Item #8

FY04-FY06 Triennial Performance Audits

Overview of Transit Operations and Regional Planning in Los Angeles County

Presented by

Booz | Allen | Hamilton

in association with

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Agenda

- **Overview of TDA Audit Requirements**
- **Countywide Performance Trends**
  - Unit costs
  - Farebox recovery
  - Regional Subsidies
  - Ridership
- **Conclusions and Recommendations**
- **Appendix**

Performance Audits are Required for Continued Receipt of State TDA Funds

- The audit covers the period July 1, 2003 through June 30, 2006 (FY04-FY06)
- Booz Allen conducted the FY03 performance audits as well, so we combined the metrics to extend the performance trend information presented here from FY 2000 to FY 2006
- The audit scope meets State requirements:
  - Progress to implement prior audit recommendations
  - Compliance with PUC requirements
  - Efficiency, effectiveness, and productivity of operations
- The audit also reviews the results of the Transportation Performance Measurement (TPM) Program
- Audits were conducted for the 17 transit operators (including Metro) that are part of the Formula Allocation Procedure (FAP), and of MTA in its role as the Regional Transportation Planning Agency (RTPA)

The Transit Operators and MTA Planning Are Generally in Compliance with TDA Requirements, but Data Collection and Reporting Could Be Improved

- Transit Operators are in compliance with all PUC requirements regarding report submittals, CHP compliance, TDA claims, vehicle operation, budget growth, fully funded retirement system, private contracting, and use of federal funds
  - The countywide farebox recovery ratio has declined from 26.9% in FY00 to 22.6% in FY06
  - Within this audit period, several operators reported farebox recovery ratios that fell below the PUC requirement of 20%, and made up the difference with Local Return subsidies

- Most Transit Operators and Metro Planning have made reasonable efforts to address prior audit recommendations

- Data collection and reporting continues to be an issue of concern, particularly with respect to collection and reporting of TPM data. MTA simplified the TPM reporting process in FY05, which should contribute significantly to improved operator compliance over the next audit period

Performance Audit Recommendations Focus on Improving Efficiency and Effectiveness, as well as PUC Compliance

	Antelope Valley	Arcadia	Claremont	Commerce	Culver City	Foothill	Gardena	LADOT	La Mirada	Long Beach	Metro – Bus & Rail	MTA - Planning	Montebello	Norwalk	Redondo Beach	Santa Clarita	Santa Monica	Torrance
Service Planning	X		X			X		X			X		X			X		
Fare Revenue		X					X											
Data Collection & Reporting			X	X	X		X	X	X	X	X	X		X	X	X	X	X
Cost Allocation				X									X					
Performance Measurement								X	X		X	X		X			X	
Other Efficiency & Effectiveness Impacts				X	X					X	X	X	X	X	X		X	X

Note: Xs reflect recommendations made in each focus area

Countywide Performance Trends

Countywide performance metrics for all included & eligible operators reveal good news about service and ridership, however subsidies are growing faster than both cost and inflation

Performance Indicators	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY00-FY06
Operating Costs (a)	$ 989,208,692	$ 988,169,029	$ 1,112,160,685	$ 1,169,788,935	$ 1,169,509,388	$ 1,271,899,749	$ 1,364,714,124	38.0%
Fare Revenue	$ 287,381,655	$ 271,851,863	$ 300,094,901	$ 313,699,718	$ 324,759,905	$ 334,074,380	$ 351,440,488	22.3%
Subsidy *	$ 673,347,040	$ 682,570,633	$ 777,455,209	$ 819,763,512	$ 807,706,666	$ 899,290,645	$ 970,050,062	44.1%
Unlinked Passengers	525,938,385	514,215,154	565,116,107	552,577,857	521,257,071	579,002,004	613,290,660	16.6%
Vehicle Service Hours	10,217,681	10,545,785	11,413,281	11,769,583	11,221,298	12,189,845	12,293,901	20.3%
Vehicle Service Miles	133,581,026	138,600,479	150,647,910	154,739,157	150,380,232	160,323,622	160,660,434	20.3%
Cost Per Hour	$96.81	$93.70	$97.44	$99.39	$104.22	$104.34	$111.01	14.7%
Cost Per Passenger	$7.41	$7.13	$7.38	$7.56	$7.78	$7.93	$8.49	14.7%
Farebox Recovery Ratio	29.1%	27.5%	27.0%	26.8%	27.8%	26.3%	25.8%	-11.4%
Subsidy per Passenger	$1.28	$1.33	$1.38	$1.48	$1.55	$1.55	$1.58	23.5%
Subsidy per Vehicle Service Hour	$65.90	$64.72	$68.12	$69.65	$71.98	$73.77	$78.90	19.7%
Passengers Per Hour	51.5	48.8	49.5	46.9	46.5	47.5	49.9	-3.1%
Passengers Per Mile	3.9	3.7	3.8	3.6	3.5	3.6	3.8	-3.0%
Percentage Change Consumer Price Index		3.7%	2.7%	3.3%	2.4%	4.1%	5.0%	22.8%

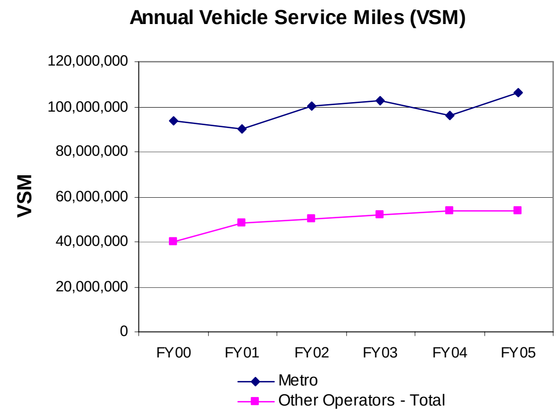
* The subsidy figure includes all funding other than passenger fares, including FAP, Prop A & C Local Return, other local funding, and local reserves used for operations.

The primary performance trends are discussed over the next several pages

Countywide vehicle service hours (VSH) and vehicle service miles (VSM) increased 20% since FY00

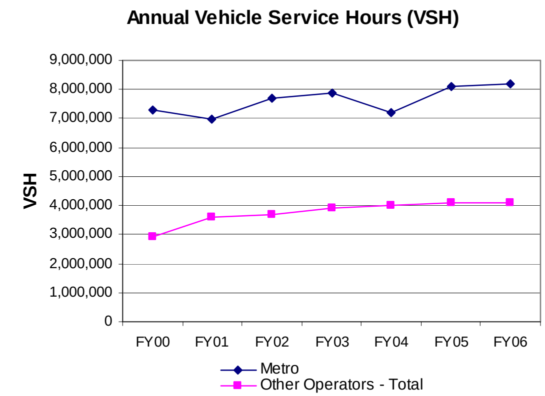
Annual Vehicle Service Miles (VSM)

	FY00	FY06	% Inc
Metro (Bus & Rail)	93.8M	106.8M	13.9%
Other Operators	39.8M	53.9M	35.4%
Countywide	133.6M	160.7M	20.3%



Annual Vehicle Service Hours (VSH)

	FY00	FY06	% Inc
Metro (Bus & Rail)	7.3M	8.2M	17.8%
Other Operators	2.9M	4.1M	40.2%
Countywide	10.2M	12.3M	20.3%

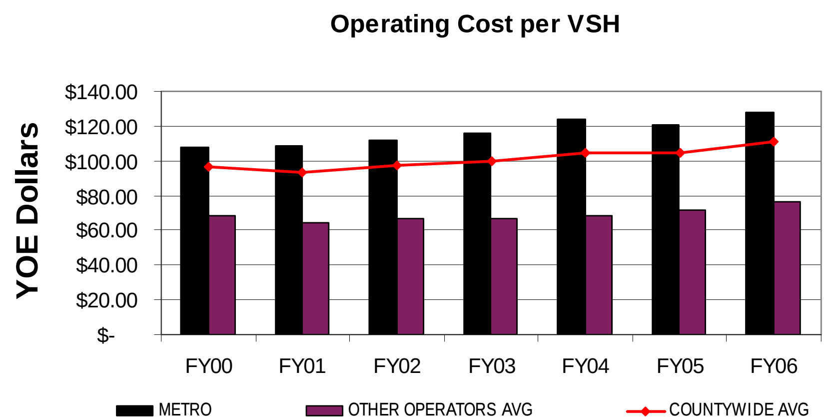


Since FY00, cost per vehicle service hour (VSH) has grown less than CPI, demonstrating good cost management

Operating Cost per VSH

	FY00	FY06	% Inc
Metro (Bus & Rail)	$108.01	$128.09	18.6%
Other Operators Avg	$ 68.76	$ 71.60	11.6%
Countywide	$ 96.81	$111.01	14.7%
CPI Increase (FY00-FY06)			22.8%

This is a particularly notable accomplishment given significant increases in the cost of fuel, healthcare and other employee benefits.



Transit ridership has grown at twice the rate of population growth and four times the rate of job growth

	FY00 (Pass.)	FY06 (Pass.)	% Inc (Pass.)	% Inc (Pass./hr)	% Inc (Pass./mi)
Metro (Bus & Rail)	417.4M	482.8M	15.7%	3.0%	1.6%
Other Operators	108.5M	130.5M	20.2%	-14.3%	-11.2%
Countywide	525.9M	613.3M	16.6%	-3.1%	-3.0%

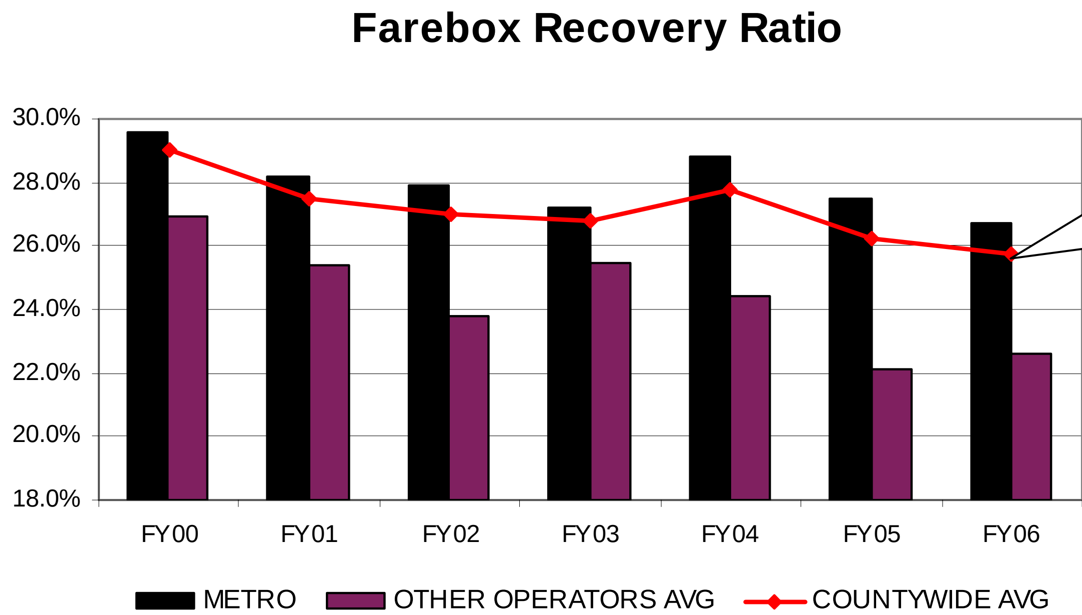
That translates to 87.4 million new transit trips in Los Angeles County since FY00.

Over this period, population in Los Angeles County increased 7.4% and employment grew 4.6%.

Pass. = Passengers

Service levels are increasing slightly faster than ridership growth resulting in a modest decline in service productivity (-3%). Services are a mix of demand response, bus and rail, each with a different productivity contribution. Metro has increased rail service as a proportion of its total system, and rail ridership has grown more rapidly than bus ridership, contributing to its modest productivity increase.

Fare policy, service and cost decisions across LA county have resulted in passengers paying a smaller share of transit costs



Two factors contribute to the 11.4% decline in farebox recovery ratio since FY00:

1) LA County transit operators have not increased fares with cost growth or inflation.

2) Service has been increased faster than riders, further reducing farebox recovery.

Between FY00 and FY06, subsidy per passenger has grown 11% faster than inflation, 29% faster than cost per passenger and 380% faster than fare revenue per passenger

	FY00	FY06	% Inc
Cost per Pass.	$1.88	$2.23	18.3%
Fare Rev per Pass.	$0.55	$0.57	4.9%
Subsidy per Pass.	$1.28	$1.58	23.5%

Pass. = Passengers

Metro

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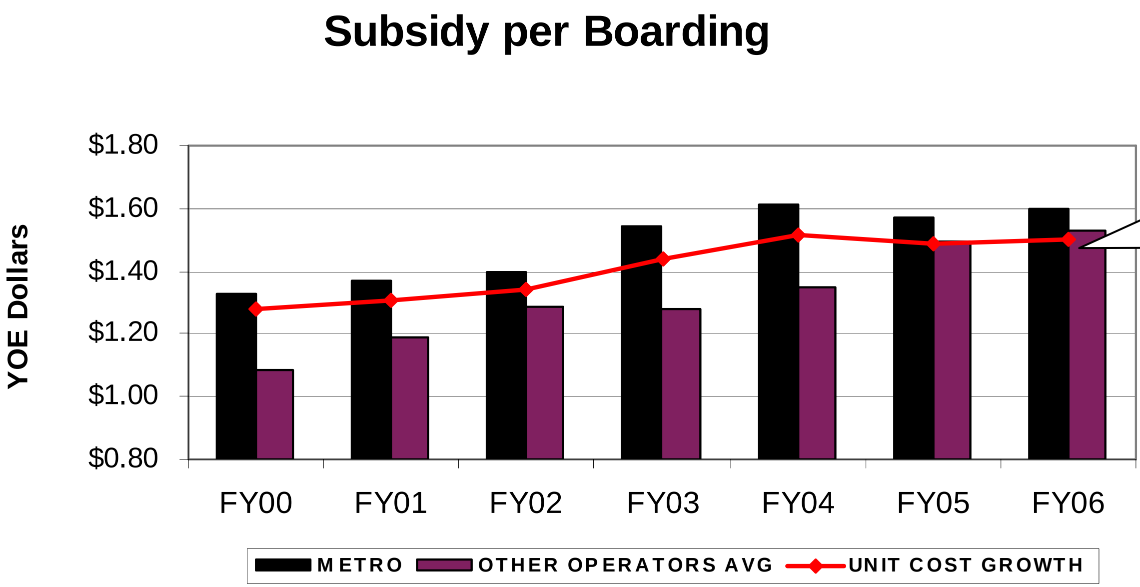
Subsidy per passenger is growing faster than cost per passenger and inflation – fewer passengers benefit from each subsidy dollar spent



Since FY00, the countywide subsidy per passenger has increased 23.5%, compared to the cost/passenger growth of 18.3%.

As a result, fewer transit passengers benefit for each dollar of subsidy spent.

Subsidy includes:

* Formula Allocation Procedure (FAP)
* Local Return
* Prop A & C
* Other local funding
* Local reserves

	Subsidy Per Passenger			Cost per Pass. % Inc	Fare per Pass. % Inc
	FY00	FY06	% Inc		
Metro	$1.33	$1.60	20.0%	15.2%	3.9%
Other Operators	$1.09	$1.53	40.6%	30.1%	9.3%
Countywide	$1.28	$1.58	23.5%	18.3%	4.9%

Metro

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Maintaining the FY00 farebox recovery ratio would also have resulted in more transit riders benefiting from more service countywide (based on regional experience)

- Since FY00, the farebox recovery ratio (FBR) fell 11.4% countywide.
- If the FBR were maintained at the FY00 countywide average, there would have been an additional $163M over the period to fund more service.
- Per the table to the right, this translates to:
  - 1.58 million additional vehicle service hours (VSH)
  - 76.6 million more passenger trips served with the same subsidy spent

Opportunity Cost

	Additional VSH	Additional PAX
FY00	--	--
FY01	167,608	8,172,606
FY02	241,613	11,963,212
FY03	268,726	12,616,572
FY04	149,367	6,938,447
FY05	345,487	16,410,195
FY06	411,606	20,533,283
TOTAL (FY00-06)	1,584,406	76,634,314

Conclusions

This FY06 performance audit of Los Angeles County transit operators and the RTPA identified several areas of strength and opportunities for improvement

- Outstanding performance in unit cost growth management (e.g. fuel, health and benefits) across the region
- Good performance trend – ridership growing faster than population or employment; however, ridership is growing slightly slower than service added
- All agencies in Los Angeles County worked diligently on prior audit recommendations and performance improved as a result
- Opportunities for improvement – Passenger fares should keep pace with cost growth or fewer resources are available to meet transit needs, and each dollar of subsidy will provide benefit for fewer riders
- MTA Planning and Metro recommendations are provided in this section as well

Metro contributed significantly to the region through execution of its planning, funding, partnership and service implementation roles

- **Growth in federal funding and programming responsibilities** – Los Angeles County received over $1 billion in new funds with the passage of SAFETEA-LU, including $530 million for highway programs and $499 million for mass transit. Some existing federal and state funding programs increased in complexity and reporting requirements

- **Assessing new corridor investments** – As a result of Board direction, Metro refocused efforts on studying new corridor investments such as the Wilshire BRT, Orange Line extension, the Crenshaw-Prairie Corridor, the Eastside Transit Corridor (Phase II), the Regional Connector and the Westside Extension of the Red Line.

- **Improved coordination with external partners** – Metro partners throughout the region reported benefits from Metro leadership and participation in a broad number of regional integration programs including Easy Pass, Metro Connections, TAP, service integration and coordination, joint passenger amenities, public outreach, and funding applications.

- **Expansion of Innovative Services and Technologies** – Metro has been a leader and participant in innovative service offerings like Metro Rapid, the Orange Line BRT, Advanced Transportation Management Systems (ATMS), automated passenger counting, smart cards, and advanced information technology solutions.

Despite significant increases in cost of fuel, healthcare and benefits, Los Angeles County transit operators successfully managed unit cost growth below inflation

- Fuel prices increased significantly (e.g., operator fuel costs doubled over the audit period) with a negative cost impact and a positive ridership impact (e.g., fuel prices encouraged more people to use transit)

- Health care costs soared over the audit period, significantly increasing costs of every operator

- Workers' compensation, family leave and other benefits also grew faster than inflation

- Los Angeles County transit operators are to be commended for their extraordinary cost control during turbulent financial times over the prior six years – the fact that total costs per hour and mile grew below the rate of inflation over this period is evidence of strong fiduciary stewardship

- Most operators experienced hiring difficulties as a result of a tight labor market for bus drivers and mechanics. Thirteen transit agencies joined forces with 17 community colleges to develop a 5-county mechanic training consortium, which is contributing to a sustainable workforce for the region

Ridership growth exceeded both population and employment growth in the County, reflecting more service and increased auto costs

- Transit ridership grew as a result of new and innovative service offerings (e.g., Metro Rapid, muni premium bus services, Orange Line, Gold Line, transitway service expansion), population and employment growth, and rising fuel costs

- Service levels were expanded by extending existing routes to serve new areas and by providing new services for adjacent jurisdictions

- As ridership grew, some agencies restructured services to better meet and further grow demand, for example:
  - by introducing fixed route bus in areas previously served by dial-a-ride services
  - by creating rapid bus services on trunk routes and realigning other routes to feed them
  - by using taxi services to augment senior/disabled dial-a-ride services

- In several cases, new vehicles, amenities and passenger facilities were introduced to make service more attractive

- Passenger growth was twice the rate of population growth, four times the rate of employment growth, and 3% less than the rate of service growth

Farebox recovery maintenance is an issue of countywide concern

- Appropriately, individual transit agencies own and exercise rights to fare policy, structure and pricing

- Across Los Angeles County transit operators, fare decisions have resulted in a reduced contribution toward transit costs from passenger fares

- As a result, fewer passengers benefit from each subsidy dollar provided to transit (i.e., it takes more subsidy to fund each transit trip taken). MTA allocates the majority of operating subsidies through the Formula Allocation Procedure (FAP), and operators may also use Local Return funds, local government subsidies, Proposition A and C funds, and prior year funds (reserves) as subsidies

- Most operators produced lower farebox recovery ratios (i.e., a smaller portion of costs are paid by riders). Because TDA allows the use of local return dollars meet farebox recovery requirements, operators have supplemented fares with local funding to avoid loss of TDA funds. The net effect is fewer total dollars for transit in the region, and more subsidies required to provide transit to each rider

- Given the Formula Allocation Procedure, such a reduction in state funding for operating assistance could negatively impact all included operators, even if other agencies met the state farebox minimum requirement

Several recommendations are offered for Metro Operations

1. **Develop Contingency Plan to Address Train Operator Shortfall** – With 25% of Metro Train Operators past retirement age, Rail Operations risks a potential staffing shortage in train operators in the coming years. Metro should develop a contingency plan that pre-qualifies a larger pool of Bus Operators that may be called upon to backfill Rail Operator ranks should retention issues arise.

2. **Examine responsibilities and resources for operator management at divisions** – At the start of the audit period, road supervisors were reassigned from operating divisions to Sector Headquarters and as a result strengthened supervision over field transit operations. During this audit, garage managers indicated some concerns about the adequacy of resources to meet operator management needs at garages (e.g., care and feeding of operators, compliance with regulations, implementation of the labor agreement, grievances, discipline and approvals). Metro should examine garage management work loads and resources.

3. **Reassess overall bus and rail service levels** – Metro has increased bus and rail service, implemented technology which has expanded passenger travel information available, and changed the fleet mix in terms of passenger capacity (e.g., articulated buses, bench seating rail cars). Metro should use the available passenger information and new service designs and capacities to reassess service levels, maximum load points, and the assignment of vehicle types to routes.

4. **Assess the impact on performance from major technology investments** – Metro has implemented several new systems, including new scheduling software, ATMS, TAP and a new materials and maintenance management system. Metro should assess the return on investment of these new technology systems to inform decision making on future technology enhancements.

Several recommendations are offered to improve MTA's countywide planning role

1. **Implement additional administrative actions** – MTA should review the need to update guidelines on claims for transit funding, and update guidelines as needed to meet PUC requirements. Clarification on roles for Metro's TDA claim are warranted. Metro Operations should have responsibility for preparing the MTA claim for bus operations with input from Finance, Internal Audit and Planning.

2. **Assess and evaluate the effectiveness of recent policy changes (TPM and FAP)** – MTA should closely monitor and evaluate the effectiveness of FY05 changes to the TPM and FY07 and FY08 changes to the FAP program. The purpose of monitoring both programs is to ensure that changes in performance and responses are consistent with policy objectives. Actions should also be taken to improve TPM reporting.

3. **Establish an annual countywide transit performance report** – MTA should update the Board, partner agencies, constituents and other stakeholders on performance trends in transit countywide on an annual basis, as part of the budget decision making process. Existing reports should be leveraged to create this insight to avoid significant cost (e.g., all measures contained in this report are provided to MTA annually by each included and eligible transit operator).

4. **Evaluate CP&D staff resources, workloads and deployment** – Demands on CP&D have grown in both complexity (e.g., expanded grant and compliance requirements, number and type of programs and funds, number of stakeholder groups interested in regional transportation) and scale (e.g., number of corridor studies, size of funding programs, return of the Call). The Department should routinely examine innovative ways of doing business, staff allocation among programs and activities, workload, staff size and pipeline of capable planners.

Appendix

Other Included Operators – Performance Metrics

Performance Indicators	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY00-FY06
Operating Costs (a)	$ 200,466,982	$ 229,772,252	$ 247,643,744	$ 259,941,312	$ 276,466,696	$ 293,499,673	$ 313,566,114	56.4%
Fare Revenue	$ 53,947,493	$ 58,321,997	$ 58,951,194	$ 66,273,670	$ 67,521,831	$ 64,835,409	$ 70,868,397	31.4%
Metro Subsidy	$ 118,039,492	$ 137,703,722	$ 154,081,975	$ 157,341,937	$ 171,902,048	$ 190,129,540	$ 199,474,143	69.0%
Unlinked Passengers	108,523,790	116,104,650	119,919,766	122,773,625	127,658,931	127,508,772	130,474,505	20.2%
Vehicle Service Hours	2,915,337	3,578,366	3,701,903	3,894,591	4,024,109	4,098,979	4,087,646	40.2%
Vehicle Service Miles	39,810,052	48,412,252	50,199,571	52,159,759	53,973,035	53,831,547	53,884,424	35.4%
Cost Per Hour	$68.76	$64.21	$66.90	$66.74	$68.70	$71.60	$76.71	11.6%
Cost Per Passenger	$5.04	$4.75	$4.93	$4.98	$5.12	$5.45	$5.82	15.6%
Fare Recovery Ratio	26.9%	25.4%	23.8%	25.5%	24.4%	22.1%	22.6%	-16.0%
Subsidy per Passenger	$1.09	$1.19	$1.28	$1.28	$1.35	$1.49	$1.53	40.6%
Subsidy per Vehicle Service Hour	$40.49	$38.48	$41.62	$40.40	$42.72	$46.38	$48.80	20.5%
Passengers Per Hour	37.2	32.4	32.4	31.5	31.7	31.1	31.9	-14.3%
Passengers Per Mile	2.7	2.4	2.4	2.4	2.4	2.4	2.4	-11.2%
Percentage Change Consumer Price Index		3.7%	2.7%	3.3%	2.4%	4.1%	5.0%	22.8%

METRO Bus and Rail – Performance Metrics

Performance Indicators	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY00-FY06
Operating Costs (a)	$ 788,741,710	$ 758,396,777	$ 864,516,941	$ 909,847,623	$ 893,042,692	$ 978,400,076	$ 1,051,148,010	33.3%
Fare Revenue	$ 233,434,162	$ 213,529,866	$ 241,143,707	$ 247,426,048	$ 257,238,074	$ 269,238,971	$ 280,572,091	20.2%
Metro Subsidy	$ 555,307,548	$ 544,866,911	$ 623,373,234	$ 662,421,575	$ 635,804,618	$ 709,161,105	$ 770,575,919	38.8%
Unlinked Passengers	417,414,595	398,110,504	445,196,341	429,804,232	393,598,140	451,493,232	482,816,155	15.7%
Vehicle Service Hours	7,302,344	6,967,419	7,711,378	7,874,992	7,197,189	8,090,866	8,206,255	17.8%
Vehicle Service Miles	93,770,974	90,188,227	100,448,339	102,579,398	96,407,197	106,492,075	106,776,010	13.9%
Cost Per Hour	$108.01	$108.85	$112.11	$115.54	$124.08	$120.93	$128.09	18.6%
Cost Per Passenger	$8.41	$8.41	$8.61	$8.87	$9.26	$9.19	$9.84	17.0%
Fare Recovery Ratio	29.6%	28.2%	27.9%	27.2%	28.8%	27.5%	26.7%	-9.8%
Subsidy per Passenger	$1.33	$1.37	$1.40	$1.54	$1.62	$1.57	$1.60	20.0%
Subsidy per Vehicle Service Hour	$76.05	$78.20	$80.84	$84.12	$88.34	$87.65	$93.90	23.5%
Passengers Per Hour	57.2	57.1	57.7	54.6	54.7	55.8	58.8	2.9%
Passengers Per Mile	4.5	4.4	4.4	4.2	4.1	4.2	4.5	1.6%
Percentage Change Consumer Price Index		3.7%	2.7%	3.3%	2.4%	4.1%	5.0%	22.8%