained by parking at COASTER and expanding ... so no promotions. Only reason to offer discounts is when customers are price sensitive. This isn't true for COASTER.
- NCTD does not offer an employer pass program and there is tight control on outlets. NCTD doesn't pay retailers to sell passes. They are not out to enlist outlets. Now with Internet and credit card at TVMs, they don't see financial benefit to selling through retailers.
- Must think about the customer profiles riding transit. Illegal immigrants will not adopt smart cards. Seniors will resist technology because too hard to understand.
- Concerned about lead times before making fare adjustments. Extended process takes months. Joint public hearings are really cumbersome. Operators should be able to control own destiny, determine fare pricing. Also, no one at SANDAG has operational experience.
- Guiding principles for defining recommendations
  - Increase ridership
  - Simplify
  - Consistency
  - Maintain autonomy
  - Equity in treatment within region which influences revenue sharing
  - Operational efficiency

## 2. Potential fare level/structure changes

- Karen King's message: Revenue is not as important as increasing ridership.
- Compass Possibilities
  - Technology should integrate with school IDs
  - Do we offer a greater range of passes – or keep it simpler?
  - Allows agency to respond to market demands.
  - Currently, farebox technology has slowed things down with cash, so this may actually drive customers to buy pass; want to speed up boarding.
  - So far, don't trust the data received from fareboxes
  - How can we reduce fare payment on the bus?

## 3. Revenue sharing issues/concerns

- Equity re receipt of revenues is key issue.
- 5% of revenue from COASTER pass (regional pass) goes to MTS. Internally, no one is really clear how revenue is split. When started offering Sorrento Valley shuttle, they were pressed to share more revenue.
- How to deal with issue of cross-subsidization of services – like Sorrento Valley. There is an expectation of revenue share when new service is offered.
- Regional passes are sold in North County, but revenue apportionment divided by number of trips. NCTD has less ridership because of nature of its services: differences between MTS and NCTD – MTS is metropolitan, NCTD is more rural. Volume of ridership is therefore always going to be different.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** North County Transit District

**Department:** Planning, Marketing, Mobility Services, Revenue Collection

**Name(s):** Kurt Luhrsen, Principal Planner; Sarah Benson, Mktg Rep; Alane Haynes, Mobility Services Admin, Cathy Sweet, Budget Officer; Pat Voorhies, Revenue Collec. Supervisor.

### 1. Current fare level/structure and administration issues/concerns

- Transfer between NCTD & MTS not seamless or easy unless have a regional pass. Transfer is two hours at point of issue and long hauls between North County and San Diego won't allow a transfer.
- Interested in studies of peers that have large Hispanic populations. How strong is the adoption rate of smart card? NCTD has a very large percentage of riders who do not speak English. There is a fear out there of being tracked via smart card Will Compass Card disenfranchise a large segment of riders?
- Regional travel to the airport is an issue. It's seamless if have COASTER pass, but if pay a single fare, it's confusing and costs different amounts depending on direction. If start on COASTER, less expensive than starting at MTS. There should be a round trip ticket good for COASTER, and also good on Trolley (this is now available for Padres games).
- COASTER monthly pass supposed to be good on Trolley, but doesn't seem to be accepted often.
- Too many fare options. It takes 6 pages of Riders Guide to communicate fares/policies. Charts are confusing. It has to be overwhelming to customers. 3 types of MTS passes. Which one covers what? Difficult for customers to understand. Letters from occasional riders say we've made it so difficult for them, they're frustrated and have given up. Customers don't perceive difference between NC & SD.
- What we're doing right.
  - Day Pass is \$4
  - Transferring to and from BREEZE to Sprinter will be seamless. \$2 for one way on Sprinter or Day Pass for unlimited transfer and rides.
  - NCTD structure simple enough and understandable. Transfer to COASTER or MTS is problem.
- Also must consider the complexities/nuances of different transfer policies with Riverside, Metrolink, OCTA and rail to rail with Amtrak.
- Fare abuse: with a BREEZE Day Pass, customers get a discount on fare at TVM for COASTER. Many do not have a Day Pass and never get caught. Recommend eliminating discounted transfer (this would significantly increase revenue).
- Screening is loose for Senior/Disabled. Anyone can buy a S/D pass anywhere. COASTER doesn't check for misuse and operators won't argue.
- Paratransit travel training is being successful at getting paratransit riders to use fixed route.
- Guiding Principles for defining recommendations:
  - Think about end user and how to communicate in a more simple way.
  - Make buying fare at TVM easier; now too hard to use TVMs (COASTER and MTS) because of zones

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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- San Diego is popular destination. Must be friendly and understandable for visitors.
- Make it seamless for customers transferring between modes.
- Encourage the use of Compass Card. Minimize single fare payments.

### 2. Potential fare level/structure changes

- Disabled customers not always physically or cognitively able to handle fares (fine motor skills). If get to a Center, driver must get customers off vehicle, then find person who's supposed to pay. Compass Card won't be available on paratransit. Contracted services will not have new technology. Need to make paratransit fares uniform. Need regional fare because confusing when have to transfer through zones.
- Consider rolling period pass vs. fixed month. Staffing peaks are difficult to manage. Don't constrain to fixed calendar month or week. Currently, regional pass price reduced if sold after 10th of month.
- Consider bonus/discount for bulk purchase, or even "best fare" arrangement (i.e., if you ride the number of times that equals the cost of the pass, then system stops decrementing from stored value and the farecard becomes a pass).
- Do not recommend a lower single ride fare with Comp. Card than without; could be equity issue.
- Weekly pass would be good for visitor market.
- Roundtrip to downtown/airport should include MTS.
- College pass: Should have single Upass arrangement (at least within North Co.); there are currently a number of different arrangements. The Upass should be for students, not faculty.
- Regional Day Pass (\$15-20) should be considered – good on any service in region.
- S/D Compass Card will be a photo ID card. This should reduce misuse.

### 3. Revenue sharing issues/concerns

- COASTER: Fare allocation issues – transfers to and from Trolley. Need proper split.
- SANDAG gets 5% of all sales. If don't honor NCTD pass on Trolley, why pay 5%? NCTD does receive some money from sales of regional pass. Complex accounting for minimal amount of money. \$64-\$54 = \$10 x some percentage (based on 70:30 population split). NCTD feels their pop. share is more like 33%, not 30%...but no one has reviewed it.
- NCTD provides lot of trips outside of service area into La Jolla. Service area ends in Del Mar. Not getting reimbursed for this. If fixed route going to these areas, must provide paratransit. Costly for NCTD. Should be connecting in Del Mar rather than servicing beyond into La Jolla or UCSD, UTC. MTS paratransit customers must transfer to NCTD paratransit at northern border. Subsidizing paratransit \$75 when drive into La Jolla. Farebox only recovers 25-30% of the cost of each passenger traveling into MTS service area. This compromises basic service in own area due to providing long-haul service into MTS area.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** North County Transit District

**Department:** Coach Operators – NCTD West Division

**Name(s):** Brad Fox, Richard Dong, Joe Chatman, LeGrand Bowden

### 1. Current fare level/structure and administration issues/concerns

- Too many bus passes, esp. in college area, can't identify easily. College IDs have stickers that cannot be seen easily. COASTER passes are not legible – can't see the month. Ticket is hard to read. Seems like everyday a new pass from MTS haven't seen before. MTS has too many fare media, just accept anything now.
- Common issue - transfers generated by farebox have time on them; transfers issued by hand do not.
- MTS and NCTD not working together.
  - Day Pass from NC, customers don't understand why can't use it on MTS. Instead, give them a transfer good for 2 hours, but need to pay upgrade \$0.25.
  - Get an interagency transfer so they can use on the COASTER.
  - Day Pass gives them a discount on COASTER. Coming back on trolley, have to pay another fare.
- Complaints about transferring from NCTD to MTS (especially on Rte. 101); transfers are helpful to people who only need to go a short distance – 90 min. often not long enough. Lack of rider understanding contributes to the problems. Riders don't understand why it's not a uniform fare. Not all drivers understand transfer policy.
- Lot of complaints about fare being too high.
- A lot like the convenience of the Day Pass. Fewer problems than when had transfers.
- New fareboxes are a nightmare. Customers don't know how to insert currency in the farebox. Always a problem. NCTD should return them. Can't put more than 2 coins in there without it jamming. Box doesn't stay solid on its base – it always loosens. Dollar coins don't always fit. Inserting 4 \$1 bills takes forever. Boxes have affected dwell time. It usually rejects \$5 bill. Use bill over-ride all the time. When there's a line, pushing the right buttons on the DCU can be a problem. There are 3 "pages" to through to enter all fare categories.
- Riders Guide is a waste of money. Riders look at what they want, then throw out.
- Can't read passes, waiting for dollars to be inserted, coin mechanism. Add to the dwell time by explaining fares. All combine to impact dwell time.
- Customers do not want to upgrade, causing conflicts with driver. People assume NCTD Day Pass also good on MTS.
- Processing day passes take time esp. when a line of students
- Both collecting fare and dwell time are important
- Some of these operators had heard about Compass Card.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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- Counterfeit passes used to be a problem; now passes are much harder to duplicate. Sr./Disabled pass misuse is a problem. A lot are cheating. No ID card with their pass
- Most riders know what the fare is; 80% of riders are regular

### 2. Potential fare level/structure changes

- MTS should go to a flat fare.
- Regional pass should be good on all buses. Use Day Pass on any bus/trolley. \$5 pass price would be good.
- Fares should be uniform
- Improve dwell time, don't increase it!
- Post service phone numbers (where are they)
- Better education of riders re fares and farebox is one of the best ways to improve usage, but some riders can't read. Agencies need more advertising on TV/radio of fare changes; doesn't seem to be much of this.
- Let riders board if there is a fare problem; not worth it to argue with riders.
- Need better quality control re operators.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** North County Transit District

**Department:** Supervisors (NCTD West Division), Customer Service

**Name(s):** Kim Stone, Manager of Bus Services; Rod Surber, East Division Superintendent; Don Ankney, West Division Superintendent; Jay Krueger, Supervisor II; Don Quarford, Supervisor II; Rosalie Martinez, Customer Service Supervisor.

### 1. Current fare level/structure and administration issues/concerns

- Biggest problem: different types of stickers that go on ID cards, passes. Too many passes and fare media – drivers cannot discern. NCTD is not that complex, but add in MTS and the system is complex. Both drivers and customers are confused. Drivers don't know what is good, not good --- they're not even challenging. Customers don't know what will be accepted or not. Drivers can't read the month on pass. Design needs to be clearer. All impacts dwell time.
- Seems to be new ticket for every special event.
- Day Pass transfer to MTS is a problem. Disparity between transfers NCTD-MTS and MTS-NCTD is problem. Upgrades confusing. Some hadn't heard about MTS switching to issuing electronic day pass.
- NCTD customers like the NCTD monthly pass. \$54 vs \$64 regional, but customers don't understand difference between differently priced passes.
- Social Service agencies - Day Passes are supposed to have date punched, but don't.. Sold in bulk to SD Lifeline. They are a broker for other agencies and resell regional passes.
- FAST system will have Compass Card readers.
- Fares must be easily enforced and recognizable. Compass Card will help; eliminates need to challenge riders.

### 2. Potential fare level/structure changes

- Cash fares. NCTD won't raise fare level, but need to make them uniform.
- Compass Cards: NCTD client base won't pay \$5 Issuance fee. Instead, reward behavior we want to encourage such as if reload a Compass Card, get a discount. Alternatively, charge a deposit – rather than a "fee." Plus, outlets need to be available, convenient, inexpensive.
- Enable payment of multiple fares.
- Customers would prefer rolling pass vs fixed calendar. NCTD Doesn't sell half-month pass like MTS. Would like to see a pass good for all transfers. Would like to see scratch off NCTD passes (e.g., 4 days, not necessarily consecutive days).
- Recommend Gift Certificates for transit. Lot of employers issue TransitChecks.
- Long-term (e.g., quarterly pass). Longer term passes for people buying for parents. Don't want to buy every month. COASTER riders would like annual pass.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** North County Transit District

**Department:** Rail Division

**Name(s):** Walt Stringer, Manager of Light Rail Services; Lane Fernandes, Manager of Commuter Rail Services; Tom Lichterman, Director of Rail Services

- NCTD and MTDB forged the uniform regional fare agreement. The original intent was to establish reciprocity re intersystem transfers and to allow transfers between rail and bus. Goal of seamless mobility has been complicated by fact that NCTD is in the middle of operators to the north (OCTD, MetroLink, Riverside) and south (MTS).
- Fare structure has become very complex for riders crossing jurisdictions and not using a regional monthly pass. COASTER to Trolley (vice versa) transfers are complicated if customers purchase single fare; however, 60% of COASTER riders use passes thanks to the employer subsidy program. COASTER passes good on everything but rural services.
- The single cash fare on the NCTD bus does not qualify the customer for a discount on the COASTER; however, a single cash fare on an MTS bus or trolley does. This is not fair for NCTD customer.
- Relatively few people transfer between COASTER and MTS bus (except for trips to the Airport; about 3% of COASTER users are going to/from the Airport). A more convenient option would be a round trip ticket covering both services.
- The Compass Card will be problematic re use with Rail 2 Rail program with Amtrak (at 3 stations). How will their conductors know the customer has a COASTER pass? It hasn't been decided how to address this (perhaps show receipt from buying pass?). A flash pass is currently used for Rail 2 Rail. NCTD pays Amtrak \$100,000/year under this program.
- Validation on COASTER: individual tickets are stamped by the validator; tickets can be purchased up to 90days in advance. The new TVMs are self-validating. Compass Card will require tap on/tap off.
- COASTER tickets will be available at Sprinter TVMs.
- NCTD Day Pass (and upgrade) can be used to transfer to COASTER. MTS ticket (with upgrade) can also be used to transfer to COASTER.
- For Padres games, ticket validation machines are provided (in trailer at Petco Park); about 98% of COASTER users pay with individual tickets. NCTD reimburses MTS \$1.25 (Tom Doogan of MTS told us \$1.15??) per person on Trolley after baseball game (i.e., from Petco Park to Santa Fe Station – a very short trip). This assumes that everyone on the train is a Padres customer. A possible solution for Padres games – sell COASTER tickets at Trolley TVMs.
- For special events (e.g., Super Bowl), special round trip tickets are sold; these include Trolley rides.
- Average COASTER trip is 28 miles. Highest single ride fare is \$5.50. The average fare per trip is \$4.17, resulting in a \$6 per trip subsidy.
- MTS has said it wants \$5 per Day Pass from COASTER if a COASTER Day Pass were implemented.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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- The fare evasion rate (i.e., people who have paid no fare) on COASTER is under 3%. In addition, a lot of people have tickets that have not been validated. Much of the evasion occurs for Padres games and other special events.
- On Sprinter, the contract calls for inspection of least 30% of riders.
- About 1/3 of bus riders transfer to/from another vehicle. Sprinter expected to have considerably more transferring.
- The plan is for the Sprinter fare to be the same as the NCTD bus. However, they would be open to the possibility of a higher fare for Sprinter.
- The biggest recommendation is to do something to minimize the total number of fare transactions.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** San Diego Association of Government

**Department:** Executive Management

**Name(s):** Diane Eidam, Chief Deputy Executive Director

### 1. Current fare level/structure and administration issues/concerns

- Fares too complicated – a barrier to people riding.
- Guiding principles for defining recommendations
  - Ridership is important
  - Improve ease of use
  - Need to insure some flexibility for agencies to set own fare.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** San Diego Association of Governments

**Department:** Planning

**Name(s):** Dave Schumacher, Dan Levy, Philip Trom

### 1. Current fare level/structure and administration issues/concerns

- Want to get SANDAG out of detailed revenue allocation – should just allocate to MTS and NCTD; let MTS decide how to allocate to individual operators (e.g., SDTC, Trolley, National City, Chula Vista)
- Currently do survey every 3 years to determine revenue allocation re COASTER.
- Fare anomalies and exceptions are real problem with current fare structure

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** San Diego Association of Governments

**Department:** Communications

**Name(s):** Anne Steinberger, Communications Manager

### 1. Current fare level/structure and administration issues/concerns

- Challenges: Too many fare products, too many different brand names – although she doesn't believe fare structure is a barrier to using the system.
- Fare Facts. Confusing to write it, but maybe not for customers.
- SANDAG process for fare setting.
  - They're responsible
  - Need to review by agency board, approve
  - Need to review by SANDAG board (some members overlap).
  - Hold public hearings – SANDAG's responsibility
  - Process needs to be better coordinated
- 511SD.com – new website about traffic, transit . Launches January 2007.
- Fare changes are communicated by
  - Take Ones (on-board)
  - Ads promoting the public meetings

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** San Diego Association of Governments

**Department:** Mobility Management

**Name(s):** James Dresibach-Towle, Mobility Management and Project Implementation

### Current fare level/structure and administration issues/concerns

- No smart card readers will be installed on rural and ADA. \$19.5 million State Transportation Improvement Program. Bonded it before receiving the check. Impacted CIP budget, but now will be sitting with \$19.5 million. Project moved to SANDAG, finances stayed with MTDB. NCTD 30% and MTS 70% - paying for own equipment. Back office equipment sits in SANDAG, but operators will pay for it.
- SANDAG is lead agency for Compass Card, and will handle back office and Call Center; considering outsourcing Call Center. May also be hosting the call center for FastTrak.
- No Day Pass at TVM, but will be able to load at farebox; no official Day Pass on Compass Card, but if rider puts \$4 into NCTD farebox, it will be coded on the card as a Day Pass. Not considering "best fare" option; the operators are strongly opposed.
- Multiple fare products can be loaded on a card; options include stored value, multi-day pass.
- Distribution:
  - Initially will sell preloaded cards and distribute through key distributors. Will encourage reloading elsewhere.
  - Plan to install Point of Sale equipment at retail partners located in 12 specific geographic areas throughout the county that are otherwise underserved.
- Will not be able to buy sr./disabled Compass Cards from TVMs or retailers. Instead, sr./disabled customers will be screened and photos taken for Compass Cards.
- Cubic is charging \$4.00 per card with pre-encoding. There will be a \$5.00 issuance fee for the Compass Card.
  - Get one free replacement card.
  - Allow to go negative up to \$5.00, but can't use again until replenished. Can't use again even if load a pass.
- Automatic reloads will be offered from the start -- threshold as well as directed.
- Compass Card will have agency logos on back.
- Employer program: large employers (e.g., City and Caltrans) will manage own employees' cards through an account. Get bill at end of month.
- Multiapplication opportunities: Universities are interested in joint use cards; some of larger ones have plans to go to smart cards. E-Lockers for bikes at transit parking lots. Parking applications. They've talked to Starbucks; Starbucks said to come back once program is up and running. Also thinking about universal transportation account (e.g., transit and FasTrak).

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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- Plan tag on/tag off on Trolley. Minneapolis reports 80% compliance with tag on/tag off. They'll use handheld validators (cost about \$2,000 each) to sample compliance to tag on. Handheld will show green light if good or check where they tagged on; standalone validators cost about \$1500 each. No plan to have tag off on buses.
- Transfers are time-based, not directional. Can go back on the same bus route.
- Roundtrip is a problem – go with day pass instead.

### Recommendations

- Eliminate anything above 2 day pass – all should go to Compass Card.
- Change to pay per boarding: free transfer with Compass Card, otherwise get rid of transfers.
- Would prefer flat fare (i.e., no zones).
- Have different fare levels for Compass Card -- i.e., incentive programs to move people to card; examples include free transfers only with Compass Card or lower single ride fare with Compass Card than with cash.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** San Diego Association of Government

**Department:** Finance

**Name(s):** Renee Wasmund

### 1. Responsibilities as they relate to fare policy/structure and revenue sharing

- Provides revenue estimates to operators
- Provides Trolley with \$600k cash advance monthly
- Cuts revenue checks 5 weeks after month's end. SANDAG earns very little "float". Once go to Compass Card and clearinghouse, settlement will occur even sooner.
- The revenue fronts the money for the operators' capital programs
- SANDAG approves operators' budgets; population split (No. Co. vs. rest of area) used for TDA allocation.

### 2. Current fare level/structure and administration issues/concerns

- Guiding principles for defining recommendations
  - Minimize the number of steps for customers
  - Simplify transfers/connections
- Abuse of sr./disabled passes a problem – can buy at TVM or some outlets without having to show an ID (this depends on individual outlet)

### 3. Potential fare level/structure changes

- It is hoped that the Compass Card will simplify the process of revenue allocation – currently a tedious process. Plus, they'll pay less in commissions to retailers once customers begin reloading their cards on bus and TVMs, etc.
- Want to reduce the number of sales outlets with Compass Card.

# REGIONAL TRANSIT FARE STRUCTURE AND REVENUE SHARING STUDY

## Stakeholder Interviews

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**Agency:** San Diego Association of Governments

**Department:** Finance

**Name(s):** Theresa George

### 1. Current fare level/structure and administration issues/concerns

- 1-5% commissions are paid to retailers based on product. There are 300 sales outlets – 85% are public, 15% are employers (about 50 employers). No commission is paid by NCTD and they have fewer outlets.
- TransitStore generates ~\$300k per month in cash from fare product sales. They sell passes and tokens. Current monthly pass sales are approximately as follows:
  - Sr. pass – 33,000/month
  - \$60 pass – 17,500/month
  - \$64 pass – 1900/month
  - College passes – 1600/month (many students have semester passes instead of monthly)
- Downtown Partnership receives 700 passes (ECO Pass program) each month. This is an annual program – they pay up front for a years worth of passes. They receive a 5-30% discount on the passes. There are also 4 other ECO Pass programs. NCTD does not have employer programs or discounts.
- Internet passes by mail = about 500 orders per month.
- They accept TransitChecks for purchase of passes.
- Call Center for Compass Card will be at RideLink, which recruits employers for passes.

### 2. Potential fare level/structure changes

- Would like to eliminate Social Service and Hotel/Convention scratch off Day Tripper. SSA's don't sell many Day Trippers, but do sell a lot of tokens (they get 1 free for every 20).
- Wants to reduce the number of sales outlets when Compass Card is introduced. Her goal is to reduce number of retailers from 300 to about 50. Criteria for selecting a retailer are location and sales volume.
- Compass Card will start (pilot project) with a monthly pass.

## Appendix C: Customer/Potential Customer Interviews

## Interviews of Customers

Customer interviews were conducted Tuesday, December 19, 2006 and Thursday, January 4, 2007 at pre-selected stations and transit centers. The December interviews were conducted by Karen Konecky of Parsons; for the January interviews, a Spanish-speaking NCTD employee (Petra Sjogren) assisted Ms. Konecky with the interviews, allowing the team to target customers whose first language is Spanish.<sup>12</sup>

The original plan for the study was to identify and invite customers to attend two focus groups, but after discussions among the consulting team and staff of SANDAG, NCTD and MTS, it was decided that pre-selecting key transit centers and targeting customers for one on one interviews would not only improve the team's ability to gather perceptions and opinions from a diverse mix of customers, but that this approach would also increase the likelihood of interviewing customers who transfer between the two systems. The following stations and transit centers were selected for conducting customer interviews.

- Old Town Transit Center
- Iris Avenue
- El Cajon Transit Center
- Fashion Valley Transit Center
- Palomar College
- Escondido Transit Center
- North County Fair
- University Towne Center
- Oceanside Transit Center

An interview guide was prepared in advance and followed for each customer interview. As an incentive to participate, customers were offered a gift card good for \$10 at either Vons or Albertsons. Only one customer refused to accept the card, and two customers told the interviewer that they would have participated in the interview regardless of the incentive.

**Interview Objectives** -- The objectives of the customer interviews included:

- To identify and interview a mix of customers reflective of the general composition of NCTD and MTS transit users

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<sup>12</sup> During the process of conducting the interviews, the interviewer also took the time to observe customers purchasing and/or validating fare media. It was noted that some customers had difficulty navigating the purchase (and validation) of both COASTER and Trolley tickets at ticket vending and validating machines. This difficulty seemed to indicate confusion about the process of purchasing/validating a ticket, rather than confusion about the fare structure and payment options available. In contrast, no such difficulties were observed at the Transit Store. In the opinion of the observer, the signs posted above the sales counter at the Transit Store effectively address the different markets and provide clear and concise information about relevant fare options.

- To collect customer attitudes about the current fare structure
- To collect ideas for improving the current structure

The plan was to gather at least 12 full interviews of customers from each of the two systems. Table C-1 shows the number of customers interviewed, the number identified as NCTD and MTS customers and, the number of customers who transfer between the two systems. If a customer transferred between the two systems, his/her primary system was defined as the one on which his/her journey started, and the customer was then also classified as a transfer. For example, if a customer started a journey on a NCTD bus and transferred to a MTS bus, the customer was assigned NCTD as the primary system and also counted as a transfer.

**Customer Profiles** – Table C-2 compares the general composition of each system to the profiles of the customers interviewed for both NCTD and MTS.

Table C-1: Customers Interviewed, by System

Interview Location	No. of Customers Interviewed	Primary System		Transfer b/t Both
		NCTD	MTS	
Old Town Transit Center	4	0	4	1
Iris Avenue	4	0	4	0
El Cajon Transit Center	3	0	3	0
Fashion Valley Transit Center	2	0	2	0
Palomar College	3	3	0	0
Escondido Transit Center	5	4	1	0
North County Fair	3	2	1	2
University Towne Center	5	2	3	1
Oceanside Transit Center	3	3	0	0
<b>Total</b>	<b>32</b>	<b>14</b>	<b>18</b>	<b>4</b>

Table C-2: Profile of Customers Interviewed

Profile	NCTD			MTS		
	Comp	Interviewed		Comp	Interviewed	
Female	51%	7	50%	52%	8	44%
Hispanic	46%	8	57%	37%	4	22%
Non Hispanic (White)	36%	4	29%	37%	9	50%
Asian/Pacific Islander	10%	1	7%	7%	1	5%
African American	5%	1	7%	15%	4	22%
12 to 18 years	23%	2	14%	13%	3	16%
60 + years	5%	2	14%	9%	2	11%
Other ages	72%	10	71%	78%	13	72%
<b>Total Interviewed</b>		<b>14</b>			<b>18</b>	

Source of ridership composition: *Results of Onboard Transit Passenger Survey for San Diego Region, March '04*

The detailed interview results are presented below.

**Responses to Individual Questions** -- This section presents the responses to each question asked by the interviewer.

1. **What has your experience been with this transit system? What do you like/not like?**
2. **How would you describe it to a friend who lives in another city?**

These two questions were intended to be “warm up” questions. They are relatively easy for customers to answer, and the interviewer acknowledging their responses in a neutral, but appreciative, manner helped to build the interviewee’s trust in the process. In addition, if fare complexity was a top-of-mind issue for any customer, these questions would help expose it up front. Table C-3 lists the types of responses and the number of customers who responded with this answer. In most cases, customers provided multiple responses, so each response was recorded.

**Table C-3: Customers’ Experience with San Diego’s Transit System**

Response	NCTD	MTS
Late.	3	5
Good service, punctual, reliable, dependable, efficient.	9	7
Good for elderly.	1	1
I like everything/no problem.	2	1
I can relax, not rushed.	2	
Trips are too long/slow.	2	5
It gets me to work.	1	
Easy and convenient.	2	2
Good, courteous, polite drivers.	3	
Bad drivers.		2
Bad service.		1
I can go anywhere for \$2.	1	
I don’t have to buy gas.	1	
I don’t like the kinds of people you have to ride with.	1	
Weekend service is bad (MTS-El Cajon).		1
Buses are too small during rush hours.		1
Headways between buses are too long.		1
Trolley is good.		2
916/917 Schedules not good. 1 hr. headways between buses too long.		1
Drivers pass people in wheelchairs.		1
No benches at stops for disabled to sit.		1
Not very connected in El Cajon.		1
Can’t get schedules/info for travel outside El Cajon.		1
The system is horrible.		1
The system is marginal.		1
Bad service outside Metropolitan area.		2
Good but expensive.		2
Ticket buying process (TVM) is too difficult and takes too long.		1
Trolley is too slow.		1
The change in schedules was not good (Route 5 is no good).		1
NCTD service is cut off too early.		1
Crowded and hard to find a seat.		1

Response	NCTD	MTS
Easy to understand if you know where you want to go.	1	
Buses are clean.	1	
Compared to Mexico, excellent.	1	
I think I'd feel safe.	1	
Drivers go through extensive training.	1	
Stops are hard to find.	1	
I like better than driving.	1	

There were five responses specifically related to fare payment:

- Good for elderly (this comment was primarily related to the extraordinary value) – 2 responses
- I can go anywhere for \$2 (a NCTD senior who buys a Day Pass) – 1 response
- Good, but expensive (cash paying customers who cannot afford a pass) – 2 responses

### 3. Describe your typical commute.

This question enabled the team to identify the customer's primary system.

4. How do you currently pay your fare?
5. Why did you decide this was the best option for you?

These two questions enabled the interviewer to understand how customers make decisions about what type of fare is the best option for them. Table C-4 lists the responses of the NCTD customers and Table C-5 lists the responses of the MTS customers.

**Table C-4: Customer Fare Payment Choice and Reason - NCTD**

Payment Method	Reason	No.
Cash only (single ride)	I'm in the military and rarely go off base on transit.	1
Cash/Day Pass	I don't need to ride a full month.	2
Cash/Day Pass	I'm unemployed, so cash is all I can afford.	1
Cash	I don't know where to buy a pass I know nothing.	1
Cash, Day Tripper	I pay cash on the 350 (single ride) then buy a Day Tripper once at the Trolley. I use this on all buses and my ride home.	1
Monthly pass (NCTD) or cash	It depends on how often I ride each month.	1
Monthly pass (NCTD) or cash	When I have enough money, I buy a pass.	1
Monthly pass (NCTD)	It's quick, easy. I don't need to put change in the farebox. That's too difficult.	1
Monthly pass (NCTD)	I need to ride every day. I find it convenient and don't have to worry about exact change.	1
Monthly pass (NCTD)	It's cheaper, easier.	2
Monthly pass (MTS)	I get it through work. I save money.	1
N/A		1
<b>Total</b>		<b>14</b>

Table C-5: Customer Fare Payment Choice and Reason – MTS

Payment Method	Reason	No.
Cash	I'm an occasional rider, don't always need transit.	2
Cash	A pass would cost more, can't afford.	2
Cash	Easier.	1
Cash/Monthly Pass (MTS – regular)	It depends on the month and how much I plan to ride. I weigh the value.	2
Monthly pass (MTS – regular)	Not always cheaper, but easier.	1
Monthly pass (S/D)	Best deal.	6
Monthly pass (Youth)	I have to use transit a lot, best deal.	3
Monthly pass (University)	It's included in my student fees.	1
<b>Total</b>		<b>18</b>

6. If the customer uses prepaid fare media) ... then ask *Where do you buy your pass, tokens?*

The stated sales outlets for NCTD passes were:

- Encinitas Post Office
- Oceanside Transit Center
- (Vons in Escondido
- Ralphs? (wasn't sure of the store's name)
- Escondido Transit Center
- Albertsons
- Transit Center in Vista

The stated sales outlets/distributors for MTS passes (including Day Tripper) were:

- Ticket Vending Machine
- My employer
- My school
- Vons
- Escondido Transit Center
- Old Town or San Ysidro

- Ralphs
- Case worker
- Transit Store
- El Cajon Transit Center
- Neighborhood store or El Cajon Transit Center

**7. Before you decided this was the best option for paying your fare, were you confused by what fare to choose or pay? If so, describe the situation.**

Eight of the 14 NCTD customers interviewed expressed some confusion about fares before choosing how to pay. Of the 8, 2 complained about pricing differentials of passes, local versus rural bus routes. Specific comments were:

- Yes, I had trouble knowing which fare would be the best for me.
- Yes, I was confused, but my friends helped me. They advised me that the pass was the best option.
- Sometimes I was confused, but then worked out the best way for me. I only ride 3x per week, so I don't buy a monthly pass and I'm a housecleaner and cannot afford it. So I pay cash at Escondido, then a Day Tripper. I then use this to go home.
- Yes, I am confused. I don't know anything. I don't know where or how to buy a pass.
- Yes, I was confused until I looked at the signs on the bus. And the book helps.
- No, but my mom taught me.
- I'm not confused, but don't understand why bus passes are different prices. That was confusing.
- Yes, the whole thing is confusing – local, rural are different fares.

Seven of the 18 MTS customers interviewed expressed some confusion or (observed someone confused) about fares before choosing how to pay. Of the 7, 2 complained about pricing differentials of bus routes. Specific comments were:

- Yes, the first time I rode the bus, I wasn't sure how much to pay. I paid the full adult fare (she's a youth).

- I don't know what they mean by Rural and Express fares. Why are there different prices? I don't know what to pay.
- More people complain about the high fares and the need for quarters.
- No, I'm not confused, but I have had to help people who were – especially at the vending machines. People don't know what button to press.
- I never know until I ask the driver how much to pay.
- Trolley fares and how to pay them are difficult for the occasional rider to understand.
- Yes, it was confusing for me.

**8. Do you know that there are two different transit agencies in San Diego County? If so, do you know what they are?**

Several transit agency staff (from both NCTD and MTS) had expressed in the stakeholder interviews that they believe most customers are not aware that there are two different transit agencies in San Diego County, thus making it difficult for them to understand why there are different rules for fare payment and transfers. This question sought to validate this staff assumption.

Three of the 14 NCTD customers interviewed knew there are two agencies, but only one could give the interviewer the names of the agencies. Five of the 18 MTS customers interviewed knew that there are two agencies, but many thought they were San Diego Transit and Trolley.

**9. Do you ever have to transfer from one vehicle to another? If so, have you ever been confused by what was required to transfer? If so, please describe the situation.**

Five of the 14 NCTD customers interviewed expressed some concern or confusion about transfers:

- No, my friends explained. I don't want to deal with transfers.
- Sometimes when I get on an MTS bus, I don't know how much to pay.
- At first I was confused when I used to pay cash. The transfer policies are confusing.
- Yes, I thought it was confusing charging different fares.
- At first I was confused, but now I know. Before, I used to ask the other passengers.

Five of the 18 MTS customers interviewed expressed some concern or confusion about transfers:

- Sometimes I think we're supposed to insert the transfer into the machine (farebox), but drivers never ask us to do so.
- SDcommute.com helped me understand.
- Sometimes transfers are good for 2 hours, sometimes 3 hours, 1 ½ hours. It's inconsistent. This was expressed by two customers at Iris Avenue (buses in South Bay issue tear off transfers).
- I figured it out, so no, I'm not confused. I guess if English is your second language, it would be difficult. Last year, transfers were good for 3 hours, now they're good for 2 hours. It's too short of time when you have to go a long way.

**10. Do you know of anyone or have you ever observed other customers confused by what to pay or by what they needed to transfer? If so, please describe what you observed.**

Six of the 14 NCTD customers interviewed had comments or observations about other customers experiencing confusion with fare payment or transfers:

- Once someone got angry that the Day Pass didn't cost \$2. He didn't know.
- Yes, others are afraid of getting lost and how to pay.
- Just like me, the customers don't speak English, so I try to help them understand what to pay.
- Yes, different fares are very confusing to people.
- Occasionally I see people who don't know what to do or pay, but drivers are very helpful.
- Old people get very confused.

Eleven of the 18 MTS customers interviewed had comments or observations about other customers experiencing confusion with fare payment or transfers. Of the 11, 5 identified issues related to Trolley pricing.

- Yes, a woman, who didn't know how to speak English, was not sure how to get where she needed to go. The color coding helps.
- Yes, but customers just ask the bus drivers. At the Trolley, they have to figure it out themselves.
- Yes, the Trolley ticket wasn't enough to board a bus. The customer needed to upgrade and was confused by this.
- I have seen people board and not know what to pay.

- Sometimes the bus costs less than another bus. The different levels are confusing.
- Some are confused by the information on the transfer slip. They don't know if it's good or not.
- Some people don't know if transfers are good for a round trip or they're only good for one way.
- People don't always know what to pay at the Trolley; however, bus drivers will tell you what to pay.
- Customers don't know which (Trolley) zone they're going to. And, if they're new riders, it's not easy to figure it out.
- The drivers are there to help on the buses; however, because there is no one to help at the Trolley, people can be confused by what to pay.
- Some don't know how or what they need. Many seem to ask the same questions over and over.

**11. Have you ever observed a bus driver confused by what someone presented to him/her to pay their fare? If so, please describe what you observed.**

Three of the 14 NCTD customers interviewed observed drivers confused by what a customer was presenting or trying to pay:

- They are not able to communicate to customers in Spanish.
- Some drivers do not speak Spanish, so they're confused.
- Yes, an unusual pass.

Only two out of the 18 MTS customers interviewed observed bus drivers confused or overwhelmed.

- Not confused, but overwhelmed...so they just wave people on.
- Yes, (but no further explanation).

**12. Do you have any suggestions for how we can make the current fares and transfer rules less confusing for customers or potential customers?**

Many customers told the interviewer that they had no suggestions and a few expressed that the rules are easy just as they are now.

Six of the NCTD customers interviewed offered suggestions for improvement; 3 of these 6 customers focused on improvement in communications about fares and rules.

- The book schedule is confusing. Maybe there should be one page on the bus for that route only. This would help.
- Go to one basic fare for everything.
- The bus pass is the best way to go.
- The rules on the signs on the farebox should be clearer and bigger print.
- Information about current fares and rules should be easier to access.
- I'm just looking for a monthly pass that would be good on both San Diego and North County buses and Trolley – one that works (cost effective) for someone who rides 3 days per week.

Five of the MTS customers interviewed offered suggestions for improvement:

- You need an exact time on transfers. I never know how much time I have. (Iris Avenue)
- A flat fare on the buses would be good, but don't charge too much.
- The \$1.75 and \$2.25 are awkward. People don't always have quarters or enough quarters. You should price the fare so it's easy to have exact change.
- The less complicated you can make it, the easier to get people to use the system.
- The offices at the Trolley stations should be able to sell Trolley tickets and to provide assistance.

**13. What do you think of zone or distance-based fares (like the COASTER or Trolley)? Do you think it's reasonable to charge customers more for traveling longer distances or to pay more if they travel during peak/rush times of the day?**

Eight of the NCTD customers interviewed expressed opinions about the pricing strategies; 4 of the 8 customers agreed that distance based pricing is a reasonable strategy and 3 agreed that rush hour pricing is a reasonable strategy.

- Distance based pricing is all right, not higher pricing for rush hours, though. More people need to ride then.
- I think yes to both.

- I think the more buses you ride, the more you should pay. I don't think you should pay more during rush hours. We are all trying to get somewhere. Why punish people for having to use it during that time?
- The day pass is good so this is not a problem for me.
- I'm sticking to one basic fare (flat fare) on the buses, COASTER, and Trolley. To do otherwise is too confusing.
- It's expensive to ride no matter what.
- Yes, I think charging more during rush hours is fair because the bus driver has more to deal with.
- I think both (pricing strategies) are fair.

Seventeen of the MTS customers interviewed expressed an opinion about the pricing strategies; 9 of these 17 customers stated that distance based pricing is okay and 4 expressed that rush hour pricing is okay.

- Both are okay.
- The pass is no problem, but it is confusing for people on the Trolley. A flat fare would be easier.
- The pricing for the Trolley is confusing. It's why I got a pass. I don't know about rush hour – my pass would work anyway.
- It (distance pricing) is good for people who have to travel farther than a few stations. Otherwise, the bus is really cheaper.
- His friend said the same thing (as above).
- Yes, I think both are reasonable.
- I like both.
- One price (for Trolley) is best because no one checks anyway. Don't charge more during rush hours because people have to ride then. It wouldn't be fair.
- It (Trolley) should all be one price. Someone who is going to one stop now still has to pay more when boarding (transferring to) a bus. One price will make it less confusing and there would be no upgrades.

- Pricing by stations is confusing. A flat fare would be better. Those going a short distance may not like it, but life isn't always fair. No, on rush hour.
- I think it's fair to charge less for shorter distances and fair to charge more for rush hour periods.
- I have a pass, so it doesn't affect me either way.
- I think distance based fare is fair, but not fair to charge more during rush periods.
- If the economics work, a fixed fee would be best. It is okay to pay more if traveling farther. \$0.50 more is okay, but a lot more than this is a problem. It needs to be priced right. Don't charge more at rush hour because customers don't often get a seat.
- The pricing (Trolley) is so close, it would be easier to make it a flat price. It would be less complicated. Even if someone is only going one station, they can still use the ticket for 2 hours.
- The Trolley's fare is always flat, if you have a pass. Paying a fare by the number of stations is confusing especially when you have to transfer like from Green to Orange. How do you know what your fare is? Plus, the buttons on the vending machine are confusing. No, to higher fare during rush hours because it's hard enough for customers during this time.
- I think distance based fares is the right thing to do. No, to rush hour.

**14. Have you heard that the San Diego transit agencies are going to a smart card fare collection system?**

Only one of the NCTD customers had heard about the smart card, and four of the MTS customers had heard about it.

**15. Do you think a reusable card that allows you to load value or passes at a variety of different places like at fareboxes, vending machines, by internet or by phone, or at select sales outlets or passes would make fare paying more or less convenient?**

All but 2 of the NCTD customers believe the smart card would make fare payment easier and more convenient – of the 2, 1 had no opinion and 1 believes it would not make fare payment easier or more convenient. This customer told the interviewer –

- It will be less convenient because I would need to monitor the amount on the card and update it.

Eleven of the MTS customers believe the smart card would make fare payment easier and more convenient; 7 believe it would not make fare payment easier or more convenient. Negative comments included:

- Occasional users wouldn't want this. They'd still pay with cash. No one plans ahead.

- I wouldn't like it. It may take money out of my bank and I don't have a computer.
- I have to be able to buy a single fare on the card, otherwise, I won't use it.
- Too much effort. Too difficult. Visual inspection is better. The Smart Card is extra work. And people can't afford to put money on the card. Many pay day by day.

**16. Do you think you would be willing to give the transit agency your personal information (name and address, phone number) so that if you lose your card you won't lose the value on the card if you report it lost (Instead, the value would get transferred to a replacement card)?**

Thirteen of the NCTD customers said they'd be willing to give the transit agency their information for loss protection; 1 had no opinion.

Fifteen of the MTS customers said they'd be willing to give the transit agency their information for loss protection. Of those saying yes, one customer told the interviewer that she lives in Tijuana and that she'd still be willing to give her information if she could have loss protection. Other specific comments included:

- If they don't want my social security or driver's license number.
- We have to give this information for anything these days. So what?

Customers responding negatively to this question were the same customers who did not believe the smart card would be easier or more convenient.

## Interviews of Potential Customers

Interviews of potential customers were conducted January 12 – 17, 2007.<sup>13</sup> The interviewer, Karen Konecky of Parsons, conducted telephone interviews with 12 individuals. All interviewees were San Diego County residents, and were selected to represent variation in a range of factors, including geographic location, gender, age and race. An interview guide was prepared in advance and used to conduct each interview. As an incentive to participate, people were offered a gift card good for \$10 at either Vons or Albertsons.

**Interview Objectives** -- The objective of this effort was to elicit input from at least a dozen potential customers – from different geographic locations throughout the county – on the current fare structure and suggestions for improvements that could conceivably make non-users more willing to consider using transit.

**Locations and Interviewee Profiles** -- A total of 12 people were interviewed. These individuals live in the following locations:

- Clairemont

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<sup>13</sup> The original plan was to conduct intercept surveys at Fashion Valley Mall and North County Fair. However, after attempting to do so at Fashion Valley on January 11, it became clear that finding people representing different geographic areas of the County would be very difficult. Moreover, security at the Mall asked the interviewer to leave. Thus, it was decided that telephone interviews would produce better results. The interviewer identified, through a combination of prior contacts and referrals from others, a set of individuals who do not regularly ride public transportation.

- Del Mar
- Downtown San Diego
- Escondido
- Kensington
- Mira Mesa
- Mission Valley
- Ramona
- SDSU
- South Bay
- Vista (2)

Tables C-6, C-7 and C-8 provide an overview of the interviewee profiles.

**Table C-6: Gender**

Female	6	50%
Male	6	50%

**Table C-7: Race**

Hispanic	4	33%
Non-Hispanic (White)	6	50%
Asian/Pacific Islander	1	8%
African American	1	8%

**Table C-8: Age**

12-18	1	8%
60+	2	17%
Other ages	9	75%

The following summarizes the results of each question asked in the interview.

**Responses to Individual Questions** -- This section presents the responses to each question asked by the interviewer.

1. Do you believe public transportation is a good investment for a county like San Diego? If not, why not ... if so, why?

Everyone answered Yes, public transportation is a good investment. Table C-9 lists the responses and the number of interviewees who gave this answer. In some cases, interviewees provided multiple responses; each of their responses was recorded.

**Table C-9: Reasons Why Public Transit is a Good Investment**

Responses	Number of Times Response Given
Solution to traffic.	4
Good for the environment.	3
Good for the economy.	1
Employees need it to reduce their cost of parking downtown.	1
Promotes environmentally friendly development.	1
Provides for people who cannot afford a car.	1
If they invest in it, maybe they'll improve it. If they improve it, maybe I'll use it more often.	1
Young people, who don't have a car, can use it.	1
San Diego has a high tourist population and they don't always want to rent cars.	1
I've been to other cities with good public transit and I always take advantage of it. I'd like to be able to take advantage of public transit here.	1

**2. Do you know there are two major public transportation agencies in San Diego county? If so, do you know their names?**

Three of the 12 interviewed answered Yes; 1 was able to give the interviewer the right names. Nine answered No.

- Why should I care? I shouldn't have to know this. It should be invisible to me. It doesn't matter who they are but what they do.
- I thought they (all buses, Trolley, COASTER) were all the same.

**3. Do you know where a nearby transit station or bus stop is?**

Three of the 12 interviewed answered No; 3 answered with rail stations or park and rides; 5 answered bus stops or Transit Center; 1 answered with both rail station and bus stop.

**4. Have you ever used public transportation in San Diego?**

Six of the 12 interviewed have used the Trolley; 3 answered both Trolley and COASTER; 1 answered Trolley and bus; 1 answered bus; 1 answered never.

**5. What are your main reasons for not using San Diego County's public transportation system?**

Table C-10 lists the reasons stated by the interviewees and the number of times each reason was given.

Table C-10: Reasons for Not Using Public Transportation

Reason	Number of Times Reason Given
I need my car during the day.	3
I have a car and a bike.	2
It's slow/takes too long.	3
I don't know how to use transit.	1
I don't have a need – I live close to work and shopping.	2
It doesn't serve my work or area.	3
It's too confusing to figure out how much to pay. <i>It's really not the primary reason, but not knowing enough about it does keep me from using it.</i>	1
It's too inconvenient. I do a lot of things that require rapid transport. The system doesn't serve those needs. I'd use my bike before taking a bus.	1

**6. If you were to use San Diego's public transportation, can you tell me how you think you would travel from Escondido to downtown San Diego?**

Six of the 12 interviewed responded with taking the bus from Escondido Transit Center or Transit Hub or Park and Ride to downtown; 2 stated they would take a bus to a COASTER Station; 2 stated train or Trolley; 2 didn't know.

- I would look it up on the web. I'd find the method of transportation, but since it's my first time, I wouldn't want to mix the methods. I wouldn't want to transfer. This would be a pain in the ass. Calling a shuttle or friend would be easier.
- I would either go on the train or the Trolley. The bus would be my very last resort.
- I would look for the Trolley or train, then a shuttle.

**How about from Fashion Valley to downtown?**

Nine of the 12 interviewed responded with the Trolley; 2 responded with taking a bus to downtown; 1 didn't know.

**7. These questions are about fares on the bus, Trolley and COASTER.**

*How much do you think a single ride on a local bus to downtown from Fashion Valley costs?*

Table C-11 identifies the bus fare levels respondents provided.

Table C-11: Bus Fare Responses

Fare	No. of Respondents
\$1.00	1
\$1.25	1
\$1.50	2
\$2.00	1
\$2.50	2
\$2.75	2
\$3.00	3

*How much do you think a single ride on the Trolley to downtown from Fashion Valley costs?*

Table C-12 identifies the Trolley fare levels respondents provided.

TableC-12: Trolley Fare Responses

Fare	No. of Respondents
\$1.50	2
\$2.00	2
\$2.25	1
\$2.50	2
\$3.00	2
\$3.00 - \$4.00	1
\$5.00	1
\$7.00 - \$10.00	1

*How do you think the cost of a single ride on a Trolley is determined?*

Six of the 12 interviewed answered with distance or number of stops; 1 answered with "whatever the market will bear"; 5 didn't know.

*How much do you think a single ride from Oceanside to downtown on the COASTER costs?*

Table C-13 identifies the COASTER fare levels respondents provided.

Table C-13: COASTER Fare Responses

Fare	No. of Respondents
\$4.00	2
\$5.00	2
\$6.00	2
\$10.00	1
\$10.00 - \$12.00	1
\$15.00	2
\$16.00	1
\$17.00	1

*How do you think the cost of a single ride on the COASTER is determined?*

Seven of the 12 interviewed answered with distance or number of stops; 1 answered with "whatever the market will bear"; 4 didn't know.

*Do you think that tickets and passes from one transit system (e.g. Trolley) are accepted on another system (e.g. COASTER)? (or substitute MTS for Trolley and NCTD for COASTER)*

Five off the 12 interviewed were certain of their answers; 7 not so sure. Table C-14 lists the responses to this question.

**Table C-14: Are Tickets/Passes from One System Accepted on Another?**

Yes	No
This just makes sense.	It should cost more to use the train than the Trolley, so no.
But you have to buy special tickets/passes.	No, I don't think so.
I think.	No, but it shouldn't matter. It should be seamless for me. Why should it mean anything to me, as a resident of the county, that there are two different organizations?
Yes, they are accepted on both.	No, I don't think that it works this way. They are 2 different companies.
I think so. You should be able to.	No (2)
I don't know. I would hope so.	

*Do you think it would be reasonable to charge more (a premium fare) for services that are : (a series of factors – "Faster", "Rail", More comfortable", etc. -- was presented here by the interviewer):*

Table C-15 lists the responses to this series of strategy questions.

**Table C-15: Opinions About Fare Pricing Strategies**

Factor	No	Yes	Undecided	Comments
<i>Faster</i>	2	10		No, public transit should not be built for the elite riders. No, this is not fair to poor people. Yes, if significantly faster. Yes, because there would then be fewer people on them and more room to sit.
<i>Rail</i>	3	8	1	Yes, slightly more. Yes, it's more expensive to run. Yes, but the Trolley is too slow. Yes, it's more expensive to build. Yes, because of higher maintenance costs. Yes, it costs more to operate and there's no infrastructure, so costs more to build. No, it should cost the same as the bus. No, because buses get you to more places, so they should cost more. No, the services should all cost the same. Depends on whether I get better service than the bus.
<i>More comfortable</i>	2	9	1	Yes, like coach on Amtrak. Yes, we're used to this. Always willing to pay more for comfort.

Factor	No	Yes	Undecided	Comments
				No, the goal of transit should be to make the ride comfortable for everyone who rides, not just for those willing to pay for it.
<i>Travel longer distances</i>		12		Suppose so, but it's qualified because I care about the people who, because of income, live in sections of town that require them to travel great distance to get to jobs in more affluent parts of town.
<i>Travel during peak periods</i>	11	2		Yes, but small increase. Yes, for the bus because it takes more gas to sit in traffic, but no for the Trolley or COASTER because they don't have to sit in traffic. Yes, because there would then be fewer people on them and more room to sit. No, it's counter productive. No, it doesn't feel egalitarian. No, make it more cost effective to encourage more people to ride during these times. No, it's the same service during rush hours as other times. No, defeats the purpose. No, because volume is up and they get more revenue.

8. This question is about ways in which a customer may pay a fare. Besides paying cash for a single ride, can you think of (or have you heard of) other ways customers may pay a fare ... especially regular/daily riders? If so, please describe.

Seven of the 12 interviewed responded with monthly pass; 1 responded with credit/debit, ATM cards; 2 responded with Smart Card; 1 responded with buying tickets on line (she thought); 2 didn't know.

9. Would you consider using public transportation if the fares were easier to figure out?

All but 1 of the 12 interviewed answered "No"; 1 responded with "it would make her more comfortable about riding it."

- Not necessarily ride more because I have a car, but I would be more comfortable about riding if I knew more.
- This is not the biggest impediment to me riding public transit. It would make it easier and maybe I'd be slightly inclined, but the biggest reason is because it does not get me to work.
- I could figure out the fares if everything else worked for me.
- It's pretty easy now, so no.
- It has nothing to do with fares.
- That's not what keeps me from it.
- No, it doesn't serve my area.

**10. Have you heard that San Diego County's public transportation agencies will soon be implementing a new high tech "smart card" fare collection system?**

Two of the 12 interviewed answered Yes; 10 answered No.

**11. Do you think a reusable card that allows you to load value or passes at a variety of different places (like at fareboxes, vending machines, by internet or by phone, or at select sales outlets) would make fare payment more convenient? Why?**

All respondents answered Yes.

- More convenient because you wouldn't have to carry a lot of cash. I don't want to have to go to an ATM whenever I want to ride.
- Because it serves all types of people. They can buy their fares from the comfort of their own home or a ticket vending machine. It would work for everyone.
- Yes, more convenient, assuming they'll still accept cash.
- It makes sense.
- It will be easy to just tap the card instead of standing trying to figure out how to pay.
- Yes. This society is increasingly moving away from cash. I use my credit card for everything. I pay my bills on line, I use Starbucks card. Multiple points of reloading a card would be hugely convenient.
- This is a good idea. It will make is much more convenient to have more ways to buy a pass.
- I have heard stories from my friends that the Trolley's machines are always broken, so this would help. You could also give the card as a gift.

**12. Would such a card cause you to consider using public transportation?**

All but one of the 12 interviewed answered No; 1 answered Yes with a caveat.

- Yes, if I don't have a car.
- Not because of the card.
- It would help, but would cause me to ride more. The service doesn't work for me.
- No, not the issue.
- No. It would make paying a fare easier. It would be an alternative form of payment – IF I WAS A USER OF THE SYSTEM, but it would not make me use it more. The card would be just like all the other cards that sit in my wallet and I rarely use.

- Maybe if I worked downtown and I had to pay for parking. But, now ... no, it wouldn't.

**13. Would you consider using public transportation if the value (or pass) loaded on this card could be replaced if you lost your card?**

Ten of the 12 interviewed answered No; 2 answered Yes (1 with a caveat).

- Yes, if I don't have a car.
- It would be more encouraging to me.
- Helpful, like some gift cards that you can replace, but ... again ... it won't cause me to ride more.
- No impact on me.
- Not the issue.
- Nice idea, but no, it won't cause me to consider public transit any more or less.
- No, not the issue for me.
- It's a nice feature, assuming I use transit, but it won't make me use it more. I'll only use transit more if it becomes easier and more convenient.
- It will encourage more people to ride, but it won't cause me to ride more often.
- If I rode public transit, it would make me want to buy one of these cards. But ... no, it wouldn't cause me to ride public transit.

## Appendix D: Development and Evaluation of Fare Structure Options

## Development of New Fare Structure Options

Based on the findings from the previous tasks, the consultant team, in collaboration with SANDAG, developed several sets of initial fare structure options. Each set of options focused on one of the key elements of the fare structure:

- fare differentials
- reduced fare definitions/parameters
- prepaid fare media
- transfer/upgrade policies
- institutional programs

In developing these options, the intent was to address the key fare structure goals for the region. While the full range of goals identified through the stakeholder process was considered, the major focus was on achieving a *simplified and unified overall fare structure*. The fare options developed are shown in Tables D1 - D5. As indicated, the services in the region have been grouped by service category. The different options within each fare category are discussed below.

### Fare Differentials

This category addresses the underlying nature of the fare structure, i.e., flat fare vs. one or more type of differentiation. The existing fare structures for MTS and NCTD services, as summarized in Table D-1, feature a complex mixture of flat fares (i.e., NCTD services other than COASTER) and fares differentiated by zones (i.e., the Trolley, COASTER, MTS Rural service and MTS Access) and type of service (i.e., MTS Local vs. Urban vs. Commuter service). Thus, the options selected for further consideration are intended to simplify the overall fare structure and also to establish a more uniform regional fare structure. The basic options, presented in Table D-1, are as follows:

- *1.1/1.1a* – These options eliminate the fare differentiation for MTS' Local bus, Trolley, Rural and Access services. A single fare (\$2 in 1.1, \$2.25 in 1.1a) is proposed for all Local bus and Corridor light rail service services, regardless of operator or distance covered. The existing premiums for MTS Express and Commuter ("I-15/I-805") services are retained. The zone fares for COASTER are also retained (the COASTER fare structure is kept unchanged for all of these options).
- *1.2/1.2a* -- These options establish a *uniform fare by service category*. This differs from 1.1/1.1a only in that a premium is charged for all Corridor services. The fare differentiation for MTS' Local bus, Trolley, Rural and Access services are again eliminated.
- *1.3* – This option retains some fare differentiation, in keeping a zonal structure for Trolley; however, there are only 3 zones, rather than the 6 existing "zones."
- *1.4* – This option has the same basic flat fare structure as 1.1. The difference is that the fare for each service is higher if paid in cash than if paid using stored value on a Compass Card.
- *1.5* – This option introduces a regional zone structure for all bus and light rail services; 3 zones would cover all Local and Corridor services (COASTER would retain its existing 4 zones, and the I-15/I-805 service would stay at its current level).

Table D-1 -- Options: Fare Differentials

Fare Option	Service Categories												
	MTS	BREEZE	Trolley	Sprinter	MTS Express	MTS I-15/I-805	COASTER	MTS	NCTD	MTS Shuttle, Downtown Zone, DART	NCTD FAST, COASTER Connection	MTS Access	NCTD LIFT
	Local		Corridor			Regional		Rural		Community		ADA Paratransit	
<i>Existing</i>	\$1.75 (Local), \$2.25 (Urban)	\$2.00	\$1.50-3.00 (6 floating zones)	NA (not yet in service)	\$2.50	\$4.00	\$4.00-5.50 (4 zones)	\$5.00-10.00 (2 zones)	\$2.00	\$1.00 (Shuttle), \$1.25 (Downtown), \$3.00 (DART)	\$2.00	\$3.50-4.50 (zones)	\$4.00
1.1: Combined MTS Local/Urban bus, no Trolley zones, combined MTS Shuttle/ Downtown, 1 MTS rural zone	\$2.00				\$2.50	\$4.00*	\$4.00-5.50 (4 zones)	\$5-10 (2 zones)	\$2.00	\$1.25 (Shuttle, Downtown), \$2.00 (FAST, COASTER Connection), \$3.00 (DART)		\$4.00 (no zones)	
1.1a: Same as 1.1 with \$2.25, \$1.50 Shuttle	\$2.25				\$2.50	\$4.00	\$4.00-5.50 (4 zones)	\$5-10 (2 zones)	\$2.00	\$1.50 (Shuttle, Downtown), \$2.00 (FAST, COASTER Connection), \$3.00 (DART)		\$4.00 (no zones)	
1.2: Uniform Fare by Service Category: same as 1.1 with Trolley/Sprinter prem.	\$2.00		\$2.50			\$4.00	\$4.00-5.50 (4 zones)	\$5-10 (2 zones)	\$2.00	\$2.00 (Shuttle, Downtown, FAST, COASTER Connec.), \$3.00 (DART)		\$4.00 (no zones)	
1.2a: Same as 1.2 with \$2.25 Local fare	\$2.25		\$2.50			\$4.00	\$4.00-5.50 (4 zones)	\$5-10 (2 zones)	\$2.00	\$2.25 (Shuttle, Downtown, FAST, COASTER Connec.), \$3.00 (DART)		\$4.00 (no zones)	
1.3: Same as 1.1 w/, but w/ reduced no. of current Trolley zones	\$2.00		\$2.00-3.00 - 3 zones	\$2.00	\$2.50	\$4.00	\$4.00-5.50 (4 zones)	\$5-10 (2 zones)	\$2.00	\$1.25 (Shuttle, Downtown), \$2.00 (FAST, COASTER Connection), \$3.00 (DART)		\$4.00 (no zones)	
1.4: Flat fare; fare increase w/ cash, but no increase w/ Compass Card	\$2.25 cash, \$2.00 w/ CC				\$2.75 cash, \$2.50 w/ CC	\$4.50 cash, \$4.00 w/ CC	\$4.50-6.00 cash, \$4.00-5.50 w/ CC	\$5.50 - \$11.00 cash, \$5.00 - \$10.00 w/ CC	\$2.25 cash, \$2.00 w/ CC	\$1.50 (Shuttle, Downtown), \$2.25 (FAST, COASTER Connec.), \$3.25 (DART) : 12.5% discount w/ CC		\$4.50 (no zones)	
1.5: 3 Regional zones for all bus/LRT; overlapping MTS zones both include Downtown	\$2.00 (1 zone covers Local, Urban)	\$2.00 (all in 1 zone)	\$2.00, \$2.50 (2 overlapping zones)	\$2.00 (all in 1 zone)	\$2.50 (2 zones)	\$4.00	\$4.00-5.50 (4 zones)	\$2.00, \$5.00 (2 zones covering whole region)		\$1.25 (Shuttle, Downtown), \$2.00 (FAST, COASTER Connection), \$3.00 (DART)		\$4.00 - 5.00 (2 zones)	\$4.00

\* The longer-term scenario for this option would be that, once the full Commuter Bus system opens in 2012 with special vehicles and reserved lanes, the fare for this service would be modified to more closely mirror COASTER's fare: a 3-zone fare structure is envisioned at this point, matching 3 of COASTER's 4 zones.

Table D-2 -- Options: Reduced Fare Definitions/Parameters\*

Fare Option	Service Categories												
	MTS	BREEZE	Trolley	Sprinter	MTS Express	MTS I-15/I-805	COASTER	MTS	NCTD	MTS Shuttle, Downtown Zone, DART	NCTD FAST, COASTER Connection	MTS Access	NCTD LIFT
	Local		Corridor			Regional		Rural		Community		ADA Paratransit	
<i>Existing</i>	<i>Senior defined as over 60; children (6 and over) pay full fare; monthly pass = \$15, COASTER monthly pass = \$36</i>											<i>NA</i>	<i>NA</i>
2.1: Higher age for senior discount	Senior = 65 or over											NA	NA
2.2: Reduced fare only during off-peak hours	Full/adult fare charged during peak hours, lower fare charged off-peak											NA	NA
2.3: Increased pass prices	Pass = half of full price pass											NA	NA
2.4: Reduced fare for children (e.g., 6-18)	Child fare = same as senior/disabled fare											NA	NA
2.5: Free fare for ADA-certified riders	Free fare for anyone showing ADA certification											NA	NA

\* actual reduced fares depend on full fares (i.e., no more than 50% of corresponding full fare)

Table D-3 -- Options: Prepaid Media

Fare Option	Service Categories												
	MTS	BREEZE	Trolley	Sprinter	MTS Express	MTS I-15/I-805	COASTER	MTS	NCTD	MTS Shuttle, Downtwn, DART	NCTD FAST, COASTER Connect.	MTS Access	NCTD LIFT
	Local		Corridor			Regional		Rural		Community		ADA Paratransit	
<i>Existing</i>	<i>Regional pass: \$60/mo., \$30/half-mo., \$5 Day Tripper, \$9-15/ 2-4 day</i>	<i>\$54/mo., \$4 Day Pass</i>	<i>Same as MTS Local</i>	<i>NA (not yet in service)</i>	<i>Reg. pass: \$64/mo., \$32/half-mo., \$5 Day Pass, \$9-15/ 2-4 day</i>	<i>Regional pass: \$84/mo., \$42/half-mo.</i>	<i>\$115-154/mo.; \$8-11 return trip ticket</i>	<i>None</i>	<i>Same as BREEZE</i>	<i>Same as MTS Local</i>	<i>Same as BREEZE</i>	<i>10 tickets \$45</i>	<i>None</i>
3.1: Consolidated regional passes, no separate NCTD passes; regional day pass (\$4), sold on-board buses	Regional pass: \$60/mo., \$30/two-week, \$5 day pass (sold on-board buses), \$8 -15/ 2-4 day passes					Reg. pass: \$84/mo., \$42/two-week	\$115-154/mo., \$9-12 day pass	None	Same as Local/Corridor		10 tickets \$40		
3.1a: Same as 3.1, but with \$5 regional day pass	Regional pass: \$60/mo., \$30/two-week, \$5 day pass (sold on-board buses), \$9 -15/ 2-4 day passes					Reg. pass: \$84/mo., \$42/two-week	\$115-154/mo., \$9-12 day pass	None	Same as Local/Corridor		10 tickets \$40		
3.2: Same as 3.1, plus new 1-week regional pass	Regional pass: \$60/mo., \$30/two-week, \$15/week, \$5 day pass (sold on-board buses), \$9-15/ 2-4 day passes					Reg. pass: \$84/mo., \$42/two-week, \$21/week	\$115-154/mo., \$9-12 day pass	None	Same as Local/Corridor		10 tickets \$40		
3.3: Service category passes	Regional bus pass: \$60/mo., \$30/two-week, \$4 day pass, \$8-15/ 2-4 day passes		Regional corridor pass: \$64/mo., \$32/two-week, \$5 day pass			Reg. pass: \$84/mo., \$42/two-week, \$21/week	\$115-154/mo., \$9-12 day pass	None	Same as Local		10 tickets \$40		
3.3a: Same as 3.3, with \$5 Local day pass and \$7 Corridor day pass	Regional bus pass: \$60/mo., \$30/two-week, \$5 day pass, \$9-15/ 2-4 day passes		Regional corridor pass: \$64/mo., \$32/two-week, \$7 day pass			Reg. pass: \$84/mo., \$42/two-week, \$21/week	\$115-154/mo., \$9-12 day pass	None	Same as Local		10 tickets \$40		
3.4: Same as 3.1, plus frequency-based discount (with Compass Card)	Regional pass: \$60/mo., \$30/half-mo., \$5 day pass, \$9-15/ 2-4 day; 1 free ride after 10 rides					Reg. pass: \$84/mo., \$42/two-week; 1 free ride after 10 rides	\$115-154/mo.	None	Same as Local/ Corridor		10 tickets \$40		
3.5: Same as 3.1, plus stored value bonus (with Compass Card)	Regional pass: \$60/mo., \$30/half-mo., \$5 day pass, \$9-15/ 2-4 day, 10% stored value bonus when loading \$20 or more					Reg. pass: \$84/mo., \$42/two-week; 10% st. val. bonus when load \$20	\$115-154/mo., \$9-12 day pass	None	Same as Local/ Corridor		10 tickets \$40		
3.6: Rolling passes (instead of calendar-based) w/ Compass Card	All monthly passes now good for 31 days (rather than calendar month), half-month passes good for 15 days. All passes are activated on first use.						\$115-154/mo., \$9-12 day	None	Same as Local/ Corridor		10 tickets \$40		

Table D-4 -- Options: Transfer/Upgrade Policies

Fare Option	Service Categories												
	MTS	BREEZE	Trolley	Sprinter	MTS Express	MTS I-15/I-805	COASTER	MTS	NCTD	MTS Shuttle, Downtown Zone, DART	NCTD FAST, COASTER Connection	MTS Access	NCTD LIFT
	Local		Corridor			Regional		Rural		Community		ADA Paratransit	
<i>Existing</i>	<i>Free (or upgrade) internally and externally</i>	<i>No internal transfers, free/upgrade externally*</i>	<i>Free (or upgrade) internally and externally</i>	<i>NA (not yet in service)</i>	<i>Free (or upgrade) internally and externally</i>	<i>Free to other services, upgrade from others</i>	<i>Free (or upgrade) internally and externally</i>	<i>N/A</i>	<i>Free (or upgrade) internally and externally</i>	<i>N/A</i>	<i>Free (or upgrade) internally and externally</i>	<i>Free (or upgrade) internally and externally</i>	
4.1: MTS bus and rail transfers eliminated	No transfers internally, day pass sold on-board					<i>Free to other services, upgrade from others</i>	<i>Free (or upgrade) internally and externally</i>	<i>N/A</i>	<i>Free (or upgrade) internally and externally</i>	<i>N/A</i>	<i>Free (or upgrade) internally and externally</i>		
4.2: Free transfers offered only w/ Compass Card	Free transfers (internally or externally) only with use of Compass Card; otherwise, no transfers										<i>Free (or upgrade) internally and externally</i>		
4.3: Sale of period of time, not "transfer"	Single-ride fare good for travel on any service (same or lower fare) in any direction for 2.5 hours; upgrade required for use of higher-fare service										<i>Free (or upgrade) internally and externally</i>		
4.4: Transfer rules made uniform	Major exceptions/anomalies eliminated (e.g., all transfers good for 2 hrs, Trolley ticket good for transfer to bus in either direction, return COASTER tickets valid to board MTS/NCTD bus for return trip).										<i>Free (or upgrade) internally and externally</i>		

\* Special transfer agreements exist between NCTD and Greyhound, MetroLink and OCTA. It is assumed that these would remain in effect under these alternative scenarios.

Table D-5 -- Options: Institutional Programs

Fare Option	Service Categories												
	MTS	BREEZE	Trolley	Sprinter	MTS Express	MTS I-15/ I-805	COASTER	MTS	NCTD	MTS Shuttle, Downtown Zone, DART	NCTD FAST, COASTER Connection	MTS Access	NCTD LIFT
	Local		Corridor			Regional		Rural		Community		ADA Paratransit	
Existing (college)	Monthly passes (\$45/mo.) avail. for 18 colleges; semester/ quarter passes (\$104-154/ semester) avail. for 10 schools.	Monthly passes (\$39, \$42) for Mira Costa, Palomar; unlimited access for UCSD on Rt 101	Same as MTS Local	NA (not yet in service)	Same as MTS Local	Upgrade needed for college pass	None	None	Same as BREEZE	Same as MTS Local	Same as BREEZE	None	
Existing (Ecopass)	"Ecopass" – monthly passes avail. to employers or groups at discount for purchase of 25 or more (for a year); discount based on no. purchased			NA (not yet in service)	None	None		None		Same as Local		None	
5.1: Regional "Upass" program (unlimited access)	Common Upass program available to any interested college/university. School pays transit agency predetermined amount per semester or year; students/faculty/staff can ride free by showing ID (w/transit sticker) or possibly joint university/transit Compass Card. *					Upgrade needed for Upass	None	None	Same as Local/ Corridor			None	
5.2: Regional "Upass" program (reduced price monthly pass)	Common Upass program available to any interested college/university. School buys monthly (or possibly semester) passes from transit agency and sells or gives to students/faculty/staff. **					Upgrade needed for Upass	None	None	Same as Local/ Corridor			None	
5.3: Upass program linked to Compass Card (fee per ride taken)	Upass arrangement (available to any interested college/university) based on student/faculty/staff use of Compass Card. Boardings are tracked and schools are billed for rides taken (at fixed rate per boarding).							None	Same as Local/ Corridor			None	
5.4: Annual employer pass program	Annual pass program. An employer can buy passes at large discount (larger than current Ecopass), but must buy passes for all employees.							None	Same as Local/ Corridor			None	
5.5: Annual TOD pass program	Annual pass program. A developer can buy passes at large discount (larger than current Ecopass), but must buy passes for all households of new transit-oriented developments.							None	Same as Local/ Corridor			None	

\* Similar to NCTD 's arrangement with UCSD for Rt. 101

\*\* Similar to current MTS monthly college pass program

## Reduced Fare Definitions and Parameters

This category addresses the definitions of eligibility for reduced fares. This applies to seniors, children and persons with disabilities. Currently, as indicated in Table D-2, seniors (defined as anyone over the age of 60) and persons with disabilities pay no more than half the full cash fare – and \$15 for a monthly pass – while children 6 and over pay the full fare. Each of the options presented in Table suggests a change to one key parameter/definition:

- 2.1 – This option calls for the Senior threshold to rise to 65.
- 2.2 – This option calls for the reduced fare only during off-peak hours; this would comply with federal requirements for reduced fares.
- 2.3 – In this option, the pass price would be increased to 50% of the full-price pass (i.e., rather than the current price of \$15).
- 2.4 – In this option, children age 6-18 would be entitled to a reduced fare.
- 2.5 – In this option, anyone eligible for ADA paratransit service would be entitled to ride fixed route service for free.

## Prepaid Media

This category covers all prepaid payment options. This includes all types of passes, as well as stored value and frequency-based discounts (i.e., with use of Compass Card). Under the existing structure, there are several different monthly passes, including a BREEZE-only pass and three different regional passes. There are also two different day passes: NCTD's is sold on-board, while MTS' Day Tripper is not. The options selected for further consideration are intended to simplify the overall fare structure and also to establish a more uniform regional fare structure. The basic options, presented in Table D-3, are as follows

- 3.1/3.1a – These options feature a single regional monthly pass (\$60), with no \$64 pass and no separate NCTD (\$54) pass. They also include a single regional day pass, sold on-board buses (like NCTD's current day pass).
- 3.2 – This option is identical to the above, except for the addition of a 1-week pass.
- 3.3/3.3a – These options feature passes based on service category (i.e., higher priced passes for all "Corridor" services than for "Local" services).
- 3.4 – This option is identical to 3.1, except that it adds a frequency-based discount (i.e., the rider receives 1 free ride after taking 10 rides using a Compass Card).
- 3.5 – This option is identical to 3.1, except that it adds a stored value bonus (i.e., the rider receives 10% additional value when loading \$20 or more on a Compass Card).
- 3.6 – In this option, all passes are "rolling passes," activated on first use (rather than being valid for a fixed calendar period).

## Transfer/Upgrade Policies

This category covers transfer and upgrade rules. As indicated in Table D-4, the existing rules differ considerably for the different operators/services. The most notable difference is that there are no transfers from one BREEZE bus to another, while there are free internal transfers on MTS. The basic options, presented in Table D-4, are as follows

- 4.1 – In this option, all MTS bus and Trolley transfers have been eliminated.
- 4.2 – In this option, there are free transfers, but only with use of a Compass Card. There are no transfers with cash payment.
- 4.3 – In this option, payment of a fare covers a specified period of time (2.5 hours), regardless of number of vehicles used.
- 4.4 – In this option, the major transfer exceptions/anomalies among the different services are eliminated, creating a uniform regional transfer structure.

## Institutional Programs

This category addresses fare-based partnerships or arrangements between the transit agencies and local entities (i.e., universities, employers and developers). As shown in Table D-5, there are various existing arrangements with colleges/universities. There is also an "Ecopass" program for employers. The basic options, presented in Table D-5, are as follows

- 5.1/5.2/5.3 – These represent three different forms of "Upass" program. Option 5.1 is similar to NCTD's existing arrangement with UCSD for Rt. 101 service. Option 5.2 is similar to the current MTS college pass program. Option 5.3 would involve use of the Compass Card and would track – and bill universities for -- actual usage.
- 5.4 – This option represents an annual employer pass program. It would differ from the current Ecopass program in that an employer would have to buy the pass for all of its employees to take advantage of the large discount.
- 5.5 – This option represents an annual pass program that would be available to developers (i.e., of new transit-oriented developments). A developer would have to buy the pass for all households in a development to take advantage of the large discount.

The development of full fare structure alternatives is discussed below.

## Development of Basic Fare Structure Alternatives

The next step in the process involved the development of full fare level/structure alternatives. Each alternative would consist of combinations of individual options from each of the above categories. The consultant team, in collaboration with the members of the study advisory committee, reviewed and assessed the options in each category, and based on this assessment, developed four initial basic alternatives; these are shown in Tables D-6 – D-9.

Table D-6 -- Preliminary Alternative 1: No Fare Differentials for Local Bus, Trolley, Sprinter

Fare Option	Service Categories												
	MTS	BREEZE	Trolley	Sprinter	MTS Express	MTS I-15/I-805	COASTER	MTS	NCTD	MTS Shuttle, Downtown Zone, DART	NCTD FAST, COASTER Connection	MTS Access	NCTD LIFT
	Local		Corridor			Regional		Rural		Community		ADA Paratransit	
1.1: Combined MTS Local/Urban bus, no Trolley zones, combined MTS Shuttle/ Downtown, 1 MTS rural zone, same DART/FAST fares*	\$2.00			\$2.50		\$4.00**	\$4.00-5.50 (4 zones)	\$5-10 (2 zones)	\$2.00	\$1.25 (Shuttle, Downtown), \$2.00 (FAST, COASTER Connection), \$3.00 (DART)		\$4.00 (no zones)	
2.1: Higher age for senior disc.	Senior = 65 or over											NA	NA
2.5: Free fare for ADA-certified riders	Free fare for anyone showing ADA certification											NA	NA
3.1: Consolidated regional passes, no separate NCTD passes; regional day pass (\$4), sold on-board buses	Regional pass: \$60/mo., \$30/two-week, \$4 day pass (sold on-board buses), \$8 -15/ 2-4 day passes					Regional pass: \$84/mo., \$42/two-week	\$115-154/mo., \$9-12 day pass	None	Same as Local/Corridor			10 tickets \$40	
4.1: MTS bus and rail transfers eliminated	No transfers internally, day pass sold on-board					Free to other services, upgrade from others; return COASTER tickets valid to board MTS/NCTD bus for return trip.		Free (or upgrade) internally and externally	N/A	Free (or upgrade) internally and externally	N/A	Free (or upgrade) internally and externally	
5.1: Regional "Upass" program (unlimited access)	Common Upass program available to any interested college/university. School pays agency predetermined amount per semester or year; students/faculty/staff ride free by showing ID (w/transit sticker) or possibly joint univ./transit Compass Card. ***					Upgrade needed for Upass	None	None	Same as Local/ Corridor			None	
5.4: Annual employer pass program	Annual pass program. An employer can buy passes at large discount (larger than current Ecopass), but must buy passes for all employees.							None	Same as Local/ Corridor			None	
5.5: Annual TOD pass program	Annual pass program. A developer can buy passes at large disc. (larger than current Ecopass), but must buy passes for all households in new transit-oriented developments.							None	Same as Local/ Corridor			None	

\* All Compass Cards also carry stored value, for paying for single rides or upgrades.

\*\*The longer-term scenario for this option would be that, once the full Commuter Bus system opens in 2012 with special vehicles and reserved lanes, the fare for this service would be modified to more closely mirror COASTER's fare; a 3-zone fare structure is envisioned

\*\*\*Similar to NCTD 's arrangement with UCSD for Rt. 101

Table D-7 -- Preliminary Alternative 2: Uniform Fare by Service Category

Fare Option	Service Categories												
	MTS	BREEZE	Trolley	Sprinter	MTS Express	MTS I-15/ I-805	COASTER	MTS	NCTD	MTS Shuttle, Downtown Zone, DART	NCTD FAST, COASTER Connection	MTS Access	NCTD LIFT
	Local		Corridor		Regional		Rural		Community		ADA Paratransit		
1.2: Uniform Fare by Service Category: same as 1.1 with Trolley/Sprinter premium*	\$2.00		\$2.50		\$4.00**		\$4.00-5.50 (4 zones)	\$5-10 (2 zones)	\$2.00	\$1.50 (Shuttle, Downtown), \$2.00 (FAST, COASTER Connection), \$3.00 (DART)		\$4.00 (no zones)	
2.1: Higher age for senior discount	Senior = 65 or over											NA	NA
2.5: Free fare for ADA-certified riders	Free fare for anyone showing ADA certification											NA	NA
3.3: Service category passes	Regional bus pass: \$60/mo., \$30/two-week, \$4 day pass, \$8-15/ 2-4 day passes		Regional corridor pass: \$64/mo., \$32/two-week, \$5 day pass		Regional pass: \$84/mo., \$42/two-week, \$21/week	\$115-154/mo., \$9-12 day pass	None	Same as Local		10 tickets \$40			
4.1: MTS bus and rail transfers eliminated	No transfers internally, day pass sold on-board				Free to other services, upgrade from others; return COASTER tickets valid to board MTS/NCTD bus for return trip.		Free (or upgrade) internally and externally	N/A	Free (or upgrade) internally and externally	N/A		Free (or upgrade) internally and externally	
5.1: Regional "Upass" program (unlimited access)	Common Upass program available to any interested college/university. School pays transit agency predetermined amount per semester or year; students/faculty/staff can ride free by showing ID (w/transit sticker) or possibly joint university/transit Compass Card. ***				Upgrade needed for Upass	None	None	Same as Local/ Corridor		None			
5.4: Annual employer pass program	Annual pass program. An employer can buy passes at large discount (larger than current Ecopass), but must buy passes for all employees.						None	Same as Local/ Corridor		None			
5.5: Annual TOD pass program	Annual pass program. A developer can buy passes at large discount (larger than current Ecopass), but must buy passes for all households of new transit-oriented developments.						None	Same as Local/ Corridor		None			

\* All Compass Cards also carry stored value, for paying for single rides or upgrades.

\*\*The longer-term scenario for this option would be that, once the full Commuter Bus system opens in 2012 with special vehicles and reserved lanes, the fare for this service would be modified to more closely mirror COASTER's fare; a 3-zone fare structure is envisioned.

\*\*\*Similar to NCTD 's arrangement with UCSD for Rt. 101

Table D-8 -- Preliminary Alternative 3: Reduced Number of Trolley Zones

Fare Option	Service Categories													
	MTS	BREEZE	Trolley	Sprinter	MTS Express	MTS I-15/ I-805	COASTER	MTS	NCTD	MTS Shuttle, Downtown Zone, DART	NCTD FAST, COASTER Connection	MTS Access	NCTD LIFT	
	Local		Corridor			Regional		Rural		Community		ADA Paratransit		
1.3: Combined MTS Local/Urban bus, reduced no. of Trolley zones, combined MTS Shuttle/ Downtown, 1 MTS rural zone*	\$2.00		\$2.00-3.00 - 3 zones	\$2.00	\$2.50	\$4.00**	\$4.00-5.50 (4 zones)	\$5-10 (2 zones)	\$2.00	\$1.25 (Shuttle, Downtown), \$2.00 (FAST, COASTER Connection), \$3.00 (DART)		\$4.00 (no zones)		
2.1: Higher age for senior discount	Senior = 65 or over											NA	NA	
2.5: Free fare for ADA-certified riders	Free fare for anyone showing ADA certification											NA	NA	
3.1: Consolidated regional passes, no separate NCTD passes; regional day pass (\$5), sold on-board buses	Regional pass: \$60/mo., \$30/two-week, \$5 day pass (sold on-board buses), \$9 -15/ 2-4 day passes					Regional pass: \$84/mo., \$42/two-week		\$115-154/mo., \$9-12 day pass	None	Same as Local/Corridor			10 tickets \$40	
4.1: MTS bus and rail transfers eliminated	No transfers internally, day pass sold on-board					Free to other services, upgrade from others; return COASTER tickets valid to board MTS/NCTD bus for return trip.			Free (or upgrade) internally and externally	N/A	Free (or upgrade) internally and externally	N/A	Free (or upgrade) internally and externally	
5.1: Regional "Upass" program (unlimited access)	Common Upass program available to any interested college/university. School pays transit agency predetermined amount per semester or year; students/faculty/staff can ride free by showing ID (w/transit sticker) or possibly joint university/transit Compass Card.***					Upgrade needed for Upass		None	None	Same as Local/ Corridor			None	
5.4: Annual employer pass program	Annual pass program. An employer can buy passes at large discount (larger than current Ecopass), but must buy passes for all employees.							None	Same as Local/ Corridor			None		
5.5: Annual TOD pass program	Annual pass program. A developer can buy passes at large discount (larger than current Ecopass), but must buy passes for all households of new transit-oriented developments.							None	Same as Local/ Corridor			None		

\* All Compass Cards also carry stored value, for paying for single rides or upgrades.

\*\*The longer-term scenario for this option would be that, once the full Commuter Bus system opens in 2012 with special vehicles and reserved lanes, the fare for this service would be modified to more closely mirror COASTER's fare; a 3-zone fare structure is envisioned

\*\*\*Similar to NCTD 's arrangement with UCSD for Rt. 101

Table D-9 -- Preliminary Alternative 4: Special Compass Card Options

Fare Option	Service Categories												
	MTS	BREEZE	Trolley	Sprinter	MTS Express	MTS I-15/ I-805	COASTER	MTS	NCTD	MTS Shuttle, Downtown Zone, DART	NCTD FAST, COASTER Connection	MTS Access	NCTD LIFT
	Local		Corridor			Regional		Rural		Community		ADA Paratransit	
1.4: Flat fare; fare increase w/ cash, but no increase w/ Compass Card	\$2.25 cash, \$2.00 w/ CC				\$2.75 cash, \$2.50 w/ CC	\$4.50 cash, \$4.00 w/ CC*	\$4.50-6.00 cash, \$4.00 - 5.50 w/ CC	\$5.50 - \$11.00 cash, \$5.00 - \$10.00 w/ CC	\$2.25 cash, \$2.00 w/ CC	\$1.50 (Shuttle, Downtown), \$2.25 (FAST, COASTER Connec.), \$3.25 (DART) : 12.5% discount w/ CC		\$4.50 (no zones)	
2.1: Higher age for senior discount	Senior = 65 or over											NA	NA
2.5: Free fare for ADA-certified riders	Free fare for anyone showing ADA certification											NA	NA
3.5: Consolidated regional passes, no separate NCTD passes; regional day pass, sold on-board buses. Also stored value bonus (with Compass Card)	Regional pass: \$60/mo., \$30/two-week, \$5 day pass, \$9-15/ 2-4 day, 10% stored value bonus when loading \$20 or more				Regional pass: \$84/mo., \$42/two-week; 10% stored value bonus when loading \$20 or more	\$115-154/mo., \$9-12 day pass	None	Same as Local/ Corridor		10 tickets \$40			
4.2: Offer free transfers only w/ Compass Card	Free transfers (internally or externally) only with use of Compass Card; otherwise, no transfers											Free (or upgrade) internally and externally	
5.3: Upass program linked to Compass Card (fee per ride taken)	Upass arrangement (available to any interested college/university) based on student/faculty/staff use of Compass Card. Boardings are tracked and schools are billed for rides taken (at fixed rate per boarding).							None	Same as Local/ Corridor		None		
5.4: Annual employer pass program	Annual pass program. An employer can buy passes at large discount (larger than current Ecopass), but must buy passes for all employees.							None	Same as Local/ Corridor		None		
5.5: Annual TOD pass program	Annual pass program. A developer can buy passes at large discount (larger than current Ecopass), but must buy passes for all households of new transit-oriented developments.							None	Same as Local/ Corridor		None		

\*\*The longer-term scenario for this option would be that, once the full Commuter Bus system opens in 2012 with special vehicles and reserved lanes, the fare for this service would be modified to more closely mirror COASTER's fare; a 3-zone fare structure is envisioned

The differences among these initial alternatives can be summarized as follows:

- *Alternative 1* – This Alternative features a \$2 flat fare for all local bus (MTS and BREEZE) and light rail (Trolley and Sprinter) services and a single consolidated regional pass (\$60/month, \$4/day, etc.) – as well as the elimination of internal transfers.
- *Alternative 2* – This Alternative features uniform fares and passes by service category: \$2/\$60 for Local services, \$2.50/\$64 for Corridor services.
- *Alternative 3* – This Alternative features a reduced number of Trolley zones, and a single flat \$2 Local fare.
- *Alternative 4* – This Alternative combines various special Compass Card options, including a lower fare than if paid with cash and a stored value bonus.

The TAC members agreed that these constituted a reasonable set of *basic structural alternatives* to be considered further. The next step involved development and testing (in the Fare Model) variations on the pricing of individual fare elements within these basic alternatives; a number of other structural alternatives were also identified by the individual transit agencies. A total of more than 50 alternatives was identified by the individual transit agencies, SANDAG and the consultants. Each alternative was tested for ridership and revenue impacts in the Fare Model, and the details of the various alternatives were discussed at several TAC meetings. Based on the results of these discussions – coupled with subsequent analysis – three detailed fare structure scenarios were developed. These are discussed below.

### Modeling of Alternative MTS Interim Fare Change Scenarios

In mid-2007 (i.e., during the **Regional Fare Study**), MTS identified the need for an interim fare increase for its own services. The purpose of this increase was to “. . . bridge the recently-identified \$9,200,000 funding gap in TDA and TransNet sale tax revenue.” MTS proposed implementing the fare changes on January 1, 2008. In order to help MTS identify recommended changes to its fare structure, the consultant team was asked to test the revenue and ridership impacts of a range of possible scenarios. Over fifty different scenarios were modeled. The changes MTS ultimately selected were scheduled for implementation in two stages: the initial changes in January 2008 and the second set of changes in January 2009. The **Regional Fare Ordinance** was revised to reflect these modifications.

Based on the MTS recommendations, the consultant team developed a detailed regional fare structure scenario, including modifications to the NCTD fare structure (phased in over a 5-year period). This scenario represented one of the three “detailed fare structure scenarios” discussed in the next section.

### Development of Detailed Fare Structure Scenarios

As explained above, three detailed fare structure scenarios were developed for consideration by SANDAG, MTS and NCTD. Two of these emerged directly from the fare study process, while the third was based on the MTS fare structure recommendations developed by MTS staff and described above. The initial year details of each of these scenarios, along with estimated revenue and ridership impacts are presented in Tables D-10 – D-12. The key aspects of the three scenarios were as follows:

- *Alternative A (Uniform Fare by Service Category)*-- This alternative featured a greatly simplified fare structure:

Table D-10 -- Alternative A: Uniform Fare By Service Category (Year 1, 2008; min. senior age = 60)

Service Category	Service	Single Ride Fare*				Day Pass			14-Day Pass			30-Day Pass****					
		Adult/Youth		Senior/Disabled		Adult/Youth		S/D	Adult/Youth		S/D	Adult		Senior/Disabled		Youth	
		Cash	Comp. Card	Cash	CC	Paper	CC		Paper	CC		Paper	CC	Paper	CC	Paper	CC
Local	MTS Bus	\$2.25	\$2.00	\$1.10	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	BREEZE	\$2.25	\$2.00	\$1.10	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
Corridor	Trolley**	\$2.50	\$2.25	\$1.25	\$1.15	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	Sprinter	\$2.50	\$2.25	\$1.25	\$1.15	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	MTS Express	\$2.50	\$2.25	\$1.25	\$1.15	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
Regional	MTS Prem. Expr.	\$5.25	\$5.25	\$2.60	\$2.50	\$13.00	\$12.00	N/A	\$47.50	\$46.50	N/A	\$95.00	\$93.00	\$15.50	\$15.00	\$31.00	\$30.00
	COASTER***	\$4.25-5.75	\$4-5.50	\$2-2.75	\$2-2.75	\$12-16.50	\$11-15.50	N/A	\$58-78	\$57.50-77	N/A	\$116-156	\$115-154	\$15.50	\$15.00	\$31.00	\$30.00
Rural	MTS (2 zones)	\$5-10	N/A	\$2.50-5	\$2.50-5	N/A		N/A	N/A		N/A	\$95-156	\$93-154	\$15.50	\$15.00	\$31.00	\$30.00
	NCTD	\$2.25	N/A	\$1.10	\$1.00	N/A		N/A	N/A		N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
Comm.	MTS Shuttle	\$1.75	\$1.50	\$1.10	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	MTS Downtown	\$1.75	\$1.50	\$1.10	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	NCTD FAST	\$3.25	\$3.00	\$1.60	\$1.50	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	COASTER Conn.	\$1.75	\$1.50	\$1.10	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	MTS DART	\$3.25	\$3.00	\$1.60	\$1.50	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
Para.	MTS Access	\$4.00	N/A	\$4.00	N/A	N/A		N/A	N/A		N/A		N/A		N/A		
	NCTD LIFT	\$4.00	N/A	\$4.00	N/A	N/A		N/A	N/A		N/A		N/A		N/A		

\*No transfers between vehicles or services; separate fare (or pass) required for each boarding

\*\*Trolley -- No "zones;" each line considered separate service.

\*\*\*COASTER -- 4 zones (same as current structure)

\*\*\*\*20% discount from Adult 30-Day pass for College Monthly Pass, 30% discount for Semester Pass

Estimated Revenue and Ridership Impacts (2008)

Adult/ Youth	MTS		NCTD		Region	
	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$38,009,738	27,919,612	\$8,117,576	5,870,267	\$46,127,314	33,789,879
Alternative	\$41,200,539	27,658,812	\$8,751,049	5,700,326	\$49,951,588	33,359,138
Change	\$3,190,801	- 260,801	\$633,473	- 169,941	\$ 3,824,274	- 430,742
% Change	8%	- 1%	8%	- 3%	8%	- 1%
Total (with Sr./Dis.)	MTS		NCTD		Region	
	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$59,662,440	76,441,234	\$11,180,114	10,252,241	\$70,842,554	86,693,475
Alternative	\$63,262,018	76,102,571	\$11,698,346	10,114,124	\$74,960,364	86,216,695
Change	\$3,599,578	- 338,663	\$518,232	- 138,117	\$ 4,117,810	- 476,780
% Change	6%	0%	5%	- 1%	6%	- 1%

Table D-11 -- Alternative B: Reduced Number of Trolley Zones Year 1, 2008; min. senior age = 60)

Service Category	Service	Single Ride Fare*				Day Pass			14-Day Pass			30-Day Pass****					
		Adult/Youth		Senior/Disabled		Adult/Youth		Sr/Dis	Adult/Youth		Sr/Dis	Adult		Senior/Disabled		Youth	
		Cash	Comp. Card	Cash	CC	Paper	CC		Paper	CC		Paper	CC	Paper	CC	Paper	CC
Local	MTS Bus	\$2.25	\$2.00	\$1.00	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	BREEZE	\$2.25	\$2.00	\$1.00	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
Corridor	Trolley**	\$2.25-3.25	\$2-3	\$1.00	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	Sprinter	\$2.25	\$2.00	\$1.00	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	MTS Express	\$2.75	\$2.50	\$1.00	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
Regional	MTS Prem. Expr.	\$5.25	\$5.00	\$2.50	\$2.50	\$13.00	\$12.00	N/A	\$47.50	\$46.50	N/A	\$95.00	\$93.00	\$15.50	\$15.00	\$31.00	\$30.00
	COASTER***	\$4.25-5.75	\$4-5.50	\$2-2.75	\$2-2.75	\$12-16.50	\$11-15.50	N/A	\$58-78	\$57.50-77	N/A	\$116-156	\$115-154	\$15.50	\$15.00	\$31.00	\$30.00
Rural	MTS (2 zones)	\$5-10	N/A	\$2.50-5	\$2.50-5	N/A		N/A	N/A		N/A	\$95-156	\$93-154	\$15.50	\$15.00	\$31.00	\$30.00
	NCTD	\$2.25	N/A	\$1.00	\$1.00	N/A		N/A	N/A		N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
Comm.	MTS Shuttle	\$1.75	\$1.50	\$1.00	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	MTS Downtown	\$1.75	\$1.50	\$1.00	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	NCTD FAST	\$1.75	\$1.50	\$1.00	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	COASTER Conn.	\$1.75	\$1.50	\$1.00	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
	MTS DART	\$3.25	\$3.00	\$1.00	\$1.00	\$5.00	\$4.50	N/A	\$31.00	\$30.00	N/A	\$62.00	\$60.00	\$15.50	\$15.00	\$31.00	\$30.00
Para.	MTS Access	\$4.00	N/A	\$4.00	N/A	N/A		N/A	N/A		N/A			N/A		N/A	
	NCTD LIFT	\$4.00	N/A	\$4.00	N/A	N/A		N/A	N/A		N/A			N/A		N/A	

\*No transfers between vehicles or services; separate fare (or pass) required for each boarding

\*\*Trolley -- 3 zones (1-3 stations @ \$2.25/\$2.00, 4-10 stations @ \$2.75/\$2.50, 11+ stations @ \$3.25/\$3.00) + Downtown (\$1.75 cash/\$1.50 w/ Compass Card).

\*\*\*COASTER -- 4 zones (same as current structure)

\*\*\*\*20% discount from Adult 30-Day pass for College Monthly Pass, 30% discount for Semester Pass

Estimated Revenue and Ridership Impacts (2008)

Adult/ Youth	MTS		NCTD		Region	
	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$38,009,738	27,919,612	\$8,117,576	5,870,267	\$46,127,314	33,789,879
Alternative	\$40,998,203	27,635,575	\$8,714,505	5,705,771	\$49,712,708	33,341,346
Change	\$2,988,465	- 284,037	\$596,929	- 164,496	\$3,585,394	- 448,534
% Change	8%	- 1%	7%	- 3%	8%	- 1%
Total (with Sr./Dis.)	MTS		NCTD		Region	
	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$59,662,440	76,441,234	\$11,180,114	10,252,241	\$70,842,554	86,693,475
Alternative	\$62,650,905	76,157,197	\$11,620,802	10,127,378	\$74,271,707	86,284,575
Change	\$2,988,465	- 284,037	\$440,688	- 124,863	\$3,429,153	- 408,900
% Change	5%	0%	4%	- 1%	5%	0%

Table D-12 -- Alternative C: Based on MTS Changes (Year 1, 2008; min. senior age = 60)

Service Category	Service	Single Ride Fare*				Day Pass			14-Day Pass			30-Day Pass****					
		Adult/Youth		Senior/Disabled		Adult/Youth		Sr/Dis	Adult/Youth		Sr/Dis	Adult		Senior/Disabled		Youth	
		Cash	Comp. Card	Cash	CC	Paper	CC		Paper	CC		Paper	CC	Paper	CC	Paper	CC
Local	MTS Bus (Local)	\$2.00	\$2.00	\$1.00	\$1.00	\$5.00	\$5.00		\$32.00	\$32.00	N/A	\$64.00	\$64.00	\$16.00	\$16.00	\$32.00	\$32.00
	MTS Bus (Urban)	\$2.25	\$2.25	\$1.00	\$1.00	\$5.00	\$5.00		\$32.00	\$32.00	N/A	\$64.00	\$64.00	\$16.00	\$16.00	\$32.00	\$32.00
	BREEZE	\$2.00	\$2.00	\$1.00	\$1.00	\$4.00	\$4.00	\$2.00	\$32.00	\$32.00	N/A	\$64.00	\$64.00	\$16.00	\$16.00	\$32.00	\$32.00
Corridor	Trolley**	\$1.50-3	\$1.50-3	\$1.00	\$1.00	\$5.00	\$5.00		\$32.00	\$32.00	N/A	\$64.00	\$64.00	\$16.00	\$16.00	\$32.00	\$32.00
	Sprinter	\$2.00	\$2.00	\$1.00	\$1.00	\$4.00	\$4.00	\$2.00	\$32.00	\$32.00	N/A	\$64.00	\$64.00	\$16.00	\$16.00	\$32.00	\$32.00
	MTS Express	\$2.50	\$2.50	\$1.00	\$1.00	\$5.00	\$5.00		\$32.00	\$32.00	N/A	\$64.00	\$64.00	\$16.00	\$16.00	\$32.00	\$32.00
Regional	MTS Prem. Expr.	\$5.00	\$5.00	\$1.00	\$1.00	N/A			\$45.00	\$45.00	N/A	\$90.00	\$90.00	\$16.00	\$16.00	\$32.00	\$32.00
	COASTER***	\$4-5.50	\$4-5.50	\$2-2.75	\$2-2.75	N/A			N/A		N/A	\$115-154	\$115-154	\$16.00	\$16.00	\$32.00	\$32.00
Rural	MTS (2 zones)	\$5-10	\$5-10	\$2.50-5	\$2.50-5	N/A			N/A		N/A	\$62-156	\$62-156	\$16.00	\$16.00	\$32.00	\$32.00
	NCTD	\$2.00	\$2.00	\$1.00	\$1.00	N/A			\$32.00	\$32.00	N/A	\$64.00	\$64.00	\$16.00	\$16.00	\$32.00	\$32.00
Comm.	MTS Shuttle	\$1.00	\$1.00	\$1.00	\$1.00	\$5.00	\$5.00		\$32.00	\$32.00	N/A	\$64.00	\$64.00	\$16.00	\$16.00	\$32.00	\$32.00
	MTS Downtown	\$1.25	\$1.25	\$1.00	\$1.00	\$5.00	\$5.00		\$32.00	\$32.00	N/A	\$64.00	\$64.00	\$16.00	\$16.00	\$32.00	\$32.00
	NCTD FAST	\$2.00	\$2.00	\$1.00	\$1.00	\$4.00	\$4.00		\$32.00	\$32.00	N/A	\$64.00	\$64.00	\$16.00	\$16.00	\$32.00	\$32.00
	COASTER Conn.	\$2.00	\$2.00	\$1.00	\$1.00	\$4.00	\$4.00		\$32.00	\$32.00	N/A	\$64.00	\$64.00	\$16.00	\$16.00	\$32.00	\$32.00
	MTS DART	\$3.00	\$3.00	\$1.50	\$1.50	\$5.00	\$5.00		\$32.00	\$32.00	N/A	\$64.00	\$64.00	\$16.00	\$16.00	\$32.00	\$32.00
Para.	MTS Access (zones)	\$3.50-4.50	N/A	\$3.50-4.50	N/A	N/A			N/A		N/A			N/A		N/A	
	NCTD LIFT	\$4.00	N/A	\$4.00	N/A	N/A			N/A		N/A			N/A		N/A	

\*No transfers between vehicles or services; separate fare (or pass) required for each boarding

\*\*Trolley -- No changes to existing zone structure.

\*\*\*COASTER -- 4 zones (same as current structure)

\*\*\*\*20% discount from Adult 30-Day pass for College Monthly Pass, 30% discount for Semester Pass

Estimated Revenue and Ridership Impacts (2008)

Adult/ Youth	MTS		NCTD		Region	
	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$38,009,738	27,919,612	\$8,117,576	5,870,267	\$46,127,314	33,789,879
Alternative	\$39,572,099	27,507,102	\$8,292,060	5,817,031	\$47,864,159	33,324,133
Change	\$1,562,361	- 412,510	\$174,484	- 53,236	\$1,736,845	- 465,746
% Change	4%	- 1%	2%	- 1%	4%	-1%
Total (with Sr./Dis.)	MTS		NCTD		Region	
	Revenue	Ridership	Revenue	Ridership	Revenue	Ridership
Base	\$59,662,440	76,441,234	\$11,180,114	10,252,241	\$70,842,554	86,693,475
Alternative	\$62,050,044	75,811,692	\$11,315,236	10,208,334	\$73,365,280	86,020,027
Change	\$2,387,604	- 629,541	\$135,123	- 43,906	\$2,522,726	- 673,448
% Change	4%	- 1%	1%	0%	4%	- 1%

- Both the fare differential between MTS local and urban bus and the fare zones for the Trolley would be eliminated.<sup>14</sup> A single ride fare of \$2.25 if paid with cash, or \$2.00 if paid using Compass Card stored value, was specified for all *Local*/bus services (i.e., MTS local and urban services, and NCTD's BREEZE), while a higher fare (\$2.50 with cash, \$2.25 with Compass Card) was specified for all *Corridor* light rail and express bus services (i.e., Trolley, Sprinter and MTS Express Bus), regardless of distance covered. The suggested fare for MTS Premium Express ("I-15/I-805") service was \$5.25 with cash, \$5.00 with Compass Card. The zone fares for COASTER were retained; the cash fare was set to rise to \$4.25-\$5.75, with a Compass Card fare equal to the current fare, at \$4.00-\$5.50.
- A single Regional Day Pass, available on-board buses (and at TVMs), would be \$5.00 for a paper/magnetic version, \$4.50 if loaded onto a Compass Card. There would be a single Regional 30-Day Pass (i.e., unifying the current local and non-premium express passes), priced at \$62 (paper or magnetic version) -- or \$60 if loaded to a Compass Card. The Regional 14-Day Pass would be priced at half the 30-Day Pass. Separate NCTD-only passes would be eliminated. In Year 3 (2010), the prices of 30 and 14-Day Passes would each rise by \$2. Senior and disabled -- and also youth --- pass prices would rise proportionately to the increases in adult passes.
- MTS would no longer issue transfers between vehicles; a separate fare (or a pass) would be required for each boarding.
- The minimum age to qualify for Senior fares would remain at 60, and the Senior/Disabled fare for Local and Community services would remain at \$1. However, the Senior/Disabled fare for Corridor services would rise to \$1.25 (or \$1.15 if using Compass Card).
- **Alternative B (Reduced Number of Trolley Zones)** – This alternative featured a simplified fare structure, but retained some zones on Trolley:
  - A single ride fare of \$2.25 if paid with cash, or \$2.00 if paid using Compass Card stored value, was specified for all *Local*/bus services (MTS and NCTD), as well as for Sprinter. Trolley would have 3 zones, priced from \$2.25-\$3.25 (\$2-\$3 with Compass Card), as well as the Downtown zone (\$1.75/\$1.50), rather than the 6 existing zones. As in Alternative A, MTS Express Bus would continue to carry a higher fare (\$2.75 with cash, \$2.50 with Compass Card). The suggested fares for MTS Premium Express ("I-15/I-805") and COASTER were the same as those in Alternative A.
  - Pass prices were identical to those proposed for Alternative A.
  - As with Alternative A, MTS would no longer issue transfers between vehicles; a separate fare (or a pass) would be required for each boarding.

In contrast to Alternative A, the minimum age to qualify for Senior fares would rise to 62 (starting in 2009), and then to 65 (in 2012). The Senior/Disabled fare for all Local, Corridor and Community services would remain at \$1.

- **Alternative C (Based on MTS Changes)** – This alternative included the recommendations for fare changes proposed by MTS staff.<sup>15</sup> In order to achieve an integrated regional fare structure, the

<sup>14</sup> The Trolley fare would effectively have 2 zones, as there would still be a lower Downtown fare. Moreover, in this alternative, it would be necessary to pay a separate fare – or use a pass -- to go from one Trolley line to another.

<sup>15</sup> The MTS Board of Directors approved these fare change recommendations August 16, 2007 as part of a package of revenue enhancement and cost reduction options.

NCTD fares were set equal to the proposed MTS fares for the corresponding fare element (Note that, in this alternative, there were no proposed discounts associated with using Compass Card):

- The single ride fare for MTS' local bus service would rise to \$2 (equaling the current BREEZE fare) in 2008, while the single ride fares for all other *Local* and *Corridor* services would remain the same as they are now. In 2009, though, the fare for MTS local, urban and express services would be unified, at \$2.25 (i.e., the express fare would drop from \$2.50 to \$2.25); the Trolley fare would remain the same as it is today through the entire 5-year period. The suggested fare for MTS Premium Express ("I-15/I-805") service was \$5. The zone fares for COASTER would stay the same as they are now.
- A MTS Day Pass, available on-board buses (and at TVMs), would be \$5.00; NCTD would continue to provide its own \$4 Day Pass. The Regional 30-Day Pass would be increased to \$64 in 2008, and then rise to \$68 in 2009; the Regional 14-Day Pass would start at \$32, rising in 2009 to \$34. Separate NCTD-only passes (other than the Day Pass) would be eliminated. As with the other two alternatives, senior and disabled -- and also youth -- pass prices would rise proportionately to the increases in adult passes.
- As in the other two alternatives, MTS would no longer issue transfers between vehicles; a separate fare (or a pass) would be required for each boarding.
- The minimum age to qualify for Senior fares would rise by 1 each year, beginning in 2010 (i.e., 61 in 2010, 62 in 2011, up to the maximum of 65 in 2014). The Senior/Disabled fare for Local, Corridor and Community services would remain at \$1.
- Other changes recommended by MTS included (1) reducing the discounts (from the adult 30-Day Pass) on college monthly and semester passes from the current 25% and 35%, respectively, to 20% and 30%; (2) eliminating the discount on bulk purchase tokens; (3) eliminating the Social Service Day Tripper and the Convention Pass; and (4) reducing the maximum discount for the ECO Pass from 31% to 25%.

The next step was to evaluate these three scenarios and develop preliminary recommendations for a new fare structure. This process is discussed below.

## Evaluation of Scenarios and Development of Preliminary Recommendations

Table D-13 presents the results of the evaluation of the above three scenarios (i.e., based on the process described in Chapter 3). Both weighted and unweighted ratings of each *qualitative* (*Simplicity* and *Fairness*) criterion are shown; however, as indicated in the table, the relative rankings of the alternatives (based on the *Total Score* for the qualitative criteria) are the same regardless of whether the weights are applied.

Table D-13 -- Evaluation of Detailed Fare Structure Scenarios

Evaluation Category/Criterion	Scenarios						
	<i>Alternative A: Uniform Fare by Service Category (minimum senior age = 60)</i>		<i>Alternative B: Reduced Number of Trolley Zones (minimum senior age = 60)</i>		<i>Alternative C: Based on MTS Changes (minimum senior age = 60)</i>		
	% Change	Amount	% Change	Amount	% Change	Amount	
<b>Production</b>							
Impact on ridership (MTS)	0%	(0.34 m)	0%	(0.28 m)	-1%	(0.63 m)	
Impact on revenue (MTS)	6%	\$3.60 m	5%	\$2.99 m	4%	\$2.39 m	
Impact on ridership (NCTD)	-1%	(0.14 m)	-1%	(0.12 m)	-1%	(0.04 m)	
Impact on revenue (NCTD)	5%	\$0.52 m	4%	\$0.44 m	1%	\$0.14 m	
Impact on ridership (Regional Total)	-1%	(0.48 m)	0%	(0.41 m)	-1%	(0.67 m)	
Impact on revenue (Regional Total)	6%	\$4.12 m	5%	\$3.43 m	4%	\$2.52 m	
	<b>Weight</b>	<b>unweighted</b>	<b>weighted</b>	<b>unweighted</b>	<b>weighted</b>	<b>unweighted</b>	<b>weighted</b>
<b>Simplicity</b>							
Impact on convenience and ease of system access	3	2	6	2	6	2	6
Extent to which it simplifies fare structure	3	2	6	1	3	1	3
Impact on ease of operating personnel to administer	2	2	4	1	2	1	2
Impact on prepayment (minimizes use of cash)	2	1	2	1	2	1	2
Extent to which includes options that take advantage of CC	2	2	4	2	4	0	0
<b>Fairness</b>							
Extent to which promotes intermodal/interagency travel	2	1	2	1	2	0	0
Impact on reduced fare discounts	1	-1	-1	-1	-1	-1	-1
Extent to which fares reflect distance/type/cost of service	1	-2	-2	-1	-1	-1	-1
<b>Total Score (Simplicity, Fairness)</b>		7	21	6	17	3	11

Note: the ridership and revenue impacts are for Year 1 (2008).

As shown, Alternative A had the highest qualitative *Total Score*, followed by Alternative B. Alternative C had a considerably lower score than the other two. As reflected in the table, Alternative A rated highest – or was tied for highest with one or both of the other Alternatives – in all but one of the criteria; only with regard to the final criterion (“Extent to which fares reflect distance/type/cost of service”) did A receive a lower rating than the other two. By eliminating many of the fare differentials – in favor of unifying fares by service category -- Alternative A did best at establishing a simplified uniform fare structure in the region. Alternatives B and C also simplified fares, but to a lesser extent than A, as both retain multiple Trolley zones. Alternative C retains the current zone structure as is. As discussed in earlier chapters, the Trolley has by far

the most complicated of the light rail fare structures considered in the Peer Review; only two of the peer systems have zones at all, and they each have only three zones.

In the *quantitative* criteria evaluation step, the ridership and revenue impacts of each of these fare structure alternatives were determined (using the Fare Model). The estimated percent changes (compared to the Base Case) in both measures for Year 1 for each alternative are shown in Table D-13. As indicated, Alternative A was projected to generate the highest revenue, followed by Alternative B. Conversely, Alternative B was projected to have a slightly smaller ridership loss than Alternative A; Alternative C had the highest projected ridership loss.

Based on its high overall rating in the qualitative evaluation process, coupled with its projected revenue and ridership impacts, **Alternative A** represented the preliminary recommended for implementation in the region. It clearly addressed the major goals related to improving simplification, customer convenience, and ease of administration by operating personnel. It would also generate significant additional revenue for both MTS and NCTD – and with a relatively minimal loss of ridership. Moreover, by offering discounts on fares paid using Compass Card (vs. use of cash), customers would be able to minimize – if not avoid altogether – any proposed fare increases. Alternative B achieved reasonable evaluation ratings – as well as comparable Compass Card discounts -- but was more complex and was projected to have a smaller revenue gain than A. Alternative C suffered on all counts, with the lowest evaluation rating, the smallest revenue gain (and highest ridership loss) and large fare increases for certain payment categories (particularly monthly passes, which are proposed at \$64 for all regional passes in 2008, rising to \$68 in 2009.)<sup>16</sup>

This preliminary recommendation served as the starting point for the process of developing final recommendations for fare structure changes in the region. This process is discussed in Chapter 4.

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<sup>16</sup> This would represent a particularly large increase for NCTD pass buyers, with the proposed elimination of NCTD-only monthly passes.

## Appendix E: Summary of Customer Open Houses

TranSystems and Parsons, in conjunction with SANDAG, coordinated and facilitated five community Open Houses in April 2008. The goals of the events were to inform transit customers about regional fare structure changes under consideration and to provide an opportunity for customers to comment on the potential changes.

### Methodology

The approach for this outreach was to host Open Houses in five different areas of the County: Old Town, Escondido, Chula Vista, Oceanside and El Cajon. These locations represented North County Transit District's (NCTD) service areas -- east and west -- and Metropolitan Transit System's (MTS) area -- central, south and east. The venues selected were located near transit centers and/or rail stations, in secure public service centers, and the meeting rooms were large enough to accommodate expected attendance. The dates and venues are listed below:

- Friday, April 18: Old Town – Garcia Room, Caltrans District 11 Office, 4050 Taylor Street
- Tuesday, April 22: Escondido – Mitchell Room, Escondido City Hall, 201 North Broadway
- Monday, April 28: Chula Vista – Room 101, Chula Vista City Hall, 276 Fourth Avenue
- Tuesday, April 29: Oceanside – Board Room (Lower Level), North County Transit District Offices, 810 Mission Ave
- Wednesday, April 30: El Cajon – West Room, 195 East Douglas Avenue

Each was an open forum, scheduled for several hours to make attendance as accommodating to customer work schedules as possible. Each session opened around noon and closed around 6:30 PM.

Posters, along with handouts of these posters, were produced to facilitate presentations and to provide take-away information. The theme of each poster is shown below. Copies of the posters/handouts are presented at the end of this Appendix:

**POSTER 1: WHY CHANGE THE CURRENT FARE STRUCTURE?**

**POSTER 2: WHAT ARE THE KEY FEATURES OF THE FARE STRUCTURE CHANGES BEING CONSIDERED?**

**POSTER 3: WHAT TYPES OF FARE STRUCTURE CHANGES ARE BEING CONSIDERED?**

**POSTER 4: WHAT ARE THE NEXT STEPS?**

**POSTER 5: WHAT ARE THE ADVANTAGES OF THE COMPASS CARD?**

The approach for advertising the events was three-pronged. It included *Rider Alerts* posted on all modes, press releases to local media, and letters of invitation to organizations that had either written to SANDAG about concerns related to recent fare changes or had participated in the Fare Study interviews.

The original plan was to present the contents of each poster to attendees as they arrived; however, in most cases, customers arrived in groups. When this occurred, customers sat down and received a more formal presentation. The floor was then opened for receiving and answering questions. In an effort to accommodate attendees who were not comfortable providing comments in a group setting, comment forms were provided.

## Results

Approximately 150 individuals in total attended the Open House events. Nearly 100 of the 150 were split between Old Town and El Cajon, while the remaining 50 were divided among the Escondido, Oceanside and Chula Vista events. Most of the attendees represented their own interests, but individuals representing corporations (such as SAIC and various Sorrento Valley firms), student groups (such as San Diego State University), military (such as the Coronado Naval Base) and social service organizations (such as The ARC of San Diego, Seniors on the Go, and the San Diego Regional Center) also attended. Two MTS bus operators and one telephone information operator participated. Reporters from various local news agencies were present at the Escondido and Chula Vista events.

The following summarizes reactions to the concepts presented and other suggestions. The reactions and suggestions were either collected at the Open Houses or submitted later by mail, phone or email.

### Need for Changing the Current Fare Structure

None of the attendees providing comments disagreed that the current fare structure is overly complex and that regional coordination needs to be improved. Most people who attended the open houses expressed that they are regular commuters who primarily use monthly passes to pay a fare. Generally, passes are purchased because customers consider them to be an excellent bargain (in the case of the Senior/Disabled pass) or a better value than paying per ride and/or because passes make commuting easier or less complicated. Passes take the worry out of not knowing the price of a single cash fare, especially the Trolley. Most attendees expressed that they were not aware that there are price differentials between services provided by NCTD and similar services provided by MTS, or that an NCTD day pass is not accepted on MTS services.

### Key Features of the Fare Structure Changes being Considered

1. Move toward same cash fare on MTS Local/Urban, BREEZE buses and Sprinter

Most customers expressed support for charging the same fare on these services; however, some expressed concern about the fare levels. Some customers thought that free transfers should be reinstated. A few suggested offering paratransit customers discounts on fixed route services. Some suggested that Seniors/Disabled should be allowed to ride transit for free, like in some other cities.

2. Simplify Trolley fares, with reduced number of zones, possibly no zones

Nearly all customers expressed support for reducing the number of zones, but most stated that they purchase monthly passes, so Trolley zones were not really an issue to them. A few supported the concept of charging the same fare for Trolley as on local/urban buses, but most did not have a strong opinion about this. Some customers expressed concern about people who ride the Trolley a short distance. Their concern focused on those people subsidizing the fares of customers who travel farther. Customers expressing these concerns appeared to agree when reminded that this is the same situation for bus commuters today. One letter-writer warned that any fare structure change needs to be evaluated against the requirements of Title VI – there should not be a severe and disparate impact on low-income/minority riders. This writer also suggested that the processes (Ticket Vending Machine and Farebox) for buying a ticket or paying a fare should also factor into any plan to simplify the fare structure. A few customers suggested a free downtown zone.

3. Offer a single Day Pass that is good on all regional services except MTS Premium Express, COASTER, and MTS Rural Bus.

Most attendees supported this concept, but some expressed concern for pricing (e.g., would this mean that the lower-cost NCTD Day Pass would be eliminated?) Many suggested bringing back the 10-Trip Pass for the COASTER, and several requested a Senior/Disabled Day Pass. Some recommended that the Day Pass be based on a 24-hour clock.

4. Revise Premium Day Pass to include MTS Premium Express and COASTER

Most attendees were not aware that a COASTER ticket was not currently accepted for a return trip to the COASTER on MTS services. When this was explained, a COASTER Day Pass made more sense to them. Some customers felt that pricing should be competitive with the cost of driving an automobile. Some customers wanted information on how the COASTER Day Pass would work on the Amtrak Rail to Rail program.

5. Introduce a regional 7 or 14-Day Pass, good on MTS and NCTD services (except MTS Premium Express, MTS Rural Bus and COASTER).

Most customers supported the idea of a 7 or 14-Day Pass. A few customers also suggested a Tourist Pass, sold through hotels.

6. Offer only one 30-Day Pass good on MTS and NCTD services (except MTS Premium Express, MTS Rural and COASTER).

Most attendees supported the one regional pass concept, but North County customers expressed some concern about pricing. A few customers suggested also offering an annual pass. The flexibility of the rolling period is appealing to most customers. A few customers suggested a monthly pass for paratransit customers.

7. Improve convenience and ease of use by introducing the Compass Card (a permanent "smart card" that can be used to pay all types of fares)

Most attendees expressed interest in the smart card, but had many questions about how the cards would be issued, how to load passes or value, how to use the card and how it would deter fare abuse and evasion. Many expressed the need for convenient ways to obtain the card and suggested the need for an aggressive marketing and outreach campaign to build awareness and provide details on where/how to receive a card and how to use it. Many expressed initial concern that the implementation of the smart card would mean that they would no longer be able to purchase passes. Many attendees appreciated that the card has potential for cutting agency costs and increasing revenue due to preventing some forms of abuse (such as passbacks), but also expressed doubt that savings and revenue increases would be passed along to the customer in the form of increased service or fare pricing decreases. Most customers expressed that they liked the concept of balance protection and very few expressed concern about providing personal information. Many customers suggested that they should receive some sort of a bonus for storing value on the card. A few customers suggested that free transfers be electronically issued to customers using the Compass Card. Some customers were interested in how the card would be accepted by Amtrak or MetroLink. Representatives of large companies, Navy operations and social service organizations asked how their members would receive the card, how billing would work, and what reports might be available to them through this system. The Navy representative expressed a need to monitor transit use. A few attendees suggested that customers be allowed to use tokens to add value to the cards, a few expressed concern for customers who do not have credit cards, and some expressed concern over the possible decrease in the number of fare media sales venues.



## WHAT ARE THE ADVANTAGES OF THE COMPASS CARD?

- Use the same card indefinitely. When a pass stored on the Compass Card expires, the customer will reload a new one to the same Compass Card.
- Expand the channels for reloading a pass (or value) to include the convenience of automated reloads, reloading at Ticket Vending Machines, and/or reloading by phone
- Provide protection for lost Compass Cards
- If use Compass Card with money stored (like a gift card), customers no longer need exact change for fare
- Incorporate photo identification for Seniors and Youth



## WHAT ARE THE KEY PURPOSES OF THE FARE STRUCTURE CHANGES BEING CONSIDERED?

*To improve the transit experience by simplifying fare payment*

- Reducing number of fare products and different pricing levels
- Charging the same fare for similar types of service in both MTS and NCTD service areas
- Improving convenience and ease of use by introducing the Compass Card (a permanent "smart card" that can be used to pay all types of fares)

*To offset cuts in state funding by generating more revenue from fares*



## WHY CHANGE THE CURRENT FARE STRUCTURE?

*The region's current fare structure is overly complex*

- 25 different single cash fares
- 7 different Trolley fares (based on number of stations)
- 10 different unlimited ride passes, including 3 different 1 Day Passes and 7 different Monthly Passes



## WHAT ARE THE NEXT STEPS?

Step 1: Evaluate alternatives

Step 2: Develop recommended fare structure changes and implementation phasing

Step 3: Take report to Transportation Committee, SANDAG Board of Directors

Step 4: Revise Fare Ordinance

Step 5: Hold public hearings on revised Fare Ordinance

Step 6: Approve revised Fare Ordinance

Step 7: Implement first year changes in January 2009

## Appendix F: Impact of Accelerating Unification of the MTS and NCTD Fare Structures

In order to determine the impact on ridership and revenue of unifying the two agencies' fare structures faster than in the recommended approach, the consulting team tested the impacts for two alternative strategies:

- Alternative 1 includes the "optional recommendations" identified in Chapter 4 (i.e., unifying MTS Bus/BREEZE fares at \$2.25 and Trolley/Sprinter fares at \$2.50 in July 2009, replacing the BREEZE/Sprinter Monthly Pass with the Regional Pass in July 2009 and increasing the Premium Express Monthly Pass to \$120 in July 2009 and to \$140 in July 2010).
- Alternative 2 assumes implementation of all recommended changes by 2011, rather than 2013.

The projected impacts for these alternatives are detailed on the following pages. As indicated, the impacts for *Alternative 1* for NCTD for 2010 are a 13% revenue increase and a 3% ridership loss. This represents approximately \$200,000 more revenue and loss of 46,000 additional riders than is projected for that year for NCTD in the recommended structure. The projected impacts for *Alternative 2* for NCTD for 2011 are a 14% revenue increase and a 4% ridership loss. This represents approximately \$27,000 more revenue and loss of 13,000 additional riders than originally projected for NCTD for that year.

## (1) Impacts of Unifying NCTD and MTS Fare Structures in 2009

- BREEZE single-ride fare = \$2.25
- Regional Day Pass = \$5.00 (no BREEZE-only Pass)
- Regional 30-day Pass = \$68 (no BREEZE-only Pass)
- Regional 14-day Pass = \$41

Adult & Youth Results	MTS		NCTD		REGION	
	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>
Base	\$ 39,436,059	27,294,638	\$ 8,181,898	5,785,042	\$ 47,617,957	33,079,680
Alternative	\$ 42,821,872	26,657,492	\$ 9,482,488	5,471,672	\$ 52,304,360	32,129,164
Change	\$ 3,385,813	-637,146	\$ 1,300,590	-313,371	\$ 4,686,403	-950,517
% Change	9%	-2%	16%	-5%	10%	-3%

Including S/D	MTS		NCTD		REGION	
	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>
Base	\$ 61,914,004	75,599,229	\$ 11,403,725	10,176,346	\$ 73,317,729	85,775,574
Alternative	\$ 66,307,262	74,722,921	\$ 12,883,650	9,828,106	\$ 79,190,912	84,551,027
Change	\$ 4,393,258	-876,308	\$ 1,479,925	-348,240	\$ 5,873,183	-1,224,547
% Change	7%	-1%	13%	-3%	8%	-1%

*Impact:* extra \$200,000 revenue for NCTD, compared to *Recommended 2009 Fare Structure*. NCTD ridership drops by 46,000 compared to *Recommended 2009 Fare Structure*.

## (2) Impacts of Three-Year Phase-in of Unification of Fare Structures

*Year 1: Increase BREEZE 30-Day Pass to \$62 instead of \$59*

Adult & Youth Results	MTS		NCTD		REGION	
	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>
Base	\$ 39,436,059	27,294,638	\$ 8,181,898	5,785,042	\$ 47,617,957	33,079,680
Alternative	\$ 42,821,872	26,657,492	\$ 9,311,402	5,516,978	\$ 52,133,274	32,174,470
Change	\$ 3,385,813	-637,146	\$ 1,129,504	-268,064	\$ 4,515,317	-905,210
% Change	9%	-2%	14%	-5%	9%	-3%

Including S/D	MTS		NCTD		REGION	
	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>
Base	\$ 61,914,004	75,599,229	\$ 11,403,725	10,176,346	\$ 73,317,729	85,775,574
Alternative	\$ 66,307,262	74,722,921	\$ 12,712,564	9,873,412	\$ 79,019,826	84,596,333
Change	\$ 4,393,258	-876,308	\$ 1,308,838	-302,934	\$ 5,702,096	-1,179,241
% Change	7%	-1%	11%	-3%	8%	-1%

*Impact:* NCTD Revenue +\$52,000, ridership -19,000 (compared to *Recommended 2009 Fare Structure*).

Year 2: Raise BREEZE cash fare to \$2.25, 30-Day Pass to \$65, Senior/Disabled Cash fare to \$1.10

Adult & Youth Results	MTS		NCTD		REGION	
	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>
Base	\$ 39,436,059	27,294,638	\$ 8,181,898	5,785,042	\$ 47,617,957	33,079,680
Alternative	\$ 43,808,031	26,496,143	\$ 9,442,886	5,479,831	\$ 53,250,917	31,975,973
Change	\$ 4,371,972	-798,495	\$ 1,260,988	-305,212	\$ 5,632,960	-1,103,707
% Change	11%	-3%	15%	-5%	12%	-3%

Including S/D	MTS		NCTD		REGION	
	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>
Base	\$ 61,914,004	75,599,229	\$ 11,403,725	10,176,346	\$ 73,317,729	85,775,574
Alternative	\$ 67,564,699	74,429,368	\$ 12,900,274	9,817,524	\$ 80,464,972	84,246,892
Change	\$ 5,650,695	-1,169,861	\$ 1,496,548	-358,821	\$ 7,147,243	-1,528,682
% Change	9%	-2%	13%	-4%	10%	-2%

Impact: NCTD Revenue +\$216,000, Ridership -56,000 (compared to Recommended 2010 Fare Structure).

Year 3: Raise BREEZE 30-Day Pass to \$68

Adult & Youth Results	MTS		NCTD		REGION	
	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>
Base	\$ 39,436,059	27,294,638	\$ 8,181,898	5,785,042	\$ 47,617,957	33,079,680
Alternative	\$ 43,808,031	26,496,143	\$ 9,458,569	5,472,347	\$ 53,266,600	31,968,490
Change	\$ 4,371,972	-798,495	\$ 1,276,671	-312,695	\$ 5,648,643	-1,111,191
% Change	11%	-3%	16%	-5%	12%	-3%

Including S/D	MTS		NCTD		REGION	
	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>	<u>Revenue</u>	<u>Ridership</u>
Base	\$ 61,914,004	75,599,229	\$ 11,403,725	10,176,346	\$ 73,317,729	85,775,574
Alternative	\$ 68,048,360	74,258,220	\$ 12,950,573	9,793,739	\$ 80,998,932	84,051,959
Change	\$ 6,134,356	-1,341,008	\$ 1,546,847	-382,607	\$ 7,681,203	-1,723,615
% Change	10%	-2%	14%	-4%	10%	-2%

Impact: NCTD Revenue +\$27,000, ridership -13,000 (compared to Recommended 2011 Fare Structure).