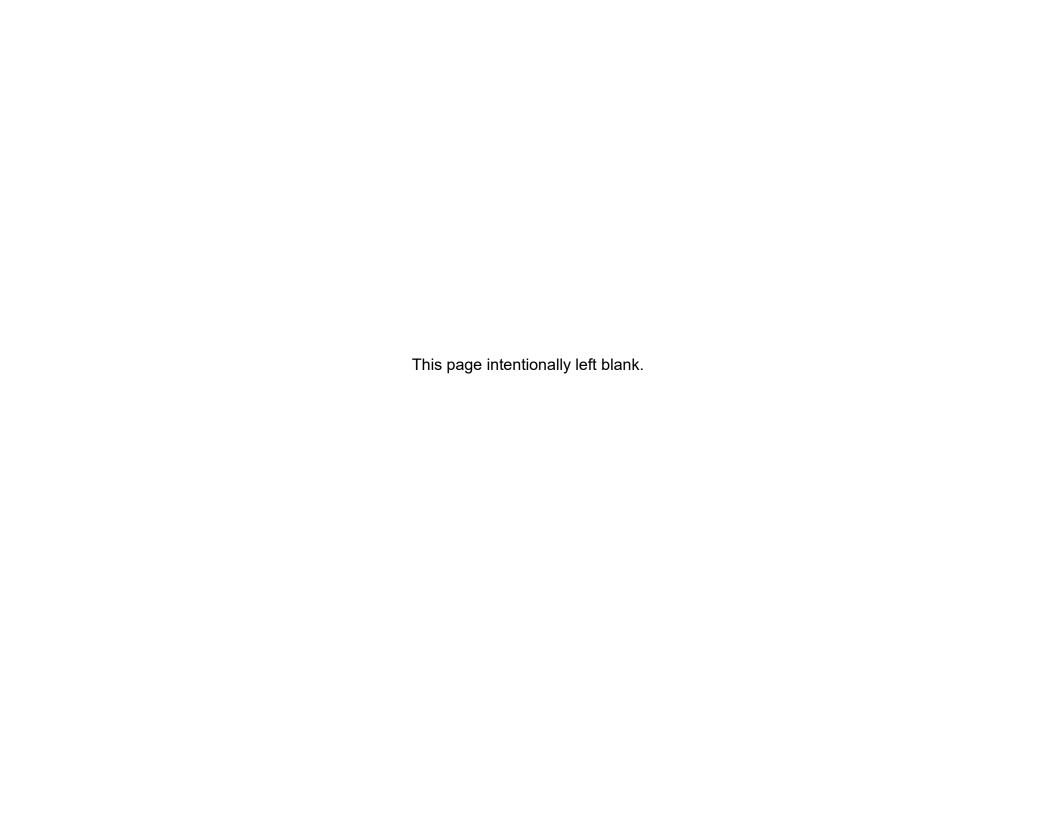
# Office of Budget and Policy



# **Single Summary of Transit Report** 2022 Edition



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## **Table of Contents**

| Executive Summary   | 8  |
|---|----|
| Chapter 1. Introduction and Fast Facts About Transit in 2022            | 9  |
| Preface: Understanding the Data Collection                              | 9  |
| Key Differences Among Transit Systems Reporting to the NTD              | 9  |
| Key Methods of Aggregation in the NTD                                   | 11 |
| Comparing Transit Ridership with Other Forms of Transportation          | 11 |
| How Many People Work in Public Transit?                                 | 12 |
| Passenger Stations Nationwide   | 13 |
| Chapter 2. Overview of Public Transportation and Reporting Requirements | 16 |
| History of the Federal Transit Program                                  | 17 |
| Legislative Requirement for the National Transit Database               | 20 |
| Rural Transit Programs  | 22 |
| Transit Asset Management Requirement                                    | 23 |
| Reporting to Congress on Transit Performance and Condition              | 24 |
| Human Services Transportation   | 25 |
| Chapter 3. Overview of Transit Agency Organizations                     | 27 |

| Transit Ag | ency Fiscal Year Cohorts                | 27 |
|------------|---|----|
| NTD Orga   | nization Types                          | 28 |
| Chapter 4. | Overview of Transit Operations          | 31 |
| Transit Mo | odes                                    | 31 |
| Types of S | Service                                 | 38 |
| Chapter 5. | Overview of Urbanized Areas             | 42 |
| Urbanized  | Areas or "UZAs"                         | 42 |
| UZA Popu   | lation and Density                      | 43 |
| Rural Area | as or "Non-UZAs"                        | 46 |
| Chapter 6. | Overview of Transit Markets             | 48 |
| Defining " | Fransit Markets"                        | 48 |
| NTD Repo   | orters and Modes Operated by Market     | 54 |
| Chapter 7. | Geographic Coverage                     | 57 |
| Areas Not  | Served by Public Transit                | 57 |
| Directiona | I Route Miles of Rail or Fixed Guideway | 60 |
| Map of Url | banized Areas                           | 63 |
| Chapter 8. | Total Transit Workforce                 | 64 |

| Current Year Transit Workforce                        | 64  |
|---|-----|
| Transit Workforce Over 10 Years                       | 64  |
| Chapter 9. Transit Asset Totals                       | 66  |
| Vehicle Fleets  | 66  |
| Facilities  | 70  |
| Bus Fuel Usage  | 72  |
| Americans with Disabilities Act Station Accessibility | 74  |
| Chapter 10. Service Supplied                          | 75  |
| Vehicle Revenue Miles                                 | 75  |
| System Capacity                                       | 86  |
| Average Revenue Speed                                 | 93  |
| Chapter 11. Ridership                                 | 95  |
| Service Consumed by Transit Mode                      | 95  |
| Average Trip Length                                   | 97  |
| National Ridership Trends                             | 98  |
| Service Effectiveness                                 | 104 |
| Average Trip Length                                   | 105 |

| Chapter 12. Sources of Funds108                               |
|---|
| Current Year Sources of Funds                                 |
| Sources of Funds Over Time in Constant Dollars111             |
| State and Local Funding                                       |
| Public Health Emergency Funding and Transit115                |
| Operating Expense Funding Sources                             |
| Sources of Funding by Market and UZA116                       |
| Chapter 13. Capital Funding121                                |
| Capital Funding Sources121                                    |
| Types of Capital Expenses                                     |
| Chapter 14. Operating Expenses131                             |
| Trends in Funding Used to Cover Operating Expenses            |
| Operating Expenditures by Function and Object Class           |
| Chapter 15. Service Efficiency (Cost per Service Supplied)137 |
| Operating Expenditures per Vehicle Revenue Mile               |
| Operating Expenditures per CEVRM and VRH                      |
| Labor Costs   |

| Chapter 16. Cost Effectiveness (Cost per Ride)                           | 144 |
|--|-----|
| Operating Expenditures per Passenger Mile                                | 145 |
| Farebox Recovery   | 147 |
| Total Federal Assistance Applied to Transit and Unlinked Passenger Trips | 149 |
| Operating Expenditures per CEVRM vs. Operating Expenditures per PMT      | 150 |
| Cost per UPT for Demand Response Service                                 | 154 |
| Fixed-Route Bus UPT per Capita vs. VRM per Square Mile                   | 157 |
| Chapter 17. Asset Conditions & Targets                                   | 158 |
| Mechanical Failures  | 158 |
| Useful Life and Age for Revenue and Service Vehicles                     | 159 |
| Condition Assessments for Facilities                                     | 163 |
| Track Under Performance Restrictions                                     | 164 |
| Replacement Cost for Service Vehicles                                    | 166 |
| Chapter 18. Safety   | 167 |
| Fatalities and Injuries  | 167 |
| Derailments and Collisions   | 169 |
|  |     |

Appendix A: Urbanized and Non-Urbanized Area Populations and Transit Markets171

# 2022 Single Summary of Transit Report

| Table A-I: 2020 Urbanized Areas     | 171 |
|-------------------------------------|-----|
| Table A-2: 2020 Non-Urbanized Areas | 200 |

## **Executive Summary**

This report contains key statistics and trends regarding public transportation in the United States (U.S.) as of 2022. The primary data sources are annual reports submitted to FTA's National Transit Database (NTD) program for Report Year (RY) 2022. Each agency reporting submits data on a fiscal year basis. Nearly **3,000** public transit agencies provided annual reports in 2022. This report aggregates and summarizes the data they reported. Based on this report, transit operators in the United States:

- Provided 5.9 billion passenger trips, an increase of 33 percent from RY 2021, via 17 distinct modes of transportation.
- Carried passengers approximately 30 billion miles, an increase of 25 percent from RY 2021
- Operated in of **502 Urbanized Areas**, an increase of 9 from the prior decennial Census.

# Topics of Interest

- Chapter 1-2: Introduction and Basis for Data Collection
- Chapters 3-4: Transit Agencies by Type, Modes of Transit
- Chapters 5-7: Transit Markets and Areal Geography
- Chapters 8-9: Transit System Resources
- Chapters 10-11: Service Supplied and Consumed
- Chapters 12-14: Funding
- Chapters 15-17: Measures of System Performance and Asset Conditions
- Chapter 18: Transit Safety

This report also approximates that the workforce which makes public transit possible each day numbers **over of 370,000** and that a national fleet of over **171,000** vehicles were used to provide transit service in 2022.

To simplify (for audiences interested in transit and less familiar with NTD terminology) this report groups modes of transit with similar attributes using the concept of **Consolidated Mode** (see Chapter 4). Transit can also be classified by where it is provided and by the market served. This report classifies areas by their Transit Market (see Chapter 6) to allow readers to identify similarities and differences among areas with similar characteristics.

The report is organized into 18 chapters, with similar topics of interest identified in the graphic above.

## Chapter 1. Introduction and Fast Facts About Transit in 2022

## Preface: Understanding the Data Collection

Most transit systems in the U.S. report to the National Transit Database (NTD). After data reporting was required by Congress in 1974, the FTA's NTD was set up to be the repository for data about the financial, operating, and asset conditions of American transit systems. The NTD data in this report is the result of a longitudinal, annual survey of these transit systems.

The data collected by the NTD is also intended to support planning efforts and aid governments and other decision-makers. This allows for the multiyear comparisons and trend analyses that this report will contain. Beyond the basic data mentioned above, it also contains more detailed data regarding funding sources, inventories of vehicles and maintenance facilities, safety event reports, measures of transit service provided and consumed, and data on transit employees.

Many trends presented in this report will reflect the last decade in public transportation and will highlight trends before and during the COVID-19 national public health emergency. Users should take note that certain trends are either exacerbated or diminished by the result of data collection along different transit agency fiscal years, as discussed further in Chapter 3.

## Key Differences Among Transit Systems Reporting to the NTD

The NTD collects different levels of data based on either the size or the service area of the reporting entity. Most notably, urban transit systems reporting fewer than 30 vehicles (Reduced Reporters) or operating exclusively in rural areas (Rural Reporters) do not report the following data:

- · Counts and hours of employees
- Statement of finances and reconciling operating expenses
- Vehicle maintenance data
- Energy consumption

- Transit station counts by size (Rural Reporters)
- Detailed safety & security event reports

Exhibit 1.1 identifies the number of agencies involved in providing operators by FTA region according to their reporter type: Full Reporter, Reduced Reporter, and Rural Reporter. These types reflect both the size of the system (Full vs. Small System) and the operating environment (Urban vs. Rural).

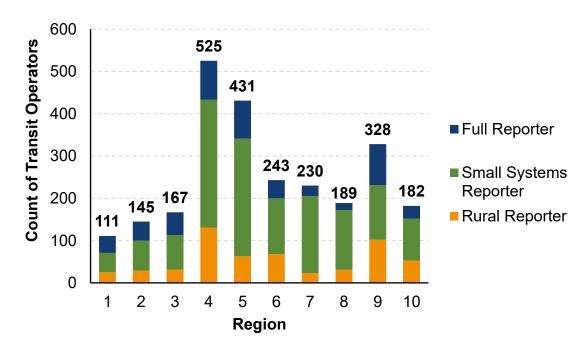


Exhibit 1.1 – National Count of Transit Operators by FTA Region

For more information on reporter types, see the most recent NTD Annual Reporting Policy Manual.

## Key Methods of Aggregation in the NTD

In 2022, the NTD classified transit according to 18 distinct modes (see Chapter 4) in two major categories: rail and non-rail, which are used throughout the report. Many statics are collected by mode, while others are collected by transit agency (systemwide). Some data records, like revenue vehicle inventory or facility inventory, may span multiple modes and creates some challenges with aggregation for this reason.

## Comparing Transit Ridership with Other Forms of Transportation

As Exhibit 1.2 demonstrates, public transit by far supports more passenger trips annually (defined further in Chapter 11) than other transportation modes. Readers are encouraged to consult the Bureau of Transportation Statistics' 2022 Transportation Statistics Annual Report<sup>1</sup> for further comparisons. Aviation and intercity rail are characterized by longer trip lengths, with the average passenger trip length for Amtrak in 2021 reported as 234 miles (compared to 5.1 reported by Full Reporters

Exhibit 1.2 – 2022 Annual Ridership Across Transportation Modes and Change from 2021

| Transportation | Unlinked Passenger Trips | Change from 2021 |
|----------------|--------------------------|------------------|
| Modes          | (Millions, 2022)         | Measure          |
| Public Transit | 5,876                    | +31%             |

<sup>&</sup>lt;sup>1</sup><u>Transportation Statistics Annual Report 2022</u>. United States. Department of Transportation. Bureau of Transportation Statistics.2022-12-01. DOI: <a href="https://doi.org/10.21949/1528354">https://doi.org/10.21949/1528354</a>

| Transportation<br>Modes | Unlinked Passenger Trips<br>(Millions, 2022) | Change from 2021<br>Measure |
|-------------------------|--|-----------------------------|
| Aviation <sup>2</sup>   | 751 <sup>3</sup>                             | +7%                         |
| Amtrak                  | 23 <sup>4</sup>                              | +88%                        |

This report will not otherwise include statistics on air transportation or long-distance (intercity) rail or bus.

## How Many People Work in Public Transit?

"Transit and Ground Passenger Transportation" is a North American Industry Classification System code used by the Bureau of Labor Statistics (BLS) to capture industry-specific data for the ground transportation industry, which includes public transportation described in this report. There are various modes of transportation included in this industry, including buses, subways, and light rail systems.

In 2022, public transportation systems employed approximately 373,000 workers as we will report in Chapter 8 of this document. Comparatively, the air transportation industry employs about 417,600 according to the BLS. While the BLS does not provide a national count of all public transportation workers, it does provide an industry report that, as of May 2022, there were 141,530 bus drivers in the U.S. (excluding schools and hospitals). Exhibit 1.3 demonstrates that, among these drivers, around 100,000 work in public transportation; while not all of "Interurban and Rural Bus Transportation" includes what transit law defines as public transportation (see Chapter 2), rural bus systems are typically open to the public.

<sup>&</sup>lt;sup>2</sup> Aviation includes domestic flights only. Unlinked passenger trips for Aviation are measured as enplanements, which, unlike Unlinked Passenger Trips in public transit, do not count trips involving transfers as multiple enplanements.

<sup>&</sup>lt;sup>3</sup> Full Year 2022 U.S. Airline Traffic Data

<sup>&</sup>lt;sup>4</sup> FY 22 Year-End Revenue and Ridership

Exhibit 1.3 – Count of Bus Drivers in the U.S. in Public Transit Related Jobs as of May 2022 (Bureau of Labor Statistics)<sup>5</sup>

| Industry   | Employment | Hourly Mean<br>Wage | Annual Mean<br>Wage |
|--|------------|---------------------|---------------------|
| Local Government, excluding schools and hospitals (OEWS Designation) | 77,150     | \$ 28.74            | \$ 59,770           |
| Urban Transit Systems  | 21,800     | \$22.98             | \$47,800            |
| Interurban and Rural Bus<br>Transportation                           | 7,520      | \$22.20             | \$46,180            |
| Other Transit and Ground Passenger Transportation                    | 6,910      | \$20.59             | \$42,820            |

## Passenger Stations Nationwide

Expanding access to transit is another important goal of the FTA's funding programs. The NTD collects data that can be used to identify the location and type of passenger transit stations. As of 2022, there were **over 11,000** passenger facilities (including parking facilities) used in transit revenue service. Exhibit 1.4 spotlights the urban center of New York City (above ground and subway) to show how NTD data reflect the transit network, by the type of facility serving passengers.

<sup>&</sup>lt;sup>5</sup>Bureau of Labor Statistics. Occupational Employment and Wages, May 2022 for Bus Drivers, Transit, and Intercity accessed July 2023 from https://www.bls.gov/oes/current/oes533052.htm#nat.

Exhibit 1.4 – Transit Passenger Stations in Manhattan and Brooklyn, NY (sized by Square Footage)

### Passenger Facility Type

- At-Grade Fixed Guideway Station
- Bus Transfer Center
- Elevated Fixed Guideway Station
- Exclusive Platform Station
- Ferryboat Terminal
- Other, Passenger or Parking (descri...
- Parking Structure
- Simple At-Grade Platform Station
- Surface Parking Lot
- Underground Fixed Guideway Station

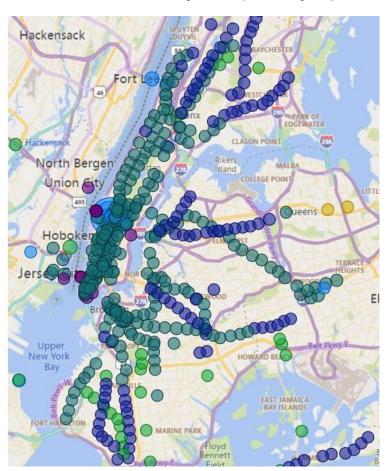


Exhibit 1.5 presents a heat map that demonstrates the distribution of passenger stations along the east coast. This provides a better visual of access to fixed-route forms of transit outside of the major urban areas. The darker coloration indicates a higher concentration of transit stations, whereas the lighter coloration indicates a lower concentration. The exhibit spotlights a high concentration of passenger stations in California as well as the East Coast, where connections between the dense areas and outlying areas can be seen. These reflect common paths that commuters take when riding public transportation into urbanized areas.

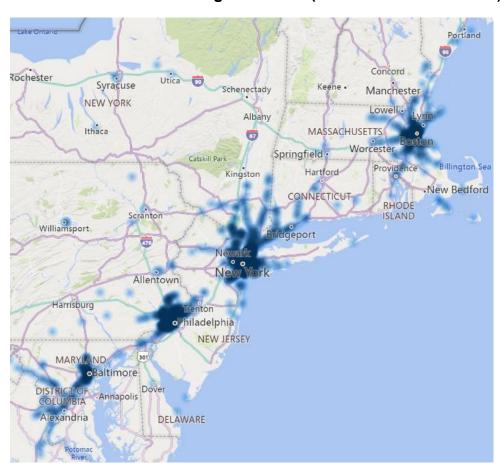


Exhibit 1.5 – Transit Passenger Stations (Northeast United States)

## Chapter 2. Overview of Public Transportation and Reporting Requirements

Defining Public Transportation Federal law establishes the NTD as the Nation's primary 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 2.1 – Definition of Public Transportation**

#### The term 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 2431 (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.

Public transportation is defined by being a shared-ride service open to the general public, including paratransit services for older adults and individuals with disabilities. Airline and airplane services are not included.

The phrase *regular and continuing* means that the NTD does not collect data from pilot programs. However, seasonal services are included. The NTD also excludes intercity rail service operated by Amtrak, as well as intercity bus service. Currently there are three intercity rail services included in the NTD: the Alaska railroad and two services that are preauthorized in the Federal transit program, the Pennsylvania Department of Transportation's Amtrak Keystone Service

and the Northern New England Passenger Rail Authority's Amtrak Downeaster Service. There is no exclusion for *intercity* ferry services.

Service restricted to school pupils is excluded. Transit agencies do sometimes provide school tripper service open to the general public. Sightseeing service primarily for purposes of enjoying the trip itself or resulting in nonstop service back to the point of origin, is also excluded.

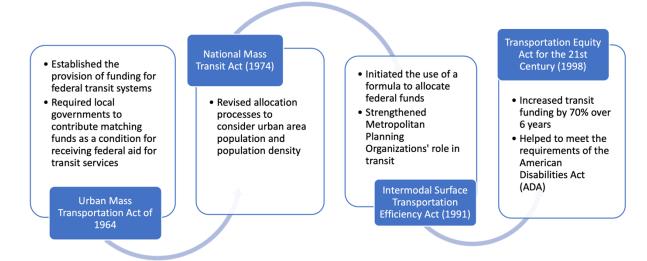
## History of the Federal Transit Program

Transit systems in the U.S. date to the 19<sup>th</sup> century. These early systems were privately owned, for-profit businesses that were instrumental in defining the urban communities of that time. By the postwar period, however, competition from the private automobile limited the ability of transit businesses to operate at a profit. As these businesses began to fail, government leaders at local, State, and Federal levels intervened to sustain transit services vital to growing communities. In 1962, President John F. Kennedy called for Federal support for transit, citing the need to expand urban transportation systems and support grew among lawmakers.

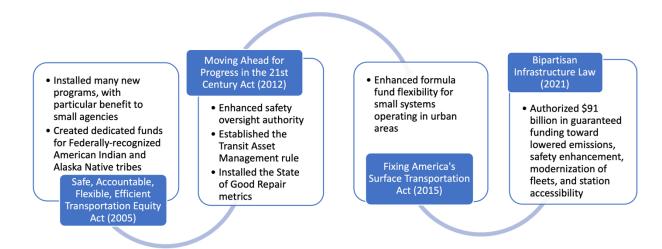
In 1964, President Lyndon B. Johnson signed the Urban Mass Transit Act into law, creating the Urban Mass Transportation Administration (UMTA). During the next ten years, UMTA provided capital assistance to public agencies to replace overage transit assets and to purchase the assets of failing private transit companies. The Urban Mass Transportation Act of 1964 established the provision of Federal funding for transit systems, changing the face of the industry from private firms to public agencies. The Act also required local governments to contribute matching funds as a condition for receiving Federal aid for transit services, setting the stage for the multilevel governmental partnerships that characterize today's transit industry.

In 1974, Congress established the 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 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).

## Exhibit 2.2 – History of the Federal Transit Program<sup>6</sup>



<sup>&</sup>lt;sup>6</sup> FHWA Status of the Nation's Highways, Bridges, and Transit Conditions and Performance 23rd Edition. https://www.fhwa.dot.gov/policy/23cpr/



Further change came in 1991 when the Intermodal Surface Transportation Efficiency Act codified an existing formula which FTA had used to allocate Federal funds<sup>7</sup>. Subsequent changes in funding legislation, including the Transportation Equity Act for the 21st Century (TEA-21) of 1998, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005, and Moving Ahead for Progress in the 21st Century (MAP-21) Act of 2012, and the Fixing America's Surface Transportation (FAST) Act.

In 2021, the Bipartisan Infrastructure Law<sup>8</sup>, as enacted in the Infrastructure Investment and Jobs Act, authorized up to \$108 billion for public transportation – the largest Federal investment in public transportation in the nation's history. The legislation reauthorizes surface transportation programs for Fiscal Years (FY) 2022 through 2026. The Bipartisan Infrastructure Law priorities include improving workforce and rider safety, modernizing transit infrastructure, addressing the climate crisis, and improving equity in transit.

<sup>&</sup>lt;sup>7</sup> https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/A%20History%20of%20FTA's%20Funding%20Formulas.pdf. Accessed 09-30-2023.

<sup>8</sup> https://transit.dot.gov/BIL. Accessed 04-25-2023.

## Legislative Requirement for the National Transit Database

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 set performance targets for their capital assets based on the state of good repair measures and to report their targets and information related to the condition of their capital assets to the NTD. All recipients and subrecipients must also report fatal bus collisions and assaults on transit workers 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, as shown in Exhibit 2.3.

#### Exhibit 2.3 – Title 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.

## **Rural Transit Programs**

The §5311 program provides capital, operating, and planning assistance for public transportation operated in rural areas. A rural area is defined as any place in the U.S. outside of Census-designated urban areas with at least 50,000 persons. Funding recipients are State Departments of Transportation (DOTs) which report on behalf of their subrecipients.

A subrecipient is a State or local government authority, nonprofit organization, or operator of rural public transportation or intercity bus service that receives §5311 funding through a State DOT. This report will include rural transit funding subrecipients providing public transportation in exhibits along with urban transit operators where possible and unless otherwise noted. FTA considers Puerto Rico, American Samoa, Guam, and the Northern Mariana Islands as States for rural data collection and funding. Requirements for these recipients in terms of data collection, as shown in Exhibit 2.4, is also accomplished through the NTD.

#### Exhibit 2.4 – Rural Formula Program Reporting Requirements

#### Title 49 U.S.C 5311 (b)

#### (4) Data collection.—

Each recipient under this section shall submit an annual report to the Secretary containing information on capital investment, operations, and service provided with funds received under this section, including—

- (A) Total annual revenue:
- (B) Sources of revenue;
- (C) Total annual operating costs;
- (D) Total annual capital costs;
- (E) Fleet size and type, and related facilities;
- (F) Vehicle revenue miles; and
- (G) Ridership.

## Transit Asset Management Requirement

The Transit Asset Management (TAM) rule (49 CFR Part 625) is a set of Federal regulations that outline minimum asset management practices for transit providers. Transit agencies that receive Chapter 53 funds and own capital assets that are used for public transportation services are required to report asset information to the NTD, even if the agency does not manage or operate those assets. This requirement applies to all public transportation services funded through any FTA program. Unlike the preceding requirements, it is not limited to the Section 5307 urbanized area formula program and the Section 5311 rural area formula program.

Some agencies affected by the rule are only required to report TAM-related data to the NTD. Because the rule does not mandate reporting information about service area, FTA has established two unique reporter types for these agencies to collect only asset inventory, condition, and performance data. These data are included in this report in asset-related exhibits, unless otherwise noted.

#### Exhibit 2.5 - TAM Reporting Requirements

#### Title 49 U.S.C 5326 (b)

(3) A requirement that each designated recipient of Federal financial assistance under this chapter report on the condition of the system of the recipient and provide a description of any change in condition since the last report.

#### Title 49 U.S.C 5326 (c)

(3) Reports.—

Each designated recipient of Federal financial assistance under this chapter shall submit to the Secretary an annual report that describes—

- (A) the progress of the recipient during the fiscal year to which the report relates toward meeting the performance targets established under paragraph (2) for that fiscal year; and
- (B) the performance targets established by the recipient for the subsequent fiscal year.

## Reporting to Congress on Transit Performance and Condition

Some content presented in this report will be included in the <u>Status of the Nation's Highways</u>, <u>Bridges</u>, <u>and Transit:</u> <u>Conditions and Performance</u> report to Congress. This report is "intended to provide decision makers with an objective appraisal of the physical conditions, operational performance, and financing mechanisms of highways, bridges, and transit systems based on... their current state." Thus, NTD reporting requirements help FTA fulfill its statutory requirement to "prepare a complete assessment of public transportation facilities in the United States" and to report to Congress "on the current performance and condition of public mass transportation systems" in the U.S.

#### Exhibit 2.6 – C&P Requirements

#### Title 49 U.S.C 308 (e)

- (1) The Secretary shall submit to Congress in March 1998, and in March of each even-numbered year thereafter, a report of estimates by the Secretary on the current performance and condition of public mass transportation systems with recommendations for necessary administrative or legislative changes.
- (2) In reporting to Congress under this subsection, the Secretary shall prepare a complete assessment of public transportation facilities in the United States. The Secretary also shall assess future needs for those facilities and estimate future capital requirements and operation and maintenance requirements for one-year, 5-year, and 10-year periods at specified levels of service.

<sup>&</sup>lt;sup>9</sup> Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance. Report to Congress. Published 2019-11-21. FHWA-PL-20-001. <a href="https://rosap.ntl.bts.gov/view/dot/43598">https://rosap.ntl.bts.gov/view/dot/43598</a>

## **Human Services Transportation**

FTA's Section 5310 program for enhanced mobility of seniors and individuals with disabilities has four eligible purposes according to 49 U.S.C. 5310 (b)(1):

- (A) Public transportation projects...to meet the needs of seniors and individuals with disabilities when public transportation is insufficient, inappropriate, or unavailable;
- (B) Public transportation projects that exceed the requirements of the Americans with Disabilities Act of 1990;
- (C) Public transportation projects that improve access to fixed route service and decrease reliance by individuals with disabilities on complementary paratransit; and
- (D) Alternative to public transportation that assist seniors and individuals with disabilities with transportation.

The Americans with Disabilities Act requires most providers of public transportation to provide paratransit services to individuals with disabilities who do not use the fixed-route system. These paratransit services are defined as *public transportation* because they are limited to a segment of the public defined by disability. The Section 5310 program provides funding to go beyond those requirements, including by providing service to a segment of the public defined by age.

The fourth purpose, *alternatives to public transportation*, is unique to the Section 5310 program. As noted above, recipients, subrecipients, and beneficiaries of both the Section 5307 public transportation formula program for urbanized areas and the Section 5311 public transportation formula program for rural areas are required to report to the NTD. In addition, as noted above, recipients of grants for public transportation services from any other FTA grant program are required to meet the TAM reporting requirements through the NTD. Subrecipients of the 5310 program for *alternatives to public transportation* do not have NTD reporting requirements and cannot report to the NTD as the services are not *public transportation*.

These alternatives to public transportation can take several forms. For example, the provider could fund a client-specific transportation service that reduces the need for ADA-eligible persons to request paratransit trips. Or they could fund a "Meals on Wheels" program to reduce the distance traveled to access a service.

In addition to FTA, there are nine other Federal agencies with 130 programs that may fund human services transportation for older adults, people with disabilities, and low-income individuals. Most of these programs are not public transportation because they are limited to clients of a specific program, service or facility and are not open to a general segment of the

public defined by age, disability, or low income. As such, these services are not included in the NTD, and by extension, are not included in this report. Nevertheless, by providing transportation services to these populations, they help reduce the demand for trips that might otherwise be provided by public transportation. The Secretary of Transportation chairs the Federal Coordinating Council on Access and Mobility to break down barriers between these programs and promote accessible, efficient, and effective transportation for disadvantaged populations.

The National Center for Mobility Management, a national technical assistance center funded through a cooperative agreement with FTA, collects and publishes a full inventory of 1,538 identified human service transportation operators funded through the 5310 program as the Community Transportation Database. The exhibit below summarizes how these 1,538 operators are (and are not) included in the NTD.

Exhibit 2.7 – Non-Transit Human Services Transportation and the 5310 Program: Estimated Population of Service Providers

| Group  | Count |
|--|-------|
| §5310 (b)(1)(d) recipients <i>not</i> providing public transportation and not expending other FTA funds (not reporting to the NTD) | 603   |
| Operators providing public transportation with §5310 as only FTA funding source ("Reduced Asset" reporters)                        | 585   |
| Operators providing public transportation with §5310 and other FTA funding sources (other NTD reporter types)                      | 350   |

## Chapter 3. Overview of Transit Agency Organizations

## Transit Agency Fiscal Year Cohorts

Most annual data reported to the NTD represents data collected during each reporting agency's fiscal year. NTD annual reports are generally due four months after the end of each agency's fiscal year.

Just over half (53 percent) of all transit agencies operate on a July to June fiscal year, 17 percent their follow the Federal Fiscal Year (FFY) of October to September, and 28 percent follow a calendar year fiscal year as demonstrated in Exhibit 3.1.

However, the count of agencies in each cohort is not proportional to the share of the national total statistics in this report. For example, the July--June cohort accounts for just under half (47 percent) of all operating expenses. The calendar year cohort accounts for 44 percent of all operating expenses, thanks to the Metropolitan Transportation Authority of New York being in that group. The FFY cohort accounts for just 8 percent of total operating expenses.

Exhibit 3.1 - 2022 Count of Transit Agency Fiscal Year Cohorts

| Fiscal Year End | Reporter Count | Percent of Total Operating Expenses |
|-----------------|----------------|-------------------------------------|
| January         | 0              | 0%                                  |
| February        | 2              | 0.1%                                |
| March           | 5              | 0.8%                                |
| April           | 3              | 0.1%                                |
| June            | 1,824          | 47%                                 |
| July            | 1              | 0.1%                                |

| Fiscal Year End | Reporter Count | Percent of Total Operating Expenses |
|-----------------|----------------|-------------------------------------|
| August          | 61             | 0.2%                                |
| September       | 585            | 8.4%                                |
| October         | 7              | 0.1%                                |
| November        | 0              | 0%                                  |
| December        | 984            | 44%                                 |
| Total           | 3,472          | 100.0%                              |

## NTD Organization Types

Transit providers report their organization type in the NTD Annual Report. The organization types used in NTD reporting are defined in Exhibit 3.2 below. Further information on organization types can be found in the most recent <a href="NTD Policy Manual">NTD Policy Manual</a>.

**Exhibit 3.2 – Definitions of Most Common NTD Organization Types** 

**Independent Public Agency or Authority for Transit Service –** Separate entities established by law as independent public benefit corporations for operating transit service.

**Unit or Department of City, County, or Local Government –** A transit operator that is part of a local government within a state.

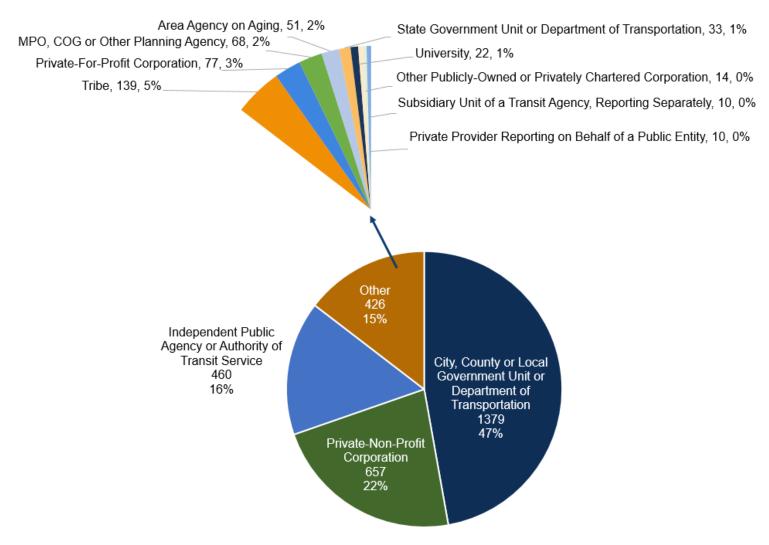
**Unit or Department of State Government –** A transit operator that is a part of the State government and has one or more State employees.

**Area Agency on Aging –** Organizations established under the Older Americans Act in 1973 to respond to the needs of Americans 60 and over.

**Indian Tribe –** The Bureau of Indian Affairs defines an Indian tribe as "an American Indian or Alaska Native Tribal entity that has a government-to-government relationship with the U.S. with the responsibilities, powers, limitations, and obligations attached to that designation." Indian tribes are eligible for funding from the U.S. government, including FTA transit programs.

Transit authorities are independent public agencies led by boards and focused on providing public transit, typically serving multiple local jurisdictions. A transit authority is the type of organizational that perhaps first comes to mind when someone thinks of a *transit agency*. Yet, as shown in Exhibit 3.3, transit authorities make up only about 16 percent of transit providers. By contrast, nearly half of all transit operators in the NTD are departments located within a city or county government.





## Chapter 4. Overview of Transit Operations

#### **Transit Modes**

A public transit **mode** is a system for carrying transit passengers described by specific right-of-way (ROW), technology, and operational features. A variety of modes are operated in the U.S. Most data collected by the NTD is reported by transit agencies according to the modes they operate, as defined in Exhibit 4.1. For the purposes of this report, modes with similar characteristics have been grouped under "Consolidated Modes" to show transit trends more clearly while allowing for easier comparisons across different service types at a broader level.

Core Rail consists of rail modes that travel relatively short distances. This consolidated mode includes Heavy Rail (HR), Light Rail (LR), Streetcar Rail (SR), Cable Car (CC), Inclined Plane (IP), Monorail/Automated Guideway (MG), and Aerial Tramway (TR).

**Distance Rail** consists of rail modes that travel longer distances between stops, often connecting suburban or rural areas to an urban center. This consolidated mode includes Commuter Rail (CR), Hybrid Rail (YR), and Alaska Railroad (AR).

**Fixed-Route Bus** consists of non-rail modes with set routes including Bus (MB), Bus Rapid Transit (RB), Trolleybus (TB), Commuter Bus (CB), and Público (PB).

The remaining modes, Ferryboat (FB), Vanpool (VP), and Demand Response (DR) are included in the **Other Non-Rail** consolidated mode.

rail operations.

#### Exhibit 4.1– Definitions of Modes

## **Rail Modes** Non-Rail Modes Alaska Railroad (AR) - A public transportation system Aerial Tramway (TR) - A system of aerial cables with

Cable Car (CC) - A type of railway propelled by moving cables located beneath the street. Currently, the only operational system is in San Francisco.

in Alaska that shares vehicles and facilities with freight

Commuter Rail (CR) - An electric- or diesel-propelled railway for urban passenger train service consisting of local travel which operates between a central city and outlying areas. Service must be operated on a regular basis by or under contract with a transit operator for transporting passengers within UZAs or between urbanized areas and outlying areas. This mode is generally characterized by multi-trip tickets, specific station-to-station fares, railroad employment practices, relatively long distances between stops, and only one to two stations in the central business district. Note: Intercity rail service, like Amtrak, is excluded from CR.

Heavy Rail (HR) - An electric railway that operates service in exclusive ROW. The service is often provided by long trains of six to eight cars or more that travel

suspended vehicles. The vehicles are propelled by separate cables attached to the vehicle suspension system and powered by engines or motors at a central location not onboard the vehicle.

Bus (MB) - A transit mode using rubber-tired passenger vehicles operating on fixed routes and schedules over roadways. Vehicles are powered by a motor and fuel or electricity stored on board the vehicle.

Bus Rapid Transit (RB) - A fixed-route bus system that

- Operates over 50 percent of its route in a separate right-of-way (ROW) dedicated for transit use during peak periods
- Has defined stations that are accessible for persons with disabilities and offers shelter from weather with information provided on schedules and routes
- Uses active signal priority in separated guideway and either queue-jump lanes or active signal priority in non-separated guideway
- Offers short headway, bidirectional service for at least a 14-hour span on weekdays and a 10-hour span on weekends

#### **Rail Modes**

relatively short distances between stops within a city and the immediate suburbs. The Nation's traditional subway systems are classified as Heavy Rail.

Hybrid Rail (YR) - Systems primarily operate routes on the national system of railroads but do not operate with the characteristics of Commuter Rail. This service typically operates Light Rail-type vehicles as diesel multiple-unit trains (DMUs).

**Inclined Plane (IP) –** A railway that operates on steep slopes and grades with vehicles powered by moving cables.

Light Rail (LR) - An electric railway that operates in mixed traffic or intersects with roadways at grade crossings. The service is characterized by short trains of one to four passenger cars that travel relatively short distances between stops within a city and the immediate suburbs, low or high platform loading, and vehicle power drawn from an overhead electric line via a trolley or a pantograph.

Monorail/Automated Guideway (MG) - An electrically powered mode that operates in an exclusive guideway. The service is characterized by either Monorail Systems with automated or human-operated vehicles straddling a

#### **Non-Rail Modes**

Applies a separate and consistent brand identity to stations and vehicles.

Commuter Bus (CB) - A local, fixed-route bus transportation that primarily connects outlying areas with a central city and operates predominantly in one direction during peak periods. It has limited stops in outlying areas, limited stops in the central city, and at least five miles of closed-door service.

**Demand Response (DR) –** A transit mode operating on roadways in response to requests from passengers or their agents to the transit operator, who groups rides together when possible and dispatches a vehicle to provide the rides. Vehicles do not operate over a fixed route or on a fixed schedule unless temporarily satisfying a special transit need. Many transit systems operate DR service to meet ADA requirements.

Ferry Boat (FB) – This transit mode carries passengers over a body of water.

Público (PB) - This mode is comprised of passenger vans or small buses operating with fixed routes but no fixed schedules in Puerto Rico.

| Rail Modes   | Non-Rail Modes   |
|--|--|
| single guideway or by people mover systems with automated operation over relatively short distances.  Streetcar Rail (SR) – Systems predominantly operate routes on streets in mixed traffic. This service typically operates with one- or two-car trains powered by overhead catenaries and has frequent stops. | Trolleybus (TB) – A fixed-route service that uses manually steered, rubber-tired passenger vehicles powered by electric current from overhead wires using trolley poles. Rubber-tired replica trolleys or historic trolleys powered by an onboard motor are not included in this mode.  Vanpool (VP) – This mode operates as a ride sharing arrangement, providing transportation to a pre-arranged group of individuals. To be considered public transportation, Vanpool programs must:  • Use vehicles with a minimum seating capacity of seven people, including the driver  • Use vehicles for which 80 percent of the yearly mileage come from commuting  • Be open to the public (any vans that are restricted by rule to particular employers are not public transportation)  • Be actively engaged in advertising the Vanpool service to the public and in matching interested members of the public to vans with available seats  • Be publicly sponsored |

Most reporters operate non-rail other than fixed route bus (1,934 total) due to the prevalence of the Demand Response mode, as demonstrated in Exhibit 4.3. Many of the same operators use Demand Response as the ADA complement to their Fixed-Route Bus service; 55 percent of all operators provide Fixed-Route Bus service in some format. In contrast, due to

the long-distance nature of Distance Rail consolidated mode, there are significantly fewer 35 modes across 32 operators (1 percent). Finally, Core Rail is common to many large cities, and there were 63 core rail modes operated across 58 reporters (3 percent).

The count of rail modes since 2013 is shown in Exhibit 4.2. Many modes stayed consistent over the last ten years. However, there has been an increase in the prevalence of the Streetcar mode in recent years. The Streetcar mode usually operates with one- or two-car passenger trains and may use antique railcars or replicas, or modern vehicles.

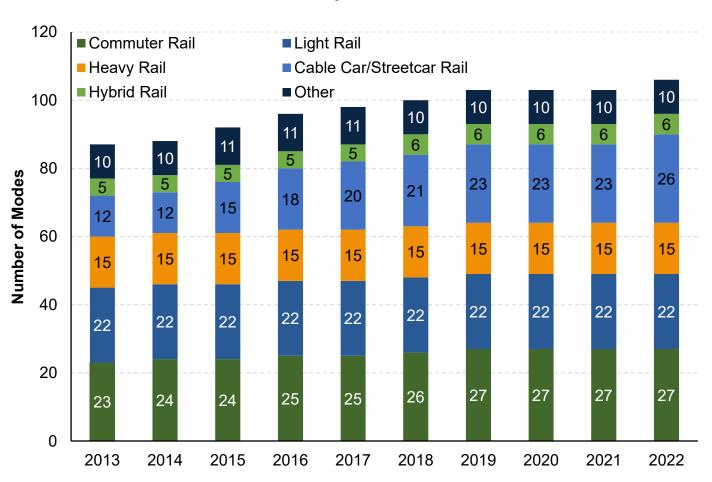


Exhibit 4.2 - Total Rail Mode Inventory Increased from 87 in 2013 to 106 in 2022

Exhibit 4.4 classifies transit agencies into the following categories based on which modes they operate: Core Rail and Fixed-Route Bus (FRB), Any Rail, FRB and Other, FRB Only, and Other Only.

• <u>Core Rail and FRB:</u> All reporters that have a Core Rail mode and an FRB mode. These are the "multimodal" transit systems with both a rail system operating in the central city as well as fixed-route operations.

- Other Rail: Reporters that have a rail mode and do not fall into the Core Rail and FRB category. For example, a stand-alone commuter rail operator would fall in this category.
- FRB and DR: Reporters with an FRB mode and a Demand Response mode. Demand Response is commonly used to fulfill the requirement of the Americans with Disabilities Act to provide service within ¾ of a mile from any fixed bus route or rail station. A basic transit operation with fixed route service and complementary paratransit for the disabled is in this category.
- <u>FRB Only</u>: Operators with fixed-route bus service and who do not provide their only Demand Response service are in this category. In many cases, the complimentary paratransit requirements are fulfilled by a regional operator. In other cases, this may be a stand-alone commuter bus operator that also meets the commuter bus exemption for providing complementary paratransit under the ADA.
- <u>DR Only:</u> Reporters that provide Demand Response service, but no other service. These agencies often operate county-wide paratransit services.
- Other: Reporters that do not fit into the above categories. For example, a stand-alone operator of ferry service or Vanpool service.

This exhibit shows that there are only 43 multimodal transit agencies in the U.S., those offering both core rail and FRB service. There are another 912 agencies that offer both FRB service as well as a Demand Response, the latter typically being offered to provide complimentary paratransit service under the Americans with Disabilities Act of 1990. Another 256 operates provide FRB service but are either exempt from ADA requirements or partner with another transit agency to fulfill the ADA requirements. Finally, 921 transit agencies only provide Demand Response service. Most of these serve small urban areas, outlying areas of large urban areas, or rural areas, but a few are specialized operators of Demand Response service in the core of large urban areas.

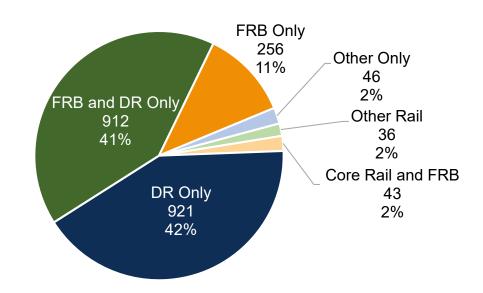


Exhibit 4.3 – 2022 Count of 2,214 Transit Operators by Modal Organization

### Types of Service

Most data the NTD collects by mode is further classified by Type of Service (TOS) as defined in Exhibit 4.5. Specifically, agencies report modal data to the NTD by four mutually exclusive categories that describe "who" operates the service:

- Directly Operated (DO)
- Purchased Transportation General (PT)
- Purchased Transportation Taxi (TX)
- Purchased Transportation Transportation Network Company (TN)

### Exhibit 4.4 – Types of Service (TOS)

**Directly Operated (DO)** – Transit agencies report service as DO if they use their own employees to operate the transit vehicles. Agencies that directly operate service typically employ drivers, schedulers, dispatchers, and street supervisors.

**Purchased Transportation – General (PT) –** Transit agencies report service as PT if the service is provided to the transit agency or governmental unit by a public or private transportation provider based on a written contract. PT services also include purchased transportation services operated by providers who are not taxi providers or transportation network companies and use non-dedicated vehicles.

**Purchased Transportation – Taxi (TX) –** TX is a special Purchased Transportation subtype in which a service is operated through taxicab providers with a system in place to facilitate ride sharing. Transit agencies contract with taxi companies, whose vehicles provide transit trips interspersed with private taxi trips.

**Purchased Transportation – Transportation Network Company (TN) –**TN is a special Purchased Transportation subtype in which a service is provided by a transportation network company on behalf of a public transportation agency using non-dedicated vehicles. The service is dispatched by the transportation network company using a mobile application.

Further information on qualifying TOS criteria can be found in the 2022 NTD Policy Manual.

A total of 4,061 modal operations were reported to the NTD in 2022. Overall, there are more directly operated services reported to the NTD (3,022) compared to contracted services (1,039). As shown in Exhibit 4.6, there were more directly operated types of services for Fixed-Route Bus, Core Rail, and Other Non-Rail, as opposed to Distance Rail where contracted services are more common.

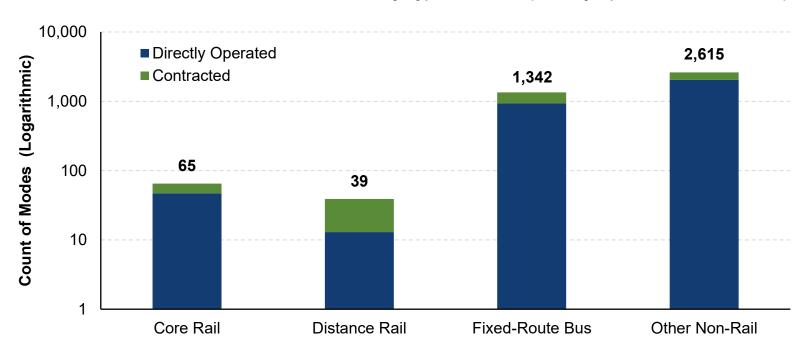


Exhibit 4.5 – 2022 National Total of 4,016 Modes by Type of Service (Directly Operated vs. Contracted)

Demand Response service (included in Other Non-Rail) can be directly operated or purchased through a contractual arrangement with a third party. Demand Response is unique in that it can be carried out by Taxicab operators using a non-dedicated fleet or by Transportation Network Companies (TNCs).

Exhibit 4.6 – National Count of Demand Response Modes by Type of Service (2022)

| Directly<br>Operated | Purchased<br>Transportation | Taxi | Transportation<br>Network | Total<br>DR<br>Services |
|----------------------|-----------------------------|------|---------------------------|-------------------------|
| 1,441                | 476                         | 83   | 12                        | 1,872                   |

There are 83 reporters that provide Demand Response service using taxi companies and a non-dedicated fleet.

Additionally, there are 12 reporters that provide a Transportation Network Company (TN) type of service, as listed in Exhibit 4.7. More information on each service can be found on the website listed beside each NTD reporter.

Exhibit 4.7 – Transit Agencies Providing Demand Response via Contract with Transportation Network Companies

| NTD ID | Reporter Name   | Count of Transportation<br>Network Company<br>Services |
|--------|---|--|
| 30083  | Transportation District Commission of Hampton Roads     | 1  |
| 40027  | Pinellas Suncoast Transit Authority                     | 1  |
| 40087  | City of Durham  | 1  |
| 40141  | Central Midlands Regional Transportation Authority      | 1  |
| 50113  | Pace — Suburban Bus Division                            | 1  |
| 50182  | Pace-Suburban Bus Division, ADA Paratransit<br>Services | 1  |
| 60041  | City of Arlington                                       | 1  |
| 60270  | City of McKinney  | 1  |
| 90008  | City of Santa Monica                                    | 1  |
| 90019  | 90019 Sacramento Regional Transit District              |  |
| 90162  | The Eastern Contra Costa Transit Authority              | 1  |
| 90258  | City of Carson  | 1  |
| Total  |   | 12   |

#### Chapter 5. Overview of Urbanized Areas

#### **Urbanized Areas or "UZAs"**

The Census Bureau has been measuring urban populations since the 1870 Census. In the 1950 Census, the Census Bureau introduced the concept of *urbanized areas* to account for the growing process of suburbanization with densely settled areas outside of incorporated urban areas. Due to the limitations of technology in 1950, the Census Bureau limited these delineations to cities of 50,000 or more in population and their surrounding territory. This concept evolved into being any areas of 50,000 or more in population based on population density criteria, with some exceptions. This threshold of 50,000 in population was then codified in Federal Transit Law and provides the definition of urbanized area for FTA programs and, consequently, data collection for the NTD, to this day.

In the 2000 and 2010 decennial Censuses, the Census Bureau introduced the concept of *urban clusters* as areas meeting the same population density criteria of *urbanized areas* and having a population between 2,500 and 50,000 persons. The term urban areas was introduced to refer collectively to both urbanized areas and urban clusters together. The 2000 Census also delineated urban area boundaries down to census block level for the first time and reduced the minimum population density for an urban area down to 500 persons per square mile. Effective with the 2020 decennial census, the Census Bureau will no longer use this term and will instead use the term "Urban Areas" to include any areas with greater than 5,000 in population or at least 2,000 housing units. However, FTA still uses the term *urbanized areas*, or UZAs, based on those urban areas defined by the Census Bureau with a population of at least 50,000 persons.

### Exhibit 5.1 – Statutory Definition of 'Urbanized Area'

Title 49 U.S.C 5302 (24) URBANIZED AREA.—

"The term "urbanized area" means an area encompassing a population of not less than 50,000 people that has been defined and designated in the most recent decennial census as an 'urbanized area' by the Secretary of Commerce."

UZAs include the qualifying Census Urban Areas in Guam and Puerto Rico. Per special provisions in Federal Transit Law, the Lake Tahoe area and the entire Virgin Islands are also considered UZAs for purposes of FTA programs.<sup>10</sup>

## UZA Population and Density

In 2020, the nationwide UZA population totaled **240,770,576**. Exhibit 5.2 presents the 25 most populous urban areas (which make up about half of the national UZA population), the population of each, and the population expressed as a percent of the national total population. 72 percent of the total U.S. population resided in a UZA in 2020, an increase of 0.43 percent from 2010.

Exhibit 5.2 – 25 Most Populous Statutory Urbanized Areas (2020) and National Total UZA Population

| Urbanized Area                   | UZA Population (2020<br>Census) | Percent of National Population |
|----------------------------------|---------------------------------|--------------------------------|
| New YorkJersey CityNewark, NYNJ  | 19,426,449                      | 5.8%                           |
| Los AngelesLong BeachAnaheim, CA | 12,237,376                      | 3.7%                           |

43 | Chapter 5: Overview of Urbanized Areas

<sup>&</sup>lt;sup>10</sup> Lake Tahoe population and density reflect the population and area specified in 49 U.S.C. 5303(r)(2)(c). The U.S. Virgin Islands population reflects their total population consistent with 49 U.S.C. 5307(g). The 2020 Virgin Islands population can be found at: <a href="https://www.census.gov/library/stories/2021/10/first-2020-census-united-states-island-areas-data-released-today.html">https://www.census.gov/library/stories/2021/10/first-2020-census-united-states-island-areas-data-released-today.html</a>

| Urbanized Area                  | UZA Population (2020<br>Census) | Percent of National Population |
|---------------------------------|---------------------------------|--------------------------------|
| Chicago, IL-IN                  | 8,671,746                       | 2.6%                           |
| Miami–Fort Lauderdale, FL       | 6,077,522                       | 1.8%                           |
| Houston, TX                     | 5,853,575                       | 1.7%                           |
| Dallas–Fort Worth–Arlington, TX | 5,732,354                       | 1.7%                           |
| Philadelphia, PA-NJ-DE-MD       | 5,696,125                       | 1.7%                           |
| Washington–Arlington, DC–VA–MD  | 5,174,759                       | 1.5%                           |
| Atlanta, GA                     | 5,100,112                       | 1.5%                           |
| Boston, MA–NH                   | 4,382,009                       | 1.3%                           |
| Phoenix–Mesa–Scottsdale, AZ     | 3,976,313                       | 1.2%                           |
| Detroit, MI                     | 3,776,890                       | 1.1%                           |
| Seattle-Tacoma, WA              | 3,544,011                       | 1.1%                           |
| San Francisco–Oakland, CA       | 3,515,933                       | 1.0%                           |
| San Diego, CA                   | 3,070,300                       | 0.9%                           |
| Minneapolis–St. Paul, MN        | 2,914,866                       | 0.9%                           |
| TampaSt. Petersburg, FL         | 2,783,045                       | 0.8%                           |
| Denver-Aurora, CO               | 2,686,147                       | 0.8%                           |
| Riverside–San Bernardino, CA    | 2,276,703                       | 0.7%                           |

| Urbanized Area                   | UZA Population (2020<br>Census) | Percent of National Population |
|----------------------------------|---------------------------------|--------------------------------|
| Baltimore, MD                    | 2,212,038                       | 0.7%                           |
| Las Vegas-Henderson-Paradise, NV | 2,196,623                       | 0.7%                           |
| St. Louis, MO–IL                 | 2,156,323                       | 0.6%                           |
| Portland, OR–WA                  | 2,104,238                       | 0.6%                           |
| San Antonio, TX                  | 1,992,689                       | 0.6%                           |
| Sacramento, CA                   | 1,946,618                       | 0.6%                           |
| All Other UZAs                   | 121,265,812                     | 36.2%                          |
| Total UZAs                       | 240,770,576                     | 71.9%                          |

There were 512 UZAs in 2020, an increase of 12 from 2010, as shown in Exhibit 5.3. In FTA formula funding apportionments, **Small UZAs** are defined as having a population of less than 200,000, and **Large UZAs** have a population of 200,000 or greater.

Exhibit 5.3 – Population by UZA Size and Census Year

| Census<br>Year | Total UZA Population | Large<br>UZA<br>Count | Small<br>UZA<br>Count | Percentage of U.S.<br>Population Residing<br>in a UZA |
|----------------|----------------------|-----------------------|-----------------------|---|
| 2010           | 223,673,275          | 180                   | 320                   | 71.5  |
| 2020           | 240,770,576          | 192                   | 320                   | 71.9  |

### Rural Areas or "Non-UZAs"

Nationwide non-Urbanized Area (non-UZA) population totaled 94.5 million.

- The rural populations of Puerto Rico, Guam, American Samoa, and the Commonwealth of the Northern Marianas are included.
- Populations for all Census Urban Areas with fewer than 50,000 people are included<sup>11</sup>. These areas account for 29.4 percent of the total non-urbanized population.

Table 5.4 – Ten Most Populous Non-Urbanized (Rural) Areas by State (2020)

| Non-Urbanized Area     | Non-UZA Population (millions) | 2020 Rural Pop.<br>to total State<br>Pop. |
|------------------------|-------------------------------|---|
| Texas Non-UZA          | 6.9                           | 24%                                       |
| North Carolina Non-UZA | 4.5                           | 43%                                       |
| California Non-UZA     | 4.3                           | 11%                                       |
| Pennsylvania Non-UZA   | 4.1                           | 32%                                       |
| Ohio Non-UZA           | 4.1                           | 35%                                       |
| Georgia Non-UZA        | 3.6                           | 34%                                       |
| New York Non-UZA       | 3.4                           | 17%                                       |
| Michigan Non-UZA       | 3.4                           | 34%                                       |

<sup>&</sup>lt;sup>11</sup> 'List of 2020 Census Urban Areas'. U.S. Census Bureau. <a href="https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html">https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html</a>. Accessed March 2023.

| Non-Urbanized Area              | Non-UZA<br>Population<br>(millions) | 2020 Rural Pop.<br>to total State<br>Pop. |
|---------------------------------|-------------------------------------|---|
| Tennessee Non-UZA               | 3.0                                 | 44%                                       |
| Wisconsin Non-UZA               | 2.8                                 | 47%                                       |
| All Other Non-UZA               | 54.2                                | -   |
| National Total Rural Population | 94.5                                | -   |

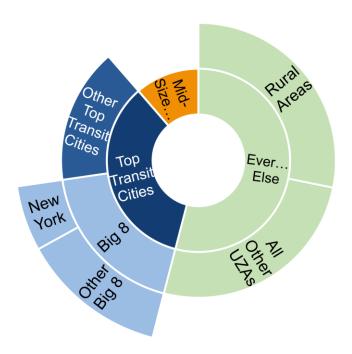
## Chapter 6. Overview of Transit Markets

## Defining "Transit Markets"

The remainder of this document will frequently use the term *transit markets* to group urbanized areas by the level and types of service provided. The concept of *transit markets* helps communicate the high level of concentration of transit service in the U.S., particularly for attracting discretionary riders with other transportation options. Nevertheless, the concept of *transit markets* should not exclude the fact that transit is an essential service in all areas of the country; every community has some percentage of their population that for reasons of age, youth, disability, or low income depends upon public transportation to meet their basic mobility needs. The visualization below displays the market categories and their ordinal relationship to one another.

Exhibit 6.1 – Visualizing Hierarchy of Transit Markets Using 2020 Population

■ Top Transit Cities ■ Mid-Size Transit Cities ■ Everywhere Else



**New York** is the Nation's largest UZA and is far and away the largest transit market. The New York UZA accounts for more than 40 percent of the Nation's transit trips by itself. Due to its unique size, in some analyses, the New York UZA must be treated as its own market.

Along with New York, seven other UZAs provide at least 200 million transit trips per year. Together, these UZAs are considered the **Big 8**. Together, they account for almost 75 percent of all transit trips taken in the US. Transit provides at least 10 percent of all the commute trips to work in the Boston, Chicago, Philadelphia, San Francisco, Seattle, and

Washington UZAs. The last member of the Big 8 is the Los Angeles UZA, with more than 500 million annual transit trips. However, Los Angeles transit provides only 5.5 percent of commute trips to work.

Together with the Big 8, the **Top Transit Cities** are defined as the urbanized areas with either at least 50 million annual passenger trips or else at least 50+ miles of investment in heavy rail or light rail. The top transit cities as a group represent the most promising areas for increasing transit ridership, based on the existing success of transit service in those areas or else the existing substantial transit investments already made in those areas.

The 26 cities meeting these criteria can be characterized as belonging to four groups:

- (1) The "Big 8" are the UZAs with the most ridership, and each of the Big 8 has at least 200 million annual passenger trips;
- (2) Another eight cities have high per capita ridership and high transit service; where there is a relatively high demand for transit (Baltimore, Denver, Honolulu, Las Vegas, Minneapolis, Portland (OR), Pittsburgh, and San Diego) each of these cities has at least 50 million annual passenger trips and least 30 annual trips per capita;
- (3) Five "Sun Belt" cities with very large populations (Atlanta, Dallas, Houston, Miami, and Phoenix) each of these cities has at least 50 million annual passenger trips and UZA populations of 4 million or more; and
- (4) Five cities with 50+ miles of rail investment (Cleveland, Sacramento, St. Louis, Salt Lake City, and San Jose).

Exhibit 6.2 - Big 8 Markets

| Urbanized Area                         | Population<br>(Millions) | UZA Square<br>Miles | Population Density<br>(Pop. per Sq. Mile) |
|--|--------------------------|---------------------|---|
| New York–Jersey City–Newark, NY–<br>NJ | 19.4 M                   | 3,248               | 5,981                                     |
| Los AngelesLong BeachAnaheim,<br>CA    | 12.2 M                   | 1,637               | 7,476                                     |
| Chicago, IL–IN                         | 8.7 M                    | 2,338               | 3,709                                     |

| Urbanized Area                 | Population<br>(Millions) | UZA Square<br>Miles | Population Density<br>(Pop. per Sq. Mile) |
|--------------------------------|--------------------------|---------------------|---|
| Philadelphia, PA-NJ-DE-MD      | 5.7 M                    | 1,898               | 3,001                                     |
| Washington–Arlington, DC–VA–MD | 5.2 M                    | 1,295               | 3,997                                     |
| Boston, MA-NH                  | 4.4 M                    | 1,656               | 2,646                                     |
| Seattle-Tacoma, WA             | 3.5 M                    | 983                 | 3,607                                     |
| San Francisco–Oakland, CA      | 3.5 M                    | 514                 | 6,843                                     |

Note that the relatively flat landscape of the east coast means that the Census Bureau incorporates more outlying areas into east coast UZAs, giving them larger square mileage and lower population densities. By contrast, the relatively mountainous terrain of the west coast has produced a more compact development pattern and a number of outlying areas have been designated as separate UZAs.

**Exhibit 6.3 – Other Top Transit Cities** 

| Urbanized Area                 | Population<br>(Millions) | UZA<br>Square<br>Miles | Population<br>Density<br>(Pop. per<br>Sq. Mile) |
|--------------------------------|--------------------------|------------------------|---|
| Miami–Fort Lauderdale, FL      | 6.1 M                    | 1,244                  | 4,885   |
| Houston, TX                    | 5.9 M                    | 1,753                  | 3,340   |
| DallasFort Worth–Arlington, TX | 5.7 M                    | 1,747                  | 3,281   |
| Atlanta, GA                    | 5.1 M                    | 2,553                  | 1,998   |
| Phoenix-Mesa-Scottsdale, AZ    | 4.0 M                    | 1,110                  | 3,581   |

| Urbanized Area                   | Population<br>(Millions) | UZA<br>Square<br>Miles | Population<br>Density<br>(Pop. per<br>Sq. Mile) |
|----------------------------------|--------------------------|------------------------|---|
| San Diego, CA                    | 3.1 M                    | 675                    | 4,550   |
| MinneapolisSt. Paul, MN          | 2.9 M                    | 1,015                  | 2,872   |
| Denver-Aurora, CO                | 2.7 M                    | 644                    | 4,168   |
| Baltimore, MD                    | 2.2 M                    | 655                    | 3,377   |
| Las Vegas-Henderson-Paradise, NV | 2.2 M                    | 435                    | 5,046   |
| St. Louis, MO–IL                 | 2.2 M                    | 910                    | 2,369   |
| Portland, OR–WA                  | 2.1 M                    | 519                    | 4,052   |
| Sacramento, CA                   | 1.9 M                    | 468                    | 4,163   |
| San Jose, CA                     | 1.8 M                    | 285                    | 6,436   |
| Pittsburgh, PA                   | 1.7 M                    | 907                    | 1,925   |
| Cleveland, OH                    | 1.7 M                    | 714                    | 2,399   |
| Salt Lake City, UT               | 1.2 M                    | 300                    | 3,923   |
| Honolulu, HI                     | 0.9 M                    | 145                    | 5,886   |

**Mid-Size Transit Cities** meet *any one of the following criteria* for above-average transit performance, service supplied, or investment:

- Qualified for 3+ Small Transit Intensive Cities (STIC) criteria in the Section 5307 formula apportionment based on 2019 NTD data
- American Community Survey Transit Market Share of 5.0 percent or greater
- Vehicle Revenue Miles per Square Mile (discussed in Chapter 11) of 40,000+
- 10+ Bus Rapid Transit or Local Rail Directional Route Miles

A total of 105 UZAs met at least one of these criteria. Many of the UZAs in this group are notable for being "university towns" where the presence of a large institution of higher education helps significantly increase transit ridership. These areas include Ames, Iowa; Iowa City, Iowa; State College, Pennsylvania; and Boulder, Colorado.

Other areas in this group are satellite UZAs located on regional rail lines that connect them to large UZAs. These include Concord, California in the San Francisco Bay Area; Bridgeport-Stamford, Connecticut; and Poughkeepsie, New York. Other large UZAs in this group include Riverside-San Bernardino, California; San Antonio, Texas; Austin, Texas; Kansas City, Missouri; and Charlotte, North Carolina.

A few large UZAs are not qualified as *top transit* cities or as *mid-size transit cities*. Exhibit 6.4 below lists the 15 largest markets that did not qualify for either group.

Exhibit 6.4 – Largest UZAs in All Other Markets

| Urbanized Area               | Population<br>(Millions) | Population<br>Density |
|------------------------------|--------------------------|-----------------------|
| Detroit, MI                  | 3.8 M                    | 2,940                 |
| Tampa–St. Petersburg, FL     | 2.8 M                    | 2,872                 |
| Riverside–San Bernardino, CA | 2.3 M                    | 3,741                 |
| San Antonio, TX              | 2.0 M                    | 3,248                 |
| Orlando, FL                  | 1.9 M                    | 2,876                 |

| Urbanized Area            | Population<br>(Millions) | Population<br>Density |
|---------------------------|--------------------------|-----------------------|
| San Juan, PR              | 1.8 M                    | 2,415                 |
| Austin, TX                | 1.8 M                    | 2,921                 |
| Indianapolis, IN          | 1.7 M                    | 2,353                 |
| Cincinnati, OHKY          | 1.7 M                    | 2,242                 |
| Kansas City, MOKS         | 1.7 M                    | 2,345                 |
| Columbus, OH              | 1.6 M                    | 3,036                 |
| Virginia BeachNorfolk, VA | 1.5 M                    | 3,014                 |
| Charlotte, NCSC           | 1.4 M                    | 2,098                 |
| Milwaukee, WI             | 1.3 M                    | 2,818                 |
| Providence, RIMA          | 1.3 M                    | 2,363                 |
| Total                     | 28.4 M                   | -                     |

### NTD Reporters and Modes Operated by Market

Although it is common to think of a metro area being served by a single regional transit provider, the truth is more complex. As shown in Exhibit 6.5, the New York UZA alone has 44 different transit providers, five of which are subsidiary units of the Metropolitan Transportation Authority that report separately to the NTD.

The other seven UZAs in the "Big 8" have a total of 39 independent public transportation agencies serving them. Private nonprofit corporations account for 657 of the Nation's transit providers, second only to units of local government. Yet almost all of these private nonprofit providers of transit service are located outside the major metro areas.

Exhibit 6.5 – 2022 Transit Agencies by Organization Type and Market

| Organization Type   | New<br>York | Other<br>Big 8 | Other<br>Top<br>Transit<br>Cities | Mid-Size<br>Transit<br>Cities | All Other<br>UZAs | Rural<br>Areas |
|---|-------------|----------------|-----------------------------------|-------------------------------|-------------------|----------------|
| City, County or Local Government Unit or Department of Transportation | 16          | 87             | 64                                | 100                           | 277               | 872            |
| Private-Non-Profit Corporation  | 2           | 5              | 6                                 | 9                             | 38                | 597            |
| Independent Public Agency or Authority of Transit Service             | 1           | 39             | 32                                | 80                            | 147               | 171            |
| Tribe   | -           | 1              | -                                 | 1                             | 3                 | 135            |
| Private-For-Profit Corporation  | 19          | 3              | -                                 | -                             | 4                 | 51             |
| MPO, COG or Other Planning Agency                                     | -           | 5              | 11                                | 8                             | 25                | 22             |
| Area Agency on Aging  | -           | -              | -                                 | -                             | 4                 | 47             |
| State Government Unit or Department of Transportation                 | -           | 3              | 6                                 | 8                             | 8                 | 8              |
| University  | -           | -              | 1                                 | 8                             | 7                 | 6              |
| Other Publicly Owned or Privately Chartered Corporation               | 1           | 1              | 2                                 | 2                             | 4                 | 5              |
| Private Provider Reporting on Behalf of a Public Entity               | -           | -              | -                                 | 4                             | 5                 | 1              |
| Subsidiary Unit of a Transit Agency,<br>Reporting Separately          | 5           | -              | 1                                 | 1                             | 1                 | 2              |
| Other   | -           | 1              | -                                 | -                             | -                 | 1              |
| Total   | 44          | 145            | 123                               | 221                           | 523               | 1,918          |

Exhibit 6.6 demonstrates the count of modes operated in 2022 by market. The Other Non-Rail consolidated mode accounted for 65 percent of all modes operated and was the most operated mode for all markets except New York and Other Top Transit Cities. Fixed-Route Bus followed closely with 1,306 modes operated and had the highest count of modes operated in both the New York and Other Top Transit Cities markets. Core Rail and Distance Rail modes were only 2 percent of the total modes operated.

Exhibit 6.6 – 2022 Modes by Market

| Consolidated Mode | New York | Other Big 8 | Other Top<br>Transit<br>Cities | Mid-Size<br>Transit<br>Cities | All Other<br>UZAs | Rural Areas |
|-------------------|----------|-------------|--------------------------------|-------------------------------|-------------------|-------------|
| Core Rail         | 4        | 13          | 20                             | 10                            | 13                | -           |
| Distance Rail     | 3        | 11          | 9                              | 5                             | 6                 | -           |
| Fixed-Route Bus   | 37       | 98          | 87                             | 173                           | 400               | 511         |
| Other Non-Rail    | 22       | 108         | 84                             | 182                           | 470               | 1,682       |
| Total             | 66       | 230         | 200                            | 370                           | 889               | 2,193       |

## Chapter 7. Geographic Coverage

## Areas Not Served by Public Transit

As the bottom rows in Exhibit 7.1 depict, ten UZAs were not served by public transit at all in 2022. Persons in these UZAs who, for reasons of age, youth, disability, or low income could not rely on using an automobile to meet their mobility needs had to either use active transportation (walking or biking), pay for a taxi trip, rely on friends or family, or forego making a trip at all.

When a transit operator services multiple UZAs, the operator must allocate their service data across each UZA served. Two UZAs (Beaufort—Port Royal South Carolina and Riverhead—Southold, New York) allocated all of their transit service to another UZA, indicating that they were served by a commuter service but did not have any local public transportation options.

Finally, 22 UZAs (see top rows in Exhibit 7.1) had Demand Response service but no fixed-route bus service. This includes seven UZAs that had commuter service but no local fixed-route service (represented by zeroes in the "Fixed Route Bus VRM Allocated" column).

Exhibit 7.1 - Urbanized Areas with No Transit Service, No Fixed-Route Bus Transit Service

| Urbanized Area             | Fixed Route<br>Bus VRM<br>Allocated | Demand Response<br>VRM Allocated |
|----------------------------|-------------------------------------|----------------------------------|
| ElizabethtownRadcliff, KY  | -                                   | 1,075,267                        |
| South LyonHamburgGenoa, MI | -                                   | 906,397                          |
| Dothan, AL                 | -                                   | 602,395                          |
| Midland, MI                | -                                   | 419,639                          |

| Urbanized Area               | Fixed Route<br>Bus VRM<br>Allocated | Demand Response<br>VRM Allocated |
|------------------------------|-------------------------------------|----------------------------------|
| Newark, OH                   | -                                   | 409,653                          |
| Chambersburg, PA             | 0                                   | 385,680                          |
| Cheyenne, WY                 | -                                   | 353,964                          |
| Auburn, AL                   | 0                                   | 339,770                          |
| New Braunfels, TX            | -                                   | 246,539                          |
| Florence, AL                 | -                                   | 215,537                          |
| McKinney-Frisco, TX          | 0                                   | 182,179                          |
| Enid, OK                     | -                                   | 175,381                          |
| Decatur, AL                  | -                                   | 172,889                          |
| Lee's Summit, MO             | 0                                   | 168,812                          |
| Grand Island, NE             | -                                   | 124,774                          |
| Pinehurst–Southern Pines, NC | 0                                   | 116,370                          |
| Dalton, GA                   | -                                   | 113,123                          |
| Mandeville–Covington, LA     | -                                   | 76,113                           |
| Lake Havasu City, AZ         | -                                   | 62,854                           |
| Conway, AR                   | 0                                   | 24,132                           |

| Urbanized Area               | Fixed Route<br>Bus VRM<br>Allocated | Demand Response<br>VRM Allocated |
|------------------------------|-------------------------------------|----------------------------------|
| Pascagoula-Gautier, MS       | 0                                   | 23,437                           |
| Twin Falls, ID               | -                                   | 18,573                           |
| Beaufort–Port Royal, SC      | 0                                   | 0                                |
| Riverhead–Southold, NY       | 0                                   | 0                                |
| Idaho Falls, ID              | -                                   | -                                |
| Winder, GA                   | -                                   | -                                |
| BrunswickSt. Simons, GA      | -                                   | -                                |
| Cartersville, GA             | -                                   | -                                |
| Castle Rock, CO              | -                                   | -                                |
| Warner Robins, GA            | -                                   | -                                |
| Prescott–Prescott Valley, AZ | -                                   | -                                |
| Casa Grande, AZ              | -                                   | -                                |
| Valdosta, GA                 | -                                   | -                                |
| Sebring–Avon Park, FL        | -                                   | -                                |

## Directional Route Miles of Rail or Fixed Guideway

Fixed Guideway (FG) is a public transportation facility that meets any of the following criteria:

- Uses and occupies a separate right-of-way for the exclusive use of public transportation;
- Uses rail including the national system of railroads;
- Uses a fixed catenary system;
- Is used by a passenger ferry system;
- Is used by a bus rapid transit system.

FG may be useable by multiple forms of public transit (e.g., a fixed catenary system used by trolleybus, light rail, etc.). All rail, catenary, and ferryboat systems operate over FG. Bus lanes must be dedicated to transit according to certain rules to be considered FG. Lanes that allow taxis or commercial vehicles are not considered dedicated to transit and therefore are not considered FG. The NTD collects Directional Route Miles (DRM), the total miles in *each direction* on a public transportation route over FG or HIB.

Only one transit agency, mode, and TOS may claim the DRM for a segment of FG/HIB even if multiple agencies operate along the segment. This "claiming" approach is used to ensure that the DRM for the segment are only used once in FTA apportionment of funds to a UZA. Agencies then allocate the FG DRM from their claimed segments to the UZAs that they serve according to NTD Serve Rules. Fixed guideway service is highly concentrated. The "Big 8" UZAs: New York City, Los Angeles, Chicago, Philadelphia, San Francisco, Boston, Washington D.C., and Seattle alone account for 62 percent of the Nation's fixed guideway. Together, the 26 Top Transit Cities markets accounted for 81 percent of all fixed guideway service, as shown in Exhibit 7.2.

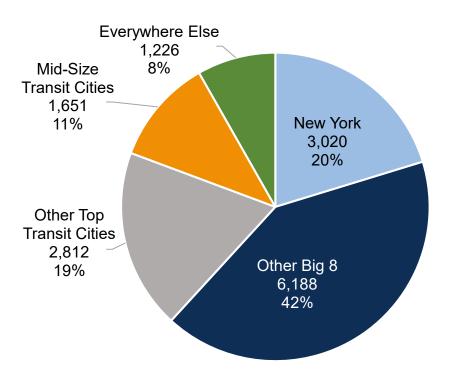


Exhibit 7.2. – 2022 FG DRM by Market

Exhibit 7.3 demonstrates that all four categories of FG DRM have increased substantially since 2013. Core Rail mileage has increased by 11 percent and Distance Rail mileage has increased by 9.6 percent. Fixed-Route Bus Guideway has shown the largest increase, with a 41 percent increase in mileage. This reflects the introduction of several new BRT systems, as well as exclusive bus lanes for some other bus systems that did not fully qualify as BRT systems. Ferry mileage also increased by 39 percent, although this was largely driven by existing ferry systems reporting to the NTD for the first time, rather than the introduction of new ferry services.

In 2022, 61.6 percent of the total Fixed Guideway DRM was reported under the Distance Rail consolidated mode. Core Rail contributed 24.1 percent of the Fixed Guideway DRM, followed by Fixed-Route Bus (7.8 percent) and Ferryboat (6.5 percent).

● 2013 ● 2022 3,231 • 3,584 Core Rail Distance Rail 8.825 •• 9.161 Fixed-Route 823 🕶 1.161 Bus Ferryboat 4,000 6.000 10,000 0 2,000 8,000 **Fixed Guideway Directional Route Miles** 

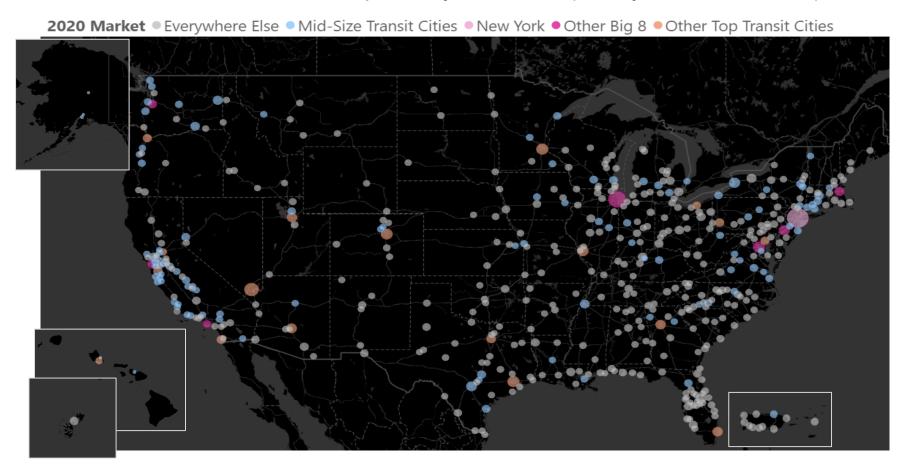
Exhibit 7.3 – 10 Year Change in National Total Directional Route Miles by Consolidated Mode

Not depicted in this exhibit are an additional 1,856.0 miles of High Intensity Bus (HIB) segments. Federal transit law defines High Intensity Bus as "public transportation that is provided on a facility with access for other high-occupancy vehicles." HIB differs from FG in that non-transit vehicles are permitted to operate on the facility.

## Map of Urbanized Areas

Exhibit 7.4 provides a map of UZAs in the U.S. using color to indicate the transit market that each falls into. Each bubble is sized by the level of transit service allocated to each UZA; generally, larger bubbles mean more service is provided in that area. There are many small UZAs in Puerto Rico in addition to the larger San Juan UZA. There are three UZAs in Hawaii, three in Alaska, and one in Guam.

Exhibit 7.4 - Location of Transit Operators by Transit Market (Sized by 2022 Service Provided)



# Chapter 8. Total Transit Workforce

#### **Current Year Transit Workforce**

At the end of NTD Report Year 2022, there was an estimated national total of over 370,000 employees, either contracted or directly employed by public transit agencies, involved in the operation, administration, and maintenance of public transit in the U.S.

The NTD collects end-of-year employee counts from Full Reporters. To estimate the total size of the national transit workforce, FTA uses data from these Full Reporters, as well as data from FTA's COVID-19 Information Collection to estimate the workforce for Reduced Reporters and Rural Reporters. This effort surveyed NTD reporters as of Report Year 2021, therefore it is assumed that employee counts were most representative of Fiscal Year 2021. However, the recency of data and differences in data collection methods leads to imprecision in this estimate of +/- 1 percent.

Exhibit 8.1 - Overview of Current Year Transit Workforce

| Year* | Urban Full<br>Reporters (NTD) | Urban Reduced<br>Reporter* | Rural* | Tribe* | National<br>Total* |
|-------|-------------------------------|----------------------------|--------|--------|--------------------|
| 2021  | 256,780                       | 82,287                     | 29,750 | 1,269  | 370,086            |
| 2022  | 259,143                       | 83,044                     | 30,024 | 1,281  | 373,491            |

\*estimate

#### **Transit Workforce Over 10 Years**

Exhibit 8.2 shows the estimated totals of the transit workforce from 2013 to 2022. The estimates in the table below were scaled up using the same proportion of Full Reporter total employees for RY 2021 compared to the total employees nationwide collected by FTA's COVID-19 Information Collection initiative as used in Exhibit 8.1.

From 2013 to 2016, the transit workforce grew by almost 5 percent, adding nearly 19,000 jobs. Service cuts since the COVID-19 public health emergency began have reduced the transit workforce to 2013 levels.

Exhibit 8.2 – 10 Year Trend in Transit Workforce

| Estimate of Total Employees |         |        |       |                |  |
|-----------------------------|---------|--------|-------|----------------|--|
| Report<br>Year              | Urban   | Rural  | Tribe | National Total |  |
| 2013                        | 340,149 | 29,845 | 1,273 | 371,267        |  |
| 2014                        | 346,736 | 30,423 | 1,298 | 378,457        |  |
| 2015                        | 349,446 | 30,661 | 1,308 | 381,414        |  |
| 2016                        | 356,806 | 31,306 | 1,335 | 389,448        |  |
| 2017                        | 355,685 | 31,208 | 1,331 | 388,225        |  |
| 2018                        | 357,411 | 31,359 | 1,338 | 390,108        |  |
| 2019                        | 356,632 | 31,291 | 1,335 | 389,258        |  |
| 2020                        | 349,382 | 30,655 | 1,308 | 381,345        |  |
| 2021                        | 339,067 | 29,750 | 1,269 | 370,086        |  |
| 2022                        | 342,187 | 30,024 | 1,281 | 373,491        |  |

## Chapter 9. Transit Asset Totals

Managing capital assets is a fundamental part of providing public transit. Starting in 2018, agencies were required to report more detail on such assets to the NTD, most notably because of the Transit Asset Management final rule that took effect in July 2016. Since the majority of data on the national transit asset inventory only became available at that time, this time period is referred to as the "TAM era" in exhibits below.

#### **Vehicle Fleets**

Transit agencies report the vehicle types used for their services each year. The most popular vehicle type, Bus, is a rubber-tired passenger vehicle powered by diesel, gasoline, battery, or alternative fuel engines contained within the vehicle. Articulated Bus, Double Decker Bus, School Bus, and Trolleybus vehicle types are included in the Bus category in the exhibit below due to the smaller count of these types of vehicles. A Cutaway is a transit vehicle built on a van or truck chassis by a second stage manufacturer. The chassis is purchased by the body builder, a framework is built for the body, and then the body is finished for a complete vehicle. Cutaways typically seat 15 or more passengers and typically may accommodate some standing passengers.

Automobile, Minivan, and Sports Utility Vehicle are common vehicle types for Demand Response and Vanpool services and carry fewer passengers at one time. Another popular vehicle type is Van. A Van is an enclosed vehicle having a typical seating capacity of 8 to 18 passengers and a driver. It is typically taller and with a higher floor than a passenger car, such as a hatchback or station wagon. Vans normally cannot accommodate standing passengers.

Heavy Rail Passenger Car, Commuter Rail Self-Propelled Passenger Car, Commuter Rail Passenger Coach, and Light Rail Vehicles are all rail cars. In the exhibit below, the Light Rail Vehicles category includes Aerial Tramway, Automated Guideway Vehicle, Cable Car, Inclined Plane Vehicle, Light Rail Vehicle, and Monorail Vehicle.

Exhibit 9.1 provides an overview of the Nation's fleet of the Nation's transit vehicles as of 2022, showing the level of concentration of each vehicle type in the different transit markets served. Note that rail vehicles represent only a small proportion of the Nation's total transit fleet (roughly 10 percent) and are almost entirely based in large urban areas. The majority of heavy railcars in the Nation are operated in New York City alone. In contrast, rubber-tired, road-based transit

vehicles like buses, cutaways and vans make up close to 90 percent of the national fleet and support a range of transit modes.

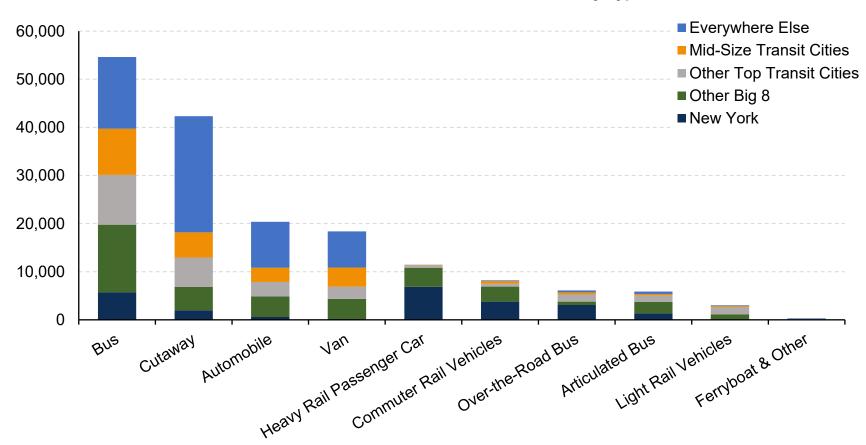


Exhibit 9.1 – 2022 Active Fleet of 171 Thousand Vehicles by Type & Market

Exhibit 9.2 shows how the different non-rail vehicles are used in different modes of transit. Full-size buses are most commonly used in FRB service but are occasionally used in Demand Response service. Cutaways are most frequently used in Demand Response service, but 20 percent (representing 8,276 vehicles) are used in FRB service.

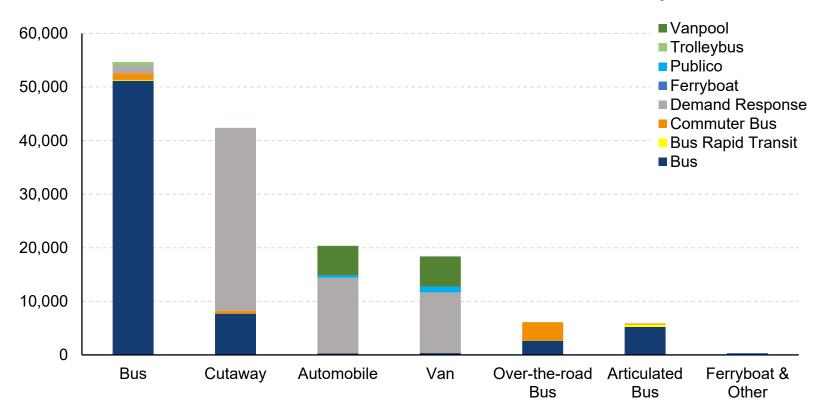
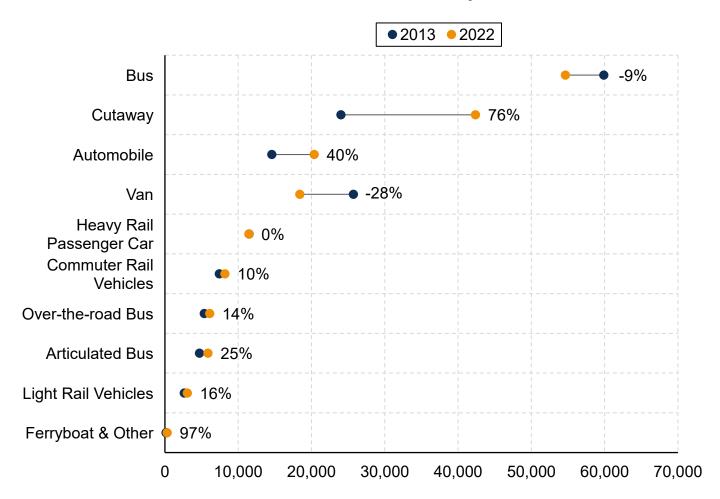


Exhibit 9.2 – 2022 National Transit Road Vehicle Fleet of 147 Thousand Vehicles by Non-Rail Mode

Among the Demand Response mode, cutaway vehicles (sometimes referred to as "mini-buses") far outnumber any other mode in the nationwide fleet inventory. Among rail vehicles, the vehicle types vary by mode. Fleet numbers have remained relatively consistent since 2015, as shown in Exhibit 9.3.

Exhibit 9.3 shows the extraordinary growth in cutaways, minivans, and vans in the National transit fleet since 2013. These increases reflect the growing role of public transportation in providing Demand Response services in small urban areas, outlying areas of large urban areas, and in rural communities.

Exhibit 9.3 – 10-Year National Transit Fleet by Mode



### **Facilities**

As shown in Exhibit 9.4, rail stations are heavily concentrated in the largest UZAs. There are about 2,000 transit bus stations in the country, and they are about evenly split with half in the top transit cities and half in the rest of the country. Please note that Rural Reporters do not report passenger station counts and are excluded from Exhibits 9.4 and 9.5.

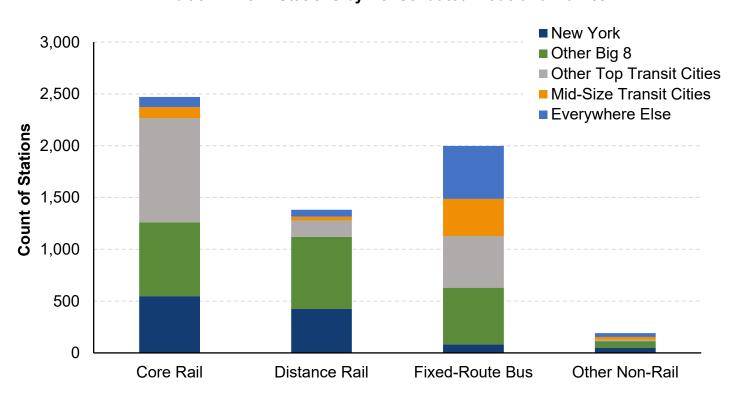


Exhibit 9.4 – 2022 Stations by Consolidated Mode and Market

Exhibit 9.5 shows that out of 1,756 transit maintenance facilities nationwide, the 945 fixed-route bus maintenance facilities far outpace the number of rail facilities, reflecting the larger number of bus mode operations around the country.

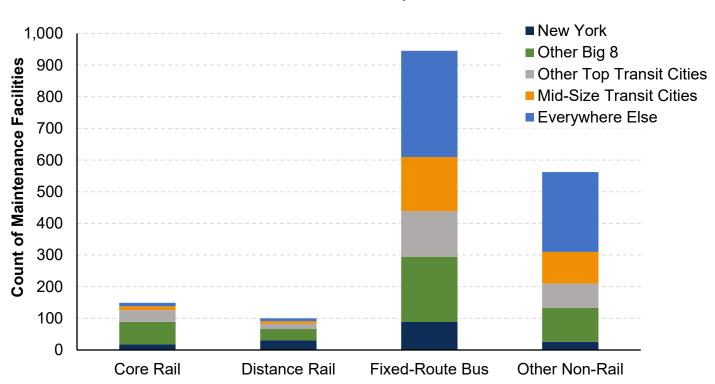
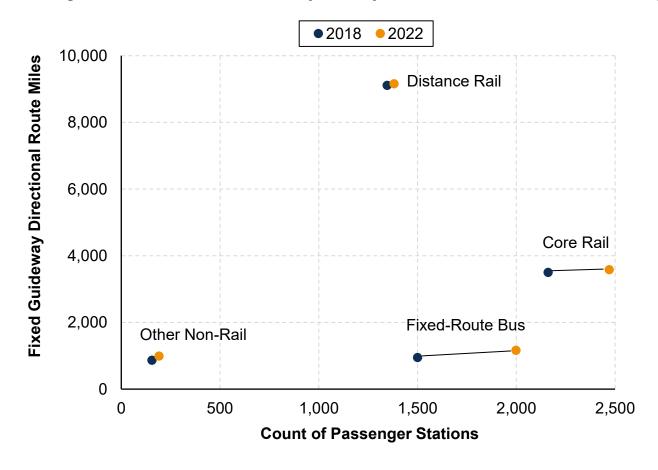


Exhibit 9.5 – 2022 Maintenance Facilities by Consolidated Mode and Market

The number of stations has remained consistent across all consolidated modes from the start of the TAM era in 2018 to 2022. Notable, although modest, increases in passenger stations and fixed guideway DRM occurred for all consolidated modes since 2018, with Fixed-Route Bus and Core Rail increasing the most.

Exhibit 9.6 – Passenger Stations and Fixed Guideway DRM by Consolidated Mode in the TAM Era (2018 v. 2022)



### **Bus Fuel Usage**

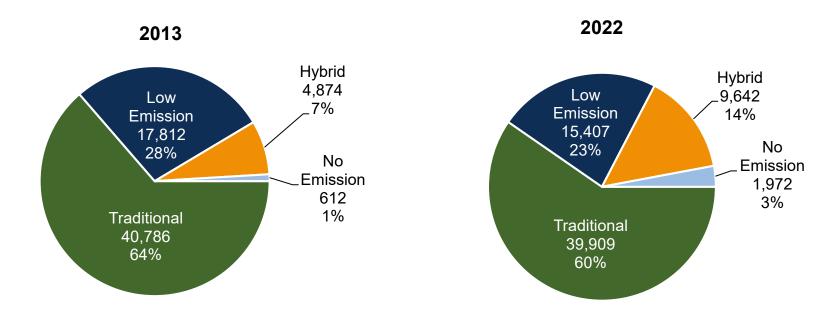
Diesel and gasoline are the traditional bus fuels. Alternative fuels have been introduced to address concerns about air quality and fuel efficiency. Low emission fuels include compressed natural gas, ethanol, hydrogen, liquefied petroleum gas

# 2022 Single Summary of Transit Report

(propane), liquefied natural gas, and biodiesel. Hybrid fuel consists of hybrid diesel and hybrid gasoline. Lastly, the no emission fuel category includes battery charge and propulsion power.

Exhibit 9.7 shows increases in hybrid and no-emission fuel types from 2013 to 2022. The charts below include fuel usage for bus fleets fully dedicated to transit service.

Exhibit 9.7 - TAM Era Non-Rail, Road Vehicle Fleet by Fuel Type



# Americans with Disabilities Act Station Accessibility

Exhibit 9.8 presents the change in the number of urban transit ADA-accessible stations and percentage of total ADA-accessible stations by consolidated mode. In 2022, 83.3 percent of total transit stations were either 100 percent accessible or self-certified as accessible, an increase from 79.4 percent in 2013. There were significant increases in the AD- accessible station share for both Core Rail and Distance Rail. Meanwhile, Fixed-Route Bus stayed relatively consistent.

Exhibit 9.8 – 10-Year Change in National Total ADA Station Accessibility by Consolidated Mode

| Mode Category   | 2013<br>Stations | 2013<br>ADA<br>Stations | 2013<br>ADA<br>Stations<br>Share | 2022<br>Stations | 2022<br>ADA<br>Stations | 2022<br>ADA<br>Stations<br>Share |
|-----------------|------------------|-------------------------|----------------------------------|------------------|-------------------------|----------------------------------|
| Core Rail       | 1,390            | 1,997                   | 69.6%                            | 1,889            | 2,470                   | 76.5%                            |
| Distance Rail   | 890              | 1,296                   | 68.7%                            | 1,016            | 1,381                   | 73.6%                            |
| Fixed-Route Bus | 1,615            | 1,632                   | 99.0%                            | 1,956            | 1,998                   | 97.9%                            |
| Other Non-Rail  | 88               | 92                      | 95.7%                            | 169              | 191                     | 88.5%                            |
| Total           | 3,983            | 5,017                   | 79.4%                            | 5,030            | 6,040                   | 83.3%                            |

# Chapter 10. Service Supplied

### Vehicle Revenue Miles

In 2022, there were 55 UZAs served by at least one of the rail modes. Exhibit 10.1 shows the VRM in millions in each UZA by rail mode. The Other category includes more unique rail modes like Alaska Railroad, Cable Car, Inclined Plane, and Monorail/Automated Guideway.

Exhibit 10.1 - Vehicle Revenue Miles for Rail Modes Serving UZAs

| UZA<br>Rank<br>(Pop.) | UZA Name                               | Commuter<br>Rail | Heavy<br>Rail | Hybrid<br>Rail | Light Rail | Streetcar<br>Rail | Other<br>Rail | Total   |
|-----------------------|--|------------------|---------------|----------------|------------|-------------------|---------------|---------|
| 1                     | New YorkJersey<br>CityNewark, NY<br>NJ | 153.2 M          | 353.2 M       | -              | 2.6 M      | -                 | 1             | 509.0 M |
| 3                     | Chicago, ILIN                          | 40.2 M           | 67.0 M        | -              | -          | -                 | -             | 107.2 M |
| 14                    | San Francisco<br>Oakland, CA           | 4.8 M            | 54.6 M        | -              | 4.3 M      | 0.2 M             | 0.4 M         | 64.4 M  |
| 8                     | Washington<br>Arlington, DCVA<br>MD    | 5.9 M            | 53.1 M        | -              | -          | 0.1 M             | -             | 59.1 M  |
| 10                    | Boston, MANH                           | 24.7 M           | 22.2 M        | -              | 5.3 M      | -                 | -             | 52.1 M  |
| 7                     | Philadelphia, PA<br>NJDEMD             | 16.3 M           | 20.6 M        | -              | -          | 2.0 M             | -             | 38.9 M  |

| UZA<br>Rank<br>(Pop.) | UZA Name                                 | Commuter<br>Rail | Heavy<br>Rail | Hybrid<br>Rail | Light Rail | Streetcar<br>Rail | Other<br>Rail | Total  |
|-----------------------|--|------------------|---------------|----------------|------------|-------------------|---------------|--------|
| 2                     | Los Angeles–Long<br>Beach–Anaheim,<br>CA | 6.0 M            | 6.1 M         | -              | 13.5 M     | -                 | -             | 25.6 M |
| 9                     | Atlanta, GA                              | -                | 17.9 M        | -              | -          | 0.1 M             | -             | 18.0 M |
| 18                    | Denver-Aurora, CO                        | 6.3 M            | -             | -              | 10.1 M     | -                 | -             | 16.4 M |
| 15                    | San Diego, CA                            | 2.1 M            | -             | 0.8 M          | 11.6 M     | -                 | -             | 14.5 M |
| 6                     | DallasFort Worth<br>Arlington, TX        | 3.8 M            | -             | -              | 9.6 M      | 0.2 M             | -             | 13.6 M |
| 4                     | Miami–Fort<br>Lauderdale, FL             | 3.6 M            | 7.3 M         | -              | -          | -                 | 0.9 M         | 11.9 M |
| 80                    | Concord–Walnut<br>Creek, CA              | -                | 11.8 M        | -              | -          | -                 | -             | 11.8 M |
| 13                    | Seattle–Tacoma,<br>WA                    | 1.8 M            | -             | -              | 8.0 M      | 0.2 M             | 0.2 M         | 10.3 M |
| 28                    | San Jose, CA                             | 2.6 M            | 5.8 M         | -              | 1.6 M      | -                 | -             | 9.9 M  |
| 20                    | Baltimore, MD                            | 2.1 M            | 4.6 M         | -              | 3.1 M      | -                 | -             | 9.9 M  |
| 23                    | Portland, OR–WA                          | -                | -             | 0.1 M          | 8.2 M      | 0.4 M             | -             | 8.7 M  |
| 41                    | Salt Lake City, UT                       | 1.3 M            | -             | -              | 6.3 M      | -                 | -             | 7.6 M  |
| 77                    | New Haven, CT                            | 6.2 M            | -             | -              | -          | -                 | -             | 6.2 M  |

| UZA<br>Rank<br>(Pop.) | UZA Name                             | Commuter<br>Rail | Heavy<br>Rail | Hybrid<br>Rail | Light Rail | Streetcar<br>Rail | Other<br>Rail | Total |
|-----------------------|--------------------------------------|------------------|---------------|----------------|------------|-------------------|---------------|-------|
| 22                    | St. Louis, MO-IL                     | -                | -             | -              | 5.6 M      | 0.0 M             | -             | 5.6 M |
| 112                   | Trenton, NJ                          | 4.0 M            | -             | 1.2 M          | -          | -                 | -             | 5.1 M |
| 50                    | Bridgeport–<br>Stamford, CT–NY       | 5.0 M            | -             | -              | -          | -                 | -             | 5.0 M |
| 195                   | Waterbury, CT                        | 5.0 M            | -             | -              | -          | -                 | -             | 5.0 M |
| 213                   | Danbury, CT–NY                       | 5.0 M            | -             | -              | -          | -                 | -             | 5.0 M |
| 16                    | Minneapolis–St.<br>Paul, MN          | 0.2 M            | -             | -              | 3.8 M      | -                 | -             | 4.0 M |
| 124                   | Antioch, CA                          | -                | 2.7 M         | 1.1 M          | -          | -                 | -             | 3.9 M |
| 25                    | Sacramento, CA                       | -                | -             | -              | 3.6 M      | -                 | -             | 3.6 M |
| 131                   | Poughkeepsie<br>Newburgh, NY         | 3.0 M            | -             | -              | -          | -                 | -             | 3.0 M |
| 11                    | Phoenix—Mesa–<br>Scottsdale, AZ      | -                | -             | -              | 2.9 M      | 0.0 M             | -             | 2.9 M |
| 5                     | Houston, TX                          | -                | -             | -              | 2.9 M      | -                 | -             | 2.9 M |
| 31                    | Cleveland, OH                        | -                | 2.3 M         | -              | 0.5 M      | -                 | -             | 2.9 M |
| 167                   | Livermor<br>Pleasanton-Dublin,<br>CA | 0.1 M            | 2.3 M         | -              | -          | -                 | -             | 2.5 M |

| UZA<br>Rank<br>(Pop.) | UZA Name  | Commuter<br>Rail | Heavy<br>Rail | Hybrid<br>Rail | Light Rail | Streetcar<br>Rail | Other<br>Rail | Total |
|-----------------------|---|------------------|---------------|----------------|------------|-------------------|---------------|-------|
| 19                    | Riverside–San<br>Bernardino, CA                   | 2.0 M            | -             | -              | -          | -                 | -             | 2.0 M |
| 69                    | Ogden–Layton, UT                                  | 1.9 M            | -             | -              | -          | -                 | -             | 1.9 M |
| 37                    | Charlotte, NC–SC                                  | -                | -             | -              | 1.6 M      | 0.1 M             | -             | 1.8 M |
| 27                    | San Juan, PR                                      | -                | 1.7 M         | -              | -          | -                 | -             | 1.7 M |
| 30                    | Pittsburgh, PA                                    | -                | -             | -              | 1.5 M      | -                 | 0.01 M        | 1.5 M |
| 188                   | Portland, ME                                      | 1.4 M            | -             | -              | -          | -                 | -             | 1.4 M |
| 59                    | Albuquerque, NM                                   | 1.3 M            | -             | -              | -          | -                 | -             | 1.3 M |
| 75                    | Provo-Orem, UT                                    | 1.0 M            | -             | -              | -          | -                 | -             | 1.0 M |
| 26                    | Orlando, FL                                       | 1.0 M            | -             | -              | -          | -                 | -             | 1.0 M |
| 396                   | Kiryas Joel, NY                                   | 1.0 M            | -             | -              | -          | -                 | -             | 1.0 M |
| 107                   | Lancaster–<br>Manheim, PA                         | 0.9 M            | -             | -              | -          | -                 | -             | 0.9 M |
| 65                    | Mission Viejo–Lake<br>Forest–Laguna<br>Niguel, CA | 0.8 M            | -             | -              | -          | -                 | -             | 0.8 M |
| 49                    | Buffalo, NY                                       | -                | -             | -              | 0.8 M      | -                 | -             | 0.8 M |

| UZA<br>Rank<br>(Pop.) | UZA Name   | Commuter<br>Rail | Heavy<br>Rail | Hybrid<br>Rail | Light Rail | Streetcar<br>Rail | Other<br>Rail | Total |
|-----------------------|--|------------------|---------------|----------------|------------|-------------------|---------------|-------|
| 115                   | Palmdale–<br>Lancaster, CA                       | 0.8 M            | -             | -              | -          | -                 | -             | 0.8 M |
| 51                    | New Orleans, LA                                  | -                | -             | -              | -          | 0.8 M             | -             | 0.8 M |
| 96                    | Denton–Lewisville,<br>TX                         | -                | -             | 0.8 M          | -          | -                 | -             | 0.8 M |
| 155                   | Round Lake<br>Beach—McHenry–<br>Grayslake, IL–WI | 0.7 M            | -             | -              | -          | -                 | -             | 0.7 M |
| 29                    | Austin, TX                                       | -                | -             | 0.7 M          | -          | -                 | -             | 0.7 M |
| 138                   | Atlantic City–Ocean<br>City–Villas, NJ           | 0.7 M            | -             | -              | -          | -                 | -             | 0.7 M |
| 136                   | Santa Rosa, CA                                   | 0.6 M            | -             | -              | -          | -                 | -             | 0.6 M |
| 367                   | Morgantown, WV                                   | -                | -             | -              | -          | -                 | 0.5 M         | 0.5 M |
| 36                    | Virginia Beach–<br>Norfolk, VA                   | -                | -             | -              | 0.3 M      | -                 | -             | 0.3 M |
| 398                   | Michigan City–La<br>Porte, IN–MI                 | 0.3 M            | -             | -              | -          | -                 | -             | 0.3 M |
| 86                    | Harrisburg, PA                                   | 0.3 M            | -             | -              | -          | -                 | -             | 0.3 M |
| 146                   | Santa Clarita, CA                                | 0.3 M            | -             | -              | -          | -                 | -             | 0.3 M |

| UZA<br>Rank<br>(Pop.) | UZA Name                                   | Commuter<br>Rail | Heavy<br>Rail | Hybrid<br>Rail | Light Rail | Streetcar<br>Rail | Other<br>Rail | Total |
|-----------------------|--|------------------|---------------|----------------|------------|-------------------|---------------|-------|
| 110                   | OxnardSan<br>Buenaventura<br>(Ventura), CA | 0.3 M            | -             | -              | -          | -                 | 1             | 0.3 M |
| 144                   | South Bend, IN-MI                          | 0.2 M            | -             | -              | -          | -                 | -             | 0.2 M |
| 52                    | Tucson, AZ                                 | -                | -             | -              | -          | 0.2 M             | -             | 0.2 M |
| 340                   | Manteca, CA                                | 0.2 M            | -             | -              | -          | -                 | -             | 0.2 M |
| 446                   | Middletown, NY                             | 0.2 M            | -             | -              | -          | -                 | -             | 0.2 M |
| 46                    | Oklahoma City, OK                          | -                | -             | -              | -          | 0.2 M             | -             | 0.2 M |
| 42                    | Nashville-Davidson,<br>TN                  | 0.2 M            | -             | -              | -          | -                 | -             | 0.2 M |
| 12                    | Detroit, MI                                | -                | -             | -              | -          | 0.1 M             | 0.02 M        | 0.1 M |
| 34                    | Kansas City, MO–<br>KS                     | -                | -             | -              | -          | 0.1 M             | -             | 0.1 M |
| 17                    | Tampa–St.<br>Petersburg, FL                | -                | -             | -              | -          | 0.1 M             | -             | 0.1 M |
| 275                   | Tracy–Mountain<br>House, CA                | 0.1 M            | -             | -              | -          | -                 | -             | 0.1 M |
| 40                    | Jacksonville, FL                           | -                | -             | -              | -          | -                 | 0.1 M         | 0.1 M |
| 33                    | Cincinnati, OH–KY                          | -                | -             | -              | -          | 0.1 M             | -             | 0.1 M |

| UZA<br>Rank<br>(Pop.) | UZA Name                                     | Commuter<br>Rail | Heavy<br>Rail | Hybrid<br>Rail | Light Rail | Streetcar<br>Rail | Other<br>Rail | Total  |
|-----------------------|--|------------------|---------------|----------------|------------|-------------------|---------------|--------|
| 45                    | Memphis, TN-MS-<br>AR                        | -                | -             | -              | -          | 0.1 M             | -             | 0.1 M  |
| 38                    | Milwaukee, WI                                | -                | -             | -              | -          | 0.1 M             | -             | 0.1 M  |
| 181                   | Thousand Oaks, CA                            | 0.1 M            | -             | -              | -          | -                 | -             | 0.1 M  |
| 101                   | Stockton, CA                                 | 0.1 M            | -             | -              | -          | -                 | -             | 0.1 M  |
| 39                    | Providence, RIMA                             | 0.1 M            | -             | -              | -          | -                 | -             | 0.1 M  |
| 164                   | Anchorage, AK                                | -                | -             | -              | -          | -                 | 0.1 M         | 0.1 M  |
| 483                   | Wasilla–Knik-<br>Fairview–North<br>Lakes, AK | -                | -             | -              | -          | -                 | 0.03 M        | 0.03 M |
| 53                    | El Paso, TX–NM                               | -                | -             | -              | -          | 0.03 M            | -             | 0.03 M |
| 88                    | Little Rock, AR                              | -                | -             | -              | -          | 0.02 M            | -             | 0.02 M |
| 105                   | Chattanooga, TN–<br>GA                       | -                | -             | -              | -          | -                 | 0.02 M        | 0.02 M |
| 266                   | Kenosha, WI                                  | -                | -             | -              | -          | 0.02 M            | -             | 0.02 M |
| 87                    | Worcester, MA-CT                             | 0.02 M           | -             | -              | -          | -                 | -             | 0.02 M |
| 397                   | Fairbanks, AK                                | -                | -             | -              | -          | -                 | 0.01 M        | 0.01 M |

| UZA<br>Rank<br>(Pop.) | UZA Name                    | Commuter<br>Rail | Heavy<br>Rail | Hybrid<br>Rail | Light Rail | Streetcar<br>Rail | Other<br>Rail | Total      |
|-----------------------|-----------------------------|------------------|---------------|----------------|------------|-------------------|---------------|------------|
| 202                   | Galveston–Texas<br>City, TX | -                | -             | -              | -          | 0.01 M            | -             | 0.01 M     |
|                       | Total                       | 319.5 M          | 633.3 M       | 4.6 M          | 107.8 M    | 5.17 M            | 2.33 M        | 1,072.79 M |

In 2022, about half of all VRM were operated by fixed-route bus modes and about 30 percent were operated by rail modes. Annual Total VRM across all modes decreased 5.8 percent over the 10-year period from 4.04 billion to 3.81 billion, almost all due to declines in FRB and Demand Response service. Rail services were virtually unchanged during this time period, with the opening of several new systems offsetting reduced service from existing systems.

Among the smaller modes, Vanpool had the largest decrease of 28 percent. Ferryboat, which is excluded from the exhibit below, had a 50 percent increase in VRM from 3.29 million to 4.93 million largely due to the addition of existing systems reporting to the NTD for the first time.

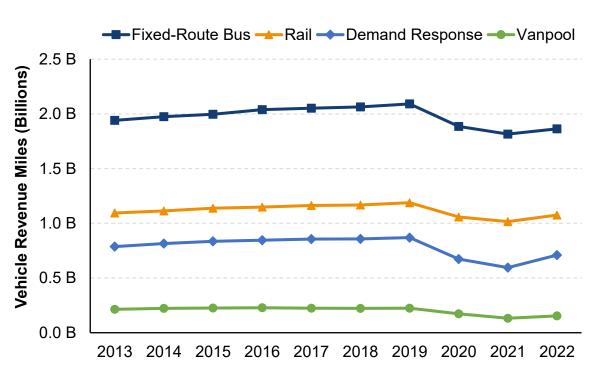


Exhibit 10.2 - 10 Year Trends in VRM

VRM per square mile is a useful concept for thinking about transit service coverage in a UZA. For example, if people are willing to walk as much as a half mile to access bus service, then one can imagine one bus vehicle revenue mile providing service to one square mile of land if the bus service runs right down the middle of the square mile. For transit service to be useful, many transit planners believe that it must run at least three times per hour. This produces 20-minute headways, and it means that a person would expect to wait, on average, about 10 minutes for a bus to come. Service for 18 hours each day allows the service to operate from 5 a.m. to 11 p.m., covering most morning commutes and most evening activities. Multiplying 365 days a year by 18 hours per day and 3 trips per hour results in approximately 20,000 VRM needed to serve each square mile to provide a minimum level of transit service.

Exhibit 10.3 shows the change in VRM per square mile by UZA from 2013 to 2022 for all Fixed-Route Bus (FRB) modes as bus modes are typically used to provide basic transit service coverage, even in neighborhoods where a rail mode is present.

New York is excluded from this graph because it provides so much more transit than any other area. Its transit service declined by -11.6 percent from 81,060 VRM per square mile in 2013 to 71,659 VRM per square mile in 2022.

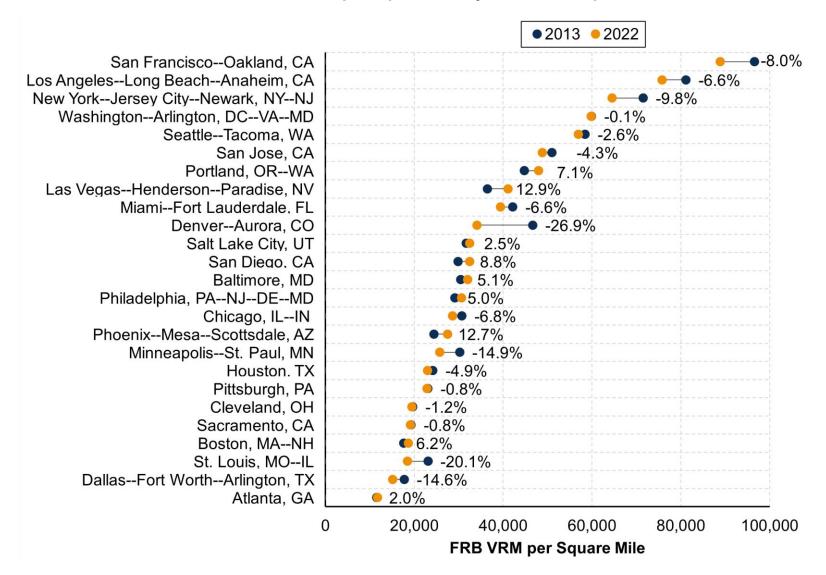
All the Big 8 UZAs saw a decrease in VRM per square mile except the Philadelphia UZA.

In the Other Top Transit Cities<sup>12</sup>, there was a mix of UZAs increasing and decreasing their FRB VRM per square mile over the ten-year period. Las Vegas-Henderson-Paradise, Nevada and Phoenix-Mesa-Scottsdale, Arizona experienced the largest increases, at 17.7 and 16.2 percent respectively. Denver-Aurora, Colorado, and St. Louis, Missouri-Illinois saw the largest decreases at 28.6 percent and 20.6 percent. Dallas-Fort Worth-Arlington, Texas and Minneapolis-St. Paul, Minnesota closely followed with a 16.3 and 15.5 percent decrease.

84 | Chapter 10: Service Supplied

<sup>&</sup>lt;sup>12</sup> Note that Honolulu is a Top Transit City but is not depicted in exhibits that compare points across censuses. This is because Honolulu was recognized as a new Urban rea by the Census Bureau in 2020; the closest approximate 2010 Urban Area was Urban Honolulu. Comparing 2021 data allocated to Urban Honolulu to the 2022 equivalent in the Honolulu UZA, the Fixed Route VRM per square mile decreased by 15 percent from roughly 115 thousand to 99 thousand. The square mileage of the UZA decreased by 25.





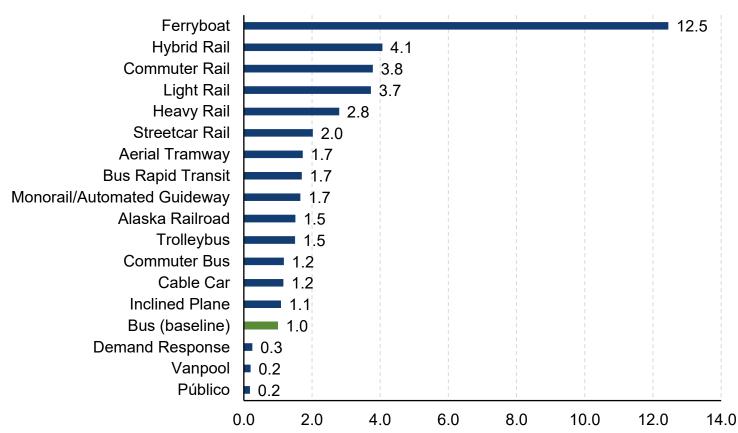
# **System Capacity**

Unadjusted VRM for each mode are multiplied by a capacity-equivalent factor to calculate Capacity-Equivalent VRM (CEVRM). The capacity-equivalent factor for each mode is calculated by dividing the average full-seating and full-standing capacities of active vehicles for each mode by the average full-seating and full-standing capacities of all motor bus mode vehicles in active service. The average capacity of a bus vehicle in 2022 was 28 seated and 20 standing, or 48 riders.

Exhibit 10.4 demonstrates the different capacity-equivalent factors for each mode with Bus at the baseline (1.0). A typical vanpool vehicle has 20 percent of the capacity of a typical bus, and a typical ferry vehicle has over 12 times more than a typical bus. Note that Standing Capacity is not reported by Rural Reporters. Therefore, exclusively rural operators are not represented in any exhibit that includes Capacity Equivalent VRM.

Exhibit 10.4 - Capacity-Equivalent Factor by Mode





The exhibit below presents the CEVRM by mode over the last ten years. Other Rail includes Alaska Railroad, Cable Car, Inclined Plane, and Monorail/Automated Guideway. Other Non-Rail includes Aerial Tramway and Público. Many modes have stayed consistent in their CEVRM since 2013. Notably, Bus Rapid Transit CEVRM has increased by 83 percent from 2013 to 2022 as the mode has become more prevalent and has maintained high capacities. In years overlapping with the COVID-19 national public health emergency, the CEVRM decreased for all other modes.

The annual rate of change in VRM at Bus-equivalent capacity during this period varies dramatically from mode to mode. For example, Hybrid Rail has returned to its pre-pandemic annual CEVRM while Demand Response. The decrease in Other Non-Rail is attributed to the Público mode, for which CEVRM decreased by 89 percent since 2013.

Exhibit 10.5 – 10 Year Capacity-Equivalent VRM by Mode

|                   | Capacity-Equivalent Vehicle Revenue Miles (Millions) |       |       |       |       |       |       |       |       |       |  |  |
|-------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
| Mode              | 2013   | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | Average Annual Rate of Change 2013 to 2022 |  |
| Rail              | 4,208  | 3,800 | 4,430 | 4,480 | 4,576 | 4,461 | 4,556 | 3,985 | 3,810 | 4,048 | 0.3%                                       |  |
| Heavy Rail        | 2,217  | 2,245 | 2,227 | 2,248 | 2,292 | 2,340 | 2,397 | 2,161 | 2,063 | 2,094 | -0.3%                                      |  |
| Commuter Rail     | 1,513  | 1,106 | 1,682 | 1,684 | 1,712 | 1,554 | 1,580 | 1,318 | 1,271 | 1,438 | 1.7%                                       |  |
| Light Rail        | 439  | 422   | 479   | 504   | 528   | 530   | 533   | 465   | 441   | 476   | 2.0%                                       |  |
| Hybrid Rail       | 13   | 13    | 14    | 14    | 14    | 13    | 22    | 20    | 19    | 22    | 8.7%                                       |  |
| Streetcar Rail    | 12   | 0     | 13    | 15    | 16    | 16    | 16    | 14    | 12    | 12    | -10.6%                                     |  |
| Other Rail        | 14   | 14    | 15    | 14    | 14    | 9     | 8     | 6     | 4     | 6     | -4.4%                                      |  |
| Non-Rail          | 2,596  | 2,586 | 2,407 | 2,445 | 2,438 | 2,462 | 2,491 | 2,213 | 2,118 | 2,238 | -1.7%                                      |  |
| Bus               | 2,049  | 2,018 | 1,857 | 1,889 | 1,882 | 1,912 | 1,931 | 1,772 | 1,736 | 1,792 | -2.1%                                      |  |
| Bus Rapid Transit | 12   | 20    | 16    | 19    | 18    | 19    | 20    | 20    | 22    | 22    | 19.3%                                      |  |

|                 | Capacity-Equivalent Vehicle Revenue Miles (Millions) |       |       |       |       |       |       |       |       |       |  |
|-----------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Mode            | 2013   | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | Average Annual Rate of Change 2013 to 2022 |
| Commuter Bus    | 167  | 177   | 152   | 158   | 159   | 154   | 160   | 105   | 83    | 102   | 7.4%                                       |
| Trolleybus      | 24   | 0     | 20    | 22    | 20    | 21    | 19    | 15    | 16    | 16    | -13.7%                                     |
| Demand Response | 243  | 238   | 257   | 256   | 257   | 248   | 250   | 201   | 175   | 208   | -1.2%                                      |
| Ferryboat       | 45   | 81    | 49    | 48    | 52    | 60    | 64    | 56    | 53    | 63    | 6.7%                                       |
| Vanpool         | 56   | 60    | 59    | 59    | 57    | 56    | 56    | 43    | 32    | 36    | -3.4%                                      |
| Other Non-Rail  | 5  | 0     | 4     | 4     | 4     | 3     | 3     | 2     | 1     | 1     | -18.7%                                     |
| Total           | 6,804  | 6,385 | 6,837 | 6,925 | 7,014 | 6,923 | 7,047 | 6,198 | 5,928 | 6,287 | -0.50%                                     |

FTA defines "Vehicle Utilization" as the average annual distance traveled per vehicle in service. Vehicle utilization can be measured by the ratio of VRM from the previous fiscal year divided by the end of year active vehicles in the fleet. A higher number indicates that more use is being made of each vehicle during the year than a lower number. The Vehicle Utilization by mode over the last ten years is shown in the table below.

Heavy Rail and Hybrid Rail had the highest vehicle use from 2013 to 2022. These modes typically offer long hours of frequent service. There was a decrease in VRM per active vehicle across all modes in 2020 and 2021 due to the COVID-19 public health emergency. In Report Year 2022, many modes increased in utilization as the industry recovered ridership, with the aforementioned modes and Vanpool mode reaching a higher utilization relative to the pre-pandemic averages.

Exhibit 10.6 – 10 Year Vehicle Utilization (Average Annual VRM per Active Vehicle) by Mode

| V                 | ehicle Reve | enue Miles | per Active V | ehicle (Tho | ousands) |   |
|-------------------|-------------|------------|--------------|-------------|----------|---|
| Mode              | 2018        | 2019       | 2020         | 2021        | 2022     | Average<br>Annual Rate<br>of Change<br>(2018 to 2022) |
| Rail              |             |            |              |             |          |   |
| Heavy Rail        | 58          | 58         | 55           | 53          | 55       | -1.0%   |
| Commuter Rail     | 46          | 47         | 38           | 36          | 40       | -3.3%   |
| Light Rail        | 52          | 52         | 45           | 42          | 45       | -3.3%   |
| Hybrid Rail       | 42          | 49         | 47           | 44          | 50       | -0.4%   |
| Streetcar Rail    | 18          | 17         | 15           | 13          | 13       | -5.8%   |
| Other Rail        | 51          | 49         | 32           | 26          | 39       | -4.5%   |
| Non-Rail          |             |            |              |             |          |   |
| Bus               | 28          | 28         | 26           | 25          | 26       | -0.7%   |
| Bus Rapid Transit | 20          | 22         | 17           | 19          | 19       | -1.7%   |
| Commuter Bus      | 22          | 21         | 15           | 12          | 15       | -1.2%   |
| Trolleybus        | 18          | 17         | 16           | 16          | 15       | -4.7%   |
| Demand Response   | 26          | 26         | 11           | 10          | 12       | -9.4%   |
| Ferryboat         | 23          | 23         | 18           | 17          | 18       | -1.7%   |

| Vehicle Revenue Miles per Active Vehicle (Thousands) |      |      |      |      |      |   |
|--|------|------|------|------|------|---|
| Mode   | 2018 | 2019 | 2020 | 2021 | 2022 | Average<br>Annual Rate<br>of Change<br>(2018 to 2022) |
| Vanpool  | 14   | 14   | 13   | 12   | 14   | -0.8%   |
| Other Non-Rail                                       | 5    | 7    | 4    | 4    | 4    | -12.6%  |

Exhibit 10.7 shows the relationship between VRM per active vehicle and VRM per square mile for Fixed-Route Bus modes by UZA. As expected, the Big 8 UZAs, including New York, Los Angeles, and Washington, D.C., have higher VRM per square mile. Memphis, TN-MS-AR had the highest VRM per active vehicle, but the lowest VRM per square mile. Many UZAs were under 10,000 VRM per square mile and between 20,000 and 40,000 VRM per active vehicle.

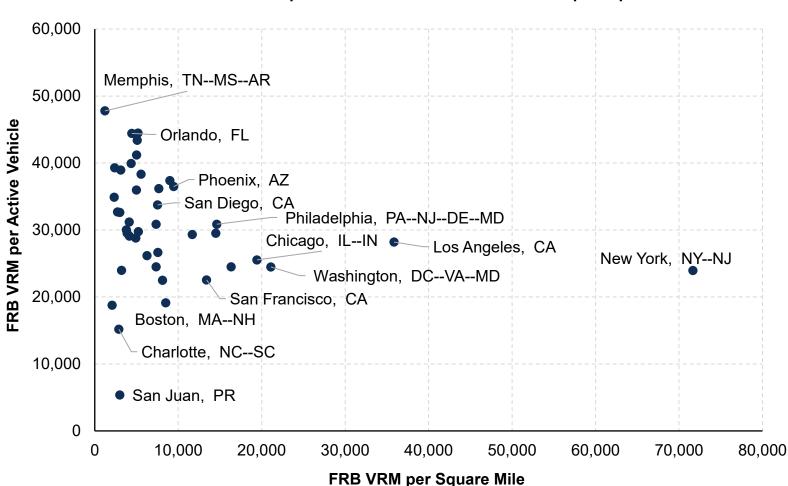


Exhibit 10.7 - FRB VRM per FRB Active Vehicle vs. FRB VRM per Square Mile

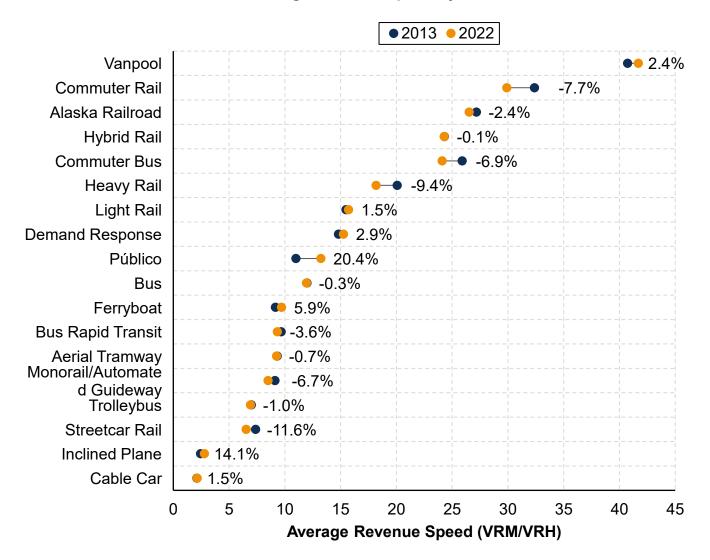
### Average Revenue Speed

Average Revenue Speed reflects the average speed at which vehicles are traveling while in revenue service carrying passengers. Average speed is calculated by dividing Total Actual VRM by Total Actual VRH. Note that the average speed for a transit mode is determined both by the top speed achieved while in operation as well as by the amount of time spent loading and unloading passengers ("dwell time.")

The two modes with the highest average revenue speed in 2022 are Vanpool (41.7 miles per hour) and Commuter Rail (29.9 miles per hour). These high speeds reflect long-distance travel with widely spaced stops. The lower speeds on modes such as Streetcar Rail, Bus, Bus Rapid Transit, and Trolleybus reflect closely spaced stops on city streets.

The exhibit below compares the average revenue speed for transit agencies in 2013 and 2022. Most modes remained within one mile per hour difference from 2013 to 2022. Commuter Bus (CB), Commuter Rail (CR), Heavy Rail (HR), and Público (PB) had more noticeable changes of about a two miles per hour difference for each mode.

Exhibit 10.8 - Average Revenue Speed by Mode



# Chapter 11. Ridership

# Service Consumed by Transit Mode

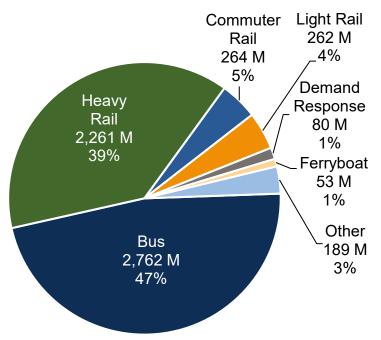
Exhibit 11.1 shows the distribution of Unlinked Passenger Trips (UPT) and Passenger Miles Traveled (PMT) across modes. In 2022, urban transit systems provided 5.9 billion UPT and 30.1 billion PMT. The Bus and Heavy Rail modes were the largest providers of ridership, with over 85 percent of nationwide UPT and over 66 percent of nationwide PMT in 2022. Due to its greater Average Passenger Trip Length, Commuter Rail accounted for only 5 percent of UPT but 20 percent of PMT.

Demand Response, Ferryboat, and Vanpool form the Other Non-Rail Category, which supplied 3 percent of UPT, and 6 percent of PMT. Aerial Tramway, Alaska Railroad, Cable Car, Hybrid Rail, Inclined Plane, Monorail/Automated Guideway, Streetcar Rail, and Trolleybus form the Other Rail category. These modes altogether accounted for 3 percent of total UPT and 1 percent of PMT.

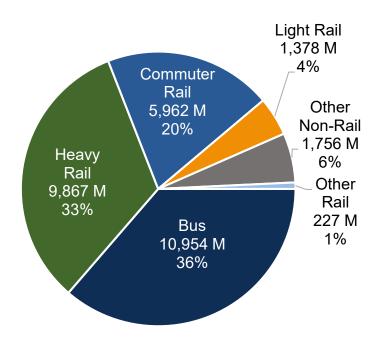
Please note that the exhibits in Chapter 11 with PMT data will only include Full Reporters, as they are the only reporters that submit PMT data to the NTD. Exhibit 11.1 excludes UPT reported by rural transit systems, which amounted 88 million in RY 2022.

Exhibit 11.1 – 2022 National Total Unlinked Passenger Trips and Passenger Miles Traveled by Mode (in Millions)

### **National Total UPT 5.87 Billion**



### **National Total PMT 29.9 Billion**



# Average Trip Length

Average Trip Length is the average distance traveled per trip by a single passenger. This average is calculated by dividing the total PMT by the total UPT.

Excluding Alaska Railroad, the exhibit below shows that the three transit modes with the longest average trip length are Vanpool (39.3 miles), Commuter Bus (23.4 miles), and Commuter Rail (22.5 miles). All three of these services focus on daily commuting over long distances from suburban areas to central cities. In contrast, the fixed-route bus and rail modes typically serving travel within central cities have much shorter average trip lengths. The Alaska Railroad is a unique system with an average passenger trip length of 126 miles per trip.

In Exhibit 11.2, and several other mode-level exhibits in this chapter, Aerial Tramway, Alaska Railroad, Cable Car, Inclined Plane, Monorail/Automated Guideway, and Público are excluded. This is because these modes are operated in a very limited number of UZAs and represent a small percentage of the Nation's overall public transportation service.

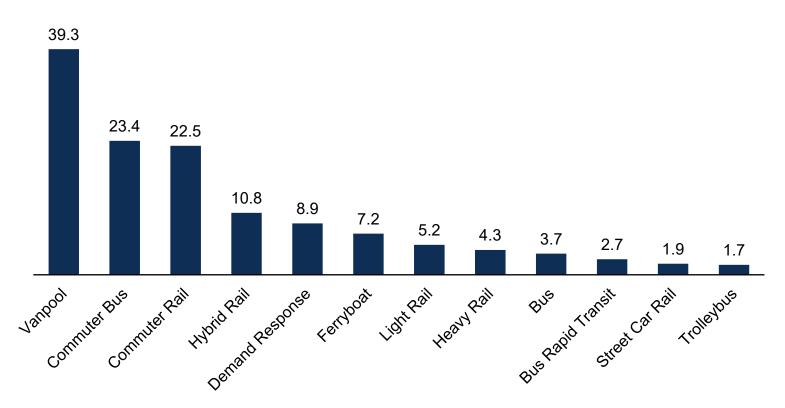


Exhibit 11.2 – 2022 National Average Passenger Trip Length (PMT per UPT) by Mode

### National Ridership Trends

Total transit ridership has increased by 30 percent from 1993 (7.4 billion) to 2014 at its peak (10.6 billion). Ridership then began to slightly decrease each year through 2019. This ridership decrease is believed to be largely driven by the rise of TNCs as a new travel option for short trips in urbanized areas. Ridership was beginning to increase again in 2020 up until the COVID-19 public health emergency produced a historic drop in ridership in 2020 that continued into 2021. There was a total of 5.9 billion UPT in 2022, an increase of 1.5 billion trips from 2021 and approximately 60 percent of 2019 ridership, as shown in Exhibit 11.3.

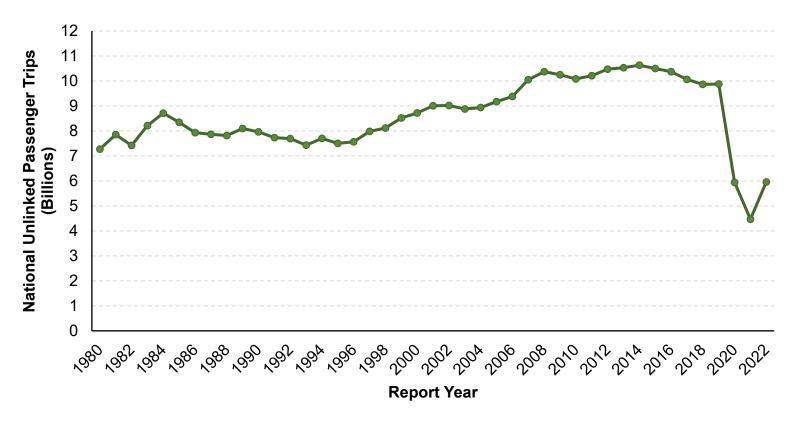


Exhibit 11.3 – 1980-2022 National Total UPT

New York City alone accounted for 47 percent of the national ridership in 2022. Together, the Top 26 transit cities accounted for three-quarters of National total ridership.

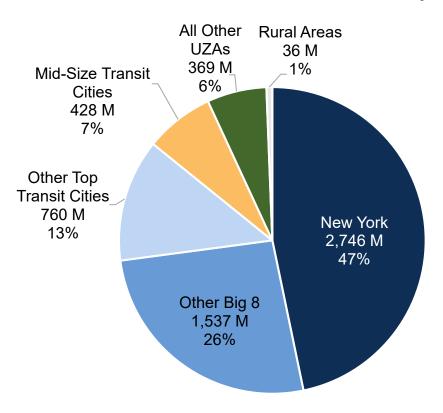


Exhibit 11.4 – 2022 Percent of National Total UPT by Market

Ridership density can be defined as the annual number of trips taken on transit per capita. Exhibit 11.5 shows the change in ridership density from 2013 to 2022 in the Other Big 8 UZAs, excluding New York City urbanized area.

The national ridership density was the highest in 2014 at 541 trips per capita, whereas the ridership density was the lowest in 2021 at 227 trips per capita.

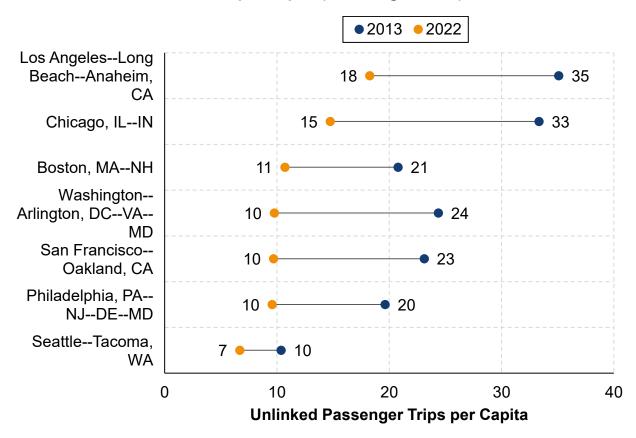


Exhibit 11.5 – 10-Year UPT per Capita (Other Big 8 UZAs)

Exhibit 11.6 shows that, unlike in other areas, New York does not dominate statistics for Demand Response ridership.

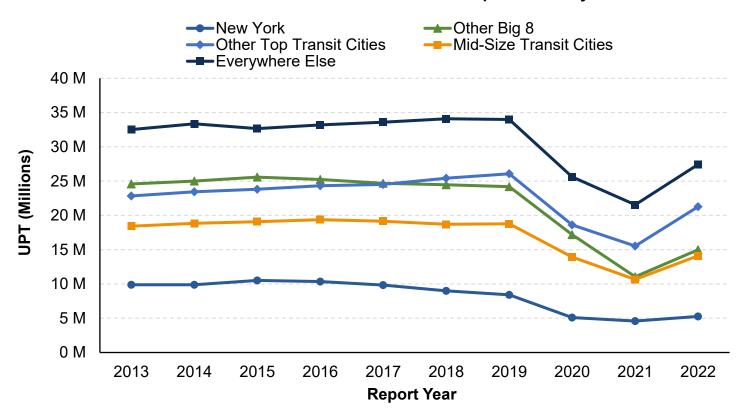


Exhibit 11.6 – 10-Year National Total Demand Response UPT by Market

A way to compare service effectiveness is through *load factor*, the average number of passengers on board. Load factor is calculated by taking PMT and dividing by VRM. Transit vehicles that are typically fuller will have higher load factors, and transit vehicles that typically have more empty seats will have lower load factors.

Rail modes usually carry more passengers than Fixed-Route Bus modes because rail modes have higher vehicle capacities and typically serve high-density travel corridors. Likewise, Fixed-Route Bus modes carry more passengers than Demand Response and Vanpool modes because of their higher vehicle capacities and because they typically serve medium-density travel markets. Some ferryboat services have quite high capacities. For example, the Staten Island Ferry has vehicles with a capacity of 6,000 passengers and accounts for 22 percent of all ferryboat trips in the NTD. As such, the load factor for

Ferryboat in 2022 was 78.5 and is not included in Exhibit 11.7. The Ferryboat mode had a quartile range from 15 to 80 and an outlier range from 1 to 322.

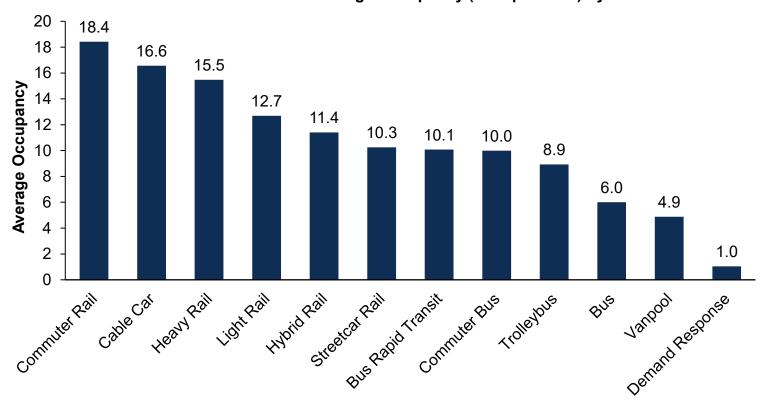


Exhibit 11.7 - 2022 National Average Occupancy (PMT per VRM) by Mode

### Service Effectiveness

Service effectiveness normalizes different capacities of transit modes by measuring the percentage of seats that are occupied. As shown in Exhibit 11.8, vanpool services fill the highest percentage of the seating capacity (52 percent), because Vanpool services usually only begin operating once they have commitments from a regular number of passengers. Streetcar Rail also has a high percentage of seating capacity, primarily because many railcars are designed to maximize standing capacity.

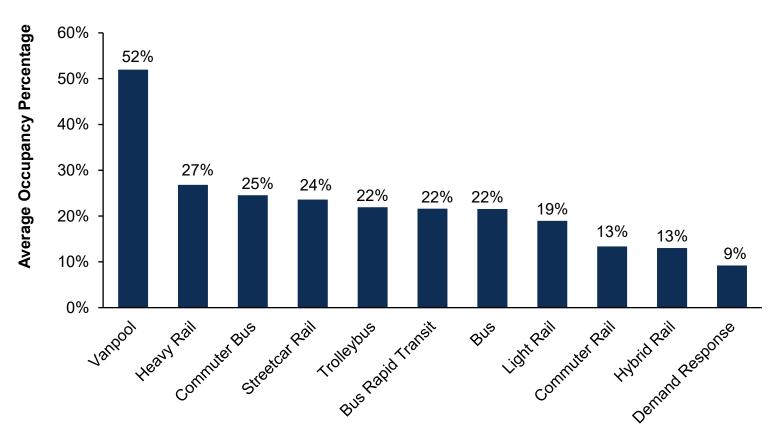


Exhibit 11.8 – 2022 National Average Seating Occupancy Percentage by Mode

### Average Trip Length

The NTD records the length of the Average Passenger Trip (APTL) taken on each mode. This is calculated by taking total PMT and dividing by the total number of UPT.

Exhibit 11.9 provides a box and whisker plot of APTLs for each mode, sorted by highest single agency APTL. This provides a rapid visual assessment of the distances traveled on average, as on the left are modes commonly used by commuters and on the right are "circular" systems with characteristically short distances.

100 90 Average Passenger Trip Length (Miles) 80 70 60 50 40 30 20 10 0 Vanpool Público Commuter Bus **Bus Rapid Transit** Commuter Rail Ferryboat Demand Response Hybrid Rail Heavy Rail Light Rail **Trolleybus** Inclined Plane Streetcar Rail **Automated Guideway** Monorail/

Exhibit 11.9 - 2022 Reported Average Passenger Trip Lengths: All Modes

Exhibit 11.10 depicts the average revenue speed (see Exhibit 10.5) versus the average passenger trip length. Not surprisingly, modes with higher transit speeds support longer average passenger trip lengths. Vanpool has the longest trip length (39.3 miles) and the fastest average revenue speed (41.7 mph). In contrast, Streetcar Rail has the shortest trip length (1.92 miles) and the slowest average revenue speed (6.5 mph) of the selected modes presented in the exhibit below. Commuter Bus and Commuter Rail also have longer trip lengths with a faster average speed due to the nature of the service connecting passengers from outlying areas to central cities. Modes like Bus will have shorter trip lengths and a slower average speed due to the more frequent stops in dense areas.

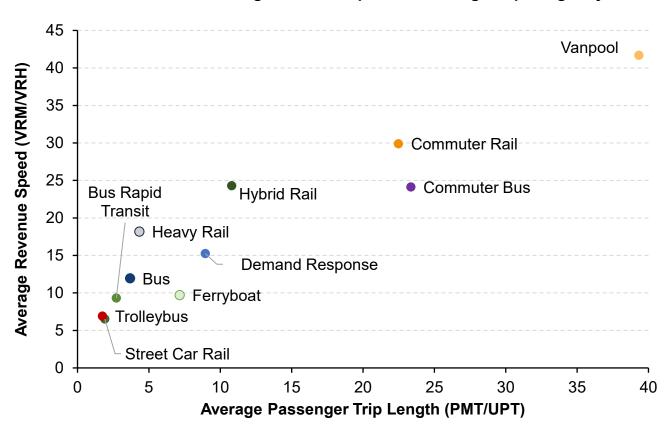


Exhibit 11.10 - National Average Revenue Speed vs. Average Trip Length by Mode

## Chapter 12. Sources of Funds

#### **Current Year Sources of Funds**

Transit funding consists of public funds allocated by Federal, State, and local governments to transit agencies, as well as funds directly generated by transit operations, such as fare revenues and advertising. A total of \$91.8 billion dollars was available for transit funding for Full Reporters in 2022 between public funds for local, State, and Federal. The split of these funding sources in 2022 is shown in Exhibit 12.1. An additional \$3.26 billion was applied to cover expenses made by small systems (Reduced Reporters) and rural systems (Rural Reporters). We can approximate the national total as \$95 billion.

Federal funding was the predominant funding source in 2022 at \$30.2 billion dollars. Directly generated revenues, including passenger fares, account for 24 percent of total transit funding in the U.S. Local and State funding together was \$40.7 billion, at 21 percent and 22 percent of total funding respectively. Reduced Reporters do not report funds earned in their Annual Reports; therefore, Reduced Reporters are excluded from Exhibit 12.1.

Some transit agencies, such as Independent Public Agencies or Authorities for Transit Service, are independent political entities. These agencies may have been granted the authority to directly impose taxes, tolls, and/or fees. In this chapter, unless otherwise denoted, taxes which are levied by these agencies are included in the Directly Generated funding sources. This may differ from other NTD time series where these funds are considered Local revenues. For an approximate amount that these funds add to the total Directly Generated funding total each year, see Exhibit 12.2.

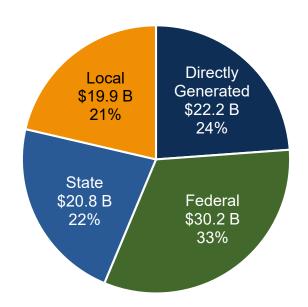


Exhibit 12.1 – 2022 Sources of Funds by Category

Exhibit 12.2 shows the totals of each funding source and the percentage of total funding that source provides. Transit agencies received 42.2 percent of their funding in 2022 from the General Funds of Federal, State, and Local governments.

Agencies also receive funding from fuel, income, sales, property, and other taxes for which specific percentages can be dedicated to transit. These funding sources are reported under Local funds and Directly Generated – Dedicated funds to the NTD. In 2022, 36.3 percent of funding came from these dedicated taxes, which means over 78 percent of total funding came from public tax funds. The remaining 21.7 percent was comprised of system-generated revenue, including revenue from fares, advertising, concessions, park-and-ride lots, investments, and rental of excess property and equipment.

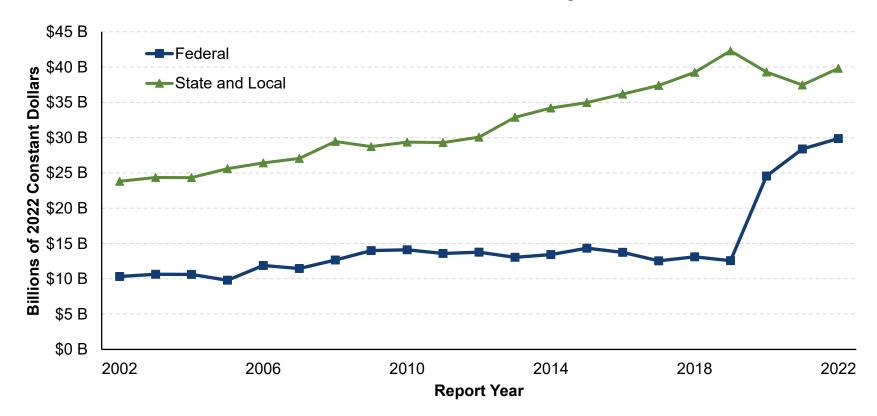
Exhibit 12.2 - Table of 2022 National Total Sources of Revenue

| Revenue Sources (Millions of Dollars) |   |          |          |          |           |         |  |  |  |  |
|---------------------------------------|---|----------|----------|----------|-----------|---------|--|--|--|--|
| Category                              | System-<br>Generated or<br>Directly<br>Levied Funds | Federal  | State    | Local    | Total     | Percent |  |  |  |  |
| Public/Dedicated Tax Funds            | \$7,106   | \$32,650 | \$20,838 | \$21,086 | \$81,681  | 78.3%   |  |  |  |  |
| General Fund                          | -   | \$29,873 | \$7,168  | \$7,168  | \$44,209  | 42.4%   |  |  |  |  |
| Fuel Tax                              | \$42  | -        | -        | \$123    | \$165     | 0.2%    |  |  |  |  |
| Income Tax                            | \$0   | -        | -        | \$157    | \$157     | 0.2%    |  |  |  |  |
| Sales Tax                             | \$6,314   | -        | -        | \$9,792  | \$16,105  | 15.4%   |  |  |  |  |
| Property Tax                          | \$748   | -        | -        | \$1,394  | \$2,142   | 2.1%    |  |  |  |  |
| Other Dedicated Taxes                 | \$1   | -        | -        | \$38     | \$40      | 0.0%    |  |  |  |  |
| Other Public Funds                    | -   | -        | \$12,752 | \$1,282  | \$14,034  | 13.5%   |  |  |  |  |
| Reduced Reporter<br>Fed/State/Local   | -   | \$2,777  | \$918    | \$1,132  | \$4,828   | 4.6%    |  |  |  |  |
| System-Generated Funds                | \$22,636  | -        | -        | -        | \$22,636  | 21.7%   |  |  |  |  |
| Passenger Fares                       | \$8,683   | -        | -        | -        | \$8,683   | 8.3%    |  |  |  |  |
| Other Revenue                         | \$13,953  | -        | -        | -        | \$13,953  | 13.4%   |  |  |  |  |
| Total All Sources                     | -   | -        | -        | -        | \$104,316 | 100.0%  |  |  |  |  |

#### Sources of Funds Over Time in Constant Dollars

Public funding provided by the Federal government and State and local governments for transit since 2002 is shown in Exhibit 12.3 using constant (adjusted for inflation) dollars. In 2022, total public funding for transit was \$70.8 billion. Federal funding gradually increased over time from 2002 until 2019. In 2020, the COVID-19 Public Health Emergency began and increased the Federal funding amount drastically.

Exhibit 12.3 – 20-Year Time Series of National Total Public Funding for Transit in Constant Dollars



### State and Local Funding

State and local funding sources accounted for over 40 percent of all transit funding, both operating and capital, as shown in Exhibit 12.1. These funding sources include general funds, taxes, and other dedicated funds (vehicle licensing and registration fees, driver's license fees, communications access fees and surcharges, and lottery and casino proceeds). Exhibit 12.3 compares Federal, State and Local funding from 2002 to 2022 using constant dollars and presents a general upward trend of State and local funding across the entirety of the 10-year period.

Exhibit 12.4 demonstrates the State and local funding by source. General funds provided 43 percent of State and local transit funding in 2022 and taxes dedicated to transit, including dedicated sales, property, fuel, and income taxes, provided 51 percent of State and local funding. Of these, sales tax was the most common form of tax dedicated to transit funding, accounting for 49 percent of all State and local funding for transit.

Exhibit 12.4 – 2022 National Total Sources of Taxes for State and Local Funding as a Percent of the National Total \$32.9 Billion

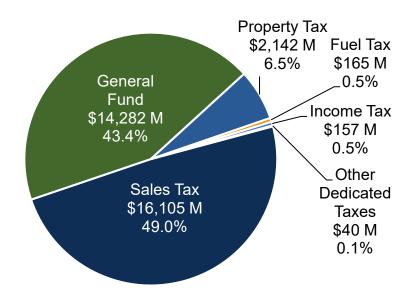
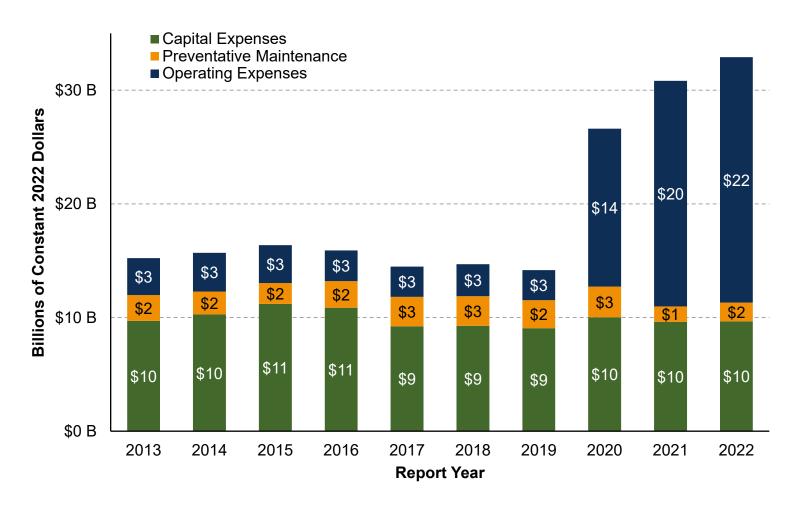


Exhibit 12.5 shows how Federal funding for transit has been used over time. In 2022, \$23.2 billion in Federal funds were applied to operating expenses (including preventative maintenance) and \$9.7 billion were applied to capital expenses. FTA defines all maintenance expenses as *preventive maintenance* expenses. Federal law allows FTA grantees to reimburse preventive maintenance expenses at the higher Federal share available for capital assistance grants. Maintenance expenses were 7.1 percent of the total operating expenses in 2022.

Federal funds used for capital expenditures remained relatively consistent from 2013 to 2022. Comparatively, Federal funds used for operating expenditures (not including preventative maintenance) increased by 564 percent with an average annual growth rate of 20.8 percent (constant dollars).

Exhibit 12.5 – 10 Year Trends in Constant Dollar Uses of Federal Funds: Capital, Operating, and Preventative Maintenance



### Public Health Emergency Funding and Transit

Beginning in RY 2020, transit agencies received funding from three Federal programs responding to the COVID-19 pandemic: the Coronavirus Aid, Relief and Economic Security (CARES) Act, the Coronavirus Response and Relief Supplemental Appropriations Act (CRRSA), and the American Rescue Plan (ARP) Act. In RY 2022, transit agencies spent over 19.9 billion dollars from these programs, mostly on operating expenses. This represents a 45 percent increase in the amount of Federal funding expended from the three programs collectively compared to NTD RY 2021.

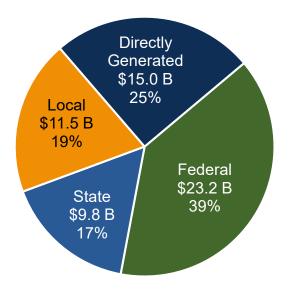
Exhibit 12.6 – Report Year 2022 National Total Use of COVID Supplemental Funding

| Expenditure Type       | CARES     | CRRSA     | ARP        | Other<br>Federal<br>Funds | COVID Supplemental<br>Funds % of Total |
|------------------------|-----------|-----------|------------|---------------------------|--|
| Expended on Operations | \$2,146 M | \$2,525 M | \$14,720 M | \$3,810 M                 | 83.6%                                  |
| Expended on Capital    | \$186 M   | \$12 M    | \$365 M    | \$8,769 M                 | 6.8%                                   |

## Operating Expense Funding Sources

The Federal government provided nearly 40 percent of all operating expenses in 2022, an unusually high share as transit agencies continued to spend down supplemental Federal assistance made available due to the COVID-19 pandemic. Directly generated revenues, including passenger fares, funded 25 percent of public transit operating expenses in the U.S. in 2022. Local and State sources together funded the remaining one-third of total operating expenses.

Exhibit 12.7 – 2022 Sources of Funds Applied to Operations as a Percent of the National Total \$57.3 Billion



### Sources of Funding by Market and UZA

Exhibits 12.8 and 12.9 present the trends in constant dollars over 10 years. These Federal funds were used for operating expenses, capital expenses, and preventative maintenance in each market. Federal funding expended on operations increased substantially in all markets, starting in 2020 with the onset of the COVID-19 national public health emergency. The Big 8 + New York expended over 13 times more Federal funds on operating expenses in 2022 than in 2013. The Top Transit Cities and Everywhere Else markets followed in a similar fashion with a \$2.5 billion increase and a \$3.7 billion increase respectively from 2013 to 2022.

Similar to Exhibit 12.4, Preventative Maintenance (5307 Capital Assistance Spent on Operations) is separated from the Funds Expended on Operations. Preventative Maintenance expenses has remained consistent over the past 10 years for

all markets and did not increase proportionally with the spike in regular operating expenses that began in 2020. Federal funds expended on capital have increased for Top Transit Cities markets but not in the same capacity as funds expended on operations. Big 8 UZAs spent 31 percent more Federal funds on capital expenses and Other Top Transit Cities spent 45 percent more on capital in 2022 compared to 2013. Meanwhile, in all other UZAs, the increase in operating expenses was less pronounced beginning in 2020.

Exhibit 12.8 – 10 Year Trends in National Total Constant Dollar Uses of Federal Funds: Capital, Operating, and Preventative Maintenance for Top Transit and Mid-Sized Cities

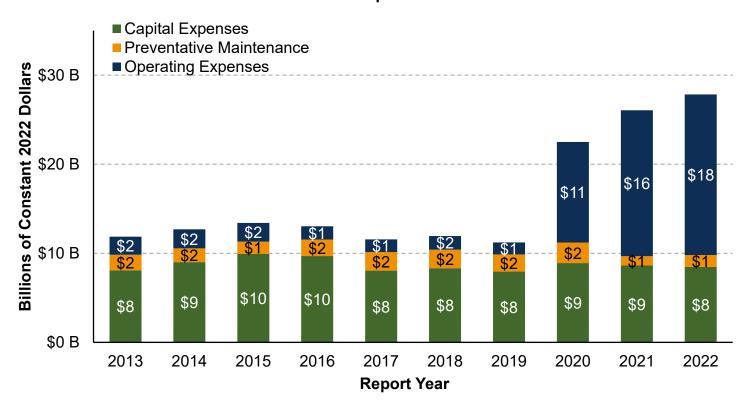
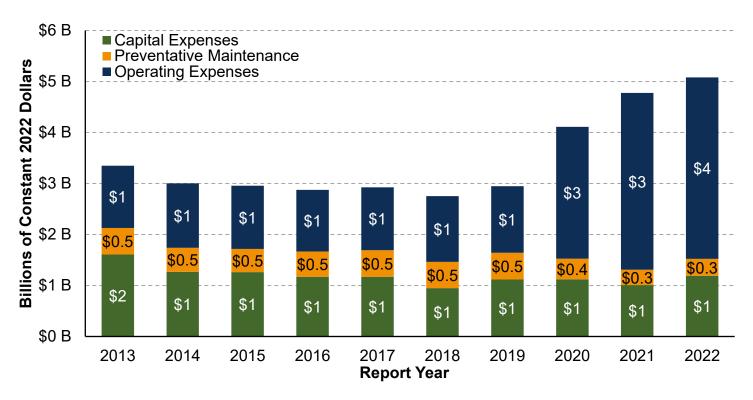


Exhibit 12.9 – 10 Year Trends in National Total Constant Dollar Uses of Federal Funds: Capital, Operating, and Preventative Maintenance for All Other UZAs



In the NTD, transit providers indicate the primary UZA of service operations as their "primary UZA" along with any secondary UZAs they serve. For analysis purposes, the UZAs are grouped into the following categories:

- Small UZAs: population of 50,000 to 200,000.
- Medium UZAs: population of 200,000 to 1 million.
- Large UZAs: population over 1 million.

Exhibit 12.10 demonstrates the State and local funding per capita for small, medium, and large UZA sizes. For urban transit agencies in small UZAs, \$4,787 in funding per capita came from State government and \$4,114 came from local government in 2022. Medium UZAs received \$3,250 in local funding per capita and \$3,001 in State funding per capita. Small UZAs received \$1,755 in local funding per capita and \$1,657 in State funding per capita.

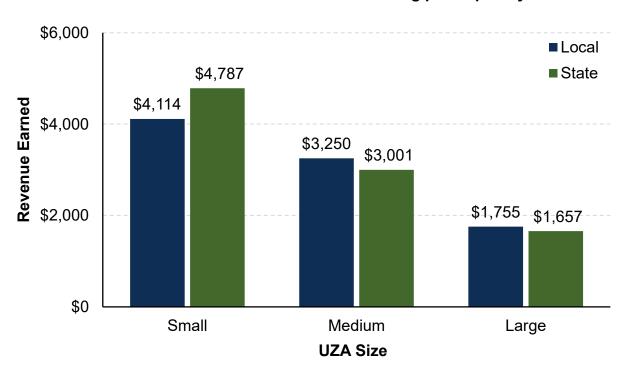
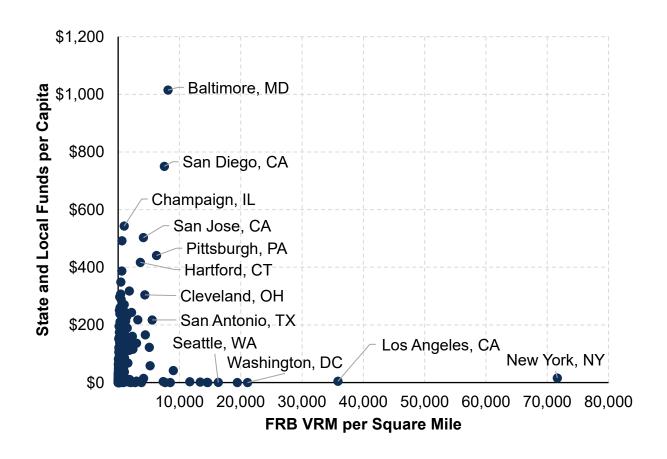


Exhibit 12.10 - National Total State & Local Funding per Capita by UZA Size

The scatter plot identified below identifies the relationship between expending State and local funding on provision of transit per capita and VRM per square mile. UZAs below the line are attributed greater than average VRM per the amounts of local and State funding supplied, while the reverse is true for those above the line. As the reader can see, this average, normalized measure of service supplied per funds expended is established by smaller UZAs, many of which are not pictured.

Exhibit 12.11 – National Total State & Local Funding per Capita vs. FRB VRM per Square Mile (by UZA)



# Chapter 13. Capital Funding

## Capital Funding Sources

Transit agencies expend resources not only on operations, but on constructing, acquiring, and improving the systems and equipment used to operate transit service. These improvements are called "Capital Expenses" in the NTD.

The funding support for Capital Expenses differs from operational expenditures. In 2022, about 42 percent of all capital funds came from Federal sources. Local and State governments provided 58 percent of capital funding.

Federal sources are split into two categories in the exhibit below. Federal supplemental sources include CARES, CRRSA, and the ARP funds. Federal non-supplemental includes all other Federal sources.

Exhibit 13.1 shows the increase in capital expenses over the past 10 years, with a total of \$23.3 billion expended in 2022.

Local State Federal Non-Supplemental Federal Supplemental → Constant Dollar Total \$25 B \$0.64 **Billions of Constant 2022 Dollars** \$0.37 \$20 B \$0.07 \$0.13 \$0.14 \$0.21 \$9 \$0.25 \$0.01 \$0.35 \$9 \$0.52 \$15 B \$8 \$9 \$7 \$9 \$9 \$8 \$8 \$7 \$10 B \$7 \$6 \$6 \$4 \$3 \$5 \$3 \$3 \$3 \$3 \$5 B \$6 \$6 \$6 \$5 \$5 \$5 \$5 \$5 \$4 \$4 \$0 B 2014 2015 2016 2018 2020 2021 2013 2017 2019 2022 **Report Year** 

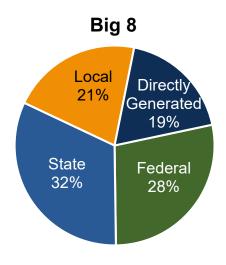
Exhibit 13.1 - 10-Year National Total Constant Dollar Sources of Capital Funds

#### 2022 Single Summary of Transit Report

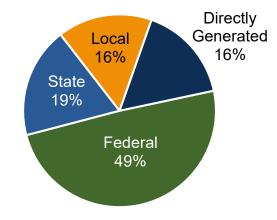
Capital funds are funds from Federal, State, and local governments, as well as directly generated sources that transit agencies apply to purchases such as equipment or other assets. Directly generated sources include any funds generated or donated directly to the transit agency. This includes passenger fares, advertising revenues, donations, and grants from private entities.

For urban transit agencies operating in the Big 8 Markets, which includes New York City, State sources of funds accounted for 31.8 percent of the total capital expenditures. Closely following, Federal sources of funds accounted for 29.1 percent at 5.35 billion dollars. Agencies in the Top Transit Cities market reported that 34.9 percent of their capital funding sources were Federal, and 28.3 percent were local. The Everywhere Else market reported 57.1 percent of the total capital expenditures were federally funded, with the other sources of funds being more evenly distributed with 16.6 percent State, 14.7 percent local, and 11.5 percent directly generated funds.

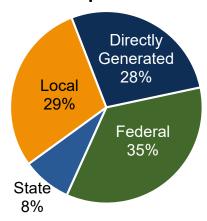
Exhibit 13.2 - 2022 National Total Capital Funding Sources by Market



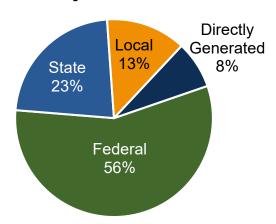
#### **Mid-Sized Transit Cities**



### **Other Top Transit Cities**



### **Everywhere Else**



### Types of Capital Expenses

Transit agencies group their capital expenses into the classes listed below:

- Passenger stations
- Administrative buildings
- Maintenance buildings
- Revenue vehicles
- Service (non-revenue) vehicles
- Fare-revenue collection equipment
- Communication and information systems
- Other

Reduced Reporters are agencies who receive or benefit from Chapter 5307 funding, operate 30 vehicles or less across all modes and types of service, and do not operate along Fixed Guideway and/or High-Intensity Bus. These reporters are not required to classify their capital expenses by category; therefore, their capital expenditures are recorded separately in the Non-Rail Exhibit for Exhibit 13.3. Rail systems do not qualify as *Reduced Reporters*, so there is no comparable row on the rail table.

Exhibit 13.3 – 2022 National Total Capital Expenses by Type (Rail and Non-Rail)

| Rail Capital Expenditures in Millions |      |         |         |     |         |      |       |      |                    |     |
|---------------------------------------|------|---------|---------|-----|---------|------|-------|------|--------------------|-----|
| Capital Expense Type                  | AR   | CR      | HR      | IP  | LR      | MG   | CC/SR | YR   | % of Rail<br>Total |     |
| Guideway                              | \$31 | \$2,831 | \$3,028 | \$7 | \$4,389 | \$10 | \$139 | \$17 | \$10,451           | 50% |
| Passenger Stations                    | \$2  | \$947   | \$1,906 | \$0 | \$936   | \$36 | \$9   | \$6  | \$3,843            | 18% |
| Administrative Buildings              | \$0  | \$11    | \$420   | \$0 | \$21    | \$0  | \$0   | \$0  | \$453              | 2%  |

| Rail Capital Expenditures in Millions |      |         |         |      |         |      |       |      |          |                    |
|---------------------------------------|------|---------|---------|------|---------|------|-------|------|----------|--------------------|
| Capital Expense Type                  | AR   | CR      | HR      | IP   | LR      | MG   | CC/SR | YR   | Total    | % of Rail<br>Total |
| Maintenance Buildings                 | \$1  | \$263   | \$523   | \$0  | \$99    | \$1  | \$22  | \$1  | \$910    | 4%                 |
| Revenue Vehicles                      | \$3  | \$740   | \$827   | \$0  | \$506   | \$1  | \$73  | \$4  | \$2,156  | 10%                |
| Service Vehicles                      | \$4  | \$112   | \$69    | \$0  | \$7     | \$0  | \$0   | \$0  | \$192    | 1%                 |
| Fare Collection Equipment             | \$0  | \$21    | \$210   | \$0  | \$29    | \$0  | \$1   | \$0  | \$261    | 1%                 |
| Communication/Information Systems     | \$7  | \$244   | \$965   | \$0  | \$497   | \$0  | \$19  | \$3  | \$1,735  | 8%                 |
| Other Capital Expenses                | \$0  | \$17    | \$754   | \$0  | \$1     | \$0  | \$1   | \$0  | \$772    | 4%                 |
| Total                                 | \$50 | \$5,184 | \$8,703 | \$7  | \$6,485 | \$49 | \$264 | \$31 | \$20,773 | -                  |
| Percentage of Grand Total             | 0.2% | 19.2%   | 32.2%   | 0.0% | 24.0%   | 0.2% | 1.0%  | 0.1% | 76.8%    | -                  |

| Non-Rail Capital Expenditures in Millions |       |       |       |         |      |       |      |      |      |         |                               |
|---|-------|-------|-------|---------|------|-------|------|------|------|---------|-------------------------------|
| Capital Expense Type                      | СВ    | DR    | FB    | МВ      | РВ   | RB    | ТВ   | TR   | VP   | Total   | % of<br>Non-<br>Rail<br>Total |
| Guideway                                  | \$3   | \$0   | \$0   | \$259   | \$0  | \$85  | \$13 | \$0  | \$0  | \$360   | 6%                            |
| Passenger Stations                        | \$13  | \$0   | \$148 | \$374   | \$0  | \$50  | \$0  | \$0  | \$0  | \$584   | 9%                            |
| Administrative Buildings                  | \$8   | \$15  | \$8   | \$177   | \$0  | \$0   | \$0  | \$0  | \$0  | \$208   | 3%                            |
| Maintenance Buildings                     | \$0   | \$39  | \$7   | \$845   | \$0  | \$58  | \$2  | \$0  | \$0  | \$951   | 15%                           |
| Revenue Vehicles                          | \$59  | \$152 | \$139 | \$2,397 | \$0  | \$42  | \$9  | \$0  | \$5  | \$2,802 | 45%                           |
| Service Vehicles                          | \$0   | \$2   | \$0   | \$41    | \$0  | \$0   | \$0  | \$0  | \$0  | \$44    | 1%                            |
| Fare Collection Equipment                 | \$0   | \$0   | \$1   | \$80    | \$0  | \$0   | \$0  | \$0  | \$0  | \$81    | 1%                            |
| Communication/Information Systems         | \$2   | \$14  | \$6   | \$344   | \$0  | \$8   | \$0  | \$0  | \$0  | \$374   | 6%                            |
| Other Capital Expenses                    | \$1   | \$2   | \$2   | \$193   | \$0  | \$1   | \$0  | \$0  | \$0  | \$199   | 3%                            |
| Reduced Reporter - Capital Expenses       | \$24  | \$205 | \$15  | \$405   | \$0  | \$8   | \$0  | \$0  | \$1  | \$658   | 11%                           |
| Total                                     | \$110 | \$430 | \$325 | \$5,115 | \$0  | \$251 | \$23 | \$0  | \$6  | \$6,261 | -                             |
| Percentage of Grand Total                 | 0.4%  | 1.6%  | 1.2%  | 18.9%   | 0.0% | 0.9%  | 0.1% | 0.0% | 0.0% | 23.2%   | -                             |

Using 2022 constant dollars, the total capital funds applied to transit operations increased 20.8 percent over the past ten years.

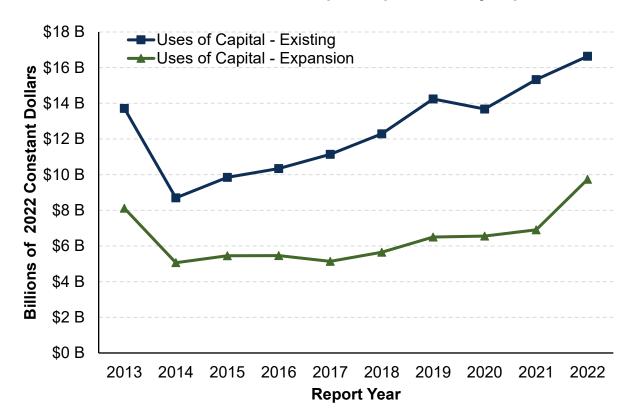


Exhibit 13.4 – 10 Year Constant Dollar Capital Expenditures by Capital Function

As Exhibit 13.5 illustrates, Core Rail claimed about 47 percent and Fixed-Route Bus claimed about 27 percent of capital use. Distance Rail accounted for 23 percent and Other Non-Rail accounted for the remaining 3 percent. Please note that the data in Exhibits 13.5 and 13.6 excludes Reduced Reporters as they do not report capital expenses by asset class to the NTD.

Exhibit 13.5 – 2022 Uses of Capital by Consolidated Mode for Preservation as Percent of National Total (Full Reporters Only)

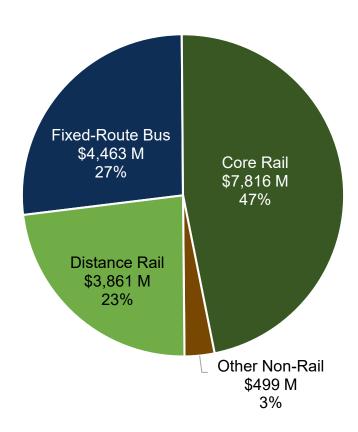
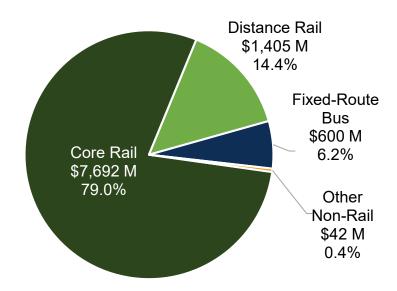


Exhibit 13.6 displays capital used for expansion purposes. Core Rail accounted for 79 percent of the total capital expansion, followed by Distance Rail (14 percent) and Fixed-Route Bus (6 percent). Other Non-Rail accounted for the remaining 0.4 percent.

Exhibit 13.6 – 2022 Uses of Capital by Consolidated Mode for Expansion as Percent of National Total (Full Reporters Only)



# Chapter 14. Operating Expenses

### Trends in Funding Used to Cover Operating Expenses

Between 2013 and 2019, local and Federal funding applied to cover operating expenses each increased at an average annual rate of 1.7 percent, while State funding decreased at an average annual rate of -2.0 percent after adjusting for inflation (constant dollars). Beginning in 2020, Federal funding represented a higher fraction of the total funding, reaching a peak of 27 percent in 2020 and partially offsetting decreases in the funds directly generated by transit systems. Federal fundings sources to cover the costs of these operating expenses were discussed in Chapter 12. These trends are suggested in Exhibit 14.1.

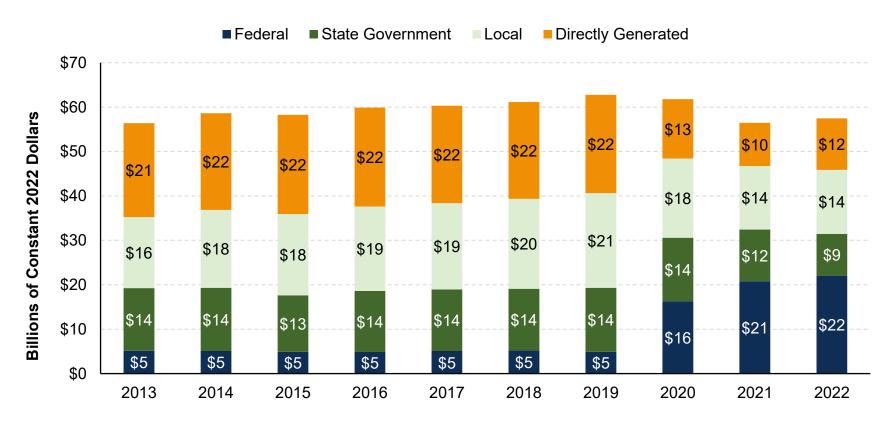
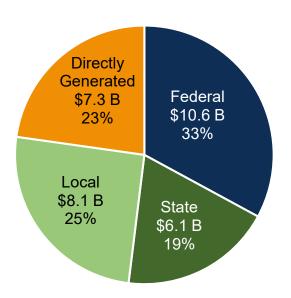


Exhibit 14.1 – 10 Year Trends in Constant Dollar Sources of Operating Funds

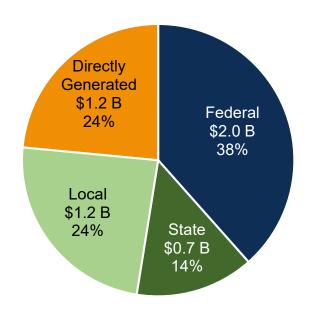
In the next exhibit, we find the same trend as introduced in Chapter 10, presented per transit market using the *Primary UZA* reported by each transit agency to make an association with the respective market. Since funding sources are not allocated by market, this provides an approximate operating expense value associated with each market. In this exhibit, rural areas are not included because Rural Reporters do not provide a Primary UZA.

Exhibit 14.2 – 2022 Operating Funding Sources by Category for Each Urban Transit Market

Sources of Operating Funds - Operators with Primary UZAs in **Top Transit Markets and Mid-Sized Cities** 



Sources of Operating Funds - Operators with Primary UZAs in **All Other UZAs** 



### Operating Expenditures by Function and Object Class

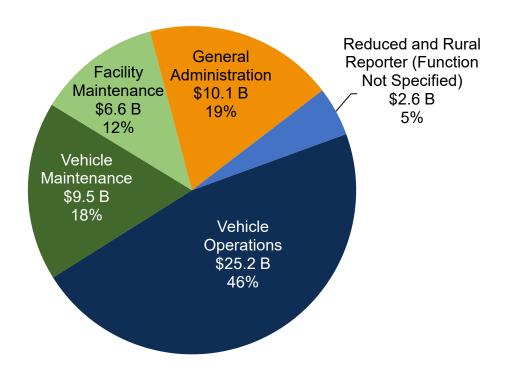
Transit agencies must report finances according to the Uniform System of Accounts (USOA). The USOA contains the basic accounting structure required by Federal transit laws. Agencies must report operating expense data by mode, function, and object class. Functions refer to the activity performed, while object classes refer to the type of goods or services purchased. Agencies reporting as Reduced Reporters are not required to classify their operating expenses by function and object.

Full Reporting agencies group their operating expenses into the four functions listed below:

- Vehicle Operations,
- Vehicle Maintenance,
- Facility Maintenance, and
- General Administration.

Funds used for Vehicle Operations account for 46 percent of all operating expenses.

Exhibit 14.3 - National Operating Expenses by Function

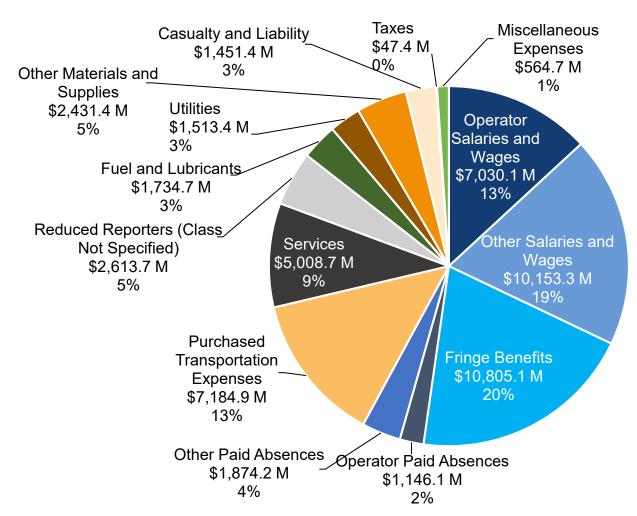


Transit agencies are required to report operating expenses data into specific object classes. The NTD uses the following object classes for Full Reporters:

- Labor
  - Operators' Salaries and Wages
  - Operators' Paid Absences
  - Other Salaries and Wages
  - Other Paid Absences
  - Fringe Benefits
- Utilities
- Casualty and Liability Costs
- Taxes
- Services
- Materials and Supplies
  - Fuel and Lubricants
  - Tires and Tubes
  - Other Materials and Supplies
- Miscellaneous Expenses
- Purchased Transportation Expenses

The USOA contains additional descriptions of each object class. In 2022, labor accounted for 56 percent of all operating expenses, purchased transportation another 13 percent, materials and supplies 8 percent, and all other object classes 24 percent.





# Chapter 15. Service Efficiency (Cost per Service Supplied)

#### Operating Expenditures per Vehicle Revenue Mile

Cost efficiency is the relationship between cost inputs such as labor, fuel, and capital to service outputs such as vehicle miles and hours. Operating expenditures per VRM are one measure of financial or cost efficiency.

There was a 15.7 percent increase in the Operating Expense per VRM for all modes from 2013 (\$12.68) to 2022 (\$14.67) after normalizing to show in constant (2022) dollars. As shown below, Commuter Bus increased by 67 percent from \$8.36 to \$13.95 followed by Streetcar Rail and Trolleybus at 61 and 33 percent respectively. The other modes also saw increases in the cost per VRM except Demand Response, Vanpool, and Heavy Rail.

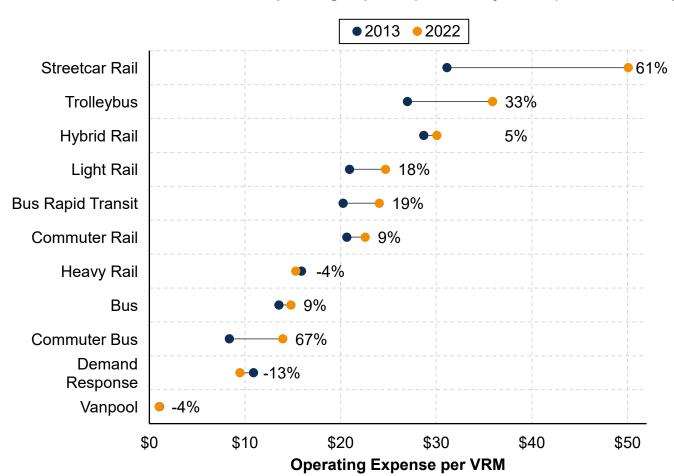
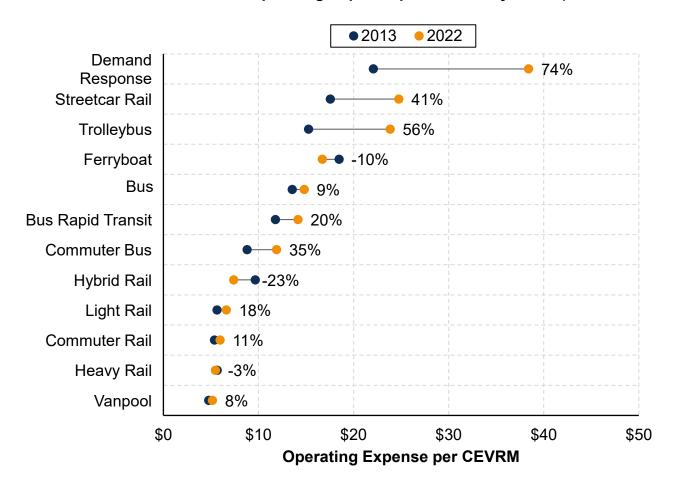


Exhibit 15.1 – 10 Year Constant Dollar Operating Expense per VRM by Mode (National Average)

Exhibit 15.2 demonstrates the change in Operating Expense per CEVRM from 2013 to 2022 by mode (adjusted for inflation). CEVRM measure the distance traveled by a transit vehicle in revenue service, adjusted by the passenger-carrying capacity of each transit vehicle type, with the passenger-carrying capacity of a motorbus representing the baseline.

The cost for Demand Response service increased substantially during this period. In contrast, the cost per CEVRM decreased for Hybrid Rail by 23 percent and Heavy Rail by 3 percent. Modes like Streetcar Rail and Ferryboat also changed dramatically in the last decade, but this is likely due to the larger current sample size and diversity in the format of operations among agencies reporting in 2022 compared to 2013. The national average cost per CEVRM increased \$0.84 (5.5 percent) in the past decade after adjusting for inflation.

Exhibit 15.2 – 10 Year Constant Dollars Operating Expense per CEVRM by Mode (National Average)



### Operating Expenditures per CEVRM and VRH

Exhibit 15.3 shows that the Other Big 8 market is allocated the lowest Operating Expenses per Capacity-Equivalent VRM (\$7.97) in 2022 and the Mid-Sized Transit Cities market is allocated the highest at \$13.15 per CEVRM. For Operating Expenses per VRH, the All Other UZAs market is allocated the lowest (\$126.92) and New York market is the highest (\$297.96). Notably, the Operating Expense per VRH is not adjusted by the passenger-carrying capacity of each transit vehicle type and provides more of a raw measure of cost for that reason. Comparing the two results shows that it is useful to normalize cost by service provided when at capacity for a standard Bus system; rail modes in the larger markets are generally shown to provide more efficient service despite the much higher cost per hour.

Exhibit 15.3 – 2022 Operating Expense per CEVRM and per VRH by Market and by Consolidated Mode (National Average)

| Markets by<br>Consolidated Mode | Operating<br>Expenses per<br>CEVRM | Operating<br>Expenses per<br>VRH |
|---------------------------------|------------------------------------|----------------------------------|
| New York                        | \$8.45                             | \$297.96                         |
| Core Rail                       | \$4.70                             | \$272.36                         |
| Distance Rail                   | \$6.26                             | \$710.07                         |
| Fixed-Route Bus                 | \$18.08                            | \$231.02                         |
| Other Non-Rail                  | \$4.29                             | \$233.47                         |
| Other Big 8                     | \$7.97                             | \$237.79                         |
| Core Rail                       | \$6.40                             | \$326.03                         |
| Distance Rail                   | \$5.93                             | \$618.86                         |
| Fixed-Route Bus                 | \$15.35                            | \$198.53                         |

| Markets by<br>Consolidated Mode | Operating<br>Expenses per<br>CEVRM | Operating<br>Expenses per<br>VRH |
|---------------------------------|------------------------------------|----------------------------------|
| Other Non-Rail                  | \$8.36                             | \$143.18                         |
| Other Top Transit Cities        | \$12.40                            | \$168.42                         |
| Core Rail                       | \$5.92                             | \$322.81                         |
| Distance Rail                   | \$4.86                             | \$623.28                         |
| Fixed-Route Bus                 | \$10.85                            | \$157.86                         |
| Other Non-Rail                  | \$23.42                            | \$91.98                          |
| Mid-Size Transit Cities         | \$13.15                            | \$139.31                         |
| Core Rail                       | \$10.31                            | \$336.65                         |
| Distance Rail                   | \$17.44                            | \$1,167.40                       |
| Fixed-Route Bus                 | \$11.00                            | \$141.00                         |
| Other Non-Rail                  | \$17.21                            | \$104.43                         |
| All Other UZAs                  | \$12.63                            | \$126.92                         |
| Core Rail                       | \$33.18                            | \$376.87                         |
| Distance Rail                   | \$3.94                             | \$782.07                         |
| Fixed-Route Bus                 | \$10.10                            | \$130.80                         |
| Other Non-Rail                  | \$18.49                            | \$106.62                         |

#### **Labor Costs**

As shown in Exhibit 15.4, the total labor costs per VRM in constant 2022 dollars decreased by 9.4 percent from 2013 to 2022 overall. On average, the total labor costs per mile decreased at an inflation-adjusted rate of 1 percent per year in that period. Fringe benefit costs varied each year but slightly decreased overall since 2013 for all markets while salary costs varied each year but increased overall since 2013 for all markets except New York.

Exhibit 15.4 – 10 Year Constant Dollars for Salaries and Fringe Benefits by Market (National Average, Full Reporters Only)

| Market                  | 2013      | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    | 2021    | 2022    |
|-------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| New York                | New York  |         |         |         |         |         |         |         |         |         |
| Salaries                | \$6.5 B   | \$7.0 B | \$7.1 B | \$7.2 B | \$6.6 B | \$6.7 B | \$6.6 B | \$6.3 B | \$6.0 B | \$5.9 B |
| Fringe Benefits         | \$5.9 B   | \$6.3 B | \$6.4 B | \$6.9 B | \$6.0 B | \$4.9 B | \$5.2 B | \$5.0 B | \$4.9 B | \$4.8 B |
| Other Big 8             |           |         |         |         |         |         |         |         |         |         |
| Salaries                | \$5.4 B   | \$5.6 B | \$5.9 B | \$6.1 B | \$6.1 B | \$6.0 B | \$6.2 B | \$6.1 B | \$5.5 B | \$5.5 B |
| Fringe Benefits         | \$4.1 B   | \$4.2 B | \$4.3 B | \$4.6 B | \$4.7 B | \$4.0 B | \$3.8 B | \$3.7 B | \$3.5 B | \$3.2 B |
| Other Top Transi        | it Cities |         |         |         |         |         |         |         |         |         |
| Salaries                | \$2.7 B   | \$2.8 B | \$2.9 B | \$3.0 B | \$3.1 B | \$3.1 B | \$3.1 B | \$3.1 B | \$2.8 B | \$2.8 B |
| Fringe Benefits         | \$1.8 B   | \$1.9 B | \$1.9 B | \$2.0 B | \$2.0 B | \$1.7 B | \$1.8 B | \$1.7 B | \$1.6 B | \$1.5 B |
| Mid-Size Transit Cities |           |         |         |         |         |         |         |         |         |         |
| Salaries                | \$1.3 B   | \$1.3 B | \$1.3 B | \$1.4 B | \$1.4 B | \$1.4 B | \$1.3 B | \$1.3 B | \$1.3 B | \$1.3 B |
| Fringe Benefits         | \$0.8 B   | \$0.8 B | \$0.8 B | \$0.9 B | \$0.9 B | \$0.7 B | \$0.7 B | \$0.7 B | \$0.6 B | \$0.7 B |

| Market                   | 2013           | 2014     | 2015     | 2016     | 2017     | 2018     | 2019     | 2020     | 2021     | 2022     |
|--------------------------|----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| All Other UZAs           | All Other UZAs |          |          |          |          |          |          |          |          |          |
| Salaries                 | \$1.4 B        | \$1.4 B  | \$1.5 B  | \$1.6 B  | \$1.5 B  | \$1.5 B  |
| Fringe Benefits          | \$0.8 B        | \$0.9 B  | \$0.9 B  | \$0.9 B  | \$1.0 B  | \$0.8 B  | \$0.8 B  | \$0.8 B  | \$0.8 B  | \$0.7 B  |
| Total Salaries           | \$17.3 B       | \$18.2 B | \$18.7 B | \$19.3 B | \$18.8 B | \$18.7 B | \$18.9 B | \$18.3 B | \$17.1 B | \$17.1 B |
| Total Fringe<br>Benefits | \$13.5 B       | \$14.1 B | \$14.4 B | \$15.3 B | \$14.6 B | \$12.1 B | \$12.4 B | \$12.0 B | \$11.4 B | \$10.8 B |

## Chapter 16. Cost Effectiveness (Cost per Ride)

Cost effectiveness connects the cost inputs to the service consumed. This is commonly shown by metrics like the operating cost per unlinked passenger trip or passenger mile traveled. The table below outlines the service data like PMT, VRM, and the Average Occupancy (PMT/VRM) by mode. It also shows the cost inputs like Total Operating Expenses and Total Fares by mode. The cost effectiveness of each mode is shown by the Operating Expense per PMT and the Fares per PMT metrics. Commuter modes with higher passenger miles generally have lower cost and fares per passenger mile.

Exhibit 16.1 – Table of PMT, VRM, Operating Expense, Fares, Average Occupancy, Operating Expense per PMT, and Fares per PMT by Mode

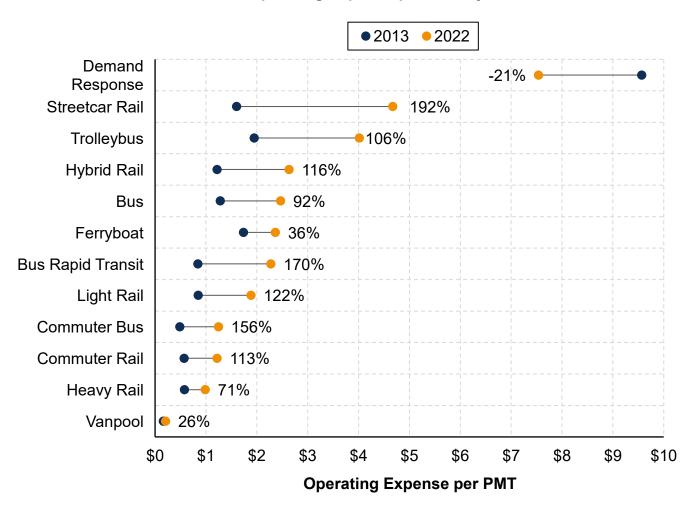
| Mode              | PMT<br>(Millions) | VRM<br>(Millions) | Operating Expenses (Millions) | Fares<br>(Millions) | Average<br>Occupancy<br>(PMT/VRM) | Operating<br>Expense<br>per PMT | Fares<br>per<br>PMT |
|-------------------|-------------------|-------------------|-------------------------------|---------------------|-----------------------------------|---------------------------------|---------------------|
| Aerial Tramway    | 0.1               | 0.0               | \$3.2                         | \$0.1               | 21.5                              | \$30.47                         | \$0.78              |
| Alaska Railroad   | 27.6              | 1.1               | \$56.6                        | \$33.7              | 24.4                              | \$2.05                          | \$1.22              |
| Bus               | 9,996.0           | 1,664.4           | \$24,122.7                    | \$2,737.7           | 6.0                               | \$2.42                          | \$0.27              |
| Bus Rapid Transit | 115.5             | 11.5              | \$263.3                       | \$33.9              | 10.1                              | \$2.28                          | \$0.29              |
| Cable Car         | 2.8               | 0.2               | \$74.2                        | \$10.8              | 16.6                              | \$26.47                         | \$3.85              |
| Commuter Bus      | 750.3             | 75.1              | \$884.1                       | \$207.0             | 10.0                              | \$1.34                          | \$0.28              |
| Commuter Rail     | 5,924.3           | 321.6             | \$7,235.1                     | \$1,618.3           | 18.4                              | \$1.23                          | \$0.27              |
| Demand Response   | 637.3             | 610.7             | \$4,333.0                     | \$235.0             | 1.0                               | \$6.85                          | \$0.37              |
| Ferryboat         | 377.5             | 4.9               | \$890.7                       | \$229.5             | 78.5                              | \$2.36                          | \$0.61              |
| Heavy Rail        | 9,801.9           | 633.3             | \$9,695.8                     | \$3,129.7           | 15.5                              | \$0.99                          | \$0.32              |

| Mode                        | PMT<br>(Millions) | VRM<br>(Millions) | Operating<br>Expenses<br>(Millions) | Fares<br>(Millions) | Average<br>Occupancy<br>(PMT/VRM) | Operating<br>Expense<br>per PMT | Fares<br>per<br>PMT |
|-----------------------------|-------------------|-------------------|-------------------------------------|---------------------|-----------------------------------|---------------------------------|---------------------|
| Hybrid Rail                 | 52.5              | 4.6               | \$138.3                             | \$6.7               | 11.4                              | \$2.64                          | \$0.13              |
| Inclined Plane              | 0.4               | 0.0               | \$4.2                               | \$3.4               | 12.7                              | \$9.35                          | \$7.64              |
| Light Rail                  | 1,368.1           | 107.8             | \$2,582.4                           | \$268.3             | 12.7                              | \$1.95                          | \$0.20              |
| Monorail/Automated Guideway | 10.9              | 2.0               | \$68.9                              | \$6.5               | 5.4                               | \$6.33                          | \$0.60              |
| Público                     | 19.8              | 5.8               | \$12.7                              | \$11.8              | 3.4                               | \$0.64                          | \$0.59              |
| Streetcar Rail              | 52.9              | 5.2               | \$247.3                             | \$19.2              | 10.3                              | \$4.89                          | \$0.36              |
| Trolleybus                  | 77.9              | 8.7               | \$313.1                             | \$30.0              | 8.9                               | \$4.02                          | \$0.39              |
| Vanpool                     | 731.3             | 150.0             | \$149.0                             | \$101.0             | 4.9                               | \$0.20                          | \$0.14              |
| Total                       | 29,947.1          | 3,606.8           | \$51,074.6                          | \$8,682.8           | 8.3                               | \$1.72                          | \$0.29              |

## Operating Expenditures per Passenger Mile

Exhibit 16.2 demonstrates the change in the operating expense per PMT from 2013 (adjusted for inflation) to 2022 for selected modes. All modes shown in the exhibit had a higher cost per passenger mile in 2022, except Demand Response (\$9.57 in 2013 compared to \$7.54 in 2022). Streetcar Rail had the largest increase in operating cost per passenger mile from 2013 (\$1.60) to 2022 (\$4.68). In contrast, the cost per passenger mile for Vanpool only increased by \$0.05.

Exhibit 16.2 – 10 Year Operating Expense per PMT by Selected Mode



## Farebox Recovery

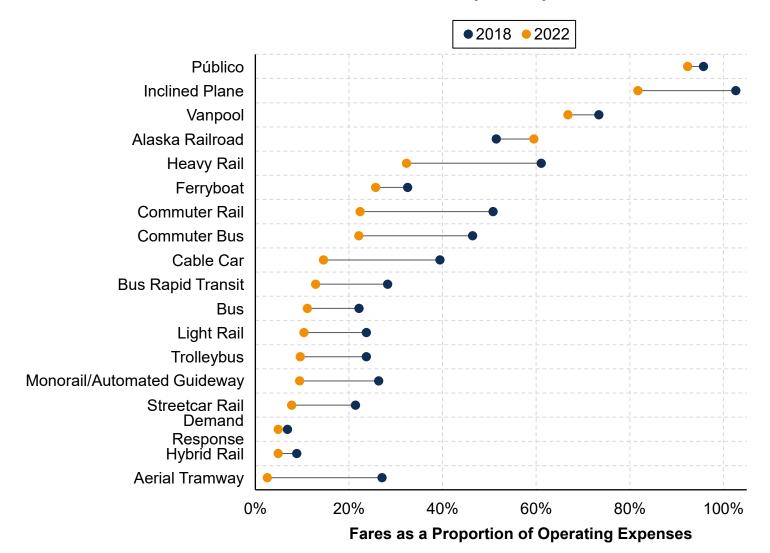
Transit agencies do not set passenger fares based on the cost of each trip. In 2022, for each dollar spent on operating costs per trip across all modes and all transit systems, 16.6 cents are recovered through fares. This is a 50 percent decrease from the 2018 fare recovery ratio of 33.4 cents per dollar spent on operating expenses. However, as the transit industry is recovering from the COVID-19 public health emergency, the farebox recovery ratio has increased by 30 percent from 2021 (12.8 cents per dollar).

The fare box recovery ratio is the percentage of a trip's operating costs recovered through passenger fares. This ratio varies by mode. The low recovery ratios on Demand Response services are due to a lower average passengers per hour compared to other modes. The low ratios are also due to the ADA fare regulations, which prohibit ADA fares from being more than twice the cost of regular transit fares.

Commuter services such as Commuter Rail, Commuter Bus, and Vanpool have relatively high farebox recovery ratios. These services are often scheduled based on passenger demand and limited service or no service is scheduled during off-peak, low-passenger demand periods. Vanpool transit also has a high ratio because the drivers are not paid (usually one of the passengers drive), and because Vanpool service has traditionally been funded by rider fees, with limited or no government subsidies.

In contrast, other fixed-route non-rail modes, light rail, and streetcar modes typically schedule service based on passenger demand during commuting hours and on policy guidelines during off-peak periods (midday, evenings, and weekends). The resulting farebox recovery ratios are, therefore, lower than other modes. Heavy Rail typically serves high-density travel corridors with passenger demand throughout the day, which yields relatively high farebox recovery ratios.

Exhibit 16.3 – 5 Year Farebox Recovery Ratio by Mode



## Total Federal Assistance Applied to Transit and Unlinked Passenger Trips

FTA uses Federal funds to offset operating, capital, and planning costs for agencies. Due to the COVID-19 public health emergency, ridership decreased significantly in RY 2020 and 2021. As ridership decreased, Federal assistance for transit increased to fill the funding deficit.

In 2022, the Other Big 8 market received the highest amount of Federal operating assistance per trip overall, an average of \$1.80 of Federal funding for every passenger carried. As shown in Exhibit 16.4, Other Non-Rail services (Ferryboat, Demand Response, and Vanpool) received the most Federal funding assistance per UPT in the New York, Other Big 8, and Other Top Transit Cities markets. Distance Rail services closely followed in those markets but received the most federal funding per trip in the Mid-Size Transit Cities and Everywhere Else markets.

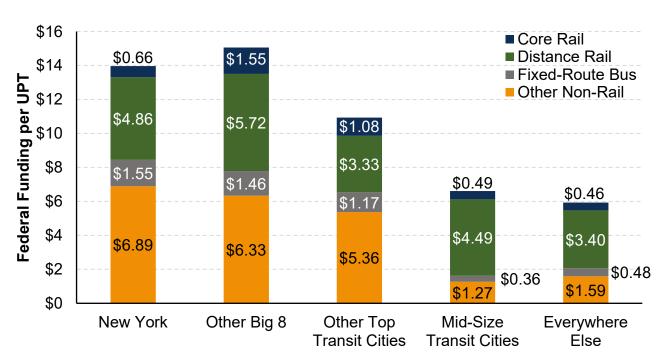


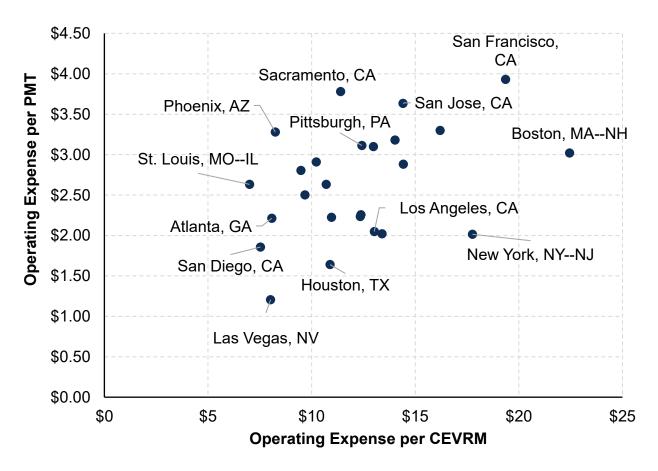
Exhibit 16.4 – Federal Funding per Trip by Market and Consolidated Mode

## Operating Expenditures per CEVRM vs. Operating Expenditures per PMT

The exhibits in this section show the relationship between the Operating Expense per CEVRM and the Operating Expense per PMT for different consolidated modes by UZAs included in the New York, Other Big 8, and Other Top Transit Cities markets.

For the Fixed-Route Bus consolidated mode, San Francisco, CA had the highest operating cost per PMT (\$3.93) and Boston, MA-NH had the highest operating cost per CEVRM (\$22.45) in 2022. Exhibit 16.5 demonstrates a positive correlation between Operating Expense per PMT and Operating Expense per CEVRM for Bus, Bus Rapid Transit, Commuter Bus, and Trolleybus services.

Exhibit 16.5 – Operating Expense per CEVRM vs. Operating Expense per PMT for Fixed-Route Bus in the Top Markets



For Core Rail modes, San Jose, CA and Pittsburgh, PA were the outliers with both the highest Operating Expense per CEVRM and per PMT. Many UZAs within the top markets achieve under \$10.00 for the operating cost per CEVRM and under \$3.00 for the operating cost per passenger mile traveled.

Exhibit 16.6 - Operating Expense per CEVRM vs. Operating Expense per PMT for Core Rail in the Top Markets

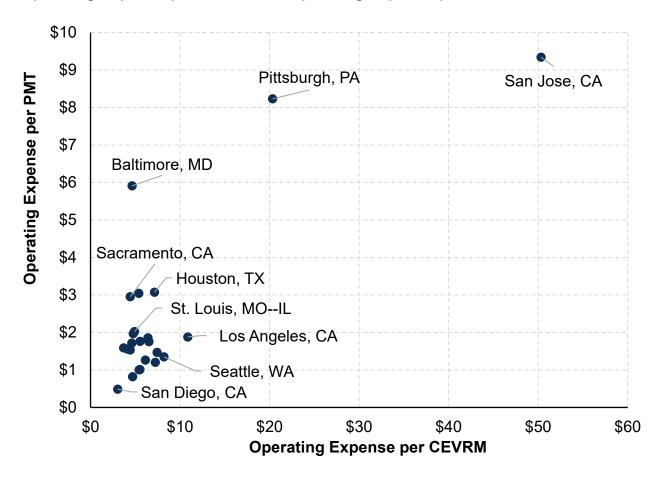
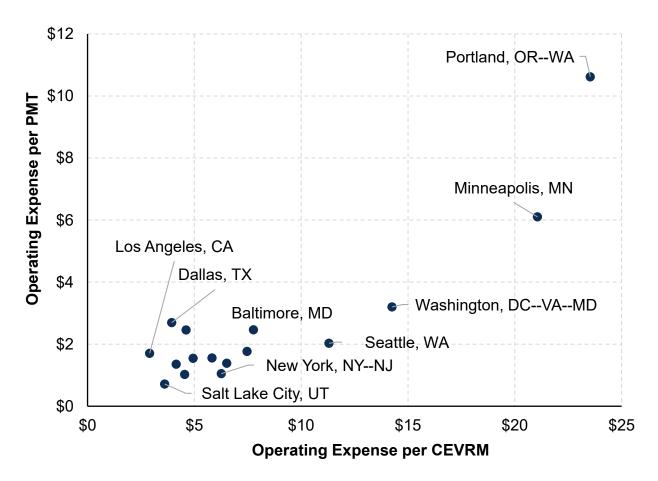


Exhibit 16.7 demonstrates the relationship between Operating Expense per CEVRM and Operating Expense per PMT for Alaska Railroad, Hybrid Rail, and Commuter Rail services. Portland, OR-WA was the UZA with the highest operating cost per CEVRM at \$19.90 and the highest operating cost per PMT at \$10.62 in 2022.

Exhibit 16.7 – Operating Expense per CEVRM vs. Operating Expense per PMT for Distance Rail in the Top Markets



### Cost per UPT for Demand Response Service

The Demand Response mode operates on roadways in response to requests to the transit operator from passengers or their agents. Rides are grouped together, when possible, and the transit operator dispatches a vehicle to provide the rides. Vehicles do not operate over a fixed route or on a fixed schedule unless temporarily satisfying a special transit need.

The breakdown of Demand Response types of service reported in FY 2022 was as follows:

- Demand Response Directly Operated services: 1,441 reports
- Demand Response Purchased Transportation services: 476
- Demand Response Taxi providers: 83
- Transportation Network Companies (TNCs): 12

Exhibit 16.8 highlights that the cost per UPT is lower for Demand Response service provided by TNCs compared to Taxi and Directly Operated service. Purchased Transportation service costs were higher overall in 2022. Shared-ride services by TNCs and taxi providers appear to be the most cost-effective forms of Demand Response service. However, these services operate with lower seating capacity vehicles, such as sedans or minivans. Traditional Demand Response services generally use cutaways or buses with higher seating capacity.

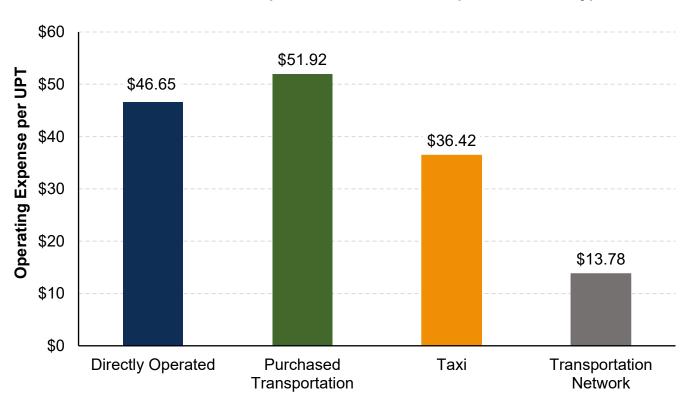
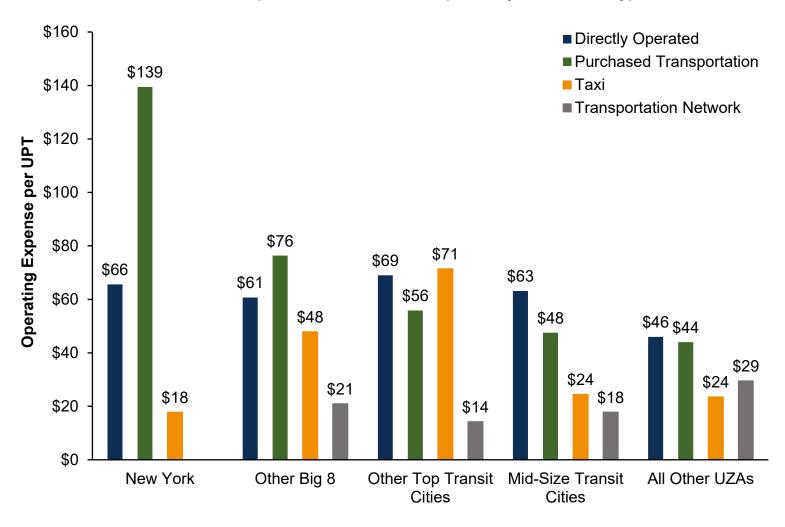


Exhibit 16.8 – 2022 Cost per UPT for Demand Response Service Type

Exhibit 16.9 shows that the Operating Expense per UPT is higher for Purchased Transportation service in New York and the Other Big 8 markets. Directly Operated Demand Response services cost more per trip in Mid-Size Transit Cities and Everywhere Else markets. In contrast, Taxi services had the highest cost per trip in the Other Top Transit Cities market (\$71.48 for Taxi to \$68.98 for Directly Operated). Demand Response services provided by TNCs had the lowest cost per UPT in the Other Big 8, Other Top Transit Cities, and Mid-Size Transit Cities. New York did not report having any TN services in FY 2022.

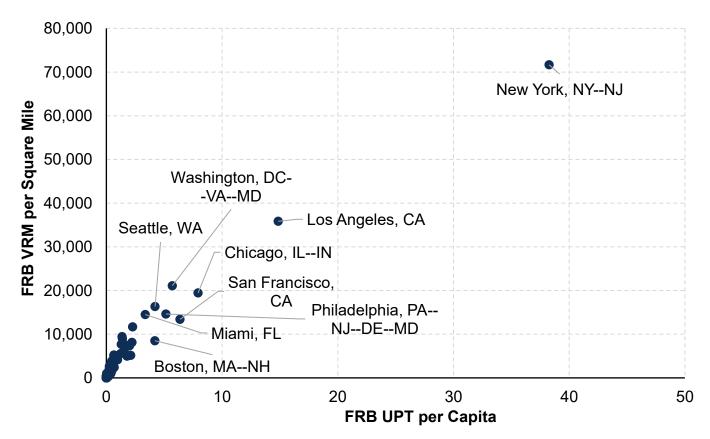
Exhibit 16.9 - 2022 Cost per UPT for Demand Response by Market and Type of Service



## Fixed-Route Bus UPT per Capita vs. VRM per Square Mile

Exhibit 16.10 demonstrates the relationship between UPT per capita and VRM per square mile for FRB modes including Motorbus, Commuter Bus, Bus Rapid Transit, and Trolleybus. UZAs with more dense populations like New York, NY-NJ and Los Angeles, CA have both more VRM per square mile and more UPT per capita. Smaller UZAs will have lower VRM per square mile and UPT per capita as shown in the scatterplot below.

Exhibit 16.10 – Fixed-Route Bus UPT per Capita vs. Fixed-Route Bus VRM per Square Mile by UZA



## Chapter 17. Asset Conditions & Targets

#### Mechanical Failures

The mean distance between failures is calculated by dividing VRM by Mechanical Failures. Exhibit 17.1 demonstrates the change in the distance between failures from 2018 to 2022 for all modes together and for Bus alone. There was a 19 percent decrease in the miles per failure for all modes in 2019 and then a 30 percent increase in 2020. From 2020 to 2022, the miles per failure remained consistent. The trend in miles per failure for Bus from 2018 to 2022 is very similar to the trend for all modes. Miles between failures for all modes combined decreased by less than 1 percent from 2018 to 2022 and the miles between failures for Bus increased by 2 percent since 2018.

Please note only Full Reporters in the Urban Module report Mechanical Failures, so Reduced Reporters and the Rural Module are excluded from the exhibit below.

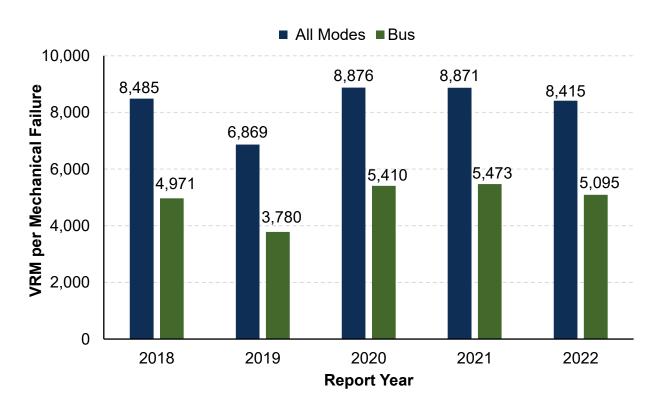


Exhibit 17.1 - Mean Distance Between Failures for Bus and All Modes

### Useful Life and Age for Revenue and Service Vehicles

A revenue vehicle is a vehicle used to carry passengers. Transit agencies report the Useful Life Benchmark (ULB) for the passenger-carrying vehicles to the NTD. Of all active passenger-carrying vehicles reported, 13.2 percent did not have a reported ULB. Only vehicles for which the agency has capital responsibility have a ULB recorded in the NTD. If the agency did not have capital responsibility for the vehicle, this typically means that the vehicle is leased or provided by a purchased transportation contractor.

Exhibit 17.2 shows the number of revenue vehicles remaining within their useful life, meeting their useful life, or exceeding their useful life by selected vehicle types in 2022. The category ULB +2 + consists of all vehicles still within their useful life by more than two years, and ULB +2 is the number of vehicles two years from meeting their ULB. Similarly, ULB +1 is the number of vehicles within one year of meeting their ULB. The category ULB includes all vehicles meeting their useful life benchmark in 2022. ULB -1 is the group of vehicles exceeding their ULB by one year, ULB -2 is the group of vehicles exceeding their useful life by more than two years.

All the vehicle types shown in Exhibit 17.2 have more than half of their vehicles exceeding their useful life by more than two years, except for Automobile, Minivan, Sports Utility Vehicle, and Van.

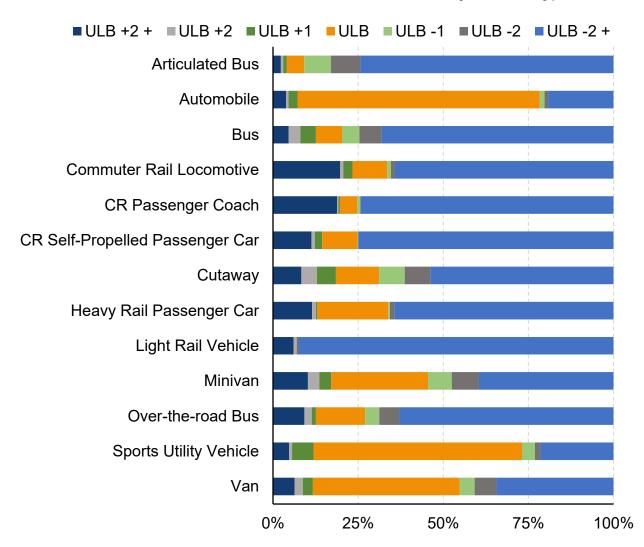


Exhibit 17.2 – Useful Life for Revenue Vehicles by Vehicle Type

Service vehicles are vehicles used to indirectly deliver transit service, maintain revenue vehicles and infrastructure, and perform transit-oriented administrative activities. Agencies only report service vehicles for which they have capital

responsibility. Of all reported service vehicles, 38 percent are between 0–5 years old. The vehicles older than 10 years only make up 29 percent of the total.

There are three categories of service vehicles: Automobiles, Trucks and Other Rubber Tire Vehicles, and Steel Wheel Vehicles. Trucks and Other Rubber Tire Vehicles had the highest count of service vehicles reported in 2022 at 23,927, followed by Automobiles at 5,688 and Steel Wheel Vehicles at 1,476. Over 70 percent of Trucks and Other Rubber Tire Vehicles and Automobiles are between 0 and 10 years of age. In contrast, almost 40 percent of Steel Wheel Vehicles are 26 years or older in age.

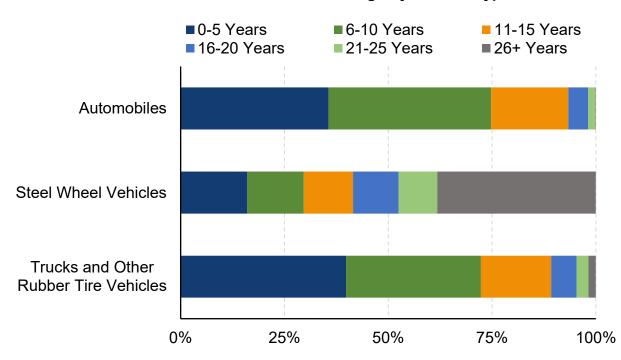


Exhibit 17.3 – Service Vehicle Age by Vehicle Type

#### Condition Assessments for Facilities

Agencies are required to report a condition assessment for all facilities for which they have capital replacement responsibility. The condition assessment uses FTA's Transit Economic Requirements Model scale, which is based on five values for assets:

- 5: Excellent
- 4: Good
- 3: Adequate
- 2: Marginal
- 1: Poor

Of the reported facilities with condition assessments, 91 percent were given a condition assessment of 3 or higher. A small number (15 percent) of the reported facilities were not given a condition assessment, either because the agency did not have capital responsibility for that facility or because the facility was not yet assessed.

Exhibit 17.4 presents the reported condition assessments of the Maintenance Facilities, Administrative Facilities, Stations/Terminals, and Parking Structures. Most of the facilities reported had condition assessments of 3 and 4 (80.7 percent). Overall, 10.6 percent of facilities had a condition assessment of 5 and the remaining 8.7 percent were rated a 2 or 1.

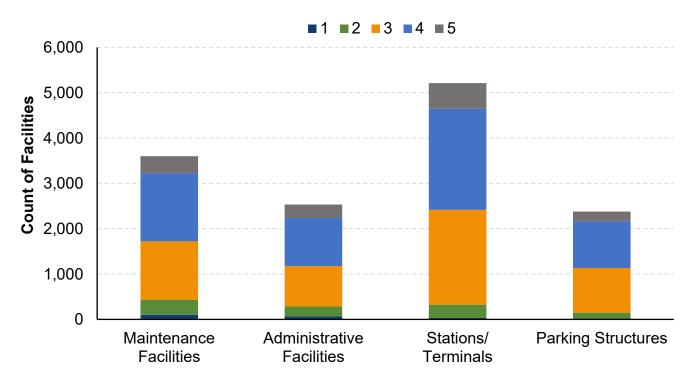


Exhibit 17.4 - Facility Condition Assessment by Facility Type

#### Track Under Performance Restrictions

Exhibit 17.5 presents the reported track miles under performance restrictions, or slow zones, by rail mode. Agencies report the total track miles under performance restrictions for which they have capital responsibility. A performance restriction is defined to exist on a segment of rail fixed guideway when the maximum permissible speed of transit vehicles is set to a value that is below the guideway's full-service speed. Performance restrictions may result from a variety of causes, including defects, signaling issues, construction zones, maintenance work, or other causes.

Commuter Rail had the highest number of track miles under performance restrictions in 2022 (8,671 miles) followed by Light Rail (4,791 miles). Hybrid Rail and Monorail/Automated Guideway had the fewest miles in slow zones with 3.9 and 0.8 miles respectively.

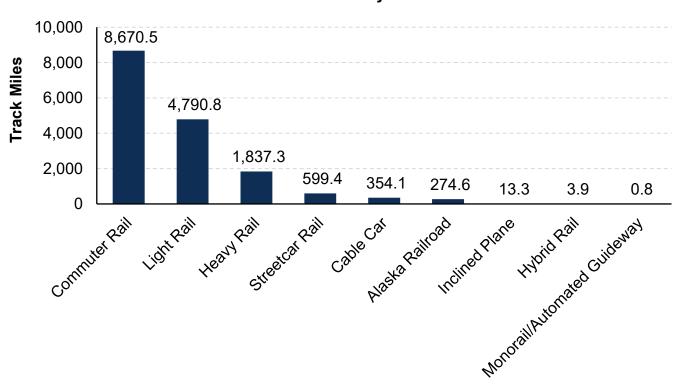


Exhibit 17.5 - Track & Guideway Miles in Slow Zones

## Replacement Cost for Service Vehicles

Exhibit 17.6 shows the average cost to replace service vehicles by type. The average cost to replace Steel Wheel Vehicles is significantly more than the other service (non-revenue) vehicle types, however, those vehicles tend to have a significantly longer useful life. For example, FTA's default ULB for Steel Wheel Vehicles is 25 years, whereas the default ULB for Automobiles and Trucks/Other Rubber Tire Vehicles is 8 and 14 years, respectively.

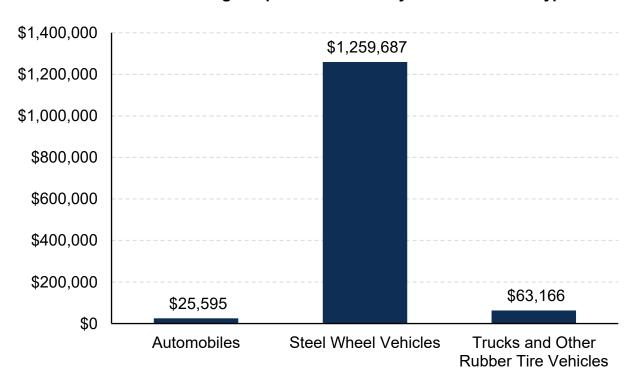


Exhibit 17.6 - Average Replacement Cost by Service Vehicle Type

## Chapter 18. Safety

## Fatalities and Injuries

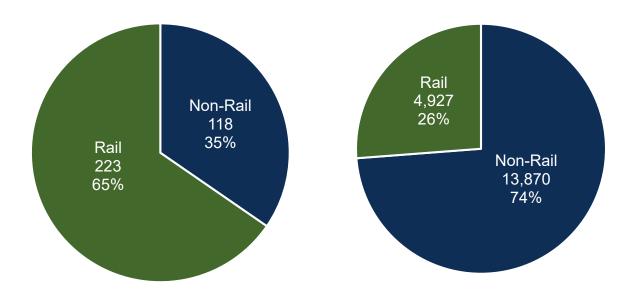
NTD Safety and Security reporting requires all reporters to provide the number of safety and security events that take place or involve transit system property and the resulting fatalities and injuries. Note, only fatalities or injuries that meet any one of several criteria listed in the <a href="https://www.NTD Safety & Security Policy Manual">NTD Safety & Security Policy Manual</a> need to be reported.

Rail modes reported 223 fatalities, or 65 percent, of the total 341 fatalities in calendar year 2022. In contrast, rail modes only reported 26 percent of the total injuries in 2022. Non-rail modes had 13,870 of the total injuries (18,797).

Exhibit 18.1 – 2022 Total Fatalities and Injuries by Rail and Non-Rail Modes

Total Transit Fatalities (2022)

Total Transit Injuries (2022)



#### **Derailments and Collisions**

Exhibit 18.2 shows the trend in derailments and collisions for each month from January 2015 to December 2022 for all rail modes. The number of derailments each month over the last 8 years has fluctuated, but not as significantly as collisions. The highest number of derailments occurred in February 2015 with 23. In 2022, September had the highest number of derailments (21) and January and November both at the lowest at 5 each. Collisions per month vary more widely, with the highest count of the past seven years recorded in January 2017 (129). The number of collisions decreased at the onset of the COVID-19 national public health emergency, with a global minimum of 37 in May 2020. However, the number of collisions has increased on average per month since that time.

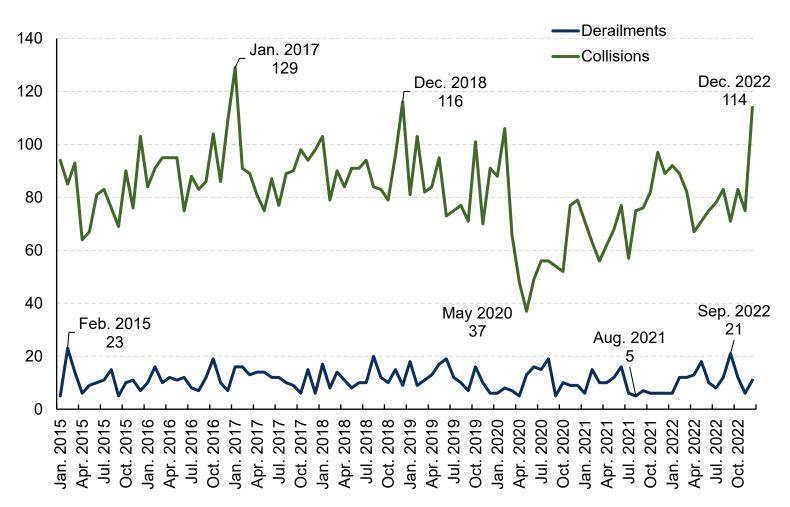


Exhibit 18.2 - 10 Year Derailment and Rail Collisions Trend

This concludes the main report.

# Appendix A: Urbanized and Non-Urbanized Area Populations and Transit Markets

Table A-I: 2020 Urbanized Areas

| UACE<br>Code | Urbanized Area Name                    | 2020 Market              | 2020 Population |
|--------------|--|--------------------------|-----------------|
| 63217        | New York-–Jersey City–Newark,<br>NY–NJ | New York                 | 19,426,449      |
| 51445        | Los Angeles–Long Beach–<br>Anaheim, CA | Other Big 8              | 12,237,376      |
| 16264        | Chicago, IL–IN                         | Other Big 8              | 8,671,746       |
| 56602        | Miami–Fort Lauderdale, FL              | Other Top Transit Cities | 6,077,522       |
| 40429        | Houston, TX                            | Other Top Transit Cities | 5,853,575       |
| 22042        | Dallas–Fort Worth–Arlington, TX        | Other Top Transit Cities | 5,732,354       |
| 69076        | Philadelphia, PA-NJ-DE-MD              | Other Big 8              | 5,696,125       |
| 92242        | Washington–Arlington, DC–VA–MD         | Other Big 8              | 5,174,759       |
| 03817        | Atlanta, GA                            | Other Top Transit Cities | 5,100,112       |
| 09271        | Boston, MA–NH                          | Other Big 8              | 4,382,009       |
| 69184        | Phoenix–Mesa–Scottsdale, AZ            | Other Top Transit Cities | 3,976,313       |
| 23824        | Detroit, MI                            | Everywhere Else          | 3,776,890       |
| 80389        | Seattle–Tacoma, WA                     | Other Big 8              | 3,544,011       |
| 78904        | San FranciscoOakland, CA               | Other Big 8              | 3,515,933       |

| UACE  |                                     |                          |                 |
|-------|-------------------------------------|--------------------------|-----------------|
| Code  | Urbanized Area Name                 | 2020 Market              | 2020 Population |
| 78661 | San Diego, CA                       | Other Top Transit Cities | 3,070,300       |
| 57628 | Minneapolis-St. Paul, MN            | Other Top Transit Cities | 2,914,866       |
| 86599 | Tampa–St. Petersburg, FL            | Everywhere Else          | 2,783,045       |
| 23527 | Denver-Aurora, CO                   | Other Top Transit Cities | 2,686,147       |
| 75340 | Riverside–San Bernardino, CA        | Mid-Size Transit Cities  | 2,276,703       |
| 04843 | Baltimore, MD                       | Other Top Transit Cities | 2,212,038       |
| 47995 | Las Vegas–Henderson–Paradise,<br>NV | Other Top Transit Cities | 2,196,623       |
| 77770 | St. Louis, MO–IL                    | Other Top Transit Cities | 2,156,323       |
| 71317 | Portland, OR–WA                     | Other Top Transit Cities | 2,104,238       |
| 78580 | San Antonio, TX                     | Mid-Size Transit Cities  | 1,992,689       |
| 77068 | Sacramento, CA                      | Other Top Transit Cities | 1,946,618       |
| 65863 | Orlando, FL                         | Everywhere Else          | 1,853,896       |
| 79093 | San Juan, PR                        | Mid-Size Transit Cities  | 1,844,410       |
| 79039 | San Jose, CA                        | Other Top Transit Cities | 1,837,446       |
| 04384 | Austin, TX                          | Mid-Size Transit Cities  | 1,809,888       |
| 69697 | Pittsburgh, PA                      | Other Top Transit Cities | 1,745,039       |
| 17668 | Cleveland, OH                       | Other Top Transit Cities | 1,712,178       |
| 41212 | Indianapolis, IN                    | Everywhere Else          | 1,699,881       |

| UACE  |                                    |                          |                 |
|-------|------------------------------------|--------------------------|-----------------|
| Code  | Urbanized Area Name                | 2020 Market              | 2020 Population |
| 16885 | Cincinnati, OH–KY                  | Everywhere Else          | 1,686,744       |
| 43912 | Kansas City, MOKS                  | Mid-Size Transit Cities  | 1,674,218       |
| 19234 | Columbus, OH                       | Everywhere Else          | 1,567,254       |
| 90892 | Virginia Beach–Norfolk, VA         | Mid-Size Transit Cities  | 1,451,578       |
| 15670 | Charlotte, NC-SC                   | Mid-Size Transit Cities  | 1,379,873       |
| 57466 | Milwaukee, WI                      | Mid-Size Transit Cities  | 1,306,795       |
| 72505 | Providence, RI-MA                  | Everywhere Else          | 1,285,806       |
| 42346 | Jacksonville, FL                   | Everywhere Else          | 1,247,374       |
| 78499 | Salt Lake City, UT                 | Other Top Transit Cities | 1,178,533       |
| 61273 | Nashville-Davidson, TN             | Everywhere Else          | 1,158,642       |
| 73261 | Raleigh, NC                        | Everywhere Else          | 1,106,646       |
| 74746 | Richmond, VA                       | Mid-Size Transit Cities  | 1,059,150       |
| 56116 | Memphis, TN-MS-AR                  | Mid-Size Transit Cities  | 1,056,190       |
| 65080 | Oklahoma City, OK                  | Everywhere Else          | 982,276         |
| 37243 | Hartford, CT                       | Mid-Size Transit Cities  | 977,158         |
| 51755 | Louisville/Jefferson County, KY-IN | Everywhere Else          | 974,397         |
| 62677 | New Orleans, LA                    | Mid-Size Transit Cities  | 963,212         |
| 11350 | Buffalo, NY                        | Mid-Size Transit Cities  | 948,864         |
| 10162 | Bridgeport–Stamford, CT–NY         | Mid-Size Transit Cities  | 916,408         |

| UACE  |  |                          |                 |
|-------|--|--------------------------|-----------------|
| Code  | Urbanized Area Name                            | 2020 Market              | 2020 Population |
| 88732 | Tucson, AZ                                     | Everywhere Else          | 875,441         |
| 27253 | El Paso, TX–NM                                 | Everywhere Else          | 854,584         |
| 39889 | Honolulu, HI                                   | Other Top Transit Cities | 853,252         |
| 65269 | Omaha, NE–IA                                   | Everywhere Else          | 819,508         |
| 52390 | McAllen, TX                                    | Everywhere Else          | 779,553         |
| 09536 | Bradenton-Sarasota-Venice, FL                  | Everywhere Else          | 779,075         |
| 07786 | Birmingham, AL                                 | Everywhere Else          | 774,956         |
| 01171 | Albuquerque, NM                                | Everywhere Else          | 769,837         |
| 88948 | Tulsa, OK                                      | Everywhere Else          | 722,810         |
| 31843 | Fresno, CA                                     | Mid-Size Transit Cities  | 717,589         |
| 75664 | Rochester, NY                                  | Everywhere Else          | 704,327         |
| 15508 | Charleston, SC                                 | Everywhere Else          | 684,773         |
| 22528 | Dayton, OH                                     | Everywhere Else          | 674,046         |
| 57709 | Mission Viejo–Lake Forest–Laguna<br>Niguel, CA | Everywhere Else          | 646,843         |
| 18856 | Colorado Springs, CO                           | Everywhere Else          | 632,494         |
| 05680 | Baton Rouge, LA                                | Everywhere Else          | 631,326         |
| 01495 | Allentown-Bethlehem, PA-NJ                     | Everywhere Else          | 621,703         |
| 64945 | Ogden–Layton, UT                               | Mid-Size Transit Cities  | 608,857         |

| UACE  |                               |                         |                 |
|-------|-------------------------------|-------------------------|-----------------|
| Code  | Urbanized Area Name           | 2020 Market             | 2020 Population |
| 34300 | Grand Rapids, MI              | Mid-Size Transit Cities | 605,666         |
| 13510 | Cape Coral, FL                | Everywhere Else         | 599,242         |
| 45640 | Knoxville, TN                 | Everywhere Else         | 597,257         |
| 00970 | Albany–Schenectady, NY        | Mid-Size Transit Cities | 593,142         |
| 18964 | Columbia, SC                  | Everywhere Else         | 590,407         |
| 72559 | Provo-Orem, UT                | Everywhere Else         | 588,609         |
| 04681 | Bakersfield, CA               | Everywhere Else         | 570,235         |
| 62407 | New Haven, CT                 | Mid-Size Transit Cities | 561,456         |
| 23743 | Des Moines, IA                | Everywhere Else         | 542,486         |
| 00766 | Akron, OH                     | Everywhere Else         | 541,879         |
| 19504 | Concord–Walnut Creek, CA      | Mid-Size Transit Cities | 538,583         |
| 87004 | Temecula-Murrieta-Menifee, CA | Everywhere Else         | 528,991         |
| 67105 | Palm Bay–Melbourne, FL        | Everywhere Else         | 510,675         |
| 52695 | McKinney-Frisco, TX           | Everywhere Else         | 504,803         |
| 95077 | Wichita, KS                   | Everywhere Else         | 500,231         |
| 87868 | Toledo, OH–MI                 | Everywhere Else         | 497,952         |
| 37081 | Harrisburg, PA                | Everywhere Else         | 490,859         |
| 97291 | Worcester, MA-CT              | Everywhere Else         | 482,085         |
| 50392 | Little Rock, AR               | Everywhere Else         | 461,864         |

| UACE  |   |                         |                 |
|-------|---|-------------------------|-----------------|
| Code  | Urbanized Area Name                         | 2020 Market             | 2020 Population |
| 53200 | Madison, WI                                 | Mid-Size Transit Cities | 450,305         |
| 83764 | Spokane, WA                                 | Mid-Size Transit Cities | 447,279         |
| 74179 | Reno, NV-CA                                 | Mid-Size Transit Cities | 446,529         |
| 83926 | Springfield, MA–CT                          | Mid-Size Transit Cities | 442,145         |
| 71479 | Port St. Lucie, FL                          | Everywhere Else         | 437,745         |
| 08785 | Boise City, ID                              | Everywhere Else         | 433,180         |
| 04222 | Augusta-Richmond County, GA-SC              | Everywhere Else         | 431,480         |
| 23500 | Denton-Lewisville, TX                       | Everywhere Else         | 429,461         |
| 08974 | Bonita Springs–Estero, FL                   | Everywhere Else         | 425,675         |
| 96670 | Winston-Salem, NC                           | Everywhere Else         | 420,924         |
| 69192 | Phoenix West–Goodyear–<br>Avondale, AZ      | Everywhere Else         | 419,946         |
| 45451 | Kissimmee-St. Cloud, FL                     | Everywhere Else         | 418,404         |
| 85087 | Stockton, CA                                | Everywhere Else         | 414,847         |
| 86302 | Syracuse, NY                                | Everywhere Else         | 413,660         |
| 87300 | The Woodlands-Conroe, TX                    | Everywhere Else         | 402,454         |
| 22612 | Daytona Beach–Palm Coast–Port<br>Orange, FL | Everywhere Else         | 402,126         |
| 15832 | Chattanooga, TN–GA                          | Everywhere Else         | 398,569         |

| UACE  |  |                         |                 |
|-------|--|-------------------------|-----------------|
| Code  | Urbanized Area Name                      | 2020 Market             | 2020 Population |
| 25228 | Durham, NC                               | Mid-Size Transit Cities | 396,118         |
| 47530 | Lancaster–Manheim, PA                    | Everywhere Else         | 394,530         |
| 68482 | Pensacola, FL-AL                         | Everywhere Else         | 390,172         |
| 35461 | Greenville, SC                           | Everywhere Else         | 387,271         |
| 66673 | Oxnard–San Buenaventura<br>(Ventura), CA | Mid-Size Transit Cities | 376,117         |
| 29494 | Fayetteville–Springdale–Rogers,<br>AR–MO | Everywhere Else         | 373,687         |
| 88462 | Trenton, NJ                              | Mid-Size Transit Cities | 370,422         |
| 80227 | Scranton, PA                             | Everywhere Else         | 366,713         |
| 41347 | Indio–Palm Desert–Palm Springs,<br>CA    | Everywhere Else         | 361,075         |
| 67140 | PalmdaleLancaster, CA                    | Mid-Size Transit Cities | 359,559         |
| 58006 | Modesto, CA                              | Mid-Size Transit Cities | 357,301         |
| 90541 | VictorvilleHesperiaApple Valley,<br>CA   | Mid-Size Transit Cities | 355,816         |
| 42211 | Jackson, MS                              | Everywhere Else         | 347,693         |
| 20287 | Corpus Christi, TX                       | Mid-Size Transit Cities | 339,066         |
| 35164 | Greensboro, NC                           | Everywhere Else         | 338,928         |
| 31087 | Fort Wayne, IN                           | Everywhere Else         | 335,934         |

| UACE  |   |                         |                 |
|-------|---|-------------------------|-----------------|
| Code  | Urbanized Area Name                       | 2020 Market             | 2020 Population |
| 40780 | Huntsville, AL                            | Everywhere Else         | 329,066         |
| 30628 | Fort Collins, CO                          | Everywhere Else         | 326,332         |
| 02683 | Antioch, CA                               | Mid-Size Transit Cities | 326,205         |
| 29440 | Fayetteville, NC                          | Everywhere Else         | 325,008         |
| 57925 | Mobile, AL                                | Everywhere Else         | 321,907         |
| 97831 | Youngstown, OH                            | Everywhere Else         | 320,901         |
| 47719 | Lansing, MI                               | Mid-Size Transit Cities | 318,300         |
| 02602 | Ann Arbor, MI                             | Mid-Size Transit Cities | 317,689         |
| 49582 | Lexington-Fayette, KY                     | Mid-Size Transit Cities | 315,631         |
| 71803 | Poughkeepsie-Newburgh, NY                 | Mid-Size Transit Cities | 314,766         |
| 79768 | Savannah, GA                              | Everywhere Else         | 309,466         |
| 05167 | Barnstable Town, MA                       | Everywhere Else         | 303,269         |
| 29872 | Flint, MI                                 | Everywhere Else         | 298,964         |
| 60895 | Myrtle Beach–North Myrtle Beach,<br>SC–NC | Everywhere Else         | 298,954         |
| 79498 | Santa Rosa, CA                            | Mid-Size Transit Cities | 297,329         |
| 13375 | Canton, OH                                | Everywhere Else         | 295,319         |
| 03904 | Atlantic City-Ocean City-Villas, NJ       | Mid-Size Transit Cities | 294,921         |
| 49933 | Lincoln, NE                               | Everywhere Else         | 291,217         |

| UACE  |   |                         |                 |
|-------|---|-------------------------|-----------------|
| Code  | Urbanized Area Name                           | 2020 Market             | 2020 Population |
| 81739 | Shreveport, LA                                | Everywhere Else         | 288,052         |
| 03358 | Asheville, NC                                 | Everywhere Else         | 285,776         |
| 22366 | Davenport, IA–IL                              | Everywhere Else         | 285,211         |
| 83953 | Springfield, MO                               | Everywhere Else         | 282,651         |
| 83116 | South Bend, IN-MI                             | Everywhere Else         | 278,921         |
| 19558 | Concord, NC                                   | Everywhere Else         | 278,612         |
| 79309 | Santa Clarita, CA                             | Mid-Size Transit Cities | 278,031         |
| 46828 | Lakeland, FL                                  | Everywhere Else         | 277,915         |
| 75718 | Rockford, IL                                  | Everywhere Else         | 276,443         |
| 73693 | Reading, PA                                   | Everywhere Else         | 276,278         |
| 51877 | Lubbock, TX                                   | Everywhere Else         | 272,280         |
| 28117 | Eugene, OR                                    | Mid-Size Transit Cities | 270,179         |
| 78229 | Salem, OR                                     | Mid-Size Transit Cities | 268,331         |
| 19099 | Columbus, GA-AL                               | Everywhere Else         | 267,746         |
| 76474 | Round Lake Beach–McHenry–<br>Grayslake, IL–WI | Everywhere Else         | 261,835         |
| 68509 | Peoria, IL                                    | Everywhere Else         | 259,781         |
| 44992 | Killeen, TX                                   | Everywhere Else         | 257,222         |
| 44479 | Kennewick–Richland–Pasco, WA                  | Mid-Size Transit Cities | 255,401         |

| UACE  |  |                         |                 |
|-------|--|-------------------------|-----------------|
| Code  | Urbanized Area Name                    | 2020 Market             | 2020 Population |
| 95833 | Wilmington, NC                         | Everywhere Else         | 255,329         |
| 58600 | Montgomery, AL                         | Everywhere Else         | 254,348         |
| 96697 | Winter Haven, FL                       | Everywhere Else         | 253,251         |
| 86464 | Tallahassee, FL                        | Everywhere Else         | 252,934         |
| 47854 | Laredo, TX                             | Everywhere Else         | 251,462         |
| 02305 | Anchorage, AK                          | Mid-Size Transit Cities | 249,252         |
| 61165 | Nashua, NH–MA                          | Everywhere Else         | 242,984         |
| 50533 | Livermore–Pleasanton–Dublin, CA        | Everywhere Else         | 240,381         |
| 97750 | York, PA                               | Everywhere Else         | 238,549         |
| 35920 | Gulfport–Biloxi, MS                    | Everywhere Else         | 236,344         |
| 00631 | Aguadilla–Isabela–San Sebastián,<br>PR | Everywhere Else         | 232,573         |
| 02764 | Appleton, WI                           | Everywhere Else         | 230,967         |
| 46045 | Lafayette, LA                          | Everywhere Else         | 227,316         |
| 61372 | Navarre–Miramar Beach–Destin,<br>FL    | Everywhere Else         | 226,213         |
| 09946 | Bremerton, WA                          | Mid-Size Transit Cities | 224,449         |
| 34813 | Green Bay, WI                          | Everywhere Else         | 224,156         |
| 75745 | Rock Hill, SC                          | Everywhere Else         | 218,443         |

| UACE  |                               |                         |                 |
|-------|-------------------------------|-------------------------|-----------------|
| Code  | Urbanized Area Name           | 2020 Market             | 2020 Population |
| 75421 | Roanoke, VA                   | Everywhere Else         | 217,312         |
| 10972 | Brownsville, TX               | Everywhere Else         | 216,444         |
| 29089 | Fargo, ND–MN                  | Everywhere Else         | 216,214         |
| 06290 | Bel Air-Aberdeen, MD          | Everywhere Else         | 214,647         |
| 87490 | Thousand Oaks, CA             | Everywhere Else         | 213,986         |
| 32167 | Gainesville, FL               | Mid-Size Transit Cities | 213,748         |
| 23311 | Deltona, FL                   | Everywhere Else         | 210,712         |
| 99999 | Lake Tahoe, CA-NV             | Everywhere Else         | 210,000         |
| 65242 | Olympia–Lacey, WA             | Mid-Size Transit Cities | 208,157         |
| 28333 | Evansville, IN                | Everywhere Else         | 206,855         |
| 18748 | College Station–Bryan, TX     | Everywhere Else         | 206,137         |
| 01927 | Amarillo, TX                  | Everywhere Else         | 205,860         |
| 71263 | Portland, ME                  | Everywhere Else         | 205,356         |
| 43723 | Kalamazoo, MI                 | Everywhere Else         | 204,562         |
| 79282 | Santa Barbara, CA             | Mid-Size Transit Cities | 202,197         |
| 38647 | Hickory, NC                   | Everywhere Else         | 201,511         |
| 17317 | Clarksville, TN–KY            | Everywhere Else         | 200,947         |
| 40753 | Huntington, WV-KY-OH          | Everywhere Else         | 200,157         |
| 71060 | Port Charlotte–North Port, FL | Everywhere Else         | 199,998         |

| UACE  |                         |                         |                 |
|-------|-------------------------|-------------------------|-----------------|
| Code  | Urbanized Area Name     | 2020 Market             | 2020 Population |
| 92485 | Waterbury, CT           | Mid-Size Transit Cities | 199,317         |
| 51364 | Lorain–Elyria, OH       | Everywhere Else         | 199,067         |
| 36190 | Hagerstown, MD-WV-PA-VA | Everywhere Else         | 197,557         |
| 83548 | Spartanburg, SC         | Everywhere Else         | 196,943         |
| 82252 | Sioux Falls, SD         | Everywhere Else         | 194,283         |
| 91027 | Waco, TX                | Everywhere Else         | 192,844         |
| 14752 | Cedar Rapids, IA        | Everywhere Else         | 192,844         |
| 32491 | GalvestonTexas City, TX | Everywhere Else         | 191,863         |
| 27766 | Erie, PA                | Mid-Size Transit Cities | 187,820         |
| 64567 | Ocala, FL               | Everywhere Else         | 182,647         |
| 60976 | Nampa, ID               | Everywhere Else         | 177,561         |
| 78310 | Salinas, CA             | Mid-Size Transit Cities | 177,532         |
| 60733 | Murfreesboro, TN        | Everywhere Else         | 177,313         |
| 32653 | Gastonia, NC            | Everywhere Else         | 176,897         |
| 31519 | Frederick, MD           | Everywhere Else         | 176,456         |
| 90028 | Vallejo, CA             | Mid-Size Transit Cities | 175,132         |
| 90406 | Vero BeachSebastian, FL | Everywhere Else         | 174,292         |
| 38215 | Hemet, CA               | Everywhere Else         | 173,194         |
| 22096 | Danbury, CTNY           | Mid-Size Transit Cities | 171,680         |

| UACE  |                                      |                         |                 |
|-------|--------------------------------------|-------------------------|-----------------|
| Code  | Urbanized Area Name                  | 2020 Market             | 2020 Population |
| 55981 | Medford, OR                          | Everywhere Else         | 171,640         |
| 84024 | Spring Hill, FL                      | Everywhere Else         | 169,050         |
| 79336 | Santa Cruz, CA                       | Mid-Size Transit Cities | 169,038         |
| 38809 | High Point, NC                       | Everywhere Else         | 167,830         |
| 31600 | Fredericksburg, VA                   | Everywhere Else         | 167,679         |
| 64135 | NorwichNew London, CT                | Everywhere Else         | 167,432         |
| 60841 | MuskegonNorton Shores, MI            | Everywhere Else         | 166,414         |
| 32194 | Gainesville, GA                      | Everywhere Else         | 164,365         |
| 53740 | Manchester, NH                       | Everywhere Else         | 163,289         |
| 46531 | Lake Charles, LA                     | Everywhere Else         | 162,501         |
| 67305 | Panama City–Panama City Beach,<br>FL | Everywhere Else         | 162,060         |
| 87285 | The Villages–Lady Lake, FL           | Everywhere Else         | 161,736         |
| 90946 | Visalia, CA                          | Mid-Size Transit Cities | 160,578         |
| 55333 | Marysville, WA                       | Everywhere Else         | 160,440         |
| 55603 | Mauldin-Simpsonville, SC             | Everywhere Else         | 159,506         |
| 83899 | Springfield, IL                      | Everywhere Else         | 159,265         |
| 46018 | Lafayette, IN                        | Mid-Size Transit Cities | 157,100         |
| 89110 | Tuscaloosa, AL                       | Everywhere Else         | 156,450         |

| UACE  |                              |                         |                 |
|-------|------------------------------|-------------------------|-----------------|
| Code  | Urbanized Area Name          | 2020 Market             | 2020 Population |
| 07732 | Binghamton, NY               | Everywhere Else         | 155,942         |
| 61786 | New Bedford, MA              | Everywhere Else         | 155,491         |
| 64864 | Odessa, TX                   | Everywhere Else         | 154,818         |
| 48799 | Leesburg–Eustis–Tavares, FL  | Everywhere Else         | 151,523         |
| 28657 | Fairfield, CA                | Everywhere Else         | 150,122         |
| 56251 | Merced, CA                   | Mid-Size Transit Cities | 150,052         |
| 88084 | Topeka, KS                   | Everywhere Else         | 148,956         |
| 26794 | Elkhart, IN–MI               | Everywhere Else         | 148,199         |
| 15211 | Champaign, IL                | Mid-Size Transit Cities | 147,452         |
| 06058 | Beaumont, TX                 | Everywhere Else         | 146,649         |
| 83332 | South Lyon–Hamburg–Genoa, MI | Everywhere Else         | 145,963         |
| 40375 | Houma, LA                    | Everywhere Else         | 145,482         |
| 11728 | Burlington, NC               | Everywhere Else         | 145,311         |
| 79417 | Santa Maria, CA              | Mid-Size Transit Cities | 143,609         |
| 03763 | Athens-Clarke County, GA     | Mid-Size Transit Cities | 143,213         |
| 57007 | Midland, TX                  | Everywhere Else         | 141,997         |
| 18937 | Columbia, MO                 | Everywhere Else         | 141,831         |
| 91783 | Warner Robins, GA            | Everywhere Else         | 141,132         |
| 15481 | Charleston, WV               | Everywhere Else         | 140,958         |

| UACE  |                             |                         |                 |
|-------|-----------------------------|-------------------------|-----------------|
| Code  | Urbanized Area Name         | 2020 Market             | 2020 Population |
| 52822 | Macon-Bibb County, GA       | Everywhere Else         | 140,111         |
| 47935 | Las Cruces, NM              | Everywhere Else         | 139,338         |
| 34786 | Greeley, CO                 | Everywhere Else         | 137,222         |
| 34273 | Grand Junction, CO          | Everywhere Else         | 135,973         |
| 98020 | Yuma, AZ–CA                 | Everywhere Else         | 135,717         |
| 73153 | Racine, WI                  | Everywhere Else         | 134,877         |
| 77446 | St. George, UT              | Everywhere Else         | 134,109         |
| 08407 | Bloomington-Normal, IL      | Mid-Size Transit Cities | 134,100         |
| 97507 | Yakima, WA                  | Everywhere Else         | 133,145         |
| 89326 | Tyler, TX                   | Everywhere Else         | 131,028         |
| 06652 | Bellingham, WA              | Mid-Size Transit Cities | 128,979         |
| 07705 | Billings, MT                | Everywhere Else         | 128,787         |
| 43210 | Johnson City, TN            | Everywhere Else         | 128,519         |
| 22811 | Dededo–Apotgan–Tamuning, GU | Everywhere Else         | 128,164         |
| 82144 | Simi Valley, CA             | Everywhere Else         | 127,364         |
| 41590 | Iowa City, IA               | Mid-Size Transit Cities | 126,810         |
| 44506 | Kenosha, WI                 | Everywhere Else         | 125,865         |
| 30925 | Fort Smith, AROK            | Everywhere Else         | 125,811         |
| 97939 | Yuba City, CA               | Everywhere Else         | 125,706         |

| UACE  |                                       |                         |                 |
|-------|---------------------------------------|-------------------------|-----------------|
| Code  | Urbanized Area Name                   | 2020 Market             | 2020 Population |
| 52201 | Lynchburg, VA                         | Mid-Size Transit Cities | 125,596         |
| 03034 | Arecibo, PR                           | Everywhere Else         | 123,724         |
| 80362 | Seaside–Monterey–Pacific Grove,<br>CA | Mid-Size Transit Cities | 123,495         |
| 24580 | Dover, DE                             | Everywhere Else         | 123,101         |
| 18451 | Coeur d'Alene, ID                     | Everywhere Else         | 121,831         |
| 75637 | Rochester, MN                         | Mid-Size Transit Cities | 121,587         |
| 88280 | Tracy–Mountain House, CA              | Mid-Size Transit Cities | 120,912         |
| 09298 | Boulder, CO                           | Mid-Size Transit Cities | 120,828         |
| 72613 | Pueblo, CO                            | Everywhere Else         | 120,642         |
| 73774 | Redding, CA                           | Everywhere Else         | 120,602         |
| 63433 | Norman, OK                            | Everywhere Else         | 120,191         |
| 35380 | Greenville, NC                        | Everywhere Else         | 120,150         |
| 58330 | Monroe, LA                            | Everywhere Else         | 119,964         |
| 24850 | Duluth, MNWI                          | Mid-Size Transit Cities | 119,411         |
| 89785 | Utica, NY                             | Everywhere Else         | 119,059         |
| 36892 | Harlingen, TX                         | Everywhere Else         | 118,838         |
| 91261 | Waldorf, MD                           | Mid-Size Transit Cities | 118,601         |
| 02420 | Anderson-Clemson, SC                  | Everywhere Else         | 118,369         |

| UACE  |   |                         |                 |
|-------|---|-------------------------|-----------------|
| Code  | Urbanized Area Name                       | 2020 Market             | 2020 Population |
| 70642 | Ponce, PR                                 | Everywhere Else         | 118,345         |
| 00280 | Abilene, TX                               | Everywhere Else         | 118,138         |
| 43669 | Kailua (Honolulu County) –<br>Kaneohe, HI | Everywhere Else         | 118,092         |
| 11755 | Burlington, VT                            | Mid-Size Transit Cities | 118,032         |
| 77338 | St. Cloud, MN                             | Mid-Size Transit Cities | 117,638         |
| 70993 | Port Arthur, TX                           | Everywhere Else         | 116,819         |
| 77149 | Saginaw, MI                               | Everywhere Else         | 116,058         |
| 33328 | Gilroy–Morgan Hill, CA                    | Mid-Size Transit Cities | 114,833         |
| 87058 | Temple, TX                                | Everywhere Else         | 114,632         |
| 92593 | Waterloo, IA                              | Everywhere Else         | 114,139         |
| 50959 | Logan, UT                                 | Everywhere Else         | 113,927         |
| 53794 | MandevilleCovington, LA                   | Everywhere Else         | 113,763         |
| 82225 | Sioux City, IA-NE-SD                      | Everywhere Else         | 113,066         |
| 49096 | Leominster–Fitchburg, MA                  | Mid-Size Transit Cities | 111,790         |
| 16318 | Chico, CA                                 | Everywhere Else         | 111,411         |
| 42400 | Jacksonville, NC                          | Everywhere Else         | 111,224         |
| 08380 | Bloomington, IN                           | Mid-Size Transit Cities | 110,103         |
| 51256 | Longview, TX                              | Everywhere Else         | 107,099         |

| UACE  |  |                         |                 |
|-------|--|-------------------------|-----------------|
| Code  | Urbanized Area Name                                | 2020 Market             | 2020 Population |
| 39430 | Holland, MI  | Everywhere Else         | 107,034         |
| 06868 | Bend, OR   | Everywhere Else         | 106,988         |
| 26038 | Eau Claire, WI                                     | Everywhere Else         | 105,475         |
| 40996 | Idaho Falls, ID                                    | Everywhere Else         | 105,132         |
| 15724 | Charlottesville, VA                                | Mid-Size Transit Cities | 104,191         |
| 89866 | Vacaville, CA                                      | Everywhere Else         | 101,027         |
| 04033 | Auburn, AL   | Everywhere Else         | 100,842         |
| 51175 | Longmont, CO                                       | Mid-Size Transit Cities | 100,776         |
| 61948 | New Braunfels, TX                                  | Everywhere Else         | 100,736         |
| 78553 | San Angelo, TX                                     | Everywhere Else         | 99,982          |
| 45910 | La Crosse, WI-MN                                   | Everywhere Else         | 98,872          |
| 45235 | Kingsport, TN-VA                                   | Everywhere Else         | 98,411          |
| 07921 | Bismarck, ND                                       | Everywhere Else         | 98,198          |
| 09379 | Bowling Green, KY                                  | Everywhere Else         | 97,814          |
| 78985 | San Germán–Cabo Rojo–Sabana<br>Grande, PR          | Everywhere Else         | 97,241          |
| 95104 | Wichita Falls, TX                                  | Everywhere Else         | 97,039          |
| 07472 | Beverly Hills–Homosassa Springs–<br>Pine Ridge, FL | Everywhere Else         | 96,729          |

| UACE  |   |                         |                 |
|-------|---|-------------------------|-----------------|
| Code  | Urbanized Area Name                               | 2020 Market             | 2020 Population |
| 46126 | LafayetteErieLouisville, CO                       | Mid-Size Transit Cities | 96,485          |
| 71506 | Portsmouth, NHME                                  | Everywhere Else         | 95,090          |
| 48232 | Lawrence, KS                                      | Mid-Size Transit Cities | 94,998          |
| 79363 | Santa Fe, NM                                      | Everywhere Else         | 94,241          |
| 56926 | Middletown, OH                                    | Everywhere Else         | 93,608          |
| 72112 | PrescottPrescott Valley, AZ                       | Everywhere Else         | 92,427          |
| 31150 | Four Corners, FL                                  | Everywhere Else         | 92,396          |
| 48826 | Lee's Summit, MO                                  | Everywhere Else         | 91,960          |
| 77230 | St. Augustine, FL                                 | Everywhere Else         | 91,786          |
| 82468 | Slidell, LA                                       | Everywhere Else         | 91,587          |
| 55738 | Mayagüez, PR                                      | Everywhere Else         | 91,583          |
| 02103 | Amherst Town–Northampton–<br>Easthampton Town, MA | Everywhere Else         | 90,570          |
| 95411 | Williamsburg, VA                                  | Mid-Size Transit Cities | 89,585          |
| 30061 | Florence, SC                                      | Everywhere Else         | 89,436          |
| 57736 | Missoula, MT                                      | Mid-Size Transit Cities | 88,109          |
| 48394 | Lawton, OK  | Everywhere Else         | 87,464          |
| 90730 | Vineland, NJ                                      | Everywhere Else         | 87,226          |
| 00078 | Virgin Islands, VI                                | Everywhere Else         | 87,146          |

| UACE  |                     |                         |                 |
|-------|---------------------|-------------------------|-----------------|
| Code  | Urbanized Area Name | 2020 Market             | 2020 Population |
| 43399 | Joplin, MO          | Everywhere Else         | 86,679          |
| 54145 | Manteca, CA         | Everywhere Else         | 86,674          |
| 22717 | Decatur, IL         | Everywhere Else         | 86,287          |
| 00901 | Albany, GA          | Everywhere Else         | 85,960          |
| 73396 | Rapid City, SD      | Everywhere Else         | 85,679          |
| 14563 | Castle Rock, CO     | Everywhere Else         | 85,350          |
| 61057 | Napa, CA            | Mid-Size Transit Cities | 84,619          |
| 60625 | Muncie, IN          | Everywhere Else         | 84,382          |
| 42157 | Jackson, MI         | Everywhere Else         | 84,307          |
| 84493 | State College, PA   | Mid-Size Transit Cities | 83,674          |
| 96103 | Winchester, VA      | Everywhere Else         | 83,377          |
| 83980 | Springfield, OH     | Everywhere Else         | 82,369          |
| 71155 | Port Huron, MI      | Mid-Size Transit Cities | 82,226          |
| 52984 | Madera, CA          | Everywhere Else         | 81,635          |
| 61705 | Newark, OH          | Everywhere Else         | 81,223          |
| 37594 | Hattiesburg, MS     | Everywhere Else         | 80,821          |
| 87139 | Terre Haute, IN     | Everywhere Else         | 79,862          |
| 29818 | Flagstaff, AZ       | Mid-Size Transit Cities | 79,842          |
| 02386 | Anderson, IN        | Everywhere Else         | 79,517          |

| UACE  |                            |                         |                 |
|-------|----------------------------|-------------------------|-----------------|
| Code  | Urbanized Area Name        | 2020 Market             | 2020 Population |
| 01765 | Alton, IL                  | Everywhere Else         | 79,260          |
| 16237 | Cheyenne, WY               | Everywhere Else         | 79,250          |
| 89083 | Turlock, CA                | Everywhere Else         | 79,203          |
| 29953 | Florence, AL               | Everywhere Else         | 78,925          |
| 87193 | Texarkana, TX–AR           | Everywhere Else         | 78,744          |
| 01279 | Alexandria, LA             | Mid-Size Transit Cities | 78,305          |
| 02629 | Anniston–Oxford, AL        | Everywhere Else         | 78,302          |
| 93862 | Wenatchee, WA              | Mid-Size Transit Cities | 78,142          |
| 78364 | Salisbury, MD–DE           | Everywhere Else         | 78,075          |
| 59275 | Morgantown, WV             | Mid-Size Transit Cities | 77,620          |
| 93025 | Wausau, WI                 | Everywhere Else         | 77,429          |
| 77743 | St. Joseph, MO–KS          | Everywhere Else         | 77,187          |
| 22420 | Davis, CA                  | Mid-Size Transit Cities | 77,034          |
| 28766 | Fairhope–Daphne, AL        | Everywhere Else         | 76,807          |
| 89974 | Valdosta, GA               | Everywhere Else         | 76,769          |
| 26750 | Elizabethtown–Radcliff, KY | Everywhere Else         | 76,441          |
| 66484 | Owensboro, KY              | Everywhere Else         | 76,433          |
| 12754 | Camarillo, CA              | Everywhere Else         | 76,338          |
| 66160 | Oshkosh, WI                | Everywhere Else         | 76,190          |

| UACE  |                               |                         |                 |
|-------|-------------------------------|-------------------------|-----------------|
| Code  | Urbanized Area Name           | 2020 Market             | 2020 Population |
| 79633 | Saratoga Springs, NY          | Everywhere Else         | 75,684          |
| 05707 | Battle Creek, MI              | Everywhere Else         | 75,513          |
| 48664 | Lebanon, PA                   | Everywhere Else         | 75,485          |
| 01792 | Altoona, PA                   | Everywhere Else         | 74,426          |
| 26405 | El Centro, CA                 | Mid-Size Transit Cities | 74,376          |
| 81118 | Sheboygan, WI                 | Everywhere Else         | 74,369          |
| 17722 | Cleveland, TN                 | Everywhere Else         | 73,918          |
| 43345 | Jonesboro, AR                 | Everywhere Else         | 73,781          |
| 54091 | Mansfield, OH                 | Everywhere Else         | 73,545          |
| 37162 | Harrisonburg, VA              | Mid-Size Transit Cities | 73,377          |
| 50851 | Lodi, CA                      | Everywhere Else         | 73,090          |
| 42265 | Jackson, TN                   | Everywhere Else         | 72,809          |
| 36514 | Hammond, LA                   | Everywhere Else         | 72,526          |
| 24472 | Dothan, AL                    | Everywhere Else         | 72,423          |
| 08002 | Blacksburg–Christiansburg, VA | Mid-Size Transit Cities | 72,400          |
| 24607 | DoverRochester, NH-ME         | Everywhere Else         | 72,391          |
| 42562 | Janesville, WI                | Everywhere Else         | 72,285          |
| 70426 | Pocatello, ID                 | Everywhere Else         | 72,211          |

| UACE  |                                  |                         |                 |
|-------|----------------------------------|-------------------------|-----------------|
| Code  | Urbanized Area Name              | 2020 Market             | 2020 Population |
| 22224 | Bluffton EastHilton Head Island, |                         | <b>-</b> 4 004  |
| 08601 | SC                               | Everywhere Else         | 71,824          |
| 45443 | Kiryas Joel, NY                  | Everywhere Else         | 71,582          |
| 28549 | Fairbanks, AK                    | Everywhere Else         | 71,396          |
| 56656 | Michigan CityLa Porte, INMI      | Everywhere Else         | 71,367          |
| 33598 | Glens Falls, NY                  | Everywhere Else         | 71,191          |
| 79201 | San Marcos, TX                   | Mid-Size Transit Cities | 70,801          |
| 10351 | Bristol, TN-VA                   | Everywhere Else         | 70,638          |
| 88840 | Tulare, CA                       | Everywhere Else         | 70,628          |
| 24823 | Dubuque, IA-IL                   | Everywhere Else         | 70,332          |
| 71074 | Porterville, CA                  | Mid-Size Transit Cities | 69,862          |
| 51283 | Longview, WA-OR                  | Everywhere Else         | 69,841          |
| 85708 | Sumter, SC                       | Everywhere Else         | 68,825          |
| 11026 | Brunswick-St. Simons, GA         | Everywhere Else         | 68,750          |
| 92890 | Watsonville, CA                  | Mid-Size Transit Cities | 68,668          |
| 49852 | Lima, OH                         | Everywhere Else         | 68,630          |
| 28981 | Fajardo, PR                      | Everywhere Else         | 68,587          |
| 05869 | Bay City, MI                     | Everywhere Else         | 68,472          |
| 34219 | Grand Forks, ND–MN               | Everywhere Else         | 68,160          |

| UACE  |   |                         |                 |
|-------|---|-------------------------|-----------------|
| Code  | Urbanized Area Name                                 | 2020 Market             | 2020 Population |
| 22069 | Dalton, GA  | Everywhere Else         | 67,830          |
| 27261 | El Paso de Robles (Paso Robles) –<br>Atascadero, CA | Everywhere Else         | 67,804          |
| 14482 | Casper, WY  | Everywhere Else         | 67,751          |
| 34759 | Great Falls, MT                                     | Everywhere Else         | 67,097          |
| 60490 | Mount Vernon, WA                                    | Mid-Size Transit Cities | 66,825          |
| 20422 | Corvallis, OR                                       | Mid-Size Transit Cities | 66,791          |
| 81631 | Sherman–Denison, TX                                 | Everywhere Else         | 66,691          |
| 36703 | Hanford, CA   | Mid-Size Transit Cities | 66,638          |
| 19801 | Conway, AR  | Everywhere Else         | 66,619          |
| 59410 | Morristown, TN                                      | Everywhere Else         | 66,539          |
| 43885 | Kankakee, IL  | Everywhere Else         | 66,530          |
| 02062 | Ames, IA  | Mid-Size Transit Cities | 66,342          |
| 90514 | Victoria, TX  | Everywhere Else         | 65,986          |
| 68887 | Petaluma, CA  | Everywhere Else         | 65,227          |
| 05040 | Barceloneta–Florida–Bajadero, PR                    | Everywhere Else         | 65,070          |
| 43453 | Juana Díaz, PR                                      | Everywhere Else         | 65,023          |
| 84859 | Steubenville-Weirton, OH-WV-PA                      | Everywhere Else         | 64,981          |
| 22960 | DeKalb, IL  | Everywhere Else         | 64,736          |

| UACE  |  |                         |                 |
|-------|--|-------------------------|-----------------|
| Code  | Urbanized Area Name  | 2020 Market             | 2020 Population |
| 97561 | Yauco, PR  | Everywhere Else         | 63,885          |
| 80416 | Sebring–Avon Park, FL                                      | Everywhere Else         | 63,297          |
| 75988 | Rocky Mount, NC  | Everywhere Else         | 63,297          |
| 06760 | Beloit, WI–IL  | Everywhere Else         | 63,073          |
| 45694 | Kokomo, IN   | Everywhere Else         | 62,576          |
| 67672 | Parkersburg, WV–OH   | Everywhere Else         | 62,500          |
| 27118 | Elmira, NY   | Everywhere Else         | 62,468          |
| 87787 | Titusville, FL   | Everywhere Else         | 62,459          |
| 49594 | Lexington Park–California–<br>Chesapeake Ranch Estates, MD | Everywhere Else         | 62,352          |
| 00955 | Albany, OR   | Everywhere Else         | 62,074          |
| 07138 | Benton Harbor–Lincoln–St. Joseph,<br>MI                    | Everywhere Else         | 61,888          |
| 78774 | Sandusky–Port Clinton, OH                                  | Everywhere Else         | 61,743          |
| 14158 | Carson City, NV  | Everywhere Else         | 61,629          |
| 04951 | Bangor, ME   | Everywhere Else         | 61,539          |
| 43291 | Johnstown, PA  | Everywhere Else         | 61,521          |
| 56899 | Middletown, NY   | Everywhere Else         | 61,516          |
| 96994 | Woodland, CA   | Mid-Size Transit Cities | 61,133          |

| UACE  |                         |                         |                 |
|-------|-------------------------|-------------------------|-----------------|
| Code  | Urbanized Area Name     | 2020 Market             | 2020 Population |
| 19126 | Columbus, IN            | Everywhere Else         | 60,982          |
| 49339 | Lewiston, ME            | Everywhere Else         | 60,743          |
| 22690 | Decatur, AL             | Everywhere Else         | 60,458          |
| 53848 | Manhattan, KS           | Everywhere Else         | 60,454          |
| 76204 | Rome, GA                | Mid-Size Transit Cities | 60,403          |
| 84088 | Spring Hill, TN         | Everywhere Else         | 60,309          |
| 53983 | Mankato, MN             | Everywhere Else         | 60,206          |
| 40213 | Hot Springs, AR         | Everywhere Else         | 59,133          |
| 41914 | Ithaca, NY              | Mid-Size Transit Cities | 59,102          |
| 09514 | Bozeman, MT             | Everywhere Else         | 59,080          |
| 84630 | Staunton–Waynesboro, VA | Everywhere Else         | 59,065          |
| 46747 | Lake Havasu City, AZ    | Everywhere Else         | 59,017          |
| 89245 | Twin Falls, ID          | Everywhere Else         | 58,808          |
| 32113 | Gadsden, AL             | Everywhere Else         | 57,975          |
| 43615 | KahuluiWailuku, HI      | Mid-Size Transit Cities | 57,905          |
| 54477 | Maricopa, AZ            | Everywhere Else         | 57,771          |
| 94726 | Wheeling, WV-OH         | Everywhere Else         | 57,695          |
| 06139 | Beckley, WV             | Everywhere Else         | 57,468          |
| 58357 | Monroe, MI              | Everywhere Else         | 57,260          |

| UACE  |  |                         |                 |
|-------|--|-------------------------|-----------------|
| Code  | Urbanized Area Name                    | 2020 Market             | 2020 Population |
| 79147 | San Luis Obispo, CA                    | Mid-Size Transit Cities | 56,904          |
| 88300 | Traverse City–Garfield, MI             | Everywhere Else         | 56,890          |
| 36784 | Hanover, PA                            | Everywhere Else         | 56,712          |
| 46801 | Lake Jackson, TX                       | Everywhere Else         | 56,054          |
| 34516 | Grants Pass, OR                        | Everywhere Else         | 55,724          |
| 13537 | Cape Girardeau, MO-IL                  | Everywhere Else         | 55,546          |
| 95455 | Williamsport, PA                       | Mid-Size Transit Cities | 55,344          |
| 98182 | Zephyrhills, FL                        | Everywhere Else         | 55,133          |
| 34246 | Grand Island, NE                       | Everywhere Else         | 55,099          |
| 49312 | Lewiston, IDWA                         | Everywhere Else         | 54,798          |
| 30223 | Fond du Lac, WI                        | Everywhere Else         | 54,731          |
| 33814 | Goldsboro, NC                          | Everywhere Else         | 54,456          |
| 11431 | Bullhead City, AZNV                    | Everywhere Else         | 54,396          |
| 51040 | Lompoc, CA                             | Everywhere Else         | 54,287          |
| 81901 | Sierra Vista, AZ                       | Everywhere Else         | 54,274          |
| 25498 | Eagle Pass, TX                         | Everywhere Else         | 54,083          |
| 92459 | WasillaKnik-FairviewNorth<br>Lakes, AK | Everywhere Else         | 53,444          |
| 51499 | Los Lunas, NM                          | Everywhere Else         | 53,365          |

| UACE  |  |                         |                 |
|-------|--|-------------------------|-----------------|
| Code  | Urbanized Area Name                            | 2020 Market             | 2020 Population |
| 70480 | Poinciana, FL                                  | Everywhere Else         | 53,267          |
| 39133 | Hinesville, GA                                 | Everywhere Else         | 53,107          |
| 06031 | Beaufort–Port Royal, SC                        | Everywhere Else         | 52,515          |
| 38161 | Helena, MT                                     | Everywhere Else         | 52,380          |
| 14185 | Cartersville, GA                               | Everywhere Else         | 52,351          |
| 56980 | Midland, MI                                    | Everywhere Else         | 52,340          |
| 35866 | Guayama, PR                                    | Everywhere Else         | 52,290          |
| 17426 | Clayton, NC                                    | Everywhere Else         | 51,898          |
| 90095 | Valparaiso–Shorewood Forest, IN                | Everywhere Else         | 51,867          |
| 92674 | Watertown, NY                                  | Everywhere Else         | 51,832          |
| 29278 | Farmington, NM                                 | Everywhere Else         | 51,763          |
| 67812 | Pascagoula–Gautier, MS                         | Everywhere Else         | 51,454          |
| 75313 | Riverhead–Southold, NY                         | Everywhere Else         | 51,120          |
| 14401 | Casa Grande, AZ                                | Everywhere Else         | 50,981          |
| 57655 | Minot, ND                                      | Everywhere Else         | 50,925          |
| 03196 | Arroyo Grande–Grover Beach–<br>Pismo Beach, CA | Mid-Size Transit Cities | 50,885          |
| 37945 | Hazleton, PA                                   | Everywhere Else         | 50,860          |
| 66781 | Paducah, KY–IL                                 | Everywhere Else         | 50,833          |

| UACE<br>Code   | Urbanized Area Name          | 2020 Market     | 2020 Population |
|----------------|------------------------------|-----------------|-----------------|
| 29608          | Fernandina Beach–Yulee, FL   | Everywhere Else | 50,805          |
| 42967          | Jefferson City, MO           | Everywhere Else | 50,775          |
| 69778          | Pittsfield, MA               | Everywhere Else | 50,720          |
| 69517          | Pinehurst–Southern Pines, NC | Everywhere Else | 50,319          |
| 45262          | Kingston, NY                 | Everywhere Else | 50,254          |
| 27631          | Enid, OK                     | Everywhere Else | 50,194          |
| 96130          | Winder, GA                   | Everywhere Else | 50,189          |
| 15184          | Chambersburg, PA             | Everywhere Else | 50,094          |
| 91405          | Walla Walla, WA-OR           | Everywhere Else | 50,013          |
| Grand<br>Total | -                            | -               | 240,770,576     |

Table A-2: 2020 Non-Urbanized Areas

| UZA Name               | 2020<br>Population |
|------------------------|--------------------|
| Texas Non-UZA          | 6,869,284          |
| North Carolina Non-UZA | 4,506,122          |
| California Non-UZA     | 4,357,850          |
| Pennsylvania Non-UZA   | 4,196,634          |
| Ohio Non-UZA           | 4,126,404          |
| Georgia Non-UZA        | 3,592,882          |
| New York Non-UZA       | 3,425,270          |
| Michigan Non-UZA       | 3,418,966          |
| Tennessee Non-UZA      | 3,066,916          |
| Wisconsin Non-UZA      | 2,782,206          |
| Indiana Non-UZA        | 2,718,298          |
| Missouri Non-UZA       | 2,638,371          |
| Illinois Non-UZA       | 2,638,201          |
| Kentucky Non-UZA       | 2,626,585          |
| Alabama Non-UZA        | 2,587,288          |
| Virginia Non-UZA       | 2,567,062          |
| Florida Non-UZA        | 2,423,098          |

| UZA Name               | 2020<br>Population |
|------------------------|--------------------|
| Minnesota Non-UZA      | 2,336,986          |
| Mississippi Non-UZA    | 2,100,239          |
| South Carolina Non-UZA | 2,074,919          |
| Oklahoma Non-UZA       | 1,994,607          |
| Washington Non-UZA     | 1,895,776          |
| Arkansas Non-UZA       | 1,787,552          |
| Iowa Non-UZA           | 1,771,195          |
| Louisiana Non-UZA      | 1,763,723          |
| Oregon Non-UZA         | 1,553,447          |
| Kansas Non-UZA         | 1,388,420          |
| Colorado Non-UZA       | 1,331,465          |
| Arizona Non-UZA        | 1,296,856          |
| Maryland Non-UZA       | 1,214,444          |
| West Virginia Non-UZA  | 1,204,816          |
| Maine Non-UZA          | 995,851            |
| New Mexico Non-UZA     | 978,126            |
| Nebraska Non-UZA       | 846,992            |
| Idaho Non-UZA          | 836,252            |
| New Jersey Non-UZA     | 824,050            |

| UZA Name                                      | 2020<br>Population |
|---|--------------------|
| Massachusetts Non-UZA                         | 774,241            |
| New Hampshire Non-UZA                         | 768,345            |
| Montana Non-UZA                               | 688,772            |
| Connecticut Non-UZA                           | 671,921            |
| Utah Non-UZA                                  | 647,581            |
| South Dakota Non-UZA                          | 599,629            |
| Vermont Non-UZA                               | 525,045            |
| Puerto Rico Non-UZA                           | 463,143            |
| Wyoming Non-UZA                               | 429,850            |
| Hawaii Non-UZA                                | 426,022            |
| North Dakota Non-UZA                          | 403,127            |
| Nevada Non-UZA                                | 399,654            |
| Delaware Non-UZA                              | 370,439            |
| Alaska Non-UZA                                | 359,299            |
| Rhode Island Non-UZA                          | 125,668            |
| American Samoa Non-UZA                        | 49,710             |
| Commonwealth of the Northern Marianas Non-UZA | 47,329             |
| Guam Non-UZA                                  | 25,672             |

| UZA Name                     | 2020<br>Population |
|------------------------------|--------------------|
| District of Columbia Non-UZA | -                  |
| Grand Total                  | 94,512,600         |