Transit System Subsidy Policy

Peer Review and Analysis

prepared for

Miami Dade Transit

prepared by

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Background

Miami-Dade Transit (MDT), one of the largest departments of Miami-Dade County government, and the largest transit agency in the State of Florida, is responsible for providing public transit services in the County. On November 5th, 2002, the voters of Miami-Dade County approved a one-half penny increase on the County sales tax to be used to implement the People's Transportation Plan (PTP). The majority of the new revenue will be provided for the enhancement of Miami-Dade's transit system.

As MDT implements the PTP, service standards are being revised, and MDT has been actively developing new data-based and tested service standards that will provide a better balance between passenger convenience, increasing ridership, and operational efficiency. Service standards are already being applied to reduce or eliminate routes and route segments with very low utilization; to expand service where there is crowding; and to change service to better meet the needs of the community.

MDT is seeking policy-level mechanisms to determine when and how much to increase fares. Toward this end, the agency is considering a system-wide subsidy or cost recovery standard that could be used as a mechanism to determine when to increase fares.

Purpose

This study has been prepared to provide additional information to help MDT and the County determine if a system-wide subsidy or cost recovery standard should be used as a mechanism to determine when and by how much to increase fares. The requested study presented here, is a peer review conducted by telephone survey combined with web-based data collection. The goals are to:

- identify how many peer transit agencies use a system-wide subsidy / cost recovery policy;
- determine if system-wide subsidy / cost recovery policy is used in conjunction with fare increases;
- if system-wide subsidy / cost recovery policy is used as a fare policy basis or input, identify how it is used;
- if possible identify experience or other fare policy information that may be helpful to the County and MDT.

Methodology

Peer Agencies

Peers were generally selected by their rank size in terms of annual ridership (FY 2004); however transit capacity size (number of vehicles), and number and type of modes operated was also considered. The participating peers are listed in Table 1, along with their rank and 2004 annual ridership.

Table 1
Peer Agencies

Agency		Rank	2004 Annual Ridership	2004 Annual Operating Budget	Modes &Vehicles in Peak Service
MTA, NYCT	Metropolitan Transit Authority of New York, New York City	1	2,654,169,018	$4,216,490,648	Bus: 3,849 Heavy Rail: 5,191
CTA	CTA Chicago Transit Agency	2	472,747,231	$1,069,626,951	Bus: 1,710 Heavy Rail: 1,008
WMATA	Washington Metropolitan Area Transit Authority - Washington D.C.	3	396,670,324	$921,241,644	Bus: 1,236 Heavy Rail: 750
LACMTA	Los Angeles County Metropolitan Transportation Authority	4	393,597,973	$884,781,672	Bus: 2,172 Light Rail: 96 Heavy Rail: 70
MBTA	Massachusetts Bay Transportation Authority - Boston	5	347,322,619	$581,674,171	Bus: 838 Trolley: 24 Light Rail: 320 Heavy Rail: 150
SEPTA	Southeastern Pennsylvania Transportation Authority - Philadelphia	6	300,771,254	$572,138,441	Bus: 1,169 Light Rail: 117 Heavy Rail: 276
NJT	New Jersey Transit	7	228,282,633	$640,308,797	Bus: 1,917 Coach: 785 Light Rail: 51
Muni	San Francisco Municipal Railway	8	215,743,701	$431,373,638	Bus: 400 Trolley: 259 Light Rail: 130 Cable Car: 26
MARTA	Metropolitan Atlanta Rapid Transit Authority	9	135,850,591	$288,667,375	Bus: 1,236 Heavy Rail: 750
MTA	Maryland Transit Administration	10	105,320,552	$278,050,590	Bus: 813 Light Rail: 49 Heavy Rail: 54
Metro	King County Dept. of Transportation, Metro Transit Division - Seattle	11	98,648,817	$353,522,713	Bus: 1,245 Trolley: 157 Light Rail: 3
MDT	**Miami–Dade Transit**	**12**	**98,543,451**	**$309,537,911**	**Bus: 663** **Light Rail: 17** **Heavy Rail: 103**
BART	San Francisco Bay Area Rapid Transit	13	97,545,611	$375,024,594	Heavy Rail: 522
Tri-Met	Tri-County Metropolitan Transportation District of Oregon - Portland	14	97,454,644	$240,543,187	Bus: 546 Light Rail: 69
RTD	Denver Regional Transportation District	16	81,3336,575	$242,802,119	Bus: 883 Light Rail: 47
OCTA	Orange County Transportation Authority - Los Angeles	18	67,551,874	$167,856,484	Bus: 541

Agency		Rank	2004 Annual Ridership	2004 Annual Operating Budget	Modes &Vehicles in Peak Service
PAT	Port Authority of Allegheny County - Pittsburgh	20	66,021,099	$252,646,087	Bus: 997 Light Rail: 55 Funicular: 2
AC Transit	Alameda-Contra Costa Transit District	21	64,663,431	$255,462,554	Bus: 633
DTS	City of Honolulu Department of Transportation	22	61,297,980	$118,938,461	Bus: 425
GCRTA	The Greater Cleveland Regional Transit Authority	23	57,474,741	$196,628,225	Bus: 663 Light Rail: 17 Heavy Rail: 103
Metro Transit	Metro Transit - Minneapolis	24	56,901,430	$194,456,848	Bus: 722 Light Rail: 22
Valley Metro	City of Phoenix Public Transit Department	27	40,813,740	$102,053,371	Bus: 410

Survey

The surveys were mostly conducted by telephone, with some additional backup information provided by e-mail. The survey was two tiered, and first asked whether or not the agency had a system-wide subsidy / cost recovery policy. If the agency answered yes to this question, then additional questions were asked regarding the relationship to the fare increases. The survey included the following questions:

1. Does the agency have a system –wide subsidy or cost recovery standard?
2. If yes to Question 1, what is the standard?
3. If yes to Question 1, has the agency ever raised fares to maintain the standard?

Background Data

Significant background information was collected to identify characteristics that determine whether an agency is a peer, and additional data to analyze the results. This data collection is summarized by transit property, and provided in its entirety in Appendix I

Analysis of the background data is provided to help understand the relative similarities and differences of MDT to the peer agencies. Three sets of parameters are presented in the appendices:

- standard transit performance measures — Appendix II
- measures of transit effectiveness as an urban service — Appendix III
- local funding component operating cost benefit and burden — Appendix IV

Findings

Response Rate

Of the 30 properties that were researched and surveyed, complete responses were obtained from 21 of them.

Findings: Farebox Subsidy Standard

No two agencies are exactly alike in their farebox subsidy policies and policies regarding fare changes. Among the variations, five (5)general cases could be identified:

1. "No Policy"
   No system-wide farebox subsidy policy at all. Along with Case #2, this is the most prevalent, particularly among the older, more established, multimodal properties. Among those surveyed, 6 agencies have no subsidy standard policy.

2. "Guideline"
   System-wide farebox subsidy policy in place as a guideline, but not adopted as policy or legislation. Along with Case #1, this is the most prevalent, also particularly among the older, more established, multimodal properties. Among those surveyed, 4 had this type of subsidy standard.

3. "Adopted Policy"
   System-wide farebox subsidy policy in place as adopted as policy. This is not a frequent finding, but when found is more typical of single mode properties with low variable to fixed operating cost ratios, such as rail only properties. Among those surveyed, 5 agencies have some kind of subsidy standard.

4. "Policy to Define"
   Policy or legislation to determine a system-wide farebox subsidy standard periodically, but not quantified in legislation or policy. This was found in cases where legislative initiatives had been passed to improve service, expand service, and/or reform management. Among those surveyed, 3 had this type of subsidy standard.

5. "State Legislated"
   State mandated legislative requirement to meet a quantitatively defined farebox subsidy level. In particular this was found for California, Maryland, and Pennsylvania. In all cases, it is accompanied by an operating funding source mix that show extremely low (<2%) or no local source operating funds, and very high State contributions to operating budgets. Among those surveyed, 3 had this type of subsidy standard. The states include California, Pennsylvania, and Maryland. Texas also has state legislation that requires a farebox subsidy level; however a response was not received from the Texas transit properties surveyed (DART and Houston Metro).

Findings: Relationship of Farebox Subsidy Level to Fare Change Policy

In terms of fare change policy, there is much greater similarity among different transit properties. farebox subsidy policies and policies regarding fare changes. Generally, there are four (4) cases, each of which is a fine difference in the definition of the nexus between farebox subsidy levels and fare policies:

"No Policy Relationship – Budget Process"
For all properties, fare changes are determined by the governing board as part of their annual budget process or a long-term financial planning process. The processes in all case are very political, with significant public input. Fare structure changes are viewed as one possibility for balancing a budget from the revenue side, but careful consideration is always given to ridership impacts (and revenue) as well as equity issues. Equal consideration may be given to other revenue streams (such as advertising), or cutting costs. In these cases there is no policy requirement among the factors to be considered that includes farebox subsidy by any definition. Typically fare structure changes in these cases are implemented after a third party, independent study, as well as the substantial levels of public and political input. Among those surveyed, eighteen (18) properties (86%) are in this category.

"Loose Policy Relationship – Un-weighted Input"
For these properties, fare changes are still determined by the governing board as part of their annual budget process. In these cases, the boards are required to follow specific guidelines as to the process, and factors that must be included in their decision-making process regarding a fare change. Among these factors that must be weighed, are found the consideration of farebox subsidy level. In all cases, although policy requires that the board consider farebox subsidy levels, the policy does not specify the weight that must be given to this factor or any other, so the relationship to fare change exists by policy, but is loose and not quantifiable. Three (3) of the eighteen properties are in this category.

"Policy Adjustment"
This is the case where policy or legislation requires the property to adjust fares to bring the farebox subsidy level to a certain level or within a certain range; however, the method by which the new fare is calculated is neither specified nor is an increment defined. One (1) of the eighteen properties are in this category.

"Policy Formula"
This is the last of the possibilities, in which the governing board is required by policy to determine fare changes by a formula that includes many factors and their weights in the decision making process. The formulaic approach has not been found to be employed by any of the peer transit properties.

Summary Findings

Table 5 summarizes the findings by property. Descriptions for the policies for each transit property can be found in the detailed findings of Appendix I. The survey does not clearly indicate a majority policy regarding subsidy level and fare increase. Comparing the various transit properties, the most salient point is that every property operates in a unique environment as defined by the urban area density, organizational size, fleet size, ratio of rail use to bus use, expansion commitments, financing, legal requirements, size of financing

jurisdiction relative to service area, the amount of the public subsidy, and the relative proportions of public subsidy sources. The information in Appendices I, II, and III illustrate these points.

Table 2
Farebox Subsidy Requirement and Fare Change Policy Findings

Agency	Metropolitan Area	Farebox Operating Ratio	Farebox Subsidy Policy Type	Farebox Subsidy Required	Fare Change Policy Relationship
MTA, NYCT	New York, NY	57%	Policy to Define	-	No Policy Relationship
CTA	Chicago, IL	43%	No Policy	-	No Policy Relationship
WMATA	Washington D.C.	24%	No Policy	-	No Policy Relationship
LACMTA	Los Angeles, CA	40%	Policy to Define	-	No Policy Relationship
MBTA	Boston, MA	28%	No Policy	-	No Policy Relationship
SEPTA	Philadelphia, PA	39%	Guideline	45%	No Policy Relationship
NJT	New Jersey	37%	No Policy	-	No Policy Relationship
Muni	San Francisco, CA	25%	Policy to Define	-	No Policy Relationship
MARTA	Atlanta, GA	25%	No Policy	-	No Policy Relationship
MTA	Baltimore, MD	31%	State Legislated	40%	Un-weighted Input
Metro	Seattle, WA	19%	Guideline	25%	No Policy Relationship
MDT	**Miami, FL**	**19%**	**No Policy**	**-**	**No Policy Relationship**
BART	San Francisco, CA	48%	Adopted Policy	62%	No Policy Relationship
Tri-Met	Portland, OR	20%	Guideline	25%	No Policy Relationship
RTD	Denver, CO	19%	Adopted Policy	30%	No Policy Relationship
OCTA	Los Angeles, CA	21%	State Legislated	20%	Un-weighted Input
PAT	Pittsburgh, PA	24%	State Legislated	46%	No Policy Relationship
AC Transit	San Francisco, CA	19%	Adopted Policy	30%	Un-weighted Input
DTS	Honolulu, HA	26%	Adopted Policy	27% - 33%	Policy Adjustment
GCRTA	Cleveland, OH	18%	Adopted Policy	25%	No Policy Relationship
Metro Transit	Minneapolis, MN	26%	Guideline	35%	No Policy Relationship
Valley Metro	Phoenix, AZ	18%	No Policy	-	No Policy Relationship

The survey is then a classic case of comparing apples and oranges, as each agency responds to the concept of tying subsidy level policy and fare policy according to its own procedures and situation. Notably, most staff that was spoken to during the survey recognized the merits of tying subsidy and fare levels by policy; however, few thought that it was organizationally feasible because of the numerous conditions that fare policy has to respond to. It is also worth understanding that in all of the agencies that do not have a strict policy formula, decisions about raising fares are made by the governing board, and usually simultaneously with the budgeting process. The decisions involve extensive and well attended public involvement, and so the final outcomes regarding fare changes are often in no small part the result of a political process.

Finally, one exception in fare policy is TriMet in Portland, Oregon. TriMet has to some extent systematized their fare change policy by simply tying it to price indices, and has regular intervals for increases.

Appendices

Appendix I

Detailed Data and Findings by Property

Appendix I contains background information that was collected to identify characteristics that determine whether an agency is a peer, and additional data to analyze the results. While much of this data is available individually from the agencies themselves, formats and methodologies may vary widely resulting in data that cannot be compared on par. To avoid this, all background data was obtained from the National Transit Database (NTD), maintained by the Federal Transit Administration (FTA). The most recent complete dataset available is for 2004.

The following data was obtained through the NTD for each peer agency. The complete data tables are contained in Appendix I.

- Organizational Form - agency, authority, or governmental department
- Operations Financing - proportion of funding by source: fare, local, state, federal
- Jurisdiction area and population
- Service Area – area, population
- Fleet Size in Peak Operation by mode
- Peak to Base Ratio (weighted for system)
- Spare Vehicles (percent for system)
- Annual Vehicle Revenue Hours by Mode
- Annual Vehicle Revenue Miles by Mode
- Capital Budget
- Operating Budget
- Operating Expenses by Mode
- Annual System Ridership by Mode
- Base Fare (by mode as necessary)

The findings from the study are listed below in a short synopsis for each transit property, after which conclusions are drawn that are relevant to Miami-Dade policy. Pertinent data and performance indicators are summarized in each synopsis.

With regard to subsidy information, it is important to understand the definitions of farebox subsidy, and understand that different properties use different metrics for what is loosely termed as farebox subsidy. There are two measures differentiated by the terms defined below:

> Farebox Recovery Ratio - has a long-term focus. It approximates the percentage of operating and long-term expenses paid for by passenger fare revenue and fare reimbursements. Long-term expenses include costs not funded in the current year

such as depreciation for equipment and facilities funded through the capital program and interest expense on bonds

Farebox Operating Ratio - focuses on the agency's operating performance. It approximates the percentage of agency operating expenses paid for by passenger fare revenue and fare reimbursements. The concept of fare reimbursements is key because it can include non-farebox revenues that are earmarked to subsidize reduced fare riders. A good example of this is the case of Port Authority of Allegheny County (Pittsburgh, PA) in which the Authority must meet State-legislated requirements for farebox operating ratio; however, one of the State's lottery revenues are dedicated to reimburse seniors who ride free. This revenue stream, provided by formula is included in the Authority's Farebox operating Ratio calculation.

Operating Ratio - is similar in concept to Farebox Operating Ratio, but used by some properties to differentiate that their accounting of operating ratio includes all non-subsidy revenues such as those from advertising, and real estate holdings. Many agencies still refer to this revenue definition as Farebox Operating Ratio; however to minimize confusion, in all cases where this occurs, it is noted in the detailed findings of Appendix I.

Miami-Dade Transit

MDT is ranked as the twelfth (12th) largest transit property by annual ridership, and provides bus, heavy rail, and light rail (Metro Mover) transit service to the Miami-Dade County area.

Service Area Proportion of Jurisdiction	26%
Service Area Population Density	8,174 persons/mi.^{2}
Service Area Market Penetration	7%
Fleet Size (peak operating)	Bus: 663
	Rail: 103
	Light Rail: 17
	Spares: 20%
	Peak-to-Base Ratio: 1.52
Annual Ridership:	Bus: 75,137,426
	Rail: 15,637,516
	Light Rail: 7,768,509
	Total: 98,543,451
	83% on weekdays
Subsidy Data:	
Base Full Fare	Bus: $1.35
	Rail: $1.35
	Light Rail: free
Average Fare	Bus: $0.77
	Rail: $0.64
	Light Rail: $0.00
Average Operating Cost per Trip	Bus: $3.05
	Rail: $3.93
	Light Rail: $2.40
Farebox Cost Recovery	Bus: 25%
	Rail: 16%
	Light Rail 0%
Annual Operating Cost (all modes)	$309,537,911
Local Subsidy Measures:	
Local Share of Operating Cost	73%
Operating Cost Subsidy / Capita in Jurisdiction	$ 45.94
Local Annual Operating Cost / Service Area Resident	$ 96.32
Local Share Operating Cost / Weekday Rider	$1,431.94

Metropolitan Transit Authority of New York (MTA), New York City Transit

MTA, New York City Transit is ranked as the largest transit property by annual ridership, and provides bus and heavy rail transit service for the New York City area. The MTA is the governing body for five (5) public transportation systems in the New York Metropolitan Area, including commuter railroads and intra-City bridges and tunnels; however this analysis is only for the New York City Transit system.

Service Area Proportion of Jurisdiction	10%
Service Area Population Density	24,948 persons/mi.^{2}
Service Area Market Penetration	54%
Fleet Size (peak operating)	Bus: 3,849
	Rail: 5,191
	Spares: 15%
	Peak-to-Base Ratio: 1.50
Annual Ridership:	Bus: 893,390,100
	Rail: 1,760,778,918
	Total: 2,654,169,018
	84% on weekdays
Subsidy Data:	
Base Full Fare	All Modes: $2.00
Average Fare	Bus: $0.79
	Rail: $1.44
Average Operating Cost per Trip	Bus: $1.88
	Rail: $1.04
Farebox Cost Recovery	Bus: 42%
	Rail: 72%
Annual Operating Cost (all modes)	$4,216,490,648
Local Subsidy Measures:	
Local Share of Operating Cost	17%
Operating Cost Subsidy / Capita in Jurisdiction	$ 40.27
Local Annual Operating Cost / Service Area Resident	$ 89.51
Local Share Operating Cost / Weekday Rider	$166.94

MTA, New York City Transit does not have a fixed farebox subsidy standard; however, as part of its annual budget process, it updates its targets for farebox recovery ratio, and farebox operating ratio. The targets are evaluated for the next budget year, and revised as necessary to better meet goals, and serve revisions in expected revenues or costs in the budget. For example, the recent standards are:

	2005 Actual	2006 Budget	2006 Actual
Farebox Recovery Ratio	29.3%	31.3%	30.3%
Farebox Operating Ratio	44.1%	44.1%	43.7%

Fare changes for MTA are changed through a financial planning process, and generally addressed as needed in the annual budget process. The process itself uses numerous inputs, but is also highly politically motivated, informed by advisory committees to the Board, and with a vigorous public involvement process. While farebox subsidy measures are used as inputs to the process, their influence is not quantifiable.

Chicago Transit Authority (CTA)

CTA is ranked as the second (2nd) largest transit property by annual ridership, and provides bus and heavy rail transit service for the metropolitan Chicago area.

Service Area Proportion of Jurisdiction	17%
Service Area Population Density	10,418 persons/mi.^{2}
Service Area Market Penetration	21%
Fleet Size (peak operating)	Bus: 1,710
	Rail: 1,008
	Spares: 16%
	Peak-to-Base Ratio: 2.03
Annual Ridership:	Bus: 294,030,344
	Rail: 178,716,456
	Total: 472,747,231
	84% on weekdays
Subsidy Data:	
Base Full Fare	All Modes: $2.00
Average Fare	Bus: $0.81
	Rail: $0.91
Average Operating Cost per Trip	Bus: $2.28
	Rail: $2.24
Farebox Cost Recovery	Bus: 36%
	Rail: 41%
Annual Operating Cost (all modes)	$1,069,626,951
Local Subsidy Measures:	
Local Share of Operating Cost	29%
Operating Cost Subsidy / Capita in Jurisdiction	$ 37.34
Local Annual Operating Cost / Service Area Resident	$ 83.64
Local Share Operating Cost / Weekday Rider	$407.00

CTA does not have a quantitative policy standard for system-wide subsidy level or cost recovery. The goals and objectives of the CTA Service Standards specifically cite cost effectiveness and productivity as performance measures for semi-annual reviews for service changes, but subsidy level is not used. Subsidy level and cost recovery are both monitored and reported by route, mode, and for the system as a whole; however, annual or other periodic subsidy performance results are not used directly to motivate or compel fare increases. Fare increases are determined by the governing board which is independent from any single local government jurisdiction.

Washington Metropolitan Area Transit Authority (WMATA)

Washington Metro is ranked as the third (3rd)largest transit property by annual ridership, and provides bus and heavy rail transit service for the metropolitan Washington D.C. area.

Service Area Proportion of Jurisdiction	60%	
Service Area Population Density	1,887 persons/mi.^{2}	
Service Area Market Penetration	52%	
Fleet Size (peak operating)	Bus:	1,236
	Rail:	750
	Spares:	17%
	Peak-to-Base Ratio:	2.68
Annual Ridership:	Bus:	146,010,344
	Rail:	250,659,980
	Total:	396,670,324
		89% on weekdays
Subsidy Data:		
Base Average Fare	Bus:	$1.25
	Rail:	zoned
Average Fare	Bus:	$0.66
	Rail:	$1.29
Average Operating Cost per Trip	Bus:	$2.71
	Rail:	$2.10
Farebox Cost Recovery	Bus:	24%
	Rail:	61%
Annual Operating Cost (all modes)	$921,241,644	
Local Subsidy Measures:		
Local Share of Operating Cost		61%
Operating Cost Subsidy / Capita in Jurisdiction		$142.85
Local Annual Operating Cost / Service Area Resident		$430.39
Local Share Operating Cost / Weekday Rider		$826.95

WMATA does not have a quantitative policy standard for system-wide subsidy level or cost recovery. Subsidy level and cost recovery are both monitored and reported by route, mode, and for the system as a whole; however, subsidy performance results are not used directly to motivate or compel fare increases. Fare increases are determined as part of the budgeting process by the WMATA governing board. At that time, the board evaluates the expenses and revenue together whether to reduce costs, increase non-fare revenue, or increase fares. Whichever method is considered, the Board will also factor into the decision how any changes could affect passengers and ridership levels in the system.

Los Angeles County Metropolitan Transit Authority (LACMTA)

Los Angeles Metro is ranked as the fourth (4th) largest transit property by annual ridership, and provides bus, heavy rail, and light rail transit service for the greater Los Angeles area.

Service Area Proportion of Jurisdiction	73%	
Service Area Population Density	6,939 persons/mi.^{2}	
Service Area Market Penetration	8%	
Fleet Size (peak operating)	Bus:	2,172
	Rail:	70
	Light Rail:	96
	Spares:	16%
	Peak-to-Base Ratio: 1.57	
Annual Ridership:	Bus:	329,875,269
	Rail:	30,870,369
	Light Rail:	32,852,335
	Total:	393,597,973
		89% weekdays
Subsidy Data:		
Base Full Fare	All Modes:	$1.25
Average Fare	Bus:	$0.56
	Rail:	$0.55
	Light Rail	$0.58
Average Operating Cost per Trip	Bus:	$2.14
	Rail:	$2.13
	Light Rail:	$3.40
Farebox Cost Recovery	Bus:	26%
	Rail:	26%
	Light Rail:	17%
Annual Operating Cost (all modes)	$884,781,672	
Local Subsidy Measures:		
Local Share of Operating Cost	22%	
Operating Cost Subsidy / Capita in Jurisdiction	$ 16.51	
Local Annual Operating Cost / Service Area Resident	$ 22.92	
Local Share Operating Cost / Weekday Rider	$290.29	

The LACMTA board reviews and updates its fare policy on a regular cycle, at least each 5th year since prior review. Up until 2005, LACMTA maintained a policy-level subsidy per passenger ratio* at $1.37. The Board's revised policy is: "It is our long-term strategy to maintain a reasonable subsidy per passenger ratio." The shift to a less strict standard was motivated by historically increasing subsidy levels in spite of policy.

As a transit property in the state of California, LACMTA is also mandated to maintain a 20% farebox recovery as required by the State's Transportation Development Act. The performance standard is tied to funding, and while used as an input to raising fares, it is not a sole determinant and not related by written policy.

*operating expenses, excluding depreciation, minus operating revenues, divided by passenger boardings

Massachusetts Bay Transportation Authority (MBTA)

MBTA is ranked as the fifth (5th) largest transit property by annual ridership, and provides bus, trolley, heavy rail, light rail, regional commuter, and ferry transit service for the metropolitan Boston area. (Ferry and commuter data is not included)

Service Area Proportion of Jurisdiction	not available
Service Area Population Density	1,390 persons/mi.^{2}
Service Area Market Penetration	14%
Fleet Size (peak operating)	Bus: 838
	Trolley: 24
	Rail:320
	Light Rail: 150
	Spares: 26%
	Peak-to-Base Ratio: 2.33
Annual Ridership:	Bus: 115,628,109
	Trolley: 3,633,864
	Rail: 157,502,520
	Light Rail: 70,558,126
	Total: 347,322,619
	86% weekdays
Subsidy Data:	
Base Full Fare	Bus: $0.90
	Trolley: $0.90
	Rail: $1.25
	Light Rail $1.25
Average Fare	Bus: $0.49
	Trolley: $0.46
	Rail: $0.61
	Light Rail $0.75
Average Operating Cost per Trip	Bus: $2.15
	Trolley; $3.34
	Rail: $1.36
	Light Rail: $1.52
Farebox Cost Recovery	Bus: 23%
	Trolley: 14%
	Rail: 45%
	Light Rail: 49%
Annual Operating Cost (all modes)	$581,674,171
Local Subsidy Measures:	
Local Share of Operating Cost	12%
Operating Cost Subsidy / Capita in Jurisdiction	$ 17.31
Local Annual Operating Cost / Service Area Resident	$ 15.48
Local Share Operating Cost / Weekday Rider	$109.47

MBTA does not have a quantitative policy standard for system-wide subsidy level or cost recovery. Subsidy level and cost recovery are both monitored and reported by route,

mode, and for the system as a whole; however, annual or other periodic subsidy performance results are not used directly to motivate or compel fare increases. Fare increases are determined by the governing board which is independent from any single local government jurisdiction.

Southeastern Pennsylvania Transportation Authority (SEPTA)

SEPTA is ranked as the sixth (6th) largest transit property by annual ridership, and provides bus, heavy rail, light rail, and commuter transit service for the metropolitan Philadelphia area. (Commuter transit service data is not included)

Service Area Proportion of Jurisdiction	46%	
Service Area Population Density	3,978 persons/mi.^{2}	
Service Area Market Penetration	16%	
Fleet Size (peak operating)	Bus:	1,169
	Rail:	276
	Light Rail:	117
	Spares:	16%
	Peak-to-Base Ratio: 1.43	
Annual Ridership:	Bus:	187,529,994
	Rail:	88,083,120
	Light Rail:	25,158,140
	Total:	300,771,254
		85% weekdays
Subsidy Data:		
Base Full Fare	All Modes:	$2.00
Average Fare	Bus:	$0.79
	Rail:	$0.82
	Light Rail	$0.59
Average Operating Cost per Trip	Bus:	$2.14
	Rail:	$1.42
	Light Rail:	$1.83
Farebox Cost Recovery	Bus:	37%
	Rail:	57%
	Light Rail:	32%
Annual Operating Cost (all modes)	$572,138,441	
Local Subsidy Measures:		
Local Share of Operating Cost	8%	
Operating Cost Subsidy / Capita in Jurisdiction	$ 8.89	
Local Annual Operating Cost / Service Area Resident	$13.76	
Local Share Operating Cost / Weekday Rider	$84.19	

SEPTA monitors subsidy levels, but does not use the information at a policy level for raising fares. Subsidy level and cost recovery are both monitored and reported by route, mode, and for the system as a whole. Benchmarks of: 60% for routes, 45% for urban services, 32% for suburban services, and 41% for regional rail are recognized as non-policy-level goal by service planning. Annual or other periodic subsidy performance results are not used directly to motivate or compel fare increases. Fare increases are determined by the governing board which is independent from any single local government jurisdiction.

New Jersey Transit Corporation (NJT)

NJT is ranked as the seventh (7th) largest transit property by annual ridership, and provides bus, commuter bus, light rail, heavy rail commuter transit service for the State of New Jersey, providing linkages throughout the State, and to New York City and Philadelphia.

Service Area Proportion of Jurisdiction	not available	
Service Area Population Density	5,309 persons/mi.^{2}	
Service Area Market Penetration	2%	
Fleet Size (peak operating)	Bus:	1,917
	Heavy Rail:	785
	Light Rail:	51
	Spares:	21%
	Peak-to-Base Ratio: 2.16	
Annual Ridership:	Bus:	149,619,610
	Heavy Rail:	66,794,119
	Light Rail:	9,868,904
	Total:	228,282,633
		90% weekdays
Subsidy Data:		
Base Full Fare	All Modes:	varies by service
Average Fare	Bus:	$1.62
	Rail:	$4.18
	Light Rail	$0.90
Average Operating Cost per Trip	Bus:	$3.91
	Rail:	$9.04
	Light Rail:	$5.54
Farebox Cost Recovery	Bus:	41%
	Rail:	57%
	Light Rail:	46%
Annual Operating Cost (all modes)	$730,932,629	
Local Subsidy Measures:		
Local Share of Operating Cost (Local + State)	33%	
Operating Cost Subsidy / Capita in Jurisdiction	$ 12.23	
Local Annual Operating Cost / Service Area Resident	$ 12.23	
Local Share Operating Cost / Weekday Rider	$548.00	

New Jersey Transit's services vary widely, not only by mode, but in trip length (commuter), market segments, and fare structures. The jurisdiction of NJT is the whole State, and 1/3 of its operating budget is from the State of New Jersey's Transportation Trust Fund; however the funding is not tied to farebox subsidy levels as a performance indicator. NJT does not have a system-wide farebox subsidy standard.

Fare changes for NJT are changed through a financial planning process, and generally addressed as needed in the annual budget process. The process itself uses numerous inputs, but is also highly politically motivated, informed by advisory committees to the

Board, and with a vigorous public involvement process. While farebox subsidy measures are used as inputs to the process, their influence is not quantifiable.

As an aside, there are many advocacy groups that petition the State to provide better management of the State's Transportation Trust Fund, and one of the suggestions has been to regularly increase NJT fares that are tied to the system's farebox operating recovery ratio to maintain it at 48% (including non-fare revenues). This is not a recommendation from an NJT advisory committee, but an independent citizens' group.

San Francisco Municipal Railway (Muni)

Muni is ranked as the eighth (8th) largest transit property by annual ridership, and provides bus, trolley, light rail, and the famed cable car rail transit service for San Francisco.

Service Area Proportion of Jurisdiction	9%	
Service Area Population Density	16,178 persons/mi.^{2}	
Service Area Market Penetration	42%	
Fleet Size (peak operating)	Bus:	400
	Trolley:	259
	Light Rail:	130
	Cable Car:	26
	Spares:	25%
	Peak-to-Base Ratio: 1.43	
Annual Ridership:	Bus:	87,471,668
	Trolley:	75,215,805
	Light Rail:	45,187,031
	Cable Car:	7,869,197
	Total:	215,743,701
		80% weekdays
Subsidy Data:		
Base Full Fare	Bus & Rail:	$1.50
	Cable Car:	$5.00
Average Fare	Bus:	$0.48
	Trolley:	$0.48
	Light Rail:	$0.48
	Cable Car:	$1.97
Average Operating Cost per Trip	Bus:	$1.90
	Trolley:	$1.58
	Light Rail:	$2.34
	Cable Car:	$5.14
Farebox Cost Recovery	Bus:	25%
	Trolley:	30%
	Light Rail:	20%
	Cable Carl:	38%
Annual Operating Cost (all modes)	$431,373,638	
Local Subsidy Measures:		
Local Share of Operating Cost	53%	
Operating Cost Subsidy / Capita in Jurisdiction	$ 70.81	
Local Annual Operating Cost / Service Area Resident	$288.42	
Local Share Operating Cost / Weekday Rider	$686.15	

As a transit property in the state of California, Muni is mandated to maintain a 20% farebox recovery as required by the State's Transportation Development Act, to access State funding as required by the Act. While maintaining the reported TDA performance standard, Muni does not have its own quantitative policy standard for system-wide subsidy

level or cost recovery. Proposition E, a referendum passed in 1999 required numerous policy changes in the planning and operation of Muni. Among them is a requirement to monitor subsidy levels, and produce annual recommendations as part of a required plan update, to improve this aspect of cost efficiency. As part of this plan update, a subsidy standard may be established as a performance goal; however, there is not a fixed quantity policy level subsidy standard, per se. Furthermore, neither Proposition E, nor the current plan ties fare increases directly to monitored subsidy levels.

Metropolitan Atlanta Rapid Transit Authority (MARTA)

MARTA is ranked as the ninth (9th) largest transit property by annual ridership, and provides bus and heavy rail transit service for the metropolitan Atlanta area.

Service Area Proportion of Jurisdiction	25%	
Service Area Population Density	2,721 persons/mi^2	
Service Area Market Penetration	16%	
Fleet Size (peak operating)	Bus:	590
	Rail:	184
	Spares:	21%
	Peak-to-Base Ratio: 1.60	
Annual Ridership:	Bus:	66,761,993
	Rail:	69,088,598
	Total:	135,850,591
		84% weekdays
Subsidy Data:		
Base Full Fare	All Modes:	$1.75
Average Fare	Bus:	$0.75
	Rail:	$0.63
Average Operating Cost per Trip	Bus:	$2.48
	Rail:	$1.78
Farebox Cost Recovery	Bus:	30%
	Rail:	35%
Annual Operating Cost (all modes)	$288,667,375	
Local Subsidy Measures:		
Local Share of Operating Cost		57%
Operating Cost Subsidy / Capita in Jurisdiction		$ 47.01
Local Annual Operating Cost / Service Area Resident		$121.44
Local Share Operating Cost / Weekday Rider		$747.88

MARTA does not at this time have a system-wide subsidy standard. Fare increases are evaluated as one component of the annual budget process. For example, in the 2006 budget process, the Board considered a fare increase; however, decided to delay any increase in the base fare until new fare collecting smart card technology is in place along with a new fare structure. During the FY 06 budget, the Board also appointed an ad-hoc committee to study and recommend policies for future fare increases.

The Georgia Regional Transportation Authority (GRTA), in its Regional Transit Action Plan has identified the maintenance of a specified farebox recovery ratio goal as one of eleven fare policy goals. While system-wide farebox recovery is evaluated, it is not unilaterally used as a basis for increasing fares.

Maryland Transit Administration (MTA)

MTA is ranked as the tenth (10th) largest transit property by annual ridership, and provides bus, heavy rail, light rail, and commuter transit service for the metropolitan Baltimore area. According to FTA data, MTA has no component of its operating budget sourced by local government; however, the State of Maryland contributes a significant portion, and this has been used in lieu of local funding to calculate jurisdictional subsidy comparatives.

Service Area Proportion of Jurisdiction	25%	
Service Area Population Density	2,721 persons/mi.^{2}	
Service Area Market Penetration	16%	
Fleet Size (peak operating)	Bus:	813
	Rail:	54
	Light Rail:	49
	Spares:	15%
	Peak-to-Base Ratio:	3.03
Annual Ridership:	Bus:	86,818,827
	Rail:	12,425,656
	Light Rail:	6,076,069
	Total:	105,320,552
		89% weekdays
Subsidy Data:		
Base Full Fare	All Modes:	$1.60
Average Fare	Bus:	$0.79
	Rail:	$0.93
	Light Rail	$0.89
Average Operating Cost per Trip	Bus:	$2.33
	Rail:	$3.36
	Light Rail:	$5.54
Farebox Cost Recovery	Bus:	34%
	Rail:	28%
	Light Rail:	16%
Annual Operating Cost (all modes)	$278,050,590	
Local Subsidy Measures:		
Local Share of Operating Cost (State)		55%
Operating Cost Subsidy / Capita in Jurisdiction		$ 73.65
Local Annual Operating Cost / Service Area Resident		$ 73.61
Local Share Operating Cost / Weekday Rider		$798.33

MTA operates in the State of Maryland, and receives 55% of its operating funding from the State. (By comparison, MDT receives 6% from the State.) State legislation (SB282) requires that MTA must maintain a 40% farebox recovery ratio for its bus, light rail, and metro services until June 30, 2008, after which it will be 50%. MTA has not been able to meet the farebox recovery goals due to high fixed costs, such as security at rail stations and maintenance of tracks, signals, and electric systems. With the exception of the MARC

service, the rail systems have not been able to generate sufficient ridership to meet the farebox recovery requirements.

The Transit Policy Panel, created by the State in 2000 reported that the State should abolish the farebox recovery requirement in favor of objective performance indicators and management audits. The panel reported that the 40% recovery mandate "limits the Baltimore region's ability to increase and improve transit services for riders." It also noted that local transit providers in rural areas and towns have increasing demands for service but their farebox recovery is well below 40%, averaging 15% for rural service and 27% for urban services.

King County Department of Transportation, Metro Transit Division

King County Metro is ranked as the eleventh (11th) largest transit property by annual ridership, and provides bus, trolley and light rail transit service for the metropolitan Seattle area. Similar to MDT in ridership rank, it is also similar in that it is a part of the County government

Service Area Proportion of Jurisdiction	not available	
Service Area Population Density	838 persons/mi.^{2}	
Service Area Market Penetration	9%	
Fleet Size (peak operating)	Bus:	1,245
	Trolley:	157
	Light Rail:	3
	Spares:	0%
	Peak-to-Base Ratio: 1.60	
Annual Ridership:	Bus:	75,472,721
	Trolley:	22,777,516
	Light Rail:	398,580
	Total:	98,648,817
		89% weekdays
Subsidy Data:		
Base Full Fare	All Modes:	$1.50-$2.00 (z)
Average Fare	Bus:	$0.75
	Trolley:	$0.82
	Light Rail	$0.57
Average Operating Cost per Trip	Bus:	$4.10
	Trolley:	$1.87
	Light Rail:	$3.58
Farebox Cost Recovery	Bus:	18%
	Trolley:	44%
	Light Rail:	16%
Annual Operating Cost (all modes)	$353,522,713	
Local Subsidy Measures:		
Local Share of Operating Cost		57%
Operating Cost Subsidy / Capita in Jurisdiction		$ 74.30
Local Annual Operating Cost / Service Area Resident		$ 112.68
Local Share Operating Cost / Weekday Rider		$1,187.76

King County Metro monitors subsidy levels, but does not use the information at a policy level for raising fares. Subsidy level and cost recovery are both monitored and reported by route, mode, and for the system as a whole. A benchmark of 25% is recognized as non-policy-level goal at the system level by service planning. Annual or other periodic subsidy performance results are not used directly to motivate or compel fare increases. Fare increases are determined by the King County Council.

Source: King County Metro Service Planning Staff

San Francisco Bay Area Rapid Transit District (BART)

BART is ranked as the thirteenth (13th) largest transit property by annual ridership, and provides heavy rail transit service for the greater San Francisco Bay area.

Service Area Proportion of Jurisdiction	18%	
Service Area Population Density	8,965 persons/mi.^{2}	
Service Area Market Penetration	19%	
Fleet Size (peak operating)	Rail:	522
	Spares:	28%
	Peak-to-Base Ratio:	2.39
Annual Ridership:	Rail:	97,545,611
	Total:	97,545,611
		87% weekdays
Subsidy Data:		
Base Full Fare	Rail:	$2.50
Average Fare	Rail:	$2.25
Average Operating Cost per Trip	Rail:	$3.84
Farebox Cost Recovery	Rail:	59%
Annual Operating Cost (all modes)	$375,024,594	
Local Subsidy Measures:		
Local Share of Operating Cost		44%
Operating Cost Subsidy / Capita in Jurisdiction		$ 51.11
Local Annual Operating Cost / Service Area Resident		$ 197.91
Local Share Operating Cost / Weekday Rider		$1,015.47

As a transit property in the state of California, BART is mandated to maintain a 20% farebox recovery as required by the State's Transportation Development Act to access State funding as defined by the Act. BART has a system-wide operating ratio standard of 62%. Notably, BART only operates a rail mode; therefore there are less options for service changes, since the alignments are fixed, and their ratio of variable costs to fixed costs is much lower than for a transit property that has buses as its primary component of capacity. BART's adopted fare policy includes five (5) additional factors that must be evaluated in addition to the operating ratio standard. These are: customer satisfaction, increasing ridership, increasing revenue from other non-fare sources, and optimizing system utilization by providing incentive for peak riders to shift to off-peak times. If an increase or change in fare structure is to be considered, it is required by policy to be first tested on a small scale if possible. While BART has a subsidy standard, it is not used directly to raise fares, but is one of several factors that are evaluated. Fare increases are determined by the BART Board of Directors.

BART Budget & Finance Staff

Tri-County Metropolitan Transportation District of Oregon (Tri-Met)

Tri-Met is ranked as the fourteenth (14th) largest transit property by annual ridership, and provides bus and light rail transit service for the metropolitan Portland area.

Service Area Proportion of Jurisdiction	not available	
Service Area Population Density	2,184 persons/mi.^{2}	
Service Area Market Penetration	12%	
Fleet Size (peak operating)	Bus:	546
	Light Rail:	69
	Spares:	19%
	Peak-to-Base Ratio: 1.67	
Annual Ridership:	Bus:	65,938,456
	Light Rail:	31,516,208
	Total:	97,454,664
		82% weekdays
Subsidy Data:		
Base Full Fare	All modes:	$1.65-$1.95 (z) with fareless square
Average Fare	Bus:	$0.56
	Light Rail	$0.63
Average Operating Cost per Trip	Bus:	$2.78
	Light Rail:	$1.81
Farebox Cost Recovery	Bus:	20%
	Light Rail:	35%
Annual Operating Cost (all modes)	$240,543,187	
Local Subsidy Measures:		
Local Share of Operating Cost	57%	
Operating Cost Subsidy / Capita in Jurisdiction	$ 86.61	
Local Annual Operating Cost / Service Area Resident	$109.38	
Local Share Operating Cost / Weekday Rider	$890.49	

Tri-Met uses a system-wide farebox recovery ratio of 25% as a performance goal; however, it is not implemented by policy of the governing board, and is therefore a guideline for service planning. Farebox recovery ratio or other subsidy measures, while monitored by Tri-Met are not defined by District policy as an input to fare changes.

Unlike many other transit properties, Tri-Met has established a regular fare increase as its fare change policy. At Tri-met, fares are increased annually, and the increases are tied to indices of inflation that account for operating cost increases. Generally, increases are at 3% per year, with cash fares rounded to the nearest 5-cent increment. Additional increases, tied specifically to the rising cost of diesel fuel may also be implemented.

Denver Regional Transportation District (RTD)

RTD is ranked as the sixteenth (16th) largest transit property by annual ridership, and provides bus and light rail transit service for the greater Denver area.

Service Area Proportion of Jurisdiction	not available	
Service Area Population Density	1,094 persons/mi.^{2}	
Service Area Market Penetration	6%	
Fleet Size (peak operating)	Bus:	883
	Light Rail:	47
	Spares:	19%
	Peak-to-Base Ratio:	1.75
Annual Ridership:	Bus:	71,338,116
	Light Rail:	10,028,459
	Total:	81,336,575
		90% weekdays
<u>Subsidy Data:</u>		
Base Fare	All Modes:	$1.50
Average Fare	Bus:	$0.66
	Light Rail:	$0.80
Average Operating Cost per Trip	Bus:	$3.10
	Light Rail:	$2.16
Farebox Cost Recovery	Bus:	21%
	Light Rail:	37%
Annual Operating Cost (all modes)	$242,802,119	
<u>Local Subsidy Measures:</u>		
Local Share of Operating Cost		61%
Operating Cost Subsidy / Capita in Jurisdiction		$ 74.62
Local Annual Operating Cost / Service Area Resident		$ 58.20
Local Share Operating Cost / Weekday Rider		$1,053.78

RTD uses a system-wide system subsidy measure at a policy level. The minimum system-wide farebox recovery ratio is adopted by the RTD Board of Directors, and is set at 30%. As part of its formula, RTD includes advertising revenues as part of the farebox revenue, so their subsidy measure is more of a revenue recovery ratio. If the standard is not met, RTD has a policy to evaluate the fare structure as part of the annual budget process, but there is not a preset relationship between the standard and fare increase. In addition, RTD's policy includes evaluation of other possible way to restore the standard: including: marketing services more aggressively to attract more customers, or to look for increased revenue from other sources.

Dallas Area Regional Transit (DART)

DART is ranked as the seventeenth (17th) largest transit property by annual ridership, and provides bus, light rail, and commuter transit service for the metropolitan Dallas area. Commuter transit service data is not included in this analysis. According to FTA data, DART has no component of its operating budget sourced by local government; however, the State of Texas contributes a significant portion, and this has been used in lieu of local funding to calculate jurisdictional subsidy comparatives.

Service Area Proportion of Jurisdiction	49%
Service Area Population Density	3,228 persons/mi.^{2}
Service Area Market Penetration	7%
Fleet Size (peak operating)	Bus: 798
	Light Rail: 82
	Spares: 23%
	Peak-to-Base Ratio: 1.51
Annual Ridership:	Bus: 58,901,932
	Light Rail: 16,375,995
	Total: 75,277,927
	100% weekdays
Subsidy Data:	
Base Full Fare	All Modes: $1.25
Average Fare	Bus: $0.42
	Light Rail: $0.53
Average Operating Cost per Trip	Bus: $3.19
	Light Rail: $3.48
Farebox Cost Recovery	Bus: 13%
	Light Rail: 15%
Annual Operating Cost (all modes)	$244,635,820
Local Subsidy Measures:	
Local Share of Operating Cost (State)	66%
Operating Cost Subsidy / Capita in Jurisdiction	$ 38.95
Local Annual Operating Cost / Service Area Resident	$ 75.59
Local Share Operating Cost / Weekday Rider	$1,089.84

The State's Transportation Development Act (TDA) requires a farebox recovery ratio minimum of 10%.

MST bus at 27.7%

Orange County Transportation Authority (OCTA)

OCTA is ranked as the eighteenth (18th) largest transit property by annual ridership, and provides bus transit service for Orange County in the Los Angeles metropolitan area. OCTA is also one of five member agencies of Metrolink commuter rail system and administers all of Orange County's Metrolink rail service. This analysis is only for OCTA's own transit service operations. In 1990, Orange County voters passed Measure M which is similar in scope to the PTP, including transit improvements, roadway improvements, and senior discounts.

Service Area Proportion of Jurisdiction	26%	
Service Area Population Density	6,268 persons/mi.^{2}	
Service Area Market Penetration	4%	
Fleet Size (peak operating)	Bus:	541
	Spares:	19%
	Peak-to-Base Ratio: 1.53	
Annual Ridership:	Bus:	67,551,874
	Total:	67,551,874
		84% weekdays
<u>Subsidy Data:</u>		
Base Full Fare	Bus:	$1.25
Average Fare	Bus:	$0.59
Average Operating Cost per Trip	Bus:	$2.48
Farebox Cost Recovery	Bus:	24%
Annual Operating Cost (all modes)	$167,856,484	
<u>Local Subsidy Measures:</u>		
Local Share of Operating Cost		11%
Operating Cost Subsidy / Capita in Jurisdiction		$ 1.57
Local Annual Operating Cost / Service Area Resident		$ 6.71
Local Share Operating Cost / Weekday Rider		$169.31

For its last fare increase in the FY 2005/5 for which base cash fares were raised from $1.00 to $1.25, OCTA based its increases on four needs:

1) Revenue Enhancement - to meet operating expenses and support long term service viability, and sustain growth;
2) Rising Costs - to meet rising labor costs associated with health benefits and pensions, and meet rising fuel costs;
3) Farebox Recovery - to address declining farebox recovery; and
4) Growth - to meet the growing demand for increased and expanded service.

During this process, OCTA's financial analysis anticipated a $500,000 increase in revenue while accounting for an anticipated loss of 2-million annual rides on fixed routes (elasticity of demand analysis). The analysis also stated that this loss would rebound in subsequent years.

Fare revenues account for 20% of OCTA's revenues, while an additional 4% from advertising makes up the 24% reported operating ratio. As a transit property in the state of California, OCTA is mandated to maintain a 20% farebox recovery as required by the State's Transportation Development Act. The performance standard is tied to funding, and while used as an input to raising fares, it is not a sole determinant and not related by written policy.

Port Authority of Allegheny County (PAT)

The Port Authority of Allegheny County is ranked as the twentieth (20th) largest transit property by annual ridership, and provides bus, light rail, and inclined railway transit service for the metropolitan Pittsburgh area.

Service Area Proportion of Jurisdiction	91%	
Service Area Population Density	1,826 persons/mi.^{2}	
Service Area Market Penetration	8%	
Fleet Size (peak operating)	Bus:	997
	Light Rail:	55
	Funicular:	2
	Spares:	6%
	Peak-to-Base Ratio:	2.13
Annual Ridership:	Bus:	58,297,773
	Light Rail:	6,654,554
	Funicular:	1,068,772
	Total:	66,021,099
		88% weekdays
Subsidy Data:		
Base Fare	Bus:	$1.25-$2.75 (z)
	Light Rail:	$1.50-$3.25 (z)
	Incline:	$1.75
Average Fare	Bus:	$0.97
	Light Rail:	$0.87
	Incline:	$0.98
Average Operating Cost per Trip	Bus:	$3.76
	Light Rail:	$5.35
	Incline:	$0.90
Farebox Cost Recovery	Bus:	26%
	Light Rail:	16%
	Incline:	108%
Annual Operating Cost (all modes)	$254,646,087	
Local Subsidy Measures:		
Local Share of Operating Cost	9%	
Operating Cost Subsidy / Capita in Jurisdiction	$ 13.07	
Local Annual Operating Cost / Service Area Resident	$ 16.19	
Local Share Operating Cost / Weekday Rider	$205.50	

The Port Authority of Allegheny County is a transit property that operates in the State of Pennsylvania and receives 52% of its operating funding from the State. (By comparison, MDT receives 6% from the State.) State legislation requires that any publicly funded transit property operating in Pennsylvania must maintain a 46% farebox recovery ratio; however, this requirement may be met by more than farebox revenue. The fare structure for AC Transit allows all seniors to ride for free. The foregone revenue from this policy is met by a portion of Lottery revenues that are earmarked to subsidize senior riders, and this revenue

is calculated as part of farebox revenue for determining if the State requirements are met. Fare increases evaluate farebox recovery as one of many factors in the budget process.

Alameda-Contra Costa Transit District (AC Transit)

AC Transit is ranked as the twenty-first (21st) largest transit property by annual ridership, and provides bus transit service in the San Francisco area.

Service Area Proportion of Jurisdiction	69%	
Service Area Population Density	3,888 persons/mi.^{2}	
Service Area Market Penetration	8%	
Fleet Size (peak operating)	Bus:	633
	Spares:	6%
	Peak-to-Base Ratio: 1.42	
Annual Ridership:	Bus:	64,663,431
	Total:	64,663,431
		87% weekdays
Subsidy Data:		
Base Fare	Bus:	$1.75
Average Fare	Bus:	$0.72
Average Operating Cost per Trip	Bus:	$3.49
Farebox Cost Recovery	Bus:	20%
Annual Operating Cost (all modes)	$255,462,554	
Local Subsidy Measures:		
Local Share of Operating Cost		67%
Operating Cost Subsidy / Capita in Jurisdiction		$ 46.79
Local Annual Operating Cost / Service Area Resident		$ 106.75
Local Share Operating Cost / Weekday Rider		$1,402.17

As a transit property in the state of California, AC Transit is mandated to maintain a 20% farebox recovery as required by the State's Transportation Development Act to access State funding as defined by the Act. AC Transit has a fare policy that establishes guidelines for review of fare structure by the Board. The guidelines define a procedure that requires the Board to consider: 1) fare recovery ratio related to the ability of the District to receive inter-governmental funding; 2) ease of understanding, consistency, and equity (Title VI Analysis*); 3) use of the fare structure to encourage ridership, increase productivity, and enhance coordination with other transit providers; and 4) an annual adjustment based on the change in the consumer price index, and the weighted average change in population used in calculating the District Appropriations Limitation (Sec. 7900, Art. XIII B, State of California Constitution). For the entire District, AC Transit policy requires a 30% farebox recovery ratio be maintained. The farebox recovery ratio; however, is not solely used to determine fare increase but is one of several factors used to determine the need, structure, and amount of fare increase.

*Title VI analysis assessed how a fare proposal would affect different rider populations, as well as to determine if there would be any disproportionately high and adverse effects on minority or low-income populations.

City & County of Honolulu Department of Transportation (DTS)

DTS is ranked as the twenty-second (22nd) largest transit property by annual ridership, and provides bus and light rail transit service for the City and County of Honolulu on the Island of Oahu.

Service Area Proportion of Jurisdiction	Oahu	
Service Area Population Density	3,163 persons/mi.^{2}	
Service Area Market Penetration	12%	
Fleet Size (peak operating)	Bus:	425
	Spares:	24%
	Peak-to-Base Ratio: 1.55	
Annual Ridership:	Bus:	61,297,980
	Total:	61,297,980
		91% weekdays
Subsidy Data:		
Base Full Fare	Bus:	$2.00
Average Fare	Bus:	$0.55
Average Operating Cost per Trip	Bus:	$1.94
Farebox Cost Recovery	Bus:	28%
Annual Operating Cost (all modes)	$118,938,461	
Local Subsidy Measures:		
Local Share of Operating Cost	57%	
Operating Cost Subsidy / Capita in Jurisdiction	$ 94.40	
Local Annual Operating Cost / Service Area Resident	$ 77.38	
Local Share Operating Cost / Weekday Rider	$634.13	

DTS has an adopted farebox recovery ratio policy that requires the ratio to be maintained between 27% and 33%. The policy is adopted by Resolution 00-09 of the City Council of Honolulu, which is the governing body for DTS. If the farebox recovery ratio comes to be below or above the established policy limits, the resolution requires that fares e adjusted, and a review of fares and expenditures is triggered. The review does not necessarily result in a fare change, but considers a variety of ways to bring the ratio to within policy limits.

Further, the resolution requires that the farebox recovery ratio be tracked as a part of the annual budget process by providing the prior year actual farebox recovery ratio, the estimated current year farebox recovery ratio, and the projected ratio for the budgeted fiscal year. The verbatim language of the resolution, less the preamble, is excerpted below.

BE IT RESOLVED by the Council of the City and County of Honolulu that the funding of the annual operating cost of the City bus system, excluding special transit service and debt service, be governed by the following policy:

(1) Bus fares shall be adjusted as provided under this policy so that the farebox recovery ratio does not fall below 27 percent nor exceed 33 percent; and

(2) The portion of operating cost remaining after application of paragraph (1) and intergovernmental grants shall be funded with the City's highway funds and general funds;

and

BE IT FURTHER RESOLVED that at the same time that the Mayor submits the annual executive operating and capital budgets to the Council for its consideration, the Mayor submit a report to the Council on: 1) the actual farebox recovery ratio for the previous fiscal year; 2) the estimated ratio for the current fiscal year, and 3) the projected ratio for the budgeted fiscal year; and

BE IT FURTHER RESOLVED that upon the adoption of this Resolution, all subsequent annual executive operating budgets submitted by the Mayor to the Council shall comply with this policy; and

BE IT FINALLY RESOLVED that the Clerk is directed to transmit a copy of this Resolution to the Mayor, the Director of Budget and Fiscal Services, the Director of Transportation Services and the Transportation Commission.

The Greater Cleveland Regional Transit Authority (GCRTA)

GCRTA is ranked as the twenty-third (23rd) largest transit property by annual ridership, and provides bus, heavy rail, and light rail transit service for the metropolitan Cleveland area. According to FTA data, GCRTA has no component of its operating budget sourced by local government; however, the State of Ohio contributes a significant portion, and this has been used in lieu of local funding to calculate jurisdictional subsidy comparatives.

Service Area Proportion of Jurisdiction	71%	
Service Area Population Density	3,083 persons/mi.^{2}	
Service Area Market Penetration	7%	
Fleet Size (peak operating)	Bus:	544
	Rail:	22
	Light Rail:	17
	Spares:	0%
	Peak-to-Base Ratio: 1.94	
Annual Ridership:	Bus:	47,631,186
	Rail:	7,282,845
	Light Rail:	2,560,710
	Total:	57,474,741
		88% weekdays
Subsidy Data:		
Base Full Fare	All Modes:	$1.25
Average Fare	Bus:	$0.64
	Rail:	$0.68
	Light Rail:	$0.68
Average Operating Cost per Trip	Bus:	$3.36
	Rail:	$3.28
	Light Rail:	$4.99
Farebox Cost Recovery	Bus:	19%
	Rail:	21%
	Light Rail:	14%
Annual Operating Cost (all modes)	$196,628,225	
Local Subsidy Measures:		
Local Share of Operating Cost (State)		74%
Operating Cost Subsidy / Capita in Jurisdiction		$ 81.44
Local Annual Operating Cost / Service Area Resident		$ 103.04
Local Share Operating Cost / Weekday Rider		$1,494.27

GCRTA has a system-wide standard for operating Ratio (fares, advertising income, and investment income that is 25%. In addition, GCRTA policy includes a standard that redefines this somewhat, and requires that subsidy should not be more than three times the fare. This redefines the 25% recovery but only includes fare and not advertising or investment income. GCRTA does not use its operating ratio to unilaterally require fare increases. Fare increases are determined by the Board, and take into account many factors, only one of which is maintaining the operating ratio standard. According to staff, GCRTA has not maintained its standard for several years.

Metro Transit (Minneapolis, Minnesota)

Metro Transit is ranked as the twenty-fourth (24th) largest transit property by annual ridership, and provides bus and light rail transit service for the greater Minneapolis, Minnesota area. According to FTA data, Metro Transit has only a very small component of its operating budget (2%) sourced by local government; however, the State of Minneapolis contributes a significant portion, and this has been used in addition to local funding to calculate jurisdictional subsidy comparatives.

Service Area Proportion of Jurisdiction	66%	
Service Area Population Density	2,998 persons/mi.^{2}	
Service Area Market Penetration	6%	
Fleet Size (peak operating)	Bus:	722
	Light Rail:	22
	Spares:	15%
	Peak-to-Base Ratio:	2.41
Annual Ridership:	Bus:	53,962,653
	Light Rail:	2,938,777
	Total:	56,901,430
		99% weekdays
<u>Subsidy Data:</u>		
Base Full Fare	All Modes:	$1.50
Average Fare	Bus:	$0.90
	Light Rail:	$0.87
Average Operating Cost per Trip	Bus:	$3.45
	Light Rail:	$2.85
Farebox Cost Recovery	Bus:	26%
	Light Rail:	31%
Annual Operating Cost (all modes)	$194,456,848	
<u>Local Subsidy Measures:</u>		
Local Share of Operating Cost (local, State)	2%, 63%	
Operating Cost Subsidy / Capita in Jurisdiction	$ 52.92	
Local Annual Operating Cost / Service Area Resident	$ 70.98	
Local Share Operating Cost / Weekday Rider	$1,162.54	

Metro Transit has a Passenger Revenue Recovery goal of 35% (passenger revenues only). It is not policy or legislative; however, the goal originates from State statute that was enacted in the 90s, and required all state transit properties to achieve a farebox recovery of 35%; however the legislation was allowed to sunset without reenactment. While 35% is the agency's internal goal, the Regional Planning Organization recognizes 28.5% as a low limit, past which Metro Transit would have to raise its fares. This finding was presented in last years State of the Region by the Board of the Regional Planning Organization.

City of Phoenix Public Transit Department (Valley Metro)

Valley Metro is ranked as the twenty-seventh (27th) largest transit property by annual ridership, and provides bus and light rail transit service for the metropolitan Phoenix, Arizona area. Valley Metro is currently in construction of the first alignment of its light rail system, scheduled to open in 2008. Three more alignments are in planning.

Service Area Proportion of Jurisdiction	64%	
Service Area Population Density	2,757 persons/mi.^{2}	
Service Area Market Penetration	4%	
Fleet Size (peak operating)	Bus:	410
	Spares:	20%
	Peak-to-Base Ratio:	1.84
Annual Ridership:	Bus:	40,813,740
	Total:	40,813,740
		81% weekdays
Subsidy Data:		
Base Full Fare	Bus:	$1.25
Average Fare	Bus:	$0.54
Average Operating Cost per Trip	Bus:	$2.50
Farebox Cost Recovery	Bus:	22%
Annual Operating Cost (all modes)	$102,053,371	
Local Subsidy Measures:		
Local Share of Operating Cost		57%
Operating Cost Subsidy / Capita in Jurisdiction		$ 20.01
Local Annual Operating Cost / Service Area Resident		$ 41.05
Local Share Operating Cost / Weekday Rider		$913.13

Valley Metro currently operates the transit system in Phoenix as a City Department, and operates buses. The city of Phoenix is also part of a partnership of 3 cities that is currently constructing the first segment or its new LRT to open in 2008. The LRT will e operated by "Metro", and will need to maintain a 40% farebox recovery ratio as part of its financing plan, but will also have to coordinate its fare policy with the transit properties of the three member cities. Valley Metro's bus system does not have a system-wide farebox recovery standard. Fares are set as part of the budgeting process by the City Council. Notably, Valley Metro has not had a fare change since 1995, and is currently working on a new fare structure to be put in place next year. Based on the results of an independent fare policy study, Valley Metro will reduce its base fare from $1.25 to $1.00, and introduce new options for flat-fare day passes, weekly passes, and monthly passes. Based on the study, Valley Metro is expecting a zero-sum revenue impact due to a forecast increased ridership in coordination with the Metro LRT. The new fare structure will be coordinated with the implementation of new fare collection technology.

Appendix II

Standard Transit Performance Measures

The standard performance measures provide quantitative means of comparing the efficiency and cost effectiveness with which each property provides service in its jurisdiction.

- Operating Cost per Revenue Hour
- Operating Cost per Revenue Mile
- Annual Average Boardings per Revenue Hour
- Annual Average Boardings per Revenue Mile
- Average Cost per Trip

Appendix II
Standard Performance Measures – All Modes

Agency	Metropolitan Area	Operating Cost per Revenue Hour	Operating Cost per Revenue Mile	Boardings per Revenue Hour	Boardings per Revenue Mile	Average Cost / Trip
MTA, NYCT	New York, NY	$133	$9.51	84	5.98	$1.59
CTA	Chicago, IL	$105	$8.17	46	3.61	$2.26
WMATA	Washington D.C.	$160	$9.49	69	4.08	$2.32
LACMTA	Los Angeles, CA	$123	$9.25	55	4.12	$2.25
MBTA	Boston, MA	$133	$7.87	89	5.24	$1.50
SEPTA	Philadelphia, PA	$101	$7.55	59	4.37	$1.73
NJT	New Jersey	$94	$4.93	33	1.76	$2.80
Muni	San Francisco, CA	$132	$16.36	66	8.18	$2.00
MARTA	Atlanta, GA	$100	$16.05	47	2.85	$2.12
MTA	Baltimore, MD	$120	$7.92	48	3.19	$2.48
Metro	Seattle, WA	$127	$7.61	35	2.12	$3.58
MDT	**Miami, FL**	**$103**	**$7.52**	**33**	**2.39**	**$3.14**
BART	San Francisco, CA	$204	$6.01	53	1.56	$3.84
Tri-Met	Portland, OR	$107	$8.01	43	3.24	$2.47
Metro	Houston, TX	$84	$5.81	30	2.09	$2.77
RTD	Denver, CO	$86	$5.66	29	1.90	$2.98
DART	Dallas, TX	$107	$7.09	33	2.22	$3.19
OCTA	Los Angeles, CA	$93	$7.20	37	2.90	$2.48
PAT	Pittsburgh, PA	$111	$8.65	29	2.23	$3.87
AC Transit	San Francisco, CA	$118	$10.08	34	2.89	$3.49
DTS	Honolulu, HA	$98	$7.19	50	3.71	$1.94
GCRTA	Cleveland, OH	$109	$8.23	32	2.41	$3.42
Metro Transit	Minneapolis, MN	$112	$8.70	33	2.55	$3.42
Valley Metro	Phoenix, AZ	$89	$5.82	35	2.33	$2.50

Appendix III

Transit Effectiveness as an Urban Service in a Metropolitan Area

These parameters provide quantitative measures to compare the urban environments that each transit property operates in, and how effective the transit services are in meeting their jurisdiction's transportation needs. These measures include:

- Percent of Jurisdiction that is Service Area
- Service Area Population Density (persons / sq. mi.)
- Service Area Coverage Intensity (annual rev miles / service area mi^2)
- Service Area Market Penetration ((avg. weekday trips / 2) / service area population)

The importance of these characteristics to evaluating fare policies is in understanding the relative importance of each transit property's services in meeting their jurisdiction's overall transportation needs. The more important the transit service, in terms of jurisdiction coverage, intensity of service provision, and market penetration, than the more likely it can be expected that higher level of subsidy is acceptable.

Appendix III
Transit Effectiveness as an Urban Service in a Metropolitan Area

Agency	Metropolitan Area	Percent of Jurisdiction Covered	Service Area Population Density	Service Area Coverage Intensity	Service Area Market Penetration
MTA, NYCT	New York, NY	10%	24,948	1,381,570	54%
CTA	Chicago, IL	17%	10,418	367,697	21%
WMATA	Washington D.C.	60%	1,887	140,328	52%
LACMTA	Los Angeles, CA	73%	6,939	78,105	8%
MBTA	Boston, MA	14%	1,390	22,782	14%
SEPTA	Philadelphia, PA	46%	3,978	90,608	16%
NJT	New Jersey	not available	5,309	38,762	2%
Muni	San Francisco, CA	9%	16,178	537,966	42%
MARTA	Atlanta, GA	25%	2,721	95,755	16%
MTA	Baltimore, MD	not available	1,157	19,567	9%
Metro	Seattle, WA	not available	838	21,755	9%
MDT	**Miami, FL**	**26%**	**8,174**	**143,438**	**7%**
BART	San Francisco, CA	18%	8,965	670,681	19%
Tri-Met	Portland, OR	not available	2,148	52,329	12%
Metro	Houston, TX	not available	2,177	34,685	6%
RTD	Denver, CO	not available	1,094	18,443	6%
DART	Dallas, TX	49%	3,228	50,080	7%
OCTA	Los Angeles, CA	26%	6,268	53,088	4%
PAT	Pittsburgh, PA	91%	1,826	38,126	8%
AC Transit	San Francisco, CA	69%	3,888	61,440	8%
DTS	Honolulu, HA	not available	3,163	59,678	12%
GCRTA	Cleveland, OH	71%	3,083	52,142	7%
Metro Transit	Minneapolis, MN	66%	2,998	37,629	6%
Valley Metro	Phoenix, AZ	64%	2,757	34,115	4%

Appendix IV

Benefit and Burden: Local Funding Component Operating Cost

The second set of parameters evaluates subsidy parameters of each transit property to comparatively quantify subsidy in terms of local funding participation in operating costs, per capita benefit to the service area, and in terms of a per capita burden to the financing jurisdiction.

The parameters, summarized in Table 4 above include:

- Local share of operating cost per weekday rider
- Subsidy Level (annual operating cost payment per capita of financing jurisdiction)
- Subsidy Level (annual operating cost payment per capita of the service area)

Rather than looking at operating cost as an aggregate of many sources, the importance of this analysis is in its focus on the local burden of operating costs, and the benefit of transit in annual dollar value to service area residents (who would generally prefer more subsidy) versus the burden of transit in annual dollar value to the financing jurisdiction.

Appendix IV
Local Funding Component Operating Cost Benefit and Burden

Agency	Metropolitan Area	Operating Cost Share: (all modes) Fare	Local	Local Subsidy Burden / Capita in Jurisdiction	Local Subsidy Benefit / Capita in Service Area	Local Subsidy Benefit / Wkdy Rider
MTA, NYCT	New York, NY	57%	17%	$ 40.27	$ 89.51	$ 166.94
CTA	Chicago, IL	43%	29%	$ 37.34	$ 83.64	$ 407.00
WMATA	Washington D.C.	24%	61%	$142.85	$430.39	$ 826.95
LACMTA	Los Angeles, CA	40%	22%	$ 16.51	$ 22.92	$ 290.29
MBTA	Boston, MA	28%	12%	$ 17.31	$ 15.48	$ 109.47
SEPTA	Philadelphia, PA	39%	8%	$ 8.89	$ 13.76	$ 84.19
NJT	New Jersey	37%	34%*	$ 12.23	$ 12.23	$ 548.00
Muni	San Francisco, CA	25%	53%	$ 70.81	$288.42	$ 686.15
MARTA	Atlanta, GA	25%	57%	$ 47.01	$121.44	$ 747.88
MTA	Baltimore, MD	31%	55%*	$ 73.65	$ 73.61	$ 798.33
Metro	Seattle, WA	19%	57%	$ 74.30	$112.68	$1,187.76
MDT	**Miami, FL**	**19%**	**73%**	**$ 45.94**	**$ 96.32**	**$1,431.94**
BART	San Francisco, CA	48%	44%	$ 51.11	$197.91	$1,015.47
Tri-Met	Portland, OR	20%	57%	$ 86.61	$109.38	$ 890.49
Metro	Houston, TX	17%	66%	$ 44.68	$ 61.06	$1,032.73
RTD	Denver, CO	19%	61%	$ 74.62	$ 58.20	$1,053.78
DART	Dallas, TX	10%	66%*	$ 38.95	$ 75.59	$1,089.84
OCTA	Los Angeles, CA	21%	11%	$ 1.57	$ 6.71	$ 169.31
PAT	Pittsburgh, PA	24%	9%	$ 13.07	$ 16.19	$ 205.50
AC Transit	San Francisco, CA	19%	67%	$ 46.79	$106.75	$1,402.17
DTS	Honolulu, HA	26%	57%	$ 94.40	$ 77.38	$ 634.13
GCRTA	Cleveland, OH	18%	74%*	$ 81.44	$103.04	$1,494.27
Metro Transit	Minneapolis, MN	26%	65%*	$ 52.92	$ 70.98	$1,162.54
Valley Metro	Phoenix, AZ	18%	57%	$ 20.01	$ 41.05	$ 913.13

* includes state funding for properties that have2% or less local funding sources ** PATH funding from other r authority revenue sources