

CAPITAL METROPOLITAN TRANSPORTATION AUTHORITY

# FARE POLICY REVIEW

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## Draft Final Report

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# I. BACKGROUND

## INTRODUCTION

Clear, consistent, and fair fare policies are critical to the success of the Capital Metropolitan Transportation Authority (Capital Metro). In its efforts to increase its fare recovery ratio while minimizing impacts to ridership, METRO has contracted with Klotz Associates and Nancy R. Edmonson to review its current fare policy, structure, and levels and make recommendations for improvements.

Capital Metro's Board of Directors adopted a Fare Policy in 2011 to establish goals and objectives of its fare policy. Its stated goal is "to support Capital Metro's overall strategic mission to provide quality public transportation choices for our community that meet the needs of our growing region. To accomplish this mission Capital Metro must develop and use its resources in a manner that ensures sustainable business growth. "

The specific objectives of the fare policy can be summarized as follows:

- Ridership - Promote use of all modes of service by setting fares that are accessible to the widest possible range of existing and potential rider groups.
- Equity - Establish equitable fares that recognize the socioeconomic composition of riders and their use of the different types of services.
- Simplicity - Enhance mobility and system access through a fare system that is easy to use and understand.
- Revenue - Support a predictable fare revenue stream that ensures the total fare revenue stream is maintained at an appropriate level to meet Capital Metro's immediate and long term financial requirements.
- Recovery - Recover a minimum of 20% of transit operating costs with passenger-paid and third-party fares.
- Efficiency - Minimize fare collection costs with technologies that minimize costs associated with fare collection and revenue processing without compromising accuracy.

In this study, fare level refers to the average level of all fares. The fare level is generally established by Board policy. Fare recovery is the portion of operating costs that are covered by passenger fares. Fare structure refers to the differential level of fares by service type (e.g., local, park and ride), time period (e.g., peak, off-peak), passenger type (e.g., seniors, students), distance, or other service or passenger-based distinctions. Staff generally determines the fare structure, with Board concurrence. Together, the fare levels and fare structure comprise an agency's fare policy. The methods by which fares can be paid are generally referred to as fare media or fare scrip.

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## HISTORY

When Capital Metro was founded in 1985, its initial base fare was set at \$0.50. The \$0.50 base fare remained in place until 1990. Capital Metro eliminated all fares in 1990 as an experiment to increase ridership. Fares were reinstated January 1, 1991, with the base fare for an adult returned to \$0.50 and students to \$0.25. However; seniors 65 or older and persons with disabilities paid no fare versus half fare prior to the free fare experiment. ‘Dillos (downtown circulators)—previously \$0.25—remained free as well. MetroAccess (formerly STS) service was \$0.60 in 1989 and returned to \$0.60 in 1991.

From January 1991 to October 2008 there were no changes to the base fare. In October 2008, the base fare was increased to \$0.75 and students to \$0.35. Express service fares were also increased to \$1.50 (full fare) and \$0.75 (reduced fare). Capital Metro discontinued the issuance of transfers in May 2007 and began issuing local day passes for \$1.00. With the fare increase in October 2008, the price of a day pass was increased to \$1.50 and \$3.00 for an express day pass. Seniors and the disabled continued to ride for free. No reduced fare day passes were issued for either local or express bus service.

In January 2010, the local base fare increased to \$1.00 and students to \$0.50. Express service fares increased to \$2.50 (full fare) and \$1.35 (reduced fare). Local day passes went to \$2.00 and express day passes went to \$5.00. Again, there were no reduced fare day passes because seniors and disabled continued to ride for free. In late March 2010, Capital Metro launched MetroRail service. The MetroRail fare structure was set at a premium fare, a higher fare than both local and express bus services.

In January 2011, the entire fare structure changed to today’s current fare structure. This change included aligning both the express bus and MetroRail fares together into a fare category called Regional Service, charging the reduced fare for seniors and the disabled, and the issuance and development of new reduced fare day passes since seniors and disabled individuals were now required to pay a reduced fare. **Table 1** summarizes the fare history.

Despite two significant base fare increases in the past few years, Capital Metro’s base fare is still lower on an inflation-adjusted basis than in its first year of operations (1985). As inflation increases, the real value of fares decreases. Just to hold the fare recovery ratio constant, Capital Metro will need to raise fares as inflation increases operating costs.

The current fare structure and levels generated about \$17.7 million per year in fare revenue in FY 2011, for an overall fare recovery ratio of 11.7 percent. Fare revenues have almost doubled over the past ten years, but coupled with increases in operating costs, fare recovery has increased less than 2% in aggregate (or 20% of the fare recovery ratio in FY 2002).

**Table 1  
Fare History**

<b>Date</b>	<b>Base Fare</b>	<b>Other Fare Changes</b>	<b>Fare Recovery <sup>1</sup></b>	<b>Base Fare \$2011 <sup>2</sup></b>
1985	\$0.50			\$1.05
1986	\$0.50			\$1.03
1987	\$0.50			\$0.99
1988	\$0.50			\$0.95
1989	\$0.50			\$0.91
1990	\$0.50	All fares free		\$0.00
1991	\$0.50	Seniors and disabled still free		\$0.83
1992	\$0.50			\$0.80
1993	\$0.50			\$0.78
1994	\$0.50			\$0.76
1995	\$0.50			\$0.74
1996	\$0.50			\$0.72
1997	\$0.50	Eliminate transfers; start day pass		\$0.70
1998	\$0.50			\$0.69
1999	\$0.50		13.18%	\$0.67
2000	\$0.50		11.91%	\$0.65
2001	\$0.50		11.03%	\$0.63
2002	\$0.50		9.79%	\$0.63
2003	\$0.50		9.27%	\$0.61
2004	\$0.50		9.02%	\$0.60
2005	\$0.50		8.80%	\$0.58
2006	\$0.50		8.61%	\$0.56
2007	\$0.50		9.15%	\$0.54
2008	\$0.50		10.30%	\$0.52
2009	\$0.75		9.96%	\$0.79
2010	\$1.00		10.01%	\$1.03
2011	\$1.00	Start charging ½ fare for seniors and disabled; reduce fare on Metrorail	11.70%	\$1.00
2012	\$1.00		11.80%	\$1.00

1 Fare recovery ratios from 1999-2011 are from the Comprehensive Annual Financial Reports. The financial reports do not define what services are included in this ratio.

2 Adjusted using the National CPI-U

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## CURRENT FARE STRUCTURE AND LEVELS

Capital Metro's current fares are summarized on Appendix A (attached). In general, the system is a one-ride, one-fare system, with fares varying both on the level of amenities (local vs. express) and on distance (one and two zones for rail). From the simplest possible system (free), Capital Metro's system has become increasingly complex as the agency has added new modes and new fare payment options.

### On-System Fare Payment

The following fare payment options are available on the bus or at rail stations—versus fare media that are purchased off the system.

#### *Single Ride Bus Fares*

Cash bus fares are for a single ride only and generally do not include a transfer. The one exception is that those paying a single ride rail Regional fare (\$2.75) on a bus are issued a ticket that is eligible for use on the rail system within two hours of issuance. While Capital Metro does not call this a transfer, it effectively allows a person to transfer to rail to finish a trip without paying another fare.

About two-thirds of the money collected for fixed-route bus and rail fares (excluding contract payments such as UT, ACC, and City of Austin) was paid in cash in FY 2011 (one ride and day passes) for a total of about \$6.2 million.

#### *Single Ride Rail Tickets*

Rail patrons can purchase single ride tickets at ticket vending machines (TVMs) at the stations for one or two zone rides on the rail line. These tickets are valid for up to two hours on rail and rail connector buses only. This ticket effectively provides limited transfer opportunities. In FY 2011, 71,308 single ride rail tickets, for a total of \$103,861, were sold at TVMs. Nearly 75% of those tickets were for single zone tickets.

About \$500,000—or about 5%—of Capital Metro's fare revenues (again, excluding contract payments) were paid through the ten TVMs in FY 2011 (one at each of the nine rail stations and one at the downtown transit store). This revenue includes about \$250,000 of TVM sales of bus passes. TVMs accept cash or credit cards for payment.

#### *Day Passes*

Day passes are sold for twice the base fare and are valid for all travel within 24 hours of issuance. Therefore, anyone who will need to transfer to complete a bus trip will generally buy a day pass. Since day passes are paid for in cash on the bus, the revenue split between single ride fares and day passes is not available. But based on ridership,

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more than twice as many people paid with day passes than with single ride fares in FY 2011.

### **Off-System Fare Media Sales**

All fare media can be purchased at Capital Metro's Transit Store in downtown Austin. In FY 2011, Capital Metro booked about \$15,000 to \$20,000 in revenue each month from the downtown store, which accounts for less than 7% of pre-paid revenues (excluding contract revenues).

Most pre-paid fare instruments are purchased at about 40 retail outlets (mostly grocery stores) and on-line. HEB stores receive a 7% discount on fare media; all others receive a 5% discount. Outlets pay for the fare media on receipt of the stock, not when the fare instruments are sold. Since passes are rolling passes (i.e., time period starts when pass is first used rather than on a calendar basis), the media do not expire. HEB stores—which earn the higher commission—account for the vast majority (around 90% in a typical month) of the revenues generated by ticket outlets. In FY 2011, Capital Metro booked about \$140,000 per month in revenue from outlets, which accounts for about 54% of Capital Metro's pre-paid fare revenues.

Fare media may also be purchased on-line. In FY 2011 and FY 2012, Capital Metro typically booked about \$22,000 to \$28,000 per month in on-line sales, accounting for about 10% of Capital Metro's pre-paid fare revenues (excluding contract revenues). Customers pay a \$2.00 per order service charge for on-line orders, regardless of the total value of the order. Capital Metro mails passes and cards ordered on-line.

The remainder of the pre-paid fares (around 30%) were sold through Capital Metro's discount pass program, which is discussed in more detail below.

The following fare media are purchased off of the transit system. No tickets or tokens are sold except for MetroAccess 10-Ride tickets.

#### *Time Period Passes*

Capital Metro sells 7-day passes and 31-day passes (full fare and reduced fare) for its bus and rail services as well as calendar month MetroAccess passes. All local bus passes (Day, 7-Day or 31-Day) allow unlimited use of all local bus services and UT Shuttle services. Regional passes are valid on all local and express bus routes and rail, providing unlimited use. Local bus passes cannot be used on rail, even for travel within one zone. When presenting a local bus pass on express bus routes, an additional up-charge fare must be paid by passengers when boarding.

#### *Stored Value Cards*

Stored Value Cards (SVCs) are valid on bus services only. The farebox simply deducts the proper fare from the card when inserted into the farebox. The SVCs can be purchased

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for \$12.00 but have a face value of \$15.00, representing a 20% discount. TVMs do not accept SVCs for the purchase of tickets. Cards with less than one fare remaining on the card can still be used (with the remainder paid in cash or with another SVC), so odd remainders do not have to be transferred to another card.

Time period passes and stored value cards accounted for about one-third of the non-contract revenue collected in FY 2011, or about \$3 million. With the discount implied in these instruments, more than 1/3 of the rides were paid for with these fare media.

### **Other Fare Payment Programs**

#### *University of Texas Student, Faculty, and Staff*

University of Texas (UT) students, faculty, and staff ride free on all Capital Metro services except MetroAccess. The University of Texas pays a pre-set monthly fee for the provision of the UT shuttle routes and a negotiated amount for rides on the remainder of the system equal to about \$0.50 per bus ride taken. UT students, faculty, and staff may ride the rail system for free, but the University is not charged for these rides because the barrier-free transit system does not count these rides. UT riders swipe their magnetic university-issued identification cards to board Capital Metro buses.

The revenue from this program in FY 2011 was about \$6.3 million. About 70% of the program users in a typical month during the school year are students, about 20% are faculty and staff, and about 10% are former students and staff. This 10% represents lost revenue for Capital Metro because UT does not pay Capital Metro for use by former students or staff.

#### *Austin Community College Students, Faculty, and Staff*

Capital Metro has an interlocal agreement (ILA) with Austin Community College (ACC) whereby ACC provides passes on a per semester basis to students, faculty, and staff who request them. About 40,000 people are eligible for passes through this program. The number of passes issued to students and faculty is limited by the ILA, but ACC has been able to order enough passes to meet demand with 500 to 1,500 passes left over at the end of the semester. Generally, ACC receives 5,000 to 6,000 passes for the Fall and Spring semesters and 3,000 passes for the summer semester. ACC is invoiced by Capital Metro \$0.50 for each bus and rail ride taken with these passes and \$1.20 for each MetroAccess ride through January 2011 and \$1.50 per MetroAccess Ride since then. Capital Metro received about \$473,000 in FY 2011 from ACC. The current ILA expires August 31, 2013.

ACC pass holders must validate their passes at the rail station when boarding in order for Capital Metro to obtain the number of uses on the rail system. Similarly, fareboxes on the buses count the number of rides on the bus system. The ridership data are used to calculate the amount Capital Metro will invoice ACC. ACC is invoiced on a monthly basis.

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### *City of Austin Employees*

Capital Metro also has an ILA with the City of Austin (COA), which provides transit passes to its employees. The current agreement expires September 30, 2015. As with ACC, the number of these passes provided is limited by the ILA currently to 5,000 fixed-route passes annually, and COA distributes them on a first come-first served basis. In this past year, COA had about 2,000 passes left over from its allocation but feels that interest is increasing such that it hopes to distribute all of the passes next year. The City also receives 100 MetroAccess and 100 RideShare passes annually.

COA is invoiced a flat amount per trip (different amounts for bus, rail, RideShare, and MetroAccess passes), totaling about \$30,000 to \$40,000 per quarter, with a not-to-exceed amount in the contract of \$150,000 per year. In FY 2011, Capital Metro invoiced COA about \$133,000 for the program. The ILA cites a cost of \$0.55 per ride, but the invoicing is based on the number of passes issued for each type of service outlined in the ILA.

As with ACC users, COA pass holders are supposed to validate rail passes at the rail station each time they ride in order to get a count of the number of trips. But the amount charged to COA is currently based on the number of passes agreed upon in the ILA rather than the number of trips taken (bus and rail).

### *Non-Profit Agencies*

Passes are sold at a 50% discount to non-profit agencies, which then disseminate them for free (almost all) or sell the passes to their clients. There are currently about 200 agencies or non-profit groups participating in the program, although the top ten agencies account for the majority (about 75% in 2008) of the value of passes sold through the program. Passes purchased through the program can be of any type—full fare or reduced fare, local or regional, and for the day, week, or month. This program includes monthly MetroAccess passes and MetroAccess 10-Ride Ticket Booklets.

In a sample month (April 2011), most passes sold were full fare local passes (74%), followed by reduced fare local passes (20%), full fare regional passes (6%), and reduced fare regional passes (less than 1%). In FY 2011, Capital Metro sold more than \$1 million in passes and tickets through this program at a net cost of about \$500,000 to the non-profit agencies.

### *Employees*

Employees and their dependents ride free with their Capital Metro identification cards.

### *Small Children*

Children under six years old and accompanied by an adult are free on all Capital Metro services.

#### *Uniformed Personnel*

All police officers, firefighters, emergency medical technicians, and military personnel ride Capital Metro free when in uniform.

#### *Transfers*

Paper transfers with cash fares were eliminated in May 2007.

#### *RideShare*

Capital Metro operates an extensive in-house rideshare program that includes 116 vehicles consisting of cars, 8 passenger vans, and 12 passenger vans. It is 100% locally funded, while some cities in non-attainment areas use Congestion Mitigation and Air Quality (CMAQ) funding to support ride sharing programs.

Passengers pay \$60/month to participate, plus \$0.71 per mile split among all vehicle passengers for any miles travelled outside of Capital Metro's service area. When the program began in 1990, the fee was \$15.00/passenger, which increased to \$25.00/passenger in 1998 and \$45.00/passenger in November 2008. Drivers ride for free. A few employers pay the cost of the service for its employees, including COA, Travis County, the Texas Commissioner on Environmental Quality, and others. Participants can pay for the program on-line, by mail, or by dropping the payment off at Capital Metro headquarters.

RideShare participants are provided local passes, if requested. The idea behind the free passes is that a participant could use the local pass to get around during the day, since he or she would not have a personal car available. Capital Metro distributes about 60 to 70 passes per month via this program.

RideShare participants are also eligible for a guaranteed ride home program which provides up to \$48.50 in cab fare up to 4 times per year. About 80 people are enrolled in the program at a fee of \$5.00 per year and only a few use it.

#### *MetroAccess*

The current fare for MetroAccess (Americans with Disabilities Act complementary paratransit service) is \$1.50 per trip, which is 150% of the local fare. FTA regulations allow a transit agency to charge up to twice the base fare for ADA paratransit service. MetroAccess customers paying cash on buses are charged ½ fare on regular Capital Metro services; these passengers rode free until January 2011. MetroAccess customers with a monthly MetroAccess pass can ride all Capital Metro services (MetroAccess, fixed-route bus, and rail) with that pass.

Cash is not accepted on MetroAccess. Passengers either pay with tickets (sold in 10-ride packets) or a monthly pass (\$40.00). Per ADA requirements, personal care attendants ride free. Companions (on a space-available basis) pay \$1.50 as well.

### *Promotions*

Capital Metro at times provides free or discounted rides as a part of a special promotion, e.g., “Dump the Pump” national transit promotion program. The passengers pay for these rides with magnetic stripe cards that are distributed for the promotion, so that the fare box will count the rides and operators are not required to handle paper tickets (as was often done in the past).

### **Special Event Fares**

In general, Capital Metro does not provide supplemental services for special events. It provides special shuttle services for the Austin City Limits festival, and the event organizers are supposed to pay 100% of the fully allocated costs of the services. In FY 2011, Capital Metro received about \$350,000 in special event service revenues while spending about \$427,000 on the services.

### **Basic Transportation Needs Fund**

To help mitigate the impact of fare increases on low-income riders, Capital Metro established the Basic Needs Transportation Fund in 2011. While Capital Metro currently contributes about \$250,000 per year to the fund, it is a separate entity from Capital Metro with a separate board of directors. The idea behind the establishment of the fund was to separate the charitable or social service function of Capital Metro from its mission as a transportation provider.

Funds can be used to buy transit passes, taxi sharing, or other means of supporting the travel needs of low-income populations in Austin. The first focus of the fund was purchasing passes for seniors and disabled after Capital Metro eliminated free fares for these groups in 2011.

## II. EVALUATION

Fare policies and pricing strategies generally aim to strike a balance among what can be competing considerations. For this project, the objectives against which the current fare structure is evaluated are those that were identified as the fare policy objectives and are as follows:

- Ridership
- Equity
- Simplicity
- Revenue
- Recovery
- Efficiency

Ultimately, creating a balance among these considerations—for example, the trade-off between ridership and revenue—will require policy decisions by the agency and its Board.

### **Ridership**

For most of Capital Metro's history, its fare policy has been oriented toward increasing ridership. The Board and management are, however, increasingly interested in revenue generation as well.

The degree of ridership change from a given change in fares is called the fare elasticity. Overall, the transit market is inelastic (average fare elasticity of less than -1.0), which means that price increases will increase total revenues. In other words, the revenues lost from ridership losses will be smaller than the revenue gained on remaining riders.

The fare elasticity, or the effect of a change in fares on ridership, on systems like Capital Metro is around -0.3 to -0.4. A fare elasticity of -0.3 implies that a 10 percent increase in fares would reduce ridership by 3 percent. In general, elasticities are higher for elective riders and lower for transit dependent riders. Geographically, there are more elective riders in the suburbs and more dependent riders in the inner city. Elasticities may also be lower when base fares are already very low. In other words, when fares are very low, modest increases still leave fares below the threshold level where behavior is significantly affected.

Decreasing fares is generally not a cost-effective way to increase ridership. The lost revenue is simply too large to offset the added revenue from new riders.

### **Equity**

Equity can be defined from different perspectives. A narrow definition could be that an equitable fare structure is one in which riders pay in proportion to the benefits they receive. This goal could be accomplished, for example, by adopting a fare structure that equalizes fare recovery across service types. Such a fare structure would ignore, however, the differential ability of certain populations to afford transit services. Using an ability to pay definition of equity would result in a very different fare structure.

Capital Metro's fare structure and levels are evaluated for equity across service types, across customer groups, and across users and non-users in a partially tax supported system.

### *Service Types*

**Table 2** presents fare recovery by service type

**Table 2**  
**Fare Recovery by Service Type**  
**FY 2011**

<b>Mode</b>	<b>Revenue</b>	<b>Operating Expense</b> <sup>4</sup>	<b>Fare Recovery</b>
Fixed-Route Bus	\$9,763,931-\$10,402,359 <sup>1</sup>	\$97,414,408	10.2%-10.7%
UT Shuttle	\$5,401,657 <sup>3</sup>	\$12,564,691	43.0%
Special Event/Bus	\$348,526 <sup>4</sup>	\$427,156	81.6%
Rail	\$316,238-\$954,666 <sup>1</sup>	\$10,984,002	2.9% to 8.7%
MetroAccess	\$727,515 <sup>2</sup>	\$29,028,302	2.5%
RideShare	\$507,081 <sup>2</sup>	\$966,223	52.5%
System	\$17,703,376	\$151,384,782	11.7%

<sup>1</sup> Range based on estimates from FY 2011 depends on how much regional pass revenue is rail versus express bus. Low end for rail is from the FY 2011 Cost Allocation Model; high end is from Comprehensive Annual Financial Report

<sup>2</sup> FY 2011 Comprehensive Annual Financial Report

<sup>3</sup> Revenue from billings to UT

<sup>4</sup> FY 2011 Cost Allocation Model

As shown in Table 2, the fare recovery across Capital Metro's service types varies significantly, from a low of 2.5% for MetroAccess to a high of 81.6% for Special Event services. While achieving parity in fare recovery across all service types may be difficult and perhaps not desirable, the data in Table 2 can provide some guidance on where inequities in fare levels may exist.

If Capital Metro is able to expand its cost allocation model to treat express bus as a separate mode, examining the fare recovery and subsidy differences between local and express service may reveal other equity issues. In many systems, the fare recovery percentage is higher on express services due to the premium fare. But because the cost of those services can also be significantly higher, the subsidy per trip is often higher as well.

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Service equity could also imply that the fares should be priced according to the service received. Attributes that could be used to establish service equity could be distance, speed, time period (peak and off-peak), comfort, and convenience.

Within fixed-route bus, Capital Metro operates different services, including local bus, express bus, and UT shuttle routes. These three services have different service attributes and different fares. In general, local routes stop frequently and operate along major thoroughfares, resulting in fairly low speeds. The service is provided with regular transit buses, and some routes also have parking available at transit centers.

Express routes generally operate with fewer stops and include express portions along highways or other higher speed streets. Some express routes are operated with higher comfort vehicles and offer wireless internet service; others do not. All have parking available. UT shuttle routes are specially designed to serve University destinations. MetroRail service offers higher speeds than local bus, parking at some stations, and wireless internet service. In FY 2014, MetroRapid bus service will begin, offering higher speed service than local routes, specially designed buses, and improved street-side amenities.

### *Customer Types*

Federal law requires that half-price fares for fixed-route transportation be given to seniors and the disabled during the off-peak period and to elementary and secondary students on the way to or from school. ADA requires that complementary paratransit cost no more than twice the base fare for non-disabled passengers on a fixed route. Capital Metro goes beyond the legal requirements with its non-profit discount pass program, its half-price policy for all hours of service, and charging only 50% percent more than the fixed route base fare for MetroAccess. For students, Capital Metro extends its reduced fare to all times and provides the special programs for college students (UT and ACC). College students are not included in the federal definition of students eligible for reduced fare.

Another way that a fare structure can distinguish among customer types is by fare payment method. Systems try to encourage passengers to buy prepaid fare media, such as passes and SVCs, because:

- The use of prepaid fare media reduces dwell times (no searching for change; less frequent operator-customer disputes)
- The purchase of prepaid fare media encourages more frequent use of the system
- The agency receives its money earlier

Capital Metro's passes are sold at a discount, requiring 9 one-way trips per month to break even on the 7-day local pass and 30 one-way trips to break-even on the monthly pass. If a patron rode Capital Metro every day to work and did not need to transfer, these pass prices would translate to a 10% discount for the 7-day passes and a substantial 46% discount for the monthly pass. Regional passes offer an even higher discount for daily

(weekday only) use, with a 37% discount for weekly passes and a more than 70% discount for monthly passes.

The demographics of patrons who buy weekly passes are often those who earn less money, often through a weekly paycheck. Giving much larger discounts on higher priced fare media (30 day passes and regional passes) can have the effect of giving the largest discounts to those who are most able to pay.

SVCs are sold at substantial discount as well (20%). The discounts for passes and SVCs have helped to move a little more than half of Capital Metro's ridership to pre-paid fare scrip. This calculation includes modes that are by definition 100% pre-paid fares, including MetroRail, UT Shuttle, MetroAccess, and RideShare. But looking at fixed-route bus alone, nearly 2/3 of riders pay cash on the bus (single ride or day pass). Often those who pay cash are those least able to pay.

Social equity implies that fares should be priced according to the need and ability to pay. As a public service agency, Capital Metro does have some obligation to provide lower fares to transit dependent patrons. The question is how much of a discount should be provided and to whom. Keep in mind that any discount provided to one group—however needy—must be ultimately compensated for by higher fares on another group.

#### *Riders versus Non-riders*

A final way to examine the equity of the system is to look at the balance between users and non-users in a partially tax supported system, i.e., the systemwide fare recovery ratio. Capital Metro has a systemwide goal of 20% fare recovery but is currently achieving only about half of that. This type of equity can be evaluated by comparison to typical industry performance. Capital Metro's systemwide fare recovery of 11.7% compares to the peer systems average of 18.25% and the Texas peers average of 14.5%.

#### **Simplicity**

Capital Metro has done a good job of simplifying its identification card system for passengers and operators. In the mid-1990s, Capital Metro had many different kinds of identification cards, all of which required the operator to accept or reject the cards as the person boarded the bus. Almost all of Capital Metro's discount fares today require a person to swipe a discount identification card through the fare box before paying the reduced fare. The card must be issued by Capital Metro, is valid for only two years, and includes a photograph and expiration date. Verification of the cards is handled electronically and requires no action on the part of the operator. Invalid cards can be "bad listed" such that they are rejected by the GFI fare boxes.

The only reduced fares that do not require a Capital Metro identification card are students, which can generally be recognized by age. While some abuse may occur with young adults posing as high school students in order to receive reduced fares, it is not likely to be a large number.

Complexity within the fare system can be a problem for patrons and for bus operators who must administer the system. A complex fare structure also introduces more opportunities for fare evasion.

While comparatively few, the problems related to simplicity from Capital Metro's fare structure can be summarized as follows:

- Inconsistent policies related to transfers – Patrons cannot transfer from bus to bus without either paying two fares or buying a day pass. Patrons can transfer from any bus (after paying a \$2.75 fare) to rail, but cannot do the reverse unless transferring to a rail connector bus.
- Continued use of some flash identification cards – Operators must read and evaluate ACC and COA identification cards manually. All other identification cards that are issued by Capital Metro or UT and can be read by the farebox. Not all COA employee identification cards are magnetic cards, but all ACC identification cards are magnetic cards. However, Capital Metro's current fare collection software does not accept ACC identification cards for fare payment

Perhaps a bigger issue related to simplicity is that the underlying principles governing Capital Metro's fare structure are not clear. The lack of consistently applied principles makes the fare structure harder to understand for the public, harder to market, and harder to make changes to when needed. Capital Metro's fare structure is not clearly differentiated on geography (e.g., some fares proportionate to distance traveled while others are not), type of user (e.g., the subsidies provided for students are different across service types), or on service amenities (e.g., some express routes use premium equipment while others do not).

An area in which Capital Metro is fairly consistent is in how it defines time-period passes. Almost all time-period passes count the allowable usage period from the time the pass is first used, e.g., day passes are valid for 24-hours after first use and 7-day passes are valid for 7 days from first use. While Capital Metro has questioned whether its day passes should be valid only on the calendar day in which they are first used, retaining the current policy would be more consistent with its other passes and simpler for riders to determine when the day pass is the better option to purchase. Many peer systems program their day passes to expire at the end of the transit day.

The only time period pass that is defined differently is the MetroAccess pass, which is sold on a calendar month basis. Since those passes are not validated by fare boxes, there is no practical way to create a 30-day pass that runs from the date of first use. If Capital Metro installs some type of fare collection or fare validation equipment on MetroAccess vehicles in the future, it should consider moving these passes to a 30-day basis as well.

## Revenue

Clearly, the focus on ridership generation has been at the expense of revenue generation, at least until the past few years.

While Capital Metro's low fares are the primary reason for its low revenue generation, revenue generation is further reduced by the discounts provided to outlets for selling passes (about \$116,000 in FY 2011), high discounts on passes, the non-profit agency discount programs, and opportunities for fare evasion due to the complexity of the fare structure and fare media.

Documented or likely opportunities for fare evasion on the current system include:

- Capital Metro loses about \$5,000 per month on trips taken on the fixed-route system with UT identifications cards which are no longer valid. The GFI farebox system is not currently configured to allow Capital Metro to bad-list expired UT identification cards. The solution will cost Capital Metro about \$60,000 in programming expenses to upgrade to an Oracle database, for a payback of only one year.
- Fare evasion reports on the rail system created by the fare inspector reveal evasion rates ranging from a high of 6% for a week to a low of zero. In the first half of FY 2011, the evasion rate average 4.2%. In addition, abuse of the one zone fare on rail (\$1.00) can be very hard to detect and is not captured in the reported fare evasion rate. Reductions in the rail evasion rates in FY 2012 is a result of increased checks, but the one zone fare is still very hard to detect, especially during high volume periods and special events.
- TVM data show that nearly 75% of the single ride tickets sold on the rail system was for one-zone rides. This figure appears higher than the likely usage of the rail system for short trips and may indicate a fare evasion issue that is hard to detect, in particular during special events and extended weekend service when either the fare inspector is overrun with a high volume of riders or after hours when the fare inspector is not on duty.
- Monthly passes provided by Capital Metro to RideShare participants may be being passed to other riders. There is no way for an operator to verify whether the pass user is actually a RideShare participant.
- MetroAccess will not strand its customers, so passengers can use a ticket to get to the destination and say they have no ticket for the return trip. Capital Metro does not track the frequency of occurrence by passenger, and some likely abuse the system.

## Recovery

Capital Metro recovers less than 12% of its operating expenses from fares compared to 18.25% for the peer systems. Regular fare increases are required to keep fare recovery constant as operating costs increase; increasing fare recovery may require even more aggressive changes in fare policy. Fare recovery is also a function of operating costs. Capital Metro's fare revenues have increased much more rapidly than its operating costs over the past five years, allowing its fare recovery to increase about 35% over the same period.

## Efficiency

Capital Metro spends over \$600,000 per year to collect and process fares on its fixed-route and demand-responsive services. This cost estimate is detailed in **Table 3**.

**Table 3**  
**Fare Collection Costs**  
**FY 2011**

Item	Units	Annual Cost
<b>Staff Costs</b>		
• Treasury Staff (director, supervisor, 2 clerks)	4 FTEs	\$179,000
• Fare Inspector	1 FTE	\$ 28,000
• Contract Police	2,180 hours	\$ 62,000
• Contract Courier		\$ 28,100
• Fringes (on staff time)	40%	\$ 82,800
<b>Materials</b>		
• Magnetic fare media		\$100,000
• Non-magnetic fare media (Access)		\$ 25,000
• Supplies (money bags, stationary, etc.)		\$ 6,000
<b>Maintenance</b>		
• Ticket Vending Machines		\$102,000
• Revenue Counting Equipment		\$ 5,200
<b>TOTAL</b>		<b>\$618,100</b>

Other costs associated with revenue collection include the capital cost of the fareboxes, ticket vending machines, and other equipment and the commission paid to outlets for the sale of passes and tickets. Fare media are also sold at Capital Metro's downtown store, but the costs of operating that facility are not included here.

Capital Metro's current operating expenditures on fare collection are about 6% of transportation revenues collected, excluding the revenues generated by UT, ACC, and COA contracts. As a comparison, Houston METRO, which has a smart card fare collection system, spent 14.4% of its fare revenues in FY 2011 in fare collection costs.

### Comparison to Peers

Looking at the adult base fare (local), Capital Metro's fares are low compared to its national peers. Base bus fares for the peers referenced in the peer review are listed on **Table 4**. The entire peer review study is included as Appendix B.

**Table 4**  
**Peer Base Bus Fare**  
**2012**

City	Base Fare
Dallas	\$2.50
Fort Worth	\$1.75
Houston	\$1.25
San Antonio	\$1.10
Charlotte	\$2.00
Columbus	\$2.00
Denver	\$2.25
Kansas City	\$1.50
Minneapolis	\$1.75
Orlando	\$2.00
Sacramento	\$2.50
Tucson	\$1.50
Peer Average	\$1.84

Capital Metro's base fare is lower than all of its peers. The average base fare for all of the peers is \$1.84; the average of the Texas peers is \$1.65. Because of the healthy subsidy provided to transit systems in Texas by the dedicated sales tax, Texas fares have been traditionally low.

### III. RECOMMENDATIONS

#### CAPITAL METRO RIDERSHIP ELASTICITY MODEL

As a part of this project, the Capital Metro Ridership Elasticity Model was developed to estimate the change in ridership and revenue from various proposed changes in fare levels and fare structure. In general, this model is an elasticity model that applies various fare elasticities to Capital Metro's disaggregate transit markets. The model breaks ridership down by service type (local, express, rail, etc.), customer type (adult, senior/disabled, child), and payment type (cash, passes, tickets, etc.), where possible from available data. The elasticities that are applied are drawn from industry research.

When no other data are available, the transit industry has relied on the Simpson-Curtin Rule for estimating the effect of fare changes on ridership. The Simpson-Curtin Rule is a fare elasticity of  $-.33$ , or, for every 10% increase in fares, ridership falls by 3.3%.

In August 1991, The American Public Transit Association (APTA) published a study titled Fare Elasticity and Its Application to Forecasting Transit Demand. The study developed an advanced econometric model, which was applied to data from 52 transit agencies. The study results were quite robust and generally found higher fare elasticities than was implied by the Simpson-Curtin Rule. By submarket, the results were very consistent with the general trends listed below.

Houston METRO then asked APTA to apply its model to Houston METRO's 1988 fare increase. The elasticity for its local and express service was around  $-.25$  and  $-.47$  for Park & Ride service. These figures were higher than expected and may be applicable to Austin as well.

In general, the elasticities used in the estimation model can be further refined based on research that shows how some factors affect transit elasticity. These trends can be summarized as follows:<sup>1,2</sup>

- User type – Transit dependent riders (often low income, those with disabilities, students, and seniors) are generally less price sensitive than those who have the option of using an automobile for the trip. Based on Capital Metro's 2010 origin-destination study, 50% of its riders have no vehicle in the household. And of those whose household do include an automobile, 80% could not have used that vehicle for the trip. These two statistics together indicate that only 10% of Capital Metro's riders could have chosen to travel by car instead. UT students and MetroRail riders are less transit dependent than other bus riders, at about 72% for UT shuttle riders and 54% for MetroRail riders.

<sup>1</sup> "Transit Price Elasticities and Cross-Elasticities", Todd Litman, Journal of Public Transportation, Vol. 7, No.2, 2004

<sup>2</sup> "Evidence on Aggregate and Disaggregate Transit Fare Elasticities", Armando Lago, Patrick Mayworm, and J. Matthew McEnroe

- Trip type – Noncommute trips tend to be more price sensitive than commute trips (1 to 2 times higher). Based on a Capital Metro’s 2010 origin-destination studies, about 46% of Capital Metro’s bus riders are using the bus for travel to and from work compared to more than 70% for MetroRail riders. Capital Metro’s express routes are likely heavily patronized by those travelling to and from work, but the data for these routes were not analyzed separately in the origin-destination study report.
- Mode – Bus service generally has substantially higher fare elasticity than rapid rail and slightly higher fare elasticity than commuter rail. There is no research available specific to hybrid rail service like Capital Metro’s.

ADA paratransit service demand is highly sensitive to fare changes. The very detailed and comprehensive 2007 TCRP study *Improving ADA Complementary Paratransit Demand Estimation* finds a fare elasticity of  $-.77$  for these services. This study used actual data from 28 cities and econometric models to arrive at its elasticity estimate.

- Geography – Large cities tend to see lower price elasticities than smaller cities, mostly because the ridership tends to be more transit dependent.
- Level of Base Fare – When the starting point of a fare increase is relatively low, the elasticity is generally fairly low.

Litman summarizes current fare elasticity research in his paper “Transit Price Elasticities and Cross-Elasticities”. Based on this paper, the demographics of Capital Metro’s riders, and the current low fare levels, the following preliminary elasticities were chosen for the model:

- Local =  $-.25$
- MetroRail =  $-.30$
- Express =  $-.35$
- MetroAccess =  $-.77$
- RideShare =  $-.35$

Fare elasticities are zero for those services whose riders do not pay directly for their services, because they cannot see a change in fares either as they ride or in the way that they pay for transit. For example, UT students pay for transit through their student fees. And these fees do not change whether the student rides once or 30 times in a month. So for changes in contracted revenues for UT, ACC, and COA programs, the model will show zero fare elasticity for the ridership estimation.

## **RECOMMENDATIONS ON FARE STRUCTURE**

In general, the recommended fare structure is designed to meet the following objectives, which were developed from the fare policy objectives discussed earlier:

- 
- Minimize impact on *ridership*
  - Improve the *equity* of the system
  - Enhance system *simplicity* by simplifying the administration of the fare system for operators and improving the clarity of fare structure to patrons
  - Increase *revenues* with minimal impact on ridership, which includes reducing the opportunity for fare evasion
  - Raise the system wide fare *recovery* ratio
  - Support system *efficiency* by minimizing fare collection costs

The recommended changes in the fare structure are described in the following section, along the justification for the change. The impact of each recommendation on ridership and revenue are presented in **Table 5** later in this section.

The recommendations were tested with the Capital Metro Ridership Elasticity Model. All fare scenarios are based on FY 2011 ridership and revenue, since that was the latest full year of data available at the time. The impacts listed for each are based on analysis of each recommendation independently and then summed for total system impact

### **Raise SVC and Some Pass Prices**

Capital Metro should price its prepaid fares as follows:

- Increase local monthly pass prices to 33 times the cash fare (or \$33.00 for full fare and \$16.50 for reduced fare compared to the current prices of \$30.00 for full fare and \$15.00 for reduced fare). This pricing is based on the average base fare multiple of the peers. While this change represents a 10% fare increase for these users, the pricing still represents a discount of more than 20% for someone who rides the bus each weekday.
- Leave the price of the local weekly pass the same at \$9.00 (and \$4.50). This price already provides less of a discount (10% for daily weekday use) than does the recommended monthly pass pricing.
- Increase regional monthly pass prices to 28 times the cash fare (or \$77.00 for full fare and \$38.50 for reduced fare compared to the current prices of \$64.00 for adults and \$32.00 for reduced fare). Passes for express services are often sold at a lower multiple than local passes because weekend service is not available. But Capital Metro current differential of a 30 ride multiple for local and a 23 ride multiple for regional is large enough to create equity concerns. While this change represents a 20% fare increase for users, it still represents a discount of more than 40% for someone who rides each weekday.
- Increase the price of a regional weekly pass to \$22.00 (and \$11.00). This change would make the level of discount for the weekly passes proportionate between

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local and regional riders, with the weekly pass discount half of the monthly pass discount (10% vs. 20% for local and 20% vs. 40% for regional).

- Decrease the discount on the Stored Value Card and increase the denomination in which it is sold. The new \$20.00 card would be sold at a 5% discount (rather than 20%) and priced at \$19.00. Increasing the stated value of the card will reduce the frequency of transactions needed for customers. The new discount rate would be less than the discount offered on time period passes, which is consistent with the idea that the most frequent users (those investing in time period passes) receive the largest discount. The small discount would provide some reward for pre-paying fares but would avoid providing a large “double discount” for those using SVCs to buy day passes.

While deep discounts are a good tool for increasing the use of prepaid fares, the discounts currently provided by Capital Metro are high. The recommended discounts are still significant enough to provide an incentive for regular riders to purchase passes and SVCs without sacrificing needed revenue.

Deeply discounted prepaid fare items can also be considered inequitable because higher income passengers are the most common users of prepaid fare media. Lower income passengers often find it difficult to accumulate the money needed to buy prepaid fare media.

### **Reduce Discount to Outlets**

Grocery stores and other retail outlets generally sell transit passes as a convenience to their customers, similar to their practice of accepting utility payments. While some fee for providing this service is reasonable, 5% to 7% is high. And as pass prices increase, the amount earned by the retail outlets (since it is a percentage of total sales) increases as well. The contracts with the retail outlets should be renegotiated with the goal of standardizing across retail outlets and minimizing or eliminating the discount provided.

Reducing or eliminating the pass discounts will increase fare revenues with no impact on ridership. Few major outlets will drop Capital Metro pass sales. Major distributors of passes (such as grocery stores) will still find the program attractive as a service to their shoppers.

### **Revise the Non-Profit Discount Pass Program**

The non-profit discount pass program costs Capital Metro somewhere around \$500,000 per year. Capital Metro allows any non-profit agency to participate in the program, regardless of whether the people to whom the passes are distributed are customer types who are eligible for discount passes or are otherwise in need of discounted transportation services. Capital Metro neither monitors nor even asks to whom the passes are distributed. Most of the passes distributed are full fare passes, which means that Capital

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Metro is in essence extending its half-fare program to any customer who accesses transit through a non-profit agency.

Participation in the program would be restricted to agencies whose client base is, in general, eligible for reduced fares, e.g., ADAPT, ARC, or otherwise in need of discounted transportation services. In addition, it would reduce the discount provided by Capital Metro to eligible participants to 25%. In other words, the agency would pay \$11.25 for a \$15.00 reduced fare pass.

Estimating the impact on revenues is fairly straightforward; estimating the impact on ridership is much more difficult. The impact on ridership is a function of a number of unknowns:

- Whether the non-profits continue to provide the passes to their constituents for free and absorb the reduced discount
- Which agencies or organizations are dropped from the program
- How heavily the passes at the newly dropped agencies were used

### **Eliminate Zone Fares on MetroRail**

The \$1.00 fare on rail for travel within one zone should be eliminated. The zone-based fare system creates huge opportunities for fare evasion and is not consistent with the rest of Capital Metro's fare structure. Capital Metro's fare structure is based on service type not distance and should be applied consistently across modes.

### **Eliminate Transfers between Bus and MetroRail**

Capital Metro states that it has no transfers in the system. The day pass was introduced to eliminate transfers. However, there is limited transfer opportunities in the system, all related to the rail system. Again, for consistency, comprehensibility, and equity, Capital Metro should eliminate all transfers. Passengers transferring between bus and rail would need some type of regional pass, just as is required of express bus passengers.

Capital Metro does not know much about the amount of transferring currently occurring in its system, which makes the estimate of ridership and revenue difficult. But because the amount of activity is likely fairly low, the impacts should be small as well.

### **Increase MetroAccess Fares**

The FTA allows ADA complementary paratransit fares to be up to twice the base local fare, allowing Capital Metro to charge up to a \$2.00 fare for MetroAccess. Increasing fares should increase fare recovery on a service that is currently recovering less than 3 percent of its operating costs. More importantly, creating a significant fare differential between demand-response services and fixed-route services will serve as an incentive for passengers to move to fixed-route service, where feasible, or otherwise reduce demand for paratransit service.

Unlike the comparable stored value card on fixed-route services, the ten-ride ticket booklet provides for no pre-payment discount. For equity and consistency, the ten-ride booklet should be sold at a 5% discount from face value just like the SVC. So the ten-ride booklet price would increase from \$15.00 to \$19.00, an increase of about 27% rather than the 33% increase for a single ride. In addition, Capital Metro should create a single ride ticket sold at full value (\$2.00). While few riders would have a reason to purchase one ride at a time, the option should be available for visitors to Austin for whom complementary paratransit must be offered (per FTA regulations).

The current monthly pass is priced for a break-even point of about 27 rides per month. Using a 25 ride break-even point, the new monthly pass would be priced at \$50.00, an increase of 25%.

Since the amount of paratransit service provided is directly related to demand, a significant decrease in demand should result in reduced operating costs. The impact on fare recovery from the increase in MetroAccess fares from a reduction in service will be far greater than the increase in revenues from high fares. If the estimated 18% decrease in ridership allowed a 9% decrease in service (i.e., service efficiency decreased as ridership decreased), MetroAccess operating costs would decrease about \$2.6 million per year, a significant savings. The combination of the increased fare revenues and the decreased operating costs would increase fare recovery only slightly from 2.5% to 2.8%.

### **Charge UT Regional Fares on Express Bus and MetroRail**

UT students and employees took about 300,000 rides on express routes in FY 2011. If Capital Metro charged \$1.35 per ride (student fare on express routes) rather than the contract rate of \$0.50, it would have received about \$266,000 in extra revenue for the year.

UT is not charged for rides its students and employees take on the rail system. The other two contract revenue accounts—ACC and COA—are charged for rail rides. ACC and COA riders validate their passes at rail stations to allow these rides to be counted.

Capital Metro should establish a means to count or estimate the number of UT riders. One source of the number of UT riders comes from fare evasion checks. In first half of FY 2012, about 15% of the rail riders checked were using UT identification cards. These rides account for about \$30,000 in lost revenue in FY 2011 if UT were charged at \$0.50 per ride, the current contract rate for all bus service. At \$1.35 per ride (the actual student rate for rail service), the added income would have been about \$75,000 per year. This number will likely grow as rail service and ridership grow.

When this contract is renegotiated, Capital Metro should pursue this issue.

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## **Charge ACC and COA Regional Fares for Express Bus and MetroRail**

The ACC and COA contracts charge the same for all fixed route transit service (local bus, express bus, and rail), even though express bus and rail have higher fares. As these contracts are renegotiated, Capital Metro should charge a higher rate for these premium services. For purposes of this analysis, this fare is assumed to be the reduced fare price of \$1.35 per ride to be consistent with the level of discount currently provided.

## **Standardize Negotiated Bulk Sales**

Capital Metro currently has negotiated agreements with UT, COA, and ACC. The UT contract will always remain unique, because it includes the provision of specialized services (UT shuttle service) in addition to access to the rest of Capital Metro's system. COA and ACC are identical in the service rendered, i.e., access to all of Capital Metro for employees or students of the institutions. The two contracts are currently different in key ways, however, and include different base prices for fixed-route service. If a maximum number of rides are exceeded, the COA pays \$0.55 per ride for its employees while ACC pays \$0.50 per ride for its employees and students.

Capital Metro plans to expand this program to other employers. Before it does so, however, it should establish consistent prices and principles that apply across the board. A consistent program is easier to market and will help prevent outcry if one group is perceived to have gotten a better deal than another.

These principles should establish consistent policy on the following:

- Basis for payment – options could include number of passes, number of rides taken, or total number of employees/students
- Level of discount provided to sponsoring organization for participation

Capital Metro is in the process of developing this program. Tentatively, it plans to offer participating employers discounts on passes for their employees as follows:

- 20% discount for employees of participating non-profit organizations
- 15% discount for employees of participating colleges and governments
- 10% discount for employees of participating corporations.

Capital Metro is still determining the standard basis for payment, i.e., pass purchases, per rider charges, etc.

## **Establish Premium Base Fare for MetroRapid and Similar Routes**

Capital Metro is currently developing a new service type called MetroRapid, with the first route slated to open in 2014. These routes will parallel current, heavily patronized local routes but with fewer stops, higher street-side amenities, and special buses. While MetroRapid routes will make more stops than express bus and rail and will not include

parking (like express bus and rail), MetroRapid service should be faster and more amenity-rich than local service.

In reevaluating its current routes in light of the introduction of MetroRapid Service, the following routes were determined to have service attribute levels higher than local routes but lower than express routes:

- 100 Airport Flyer
- 171 Oak Hill Flyer

Therefore, the fare structure should recognize these distinctions with a higher base fare than local bus service and a lower base fare than express bus and rail. The base fare should be set at \$1.50, with a \$0.75 reduced fare, for these four routes (2 MetroRapid routes and 2 flyer routes).

### **Improve Identification Cards**

Assuming that Capital Metro expects to continue its programs with COA and ACC, it should investigate whether their identification cards could be read by the GFI farebox in the same way that UT student identification cards are read. While abuse of these programs is likely fairly small, creating a solution before the problem grows would be prudent. It will also become more important if additional employers are added to the program in the future.

Capital Metro has determined that the best solution to allow bad-listing of UT identification cards is the purchase of an upgraded database for the GFI system. The database upgrade would be paid for in about one year by reduced fare evasion. In addition, it would save staff time currently used to account for rides taken with bad identification cards.

### **Define RideShare's Role in Capital Metro's Service Structure**

In some cities, the transit system's involvement in carpooling or vanpooling is limited to matching riders. Others provide some limited subsidy for vanpools. Capital Metro's level of involvement in its RideShare program, which includes owning and operating the entire service, is more unusual.

At least within the Texas peer agencies, no one is formally integrating vanpools into fixed-route service. DART is, however, looking at possible ways to use vanpools to carry employees to corporate centers from one of its rail stations. But they are not far along enough to have decided how to determine the fare structure for such a service.

In order to establish a fare policy for RideShare, the following questions about the program need to be answered:

- Level of subsidy provided (which would determine fare levels)

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- Level of integration of the service with Capital Metro's fixed-route service (which will determine which transit passes, if any, should be provided to Rideshare participants)
  - Who bears the risk of low ridership in a carpool or vanpool

At over 50%, the RideShare program already recovers more of its costs than all other modes. But a 50% subsidy is much higher than has been traditionally provided by transit agencies for these types of programs. The correct level of subsidy is very much a policy decision by Capital Metro's board.

Capital Metro currently provides local bus passes to participants for use for travel during the day. Some program participants are currently asking for rail passes to use to complete trips that include both RideShare and rail. The answer to whether these rail passes should be provided—and whether the current policy of providing local passes to RideShare participants—is really a function of whether Capital Metro sees RideShare as an *alternative* to fixed-route service (where fixed-route service is not available) or as another mode of service that may be used in *conjunction* with other Capital Metro services.

Similarly, who bears the cost of lost riders is a function of how Capital Metro views the service. Currently, passengers pay the same amount per month regardless of whether the car or van is full or not, much as fixed-route bus riders pay the same fare regardless of whether they ride a well-used route or a low ridership route. But many vanpool programs are priced per vehicle, so that remaining riders have an incentive to fill empty slots as they arise.

Based on the fare policy study and other decisions on changes to the RideShare program, the following changes should be made:

- RideShare's purpose will be to offer vanpool services for trips for which there is no viable fixed-route bus or rail option. In other words, RideShare will look to supplement Capital Metro's other services, not compete with them.
- Distribution of local passes to RideShare participants should be eliminated both to reduce misuse of these passes and to recognize that the RideShare service is independent of the other Capital Metro services.
- RideShare should reset its prices on cost per mile basis for the entire van rather than a flat fee per participant. This structure will appropriately charge the most for the longest trips as well as shift the risk of low participation to users.
- Capital Metro should eliminate the subsidy it currently provides for fuel. All fuel costs would be borne by the users.

### **Create Consistent Definitions of Service Types and Associated Fares**

As was discussed earlier, how Capital Metro determines its fares by routes is not clearly defined. The lack of definition is partially what creates uncertainty on how MetroRapid routes and even RideShare are priced. Capital Metro should develop a definition of its various service types based on characteristics such as distance, speed, parking, and other

amenities. Once these definitions are in place, they would help determine whether certain other types of services (such as service to the airport) are appropriately priced. As an example, service to or from the airport should not carry a higher fare just based on the destination; that fare determination should be a function of the service characteristics of the route.

Included in this service type definition should be special event services. While Capital Metro does not provide much custom service for special events today, the demand for this type of service may increase in the future. If so, Capital Metro will need a policy that lays out how fares and the level of public subsidy provided for these services will be set.

Capital Metro is currently working on this task.

### **Impact of Recommendations**

Using the fare elasticity model described earlier (where appropriate) or other off-model calculations, the potential impacts of the above recommendations are presented in **Table 5**.

The expected impacts on ridership and revenues listed here assume no shift in fare media usage due to the changes in the fare structure; therefore, all riders currently paying with a particular fare medium experience the price increase. In reality, some patrons will change how they pay for their trips in order to mitigate the impact of the fare change. For example, when pass prices rise, some riders who do not ride as often may switch to stored value cards or cash, whose prices have increased less dramatically. Therefore, the ridership losses may be lower than those listed in **Table 5** below.

**Table 5**  
**Impact of Recommended Changes in Fare Structure**

<b>Recommendation</b>	<b>Annual Change in Riders</b>	<b>Annual Revenue Change</b>
Raise SVC and some pass prices	-216,000	+\$213,000
Reduce or eliminate discount to outlets	0	+\$70,000 to \$110,000
Revise the discount pass program	Unknown	+\$250,000 to +\$350,000
Eliminate zone fares on MetroRail	-27,000	+\$64,000
Eliminate cash/ticket transfers between bus & rail	Unknown	Unknown
Increase MetroAccess fares	-117,000	+\$9,000
Charge UT regional fare for express bus	0	\$266,000
Charge UT for MetroRail trips	0	\$30,000 to \$75,000
Charge ACC and COA appropriately for express bus and MetroRail	0	\$40,000
Create new fare category for MetroRapid and similar services	-500,000 to -600,000	+\$600,000 to \$700,000
Total	-860,000 to -960,000	+\$1,542,000 to \$1,827,000

The above recommendations would increase revenues by \$1.5 to \$1.8 million per year and improve fare recovery to around 12.8%, if operating costs did not change. Some of the revenue change estimates were developed off-model, such as the impact of the outlet discount decrease.

### **RECOMMENDED FARE LEVELS**

The above recommendations attempt to rationalize the current fare structure without increasing base fares. However, Capital Metro's fare levels are clearly low and will need to be increased to reach its fare recovery goal. Capital Metro should increase its fare levels by 25% after the fare structure changes have been implemented. A larger increase at one time would likely be politically unacceptable and could create undue burdens for low-income riders.

With the recommended fare structure changes in place, increasing base fares to \$1.25 and all other fares proportionately (25%) would generate an additional \$2.2 million in revenue per year, decrease ridership by about 1.2 million boardings per year, and (with

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no changes in service levels), increase fare recovery to over 14% (assuming operating costs do not change).

This revenue estimate assumes that revenues from UT for use of the fixed-route system—which are tied to the fare structure—would increase but that revenues for the UT shuttle system would not increase, since they are based on the cost of providing the service. The fact that over 25% of Capital Metro’s fare revenues come from the UT shuttle contract means that, for example, a 25% fare increase on the rest of the system does not result in anywhere near a 25% increase in systemwide revenues.

Clearly, achieving a goal of 20% fare recovery based on fare increases alone would require drastic fare increases which would markedly decrease ridership and generate political challenges. Capital Metro will likely have to achieve some additional cost efficiency at the same time that fare revenues are increased in order to achieve the stated goal.

## **EVALUATION OF RECOMMENDED FARE STRUCTURE AND LEVELS**

In this section, the recommended fare structure and fare level are evaluated against the same objectives against which the current fare structure was evaluated.

### **Ridership**

The new fare structure should generate more fare revenue with little impact on ridership. The 25% fare increase would decrease ridership by 3.7%. Ridership decreases from fare increases should be partially offset by the projected growth in ridership from service changes and population growth. The estimated decreases in ridership presented are likely to be maximums, or worst case scenarios. With good marketing, actual ridership losses should be smaller.

### **Equity**

The new fare structure should improve system equity by charging comparable fares for comparable services. The only services for which fares are significantly increased are those with the lowest fare recovery. It would rationalize the discount policy on passes to be more equitable to local and MetroAccess riders and those only able to afford daily or weekly fare media. The new fare structure and level should also generate higher revenues, increasing the percentage of costs of the system paid for by users.

### **Simplicity**

The new fare structure would simplify the system with respect to transfer policies and create a fare structure whose pricing strategy is easier for the public to understand.

### **Revenue**

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With all of the above recommendations in place, systemwide revenues would increase by approximately \$3.8 to \$4.0 million per year, an increase of about 20% percent. The increased revenue from a few higher fare prices is partially offset by losses in ridership; therefore, the increased revenues would be higher if ridership losses could be mitigated..

### **Recovery**

The systemwide fare recovery with all recommendations in place (changes in fare structure and the 25% fare increase) would increase from 11.6% to more than 14%, which is slightly lower than the Texas peer average of 14.5% and a good deal lower than the national peer average of 18.25%. But it is a noticeable improvement in fare recovery that could be larger if ridership losses can be mitigated and operating costs reduced.

Operating expenses are assumed to be unaffected by changes in ridership for all services. Since the amount of demand-response service deployed is directly tied to ridership, operating expenses are likely to decrease for MetroAccess. If decreased demand results in lower operating expenses, fare recovery would be further improved.

Some transit boards have adopted policies that require fare increases on a set schedule, in hopes of decreasing the uproar over fare increases by allowing the public to anticipate the changes. The Board still has to take action when fares are actually changed, however, which means that the policy-driven fare increases are still debated each time they are due. Such Board policies—at least in Texas—have not appeared to make fare increases easier to pass or more regular in schedule.

### **Efficiency**

Since Capital Metro already has a fairly simple identification card system and minimal number of non-magnetic strip fare collection instruments, fare collection efficiency will not likely be changed by the above recommendations. But fare collection efficiency, i.e., how much it costs to collect fare revenues, should be a prime consideration when evaluating new fare collection equipment and technology in the future.

While some new technologies are appealing in their flexibility, they can be costly to purchase and implement effectively. Capital Metro may decide to implement some of these new fare collection options, such as electronic payment on smart phones, to promote customer convenience and its image as a progressive organization. But care should be taken not to understate the costs of these systems or overstate the potential impact on ridership.

## **IMPLEMENTATION**

The recommendations for the fare structure and fare levels can be implemented in three phases. To minimize impacts on ridership and to minimize political backlash, public information and a marketing campaign should accompany each phase of the new fare

structure. The campaign should explain the rationale behind the changes and emphasize the value of the product provided by Capital Metro in return.

Capital Metro should phase the recommendations as follows:

### **Phase 1**

Capital Metro plans to complete this phase in FY 2013. The recommendations include:

- Renegotiate retail outlet contracts
- Develop new employer-based pass program, including standardizing its negotiated bulk sales program.
- Improve Identification Cards (bad-list solution)
- Redesign RideShare program pricing structure

### **Phase 2**

Phase 2 would include all of the other fare structure recommendation that do not require contract negotiations. These changes would be implemented during FY 2014 and should be done as a package. Presenting these changes together to the public will allow Capital Metro to emphasize that it is rationalizing its system, not piece-mealing the changes. Capital Metro plans to implement the new fare structure in January 2014.

These recommendations include:

- Increase SVC face value, decrease SVC discount, and raise some pass prices
- Revise the non-profit discount pass program
- Eliminate zone fares on MetroRail
- Eliminate cash/ticket transfers between bus and MetroRail
- Increase MetroAccess base fares and implement discount for 10 ride ticket books
- Establish premium Base fare for MetroRapid and similar routes
- Define RideShare's Role in Capital Metro's service structure and redesign its pricing structure

### **Phase 3**

Phase 3 would include those changes that require contract renegotiations and include:

- Charge UT regional fares on Express Bus and MetroRail
- Charge ACC and COA regional fares for Express Bus and MetroRail
- Improve Identification Cards (ACC and COA issue)

The implementation schedule for these recommendations is a function of contract expirations and renegotiations. The ACC contract expires August 31, 2012 and the COA contract on September 30, 2015.

#### **Phase 4**

Phase 4 would be implemented at least one year after Phases 1 and 2 and would consist of an increase in the base fare to \$1.25 and proportionate changes in all other modes and fare media.

A \$0.25 fare increase is preferable to two or three smaller increases for the following reasons. One, the current fare is so low that increasing fares by a smaller percentage would be ineffective in improving revenue generation in support of the long-range plan. Second, one larger fare increase requires Capital Metro to only explain the need for a fare increase once to the public rather than numerous times. And third, fare changes are expensive to implement. In addition to public information and marketing, they require redesigning and reprinting fare scrip.

#### **OTHER CONSIDERATIONS**

Some other issues may warrant further study in the future as Capital Metro services and other regional initiatives evolve.

#### **Additions to Board Fare Policy**

As mentioned earlier, Capital Metro has an adopted Board policy that lays out the objectives of its fare policy. Included in those objectives is the goal of 20% systemwide fare recovery. Some of the recommendations above may be appropriate to add into a revised Board policy.

In addition, some transit agencies include provisions for a specific schedule of assessing fares or even raising fares. The concept is that a Board will find it easier to implement periodic fare increases if it has an adopted policy that says when and how fare increases will be made. In reality, it is always difficult to raise fares, regardless of adopted policy.

Each Board can still choose to change any policy adopted by a prior Board, so these pre-determined schedule are still subject to change. Whether the Capital Metro fare policy includes language in the process of assessing and changing fares is very much a local decision. Will having such a policy help the Board to more regularly and easily assess its fare levels and structure? Or will the policy cause problems for future Boards if for various reasons they either cannot or will not stick to the process and schedule? The Board must be the group that weighs these considerations.

#### **Coordination with Other Regional Providers**

Capital Metro is currently the only significant provider of public transportation services in the greater Austin area. But some connecting bus service is provided currently by CARTS and Texas State University, and some connecting rail services have been proposed for the future.

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Capital Area Rural Transportation Service (CARTS) provides service from rural areas that connects to Capital Metro service in a couple of places for \$2.00 per ride. CARTS also acts as a contractor for Capital Metro and continues some of these routes into the service area. Passengers riding on both the CARTS portion of the ride and the Capital Metro portion of the ride must pay two fares. Therefore, the full trip costs \$3.00 to \$4.75, depending on the fare of the Capital Metro connecting route.

The Bobcat Tram provides shuttle service from Texas State University in San Marcos to various locations in Austin. Passengers can access Capital Metro service at each of those locations. One way trips to south and central Austin cost \$8.00; trips to North Austin cost \$12.00.

In addition to the above services, a couple of projects have been proposed for the Austin area. The City of Austin is considering building some type of urban rail in the future, potentially serving the new development at the Robert Mueller Airport site. Lone Star Rail is a proposed commuter rail service from Austin to San Antonio.

Coordination with other providers consists of two pieces:

- Coordination of fare policies
- Integrated fare collection systems

While coordinating fare policies is certainly easier if the systems have integrated fare collection systems, it is not necessary.

Coordinated fare policies could be established to ensure consistency across providers in areas such as eligibility for reduced fares and transfer policies. Optimally, the coordinated fare policy would be region-wide, so that customers connecting to Capital Metro from one outside provider would have the same or at least consistently defined fare as someone coming from another provider in a different part of the region. An integrated fare collection system would take the coordination one step further and allow a passenger to pay one fare or use one fare media for both systems, with revenue allocation among providers handled on the back end by the technology.

CARTS appears to be the best candidate for a coordinated fare policy and collection system today. Rather than requiring transferring passengers to hold two separate fare media, CART and Capital Metro could work together to establish a joint fare that is collected only on the first bus of the trip and allocated later.

The coordination issue will become more critical if urban rail is developed in Austin by some entity other than Capital Metro. Since the service areas would be overlapping (rather than just abutting, as is the case with CARTS), duplicative fares would discourage ridership on both systems.

If Capital Metro decides to procure new fare collection equipment, it should consider a joint procurement with CARTS and any other interested parties. It should also include

equipment and software specifications that allow revenue and ridership tracking for multiple providers.

### **Parking Fees**

Some system charges for parking at their park and ride lots and rail stations. Parking fees can be implemented for a number of reasons:

- To “unbundle fares”, i.e., a customer pays for which services and amenities he or she uses
- To manage demand for limited parking by encouraging the use of walking, biking, or drop-offs to access the system
- To create a way to charge patrons who access the system but who live outside the service area, e.g., DART’s new pilot paid parking program
- To create a way to charge those who use a system’s parking lot for carpool or vanpool parking

Charging for parking is conceptually more equitable than providing free parking, because it means that those who choose to use the lot pay for it. Some may feel that charging a bicyclist who is paying a transit fare to rent a locker but providing a parking space for free is inequitable.

But from a practical standpoint, parking fees creates the need for an entirely new fee collection system. With Capital Metro’s limited number of parking lots, the cost to implement the system could well be greater than the revenues generated. Capital Metro may want to revisit this issue if (1) its parking lots reach capacity or (2) it adds a number of new lots or spaces.

### **Use of Fares as Demand-Management Tool**

Some transit professionals advocate the use of differential fare policy as a demand-management tool for potentially overcrowded services. The most common application of this concept is peak/off-peak pricing, where generally a surcharge is assessed for travel during peak periods.

Examples mentioned as potential applications for Capital Metro could include a higher fare on MetroRail to alleviate crowding or charging a premium for bringing bicycles on trains or buses. For MetroRail pricing, however, charging a higher fare to alleviate crowding is not consistent with the principles established for a rational fare structure. The price should be appropriate to the service characteristics and amenities provided, consistent with the service type definitions determined in an earlier recommendation. Charging a higher fare for rail than for bus services with similar characteristics and amenities could create a perception or even reality of socio-economically segregated services, something Capital Metro would not likely want to do.

Any premium for bicycles should be assessed for consistency with Capital Metro's bicycle policy. If Capital Metro is trying to increase its bike to transit program in order to increase the range of its services, a premium should not be charged. If capacity on the trains is an issue, alternatives could include restricting the hours that bicycles are allowed on the trains (as Houston METRO does) or improving bike facilities at the stations to encourage those using their bikes to access the system to leave them at the station, as Capital Metro is doing with its bike locker program.

In general, Capital Metro's general policy of using fairly low fares to support transit growth in the Austin area should not be selectively overridden to charge more for the very services that are proving to be successful. Managing that demand through solutions that spread demand temporally and geographically or judiciously increasing service where needed would appear to be more consistent with Capital Metro's goals.

## **Appendices**

Appendix A – Fare Structure and Levels

Appendix B – Fare Structures of Peer Agencies

**Appendix A**  
**Capital Metro**  
**Fare Structure and Levels**  
**FY 2012**

Fare Media	Local Bus	Regional <sup>1</sup>	Rail - One zone	Metro Access
Adult Cash	\$1.00	\$2.75	\$1.00	\$1.50
Reduced Cash	\$0.50	\$1.35	\$0.50	N/A
UT Student/Faculty/Staff	Free	Free	Free	\$1.50
Children (6 and under)	Free	Free	Free	Free
Attendant for Access Customer	N/A	N/A	N/A	Free
Companion for Access Customer	N/A	N/A	N/A	\$1.50
Capital Metro Employee/Spouse	Free	Free	Free	Free
Adult Day Pass	\$2.00	\$5.50	\$5.50	
Reduced Day Pass	\$1.00	\$2.75	\$2.75	
Adult 31-day pass	\$30.00	\$64.00	\$64.00	\$40.00
Reduced 31-day pass	\$15.00	\$32.00	\$32.00	
Adult 7-day pass	\$9.00	\$20.00	\$20.00	
Reduced 7-day pass	\$4.50	\$10.00	\$10.00	
Stored Value Pass	\$12.00	\$12.00	\$12.00	
10-Ride Booklet				\$15.00
<sup>1</sup> Express Bus and 2-Zone Rail				

## Appendix B

### Fare Policy Review

### Fare Structures of Peer Agencies

### Draft December 7, 2012

#### INTRODUCTION

As part of the fare policy review, the fares and fare collection practices of agencies similar to Capital Metropolitan Transportation Authority (Capital Metro) were examined. Factors that were considered in choosing the peer agencies included:

- Types of transit services offered
- Size and population of service area
- Geographic location of service area
- Presence of major universities in city

In addition, some Texas transit agencies that are significantly larger than Capital Metro (Houston METRO and Dallas DART) were included because of their proximity to Austin and similarity of the legislation and political climate under which they operate. Seven of the agencies chosen provide some type of rail service; the remaining five do not. The following table summarizes and compares the characteristics of the peer group members.

**Table 1**  
**Overview of Peer Group Characteristics**

<b>Agency</b>	<b>Service Area Population</b>	<b>Rail</b>	<b>Vehicle Miles Operated</b>	<b>Total Operating Budget</b>	<b>Percent College Students</b>
<b>Austin</b>	935,595	Yes	17,574,580	\$128,077,124	9.0%
<b>Dallas</b>	2,396,650	Yes	35,138,248	\$340,563,859	5.7%
<b>Ft. Worth</b>	729,600	Yes	7,829,405	\$48,172,422	5.7%
<b>Houston</b>	2,887,323	Yes	61,005,712	\$316,999,305	6.0%
<b>SanAntonio</b>	1,555,963	No	26,739,246	\$118,662,319	7.5%
<b>Charlotte</b>	758,927	Yes	15,075,726	\$78,145,125	6.6%
<b>Columbus</b>	1,057,915	No	9,290,937	\$67,361,346	9.0%
<b>Denver</b>	2,619,000	Yes	54,027,916	\$320,088,805	5.8%
<b>Kansas City</b>	1,445,584	No	11,666,385	\$68,590,613	5.9%
<b>Minneapolis</b>	1,864,682	Yes	25,409,980	\$226,974,595	7.3%
<b>Orlando</b>	1,805,921	No	20,798,560	\$86,926,647	7.3%
<b>Sacramento</b>	1,097,932	Yes	14,211,774	\$142,800,962	7.3%
<b>Tucson</b>	544,000	No	9,889,292	\$52,783,324	8.5%
<b>Peer</b>					

<b>Average</b>	1,563,625	N/A	24,256,932	\$155,672,444	6.9%
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The remaining tables examine and compare Full Fares, Reduced Fares, Fare Policy, Commuter Services, and Special Services across the peer group. Agencies are listed in alphabetical order, with Texas agencies in the first group and non-Texas agencies in the second group. Capital Metro data begin each table for comparison.

## FULL FARES

**Table 2**  
**Comparison of Single Ride and Pass Prices for Full Fares**

Agency	Base Rate	Day Pass	Premium Base Rate	Premium Day Pass	Weekly Pass	Monthly Pass	Transfers Cost/Time
<b>Austin</b>	\$1.00	\$2.00	\$2.75	\$5.50	\$9/\$20	\$30/\$64	N/A
<b>Dallas</b>	\$2.50	\$5.00	\$5.00	\$10.00	\$25/\$50	\$80/\$160	Free/2Hrs
<b>Ft. Worth</b>	\$1.75	\$3.50	\$2.50/\$5	\$5/\$10	\$17.50/\$50	\$60/\$160	Free/2 Hrs
<b>Houston</b>	\$1.25	N/A	\$2-\$4.50	N/A	N/A	N/A	Free/3 Hrs
<b>SanAntonio</b>	\$1.10	\$4.00	\$2.50	N/A	N/A	\$30	Free/2 Hrs
<b>Charlotte</b>	\$2.00	\$6.00	\$2.75/\$4	N/A	\$20	\$80/\$160	Free/90 Min
<b>Columbus</b>	\$2.00	\$4.50	\$2.75	N/A	\$25	\$62/\$85	Free/2 Hrs
<b>Denver</b>	\$2.25	\$6.75	\$4/\$5	\$11.50/\$14	N/A	\$79/\$176	Free/1 Hr
<b>Kansas City</b>	\$1.50	\$3.00	\$3/\$3.25	N/A	N/A	\$50/\$105	Free/2 Hrs
<b>Minneapolis</b>	\$1.75	\$6.00	\$2.25/\$3	N/A	\$22	\$59/\$85	Free/2.5Hrs
<b>Orlando</b>	\$2.00	\$4.50	N/A	\$6.50	\$16/\$23	\$50/\$70	Free/90 Min
<b>Sacramento</b>	\$2.50	\$6.00	N/A	N/A	N/A	\$100	N/A
<b>Tucson</b>	\$1.50	\$3.50	\$2.00	N/A	N/A	\$42/\$56	Free/2 Hrs
<b>Peer Average</b>	\$1.84	\$4.80	\$2.88	\$8.25	\$20.92	\$62.91	Free/1.95 Hrs

The average base fare for the peers is about \$1.84, significantly higher than Capital Metro's base fare of \$1.00. Premium rates are typically based on distance travelled. Houston, Ft. Worth, and Denver divide their service areas into zones. Charlotte divides its service area by city, county, and surrounding counties. Minneapolis and now Dallas (as of December 2012) has a premium fare rate based on time of day – base rate and rush hour. Dallas also recently merged its categories local, system, and regional into two categories. Sacramento has no premium rate.

All of the cities which provide transfers do so free of charge as long as the rider is transferring to a comparably priced service. Transfers to a higher service level (i.e., local to express) incur a surcharge. The time for which transfers may be used varies from 90 minutes to three hours.

Five of these cities provide ten-ride products. Sacramento and Tucson's ten-ride products do not discount fares. Charlotte's product is available for bus rides only. Denver and Minneapolis offer ten-ride tickets for bus and rail at a discounted rate. The ten-ride option is a new product in Minneapolis and was introduced after one year of testing. Their findings are that their riders prefer passes based on the number of rides rather than day, week, month, etc. They believe that ultimately all of their fare products will be based on number of rides. Houston METRO's fare system is based solely on the number of rides purchased and used; no time period passes are offered.

The eleven cities that offer monthly passes for local service price the passes at about 33 times the base fare, on average, compared to 30 times the average for Capital Metro. The break-even level of usage on a monthly pass varies significantly across the peers, from a low of 25 rides to a high of 40 rides.

For weekly passes, Capital Metro prices at 9 times the base fare compared to 10.5 times the base fare for the six other systems that offer weekly passes. In other words, for time period passes, Capital Metro offers deeper discounts than its peers.

## REDUCED FARES

**Table 3**  
**Comparison of Reduced Fares**

Reduced Fares	Red. Fare Price/%	Eligibility	When Available	Reduced Child Age	Paratransit Price/%
<b>Austin</b>	\$0.50/50%	Medicare	All Day	6 – 18	\$1.50/150%
<b>Dallas</b>	\$1.25/50%	Medicare	All Day	5 – 18	\$3.00/120%
<b>Ft. Worth</b>	\$0.85/50%	Standard	All Day	5 – 18	\$3.25/183%
<b>Houston</b>	\$0.60/50%	Standard	All Day	6 – Univ	\$1.15/92%
<b>San Antonio</b>	\$0.55/50%	62+, Medicare	All Day	5 – Univ	\$1.75/159%
<b>Charlotte</b>	\$1.00/50%	62+, Medicare	All Day	6 – HS	\$3.20/160%
<b>Columbus</b>	\$1.00/50%	Standard	All Day	48" or 12 yrs	\$3.50/175%
<b>Denver</b>	\$1.10/50%	Medicare	All Day	6 – 19	\$4.50/200%
<b>Kansas City</b>	\$0.75/50%	Medicare	All Day	6 – 18	\$3.00/200%
<b>Minneapolis</b>	\$0.75/50%	Medicare	Off Peak	6 – 17	\$3.00/171%
<b>Orlando</b>	\$2.25/50%	Standard	All Day	7 – 18	\$4.00/200%
<b>Sacramento</b>	\$1.25/50%	62+, Medicare	All Day	5 – 18	\$5.00/200%
<b>Tucson</b>	\$0.50/33%	Medicare	All Day	None	\$3.00/200%
<b>Peer Average</b>	\$ .99/49%				\$3.20/172%

Reduced fares are half of regular fares in each case, except for Tucson which is one-third. Orlando does not offer a single ride reduced fare. Their \$2.25 reduced fare is for an all-day pass. They also offer reduced fare seven and 30 day passes.

Standard conditions for reduced fare eligibility are persons who are 65 or older, persons who are disabled, and children of varying ages. All agencies use these minimal criteria. As indicated in the table, three agencies define their senior citizen category as being 62 or older and eight of the agencies accept Medicare Cards as proof of eligibility. All agencies require registration and documentation that riders meet reduced fare requirements. Currently, 11 of the 12 agencies make reduced fare service available all day. Minneapolis, which has base and rush hours rates, does not offer reduced fare service during rush hours. Dallas recently imposed a limitation of reduced fares to off peak hours only.

All agencies allow young children to ride free when accompanied by an adult. The age limitation varies, ranging from four and under to six and under. Generally, children ranging from kindergarten age through high school are allowed to ride for reduced fare. There are two exceptions to this. Tucson allows children five and under to ride free but charges full price for children six and above. Some Tucson schools give students, Kindergarten through 12<sup>th</sup> grade, passes if they need to ride SunTran buses to school. Columbus defines free rides by height and only allows reduced fares up until the age of 12. Columbus does, however, allow students attending Columbus City schools who have their school ID to ride free, except for certain dates which are blocked (i.e., winter break and spring break).

The table above contains the base, one-way rate for complementary paratransit services. Many agencies also offer extended area service for a higher rate. Only Minneapolis has a rate based on off-peak usage. For peak usage, the Minneapolis rate is \$4.00. Because paratransit fares can be no more than 200% of the full base fare, the table includes the percentage for each agency.

Some agencies extend special discounts for certain populations. San Antonio allows disabled veterans to ride for reduced fares. Senior citizens and persons with disabilities receive additional discounts in Minneapolis and San Antonio. Minneapolis allows persons with disabilities to receive reduced fare service all day, whereas others are limited to off-peak hours. San Antonio allows seniors and riders with disabilities to ride the bus and street car for \$0.25 during off peak hours and weekends.

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**FARE POLICIES**

**Table 4**  
**Comparison of Fare Policies**

<b>Fare Policy</b>	<b>Actual Fare Recovery</b>	<b>Goal Fare Recovery</b>	<b>Last Fare Increase</b>	<b>Next Fare Increase</b>	<b>Title VI Issues</b>	<b>Coordination</b>
<b>Austin</b>	12%	20%	2010		No	No
<b>Dallas</b>	15%	?	2012	No plan	?	Yes
<b>Ft. Worth</b>	11%	N/A	2012	No plan	No	Yes
<b>Houston</b>	16.2%*	N/A	2008	No Plan	Yes	No
<b>SanAntonio</b>	15.6%*	N/A	2009	No Plan	No	No
<b>Charlotte</b>	15%	15%	2012	No Plan	No	No
<b>Columbus</b>	18.5%	N/A	2012	2015	No	No
<b>Denver</b>	20%	20%	2011	No Plan	No	No
<b>Kansas City</b>	16%	N/A	2009/2011	No Plan	No	No
<b>Minneapolis</b>	24%	33%	2008	2013	No	Yes
<b>Orlando</b>	21%	20%	2009	No Plan	No	No
<b>Sacramento</b>	23.7%	N/A	2009	No Plan	No	Yes
<b>Tucson</b>	23%	25%	2011	No Plan	No	Yes
<b>Peer Average</b>	18.25%	22.6%	N/A	N/A	N/A	N/A

\*2010 Actual – NTD or Annual Reports

The average fare recovery for the 12 peers is around 18.25%, more than 50% higher than Capital Metro's fare recovery of around 12%. The four Texas peers have current fare recovery ratios of about 14.5%, lower than the national peer average but still higher than Capital Metro's current ratio.

Five of the agencies have a specific fare recovery goal. The other agencies indicate that a goal is a topic of discussion and that, in some cases, they are working toward developing a specific fare recovery rate goal. One agency representative said that the agency did not have a specific goal; they just knew it needed to increase. Only two of the agencies have mandated goals. And in the case of Denver, although the rate of 20% is mandated in State legislation, the statutory definitions are so vague as to render the mandate meaningless. Denver continues, however, to use the 20% figure as a guideline.

Where two dates are included as last fare increase, the agency increased fares for different services at different times. Kansas City raised its paratransit fares in 2011 and all other fares in 2009.

Although fare increases are being discussed in numerous cities, there are only four planned increases. Columbus' Board policy mandates an increase every three years.

Other agencies have Board-suggested fare increase target dates which are considered tentative. Only Houston indicated that there had been Title VI issues associated with their last fare increase. However, they attributed this to their restructuring and increasing fares within one year. The belief was that such significant change over a short period of time generated complaints more related to what was perceived as an upheaval in fares than specific issues.

Five of the 12 peer group agencies have coordinated fare policy or fare payment with other area providers. Generally, the existence of coordinated area policy or collections is a function of the proximity of other providers.

### **FARE COLLECTION AND SALES**

Fare collection on all rail service provided by peer group members, except the TRE, is on the honor system. The TRE (co-owned by Dallas and Ft. Worth) does have train attendants or DART police check each rider's ticket prior to boarding. Only two, Houston and Minneapolis, currently use smart cards. However, Tucson, San Antonio, Denver, and Sacramento have plans for introducing smart cards in the near future. Sales of fares are handled consistently across the peer group members. Tickets and passes are typically sold at transit centers, retail outlets, and online. Two agencies, Columbus and Sacramento, do not offer fare purchases online.

Fare evasion prevention is consistently not a factor in the development of fare policy. It is more often the case that specific areas of evasion are detected and then addressed by a change in procedure.

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**COMMUTER SERVICES**

**Table 5**  
**Comparison of Commuter Services**

<b>Commuter Services</b>	<b>Vanpool Pricing</b>	<b>Distance</b>	<b>Van Size</b>	<b>No. of Riders</b>	<b>Parking Free or Fee</b>	<b>GRH Cost</b>
<b>Austin</b>	Flat	N/A	N/A	N/A	Free	\$5 annual
<b>Dallas</b>	Variable	No	Yes	Yes	Mixed	\$10.00
<b>Ft. Worth</b>	Variable	Yes	No	No	Free	\$5.00
<b>Houston</b>	Variable	Yes	Yes	Yes	Mixed	Free
<b>SanAntonio</b>	Variable	Yes	No	Yes	Free	Over\$50*
<b>Charlotte</b>	Variable	Yes	Yes	Yes	Free	N/A
<b>Columbus</b>	N/A	N/A	N/A	N/A	Free	10% **
<b>Denver</b>	N/A	N/A	N/A	N/A	Mixed	Free
<b>Kansas City</b>	Variable	Yes	No	Yes	Free	Free
<b>Minneapolis</b>	Variable	Yes	Yes	Yes	Free	Free
<b>Orlando</b>	Variable	Yes	Yes	No	Free	Free
<b>Sacramento</b>	N/A	N/A	N/A	N/A	Mixed	N/A
<b>Tucson</b>	N/A	N/A	N/A	N/A	Free	Free

Eight of the agencies provide vanpool programs. Of those eight, pricing is based on varying combinations of distance travelled, size of vehicle, and number of riders. Also, of the eight vanpool programs, only four reported that they received CMAQ grants in support of those programs. These four indicated that the amount received was small and was primarily earmarked for marketing of their programs.

Parking at park and ride lots is free in eight of the 12 peer group cities. And the remaining four agencies provide free parking at the majority of their park and ride lots. Houston has two lots with parking charges; the rest of its lots are free. Sacramento charges a \$1.00 fee at six of its 18 lots; the remaining 12 are free. Dallas and Denver charge in some lots for parking by non-residents. There are fees for parking at approximately half of Denver's lots for drivers whose cars are not registered in the district. Residents park for free. Dallas has only two lots where non-residents are charged; there too residents park for free.

Ten of the 12 cities listed have Guaranteed Ride Home (GRH) programs. Of the two which do not, Charlotte had a GRH program until July, 2010 when it was discontinued due to budgetary constraints. Although all programs have limits on how often they can be used, most are free. Ft. Worth and Dallas have a set co-payment. The San Antonio program reimburses the commuter up to \$50 for each use of the program. And in Columbus, the commuter pays 10% of the cab fare and 85% of the tip.

Eligibility for the GRH programs is generally divided into two types. Six of the ten programs are open to all types of commuters with the restriction that they must register and have a history of regular commuting. For instance, the Orlando program is available to anyone who commutes more than half of each month, Minneapolis requires the rider to commute three times per week, and in Ft. Worth the service is available to monthly pass holders. All of these programs also serve vanpool members. The remaining four GRH programs limit their participants to vanpool members or members of their employer managed programs.

## SPECIAL SERVICES

**Table 6**  
**Comparison of Special Services**

<b>Special Services</b>	<b>Employer</b>	<b>University Students</b>	<b>SocSer Nonprofit</b>	<b>Free Rides</b>	<b>Downtown Circulator</b>
<b>Austin</b>	No	Yes	Yes	Yes	No
<b>Dallas</b>	Yes	Yes			Yes
<b>Ft Worth</b>	Yes	TCU only	Yes	Yes	Yes
<b>Houston</b>	Yes	Yes	Yes	Yes	No
<b>SanAntonio</b>	Yes	Yes	Yes	Yes	Yes
<b>Charlotte</b>	Yes	Yes	Yes	No	Yes
<b>Columbus</b>	Yes	Yes	Yes	Yes	No
<b>Denver</b>	Yes	Yes	Yes	No	Yes
<b>Kansas City</b>	Yes	Yes	Yes	Yes	No
<b>Minneapolis</b>	Yes	Yes	Yes	Yes	No
<b>Orlando</b>	Yes	Yes	Yes	Yes	Yes
<b>Sacramento</b>	No	Yes	No	Yes	No
<b>Tucson</b>	Yes	Yes	Yes	No	No
<b>Orlando</b>	Yes	Yes	Yes	Yes	Yes

The majority of the transit agencies in the peer group provide some special services for specific populations. Of the five categories of special services reflected in the above table, the first three--Employer, University Students, and Social Service Agencies or Non-profits--are served by almost all of the included agencies. Employer programs were provided by all except Sacramento. These programs were generally of two types:

- The transit agency enables employers to sell regular passes at the work site and the employer can choose to subsidize the cost for the employees
- The transit agency provides employers with a volume-based discount program for the sale of passes which ensured employees with a reduced rate. In this case, the employer could still opt to further reduce employee transportation costs by subsidizing the cost of passes.

The agencies were evenly split between these two options, with five providing volume-based discounts and five not. Only Kansas City offered a discounted pass for employees and mandated that the employer contribute a minimum subsidy to the pass cost.

The number and size of universities and colleges vary from city to city and, therefore, so do their needs for transit service. However, all of the agencies in the peer group provide some kind of special service to these students. Nine of the 12 make a semester pass available to students through their universities at a discounted rate. These discounted transit services are then, in part, subsidized by the universities. In eight of those nine cities, universities include a transit fee with their tuition and fees. Only TCU in Ft. Worth charges their students no transit fee. However, the amounts of the fees vary considerably, from \$13.50 per semester in Columbus to as much as \$175.00 in Minneapolis. Some agencies place restrictions on these programs. In Dallas, the university must have 100% participation to be eligible. And in Denver, students must vote on whether they want to participate. If the majority of students vote yes, then all students must pay the transit fee. Four of the agencies provide special campus routes which are free to all students. (Charlotte and Ft. Worth provide both the campus routes and the semester passes.) Finally, Houston alone simply includes university students in their definition of general population groups who are entitled to standard reduced fares.

Programs for social service agencies and non-profits were offered by all peer group agencies except Sacramento, and these programs were generally similar. Discounted single ride tickets or day passes were made available to agencies working with low income clients. The social service/non-profit agencies were required to register with the transit agencies to be eligible. Ft. Worth and Kansas City have a fixed monthly allotment of tickets which they make available for their programs.

Free rides offered for special circumstances were fairly common, with jurors being the most common recipients. Six of the agencies provided jurors with free rides. In some cases, the transit agencies funded this service entirely; in others, they received financial support from their city or county. Other examples of free ride programs were Columbus' weather emergency program. In the case of level 2 or level 3 snow emergencies in Columbus, free rides are available to all riders for the entire day. Kansas City offers a half-price discount on days when an ozone alert has been issued. Austin provides free rides for law enforcement officers, firefighters, emergency medical technicians, and military personnel who board the system in uniform. Minneapolis allows free rides for disabled veterans; Denver provides free rides for active duty members of the military. Senior citizens 70 and older ride free in Houston, and in Sacramento, those who still hold one of the lifetime passes which were issued prior to September 1, 2009, ride free. Charlotte and Tucson offer no free ride programs. However, all of the transit agencies offer occasional free or discounted rides to special events.

Of the 12 transit agencies in the peer group, seven provide downtown circulators. Of these, five are free. Minneapolis charges \$0.50 for any bus or train ride within their downtown zone. San Antonio charges a full fare (\$1.10) for their three downtown streetcar routes. Five of the agencies offer no downtown circulator.

The contact information for each of the peer agencies is listed below.

Dallas Area Rapid Transit (DART), Dallas, Texas

[www.dart.org](http://www.dart.org)

Ft. Worth Transportation Authority (The T), Ft. Worth, Texas

[www.the-t.com](http://www.the-t.com)

Phil Dupler, Chief Planner, 817-215-8701

Metropolitan Transit Authority of Harris County (Metro), Houston, Texas

[www.ridemetro.org](http://www.ridemetro.org)

Julie Fernandez, Manager, Revenue Budgets, 713-739-4080

VIA Metropolitan Transit, San Antonio, Texas

[www.viainfo.net](http://www.viainfo.net)

[Ian Strauss, Manager, Statistics & Analysis, 210-362-2151](#)

Blake Berlin, Vanpool Program, 210-362-2041

Charlotte Area Transit System (CATS), Charlotte, North Carolina

[www.ridetransit.org](http://www.ridetransit.org)

Lavernia Boyd, Assistant to Marketing Director, 704-336-3898

Olaf Kinard, Director, Marketing & Communications, [kkinard@charlottenc.gov](mailto:kkinard@charlottenc.gov)

Central Ohio Transit Authority (COTA), Columbus, Ohio

[www.cota.com](http://www.cota.com)

Amika Phillips, Sales Supervisor, 614-228-4123

Regional Transportation District (RTD), Denver, Colorado

[www.rtd-denver.com](http://www.rtd-denver.com)

[Darnia Serna, Manager, Public Relations, 303-299-2674](#)

Kansas City Area Transportation Authority (KCATA), Kansas City, Missouri

[www.kcata.org](http://www.kcata.org)

Cynthia Baker, Director, Marketing, 816-346-0209

Deanna (Catalano) Brink, Marketing, [dcatalano@kcata.org](mailto:dcatalano@kcata.org)

Metro Transit, Minneapolis and St. Paul, Minnesota

[www.metrotransit.org](http://www.metrotransit.org)

Erin Mitchell, Acting Manager, Scheduling, 612-349-7781

John Levin, Director, Service Development, 612-349-7789

Mary Capistrant, Sales, 612-349-7631

Central Florida Regional Transportation Authority (LYNX), Orlando, Florida

[www.golynx.com](http://www.golynx.com)

[Maria Colon, Manager, Customer Service, 407-841-5969](#)

[Patty Bryant, Grants Management, 407-254-6014](#)

[Blanche Sherman, Director, Finance, 407-254-6100](#)

Sacramento Regional Transit District, Sacramento, California

[www.sacrt.com](http://www.sacrt.com)

Brent Bernegger, Director, Finance, 916-557-4671

Sun Tran, Tucson, Arizona

[www.suntran.com](http://www.suntran.com)

Kandi Young, Manager, Communications, 520-206-8849