

Management Audit of the
**Rhode Island Public
Transit Authority**



PEER GROUP REVIEW

Prepared for the
**Rhode Island
State Budget Office**

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INTRODUCTION

The State Budget Office is conducting a management performance audit of the Rhode Island Public Transit Authority (RIPTA) to assess the feasibility of transferring RIPTA into the State Department of Transportation. One of the initial analysis tasks in this management performance audit is a comprehensive review of operating efficiency and effectiveness of the RIPTA through the use of selected performance indicators. This peer group review will also be used to identify areas that will require more detailed analysis in the functional review of RIPTA. Three techniques have been employed for this purpose.

Peer Group Analysis - comparing performance of the RIPTA with transit systems across the nation of similar size and service characteristics;

Trend Line Analysis - defining RIPTA's performance over a six year period (2000-2005);

Combination Analysis - the synthesis of the two techniques.

This section presents the findings from this comprehensive review. The findings from this review serve to highlight areas where RIPTA's performance is strong, weak or adequate, as measured through these comparative techniques.

This report has three more sections following this introduction:

Methodology - a discussion of our approach to each of the analysis techniques as well as our structure for categorizing performance indicators.

RIPTA Performance Analysis - a description of the screening process used to identify transit systems that comprise RIPTA's peers and the findings from the review of the RIPTA's performance with comparable bus systems.

Glossary of Terms – list of terms specialized to the transit industry.

All data included in these analyses was derived from RIPTA's annual National Transit Database (NTD) report for 2005 as well as the National Transit Database (NTD) information for FY's 1999 through 2004 as posted on the Federal Transit Administration's internet website. The NTD is the collection of data reported by all federally assisted transit properties as part of their Federal Transit Administration (FTA) funding requirements. Using NTD information attempts to ensure that the data included has been compiled in a consistent manner by all properties included in the peer group.

METHODOLOGY

This chapter presents an overview of the techniques used in this comparative analysis. It describes the manner in which RIPTA's performance has been reviewed as well as the structure in which the performance indicators are presented.

Overview of Analysis Techniques

This review of RIPTA performance was conducted using three different analysis techniques – peer group, trend line and combination. The methodology used in each is described below.

Peer Group Analysis - This technique compares RIPTA's performance at a single point in time (FY 2004) with a group of transit systems exhibiting similar characteristics. Selection of the peer group takes into consideration a number of factors that influence the population's tendency to use transit and management's ability to control its resources. The selection process is discussed in more detail in the next chapter.

As the objective of a peer group analysis is to comment on RIPTA's performance relative to comparable systems, the presentation of the findings focuses on only the group average and range of performance. Therefore, the tables that appear in the subsequent chapter follow a standard format as follows:

Peer Group Performance

- Minimum value recorded
- Maximum value recorded
- Average of all peer systems
(An unweighted value)

RIPTA Performance

- Value recorded
- Percent difference from peer group average
- Rank within the group
(With "1" always the highest or the best performer)

Trend Line Analysis - This second technique reviews RIPTA's performance over time. For this analysis, a six-year time period was used (2000-2005), which was based on the NTD reports provided by RIPTA. For the peer systems, the years 1999 and 2004 were used. The reason for the different review periods utilized for RIPTA and the peer systems is due to the fact that FY 2005 data is not available on the National Transit Database. In order to keep the length of the review period consistent, the six most recent years available on the NTD were utilized for the peers.

The purpose of this trend line analysis is to compare the trend of RIPTA's performance with the trend of its peers. A comparison is made of the trend of each selected performance measure with average trend of the peers. The analysis emphasizes the full six-year trend; not interim changes in key indicators.

Combination Analysis - The previous two techniques are synthesized in this third step. The combination analysis enables the reviewer to take those areas where RIPTA performs below its peers, for example, and ascertain if this condition had declined over time, thus suggesting a critical area in need of attention. This technique can also offset a below average peer group standing by pointing out that RIPTA has made great strides in a particular indicator over the past years even though it still was ranked below its peers in 2004. It should also be noted that it is possible that the performance of RIPTA in a certain category may have improved over time. However, if the performance has not improved to the same level as the peer group average, the overall result will indicate a declining performance. The combination analysis results in the grouping of performance into four different categories:

- 1- Better/improving - better than peer group average and improving over time.
- 2- Better/declining - better than peer group average but declining over time.
- 3- Worse/improving - worse than peer group average but improving over time.
- 4- Worse/declining - worse than peer group average and declining over time.

At the conclusion of all three analyses, it is then possible to suggest areas where RIPTA performs well and areas where improvement opportunities should be explored.

Classification of Performance Indicators

Performance indicators can be used to determine how the entire agency is performing with respect to stated objectives. Our approach to performance evaluation recognizes that these indicators are made up of statistics that reflect key factors in transit service delivery. The performance indicators are grouped into the following five areas shown on the following page:

1. Overall comparison with the peer group systems
2. Transit revenue sources
3. Comparison of financial, per-capita and G&A measures
4. Transportation performance measures
5. Maintenance performance measures

These five categories are used in the peer analysis. In terms of the trend analysis, the analysis of transit revenue sources comparison is excluded.

RIPTA PERFORMANCE ANALYSIS

The process to review RIPTA's performance consisted of three different analysis techniques – peer group, trend analysis and combination. The results from these three methods are presented below.

Peer Group Review

The information used to conduct the peer group analysis was obtained from the National Transit Database for the most recent fiscal year (FY 2004) for each system. The fiscal year for each system typically begins July 1 and ends June 30th. The RIPTA peer group consists of the following nine systems:

- CT Transit in Hartford, CT
- Jacksonville Transit Authority (JTA) in Jacksonville, FL
- Transit Authority of River City in Louisville, KY
- Kansas City Area Transit Authority in Kansas City, MO
- Capital District Transportation Authority in Albany, NY
- Regional Transit Service, Inc & Lift Line Inc. in Rochester, NY
- Charlotte Area Transit System in Charlotte, NC
- Central Ohio Transit Authority in Columbus, OH
- Memphis Area Transit Authority in Memphis, TN

The above peer group was selected based primarily on systems that operated in a similar sized service area compared to RIPTA with comparable densities, similar climate (except for the Jacksonville Transit Authority) and similar fleet size. The JTA system was included because it has many similar characteristics compared with RIPTA. The peer systems also had similar overall expenses, passenger revenue, unlinked passenger trips and vehicle miles.

The purpose of this peer group analysis is to identify RIPTA's strengths and weaknesses relative to those of its peers. The results of the peer analysis are presented in the aggregate for the peers. No specific references are made to the other systems. Rather, the information in this report presents the range of peer group performance and its unweighted group average calculated excluding the data for RIPTA as part of the group. Then, RIPTA's performance is shown as the numerical value, percent above or below the peer group average and rank within the peer group, which would be 1 to 10 for this analysis. With this ranking scheme, the system ranked first is always the highest or best performer. Table 1 provides the characteristics of each transit system included in the peer group. The remainder of this section describes the results of the peer group analysis.

Peer Group Characteristics Comparison - As seen in Table 2, the overall size and dimensions of RIPTA are comparable to the peers. RIPTA typically falls in or near the middle of the peers (ranking of 3 through 7) in many categories. It ranks as one of the highest in terms of ridership and all financial measures. Overall, the peer group is a reasonable representation. Highlights of the peer group are presented below:

- The population of the RIPTA service area is greater than the peer average by over 35,530 people and is ranked 4th. However, the population density of the RIPTA service area (population/square miles) is much larger than its peers and is ranked 4th at 2,830 persons per square miles compared with the peer average of 2,214 persons per square mile. This is due to the fact that the RIPTA service area in terms of square miles is less than the peer group average. It should be noted that RIPTA does not extend itself. It provides service to over 80% of the state's residents (846,293 served versus total state population of 1,048,319) and yet only serves about 30% of the total state's land area (299 square miles served versus a state land area total of 1,045 square miles).
- RIPTA is larger than the peer average in terms of vehicle miles, vehicle hours and total revenue hours. In all three measures, RIPTA is near or in the middle with 3, 4 or 5 size ranking.
- Even though RIPTA provided more service than the peers, it consumed approximately 49,500 fewer gallons of diesel fuel and was in the middle of the peers with a ranking of 5. It should be noted that due to environmental considerations, RIPTA uses ultra low sulfur diesel fuel in its fleet. This type of fuel is not commonly used at other transit systems.
- The operating speed of RIPTA's bus system, 13.6 MPH, is 4.9 percent slower than the peer average and results in a ranking of 6. The operating speed can be affected by a number of factors, including roadway congestion, boardings and alighting time and the number of stops along a route. In RIPTA's case, its slower speed could partially be attributed to the fact that its ridership is the second highest of the peer group. More

Table 1
Rhode Island Public Transit Authority (RIPTA)
2004 Operating Statistics

System	Service Area Population	Square Miles	Peak Vehicles	Revenue Miles	Revenue Hours	Unlinked Passenger Trips	Operating Expenses ^(**)	Operating Revenue
RIPTA	846,293	299	204	7,470,328	605,157	16,439,168	58,189,862	13,930,782
CT Transit - Hartford District, CT	851,535	664	183	6,183,252	463,868	12,789,638	34,880,851	10,085,398
Transit Authority of River City, (Louisville, KY)	754,756	283	199	7,538,934	593,762	15,171,361	40,837,674	5,430,847
Kansas City Area Transit Authority, MO	756,557	396	260	7,909,879	512,668	12,936,145	46,416,977	6,805,001
Capitol District Transportation Authority, (Albany, NY)	794,293	1,760	194	6,673,244	532,669	11,620,385	35,783,308	9,215,554
Regional Transit Service, Inc. & Lift Line Inc., (Rochester, NY)	694,395	294	208	5,909,042	474,902	12,648,335	41,566,855	13,583,005
Memphis Area Transit Authority, TN	888,627	288	164	7,059,486	445,132	11,452,178	35,447,735	8,466,251
Charlotte Area Transit System, NC	681,310	445	243	10,079,400	722,720	18,423,504	54,344,394	9,400,787
Jacksonville Transit Authority, FL	817,480	242	144	9,928,713	605,237	8,934,824	41,249,308	6,251,662
Central Ohio Transit Authority (Columbus, OH)	1,057,915	325	234	8,270,619	649,005	14,543,962	61,796,383	11,501,354
Average	810,763	522	203	7,728,063	555,551	13,168,926	43,591,498	8,971,695

(**) G&A services cost has been subtracted from operating cost
Source: 2004 National Transit Database

**Table 2
Comparison of Peer Group With RIPTA**

Characteristic	Minimum	Peer Group Maximum	Average	RIPTA	RIPTA vs. Average	Rank*
<i>Service Area Characteristics</i>						
Population	681,310	1,057,915	810,763	846,293	104.4	4
Square Miles	242	1,760	522	299	57.3	6
Population/Square Miles	451	3,378	1,992	2,830	142.1	4
<i>Dimensions-Operations</i>						
Total Vehicle Hours	507,600	771,500	605,044	660,700	109.2	3
Total Vehicle Miles	6,738,300	10,987,200	8,653,589	8,972,000	103.7	5
Total Revenue Hours	445,132	649,005	555,551	605,157	108.9	4
Diesel Fuel Gallons	1,706,000	2,974,800	2,132,311	2,082,800	97.7	5
Miles Per Hour	12.4	16.2	14.3	13.6	95.1	6
<i>Dimensions-Staff Size</i>						
Total FTE Employees	449.0	716.0	558.0	664.0	119.0	3
G&A Employees	25.0	118.0	68.0	83.0	122.1	4
Operating Employees	261.0	553.1	401.0	473.0	118.0	3
Maintenance Employees	88.0	160.0	124.0	131.0	105.6	3
<i>Dimensions-Vehicles</i>						
Active Revenue Fleet	184	313	248	222	89.5	8
AM/PM Peak Vehicles	144	260	198	204	103.0	5
<i>Ridership</i>						
Unlinked Trips	8,934,824	18,423,504	13,168,926	16,439,168	124.8	2
<i>Financial</i>						
Operating Revenue	\$5,430,847	\$13,563,005	\$8,971,095	\$13,930,782	155.3	1
Operating Cost ^(**)	\$34,880,851	\$61,796,383	\$43,591,498	\$58,189,844	133.5	2
G&A Cost ^(*)	\$2,577,600	\$8,086,500	\$5,791,389	\$10,572,103	182.5	1
Operations Cost	\$21,026,500	\$37,695,400	\$26,940,611	\$34,051,788	126.4	3
Maintenance Cost	\$6,521,300	\$11,566,600	\$9,304,744	\$12,964,453	139.3	1
Non-Vehicle Maintenance Cost	554,700	4,447,900	1,554,756	\$601,500	38.7	2
<i>Other G&A Costs</i>						
Casualty & Liability	274,700	1,512,900	852,744	3,284,087	385.1	1
Utilities	321,800	1,265,500	667,278	1,193,794	178.9	2

* Rank of 1 is highest, 10 is lowest

(*) Excludes G&A services which are mostly attributed to ADA service

(**) G&A services cost has been subtracted from the operating cost

Source: 2004 National Transit Database

traffic congestion is another probable reason since the RIPTA service operates in a more densely populated area than the peers.

- In terms of staff size, RIPTA ranked relatively high (rank of 3 or 4) for full time equivalent (FTE), General & Administrative (G&A) and operating employees. The size of the RIPTA vehicle maintenance work force is rather small compared with the peers and is ranked at 9 or the second lowest.
- RIPTA exhibits the third smallest (rank of 8) active fleet size compared with the peer average. However, RIPTA's peak fleet requirement is in the middle of the peer group (rank of 5) and is slightly larger than the peer average. The low total fleet size for RIPTA could be attributed to the fact that they were in the midst of a bus replacement phase and had retired some buses before their replacements were available.
- RIPTA ranks second in terms of ridership and is 24.6 percent higher than the peer average. It should be noted that this ridership number is a statistical calculation based on a random sample of ridership counts that RIPTA and other similar systems must perform. This process is an attempt by the Federal Transit Administration to provide a consistent and comparable method for reporting ridership. Ridership is based on "unlinked passenger trips" which is the count of the number of boardings that are made on each bus. It is distinct from a "linked passenger trip" which measures the total trip of a passenger from an origin point to the destination. Therefore, if a passenger needs to transfer to another bus to reach a destination, it would be considered one linked trip and two unlinked trips.
- RIPTA obtains more operating revenue than any of the peer systems and exceeds the peer average by about 55%. The high ridership total for RIPTA accounts for a significant portion of this performance. The other factor is the RIte Care fare program where RIPTA obtains substantial revenue from the State's Department of Human Services (DHS) for purchase of monthly passes for its clients. In fact, RIte Care pass revenue accounted for about 55.7% of passenger revenue.
- RIPTA accrues more expenses than the peer average in all categories. RIPTA's total Operating, Operations, G&A, and Non-Vehicle Maintenance costs are ranked either as the first, second or third highest. The Vehicle Maintenance cost is ranked as the fourth highest. It should be noted that the cost included in the G&A Services category has been removed from the total Operating Cost and G&A Cost for RIPTA and its peers. This cost is comprised mainly of the services associated with each system's ADA operation. Since this peer analysis is focused only on RIPTA's bus service operation, these cost were removed. Therefore, the peer group analysis is for the fixed route bus operation and excludes ADA services.

- The G&A costs at RIPTA are the highest of the peer group and nearly double the peer group average. Yet, the total RIPTA G&A employees are only 33 percent higher than the peer average with a rank of 3. Therefore, two other aspects of G&A costs were reviewed and found to be a contributing reason for RIPTA's G&A costs being so high. The costs that RIPTA paid for Casualty and Liability were nearly four times higher than the peer average and more than twice as high as the next highest system. A similar result was found for the Utilities cost at RIPTA that were nearly 80 percent higher than the peer average. RIPTA is self insured for its vehicle liability insurance. Therefore, each year RIPTA sets aside an amount of money into a fund to cover the anticipated liability from all incidents and accidents. In FY 2004, the Casualty and Liability set aside was significantly higher than in previous years. In fact, the average Casualty and Liability cost in the past four years (FY 2000 to FY 2003) was \$1,204,418, or about \$2 million less than the FY 2004 amount. If this average Casualty and Liability cost was experienced in FY 2004, the G&A cost of RIPTA would still be the highest compared with the peers but would be more in line with the G&A expenses of the other systems. The higher Utilities cost is due to the fact that RIPTA operates two bus garage complexes compared to one at most other peer systems. Further, a few of RIPTA's facilities are relatively old and are not very energy efficient. Finally, several of the peer systems (Jacksonville, Louisville, Memphis and Charlotte) operate in more temperate climates than Rhode Island.

In summary, RIPTA operates in a smaller urban area than the peer group average. However, RIPTA is a larger system in terms of vehicle hours, vehicle miles, staff size, and the number of passengers carried. This larger size translates into higher overall operating costs.

Transit Revenue Sources - This section reviews the amount of revenue that RIPTA and the peer systems obtain from various sources. Table 3 presents the total dollar amount by source for each revenue category.

- RIPTA did not receive any local investment in FY 2004. Both CT Transit and COTA also did not receive local investment in FY 2004. The remaining peer systems obtain most of their local investment support through general revenue sources, while a few peer systems obtain local funding support through a sales tax, and/or a gasoline tax. It should be emphasized that except for CT Transit and COTA, the other systems receive some form of operating funding from the local government (city or county) that is served by the transit system. The amount that is paid by each local jurisdiction is typically set based on a pre-determined formula or through a detailed accounting that distributes funding based miles of service in each jurisdiction or riders that board in each jurisdiction.

**Table 3
Transit Revenue Sources**

Characteristic	Minimum	Peer Group Maximum	Average	RIPTA	RIPTA vs. Average	Rank*
Revenue Source						
Local Investment	\$0	\$46,168,500	\$21,574,544	\$0	0.0	N/A
Operating Revenue	\$5,430,847	\$13,583,005	\$8,971,095	\$13,930,782	155.3	1
Total Local Support	\$10,085,398	\$55,569,287	\$30,545,640	\$13,930,782	45.6	7
State Investment	\$0	\$24,674,100	\$8,753,210	\$39,150,771	447.3	1
Federal Investment	\$0	\$11,158,200	\$5,464,389	\$13,310,500	243.6	1
Total Non-Local Investment	\$6,098,000	\$22,133,400	\$15,190,178	\$52,461,271	345.4	1
Total Revenue	\$23,130,654	\$68,118,987	\$45,735,818	\$66,392,053	145.2	2
Proportion of Revenue by Source as a Percent of Costs (**)						
Local Investment	0.0	91.6	47.1	0	0.0	N/A
Operating Revenue	12.8	31.3	19.8	21.7	109.6	4
Total Local Support	17.5	108.0	66.9	21.7	32.4	9
State Investment	0.0	67.7	23.3	61	261.8	2
Federal Investment	0.0	26.2	11.7	20.7	176.9	2
Total Non-Local Investment	17.7	69.8	35.0	81.7	233.4	1
Total Revenue	35.2	125.3	101.9	103.4	101.5	5

* Rank of 1 is highest, 10 is lowest

(**) Total costs include services cost

Source: 2004 National Transit Database

- The total operating revenue of RIPTA is about \$5 million higher than the peer group average and is the highest compared to the peer group.
- At RIPTA, the total local support is approximately \$13.9 million, which is comprised solely of revenue obtained from passenger fares. This figure compares to about \$30.5 million for the peer average. RIPTA's total local support represents about 46 percent of the peer average.
- The amount of state investment for RIPTA represents a major portion of total revenue. In fact, state investment for RIPTA was over four times more than the peers. RIPTA had the highest amount of state investment.
- RIPTA obtained about \$7.8 million more in federal operating investment compared with the peer average. RIPTA ranked number 1 for this measure.
- The total revenue to support the RIPTA from all sources was about \$66 million that is \$21 million more than the peer group average.
- The Local Investment (\$0) and the State Investment (\$39.15 million) is \$39.15 million for RIPTA, or about 59% of Total Revenue. In terms of the peers, the Local Investment (\$21.57 million) and State Investment (\$8.75 million) totals about \$30.32 million, or about 66% of Total Revenue. The portion of operating funds from the Local and State sources are higher at the peers than at RIPTA. This is a result of RIPTA's higher operating revenue and relatively large amount of federal operating support. It should be noted that RIPTA's operating revenue includes DHS funding for monthly passes to its clients under the RItE Care program. This monthly pass revenue is significant and based on recent data makes up over one-half of RIPTA's total operating revenue.

In summary, RIPTA has the highest amount of operating revenue compared with the peers. However, RIPTA obtains no investment from local sources, and in fact receives most of its funds from the State of Rhode Island. In addition, RIPTA obtains a relatively high share of federal funds. Even with the lack of Local Investment, the portion of operating funds from the Local and State sources are higher at the peers than at RIPTA.

Financial, Per Capita and General & Administrative (G&A) Measures - Table 4 presents a number of key financial, per capita and G&A performance measures. In this analysis, the ranking represents performance in terms of best and worst and not highest and lowest like the prior tables.

- In terms of cost, RIPTA has the fourth highest (worst) cost per passenger that is 105.4 percent of the peer average. This figure can be attributed to RIPTA's high operating costs. RIPTA's cost per vehicle mile, revenue hour and vehicle hour are also higher than the peer group average, and are the highest compared to all nine of the peer group systems. Cost on a per hour basis is very important because the hourly expenses (i.e., operator wages) are the main cost driver for transit systems.
- RIPTA provides a very similar level of service to its residents compared to the peer average. RIPTA provides the fifth most vehicle hours per capita, the fourth most revenue hours per capita and spends the 2nd highest amount per capita relative to the peer average. Rhode Island residents reward RIPTA for this higher service by utilizing transit more than the peers. In fact, RIPTA ranks number 3 in terms of transit utilization (rides) per capita. RIPTA exhibits a favorable balance in terms of service provided and utilization. For example, RIPTA is providing about three percent more service per capita than the peer average. However, they are obtaining a ridership level that is approximately 17 percent higher than the peer average. Therefore, the higher investment per capita makes sense in terms of the utilization.
- As noted above, RIPTA obtains no local sources of investment. The peer average in terms of local investment per passenger was \$1.70. However, RIPTA exhibits the third highest (best) total investment per passenger of \$3.19, which is 10.8 percent higher than the peer average of \$2.88.
- The local investment per capita for the peer group average was \$28.48. As noted above, RIPTA does not receive any local investment. However, the total investment per capita at RIPTA is \$61.99, which is 30.4 percent higher than the peer group average of \$47.53. The higher cost at RIPTA is the primary contributor to the higher total investment per capita. However, this higher investment is rewarded to some degree by the greater utilization per capita in Rhode Island that is 16.8 percent higher than the peer average.

**Table 4
Comparison of Financial, Per Capita and G&A Measures**

Characteristic	Minimum	Peer Group Maximum	Average	RIPTA	RIPTA vs. Average	Rank*
Cost Measures (**)						
Cost per Passenger	\$2.73	\$4.62	\$3.36	\$3.54	105.4	7
Cost per Vehicle Mile	\$4.04	\$6.17	\$5.06	\$6.49	128.3	10
Cost per Revenue Hour	\$67.18	\$95.22	\$78.60	\$96.16	122.3	10
Cost per Vehicle Hour	\$61.47	\$86.49	\$71.89	\$98.07	122.5	10
Per Capita Measures						
Vehicle Miles per Capita	8.1	16.1	10.8	10.6	98.1	5
Revenue Hours per Capita	0.50	1.06	0.70	0.72	102.9	4
Cost per Capita	\$40.98	\$79.76	\$54.43	\$69.76	126.3	9
Passengers per Capita	10.93	27.04	16.63	19.42	116.8	3
Investment Measures						
Local Investment per Passenger	\$0.00	\$4.46	\$1.70	\$0.00	0.0	N/A
Total Investment per Passenger	\$0.80	\$5.14	\$2.88	\$3.19	110.8	3(*)
Local Investment per Capita	\$0.00	\$67.76	\$28.48	\$0.00	0.0	N/A
Total Investment per Capita	\$10.99	\$86.18	\$47.53	\$61.99	130.4	2
Overall Financial						
Average Fare	\$0.36	\$1.07	\$0.70	\$0.85	121.4	9
Farebox Recovery Ratio	12.77%	31.27%	21.14%	23.94%	113.2	4
G&A						
G&A Cost per Total (%) (**)	7.2%	20.5%	13.2%	18.2%	137.9	8
G&A Employees per Total (%)	2.8%	26.3%	12.2%	12.5%	102.5	5
Casualty & Liability per Vehicle Mile	\$0.03	\$0.22	\$0.10	\$0.37	370.0	10
Casualty & Liability per Vehicle Hour	\$0.83	\$2.80	\$1.47	\$4.97	338.1	10

* Rank of 1 is best, 10 is worst

(*) Denotes a tie

(**) Excludes G&A services which are mostly attributed to ADA service

(**) G&A services cost has been subtracted from the operating cost

Source: 2004 National Transit Database

- Average fare at RIPTA is \$0.85 that is 21.4 percent higher than the peer average of \$0.70 and results in a ranking of 9. Placing a ranking number on average fare compared with its peers is open to interpretation. A ranking of 9 means that RIPTA has the second highest average fare. If it is the policy of the system to maximize revenue, this is a favorable ranking. However, if it is the policy to maximize ridership, this is not favorable. The farebox recovery ratio of RIPTA is 23.9 percent that includes only revenue from passenger fares and excludes G&A Services costs. This is the fourth best performance of any system and is in one of the most important overall measure of transit system performance. This performance reflects the higher ridership levels at RIPTA as well as the higher average fare.
- RIPTA exhibits similar performance compared with the peer average in terms of G&A employees as percent of total employees. However, G&A costs at RIPTA are 19.4 percent of total costs which is the third highest compared to the peer group. G&A employees at RIPTA represent 13.7 percent of total employees which is the fifth highest compared with the peer average. As noted before, the primary reason that the G&A costs are so out-of-line with the G&A employees is due to the fact that RIPTA exhibits the highest casualty and liability costs. These high costs compared with the peer systems on both a per vehicle mile and per vehicle hour basis are demonstrated in Table 4.

The RIPTA performance in the above areas is mixed. RIPTA exhibits the highest costs in terms of cost per vehicle mile, vehicle hour, and revenue hour, and has the third highest cost per passenger. Further, RIPTA's total G&A costs are higher than the peer average, which can be partially attributed to RIPTA having much higher casualty and liability costs compared with the peer group. Conversely, RIPTA provides slightly more revenue hours per capita, carries the third highest number of passengers per capita, has the fourth highest farebox recovery ratio and is above the peer average in terms of total investment on a per passenger and per capita basis.

Transportation Performance - Table 5 shows the performance measures related to transportation activities at RIPTA. These performance measures relate to the efficiency of day-to-day operations including scheduling, street supervision, dispatching and training. Several different categories of transportation performance are presented below:

Table 5
Transportation Performance Measures

Characteristic	Minimum	Peer Group Maximum	Average	RIPTA	RIPTA vs. Average	Rank*
Transportation Efficiency						
Operations Cost/Total (%) (^)	58.9%	68.5%	61.6%	58.5%	95.0	1
Operation Employees/Total (%)	58.1%	81.9%	71.4%	71.2%	99.7	5
Vehicle Hours/Operations Employees	1,241	2,057	1,557	1,397	89.7	6
Transportation Effectiveness						
Passengers per Mile	0.9	1.9	1.5	1.8	120.0	3(*)
Passengers per Vehicle Hour	14.1	24.9	21.9	24.9	113.7	1(*)
Passengers per Revenue Hour	14.8	27.6	23.9	27.2	113.8	2
Passengers per Employee	17,870	27,294	23,687	24,758	104.5	4

* Rank of 1 is best, 10 is worst

(^) G&A services cost has been subtracted from the operating cost

(*) Denotes a tie

Source: 2004 National Transit Database

- The total cost of the transportation function is 58.5 percent of the total cost of the RIPTA system. Although this is the lowest relative cost of the peer comparison, RIPTA is very close to the peer average of 61.6 percent. However, what this does indicate is that RIPTA spends a larger portion of its resources on non-operations activities. The fact that at RIPTA, G&A costs comprise 19.4 percent of total costs, the third highest, confirms this conclusion. RIPTA's share of operating employees compared to its total workforce is very similar to the peer average. In terms of employee utilization, RIPTA performs about six percent below the peer average in terms of the number of vehicle hours per operations employees. This measure indicates that RIPTA is not as efficient as its peers in terms of utilization of its operations employees.
- RIPTA is above the peer average in each measure related to service effectiveness, including passengers per mile, passengers per vehicle hour, passengers per revenue hour, and passengers per employee. These measures demonstrate the higher ridership level on the RIPTA bus system compared with the peer average.

In summary, RIPTA spends about the same amount of resources as its peers in placing service on-the-street, and its percentage of operations employees compared to its total employee workforce is similar to the peer average. However, RIPTA's vehicle hours per operations employee are lower than the peer average. This is an area that will be explored in more detail in the functional area review of RIPTA. Lastly, although RIPTA provides a similar amount of resources on bus service compared with its peers, RIPTA performs much better than its peers in terms of passengers carried.

Maintenance Performance - The information on Table 6 provides a summary of the relative efficiency of the RIPTA maintenance performance. Maintenance efficiency measures and maintenance cost performance are reviewed below:

- RIPTA has the second smallest spare ratio compared with the peer group average.
- RIPTA operates more miles per active bus compared with the peer average.
- In terms of the efficiency of the RIPTA maintenance work force, the number of miles per maintenance employee and buses per maintenance employee are higher than the peer average. These measures indicate that the RIPTA bus system has a smaller vehicle maintenance work force compared with the peer average.

Table 6
Maintenance Performance Measures

Characteristic	Minimum	Peer Group Maximum	Average	RIPTA	RIPTA vs. Average	Rank*
Maintenance Measures						
Spares Ratio(-)	7.5%	39.0%	25.6%	8.8%	34.4	2
Miles per Active Bus	26,321	55,442	35,608	40,414	113.5	2
Miles per Maintenance Employee	56,244	97,156	71,532	68,489	95.7	4
Buses per Maintenance Employee	1.70	2.59	2.03	1.69	83.3	10
Miles per Gallon	3.69	4.73	4.09	4.31	105.4	5
Maintenance Cost						
Per Active Bus	\$27,354	\$46,490	\$37,883	\$58,399	154.2	10
Per Peak Bus	\$35,234	\$58,472	\$47,297	\$63,551	134.4	10
Per Mile	\$0.75	\$1.68	\$1.11	\$1.44	129.7	8
As a Percent of Total Costs (**)	15.8	27.2	21.8	22.3	102.3	7

* Rank of 1 is best, 10 is worst

(*) Denotes a tie

(**) G&A services cost has been subtracted from the operating cost

(-) Kansas City peer system vehicle data based on FY 2002 data.

Source: 2004 National Transit Database

- Fuel efficiency is above average at 4.31 miles per gallon compared with the peer average of 4.09 miles per gallon. This is favorable performance in view of the fact that diesel fuel costs are high.
- Maintenance costs per active bus, per peak bus and per mile are all above the peer group average. In fact, RIPTA's cost per active bus is the highest of the peer group. RIPTA only expends 18.9% of its total costs on vehicle maintenance compared with 21.8% for the peer group average. This indicates that RIPTA's overall costs are high.

In summary, the performance of RIPTA in terms of vehicle maintenance is above average compared to its peers in terms of spare ratio, vehicle utilization, size of the of the work force relative to miles and fleet size and fuel utilization. Although RIPTA's maintenance performance is favorable compared with its peers, the overall cost spent on vehicle maintenance is greater than the peer average. However, the portion of total cost spent on vehicle maintenance by RIPTA is less than the peers indicating that the overall costs of RIPTA are high.

Trend Analysis

The second analysis technique reviews RIPTA's performance over time rather than a single "snapshot" as in the preceding peer group analysis. Many of the same indicators are used as those used in the peer group analysis. The results of the two analyses are combined in the next section.

Data for the trend analysis was derived from the National Transit Database for FY 1999 to FY 2004 for the peers and FY 2000 to FY 2005 for RIPTA. The information presented here focuses on the two end years (i.e., FY 1999 or FY 2000 and FY 2004 or FY 2005). The overall rate of change is calculated. At the time of this report, FY 2005 data was not available from the National Transit Database for the peer systems used in this analysis. As a result, trend data for the peer systems spans from 1999 to 2004.

In performing the peer analysis, only the results of the general peer group data (Table 2), the financial, per capita and G&A measures (Table 4), transportation performance measures (Table 5) and maintenance performance measures (Table 6) are compared with 1999/2000 data.

Peer Group Characteristics Trend Comparison - As seen in Table 7, the change in the peer system averages between 1999 and 2004 are compared with the change in the same statistics for the RIPTA from 2000 to 2005. Highlights of the peer group trend analysis are presented below:

**Table 7
Trend Analysis - General Peer Group**

Characteristic	Peer Trend - Average			2000	RIPTA	% Change
	1999	2004	% Change		2005	
Dimensions-Operations						
Total Vehicle Hours	556,451	605,044	8.7	592,096	665,483	12.4
Total Vehicle Miles	7,632,172	8,653,589	13.4	8,088,524	8,998,982	11.3
Total Revenue Hours	510,846	555,551	8.8	411,318	606,725	47.5
Diesel Fuel Gallons	2,060,619	2,132,311	3.5	1,992,287	2,061,732	3.5
Miles Per Hour	13.73	14.3	4.2	13.86	13.52	-1.0
Dimensions-Staff Size						
Total FTE Employees	529.0	558.0	5.5	570.0	663.0	16.3
G&A Employees	61.0	68.0	11.5	84.0	95.0	1.2
Operating Employees	384.0	401.0	4.4	427.0	482.0	12.9
Maintenance Employees	99.0	124.0	25.3	96.0	127.0	32.3
Dimensions-Vehicles						
Active Revenue Fleet	234	248	6.0	244	222	-9.0
AM/PM Peak Vehicles	189	188	4.8	187	208	11.2
Ridership						
Unlinked Trips	13,767,445	13,168,926	-4.3	15,931,860	18,615,302	16.8
Financial						
Operating Revenue	\$9,317,058	\$8,971,095	-3.7	\$9,317,279	\$19,504,737	109.3
Operating Cost ^(**) ^(***)	\$32,277,488	\$43,591,498	35.1	\$40,433,023	\$59,586,523	47.4
G&A Cost ^(*)	\$4,401,870	\$5,791,389	31.6	\$4,722,036	\$8,206,373	73.8
Operations Cost	\$19,276,975	\$26,940,611	39.8	\$25,310,451	\$36,749,540	45.2
Maintenance Cost	\$7,293,400	\$9,304,744	27.6	\$9,792,675	\$13,913,891	42.1

(*) Excludes G&A services which are mostly attributed to ADA service
 (**) G&A services cost has been subtracted from the operating cost
 (***) Includes non-vehicle maintenance cost
 Source: 1999, 2000, and 2004 National Transit Database, and RIPTA's 2005 NTD Report

- The amount of service provided by RIPTA increased at a slightly greater rate compared to the peer average in terms of vehicle hours and revenue hours, both of which increased by 12.4 percent and 11.1 percent, respectively. The increase in vehicle miles operated was very similar for the peers and for RIPTA. Overall, the peers and RIPTA increased service at about 2% per year over the five-year period.
- Consistent with the increase in miles of service by both the peers and by RIPTA, the same increase (3.5 percent) was experience in the amount of diesel fuel used during the review period. Operating speed for both RIPTA and the peer systems remained about the same. RIPTA registered a one percent decline in operating speed while the peer systems registered a 4.2 percent increase in operating speed.
- The size of the RIPTA workforce increased 15.4 percent while the workforce of the peers increased by 5.5 percent. RIPTA exhibited an increase in both the number of G&A and maintenance employees, but at a smaller increase rate than the peer average. Therefore, the increase in RIPTA's overall work force size was due to the increase in operating employees. The number of RIPTA operating employees increased by 14.0 percent compared with only a 4.4 percent increase by the average of the peers. This difference is partially due to the fact that the amount of service provided by RIPTA in terms of vehicle hours increased by 12.4% compared with an 8.7% increase for the peers. Other factors such as the amount of vacation time could contribute to this difference.
- The size of RIPTA's fleet decreased by nine percent while the number of peak vehicles increased 11.2 percent. The peer systems active fleet size and peak vehicle requirements both exhibited modest increases. The increase in the number of RIPTA's peak vehicles coupled with the increase in service during the review period can be attributed to the fact that RIPTA operated more peak period service during FY 2005 compared to FY 2000. Further, the overall size of the RIPTA fleet is low due to the fact that RIPTA is in a transition period where they retired some vehicles before they obtained all the replacement ones.
- RIPTA experienced a 16.8 percent increase in ridership during the review period (2000-2005) while the peer average declined 4.3 percent (1999-2004).
- In terms of financial measures, the RIPTA costs in all four categories (total operating, G&A, operations and maintenance) increased at a greater rate than its peers. However, on the favorable side, RIPTA's operating revenue increased by over 100 percent during the review period while the operating revenue of the peers declined by about four percent. As stated before, much of this increase in operating revenue could be attributed to the RIte Care program where certain DHS clients are provided a RIPTA monthly pass.

In summary, the RIPTA service has increased, as has the number of employees and peak period fleet size. Over the review period, 2000 to 2005, total operating costs have increased by about 9.5 percent per year. This compares with an overall cost increase of about 7.0 percent for the peer average. RIPTA ridership increased during the review period compared with a decline by the peers. This ridership increase from those on the RIte Care program as well as those non-RIte Care riders resulted in the significant increase in operating revenue.

Financial, Per Capita and G&A Trends - As shown in Table 8, the financial, per capita, and G&A performance of RIPTA between 2000 and 2005 is compared with the peer average for 1999 to 2004, with the following results:

- RIPTA's total cost per vehicle mile and cost per vehicle hour have increased at a faster rate than the peer average. In addition, RIPTA's cost per passenger increased 26 percent during the review period while the peer average increased at a much higher rate of 41.2 percent. One of the reasons for RIPTA's cost per passenger increasing at a lower rate than the peer average can be attributed to the large increase in ridership exhibited by RIPTA during the review period. However, it is important to note that RIPTA's cost per passenger increase during the review period is still high and indicates that total operating costs are outpacing the revenue gains achieved by higher ridership levels and the RIte Care program.
- In terms of per capita measures, RIPTA provided about two percent fewer vehicle miles per capita during the review period. Between 1999 and 2004, the peer systems increased the number of vehicle miles per capita by about three percent. RIPTA's total cost per capita increased 30.6 percent during the 2000 to 2005 review period while the peer average increased at a lower rate of 23 percent between 1999 and 2004. In addition, passengers per capita at RIPTA increased by about four percent while the peer average exhibited a decline of 12.2 percent.
- RIPTA received no local investment during the review period. The peer averages for local investment per passenger and local investment per capita increased 58.9 percent and 36.3 percent, respectively between 1999 and 2004. RIPTA exhibited increases in total investment per passenger and total investment per capita during the 2000 to 2005 review period. However, in both instances the increase was less than the increase exhibited by the peer average.

Table 8
Trend Analysis - Financial, Per Capita and G&A Measures

Characteristic	Peer Trend - Average			2000	RIPTA	% Change
	1999	2004	% Change		2005	
Cost Measures (^)						
Cost per Passenger	\$2.38	\$3.36	41.2	\$2.54	\$3.20	26.0
Cost per Vehicle Mile	\$4.20	\$5.06	20.5	\$5.00	\$6.62	32.4
Cost per Revenue Hour	\$62.58	\$78.60	25.6	\$98.30	\$98.21	-0.09
Cost per Vehicle Hour	\$57.33	\$71.88	25.4	\$68.29	\$89.54	31.1
Per Capita Measures						
Vehicle Miles per Capita	10.5	10.8	2.9	10.8	10.6	-1.9
Revenue Hours per Capita	0.71	0.70	-1.4	0.55	0.72	30.9
Cost per Capita	\$44.25	\$54.43	23.0	\$53.91	\$70.41	30.6
Passengers per Capita	18.93	16.63	-12.2	21.24	22.00	3.6
Investment Measures						
Local Investment per Passenger	\$1.07	\$1.70	58.9	\$0.00	\$0.00	N/A
Total Investment per Passenger	\$1.84	\$2.88	56.5	\$2.08	\$2.73	31.3
Local Investment per Capita	\$20.89	\$28.48	36.3	\$0.00	\$0.00	N/A
Total Investment per Capita	\$34.42	\$47.53	38.1	\$44.10	\$60.08	36.2
Overall Financial						
Average Fare	\$0.70	\$0.70	0.0	\$0.58	\$1.05	81.0
Farebox Recovery Ratio	30.03%	21.14%	-29.6	23.0%	32.7%	42.2
G&A						
G&A Cost per Total (%) (^)	13.4%	13.2%	-1.5	11.7%	13.8%	17.9
G&A Employees per Total (%)	11.3%	12.2%	8.0	14.7%	12.8%	-12.9

(^) Excludes G&A services which are mostly attributed to ADA service

(^^) G&A services cost has been subtracted from the operating cost

Source: 1999 & 2004 National Transit Database, and RIPTA NTD Report FY 2005

- The RIPTA average fare increased 81 percent during the 2000 to 2005 review period while the average fare for the peer systems remained the same. Further, RIPTA's farebox recovery increased by 42.2 percent during the review period while the peer average declined by almost 30 percent. It should be noted that the increase in RIPTA's farebox recovery between that reported for FY 2004 on Table 4 (23.94%) and that reported in Table 8 for FY 2005 (32.7%) is due to much higher passenger revenue in FY 2005 that is attributed to the RIte Care program.
- The G&A costs at RIPTA increased to 15.5 percent of total costs in 2005 from 12.7 percent of total costs in 2000. The G&A costs of the peer average declined from 13.4 percent in 1999 to 13.2 percent in 2004. This performance by RIPTA indicates that during the review period, RIPTA devoted a larger share of its costs to G&A expenses. In addition, the percentage of RIPTA G&A employees declined by about 5.5 percent during the review period, while the peer average exhibited a 10.6 percent increase. RIPTA has been about to control the size of its G&A work force. However, G&A expenses have fluctuated significantly. For example, in FY 2004, G&A expenses totaled about \$11.3 million and represented 19.4 percent of total costs (see Table 2 and 4). In FY 2005, G&A expenses totaled about \$9.2 million and represented 15.5 percent of total costs.

In summary, the trends in RIPTA performance in the above measures are generally favorable and are comparable to the peer average. RIPTA outperformed the peer average in the cost per passenger measure and outperformed or was very close to the peer average in per capita measures. RIPTA exhibited an increase in the amount of total investment during the review period, although the increase was lower than the increase exhibited by the peer average. RIPTA's average fare and farebox recovery both increased at a higher rate than the peer average. The one area where RIPTA did not perform as well as its peers was in the area of G&A costs, which increased by about 22 percent compared to a 1.5 percent decrease exhibited by its peers. However, the percentage of RIPTA's G&A employees declined by almost 5.5 percent during the review period while the peer average increased.

Transportation Performance Trends - As shown in Table 9, transportation performance of the RIPTA between 2000 and 2005 is compared with the peer average for 1999 to 2004, with the following results:

Table 9
Trend Analysis - Transportation Performance Measures

Characteristic	Peer Trend - Average			2000	RIPTA 2005	% Change
	1999	2004	% Change			
<i>Transportation Efficiency</i>						
Operations Cost/Total (%) (**)	60.0%	61.6%	1.8	62.6%	61.7%	-1.4
Operation Employees/Total (%)	72.8%	71.4%	-1.9	74.9%	72.7%	-2.9
Vehicle Hours/Operations Employees	1,458	1,557	6.8	1,387	1,381	-0.4
<i>Transportation Effectiveness</i>						
Passengers per Mile	1.8	1.5	-16.7	2.0	2.1	3.5
Passengers per Vehicle Hour	24.8	21.9	-11.7	26.9	28.0	4.1
Passengers per Revenue Hour	27.0	23.9	-11.5	38.7	30.7	-20.8
Passengers per Employee	26,216	23,687	-9.6	27,951	28,077	0.5

(**) G&A services cost has been subtracted from the operating cost
Source: 1999 & 2004 National Transit Database, and RIPTA NTD Report FY 2005

- In terms of transportation efficiency that addresses how well service is placed on the street in terms of low costs and high staff utilization, RIPTA did not experience any significant changes during the review period. RIPTA's operations cost as a percent of total costs decreased by only 1.4 percent compared to a 1.8 percent increase exhibited by the peers. In addition, the relative size of the operations work force at RIPTA decreased by a slightly lower rate compared with the peer average. Lastly, the efficiency of RIPTA in terms of vehicle hours per operating employee decreased by slightly more than one percent while the peer average exhibited an increase of about seven percent.
- RIPTA outperformed its peers in all three measures related to transportation effectiveness, including passengers per mile, per vehicle hour and per employee. Transportation effectiveness addresses how well the service is utilized by the residents and is measured in terms of passengers carried.

In summary, RIPTA spent a slightly smaller share of its total costs on placing service on the street between 2000 and 2005, while the peers spent almost two percent more between 1999 and 2004. In addition, RIPTA improved in all three indicators of transportation effectiveness during the review period. Overall, the transportation function at RIPTA is slightly below its peers in terms of efficiency but better in terms of effectiveness.

Maintenance Performance Trends - As shown in Table 10, maintenance performance of the RIPTA between 2000 and 2005 is compared with the peer average for 1999 to 2004, with the following results:

- The spare ratio at RIPTA has decreased from 30.5 percent to 6.7 percent between 2000 and 2005 while the trend for the peers increased from 18.6 percent to 25.6 percent. RIPTA's spare ratio is much lower than the 20 percent spare ratio guideline established by the FTA. However, the spare ratio is low due to a transition period where RIPTA retired older buses before the new replacement buses were ready for service.
- RIPTA has increased the number of miles accrued per active bus by 22.3 percent while the peer average increased by about seven percent. RIPTA operated more miles per active bus in 2005 compared with the peers in 2004.

Table 10
Trend Analysis - Maintenance Performance Measures

Characteristic	Peer Trend - Average			2000	RIPTA 2005	% Change
	1999	2004	% Change			
Maintenance Measures						
Spares Ratio(~)	18.6%	25.6%	37.6	30.5%	6.7%	-78.0
Miles per Active Bus	33,378	35,608	6.7	33,150	40,536	22.3
Miles per Maintenance Employee	77,540	71,532	-7.7	84,255	70,858	-15.9
Buses per Maintenance Employee	2.35	2.03	-13.6	2.54	1.75	-31.1
Miles per Gallon	3.70	4.09	10.5	4.06	4.36	7.4
Maintenance Cost						
Per Active Bus	\$31,579	\$37,883	20.0	\$40,134	\$62,675	56.2
Per Peak Bus	\$38,917	\$47,297	21.5	\$52,367	\$66,894	27.7
Per Mile	\$0.97	\$1.11	14.4	\$1.21	\$1.55	28.1
As a Percent of Total Costs (^^)	23.0	21.8	-5.2	24.2	23.4	-3.3

(~) Kansas City peer system vehicle data based on FY 2002 data.

(^^) G&A services cost has been subtracted from the operating cost

Source: 1999 & 2004 National Transit Database, and RIPTA NTD Report FY 2005

- In terms of miles per maintenance employee, the overall productivity of RIPTA has decreased but not as great as the rate of its peers. Conversely, in terms of buses per maintenance employee, the overall productivity of RIPTA decreased at a faster rate than its peers. However, the performance of RIPTA in 2005 is still better than the performance of its peers in 2004, even with the reduced performance. Much of the trend of RIPTA is a result of the performance in 2000 where they had 3.1 buses per maintenance employee compared with 2.35 for the peers. In 2000, RIPTA was out of line with the peers and has recently adjusted its maintenance staff levels to be more in line.
- The RIPTA fuel efficiency has improved by 7.4 percent compared to a larger increase of about 11 percent by the peers. Again, it is important to note that RIPTA performance is now still better than the peers even though it has not improved as much.
- During the review period, the maintenance cost per active bus for RIPTA has increased by 49.7 percent while the maintenance cost per peak bus increased by about 22.4 percent. The peer average for both measures increased by 20 percent and 21.5 percent, respectively during the review period.
- The maintenance cost per mile at RIPTA has increased by 22.4 percent while the peer average increased by 14.4 percent.
- RIPTA's maintenance cost as a percent of its total costs decreased by 7.5 percent during the review period while the peer average decreased by a slightly lower rate of 5.2 percent.

In summary, RIPTA's maintenance trend performance showed generally mixed results. The trend in spares ratio, miles per active bus and miles per maintenance employees were more favorable than the peers. The trend in buses per mechanic and miles per gallon were less favorable. However, even though the trend was better at the peers in these two measures, RIPTA still had better overall performance. In three of the four maintenance cost measures, RIPTA exhibited a more costly trend compared with the peers. Of particular concern is the 49.7 percent increase in the maintenance cost per active bus during the review period. It should be noted that much of this cost increase is attributed to catching-up with vehicle maintenance that was neglected in the past.

Combination Analysis

This final technique combines the results of the peer group analysis and the trend analysis. Placing these results side by side enables each indicator to be assigned to one of four categories:

- 1 Above the peer group average and improving over time. For any performance in this category, RIPTA should be commended.
- 2 Above the peer group average and declining over time. This performance indicates that symptoms of future problems may be evident. In the case of the RIPTA, it may also mean that the past performance levels were high that a decline relative to its peers is reasonable. For example, this situation was observed in vehicle maintenance area where the mile per gallon only improved by 7.4 percent compared with a 10.5 percent increase in the peers. However, RIPTA was starting at a more favorable level and still remained better than the peers.
- 3 Below the peer group average but improving over time. This performance indicates a positive trend but where additional work is needed.
- 4 Below the peer group average and declining over time. This performance indicates a problem that may require immediate attention.

The results of this combination approach are presented below.

Financial, Per Capita and G&A Measures - As seen in Table 11, RIPTA performs better than the peer group average and improving in four of the 12 measures in this category, including cost per capita, passengers per capita, average fare and farebox recovery. RIPTA performs better than the peer group average and is declining in two of the 12 measures in this category including total investment per passenger and total investment per capita. It should be noted that in this analysis, a higher cost per capita as well as a higher total investment per passenger and per capita is viewed as positive.

Table 11
Combination Analysis - Financial, Per Capita & G&A Measures

Characteristic	RIPTA Performance Relative to Peer Average For FY 2004	RIPTA Performance Relative to Peer Trend From 1999/2000 to 2004/2005*	Rating
Cost Measures			
Cost per Passenger	Worse	Improving	3
Cost per Vehicle Mile	Worse	Declining	4
Cost per Revenue Hour	Worse	Improving	3
Cost per Vehicle Hour	Worse	Declining	4
Per Capita Measures			
Vehicle Miles per Capita	Worse	Declining	4
Revenue Hours per Capita	Better	Improving	1
Cost per Capita	Worse	Declining	4
Passengers per Capita	Better	Improving	1
Investment Measures			
Local Investment per Passenger	N/A	N/A	N/A
Total Investment per Passenger	Better	Declining	2
Local Investment per Capita	N/A	N/A	N/A
Total Investment per Capita	Better	Declining	2
Overall Financial			
Average Fare	Worse	Declining	4
Farebox Recovery Ratio	Better	Improving	1
G&A			
G&A Cost per Total (%)	Worse	Declining	4
G&A Employees per Total (%)	Worse	Improving	3

* The RIPTA review period spans 2000-2005, while the peer systems span 1999-2004

RIPTA was below the peer average and declining in cost per vehicle mile, cost per vehicle hour, vehicle miles per capita and G&A costs as percentage of total costs. These results point to an issue with respect to RIPTA's high costs. Although RIPTA is worse relative to the peer average in terms of vehicle miles per capita and is exhibiting a declining trend, the amount of service provided per capita is very similar to its peers and therefore, this is not an issue. In two of the 12 measures RIPTA performed below the peer average and exhibited an improving trend during the review period. These two measures included cost per passenger and percent G&A employees per total. The improving cost per passenger trend is due to significantly higher passengers carried. The improving trend in the percent of G&A employees at RIPTA is due to the fact that total G&A staff size increased by only 9.3 percent at RIPTA while increasing by 11.5 percent at the peers.

Transportation Performance Measures - As seen in Table 12, RIPTA performs worse than the peer group average in all measures related to transportation efficiency. Further, in two of the three measures, the performance trend was declining. RIPTA exhibited an improving trend with respect to the percent of operations employees to total employees.

For all measures related to transportation effectiveness, RIPTA performance was better than the peer average, and its performance trend was also improving in all three measures compared with its peers. This demonstrates the strength of RIPTA in terms of its high utilization compared with its peers.

Maintenance Performance Measures - As seen in Table 13, RIPTA performs better than the peer group average in all five maintenance measures and showed an improving trend in three. Even in the two that RIPTA exhibited a declining trend, its absolute performance was still better than the peers in the last year of the trend. The maintenance efficiency of RIPTA is very favorable compared with its peers.

In three of the four categories related to maintenance cost, RIPTA performs worse than the peer average and is declining relative to the trend of its peers. However, its maintenance costs are a smaller percent of the total system expenses and are becoming an even smaller portion at RIPTA compared with its peers. This result underscores the fact that the overall costs of RIPTA are high relative to its peers.

Table 12
Combination Analysis - Transportation Performance Measures

Characteristic	RIPTA Performance Relative to Peer Average For FY 2004	RIPTA Performance Relative to Peer Trend From 1999/2000 to 2004/2005*	Rating
<i>Transportation Efficiency</i>			
Operations Cost/Total (%)	Worse	Declining	4
Operation Employees/Total (%)	Worse	Declining	4
Vehicle Hours/Operations Employees	Worse	Declining	4
<i>Transportation Effectiveness</i>			
Passengers per Mile	Better	Improving	1
Passengers per Vehicle Hour	Better	Improving	1
Passengers per Revenue Hour	Better	Declining	2
Passengers per Employee	Better	Improving	1

* The RIPTA review period spans 2000-2005, while the peer systems span 1999-2004

Table 13
Combination Analysis - Maintenance Performance Measures

Characteristic	RIPTA Performance Relative to Peer Average For FY 2004	RIPTA Performance Relative to Peer Trend From 1999/2000 to 2004/2005*	Rating
<i>Maintenance Measures</i>			
Spares Ratio(~)	Better	Improving	1
Miles per Active Bus	Better	Improving	1
Miles per Maintenance Employee	Worse	Declining	4
Buses per Maintenance Employee	Worse	Declining	4
Miles per Gallon	Better	Declining	2
<i>Maintenance Cost</i>			
Per Active Bus	Worse	Declining	4
Per Peak Bus	Worse	Declining	4
Per Mile	Worse	Declining	4
As a Percent of Total	Worse	Declining	4

(~) Kansas City peer system vehicle data based on FY 2002 data.

* The RIPTA review period spans 2000-2005, while the peer systems span 1999-2004

Summary - The combination analysis results indicate that RIPTA's performance is questionable in a number of areas included in this performance review. As seen the accompanying Table 14, RIPTA was above average and improving in 11 of the 27 measures, or 40.7 percent. Of these areas, four are in financial, per capita, and G&A, three are in transportation and four are in maintenance. In addition, RIPTA was below the peer average and declining in nine of the 27 measures, or 33.3 percent. Of these areas, four are in financial, per capita, and G&A, two are in transportation and three are in maintenance. There are only four measures where RIPTA's performance is above average and declining and three measure where the performance is below average and improving. Most measures of RIPTA's performance are at either extreme – better than the peers and improving or worse than the peers and declining.

**TABLE 14
SUMMARY PERFORMANCE RATING**

Category	Financial, Per Capita and G&A*		Transportation		Maintenance		TOTAL	
	Rating	%	Rating	%	Rating	%	Rating	%
Above Average and Improving	4	33.3	3	50.0	4	44.4	11	40.7
Above Average and Declining	2	16.6	0	0.0	2	22.2	4	14.8
Below Average and Improving	2	16.6	1	16.6	0	0.0	3	11.1
Below Average and Declining	4	33.3	2	33.3	3	33.3	9	33.3
TOTAL	12	100.0	6	100.0	9	100.0	27	100.0

* Local investment per passenger & per capita measures are not applicable to RIPTA, and are not included in the total.

These results point to the need for a review of RIPTA in the following areas:

- Overall high costs of RIPTA
- High G&A cost
- High cost for the Casualty and Liability Insurance category
- Low number of vehicle hours per operations employee
- Overall high vehicle maintenance costs

GLOSSARY

This glossary contains certain technical terms that are used in this report as well as some other terms that are used throughout the public transportation industry.

Accessible Vehicle – A vehicle equipped with a wheelchair accessibility package which allows passengers using wheelchairs to enter, exit, and ride in the vehicle.

Americans with Disabilities Act (ADA) – The passage of the Americans with Disabilities Act in July 1991 gave direction to local transit agencies to ensure full access to transportation for persons with disabilities.

Average Trip Length - Total number of revenue miles traveled divided by the number of total passenger trips consumed.

Capital Cost – The cost of equipment and facilities required to support transportation systems: vehicles, radios, shelters, etc.

Cost Effectiveness – The ratio of the cost of a transit system to the level of service provided. Various measures may be used to determine cost effectiveness, as an example, cost per passenger trip.

Deadhead Hours - Hours that a vehicle travels either between the garage and the route or when changing routes and the vehicle must travel from the end of one route to the beginning of another route.

Deadhead Miles - Miles that a vehicle travels either between the garage and the route or when changing routes and the vehicle must travel from the end of one route to the beginning of another route.

Dedicated Funding Source – A funding source, which by law, is available for use only to support a specific purpose, and cannot be diverted to other uses; e.g., the federal gasoline tax can only be used for highway investments and, since 1983, for transit capital projects.

Demand Responsive – A transportation service characterized by flexible routing and scheduling of relatively small vehicles to provide door-to-door or curb-to-curb transportation at the user's demand.

Fare – The designed payment for a ride on a passenger vehicle, whether cash, tokens, transfer or pass.

Farebox – A device that accepts coins, bills, tickets and tokens given by passengers as payment for rides.

Farebox Recovery – This is the ratio of the operating revenue to operating cost. It is a key indicator of how well a system is able to cover its expenses through all revenue sources excluding subsidy from government agencies.

Farebox Revenue - The revenue earned by a transit agency through passenger fares.

Federal Transit Administration (FTA) – A part of the United States Department of Transportation that administers federal financial assistance to public transit systems.

FTA Funding Programs - Funding by the federal government to support transit's planning, operating and capital costs.

Fixed-Route – Transportation service operated over a set route or network of routes generally on a regular time schedule. (Also known as Regular Route).

Flexible-Fixed Route – Transportation service that operates on a regular route, but will on demand change the route to meet the user's needs.

G&A Cost – This represents the General and Administrative costs of a transit system that includes salaries, wages and fringe benefits for administrative employees, services that include the costs of operating ADA services, casualty/liability insurance, utilities and other material and supplies.

Linked Passengers - Transit rides by the originating boarding passenger for the entire trip from the origin to the destination including all transfers.

Marketing – A comprehensive process to induce greater usage of transportation services by determining the needs or demand of the community and potential customers, developing and implementing service on the basis of these needs, pricing the services, promoting the services, and evaluating the services as implemented in relation to customer needs and marketing goals.

Non-Vehicle Maintenance Cost – These are labor and material costs associated with maintenance work for upkeep of the facilities, shop and garage equipment, other non-vehicle equipment such as two-way radios and fareboxes.

Operations Cost – This is the cost associated with the transportation function and includes costs such as salaries, wages and fringe benefits for drivers, transportation supervisors and other transportation staff as well as fuel and lubricants, tires and tubes and other material and supplies.

Operating Cost or Expense – The recurring costs of providing transit service, i.e., wages, salaries, fuel, oil, taxes, maintenance, depreciation, insurance, marketing, etc.

Operating Deficit – Total operating expenses minus total operating revenue.

Operating Revenue – The total revenue earned by a transit agency through its transit operations. It includes passenger fares, advertising and other revenue.

Paratransit– Flexible forms of public transportation services that are not provided over a fixed-route, e.g. demand responsive service.

Pass – A means of transit payment, usually a card that carries some identification, that is displayed to the driver in place of paying a cash fare.

Passenger Miles – The total number of passengers carried by a transit system multiplied by the number of miles traveled.

Passenger Trip – One person making a one-way trip from origin to destination. One round trip equals two passenger trips.

Peak Period – The hours when traffic or passenger demand is the greatest.

Peak Vehicles - The number of revenue vehicles that are utilized to meet the maximum service requirements during any portion of a day.

Public Transportation – Transportation service that is available to any person upon payment of the fare, and which cannot be reserved for the private or exclusive use of one individual or group. "Public" in this sense refers to the access to the service, not to the ownership of the system that provides the service.

Revenue Hours - Hours traveled by a vehicle in revenue service (when available for travel by the general public). Revenue hours include layover/recovery time but do not include deadhead time.

Revenue Miles - Miles traveled by a vehicle in revenue service (when available for travel by the general public). Revenue miles do not include deadhead miles.

Route Deviation – Transportation service on a non-exclusive basis, that operates along a public right-of-way, on a fixed route, from which it may deviate from time to time, in response to a demand for its service or to take a passenger to a destination, after which it returns to its fixed route.

Spare Ratio – This measure is the number of vehicles in the fleet in excessive of the number needed for maximum service divided by the number of vehicles needed for maximum service.

Special Transportation Services – Transit services provided to elderly and disabled persons through a variety of agencies, including social services and transit agencies. Rides are provided with lift-equipped vehicles, taxis, and volunteer drivers.

Total Passengers – The total of all revenue passengers plus transfer passengers on second and successive rides, and free ride passengers. It is also termed unlinked passenger trips.

Transit – All forms of riding together, at least two persons riding per trip. The term includes fixed-route and paratransit services.

Transit Dependent – A person who does not have immediate access to a private vehicle, or because of age or health reasons cannot drive and must rely on others for transportation.

Unlinked Passenger Trips - A measure of the amount of transit service consumed by passengers. It is the number of passengers who board a vehicle. A passenger is counted each time he/she boards a vehicle even though he/she may be on the same journey from origin to destination and transfers between vehicles to complete the trip.

Vehicle Hours - Hours traveled by a vehicle from the time it pulls out from the garage to the time it returns to the garage from revenue service. Vehicle hours include revenue hours plus deadhead time.

Vehicle Miles - Miles traveled by a vehicle from the time it pulls out from the garage to the time it returns to the garage from revenue service. Vehicle miles include revenue miles plus deadhead miles.

Vehicle Maintenance Costs – This is the cost for maintaining the fleet of vehicles by the transit system and included salaries, wages and fringe benefits for maintenance employees, maintenance supervisors and other maintenance staff as well as material and supplies (repair parts).