Federal Transit Administration
U.S. Department of Transportation

Office of Budget and Policy

National Transit Database

2023 Monthly and Weekly Reference Reporting Manual

Guidance for Forms MR-20 and WE-20

The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies. Grantees and subgrantees should refer to FTA's statutes and regulations for applicable requirements.

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LIST OF EXHIBITS

Acronyms and Abbreviations

ADA	Americans with Disabilities Act of 1990
APC	Automatic Passenger Counter
AR	Alaska Railroad
CEO	Chief Executive Officer
CFR	Code of Federal Regulations
CR	Commuter Rail
CY	Calendar Year
DMU	Diesel Multiple Unit
DO	Directly Operated
DR	Demand Response
FB	Ferryboat
FTA	Federal Transit Administration
MR	Monthly Ridership (MR-20)
NTD	National Transit Database
PMT	Passenger Miles Traveled
PT	Purchased Transportation — General
TAM	Transit Asset Management
TOS	Types of Service
TN	Purchased Transportation — Transportation Network Company
TX	Purchased Transportation — Taxi
U.S.C.	United States Code
UAFP	Urbanized Area Formula Program
UMTA	Urban Mass Transportation Administration
UPT	Unlinked Passenger Trips
USOA	Uniform System of Accounts
UZA	Urbanized Area
VOMS	Vehicles Operated in Maximum Service
VP	Vanpool
VRH	Vehicle Revenue Hours

VRM	Vehicle Revenue Miles
WE	Weekly Reference (WE-20)

INTRODUCTION

The National Transit Database

History

In 1964, President Lyndon B. Johnson signed the Urban Mass Transit Act into law, creating the Urban Mass Transportation Administration (UMTA). During the next ten years, UMTA provided capital assistance to public agencies to replace overage transit assets and to purchase the assets of failing private transit companies.

In 1974, Congress established the National Transit Database (NTD) to collect financial, operating, and asset information on transit agencies. Congress based the NTD program on the Uniform Financial Accounting and Reporting Elements, a project initiated by the transit industry and funded by the UMTA. The NTD has become the Nation's primary source of information on transit agencies.

Since the early 1980s, Congress has apportioned billions of dollars in funding annually using data reported to the NTD. In 1991, UMTA was renamed the Federal Transit Administration (FTA).

Legislative Requirement

Congress requires agencies to report to the NTD if they receive or benefit from Urbanized Area Formula Grants (§5307) or Formula Grants for Rural Areas (§5311). In addition, all recipients and subrecipients of Chapter 53 funds that own, operate, or manage public transportation capital assets are required to develop and implement Transit Asset Management (TAM) plans. Transit providers are required to set performance targets for their capital assets based on the state of good repair measures and report their targets and information related to the condition of their capital assets to the NTD. FTA submits annual NTD reports that summarize transit service, asset, and safety data to Congress for review and use. The legislative requirement for the NTD can be found in Title 49 United States Code (U.S.C.) §5335:

Exhibit 1: 49 U.S.C. §5335 National Transit Database

(a) NATIONAL TRANSIT DATABASE — To help meet the needs of individual public transportation systems, the United States Government, State and local governments, and the public for information on which to base public transportation service planning, the Secretary shall maintain a reporting system, using uniform categories to accumulate public transportation financial, operating, geographic service area coverage, and asset condition information and using a uniform system of accounts. The reporting and uniform systems shall contain appropriate information to help any level of government make a public sector investment decision. The Secretary may request and receive appropriate information from any source.

(b) REPORTING AND UNIFORM SYSTEMS — The Secretary may award a grant under section 5307 or 5311 only if the applicant, and any person that will receive benefits directly from the grant, are subject to the reporting and uniform systems.

(c) DATA REQUIRED TO BE REPORTED — Each recipient of a grant under this chapter shall report to the Secretary, for inclusion in the national transit database under this section—

(1) any information relating to a transit asset inventory or condition assessment conducted by the recipient;

(2) any data on assaults on transit workers of the recipients; and

(3) any data on fatalities that result from an impact with a bus.

Continuing Grant Requirements

If a transit provider, local government, State, or Metropolitan Planning Organization receives or benefits from §5307 or §5311 Federal funding, it must report to the NTD.

Reporting requirements begin the year after a transit agency applies for urban or rural funding or in the year the transit agency benefits from Federal funding, whichever is sooner. Transit agencies must report if §5307 or §5311 funding applications remain open. If a transit agency no longer receives urban or rural funding but previously purchased capital assets with the Federal funds, the agency must report through the useful life of the assets. Agencies also must continue reporting if they intend to apply for §5307 or §5311 in the future.

Exhibit 2: Continuing Grant Requirements

Example: A transit agency purchases a vehicle with funds from an Urbanized Area Formula Program (UAFP) (§5307) grant. The vehicle, a 40-foot bus, has a useful life of 12 years or 500,000 miles.

Solution: The transit agency reports under the NTD throughout the useful life of the vehicle, regardless of whether the transit agency receives UAFP (§5307) grant funds during a particular year of that period.

National Transit Database Data

Through the NTD, FTA collects annual financial, asset, and operating information from public transportation agencies across the country. In the Annual Report, agencies provide a summary of transit characteristics, including financial, operating, and asset statistics. Agencies that file as Full Reporters must also report monthly operating and safety statistics. Beginning in 2023, certain agencies are required to submit a week's worth of service data on a monthly basis for FTA's Weekly Reference reporting.

Public Transportation

How is public transportation defined?

Legislation establishes the NTD as a source of information on public transportation. The term "public transportation" (also referred to as "transit" or "mass transportation") is defined by law at 49 U.S.C. §5302(15), as follows.

Exhibit 3: Public Transportation

(A) means regular, continuing shared-ride surface transportation services that are open to the general public or open to a segment of the general public defined by age, disability, or low income; and

(B) does not include —

(i) intercity passenger rail transportation provided by the entity described in chapter 243[1] (or a successor to such entity);

(ii) intercity bus service;

(iii) charter bus service;

(iv) school bus service;

(v) sightseeing service;

(vi) courtesy shuttle service for patrons of one or more specific establishments; or

(vii) intra-terminal or intra-facility shuttle services.

Transit agencies report data for all public transportation services they provide, including complementary paratransit services required by the Americans with Disabilities Act (ADA) of 1990. ADA services must be shared-ride to be considered public transportation.

What Does It Mean to Be "Open to the General Public"?

Transit must be open to the public and comply with the provisions of the ADA. The NTD excludes services that are only open to specific groups of people, except for segments of the general public defined by age, disability, or low income.

FTA does not consider the following services public transportation:

- A bus system sponsored by a university that is only open to students, faculty, and staff of the university and not the general public;
- A program sponsored by an employer that provides services for only its employees and not for the general public;
- An Automated Guideway system in an airport that only provides service to customers of the airport (e.g., a terminal-to-terminal tram);
- A charter service. In accordance with FTA's Charter Rule, agencies cannot report any service reported to the FTA charter registration website as public transportation;

1 Chapter 243 describes the National Railroad Passenger Corporation, operating under the business name Amtrak.

- A sightseeing service that an agency provides primarily for the enjoyment of sights and sounds during the ride or for enjoyment of the ride itself and that may include narration and round trips without disembarking the vehicle; or
- Evacuation of people from a disaster area.

Intercity Service

Commuter Rail, Commuter Bus, and ferry services with maximum one-way trip times exceeding 90 minutes may be intercity service. Before beginning to report such a service to the NTD, the operator should conduct a survey or produce comparable evidence to demonstrate that at least 50 percent of passengers make a return trip on the same day across all service runs for one year. FTA may also request this survey from services with characteristics that suggest the intent is not to serve passengers who make a return trip on the same day.

The service operator does not have to survey every passenger; it may conduct a sample survey. The survey must meet the following requirements:

1. The agency must conduct the survey over a 12-month period to account for seasonal variations in passenger behavior.
2. The agency must include the entire length of each route in the survey, including all times of day and all days of the year.
3. If sampling by passengers, each passenger for the entire year must be given an equal chance of selection. If sampling by vehicle operations, each vehicle operation for the entire year must be given an equal chance of selection, weighted by the anticipated passenger count on each vehicle. If any other strata are used in the sample design, each stratum must meet FTA's requirements.
4. For the purpose of calculating return trips, a passenger making a single round trip in a given day cannot be surveyed twice for inclusion in the final calculation. The calculation establishing whether 50 percent of riders make a same-day round trip must be calculated as:

   Where

   a = total unique passengers making same-day return trip

   b = total unique passengers making an overnight trip,

   the calculation is $a \div (a + b)$.
5. A person may be counted as making a same-day return trip if the person makes one leg of the trip by another means of transportation.

If the survey determines with at least 95 percent confidence that at least 50 percent of all passengers on a route made a return trip on the same day (or reported their intention to do so), then FTA will permit the agency to report that route to the NTD as a commuter service. A qualified statistician must approve the survey methodology, the sample size, and the sampling methodology and certify that the results give the required level of confidence.

Services with 100 percent one-way trip times of 30 minutes or less do not require a survey to establish the service as commuter.

Agencies intending to report a service that may require a survey should contact their NTD analyst to discuss how they can meet the requirements in advance of reporting to the NTD.

Employer Shuttles

Transit agencies must use the following criteria to establish employer shuttle eligibility:

- The shuttle service must meet the definition of public transportation as defined by the Federal transit law.
- The transit agency must clearly identify that the shuttle service is open to the public (e.g., provide timetables or service summaries on the website or another public location).
- The transit agency must clearly indicate on its buses or route that the shuttle service is open to the public.
- At a minimum, the shuttle service must travel from one origin to one destination that can be used by the public (e.g., a single destination shuttle that travels to a locked employer campus or military compound is not feasibly open to the public).

Employer shuttles must meet all other NTD reporting requirements. For example, the buyer must pay the full cost of the service to report the service as purchased transportation.

Failure to Report

FTA may issue a Failure to Report if an agency:

- Fails to submit a report;
- Submits a late report;
- Submits an incomplete report; or

- Fails to respond to validation questions.

If a transit agency receives a Failure to Report notice, FTA does not include its data in the apportionment of Urbanized Area (UZA) and rural funding. However, FTA, at its discretion, may include any submitted data in publicly available NTD datasets.

FTA may issue a Failure to Report notice for a UZA transit provider in connection with the Annual Report, Monthly Ridership, or Safety & Security reporting.

A report is late if the agency has not submitted it by the applicable due date. These due dates ensure there is time to review the submitted data before they are included in NTD publications and in the apportionment.

A report is incomplete if:

- It does not contain all required information;
- The agency did not collect and submit the data in conformance with the NTD requirements;
- The report is not accompanied by the applicable Chief Executive Officer (CEO) Certification and Independent Auditor Statements; or
- The agency does not properly respond to validation questions.

When FTA questions submitted data during the validation process, transit agencies may revise data to reflect accurate information. Revisions to data require the concurrence of the CEO, and, in some cases, the concurrence of the independent auditor. If an agency does not revise questioned data, then the agency must provide sufficient documentation to the NTD to establish accuracy.

FTA may issue a Failure to Report notice if an agency fails to respond to validation questions in a timely manner. For example, an agency may receive a Failure to Report notice if it does not fully allocate costs among all modes and types of service and does not provide a sufficient explanation.

When FTA issues a Failure to Report notice, it notifies the CEO of the transit agency and the FTA Regional Administrator.

Inaccurate Data

Transit agencies are responsible for the data that they report to the NTD. If the data do not follow FTA prescribed procedures or seem unreasonable or inaccurate—or an agency

cannot provide a reasonable response to explain data—FTA may publish the data with a "questionable" notation.

FTA may delete a transit agency's data if the agency does not adequately address validation issues within the specified time frame or if the data does not meet the NTD's reporting requirements.

Agencies may find that they reported inaccurate data in previous years; however, agencies cannot adjust data after FTA closes the report for the year.

Standardized Reporting Requirements

All agencies must conform to uniform reporting standards. This includes timely reporting, accurate data collection, and uniform accounting systems.

Reporting Due Dates

FTA determines each agency's annual NTD report due date based on the agency's fiscal year-end date. Reporters submit their Annual Report four months after their fiscal year ends. Please refer to the NTD Reporting Policy Manual for Annual Reporting Due Dates.

Monthly Reporting Due Dates

Monthly reports for full reporting agencies are due on the last day of the following month (e.g., January data are due February 28).

Exhibit 4: Monthly Report Due Dates

Month	Due Date
January	February 28
February	March 31
March	April 30
April	May 31
May	June 30

Month	Due Date
June	July 31
July	August 31
August	September 30
September	October 31
October	November 30
November	December 31
December	January 31

Weekly Reporting Due Dates

FTA will set the *reference week* for each month of Weekly Reference Reporting (WE-20) and will notify the reporters within the Weekly Reference Reporting Sample Group. WE-20 data submissions are due seven business days after the designated reference week has ended. FTA has set the Calendar Year (CY) 2023 and 2024 reference weeks and due dates.

Exhibit 5: Weekly Reporting Report Due Dates for Calendar Years 2023 and 2024

Month - Year	Reference Week	Due Date
July 2023	July 10–16	July 25
August 2023	August 14–20	August 29
September 2023	September 11–17	September 26
October 2023	October 16–22	October 31
November 2023	November 13–19	November 29
December 2023	December 9–15	December 27

Month - Year	Reference Week	Due Date
January 2024	January 8–14	January 24
February 2024	February 12–18	February 28
March 2024	March 11–17	March 26
April 2024	April 8–14	April 23
May 2024	May 13–19	May 29
June 2024	June 10–16	June 26
July 2024	July 8–14	July 23
August 2024	August 12–18	August 27
September 2024	September 9–15	September 24
October 2024	October 21–27	November 5
November 2024	November 18–24	December 4
December 2024	December 9–15	December 24

Data Validation

The NTD data validation process ensures that reporting requirements are met and that the reported data are reasonable. FTA assigns an NTD Validation Analyst to each agency to support the validation process and assist transit agency personnel in understanding reporting requirements and terminology.

Validation includes but is not limited to:

- Time series checks against previous years' data to identify data that have changed significantly;
- Logic checks between data items on different forms; and

- For the first year a data element is available (including for new modes and types of service), range checks for typical values found among transit agencies with similar operating characteristics.

NTD validation is an interactive, iterative process with two alternating phases: pre-submission and post-submission.

- **Pre-submission ("working data" stage) validation** — while reporting agencies enter data, the online reporting system executes an automated review of data prior to report submission. The report is ready to be submitted when there are no open validation issues without explanations from the agency. Since some issue checks evaluate elements across more than one form, NTD reporters should check for data issues flagged by validation after all forms are complete.
- **Post-submission (the "in review" stage) validation** — once the report is submitted, it undergoes further review by the assigned validation analyst.

Issue Classification

Issues are classified by issue type according to severity and action necessary to submit the NTD reports:

- **Important issues** are raised when data do not fall within expected ranges or do not appear to conform to NTD definitions. Important issues can be addressed by revising the relevant data or by writing a comment explaining why the data are correct; and
- **Critical issues** are raised when data are logically inconsistent and must be corrected.

FTA does not view the report as complete until all issues—important and critical—are addressed.

Service Data Requirements

Service data are an integral part of the NTD. Service data are operating statistics that provide insight into the effectiveness and productivity of a transit agency. All agencies must report accurate and truthful service data in a uniform manner.

FTA mandates that almost all service data be collected and recorded daily so that the data are 100 percent accurate. For example, agencies must collect and record 100

percent of all miles and hours vehicles travel in revenue service. FTA does not allow agencies to estimate these data.

However, FTA recognizes that certain statistics are challenging to collect and can drastically increase the reporting burden for transit agencies. To assist reporters who would find conducting 100 percent count burdensome, transit agencies may estimate Unlinked Passenger Trips (UPT) and Passenger Miles Traveled (PMT) through sampling. The NTD provides a sampling method and sampling guidance on the NTD website. Agencies also may use a custom sampling plan to collect these data. However, a qualified statistician must certify that the sampling procedure meets FTA requirements for statistical precision and accuracy.

General Data Formatting Rules

Data reported must adhere to the following rules:

- Round all financial data to the nearest dollar;
- Follow other rounding directions for each form;
- Unless otherwise indicated, report data as whole numbers; and
- Use four digits for year entries.

The NTD incorporates these rules, formatting data automatically when you complete a cell entry.

Reporting Rules and Regulations

The FTA Uniform System of Accounts (USOA), 49 Code of Federal Regulations (CFR) Part 630 (NTD), and 49 CFR Part 625 (TAM) are essential to understanding the forms and instructions presented in this manual.

You can obtain reference documents by visiting the NTD's Federal Register Notices, Rules, and Regulations web page.

Please contact the NTD Help Desk at ntdhelp@dot.gov for assistance.

SERVICE DATA FOR MONTHLY AND WEEKLY REFERENCE REQUIREMENTS

Service Supplied

Transit agencies must report actual service data on services provided during the fiscal year.

Revenue Service

A transit vehicle is in revenue service when it is providing public transportation and is available to carry passengers. Non-public transportation activities, such as exclusive school bus service or charter service, are not considered revenue service. Revenue service includes both fare and fare-free services.

Agencies that provide transit service report revenue service data, such as:

- Actual Revenue Hours
- Actual Revenue Miles

Actual Vehicle Revenue, Passenger Car Revenue, and Train Revenue Hours and Miles

Actual Vehicle Revenue Hours (VRH) and Actual Vehicle Revenue Miles (VRM) are the hours and miles vehicles travel while in revenue service. Revenue hours for conventional scheduled services include:

- Running time
- Layover/recovery time

Revenue miles include the distances traveled during running time and layover/recovery time.

Running time is the time it takes a transit vehicle to travel from the beginning to the end of a transit route. A transit agency's passenger timetable typically shows the running times for trips it operates.

Usually, agencies schedule layover/recovery time at the end of each trip. Transit agencies use this time to provide the operator a break or to give the operator an opportunity to get service back on schedule if it was running late. Layover includes the time to turn a train around at the end of a line, and the delay time needed to depart at a desired departure time. Layover time typically ranges from 10 to 20 percent of the running time.

VRM and VRH exclude the miles and hours related to

- Deadhead time
- Operator training
- Maintenance testing
- Other non-revenue uses of the vehicles

There are two different types of measures of VRH and VRM for rail service: train revenue hours/miles and passenger car revenue hours/miles. Agencies report hours and miles for each passenger car. For example, a train with four passenger cars traveling one mile would be four passenger car revenue miles. For Diesel Multiple Unit (DMU) trains, each passenger unit is considered a separate passenger car, even if the units are never separated in practice.

For Demand Response (DR) service, FTA uses a different definition of revenue service. For DR service, revenue time includes all travel 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 or dispatching point or have interruptions in service such as lunch breaks or vehicle fueling and servicing.

For DR modes operating with Taxi (TX) Type of Service (TOS), generally transit service is only provided when a transit passenger is onboard and at other times is private taxi service. Therefore, agencies must report only the miles and hours when a transit passenger is onboard as revenue service. When a transit passenger is not onboard, the service is not reportable to the NTD.

For Commuter Rail (CR) and Alaska Railroad (AR) modes, do not include locomotive miles and hours when reporting passenger car miles and hours.

Deadhead

When transit vehicles are “deadheading,” they operate closed door and do not carry passengers. Deadhead includes the following:

- Leaving or returning to the garage or yard facility to or from the starting or ending point of revenue service

- Changing routes
- When the driver does not have the duty to carry passengers

Deadhead does not include the following:

- Revenue service
- Additional activities, such as:
  - Charter service
  - School bus service
  - Operator training
  - Fueling
  - Maintenance testing

For fixed route services, deadhead includes the miles and hours when a vehicle is not available to the public and is traveling to its first publicly advertised stop or from its last stop to the garage or dispatching point.

For non-fixed route services, deadheading can involve travel from:

- The garage to the dispatching point,
- The garage to the first scheduled passenger pick-up,
- The dispatching point to the first scheduled passenger pick-up,
- The last scheduled passenger drop-off to the dispatching point,
- The last scheduled passenger drop-off to the garage, or
- The dispatching point to the garage.

The dispatching point is defined as the location where a driver receives the schedule to provide revenue service.

Deadhead does not include fueling or lunch breaks. Some transit agencies do not have fueling facilities at their maintenance facilities or parking lots. In these cases, drivers may fuel vehicles on the way back to the garage. Some operators travel to a scheduled lunch break between a drop-off and the next pick up. Transit agencies should not report the time or miles drivers spend fueling vehicles or traveling to and from a scheduled lunch break.

FTA may review certain services to determine whether they should be reported as revenue or deadhead.

Only Full Reporters report deadhead data. Full Reporters do not report deadhead for the Vanpool mode or the TX and Transportation Network Company (TN) types of service.

Actual Service Data

Actual service data are the statistics of the services actually provided during the fiscal year of the transit agency. Actual service data excludes scheduled service that did not occur (e.g., missed trips, service interruptions due to strikes, emergency shutdowns, etc.).

Agencies collect this data and report on an annual or monthly basis, depending on reporter type.

For agencies that operate Vanpools, there may be times when passengers fail to report data for VRM and VRH for certain trips. If this occurs, please contact the assigned NTD analyst.

Actual Vehicle Hours and Miles

Actual vehicle hours and miles are the hours and miles that vehicles travel while in revenue service plus deadhead hours. Actual vehicle hours and miles exclude the hours and miles from the following activities:

- Charter service
- School bus service
- Operator training
- Fueling and lunch breaks
- Maintenance testing

Transit agencies must collect and report actual service data for the fiscal year of the Annual Report. The NTD refers to actual annual service data as an agency's annual totals. Annual totals include all service that a transit agency actually provides during the year. Therefore, annual totals include both typical and atypical service.

All agencies must record actual miles and hours and revenue miles and hours. It is important for agencies to understand the differences between actual miles and hours and revenue miles and hours to ensure they do not mistakenly include incorrect data as revenue service. Full Reporters must provide both actual vehicle data and actual revenue service data.

Actual Passenger Car Hours and Miles

Actual passenger car hours and miles are the hours and miles that passenger cars travel while in revenue service and while deadheading. Actual passenger car hours and miles include the hours and miles during layover and recovery time but exclude the hours and miles from the following activities:

- Charter services
- Operator training
- Fueling
- Vehicle maintenance testing

Actual Train Hours and Miles

Actual train hours and miles are the hours and miles that trains travel while in revenue service plus deadhead hours. Actual train hours and miles include hours from layover and recovery time but exclude hours and miles from the following activities:

- Charter services
- Operator training
- Vehicle maintenance testing

The following exhibits provide common examples for each data type and show what activities agencies should include under revenue miles and hours.

Exhibit 6: Miles and Hours for Bus, Commuter Bus, and Bus Rapid Transit Modes

Activity	Actual Vehicle Hours	Actual Vehicle Miles	Vehicle Revenue Hours	Vehicle Revenue Miles
Bus travels (deadheads) from dispatching point to start of a route.	Yes	Yes	No	No
Bus travels its route in scheduled revenue operation. Passengers board the vehicle.	Yes	Yes	Yes	Yes
Bus travels its route in scheduled revenue operation. No passengers board the vehicle.	Yes	Yes	Yes	Yes
Bus arrives at the end of a route, incurs layover. Passengers can board during layover.	Yes	N/A	Yes	N/A

Activity	Actual Vehicle Hours	Actual Vehicle Miles	Vehicle Revenue Hours	Vehicle Revenue Miles
Bus arrives at the end of a route, incurs layover. Passengers cannot board during layover.	Yes	N/A	Yes	N/A
Bus arrives at the end of the route, parks, and goes out of service. Resumes service in PM peak.	No	No	No	No
Bus arrives at the end of the route, travels (deadheads) to a storage lot, and parks.	Yes	Yes	No	No
Bus arrives at the end of the route, travels (deadheads) to another route to operate a scheduled trip. Passengers cannot board during deadhead.	Yes	Yes	No	No
Bus arrives at the end of the route, travels (deadheads) to the dispatching point.	Yes	Yes	No	No
Bus travels from the garage to another maintenance facility to perform routine maintenance.	No	No	No	No
Trip is terminated due to a collision with another vehicle, and the bus travels to a maintenance facility.	Yes	Yes	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	No	No
Driver fuels the vehicle at a gas station.	No	N/A	No	N/A

Exhibit 7: Miles and Hours for Demand Response Services

Activity	Actual Vehicle Hours	Actual Vehicle Miles	Vehicle Revenue Hours	Vehicle Revenue Miles
Vehicle idles at the dispatching point.	No	N/A	No	N/A
Vehicle departs dispatching point to pick up a passenger.	Yes	Yes	No	No
Vehicle waits for a passenger at the pick-up point.	Yes	N/A	Yes	N/A
After a passenger drop-off, the vehicle departs to pick up another passenger with no passengers onboard.	Yes	Yes	Yes	Yes
Driver travels to a restaurant for lunch after the last passenger drop-off.	No	No	No	No
Driver eats his lunch at a restaurant.	No	N/A	No	N/A
Driver leaves restaurant to pick up passengers.	No	No	No	No
Vehicle transports passengers from a community center to a shopping mall.	Yes	Yes	Yes	Yes
Vehicle waits at the shopping mall until it is time to bring passenger back to the community center.	Yes	N/A	Yes	N/A
Vehicle returns to the dispatching point with no passengers onboard.	Yes	Yes	No	No
Driver travels to pick up a passenger, but the passenger is a no-show.	Yes	Yes	Yes	Yes
Driver fuels the vehicle at a gas station.	No	N/A	No	N/A

Transit agencies must report accurate, true statistics for VRM (i.e., no estimates). The following exhibit describes how an agency should collect these data.

Exhibit 8: Miles and Hours for Rail Services

Activity	Actual Vehicle Hours	Actual Vehicle Miles	Vehicle Revenue Hours	Vehicle Revenue Miles
Train travels (deadheads) from the yard to the station where the trip is scheduled to start.	Yes	Yes	No	No
Train departs from the yard and travels to an adjacent station. The transit agency states that the train is in revenue service; however, no passengers are allowed to board.	Yes	Yes	No	No
Train travels from beginning to end of the line carrying passengers.	Yes	Yes	Yes	Yes
Train completes trip, incurs layover time. Passengers cannot board during layover.	Yes	N/A	Yes	N/A
Train completes trip, lays over at a maintenance facility adjacent to the station. Passengers cannot board during layover.	Yes	Yes	Yes	Yes
Train completes trip, lays over. Passengers can board during layover.	Yes	N/A	Yes	N/A
Train departs from Station A, breaks down at Station B. Trip is terminated. Passengers alight at Station B to board the next train. Trip operated from Station A to Station B.	Yes	Yes	Yes	Yes
Trip not operated beyond Station B. Train returns to the maintenance yard.	No	No	No	No
Train departs from Station A, short turns at Station B. Passengers alight at Station B and board the next train. Trip operated from Station A to Station B.	Yes	Yes	Yes	Yes
Train departs from Station A, stops at Station B, and then proceeds directly to the end of the line without any stops. Passengers onboard can only alight at Station B or at end station. Trip operated from Station A to Station B.	Yes	Yes	Yes	Yes

Activity	Actual Vehicle Hours	Actual Vehicle Miles	Vehicle Revenue Hours	Vehicle Revenue Miles
Trip operates nonstop beyond Station B to the end of the line.	Yes	Yes	Yes	Yes
Train completes trip, deadheads to the end of another line for another trip.	Yes	Yes	No	No
In the transition from AM to midday service, the train parks at the end station and is out of service. Service will resume for PM peak.	No	N/A	No	N/A
In the transition from AM to midday service, the train travels (deadheads) to the yard.	Yes	Yes	No	No
Train travels for operators' training and no passengers are allowed to board.	No	No	No	No
Train travels from the yard to a maintenance facility.	No	No	No	No

Vehicles Operated in Annual Maximum Service

Vehicles Operated in Maximum Service (VOMS) is the number of revenue vehicles an agency operates to meet the annual maximum service requirement. Agencies count their annual VOMS during the peak season of the year on the busiest day that they provide service. In most cases, this is the number of scheduled vehicles because most transit agencies have enough vehicles to operate the scheduled service. VOMS excludes atypical days or one-time special events for non-DR modes.

Exhibit 9: VOMS: Non-Rail Modes

Non-Rail Modes	Demand Response and Vanpool	All Other Non-Rail Modes
VOMS	The largest number of vehicles in revenue service at any one time during the reporting year (includes atypical service).	The largest number of operated (usually scheduled) revenue vehicles in service at any one time during the reporting year (excludes atypical service).

Exhibit 10: VOMS: Rail Modes

Rail Modes	Commuter Rail and Alaska Railroad	All Other Rail Modes
VOMS	The largest number of passenger cars and locomotives operated (usually those scheduled for service) at any one time during the reporting year (excludes atypical service). Passenger cars and locomotives each count as a vehicle in this case.	The largest number of passenger cars (vehicles) operated (usually those scheduled for service) at any one time during the reporting year (excluding atypical service).

Exhibit 11: How to Report VOMS for Demand Response Modes

Example: Happy Transit typically operates a total of six unique vehicles throughout one day but only ever dispatches and has four vehicles out on the road at the same time. What should Happy Transit report for VOMS?

Solution: Happy Transit reports a total of four VOMS. While Happy Transit used six unique vehicles throughout the day, if only four vehicles were operating simultaneously, the VOMS would be four. VOMS should capture the largest number of vehicles in revenue service at any one time.

Service Consumed

Unlinked Passenger Trips

UPT are the number of boardings on public transportation vehicles during the fiscal year. Transit agencies must count passengers each time they board vehicles, no matter how many vehicles they use to travel from their origin to their destination. If a transit vehicle changes routes while passengers are onboard (interlining), transit agencies should not recount the passengers. Employees or contractors on transit agency business are not passengers.

For the DR mode, transit agencies must include personal care attendants and companions in UPT counts as long as they are not employees of the transit agency. This includes attendants and companions that ride fare free.

For Vanpool (VP) service, agencies generally must report the driver as a passenger and include the driver in UPT counts. In almost all cases, the Vanpool driver is unpaid and is traveling for personal reasons (e.g., work commuting, shopping). In the rare case when the driver is being employed as a driver and not traveling for personal reasons, then the driver should not be counted as a passenger.

For Ferryboat (FB) mode, FTA has specific reporting rules when other transportation modes utilize the FB service. These other transportation modes may be public transit modes such as VP, or they may be private vehicles, such as automobiles. Transit agencies must report UPT for each vehicle occupant of these other transportation modes (including the driver), whether the other transportation mode is public or private.

Collecting Service Consumed Data

Transit agencies must report actual data on the Annual Report for all service data except UPT and PMT. Only Full Reporters report PMT data to the NTD. For these two data points, agencies may provide an estimate but only if the actual 100 percent data are not reliably collected and routinely processed. If an agency collects and routinely processes true UPT or PMT data, it must report the actual data on the Annual Report.

Transit agencies may collect data during the year by using drivers' logs, mobile data terminals, Automatic Passenger Counters (APCs), manual passenger counters, and fareboxes. If a transit agency estimates UPT or PMT data, it must adhere to FTA requirements of estimation procedures, as described in the following sections.

100 Percent Counts of Unlinked Passenger Trips and Passenger Miles Traveled

Transit agencies must perform and routinely process reliable 100 percent counts of UPT and PMT to report these data. Transit agencies are not required to report these data if either the transit agency does not routinely process these data, or it does not believe that the data are reliable.

Sometimes transit agencies performing 100 percent counts will miss passenger counts on some vehicle trips because of personnel problems or equipment failures. If these vehicle trips are 2 percent or less of the total, transit agencies may factor the data to account for the missing trips. However, if the vehicle trips with missing data exceed 2 percent of total trips, agencies must have a qualified statistician approve the factoring method.

Transit agencies must sample annually for modes of service where they do not conduct 100 percent counts of UPT. This FTA requirement applies to all agencies regardless of the TOS provided and the size of their primary UZAs.

Transit agencies must sample every year (annual sampling cycle) if their services meet the following requirements:

- The agency directly operates the service;
- The agency serves a primary UZA with population of 500,000 more; and
- The agency has VOMS of 100 or more across all directly operated (DO) modes.

Transit agencies are permitted to sample every three years (triennial sampling cycle) for a mode and TOS if:

- The agency collects 100 percent counts of UPT every year for the mode and TOS; and
- One of the following conditions is met:
    - The agency directly operates all modes, and the total VOMS is less than 100;
    - The agency serves a primary UZA with population of less than 500,000; or
    - The TOS is purchased transportation.

Automatic Passenger Counters

Some transit agencies use APCs for collecting UPT and PMT data through sampling or a 100 percent count. The use of APCs for NTD reporting requires FTA approval. If a transit agency fails to obtain FTA approval, FTA may not accept the reported APC-derived data.

FTA must approve the following for agencies to report APC data:

- APC benchmarking plan for the first year
- APC benchmarking plan every three years.

The next benchmarking year is Report Year 2025. Agencies are required to complete APC certifications on the same triennial cycle regardless of when in the cycle the APC was certified. For example, an APC that is first certified in 2023 must be recertified in 2025.

The APC benchmarking plans must include:

1. Validation of the APC data for UPT and PMT data against a *manual sample*:
   a. Agencies operating 30 or fewer active vehicles must sample at least 15 trips.
   b. Agencies with greater than 30 active vehicles should sample, at least, the larger of 15 trips or half of the number of APC equipped vehicles, up to 50 trips. These numbers represent the smallest acceptable sample. Agencies may perform larger samples at their discretion.
   c. The trips sampled for the manual sample do not need to be randomly selected and can be spread out over any period of time within the same year. The sample should include heavy ridership trips and at least one trip per vehicle type and APC model. For rail systems, a trip is a one-way train trip. These systems are only required to manually sample one car per train and should compare the manual and APC counts on that car. Rail systems may station ride checkers on multiple cars per train at their discretion, but the sample will still count as just one train trip.
2. A description of the agency's APC system.
3. A description of agency's sampling procedures.
4. A list of trips that were flagged and rejected from the sample with explanations for each. The explanation cannot be that the trip was rejected because it was different from the manual data.
5. The percentage of trips that do not have valid APC data over the course of a typical year, either because the APC malfunctioned, the data were corrupted, the data failed a validation check, or for any other reason.
6. Descriptions of the differences (if any) in the set of distances between stops (e.g., inter-stop distances) the agency used to calculate PMT using manual and APC data. Ideally, the agency will use the same set of distances for both calculations.
7. The following metrics, both of which must be less than 5 percent:
   d. Percent Difference of manual vs. APC UPT
   e. Percent Difference of manual vs. APC PMT

Manual counts can be made using data collection staff or on-board cameras. To ensure accurate counts FTA recommends using a data collector at each door on heavily loaded trips. APC data should be processed to correct for anomalies as it would be in the reporter's normal data collection process. The objective is to compare manually collected data with processed APC data and demonstrate that they are equivalent or that any differences are justifiable.

Transit agencies applying to use APC data must submit the benchmarking plan (and its results after implementation) to FTA for approval. If FTA rejects an agency's APC system, the agency should reexamine its APC data collection procedures, make any needed adjustments, perform any needed maintenance on the system, and retest. FTA expects the sampling process to take less than a month; this should allow agencies to retest before the end of the year, thus ensuring that an agency that encounters problems in its APC testing can nonetheless provide an uninterrupted set of data to NTD. Agencies must also submit the results of the triennial benchmarking plans to FTA for approval.

Each mode and TOS must certify its APCs individually unless they share fleets.

If, at any time, an agency installs new and substantially different APC equipment, the APCs must be recertified.

Estimation Methods for Unlinked Passenger Trips and Passenger Miles Traveled

Only Full Reporters report PMT data on annual reports.

If 100 percent counts of UPT or PMT are not available and reliable, agencies must estimate and report UPT, or PMT based on statistical sampling. FTA requirements for sampling UPT and PMT for all modes and types of service are:

- Minimum confidence of 95 percent
- Minimum precision level of ±10 percent

The required precision level (±10 percent) applies to the annual total data that an agency reports. For Full Reporters reporting data for average day schedules, the precision levels for an average day will be larger than ±10 percent if the sample size for the annual total was designed to meet ±10 percent exactly.

Transit agencies may use any data sampling technique that meets the 95 percent confidence and ±10 percent precision levels. Transit agencies may use different sampling techniques for each mode and TOS. If a transit agency samples, it must follow the sampling technique exactly. Agencies may oversample, as long as the oversampling is selected randomly. However, agencies must not collect a smaller sample than the chosen sampling plan prescribes. Additionally, agencies must not change the number of trips in the sample, except to randomly oversample, or the approaches for selecting trips that comprise the sample.

A transit agency may use one or more of the following sampling plans, each discussed below:

- FTA-approved sampling methods, and/or

- Alternative sampling techniques

Transit agencies must retain sampling documentation in their records for at least three years. In many cases, agencies need this information during their Triennial Review.

FTA-Approved Sampling Methods

To assist transit agencies with sampling, FTA has developed acceptable UPT and PMT sampling procedures for all modes. The *NTD Sampling Manual* includes definitions, sampling procedures, data recording procedures, annual report compilation, and sample selection information.

FTA issued the *NTD Sampling Manual* in 2009 to help transit agencies prepare sampling plans that are tailored to their operating environment. The manual covers the development of sampling plans for all modes. If data are not available for a particular mode, the manual provides default sampling templates. If data are available, then agencies may use customized sampling plans.

Alternative Sampling Methods

Transit agencies may use any other procedure to sample UPT or PMT data, as long as the procedure meets FTA confidence intervals and is approved by a qualified statistician. In the NTD, sampling plans created by agencies or statisticians are referred to as *alternative sampling methods*.

A qualified statistician can ensure that a sampling plan meets FTA statistical sampling requirements. FTA does not prescribe specific statistician qualifications. Instead, transit agencies must ensure that statisticians are qualified. The statistician may be an in-house staff person with a working knowledge of, and an education or background in, statistics. The statistician also may be a hired consultant with appropriate qualifications.

FTA does not review or approve alternative sampling techniques. A qualified statistician must design the sampling technique to meet FTA confidence and precision levels.

Transit agencies must use this method to retain sampling documentation in their files. The documentation should include:

- A description of the method that specifies the parameters used to estimate UPT (e.g., UPT per vehicle trip x number of vehicle trips operated) if a 100 percent count of UPT is not available or reliable, and PMT (e.g., PMT per vehicle trip x number of vehicle trips operated), and the rationale used to estimate the coefficient(s) of variation,

- A signed review of the technique by a qualified statistician, including a statement that the technique meets FTA confidence and precision levels, and
- A summary of the statistician's education and experience that indicates that the statistician is qualified.

Sampling for Purchased Transportation Types of Service

A transit agency may apply one sample method to cover all purchased transportation (PT) services for a specific mode, or each purchased transportation contractor (seller of service) may use a separate sampling method.

Sampling Cycles

FTA has set minimum annual or triennial sampling cycles for transit agencies. The requirements are based on the TOS. For DO services, the requirements are further stratified by the size of the primary UZA and the number of VOMS directly operated across all modes.

Transit agencies must sample every year (annual sampling cycle) if their services meet the following requirements:

- The agency directly operates the service;
- The agency serves a primary UZA with population of 500,000 more; and
- The agency has VOMS of 100 or more across all DO modes.

Agencies must sample annually if they do not have a 100 percent count of UPT.

Exhibit 12: Sampling Cycle Requirements

Type of Service	Primary UZA Population	Total VOMS for Modes	100% Count of UPT Conducted?	Mandatory Year
DO	≥ 500,000	≥ 100	Yes/No	Annually
DO	≥ 500,000	< 100	Yes	Triennially
DO	≥ 500,000	< 100	No	Annually
DO	50,000 - 499,999	Any number	No	Annually
DO	50,000 - 499,999	Any number	Yes	Triennially

Type of Service	Primary UZA Population	Total VOMS for Modes	100% Count of UPT Conducted?	Mandatory Year
PT, TN, and TX	≥ 50,000	Any number	Yes	Triennially
PT, TN, and TX	≥ 50,000	Any number	No	Annually

Transit agencies are permitted to sample every three years (triennial sampling cycle) for a mode and TOS if:

- The agency collects 100 percent counts of UPT every year for the mode and TOS; and
- One of the following conditions is met:
  - The agency directly operates all modes, and the total VOMS is less than 100;
  - The agency serves a primary UZA with population of less than 500,000; or
  - The TOS is purchased transportation.

If a transit agency wishes to sample every three years, it must collect sample data in FTA-defined mandatory years. The next mandatory sampling year is Fiscal Year 2023.

If a transit agency is a new Full Reporter, or if a transit agency starts a new mode or TOS, the agency must sample during the first report year, even if it is not a mandatory year.

MONTHLY RIDERSHIP REPORTING (FORM MR-20)

MR-20 Form Overview

Full Reporters must report monthly ridership data for each mode of public transportation service that the agency operates. This information provides FTA with monthly trends in ridership and service supplied throughout the year. Agencies are required to report on all modes reported on an agency's P-20 form based on the start and end dates for each mode. For further information on modes, please refer to the NTD Reporting Policy Manual.

The MR-20 form requires agencies to report the following data points:

- Unlinked Passenger Trips
- Actual Vehicle (Passenger Car) Revenue Hours
- Actual Vehicle (Passenger Car) Revenue Miles
- Vehicles Operated in Annual Maximum Service

Please note, data fields for any given month will not appear until that month has ended.

Data Points

Unlinked Passenger Trips

Please see the definition provided for UPT in the "Service Consumed" section of this manual.

If the transit agency uses a sampling method, the total UPT for a specific month should be estimated using the sample data collected during the month and the same procedure that the transit agency uses to estimate annual UPT. This approach may not meet FTA's confidence and precision levels for annual data (±10 percent precision for a 95 percent confidence level) but does meet FTA's requirements for reporting monthly data on the Monthly Ridership Activity form (MR-20).

If the transit agency changes its sampling procedure, it should revise its reported UPT for the affected fiscal year and thereafter use the new methodology.

Actual Vehicle (Passenger Car) Revenue Hours

Please see the definition for Actual Vehicle (Passenger Car) Revenue Hours in the "Actual Vehicle Revenue, Passenger Car Revenue, and Train Revenue Hours and Miles" section of this manual.

Actual Vehicle (Passenger Car) Revenue Miles

Please see the definition for Actual Vehicle (Passenger Car) Revenue Miles in the "Actual Vehicle Revenue, Passenger Car Revenue, and Train Revenue Hours and Miles" section of this manual.

Monthly Vehicles Operated in Maximum Service

VOMS is the number of revenue vehicles/passenger cars operated to meet the maximum service requirement during the month of service reported. VOMS excludes atypical days or one-time special events.

Please see the "Vehicles Operated in Annual Maximum Service" section for further detail and examples.

Please note that monthly VOMS may be different than VOMS on the annual Service form (S-10). The difference between definitions is the period over which the maximum service requirement is applied—a month in the Monthly Ridership Activity form (MR-20) versus a fiscal year in the S-10.

WEEKLY REFERENCE REPORTING (FORM WE-20)

WE-20 Form Overview

During the Coronavirus Disease 2019 public health emergency, FTA found that it did not have timely enough data on transit services supplied or transit services consumed to sufficiently inform stakeholders at the Federal, State, and local levels during a rapidly changing crisis situation. To better understand transit industry changes on a timely basis, FTA is collecting additional data from a sample set of modal reports across Full, Reduced, Tribal, and Rural reporters.

In April 2023, FTA selected a subset of 400 NTD reporter modes to be the WE-20 Sample Group and to report a sample of weekly data for at least one mode. Agencies are required to submit these data beginning in July 2023. The selected sample agencies will report one week's worth of service-level summary data in a new reporting form, the WE-20. Agencies will submit this form once a month. The WE-20 form will offer a representative snapshot of transit ridership and transit service levels nationwide.

State departments of transportation are responsible for coordinating and submitting WE-20 data for any of their subrecipients selected for the WE-20 Sample Group (see below).

The WE-20 form contains service data related to one "reference week" per month. FTA has defined the reference week to be the second full week of the month. However, if the reference week contains a Federal holiday, then it may be the third full week of the month. All sampled agencies will report data referencing the same reference week. Agencies may not request an amendment to the reference week period.

These data are due seven business days after the last day of the reference week. FTA released a list of the reference weeks for CY 2023 to selected agencies in April 2023, as well as the corresponding due dates for those reference weeks.

Agencies report best available data on the WE-20 form. Best available data depends on the facts and circumstances and the extent of data available to each agency. The data could be preliminary or minimally validated.

The form collects the following service data points:

- Weekday 5-day UPT total for the reference week;
- Weekday 5-day VRM total for the reference week;

- Weekend 2-day UPT total for either the weekend preceding or following the reference week; and
- Weekend 2-day VRM total for either the weekend preceding or following the reference week.

WE-20 Sample Selection

FTA established the following guidelines for sample selection:[2]

The sampling methodology would use a stratified random sampling based on region, mode, and other factors. FTA would then make sampling adjustments as needed based on unavailable modes, reporters without weekly data access, or other factors. Sampling may not be purely random to ensure the accuracy of the nationwide estimate of ridership and service levels. Therefore, NTD reporters with the largest service levels nationally or regionally may be more likely to be selected multiple times to ensure the accuracy of the nationwide estimate.

In accordance with these guidelines, FTA selected a stratified random sample of 400 modes from all reporting entities in the NTD.

The selected strata were:

a) *Rail modes (see the reporting manual for the full list of rail modes),*
b) *Rural and Tribal reporters, and*
c) *Region clusters.*

FTA chose 50 modal reporters from the set of all rail modes. For Rural and Tribal reporters, FTA randomly selected 10 States, and then selected 5 modal reporters from each of these States. For the regional strata, FTA combined the regions into four “region clusters” — East, Central, South, and West — and then selected 75 from each of these clusters. All strata were selected using weighted random sampling based on 2021 UPT.

The sampled reporters will report for a period of three consecutive calendar years after the effective date of the reporting requirement. FTA intends to update the WE-20 Sample Group in 2026.

[2] See July 7, 2022, Federal Register Notice (87 FR 40582). These guidelines were finalized in FTA’s March 3, 2023, Federal Register Notice (88 FR 13497).

Data Points

Unlinked Passenger Trips

Please see the definition provided for UPT in the "Service Consumed" section of this manual.

If the transit agency uses a sampling method, the agency should estimate the total UPT for a specific week using the sample data collected during the week. The agency should use the same procedure that they use to estimate annual UPT. This approach may not meet FTA's confidence and precision levels for annual data (±10 percent precision for a 95 percent confidence level) but does meet FTA's requirements for reporting monthly data on the WE-20.

Actual Vehicle (Passenger Car) Revenue Miles

Please see the definition in the "Actual Vehicle Revenue, Passenger Car Revenue, and Train Revenue Hours and Miles" section of this manual.

Vanpool Modes

Agencies with Vanpool modes selected for WE-20 reporting may report VOMS instead of UPT and VRM data. Please see the definition for VOMS in the "Vehicles Operated in Annual Maximum Service" section of this manual.