

**RURAL AND URBAN TRANSIT DISTRICT BENCHMARKING—  
EFFECTIVENESS AND EFFICIENCY GUIDANCE DOCUMENT**

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## **DISCLAIMER**

This research was performed in cooperation with the Texas Department of Transportation (TxDOT) and the Federal Highway Administration (FHWA). The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official view or policies of FHWA or TxDOT. This report does not constitute a standard, specification, or regulation.

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# **RURAL AND URBAN TRANSIT DISTRICT BENCHMARKING— EFFECTIVENESS AND EFFICIENCY GUIDANCE DOCUMENT**

Rural and urban transit systems have sought ways to compare performance across agencies, identifying successful service delivery strategies and applying these concepts to achieve successful results within their agency. Benchmarking is a method used to accomplish this goal. Benchmarking is a means of comparing performance to an established performance baseline. Benchmarks are typically established through the process of identifying successful business practices through performance measurement.

This guidance document establishes peer groupings for rural and urban transit districts, calculates effectiveness and efficiency factors within the peer groups, and identifies transferrable elements of high performers that may provide transit districts information applicable to improve their own performance. The goal of this guidance document is to help rural and urban transit districts better understand and set targets for performance, increasing the return on federal and state transit investment.

## **PEER GROUPINGS**

Rural and urban transit districts in Texas differ in service area and delivery characteristics. Researchers recognize the importance of differentiating between rural and urban transit systems in the evaluation of performance. Rural transit districts differ from urban transit districts because rural transit districts typically:

- operate in large geographic areas with low population densities and
- operate demand response services versus fixed-route services.

Researchers developed peer groupings for rural and urban transit districts separately. These peer groupings are based upon the transit environment within which each transit district operates so that transit districts can be compared to other rural or urban transit districts that face similar environments. The environmental data used are inherent characteristics of service areas that cannot be modified by transit districts. These environmental data elements are representative of the development and demographics that are conducive to the use of transit.

The environmental data elements used to develop urban and rural peer groupings are as follows:

- population,
- service area size,
- service area density,
- percent of service area population that is age 65 or older,
- percent of households with zero automobiles,
- percent of population living below poverty level,
- percent of population ages 21 to 64 that are disabled,

- service area located in border area, and
- service area located within/adjacent to a major metropolitan area.

Researchers used a cluster analysis approach that assigned all variables the same weight of importance. In cluster analysis, agencies are collected into groups so that the difference between the members within the group is minimized, while the difference between members of different groups is maximized. Table 1 and Table 2 provide the rural and urban peer groupings and environmental data elements used to create these peer grouping. Data elements are based upon the 2000 U.S. Census. Table 3 summarizes key data for the urban peer grouping that is comprised of limited eligibility transit providers.

**Table 1. Rural Peer Groupings and Environmental Data Elements.**

<b>Transit District</b>	<b>Population Density (Population/Square Mile)</b>	<b>% Population with a Disability (Ages 21–64)</b>	<b>% Occupied Housing Units with Zero Autos</b>	<b>% Population Age 65+</b>	<b>% Population below Poverty Level</b>	<b>Border, Major Metro, or Both*</b>
<b>Rural Peer Group 1:</b>						
Del Rio	14.15	5.2	8.3	10.8	25.7	Border
Kleberg County Human Serv. Lower Rio Grande Valley Dev. Council	13.73	19.9	12.3	10.9	25.3	Metro
Rural Economic Asst. League	46.44	21.8	10.6	11.9	26.8	Border
<b>Mean</b>	<b>28.31</b>	<b>18.2</b>	<b>10.3</b>	<b>11.4</b>	<b>25.3</b>	
<b>Rural Peer Group 2:</b>						
Ark-Tex Council of Governments	38.48	24.1	7.9	15.8	15.7	
Aspermont Small Bus. Dev. Center	6.31	21.5	6.1	18.6	15.2	
Bee Community Action Agency	18.72	24.6	7.5	14.9	18.0	
Caprock Community Action Agency	9.82	21.9	7.0	14.1	18.7	
Central Texas Rural Transit District	17.29	22.4	6.1	17.0	15.6	
Colorado Valley Transit	36.37	20.1	8.6	13.7	14.9	
Concho Valley Transit District	3.69	19.9	5.6	16.0	15.6	
Golden Crescent Regional Planning Council	22.62	22.4	8.3	15.6	15.7	
Heart of Texas Council of Governments	30.73	23.0	6.5	16.1	12.9	
Hill Country Transit District	18.67	20.7	5.6	17.4	19.2	
Panhandle Community Services	8.68	19.3	5.1	13.8	13.6	
Rolling Plains Mgmt. Corporation	13.14	22.1	5.8	17.4	12.8	
South East Texas Regional Planning Commission	64.69	21.1	6.9	12.4	10.6	
South Plains Community Act. Agency	15.11	21.4	5.9	13.8	16.6	
<b>Mean</b>	<b>22.50</b>	<b>21.7</b>	<b>6.7</b>	<b>15.5</b>	<b>15.4</b>	

**Table 1. Rural Peer Groupings and Environmental Data Elements (Continued).**

<b>Transit District</b>	<b>Population Density (Population/Square Mile)</b>	<b>% Population with a Disability (Ages 21–64)</b>	<b>% Occupied Housing Units with Zero Autos</b>	<b>% Population Age 65+</b>	<b>% Population below Poverty Level</b>	<b>Border, Major Metro, or Both*</b>
<b>Rural Peer Group 3:</b>						
Cleburne	145.41	21.7	4.9	10.3	9.0	Metro
Collin County Area Regional Transp.	82.03	17.3	3.8	7.7	1.9	Metro
Community Services, Inc.	70.38	22.7	6.9	11.9	12.3	Metro
Fort Bend County	50.72	17.2	3.5	6.5	2.3	Metro
Gulf Coast Center	65.43	22.2	11.4	11.9	3.4	Metro
Kaufman Area Rural Transportation	92.34	21.2	5.4	10.5	10.2	Metro
Public Transit Services	42.51	20.1	5.1	12.7	9.4	Metro
Senior Center Res. and Public Transit	91.08	23.5	6.4	12.7	12.4	
Services Program for Aging Needs	83.49	15.5	2.8	7.5	6.0	Metro
Texoma Area Paratransit System	35.83	20.3	5.0	14.5	10.7	
The Transit System, Inc.	78.67	18.8	2.8	17.2	8.4	
<b>Mean</b>	<b>76.17</b>	<b>20.1</b>	<b>5.3</b>	<b>11.2</b>	<b>7.8</b>	
<b>Rural Peer Group 4:</b>						
Alamo Area Council of Governments	38.80	21.0	5.6	14.8	12.7	Metro
Brazos Transit District	47.20	22.9	7.5	13.3	14.5	Metro
Capital Area Rural Transport. System	59.49	17.0	4.8	12.2	10.0	Metro
East Texas Council of Governments	58.84	24.3	6.7	15.7	13.8	
West Texas Opportunities	4.33	23.5	7.4	12.9	18.4	
<b>Mean</b>	<b>41.73</b>	<b>21.7</b>	<b>6.4</b>	<b>13.8</b>	<b>13.9</b>	
<b>Rural Peer Group 5:</b>						
Community Action Council South Texas	16.35	32.2	13.6	10.4	42.9	Border
Community Council of Southwest Texas	9.83	47.9	11.8	12.2	31.4	Border
El Paso County	38.51	28.4	11.4	6.6	37.3	Both
Webb County Community Action Agency	5.29	28.4	14.4	5.6	45.8	Border
<b>Mean</b>	<b>17.50</b>	<b>34.2</b>	<b>12.8</b>	<b>8.7</b>	<b>39.3</b>	
<b>Rural Summary:</b>						
Group 1	28.31	18.2	10.3	11.4	25.3	
Group 2	22.50	21.7	6.7	15.5	15.4	
Group 3	76.17	20.1	5.3	11.2	7.8	
Group 4	41.73	21.7	6.4	13.8	13.9	
Group 5	17.50	34.2	12.8	8.7	39.3	

\* Blank cells indicate the rural transit district is not adjacent to the Texas-Mexico border or a major metropolitan area.

**Table 2. Urban Peer Groupings and Environmental Data Elements.**

<b>Transit District</b>	<b>Population Density (Population/ Square Mile)</b>	<b>% Population with a Disability (Ages 21–64)</b>	<b>% Occupied Housing Units with Zero Autos</b>	<b>% Population Age 65+</b>	<b>% Population below Poverty Level</b>	<b>Border or Major Metro*</b>
<b>Urban Peer Group 1:</b>						
Beaumont	1,339.9	13.6	12.4	13.4	19.6	
Longview	1,337.4	12.7	7.8	13.6	16.1	
Port Arthur	696.7	14.1	15.8	15.8	25.2	
Sherman	1,749.7	13.9	8.4	16.0	13.8	
Temple	888.8	11.4	10.3	14.6	14.7	
Texarkana	1,402.3	14.2	12.5	15.4	22.0	
Tyler	1,701.0	13.5	9.4	15.1	16.8	
Waco	1,828.1	13.3	10.2	13.3	23.0	
<b>Mean</b>	<b>1,368.0</b>	<b>13.3</b>	<b>10.9</b>	<b>14.7</b>	<b>18.9</b>	
<b>Urban Peer Group 2:</b>						
Abilene	2,244.5	11.3	6.7	12.3	15.6	
Amarillo	1,930.2	11.8	6.7	12.7	14.5	
Bryan	1,602.5	7.0	7.2	6.5	29.4	
Killeen	2,163.4	12.2	5.7	5.0	11.8	
Lake Jackson	2,178.5	11.2	6.7	9.2	12.2	Metro
Lubbock	1,738.3	11.6	7.2	11.1	18.4	
Midland-Odessa	1,800.9	10.1	7.3	12.0	15.7	
San Angelo	1,931.6	12.0	7.6	14.1	15.6	
Texas City	1,646.4	13.0	7.4	12.4	14.0	Metro
Victoria	1,832.2	11.8	8.4	12.3	14.7	
Wichita Falls	1,469.9	1.0	7.6	12.3	13.9	
<b>Mean</b>	<b>1,867.1</b>	<b>11.2</b>	<b>7.1</b>	<b>10.9</b>	<b>16.0</b>	
<b>Urban Peer Group 3:</b>						
McKinney	2,025.4	7.6	4.3	6.8	8.0	Metro
The Woodlands	2,385.6	6.0	3.8	7.5	4.2	Metro
<b>Mean</b>	<b>2,205.5</b>	<b>6.8</b>	<b>4.1</b>	<b>7.2</b>	<b>6.1</b>	
<b>Urban Peer Group 4:</b>						
Brownsville	2,896.1	14.7	13.1	9.2	37.1	Border
Galveston	1,237.8	13.1	17.8	13.4	22.3	Metro
Harlingen	1,689.9	11.6	11.2	15.3	24.9	Border
Laredo	2,252.3	13.0	12.3	7.9	29.6	Border
McAllen	1,539.1	13.1	9.7	10.8	33.1	Border
<b>Mean</b>	<b>1,923.0</b>	<b>13.1</b>	<b>12.8</b>	<b>11.3</b>	<b>29.4</b>	
<b>Urban Summary</b>						
Group 1	1,368.0	13.3	10.9	14.7	18.9	
Group 2	1,867.1	11.2	7.1	10.9	16.0	
Group 3	2,205.5	6.8	4.1	7.2	6.1	
Group 4	1,923.0	13.1	12.8	11.3	29.4	

\* Blank cells indicate the rural transit district is not adjacent to the Texas-Mexico border or a major metropolitan area.

**Table 3. Urban Peer Group—Limited Eligibility Providers.**

<b>Limited Eligibility Providers</b>	<b>2000 Total Population</b>	<b>2000</b>	
		<b>Eligible Population*</b>	<b>% Eligible Population</b>
Arlington	335,164	86,396	25.8
Grand Prairie	126,889	37,995	29.9
Mesquite	123,800	34,209	27.6
Northeast Transportation Services (NETS)	313,030	77,713	24.8
<b>Total Limited Eligibility Providers</b>	<b>898,883</b>	<b>236,313</b>	<b>26.3</b>

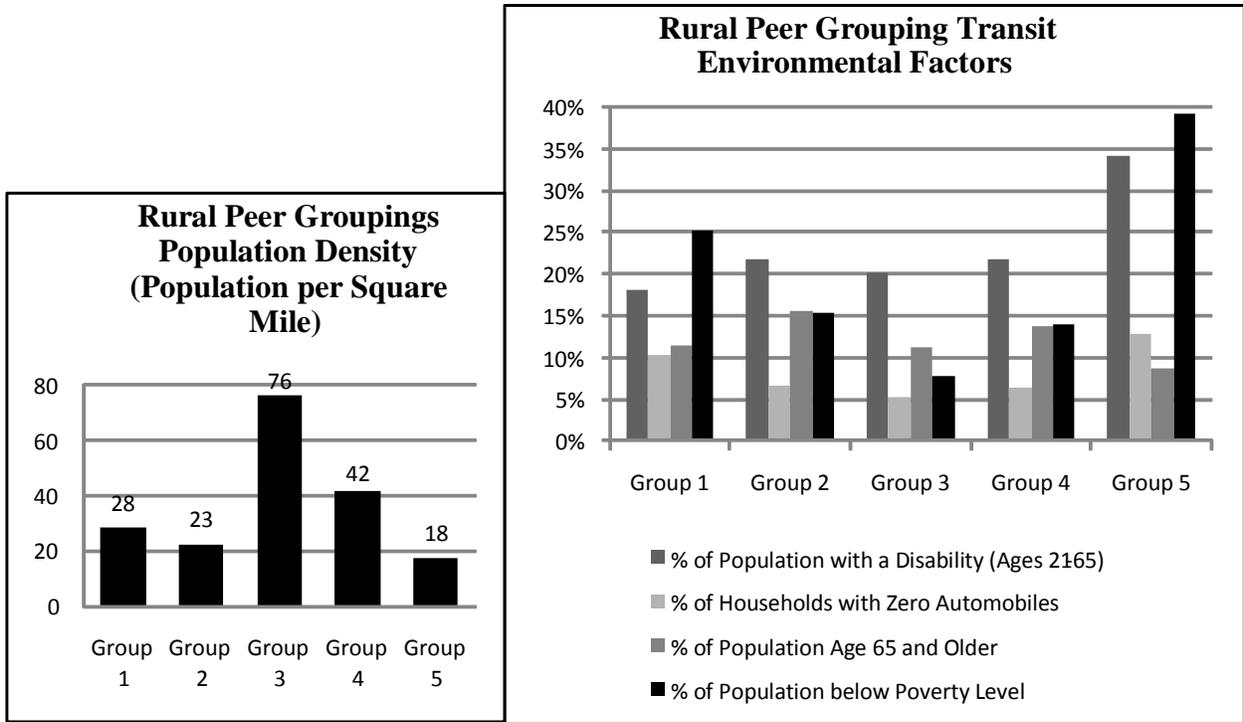
\*People age 65 and over and people with a disability ages 5 to 64.

The South Padre Island rural transit district is not represented in the rural peer groupings. The South Padre Island transit district is an outlier as compared to rural transit districts. South Padre Island is a tourist town providing a free-fare circulator fixed route that is atypical of a rural transit district. Rural transit districts typically serve low-density service areas with demand response service.

West Texas Opportunities was placed in the cluster analysis in a separate cluster by itself. For purposes of this effort, West Texas Opportunities was included in the nearest cluster (Rural Peer Group 4) rather than leaving it in a one-member group.

Four transit providers in Texas are designated as “limited eligibility providers”—Arlington, Grand Prairie, Mesquite, and NETS. These transit providers restrict transit eligibility to people age 65 and over as reported by the U.S. Census and people ages 5 to 64 with a U.S. Census–defined disability. The four limited eligibility providers are in a separate peer grouping, and performance is compared within the four providers.

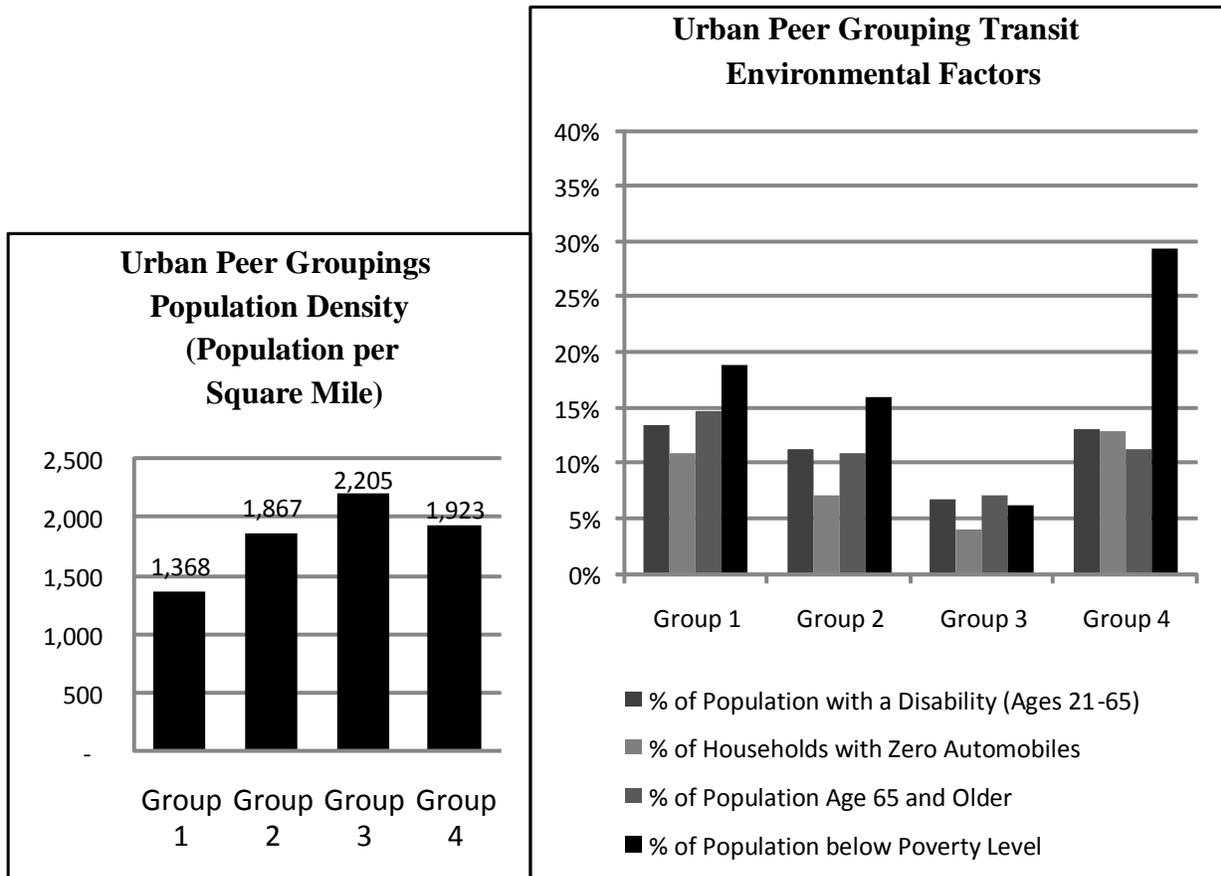
Figure 1 displays the transit environmental factor averages for rural peer groupings. Rural Peer Group 3 includes the majority of transit districts that are within or adjacent to a major metropolitan area and has a significantly higher (over double) population density than the other rural peer groupings. Rural Peer Group 5 includes all border communities. It has a significantly higher percent of people with disabilities and people living below the poverty level, and the highest percent of occupied housing units without automobiles.



**Figure 1. Rural Peer Grouping Transit Environmental Factors.**

Figure 2 displays the transit environmental factor average for urban peer groupings, excluding the peer grouping for limited eligibility providers. The peer group for limited eligibility providers is not included in this comparison because the environmental factors are different from all other urban peer groups.

Urban Peer Group 3 consists of The Woodlands and McKinney and has the lowest transit environmental factors outside of population density. Urban Peer Group 4 has a significantly higher percent of persons below the poverty level than do the other urban peer groupings.



**Figure 2. Urban Peer Grouping Transit Environmental Factors.**

## **PERFORMANCE MEASURES**

The purpose of this section is to calculate the effectiveness and efficiency performance measures for each peer grouping and provide a comparison across peer groupings. The appendix provides by peer grouping the effectiveness and efficiency performance measures for each transit district.

Researchers calculated effectiveness and efficiency measures using fiscal year 2009 data for each transit district (see appendix) and calculated the mean (average). Effectiveness measures are those that weigh how much a service is used (passengers) against how much service or resources are required (miles, hours, or expenditure). Efficiency measures are those that focus on the expenditure of funds (cost) to provide the resources (miles or hours).

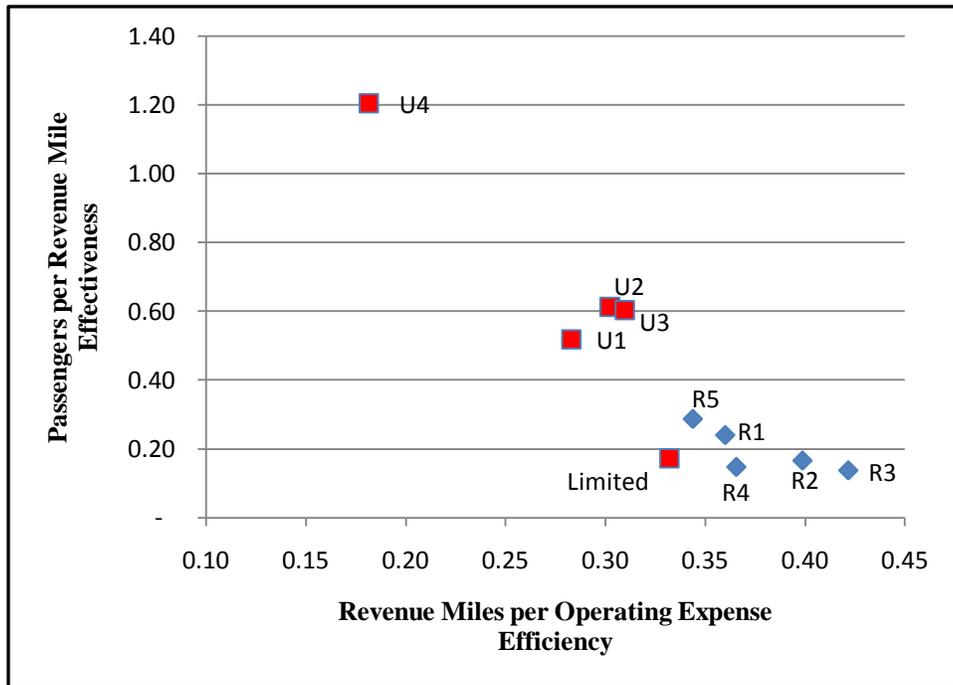
The South Padre Island transit district effectiveness and efficiency measures are not listed because this transit district is an outlier of the rural transit district performance. Because the South Padre Island transit district serves a tourist population and a highly dense service area of 1,424.1 population per square mile operating a fixed-route circulator, this service environment results in effectiveness measures atypical of rural transit districts.

### **Comparison of Average Operating Effectiveness and Efficiency by Peer Grouping**

For rural peer groups, the average performance for effectiveness and efficiency is very similar; however, for urban peer groups, one peer group is unusual. Urban Peer Group 4 consisting of Laredo, Brownsville, and McAllen has significantly higher operating effectiveness performance but is offset by low operating efficiency performance (see Table 4 and Figure 3). Interestingly, Urban Peer Groups 3 and 4 have similar population densities but have very different transit environmental demographic factors (see Figure 2). Urban Peer Group 4 has a significant percent of people living below the poverty level.

**Table 4. Peer Group Comparison of Operating Effectiveness and Efficiency.**

Transit District	Operating Efficiency	Operating Effectiveness
	Revenue Miles per Operating Expense	Passenger Trips per Revenue Mile
<b>Rural Peer Groups</b>	<b>Peer Group Average</b>	<b>Peer Group Average</b>
Peer Group 1 (R1)	0.36	0.24
Peer Group 2 (R2)	0.40	0.17
Peer Group 3 (R3)	0.42	0.14
Peer Group 4 (R4)	0.37	0.15
Peer Group 5 (R5)	0.34	0.29
<b>Urban Peer Groups</b>		
Peer Group 1 (U1)	0.28	0.52
Peer Group 2 (U2)	0.30	0.61
Peer Group 3 (U3)	0.31	0.60
Peer Group 4 (U4)	0.18	1.20
Limited Eligibility (Limited)	0.33	0.17



**Figure 3. Peer Group Comparison for Effectiveness and Efficiency.**

### Comparison of Operating Effectiveness and Efficiency across Transit Districts

To compare operating effectiveness and efficiency across all rural transit districts and all urban transit districts, researchers plotted these measures as shown in Figures 4 and 5. The codes to identify each transit district are provided in the appendix to this report. To identify those transit districts that are performing at higher effectiveness or higher efficiency levels, researchers identified those transit districts with measures above the average (as shown in the shaded area of Figures 4 and 5). Researchers considered these transit districts with either a high operating effectiveness measure or high operating efficiency measure (or both) for case study opportunities.

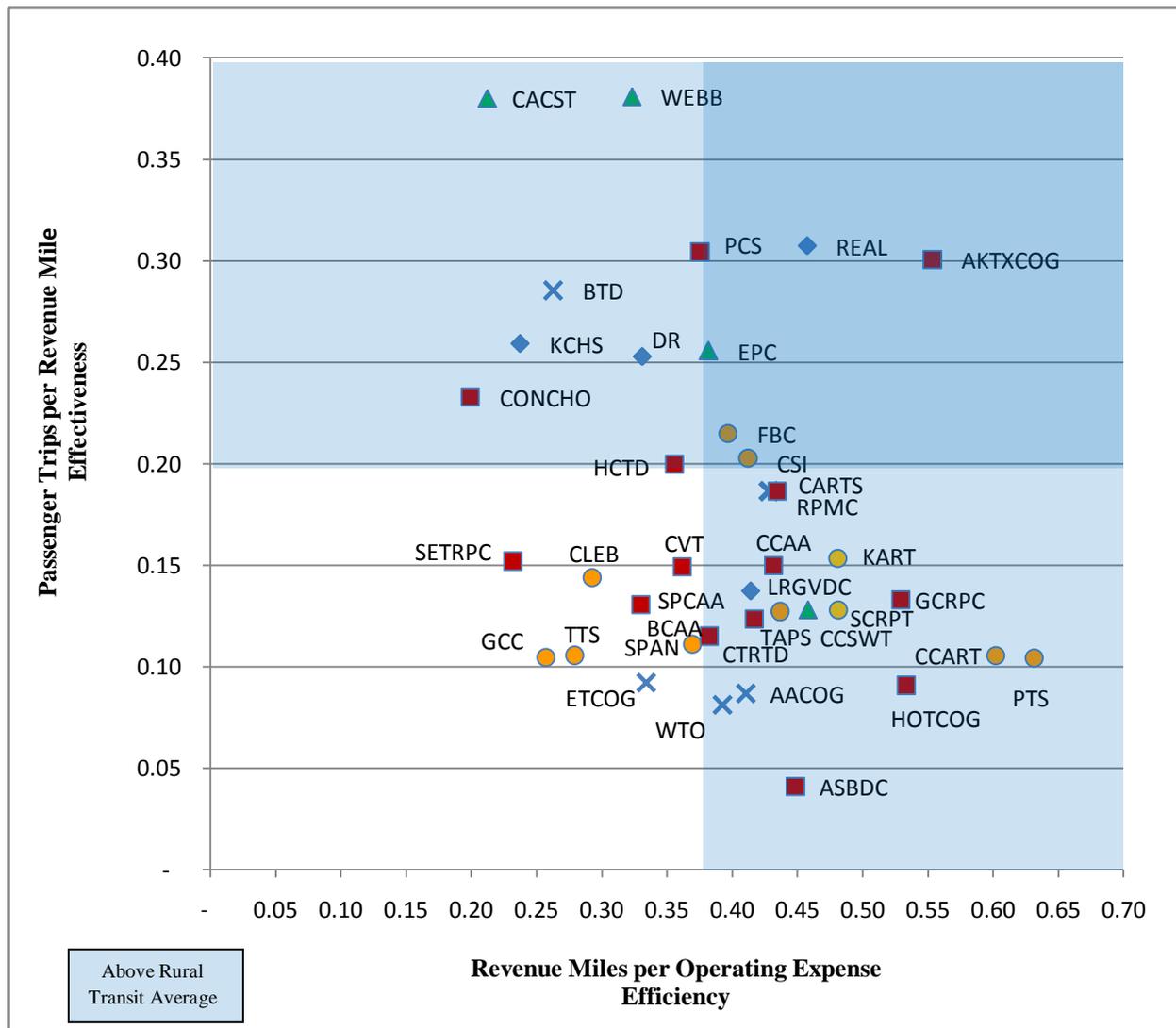
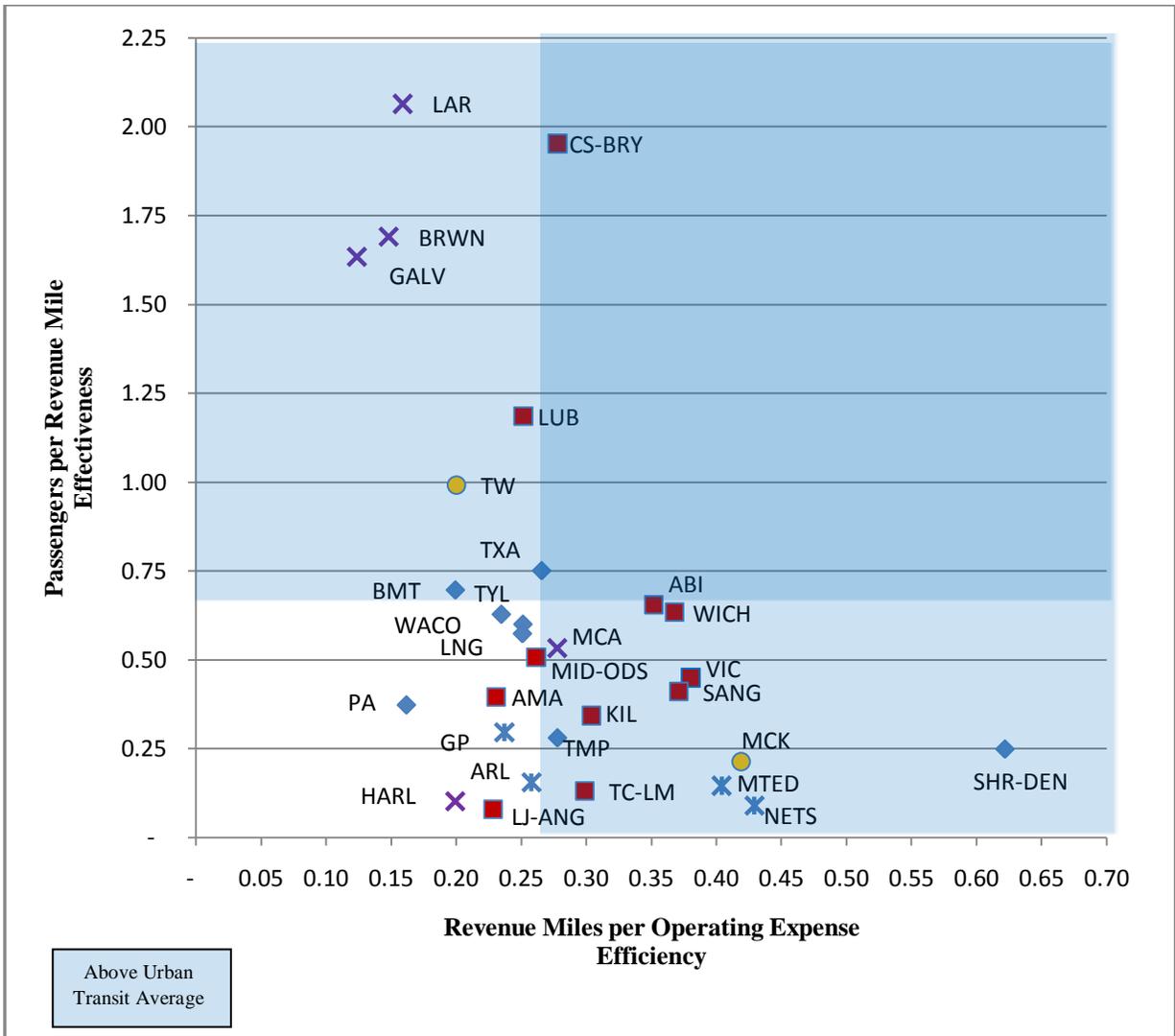


Figure 4. Comparison of Rural Transit District Effectiveness and Efficiency.



**Figure 5. Comparison of Urban Operating Effectiveness and Efficiency.**

## **STRATEGIES THAT IMPACT OPERATING EFFECTIVENESS AND EFFICIENCY**

Researchers contacted staff of urban and rural transit districts with high operating effectiveness and/or operating efficiency factors to understand the service environment, service delivery, policies/procedures, and cost factors that contribute to high performance. In some cases, the environment played a major role in performance. However, researchers identified other factors that management can control or influence to improve operating effectiveness and efficiency. These factors are grouped into four major categories and described below.

### **Efforts to Grow Ridership and Improve Effectiveness**

Factors that contribute to growing ridership include the follow:

- Engage city and county officials in transit—find champions for transit.
- Actively seek out areas with transit-dependent communities.
- Work with major manufacturers, plants, and industries to serve worker shifts.
- Consistently attend and actively request to speak at community events and meetings.
- Work with colleges, universities, and school districts to provide transit routes and create cooperative agreements.
- Work with health and human services and medical facilities to serve patrons.
- Drive routes/monitor for new service needs.

#### *Transit District Examples*

Panhandle Community Services (PCS) operates over a 26-county, 25,749-square-mile service area with a low population density of 8.68 persons per square mile according to the 2000 U.S. Census. PCS provides transit to a diverse agriculture-based economy serving migrant workers, agricultural processing plants, and an aging population with limited incomes. The director of transportation and staff regularly attend community/town meetings and have been successful in coordinating with county processing/packing plants where plants have adjusted their work shifts so that PCS could coordinate service with shift times among the plants. These routes provide high ridership to a population of workers with no vehicles or unreliable vehicles. In fact, the implementation of this service brought plant turnover rates down from approximately 45 percent to below 5 percent.

Texas Tech University contracts with the City of Lubbock “Citibus” system to operate eight routes (three routes on campus and five routes off campus) using 29 buses during the 2010–2011 school term. Texas Tech pays for the services from a student fee and charges to apartment complexes along the off-campus routes.

The Texoma Area Paratransit System (TAPS) restructured board now consists of city and county officials providing support and a voice for transit in the community. TAPS also now provides a fixed-route service serving Austin College.

The Ark-Tex Council of Governments operates over a nine-county service area of 5,761 square miles with a population density of 38.48 persons per square mile according to the 2000 U.S. Census. The Ark-Tex Council of Governments serves a variety of transit markets within each county including orchard farms, agricultural processing plants, colleges, medical facilities, and manufacturing plants. In addition, a major generator of ridership is the Red River Army Depot, which has limited parking and therefore relies on transit service. The transit director and staff work with the community to meet service needs. Table 5 provides evidence of the staff’s ability to work with major employment centers and provides a list of Ark-Tex Council of Governments major generators of service by county.

**Table 5. Ark-Tex Council of Governments Major Generators of Service.**

<b>County</b>	<b>Major Transit Service Generators</b>
<b>Bowie County (22% of ridership)</b>	Red River Army Depot, Christus St. Michael’s Hospital, Wadley Hospital, Texas A&M University, Texarkana College, Sterno and Colgate Palmolive manufacturing plants, Workforce Solutions
<b>Titus County (20% of ridership)</b>	Titus County Memorial Hospital, Pilgrim’s Pride Rendering Plant, Northeast Texas Community College, Pittsburgh Hotlink Plant, tortilla factories (5)
<b>Lamar County (18% of ridership)</b>	Paris Junior College, Paris Regional Medical Center, Campbell Soup, Earth Grain Foods, Sara Lee, MacIntosh Cloth
<b>Hopkins County (15% of ridership)</b>	Hopkins County Memorial Hospital, Torro Chainsaw plant, Pilgrim’s Pride rendering plant, major industrial park
<b>Cass County (8% of ridership)</b>	Atlanta Memorial Hospital, Evinrude Motors
<b>Red River County (6% of ridership)</b>	Chainsaw and casket manufacturers
<b>Franklin County (4% of ridership)</b>	Strip mining—limited generators of service
<b>Delta County (2% of ridership)</b>	Lake area—no major generators of service

## **Efforts to Manage Costs to Improve Efficiency**

Factors that contribute to managing cost include:

- Actively seek in-kind contributions to support transit.
- Work with cities and counties in supplying fuel at lower-cost bulk rates.
- Utilize fuel cards (state or private) to monitor fuel usage and cost.
- Use sub-contractors at cost-effective rates where appropriate.
- Utilize sub-contractors to provide service in low-demand times of day on a trip-by-trip cost basis.
- Ensure contract rates are appropriate that cover both operating and capital costs.

### *Transit District Examples*

The City of McAllen provides in-kind administrative services to McAllen Express including payroll, purchasing, human resources, risk management, legal services, finance, and benefits. The Transit System, Inc. receives in-kind fuel from Hood County and in-kind parking for vehicles.

The Community Council of Southwest Texas (CCSWT) moved to the state fuel card and saved \$0.10 to \$0.15 per gallon on fuel. The State of Texas fuel card provides a means for purchase of federal-tax-exempt fuel and related automotive goods and services.

The Concho Valley Transit District, an urban and rural transit district, has inter-local agreements with cities/counties across its service area to purchase fuel at the bulk price the city/county receives. The inter-local agreements provide the means to take advantage of lower-cost bulk fuel rates provided throughout the transit provider service area.

The Heart of Texas Council of Governments (HOTCOG) sub-contracts its service to four contractors over a six-county service area. HOTCOG has four staff transit positions, and each contractor has a negotiated rate that includes fuel. Maintenance is provided through Waco transit.

Ark-Tex Council of Governments subcontracts to Yellow Cab and City Cab Texarkana on a per-trip basis within city limits and county to county.

## **Efforts to Decrease Vehicle Miles and Maximize Labor Productivity to Improve Efficiency and Effectiveness**

Factors that contribute to decreasing vehicle miles or maximizing labor productivity include:

- Create satellite parking sites to minimize deadhead with spares located throughout the service area (seek in-kind contributions for parking).
- Create cooperative agreements with other transit districts to utilize vehicles when in other transit district service areas to minimize downtime/idle time and maximize productivity.

- Utilize scheduling systems to maximize grouping of trips and minimize “slack” time.
- Utilize vehicle locator systems to find the closest vehicles, provide quality information to patrons, map scheduled trips to ensure trip reasonableness, and verify no-shows.
- Cross-train staff to provide backup and improve staff productivity (match senior staff with new trainees).
- Monitor/manage driver overtime.
- Monitor vehicles to troubleshoot late trips and take “will-call” or same-day trips to fill the slack.
- Create both full-time and part-time driver schedules to match service demand.
- Group trips without dedicating vehicles to trip types—shared ride general public service.

### *Transit District Examples*

Panhandle Community Services stages vehicles at 10 locations in major cities (cities of 3,000 in population) throughout its 26-county service area. Every staging location has at least one spare vehicle for switching out in case of vehicle breakdown. In addition, spare vehicles are used to switch out during the day where a smaller- or larger-size vehicle is more appropriate for the peak and off-peak service needs. In fiscal year 2009, the following rural and urban transit districts had cooperative contract agreements to purchase service from other transit districts to provide services outside of the service area:

- Capital Area Rural Transportation System purchases service from the Golden Crescent Regional Planning Commission and Hill Country Transit District and sells service to Capital Metro.
- The Community Council of Southwest Texas purchases service from the City of Del Rio.
- The Central Texas Rural Transit District purchases service from the City of Abilene, South Plains Community Action Association, and Aspermont Small Business Development Center.
- The City of Lubbock purchases services from the South Plains Community Action Association and Caprock Community Action Association.
- The City of Brownsville purchases service from the Lower Rio Grande Valley Development Council.

The Hill Country Transit District utilizes a vehicle location system to improve operating efficiency and effectiveness, including finding the closest vehicle to a waiting patron, aiding drivers in finding difficult addresses, monitoring driver speeds, providing patrons with information regarding the approximate time a vehicle will arrive, and providing verification a driver arrived at a location where the patron was a no-show.

## **Efforts to Improve Administration to Improve Effectiveness and Efficiency**

Factors that contribute to improving administration include:

- Run weekly/monthly reports to monitor/manage driver productivity, passenger complaints, passenger no-shows/cancellations, absenteeism, vehicle inspections, vehicle repairs (repeats), client travel times, and client wait times.
- Require vehicle operators to turn in paperwork and fares on a daily basis with finance staff providing receipt and reconciliation.
- Ensure quality maintenance with priority turnaround through maintenance agreements.
- Monitor preventive maintenance and fleet issues to prevent costly repairs.
- Regularly communicate to passengers rules/regulations. Create a partnership with patrons to meet vehicles on time.
- Follow up with complaints quickly to nurture the patron-transit agency relationship.

### *Transit District Examples*

Panhandle Community Services centralized dispatching with 10 dispatchers in-house and has found improvement in service productivity because of more immediate and streamlined communication. After the day is scheduled, a scheduling/routing software product shows a visual representation of slack time—usable time in a driver’s schedule where a trip may be added. The automated mapping system shows a visual representation of all trips scheduled. Dispatchers make suggestions of changes to improve productivity, and a Routemaster makes a final decision of whether to make the change. Drivers turn in fares collected to the finance staff, which run a report from the scheduling system that summarized the amount of contract fares and cash fares the driver should have collected; after verifying it, the finance staff provides a receipt to the driver.

The Texoma Area Paratransit System, an urban and rural transit district, monitors driver overtime daily to determine if it is reasonable. As a result, overtime has been minimized and cost savings realized.

The Heart of Texas Council of Governments coordinates with the Waco Transit System to provide preventive maintenance through a memorandum of understanding. The goal is to improve vehicle maintenance of the rural fleet, standardize maintenance records, utilize the existing maintenance facility for both systems (minimizing facility cost), standardize fleet and part procurements across the region, and maximize rolling stock life. Benefits realized are maintenance cost-effectiveness, standardized invoicing, tracking and realizing warranty recovery, increased vehicle reliability, decreased vehicle downtime (better turnaround), consistent lift diagnostics/repairs, and communication across transit districts.

## **APPENDIX: TRANSIT DISTRICT EFFECTIVENESS AND EFFICIENCY MEASURES BY PEER GROUP**

### **RURAL PEER GROUP 1**

Rural Peer Group 1 is comprised of four rural transit districts (see Table 6). Table 6 is sorted by the lowest operating expense per passenger trip of \$7.11 to the highest of \$17.58. One transit district in Peer Group 1, the Rural Economic Assistance League (REAL), has the lowest operating expense per passenger trip and performs above the peer group average in both operational effectiveness and operational efficiency. Figure 6 illustrates those transit districts in Peer Group 1 that perform above the peer average for operating effectiveness and/or operating efficiency measures. Peer Group 1 rural transit districts with higher performance (above the peer group average) for operating effectiveness are:

- Rural Economic Assistance League,
- Del Rio, and
- Kleberg County Human Services.

Peer Group 1 rural transit districts with higher performance (above the peer group average) for operating efficiency are:

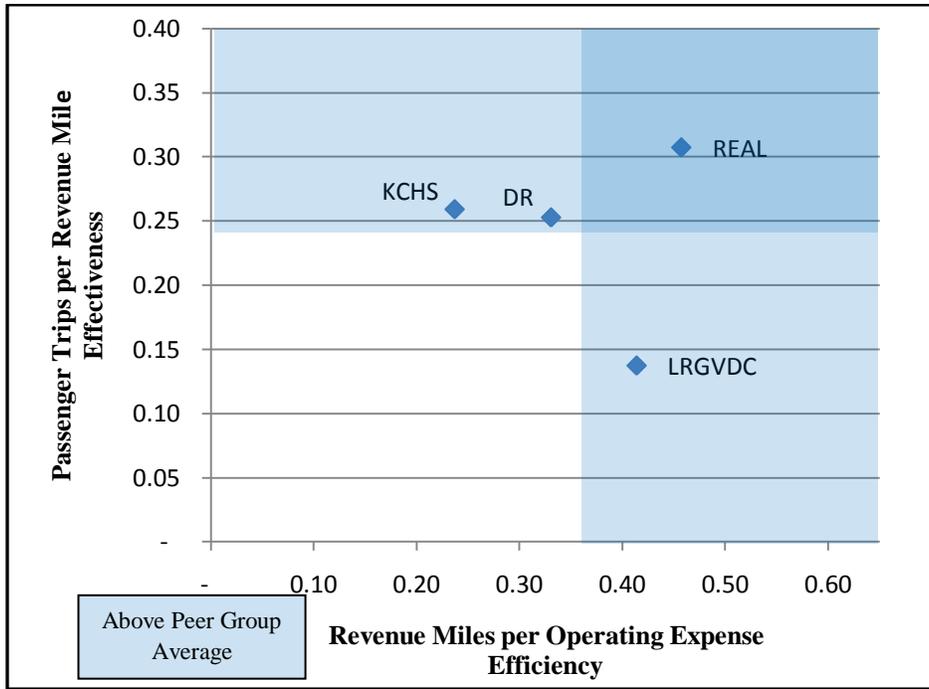
- Rural Economic Assistance League and
- Lower Rio Grande Valley Development Council.

Figure 7 illustrates those transit districts in Peer Group 1 that are higher performing or lower performing based on comparison of cost efficiency (operating expenses per revenue mile), service effectiveness (passenger trips per revenue mile), and cost effectiveness (average cost per passenger trip). The cost effectiveness measure is calculated by dividing operating expenses per revenue mile (cost efficiency) by passenger trips per revenue mile (service effectiveness). The two agencies that are higher performing based upon this analysis are:

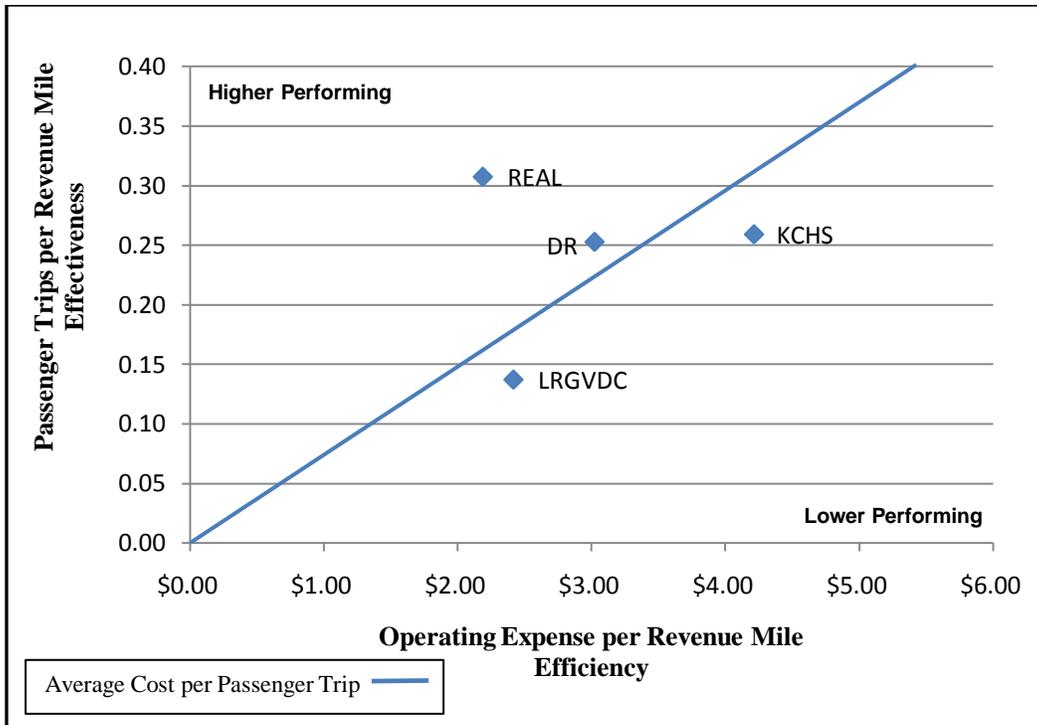
- Rural Economic Assistance League and
- Del Rio.

**Table 6. Rural Peer Group 1—Effectiveness and Efficiency Measures.**

Transit District	Code	Operating Efficiency		Operating Effectiveness	Cost Effectiveness
		Revenue Miles per Operating Expense	Operating Expense per Revenue Mile	Passenger Trips per Revenue Mile	Operating Expense per Passenger Trip
Rural Economic Assistance League	REAL	0.46	\$2.19	0.31	\$7.11
Del Rio	DR	0.33	\$3.02	0.25	\$11.95
Kleberg County Human Services	KCHS	0.24	\$4.21	0.26	\$16.25
Lower Rio Grande Valley Develop. Council	LRGVDC	0.41	\$2.41	0.14	\$17.58
<b>Peer Group Average</b>		<b>0.36</b>	<b>\$2.96</b>	<b>0.24</b>	<b>\$13.22</b>



**Figure 6. Rural Peer Group 1—Comparison to Peer Group Average.**



**Figure 7. Rural Peer Group 1—Effectiveness and Efficiency Measures.**



## **RURAL PEER GROUP 2**

Rural Peer Group 2 is comprised of 14 rural transit districts (see Table 7). Table 7 is sorted by the lowest operating expense per passenger trip of \$6.01 to the highest of \$54.24. Two transit districts in Peer Group 2, the Ark-Tex Council of Governments and Rolling Plains Management Corporation, perform above the peer group average for both operational effectiveness and operational efficiency. Figure 8 illustrates those transit districts in Peer Group 2 that perform above the peer average for operating effectiveness and/or operating efficiency measures. Peer Group 2 rural transit districts with higher performance (above the peer group average) for operating effectiveness are:

- Ark-Tex Council of Governments,
- Panhandle Community Services,
- Concho Valley Transit District,
- Hill Country Transit District, and
- Rolling Plains Management Corporation.

Peer Group 2 rural transit districts with higher performance for operating efficiency are:

- Ark-Tex Council of Governments,
- Heart of Texas Council of Governments,
- Golden Crescent Regional Planning Commission,
- Aspermont Small Business Development Center,
- Caprock Community Action Association (Caprock became part of the South Plains Community Action Association in 2010),
- Rolling Plains Management Corporation, and
- Central Texas Rural Transit District.

Figure 9 illustrates those transit districts in Peer Group 2 that are higher performing or lower performing based on comparison of cost efficiency, service effectiveness, and cost effectiveness. The cost effectiveness measure (average cost per passenger trip) is calculated by dividing operating expenses per revenue mile (cost efficiency) by passenger trips per revenue mile (service effectiveness). The eight agencies that are higher performing based upon this analysis are:

- Ark-Tex Council of Governments,
- Panhandle Community Services,
- Hill Country Transit District,
- Rolling Plains Management Corporation,
- Caprock Community Action Association,
- Golden Crescent Regional Planning Commission,

- Colorado Valley Transit, and
- Central Texas Rural Transit District.

**Table 7. Rural Peer Group 2—Effectiveness and Efficiency Measures.**

		Operating Efficiency		Operating Effectiveness	Cost Effectiveness
		Revenue Miles per Operating Expense	Operating Expense per Revenue Mile	Passenger Trips per Revenue Mile	Operating Expense per Passenger Trip
<b>Transit District</b>	<b>Code</b>				
Ark-Tex Council of Governments	AKTXCOG	0.55	\$1.81	0.30	\$6.01
Panhandle Community Services	PCS	0.38	\$2.67	0.30	\$8.76
Rolling Plains Management Corp.	RPMC	0.43	\$2.30	0.19	\$12.24
Hill Country Transit District	HCTD	0.36	\$2.81	0.20	\$14.08
Golden Crescent Regional Planning Comm.	GCRPC	0.53	\$1.89	0.13	\$14.21
Caprock Community Action Assoc.	CCAA	0.43	\$2.32	0.15	\$15.47
Colorado Valley Transit	CVT	0.36	\$2.76	0.15	\$18.53
Central Texas Rural Transit District	CTRTD	0.42	\$2.40	0.12	\$19.41
Heart of Texas Council of Governments	HOTCOG	0.53	\$1.87	0.09	\$20.63
Concho Valley Transit District	CONCHO	0.20	\$5.02	0.23	\$21.54
Bee Community Action Agency	BCAA	0.38	\$2.62	0.12	\$22.72
South Plains Community Action Assoc.	SPCAA	0.33	\$3.03	0.13	\$23.22
South East Texas Regional Planning Comm.	SETRPC	0.23	\$4.32	0.15	\$28.38
Aspermont Small Bus. Dev. Center	ASBDC	0.45	\$2.23	0.04	\$54.24
<b>Peer Group Average</b>		<b>0.40</b>	<b>\$2.72</b>	<b>0.17</b>	<b>\$19.96</b>

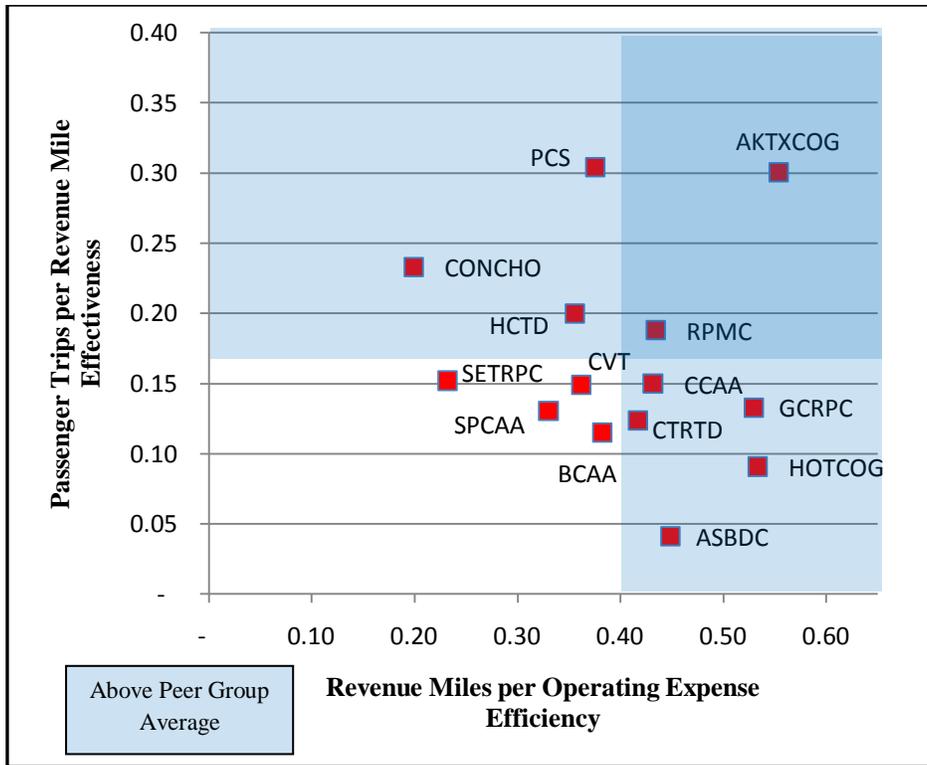


Figure 8. Rural Peer Group 2—Comparison to Peer Group Average.

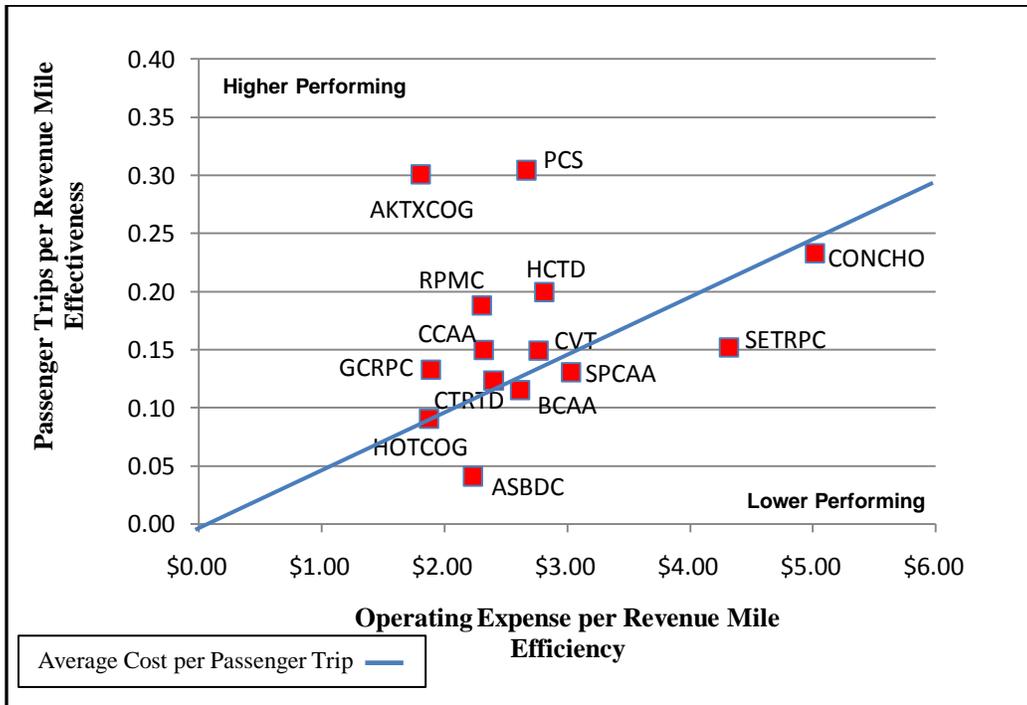


Figure 9. Rural Peer Group 2—Effectiveness and Efficiency Measures.



### **RURAL PEER GROUP 3**

Rural Peer Group 3 is comprised of 11 rural transit districts (see Table 8). South Padre Island is excluded from the peer group comparisons because the transit district is an outlier as compared to rural transit districts. South Padre Island is a tourist town providing a free-fare circulator fixed route that is atypical of a rural transit district. Rural transit districts typically serve low-density service areas with demand response service.

Table 8 is sorted by the lowest operating expense per passenger trip of \$11.72 to the highest of \$37.18. One transit district in Peer Group 3, Kaufman Area Rural Transportation, performs above the peer group average for both operational effectiveness and operational efficiency. Figure 10 illustrates those transit districts in Peer Group 3 that perform above the peer average for operating effectiveness and/or operating efficiency measures. Peer Group 3 rural transit districts with higher performance (above the peer group average) for operating effectiveness are:

- Fort Bend County;
- Community Services, Inc.;
- Kaufman Area Rural Transportation; and
- Cleburne.

Peer Group 3 rural transit districts with higher performance for operating efficiency are:

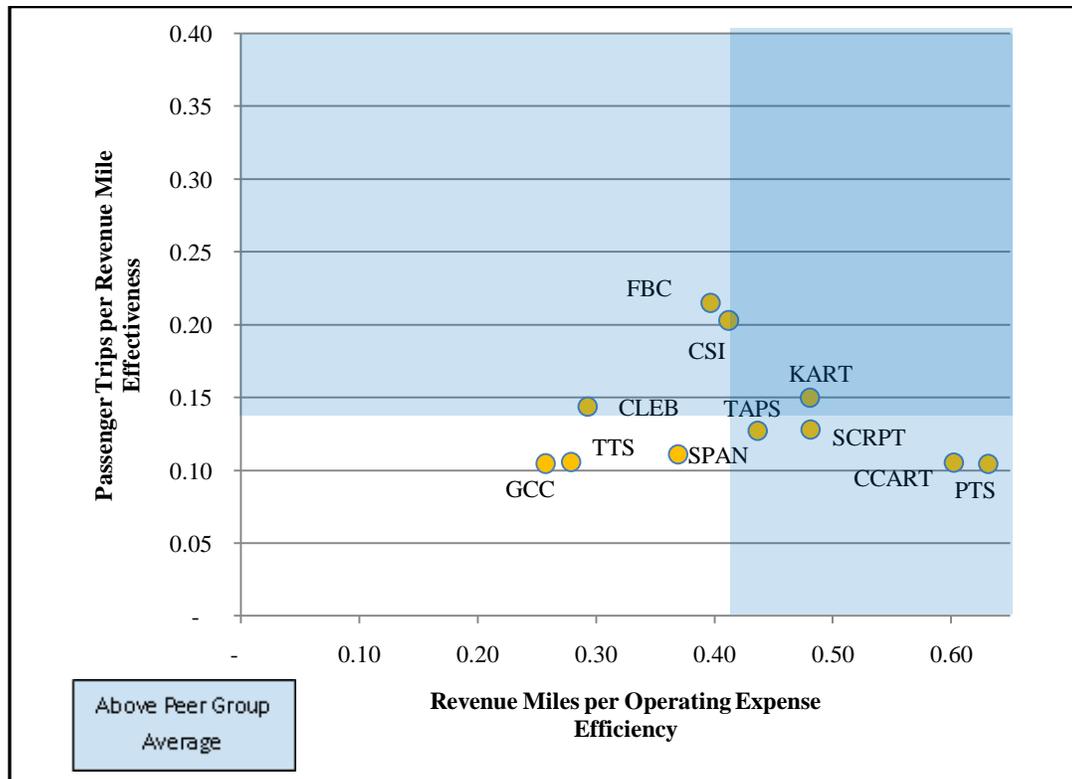
- Public Transit Services,
- Collin County Area Regional Transportation,
- Kaufman Area Rural Transportation,
- Senior Center Resources and Public Transit, and
- Texoma Area Paratransit System.

Figure 11 illustrates those transit districts in Peer Group 3 that are higher performing or lower performing based on comparison of cost efficiency, service effectiveness, and cost effectiveness. The cost effectiveness measure (average cost per passenger trip) is calculated by dividing operating expenses per revenue mile (cost efficiency) by passenger trips per revenue mile (service effectiveness). The agencies that are higher performing based upon this analysis are:

- Fort Bend County;
- Community Services, Inc.;
- Kaufman Area Rural Transportation;
- Senior Center Resources and Public Transit;
- Texoma Area Paratransit System;
- Collin County Area Regional Transportation; and
- Public Transit Services.

**Table 8. Rural Peer Group 3—Effectiveness and Efficiency Measures.**

Transit District	Code	Operating Efficiency		Operating Effectiveness	Cost Effectiveness
		Revenue Miles per Operating Expense	Operating Expense per Revenue Mile	Passenger Trips per Revenue Mile	Operating Expense per Passenger Trip
Fort Bend County	FBC	0.40	\$2.52	0.21	\$11.72
Community Services, Inc.	CSI	0.41	\$2.43	0.20	\$11.96
Kaufman Area Rural Transportation	KART	0.48	\$2.08	0.15	\$13.55
Public Transit Services	PTS	0.63	\$1.58	0.10	\$15.18
Collin County Area Reg. Transportation	CCART	0.60	\$1.66	0.11	\$15.76
Senior Center Resources and Public Transit	SCRPT	0.48	\$2.08	0.13	\$16.23
Texoma Area Paratransit System (TAPS)	TAPS	0.44	\$2.29	0.13	\$18.00
Cleburne	CLEB	0.29	\$3.42	0.14	\$23.75
Services Program for Aging Needs	SPAN	0.37	\$2.71	0.11	\$24.38
The Transit System, Inc.	TTS	0.28	\$3.58	0.11	\$33.92
Gulf Coast Center	GCC	0.26	\$3.89	0.10	\$37.18
<b>Peer Group Average</b>		<b>0.42</b>	<b>\$2.57</b>	<b>0.14</b>	<b>\$20.15</b>
South Padre Island	SPI	0.41	\$2.45	1.45	\$1.69



**Figure 10. Rural Peer Group 3—Comparison to Peer Group Average.**

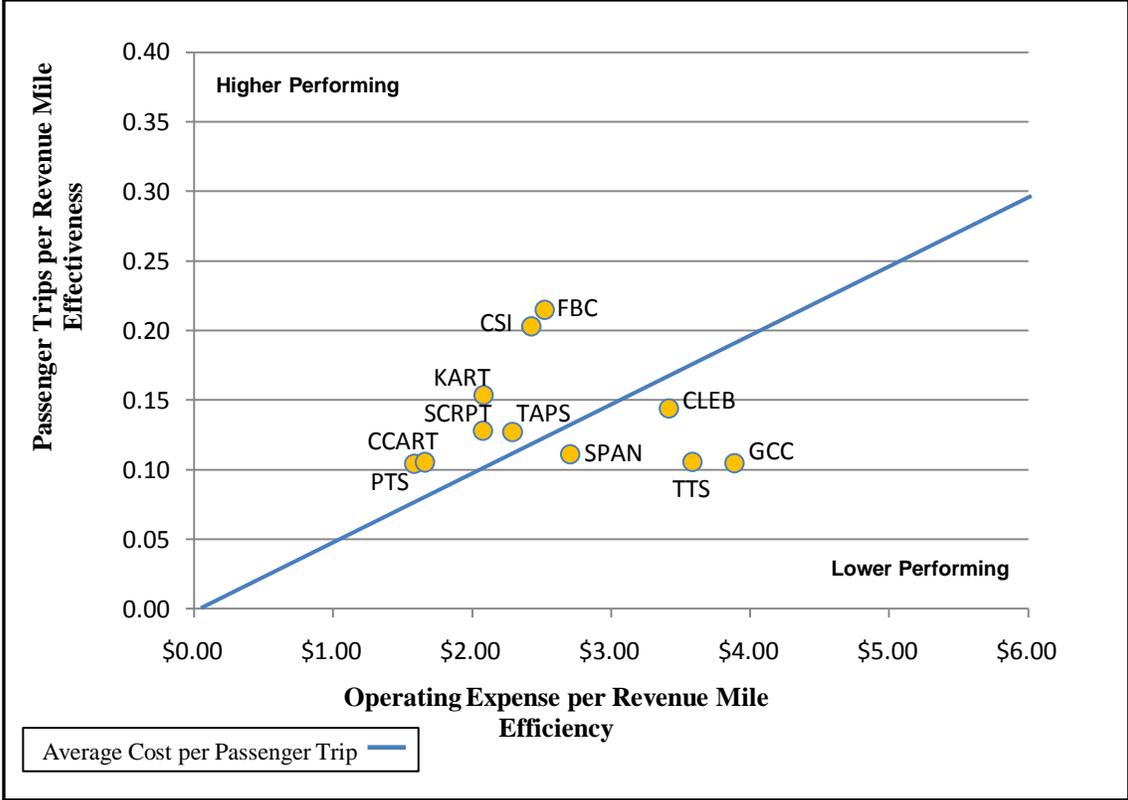


Figure 11. Rural Peer Group 3—Effectiveness and Efficiency Measures.



## **RURAL PEER GROUP 4**

Rural Peer Group 4 is comprised of five rural transit districts (see Table 9). Table 9 is sorted by the lowest operating expense per passenger trip of \$12.53 to the highest of \$32.45. One transit district in Peer Group 4, the Capital Area Rural Transportation System, has the lowest operating expense per passenger trip and performs above the peer group average in both operational effectiveness and operational efficiency. Figure 12 illustrates those transit districts in Peer Group 4 that perform above the peer average for operating effectiveness and/or operating efficiency measures. Peer Group 4 rural transit districts with higher performance (above the peer group average) for operating effectiveness are:

- Capital Area Rural Transportation System and
- Brazos Transit District.

Peer Group 4 rural transit districts with higher performance (above the peer group average) for operating efficiency are:

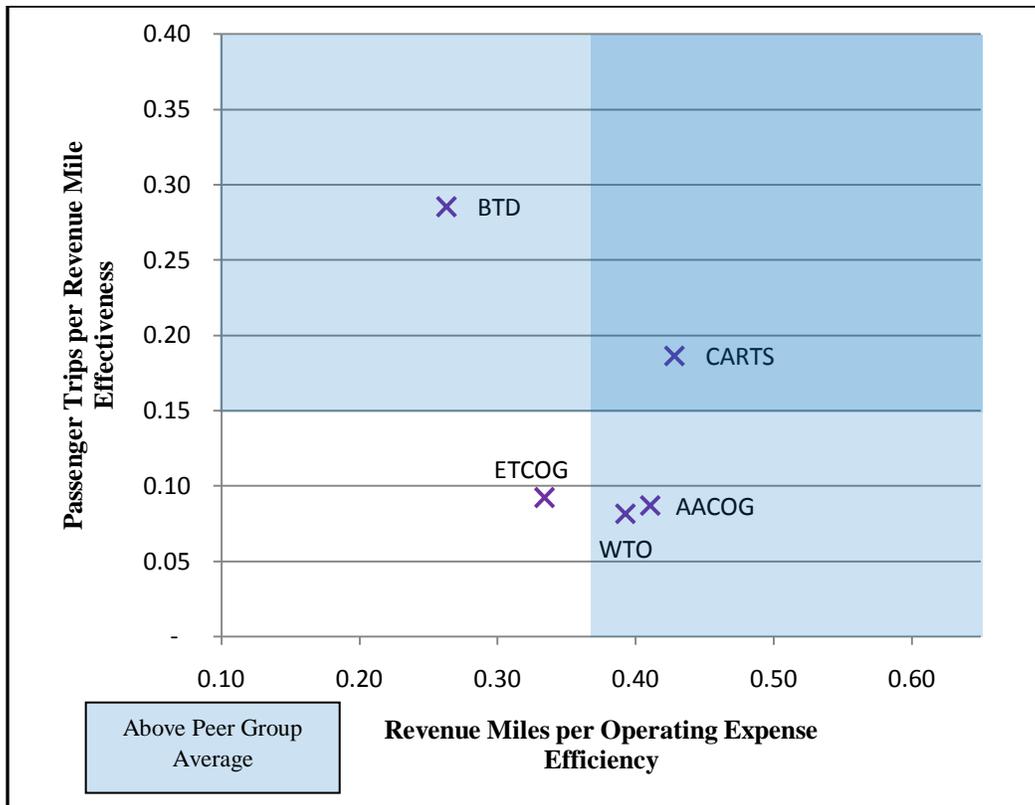
- Capital Area Rural Transportation System;
- Alamo Area Council of Governments; and
- West Texas Opportunities, Inc.

Figure 13 illustrates those transit districts in Peer Group 4 that are higher performing or lower performing based on comparison of cost efficiency, service effectiveness, and cost effectiveness. The cost effectiveness measure (average cost per passenger trip) is calculated by dividing operating expenses per revenue mile (cost efficiency) by passenger trips per revenue mile (service effectiveness). The two agencies that are higher performing based upon this analysis are:

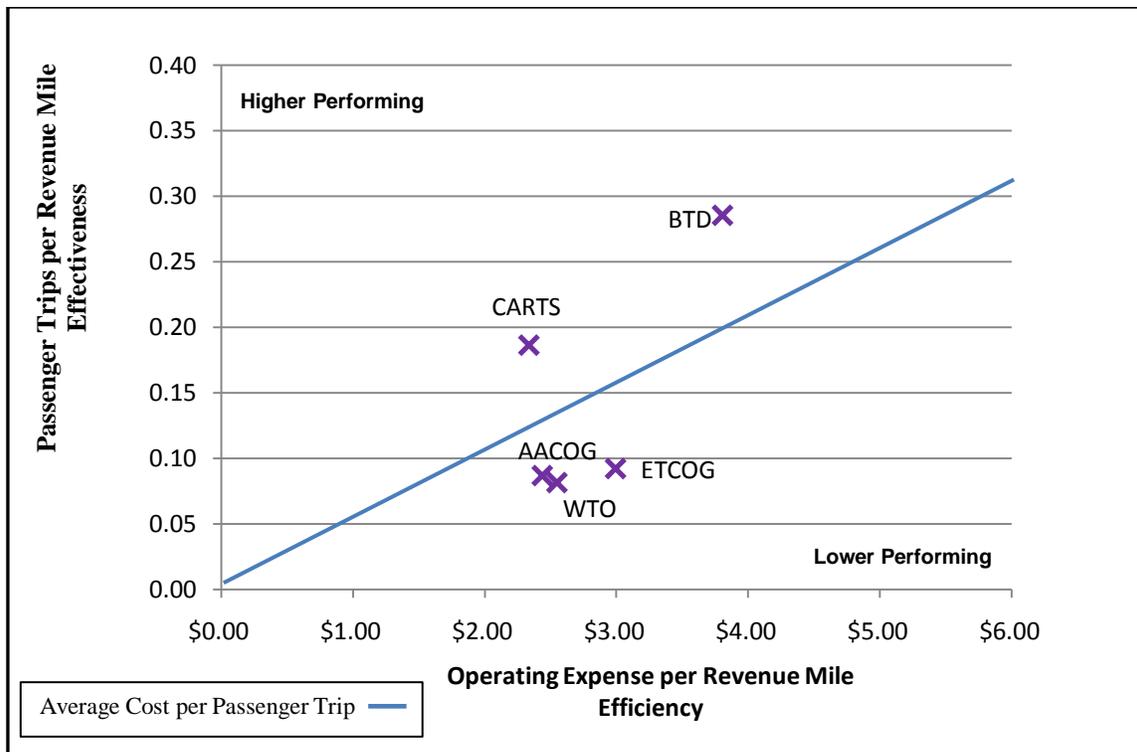
- Capital Area Rural Transportation System and
- Brazos Transit District.

**Table 9. Rural Peer Group 4—Effectiveness and Efficiency Measures.**

Transit District	Code	Operating Efficiency		Operating Effectiveness	Cost Effectiveness
		Revenue Miles per Operating Expense	Operating Expense per Revenue Mile	Passenger Trips per Revenue Mile	Operating Expense per Passenger Trip
Capital Area Rural Transportation System	CARTS	0.43	\$2.34	0.19	\$12.53
Brazos Transit District	BTD	0.26	\$3.81	0.29	\$13.34
Alamo Area Council of Governments	AACOG	0.41	\$2.44	0.09	\$28.03
West Texas Opportunities, Inc.	WTO	0.39	\$2.55	0.08	\$31.32
East Texas Council of Governments	ETCOG	0.33	\$2.99	0.09	\$32.45
<b>Peer Group Average</b>		<b>0.37</b>	<b>\$2.82</b>	<b>0.15</b>	<b>\$23.53</b>



**Figure 12. Rural Peer Group 4—Comparison to Peer Group Average.**



**Figure 13. Rural Peer Group 4—Effectiveness and Efficiency Measures.**



## **RURAL PEER GROUP 5**

Rural Peer Group 5 is comprised of four rural transit districts (see Table 10). Table 10 is sorted by the lowest operating expense per passenger trip of \$8.13 to the highest of \$17.06. None of the rural transit districts in this peer group perform above the peer group average for both operational effectiveness and efficiency. The Webb County Community Action Agency has the lowest operating expense per passenger trip.

Figure 14 illustrates those transit districts in Peer Group 5 that perform above the peer average for operating effectiveness or operating efficiency measures. Peer Group 5 rural transit districts with higher performance (above the peer group average) for operating effectiveness are:

- Webb County Community Action Agency and
- Community Action County of South Texas.

Peer Group 5 rural transit districts with higher performance (above the peer group average) for operating efficiency are:

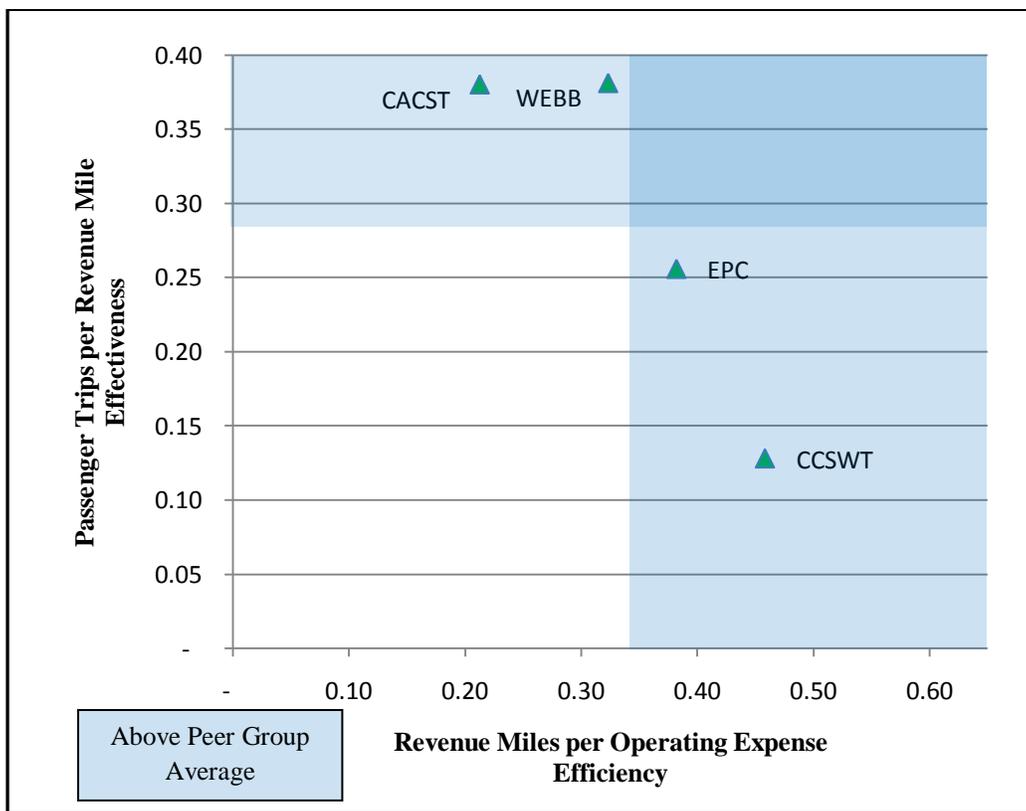
- Community Council of Southwest Texas and
- El Paso County.

Figure 15 illustrates those transit districts in Peer Group 5 that are higher performing or lower performing based on comparison of cost efficiency, service effectiveness, and cost effectiveness. The cost effectiveness measure (average cost per passenger trip) is calculated by dividing operating expenses per revenue mile (cost efficiency) by passenger trips per revenue mile (service effectiveness). The two agencies that are higher performing based upon this analysis are:

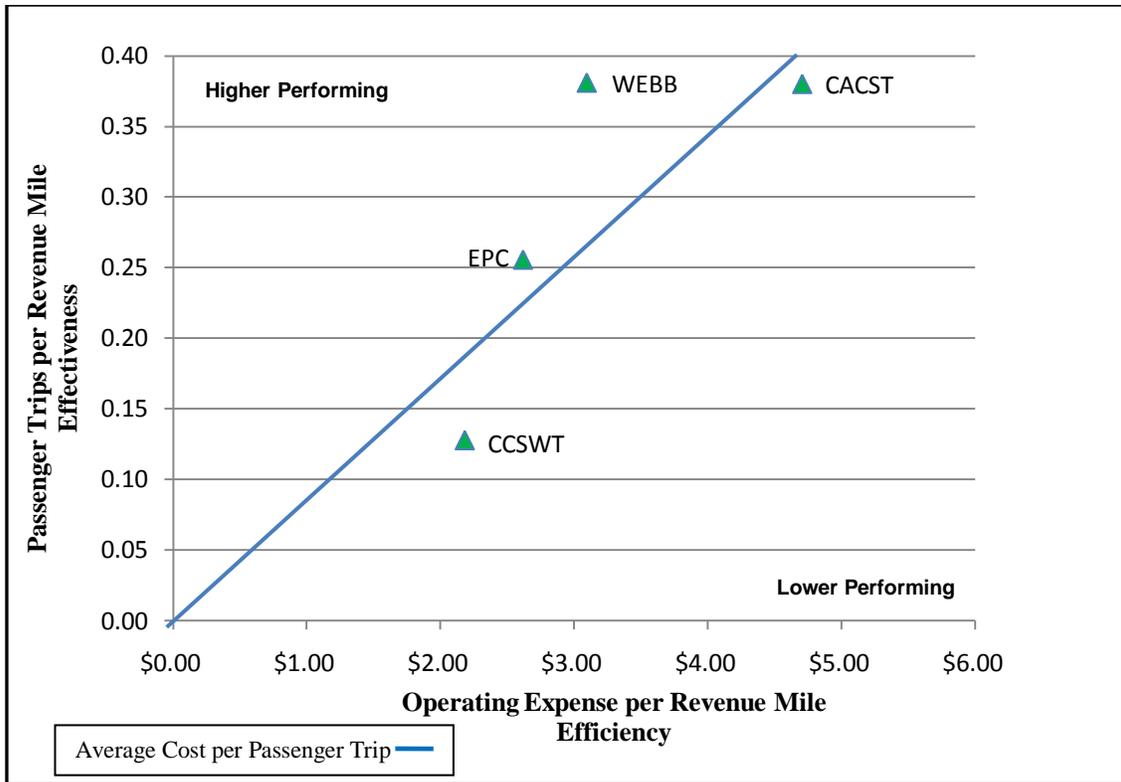
- Webb County Community Action Agency and
- El Paso County.

**Table 10. Rural Peer Group 5—Effectiveness and Efficiency Measures.**

Transit District	Code	Operating Efficiency		Operating Effectiveness	Cost Effectiveness
		Revenue Miles per Operating Expense	Operating Expense per Revenue Mile	Passenger Trips per Revenue Mile	Operating Expense per Passenger Trip
Webb County Community Action Agency	WEBB	0.32	\$3.10	0.38	\$8.13
El Paso County	EPC	0.38	\$2.62	0.26	\$10.24
Community Action Council of South Texas	CACST	0.21	\$4.71	0.38	\$12.39
Community Council of Southwest Texas	CCSWT	0.46	\$2.18	0.13	\$17.06
<b>Peer Group Average</b>		<b>0.34</b>	<b>\$3.15</b>	<b>0.29</b>	<b>\$11.95</b>



**Figure 14. Rural Peer Group 5—Comparison to Peer Group Average.**



**Figure 15. Rural Peer Group 5—Effectiveness and Efficiency Measures.**



## URBAN PEER GROUP 1

Urban Peer Group 1 is comprised of eight urban transit districts (see Table 11). Table 11 is sorted by the lowest operating expense per passenger trip of \$5.02 to the highest of \$16.60. None of the urban transit districts in Peer Group 1 perform above the peer group average for both operational effectiveness and efficiency. Texarkana has the lowest operating expense per passenger trip.

Figure 16 illustrates those transit districts in Peer Group 1 that perform above the peer average for operating effectiveness or operating efficiency measures. Peer Group 1 urban transit districts with higher performance (above the peer group average) for operating effectiveness are:

- Texarkana,
- Beaumont,
- Tyler,
- Waco, and
- Longview.

The Peer Group 1 urban transit district with a higher performance (above the peer group average) for operating efficiency is Sherman-Denison. Sherman-Denison represents an outlier for operating efficiency, meaning the indicator is significantly higher than other transit districts in the peer group.

Figure 17 illustrates those transit districts in Peer Group 1 that are higher performing or lower performing based on comparison of cost efficiency (operating expenses per revenue mile), service effectiveness (passenger trips per revenue mile), and cost effectiveness (cost per passenger trip). The cost effectiveness measure (average cost per passenger trip) is calculated by dividing operating expenses per revenue mile (cost efficiency) by passenger trips per revenue mile (service effectiveness). The agencies that are higher performing based upon this analysis are:

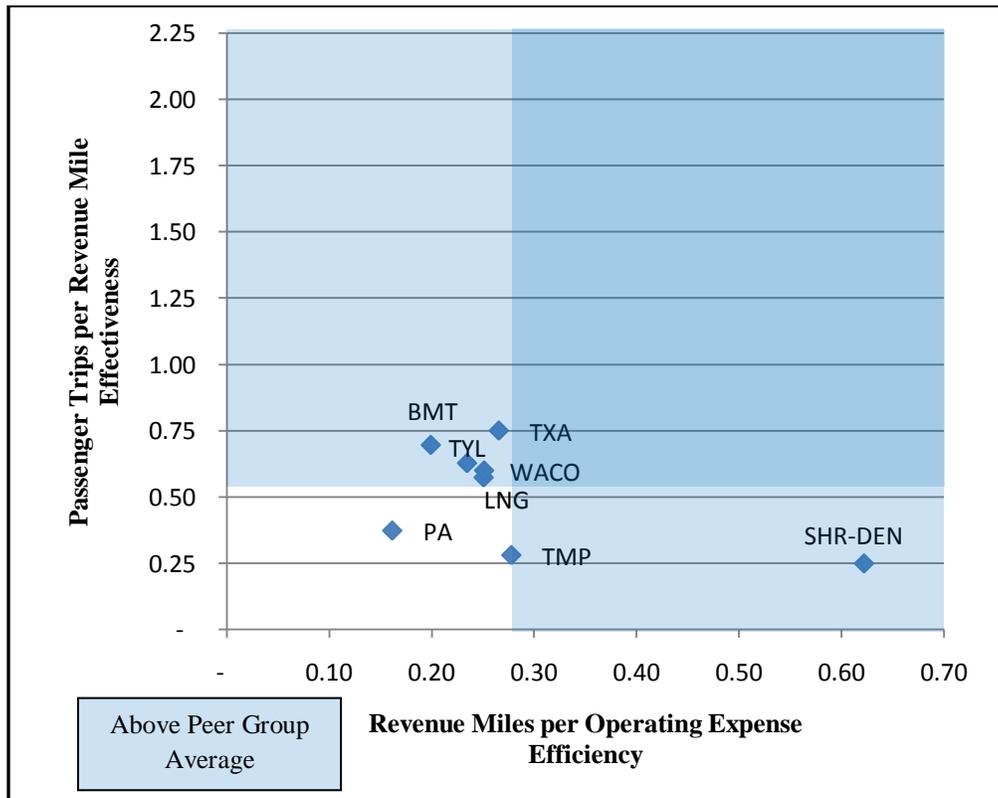
- Texarkana,
- Beaumont,
- Tyler,
- Waco, and
- Longview.

Sherman-Denison represents higher performance for operating efficiency but lower performance for operating effectiveness (passenger trips per revenue mile). Lower operating effectiveness is because transit service in Sherman-Denison in 2009 was largely demand response (lower productivity per mile of service than fixed route). Other outliers in Peer Group 1 are Port Arthur for low revenue miles per operating expense (cost efficiency) and higher cost per passenger trip

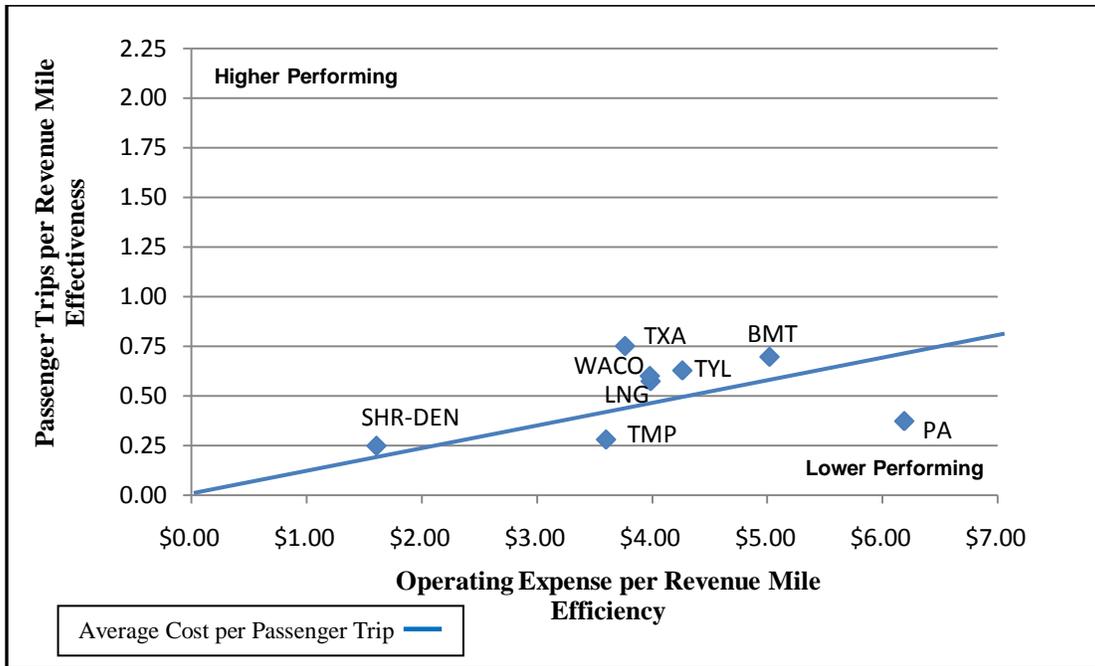
(cost effectiveness) and Temple for lower operating effectiveness (passenger trips per revenue mile).

**Table 11. Urban Peer Group 1—Effectiveness and Efficiency Measures.**

Transit District	Code	Operating Efficiency		Operating Effectiveness	Cost Effectiveness
		Revenue Miles per Operating Expense	Operating Expense per Revenue Mile	Passenger Trips per Revenue Mile	Operating Expense per Passenger Trip
Texarkana	TXA	0.27	\$3.77	0.75	\$5.02
Sherman-Denison	SHR-DEN	0.62	\$1.61	0.25	\$6.46
Waco	WACO	0.25	\$3.98	0.60	\$6.64
Tyler	TYL	0.23	\$4.26	0.63	\$6.79
Longview	LNG	0.25	\$3.99	0.57	\$6.95
Beaumont	BMT	0.20	\$5.02	0.70	\$7.21
Temple	TMP	0.28	\$3.60	0.28	\$12.84
Port Arthur	PA	0.16	\$6.19	0.37	\$16.60
<b>Peer Group Average</b>		<b>0.28</b>	<b>\$4.05</b>	<b>0.52</b>	<b>\$8.56</b>



**Figure 16. Urban Peer Group 1—Comparison to Peer Group Average.**



**Figure 17. Urban Peer Group 1—Effectiveness and Efficiency Measures.**



## URBAN PEER GROUP 2

Urban Peer Group 2 is comprised of 11 urban transit districts (see Table 12). Table 12 is sorted by the lowest operating expense per passenger trip of \$1.84 to the highest of \$55.02. Two transit districts in Peer Group 2, Abilene and Wichita Falls, perform just above the peer group average for both operational effectiveness and operational efficiency.

Figure 18 illustrates those transit districts in Peer Group 2 that perform above the peer average for operating effectiveness and/or operating efficiency measures. Peer Group 2 urban transit districts with higher performance (above the peer group average) for operating effectiveness are:

- College Station-Bryan,
- Lubbock,
- Abilene, and
- Wichita Falls.

Both Texas City-La Marque and Lake Jackson-Angleton represent outliers for low operating effectiveness (passenger trips per revenue mile) and poor cost effectiveness (cost per passenger trip). Outliers are significantly out of line with the performance indicators for other transit districts in the peer group. Low operating effectiveness in Texas City-La Marque and Lake Jackson-Angleton was because transit services were generally demand response and relatively low ridership. Flexible routes were initiated in Texas City-La Marque in 2009 and in Lake Jackson-Angleton in 2010.

Peer Group 2 urban transit districts with higher performance for operating efficiency are:

- Abilene,
- Wichita Falls,
- Victoria, and
- San Angelo.

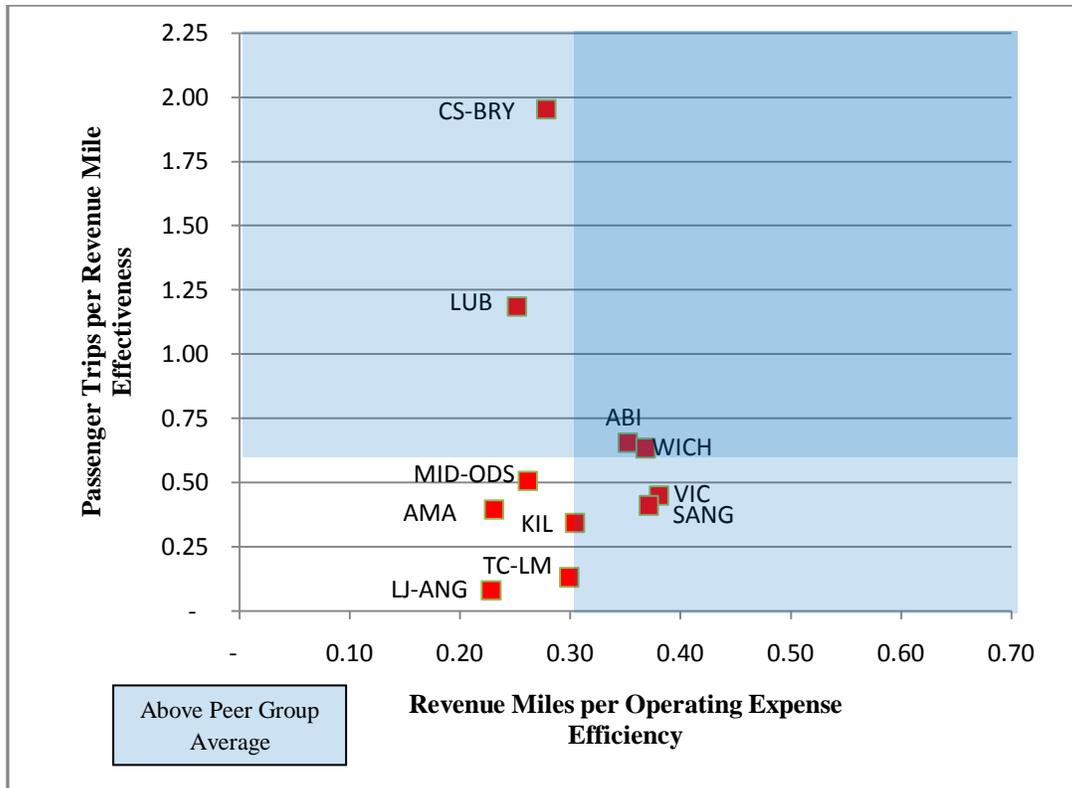
Figure 19 illustrates those transit districts in Peer Group 2 that are higher performing or lower performing based on comparison of cost efficiency, service effectiveness, and cost effectiveness. The cost effectiveness measure (average cost per passenger trip) is calculated by dividing operating expenses per revenue mile (cost efficiency) by passenger trips per revenue mile (service effectiveness). The transit districts that are highest performing based upon this analysis are:

- College Station-Bryan and
- Lubbock.

The average cost per passenger trip for Peer Group 2 is higher due to Lake Jackson-Angleton and Texas City-La Marque (\$55.02 and \$25.57 per passenger trip, respectively). Both cities represent outliers for cost effectiveness because ridership is low, driving up cost per passenger.

**Table 12. Urban Peer Group 2—Effectiveness and Efficiency Measures.**

Transit District	Code	Operating Efficiency		Operating Effectiveness	Cost Effectiveness
		Revenue Miles per Operating Expense	Operating Expense per Revenue Mile	Passenger Trips per Revenue Mile	Operating Expense per Passenger Trip
College Station-Bryan	CS-BRY	0.28	\$3.60	1.95	\$1.84
Lubbock	LUB	0.25	\$3.97	1.19	\$3.35
Wichita Falls	WICH	0.37	\$2.72	0.63	\$4.29
Abilene	ABI	0.35	\$2.84	0.65	\$4.34
Victoria	VIC	0.38	\$2.63	0.45	\$5.85
San Angelo	SANG	0.37	\$2.70	0.41	\$6.56
Midland-Odessa	MID-ODS	0.26	\$3.82	0.51	\$7.54
Killeen	KIL	0.30	\$3.29	0.34	\$9.59
Amarillo	AMA	0.23	\$4.33	0.40	\$10.95
Texas City-La Marque	TC-LM	0.30	\$3.35	0.13	\$25.57
Lake Jackson-Angleton	LJ-ANG	0.23	\$4.38	0.08	\$55.02
<b>Peer Group Average</b>		<b>0.30</b>	<b>\$3.42</b>	<b>0.61</b>	<b>\$12.26</b>



**Figure 18. Urban Peer Group 2—Comparison to Peer Group Average.**

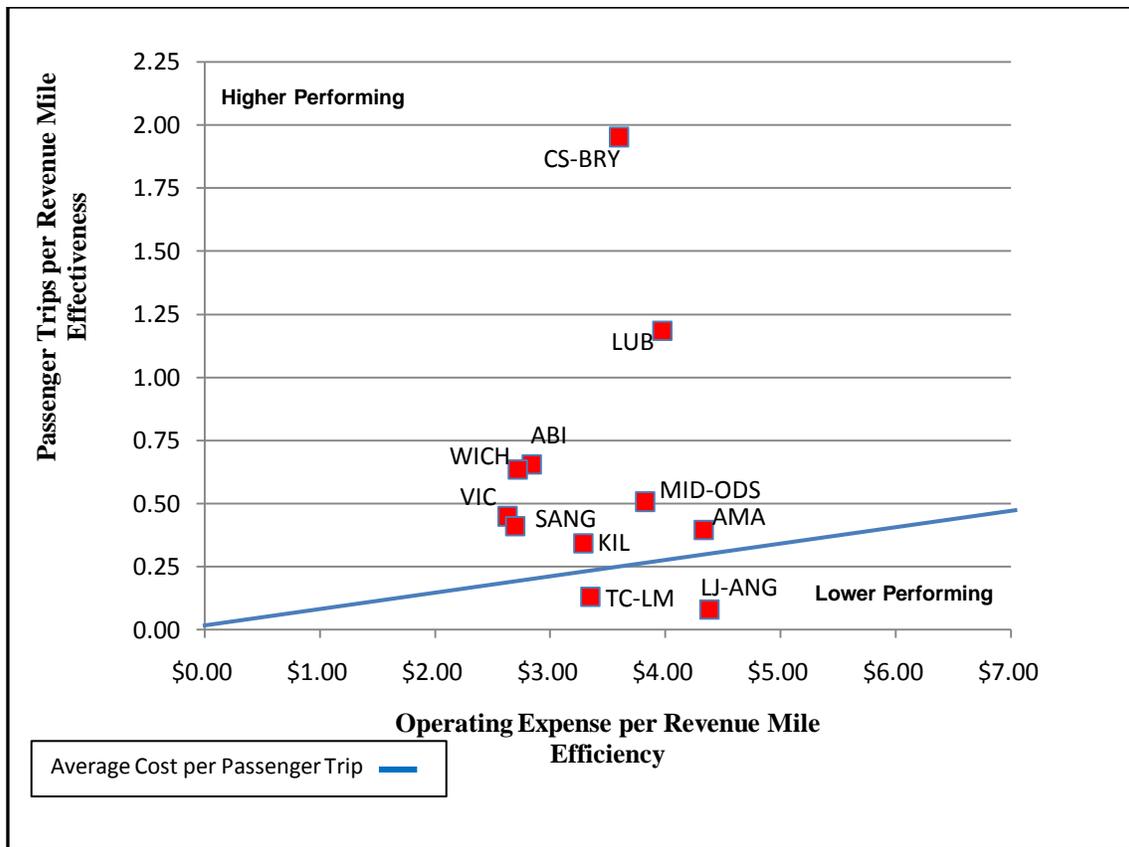


Figure 19. Urban Peer Group 2—Effectiveness and Efficiency Measures.

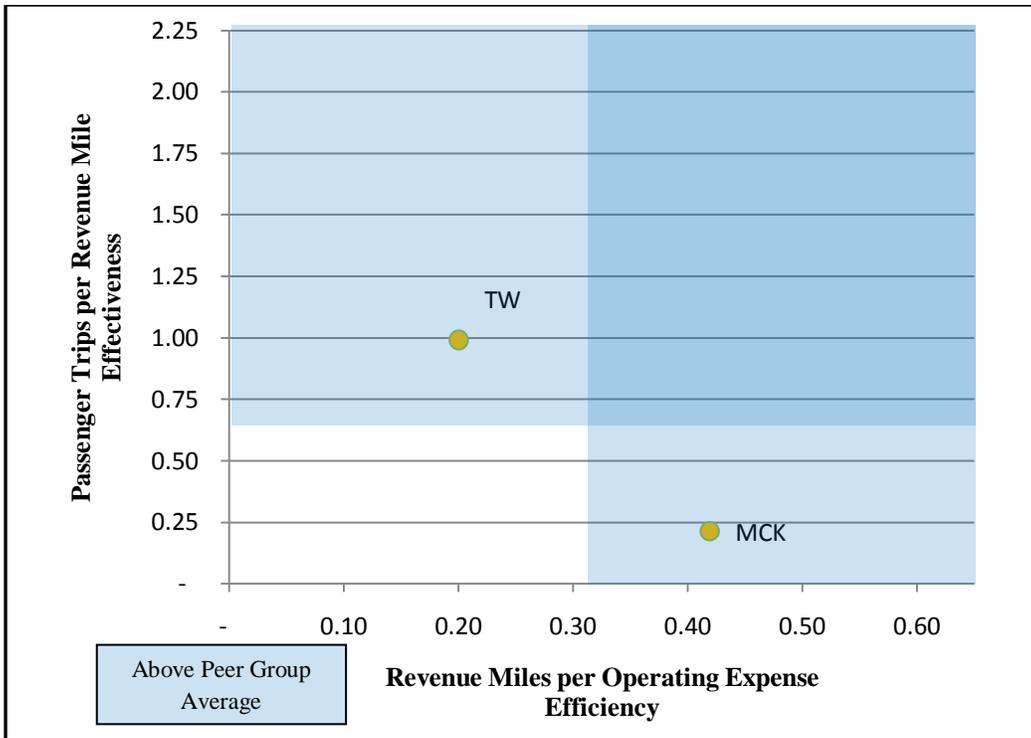
### URBAN PEER GROUP 3

Urban Peer Group 3 is comprised of two urban transit districts (see Table 13). As illustrated in Figure 20, The Woodlands performs above the peer average in operating effectiveness and McKinney above the peer average in operating efficiency. The Woodlands operating expense per passenger trip is \$5.04, reflecting the higher passenger trips per revenue mile for The Woodlands Express commuter transit system.

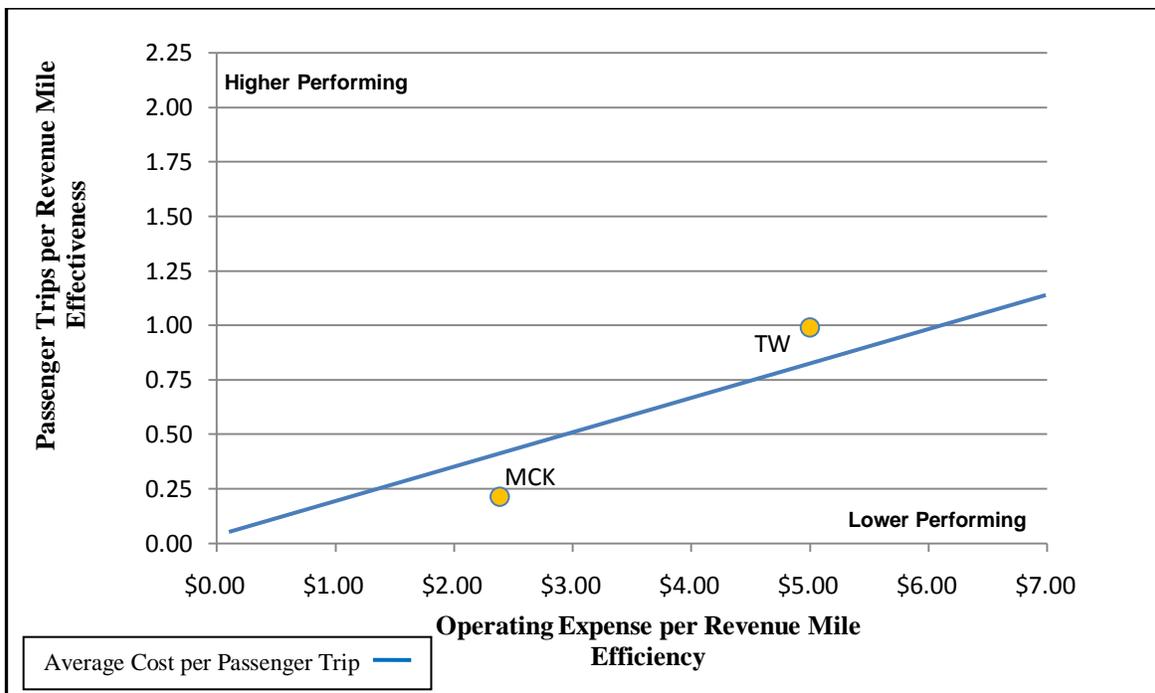
Figure 21 illustrates the transit districts in Peer Group 3 that are higher performing or lower performing based on comparison of cost efficiency, service effectiveness, and cost effectiveness. The cost effectiveness measure (average cost per passenger trip) is calculated by dividing operating expenses per revenue mile (cost efficiency) by passenger trips per revenue mile (service effectiveness). The transit district that is highest performing based upon this analysis is The Woodlands.

**Table 13. Urban Peer Group 3—Effectiveness and Efficiency Measures.**

Transit District	Code	Operating Efficiency		Operating Effectiveness	Cost Effectiveness
		Revenue Miles per Operating Expense	Operating Expense per Revenue Mile	Passenger Trips per Revenue Mile	Operating Expense per Passenger Trip
The Woodlands	TW	0.20	\$5.00	0.99	\$5.04
McKinney	MCK	0.42	\$2.39	0.21	\$11.14
<b>Peer Group Average</b>		<b>0.31</b>	<b>\$3.69</b>	<b>0.60</b>	<b>\$8.09</b>



**Figure 20. Urban Peer Group 3—Comparison to Peer Group Average.**



**Figure 21. Urban Peer Group 3—Effectiveness and Efficiency Measures.**

## URBAN PEER GROUP 4

Urban Peer Group 4 is comprised of five urban transit districts (see Table 14). Table 14 is sorted by the lowest operating expense per passenger trip of \$3.05 to the highest of \$49.51. No transit district in Peer Group 4 performs above the peer group average for both operational effectiveness and operational efficiency.

Figure 22 illustrates those transit districts in Peer Group 4 that perform above the peer average for operating effectiveness or operating efficiency measures. Peer Group 4 urban transit districts with higher performance (above the peer group average) for operating effectiveness are:

- Laredo,
- Brownsville, and
- Galveston.

Harlingen-San Benito represents an outlier for operating effectiveness (passenger trips per revenue mile). The indicator for operating effectiveness is significantly lower for Harlingen-San Benito than other transit districts in the peer group. Low operating effectiveness is due to minimum levels of transit service and low ridership in the Harlingen-San Benito urban area.

Peer Group 4 urban transit districts with higher performance (above the peer group average) for operating efficiency are:

- McAllen and
- Harlingen-San Benito.

Figure 23 illustrates those transit districts in Peer Group 4 that are higher performing or lower performing based on comparison of cost efficiency, service effectiveness, and cost effectiveness. The cost effectiveness measure (average cost per passenger trip) is calculated by dividing operating expenses per revenue mile (cost efficiency) by passenger trips per revenue mile (service effectiveness). The agencies that are the highest performing based upon this analysis are:

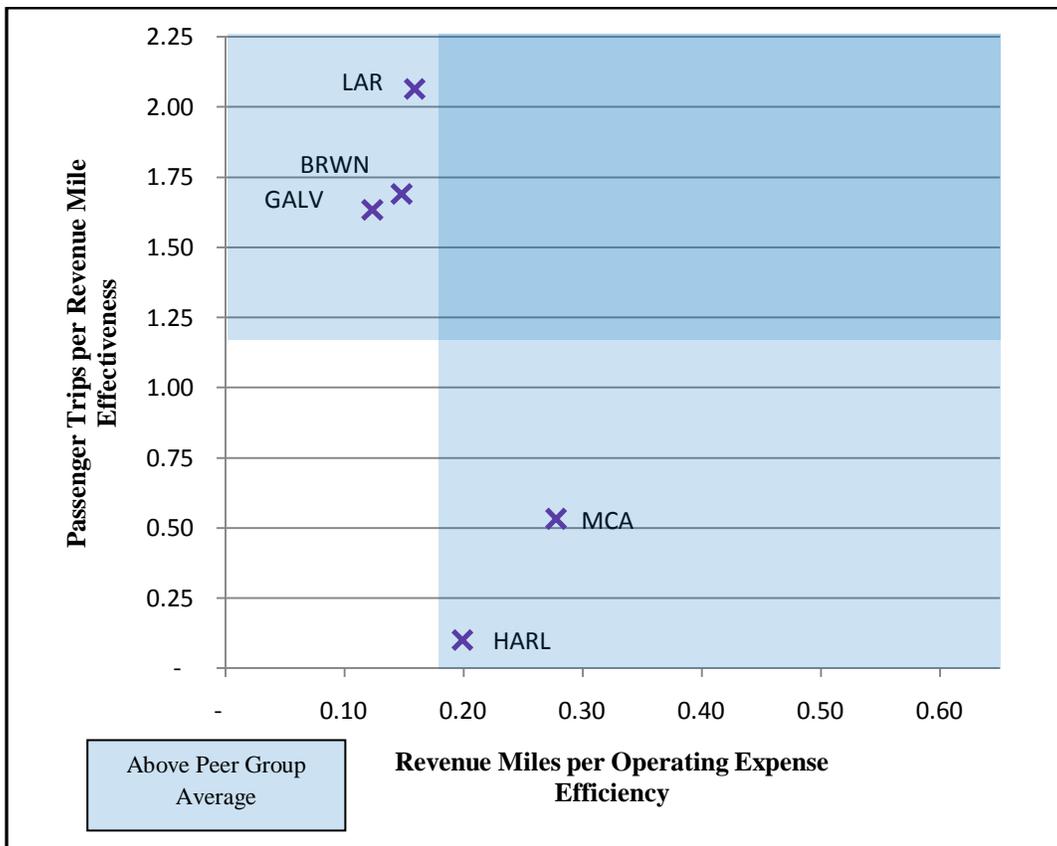
- Laredo,
- Brownsville, and
- Galveston.

McAllen represents higher performance for operating efficiency but lower performance for operating effectiveness (passenger trips per revenue mile).

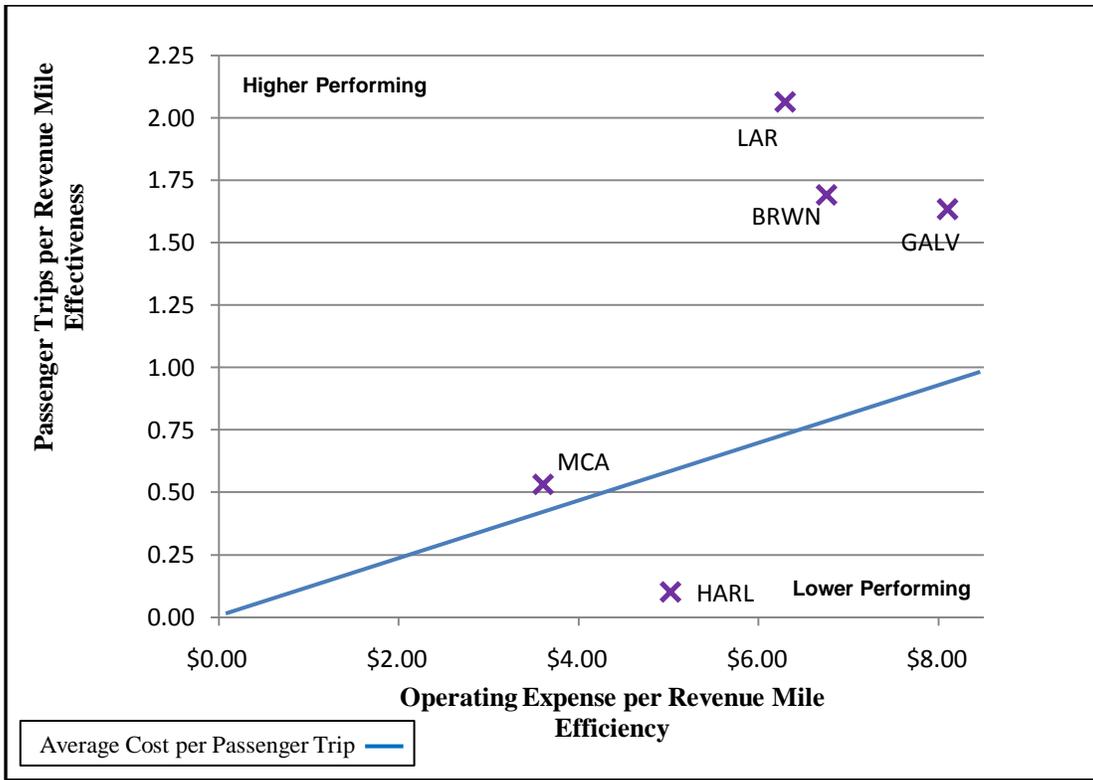
The average cost per passenger trip for Peer Group 4 is higher due to Harlingen-San Benito (\$49.51 per passenger trip). As discussed above, Harlingen-San Benito represents an outlier for cost effectiveness because ridership is low. Lower ridership increases the cost per passenger trip.

**Table 14. Urban Peer Group 4—Effectiveness and Efficiency Measures.**

Transit District	Code	Operating Efficiency		Operating Effectiveness	Cost Effectiveness
		Revenue Miles per Operating Expense	Operating Expense per Revenue Mile	Passenger Trips per Revenue Mile	Operating Expense per Passenger Trip
Laredo	LAR	0.16	\$6.30	2.06	\$3.05
Brownsville	BRWN	0.15	\$6.75	1.69	\$3.99
Galveston	GALV	0.12	\$8.10	1.63	\$4.95
McAllen	MCA	0.28	\$3.60	0.53	\$6.76
Harlingen-San Benito	HARL	0.20	\$5.02	0.10	\$49.51
<b>Peer Group Average</b>		<b>0.18</b>	<b>\$5.95</b>	<b>1.20</b>	<b>\$13.65</b>



**Figure 22. Urban Peer Group 4—Comparison to Peer Group Average.**



**Figure 23. Urban Peer Group 4—Effectiveness and Efficiency Measures.**



## **URBAN PEER GROUP—LIMITED ELIGIBILITY**

The Urban Peer Group for Limited Eligibility Peers is comprised of four urban transit districts that provide transit service only for seniors and people with disabilities (see Table 15). Table 15 is sorted by the lowest operating expense per passenger trip of \$14.23 to the highest of \$25.93. No transit district in this Limited Eligibility Peer Group performs above the peer group average for both operational effectiveness and operational efficiency.

Figure 24 illustrates those transit districts in the Limited Eligibility Peer Group that perform above the peer average for operating effectiveness or operating efficiency measures. The Limited Eligibility Peer Group urban transit district with higher performance (above the peer group average) for operating effectiveness is Grand Prairie.

The Limited Eligibility Peer Group urban transit districts with higher performance (above the peer group average) for operating efficiency are:

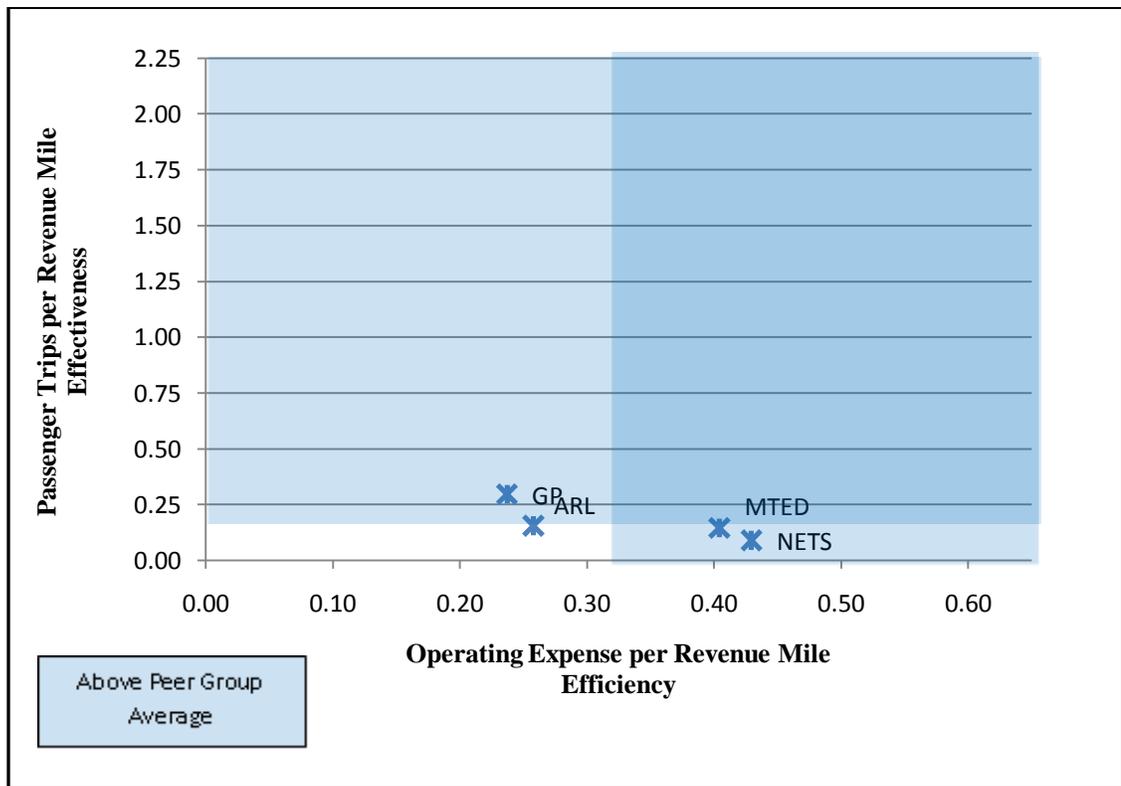
- Mesquite and
- NETS.

Figure 25 illustrates those transit districts in the Limited Eligibility Peer Group that are higher performing or lower performing based on comparison of cost efficiency, service effectiveness, and cost effectiveness. The cost effectiveness measure (average cost per passenger trip) is calculated by dividing operating expenses per revenue mile (cost efficiency) by passenger trips per revenue mile (service effectiveness). The agencies that are higher performing based upon this analysis are:

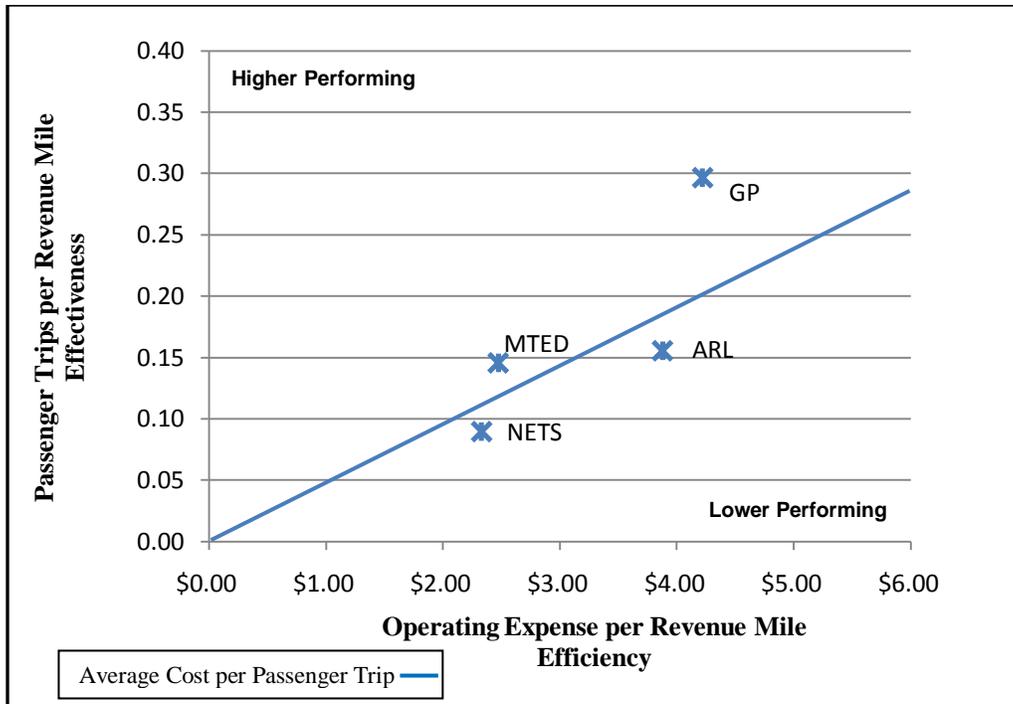
- Grand Prairie and
- Mesquite.

**Table 15. Limited Eligibility Urban Peers—Effectiveness and Efficiency Measures.**

Transit District	Code	Operating Efficiency		Operating Effectiveness	Cost Effectiveness
		Revenue Miles per Operating Expense	Operating Expense per Revenue Mile	Passenger Trips per Revenue Mile	Operating Expense per Passenger Trip
Grand Prairie	GP	0.24	\$4.22	0.30	\$14.23
Mesquite	MTED	0.40	\$2.47	0.15	\$16.99
Arlington	ARL	0.26	\$3.88	0.16	\$24.95
NETS	NETS	0.43	\$2.33	0.09	\$25.93
<b>Peer Group Average</b>		<b>0.33</b>	<b>\$3.22</b>	<b>0.17</b>	<b>\$20.53</b>



**Figure 24. Limited Eligibility Urban Peers—Comparison to Peer Group Average.**



**Figure 25. Limited Eligibility Urban Peers—Effectiveness and Efficiency Measures.**

