

Briefing Paper

**Title VI Assessment of Fare and
Parking Fee Change Proposals**

Executive Responsibility Centers

- Ted Basta
Chief of Business Support Services
- Reginald Diamond
Executive Director of Diversity & Equal Opportunity
- Cheryl King
Assistant General Manager of Planning

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Metropolitan Atlanta Rapid Transit Authority

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1.0 Executive Summary

As a result of the severe economic downturn, the Metropolitan Atlanta Rapid Transit Authority anticipates a transit-related sales tax receipts shortfall of at least \$30 million in FY 2009 and over \$600 million in the next ten-year period. The poor sales tax revenue has cut deeply into the Authority's revenue since local sales tax account for over half (52%) of MARTA's operating budget. With this serious downturn in the economy, the Authority is in the process of taking measures that would improve its financial viability and productivity, one of which is an increase in passenger fare.

The Authority is cognizant of Title VI of the Civil Rights Act of 1964, Section 601 that states:

"No persons in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."¹

MARTA's responsibility is to guarantee that all transit service, and access to its facilities, are equitably distributed and provided without regard to race, color, or national origin. MARTA's goal is to also ensure equal opportunities to all individuals to participate in all local, sub regional and regional transit planning and decision-making processes.

MARTA's proposed fare increases could have an adverse and discriminatory impact on several minority groups within the system. Therefore, MARTA is proactively giving special consideration and review as to the Title VI implications of said proposal, to ensure that MARTA takes no action that violates federal mandates. According to the Federal Department of Transportation's Circular 4702.1 A,

"[Agencies] shall evaluate significant system-wide service and fare changes and proposed improvements at the planning and programming stages to determine whether these changes have a discriminatory impact."²

To effectively pursue this fare increase, a history of previous fare increases was examined and this is depicted in Table 1. At its inception in 1972, MARTA purchased the Atlanta Transit System and reduced fares from forty cents (\$.40) to fifteen cents (\$.15). Since then, there have been eight fare increases, the last one in 2001. Past fare increases have ranged from \$0.10 (1979 and 1988) to \$0.35 (1981). MARTA's current fare is \$1.75.

¹ United States Department of Justice. (1964). Title VI of the Civil Rights Act of 1964. Retrieved December 5, 2008, from the United States Department of Justice: Civil Rights Division
Web Site: <http://www.usdoj.gov/crt/cor/coord/vimanual.php>

² Federal Transit Administration. (April 13, 2007). Title VI and Title VI-Dependent Guidelines for FTA Recipients: C 4702.1A. Retrieved December 5, 2008 from the Federal Transit Administration
Website: http://www.fta.dot.gov/laws/circulars/leg_reg_5956.html

Table 1: History of MARTA Fare Changes

1972	1979	1981	1987	1988	1990	1992	1995	2001
\$0.15	\$0.25	\$0.60	\$0.75	\$0.85	\$1.00	\$1.25	\$1.50	\$1.75

This report is divided into five main sections and provides a detailed breakdown of fare and parking increases and impacts to several minority populations. The first section (Executive Summary) introduces the need for a fare change and summarizes the report findings. The second section analyzed the proposed fare and parking impacts on different population groups. The demographic section details information on age, income, race/ethnicity, and individuals with disabilities and presented the demographic profile of MARTA's patrons and how they would be impacted by the changes. The fourth section assessed all the Title VI issues that are associated with the proposed fare and parking changes and the communication plan to mitigate the effect of the proposed changes. This assessment of Title VI issues pinpoints items such as: steps to avoid and mitigate the impacts of the fare increase, alternative modes of transportation for those affected by the fare increase, the impacts of the service changes on different minority groups, and an assessment of parking fare changes. The final section is the appendix that includes other information not presented in the report.

In order to arrive at the right decision, MARTA applied a price elasticity model approved by the American Public Transportation Association (APTA) to estimate how much ridership would be lost if the proposed increase would take place. Accordingly, three initial scenarios were projected to help in the decision-making process. The three scenarios revealed a ridership decline of between 4.54 to 7.31 percent and a revenue increase of between 9.73 and 15.76 percent. Subsequently, a phased in scenario was explored that will spread the fare increase over a three-year period. The analysis will examine the impact of the proposed fare increases on minority, and low income riders.

Scenario A and B are almost similar proposals. They both involve a "Base Fare" increase of \$0.25, "Discounted Trip" increase from \$1.50 to \$1.70, "Short-Term" pass increase of \$2.00, "Half-Fare" increase from \$0.85 to \$1.00 and "Paratransit" fare increase from \$3.50 to \$4.00. They however differ in the proposed increase in the Monthly Pass. Under Scenario A, "Monthly Pass" would increase from \$52.50 to \$60.00, while under scenario B it would increase to \$64.00. Scenario C also involves a base fare increase to \$2.00, however the short-term pass is proposed to increase from \$13.00 to \$17.00 and the monthly pass increase from \$52.50 to \$68.00. In the phased-in scenario there will be gradual increase in fare over a three-year period. It is important to stress that everybody gets affected by a fare increase and implementing any of the three scenarios would have impact on all the riding population. However, the greatest impact would be on some protected segments of the population such as minorities and low-income earners. Short-term passes are the most frequently used form of fare payment on MARTA's transit system by the three highest racial/ethnic populations of riders - Hispanics, Blacks and Native Americans. Low-income general riders who make less than \$29,999 also tend to purchase short-term passes. Individuals under the age of 24 would also be impacted because over 40% of this group use the short-term pass and earn under \$29,999. Over half (56.4%) of MARTA's half-fare population is over the age of 65, and about the same percentage (59.1%) of these riders have annual incomes that are less than \$10,000 per year. Thus, any fare change would affect the low income and elderly half-fare riders. Also, almost half (48%) of MARTA's "Mobility" riders are

over the age of 65 and over two-thirds earn less than \$30,000 per year. Hence, any change in Paratransit fare would adversely affect a large percentage of the mobility riding population. Of the three scenarios proposed, scenario C would most disproportionately affect the low-income and minority riders, transit dependent riders, seniors and individuals with disabilities and result in the highest possible decrease in ridership (7.31%) and the highest increase in revenue (15.76%).

The burden of higher fare payments could especially affect several minority group riders as opposed to non-minority group riders. In order to guarantee that MARTA is in accordance with Title VI procedures, this assessment examined the proposed fare changes and their impacts. This assessment also closely analyzed the specific minority populations that would be adversely affected and what measures will be taken to reduce these effects on the protected groups within the service area.

2.0 Fare and Parking Impact Analysis

2.1 Fare Impacts

2.1a MARTA Financial Condition

Last year's poor economy has had a devastating impact on MARTA. Sales tax receipts account for 52% of MARTA's operating budget. That means when people are spending money to buy things, MARTA's sales tax revenue is up. When people stop spending money, our sales tax receipts are down. Last year, people did not spend as much money as MARTA thought they would.

MARTA began the year of 2008 expecting sales tax revenue to increase by 6-percent. In January, however, a sales tax revenue forecast predicted a decrease in MARTA's sales tax revenue of almost \$10 million. In September, MARTA received another forecast. It predicted an additional shortfall in anticipated sales tax revenue of \$30 million. This brought the total of MARTA's predicted sales tax revenue shortfall for fiscal year 2009 to \$40 million. The forecast also predicted that in ten years MARTA's sales tax revenue would fall short by half a billion dollars.

To maintain a balanced budget for fiscal year 2009, MARTA officials took money out of its reserves as well as sought and won approval by its board of directors last month to immediately implement several mid-year budget adjustments that would save the authority \$11 million. Later that month, MARTA received its last sales tax revenue forecast of 2008. It predicted an additional \$10 million shortfall in sales tax revenue. This wiped out the savings achieved by the mid-year budget adjustments implemented just weeks ago. With little money left in its reserves and its operating funds depleted, MARTA is now looking for ways to fund its budgets for Fiscal Year 2010 and beyond. Fiscal Year 2010 begins July 1, 2009.

To accomplish its goal, MARTA officials are considering implementing a number of internal cost reduction and revenue generation measures. The measures under consideration that would most impact patrons are fare increases, parking fees and service reductions. Lastly, the authority is hoping state legislators will act during the upcoming legislative session to provide MARTA with some much needed assistance. A significant amount of relief would have been provided to MARTA, if state legislators had removed restrictions from MARTA's sales tax revenue. Even though the resolution did not come up for vote in the house, some of the requests to State Legislators include:

- 1) Removing the requirement that sales tax revenue be split 50% capital and 50% operations. MARTA needs to use its sales tax revenue however it needs with no restrictions. This resolution failed to pass the House
- 2) Allowing interest income to be used for both capital and operations expenses.

3) Permission to allow food and drinks to be sold in MARTA rail stations and intermodal facilities.

4) Providing \$100 million in immediate financial support. Currently, Georgia is the only state in the country that provides no funding support for public transportation.

A fare impact study has been conducted and several scenarios have been devised to help MARTA gauge the impact of certain incremental fare increases and parking fee combinations. Studies show a correlation between ridership and transit ticket fares increases. Traditionally when fares increase ridership decreases. When other variables are added to the equation, there can be further impact on ridership.

The Fare Elasticity Model uses a baseline set of fare categories and average fares to project the future average fare based on proposed fare changes. The projected average fare is then used as a factor in the Patronage Forecasting Model, which estimates ridership based on a number of variables including: fare, inflation, service levels and employment.

The four fare scenarios are:

- Scenario A – increase of 25 cents in the Base Fare and corresponding Multi-Ride Instrument increases; increase Time-Based Pass prices, but no change in multiples. No change in discounts for Pass Programs.
- Scenario B – increase of 25 cents in the Base Fare and corresponding Multi-Ride Instrument increases; increase Time-Based Pass prices and multiples. No change in discounts for Pass Programs.
- Scenario C – increase of 25 cents in the Base Fare and corresponding Multi-Ride Instrument increases; increase Time-Based Pass prices and multiples. No change in University; K-12, and Homeless programs. Increase the discounts for the Partnership Program are also considered to help TMSs promote the program and transit travel to area employers with the expectation to increase transit market share. A moderate reduction in discounts for the convention and Visitors Pass Program also is proposed.
- Multi-Year Scenario – This is just Scenario C noted above phased in over a the three year period of Fy2010, Fy2011 and Fy2012. It would reflect an increase of 25¢ in the Base Fare and corresponding Multi-Ride Instrument increases; increase Time-Based Pass prices and multiples gradually (e.g., increase monthly pass multiple to 32 and 34 in 2011 and 2012 respectively). No change in University, K-12, and Homeless programs.

Results from the study will be used with other budget variables to determine the final scenario or revenue generation package to be proposed for inclusion in MARTA's proposed budget for Fiscal Year 2010.

2.1b Peer Agency Fare Comparison

MARTA compared its fare structure with twenty-two transit agencies of equal size or similar fare structure (Table 2). Based on this comparison, some key findings include:

- The basic fares range between \$1.25 and \$2.25 per trip
- Weekly fare range between \$11.00 at WMATA and \$26.00 in Miami Dade
- Monthly pass range between \$40.00 and \$129.00
- MARTA has a flat rate fare (\$1.75) compared to some agencies with distance-based fare.
- MARTA's last fare increase was in 2001, while BART increased fare by 5% in January 2004 and 10% by January 2005.
- In the past few months, several agencies have increased their fares and a few more are planned for the coming months. Such agencies include GCRTA in Cleveland, RTD in Denver, METRO in Houston and KING CO METRO in Seattle, CTA in Chicago.

Table 2: Peer Agency Fare Comparison (As of April 07, 2009)

NTD Number	Agency	Location	Recent Fare Increase or Proposed	Local Fare	Daily Pass	Weekly Pass	Weekly Base Fare Multiplier	Monthly Pass	Monthly Base Fare Multiplier	Bus-Bus Transfers	Bus-Rail Transfer	Fuel Surcharge	Senior Fare	Senior Daily Pass	Senior Monthly Pass	Paratransit	Paratransit Monthly
9002	DTS	Honolulu		\$2.00	N/A	N/A	N/A	\$40.00	20.0	\$0.00	\$0.00	No	\$1.00	N/A	\$5.00	\$1.00	\$5.00
9006	RTD	Denver	Effective Jan 1, 2009	\$2.00	N/A	N/A	N/A	\$70.00	35.0	\$0.00	\$0.00	No	\$1.00	N/A	\$35.00	\$4.00	N/A
9026	MTS	San Diego	Proposed 7/14/2009	\$2.25	\$5.00	N/A	N/A	\$68.00	30.2	\$0.00	\$0.00	No	\$1.10	N/A	\$17.00	\$4.50	N/A
3034	MTA	Baltimore		\$1.60	\$3.50	\$16.50	10.3	\$64.00	40.0	\$0.00	\$0.00	No	\$0.55	\$1.20	\$16.50	\$1.85	N/A
6008	METRO	Houston	Effective Nov 2, 2008	\$1.25	N/A	N/A	N/A	N/A	N/A	\$0.00	\$0.00	No	\$0.60	N/A	N/A	\$1.50	N/A
4034	MDT	Miami		\$2.00	N/A	\$26.00	13.0	\$100.00	50.0	\$0.50	\$0.50	No	\$1.00	N/A	\$50.00	\$3.00	N/A
0001	King Co. Metro	Seattle	Effective Feb 1, 2009	\$2.00-\$2.50	N/A	N/A	N/A	\$72.00	36.0	\$0.00	\$0.00	No	\$0.50	N/A	\$9.00	\$1.00	\$27.00
	King Co. Metro	Off Peak		\$1.75	N/A	N/A	N/A	\$63.00	36.0	\$0.00	\$0.00	No	\$0.50	N/A	N/A	\$1.00	\$27.00
2080	NJ Transit	New Jersey		\$1.35-\$1.90	N/A	N/A	N/A	\$45-\$58	30.5-33.3	\$0.00	\$0.60-\$0.69(Rail one zone)	No	\$0.65-\$0.95	N/A	N/A	County specific	N/A
6066	DART	Dallas	Proposed 9/14/2009	\$1.50	\$3.00	15.00	10.0	\$50.00	33.3	\$0.00	\$0.00	No	\$0.75	\$1.50	\$25.00	\$2.75	N/A
2098	PATH (Port Auth Transit)	Jersey City, NJ	Effective 3/22/2009	\$1.75	\$6.00	\$18.00	10.3	\$54.00	30.9	\$0.00	\$0.00	No	\$1.00	N/A	N/A	N/A	N/A
5118	Meira	Chicago (Comm Rail)		\$2.15-\$8.05	N/A	N/A	N/A	\$217.95	27.00	\$0.00	\$0.00	No	\$1.05-\$4.00	N/A	\$150.00	N/A	N/A
9154	LACMTA	Los Angeles		\$1.25	\$5.00	17.00	13.6	\$62.00	49.6	\$0.00	\$0.00	No	\$0.55	\$1.80	\$14.00	N/A	N/A
2078	MTA-MNCR	New York (Comm Rail)	Proposed June 1, 2009	\$5.75-\$18.50	N/A	\$40.50-\$118.75	6.4-7.0	\$128-\$372	20.1-22.3	\$0.00	\$0.00	No	\$2.75-\$9.00	N/A	N/A	N/A	N/A
0008	Tri-Met	Portland		\$2.30	N/A	\$22.50	9.8	\$86.00	37.4	\$0.00	\$0.00	No	\$0.95	N/A	\$25.00	\$1.80	\$50.00
				\$1.25-\$6.70													
9003	BART	Oakland Washington, D.C.		\$1.25	N/A	N/A	N/A	N/A	N/A	\$0.00	\$0.00	No	\$0.60	N/A	N/A	\$3.00 start (distance based)	N/A
3030	WMATA Bus	Washington, D.C.		\$1.25	N/A	N/A	N/A	N/A	N/A	\$0.00	\$0.75	No	\$0.60	N/A	N/A	\$2.5-\$6.5	N/A
1003	MBTA Bus	Boston		\$1.65-\$4.5	N/A	N/A	N/A	N/A	N/A	\$0.00	\$1.05-\$4	No	\$0.85-\$2.25	N/A	N/A	N/A	N/A
	MBTA	Subway		\$1.25	\$9.00	\$15.00	12.0	\$40.00	32.0	\$0.00	\$0.00	No	\$0.40	N/A	\$20.00	\$2.00	N/A
2100	MTA LIRR	Long Island	Proposed June 1, 2009	\$1.70	\$9.00	\$15.00	8.8	\$59.00	34.7	\$0.00	\$0.00	No	\$0.60	N/A	\$20.00	\$2.00	N/A
				\$6.00-\$21.00	N/A	\$43.25-\$113.50	5.4-7.2	\$135.00	16.7-22.5	\$0.00	\$0.00	No	\$3.00-\$10.50	N/A	N/A	N/A	N/A
3019	SEPTA	Philadelphia		\$4.25-\$15.25	N/A	\$113.50	7.4-10.1	\$356.00	23.3-31.8	\$0.00	\$0.00	No	\$3.00-\$10.50	N/A	N/A	N/A	N/A
2008	NYCT	New York	Proposed May 31, 2009	\$2.00	N/A	\$20.75	10.4	\$78.00	39.0	\$0.75	\$0.75	No	FREE	N/A	N/A	\$4.00	N/A
2188	MTABUS	New York	Proposed May 31, 2009	\$2.00	\$7.50	\$25.00	12.5	\$81.00	40.5	\$0.00	\$0.00	No	\$1.00	N/A	\$40.50	\$2-\$3.5	N/A
9015	MUNI	San Francisco		\$2.00	\$7.50	\$25.00	12.5	\$81.00	40.5	\$0.00	\$0.00	No	\$1.00	N/A	\$40.50	N/A	N/A
5027	Metro Transit	Minneapolis		\$1.50	\$11.00	\$24.00	46.0	\$45.00	30.0	\$0.00	\$0.00	No	\$0.50	N/A	\$10.00	\$1.65	N/A
		Non rush hours		\$2.25	N/A	N/A	N/A	\$59.00	33.7-50.4	\$0.00	\$0.00	No	\$2.25	N/A	\$31.50	N/A	N/A
4022	MARTA	Atlanta		\$1.75	\$8.00	\$13.00	7.4	\$52.50	30.0	\$0.00	\$0.00	No	\$0.75	N/A	N/A	N/A	N/A
5086	CTA	Chicago	Effective Jan 1, 2009	\$2.25	5.75	\$23.00	10.2	\$86.00	38.2	\$0.25	\$0.25	No	\$0.85	N/A	\$95.00	N/A	N/A

2.1c Fare Elasticity & Patronage Forecasting Model Caveats

- The average fares are substantially lower than the face value fares, because Unlinked Trip ridership is being used in the analysis, including free transfers.
- Passenger revenue excludes Smart Card and Smart Ticket fees, as they are not directly related to ridership.
- Technically, the Patronage Forecasting Model predicts Bus and Rail ridership, excluding the Mobility mode. Therefore, the unlinked trip ridership forecasts have been expanded slightly to include Mobility riders. For the first four months of FY 2009, Mobility ridership constituted 0.2285% of all unlinked trips, so this factor was used for the expansion.
- It is important to understand that the Patronage Forecasting Model is based on historical relationships for the ten-year period ending in September 2008. The Economic Forecasting Center’s quarterly predictions for inflation and unemployment were made in November, and were based largely on data through September. As national and local economic conditions change, they impact MARTA ridership and revenue forecasts in ways not anticipated at the time. For that reason, the FY 2009 trend-adjusted ridership and revenue projections, based on July through September actual data, are quite high. These figures are not used in the scenario comparisons analyzed below. Instead, the original FY 2009 projections are used.

2.1d Patronage Forecasting Model Results

The Fare Elasticity Model is designed to evaluate changes in ridership and revenue due solely to changes in fare structure. However, the output from this model can be used as input to the Patronage Forecasting Model, which is designed also to take into account proposed changes in service levels, as well as projected trends in environmental economic variables, such as the Consumer Price Index, employment and unemployment, etc. The following tables (3-6) show the overall impacts on ridership and revenue from various combinations of fare structure changes, as generated by the Patronage Forecasting Model over three different time periods.

**Table 3: FY 2010 Projection Scenarios
Average Fare**

Base Fare: \$2.00	Fare Structure			
	Baseline	Scenario “A”	Scenario “B”	Scenario “C”
November 2008 Forecast	0.6797	0.7836	0.7981	0.8514
February 2009 Forecast	\$0.6831	\$0.7804	\$0.8394	\$0.8530
May 2009 Forecast	0.6643	0.7822	0.8410	0.8549

Table 4: FY 2010 Projection Scenarios – Unlinked Trips & Revenue Changes from FY10 Baseline

Base Fare: \$2.00	Fare Structure			
	Baseline	Scenario "A"	Scenario "B"	Scenario "C"
<u>Ridership</u>				
November 2008 Forecast	161,423,902	148,759,350	146,991,642	140,509,896
Change from Baseline	-	-12,664,552	-14,432,260	-20,914,006
February 2009 Forecast	144,938,961	131,611,598	123,541,054	121,670,945
Change from Baseline	-	-13,327,363	-21,397,907	-23,268,016
May 2009 Forecast	151,346,262	136,599,213	129,243,627	127,504,806
Change from Baseline	-	-14,747,049	-22,102,635	-23,841,456
<u>Revenue (Net)</u>				
November 2008 Forecast	\$109,710,948	\$116,071,616	\$11,821,526	\$119,131,241
Change from Baseline	-	6,860,668	7,610,578	9,920,293
February 2009 Forecast	\$98,287,682	\$101,977,828	\$102,952,871	\$103,043,218
Change from Baseline	-	3,690,146	4,665,189	4,755,536
May 2009 Forecast	\$100,314,242	\$106,094,932	\$107,929,624	\$108,237,081
Change from Baseline	-	6,280,690	8,115,382	8,422,839

Table 5: Phased Fare Implementation Projection Scenarios – Unlinked Trips & Revenue Changes from FY10 to FY12 Baseline

Base Fare: \$2.00	Fare Structure			
	Baseline	FY2010	FY2011	FY2012
<u>Ridership</u>				
February 2009 Forecast	144,938,961	131,995,420	131,245,163	130,057,412
Change from FY10 Baseline	-	-12,943,541	-13,693,798	-14,881,549
May 2009 Forecast	151,346,262	137,199,669	133,634,145	130,602,941
Change from FY10 Baseline	-	-14,146,593	-17,712,117	-20,743,321
<u>Revenue (Net)</u>				
February 2009 Forecast	\$98,287,682	\$101,907,788	\$106,445,994	\$110,186,087
Change from FY10 Baseline	-	3,620,106	8,158,312	11,898,405
May 2009 Forecast	\$100,314,242	\$105,907,020	\$108,377,283	\$110,885,547
Change from FY10 Baseline	-	6,092,778	8,563,041	11,071,304

Table 6: Phased Fare Implementation Projection Scenarios – Average Fare

	Fare Structure			
	Baseline	FY2010	FY2011	FY2012
February 2009 Forecast	\$0.6831	0.7776	0.8168	0.8530
May 2009 Forecast	0.6643	0.7774	0.8167	0.8549

2.1e Customer Impacts Of Proposed Fare Changes (Fare Elasticity)

For the Fare Elasticity Model, the proposed fare changes were divided into four scenarios that can be analyzed to show their impacts on users of different fare payment methods. Under all three scenarios, both bus and rail would be equally impacted by the proposed fare change because MARTA has no differential fares by mode, nor does it charge transfer fees.

Under scenario “A” the base fare would be raised from \$1.75 to \$2.00, which represents a 14.29% change from the current fare. For users of other fare payment methods, the price increases would be about the same. The discounted trip pass would increase from \$1.50 to \$1.70 (+13.33%). The seven-day pass would be raised from its current \$13.00 rate to \$15.00 (+15.38%). The monthly pass would also undergo a 14.29% increase (from \$52.50 to \$60.00). Half fare users would see the greatest increase (17.65%), but this is because the current half-fare price is actually a little more than half of the base fare.

Table 7: Scenario A

<u>Fare Category</u>	<u>Current Fare</u>	<u>Proposed Fare</u>	<u>% Change</u>
Full Fare Cash, SV	\$1.75	\$2.00	14.29%
Full Fare Token, Trip	\$1.75	\$2.00	14.29%
Discounted Trip (20 Trip Purchase)	\$1.50	\$1.70	13.33%
Short-Term Pass (7-Day)	\$13.00	\$15.00	15.38%
Monthly Pass	\$52.50	\$60.00	14.29%
Half-Fare	\$0.85	\$1.00	17.65%
Paratransit	\$3.50	\$4.00	14.29%

As in Scenario “A”, the base fare for Scenario “B” would be increased from \$1.75 to \$2.00, and the other non-time-based fares would also increase the same amount. The short-term pass increase also would be the same. However a greater impact (+21.90%) would be felt by patrons using the Monthly Pass, which would increase to a \$64.00.

Table 8: Scenario B

<u>Fare Category</u>	<u>Current Fare</u>	<u>Proposed Fare</u>	<u>% Change</u>
Full Fare Cash, SV	\$1.75	\$2.00	14.29%
Full Fare Token, Trip	\$1.75	\$2.00	14.29%
Discounted Trip (20 Trip Purchase)	\$1.50	\$1.70	13.33%
Short-Term Pass (7-Day)	\$13.00	\$15.00	15.38%
Monthly Pass	\$52.50	\$64.00	21.90%
Half-Fare	\$0.85	\$1.00	17.65%
Paratransit	\$3.50	\$4.00	14.29%

As in Scenario “A” and Scenario “B”, the Scenario “C” base fare would be increased from \$1.75 to \$2.00, and the other non-time-based fares would also increase the same amount. However, the percentage increase for both the short-term pass (here exemplified by the seven-day pass) and the monthly pass would be about double the increase for the other fare payment methods. Under this scenario, the short-term pass would increase by 30.77% (from \$13.00 to \$17.00), while the monthly pass would increase by 29.52% over the current fare (from \$52.50 to \$68.00). Since the short-term (weekly) passes are heavily used by MARTA’s minority and low-income populations, these groups may be more affected by the implementation of this scenario (please see section 4). In fact, the Fare Elasticity Model predicts an 18.4% decrease in short-term pass usage (either from less system usage, or from switching to other fare payment methods), if Scenario “C” were implemented.

Table 9: Scenario C

<u>Fare Category</u>	<u>Current Fare</u>	<u>Proposed Fare</u>	<u>% Change</u>
Full Fare Cash, SV	\$1.75	\$2.00	14.29%
Full Fare Token, Trip	\$1.75	\$2.00	14.29%
Discounted Trip (20 Trip Purchase)	\$1.50	\$1.70	13.33%
Short-Term Pass (7-Day)	\$13.00	\$17.00	30.77%
Monthly Pass	\$52.50	\$68.00	29.52%
Half-Fare	\$0.85	\$1.00	17.65%
Paratransit	\$3.50	\$4.00	14.29%

The phased-in approach included a 25¢ increase in the base fare from \$1.75 to \$2.00 in each of the three years. Increases in price of multi-ride fare media (Breeze Cards and Tickets) were phased in over the three-year period. The third year of this phased increase is the same as Scenario C.

Table 10: FY 2010 Proposed Three-Year Phased Price Structure

<u>FARE CATEGORY</u>	Current Fare	Multi-Year Fare Change		
		<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>
Base Fare	\$1.75	\$2.00	\$2.00	\$2.00
Half Fare*	\$0.85	\$0.90	\$0.95	\$1.00
Weekly Pass	\$13.00	\$15.00	\$16.00	\$17.00
Monthly Pass	\$52.50	\$60.00	\$64.00	\$68.00
Mobility Pass*	\$105.00	\$108.00	\$122.00	\$136.00
TMA Discounts	0% to 5%	0% to 10%	0% to 10%	0% to 10%
Children	Under 6 (Maximum of 4)	Height Requirement	Height Requirement	Height Requirement

When combined with the demographic data in section 3, the information above indicates the following:

- *Scenario A --*
 - Almost half of Hispanic riders (48.8%) and Black riders (45.4%) purchase short-term passes, compared to the 20.7% of White riders. 40.7% of Native American's also purchase short-term passes and would also be affected. The Asian Pacific population would not be affected as much due to the fact that 61.8% tend to purchase monthly passes as opposed to (18.3%) for short-term passes. Low-income riders who make less than \$29,999 who tend to purchase short-term passes would also be adversely impacted by the fare change. Individuals under the age of 24 would be affected because their salaries are mostly under \$29,999.
 - Over 56.4% of MARTA's half-fare population is over the age of 65 and 59.1% of have annual incomes that are less than \$10,000 per year. Thus, any fare change would have an affect on both low income and elderly half-fare riders. Over seventy five percent (75.1%) of MARTA's half-fare riders are Black; this population would also be impacted by any fare increase.
 - Another group that may be affected by this fare scenario is Mobility riders. Almost half (48%) of mobility riders are over the age of 65. The 14.29% proposed change in Paratransit fare would adversely affect almost all of the mobility rider population. Also an overwhelming 89.7% of mobility riders have annual incomes of less than \$29,999 and over eighty percent (82.8%) are Black.

- *Scenario B --*
 - Under scenario "B" Blacks, Hispanics, Native Americans, individuals under age 24, and low income riders would be adversely affected by a fare increase. These riders would be impacted in the same way as scenario "A". (Refer to scenario A for percentage breakdowns)

- Half-fare riders would also be impacted the same way as in scenario A. (Refer to scenario “A” for percentage breakdowns.)
 - Mobility riders would be impacted the same way as in scenario A. (Refer to scenario “A” for percentage breakdowns)
- *Scenario C --*
 - This scenario would cause the greatest adverse impact on minority and transit dependent riders. Under scenario “C” Blacks, Hispanics, Native Americans, individuals under age 24, and low income riders would experience the greatest impact of the fare increase. The short-term pass is proposed to increase by 30.77%. (Current short-term fare is \$13.00 and the proposed fare is \$17.00).
 - Half-fare riders would be adversely impacted because of their limited income. Over 56.4% of MARTA’s half-fare population is over the age of 65 and 59.1% have annual incomes that are less than \$10,000 per year. Mobility riders would be adversely impacted because Almost half (48%) of mobility riders are over the age of 65. In addition an overwhelming 89.7% of mobility riders have annual incomes of less than \$29,999 and over eighty percent (82.8%) are Black.
 - *Phased-in Scenario --*
 - The phased in scenario is just Scenario C mentioned above. This scenario involves multi-year increase in fare structure. Although the impact will be small in the first year (2010), by the third year, the impact will be the same as specified in Scenario C. By this time, Blacks, Hispanics, Native Americans, individuals under age 24, and low income riders would experience the greatest impact of the fare increase. The short-term pass for example is proposed to increase from \$13.00 in FY2010 to \$17.00 in 2012.
 - Half-fare riders would be adversely impacted because of their limited income. Over 56.4% of MARTA’s half-fare population is over the age of 65 and 59.1% have annual incomes that are less than \$10,000 per year.
 - In the first year of this scenario, Mobility fare would increase from \$3.50 to \$3.60. Mobility riders would be be adversely impacted because Almost half (48%) of mobility riders are over the age of 65. In addition an overwhelming 89.7% of mobility riders have annual incomes of less than \$29,999 and over eighty percent (82.8%) are Black.

Alternative transit modes and alternative media types are not discussed in this analysis, because there are no differential pricing schemes proposed by mode or by media type.

It is important to know that every patron gets affected by a fare change. However, the third scenario (Scenario C) and the last year of the phased-in scenario appears to have a greater likelihood to adversely impact some protected groups within the service area.

The findings from this Title VI analysis indicate the following:

- *Scenario A* would result in a 4.54% decrease in ridership while providing a 9.73% increase in revenue.

- *Scenario B* would result in a 4.87% decrease in ridership while providing an 11.38% increase in revenue.
- *Scenario C* would result in the highest possible decrease in ridership (7.31%) and a 15.76% increase in revenue.
- Implementing the phased-in approach will result in gradual increase of the average fare over the three-year period. From the February projection, the increase in average fare ranges from \$0.776 in FY 2010 to \$0.8530 in FY 2012. For the same projection, the analysis revealed decrease in unlinked trips, ranging from 12.9 million in lost unlinked trips in FY 2010 to 21.5 million in FY 2012, as compared to the baseline conditions. The analysis for passenger revenue revealed that net revenue increases as the average fare increases. In fact, over the three-year period, there is a gain in net revenue as compared to the baseline, ranging from \$3.6 million in FY2010 to \$7.4 million in FY 2012.

Alternative transit modes and alternative media types are not discussed in this analysis, because there are no differential pricing schemes proposed by mode or by media type.

2.2 Parking Impacts

As part of Research and Analysis (R&A) study to determine potential changes to MARTA's fare structure, several potential changes to MARTA's parking fees have been proposed. In an effort to comply with FTA Circular 4702.1A (which requires that MARTA evaluate significant fare changes to determine any discriminatory impacts), the office of Transit System Planning conducted a brief analysis of the scenarios and potential impacts to low-income and minority groups.

Data detailing patrons who park and ride from stations was not available during this analysis, so it is not possible to determine any demographic data for any users of MARTA's parking resources. The only analysis possible is a location analysis of rail stations in the context of available census data, which was most recently made available in 2000 and may no longer be accurate. As a result, this analysis can only identify potential impacts to patrons who drive to rail stations from neighborhoods in the stations' immediate vicinity. Due to the lack of parking data, this analysis cannot quantify any potential number of low-income or minority patrons who may be impacted.

2.2a Proposed Changes to Daily and Long-Term Parking Rates

All daily parking lots and parking decks, except in the designated long-term parking lots at Brookhaven/Oglethorpe University, Kensington, the deck at Lenox and College Park are free for patrons parking less than 24 hours

Four scenarios were presented.

- Scenario A is based on a Daily Parking flat rate charge, in which the fees are collected 7 days a week on 23,621 spaces.
- Scenario B is based on a Daily Parking flat rate charge and Long term parking fees using the current rates (\$7.00 end of line stations and Lindbergh, \$4.00 at the inner stations).

Daily fees are collected 5 days a week on 23,621 spaces and Long-term fees are collected 7 days.

- Scenario C is based on a Daily Parking flat rate charge and Long term parking fees using the current rates (\$7.00 end of line stations and Lindbergh, \$4.00 at the inner stations). Daily fees are collected 7 days a week on 23,621 spaces and Long-term fees are collected 7 days.
- Scenario D, option 1 is based on increasing Long term parking fees from \$7.00 to \$8.00 at the end of line stations and Lindbergh and increasing \$4.00 to \$5.00 at the inner stations, while Scenario D, option 2 is based on increasing Long term parking fees from \$7.00 to \$10.00 at the end of line stations and Lindbergh and increasing \$4.00 to \$6.00 at the inner stations.

2.2b Impacts to Low-Income Persons

According to MARTA's FY2008 Quality of Service survey (QOS), 16.1% of MARTA patrons drove to rail stations to access the system in years 2007 and 2008. The FY08 QOS survey aims at the systemwide level. A detailed analysis of parking usage at the station level is not recommended due to limited sample sizes collected at this level.

An analysis of MARTA station locations indicates that the majority of stations on the West and South rail lines are located in or adjacent to low-income areas.

- A census tract is defined as Low-Income if its median household income is less than \$26,500 (125% or the Federal poverty standard for a family of four).
- A census tract is defined as Transit-Dependent if its percentage of residents without vehicle access exceeds 27.5% (the MARTA service area average)
- Low-income census tracts that have high levels of transit-dependency are less likely to be seriously impacted by an increase in parking fees, as residents would be less likely to have access to a car and would therefore be less likely to park and ride.
- All low-income areas have higher than average levels of transit dependency for the MARTA service area.
- Stations with parking that are surrounded by highly transit-dependent patrons include Vine City, Ashby, and Lakewood-Ft. McPherson.
- Stations that are adjacent to low-income and non-low-income census tracts include H.E. Holmes, West Lake, West End, Oakland City, East Point, and Edgewood/Candler Park.
- No stations with parking on the North and Northeast Lines are located in low-income areas.

A map depicting MARTA rail stations with parking and levels of transit dependency in low-income census tracts is attached in the appendix.

2.2c Impacts on Minority Groups

Data detailing patrons who park and ride from our stations was not available during this analysis. As a result, it is not possible to determine any demographic data for any users of

MARTA's parking resources. Using Census 2000 data, it is possible to determine that the only MARTA rail stations not located in or adjacent to a census tract where a minority threshold has been exceeded are Lindbergh Center, Buckhead, and Airport. It is not possible to determine impacts to these groups given the current data. A map depicting the locations of MARTA stations with parking and all Title-VI sensitive census tracts has been attached.

2.2d Alternatives Available for Low-Income Persons

In most cases, low-income or minority riders who live near stations and would be impacted by an increase in parking fees can access MARTA rail stations using MARTA's bus services. Using bus services to reach MARTA stations would not increase the cost of making a trip, provided that patrons have a Breeze card to transfer between the bus and rail systems for free.

Table 11: Age of Riders who "Access MARTA by Driving to Rail Stations" (FY08 Quality of Service Survey)

AGE	Drive to Station	Systemwide
Under 24	23.2%	29.5%
25-34	22.9%	23.7%
35-44	25.0%	19.0%
45-54	17.7%	17.2%
55-64	9.4%	8.4%
65 or Over	1.9%	2.2%
Total	100.0%	100.0%

Almost half of patrons that park in rail stations are between the ages of 25-44.

Table 12: Ethnicity of Riders who "Access MARTA by Driving to Rail Stations" (FY08 Quality of Service Survey)

ETHNICITY	Drive to Station	Systemwide
Black	60.1%	75.9%
White	26.0%	12.6%
Hispanic	7.1%	7.5%
Asian Pacific	2.7%	2.4%
Native American	1.0%	0.5%
Other	3.2%	1.1%
Total	100.0%	100.0%

Almost two thirds of patrons who access MARTA by driving to stations are Black. Whites represent about a quarter of patrons who park at the stations.

**Table 13: Income of Riders who “Access MARTA by Driving to Rail Stations”
(FY08 Quality of Service Survey)**

INCOME	Drive to Station	Systemwide
Under \$10,000	5.5%	17.9%
\$10,000 - \$19,999	7.1%	24.6%
\$20,000 - \$29,999	20.3%	20.4%
\$30,000 - \$39,999	18.0%	14.9%
\$40,000 - \$49,999	9.6%	7.2%
\$50,000 - \$74,999	18.8%	7.8%
Over \$75,000	20.6%	7.2%
Total	100.0%	100.0%

Only 12% of patrons earning less than \$20,000 access the stations by car.

**Table 14: Gender of Riders who “Access MARTA by Driving to Rail Stations”
(FY08 Quality of Service Survey)**

GENDER	Drive to Station	Systemwide
Male	44.6%	51.3%
Female	55.4%	48.7%
Total	100.0%	100.0%

Fifty-five percent of patrons that drive to stations are female, while the remaining forty-five percent are male.

3.0 Ridership and Demographic Profile

Demographic Profile (age, income, race/ethnicity and individuals with disabilities)

Quality of Service Survey:

In order to conduct the Title VI equity analysis for the fare proposals, staff from the office of Research and Analysis obtained information from MARTA’s 2008 Quality of Service Survey (Used to measure customer satisfaction and dissatisfaction in respective categories) and the Fare Elasticity Model to complete the analysis.

The 2008 Quality of Service Survey is the most current and up to date information on items such as: rider demographics, loyalty, and satisfaction. The 2008 Quality of Service Survey contains information collected from the office of Research and Analysis where “Research surveyors conducted 9,540 face-to-face General Rider interviews on board MARTA’s rail and fixed route bus systems.”³ The survey contains 36 questions used to determine specific information measured in the report such as: frequency of ridership, income, age, and race/ethnicity. Information from the survey was used to complete the tables found in the

³ Quality of Service Survey. 2008. Metropolitan Atlanta Rapid Transit Authority

demographic profile. Questions taken directly from the report were cross tabulated to get more specific demographic data used for the analysis.

In addition to gauging patron's riding experience, the Quality of Service Survey also provides demographic information such as age, annual household income, gender, and race/ethnicity. According to the 2008 Quality of Service Survey, 28.9% of general riders are between the ages of 16-24, while the 25-34 age group accounts for 23.7% of MARTA riders. Patrons who are 65 years and older accounts for only 2.2% of MARTA ridership (See chart 1). The annual household incomes of general riders vary, with 24.6% of the population earning between \$10,000 and \$19,999. About 20.4% of general riders make between \$20,000 and \$29,999. Only 7.2% of MARTA's general riders make over \$75,000. The Quality of Service Survey also provides information about the gender of its riders; over fifty percent (51.3%) are male and 48.7% are female. In regards to race/ethnicity, over seventy five percent (75.9%) of MARTA general riders are Black, 12.6% White, 7.5% Hispanic, 2.4% Asian Pacific, less than one percent (0.5%) Native American, and 1.1% belongs to other groups.

Tables 1 through 10 present data collected from the general rider portion of the Quality of Service Survey. Table 1 is a chart of MARTA riders by age. Table 2 presents the rider's income and Table 4 depict riders' race and ethnicities. Table 5 displays a cross-tabulation of fare payment and ethnicity.

In general, Black and Hispanic riders have more of an inclination to use short-term passes compared to White and Asian riders. Moreover, Black and Hispanic riders have lower incomes than White and Asian riders (Table 5). The cross-tabulation of fare payment by income shows that higher income groups prefer to purchase monthly passes while lower incomes groups prefer short-term passes despite the fact that monthly passes represent a slight cost saving over short-term passes. (The price of a 7-day pass is \$13.00 and 30-day pass is \$52.50). Demographic information of Mobility riders can be found in the Appendix.

The information from the Quality of Service Survey supports the notion that some minority groups could be affected by the proposed fare change. According to the Federal Transit Administration, low income is defined as, "a person whose median household income is at or below the Department of Health and Human Services' poverty guidelines."⁴ MARTA's Office of Planning has referenced poverty as 125% of the federal definition of poverty for a family of four. The poverty level for a family of four is \$21,200 and if you apply the 125% measure as noted above, it equates to a lifetime threshold of \$26,500. However because information from the Quality of Service survey is collected in \$10,000 increments, low income would be referenced mostly as individuals who make less than \$29,999. MARTA's Quality of Service Survey does not have information to pinpoint the threshold of \$26,500. Short-term passes are purchased by low-income riders. (Who make less than \$29,999 a year).

Riders who purchase monthly passes more frequently are those whose incomes exceed \$40,000. Under the new fare proposals riders who purchase these monthly passes could see a rise

⁴ Federal Transit Administration. (May 13, 2007). Title VI and Title VI-Dependent Guidelines for FTA Recipients: C 4702.1A. Retrieved December 24, 2008 from the Federal Transit Administration Website: [http://www.fta.dot.gov/documents/Title_VI_Circular_2007-04-04_\(FINAL\)_\(3\).doc](http://www.fta.dot.gov/documents/Title_VI_Circular_2007-04-04_(FINAL)_(3).doc)

of \$7.50 to \$15.50 in their fare while short-term passes could see a rise of \$2.00 to \$4.00. Information recorded in Table 4 clearly shows a system average of 41.7% of riders purchase short-term passes (7 day weekly passes), while only 25.8% of riders purchase monthly passes. Almost half of riders purchase short-term passes and any change in fare would affect almost half of MARTA ridership. Any change in fare for the short-term pass may have an adverse impact on some of the protected population.

The minority groups that would be most affected by the proposed fare change scenarios include the Black and Hispanic populations. By looking at the race/ethnicity of general riders, it was easy to pinpoint the minority groups that would be most affected by the fare changes. Almost fifty percent (48.8%) of Hispanic riders and 45.4% of Black riders purchase short-term passes, compared to the 20.7% purchase by White riders. Thus any change in fare for short-term passes would impact Black and Hispanic riders since both populations account for the highest totals of short term passes purchased by MARTA riders. (See Table 4)

Another group that would be affected by the proposed fare change is Mobility riders (individuals with disabilities). An overwhelming 89.7% of Mobility patrons earn less than \$30,000 per year. The Mobility demographic profile is depicted in Charts 5, 6, 7 and 8.

3.1 Chart 1: Age of General Riders

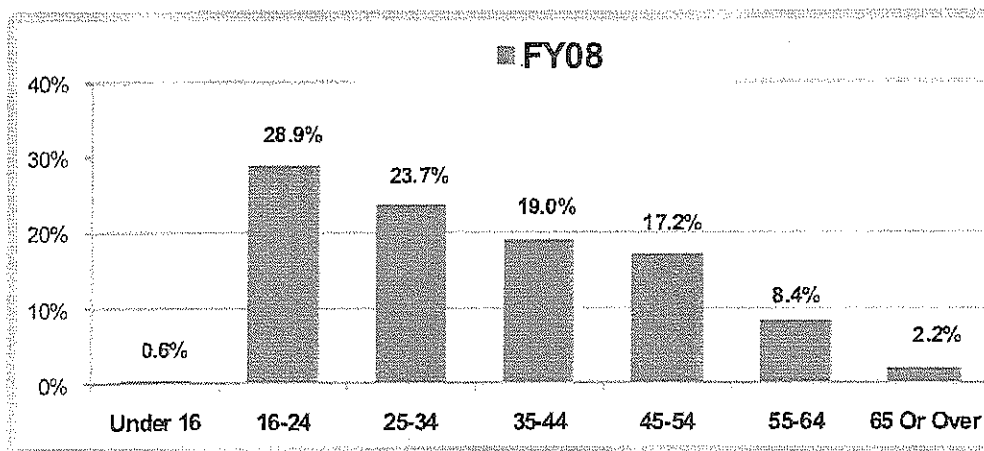
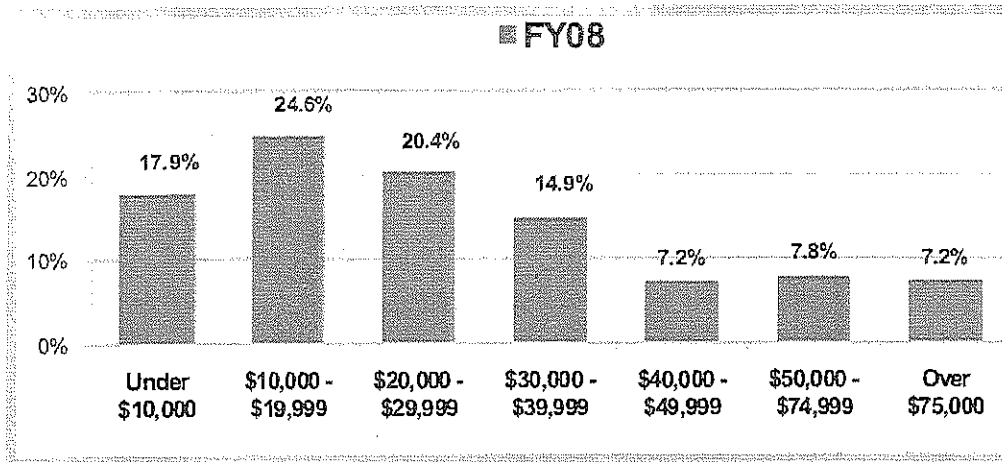


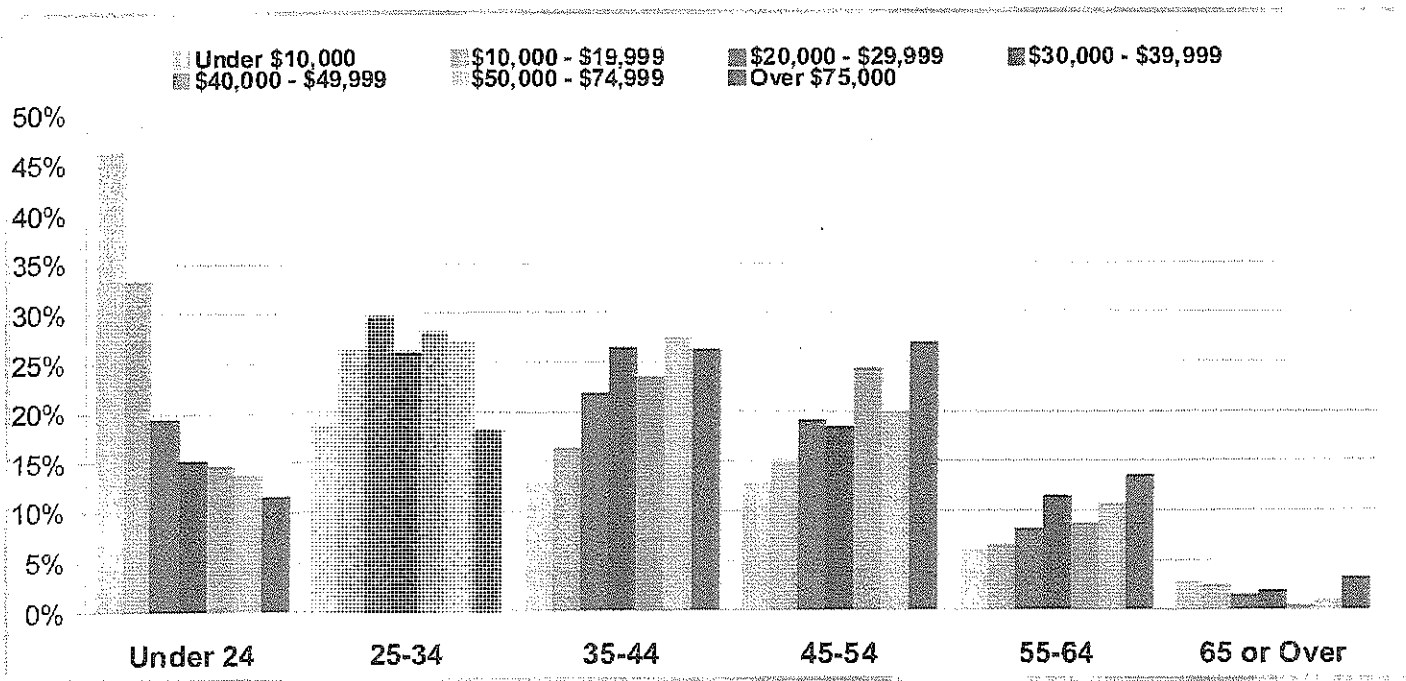
Chart 1 represents data taken from the 2008 Quality of Service Survey - showing MARTA ridership broken down by age. It shows that over half of MARTA riders are under the age of 34, while 2.2% of riders are over 65 years old.

3.2 Chart 2: Income of General Riders



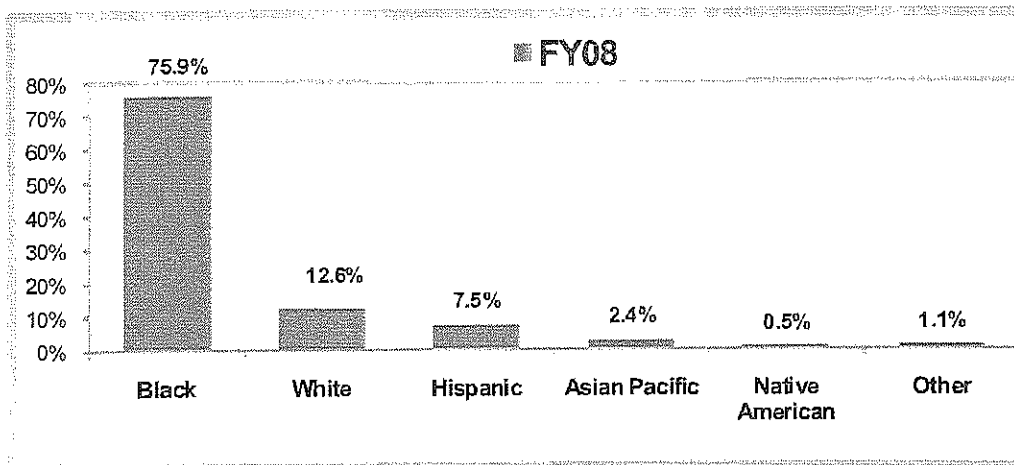
The chart above shows MARTA ridership broken down by income. Over half of MARTA riders (62.9%) have an income below \$29,999 while 37.1% of riders make above \$30,000.

3.3 Chart 3: Age by Income for General Riders



The chart above provides a representation of MARTA ridership cross-tabulated using age and income information from the 2008 Quality of Service Survey. The graph displays age and income information for individuals all age groups. The graph shows that almost half of patrons earning below \$29,999 are less than 24 years of age.

3.4 Chart 4: Race/Ethnicity of General Riders



The chart above provides a representation of MARTA ridership broken down by race/ethnicity from the 2008 Quality of Service Survey. This graph shows that Blacks account for three quarters of MARTA ridership (75.9%).

3.5 Table 15: Fare Payment by Race & Ethnicity

	Full Fare Cash & Stored Value	Full Fare Token & Stored Trips	Short-Term Passes	Monthly Passes	Half-Fare Breeze	Mobility Breeze	Ethnicity Composition
Black	14.2%	11.7%	45.4%	23.5%	3.2%	2.1%	75.9%
White	19.1%	23.0%	20.7%	33.9%	1.4%	2.0%	12.6%
Hispanic	16.8%	13.7%	48.8%	19.6%	0.9%	0.2%	7.5%
Asian Pacific	9.2%	8.8%	18.3%	61.8%	0.8%	1.1%	2.4%
Native American	7.4%	16.7%	40.7%	27.8%	3.7%	3.7%	0.5%
Other	19.0%	24.6%	28.6%	27.0%	0.0%	0.8%	1.1%
System Average	14.9%	13.4%	41.7%	25.5%	2.7%	1.9%	100.0%

A cross-tabulation of race/ethnicity and fare payment is shown in Table 15. The cross-tabulation reveals that the prominent form of fare payment used by the Black, Hispanic and Native American populations are the short-term passes. Asian Pacific and other ethnic groups are less significant because they make up less than 2% of the patrons. Changes to the value of the Short-Term pass may therefore have an effect on the afore-mentioned minority groups.

3.6 Table 16: Income by Race & Ethnicity

	Less Than \$29,999	\$30,000 and Above
Black	68.4%	31.6%
White	29.6%	70.4%
Hispanic	73.8%	26.2%
Asian Pacific	42.5%	57.5%
Native American	54.9%	45.1%
Other	61.6%	38.4%
System Average	62.8%	37.2%

Blacks make up over three quarters of MARTA's population. A large majority (68.4%) of Blacks earn less than \$29,999 annually. The same is also true for MARTA's Hispanic population (73.8%). The system average shows that over 60% of MARTA patrons earn less than \$29,999 per annum. MARTA's Office of Planning has referenced poverty as "125% of the federal definition of poverty for a family of four". If you apply the 125% measure as noted above, it equates to a lifetime threshold of \$26,500. Therefore, MARTA's poverty threshold for purposes of this analysis is \$26,500. Income information for the Quality of Service Survey is collected in \$10,000 increments thus; low income would be referenced mostly as individuals who make less than \$29,999. MARTA's Quality of Service Survey does not have information to pinpoint the threshold of \$26,500.

3.7 Table 17: Fare Payment by Age

	Full Fare Cash & Stored Value	Full Fare Token & Stored Trips	Short- Term Passes	Monthly Passes	Half- Fare Breeze	Mobility Breeze
Under 16	21.1%	14.1%	43.7%	19.7%	1.4%	0.0%
16-24	15.9%	14.3%	40.2%	28.0%	0.2%	1.4%
25-34	14.2%	15.8%	44.5%	23.6%	0.5%	1.4%
35-44	15.9%	12.9%	43.8%	23.8%	1.6%	1.9%
45-54	15.1%	10.1%	42.1%	26.0%	3.6%	3.0%
55-64	9.2%	13.0%	36.9%	29.4%	9.0%	2.4%
65 or Over	12.0%	13.2%	22.2%	12.8%	35.9%	3.8%
System Average	14.7%	13.5%	41.6%	25.6%	2.7%	1.9%

Patrons below 24 years of age tend to use more short-term passes (7 day passes). The same is also true of the 25 to 54 age group. However, patrons 65 years and above tend to use more of the Mobility Breeze.

3.8 Table 18: Fare Payment by Income

	Full Fare Cash & Stored Value	Full Fare Token & Stored Trips	Short-Term Passes	Monthly Passes	Half-Fare Breeze	Mobility Breeze
Under \$10,000	16.0%	12.7%	42.8%	22.2%	4.5%	1.8%
\$10,000 - \$19,999	12.3%	11.8%	47.9%	22.4%	3.8%	1.7%
\$20,000 - \$29,999	13.0%	10.4%	49.0%	23.9%	1.9%	1.8%
\$30,000 - \$39,999	13.2%	11.7%	46.7%	24.8%	1.3%	2.3%
\$40,000 - \$49,999	18.5%	14.9%	31.7%	32.3%	0.9%	1.6%
\$50,000 - \$74,999	14.4%	22.1%	21.6%	38.1%	2.0%	1.9%
Over \$75,000	21.8%	22.8%	19.2%	34.2%	1.4%	0.6%
System Average	14.5%	13.5%	41.7%	25.8%	2.7%	1.7%

Table 18 shows that low-income riders (riders who earn less than \$29,999 annually) tend to use more short-term passes and individuals who earn \$40,000 and more tend to purchase more monthly passes. The table also illustrates that riders in the salary bracket of \$10,000 to \$40,000 tend to use short-term pass more than any form of payment. The highest percentage of riders using the half-fare breeze is also low-income patrons earning less than \$29,999 per year.

3.9 Table 19: Fare Payment by Transit Dependency

	Full Fare Cash & Stored Value	Full Fare Token & Stored Trips	Short-Term Passes	Monthly Passes	Half-Fare Breeze	Mobility Breeze	System-wide Dependency Composition
Transit Dependent	12.9%	11.7%	48.6%	22.7%	3.4%	0.7%	46.1%
Life Style Riders	17.2%	16.1%	35.8%	28.6%	2.1%	0.2%	53.9%
System Average	15.2%	14.1%	41.7%	25.9%	2.7%	0.4%	100.0%

Transit dependent riders consist of individuals who have no access to a vehicle or other means outside of MARTA to take a trip. Life style riders are riders who have other alternatives to make their trip. Slightly more life style riders (53.9%) ride the system than transit dependent riders (46.1%). The major form of payment for both groups is the short-term pass. However, the Transit dependent customers use the short-term pass more than the choice riders.

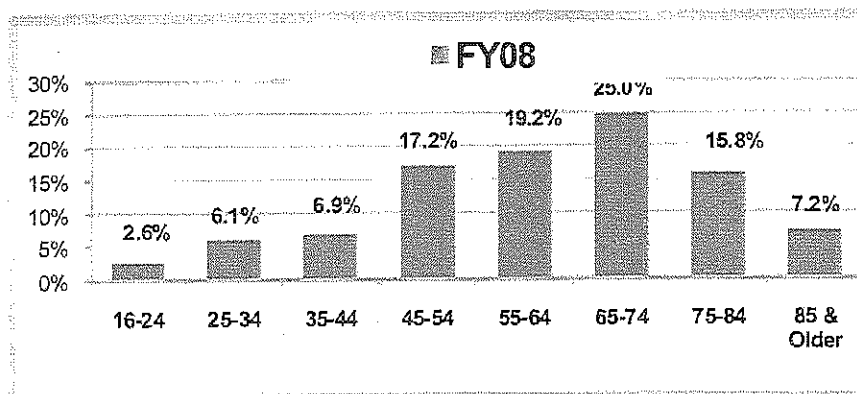
3.10 Table 20: Demographic groups that would mostly be affected by change in fare media

Full Fare Cash & Stored Value	<ul style="list-style-type: none"> • Hispanic • Individuals under the age of 16
Short-Term Passes	<ul style="list-style-type: none"> • Transit Dependent (less than \$30,000 annual income) • Hispanic • Black • Native American
Half-Fare Breeze	<ul style="list-style-type: none"> • Transit Dependent (less than \$30,000 annual income) • Black • Individuals over the age 65 (35.9%-see Table 6)
Mobility Breeze	<ul style="list-style-type: none"> • Individuals over the age of 65

Table 20 provides a concentrated breakdown of the demographic groups that would mostly be affected by any change in the listed fare categories.

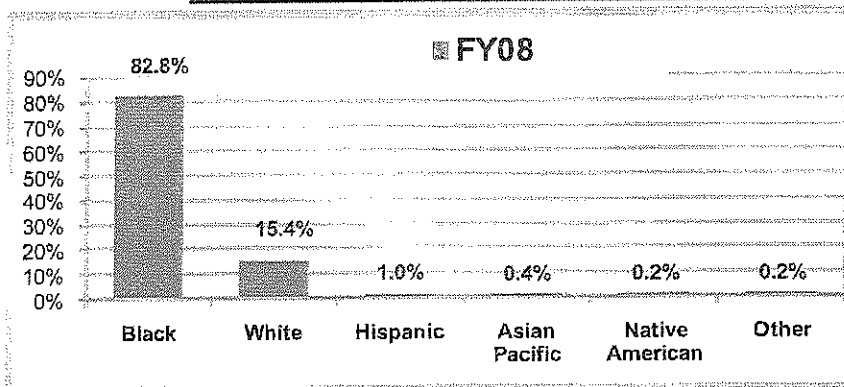
3.11 FY08 (Paratransit) Mobility Demographic Profiles

Chart 5 Age of Mobility Riders



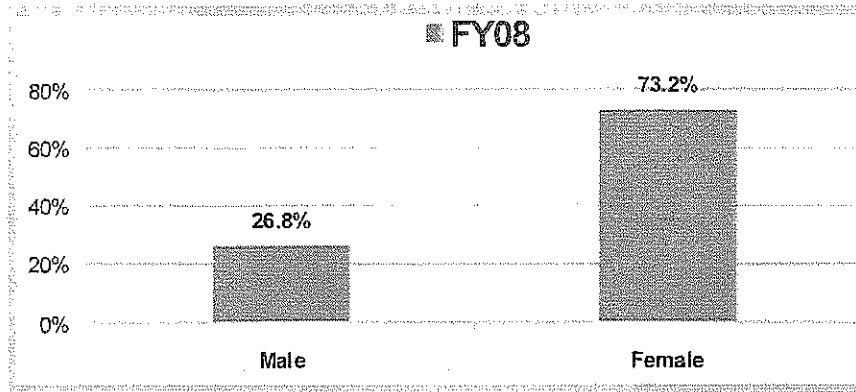
Almost half of Paratransit riders (48%) are over the age of 65.

Chart 6 Race/Ethnicity of Mobility Riders



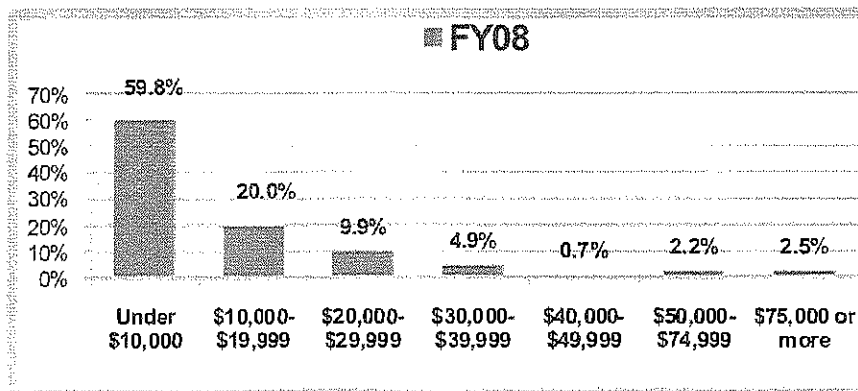
Over three-quarters (82.8%) of Paratransit riders are black.

Chart 7 Gender of Mobility Riders



Almost three-quarters (73.2%) of Paratransit riders are female

Chart 8 Income of Mobility Riders



Almost ninety percent (89.7%) of MARTA's Paratransit riders earn below \$29,999.

4.0 Assessment of Title VI Issues

In carrying out an effective and efficient assessment of proposed fare changes and proposed parking fees, the Metropolitan Atlanta Rapid Transit Authority (MARTA) has used the guidance provided in Circular 4702.1A, as issued by the Federal Transit Administration on April 13, 2007. This circular provides recipients of FTA financial assistance with guidance and instructions necessary to carry out the U.S. Department of Transportation's Title VI regulations, 49 CFR part 21. In addition, it requires the integration of considerations expressed in DOT's Order on Environmental Justice and Policy Guidance Concerning Recipients' Responsibilities to Limited English Proficient ("LEP") Persons.

In this connection, we actively sought the answers to several definitive questions. The questions are as follows:

- 1) **What fare changes does MARTA propose? Please describe the nature of the change, the bases or rationale for the change, the modes of service impacted, and the communities affected by the change.**

Fare changes can include, but are not limited to, across-the-board fare increases or decreases on all modes of transit provided by an agency, or fare changes provided on some of the agency's transit modes or made by some of the agency's fare payment media or fare payment types.

- 2) **What are the impacts of the service changes on minority and/or low income communities?**

Fare changes. For proposed changes that would increase or decrease fares on certain transit modes or by fare payment type or payment media, the recipient should analyze any available information generated from ridership surveys indicating whether minority and low-income riders are more likely to use the mode of service, payment type, or payment media that would be subject to the fare change.

- 3) **What are the transit alternatives available for riders who would be impacted by proposed service changes?**

Fare changes. For proposed fare changes, the recipient should analyze what, if any, alternative transit modes, fare payment types, or fare payment media are available for people affected by the fare change. This analysis should compare the fares paid under the change with fares that would be paid through available alternatives.

- 4) **What, if any measures will MARTA take to avoid, minimize, or mitigate any adverse effects of the fare change on minority populations and/or low-income populations? What, if any enhancements or offsetting benefits will the Authority implement in conjunction with the fare change?**

5) Would the proposed fare change have a disproportionately high and adverse effect on minority populations and/or low-income populations?

A disproportionately high and adverse effect is one that (1) is predominately borne by a minority population and/or a low-income population, or (2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

In making determinations regarding disproportionately high and adverse effects on minority and low-income populations, mitigation and enhancements measures that will be taken and all offsetting benefits to the affected minority and low-income populations may be taken into account.

Recipients can implement a fare increase that would have disproportionately high and adverse effects provided that the recipient demonstrates that the action meets a substantial need that is in the public interest and that other alternatives would have more severe adverse effects than the preferred alternative.

- 6) What method is utilized to determine the type of increase (flat or percentage) the amount of increase and the fare instruments affected by the change?**
- 7) What modes of service were or will be affected by fare increase?**
- 8) What steps does MARTA plan to take to determine the impacts of fare increases on each major protected group in the service area? What impacts, if any were identified? Were alternatives to avoid or substantially limit the impacts considered?**

In general, an agency should have a public participation process that offers early and continuous opportunities for the public to be involved in the identification of social, economic, and environmental impacts of proposed transportation decisions. Efforts to involve minority and low-income people in public involvement activities can include both comprehensive measures, such as placing public notices at all stations and in all vehicles, and measures targeted to overcome linguistic, institutional, cultural, economic, historical, or other barriers that may prevent minority and low-income populations from effectively participating in a recipient's decision-making.

- 9) Does MARTA believe that it is necessary to disseminate information on the fare increases that is accessible to Limited English Proficient persons? If so, what steps to provide information in languages other than English does the Authority propose?**

Title VI and its implementing regulations require that FTA recipients take responsible steps to ensure meaningful access to the benefits, services, information, and other important portions of their programs and activities for individuals who are Limited English Proficient (LEP). What steps a recipient decides to take should depend on the number and proportion of LEP persons served by the recipient, the frequency with which LEP individuals come into contact with the program, activity, or service, the nature and importance of the program,

activity or service, and the resources available to the recipient and costs of providing language assistance

4.1 Assessment Of Proposed Fare Changes

Utilizing Section 3.0 above as a guide, three proposed fare change scenarios (i.e., A, B and C) were reviewed with in a well defined set of parameters.

- *Scenario A* would result in a 4.54% decrease in ridership while providing a 9.73% increase in revenue.

- General riders would see an impact in fare in the categories of both race/ethnicity and income. This is the case because 48.8% of Hispanic riders surveyed and 45.4% of Black riders surveyed collectively use the short-term passes as their methods of payment. Blacks make up 75.9% and Hispanics make up 7.5% of our riders. They are the two largest groups that make up our ridership base. In addition, 68.4% of the Blacks and 73.8% of the Hispanics surveyed, who make up a significant portion of the MARTA ridership population, earn less than \$30,000 annually.

Not ignoring others defined by FTA as minorities, 64.8% of Native American riders use the short-term passes as their methods of payment. The Asian Pacific population is the only minority group not affected as much by Scenario A due to the fact that they tend to purchase more monthly passes (61.8%) as opposed to short-term passes (18.3%).

Individuals under age 24 would be affected by Scenario A because they too tend to use the short-term passes as their principle methods of payment. They also account for the largest percentage of those with salaries under \$29,999. Given the above, Blacks, Hispanics, Native American's and low income riders, (all four populations) would see a 14.28% to 15.38% change in fare.

- Over 56.4% of MARTA's half-fare population is over the age of 65 and 59.1% of half-fare riders have annual incomes less than \$10,000 per year. Thus, any fare change would adversely affect both low income and elderly half-fare riders. Over seventy five percent (75.1%) of MARTA's half-fare riders are Black; this population would also be impacted by fare changes. As a result, the 17.65% change in this fare would have an adverse impact.
- Another group that will be affected by Fare Scenario A is Mobility riders. Almost half (48%) of mobility riders are over the age of 65. The 14.29% change in Paratransit fare would adversely affect almost all of the mobility rider population. An overwhelming 89.7% of mobility riders have annual incomes of less than \$29,999 and over eighty percent (82.8%) of mobility riders are Black.

- *Scenario B* would result in a 4.87% decrease in ridership while providing an 11.38% increase in revenue.

- Under scenario “B” Blacks, Hispanics, Native Americans, individuals under age 24, and low income riders would encounter a negative effect from the fare change. They would see a 14.28% to 21.90% change in fare. The statistical percentage of MARTA’s riders represented by these groups would remain the same.
- Half-fare riders would be impacted the same in each scenario. The 17.65% change in the fare under Scenario B would have an adverse impact because over 56.4% of MARTA’s half-fare population is over the age of 65 and 59.1% of half-fare riders have annual incomes that are less than \$10,000 per year. Over seventy five percent (75.1%) of MARTA’s half-fare riders are Black.
- Mobility riders would be impacted the same in each scenario. The 14.29% change in Paratransit fare would adversely affect almost all of the mobility rider population. An overwhelming 89.7% of mobility riders have annual incomes of less than \$29,999 and over eighty percent (82.8%) of mobility riders are Black.
- *Scenario C* would result in the highest possible decrease in ridership (7.31%) and a 15.76% increase in revenue.
 - This scenario may have the greatest impact on minority riders. Under scenario “C”, Blacks, Hispanics, Native Americans, individuals under age 24, and low income riders would encounter notable impacts from the fare change. They would see a 14.28% to 30.8% change in fare. (Current short-term fare is \$13.00 and the proposed scenario “C” fare is \$17.00)
 - Half-fare riders would be impacted the same in each scenario. The 17.65% change in the fare under Scenario C would have an adverse impact because Over 56.4% of MARTA’s half-fare population is over the age of 65 and 59.1% of half-fare riders have annual incomes that are less than \$10,000 per year. Over seventy five percent (75.1%) of MARTA’s half-fare riders are Black (Refer to scenario “A” for further percentage breakdowns.)
 - Mobility riders would be impacted the same in each scenario. The 14.29% change in Paratransit fare would adversely affect almost all of the mobility rider population. An overwhelming 89.7% of mobility riders have annual incomes of less than \$29,999 and over eighty percent (82.8%) of mobility riders are Black.

Plans to Mitigate Impact:

Notwithstanding the potentially adverse affect that could result from either Scenario A, Scenario B or Scenario C, MARTA will mitigate the impacts incurred by minority and low income persons through the multiple approaches mentioned below:

1. Continuing the discounting of short term seven day passes and long term monthly passes
2. Continuing to accept full fare cash on the buses as a convenience for our customers
3. While the loading of Breeze cards on the buses at some point in the future will be discontinued, MARTA is exploring an expanded network of retail outlets disbursed throughout the community that can offer MARTA Breeze media through Point of Sale and/or pre-value loaded cards.
4. The Authority will also utilize its recently received New Freedom Travel Training demonstration grant in this regard. The intent of this grant is to develop a program that acquaints all aspects of the Authority's ridership base with how to ride the system and make the best economical decisions about choices of fare media
5. MARTA is developing a web based system that will allow patrons to electronically load their Breeze card. This will be of great benefit for the Authority's ridership as a whole and Mobility Service (i.e., Para-Transit) patrons more specifically.
6. Utilize a multi-year phase in approach for any fare increase implemented. This would apply to all corresponding Multi-Ride Instrument increases; increase Time-Based Pass prices and multiples gradually (e.g., increase monthly pass multiple to 32 and 34 in 2011 and 2012 respectively). No change in University, K-12, and Homeless programs.
7. Other mitigation measures being explored include, but are not limited to, the following:
 - Placement of excess Breeze Ticket Vending Machines presently located in certain stations in strategic and high track retail locations that are easily accessible to majority of our patrons.
 - Acquisition of small counter top machines that will be placed in retail locations that previously sold MARTA magnetic strip cards (169 locations) so that customers can conveniently load their cards as they carry out their normal daily activities
 - Facilitating the continuance of TMA(s) and the provision of related discounts that encourage even more employers to participate in the program

To supplement these mitigation measures, MARTA has developed and will be instituting a comprehensive communication program that ensures the acquisition of comments from minority groups, low income persons, Seniors, Individuals with Disabilities and MARTA's ridership base as a whole before any fare increase decisions are ultimate made and finalized. The comprehensive communication plan readily meets Title VI and Environmental Justice requirements because it goes beyond what prevailing regulations require. It encompasses

Community Meetings; Meetings with Local, State and Federal Stakeholders; News Releases; Public Hearings; Meetings with businesses and professional associations; and the printing of fact sheets/notices/announcements in different languages newspapers and flyers, as well as, alternative formats.

Because the Authority envisions that the Limited English Proficiency communities (i.e., Hispanic, Chinese, Korean, Vietnamese, etc.) may require special outreach, MARTA has contacted representatives from Consulates, LEP trade association and community groups to set up dates and times for small group meetings. We will also provide and/or acquire translators to ensure that information is properly conveyed to the respective LEP groups in question.

4.2 Assessment Of Proposed Parking Changes

As part of MARTA’s study to determine potential changes to MARTA’s fare structure, several potential changes to MARTA’s parking fees have been proposed. MARTA operates thirty eight (38) rail stations. Of this total, twenty eight (28) stations have parking lots for daily parking. Nine (9) of the 28 stations have long term parking available. Those stations are:

North Springs	\$7.00
Sandy Springs	\$4.00
Dunwoody	\$4.00
Doraville	\$7.00
Brookhaven	\$4.00
Lenox	\$4.00
Lindbergh	\$7.00
College Park	\$7.00
Kensington	\$4.00

The remaining stations have parking lots that are unattended and offer parking at no charge. These locations include East Point, College Park, Lakewood, Oakland City, West End, Midtown, Art Center, Chamblee, H.E. Holmes, West Lake, Bankhead, Ashby, Vine City, King Memorial, Inman Park, Edgewood, East Lake, Avondale, Kensington and Indian Creek.

The Authority is considering four proposed scenarios that would yield revenue for those station parking lots that are presently unattended and offer parking at no charge. The three proposed parking fee scenarios are:

- Scenario A is based on a Daily Parking flat rate charge, in which the fees are collected 7 days a week on 23,621 spaces.
- Scenario B is based on a Daily Parking flat rate charge and Long term parking fees using the current rates (\$7.00 end of line stations and Lindbergh, \$4.00 at the inner stations). Daily fees are collected 5 days a week on 23,621 spaces and Long-term fees are collected 7 days.
- Scenario C is based on a Daily Parking flat rate charge and Long term parking fees using the current rates (\$7.00 end of line stations and Lindbergh, \$4.00 at the inner

stations). Daily fees are collected 7 days a week on 23,621 spaces and Long-term fees are collected 7 days.

- Scenario D, option 1 is based on increasing Long term parking fees from \$7.00 to \$8.00 at the end of line stations and Lindbergh and increasing \$4.00 to \$5.00 at the inner stations, while Scenario D, option 2 is based on increasing Long term parking fees from \$7.00 to \$10.00 at the end of line stations and Lindbergh and increasing \$4.00 to \$6.00 at the inner stations.

In assessing each proposed parking fee scenario, MARTA used data derived from its FY2008 Quality of Service survey. This survey revealed that 16.1% of MARTA patrons drove to a station to access the system in 2007 and 2008. To better assist us in our analysis, we defined some measures that were derived from the Federal Transit Administration's Title VI Guidance and the Authority's service standards. From FTA's Title VI guidance, we used the definition for low income, which is "A census tract is defined as Low-Income if its median household income is less than \$26,500 (125% of the Federal poverty standard for a family of four)." From the MARTA service standards we acquired the definition of transit dependent, which is "A census tract is defined as Transit-Dependent if its percentage of residents without vehicle access exceeds 27.5% (the MARTA service area average)"

Using these two parameters as a guide, we assessed the areas in which presently configured free parking is located. Our analysis of MARTA station locations indicates that the majority of stations on the West and South rail lines are located in or adjacent to low-income areas. Stations with parking that are surrounded by highly transit-dependent patrons include Vine City, Ashby, and Lakewood-Ft. McPherson. Stations that are adjacent to low income and non-low income census tracts include H.E. Holmes, West Lake, West End, Oakland City, East Point and Edgewood /Candler Park.

Given the above, Scenarios A, B, C and D will not have a significant Title VI or Environmental Justice impact on the Vine City, Ashby and Lakewood- Ft. McPherson Station parking areas because they are located in low income census tracts that have a high level of transit dependency. This is important in that transit dependency carries with it a lack of access to a car.

Scenario A, Scenario B, C and D would have an impact on non-low income census tracts adjacent to H. E. Holmes, West Lake, West End, Oakland City, East Point and Edgewood/Candler Park. Although the Authority does not have very definitive data on patrons parking at these stations, our ridership base is 75.9% Blacks and 7.5% Hispanics. As a result, we have surmised that with the high number of minorities that reside in these respective areas Scenarios A, Scenario B, Scenario C and Scenario D will have a noticeable impact on minority group persons.

None of our stations with parking on the North and Northeast Lines are located in low-income areas. In addition, an examination of a map depicting levels of transit dependency in low-income census tracts clearly shows that the North and Northeast Lines would not have any Title VI or Environmental Justice Impacts on census tracts in the afore-to-mentioned categories surrounding stations located in these areas.

In most cases, low-income or minority riders who live near stations and would be impacted by an increase in parking fees can alternatively access MARTA rail stations using MARTA's bus services. Using bus services to reach MARTA stations would not increase the cost of making a trip, provided that patrons have a Breeze card to transfer between the bus and rail systems for free.

4.3 Assessment Of The Communication Plan

The comprehensive communication plan that MARTA intends to use readily meets Title VI and Environmental Justice requirements because it goes beyond what prevailing regulations require. It encompasses Community Meetings; Meetings with Local, State and Federal Stakeholders; News Releases; Public Hearings; Meetings with businesses and professional associations; and the printing of fact sheets/notices/announcements in different languages newspapers and flyers, as well as, alternative formats. Since the Authority wants to share information on its proposed fare increase to the maximum number of people possible, it will open itself to addressing groups and organizations at the grass roots level that extend an invitation. In addition, MARTA plans to have a multiple of meetings with all of the above noted entities to keep people properly apprised at different stages of the process.

Because the Authority envisions that the Limited English Proficiency communities (i.e., Hispanic, Chinese, Korean, Vietnamese, etc.) may require special outreach, MARTA has contacted representatives from Consulates, LEP trade association and community groups to set up dates and times for small group meetings. We will also provide and/or acquire translators to ensure that information is properly conveyed to the respective LEP group members in question.

4.4 Regulatory Requirements

FTA Circular 4702.1A, effective May 13, 2007, requires that MARTA evaluate significant system-wide service and fare changes and proposed improvements at the planning and programming stages to determine whether those changes have a discriminatory impact. In MARTA's upcoming Title VI Submittal, MARTA must provide a copy of the equity evaluation of any significant service changes and fare changes implemented since the last submission. For further definitions, see the appendix.

Appendices

Appendix A

Title VI Definitions

- a. Adverse Effect means the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness, or death; air, noise, and water pollution and soil contamination; destruction or disruption of man-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or non-profit organizations; increased traffic congestion, isolation, exclusion or separation of individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of benefits of DOT programs, policies, or activities.
- a. Discrimination refers to any act or inaction, whether intentional or unintentional, in any program or activity of a Federal aid recipient, sub-recipient, or contractor that results in disparate treatment, disparate impact, or perpetuating the effects of prior discrimination based on race, color, or national origin.
- b. Disparate Impact refers to facially neutral policies or practices that have the effect of disproportionately excluding or adversely affecting members of a group protected under Title VI, and the recipient's policy or practice lacks a substantial legitimate justification.
- c. Disparate Treatment refers to actions that result in circumstances where similarly situated persons are treated differently (i.e., less favorably) than others because of their race, color, or national origin.
- d. Disproportionately High and Adverse Effect on Minority and Low-income Populations means an adverse effect that:
 - (1) is predominately borne by a minority population and/or a low-income population, or
 - (2) Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.
- e. Environmental Justice Activity means an action taken by DOT, FTA, or a recipient or sub-recipient of FTA funding to identify and address adverse and disproportionate effects of its policies, programs, or activities on minority and/or low-income populations, consistent with Executive Order 12898 and the DOT Order 5610.2 on Environmental Justice.
- f. Limited English Proficient (LEP) Persons are persons for whom English is not their primary language and who have a limited ability to speak, understand, read, or write

English. It includes people who reported to the U.S. Census that they do not speak English well or do not speak English at all.

- g. Low-Income means a person whose median household income is at or below the Department of Health and Human Services' poverty guidelines.
- h. Low-Income Population means any readily identifiable groups of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy, or activity.

Minority Population means any readily identifiable group of minority persons who live in geographic proximity and, if circumstances warrant, geographically dispersed/transient populations (such as migrant workers or Native Americans) who will be similarly affected by a proposed DOT program, policy, or activity

- i. Noncompliance refers to an FTA determination that the recipient or sub-recipient has engaged in activities that have had the purpose or effect of denying persons the benefits of, excluding from participation in, or subjecting persons to discrimination in the recipient's program or activity.
- j. Predominantly Minority Area means a geographic area, such as a neighborhood, Census tract, or traffic analysis zone, where the proportion of minority persons residing in that area exceeds the average proportion of minority persons in the recipient's service area.
- k. Predominantly Low-Income Area means a geographic area, such as a neighborhood, Census tract, or traffic analysis zone, where the proportion of low-income persons residing in that area exceeds the average proportion of low-income persons in the recipient's service area.
- l. Service Standard/Policy means an established policy or service performance measure used by a transit provider or other recipient, or sub-recipient as a means to plan or distribute services and benefits within its service area.

A.2 Fare Elasticity And Patronage Forecasting Models

5.2a Fare Elasticity Model Technical Description

"The basic approach used by this model is to first estimate whether riders' preferences for fare media will change as a result of changes in the price of fare media, and second to then estimate for the riders using each fare media whether there will be a change in the frequency of use (including riders ceasing to use or starting to use MARTA) by the riders using that fare media. This is the best approach currently in use by the transit industry."

"The Fare Elasticity Model estimates the change in riders' preferences for fare media (i.e., the distribution of riders between fare media) through the use of "K-Factors." K-Factors are a price/rider ratio factor that represents the desire of riders to use one fare media instead of

another, even if the prices per trip are identical. This method of estimating the impact of a fare change on riders' choices of fare media has been in use in transit for over 20 years, with the earliest documentation a paper in April, 1984, by Douglas Wentworth, Tri-Met's (Portland, OR) Director of Management Information & Analysis. This approach, while fairly simplistic, has the significant advantage that it is based directly on riders' current choices of fare media and the current prices of those fare media."

"The revised model now uses a mid-point elasticity formula and uses elasticity for fare decreases equal to 2/3rd of the elasticity for fare increases. The 2/3rds factor is an estimate based on studies of several transit agencies which have increased and decreased their fares and on other published studies. The model now also considers the fares previously paid by all riders who currently prefer a fare media when calculated the elasticity impact. Thus, if riders switch from cash to monthly pass, the "previous fare" used in the elasticity calculation for monthly pass riders is a weighted average of the previous fares actually paid by cash and monthly pass riders."

PLEASE NOTE: The formula used for MARTA's mid-point elasticity model is:

$$e = \frac{R_2 - R_1}{P_2 - P_1} \cdot \frac{P_1 + P_2}{R_1 + R_2}$$

where e = fare elasticity
R = passenger revenue (1 = before change; 2 = after change)
P = passengers (1 = before change; 2 = after change)

"A new systemwide elasticity was also calculated for MARTA. In calculated fare elasticity, it is important to minimize the impacts of other factors. These other factors include the month of the year (impacting vacations, average weather, and school ridership), employment, unemployment, and the amount of transit service provided. To address this, we analyzed the difference in ridership for each month in 2001 compared with the corresponding month in 2000. By making a month to month comparison, we eliminate the impact of monthly variation on the calculation. We also analyzed the changes in employment, unemployment and service provided. This analysis showed that in August of 2001, there was a substantial increase in regional unemployment, thus these months could not be included in the calculation without an adjustment. January and April of 2001 also needed adjustment due to significant increases in the amount of service provided (over 3%). After adjusting for these factors, systemwide elasticity was estimated as -0.325. This is reasonable in that many other large urban transit systems have been estimated to have elasticity in the range from -0.30 to -0.40."

"The first step in the revised model separates employer/school pass riders from the rest of the riders. The separation assumes that riders using a monthly employer or school pass travels as frequently as a rider who purchases a pass himself. The percent of monthly pass trips taken by employer/school pass users is therefore equal to the percent of all monthly passes which are employer/school passes."

"The second step in the revised model estimates whether there will be a change in ratio of pass users who use monthly compared with weekly passes, or a change in the ratio of cash to token users. This is calculated using the original "K-factor" approach that had been developed and validated by Tri-Met."

“The third step estimates whether there will be a change in the split of riders using passes compared with single ride fares (cash and tokens). This step creates a weighted average monthly cost of passes and divides it by the weighted average single ride fare price to calculate the break-even number. The break-even number is the number of trips that a rider must take in order for purchasing a pass to result in saving money. The break-even numbers using current prices and proposed new prices are then compared with data from MARTA’s ridership surveys on the frequency with which riders use MARTA to calculate the share of riders who are likely to use passes with current and proposed prices. The ratio between these two calculated shares is then multiplied by the actual share of MARTA riders using passes to create the new estimate share of pass use. The results of the second and third steps are then combined to give estimates of the percent of riders (which don’t used employer/school passes) which will use each available fare media.”

A.2b Fare Elasticity Model Methodology

- 1) Establish baseline of ridership, revenue, and average fare (revenue divided by ridership) for each fare payment method to be analyzed. Since MARTA only recently began analyzing revenue along with Unlinked Trip ridership (the official ridership statistics reported to APTA and to the FTA), the baseline period consisted of the four months from July through October 2008. Here are the baseline data:

Table 21: UNLINKED TRIPS

FARE CATEGORY	# OF UNLINKED TRIPS FROM JULY 08 - DEC 08	% OF UNLINKED TRIPS FROM JULY 08 - DEC 08
Full Fare -- Cash, Stored Value	11,455,730	14.4301%
Full Fare -- Token, Stored Trip	13,555,238	17.0747%
Short Term Pass -- Weekly, etc	28,009,377	35.2817%
Long Term Pass -- Monthly, etc	22,117,370	27.8599%
Discounted Stored Trip	1,212,180	1.5269%
Half-Fare	2,857,388	3.5993%
Paratransit	180,606	0.2275%
Unallocated, Free	2,098,911	-----
TOTAL	81,486,801	100.0000%

Table 22: PASSENGER REVENUE

FARE CATEGORY	# OF UNLINKED TRIPS FROM JULY 08 - DEC 08	% OF UNLINKED TRIPS FROM JULY 08 - DEC 08
Full Fare -- Cash, Stored Value	11,455,730	14.4301%
Full Fare -- Token, Stored Trip	13,555,238	17.0747%
Short Term Pass -- Weekly, etc	28,009,377	35.2817%
Long Term Pass -- Monthly, etc	22,117,370	27.8599%
Discounted Stored Trip	1,212,180	1.5269%
Half-Fare	2,857,388	3.5993%
Paratransit	180,606	0.2275%
Unallocated, Free	2,098,911	-----
TOTAL	81,486,801	100.0000%

Table 23: AVERAGE FARES

FARE CATEGORY	AVERAGE FARE
	DURING JULY 08 - DEC 08
Full Fare -- Cash, Stored Value	\$0.8663
Full Fare -- Token, Stored Trip	\$0.9653
Short Term Pass -- Weekly, etc	\$0.5240
Long Term Pass -- Monthly, etc	\$0.6356
Discounted Stored Trip	\$0.8254
Half-Fare	\$0.3933
Paratransit	\$2.0051
Unallocated, Free	\$0.0400
TOTAL	\$0.8663

- 2) Enter the current face value of each fare payment category, along with the face value under the proposed new fare structure. All scenarios have the same current price, as depicted below. The proposed price structures depicted below all have a base fare of \$2.00, but differ in the prices of time-based pass media.

Table 24:

FARE CATEGORY	Current Fare	Scenario for Proposed Fares		
		"A"	"B"	"C"
Full Fare -- Cash, Strd Value	\$1.75	\$2.00	\$2.00	\$2.00
Full Fare -- Token, Strd Trip	\$1.75	\$2.00	\$2.00	\$2.00
Short Term Pass -- Weekly	\$13.00	\$15.00	\$15.00	\$17.00
Long Term Pass -- Monthly	\$52.50	\$60.00	\$64.00	\$68.00
Discounted Stored Trip	\$1.50	\$1.70	\$1.70	\$1.70
Half-Fare	\$0.85	\$1.00	\$1.00	\$1.00
Paratransit	\$3.50	\$4.00	\$4.00	\$4.00

- 3) Enter the current percentage share of monthly passes that are purchased through discount programs (Partnership, etc), the current and proposed maximum program discount percentages, and the current and proposed average program discount percentages. The current percentages used are an 80% share, an 8.0% maximum, and a 4.0% average for all three scenarios. The proposed maximum and average discounts are 5.0% and 2.8% respectively for scenarios "A" and "B", and are 10.0% and 5.6% respectively for scenario "C".
- 4) Enter a baseline figure for Unlinked Trip ridership, to be used for comparison purposes. For each Model scenario, the figure used is the official Budget projection for FY 2009 of 153,374,849 Unlinked Trips. The Model calculates a baseline expected passenger revenue, given the ridership figures by fare medium for the July through October baseline period, which comes to \$98,787,682 for all scenarios.

The Fare Elasticity Model divides up the baseline ridership figure into the component fare payment methods, estimates the quantities of rider shift from one fare payment method to

another (based on relative changes in fare), and estimates the loss of ridership for each fare payment method. It also calculates new average fares for each medium, based on the percentage changes in each medium's face value, and multiplies the new average fares by the new ridership numbers to yield new estimates of passenger revenue for each fare payment method, and for the whole system. The systemwide average fare can also be used as input data for the Patronage Forecasting Model.

A.2c Patronage Forecasting Model Technical Description

“MARTA uses a two-step process to develop its agency-level ridership forecast. First, a linear regression model is estimated based on the last 120 months (except for months where exceptional factors impacted ridership, e.g., the Olympics). The model uses linked ridership as the dependent variable and fares, inflation, service levels, and employment as independent variables. Second, estimates of ridership are developed using this model based on economic and demographic forecasts from the Georgia State University Economic Forecasting Center and MARTA's estimates of future fare and service levels. The following discusses the details of the development of the linear regression model.”

[PLEASE NOTE: Beginning with the FY 2010 forecast, MARTA will be using unlinked passenger trips as the dependent variable.]

Time Period

“MARTA uses a period of 120 months for analyzing historical ridership. It is important that this period be long enough that the variables have some significant change; 10 years is a reasonable period for this purpose. The precise length of the analysis period is not critical, however it should not be much shorter than 10 years, nor should it be much longer than about 15 years. A significantly shorter period may not provide enough variation in the variables to allow a reasonable analysis. A significantly longer period may have a problem since the accuracy of the model decreases if there are major changes in the design of the transit system during the analysis period (e.g., the addition of a rail line or a significant expansion of the service area). If there are no more than one or two such events during the analysis period, a dummy variable can be employed to distinguish the months prior to and after each such event. However, use of this technique should be minimized by avoiding extremely long analysis periods. MARTA should continue with its current practice of using a period of approximately 10 years.”

Dependent Variable

Originally, the Patronage Forecasting Model used historical linked trip ridership as a basis for establishing the relationships between patronage and other variables. It also produced output in the form of linked trips, which were then converted to passenger revenue. Average fares are components of both the Fare Elasticity and Patronage Forecasting Models, and are more intuitively understood as they relate to linked trips. However, official ridership statistics have always been reported to the FTA and to APTA in the form of unlinked trips, where every passenger boarding counts separately toward the total (whether the boarding is a transfer or not). In order to alleviate the confusion over the two different measures of ridership, MARTA has

recently decided to use ONLY unlinked trips. Thus, the Patronage Forecasting Model has been converted for such use.

Independent Variables

“Analysis at other transit agencies have shown that the key factors impacting transit ridership are: service levels, fares, population served, and jobs served. In addition, there are seasonal patterns to ridership (e.g., lower ridership in the winter months). Because changes in all the variables can occur at any time, it is advantageous to use the smallest time period possible as the basis of the model. For most transit agencies, this means that the models are based on monthly data. MARTA’s ridership, service, and revenue data is collected and made available on a monthly basis, as is employment related data for the Atlanta region. None of this information is currently available for shorter periods, making an analysis by month the shortest reasonable period. Using short periods is also advantageous in that it increases the number of individual pieces of data that can be analyzed – analyzing 10 years of data using the year as the basic period gives only 10 pieces of data, using the month as the basic period gives 120 pieces of data. MARTA currently considers all of the above factors using monthly data, and should continue to do so.”

- “Service Levels – A common problem when models use separate measures of bus and rail service is that one variable is highly significant and the other not significant. This generally arises from there being a high correlation between the changes in the amount of service provided on both services (i.e., service changes on both modes are normally about the same percent of service) or because the majority of ridership use one of the modes (e.g., the number of riders impacted by a change in service on one mode is significantly greater than on the other mode). ... We ... recommended that MARTA use a calculated variable equal to the weighted sum of bus service hours and train service hours. The weighting would be the ratio of the historical average ridership per service hour on each service, reflecting the importance of changes in bus and train service in terms of the number of passengers impacted by each type of change. It is important that the same weights be used throughout the period; weighting each month’s service hours by the ridership per hour for that period converts the variable into a measure of ridership per month, not service per month. We recommend that this variable continue to be used, although the weightings would be revised as part of the development of the linear regression model each year.”
- “Fares – MARTA currently uses CPI-adjusted average fare per linked trip. This variable shows the cost in constant dollars of using transit, and therefore to some extent reflects the price of transit compared with alternative types of transit. As the dependent variable in the model is linked trips, we recommend continuing to use the average cost per linked trip. With regard to the CPI adjustment, we recommend that MARTA use whatever CPI measure is calculated monthly and is most applicable to the Atlanta region. Currently the best CPI measure is that for size class A cities in the south. The CPI for the Atlanta region is currently not calculated monthly; however, should monthly data for the entire analysis period become available, we recommend that MARTA switch to using this CPI figure.”

[PLEASE NOTE: Beginning with the FY 2010 forecast, MARTA will be using unlinked passenger trips as the dependent variable.]

- “Monthly Constants – MARTA recently started using separate constants for each month instead of just a single variable for “winter”. This improved the model in two ways. First, it improved the model’s accuracy in modeling the month to month variation in ridership. For example, MARTA consistently sees a drop in ridership from May to June and an increase in ridership from September to August. Both of these are probably related to student ridership, and should be reflected in the model. Second, by including a constant, the model is made more sensitive to the relationship between variations in the independent and dependent variables. It is our opinion that this was an important improvement in the model, and that this methodology should continue to be used.”
- “Employment / Unemployment / Labor Force / Population – Employment is always a key factor in ridership forecasting models as a large portion of trips are made to or from work. Employment, unemployment and labor force are also all collected on a monthly basis and made available on the internet soon after the end of the month. Employment has the value that it reflects three separate factors that impact ridership – the population of the region (i.e., the total group of potential riders), employment (i.e., potential transit commuters) and potential special event patrons (i.e., individuals who might have the extra disposable income to attend sporting events and other special events). Population is also generally considered to be directly related to ridership; however, it only reflects one of these factors and, more importantly, is not available on a monthly basis.”

A.2d Patronage Forecasting Model Methodology

Multiple Regressions

“Developing a linear regression model, including selecting specific variables, generally requires a combination of mathematical tools, an understanding of travel behavior, and common sense on the part of the developer. Statistical analysis programs such as SPSS can identify historical relationships between variables, but the developer’s knowledge of travel behavior and common sense is the only tool available for determining if these historical relationships are likely to continue into the future.”

The basic approach in developing a model is as follows:

- “Review the variables for problems. This includes identifying variables that are highly correlated or which have linear relationships. An example of this is employment, unemployment and labor force. As labor force is the total of employment and unemployment, utilizing all three variables in an equation would result in an invalid model. Other potential problems could be using highly correlated variables such as fares on two modes which are almost always equal.”

- “Run an analysis using all variables which will not cause a problem to identify which variables appear the most significant. At this stage, a variable will be considered significant if it has a t-statistic with an absolute value of over 1.8 and has a sign that can be explained logically. If a variable has a t-statistic with an absolute value of over 1.8 and a sign which cannot be explained logically, it is likely that it is highly correlated with some other factor, which may or may not be included in the model. If the variable with the incorrect sign is highly correlated with another variable in the model, which may currently show as insignificant, the variable with a high t-statistic and incorrect sign should be eliminated. If it is not correlated with another variable in the model and it is possible to identify the factor for which it serves as a proxy, and that factor should be included in the model if possible, otherwise the variable should be kept with a notation that it is a proxy. In all other cases, the variable with an incorrect sign should be eliminated.”

- “A set of analyses should then be run using different combinations of the variables which were earlier determined to be significant and variables that “should” be significant. This step is designed to create a set of equations that meet the following requirements:
 - o The equation includes all of the variables that need to be modeled. In other words, if the forecasting model is intended to test potential changes in service levels and fares, both service levels and fares need to be included in the model.
 - o All of the variables have the correct sign.
 - o To the extent possible, the variables that need to be modeled should have t-statistics with an absolute value of over 1.8.
 - o Variables should not be included unless they have a t-statistic with an absolute value of over 1.8 or they serve a specific purpose, e.g., a variable that represents the average each year of ridership in a month compared with ridership in the average month.”

- “Additional analyses are run using variations on the best of the models from the previous step. In this step, different variations and combination of variables can be tried, as well as adding one or more variables that were previously not considered significant. This step is designed to create the final model equations. This equation needs to meet the same requirements as the equations in the previous step, and should also meet the following requirements:
 - o Have an adjusted R-squared that is close to the best of all equations, preferably within about 5%.
 - o Among the models that meet the other requirements, have the highest possible Durbin-Watson statistic.”⁵

Patronage Forecasting

⁵ Validation of Statistical Models Study: Final Report, May 2004, TranSystems (prepared for MARTA)

*(All information quoted on pages 7-13 come directly from the Validation Study)

Once a decision is reached on the appropriate regression formula that describes the historical relationship between ridership and other variables, then the independent variables must be forecast into the future. After future values of the independent variables have been calculated, then those values can be plugged into the regression formula in order to project ridership (and thus revenue) values.

The regression formula has the following general structure:

$$P_f = K_1 * {}_f\text{Monthwt} + K_2 * {}_f\text{CPIAdjFare} + K_3 * {}_f\text{WtdSrvcLvl} + K_4 * {}_f(\text{Un})\text{Employ} + K_5$$

Where P_f = forecast passenger (ridership); ${}_f\text{Monthwt}$ = forecast value of monthly seasonality factor, and K_1 = its regression coefficient; ${}_f\text{CPIAdjFare}$ = forecast value of CPI-adjusted average MARTA fare, and K_2 = its regression coefficient; ${}_f\text{WtdSrvcLvl}$ = forecast value of weighted Bus and Train service hours, and K_3 = its regression coefficient; ${}_f(\text{Un})\text{Employ}$ = forecast value of whichever employment or unemployment variable is chosen (usually, Fulton + DeKalb unemployment rate), and K_4 = its regression coefficient; and K_5 = the regression constant (axis intercept).

The regression formula used in this series of forecasts is as follows:

$$P_f = 6888850 * \text{Monthwt} - 22779000 * \text{CPIAdjFare} + 23.395 * \text{WtdSrvcLvl} - 9.1282 * \text{Unemployed} + 5003300$$

Then, $R_f = P_f * F_f$, where R_f = forecast passenger revenue; P_f = forecast passengers; and F_f = forecast average fare.

Seasonality (Monthly Weight)

The Patronage Forecasting Model is based on monthly historical data, and projects ridership and revenue on a monthly basis. Using a seasonality variable helps to remove natural swings in ridership, and thus helps to realize more accurate relationships between ridership and the other variables. After the Board passes the Budget, this is further refined by adjusting the monthly detailed projections according to the new Fiscal Year's service calendar. The set of monthly factors used in this series of forecasts is as follows:

July	1.0194	August	1.0484	September	1.0207
October	1.0765	November	0.9679	December	0.9438
January	0.9768	February	0.9442	March	1.0264
April	0.9842	May	0.9938	June	0.9978

Weighted Bus and Train Service Hours

Ridership has a positive relationship with average fare (that is, as MARTA's quantity of service goes up, ridership goes up). For the sake of this regression variable, bus hours are weighted at 1.0000. Historically, there have been 12.2368 times as many passenger boardings per train hour

as there have been per bus hour, so that is the weight applied to the train hours. For a typical month, there might be 200,000 bus hours and 14,000 Train hours, so the weighted figure would be: $200,000 + (14,000 * 12.2368) = 371,315$ weighted service hours. The baseline service level scenario in the series of forecasts is for a 0.5% increase in Bus hours in FY 2010, and for no change in Train hours. For the service change scenarios, the weighted service hours are reduced, either by 5.0%, by 7.5%, or by 10.0%. That is, we assume that Bus and Rail service levels change by the same percentage.

CPI-Adjusted Average Fare

Ridership has a negative relationship with average fare (that is, as MARTA's fare goes up, ridership goes down). However, fare structure changes only occur on an occasional basis, with average fares staying pretty constant between these occurrences. Also, between fare structure changes, the prices of all other goods and services tend to gradually increase. In order to account for both of these trends, a regression variable is used that combines the two measures. So, CPI-adjusted average fare is equal to 100 multiplied by average fare divided by Consumer Price Index. Thus, if the average fare for a particular month is \$0.70 per unlinked trip, and the CPI for that month is 200, the CPI-adjusted average fare is $100 * \$0.7000 / 200 = \0.3500 . In other words, the month's average fare was \$0.3500 in constant 1982 - 84 dollars.

Georgia State University's Economic Forecasting Center provides quarterly forecasts of Consumer Price Index percentage changes (in the Forecast of the Nation, Table 1). These forecasts are part of the basis for projecting CPI-adjusted average fare into the future, so that ridership and revenue can also be projected. In most Budget cycles MARTA's recent monthly average fares are held constant into the future. This is done for the baseline scenario in this series of analyses. However, since MARTA is considering fare structure changes for FY 2010, we have also used the average fares resulting from each major fare structure scenario's Fare Elasticity Model for FY 2010.

Unemployment

Ridership has a negative relationship with local unemployment (that is, as Fulton and DeKalb unemployment goes up, ridership goes down), but we have never found a meaningful relationship between employment and ridership. Sometimes, the number of unemployed persons does a better job in the regression model, and sometimes the unemployment rate does a better job of relating to ridership. For this Budget cycle the monthly number of unemployed persons is used, as reported by the Georgia Department of Labor's "Labor Market Explorer".

Georgia State University's Economic Forecasting Center provides quarterly forecasts of the numbers of employed persons in the Atlanta metropolitan area, as well as the projected unemployment rate (in the Forecast of the Georgia and Atlanta, Table 3A). From these pieces of data, the projected numbers of unemployed persons can be calculated. But, since these numbers are for the Atlanta area as a whole, a ratio must be developed from the historical share of the Atlanta area unemployed living in Fulton and DeKalb counties. Fortunately, these statistics are available, and forecasts of monthly unemployment in MARTA's service area can be computed.

Appendix B

Proposed Changes to Fare Instruments and Fare Media

1.0. Summary of Proposed Fare Instruments and Proposed Pricing Levels

Identifier	Breeze Fare Instrument	Medium	As Is	Delete	Add New	Current Pricing	Proposed Pricing		
							2010	2011	2012
1	Bus Cash Full Fare	Cash	*			\$1.75	\$2.00	\$2.00	\$2.00
2	Bus Cash Half Fare	Cash	*			\$0.85	\$0.90	\$0.95	\$1.00
3	Mobility Cash	Cash	*			\$3.50	\$3.60	\$3.80	\$4.00
4	Rail Cash Full Fare	Cash	*			\$1.75	\$2.00	\$2.00	\$2.00
5	SV Full Fare	Card	*			\$1.75	\$2.00	\$2.00	\$2.00
6	1 Trip	Card	*			\$1.75	\$2.00	\$2.00	\$2.00
7	2 Trip	Card	*			\$3.50	\$4.00	\$4.00	\$4.00
8	10 Trip	Card	*			\$17.50	\$20.00	\$20.00	\$20.00
9	20 Trip	Card	*			\$30.00	\$34.00	\$34.00	\$34.00
10	30 Day Pass	Card	*			\$52.50	\$60.00	\$64.00	\$68.00
11	1 Day Pass	Card	*			\$8.00	\$8.00	\$8.00	\$8.00
12	2 Day Pass	Card	*			\$9.00	\$9.00	\$10.00	\$11.00
13	3 Day Pass	Card	*			\$11.00	\$12.00	\$12.00	\$13.00
14	4 Day Pass	Card	*			\$12.00	\$13.00	\$14.00	\$15.00
15	5 Day Pass	Card	*	Ⓢ		\$ -	\$ -	\$ -	\$ -
16	6 Day Pass	Card	*	Ⓢ		\$ -	\$ -	\$ -	\$ -
17	7 Day Pass	Card	*			\$13.00	\$15.00	\$16.00	\$17.00
18	8 Day Pass	Card	*	Ⓢ		\$18.00	\$ -	\$ -	\$ -
19	9 Day Pass	Card	*	Ⓢ		\$21.00	\$ -	\$ -	\$ -
20	10 Day Pass	Card	*	Ⓢ		\$24.00	\$ -	\$ -	\$ -
21	11 Day Pass	Card	*	Ⓢ		\$ -	\$ -	\$ -	\$ -
22	12 Day Pass	Card	*	Ⓢ		\$ -	\$ -	\$ -	\$ -
23	Cal Monthly	Card	*			\$ -	\$ -	\$ -	\$ -
24	Cal Weekly	Card	*	Ⓢ		\$ -	\$ -	\$ -	\$ -
25	HF 1 Trip	Card	*			\$0.85	\$0.90	\$0.95	\$1.00
26	HF 10 Trip	Card	*			\$8.50	\$9.00	\$9.50	\$10.00
27	HF 20 Trip	Card	*			\$17.00	\$15.00	\$16.00	\$17.00
28	HF Round Trip	Card	*			\$1.70	\$1.80	\$1.90	\$2.00
29	HF Stored Value	Card	*			\$0.85	\$0.90	\$0.95	\$1.00
30	Para 30 Day	Card	*			\$105.00	\$108.00	\$122.00	\$136.00

Summary of Proposed Fare Instruments and Proposed Pricing Levels -- Continued

Identifier	Breeze Fare Instrument	Medium	As Is	Delete	Add New	Current Pricing	Proposed Pricing		
							2010	2011	2012
31	Para Stored Value	Card	*			\$3.50	\$3.60	\$3.80	\$4.00
34	Stored Value LU	Ticket	*			\$1.75	\$2.00	\$2.00	\$2.00
35	One Way Pass LU	Ticket	*			\$1.75	\$2.00	\$2.00	\$2.00
36	RT pass LU	Ticket	*			\$3.50	\$4.00	\$4.00	\$4.00
37	10 Trip LU	Ticket	*			\$17.50	\$20.00	\$20.00	\$20.00
38	20 Trip LU	Ticket	*			\$30.00	\$34.00	\$34.00	\$34.00
39	1 Day Pass LU	Ticket	*			\$8.00	\$8.00	\$8.00	\$8.00
40	2 Day Pass LU	Ticket	*			\$9.00	\$9.00	\$10.00	\$11.00
41	3 Day Pass LU	Ticket	*			\$11.00	\$12.00	\$12.00	\$13.00
42	4 Day Pass LU	Ticket	*			\$12.00	\$13.00	\$14.00	\$15.00
43	5 Day Pass LU	Ticket	*	*		\$-	\$-	\$-	\$-
44	6 Day Pass LU	Ticket	*	*		\$-	\$-	\$-	\$-
45	7 Day Pass LU	Ticket	*			\$13.00	\$15.00	\$16.00	\$17.00
46	8 Day Pass LU	Ticket	*	*		\$16.00	\$-	\$-	\$-
47	9 Day Pass LU	Ticket	*	*		\$19.00	\$-	\$-	\$-
48	10 Day Pass LU	Ticket	*	*		\$22.00	\$-	\$-	\$-
49	11 Day Pass LU	Ticket	*	*		\$-	\$-	\$-	\$-
50	12 Day Pass LU	Ticket	*	*		\$-	\$-	\$-	\$-
51	30 Day Pass LU	Ticket	*			\$52.50	\$60.00	\$64.00	\$68.00
52	Cal Weekly LU	Ticket	*	*		\$13.00	\$-	\$-	\$-
53	Cal Monthly LU	Ticket	*			\$52.50	\$60.00	\$64.00	\$68.00
54	7 Day Pass LU Lgl Clnc 50%	Ticket	*		*	\$6.50	\$7.50	\$8.00	\$8.50
55	RT Lgl Clnc 50%	Ticket	*		*	\$1.50	\$2.00	\$2.00	\$2.00
56	Cal Monthly LU Std	Ticket	*		*	\$40.00	\$45.50	\$49.00	\$52.00
57	Cal Monthly LU Sif-Fct	Ticket	*		*	\$49.50	\$56.50	\$60.00	\$64.00
58	10 Trip K-12	Ticket	*		*	\$10.00	\$11.50	\$11.50	\$11.50
59	Para 20 Trip	Card	*		*	\$-	\$64.50	\$66.00	\$68.00
60	SV Employee 131	Card	*		*	\$-	\$-	\$-	\$-
61	SV Contractor	Card	*		*	\$-	\$-	\$-	\$-
62	SV Employee Ret	Card	*		*	\$-	\$-	\$-	\$-
63	SV EDAAAC	Card	*		*	\$-	\$-	\$-	\$-

2.0. Children Eligibility Criteria

CHILD/STUDENT FARE REPORT

INTRODUCTION

Fare policies vary across different transit agencies throughout the U.S. Most agencies however invoke similar policies in regards to child and student fare. Currently, MARTA has different policies regarding child/student fare. MARTA's website states that, up to two children under six are eligible to ride for free when accompanied by a fare paying adult while MARTA's Bus and Mobility Rules found on the MARTA Intranet portal states, children six and under may ride for free when accompanied by an adult. To determine if MARTA should implement a height requirement for children that use the system, information was gathered from transit agencies that implement student fare requirements and agencies that implement height requirements. The initial analysis provided information and statistics from U.S. and local transit agencies that executed child and student fare requirements. Information from the first analysis was taken to create a more detailed follow up analysis that provided information on transit agencies that implement height requirements for the children and students that use their systems.

In the initial analysis, forty-one transit agencies along with local transit providers were researched to properly analyze the student and child policies and procedures regarding fare. One transit agency was picked from every state. If the state did not have a transit agency information could not be included. Information from local transit providers was also included to provide a look into how fare varies on a regional basis. Information from MARTA's Quality of Service Survey will provide a representation of MARTA's youth population who use MARTA to get to school. A table was also created to provide a visual representation of each of the 41 agencies, including their policy regarding children/students that use the system and the fare charged for each population group. These facts and figures will highlight transit agencies in the U.S. and how fare structures differentiate from the Metropolitan Atlanta Regional Transit Authority (MARTA).

In the follow up analysis, twenty-six small and large transit agencies were researched to determine the student and child policies and procedures regarding fare. Nine transit agencies provided detailed feedback regarding student and child fare policies. A table was created using information obtained from all transit agencies researched to provide a visual representation of each agency and their policies regarding the children and students that use their systems.

ANALYSIS OF CHILD AND STUDENT FARE IN U.S. & LOCAL TRANSIT AGENCIES

I. Transit Agencies:

Transit agencies across the U.S. offer a variety of fare policies and age requirements in regards to issuing student and child fare. Each transit agency has a unique and different process for collecting fare from children and students. Some agencies have specific height requirements that they implement so that passengers have a visual presentation of how tall a child must be to use the system.

Of the 41 transit agencies researched, five transit agencies allow children to ride for free if they meet or are below a certain height requirement.

- 46” was the highest height for children among these five transit agencies, and 40” was the lowest.

Fare for Children:

- There are several agencies that offer free fare to children that at or below the age of five.
- 20 out of 41 agencies (48.7%) offer free fare for children at or below the age of five.
- 21 agencies do not offer free fare to children
- Six agencies offer free fare to children over the age of 5
- Among the transit agencies that allowed children to ride for free, the age range varied from the age of 2 to 15.
- Fares for children/youth that use the transit agencies researched range from as little as \$.35 to \$1.40 for a one-way fare.

Fare for Students:

Transit agencies also provide discount and reduced fares to students that use their systems. Of the 41 agencies researched, 19 provided some sort of discount/reduced fares or passes to students.

- 19 (46.3% of) agencies offer discount fares and passes to students in school up to high school (12th grade)
- Student fares range from \$.25 to \$2.25 depending on the particular agency

II. Larger Transit Agencies:

According to APTA, MARTA is classified as being a larger transit agency for providing service to an urbanized area of more than one million people. Out of the 41 agencies reviewed, 17 were categorized as being larger transit agencies (according to APTA) for providing service in areas

with a population of at least a million. These larger transit systems offer a variety of fares to children and students. Fares throughout these agencies range from \$.25 to \$16.00 (transit pass). Children that meet certain age and height requirements are eligible to ride for free. Among the large transit agencies that offer free fare to children the minimum eligible age is four and the maximum age is seven. Not every agency provides free fare for children. Some agencies offer discounts to children or students but don't offer free fare.

- Of the 17 large transit agencies researched, 13 (76.4%) offer free fare to children using their systems and the remaining four agencies either do not have information about youth riding for free, or don't allow youth to ride for free.
- Of those 17, eight (47%) agencies offer \$1.00 discount fares for children and students using their systems.

III. Local Transit Providers:

MARTA works with several other transit providers with varying fares for children and students. These transit providers were also researched to provide a view of transportation options for children and students on a regional basis. These transit providers offer connecting services near or to MARTA stations.

Cobb Community Transit (CCT) based in Cobb County, GA. As with agencies that provide service on a slightly larger level, local service for children and students in the Atlanta region varies.

- In Cobb County, children under 42" in height are eligible to ride for free.
- All youth under the age of 18 are required to provide an ID while using the system and are eligible for a reduced fare of \$1.00. (Regular adult fare for CCT is \$1.50)

The Georgia Regional Transportation Authority (GRTA) Express offers service to counties around the Atlanta metropolitan area as well.

- GRTA allows children to ride for free provided they meet the height requirements of the farebox (if the child measures taller than the fare box, full fare must be paid) and must ride in the lap of his or her guardian. (Regular Xpress one-way fares are \$3.00)

Clayton County, GA also provides service to the residents of the county via the Clayton County Public Transit System (C-TRAN).

- Children under the age of five are eligible to ride for free. There are no student or youth passes available. (Regular adult fare for the C-TRAN is \$1.50)

Local transportation is also provided by Gwinnett County through Gwinnett County Transit (GCT). The GCT provides express, local, and paratransit services.

- On local service routes only children no taller than the height of the farebox ride free when accompanied by a fare paying customer. (Depending on the route and

type of service, fare can range from \$1.00 [one-way half-fare] to \$3.50 [one-way paratransit])

III. MARTA Youth Demographics:

MARTA's 2008 Quality of Service Survey only reports figures for youth under the age of 16 and youth from the age of 16-24. Although it is difficult to determine how many children would be affected if MARTA's age policy changed, percentages have been taken from the Quality of Service Survey to provide information on the number of riders who use MARTA to get to school.

General Rider:

According to the Quality of Service Survey, the youth group under age 16 accounts for only 0.6% of MARTA ridership and 28.9% of the 16-24 population.

- 9.6% of General Riders use MARTA as their primary means to get to school

Mobility Rider:

MARTA's Quality of Service Survey starts collecting Mobility age data from the 16-24 age group. This group accounts for 2.6% of MARTA ridership.

- 2.7% of Mobility Riders use MARTA as their primary means to get to school

CHILD AND STUDENT FARE HEIGHT REQUIREMENT ANALYSIS

Many transit agencies implement a height requirement to provide a visual representation of how tall a child/student should be when paying to use their system. This visual can be as simple as using a piece of red or yellow tape to a farebox. Some agencies have recently applied height requirements while some agencies have applied height requirements for over ten years. Various agencies use specific numerical requirements and other agencies use the farebox as a height measurement. The majority of agencies researched implement numerical requirements and other agencies implement a requirement using both height and age. Research also suggests that agency size has a lot to do with requirements used regarding child and student fare. Comments were gathered from representatives regarding the effectiveness and recommendations of and for height requirements. This analysis will provide a brief summary of the student/child fare requirements table.

Numerical Height Requirements

Several agencies use specific numerical requirements in regards to administering child/student fare. Nineteen of the 26 agencies researched implemented numerical height requirements. Of the 26 transit agencies researched, height requirements ranged from 38 to 48 inches. Most of these agencies provide free fare to children and students that meet the requirement; however, several agencies also charge discount and/or full fare to children and students who meet agency requirements. This means that fares are sometimes implemented for children and students that make the height and or minimum age requirement. An example of this is applied at Southwest Ohio Regional Transit Authority (SORTA) in Ohio. SORTA applies a requirement that only children two years of age and under can ride for free, while children ages 2 to 5 and 45 inches and under pay a fare between \$.75-\$1.50 (fare depends on zone). The Saginaw Transit Authority Regional Services (STARS) in Michigan charges children who are less than 42 inches a discount fare of \$.60 and children over 42 inches a regular fare of \$1.25. This requirement provides a visual presentation for all customers who use the system and helps alleviate some of the pressure that bus operators are under.

Age and Height Requirements

In addition to the agencies that implement numerical requirements, there are also agencies that apply both a height and age requirement. Of the agencies researched, three apply both an age and height requirement for students and children that use their systems. Representatives from the agencies researched stated that problems arose with parents and children debating the age of their child, and as a result some agencies administered an age and height requirement. Hillsborough Area Regional Transit (HART) in Tampa, FL applies a height and age requirement for children and students that use their system. Children age four and under, and who are no taller than the yellow line on the bus can ride for free. The height requirement was established at HART's initial development and has changed through the years due to the changing heights of the farebox. This requirement has been very effective for HART and the bus operators and customers that come in direct contact with the requirement.

Sometimes bus operators come in contact with individuals short in stature (adults) that attempt to take advantage of the child/student height requirement; thus instituting both requirements helps

to eliminate conflict. With this requirement there is little room for adults or children to disagree or debate the requirement.

Height Requirements by Size of Agency

Largest Transit Agencies

Of the largest agencies that serve urbanized areas with populations over one million, six agencies have established child height requirements. Of those six agencies, half implemented both a height and age requirement for the children that use their systems.

Smaller Transit Agencies

Although there were a few large agencies that use the farebox as a measurement for children, smaller agencies with less than 200 buses seemed to use the farebox as a measurement tool more frequently. Of all the smaller agencies researched, five use height requirements for children riders and four of those agencies primarily use the farebox as a measurement tool.

Reasoning behind Height Requirements

Agency representatives that were able to respond to research questions provided reasoning behind their respective height requirements. When asked why child/student height requirements were implemented, several transit agencies offered similar answers.

- *[We] wanted to offer reduced and free rides for children, but age for children is difficult to tell.*
- *[We] continued to have issues with checking age, [so we] researched and found out that 90% [of our children riders] were five and under and were 46" or less.*
- *Too much potential for conflict.*
- *Challenging people on the age [of the child] was difficult.*

System Usefulness & Recommendations

Agency representatives may have different policy and height requirements but the benefits were the same across the board. When representatives were asked how effective their systems were in collecting fares for children, 5 out of 9 (55.5%) agencies stated that their systems were *very effective*. The remaining four agencies stated that their system was *somewhat effective* due to issues that can arise from adults short in stature trying to take advantage of the height requirement. However, that was the only issue encountered that has caused any dilemma.

Selected Comments on the Effectiveness of Height Requirements:

- *[The system] alleviates a lot of pressure put on bus drivers.*
- *[It is] very effective, there have been very few questions or complaints from customers.*

When asked if the transit agency representative would recommend MARTA implementing a height requirement, instead of an age requirement, all agencies unanimously recommended implementing a height requirement.

Selected Recommendations:

- *Absolutely! It moves the pressure away from the operator.*
- *[I] would recommend height requirements. It serves as a fixed item regardless of the different ages of children.*
- *Very effective, would highly recommend.*
- *Highly recommend. How else would you know what the age of the child was?*
- *[I suggest] a trial and error period to see how it works out first.*
- *[I] recommend it if you transport a large number of passengers a year. It allows passengers quick and easy boarding.*

Conclusion

Transit agencies across the U.S. implement several different types of policies and requirements for children that use their systems. Some agencies require children and students to pay while others do not. Some agencies implement age policies while some execute height requirements. This report provided an analysis of both U.S. and local transit agencies as well as an analysis of agencies that implement height requirements. The follow up analysis provided information about differing height requirements and the effectiveness of issuing a height requirement.

Although transit agencies may implement different numerical height requirements, the benefits received from the requirements are the same. A variety of agencies use specific numerical requirements while other agencies use the farebox as a height measurement. Agencies that use both age and height requirements tend to avoid conflict with short statured adults that want to debate the requirement.

In conclusion, agencies that implement height requirements seem to encounter less conflict than agencies that implement age requirements. In the follow up analysis, representatives agreed that executing a height requirement reduces conflict encountered by the agency, operator, and customer and unanimously recommended MARTA apply a height requirement. **Finally, the use of a height requirement for children is neutral when it comes to the requirements and intent of Title VI.**

State/Transit Agency	Policy	Fare
Alabama- Birmingham Jefferson County Transit Auth.	Student/Child fare is discounted (for grades X through 12)	\$0.80
Alaska- Anchorage People Mover	Youth 5-18 (students 12 or older may be asked to show ID)	\$1.00
	children 4 and under accompanied by and adult	free
*Arizona- Phoenix Valley Metro Transit	Reduced fares are available to student ages 6 through 18	\$.60 -\$22.50
	Passes are available in Tempe for Tempe residents	free
	children under age 6 accompanied by a fare paying adults	free
Arkansas-Central Arkansas Transit Authority	Children 5-11	\$0.60
	children 4 and under accompanied by and adult	free
*California- San Francisco Bay Area Rapid Transit	children 4 and under	free
	children 5-12 (red discount ticket)	\$9.00
	teens 13-18 (orange discount ticket)	\$16.00
*Colorado-Denver The Regional Transportation District	children 5 and under accompanied by an adult (limit three children per adult)	free
	accompanied children 15 and under for the skyride	free
	students in grades 1-12 pay discount fares	\$1.00-\$2.25
Connecticut- CT Transit	children 4 and under (limit three per adult)	free
	youth 5-18-ID may be requested	\$9.00
Delaware-DART first state	children 46" in height and under	free
	children/youth 47" in height and over	\$1.15
*D.C.-Washington Metro	children 4 and under accompanied by and adult (limit two per paying adult)	free
	children 5 and over pay adult fares	\$1.65-\$4.50
*Florida-Miami Dade TA	students in grades 1-12 pay reduced fare	\$1.00
Hawaii- Honolulu The Bus	youth ages 6-17 and high school students up to age 19 with valid ID	\$1.00
*Illinois-Chicago TA	children under 7 accompanied by a fare paying customer	free
	children 7-11 pay reduced fare	\$.85-\$1.00
	grade and high school students 12 and over (school year permits)	\$5.00
	summer session (permits)	\$2.00
*Indiana-Indianapolis Indy Go	youth ages 18 and below ride half-fare with valid Indy Go ID	\$.85-\$30.00
Iowa-Des Moines Metro	children 5 and under accompanied by an adult	free
	children 6-12	\$0.75
	children 12 and up, adult fare	\$1.50-\$1.75
Kansas-Wichita Transit	bus fares for youth 18 yrs. and under	\$1.00
Kentucky- Lexington LEXTRAN	children 6 and under accompanied by an adult	free
	students ages 7 and older can purchase class passes for the school term and year	\$50-\$75
Louisiana- Baton Rouge Capital Area Transit System	children under 5	free
	students up to high school with ID	\$0.35
*Maryland- Baltimore MTA	children except those in the school program must pay full fare	\$1.60
	students in K-5-12th grade up to age 20 (student fare)	\$1.10
*Massachusetts-Mass. Bay Transportation Authority	children 11 and under accompanied by a paying adult (Up to two children)	free
	students 12 and older pay half-fare	\$.62-\$.85
*Michigan-Detroit DOT	children under 44" with an adult (limit 3 children)	free
	students over 44" (with student ID) pay student fare	\$0.75
*Minnesota-Minneapolis St. Paul Metro Transit	children 5 and under accompanied by a fare paying adult (up to three children)	free
	children 6-12 pay qualify for reduced fare	\$.75-\$3.00
	adults 13-64 pay regular fare	\$1.75-\$3

State/Transit Agency	Policy	Fare
Missouri-St. Louis Metro	children under age 5	free
	children 5-12 pay discounted fare	\$1.00
Nebraska-Omaha Metro Area Transit	children under 5 with adult	free
	children 5-9 pay reduced fare	\$0.50
	students in grades 1-high school with MAT ID	\$1.00
*Nevada-Las Vegas Citizens Area Transit	youths aged 6-17 pay reduced fare with reduced fare ID	\$0.75
New Jersey-NJ Transit	up to three children ages 4 and under	free
	children 5-11 pay half fare-fares range by zone	\$.65-\$1.16
	students in grades 1-12 are eligible for a monthly discount pass	varies by zone
New Mexico-ABQ Ride	children under 10 accompanied by an adult	free
	children age 10 through high school	\$0.35
*New York-NY City Transit	up to three children 44" and under accompanied by a fare paying adult	free
North Carolina-Charlotte Area TS	children 5 and under accompanied by an adult	free
	youth/student discount fare	\$.75-\$1.50
*Ohio-Cincinnati Southwest Ohio RTA	children under age 2 with paying adult	free
	children 2-5 (45" and under) pay half fare	\$.25-\$1.87
Oklahoma-Oklahoma City Metro Transit	children ages 6-17 with valid ID pay discount fare	\$.60-\$1.10
*Oregon-Portland TriMet	children under 7 ride with a paying passenger	free
	children 7-17 pay discount fare	\$1.50
*Penn.-Philadelphia SEPTA	up to two children under 42" with a fare paying adult (bus, subway, trolley)	free
	up to two children under 4 (regional rail)	free
	up to two children under 11 (weekends/holidays) with fare paying adult	\$1.00
	children not accompanied by a paying adult-regular fare	\$2.00+
Rhode Island-Providence Rhode Island PTA	children under 5 accompanied by adult	free
	adult fare	\$1.75
South Carolina-Charleston Area RTA	children under 6 accompanied by a paying adult	free
	students can purchase passes for the semester	\$60.00
Tennessee-Memphis Area TA	city student base fare	\$1.20
	county student base fare	\$1.40
*Texas-Dallas DART	children under 5 accompanied by adult	free
	children 5-14 pay reduced fare	\$0.75
	high school students with valid student or DART ID	\$0.75
Utah-Salt Lake City-Utah TA	two children under age 5 accompanied by a fare paying adult	free
	people ages 6-64 pay regular fare	\$2.25
	children under 5 accompanied by adult	free
Virginia-Richmond-GRTC Transit	children age 5 and over pay regular fare	\$1.25-\$6
	children under 5 accompanied by adult	free
Washington-Seattle Tacoma-King County Metro	Mon.-Sat. up to four children under the age of 5 accompanied by a fare paying adult	free
	youth ages 6-17 are eligible for discount fare	\$0.75
West Virginia-Charleston-Kanawha RT	children under 40" in height and under with an adult	free
	children 40" in height and over pay normal fare	\$1.00
Wisconsin-Madison Metro	children 4 and under accompanied by and adult	free
	youth ages 5-17 or still in high school are eligible for discount fare	\$1.00

* According to APTA these agencies are considered larger transit agencies for providing service to areas with populations of one million or more.

State/Agency	Height Requirement	Fare
Largest agencies that serve urbanized areas with populations over 1 million		
FL-HART	Children 4 and under and no taller than the yellow height line	free
VA-VA Beach Hampton Roads Transit	Children under 38"	free
OH-SORTA	Children 2 and under Children 2-5 (45" and under)	free \$.75-\$1.50
OH-Central Ohio Transit Authority	Children 6 and under and not over 48" Children over 48" to 12 yrs. old	free \$0.75
NY-MTA	Children 44" and under	free
PA-SEPTA	Children under 42" with an adult	free
MI-Detroit Transit	Children under 44" with an adult	free
Large agencies with more than 2 million boardings a year		
PA-State College Centre Area Transportation Authority	Children under 40" with an adult	free
IL-Champaign-Urbana Mass Transit	Children 46" or less with a paying adult	free
CA-Gold Coast Transit	Children under 45" with a paying adult	free
MI-Capital Area Transit Authority	Children under 42" with a paying adult	free
NC-Capital Area Transit	Children under 40" with a paying adult	free
MI-The Rapid	Children under 42" with a paying adult	free
OH-Greater Dayton Regional Transit Authority	Children 45" and under	free
CA-Monterey-Salinas Transit	Children 46" and under with paying adult Children 47" to 18 yrs. (discount fare)	free \$1.25
CA-Santa Cruz Metro	Children under 46" (limit 3 w/ paying adult)	free
CA-Santa Barbara MTD	Children 45" and under	free
FL-Lee Tran	Pre-school children under 42"	free
FL-Regional Transit System	Children shorter than the farebox	free
Smaller agency with 200-400 buses		
DE-DART First State	Children 46" and under with an adult	free
Smaller agencies with fewer than 200 buses		
VA-Greater Lynchburg Transit Company	Children under 45" (limit 4 w/ adult)	free
MI-Battle Creek Transit	Children shorter than the farebox Children taller than the farebox	free \$1.25
MI-Saginaw Transit Authority Regional Services (STARS)	Children under 42" (discount fare) Children over 42" (regular fare)	\$0.60 \$1.25
PA-Luzerne County Transportation Authority	Children no taller than the height of the farebox with an adult Children taller than the farebox (reg. fare)	free \$1.50
Smaller/Other agencies		
NY-Rockland County Dept. of Transportation	Children 40" and under with an adult	free
FL-Escambia County Area Transit	Children/students equal to or shorter than the top of the farebox	free

OVERVIEW OF CHILD FARE POLICY CHANGE RECOMMENDATION

One of the largest sources of conflict between the bus operator and riders is the fare payment policy for children. The purpose of this suggested change in the policy for children based on height, rather than age is to curtail the opportunity for disagreement between the bus operator and passengers, while collecting the fare that is required. MARTA policy on fare payment for children has not been consistently documented over the years. MARTA's website currently states that, ".....children under six are eligible to ride for free when accompanied by a fare paying adult", while MARTA's Bus and Mobility rules are quoted as "children six and under may rider for free when accompanied by an adult".

Due to the amount of public and internal confusion over this issue, and to consolidate these different fare regulations into one cohesive, unified MARTA policy, MARTA will now institute a height requirement as the means to determine fare payment.

MARTA's Research and Analysis department surveyed several transit agencies to determine the most effective fare instrument product used in the transit industry today. MARTA was able to conclude that agencies that used a height requirement to determine child fare eligibility were very satisfied with the policy. Agency managers reported fewer issues surrounding the collection of children fares. One agency strongly recommended that we also define the term "children" so as to ensure adults short in stature do not attempt to take advantage of the child/student fare policy. The policy outlined below will clearly define rules for the collection of appropriate fare for children.

There was varying height requirements among the agencies researched. In determining an appropriate height requirement for children, information was gathered from the National Center for Health Statistics and the National Center for Chronic Disease Prevention (CDC). The results gathered determined that the average height for six year old boys and girls is about 45 inches (45").⁶ While there is no quantitative method to determine the number of children who are not paying fare when they reached the age of six (6), this policy will eliminate any discussion or argument with the bus operator and adults concerning whether or not the child is required to pay full fare.

There will be a minimal cost associated with placing a measuring stick on board all buses to determine the height of children who board the bus.

SUGGESTED MARTA POLICY

Up to four (4) children, who are 46" tall and under "are eligible to ride free of charge when accompanied by an adult." For the purpose of this policy, the term child/ children includes anyone who is six (6) years of age or less.

This policy should be implemented at the time the proposed fare increase is applied.

⁶ *Stature-for-Age and Weight-for-Age Percentiles*. (n.d.). Retrieved April 20, 2009, from MSN: <http://health.msn.com/kids-health/articlepage.aspx?cp-documentid=100151199>

3.0 Stop Accepting Tokens

PURPOSE

- Establish a simple and concise methodology to discontinue the acceptance of tokens after June 30th, 2009.
- Develop and implement a communications campaign to effectively communicate this change

DISCUSSION (Including Alternatives)

Background:

In 2006, the Authority removed old token machines and installed new fare gates, fare boxes and Breeze vending machines (BVM) in all 38 stations.

As of July 1, 2007, tokens sales have been discontinued at all MARTA Ridestores and the Media Sales Unit. Currently tokens are accepted in the BVM, bus fare boxes and MARTA Mobility Vans. When tokens are used on buses they are treated the same as cash and no transfers can be received. During 2007, MARTA informed patrons that as a part of the Breeze conversion, tokens would eventually not be accepted.

Outlined in this plan, Marketing and Revenue Operations have identified several distinct steps in communication and implementation of Token exchange and removal. Where practical this message will be combined with the Breeze Card expiration message to reduce costs.

Target Audiences:

- MARTA employees
- Regular & Occasional riders
- Mobility Customers & EDAAC Members
- Bulk Customers
- Board Members
- Multi Cultural Groups
- Government, community and religious groups and leaders
- Media

Key Message:

USE IT OR LOSE IT!

Customers have until June 30th to use tokens

Tokens will not be accepted after this date. There will be no cash refunds.

How to exchange:

If you have less than 10 tokens:

- Use tokens in the Breeze Vending Machines to purchase a Breeze Ticket. (Breeze Tickets received are not reloadable and are good for a one-way trip only per token)

If you have 10 – 200 tokens:

- Exchange tokens for trips by bringing your Breeze Card to a RideStore at Lenox, Lindbergh, Five Points and Airport stations.

If you have any questions or more than 200 tokens, call 404-848-5000 or visit www.itsmarta.com.

Strategies:

- All tokens will be exchanged for trips loaded on a Breeze Ticket or Card. There will be no cash refunds for unused tickets.
- Bus fareboxes cannot be converted until after June 30th effective date as bus operators will need a way to continue accepting tokens. It will take approximately 8-12 weeks after the effective date to modify all bus fare boxes. Thus, on June 30th, bus operators will have to ensure that customers do not use tokens to pay fare if their farebox has not yet been modified.

Customer Segment	Scenario	Details
	<p>Less than 10 tokens</p> <p>Exchange tokens for trips at BVM</p>	<ul style="list-style-type: none"> • Less than 10 tokens-exchange tokens at BVM – will receive one Breeze Ticket with one ride for each token, the .50 cents surcharge will be waived (as is the case currently when tickets are purchased with tokens.) Breeze tickets received will not be reloadable • If customers have more than 10 tokens they can still exchange them all at the BVM if this is their preference
<p>Regular</p>	<p>10 – 200 tokens</p> <p>Exchange tokens for trips on Breeze Cards at RideStore</p>	<ul style="list-style-type: none"> • Exchange 10 – 200 tokens for trips onto the Breeze Cards in multiples of 10 trips or 20 trips (Due to the unlimited functionality at the Ticket Office Machine (TOM)) • Waive \$5 surcharge for the first Breeze Card if the customer does not already have a Breeze Card • A week before the effective date, possibly set up a table at the Five Points RideStore, to handle high volume of token exchange <ul style="list-style-type: none"> ▪ This would require Revenue Agent (s) and Police for security ▪ When a customer exchanges tokens they will be given a slip to give to the RideStore clerk so that

Customer Segment	Scenario	Details
		the trips can be placed on their Breeze Card
<p>Bulk Customers (customers that have 200+ tokens or who distribute tokens through their general business practices)</p>	<p>Through Media Sales Unit</p>	<ul style="list-style-type: none"> • Exchanged token value will be placed on customer's Breeze Card • For bulk customer who wants Breeze Tickets, exchange the value of the token and replace with Single or Round Trip Breeze Tickets, and the .50 cents surcharge will be included (factored) in the value of the tokens exchanged. Tokens will not be exchanged for stored value, weekly or monthly passes. <p style="text-align: center;">For example:</p> <p>Customer is exchange 200 tokens, and then the 200 tokens will be multiplied with the bulk rate of \$1.50, which equal \$300.00 in value. If customer wants single one ways, the value of \$300.00 is divided by \$2.25 (Fare + surcharge) which equates to 133 single breeze tickets.</p> <p style="text-align: center;">OR</p> <p>If customer wants Round trip tickets, the value of \$300.00 is divided by \$3.50 (Round trip at bulk rate, \$3.00 + surcharge) which equates to 86 round trips tickets.</p> <p>For bulk customers who cannot distribute all the tickets before the 90-day expiration date, a draw down account will be set up. Draw down accounts allow bulk customers to exchange all their tokens and have an account set up with the value of these tokens. They can then draw against that account as they need it.</p> <p>Example:</p> <p>Agency ABC has 500 tokens. These tokens are exchanged for Breeze Tickets with trips. A draw down account is setup for the value, which are 500 tokens X \$1.50 equaling to \$750.00 in value. Depending on the media they request for, we divided the value by \$2.25 for single tickets, \$3.50 for bulk rate Round trips. Therefore, the agency gets 333 single tickets or 214 Round Trips, which they order as needed until there account is depleted.</p> <ul style="list-style-type: none"> • Possible redeployment of staff within Revenue Operations to help Media Sales Unit

RECOMMENDATIONS AND TIMELINES (As appropriate)

Campaign Period Timeline:
From approval date – June 30th, 2009

Communications and Outreach Tactics:

Internal Communications

Target Market	Tactic	Description	Timeline
Employees	Employee Publications	Feature message in special issue of Breeze Blast	To be issued in Dec with reminders in Feb/Apr/ May
	Electronic Communications	Authority-wide email Information posted on MARTAnet	Same schedule as Breeze Blast MARTAnet message ongoing
	Supervisor Meetings	Meet with all frontline supervisors (Bus Ops/Customer Service/Station Services/RideStore to provide one on one interaction information, Q&A and communication materials	Start in December provide reminders in Apr/May
	Garage & Facilities Communications	Garage and facility posters and flyers	Distribute in December

External Communications

Target Market	Tactic	Description	Timeline
All Target Markets	Websites	Feature message on itsmarta.com home page and breezecard.com Community Websites e.g. DeKalb.com, Gofulton.com and GoInTown.com	Start Dec ongoing
	Email	Feature MARTA Monthly (list of 33,600 stakeholders including customers, public officials and community leaders)	Feature in Dec/Apr/May issues
	Newspaper Ads	To run in AJC and community papers (dependant on rates available)	May

Target Market	Tactic	Description	Timeline
All Target Markets & Media	Press Releases	Press release announcing change	Dec and May
Regular & Occasional Riders	Flyers	To be distributed at stations, bus bays, Ridestores, intermodal	Dec/Feb/ Apr/May
		Cars parked at MARTA parking facilities	April
	Posters	Posted in Ridestores Posted in customer restrooms	Dec ongoing
	A-frames	At all stations and bus bays	Apr/May
	SignPost	Ongoing messaging to run on electronic signs with countdown days	Dec ongoing
	Transit Advertising	Ad to run inside and outside of buses (outside messaging to reach occasional riders)	Dec ongoing
	BVM Header	Updated to show message	Dec ongoing
	MARTA Bulletin	Message to run in MARTA Bulletin	Dec/Feb/ Apr/May
	All Call/ADA Announcements	Announcements on buses	Dec/Feb/ Apr/May
	TTN	Key messages run on bus TV screens	Dec ongoing
	CBS Rail Network	Messaging to run on train TV screens	Dec ongoing
	Bus Dash Cards	Post change on bus dash cards	Apr/May
	How to Ride Guide	Update information in "How to Ride Guide" distributed on trains, buses and stations as well as key Atlanta hotels and visitor centers	Dec ongoing
Partnership Programs	Email Blast & Flyers	Providing information to Administrators and pass partners	Dec/Feb/ Apr/May
Mobility Customers & EDAAC Members	Direct Mail Postcard	Providing information on change and accepted fare media to all active Mobility customers	Jan
	Bus Posters	Providing information on change and accepted fare media	Dec ongoing
	Email	DEO email to all EDAAC members (chair of	Dec/Apr

Target Market	Tactic	Description	Timeline
		EDAAC has no email so DEO will contact him personally and read it to him)	
	Direct Mail Flyer	To all agencies in DEO database	Jan
Half Fare	Direct Mail Postcard	Providing information on change and accepted fare media	Jan
	Posters	Providing information on change and accepted fare media	Dec ongoing
Bulk Customers	Direct Mail Flyer	To all current customers also handed out to bulk customers via Media Sales – provides information on change, options and relevant dates	Dec ongoing
Board Members	Mailing	To current and previous Board Members to inform them of change	Jan
Multi-Cultural Groups & Govt./Community Relations	Flyers	Translated into Spanish, Chinese, Korean and Vietnamese to be distributed through Govt./Community Relations and DEO	Dec ongoing
Govt. Community Relations	Flyers & Emails	Direct mail flyers and email to community, political and religious groups, and also distributed at local libraries and community venues	Dec ongoing

Results Measurement:

- Increase in revenue from token retrieval
- Number of tokens retrieved
- Anecdotal positive feedback from Breeze Card Call Center, Customer Service and Revenue Services

A sample of the information to be provided to our customers is shown in the attached “Customer Information Flyer”.

Approved: _____
 Beverly A. Scott, Ph.D
 General Manager/CEO

Appendix C

Other Pricing Scenario Results

Scenarios D, E, F, G, H and I

Apart from fare Scenarios A, B, C and the multi-year phased in approach, several other scenarios were examined as presented below. These additional analyses were done to determine if after increasing the base fare past a certain level, when would we begin to lose significant patronage ; incur increasingly expanding adverse impacts that that were beyond mitigation; and incur seriously disproportionately adverse levels and types of impacts on minority, low income and transit dependent groups. These additional analyses revealed that after increasing base fare past a certain level, almost one third of patrons were lost. The results for the \$2.25 and \$2.50 projections as presented below confirmed this; the more you increase your fare, the more patrons you lose.

It was also determined that minority, low income and transit dependent groups were increasing exposed to disproportionate and adverse impacts parallel to the magnitude of the fare increase. In addition, given that MARTA patrons are predominantly in minority groups and a significant proportion are low income or transit dependent, Scenarios D, E, F, G, H and I would have draconian implications for the groups in question.

- Scenario D, E and F – increase of 50¢ in the Base Fare and corresponding Multi-Ride Instrument increases; increase Time-Based Pass prices, with gradual change in multiples (e.g., monthly pass multiple equals 30, 32 and 34 respectively). No change in discounts for Pass Programs.
- Scenario G, H and I – increase of 75¢ in the Base Fare and corresponding Multi-Ride Instrument increases; increase Time-Based Pass prices, with gradual change in multiples (e.g., monthly pass multiple also equals 30, 32 and 34). No change in discounts for Pass Programs.

2.1 Scenario D

This scenario included a 50¢ increase in the base fare from \$1.75 to \$2.25. As a result, the prices of multi-ride fare media (Breeze Cards and Tickets) increased proportionally. The multiples for time-based passes were also increased substantially in relation to the current. In relation to MARTA's Discount Programs, no changes were made to the levels of discounts that are currently provided.

2.2 Scenario E

This scenario included a 50¢ increase in the base fare from \$1.75 to \$2.25. As a result, the prices of multi-ride fare media (Breeze Cards and Tickets) increased proportionally. Also, the multiple for the 30-day pass was increased substantially from its current level. As such, the price

of this time-based pass increases more than in Scenario D. In relation to MARTA's Discount Programs, no changes were made to the levels of discounts that are currently provided.

**Exhibit C-1
Summary of Fare Change Scenarios**

Categories	Scenario D 50¢ Base Fare Increase No Change in Multiple	Scenario E 50¢ Base Fare Increase Increase in Monthly Pass Multiple	Scenario F 50¢ Base Fare Increase Increase in all Time-Based Pass Multiples
Cash Fares	• Base fare increased from \$1.75 to \$2.25 (29%)	• Base fare increased from \$1.75 to \$2.25 (29%)	• Base fare increased from \$1.75 to \$2.25 (29%)
Transfers	• No change from current	• No change from current	• No change from current
Breeze Cards and Tickets			
Stored Value	• Increase base fare to \$2.25	• Increase base fare to \$2.25	• Increase base fare to \$2.25
Single Trip	• Increase base fare to \$2.25	• Increase base fare to \$2.25	• Increase base fare to \$2.25
Round Trip	• Increase to \$4.50	• Increase to \$4.50	• Increase to \$4.50
Ten Trip	• Increase to \$25.00	• Increase to \$25.00	• Increase to \$25.00
20 Trip	• Increase to \$38.00 results in 16% discount	• Increase to \$38.00 results in 16% discount	• Increase to \$38.00 results in 16% discount
30-Day Pass	• Increase price to \$67.50 • Multiple of 30 same as current	• Increase price to \$72.00 • Increase Multiple to 32	• Increase price to \$76.50 • Multiple of 34
Day Passes	• Maintain multiples in the same range as current system • Increases pass prices 11% to 18%	• Maintain multiples in the same range as current system • Increases pass prices 11% to 18%	• Increase multiples by 1 to 2 • Increases pass prices 25% to 38%
Cal Monthly	• Increase price to \$67.50 • Multiple of 30 same as current	• Increase price to \$72.00 • Increase Multiple to 32	• Increase price to \$76.50 • Increase Multiple to 34
Cal Weekly	• Increase price to \$17.00 • Multiple of 7.6 same as current	• Increase price to \$17.00 • Multiple of 7.6 same as current	• Increase price to \$19.00 • Increase Multiple to 8.4
Half Fares	• Maintain 50% discount for all half fare instruments	• Maintain 50% discount for all half fare instruments	• Maintain 50% discount for all half fare instruments

2.3 Scenario F

This scenario included a 50¢ increase in the base fare from \$1.75 to \$2.25. As a result, the prices of multi-ride fare media (Breeze Cards and Tickets) increased proportionally. However, the multiples for time-based passes were increased more substantially from their current levels. As such, the price of time-based passes increased more than in both Scenario D and Scenario E. In relation to MARTA's Discount Programs, no changes were made to the levels of discounts for the University, K-12, and Homeless programs.

Exhibit C-1, continued
Summary of Fare Change Scenarios

Program	Scenario D 50¢ Base Fare Increase No Change in Multiple	Scenario E 50¢ Base Fare Increase Increase in Monthly Pass Multiple	Scenario F 50¢ Base Fare Increase Increase in all Time-Based Pass Multiples
Discount Pass Programs			
Partnership Program	• No change from current	• No change from current	- 0-49 0% - 50 to 149 3% - 150 to 1,999 5% - 2,000 to 2,999 7% - 3,000 to 5,999 8% - TMA or 6,000+ 10%
University Pass Program	Students \$45.50 (X 22.8) Faculty \$56.50 (X 28.3)	Students \$45.50 (X 22.8) Faculty \$56.50 (X 28.3)	Students \$45.50 (X 22.8) Faculty \$56.50 (X 28.3)
K-12 Student Pass Program	\$11.50 (X = 5.7)	\$11.50 (X = 5.7)	\$11.50 (X = 5.7)
Homeless Program	• No change from current	• No change from current	• No change from current
Convention and Visitors Pass Program	• No change from current	• No change from current	- 1 Day \$8.00 - 2 Day \$9.00 - 3 Day \$11.00 - 4 Day \$12.00 - 7 Day \$13.00 - 200 to 499 5% - 500 to 999 6% - 1,000 to 4,999 7% - 5,000 to 9,999 8% - >10,000 10%

2.4 Scenario G

This scenario included a 75¢ increase in the base fare from \$1.75 to \$2.50. As a result, the prices of multi-ride fare media (Breeze Cards and Tickets) increased proportionally. The multiples for time-based passes were increased substantially from current. In relation to MARTA's Discount Programs, no changes were made to the levels of discounts that are currently provided.

2.5 Scenario H

This scenario included a 75¢ increase in the base fare from \$1.75 to \$2.50. As a result, the prices of multi-ride fare media (Breeze Cards and Tickets) increased proportionally. However, the multiple for the 30-day pass was increased substantially from its current level. As such, the price of this time-based pass increases more than in Scenario G. In relation to MARTA's Discount Programs, no changes were made to the levels of discounts that are currently provided.

2.6 Scenario I

This scenario included a 75¢ increase in the base fare from \$1.75 to \$2.50. As a result, the prices of multi-ride fare media (Breeze Cards and Tickets) increased proportionally. However, the multiples for time-based passes were increased more substantially from their current levels. As such, the price of time-based passes increased more than in both Scenario G and Scenario H. In relation to MARTA's Discount Programs, no changes were made to the levels of discounts for the University, K-12, and Homeless programs.

**Exhibit C-2
Summary of Fare Change Scenarios**

Categories	Scenario G 75¢ Base Fare Increase No Change in Multiple	Scenario H 75¢ Base Fare Increase Increase in Monthly Pass Multiple	Scenario I 75¢ Base Fare Increase Increase in all Time-Based Pass Multiples
Cash Fares	<ul style="list-style-type: none"> Base fare increased from \$1.75 to \$2.50 (43%) 	<ul style="list-style-type: none"> Base fare increased from \$1.75 to \$2.50 (43%) 	<ul style="list-style-type: none"> Base fare increased from \$1.75 to \$2.50 (43%)
Transfers	<ul style="list-style-type: none"> No change from current 	<ul style="list-style-type: none"> No change from current 	<ul style="list-style-type: none"> No change from current
Breeze Cards and Tickets			
Stored Value	<ul style="list-style-type: none"> Increase base fare to \$2.50 	Increase base fare to \$2.50	Increase base fare to \$2.50
Single Trip	<ul style="list-style-type: none"> Increase base fare to \$2.50 	Increase base fare to \$2.50	Increase base fare to \$2.50
Round Trip	<ul style="list-style-type: none"> Increase to \$5.00 	<ul style="list-style-type: none"> Increase to \$5.00 	<ul style="list-style-type: none"> Increase to \$5.00
Ten Trip	<ul style="list-style-type: none"> Increase to \$25.00 	<ul style="list-style-type: none"> Increase to \$25.00 	<ul style="list-style-type: none"> Increase to \$25.00
20 Trip	<ul style="list-style-type: none"> Increase to \$42.50 results in 15% discount 	<ul style="list-style-type: none"> Increase to \$42.50 results in 15% discount 	<ul style="list-style-type: none"> Increase to \$42.50 results in 15% discount
30-Day Pass	<ul style="list-style-type: none"> Increase price to \$75.00 Multiple of 30 same as current 	<ul style="list-style-type: none"> Increase price to \$80.00 Increase Multiple to 32 	<ul style="list-style-type: none"> Increase price to \$85.00 Multiple of 34
Day Passes	<ul style="list-style-type: none"> Maintain multiples in the same range as current system Increase pass prices 11% to 18% 	<ul style="list-style-type: none"> Maintain multiples in the same range as current system Increase pass prices 11% to 18% 	<ul style="list-style-type: none"> Increase multiples by 1 to 2 Increase pass prices 25% to 38%
Cal Monthly	<ul style="list-style-type: none"> Increase price to \$75.00 Multiple of 30 same as current 	<ul style="list-style-type: none"> Increase price to \$80.00 Increase Multiple to 32 	<ul style="list-style-type: none"> Increase price to \$85.00 Increase Multiple to 34
Cal Weekly	<ul style="list-style-type: none"> Increase price to \$18.75 Multiple of 7.5 same as current 	<ul style="list-style-type: none"> Increase price to \$18.75 Multiple of 7.5 same as current 	<ul style="list-style-type: none"> Increase price to \$21.25 Increase Multiple to 8.5
Half Fares	<ul style="list-style-type: none"> Maintain 50% discount for all half fare instruments 	<ul style="list-style-type: none"> Maintain 50% discount for all half fare instruments 	<ul style="list-style-type: none"> Maintain 50% discount for all half fare instruments

Exhibit C-2, continued
Summary of Fare Change Scenarios

Program	Scenario G 75¢ Base Fare Increase No Change in Multiple	Scenario H 75¢ Base Fare Increase Increase in Monthly Pass Multiple	Scenario I 75¢ Base Fare Increase Increase in all Time-Based Pass Multiples
Discount Pass Programs			
Partnership Program	• No change from current	• No change from current	<ul style="list-style-type: none"> - 0-49 0% - 50 to 149 3% - 150 to 1,999 5% - 2,000 to 2,999 7% - 3,000 to 5,999 8% - TMA or 6,000+ 10%
University Pass Program	Students \$45.50 (X 22.8) Faculty \$56.50 (X 28.3)	Students \$45.50 (X 22.8) Faculty \$56.50 (X 28.3)	Students \$45.50 (X 22.8) Faculty \$56.50 (X 28.3)
K-12 Student Pass Program	\$11.50 (X = 5.7)	\$11.50 (X = 5.7)	\$11.50 (X = 5.7)
Homeless Program	• No change from current	• No change from current	• No change from current
Convention and Visitors Pass Program	• No change from current	• No change from current	<ul style="list-style-type: none"> - 1 Day \$8.00 - 2 Day \$9.00 - 3 Day \$11.00 - 4 Day \$12.00 - 7 Day \$13.00 - 200 to 499 5% - 500 to 999 6% - 1,000 to 4,999 7% - 5,000 to 9,999 8% - >10,000 10%

Exhibit C-3
Comparison of Fare Change Scenarios versus Current Fares

Fare Type	Current	Scenario D	Scenario E	Scenario F
• Base Fare	\$1.75	\$2.25	\$2.25	\$2.25
• Half Fare	85¢	\$1.10	\$1.10	\$1.10
• Round Trip	\$3.50	\$4.50	\$4.50	\$4.50
• 10-Trip	\$17.50	\$25.00	\$25.00	\$25.00
• 20-Trip (X times base fare)	\$30.00 X = 17.1	\$38.00 X = 16.9	\$38.00 X = 16.9	\$38.00 X = 16.9
• One Day Pass (X times base fare)	\$8.00 X = 4.6	\$10.00 X = 4.5	\$10.00 X = 4.5	\$12.00 X = 5.3
• 7 Day Pass (X times base fare)	\$13.00 X = 7.5	\$17.00 X = 7.6	\$17.00 X = 7.6	\$19.00 X = 8.4
• 30 Day Pass (X times base fare)	\$52.50 X = 30	\$67.50 X = 30	\$72.00 X = 32	\$76.50 X = 34
• Calendar Weekly (X times base fare)	\$13.00 X = 7.5	\$17.00 X = 7.6	\$17.00 X = 7.6	\$19.00 X = 8.4
• Calendar Monthly (X times base fare)	\$52.50 X = 30	\$67.50 X = 30	\$72.00 X = 32	\$76.50 X = 34
• MARTA Mobility Base Fare	\$3.50	\$4.50	\$4.50	\$4.50
• Paratransit 30 Day Pass (X times base fare)	\$105.00 X = 30	\$135.00 X = 30	\$144.00 X = 32	\$153.00 X = 34
• Breeze Card (initial purchase)	\$5.00	\$5.00	\$5.00	\$5.00
• Breeze Ticket (initial purchase)	50¢	50¢	50¢	50¢

Note: pass prices based on the pass multiple "X" (i.e., X times the base fare).

Exhibit C-4
Comparison of Fare Change Scenarios versus Current Fares

Fare Type	Current	Scenario G	Scenario H	I
• Base Fare	\$1.75	\$2.50	\$2.50	\$2.50
• Half Fare	85¢	\$1.25	\$1.25	\$1.25
• Round Trip	\$3.50	\$5.00	\$5.00	\$5.00
• 10-Trip	\$17.50	\$25.00	\$25.00	\$25.00
• 20-Trip (X times base fare)	\$30.00 X = 17.1	\$42.50 X = 17.0	\$42.50 X = 17.0	\$42.50 X = 17.00
• One Day Pass (X times base fare)	\$8.00 X = 4.6	\$11.00 X = 4.4	\$11.00 X = 4.4	\$13.00 X = 5.2
• 7 Day Pass (X times base fare)	\$13.00 X = 7.5	\$18.75 X = 7.5	\$18.75 X = 7.5	\$21.25 X = 8.5
• 30 Day Pass (X times base fare)	\$52.50 X = 30	\$75.00 X = 30	\$80.00 X = 32	\$85.00 X = 34
• Calendar Weekly (X times base fare)	\$13.00 X = 7.5	\$18.75 X = 7.5	\$18.75 X = 7.5	\$21.25 X = 8.5
• Calendar Monthly (X times base fare)	\$52.50 X = 30	\$75.00 X = 30	\$80.00 X = 32	\$85.00 X = 34
• MARTA Mobility Base Fare	\$3.50	\$5.00	\$5.00	\$5.00
• Paratransit 30 Day Pass (X times base fare)	\$105.00 X = 30	\$150.00 X = 30	\$160.00 X = 32	\$170.00 X = 34
• Breeze Card (initial purchase)	\$5.00	\$5.00	\$5.00	\$5.00
• Breeze Ticket (initial purchase)	50¢	50¢	50¢	50¢

Note: pass prices based on the pass multiple "X" (i.e., X times the base fare).

Exhibit C-5 (MAY 2009 Forecast)
FY 2010 Projection Scenarios – Unlinked Trips & Revenue Changes from FY10 Baseline

Base Fare: \$2.25	Fare Structure			
	Baseline	Scenario "D"	Scenario "E"	Scenario "F"
Ridership				
Gross Ridership	151,346,262	124,264,846	122,200,778	114,620,021
Change from FY10 Baseline	-	(27,081,416)	(29,145,484)	(36,726,241)
Revenue				
Gross Revenue	100,314,242	109,181,179	109,376,691	109,511,008
Change from FY10 Baseline	-	\$8,866,937	\$9,062,449	\$9,196,766
Change in Cost	-	500,000	500,000	500,000
Net Revenue	-	\$108,681,179	\$108,876,691	\$109,011,008

Exhibit C-6 (MAY 2009 Forecast)
FY 2010 Projection Scenarios – Unlinked Trips & Revenue Changes from FY10 Baseline

Base Fare: \$2.50	Fare Structure			
	Baseline	Scenario "G"	Scenario "H"	Scenario "I"
Ridership				
Gross Ridership	151,346,262	105,343,019	102,864,848	92,733,102
Change from FY10 Baseline	-	(38,802,818)	(41,104,566)	(50,336,577)
Revenue				
Gross Revenue	100,314,242	109,387,689	109,170,538	107,449,445
Change from FY10 Baseline	-	\$9,073,447	\$8,856,296	\$7,135,203
Change in Cost	-	500,000	500,000	500,000
Net Revenue	-	\$108,887,689	\$108,670,538	\$106,949,445

As noted in the introductory paragraphs to Appendix C, Other Pricing Scenario Results, these additional analyses validated the obvious. That is after increasing base fare past a certain level, an unacceptable number of patrons (i.e., almost one third) are lost. The results for the \$2.25 and \$2.50 projections as presented above confirmed this

Exhibit C-7 (MAY2009 Forecast)
Additional Projection: Unlinked Trips & Revenue Changes from FY10 Baseline

	Fare Structure			
	Baseline	Scenario "C1"	Scenario "C2"	Scenario "C3"
Monthly Pass Multiple		36	38	40
Ridership				
Gross Ridership	151,346,262	125,828,533	124,202,298	122,626,101
Change from FY10 Baseline	-	(25,517,729)	(27,143,964)	(28,720,161)
Revenue				
Gross Revenue	100,314,242	108,987,773	109,188,103	109,341,969
Change from FY10 Baseline	-	8,673,531	8,873,861	9,027,727
Change in Cost	-	500,000	500,000	500,000
Net Revenue	-	\$108,487,773	\$108,688,103	\$108,841,969

In each of the three scenarios above, there is a base fare of \$2.00, a 20-trip discounted fare of \$1.70 per trip, a 7-day pass price of \$17.00, a Half-Fare price of \$1.00, and a Mobility fare of \$4.00. The difference is the variations in the "Monthly Pass Multiples", increased to 36, 38 and 40.

Exhibit C-8 (May 2009 Forecast)

Average Fare

Fare Structure						
Baseline	Scenario "A"	Scenario "B"	Scenario "C"	Scenario "C1"	Scenario "C2"	Scenario "C3"
\$0.6831	\$0.7822	\$0.8410	\$0.8549	\$0.8683	\$0.8813	\$0.8939

Appendix D

Communications Plan

Objectives

- Educate the public on the current MARTA situation
- Develop and implement a public information outreach plan to effectively communicate the changes to MARTA's fares and services and the effective date
- Ensure that the public understand why MARTA is making these cost containment measures and how it will impact them
- Minimize the loss of customers and maintain goodwill in the community

Target Audiences

Although messaging will apply to the general public as a whole within that audience there are several distinct target markets:

- Regular/Occasional Riders
- Mobility Customers/Disabled Community/EDACC Members
- Half Fare Customers/Senior Community
- Multi Cultural Groups
- MARTA Stakeholders:-Government &Political Leaders/Business Leaders/
- Community & Faith-based Leaders/Regional Transit Peers/MARTA Partners (including TMA's, Pass Partners, University K-12, bulk customers and organizations participating in homeless program)
- MARTA Employees/ Board Members & Retirees
- Media

Communication Channels

- Flyers/posters & seat drops
- Newspaper ads
- Radio ads
- Website
- Emails/ letters & phone calls
- Signpost electronic signs
- TV screens on buses and trains
- Local movie theater advertising
- Transit advertising- bulkhead on buses and rail car ad spaces
- A Frames
- Press releases

- Radio PSAs and newspaper interviews

In addition to this general communications we will undertake special outreach for our disabled and elderly customers by ensuring that all communications are available in an alternative format and by holding community meetings and presentations targeted towards this audience.

For our multicultural audiences key communication pieces will be translated into Spanish, Chinese, Korean and Vietnamese and distribute through External affairs, DEO and through local ethnic communities.

Please refer to Section 5 Public Involvement, Input and Marketing section to view detailed plan.

Appendix E

Financial Outlook

MARTA Financial Overview

Original Budget Projection
(as of June 2007 – FY07 Un-audited)

	Actual FY04	Actual FY05	Actual FY06	Actual FY07	Adopted FY08	Projection FY09	→ FY10
Current Year Operating Revenues	292.71	302.34	323.61	338.96	362.17	353.14	363.37
% Increase/Decrease	2.0%	3.3%	5.2%	4.7%	6.8%	1.2%	2.9%
Net Operating Expenditures	295.82	306.30	303.62	326.86	383.52	399.77	412.73
% Increase/Decrease	-4.1%	3.5%	-0.9%	7.7%	17.3%	4.2%	3.2%
Impact on Reserves	(3.11)	(3.96)	19.99	12.10	(21.35)	(46.63)	(49.36)
Prior Year Surplus/Deficit	13.91	10.80	6.84	26.83	38.93	17.58	(29.04)
Sales Tax Surplus/Carryover (before 5%)	10.80	6.84	26.83	38.93	17.58	(29.04)	(78.40)
Prior Year 5% Sales Tax Reserves	20.79	34.82	49.64	66.20	83.66	102.22	111.62
5% Sales Tax Reserves	14.03	14.82	16.56	8.73	0.00	0.00	0.00
Extension of 5% Sales Tax Reserves				8.73	18.56	9.40	0.00
Sales Tax Surplus/Carryover (after 5%)	45.63	56.48	93.03	122.60	119.81	82.58	33.22
MARTA Act Reserves	(28.71)	(29.27)	(30.23)	(32.36)	(33.90)	(36.22)	(35.31)
Available Reserves	16.93	27.22	62.81	90.25	85.92	46.38	(2.08)

Revised Sales Tax Forecast - A

	1/08 Forecast	9/08 Forecast	Difference	Cummed Difference	Forecast Growth
FY08A	351.596				
FY09	366.476	336.069	-30.407	-30.407	-4.4%
FY10	380.649	339.647	-41.002	-71.409	1.1%
FY11	403.130	352.625	-50.505	-121.914	3.8%
FY12	428.283	368.568	-59.715	-181.629	4.5%
FY13	453.829	391.502	-62.327	-243.956	6.2%
FY14	481.171	412.239	-68.932	-312.888	5.3%
FY15	503.918	429.138	-74.780	-387.668	4.1%
FY16	515.945	437.960	-77.985	-465.653	2.1%
FY17	530.224	448.717	-81.507	-547.160	2.5%
FY18	560.705	474.449	-86.256	-633.416	5.7%

Source: Georgia State University Economic Forecasting Center (GSUEFC)

Operating Budget Projections

(FY08 – FY11 Revised – "AS IS") *
(\$Million)

	Actual FY08	Adopted FY09	Preliminary Forecast FY09	Projection FY10	FY11
Current Year Operating Revenues	355.29	351.72	337.63	345.53	353.68
% Increase/Decrease	3.9%	-1.0%	-5.0%	2.3%	2.4%
Net Operating Expenditures	364.54	395.46	400.26	423.54	441.97
% Increase/Decrease	11.7%	8.5%	9.8%	5.8%	4.4%
Impact on Reserves	(9.25)	(43.74)	(62.63)	(78.01)	(88.29)
Sales Tax Carryover	134.50	99.92	80.27	2.26	(86.03)
MARTA Act Reserves	(34.19)	(35.53)	(35.53)	(33.76)	(34.55)
Available Reserves	106.31	64.39	44.74	(31.50)	(126.58)

* Georgia State University Economic Forecasting Center Report
(September 2008)

FY09/FY10 Reduction
Target

Revised Sales Tax Forecast - B

	1/08 Forecast	12/08 Forecast	Difference	Cummed Difference	Forecast Growth
FY08A	351.596				
FY09	366.476	326.848	-39.628	-39.628	-7.0%
FY10	380.649	306.346	-74.303	-113.931	-6.3%
FY11	403.130	301.967	-101.163	-215.094	-1.4%
FY12	428.283	310.140	-118.143	-333.237	2.7%
FY13	453.829	321.055	-132.774	-466.011	3.5%
FY14	481.171	338.536	-142.635	-608.646	5.4%
FY15	503.918	358.357	-145.561	-754.207	5.9%
FY16	515.945	368.115	-147.830	-902.037	2.7%
FY17	530.224	376.355	-153.869	-1055.906	2.2%
FY18	560.705	398.478	-162.227	-1218.133	5.9%

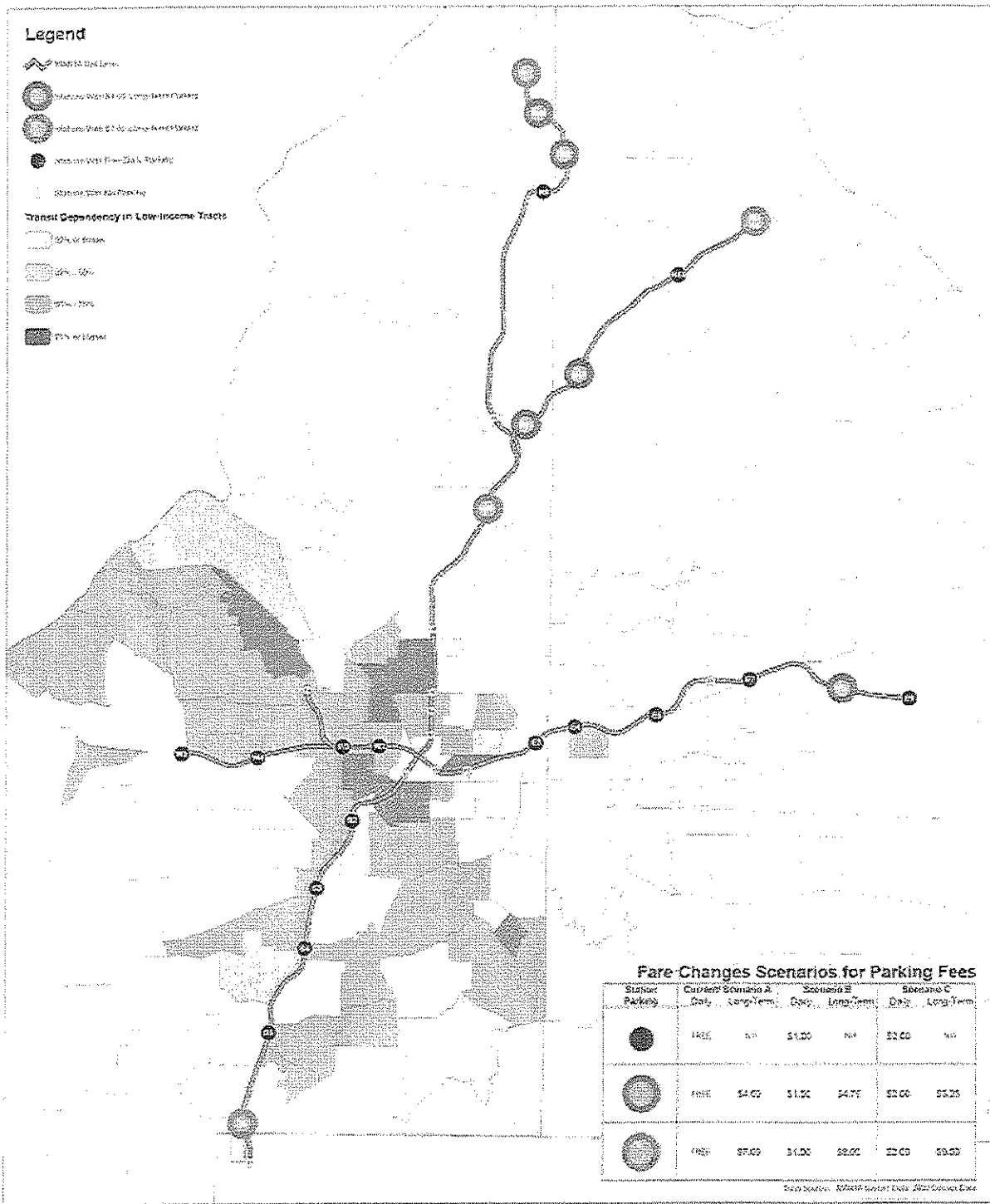
Source: Georgia State University Economic Forecasting Center (GSUEFC)

Operating Budget Projections

(FY08 – FY11 Revised – "AS IS") *
(\$Million)

	Actual FY08	Adopted FY09	Preliminary Forecast FY09	Projection FY10	Projection FY11
Current Year Operating Revenues	357.11	351.72	333.02	323.18	322.13
% Increase/Decrease	4.4%	-1.5%	-6.7%	-3.0%	-0.3%
Net Operating Expenditures	363.99	395.46	400.26	417.84	436.32
% Increase/Decrease	11.6%	8.6%	10.0%	4.4%	4.4%
Impact on Reserves	(6.88)	(43.74)	(67.24)	(94.66)	(114.18)
Sales Tax Carryover	136.87	102.29	77.80	(16.86)	(131.04)
MARTA Act Reserves	(34.19)	(35.71)	(35.71)	(33.30)	(32.32)
Available Reserves	102.68	66.58	42.09	(50.16)	(163.36)

* Georgia State University Economic Forecasting Center Report (December 2008)



MARTA Rail Stations With Parking and Transit Dependency in Low-Income Census Tracts

