



ARK-TEX
COUNCIL OF
GOVERNMENTS



2013 Coordinated Transit Plan Update

As Approved

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Developed in Association With:

KFH Group, Inc.

3409 Executive Center Dr., Suite 209 ♦ Austin, TX 78731 ♦ (512) 372-8807 ♦ Fax (512) 372-8307



2013 Coordinated Transit Plan Update

INTRODUCTION

This Coordinated Plan Update presents the findings of a comprehensive review of TRAX operations, service design, management and administrative practices, technology support, and fare policy. Multiple approaches were followed to develop a comprehensive picture of all aspects of the TRAX operations and organization.

- Performance measures were developed to provide diagnostic indicators for TRAX services, including trends over time and relative performance from one route or service component to another.
- TRAX performance measures and operating resources were compared to peer transit programs in other areas of Texas to provide Ark-Tex COG with a range of performance measures that a transit system like TRAX might wish to use for benchmarking.
- Functional areas were reviewed in-depth, including operational, administrative and management functions. The findings are based upon meetings with staff and management, observation of operations, review of the performance measures as described earlier in this technical memorandum, and key documents including service descriptions, by-laws or authorities, goal statements, governing body composition, organizational chart, budgets, and policies and procedures. The findings are grouped into each of the following major functional categories:
 - Operations Assessment - includes reservations, scheduling, dispatching, route planning, driver assignments, service supervision, and vehicle maintenance, and service performance as it relates to these functions.
 - Management Assessment - includes finance, general management and administration, staffing levels, safety and training, drug and alcohol testing, oversight of vendors, quality assurance, and organizational performance as it relates to these functions.

The findings for each of the above functional categories include a summary of the strengths, weaknesses and opportunities of each functional area.

- Finally, the fare policy was reviewed.

PERFORMANCE MEASURES

This section presents a composite of the performance measures developed for TRAX, including overall trends in recent years, as well a breakdown of measures by individual TRAX routes and service components. Additional, base data collection methodology is discussed briefly. Analysis and interpretation of specific measures will be addressed under the appropriate functional area later in this technical memorandum.

Performance measures were developed from data obtained from Ark-Tex COG's PTN-128 Worksheet for TRAX for each of the past four fiscal years. The PTN-128 Worksheet is report of operating and financial data that subrecipients of FTA submit to TxDOT, compiling monthly, quarterly, and annual data and calculating performance measures used by TxDOT. FY 2008 through FY 2011 annual totals for TRAX the full array of operating and financial data and performance measures reported in PTN-128 are attached as an appendix to this technical memorandum. Table 1 presents basic summary data for TRAX.

Table 1: TRAX Basic Data, FY 2008 - FY 2011

	FY 2008	FY 2009	FY 2010	FY 2011
Unlinked Passenger Trips	515,199	394,657	417,350	429,999
Revenue Vehicle Miles	1,535,965	1,312,821	1,163,843	1,225,036
Revenue Vehicle Hours	125,542	104,474	98,473	105,124
Operational Expenses	\$2,644,270	\$2,372,324	\$2,015,738	\$2,984,901

System-Wide Trends Over Time

Selected TRAX performance measures for each of the past four fiscal years were derived from the data in Appendix A.

Operating Expenses

A summary of TRAX's operating and other non-capital expenses each year is presented in Table 2. This includes operating, administrative, maintenance and

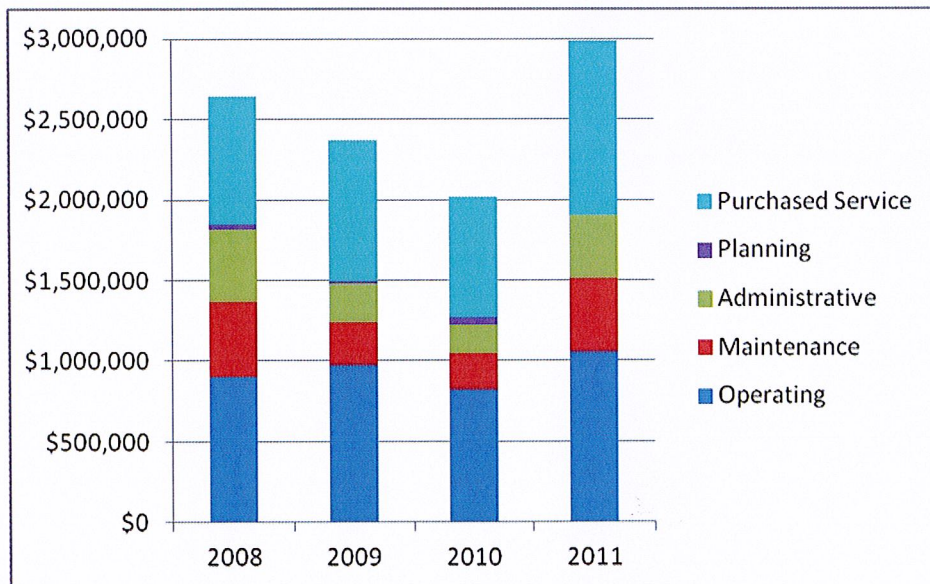
planning, as well as operations which are purchased from other operators include N.E.T.O. and taxicab operators. Capital expenditures such as vehicle purchases are excluded because they typically represent large lump-sum purchases for assets that are used over many years, and thus are not representative on day-to-day consumption of resources.

Table 2: TRAX Operating and Other Non-Capital Expenses, FY 2008 - FY 2011

Expense Category	2008	2009	2010	2011
Operating	\$901,800	\$973,168	\$825,901	\$1,055,221
Maintenance	\$463,091	\$267,508	\$218,029	\$453,594
Administrative	\$454,033	\$236,017	\$181,238	\$397,848
Planning	\$29,338	\$20,767	\$46,708	\$0
Subtotal	\$1,848,262	\$1,497,460	\$1,271,876	\$1,906,663
Purchased Transportation				
N.E.T.O.	\$551,623	\$557,765	\$536,132	\$751,304
Taxis - JARC & New Freedom	\$244,385	\$317,099	\$207,730	\$326,934
Subtotal	\$796,008	\$874,864	\$743,862	\$1,078,238
Total	\$2,644,270	\$2,372,324	\$2,015,738	\$2,984,901

The amounts in Table 2 are graphically displayed in Figure 1.

Figure 1: TRAX Operating and Other Non-Capital Expenses, FY 2008 - FY 2011



As can be seen in the figure, the TRAX annual budget declined from 2008 to 2010, and then increased by more than 30 percent in 2011.

Measures of Efficiency and Effectiveness

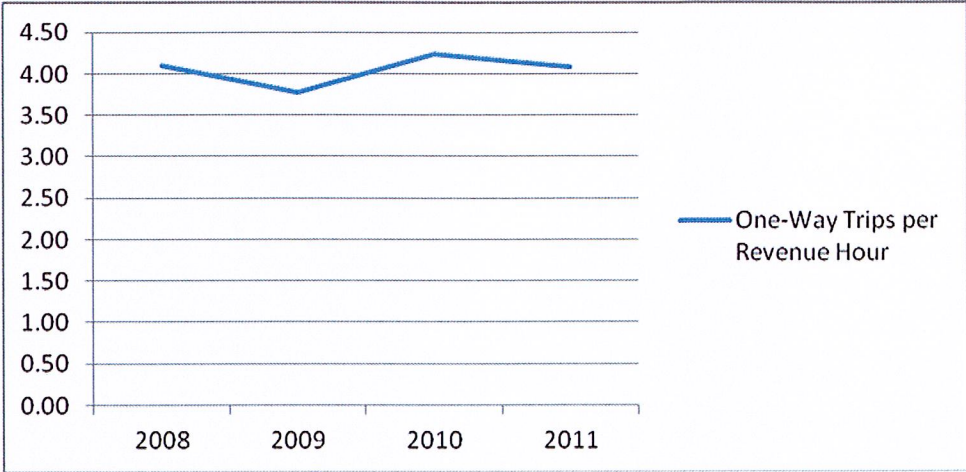
Performance measures indicative of service efficiency and effectiveness, as well as cost-effectiveness, are presented in Table 3. Each of these measures is discussed below and presented graphically.

Table 3: Selected TRAX Performance Measures, FY 2008 - FY 2011

Performance Measurement	2008	2009	2010	2011
One-Way Trips per Revenue Hour	4.10	3.78	4.24	4.09
One-Way Trips per Revenue Mile	0.34	0.30	0.36	0.35
Operating Cost per Trip	\$5.13	\$6.01	\$4.83	\$6.94
Operating Cost per Revenue Mile	\$1.72	\$1.81	\$1.73	\$2.44
Operating Cost per Revenue Hour	\$21.06	\$22.71	\$20.47	\$28.39
Farebox Recovery Ratio	3.18%	3.42%	3.21%	2.78%
Farebox and Contract Revenue as Percent of Total Operating Cost	25.05%	36.32%	38.96%	22.90%
Revenue Hours per Total Vehicle Hours	89.4%	93.7%	93.8%	94.0%

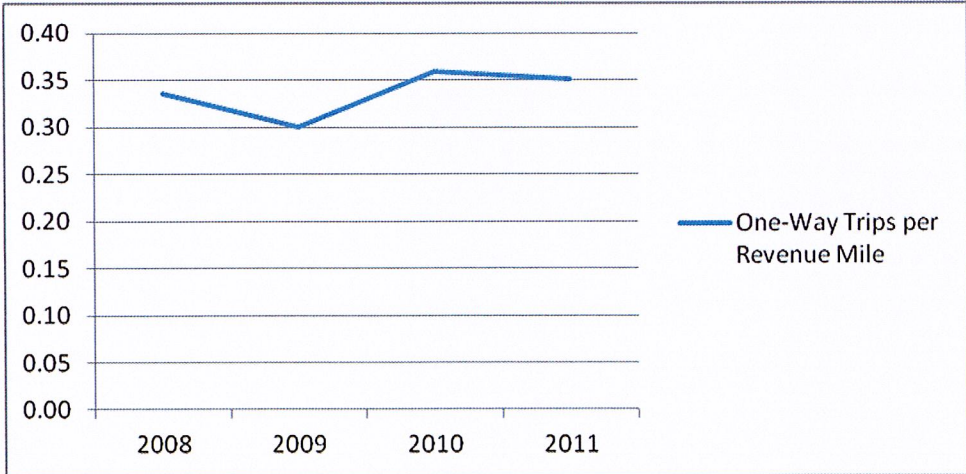
- One-Way Trips per Revenue Hour*** - This service effectiveness measure is often called “productivity,” and is calculated as total passenger trips or boardings divided by revenue vehicle hours (i.e., excluding deadhead hours). Service effectiveness indicators measure how well a transit system does in carrying passengers given its existing resources. As can be seen in the Figure 2, TRAX productivity has hovered close to 4 passengers per hour for each of the past four years, with a high point of 4.24 passengers per hour in FY 2010.

Figure 2: One-Way Trips per Revenue Hour (Productivity)



- **One-Way Trips per Revenue Mile** - Another service effectiveness measure, this is calculated as total passenger trips or boardings divided by revenue vehicle miles. As can be seen in the Figure 3, trips per revenue mile have remained relatively consistent, ranging from 0.3 to 0.36 passengers per mile for each of the past four years. The slight variations from one year to the next correlate directly with the productivity measures shown in Figure 3; in FY 2010 -- the year when TRAX's operating expenses were lowest, TRAX peaked in both service effectiveness measures.

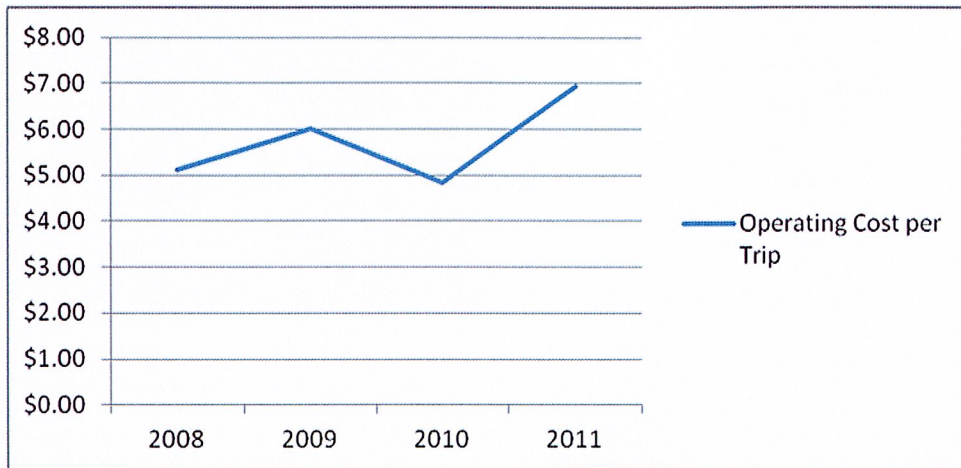
Figure 3: One-Way Trips per Revenue Mile



- **Operating Cost per Trip** - This cost effectiveness indicator measures the ability of a transit system to meet the demand for service given the system's existing

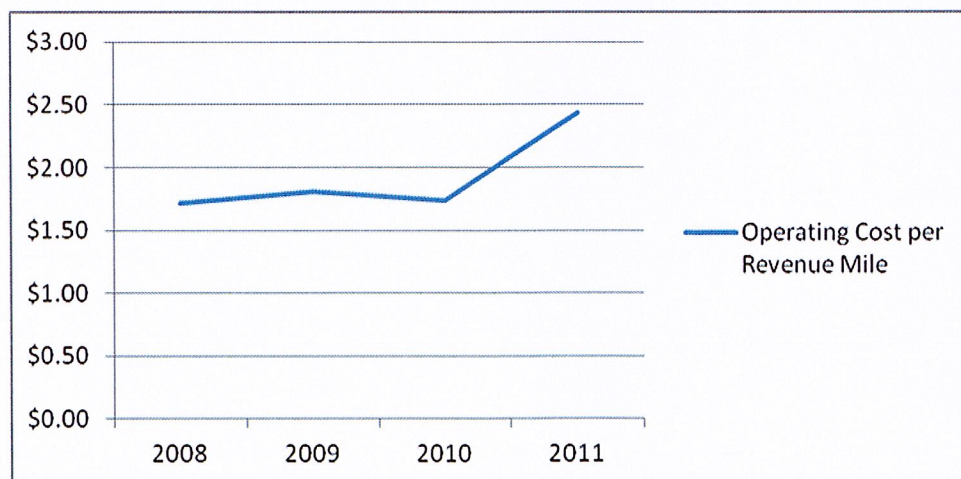
resources. It is calculated as total operating cost divided by the number of passenger trips carried. A passenger trip is defined as a passenger boarding. Figure 4 presents a graphical representation of this measure, which as ranged from just under \$5 to nearly \$7.00 over the past four years. The operating cost per trip was lowest (\$4.83) in FY 2010 and highest (\$6.94) in FY 2011.

Figure 4: Operating Cost per Trip



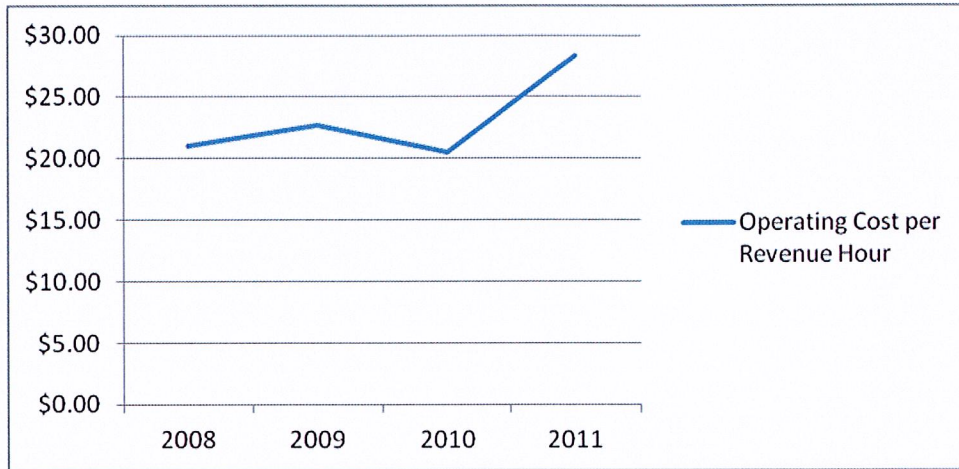
- **Operating Cost per Revenue Mile** - This is a cost efficiency indicator, which is essentially the cost of providing a unit of service. Measured as total operating cost divided by revenue vehicle miles, TRAX's per-mile costs were relatively stable during the first three years of the trend analysis, and then jumped by more than 40% in FY 2011, as shown in Figure 5.

Figure 5: Operating Cost per Revenue Mile



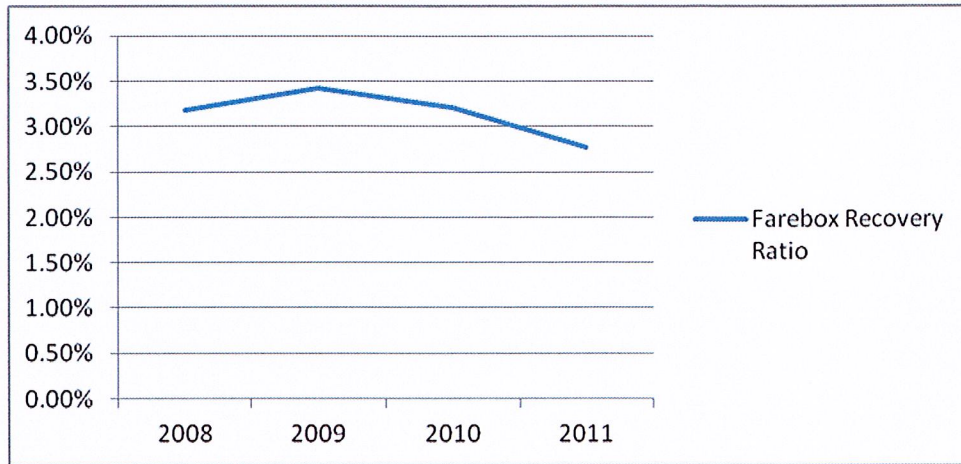
- **Operating Cost per Revenue Hour** - Another cost efficiency indicator, cost per revenue hour is measured as total operating cost divided by revenue vehicle hours. As shown in Figure 6, TRAX's cost per revenue hour correlates to the cost per mile, with a significant increase in unit costs in FY 2011 following three relatively stable years.

Figure 6: Operating Cost per Revenue Hour



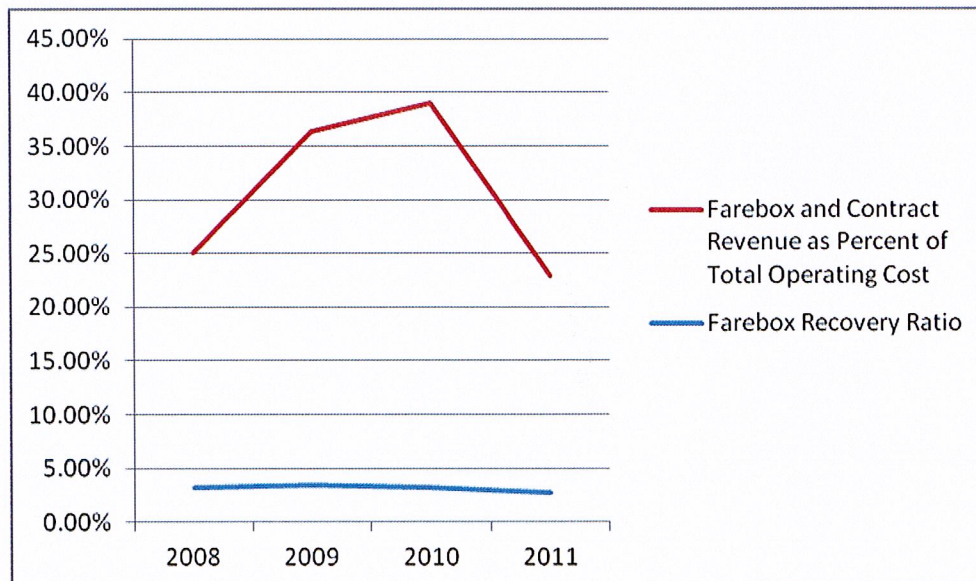
- **Farebox Recovery Ratio** - Farebox recovery is a cost effectiveness indicator that is measured as fare revenues divided by total operating cost. TRAX's performance in this area has declined slightly in each of the past two years, as shown in Figure 7. However, farebox recovery is typically a more meaningful measure in urban areas than in rural areas, where travel distances are long, typically resulting in higher costs per trip than in denser areas where people and travel destinations are in close proximity. A more meaningful measure for TRAX would include contract revenues, since many of the coordinated services provided by TRAX are funded by human service agencies on behalf of their clients.

Figure 7: Farebox Recovery Ratio



- **Farebox and Contract Revenue as Percent of Total Operating Cost** - This cost-effectiveness measure includes contract revenues from human service agencies, which may essentially pay a fare, or a more fully allocated cost, on behalf of their clients. This is an important measure for a rural coordinated transportation system, which may transport many more human service agency clients than general public riders. Figure 8 includes both this measure as well as farebox recover ratio, to show the significant role contract revenues play in TRAX's revenues. Contract revenues peaked in FY 2010 (together with fares, recovering nearly 40% of TRAX's operating costs) and then significantly dropped in FY 2011 (dipping to just under 23% together with fares).

Figure 8: Farebox and Contract Revenue as Percent of Total Operating Cost



- **Revenue Hours per Total Vehicle Hours** - This measure indicates the extent to which TRAX is using its vehicle fleet to provide revenue service (as opposed to deadhead or other non-revenue usage). TRAX has used its vehicles consistently efficiently (at approximately 94% in each of the past three years).

Comparison across Routes and Service Components

An attempt was made to gather performance measures for each route/service component of TRAX. Unfortunately these data are not available in a readily aggregatable form. The consultants reviewed the collection of data from the driver logs and there did not appear to be any inaccuracies in the sample reviewed.

PEER COMPARISON

In addition to the internal review of TRAX performance, TRAX's performance measures as well as other characteristics were compared with those of other regional rural transit systems in Texas. The purpose of the peer review is not to judge TRAX's efficiency or effectiveness, but rather to provide a range of performance measures that a transit system like TRAX might wish to use for benchmarking. The key to proper management to use the peer review to see if TRAX is within the range of reasonableness. Once this is established, TRAX should concentrate on measuring its performance to itself over time.

Peer Selection

Five peer systems were selected which share characteristics with TRAX such as size and population of service area, total fleet size, total annual budget, and types of services operated. The five peers used in this comparison are:

- **Alamo Area Council of Governments**, which operates **Alamo Regional Transit** (ART) in the following rural counties: Atascosa, Bandera, Comal, Frio, Gillespie, Guadalupe, Karnes, Kendall, Kerr, Medina, and Wilson. Service is provided within these 11 counties as well as to and from Bexar County and San Antonio, which are served by the Urban Transit District VIA Metropolitan Transit. ART services cover approximately 10,000 square miles with a fleet of 78 vehicles.

- **Capital Area Rural Transportation System (CARTS)**, a Rural Transit District (RTD) which serves counties of Bastrop, Blanco, Burnet, Caldwell, Fayette, Hays, Lee, and non-urbanized areas of Travis and Williamson. CARTS also operates commuter service to and from the Austin/Round Round urbanized area under contract to Capital Metro, and Medicaid transportation within the urbanized area as well as Llano County. CARTS services cover approximately 7,200 square miles with a fleet of 131 vehicles.
- **East Texas Council of Governments** which operates the **GoBus** in rural Anderson, Camp, Cherokee, Gregg, Harrison, Henderson, Marion, Panola, Rains, Rusk, Smith, Upshur, Van Zandt and Wood counties. Two small urbanized areas are located within the region: Longview and Tyler, both of which are served by their own municipal system or Urban Transit District. GoBus services cover approximately 9,600 square miles with a fleet of 57 vehicles.
- **Golden Crescent Regional Planning Commission** which operates **Rtransit** in rural Calhoun, DeWitt, Goliad, Gonzales, Jackson, Lavaca, and Victoria counties, as well as the S. 5307-funded Victoria Transit in the City of Victoria. Rtransit services cover approximately 6,000 square miles with a fleet of 48 vehicles.
- **Hill Country Transit**, which operates **The HOP** in the rural counties of Bell, Coryell, Hamilton, Lampasas, Llano, Mason, Milam, Mills, San Saba, as well as the urbanized areas of Killeen and Temple. The HOP's rural services cover approximately 8,300 square miles with a fleet of 61 vehicles.

Data Compiled

The data collected and performance measures calculated for the rural peer systems are presented in Table 4. The array of information compiled in this table includes:

- Service Area Characteristics
 - **Urbanized areas within the region**, identified for reference, but for the most part excluded from the data presented, as PTN-128 worksheets for S. 5311 were a primary data source. As noted in the table, an exception to this exclusion is service CARTS provides in the Austin/Round Rock area under contract to the designated recipients in the urbanized areas, contracted human service transportation
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(including Medicaid), and service in San Marcos which became an urbanized area with the 2010 Census, but was eligible for S. 5311 funding through June 2012. It is also likely that each of the other RTDs also provide limited service into urbanized areas for medical appointments and human service contracts.

- **Land area** of the S. 5311 service area (square miles of non-urbanized portions of the counties within each Rural Transit District's region). It is important to note that the transit service may not cover the entire land area reflected in these totals since not all square miles are populated (e.g. wilderness areas, national parks). Further, the RTDs generally do provide limited service into urbanized areas (e.g., to access regional medical destinations, or under contract to human service agencies). However, for the purposes of this peer comparison, the no-urbanized land area represents the relative size of each RTD's service area and provides a consistent means by which to calculate population density.
 - **2010 population** of S. 5311 service area (total persons living in the non-urbanized portions of the counties within each Rural Transit District's region).
 - **Density** of S. 5311 service area, calculated as persons per square mile. This measure provides a general indicator of how dispersed the population is across each RTD's service area, which impacts productivity.
 - **FY 2011 Operating and Financial Data** reported to TXDOT on PTN-128 worksheets for S. 5311 service. Data from S. 5307 PTN-128 Worksheets are not included.
 - Unlinked Passenger Trips
 - Revenue Vehicle Miles
 - Revenue Vehicle Hours
 - Operating Expenses
 - **FY 2011 Performance Measures** - The FY 2011 data were used to develop a set of basic performance measures for each peer, including:
 - One-Way Trips per Revenue Hour
 - One-Way Trips per Revenue Mile
 - Operating Cost per Trip
 - Operating Cost per Revenue Mile
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- Operating Cost per Revenue Hour
- Trips per Capita

- Organizational Capacity Characteristics
 - Vehicle fleet size
 - Maintenance approach (in-house, contracted or both)
 - Staff size, with a focus on the following functions: management supervision, dispatching, scheduling, and administrative

Comparison of Performance Measurements

TRAX compares quite favorably to the peer group in each basic performance indicator. As shown in Figures 9 and 10, TRAX carries by far the highest number of passengers per revenue hour and revenue mile among the group. While this is generally indicative of carrying a very high productivity, it could also potentially be indicative of under-counting revenue hours and revenue miles, although this does not appear to be the case based on other performance indicators described in the next paragraph.

Figure 9: Peer Comparison of Trips per Revenue Hour

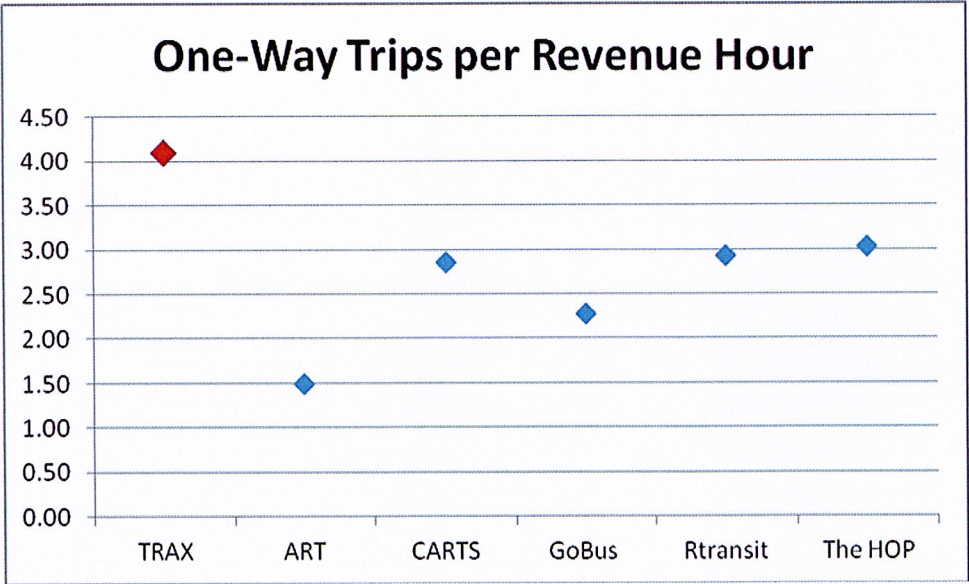
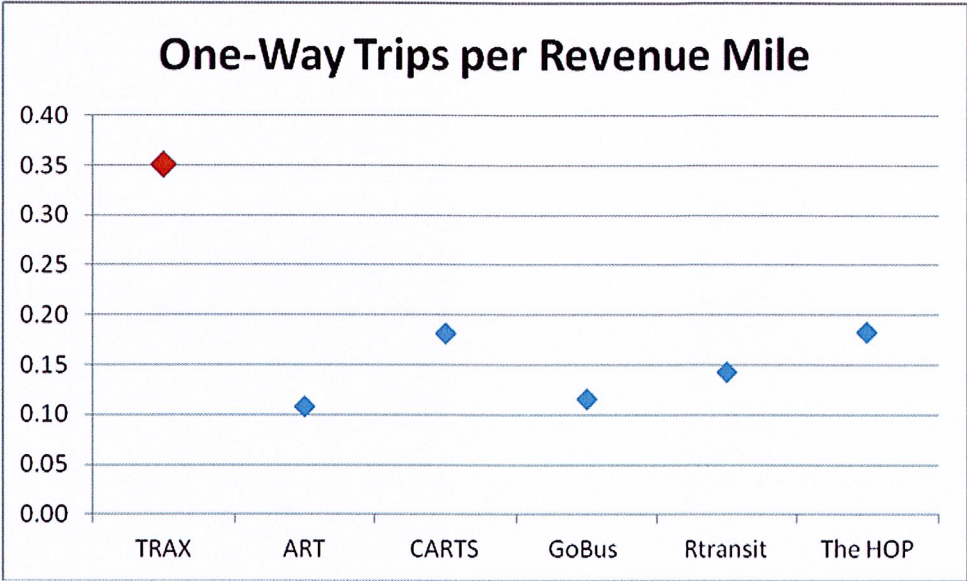


Figure 10: Peer Comparison of Trips per Revenue Mile



TRAX’s unit operating costs (Figures 11 and 12) support the idea that revenue hours and miles are not being under-counted. If they were, the cost per revenue hour and revenue mile would be much higher, when in fact TRAX unit costs are relatively low among its peers.

Figure 11: Peer Comparison of Operating Cost per Revenue Hour

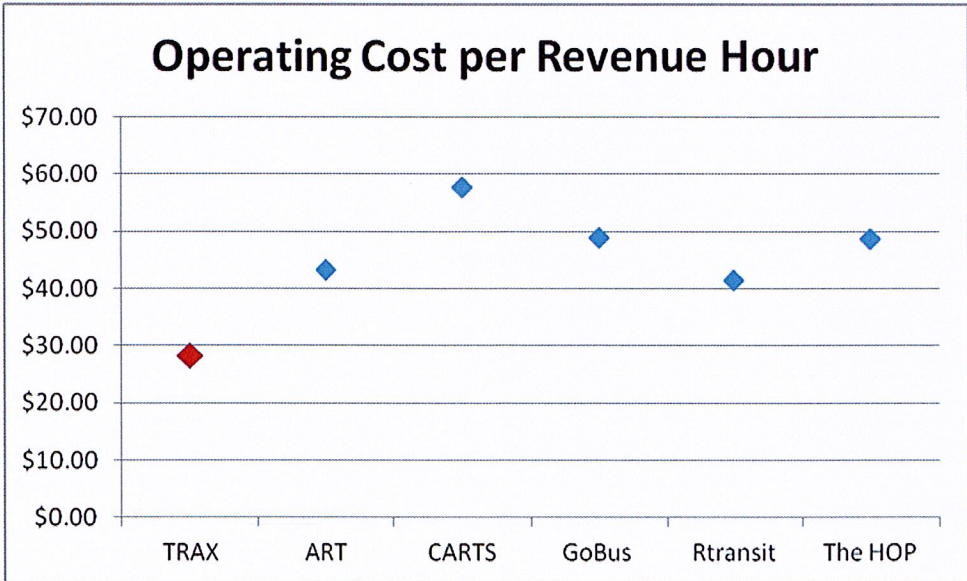
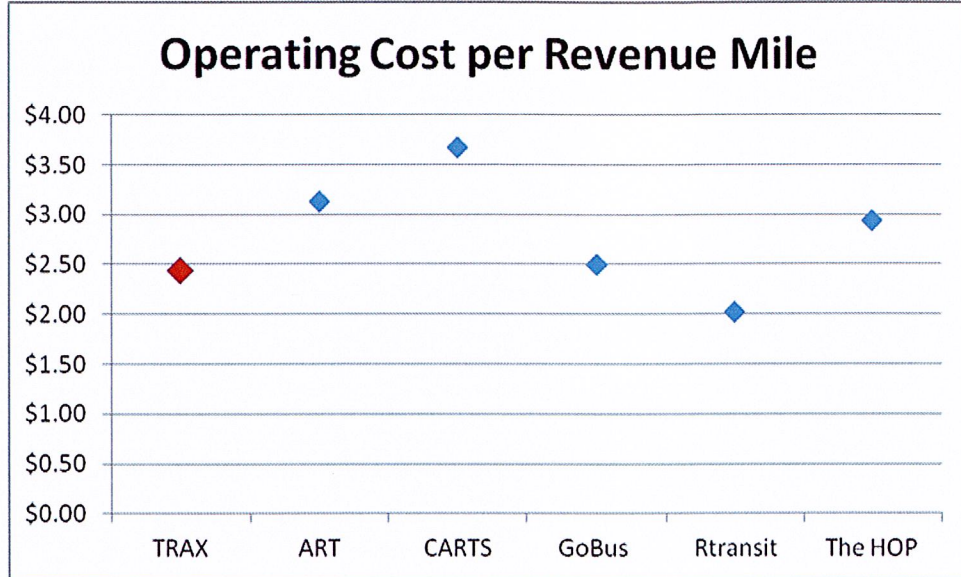
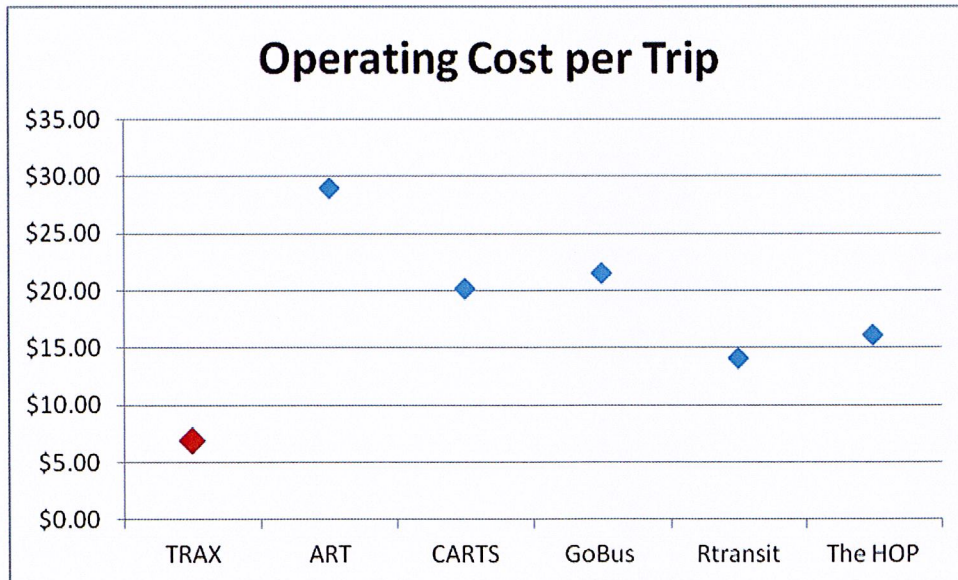


Figure 12: Peer Comparison of Operating Cost per Revenue Mile



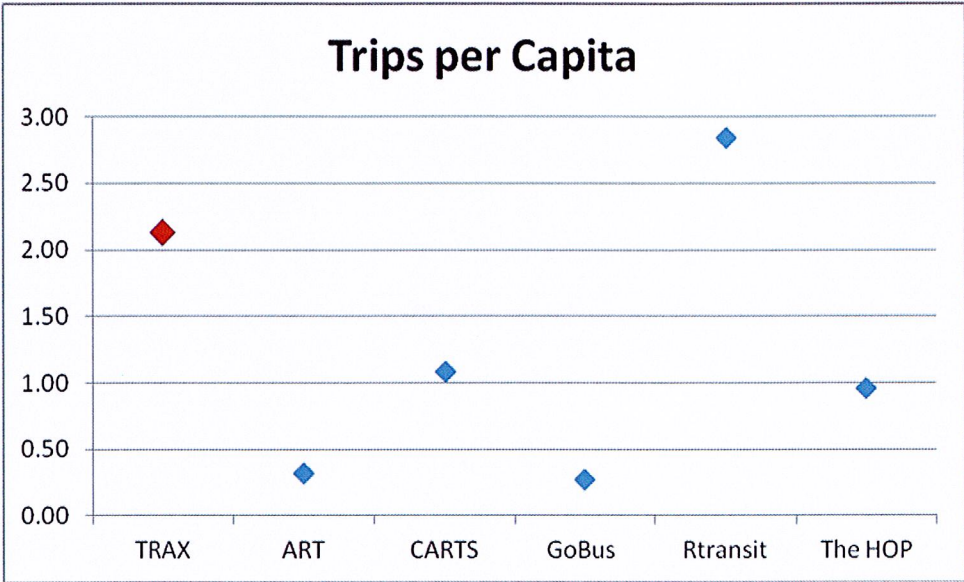
TRAX's cost per passenger trip is also quite low for a regional rural transit operator, as shown in Figure 13.

Figure 13: Peer Comparison of Operating Cost per Trip



Finally, TRAX’s relatively high number of passenger trips per capita (Figure 14) provides further evidence that TRAX is indeed providing a high volume of passenger trips while using its resources efficiently.

Figure 14: Peer Comparison of Trips per Capita



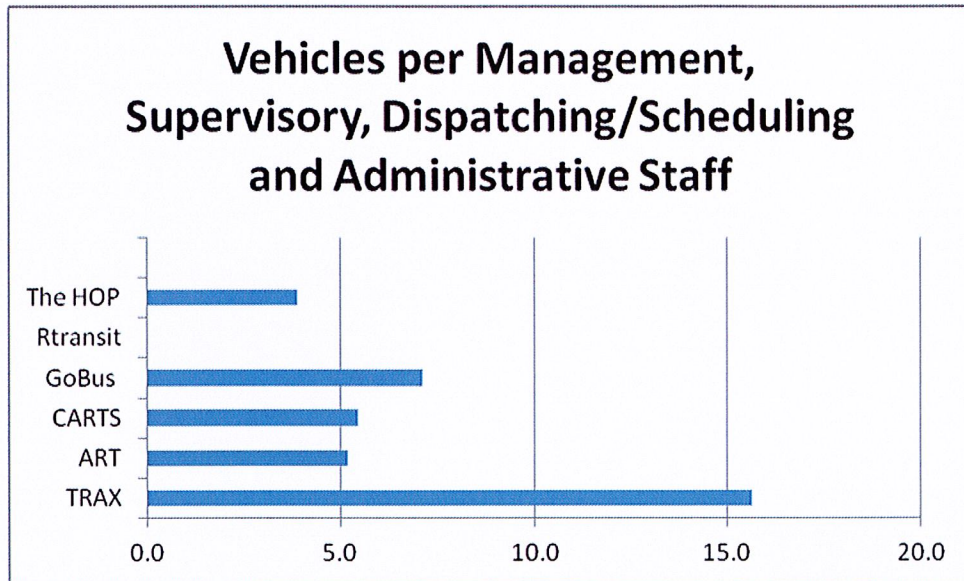
Comparison of Organizational Capacity Characteristics

As a general indicator of organizational capacity, vehicle-to-staff ratios were also developed for selected staff categories among the peer RTDs. The purpose of this measure is to indicate the general level of responsibility assigned each person relative to the size of the operation. An organization with a relatively high number of vehicles per staff person may be in effect spreading its staff too thinly to provide effective management and supervision, and/or to carry out the many administrative functions required for FTA funding recipients.

For the purpose of the peer comparison, the subtotal number of managers, supervisors, schedulers, dispatchers, and administrative support was calculated - essentially all transit program staff except for drivers and maintenance personnel (since several of the peers contract out portions of their operations in maintenance). This group of categories was subtotaled since some of these positions in one rural transit system may look very different from the positions in another rural transit system, as job responsibilities can shift depending on individual capabilities and experience. It is also common among rural transit programs that each member of the “office staff” wears many hats - the dispatcher may also be responsible for bookkeeping, the assistance manager or director may also serve as a driver supervisor, etc.

Figure 15 displays the results of the vehicles/staff ratio calculation. As can be seen in this chart, TRAX measurement in this analysis is more than double that of any of the peers for which data were available. This suggests that TRAX management/support personnel are “spread thinly” in comparison to the peer RTDs.

Figure 15: Peer Comparison of Vehicles per Management/Support Staff



This may also explain why TRAX unit costs are so low compared to its peers; TRAX has a relatively low level of “office staff” on the payroll.

Note that COG staff that are not part of the transit program, but which provide support to the transit program (such as Human Resources or Finance), are not included in this calculation.

OPERATIONS ASSESSMENT

Efficiency and Effective Use of Vehicles and Operations Staff

Key Performance Measures:

- One-way trips per revenue hour - 4.09
- Operating cost/revenue vehicle mile - \$2.44
- Operating cost/revenue hour - \$28.39

- Operating cost/passenger trip - \$6.94
- Trips on time/total trips - TRAX does not track on-time performance
- Unproductive/total hours - 6%
- Revenue hours/total vehicle hours - 94%
- Farebox revenue/operating cost - 2.78% excluding contracts

Reservations Scheduling and Dispatch

The consultants conducted a site visit to each of the four dispatch centers - Texarkana (ATCOG), Paris, Sulphur Springs, and Mt. Vernon (NETO). Two of the sites were using the paratransit software (Texarkana and Paris), while the other two systems were using a manual approach. The manual approach used in those two communities is the "block scheduling" approach, which is most appropriate. Operation of the software and other technology is good; however, TRAX is not taking advantage of their technology and instead maintains four dispatch sites.

It should be noted that most of the peer systems have one central dispatch site for all trips. This frees up staff and funding for more constructive purposes.

Service Design

As of November 2012, TRAX is in the middle of a transformation from a one on one demand response service to fixed route and fixed schedule services that have the capability to transport many more persons per vehicle hour.

Mt. Pleasant currently operates a fixed route. As of November 2012, routes are being implemented from Cass County and New Boston to Texarkana, as well as Mt. Pleasant to Paris. These routes are being implemented as fixed commuter/feeder routes that will follow a schedule. Fixed schedule services across the region will be next according to the coordinated plan.

Route Performance

Unfortunately, as of November 2012, there were no route/bus level data available, rendering a route by route analysis impossible. The consultants will work with TRAX to monitor these numbers immediately.

MANAGEMENT ASSESSMENT

Finance

Key Performance Measures:

- Administrative costs/operating costs - 13.3%

Revenue Generation

TRAX management tries to conduct the transit agency as a business, even though it is part of a Council of Governments, looking for new business opportunities wherever feasible. Historically, TRAX has been a contract provider of Medicaid transportation, which was by far its largest source of matching funds. When TRAX lost its Medicaid contract in FY2006, it was suddenly faced with a financial crisis. TRAX management embarked on a successful entrepreneurial approach to finding new sources of matching funds, including sponsorships from a major employer and a major retailer, as well as an innovative approach to tap into the discounts (typically 10% or 20% of labor) provided by its maintenance vendors for prompt payment of invoices. By paying promptly (typically required within 10 days), TRAX is able to apply this discount as in-kind local match for FTA funding. In FY 2011, TRAX gained \$261,000 in local match through the maintenance discounts.

The potential exists for TRAX to generate additional revenue through contracts to advertise on its vehicles (such as posters on board, or framed posters, decals, or “bus wraps” on the exterior). TRAX had previously had a bus decal advertisement with the Workforce Agency; the contract expired and was not renewed.

TRAX could also explore partnership/sponsorship opportunities with local news media. They have relationships with the Atlanta, Texarkana, New Boston, Paris, Mt. Pleasant and Sulphur Springs newspapers for posting public notices such as for public meetings, and the local radio station in Atlanta has had the TRAX director on the morning talk show to discuss the TRAX programs. In addition to public relations, TRAX may be able to enlist financial support. This could be take the form of sale of advertising space, sponsorship of/radio broadcast at special events, even sale of newspapers on board vehicles.

Financial Controls

Ark-Tex COG's financial controls are very sound, based on its most recent audit. The audit report for the year ended September 30, 2011, was free of any findings of weaknesses or deficiencies, with unqualified compliance for major grant programs.

One function of the transportation program which could benefit from additional controls is fare collection. In general, TRAX fares are distance-based, with \$1.00 for the first 10 miles, and another dollar for every consecutive 10 mile increment reached. For example, an 11-mile trip would be charged \$2.00, and a 63-mile trip would be charged \$7.00.

The TRAX fare policy is available on a printed brochure and will be integrated into the website on the next website update. Riders are informed about their individual fare each time they call to schedule a trip. This will intimidate riders. The vast majority of transit systems have set fares for all trips, so that riders know ahead of time what the cost will be.

Through an arrangement with the Area Agency on Aging, seniors aged 60 or more are not charged a fare, but donations are accepted (with a suggested donation of \$1.00). (The Area Agency on Aging then reimburses TRAX approximately \$6.00 per one-way trip for persons aged 60 and over. Other human service programs such as Opportunities, Inc. also reimburse TRAX for agency-related client trips.)

TRAX drivers accept fares paid by cash or check. They are collected in a zippered plastic money bag. This presents a security risk: drivers are at risk of being robbed, the organization is at risk of theft by drivers and anyone else who handles cash turned in by drivers, although the dollar amounts are likely to be low during any one shift. However, Ark-Tex COG should be aware that TRAX cash fare accounting is vulnerable.

General Management and Administration

Key Performance Measures:

- Administrative cost/revenue vehicle hours - \$3.78

As noted earlier, the number of vehicles per management/support staff member is relatively high for TRAX as compared to its peers. TRAX administrative cost per revenue vehicle hour is \$3.78 which is low compared to its peers. A low number is good, except when it impacts management's ability to perform all required functions.

Staffing Levels (Recruitment and Retention)

Key Performance Measures:

- Annual turnover in staff/total number of employees - 7.14% (10% of drivers)

Ark-Tex COG currently employs 22 individuals for the TRAX program:

- A director, who is responsible for grant writing, general management and oversight, and policy determination.
- A transportation coordinator, who supervises operations, administrative and maintenance staff. This position is also responsible for public outreach.
- An administrative assistant/Mobility Manager who assists the director and coordinator in mobility management functions.
- An office administrative specialist who is responsible for answering telephones, organizing, filing, data entry, and stocking.
- Two dispatchers who take trip requests, schedule trips, dispatch drivers, and enter data. The senior dispatcher is also responsible for new hire driver training.
- 15 drivers who operate TRAX's vehicles to transport passengers.
- A maintenance specialist who maintains TRAX's vehicles with a focus on preventative maintenance. (Some maintenance functions are provided by contracted maintenance vendors.)

The TRAX system is further staffed by the contract operator NETO. (*Information has not yet been provided on NETO's staffing levels.*)

In the past two years, TRAX has needed to replace three drivers, which means the annual turnover rate among drivers is approximately 10%. No other staff members have been replaced during this period. The overall turnover rate is approximately 7%. One new position (the office administrative specialist) was added.

As noted under the peer comparison, TRAX has a relatively high number of vehicles per management/support personnel, suggesting that non-driving staff may be more thinly spread than other peer RTDs. This limits management and administrative staff time to deal with revenue generation, planning for service improvements, staff development, conducting projects, expanding services, and any unexpected issues that may periodically emerge.

Safety & Training

Key Performance Measures:

- Vehicle miles/accident - 128,710
- Vehicle hours/accident - 11,189
- Vehicle miles/other incident - 429,032

The key measures listed above reflect the total system, including both in-house operations and service contracted from NETO. Table 5 details safety-related performance measures for TRAX in FY 2011, including a breakdown between COG-operated services and NETO-operated services.

Table 5: Safety-Related Performance Measures

FY 2011 Data	TRAX service operated in-house	Service contracted from NETO	System Total
Accidents - Total	2	8	10
Accidents - Preventable	1	5	6
Other Incidents - Total	0	3	3
Other Incidents - Preventable	0	2	2

Driver Training

All new drivers receive two days (16 hours) of Passenger Service and Safety (PASS) classroom training and approximately 4 hours of behind-the-wheel training. PASS is the Community Transportation Association of America's driver training certification program.

Topics covered in TRAX's new-hire driver training include professionalism, customer service, communications, sensitivity toward and safely assisting people with disabilities, the Americans with Disabilities Act, lift operations, mobility device securement, transporting seniors, sexual harassment, accidents and emergencies, bloodborne pathogens safety, and vehicle operations. Behind-the-wheel training includes hands on practice with customers who use wheelchairs and trainer observation of the trainee's driving.

Veteran drivers receive PASS, First Aid and CPR review training every two years.

Hiring Practices

A criminal background check and a pre-employment drug test are conducted before TRAX hires a new driver.

Vendor Oversight

TRAX conducts training for NETO (contractor) drivers and oversees most aspects of the program. All accidents and incidents are reported as are all ridership numbers. The Operations Manager monitors their service on a daily basis.

Daily post-trip inspections are conducted by the coordinator or senior dispatcher. The most common finding is that buses are not kept clean and driver logs are not filled out correctly.

If complaints occur, the coordinator documents the complaint and personally calls the customer to resolve the issue. As the driver and dispatcher supervisor, the coordinator is also responsible for following through with staff as needed.

Beyond these practices, TRAX does not have quality assurance policies or procedures in place.

A recommendation for any transit system is for managers, supervisors, and/or “mystery riders” to periodically ride revenue service and observe driver behavior.

Summary of Management Assessment Findings:

- ***Strengths - TRAX's strength lies in its ridership numbers, and its ability to innovate and seize opportunities, generate revenue and maintain a stable workforce.***
- ***Weaknesses - Not enough management/administrative staff to keep up with reports, day to day service needs, safety and monitoring service.***
- ***Opportunities - TRAX has taken advantage of its opportunities in the past. New opportunities include: additional Greyhound feeder service, more job access and new fixed routes. In addition, there are expansion opportunities into Arkansas***

FARE POLICY

Current Fare Policy

In general, for persons under 60, TRAX general public fares are distance-based, with \$1.00 for the first 10 miles, and another dollar for every consecutive 10 mile increment reached. For persons 60 and older, donations are accepted, with a suggested donation of \$1.00. The TRAX fare policy has not changed in the history of the service.

As noted earlier, TRAX has not yet published its fare policy on the website. Though there is a brochure and an internal policy, fare information is most often provided when a ride is scheduled. The current policy is summarized in Table 6.

Table 6: Current TRAX Fare Policy Summary

One-way Trip Distance (determined by TRAX office when ride is scheduled)	General Public Fare (under age 60)
Up to 10 miles	\$1.00
10.1 to 20 miles	\$2.00
20.1 to 30 miles	\$3.00
30.1 to 40 miles	\$4.00
Etc.	\$1.00 for each additional 10-mile increment
Donations are accepted for persons aged 60 and older. Suggested donation is \$1.00.	

Farebox Recovery Goals

In FY 2011, TRAX general public fare revenues (\$82,885) amounted to 2.78% of total operating costs (\$2,984,901). However, this percentage does not include contract revenues received through human service agency contracts, which totaled \$600,604 in FY 2011 (\$333,338 in excluding FTA S. 5310, S.5316 and S.5317 programs).

Human service contract revenue can be equivalent to fare revenue, in terms of overall cost recovery, for rural public transportation systems that provide coordinated human service transportation. TRAX's contract cost recovery in FY 2011 amounted to slightly more than 20% (or 11.2% excluding FTA S. 5310, S.5316 and S.5317 programs). Thus farebox plus contract cost recovery totaled about 23% of total costs (or 14% excluding FTA S. 5310, S.5316 and S.5317 programs).

TRAX provided a total of 102,786 contracted passenger trips (69,666 excluding FTA S. S.5316 and S.5317 programs; no S. 5311 trips were reported for FY 2011). Based on TRAX's average system-wide operating cost per trip in FY 2011 of \$6.94, it cost TRAX an estimated \$713,504 to provide the contracted trips (\$483,597 excluding FTA S. 5310, S.5316 and S.5317 programs). This means that, on average, does not appear to be fully recovering operating costs of contracted services.

It is recommended that TRAX establish several goals related to cost recovery:

- **Farebox recovery:** percentage of overall operating costs recovered through the farebox. Based on the 2010 Rural National Transit Database, on average, rural demand-response systems within Texas recovered about 4% of their operating costs through the farebox.¹ At the national level, the average farebox recovery ratio for rural demand-response systems was approximately 7%.² Also nationally, 80% of rural demand-response systems had farebox recovery ratios within a range of 2% to 21%.³ While TRAX's farebox recovery falls within this typical range, it falls at the low end of this range. TRAX may wish to consider aiming for a higher farebox recovery, such as 4%.
- **Cost recovery for contracted services:** TRAX should aim to recover 100% of costs for service provided under contract to other organizations, so that TRAX's other funding sources are not subsidizing contracted services. TRAX's average system-wide operating cost per trip in FY 2011 was \$6.94; thus, a suggested overall cost recovery goal for contracted services would be at least \$6.94 per trip in FY 2012.

Pricing to Maximize Revenues - Relationship of Price and Demand

To some extent, fare levels influence ridership. In general, charging a higher fare will decrease the demand, while lowering fares will increase ridership, if all other conditions are equal. Determining the optimum fare for maximizing fare revenue is a balancing act and can vary based on current market conditions, including the type and quality of transit service available, the local economic conditions, and any alternative

¹ *Rural Transit Fact Book 2012*, Small Urban & Rural Transit Center within the Upper Great Plains Transportation Institute at North Dakota State University p. 28.

² *Rural Transit Fact Book 2012*, p. 19, Table 25.

³ *Rural Transit Fact Book 2012*, p. 20, Table 26.

transportation services in the area. In rural areas, where no transportation alternatives exist and a high percentage of the population may depend on transit, a transit system can raise its fares to some degree without reducing demand. Affordability of the service is likely to be the most significant factor for most rural transit riders, who are likely to depend on the service because they cannot afford other alternatives.

TRAX fares are relative low for a rural demand-response public transit system. Table 7 presents the one-way general public fare structures, as charged to most adults for a single trip, for the five peer systems included in the peer comparison.

Table 7: Examples of Rural General Public Fares of Other Texas Systems

Peer System	One-way General Public Fare
CARTS	Zone 1 - City - Trips wholly within a town or city - \$2.00 Zone 2 - Intra-county - Trips originating and ending within the same county - \$4.00 Zone 3 - Inter-county - Trips with destinations outside the county of origin - \$6.00
ART	In Town - \$2.00 In Same County - \$6.00 One County Over - \$8.00 Two Counties Over - \$12.00
Go Bus	Local Service - \$2.00 Out of County - \$5.00
The Hop	0 - 10 miles - \$1.00 11 - 25 miles - \$3.00 26 - 50 miles - \$6.00 Etc. - plus \$3.00 each additional 25 mile increment
R Transit	0-5 miles - \$1.00 6-10 miles - \$2.00 11-15 miles - \$3.00 16-20 miles - \$4.00 21-45 miles - \$5.00 45-65 miles - \$10.00 Over 65 miles - \$0.35 per mile Additional Stops - \$0.75

Source: Websites of above transit systems, accessed 9/5/12.

Pricing Structure

A distance-based fare is generally recommended for rural general public service with a large coverage area, such as that of TRAX. TRAX's 10-mile increment is a mystery to many riders who do not know the distance, leaving some people intimidated. While distance based fares are good, it would be better if it was based on jurisdictional boundaries crossed (e.g., the lowest fare within a single town, a higher fare to travel between towns within a single county, and higher fares to travel between counties). This pricing structure is relatively simple to implement since customers and transit staff do not have to calculate trip distances in miles. However, this structure would be disadvantageous for a customer taking a relatively short trip that crosses county borders. However fares can be adjusted for this. This a more straightforward approach, easy to explain to customers and reflective of the increased cost to operate long trips.

TRAX's fare policy should be published and made available to the public on its website and any printed brochures. Fares should be based on destination location. For example, in Red River County, local fares could be \$1.00, trips within the county could be \$2.00, and other common destinations would be priced as well. Fares to common out of town destinations, such as Texarkana or Paris, could be \$4.00. Fares should be delineated for each county as will be described in a subsequent technical memorandum.

Reduced Fares for Particular Populations

In accordance with an agreement with the Area Agency on Aging (which reimburses TRAX approximately \$6.00 per one-way trip for persons aged 60 and over), TRAX does not charge fares from seniors. Instead, a donation of \$1.00 is suggested. Given the level of AAA support and the current cost per trip, the recommended donation level appears to be adequate.

Because TRAX operates on a demand-response basis at a low rate of farebox recovery, reduced fares are not advised for other demographic groups, since every passenger trip delivered incrementally increases operating costs, so any discounted ridership group would increase the amount of subsidy needed.

Should TRAX choose to implement a fixed-route or route-deviation service - which is operated in the same schedule regardless of the number of riders - reduced fares for people with disabilities and youth/students would be advised to help general additional ridership on the fixed route.

Promotional Fares for Marketing Campaigns

As noted for reduced fares, because TRAX operates on a demand-response basis at a low rate of farebox recovery, every passenger trip delivered incrementally increases operating costs and the amount of subsidy needed, so promotional fares are not advised. Promotional fares to attract additional ridership would only be advised in the event that TRAX implements a fixed-route or route-deviation service.

Fare Media and Collection Procedures

TRAX drivers accept fares paid by cash or check. They are collected in a zippered plastic money bag. As noted earlier, having drivers handle cash presents something of a security risk.

TRAX could reduce the risk by installing locked fareboxes on vehicles, although this would require staff time and access to secure facilities to pull farebox vaults each night. Also, depending upon the amount of cash collected, the degree of risk may be considered minor.

TRAX could also reduce the amount of currency handled by drivers by selling books of tickets valued in dollar or trip increments. For example, TRAX could sell a book of 20 tickets valued at \$1.00 each for \$20. Monthly passes will also help for recurring riders.

Periodic Review of Fare Policy

TRAX management and policy-makers are encouraged to review the fare policy at least every five years, and consider raising fares periodically to reflect increasing operating expenses and farebox recovery goals.

TRAX should determine its average cost per trip at least annually and adjust its contract trip rates to ensure full cost recovery for contracted service.

LOOKING AHEAD

Many coordinated transit activities are currently being carried out and are planned for 2013. The 2013 Coordinated Plan Update will include the recently completed Human Service Origin and Destination Study, the T Line Bus Stop Facility Assessment, and the T Line Boarding and Alighting Study.