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**METRO-DADE TRANSIT AGENCY
Transit Fare Policies and Strategies**

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**FINAL
Technical Memorandum Number 2
Fare Policy Alternatives**

**Prepared for
Metro-Dade Transit Agency**

**Prepared by
Center for Urban Transportation Research
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DECEMBER 1993

TECHNICAL MEMORANDUM NUMBER 2

Fare Policy Alternatives

This report presents a broad set of fare policy alternatives, and develops a general screening process to determine a set of candidate fare structures for further consideration. As part of this Technical Memorandum, the fare alternatives will address policy and structural issues, but not specific fare levels. This report is in accordance with Work Order 11, Task 3, of the interlocal agreement between the University of South Florida and Metropolitan Dade County. The purpose of this Work Order is to develop long-term fare policy for the Metro-Dade Transit Agency (MDTA) taking into account existing and historical fare structure in Dade County, fare policies at other multimodal transit agencies nationwide, transfer policies, treatment of intermodal fares, discounts for multi-trip purchases, time of day differentials, and distance based fares.

The process of developing fare policy alternatives involved several steps. The first section of this report describes the preparation of an extensive list of fare options. CUTR then reviewed these options and made a preliminary determination of whether each option merited further consideration. Reasons for not advancing an option to the next phase were provided in every instance. The end result of this first step was a revised list of viable fare policy options. The second section discusses the criteria used in a preliminary screening of the fare policy alternatives. The third section presents the preferred alternatives to be analyzed in greater detail in a subsequent phase of the study.

Transit fare policies reflect various goals and concerns, some of which are complementary and some of which are competing. There is considerable national interest in the issues surrounding transit fares. The newly formed Transit Cooperative Research Program, administered by TRB and funded by FTA, selected a study titled "Fare Policies, Structures and Technologies" as its first research project. In its initial phase, the study is examining policy goals for transit fares, and these were discussed in an informal presentation at the TRB-sponsored "Workshop on Transit Fare Policy and Management" in July 1993. Four categories of fare policy goals can be identified:

1. Customer-related (maximize ridership, maximize equity of fare structure, increase convenience of fare payment, simplify fare structure);
2. Financial (maximize revenue, reduce fare abuse, improve revenue control);

3. Management-related (improve data collection, increase pricing flexibility);
4. Political (achieve mandated recovery ratio, maximize acceptability of fare structure).

While each of the goals identified in this example is logical and defensible on its own, the development of a fare policy reveals conflicting areas in which choices must be made. For example, maximizing ridership and maximizing revenue are two goals which result in very different recommendations with regard to fare pricing. There are also tradeoffs involved between increased price flexibility and a simplified fare structure, and between maximizing revenue and political acceptability. Before an analysis of fare policy options can be undertaken, the goals of such a policy must be clearly identified and prioritized.

MDTA does not have written fare policy goals. In recent years, however, it appears that the goals of maximizing revenue and increasing farebox recovery ratio have been paramount. This is due in large measure to reduced subsidies available at the federal and county levels. State subsidies have increased, but farebox revenues have become increasingly important to MDTA. Since 1986, annual farebox revenues have increased by \$19.9 million, from \$34.4 to \$54.3 million in FY 1992, accounting for 47 percent of all revenue increases. The farebox recovery ratio has risen from 26 percent in 1986 to 36 percent in FY 1992 and is projected to increase to 39 percent in FY 1993. The emphasis on farebox revenue has been necessary for MDTA to continue to fulfill its mission of providing public transportation in Dade County in an era of declining subsidies.

Within the parameters of increasing revenue and farebox recovery ratio, there is also an interest in maximizing ridership, particularly as new modes or system extensions are opened. There have also been attempts to encourage multi-trip purchases by discounting the price of the token (\$10 for 10 tokens, compared with a base fare of \$1.25), but this has not received widespread exposure. The relatively high cost of the monthly pass (\$60 for full fare riders) clearly indicates the priority given to maximizing revenue over maximizing ridership.

The options described in the following section are intended to be inclusive and thus are identified without regard to current fare policy. Some options represent a dramatic departure from existing priorities. The evaluation of these alternatives discussed in the final section of this technical memorandum will clarify the underlying objectives of MDTA's fare policy.

GOALS

The major goal of any transit systems fare policy is to increase farebox recovery while also increasing ridership or, in essence, to maximize revenues and ridership simultaneously. Other issues which must be considered include the complexity of the fare system and its impact on current and potential riders, transit drivers and supervisors in the field. Based on information presented in Technical Memorandum Number 1 surveying similar transit agencies, MDTA appears to have an easy-to-understand fare structure with a reasonable number of fare payment options. These options are presented on individual route schedules, the Dade County Transit Map, and in great detail in MDTA's Transit Riders Handbook and Elderly and Disabled Riders Handbook.

The following goals are presented to help guide the development of the screening criteria and in guiding the development of the preferred alternatives.

- Maintain the financial integrity of the system by keeping fare pricing in line with budgetary needs while being sensitive to the inverse relationship of fares to ridership.
- Maintain a simplified fare structure to benefit both the rider and transit operator.
- Maintain a fare payment system which accelerates transit vehicle boarding time.
- Maintain equity in terms of the relationship between fares and the quality (length, time, comfort) of the trip.

COMPREHENSIVE FARE ALTERNATIVES

Based on historical MDTA fare policy information, and the survey of fare policy at other major transit systems presented in Technical Memorandum Number 1 of this Work Order, CUTR developed a broad array of fare options for initial consideration. The alternatives are grouped by category and are presented in this section.

Full Cash Fares

Alternatives for initial consideration include increasing and/or decreasing full cash fares by mode of service. (Note that Special Transportation Service (STS) is not specifically included in the analysis as part of this Work Order). Other alternatives include changing the relative price between express and local bus (currently a ratio of 1.2 to 1), and changing the relative price between rail and local bus (currently priced equally).

Discount Cash Fares

This category represents alternatives for cash fares for the elderly, disabled and students. Alternatives include changing/eliminating the discounted fare by category, and adding more categories (i.e. college students). Also considered are time of day discounts for off peak service, as well as eliminating the discounts for elderly and disabled in the peak periods (current regulations require elderly and handicapped discounts only in the off peak, though MDTA has extended the discounts to all times). Another option is to restrict student discounts to the time of year/week/day that the student is in classes, as well as exploring the possibility of having the Board of Education purchase from MDTA discounted tokens or scrip to give to qualified students for fare payment. An improved method for issuing discount permits to the elderly, disabled and students is the final option identified in this category.

Peak Differential

This category includes changing the relative price between peak and off peak service, which currently is the same. Other alternatives are to charge a different peak fare by mode, and to discontinue discounted fares in the peak periods.

Transfers

Alternatives in this category include eliminating transfers (i.e. riders pay full fare each time they board a transit vehicle), reducing the fares in conjunction with the elimination of transfers, making transfers free, and restricting the ability to transfer on a transfer. Other alternatives considered include charging a different transfer fee by mode, not discounting transfers, and developing a transfer policy with the jitney operators as well as with the Special Transportation Services. Finally, establishing reciprocal agreements with Tri-Rail

and Broward County Transit and instituting a transfer between bus and mover are additional options.

Monthly Passes

Monthly pass alternatives include eliminating the current monthly Metropass, increasing/decreasing the price of the pass, and creating a mode specific pass. Other alternatives to be considered include eliminating the discount pass to elderly, disabled and students, creating a picture ID with the discount permits, selling passes over the phone using credit cards as payment, increasing the number of pass outlets, and using the monthly pass as a marketing tool with the holder offered discounted retail purchases.

Other Passes

Other pass alternatives include offering a weekly all mode pass, weekly passes differentiated for rail and bus, weekday only passes, weekend only passes, and separate Saturday or Sunday only passes. Also considered are daily, bi-monthly, annual, and seasonal passes. Other pass alternatives include family passes, punch passes, visitor passes, juror passes, a joint pass with Tri-Rail and Broward County Transit, a University pass (paid for as part of tuition), and an event pass (e.g. good for travel to and from a Miami Heat game). Also to be considered is an employer purchased discounted annual pass for all of its employees (e.g. Denver RTD Eco Pass). Finally, the potential for combining transit, parking and van pool services into one payment pass will be an option.

Tokens

Token alternatives considered include the elimination of the token, increasing/decreasing the price of the token, allowing token usage only on specific modes, and discounting tokens further for the elderly, disabled and students. Finally, as with pass sales, increasing the number of token distribution outlets will be a candidate action.

Tickets

Alternatives include creating a ticket, differentiating the tickets by mode, determining an appropriate level of discount, and establishing the number of tickets to be sold by booklet (e.g. 10-ticket book, 30-ticket book).

Zonal Fares

MDTA does not currently have distance or zoned based fares. Alternatives to be considered include creating either a distance or zone based fare, defining the zonal boundaries, specifying the cost by zone/distance, deciding whether to include a peak/off peak differential in the zonal charge, and specifying different zonal fares by mode.

Magnetic Fare Cards

MDTA currently uses a read only magnetic fare card for monthly passes and use on rail. Alternatives to be considered include eliminating magnetic cards, maintaining the existing read only card, or changing to a stored value card as used in Washington D.C. and elsewhere.

Parking Rates

Most Metrorail stations have parking facilities available for riders. The daily parking rate is \$1.00. Metropass holders can purchase a \$2.00 parking permit with their pass that allows unlimited use of the rail parking facilities for that month. Alternatives to be considered include decreasing/increasing/eliminating the daily rate and/or the permit rate, and including the price of parking in the monthly Metropass.

Other

Other fare alternatives for consideration include developing a Guaranteed Ride Home program, employer provided commuter checks, and discounted fares for TMA member employees.

Fare Equipment

Related to all of the alternatives discussed above, fare equipment compatible with the selected alternatives will be considered.

Alternatives were then evaluated for their ability to meet the established goals. As summarized in Table 1, each option was either accepted for further consideration and evaluation, or not chosen for further consideration if the alternative was duplicative, beyond

the current scope of analysis, not feasible for implementation, or did not meet the established goals.

TABLE 1

**METRO-DADE TRANSIT AGENCY
Alternative Fares Types/Structures**

<u>Category</u>	<u>Alternatives</u>	<u>Evaluation</u>
Full Cash Fares	<ul style="list-style-type: none"> ● Increase/decrease local bus fare ● Increase/decrease express bus fare ● Increase/decrease Metrorail fare ● Increase/decrease Metromover fare ● Change in relative price of express/local bus ● Change in relative price of rail/bus 	Fare Level Beyond Scope Fare Level Beyond Scope Fare Level Beyond Scope Fare Level Beyond Scope Accept Accept
Discount Cash Fares	<ul style="list-style-type: none"> ● Increase/decrease discount fare ● Eliminate/change discount by fare category (elderly, disabled, students) ● Add more discount categories (college students) ● Time of day discounts (peak/off peak, weekend) ● Change definition of disabled ● Restrict student discount to school year weekdays only/school hours ● Improve permit process ● Student passes/tokens funded by Board Of Education 	Fare Level Beyond Scope Not Feasible (Required by law) Does not meet Goals (Revenue loss, increased complexity) Not Feasible Not Feasible Accept Beyond Scope Beyond Scope
Peak Differential	<ul style="list-style-type: none"> ● Decrease existing fare in off-peak, keep existing fare in peak period ● Keep existing fare in off-peak, increase fare in peak period ● Do not offer discounted fares in peak period ● Charge peak fares differently by mode 	Revenue Loss Not Feasible Not Feasible (Politically) Not Feasible

TABLE 1 (Continued)

<u>Category</u>	<u>Alternatives</u>	<u>Evaluation</u>
Transfers	● Eliminate transfers	Not Feasible
	● Eliminate transfers <u>and</u> reduce fares	Accept
	● Decrease/increase/eliminate charge for transfer	Beyond Scope
	● Only allow 1 transfer with a transfer, then must pay full fare again	Does not meet Goals
	● Different transfer fees by mode	Does not meet Goals (Too complex)
	● Don't discount transfers	Duplicative
	● Jitneys	Demonstration Underway
	● Reciprocal intercounty agreements with Tri-Rail and BCT	Accept
	● Allow transfers between STS and bus/rail/mover	Accept
	● Bus/Mover transfer	Accept
Monthly Passes	● Eliminate monthly pass	Does not meet Goals
	● Increase discount of monthly pass	Accept
	● Discount monthly pass by mode (Metrorail only pass)	Does Not Meet Goals
	● Create a Metromover pass	Accept
	● Do not offer the discounted monthly pass to elderly, disabled, students	Not Feasible
	● Picture ID with monthly sticker	Not Feasible (Administratively)
	● Increase outlets (banks, malls)	Accept
	● Pass that is also good as a discount card on other purchases	Beyond Scope
● Pass purchases over the phone	Accept	

TABLE 1 (Continued)

<u>Category</u>	<u>Alternatives</u>	<u>Evaluation</u>
Other Passes	• Weekly passes	Accept
	• Weekly passes differentiated for rail and bus	Does not meet Goals (increased complexity; too many pass types)
	• Weekday only pass	Does not meet Goals (same as above)
	• Sat or Sun only pass	Does not meet Goals (same as above)
	• Weekend only pass	Does not meet Goals (same as above)
	• Daily pass (also 2, 3, 4, 5, or 6 day pass)	Accept
	• Two week pass	Does Not Meet Goals
	• Bi-monthly pass	Does Not Meet Goals
	• Annual pass	Market Uncertain
	• Summer youth pass	Market Uncertain
	• Seasonal pass	Market Uncertain
	• Family pass	Market Uncertain
	• Punch pass (10, 20, 40)	Duplicates Tokens
	• Transfer Punch pass	Market Uncertain
	• Joint pass with BCT/Tri-Rail	Accept
	• University Pass (all students pay as part of tuition, with ID then ride free)	Not Feasible (Administratively)
	• Event pass	Accept
• Combine transit, parking, and van pools into one pass	Administrative Concerns	
• Visitor pass	Duplicates Daily Pass	
• Juror pass	Market Uncertain	
• Employer pass (e.g. Denver RTD Eco Pass)	Duplicates Commuter Check	
Tokens	• Eliminate tokens	Does not meet Goals
	• Increase/decrease discount on tokens	Accept
	• Allow tokens only on certain modes	Not Feasible
	• Discount tokens further for elderly, disabled, students	Not Feasible (Potential for Abuse)
	• Increase availability (more outlets, more vending dispensers)	Duplicative with more Pass Outlets and more Vending Machines for Passes and Tokens

TABLE 1 (Continued)

<u>Category</u>	<u>Alternatives</u>	<u>Evaluation</u>
Tickets	<ul style="list-style-type: none"> • Create a ticket • Different cost by mode • Level of discount • Quantity in booklet 	<p>Duplicates Tokens Duplicates Tokens Duplicates Tokens Duplicates Tokens</p>
Zonal Fares	<ul style="list-style-type: none"> • Yes or no • What cost • Peak/off peak differential • Different by mode • # of zones • Discount zone surcharge for elderly, disabled, students 	<p>Not Feasible (Politically) Not Feasible (Politically)</p>
Magnetic Fare Cards	<ul style="list-style-type: none"> • By mode • Read only or stored value card 	<p>Does not meet Goals Accept</p>
Parking Rates	<ul style="list-style-type: none"> • Increase/decrease/eliminate Metrorail parking fees • Discontinue Parking pass • Make parking cost included in pass 	<p>Accept Not Feasible Not Feasible</p>
Other	<ul style="list-style-type: none"> • Guaranteed Ride Home • Employer provided "Commuter Check" • Discounted fares for TMA members 	<p>Not Applicable Accept Market Uncertain</p>
Fare Equipment	<ul style="list-style-type: none"> • Honor System • Turnstiles which accept stored value cards • Free fare zones • Vending machines for tokens and passes 	<p>Accept Accept Not feasible Accept</p>

FARE ALTERNATIVES SCREENING CRITERIA

This section develops a set of criteria to be used to perform an initial screening of the broad set of fare groups presented above. A detailed assessment of the preferred alternatives will be presented in Technical Memorandum Number 3.

Criteria

The following criteria have been established to initially screen the fare group alternatives developed in the previous section. These criteria best represent the previously established goals.

- Equity Among Passengers
- Feasibility
- Revenue Implications
- Ridership Implications
- Convenience to Rider/Operator
- Ease of Implementation

Screening Process

Based on the fare survey information, and past experiences at MDTA, the fare alternatives were evaluated using the above criteria and a scoring process ranging from a +2 ranking for a significant positive impact on the individual criteria, to a -2 ranking for a significant negative impact on the individual criteria. Note that Equity, Feasibility, and Revenue and Ridership Implications criteria were weighted by a factor of two to account for their importance in the evaluation process. Table 2 presents the results of the initial screening process.

Selected Options for Further Analysis

Based on the total scores presented in Table 2, the fare alternatives listed below will be advanced to the next phase, which includes a more detailed assessment based on the previously established

criteria. These nine alternatives generally scored highest.

- Allow transfers between STS and bus/rail/mover
- Change relative price of express bus/local bus
- Institute a bus/mover transfer
- Increase the number of pass/token outlets
- Implement reciprocal fare agreements with BCT and Tri-Rail
- Implement a weekly pass
- Institute and employer provide "Commuter Check" program
- Offer stored value cards
- Create a Metromover only pass

While the above fare alternatives will be assessed in greater detail in Technical Memorandum Number 3, the following alternatives scored well and may warrant future consideration:

- Implement a daily pass (also 2/3 day pass)
- Change Metrorail parking fees
- Increase the number of locations of vending machines for tokens AND include passes
- Restrict student discounts to school year weekdays only
- Increase the level of discount of the monthly Metropass
- Allow pass purchases over the phone
- Offer an Event Pass
- Increase the discount on tokens

TABLE 2
Fare Alternatives
Initial Screening

Fare Alternatives	-----Weighted X 2-----				Convenience to Riders/ Operators	Ease of Implementation	Weighted Total
	Equity	Feasibility	Revenue Implications	Ridership Implications			
Relative Price of Express/Local Bus	2	2	1	1	0	2	14
Relative Price of Rail/Bus	2	-2	2	-2	0	2	2
Restrict Student Discount to School Year Weekdays Only	2	1	1	-1	-1	1	6
Eliminate Transfers AND Reduce Fares	-1	-1	0	-1	1	2	-3
Reciprocal Fare Agreements with Tri-Rail and BCT	2	1	1	1	1	-2	9
Allow Transfers between STS and Bus/Rail/Mover	2	2	2	1	1	1	16
Bus/Mover Transfer	2	2	-1	2	2	2	14
Increase Discount of Monthly Pass	0	2	-2	1	2	2	6
Create a Metromover Pass	0	2	-1	1	2	2	8
Increase Pass Token Outlets	1	2	1	1	2	1	13
Pass Purchases over the Phone	0	1	1	1	2	-2	6
Weekly Passes	1	2	1	1	1	-2	9
Daily Pass (also 2/3 day pass)	0	2	1	1	1	-2	7
Joint Pass with Tri-Rail/BCT	1	0	1	1	1	-2	5
Event Pass (all events)	-1	1	1	1	1	1	6
Increase Discount on Tokens	1	-1	0	1	2	2	6
Stored Value Card	1	1	1	1	2	-2	8
Change Metrorail Parking Fees	1	1	1	0	-1	2	7
Employer Provided "Commuter Check"	-1	2	1	1	2	0	8
Honor System	0	-1	-2	-1	2	-1	-7
Turnstiles which accept Stored Value Cards	1	1	0	0	2	-2	4
Vending Machines for Tokens and Passes	1	1	1	0	2	-1	7

Significant Positive Impact 2
 Positive Impact 1
 No Impact 0
 Negative Impact -1
 Significant Negative Impact -2