

Chapter 2 – The Data Tables

The data in this publication have a broad range of applications. They are, however, subject to the limitations discussed in Chapter 1 relating to the need to perform a more detailed examination of underlying factors and data consistency. The statistics in Chapter 2 allow transit agencies to compare their performance more selectively; e.g., by selecting those agencies defined as being within the same peer group by virtue of climate, topography, demographic characteristics of the population served, or factors other than industry averages.

Caution

Some users of the data may tend to overstate the significance of comparisons that are based strictly on data contained in this report. Performance measures obtained using these data should be viewed strictly as tentative indicators of potential areas of improvement. If a specific indicator appears to imply below-average performance relative to industry peers, more detailed analysis is needed to reveal the factors underlying the below average value.

Chapter 2 presents a detailed performance snapshot during a particular period for 563 transit agencies. Since the majority of agencies have reported in prior report years, the data can also be used for time-series analyses. Such analyses can contribute to conclusions on the current and evolving conditions and problems of specific transit agencies, and the transit industry as a whole. Time-series analyses, however, must consider two important factors:

1. Beginning with the 1983 report, annual reports were published based on transit agencies' fiscal years, rather than the Federal Fiscal Year period (at that time, July 1 to June 30). See Special Notes on Reporting and the Data Tables in Chapter 1 for additional details.
2. Beginning with the 1990 Annual Report, individual transit agency statistics are reported.

Special Notes on the Desegregated Data Tables

Users of these tables should refer to the Special Notes on Reporting and the Data Tables section in Chapter 1 for a better understanding of the data, particularly the discussions of purchased transportation (PT); public and private transit agency identification; vehicles operated in annual maximum service; and questionable data items, to avoid confusion. Especially when performing comparative analyses using previously published reports, users should refer to these sections as well as the discussions of individual tables in this chapter.

Reporting Changes

Through the NTD, FTA has implemented several reporting changes since 1992. The following exhibit summarizes these changes, and should be referred to when undertaking analysis involving two or more report years.

Reporting Changes Summary 1995 to 2004
1995 report year <ul style="list-style-type: none">• Expanded Safety Data and added Security reporting requirements to the Transit Safety form (old form 405), which became Transit Safety and Security form• Reported Capital Funding form (Old form 103) by type of service (TOS) (directly operated (DO) and purchased transportation (PT))• Reported Operating Expense form (old form 301) by TOS (DO and PT (optional))• Reported Non-Financial Operating Data, by mode and TOS (DO and PT (optional)), for Revenue Vehicle Maintenance and Energy form (Old form 402), Transit Agency Employee form (Old form 404), and Transit Safety and Security form (old form 405)
1996 report year <ul style="list-style-type: none">• Reported the full cost of purchased transportation (PT) services, including expenses incurred by the seller when the buyer under the PT agreement does not pay for the full cost of the service• Reported cash and non-cash reconciling expenditures at system-wide level

Reporting Changes Summary 1995 to 2004

- Reported total operating expense attributable to Americans with Disabilities Act of 1990 (ADA) compliance requirements for demand response
- Reported annual total number of unlinked passenger trips (UPT) eligible as ADA trips

1997 report year

- Reported PT expenses by function
- Reported safety and security for PT

1998 report year

- Replaced object classes fare revenues returned to the buyer and fare revenues retained by the seller with PT fare revenues (Old Operating Funding form 203)
- Included operating expenses (OE) paid for by capital funds
- Replaced revenue service interruptions (mechanical and other reasons) with revenue system failures for major and minor systems (Old Revenue Vehicle Maintenance and Energy form 402)

1999 report year

- Included maintenance facilities leased by transit agencies
- Included employee hours for part-time (PT) employees

2000 report year

- Created new vehicle type codes for taxicabs (see chapter 1, page 4-5)
- Changed definition of capital expenditures to be consistent with OMB A-87

2001 report year

- PT reported separately (object class 508.02) was reported by function
- Service interruptions reported for major mechanical failures and minor mechanical failures that prevent revenue vehicles from completing their trips (directly reported (DO) service)

2002 report year

- Eliminated requirement for submission of separate and complete reports by sellers of PT operating more than 100 vehicles in maximum service.
- Created module for periodic reporting of the condition of public agency transportation assets and the projected renewal cost.
- Revamped the reporting of safety and security data. Created a separate module to capture data on a monthly or quarterly basis depending upon agency's size.
- Reorganized the reporting of operating funds into a single form with the incorporation of funds earned, funds applied in operations and funds applied in capital.
- Expanded sources of directly generated funds with the creation of funding categories for concessions, and advertising revenues.
- Fare revenues reported by mode and type of service (TOS)
- Expanded categories for uses of capital funds. New categories include revenue vehicles, service vehicles, passenger stations, maintenance facilities, systems, guideway, and other.
- Other costs incurred by buyer for PT reported by object class and function.
- Reduced requirement for reporting operators' wages data. Time classifications collapsed into three main operating time categories: platform time, straight time allowances, and premium time. Threshold for reporting data decreased: only agencies directly operating more than 150 vehicles operated in maximum service are required to report. The threshold in prior years was 100 vehicles operated in maximum service.
- Created an asset module which includes stations (rail and non-rail), maintenance facilities, transit way mileage, and revenue vehicle inventory.

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Reporting Changes Summary 1995 to 2004

- Eliminated old bus (MB) categories in the revenue vehicle inventory form (based on seating capacity), replacing them with a single category. Reported vehicle length.
- Americans with Disabilities Act of 1990 (ADA) fleet was broken down into new categories for ramp-equipped and lift equipped vehicles.
- New item for year of rebuild in the revenue vehicle inventory form.
- Expanded categories for maintenance facilities for purchased transportation (PT) with the inclusion of facilities leased by public agency and facilities leased by service provider.
- Expanded transit way mileage for MB and trolleybus (TB) with the reporting of lane miles.

2003 report year

- Created new categories in the Sources of Funds — Funds Expended and Funds Earned form (F-10) for bonds and loan revenues and expenditures.
- Eliminated the breakdown of some directly generated funds categories by operating and capital funding. Categories include auxiliary transportation funds, park and ride revenues, other transportation revenues, and non-transportation revenues.
- Created new categories for uses of capital funding (administration buildings and fare collection equipment).
- Created categories for capital projects - existing (rehabilitation, overhaul, reconstruction) and expansion of service.

2004 report year

- Created new funding category for funds earned from high occupancy tolls (HO/T).
- Created new category for other directly generated funds.
- Urbanized area formula funds and other FTA funds were broken down into two categories each: operating funds expended on eligible operating assistance and capital assistance spent on operations.

Transit Revenues — Tables 1 through 15

Tables 1 through 15 contain information on types of operating and capital funds applied for individual transit agencies. Operating funds applied are reported by transit agency totals, not by individual modes. Table totals are provided for national totals, fleet size, and size of urbanized area (UZA); however, these totals vary depending on the number of transit agencies reported.

Also, for these tables the number of vehicles operated in annual maximum service includes those vehicles used for both directly operated (DO) and purchased transportation (PT) services included under the same transit agency's identification number, as reported on the Service form (S-10). The only exceptions are Table 11 (Capital Funds Applied by Type of Expenditure) and Table 15 (Operators' Wages), which detail data by mode. The NTD uses accrual accounting to record financial data; i.e., revenues reported are those that resulted in liabilities for benefits received during the fiscal year (FY), regardless of whether or not payment of the expenditure was made during the reporting period.

Table Descriptions

Transit revenue applied data are presented in the following tables:

Table 1: Summary of Operating Funds Applied

Compiled from the Sources of Funds — Funds Expended and Funds Earned form (F-10) and reported system wide. This form incorporates the revenue data by describing the funding sources for operating expenditures, using directly generated funds (Uniform System of Accounts object classes 401 through 440) and the contribution of Federal, state, and local government funds to the operating subsidy of transit agencies.

This table includes only operating revenues expended in the reporting period under accrual accounting and is intended to provide a summary of operating funds by major categories:

- Fare revenues (directly operated (DO) and purchased transportation (PT))
- Other directly generated revenues, including park and ride revenues, other transportation revenues, concessions, advertising revenues, other auxiliary revenues, subsidy from other sectors of operations, revenues accrued through a purchased transportation agreement, and other directly generated funds.
- Directly generated taxes dedicated at their source (income, sales, property, gasoline and other taxes), tolls, high occupancy tolls (HO/T), and other dedicated funds.
- Federal assistance, including urbanized area (UZA) formula funds (operating funds expended on eligible operating assistance and capital assistance spent on capital projects) and other federal (other USDOT funds, other FTA funds (operating funds expended on eligible operating assistance and capital assistance spent on capital projects), and other federal funds)
- State and local assistance. For each of these categories, two items are shown: Funds allocated out of the general revenues of the government entity and dedicated taxes, bridge, tunnel and highway tolls, high occupancy tolls (HO/T) collapsed into a single item. Tables 4 and 5 provide a breakdown of dedicated taxes by type (income, sales, property, gasoline, other) for state and local sources respectively.

Under Directly Generated Funds, the data in the column Dedicated and Other includes:

- Funds dedicated to transit at their source (income, sales, property, gasoline, and
- Other levied taxes as well as bridge, tunnel, highway tolls, and high occupancy tolls (HO/T). These are fees the transit agency has the legal authority to impose.

The Other Federal Public Funds column details operating funding from sources including:

- Planning Program, 49 USC 5303
- Research, Development, Demonstration and Training Program, 49 USC 5312, and
- Non-urbanized Area (Non-UZA) Formula Program, 49 USC 5311.

The aggregation of operating funds applied does not include some funding sources reported by private providers under contract to public agencies. More specifically, revenues accrued to a PT agreement and fare revenues are taken out in the aggregation of funds because the buyers of service also report these funding sources. The items affected are then DO, PT fare revenues and other directly generated revenues, which include revenues accrued to a PT agreement.

Table 2: Directly Generated Sources for Transit Operating Funds Applied: Details by Transit Agency

Data are compiled from the Sources of Funds — Funds Expended and Funds Earned form (F-10). This table was created in 2002 to provide more detail of directly generated sources of funds including the new sub-categories for auxiliary transportation funds — concessions, advertising revenues and other. It does not include directly generated taxes as these categories are detailed in Table 6. All other directly generated categories were included as separate items.

A new column for Bonds and Loans was added in 2004.

As with Table 1, in order to avoid double-counting of funds, DO and PT fare revenues does not include fare revenues reported by private transportation providers under contract to public agencies. In addition, revenues accrued through a PT agreement reported by these providers are taken out in the aggregation of funds.

Table 3: Federal Government Sources for Transit Operating Funds Applied

Data are compiled from the Sources of Funds — Funds Expended and Funds Earned form (F-10). This table provides a breakdown of Federal operating assistance funds by those attributable to urbanized area (UZA) operating assistance funds and UZA capital assistance funds used in operations. Items include funds from the FTA Urbanized Area Formula Program (Section 5307), Other FTA funds such as FTA Metropolitan Planning, FTA Elderly and Persons with Disabilities Formula Program, Non-urbanized Area Formula Program among others, Other USDOT Grant Programs, and Other Federal Funds.

Urbanized Area Funds (Section 5307) was broken down into two categories:

1. Operating funds expended on eligible operating assistance; and
2. Capital assistance spent on capital projects.

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Other FTA funds were also broken down into these two categories.

Tables 4 and 5: State Taxes Dedicated at their Source for Transit Operating Funds Applied and Local Taxes Dedicated at their Source for Transit Operating Funds Applied

Tables 4 and 5 are compiled from the Sources of Funds — Funds Expended and Funds Earned form (F-10) and state and local taxes, respectively, applied to transit operations. Operating funding from dedicated taxes are desegregated by type of tax (income, sales, property, gasoline, or other). The Other Taxes column includes any other special state or local taxes dedicated at their source to transit operating funding such as payroll and utility taxes.

Table 6: Directly Generated Taxes Dedicated at their Source for Transit Operating Funds Applied

Table 6 is compiled from the Sources of Funds — Funds Expended and Funds Earned form (F-10). This table provides a breakdown of directly generated dedicated taxes, by income, sales, property, gasoline, and other, applied to transit operations.

Table 7: Transit Capital Funds Applied — Summary and Federal Sources

Data were compiled from the Sources of Funds — Funds Expended and Funds Earned form (F-10). This table provides a summary of state, local, and directly generated funding sources and detailed Federal funding sources applied to capital. Federal sources of assistance are classified either as funds provided under 49 USC 5309, 49 USC 5307, or from other sources. State and local sources are divided into general revenue and dedicated. Dedicated sources restrict funds to transportation-related expenditures, while transit must compete with other public programs for general revenues. Dedicated sources of funds are desegregated into taxes (income, sales, etc.) and other (bridges, tunnels, state and local bonds, investment income, etc.).

The summary of capital funds applied include the following categories:

- **Directly Generated Funds:** For this category, two items are shown: (1) Dedicated taxes and tolls are collapsed into a single item. Table 10 provides a breakdown of dedicated taxes applied to capital by tax type (income, sales, property, gasoline, other); and (2) Other directly generated funds includes funds such as fare revenues, auxiliary transportation funds, park and ride revenues, high occupancy tolls (HO/T), non-transportation funds, subsidy from other sectors of operations, and other directly generated funds.
- **State and Local Assistance:** For each of these categories, two items are shown: Funds allocated out of the general revenues of the government entity and dedicated taxes, bridge, tunnel and highways tolls, and high occupancy tolls (HO/T) collapsed into a single item. Tables 8 and 9 provide a breakdown of dedicated taxes by type (income, sales, property, gasoline, other) for state and local sources respectively.
- **Federal Sources:** All federal funding sources are included as separate items in the table.

Tables 8 and 9: State Taxes Dedicated at their Source for Transit Capital Funds Applied and Local Taxes Dedicated at their Source for Transit Capital Funds Applied

Tables 8 and 9 are compiled from the Sources of Funds — Funds Expended and Funds Earned form (F-10). These two tables further desegregate the state and local tax revenue applied for public transit capital that was shown in Table 7.

Table 10: Directly Generated Taxes Dedicated at their Source for Transit Capital Funds Applied

Data are compiled from the Sources of Funds — Funds Expended and Funds Earned form (F-10). Collection of these data is a new reporting requirement. Table 10 provides a breakdown of directly generated dedicated taxes by income, sales, property, gasoline, and other applied for transit capital.

Table 11: Capital Funds Applied by Type of Expenditure

Data are compiled from the Uses of Capital form (F-20). Table 11 provides a breakdown of the capital funds applied and how they were used by mode, type of service (TOS) and capital project category (rehabilitation / reconstruction / replacement / improvement for existing service or expansion of service) for nine primary categories: revenue vehicles, service vehicles, passenger stations, maintenance buildings, administration

buildings, systems, guideway, fare collection equipment and other. Aggregate totals for each mode reported by a transit agency are also provided.

Revenue vehicles include capital expenses to replace, rehabilitate, remanufacture, and expansion of existing fleet. It also includes major rail fleet overhaul.

Service vehicles include the acquisition or rehabilitation of service vehicles – vehicles that are not used to provide transit service for passengers. Examples of service vehicles include staff cars, supervisor vans, etc.

Passenger stations include the cost for design and engineering, land acquisition and relocation, demolition, and purchase or construction of stations. (See text for Table 21 for station criteria).

Maintenance buildings include the cost for design and engineering, land acquisition and relocation, demolition, and purchase or construction of maintenance buildings. Maintenance buildings include garages, shops (body, paint, machine), and operations centers.

Administration buildings include the capital expenses for administrative buildings, including the cost of design and engineering, land acquisition, and relocations, demolitions and purchases of administrative buildings.

Systems include information and communication systems that relay information between locations.

Guideways include the costs for design and engineering, land acquisition and relocation, demolition, and purchase or construction of guideway. Guideways include the buildings and structures dedicated to the operation of transit vehicles, track and power systems for rail, and paved highway lanes dedicated to bus and trolleybus.

Fare revenue collection equipment includes capital expenses for the acquisition of fare revenue collection equipment, such as turnstiles, fare boxes, automated fare boxes, etc.

Other uses of capital include furniture and equipment that are not an integral part of buildings and structures, shelters, signs and passenger amenities (e.g. benches) not in passenger stations.

Potential Data Applications

Tables 1 through 11 summarize the magnitude and source of transit funds applied for individual transit agencies. The data in these tables permit analyses of the extent to which specific agencies recover operating expenses (OE) from fares, as well as the extent to which they rely on various sources of directly generated, local, state, and/or Federal assistance to apply to their operation.

Transit agencies can use these data to compare the types of funds applied and the percentage distributions of their sources to those of other agencies. In general, the data permit cross-sectional and time-series analyses, but more specifically they allow analysts to examine individual agencies and to custom-define peer groups. For example, peer groups could be formed based on mode, fleet size, annual OE, or other factors not contained in this report, such as climate and collective bargaining agreements. Comparisons can then be made to the individual transit agencies in the group averages.

Transit Expenses — Tables 12 through 14

Operating expenses (OE) are reported using accrual accounting and reported in the year they were incurred. This is the year in which they result in liabilities for benefits received, regardless of whether payment is made during the reporting period.

Tables 12 through 14 contain information on the types and amounts of expenses incurred by individual transit agencies. Transit expenses are reported by function and by object class. The number of vehicles operated in annual maximum service includes those vehicles used for both directly operated (DO) and purchased transportation (PT) services included under the same transit agency's identification number, as reported on the Service form (S-10).

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Functional classes divide OE into four major categories or functions:

1. Vehicle operations (VO)
2. Vehicle maintenance (VM)
3. Non-vehicle maintenance (NM), and
4. General administration (GA).

Analysis of expenses by function must be qualified by the degree to which transit agencies uniformly allocate expenses among these categories. This analysis should include careful consideration of reporting limitations as well as detailed accounting practices at the specific transit agencies examined.

Expenses by function are reported for both directly operated (DO) and purchased transportation (PT) services beginning in 1997. Starting in 2002, other costs incurred by buyer were reported by function and object class. These are expenses incurred by public agencies that are directly attributable to the provision of PT services. It may include items such as monitoring, providing maintenance service or other resources the buyer uses to support the PT services.

Object classes divide operating expenses (OE) into categories such as labor, fringe benefits, services, and materials and supplies, among others.

While revenue data are summarized for all modes operated by a transit agency, the expense data are desegregated by mode. Multi-modal transit agencies were required to fully allocate expenses to the appropriate modes for each of the various functional categories in 1999.

The operating expenses summarized in these tables excludes reconciling items, e.g.:

- Interest expenses
- Leases and rentals, and
- Depreciation.

Reconciling items are reported only as agency totals and are not desegregated by mode or functional class. Reconciling items are required to provide an overall total that is consistent with the total operating funding applied and with published reports. These expenses are reported separately because local accounting practices for handling such items (particularly depreciation and amortization) differ widely. Generally, analysts using these data exclude reconciling items from OE. Although this actually understates true operating costs, it resolves the problems inherent with inconsistent treatment of reconciling items.

Table Descriptions

Transit expense data for individual transit agencies are summarized in the following tables:

Table 12: Transit Operating Expenses by Mode Type of Service and Function

Compiled from the Operating Expenses form (F-30), for each reported mode. PT expenses include both PT in report (object class 508.01) and PT filing a separate report (object class 508.02). Expenses for object class 508.02 are separated by both the buyer and seller(s); therefore the summary for tables excludes this object class to prevent double counting.

These expenses were collapsed under the column Purchased Transportation In Report prior to 1997.

Object classes 508.01 and 508.02 reflect the full cost of PT services except in cases where part of the funding for the purchased service is provided by the seller(s). Object classes 508.01 and 508.02 include:

- Contract expenditures by the buyer (net of purchased transportation fare revenues)
- PT fare revenues.

In cases of PT involving 100 or more vehicles operated in annual maximum service, expense data are reported twice:

1. By the contracting agencies (buyer) as a PT expense (under object class 508.02), and
2. By the contract provider (seller), by function and object class, if the seller is not a brokerage system.

Brokers report separately if the PT agreements involve more than 100 vehicles operated in maximum service (VOMS), but their expenses are lumped under object class 508.01 and are detailed by function.

In general, expenses reported under object class 508.02 are greater than expenses reported by the seller(s) due to contract costs incurred by the buyer as well as profit made off the transaction by the seller(s).

The summarization of operating expenses (OE) by urbanized area (UZA) size, mode, and vehicle group totals is calculated by totaling all columns, except object class 508.02. This is to avoid double counting of data when OE are aggregated.

Table 13: Transit Operating Expenses by Mode and Object Class

Compiled from the same form as Table 12. Object class categories correspond to those reported on the Operating Expenses form (F-30).

501.01	Operators' salaries and wages
501.02	Other salaries and wages
502	Fringe benefits
503	Services
504.01	Fuel and lubricants
504.02	Tires and tubes
504.99	Other materials and supplies
505	Utilities
506	Casualty and liability costs
508.01	Purchased transportation (PT) (in report)
508.02	PT (filing separate report)

In addition, 507 (Taxes) and 509 (Miscellaneous expenses) are included as Other. A separate column showing 510 (Expense transfers) is included in this table. Double counting of OE exists in this table for a limited number of transit agencies (See discussion about object classes 508.01 and 508.02 above for Table 12). The summarization of OE by UZA size, by mode, and vehicle group totals is calculated by summing all columns except PT filing a separate report (object class 508.02). This is to avoid double counting of data when OE are aggregated.

Starting in 2002, other costs incurred by the buyer were reported by function and object class. For PT modes, expenses for object classes 501 through 506 include expenses incurred by the buyers of service net of fare revenues and contract costs associated to the purchased services. Seller's expenses are in general not reported by object classes 501 through 506, but are reported by function.

Table 14: Transit Operating Expenses and Object Class — Single Bus Mode Agencies

Data are compiled from the Operating Expenses form (F-30). Data are cross classified by major functional and object classes as per Table 13.

The summarization of OE by UZA size, mode, and vehicle group totals is calculated by totaling all columns except object class 508.02. This is to avoid double counting of data when OE are aggregated.

The total number of buses (MB) operated in annual maximum service includes those MB used for both directly operated (DO) services and for PT services. The totals are included under the same transit agency's identification number as reported on the Service form (S-10) by type of service (TOS) for MB.

Table 15: Operators Wages: Details by Transit Agency

Data are compiled from the Operators' Wages form (F-50) and is required from agencies directly operating 150 or more vehicles in annual maximum service but does not apply for vanpools (VP) and demand response (DR).

The data is divided into operating and non-operating time. Operating time include:

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- Platform time
- Straight time allowances
- Premium time.

Non-operating time includes a single category encompassing all non-operating activities such as training time and other functions.

Potential Data Applications

The expense tables summarize the costs of operating individual transit agencies. Data are desegregated into mode, function, and object classes. These data can be used to compare costs among various transit agencies and to determine potential areas for improvement. As discussed in Chapter 1, such analysis should incorporate careful examination of all causal factors underlying these differences. This examination can require information beyond that which is obtainable from this reporting system.

Non-Financial Operating Data — Tables 16 through 25

Tables 16 through 25 contain non-financial operating data for individual transit agencies.

The non-financial operating data includes the following modules:

- Resource Module
- Service Module
- Asset Module.

Data from the Safety and Security Module were not included in the 2002 Data Tables.

The Resource module includes the Employees form (R-10), Maintenance Performance form (R-20), and Energy Consumption form (R-30). The data is included in tables 16, 17 and 18 respectively.

The Service Module includes the Transit Agency Service form (S-10) and the data is included in tables 19 and 20.

The Asset Module includes the Stations and Maintenance Facilities form (A-10), Transit Way Mileage form (A-20), and Revenue Vehicle Inventory form (A-30). The data is detailed on tables 21 through 25.

Table Descriptions

Non-financial operating data are provided in the following tables. For multi-modal agencies, data are desegregated by individual modes, and when applicable, by type of service (TOS).

Resource Module

Table 16: Revenue Vehicle Maintenance Performance

Table 16 summarizes the number of revenue system failures. Data is reported for directly operated (DO) service only.

Analyzing data from this table generally requires additional data, such as vehicle miles. A reporting change was initiated in 2001 with the inclusion of system failures for major and minor mechanical reasons that prevent the revenue vehicles from completing their trips, or starting new trips.

Major mechanical failure is defined the same as the previous definition of interruptions for mechanical reasons (1997 and prior years). Such failures require assistance from someone other than the revenue vehicle operator(s) to restore the vehicle to an operating condition, and they usually prevent the vehicle from continuing in revenue service. Major system failures include malfunctions in:

- Brakes
- Doors
- Engine cooling systems
- Steering and front axle
- Rear axle and suspension

- Torque converters
- Similar major mechanical items.

Minor mechanical failures in general do not usually prevent the vehicle from continuing in revenue service. However, the minor system failures reported to the NTD in 2004 were those that prevented the revenue vehicle(s) from completing their trips, either due to internal policies of agencies or due to minor mechanical mishaps that prevented trip completion. Minor system failures are the same as interruptions due to other reasons (1997 and prior years) and include:

- Fareboxes
- Wheelchair lifts
- Air conditioning systems
- Similar minor mechanical items.

System failure figures should be viewed as gross indicators. Analysis of system failures as measures of maintenance performance should be undertaken with caution, requiring detailed examination of how system failures were defined and the individual agencies' policies for taking vehicles out of service. Application of data over time is also relevant in determining trends and conducting further analysis.

Table 17: Energy Consumption

Data for this table are compiled from the Energy Consumption form (R-30). The number of vehicles operated in annual maximum service is those vehicles used for directly operated (DO) services only, as reported on the Transit Agency Service form (S-10).

Fuel types reported are for revenue vehicles only and do not include lubricants. With the exception of KWH of propulsion power used in rail modes and KWH to charge bus batteries, all data is reported in gallons of fuel. When the fuel used is a mixture of fuels, each individual fuel type used in the mixture is reported.

Table 18: Employee Work Hours and Employee Counts

Employee work hours were broken down into full-time (FT) and part-time employee (PT) categories in 1999. Prior to that time only total work hours were reported. The column labeled Employee Type indicates whether the employees are full-time or part-time. Data is reported for DO service only.

The table is compiled from the Employees form (R-10) and data are collected for both employee work hours and an actual person count at fiscal year end (FYE). A fractional entry for actual person counts result when employees work for more than one function, mode, or type of service (TOS). In those instances the actual person count is prorated among labor classifications and modes by TOS. When working on capital projects, an employee's labor is considered a capital expense; otherwise, it is an operating expense (OE).

Some care is required for analyses of the data presented in this table. Work hours cover the entire report year, whereas employee counts are based on those employed on the last day of the report year. This may distort the annual average number of hours per employee.

While many transit modes are labor intensive, others are not. Due to the unique characteristics of their operations, some modes such as vanpool (VP) do not always provide complete employee-related data. Another reporting anomaly sometimes occurs when transit agencies providing DO service use contracted services for a portion of the service provision. In these situations, labor is either not reported for an activity (e.g., vehicle maintenance) or only reported for the labor that is engaged in activities associated with the contract services. As a result, labor is understated and, when reported within a DO report, can create misleading information. Examples of how this occurs include:

- Transit agencies acquiring operating labor through a purchased transportation (PT) arrangement
- Maintenance services performed by another municipal entity like a public works department
- Specific management services performed by a management services company.

When zero and/or low values are reported within a directly operated (DO) report, caution should be exercised in the use of employee-related data.

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Service Module

Service supplied data include vehicle miles, vehicle revenue miles (VRM), vehicle hours, and vehicle revenue hours (VRH) and scheduled VRM. Transit agencies were asked to report both their scheduled and actual VRM of service starting in 1984. The purpose of adding scheduled VRM of service is to allow a transit agency to indicate whether it may have more or less service than was originally scheduled or planned. The difference between vehicle miles and VRM represents deadheading. Definitions of the above data terms can be found in the Reporting Manual Glossary.

Service consumed data refer to ridership information (measures of use of the service supplied) and include unlinked passenger trips (UPT) and passenger miles (PM).

PM data are normally collected through sampling because it is usually not part of a transit agency's routine operations and is among the most difficult to collect. While FTA has developed several such techniques, transit agencies were allowed to use self-certifying sampling techniques beginning with the 1990 report year. Regardless of the sampling technique used, it must satisfy precision and confidence level requirements of 10 percent and 95 percent, respectively.

Service supplied and service consumed data are reported on the Transit Agency Service form (S-10); data are reported for average weekday, average Saturday, average Sunday and annual total. Only annual total is depicted in the data tables.

Table 19: Transit Operating Statistics: Service Supplied and Service Consumed

This table summarizes transit agency service supplied and service consumed data. Data are compiled from the Transit Agency Service form (S-10) for DO and purchased transportation (PT) service.

Vehicles available for maximum service represent the total annual active service fleet and include:

- Spares
- Out of service vehicles, and
- Vehicles in or awaiting maintenance.

They do not include vehicles being held for sale, emergency contingency use, etc.

If the total active fleet for a given mode varies during the year, the reported figure represents the same time period as that used to report vehicles operated in maximum service (VOMS). Thus, the difference between vehicles available for annual maximum service and vehicles operated in annual maximum service can be used to compute a transit agency's spare ratio. See Chapter 1 for further details on vehicle data.

With regards to demand response (DR), jitney (JT), publico (PB), and vanpool (VP) modes, data for the column Annual Scheduled Vehicle Revenue Miles have been zeroed. By definition, these modes do not have scheduled service.

For rail modes, service supplied (VRM, vehicle miles, VRH, vehicle hours) refers to passenger car data. A separate table (Table 20) was created to accommodate train statistics.

Table 20: Transit Operating Statistics; Service Supplied and Consumed — Train Statistics

This table was created in 2002 to accommodate train data reported on the Transit Agency Service form (S-10). Data is reported by mode and type of service (TOS) and applies to rail modes only.

Items include number of trains operated in an average weekday, train miles and hours, train revenue miles and hours.

Asset Module

Table 21: Passenger Stations

This table was created in 2002 to accommodate transit stations, elevators and escalators, and Americans with Disabilities Act of 1990 (ADA) stations data. Data is reported by mode and type of service (TOS).

The passenger station information is only reported for fixed-route, fixed scheduled services (includes rail modes, bus (MB), trolleybus (TB), and ferryboat (FB)). All stations used for public transportation are reported regardless of who owns them.

To determine what constitutes a passenger station, the following criteria apply:

- All rail passenger facilities are stations (except light rail (LR) and cable car (CC)).
- All LR and CC passenger facilities in a separate right-of-way (ROW) that have platforms are stations.
- All MB and TB passenger facilities in a separate ROW that have an enclosed structure for passengers for such items as ticketing, information, restrooms, concessions, and telephones are stations.
- Stops on-street or in medians for CC, LR, MB, and TB are not stations if at most they have shelters, canopies, lighting, signage or ramps for accessibility requirements, i.e., no separate, enclosed buildings.
- All transportation, transit or transfer centers, park-and-ride facilities and transit malls, if they have an enclosed structure for passengers for such items as ticketing, information, restrooms, concessions, and telephones are stations.

Table 22: Maintenance Facilities

Data are compiled from the Stations and Maintenance Facilities form (A-10). The number of vehicles operated in annual maximum service represents those vehicles used for directly operated (DO) and purchased transportation (PT) services.

This table includes data for maintenance facilities owned and leased by transit agencies. Prior to 1999, only maintenance facilities owned by transit agencies were reported.

In 2001, for PT, only the maintenance facilities leased by service providers were reported. Starting in 2002, categories for PT leased facilities were expanded with the inclusion of facilities leased by public agency for service provider and facilities leased by service provider.

The data summarizes transit maintenance facilities based on the number of vehicles assigned to the facility. In addition, two classifications of facilities are defined for general-purpose use and heavy maintenance work.

- A general-purpose facility is the most commonly reported facility, because it provides running repairs, servicing, and vehicle storage as well as component repair and overhaul.
- A heavy maintenance facility is one wholly dedicated to component repair and overhaul, and usually only the larger transit agencies have such a facility.

The number of vehicles assigned to a facility will vary depending on its size (capacity) and the number of modes operated by the agency. Also, unique geographical features and/or constraints that may make it more economical to operate more than one facility to support a small fleet of vehicles may result in a greater number of facilities being reported for the transit fleet than would normally be required. Many transit agencies are operating multi-modal service (e.g., MB and demand response (DR) systems), and in such cases the facility is required to be allocated among the modes using the facility.

For example, if a transit agency reports 100 total vehicles, of which 70 are MB and 30 were DR, it would allocate the facility as .7 for MB and .3 for DR. When relatively small transit agencies report multiple facilities, one needs to consider some of the factors mentioned above and whether or not a proper allocation was performed.

Tables 23 and 24: Transit Way Mileage — Rail and Non-Rail

Data are compiled from the Transit Way Mileage form (A-20), directly operated (DO) and PT services.

Tables 23 and 24 display transit way mileage in separate groups:

1. Rail, and
2. Non-rail (including FB)

This separation provides for easier comparison of like modes and reduces the number of unnecessary blank entries. By law directional route mileage (DRM) for ferryboat (FB) and trolleybus (TB) modes is classified as exclusive for reporting purposes.

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The term directional route mileage (DRM) is defined as:

- The mileage in each direction over routes that public transportation vehicles travel while in revenue service.

Directional route miles are a measure of the facility or roadway, not the amount or frequency of service carried on the facility; i.e., number of routes or vehicle revenue miles (VRM). They are determined by direction of service, but not by the number of traffic lanes or rail tracks existing in a given right-of-way (ROW).

If vehicles travel in only one direction within a ROW, each mile is counted once. If vehicles travel in both directions, each mile is counted twice. A mile of single track over which commuter rail (CR) service operates in both directions represents two DRM.

The number of routes along the measured distance does not influence directional mileage; e.g., a mile of exclusive busway on which a transit agency operates six different routes in only a single direction represents one directional mile.

Lane miles on the other hand, are the length of a roadway (in miles) dedicated to high-occupancy vehicles (HOV) multiplied by the number of traffic lanes.

For example, a reversible HOV facility 10 miles long with one traffic lane (operated Northbound in the morning and Southbound in the evening) accounts for 10 lane miles, but because traffic is bi-directional, the number of fixed-guideway directional route miles (FG DRM) is 20 miles.

Like DRM, lane miles can be either on exclusive or controlled ROW facilities.

Table 23 includes track mileage by construction type, number of crossings, and total DRM and applies for rail modes only.

Table 24 includes lane and DRM on exclusive and controlled ROW, and DRM in mixed traffic. This table applies for bus (MB) and TB but also includes FB (DRM) since lane miles apply to MB and TB only.

Table 25: Age Distribution of Active Revenue Vehicle Inventory

Data are compiled from the Revenue Vehicle Inventory form (A-30) for directly operated (DO) and purchased transportation (PT) services. Vehicle Type and Active Vehicles by Age Grouping show data in the total active fleets. Vehicle type codes are listed in Chapter 1. The age of a vehicle is considered to be the number of years since its date of manufacture.

Several reporting changes were implemented to revenue vehicle inventory data in 2002. The change that affected this table in particular was the replacement of old MB categories BA (buses seating more than 35 passengers), BB (buses seating between 25 and 25 passengers), and BC (buses seating less than 25 passengers) by a single category "BU". In addition, vehicle length was introduced which created the possibility of classifying bus size by actual length, not by seating capacity as in the past.

In addition, active Americans with Disabilities Act of 1990 (ADA) fleet was broken down into 2 new categories: MB that are ramp-equipped and those that are lift-equipped.

The NTD reporting system is based on a transit agency's fiscal year. Over 60 percent of all transit agencies reporting complete their respective fiscal year (FY) before the end of a calendar year. As a result, a revenue vehicle manufactured, delivered, tested, and accepted by a transit agency after the fiscal year end (FYE) but within the calendar or manufacturer year will not be reported until the next report year. In general, two consecutive report years are needed to account for all new vehicles put into service in the first year.

Potential Data Applications

The data presented in tables 16 through 25 can be used to help answer questions regarding service provided by individual transit agencies relative to the investment required. For example, how many employees, how much fuel, and how many vehicles were required to provide that service; how safe was that service and how much use was made of the service by transit patrons.

Transit Performance Indicators — Tables 26 and 27

Data are derived using the Sources of Funds — Funds Expended and Funds Earned form (F-10), Operating Expenses form (F-30), the Employee form (R-10), and the Transit Agency Service form (S-10).

Tables 26 and 27 are comprised of data for directly operated (DO) and purchased transportation (PT) services and from selected performance indicators for individual transit agencies. In some cases, such as operating expense (OE) per employee work hours, the data is for DO service only as employee data is not reported for PT modes.

These indicators are not reported directly, but are computed from other reported data. Usually, these relate measures of service outputs to measures of resource inputs such as OE per vehicle hour, and resources inputs to service consumption such as OE per unlinked passenger trip (UPT). Performance measures are computed separately for each mode, and therefore should utilize only data items reported on a modal basis (revenues and reconciling expenses are excluded).

In 2002, performance indicators by mode and type of service (TOS) were expanded with the inclusion of recovery ratio (the ratio of fare revenues to OE) and fares per passenger. This was possible due to the inclusion of fare revenues by mode in the 2002 NTD.

Many performance indicators can be computed from these data and other sources. Users should note the limitations relating to analyzing any performance indicators, and carefully examine underlying or causal factors in greater detail. Added to these limitations are data waivers granted to reporters due to reporting burden, initial report submission, unique circumstances, and other factors. The combinations of these limiting factors may compound interpretation and use of individual performance indicators for a particular mode and TOS.

Potential for distortion exists if only one or two performance indicators are viewed in isolation. For example, the single measure OE per UPT might be misleading for a transit agency with a disproportionately high number of transfers (caused, for example, by geographical or routing constraints).

Table Descriptions

Table 26: Fare per Passenger and Recovery Ratio

This table includes two performance indicators: Recovery ratio (fare revenues per OE) and average fare per passenger. The data is for DO and PT.

OE exclude reconciling cash expenditures, as this data is not reported at mode level.

Table 27: Service Supplied and Consumed Ratios

Table 27 includes ratios that relate variables of service input such as OE, to variables of service output such as VRM and vehicle hours (cost efficiency), and service inputs (OE) to service consumption (UPT and passenger miles (PM)) (cost effectiveness).

In addition, a breakdown of expenses per VRM for each of the 4 functions (vehicle operations, vehicle maintenance, non-vehicle maintenance, and general administration) is also provided.