

Appendix D:
Pasadena Area Rapid Transit System (ARTS)
Fiscal Year 2008 System Information



Pasadena ARTS
System Information
Fiscal Year 2008
Final Draft



January 2009



Pasadena ARTS **System Information Report**

The annual System Information Report provides an in depth look at the operating and financial performance for the fiscal year starting July 1, 2007 and ending June 30, 2008. The report documents overall service statistics such as the number of operating hours and miles and examines performance effectiveness and efficiency. Information from the most current year is compared to information from the prior year to track trends. The data used in the report has been submitted to Metro and has been reviewed by their auditors.



Pasadena ARTS

Brief Program Overview

The Pasadena Area Rapid Transit System (ARTS) is a community circulator serving the City of Pasadena since June 1994. The ARTS provides local transit service, complementing the regional transit service provided by the Metropolitan Transportation Authority (Metro) and Foothill Transit.

The ARTS service has undergone significant developments. In March 2002, the City restructured service from two routes to four routes. In June 2003, the ARTS system was again expanded to add two new routes – one connecting JPL and the west Pasadena area of Linda Vista to the Memorial Park Gold Line and the second providing coverage to East Pasadena. Another change to service included starting Route 10 at 7:00am. In July 2003, with the opening of the Gold Line, ARTS passengers began paying fares for the service.

There was another service change in late February 2005. As part of this service change, additional peak service was added to Route 20, Route 31 and Route 40 with the addition of a bus on each route. This action increased service frequency on the three routes. Service on Routes 10 and 60 were restructured. Route 10 was changed to provide service along Del Mar to Caltech and the Gold Line Allen Station. Route 60 was reconfigured to provide service to the eastern area of Del Mar with connections between the Sierra Madre Villa Gold Line station and Pasadena City College. A new route, Route 70, was implemented to provide coverage to the southwest area of the City and tie these neighborhoods to the Fillmore Gold Line station.

In Spring 2007 service changes were made to a few of the bus routes. Schedule adjustments were made to the ARTS Route 31/32 to increase the peak hour frequency for commuters traveling between the Sierra Madre Villa Gold Line Station and the New York Drive/Bradley Street employment center – including the EarthLink campus. In addition, minor schedule changes were made to the ARTS Route 51/52 to provide better bus connections for Art Center students. The ARTS Route 70 route and schedule changed as well. The Route 70 was modified to provide service to Old Pasadena from the South Orange Grove and Avenue 64 areas.

ARTS Service “Snap Shot”

Fiscal Year 2008	
Service Area:	23 Square Miles
Population based on Metro 2005 Data:	146,166
Annual Passenger Trips:	1,654,147
Annual Service Hours:	60,917
Annual Service Miles:	637,063
Total Operating Expenses:	\$4,104,965
Annual Farebox Revenue:	\$516,353
Farebox Recovery Ratio:	13%

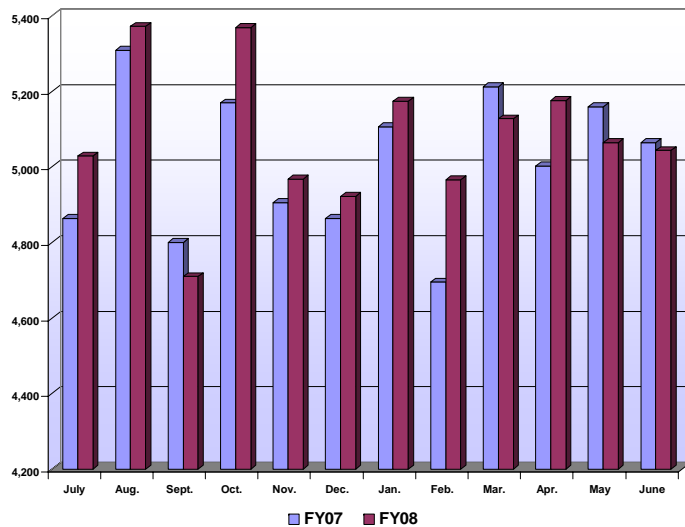
Service Productivity Indicators

Service productivity indicators are used by transit agencies to measure the effectiveness and efficiency of service that is provided. These indicators include:

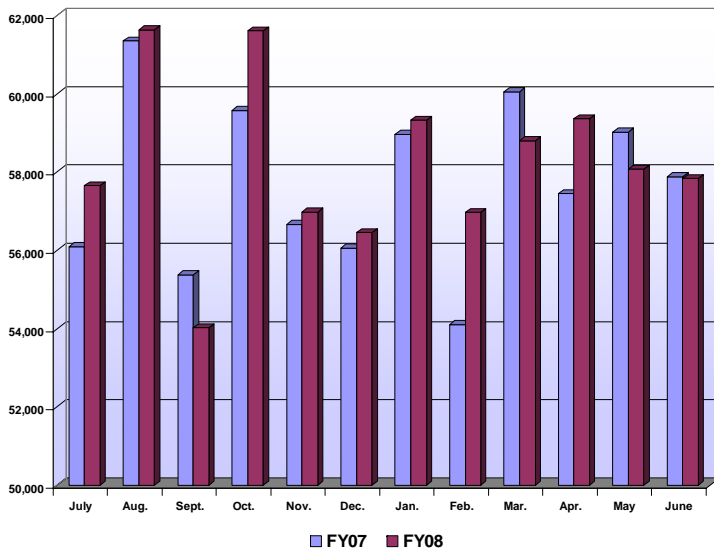
- Ridership Based
 - Growth or decrease in ridership
 - Passengers per hour
- Cost Based
 - Cost per hour
 - Cost per passenger
 - Subsidy per passenger

This report uses these productivity indicators to examine the effectiveness and efficiency of service provided during Fiscal Year 2008.

Operational Statistics: Hours & Miles



The charts to the left show the service hours and miles operated in Fiscal Years 2007 and 2008. The minor variation in service levels is due to the differences in the number of weekdays in each month. Weekday service is significantly different from weekend service both in the average daily hours and miles operated.

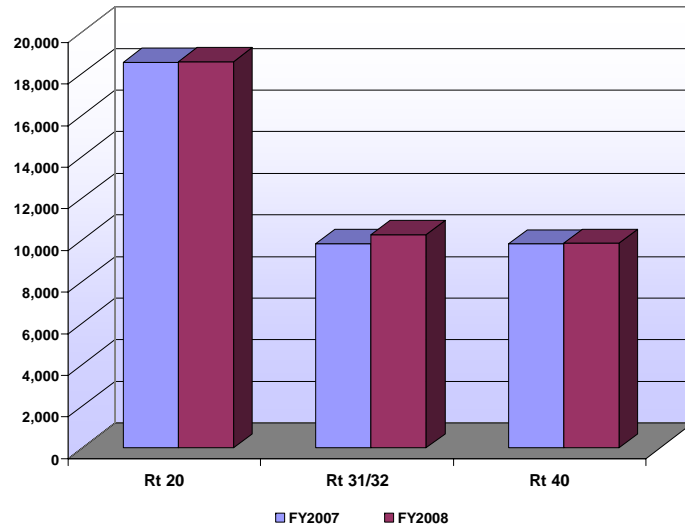


	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
Service Hours System Wide	60,151	60,917	+ 1%

	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
Service Miles System Wide	692,574	698,668	+ 1%

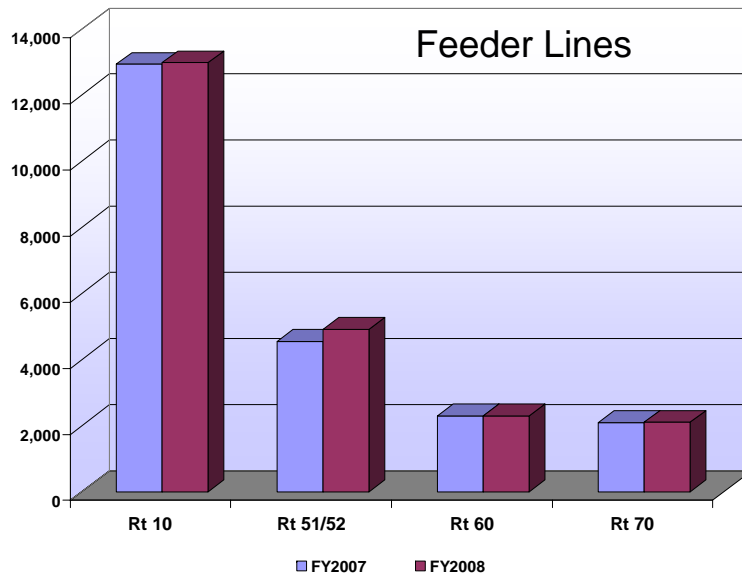
Operational Statistics: Hours

Local Lines



The charts to the left show the service hours and miles operated in Fiscal Years 2007 and 2008. The routes are broken into two categories, Local Lines and Feeder Lines. Local Lines connect major neighborhood service areas to diverse community destination centers as well as schools, shopping centers and Gold Line Stations. The Feeder Lines provide links between the business districts and Gold Line stations or link low density residential neighborhoods to the central district. Additionally several of these routes operate only during commute times (Routes 52, 60 & 70) and three don't operate on the weekends (Routes 51/52, 60 & 70).

Feeder Lines



Annual Service Hours by Route

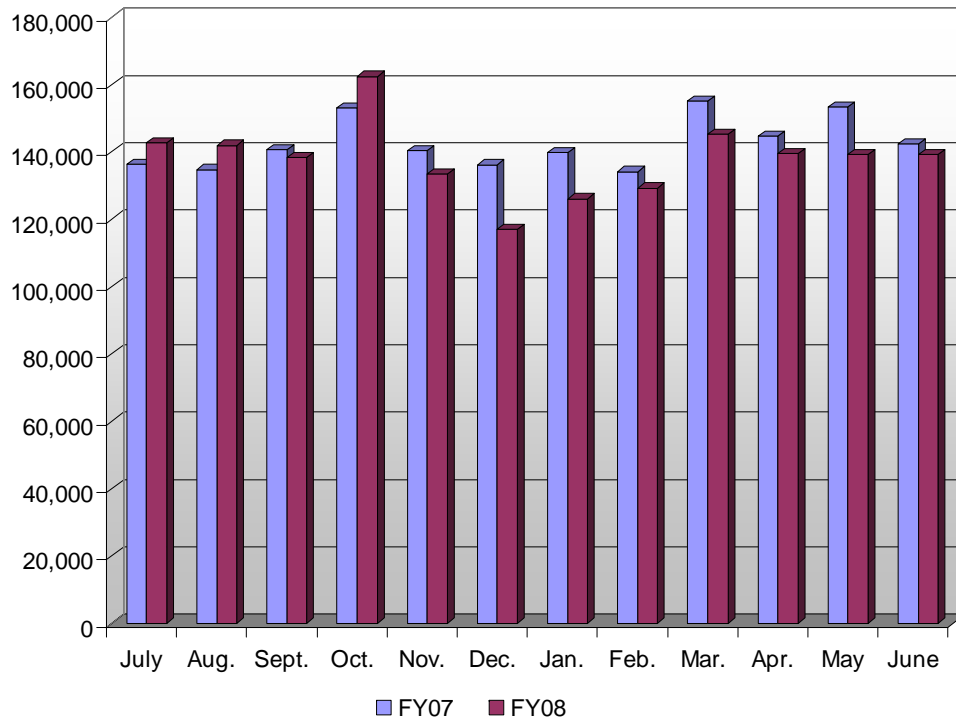
	<u>FY07</u>	<u>FY08</u>
System Wide:	60,151	60,917
Route 10	12,968	12,973
Route 20	18,567	18,569
Route 31/32	9,866	10,246
Route 40	9,845	9,832
Route 50	4,541	4,906
Route 60	2,284	2,294
Route 70	2,080	2,096

Service Productivity Indicator

**RIDERSHIP BASED
PERFORMANCE**

Ridership: System-Wide

	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
System Wide	1,710,832	1,654,147	- 3%

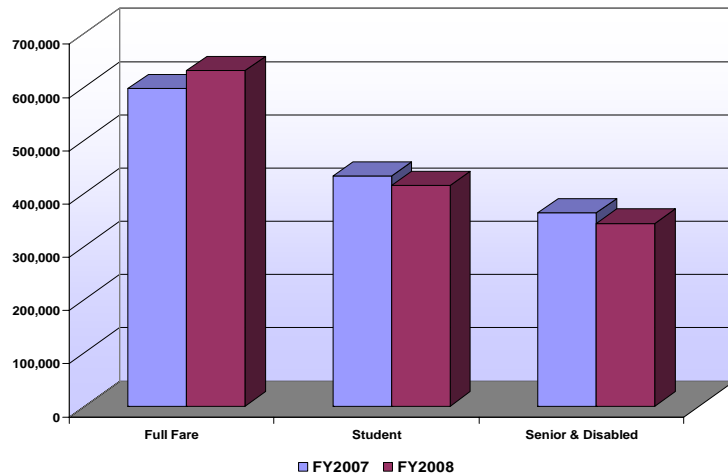


Ridership decreased overall by 3 percent in Fiscal Year 2008 compared to ridership in Fiscal Year 2007. There are several factors that may have affected ridership:

- Weather appears to have been a factor, there was significantly more rain fall during late autumn and winter than there was in the prior year. Both youth and elderly and disabled passenger groups are more likely to either not ride in the rain or, in the case of students, have someone drive them in a car.
- The Pasadena Unified School District's policy change to allow more students to attend schools closer to their homes may have also impacted student trips.

Ridership: Comparison by Fare Category

Cash Paying Passengers

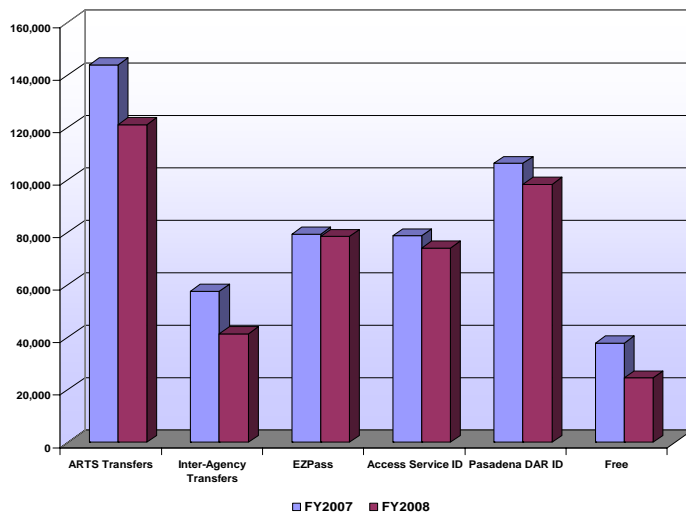


Understanding who is using the bus service is very important and the key tool for this information is the fare category of the passengers when they board the bus.

It is interesting to note that while the overall ridership dropped by three percent during the past fiscal year, the full fare passenger category showed an increase in ridership of six percent.

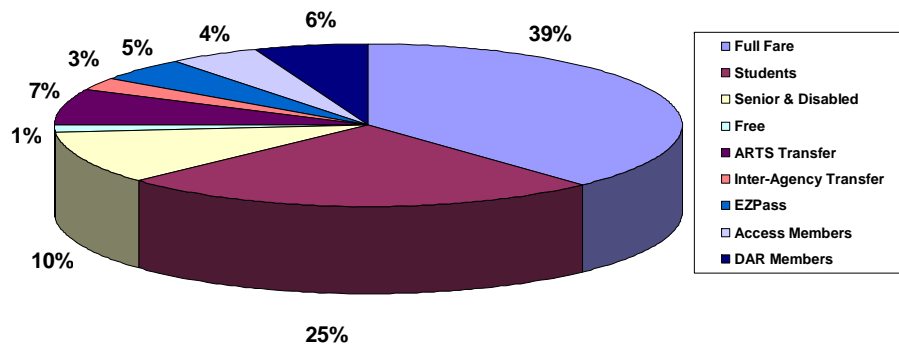
As noted in the “Other Passengers” chart to the left, ridership in these non-fare paying categories was lower in FY2008.

Other Passengers

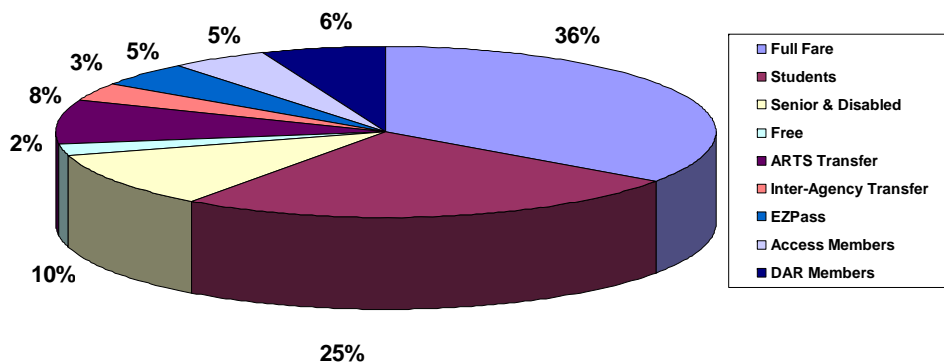


In FY2008 there were fewer passengers who board the bus from another bus, either another ARTS bus (ARTS Transfers) or another agency bus (Inter-Agency Transfer).

Ridership: Passengers by Fare Category



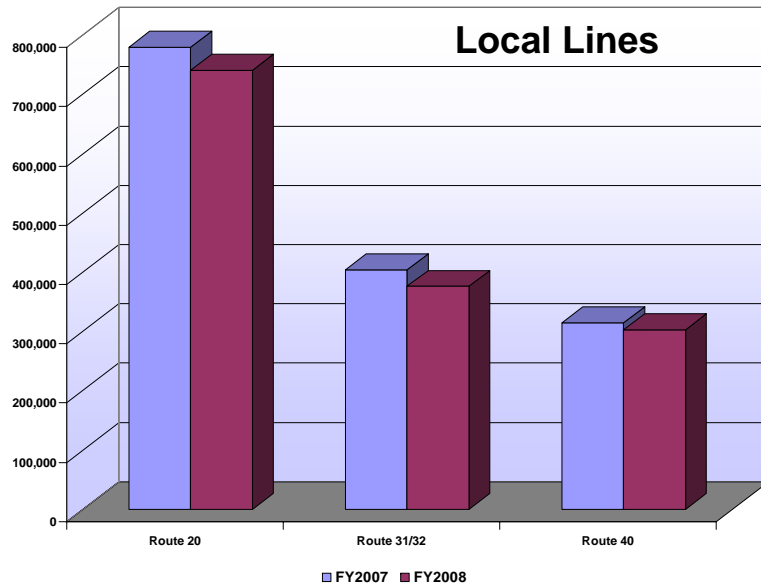
FY08



FY07

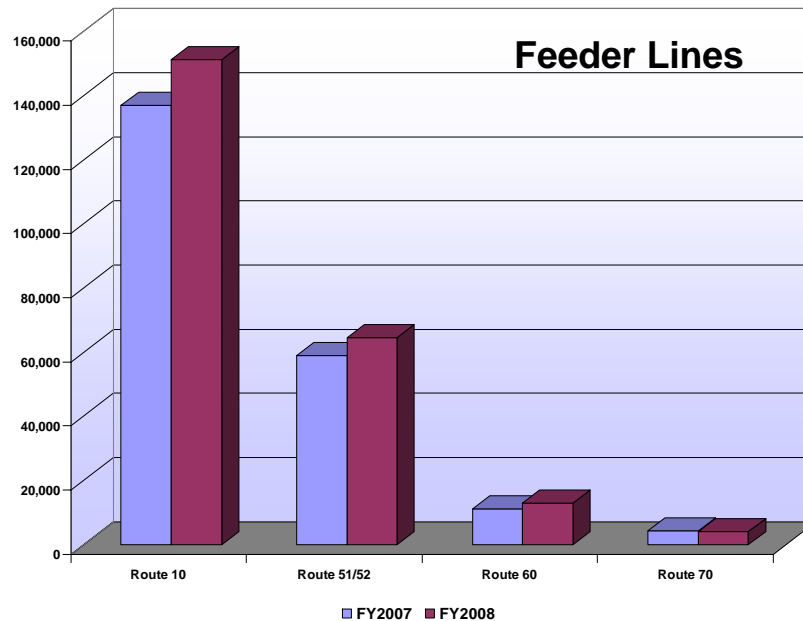
- The distribution of ridership by fare category has remained stable for the past several years as seen in the two charts to the left.
- The largest group of riders are those who pay the full fare of 50 cents. Students age six years through 12th grade comprise the second largest group of riders and pay 25 cents.
- Seniors and persons with disabilities comprise the third largest group of riders. This category includes three subsets: people who pay the 25 cents cash fare, people with disabilities who board showing an Access Service card membership and Pasadena Dial-A-Rider members.
- The fourth largest category are people who board the ARTS bus with a transfer from either another ARTS bus or another agency bus (Inter-Agency Transfer) such as Metro, Foothill Transit, or Montebello Bus Lines.

Ridership: Comparison by Route



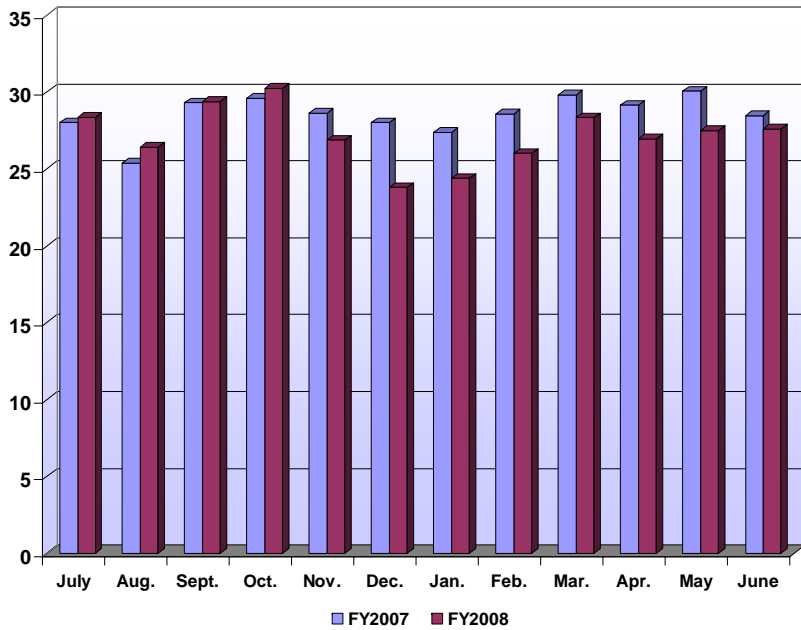
The overall number of passengers using each route provides an important look at how well a route is used. Pasadena ARTS routes are broken into two categories, Local Lines and Feeder Lines. Local Lines connect major neighborhood service areas to diverse community destination centers as well as schools, shopping centers and Gold Line Stations. The Feeder Lines provide links between the business districts and Gold Line stations or link low density residential neighborhoods to the central district. Additionally several of these routes operate only during commute times (Routes 52, 60 & 70) and three don't operate on the weekends (Routes 51/52, 60 & 70).

The Local Lines, Routes 20, 31/32 and 40, are carry the majority of the ridership. Ridership on these lines did decrease last year. Ridership on Route 20 was 5 percent lower; ridership on Routes 31/32 was 7 percent lower; and ridership on Route 40 was 4 percent lower.



It is interesting to note that while the ridership on the Local Lines dropped, ridership on the Feeder Lines increased. Route 10 had a 10 percent increase; Routes 51/52 also had an increase of 10 percent and Route 60 had a 15 percent increase. Unfortunately Route 70 had a decrease of 6 percent.

Ridership: Passengers Per Hour



One measurement of service effectiveness is the number of passengers carried per service hour. A comparison of the number of passengers per hour for the last two years is shown on the chart to the left, with details displayed in the table below.

While there was a 3 percent decrease in the overall ridership, the system wide average passenger an hour decreased 7 percent.

	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
System Wide:	29	27	- 07%
Route 10	11	12	+09%
Route 20	42	40	-05%
Route 31/32	41	37	-10%
Route 40	32	31	-03%
Route 50	13	13	+0%
Route 60	5	6	+20%
Route 70	2	2	+0%

Ridership: Passengers Per Hour by Service Line

The Department of Transportation has established ridership productivity measures for the Pasadena ARTS service. The standard and the actual passengers per service hour statistics are shown below.

For the ARTS, two standards have been used, one for “Local Lines” and one for “Feeder Lines”. The local lines are Routes 20, 30 (31/32) and 40. These are the lines that connect major neighborhood service areas to diverse community destination centers as well as schools, shopping centers and Gold Line Stations. Routes 10, 51/52, 60 and 70 are Feeder Lines as they either provide links between the business districts and Gold Line stations (Route 10) or link low density residential neighborhoods to the central district (Routes 51/52, 60 and 70). Additionally two of these routes operate only during commute times and don’t operate on the weekends.

FY 2006	Local Lines	Feeder Lines	Total System
Standard	26	10	
1 st Quarter	31	9	23
2 nd Quarter	32	8	23
3 rd Quarter	32	8	23
4 th Quarter	35	10	26
Year Total	33	9	24

FY 2007	Local Lines	Feeder Lines	Total System
Standard	26	10	
1 st Quarter	38	10	28
2 nd Quarter	40	10	29
3 rd Quarter	40	10	29
4 th Quarter	40	10	29
Year Total	39	10	29

FY 2008	Local Lines	Feeder Lines	Total System
Standard	26	10	
1 st Quarter	38	10	28
2 nd Quarter	37	10	27
3 rd Quarter	35	11	26
4 th Quarter	37	11	27
Year Total	37	10	27

Performance: Agency Review

Agency	FY06 Passengers per Hour	FY07 Passengers per Hour	FY08 Passengers per Hour
Alhambra	29	28	32
Baldwin Park	17	14	12
Carson	19	20	22
Cerritos on Wheels	8	9	10
Cudahy	49	41	37
El Monte	26	26	27
Glendale Bee	28	25	24
Huntington Park	21	20	15
Monterey Park Spirit	21	24	24
Palos Verde	9	10	11
Pasadena ARTS	24	29	27
West Covina Go West	11	9	8
West Hollywood	8	7	6

The City of Pasadena participates in the Metro county-wide incentive program for local fixed-route transit services. The chart to the left shows how Pasadena compares to other agencies operating in this program.

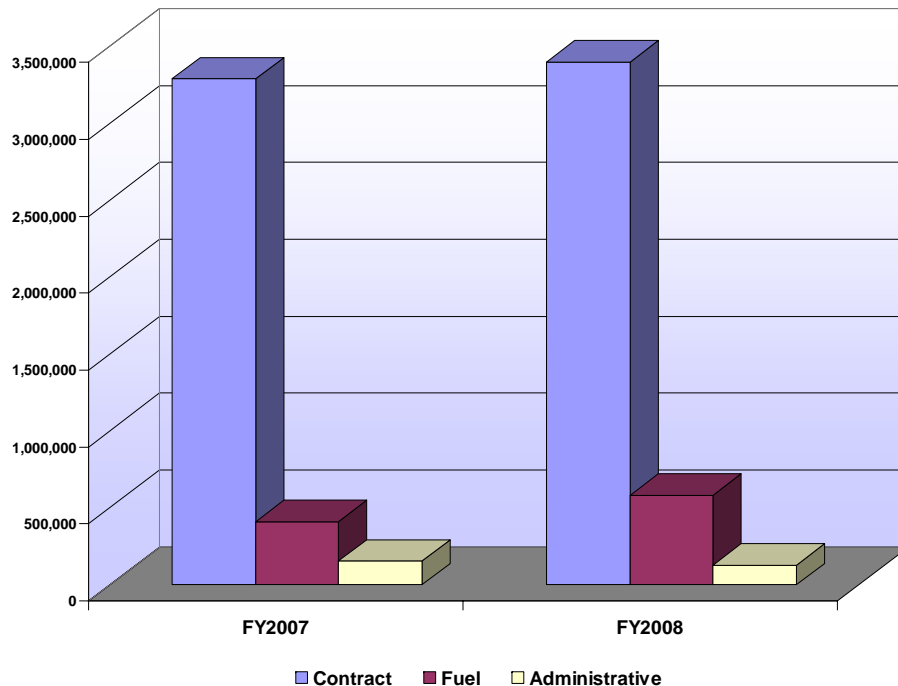
Service Productivity Indicator

COST BASED PERFORMANCE

Operating Costs

Annual Costs

	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
Contract	\$3,286,643	\$ 3,397,549	+ 3 %
Fuel	408,710	580,156	+ 42 %
Administrative	<u>153,627</u>	<u>127,260</u>	- 17 %
Total Costs	\$3,848,980	\$ 4,104,965	+ 7 %



The operating costs for the ARTS program are broken into three cost centers: 1) contract costs (service contract and other contracts), 2) fuel costs, and 3) administrative costs.

Contract costs are the highest cost center for the ARTS program. In FY08 there was a three percent increase in costs in this area. This has been due to the stability of the service contract with First Transit.

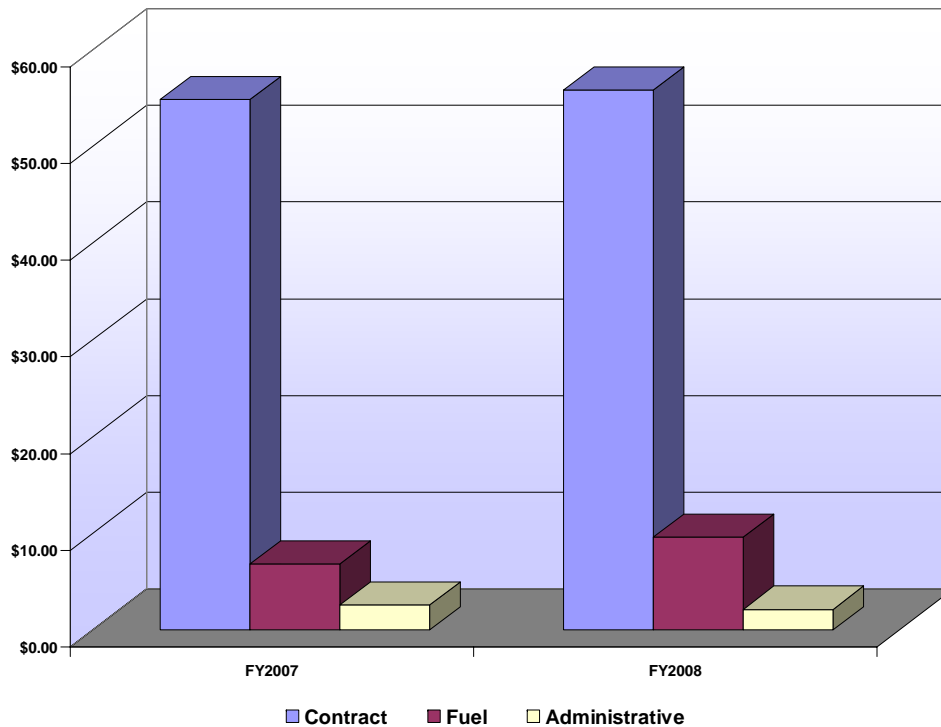
The increase in fuel costs was significant this year, reflecting the trend in the general economy.

Administrative costs decreased due to several factors: reduction in printing costs activities that resulted in higher costs and allocation of personnel costs,

Operating Costs: Cost per Hour

	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
Contract	\$54.78	\$55.77	+ 2%
Fuel	6.81	9.52	+ 40%
Administrative	<u>2.56</u>	<u>2.09</u>	- 18%
Total Cost	\$64.16	\$67.39	+ 5%

In FY08, overall system operating costs increased by 7%; however, the increased numbers of hours operated off-set this resulting in a cost per hour increase of only 5%. The impact of the increasing cost of fuel can be seen in this performance indicator.



Operating Costs: Cost Per Passenger

	<u>FY07</u>	<u>FY08</u>	<u>Variance</u>
Cost per Passenger	\$ 2.25	\$ 2.48	+ 10%
Revenue per Passenger	.26	.31	+ 18%
Subsidy per Passenger	\$ 1.99	\$ 2.17	+ 9%
Farebox Recovery	12%	13%	+ 7%

The increase in operating costs per passenger trip is a result of the decrease in ridership of three percent and the increase in operating costs of seven percent.

The increase in revenue per passenger reflects the increase ridership in the full fare passenger category and the decrease in ridership in the fare categories where no fare is paid.

Farebox recovery represents the amount of operating costs recovered from passenger fares.

Operating Costs: Cost Per Route

Annual Cost by Route		
	FY2007	FY2008
System Wide	\$3,848,980	\$4,104,965
Route 10	829,805	874,201
Route 20	1,188,077	1,251,294
Route 31/32	631,312	690,439
Route 40	629,968	662,541
Route 50	290,572	330,597
Route 60	146,150	154,584
Route 70	133,096	141,241

The chart to the left shows the total annual cost allocated by route based on the percentage of hours operated on each route. These costs include fixed and variable costs. The fixed costs would be things such as overhead or management costs for both the contractor and the City. The variable costs would include things such as bus operator pay, fuel costs and vehicle maintenance costs. Based on this, if a route is considered for elimination to save costs, not all of the costs are saved, the fixed costs would be reallocated to the other routes.

FY08 Performance: Agency Review

Agency	Service Hours Operated	Cost per Hour	Cost per Passenger	Subsidy per Trip	Farebox Recovery Ratio
Alhambra	16,263	47.88	1.52	1.27	16%
Baldwin Park	24,508	40.54	3.49	2.89	17%
Carson	29,687	59.41	2.67	2.38	11%
Cerritos on Wheels	25,848	47.35	4.97	4.56	8%
Cudahy	3,070	43.38	1.17	1.17	0%
El Monte	23,593	64.52	2.35	1.99	16%
Glendale Bee	90,567	74.07	3.12	2.87	8%
Huntington Park	20,994	38.13	2.58	2.23	14%
Monterey Park	18,646	67.59	2.81	2.68	5%
Palos Verde Transit	18,454	83.62	7.58	5.91	22%
Pasadena ARTS	60,917	67.39	2.48	2.17	13%
West Covina	20,397	61.97	7.10	6.87	3%
West Hollywood	10,812	68.44	11.07	11.04	0.3%

The City of Pasadena participates in the Metro county-wide incentive program for local fixed-route transit operators.

The chart to the left shows how Pasadena compares in FY08 to other agencies operating in this program.

Of the 13 operators included in this review, Pasadena is the second largest in terms of the number of hours operated: 60,917, or 13% of all hours for this group of operators. Glendale at 90,567 hours is the largest and has 19% of the total hours.

FY07 Performance: Agency Review

Agency	Cost per Hour	Cost per Passenger	Subsidy per Trip	Farebox Recovery Ratio
Alhambra	45.80	1.62	1.38	15%
Baldwin Park	36.85	2.72	2.19	20%
Carson	55.32	2.71	2.43	10%
Cerritos on Wheels	48.32	5.44	5.01	8%
Cudahy	41.94	1.03	1.03	0%
El Monte	61.27	2.32	1.96	18%
Glendale Bee	69.16	2.72	2.48	9%
Huntington Park	42.13	2.11	1.82	14%
Monterey Park Spirit	61.26	2.57	2.40	6%
Palos Verde Transit	78.87	8.24	6.65	19%
Pasadena ARTS	63.99	2.25	1.99	12%
West Covina	53.80	5.83	5.58	4%
West Hollywood	64.36	9.03	9.00	4%

The City of Pasadena participates in the Metro county-wide incentive program for local fixed-route programs. The chart to the left shows how Pasadena compares in FY07 to other agencies operating in this program. The data is from a November 2007 report and may change following a complete audit.

The cost per passenger for each system relies on the performance of each operator in generating ridership.

The subsidy per trip relies on the number of passengers, the established fare and the average fare paid by each rider. The greater the number of discounts given to various fare categories, i.e., students, seniors, etc., the lower the average fare is in relation to the base fare.

Farebox recovery represents the amount of operating costs recovered from passenger fares.

FY06 Performance: Agency Review

Agency	Cost per Hour	Cost per Passenger	Subsidy per Trip	Farebox Recovery Ratio
Alhambra	44.02	1.51	1.27	16%
Baldwin Park	36.85	2.18	1.80	17%
Carson	58.38	3.02	2.73	9%
Cerritos on Wheels	48.27	5.94	5.47	8%
Cudahy	43.58	.89	.89	0
El Monte	59.39	2.25	1.88	17%
Glendale Bee	69.67	2.51	2.37	5%
Huntington Park	41.79	2.00	1.73	14%
Monterey Park Spirit	60.91	2.85	2.70	6%
Palos Verde Transit	73.55	8.25	6.67	19%
Pasadena ARTS	67.06	2.82	2.54	10%
West Covina	42.85	3.98	3.71	7%
West Hollywood	59.32	7.93	7.89	1%

The City of Pasadena participates in the Metro county-wide incentive program for local fixed-route programs. The chart to the left shows how Pasadena compares in FY06 to other agencies operating in this program.