



PTN-128 Reporting Manual

**Texas Transit Provider
Performance Reporting**

Sponsored by
Texas Department of Transportation

**Fiscal Year 2009
Reporting Manual**



The Texas A&M University System • College Station, Texas 77843

Table of Contents

PTN-128 – WHAT, WHY AND WHO	5
What is the PTN-128	7
Why Report	7
Who Reports	7
Direct Operation	8
Purchased Transportation	8
 HOW TO REPORT – OPERATING DATA	 13
Hours and Miles	17
What is meant by the term “Revenue” service?	19
1. Fixed Route Service	20
2. Demand Response Service	20
3. Route Deviation	21
What is meant by the term “Total” service?	21
Definition of Deadhead	21
What is meant by the term “Actual”?	22
Calculating Hours and Miles	26
Collecting Hours and Miles Data	27
 Unlinked Passenger Trips (Boardings).....	 31
Unlinked Passenger Trips (Boardings) Definition	33
Calculating Passenger Trips	34
Collecting Passenger Trips	35
 Management Statistics and Graphs – Miles, Hours and Unlinked Passenger Trips.....	 41
Deadhead Ratio	44
System Speed	45
Average Weekly Passenger Trips	47
Passengers per Revenue Mile	48
Passengers per Revenue Hour	49
 Revenue Vehicles and Mechanical Failures	 51
Revenue Vehicles	53
Peak Vehicles	54
 Mechanical Failures	 54
Major Mechanical Failures	54
Other Mechanical Failures	54
 Management Statistics – Vehicles and Mechanical Failures	 59
Spare Ratio	61
Revenue Miles Between Failure	61
 HOW TO REPORT – FINANCIAL DATA	 65
Revenues	71
Revenue Concepts	71
Accrual Accounting - Revenues	71

Bonds and Loans 71
General Revenue Reporting Concepts 71

Revenue Categories..... 74
5307 and 5311 Federal Revenues 76
5307 and 5311 State Revenues..... 76
5309 Capital Revenues 76
5307 & 5311 Contract Revenues 76
Local Revenues 76
 1. Passenger Fares 77
 2. Direct Transit Funds..... 77
 3. Indirect Transit Funds 81
Contract Revenues 82

Expenses 85
Expense Concepts 87
 Accrual Accounting - Expenses 87
 Operating Expenses Eligible for Capital Reimbursements 87
 Reporting Contributed Services in Expenses 87
Operational Expense Categories 88
 Operating Expenses 90
 Maintenance Expenses 90
 Non-vehicle Maintenance 91
 Administrative Expenses 92
 Planning Expenses..... 92
 Purchased Transportation Expenses 93
Capital Expenses (mandatory reporting requirement) 97

Management Statistics and Graphs - Financial Data 105
 Operating Cost per Passenger Trip 108
 Operating Cost per Revenue Hour 109
 Operating Cost per Revenue Mile..... 110
 Farebox Recovery Ratio..... 111
 Subsidy per Passenger 111

PTN-128 BREAKOUT SHEET – SECTION 5310, JARC, NEW FREEDOM 113

PTN-128 WEB SYSTEM INSTRUCTIONS 119

WHAT IS THE FUNDING FORMULA? 123

PTN-128 PTC CHECK SHEET 129

PTN-128 – WHAT, WHY AND WHO

What is the PTN-128

The PTN-128 is the Texas Department of Transportation (TxDOT) Public Transportation Division (PTN) mechanism for reporting uniform public transit data to the state. All federal and state funded transit providers are required to submit data to TxDOT PTN. The PTN-128 is a reporting system to provide for consistency of data, to ease the data entry and review process, to provide a mechanism for quality control and for use as a management tool.

The PTN-128 data consist of selected financial and operating data that describe public transportation characteristics and is divided into two sections:

1. Main data worksheet for all services
 - A. Hours, Miles, Passengers
 - B. Revenues
 - C. Expenses
 - D. Vehicles & Vehicle Failures
2. Breakout data worksheet for Job Access Reverse Commute (JARC) service, Section 5310 operating data and New Freedom service (*data for these services are first included in the Main data worksheet*)

Reports are provided via download to an Excel spreadsheet and include the following:

- Monthly data with year-to-date totals
- Variances from previous year
- Quarterly summaries
- Trend graphs

Why Report

The submittal of public transportation data is important as data is used as a means to allocate funding, communicate performance, and provide accountability:

- Rural transit districts and urban transit districts are allocated funds by funding formula based on the PTN-128 performance data. Urban and rural transit districts are defined in Texas Transportation Code Chapter 458. See section entitled “What is the Funding Formula” of this manual further describing the funding formula.
- Annual PTN-128 data is used to create reports to communicate Texas’ need for public transportation, showing that dollars are used effectively and efficiently, and supporting the need for further public transportation funding.
- As a grant recipient, data reporting is required of designated recipients of public transportation funds as a measure of performance accountability.

Who Reports

Transit providers that are designated recipients of transportation funds are required to report data regardless of whether they directly operate or purchase their transit services. The designated recipient reports all of the service they provide or purchase. This includes all general public transportation and all contract transportation. All services should be counted in order that the state will have a comprehensive summary of transit provided in Texas; and in order that all services are counted in the provider’s performance data.

To avoid double counting of data at the state level, what data categories are reported differs if a transit district purchases service. To clarify the reporting requirements, this section describes three categories of transit providers and the data reporting requirements of each.

Direct Operation

Category 1:

Direct operators are defined as operators that directly provide transportation service using their employees to supply the necessary labor to operate the revenue vehicles.

Designated recipients that directly operate transportation service shall report all operating and financial data associated with providing the service. Designated recipients that are direct operators of service are considered to be a “Category 1” (see Chart 1).

Purchased Transportation

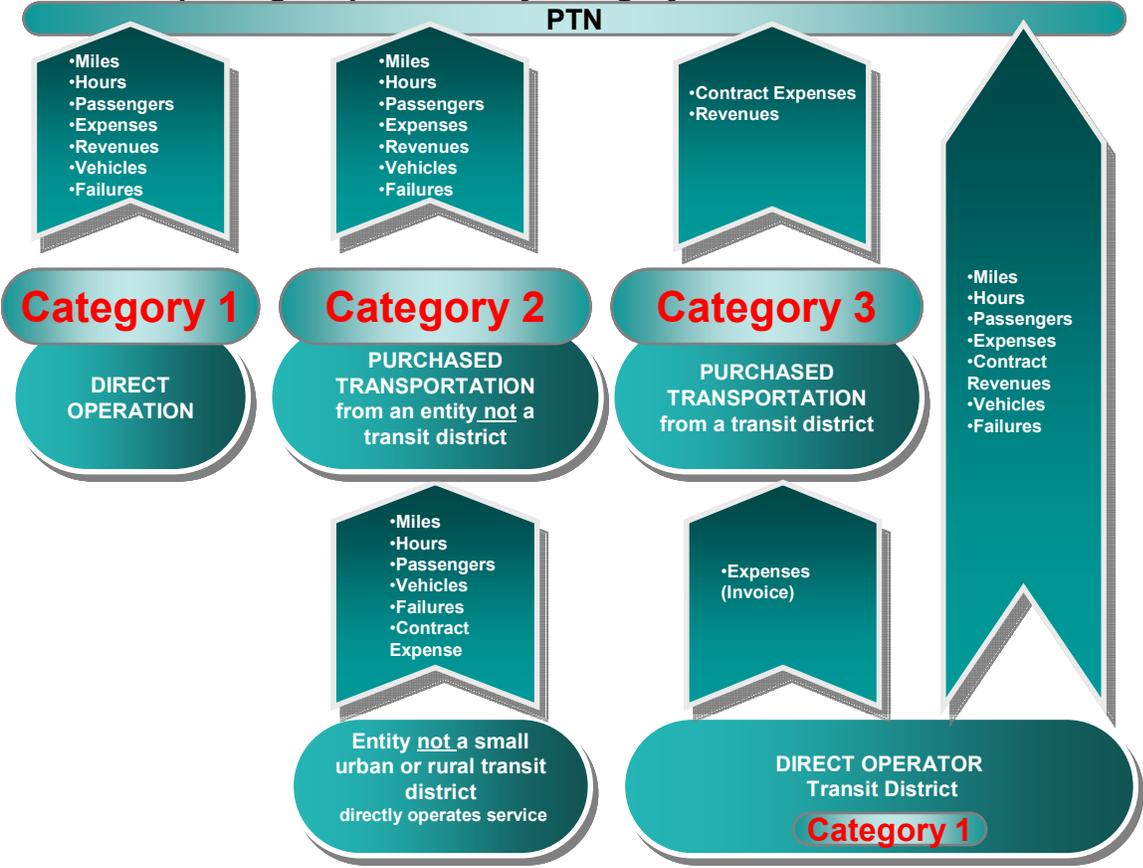
Category 2:

Designated recipients purchasing transportation from entities *other than a rural or urban transit district* are considered to be a “Category 2” for purposes of reporting (see Chart 1). Purchased transportation may be from private, non-profit and some public transit providers including entities such as taxicab companies, Section 5310 recipients, and Metropolitan Transit Authorities. Designated recipients purchasing transportation from other than a rural or urban transit district shall report all operating and financial data associated with the purchased service.

Category 3:

Designated recipients purchasing transportation *from rural or urban transit districts* are considered to be a “Category 3” for purposes of reporting (see Chart 1). Designated recipients purchasing transportation from a rural or urban transit district shall report the financial data associated with the purchased service (revenues received and expenses incurred). *A Category 3 provider does not report the operating data because the rural or urban transit district that is directly operating the service will report the operating data associated with the service.* This reporting requirement prevents the double counting of operating data at the state level. A listing of current rural and urban transit districts may be found on the TxDOT web site.

Chart 1. Reporting Requirement by Category



Assess your Understanding – Who Reports and What to Report

- A. If you purchase service from a taxicab company, which category would you fall into?
- B. If you purchase service from a rural transit district, which category would you fall into?
- C. If you directly operate the transit service, which category would you fall into?
- D. If you are an urban transit district and purchase service from the Red Cross your area's Section 5310 provider, who reports the operational data (miles, hours, passengers) to TxDOT PTN?
- E. If you are an urban transit district and purchase service from a rural transit district, who reports the operational data to TxDOT PTN?

Answers on following page

Who Reports and What to Report Answers:

- A. Category 2
- B. Category 3
- C. Category 1
- D. The Section 5310 provider is not an urban or rural transit district; therefore, this is a Category 2 relationship. As the urban transit district, the Red Cross would provide you with the operational data and you would report the operational data to TxDOT PTN (see Chart 1).
- E. Because a transit district is purchasing service from another transit district, this is a Category 3 relationship. The rural transit district directly operating the service reports the operational data (see Chart 1).

HOW TO REPORT – OPERATING **DATA**

How to Report

Reporting data is a function of understanding data definitions, how to collect data according to definition, and how to determine the accuracy of the data. Operating data is discussed in this section and financial data will be discussed in the following section.

Operating Data Reporting

Operating data includes data that describes the service. The objectives of the operating data reporting section of the PTN-128 are to report the service supply (miles, hours and vehicles), service consumed (passenger boarding and miles) and quality of service (vehicle failures). This section will provide data definitions, collection methods, quality control and assurance.

Hours and Miles

Hours and Miles

This section first provides a general discussion of the concepts relevant for reporting service supply data. Understanding the measures of service supplied and their components (fixed route, demand response, deadhead, layover/recovery) will help determine how to collect and report data. The basic concepts addressed are:

- Revenue service
- Deadhead
- Total service
- Scheduled and actual service¹

The PTN-128 report requires the following hours and miles to be reported monthly:

- Actual Vehicle Hours:
 - Revenue
 - Total
- Actual Vehicle Miles:
 - Revenue
 - Total Miles

PTN-128 Worksheet -				
		SEP	OCT	NOV
Actual Vehicle Hours				
Revenue		3,842	2,259	2,273
Total Vehicle		4,441	2,588	2,597
Deadhead Hours		599	329	324
Deadhead Ratio		13.5%	12.7%	12.5%
Actual Vehicle Miles				
Revenue		43,579	39,834	42,465
Total Vehicle		50,995	46,986	49,496
Deadhead Miles		7,416	7,152	7,031
Deadhead Ratio		14.5%	15.2%	14.2%
System Speed:				
Revenue		11.3	17.6	18.7
Total		11.5	18.2	19.1
Deadhead		12.4	21.7	21.7

What is meant by the term “Revenue” service?

Definition of Revenue Service

Revenue service is when the transit vehicle is providing transportation and is available to carry passengers. Revenue service is measured in hours and miles. Revenue service is not associated with collection of fares. Vehicles operating in fare free service are considered in revenue service.¹

¹ Adapted from National Transit Database (NTD) Form S-10, www.ntdprograms.gov

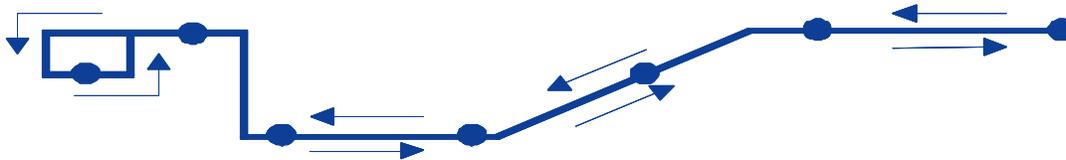
Revenue service is defined for:

1. Fixed Route
2. Demand Response
3. Flexible Route / Route Deviation

1. Fixed Route Service

Definition of Fixed Route Service

Fixed Route Service is service that operates vehicles along specific routes. Passengers board and alight at designated stops along the route according to a preset schedule.



Fixed Route revenue service is comprised of two elements:

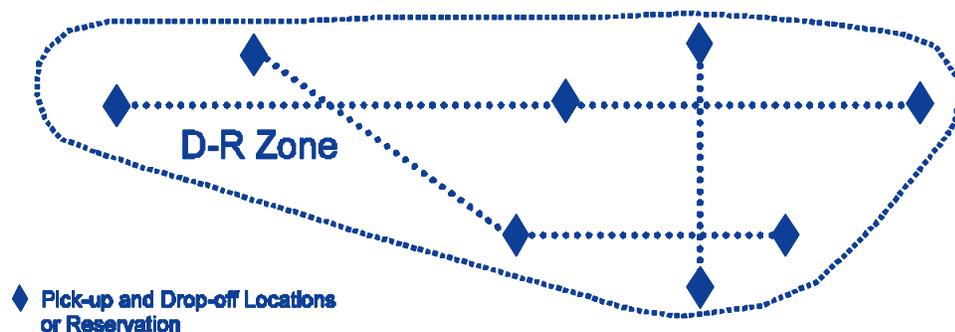
1. Running Time – the time it takes the transit vehicle to travel from the beginning to the end of the transit route. The passenger timetable typically shows the running times for all trips operated by a transit agency, and
2. Layover /Recovery Time – the time typically is scheduled at the end of each trip and usually ranges from 10 to 20 percent of the running time. The time is scheduled to provide the transit operator a rest break and to provide an opportunity to get the transit service back on schedule.

Fixed Route revenue service is calculated adding together the running time and layover/recovery time. A common error is to not include the layover/recovery time as revenue service. Notice the definition of revenue service states “is available to carry passengers;” therefore the vehicle is still considered in revenue service even when not carrying passengers on its route.

2. Demand Response Service

Definition of Demand Response Service

Demand-response transit services operate using a reservation system. Passengers call in advance and can request a curbside pick-up and drop-off at their origin and destination. To be effective, demand-response transit may be operated within a limited area or zone or be limited to specific target markets (i.e. seniors, persons with disabilities).

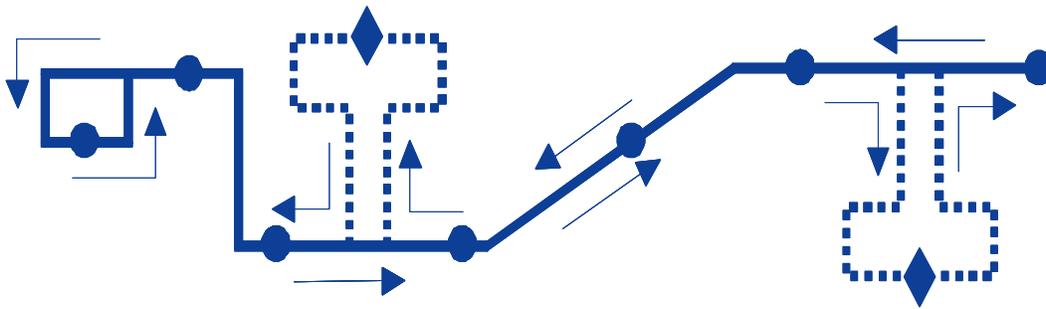


Demand response revenue service includes all travel and time from the point of the first passenger pick-up to the last passenger drop-off, as long as the vehicle does not return to the garage [to go out of service]. The time a driver is out of service for a lunch break is not included in revenue service hours. Notice the definition of revenue service states “is available to carry passengers;” therefore the vehicle is still considered in revenue service even when not carrying passengers on its route.

3. Route Deviation

Definition of Route Deviation Service

A route deviation transit system is a “hybrid” configuration adapting features of both a fixed route and demand response system. Route deviation operates on a fixed route; however, vehicles can deviate from the route to pick up and drop off passengers who have made advanced reservations or given advance notice similar to demand response service. The vehicle then returns at the point at which it departed to accommodate the request.



Deviated Route Revenue Service

The Federal Transportation Administration (FTA) treats deviated routes as demand response²; therefore, revenue service is calculated the same as demand response service including all travel and time from the point of the first passenger pick-up to the last passenger drop-off. Therefore deviations from the fixed route portion of the route should be included in revenue service.

What is meant by the term “Total” service?

Total service covers the time from when a transit *vehicle* starts (pull-out time) from a garage to go into revenue service to the time it returns to the garage (pull-in time) after completing its revenue service. Total Service is equal to revenue service plus deadhead and is measured in hours and miles.¹

Definition of Deadhead

Deadhead is very specific. It is the time and miles needed to move a transit vehicle into service and out of service. When a transit vehicle is deadheading, the driver operates closed-door and the vehicle is not available to passengers.

² Americans with Disabilities Act, Appendix D to Part 37 – Construction and Interpretation of Provision 49 CFR Part 37, page 549 “we would regard a system that permits user-initiated deviations from routes or schedules as demand-responsive.”

Deadhead in fixed route services can involve travel between:

- The garage and the beginning of the route
- The end of a route and the garage
- For demand response services, deadheading can involve travel between:
 - The garage and the first passenger pick-up or dispatching point
 - The last passenger drop-off and the garage or dispatching point

Total Service does NOT include hours and miles associated with:

- Operator training
- Vehicle maintenance testing
- Transporting vehicles to maintenance facilities
- Lunch breaks

What is meant by the term “Actual”?

Actual Vehicle Service refers to the service that was actually operated during the reporting period as opposed to scheduled service. Scheduled service refers to the service that was planned to be operated. Generally, this service is detailed in internal agency documents and provided to the users in public timetables. Actual service is very close to scheduled service but is adjusted (miles and hours) for two situations:

- Missed service that may have resulted from shortages of operators and revenue vehicles, vehicle breakdowns, weather related cancellations of service, and other service interruptions. Scheduled service hours and miles should be adjusted down for all missed service.
- Extra or additional service operated as needed to meet the expected high ridership for special events such as fairs, parades and civic celebrations. Scheduled service hours and miles should be adjusted up for extra or additional service operated.¹

The monthly hours and miles reported are the actual services provided during the month. Therefore, the monthly totals include data for both typical and atypical days.

Assess Your Understanding – Hours and Miles

Should the miles and hours be included in revenues service and / or total vehicle service?¹

	Revenue Service?	Total Vehicle Service?
Fixed Route Activity		
Bus travels (deadheads) from garage to start of route	No	Yes
Bus travels its route in scheduled revenue operation. Passengers board the vehicle.	Yes	Yes
Bus travels its route in scheduled revenue operation. No passengers board the vehicle.	Yes	Yes
Bus arrives at the end of the route, lays over.	Yes	Yes
Bus arrives at the end of the route, travels (deadheads) and parks at storage lot.	No	Yes
Bus arrives at the end of the route, travels (deadheads) to another route to operate a scheduled trip. Passengers cannot board during deadhead.	No	Yes
From the garage the bus travels to another maintenance facility to perform routine maintenance.	No	No
Bus travels from start to end of a route for training. Vehicle is not in service and does not board passengers.	No	No
Due to a collision with another vehicle, the trip is terminated and the bus travels to a maintenance facility.	No	Yes

Should the miles and hours be included in revenue service and / or total vehicle service?

	Revenue Service?	Total Vehicle Service?
Demand Response Activity		
Vehicle departs garage to pick-up its first passenger	No	Yes
After a passenger drop-off, the vehicle departs to pick-up another passenger with no passengers on-board	Yes	Yes
Vehicle waits at a shopping mall until its time to bring passengers back to a community center	Yes	Yes
Vehicle arrives at its first pick-up but the passenger is a no-show. The vehicle continues to its second pick-up.	Yes	Yes
Vehicle air conditioning unit goes out and travels to the maintenance facility for repair.	No	Yes

Assess Your Understanding – Demand Response Hours and Miles

1. Total Vehicle Hours are calculated from the time the driver clocks in at the facility to the time the driver clocks out at the facility? True or False
2. If a driver idles at the mall waiting for patrons to complete their shopping, would the time be included as revenue hours?
3. A driver takes a 30 minute lunch break and is not available for trip dispatch. Is this time included in revenue hours?

Answers on following page

Demand Response Hours and Miles Answers

1. False. Vehicle hours begin at the point the *vehicle* leaves the facility or dispatching point.
2. Yes. The vehicle did not return to the garage/dispatching point; therefore, is in revenue service.
3. No. If the driver is unavailable to dispatch a trip during a lunch break, this is not included considered revenue service.

Calculating Hours and Miles

Revenue and total service hours and miles can be calculated by examining the schedule for each revenue vehicle. The example below illustrates how to calculate the vehicle revenue hours and miles and vehicle total hours and miles for a fixed route bus vehicle block.¹ The starting and ending location are recorded for each stop with the start and end time / distance. Recall that revenue hours and miles for fixed route is the running time (first stop to the last stop) plus the layover / recovery time. In Example 1 below, the revenue hours are 1.83 and the revenue miles are 30.6; and, the total hours are 2 and the total miles are 34.6.

Example 1. Calculating Fixed Route Vehicle Revenue and Total Hours and Miles¹

Starting Location	Ending Location	Start		Time	Distance	Activity
		Time	End Time	(Minutes)	(Miles)	
Garage	Route 22 suburban end	6:30	6:35	5	2.0	Deadhead
Route 22 suburban end	Route 22 CBD end	6:35	7:25	50	15.3	Running time
Route 22 CBD end	Route 22 CBD end	7:25	7:35	10	0.0	Layover / recovery time
Route 22 CBD end	Route 22 suburban end	7:35	8:25	50	15.3	Running time
Running time	Garage	8:25	8:30	5	2.0	Deadhead
Total				120	34.6	
Revenue Hours / Miles = running time + layover / recovery time						
Revenue Hours = (50 + 10 + 50) / 60 = 1.83						
Revenue Miles = (15.3 + 15.3) = 30.6						
Total Vehicle Hours / Miles = running time plus layover / recovery time plus deadhead						
Total Vehicle Hours = (5 + 50 + 10 + 50 + 5) / 60 = 2.0						
Total Vehicle Miles = (2.0 + 15.3 + 15.3 + 2.0) = 34.6						

The hours and miles reported on the PTN-128 shall be adjusted to correspond to actual service performed. Report actual service as scheduled service less missed service plus added service.

Example 2 illustrates how to calculate the vehicle revenue hours and miles and vehicle total hours and miles for a demand response system. The starting and ending location are recorded for each stop with the start and end time / distance. Recall that revenue hours and miles for demand response is from the first passenger pickup to the last passenger drop off less the time off-the-clock for a lunch break. In Example 2 below, the revenue hours are 8.0 and the revenue miles are 120.0; and, the total hours are 8.2 and the total miles are 124.

Example 2. Calculating Demand Response Vehicle Revenue and Total Hours and Miles

Starting Location	Ending Location	Start		Time	Distance	Activity
		Time	End Time	(Minutes)	(Miles)	
Garage	First pick-up	4:30	4:35	5	2.0	Deadhead
First pick-up	Lunch begin	4:35	8:35	240	60.0	In service
Lunch begin	Lunch end	8:35	9:05	30	0.0	Lunch break
Lunch end	Last drop-off	9:05	13:05	240	60.0	In service
Last drop-off	Garage	13:05	13:10	5	2.0	Deadhead
Total					520	124
Revenue Hours / Miles = In service time and miles						
Revenue Hours = (240+240)/60 = 8.0						
Revenue Miles = (60+60) = 120.0						
Total Vehicle Hours / Miles = In service time and miles + deadhead						
Total Vehicle Hours = (5 + 240 + 240 + 5) / 60 = 8.2						
Total Vehicle Miles = (2.0 + 60 + 60 + 2.0) = 124						

Collecting Hours and Miles Data

Automated and manual scheduling/dispatching systems (and a combination of both) are used to collect hour and mile data.

Fixed Route

Manual recording of fixe route system hours and miles rely on vehicle operators to provide accurate data. Example 3, illustrates basic information to be recorded by vehicle operators in order to calculate hours and miles data.

Example 3. Fixed Route Manual Recording of Mile and Hour Data

Driver: Jane				Date: 1/1/2008
Route: 22				Vehicle: 501
Block: 200				
	Garage Pullout (Run Start)	First Stop	Last Stop	Garage Pullin (Run End)
Time	6:30	6:35	8:25	8:30
Odometer	20,250.0	20,252.0	20,282.6	20,284.6
Comments:				

Fixed route automated systems have reporting capability to provide scheduled revenue and total vehicle hours and miles of service. Automated systems require that parameters be set within the software such as garage location, average speeds to calculate distances and time. Automated reports should be tested to ensure that miles and hours are correctly calculated. Before submitting hours and miles, scheduled service should be adjusted from the automated reports to reflect actual service performed. Adjustments are typically derived from manual recordings in the dispatch area.

Demand Response

Manual recording of demand response system hours and miles rely on vehicle operators to provide accurate data. Data requirements are similar to fixed route with the addition of scheduled lunch breaks. Example 4, illustrates basic information to be recorded by vehicle operators in order to calculate hours and miles data.

Example 4. Demand Response Manual Recording of Mile and Hour Data

Driver: Jane			Date: 1/1/2008			
Route: 22			Vehicle: 501			
Block: 200						
	Garage Pullout (Run Start)	First Stop	Last Stop	Garage Pullin (Run End)	Break 1 Start	Break 1 End
Time	4:30	4:35	13:05	13:10	8:35	9:05
Odometer	20,250.0	20,252.0	20,372.0	20,374.0	20,312.0	20,312.0
Comments:						

Demand response automated scheduling systems have reporting capability to provide both scheduled and actual revenue and total vehicle miles and hours of service. Parameters must be set in the scheduling / dispatching system to accurately calculate hours and miles. Miles may be calculated as the “crow flies” and therefore, may not accurately calculate distances. Many automated systems have reporting systems that require parameters to be set to calculate a variety of measures. Demand response automated systems should be sampled against driver manifests to ensure automated calculations are correct.

Example 5. Demand Response Automated Scheduling System Report (Trapeze)

Trip Hours Productivity

Ride Date: 2007-01-10 – 2007-01-10

Total Hours	Total Trips	Flex Trips	Passenger No.	Transferred Trips	Transferred Pass.No	Service Hours	Live Hours	DH Hours	Passengers Per			Trips Per		
									Srv Hours	Live Hours	Total Hours	Srv Hours	Live Hours	Total Hours
2628.0	4933	0	5802	0	0	2328.3	2328.3	204.3	2.49	2.49	2.21	2.12	2.12	1.88
2628.0	4933	0	5802	0	0	2328.3	2328.3	204.3	2.49	2.49	2.21	2.12	2.12	1.88



Ride date:	2007-01-10 – 2007-01-10	Service Exclude Lunch:	Y	Service Exclude First PU:	Y
Route:	001 - 950	Service Exclude Breaks:	Y	Service Exclude Last DO:	Y
Sort Time:	EstTime	Exclude Auto Breaks:	Y		
		Exclude User Defined Breaks:	Y	Exclude Driver Relief:	Y
		Service Exclude OutOfService:	Y	Exclude Driver Assist:	Y
		Service Exclude Refuel:	Y	Exclude Driver Return:	Y

Common Errors – Hours and Miles

Error in reporting	Correct reporting
Report total hours based on driver pay hours	Report total hours from garage pull-out to garage pull-in
Report revenue hours from the automated scheduling system without selecting the system parameters to exclude lunch breaks, etc.	Select the appropriate exclusions in an automated scheduling system to correctly report revenue hours
Report revenue hours/miles from the garage pull-out to garage pull-in	Report revenue hours/miles from the first pick-up to the last drop-off
Report total miles based on odometer miles from the fueling reports (all miles)	Report total miles from garage pull-out to garage pull-in
Report revenue miles from the automated scheduling system without taking a sample of manual mileage recordings.	Manually sample driver manifests to verify revenue miles from an automated scheduling system. Automated systems may estimate miles based on direct point-to-point miles which may significantly vary from actual mileage.

Unlinked Passenger Trips (Boardings)

Unlinked Passenger Trips (Boardings)

The PTN-128 report requires the reporting of unlinked passenger trips by general public trips, program trips and contract trips monthly as illustrated below.

 PTN-128 Worksheet -			
	SEP	OCT	NOV
Unlinked Passenger Trips	<u>33,219</u>	<u>35,770</u>	<u>30,386</u>
General Public:	32,544	35,026	29,687
Programs:	675	744	699
Medical Transportation Program	250	312	265
Head Start	-	-	-
Department of Aging & Disabilities	-	-	-
Department of State Health Services	-	-	-
Dept. of Family & Protective Services	-	-	-
Dept. of Assistive & Rehab. Services	-	-	-
5310 Elderly & Disabled	50	51	62
JARC	-	-	-
CMAQ	-	-	-
New Freedom	-	-	-
Contracts (list below):			
1. ASE Manufacturing Plant	375	381	372
2			
3			
4			
5			
6			
7			
8			
9			
10			
Average Weekly Passenger Trips	7,666	8,255	7,012
Passengers per Revenue Mile	0.47	0.45	0.44
Passengers per Revenue Hour	7.48	7.19	7.05

Unlinked Passenger Trips (Boardings) Definition

Unlinked passenger trips or boardings are the number of passengers who board transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination. For demand response mode, include personal care attendants and companions as long as they are not employees of the transit agency in the course of their work assignment. Attendants and companions are included regardless of whether or not they are fare-paying passengers. Do not count passengers based on tickets or tokens sold. Count actual passengers each time they board a vehicle.¹ Do not count employees of the transit agency that are on the vehicle while performing their job (i.e. vehicle operator, trainer, mechanic).

Calculating Passenger Trips

The counting of *all* passenger trips is called a 100 percent count. If available and reliable, 100 percent counts must be reported. If 100 percent counts are not available or reliable, passenger trips must be estimated and reported based on a sampling procedure. The Federal Transit Administration (FTA) requirements are:

- Minimum confidence of 95 percent, and
- Minimum precision level of +/-10 percent.¹

Transit agencies that attempt to do a 100 percent count may miss some of the vehicle trips because of personnel problems or equipment failures. If these vehicle trips are two percent or less of the total, then the transit agency should factor up the data to account for the missing percentage. If the missed vehicle trips are more than two percent of the total, then the transit agency must have a qualified statistician approve the methodology for factoring the data to account for the missing percentage.¹

There are two approved sampling techniques described in circulars that provide definitions, sampling procedures, data recording procedures, annual report compilation and sample selection information:

1. FTA C 2710.1A Sampling Techniques Obtaining Fixed Route Bus Operating Data Required under the Section 15 Reporting System – this procedure provides an estimate of passenger trips and passenger miles for fixed route bus systems. The PTN-128 report requires passenger trips to be reported only.
2. FTA C 2710.2A Sampling Procedures for Obtaining Demand Responsive Bus System Operating Data Required under the Section 15 Reporting System – this procedure is used to estimate passenger trips and passenger miles for demand response systems. The PTN-128 report requires passenger trips to be reporting only.

These circulars can be downloaded from the NTD Program website (www.NTDProgram.com)

Alternative sampling techniques may also be used but must be approved by a qualified statistician. If a transit agency uses automatic passenger counters for collecting passenger trips, requirements for FTA approval must be obtained. See NTD Reporting Manual for specific requirements for using both alternative sampling techniques and automatic passenger counters (www.NTDProgram.com).

Collecting Passenger Trips

Automated and manual scheduling/dispatching systems (and a combination of both) are used to collect passenger trip data.

Fixed Route

Manual recording of fixed route system passenger trips rely on vehicle operators to provide accurate data. Example 6, illustrates information recorded for a typical route sample by vehicle operators in order to collect passenger trips, passenger loads and passenger mile data. *A similar simplified form may be used to collect passenger trips.* The column entitled, “Passengers Boarded” in Example 6, may be used to calculate passenger trips.

Example 6. Sampling of Passengers and Passenger Miles

Trip Sheet							
Date:	2/6/2007	Day of Week:	Tuesday	Total Capacity:	85		
Route/Run No.:	2 / 505	Time Period:	AM Peak	Seated Capacity:	48		
Vehicle No.:	404						
Driver Name:	Jane Doe						
		A			B		
Stop No.	Stop Description	Odometer Reading	Passengers Boarded	Passengers Deboarded	Passengers On-Board	Distance between Stops	Passenger Miles (A x B)
1	Begin Silver Spring Station	889.0	20		20	1.0	20.0
2	Georgia and Alaska	890.0	10	0	30	1.5	45.0
3	16th and Alaska	891.5	0	5	25	2.2	55.0
4	16th and Colorado	893.7	14	2	37	2.4	88.8
5	16th and Harrod	896.1	5	7	35	1.4	49.0
6	16th and Florida	897.5	0	2	33	1.0	33.0
7	16th and K	898.5	0	15	18	0.5	9.0
8	End Federal Triangle	899.0	0	18	0		-
Total:			49			10	299.8
Capacity Miles <small>(Total Capacity x Total Distance between Stops)</small>		850					
Seated Miles <small>(Seated Capacity x Total Distance between Stops)</small>		480					

Fixed route automated passenger trip information may be collected using automated fareboxes. Automated farebox reports should be tested to ensure that passenger trips are correctly calculated.

Demand Response

Manual recording of demand response system passenger trips rely on vehicle operators to provide accurate data. Data requirements are similar to fixed route with the addition of tracking companions and attendants in addition to scheduled patrons/clients. Example 7, illustrates basic information to be recorded by vehicle operators in order to calculate passenger trips. Notice that in this example, the automated report also tracks service animals. Service animals should not be counted in the total passenger count.

Example 7, Automated Demand Response Passenger Trip Report (Trapeze)³

Trip Hours Productivity														
Ride Date: 2007-01-10 – 2007-01-10														
Total Hours	Total Trips	Flex Trips	Passenger No.	Transferred Trips	Transferred Pass.No	Service Hours	Live Hours	DH Hours	Passengers Per			Trips Per		
									Srv Hours	Live Hours	Total Hours	Srv Hours	Live Hours	Total Hours
2628.0	4933	0	5802	0	0	2328.3	2328.3	204.3	2.49	2.49	2.21	2.12	2.12	1.88
2628.0	4933	0	5802	0	0	2328.3	2328.3	204.3	2.49	2.49	2.21	2.12	2.12	1.88

Service animals should be deducted from passenger count

Trip Count By Booking SubType

DEM	DEMAND TRIP	3251
IP	IN PERSON INT	44
SUB	SUBSC TRIP	565
TSB	TEMPLATE SUBS	1073

Passenger Count By Pass Type

ATT	ATTENDANT	691
CLI	CLIENT	4938
COM	COMPANION	167
SA	SERVICE ANIMAL	6

Requiring vehicle operators to turn in manifest information daily is highly recommended. In this way, information may be checked for accuracy while it is still fresh in the memories of the operators and dispatchers as questions arise. A spreadsheet or database may be used to check the data for reasonableness. Example 8 illustrates how a spreadsheet/database may be helpful in automating hour, mile and passenger summary reports and in quality control. Note that the “Automated Calculations” provide a summary of hours, miles and passengers but also provides the average speed, deadhead ratio and productivity for each manifest. These automated calculations provide a means to check for errors and as a management tool. In Example 8, manifest 4 indicates that the average deadhead speed is 4.1 miles per hour – this may indicate an error unless the end of the route is at the facility.

³ Trapeze Software Incorporated, <http://www.trapezegroup.com/nahome.php>

Example 8. Hour, Mile and Passenger Spreadsheet/Database

Data Input

Date	Manifest No.	Veh. No.	Driver	Passengers			Garage Out		First Pickup		Break Start		Break End		Last Drop		Garage In	
				Patrons	Companions	Attendants	Odometer	Time	Odometer	Time	Odometer	Time	Odometer	Time	Odometer	Time	Odometer	Time
Summary				154	1	3												
5/14/2007	1	501	Joe	27			76,239	6:30	76,269	7:00	12:00	12:30	76,426	17:30	76,441	18:45		
5/14/2007	2	502	Eric	25	1		142,728	9:00	142,729	9:15	12:45	13:45	142,843	17:20	142,853	18:00		
5/14/2007	3	503	Kelly	57		1	118,234	9:00	118,237	9:20	13:45	14:45	118,334	17:58	118,347	18:15		
5/14/2007	4	504	Mary	28		2	91,050	5:45	91,051	5:59	9:15	10:15	91,169	14:30	91,170	14:45		
5/14/2007	5	505	Linda	17			132,912	4:30	132,915	5:15			132,986	9:20	132,991	9:30		

Data Check – Automated Calculations

Date	Manifest	Total Revenue		Total Deadhead		Total Vehicle		Speed Check		Deadhead Ratio		Productivity		
		Miles	Hours	Miles	Hours	Miles	Hours	Revenue	Deadhead	Total	Miles	Hours	Passengers per Rev. per Hour	Passengers per Rev. per Mile
Summary		557	12:19	82	4:41	639	17:00	15.3	17.5	15.6	13%	11%	4.35	0.28
5/14/2007	1	157	10:00	45	1:45	202	11:45	15.7	25.7	17.2	22%	15%	2.70	0.17
5/14/2007	2	114	7:05	11	0:55	125	8:00	16.1	12.0	15.6	9%	11%	3.67	0.23
5/14/2007	3	97	7:38	16	0:37	113	8:15	12.7	25.9	13.7	14%	7%	7.60	0.60
5/14/2007	4	118	7:31	2	0:29	120	8:00	15.7	4.1	15.0	2%	6%	3.99	0.25
5/14/2007	5	71	4:05	8	0:55	79	5:00	17.4	8.7	15.8	10%	18%	4.16	0.24

Assess Your Understanding – Passenger Trips

- A. A patron purchased 50 tickets in March. Should the transit provider count this as 50 trips in their monthly passenger count?

- B. A patron traveled across town traveling on three separate routes using transfers. How many passenger trips should be counted?

- C. A patron with a disability traveled with an attendant who traveled free of charge. How many passenger trips should be counted?

- D. Are 100% counts of passenger trips preferred over a sampling method if available and reliable? True or False.

- E. Passenger trips can be calculated before a patron takes the scheduled or paid trip? True or False.

Answers on following page

Passenger Trip Answers:

- A. No
- B. Three
- C. Two
- D. True
- E. False

Common Errors – Unlinked Passenger Trips

Error in reporting	Correct Reporting
Personal care attendants and companions are excluded.	Include all persons boarding the vehicle.
Not all service is included in passenger counts.	Include all service operated or purchased in passenger counts.
Passengers are counted by round trip.	Passengers should be counted each time they board vehicle
Passengers that do not pay a fare are excluded from the count.	Count all passengers even if they do not pay a fare.
Passengers are counted based on fares sold not by actual boardings.	Count based on the physical boarding onto the vehicle.

Management Statistics and Graphs – Miles, Hours and Unlinked Passenger Trips

Management Statistics and Graphs – Hours, Miles and Passengers

The PTN-128 report automatically calculates management statistics and generates graph reports.

The PTN-128 report Hours and Miles section automatically calculates the following management statistics (see Example 9):

- “Deadhead Ratio”
- “System Speeds”

The PTN-128 also generates year-to-date (YTD) totals as a comparison to the Prior Year Total.

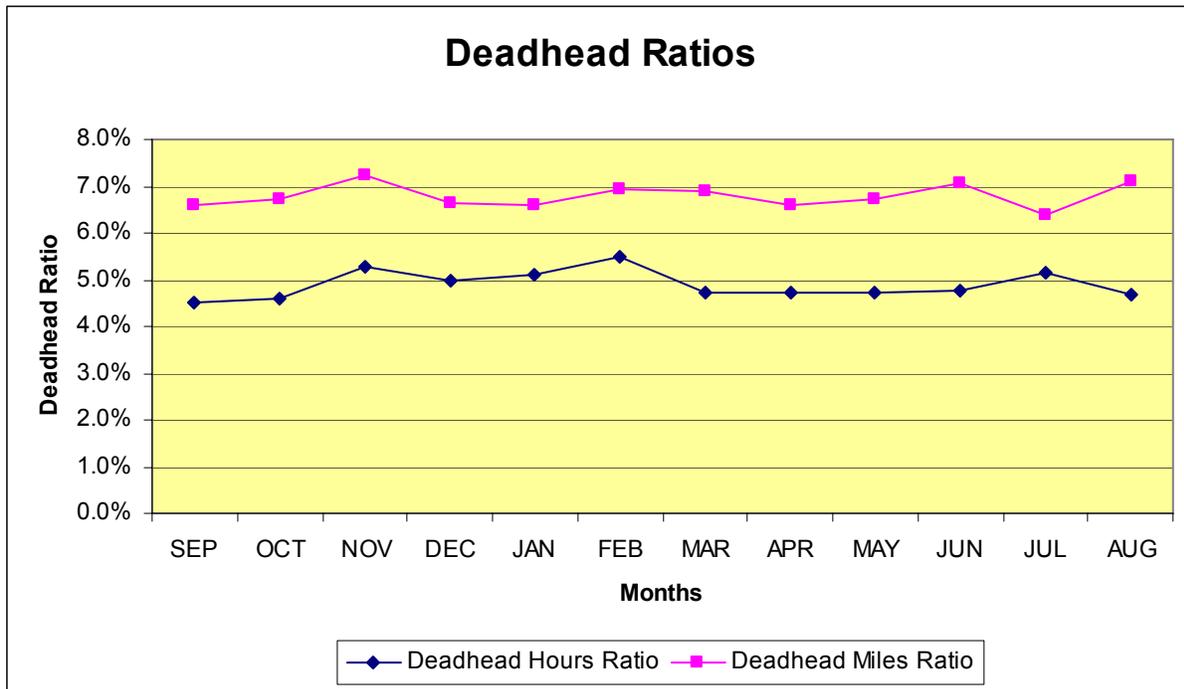
Example 9, PTN-128 Deadhead Ratio and System Speed

PTN-128 Worksheet -				2009	2008
	SEP	OCT	NOV	YTD Total	Prior Year Total
Actual Vehicle Hours					
Revenue	3,842	2,259	2,273	8,374	33,420
Total Vehicle	4,441	2,588	2,597	9,626	38,504
Deadhead Hours	599	329	324	1,252	5,084
Deadhead Ratio	13.5%	12.7%	12.5%	13.0%	13.2%
Actual Vehicle Miles					
Revenue	43,579	39,834	42,465	125,878	503,510
Total Vehicle	50,995	46,986	49,496	147,477	589,908
Deadhead Miles	7,416	7,152	7,031	21,599	86,398
Deadhead Ratio	14.5%	15.2%	14.2%	14.6%	14.6%
System Speed:					
Revenue	11.3	17.6	18.7	15.0	15.1
Total	11.5	18.2	19.1	15.3	15.3
Deadhead	12.4	21.7	21.7	17.3	17.0

Deadhead Ratio

Deadhead Ratio is the deadhead divided by the total vehicle service. The deadhead ratio is the percent of service that is needed to move the vehicle into service and out of service. It is unproductive time and miles as passengers cannot board the vehicle; therefore, the lower the deadhead ratio the better. The PTN-128 also provides a deadhead ratio graph report as illustrated in Example 10.

Example 10. PTN-128 Deadhead Ratio Graph



Reasonableness Check – Deadhead Ratio

The average deadhead ratio is 8 to 10 percent (FY07).

- Deadhead ratios may be lower than average when the majority of first stops are located adjacent to the bus garage.
- Deadhead ratios may be higher when the majority of stops are located at distant locations.

Deadhead ratio should be relatively consistent from month to month and from year to year unless a significant change in service occurs

System Speed

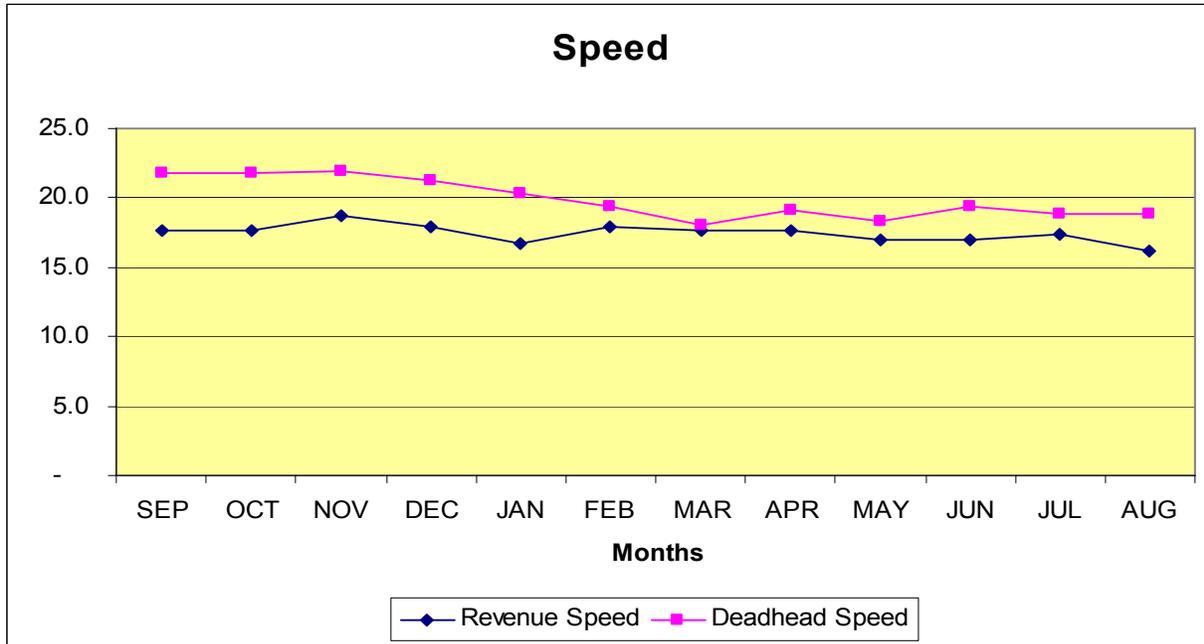
System Speed is the vehicle service miles divided by the vehicle service hours.

- Revenue speed = revenue miles divided by revenue hours
- Deadhead speed = deadhead miles divided by deadhead hours

System speed is a good check to ensure hours and miles are reasonably reported.

Example 11 illustrates the PTN-128 System Speed Graph Report.

Example 11. PTN-128 System Speed Graph



Reasonableness Check – System Speed

- The average revenue speed for rural transit districts is 18 miles per hour (FY07)
- The average revenue speed for small urban transit districts is 14 miles per hour (FY07).
- Service area coverage and service type (demand response, fixed route, flexible route) and distance between stops influence system speeds.

Fluctuations in speeds may occur if there are significant changes in number of passengers carried.

- If unlinked passenger trips significantly increase, the average speeds will typically decrease.
- If unlinked passenger trips significantly decrease, then average speeds will typically increase.

Deadhead speeds are typically faster than revenue speeds as the vehicle moves at a slower speed when stopping for passengers in revenue service.

- This may not be true if the vehicle idles for long period of times during revenue service as the revenue hours are driven up and drive the revenue speeds down.
- Deadhead speed may also be slower than revenue speed if the routes begin close to the first pickup with short deadhead distances.

The PTN-128 report Passenger section automatically calculates the following management statistics (see Example 12):

- Average Weekly Passengers
- Passengers per Revenue Mile
- Passengers per Revenue Hour

The PTN-128 also generates year-to-date (YTD) totals as a comparison to the Prior Year Total.

Example 12. PTN-128 – Weekly Passenger Trips, Passengers per Revenue Mile, Passengers per Revenue Hour

PTN-128 Worksheet -

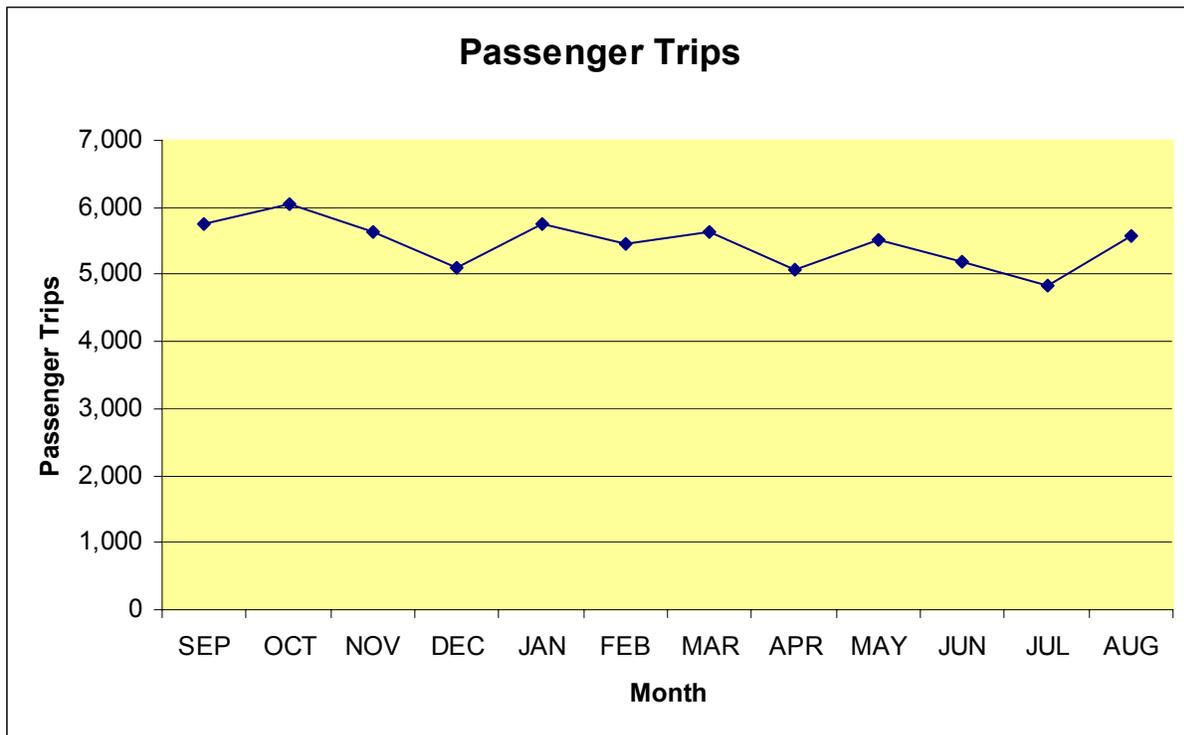
				2009	2008
	SEP	OCT	NOV	YTD Total	Prior Year Total
Average Weekly Passenger Trips	2,308	2,792	2,765	2,622	2,625
Passengers per Revenue Mile	0.23	0.30	0.28	0.27	0.27
Passengers per Revenue Hour	2.60	5.36	5.27	4.07	4.08

Average Weekly Passenger Trips

Average weekly passenger trips is an estimated number taking the total trips for the period and dividing by the number of weeks. The PTN-128 report generates the average weekly passenger trip as a management tool to provide a quality assurance check.

The PTN-128 does not provide an average weekly passenger trip graph; however, the PTN-128 does provide a Total Unlinked Passenger Trip graph. Example 13 illustrates the PTN-128 Total Unlinked Passenger Trip Graph.

Example 13. PTN-128 Unlinked Passenger Trip Graph



Reasonableness Check – Average Weekly Passenger Trips and Total Passengers

Compare the average weekly passenger trips generated to the dispatch trip logs. Managers typically know the average number of trips their system provides on a weekly basis.

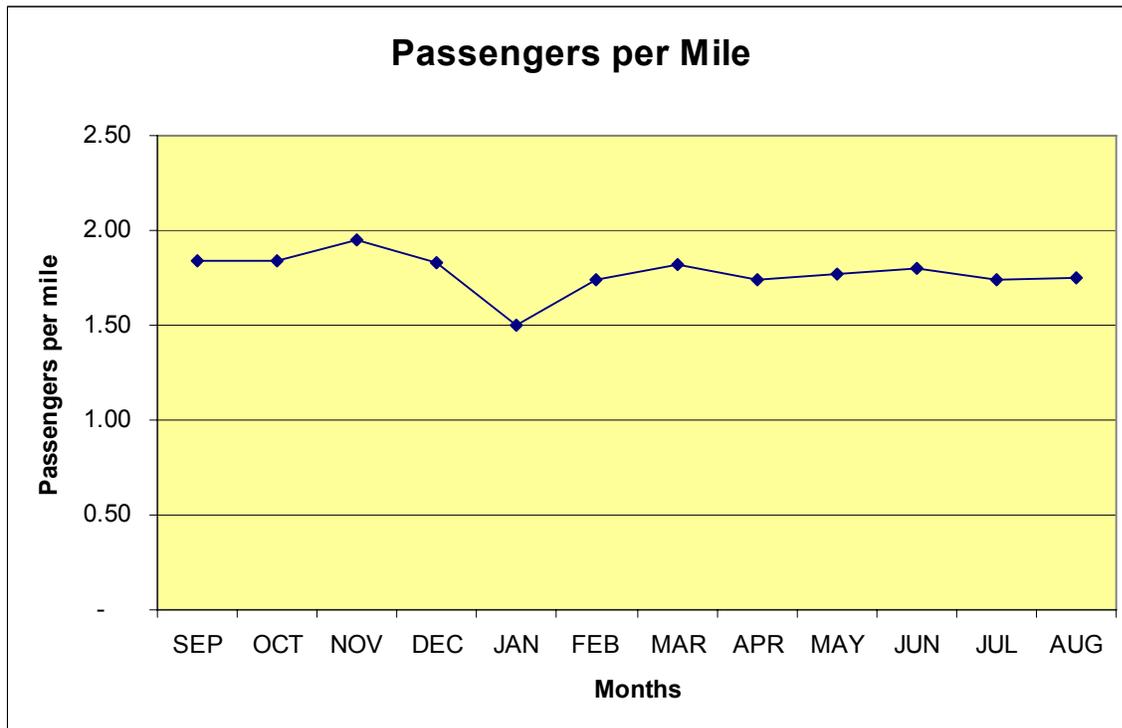
Average weekly passenger trips should be relatively consistent from month to month and from year to year unless a significant change in service occurs.

Passengers per Revenue Mile

Passengers per revenue mile is the total unlinked passenger trips divided by actual revenue miles and is a measure of service effectiveness. Passengers per revenue mile is the number of passengers the system carries on average per mile of revenue service.

Typically, demand response service will carry fewer passengers per mile than fixed route service. Commuter services will carry fewer passengers per mile than local services due to the greater distances traveled for commuter service. This statistic may change with seasons, time of day, day of the week. For example, holiday periods and inclement weather months may decrease number of passengers. This is also a measure of how well service is scheduled and executed. Agencies may use this measure to review portions of routes or service area. Example 14 illustrates the unlinked passenger trip per revenue mile graph provided in the PTN-128.

Example 14. PTN-128 Report - Passenger Trips per Revenue Mile



Reasonableness Check – Passengers per Revenue Mile

Average unlinked passenger trips per revenue mile should be relatively consistent from month to month and from year to year unless a significant change in service occurs or change in the scheduling process occurs.

The average passengers per revenue mile is 0.19 (FY07) for a rural transit district and is 0.25 (FY07) for small urban transit districts.

- Service area coverage, type of service (fixed route, demand response, medical transportation program) influence the effectiveness or productivity of the system.

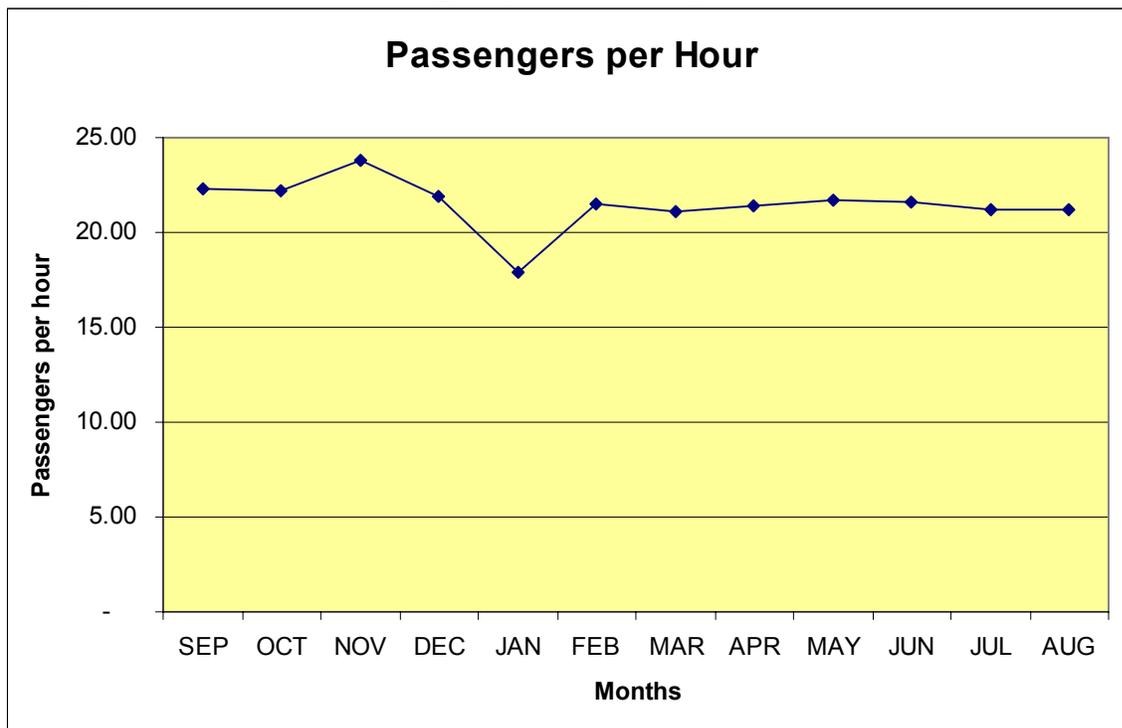
Passengers per Revenue Hour

Passengers per revenue hour is the total passenger boardings divided by actual revenue hours and is a measure of service effectiveness. Passengers per revenue hour is the number of passengers the system carries on average per hour of revenue service.

Typically, demand response service will carry fewer passengers per hour than fixed route service. Commuter services will carry more passengers per hour than local services due to the faster speed of the commuter service. This statistic may change with seasons, time of day, day of the week. This is also a measure of how well service is scheduled and executed. Agencies may use this measure to review portions of routes or service area.

Example 15 illustrates the unlinked passenger trip per revenue hour graph provided in the PTN-128.

Example 15. PTN-128 Passengers per Hour Graph



Reasonableness Check – Passengers per Revenue Hour

Average unlinked passenger trips per revenue hour should be relatively consistent from month to month and from year to year unless a significant change in service occurs or change in the scheduling process occurs.

The average passengers per revenue hour is 3.5 (FY07) for a rural transit district and is 12.8 (FY07) for small urban transit districts.

- Service area coverage, type of service (fixed route, demand response, medical transportation program) influence the effectiveness or productivity of the system.

Revenue Vehicles and Mechanical Failures

Revenue Vehicles and Mechanical Failures

The PTN-128 report requires the reporting of revenue vehicles and mechanical failures monthly as illustrated in Example 16 below.

Example 16. Revenue Vehicles and Mechanical Failures

 PTN-128 Worksheet -			
	SEP	OCT	NOV
Total Vehicles			
(include active and inactive, owned and contracted):			
	23	23	23
Total Revenue Vehicles Owned:	23	23	23
Total Revenue Vehicle Contracted	5	5	5
Total Light Rail:			
Total Commuter Rail:			
Peak Vehicles (optional)	20	20	20
Spare Ratio	15%	15%	15%
Failures:			
Major Mechanical System Failures	1		2
Other Mechanical System Failures	1	2	3
Total Mechanical Failures	2	2	5
Revenue Miles between Failures	21,790	19,917	8,493

Revenue Vehicles

Definition of Revenue Vehicles

The rolling (and floating) stock used to provide revenue service for passengers. The inventory of revenue vehicles includes both active and inactive vehicles as follows:

- Vehicles in operation (i.e. providing revenue service)
- Spare vehicles
 - revenue vehicles maintained to meet routing and heavy maintenance requirements,
 - to meet unexpected vehicle breakdowns or accidents,
 - thereby preserve scheduled service operations
- New vehicles purchased and delivered (but not yet put into revenue service)
- Vehicles out for long term repair
- Vehicles in storage
- Vehicles in a Federal Transit Administration (FTA) approved emergency contingency plan
- Vehicles awaiting sale⁴

Report revenues vehicles whether they are owned or a part of the purchased transportation fleet. The PTN-128 requirements focus on the use of revenue vehicles and

⁴National Transit Database, Form A-30, www.ntdprogram.org

not on their ownership; therefore, both owned and contract vehicles are reported. The number of revenues vehicles reported shall be as of the end of every month.

Do not include vehicles used to support revenue service such as tow trucks, maintenance vehicles, dedicated supervisor vehicles.

Peak Vehicles

The PTN-128 has a line entitled “Peak Vehicles.” Peak Vehicles are optional to report. Peak vehicles are the number of vehicles operated to meet the maximum service requirement during a typical day when the most vehicles are out on the street providing service. In most instances, this is the number of scheduled vehicles since most transit agencies have sufficient vehicles to operate the scheduled service.

Mechanical Failures

Definition of Mechanical Failures

Revenue vehicle mechanical failures are mechanical problems that affect a vehicle as follows:

- The specific vehicle does not complete its scheduled revenue trip, or
- The specific vehicle does not start its next scheduled revenue trip.⁵

The revenue vehicle mechanical failures are reported in two categories:

1. Major mechanical failures
2. Other mechanical failures

Major Mechanical Failures

Major mechanical failures are failures of a mechanical element that prevents the revenue vehicle from completing a scheduled revenue trip or from starting the next scheduled revenue trip because actual movement is limited or because of safety concerns. Examples of major bus failures include breakdowns of brakes, doors, engine cooling system, steering and front axle, rear axle and suspension and torque converters.

The differences in major mechanical failures reported across agencies may be in the numbers reported, not the types of major mechanical failures.⁵

Other Mechanical Failures

Other mechanical failures are failures of a mechanical element of the revenue vehicle that, because of local agency policy, prevents the revenue vehicle from completing a scheduled revenue trip or from starting the next scheduled revenue trip even though the vehicle is physically able to continue in revenue service. Examples of other bus failures include breakdowns of fareboxes, wheelchair lifts, heating, ventilation and air conditioning systems and other problems not included as a major mechanical system failure.⁵

Since other mechanical system failures are based on local policies, there will be variation in the types and therefore, the numbers reported by different transit agencies. For example, some agencies in the northern part of Texas may continue to operate a bus with

⁵ National Transit Database (NTD), Form R-20, www.ntdprogram.org

an air conditioning breakdown while agencies in the southern part of Texas would replace the bus immediately.⁵

There are many ways to account for vehicle maintenance performance. However, for purposes of reporting for the PTN-128, the National Transit Database definitions are used. The key to reporting mechanical failures accurately is to remember the following:

Key:

A vehicle failure is counted only if the vehicle is prevented from:

- completing a trip; or,
- starting the next trip

Because mechanical failures are derived from service, the dispatch area typically collects mechanical failure information. A recommendation is to provide the dispatch staff with a form to record mechanical failures as illustrated in Example 17 below.

Example 17. Dispatch Mechanical Failure Recording Form

Mechanical Failures

A vehicle failure is counted only if the vehicle is prevented from:

- completing a trip; or,
- starting the next trip

Date	Time	Failure (check one)		Description
		Major actual movement is limited or because of safety concerns	Other local agency policy, even though the vehicle is physically able to continue	

Assess Your Understanding – Mechanical Failures

- A. The air conditioning on one of the Transit Agency's buses fails while carrying passengers in revenue service. The driver determines that he is unable to repair the problem and calls for a backup because it is a hot day.

- B. During layover, one of the Transit Agency's buses experience an engine cooling system failure. The vehicle is towed to the garage. Passengers waiting to board during layover wait for the next trip.

- C. The brakes stick on one of the Transit Agency's buses. The driver radios for help from the mobile repair unit; the unit adjusted the brakes during the scheduled layover for the bus in time for the bus to start its next scheduled trip.

- D. The front axle breaks on one of the Transit Agency's buses on its scheduled pullout from the garage to the beginning of the bus route. The bus is towed to the garage and a replacement vehicle is sent.

- E. While deadheading back to the dispatching point at the end of the day, an electrical system problem activates the wheelchair lift on one of the Transit Agency's vans (demand response). The lift gets stuck in the extended position and the van has to be towed to the garage.

Answers on following page

Mechanical Failure Answers:

- A. Report as other mechanical failure. Air conditioning is not considered a major system, because the bus could physically continue in revenue service without working air conditioning.
- B. Report as a major mechanical systems failure because the bus could not physically operate its next scheduled trip.
- C. Do not report because the bus started its next scheduled trip.
- D. Report as a major mechanical systems failure because the bus could not start its next scheduled trip.
- E. Do not report since the van completed all of its scheduled trips for the day.

Common Errors – Vehicles and Mechanical Failures

Error in reporting	Correct reporting
Exclusion of inactive vehicles from the vehicles reported	Ensure that all vehicles, including those in storage or in disrepair are included in the vehicle count.
Exclusion of vehicles not owned.	Include all vehicles utilized to provide service whether owned, leased or provided through purchased transportation agreements.
Base mechanical failures on towing records or roadcalls.	Record failures according to dispatch records and definition - when the vehicle is unable to complete a trip or start the next scheduled trip.
Record failures only if the passenger's service is interrupted.	Do not base reporting failures on the passenger. Base the reporting of failures on the vehicle.

Management Statistics – Vehicles and Mechanical Failures

Management Statistics – Vehicles and Mechanical Failures

The PTN-128 report Vehicles and Mechanical Failures section automatically calculates the following management statistics (see Example 18):

- “Spare Ratio”
- “Revenue Miles between Mechanical Failure”

The PTN-128 also generates year-to-date (YTD) totals as a comparison to the Prior Year Total.

Example 18. PTN-128 Vehicles and Vehicle Failures

 PTN-128 Worksheet -			
	SEP	OCT	NOV
Total Vehicles			
(include active and inactive, owned and contracted):			
	23	23	23
Total Revenue Vehicles Owned:	23	23	23
Total Revenue Vehicle Contracted	5	5	5
Total Light Rail:			
Total Commuter Rail:			
Peak Vehicles (optional)	20	20	20
Spare Ratio	15%	15%	15%
Failures:			
Major Mechanical System Failures	1		2
Other Mechanical System Failures	1	2	3
Total Mechanical Failures	2	2	5
Revenue Miles between Failures	21,790	19,917	8,493

Spare Ratio

Spare ratio is the number of total revenue vehicles divided by peak vehicles. The spare ratio reflects the vehicles the agency has in its fleet to meet maintenance requirements.

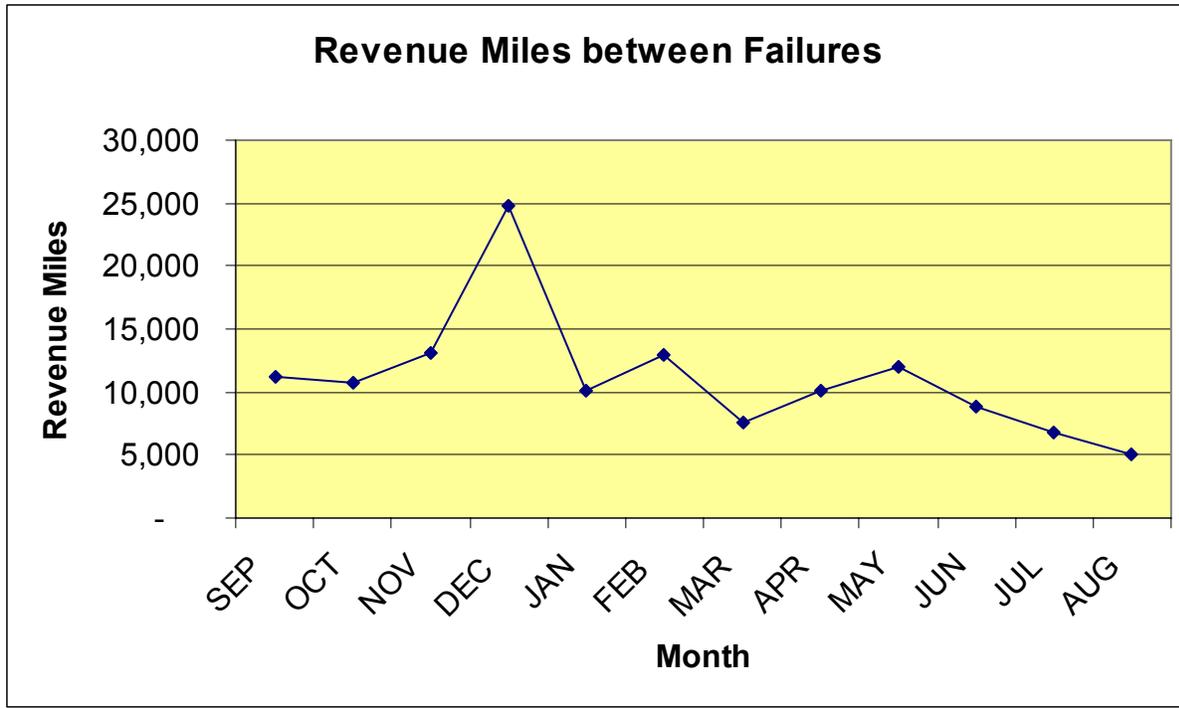
A spare ratio that is too low may cause missed pullout or missed service. A high spare ratio may indicate that the number of vehicles in need of repair or need of disposal is high; or that maintenance is ineffective. In fleets larger than 50 total vehicles, a maximum spare ratio is typically 20%.

Revenue Miles Between Failure

Revenue miles between failure is the number of revenue miles divided by the number of failures. It is the number of revenue miles a vehicle travels on average between failures; therefore, the higher the miles between failures the better.

This is a measure of revenue service quality as measured by maintenance and vehicle performance.

Example 19. PTN-128 Revenue Miles between Failure Graph



Revenue Miles between failures fluctuate from month to month. For example, revenue miles between failures may drop during warm weather months due to air conditioning failures; or, may increase when agencies cut back service during months of low service demand such as holidays.

Reasonableness Check – Spare Ratio and Revenue Miles between Mechanical Failures

Spare ratios for large systems are typically between 15 and 20%. For example a total fleet of 100 vehicles with 85 peak vehicles provides a spare ratio of 18% ($100/85 = 118\%$) for preventive maintenance and heavy repairs.

Check the number of days an average vehicle travels between failures. If the agency reports revenue miles between mechanical failures of 10,000 and averages 250 miles per day per vehicle, this translates to 40 days between a failure for each vehicle ($10,000/250$).

- Less than one week between failures may indicate an error in reporting, a serious maintenance issue or fleet issue.

HOW TO REPORT – FINANCIAL DATA

Financial Data Reporting

The objectives of the financial reporting section of the PTN-128 are to:

- Identify the origin and amount of capital and operating funds that transit agencies received from Federal, state and local governments and from their own (directly generated) sources; and
- Determine the amounts of these funds that transit agencies use to pay for operating expenses and capital projects.⁶

⁶ National Transit Database (NTD), Form F-10, www.ntdprogram.org

Revenues

Revenues

Report all revenues on the PTN-128 by funding source including funds for both operating and capital expenditures. Since the PTN-128 covers transit uses, report only those funds that are (or will be) applied to the transit agency for *transit projects*. For example, if a transit provider is part of a larger social service organization, do not report revenues received by the agency to support non-transit social services.

Revenue Concepts**Accrual Accounting - Revenues**

Transit providers should use accrual accounting to report PTN-128 data. The guiding principal for completing this form is to report funds in the period that they are earned (or applied), regardless of whether or not receipt of the revenues (or payment) takes place in the same reporting period.

- For revenues *tied to cost of service*, report funds based upon time of service delivery
- For revenues that are *independent of cost of service*, report them when received. Examples of funds earned based on non-cost factors include passenger revenues, dedicated taxes, and bridge, tunnel and highway tolls.
- When an organization receives a contribution, grant, appropriation, or contract whose use is limited to a specified purpose, it has not earned revenue until the funds have been spent for that purpose

Bonds and Loans

Report the proceeds from government agency bonds or for loans issued during the period as revenues on the PTN-128 report. Report the interest as an operating expenditure in the Expenses section of the PTN-128 report. For more information regarding bonds, refer to the FTA online publication: “Financing Techniques for Public Transit.”⁶

General Revenue Reporting Concepts

- Donated revenues (non-cash, in-kind, contributed service) shall be included in the reporting of funds.
- Do not report the total amount of funding in an approved grant application, only the grant funds earned from an incurred expenditure during the period.⁶
- Do not report toll credits as revenues.

Assess Your Understanding – When to Report Revenues

- A. You send TxDOT a \$40,000 bill in February to subsidize January service. You receive payment from the state in April.

- B. Your agency receives from the city an annual transit allocation support of \$100,000 in January. You will use those funds to support service in the amounts of \$70,000 in June and \$30,000 in July.

- C. Your agency receives \$100,000 from the city in January to be used as local share for the purchase of five buses. Three buses are accepted as complete in June and two in July.

- D. You receive \$40,000 in revenue from your bus shelter advertising contractor in January. You later use that money as local share for two vehicles that you receive in June.

When to Report Revenues Answers:

- A. Report in January
- B. Report in June and July
- C. Report in June and July
- D. Report in January

Revenue Categories

The PTN-128 Revenue section is divided into funding categories (see Example 20):

- Federal and State Section 5307 and 5311 Revenues; and 5309 Capital Revenues
- Local Revenues
- Contract Revenues

The PTN-128 Revenue section is shown in Example 20. Note that there is a “Local Investment” sub-total. The Local Investment sub-total is the sum total of both “Local Revenues” and “Contract Revenues.” The Local Investment total is used in the calculation of the state funding formula for performance. For purposes of the funding formula, “Local Investment” includes all funding sources other than the funds included in the Federal and state Section 5307, 5311 and 5309 line items. The following section will describe each funding category in detail.

Illustration 20. PTN-128 Revenues

Total Revenues	\$ -	\$ -	\$ -
5307 & 5311 Federal Revenues			
5307 & 5311 State Revenues			
5309 Capital Revenues			
5307 & 5311 Contract Revenues (for <u>General Public Service</u> from another 5307 or 5311)			
Local Investment Total (Local + Contract Revenues):	\$0	\$0	\$0
Local Revenues:	\$0	\$0	\$0
Passenger Fares			
Direct Transit Funding:			
Local Contributions (govt. & non-govt.)			
Contributed Services (non-cash)			
Sales Tax			
Indirect Transit Funding:			
Auxilliary Transit Revenues			
Other Transportation Revenues			
Non-Transit Related Revenues			
Contract Revenues:	\$ -	\$ -	\$ -
Medical Transportation Program			
Head Start			
Department of Aging & Disabilities			
Department of State Health Services			
Department of Family & Protective Services			
Department of Assistive & Rehabilitative Services			
5310 Elderly & Disabled			
JARC			
CMAQ			
New Freedom			
Other Contracts (list below):			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

5307 and 5311 Federal Revenues

Report FTA Urbanized Area Formula Program (Section 5307) funds and FTA Non-Urbanized Area Formula Program (Section 5311) funds expended (applied to operations or capital). Report funds for the month in which they are applied or expended. This is the month in which they result in liabilities for benefits received, regardless of whether or not receipt or expenditure of the funds actually takes place within the reporting period.⁶

Note that FTA Special Needs of Elderly Individuals and Individuals with Disabilities Formula Program (Section 5310), FTA New Freedom Program (Section 5317) and FTA Job Access and Reverse Commute Formula Program (JARC) (Section 5316), Congestion Mitigation and Air Quality Improvement Program (CMAQ) are reported under the “Contracts” section on the PTN-128.

*Do not report the total amount of funding in an approved grant application, only the grant funds earned from an incurred expenditure during the period.*⁶

5307 and 5311 State Revenues

Urban and rural transit districts that receive state funding for providing general public transit service shall report funds received under the “5307 and 5311 State Revenues” line. Report funds for the month in which they are applied or expended. This is the month in which they result in liabilities for benefits received, regardless of whether or not receipt or expenditure of the funds actually takes place within the reporting period.⁶

5309 Capital Revenues

Urban and rural transit districts that receive funding for FTA Capital Program Section 5309 shall report funds received under the “5309 Capital Revenues” line. Report funds for the month in which they are applied or expended. This is the month in which they result in liabilities for benefits received, regardless of whether or not receipt or expenditure of the funds actually takes place within the reporting period.

5307 & 5311 Contract Revenues

If a transit district receives funding from another transit district to provide general public service, then report these funds under the “5307 and 5311 Contract Revenues” line. In addition, if reporting agency receives funding from a large urban transit agency such as a Metropolitan Transit Agency to provide general public service, then report these funds under the “5307 and 5311 Contract Revenues” line.

“Report funds for the month in which they are applied or expended. This is the month in which they result in liabilities for benefits received, regardless of whether or not receipt or expenditure of the funds actually takes place within the reporting period.”⁶

Local Revenues

The “Local Revenues” section of the PTN-128 report includes the following sources of funds:

1. Passenger Fares
2. Direct Transit Funding:

- a. Local Contributions (government and non-government)
- b. Contributed Services (non-cash)
- c. Sales Tax

3. Indirect Transit Funding:

- a. Auxiliary Transit Revenues
- b. Other Transportation Revenues
- c. Non-Transit Related Revenues

1. Passenger Fares

Passenger fares are the revenues earned from carrying passengers. Passenger fares may be collected in several ways, including:

- Before service is provided (e.g., through the sale of media such as passes, tickets, tokens sold to passengers)
- Directly at the point of service (e.g., farebox, turnstile)
- After the service is provided, (e.g., through weekly or monthly billing)⁶

Passenger fares are usually the amounts paid by the rider to use transit services but may also include special transit fares. Special transit fares are fares from contracts to the transit agency in which an agency or organization pays a set amount in return for unlimited transit service (on existing service) for the persons covered by the contract.⁶ Special transit fares are a contract for fares not for service.

Passenger fares may include special programs such as reduced passes or ticket prices for students, the elderly or individuals with disabilities. However, passenger fares should reflect the amount of the fare that the passengers pay on their own behalf.⁶

Passenger fares do not include subsidies or passenger fare assistance from other entities, such as governments to provide a reduced fare or free fare. Subsidies are provided to support the general provision of transit service. Passenger fare assistance is targeted to help specific classes of users (e.g., senior citizens, students) and helps to offset the reduced or free fares offered these users. Subsidies and fare assistance are reported in the appropriate state and local government source of funds.⁶

2. Direct Transit Funds

Direct transit funds are revenues earned from activities directly related to the provision of public transit service. The revenues are generated directly for public transportation.

Direct transit funds consists of:

- Local contributions (government & non-government)
- Contributed services (non-cash)
- Sales tax

Local Contributions – government and non-government – are funds allocated to transit out of general revenues of another entity. These funds are often part of the government's annual budgeting process from general revenues rather than dedicated funds for transit.

These funds are specifically designated for the provision of transportation and assist with paying the operating and capital costs of providing transit services and include:

- Operating assistance
 - General operating assistance to support service for all classes of passengers
 - Fare assistance to meet the difference between full adult fares and special reduced fares for persons with disabilities, senior citizens, students and other special reduced fare riders
 - Re-imbursements of payments for taxes, interest, maintenance and security costs
 - Special demonstration project assistance
- Capital assistance⁶
- Funds dedicated to transit at their source
 - Transit tax
 - Bridge, highway toll
 - HOV/HOT lane toll
- Other government funds
 - *Rebate on fuel sales tax*
 - Licensing/registration fees

Contributed Services

Contributed services are receipt of non-cash assets or services from another entity that benefits the transit operator. In-kind services are a type of contributed services. Report in-kind services as contributed services only if there is no obligation to pay for the services

Determining Contributed Services:

Contributed services include:

- Physical assets – report the fair market value at the date received
- Services – report the services as contributed service if the service meets the

following test:

- The service is significant and essential
- The transit agency has reasonably good control over the services
- There is an objective basis to value services
- The service benefits people outside the contributor's organization

Important Note: the amount of revenue reported for contributed services must be offset by an equal amount reported as expenses.

Assess Your Understanding – Contributed Services

- A. The city legal staff represents the transit operator at a claims hearing for free
- B. The county provides space for the transit call center in county offices with no obligation to pay for rent
- C. The community college has students volunteer to greet transit passengers at the central terminal one day per semester
- D. The city includes transit employees within their drug and alcohol testing program and charges the transit operator a reduced charge of \$25.00 per drug and alcohol test rather than the \$100.00 actual rate.

See following page for answers

Contributed Services Answers:

- A. Yes, this is a significant and essential service where there is an objective basis to value the service, the transit agency has reasonably good control over the service and the service benefits people outside of the organization
- B. Yes, because there is no obligation to pay for the lease or rent of the building, this is reported as a contributed service
- C. No, this service is not significant as it is only one day per semester and is not essential to providing transit service
- D. Yes, the \$75.00 different between the \$100.00 actual rate and the \$25.00 reduced charge should be reported as a contributed service.

Sales Tax

If a transit agency is an independent political entity and has the legal authority to impose a dedicated tax, this tax is called a directly levied tax. If the tax is levied by the legal authority of the local or state government for transit use, it is reported under local or state government sources of funds. For administrative convenience, directly levied taxes may be collected through another governmental entity. For example, a transit agency may use its legal authority to add one percent to the county sales tax for transit uses. The county collects all of the sales tax and distributes the one percent back to the transit agency. The one percent tax is directly levied sales tax by the transit agency reported under “Sales Tax” line on the PTN-128 report.

3. Indirect Transit Funds

Indirect transit funds are revenues earned from activities indirectly related to the provision of public transit service. Indirect transit funds include:

- Auxiliary transit revenues
- Other transportation revenues
- Non-transit related revenues

Auxiliary Transit Revenues

Auxiliary transit revenues are generated from the by-products of the transit service such as advertisements on-board vehicles, concessions stands in station areas; fees paid for transit ID cards, or fines paid for fare evasion.⁶ These revenues are not dedicated to the provision of transit service. Report auxiliary transit revenues in the month they are earned.

Other Transportation Revenues

Other transportation revenues category is infrequently used by transit agencies as it includes transportation services that are not open to the general public such as charter service and exclusive school bus service. Charter service is a vehicle hired for exclusive use that does not operate over a regular route, on a regular schedule and is not available to the general public. Exclusive school bus service is the use of buses to carry children and school personnel to and from their schools or school-related activities.

Non-transit Related Revenues

Funds earned from activities not associated with the provision of transit service including:

- Investment earnings
- Revenues earned from sales of maintenance services
- Rentals of revenue vehicles to other operators
- Rentals of transit agency buildings and property to other organizations
- Parking fees
- Donations not specified for transit use
- Grants not specified for transit use
- Development fees
- Rental car fees

Contract Revenues

Contract revenues are revenues generated from contracts to provide transit services for a designated group or purpose. The PTN-128 pre-lists common contracts for the provision of transit service, as well as, blank fields to report other contracts not listed. Contracts may be Federal, state, local or privately funded to provide transportation service. The pre-filled contracts listed are:

- Medical Transportation Program (MTP)
- Head Start
- Department of Aging and Disabilities (DADS)
- Department of State Health Services
- Department of Family & Protective Services
- Department of Assistive & Rehabilitative Services
- FTA Special Needs of Elderly Individuals and Individuals with Disabilities (Section 5310)
- FTA Job Access and Reverse Commute (JARC)(Section 5316)
- FHA Congestion Mitigation Air Quality (CMAQ)
- FTA New Freedom Program (Section 5317)

Common Errors – Revenues

Errors in reporting	Correct reporting
Not all revenues are reported.	Ensure that all revenues (both operating and capital) from all contracts and sources are reported. A good check is to calculate revenues less expenses and determine if it is what is expected.
Contributed services are not reported.	Ensure that “non-cash” funding is reported both in revenues and expenses.
Fare revenues deducted from an invoice are not reported in revenues.	Ensure that fare revenues retained by the seller of purchased transportation are captured as fare revenue.

Expenses

Expenses

Report both operating and capital expenses on the PTN-128 report. *Reporting of capital expense is now a mandatory requirement.* Operating expenses and capital expenses are collected using the Uniform System of Accounts (USOA).

Expense Concepts

The PTN-128 collects operating expenses which are those expenses associated with the day-to-day operation of the transit agency. Understanding the following concepts is necessary to correctly complete the PTN-128:

- Accrual accounting
- Treatment of Maintenance and ADA paratransit expenses
- Report contributed services in expenses
- Expense categories
- Adjustment for capital cost of contracting

Accrual Accounting - Expenses

Expenses are reported using the accrual accounting principle that expenses are reported in the month they are incurred, i.e., the month in which they result in liabilities for benefits received, regardless of whether or not the expenditure is paid during the reporting period.⁷ Report timing is not tied to the timing of actual payment of expenditure. If 1000 hours of transit service is provided in June for a cost of \$20,000, then report expenses of \$20,000 in June whether or not actual payments have occurred.

Operating Expenses Eligible for Capital Reimbursements

Maintenance expenses and ADA paratransit expenses that are eligible for Federal capital reimbursement are reported as operating expenses in the appropriate category on the PTN-128 report. This is consistent with the National Transit Database standards.⁷

Reporting Contributed Services in Expenses

Contributed services are receipt of non-cash assets or services from another entity that benefits the transit operator. Report the expenses associated with the contributed service. The amount of *revenue* reported for contributed services must be offset by equal amounts reported as *expenses*. For example: an agency receives free rent in the amount of \$3,000 per month for the use of the administrative offices. The agency should report the \$3,000 per month under the Contributed Service Revenue category and \$3,000 per month under the Administrative Operating Expense category.

Why report contributed services in expenses?

If an agency has a large percentage of contributed service and does not report it as an expense, when comparing operating costs across agencies, the numbers would be skewed. Efficiency indicators such as cost per mile, cost per passenger would not be accurate.

⁷ National Transit Database (NTD), Form F-30, www.ntdprogram.org

Operational Expense Categories

The operational expense categories include the following:

- Operating expenses
- Maintenance expenses
- Administrative expenses
- Planning expenses
- Purchased Transportation expenses

Table 21 illustrates the activities that should be included under each expense category.

Table 21. PTN-128 Expense Categories

Operating	Maintenance	Administrative
<p>Transportation Administration & Support</p> <p>Garage & Station Supervision</p> <p>Safety & Training</p> <p>Field Supervision</p> <p>Accident Investigation</p> <p>Revenue Vehicle Movement Control</p> <p>Starters</p> <p>Dispatching</p> <p>Technology Support (AVL, Signal Priority)</p> <p>Scheduling of Transportation Operations</p> <p>Data Collection Activities (Ride/Time Checks)</p> <p>Scheduling & Runcutting</p> <p>Development of Schedule Summaries</p> <p>Revenue Vehicle Operation</p> <p>Operators</p> <p>Fuels & Lubricants (& related taxes)</p> <p>Tires</p> <p>Vehicle Licensing & Registration</p> <p>Lease & Rental Costs (Facilities, Vehicles)</p> <p>Ticketing & Fare Collection</p> <p>Producing Fare Media</p> <p>Distributing Fare Media</p> <p>Pulling Vaults</p> <p>Counting Cash</p> <p>Processing Debit/Credit Card Transactions</p> <p>System Security</p> <p>Patrolling Buses & Stations</p> <p>Securing Operating Facilities</p> <p>Monitoring Closed Circuit TV</p> <p>Court Appearances</p>	<p>Vehicle Maintenance (including Service Vehicles)</p> <p>Maintenance Administration</p> <p>Maintaining Vehicle Databases</p> <p>Accumulating Performance Data</p> <p>Providing Technical Training</p> <p>Scheduling & Recording Maintenance Activities</p> <p>Engineering Maintenance Activities</p> <p>Vehicle Servicing</p> <p>Interior & Exterior Washing/Cleaning</p> <p>Refueling</p> <p>Adding Engine Oil or Water</p> <p>Movement of Vehicles for Servicing</p> <p>Vehicle Inspection & Maintenance</p> <p>Schedule preventive maintenance</p> <p>Minor Repairs & Fluid Changes</p> <p>Road Calls/Towing</p> <p>Component Rebuild/Overhaul</p> <p>Major Repairs</p> <p>Major Unit Replacement</p> <p>Accident Repair</p> <p>Vandalism Repair</p> <p>Non-Vehicle Maintenance</p> <p>Vehicle Movement Control Systems</p> <p>Fare Collection & Counting Systems</p> <p>Structures, Tunnels, Subway; Roadway & Track</p> <p>Passenger Stations</p> <p>Operating Stations (Garages), Grounds & Equipment</p> <p>Vandalism & Accident Repair of Buildings, Grounds & Equip.</p> <p>Operations & Maintenance of Electrical Power Towers</p> <p>Administrative Supervision & Clerical Support</p> <p>Purchased Transportation</p> <p>Expenses that are billed by the seller of service (invoiced)</p> <p>Does not include:</p> <p>Seller's expenses that are not billed</p> <p>Expenses in support of purchased transportation</p>	<p>Finance & Procurement</p> <p>Accounting</p> <p>Payroll</p> <p>Budgeting & Financial Reporting</p> <p>Purchasing</p> <p>Storing & Issuing Materials</p> <p>Inventory Management</p> <p>Real Estate Management</p> <p>Marketing & Customer Service</p> <p>Telephone Information</p> <p>Complaint Lines</p> <p>Distributing Information to Facilities</p> <p>Promotions</p> <p>Media Relations</p> <p>Market Research</p> <p>Risk Management</p> <p>Claims Management</p> <p>Payments for Injuries & Damages</p> <p>Defending Liability Cases</p> <p>System Safety Planning</p> <p>General Activities</p> <p>Personnel</p> <p>Legal Services</p> <p>Insurance</p> <p>Information Technology</p> <p>Office Management</p> <p>General Management</p> <p>Planning</p> <p>Service Development</p> <p>Researching Demographics & Technology</p> <p>Identifying Route Configurations</p> <p>Identifying Service Levels</p> <p>Regional Planning</p> <p>Long-Range Planning</p> <p>Coordination Planning</p>

Financial Reporting Expenses

Operating Expenses

Operating expenses are all expenditures associated with activities regarding dispatching and running vehicles in revenue service to carry passengers, including administrative and clerical support. Since vehicle operators generally are the largest employee group, operating expenses are typically the largest expense function arising from the labor and fringe benefit expenses for these employees. Include the following expenses as operating expenses on the PTN-128 report:

1. Transportation administration and support
 - a. Garage and station supervision
 - b. Safety & training
 - c. Field supervision
 - d. Accident investigation
2. Revenue vehicle movement control
 - a. Starters
 - b. Dispatching
 - c. Technology support (AVL, signal priority)
3. Scheduling of transportation operations
 - a. Data collection activities (ride check, running time checks)
 - b. Scheduling and runcutting
 - c. Development of schedule summaries
4. Revenue vehicle operation
 - a. Operators
 - b. Fuels and lubricants (and related taxes)
 - c. Tires
 - d. Vehicle licensing and registration
 - e. Lease and rental costs (facilities, vehicles)
5. Ticketing and fare collection
 - a. Producing fare media
 - b. Distributing fare media
 - c. Pulling vaults
 - d. Counting cash
 - e. Processing debit/credit card transactions
6. System security
 - a. Patrolling buses and stations
 - b. Securing operating facilities
 - c. Monitoring closed circuit TV
 - d. Court appearances

Maintenance Expenses

Maintenance expenses include vehicle maintenance and non-vehicle maintenance.

Vehicle Maintenance

Vehicle maintenance are all expenditures associated with the activities regarding ensuring revenue vehicles and service vehicles are operable, cleaned, fueled, inspected and repaired. Vehicle maintenance employees typically are the second largest group of

employees. Therefore, vehicle maintenance expenses are typically the second largest expense function. Include the following expense functions as maintenance expenses on the PTN-128 report:

1. Maintenance administration – vehicles
 - a. Maintaining vehicle databases
 - b. Accumulating performance data
 - c. Providing technical training
 - d. Scheduling and recording maintenance activities
 - e. Engineering maintenance activities
2. Servicing revenue vehicles
 - a. Interior and exterior washing/cleaning
 - b. Refueling
 - c. Adding engine oil or water
 - d. Movement of vehicles for servicing
3. Inspection and maintenance of revenue vehicles
 - a. Schedule preventive maintenance
 - b. Minor repairs and fluid changes
 - c. Road calls/towing
 - d. Component rebuild/overhaul
 - e. Major repairs
 - f. Major unit replacement
 - g. Accident repair
 - h. Vandalism repair
 - i. Inspection and maintenance of service vehicles⁸

Note that some maintenance expenses such as engine rebuilds and overhauls may be a capital expenditure if the total labor and materials necessary for the rebuild or overhaul are greater than a unit value of \$5,000 or a greater capitalization value used by the agency.

Non-vehicle Maintenance

Non-vehicle maintenance is all the activities associated with ensuring buildings, grounds and equipment (garages, passenger stations and shelters, administration buildings); fare collection equipment; and communications systems, track structures, tunnels and power systems are operable. Include the following expense functions as maintenance expenses on the PTN-128 report:

1. Maintenance administration – non-vehicles (preparing maintenance records and training facility maintenance personnel)
2. Inspecting, cleaning, repairing and replacing components for:
 - a. Maintenance of vehicle movement control systems
 - b. Maintenance of fare collection and counting equipment
 - c. Maintenance of roadway and track
 - d. Maintenance of structures, tunnels, bridges
 - e. Maintenance of passenger stations (including shelters and custodial service)
 - f. Maintenance of operating station buildings, grounds and equipment
 - g. Maintenance of garage and shop buildings, grounds and equipment

- h. Maintenance of communication systems (fax, telephones, public address systems) – does not include vehicle movement control systems
 - i. Maintenance of general administration buildings, grounds and equipment
3. Vandalism repairs of buildings, grounds and equipment
4. Operation and maintenance of electric power facilities.⁸

Administrative Expenses

Administration expenses are all expenditures associated with activities supporting the provision of transit service. If a transit provider is part of a larger organization, a cost allocation plan is typically used to report the portion of expenses allocated to transit. Include the following expense functions as administrative expenses:

1. Finance and procurement
 - a. Accounting
 - b. Payroll
 - c. Budgeting and financial reporting
 - d. Purchasing
 - e. Storing and issuing materials
 - f. Inventory management
 - g. Real estate management
2. Marketing and customer service
 - a. Telephone information
 - b. Complaint lines
 - c. Distributing information to facilities
 - d. Promotions
 - e. Media relations
 - f. Market research
3. Accidents (not repair of)
 - a. Claims management
 - b. Payments for injuries and damages
 - c. Defending liability cases
 - d. System safety planning
4. General activities
 - a. Personnel administration
 - b. General legal services
 - c. General insurance
 - d. Data processing
 - e. General engineering
 - f. Office management and services
 - g. General management
 - h. General function

Planning Expenses

Planning expenses include expenses associated with preliminary transit service development including researching transit technology and service areas to determine appropriate technology, route configurations and service level requirements. This covers

the expenses associated with performing these activities before a firm commitment to construct is made. After a commitment to construct, these costs are included in capital or other operational expense categories.⁸

Purchased Transportation Expenses

Purchased transportation expenses are expenses incurred and billed by purchased transportation providers (sellers) in the operation of the contracted transit services. The expenses are equal to the payments or accruals made to the transit agency (net of fare revenues the seller may have collected) and all purchased transportation fare revenues associated with the service (fare revenues collected by both the buyer and seller).⁸

Do not report the following expenses:

- Expenses for which the buyer has no obligation to pay – for example, if the service costs the seller more than his contract covers
- Expenses incurred by the buyer in support of the purchases transportation services – for example, salaries and wages of transit agency personnel administering or working in some capacity in support of the agreement, fuel and tires if provided to the seller, vehicle maintenance, marketing, advertising, legal services, and ticket sales. These are called other costs incurred by the buyer and are reported in the appropriate expense category.

There are two adjustments that are often required to obtain the reportable purchased transportation expense:

- Adjust for passenger fares
- Adjust for capital cost in purchased transportation

Passenger fares adjustment

In purchasing transportation, fares may be either collected by the buyer of the service or the seller of the service. In both cases, the buyer should report fare revenues associated with the service in the Passenger Fare line item under Revenues on the PTN-128 report.

If fares are retained by the seller of service

If the fares are retained by the seller of service and deducted from the invoice, then the seller should add the fares back to the invoice to report the purchased transportation expense and report the fares in the Passenger Fare line item on the PTN-128 report. Example 22 illustrates the calculation for reporting on the PTN-128. In the example, a negotiated contract rate of \$15.00 per passenger is charged with the seller providing 1,000 passenger trips during the period. The purchased transportation expense is \$15,000. However, the seller invoices the buyer \$13,000 because the seller has retained \$2,000 collected for passenger fares. As a purchaser of transportation service, report the \$15,000 under Purchased Transportation Expense and \$2,000 under Passenger Fare Revenue.

Example 22. Fares retained by the seller of transportation service

Contract Rate	\$ 15.00
No. of Passengers	1,000
Purchased Transportation Expense	\$ 15,000
less Fares retained (\$2/passgr)	\$ (2,000)
Invoiced amount	\$ 13,000

If fares are included in the negotiated rate

Some contracts include a negotiated contract with an agreement that the seller would retain a set fare amount and will charge an adjusted rate for the retained fare. Example 23 illustrates the calculation for reporting on the PTN-128. In this example, a contract rate of \$13.00 is negotiated that includes the estimated cost per passenger of \$15.00 and fare revenue per passenger of \$2.00. The seller invoices the buyer \$13.00 per passenger to carry 1,000 passengers during the period for a total of \$13,000. As a purchaser of transportation service, report the purchased transportation cost of \$15.00 per passenger for a total of \$15,000 under Purchased Transportation on the PTN-128 report; and, report the fare revenues of \$2.00 per passenger for a total of \$2,000 under the Passenger Fare Revenue on the PTN-128 report.

Example 23. Fares contained in the negotiated contract rate

Operating Rate negotiated	\$ 15.00
Fares negotiated	\$ (2.00)
Contract Rate	\$ 13.00
No. of Passengers	1,000
Invoice	\$ 13,000
Operating Rate	\$ 15.00
No. of Passengers	1,000
Purchased Transportation Expense	\$ 15,000
Fares negotiated	\$ 2.00
No. of Passengers	1,000
Fares Retained	\$ 2,000

It is important to accurately report the passenger fares, as passenger fares are included in total local investment. Local investment is a performance indicator used in calculating the Performance funding portion of the state’s allocation formula for Transit Districts. Also, if purchased transportation is reported with the fare deduction, the cost of providing service is artificially deflated and the cost effectiveness indicators (cost per miles, cost per passenger, cost per hour) would be inaccurate.

Adjustment for the Capital Cost

The purchased transportation expense line in the PTN-128 report is an Operational Expense sub-category. The purchased transportation expense should include only operating expenses and should exclude capital expenses. Often vehicle and facility capital costs are included in the purchased transportation rate; therefore, these costs should be deducted from the purchased transportation expense. The PTN-128 report provides a means to deduct these costs under the line item entitled “less capital expenses in purchased transportation.” Depreciation and lease costs for vehicles and facilities should be reported as a negative dollar amount on the PTN-128 report under the category entitled “less capital expenses in purchased transportation.”

If the contract specifies the capital amount

If the contract specifies the amount that is the capital portion of the contract rate, then deduct this amount under the “less capital expenses in purchased transportation” line. Example 24, illustrates the calculation if a contract is negotiated at a rate of \$40.00 per hour and specifies that \$6.00 per hour is the capital cost of the contracting. On the PTN-128 report under the Purchased Transportation expense the name of the contractor (example, “Texas Cab Company”) and the cost of the purchased transportation (\$40.00 * 100 hours = \$4,000). Deduct the capital expense in purchased transportation (\$6.00 * 100 hours = \$600).

Example 24. Capital Amount Specified in Contract



PTN-128 Worksheet -

JUN	
Actual Vehicle Hours	
Revenue	100
Purchased Transportation	
(list below):	
	\$ 3,400
PT (from non-5307's or 5311's):	
Texas Cab Company	\$ 4,000
less capital Expenses in Purchased Transportation (enter negative \$)	\$ (600)

If the contract does not specify the capital amount

If within the purchased transportation rate is the price of the vehicle and / or the facility but the contract does not specify the capital cost, then depending on the type of contract a maximum allowable percentage may be deducted from the purchased transportation amount. Table 1. highlights the maximum allowable percentage capital deduction by type of contract for the PTN-128 reporting purpose.

Table 1. Maximum Allowable Capital Expense in Purchased Transportation Deduction (unless specified by contract)

			The Part of Capital Cost of Contracting that is Operating	The Part of Capital Cost of Contracting that is Capital
Type of Contract	What the Contractor Does	Capital Cost of Contracting (Grant Purposes)	Operating	Capital
1	Vehicle Lease Contract	Vehicles only	100%	0%
2	Vehicle Maintenance Contract	Maintenance only	100%	100%
3	Maintenance/Lease Contract	Vehicles and Maintenance	100%	80%
4	Turnkey Contract	Transit Service, Maintenance, Vehicles	50%	40%
5	Service Contract	Transit Service and Maintenance	40%	40%
6	Vehicle/Service Contract	Transit Service and Vehicles	10%	0%

Note: Preventive maintenance is an operating expense even though it is eligible for capital reimbursement.

Example 25, illustrates the calculation if a contract is negotiated at a rate of \$40.00 per hour and no capital cost is specified within the rate for a Turnkey Contract. On the PTN-128 report under the Purchased Transportation expense the name of the contractor (example, “Texas Cab Company”) and the cost of the purchased transportation (\$40.00 * 100 hours = \$4,000). Deduct the maximum allowable capital expense in purchased transportation (10% of \$4,000 = \$400).

It is important to back out the capital expense in purchased transportation so that only the operating cost of service is reported and is not over-inflated by hidden capital costs. Performance indicators such as operating cost per passenger, operating cost per hour and local share per operating expense can be fairly evaluated across providers.

Example 25. Contract Does Not Specify Capital Cost



PTN-128 Worksheet -

JUN	
Actual Vehicle Hours	Revenue 100
Purchased Transportation (list below):	\$ 3,600
PT (from non-5307's or 5311's):	
Texas Cab Company	\$ 4,000
less capital Expenses in Purchased Transportation (enter negative \$)	\$ (400)

Purchased Transportation Reporting Categories

Note that there are two reporting categories of Purchased Transportation expenses:

- Purchased Transportation from a non-5307 or 5311 (non-Transit District)
- Purchased Transportation from a 5307 or 5311 (Transit District)

Recall that a Category 2 provider is an agency purchasing service from an agency other than a small urban or rural transit district. The majority of agencies purchase service from a transit provider that is not a small urban or rural transit district; therefore, purchased transportation expenses should be reported under “Purchased Transportation from a non-5307 or 5311.”

A Category 3 provider is a transit district that purchases service from another transit district. In this case, report purchased transportation expenses under “Purchased Transportation from a 5307 or 5311.” Recall that as a category 3 transit provider, the transit district purchasing service does not report the operating data (miles, hours, passengers); therefore, to accurately calculate the effectiveness indicators (cost per mile, cost per passenger and cost per hour) the purchased transportation expenses is not included in the effectiveness calculation.

Capital Expenses (mandatory reporting requirement)

Capital expenses are expenses for items of tangible property that have a useful life of more than one year and an acquisition cost threshold consistent with Federal and local requirements. The cost threshold by FTA requirements is at least \$5,000 or a lesser level if used by the agency for its financial statements.⁸

Capital expenses are reported using the accrual accounting principle that expenses are reported in the period they are incurred; i.e., the month in which they result in liabilities for benefits received, regardless of whether or not the expenditure is paid during the reporting period.

The total capital expenses reported on the PTN-128 must equal the total funds reported under the Revenues section of the PTN-128.

Operating expenses that are paid with capital funds are not reported on this form. The Uniform System of Accounts (USOA) defines operating expenses (Section 5.2) regardless of grant eligibility for Federal capital assistance.

The capital portion of purchased transportation is automatically included in the total capital expenses when reported under the “less capital expenses in purchased transportation” line item.

⁸ National Transit Database (NTD), Form F-20, www.ntdprogram.org

Capital expenses include:

- Passenger stations, including the costs for design and engineering, land acquisition and relocation, demolition, and purchase or construction of the stations. Passenger stations include park-and-ride facilities. Passenger stations include structures that have separate, enclosed buildings.
- Administrative buildings
- Maintenance buildings
- Revenue vehicles
- Service vehicles
- Fare revenue collection equipment
- Communications and Information systems
- Other capital expenses that meet the reporting threshold such as furniture and equipment, shelters, signs and passenger amenities (benches).

Common Errors – Expenses

Error in reporting	Correct reporting
Contributed service revenues are not reported with corresponding expenses.	Ensure that when reporting contributed service revenues there is a corresponding expense reported.
The capital portion of purchased transportation is not deducted from purchased transportation expenses.	Ensure that capital expenses are reported in the capital line item.
Not all expenses are reported.	Ensure that all expenses (operational, purchased transportation and capital) are reported. A good check is to calculate revenues less expenses and determine if it is what is expected.

Assess Your Understanding—Financial Data

Place each item in the correct revenue category:

- A. County transit appropriation
- B. Employer’s pre-purchase of passes
- C. Funding for New Freedom project
- D. State fuel tax rebate
- E. Texas 5307 funds
- F. Texas 5310 funds
- G. Shelter advertising revenue
- H. Contract for unlimited use of transit for university students
- I. Free use of Human Resources support

Revenue Categories

- 5307 & 5311 Federal Revenues
- 5307 & 5311 State Revenues
- Passenger Fares
- Local Contributions (govt. & non-govt.)
- Contributed Services (non-cash)
- Sales Tax
- Auxilliary Transit Revenues
- Other Transportation Revenues
- Non-Transit Related Revenues
- Contract Revenues:

Place each item in the correct expense category:

- A. Brake part kits
- B. Operator fringe benefits
- C. Propane fueling station
- D. “2030 Plan” printing costs
- E. Payment of taxi cab vouchers
- F. Scheduling software maintenance agreement
- G. Transit station roof repairs

Expense Categories

- Operating
- Maintenance
- Administrative
- Planning
- Purchased Transportation

Revenue Category Answers:

- A. Local Contribution
- B. Passenger Fares
- C. Contract – New Freedom
- D. Local Contribution
- E. 5307 & 5311 State
- F. Contract – Elderly and Disabled Section 5310
- G. Auxiliary Transit Revenue
- H. Passenger Fares
- I. Contributed Service

Expense Category Answers:

- A. Maintenance
- B. Operating
- C. Capital (if constructing the fueling station)
- D. Planning
- E. Purchased Transportation
- F. Operating (for software upgrades not “maintenance”)
- G. Maintenance (if under the capital dollar threshold; otherwise, capital)

How would you report the following?

1. The transit agency is a part of the City. The City provides the transit agency free of charge procurement labor, accounting and personnel staffing needs.
2. You purchase service from a provider. The cost of service is \$9,000 and the provider deducts \$500 for fares collected; therefore the monthly invoice is \$8,500. What do you report in revenues and what do you report in expenses?
3. The transit agency has leased two maintenance bays after hours to a maintenance company that provides maintenance for the local airport vehicles. What type of revenue is this?

How to Report Financial Data Answers:

1. Report all of these as an administrative expense and a contributed service revenue because the services performed are significant and essential to the transit agency; and, would be performed by salaried personnel if the donated services were not provided.
2. Report revenues of \$500 in the passenger fare category and the expense of \$9,000 in the purchased transportation expense category for a net total of \$8,500.
3. Report as non-transportation revenues because revenues generated are not associated with general public transportation.

Management Statistics and Graphs - Financial Data

Management Statistics and Graphs – Financial Data

The PTN-128 report automatically calculates management statistics and generates graph reports. The PTN-128 report financial section automatically calculates the following management statistics (see Example 26):

- Operating Cost per Passenger Trip
- Operating Cost per Revenue Hour
- Operating Cost per Revenue Mile
- Fare Recovery Ratio
- Subsidy per Passenger

The PTN-128 also generates year-to-date (YTD) totals as a comparison to the Prior Year Total.

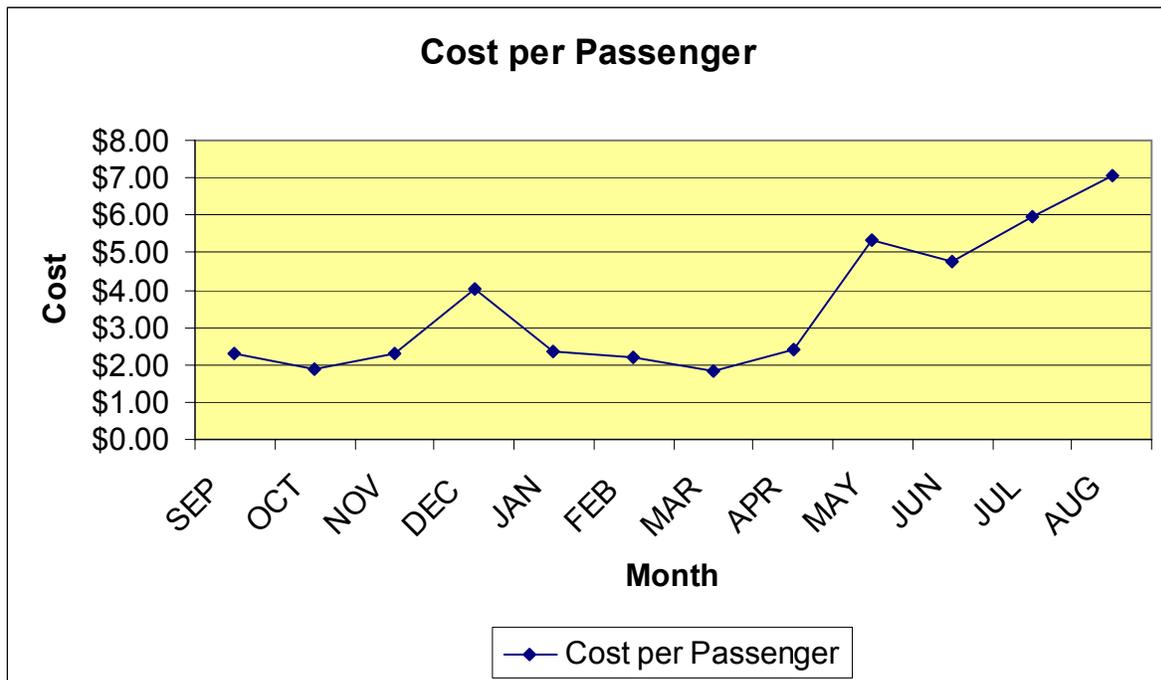
Example 26, PTN-128 Financial Management Statistics

 Texas Department of Transportation PTN-128 Worksheet -			2008	2007
	YTD Total	Prior Year Total		
Operating Cost per Passenger	\$3.07	\$2.83		
Operating Cost per Revenue Hour	\$57.84	\$56.25		
Operating Cost per Revenue Mile	\$4.22	\$4.11		
Fare Recovery Ratio	34.2%	33.3%		
Subsidy/Passenger	\$1.21	\$1.89		

Operating Cost per Passenger Trip

Operating cost per passenger trip is the total operating cost divided by total passenger trips. It is a measure of service efficiency. It indicates the cost of carrying one passenger. Allocating service based on passenger demand will typically keep this performance statistic relatively stable from month to month. For example, decreasing service hours during holidays when passenger demand is low, will reduce costs and keep the operating cost per passenger trip relatively constant. Monthly operating costs are also influenced by fluctuations in fuel costs, vehicle repairs; and, may be influenced by seasonal changes. For example, hot summer months may increase air conditioning repairs. Example 27 illustrates the PTN-128 operating cost per passenger trip graph.

Example 27. Operating Cost per Passenger Trip Graph



Reasonableness Check – Operating Cost per Passenger Trip

Operating cost per passenger trip averages \$4.46 (FY07) for small urban transit districts and \$12.56 (FY07) for rural transit districts annually.

- Typically demand response systems will have a higher cost per passenger trip than fixed route systems due to the productivity differences between these systems.

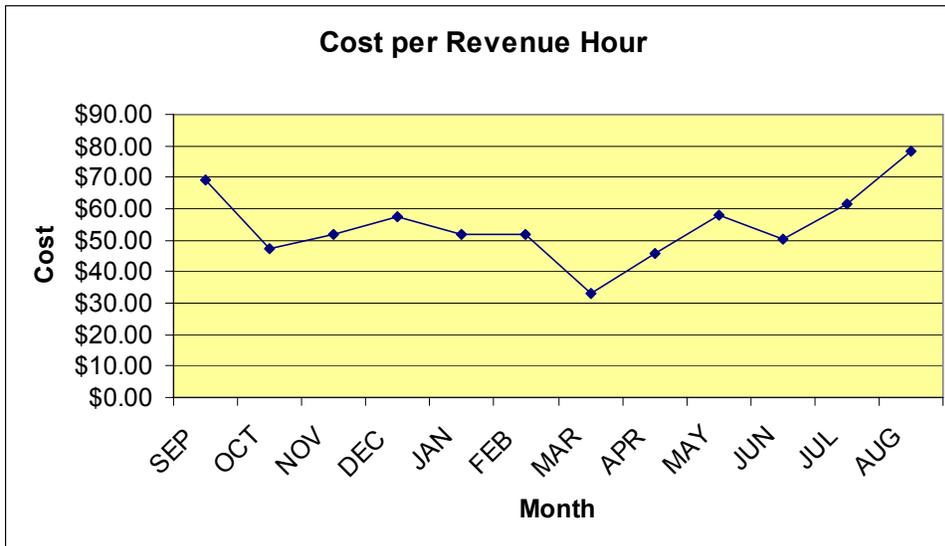
Large fluctuations from month to month may indicate that expenses are not reported based on an accrual accounting.

Increases in cost per passenger indicate either a decrease in passengers or an increase in expenses. Check whether the graph is explainable in these terms.

Operating Cost per Revenue Hour

Operating cost per revenue hour is the total operating cost divided by revenue hours. It is a measure of service efficiency. It indicates the cost per one revenue hour of service. Operating costs per revenue hour of service is influenced by fluctuations in costs and hours of service scheduled. High operating costs per revenue hour of service may indicate increase in vehicle maintenance expenses, high wages, high deadhead hours/miles (cost not in revenue hours), high overhead staff or salaries, fuel increases, etc. Operating cost per revenue hour may fluctuate with seasons. For example, fuel costs during the summer months are typically higher than other seasons. Example 28 illustrates the PTN-128 Operating Cost per Revenue Hour graph.

Example 28. Operating Cost per Revenue Hour Graph



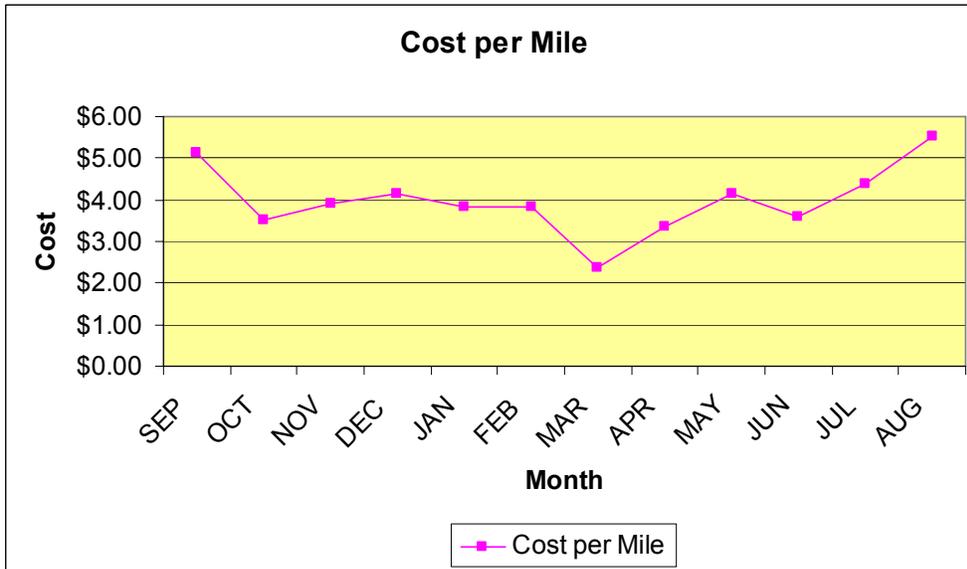
Reasonableness Check – Operating Cost per Revenue Hour

Operating cost per revenue hour averages \$56.93 (FY07) for small urban transit districts and \$43.49 (FY07) for rural transit districts annually.
Large fluctuations from month to month may indicate that expenses are not reported based on an accrual accounting.
Check whether the graph is explainable in terms of fluctuations in costs and revenue hours.

Operating Cost per Revenue Mile

Operating cost per revenue mile is the total operating cost divided by revenue mile. It is a measure of service efficiency. It indicates the cost per one mile of service. Operating costs per revenue mile of service is influenced by fluctuations in costs and miles of service scheduled. High operating costs per revenue mile of service may indicate increase in vehicle maintenance expenses, high wages, high deadhead hours/miles (cost not in revenue miles), high overhead staff or salaries, fuel increases, etc. Example 29 illustrates the PTN-128 Operating Cost per Revenue Mile graph.

Example 29. Operating Cost per Revenue Mile Graph



Reasonableness Check – Operating Cost per Revenue Mile

Operating cost per revenue mile averages \$4.04 (FY07) for small urban transit districts and \$2.40 (FY07) for rural transit districts annually.

Large fluctuations from month to month may indicate that expenses are not reported based on an accrual accounting.

Check whether the graph is explainable in terms of fluctuations in costs and revenue miles.

Farebox Recovery Ratio

Farebox recovery is the fares collected divided by the operating expense. It is the percentage of service cost that is covered by fares. This statistic is sometimes used to help determine fare policy. The farebox recovery ratio is provided as a management tool.

Subsidy per Passenger

Subsidy per passenger is the total operational expenses less local investment divided by passenger trips. It is the measure of subsidy needed by the Federal and State Section 5307, 5311 and 5309 programs to cover each passenger trip. Subsidy per passenger is provided as a management tool.

PTN-128 BREAKOUT SHEET –
SECTION 5310, JARC, NEW FREEDOM

Breakout Sheet – Section 5310, JARC and New Freedom

The breakout sheet purpose is to report specific data to the state for three programs:

- Section 5310 - “FTA Special Needs of Elderly Individuals and Individuals with Disabilities Formula Program”
- JARC – “FTA Job Access and Reverse Commute Formula Program”
- New Freedom – “FTA New Freedom Program” - 5317

The data included in the breakout sheet is first reported within the data on the main PTN-128 report.

Example 30 illustrates the operational data entry portion of the PTN-128 Breakout Sheet.

There are four data elements:

- Revenue Hours
- Revenue Miles
- Passenger Trips
- Revenue Vehicles

Note: The passenger trips are automatically populated from the main PTN-128 report.

Example 30. PTN-128 Breakout Sheet – 5310, JARC, New Freedom – Operating Data

			
	SEP	OCT	NOV
Actual Vehicle Revenue Hours	83	102	80
Section 5310	83	102	80
JARC			
New Freedom			
Actual Vehicle Revenue Miles	1,000	1,220	960
Section 5310	1,000	1,220	960
JARC			
New Freedom			
Passenger Trips	250	305	240
Section 5310	250	305	240
JARC	-	-	-
New Freedom	-	-	-
Revenue Vehicles	1	1	1
Section 5310	1	1	1
JARC			
New Freedom			

Example 31 illustrates the financial data entry portion of the PTN-128 Breakout Sheet.

Example 31. PTN-128 Breakout Sheet – 5310, JARC, New Freedom – Financial Data

			
	SEP	OCT	NOV
Total Revenues	\$4,625	\$4,650	\$4,620
Section 5310	\$ 4,625	\$ 4,650	\$ 4,620
JARC	\$ -	\$ -	\$ -
New Freedom	\$ -	\$ -	\$ -
FTA Grant Revenues	\$3,500	\$3,500	\$3,500
Section 5310 Operating Revenues	\$ 3,500	\$ 3,500	\$ 3,500
Section 5310 Capital Revenues			
JARC	\$ -	\$ -	\$ -
New Freedom	\$ -	\$ -	\$ -
Fare Revenues	\$125	\$150	\$120
Section 5310	\$ 125	\$ 150	\$ 120
JARC			
New Freedom			
Other Local Revenues	\$1,000	\$1,000	\$1,000
Section 5310	\$ 1,000	\$ 1,000	\$ 1,000
JARC			
New Freedom			
Total Expenses (Operating & Capital)	\$4,625	\$4,650	\$4,620
Operational Expenses:	\$4,625	\$4,650	\$4,620
Section 5310	\$ 4,625	\$ 4,650	\$ 4,620
JARC			
New Freedom			
Capital Expenses:	\$0	\$0	\$0
Section 5310			
Reasonableness Check:	SEP	OCT	NOV
Average Weekly Passenger Trips	58	70	55
Average Speed	12	12	12
Revenues less Expenses	\$0	\$0	\$0
Performance Statistics:			
Passenger Trips per Revenue Hour	3.01	2.99	3.00
Passenger Trips per Revenue Mile	0.25	0.25	0.25
Operational Expense per Revenue Hour	\$55.72	\$45.59	\$57.75
Operational Expense per Revenue Mile	\$4.63	\$3.81	\$4.81

The bottom of the Breakout report includes "Reasonableness Checks" and "Performance Statistics" to aid in quality assurance. The "Reasonableness Check" includes:

- Average Weekly Passenger Trips
- Average Speed
- Revenues less Expenses (including capital)

The "Performance Statistics" include:

- Passenger Trips per Revenue Hour
- Passenger Trips per Revenue Mile
- Operational Expense per Revenue Hour
- Operation Expense per Revenue Mile

Note regarding Section 5310 Breakout

Report Section 5310 operational and financial data on the Breakout Sheet only if the provider receives funds for operating service. If Section 5310 funds are received to purchase capital items, do not report data on the Breakout Sheet

PTN-128 WEB SYSTEM
INSTRUCTIONS

PTN-128 Web System Instruction Sheet:

Go to the following link:

<http://ptn128.tamu.edu>

1) Type in the User name and Password provided. **Be careful – it is case sensitive!**

As you notice, the passwords are intuitive – please immediately **change password** by going to “My Account” (top right)

2) Select Edit/View fiscal year’s data.

3) Input data just as in the excel version of the PTN-128 report. Note that there are two data entry forms (use the *far right* scroll bar and scroll to the bottom): 1) Data Worksheet and 2) JARC, New Freedom, 5310 Breakout.

4) **Important** - Please remember to **click the "Save and Calculate"** button every time before exiting the worksheet. Data input / changes will not be saved without clicking the "Save and Calculate" button. After "Save and Calculate" is complete, the document will be color coded to help identify *possible* errors or data inconsistencies. Below are color codes. Reminder: include comments for data that is color coded green or blue or needing further explanation. If you then make changes to your data or add a comment, you must “save and calculate” again or your changes will not be retained in the system.

Data definitions are included in the data entry screen. Scroll and leave the cursor over the keyword and the definition will appear for your reference.

5) To Print Reports first click the "Download Excel" button (top right). Once exported to Excel: Select File, Print, Entire Workbook to print all reports after data is entered.

6) Quarterly Submittal: When you have verified your data and are ready to submit the quarterly report, e-mail a note to your Public Transportation Coordinator (PTC) that the report in the system is ready for submittal. **You no longer will need to send the spreadsheet** version as your PTC will be able to log into the system and see your report. The PTC will review / verify and will send a note to PTN that the report is final.

7) Need to make changes to your data after it has been submitted? Just open the PTN-128, make your changes and “save and calculate” your changes. Then send a note to your PTC outlining the changes made. The PTC will forward the note to PTN notifying them that the change was made.

Red  = Error
Blue  = Previous Month Data Missing
Green  = Over 50% Variance from Previous Month

Further questions or assistance: Suzie Edrington, Texas Transportation Institute, s-edrington@tamu.edu, 713-686-2971 xt.107

WHAT IS THE FUNDING FORMULA?

In 2003 the 78th Texas Legislature delegated to the Texas Transportation Commission the responsibility to develop and implement a formula for allocation of federal and state funds to rural transit districts and state funds to eligible urban transit districts. The Legislature directed the Commission to include performance as an element of the funding formula. The Commission gave the Public Transportation Advisory Committee (PTAC) the task to recommend the funding formula. PTAC is an eleven-member committee appointed by the Texas Transportation Commission and is comprised of 3 transportation user representatives, 3 general public representatives, 4 transportation provider representatives (1 serving as chairman) and 1 health and human services representative. PTAC had adopted three goals as guidance in developing the current funding formula:

- Goal #1: To improve access to public transportation in Texas in a fiscally responsible manner
- Goal #2: To improve the effectiveness and efficiency of public transportation services
- Goal #3: To improve cooperation and coordination of services

The Commission approved the current PTAC recommended funding formula in June 2006.

Chart 1 illustrates the funding formula. Texas Department of Transportation (TxDOT) uses the funding formula to distribute federal Section 5311 Non-Urbanized (Rural) formula funds and state funds to rural transit districts. There are 39 rural transit districts in Texas. TxDOT also uses the funding formula to allocate state funds to 30 eligible urban transit providers. TxDOT designates federal Section 5307 Small Urban funds to each urbanized area in accordance with the federally specified funding allocation (these funds are not affected by the Texas public transportation funding formula).

The Legislature appropriates state public transportation funds each biennium. The funding formula allocates the state funds 35% to urban and 65% to rural each fiscal year in the biennium. The percent split in state funds is partially based on proportional population in the state and also recognizes that federal funds for urban transit are greater per capita than federal funds for rural transit.

One additional issue is funding for “limited eligibility providers” (LEP) who are urban providers that restrict transit eligibility for public transit to the elderly and persons with disabilities in the Dallas-Fort Worth area. LEPs were grandfathered in Texas Transportation Code Chapter 456 entitled “Limitations Use of Funds,” which calls out limits and conditions on “designated recipients not included in a transit authority but located in an urbanized area that includes one or more transit authorities and that received state transit funding during the biennium ending August 31, 1997” [Arlington, NETS, Grand Prairie, Mesquite]. LEPs have limits on their funding levels:

- Limits formula or discretionary funding for each of the four limited eligibility providers at the level they each received in the 1996-1997 biennium
- Must meet the following matching requirements:
 - Provides 65% of local share for federally financed capital or planning activities

- Provides 50% of local share for federally financed operating expenses
- Provides 50% of total cost of Commission-approved non-federally funded capital projects

The State first sets aside monies for “limited eligibility providers” out of the urban pool. A portion of 6.58% of the legislative appropriated funding for urban providers is set aside for “limited eligibility providers” (LEP) based on the population of elderly and disabled in those areas as compared to the total urban population based upon the 2000 Census. These four providers serving elderly and persons with disabilities are in a separate pool and performance is compared within the four providers.

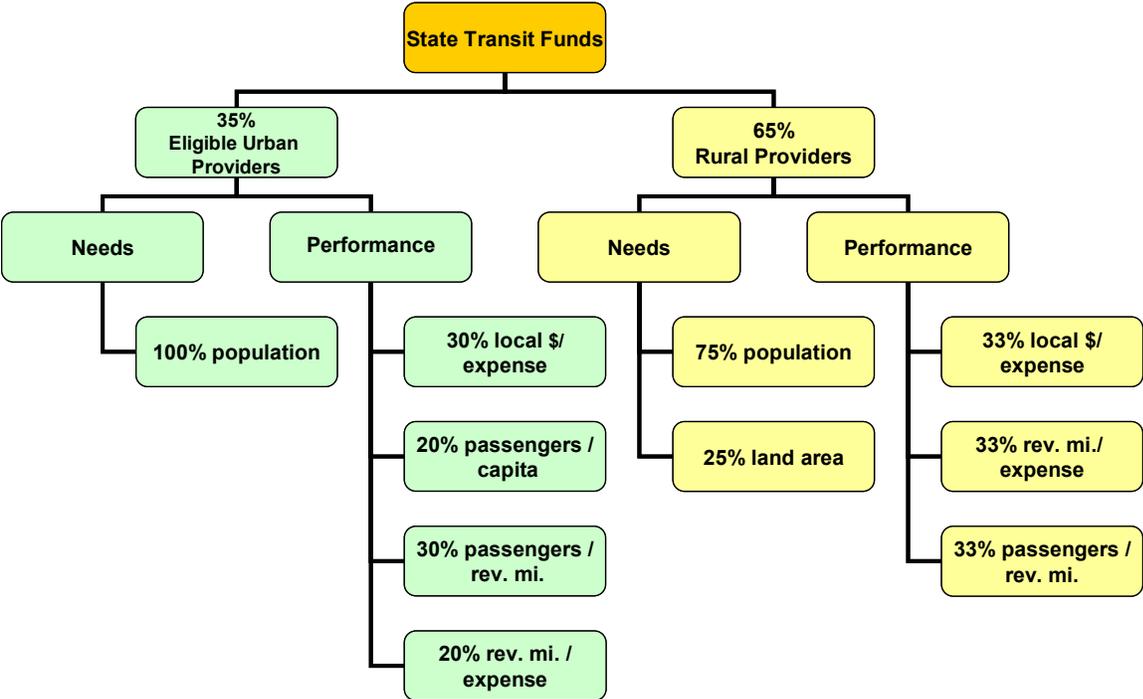
The funding formula allocates funds to the individual providers, based on “needs” and “performance.” Needs on the urban side is defined as 100% based on urbanized area population according to the most recent federal decennial census. Needs on the rural side is defined 75% based on non-urbanized area population and 25% based on non-urbanized land area. Including land area in the needs calculation recognizes the increased cost of providing transit service to geographically large areas. A portion of the funding continues to be based on population recognizing that areas with larger populations are more likely to have higher demand for public transportation services. A population limit of 199,999 is used in the needs calculation of the formula for any urban transit district with a population greater than 199,999 to prevent a disproportionate allocation of funds to these large urban areas.

The funding formula distributes performance funding based on a weighted average of four indicators on the urban side and three indicators on the rural side. The funds are allocated based on the performance of one transit district as compared to other transit districts in the urban or rural category. The indicators are as follows:

- Local investment per operational expense
- Passengers per revenue mile
- Revenue miles per operational expense
- Riders per capita (urban formula only)

These indicators reflect PTAC’s goals. “Local investment per operational expense” encourages cooperation and coordination. “Passengers per revenue mile” is a measure of service effectiveness, measuring how many people use the service for each unit of service provided. “Revenue miles per operational expense” reflects the efficiency of the operation. All three indicators address the goal for fiscal responsibility as well. The passengers per capita indicator, used only for the urban transit districts, acknowledges the requirement for funding assistance for cities where transit demand is generated by more than residential population - such as border, tourist and university cities. The “capita” or population in the passengers per capita indicator is not capped at 199,999 and is based on the urbanized area population according to the most recent federal decennial census.

Chart 1. Texas Public Transportation Funding Formula*



* FTA Section 5311 Rural funds are allocated based on the same formula as State Rural funds

The percent split between needs and performance is not constant. The percent of funds allocated based on needs or performance changes over time to place greater emphasis on performance. This phased approach was to allow transit providers to adapt to using the performance measures and to allow PTN time to provide technical assistance to providers to improve accuracy and consistency in reporting performance data. The phase-in of the needs and performance split is illustrated in Chart 2. The ultimate goal for small urban providers is 50% needs/ 50% performance; whereas, the ultimate goal for rural providers is 65% needs / 35% performance. The higher percent allocation based on needs recognizes that rural transit providers operate in diverse service areas usually of larger size and lower population density.

Chart 2. Phase-in of Needs and Performance

	Urban Needs / Performance	Rural Needs / Performance
2007	80% / 20%	80% / 20%
2008	65% / 35%	80% / 20%
2009	65% / 35%	65% / 35%
2010	50% / 50%	65% / 35%

Introduction of a needs and performance formula-based allocation process and the transitioning to greater emphasis on performance resulted in a significant change in funding compared to historical trends for many providers. To ease the transition, the funding formula limits the decrease in funding for any provider to no more than 10% less than the prior year. To achieve this objective, there is also a maximum increase in the funds any one provider can receive each year in order to generate the funds necessary to make it possible to limit the decrease to 10%.

PTN-128 PTC CHECK SHEET

How to check for accuracy and reasonableness:

Print the PTN-128 report, graphs and breakout sheet

1. Review color codes:

- Red = Error
- Blue = Previous months data missing
- Green = Over 50% variance from previous month

Do not accept reports with red. Comments should be provided for blues and greens.

2. Check the data, graphs and variance from prior year for reasonableness and consistency for the following:

Operational Data:

- Speed (p. 45)
- Deadhead Ratio (p.43)
- Average Weekly Passenger Trips (p. 47)
- Passengers per Revenue Mile (p. 48)
- Passengers per Revenue Hour (p. 49)
- Revenue miles between failures (p. 61)
- Are all revenue vehicles included – active and inactive, owned and sub-contracted? (p. 53)
- Common Errors – miles and hours (p. 29), passengers (p. 39), vehicles and failures (p. 58)

Financial Data:

- Calculate revenues less total expenses (operational and capital expenses).
 - Was there a large gain or loss? If so, explain.
 - Gain:
 - Are capital expenses reported?
 - Are contributed services reported in revenues but not in expenses?
 - Is the gain a management strategy to accrue revenues for large purchases?
 - Loss:
 - Are all revenues reported? Compare known contracts with revenue sources listed.
- Average Fare (passenger fares divided by passenger trips)
- Did the transit district report contributed services in the revenues section? (p. 78)
 - If so, is there a comment explaining the contributed service?
 - Confirm that contributed service revenues are offset by an equivalent expense.
- Purchased Transportation Expense: (p. 93)
 - Confirm that the transit district purchased transportation (bought) not provided (sold).
 - If the transit district purchased transportation from another transit district, confirm that the operational data was not reported; and, the purchased transportation is recorded under “PT from 5307 or 5311.”
 - Confirm that the “capital expenses in purchased transportation” is properly reported. Is the capital expense over 10%? If so, explain.
- Capital Expenses: (p. 94)
 - Confirm that preventive maintenance and / or ADA paratransit expenses are not listed as capital.
- Operating cost per passenger (p. 108)
- Operating cost per revenue hour (p. 109)
- Operating cost per revenue mile (p. 110)
- Common Errors – revenues (p. 83), expenses (p. 99)

3. Check Section 5310, JARC and New Freedom Breakout Sheet (p. 114)

- Did the transit district report on the main report passengers or Revenues for Section 5310, JARC and New Freedom? If so, is the breakout sheet filled out?