Federal Transit Administration
U.S. Department of Transportation

Office of Budget and Policy

National Transit Summaries and Trends

2023 Edition

Primary Contributors

Alexus Cook

Amanda Walton-Hawthorne

Andrew Gogolin

Chandrashekar Machiraju

Chelsea Champlin

Declan Murphy

Joseph Eldredge

Joseph Gallagher

Kirby Ledvina

Mahatha Oliver

Reed Kattmann

Sarah Davis

Tamalynn Kennedy

Additional Support

Abigail Harris

Andrew Patterson

Davene Wasser

Emily Import

Margaret Schilling

Matthew Bonzek

Melissa Conte

Nathalie Marcus

Stephen Brumbaugh

Thomas Coleman

Thomas Montenegro

Todd Schrecongost

National Transit Summaries & Trends

2023 Edition

Executive Summary **1**

Chapter 1. Introduction and Fast Facts about Transit in 2023 ..... **2**

Preface: Understanding the Data Collection 2

Key Differences among Transit Systems Reporting to the NTD 2

Key Methods of Aggregation in the NTD 4

Comparing Transit Ridership with Other Forms of Transportation 5

How Many People Work in Public Transit? 6

Passenger Stations Nationwide 8

Chapter 2. Overview of Public Transportation and Reporting Requirements **11**

History of the Federal Transit Program 12

Legislative Requirement for the NTD 15

Urban Transit Programs 17

Rural Transit Programs 17

Transit Asset Management Requirement 18

Reporting to Congress on Transit Conditions and Performance 19

Human Services Transportation 20

Chapter 3. Overview of Transit Agency Organizations 22

Transit Agency Fiscal Year Cohorts 22

NTD Organization Types 23

Chapter 4. Overview of Transit Operations 26

Transit Modes 26

Types of Service 35

Chapter 5. Overview of Urbanized Areas 39

Urbanized Areas or “UZAs” 39

UZA Population and Density 40

Rural Areas or “Non-Urbanized Areas” 42

Chapter 6. Transit Service by Area 44

Areas Served by Public Transportation 44

NTD Reporters and Modes Operated by Area 45

Chapter 7. Geographic Coverage 47

Areas Not Served by Public Transit 47

Directional Route Miles of Rail or Fixed Guideway 50

Map of Urbanized Areas 52

Chapter 8. Vehicle and Facility Asset Inventory 54

Transit Asset Management 54

Revenue Vehicles 56

Service Vehicles 62

Facilities 63

Americans with Disabilities Act Station Accessibility 67

Bus Fuel Usage 68

Chapter 9. Asset Conditions & Performance 69

Overall Performance Measures 69

Useful Life and Age for Revenue Vehicles 69

Useful Life and Age for Service Vehicles 74

Replacement Cost for Service Vehicles 76

Condition Assessments for Facilities 77

Track Miles 82

Mechanical Failures 85

Performance Targets 87

Chapter 10. Service Supplied 89

Vehicle Revenue Miles 89

System Capacity 94

Average Revenue Speed 100

Chapter 11. Ridership 102

Service Consumed by Transit Mode 102

Average Trip Length 103

National Ridership Trends 105

Service Effectiveness 108

Average Trip Length 111

Chapter 12. Sources of Funds 114

Current Year Sources of Funds 114

Sources of Funds over Time in Constant Dollars 117

State and Local Funding 118

Public Health Emergency Funding and Transit 120

Operating Expense Funding Sources 121

Sources of Funding by UZA 122

Chapter 13. Capital Funding 127

Capital Funding Sources 127

Types of Capital Expenses 130

Chapter 14. Operating Expenses 136

Trends in Funding Used to Cover Operating Expenses 136

Operating Expenditures by Function and Object Class 138

Chapter 15. Service Efficiency (Cost per Service Supplied) 141

Operating Expenditures per Vehicle Revenue Mile 141

Operating Expenditures per CEVRM and VRH 144

Labor Costs 146

Chapter 16. Cost Effectiveness (Cost per Ride) 148

Operating Expenditures per Passenger Mile 150

Farebox Recovery 151

Total Federal Assistance Applied to Transit and Unlinked Passenger Trips 153

Operating Expenditures per CEVRM vs. Operating Expenditures per PMT 154

Cost per UPT for Demand Response Service 158

Fixed-Route Bus UPT per Capita vs. VRM per Square Mile 161

Chapter 17. Safety 162

Fatalities and Injuries 162

Derailments and Collisions 164

Appendix A: Urbanized and Non-Urbanized Area Populations 166

Table A-I: 2020 Urbanized Areas 166

Table A-2: 2020 Non-Urbanized Areas 192

Executive Summary

This report contains key statistics and trends pertaining to public transportation in the United States (U.S.) as of 2023. The primary data sources are Annual Reports submitted to the Federal Transit Administration's (FTA) National Transit Database (NTD) program for Report Year (RY) 2023. Each agency that is reporting submits data on a fiscal year basis. Nearly **3,000** public transit agencies provided Annual Reports in 2023. This report aggregates and summarizes the data they reported. Based on this report, transit operators in the United States:

- Provided **6.9 billion passenger trips**, an increase of 17.3 percent from RY 2022, via **18** distinct modes of transportation.
- Carried passengers approximately **35 billion miles**, an increase of 16.9 percent from RY 2022.
- Operated in **502 Urbanized Areas**.
- This report also approximates that **over 370,000** workers made public transit possible each day with a National fleet of over **174,000** vehicles providing transit service in 2023.

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: Areal Geography
- Chapters 8-9: Transit System Resources and Asset Conditions
- Chapters 10-11: Service Supplied and Consumed
- Chapters 12-14: Funding
- Chapters 15-16: Measures of System Performance
- Chapter 17: Transit Safety

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 in terms of where it is provided. This report classifies transit service by the urbanized and non-urbanized areas served (see Chapter 6) to allow readers to identify similarities and differences among areas with similar characteristics.

This report is organized into 17 chapters, with similar topics of interest identified in the graphic to the left.

Chapter 1. Introduction and Fast Facts about Transit in 2023

Preface: Understanding the Data Collection

Most transit systems in the U.S. report to the NTD. After Congress required data reporting in 1974, it set up FTA's NTD 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 NTD data 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, this report 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 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.

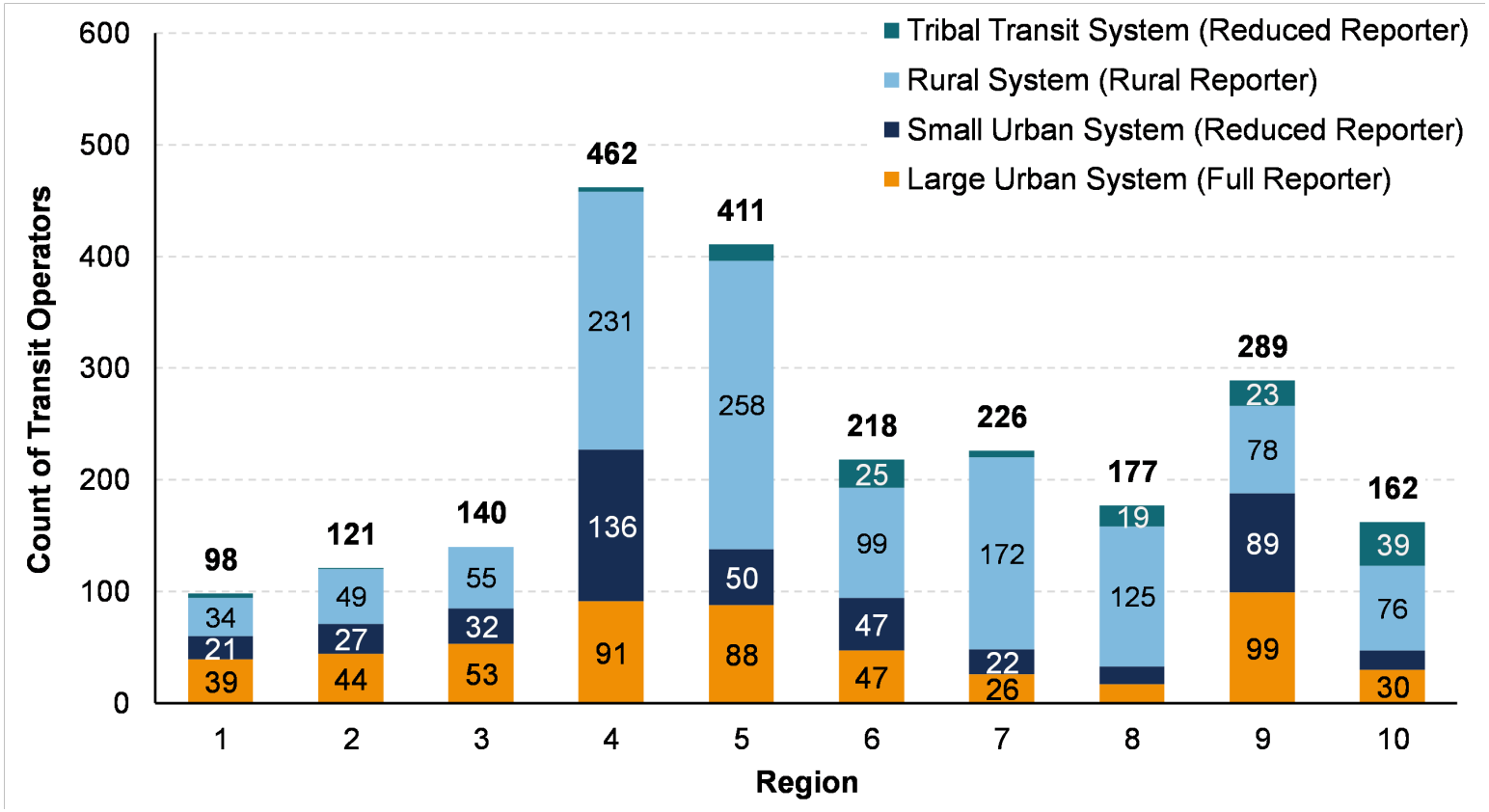
Key Differences among Transit Systems Reporting to the NTD

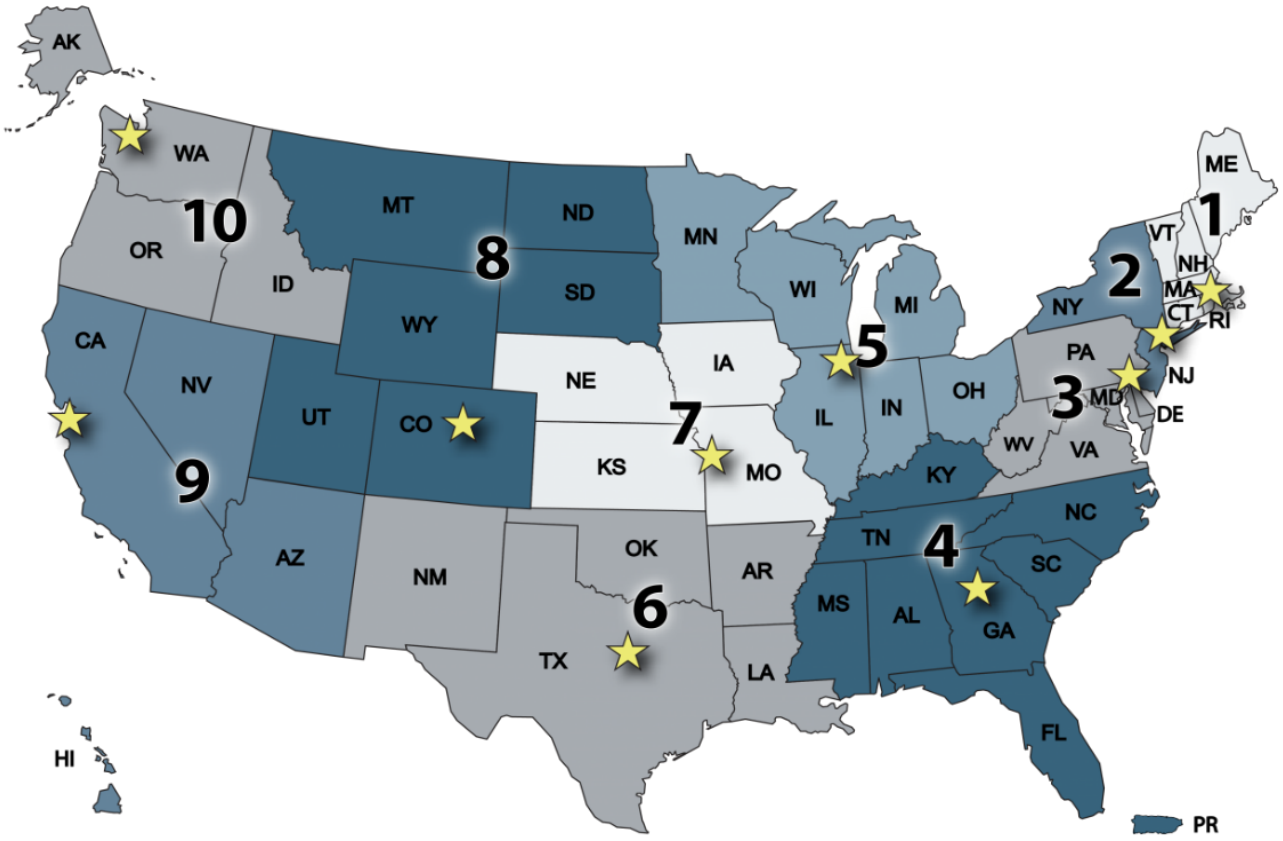
The NTD collects different levels of data based on either the size or the service area of the reporting entity. Most notably, urban transit systems reporting fewer than 30 vehicles (Reduced Reporters) or operating exclusively in rural areas (Rural Reporters**) do not report the following data:**

- 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 transit service by FTA Region in accordance with 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). The exhibit spotlights a higher concentration of transit operators in Regions 4 and 5, whereas Regions 1 and 3 contain a lower concentration of operators. The FTA Regions are shown in the map below with stars representing the FTA Regional Offices.

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 2023, the NTD classified transit according to 18 distinct modes (see Chapter 4) in two major categories: Rail and Non-Rail. These modes and categories are used throughout this report. Many statistics are collected by mode, whereas others

are collected by transit agency systemwide. Some data records, such as revenue vehicle inventory or facility inventory, may span multiple modes, which creates some challenges with aggregation.

Comparing Transit Ridership with Other Forms of Transportation

As Exhibit 1.2 demonstrates, public transit supports far more passenger trips annually (defined further in Chapter 11) than other transportation modes. FTA encourages readers to consult the Bureau of Transportation Statistics' 2023 Transportation Statistics Annual Report[1] for further comparisons. It is important to note the transportation modes listed in Exhibit 1.2 have different service structures causing both ridership levels and average trip lengths to vary. As compared to an average trip length of 5.1 miles reported by Full Reporters for public transit, aviation and intercity rail are characterized by longer trip lengths, with the average for Amtrak in 2021 reported as 234 miles.

Exhibit 1.2 - 2023 Annual Ridership Across Transportation Modes and Change from 2022

Transportation Modes	Unlinked Passenger Trips (Millions, 2023)	Change from 2022 Measure
Public Transit	6,892	+17%
Aviation[2]	819[3]	+9%
Amtrak	29[4]	+25%

[1] Transportation Statistics Annual Report 2023. United States. Department of Transportation. Bureau of Transportation Statistics. 2023-12-01. DOI: https://doi.org/10.21949/1529944

[2] 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.

[3] Full Year 2023 U.S. Airline Traffic Data

[4] Amtrak Fact Sheet – FY23 Ridership

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 (NAICS) code used by the Bureau of Labor Statistics (BLS) to capture industry-specific data for the ground transportation industry, which includes the number of public transportation workers, as described in this report. There are various modes of transportation included in this industry, including buses, subways, and light rail systems.

In 2023, public transportation systems employed approximately 388,000 workers. Comparatively, the air transportation industry employs about 536,700 workers, 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 2023, there were 184,990 bus drivers in the U.S. (excluding schools and hospitals). Exhibit 1.3 demonstrates that, among these drivers, around 148,000 work in public transportation. While not all of "Interurban and Rural Bus Transportation" consists of what transit law defines as public transportation (see Chapter 2), rural bus systems are typically open to the public.

Exhibit 1.3 – Count of Bus Drivers in the U.S. in Public-Transit-Related Jobs as of May 2023 (Bureau of Labor Statistics)[5]

Industry	Employment	Hourly Mean Wage	Annual Mean Wage
Local Government, excluding schools and hospitals (Occupational Employment and Wage Statistics (OEWS) Designation)	117,610	$31.40	$65,300
Urban Transit Systems	23,240	$24.87	$51,730

[5]Bureau of Labor Statistics. Occupational Employment and Wages, May 2023 for Bus Drivers, Transit, and Intercity, accessed September 2024.

Industry	Employment	Hourly Mean Wage	Annual Mean Wage
Interurban and Rural Bus Transportation	7,290	$23.56	$49,000
Other Transit and Ground Passenger Transportation	6,580	$21.70	$45,140

At the end of NTD Report Year (RY) 2023, there was an estimated National total of over 388,000 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 with Directly Operated modes only, therefore, Reduced and Rural Reporters are excluded from the exhibit below as well as any Purchased Transportation modes.

Exhibit 1.4 demonstrates the full-time and part-time employees reported from 2013 to 2023. From 2013 to 2016, the transit workforce grew by about 5 percent, adding nearly 13,000 jobs. Service cuts since the COVID-19 public health emergency caused the employee counts to decrease each year until 2022. Total employees increased over 4 percent from 2022 to 2023 alone, adding 10,605 jobs.

Exhibit 1.4 – 10-Year Trend in Transit Workforce

Report Year	Full-Time Employee Count	Part-Time Employee Count	Total Employee Count
2013	239,287	18,312	**257,599**
2014	244,220	18,368	**262,588**
2015	247,263	17,377	**264,640**
2016	252,643	17,571	**270,214**
2017	252,142	17,223	**269,365**

Report Year	Full-Time Employee Count	Part-Time Employee Count	Total Employee Count
2018	253,893	16,780	**270,672**
2019	254,959	15,123	**270,082**
2020	250,839	13,753	**264,592**
2021	244,908	11,872	**256,780**
2022	248,198	10,945	**259,143**
2023	258,334	11,413	**269,747**

Passenger Stations Nationwide

Expanding access to transit is another important goal of FTA's funding programs. The NTD collects data that can be used to identify the location and type of passenger transit stations. As of 2023, there were **over 10,000** passenger facilities (including parking facilities) used in transit revenue service. Exhibit 1.5 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.

Exhibit 1.5 – Transit Passenger Stations in Manhattan and Brooklyn, NY (Sized by Square Footage)

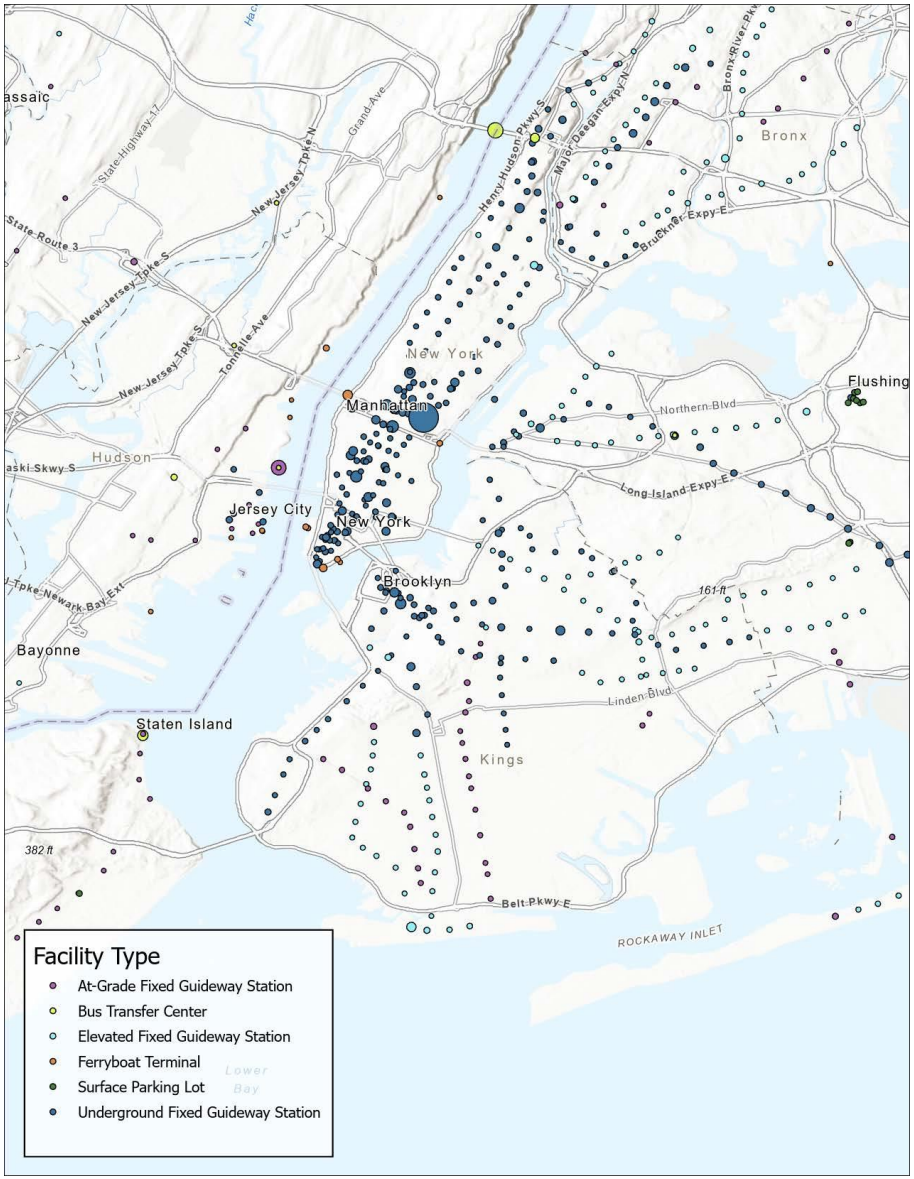
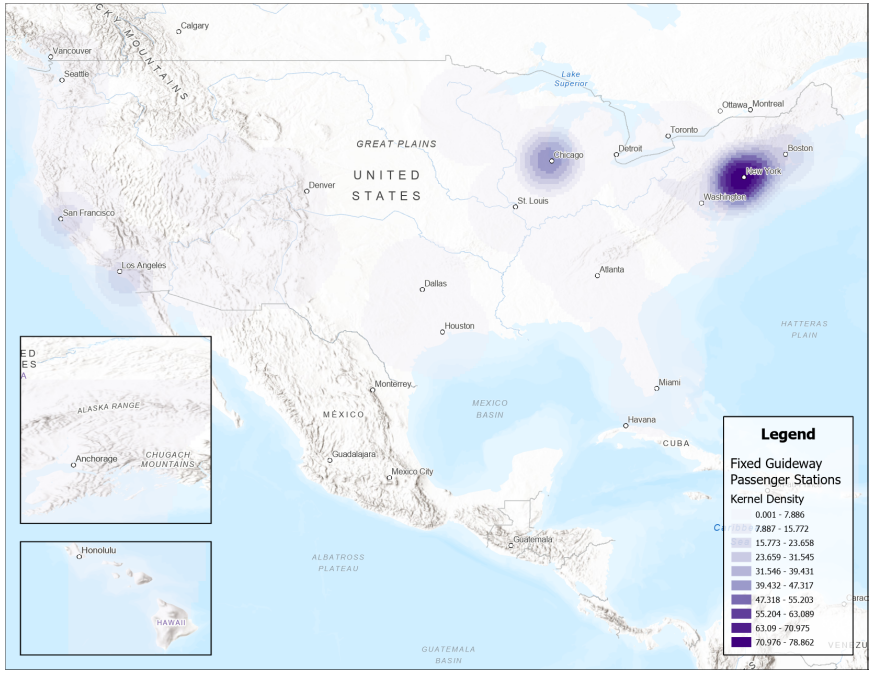
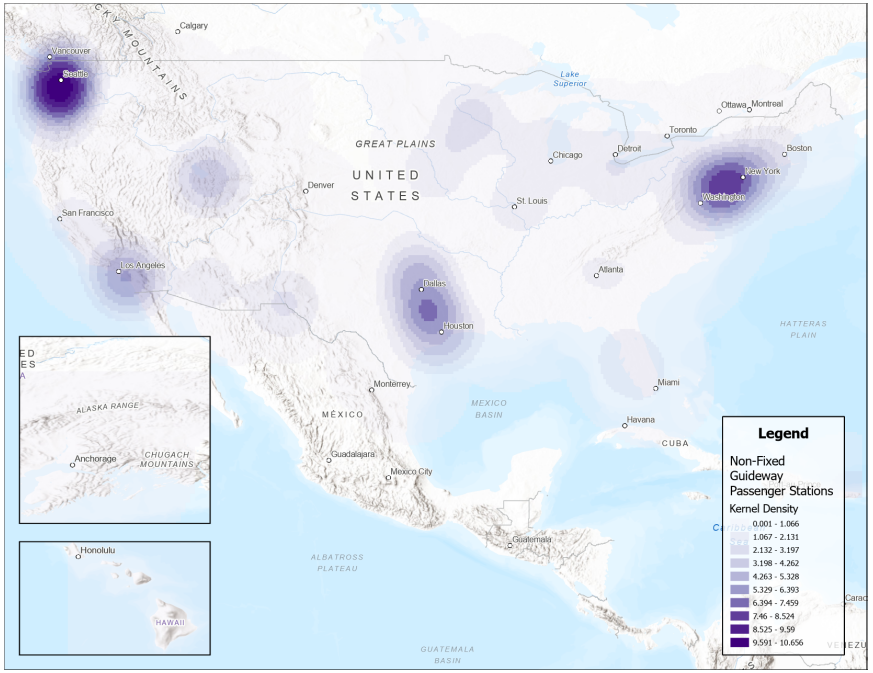


Exhibit 1.6 presents two heat maps that demonstrate the distribution of passenger stations used for rail modes operating along fixed guideway (left) and passenger stations used by Non-Rail modes (right). The darker coloration indicates a higher concentration of transit stations, whereas the lighter coloration indicates a lower concentration. The exhibit spotlights a high concentration of passenger stations in the New York, NY, Philadelphia, PA, Baltimore, MD, and Washington, D.C. areas used by rail modes. The next highest concentration for fixed guideway passenger stations is in the Chicago, IL area. There is a high concentration of passenger stations used by Non-Rail modes near Seattle, WA, New York, NY, and the area between Dallas and Houston, TX. Connections between the dense areas and outlying areas can be seen below reflecting common paths that commuters take when riding public transportation into urbanized areas.

Exhibit 1.6 – Transit Passenger Stations (Fixed Guideway v. Non-Fixed Guideway)





Chapter 2. Overview of Public Transportation and Reporting Requirements

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 United States Code (U.S.C.) §5302(15):

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 243 (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 as being a shared-ride service that is open to the general public, including paratransit services for older adults and individuals with disabilities. Airline and airplane services are not included.

Service described as "regular and continuing" operates on a schedule during specified hours during the week and weekend. Services that operate on an ad hoc basis (e.g., only for special events) are not regular and continuing. For this reason, the NTD does not collect data from limited-time 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.

The NTD excludes service restricted to school pupils but includes school tripper service if transit agencies open it to the general public. The NTD also excludes sightseeing service primarily for purposes of enjoying the trip itself or resulting in nonstop service back to the point of origin.

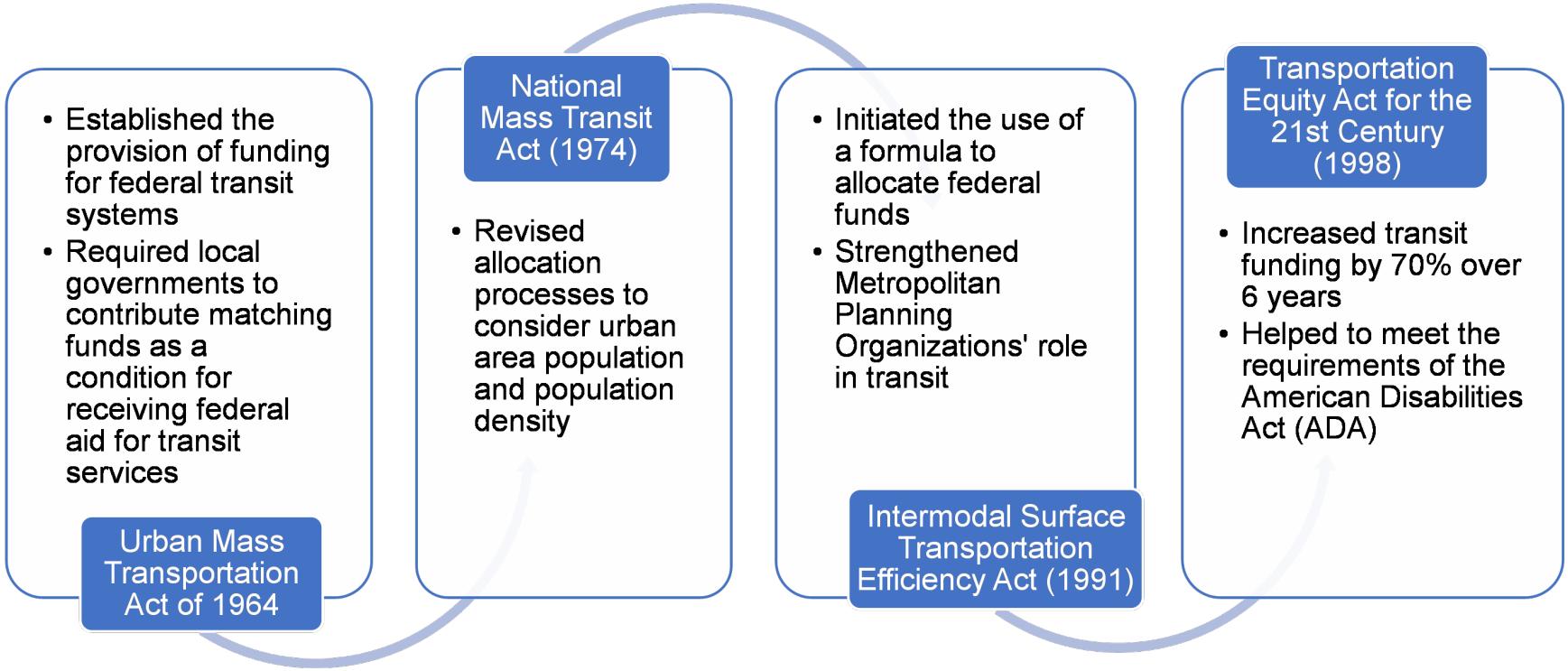
History of the Federal Transit Program

Transit systems in the U.S. date back to the 19th 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.

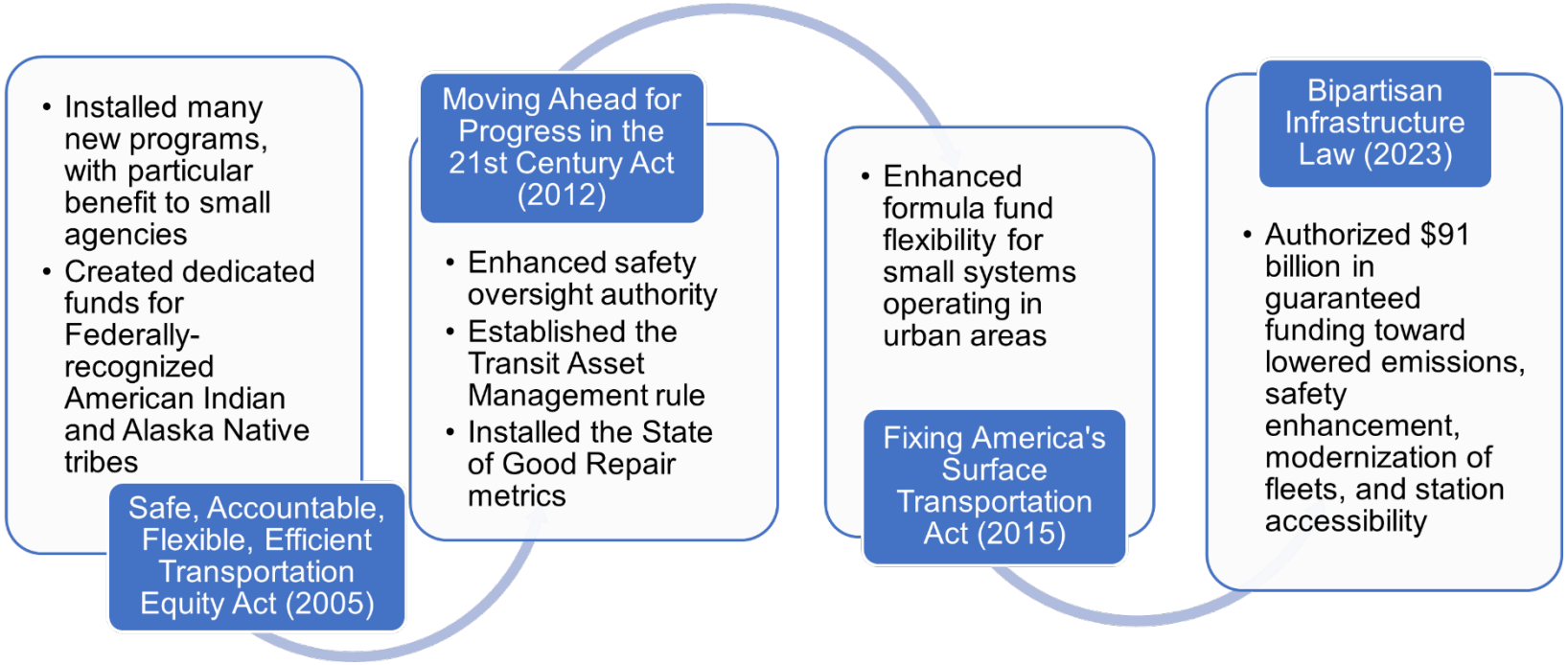
In 1964, President Lyndon B. Johnson signed the Urban Mass Transit Act into law, creating the Urban Mass Transportation Administration (UMTA). During the next 10 years, UMTA provided capital assistance to public agencies to replace overage transit assets and to purchase the assets of failing private 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 that the transit industry initiated with funding from 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[6]



[6] FHWA Status of the Nation's Highways, Bridges, and Transit Conditions and Performance 23rd Edition, Accessed September 2024.



Further change came in 1991 when the Intermodal Surface Transportation Efficiency Act codified an existing formula that FTA had used to allocate Federal funds.[7] There were 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, Moving Ahead for Progress in the 21st Century (MAP-21) Act of 2012, and the Fixing America's Surface Transportation (FAST) Act.

[7] A History of FTA's Funding Formulas document. Accessed August 2024.

In 2021, the Bipartisan Infrastructure Law,[8] 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.

Legislative Requirement for the NTD

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 (SGR) 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 U.S.C. §5335, as shown in Exhibit 2.3.

[8] FTA Bipartisan Infrastructure Law website. Accessed August 2024.

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.

Urban Transit Programs

The §5307 program provides capital, operating, and planning assistance for public transportation operated in urbanized areas. As discussed further in Chapter 5, an urbanized area is an area with a population of 50,000 or more that is designated as such by the U.S. Department of Commerce, Bureau of the Census.

Exhibit 2.4 – Urban Formula Program Reporting Requirements

Title 49 U.S.C. 5307 (c)

(1) Grant Recipient Requirements —

(K) in the case of a recipient for an urbanized area with a population of not fewer than 200,000 individuals, as determined by the Bureau of the Census, will submit an annual report listing projects carried out in the preceding fiscal year under this section for associated transit improvements as defined in section 5302

Rural Transit Programs

The §5311 program provides capital, operating, and planning assistance for public transportation that is 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 2.5, is also accomplished through the NTD.

Exhibit 2.5 – 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 (VRM); 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 §5307 urbanized area formula program and the §5311 rural area formula program.

Some agencies affected by the rule are only required to report TAM-related data to the NTD. As 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 2.6 – 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 Conditions and Performance

Some content presented in this report will be included in the Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance 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."[9] 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.

[9] U.S. Department of Transportation, Federal Highway Administration and Federal Transit Administration, Status of the Nation's Highways, Bridges, and Transit: Conditions & Performance Report to Congress, 25th Edition (Washington, DC: 2024).

Exhibit 2.7 – 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.

Human Services Transportation

FTA's §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) Alternatives to public transportation that assist seniors and individuals with disabilities with transportation.

The Americans with Disabilities Act of 1990 (ADA) 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 §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 §5310 program. Subrecipients of the §5310 program for alternatives to public transportation do not have NTD reporting requirements and do not report these services to the NTD. 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, collects and publishes a full inventory of 1,538[10] identified human service transportation operators in the Community Transportation Database, which is funded through the §5310 program.

[10] National Center for Mobility Management, Community Transportation Database, Accessed August 2024.

Chapter 3. Overview of Transit Agency Organizations

This chapter discusses the general data collection principles of the NTD and provides basic definitions to stratify the types of agencies filing NTD reports.

Transit Agency Fiscal Year Cohorts

NTD data, for the most part, represents annual data collected during the fiscal year of the agency. As such, agencies are grouped into three reporting groups representing the month in which their annual NTD report is due for submission: October reporters, January reporters, and April reporters. The assigned reporting group determines an agency's Annual Report due date, the last day to submit revisions of the report, as well as the report closeout date. NTD Annual Reports are generally due four months after the end of each agency's fiscal year.

As demonstrated in Exhibit 3.1, 53 percent of all transit agencies operate on a July to June fiscal year, 18 percent follow the Federal Fiscal Year (FFY) of October to September, and 28 percent follow a calendar year fiscal year.

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 (46 percent) of all operating expenses. The calendar year cohort accounts for 44 percent of all operating expenses since the Metropolitan Transportation Authority of New York is included in that group. The FFY cohort accounts for only 9 percent of total operating expenses.

Exhibit 3.1 – 2023 Count of Transit Agency Fiscal Year Cohorts

Fiscal Year End	Reporter Count	Percent of Total Reporters	Percent of Total Operating Expenses
January	0	0.0%	0.0%
February	1	0.03%	0.1%
March	4	0.1%	0.8%

Fiscal Year End	Reporter Count	Percent of Total Reporters	Percent of Total Operating Expenses
April	3	0.1%	0.1%
May	0	0.0%	0.0%
June	1,768	52.5%	46.4%
July	0	0.0%	0.0%
August	58	1.7%	0.2%
September	590	17.5%	8.5%
October	7	0.2%	0.1%
November	0	0.0%	0.0%
December	934	27.8%	44.0%
Total	**3,365**	**100.0%**	**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 *NTD Annual Reporting Policy Manual.*

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.

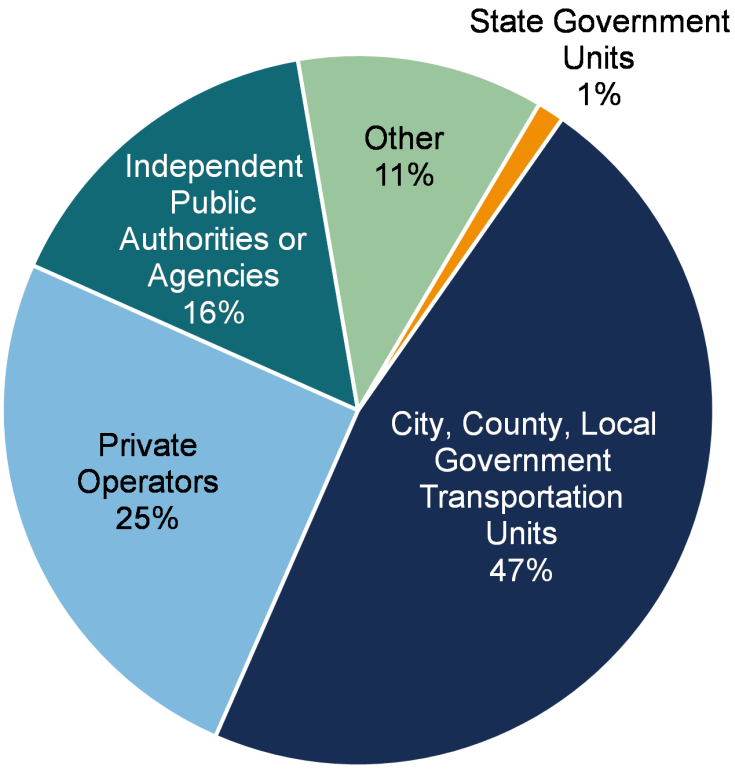
Area Agency on Aging – Organizations established under the Older Americans Act in 1973 to respond to the needs of Americans 60 and over.

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 organization that may come to mind when someone thinks of a transit agency; however, as shown in Exhibit 3.3, transit authorities make up only about 16 percent of transit providers. In contrast, nearly half of all transit operators in the NTD are departments located within a city or county government. Private Operators, including private nonprofits, for-profit corporations, and private providers reporting on behalf of a public agency accounted for 25 percent of all reporters. The Other category is comprised of organization types like Area Agencies on Aging, Metropolitan Planning Organizations, Tribes, and Universities.

Exhibit 3.3 – 2023 NTD Reporters by Organization Type

National Total of 2,799 NTD IDs



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 purpose 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.

Exhibit 4.1 – NTD Transit Mode Definitions

Rail Modes
Alaska Railroad (AR) – A public transportation system in Alaska that shares vehicles and facilities with freight Rail operations.

Rail Modes
Cable Car (CC) – A type of railway propelled by moving cables located beneath the street. Currently, the only operational system is in San Francisco. **Commuter Rail (CR) –** An electric- or diesel-propelled railway for urban passenger train service consisting of local travel that 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 urbanized areas 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, such as Amtrak, is excluded from the CR mode. **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 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. **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

Rail Modes
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 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.

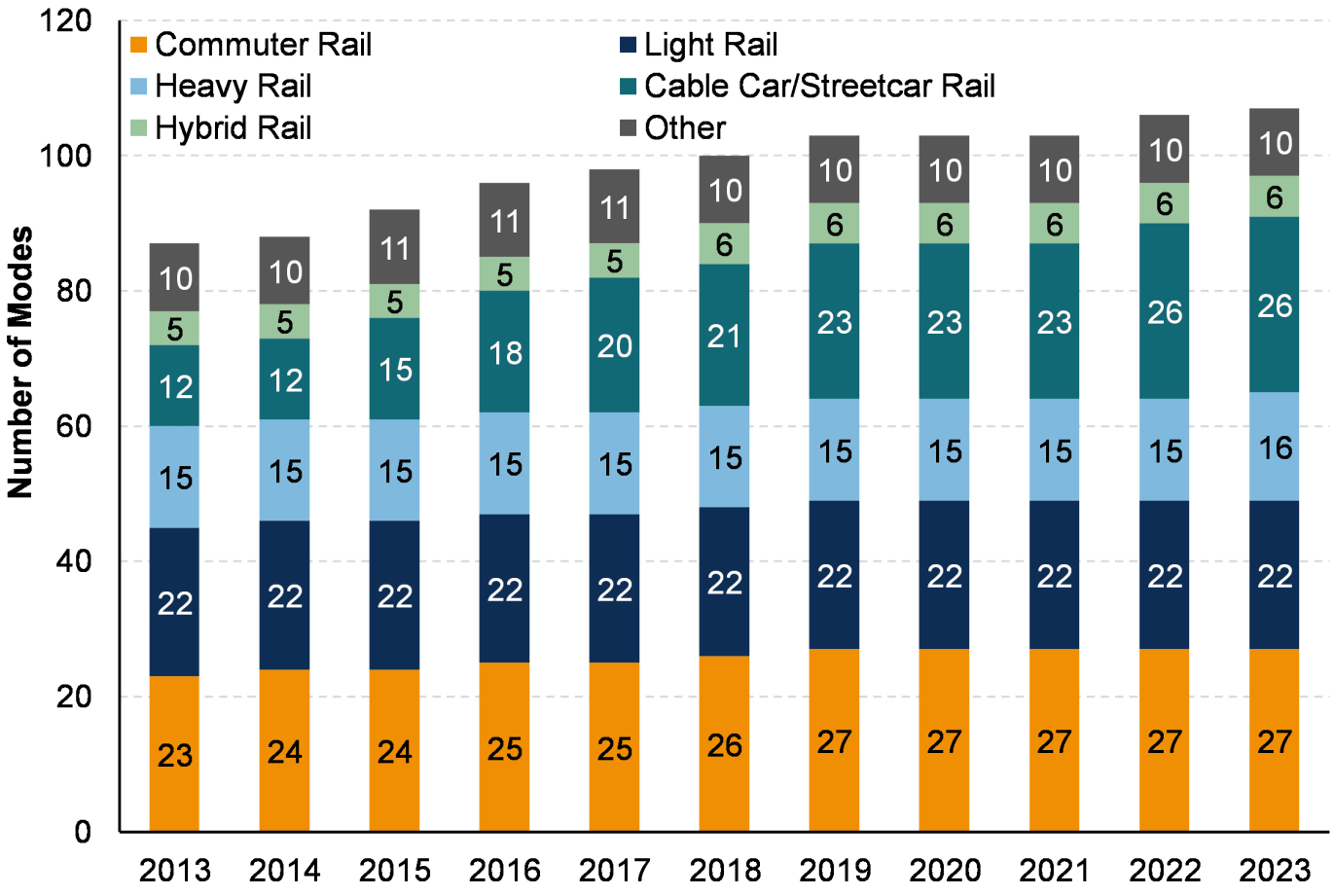
Non-Rail Modes
Aerial Tramway (TR) – A system of aerial cables with suspended vehicles. The vehicles are propelled by separate cables attached to the vehicle suspension system and powered by engines or motors at a central location not on board the vehicle. **Bus (MB) –** A transit mode using rubber-tired passenger vehicles operating on fixed routes and schedules over roadways. Vehicles are powered by a motor and fuel, or by electricity stored on board the vehicle. **Bus Rapid Transit (RB) –** A Fixed-Route Bus system that:

Non-Rail Modes
• Operates over 50 percent of its route in a separate ROW dedicated for transit use during peak periods • Has defined stations that are accessible for persons with disabilities and offer 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 • 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.

Non-Rail Modes
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

Exhibit 4.2 provides a count of total operating Rail modes. Over the last 10 years, the number of rail modes stayed relatively consistent. However, there has been a notable increase in the prevalence of the Streetcar Rail mode. The Streetcar Rail mode usually operates with one-car or two-car passenger trains, and may use antique railcars, replicas, or modern vehicles. The table in the exhibit below outlines the additional 14 Streetcar Rail services, four Commuter Rail services, and the Skyline rapid transit system in Honolulu, HI that began operation over the last 10 years.

Exhibit 4.2 – Total Rail Mode Inventory Increased from 87 in 2013 to 107 in 2023



List of Added Streetcar Rail and Commuter Rail Modes Operated in the U.S. Since 2013

Mode	NTD ID	Agency Name	City, State
Streetcar Rail	30112	District Department of Transportation	Washington, D.C.
	40008	City of Charlotte North Carolina	Charlotte, NC
	40022	Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA
	50213	M-1 Rail	Detroit, MI
	55311	City of Cincinnati	Cincinnati, OH
	55312	City of Milwaukee	Milwaukee, WI
	60006	City of El Paso	El Paso, TX
	60015	City of Galveston	Galveston, TX
	60017	Central Oklahoma Transportation and Parking Authority	Oklahoma City, OK
	60056	Dallas Area Rapid Transit	Dallas, TX
	70057	Loop Trolley Transportation Development District	Saint Louis, MO
	70271	Kansas City, City of Missouri	Kansas City, MO
	90033	City of Tucson	Tucson, AZ
	90209	Valley Metro Rail, Inc.	Phoenix, AZ
Commuter Rail	40232	Central Florida Commuter Rail	Tallahassee, FL
	60007	Fort Worth Transportation Authority	Fort Worth, TX
	80006	Denver Regional Transportation District	Denver, CO
	90299	Sonoma-Marin Area Rail Transit District	Petaluma, CA

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; 58 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 38 modes across 33 operators (two percent). Finally, Core Rail is common to many large cities, and there were 82 Core Rail modes operated across 60 reporters (two percent).

Exhibit 4.3 classifies transit agencies into the following categories based on the modes in which they operate: Core Rail and Fixed-Route Bus (FRB), Any Rail, FRB and Other, FRB Only, and Other Only:

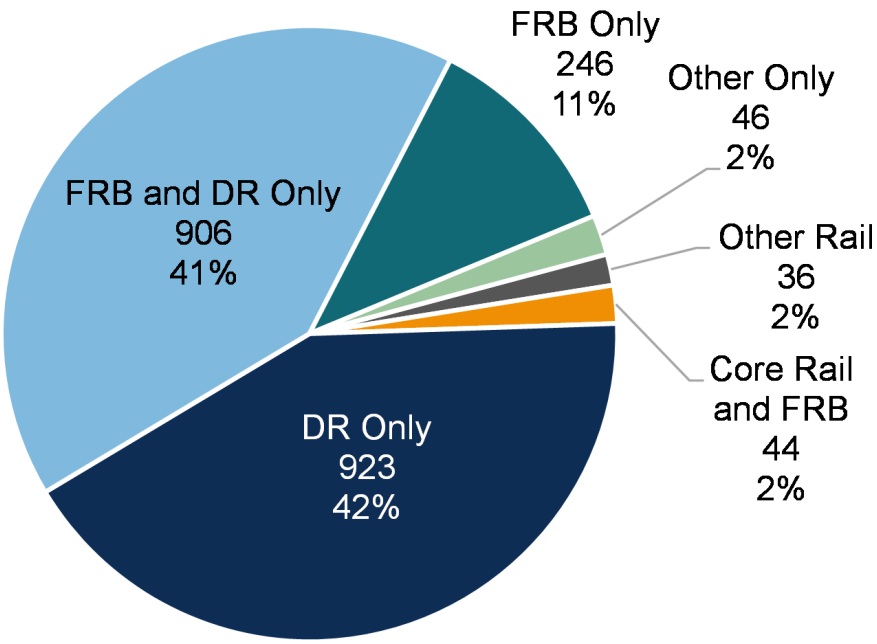
- **Core Rail and FRB** - All reporters that have a Core Rail mode and a Fixed-Route Bus mode. These are the "multimodal" transit systems with both a Rail system operating in the central city as well as Fixed-Route operations.
- **Other Rail** - Reporters that have a Rail mode and do not fall into the *Core Rail and FRB* category. For example, a stand-alone commuter Rail operator would fall in this category.
- **FRB and DR** - Reporters with a Fixed-Route Bus mode and a Demand Response mode. Demand Response is commonly used to fulfill the requirement of the Americans with Disabilities Act of 1990 (ADA) 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 people with disabilities is in this category.
- **FRB Only** - 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.
- **DR Only** - 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 demonstrates that there are only 44 multimodal transit agencies in the U.S. offering both Core Rail and FRB service. An additional 906 agencies offer both FRB service as well as a Demand Response; the latter typically being offered to provide complimentary paratransit service under the ADA. Another 246 provide FRB service but are either exempt from

ADA requirements or partner with another transit agency to fulfill the ADA requirements. Finally, 923 transit agencies only provide Demand Response service. Most of these serve small urban areas, outlying areas of large urban areas, or rural areas; however, a few are specialized operators of Demand Response service in the core of large urban areas.

Exhibit 4.3 – 2023 Count of Transit Operators by Modal Organization

National Total of 2,201 Transit Operators



Types of Service

Data the NTD collects by mode is further classified by Type of Service (TOS), as defined in Exhibit 4.4. 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.

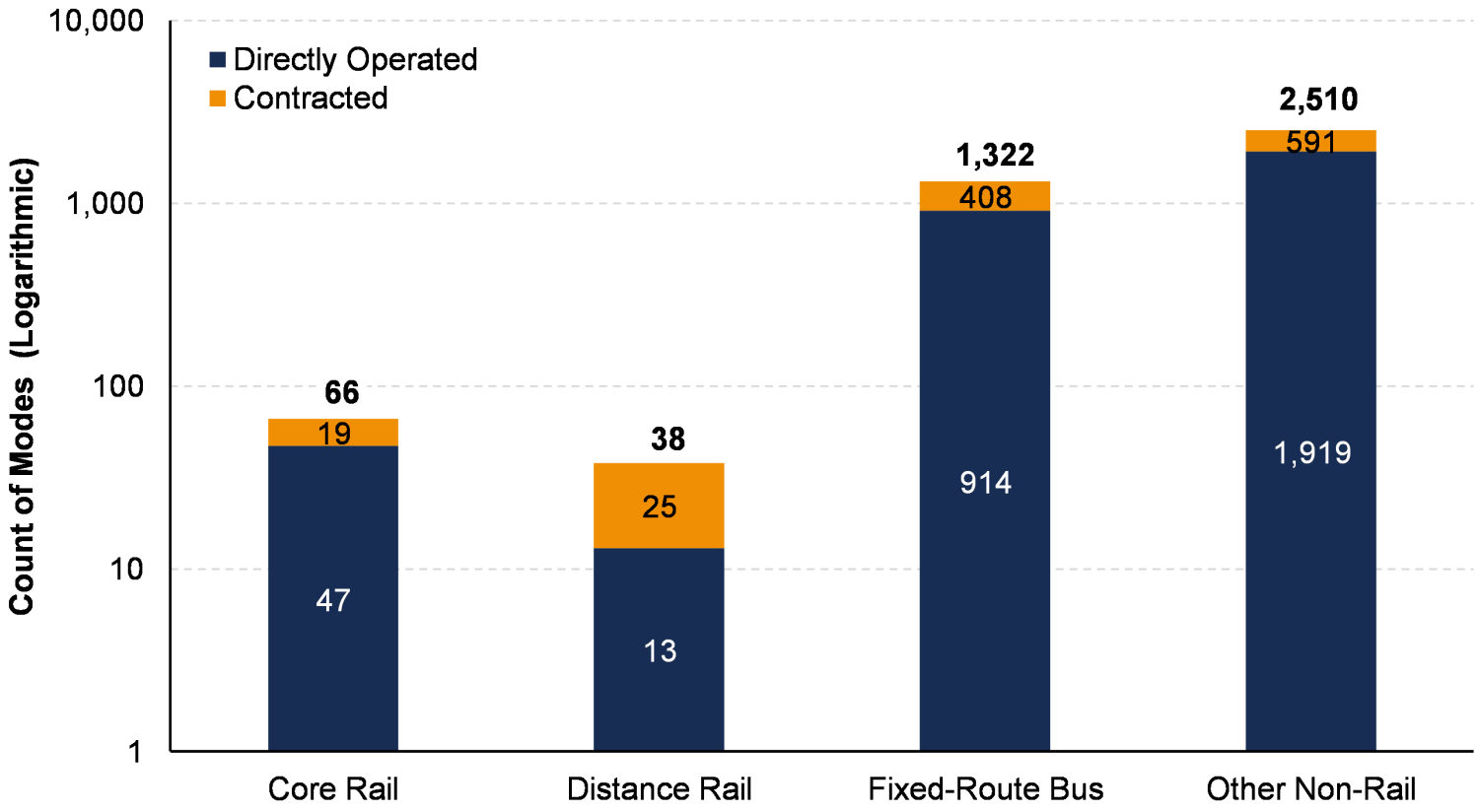
Purchased Transportation – Transportation Network Company (TN) – TN is a special Purchased Transportation subtype in which a service is provided by a transportation network company on behalf of a public transportation agency using non-dedicated vehicles. The service is dispatched by the transportation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

Further information on qualifying TOS criteria can be found in the *2023 NTD Policy Manual*.

A total of 3,936 modal operations were reported to the NTD in 2023. Overall, there were more Directly Operated services reported to the NTD (2,893) compared to contracted services (1,043). As shown in Exhibit 4.5, 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 – 2023 Modes by Type of Service (Directly Operated vs. Contracted)

National Total of 3,936 Modes



Demand Response service (included in Other Non-Rail) can be Directly Operated or purchased through a contractual arrangement with a third party (Purchased Transportation). 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 – 2023 Demand Response Modes by Type of Service

Directly Operated	Purchased Transportation	Taxi	Transportation Network	Total DR Services
1,884	508	83	21	**2,496**

There are 83 reporters that provide Demand Response service using taxi companies and a non-dedicated fleet. Additionally, there are 18 reporters that provide a Transportation Network Company (TN) TOS, as listed in Exhibit 4.7.

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

NTD ID	Reporter Name	City, State	Count of Transportation Network Company Services
00008	Tri-County Metropolitan District of Oregon	Portland, OR	1
30083	Transportation District Commission of Hampton Roads	Hampton, VA	1
40027	Pinellas Suncoast Transit Authority	Saint Petersburg, FL	1
40087	City of Durham	Durham, NC	1
40110	Charleston Area Regional Transportation Authority	North Charleston, SC	2
40141	Central Midlands Regional Transportation Authority	Columbia, SC	1
50050	Indianapolis and Marion County Public Transportation	Indianapolis, IN	1
50110	Bloomington Public Transportation Corporation	Bloomington, IN	1

NTD ID	Reporter Name	City, State	Count of Transportation Network Company Services
50113	Pace - Suburban Bus Division	Arlington Heights, IL	1
50182	Pace - Suburban Bus Division, ADA Paratransit Services	Arlington Heights, IL	1
60041	City of Arlington	Arlington, TX	1
60056	Dallas Area Rapid Transit	Dallas, TX	1
60270	City of McKinney	McKinney, TX	1
90008	City of Santa Monica	Santa Monica, CA	1
90019	Sacramento Regional Transit District	Sacramento, CA	1
90162	The Eastern Contra Costa Transit Authority	Antioch, CA	3
90258	City of Carson	Carson, CA	1
91078	City of Escalon	Escalon, CA	1
Total	-	-	**21**

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* (UZAs) 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 UZAs and having a population between 2,500 and 50,000 persons. The term "Urban Areas" was introduced to refer collectively to both UZAs 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.[11]

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, the population expressed as a percent of the national total population, and the Unlinked Passenger Trips (UPT) reported to each UZA. Please see Chapter 11 for more information about UPT. In 2020, 72 percent of the total U.S. population resided in a UZA, which was an increase of 0.43 percent from 2010. Meanwhile, over 99 percent of UPT was reported within a UZA in 2023.

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

Urbanized Area	UZA Population (millions)	Percent of National Population	2023 Unlinked Passenger Trips (millions)
New York—Jersey City—Newark, NY—NJ	19.4	5.8%	3,176.2
Los Angeles—Long Beach—Anaheim, CA	12.2	3.7%	384.8
Chicago, IL—IN	8.7	2.6%	331.3
Miami—Fort Lauderdale, FL	6.1	1.8%	114.1
Houston, TX	5.9	1.7%	69.0
Dallas—Fort Worth—Arlington, TX	5.7	1.7%	55.8
Philadelphia, PA—NJ—DE—MD	5.7	1.7%	226.6

[11] 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). See the 2020 Virgin Islands population from the U.S. Census for more details.

Urbanized Area	UZA Population (millions)	Percent of National Population	2023 Unlinked Passenger Trips (millions)
Washington—Arlington, DC—VA—MD	5.2	1.5%	272.8
Atlanta, GA	5.1	1.5%	65.2
Boston, MA—NH	4.4	1.3%	241.6
Phoenix—Mesa—Scottsdale, AZ	4.0	1.2%	37.7
Detroit, MI	3.8	1.1%	17.0
Seattle—Tacoma, WA	3.5	1.1%	148.2
San Francisco—Oakland, CA	3.5	1.0%	231.7
San Diego, CA	3.1	0.9%	76.1
Minneapolis—St. Paul, MN	2.9	0.9%	52.9
Tampa—St. Petersburg, FL	2.8	0.8%	23.6
Denver—Aurora, CO	2.7	0.8%	59.1
Riverside—San Bernardino, CA	2.3	0.7%	10.1
Baltimore, MD	2.2	0.7%	57.3
Las Vegas—Henderson—Paradise, NV	2.2	0.7%	51.0
St. Louis, MO—IL	2.2	0.6%	21.1
Portland, OR—WA	2.1	0.6%	66.0
San Antonio, TX	2.0	0.6%	28.0
Sacramento, CA	1.9	0.6%	15.0

Urbanized Area	UZA Population (millions)	Percent of National Population	2023 Unlinked Passenger Trips (millions)
All Other UZAs	*121.3*	*36.2%*	*1,020.7*
Total UZAs	**240.8**	**71.9%**	**6,853.0**

There were 512 UZAs in 2020, which was an increase of 12 from 2010, as shown in Exhibit 5.3. For the purposes of 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 and UPT by UZA Size and Census Year

Report Year	Census Year	Total UZA Population (millions)	Count of UZAs		Percentage of U.S. Population Residing in a UZA	Unlinked Passenger Trips (millions)
			Large	Small		
2013	2010	223.7	180	320	71.5	10,372.5
2023	2020	240.8	192	320	71.9	6,853.0

Rural Areas or "Non-Urbanized Areas"

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

- Populations for all Census Urban Areas with fewer than 50,000 people are included.[12] These areas account for 29.4 percent of the total non-urbanized population.

[12] 'List of 2020 Census Urban Areas'. U.S. Census Bureau. Accessed March 2023.

- The rural populations of Puerto Rico, Guam, American Samoa, and the Commonwealth of the Northern Marianas are included.

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

Non-Urbanized Area	Non-UZA Population (millions)	2020 Rural Pop. to total State Pop.	2023 Unlinked Passenger Trips (millions)
Texas Non-UZA	6.9	24%	3.1
North Carolina Non-UZA	4.5	43%	6.3
California Non-UZA	4.3	11%	5.4
Pennsylvania Non-UZA	4.1	32%	3.6
Ohio Non-UZA	4.1	35%	3.3
Georgia Non-UZA	3.6	34%	2.2
New York Non-UZA	3.4	17%	3.4
Michigan Non-UZA	3.4	34%	6.2
Tennessee Non-UZA	3.0	44%	4.6
Wisconsin Non-UZA	2.8	47%	3.3
All Other Non-UZA	*54.2*	-	*94.0*
National Total Rural Population	**94.5**	**-**	**135.5**

Chapter 6. Transit Service by Area

Areas Served by Public Transportation

The remainder of this document will frequently separate data by grouping urbanized areas (UZAs) and non-urbanized areas (non-UZAs) by the level and types of service provided. Splitting UZAs and Rural Areas into groups helps communicate the high level of concentration of transit service in the U.S., particularly for attracting discretionary riders with other transportation options.

New York is the Nation's largest UZA and accounts for more than 45 percent of the Nation's transit trips by itself. Due to its size, in some analyses, the New York UZA must be treated separately.

Along with New York, seven other UZAs provide at least 200 million transit trips per year. Together, they account for 72 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, D.C. UZAs. The last member of the **Next 7 Largest** 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.

All Other UZAs, outside of the Largest 8, provide 26 percent of the Nation's trips. **Rural Areas**, the non-UZAs, account for the remaining 2 percent.

Exhibit 6.1 outlines the Largest 8 UZAs with their population density, Unlinked Passenger Trips (UPT), and UPT per capita for 2023.

Exhibit 6.1 – Largest 8 UZAs

Urbanized Area	Population Density (Pop. per UZA Sq. Mile)	Unlinked Passenger Trips (Millions)	UPT Per Capita
New York—Jersey City—Newark, NY—NJ	5,981	3,176.2	164
Los Angeles—Long Beach—Anaheim, CA	7,476	384.8	31
Chicago, IL—IN	3,709	331.3	38
Washington—Arlington, DC—VA—MD	3,997	272.8	53
Boston, MA—NH	2,646	241.6	55
San Francisco—Oakland, CA	6,843	231.7	66
Philadelphia, PA—NJ—DE—MD	3,001	226.6	40
Seattle—Tacoma, WA	3,607	148.2	42

NTD Reporters and Modes Operated by Area

While possible that a single regional transit provider serves an entire metropolitan area, or “metro,” the reality in most areas is typically more complex. As shown in Exhibit 6.2, 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 Next 7 Largest UZAs have a total of 39 independent public transportation agencies serving them. Private Operators account for 703 of the Nation’s transit providers, second only to units of Local Government.

Exhibit 6.2 – 2023 Transit Agencies by Organization Type and Area

Organization Type	New York	Next 7 Largest	All Other UZAs	Rural Areas
City, County, or Local Government Unit or Department of Transportation	17	82	436	776
Independent Public Agency or Authority of Transit Service	1	39	263	134
Private Operators	20	9	64	610
State Government Unit or Department of Transportation	-	3	23	8
Other	6	7	75	226
Total	**44**	**140**	**861**	**1,754**

Exhibit 6.3 demonstrates the count of services (by mode) operated in 2023 by area. The Other Non-Rail consolidated mode accounted for 64 percent of all services operated with 2,384 modes in 2023. This was the highest operated mode in all areas except New York. Fixed-Route Bus followed closely with 1,245 modes operated and accounts for the majority of modes operated in the New York UZA. Core Rail and Distance Rail modes were only 3 percent of the total modes operated with 60 and 34 modes respectively.

Exhibit 6.3 – 2023 Modes by Area

Consolidated Mode	New York	Next 7 Largest	All Other UZAs	Rural Areas
Core Rail	4	13	43	-
Distance Rail	3	11	20	-
Fixed-Route Bus	34	97	649	465
Other Non-Rail	23	104	730	1,527
Total	64	225	1,442	1,992

Chapter 7. Geographic Coverage

Areas Not Served by Public Transit

For NTD reporting, an operator that serves multiple urbanized areas (UZAs) must allocate their service data across each UZA served. In Exhibit 7.1, the listed UZAs either did not have Fixed-Route Bus or Demand Response VRM allocated to them in 2023. In the cases such as Beaufort—Port Royal, SC, where all transit service data was allocated to another UZA, the columns will include a *zero*, indicating that the area does not have local public transportation options. In the case that no service was provided in a given UZA, the columns will indicate a *dash*.

In the top rows of Exhibit 7.1, there are 28 UZAs that had Demand Response service but no Fixed-Route Bus service. This includes 8 UZAs that had commuter service but no local Fixed-Route service. In the bottom rows, there are 9 cases where the UZAs were not served by public transit at all. 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.

Exhibit 7.1 – UZAs with No Transit Service, No Fixed-Route Bus Transit Service

Urbanized Area	Fixed-Route Bus VRM Allocated	Demand Response VRM Allocated
Elizabethtown—Radcliff, KY	-	1,182,449
South Lyon—Hamburg—Genoa, MI	-	978,894
Dothan, AL	-	668,607
McKinney—Frisco, TX	0	535,860
Chambersburg, PA	0	494,436
Midland, MI	-	477,761

Urbanized Area	Fixed-Route Bus VRM Allocated	Demand Response VRM Allocated
Auburn, AL	0	430,602
Fernandina Beach—Yulee, FL	-	417,236
Cheyenne, WY	-	341,514
Valdosta, GA	-	333,003
New Braunfels, TX	0	214,171
Enid, OK	-	197,212
Grand Island, NE	-	173,761
Helena, MT	-	172,453
Lee's Summit, MO	0	171,526
Decatur, AL	-	154,919
Sherman—Denison, TX	0	135,374
Slidell, LA	-	134,433
Dalton, GA	-	129,550
Conway, AR	0	129,534
Florence, AL	-	129,381
Pinehurst—Southern Pines, NC	-	125,852
Mandeville—Covington, LA	-	83,252
Fairhope—Daphne, AL	-	70,515

Urbanized Area	Fixed-Route Bus VRM Allocated	Demand Response VRM Allocated
Prescott—Prescott Valley, AZ	-	55,043
Pascagoula—Gautier, MS	0	22,601
Clayton, NC	-	20,371
Twin Falls, ID	-	3,683
Beaufort—Port Royal, SC	0	0
Cartersville, GA	-	0
Brunswick—St. Simons, GA	-	-
Casa Grande, AZ	-	-
Castle Rock, CO	-	-
Idaho Falls, ID	-	-
Sebring—Avon Park, FL	-	-
Warner Robins, GA	-	-
Winder, GA	-	-

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 usable 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 Type of Service (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 is only used once in FTA apportionment of funds to a UZA. Agencies then allocate the Fixed Guideway Directional Route Miles (FG DRM) from their claimed segments to the UZAs that they serve according to NTD Serve Rules. Fixed guideway service is highly concentrated. The Largest 8 UZAs (New York City, Chicago, Boston, Philadelphia, San Francisco, Washington D.C., Los Angeles, and Seattle) alone account for 53 percent (7,967.4 miles) of the Nation’s fixed guideway. There are 104 other UZAs that have FG, which (along with rural Alaska) account for 6,998.8 miles of FG, or about 46.8 percent of all FG route miles.

Exhibit 7.2. – 2023 Fixed Guideway DRM by UZA

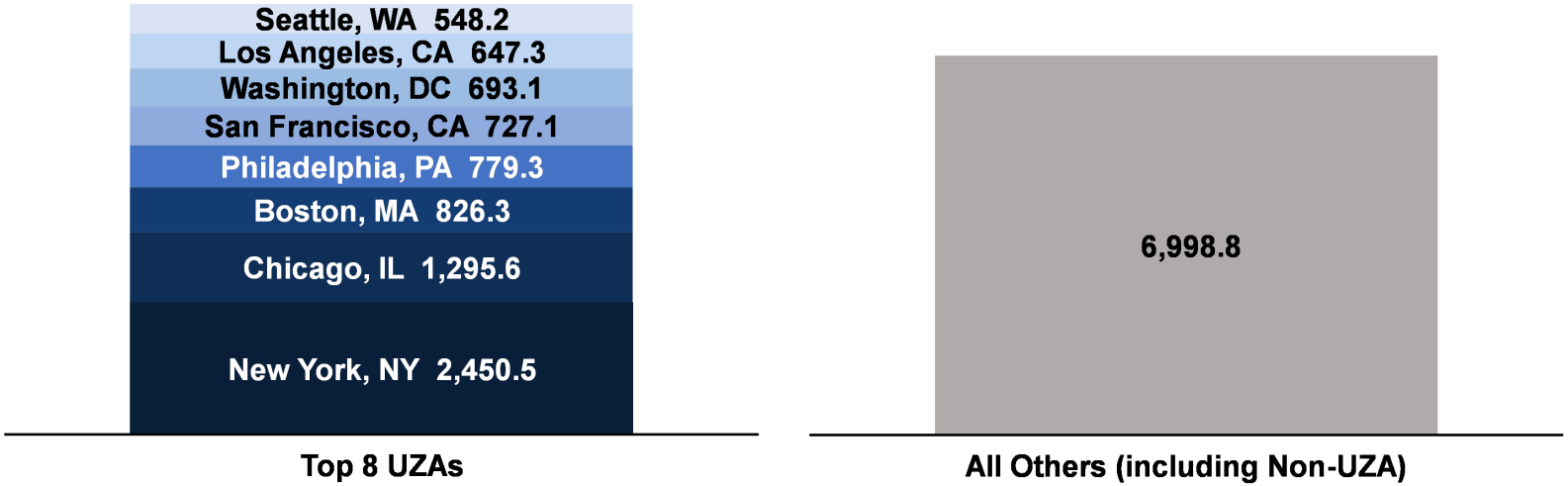
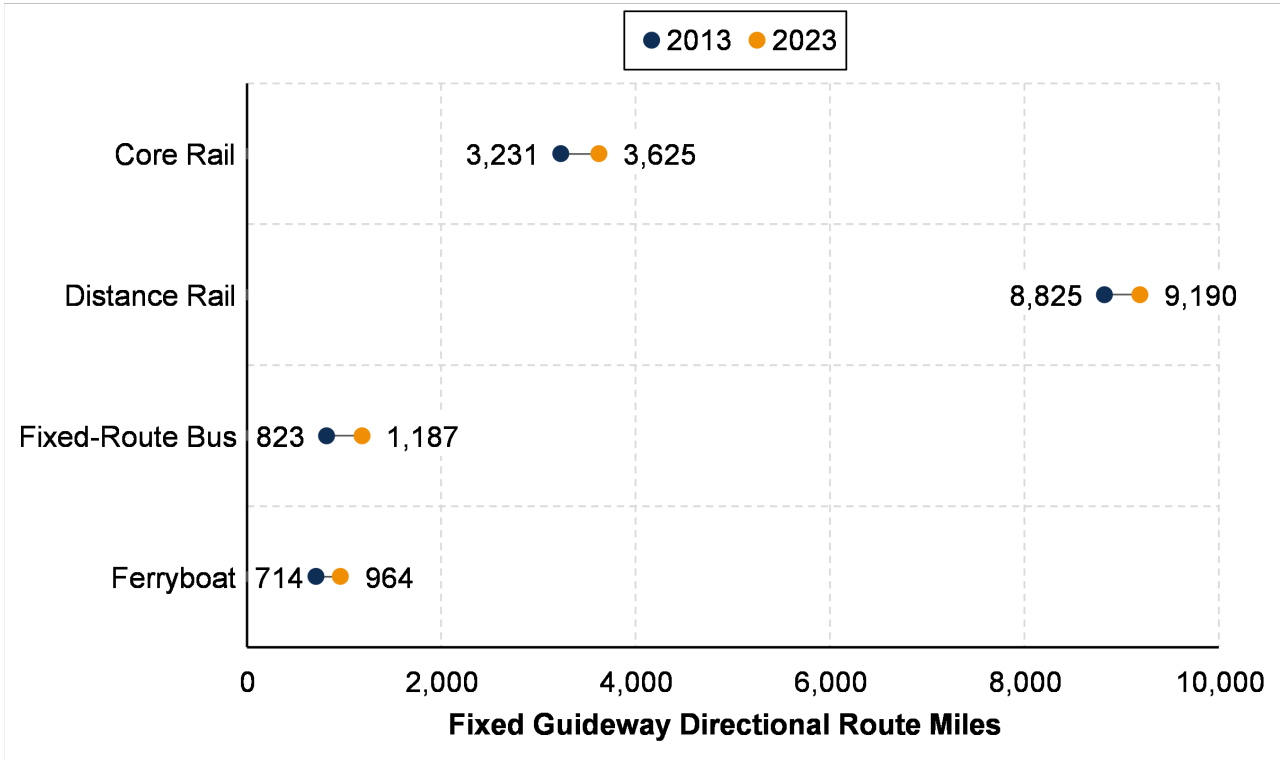


Exhibit 7.3 demonstrates that all four categories of FG DRM have increased substantially since 2013. Core Rail mileage has increased by 12 percent and Distance Rail mileage has increased by 4.1 percent. Fixed-Route Bus Guideway has shown the largest increase, with a 44 percent increase in mileage. This reflects the introduction of several new Bus Rapid Transit (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 35 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 2023, 61.4 percent of the total Fixed Guideway DRM was reported under the Distance Rail consolidated mode. Core Rail contributed 24.2 percent of the Fixed Guideway DRM, followed by Fixed-Route Bus (7.9 percent) and Ferryboat (6.4 percent).

Exhibit 7.3 – 10-Year Change in National Total DRM by Consolidated Mode

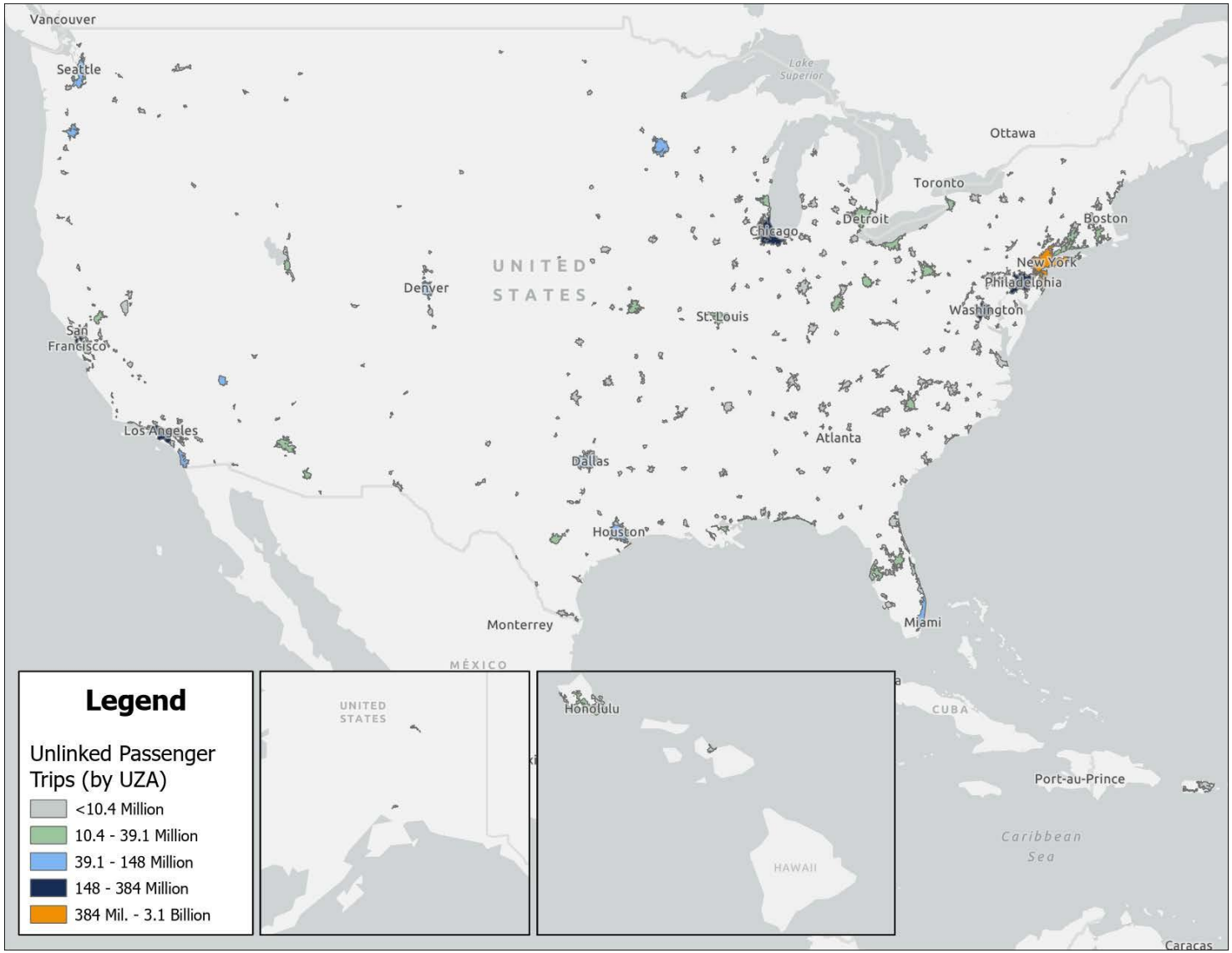


Not depicted in this exhibit are an additional 1,825.0 miles of High Intensity Bus (HIB) segments. Federal transit law defines HIB as "public transportation that is provided on a facility with access for other high-occupancy vehicles." HIB differs from FG in that non-transit vehicles are permitted to 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 level of transit service allocated to each UZA. 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 in 2023



Chapter 8. Vehicle and Facility Asset Inventory

Transit Asset Management

Managing and maintaining capital assets like vehicles, track, roadway, and facilities is a fundamental part of providing public transit. As Chapter 2 outlines, public transit providers receiving Chapter 53 funding have reported more detail on capital assets to the NTD since Report Year (RY) 2018, resulting directly from the Transit Asset Management (TAM) final rule that took effect in July 2016. Since most transit asset inventory data collected via the NTD became available in 2018, this period is referred to as the "TAM era" in exhibits below.

The purpose of the TAM Rule is to help achieve and maintain a state of good repair (SGR) for the Nation's public transportation assets. Transit asset management is a business model that uses transit asset condition to guide the optimal prioritization of funding. Chapters 8 and 9 are modeled after the "2022 TAM Data Summary: A Snapshot of Asset-Related Data Reported to the National Transit Database"[13] document, which focused on the TAM component of the NTD requirements and the data in the Asset Inventory Module. Chapter 9 discusses progress towards meeting SGR targets in more detail, both by asset category and specific asset class.

Exhibit 8.1 outlines the asset categories that agencies report to the NTD, the respective performance measures, and the inputs for the performance measures. Assets that do not meet the associated performance measure (e.g., vehicles at or beyond their Useful Life Benchmark (ULB), facilities below the 3.0 Transit Economic Requirements Model (TERM) rating, and track with performance restrictions are considered not in SGR.

[13] 2022 TAM Data Summary: A Snapshot of Asset-Related Data Reported to the National Transit Database

Exhibit 8.1 – Asset Categories and Performance Measures

Asset Category	Performance Measure	Key Metric
Rolling Stock: Revenue vehicles by mode	Percentage of revenue vehicles (by type) that meet or exceed the ULB	**ULB:** The expected life cycle of a capital asset for a particular transit provider's operating environment, or the acceptable period of use in service for a particular transit provider's operating environment
Equipment: Nonrevenue support-service and maintenance vehicles	Percentage of nonrevenue service vehicles (by class) that meet or exceed the ULB	Same as above
Facilities: Maintenance and administrative facilities; and passenger stations (buildings) and parking facilities	Percentage of facilities that are rated less than 3.0 on the TERM scale	**TERM scale** for defining asset condition; 1 - Poor, 2 - Marginal, 3-Adequate, 4 - Good, 5 - Excellent
Infrastructure: Only rail fixed guideway track, signals, and systems	Percentage of track miles (by mode) with performance restrictions	**Performance Restriction:** Exists 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. These restrictions are often referred to as "slow zones."

Revenue Vehicles

The most prevalent asset category used to provide public transit is Revenue Vehicles. Transit agencies report the vehicle asset class for each fleet used in their service each year. There are 24 vehicle asset classes that transit agencies report to the NTD, and these vehicle asset classes are grouped into four asset types: Rail Vehicles, Buses, Vans/Cutaways, and Other Vehicles.

Rail Vehicles include all vehicle asset classes used for rail modes including Heavy Rail Passenger Car, Light Rail Vehicle, and Commuter Rail vehicles. Buses, the most popular vehicle asset class, are rubber-tired passenger vehicles powered by Diesel, Gasoline, Battery Charge, or alternative fuel engines contained within the vehicle. Buses are made up of Articulated Bus, Double Decker Bus, Over-the-Road Bus, School Bus, and Trolleybus as shown in the exhibit below.

Cutaways are the second most prevalent vehicle type used in transit service. 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. Van is another popular vehicle asset class. 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. Since these two vehicle asset classes are both popular, they are grouped together as a separate Asset Type.

The Other Vehicles asset type consists of unique vehicle asset classes like Aerial Tramway Vehicle and Ferryboat. It also contains Automobile, Minivan, and Sports Utility Vehicle, which are very common vehicle asset classes for Demand Response and Vanpool services and carry fewer passengers at one time.

Exhibit 8.2 – Categorization of Revenue Vehicles by Asset Type and Vehicle Asset Class

Asset Type	Vehicle Asset Class	
Rail Vehicles	Automated Guideway Vehicle Cable Car Commuter Rail Locomotive Commuter Rail Passenger Coach Commuter Rail Self-Propelled Passenger Car	Heavy Rail Passenger Car Inclined Plane Vehicle Light Rail Vehicle Monorail Vehicle Vintage Trolley/Streetcar
Buses	Articulated Bus Bus Double Decker Bus Over-the-Road Bus	School Bus Trolleybus
Vans/Cutaways	Cutaway	Van
Other Vehicles	Aerial Tramway Vehicle Automobile Ferryboat	Minivan Other Sports Utility Vehicle

In 2023, agencies reported having capital responsibility for 144,015 revenue vehicles out of the 170,499 active revenue vehicles reported in total. An agency has direct capital responsibility for an asset if any of the following are true:

- The agency owns the asset;
- The agency jointly owns the asset with another entity; or
- The agency is responsible for replacing, overhauling, refurbishing, or conducting major repairs on an asset, or the cost of those activities is itemized as a capital line item in the agency's budget.

Exhibit 8.3 shows the number of revenue vehicles that agencies reported having capital responsibility for by area in 2023 and the total vehicle counts reported in 2022. Rail Vehicles are only reported by urban agencies because of the Full Reporter requirements for rail modes. Buses are the most common asset type overall, but Vans/Cutaways are more commonly reported by both Rural and Asset Reporters.

Exhibit 8.3 – Count of Revenue Vehicles by Reporter Type (Capital Responsibility Only)

Asset Type	2022 Total	2023			
		Urban	Rural	Asset	Total
Rail Vehicles	**19,440**	20,194	N/A	N/A	**20,194**
Buses	**63,692**	60,446	2,794	318	**63,558**
Vans/Cutaways	**47,398**	31,453	13,602	2,375	**47,430**
Other Vehicles	**12,587**	6,843	5,152	838	**12,833**
Total	**143,117**	**118,936**	**21,548**	**3,531**	**144,015**

Exhibit 8.4 provides an overview of the Nation's transit vehicles as of 2023, showing the concentration of each Asset Type in groups of urbanized areas (UZAs) and non-urbanized areas (non-UZAs) served. Note that Rail Vehicles represent only a small proportion of the Nation's total transit fleet (roughly 13 percent) and are almost entirely found in large urban areas (or the surrounding suburbs, i.e., for commuting). In contrast, rubber-tired, road-based transit vehicles, such as Buses, Cutaways, and Vans make up close to 87 percent of the national fleet and support a range of transit modes.

Exhibit 8.4 – 2023 Count of Active Fleet Vehicles by Asset Type & Area

National Total of 170 Thousand Active Fleet Vehicles

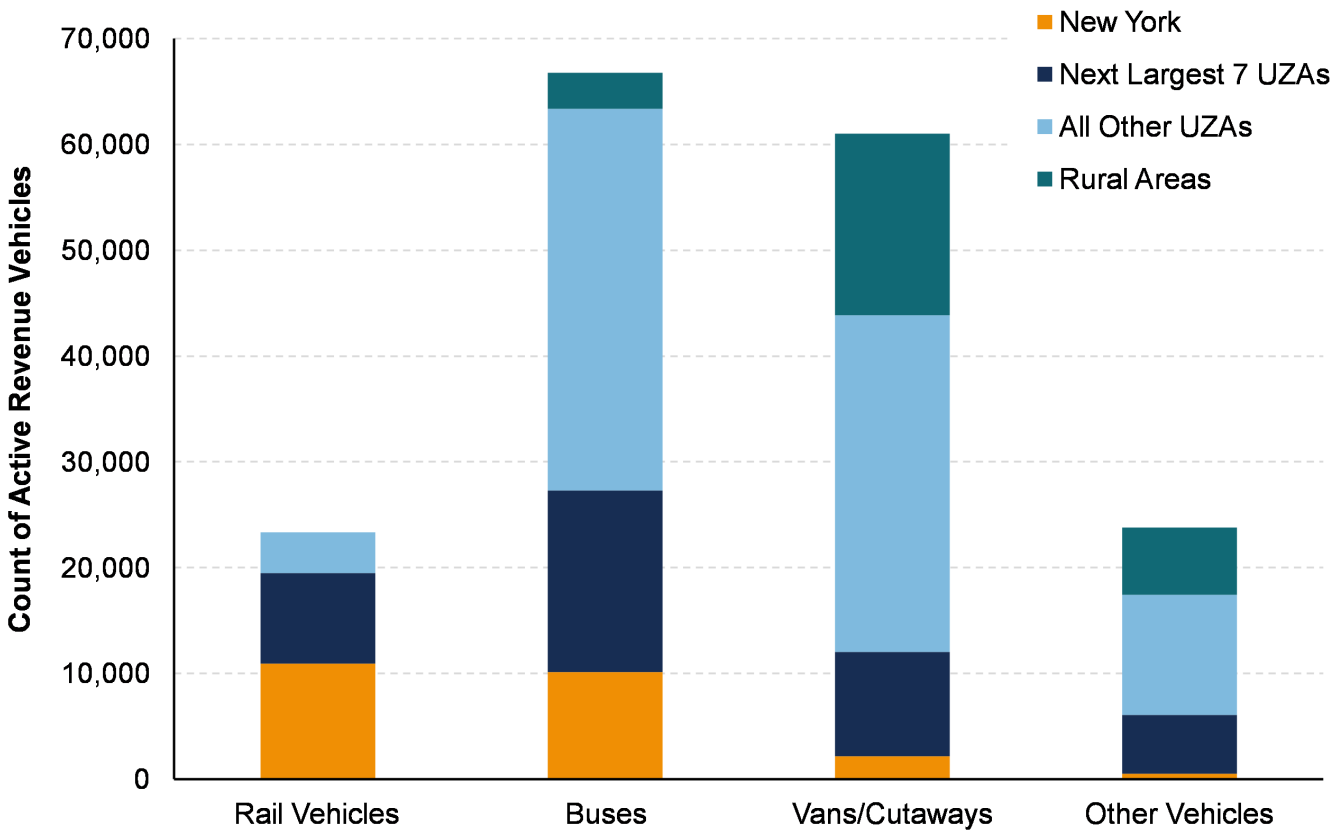
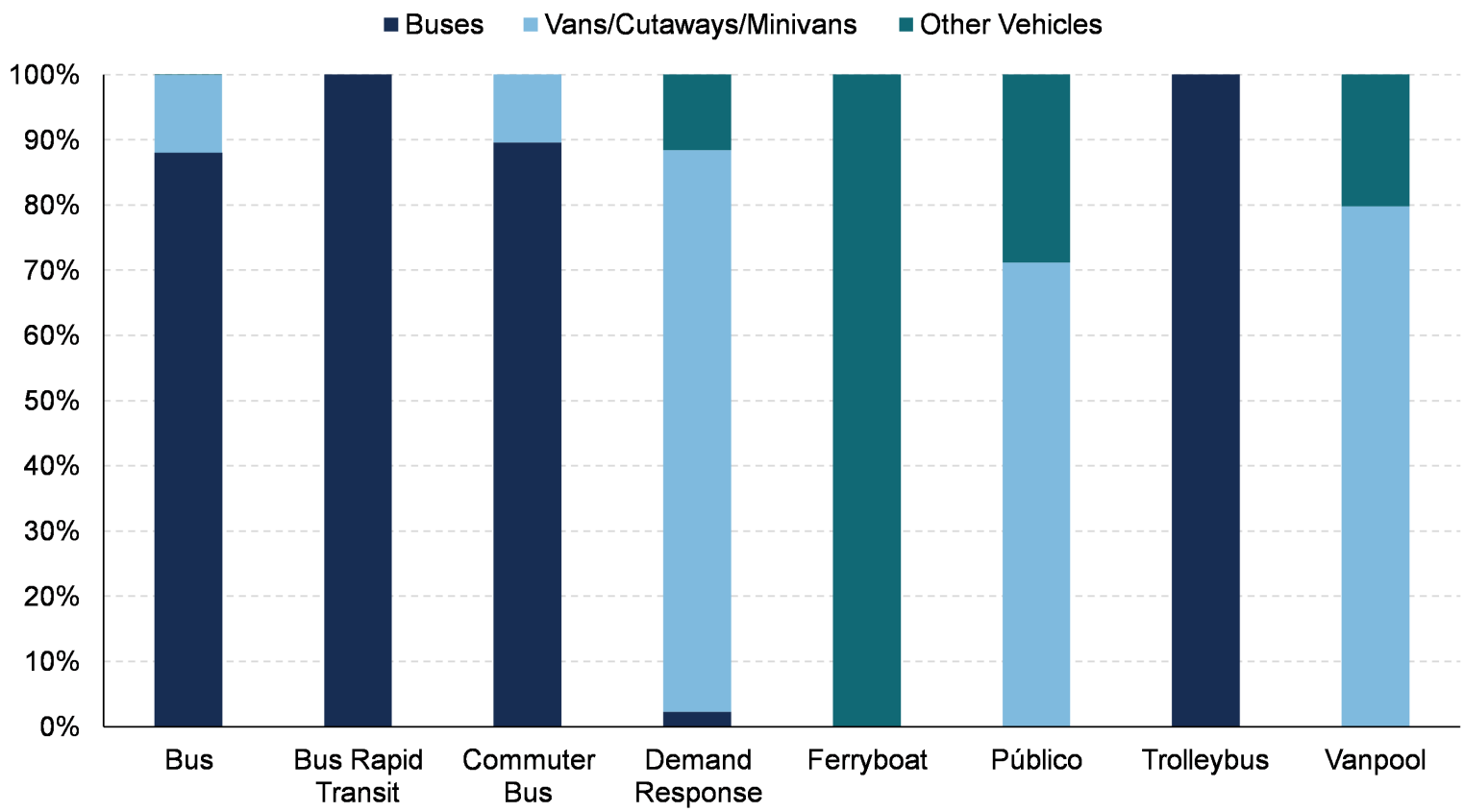


Exhibit 8.5 demonstrates how the different Non-Rail vehicles are used in different modes of transit. While buses are most commonly used in Fixed-Route Bus service, they can also be used in Demand Response service. In this exhibit, Minivans are included with Vans and Cutaways as they are frequently used in Demand Response, Público, and Vanpool service. In 2023, there were 13,105 minivans used in revenue service, with over 28 percent of that total utilized in Vanpool modes and the other 70 percent utilized in Demand Response modes.

Exhibit 8.5 – 2023 Count of Active Vehicle Fleet by Asset Type and Non-Rail Mode

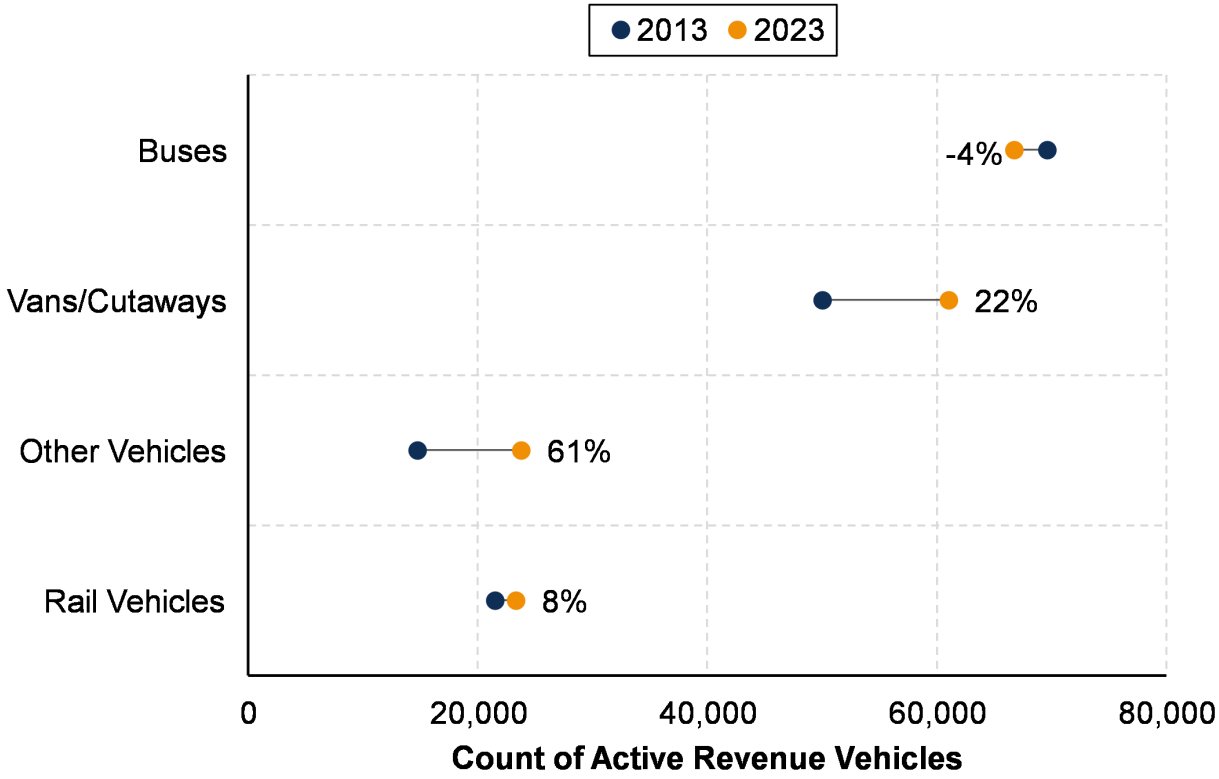
National Total of 147 Thousand Active Fleet Vehicles



Among the Demand Response mode, Cutaway vehicles (sometimes referred to as “minibuses”) far outnumber any other mode in the nationwide fleet inventory. Among rail vehicles, the vehicle asset classes vary by mode: Light Rail and Streetcar Rail services typically use Light Rail Vehicles, Heavy Rail uses Heavy Rail Passenger Cars, and Commuter Rail has Locomotives, Passenger Coaches, and CR Self-Propelled Passenger Cars. Overall, rail fleets by agency have remained relatively consistent since 2013, as shown in Exhibit 8.6.

Exhibit 8.6 demonstrates the extraordinary growth in Vans/Cutaways and Other Vehicles, including Automobiles and Minivans, 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 8.6 – 10-Year National Transit Fleet by Asset Type



Service Vehicles

Service vehicles are vehicles used to indirectly support transit service, maintain revenue vehicles and infrastructure, and perform transit-oriented administrative activities. Agencies only report service vehicles for which they have capital responsibility. There are three asset classes of service vehicles:

- Automobiles
- Trucks and Other Rubber Tire Vehicles
- Steel Wheel Vehicles

As shown in Exhibit 8.7, Trucks and Other Rubber Tire Vehicles had the highest count of service vehicles (25,313) reported in 2023, followed by Automobiles at 5,615, and Steel Wheel Vehicles at 1,443. Steel Wheel Vehicles are only reported by urban agencies with rail modes.

Exhibit 8.7 – Count of Service Vehicles by Reporter Type (Capital Responsibility Only)

Asset Class	2022 Total	2023			
		Urban	Rural	Asset	Total
Automobiles	**5,669**	5,232	364	19	**5,615**
Trucks and Other Rubber Tire Vehicles	**23,876**	24,493	771	49	**25,313**
Steel Wheel Vehicles	**1,399**	1,443	N/A	N/A	**1,443**
Total	**30,944**	**31,168**	**1,135**	**68**	**32,371**

Facilities

Transit agencies report the facilities used for their service each year with the facility type, year of construction, percentage of capital responsibility, and condition assessment (if required). Agencies also report whether a facility is a "Section of a Larger Facility" if the facility shares an address with another facility but has a different year of construction or facility type. In 2023, there were 14,537 facilities reported by all agencies and 14 percent of those facilities were marked as a section of a larger facility (2,077).

In Exhibit 8.8, facilities are grouped into four asset classes: Administrative, Maintenance, Parking, and Passenger. In 2023, agencies reported having capital responsibility for 12,344 facilities out of 14,537 facilities reported in total. Passenger Stations account for 44 percent of the total facilities reported in 2023 with most stations being reported by urban agencies. Out of all asset classes, Maintenance Facilities were most commonly reported by Rural and Asset Reporters.

Exhibit 8.8 – Count of Facilities by Reporter Type (Capital Responsibility Only)

Asset Class	2022 Total	2023			
		Urban	Rural	Asset	Total
Administrative	**909**	661	199	4	**864**
Maintenance	**3,650**	3,025	597	29	**3,651**
Parking	**2,419**	2,372	47	7	**2,426**
Passenger	**5,291**	5,265	114	24	**5,403**
Total	**12,269**	**11,323**	**957**	**64**	**12,344**

As shown in Exhibit 8.9, Rail stations are heavily concentrated in the largest UZAs. There are about 2,000 transit Bus stations in the country. About a third of the Bus stations are in the Largest 8 UZAs, and the other two thirds are across All Other UZAs. Please note that Rural Reporters do not report passenger stations and are excluded from Exhibits 8.9 and 8.10.

Exhibit 8.9 – 2023 Stations by Consolidated Mode and UZA

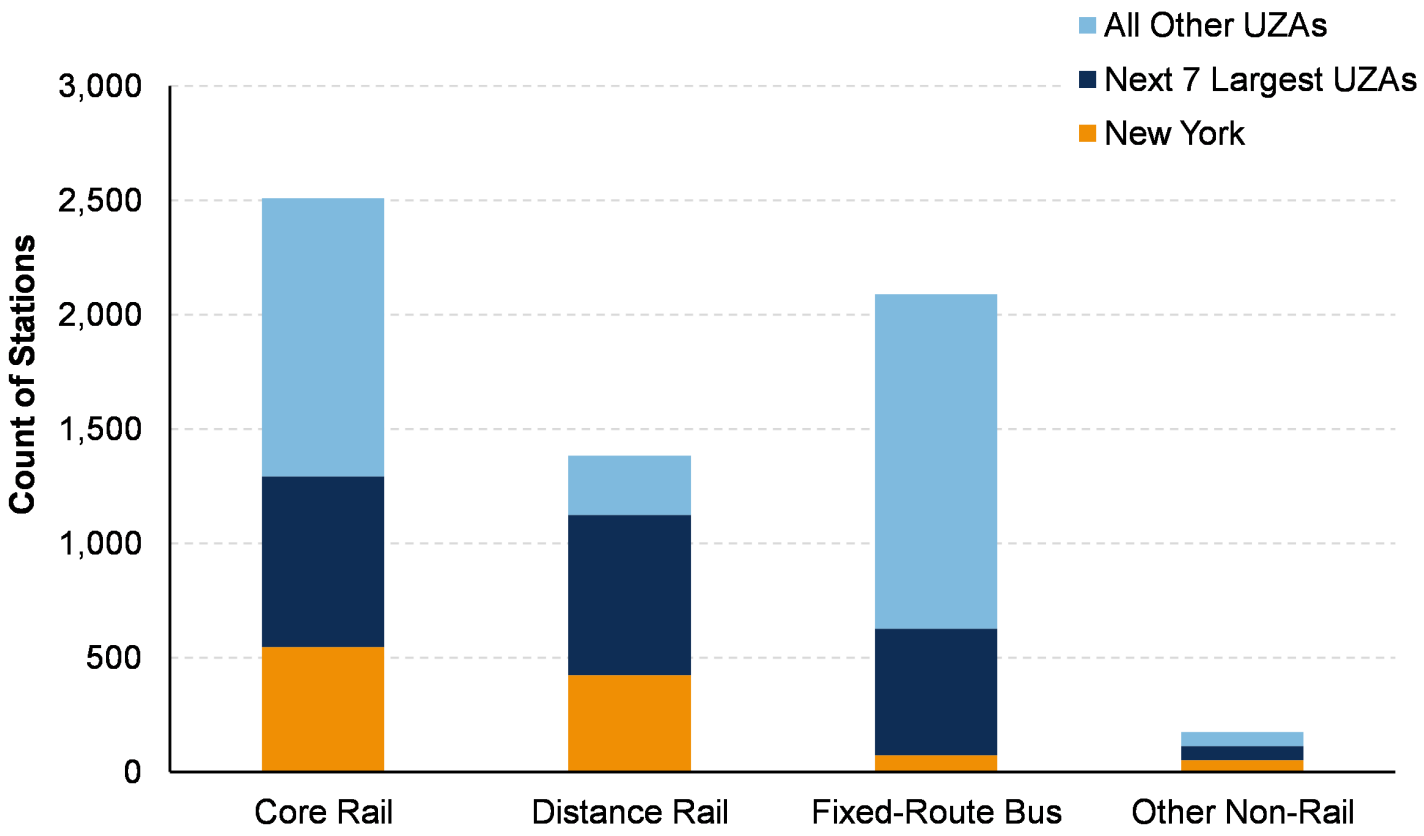
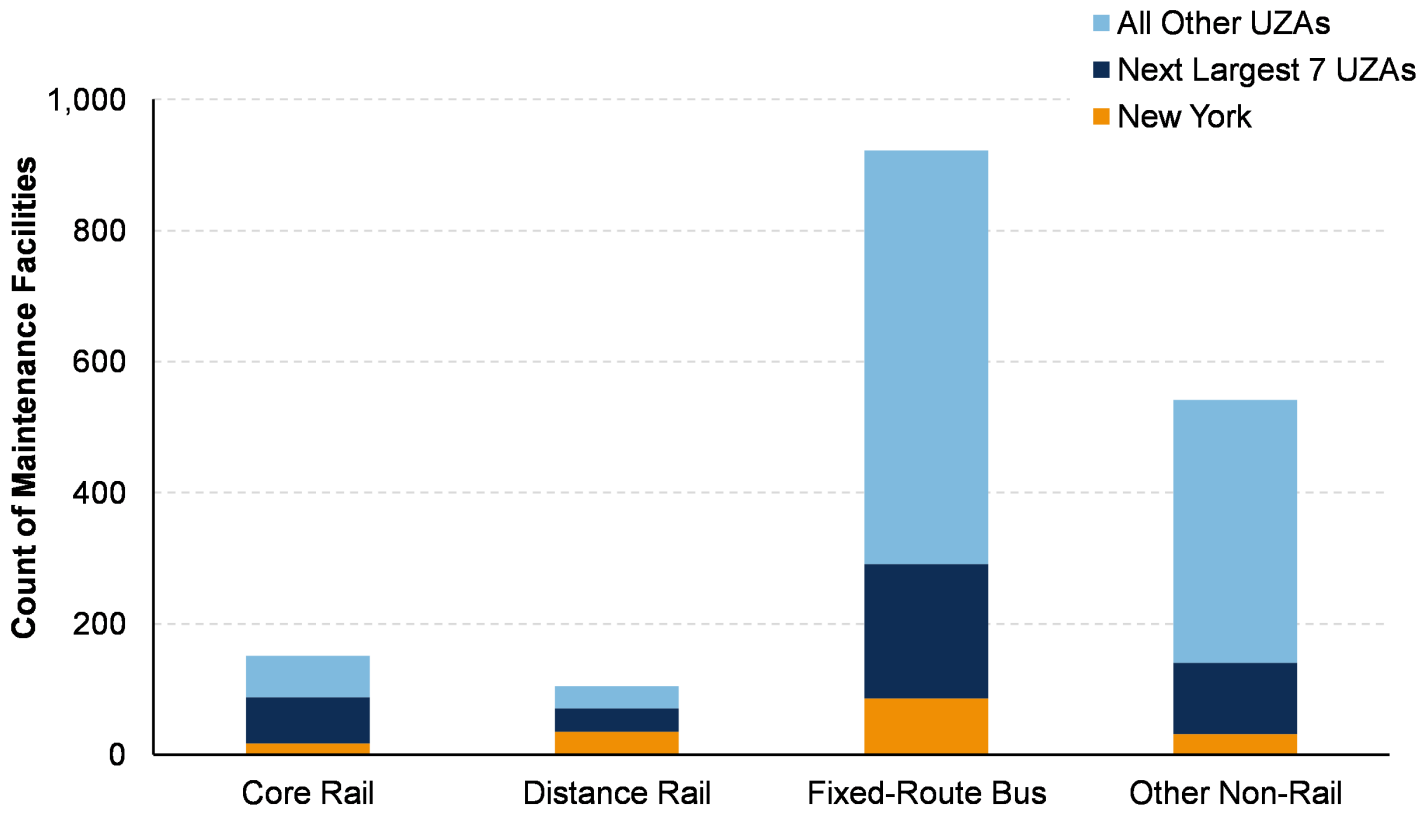


Exhibit 8.10 demonstrates that out of 1,720 transit maintenance facilities nationwide, the 922 Fixed-Route Bus maintenance facilities far outpace the number of Rail facilities, reflecting the larger number of Bus mode operations around the country.

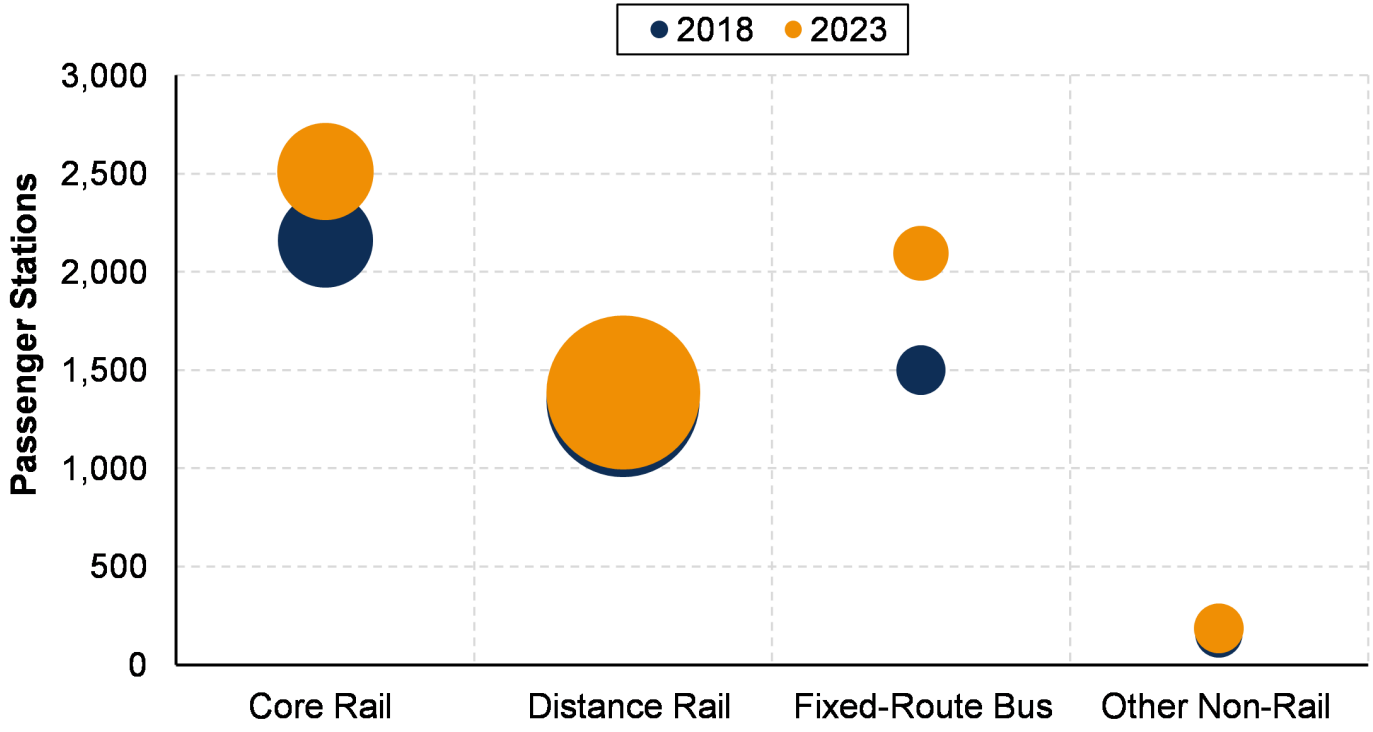
Exhibit 8.10 – 2023 Maintenance Facilities by Consolidated Mode and UZA



Fixed Guideway Directional Route Miles (FG DRM) for Core Rail and Distance Rail remained consistent from the start of the TAM era in 2018 to 2023. Fixed-Route Bus had the largest increase in DRM from 946 miles to 1,187 miles (26 percent) followed by Other Non-Rail at 11 percent. The DRM for FRB has increased significantly because of the additional bus rapid transit services provided in 2023. Since 2018, the number of Bus Rapid Transit (BRT) services have increased by over 70 percent.

Similar to fixed guideway DRM, the number of stations has remained consistent with moderate increases since 2018 for Core Rail, Distance Rail, and Other Non-Rail. Fixed-Route Bus increased almost 600 passenger stations. As mentioned previously, Bus Rapid Transit services have caused a significant increase in the number of Simple At-Grade Platform facilities from 2018 to 2023. Exhibit 8.11 shows the positive relationship between passenger stations and DRM. For every additional fixed guideway DRM for Core Rail, there are about 2.7 passenger stations added for that consolidated mode. Likewise, there are an additional 2.5 stations for every directional route mile added for Fixed-Route Bus.

Exhibit 8.11 – Passenger Stations and Fixed Guideway DRM by Consolidated Mode in the TAM Era (2018 v. 2023)



Consolidated Mode	2018 FG DRM	2023 FG DRM	Percent Change from 2018 to 2023	2018 Stations	2023 Stations	Percent Change from 2018 to 2023
Core Rail	3,497	3,625	3.7%	2,161	2,511	16.2%
Distance Rail	9,133	9,190	0.6%	1,346	1,385	2.9%
Fixed-Route Bus	946	1,187	25.5%	1,500	2,095	39.7%
Other Non-Rail	865	964	11.4%	155	184	18.7%

Americans with Disabilities Act Station Accessibility

Exhibit 8.12 presents the change in the number of urban transit ADA-accessible stations and percentage of total ADA-accessible stations by consolidated mode. In 2023, 83.9 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 ADA-accessible station share for both Core Rail and Distance Rail. Meanwhile, Fixed-Route Bus stayed relatively consistent.

Exhibit 8.12 – 10-Year Change in National Total ADA Station Accessibility by Consolidated Mode

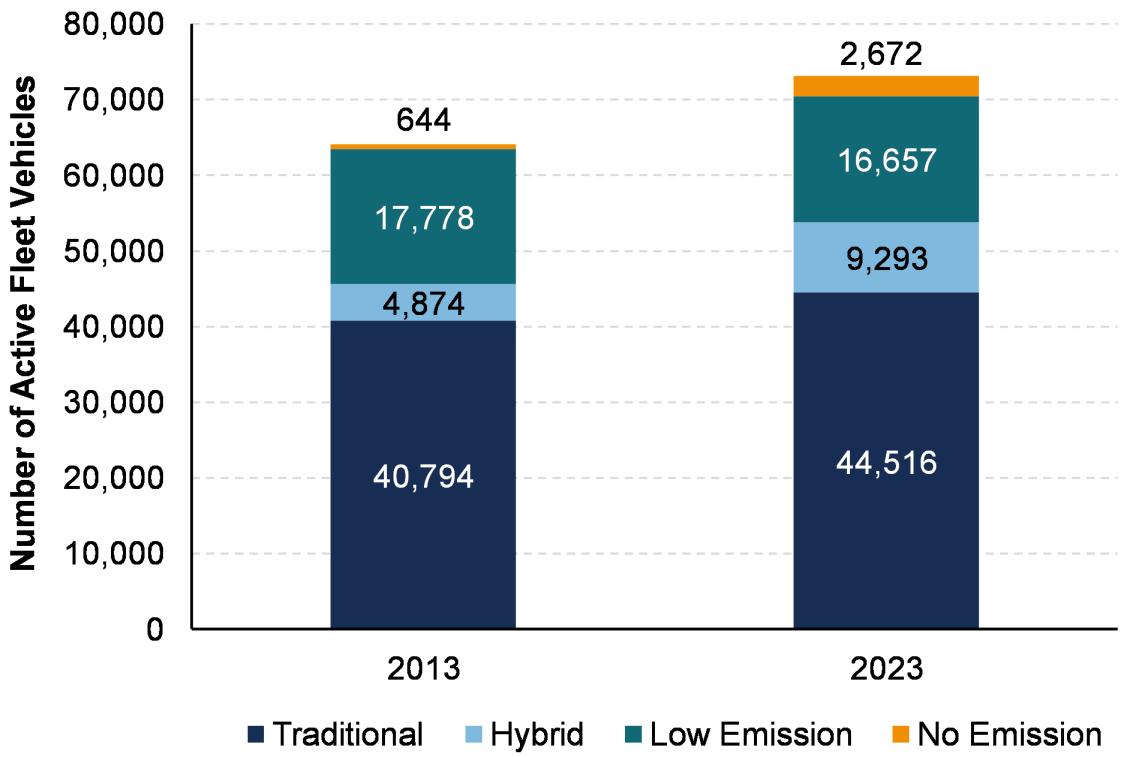
Consolidated Mode	2013 Stations	2023 Stations	2013 ADA Stations	2023 ADA Stations	2013 ADA Stations Share	2023 ADA Stations Share
Core Rail	1,997	2,511	1,390	1,939	69.6%	77.2%
Distance Rail	1,296	1,385	890	1,030	68.7%	74.4%
Fixed-Route Bus	1,632	2,095	1,615	2,052	99.0%	97.9%
Other Non-Rail	92	184	88	162	95.7%	88.0%
Total	**5,017**	**6,175**	**3,983**	**5,183**	**79.4%**	**83.9%**

Bus Fuel Usage

Diesel and Gasoline are the traditional Bus fuels. Transit agencies use alternative fuels to address concerns ranging from effect on air quality to fuel efficiency. Low-emission fuels include Compressed Natural Gas, Ethanol, Hydrogen, Liquefied Petroleum Gas (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 8.13 demonstrates substantial increases in hybrid and no-emission fuel types from 2013 to 2023. The exhibit below includes fuel usage for Bus fleets fully dedicated to transit service.

Exhibit 8.13 – TAM Era Non-Rail, Road Vehicle Fleet by Fuel Type



Chapter 9. Asset Conditions & Performance

Overall Performance Measures

Exhibit 9.1 summarizes the overall transit asset inventory and the percentage of assets in state of good repair (SGR) between 2019 and 2023. An asset is in an SGR when the asset can perform its designed function, does not pose a known unacceptable safety risk, and its lifecycle investments have been met or recovered. As established in Exhibit 8.1, Useful Life Benchmark (ULB) is the metric used to determine if a revenue or service vehicle is in SGR. Facilities use the Transit Economic Requirements Model (TERM) scale and are considered in SGR when their condition assessment is a 3 or greater. Lastly, track miles in SGR are determined by the amount of track miles under performance restrictions reported each year.

The percentage of Revenue Vehicles in SGR remains around 77 to 80 percent, while Equipment shows 60 to 64 percent of assets in SGR, decreasing over the last three years. The percentage of facilities in SGR has consistently increased from 87 percent in SGR in 2019 to almost 93 percent in SGR in 2023. Finally, the percentage of track miles in SGR has remained very consistent over the past five years around 97 percent.

Exhibit 9.1 – Overall Transit Asset Inventory and Percentage of Assets in SGR

Asset Category	Year	Total Number of Assets	Assets with Capital Responsibility	Percentage of Assets in SGR
Revenue Vehicles	2019	176,824	150,446	80.0%
	2020	172,845	147,879	79.8%
	2021	168,235	145,731	80.1%
	2022	165,626	143,113	78.3%
	2023	170,499	144,015	77.6%

Asset Category	Year	Total Number of Assets	Assets with Capital Responsibility	Percentage of Assets in SGR
Equipment (Service Vehicles)	2019	30,678	30,511	62.9%
	2020	30,929	30,757	63.8%
	2021	31,202	30,996	63.4%
	2022	31,012	30,944	61.3%
	2023	32,405	32,371	60.5%
Facilities	2019	13,339	11,344	87.8%
	2020	13,800	11,726	88.9%
	2021	14,099	11,943	89.6%
	2022	14,478	12,273	91.9%
	2023	14,537	12,344	92.5%
Infrastructure (Track Miles)	2019	13,557	13,402	97.6%
	2020	13,665	13,612	97.1%
	2021	13,550	13,496	96.8%
	2022	13,919	13,849	97.0%
	2023	13,951	13,881	96.9%

Useful Life and Age for Revenue Vehicles

A revenue vehicle is a vehicle used to carry passengers. Transit agencies report the ULB of passenger-carrying vehicles used in their transportation service to the NTD. ULB is the expected life cycle of a capital asset for a particular transit agency's operating environment, or the acceptable period of use in that environment. Of all active passenger-carrying vehicles reported in 2023, 15.5 percent did not have a reported ULB. Only vehicles for which the agency has capital responsibility have a ULB reported to 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 9.2 demonstrates the number of revenue vehicles remaining within their useful life, meeting their useful life, or exceeding their useful life by selected Vehicle Asset Classes in 2023. 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 ULB in 2023. ULB -1 is the group of vehicles exceeding their ULB by one year, ULB -2 is the group of vehicles exceeding their ULB by two years, and ULB -2 + is the group of vehicles exceeding their useful life by more than two years.

Each of the Vehicle Asset Classes represented in Exhibit 9.2 have more than half of their vehicles within their useful life by more than two years, except for Automobile, Minivan, Sports Utility Vehicle, and Van.

Exhibit 9.2 – Useful Life for Revenue Vehicles by Asset Class

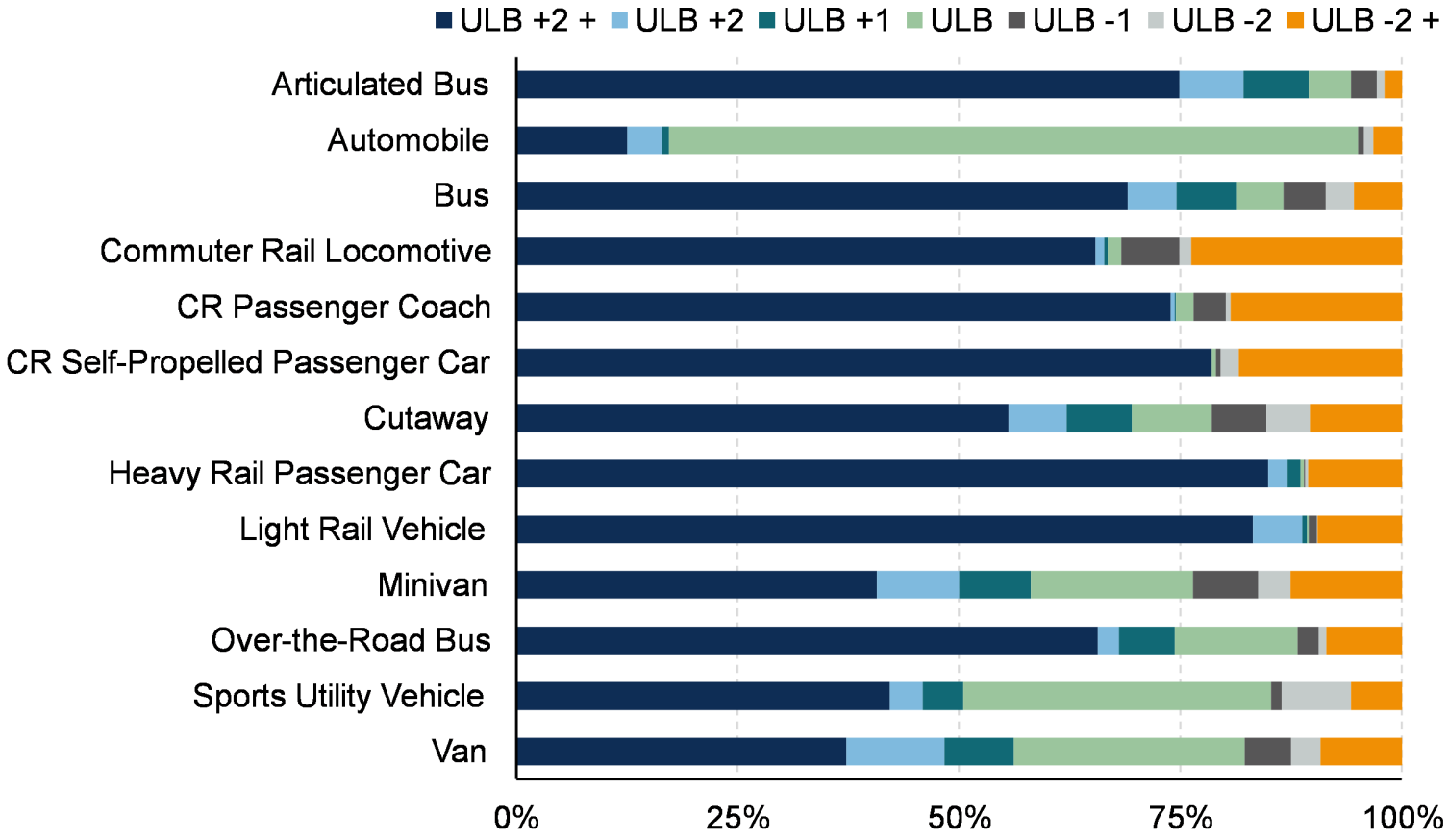


Exhibit 9.3 demonstrates the average age (bars) and average ULB (lines) of revenue vehicles in each asset class by vehicle type. Orange bars indicate that the age of the average revenue vehicle is less than the average ULB while blue bars indicate that average age exceeds the average ULB. In 2023, the average vehicle age exceeds average ULB for the automated guideway vehicle, cable car, and vintage trolley vehicle types.

Exhibit 9.3 – Average Revenue Vehicle Age (Bars) and ULB (Lines) (Capital Responsibility Only)

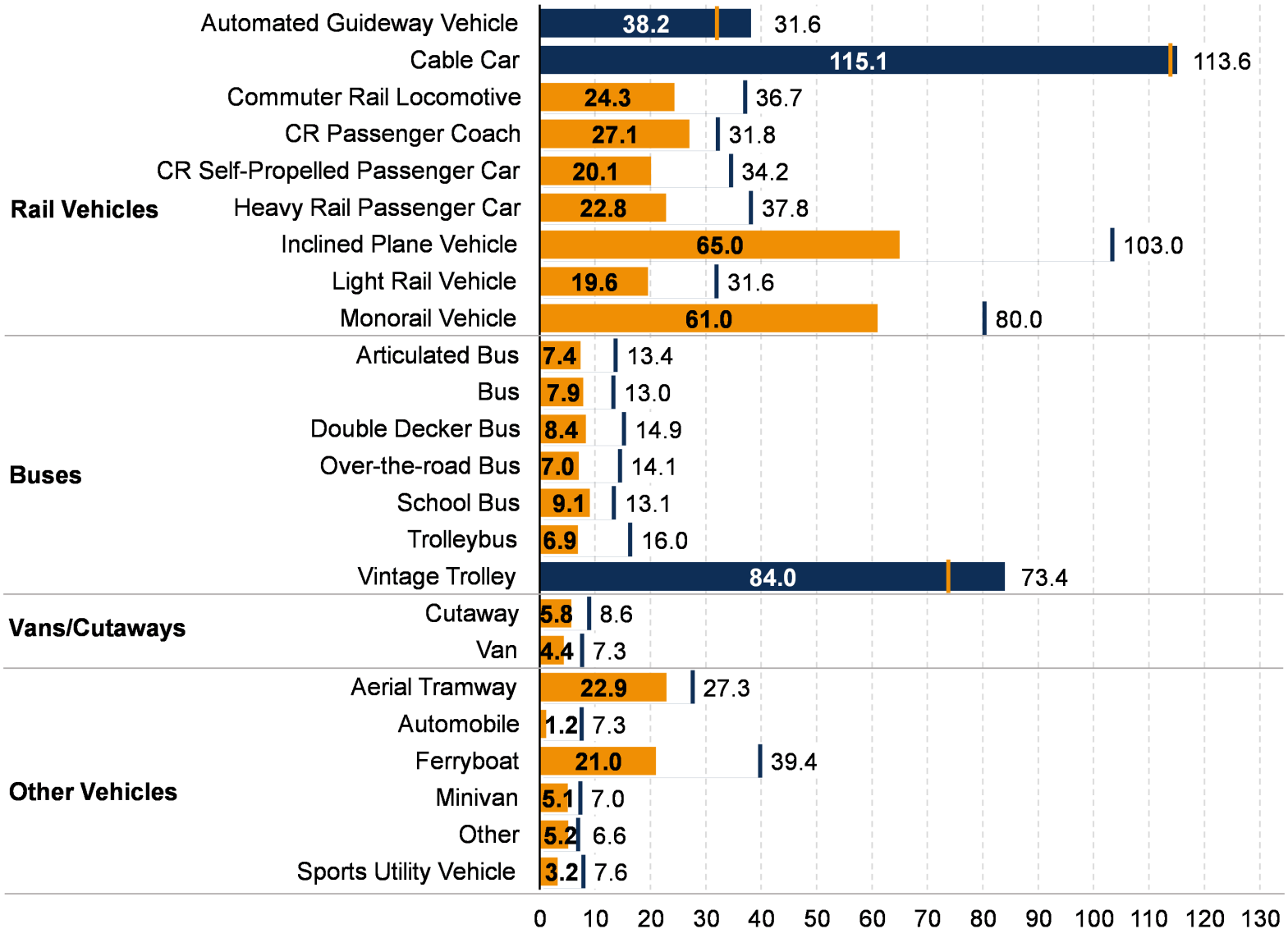


Exhibit 9.4 summarizes the percentage of revenue vehicles within their ULB, and thus in SGR, over the past five years. Since 2021, each of the asset types has seen a decrease of revenue vehicles in SGR.

Exhibit 9.4 – Percentage of Revenue Vehicles in SGR by Year (Capital Responsibility Only)

Asset Type	2019	2020	2021	2022	2023
Rail Vehicles	82.3%	82.1 %	84.1%	83.6%	83.8%
Buses	82.8%	83.2%	83.1%	82.6%	82.8%
Vans/Cutaways	76.8%	76.3%	76.2%	72.6%	71.1%
Other Vehicles	74.7%	72.1%	73.1%	69.8%	66.5%

Useful Life and Age for Service Vehicles

A service vehicle is a vehicle used to indirectly support revenue service by helping to maintain revenue vehicles or performing administrative tasks. As discussed in Chapter 8, there are three asset classes of service vehicles consisting of automobiles, trucks and other rubber tire vehicles, and steel wheel vehicles.

Of all reported service vehicles, 35 percent are between zero and five years old as shown in Exhibit 9.5. The vehicles older than 10 years only make up 31 percent of the total. Over 65 percent of Trucks and Other Rubber Tire Vehicles and Automobiles are between zero and 10 years of age; where in contrast, over 40 percent of Steel Wheel Vehicles are 26 years or older in age.

Exhibit 9.5 – Service Vehicle Age by Asset Class

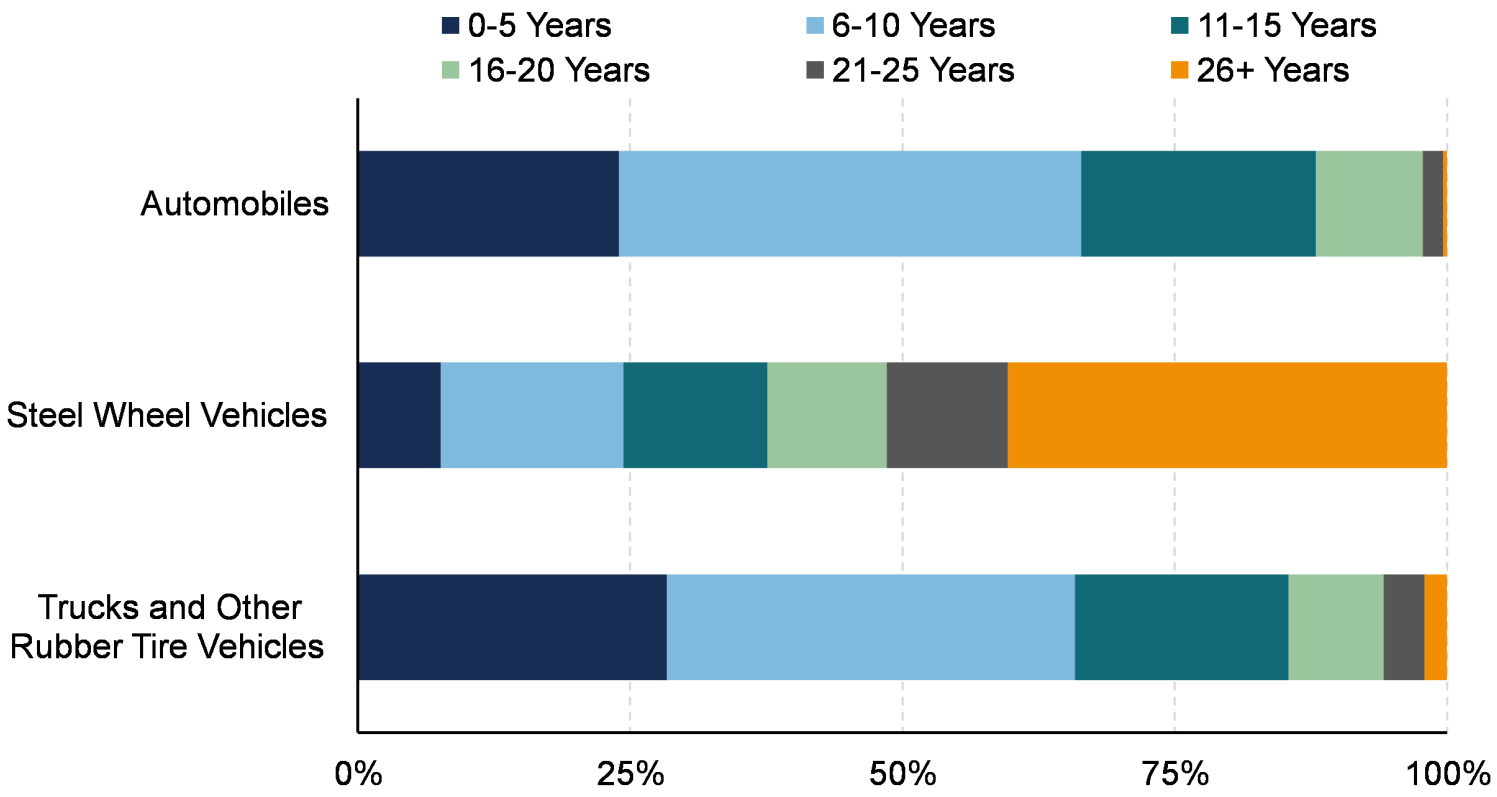


Exhibit 9.6 summarizes how the percentage of service vehicles within their ULB, and thus in SGR, has changed since 2019. For all asset classes, the percentage of service vehicles in SGR for 2023 remained relatively similar, after having decreased over the prior two years.

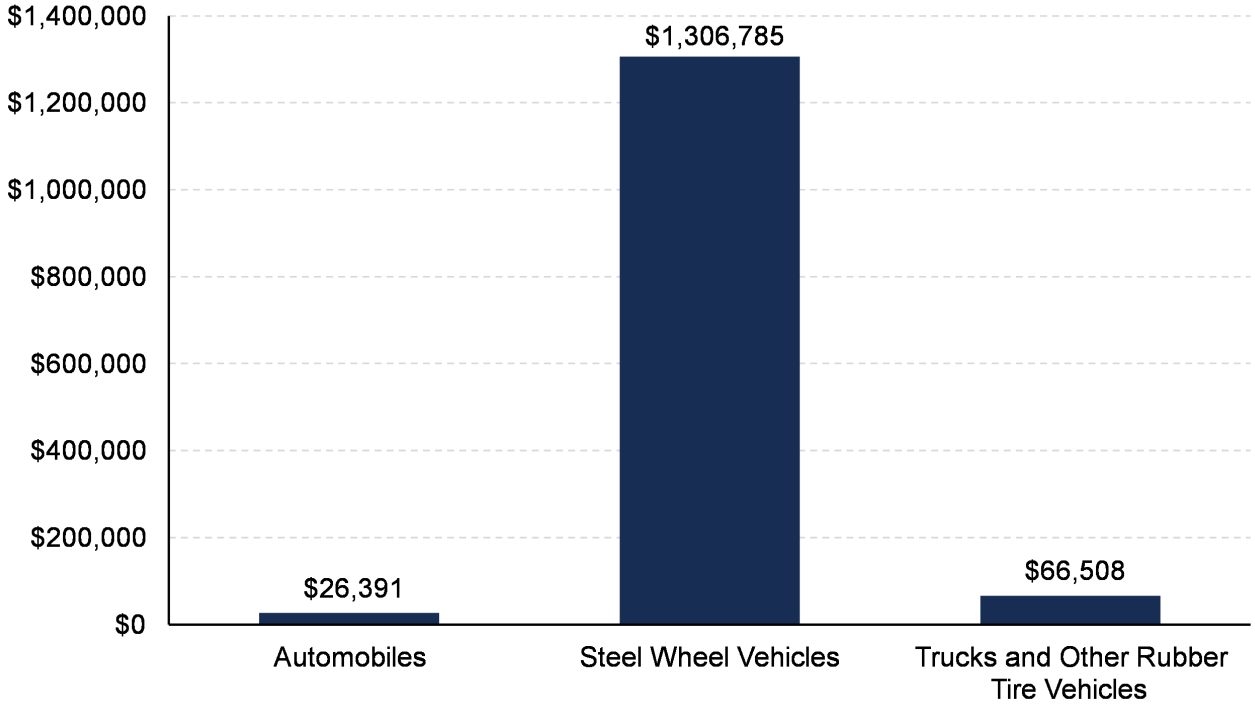
Exhibit 9.6 – Percentage of Service Vehicles in SGR by Year (Capital Responsibility Only)

Asset Class	2019	2020	2021	2022	2023
Automobiles	55.5%	56.5%	55.0%	51.1%	46.5%
Trucks and Other Rubber Tire Vehicles	66.2%	66.8%	66.6%	64.7%	64.5%
Steel Wheel Vehicles	48.7%	48.2%	45.5%	46.2%	46.2%

Replacement Cost for Service Vehicles

Exhibit 9.7 demonstrates the average cost to replace service vehicles by asset class. The average cost to replace Steel Wheel Vehicles is significantly more than the other service (non-revenue) asset classes, 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 9.7 – Average Replacement Cost by Service Vehicle Asset Class



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 TERM 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, 92 percent were given a condition assessment of 3 or higher. A small number (8 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 9.8 presents the reported condition assessments of the Maintenance Facilities, Administrative Facilities, Passenger Stations/Terminals, and Parking Structures. The majority of the facilities reported had condition assessments of 3 and 4 (81.9 percent). Overall, 10.2 percent of facilities had a condition assessment of 5 and the remaining 7.9 percent were rated a 2 or 1.

Exhibit 9.8 – Facility Condition Assessment by Facility Asset Class

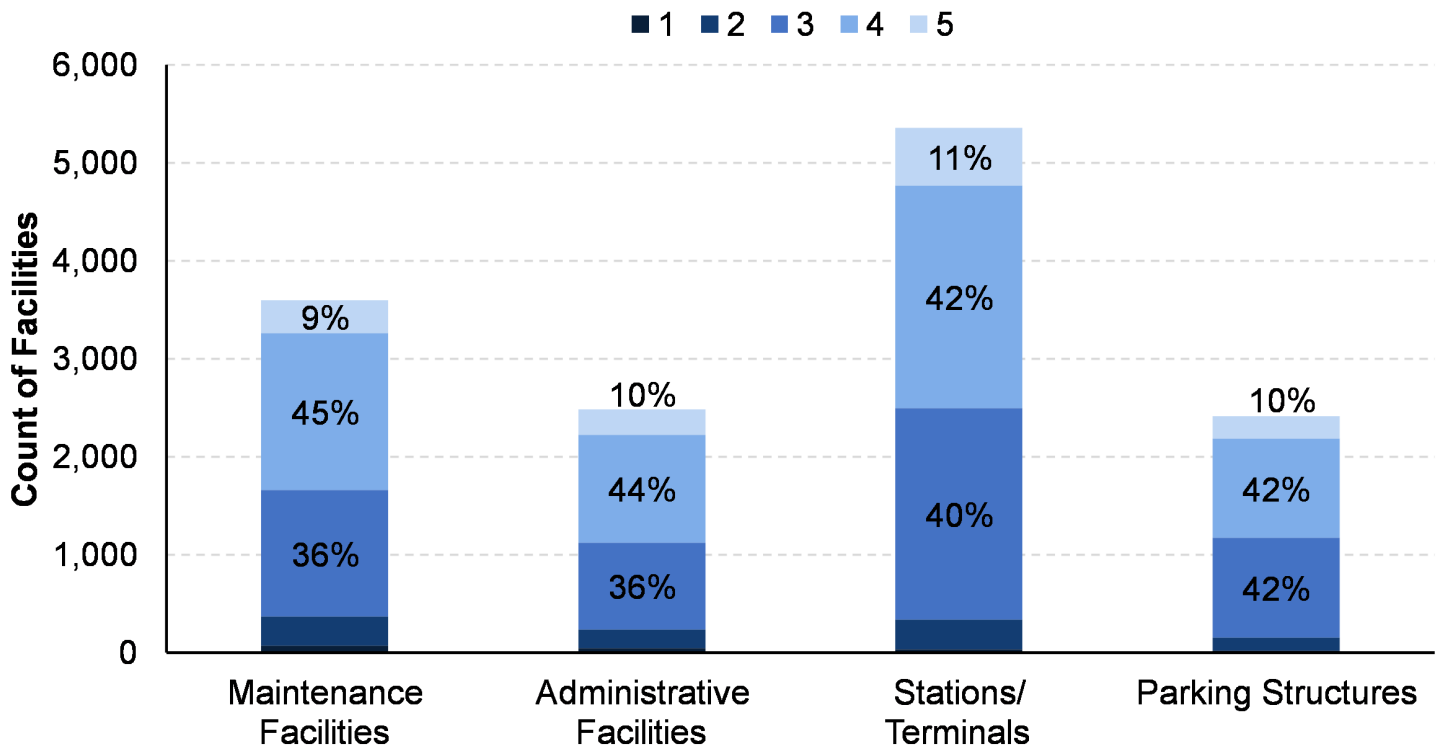


Exhibit 9.9 details the average condition assessment reported, the percentage of facilities in SGR, and the number of facilities with reported condition assessments by facility type. Agencies reported a total of 12,147 facilities with a condition assessment in 2023 with 92 percent of those facilities being in SGR. The average condition rating across all facilities in 2023 is 3.6.

Exhibit 9.9 – Percentage of Facilities in SGR by Facility Type (Capital Responsibility Only)

Asset Class	Facility Type	Average Condition Rating	Percentage of Facilities in SGR	Facilities with Condition Assessments
Administration	Administrative Office / Sales Office	3.7	93%	827
	Revenue Collection Facility	3.8	97%	29
Maintenance	Combined Administrative and Maintenance Facility	3.6	93%	813
	General Purpose Maintenance Facility/Depot	3.6	92%	804
	Heavy Maintenance and Overhaul (Backshop)	3.2	82%	90
	Maintenance Facility (Service and Inspection)	3.5	89%	647
	Other, Administrative and Maintenance	3.3	86%	817
	Vehicle Blow-Down Facility	3.3	67%	6
	Vehicle Fueling Facility	3.6	95%	192
	Vehicle Testing Facility	4.0	100%	5

Asset Class	Facility Type	Average Condition Rating	Percentage of Facilities in SGR	Facilities with Condition Assessments
Parking	Other, Passenger or Parking	3.8	98%	190
	Parking Structure	3.8	96%	230
	Surface Parking Lot	3.5	93%	1,973
Passenger	At-Grade Fixed Guideway Station	3.5	95%	1,752
	Bus Transfer Center	3.7	95%	878
	Elevated Fixed Guideway Station	3.4	88%	642
	Exclusive Platform Station	3.6	99%	355
	Ferryboat Terminal	3.7	97%	177
	Simple At-Grade Platform Station	3.9	98%	945
	Underground Fixed Guideway Station	3.2	82%	557
Total	**All Facilities**	**3.6**	**92%**	**12,147**

Transit agencies report the construction date for each facility to the NTD. The exhibit below demonstrates the percentage of facilities in SGR by decade of construction. Agencies underwent a construction boom from the 1980's to the present, building more than 10,300 facilities, of which 95 percent are in SGR.

Exhibit 9.10 – 2023 Percentage of Facilities in SGR by Decade of Construction (Capital Responsibility Only)

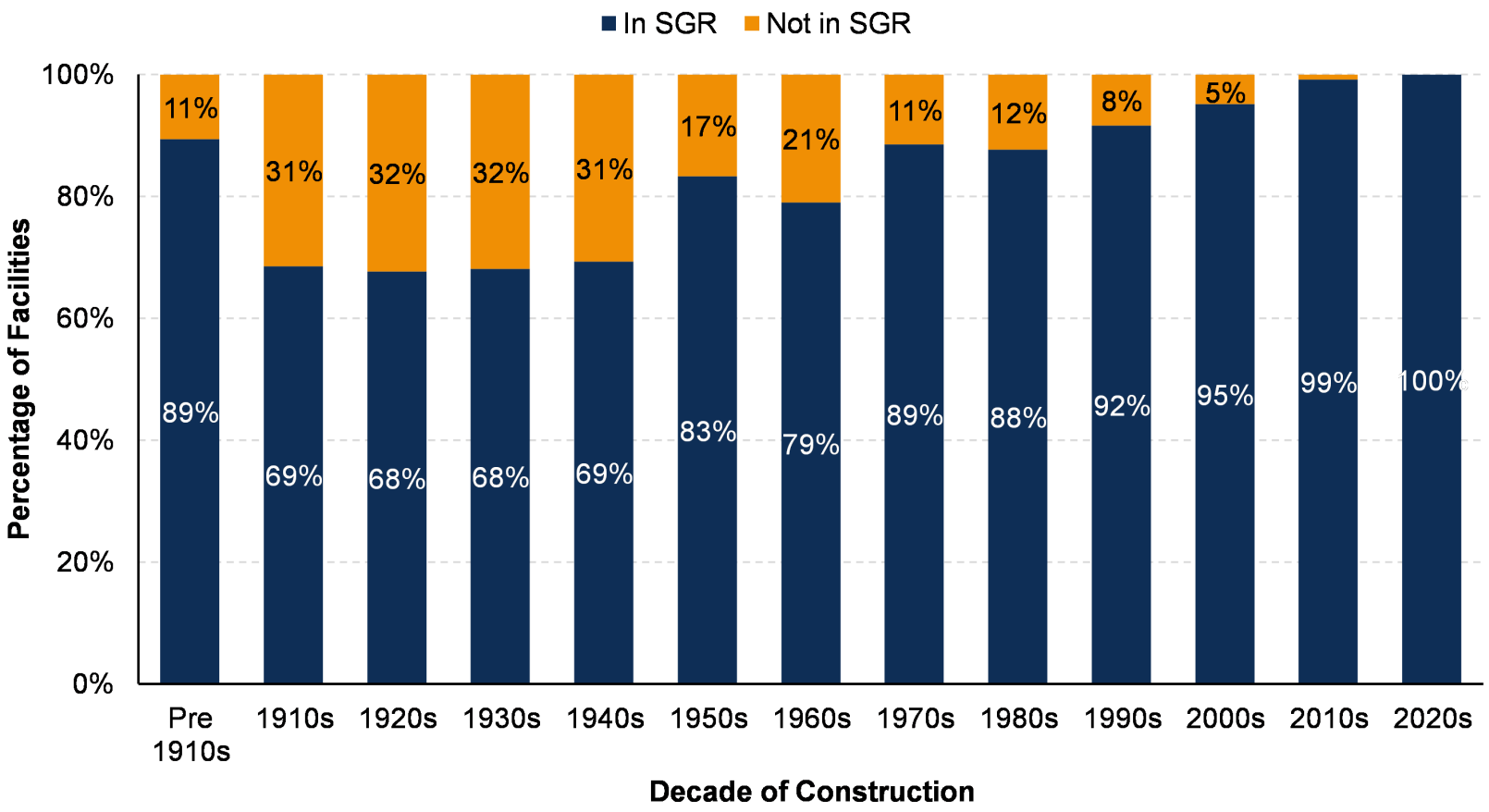


Exhibit 9.11 summarizes the percentage of facilities in SGR by asset type over the past five years. The percentage of Administrative/Maintenance facilities in SGR has seen a slight increase each year since 2019, while the percentage of Passenger/Parking facilities in SGR saw an almost 3 percent increase from 2021 to 2022, and then plateaued in 2023.

Exhibit 9.11 – Percentage of Facilities in SGR by Year (Capital Responsibility Only)

Asset Type	2019	2020	2021	2022	2023
Administrative / Maintenance	85.9%	86.9%	87.4%	88.8%	90.4%
Passenger / Parking	88.9%	90.1%	90.9%	93.8%	93.7%

Track Miles

Exhibit 9.12 presents total track miles by mode. Of the 13,951 miles of track reported in 2023, Commuter Rail accounts for 61 percent, followed by Heavy Rail (17 percent) and Light Rail (13 percent). The other Rail modes provide the remaining 9 percent of total track miles.

Exhibit 9.12 – Total Track Miles in 2021, 2022, and 2023 by Mode

Mode	Track Miles		
	2021	2022	2023
Commuter Rail	8,262	8,553	8,524
Heavy Rail	2,305	2,301	2,366
Light Rail	1,764	1,793	1,819
Other Rail	1,219	1,271	1,242
Total	**13,550**	**13,919**	**13,951**

For all rail modes, transit agencies report Decade of Construction for track miles, ranging from pre-1940 to the present report year. Exhibit 9.13 demonstrates the total track miles by mode and decade of construction. Most guideway constructed before the 1980s was for heavy rail and commuter rail systems, with nearly all light rail construction since the 1980s. Please note that the year of construction could include both expansion projects as well as replacement of older guideway elements.

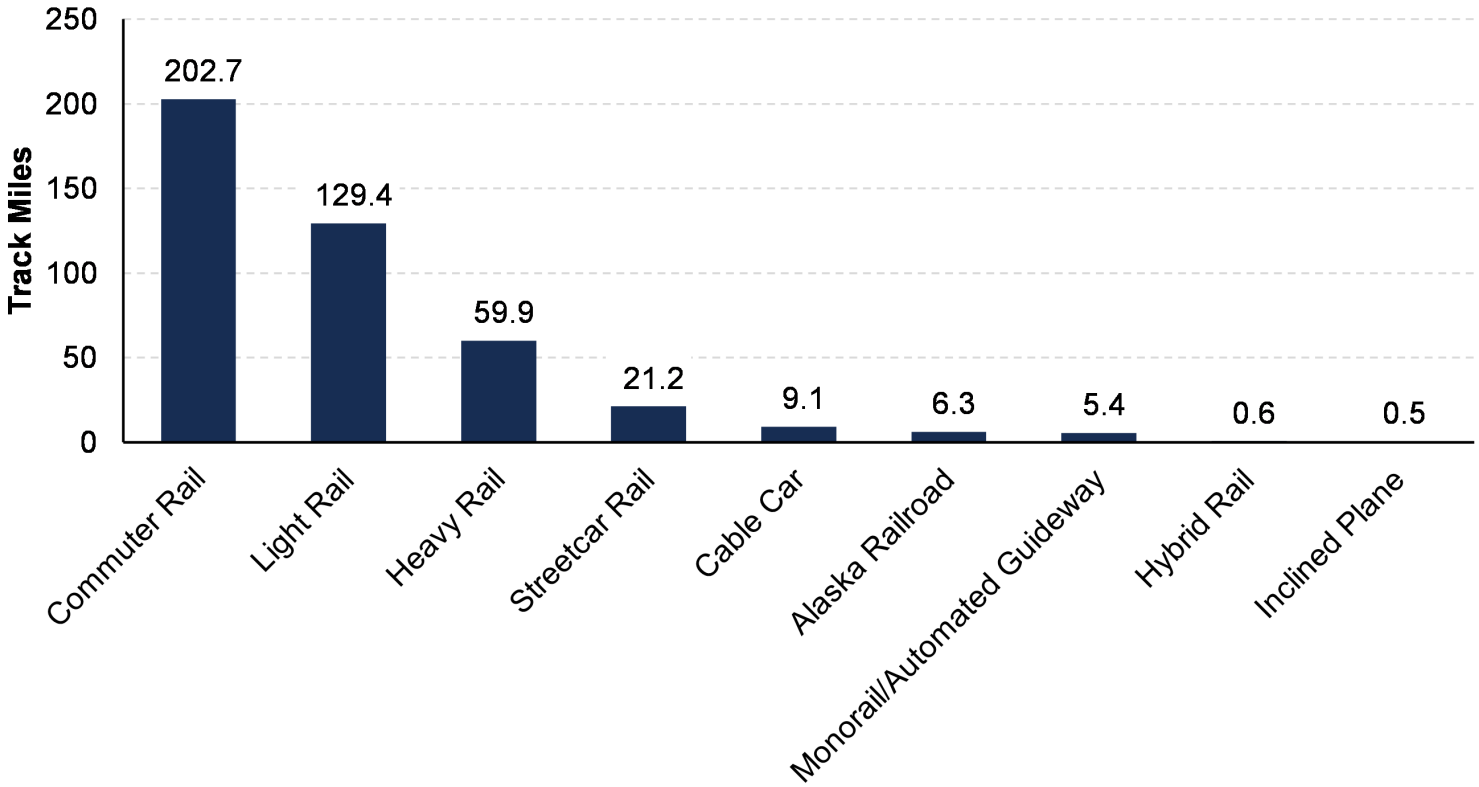
Exhibit 9.13 – Track Miles by Decade of Construction

Asset Type	Pre 1940s	1940s	1950s	1960s	1970s	1980s	1990s	2000s	2010s	2020s
Commuter Rail	3,973	66	122	137	179	1,452	662	1,070	653	209
Heavy Rail	327	27	45	206	172	416	628	213	274	58
Light Rail	26	0	0	0	1	265	450	524	497	55
Other Rail	8	25	45	58	62	229	267	303	234	10

Exhibit 9.14 depicts 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 accounts for the most track miles under performance restrictions in 2023 (202.7 miles), followed by Light Rail (129.4 miles).

Exhibit 9.14 – Track & Guideway Miles in Slow Zones



The miles of track in SGR are measured as the percentage of track miles without performance restrictions. Exhibit 9.15 demonstrates the percentage of revenue track miles without performance restrictions, for which agencies have capital responsibility, from 2019 to 2023. The percentage of track miles in SGR across all rail asset types has remained consistent since 2019 with only slight variation.

Exhibit 9.15 – Percentage of Track Miles Without Performance Restrictions by Year (Capital Responsibility Only)

Asset Type	2019	2020	2021	2022	2023
Commuter Rail	98.1%	97.4%	97.0%	97.4%	97.6%
Heavy Rail	95.3%	98.0%	98.6%	98.0%	97.5%
Light Rail	97.5%	94.4%	93.0%	93.2%	92.9%
Other Rail	98.9%	97.3%	97.3%	97.5%	96.5%

Mechanical Failures

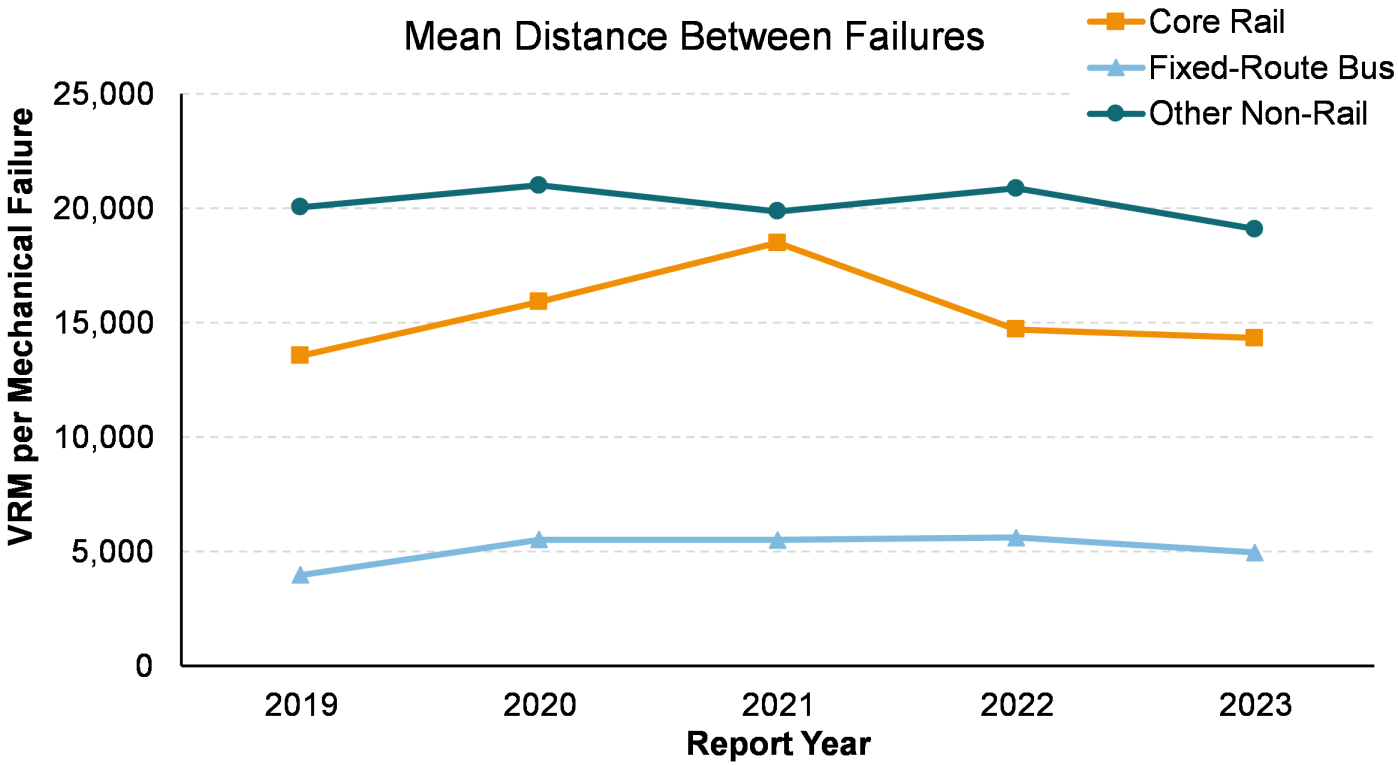
Mechanical Failures are failures of a mechanical element of a revenue vehicle, which prevent the vehicle from completing or starting a scheduled revenue trip. Failures of a mechanical nature that are caused by collision, natural disaster, or vandalism are not to be reported. A commonly used measure to determine the mean distance between failures, Miles per Failure, is calculated by dividing VRM by Mechanical Failures. Similarly, Chance of Failure, which is used to determine the probability that a Failure will occur, can be calculated by dividing Mechanical Failures by VRM.

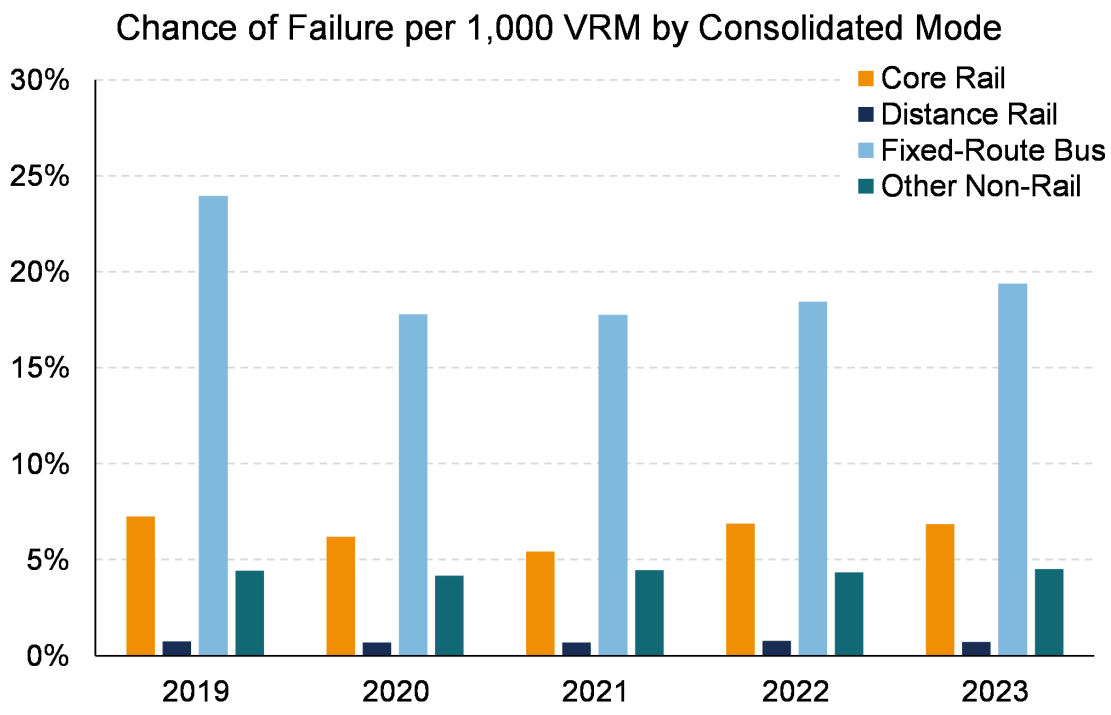
Exhibit 9.16 demonstrates the change in the distance between failures and the chance of failure from 2019 to 2023 by consolidated mode. Distance Rail is excluded from the distance between failures exhibit as it is an extreme outlier due to the type of service Distance Rail provides. There was a 30 percent increase in the miles per failure in 2020, however, the miles per failure across all modes has remained consistent since then. Miles between failures for Core Rail increased by more than 15 percent in 2020 and 2021 with a 20 percent decrease in 2022.

In Exhibit 9.16, the trend in Chance of Failure for all consolidated modes also remained consistent over the last 5 years. Fixed-Route Bus modes often have higher service levels and a higher count of Mechanical Failures reported causing the chance of failure per 1,000 VRM to be higher than other modes.

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

Exhibit 9.16 – Mechanical Failures by Consolidated Mode





Performance Targets

Transit agencies report on asset condition for the current year and set targets for each asset class for the coming year. The targets reflect an agency's expectation of its ability to keep assets in SGR, based on current conditions, anticipated funding, and internal agency decision-making procedures. Please note the performance targets directly reported to the NTD are percentages not in SGR, however, the exhibit below presents the percentage of assets in SGR.

Exhibit 9.17 shows the performance targets that agencies set in 2022 to forecast 2023 conditions, the calculated performance metrics for 2023, and the targets that they have set for 2024. The average targets reflect a national snapshot of agencies' expectations in their ability to maintain or improve the condition of transit assets in the near future. Transit agencies only report performance targets for assets for which they have capital responsibility.

Exhibit 9.17 – Targets and Metrics for Percentage of Assets in SGR by Asset Class (Capital Responsibility Only)

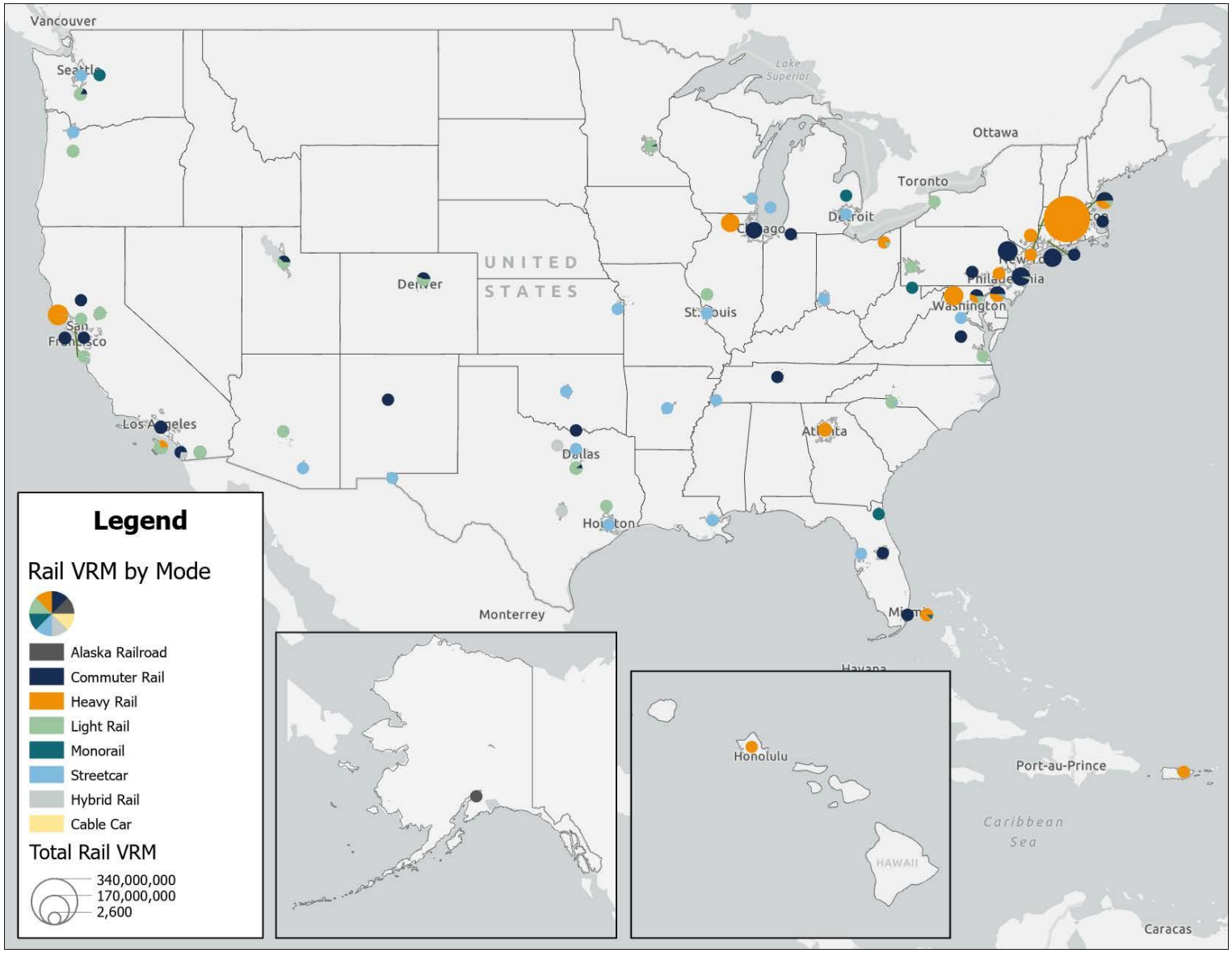
Asset Category	Asset Class	2023 Target	2023 Metric	2024 Target
Revenue Vehicles	Rail Vehicles	83.7%	83.8%	82.9%
	Buses	83.1%	82.8%	81.5%
	Vans/Cutaways	72.3%	71.1%	70.8%
	Other Vehicles	70.4%	66.5%	67.8%
	Total	**78.4%**	**77.6%**	**76.8%**
Equipment	Automobiles	54.7%	46.5%	52.0%
	Trucks and Other Rubber Tire Vehicles	64.6%	64.5%	64.4%
	Steel Wheel Vehicles	44.7%	46.2%	44.7%
	Total	**61.9%**	**60.5%**	**61.4%**
Facilities	Administrative/Maintenance	86.5%	90.4%	88.7%
	Passenger / Parking	91.4%	93.7%	91.9%
	Total	**89.6%**	**92.5%**	**90.7%**
Infrastructure	Commuter Rail	96.4%	97.6%	96.1%
	Heavy Rail	96.2%	97.5%	95.6%
	Light Rail	92.9%	92.9%	91.6%
	Other Rail	97.2%	96.5%	96.8%
	Total	**96.0%**	**96.9%**	**95.5%**

Chapter 10. Service Supplied

Vehicle Revenue Miles

In 2023, there were 87 urbanized areas (UZAs) served by at least one of the Rail modes. Exhibit 10.1 demonstrates the UZAs with allocated data by Rail modes. Each bubble is sized by the VRM allocated. New York, NY had the highest VRM of 525 million in total between Heavy Rail, Commuter Rail, and Light Rail. Chicago, IL and Washington, D.C. followed with 106.5 million and 79 million total VRM. San Francisco, CA was served by the most Rail modes including Heavy Rail, Light Rail, Commuter Rail, Streetcar Rail, and Cable Car.

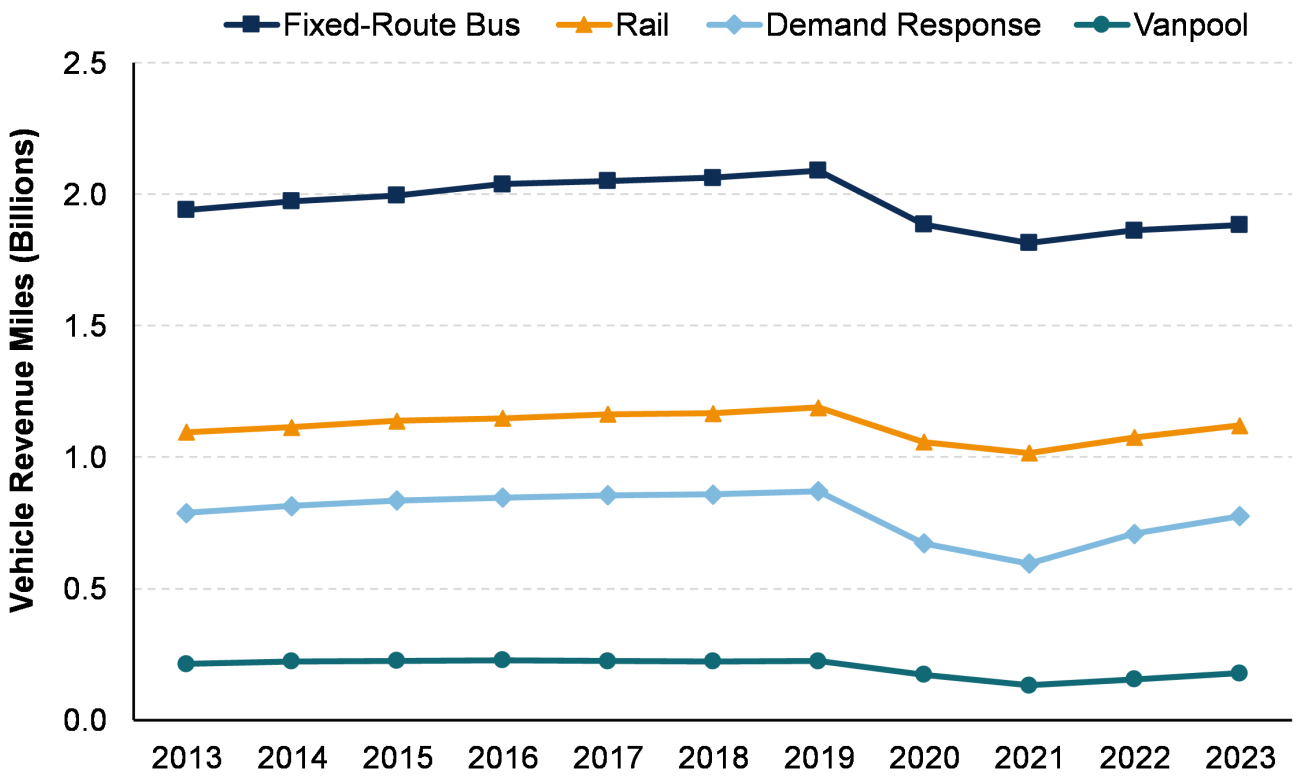
Exhibit 10.1 – VRM for Rail Modes Serving UZAs



In 2023, Fixed-Route Bus modes accounted for about half of all VRM while Rail modes accounted for about 30 percent of all VRM. Annual Total VRM across all modes decreased 1.9 percent over the 10-year period from 4.04 billion to 3.96 billion, almost exclusively 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 17 percent. Ferryboat, which is excluded from the exhibit below, had a 58 percent increase in VRM from 3.29 million to 5.18 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

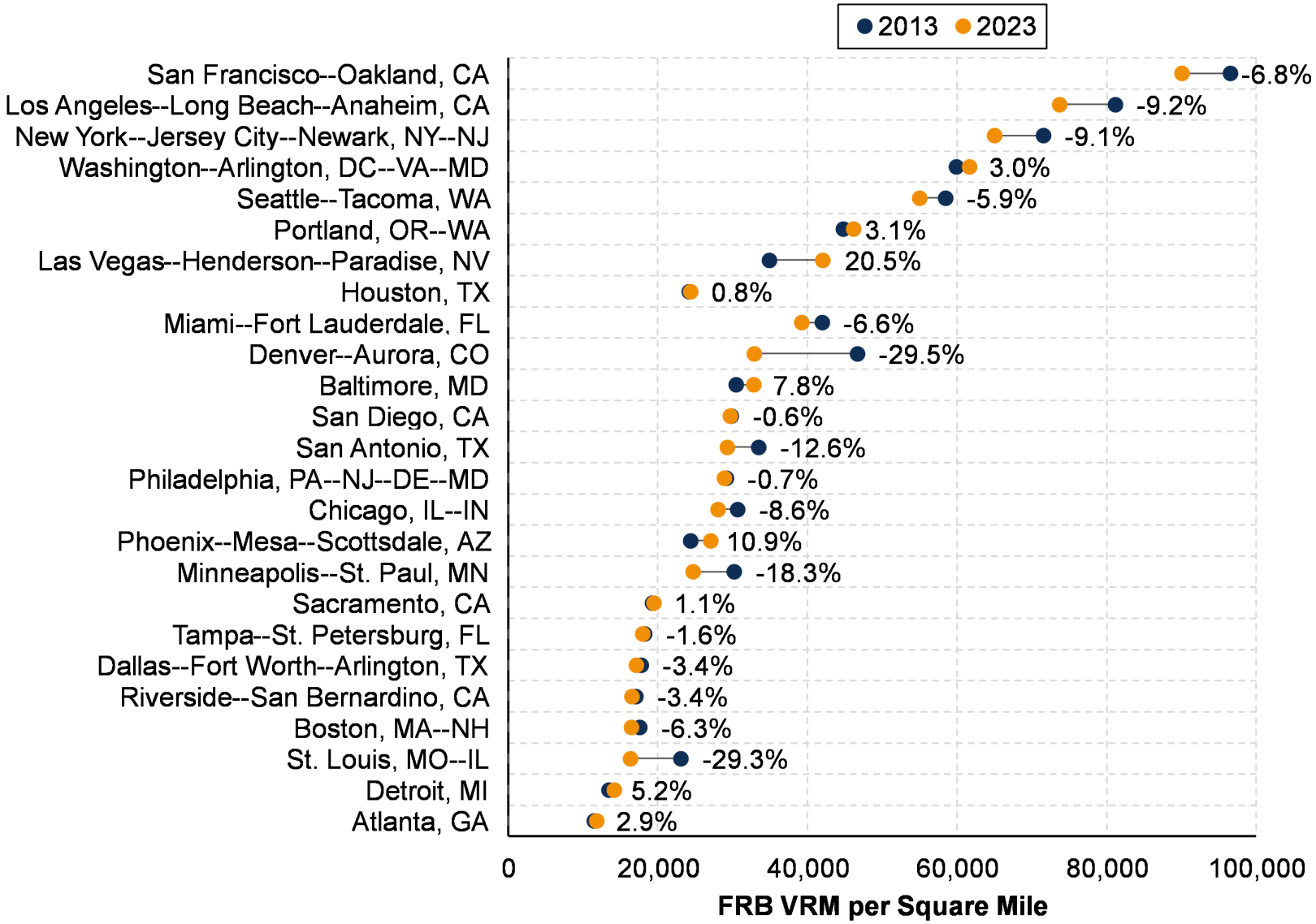


VRM per square mile is a useful concept for thinking about transit service coverage in a UZA. For example, if people are willing to walk as much as a half mile to access Bus service, then one can imagine one Bus vehicle revenue mile providing service to one square mile of land if the Bus service runs 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 demonstrates the change in VRM per square mile by UZA from 2013 to 2023 for all Fixed-Route Bus (FRB) modes. Bus modes are typically used to provide basic transit service coverage, even in neighborhoods where a Rail mode is present. The Largest 8 UZAs all saw a decrease in VRM per square mile except the Washington, D.C. UZA.

In the other most populous UZAs, there was a mix of UZAs increasing and decreasing their FRB VRM per square mile over the 10-year period. Las Vegas-Henderson-Paradise, Nevada and Phoenix-Mesa-Scottsdale, Arizona experienced the largest increases, at 20.5 and 10.9 percent, respectively. Denver-Aurora, Colorado and St. Louis, Missouri-Illinois saw the largest decreases at 29.5 percent and 29.3 percent. Minneapolis-St. Paul, Minnesota and San Antonio, Texas closely followed with an 18.3 and 12.6 percent decrease.

Exhibit 10.3 – Fixed-Route Bus VRM per Square Mile by UZA



System Capacity

Unadjusted VRM for each mode is 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 2023 was 28 seated and 21 standing, or 49 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 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

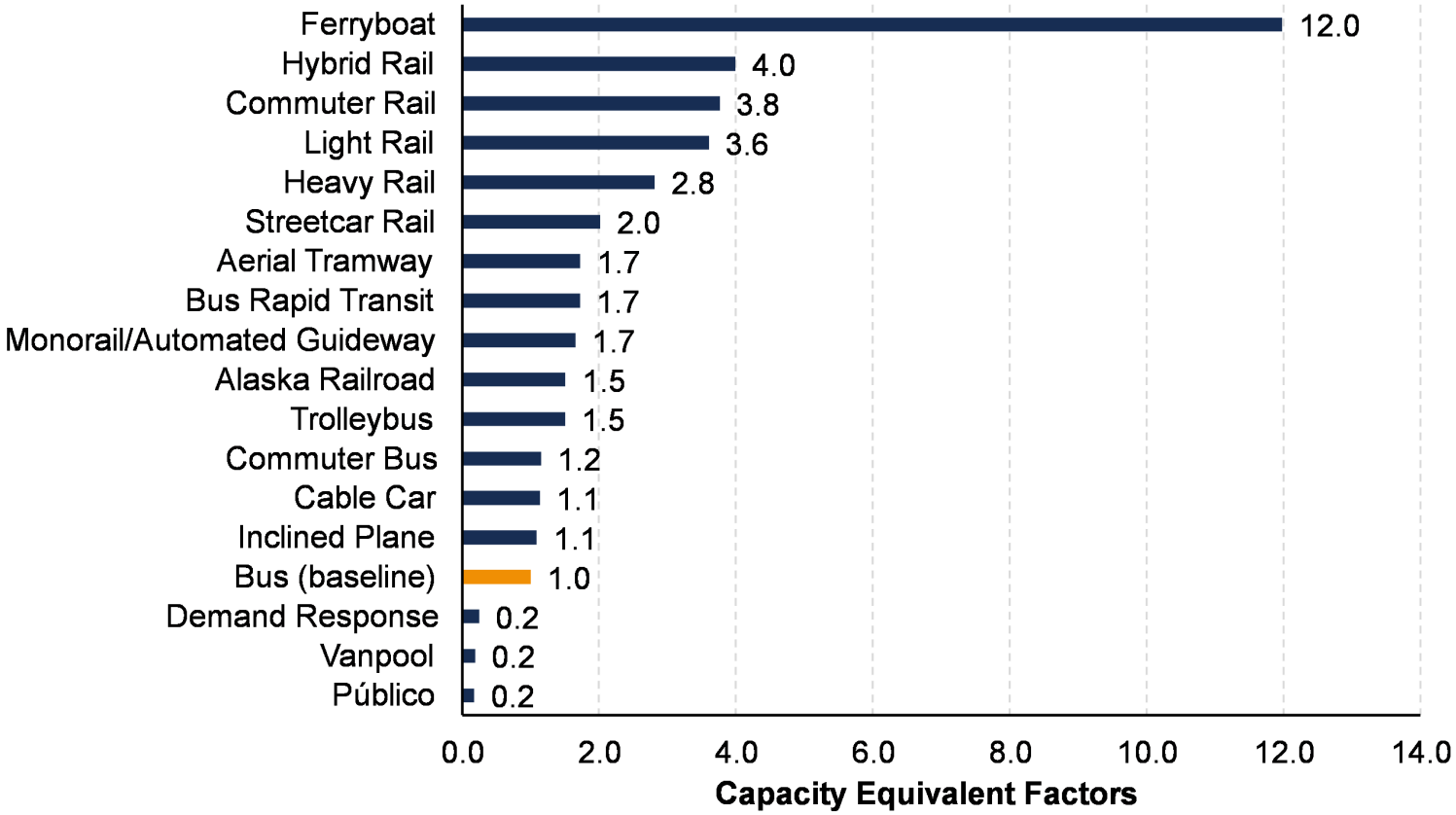


Exhibit 10.5 below presents the CEVRM by mode over the last 10 years. Other Rail consists of Alaska Railroad, Cable Car, Inclined Plane, and Monorail/Automated Guideway, whereas Other Non-Rail is comprised of Aerial Tramway and Público. Many modes have stayed consistent in their CEVRM since 2013. Notably, Bus Rapid Transit CEVRM has increased by 107 percent from 2013 to 2023, as the mode has become more prevalent and has maintained high capacities. Hybrid Rail and Ferryboat also increased by 64 and 63 percent, respectively, since 2013. The decrease in Other Non-Rail is attributed to the Público mode, for which CEVRM has decreased by 79 percent since 2013. In years

overlapping with the COVID-19 public health emergency, the CEVRM decreased for many other modes. The annual rate of change in VRM at Bus-equivalent capacity during this period varies dramatically from mode to mode.

Exhibit 10.5 – 10-Year Capacity-Equivalent VRM by Mode

Capacity-Equivalent VRM (Millions)												
Mode	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**Average Annual Rate of Change 2013 to 2023**
Rail	**3,500**	**3,620**	**3,787**	**3,829**	**3,939**	**3,856**	**3,921**	**3,441**	**3,254**	**3,431**	**3,558**	**0.7%**
Heavy Rail	1,843	1,874	1,903	1,921	1,972	2,022	2,062	1,866	1,761	1,774	1,838	0.4%
Commuter Rail	1,260	1,320	1,439	1,441	1,475	1,344	1,360	1,138	1,085	1,219	1,287	1.1%
Light Rail	365	392	409	430	454	458	459	401	377	403	398	1.9%
Hybrid Rail	11	12	12	12	12	12	19	18	17	19	17	7.6%
Streetcar Rail	10	11	11	13	14	14	14	13	10	11	12	2.2%
Other Rail	12	12	13	12	12	7	7	5	4	5	6	0.0%
Non-Rail	**2,256**	**2,306**	**2,336**	**2,385**	**2,409**	**2,426**	**2,456**	**2,176**	**2,064**	**2,155**	**2,196**	**0.0%**
Bus	1,782	1,805	1,828	1,864	1,881	1,902	1,925	1,772	1,719	1,753	1,771	-0.3%
Bus Rapid Transit	10	13	15	18	17	17	19	19	20	20	21	18.0%
Commuter Bus	144	152	150	155	158	156	158	105	82	98	101	8.7%
Trolleybus	20	20	17	18	18	18	16	13	13	13	12	-3.9%

Capacity-Equivalent VRM (Millions)												
Mode	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**Average Annual Rate of Change 2013 to 2023**
Demand Response	210	221	227	230	235	225	227	177	153	178	193	0.1%
Ferryboat	38	41	44	46	49	56	60	52	49	62	62	5.0%
Vanpool	47	50	50	50	49	49	48	37	27	30	34	-1.7%
Other Non-Rail	4	4	4	4	4	2	3	2	1	1	1	0.0%
Total	**5,756**	**5,927**	**6,123**	**6,214**	**6,348**	**6,282**	**6,377**	**5,616**	**5,318**	**5,586**	**5,754**	**0.4%**

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 10 years is shown in the table below.

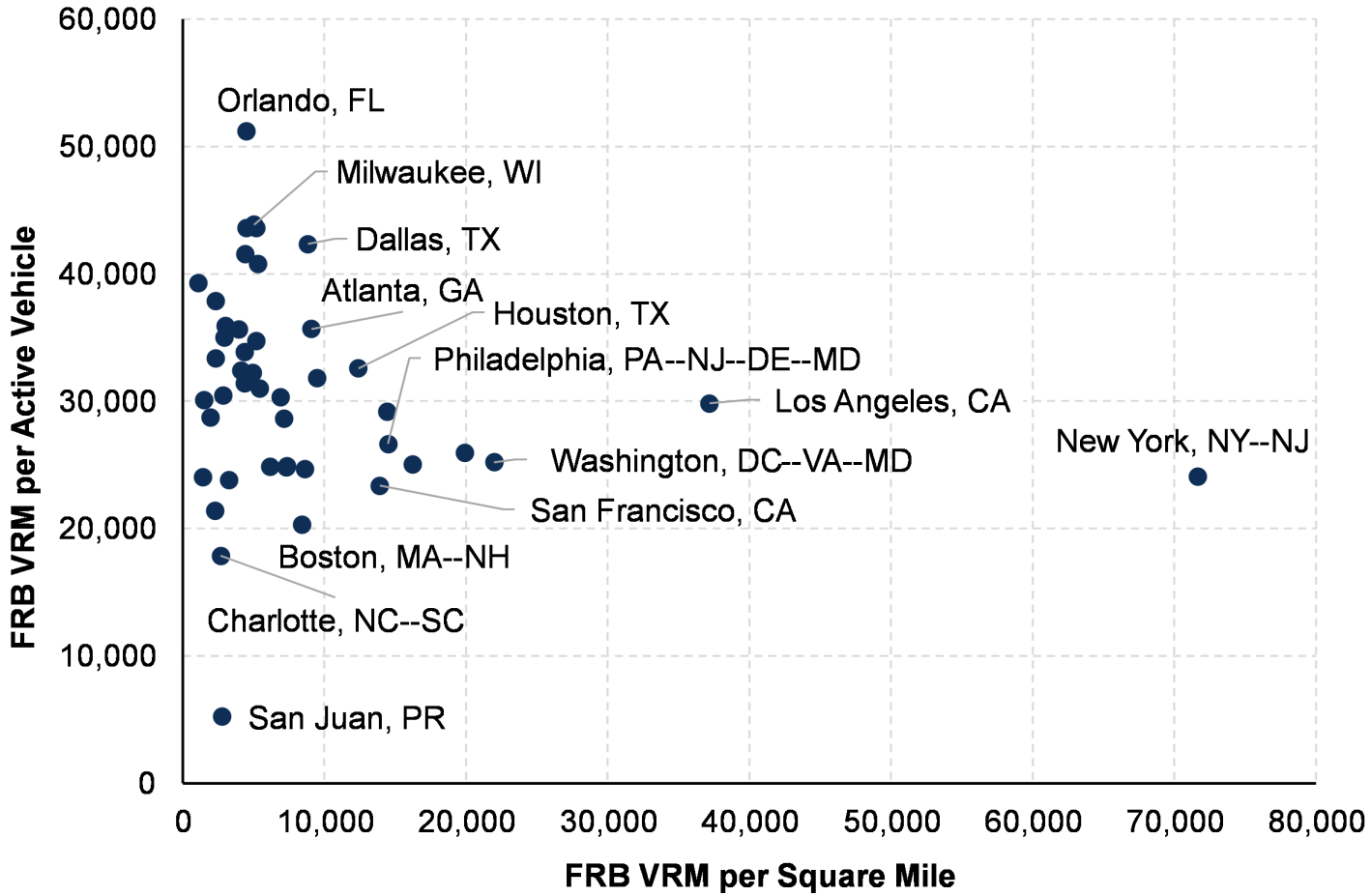
Heavy Rail and Hybrid Rail had the highest vehicle use from 2019 to 2023. These modes typically offer long hours of frequent service. There was a decrease in VRM per active vehicle across all modes in 2020 and 2021 due to the COVID-19 public health emergency. In Report Year (RY) 2022 and 2023, many modes increased in utilization as the industry recovered ridership. However, as of 2023, none of the modes have reached higher utilization than the pre-pandemic.

Exhibit 10.6 – 5-Year Vehicle Utilization (Average Annual VRM per Active Vehicle) by Mode

VRM per Active Vehicle (Thousands)						
Mode	**2019**	**2020**	**2021**	**2022**	**2023**	**Average Annual Rate of Change (2019 to 2023)**
Rail						
Heavy Rail	58	55	53	55	54	-1.2%
Commuter Rail	47	38	36	40	42	-1.0%
Light Rail	52	45	42	45	45	-2.7%
Hybrid Rail	49	47	44	50	47	2.8%
Streetcar Rail	17	15	13	13	15	-2.3%
Other Rail	66	54	46	53	53	-3.3%
Non-Rail						
Bus	28	26	25	26	26	-1.0%
Bus Rapid Transit	22	17	19	19	19	0.6%
Commuter Bus	21	15	12	15	17	-3.2%
Trolleybus	17	16	16	15	15	-2.6%
Demand Response	36	29	27	30	32	-2.3%
Ferryboat	23	18	17	18	19	-3.0%
Vanpool	14	13	12	14	14	0.0%
Other Non-Rail	18	15	13	13	16	-2.2%

Exhibit 10.7 demonstrates the relationship between VRM per active vehicle and VRM per square mile for Fixed-Route Bus modes by UZA. As expected, the larger 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 (39,258), but the lowest VRM per square mile (1,103). 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



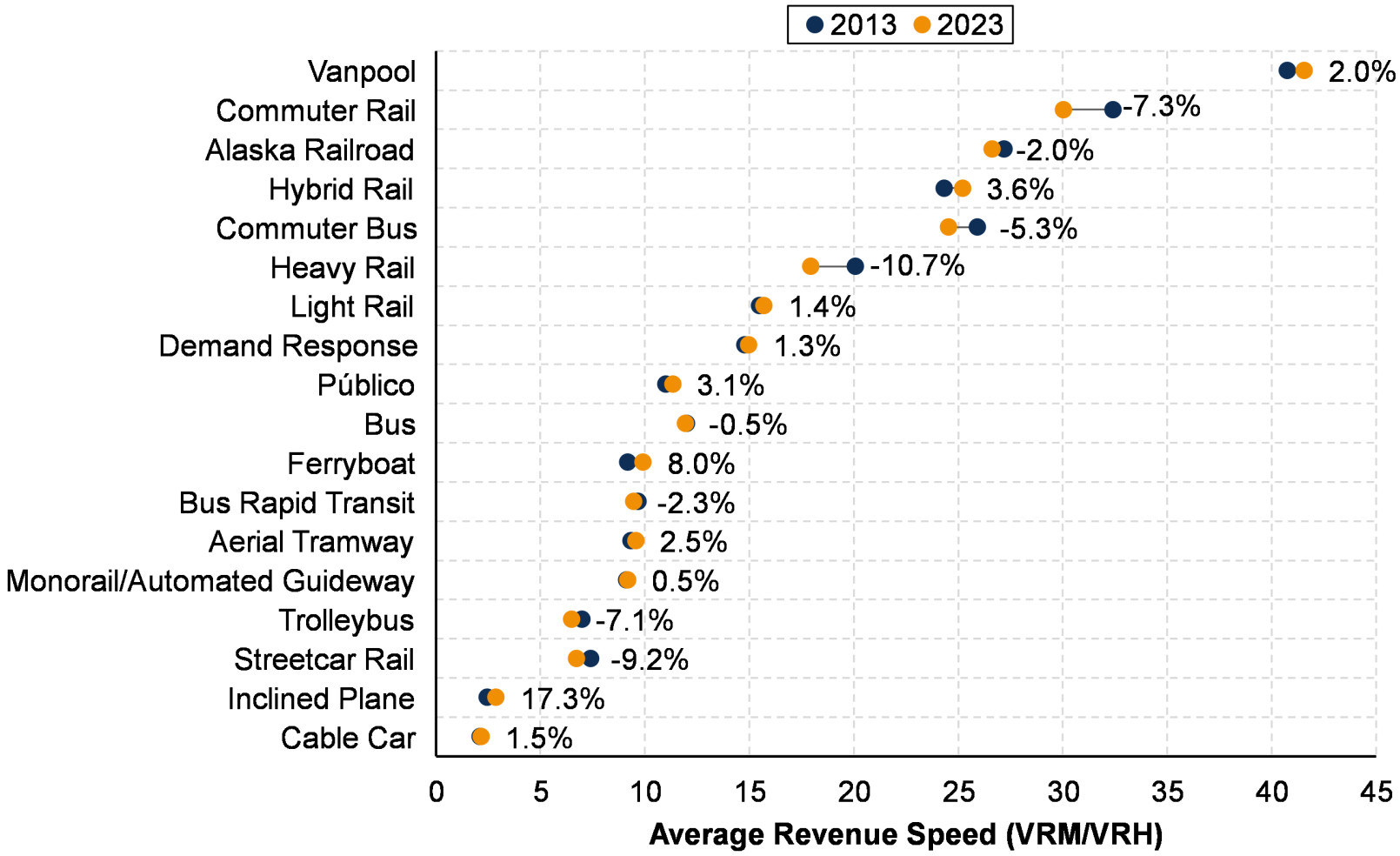
Average Revenue Speed

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 2023 are Vanpool (41.5 miles per hour) and Commuter Rail (30.0 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 to that of 2023. Most modes remained within one mile per hour difference from 2013 to 2023, whereas Commuter Rail (CR) and Heavy Rail (HR) reflected more noticeable changes of roughly two miles per hour.

Exhibit 10.8 – Average Revenue Speed by Mode



Chapter 11. Ridership

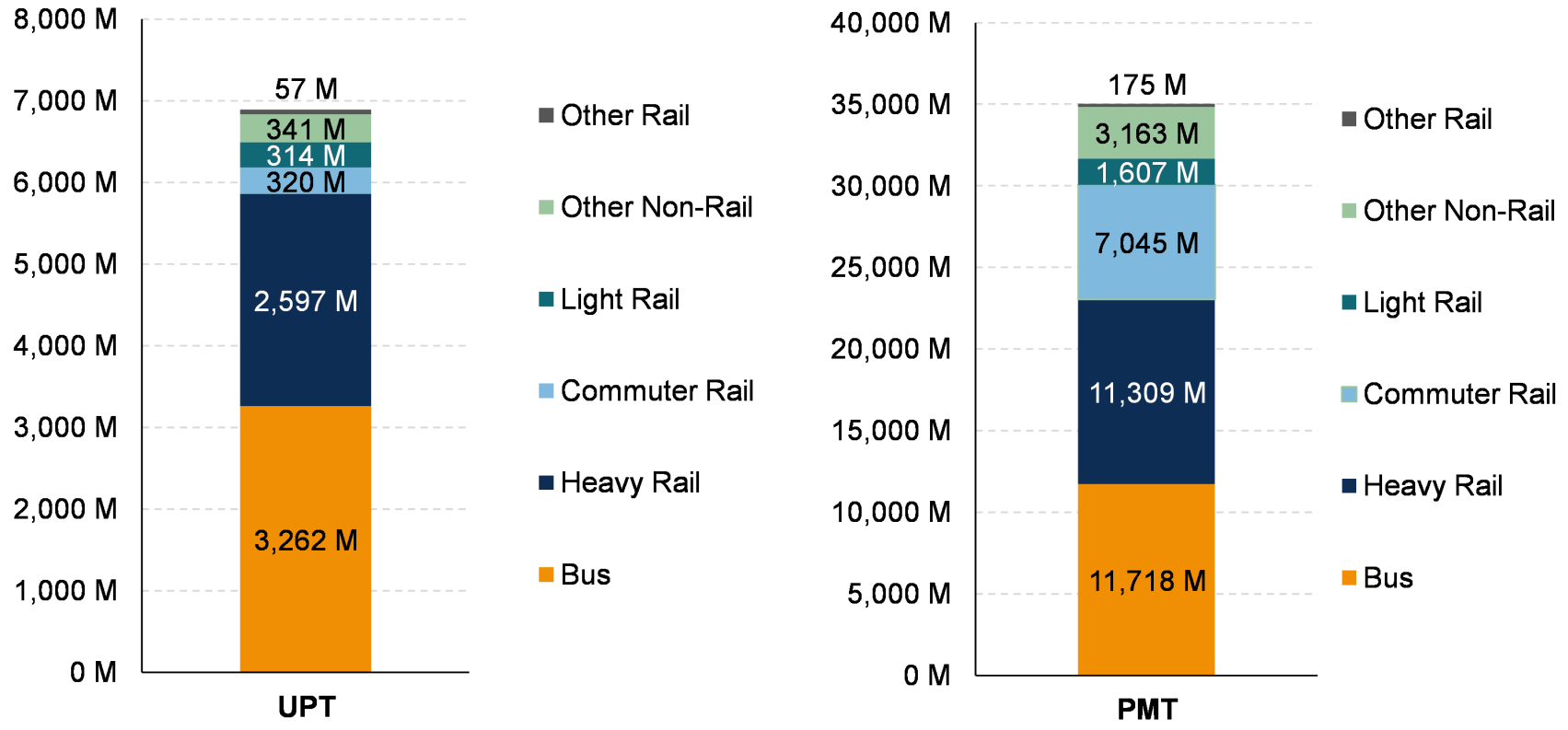
Service Consumed by Transit Mode

Exhibit 11.1 below demonstrates the distribution of Unlinked Passenger Trips (UPT) and Passenger Miles Traveled (PMT) across modes. In 2023, urban transit systems provided 6.9 billion UPT and 35.0 billion PMT. The Bus and Heavy Rail modes were the largest providers of ridership, with over 85 percent of nationwide UPT and over 65 percent of nationwide PMT in 2023. Due to its greater Average Passenger Trip Length (APTL), Commuter Rail accounted for only 5 percent of UPT but 20 percent of PMT.

The Other Non-Rail category is comprised of the Aerial Tramway, Bus Rapid Transit, Commuter Bus, Demand Response, Ferryboat, Público, Trolleybus, and Vanpool modes, which supplied 5 percent of UPT, and 9 percent of PMT; whereas Other Rail, consisting of the Alaska Railroad, Cable Car, Hybrid Rail, Inclined Plane, Monorail/Automated Guideway, and Streetcar Rail modes, accounted for 1 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 to 135 million in Report Year (RY) 2023.

Exhibit 11.1 – 2023 National Total UPT and PMT by Mode (in Millions)



Average Trip Length

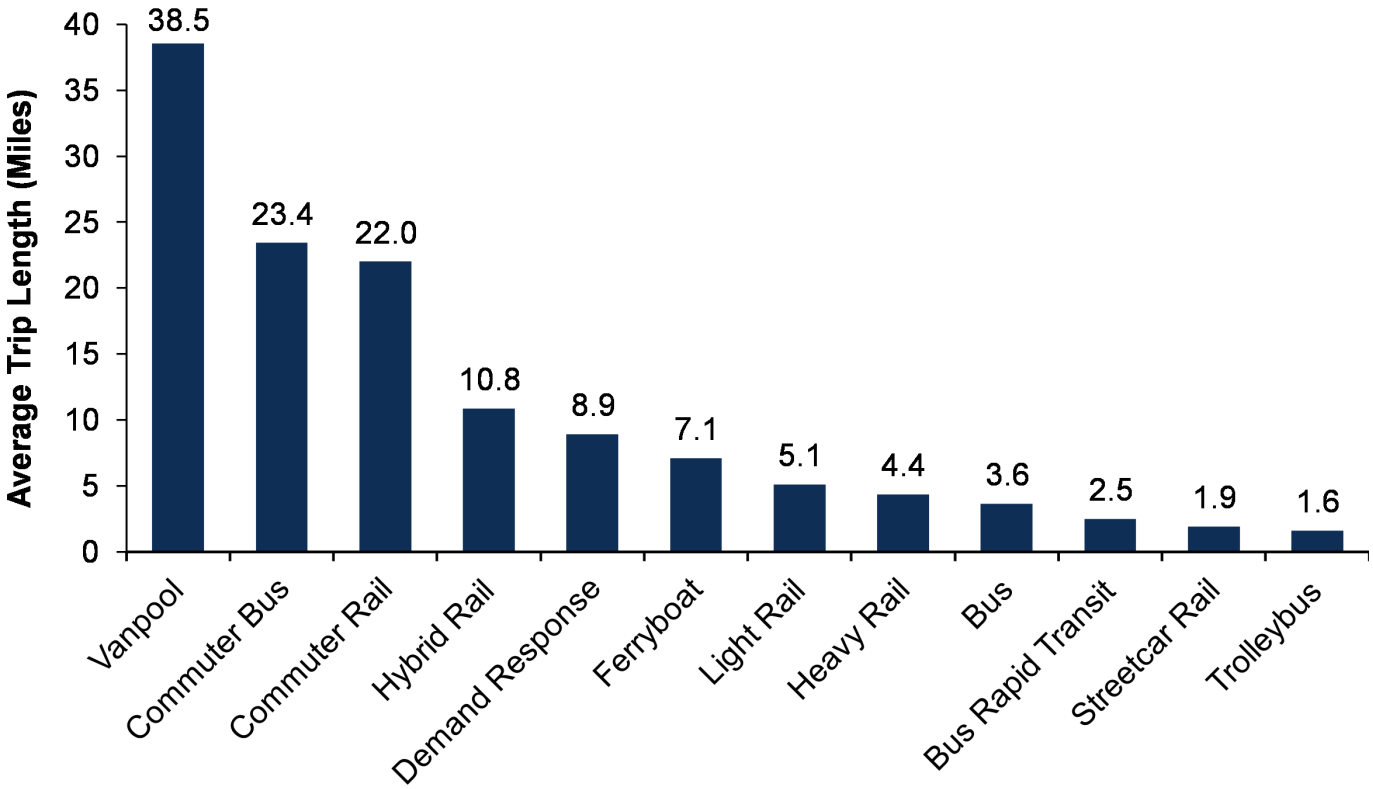
Average Trip Length is the average distance traveled per trip by a single passenger. This average is calculated by dividing the total PMT by the total UPT.

Excluding Alaska Railroad, the exhibit below demonstrates that the three transit modes with the longest average trip length are Vanpool (38.5 miles), Commuter Bus (23.4 miles), and Commuter Rail (22.0 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 APTL of 124 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, as these modes operate in a very limited number of urbanized areas (UZAs) and represent a relatively small percentage of the Nation's overall public transportation service.

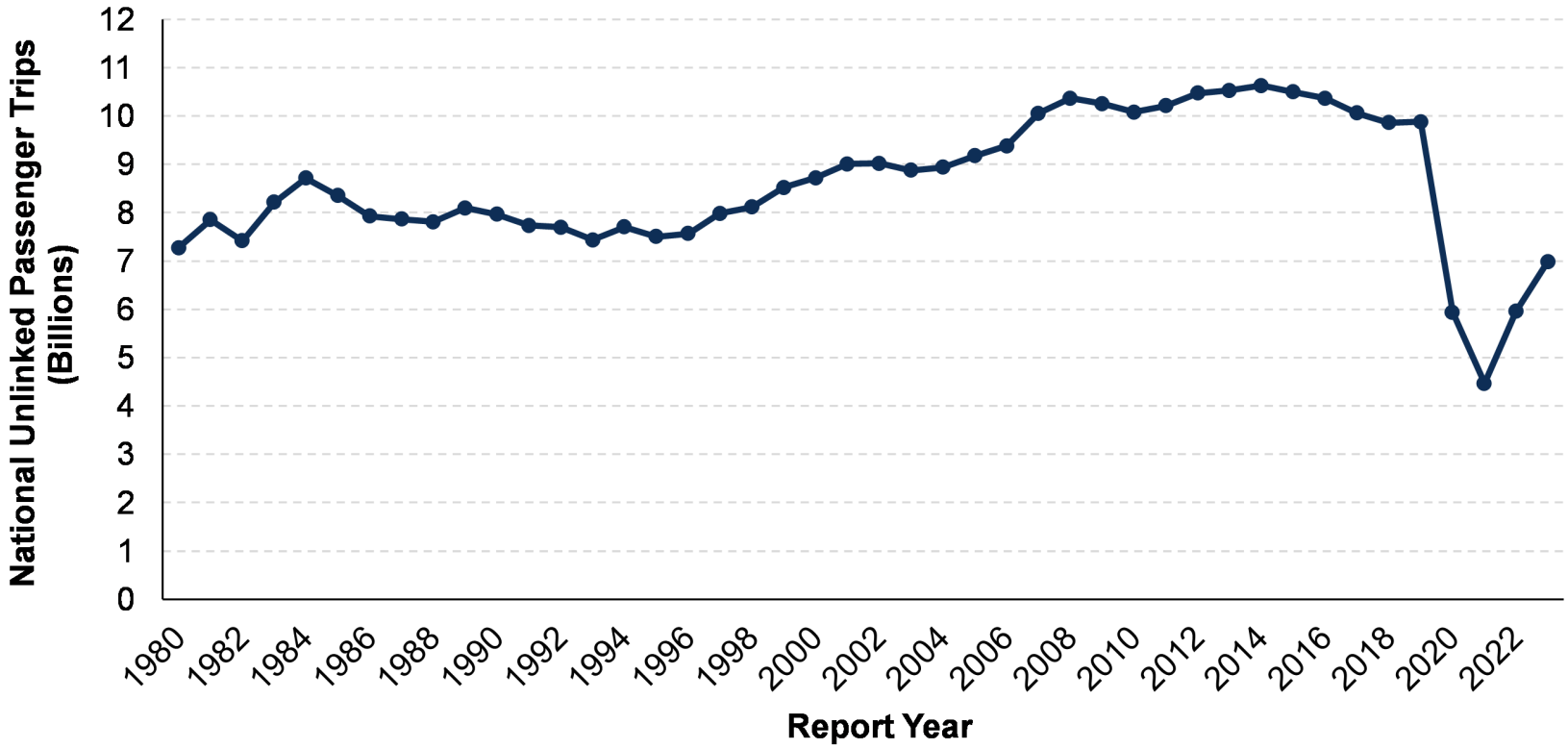
Exhibit 11.2 – 2023 National APTL (PMT per UPT) by Mode



National Ridership Trends

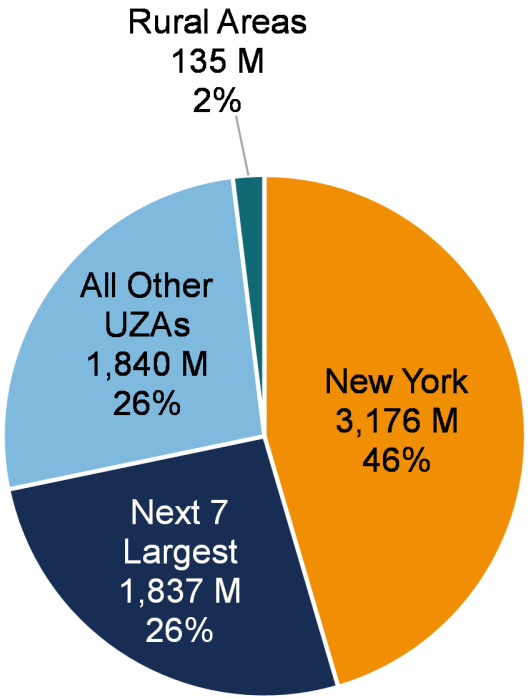
Total transit ridership has increased by 30 percent from 1993 (7.4 billion) to 2014 at its peak (10.6 billion). Ridership then began to slightly decrease each year through 2019. This ridership decrease is believed to be largely driven by the rise of Transportation Network Companies (TNCs) as a new travel option for short trips in UZAs. Ridership was beginning to increase again until the COVID-19 public health emergency produced a historic drop in ridership in 2020 that continued into 2021. Ridership began recovering in 2022 and increased again in 2023 by a total of 7.0 billion UPT, which was an increase of 2.5 billion trips from 2021 and approximately 71 percent of 2019 ridership, as shown in Exhibit 11.3.

Exhibit 11.3 – 1980–2023 National Total UPT



New York City alone accounted for 46 percent of the National ridership in 2023. Together, the Largest 8 UZAs, including New York, accounted for almost three-quarters of National total ridership. All Other UZAs had 26 percent of ridership, with the remaining 2 percent of National ridership in the Rural Areas.

Exhibit 11.4 – 2023 Percent of National Total UPT by Area



Ridership density can be defined as the annual number of trips taken on transit per capita. 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. In 2023, the National ridership density was at 355 trips per capita.

Exhibit 11.5 demonstrates the change in ridership density from 2013 to 2023 in the largest UZAs. The New York, NY urbanized area had significantly more trips per capita compared to other large UZAs with 228 trips per capita in 2013 and 164 trips per capita in 2023. The Los Angeles, CA urbanized area had the lowest trips per capita with 56 in 2013 and 31 in 2023.

Exhibit 11.5 – 10-Year Change in UPT per Capita

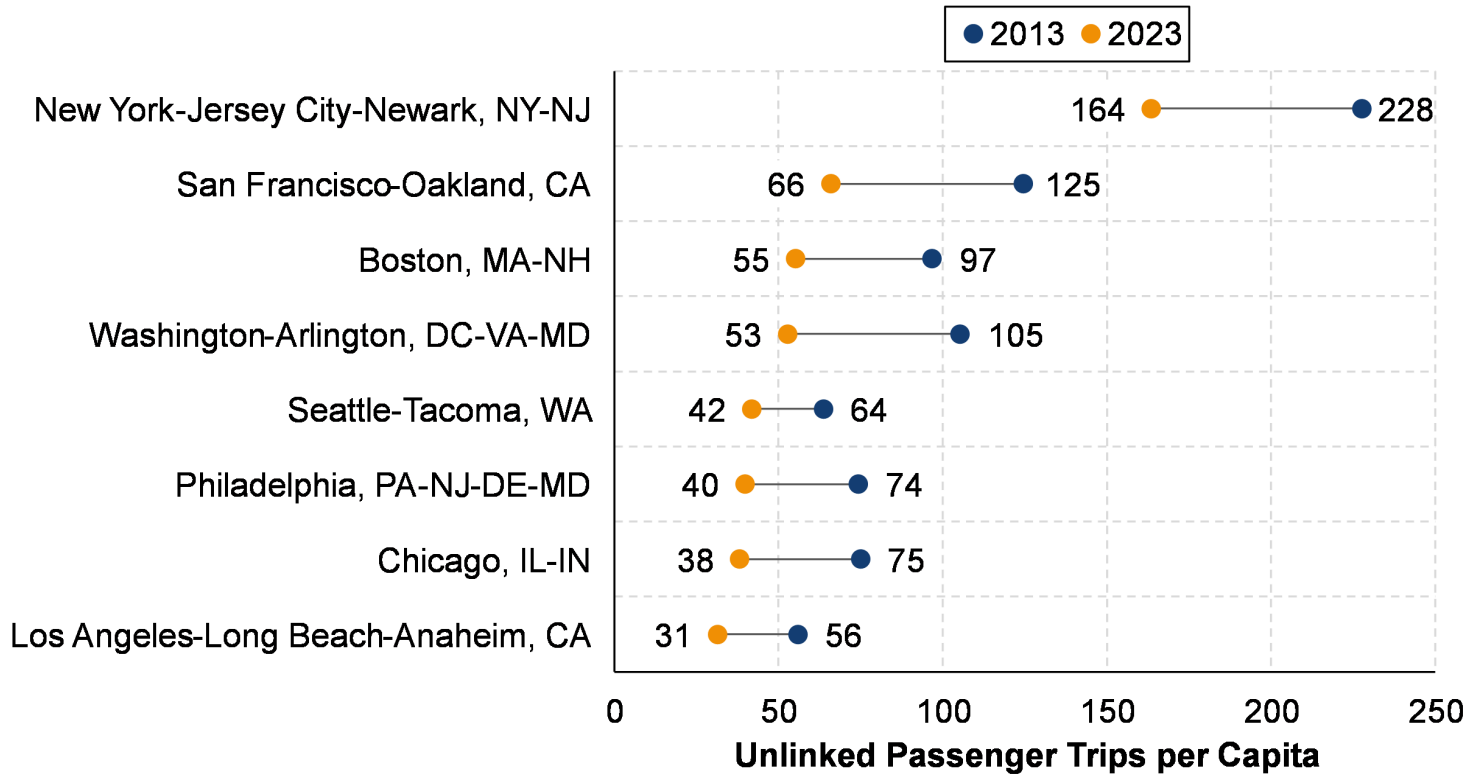
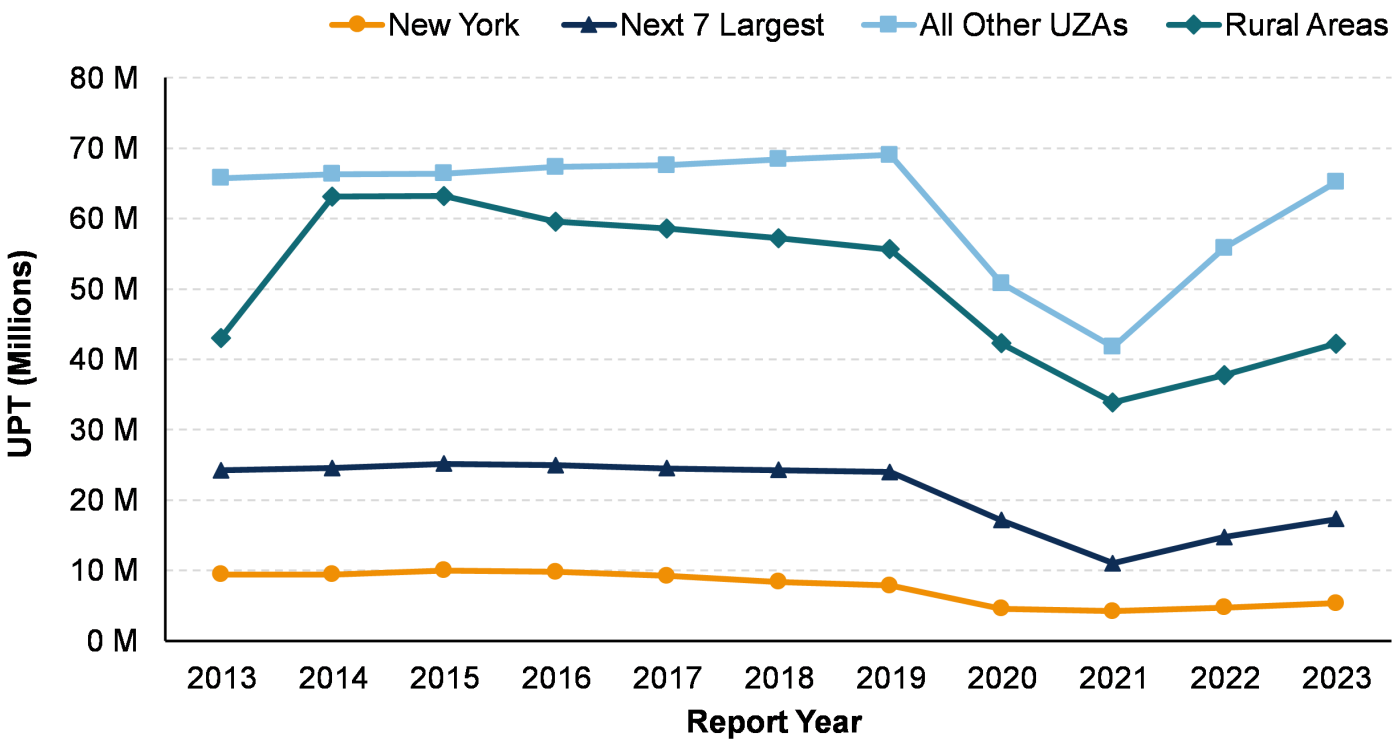


Exhibit 11.6 demonstrates that, unlike in other areas, New York does not dominate statistics for Demand Response ridership.

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

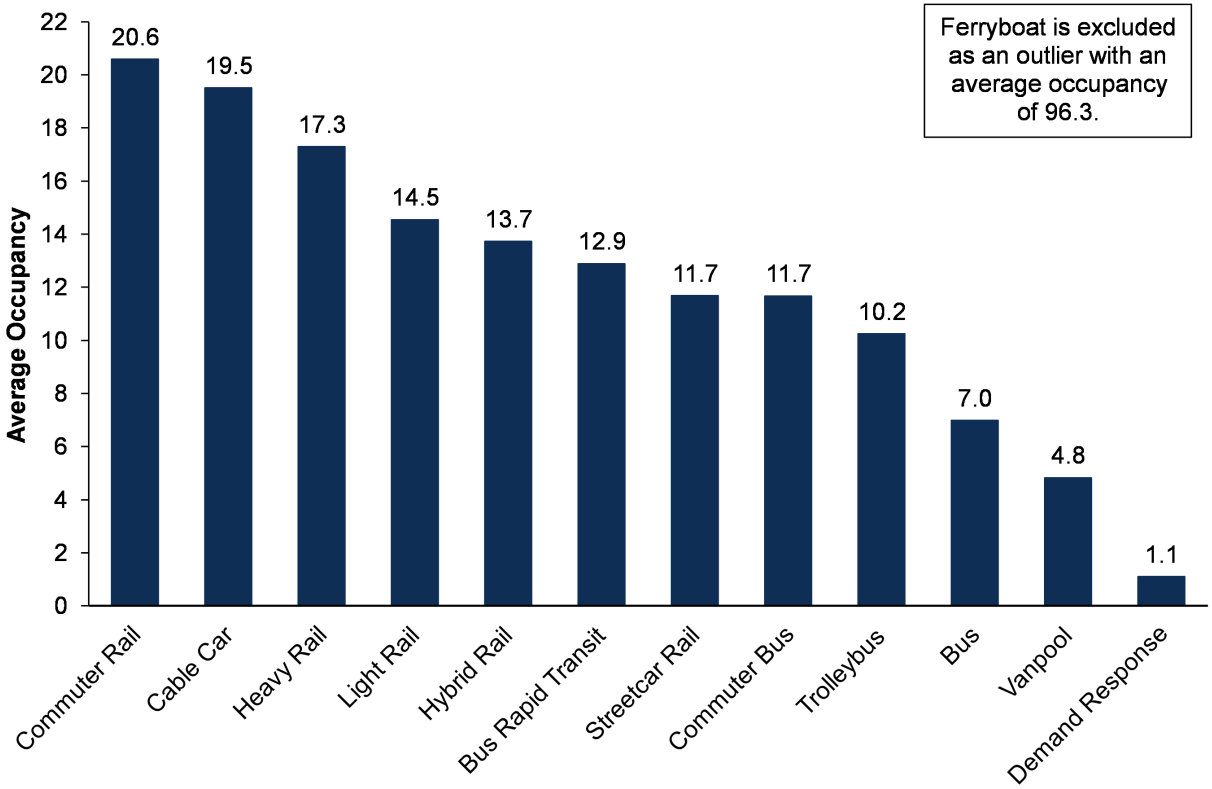


Service Effectiveness

Service effectiveness can be measured using *load factor,* which is the average number of passengers on board a transit vehicle; calculated by taking PMT and dividing by VRM. Transit vehicles that are fuller will have higher load factors, whereas transit vehicles with more empty seats will have lower load factors.

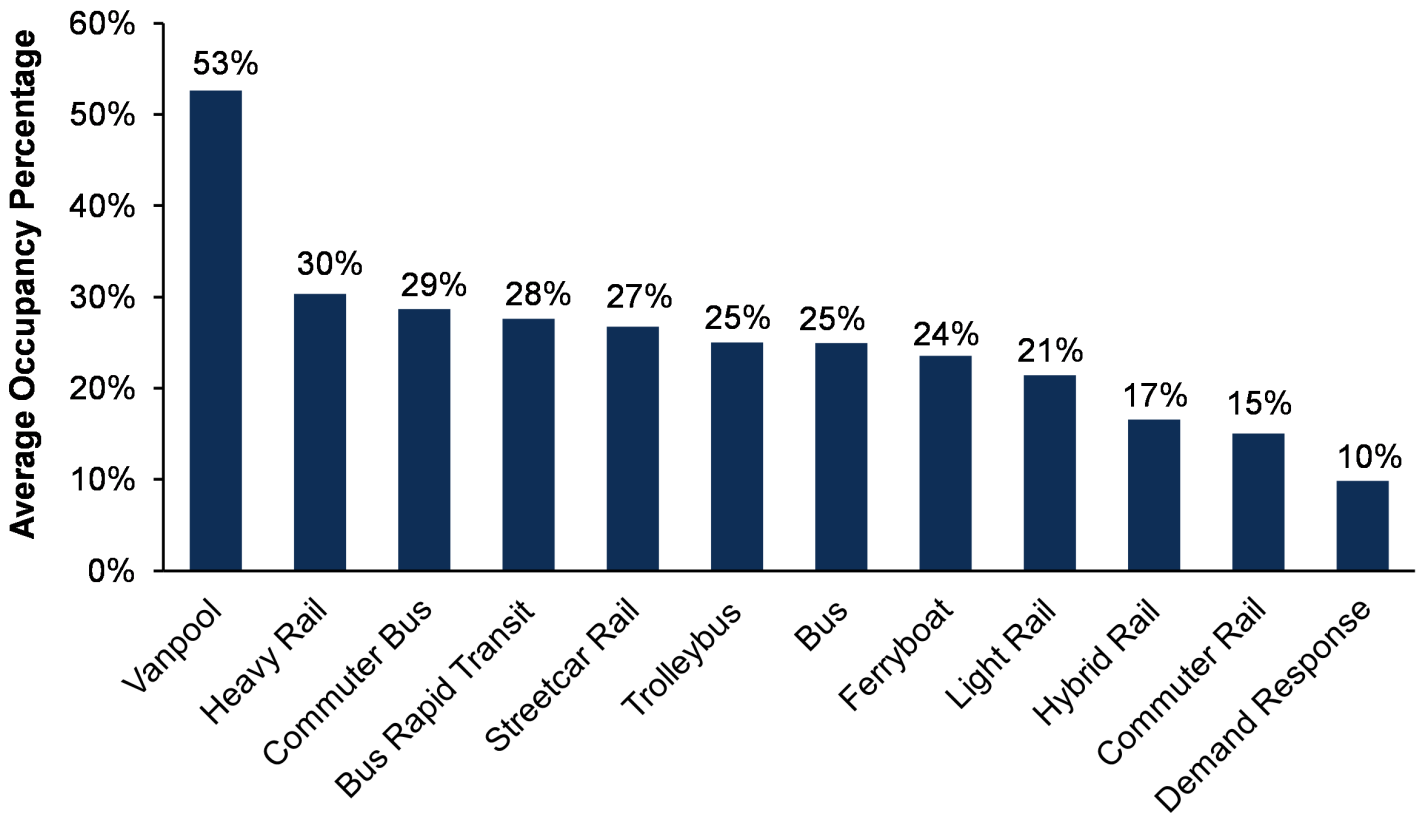
Rail modes typically carry a greater number of passengers than Fixed-Route Bus modes due to Rail modes having higher vehicle capacities and typically serving high-density travel corridors. Similarly, Fixed-Route Bus modes carry more passengers than Demand Response and Vanpool modes because of their higher vehicle capacities and because they typically serve medium-density travel markets. Ferryboat services tend to have quite high capacities. For example, the Staten Island Ferry has vehicles with a capacity of 6,000 passengers and accounts for 24 percent of all Ferryboat trips in the NTD. As such, the load factor for Ferryboat in 2023 was 85.2 and is not included in Exhibit 11.7. The Ferryboat mode had an interquartile range from 16 to 76 and outliers ranging from one to 397.

Exhibit 11.7 – 2023 National Average Occupancy (PMT per VRM) by Mode



Service effectiveness normalizes different capacities of transit modes by measuring the percentage of occupied seats. As shown in Exhibit 11.8, Vanpool services fill the highest percentage of the seating capacity (53 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 – 2023 National Average Seating Occupancy Percentage by Mode



Average Trip Length

The NTD records the length of the APTL taken on each mode which is calculated by taking total PMT and dividing by the total number of UPT.

Exhibit 11.9 depicts 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; on the left are modes commonly used by commuters and on the right are “circular” systems with characteristically short distances.

Exhibit 11.9 – 2023 Reported APTL: All Modes

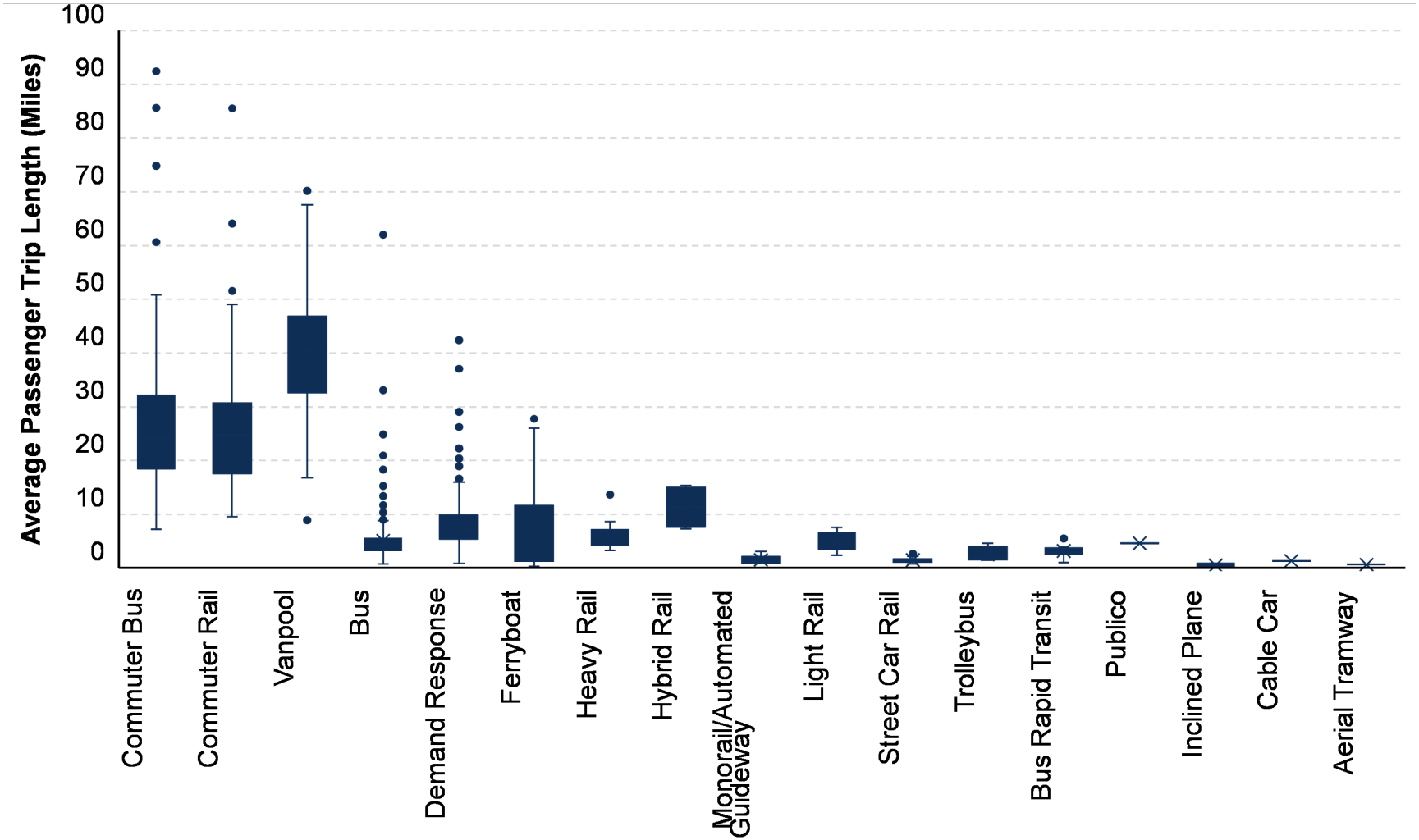
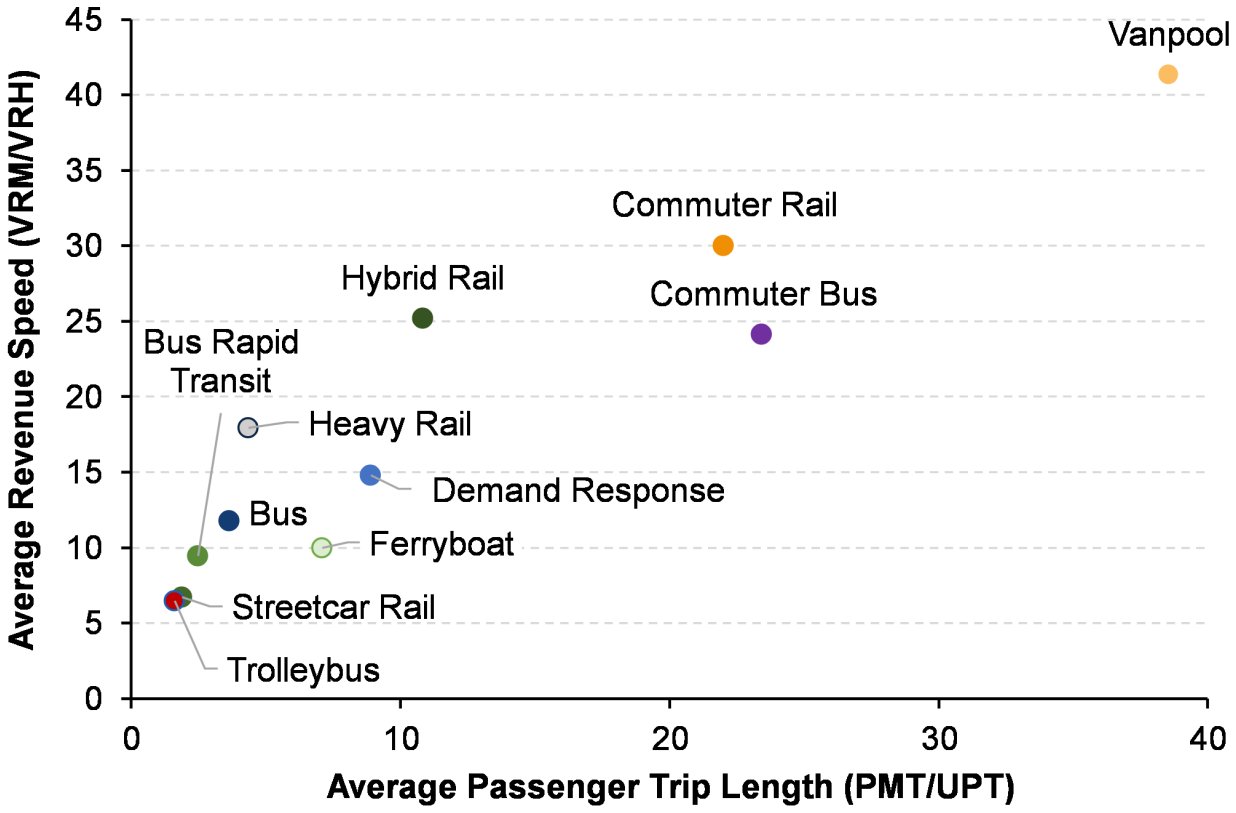


Exhibit 11.10 depicts the average revenue speed (see Exhibit 10.8) versus the APTL. Not surprisingly, modes with higher transit speeds support longer APTLs. Vanpool has the longest trip length (38.5 miles) and the fastest average revenue speed (41.5 mph). In contrast, Trolleybus has the shortest trip length (1.6 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 such as 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. Transit funding also includes funds directly generated by transit operations such as fare revenues and advertising. A total of $90.6 billion dollars was available for transit funding for Full Reporters in 2023 between public funds for local, State, and Federal, and directly generated funds. The split of these funding sources in 2023 is shown in Exhibit 12.1. An additional $3.9 billion was applied to cover expenses made by small systems (Reduced Reporters) and rural systems (Rural Reporters). We can approximate the National total as $94.5 billion.

Directly generated revenues, including passenger fares, was the predominant funding source in 2023 at $25.0 billion dollars. Federal funds account for 21 percent of total transit funding in the U.S. with $19.0 billion. Local and State funding together totaled $46.6 billion, at 25 percent and 26 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 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 – 2023 Sources of Funds by Category

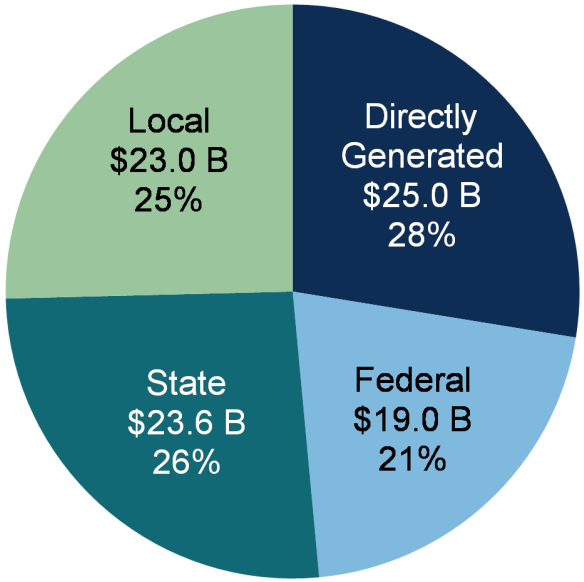


Exhibit 12.2 demonstrates the totals of each funding source and the percentage of total funding that source provides. Transit agencies received 38.2 percent of their funding in 2023 from the General Funds of Federal, State, and local governments.

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 2023, 21 percent of funding came from these dedicated taxes, which means over 78 percent of total funding came from public funds. The remaining 21.4 percent was comprised of Reduced and Rural Reporters (estimated) and system-generated revenue, including revenue from fares, advertising, concessions, park-and-ride lots, investments, and rental of excess property and equipment.

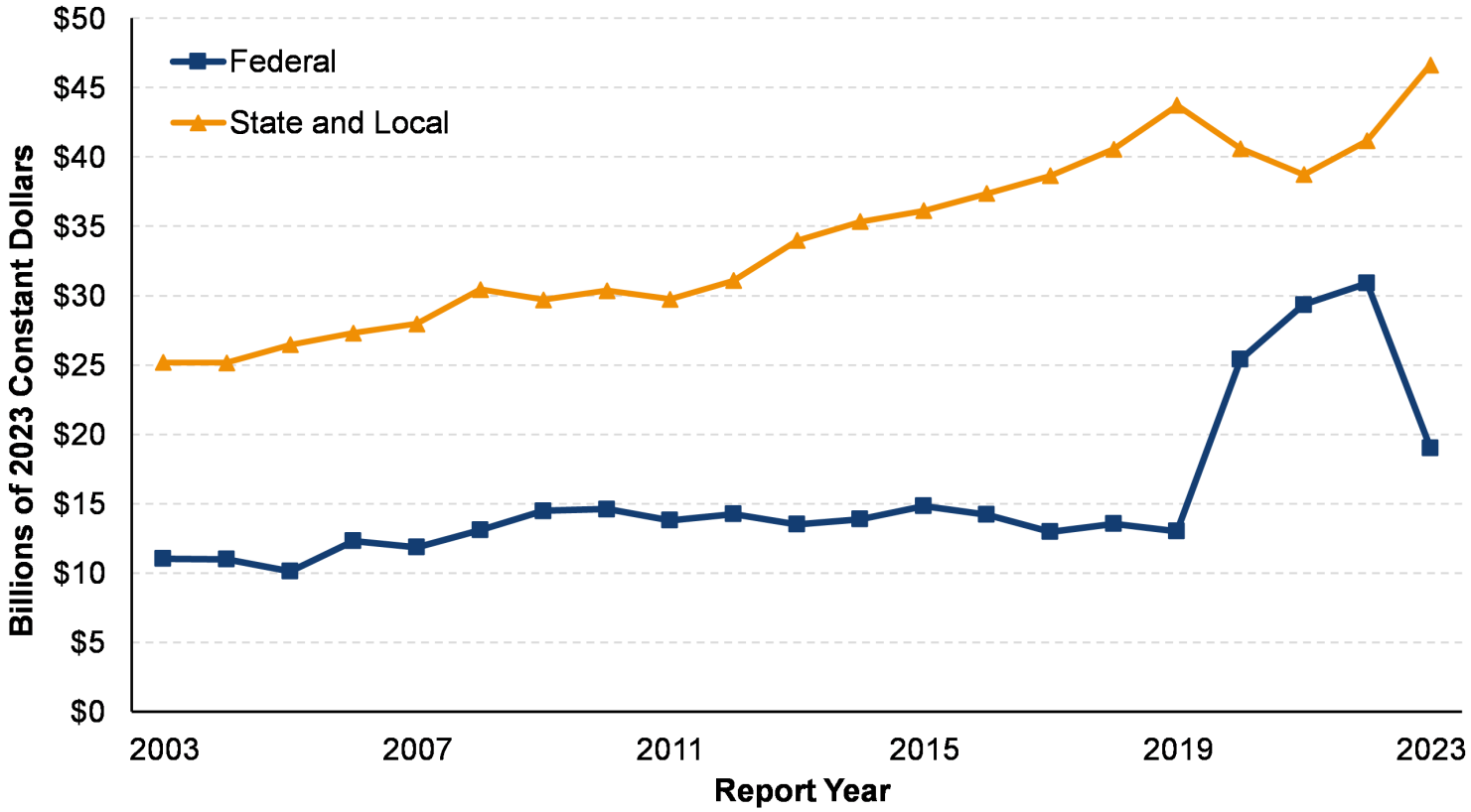
Exhibit 12.2 – Table of 2023 National Total Sources of Revenue

Revenue Sources (Millions of Dollars)						
Category	**System-Generated or Directly Levied Funds**	**Federal**	**State**	**Local**	**Total**	**Percent**
Public/Dedicated Tax Funds	**$8,574**	**$18,994**	**$23,636**	**$23,009**	**$74,213**	**78.6%**
General Fund	-	$18,994	$8,736	$8,294	$36,024	38.2%
Fuel Tax	$43	-	-	$133	$177	0.2%
Income Tax	$0	-	-	$160	$160	0.2%
Sales Tax	$6,550	-	-	$10,752	$17,303	18.3%
Property Tax	$867	-	-	$1,263	$2,130	2.3%
Other Dedicated Taxes	$1	-	-	$81	$82	0.1%
Other Public Funds	$1,112	-	$14,900	$2,325	$18,338	19.4%
Reduced and Rural Reporter Funds (Estimated)	**$467**	**$1,637**	**$637**	**$931**	**$3,673**	**3.9%**
System-Generated Funds	**$16,524**	**-**	**-**	**-**	**$16,524**	**17.5%**
Passenger Fares	$10,172	-	-	-	$10,172	10.8%
Other Revenue	$6,352	-	-	-	$6,352	6.7%
Total All Sources	**$25,565**	**$20,632**	**$24,274**	**$23,940**	**$94,693**	**100.0%**

Sources of Funds over Time in Constant Dollars

Public funding provided by the Federal government and State and local governments for transit as well as funds directly generated by transit agencies since 2003 is shown in Exhibit 12.3 using constant (adjusted for inflation) dollars. In 2023, total public funding for transit was $65.6 billion. Federal funding gradually increased over time from 2003 until 2019. In 2020, the COVID-19 public health emergency began and increased the Federal funding amount drastically. In 2022 and 2023, directly generated and State and local government funds both increased as transit agencies recovered from the pandemic, meanwhile Federal funding decreased in 2023.

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 50 percent of all transit funding, both operating and capital, as demonstrated 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 funding with State and local funding This ridership decrease is believed to be largely driven by the rise of Transportation Network Companies (TNCs) as a new travel option for short trips in urbanized areas. with State and local funding from 2002 to 2023 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 46 percent of State and local transit funding in 2023 and taxes dedicated to transit, including dedicated sales, property, fuel, and income taxes, provided 54 percent of State and local funding. Of these, sales tax was the most common form of tax dedicated to transit funding, accounting for 47 percent of all State and local funding for transit.

Exhibit 12.4 – 2023 National Total Sources of Taxes for State and Local Funding

as a Percent of the National Total $36.9 Billion

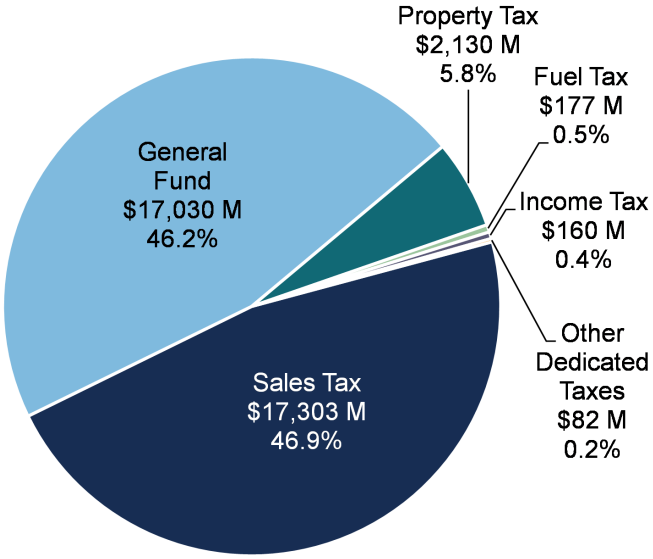
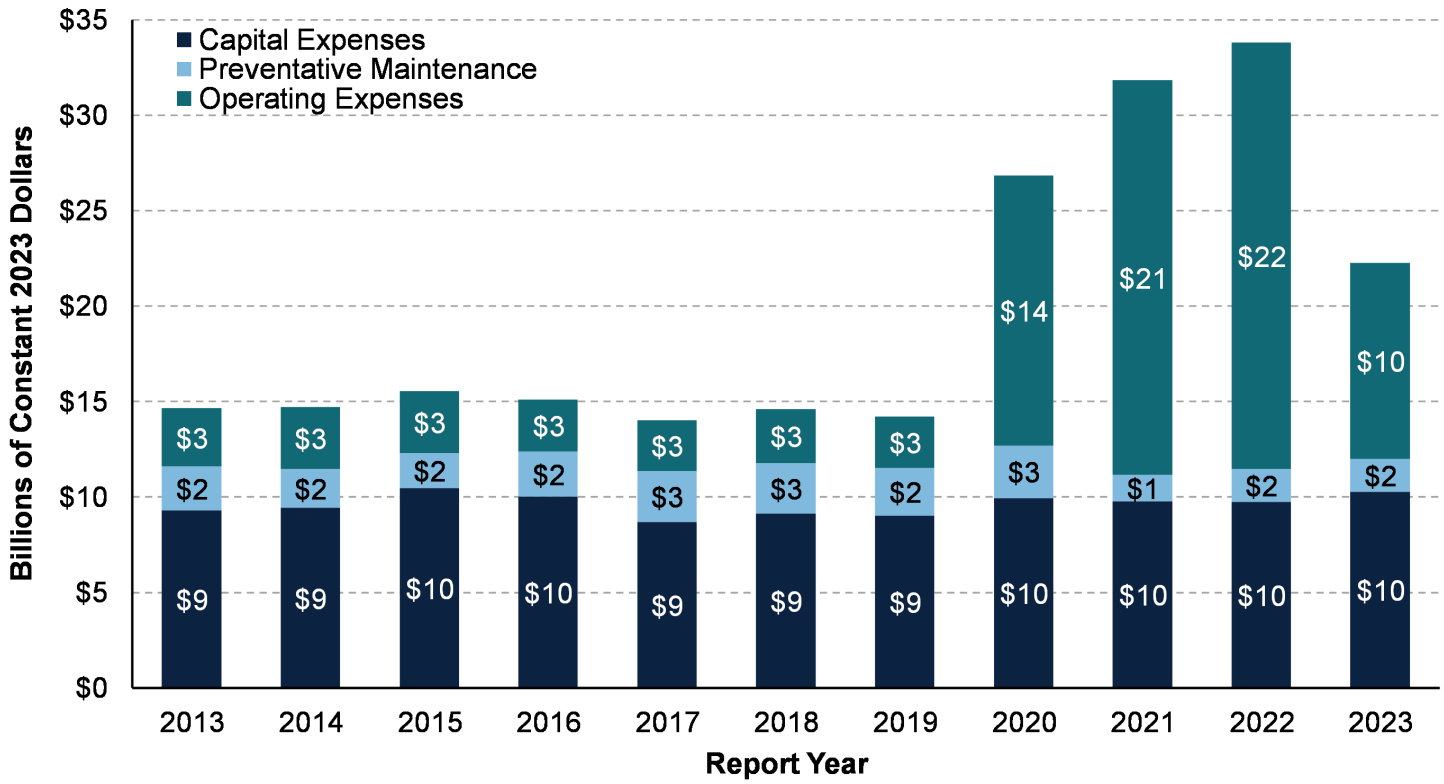


Exhibit 12.5 demonstrates how Federal funding for transit has been used over time. In 2023, $12.0 billion in Federal funds were applied to operating expenses (including preventative maintenance) and $10.3 billion were applied to capital expenses. FTA defines all maintenance expenses as *preventive maintenance* expenses. Federal law allows FTA grantees to reimburse preventive maintenance expenses at the higher Federal share available for capital assistance grants. Maintenance expenses were 14.3 percent of the total operating expenses in 2023.

Federal funds used for capital expenditures remained relatively consistent from 2013 to 2023. Comparatively, Federal funds used for operating expenditures (not including preventative maintenance) increased by 236 percent with an average annual growth rate of 41.4 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 Report Year (RY) 2020, transit agencies received funding from three Federal programs responding to the COVID-19 public health emergency: 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 2023, transit agencies spent over 6.7 billion dollars from these programs, mostly on operating expenses. This represents a 65 percent decrease in the amount of Federal funding expended from the three programs collectively compared to NTD RY 2022.

Exhibit 12.6 – Report Year 2023 National Total Use of COVID Supplemental Funding

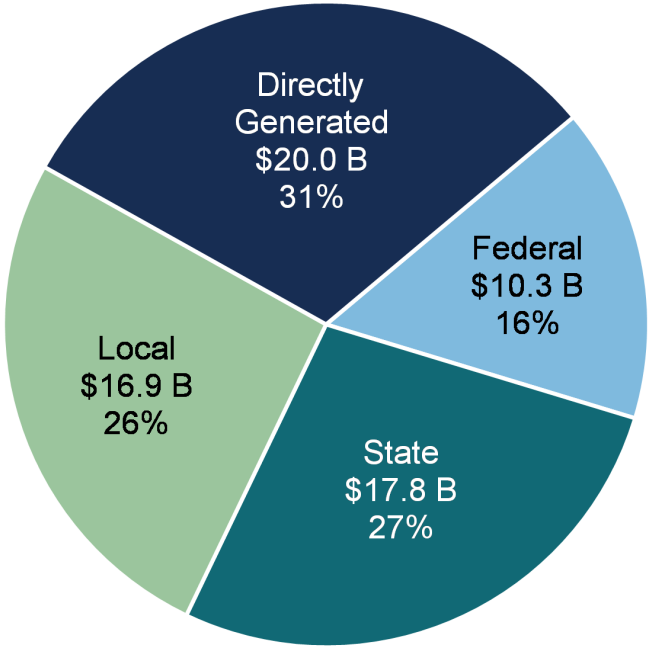
Expenditure Type	CARES	CRRSA	ARP	Other Federal Funds	COVID Supplemental Funds % of Total Federal Funds
Expended on Operations	$673 M	$1,173 M	$4,566 M	$4,180 M	60.5%
Expended on Capital	$90 M	$68 M	$180 M	$9,918 M	3.5%

Operating Expense Funding Sources

Directly generated revenues, including passenger fares, funded 31 percent of all operating expenses in 2023. Federal funds provided 16 percent of public transit operating expenses in the U.S. in 2023. Local and State sources together funded the remaining 53 percent of total operating expenses.

Exhibit 12.7 – 2023 Sources of Funds Applied to Operations

as a Percent of the National Total $65 Billion



Sources of Funding by 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 urbanized area (UZA). Federal funding expended on operations increased substantially in all UZAs, starting in 2020 with the onset of the COVID-19 public health emergency. The Largest 8 UZAs, including New York, expended over six times more Federal funds on operating expenses in 2023 than in 2013. All other UZAs followed in a similar fashion with a $3.1 billion increase overall from 2013 to 2023.

Similar to Exhibit 12.5, Preventative Maintenance (5307 Capital Assistance Spent on Operations) is separated from the Funds Expended on Operations. Preventative Maintenance expenses have 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 the Largest 8 UZAs but not in the same capacity as funds expended on operations. These eight UZAs spent 42 percent more Federal funds on capital expenses in 2023 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 the Largest 8 UZAs

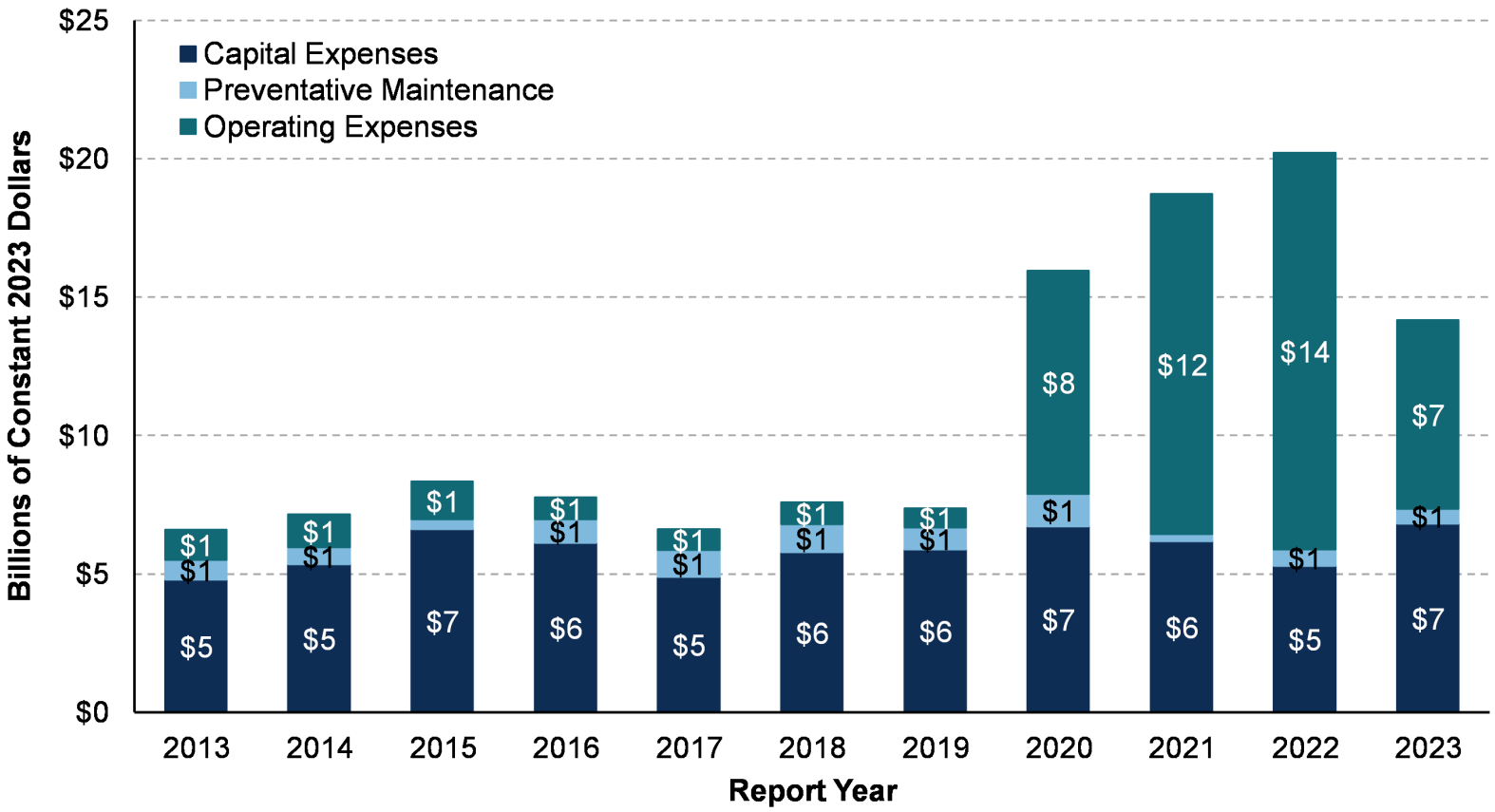
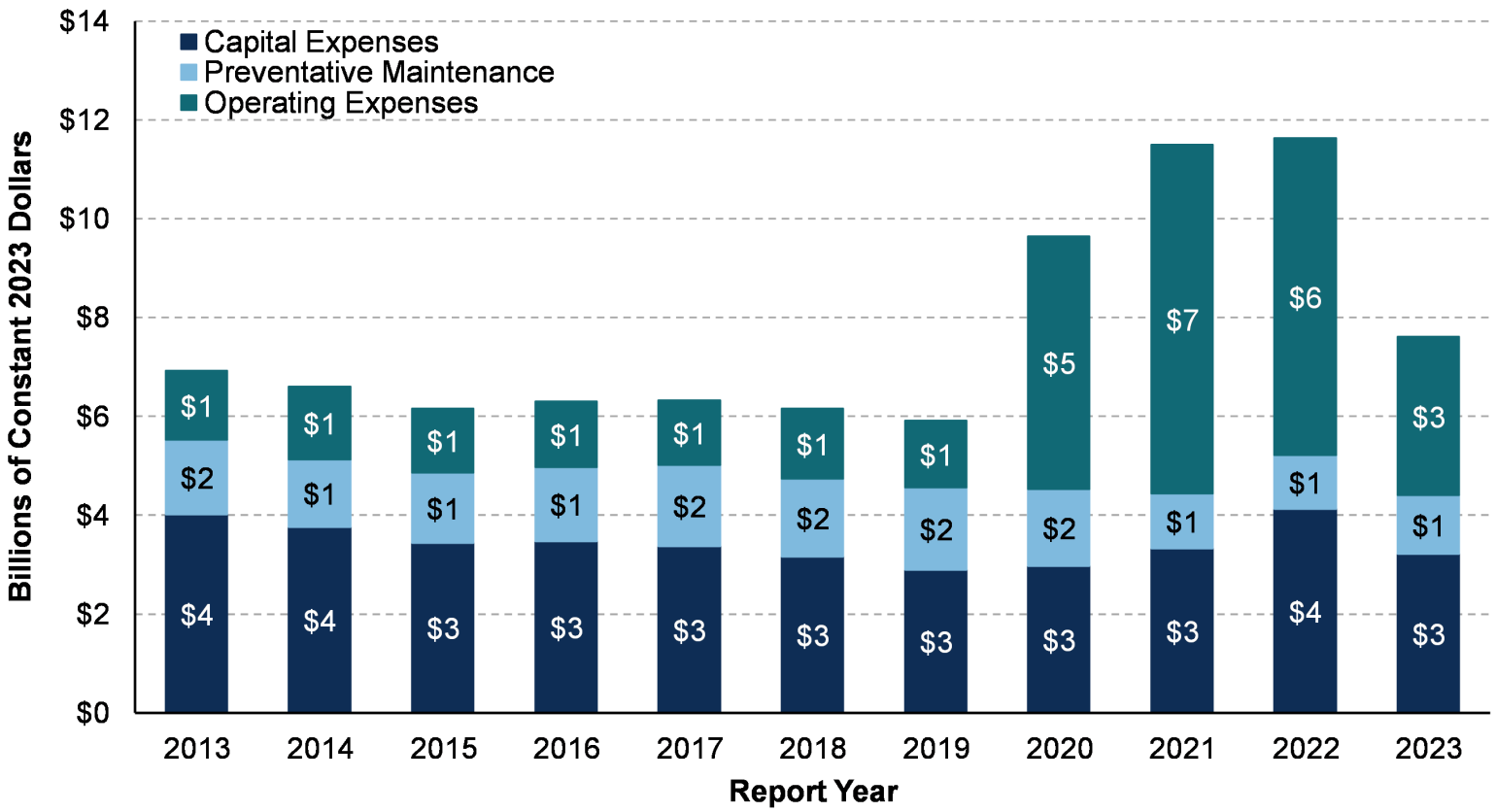


Exhibit 12.9 – 10-Year Trends in National Total Constant Dollar Uses of Federal Funds: Capital, Operating, and Preventative Maintenance for All Other UZAs

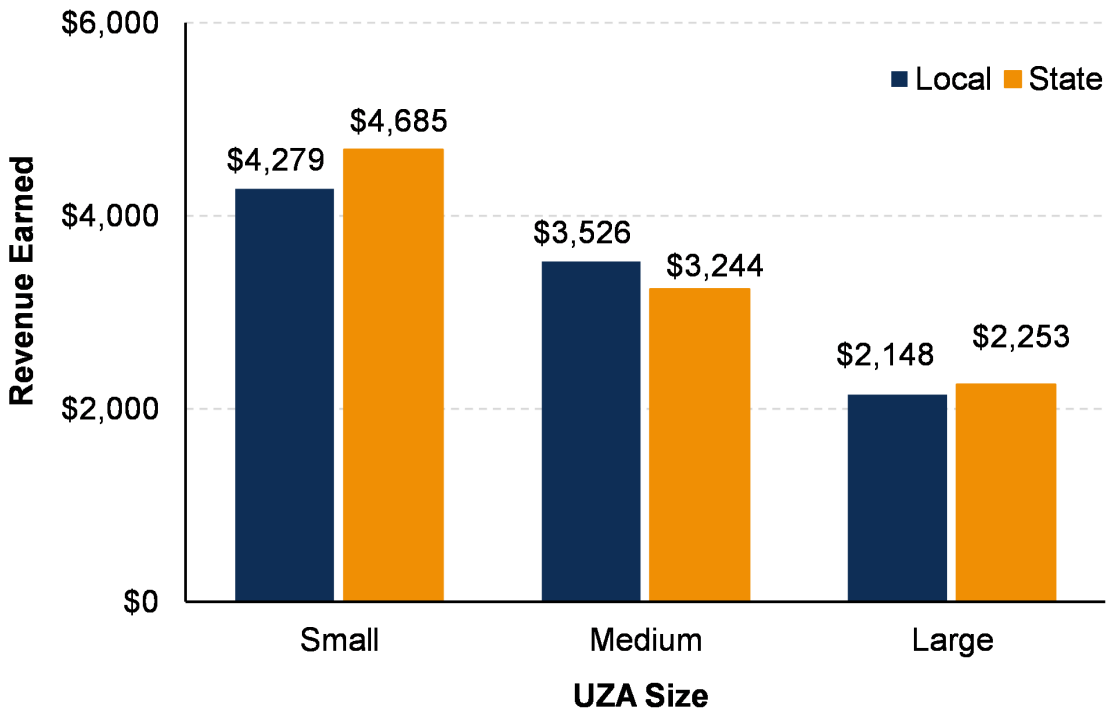


In the NTD, transit providers indicate their "primary UZA" of service operations along with any secondary UZAs they serve. For analysis purposes, the UZAs are grouped into the following three categories:

- **Small UZAs**: population of 50,000 to 200,000
- **Medium UZAs**: population of 200,000 to one million
- **Large UZAs**: population exceeding one 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, $4,685 in funding per capita came from State government and $4,279 came from local government in 2023. Medium UZAs received $3,526 in local funding per capita and $3,244 in State funding per capita. Small UZAs received $2,148 in local funding per capita and $2,253 in State funding per capita.

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

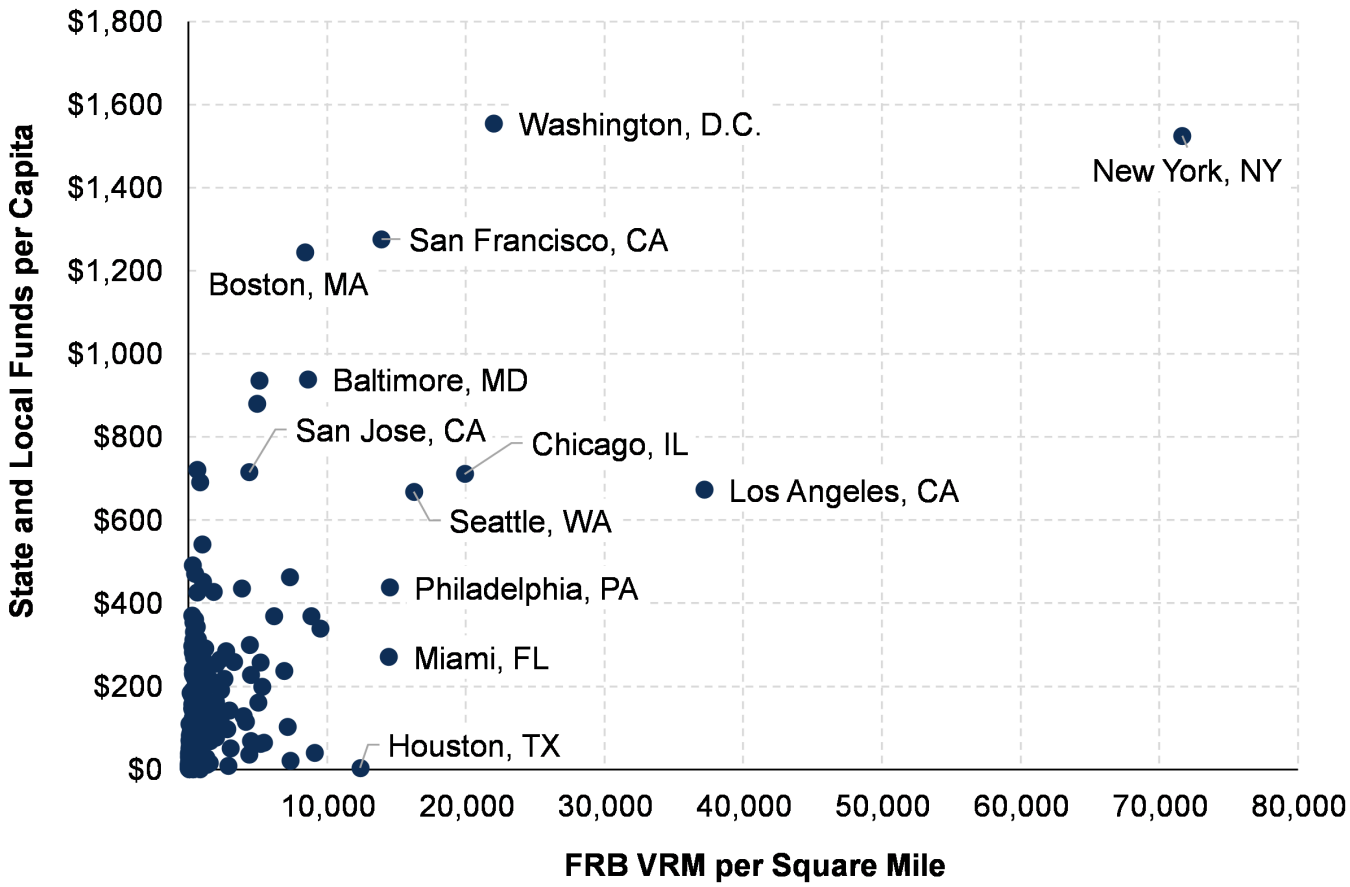


The scatter plot below represents the relationship between local and State funding expenses on the provision of transit per capita, and VRM per square mile, a measure of service supplied per funds expended.

UZAs below the line represent an above average VRM per the amount of local and State funding supplied, whereas UZAs above the line represent a below average VRM per the amount of local and State funding supplied.

This average, normalized measure of service supplied per funds expended is established by smaller UZAs, many of which are not depicted in the plot.

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

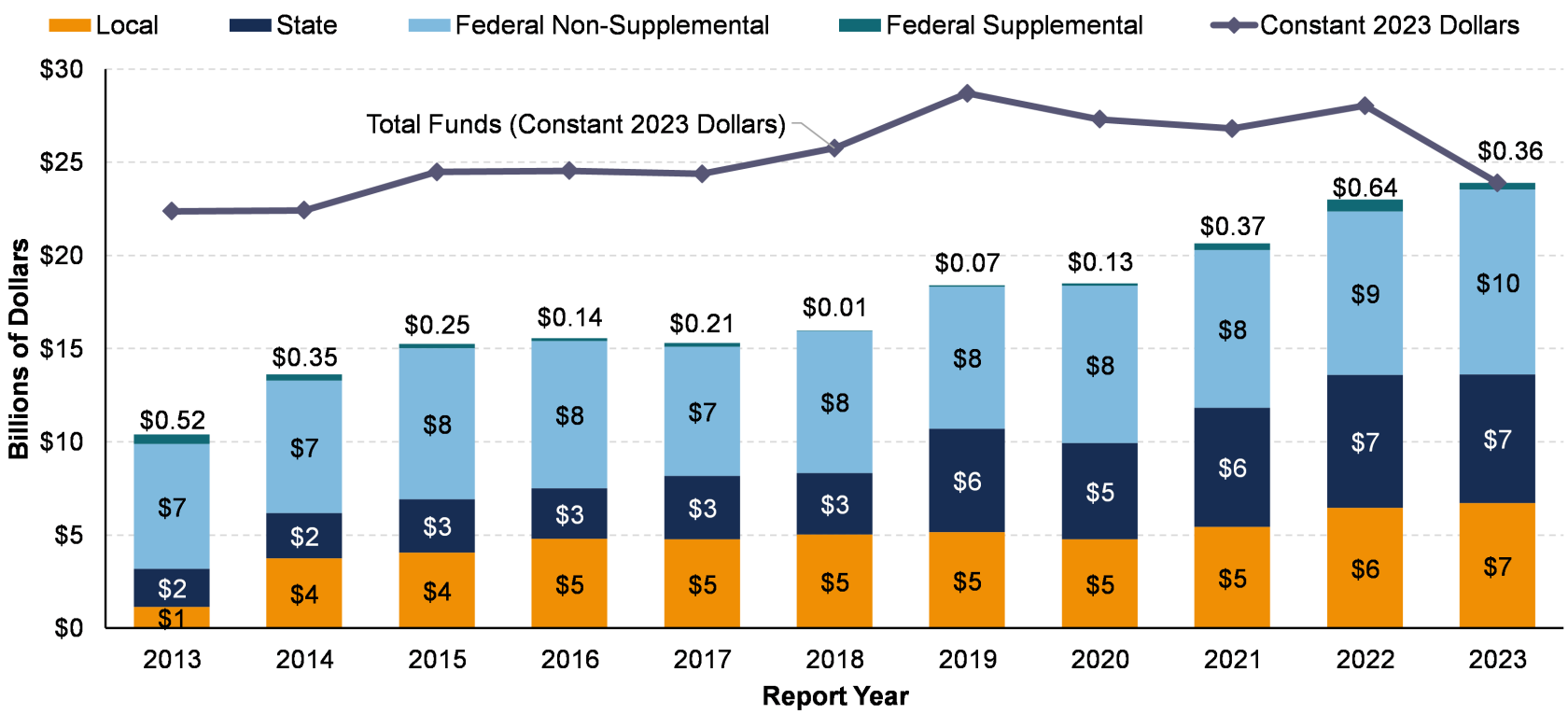
Transit agencies expend resources, not only on operations, but on constructing, acquiring, and improving the systems and equipment used to operate transit service. These improvements are called “Capital Expenses” in the NTD.

The funding support for Capital Expenses differs from operational expenditures. In 2023, about 43 percent of all capital funds came from Federal sources. Local and State governments provided 57 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 demonstrates the increase in capital expenses over the past 10 years, with a total of $23.9 billion expended in 2023.

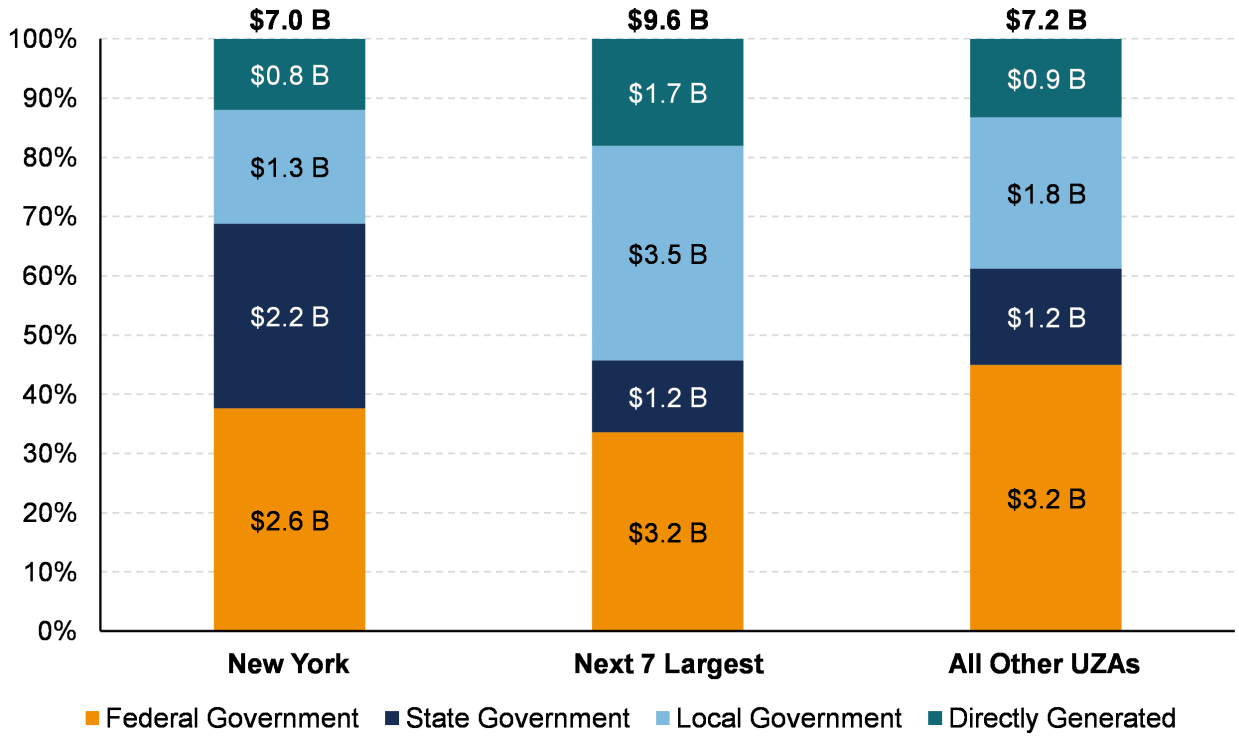
Exhibit 13.1 – 10-Year National Total Sources of Capital Funds



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 New York Urbanized Area (UZA), Federal sources of funds accounted for 37.7 percent of the total capital expenditures. Closely following, State sources of funds accounted for 31.1 percent at 2.17 billion dollars. Agencies in the Next 7 Largest reported that 36.2 percent of their capital funding sources were local, and 33.6 percent were Federal. All Other UZAs reported 45.0 percent of the total capital expenditures were federally funded, with the other sources of funds being more evenly distributed with 25.5 percent local, 16.3 percent State, and 13.3 percent directly generated funds.

Exhibit 13.2 – 2023 National Total Capital Funding Sources by UZA



Types of Capital Expenses

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

- Guideway
- 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.

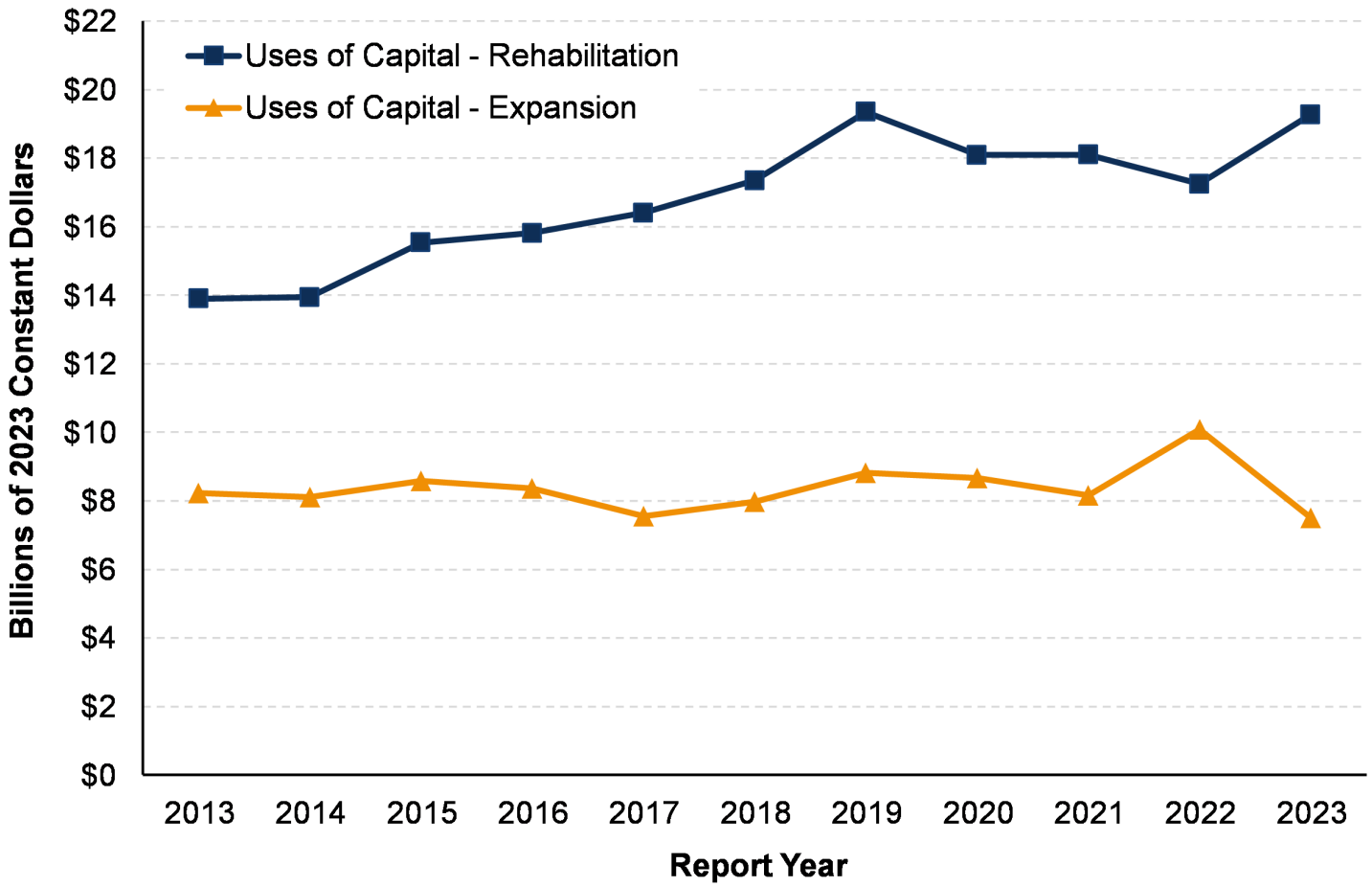
Exhibit 13.3 – 2023 National Total Capital Expenses by Type (Rail and Non-Rail)

Rail Capital Expenditures in Millions										
Capital Expense Type	**AR**	**CR**	**HR**	**IP**	**LR**	**MG**	**CC/SR**	**YR**	**Total**	***% of Rail Total***
Guideway	$41	$3,448	$3,771	$8	$3,100	$1	$160	$35	**$10,564**	***51%***
Passenger Stations	$3	$895	$2,099	$8	$490	$25	$4	$15	**$3,540**	***17%***
Administrative Buildings	$1	$11	$267	$0	$32	$0	$1	$0	**$312**	***2%***
Maintenance Buildings	$2	$478	$432	$0	$79	$0	$49	$4	**$1,045**	***5%***
Revenue Vehicles	$3	$606	$1,154	$0	$555	$1	$32	$4	**$2,356**	***11%***
Service Vehicles	$7	$93	$73	$0	$65	$0	$0	$0	**$239**	***1%***
Fare Collection Equipment	$0	$19	$214	$0	$12	$0	$2	$0	**$247**	***1%***
Communication/Information Systems	$6	$316	$1,113	$0	$279	$2	$21	$2	**$1,739**	***8%***
Other Capital Expenses	$0	$44	$430	$0	$2	$0	$4	$0	**$480**	***2%***
Total	**$64**	**$5,908**	**$9,552**	**$16**	**$4,616**	**$31**	**$273**	**$61**	**$20,521**	**-**
Percentage of Grand Total	*0.2%*	*21.6%*	*34.9%*	*0.1%*	*16.9%*	*0.1%*	*1.0%*	*0.2%*	*74.9%*	-

Non-Rail Capital Expenditures in Millions											
Capital Expense Type	**CB**	**DR**	**FB**	**MB**	**PB**	**RB**	**TB**	**TR**	**VP**	**Total**	***% of Non-Rail Total***
Guideway	$0	$0	$0	$322	$0	$154	$16	$0	$0	$492	***7%***
Passenger Stations	$9	$0	$143	$400	$0	$24	$0	$0	$0	$577	***8%***
Administrative Buildings	$0	$22	$1	$329	$0	$0	$0	$0	$0	$353	***5%***
Maintenance Buildings	$0	$31	$27	$1,098	$0	$2	$3	$0	$0	$1,161	***17%***
Revenue Vehicles	$62	$234	$127	$2,258	$0	$102	$4	$3	$9	$2,798	***41%***
Service Vehicles	$0	$2	$0	$59	$0	$0	$0	$0	$0	$61	***1%***
Fare Collection Equipment	$0	$1	$0	$112	$0	$0	$0	$0	$0	$113	***2%***
Communication/Information Systems	$2	$14	$7	$403	$0	$0	$0	$0	$1	$428	***6%***
Other Capital Expenses	$9	$1	$0	$253	$0	$6	$0	$0	$4	$273	***4%***
Reduced Reporter - Capital Expenses	$43	$212	$10	$320	$0	$23	$0	$0	$1	$610	***9%***
Total	**$125**	**$517**	**$317**	**$5,554**	**$0**	**$311**	**$23**	**$3**	**$15**	**$6,865**	**-**
Percentage of Grand Total	*0.5%*	*1.9%*	*1.2%*	*20.3%*	*0.0%*	*1.1%*	*0.1%*	*0.0%*	*0.1%*	*25.1%*	-

Using 2023 constant dollars, the total capital funds applied to transit operations increased 21.1 percent over the past 10 years.

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



As Exhibit 13.5 illustrates, Core Rail claimed about 49 percent and Fixed-Route Bus claimed about 26 percent of capital use. Distance Rail accounted for 22 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 – 2023 Uses of Capital by Consolidated Mode for Rehabilitation as Percent of National Total (Full Reporters Only)

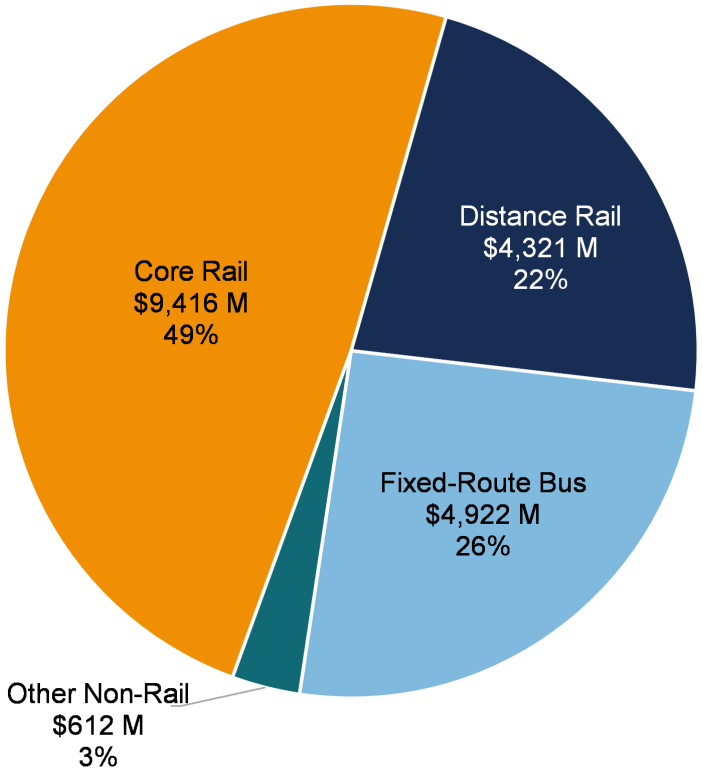
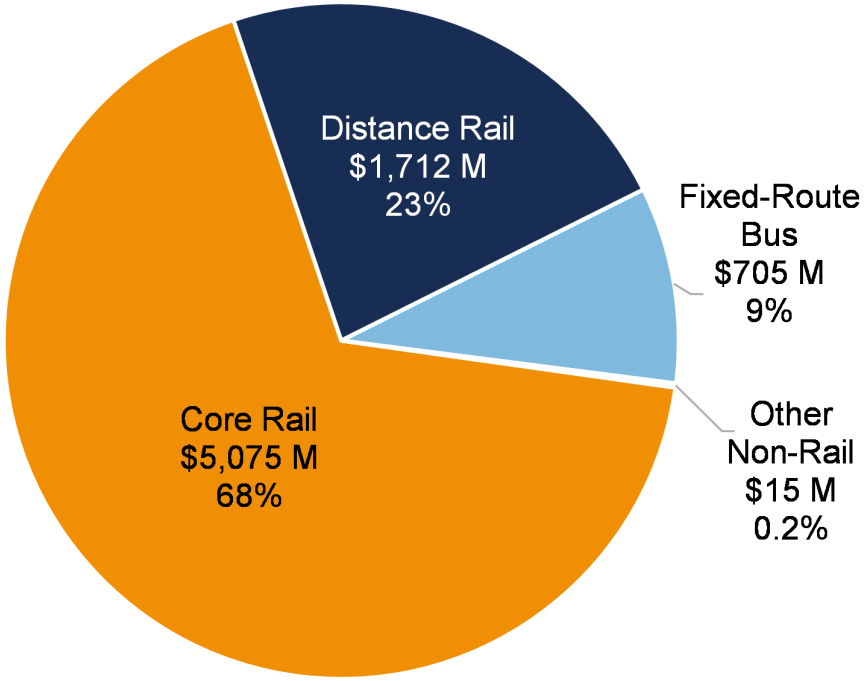


Exhibit 13.6 displays capital used for expansion purposes. Core Rail accounted for 68 percent of the total capital expansion, followed by Distance Rail (23 percent) and Fixed-Route Bus (9 percent). Other Non-Rail accounted for the remaining 0.2 percent.

Exhibit 13.6 – 2023 Uses of Capital by Consolidated Mode for Expansion as Percent of National Total (Full Reporters Only)

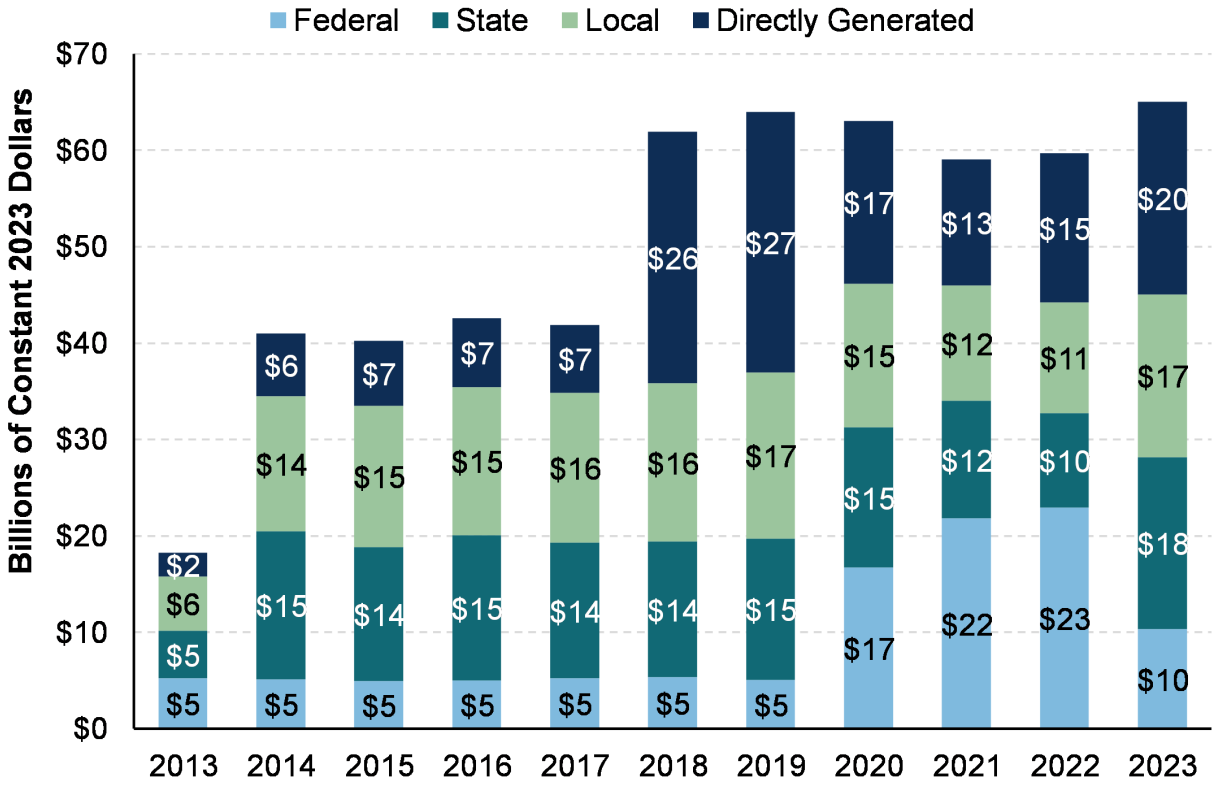


Chapter 14. Operating Expenses

Trends in Funding Used to Cover Operating Expenses

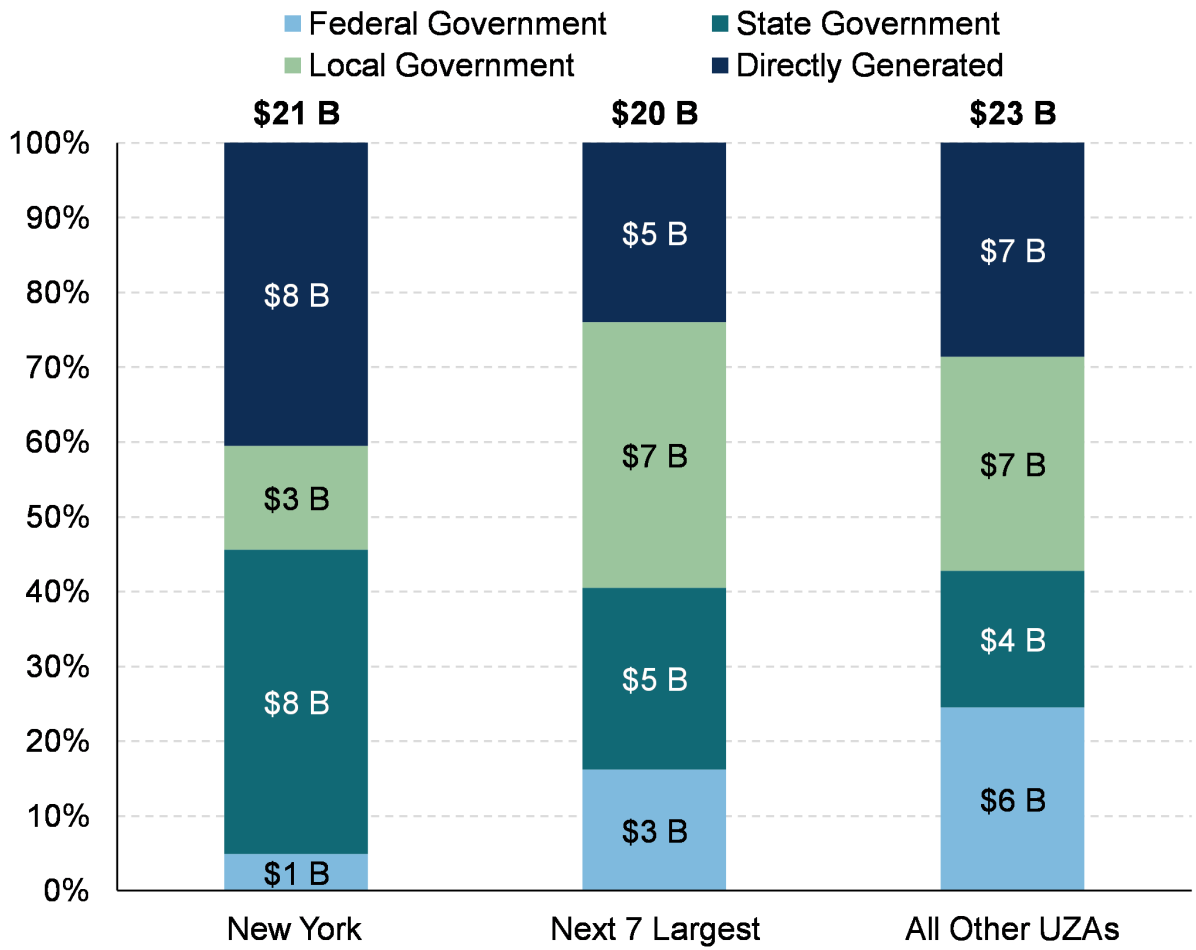
Between 2013 and 2019, Federal funding applied to cover operating expenses decreased by 2.9 percent, while State and local funding increased after adjusting for inflation (constant dollars). Beginning in 2020, Federal funding represented a higher fraction of the total funding, reaching a peak of 38.5 percent in 2022 and partially offsetting decreases in the funds directly generated by transit systems. Federal funding 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 by urbanized area (UZA) using the *Primary UZA* reported by each transit agency. Exhibit 14.2 presents the funding sources used for operating expenses by agencies in the New York UZA, the Next 7 Largest UZAs, and all other UZAs respectively. Rural areas are not included in this exhibit because Rural Reporters do not provide a Primary UZA.

Exhibit 14.2 – 2023 Operating Funding Sources by Category and UZA



Operating Expenditures by Function and Object Class

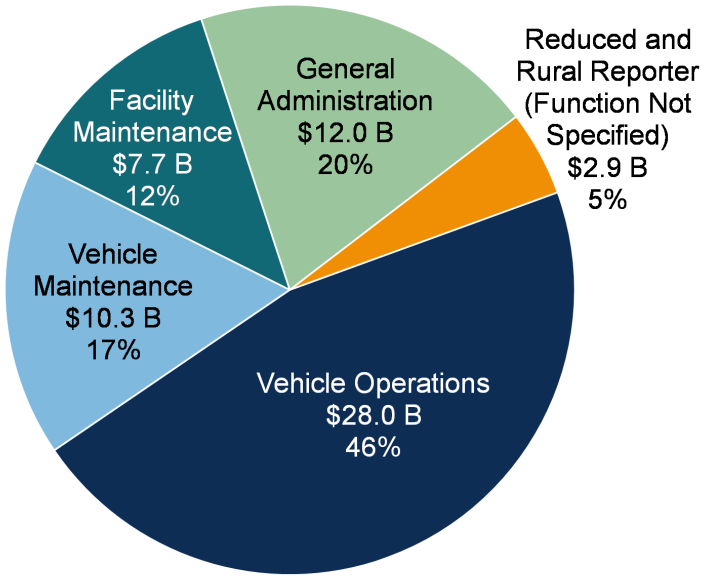
Transit agencies must report finances according to the Uniform System of Accounts (USOA). The USOA contains the basic accounting structure required by Federal transit laws. Agencies must report operating expense data by mode, function, and object class. Functions refer to the activity performed, while 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 – 2023 National Operating Expenses by Function

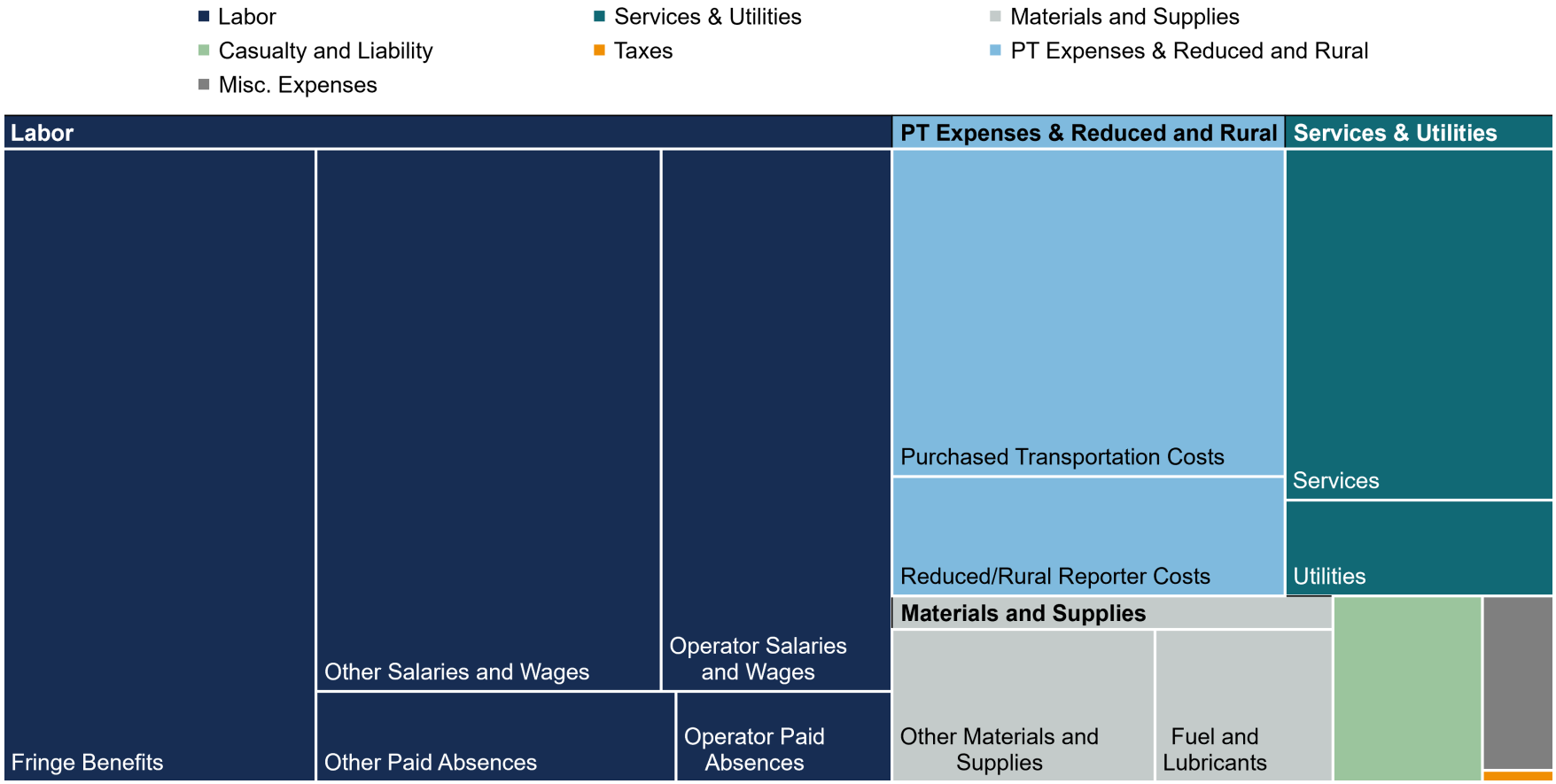


Transit agencies are required to report operating expenses data into specific object classes. The NTD uses the following object classes for Full Reporters:

- 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 2023, labor accounted for 55 percent of all operating expenses, purchased transportation another 13 percent, materials and supplies 8 percent, and all other object classes 24 percent.

Exhibit 14.4 – Operating Expenses by Object Class



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 19.6 percent increase in the Operating Expense per VRM for all modes from 2013 ($12.84) to 2023 ($15.36) after normalizing to show in constant (2023) dollars. As shown below, Streetcar Rail increased by 57 percent from $31.53 to $49.53 followed by Demand Response and Trolleybus at 42 and 39 percent, respectively. The other modes also saw increases in the cost per VRM except Hybrid Rail and Vanpool.

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

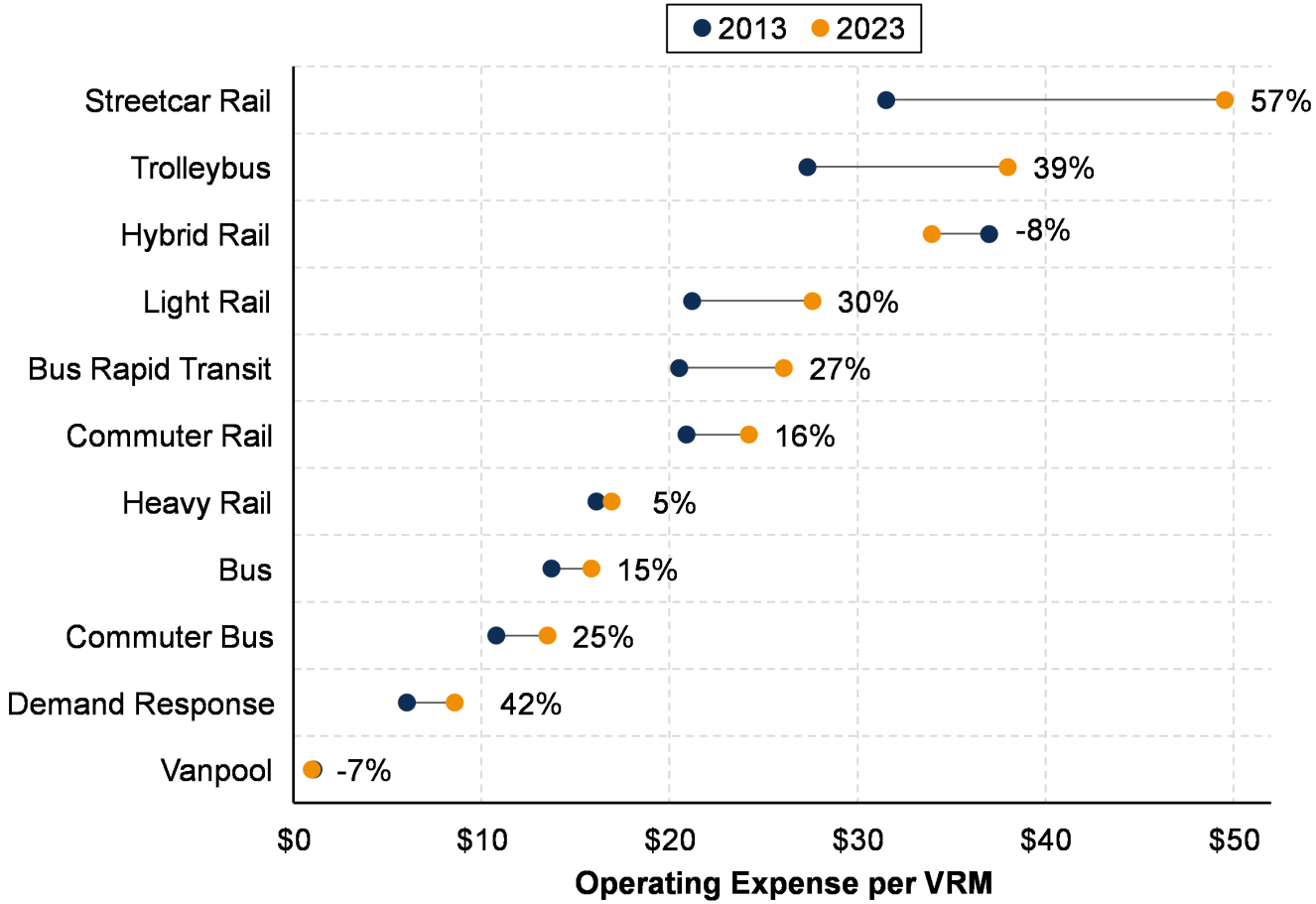
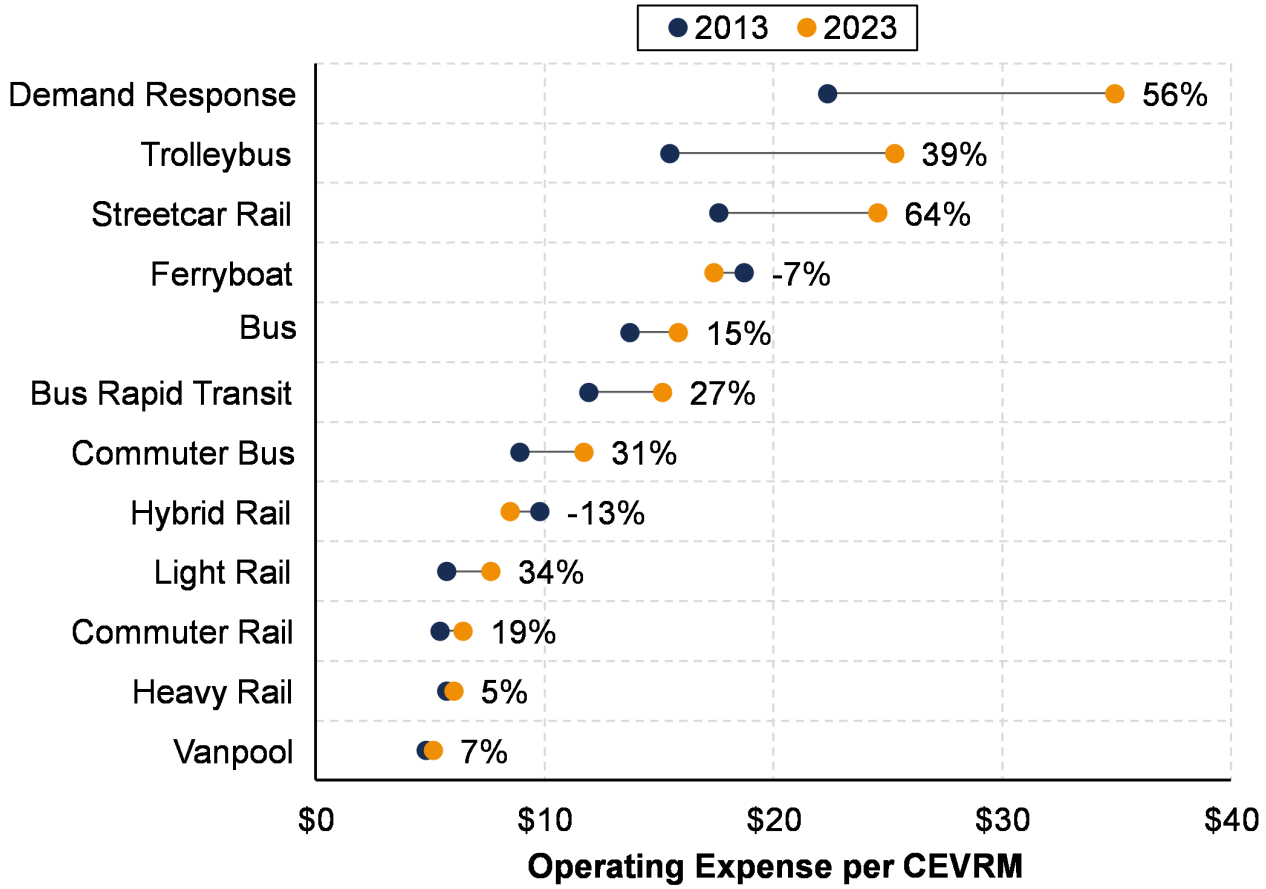


Exhibit 15.2 demonstrates the change in Operating Expense per CEVRM from 2013 to 2023 by mode (adjusted for inflation). CEVRM measure the distance traveled by a transit vehicle in revenue service, adjusted by the passenger-carrying capacity of each transit vehicle class, with the passenger-carrying capacity 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 13 percent and Ferryboat by 7 percent. Modes such as Streetcar Rail and Trolleybus have also changed dramatically in the last decade; however, this is likely due to the larger current sample size and diversity in the format of operations among agencies reporting in 2023 compared to 2013. The National average cost per CEVRM increased $1.79 (11.6 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 demonstrates that after New York, the Next 7 Largest urbanized areas (UZAs) are allocated the lowest Operating Expenses per Capacity-Equivalent VRM. In 2023, these UZAs were allocated $8.91, whereas Rural Areas were allocated the highest at $20.46 per CEVRM. For Operating Expenses per VRH, Rural Areas were allocated the lowest ($130.86) and the New York UZA was the highest ($326.61).

Notably, the Operating Expense per VRH is not adjusted by the passenger-carrying capacity of each transit vehicle class, and for that reason, provides more of a raw measure of cost. Comparing the two results demonstrates that it is useful to normalize cost by service provided when at capacity for a standard bus system; rail modes in the larger UZAs are generally shown to provide more efficient service despite the much higher cost per hour.

Exhibit 15.3 – 2023 Operating Expense per CEVRM and per VRH by Area and Consolidated Mode (National Average)

Areas by Consolidated Mode	Operating Expenses per CEVRM	Operating Expenses per VRH
New York	**$10.65**	**$326.61**
Core Rail	$5.20	$297.61
Distance Rail	$6.91	$801.65
Fixed-Route Bus	$20.16	$246.65
Other Non-Rail	$7.33	$242.44

Areas by Consolidated Mode	Operating Expenses per CEVRM	Operating Expenses per VRH
Next 7 Largest UZAs	**$8.91**	**$254.74**
Core Rail	$6.98	$351.55
Distance Rail	$6.01	$618.98
Fixed-Route Bus	$17.18	$218.91
Other Non-Rail	$9.51	$143.98
All Other UZAs	**$14.05**	**$153.24**
Core Rail	$17.22	$382.49
Distance Rail	$8.10	$871.67
Fixed-Route Bus	$11.44	$154.99
Other Non-Rail	$21.02	$102.38
Rural Areas	**$20.46**	**$130.86**
Core Rail	N/A	N/A
Distance Rail	N/A	N/A
Fixed-Route Bus	$19.48	$183.33
Other Non-Rail	$20.41	$100.85

Labor Costs

As shown in Exhibit 15.4, the total labor costs in constant 2023 dollars increased by less than 1 percent from 2013 to 2023 overall while the total employee count increased by 4.7 percent. Fringe benefit costs varied each year but slightly decreased overall since 2013 for all UZAs while salary costs varied each year but increased overall since 2013 for all UZAs. Employees across all UZAs in the nation have increased since 2013. Please note, transit agencies only report their employee counts for Directly Operated modes, so any purchased transportation or contracted services are excluded from the total employees below.

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

Urbanized Area	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
New York											
Salaries	$6.6 B	$7.0 B	$7.1 B	$7.3 B	$6.7 B	$6.8 B	$6.7 B	$6.4 B	$6.2 B	$6.2 B	$6.8 B
Fringe Benefits	$6.0 B	$6.3 B	$6.4 B	$6.9 B	$6.1 B	$5.0 B	$5.3 B	$5.1 B	$5.1 B	$5.0 B	$5.3 B
Employees	80,892	81,762	80,615	82,358	84,071	84,633	82,402	80,931	78,346	79,530	84,581
Next 7 Largest UZAs											
Salaries	$5.5 B	$5.7 B	$5.9 B	$6.2 B	$6.2 B	$6.0 B	$6.4 B	$6.2 B	$5.7 B	$5.7 B	$6.2 B
Fringe Benefits	$4.1 B	$4.2 B	$4.3 B	$4.6 B	$4.8 B	$4.0 B	$3.9 B	$3.8 B	$3.6 B	$3.3 B	$3.7 B
Employees	77,765	80,517	82,374	84,145	81,071	82,134	84,666	82,534	79,619	81,009	82,654

Urbanized Area	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
All Other UZAs											
Salaries	$5.5 B	$5.6 B	$5.8 B	$6.1 B	$6.2 B	$6.1 B	$6.2 B	$6.1 B	$5.8 B	$5.8 B	$6.2 B
Fringe Benefits	$3.5 B	$3.7 B	$3.6 B	$3.9 B	$3.9 B	$3.3 B	$3.4 B	$3.3 B	$3.1 B	$2.9 B	$3.2 B
Employees	97,865	99,165	100,523	102,529	102,985	102,646	101,736	99,882	97,708	97,348	102,458
Total Salaries	**$13.7 B**	**$14.2 B**	**$14.4 B**	**$15.5 B**	**$14.8 B**	**$12.3 B**	**$12.6 B**	**$12.2 B**	**$11.9 B**	**$11.2 B**	**$12.2 B**
Total Fringe Benefits	**$17.6 B**	**$18.3 B**	**$18.8 B**	**$19.6 B**	**$19.1 B**	**$19.0 B**	**$19.3 B**	**$18.7 B**	**$17.9 B**	**$17.8 B**	**$19.2 B**
Total Employees	**257,599**	**262,588**	**264,640**	**270,214**	**269,365**	**270,672**	**270,082**	**264,592**	**256,780**	**259,143**	**269,747**

Chapter 16. Cost Effectiveness (Cost per Ride)

Cost effectiveness connects the cost inputs to the service consumed. This is commonly shown by metrics such as the operating cost per unlinked passenger trip or passenger mile traveled. The table below outlines the service data such as PMT, VRM, and the Average Occupancy (PMT/VRM) by mode. It also demonstrates the cost inputs such as 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

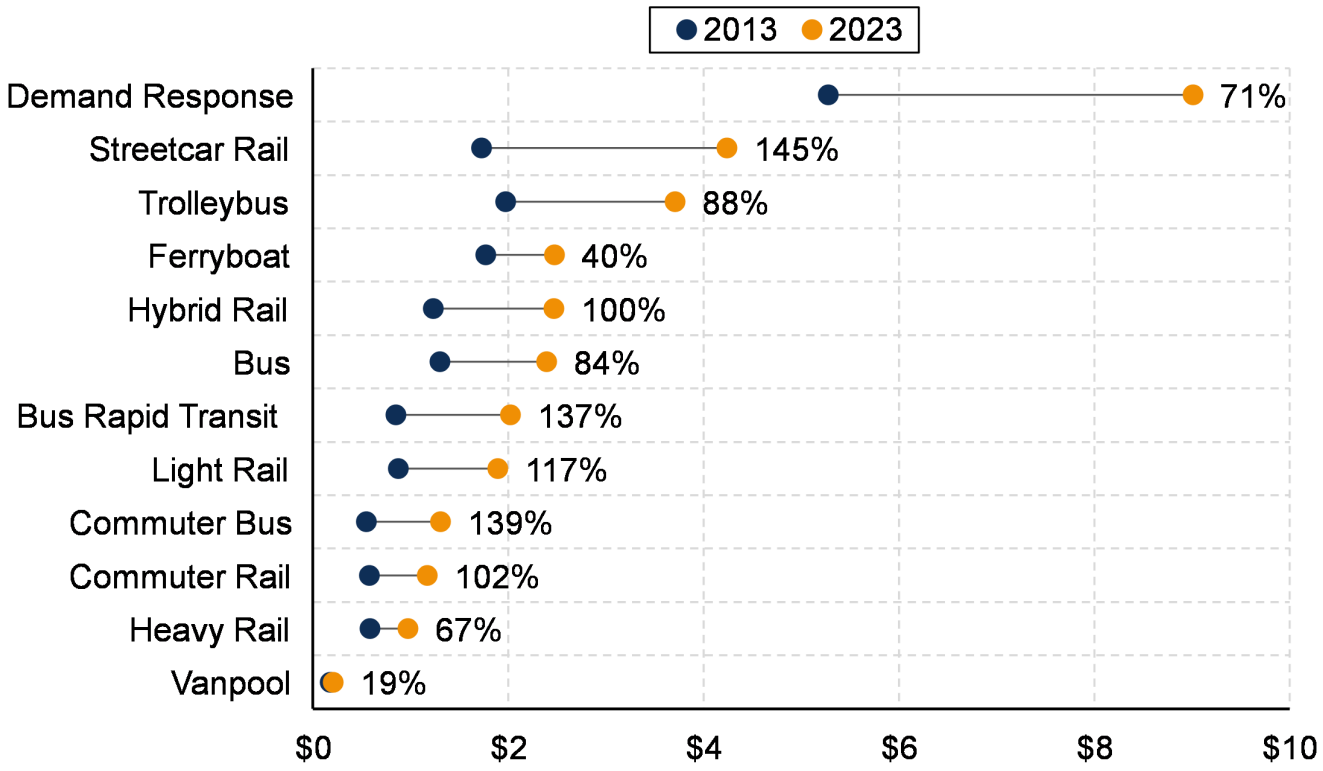
Mode	PMT (Millions)	VRM (Millions)	Operating Expenses (Millions)	Fares (Millions)	Average Occupancy (PMT/VRM)	Operating Expense per PMT	Fares per PMT
Aerial Tramway	0.7	0.0	$3.6	$0.6	25.0	$5.15	$0.91
Alaska Railroad	27.9	1.2	$60.6	$36.1	23.2	$2.17	$1.29
Bus	11,718.0	1,679.9	$26,820.1	$3,086.0	7.0	$2.29	$0.26
Bus Rapid Transit	156.9	12.2	$303.5	$35.9	12.9	$1.93	$0.23
Cable Car	3.9	0.2	$74.1	$18.8	19.5	$19.09	$4.85
Commuter Bus	899.9	77.1	$917.4	$222.9	11.7	$1.02	$0.25
Commuter Rail	7,045.3	342.2	$8,265.8	$2,057.3	20.6	$1.17	$0.29
Demand Response	739.5	672.6	$5,106.8	$267.2	1.1	$6.91	$0.36
Ferryboat	435.7	5.1	$1,003.9	$263.1	85.2	$2.30	$0.60
Heavy Rail	11,309.5	653.8	$11,073.7	$3,679.5	17.3	$0.98	$0.33

Mode	PMT (Millions)	VRM (Millions)	Operating Expenses (Millions)	Fares (Millions)	Average Occupancy (PMT/VRM)	Operating Expense per PMT	Fares per PMT
Hybrid Rail	59.9	4.4	$148.2	$7.4	13.7	$2.47	$0.12
Inclined Plane	0.5	0.0	$4.6	$3.6	16.6	$9.86	$7.65
Light Rail	1,607.3	110.5	$2,935.6	$258.1	14.5	$1.83	$0.16
Monorail/Automated Guideway	14.5	2.3	$81.9	$9.4	6.4	$5.65	$0.65
Público	13.5	5.0	$9.6	$8.8	2.7	$0.71	$0.65
Streetcar Rail	68.8	5.9	$276.2	$20.4	11.7	$4.02	$0.30
Trolleybus	84.2	8.2	$312.4	$32.5	10.2	$3.71	$0.39
Vanpool	832.2	172.5	$168.4	$119.8	4.8	$0.20	$0.14
Total	**35,018.2**	**3,753.1**	**$57,566.3**	**$10,127.5**	**9.3**	**$1.64**	**$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 2023 for selected modes. All modes shown in the exhibit had a higher cost per passenger mile in 2023. Streetcar Rail had the largest increase in operating cost per passenger mile from 2013 ($1.73) to 2023 ($4.24). In contrast, the cost per passenger mile for Vanpool only increased by $0.03.

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



Farebox Recovery

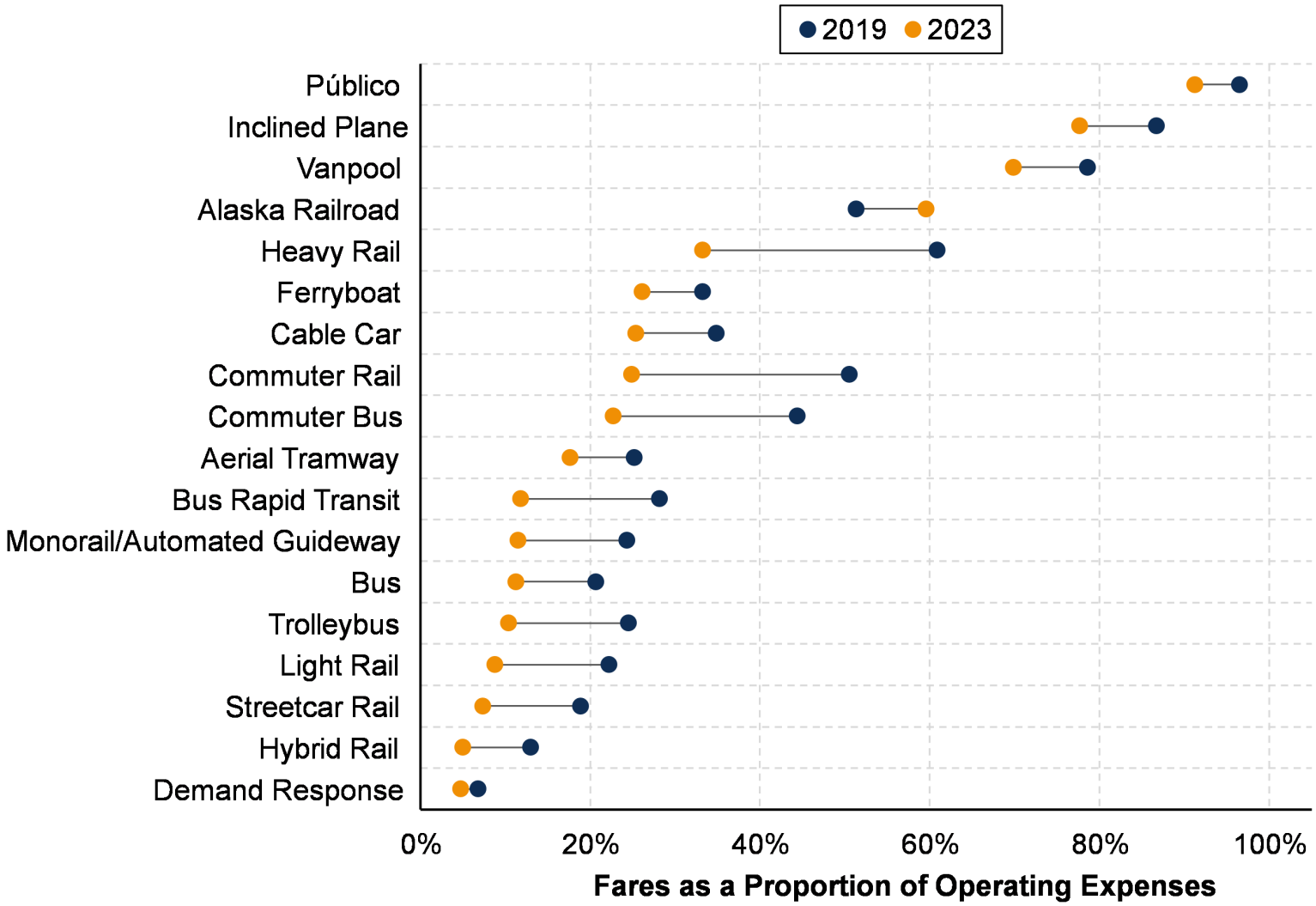
Transit agencies do not set passenger fares based on the cost of each trip. The farebox recovery ratio is the percentage of a trip's operating costs recovered through passenger fares. This ratio varies by mode. In 2023, for each dollar spent on operating costs per trip across all modes and all transit systems, 17.2 cents are recovered through fares. This is a 46 percent decrease from the 2019 fare recovery ratio of 32.1 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 35 percent from 2021 (12.7 cents per dollar).

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 (typically, one of the passengers operates the vehicle), 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 Rail 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

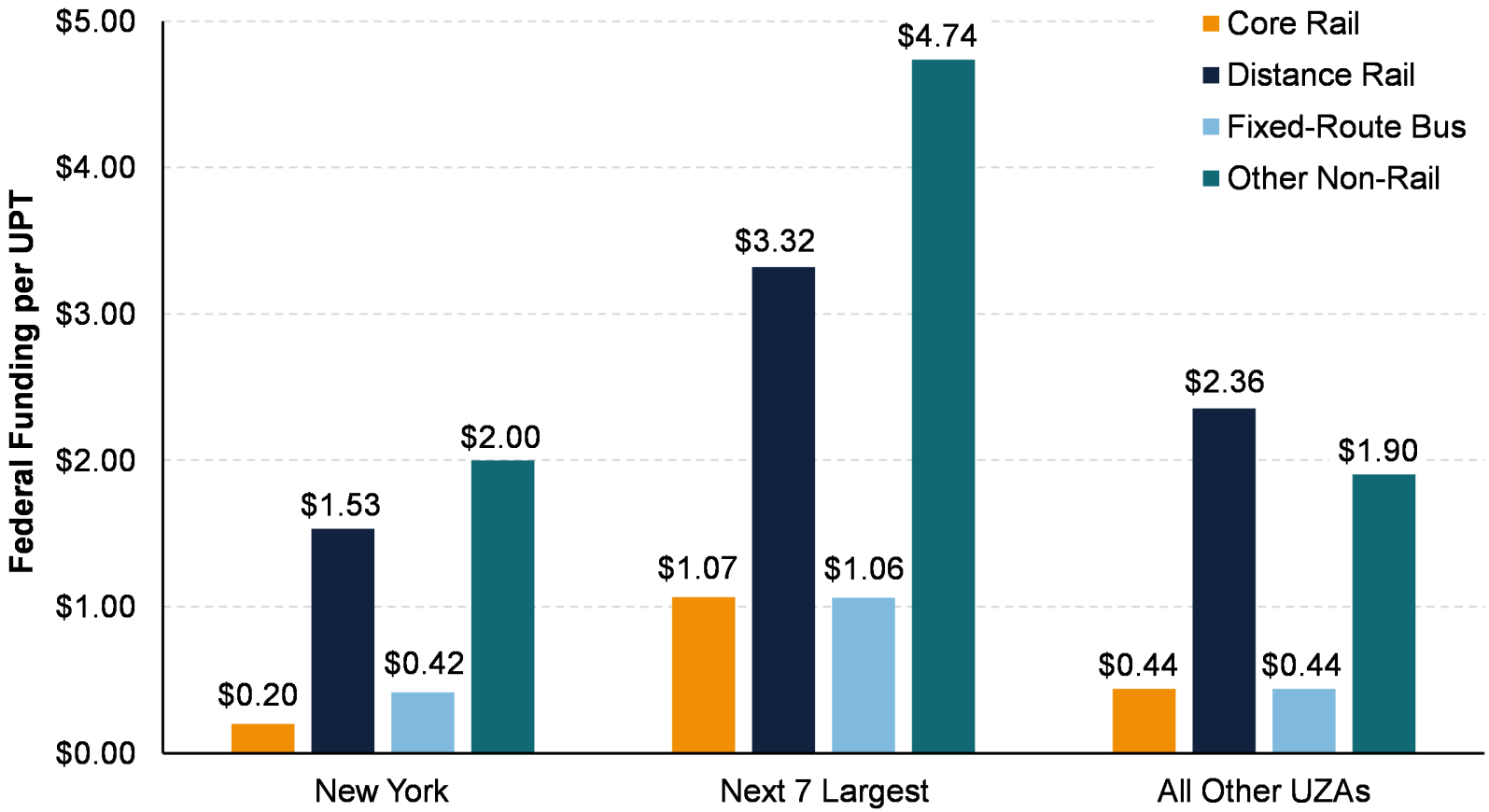


Total Federal Assistance Applied to Transit and Unlinked Passenger Trips

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 Report Year (RY) 2020 and 2021. As ridership decreased, Federal assistance for transit increased to fill the funding deficit. In RY 2023, ridership increased, allowing the Federal assistance for transit to slightly decrease compared to 2022.

In 2023, the Next 7 Largest urbanized areas (UZAs) received the highest amount of Federal operating assistance per trip overall, an average of $1.27 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 Unlinked Passenger Trips (UPT) in the New York UZA and Next 7 Largest UZAs. Distance Rail services closely followed in those areas but received the most Federal funding per trip in all the other UZAs.

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

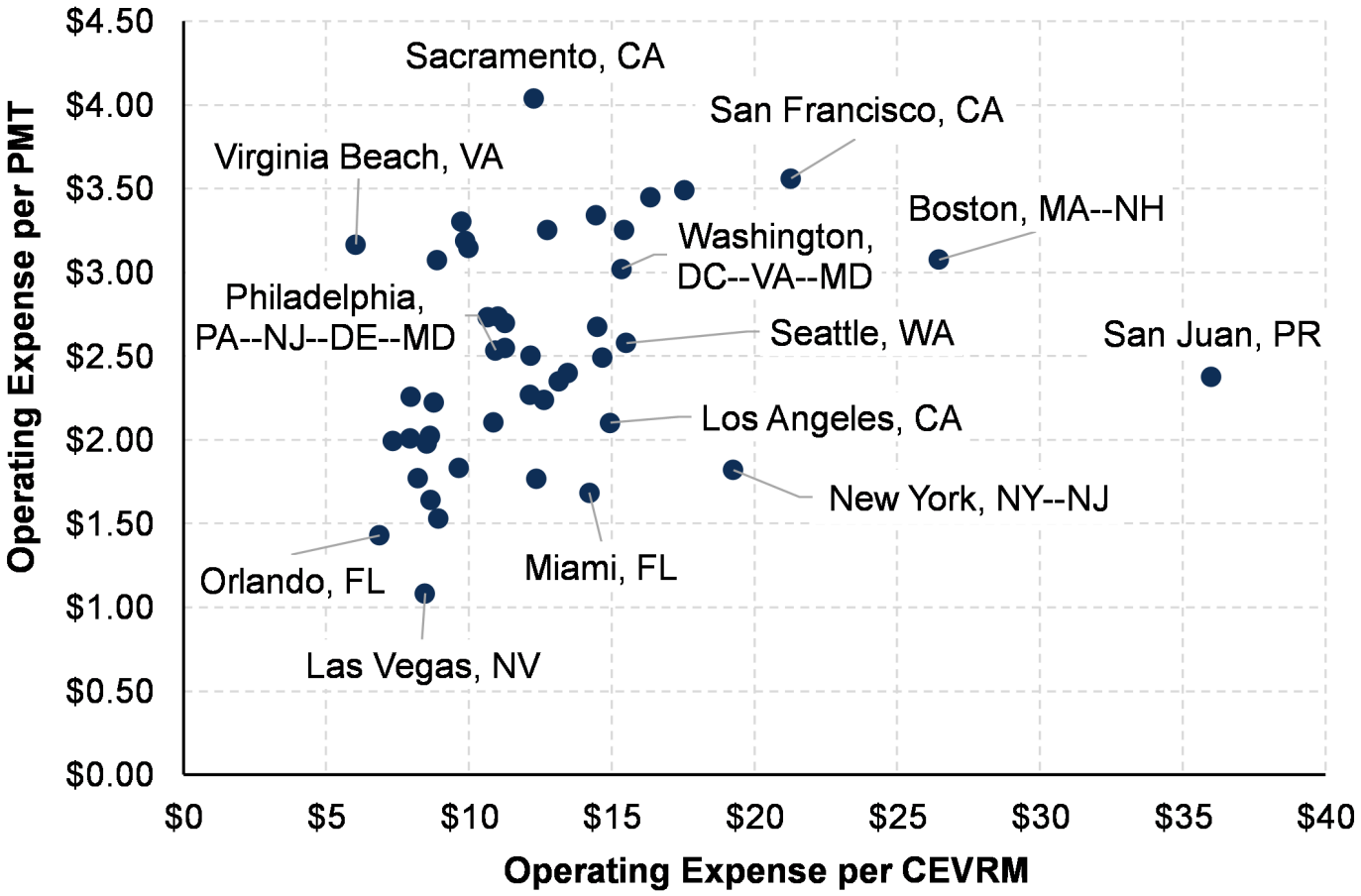


Operating Expenditures per CEVRM vs. Operating Expenditures per PMT

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 the large UZAs determined by UZA population.

For the Fixed-Route Bus consolidated mode, Sacramento, CA had the highest operating cost per PMT ($4.04) and San Juan, PR had the highest operating cost per CEVRM ($36.01) in 2023. 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 Large UZAs



For Core Rail modes, Jacksonville, FL had the highest operating cost per PMT of $28.88 and the highest operating cost per CEVRM of $83.02. Excluding Jacksonville, FL as an outlier, Milwaukee, WI had the highest operating cost per PMT ($11.76) and Memphis, TN had the highest operating cost per CEVRM ($33.71) in Exhibit 16.6. Many of the large UZAs with populations over 1 million 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 Large UZAs

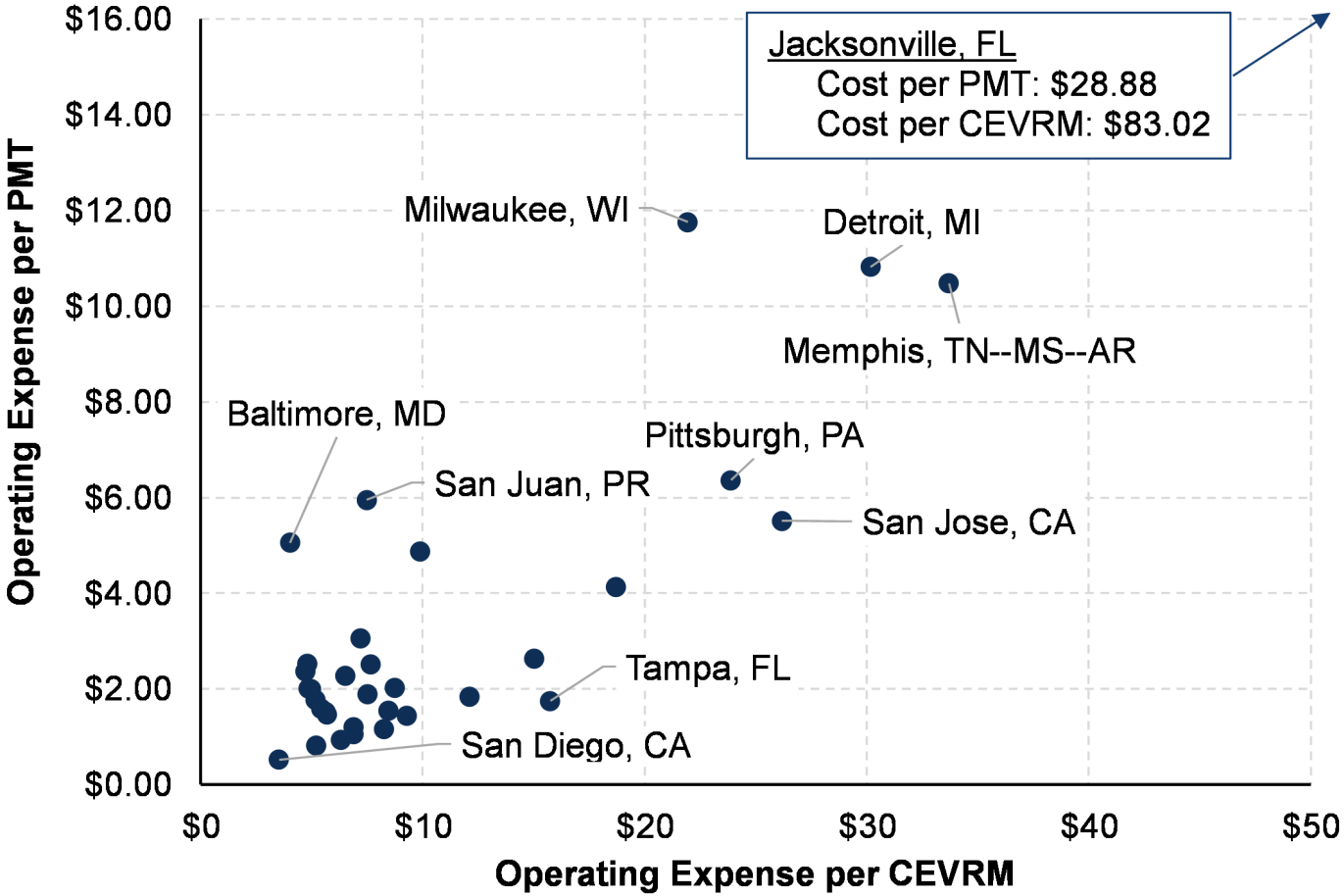
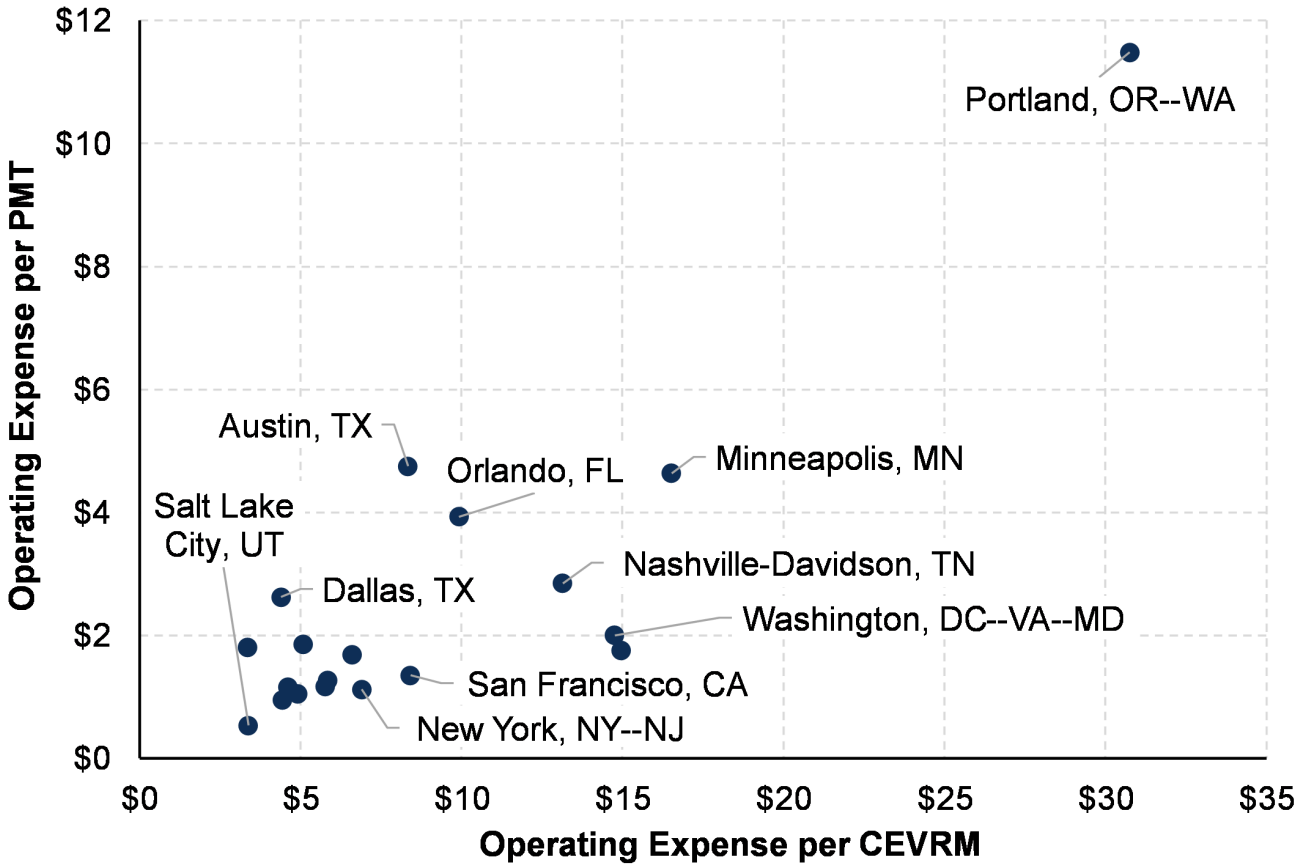


Exhibit 16.7 demonstrates the relationship between Operating Expense per CEVRM and Operating Expense per PMT for Alaska Railroad, Hybrid Rail, and Commuter Rail services. Portland, OR-WA was the UZA with the highest operating cost per CEVRM at $30.76 and the highest operating cost per PMT at $11.48 in 2023.

Exhibit 16.7 – Operating Expense per CEVRM vs. Operating Expense per PMT for Distance Rail in Large UZAs



Cost per UPT for Demand Response Service

The Demand Response mode operates 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 Fiscal Year (FY) 2023 was as follows:

- Demand Response Directly Operated services: 1,884
- Demand Response Purchased Transportation services: 508
- Demand Response Taxi providers: 83
- Transportation Network Companies (TNCs): 21

Exhibit 16.8 highlights that the cost per UPT is lower for Demand Response service provided by TNCs in comparison with Taxi and Directly Operated service. Purchased Transportation service costs were higher overall in 2023. 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 – 2023 Cost per UPT for Demand Response Service Type

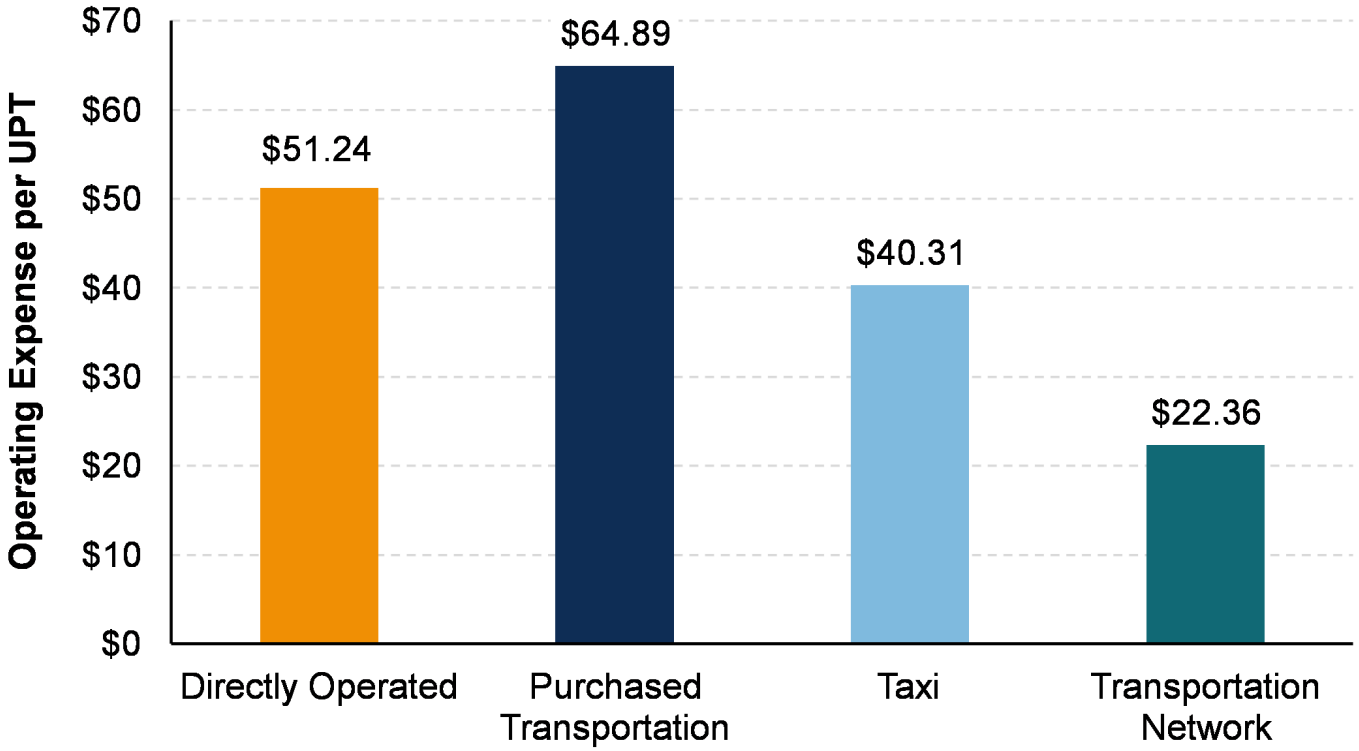
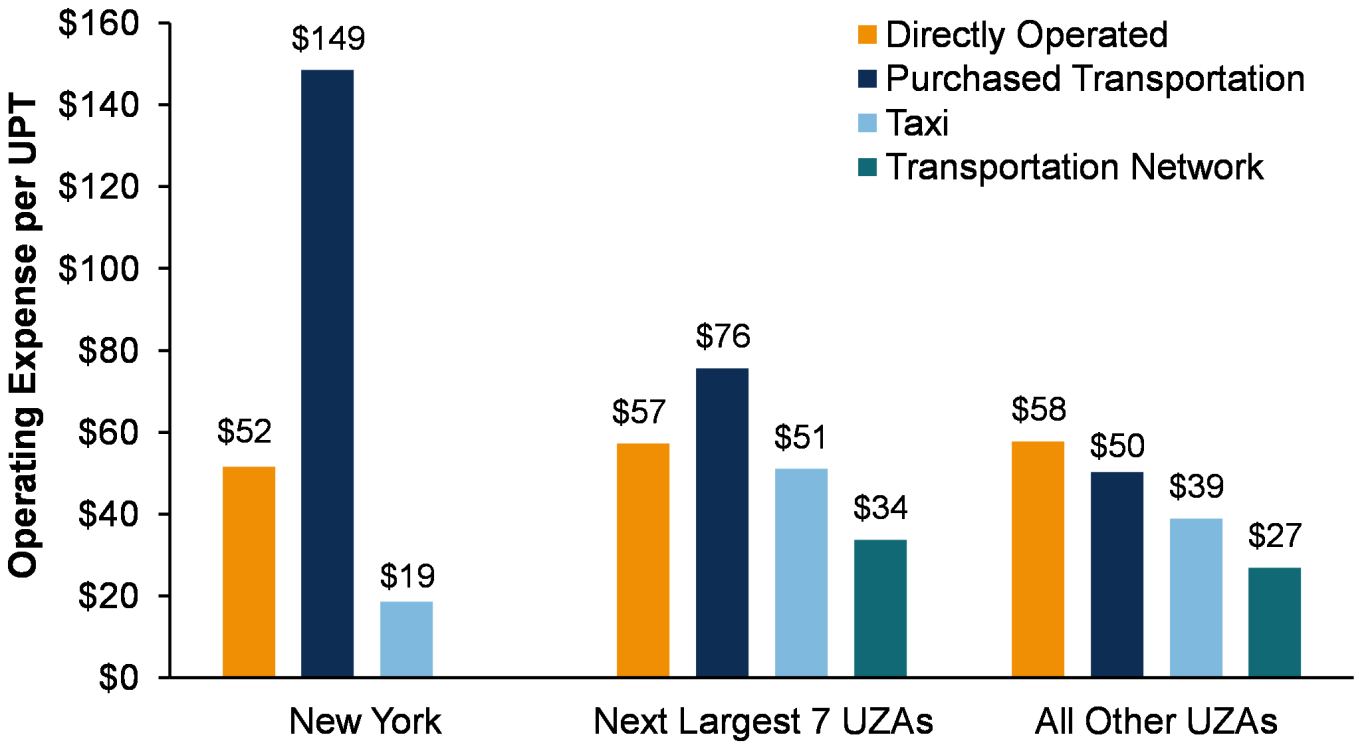


Exhibit 16.9 demonstrates that the Operating Expense per UPT is higher for Purchased Transportation service in the New York UZA ($148.50) and the Next 7 Largest UZAs ($75.69). Directly Operated Demand Response services cost more per trip in all other UZAs ($57.78). Demand Response services provided by TNCs had the lowest cost per UPT in the Next 7 Largest UZAs and all other UZAs. New York did not report having any TN services in FY 2023.

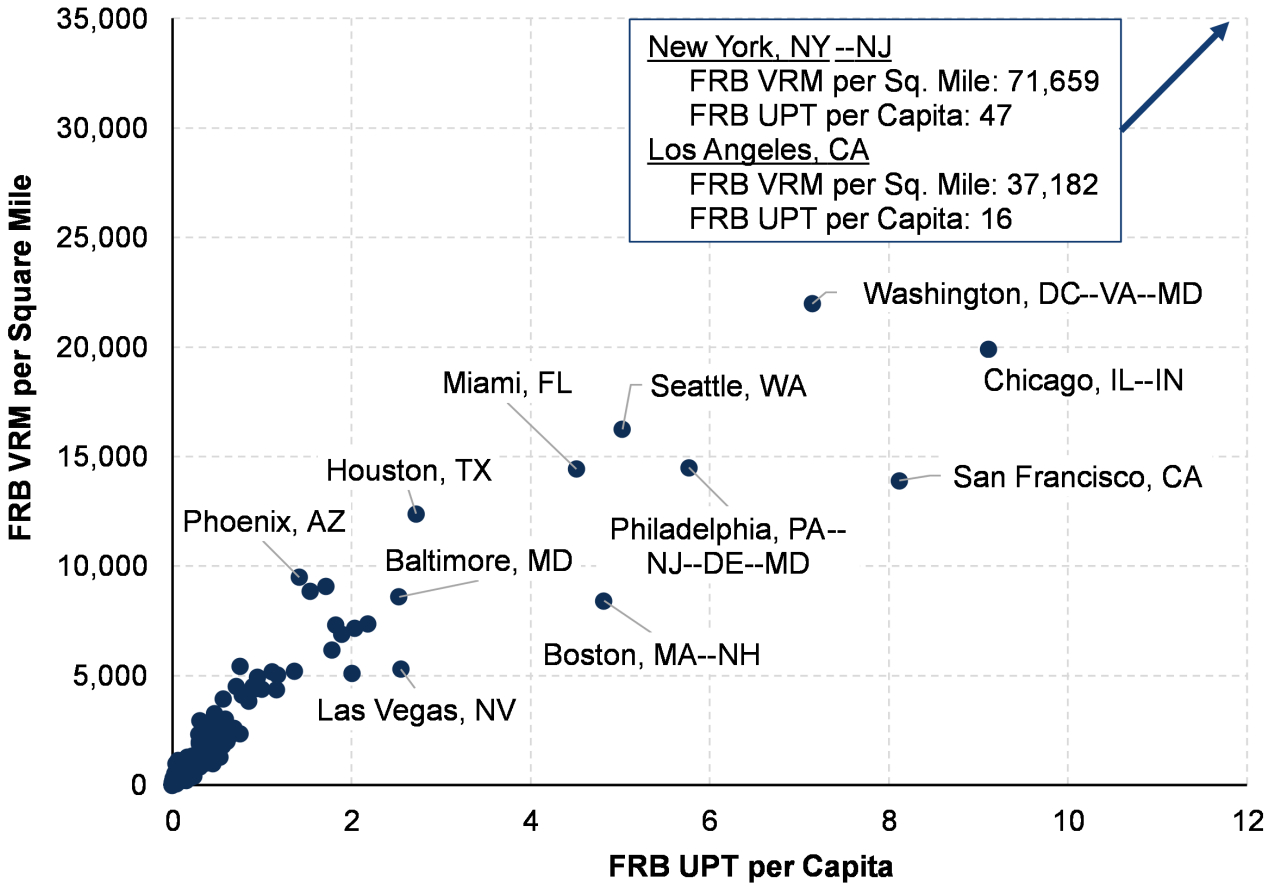
Exhibit 16.9 – 2023 Cost per UPT for Demand Response by UZA and Type of Service



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, such as 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 depicted in the scatterplot below.

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



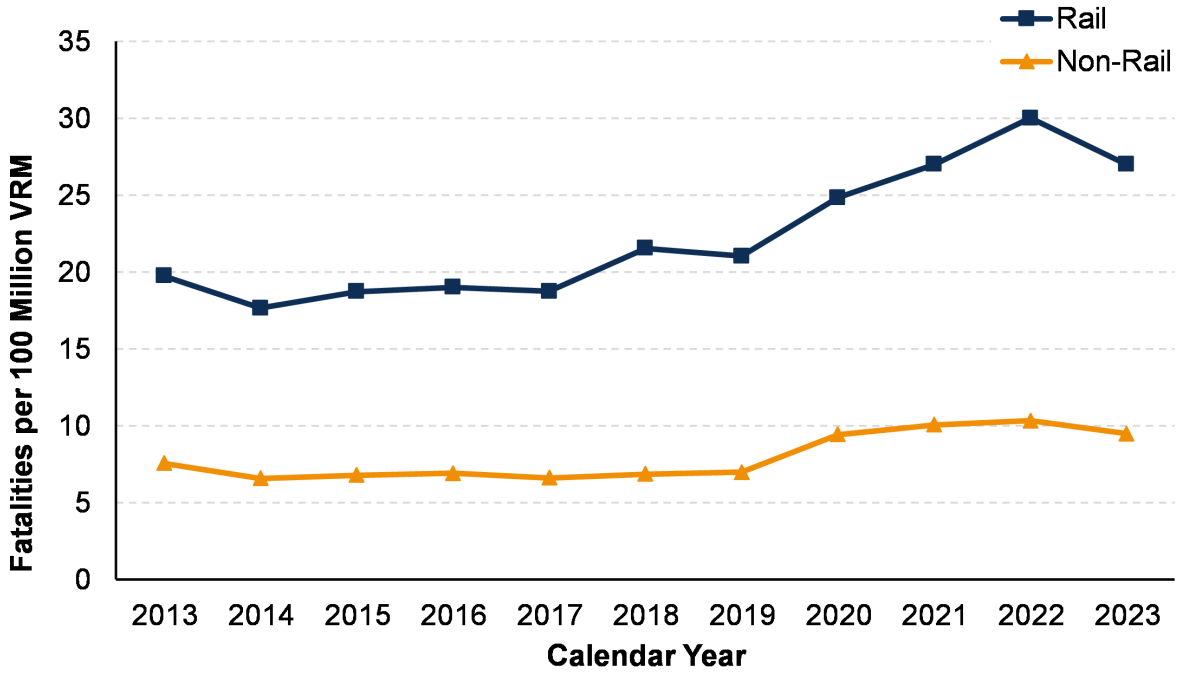
Chapter 17. Safety

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. Please note, only fatalities or injuries that meet any one of several criteria listed in the *NTD Safety & Security Policy Manual* are reported.

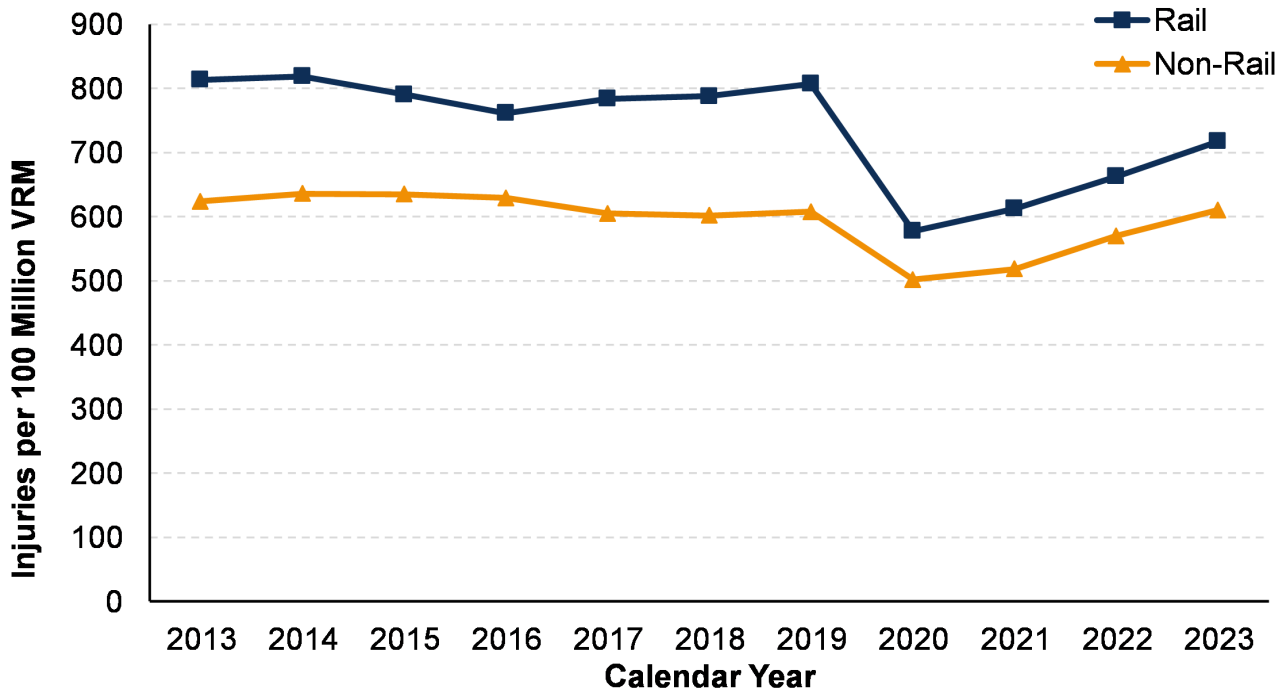
As shown in Exhibit 17.1, Rail modes reported 27 fatalities per 100 million VRM compared to the 9.5 fatalities per 100 million VRM reported by Non-Rail modes in calendar year 2023. Rail modes accounted for 73 percent of the total fatalities reported in 2023.

Exhibit 17.1 – 10-Year Trend in Average Fatality Rates by Rail and Non-Rail Modes



In contrast to fatalities, Rail modes only accounted for 27 percent of the total injuries in 2023. Non-Rail modes had 15,519 of the total injuries (21,244). Although Non-Rail modes reported significantly more total injuries, the injury rates per 100 million VRM for Rail and Non-Rail modes were similar and remained relatively consistent from 2013 to 2023, with a slight decrease in 2020, as Exhibit 17.2 demonstrates.

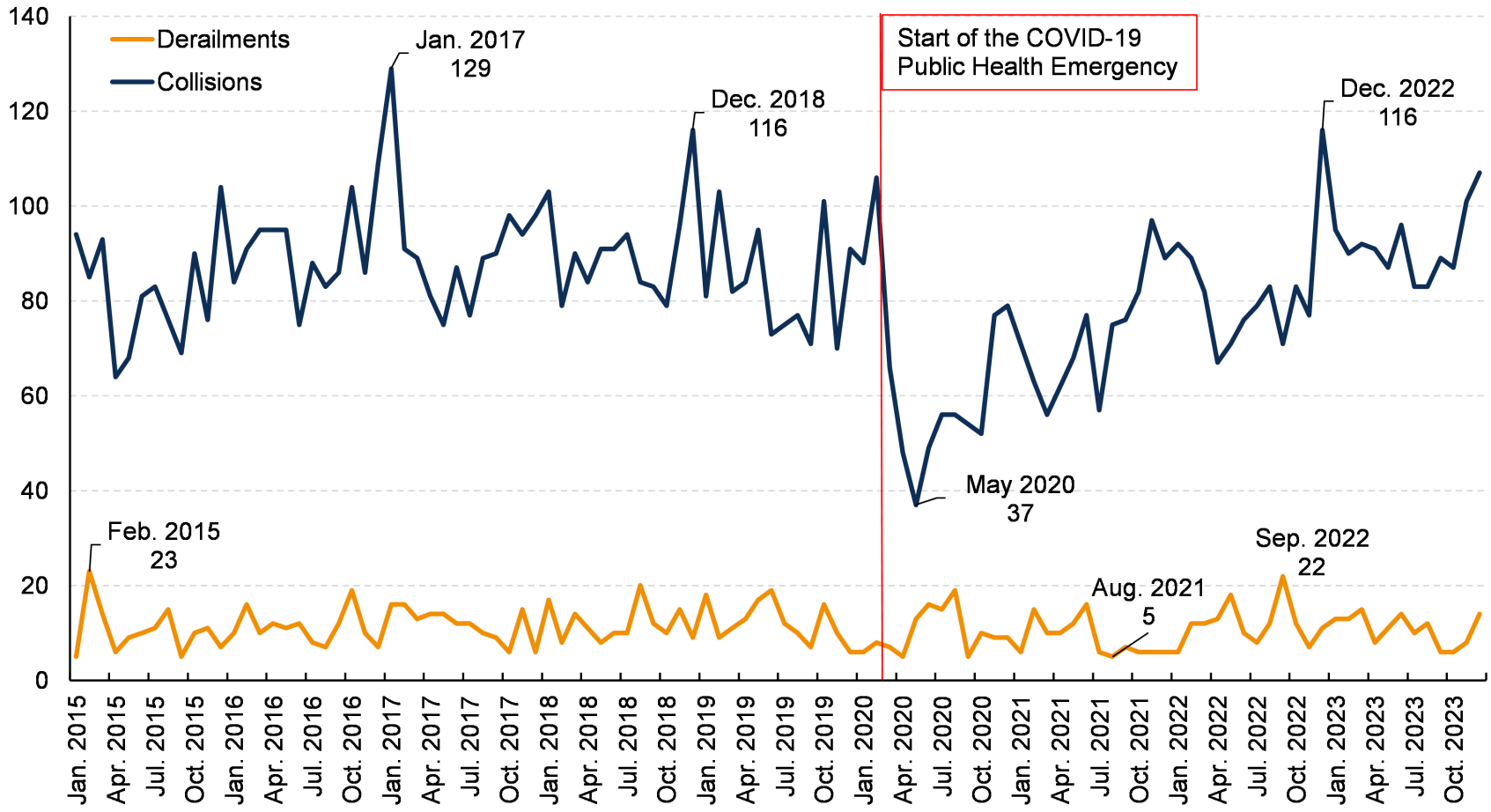
Exhibit 17.2 – 10-Year Trend in Average Injury Rates by Rail and Non-Rail Modes



Derailments and Collisions

Exhibit 17.3 demonstrates the trend in derailments and collisions for each month from January 2015 to December 2023 for all Rail modes. The number of derailments each month over the past nine years has fluctuated, but not as significantly as collisions. The highest number of derailments during this time occurred in February 2015 with 23. In 2023, March had the highest number of derailments (15) and September and October both at the fewest, at six each. Collisions per month vary more widely, with the highest count of the past eight years recorded in January 2017 (129). The number of collisions decreased at the onset of the COVID-19 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 17.3 – Derailment and Rail Collisions Trend



This concludes the main report.

Appendix A: Urbanized and Non-Urbanized Area Populations

Table A-I: 2020 Urbanized Areas

UACE Code	Urbanized Area Name	2020 Population
63217	New York—Jersey City—Newark, NY—NJ	19,426,449
51445	Los Angeles—Long Beach—Anaheim, CA	12,237,376
16264	Chicago, IL—IN	8,671,746
56602	Miami—Fort Lauderdale, FL	6,077,522
40429	Houston, TX	5,853,575
22042	Dallas—Fort Worth—Arlington, TX	5,732,354
69076	Philadelphia, PA—NJ—DE—MD	5,696,125
92242	Washington—Arlington, DC—VA—MD	5,174,759
03817	Atlanta, GA	5,100,112
09271	Boston, MA—NH	4,382,009
69184	Phoenix—Mesa—Scottsdale, AZ	3,976,313
23824	Detroit, MI	3,776,890
80389	Seattle—Tacoma, WA	3,544,011
78904	San Francisco—Oakland, CA	3,515,933
78661	San Diego, CA	3,070,300
57628	Minneapolis—St. Paul, MN	2,914,866

UACE Code	Urbanized Area Name	2020 Population
86599	Tampa—St. Petersburg, FL	2,783,045
23527	Denver—Aurora, CO	2,686,147
75340	Riverside—San Bernardino, CA	2,276,703
04843	Baltimore, MD	2,212,038
47995	Las Vegas—Henderson—Paradise, NV	2,196,623
77770	St. Louis, MO—IL	2,156,323
71317	Portland, OR—WA	2,104,238
78580	San Antonio, TX	1,992,689
77068	Sacramento, CA	1,946,618
65863	Orlando, FL	1,853,896
79093	San Juan, PR	1,844,410
79039	San Jose, CA	1,837,446
04384	Austin, TX	1,809,888
69697	Pittsburgh, PA	1,745,039
17668	Cleveland, OH	1,712,178
41212	Indianapolis, IN	1,699,881
16885	Cincinnati, OH—KY	1,686,744
43912	Kansas City, MO—KS	1,674,218
19234	Columbus, OH	1,567,254
90892	Virginia Beach—Norfolk, VA	1,451,578

UACE Code	Urbanized Area Name	2020 Population
15670	Charlotte, NC—SC	1,379,873
57466	Milwaukee, WI	1,306,795
72505	Providence, RI—MA	1,285,806
42346	Jacksonville, FL	1,247,374
78499	Salt Lake City, UT	1,178,533
61273	Nashville-Davidson, TN	1,158,642
73261	Raleigh, NC	1,106,646
74746	Richmond, VA	1,059,150
56116	Memphis, TN—MS—AR	1,056,190
65080	Oklahoma City, OK	982,276
37243	Hartford, CT	977,158
51755	Louisville/Jefferson County, KY—IN	974,397
62677	New Orleans, LA	963,212
11350	Buffalo, NY	948,864
10162	Bridgeport—Stamford, CT—NY	916,408
88732	Tucson, AZ	875,441
27253	El Paso, TX—NM	854,584
39889	Honolulu, HI	853,252
65269	Omaha, NE—IA	819,508
52390	McAllen, TX	779,553

UACE Code	Urbanized Area Name	2020 Population
09536	Bradenton—Sarasota—Venice, FL	779,075
07786	Birmingham, AL	774,956
01171	Albuquerque, NM	769,837
88948	Tulsa, OK	722,810
31843	Fresno, CA	717,589
75664	Rochester, NY	704,327
15508	Charleston, SC	684,773
22528	Dayton, OH	674,046
57709	Mission Viejo—Lake Forest—Laguna Niguel, CA	646,843
18856	Colorado Springs, CO	632,494
05680	Baton Rouge, LA	631,326
01495	Allentown—Bethlehem, PA—NJ	621,703
64945	Ogden—Layton, UT	608,857
34300	Grand Rapids, MI	605,666
13510	Cape Coral, FL	599,242
45640	Knoxville, TN	597,257
00970	Albany—Schenectady, NY	593,142
18964	Columbia, SC	590,407
72559	Provo—Orem, UT	588,609
04681	Bakersfield, CA	570,235

UACE Code	Urbanized Area Name	2020 Population
62407	New Haven, CT	561,456
23743	Des Moines, IA	542,486
00766	Akron, OH	541,879
19504	Concord—Walnut Creek, CA	538,583
87004	Temecula—Murrieta—Menifee, CA	528,991
67105	Palm Bay—Melbourne, FL	510,675
52695	McKinney—Frisco, TX	504,803
95077	Wichita, KS	500,231
87868	Toledo, OH—MI	497,952
37081	Harrisburg, PA	490,859
97291	Worcester, MA—CT	482,085
50392	Little Rock, AR	461,864
53200	Madison, WI	450,305
83764	Spokane, WA	447,279
74179	Reno, NV—CA	446,529
83926	Springfield, MA—CT	442,145
71479	Port St. Lucie, FL	437,745
08785	Boise City, ID	433,180
04222	Augusta-Richmond County, GA—SC	431,480
23500	Denton—Lewisville, TX	429,461

UACE Code	Urbanized Area Name	2020 Population
08974	Bonita Springs—Estero, FL	425,675
96670	Winston-Salem, NC	420,924
69192	Phoenix West—Goodyear—Avondale, AZ	419,946
45451	Kissimmee—St. Cloud, FL	418,404
85087	Stockton, CA	414,847
86302	Syracuse, NY	413,660
87300	The Woodlands—Conroe, TX	402,454
22612	Daytona Beach—Palm Coast—Port Orange, FL	402,126
15832	Chattanooga, TN—GA	398,569
25228	Durham, NC	396,118
47530	Lancaster—Manheim, PA	394,530
68482	Pensacola, FL—AL	390,172
35461	Greenville, SC	387,271
66673	Oxnard—San Buenaventura (Ventura), CA	376,117
29494	Fayetteville—Springdale—Rogers, AR—MO	373,687
88462	Trenton, NJ	370,422
80227	Scranton, PA	366,713
41347	Indio—Palm Desert—Palm Springs, CA	361,075
67140	Palmdale—Lancaster, CA	359,559
58006	Modesto, CA	357,301

UACE Code	Urbanized Area Name	2020 Population
90541	Victorville—Hesperia—Apple Valley, CA	355,816
42211	Jackson, MS	347,693
20287	Corpus Christi, TX	339,066
35164	Greensboro, NC	338,928
31087	Fort Wayne, IN	335,934
40780	Huntsville, AL	329,066
30628	Fort Collins, CO	326,332
02683	Antioch, CA	326,205
29440	Fayetteville, NC	325,008
57925	Mobile, AL	321,907
97831	Youngstown, OH	320,901
47719	Lansing, MI	318,300
02602	Ann Arbor, MI	317,689
49582	Lexington-Fayette, KY	315,631
71803	Poughkeepsie—Newburgh, NY	314,766
79768	Savannah, GA	309,466
05167	Barnstable Town, MA	303,269
29872	Flint, MI	298,964
60895	Myrtle Beach—North Myrtle Beach, SC—NC	298,954
79498	Santa Rosa, CA	297,329

UACE Code	Urbanized Area Name	2020 Population
13375	Canton, OH	295,319
03904	Atlantic City—Ocean City—Villas, NJ	294,921
49933	Lincoln, NE	291,217
81739	Shreveport, LA	288,052
03358	Asheville, NC	285,776
22366	Davenport, IA—IL	285,211
83953	Springfield, MO	282,651
83116	South Bend, IN—MI	278,921
19558	Concord, NC	278,612
79309	Santa Clarita, CA	278,031
46828	Lakeland, FL	277,915
75718	Rockford, IL	276,443
73693	Reading, PA	276,278
51877	Lubbock, TX	272,280
28117	Eugene, OR	270,179
78229	Salem, OR	268,331
19099	Columbus, GA—AL	267,746
76474	Round Lake Beach—McHenry—Grayslake, IL—WI	261,835
68509	Peoria, IL	259,781
44992	Killeen, TX	257,222

UACE Code	Urbanized Area Name	2020 Population
44479	Kennewick—Richland—Pasco, WA	255,401
95833	Wilmington, NC	255,329
58600	Montgomery, AL	254,348
96697	Winter Haven, FL	253,251
86464	Tallahassee, FL	252,934
47854	Laredo, TX	251,462
02305	Anchorage, AK	249,252
61165	Nashua, NH—MA	242,984
50533	Livermore—Pleasanton—Dublin, CA	240,381
97750	York, PA	238,549
35920	Gulfport—Biloxi, MS	236,344
00631	Aguadilla—Isabela—San Sebastián, PR	232,573
02764	Appleton, WI	230,967
46045	Lafayette, LA	227,316
61372	Navarre—Miramar Beach—Destin, FL	226,213
09946	Bremerton, WA	224,449
34813	Green Bay, WI	224,156
75745	Rock Hill, SC	218,443
75421	Roanoke, VA	217,312
10972	Brownsville, TX	216,444

UACE Code	Urbanized Area Name	2020 Population
29089	Fargo, ND—MN	216,214
06290	Bel Air—Aberdeen, MD	214,647
87490	Thousand Oaks, CA	213,986
32167	Gainesville, FL	213,748
23311	Deltona, FL	210,712
99999	Lake Tahoe, CA-NV	210,000
65242	Olympia—Lacey, WA	208,157
28333	Evansville, IN	206,855
18748	College Station—Bryan, TX	206,137
01927	Amarillo, TX	205,860
71263	Portland, ME	205,356
43723	Kalamazoo, MI	204,562
79282	Santa Barbara, CA	202,197
38647	Hickory, NC	201,511
17317	Clarksville, TN—KY	200,947
40753	Huntington, WV—KY—OH	200,157
71060	Port Charlotte—North Port, FL	199,998
92485	Waterbury, CT	199,317
51364	Lorain—Elyria, OH	199,067
36190	Hagerstown, MD—WV—PA—VA	197,557

UACE Code	Urbanized Area Name	2020 Population
83548	Spartanburg, SC	196,943
82252	Sioux Falls, SD	194,283
91027	Waco, TX	192,844
14752	Cedar Rapids, IA	192,844
32491	Galveston—Texas City, TX	191,863
27766	Erie, PA	187,820
64567	Ocala, FL	182,647
60976	Nampa, ID	177,561
78310	Salinas, CA	177,532
60733	Murfreesboro, TN	177,313
32653	Gastonia, NC	176,897
31519	Frederick, MD	176,456
90028	Vallejo, CA	175,132
90406	Vero Beach—Sebastian, FL	174,292
38215	Hemet, CA	173,194
22096	Danbury, CT—NY	171,680
55981	Medford, OR	171,640
84024	Spring Hill, FL	169,050
79336	Santa Cruz, CA	169,038
38809	High Point, NC	167,830

UACE Code	Urbanized Area Name	2020 Population
31600	Fredericksburg, VA	167,679
64135	Norwich—New London, CT	167,432
60841	Muskegon—Norton Shores, MI	166,414
32194	Gainesville, GA	164,365
53740	Manchester, NH	163,289
46531	Lake Charles, LA	162,501
67305	Panama City—Panama City Beach, FL	162,060
87285	The Villages—Lady Lake, FL	161,736
90946	Visalia, CA	160,578
55333	Marysville, WA	160,440
55603	Mauldin—Simpsonville, SC	159,506
83899	Springfield, IL	159,265
46018	Lafayette, IN	157,100
89110	Tuscaloosa, AL	156,450
07732	Binghamton, NY	155,942
61786	New Bedford, MA	155,491
64864	Odessa, TX	154,818
48799	Leesburg—Eustis—Tavares, FL	151,523
28657	Fairfield, CA	150,122
56251	Merced, CA	150,052

UACE Code	Urbanized Area Name	2020 Population
88084	Topeka, KS	148,956
26794	Elkhart, IN—MI	148,199
15211	Champaign, IL	147,452
06058	Beaumont, TX	146,649
83332	South Lyon—Hamburg—Genoa, MI	145,963
40375	Houma, LA	145,482
11728	Burlington, NC	145,311
79417	Santa Maria, CA	143,609
03763	Athens-Clarke County, GA	143,213
57007	Midland, TX	141,997
18937	Columbia, MO	141,831
91783	Warner Robins, GA	141,132
15481	Charleston, WV	140,958
52822	Macon-Bibb County, GA	140,111
47935	Las Cruces, NM	139,338
34786	Greeley, CO	137,222
34273	Grand Junction, CO	135,973
98020	Yuma, AZ—CA	135,717
73153	Racine, WI	134,877
77446	St. George, UT	134,109

UACE Code	Urbanized Area Name	2020 Population
08407	Bloomington—Normal, IL	134,100
97507	Yakima, WA	133,145
89326	Tyler, TX	131,028
06652	Bellingham, WA	128,979
07705	Billings, MT	128,787
43210	Johnson City, TN	128,519
22811	Dededo—Apotgan—Tamuning, GU	128,164
82144	Simi Valley, CA	127,364
41590	Iowa City, IA	126,810
44506	Kenosha, WI	125,865
30925	Fort Smith, AR—OK	125,811
97939	Yuba City, CA	125,706
52201	Lynchburg, VA	125,596
03034	Arecibo, PR	123,724
80362	Seaside—Monterey—Pacific Grove, CA	123,495
24580	Dover, DE	123,101
18451	Coeur d'Alene, ID	121,831
75637	Rochester, MN	121,587
88280	Tracy—Mountain House, CA	120,912
09298	Boulder, CO	120,828

UACE Code	Urbanized Area Name	2020 Population
72613	Pueblo, CO	120,642
73774	Redding, CA	120,602
63433	Norman, OK	120,191
35380	Greenville, NC	120,150
58330	Monroe, LA	119,964
24850	Duluth, MN—WI	119,411
89785	Utica, NY	119,059
36892	Harlingen, TX	118,838
91261	Waldorf, MD	118,601
02420	Anderson—Clemson, SC	118,369
70642	Ponce, PR	118,345
00280	Abilene, TX	118,138
43669	Kailua (Honolulu County) —Kaneohe, HI	118,092
11755	Burlington, VT	118,032
77338	St. Cloud, MN	117,638
70993	Port Arthur, TX	116,819
77149	Saginaw, MI	116,058
33328	Gilroy—Morgan Hill, CA	114,833
87058	Temple, TX	114,632
92593	Waterloo, IA	114,139

UACE Code	Urbanized Area Name	2020 Population
50959	Logan, UT	113,927
53794	Mandeville—Covington, LA	113,763
82225	Sioux City, IA—NE—SD	113,066
49096	Leominster—Fitchburg, MA	111,790
16318	Chico, CA	111,411
42400	Jacksonville, NC	111,224
08380	Bloomington, IN	110,103
51256	Longview, TX	107,099
39430	Holland, MI	107,034
06868	Bend, OR	106,988
26038	Eau Claire, WI	105,475
40996	Idaho Falls, ID	105,132
15724	Charlottesville, VA	104,191
89866	Vacaville, CA	101,027
04033	Auburn, AL	100,842
51175	Longmont, CO	100,776
61948	New Braunfels, TX	100,736
78553	San Angelo, TX	99,982
45910	La Crosse, WI—MN	98,872
45235	Kingsport, TN—VA	98,411

UACE Code	Urbanized Area Name	2020 Population
07921	Bismarck, ND	98,198
09379	Bowling Green, KY	97,814
78985	San Germán—Cabo Rojo—Sabana Grande, PR	97,241
95104	Wichita Falls, TX	97,039
07472	Beverly Hills—Homosassa Springs—Pine Ridge, FL	96,729
46126	Lafayette—Erie—Louisville, CO	96,485
71506	Portsmouth, NH—ME	95,090
48232	Lawrence, KS	94,998
79363	Santa Fe, NM	94,241
56926	Middletown, OH	93,608
72112	Prescott—Prescott Valley, AZ	92,427
31150	Four Corners, FL	92,396
48826	Lee's Summit, MO	91,960
77230	St. Augustine, FL	91,786
82468	Slidell, LA	91,587
55738	Mayagüez, PR	91,583
02103	Amherst Town—Northampton—Easthampton Town, MA	90,570
95411	Williamsburg, VA	89,585
30061	Florence, SC	89,436
57736	Missoula, MT	88,109

UACE Code	Urbanized Area Name	2020 Population
48394	Lawton, OK	87,464
90730	Vineland, NJ	87,226
00078	Virgin Islands, VI	87,146
43399	Joplin, MO	86,679
54145	Manteca, CA	86,674
22717	Decatur, IL	86,287
00901	Albany, GA	85,960
73396	Rapid City, SD	85,679
14563	Castle Rock, CO	85,350
61057	Napa, CA	84,619
60625	Muncie, IN	84,382
42157	Jackson, MI	84,307
84493	State College, PA	83,674
96103	Winchester, VA	83,377
83980	Springfield, OH	82,369
71155	Port Huron, MI	82,226
52984	Madera, CA	81,635
61705	Newark, OH	81,223
37594	Hattiesburg, MS	80,821
87139	Terre Haute, IN	79,862

UACE Code	Urbanized Area Name	2020 Population
29818	Flagstaff, AZ	79,842
02386	Anderson, IN	79,517
01765	Alton, IL	79,260
16237	Cheyenne, WY	79,250
89083	Turlock, CA	79,203
29953	Florence, AL	78,925
87193	Texarkana, TX—AR	78,744
01279	Alexandria, LA	78,305
02629	Anniston—Oxford, AL	78,302
93862	Wenatchee, WA	78,142
78364	Salisbury, MD—DE	78,075
59275	Morgantown, WV	77,620
93025	Wausau, WI	77,429
77743	St. Joseph, MO—KS	77,187
22420	Davis, CA	77,034
28766	Fairhope—Daphne, AL	76,807
89974	Valdosta, GA	76,769
26750	Elizabethtown—Radcliff, KY	76,441
66484	Owensboro, KY	76,433
12754	Camarillo, CA	76,338

UACE Code	Urbanized Area Name	2020 Population
66160	Oshkosh, WI	76,190
79633	Saratoga Springs, NY	75,684
05707	Battle Creek, MI	75,513
48664	Lebanon, PA	75,485
01792	Altoona, PA	74,426
26405	El Centro, CA	74,376
81118	Sheboygan, WI	74,369
17722	Cleveland, TN	73,918
43345	Jonesboro, AR	73,781
54091	Mansfield, OH	73,545
37162	Harrisonburg, VA	73,377
50851	Lodi, CA	73,090
42265	Jackson, TN	72,809
36514	Hammond, LA	72,526
24472	Dothan, AL	72,423
08002	Blacksburg—Christiansburg, VA	72,400
24607	Dover—Rochester, NH—ME	72,391
42562	Janesville, WI	72,285
70426	Pocatello, ID	72,211
08601	Bluffton East—Hilton Head Island, SC	71,824

UACE Code	Urbanized Area Name	2020 Population
45443	Kiryas Joel, NY	71,582
28549	Fairbanks, AK	71,396
56656	Michigan City—La Porte, IN—MI	71,367
33598	Glens Falls, NY	71,191
79201	San Marcos, TX	70,801
10351	Bristol, TN—VA	70,638
88840	Tulare, CA	70,628
24823	Dubuque, IA—IL	70,332
71074	Porterville, CA	69,862
51283	Longview, WA—OR	69,841
85708	Sumter, SC	68,825
11026	Brunswick—St. Simons, GA	68,750
92890	Watsonville, CA	68,668
49852	Lima, OH	68,630
28981	Fajardo, PR	68,587
05869	Bay City, MI	68,472
34219	Grand Forks, ND—MN	68,160
22069	Dalton, GA	67,830
27261	El Paso de Robles (Paso Robles) —Atascadero, CA	67,804
14482	Casper, WY	67,751

UACE Code	Urbanized Area Name	2020 Population
34759	Great Falls, MT	67,097
60490	Mount Vernon, WA	66,825
20422	Corvallis, OR	66,791
81631	Sherman—Denison, TX	66,691
36703	Hanford, CA	66,638
19801	Conway, AR	66,619
59410	Morristown, TN	66,539
43885	Kankakee, IL	66,530
02062	Ames, IA	66,342
90514	Victoria, TX	65,986
68887	Petaluma, CA	65,227
05040	Barceloneta—Florida—Bajadero, PR	65,070
43453	Juana Díaz, PR	65,023
84859	Steubenville—Weirton, OH—WV—PA	64,981
22960	DeKalb, IL	64,736
97561	Yauco, PR	63,885
80416	Sebring—Avon Park, FL	63,297
75988	Rocky Mount, NC	63,297
06760	Beloit, WI—IL	63,073
45694	Kokomo, IN	62,576

UACE Code	Urbanized Area Name	2020 Population
67672	Parkersburg, WV—OH	62,500
27118	Elmira, NY	62,468
87787	Titusville, FL	62,459
49594	Lexington Park—California—Chesapeake Ranch Estates, MD	62,352
00955	Albany, OR	62,074
07138	Benton Harbor—Lincoln—St. Joseph, MI	61,888
78774	Sandusky—Port Clinton, OH	61,743
14158	Carson City, NV	61,629
04951	Bangor, ME	61,539
43291	Johnstown, PA	61,521
56899	Middletown, NY	61,516
96994	Woodland, CA	61,133
19126	Columbus, IN	60,982
49339	Lewiston, ME	60,743
22690	Decatur, AL	60,458
53848	Manhattan, KS	60,454
76204	Rome, GA	60,403
84088	Spring Hill, TN	60,309
53983	Mankato, MN	60,206
40213	Hot Springs, AR	59,133

UACE Code	Urbanized Area Name	2020 Population
41914	Ithaca, NY	59,102
09514	Bozeman, MT	59,080
84630	Staunton—Waynesboro, VA	59,065
46747	Lake Havasu City, AZ	59,017
89245	Twin Falls, ID	58,808
32113	Gadsden, AL	57,975
43615	Kahului—Wailuku, HI	57,905
54477	Maricopa, AZ	57,771
94726	Wheeling, WV—OH	57,695
06139	Beckley, WV	57,468
58357	Monroe, MI	57,260
79147	San Luis Obispo, CA	56,904
88300	Traverse City—Garfield, MI	56,890
36784	Hanover, PA	56,712
46801	Lake Jackson, TX	56,054
34516	Grants Pass, OR	55,724
13537	Cape Girardeau, MO—IL	55,546
95455	Williamsport, PA	55,344
98182	Zephyrhills, FL	55,133
34246	Grand Island, NE	55,099

UACE Code	Urbanized Area Name	2020 Population
49312	Lewiston, ID—WA	54,798
30223	Fond du Lac, WI	54,731
33814	Goldsboro, NC	54,456
11431	Bullhead City, AZ—NV	54,396
51040	Lompoc, CA	54,287
81901	Sierra Vista, AZ	54,274
25498	Eagle Pass, TX	54,083
92459	Wasilla—Knik-Fairview—North Lakes, AK	53,444
51499	Los Lunas, NM	53,365
70480	Poinciana, FL	53,267
39133	Hinesville, GA	53,107
06031	Beaufort—Port Royal, SC	52,515
38161	Helena, MT	52,380
14185	Cartersville, GA	52,351
56980	Midland, MI	52,340
35866	Guayama, PR	52,290
17426	Clayton, NC	51,898
90095	Valparaiso—Shorewood Forest, IN	51,867
92674	Watertown, NY	51,832
29278	Farmington, NM	51,763

UACE Code	Urbanized Area Name	2020 Population
67812	Pascagoula—Gautier, MS	51,454
75313	Riverhead—Southold, NY	51,120
14401	Casa Grande, AZ	50,981
57655	Minot, ND	50,925
03196	Arroyo Grande—Grover Beach—Pismo Beach, CA	50,885
37945	Hazleton, PA	50,860
6781	Paducah, KY—IL	50,833
29608	Fernandina Beach—Yulee, FL	50,805
42967	Jefferson City, MO	50,775
69778	Pittsfield, MA	50,720
69517	Pinehurst—Southern Pines, NC	50,319
45262	Kingston, NY	50,254
27631	Enid, OK	50,194
96130	Winder, GA	50,189
15184	Chambersburg, PA	50,094
91405	Walla Walla, WA—OR	50,013
Grand Total	**-**	**240,770,576**

Table A-2: 2020 Non-Urbanized Areas

UZA Name	2020 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
Minnesota Non-UZA	2,336,986

UZA Name	2020 Population
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
Massachusetts Non-UZA	774,241
New Hampshire Non-UZA	768,345

UZA Name	2020 Population
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
District of Columbia Non-UZA	-
Grand Total	**94,512,600**