

# **PUBLIC TRANSPORTATION FACT BOOK**

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## **PUBLIC TRANSPORTATION FACT BOOK**

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## **About APTA**

APTA is a nonprofit international association of over 1,500 public and private member organizations including transit systems and commuter rail operators; planning, design, construction and finance firms; product and service providers; academic institutions, transit associations and state departments of transportation. APTA members serve the public interest by providing safe, efficient and economical transit services and products. Over ninety percent of persons using public transportation in the United States and Canada are served by APTA members.

## **APTA Vision Statement**

Be the leading force in advancing public transportation.

## **APTA Mission Statement**

APTA serves and leads its diverse membership through advocacy, innovation, and information sharing to strengthen and expand public transportation.

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*For an alphabetical list of subjects, refer to the index beginning on page 110.*

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# Notes

The **Public Transportation Fact Book** (formerly the **Transit Fact Book**) was first published in 1943. Available data are expanded by standard statistical methods to estimate U.S. national totals. *All data are for the U.S. only, except for the section on Canada.* Data for Canada were provided by the Canadian Urban Transit Association (CUTA).

This book includes only public transportation data and excludes taxicab, unregulated jitney, school, sightseeing, intercity, charter, military, and non-public service (e.g., governmental and corporate shuttles), and special application systems (e.g., amusement parks, airports, and the following types of ferry service: international, rural, rural interstate, island and urban park).

Data are based on the annual National Transit Database (NTD) report published by the United States Government's Federal Transit Administration (FTA). APTA supplements these data with special surveys. Where applicable, data are calculated based on 2000 U.S. Census Bureau urbanized area population categories.

Because data are reported to the NTD based on transit agency fiscal years rather than calendar years, data listed for a particular year are necessarily extrapolations of the sum of data reported for all fiscal years ending in a particular calendar year. All Canadian data are based on calendar years.

The number of employees is based on the actual number of persons at the end of the fiscal year. Prior to 1993, the number of employees is based on the concept of employee equivalents where each employee equivalent is equal to 2,080 labor hours. Data are not continuous between 1992 and 1993.

Federal government funding data are based on reports prepared by the United States Department of Transportation.

Because of the time required to compile the large amount of data for this book, data for the last fiscal year reported are preliminary and will be refined when additional data become available.

Many of the tables in this book will be updated prior to the next edition. See the statistics section of APTA's web site, [www.apta.com](http://www.apta.com), under the appropriate subject for updated data.

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# Public Transportation

## Overview

### What is Public Transportation?

Public transportation is “transportation by a conveyance that provides regular and continuing general or special transportation to the public...” as defined by the federal government. Public transportation includes service by buses, subways, rail, trolleys and ferryboats. It also includes demand response services for seniors and persons with disabilities as well as vanpool and taxi services operated under contract to a public transportation agency.

### Public Transportation’s Customers

How many people use public transportation? In 2003, Americans took 9.4 billion trips using public transportation. Since 1995, public transportation ridership in the U.S. has grown by nearly 22 percent, faster than highway or air travel.



*Passengers using a Sacramento Regional Transit District light rail train in California.*

APTA estimates that more than 31 million trips are taken each weekday in the US. After taking into account transfers and round trips, it is estimated that more than 14 million people use public transportation each weekday.

Why do people use public transportation? Public transportation provides opportunities for people from every walk of life by making transportation choices and options available. Public transportation provides people with easy access to services and places, which is essential for everyday living. Access to public transportation gives people mobility, choice and freedom to accomplish what is important to them.



*For everyone, including these Miami-Dade Transit riders, public transportation is there when it's needed by providing opportunities, freedom, and mobility.*

Where do people go on public transportation? According to APTA data, work is the most popular destination with 54 percent of all trips ending at workplaces. Next, 15 percent of trips go to schools; 9 percent to shop; 9 percent, social visits; and 5 percent, medical appointments.

### Public Transportation Modes

Modes are different ways to get around on public transportation. Road modes include bus, trolleybus, vanpool, jitney, and demand response service. Rail modes include heavy rail, light rail, commuter rail, automated guideway transit, inclined plane, cable car, monorail, and aerial tramway. Water modes include passenger-only and vehicle ferries, and water taxis. An explanation of each mode is found in the mode sections.



*The Syracuse, New York CNY Centro system uses this typical demand response vehicle to transport persons with disabilities who are unable to use its fixed route buses.*

## Providers

Approximately 6,000 public transportation systems operate in the U.S and Canada. The majority of these agencies operate more than one mode of service. About 2,000 agencies provide bus service; 5,300 agencies operate demand response service; and 150 agencies operate other modes.

Nearly all of U.S. public transportation agencies provide service designed to meet the needs of senior citizens and persons with disabilities. Also, many agencies typically contract with private operators, further increasing the number of total public transportation providers.

## Employees

In 2003, the nation's 351,000 public transportation employees provided services to passengers. These employees operate, maintain and manage all modes of public transportation. The majority of employees (61 percent), work in bus service, followed by 14 percent in heavy rail, 13 percent in demand response, 7 percent in commuter rail, 2 percent in light rail, 2 percent in other rail modes and 1 percent in trolleybus.



*A bus operator at Pace Suburban Bus outside Chicago takes time to share a special moment with a young passenger.*

## Vehicles

The public transportation fleet comprises 139,000 vehicles in active service. Of this number, buses represent 56 percent; demand response vehicles, 26 percent; heavy rail cars, 8 percent; commuter rail cars, 4 percent; light rail cars, 1 percent; and all other modes, 5 percent.



*The sun sets on the fleet of the Hillsborough Area Regional Transit Authority after a long day of providing bus service for Tampa, Florida residents.*

## Benefits of Public Transportation

Public transportation benefits the quality of life in communities across the country by providing safe, efficient and economical transportation service. Importantly, public transportation is also a vital component for a healthy economy. While public transportation benefits the people who use it, society in general benefits from its availability. Some of the most significant benefits are:

### Eases Traffic Congestion

Public transportation helps to alleviate the crowded conditions on our nation's increasingly crowded network of roadways. According to the *2004 Texas Transportation Institute (TTI) Annual Urban Mobility Report*, transit is successfully reducing traffic delays and costs in America's 85 largest urban areas. The 2004 study reported that regular bus and train services in America's most congested cities saved drivers more than 1.1 billion hours in travel time in 2002. Without transit, nationwide delays would have increased 32 percent, costing residents in the major urban areas studied an additional \$20 billion in lost time and fuel.



*These Washington Metropolitan Area Transit Authority metro trains carry passengers along the heavily-congested I-66 in Virginia.*

The 2004 TTI study also found that roadway congestion cost roughly \$63 billion in 2002 in the 85 urban areas studied. In 2002, each American traveling during peak periods wasted on average 46 hours a year, nearly six full working days in traffic congestion.

A majority of Americans perceive traffic congestion as an important issue and a growing problem. Recent public opinion polls suggest that 56 percent of adults believe that traffic congestion is a critical issue and most adults (56 percent) say that the need to reduce traffic congestion and the time it takes to get to work has become more important in the past five years. (Wirthlin Worldwide, March 2003)

### **Saves Money**

Public transportation saves money. It is more cost efficient to use public transportation, especially to the central business district of an urban area.

For every dollar earned, the average household spends 19 cents on transportation, 94 percent of which is for buying, maintaining and operating cars, the largest source of household debt after mortgages.

Americans living in transit-intensive metropolitan areas save \$20 billion annually in congestion costs. Savings add up for everyone: every \$10 million invested in public transportation saves more than \$15 million, for both highway and transit users. This includes savings of about \$1,500 and 200 gallons of gas per year for a transit user.

In addition, transit availability can reduce the needs for additional cars, a yearly expense of between \$5,700 and \$11,700.

Annual costs for public transportation may range from \$200 to \$2,000 depending on mileage traveled and other factors including transfer, distance or zone, time-of-day, express, and parking charges.

### **Creates and Sustains Jobs**

The public transportation industry creates jobs for the nation's economy. In addition to the 351,000 people directly employed by the public transportation industry and thousands of others employed in the directly related engineering, construction, manufacturing and retail industries, other jobs are created as well.

Every \$1 billion in federal funding invested in public transportation infrastructure generates approximately 47,500 American jobs, proving that transit continues to be an economic engine.

### **Provides Access to Jobs**

Almost half of the nation's Fortune 500 companies, representing over \$2 trillion in annual revenue, are headquartered in America's transit-intensive metropolitan areas. Examples of cities where companies have located near public transportation are many and include Chicago, Atlanta and Dallas.

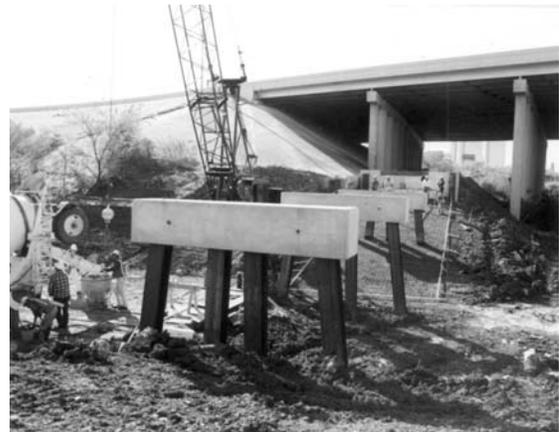
In addition to enhancing employee recruitment, businesses tied to public transportation are experiencing more employee reliability and less absenteeism and turnover. Public assistance agencies also use public transportation to help more people to enter the work force. The Federal Transit Administration's Job Access and Reverse Commuter Program provides grants to support transportation for thousands.

### **Stimulates Economic Development**

New analysis confirms the important and positive economic impact of public transportation investment on new development and business revenues.

A Cambridge Systematics study estimated that each \$10 million in capital investment yields \$30 million in increased sales, while each \$10 million operating investment yields \$32 million.

Every dollar taxpayers invest in public transportation generates from \$4 to \$9 in economic returns.



*Communities throughout the country are spurring economic development by investing in public transportation projects like this commuter rail system in Dallas/Ft. Worth, Texas. Transit investment pays off with a return that is as high as 9 to 1.*

### Boosts Real Estate Values

Real estate-- residential, commercial and business-- served by high quality public transportation can command higher rents and maintain higher value than similar properties not as well served by transit. For example, in the case of developments near the light rail system in Dallas, Texas, a 2002 University of North Texas study found that office properties located near suburban Dallas Area Rapid Transit (DART) stations increased in value 24.7 percent whereas properties not served by rail only increased 11.5 percent, and values of residential properties near the stations rose 32.1 percent compared to the 19.5 percent increase for properties not served by rail stations.

Also, according to the Urban Land Institute (ULI), residential properties for sale near commuter rail stops in California consistently enjoy price premiums, including a 17 percent advantage to properties in the San Diego region.

### Fosters More Livable Communities:

Public transportation facilities and transportation corridors are “natural focal points for communities” for economic and social activities and help create strong neighborhood centers that are more economically stable, safe, and productive. These are areas where people can drive less or walk. When commuters ride public transportation or walk, face-to-face contact with neighbors tends to increase, which works to bring a community closer.

According to a 2003 Wirthlin Worldwide poll, four in five Americans or 81 percent agree that increased investment in public transportation would strengthen the economy, create jobs, reduce traffic congestion and air pollution and save energy.

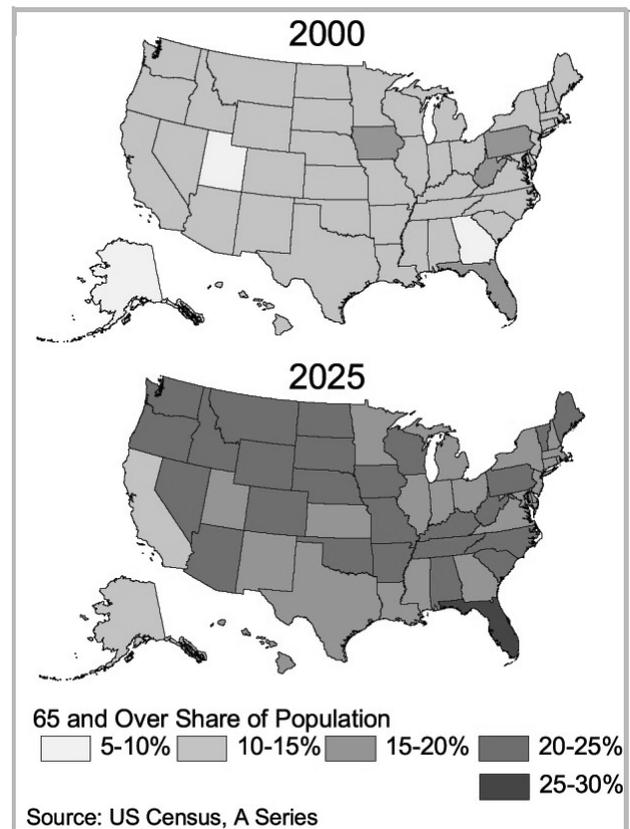


The Charleston Area Regional Transportation Authority in South Carolina helps move both residents and tourists through Charleston's quaint streets.

Transit-friendly walkable communities reduce reliance on cars and promote higher levels of physical activity. These more traditional settings may generate half the automobile trips of similarly sized modern day suburbs. (Katherine M. Kraft, PhD, Robert Wood Johnson Foundation, “Health Effects of Sprawl,” Address to the Women’s Transportation Seminar, Washington, D.C., October 2002.)

### Provides Mobility for Seniors

By the year 2025, 18 percent of the U.S. population will be 65 and over and many will be unable to drive. In fact, one-fifth of today’s seniors 65 years and older do not drive.



This chart (Linda Bailey, Surface Transportation Policy Project, “Aging Americans: Stranded Without Options”) emphasizes the increasing percentage of people 65 and over. Public transportation is often the only viable way for some senior citizens to get around.

A 2004 AARP/Surface Transportation Policy Project report found that 50% of non-drivers age 65 and older stay home on any given day partially because they lack transportation options, making 15% fewer trips to doctors, and 65% fewer trips for social, family and religious activities.

Meeting the transportation needs of seniors is a major community objective as well as a national goal. Public transportation services, including regular route service and mini-buses represent a lifeline for seniors, linking them with family, friends and a changing society.

### **Access for Rural Areas**

Public transportation is equally important to America's rural heartland, where 40 percent of residents have no access to public transportation services and another 25 percent have negligible access.

Transportation service is seen as vital for rural America's 29 million transit-dependent persons, including senior citizens, low-income families and people with disabilities.

Both the American Association of State Highway and Transportation Officials (AASHTO) and APTA estimate that rural and small urban investment needs are approximately \$1 billion a year over the next six years.

### **Improves Air Quality**

Public transportation reduces pollution. Public transportation produces 95 percent less carbon monoxide (CO), more than 92 percent fewer volatile organic compounds (VOCs) and nearly half as much carbon dioxide (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) for every passenger mile traveled as compared to traveling with private vehicles.

Public transportation reduces annual emissions for the pollutants that create smog, VOCs and NO<sub>x</sub>, by more than 70,000 tons and 27,000 tons respectively.

Transit systems around the country are reducing reliance on diesel fuel for their bus fleets and investing in compressed natural gas vehicles, buying low sulfur fuel burning buses or planning a switch to diesel-electric hybrid buses. Other systems are replacing older diesel buses with newer ones to reduce emissions.

### **Reduces Energy Consumption**

Americans use more energy for transportation than for any other activity. Nearly 43 percent of America's energy resources are used in transportation. Greater use of public transportation offers the single most effective strategy currently available for achieving significant energy savings and improving air quality, without imposing new taxes, government mandates or regulations.

Public transportation can significantly reduce dependency on gasoline. For every passenger mile traveled, public transportation uses about one half of the fuel consumed by cars, and about a third of that used by sport utility vehicles and light trucks.

If Americans used public transportation the same rate as Europeans, for roughly 10 percent of their daily travel needs, the U.S. would:

- Reduce its dependence on imported oil by more than 40 percent or nearly the amount of oil we import from Saudi Arabia each year.
- Save more energy every year than all the energy used by the U.S. petrochemical industry and nearly equal the energy used to produce food in the U.S.
- Reduce CO<sub>2</sub> emissions by more than 25 percent of the Kyoto Agreement mandate.
- Reduce CO pollution by three times the combined levels emitted by the four highest-polluting industries (chemical manufacturing, oil and gas production, metals processing, and industrial use of coal).

*(Conserving Energy and Preserving the Environment: The Role of Public Transportation,* Robert J. Shapiro, Kevin A. Hassett, and Frank S. Arnold, 2002.)

### **Enhances Mobility During Emergencies**

Time and time again, the availability of public transportation, in emergencies, both natural and man-made, has proven to be critical in maintaining basic access, mobility and safety for individuals in harm's way.

Most notably, on September 11, 2001, public transportation systems in the New York City area moved people safely away from the World Trade Center disaster. After the attack on the Pentagon, transit systems in the Washington, D.C. area evacuated hundreds of thousands in an early rush hour. Nationwide, transit systems evacuated tens of thousands of travelers from closed airports in major cities. Emergency plans went into effect at many systems to secure the safety of passengers. Not a single life was lost among the millions of people traveling on public transportation that day.

Public transportation has maintained service and helped evacuate threatened areas and transported emergency personnel during times of fires, hurricanes, windstorms and winter storms.

## Ensures Safety

Public transportation continues to be one of the safest modes of travel in the U.S. Safe travel is a high priority of public transportation systems, federal, state and local governments and APTA.

According to the National Safety Council's 2004 "Injury Facts", riding a transit bus is 79 times safer than car travel. It is estimated that transit rail passengers are 42 times safer than those traveling by car.

The public transportation industry and APTA continue to promote partnerships in safety. In 2003, 62 public transportation systems participated in the rail, commuter rail or bus safety audit programs offered by APTA. These comprehensive programs are designed to examine every area of operations to ensure the safety of public transportation passengers.

### Why Is Public Transportation Safe?

- Transit vehicle operators are highly trained to drive defensively and anticipate potential safety problems.
- Public transportation vehicles are generally much larger and more substantially built than personal automobiles or vans.
- Most people on rail cars and busways travel on separate rights-of-way. Light rail, commuter rail and cable cars encounter grade crossings, many of which are protected by crossing gates.
- Passengers ride approximately 3-4 feet above the ground, offering protection from the most common area of impact.
- Providing more security than roadways, many transit systems feature new visual, voice and data communications systems linking vehicles, stations and riders with state-of-the-art operations centers.

## Growing Investment Needs

According to the U.S. Department of Transportation, in today's dollars, \$20.6 billion is needed annually to maintain and improve performance of the nation's transit systems.

The American Association of State and Highway Transportation Officials (AASHTO) Bottom Line Report documented investment needs of \$43.9 billion each year to improve and expand public transportation.

## The Public Sector's Investment in Public Transportation

Transportation Equity Act for the 21<sup>st</sup> Century (TEA 21) funding provides federal resources to ensure that public transportation remains safe and in good condition. In fiscal year 2005, an extension to TEA 21 funded public transportation at \$7.6 billion. Financial support by federal, state and local governments also helps people make a choice among travel modes. These expenditures have a positive and high return on the public investment made by taxpayers. Every \$1 taxpayers invest in public transportation generates from \$4 to \$9 in economic returns.

## Funds to Build and Operate Public Transportation

Public transportation funds come from two main sources, capital and operating. **Capital funds** are used to finance infrastructure needs such as new construction and rehabilitation of existing facilities. Up to 80 percent of the total capital cost may be federally-funded. The balance is typically paid for by a combination of state and local funds; many state and local governments provide more than the required minimum 20 percent of matching funds. In many cases, capital projects are financed solely by state and local funds. In 2003, public transportation agencies raised 29 percent of capital funds from taxes levied by the transportation system, tolls, fees, and non-governmental sources. States contributed 13 percent; local governments contributed 18 percent; and the federal government contributed 40 percent.

Public transportation received a total of \$13.2 billion in capital funds from all sources. Of federal funds received, bus-related projects received 45 percent; fixed guideway modernization, 34 percent; new start transit projects, 18 percent, and 3 percent for planning.

**Capital expenses** represent money set aside for infrastructure and rolling stock and their renovation and replacement, plus planning, design, land acquisition and related costs. In 2003, public transportation invested \$13.2 billion in capital needs. Facilities, guideway, stations and administrative buildings cost 57 percent; vehicles, 29 percent; and equipment and services, 14 percent. Of these categories, heavy rail expenses accounted for 34 percent; bus, 25 percent; commuter rail, 19 percent; and light rail, 18 percent.

**Operating funds** provide income for operational expenses. In 2003, public transportation received \$28.1 billion in operating funds from all sources. Most operating funds originated from local sources (71 percent). On a national basis, passenger fares paid for 33 percent of operating expenses, local governments contributed 20 percent, and non-governmental sources and taxes levied by the transportation system, tolls and fees, 18 percent. State and federal governments contributed 24 percent and 6 percent, respectively.

In 2003, public transportation **operating expenses** totaled \$26.9 billion. Salaries and wages cost 43 percent; fringe benefits, 26 percent; purchased transportation, 13 percent; and fuel and supplies, 9 percent. Services, utilities, insurance and other costs fill out the operating expense list. Of the money used to operate and maintain the vehicles used in revenue service, scheduling and operation of revenue vehicles represent 44 percent; vehicle maintenance, 18 percent; non-vehicle maintenance, 10 percent; purchased transportation, 13 percent; and 15 percent, general administration.

# Federal Legislation

## History and Provisions of the Federal Transit Act and Other Major Laws Affecting Public Transportation

In 1964 the United States Congress found that "the welfare and vitality of urban areas, the satisfactory movement of people and goods within such areas, and the effectiveness of housing, urban renewal, highway, and other federally aided programs were being jeopardized by the deterioration or inadequate provision of urban transportation facilities and services. . . ." In response, Congress enacted the Urban Mass Transportation Act of 1964, which provided federal aid to transit agencies for capital equipment purchases.

Continuing this commitment into its fourth decade, Congress enacted the Transportation Equity Act for the 21<sup>st</sup> Century (TEA 21) in 1998. TEA 21 authorizes higher levels of funding for public transportation than any previous law, with the major portion of funding guaranteed to be included in budget amounts available for annual appropriations. It also continues and improves provisions of prior authorizing laws that are important to the continuing Federal commitment to improve public transportation service throughout America.

Landmarks in the evolution of the federal public transportation assistance program over the years include:

1961: The Housing Act of 1961 [*Public Law 87-70, June 30, 1961*] provided public transportation demonstration funding and mass transportation project loans.

1964: The Urban Mass Transportation Act of 1964 [*Public Law 88-365, July 9, 1964*] established a transit aid program under the Administrator of the Housing and Home Finance Agency (HHFA). Programs under the Housing Act of 1961 were continued, a program of grants for capital projects was established, and job protection provisions were provided for affected transit employees.

1965: The Department of Housing and Urban Development Act, [*Public Law 89-174, September 6, 1965*] merged HHFA into the newly created Department of Housing and Urban Development

(HUD), the implementation of the law took effect on January 13, 1966.

1966: The Urban Mass Transportation Act of 1966 [*Public Law 89-562, September 8, 1966*] expanded capital funding and allowed funding for research, planning, and training.

1968: Reorganization Plan No. 2 of 1968 [*33 Fed. Reg. 6965, February 26, 1968*] transferred the transit program from HUD to the Department of Transportation (DOT) effective July 30, 1968, creating the Urban Mass Transit Administration (UMTA).

1968: The Housing and Urban Development Act of 1968 [*Public Law 90-448, August 1, 1968*] increased authorized funding levels.

1969: The Housing and Urban Development Act Amendment [*Public Law 91-152, December 24, 1969*] increased authorized funding levels.

1970: The National Environmental Policy Act of 1969 [*Public Law 91-190, January 1, 1970*] required environmental impact statements for federally assisted transit and highway projects.

1970: The Urban Mass Transportation Assistance Act of 1970 [*Public Law 91-453, October 15, 1970*] authorized a \$3.1 billion program of capital grants.

1973: The Federal-Aid Highway Act of 1973 [*Public Law 93-87, August 13, 1973*] increased the federally funded portion of public transportation capital projects from 66 2/3% to 80%, authorized the use of Federal-Aid Urban Systems highway funds and Interstate Highway Transfers for qualifying public transportation projects and created a rural public transportation demonstration program.

1974: The National Mass Transportation Assistance Act of 1974 [*Public Law 93-503, November 26, 1974*] increased authorizations for discretionary capital funding and created a formula grant program to allocate funding directly to urbanized areas that could be used for either operations or capital projects.

1975: The Federal-Aid Highway Amendments of 1974 [*Public Law 93-643, January 4, 1975*] established federal policy in Section 105 which states "elderly and handicapped persons have the same right as other persons to utilize mass transportation facilities."

1978: The Federal Public Transportation Act of 1978, Title III of the Surface Transportation Assistance Act of 1978 [Public Law 95-599, November 6, 1978] divided the formula grant program into categorical programs that included capital grants for bus purchases and additional operating grants for fixed guideway systems and places outside of urbanized areas.

1981: The Omnibus Budget Reconciliation Act of 1981 [Public Law 97-35, August 13, 1981] reduced authorization levels for FY 1982 from those set in the Federal Public Transportation Act of 1978.

1982: The Federal Public Transportation Act of 1982, Title III of the Surface Transportation Assistance Act of 1982 [Public Law 97-424, January 6, 1983] provided that 1 cent of a 5 cents per gallon increase in the Highway Trust Fund tax on motor fuels would be placed into a Mass Transit Account for capital projects, increased the portion of all funding allocated through the formula grant program, and altered the formula grant program allocation formula to include public transportation service data as well as population data.

1984: The Tax Reform Act of 1984 [Public Law 98-396, July 18, 1984] allowed employees to receive a *de minimis*, up to \$15 per month, tax-free fringe benefit in the form of an employer-provided public transportation subsidy or pass.

1987: The Federal Mass Transportation Act of 1987, Title III of the Surface Transportation and Uniform Relocation Assistance Act of 1987 [Public Law 100-17, April 2, 1987] provided that a portion of the Highway Trust Fund Mass Transit Account would be allocated by formula for capital purposes.

1990: The Omnibus Budget Reconciliation Act of 1990 [Public Law 101-508, November 5, 1990] raised to 1.5 cents per gallon the portion of the Highway Trust Fund tax on motor fuels to be placed in the Mass Transit Account.

1990: The Americans with Disabilities Act of 1990 (ADA) [Public Law 101-336, July 26, 1990] required transit agencies to provide service accessible to persons with disabilities.

1990: The Omnibus Budget Reconciliation Act of 1990 [Public Law 101-508, November 5, 1990] raised to 1.5 cents per gallon the portion of the Highway Trust Fund tax on motor fuels to be placed in the Mass Transit Account.

1990: The Clean Air Act Amendments of 1990 [Public Law 101-549, November 15, 1990] recast transportation planning to provide for improved air quality.

1991: The Omnibus Transportation Employee Testing Act of 1991 [Public Law 102-143, October 28, 1991] mandated the establishment of anti-drug and alcohol misuse programs for safety-sensitive employees of recipients and contractors to recipients of Major Capital Investment, Urbanized Area Formula, and Rural Area Formula public transportation funds.

1991: The Federal Transit Act Amendments of 1991, Title III of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) [Public Law 102-240, December 18, 1991] extended public transportation assistance through FY 1997, increased the amounts authorized, re-named the transit law to the Federal Transit Act and the Urban Mass Transportation Administration to the Federal Transit Administration, and converted the rail modernization portion of Section 5309 major capital funds to a formula basis. Surface Transportation, Title I of ISTEA provided that specific funds authorized through Federal-Aid Highways programs may be used for either public transportation or highway projects. These flexible funds are to be used for the mode of transportation best suited to meeting the needs of individual areas and states.

1992: The Energy Policy Act of 1992 [Public Law 102-486, October 24, 1992] increased the tax-free amount of the public transportation commuter fringe benefit to \$60 per month with an inflation provision, removed the cliff provision which had made the entire benefit taxable if the monthly limit was exceeded, and extended the benefit to vanpools.

1993: The Omnibus Budget Reconciliation Act of 1993 [Public Law 103-66, August 10, 1993] raised to 2 cents per gallon the portion of the Highway Trust Fund tax on motor fuels to be placed in the Mass Transit Account, effective October 1, 1995.

1994: The Federal Transit Act was codified as Title 49, Chapter 53--Mass Transportation, of the United States Code [Public Law 103-272, July 5, 1994].

1997: The Taxpayer Relief Act of 1997 [Public Law 105-34, August 5, 1997] raised to 2.86 cents per gallon the portion of the Highway Trust Fund tax on motor fuels to be placed in the Mass Transit Account, effective October 1, 1997.

1997: Surface Transportation Extension Act of 1997 [*Public Law 105-130, December 1, 1997*] extends ISTEA through March 31, 1998.

1998: The Federal Transit Act of 1998, Title III of the Transportation Equity Act for the 21st Century (TEA 21) [*Public Law 105-178*] extends the public transportation program through FY 2003. TEA 21 increases public transportation funding authorizations, up to 70 percent above ISTEA appropriation levels if all authorized amounts are appropriated. A total of \$41 billion is authorized for the six-year period, of which \$36 billion is guaranteed. Guaranteed amounts are protected in the budget process and can only be appropriated for public transportation uses. The guaranteed amounts, however, are subject to annual appropriation by the Congress.

TEA 21 retains and improves many provisions of ISTEA including the transportation planning process and flexible funding. The distribution of formula funds among sections 5307, 5310, and 5311 is revised. The definition of eligible uses of Urbanized Area Formula capital funds is expanded to include preventive maintenance and ADA related expenditures for all urbanized areas and to include operating expenditures for urbanized areas under 200,000 population. The Rail Modernization program formula is adjusted to increase the proportion of new funds for newer fixed-guideway systems. The public transportation commuter benefit is expanded to include employee purchase of public transportation passes with pre-tax dollars.

Two new programs are created. The Clean Fuels Formula Grant program provides funds for adoption of clean fuel technologies including purchase or lease of clean fuel buses and facilities. The Job Access and Reverse Commute program funds projects that improve job access for current and former welfare recipients and other eligible low-income individuals.

2003: The Surface Transportation Extension Act of 2003 [*Public Law 108-88, September 30, 2003*] extends transit authorizing law through February 29, 2004.

2004: The Surface Transportation Extension Act of 2004 [*Public Law 108-202, February 29, 2004*] extends transit authorizing law through April 30, 2004; the Surface Transportation Extension Act of 2004, Part II, [*Public Law 108-224, April 30, 2004*] extends transit authorizing law through June 30, 2004; the Surface Transportation Extension Act, Part III, [*Public Law 108-263, June 30, 2004*] extends transit authorizing law

through July 31, 2004; the Surface Transportation Extension Act, Part IV, [*Public Law 108-280, July 30, 2004*] extends transit authorizing law through September 30, 2004; and the Surface Transportation Extension Act, Part V [*Public Law 108--310, September 30, 2004*] extends transit authorizing law through May 31, 2005.

## **Funding Provisions of the Federal Transit Act**

Funds for federal public transportation assistance come from two sources: general governmental revenues and the Mass Transit Account of the Highway Trust Fund.

Transit agencies receive funds from several Federal Transit Act programs, which allocate funding to urbanized areas or states by formula or for specific projects through discretionary processes. The largest are:

**Capital Investment, 49 U.S.C. 5309:** Begun in FY 1964, it provides capital assistance to eligible public transportation projects in three categories: (1) construction of new fixed-guideway systems or extensions of existing systems called "New Starts," (2) modernization of existing fixed-guideway systems called "Rail Modernization," and (3) major bus related construction projects or equipment acquisition called "Bus Capital."

*Status:* Authorized through May 31, FY 2005.

*Recipients of Funds:* State or local public bodies and agencies.

*Eligible Expenditures:* Capital projects only.

*Method of Allocation:* Rail Modernization funds are distributed to urbanized areas with fixed-guideway systems in operation for at least seven years on a formula basis. The components of the formula are listed under UAF below. New Start and Bus Capital funds are distributed to specific projects at the discretion of the Congress or the Federal Transit Administration if the Congress does not specify a distribution. Eligible New Start projects for FY 1998 through FY 2003 and some Bus Capital project amounts for FY 1999 and FY 2000 are authorized in TEA 21. Amounts for individual projects are specified in annual appropriations laws. Authorizing legislation

designates 40% of the funds for New Starts, 40% for Rail Modernization, and 20% for Bus Capital.

*Matching Ratio:* 80% federal, 20% non-federal.

**Urbanized Area Formula (UAF), 49 U.S.C. 5307 and 5336:** Apportions operating and capital assistance on a formula basis to urbanized areas. The original urbanized area formula program was established by the National Mass Transportation Assistance Act of 1974 and redone with the current overall structure by the Federal Public Transportation Act of 1982.

*Status:* Authorized through May 31, FY 2005.

*Recipients of Funds:* Directly to urbanized areas of at least 200,000 population, through state governors to urbanized areas under 200,000 population.

*Eligible Expenditures:* For urbanized areas of at least 200,000 population, capital expenditures by local decision. Eligible capital expenditures include acquisition of public transportation vehicles, construction of facilities including fixed-guideway rights-of-way, purchase of equipment, rehabilitation of buses, overhaul of rail vehicles, preventive maintenance, up to 10 percent of the apportioned amount for non-fixed-route ADA paratransit service, and other uses. For urbanized areas under 200,000 population, capital expenditures as for larger urbanized areas and operating expenditures.

*Method of Allocation:* By six formulas based on urbanized area population and mode of public transportation service. Amount is 91.23% of total UAF, RAF, and Elderly and Disabled funds beginning in FY 1999. These formulas are:

(1) Bus operations in urbanized areas of at least 1,000,000 population, basic formula, 40.31% of the UAF. The formula is 50% bus revenue vehicle miles operated, 25% urbanized area population, and 25% urbanized area population density weighted by population.

(2) Bus operations in urbanized areas from 200,000 to 999,999 population, basic formula, 14.61% of the UAF. The formula is 50% bus revenue vehicle miles operated, 25% urbanized area population, and 25% urbanized area population density weighted by population.

(3) Bus operations in urbanized areas of at least 200,000 population, incentive formula, 5.57% of the

UAF. The formula is the number of bus passenger miles traveled multiplied by the number of bus passenger miles traveled per dollar of operating cost.

(4) Mass transportation operations in urbanized areas under 200,000 population, 9.32% of the UAF. The formula is 50% urbanized area population and 50% urbanized area population density weighted by population.

(5) Fixed guideway operations in urbanized areas of at least 200,000 population, basic formula, 28.87% of the UAF. The formula is 60% fixed guideway revenue vehicle miles operated and 40% fixed guideway route miles. Urbanized areas of at least 750,000 population that have commuter rail operations receive a minimum of 0.75% of this formula.

(6) Fixed guideway operations in urbanized areas of at least 200,000 population, incentive formula, 1.32% of the UAF. The formula is the number of fixed guideway passenger miles traveled multiplied by the number of fixed guideway passenger miles traveled per dollar of operating cost. Urbanized areas of at least 750,000 population that have commuter rail operations receive a minimum of 0.75% of this formula.

*Matching Ratios:* Operating assistance: 50% federal, 50% non-federal. Capital assistance: 80% federal, 20% non-federal.

**Elderly and Disabled Persons, 49 U.S.C. 5310:** Established by the UMT Act of 1970 to assure mass transportation availability to elderly and disabled persons.

*Status:* Authorized through May 31, FY 2005.

*Recipients of Funds:* Private, non-profit corporations and associations providing mass transportation services for elderly and disabled persons or public bodies coordinating such service or providing service where no non-profit service is available, through state governors.

*Eligible Expenditures:* For capital equipment and cost of leased or contracted service.

*Method of Allocation:* Allocated by formula to states based on elderly and disabled population. Amount is 2.4% of total UAF, RAF, and Elderly and Persons with Disabilities funds beginning in FY1999.

*Matching Ratio:* 80% federal, 20% non-federal.

**Rural Area Formula (RAF), 49 U.S.C. 5311:**

Established by the STA Act of 1978 to apportion funds for mass transportation in rural areas outside of urbanized areas.

*Status:* Authorized through May 31, FY 2005.

*Recipients of Funds:* Mass transportation providers outside of urbanized areas through state governors.

*Eligible Expenditures:* Operations or capital projects.

*Method of Allocation:* Formula based on non-urbanized area population of each state. Amount is 6.37% of total UAF, RAF, and Elderly and Disabled funds beginning in FY 1999.

*Matching Ratio:* Operating assistance: 50% federal, 50% non-federal. Capital assistance: 80% federal, 20% non-federal.

**Rural Transit Assistance Program, 49 U.S.C. 5311(b)(2):**

Established by the FMT Act of 1987 to provide research, technical assistance, and training grants and related support services to non-urbanized areas. Allocated separately from funds in remainder of section 5311.

**Clean Fuels Formula Program, 49 U.S.C. 5308:**

Established by TEA 21 to expedite the adoption of clean fuels bus technologies.

*Status:* Authorized through May 31, FY 2005.

*Recipients of Funds:* Designated recipients in urbanized areas that make application for funds by January 1 of each fiscal year.

*Eligible Expenditures:* To purchase or lease clean fuel vehicles and related facilities, to improve existing facilities for clean fuel buses, and to re-power, retrofit, or rebuild pre-1993 engines under certain conditions. Eligible clean fuels include compressed natural gas, liquefied natural gas, biodiesel fuels, batteries, alcohol-based fuels, hybrid electric, fuel cell, clean diesel, and other low or zero emissions technology.

*Method of Allocation:* Funds are apportioned to grant applicants in air-quality non-attainment and maintenance areas under a formula that weighs bus fleet size and bus passenger miles by severity of non-attainment. Two thirds of funds must go to urban areas with at least 1,000,000 population and one third to urban areas under 1,000,000 population.

*Matching Ratio:* 80% federal, 20% non-federal.

**Job Access and Reverse Commute Program,**

**Section 3037 of TEA 21:** Established by TEA 21 to improve job access for current and former welfare recipients and eligible low-income individuals.

*Status:* Authorized through May 31, FY 2005.

*Recipients of Funds:* Local governmental authorities and agencies or nonprofit organizations selected by Metropolitan Planning Organizations in urbanized areas of at least 200,000 population and selected by the chief executive officer of the state for urbanized areas under 200,000 population.

*Eligible Expenditures:* Capital and operating costs of equipment, facilities, and associated capital maintenance items related to providing access to jobs, promoting public transportation use by workers with non-traditional work schedules, promoting the use of vouchers by appropriate agencies, the purchase or lease of vehicles for shuttle service at suburban locations, costs associated with adding reverse commute service or to otherwise facilitate transportation to suburban job opportunities, and promoting the use of employer provided transportation and public transportation pass benefits. Planning and coordination activities are not eligible.

*Method of Allocation:* Awarded to eligible applicants on a competitive basis with consideration given to several factors including percentage of the population that are welfare recipients, need for additional services, coordination and use of existing services, proposal of innovative approaches, and other factors.

*Matching Ratio:* 50% federal, 50% non-federal.

## **Provisions of Other Major Federal Laws Affecting Public Transportation**

**Americans with Disabilities Act of 1990**, prohibits discrimination based on disabilities in the areas of employment, public services, public accommodations and services operated by private entities, public transportation, and telecommunications.

Employers are prohibited from discriminating against any qualified individual with a disability in regard to job application procedures, the hiring, advancement or discharge of employees, employee compensation, job training, and other terms, conditions, or privileges of employment. All private company, state and local government, employment agency, and labor union employers with 15 or more employees had to comply by July 26, 1994.

All programs, activities and services provided or made available by state and local government, including public transportation, are prohibited from discriminating on the basis of disability, regardless of whether or not those entities receive federal financial assistance.

All new public transportation buses and rail cars must be accessible to the mobility, hearing, and sight-impaired. At least one car on every train must be accessible. All new passenger stations must be accessible, and older "key" stations must be retrofitted for accessibility, unless an extension was granted for extraordinarily expensive retrofitting. These provisions and those requiring complementary paratransit service for those unable to use fixed-route service were fully effective January 26, 1997.

**Clean Air Act Amendments of 1990**, recast transportation planning to ensure that, in areas experiencing air quality problems, planning is geared to improved air quality as well as mobility. State and local officials are required to find ways to reduce emissions from vehicles (including public transportation buses), to develop projects and programs that will alter driving patterns to reduce the number of single-occupant vehicles, and to make alternatives such as public transportation a more important part of the transportation network. The Act focuses on the issue of "conformity", which is a determination made by the metropolitan planning organization and the U.S. Department of Transportation that transportation plans and programs in non-attainment areas meet the requirement of reducing pollutant emissions.

The Environmental Protection Agency imposed emissions standards as a result of the Act that require public transportation bus engines to meet increasingly strict emission standards, culminating in the following in 1998: nitrogen oxides--4.0 grams/brake horsepower-hour (a 33% reduction from the 1990 pre-law standard), and particulate matter (soot)--.05 g/bhh (a 92% reduction).

No reductions in the 1990 carbon monoxide and hydrocarbon emissions levels of 15.5 g/bhh and 1.3 g/bhh were mandated, since they are not feasible due to technological limitations.

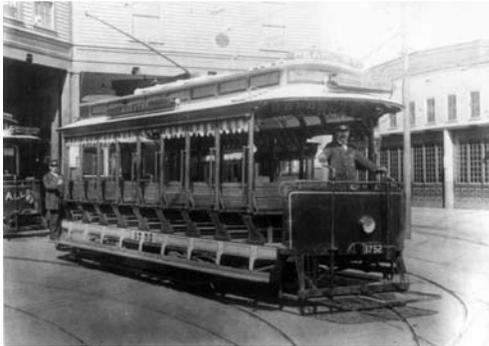
**Omnibus Transportation Employee Testing Act of 1991**, mandates regulations requiring recipients of financial assistance under the Capital Investment, Urbanized Area Formula, and Rural Area Formula sections of the Federal Transit Act and Section 103(e)4 of Title 23 of the United States Code to establish multifaceted anti-drug and alcohol-misuse programs for their own as well as contracted safety-sensitive employees. All transit agencies were required to implement such programs by January 1, 1996.

Safety-sensitive positions include revenue vehicle operators, dispatchers, maintenance staff, non-revenue vehicle operators if a Commercial Driver's License is required, police and security personnel carrying a firearm, and supervisors when performing safety-sensitive functions.

Commuter rail employees are exempt, since they are covered by Federal Railroad Administration regulations. Ferryboat employees are covered, but are also subject to Coast Guard regulations.

# History

Public transportation, except for ferryboats, was not a part of life until the 19th century, since home, work, and recreation were almost always within walking distance of each other. As distances in growing cities increased, horse-pulled stagecoaches were introduced to meet the need for better transportation for the few who could afford it, and the railroad was invented. The horsecar--initially a horse-pulled stagecoach body on special wheels that ran on rails--was devised to operate on the unpaved or poorly paved streets of that era.



The first U.S. rail car operated underground was on a light rail line in Boston in 1897 by a predecessor of today's Massachusetts Bay Transportation Authority.

As technology developed, elevated steam railroads, cable-pulled cars, electric streetcars, and underground electric trains all became common, and many of these developments were pioneered in the U.S. All operated on rails, and it wasn't until the 1910-1920 period that improved street pavement and internal combustion engines led to the widespread introduction of buses.



This Monterey, California bus still used in 1939 typified early buses. It wasn't until the 1930s that the engine-in-rear, flat-front design seen today became common.

The following pages highlight important milestones in U.S. public transportation history, some of which were preceded by similar developments in Europe.

## TABLE 1: Milestones in U.S. Public Transportation History

1630	Boston--reputed first publicly operated ferryboat
1740	New York--reputed first use of ox carts for carrying of passengers
1811	New York--first mechanically operated (steam-powered) ferryboat
1827	New York--first horse-drawn urban stagecoach (omnibus) line (Dry Dock & East Broadway)
1830	Baltimore--first railroad (Baltimore & Ohio Railroad Co.)
1832	New York--first horse-drawn street railway line (New York & Harlem Railroad Co.)
1835	New Orleans--oldest street railway line still operating (New Orleans & Carrollton line)
1838	Boston--first commuter fares on a railroad (Boston & West Worcester Railroad)
1850	New York--first use of exterior advertising on street railways
1856	Boston--first fare-free promotion
1861	New York--first failed attempt to form street railway labor organization
1868	New York--first cable-powered (& first elevated) line (West Side & Yonkers Patent Railway)
1870	New York--first pneumatic-powered (& first underground) line (Beach Pneumatic Railroad Co.)
1870	Pittsburgh--first inclined plane
1871	New York--first steam-powered elevated line (New York Elevated Railroad Co.)
1872	Great Epizootic horse influenza epidemic in eastern states kills thousands of horses (the motive power for most street railways)
1873	San Francisco--first successful cable-powered line (Clay St. Hill Railroad)
1874	San Francisco, CA--first recorded strike by street railway workers
1882	Boston--American Street Railway Association (APTA's original predecessor) formed
1883	New York--first publicly operated cable-powered line (Brooklyn Bridge)
1883	New York--first surviving street railway labor organization (Knights of Labor Local 2878)
1884	Cleveland--first electric street railway line (East Cleveland Street Railway)
1884	first public transportation-only publication (The Street Railway Journal)
1886	Montgomery, AL--first semi-successful citywide street railway transit agency (Capital City Street Railway Co.)
1888	Richmond, VA--first successful electric street railway transit agency (Union Passenger Railway)
1889	New York--first major strike by street railway workers
1892	Indianapolis--first national street railway labor union founded (Amalgamated Association of Street Railway Employees of America, now called the Amalgamated Transit Union)
1893	Portland, OR--first interurban rail line (East Side Railway Co.)
1894	Boston--first public transportation commission (Boston Transit Commission)
1895	Chicago--first electric elevated rail line (Metropolitan West Side Elevated Railway)
1897	Boston--first electric underground street railway line (West End Street Railway/Boston Elevated Railway Co.)
1897	Boston--first publicly-financed public transportation facility (street railway tunnel)
1898	Chicago--first electric multiple-unit controlled rail line (Chicago & South Side Rapid Transit Railroad Co.)
1904	Bismarck, ND--first state-operated street railway (State of North Dakota Capital Car Line)
1904	New York--first electric underground (& first 4-track express) heavy rail line (Interborough Rapid Transit Co.)
1905	New York--first public takeover of a private public transportation company (Staten Island Ferry)
1905	New York--first bus line (Fifth Avenue Coach Co.)

**TABLE 1: Milestones in U.S. Public Transportation History (continued)**

1906	Monroe, LA--first municipal street railway
1908	New York--first interstate underground heavy rail line (Hudson & Manhattan Railroad to New Jersey)
1910	Hollywood, CA--first trolleybus line (Laurel Canyon Utilities Co.)
1912	San Francisco--first publicly operated street railway in a large city (San Francisco Municipal Railway)
1912	Cleveland--first street railway to operate buses (Cleveland Railway)
1914	Los Angeles--first jitney
1916	Saint Louis--first public bus-only transit agency (St. Louis Division of Parks and Recreation Municipal Auto Bus Service)
1917	New York--last horse-drawn street railway line closed
1918	New York--APTA's predecessor organization first calls for public takeover of public transportation
1920	first bus not based on truck chassis (Fageol Safety Coach)
1921	New York--first successful trolleybus line
1923	Bay City, MI, Everett, WA, Newburgh, NY--first cities to replace all streetcars with buses
1926	highest peacetime public transportation ridership before World War II (17.2 billion)
1927	Detroit--first bus without cowl-type engine
1927	Philadelphia--first automobile park and ride lot and first bus-rail transfer facility for a non-commuter rail line
1932	New York--first publicly operated heavy rail line (Independent Subway)
1933	San Antonio--first large city to replace all streetcars with buses
1934	New York--Transport Workers Union of America founded
1935	Washington--Public Utility Holding Company Act of 1935 enacted requiring most power companies to divest themselves of public transportation operations and eliminating much private public transportation financing
1936	bus manufacturers began to assume control of or influence street railways, leading to rapid replacement of streetcars with buses
1936	New York--first industry-developed standardized street railway car (P.C.C. car) (Brooklyn & Queens Transit System)
1936	Washington--first large-scale federal government public transportation assistance (Public Works Administration)
1938	Chicago--first use of federal capital funding to build a public transportation rail line
1939	Chicago--first street with designated bus lane
1940	first time bus ridership exceeded street railway ridership
1940	San Francisco becomes last surviving cable car transit agency
1941	New York, NY--first racially-integrated bus operator workforce
1943	Los Angeles--first rail line in expressway median (Pacific Electric Railway)
1943	New York--first issue of <i>Transit Fact Book</i> (then called "The Transit Industry of the United States, Basic Data and Trends")
1946	highest-ever public transportation ridership (23.4 billion)
1946	Washington--U.S. Supreme Court bans racial segregation in interstate transportation
1952	San Francisco--last new PCC car for U.S. transit agency placed in service
1958	authority for railroads to discontinue commuter service transferred from states to U.S. Interstate Commerce Commission
1961	Washington--first significant federal public transportation legislation (Housing & Urban Development Act of 1961)
1962	Seattle--first monorail (Seattle World's Fair)
1962	New York--first automated heavy rail line (Grand Central Shuttle)
1963	Chicago becomes last surviving city with interurban line (Chicago, South Shore, & South Bend Railroad)
1964	Washington--first major U.S. government public transportation program (Urban Mass Transportation Act of 1964)
1966	New York--first public takeover of commuter railroad (Long Island Rail Road Co.)
1966	Providence--first statewide transit agency (Rhode Island Public Transit Authority)
1968	Washington--agency administering federal public transportation program re-named Urban Mass Transportation Administration and moved to new Department of Transportation
1968	Minneapolis--first downtown transit mall (Nicollet Mall)
1968	Cleveland--first rail station at an airport opened
1969	Washington--first transitway (Shirley Highway)
1969	Philadelphia--first modern heavy rail transit agency replacing former rail line (Port Authority Transit Corporation)
1970	Fort Walton Beach, FL--first dial-a-ride demand response transit agency
1971	Washington--first federally subsidized intercity passenger railroad (AMTRAK)
1972	San Francisco--first computer-controlled heavy rail transit agency (Bay Area Rapid Transit District)
1972	public transportation ridership hits all-time low (6.6 billion)
1973	Washington--some public transportation service required to be accessible to disabled (Rehabilitation Act of 1973)
1973	Washington--use of funds from cancelled Interstate Highway projects allowed for public transportation
1973	Boston, Dayton, OH, Philadelphia, San Francisco, & Seattle become last surviving trolleybus systems
1974	Boston, Cleveland, Newark, New Orleans, Philadelphia, Pittsburgh, & San Francisco become the last street railway systems
1974	Washington--first federal public transportation operating assistance legislation (National Mass Transportation Assistance Act of 1974)
1974	American Public Transit Association formed from merger of 2 organizations
1975	Morgantown, WV--first automated guideway transit agency (West Virginia University)
1977	San Diego--first wheelchair-lift-equipped fixed-route bus
1979	Washington--first standardized public transportation data accounting system (Section 15)
1980	San Diego--first completely new light rail transit agency in decades (San Diego Trolley)
1983	Washington--public transportation trust fund for capital projects created through dedication of one cent of federal gas tax
1989	Miami--first completely new commuter rail transit agency in decades (Tri-County Commuter Rail Authority)
1990	Washington--virtually all public transportation service required to be accessible to disabled (Americans with Disabilities Act of 1990)
1990	Washington--one cent dedicated portion of federal fuel tax increased to 1.5 cents
1990	Washington--public transportation buses subject to strict pollution controls (Clean Air Act of 1990)
1991	Washington--federal government allowed to subsidize its employees' commuting costs
1991	Washington--first general authorization of use of highway funds for public transportation (Intermodal Surface Transp. Efficiency Act)
1992	Washington--first limitation on amount of tax-free employer-paid automobile parking benefits and tripling of value of tax-free benefit for public transportation use (National Energy Policy Strategy Act)
1993	Washington--public transportation workers in safety-sensitive positions subjected to drug and alcohol testing
1995	Washington--1.5 cents dedicated portion of federal fuel tax increased to 2 cents
1998	Washington--major expansion and restructuring of federal transportation program (Transportation Equity Act for the 21 <sup>st</sup> Century)
2000	American Public Transit Association changes name to American Public Transportation Association

# National Summary

## General Definitions

*Note: for subject-specific definitions relating to expenses, funding, passengers, buses, rail, and other subjects, see the definitions in those sections.*

**Public transportation (public transit, transit, mass transit, mass transportation)** is transportation by a conveyance that provides regular and continuing general or special transportation to the public, but not including school buses, charter or sightseeing service.

A **transit agency (transit system)** is an entity (public or private) responsible for administering and managing transit activities and services. Transit agencies can directly operate transit service or contract out for all or part of the total transit service provided. When responsibility is with a public entity, it is a **public transit agency**. When more than one mode of service is operated, it is a **multimode transit agency**.

A **mode** is the system for carrying transit passengers described by specific right-of-way, technology and operational features. Transit data are generally collected by mode.

**Intermodal (multimodal)** are those issues or activities which involve or affect more than one mode of transportation, including transportation connections, choices, cooperation and coordination of various modes.

**Fixed-route** service provided on a repetitive, fixed-schedule basis along a specific route with vehicles stopping to pick up and deliver passengers to specific locations; each fixed-route trip serves the same origins and destinations, unlike demand response. Includes route deviation service, where revenue vehicles deviate from fixed routes on a discretionary basis.

**Non-fixed-route** service is not provided on a repetitive, fixed-schedule basis along a specific route to specific locations. Demand response is the only non-fixed-route mode.

Other general definitions include:

A **carpool** is an arrangement where two or more people share the use and cost of privately owned vehicles in traveling together to and from pre-arranged destinations. Carpools are not public transportation.

A **commuter** is a person who travels regularly between home and work or school.

The **National Transportation System** is an intermodal system consisting of all forms of transportation in a unified, interconnected manner to reduce energy consumption and air pollution while promoting economic development and supporting the nation's preeminent position in international commerce. The NTS includes the National Highway System (NHS), public transportation and access to ports and airports.

**Reverse commuting** is movement in a direction opposite the main flow of traffic, such as from the central city to a suburb during the morning peak period.

**Ridesharing** is a form of transportation, other than a transit agency, in which more than one person shares the use of the vehicle, such as a van or car, to make a trip. Also known as "carpooling" or "vanpooling."

An **urban place** is a U.S. Bureau of the Census-designated area (less than 50,000 population) consisting of closely settled territory not populous enough to form an urbanized area.

An **urbanized area (UZA)** is an area defined by the U.S. Census Bureau that includes one or more incorporated cities, villages and towns (central place) and the adjacent densely settled surrounding territory (urban fringe) that together have a minimum of 50,000 persons. The urban fringe generally consists of contiguous territory having a density of at least 1,000 persons per square mile. UZAs do not conform to congressional districts or any other political boundaries. Most U.S. government transit funding is based on urbanized areas.

**TABLE 2: Number of Transit Agencies by Mode**

MODE	NUMBER
Aerial Tramway	2
Automated Guideway Transit	7
Bus	1,982
Cable Car	1
Commuter Rail	21
Demand Response	5,346
Ferryboat (b)	46
Heavy Rail	14
Inclined Plane	4
Light Rail	27
Monorail	2
Trolleybus	4
Vanpool	70
TOTAL (a)	5,804

(a) Total is not sum of all modes since many agencies operate more than one mode.

(b) Excludes international, rural, rural interstate, island, and urban park ferries.

**TABLE 3: National Totals, Fiscal Year 2003**

Agencies, Number of	5,804
Fares Collected, Passenger	\$9,153,141,000
Fare per Unlinked Trip, Average	\$0.97
Expense, Operating Total (a)	\$26,859,367,000
Salaries and Wages (b)	\$11,635,232,000
Fringe Benefits (b)	\$6,913,969,000
Services (b)	\$1,615,936,000
Fuel and Lubricants (b)	\$791,173,000
Materials and Supplies, Other (b)	\$1,638,234,000
Utilities (b)	\$809,954,000
Casualty and Liability (b)	\$694,192,000
Purchased Transportation (b) (c)	\$3,587,990,000
Other (b)	-\$827,314,000
Vehicle Operations (c)	\$11,937,041,000
Vehicle Maintenance (c)	\$4,823,174,000
Non-vehicle Maintenance (c)	\$2,545,842,000
General Administration (c)	\$3,965,319,000
Expense, Capital Total	\$13,243,152,000
Rolling Stock	\$3,730,102,000
Facilities, Guideway, Stations, Administrative Buildings	\$7,568,952,000
Other	\$1,944,099,000
Trips, Unlinked Passenger, Annual	9,436,360,000
Miles, Passenger	47,971,913,000
Trip Length, Average (miles)	5.1
Miles, Vehicle Total	4,374,889,000
Miles, Vehicle Revenue	3,872,582,000
Hours, Vehicle Total	293,513,000
Hours, Vehicle Revenue	263,003,000
Speed, Vehicle in Revenue Service, Average (m.p.h.)	14.7
Revenue Vehicles Available for Maximum Service	139,139
Vehicles Operated at Maximum Service	111,885
Age, Average (years)	9.8
Air-conditioned	93.9%
Lifts, Wheelchair	52.3%
Ramps, Wheelchair	22.7%
Accessible Only via Stations	15.6%
Power Source, Diesel or Gasoline	68.3%
Power Source, Alternative	28.5%
Rehabilitated	10.6%
Employees, Operating	338,022
Vehicle Operations	209,398
Vehicle Maintenance	59,012
Non-vehicle Maintenance	29,140
General Administration	40,472
Employees, Capital	12,985
Diesel Fuel Consumed (gallons)	749,379,000
Other Fuel Consumed (gallons)	147,121,000
Electricity Consumed (kwh)	5,643,489,000

(a) is the sum of (b) lines OR the sum of (c) lines.  
Definitions can be found at the beginning of each respective section.

## Largest Transit Agencies

Each variable chosen to rank agencies by size will yield a different list. Vehicles vary widely in size; transfers result in double-counting some passengers; expenses are largely determined by wage rate and benefit levels; employee counts may include numerous part-time employees and do not include contract personnel. For these reasons, listed are the top 20 transit systems based on four categories: Passenger Miles, Number of Revenue Vehicles, Vehicle Revenue Miles and Unlinked Passenger Trips.

**TABLE 4: 20 Largest Transit Agencies Ranked by Unlinked Passenger Trips, Fiscal Year 2003 (Thousands)**

	TRANSIT AGENCY	URBANIZED AREA (Primary City)	PASSENGER TRIPS
1	MTA New York City Transit	New York, NY	2,614,249.6
2	Chicago Transit Authority	Chicago, IL	474,742.9
3	Los Angeles County Metropolitan Trp Auth	Los Angeles, CA	440,148.4
4	Washington Metropolitan Area Transit Auth	Washington, DC	391,992.0
5	Massachusetts Bay Transportation Authority	Boston, MA	388,605.2
6	Southeastern Pennsylvania Trp Auth	Philadelphia, PA	320,584.2
7	New Jersey Transit Corporation	New York, NY	222,348.8
8	San Francisco Municipal Railway	San Francisco, CA	215,594.6
9	Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA	142,762.4
10	Maryland Transit Administration	Baltimore, MD	111,655.6
11	King County Dept of Trp - Metro Transit Division	Seattle, WA	98,547.9
12	Tri-County Metropolitan Trp District of Oregon	Portland, OR	98,502.9
13	MTA Long Island Rail Road	New York, NY	97,958.0
14	San Francisco Bay Area Rapid Transit District	San Francisco, CA	93,591.4
15	Miami-Dade Transit	Miami, FL	85,082.0
16	Denver Regional Transportation District	Denver, CO	78,584.3
17	Metropolitan Transit Auth of Harris County, Texas	Houston, TX	77,405.3
18	Dallas Area Rapid Transit	Dallas, TX	76,509.1
19	Metro-North Commuter Railroad Company	New York, NY	72,933.7
20	GTJC (Transit Alliance)	New York, NY	72,001.1

Source: Federal Transit Administration National Transit Database

**TABLE 5: 20 Largest Transit Agencies Ranked by Number of Revenue Vehicles, Fiscal Year 2003**

	TRANSIT AGENCY	URBANIZED AREA (Primary City)	REVENUE VEHICLES
1	MTA New York City Transit	New York, NY	11,178
2	Chicago Transit Authority	Chicago, IL	4,515
3	New Jersey Transit Corporation	New York, NY	3,621
4	Los Angeles County Metropolitan Trp Auth	Los Angeles, CA	3,280
5	Department of Transportation and Public Works	San Juan, PR	2,845
6	King County Dept of Trp - Metro Transit Division	Seattle, WA	2,798
7	Southeastern Pennsylvania Trp Auth	Philadelphia, PA	2,773
8	Washington Metropolitan Area Transit Auth	Washington, DC	2,596
9	Massachusetts Bay Transportation Authority	Boston, MA	2,550
10	Metropolitan Transit Auth of Harris County, Texas	Houston, TX	2,178
11	Pace - Suburban Bus Division	Chicago, IL	1,761
12	San Francisco Paratransit	San Francisco, CA	1,686
13	Denver Regional Transportation District	Denver, CO	1,508
14	Maryland Transit Administration	Baltimore, MD	1,354
15	Northeast Illinois Regional Commuter Railroad Corp	Chicago, IL	1,153
16	Port Authority of Allegheny County	Pittsburgh, PA	1,145
17	Miami-Dade Transit	Miami, FL	1,122
18	San Francisco Municipal Railway	San Francisco, CA	1,104
19	Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA	1,077
20	Dallas Area Rapid Transit	Dallas, TX	1,008

Source: Federal Transit Administration National Transit Database

**TABLE 6: 20 Largest Transit Agencies Ranked by  
Vehicle Revenue Miles, Fiscal Year 2003 (Thousands)**

	<b>TRANSIT AGENCY</b>	<b>URBANIZED AREA (Primary City)</b>	<b>VEHICLE MILES</b>
1	MTA New York City Transit	New York, NY	450,890.6
2	Chicago Transit Authority	Chicago, IL	140,576.3
3	New Jersey Transit Corporation	New York, NY	135,842.0
4	Los Angeles County Metropolitan Trp Auth	Los Angeles, CA	108,640.4
5	Washington Metropolitan Area Transit Auth	Washington, DC	105,154.7
6	Massachusetts Bay Transportation Authority	Boston, MA	85,587.4
7	Southeastern Pennsylvania Trp Auth	Philadelphia, PA	84,247.6
8	San Francisco Bay Area Rapid Transit District	San Francisco, CA	58,880.7
9	King County Dept of Trp - Metro Transit Division	Seattle, WA	57,013.5
10	MTA Long Island Rail Road	New York, NY	56,788.2
11	Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA	51,797.2
12	Metro-North Commuter Railroad Company	New York, NY	48,871.8
13	Denver Regional Transportation District	Denver, CO	47,631.6
14	Metropolitan Transit Auth of Harris County, Texas	Houston, TX	43,772.1
15	Maryland Transit Administration	Baltimore, MD	40,122.3
16	Dallas Area Rapid Transit	Dallas, TX	39,302.6
17	Northeast Illinois Regional Commuter Railroad Corp	Chicago, IL	38,023.2
18	Miami-Dade Transit	Miami, FL	36,238.8
19	Tri-County Metropolitan Trp District of Oregon	Portland, OR	35,478.5
20	Pace - Suburban Bus Division	Chicago, IL	35,056.7

Source: Federal Transit Administration National Transit Database

**TABLE 7: 20 Largest Transit Agencies Ranked by  
Passenger Miles, Fiscal Year 2003 (Thousands)**

	<b>TRANSIT AGENCY</b>	<b>URBANIZED AREA (Primary City)</b>	<b>PASSENGER MILES</b>
1	MTA New York City Transit	New York, NY	9,466,820.1
2	New Jersey Transit Corporation	New York, NY	2,579,844.5
3	MTA Long Island Rail Road	New York, NY	2,147,141.3
4	Metro-North Commuter Railroad Company	New York, NY	2,059,027.9
5	Washington Metropolitan Area Transit Auth	Washington, DC	1,909,194.6
6	Massachusetts Bay Transportation Authority	Boston, MA	1,874,755.8
7	Los Angeles County Metropolitan Trp Auth	Los Angeles, CA	1,843,571.3
8	Chicago Transit Authority	Chicago, IL	1,827,835.8
9	Northeast Illinois Regional Commuter Railroad Corp	Chicago, IL	1,506,371.0
10	Southeastern Pennsylvania Trp Auth	Philadelphia, PA	1,369,759.7
11	San Francisco Bay Area Rapid Transit District	San Francisco, CA	1,147,851.9
12	Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA	724,584.4
13	Maryland Transit Administration	Baltimore, MD	637,018.2
14	King County Dept of Trp - Metro Transit Division	Seattle, WA	532,406.5
15	Metropolitan Transit Auth of Harris County, Texas	Houston, TX	425,061.3
16	San Francisco Municipal Railway	San Francisco, CA	423,856.4
17	Tri-County Metropolitan Trp District of Oregon	Portland, OR	414,940.2
18	Dallas Area Rapid Transit	Dallas, TX	403,399.8
19	Miami-Dade Transit	Miami, FL	395,020.8
20	Denver Regional Transportation District	Denver, CO	383,171.6

Source: Federal Transit Administration National Transit Database

# NATIONAL SERVICE AND OPERATING DATA

## Passengers

### Highlights.....

- 9.4 billion unlinked trips were taken in 2003. 60.3% were by bus, 28.3% by heavy rail, and 11.4% for all other modes combined.
- Average trip length was longest for vanpools at 33.1 miles. Commuter rail averaged 23.3 miles, demand response 8.4 miles, ferryboat 5.9 miles, heavy rail 5.1 miles, light rail 4.4 miles, and bus 3.7 miles.
- 52% of trips are taken by women, 1% by people with disabilities.
- 7% of trips are by those 65 and older, 10% by those 18 and under, 31% by African Americans, 18% by Hispanics, 6% by Asian-heritage and Native Americans.
- 54% of trips are work-related, 15% school-related, 9% shopping-related, 5.5% medically-related, 9% socially-related.
- 27% are by those with family incomes below \$15,000, 55% by \$15,000-\$50,000 families, and 17% by those with incomes over \$50,000.

The U.S. Federal Transit Administration requires that annual unlinked passenger trips and passenger miles data be collected or estimated by the predominantly large and medium-sized transit agencies participating in its National Transit Database. APTA supplements this with monthly data, which includes some smaller transit agencies not required to participate in the NTD.

**Unlinked Passenger Trips** is the number of passengers who board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.

**Passenger Miles** is the cumulative sum of the distances ridden by each passenger.

**Average Trip Length** is the average distance ridden for an unlinked passenger trip by time period (weekday, Saturday, Sunday) computed as passenger miles divided by unlinked passenger trips.

### Number of People Using Public Transportation

All ridership data reported in this book relate to trips taken--not to people--because that is how data are collected and reported. The heavy use of passes, transfers, joint tickets,

and cash by people transferring from one vehicle to another, one mode to another, and from one public transportation agency to another makes it impossible to count people. Only boardings (unlinked passenger trips) can be counted with any accuracy. At the largest public transportation agencies, even the number of boardings may be estimated for at least a portion of the ridership (e.g., free shuttle vehicles without fareboxes and light rail service using the "proof-of-payment" system).

The majority of people using public transportation take two trips per day (one to work, school, or another destination in the morning and one home in late afternoon or evening). A small proportion--perhaps 5%--make only one public transportation trip (e.g., they ride public transportation to the airport and then fly out of town, or they ride public transportation in the morning to work, but ride home in a friend's automobile at night). A somewhat larger proportion (primarily the public transportation-dependent) take 4, 6, 8, or even 10 trips per day.

At most agencies perhaps 10% to 30% of riders must transfer to a second (and sometimes a third) vehicle to reach their final destination. Some transfer from bus to bus, from bus to train, from one agency's vehicle to another agency's vehicle, etc.; thus, there is a large amount of double-counting of people. APTA's best estimate is that the number of people using public transportation on any day is about 45% of the number of trips reported.

Saturday ridership is often about 50% of weekday ridership, and Sunday ridership may be only 25%. In many smaller cities, public transportation service does not operate on Sundays; in a lesser number, there is no Saturday service.

### Historical Ridership Trends

Public transportation's popularity has been affected by changing social and economic forces. In the beginning of the 20<sup>th</sup> Century, ridership grew steadily until the Great Depression. Between 1929 and 1939, people took fewer work trips and often could not afford to take leisure trips. During World War II, public transportation was the dominant mode on the transportation landscape. Ridership peaked in 1946, when Americans took 23.4 billion trips on trains, buses and trolleys.

After World War II, ridership experienced a decline due to inexpensive fuel and government policies favoring low-density suburban development and the sprawl created by the new interstate highway system. By 1960, ridership dropped to 9.3 billion trips, and it continued to decline to a low of 6.5 billion trips in 1972. Beginning in 1973, ridership rose gradually to 9.4 billion trips in 2003. Reasons for the increase include a strong economy and improved customer service. Also, higher levels of public and private investment in public transportation resulted from 1991 federal legislation and succeeding funding bills.

**TABLE 8: Unlinked Passenger Trips by Mode, Millions**

FISCAL YEAR	BUS	COMMUTER RAIL	DEMAND RESPONSE	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER	TOTAL
1990	5,677	328	68	2,346	175	126	79	8,799
1991	5,624	318	71	2,172	184	125	81	8,575
1992	5,517	314	72	2,207	188	126	77	8,501
1993	5,381	322	81	2,046	188	121	78	8,217
1994	4,871	339	88	2,169	284	118	80	7,949
1995	4,848	344	88	2,033	251	119	80	7,763
1996	4,887	352	93	2,157	261	117	81	7,948
1997	5,013	357	99	2,430	262	121	92	8,374
1998	5,399	381	95	2,393	276	117	89	8,750
1999	5,648	396	100	2,521	292	120	91	9,168
2000	5,678	413	105	2,632	320	122	93	9,363
2001	5,849	419	105	2,728	336	119	97	9,653
2002	5,868	414	103	2,688	337	116	97	9,623
2003 P	5,692	410	111	2,667	338	109	111	9,436
2003 % of Total	60.3%	4.3%	1.2%	28.3%	3.6%	1.2%	1.2%	100.0%

P = Preliminary

**TABLE 9: Average Weekday Unlinked Passenger Trips by Mode, 2003**

MODE	AVERAGE WEEKDAY UNLINKED TRIPS	PER CENT OF TOTAL
Bus	18,785,000	60.3%
Commuter Rail	1,353,000	4.3%
Demand Response	366,000	1.2%
Ferryboat	219,000	0.7%
Heavy Rail	8,802,000	28.3%
Light Rail	1,116,000	3.6%
Other Rail	92,000	0.3%
Trolleybus	360,000	1.2%
Vanpool	54,000	0.2%
TOTAL	31,142,000	100.0%

**TABLE 10: Average Unlinked Trip Length by Mode, 2003**

MODE	AVERAGE TRIP LENGTH (MILES)
Bus	3.7
Commuter Rail	23.3
Demand Response	8.4
Ferryboat (b)	5.9
Heavy Rail	5.1
Light Rail	4.4
Trolleybus	1.6
Vanpool	33.1
Other (a)	1.0
TOTAL	5.1

(a) Includes aerial tramway, automated guideway transit, cable car, inclined plane, and monorail.

(b) Excludes international, rural, rural interstate, island, and urban park ferries.

**TABLE 11: Passenger Miles by Mode, Millions**

FISCAL YEAR	BUS	COMMUTER RAIL	DEMAND RESPONSE	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER	TOTAL
1990	20,981	7,082	431	11,475	571	193	410	41,143
1991	21,090	7,344	454	10,528	662	195	430	40,703
1992	20,336	7,320	495	10,737	701	199	453	40,241
1993	20,247	6,940	562	10,231	705	188	511	39,384
1994	18,832	7,996	577	10,668	833	187	492	39,585
1995	18,818	8,244	607	10,559	860	187	533	39,808
1996	19,096	8,351	656	11,530	957	184	604	41,378
1997	19,604	8,038	754	12,056	1,035	189	663	42,339
1998	20,360	8,704	735	12,284	1,128	182	735	44,128
1999	21,205	8,766	813	12,902	1,206	186	779	45,857
2000	21,241	9,402	839	13,844	1,356	192	792	47,666
2001	22,022	9,548	855	14,178	1,437	187	843	49,070
2002	21,841	9,504	853	13,663	1,432	188	843	48,324
2003 P	21,262	9,559	930	13,606	1,476	176	962	47,972
2003 % of Total	44.3%	19.9%	1.9%	28.4%	3.1%	0.4%	2.0%	100.0%

P = Preliminary

**TABLE 12: Annual Unlinked Passenger Trips and Passenger Miles for Urbanized Areas Over 1,000,000 Population, Fiscal Year 2003 (Thousands) (a)**

RANK (b)	URBANIZED AREA	UNLINKED TRIPS	PASSENGER MILES
1	New York-Newark, NY-NJ-CT	3,330,764.4	18,403,021.8
2	Los Angeles-Long Beach-Santa Ana, CA	633,774.3	2,817,640.0
3	Chicago, IL-IN	582,013.2	3,678,996.3
4	Philadelphia, PA-NJ-DE-MD	337,727.3	1,506,659.5
5	Miami, FL	133,829.7	707,255.5
6	Dallas-Fort Worth-Arlington, TX	85,791.9	468,321.4
7	Boston, MA-NH-RI	394,926.8	1,901,765.5
8	Washington, DC-VA-MD	434,313.1	2,193,219.0
9	Detroit, MI	48,505.1	259,257.0
10	Houston, TX	93,001.6	549,307.7
11	Atlanta, GA	148,976.7	779,842.5
12	San Francisco-Oakland, CA	410,829.7	2,140,046.5
13	Phoenix-Mesa, AZ	54,437.9	216,391.8
14	Seattle, WA	151,784.1	1,003,800.4
15	San Diego, CA	93,287.2	509,195.3
16	Minneapolis-St. Paul, MN	73,343.6	331,120.4
17	San Juan, PR	66,093.0	277,768.8
18	St. Louis, MO-IL	48,089.6	272,095.6
19	Baltimore, MD	113,229.2	643,022.7
20	Tampa-St. Petersburg, FL	20,076.5	99,682.1
21	Denver-Aurora, CO	78,584.3	383,171.6
22	Cleveland, OH	60,568.5	270,117.6
23	Pittsburgh, PA	71,354.5	334,297.4
24	Portland, OR-WA	105,635.0	452,794.8
25	San Jose, CA	46,863.9	188,843.3
26	Riverside-San Bernardino, CA	24,264.2	121,164.8
27	Cincinnati, OH-KY-IN	28,109.3	152,394.0
28	Virginia Beach, VA	17,772.9	87,433.4
29	Sacramento, CA	30,511.8	139,688.2
30	Kansas City, MO-KS	13,971.0	58,311.2
31	San Antonio, TX	40,262.0	161,878.9
32	Las Vegas, NV	47,889.0	158,204.8
33	Milwaukee, WI	59,805.8	177,358.7
34	Indianapolis, IN	11,324.6	57,482.3
35	Providence, RI-MA	17,950.3	85,480.9
36	Orlando, FL	22,730.0	147,099.8
37	Columbus, OH	15,785.1	60,412.9
38	New Orleans, LA	60,610.4	155,951.4

Source: Federal Transit Administration National Transit Database.

(a) Data for some areas may be understated since not all transit agencies report to the federal government. Data for some areas may be overstated since some transit agencies serve other urbanized areas and only agency-total data are reported.

(b) By urbanized area population in 2000 Census.

**TABLE 13: Gender of Passengers by Population Group**

POPULATION OF URBANIZED AREA/ URBAN PLACE	MALE	FEMALE
Under 50,000	36%	64%
50,000-199,999	43%	57%
200,000-500,000	39%	61%
500,000-999,999	38%	62%
1 million and more	49%	51%
NATIONAL AVERAGE	48%	52%

Source: APTA, *Americans in Transit*, 1992.

**TABLE 14: Disabled Passengers by Population Group**

POPULATION OF URBANIZED AREA/URBAN PLACE	PER CENT WITH DISABILITIES
Under 50,000	1.2%
50,000-199,999	1.1%
200,000-500,000	1.4%
500,000-999,999	2.5%
1 million and more	6.0%
NATIONAL AVERAGE	5.2%

Source: APTA, *Americans in Transit*, 1992.

**TABLE 15: Age of Passengers by Population Group**

POPULATION OF URBANIZED AREA/ URBAN PLACE	18 AND UNDER	19-64	65 AND OVER
Under 50,000	21%	61%	18%
50,000-199,999	19%	68%	13%
200,000-500,000	15%	70%	15%
500,000-999,999	9%	77%	14%
1 million and more	10%	84%	6%
NATIONAL AVERAGE	10%	83%	7%

Source: APTA, *Americans in Transit*, 1992.

**TABLE 16: Annual Family Income of Passengers by Population Group**

POPULATION OF URBANIZED AREA/ URBAN PLACE	UNDER \$15,000	\$15,000-\$50,000	ABOVE \$50,000
Under 50,000	61%	36%	3%
50,000-199,999	55%	39%	6%
200,000-500,000	54%	38%	8%
500,000-999,999	52%	42%	6%
1 million and more	25%	57%	18%
NATIONAL AVERAGE	28%	55%	17%

Source: APTA, *Americans in Transit*, 1992.

**TABLE 17: Ethnicity and Race of Passengers by Population Group**

POPULATION OF URBANIZED AREA/URBAN PLACE	WHITE	BLACK	HISPANIC	OTHER
Under 50,000	82%	6%	9%	3%
50,000-199,999	63%	24%	8%	5%
200,000-500,000	48%	34%	14%	4%
500,000-999,999	45%	41%	9%	5%
1 million and more	45%	31%	18%	6%
NATIONAL AVERAGE	45%	31%	18%	6%

Source: APTA, *Americans in Transit*, 1992.

**TABLE 18: Purpose of Trips by Population Group**

POPULATION OF URBANIZED AREA/URBAN PLACE	WORK	SCHOOL	SHOPPING	MEDICAL	SOCIAL	OTHER
Under 50,000	20%	9%	8%	34%	27%	2%
50,000-199,999	39%	22%	12%	6%	9%	12%
200,000-500,000	46%	19%	13%	5%	8%	9%
500,000-999,999	51%	15%	11%	5%	6%	12%
1 million and more	55%	15%	9%	5%	9%	7%
NATIONAL AVERAGE	54%	15%	9%	5%	9%	8%

Source: APTA, *Americans in Transit*, 1992.

# Service Operated

## Highlights.....

- In 2003, 4.4 billion miles and 293.5 million hours were operated.
- Buses operated 55.3% of vehicle miles, commuter rail 6.5%, demand response 19.7%, heavy rail 14.4%, and light rail 1.5%.
- Buses operated 62.8% of vehicle hours, commuter rail 3.1%, demand response 20.0%, heavy rail 10.8%, and light rail 1.4%.
- If all service had been operated by buses, twice as many bus miles would need to have been operated.
- Average revenue service speed was highest for vanpools at 32.7 miles per hour. Commuter rail was 31.7, heavy rail 20.6, light rail 15.7, demand response 14.5, and bus 12.7.

**Average Speed** is vehicle revenue miles divided by vehicle revenue hours.

**Directional Route Miles** is the mileage in each direction over which public transportation vehicles travel while in revenue service. Directional route miles are a measure of the route path over a facility or roadway, not the service carried on the facility; e.g. number of routes, vehicles or vehicle revenue miles. Directional route miles are computed with regard to direction of service, but without regard to the number of traffic lanes or rail tracks existing in the right-of-way. Directional route miles do not include staging or storage areas at the beginning or end of a route.

**Miles of Track** is the sum of the number of tracks per one mile segment of right-of-way. Miles of track are measured without regard to whether or not rail traffic can flow in only one direction on the track. All track is counted, including yard track and sidings.

**Total Bus Mile Equivalent** is the total number of miles that would have to be operated if buses were used in place of all modes. These are based on average seating plus standing capacity of the vehicle as compared to the capacity including standees (70 people) of a standard-size bus.

**Vehicle Hours** are the hours a vehicle travels from the time it pulls out from its garage to go into revenue service to the time it pulls in from revenue service. It is often called platform time. For conventional scheduled services, it includes revenue time and deadhead time.

**Vehicle Miles** are the miles a vehicle travels from the time it pulls out from its garage to go into revenue service to the time it pulls in from revenue service. It is often called platform miles. For conventional scheduled services, it includes revenue time and deadhead time.

**Vehicle Revenue Hours** are the hours traveled when the vehicle is in revenue service (i.e., the time when a vehicle is available to the general public and there is an expectation of carrying passengers). These passengers either directly pay fares, are subsidized by public policy, or provide payment through some contractual arrangement. Vehicles operated in fare free service are considered in revenue service. Revenue service excludes school bus service and charter service. For conventionally scheduled services, vehicle revenue hours are comprised of 2 elements: running time and layover/recovery time.

**Vehicle Revenue Miles** are the miles traveled when the vehicle is in revenue service (i.e., the time when a vehicle is available to the general public and there is an expectation of carrying passengers). These passengers either directly pay fares, are subsidized by public policy, or provide payment through some contractual arrangement. Vehicles operated in fare free service are considered in revenue service. Revenue service excludes school bus service and charter service. For conventionally scheduled services, vehicle revenue miles are comprised of running miles only.



*A Philadelphia Southeastern Pennsylvania Transportation Authority train operates in a freeway median. When counting vehicle miles and hours for trains, each car is counted, so this 6-car train operates 6 vehicle miles for each mile traveled and 6 vehicle hours for each hour in service.*

**TABLE 19: Vehicle Miles Operated by Mode, Millions**

YEAR	BUS	COMMUTER RAIL	DEMAND RESPONSE	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER	TOTAL	TOTAL BUS MILE EQUIVALENTS (a)
1990	2,129.9	212.7	305.9	536.7	24.2	13.8	18.3	3,241.5	4,127.7
1991	2,166.6	214.9	335.0	527.2	27.6	13.6	21.5	3,306.4	4,159.1
1992	2,178.0	218.8	363.5	525.4	28.6	13.9	26.4	3,354.6	4,187.0
1993	2,209.6	223.9	406.0	522.1	27.7	13.0	32.2	3,435.1	4,233.1
1994	2,162.0	230.8	463.7	531.8	34.0	13.7	31.5	3,467.5	4,248.2
1995	2,183.7	237.7	506.5	537.2	34.6	13.8	36.7	3,550.2	4,314.0
1996	2,220.5	241.9	548.3	543.1	37.6	13.7	45.2	3,650.3	4,397.2
1997	2,244.6	250.7	585.3	557.7	41.2	14.0	52.3	3,745.8	4,499.6
1998	2,174.6	259.5	670.9	565.7	43.8	13.6	65.5	3,793.6	4,504.1
1999	2,275.9	265.9	718.4	577.7	48.7	14.2	71.4	3,972.2	4,675.0
2000	2,314.8	270.9	758.9	595.2	52.8	14.5	73.7	4,080.8	4,788.0
2001	2,376.5	277.3	789.3	608.1	54.3	12.8	77.9	4,196.2	4,908.5
2002	2,411.1	283.7	802.6	620.9	61.0	13.9	83.5	4,276.7	5,011.2
2003 P	2,420.8	286.0	864.0	629.9	64.3	13.8	96.0	4,374.9	5,079.7
2003 % of Total	55.3%	6.5%	19.7%	14.4%	1.5%	0.3%	2.2%	100.0%	

P = Preliminary

(a) Estimate based on average seating plus standing capacity of vehicle compared to that of a bus (70 passengers): light rail = 1.7, heavy rail = 2.6, commuter rail = 2.2, trolleybus = 1.0, demand response = 0.2, other = 1.0.

**TABLE 20: Vehicle Hours Operated by Mode, Millions**

YEAR	BUS	COMMUTER RAIL	DEMAND RESPONSE	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER	TOTAL
1990	163.0	6.5	24.4	28.4	2.0	1.8	1.4	227.5
1991	163.8	6.4	26.3	24.6	2.2	1.8	1.4	226.5
1992	165.1	6.5	28.7	25.6	2.2	1.8	1.6	231.5
1993	166.2	6.6	30.5	27.2	2.1	1.8	1.8	236.2
1994	162.1	6.9	32.6	27.3	2.5	1.8	1.5	234.7
1995	162.9	7.2	34.9	27.6	2.5	1.8	1.6	238.5
1996	165.5	7.3	37.0	28.0	2.7	1.8	1.9	244.2
1997	167.0	7.5	39.5	28.8	2.8	1.8	2.1	249.5
1998	164.0	7.9	44.1	29.3	2.9	1.8	2.3	252.3
1999	170.1	8.5	48.2	29.9	3.2	1.9	2.5	264.3
2000	174.3	9.4	50.9	30.9	3.5	2.0	3.0	274.0
2001	179.4	8.8	53.8	31.6	3.6	1.8	2.7	281.7
2002	182.7	8.8	54.4	32.0	4.1	1.9	2.9	286.8
2003 P	184.2	9.0	58.8	31.8	4.2	1.8	3.7	293.5
2003 % of Total	62.8%	3.1%	20.0%	10.8%	1.4%	0.6%	1.3%	100.0%

P = Preliminary

**TABLE 21: Average Vehicle Speed in Revenue Service by Mode, 2003**

MODE	AVERAGE SPEED (MILES PER HOUR)
Bus	12.7
Commuter Rail	31.7
Demand Response	14.5
Ferryboat (b)	8.7
Heavy Rail	20.6
Light Rail	15.7
Trolleybus	7.4
Vanpool	32.7
Other (a)	7.0
TOTAL	14.7

(a) Includes aerial tramway, automated guideway transit, cable car, inclined plane, and monorail.

(b) Excludes international, rural, rural interstate, island, and urban park ferries.

**TABLE 22: Vehicle Revenue Miles and Vehicle Revenue Hours by Mode, 2003**

MODE	VEHICLE REVENUE MILES (000)	VEHICLE REVENUE HOURS (000)
Bus	2,092,869	165,094
Commuter Rail	262,093	8,272
Demand Response	734,902	50,559
Ferryboat (b)	3,539	406
Heavy Rail	611,935	29,736
Light Rail	63,532	4,039
Trolleybus	13,219	1,781
Vanpool	87,419	2,677
Other (a)	3,073	439
TOTAL	3,872,582	263,003

(a) Includes aerial tramway, automated guideway transit, cable car, inclined plane, and monorail.

(b) Excludes international, rural, rural interstate, island, and urban park ferries.

# Vehicles

## Highlights.....

- There were over 139,000 active vehicles providing public transportation service in 2003
- Buses comprised 55.6%, commuter rail 4.3%, demand response 25.8%, heavy rail 7.7%, and light rail 1.1%.
- In 2004, average age of buses was 7.3 years, commuter rail cars 21.6 years, demand response 3.7 years, heavy rail 20.0 years, and light rail 16.7 years.
- Average length of buses was 39.6 feet, commuter rail cars 85.0 feet, demand response 21.9 feet, heavy rail 61.7 feet, and light rail 75.7 feet.
- 13.3% of buses used alternative power, 47.5% of commuter rail cars, 5.1% of demand response, 100% of heavy rail and trolleybuses, and 98.9% of light rail.
- 94.8% of buses were wheelchair accessible, 70.5% of commuter rail cars, 94.3% of demand response, 98.7% of heavy rail, and 84.2% of light rail.
- About 6,300 buses and demand response vehicles used compressed natural gas and CNG blends, over 1,000 used liquefied natural gas and LNG blends, and over 200 used propane.
- From 500 to 1,000 new rail cars and 6,000 to 8,000 buses and demand response vehicles are built each year. Over 3,500 of the buses are 40 to 60 feet in length, and about 2,500 are below 27.5 feet

For definitions of vehicles used in a mode, see the "Bus and Trolleybus," "Demand Response," "Vanpool," "Rail," and "Ferryboat" sections.

**Accessible Vehicle** is a revenue vehicle that does not restrict access, is usable, and provides allocated space and/or priority seating for individuals who use wheelchairs.

**Active Vehicle** is a vehicle in the year end fleet that is available to operate in revenue service, including spares and vehicles temporarily out of service for routine maintenance and minor repairs.

**High Occupancy Vehicle (HOV)** is a vehicle that can carry two or more persons. Examples of high occupancy vehicles are a bus, vanpool and carpool. These vehicles sometimes have exclusive traffic lanes called "HOV lanes," "busways," "transitways" or "commuter lanes."

**Passenger Vehicle** is a vehicle used to carry passengers in transit service.

**Rehabilitation** is the rebuilding of revenue vehicles to original specifications of the manufacturer. Rebuilding may include some new components but has less emphasis on structural restoration than would be the case in a remanufacturing operation, focusing on mechanical systems and vehicle interiors.



Heavy rail, automated guideway, bus, and demand response vehicles operated by the Miami-Dade Transit Agency in Miami, Florida, illustrate the wide variety of vehicles used in public transportation.

**TABLE 23: Average Vehicle Age by Mode, 2005**

MODE	AVERAGE AGE (YEARS)
Bus	7.5
Commuter Rail	20.1
Commuter Rail Locomotive	19.6
Demand Response	4.1
Ferryboat	23.4
Heavy Rail	21.4
Jitney	6.7
Light Rail	15.1
Other Rail	33.0
Trolleybus	8.3
Vanpool	4.5

Source: APTA survey.

**TABLE 24: Average Vehicle Length by Mode, 2005**

MODE	AVERAGE LENGTH (FEET)
Bus	39.7
Commuter Rail	85.0
Commuter Rail Locomotive	60.7
Demand Response	22.1
Ferryboat	200.4
Heavy Rail	61.6
Jitney	23.3
Light Rail	76.9
Other Rail	45.6
Trolleybus	44.5
Vanpool	17.4

Source: APTA survey.

**TABLE 25: Revenue Vehicles by Mode**

FISCAL YEAR	BUS	COMMUTER RAIL (a)	DEMAND RESPONSE	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER	TOTAL
1990	58,714	5,007	16,471	10,419	913	832	1,197	93,553
1991	60,377	4,959	17,879	10,331	1,095	752	1,595	96,988
1992	63,080	5,008	20,695	10,245	1,058	907	1,853	102,846
1993	64,850	5,100	23,527	10,261	1,025	851	2,308	107,922
1994	68,123	5,126	28,729	10,138	1,054	877	2,505	116,552
1995	67,107	5,164	29,352	10,157	999	885	2,809	116,473
1996	71,678	5,240	30,804	10,201	1,140	871	3,003	122,937
1997	72,770	5,426	32,509	10,242	1,229	859	3,808	126,843
1998	72,142	5,536	29,646	10,301	1,220	880	4,703	124,428
1999	74,228	5,550	31,884	10,306	1,297	859	5,059	129,183
2000	75,013	5,498	33,080	10,591	1,577	951	5,208	131,918
2001	76,075	5,572	34,661	10,718	1,366	600	5,727	134,719
2002	76,190	5,724	34,699	10,718	1,445	600	6,330	135,706
2003 P	77,328	5,959	35,954	10,754	1,482	672	6,990	139,139
2003 % of Total	55.6%	4.3%	25.8%	7.7%	1.1%	0.5%	5.0%	100.0%

P = Preliminary

(a) Includes locomotives which make up roughly 10% of commuter rail vehicles



Traditional high-floor buses with steps such as this one at Riverside Transit Agency in California use lifts to accommodate wheelchair users.



The Maryland Transit Authority in Baltimore, Maryland operates low-floor buses with a floor only 12-16 inches off the ground that use an extendable ramp for wheelchair access.

**TABLE 26: Accessible Vehicles by Mode, 2005**

MODE	ACCESSIBLE VEHICLES (a)	VEHICLES REPORTED	PER CENT ACCESSIBLE (a)
Bus	52,632	54,450	96.7%
Commuter Rail	4,052	5,358	75.6%
Demand Response	10,034	10,779	93.1%
Ferryboat	30	65	46.2%
Heavy Rail	10,829	10,971	98.7%
Jitney	309	309	100.0%
Light Rail	1,470	1,684	87.3%
Other Rail	134	175	76.6%
Trolleybus	574	647	88.7%
Vanpool	121	3,563	3.4%

Source: APTA survey. Data reported are not national totals.

(a) Accessible vehicles include accessibility via lift, ramp, and station.

**TABLE 27: Alternative Power Vehicles by Mode, 2005 (a)**

MODE	PER CENT USING ALTERNATIVE POWER
Bus	16.0%
Commuter Rail	47.8%
Commuter Rail Locomotive	31.2%
Demand Response	4.9%
Ferryboat	41.5%
Heavy Rail	100.0%
Jitney	0.0%
Light Rail	100.0%
Other Rail	74.9%
Trolleybus	100.0%
Vanpool	0.8%



Source: APTA survey.

(a) Alternative power includes all power except straight diesel and gasoline.

*This Torrance Transit System hybrid-electric bus in California operates by combining fossil fuel and electric power technologies.*

**TABLE 28: Revenue Vehicle Power Sources (a)**

POWER SOURCE	BUS	COMMUTER RAIL CAR	COMMUTER RAIL LOCOMOTIVE	DEMAND RESPONSE	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER	TOTAL
Compressed Natural Gas	6,682	0	0	321	0	0	0	14	7,017
CNG Blends	62	0	0	3	0	0	0	0	65
Diesel	51,391	14	487	7,447	0	6	0	401	59,746
Electric & Diesel	509	0	111	0	0	4	14	26	664
Electric & Other	122	0	0	0	0	0	0	15	137
Electric Third Rail or Catenary	0	2,588	79	0	11,655	2,083	917	369	17,691
Gasoline	276	0	0	3,147	0	0	0	3,483	6,906
Liquefied Natural Gas	1,003	0	0	39	0	0	0	0	1,042
Propane	292	0	0	168	0	0	0	0	460
Other (b)	189	0	0	37	0	0	0	0	226
Unpowered	0	3,364	5	0	0	3	0	44	3,416
<b>TOTAL</b>	<b>60,526</b>	<b>5,966</b>	<b>682</b>	<b>11,162</b>	<b>11,655</b>	<b>2,096</b>	<b>931</b>	<b>4,352</b>	<b>97,370</b>

Source: APTA January 1, 2005 survey of about 300 transit agencies.

(a) Includes bio/soy fuel, biodiesel, jet fuel, hydrogen and propane blends.

**TABLE 29: New Passenger Vehicles Delivered by Mode**

YEAR	RAIL CARS (c)			BUSES & DEMAND RESPONSE (a)				TROLLEY BUS	TOTAL (b)
	COMMUTER RAIL	HEAVY RAIL	LIGHT RAIL	29 SEATS OR FEWER	30-39 SEATS	40 SEATS OR MORE	TOTAL		
1990	83	10	55	1,389	489	2,901	4,779	118	5,045
1991	187	6	17	1,781	411	2,530	4,722	149	5,081
1992	110	163	35	1,322	549	1,555	3,426	0	3,734
1993	8	260	54	1,919	566	2,351	4,836	24	5,182
1994	47	55	72	2,502	433	2,483	5,418	36	5,628
1995	38	72	38	2,823	733	2,466	6,022	3	6,173
1996	111	10	39	2,620	1,531	1,865	6,016	3	6,179
1997	198	34	76	2,910	1,090	2,329	6,329	0	6,637
1998	122	120	80	2,696	1,381	3,058	7,135	54	7,511
1999	132	122	123	2,829	1,259	2,727	6,815	0	7,192
2000	116	204	136	3,146	1,653	2,897	7,696	0	8,152
2001	54	751	111	4,682	3,051	3,285	11,018	149	12,083
2002	166	828	107	3,131	1,964	2,119	7,214	88	8,403
2003	338	470	140	3,200	2,070	1,584	6,854	103	7,917
2004 P	571	76	120	2,894	1,778	1,484	6,156	31	6,954
2004 % of Total	8.2%	1.1%	1.7%	41.6%	25.6%	21.3%	88.5%	0.4%	100.0%

P = Preliminary

(a) Buses and demand response only; excludes vanpool vans. Bus comprises about 25% of the 29-seats-or-fewer size group and virtually 100% of the other size groups.

(b) Excludes vanpool vans, ferryboats, and other modes not listed.

(c) Source for rail modes; *Railway Age*, January issue.

**TABLE 30: New Buses & Demand Response Vehicles Delivered by Length (a)**

YEAR	27'5" AND BELOW	27'6" - 32'5"	32'6" - 37'5"	37'6" - 45'0"	ARTICULATED/ DOUBLE DECKED	TOTAL
1990	932	450	567	2,782	48	4,779
1991	1,430	395	357	2,460	80	4,722
1992	968	338	584	1,482	54	3,426
1993	1,594	333	374	2,435	100	4,836
1994	2,333	147	350	2,513	75	5,418
1995	2,436	420	358	2,695	113	6,022
1996	2,282	383	405	2,885	61	6,016
1997	2,316	603	641	2,591	178	6,329
1998	2,206	556	463	3,698	212	7,135
1999	2,100	770	387	3,240	318	6,815
2000	2,556	747	274	3,528	591	7,696
2001	3,843	1,004	433	5,569	169	11,018
2002	2,522	646	394	3,453	199	7,214
2003	2,596	438	550	2,797	473	6,854
2004 P	2,548	376	325	2,423	484	6,156
2004 % of Total	41.4%	6.1%	5.3%	39.4%	7.9%	100.0%

P = Preliminary

(a) Buses comprise about 5% of the 27'5"-and-below size group and virtually 100% of the other size groups.

# Employees

## Highlights.....

- There were about 338,000 operating employees, plus about 13,000 capital employees, in 2003.
- 61.9% of the operating employees were in vehicle operations, 17.5% in vehicle maintenance, 8.6% in non-vehicle maintenance, and 12.0% in general administration.
- Bus employees were 60.8%, commuter rail 7.3%, demand response 12.7%, heavy rail 14.3%, and light rail 2.3%.
- Average compensation per employee (salaries and fringe benefits) was about \$52,846.

Data in this section include transit agency employees. Data exclude persons employed by other organizations under service contracts to perform certain duties. For some agencies, virtually all personnel are contracted, so employee counts only include a small number of office personnel.

There are two types of employees:

A **Capital Employee** is an employee whose labor hour cost is reimbursed under a capital grant or is otherwise capitalized. Generally, only large transit agencies have such employees.

An **Operating Employee** is an employee engaged in the operation of the transit system. Types include:

A **General Administration Employee** is an executive, professional, supervisory, or secretarial transit system person engaged in general management and administration activities: preliminary transit system development, customer services, promotion, market research, injuries and damages, safety, personnel administration, general legal services, general insurance, data processing, finance and accounting, purchasing and stores, general engineering, real estate management, office management and services, general management, and planning.

A **Non-Vehicle Maintenance Employee** is an executive, professional, supervisory, or secretarial transit system person engaged in non-vehicle maintenance, a person providing maintenance support to such persons for inspecting, cleaning, repairing and replacing all components of: vehicle movement control systems; fare collection and counting equipment; roadway and track; structures, tunnels, and subways; passenger stations; communication system; and garage, shop, operating station, general administration buildings, grounds and equipment. In addition, it includes support for the operation and maintenance of electric power facilities.

An **Other Vehicle Operations Employee** is an executive, professional, or supervisory transit system person engaged in vehicle operations, a person providing

support in vehicle operations activities, a person engaged in ticketing and fare collection activities, or a person engaged in system security activities.

A **Vehicle Maintenance Employee** is an executive, professional, secretarial, or supervisory transit system person engaged in vehicle maintenance, a person performing inspection and maintenance, vehicle maintenance of vehicles, performing servicing functions for revenue and service vehicles, and repairing damage to vehicles resulting from vandalism or accidents.

A **Vehicle Operator** is a person (other than security agents) scheduled to be aboard vehicles in revenue operations including vehicle operators, conductors, and ticket collectors.



*Bus operators are often the only public transportation employees most riders ever see. This Dallas Area Rapid Transit bus operator goes through simulator training.*



*Many employees labor behind the scenes, such as this Utah Transit Authority control room operator in Salt Lake City, Utah.*



*Commuter railroads still employ one of the oldest transportation professions--the conductor. This one is working at the MTA Long Island Rail Road in New York.*

**TABLE 31: Operating Employees by Mode (a) (b)**

FISCAL YEAR	BUS	COMMUTER RAIL	DEMAND RESPONSE	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER	TOTAL
1990	162,189	21,443	22,740	46,102	4,066	1,925	3,711	262,176
1991	163,555	21,083	24,196	47,423	4,175	1,826	3,599	265,857
1992	163,387	21,151	25,863	47,493	3,849	1,691	3,668	267,102
1993	177,167	20,634	30,021	52,433	3,920	1,944	3,400	289,519
1994	174,373	22,596	35,450	51,062	5,140	1,848	3,618	294,087
1995	181,973	22,320	39,882	45,644	4,935	1,871	3,866	300,491
1996	190,152	22,604	44,667	45,793	5,728	2,084	3,916	314,944
1997	196,861	21,651	44,029	45,935	5,940	2,037	4,306	320,759
1998	198,644	22,488	48,406	45,163	6,024	2,053	4,974	327,752
1999	204,179	22,896	51,186	46,311	6,058	2,140	5,115	337,885
2000	211,095	23,518	52,021	47,087	6,572	2,223	5,325	347,841
2001	214,674	23,851	55,846	47,865	7,021	2,008	6,001	357,266
2002	214,825	24,391	56,746	48,464	7,598	2,027	6,671	360,722
2003 P	205,478	24,813	42,935	48,327	7,619	1,964	6,887	338,022
2003 % of Total	60.8%	7.3%	12.7%	14.3%	2.3%	0.6%	2.0%	100.0%

P = Preliminary

(a) Based on employee equivalents of 2,080 labor hours equals one employee; beginning 1993 equals actual employees. Series not continuous between 1992 and 1993.

(b) Excludes capital employees and an estimated 10,000-20,000 individuals not employed by transit agencies and whose compensation is classified as "services"--e.g. boiler repairman, marketing consultant, independent auditor.

**TABLE 32: Employees by Function (a) (b) (c)**

FISCAL YEAR	VEHICLE OPERATIONS	VEHICLE MAINTENANCE	NON-VEHICLE MAINTENANCE	GENERAL ADMINISTRATION	OPERATING TOTAL	CAPITAL	TOTAL
1990	150,556	31,424	44,282	35,914	262,176	10,663	272,839
1991	153,281	31,861	42,708	38,007	265,857	10,288	276,145
1992	169,549	48,270	24,062	25,221	267,102	11,893	278,995
1993	179,426	53,041	28,043	29,009	289,519	9,665	299,184
1994	183,673	51,405	27,004	32,005	294,087	10,207	304,294
1995	190,675	51,905	27,329	30,582	300,491	10,695	311,186
1996	199,615	54,645	27,239	33,445	314,944	11,682	326,626
1997	207,510	53,322	27,232	32,695	320,759	13,081	333,840
1998	209,047	57,128	28,335	33,242	327,752	10,963	338,715
1999	215,185	59,018	28,914	34,768	337,885	11,938	349,823
2000	221,885	61,155	29,527	35,274	347,841	11,753	359,594
2001	228,091	62,404	29,963	36,808	357,266	13,490	370,756
2002	227,470	62,679	30,520	40,053	360,722	13,048	373,770
2003 P	209,398	59,012	29,140	40,472	338,022	12,985	351,007
2003 % of Total	61.9%	17.5%	8.6%	12.0%	100.0%		

P = Preliminary

(a) Based on employee equivalents of 2,080 labor hours equals one employee; beginning 1993 equals actual employees. Series not continuous between 1992 and 1993.

(b) Excludes an estimated 10,000-20,000 individuals not employed by transit agencies and whose compensation is classified as "services."

(c) Beginning 1992, ticketing, fare collection, and security employees reclassified from "General Administration" to "Other Vehicle Operations," and vehicle maintenance administrative and support employees reclassified from "Non-Vehicle Maintenance" to "Vehicle Maintenance." Series not continuous between 1991 and 1992.



*Mechanics must undergo extensive training to be able to repair the various types of equipment used by a transit agency. This wheel-chair lift mechanic is at the Los Angeles County Metropolitan Transportation Authority.*



*Track workers at the MTA Metro-North Railroad in New York City pursue their never-ending task of making sure the roadbed and track are in good repair.*

**TABLE 33: Employee Compensation, Millions of Dollars**

FISCAL YEAR	NUMBER OF EMPLOYEES (a)(b)	SALARIES AND WAGES	FRINGE BENEFITS	COMPENSATION (c)	COMPENSATION PER EMPLOYEE (ACTUAL DOLLARS)
1990	272,839	7,226.3	3,986.0	11,212.3	41,095
1991	276,145	7,394.5	3,998.4	11,392.9	41,257
1992	278,995	7,670.5	4,318.6	11,989.1	42,972
1993	299,184	7,932.1	4,400.3	12,332.4	41,220
1994	304,294	8,223.8	4,451.7	12,675.5	41,655
1995	311,186	8,213.1	4,484.0	12,697.1	40,802
1996	326,626	8,437.6	4,401.4	12,839.0	39,308
1997	333,840	8,771.7	4,503.7	13,275.4	39,766
1998	338,715	9,211.2	4,843.6	14,054.8	41,494
1999	349,823	9,495.1	5,052.3	14,547.4	41,585
2000	359,594	10,400.2	5,412.9	15,813.1	43,975
2001	370,756	10,626.9	5,705.6	16,332.5	44,052
2002	373,770	11,197.4	6,246.9	17,444.3	46,671
2003 P	351,007	11,635.2	6,914.0	18,549.2	52,846

P = Preliminary

(a) Based on employee equivalents of 2,080 labor hours equals one employee; beginning 1993 equals actual employees. Employee data not continuous between 1992 and 1993.

(b) Excludes an estimated 10,000-20,000 individuals not employed by transit agencies and whose compensation is classified as "services."

(c) "Compensation" is sum of "Salaries and Wages" and "Fringe Benefits".

# Energy and Environment

## Highlights.....

- About 897 million gallons of fossil fuels and 5.6 billion kilowatt-hours of electricity were used to move transit vehicles in 2003.
- 83.6% of all fossil fuels used was diesel, of which 71.5% was used by buses, 9.6% by commuter rail, 14.5% by demand response, and 4.3% by ferryboats.
- 68.0% of the non-diesel fuel used was compressed natural gas, 16.0% gasoline, 10.7% liquefied natural gas, and 3.8% propane.
- 64.4% of the electric power was used by heavy rail, 24.5% by commuter rail, and 9.0% by light rail.
- All diesel buses average 3.5 miles per gallon, though heavily-loaded 40-60-foot buses might average considerably less. Compressed natural gas buses average 2.7 m.p.g., while liquefied natural gas buses average 1.8.
- On a passenger-mile basis, buses use only 84% as much fuel as automobiles, vans, and sports utility vehicles. Commuter rail uses only 31% as much, heavy rail 17%, and light rail 22%.



*This Washington Metropolitan Area Transit Authority bus in Washington, DC runs on compressed natural gas..*

- A daily transit user making a 5-mile trip each way instead of driving a 25-mile per gallon vehicle would save 94.4 gallons of gasoline per year costing about \$184 (assuming \$1.95 per gallon). Savings could range up to 1,888 gallons costing over \$3,600 for a 15 m.p.g. vehicle traveling 60 miles each way.

Public transportation, while a large user of energy, is a major contributor to energy conservation since multiple-occupancy vehicles use less energy than automobiles on a passenger-mile basis.

Most rail transit vehicles and trolleybuses emit little or no pollution since they are electrically propelled. Most buses, ferryboats, commuter rail locomotives, and many demand response vans use diesel, which, with innovations such as clean diesel, is getting less polluting all the time. Vanpools, many demand response vans, and a few buses use gasoline.

Many newer buses are being fueled by alternate fuels such as compressed natural gas, liquefied natural gas, and propane to improve air quality and comply with federal and state pollution-reduction requirements. In fact, many transit agencies are only buying alternate-fuel vehicles now.

In addition, transit agencies are also subject to diesel-electric locomotive emissions, scrap tires, vehicle air-conditioning system refrigerants, stormwater runoff from transit facilities, hazardous waste management, underground storage tanks, asbestos and lead-based paint removal, and hazardous wastes in rights-of-way regulations.



*This San Francisco Municipal Railway light rail vehicle is powered by overhead electrical wires.*

**TABLE 34: Electric Power Consumption by Mode, Millions of Kilowatt Hours**

FISCAL YEAR	COMMUTER RAIL	HEAVY RAIL	LIGHT RAIL	TROLLEYBUS	OTHER	TOTAL
1990	1,226	3,284	239	69	19	4,837
1991	1,239	3,248	274	72	20	4,853
1992	1,124	3,193	297	80	22	4,716
1993	1,196	3,287	281	79	22	4,865
1994	1,244	3,431	282	103	21	5,081
1995	1,253	3,401	288	100	26	5,068
1996	1,255	3,332	321	69	30	5,007
1997	1,270	3,253	361	78	26	4,988
1998	1,299	3,280	381	74	39	5,073
1999	1,322	3,385	416	75	39	5,237
2000	1,370	3,549	463	77	51	5,510
2001	1,354	3,646	487	74	49	5,610
2002	1,334	3,683	510	73	49	5,649
2003 P	1,383	3,632	507	69	51	5,643
2003 % of Total	24.5%	64.4%	9.0%	1.2%	0.9%	100.0%

P = Preliminary

**TABLE 35: Fossil Fuel Consumption by Mode, Thousands of Gallons (a)**

FISCAL YEAR	DIESEL						NON-DIESEL (c)
	BUS	COMMUTER RAIL	DEMAND RESPONSE	FERRY BOAT (b)	OTHER	TOTAL	
1990	563,151	52,681	15,497	19,627	74	651,030	33,906
1991	572,861	54,315	17,422	20,465	95	665,158	34,467
1992	592,049	54,951	16,896	20,926	122	684,944	38,188
1993	575,740	59,766	22,890	19,968	147	678,511	47,251
1994	565,064	61,900	29,949	21,146	167	678,226	64,838
1995	563,767	63,064	28,958	22,307	190	678,286	71,470
1996	577,680	61,888	30,923	21,991	232	692,714	76,305
1997	597,636	63,195	32,020	23,881	220	716,952	83,369
1998	606,631	69,200	38,275	25,269	246	739,621	89,883
1999	618,204	73,005	43,202	28,721	237	763,369	93,092
2000	635,160	70,818	48,088	31,780	179	786,025	103,078
2001	587,184	72,204	54,898	30,266	111	744,663	112,088
2002	558,990	72,847	61,569	30,993	136	724,535	138,175
2003 P	535,963	72,264	108,898	32,071	184	749,379	147,121
2003 % of Total	71.5%	9.6%	14.5%	4.3%	0.0%	100.0%	

P = Preliminary

(a) Data includes passenger vehicles and locomotives; excludes other non-passenger-vehicle and non-vehicle consumption.

(b) Excludes international, rural, rural interstate, island, and urban park ferries.

(c) Prior to 1992, includes gasoline only. Series not continuous between 1991 and 1992.

**TABLE 36: Non-Diesel Fossil Fuel Consumption by Fuel, Thousands of Gallons (a)**

FISCAL YEAR	COMPRESSED NATURAL GAS	GASOLINE	LIQUIFIED NATURAL GAS	PROPANE (LIQUID PETROLEUM GAS)	OTHER	TOTAL
1992	1,009	32,906	191	2,487	1,595	38,188
1993	1,579	37,928	474	2,098	5,172	47,251
1994	4,835	43,921	1,450	1,871	12,761	64,838
1995	10,740	42,769	2,236	3,686	12,039	71,470
1996	15,092	41,495	2,862	5,235	11,621	76,305
1997	23,906	41,547	4,030	5,150	8,736	83,369
1998	37,268	35,645	5,331	6,631	5,008	89,883
1999	44,398	32,699	7,672	5,604	2,719	93,092
2000	54,794	29,908	12,567	4,988	821	103,078
2001	66,215	26,606	13,765	4,702	800	112,088
2002	81,051	23,711	18,499	5,614	3,326	132,201
2003 P	100,074	23,486	15,794	5,548	2,221	147,121
2003 % of Total	68.0%	16.0%	10.7%	3.8%	1.5%	100.0%

P = Preliminary

(a) Data includes passenger vehicles; excludes non-passenger-vehicle and non-vehicle consumption.

**TABLE 37: Examples of Fuel Savings to a Person Commuting to Work on Public Transportation**

LENGTH OF TRIP	MILES TRAVELED PER YEAR (a)	ANNUAL FUEL SAVINGS, GALLONS BASED ON FOLLOWING PERSONAL VEHICLE FUEL EFFICIENCIES					
		15 MILES PER GALLON	20 MILES PER GALLON	25 MILES PER GALLON	30 MILES PER GALLON	35 MILES PER GALLON	40 MILES PER GALLON
2 miles	944	62.9	47.2	37.8	31.5	27.0	23.6
5 miles	2,360	157.3	118.0	94.4	78.7	67.4	59.0
10 miles	4,720	314.7	236.0	188.8	157.3	134.9	118.0
20 miles	9,440	629.3	472.0	377.6	314.7	269.7	236.0
30 miles	14,160	944.0	708.0	566.4	472.0	404.6	354.0
40 miles	18,880	1,258.7	944.0	755.2	629.3	539.4	472.0
50 miles	23,600	1,573.3	1,180.0	944.0	786.7	674.3	590.0
60 miles	28,320	1,888.0	1,416.0	1,132.8	944.0	809.1	708.0

(a) Based on 472 trips per year: 365 days minus 52 Saturdays minus 52 Sundays minus 7 holidays minus 10 days vacation minus 8 days sick leave times 2 trips per day.

**TABLE 38: Major Power Source Efficiency, Miles per Gallon (a)**

MODE	ELECTRIC POWER (b)	DIESEL	COMPRESSED NATURAL GAS	GASOLINE	LIQUIFIED NATURAL GAS	PROPANE (LIQUID PETROLEUM GAS)
Automated Guideway	0.16	NA	NA	NA	NA	NA
Bus	0.26	3.47	2.71	4.91	1.79	2.29
Cable Car	0.13	NA	NA	NA	NA	NA
Commuter Rail	0.11	0.10	NA	NA	NA	NA
Demand Response	NA	8.22	6.29	9.44	1.72	6.30
Ferryboat	NA	0.07	NA	NA	NA	NA
Heavy Rail	0.15	NA	NA	NA	NA	NA
Inclined Plane	0.07	NA	NA	NA	NA	NA
Light Rail	0.13	8.67	NA	NA	NA	NA
Monorail (c)	0.32	NA	NA	NA	NA	NA
Trolleybus	0.17	NA	NA	NA	NA	NA
Vanpool	NA	14.15	NA	14.27	NA	NA

Source: Federal Transit Administration, 2002 National Transit Database.

Minor bus power sources: kerosene--3.48.

(a) Computed using total annual miles and total annual gallons and kilowatt hours of reporting systems. "NA" for little or no data available.

(b) Miles per kilowatt hour.

(c) Data based on 2000 National Transit Database.

**TABLE 39: Energy Efficiency of Public Transportation and Personal Vehicles, 1998**

MODE	BRITISH THERMAL UNIT/ VEHICLE MILE	BRITISH THERMAL UNIT/ PASSENGER MILE
Bus	41,338	4,415
Commuter Rail	54,071	1,612
Heavy Rail	19,789	911
Light Rail	29,688	1,152
AVERAGE	38,251	2,741
Automobiles, Sport Utility Vehicles, & Light Trucks	6,348	5,255

Source: *Conserving Energy and Preserving the Environment: The Role of Public Transportation*, Robert J. Shapiro, Kevin A. Hassett, and Frank S. Arnold, 2002.

**TABLE 40: Emissions by Public Transportation and Personal Vehicles, 1999**

VEHICLE TYPE	CARBON DIOXIDE	CARBON MONOXIDE	NITROGEN OXIDES	VOLATILE ORGANIC COMPOUNDS
<b>Grams/Vehicle Mile</b>				
Bus	2,386.9	11.6	11.9	2.3
Diesel Rail	9,771.0	47.6	48.8	9.2
Automobile	415.5	19.4	1.4	1.9
Sport Utility Vehicles & Light Trucks	521.6	25.3	1.8	2.5
All Personal Vehicles	452.9	21.5	1.6	2.1
<b>Grams/Million Kilowatt Hours</b>				
Electric Rail	618,499,055	1,772,125	17,365	137,987

Source: *Conserving Energy and Preserving the Environment: The Role of Public Transportation*, Robert J. Shapiro, Kevin A. Hassett, and Frank S. Arnold, 2002.

# Safety and Security

## SAFETY

### Highlights.....

- Safety incidents involving transit vehicles of the 540 agencies reporting data in 2002 included about 13,800 collisions, 170 derailments/buses going off road and 2,000 fires.
- There were 280 transit fatalities and roughly 19,000 injuries. Automobile occupants were about 55 times more likely to die.
- 41.4% of the fatalities were on commuter rail, 27.9% on buses, and 26.1% on heavy rail.
- 62.3% of the injuries were on buses, 25.0% on heavy rail, and 7.7% on commuter rail.
- In 2001, there were only 12 homicides against patrons in vehicles, stations, and bus stops.
- 54.2% of violent security incidents (felonies) occurred on heavy rail, 24.2% on buses, 12.7% on commuter rail, and 7.0% on light rail.
- 58.1% of non-violent security incidents (misdemeanors) occurred on heavy rail, 24.7% on light rail, 13.3% on buses, and 3.4% on commuter rail.
- 36.8% of all security incidents involved fare evasion, 25.3% disorderly conduct, 12.1% for larceny/theft and motor vehicle theft, 6.2% for drunkenness, and 4.4% for robbery, aggravated assault, and rape.

Public transportation safety data, collected by the Federal Transit Administration since 1979, include incidents, fatalities, and injuries that do NOT involve criminal activity. However, these data for many transit agencies were incomplete or inaccurate because those systems were not in full compliance with the FTA reporting requirements. In addition, it has been impossible to separate out patron-only data for the various types of safety incidents because data reported combined patrons, employees, and other persons (e.g., automobile and other vehicle occupants, pedestrians, bicyclists).

In 1995, the FTA improved its efforts to ensure compliance and revised its reporting form to report patron, employee, and other data separately for each type of incident. By 1996 most of the reporting problems had been eliminated.

In 2002, the FTA changed the thresholds for reported incidents. All injuries and incidents (collisions, derailments, personal casualties, fires and property damage) are only reported if immediate medical attention is required away from the scene or if property damage exceeds \$7,500. Previously, all reported injuries and all property damage exceeding \$1,000 (for transit agency property only) were taken into account. Also, fatality data are no longer separated into groups; data represent all fatalities, whether

they occur in transit vehicles, in stations or in station parking lots, and include fatalities of patrons, employees and other persons.

One must be cautious when attempting to compare public transportation safety data to airlines, automobiles, intercity buses and trains, and other modes of transportation. Public transportation's operating environment is unique due to the unique nature of public transportation vehicles, stations, and methods of operation and the huge numbers of people involved. Among the unique factors are:

- No other mode of transportation operates in an environment so fraught with the potential for injury—twice a day for three or four hours a continuing flow of thousands of people bump into and jostle one another in the constricted spaces of public transportation vehicles and on the platforms, ramps, stairways, escalators, and elevators of public transportation stations and transfer centers.
- Most public transportation buses and vans have built-in lifts or ramps to accommodate those using wheelchairs, walkers, and other mobility aids, while most rail, bus, and ferry stations have stairways, escalators, or elevators. All these have a significant risk factor resulting in a disproportionate number of safety incidents. No other mode of travel depends on such equipment to any significant extent.
- Minor incidents with less than \$7,500 in transit agency property damage are **not** counted as safety incidents unless a fatality, injury (requiring immediate medical attention away from the scene), or fire occurs. Such incidents (e.g., a 2-mile-an-hour collision with a post or another vehicle resulting in a dented bumper or broken taillight) are so common that they are considered "wear-and-tear" incidents that have no safety implications.
- A fatality is defined as a death confirmed within 30 days of an incident.
- All fires are counted even if they involve something as minor as a cigarette burning in a trash can.
- Heavy and commuter rail stations act as magnets for those contemplating suicide, with about one-third of all deaths reported to the FTA for these two modes being suicides. In addition, there are numerous injuries to persons failing in suicide attempts as well as to public transportation vehicle occupants (due to emergency braking) and to others in the wrong place at the wrong time. These casualties inflate the public transportation total, but are obviously beyond the transit agency's control.
- Unlike other transportation modes, the vast majority (over 80%) of safety incidents occur in urbanized areas with over 1,000,000 population.

**TABLE 41: Fatality Rates by Mode of Travel,  
2000-2002  
(Average Deaths per 100 Million  
Passenger Miles)**

TYPE OF VEHICLE	DEATH RATE
Airlines	0.02
Automobiles	0.79
Vans, SUVs, pickup trucks	0.76
Heavy, light, & other rail vehicles	Not reported
Intercity & commuter railroads	0.03
Intercity buses	0.02
Transit buses	0.01

Source: *Injury Facts*, National Safety Council, 2004.



*The Metropolitan Atlanta Rapid Transit Authority heavy rail system, one of the numerous new rail systems built since 1973, illustrates several factors affecting safety--station design, a security presence, and crowded platforms.*

**TABLE 42: Fatalities by Mode**

FISCAL YEAR	AUTOMATED GUIDEWAY	COMMUTER RAIL	DEMAND RESPONSE (a)	HEAVY RAIL	LIGHT RAIL	BUS (a)	VANPOOL (a)	TOTAL
1993	0	98	2	83	15	83	0	281
1994	0	112	2	85	13	108	0	320
1995	0	92	6	79	15	82	0	274
1996	0	72	11	74	6	101	0	264
1997	0	79	7	77	3	109	0	275
1998	2	94	4	54	23	109	0	286
1999	0	95	1	84	17	102	0	299
2000	0	87	8	80	30	90	0	295
2001	0	87	5	59	21	95	0	267
2002	0	116	0	73	13	78	0	280
2002 % of Total	0.0%	41.4%	0.0%	26.1%	4.6%	27.9%	0.0%	100.0%

Source: Federal Transit Administration, Safety and Security Statistics. Data reported include about 540 of the largest transit agencies.

(a) Data may significantly understate total since data for urbanized areas under 200,000 population not reported by the FTA comprises a significant portion of these modes.

**TABLE 43: Total Injuries by Mode (b)(c)**

FISCAL YEAR	AUTOMATED GUIDEWAY	COMMUTER RAIL	DEMAND RESPONSE (a)	HEAVY RAIL	LIGHT RAIL	BUS (a)	VANPOOL (a)	TOTAL
1993	10	1,560	652	10,532	982	38,873	59	52,668
1994	10	2,374	731	11,673	1,181	42,195	29	58,193
1995	8	2,374	935	11,238	1,319	41,297	25	57,196
1996	20	1,953	882	11,093	1,604	39,709	27	55,288
1997	16	2,388	1,121	12,285	1,087	39,181	54	56,132
1998	12	1,677	1,064	11,059	1,076	41,035	67	55,990
1999	21	1,761	1,345	9,665	1,271	41,221	41	55,325
2000	15	1,783	1,736	10,848	1,338	40,925	52	56,697
2001	36	1,813	1,374	10,641	1,201	38,840	40	53,945
2002	28	1,483	347	4,806	557	11,995	44	19,260
2002 % of Total	0.1%	7.7%	1.8%	25.0%	2.9%	62.3%	0.2%	100.0%

Source: Federal Transit Administration, Safety and Security Statistics. Data reported include about 540 of the largest transit agencies.

- (a) Data may significantly understate total since data for urbanized areas under 200,000 population not reported by the FTA comprises a significant portion of these modes.
- (b) Includes personal casualty injuries (detailed below) plus injuries resulting from collisions, fires, derailments/buses going off road.
- (c) Discontinuous between 2001 and 2002 because injuries prior to 2002 included all reported injuries. In 2002, only injuries requiring immediate medical treatment away from the scene were considered.

**TABLE 44: Personal Casualty Injuries by Mode (b)(c)**

FISCAL YEAR	AUTOMATED GUIDEWAY	COMMUTE R RAIL	DEMAND RESPONSE (a)	HEAVY RAIL	LIGHT RAIL	BUS (a)	VANPOOL (a)	TOTAL
1993	9	1,326	412	9,916	607	16,765	1	29,036
1994	8	2,102	391	10,952	832	21,072	2	35,359
1995	8	2,057	520	10,438	911	18,655	2	32,591
1996	20	1,719	494	10,190	903	16,774	2	30,102
1997	15	2,254	558	11,526	727	17,285	2	32,367
1998	11	1,599	551	10,369	700	19,011	14	32,255
1999	20	1,706	695	9,153	801	19,403	4	31,782
2000	15	1,679	845	10,082	886	19,252	3	32,762
2001	36	1,721	720	9,688	815	18,137	2	31,119
2002	20	1,577	171	5,111	510	6,831	1	14,221
2002 % of Total	0.1%	11.1%	1.2%	35.9%	3.6%	48.0%	0.0%	100.0%

Source: Federal Transit Administration, Safety and Security Statistics. Data reported include about 540 of the largest transit agencies.

- (a) Data may significantly understate total since data for urbanized areas under 200,000 population not reported by the FTA comprises a significant portion of these modes.
- (b) Only includes injuries occurring while entering/exiting a vehicle or within stations/stops, (e.g., slips, trips and falls). Excludes injuries resulting from collisions, derailment/buses going off road and fires.
- (c) Discontinuous between 2001 and 2002 because casualties prior to 2002 included all reported casualties. In 2002, only casualties requiring immediate medical treatment away from the scene were considered.

**TABLE 45: Collisions by Mode (b) (c)**

FISCAL YEAR	AUTOMATED GUIDEWAY	COMMUTER RAIL	DEMAND RESPONSE (a)	HEAVY RAIL	LIGHT RAIL	BUS (a)	VANPOOL (a)	TOTAL
1993	1	166	513	630	419	28,491	118	30,338
1994	1	201	644	718	473	27,625	36	29,698
1995	1	171	640	600	290	23,733	54	25,489
1996	1	151	768	328	323	23,305	77	24,953
1997	3	157	878	309	352	22,919	159	24,777
1998	3	153	656	273	297	22,220	179	23,781
1999	0	170	854	358	276	21,370	130	23,158
2000	1	208	994	336	333	22,069	157	24,098
2001	0	185	969	304	301	21,769	207	23,735
2002	0	46	280	150	527	12,767	33	13,803
2002 % of Total	0.0%	0.3%	2.0%	1.1%	3.8%	92.5%	0.2%	100.0%

Source: Federal Transit Administration, Safety and Security Statistics. Data reported include about 540 of the largest transit agencies.

- (a) Data may significantly understate total since data for urbanized areas under 200,000 population not reported by the FTA comprises a significant portion of these modes.
- (b) Includes collisions with vehicles, objects and people
- (c) Prior to 2002, incidents included property damage in excess of \$1,000 to transit property only. In 2002, this threshold changed to \$7,500 and included all property damage.

**TABLE 46: Derailments/Buses Going Off Road by Mode**

FISCAL YEAR	AUTOMATED GUIDEWAY	COMMUTER RAIL	DEMAND RESPONSE (a)	HEAVY RAIL	LIGHT RAIL	BUS (a)	VANPOOL (a)	TOTAL
1993	0	42	11	32	30	105	1	221
1994	0	65	15	26	39	129	0	274
1995	0	45	7	37	19	86	0	194
1996	0	50	6	18	18	120	1	213
1997	0	35	8	16	11	76	1	147
1998	0	40	8	20	31	57	0	156
1999	0	45	8	38	24	37	0	152
2000	0	50	3	28	24	58	0	163
2001	0	52	7	24	43	30	0	156
2002	0	43	3	33	31	54	1	165
2002 % of Total	0.0%	26.1%	1.8%	20.0%	18.8%	32.7%	0.6%	100.0%

Source: Federal Transit Administration, Safety and Security Statistics. Data reported include about 540 of the largest transit agencies.

(a) Data may significantly understate total since data for urbanized areas under 200,000 population not reported by the FTA comprises a significant portion of these modes.

**TABLE 47: Fires by Mode (b)**

FISCAL YEAR	AUTOMATED GUIDEWAY	COMMUTER RAIL	DEMAND RESPONSE (a)	HEAVY RAIL	LIGHT RAIL	BUS (a)	VANPOOL (a)	TOTAL
1993	0	540	10	4,452	75	218	1	5,296
1994	1	715	12	4,117	67	346	1	5,259
1995	1	544	6	3,201	50	298	2	4,102
1996	4	503	16	3,154	106	256	0	4,039
1997	0	602	10	3,253	83	240	0	4,188
1998	2	590	6	2,811	85	325	1	3,820
1999	0	547	20	2,578	77	282	1	3,505
2000	1	118	29	2,278	67	296	0	2,789
2001	0	181	23	2,339	133	384	0	3,060
2002	1	15	19	1,710	21	194	0	1,960
2002 % of Total	0.1%	0.8%	1.0%	87.2%	1.1%	9.9%	0.0%	100.0%

Source: Federal Transit Administration, Safety and Security Statistics. Data reported include about 540 of the largest transit agencies.

(a) Data may significantly understate total since data for urbanized areas under 200,000 population not reported by the FTA comprises a significant portion of these modes.

**TABLE 48: Property Damage by Mode, in Thousands (b)**

FISCAL YEAR	AUTOMATED GUIDEWAY	COMMUTE R RAIL	DEMAND RESPONSE (a)	HEAVY RAIL	LIGHT RAIL	BUS (a)	VANPOOL (a)	TOTAL
1993	\$0	\$9,004	\$547	\$3,912	\$801	\$30,503	\$158	\$44,925
1994	\$3	\$5,141	\$779	\$1,597	\$785	\$29,994	\$78	\$38,376
1995	\$20	\$4,629	\$985	\$2,854	\$1,669	\$36,020	\$90	\$46,266
1996	\$14	\$11,080	\$1,470	\$6,388	\$3,839	\$34,622	\$145	\$57,557
1997	\$20	\$8,473	\$1,777	\$8,690	\$2,047	\$34,165	\$307	\$55,479
1998	\$0	\$4,903	\$2,206	\$10,029	\$2,696	\$41,355	\$308	\$61,497
1999	\$0	\$4,080	\$2,717	\$2,224	\$4,939	\$40,962	\$393	\$55,314
2000	\$34	\$6,858	\$2,211	\$5,034	\$3,022	\$41,320	\$442	\$58,921
2001	\$0	\$5,771	\$2,876	\$20,176	\$2,685	\$41,046	\$528	\$73,081
2002	\$0	\$177	\$1,450	\$2,476	\$2,108	\$25,662	\$312	\$32,185
2002 % of Total	0.0%	0.5%	4.5%	7.7%	6.5%	79.7%	1.0%	100.0%

Source: Federal Transit Administration, Safety and Security Statistics. Data reported include about 540 of the largest transit agencies.

(a) Data may significantly understate total since data for urbanized areas under 200,000 population not reported by the FTA comprises a significant portion of these modes.

(b) Prior to 2002, incidents included property damage in excess of \$1,000 to transit property only. In 2002, this threshold changed to \$7,500 and included all property damage.

## SECURITY

1995 was the first year security (crime) data relating to incidents, fatalities, and injuries resulting from criminal or illegal activities were collected by the Federal Transit Administration. On the assumption that almost no crime exists in small communities, only data for transit agencies in or serving urbanized areas over 200,000 population are collected. Data are derived from the FBI Uniform Crime Reporting Program.

The data for 1995 were quite incomplete since many transit agencies had not complied with the prescribed definitions and procedures. Some larger transit agencies still have not solved these problems. Even when they do, there will be several inherent problems with the data that will make much of it non-comparable:

- Some acts (such as drunkenness and loitering) are crimes in some states, counties, and cities, but not in others.
- Arrests may be handled by police forces in any of the dozens or hundreds of cities, towns, villages, and counties that the agency serves. A few of the largest agencies also have their own police forces. Accurate totals will require accumulation of data from each of these police forces, most of which probably cannot readily separate public transportation crimes from all other crimes in their jurisdiction. Failure of even one jurisdiction with numerous crime incidents to provide data will make the agency's data grossly inaccurate.
- Minor offenses such as trespassing and drunkenness are only counted if an arrest is made. When a citation or warning is issued, it is as if the incident never occurred. There will probably be considerable variances among police forces regarding the proportion of arrests vs. citations.
- Some crimes such as homicides have a high enforcement priority. Crimes low on the priority list such as drunkenness tend to be under-reported since scarce police resources have to be allocated to the most serious crimes, and the public, understanding that, does not report many less-serious crimes.



*Most large transit agencies have their own police forces, or contract with private security firms. Most smaller agencies depend on local police and sheriff's departments for security. This officer is employed by New Jersey Transit.*



*Modern rail station design minimizes crime by eliminating columns, dark corners, and other areas where criminals can lurk. This Washington Metropolitan Area Transit Authority heavy rail station illustrates such design.*

**TABLE 49: Security Incidents by Mode, Fiscal Year 2001**

TYPE OF CRIME	BUS (a)	COMMUTER RAIL	DEMAND RESPONSE (a)	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER (a)	TOTAL (a)
<b>VIOLENT CRIMES AGAINST PATRONS</b>								
Homicide	7	0	0	3	2	0	0	12
Personal (c)	1,364	138	4	2,678	345	46	24	4,599
Property (d)	2,310	1,297	1	7,625	799	219	51	12,302
<b>VIOLENT CRIMES AGAINST NON-PATRONS (EMPLOYEES AND OTHER PERSONS)</b>								
Homicide	1	2	0	1	0	0	0	4
Personal (c)	742	120	9	83	61	16	1	1,032
Property (d)	729	1,014	10	1,325	133	16	16	3,243
<b>OTHER CRIMES (b)</b>								
Burglary & Arson	132	197	2	134	188	0	16	669
Disorderly Conduct (e)	3,253	607	2	27,626	1,046	21	14	32,569
Drunkenness (e)	4,693	108	4	1,308	1,598	300	22	8,033
Fare Evasion (e)	847	566	5	24,852	20,945	31	12	47,258
Vandalism (e)	1,410	295	9	984	246	5	22	2,971
Other (e)	3,980	2,022	12	7,169	2,554	35	78	15,850
<b>TOTAL</b>	<b>19,468</b>	<b>6,366</b>	<b>58</b>	<b>73,788</b>	<b>27,917</b>	<b>689</b>	<b>256</b>	<b>128,542</b>

Source: Federal Transit Administration, National Transit Database. Data reported include about 450 of the largest transit agencies.

(a) Data may significantly understate total since data for agencies not reported and data for urbanized areas under 200,000 population not reported by the FTA comprises a significant portion of these modes.

(b) Data include patrons and non-patrons. Patron-only data not collected.

(c) Includes forcible rape, robbery, aggravated assault.

(d) Includes larceny/theft and motor vehicle theft.

(e) Only includes incidents where arrests were made; when a citation is issued, the incident is not reported.

**TABLE 50: Violent Security Incidents by Mode (b)**

FISCAL YEAR	BUS (a)	COMMUTER RAIL	DEMAND RESPONSE (a)	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER (a)	TOTAL (a)
1997	5,425	3,178	62	15,771	1,081	858	134	26,509
1998	4,478	2,933	45	11,731	1,237	145	133	20,702
1999	4,839	2,612	51	12,613	1,069	166	175	21,525
2000	4,886	2,909	51	12,276	1,563	94	85	21,864
2001	5,285	2,768	26	11,849	1,528	297	108	21,861
2001 % of Total	24.2%	12.7%	0.1%	54.2%	7.0%	1.3%	0.5%	100.0%

Source: Federal Transit Administration, National Transit Database. Data reported include about 450 of the largest transit agencies.

(a) Data may significantly understate total since data for agencies not reported and data for urbanized areas under 200,000 population not reported by the FTA comprises a significant portion of these modes.

(a) Includes homicide, forcible rape, robbery, aggravated assault, larceny/theft, motor vehicle theft, burglary, and arson.

**TABLE 51: Non-Violent Security Incidents by Mode (b)**

FISCAL YEAR	BUS (a)	COMMUTER RAIL	DEMAND RESPONSE (a)	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER (a)	TOTAL (a)
1997	25,615	7,688	148	69,022	6,615	958	4,564	114,610
1998	17,664	6,314	86	61,928	18,188	571	4,143	108,894
1999	20,581	3,399	41	55,826	23,702	222	453	104,224
2000	16,939	2,823	22	59,567	30,840	96	142	110,429
2001	14,183	3,598	32	61,939	26,389	392	148	106,681
2001 % of Total	13.3%	3.4%	0.0%	58.1%	24.7%	0.4%	0.1%	100.0%

Source: Federal Transit Administration, National Transit Database. Data reported include about 450 of the largest transit agencies.

(a) Data may significantly understate total since data for agencies not reported and data for urbanized areas under 200,000 population not reported by the FTA comprises a significant portion of these modes.

(b) Only includes incidents where arrests were made; when a citation is issued, the incident is not reported.

# NATIONAL FINANCIAL DATA

## Capital Expenses

### Highlights.....

- \$13.2 billion was spent in 2003.
- 28.2% was spent for rolling stock, 57.2% for facilities, guideways, stations and administrative buildings, and 14.7% for other expenses.
- 24.5% was used for bus projects, 18.7% for commuter rail, 33.5% for heavy rail, 17.6% for light rail.

**Capital Expenses** are the expenses related to the purchase of equipment. Equipment means an article of non-expendable tangible personal property having a useful life of more than one year and an acquisition cost which equals the lesser of: the capitalization level established by the government unit for financial statement purposes or \$5,000. Capital expenses do not include operating expenses that are eligible to use capital funds. There are nine types:

**Guideway** is the buildings and constructions (e.g., dedicated facilities for the operation of trains and buses including at-grade, elevated and subway structures, tunnels, bridges, track, paved highway lanes, bus loops) with all attached fixtures, located along the route where passenger service is offered. Does not include passenger stations or bus pull-ins.

**Systems** includes the computers, monitors, printers, scanners, data storage devices and associated software that supports general office, accounting, scheduling, vehicle maintenance, non-vehicle maintenance, and customer service functions.

A **station** is a passenger boarding/alighting facility with a platform, which may include stairs; elevators; escalators; passenger controls (e.g., faregates or turnstiles); canopies; wind shelters; lighting; signs; buildings with a waiting room, ticket office or machines, restrooms, or concessions. Includes all fixed guideway passenger facilities (except for on-street cable car and light rail stops), including busway passenger facilities; underground, at-grade, and elevated, rail stations; and ferryboat terminals. Includes transportation/transit/transfer centers, park-and-ride facilities, and transit malls with the above components, including those only utilized by motor buses. Does not include bus, light rail, or cable car stops (which are typically on-street locations at the curb or in a median, sometimes with a shelter, signs, or lighting).

**Facilities** include administration, central/overhaul maintenance facilities, light maintenance and storage facilities, and equipment of any of these items.

**Administrative buildings** are the general administrative offices owned by the transit agency.

**Rolling Stock** is the revenue vehicles used in providing transit service for passengers. The term revenue vehicles includes the body and chassis and all fixtures and appliances inside or attached to the body or chassis, except fare collection equipment and revenue vehicle movement control equipment (radios). For rubber tired vehicles, it includes the cost of one set of tires and tubes to make the vehicle operational, if the tires and tubes are owned by the transit agency.

**Fare revenue collection equipment** include turnstiles, fare boxes (drop), automated fare boxes and related software, money changers and fare dispensing machines (tickets, tokens, passes).

**Other Vehicles** includes service, supervisory and other vehicles other than rolling stock.

**Other** includes furniture, equipment that is not an integral part of buildings and structures, shelters, signs, and passenger amenities (e.g., benches) not in passenger stations.

## IMPACTS OF PUBLIC TRANSPORTATION ON THE U.S. ECONOMY

### BUSINESS SALES:

- **CAPITAL INVESTMENT:** \$30 million in increased sales per each \$10 million investment.
- **OPERATING INVESTMENT:** \$32 million in increased sales per each \$10 million investment.

**HIGHWAY & PUBLIC TRANSPORTATION USER COSTS:** \$15 million in operating, fuel, and congestion costs per each \$10 million investment.

**BUSINESS OUTPUT:** \$2 million per each \$10 million investment in first year, increasing to \$31 million per each \$10 million in the 20<sup>th</sup> year.

**PERSONAL INCOME:** \$0.8 million per each \$10 million investment in first year, increasing to \$18 million per each \$10 million in the 20<sup>th</sup> year.

**STATE & LOCAL GOVERNMENT REVENUE:** 4%-16% increase due to income and employment increases resulting from public transportation investments.

Source: *Public Transportation and the Nation's Economy*, Cambridge Systematics, 1999.

## Notes on Capital Costs

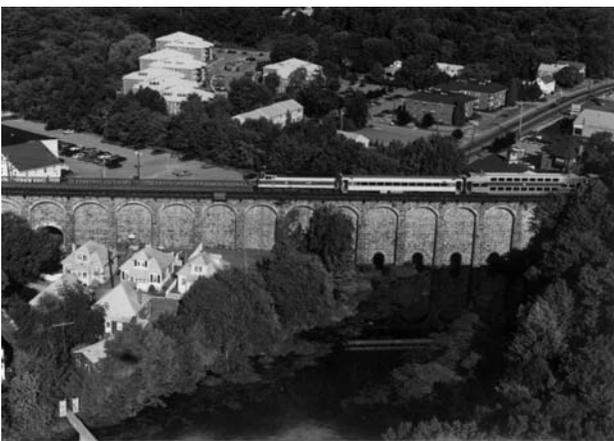
Capital expense costs reported to the Federal Transit Administration exclude expenses of purchased transportation contractors. Data in the following tables include APTA estimates for such expenses.

Because most capital projects take several years to complete, and data are reported each year as spent, it is not possible to correlate data to particular projects. Yearly totals rise and fall based on construction schedules, so comparison of data for various years has little value because of the differing projects included in each year.

**Bond Expenses** are not considered capital expenses by the FTA. Interest payments are considered a reconciling item for operating expenses. Principal repayments are not reported since the funds from bond issues have already been spent on rolling stock, facilities, and other equipment.



*Major construction, such as this escalator for a Dallas Area Rapid Transit light rail line, pump millions of dollars into local economies.*



*The rehabilitated Canton Viaduct built in the mid-1800s and still in use today by the Massachusetts Bay Transportation Authority commuter rail trains to Boston. A portion of capital funds are spent to modernize old infrastructure such as this.*

## Construction Costs

Although data for public transportation infrastructure construction costs (e.g., new rail lines, high-occupancy-vehicle lanes, and busways) are reported to the Federal Transit Administration National Transit Database, data are not reported by complete project—only by year by mode, which could cover several projects being constructed simultaneously. Also, most projects are constructed over a period of several years, and only broad category data (vehicles, facilities, and other) are reported. Details on mileage, number of stations, size of parking lots, and other variables are not reported. Dozens of variables impact the cost of a project, and some costs, such as the quality of construction and the artistic beauty of a project, cannot be accurately measured. A few of those variables include:

- 1) land acquisition,
- 2) land clearance and demolition,
- 3) relocation of existing businesses and residences,
- 4) availability of “free” or low-cost right-of-way such as abandoned railroads,
- 5) utility relocation,
- 6) number, size, and length of stations,
- 7) number of tracks or lanes,
- 8) length of trackage or roadway,
- 9) number and size of maintenance yards and facilities,
- 10) proportion in deep tunnel, shallow tunnel, on the surface, and elevated,
- 11) number and size of parking lots or garages,
- 12) number and size of bridges,
- 13) station and right of way enhancements such as landscaping, works of art, information kiosks, benches, telephones, concession booths, fountains, etc.,
- 14) type and number of fare vending and collection machines,
- 15) inflation over the several-year time period needed for most projects,
- 16) the going labor costs for and number of construction workers,
- 17) type and number of propulsion, signal, communication, and other operating systems,
- 18) when the project was constructed,
- 19) the number of vehicles required,
- 20) interest and other financing charges.

For these reasons, it is not possible to develop accurate comparative construction cost data on a per-mile or any other basis since the detailed data on the above (and other) variables are not reported to allow identification of comparable projects.

**TABLE 52: Capital Expense by Mode, Millions of Dollars**

FISCAL YEAR	BUS	COMMUTER RAIL	DEMAND RESPONSE	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER	TOTAL
1992	1,301.9	1,310.5	67.6	2,054.1	494.9	34.8	171.9	5,435.7
1993	1,567.3	1,645.1	91.8	1,901.5	488.3	18.8	126.8	5,839.6
1994	1,470.3	1,436.4	99.3	2,070.1	544.1	57.4	155.1	5,832.7
1995	2,050.8	1,689.2	86.2	2,560.5	688.4	15.5	139.7	7,230.3
1996	2,035.6	1,690.1	105.2	2,228.0	849.9	19.2	155.8	7,083.8
1997	2,423.5	1,817.5	118.5	2,346.1	876.5	54.1	213.3	7,849.5
1998	2,804.9	1,402.2	131.5	2,350.8	967.2	67.0	169.2	7,892.8
1999	3,249.0	1,622.0	122.0	2,706.7	1,004.8	89.8	180.4	8,974.7
2000	3,248.8	1,783.5	134.2	2,852.2	1,244.8	148.9	174.6	9,587.0
2001	3,737.9	2,291.2	154.0	3,506.5	1,444.2	157.8	127.1	11,418.7
2002	3,513.2	2,378.0	218.4	4,564.2	1,723.5	187.6	262.7	12,847.6
2003 P	3,241.7	2,479.2	241.8	4,437.0	2,325.1	118.8	399.5	13,243.2
2003 % of Total	24.5%	18.7%	1.8%	33.5%	17.6%	0.9%	3.0%	100.0%

P= Preliminary

**TABLE 53: Capital Expense by Type, Millions of Dollars**

FISCAL YEAR	ROLLING STOCK	FACILITIES (a)	OTHER (b)	TOTAL
1992	1,347.7	2,986.9	1,101.1	5,435.7
1993	1,616.2	2,826.3	1,397.1	5,839.6
1994	1,340.6	3,159.2	1,332.9	5,832.7
1995	1,834.5	3,836.9	1,558.9	7,230.3
1996	1,834.4	3,810.7	1,438.7	7,083.8
1997	2,355.7	4,468.1	1,025.7	7,849.5
1998	2,721.8	4,267.9	903.1	7,892.8
1999	3,239.4	4,697.8	1,037.5	8,974.7
2000	3,138.6	5,405.2	1,043.2	9,587.0
2001	4,027.4	6,301.8	1,089.5	11,418.7
2002	4,351.1	7,409.1	1,087.4	12,847.6
2003 P	3,730.1	7,569.0	1,944.1	13,243.2
2003 % of Total	28.2%	57.2%	14.7%	100.0%

P = Preliminary

(a) As of 2003 includes facilities, guideways, stations and administrative buildings.

(b) As of 2003 includes other vehicles, fare revenue collection equipment, systems and other.

**TABLE 54: Capital Expense by Mode and Type, Fiscal Year 2003, Millions of Dollars**

TYPE	BUS	COMMUTER RAIL	DEMAND RESPONSE	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER	TOTAL
Guideway	197.0	715.8	0.0	1,277.3	1,303.2	42.9	55.9	3,592.1
Systems	317.4	86.2	23.1	380.7	75.9	4.4	23.8	911.6
Stations	339.3	308.8	15.5	975.7	145.3	17.2	185.2	1,987.1
Facilities	368.6	461.9	8.9	650.8	356.5	13.2	8.2	1,868.2
Rolling Stock	1,570.3	712.6	160.9	807.5	327.1	38.6	113.1	3,730.1
Other Vehicles	33.3	6.8	1.7	21.7	5.3	0.2	1.6	70.6
Admin. Build.	73.6	1.3	8.1	36.6	1.4	0.0	0.6	121.6
Fare Rev. Coll.	50.4	15.9	3.0	31.5	10.4	0.5	1.1	112.7
Other	291.8	169.8	20.6	255.3	100.0	1.7	10.0	849.1
TOTAL	3,241.7	2,479.2	241.8	4,437.0	2,325.1	118.8	399.5	13,243.2
% of Total	24.5%	18.7%	1.8%	33.5%	17.6%	0.9%	3.0%	100.0%

All data are preliminary

# Capital Funding

## Highlights.....

- \$13.2 billion was received from all sources in 2003.
- 39.9% of capital funding came from the federal government, 12.7% from state governments, 18.1% from local governments, and 29.3% was raised by transit agencies from directly-levied taxes, advertising, interest income, and other sources.
- Federal capital and operating appropriations totaled \$7.6 billion for 2005.
- Federal capital and planning grant approvals for 2003 totaled \$7.4 billion.
- 44.9% of federal grant approvals went for bus-related projects, 34.1% for fixed-guideway modernization, 18.4% for new start transit projects, and 2.6% for planning.

A **Capital Funding Source** is a source of funds used to pay for capital expenses. There are two types:

**Government Funds** are funds provided by federal, state, and/or local governments. For some purposes, also includes directly generated taxes, tolls, fees, and other imposed funding sources.

**Federal Funds** are financial assistance from the federal government to assist in paying the operating costs of providing transit service.

**State Government Funds** are financial assistance obtained from a state government(s) to assist with paying the costs of providing transit services.

**Local Government Funds** are financial assistance from local governments (below the state level) to help cover the operating costs of providing transit service.

**Directly Generated Funds** are any funds where revenues are generated by or donated directly to the transit agency, including passenger fare revenues, advertising revenues, donations, bond proceeds and taxes imposed by the transit agency. Almost all such funds for capital purposes are bonds and directly imposed taxes: fares and advertising revenues are normally used only for operating expenses.

**TABLE 55: Capital Funding Sources, Millions of Dollars**

FISCAL YEAR	FEDERAL ASSISTANCE	STATE ASSISTANCE	LOCAL ASSISTANCE	DIRECTLY GENERATED (a)	LOCAL PLUS DIRECTLY GENERATED	TOTAL
1990	2,872.5	696.8	1,176.9	189.3	1,366.2	4,935.5
1991	2,773.5	695.4	1,012.3	1,074.5	2,086.8	5,555.7
1992	2,673.0	801.0	830.0	1,131.7	1,961.8	5,435.7
1993	2,432.4	1,325.5	1,079.6	1,002.1	2,081.7	5,839.6
1994	2,622.8	1,047.8	997.9	1,164.2	2,162.1	5,832.7
1995	3,422.2	1,020.3	888.2	1,899.6	2,787.8	7,230.3
1996	3,592.8	915.9	926.0	1,649.1	2,575.1	7,083.8
1997	4,275.6	1,037.0	898.8	1,638.1	2,536.9	7,849.5
1998	3,919.0	932.2	1,032.2	2,009.4	3,041.6	7,892.8
1999	3,960.4	911.5	1,128.2	2,974.6	4,102.8	8,974.7
2000	4,525.6	1,030.5	1,469.2	2,561.7	4,030.9	9,587.0
2001	5,768.5	1,066.6	1,304.4	3,279.2	4,583.6	11,418.7
2002	5,215.6	1,496.5	2,582.9	3,552.5	6,135.4	12,847.5
2003 P	5,278.5	1,682.2	2,398.2	3,884.2	6,282.4	13,243.2
2003 % of Total	39.9%	12.7%	18.1%	29.3%	47.4%	100.0%

P = Preliminary

(a) Includes non-governmental funding, subsidies from non-transit sectors of a transit agency's operations, and, beginning in 1991, taxes levied directly by a transit agency and bridge and tunnel tolls.

**TABLE 56: Federal Public Transportation Appropriations, Fiscal Years 1999-2005, Millions of Dollars**

PROGRAM	1999	2000	2001	2002	2003	2004	2005
MAJOR CAPITAL INVESTMENT:	2,307.0	2,490.1	2,694.6	2,891.0	3,131.0	3,188.6	3,361.7
New Starts/Extensions	902.8	969.1	1,060.1	1,136.4	1,259.4	1,316.0	1,437.8
Fixed-Guideway Modernization	902.8	980.4	1,056.1	1,136.4	1,214.4	1,199.4	1,204.7
Bus/Bus Facility (a)	501.4	540.6	578.4	618.2	657.2	673.2	719.2
FORMULA:	2,800.0	3,048.0	3,286.7	3,542.0	3,789.0	3,766.6	3,950.3
Urbanized Area	2,548.2	2,772.9	2,935.1	3,200.0	3,428.7	3,425.6	3,593.2
Nonurbanized Areas	177.9	193.6	205.0	223.4	239.4	239.2	250.9
Elderly & Disabled	67.0	72.9	77.2	84.6	90.7	90.1	94.5
Rural Transportation Access	2.0	3.7	4.7	7.0	7.0	6.9	6.9
Alaska Railroad	4.8	4.8	4.8	4.8	4.8	4.8	4.8
Other	---	---	59.9	22.2	18.4	---	---
PLANNING & RESEARCH:	98.0	106.7	109.8	116.0	122.0	125.3	127.0
Metropolitan Planning	43.8	49.6	52.0	55.4	60.4	60.0	59.9
Rural Transit Assistance Program	5.3	5.3	5.2	5.2	5.2	5.2	5.2
All Other Research & Training	48.9	51.8	52.6	55.4	56.4	60.1	61.9
University Research Centers	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Access to Jobs/Reverse Commute	75.0	75.0	99.8	125.0	105.0	104.4	124.0
Washington DC Metro	50.0	---	---	---	---	---	---
FTA Administration	54.0	60.0	63.9	67.0	73.0	75.0	77.4
TOTAL	5,390.0	5,785.7	6,260.7	6,747.0	7,226.0	7,265.9	7,646.3

Source: U.S. Department of Transportation, Federal Transit Administration

(a) Includes Clean Fuels Funds beginning Fiscal Year 1999.

**TABLE 57: Federal Capital and Planning Grant Approvals by Use, Millions of Dollars**

FEDERAL FISCAL YEAR	BUS (a)	FIXED-GUIDEWAY MODERNIZATION (a)	NEW STARTS (a)	PLANNING (b)	TOTAL
1990	760.9	998.9	603.7	64.4	2,427.9
1991	826.0	1,029.2	515.2	80.5	2,450.9
1992	941.7	1,153.8	492.5	80.8	2,668.8
1993	1,295.2	1,146.0	996.5	77.9	3,515.6
1994	1,401.6	1,474.3	657.2	97.2	3,630.3
1995	1,988.7	1,767.2	1,677.7	100.2	5,533.8
1996	1,465.7	1,482.3	1,109.3	122.8	4,180.1
1997	1,582.6	1,501.1	922.4	118.6	4,124.7
1998	1,640.9	1,598.2	898.0	88.2	4,225.3
1999	2,300.7	1,994.7	996.2	103.4	5,395.0
2000	3,622.0	2,232.8	1,343.4	167.8	7,366.0
2001	2,986.1	2,383.5	1,239.4	185.5	6,794.5
2002	3,271.1	2,446.1	1,413.7	192.1	7,323.0
2003	3,318.5	2,517.1	1,360.7	194.0	7,390.4
2003 % of Total	44.9%	34.1%	18.4%	2.6%	100.0%

Source: U.S. Department of Transportation, Federal Transit Administration.

(a) Includes total funding for listed usage from capital, formula, and other funding programs.

(b) Includes funds used for planning from all funding programs.

**TABLE 58: Federal Capital and Planning Grant Approvals by Source Program, Millions of Dollars**

FEDERAL FISCAL YEAR	CAPITAL INVESTMENT (a)	FORMULA (b)	PLANNING (c)	OTHER (d)	TOTAL
1990	1,134.6	997.4	47.9	248.0	2,427.9
1991	1,073.6	1,069.8	54.5	253.0	2,450.9
1992	973.7	1,261.3	55.9	377.9	2,668.8
1993	1,745.9	1,473.3	50.5	245.9	3,515.6
1994	1,547.1	1,706.3	53.0	323.9	3,630.3
1995	2,608.5	2,520.1	52.5	352.7	5,538.8
1996	1,690.5	2,123.9	50.7	315.0	4,180.1
1997	1,716.3	2,130.0	76.0	202.4	4,124.7
1998	1,648.3	2,311.8	53.9	211.3	4,225.3
1999	2,064.7	3,270.0	57.4	2.9	5,395.0
2000	2,708.6	4,490.4	114.0	53.0	7,366.0
2001	2,522.2	4,122.0	128.0	22.3	6,794.5
2002	2,849.0	4,289.4	131.7	52.9	7,323.0
2003	2,957.1	4,124.8	135.2	173.3	7,390.4
2003 % of Total	40.0%	55.8%	1.8%	2.3%	100.0%

Source: U.S. Department of Transportation, Federal Transit Administration.

(a) Bus and Bus Facilities, Fixed-Guideway Modernization, and New Start programs

(b) Urbanized Area, Rural, and Elderly Individuals and Individuals with Disabilities, Over-the-Road Bus, Job Access/Reverse Commute formula programs.

(c) Metropolitan Planning, State Planning, Rural Transportation Assistance Program, and Consolidated Planning Grants.

(d) Federal Aid Urban Systems, Interstate Transfer, Emergency Supplemental, and National Capital Transportation Act.

**TABLE 59: Flexible Highway Funds Transferred to Public Transportation, Millions of Dollars**

FEDERAL FISCAL YEAR	CONGESTION MITIGATION & AIR QUALITY IMPROVEMENT PROGRAM	SURFACE TRANSPORTATION PROGRAM	INTERSTATE SUBSTITUTE & EARMARKED FEDERAL HIGHWAY ADMINISTRATION FUNDS	TOTAL
1992	177.0	25.2	101.6	303.8
1993	298.4	146.9	23.9	469.2
1994	317.0	183.2	109.5	609.7
1995	484.1	200.3	117.4	801.8
1996	344.6	324.2	111.3	780.1
1997	257.9	207.9	48.3	514.1
1998	223.3	243.9	0.1	467.3
1999	573.0	384.4	11.8	969.2
2000	864.0	708.4	26.7	1,599.1
2001	633.1	532.1	68.2	1,233.4
2002	689.8	383.7	44.0	1,117.5
2003	599.5	293.8	115.2	1,008.5
2003 % of Total	59.4%	29.1%	11.4%	100.0%

Source: U.S. Department of Transportation, Federal Transit Administration.

**TABLE 60: Average Annual Capital Cost to Improve Public Transportation Physical Conditions and Service Performance, 2001-2020, Billions of 2000 Dollars**

NEEDS COMPONENT	Cost to Maintain Conditions & Maintain Performance	Cost to Improve Conditions & Maintain Performance	Cost to Maintain Conditions & Improve Performance	Cost to Improve Conditions & Improve Performance
VEHICLE FLEET				
Replacement and Rehabilitation	3.8	5.6	3.8	5.6
OTHER TRANSIT ASSETS				
Replacement and Rehabilitation	4.8	5.1	4.8	5.1
EXPANSION TO ACCOMMODATE RIDERSHIP GROWTH (a)	9.7-23.7	9.8-23.7	17.1-32.1	17.2-32.2
RURAL/SMALL URBAN	0.5	0.5	1.0	1.0
TOTAL (a)	18.9-32.8	21.0-34.9	26.7-41.7	28.9-43.9

Source: Cambridge Systematics, *Expanded State and National Transit Investment Analysis*, 2002.

(a) Lower number assumes 1.6% annual growth, higher number 3.5% annual growth.

# Operating Expenses

## Highlights.....

- \$26.9 billion was spent in 2003.
- 44.4% was for vehicle operations, 18.0% for vehicle maintenance, 9.5% for non-vehicle maintenance, 14.8% for general administration, and 13.4% for purchased transportation.
- Over 80% of all costs were labor-related. 43.3% was for salaries and wages, 25.7% for fringe benefits, 6.0% for services, and 13.4% for purchased transportation (about 75% of which is labor-related).
- 9.0% was for materials and supplies, 3.0% for utilities, 2.6% for casualty and liability costs, and -3.1% (due to negative accounting costs) for other expenses.
- 56.7% was for buses, 8.8% for demand response, 11.8% for commuter rail, 16.6% for heavy rail, 3.0% for light rail, and 2.4% for all other modes.

**Operating Expenses** are the expenses associated with the operation of the transit agency, and classified by function or activity and the goods and services purchased. It is the sum of either the functions or the object classes listed below.

A **Function** is an activity performed or cost center of a transit agency. The four basic functions are:

**Vehicle Operations** includes all activities associated with the subcategories of the vehicle operations function: transportation administration and support; revenue vehicle operation; ticketing and fare collection; and system security.

**Vehicle Maintenance** includes all activities associated with revenue and non-revenue (service) vehicle maintenance, including administration, inspection and maintenance, and servicing (cleaning, fueling, etc.) vehicles. In addition, vehicle maintenance includes repairs due to vandalism and accident repairs of revenue vehicles.

**Non-Vehicle Maintenance** includes all activities associated with facility maintenance, including: administration; repair of buildings, grounds and equipment as a result of accidents or vandalism; operation of electric power facilities; and maintenance of vehicle movement control systems; fare collection and counting equipment; structures, tunnels and subways; roadway and track; passenger stations, operating station buildings, grounds and equipment; communication systems; general administration buildings, grounds and equipment; and electric power facilities.

**General Administration** includes all activities associated with the general administration of the transit agency, including transit service development, injuries and damages, safety, personnel administration, legal services, insurance, data processing, finance and accounting, purchasing and stores, engineering, real estate management, office management and services, customer services, promotion, market research and planning.

An **Object Class** is a grouping of expenses on the basis of goods and services purchased. Object Classes are as follows:

**Salaries and Wages** are the pay and allowances due employees in exchange for the labor services they render in behalf of the transit agency. The allowances include payments direct to the employee arising from the performance of a piece of work. Also called "Labor."

**Fringe Benefits** are the payments or accruals to others (insurance companies, governments, etc.) on behalf of an employee and payments and accruals direct to an employee arising from something other than a piece of work. These payments are transit agency costs over and above labor costs, but still arising from the employment relationship.

**Employee Compensation** is the sum of "Salaries and Wages" and "Fringe Benefits."

**Services** include the labor and other work provided by outside organizations for fees and related expenses. In most instances, services from an outside organization are procured as a substitute for in-house employee labor, except in the case of independent audits which could not be performed by employees in the first place. The substitution is usually made because the skills offered by the outside organization are needed for only a short period of time or are better than internally available skills. The charge for these services is usually based on the labor hours invested in performing the service. Services include management service fees, advertising fees, professional and technical services, temporary help, contract maintenance services, custodial services and security services.

**Materials and Supplies** are the tangible products obtained from outside suppliers or manufactured internally. Freight, purchase discounts, cash discounts, sales and excise taxes (except on fuel and lubricants) are included in the cost of the material or supply. Charges to these expense are for the materials and supplies issued from inventory for use and for the materials and supplies purchased for immediate use, i.e., without going through inventory. Three types are:

**Fuel and Lubricants** include the costs of gasoline, diesel fuel, propane, lubricating oil, transmission fluid, grease, etc., for use in vehicles.

**Tires and Other** include the lease payments for tires and tubes rented on a time period or mileage basis, or the cost of tires and tubes for replacement of tires and tubes on vehicles. Also includes the costs of materials and supplies not specifically identified issued from inventory or purchased for immediate consumption.

**Utilities** include the payments made to various utilities for utilization of their resources (e.g., electric, gas, water, telephone, etc.). Utilities include propulsion power purchased from an outside utility company and used for propelling electrically driven vehicles, and other utilities such as electrical power for purposes other than for electrically driven vehicles, water and sewer, gas, garbage collection, and telephone.

**Casualty and Liability Costs** are the cost elements covering protection of the transit agency from loss through insurance programs, compensation of others for their losses due to acts for which the transit agency is liable, and recognition of the cost of a miscellaneous category of corporate losses.

**Purchased Transportation** is transportation service provided to a public transit agency or governmental unit from a public or private transportation provider based on a written contract. The provider is obligated in advance to operate public transportation services for a public transit agency or governmental unit for a specific monetary consideration. Purchased transportation does not include franchising, licensing operation, management services, cooperative agreements or private conventional bus service.

**Other Expenses** is the sum of taxes, miscellaneous expenses, and expense transfers:

**Taxes** include the taxes levied against the transit agency by Federal, State and Local governments.

**Miscellaneous Expenses** include the expenses which cannot be attributed to any of the other major expense categories.

**Expense Transfers** are accounts used for reporting adjustments and reclassifications of expenses previously reported. Expense transfers include reclassifications of expenses from one function to another; a composite category of expense encompassing labor; fringe benefits; materials and services used in the transit agency's internal information system to reclassify costs between cost centers and work orders, and a credit account to be used for adjusting entries transferring expenses to receivables, property, or work in process for capital projects.



*Approximately 50 Metropolitan Transit Authority of Harris County buses lined up at a Houston sports venue. The largest operating expense for any transit agency is its employee salaries and fringe benefits, which normally represent at least two-thirds of all operating expenses.*

**TABLE 61: Operating Expense by Function Class, Millions of Dollars**

FISCAL YEAR	VEHICLE OPERATIONS	VEHICLE MAINTENANCE	NON-VEHICLE MAINTENANCE	GENERAL ADMINISTRATION	PURCHASED TRANSPORTATION	OPERATING EXPENSE
1990	6,653.3	3,038.8	1,592.0	3,449.9	1,008.1	15,742.1
1991	6,726.6	2,992.4	1,604.7	3,584.5	1,633.2	16,541.4
1992	7,659.7	3,047.5	1,783.9	2,674.2	1,616.1	16,781.4
1993	7,941.4	3,049.3	1,845.0	2,714.0	1,800.1	17,349.8
1994	8,211.9	3,184.5	1,819.4	2,752.0	1,952.1	17,919.9
1995	8,281.9	3,218.2	1,829.0	2,589.5	1,930.1	17,848.7
1996	8,331.9	3,295.1	1,802.2	2,744.3	2,167.2	18,340.7
1997	8,602.1	3,372.6	1,838.8	2,919.9	2,202.7	18,936.1
1998	9,176.7	3,579.2	1,783.9	3,065.8	2,132.9	19,738.5
1999	9,333.0	3,742.1	1,906.8	3,164.4	2,365.8	20,512.1
2000	10,110.9	4,267.1	2,177.7	3,328.8	2,761.0	22,645.5
2001	10,438.8	4,348.4	2,290.1	3,463.1	2,976.5	23,516.9
2002	11,057.4	4,550.6	2,448.1	3,807.8	2,970.1	24,834.0
2003 P	11,937.0	4,823.2	2,545.8	3,965.3	3,588.0	26,859.4
2003 % of Total	44.4%	18.0%	9.5%	14.8%	13.4%	100.0%

P = Preliminary

**TABLE 62: Operating Expense by Object Class, Millions of Dollars**

FISCAL YEAR	SALARIES & WAGES	FRINGE BENEFITS	SERVICES	MATERIALS & SUPPLIES	UTILITIES	CASUALTY & LIABILITY	PURCHASED TRANSPORTATION	OTHER	TOTAL
1990	7,226.3	3,986.0	794.3	1,608.4	552.9	640.5	1,008.1	-74.4	15,742.1
1991	7,394.5	3,998.4	818.0	1,559.7	575.9	625.6	1,633.2	-63.9	16,541.4
1992	7,670.5	4,318.6	907.8	1,529.1	608.5	557.8	1,616.1	-427.0	16,781.4
1993	7,932.1	4,400.3	914.0	1,536.1	624.0	587.8	1,800.1	-444.6	17,349.8
1994	8,223.8	4,451.7	849.3	1,593.9	644.0	614.2	1,952.1	-409.1	17,919.9
1995	8,213.1	4,484.0	849.3	1,613.4	628.9	512.8	1,930.1	-382.9	17,848.7
1996	8,437.6	4,401.4	923.9	1,677.0	667.2	502.7	2,167.2	-436.3	18,340.7
1997	8,771.7	4,503.7	1,055.2	1,734.1	685.0	502.5	2,202.7	-518.8	18,936.1
1998	9,211.2	4,843.6	1,170.7	1,851.5	660.8	473.9	2,132.9	-606.1	19,738.5
1999	9,495.1	5,052.3	1,213.9	1,883.7	675.5	449.7	2,365.8	-623.9	20,512.1
2000	10,400.2	5,412.9	1,289.6	2,259.6	719.8	506.5	2,761.0	-704.1	22,645.5
2001	10,626.9	5,705.6	1,389.3	2,362.5	772.5	492.8	2,976.5	-809.2	23,516.9
2002	11,197.4	6,246.9	1,539.6	2,287.3	771.0	624.2	2,970.1	-802.5	24,834.0
2003 P	11,635.2	6,914.0	1,615.9	2,429.4	810.0	694.2	3,588.0	-827.3	26,859.4
2003 % of Total	43.3%	25.7%	6.0%	9.0%	3.0%	2.6%	13.4%	-3.1%	100.0%

P = Preliminary

**TABLE 63: Operating Expense for Fiscal Year 2003 By Function and Object Class, Millions of Dollars**

FUNCTION AND OBJECT CLASS	VEHICLE OPERATIONS	VEHICLE MAINTENANCE	NON-VEHICLE MAINTENANCE	GENERAL ADMINISTRATION	PURCHASED TRANSPORTATION	TOTAL
Salaries & Wages	6,261.0	2,374.1	1,635.6	1,364.5	0.0	11,635.2
Fringe Benefits	3,653.1	1,321.5	985.7	953.7	0.0	6,914.0
Services	126.0	254.8	195.8	1,039.3	0.0	1,615.9
Fuels & Lubricants	687.2	96.3	7.7	0.0	0.0	791.2
Materials & Supplies	131.6	966.8	228.2	311.6	0.0	1,638.2
Utilities	139.6	42.5	410.6	217.3	0.0	810.0
Casualty & Liability	48.8	8.3	13.6	623.5	0.0	694.2
Purchased Transp.	0.0	0.0	0.0	0.0	3,588.0	3,588.0
Other	889.7	-241.1	-931.4	-544.5	0.0	-827.3
Total	11,937.0	4,823.2	2,545.8	3,965.4	3,588.0	26,859.4
<b>PER CENT</b>						
Salaries & Wages	23.31%	8.84%	6.09%	5.08%	0.00%	43.32%
Fringe Benefits	13.60%	4.92%	3.67%	3.55%	0.00%	25.74%
Services	0.47%	0.95%	0.73%	3.87%	0.00%	6.02%
Fuels & Lubricants	2.56%	0.36%	0.03%	0.00%	0.00%	2.95%
Materials & Supplies	0.49%	3.60%	0.85%	1.16%	0.00%	6.10%
Utilities	0.52%	0.16%	1.53%	0.81%	0.00%	3.02%
Casualty & Liability	0.18%	0.03%	0.05%	2.32%	0.00%	2.58%
Purchased Transp.	0.00%	0.00%	0.00%	0.00%	13.36%	13.36%
Other	3.31%	-0.90%	-3.47%	-2.03%	0.00%	-3.08%
Total	44.44%	17.96%	9.48%	14.76%	13.36%	100.00%

All data are preliminary

**TABLE 64: Operating Expense by Mode, Millions of Dollars**

FISCAL YEAR	BUS	COMMUTER RAIL	DEMAND RESPONSE	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER	TOTAL
1990	8,903.1	1,938.5	517.8	3,825.0	237.1	108.6	212.0	15,742.1
1991	9,501.4	1,942.4	608.5	3,858.6	291.1	113.5	225.9	16,541.4
1992	9,881.2	2,012.6	667.3	3,555.1	308.9	124.4	231.9	16,781.4
1993	10,109.6	2,088.4	793.0	3,668.6	315.9	131.9	242.5	17,349.8
1994	10,144.1	2,227.8	942.7	3,786.2	412.8	132.9	273.4	17,919.9
1995	10,320.5	2,211.2	1,000.4	3,522.9	376.1	138.9	278.7	17,848.7
1996	10,574.9	2,294.1	1,186.6	3,401.9	441.6	134.6	307.0	18,340.7
1997	10,944.0	2,278.1	1,284.5	3,473.7	472.5	140.2	343.1	18,936.1
1998	11,428.9	2,360.6	1,405.4	3,529.6	500.2	146.5	367.3	19,738.5
1999	11,713.8	2,574.9	1,419.3	3,693.4	545.6	166.9	398.2	20,512.1
2000	12,966.2	2,685.3	1,804.9	3,930.8	606.4	177.6	474.3	22,645.5
2001	13,335.2	2,860.8	1,754.0	4,180.1	682.2	172.4	532.2	23,516.9
2002	14,065.6	3,003.2	1,949.4	4,267.5	778.3	186.7	583.3	24,834.0
2003 P	15,240.3	3,178.5	2,363.4	4,446.2	815.2	182.7	633.1	26,859.4
2003 % of Total	56.7%	11.8%	8.8%	16.6%	3.0%	0.7%	2.4%	100.0%

P = Preliminary

# Operating Funding

## Highlights.....

- \$28.1 billion was received from all sources in 2003.
- 32.6% came from passengers, 19.9% from local governments, 23.7% from state governments, 5.8% from federal governments, and 18.1% was raised by transit agencies from directly-levied taxes, advertising, interest income, and other sources.
- Average adult base cash fare was \$1.33.
- Average fare paid per unlinked trip was \$0.97. For bus, it was \$0.72, commuter rail \$3.79, demand response \$2.14, heavy rail \$1.00, and light rail \$0.68.

**Operating Funding Source** is a source of funds used to pay for operating expenses. Under federal regulations, some capital funds may be used to fund a portion of operating expenses, and would therefore be considered operating funds.

**Government Funds** are funds provided by federal, state, and/or local governments. For some purposes, also includes directly generated taxes, tolls, fees, and other imposed funding sources.

**Federal Funds** are financial assistance from the federal government to assist in paying the operating costs of providing transit service.

**State Government Funds** are financial assistance obtained from a state government(s) to assist with paying the costs of providing transit services.

**Local Government Funds** are financial assistance from local governments (below the state level) to help cover the operating costs of providing transit service.

**Directly Generated Funds** are any funds where revenues are generated by or donated directly to the transit agency, including passenger fare revenues, advertising revenues, donations, bond proceeds and taxes imposed by the transit agency. All the following are types of directly generated funds:

**Passenger Fares** are revenue earned from carrying passengers in regularly scheduled and demand response service. Passenger fares include: the base fare; zone premiums; express service premiums; extra cost transfers; and quantity purchase discounts applicable to the passenger's ride.

**Adult Base Cash Fare** is the minimum cash fare paid by an adult for one transit ride; excludes transfer charges, zone or distance charges, express service charges, peak period surcharges, and reduced fares.

**Passenger Fares Received per Unlinked Passenger Trip** is "Passenger Fares" divided by "Unlinked Passenger Trips."

**Peak Period Surcharge** is an extra fee required during peak periods (rush hours).

**Transfer Surcharge** is an extra fee charged for a transfer to use when boarding another transit vehicle to continue a trip.

**Zone or Distance Surcharge** is an extra fee charged for crossing a predetermined boundary.

**Other Operating Funds** is the sum of freight tariffs, auxiliary transportation revenues, non-transportation revenues, revenue accrued through a purchased transportation agreement, and subsidy from other sectors of operations:

**Freight Tariffs** are the revenue earned from carrying all types of freight on runs whose primary purpose is passenger operations.

**Auxiliary Transportation Revenues** are the revenue earned from operations closely associated with transportation operations. Revenue includes station concessions; vehicle concessions; advertising revenues; ID card fees; fare evasion and park and ride lot fines; automotive vehicle ferriage; and other.

**Non-Transportation Revenues** are the revenue earned from activities not associated with the provision of transit service. Non-transportation revenues include investment earnings and other non-transportation sources including revenues earned from sales of maintenance services on property not owned or used by the transit agency; rentals of revenue vehicles to other operators; rentals of transit agency buildings and property to other organizations; parking fees generated from parking lots not normally used as park and ride locations; donations; grants from private foundations; development fees; rental car fees; and other.

**Revenue Accrued through a Purchased Transportation Agreement** is revenue accrued by a seller of transportation services through purchased transportation agreements, not including passenger fares for purchased transportation services from service provided under the purchased transportation agreement.

**Subsidy from Other Sectors of Operations** is the funds obtained from other sectors of a transit agency's operations to help cover the cost of providing transit services. Subsidies from other sectors of transit operations include subsidies from utility rates where the transit agency is a utility company; subsidies from bridge and tunnel tolls owned and operated by transit agency; and subsidies from other sources provided the same entity that operates the transit agency.



Almost all transit agencies depend on fares paid by passengers to fund a major part of their expenses. These ticket vending machines are used by New York's Metro-North Railroad.

**TABLE 65: Average Passenger Fare Per Unlinked Passenger Trip by Mode, Fiscal Year 2003, Dollars**

MODE	FARE PER UNLINKED PASSENGER TRIP
Bus	0.72
Commuter Rail	3.79
Demand Response	2.14
Ferryboat (b)	1.50
Heavy Rail	1.00
Light Rail	0.68
Trolleybus	0.49
Vanpool	1.84
Other (a)	0.91
<b>TOTAL</b>	<b>0.97</b>

All data are preliminary

(a) Includes aerial tramway, automated guideway transit, cable car, inclined plane, and monorail.

(b) Excludes international, rural, rural interstate, island, and urban park ferries.

**TABLE 66: Operating Funding Sources, Millions of Dollars**

FISCAL YEAR	DIRECTLY GENERATED FUNDS			GOVERNMENT FUNDS				TOTAL PUBLIC FUNDS (d)	TOTAL
	PASSENGER FARES (a)	OTHER (b)	TOTAL	LOCAL (b)	STATE	FEDERAL (c)	TOTAL		
1990	5,890.8	895.0	6,785.8	5,326.8	2,970.6	970.0	9,267.4	9,267.4	16,053.2
1991	6,037.2	766.8	6,804.0	5,573.4	3,199.5	955.9	9,728.8	9,728.8	16,532.8
1992	6,152.5	645.9	6,798.4	5,268.1	3,879.5	969.1	10,116.7	10,116.7	16,915.1
1993	6,350.9	764.0	7,114.9	5,490.6	3,704.2	966.5	10,161.3	10,161.3	17,276.2
1994	6,756.0	2,270.6	9,026.6	4,171.2	3,854.4	915.6	8,941.2	10,570.3	17,967.8
1995	6,800.9	2,812.2	9,613.1	3,980.9	3,829.6	817.0	8,627.5	10,171.7	18,240.6
1996	7,416.3	2,928.2	10,344.5	4,128.5	4,081.8	596.4	8,806.7	10,502.1	19,151.2
1997	7,545.7	3,308.4	10,854.1	4,095.1	3,918.7	647.0	8,660.8	10,524.4	19,514.9
1998	7,969.6	3,684.7	11,654.3	4,376.9	4,279.4	751.2	9,407.5	11,360.9	21,061.8
1999	8,282.4	3,647.6	11,930.0	4,539.8	4,878.6	871.8	10,290.2	12,574.7	22,220.2
2000	8,745.8	4,216.7	12,962.5	5,318.8	4,967.1	994.2	11,280.1	13,239.0	24,242.6
2001	8,891.1	3,579.5	12,470.6	5,986.6	5,700.9	1,129.9	12,817.4	14,762.1	25,288.0
2002	8,648.9	4,601.6	13,250.5	5,343.9	6,718.6	1,319.4	13,381.9	15,593.2	26,632.4
2003 P	9,153.1	5,082.7	14,235.9	5,576.9	6,655.8	1,617.0	13,849.7	16,403.1	28,085.5
2003 % of Total	32.6%	18.1%	50.7%	19.9%	23.7%	5.8%	49.3%	58.4%	100.0%

P = Preliminary

(a) Includes fares retained by contractors; beginning 1991 includes fare subsidies formerly included in "other".

(b) "Local" includes taxes levied directly by transit agency and other subsidies from local government such as bridge and tunnel tolls and non-transit parking lot funds. Beginning 1994, such funds reclassified from "local" to "other".

(c) Includes federal funds for capital uses that are accounted as operating funds under the National Transit Database accounting system.

(d) Includes "Total Government Funds" plus that portion of "Other Directly Generated Funds" included in "Local Government Funds" beginning in 1994 consisting of transit agency-raised taxes, tolls, and other dedicated funds.

**TABLE 67: Passenger Fares by Mode, Millions of Dollars (a)**

FISCAL YEAR	BUS	COMMUTER RAIL	DEMAND RESPONSE	HEAVY RAIL	LIGHT RAIL	TROLLEY BUS	OTHER	TOTAL
1990	2,966.8	952.2	40.9	1,740.8	82.6	45.8	61.7	5,890.8
1991 (b)	3,098.4	958.0	68.9	1,700.6	97.8	51.6	61.9	6,037.2
1992	3,058.8	970.1	75.8	1,830.3	97.8	48.7	71.0	6,152.5
1993	3,116.7	995.5	93.9	1,913.3	102.5	52.4	76.6	6,350.9
1994	3,249.5	1,083.1	170.7	1,975.7	135.1	54.5	87.4	6,756.0
1995	3,287.2	1,077.5	146.3	2,018.2	126.5	54.0	91.2	6,800.9
1996	3,515.0	1,145.6	156.9	2,321.5	144.2	54.7	78.4	7,416.3
1997	3,557.8	1,177.6	170.4	2,350.9	138.6	56.9	93.5	7,545.7
1998	3,991.2	1,255.2	141.5	2,297.4	149.7	55.3	79.3	7,969.6
1999	4,175.0	1,308.7	158.6	2,323.3	163.5	59.5	93.8	8,282.4
2000	4,375.5	1,374.6	171.6	2,482.7	181.2	59.5	100.7	8,745.8
2001	4,356.7	1,438.7	181.5	2,532.6	203.8	59.5	118.3	8,891.1
2002	4,106.2	1,447.4	193.5	2,492.5	226.1	59.4	123.8	8,648.9
2003 P	4,269.6	1,552.2	244.0	2,654.3	229.1	53.5	150.5	9,153.1
2003 % of Total	46.6%	17.0%	2.7%	29.0%	2.5%	0.6%	1.6%	100.0%

P = Preliminary

(a) 2002 was first year these data were available from the Federal Transit Administration National Transit Database reports. Estimates for previous years made by APTA from transit agency estimates, which are made according to each agency's procedures.

(b) Beginning in 1991 includes fare subsidies formerly classified as "Other" Operating Funding.

**TABLE 68: Passenger Fares Summary**

YEAR (a)	PASSENGER FARES RECEIVED PER UNLINKED TRIP	ADULT BASE CASH FARE (b)		PER CENT OF SYSTEMS WITH (d)		
		HIGHEST	AVERAGE (c)	PEAK PERIOD SURCHARGES	TRANSFER SURCHARGES	ZONE OR DISTANCE SURCHARGES
1990	0.669	2.75	0.730	6.5	28.8	38.9
1991	0.704	6.00	0.823	5.5	24.2	39.4
1992	0.724	6.00	0.860	5.6	26.6	39.0
1993	0.773	6.00	0.860	5.6	26.6	39.0
1994	0.850	6.00	0.955	6.4	25.2	37.7
1995	0.876	7.00	0.992	6.5	23.8	36.9
1996	0.933	7.00	1.047	7.0	22.9	32.6
1997	0.888	7.00	1.058	7.0	22.9	32.6
1998	0.871	7.00	1.065	6.1	21.9	32.9
1999	0.903	4.00	1.087	6.5	26.8	35.0
2000	0.934	5.00	1.128	7.5	21.6	33.2
2001	0.921	7.00	1.194	7.0	20.1	32.4
2002	0.899	9.00	1.238	4.5	21.3	28.5
2003	0.970	10.00	1.327	5.4	20.4	29.1
2004 P	NA	10.00	1.367	7.6	19.7	29.9

P = Preliminary

(a) Fiscal years for Passenger Fares Received per Unlinked Trip. All other data for calendar years.

(b) Lowest base fare is \$0.00 (free).

(c) Unweighted average of adult base cash fares; excludes surcharges; each transit agency counted equally.

(d) Per cents represent an approximately 300-transit-agency sample, not estimated for all transit agencies.

**TABLE 69: Examples of Cost of Riding Public Transportation**

COST	\$0.50 BASE FARE	\$0.75 BASE FARE	\$1.00 BASE FARE	\$1.25 BASE FARE	\$1.50 BASE FARE	\$2.00 BASE FARE
<b>BASE ANNUAL COST (472 TRIPS)</b>						
No discounted fare media used	236.00	354.00	472.00	590.00	708.00	944.00
Monthly passes with 20% discount used	188.80	283.20	377.60	472.00	566.40	755.20
<b>ADDITIONAL ANNUAL COSTS (including 20% discount)</b>						
\$ .25 surcharge to transfer to another vehicle	94.40	94.40	94.40	94.40	94.40	94.40
\$2.00 zone/distance surcharge (\$.50 each for 4 zones)	755.20	755.20	755.20	755.20	755.20	755.20
\$.50 peak-hour surcharge	188.80	188.80	188.80	188.80	188.80	188.80
\$.25 surcharge for express service	94.40	94.40	94.40	94.40	94.40	94.40
\$2.00 per day parking surcharge	755.20	755.20	755.20	755.20	755.20	755.20
<b>TOTAL ANNUAL COST (including 20% discount)</b>						
Including transfer surcharge only	283.20	377.60	472.00	566.40	660.80	849.60
Including distance surcharge only	944.00	1,038.40	1,132.80	1,227.20	1,321.60	1,510.40
Including distance and peak-hour surcharges	1,132.80	1,227.20	1,321.60	1,416.00	1,510.40	1,699.20
Including distance and express surcharges	1,038.40	1,132.80	1,227.20	1,321.60	1,416.00	1,604.80
Including distance and parking surcharges	1,699.20	1,793.60	1,888.00	1,982.40	2,076.80	2,265.60

Annual number of trips estimate based on 365 days minus 52 Saturdays minus 52 Sundays minus 7 holidays minus 10 days vacation minus 8 days sick leave times 2 trips per day.

**TABLE 70: Automobile Driving Costs, 2004**

CATEGORY	SMALL CAR	MIDSIZE CAR	LARGE CAR	SPORT UTILITY VEHICLE	VAN
<b>OPERATING COSTS (cents per mile)</b>					
Gasoline & Oil	5.4	6.7	7.5	6.5	8.4
Maintenance	3.5	6.5	6.1	5.4	4.3
Tires	0.5	1.0	0.6	0.7	1.0
<b>SUBTOTAL</b>	<b>9.4</b>	<b>14.2</b>	<b>14.2</b>	<b>12.6</b>	<b>13.7</b>
<b>OWNERSHIP COSTS (cost per year)</b>					
Insurance	1,606	1,397	1,806	1,603	1,491
License, registration, taxes	352	421	472	415	454
Depreciation	2,812	4,051	4,484	3,782	4,286
Finance charge	542	760	920	741	865
<b>SUBTOTAL</b>	<b>5,312</b>	<b>6,629</b>	<b>7,682</b>	<b>6,541</b>	<b>6,853</b>
<b>DEPRECIATION ADJUSTMENTS</b>					
(per mile under 15,000 miles annually)	-575	-950	-1,200	-908	-950
(per mile over 15,000 miles annually)	650	950	1,175	925	950
<b>TOTAL ANNUAL COST</b>					
10,000 miles per year	5,677	7,099	7,902	6,893	7,273
15,000 miles per year	6,722	8,759	9,812	8,431	8,908
20,000 miles per year	7,842	10,419	11,697	9,986	10,543

Source: American Automobile Association and Runzheimer International, *Your Driving Costs, 2004 Edition*. Data for a popular model of each type listed assuming ownership of more than 5 years or 75,000 miles before replacement.

# MODE DATA

## Bus and Trolleybus

### Highlights.....

See National Totals on page 51.

The vast majority of scheduled fixed-route transit service operates in bus and trolleybus modes on streets and highways using rubber-tired vehicles. In all but about 50 metropolitan areas and small cities, bus service is the only fixed-route transit service available.

A **mode** is a system for carrying transit passengers described by specific right-of-way, technology and operational features. Major fixed-route roadway modes are:

**Bus** mode uses vehicles powered by diesel, gasoline, battery or alternative fuel engines contained within the vehicle.

**Trolleybus** mode uses vehicles propelled by a motor drawing current from overhead wires via a connecting pole called a trolley from a central power source not on board the vehicle.

Only 4 transit agencies in the Boston, MA, Dayton, OH, San Francisco, CA, and Seattle, WA areas use trolleybus service. Although Southeastern Pennsylvania Transportation Authority in Philadelphia, PA reported trolleybus data for fiscal year 2003, all of these routes are now serviced using motor buses.

**Jitney** is a transit mode comprised of passenger cars or vans operating on fixed routes (sometimes with minor deviations) as demand warrants without fixed schedules or fixed stops. There is currently one jitney service in Laguna Beach, CA and a number of unofficial and often illegal jitneys are known to exist as well.

In Puerto Rico, there is a mode similar to jitney called a **publico**, which is comprised of passenger vans or small buses operating with fixed routes but no fixed schedules. Publicos are a privately owned and operated mass transit service which is market oriented and unsubsidized, but regulated through a public service commission, state, or local government. Publicos are operated under franchise agreements, fares are regulated by route, and there are special insurance requirements. Vehicle capacity varies from 8 to 24, and the vehicles may be owned or leased by the operator.

## Types of Service

**Local service**, where vehicles may stop every block or two along a route several miles long, is by far the most common type of bus service. Trolleybuses, unless bypass overhead wiring is available, cannot pass the trolleybus in front of them, and thus generally operate in local service only.

When limited to a small geographic area or to short-distance trips, local service is often called **circulator, feeder, neighborhood, trolley, or shuttle service**. Such routes, which often have a lower fare than regular local service, may operate in a loop and connect, often at a transfer center or rail station, to major routes for travel to more far-flung destinations. Examples are office park circulators, historic district routes, transit mall shuttles, rail feeder routes, and university campus loops.

**Express service** speeds up longer trips, especially in major metropolitan areas during heavily-patronized peak commuting hours, by operating long distances without stopping. Examples include park-and-ride routes between suburban parking lots and the central business district that operate on freeways, and express buses on major streets that operate local service on the outlying portions of a route until a certain point and then operate non-stop to the central business district.

**Limited-stop service** is a hybrid between local and express service, where the stops may be several blocks to a mile or more apart to speed up the trip.

**Bus rapid transit (BRT)** is a type of limited-stop service developed in the 1990s that relies on technology to help speed up the service. It can operate on exclusive transitways, high-occupancy-vehicle lanes, expressways, or ordinary streets. A BRT line combines intelligent transportation systems technology, priority for transit, rapid and convenient fare collection, and integration with land use policy in order to substantially upgrade bus system performance.

**TABLE 71: Average New Bus and Trolleybus Costs, 2004-2005, Thousands of Dollars (a)**

TYPE OF VEHICLE	BUS	TROLLEYBUS
Articulated (55'-61')	534	1,600
Intercity (35'-45')	428	NA
45' Transit (45')	NA	NA
40' Transit (37'6"-42'5')	341	943
35' Transit (32'6"-37'5')	276	NA
30' Transit (27'6"-32'5")	251	NA
Suburban (27'6"-45')	172	NA
Trolley replica (all lengths)	287	NA
Small Vehicle (<27'6")	78	NA

Source: APTA survey of 15% of bus/trolleybus transit agencies.  
 (a) Cost includes amount paid to manufacturer or agent. Not all orders were reported. Each year of a multi-year order is counted as a separate order.

**TABLE 72: Bus and Trolleybus National Totals, Fiscal Year 2003**

	<b>BUS</b>	<b>TROLLEYBUS</b>
Agencies, Number of	1,982	4
Fares Collected, Passenger	\$4,269,636,000	\$53,475,000
Fare per Unlinked Trip, Average	\$0.72	\$0.49
Expense, Operating Total (a)	\$15,240,255,000	\$182,662,000
Salaries and Wages (b)	\$6,624,009,000	\$94,472,000
Fringe Benefits (b)	\$3,878,924,000	\$61,929,000
Services (b)	\$872,808,000	\$13,493,000
Fuel and Lubricants (b)	\$629,505,000	\$61,000
Materials and Supplies, Other (b)	\$948,322,000	\$9,732,000
Utilities (b)	\$181,743,000	\$4,172,000
Casualty and Liability (b)	\$416,092,000	\$2,447,000
Purchased Transportation (b) (c)	\$1,778,668,000	\$110,000
Other (b)	-\$89,816,000	-\$3,753,000
Vehicle Operations (c)	\$7,658,222,000	\$104,106,000
Vehicle Maintenance (c)	\$2,857,571,000	\$29,543,000
Non-vehicle Maintenance (c)	\$619,534,000	\$14,948,000
General Administration (c)	\$2,326,260,000	\$33,956,000
Expense, Capital Total	\$3,241,729,000	\$118,811,000
Rolling Stock	\$1,570,314,000	\$38,648,000
Facilities, Guideway, Stations, Admin. Buildings	\$978,554,000	\$73,335,000
Other	\$692,861,000	\$6,828,000
Trips, Unlinked Passenger, Annual	5,692,118,000	108,569,000
Miles, Passenger	21,261,901,000	176,145,000
Trip Length, Average (miles)	3.7	1.6
Miles, Vehicle Total	2,420,819,000	13,791,000
Miles, Vehicle Revenue	2,092,869,000	13,219,000
Hours, Vehicle Total	184,240,000	1,844,000
Hours, Vehicle Revenue	165,094,000	1,781,000
Speed, Vehicle in Revenue Service, Average (m.p.h.)	12.7	7.4
Revenue Vehicles Available for Maximum Service	77,328	672
Vehicles Operated at Maximum Service	61,501	520
Age, Average (years)	7.5	8.3
Air-conditioned	93.2%	18.8%
Lifts, Wheelchair	64.7%	78.6%
Ramps, Wheelchair	31.7%	3.7%
Accessible Only via Stations	0.0%	0.0%
Power Source, Diesel or Gasoline	84.1%	0.0%
Power Source, Alternative	15.9%	100.0%
Rehabilitated	4.7%	0.0%
Employees, Operating	205,478	1,964
Vehicle Operations	138,650	1,408
Vehicle Maintenance	36,456	284
Non-vehicle Maintenance	7,563	135
General Administration	22,810	137
Employees, Capital	4,143	21
Diesel Fuel Consumed (gallons)	535,963,000	0
Other Fuel Consumed (gallons)	113,940,000	0
Electricity Consumed (kwh)	1,658,000	69,469,000

(a) Sum of (b) lines OR sum of (c) lines.

## Types of Vehicles

A **transit bus** has front and center doors, normally with a rear-mounted engine, low-back seating, and without luggage compartments or restroom facilities for use in frequent-stop service. (By far the most common bus used for local service, these buses are mostly 40 feet long, but 35-foot and 30-foot versions are also common in smaller cities and on lightly-patronized routes.)



Connecticut Transit operates this 40-foot-long bus, the most common, in both Hartford and Stamford Connecticut. Most buses are high-floor models having two or three steps, but this is a low-floor model without steps.

A **trolleybus (trolley coach, trackless trolley)** is a rubber-tired electrically powered passenger vehicle operating on city streets drawing power from overhead lines with trolleys.



This trolleybus is a rubber-tired vehicle without an engine that is powered from two electric wires. Only five cities have them; this one is operated by the King County Department of Transportation in Seattle, Washington.

A **dual-mode trolleybus** is a trolleybus that also has an on-board power source that can be used in emergencies or to extend the route beyond the end of the overhead wires. Only one city (Seattle) operates such vehicles.

An **articulated bus** or **articulated trolleybus** is an extra-long (54 to 60 feet) vehicle with two connected passenger compartments. The rear body section is connected to the main body by a joint mechanism that allows the vehicle to bend when in operation for sharp turns and curves and yet have a continuous interior. (Such vehicles are normally operated in local service in the very largest metropolitan areas on extremely heavily-patronized routes.)



In the largest cities, some routes require 60-foot long articulated buses that bend in the middle; this one is operated by the Los Angeles Metropolitan Transit Authority in California.

An **intercity bus** has a front door only, separate luggage compartments, and usually restroom facilities and high-backed seats for use in high-speed long-distance service. (Such buses are 40 or 45 feet in length and are used by the largest transit agencies and private companies on express and limited-stop routes.)

A **suburban bus** has front doors only, normally high-backed seats, but no luggage compartments or restroom facilities for use in longer-distance service with relatively few stops. (Such 40 and 45-foot buses are used in the same manner as intercity buses.)

A **trolley replica bus (trolley)** has an exterior (and usually an interior) designed to look like a streetcar from the early 1900s. (These specialized buses are generally shorter--22 to 32 feet--and are used mostly on historic district and tourist-oriented circulator or shuttle services.)



Often called a trolley, this vehicle that imitates an old streetcar is called a "trolley replica bus." Its data are included with bus statistics since it is rubber-tired and has an on-board power source. This is a Sioux Falls Transit vehicle in City of Sioux Falls, South Dakota.

A **double decked bus** is a high-capacity bus having two levels of seating, one over the other, connected by one or more stairways. Total bus height is usually 13 to 14.5 feet, and typical passenger seating capacity ranges from 40 to 80 people. Although common in older cities of Europe and Asia where street capacity is very limited, only a handful of such buses are used in U.S. transit service.



A typical body-on-chassis van operated by the Regional Transportation District in Denver, Colorado. Although this particular van is being used for demand response service, this type of vehicle is often used for lightly-patronized fixed route service.

A **van** is a vehicle having a typical seating capacity of 5 to 15 passengers and classified as a van by vehicle manufacturers. A **modified van (body-on-chassis van)** is a standard van that has undergone some structural changes, usually made to increase its size and particularly its height. The seating capacity of modified vans is approximately 9 to 18 passengers.

**Automobiles** such as station wagons and **sport utility vehicles** may also be used on extremely lightly-patronized routes in remote rural areas.

Although most service is operated with new vehicles, a small proportion is operated by rehabilitated vehicles.

**Rehabilitation** is the rebuilding of revenue vehicles to original specifications of the manufacturer. **Rebuilding** may include some new components but has less emphasis on structural restoration than would be the case in a **remanufacturing** operation, focusing on mechanical systems and vehicle interiors.

**TABLE 73: New Bus and Trolleybus Market by Manufacturer, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	3,209	100.0%	2,460	100.0%	8,680	100.0%
Blue Bird Corporation	42	1.3%	1	0.0%	NA	NA
Champion Motor Coach	34	1.1%	0	0.0%	NA	NA
Dennis Specialist Vehs	0	0.0%	50	2.0%	NA	NA
El Dorado-National	30	0.9%	20	0.8%	NA	NA
Gillig Corporation	778	24.2%	405	16.5%	NA	NA
Goshen Coach	28	0.9%	47	1.9%	NA	NA
Mid Bus	47	1.5%	2	0.1%	NA	NA
Motor Coach Ind. Int.	100	3.1%	2	0.1%	NA	NA
Neoplan USA Corp.	129	4.0%	320	13.0%	NA	NA
New Flyer of America	1062	33.1%	851	34.6%	NA	NA
North American Bus Ind.	508	15.8%	452	18.4%	NA	NA
Optima Bus Corporation	50	1.6%	69	2.8%	NA	NA
Orion Bus Industries	324	10.1%	85	3.5%	NA	NA
Turtle Top	17	0.5%	10	0.4%	NA	NA
Van Hool	0	0.0%	86	3.5%	NA	NA
All Others	60	1.9%	60	2.4%	NA	NA

Source: APTA survey. Bus data are about 70% and trolleybus data 100% of national totals.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 74: New Bus and Trolleybus Market By Type, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	3,811	100.0%	3,739	100.0%	7,842	100.0%
2-level	0	0.0%	50	1.3%	0	0.0%
Articulated (55'-60')	472	12.4%	368	9.8%	457	5.8%
Intercity (35'-45')	102	2.7%	2	0.1%	325	4.1%
45' Transit (45')	0	0.0%	25	0.7%	0	0.0%
40' Transit (37'6"-42'5")	1,991	52.2%	1,510	40.4%	6,439	82.1%
35' Transit (32'6"-37'5")	248	6.5%	157	4.2%	602	7.7%
30' Transit (27'6"-32'5")	206	5.4%	161	4.3%	446	5.7%
Suburban (27'6"-45')	48	1.3%	84	2.2%	49	0.6%
Trolley replica (all lengths)	17	0.4%	13	0.3%	109	1.4%
Small vehicle (<27'6")	125	3.3%	90	2.4%	253	3.2%

Source: APTA survey. Bus data are about 70% and trolleybus data 100% of national totals.  
(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 75: New Bus and Trolleybus Market By Length, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	3,209	100.0%	2,460	100.0%	8,680	100.0%
55-61 feet	472	14.7%	368	15.0%	456	5.3%
45-51 feet	77	2.4%	60	2.4%	311	3.6%
38-41 feet	2,040	63.6%	1,568	63.7%	6,489	74.8%
33-37 feet	252	7.9%	185	7.5%	614	7.1%
28-32 feet	243	7.6%	189	7.7%	556	6.4%
18-27 feet	125	3.9%	90	3.7%	254	2.9%

Source: APTA survey. Bus data are about 70% and trolleybus data 100% of national totals.  
(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 76: New Bus and Trolleybus Market By Seating Capacity, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	3,209	100.0%	2,460	100.0%	8,680	100.0%
60 or more seats	226	7.0%	123	5.0%	223	2.6%
50-59 seats	328	10.2%	272	11.1%	541	6.2%
41-49 seats	348	10.8%	325	13.2%	2,298	26.5%
36-40 seats	1,687	52.6%	1,245	50.6%	4,352	50.1%
25-35 seats	399	12.4%	340	13.8%	780	9.0%
Below 25 seats	221	6.9%	155	6.3%	486	5.6%

Source: APTA survey. Bus data are about 70% and trolleybus data 100% of national totals.  
(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

## Accessibility

A **station** is a public transportation passenger facility.

An **accessible station** is a station which provides ready access, and does not have physical barriers that prohibit and/or restrict access by individuals with disabilities, including individuals who use wheelchairs.

An **accessible vehicle** is a public transportation revenue vehicle that does not restrict access, is usable, and provides allocated space and/or priority seating for individuals who use wheelchairs.

Some **bus rapid transit (BRT) services** implemented in recent years utilize stations with high-level platforms, which require high-floor buses with no steps and a level floor. Hybrid buses that also have a lift would be necessary when BRT buses serve both stations with high-floor platforms and regular bus stops.



*The Regional Transportation Commission of Southern Nevada operates this optically-guided bus in Las Vegas. It approaches within 2 inches of the same-level platform for quick and easy access.*

**High-floor vehicles** require riders to climb 2 or 3 steps from street level. Such vehicles accommodate wheelchair-bound and other riders who cannot climb steps by using a retractable lift (usually formed from the vehicle's steps) that raises and lowers persons and equipment between street and floor levels.

**Low-floor vehicles** eliminate the steps at the front entrance and have a level floor in the front part of the vehicle. Only a short retractable ramp is necessary to accommodate wheelchairs and those who cannot bridge the gap between vehicle and street level. Some models have a level floor the entire length of the vehicle and no steps at the rear door.

Both types may have a "kneeling" feature that lowers the entire front end of the vehicle several inches to aid in boarding.

Prior to the implementation of the Americans with Disabilities Act in 1990, almost all vehicles were high-floor. Now the majority of new vehicles are low-floor.



*This Pace bus, which services the suburbs of Chicago, Illinois, has a low floor and is equipped with a ramp.*

**TABLE 77: Bus and Trolleybus Accessibility, 2005**

	BUS	PER CENT	TROLLEYBUS	PER CENT
Total	67,768	100.0%	869	100.0%
Via on-board lift	38,951	57.48%	660	75.95%
Via on-board ramp	26,760	39.49%	60	6.90%
Non-accessible	2,057	3.04%	149	17.15%

Source: APTA survey. Bus data are about 70% and trolleybus data 100% of national totals.

**TABLE 78: New Bus and Trolleybus Market by Accessibility, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	3,209	100.0%	2,460	100.0%	8,680	100.0%
Via on-board lift	555	17.3%	427	17.4%	1,864	21.5%
Via on-board ramp	2,654	82.7%	2,033	82.6%	6,816	78.5%
Non-accessible	0	0.0%	0	0.0%	0	0.0%

Source: APTA survey. Bus data are about 70% and trolleybus data 100% of national totals.  
(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 79: Bus and Trolleybus Power Sources, 2005**

	BUS	PER CENT	TROLLEYBUS	PER CENT
Total	60,526	NA	931	NA
Compressed natural gas & blends	6,744	11.1%	0	0.0%
Diesel	51,391	84.9%	0	0.0%
Diesel/electric catenary	0	0.0%	14	1.5%
Electric battery/hybrid	631	1.0%	0	0.0%
Electric catenary	0	0.0%	917	98.5%
Gasoline	276	0.5%	0	0.0%
Liquefied natural gas & blends	1,003	1.7%	0	0.0%
Propane	292	0.5%	0	0.0%
Other (a)	189	0.3%	0	0.0%

Source: APTA survey. Bus data are about 70% and trolleybus data 100% of national totals.  
(a) Includes bio/soy fuel, biodiesel, hydrogen, jet fuel, and propane blends.

**TABLE 80: Bus Power Sources**

YEAR	CNG & BLENDS	DIESEL	ELEC- TRIC & OTHER	ETHANOL & BLENDS	GASO- LINE	LNG & BLENDS	METH- ANOL	PRO- PANE	OTHER (a)	TOTAL
1993	225	50,595	18	86	257	80	160	28	176	51,625
1994	353	49,716	31	86	283	287	351	28	203	51,338
1995	678	50,158	37	82	243	357	399	31	202	52,187
1996	1,074	48,050	41	82	234	347	396	29	91	50,344
1997	1,562	47,177	24	347	230	347	63	25	66	49,841
1998	2,148	47,174	33	395	250	346	19	12	70	50,447
1999	2,494	47,745	41	375	194	707	17	9	26	51,608
2000	3,072	49,249	68	57	197	772	12	25	12	53,464
2001	4,137	49,743	80	15	204	842	12	57	100	55,190
2002	5,497	50,894	113	0	203	879	12	87	130	57,815
2003	6,178	49,755	146	0	241	928	11	90	112	57,461
2004	6,035	48,545	181	0	231	974	0	101	174	56,241
2005	6,744	51,391	631	0	276	1,003	0	292	189	60,526
2005 % of Total	11.1%	84.9%	1.0%	0.0%	0.5%	1.7%	0.0%	0.5%	0.3%	100.0%

Source: APTA surveys of about 300 transit agencies including about 70% of all buses.  
(a) Includes bio/soy fuel, biodiesel, hydrogen, jet fuel, and propane blends.

**TABLE 81: New Bus and Trolleybus Market by Power Source, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	3,209	100.0%	2,460	100.0%	8,680	100.0%
Compressed natural gas	540	16.8%	405	16.5%	1,389	16.0%
Diesel	2,110	65.8%	1,841	74.8%	4,628	53.3%
Dual-power	430	13.4%	131	5.3%	528	6.1%
Electric catenary	28	0.9%	0	0.0%	0	0.0%
Gasoline	23	0.7%	17	0.7%	49	0.6%
Liquefied natural gas	52	1.6%	33	1.3%	69	0.8%
Propane	4	0.1%	0	0.0%	18	0.2%
All others	22	0.7%	33	1.3%	51	0.6%
Undecided	NA	NA	NA	NA	1,948	22.4%

Source: APTA survey. Bus data are about 70% and trolleybus data 100% of national totals.  
(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 82: Bus and Trolleybus Fuel and Power Consumption, Thousands of Gallons (a)**

FISCAL YEAR	DIESEL	COMPRESSED NATURAL GAS	GASOLINE	LIQUIFIED NATURAL GAS	PROPANE	OTHER	TOTAL NON-DIESEL	ELECTRICITY (KWH) (000)
1994	565,064	3,109	2,103	1,138	249	12,740	19,339	102,945
1995	563,767	10,011	2,297	1,737	269	11,967	26,281	100,659
1996	577,680	11,527	1,844	2,278	591	11,600	27,840	69,130
1997	597,636	20,050	2,722	3,276	1,033	8,705	35,807	78,561
1998	606,631	32,620	1,959	3,075	879	4,976	43,509	74,352
1999	618,024	39,861	1,402	5,251	659	2,711	49,884	75,920
2000	635,160	50,449	1,315	10,464	723	821	63,772	78,062
2001	587,184	60,917	1,472	11,670	1,171	763	75,993	75,108
2002	558,990	77,787	1,264	16,762	1,830	1,831	106,625	75,901
2003 P	535,963	94,881	1,119	14,231	1,843	1,867	113,940	71,126

P = Preliminary

(a) Data includes passenger vehicles; excludes non-passenger-vehicle and non-vehicle consumption.

**TABLE 83: Power Source Efficiency, Miles per Gallon**

	ELECTRIC POWER (a)	DIESEL	COMPRESSED NATURAL GAS	GASOLINE	KEROSENE	LIQUIFIED NATURAL GAS	PROPANE
Bus	0.26	3.47	2.71	4.91	3.48	1.79	2.29
Trolleybus	0.17	NA	NA	NA	NA	NA	NA

Source: Federal Transit Administration, 2002 National Transit Database.

(a) Miles per kilowatt hour.

## Fixed Guideways

A **Fixed Guideway** is a mass transit facility using and occupying a separate right-of-way or rail for the exclusive use of mass transportation and other high-occupancy vehicles; or using a fixed catenary system useable by other forms of transportation.

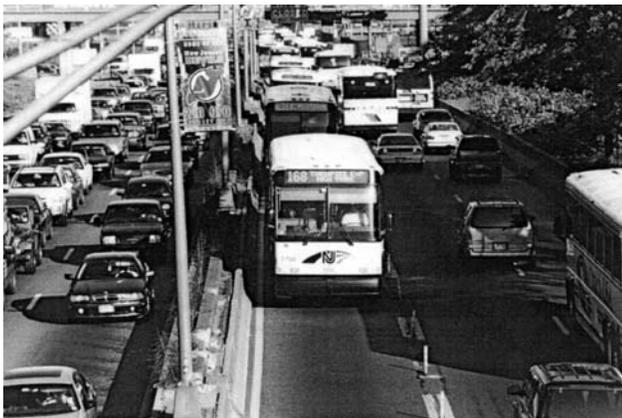
Fixed guideways are generally located only in large metropolitan areas where traffic congestion is worst. These rights of way may be restricted solely to buses and trolleybuses, or may be shared with vanpools, carpools, motorcycles, alternate-fuel vehicles, toll-paying vehicles, and emergency vehicles based on state law and local ordinance. They may also be reversible, operating toward the central business district in the morning and away from it in the afternoon.

Although almost exclusively located on the surface, short stretches of some of these roadways are in tunnels or elevated. In addition, as bus rapid transit lines are implemented, more surface streets are being converted to fixed guideways through restricted access and technology that allows buses to preempt or expedite traffic light cycles.

There are three types:

A **Busway (Bus Lane)** is a roadway reserved for buses only. It may be a grade-separated or controlled-access roadway.

A **Contraflow Lane** is a reserved lane for buses on which the direction of bus traffic is opposite to the flow of traffic on the other lanes.



*New Jersey Transit operates many buses on the contraflow lane approaching the Lincoln Tunnel to New York City.*

A **High-Occupancy Vehicle (HOV) Facility (Commuter Lane or Transitway)** Exclusive or controlled access right-of-way that is restricted to high occupancy vehicles (buses, passenger vans and cars carrying one or more passengers) for a portion or all of a day.

Fixed guideways are also classified by the time they are in effect.

**Controlled Access Right-of-Way**--Lanes restricted for at least a portion of the day for use by transit vehicles and/or other high occupancy vehicles. Use of controlled access lanes may also be permitted for vehicles preparing to turn. The restriction must be sufficiently enforced so that 95 percent of vehicles using the lanes during the restricted period are authorized to use them.

**Exclusive Right-of-Way**--Roadway or other right-of-way reserved at all times for transit use and/or other high occupancy vehicles. The restriction must be sufficiently enforced so that 95 percent of vehicles using the right-of-way are authorized to use it.

## Transit Centers

Many transit agencies utilize transit centers, where riders can easily transfer from one vehicle to another.

A **transit center** is a fixed location where passengers interchange from one route or vehicle to another that has significant infrastructure such as a waiting room, benches, restrooms, sales outlet, ticket or pass vending machines, and/or other services.



*Many cities have built special transfer centers in their central business districts to make transferring between buses as easy as possible. Many also operate timed-transfer service, in which all routes converge on the center at the same time and depart simultaneously to minimize waiting time. This Regional Transportation Commission of Washoe County center is in Reno, Nevada.*

A **bus station** is a type of transit center. A location that has very little infrastructure--such as shelters and/or benches at a street corner where two routes intersect--would be a **transfer point**.

A **park and ride facility** is a parking garage and/or lot used for parking passengers' automobiles, either free or for a fee, while they use transit agency facilities. Park-and-ride facilities are generally established as collector sites for rail or bus service. Park-and-ride facilities may also serve as collector sites for vanpools and carpools, and as transit centers.

A **kiss and ride facility** is a part of a park and ride facility where commuters who are passengers in non-transit vehicles are dropped off to board a mass transportation vehicle.

Such centers may be located at rail stations, intercity bus terminals, or ferry terminals, and may be shared with other transit agencies. Small and medium-sized agencies might have one center in the central business district; larger agencies might have several additional centers scattered throughout the suburbs at major shopping malls or park-and-ride lots. In some instances, a timed-transfer system is used, in which all buses converge on the transit center at a specific time to exchange passengers.

## Operating Practices

Schedules are determined by a combination of factors. Normally they are a function of demand, which is why 2-3 times as many buses are operated during peak commuting hours than at other times. Many routes in larger cities, in fact only operate during the peak hours.

The type of vehicle used on a route is determined by the maximum number of riders expected at any point on the route, with the result that at other points along the route--especially the beginning and ending points--the bus may be largely empty. Also, because of the peak-directional flow nature of commuting, where most traffic goes towards the central business district in the morning and away from it in the afternoon, buses operating in the opposite direction necessarily carry few people, but must be operated to get back out to the end of the line for the next peak-direction trip.

## Bus and Trolleybus Transit Agency Data

### Largest Bus and Trolleybus Transit Agencies

Each variable chosen to rank agencies by size will yield a different list. Vehicles vary widely in size; transfers result in double-counting some passengers; expenses are largely determined by wage rate and benefit levels; employee counts may include numerous part-time employees and not include contract personnel. For these reasons, listed are the top 20 transit systems based on four categories: Passenger Miles, Number of Revenue Vehicles, Vehicle Revenue Miles and Unlinked Passenger Trips.

**TABLE 84: 20 Largest Bus and Trolleybus Agencies Ranked by Unlinked Passenger Trips, Fiscal Year 2003 (Thousands)**

	TRANSIT AGENCY	URBANIZED AREA (Primary City)	PASSENGER TRIPS
1	MTA New York City Transit	New York, NY	911,622.7
2	Los Angeles County Metropolitan Trp Auth	Los Angeles, CA	375,475.7
3	Chicago Transit Authority	Chicago, IL	291,804.4
4	Southeastern Pennsylvania Trp Auth	Philadelphia, PA	178,628.5
	Bus		176,285.3
	Trolleybus (ended service in 2003)		2,343.2
5	San Francisco Municipal Railway	San Francisco, CA	165,279.5
	Bus		90,880.6
	Trolleybus		74,398.9
6	Washington Metropolitan Area Transit Auth	Washington, DC	147,831.5
7	New Jersey Transit Corporation	New York, NY	147,558.2
8	Massachusetts Bay Transportation Authority	Boston, MA	122,629.1
	Bus		119,035.8
	Trolleybus		3,593.3
9	King County Dept of Trp - Metro Transit Division	Seattle, WA	94,688.9
	Bus		71,009.6
	Trolleybus		23,679.3
10	Maryland Transit Administration	Baltimore, MD	84,238.1
11	Metropolitan Transit Auth of Harris County, Texas	Houston, TX	76,611.5
12	GTJC (Transit Alliance)	New York, NY	72,001.1
13	Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA	70,641.4
14	City and County of Honolulu Dept of Trp Services	Honolulu, HI	69,100.6
15	Metro Transit	Minneapolis, MN	67,235.8
16	Denver Regional Transportation District	Denver, CO	67,107.9
17	Tri-County Metropolitan Trp District of Oregon	Portland, OR	66,434.9
18	Orange County Transportation Authority	Los Angeles, CA	65,125.6
19	Miami-Dade Transit	Miami, FL	64,546.6
20	Alameda-Contra Costa Transit District	San Francisco, CA	62,293.0

Source: Federal Transit Administration National Transit Database

**TABLE 85: 20 Largest Bus and Trolleybus Agencies Ranked by Number of Revenue Vehicles, Fiscal Year 2003**

	TRANSIT AGENCY	URBANIZED AREA (Primary City)	REVENUE VEHICLES
1	MTA New York City Transit	New York, NY	4,539
2	Los Angeles County Metropolitan Trp Auth	Los Angeles, CA	2,889
3	New Jersey Transit Corporation	New York, NY	2,208
4	Chicago Transit Authority	Chicago, IL	2,026
5	Washington Metropolitan Area Transit Auth	Washington, DC	1,463
6	Southeastern Pennsylvania Trp Auth	Philadelphia, PA	1,435
	Bus		1,370
	Trolleybus (ended service in 2003)		65
7	King County Dept of Trp - Metro Transit Division	Seattle, WA	1,350
	Bus		1,183
	Trolleybus		167
8	Metropolitan Transit Auth of Harris County, Texas	Houston, TX	1,223
9	Denver Regional Transportation District	Denver, CO	1,129
10	Port Authority of Allegheny County	Pittsburgh, PA	1,086
11	Massachusetts Bay Transportation Authority	Boston, MA	1,064
	Bus		1,024
	Trolleybus		40
12	Miami-Dade Transit	Miami, FL	957
13	Metro Transit	Minneapolis, MN	939
14	Maryland Transit Administration	Baltimore, MD	931
15	San Francisco Municipal Railway	San Francisco, CA	887
	Bus		544
	Trolleybus		343
16	Dallas Area Rapid Transit	Dallas, TX	809
17	Alameda-Contra Costa Transit District	San Francisco, CA	786
18	Pace - Suburban Bus Division	Chicago, IL	741
19	The Greater Cleveland Regional Transit Auth	Cleveland, OH	701
20	Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA	691

Source: Federal Transit Administration National Transit Database

**TABLE 86: 20 Largest Bus and Trolleybus Agencies Ranked by Vehicle Revenue Miles, Fiscal Year 2003 (Thousands)**

	TRANSIT AGENCY	URBANIZED AREA (Primary City)	VEHICLE MILES
1	MTA New York City Transit	New York, NY	103,509.1
2	Los Angeles County Metropolitan Trp Auth	Los Angeles, CA	92,625.2
3	New Jersey Transit Corporation	New York, NY	73,194.4
4	Chicago Transit Authority	Chicago, IL	66,377.9
5	Southeastern Pennsylvania Trp Auth	Philadelphia, PA	40,366.0
	Bus		40,177.9
	Trolleybus (ended service in 2003)		188.0
6	Washington Metropolitan Area Transit Auth	Washington, DC	38,897.5
7	King County Dept of Trp - Metro Transit Division	Seattle, WA	38,601.8
	Bus		35,216.6
	Trolleybus		3,385.2
8	Metropolitan Transit Auth of Harris County, Texas	Houston, TX	37,199.4
9	Denver Regional Transportation District	Denver, CO	36,823.5
10	Dallas Area Rapid Transit	Dallas, TX	31,076.4
11	Port Authority of Allegheny County	Pittsburgh, PA	28,344.5
12	Miami-Dade Transit	Miami, FL	27,506.3
13	Massachusetts Bay Transportation Authority	Boston, MA	26,052.3
	Bus		25,384.9
	Trolleybus		667.4
14	Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA	25,841.6
15	Metro Transit	Minneapolis, MN	24,748.3
16	Tri-County Metropolitan Trp District of Oregon	Portland, OR	23,776.2
17	Alameda-Contra Costa Transit District	San Francisco, CA	23,532.7
18	Maryland Transit Administration	Baltimore, MD	23,454.7
19	Orange County Transportation Authority	Los Angeles, CA	22,848.2
20	The Greater Cleveland Regional Transit Auth	Cleveland, OH	21,353.8

Source: Federal Transit Administration National Transit Database

**TABLE 87: 20 Largest Bus and Trolleybus Agencies Ranked by Passenger Miles, Fiscal Year 2003 (Thousands)**

	TRANSIT AGENCY	URBANIZED AREA (Primary City)	PASSENGER MILES
1	MTA New York City Transit	New York, NY	1,630,755.0
2	Los Angeles County Metropolitan Trp Auth	Los Angeles, CA	1,461,779.6
3	New Jersey Transit Corporation	New York, NY	921,988.9
4	Chicago Transit Authority	Chicago, IL	753,190.5
5	Southeastern Pennsylvania Trp Authority	Philadelphia, PA	484,564.8
	Bus		480,578.0
	Trolleybus (ended service in 2003)		3,986.8
6	King County Department of Transportation	Seattle, WA	475,486.7
	Bus		433,019.2
	Trolleybus		42,467.5
7	Washington Metropolitan Area Transit Authority	Washington, DC	447,551.1
8	Metropolitan Transit Authority of Harris County	Houston, TX	417,399.2
9	Massachusetts Bay Transportation Authority	Boston, MA	342,866.4
	Bus		334,464.4
	Trolleybus		8,402.1
10	Maryland Transit Administration	Baltimore, MD	333,545.2
11	Denver Regional Transportation District	Denver, CO	325,031.0
12	San Francisco Municipal Railway	San Francisco, CA	305,317.3
	Bus		195,047.2
	Trolleybus		110,270.0
13	City & County of Honolulu Dept of Trp Services	Honolulu, HI	302,238.9
14	Metro Transit	Minneapolis, MN	284,715.5
15	Miami-Dade Transit	Miami, FL	279,410.6
16	Port Authority of Allegheny County	Pittsburgh, PA	273,194.9
17	Orange County Transportation Authority	Los Angeles, CA	255,956.2
18	Dallas Area Rapid Transit	Dallas, TX	248,023.6
19	Tri-County Metropolitan Transportation District	Portland, OR	237,345.0
20	Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA	234,557.2

Source: Federal Transit Administration National Transit Database

**TABLE 88: 100 Largest Bus and Trolleybus Agencies Service and Usage Data, Fiscal Year 2003 (Thousands) (a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	ANNUAL VEHICLE REVENUE MILES	ANNUAL VEHICLE REVENUE HOURS	ANNUAL UNLINKED TRIPS	ANNUAL PASSENGER MILES
Albany, NY	Capital District Transportation Authority	6,378.7	561.9	11,674.5	52,912.0
Albuquerque, NM	Sun Tran of Albuquerque	4,004.3	244.5	7,627.9	19,621.4
Atlanta, GA	Metropolitan Atlanta Rapid Transit Authority	25,841.6	2,069.8	70,641.4	234,557.2
Austin, TX	Capital Metropolitan Transportation Authority	14,132.5	1,135.3	36,593.3	116,390.7
Bakersfield, CA	Golden Empire Transit District	3,358.8	261.0	6,962.3	30,355.5
Baltimore, MD	Maryland Transit Administration	23,454.7	1,870.7	84,238.1	333,545.2
Boston, MA	Massachusetts Bay Transportation Authority	26,052.3	2,407.7	122,629.1	342,866.4
	Bus	25,384.9	2,337.4	119,035.8	334,464.4
	Trolleybus	667.4	70.3	3,593.3	8,402.1
Buffalo, NY	Niagara Frontier Transportation Authority	8,282.2	730.6	18,142.0	58,379.2
Champaign, IL	Champaign-Urbana Mass Transit District	2,538.5	217.8	9,250.8	23,634.1
Charlotte, NC	Charlotte Area Transit System	9,501.0	719.3	18,389.8	83,896.7
Chicago, IL	Chicago Transit Authority	66,377.9	6,619.1	291,804.4	753,190.5
Chicago, IL	Pace - Suburban Bus Division	20,661.7	1,451.3	30,979.4	198,140.2
Cincinnati, OH	Southwest Ohio Regional Transit Authority	11,511.4	875.8	23,872.1	129,392.7
Cleveland, OH	The Greater Cleveland Regional Transit Auth	21,353.8	1,710.6	48,768.3	189,098.1
Columbus, OH	Central Ohio Transit Authority	8,673.3	691.3	15,626.1	59,179.3
Dallas, TX	Dallas Area Rapid Transit	31,076.4	2,160.8	57,614.3	248,023.6
Dayton, OH	Greater Dayton Regional Transit Authority	7,582.8	540.9	13,533.4	44,268.8
	Bus	5,972.6	392.2	8,978.7	33,250.6
	Trolleybus	1,610.2	148.7	4,554.7	11,018.3
Denver, CO	Denver Regional Transportation District	36,823.5	2,562.8	67,107.9	325,031.0
Detroit, MI	City of Detroit Department of Transportation	18,336.1	1,607.7	37,812.3	185,950.3
Detroit, MI	Suburban Mobility Auth for Regional Trp	11,651.1	692.4	8,414.2	64,784.4
El Paso, TX	Mass Transit Department - City of El Paso	6,823.2	546.0	10,875.9	59,342.7
Eugene, OR	Lane Transit District	3,776.0	237.9	8,190.4	26,651.6
Fresno, CA	Fresno Area Express	4,026.4	306.0	11,213.0	37,108.8
Gainesville, FL	Gainesville Regional Transit System	2,408.3	212.0	8,103.1	27,153.3
Hartford, CT	Connecticut Transit - Hartford Division	6,334.8	472.2	13,549.5	54,027.6

**TABLE 88: 100 Largest Bus and Trolleybus Agencies Service and Usage Data, Fiscal Year 2003  
(Thousands) (a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	ANNUAL VEHICLE REVENUE MILES	ANNUAL VEHICLE REVENUE HOURS	ANNUAL UNLINKED TRIPS	ANNUAL PASSENGER MILES
Honolulu, HI	City and County of Honolulu Dept of Trp	18,331.6	1,349.6	69,100.6	302,238.9
Houston, TX	First transit	7,793.9	511.3	14,121.1	91,940.2
Houston, TX	Metropolitan Transit Auth of Harris County	37,199.4	2,624.5	76,611.5	417,399.2
Indianapolis, IN	Indianapolis and Marion County Public Trp	6,755.8	473.7	11,015.2	54,478.1
Jacksonville, FL	Jacksonville Transportation Authority	9,333.6	520.4	8,484.9	61,723.3
Kansas City, MO	Kansas City Area Transportation Authority	7,760.3	504.4	13,117.0	49,008.7
Lansing, MI	Capital Area Transportation Authority	2,903.3	215.6	8,278.7	23,980.4
Las Vegas, NV	Regional Trp Comm of Southern Nevada	11,078.0	1,143.1	47,175.9	150,545.6
Los Angeles, CA	City of Los Angeles Dept of Trp	6,642.4	586.6	24,266.8	63,866.0
Los Angeles, CA	Foothill Transit	12,423.9	735.3	17,101.4	110,863.9
Los Angeles, CA	Long Beach Transit	7,092.5	657.0	26,282.2	70,933.1
Los Angeles, CA	Los Angeles County Metropolitan Trp Auth	92,625.2	7,658.0	375,475.7	1,461,779.6
Los Angeles, CA	Montebello Bus Lines	2,843.9	245.1	10,267.9	31,526.8
Los Angeles, CA	Orange County Transportation Authority	22,848.2	1,759.0	65,125.6	255,956.2
Los Angeles, CA	Santa Monica's Big Blue Bus	5,014.1	456.1	20,043.4	68,555.5
Louisville, KY	Transit Authority of River City	7,439.1	587.4	12,900.7	45,804.4
Madison, WI	Madison Metro Transit System	4,515.5	356.2	10,934.1	33,493.3
Memphis, TN	Memphis Area Transit Authority	6,160.6	381.4	10,692.6	61,166.8
Miami, FL	Broward County Mass Transit Division	15,392.4	1,145.8	35,912.7	153,883.3
Miami, FL	Miami-Dade Transit	27,506.3	2,336.2	64,546.6	279,410.6
Miami, FL	Palm Tran, Inc.	6,573.5	405.7	7,199.5	45,199.3
Milwaukee, WI	Milwaukee County Transit System	17,884.2	1,384.4	57,112.7	154,131.2
Minneapolis, MN	Metro Transit	24,748.3	1,975.5	67,235.8	284,715.5
Nashville, TN	Metropolitan Transit Authority	4,020.9	292.9	6,567.3	27,614.0
New Haven, CT	Connecticut Transit - New Haven Division	3,145.0	275.7	7,978.3	27,272.3
New Orleans, LA	New Orleans Regional Transit Authority	10,939.8	772.4	46,658.6	118,631.2
New York, NY	Academy Lines, Inc.	8,819.2	426.7	10,490.7	224,207.3
New York, NY	GTJC (Transit Alliance)	12,662.7	1,399.7	72,001.1	199,967.4
New York, NY	Liberty Lines Transit, Inc.	8,012.0	690.9	33,132.4	160,404.9
New York, NY	Metropolitan Suburban Bus Authority	9,866.7	799.1	30,040.4	154,476.0
New York, NY	MTA New York City Transit	103,509.1	13,172.6	911,622.7	1,630,755.0
New York, NY	New Jersey Transit Corporation	73,194.4	4,968.6	147,558.2	921,988.9
New York, NY	Orange-Newark-Elizabeth, Inc.	2,278.7	250.7	12,677.5	40,776.5
New York, NY	Queens Surface Corporation	5,592.2	561.4	25,774.2	105,517.8
New York, NY	Trans-Hudson Express	2,773.3	299.6	9,019.4	55,512.5
Orlando, FL	Central Florida Regional Trp Auth	12,986.6	932.3	21,895.0	131,858.3
Philadelphia, PA	Delaware Transit Corporation	5,554.1	395.1	7,493.2	38,865.7
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	40,366.0	3,896.2	178,628.5	484,564.8
	Bus	40,178.0	3,867.1	176,285.3	480,578.0
	Trolleybus (ended service in 2003)	188.0	29.0	2,343.2	3,986.8
Phoenix, AZ	City of Phoenix Public Transit Department	17,083.6	1,128.7	40,635.5	150,452.1
Pittsburgh, PA	Port Authority of Allegheny County	28,344.5	2,179.4	59,988.1	273,194.9
Portland, OR	Clark County Public Trp Benefit Area Auth	3,779.6	244.5	6,669.1	35,570.8
Portland, OR	Tri-County Metropolitan Trp District of Oregon	23,776.2	1,882.9	66,434.9	237,345.0
Providence, RI	Rhode Island Public Transit Authority	7,579.9	499.6	16,265.8	65,272.0
Reno, NV	Regional Trp Commission of Washoe County	3,138.1	249.6	7,721.6	24,725.5
Richmond, VA	Greater Richmond Transit Company	4,862.4	440.2	11,843.5	33,136.2
Riverside, CA	Omnitrans	8,289.6	622.8	16,264.7	72,529.4
Riverside, CA	Riverside Transit Agency	6,200.9	405.4	6,925.6	39,827.2
Rochester, NY	Regional Transit Service, Inc. & Lift Line, Inc.	5,967.5	479.2	13,434.3	49,181.0
Sacramento, CA	Sacramento Regional Transit District	7,922.9	614.7	19,756.5	75,325.5
Salt Lake City, UT	Utah Transit Authority	17,353.8	938.2	20,665.4	91,173.4
San Antonio, TX	VIA Metropolitan Transit	19,313.6	1,362.4	39,270.7	150,075.5
San Diego, CA	MTS Contract Services	5,220.5	429.9	12,366.0	41,952.4
San Diego, CA	North San Diego County Transit District	7,192.3	488.7	10,177.9	57,403.3
San Diego, CA	San Diego Metropolitan Transit System	10,448.1	913.3	32,801.6	121,935.3
San Francisco, CA	Alameda-Contra Costa Transit District	23,532.7	2,048.4	62,293.0	172,496.3
San Francisco, CA	Golden Gate Bridge, Highway and Trp District	7,716.9	429.2	8,578.4	101,384.5
San Francisco, CA	San Francisco Municipal Railway	20,747.1	2,612.5	165,279.5	305,317.3
	Bus	13,379.3	1,542.2	90,880.6	195,047.2
	Trolleybus	7,367.8	1,070.4	74,398.9	110,270.0
San Francisco, CA	San Mateo County Transit District	8,150.3	695.8	16,548.0	96,455.1
San Jose, CA	Santa Clara Valley Transportation Authority	17,799.3	1,413.7	39,774.6	153,530.7
San Juan, PR	Metropolitan Bus Authority	7,190.1	766.4	31,255.5	104,837.0
Santa Barbara, CA	Santa Barbara Metropolitan Transit District	2,419.3	177.2	7,005.5	25,612.5
Seattle, WA	King County Dept of Trp	38,601.8	3,104.1	94,688.9	475,486.7
	Bus	35,216.6	2,641.8	71,009.6	433,019.2

**TABLE 88: 100 Largest Bus and Trolleybus Agencies Service and Usage Data, Fiscal Year 2003  
(Thousands) (a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	ANNUAL VEHICLE REVENUE MILES	ANNUAL VEHICLE REVENUE HOURS	ANNUAL UNLINKED TRIPS	ANNUAL PASSENGER MILES
	Trolleybus	3,385.2	462.3	23,679.3	42,467.5
Seattle, WA	Pierce County Trp Benefit Area Auth	9,764.4	652.1	13,265.3	96,948.8
Seattle, WA	Snohomish County Trp Benefit Area Corp	8,956.0	496.0	8,266.2	108,695.6
Spokane, WA	Spokane Transit Authority	4,789.3	351.2	7,504.7	31,058.9
Springfield, MA	Pioneer Valley Transit Authority	4,717.8	355.4	10,458.4	36,048.3
St. Louis, MO	Bi-State Development Agency	16,932.5	1,074.2	30,601.5	122,165.7
Syracuse, NY	CNY Centro, Inc.	3,365.8	285.5	9,305.8	25,978.0
Tampa, FL	Hillsborough Area Regional Transit Authority	6,220.0	510.7	9,185.4	43,833.0
Tampa, FL	Pinellas Suncoast Transit Authority	7,657.6	523.0	9,487.5	47,165.8
Tucson, AZ	City of Tucson	6,947.3	532.7	16,582.7	60,024.4
Virginia Beach, VA	Trp District Commission of Hampton Roads	9,403.3	732.8	16,605.8	74,729.7
Washington, DC	Fairfax Connector Bus System	5,947.5	382.5	7,595.1	40,673.3
Washington, DC	Ride-On Montgomery County Transit	11,199.0	680.3	23,023.4	70,392.9
Washington, DC	Washington Metropolitan Area Transit Auth	38,897.5	3,433.5	147,831.5	447,551.1

Source: Federal Transit Administration National Transit Database  
(a) Largest based on number of unlinked passenger trips.

**TABLE 89: 100 Largest Bus and Trolleybus Agencies Vehicle and Financial Data, Fiscal Year 2003 (a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	REVENUE VEHICLES	CAPITAL EXPENSE (000)	FARE REVENUE (000)	OPERATING EXPENSES (000)
Albany, NY	Capital District Transportation Authority	233	15,146.6	8,782.7	40,303.3
Albuquerque, NM	Sun Tran of Albuquerque	135	10,891.9	2,880.0	20,270.7
Atlanta, GA	Metropolitan Atlanta Rapid Transit Authority	691	41,913.3	49,857.6	170,500.8
Austin, TX	Capital Metropolitan Transportation Authority	406	30,359.4	3,035.7	86,689.1
Bakersfield, CA	Golden Empire Transit District	79	1,698.0	3,647.6	15,034.5
Baltimore, MD	Maryland Transit Administration	931	60,613.7	55,324.1	209,831.2
Boston, MA	Massachusetts Bay Transportation Authority	1064	106,999.7	52,016.3	250,689.8
	Bus	1024	44,419.0	50,582.6	240,192.2
	Trolleybus	40	62,580.7	1,433.7	10,497.6
Buffalo, NY	Niagara Frontier Transportation Authority	317	15,285.0	16,568.7	59,214.2
Champaign, IL	Champaign-Urbana Mass Transit District	90	11,456.5	3,909.7	15,075.5
Charlotte, NC	Charlotte Area Transit System	309	19,097.4	8,339.2	51,861.6
Chicago, IL	Chicago Transit Authority	2026	112,391.7	219,649.8	615,075.6
Chicago, IL	Pace - Suburban Bus Division	741	65,906.3	31,171.1	109,356.3
Cincinnati, OH	Southwest Ohio Regional Transit Authority	432	6,770.6	19,306.2	66,204.4
Cleveland, OH	The Greater Cleveland Regional Transit Auth	701	47,278.7	31,377.5	162,039.6
Columbus, OH	Central Ohio Transit Authority	297	9,487.0	12,387.5	65,592.0
Dallas, TX	Dallas Area Rapid Transit	809	17,963.4	25,389.8	202,333.4
Dayton, OH	Greater Dayton Regional Transit Authority	198	9,391.8	5,297.1	42,774.8
	Bus	141	6,628.0	3,978.7	31,647.2
	Trolleybus	57	2,763.8	1,318.4	11,127.6
Denver, CO	Denver Regional Transportation District	1129	18,983.1	43,120.8	217,439.7
Detroit, MI	City of Detroit Department of Transportation	508	9,977.7	24,082.3	171,505.4
Detroit, MI	Suburban Mobility Auth for Regional Trp	296	33,233.5	7,683.6	70,214.9
El Paso, TX	Mass Transit Department - City of El Paso	174	7,747.7	6,368.7	30,169.1
Eugene, OR	Lane Transit District	102	9,753.0	4,314.7	22,162.4
Fresno, CA	Fresno Area Express	103	863.3	7,494.8	25,172.5
Gainesville, FL	Gainesville Regional Transit System	105	840.8	739.9	10,917.7
Hartford, CT	Connecticut Transit - Hartford Division	231	6,683.9	9,872.3	37,059.4
Honolulu, HI	City and County of Honolulu Dept of Trp	525	20,609.6	30,114.6	119,674.3
Houston, TX	First transit	223	0.0	26,179.4	26,179.4
Houston, TX	Metropolitan Transit Auth of Harris County	1223	170,808.5	38,888.5	214,136.5
Indianapolis, IN	Indianapolis and Marion County Public Trp	180	8,199.1	6,114.5	31,064.7
Jacksonville, FL	Jacksonville Transportation Authority	171	2,636.9	6,046.6	40,134.1
Kansas City, MO	Kansas City Area Transportation Authority	264	15,459.6	6,617.5	47,305.3
Lansing, MI	Capital Area Transportation Authority	107	7,253.4	2,588.9	19,557.2
Las Vegas, NV	Regional Trp Comm of Southern Nevada	299	13,343.4	32,678.4	76,796.2
Los Angeles, CA	City of Los Angeles Dept of Trp	274	1,729.0	6,120.0	34,873.4
Los Angeles, CA	Foothill Transit	297	38,364.4	14,404.8	50,455.4
Los Angeles, CA	Long Beach Transit	221	26,233.7	12,249.6	49,046.4
Los Angeles, CA	Los Angeles County Metropolitan Trp Auth	2889	136,440.3	215,085.5	760,990.9
Los Angeles, CA	Montebello Bus Lines	70	628.5	5,666.9	15,478.5
Los Angeles, CA	Orange County Transportation Authority	634	7,522.2	38,660.8	150,217.1
Los Angeles, CA	Santa Monica's Big Blue Bus	202	16,462.1	9,849.6	35,541.9

**TABLE 89: 100 Largest Bus and Trolleybus Agencies Vehicle and Financial Data, Fiscal Year 2003 (a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	REVENUE VEHICLES	CAPITAL EXPENSE (000)	FARE REVENUE (000)	OPERATING EXPENSES (000)
Louisville, KY	Transit Authority of River City	284	11,834.8	4,905.9	41,893.3
Madison, WI	Madison Metro Transit System	207	7,125.1	5,910.1	30,283.8
Memphis, TN	Memphis Area Transit Authority	221	16,264.7	8,604.7	39,862.9
Miami, FL	Broward County Mass Transit Division	343	13,708.8	16,417.8	77,068.7
Miami, FL	Miami-Dade Transit	957	46,489.8	53,855.9	214,417.9
Miami, FL	Palm Tran, Inc.	141	1,553.4	5,535.7	30,518.8
Milwaukee, WI	Milwaukee County Transit System	485	14,519.6	35,502.3	115,730.8
Minneapolis, MN	Metro Transit	939	46,540.8	60,109.6	193,979.5
Nashville, TN	Metropolitan Transit Authority	130	699.5	6,277.4	22,498.1
New Haven, CT	Connecticut Transit - New Haven Division	135	0.0	5,600.3	22,009.7
New Orleans, LA	New Orleans Regional Transit Authority	364	575.5	29,896.5	83,013.0
New York, NY	Academy Lines, Inc.	314	0.0	28,982.9	39,215.4
New York, NY	GTJC (Transit Alliance)	674	0.0	63,241.3	167,397.6
New York, NY	Liberty Lines Transit, Inc.	354	0.0	39,556.5	74,877.6
New York, NY	Metropolitan Suburban Bus Authority	327	1,514.1	35,766.3	90,556.6
New York, NY	MTA New York City Transit	4539	209,984.1	655,474.1	1,587,157.1
New York, NY	New Jersey Transit Corporation	2208	59,019.3	236,736.4	550,537.0
New York, NY	Orange-Newark-Elizabeth, Inc.	72	0.0	12,185.9	10,015.0
New York, NY	Queens Surface Corporation	313	0.0	29,485.7	87,310.3
New York, NY	Trans-Hudson Express	110	0.0	10,970.1	9,808.6
Orlando, FL	Central Florida Regional Trp Auth	236	13,503.7	13,213.4	62,569.1
Philadelphia, PA	Delaware Transit Corporation	211	19,642.3	5,316.9	30,893.5
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	1,435	88,474.3	148,100.3	392,045.1
	Bus	1,370	87,990.2	146,078.8	387,814.4
	Trolleybus (ended service in 2003)	65	484.1	2,021.5	4,230.7
Phoenix, AZ	City of Phoenix Public Transit Department	470	24,795.2	20,455.3	99,534.1
Pittsburgh, PA	Port Authority of Allegheny County	1,086	80.3	55,870.3	210,614.6
Portland, OR	Clark County Public Trp Benefit Area Auth	113	13,172.3	3,465.5	19,731.6
Portland, OR	Tri-County Metropolitan Trp District of Oregon	655	30,666.4	18,287.5	171,402.4
Providence, RI	Rhode Island Public Transit Authority	235	5,941.4	11,056.3	60,048.9
Reno, NV	Regional Trp Commission of Washoe County	68	1,672.6	5,465.7	19,644.4
Richmond, VA	Greater Richmond Transit Company	166	2,806.7	7,301.8	26,595.3
Riverside, CA	Omnitrans	180	3,644.7	10,681.7	48,238.7
Riverside, CA	Riverside Transit Agency	138	20,510.2	5,210.1	28,192.9
Rochester, NY	Regional Transit Service, Inc. & Lift Line, Inc.	258	10,324.2	12,525.7	41,944.5
Sacramento, CA	Sacramento Regional Transit District	254	20,218.4	13,959.1	68,385.4
Salt Lake City, UT	Utah Transit Authority	511	8,193.1	11,027.9	83,820.4
San Antonio, TX	VIA Metropolitan Transit	498	25,860.0	13,873.4	77,904.3
San Diego, CA	MTS Contract Services	138	0.0	9,612.1	21,625.9
San Diego, CA	North San Diego County Transit District	159	3,148.9	7,940.5	39,172.4
San Diego, CA	San Diego Metropolitan Transit System	297	0.0	23,758.5	66,838.9
San Francisco, CA	Alameda-Contra Costa Transit District	786	37,014.0	41,212.5	245,967.8
San Francisco, CA	Golden Gate Bridge, Highway and Trp District	278	6,715.5	15,170.2	64,551.0
San Francisco, CA	San Francisco Municipal Railway	887	63,914.5	68,879.0	281,528.1
	Bus	544	26,604.3	37,873.8	167,200.3
	Trolleybus	343	37,310.2	31,005.2	114,327.8
San Francisco, CA	San Mateo County Transit District	343	44,413.8	19,621.8	73,630.5
San Jose, CA	Santa Clara Valley Transportation Authority	553	69,581.1	26,815.8	213,692.6
San Juan, PR	Metropolitan Bus Authority	283	10,316.5	6,404.5	63,775.9
Santa Barbara, CA	Santa Barbara Metropolitan Transit District	91	1,052.5	5,547.7	14,078.5
Seattle, WA	King County Dept of Trp	1,350	104,261.8	69,877.6	336,477.4
	Bus	1,183	88,589.9	52,181.8	294,146.0
	Trolleybus	167	15,671.9	17,695.8	42,331.3
Seattle, WA	Pierce County Trp Benefit Area Auth	245	4,705.1	7,207.6	54,658.1
Seattle, WA	Snohomish County Trp Benefit Area Corp	298	16,545.7	10,752.4	58,452.0
Spokane, WA	Spokane Transit Authority	127	8,426.2	5,239.1	26,796.8
Springfield, MA	Pioneer Valley Transit Authority	190	5,202.9	4,344.0	20,603.3
St. Louis, MO	Bi-State Development Agency	473	20,735.6	22,766.6	107,045.5
Syracuse, NY	CNY Centro, Inc.	154	1,861.9	6,346.9	26,370.1
Tampa, FL	Hillsborough Area Regional Transit Authority	190	13,588.9	6,653.4	30,445.9
Tampa, FL	Pinellas Suncoast Transit Authority	182	13,728.9	7,985.8	32,655.1
Tucson, AZ	City of Tucson	189	3,472.2	7,399.3	34,144.7
Virginia Beach, VA	Trp District Commission of Hampton Roads	330	25,385.3	13,086.7	42,340.3
Washington, DC	Fairfax Connector Bus System	166	4,065.2	1,910.1	21,793.2
Washington, DC	Ride-On Montgomery County Transit	318	1,771.7	10,178.0	63,666.3
Washington, DC	Washington Metropolitan Area Transit Auth	1,463	34,365.4	89,371.0	355,019.7

Source: Federal Transit Administration National Transit Database  
(a) Largest based on number of unlinked passenger trips.

**TABLE 90: Bus Directional Route Miles, 100 Largest Agencies, Fiscal Year 2003 (a) (b)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	EXCLUSIVE RIGHT-OF- WAY	CONTROLLED RIGHT-OF- WAY	MIXED TRAFFIC
Albany, NY	Capital District Transportation Authority	0.0	0.0	1,145.0
Appleton, WI	City of Appleton - Valley Transit	0.0	0.0	783.8
Atlanta, GA	Metropolitan Atlanta Rapid Transit Authority	13.8	0.0	1,821.0
Austin, TX	Capital Metropolitan Transportation Authority	0.0	0.0	2,185.1
Baltimore, MD	Maryland Transit Administration	14.8	17.0	3,084.6
Birmingham, AL	Birmingham-Jefferson County Transit Authority	0.0	0.0	782.0
Boston, MA	Massachusetts Bay Transportation Authority	3.6	12.4	2,873.8
Bremerton, WA	Kitsap Transit	0.0	0.0	571.3
Buffalo, NY	Niagara Frontier Transportation Authority	0.0	0.0	1,299.6
Charlotte, NC	Charlotte Area Transit System	5.6	0.0	1,858.3
Chicago, IL	Chicago Transit Authority	3.7	0.0	1,357.5
Chicago, IL	Pace - Suburban Bus Division	0.0	0.0	4,704.0
Cincinnati, OH	Southwest Ohio Regional Transit Authority	0.1	0.0	1,279.0
Cleveland, OH	The Greater Cleveland Regional Transit Auth	0.0	0.0	1,666.0
Colorado Springs, CO	Colorado Springs Transit System	0.0	0.0	705.0
Columbus, OH	Central Ohio Transit Authority	0.0	0.0	970.8
Corpus Christi, TX	Corpus Christi Regional Trp Auth	0.0	0.0	590.8
Dallas, TX	Dallas Area Rapid Transit	103.4	9.3	2,282.4
Dayton, OH	Greater Dayton Regional Transit Authority	0.0	0.0	959.7
Daytona Beach, FL	County of Volusia	0.0	0.0	646.3
Denver, CO	Denver Regional Transportation District	39.1	9.8	4,887.0
Detroit, MI	City of Detroit Department of Transportation	0.0	0.0	1,309.1
Detroit, MI	Suburban Mobility Auth for Regional Trp	0.0	0.0	1,495.6
El Paso, TX	Mass Transit Department - City of El Paso	0.0	0.0	589.0
Eugene, OR	Lane Transit District	0.0	0.0	796.0
Hartford, CT	Connecticut Transit - Hartford Division	27.5	0.0	940.0
Honolulu, HI	City and County of Honolulu Dept of Trp Services	1.2	34.7	875.6
Houston, TX	Metropolitan Transit Auth of Harris County, Texas	178.9	24.1	2,504.8
Indianapolis, IN	Indianapolis and Marion County Public Trp	0.0	0.0	1,087.3
Indio, CA	SunLine Transit Agency	0.0	0.0	625.0
Jacksonville, FL	Jacksonville Transportation Authority	0.0	0.0	1,428.7
Kansas City, MO	Kansas City Area Transportation Authority	0.0	1.1	945.0
Kingston, NY	Adirondack Transit Lines, Inc.	0.0	2.9	939.1
Lancaster, CA	Antelope Valley Transit Authority	0.0	0.0	801.9
Las Vegas, NV	Regional Trp Commission of Southern Nevada	4.0	0.0	1,240.0
Los Angeles, CA	City of Los Angeles Dept of Trp	33.9	0.0	894.2
Los Angeles, CA	Foothill Transit	24.5	0.0	760.4
Los Angeles, CA	Los Angeles County Metropolitan Trp Auth	69.1	0.0	4,890.3
Los Angeles, CA	Orange County Transportation Authority	0.0	0.0	2,615.0
Louisville, KY	Transit Authority of River City	0.0	0.0	1,739.0
McAllen, TX	Lower Rio Grande Valley Development Council	0.0	0.0	626.0
Memphis, TN	Memphis Area Transit Authority	0.0	0.0	857.0
Merced, CA	Merced County Transit	0.0	0.0	709.0
Miami, FL	Broward County Mass Transit Division	0.0	0.0	1,475.1
Miami, FL	Miami-Dade Transit	16.7	24.6	2,462.0
Miami, FL	Palm Tran, Inc.	0.0	0.0	1,082.1
Milwaukee, WI	Milwaukee County Transit System	0.0	0.0	1,579.2
Minneapolis, MN	Metro Transit	209.1	30.4	2,419.4
Minneapolis, MN	Metropolitan Council	140.0	29.4	1,708.6
Myrtle Beach, SC	Waccamaw Regional Transportation Authority	0.0	0.0	735.0
Nashville, TN	Metropolitan Transit Authority	0.0	0.0	884.0
New Orleans, LA	New Orleans Regional Transit Authority	7.0	0.0	609.2
New York, NY	Hudson Transit Lines, Inc.	0.0	2.9	1,640.0
New York, NY	Liberty Lines Transit, Inc.	0.0	3.5	926.3
New York, NY	Metropolitan Suburban Bus Authority	0.0	0.0	950.0
New York, NY	MTA New York City Transit	1.3	47.3	1,803.6
New York, NY	New Jersey Transit Corporation	0.0	29.6	4,422.0
New York, NY	Queens Surface Corporation	0.0	5.6	683.5
New York, NY	Suffolk County Dept of Public Works - Trp Division	0.0	46.9	1,413.8
Omaha, NE	Transit Authority of Omaha	0.0	0.0	612.3
Orlando, FL	Central Florida Regional Trp Auth	2.5	0.0	996.9
Philadelphia, PA	Delaware Transit Corporation	0.0	0.0	1,417.5
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	2.5	0.0	2,612.0
Phoenix, AZ	City of Phoenix Public Transit Department	0.0	87.6	1,694.7
Pittsburgh, PA	Port Authority of Allegheny County	56.2	0.0	2,538.0
Pittsburgh, PA	Westmoreland County Transit Authority	0.0	0.0	607.7
Portland, OR	Tri-County Metropolitan Trp District of Oregon	1.8	0.6	1,434.9

**TABLE 90: Bus Directional Route Miles, 100 Largest Agencies, Fiscal Year 2003 (a) (b)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	EXCLUSIVE RIGHT-OF- WAY	CONTROLLED RIGHT-OF- WAY	MIXED TRAFFIC
Poughkeepsie, NY	Dutchess County Division of Mass Trp	0.0	0.0	771.7
Poughkeepsie, NY	Ulster County Area Transit	0.0	0.0	787.0
Providence, RI	Greater Attleboro-Taunton Regional Transit Auth	0.0	0.0	715.9
Riverside, CA	Omnitrans	0.0	0.0	973.5
Riverside, CA	Riverside Transit Agency	0.0	0.0	1,217.0
Rochester, NY	Regional Transit Service, Inc. and Lift Line, Inc.	0.0	0.0	1,116.2
Sacramento, CA	Sacramento Regional Transit District	0.0	0.0	1,771.8
Salt Lake City, UT	Utah Transit Authority	30.4	0.0	1,581.6
San Antonio, TX	VIA Metropolitan Transit	0.0	0.0	1,623.0
San Diego, CA	North San Diego County Transit District	0.0	0.0	1,599.0
San Diego, CA	San Diego Metropolitan Transit System	0.7	0.5	875.6
San Francisco, CA	Alameda-Contra Costa Transit District	0.3	50.8	1,352.2
San Francisco, CA	Golden Gate Bridge, Highway and Trp District	0.0	48.8	723.9
San Francisco, CA	San Francisco Municipal Railway	0.0	8.5	673.9
San Francisco, CA	San Mateo County Transit District	0.0	0.0	1,138.0
San Jose, CA	Santa Clara Valley Transportation Authority	1.1	207.5	1,383.4
Seattle, WA	King County Dept of Trp - Metro Transit Division	155.9	96.2	13,111.3
Seattle, WA	Pierce County Trp Benefit Area Auth	44.5	0.0	1,109.9
Seattle, WA	Snohomish County Trp Benefit Area Corp	75.6	67.2	957.5
Springfield, MA	Pioneer Valley Transit Authority	0.0	0.0	615.7
St. Louis, MO	Bi-State Development Agency	6.4	2.7	2,200.0
St. Louis, MO	Madison County Transit District	0.0	0.0	698.0
Stockton, CA	San Joaquin Regional Transit District	0.0	0.0	1,166.4
Sumter, SC	Santee Wateree Regional Trp Auth	0.0	0.0	629.0
Tampa, FL	Hillsborough Area Regional Transit Authority	0.0	1.1	874.3
Tampa, FL	Pinellas Suncoast Transit Authority	0.0	0.0	1,456.1
Toledo, OH	Toledo Area Regional Transit Authority	0.0	1.0	708.5
Tucson, AZ	City of Tucson	0.0	0.0	577.0
Tulsa, OK	Metropolitan Tulsa Transit Authority	0.0	0.0	927.4
Victorville, CA	Victor Valley Transit Authority	0.0	0.0	594.0
Washington, DC	Fairfax Connector Bus System	0.0	61.9	543.5
Washington, DC	Ride-On Montgomery County Transit	0.0	0.0	1,287.0
Washington, DC	Washington Metropolitan Area Transit Auth	10.4	92.7	2,782.9
	<b>TOTAL REPORTED (c)</b>	<b>1,497.0</b>	<b>1,312.5</b>	<b>221,381.6</b>

Source: Federal Transit Administration, National Transit Database.

- (a) Directional route miles count the number of miles used by routes in each direction of travel, regardless of how many routes use that stretch of guideway. Exclusive right-of-way (ROW) is reserved at all times; controlled ROW only part of the time (usually just during peak hours); and the rest of the reported miles are mixed with regular traffic. Some double-counting occurs when more than one transit agency or contractor uses the same fixed guideway.
- (b) Largest based on total directional route miles
- (c) Includes about 450 reporting bus agencies.

**TABLE 91: Trolleybus Fixed Guideway Lane Miles, Fiscal Year 2003 (a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	EXCLUSIVE RIGHT-OF-WAY	CONTROLLED RIGHT-OF-WAY
Boston, MA	Massachusetts Bay Transportation Authority	0.6	0.0
Dayton, OH	Greater Dayton Regional Transit Authority	123.6	0.0
Philadelphia, PA	Southeastern Pennsylvania Transportation Authority (b)	0.0	42.5
San Francisco, CA	San Francisco Municipal Railway	0.0	163.0
Seattle, WA	King County Department of Transportation	3.4	0.0
	<b>TOTAL</b>	<b>127.6</b>	<b>205.5</b>

Source: Federal Transit Administration, National Transit Database.

- (a) Lane miles count the mileage from one end of the guideway to the other multiplied by the number of lanes, regardless of how many routes use that stretch of guideway. Exclusive right-of-way (ROW) is reserved at all times; controlled ROW only part of the time (usually just during peak hours).
- (b) Data from Fiscal Year 2001. Ended service in 2003

# Demand Response

## Highlights.....

See National Totals on page 68.

Demand response is the most widely available transit service, with over 5,000 transit agencies providing it. However, most of those agencies limit the service to persons with disabilities, their attendants and companions, and older Americans.

**Demand Response** (also called **paratransit** or **dial-a-ride**) is comprised of passenger cars, vans or small buses operating in response to calls from passengers or their agents to the transit operator, who then dispatches a vehicle to pick up the passengers and transport them to their destinations. A demand response operation is characterized by the following: (a) The vehicles do not operate over a fixed route or on a fixed schedule except, perhaps, on a temporary basis to satisfy a special need; and (b) typically, the vehicle may be dispatched to pick up several passengers at different pick-up points before taking them to their respective destinations and may even be interrupted en route to these destinations to pick up other passengers. The following types of operations fall under the above definitions provided they are not on a scheduled fixed route basis: many origins-many destinations, many origins-one destination, one origin-many destinations, and one origin-one destination.

**TABLE 92: Average New Demand Response Vehicle Costs, 2004-2005, Thousands of Dollars (a)**

TYPE OF VEHICLE	COST
Small Vehicle (<27'6")	59

Source: APTA survey. Data are about 30% national total. CAUTION: The small sample represents primarily larger urban areas; inclusion of rural and small urban areas might produce significantly different results.

(a) Cost includes amount paid to manufacturer or agent. Not all orders were reported. Each year of a multi-year order is counted as a separate order.

## Types of Service

**Complementary paratransit service** is required by law for those persons with disabilities and others not able to use fixed-route service. Generally it must operate in the same areas and during the same hours. The fare is limited to twice the fixed-route fare. Service may be the fixed-route bus agency or by a completely separate agency.

**General demand response service** is not required by law and is not subject to the restrictions imposed on complementary paratransit service. The transit agency may limit the service to certain people or it may be available to anyone. Some such services operate during late-night and weekend hours in place of fixed-route services.

**User-side subsidy service** is a transportation arrangement where the rider's cost of transportation is partially subsidized by the transit agency. The user is the rider who pays a reduced fare. A typical user-side subsidy program is operated through taxicab operators or a brokerage system which may charge a per-ride fee for handling the rider's transportation arrangements.

## Types of Vehicles

Almost all demand response service is operated with vehicles less than 30 feet in length since generally only a few people are on board the vehicle at any time. Despite their small size, most such vehicles have two doors similar to transit buses, though the rear door (used for wheelchairs) may actually open behind the vehicle instead of towards the side.

A **van** has a typical seating capacity of 5 to 15 passengers and is classified as a van by vehicle manufacturers. A **modified van (body-on-chassis van)** is a standard van that has undergone some structural changes by another company, usually made to increase its size and particularly its height. The seating capacity of modified vans is approximately 9 to 18 passengers.

Small transit buses (see the Bus section for definitions) are also used by a small number of transit agencies.



*Demand response service uses vans and minibuses because very few people are on board at one time. This vehicle is part of the Omnitrans fleet, serving the San Bernardino Valley in California.*

**TABLE 93: Demand Response National Totals, Fiscal Year 2003**

Agencies, Number of	5,346
Fares Collected, Passenger	\$243,961,000
Fare per Unlinked Trip, Average	\$2.14
Expense, Operating Total (a)	\$2,363,386,000
Salaries and Wages (b)	\$412,812,000
Fringe Benefits (b)	\$181,889,000
Services (b)	\$98,300,000
Fuel and Lubricants (b)	\$47,817,000
Materials and Supplies, Other (b)	\$42,655,000
Utilities (b)	\$11,853,000
Casualty and Liability (b)	\$44,714,000
Purchased Transportation (b) (c)	\$1,495,574,000
Other (b)	\$27,773,000
Vehicle Operations (c)	\$562,278,000
Vehicle Maintenance (c)	\$128,249,000
Non-vehicle Maintenance (c)	\$23,127,000
General Administration (c)	\$154,159,000
Expense, Capital Total	\$241,755,000
Rolling Stock	\$160,914,000
Facilities, Stations, Administrative Buildings	\$32,399,000
Other	\$48,441,000
Trips, Unlinked Passenger, Annual	110,754,000
Miles, Passenger	930,029,000
Trip Length, Average (miles)	8.4
Miles, Vehicle Total	864,022,000
Miles, Vehicle Revenue	734,902,000
Hours, Vehicle Total	58,790,000
Hours, Vehicle Revenue	50,559,000
Speed, Vehicle in Revenue Service, Average (m.p.h.)	14.5
Revenue Vehicles Available for Maximum Service	35,954
Vehicles Operated at Maximum Service	29,400
Age, Average (years)	4.1
Air-conditioned	98.2%
Lifts, Wheelchair	84.5%
Ramps, Wheelchair	8.9%
Accessible Only via Stations	0.0%
Power Source, Diesel or Gasoline	95.2%
Power Source, Alternative	4.8%
Rehabilitated	1.0%
Employees, Operating	42,935
Vehicle Operations	32,755
Vehicle Maintenance	3,514
Non-vehicle Maintenance	594
General Administration	6,072
Employees, Capital	37
Diesel Fuel Consumed (gallons)	108,898,000
Other Fuel Consumed (gallons)	27,282,000
Electricity Consumed (kwh)	0

(a) Sum of (b) lines OR sum of (c) lines.

**TABLE 94: New Demand Response Vehicle Market by Type, 2004-2009**

CATEGORY	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	1,522	100.0%	699	100.0%	3,531	100.0%
Transit (27'6"-33'0")	0	0.0%	0	0.0%	16	0.5%
Small vehicle (<27'6")	1,522	100.0%	690	98.7%	3,515	99.5%
Suburban (27'6"-33'0")	0	0.0%	9	1.3%	0	0.0%

Source: APTA survey. Data are about 30% of national total. CAUTION: The small sample represents primarily larger urban areas; inclusion of rural and small urban areas might produce significantly different results.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 95: New Demand Response Vehicle Market  
by Length, 2004-2009**

CATEGORY	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	1,522	100.00%	699	100.00%	3,531	100.00%
26-33 feet	135	8.87%	25	3.58%	382	10.82%
24-25 feet	300	19.71%	351	50.21%	1,138	32.23%
21-23 feet	389	25.56%	166	23.75%	885	25.06%
20 feet	444	29.17%	74	10.59%	760	21.52%
12-29 feet	254	16.69%	83	11.87%	366	10.37%

Source: APTA survey. Data are about 30% of national total. CAUTION: The small sample represents primarily larger urban areas; inclusion of rural and small urban areas might produce significantly different results.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 96: New Demand Response Vehicle Market  
by Seating Capacity, 2004-2009**

CATEGORY	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	1,522	100.0%	699	100.0%	3,531	100.0%
21 or more seats	4	0.3%	9	1.3%	12	0.3%
16-20 seats	252	16.6%	144	20.6%	643	18.2%
11-15 seats	456	30.0%	352	50.4%	1,476	41.8%
6-10 seats	266	17.5%	132	18.9%	656	18.6%
Below 6 seats	544	35.7%	62	8.9%	744	21.1%

Source: APTA survey. Data are about 30% of national total. CAUTION: The small sample represents primarily larger urban areas; inclusion of rural and small urban areas might produce significantly different results.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 97: New Demand Response Market by Manufacturer, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	1,522	100.0%	699	100.0%	3,531	100.0%
Braun Corporation	37	2.4%	0	0.0%	NA	NA
Champion Motor Coach	23	1.5%	12	1.7%	NA	NA
Coach and Equip. Manuf. Co.	321	21.1%	140	20.0%	NA	NA
EIDorado-National	499	32.8%	299	42.8%	NA	NA
Ford Motor Corporation	307	20.2%	0	0.0%	NA	NA
Goshen Coach	50	3.3%	138	19.7%	NA	NA
Overland Custom Coach	29	1.9%	0	0.0%	NA	NA
Starcraft Automotive Group	61	4.0%	47	6.7%	NA	NA
Supreme Corporation	100	6.6%	31	4.4%	NA	NA
Turtle Top	62	4.1%	15	2.1%	NA	NA
All Others	33	2.2%	17	2.4%	NA	NA

Source: APTA survey. Data are about 30% of national total. CAUTION: The small sample represents primarily larger urban areas; inclusion of rural and small urban areas might produce significantly different results.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

## Accessibility

An **accessible vehicle** is a public transportation revenue vehicle that is usable and provides allocated space and/or priority seating for individuals who use wheelchairs.

**High-floor vans** require the rider to climb 2 or 3 steps from street level. Such vans accommodate people who use wheelchairs and other riders who cannot climb steps by using a retractable lift that raises and lowers persons and equipment between street and van floor levels.



*Wheelchair lift operating on a Pierce Transit van in Tacoma, Washington.*

**Low-floor vans** have a level floor in the entire passenger-seating area. Only a short retractable ramp is necessary to accommodate wheelchairs and those who cannot bridge the gap between van and street level.



*Minnesota's St. Cloud Metropolitan Transit Commission is one of many agencies operating low-floor demand response vans.*

**TABLE 98: Demand Response Accessibility, 2005**

	VEHICLES	PER CENT
Total	10,779	100.0%
Via on-board lift	9,121	84.6%
Via on-board ramp	913	8.5%
Non-accessible	745	6.9%

Source: APTA survey. Data are about 30% national total. CAUTION: The small sample represents primarily larger urban areas; inclusion of rural and small urban areas might produce significantly different results. Most non-accessible vehicles are automobiles or unmodified vans.

**TABLE 99: New Demand Response Vehicle Market by Accessibility, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	1,522	100.00%	699	100.00%	3,531	100.00%
Via on-board lift	1,129	74.18%	570	81.55%	3,387	95.92%
Via on-board ramp	162	10.64%	68	9.73%	59	1.67%
Non-accessible	231	15.18%	61	8.73%	85	2.41%

Source: APTA survey. Data are about 30% of national total. CAUTION: The small sample represents primarily larger urban areas; inclusion of rural and small urban areas might produce significantly different results. (a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 100: Demand Response Vehicle Power Sources, 2005**

	VEHICLES	PER CENT
Total	11,162	100.0%
Compressed natural gas & blends	324	2.9%
Diesel	7,447	66.7%
Gasoline	3,147	28.2%
Liquefied natural gas & blends	39	0.3%
Propane & blends	168	1.5%
All others	37	0.3%

Source: APTA survey. Data are about 30% of national total. CAUTION: The small sample represents primarily larger urban areas; inclusion of rural and small urban areas might produce significantly different results.

**TABLE 101: New Demand Response Vehicle Market by Power Source, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	1,522	100.0%	699	100.0%	3,531	100.0%
Biodiesel	15	1.0%	0	0.0%	19	0.5%
Compressed natural gas	8	0.5%	32	4.6%	70	2.0%
Diesel fuel	918	60.3%	367	52.5%	2,342	66.3%
Gasoline	581	38.2%	300	42.9%	540	15.3%
Propane	0	0.0%	0	0.0%	108	3.1%
Undecided	0	0.0%	0	0.0%	452	12.8%
Total	1,522	100.0%	699	100.0%	3,531	100.0%

Source: APTA survey. Data are about 30% of national total. CAUTION: The small sample represents primarily larger urban areas; inclusion of rural and small urban areas might produce significantly different results.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 102: Demand Response Power Source Efficiency, Miles per Gallon**

DIESEL	COMPRESSED NATURAL GAS	GASOLINE	LIQUIFIED NATURAL GAS	PROPANE
8.22	6.29	9.44	1.72	6.30

Source: Federal Transit Administration, 2002 National Transit Database.

**TABLE 103: Demand Response Fuel Consumption, Thousands of Gallons (a)**

FISCAL YEAR	DIESEL	COMPRESSED NATURAL GAS	GASOLINE	LIQUIFIED NATURAL GAS	PROPANE	OTHER	TOTAL NON-DIESEL
1994	29,949	1,726	39,868	311	1,599	21	43,525
1995	28,958	729	38,190	499	3,360	19	42,797
1996	30,923	3,565	37,202	584	4,640	6	45,997
1997	32,020	3,854	35,684	754	4,112	11	44,415
1998	38,725	4,647	29,508	2,256	5,749	32	42,192
1999	43,202	4,502	26,750	2,421	4,941	9	38,623
2000	48,088	4,311	23,911	2,103	4,261	0	34,586
2001	54,898	5,267	20,286	2,095	3,529	38	31,215
2002	61,569	3,231	17,360	1,737	3,783	311	26,422
2003 P	108,898	5,173	16,547	1,563	3,705	1,867	27,282

P = Preliminary

(a) Data includes passenger vehicles; excludes non-passenger-vehicle and non-vehicle consumption.

## Largest Demand Response Transit Agencies

Each variable chosen to rank agencies by size will yield a different list. Vehicles vary widely in size; transfers result in double-counting some passengers; expenses are largely determined by wage rate and benefit levels; employee counts may include numerous part-time employees and not include contract personnel. For these reasons, listed are the top 20 transit systems based on four categories: Passenger Miles, Number of Revenue Vehicles, Vehicle Revenue Miles and Unlinked Passenger Trips.

**TABLE 104: 20 Largest Demand Response Transit Agencies Ranked by Unlinked Passenger Trips, Fiscal Year 2003 (Thousands)**

	TRANSIT AGENCY	URBANIZED AREA (Primary City)	PASSENGER TRIPS
1	Access Services Incorporated	Los Angeles, CA	2,443.9
2	Access Transportation Systems, Inc.	Pittsburgh, PA	1,861.0
3	Chicago Transit Authority	Chicago, IL	1,803.4
4	King County Dept of Trp - Metro Transit Division	Seattle, WA	1,661.6
5	Southeastern Pennsylvania Trp Auth	Philadelphia, PA	1,558.7
6	Pace - Suburban Bus Division	Chicago, IL	1,498.1
7	San Francisco Paratransit	San Francisco, CA	1,352.8
8	City of Los Angeles Dept of Trp	Los Angeles, CA	1,264.5
9	Broward County Mass Transit Division	Miami, FL	1,263.9
10	Advanced Transportation Solutions, LLC	Miami, FL	1,196.0
11	Massachusetts Bay Transportation Authority	Boston, MA	1,178.1
12	MTA New York City Transit	New York, NY	1,173.6
13	ATC / Vancom	Dallas, TX	1,169.7
14	Metro Mobility	Minneapolis, MN	1,125.9
15	Los Angeles County Metropolitan Trp Auth	Los Angeles, CA	1,108.4
16	Milwaukee County Transit System	Milwaukee, WI	1,061.0
17	Santa Clara Valley Transportation Authority	San Jose, CA	1,036.8
18	VIA Metropolitan Transit	San Antonio, TX	991.4
19	Washington Metropolitan Area Transit Auth	Washington, DC	972.4
20	Tri-County Metropolitan Trp District of Oregon	Portland, OR	919.0

Source: Federal Transit Administration National Transit Database

**TABLE 105: 20 Largest Demand Response Transit Agencies Ranked by Number of Revenue Vehicles, Fiscal Year 2003**

	TRANSIT AGENCY	URBANIZED AREA (Primary City)	REVENUE VEHICLES
1	San Francisco Paratransit	San Francisco, CA	1,686
2	Chicago Transit Authority	Chicago, IL	1,299
3	Metropolitan Transit Auth of Harris County, Texas	Houston, TX	955
4	Access Services Incorporated	Los Angeles, CA	522
5	MTA New York City Transit	New York, NY	512
6	Milwaukee County Transit System	Milwaukee, WI	506
7	Access Transportation Systems, Inc.	Pittsburgh, PA	473
8	Southeastern Pennsylvania Trp Auth	Philadelphia, PA	469
9	Massachusetts Bay Transportation Authority	Boston, MA	409
10	King County Dept of Trp - Metro Transit Division	Seattle, WA	399
11	Pace - Suburban Bus Division	Chicago, IL	361
12	Broward County Mass Transit Division	Miami, FL	335
13	Santa Clara Valley Transportation Authority	San Jose, CA	317
14	Advanced Transportation Solutions, LLC	Miami, FL	279
15	Palm Tran, Inc.	Miami, FL	279
16	Denver Regional Transportation District	Denver, CO	263
17	Metropolitan Council	Minneapolis, MN	262
18	New Jersey Transit Corporation	New York, NY	256
19	Metro Mobility	Minneapolis, MN	249
20	Orange County Transportation Authority	Los Angeles, CA	248

Source: Federal Transit Administration National Transit Database

**TABLE 106: 20 Largest Demand Response Transit Agencies Ranked by Vehicle Revenue Miles, Fiscal Year 2003 (Thousands)**

	TRANSIT AGENCY	URBANIZED AREA (Primary City)	VEHICLE MILES
1	Access Services Incorporated	Los Angeles, CA	20,810.7
2	MTA New York City Transit	New York, NY	12,876.2
3	Access Transportation Systems, Inc.	Pittsburgh, PA	12,069.1
4	Advanced Transportation Solutions, LLC	Miami, FL	11,904.1
5	Broward County Mass Transit Division	Miami, FL	11,143.8
6	Chicago Transit Authority	Chicago, IL	10,642.8
7	Washington Metropolitan Area Transit Auth	Washington, DC	9,787.0
8	Massachusetts Bay Transportation Authority	Boston, MA	9,515.3
9	King County Dept of Trp - Metro Transit Division	Seattle, WA	9,371.2
10	Metro Mobility	Minneapolis, MN	8,977.4
11	Southeastern Pennsylvania Trp Auth	Philadelphia, PA	8,626.9
12	VIA Metropolitan Transit	San Antonio, TX	7,917.0
13	Pace - Suburban Bus Division	Chicago, IL	7,702.1
14	New Jersey Transit Corporation	New York, NY	7,350.8
15	Santa Clara Valley Transportation Authority	San Jose, CA	7,233.1
16	Orange County Transportation Authority	Los Angeles, CA	7,131.1
17	ATC / Vancom	Dallas, TX	7,092.2
18	Central Florida Regional Trp Auth	Orlando, FL	7,034.3
19	Metropolitan Transit Auth of Harris County, Texas	Houston, TX	6,572.7
20	Delaware Transit Corporation	Philadelphia, PA	6,498.3

Source: Federal Transit Administration National Transit Database

**TABLE 107: 20 Largest Demand Response Transit Agencies Ranked by Passenger Miles, Fiscal Year 2003 (Thousands)**

	TRANSIT AGENCY	URBANIZED AREA (Primary City)	PASSENGER MILES
1	Access Services Incorporated	Los Angeles, CA	27,110.1
2	Massachusetts Bay Transportation Authority	Boston, MA	16,214.8
3	Advanced Transportation Solutions, LLC	Miami, FL	15,943.0
4	MTA New York City Transit	New York, NY	15,573.2
5	Chicago Transit Authority	Chicago, IL	14,289.9
6	Pee Dee Regional Transportation Authority	Florence, SC	12,871.1
7	Access Transportation Systems, Inc.	Pittsburgh, PA	12,296.0
8	Southeastern Pennsylvania Trp Auth	Philadelphia, PA	11,836.6
9	VIA Metropolitan Transit	San Antonio, TX	11,803.4
10	King County Dept of Trp - Metro Transit Division	Seattle, WA	11,780.3
11	Metro Mobility	Minneapolis, MN	11,392.0
12	Broward County Mass Transit Division	Miami, FL	11,121.9
13	Space Coast Area Transit	Palm Bay, FL	10,827.8
14	Washington Metropolitan Area Transit Auth	Washington, DC	9,787.0
15	City and County of Honolulu Dept of Trp Services	Honolulu, HI	9,423.6
16	Pace - Suburban Bus Division	Chicago, IL	8,933.4
17	ATC / Vancom	Dallas, TX	8,870.5
18	Central Florida Regional Trp Auth	Orlando, FL	8,549.1
19	Santa Clara Valley Transportation Authority	San Jose, CA	8,497.3
20	Orange County Transportation Authority	Los Angeles, CA	8,327.9

Source: Federal Transit Administration National Transit Database

**TABLE 108: 75 Largest Demand Response Agencies Service and Usage Data, Fiscal Year 2003  
(Thousands) (a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	ANNUAL VEHICLE REVENUE MILES	ANNUAL VEHICLE REVENUE HOURS	ANNUAL UNLINKED TRIPS	ANNUAL PASSENGER MILES
Allentown, PA	Lehigh and Northampton Trp Auth	3,735.7	185.0	487.5	3,898.9
Austin, TX	Capital Metropolitan Transportation Authority	2,663.8	200.2	390.5	3,331.1
Baltimore, MD	Maryland Transit Administration	4,549.8	301.0	648.2	5,641.2
Barnstable Town, MA	Cape Cod Regional Transit Authority	2,452.6	142.1	330.1	2,058.5
Boston, MA	Massachusetts Bay Transportation Authority	9,515.3	691.4	1,178.1	16,214.8
Bremerton, WA	Kitsap Transit	1,843.5	113.0	413.3	3,769.3
Chicago, IL	Chicago Transit Authority	10,642.8	1,163.7	1,803.4	14,289.9
Chicago, IL	Pace - Suburban Bus Division	7,702.1	535.4	1,498.1	8,933.4
Cincinnati, OH	Southwest Ohio Regional Transit Authority	2,404.1	130.5	271.4	2,820.4
Cleveland, OH	Laketran	2,432.4	127.6	343.0	3,652.5
Cleveland, OH	The Greater Cleveland Regional Transit Auth	2,411.9	176.2	340.5	1,935.8
Dallas, TX	ATC / Vancom	7,092.2	420.2	1,169.7	8,870.5
Dallas, TX	Fort Worth Transportation Authority	2,994.5	153.6	315.5	3,266.9
Daytona Beach, FL	County of Volusia	2,426.7	171.0	314.0	2,432.7
Denver, CO	Denver Regional Transportation District	5,759.3	427.7	703.7	5,903.6
Detroit, MI	Suburban Mobility Auth for Regional Trp	3,355.7	244.7	790.8	4,866.9
Flint, MI	Mass Transportation Authority	3,725.2	211.2	467.2	5,125.1
Florence, SC	Pee Dee Regional Transportation Authority	4,473.5	207.6	503.2	12,871.1
Grand Rapids, MI	Interurban Transit Partnership	2,363.2	157.5	397.9	3,986.8
Hartford, CT	Greater Hartford Transit District	2,839.6	219.6	484.4	3,289.6
Honolulu, HI	City and County of Honolulu Dept of Trp	4,343.7	295.1	748.1	9,423.6
Houston, TX	First transit	6,074.1	343.1	650.1	7,523.4
Houston, TX	Metropolitan Transit Auth of Harris County	6,572.7	347.7	793.8	7,662.1
Indianapolis, IN	Indianapolis and Marion County Public Trp	2,009.0	143.4	309.4	3,004.2
Jacksonville, FL	Jacksonville Transportation Authority	5,322.2	302.1	541.9	6,287.1
Kansas City, MO	Kansas City Area Transportation Authority	1,906.7	99.5	367.0	2,320.4
Kennewick, WA	Ben Franklin Transit	2,081.3	119.3	448.2	2,751.5
Lancaster, PA	Red Rose Transit Authority	1,499.6	95.2	341.1	3,363.1
Lansing, MI	Capital Area Transportation Authority	2,211.9	151.8	427.7	3,174.9
Las Vegas, NV	Regional Trp Commission of Southern Nevada	5,491.2	361.7	713.1	7,659.2
Leominster, MA	Montachusett Regional Transit Authority	1,565.9	110.7	331.2	2,914.7
Los Angeles, CA	Access Services Incorporated	20,810.7	1,008.9	2,443.9	27,110.1
Los Angeles, CA	City of Los Angeles Dept of Trp	4,722.2	316.6	1,264.5	5,307.3
Los Angeles, CA	Los Angeles County Metropolitan Trp Auth	3,246.1	272.0	1,108.4	4,178.4
Los Angeles, CA	Orange County Transportation Authority	7,131.1	491.5	909.2	8,327.9
Louisville, KY	Transit Authority of River City	3,272.7	188.5	362.6	3,237.3
Miami, FL	Advanced Transportation Solutions, LLC	11,904.1	744.6	1,196.0	15,943.0
Miami, FL	Broward County Mass Transit Division	11,143.8	871.4	1,263.9	11,121.9
Miami, FL	Palm Tran, Inc.	5,448.1	423.4	450.3	4,207.7
Milwaukee, WI	Milwaukee County Transit System	5,379.8	354.6	1,061.0	6,954.1
Minneapolis, MN	Metro Mobility	8,977.4	552.2	1,125.9	11,392.0
Minneapolis, MN	Metropolitan Council	3,175.0	234.5	787.6	4,715.6
New Orleans, LA	New Orleans Regional Transit Authority	2,230.3	191.5	318.1	2,405.1
New York, NY	American Transit, Inc.	5,336.2	513.5	564.1	5,857.4
New York, NY	Atlantic Paratrans of NYC, Inc.	6,309.8	749.6	656.6	5,427.2
New York, NY	Metropolitan Suburban Bus Authority	2,803.7	203.4	309.7	2,673.0
New York, NY	MTA New York City Transit	12,876.2	1,079.5	1,173.6	15,573.2
New York, NY	New Jersey Transit Corporation	7,350.8	419.2	770.0	6,472.8
Orlando, FL	Central Florida Regional Trp Auth	7,034.3	437.1	612.7	8,549.1
Palm Bay, FL	Space Coast Area Transit	2,351.3	140.7	552.5	10,827.8
Philadelphia, PA	Delaware Transit Corporation	6,498.3	329.3	568.9	6,608.3
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	8,626.9	910.9	1,558.7	11,836.6
Phoenix, AZ	City of Phoenix Public Transit Department	4,234.5	303.1	468.2	3,706.4
Pittsburgh, PA	Access Transportation Systems, Inc.	12,069.1	775.6	1,861.0	12,296.0
Port Huron, MI	Blue Water Area Transportation Commission	1,210.3	81.4	387.5	1,047.5
Portland, OR	Tri-County Metropolitan Trp District of Oregon	5,878.5	395.3	919.0	8,023.5
Providence, RI	Rhode Island Public Transit Authority	3,746.1	253.1	740.0	6,284.2
Riverside, CA	Omnitrans	2,750.8	183.3	522.1	5,302.9
Salt Lake City, UT	Utah Transit Authority	4,525.8	293.8	523.8	6,186.1
San Antonio, TX	VIA Metropolitan Transit	7,917.0	407.0	991.4	11,803.4
San Diego, CA	MTS Contract Services	2,380.9	148.4	428.1	2,822.8
San Francisco, CA	ATC / Vancom	5,777.9	395.5	670.1	5,498.7
San Francisco, CA	San Francisco Paratransit	5,354.2	427.6	1,352.8	8,044.6
San Francisco, CA	San Mateo County Transit District	2,662.0	213.2	310.8	2,851.7
San Jose, CA	Santa Clara Valley Transportation Authority	7,233.1	490.3	1,036.8	8,497.3

**TABLE 108: 75 Largest Demand Response Agencies Service and Usage Data, Fiscal Year 2003  
(Thousands) (a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	ANNUAL VEHICLE REVENUE MILES	ANNUAL VEHICLE REVENUE HOURS	ANNUAL UNLINKED TRIPS	ANNUAL PASSENGER MILES
Seattle, WA	King County Dept of Trp - Metro Transit Division	9,371.2	611.0	1,661.6	11,780.3
Seattle, WA	Pierce County Trp Benefit Area Auth	2,501.5	155.1	429.8	3,806.5
Spokane, WA	Spokane Transit Authority	2,462.5	159.4	454.5	3,727.7
Springfield, MA	Pioneer Valley Transit Authority	3,421.8	276.7	464.8	3,326.4
St. Louis, MO	Bi-State Development Agency	4,485.5	270.0	575.3	5,166.4
Tucson, AZ	City of Tucson	1,858.8	155.6	289.7	2,417.3
Washington, DC	Ride-On Montgomery County Transit	5,118.8	323.5	365.8	5,118.8
Washington, DC	Washington Metropolitan Area Transit Auth	9,787.0	631.3	972.4	9,787.0
Wichita, KS	Wichita Transit	1,680.5	92.8	322.2	1,608.7
Worcester, MA	Worcester Regional Transit Authority	1,659.6	126.4	289.7	1,814.0

Source: Federal Transit Administration National Transit Database  
(a) Largest based on number of unlinked passenger trips

**TABLE 109: 75 Largest Demand Response Agencies Vehicle and Financial Data,  
Fiscal Year 2003 (a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	REVENUE VEHICLES	CAPITAL EXPENSES (000)	FARE REVENUE (000)	OPERATING EXPENSES (000)
Allentown, PA	Lehigh and Northampton Trp Auth	114	709.3	501.8	7,301.8
Austin, TX	Capital Metropolitan Transportation Authority	105	1,405.5	518.3	20,246.1
Baltimore, MD	Maryland Transit Administration	117	0.0	792.8	16,306.0
Barnstable Town, MA	Cape Cod Regional Transit Authority	67	912.7	374.7	6,705.4
Boston, MA	Massachusetts Bay Transportation Authority	409	0.0	1,392.7	30,258.5
Bremerton, WA	Kitsap Transit	85	1,686.1	173.7	6,818.9
Chicago, IL	Chicago Transit Authority	1,299	0.0	2,033.6	43,540.3
Chicago, IL	Pace - Suburban Bus Division	361	2,810.0	8,325.1	25,136.1
Cincinnati, OH	Southwest Ohio Regional Transit Authority	53	4,111.3	270.0	7,139.6
Cleveland, OH	Laketran	88	1,281.1	324.6	6,394.1
Cleveland, OH	The Greater Cleveland Regional Transit Auth	102	3,434.9	257.7	16,972.2
Dallas, TX	ATC / Vancom	160	0.0	1,242.2	15,256.4
Dallas, TX	Fort Worth Transportation Authority	78	4,111.9	2,790.2	7,926.7
Daytona Beach, FL	County of Volusia	83	354.8	2,482.0	5,673.8
Denver, CO	Denver Regional Transportation District	263	4,207.1	735.8	22,314.8
Detroit, MI	Suburban Mobility Auth for Regional Trp	156	4,022.8	1,298.8	17,491.0
Flint, MI	Mass Transportation Authority	163	1,108.9	468.2	8,234.4
Florence, SC	Pee Dee Regional Transportation Authority	139	1,729.4	4,005.4	4,807.5
Grand Rapids, MI	Interurban Transit Partnership	120	1,273.1	576.7	5,959.5
Hartford, CT	Greater Hartford Transit District	144	1,719.5	278.1	8,520.9
Honolulu, HI	City and County of Honolulu Dept of Trp	170	2,182.5	1,448.6	16,213.1
Houston, TX	First transit	117	0.0	12,872.6	12,872.6
Houston, TX	Metropolitan Transit Auth of Harris County	955	897.2	821.3	28,605.6
Indianapolis, IN	Indianapolis and Marion County Public Trp	70	727.5	560.9	7,809.4
Jacksonville, FL	Jacksonville Transportation Authority	127	33.5	11,957.7	17,270.8
Kansas City, MO	Kansas City Area Transportation Authority	106	0.0	493.5	5,802.4
Kennewick, WA	Ben Franklin Transit	115	1,423.9	163.4	7,200.4
Lancaster, PA	Red Rose Transit Authority	71	353.0	229.0	3,664.2
Lansing, MI	Capital Area Transportation Authority	92	870.0	640.6	7,241.8
Las Vegas, NV	Regional Trp Commission of Southern Nevada	177	62.5	894.4	20,450.9
Leominster, MA	Montachusett Regional Transit Authority	134	1,153.6	609.1	3,418.5
Los Angeles, CA	Access Services Incorporated	522	2,187.4	3,777.9	66,958.0
Los Angeles, CA	City of Los Angeles Dept of Trp	193	202.0	866.0	15,555.2
Los Angeles, CA	Los Angeles County Metropolitan Trp Auth	184	1,186.0	878.0	13,426.2
Los Angeles, CA	Orange County Transportation Authority	248	2,912.7	2,638.8	22,936.2
Louisville, KY	Transit Authority of River City	88	0.0	562.6	8,354.6
Miami, FL	Advanced Transportation Solutions, LLC	279	0.0	2,972.2	28,313.6
Miami, FL	Broward County Mass Transit Division	335	0.0	1,066.4	22,524.5
Miami, FL	Palm Tran, Inc.	279	425.0	803.8	13,363.7
Milwaukee, WI	Milwaukee County Transit System	506	0.0	2,396.2	18,659.4
Minneapolis, MN	Metro Mobility	249	0.0	2,705.2	28,300.4
Minneapolis, MN	Metropolitan Council	262	2,654.7	1,177.5	10,971.7
New Orleans, LA	New Orleans Regional Transit Authority	92	2,380.8	206.8	10,415.0

**TABLE 109: 75 Largest Demand Response Agencies Vehicle and Financial Data, Fiscal Year 2003 (a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	REVENUE VEHICLES	CAPITAL EXPENSES (000)	FARE REVENUE (000)	OPERATING EXPENSES (000)
New York, NY	American Transit, Inc.	225	0.0	1,104.9	24,450.8
New York, NY	Atlantic Paratrans of NYC, Inc.	226	0.0	833.1	21,327.1
New York, NY	Metropolitan Suburban Bus Authority	85	216.4	909.3	9,195.7
New York, NY	MTA New York City Transit	512	0.0	2,742.8	143,709.5
New York, NY	New Jersey Transit Corporation	256	0.0	921.1	21,799.4
Orlando, FL	Central Florida Regional Trp Auth	155	216.8	801.2	18,331.0
Palm Bay, FL	Space Coast Area Transit	125	0.0	2,619.0	5,251.4
Philadelphia, PA	Delaware Transit Corporation	229	5,654.9	878.0	22,399.3
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	469	3,053.6	4,760.3	39,046.3
Phoenix, AZ	City of Phoenix Public Transit Department	182	1,177.3	608.5	13,657.9
Pittsburgh, PA	Access Transportation Systems, Inc.	473	0.0	6,541.7	28,995.6
Port Huron, MI	Blue Water Area Transportation Commission	104	417.8	1,516.5	4,125.3
Portland, OR	Tri-County Metropolitan Trp District of Oregon	211	649.2	112.4	18,421.3
Providence, RI	Rhode Island Public Transit Authority	125	737.2	265.6	10,276.4
Riverside, CA	Omnitrans	100	91.6	884.9	7,329.1
Salt Lake City, UT	Utah Transit Authority	215	4,306.2	1,803.1	15,092.8
San Antonio, TX	VIA Metropolitan Transit	213	332.9	1,167.7	19,792.5
San Diego, CA	MTS Contract Services	88	0.0	973.7	6,152.7
San Francisco, CA	ATC / Vancom	199	0.0	1,481.9	23,579.4
San Francisco, CA	San Francisco Paratransit	1686	0.0	1,071.1	18,883.8
San Francisco, CA	San Mateo County Transit District	116	445.8	433.5	8,945.0
San Jose, CA	Santa Clara Valley Transportation Authority	317	0.0	2,481.6	32,677.4
Seattle, WA	King County Dept of Trp - Metro Transit Division	399	4,115.9	528.0	43,530.5
Seattle, WA	Pierce County Trp Benefit Area Auth	166	1,002.7	262.6	11,164.7
Spokane, WA	Spokane Transit Authority	98	20.5	189.3	8,325.4
Springfield, MA	Pioneer Valley Transit Authority	173	1,416.5	298.5	7,010.5
St. Louis, MO	Bi-State Development Agency	101	4,231.1	685.9	16,378.5
Tucson, AZ	City of Tucson	72	253.1	280.7	7,005.6
Washington, DC	Ride-On Montgomery County Transit	104	0.0	0.0	4,456.7
Washington, DC	Washington Metropolitan Area Transit Auth	239	0.0	1,927.8	34,247.2
Wichita, KS	Wichita Transit	36	989.8	690.8	2,503.5
Worcester, MA	Worcester Regional Transit Authority	152	744.4	539.5	5,476.1

Source: Federal Transit Administration National Transit Database  
(a) Largest based on number of unlinked passenger trips

# Ferryboat

## Highlights.....

See National Totals on page 78.

**Ferryboat** is a transit mode comprised of vessels carrying passengers and/or vehicles over a body of water, and that are generally steam or diesel-powered.

When at least one terminal is within an urbanized area, it is **urban ferryboat** service. Such service excludes international, rural, rural interstate, island, and urban park ferries.

Transit ferryboat service is provided in about 30 metropolitan areas and small cities, where offshore islands, bays, and wide rivers preclude any other type of service at a reasonable cost. In a few places, service may operate between two points on the same shore.

In a few far-northern areas, service does not operate in winter. Service may occasionally be curtailed during periods of heavy fog or severe storms for safety reasons. Ferry service is unique among public transit modes in that it is subject to U.S. Coast Guard operating and safety regulations.

## Types of Service

Most ferryboats operate non-stop over short distances in **local service**, but in a few cases, a stop may be made at an intervening island. A number of routes in the Boston, MA, New York, NY, Providence, RI, San Francisco, CA, and Seattle, WA areas are several miles long.

**Express service** may operate in peak-hours bypassing intervening islands. Alternatively, some trips may be operated by high-speed or passenger-only ferries compared to the regular ferry, which could be considered as express service of a sort.

## Fixed Guideways

By federal law, ferryboats are considered a form of fixed-guideway transit. Each trip may take a slightly different course due to water conditions, but the beginning and ending points are fixed.

## Types of Vehicles

A **ferryboat** is a vessel for carrying passengers and/or vehicles over a body of water. The vessel is generally a steam or diesel-powered conventional ferry vessel. It may also be a hovercraft, hydrofoil or other high speed vessel.

A wide range of boats are used in ferry service, but there are two basic types.

**Vehicle ferries** have at least one deck for vehicles, with additional decks for passengers. The largest are in the Seattle, WA area, and are over 460 feet long, accommodating 2,500 passengers and 218 vehicles. Such ferries are normally square-ended to allow vehicle access and egress.



*Washington State Ferries operates the nation's largest fleet of passenger-auto ferries on Puget Sound in the Seattle and Tacoma, Washington areas.*

**Passenger-only ferries** have only passenger decks, though they may also have space for bicycles. They can range from small boats about 50 feet long holding about 50 people up to the 310-foot long Staten Island ferries in New York, which can accommodate 6,000 people. Because they don't have vehicle decks, they need not be square-ended and may have pointed bows and side-loading. Catamaran (double hull) and hydrofoil (where the vehicle skims the surface of the water) styles may be used for high-speed services.



*This passenger-only ferry is operated by Golden Gate Bridge, Highway and Transportation District of San Francisco.*

**Water taxis** are very small passenger-only ferries (about 50 feet or less) that may operate in both fixed-route and on-demand service, depending on the time of day and patronage levels. They can load and unload very quickly and operate very frequently, sometimes to several different points around a harbor or along a river.

## Vehicle Costs

Only 1-2 ferryboats are built in a 5-year period. Costs vary from about \$250,000 to tens of millions of dollars.

**TABLE 110: Urban Ferryboat National Totals, Fiscal Year 2003**

Agencies, Number of	46
Fares Collected, Passenger	\$99,385,000
Fare per Unlinked Trip, Average	\$1.50
Expense, Operating Total (a)	\$355,181,000
Salaries and Wages (b)	\$150,392,000
Fringe Benefits (b)	\$44,955,000
Services (b)	\$28,755,000
Fuel and Lubricants (b)	\$27,826,000
Materials and Supplies, Other(b)	\$24,806,000
Utilities (b)	\$3,499,000
Casualty and Liability (b)	\$9,276,000
Purchased Transportation (b) (c)	\$59,677,000
Other (b)	\$4,899,000
Vehicle Operations (c)	\$193,744,000
Vehicle Maintenance (c)	\$39,004,000
Non-vehicle Maintenance (c)	\$30,836,000
General Administration (c)	\$31,920,000
Expense, Capital Total	\$270,163,000
Rolling Stock	\$74,046,000
Facilities, Stations, Administrative Buildings	\$190,643,000
Other	\$5,473,000
Trips, Unlinked Passenger, Annual	66,335,000
Miles, Passenger	393,955,000
Trip Length, Average (miles)	5.9
Miles, Vehicle Total	3,594,000
Miles, Vehicle Revenue	3,539,000
Hours, Vehicle Total	410,000
Hours, Vehicle Revenue	406,000
Speed, Vehicle in Revenue Service, Average (m.p.h.)	8.7
Revenue Vehicles Available for Maximum Service	131
Vehicles Operated at Maximum Service	113
Age, Average (years)	23.4
Air-conditioned	15.4%
Lifts, Wheelchair	0.0%
Ramps, Wheelchair	20.0%
Accessible Only via Stations	26.2%
Power Source, Diesel or Gasoline	58.5%
Power Source, Alternative	41.5%
Rehabilitated	1.5%
Employees, Operating	5,434
Vehicle Operations	3,915
Vehicle Maintenance	365
Non-vehicle Maintenance	715
General Administration	439
Employees, Capital	102
Diesel Fuel Consumed (gallons)	32,071,000
Other Fuel Consumed (gallons)	2,000
Electricity Consumed (kwh)	0

(a) Sum of (b) lines OR sum of (c) lines.

## Power Sources and Fuel Consumption

Almost all ferries are powered by diesel, and because of their massive bulk, have relatively low fuel efficiency--about 0.07 miles per gallon in the year 2002. However, this is an average of widely varying sizes of boats with trips hindered by opposing currents.

One compressed natural gas ferry is operated by Hampton Roads Transit in Norfolk, VA. (This ferry was out of service in 2003, which is why there are no CNG fuel consumption data for that year.)

**TABLE 111: Ferryboat Fuel Consumption, Thousands of Gallons**

FISCAL YEAR	DIESEL	COMPRESSED NATURAL GAS	BIODIESEL
1994	21,146	NA	NA
1995	22,307	NA	NA
1996	21,991	NA	NA
1997	23,881	NA	NA
1998	25,269	NA	NA
1999	28,721	NA	NA
2000	31,780	2	NA
2001	30,266	2	NA
2002	30,993	2	8
2003 P	32,071	0	0

P = Preliminary

## Accessibility

A **station** is a public transportation passenger facility.

An **accessible station** is a station which provides ready access, and does not have physical barriers that prohibit and/or restrict access by individuals with disabilities, including individuals who use wheelchairs.

An **accessible vehicle** is a public transportation revenue vehicle that does not restrict access, is usable, and provides allocated space and/or priority seating for individuals who use wheelchairs.

Because water levels fluctuate due to tides in coastal areas or drought and high-water conditions on interior rivers, different methods of access have evolved.

Some ferries use floating docks that rise and fall with changing water levels. Where water levels are more stable, the dock may be a permanent structure on land. In either case a gangway and a vehicle ramp must be deployed either from the boat or from the dock. On the busiest ferry routes, a terminal building may have multiple boarding levels, with gangways deployed for passengers from the building's upper levels in the same manner as is done at airports.

Wheelchair accessibility depends on the width and railings on the gangways, on the steepness of the slope on the gangways resulting from very high or low water levels, and on any small gaps in vehicle access ramps (if that is the only means of access). Special assistance may be necessary in some cases. When access is directly from a terminal building, elevators within that building would also be necessary. Some ferries are not accessible due to steps at the ends of gangways.

**TABLE 112: Urban Ferryboat Transit Agencies (a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY
Balboa, CA	Balboa Island Ferry
Baytown, TX	Harris County Lynchburg Ferry
Boston, MA	Airport Water Shuttle
Boston, MA	Bay State Cruise Company
Boston, MA	Boston Harbor Cruises
Boston, MA	Harbor Express
Boston, MA	Massachusetts Bay Transportation Authority
Bremerton, WA	Kitsap Transit
Chicago, IL	Wendella RiverBus
Cincinnati, OH	Anderson Ferry Boat
Corpus Christi, TX	Corpus Christi Regional Transportation Authority
Fort Lauderdale, FL	Fort Lauderdale Water Bus
Galveston, TX	Texas Department of Transportation
Glastonbury, CT	Connecticut Department of Transportation
Harrisburg, IL	Rides Mass Transit District
Jersey City, NJ	Liberty Park Water Taxi
Long Beach, CA	Long Beach Transit
Mayport, FL	St. John's River Ferry
New Orleans, LA	Louisiana Department of Transportation Crescent City Connection
New York, NY	MTA Metro-North Railroad
New York, NY	New York City Department of Transportation Staten Island Ferry
New York, NY	New York Fast Ferry
New York, NY	New York Water Taxi
New York, NY	New York Waterway
New York, NY	Liberty Park Water Taxi
New York, NY	Seastreak America
Norfolk, VA	Transportation District Commission of Hampton Roads
Philadelphia, PA	Delaware River Port Authority RiverLink Ferry
Port Huron, MI	Champion's Auto Ferry
Portland, ME	Casco Bay Island Transit District
Portland, ME	Chebeague Transportation Company
Providence, RI	Rhode Island Public Transit Authority
Rock Island, IL	Rock Island County Metropolitan Mass Transit District
San Diego, CA	Coronado Ferry
San Diego, CA	The Wave
San Francisco, CA	Angel Island-Tiburon Ferry Company
San Francisco, CA	Blue and Gold Fleet
San Francisco, CA	City of Alameda Ferry Services Alameda/Oakland Ferry
San Francisco, CA	City of Vallejo Baylink Ferry
San Francisco, CA	Golden Gate Bridge, Highway and Transportation District
San Francisco, CA	Harbor Bay Ferry
San Juan, PR	Puerto Rico Ports Authority
Savannah, GA	Chatham Area Transit Authority
Seattle, WA	Elliott Bay Water Taxi
Seattle, WA	Washington State Ferries
Tacoma, WA	Pierce County Ferry

(a) Excludes international, rural, island, and urban park ferries.

**TABLE 113: Ferryboat Transit Agencies Service and Usage Data, Fiscal Year 2003 (Thousands)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	ANNUAL VEHICLE REVENUE MILES	ANNUAL VEHICLE REVENUE HOURS	ANNUAL UNLINKED TRIPS	ANNUAL PASSENGER MILES
Boston, MA	Massachusetts Bay Transportation Authority	492.7	38.5	1,469.4	12,079.6
Bremerton, WA	Kitsap Transit	39.2	5.7	338.5	550.8
Corpus Christi, TX	Corpus Christi Regional Trp Auth	1.9	0.7	33.8	28.7
New Orleans, LA	Crescent City Connection Division	45.0	23.0	3,093.9	1,547.0
New York, NY	Metro-North Commuter Railroad Company	36.8	2.4	83.9	460.8
New York, NY	New York City Department of Transportation	172.5	16.5	19,245.9	99,073.5
New York, NY	Port Authority Trans-Hudson Corporation	325.2	38.1	5,254.1	12,775.2
Portland, ME	Casco Bay Island Transit District	71.8	15.1	893.3	2,948.0
San Francisco, CA	City of Alameda Ferry Services	62.8	5.9	532.2	3,286.7
San Francisco, CA	Golden Gate Bridge, Highway and Trp District	188.6	14.6	1,596.1	18,541.7
San Juan, PR	Puerto Rico Ports Authority	159.7	22.2	1,969.4	3,146.8
Savannah, GA	Chatham Area Transit Authority	1.3	0.9	56.5	191.2
Seattle, WA	Pierce County Ferry Operations	31.0	5.3	198.0	1,448.0
Seattle, WA	Washington State Ferries	1,075.6	136.2	24,543.8	193,507.3
Vallejo, CA	City of Vallejo Transportation Program	210.4	7.6	655.1	17,087.8
Virginia Beach, VA	Trp District Commission of Hampton Roads	12.0	5.9	341.2	170.6

Source: Federal Transit Administration National Transit Database; excludes transit agencies not reporting data to the NTD.

**TABLE 114: Ferryboat Transit Agencies Vehicle and Financial Data, Fiscal Year 2003**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	REVENUE VEHICLES	CAPITAL EXPENSE (000)	FARE REVENUE (000)	OPERATING EXPENSES (000)
Boston, MA	Massachusetts Bay Transportation Authority	14	3,851.8	6,055.3	10,013.1
Bremerton, WA	Kitsap Transit	2	1,651.1	36.2	897.4
Corpus Christi, TX	Corpus Christi Regional Trp Auth	1	56.3	51.2	165.0
New Orleans, LA	Crescent City Connection Division	6	0.0	0.0	7,152.2
New York, NY	Metro-North Commuter Railroad Company	1	0.0	88.4	1,506.4
New York, NY	New York City Department of Transportation	4	157,717.2	0.0	55,193.1
New York, NY	Port Authority Trans-Hudson Corporation	16	0.0	12,906.0	22,626.1
Portland, ME	Casco Bay Island Transit District	5	0.0	1,658.3	3,183.4
San Francisco, CA	City of Alameda Ferry Services	5	3,662.9	2,056.9	3,970.6
San Francisco, CA	Golden Gate Bridge, Highway and Trp District	6	1,783.5	5,343.0	17,685.3
San Juan, PR	Puerto Rico Ports Authority	9	0.0	2,091.0	26,748.0
Savannah, GA	Chatham Area Transit Authority	2	2,298.7	70.7	114.2
Seattle, WA	Pierce County Ferry Operations	2	100.2	1,253.8	1,623.7
Seattle, WA	Washington State Ferries	29	84,238.6	50,504.7	159,445.8
Vallejo, CA	City of Vallejo Transportation Program	3	7,259.0	4,197.1	6,659.3
Virginia Beach, VA	Trp District Commission of Hampton Roads	3	0.0	0.0	610.3

Source: Federal Transit Administration National Transit Database; excludes transit agencies not reporting data to the NTD.

## Operating Practices

The largest passenger-only ferries usually operate on 30-60 minute headways while smaller passenger-only ferries can operate more frequently. Multiple docks at the largest terminals allow frequencies as low as 10-15 minutes.

However, routes many miles long require a 30-60 minute trip, since average ferry speed is only 8.7 miles per hour. Such routes would require a minimum of two boats for anything less than a 60-minute frequency.

Water taxis, because of their very small size, may be able to operate every 5 minutes or so.

# Rail

## Highlights.....

Rail transit services exist in over 50 metropolitan areas and small cities, and the number grows almost yearly.

A **mode** is the system for carrying transit passengers described by specific right-of-way, technology and operational features. The most common rail modes are:

**Commuter rail** (also called **metropolitan rail**, **regional rail**, or **suburban rail**) is an electric or diesel propelled railway for urban passenger train service consisting of local short distance travel operating between a central city

and adjacent suburbs. Service must be operated on a regular basis by or under contract with a transit operator for the purpose of transporting passengers within urbanized areas, or between urbanized areas and outlying areas. Such rail service, using either locomotive hauled or self propelled railroad passenger cars, is generally characterized by multi-trip tickets, specific station to station fares, railroad employment practices and usually only one or two stations in the central business district. Intercity rail service is excluded, except for that portion of such service that is operated by or under contract with a public transit agency for predominantly commuter services, which means that for any given trip segment (i.e., distance between any two stations), more than 50% of the average daily ridership travels on the train at least three times a week.

**TABLE 115: Commuter Rail National Totals, Fiscal Year 2003**

Agencies, Number of	21
Fares Collected, Passenger	\$1,552,158,000
Fare per Unlinked Trip, Average	\$3.79
Expense, Operating Total (a)	\$3,178,533,000
Salaries and Wages (b)	\$1,296,935,000
Fringe Benefits (b)	\$911,315,000
Services (b)	\$246,852,000
Fuel and Lubricants (b)	\$71,542,000
Materials and Supplies, Other (b)	\$220,318,000
Utilities (b)	\$189,038,000
Casualty and Liability (b)	\$87,939,000
Purchased Transportation (b) (c)	\$198,203,000
Other (b)	-\$43,609,000
Vehicle Operations (c)	\$1,140,246,000
Vehicle Maintenance (c)	\$738,532,000
Non-vehicle Maintenance (c)	\$566,820,000
General Administration (c)	\$534,733,000
Expense, Capital Total	\$2,479,194,000
Rolling Stock	\$712,622,000
Facilities, Guideway, Stations, Administrative Buildings	\$1,487,829,000
Other	\$278,742,000
Trips, Unlinked Passenger, Annual	409,842,000
Miles, Passenger	9,559,248,000
Trip Length, Average (miles)	23.3
Miles, Vehicle Total	286,045,000
Miles, Vehicle Revenue	262,093,000
Hours, Vehicle Total	8,962,000
Hours, Vehicle Revenue	8,272,000
Speed, Vehicle in Revenue Service, Average (m.p.h.)	31.7
Revenue Vehicles Available for Maximum Service	5,959
Vehicles Operated at Maximum Service	4,835
Age, Average (years)	20.1
Air-conditioned	100.0%
Lifts, Wheelchair	7.8%
Ramps, Wheelchair	25.5%
Accessible Only via Stations	41.5%
Power Source, Diesel or Gasoline	0.3%
Power Source, Alternative	46.9%
Rehabilitated	35.8%
Employees, Operating	24,813
Vehicle Operations	9,058
Vehicle Maintenance	7,132
Non-vehicle Maintenance	5,793
General Administration	2,829
Employees, Capital	2,872
Diesel Fuel Consumed (gallons)	72,264,000
Other Fuel Consumed (gallons)	0
Electricity Consumed (kwh)	1,383,342,000

(a) is the sum of (b) lines OR the sum of (c) lines.

**Heavy rail (metro, subway, rapid transit, or rapid rail)** is an electric railway with the capacity for a heavy volume of traffic. It is characterized by high speed and rapid acceleration passenger rail cars operating singly or in multi-car trains on fixed rails; separate rights-of-way from

which all other vehicular and foot traffic are excluded; sophisticated signaling, and high platform loading. If the service were converted to full automation with no onboard personnel, the service would be considered an automated guideway.

**TABLE 116: Heavy Rail National Totals, Fiscal Year 2003**

Agencies, Number of	14
Fares Collected, Passenger	\$2,654,281,000
Fare per Unlinked Trip, Average	\$1.00
Expense, Operating Total (a)	\$4,446,178,000
Salaries and Wages (b)	\$2,587,554,000
Fringe Benefits (b)	\$1,553,848,000
Services (b)	\$236,616,000
Fuel and Lubricants (b)	\$5,555,000
Materials and Supplies, Other (b)	\$319,267,000
Utilities (b)	\$351,465,000
Casualty and Liability (b)	\$106,456,000
Purchased Transportation (b) (c)	\$0
Other (b)	-\$714,584,000
Vehicle Operations (c)	\$1,862,106,000
Vehicle Maintenance (c)	\$792,094,000
Non-vehicle Maintenance (c)	\$1,103,245,000
General Administration (c)	\$688,733,000
Expense, Capital Total	\$4,437,044,000
Rolling Stock	\$807,454,000
Facilities, Guideway, Stations, Administrative Buildings	\$2,940,417,000
Other	\$689,172,000
Trips, Unlinked Passenger, Annual	2,666,759
Miles, Passenger	13,606,196
Trip Length, Average (miles)	5.1
Miles, Vehicle Total	629,872,000
Miles, Vehicle Revenue	611,935,000
Hours, Vehicle Total	31,796,000
Hours, Vehicle Revenue	29,736,000
Speed, Vehicle in Revenue Service, Average (m.p.h.)	20.6
Revenue Vehicles Available for Maximum Service	10,754
Vehicles Operated at Maximum Service	8,696
Age, Average (years)	21.4
Air-conditioned	100.0%
Lifts, Wheelchair	0.0%
Ramps, Wheelchair	0.0%
Accessible Only via Stations	98.7%
Power Source, Diesel or Gasoline	0.0%
Power Source, Alternative	100.0%
Rehabilitated	41.7%
Employees, Operating	48,327
Vehicle Operations	19,770
Vehicle Maintenance	9,032
Non-vehicle Maintenance	12,539
General Administration	6,985
Employees, Capital	5,342
Diesel Fuel Consumed (gallons)	0
Other Fuel Consumed (gallons)	0
Electricity Consumed (kwh)	3,631,574,000

(a) is the sum of (b) lines OR the sum of (c) lines.

**Light rail (streetcar, tramway, or trolley)** is lightweight passenger rail cars operating singly (or in short, usually two-car, trains) on fixed rails in right-of-way that is not separated from other traffic for much of the way. Light rail

vehicles are typically driven electrically with power being drawn from an overhead electric line via a trolley or a pantograph.

**TABLE 117: Light Rail National Totals, Fiscal Year 2003**

Agencies, Number of	27
Fares Collected, Passenger	\$229,099,000
Fare per Unlinked Trip, Average	\$0.68
Expense, Operating Total (a)	\$815,208,000
Salaries and Wages (b)	\$356,215,000
Fringe Benefits (b)	\$215,685,000
Services (b)	\$90,725,000
Fuel and Lubricants (b)	\$1,307,000
Materials and Supplies, Other (b)	\$55,918,000
Utilities (b)	\$61,484,000
Casualty and Liability (b)	\$18,075,000
Purchased Transportation (b) (c)	\$32,509,000
Other (b)	-\$16,710,000
Vehicle Operations (c)	\$322,246,000
Vehicle Maintenance (c)	\$183,399,000
Non-vehicle Maintenance (c)	\$141,217,000
General Administration (c)	\$135,838,000
Expense, Capital Total	\$2,325,121,000
Rolling Stock	\$327,090,000
Facilities, Guideway, Stations, Administrative Buildings	\$1,806,450,000
Other	\$191,581,000
Trips, Unlinked Passenger, Annual	337,701,000
Miles, Passenger	1,476,033,000
Trip Length, Average (miles)	4.4
Miles, Vehicle Total	64,336,000
Miles, Vehicle Revenue	63,532,000
Hours, Vehicle Total	4,159,000
Hours, Vehicle Revenue	4,039,000
Speed, Vehicle in Revenue Service, Average (m.p.h.)	15.7
Revenue Vehicles Available for Maximum Service	1,482
Vehicles Operated at Maximum Service	1,119
Age, Average (years)	15.1
Air-conditioned	91.7%
Lifts, Wheelchair	9.3%
Ramps, Wheelchair	22.0%
Accessible Only via Stations	53.0%
Power Source, Diesel or Gasoline	1.1%
Power Source, Alternative	98.9%
Rehabilitated	17.1%
Employees, Operating	7,619
Vehicle Operations	3,288
Vehicle Maintenance	1,934
Non-vehicle Maintenance	1,535
General Administration	862
Employees, Capital	462
Diesel Fuel Consumed (gallons)	8,000
Other Fuel Consumed (gallons)	0
Electricity Consumed (kwh)	506,696,000

(a) is the sum of (b) lines OR the sum of (c) lines.

Other modes are:

**Aerial tramway** is an electric system of aerial cables with suspended powerless passenger 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. Only two such transit operations exist in New York City and at Mountain Village, CO. All other aerial tramways are at ski areas or at tourist sites.

**Automated guideway transit (personal rapid transit, group rapid transit, people mover)** is an electric railway (single or multi-car trains) of guided transit vehicles

operating without an onboard crew. Service may be on a fixed schedule or in response to a passenger activated call button. The places with automated guideways are Detroit, MI, Indianapolis, IN, Jacksonville, FL, Las Colinas, TX, Miami, FL, and Morgantown, WV. Automated guideways in non-transit settings such as airports and hospital campuses are more common.

**Cable car** is an electric railway with individually controlled transit vehicles attached to a moving cable located below the street surface and powered by engines or motors at a central location not on board the vehicle. Only one cable car operation exists in San Francisco, CA.

**Inclined plane** is a railway operating over exclusive right-of-way on steep grades (slopes) with powerless vehicles propelled by moving cables attached to the vehicles and powered by engines or motors at a central location not on board the vehicle. The special tramway type of vehicles have passenger seats that remain horizontal while the undercarriage (truck) is angled parallel to the slope. Chattanooga, TN, Dubuque, IA, Johnstown, PA, and Pittsburgh, PA (2 inclines) are the only places with inclines used in regular transit service.

**Monorail** is an electric railway of guided transit vehicles operating singly or in multi-car trains. The vehicles are suspended from or straddle a guideway formed by a single beam, rail, or tube. Only two transit monorails exist in Las Vegas, NV and Seattle, WA. Their most common use is in the non-transit settings of amusement parks. If the trains do not have an onboard crew, they are considered automated guideways.

**TABLE 118: Other Rail National Totals, Fiscal Year 2003**

Agencies, Number of	16
Fares Collected, Passenger	\$21,072,000
Fare per Unlinked Trip, Average	\$0.91
Expense, Operating Total (a)	\$217,111,000
Salaries and Wages (b)	\$103,109,000
Fringe Benefits (b)	\$60,835,000
Services (b)	\$17,992,000
Fuel and Lubricants (b)	\$326,000
Materials and Supplies, Other (b)	\$15,332,000
Utilities (b)	\$6,287,000
Casualty and Liability (b)	\$5,224,000
Purchased Transportation (b) (c)	\$6,511,000
Other (b)	\$1,496,000
Vehicle Operations (c)	\$82,401,000
Vehicle Maintenance (c)	\$46,362,000
Non-vehicle Maintenance (c)	\$45,215,000
General Administration (c)	\$36,623,000
Expense, Capital Total	\$109,586,000
Rolling Stock	\$23,890,000
Facilities, Guideway, Stations, Administrative Buildings	\$58,530,000
Other	\$27,166,000
Trips, Unlinked Passenger, Annual	27,971,000
Miles, Passenger	27,710,000
Trip Length, Average (miles)	1.0
Miles, Vehicle Total	3,140,000
Miles, Vehicle Revenue	3,073,000
Hours, Vehicle Total	444,000
Hours, Vehicle Revenue	439,000
Speed, Vehicle in Revenue Service, Average (m.p.h.)	7.0
Revenue Vehicles Available for Maximum Service	235
Vehicles Operated at Maximum Service	187
Age, Average (years)	33.0
Air-conditioned	50.8%
Lifts, Wheelchair	2.2%
Ramps, Wheelchair	0.0%
Accessible Only via Stations	72.4%
Power Source, Diesel or Gasoline	0.0%
Power Source, Alternative	72.9%
Rehabilitated	6.6%
Employees, Operating	1,144
Vehicle Operations	509
Vehicle Maintenance	259
Non-vehicle Maintenance	260
General Administration	116
Employees, Capital	4
Diesel Fuel Consumed (gallons)	0
Other Fuel Consumed (gallons)	0
Electricity Consumed (kwh)	50,750,000

(a) is the sum of (b) lines OR the sum of (c) lines.

## Types of Service

**Local service**, in the rail context, means trains stop at every station on a route. For light rail and cable cars operating on city streets, local service would be analogous to local bus service, where stops are every block or two apart.

Most aerial tramway, automated guideway, inclined plane, and monorail routes are one mile or less long. New York City Transit also has a few very short heavy rail shuttle lines, and most heritage trolley lines are also only a few miles long. Some of these operations may operate in a loop and connect, often at a transfer center or rail station, to major routes for travel to more far-flung destinations

**Express service** speeds up longer trips, especially in major metropolitan areas during heavily-patronized peak commuting hours, by operating long distances without stopping. In New York, Chicago, and other areas, express trains even have separate tracks for at least part of their routes.

**Limited-stop service** is a hybrid between local and express service, where not all stations and stops are served. An example is a pair of closely-spaced trains that both stop at the most heavily-patronized stations on a line. For the other stations, the first train stops at every other station, while the following train stops at the stations missed by the first train.

## Types of Vehicles

Although most service is operated with vehicles purchased new, a small proportion is operated by vehicles rehabilitated or rebuilt when they are 10 to 20 years old.

**Rehabilitation** is the rebuilding of revenue vehicles to original specifications of the manufacturer. **Rebuilding** may include some new components but has less emphasis on structural restoration than would be the case in a **remanufacturing** operation, focusing on mechanical systems and vehicle interiors.

An **aerial tramway car** is an unpowered passenger cabin suspended from a system of aerial cables and propelled by separate cables attached to the vehicle suspension system. Engines or motors at a central location, not on board the vehicle, power the cable system.

An **automated guideway car** is a guided passenger car operating under a fully automated system without an onboard crew. One type is a **downtown people mover**, which operates on a loop or shuttle route within the central business district of a city.



*The Newark Airport AirTrain in New Jersey uses monorail technology, but is an automated guideway since the trains do not have operators.*

A **cable car** is a streetcar type of passenger car operating by means of an attachment to a moving cable located below the street surface and powered by engines or motors at a central location not on board the vehicle.



*Only San Francisco Municipal Railway operates cable cars.*

A **commuter rail car** is a commuter rail mode passenger car--either an unpowered **passenger coach** that is pulled or pushed by one or more locomotives, or a **self-propelled passenger car** that has an onboard power source or that draws power from overhead electric wires. A large proportion of commuter rail cars are double-decked with upper and lower seating levels.

A **locomotive** is a power unit vehicle that does not carry passengers that is used to pull or push commuter rail passenger coaches. Most locomotives use diesel fuel or are powered by overhead electric wires or an electrified third rail. A small number are dual-mode and can operate either as a diesel or electric vehicle.



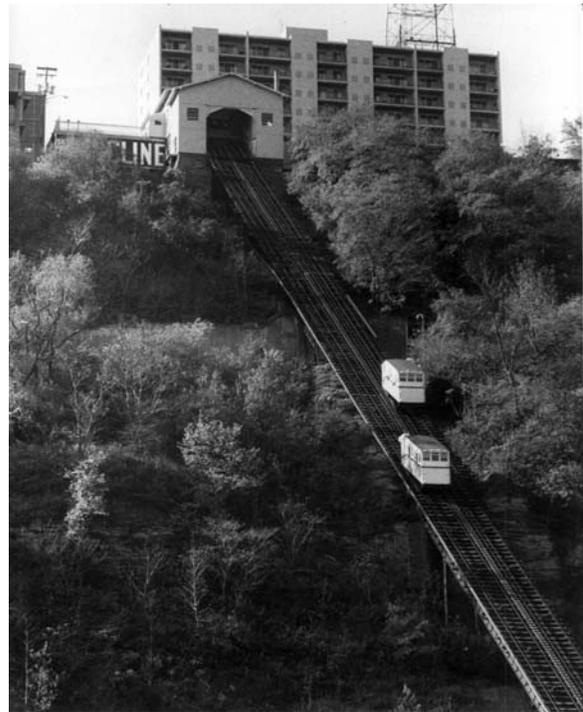
*This locomotive-hauled Caltrain commuter rail train which operates in the San Francisco area uses double-deck cars, as do all commuter rail agencies in western and southern states. Clearances on old tunnels and bridges in northeastern states, however, generally allow only single-deck cars.*

A **heavy rail car** has motive capability, is driven by electric power taken from a third rail or (rarely, overhead wires), and is usually operated on exclusive right-of-way.



*This MTA New York City Transit heavy rail train typifies this mode with very frequent service carrying very "heavy" numbers of people.*

An **inclined plane car** is a special type of passenger car operating up and down slopes on rails via a cable mechanism.



*The Monongahela Incline is operated by the Port Authority of Allegheny County in Pittsburgh, Pennsylvania.*

A **light rail car** (or **streetcar**, **tram**, or **trolley car**) has motive capability, is usually driven by electric power taken from overhead lines, and usually operates much or all of its route on non-exclusive right-of-way. Sometimes older cars are refurbished (vintage trolley cars) or newer cars are built to look like older cars (heritage trolley cars).



*Light rail trains carry "light" loads of people compared to heavy rail. This train is operated by Metro Transit in Minneapolis, Minnesota.*



A vintage trolley at the Santa Clara Valley Transportation Authority in San Jose, California.

A **monorail car** is a guided passenger car operating on or suspended from a single rail, beam or tube.



The Las Vegas monorail in Nevada is not only a means of public transportation, but also an attraction for tourists.

**TABLE 119: New Rail Car Market By Type, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	646	100.0%	1,740	100.0%	1,352	100.0%
1-level articulated	99	15.3%	234	13.4%	89	6.6%
1-level non-articulated	427	66.1%	1,255	72.1%	1,230	91.0%
2-level	120	18.6%	251	14.4%	33	2.4%

Source: APTA survey. Data are about 99% of national totals.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 120: New Rail Car Market By Length, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	646	100.0%	1,740	100.0%	1,352	100.0%
86-140 feet	134	20.7%	262	15.1%	42	3.1%
80-85 feet	431	66.7%	586	33.7%	291	21.5%
70-79 feet	11	1.7%	85	4.9%	160	11.8%
60-69 feet	0	0.0%	663	38.1%	833	61.6%
30-59 feet	70	10.8%	144	8.3%	26	1.9%

Source: APTA survey. Data are about 99% of national totals.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 121: New Rail Car Market By Seating Capacity, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	646	100.0%	1,740	100.0%	1,352	100.0%
130 or more seats	120	18.6%	237	13.6%	19	1.4%
100-129 seats	264	40.9%	206	11.8%	238	17.6%
75-99 seats	93	14.4%	232	13.3%	0	0.0%
50-74 seats	89	13.8%	249	14.3%	236	17.5%
40-49 seats	57	8.8%	687	39.5%	821	60.7%
Below 40 seats	23	3.6%	129	7.4%	38	2.8%

Source: APTA survey. Data are about 99% of national totals.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

## Accessibility

A **station** is a public transportation passenger facility.

An **accessible station** is a station that provides ready access, and does not have physical barriers that prohibit and/or restrict access by individuals with disabilities, including individuals who use wheelchairs.

An **accessible vehicle** is a public transportation revenue vehicle that does not restrict access, is usable, and provides allocated space and/or priority seating for individuals who use wheelchairs.

Historically-protected vehicles, such as the San Francisco cable cars, have been exempted from accessibility regulations.

Rail cars accommodate wheelchair-bound and other riders who cannot climb steps in several different manners:

**Street-level boarding** is used primarily by light rail and cable car lines that stop on the street rather than at stations. Either a low-floor car with a retractable ramp or a high-floor car with a retractable lift would be required.



*Portland's Tri-County Metropolitan Transportation District of Oregon is one of several light rail agencies to operate low-floor light rail cars.*

**Low-level platforms** are generally about 12-18 inches above track level and are used primarily by some commuter rail and light rail lines. Either a low-floor car with a retractable ramp or a high-floor car with a retractable lift can be used. Alternatively, the platform can be level with the car floor or the platform may have a lift, ramp, or elevated mini-platform.

**High-level platforms** are generally 18-36 inches above track level and are used primarily by heavy rail, automated guideway, and some commuter rail lines. Only high-floor cars can be used. Platforms can be level with car floors, the cars could have a lift or a ramp, or the platform could have a lift, ramp, or mini-platform.



*This Memphis Area Transit Authority historic light rail car in Tennessee is a high-floor car with steps at both ends.*

Some commuter rail and light rail lines use a mixture of high-level and low-level platforms on the same line. Typically, all platforms were originally low-level, but the most heavily-used stations have been upgraded to high-level to speed loading and unloading. In such cases, the cars must have two accessibility options--one for high-level platforms and one for low-level platforms.

Other rail modes may use any of the accessibility arrangements



*Heavy rail trains, like this one operated by the Toronto Transit Commission, are accessible via high-platform ramps.*

**TABLE 122: Commuter and Heavy Rail Cars by Type of Wheelchair Accessibility**

YEAR	COMMUTER RAIL					HEAVY RAIL				
	LIFT	RAMP	STATION	NONE	TOTAL	LIFT	RAMP	STATION	NONE	TOTAL
1993	10	63	1,359	3,117	4,549	0	0	8,614	1,779	10,393
1994	58	136	1,349	3,090	4,633	4	0	9,664	701	10,365
1995	58	234	1,717	2,643	4,652	4	0	9,655	698	10,357
1996	63	312	2,767	1,545	4,687	0	0	9,779	654	10,433
1997	87	660	2,662	1,429	4,838	0	0	9,740	651	10,391
1998	155	693	2,790	1,428	5,066	0	0	9,764	604	10,368
1999	197	664	2,332	1,917	5,110	0	0	10,240	180	10,420
2000	201	798	2,304	1,861	5,164	0	0	10,264	155	10,419
2001	211	1,294	1,842	1,725	5,072	0	0	10,442	149	10,591
2002	213	1,299	1,846	1,677	5,035	0	0	11,011	149	11,160
2003	217	1,353	1,997	1,645	5,212	0	0	11,103	142	11,245
2004	217	1,537	2,067	1,598	5,419	0	0	10,786	142	10,928
2005	424	1,372	2,256	1,306	5,358	0	0	10,829	142	10,971
2005 % of Total	7.9%	25.6%	42.1%	24.4%	100.0%	0.0%	0.0%	98.7%	1.3%	100.0%

Source: APTA survey. Commuter rail data represent 99% of rail cars; heavy rail data are national totals. "Lift" and "ramp" columns refer to on-vehicle lifts and ramps; "station" column includes car-floor-level platform boarding and platform lifts.

**TABLE 123: Light and Other Rail Cars by Type of Wheelchair Accessibility**

YEAR	LIGHT RAIL					OTHER RAIL (a)				
	LIFT	RAMP	STATION	NONE	TOTAL	LIFT	RAMP	STATION	NONE	TOTAL
1993	71	0	435	738	1,244	0	0	37	46	83
1994	75	2	480	666	1,223	0	0	26	48	74
1995	96	11	498	624	1,229	0	0	35	48	83
1996	171	12	510	582	1,275	1	0	34	48	83
1997	123	65	549	575	1,312	1	0	42	45	88
1998	123	65	828	373	1,389	1	0	53	45	99
1999	123	17	914	369	1,423	1	0	52	46	99
2000	123	143	950	370	1,568	1	0	52	46	99
2001	131	200	874	357	1,562	1	0	58	46	105
2002	131	326	825	351	1,633	1	0	60	46	107
2003	137	333	905	297	1,672	1	0	93	46	140
2004	156	368	1,000	285	1,809	1	0	94	46	141
2005	172	371	927	214	1,684	4	0	130	41	175
2005 % of Total	10.2%	22.0%	55.1%	12.7%	100.0%	2.3%	0.0%	74.3%	23.4%	100.0%

Source: APTA survey. Light rail data represent 98% and other rail data represent 60% of national totals. "Lift" and "ramp" columns refer to on-vehicle lifts and ramps; "station" column includes level-platform boarding and platform lifts.

(a) Includes aerial tramway, automated guideway, cable car, inclined plane, and monorail.

**TABLE 124: New Rail Car Market by Accessibility, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	646	100.0%	1,740	100.0%	1,352	100.0%
Via on-board lift	139	21.5%	97	5.6%	0	0.0%
Via on-board ramp	198	30.7%	424	24.4%	64	4.7%
Via stations	309	47.8%	1,219	70.1%	1,288	95.3%
Non-accessible	0	0.0%	0	0.0%	0	0.0%

Source: APTA survey. Data are about 99% of national totals.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 125: Commuter and Heavy Rail Power Sources, 2005**

	COMMUTER RAIL CAR	PER CENT	LOCOMO- TIVE	PER CENT	HEAVY RAIL	PER CENT
Total	5,358	100.0%	609	100.0%	10,971	100.0%
Diesel	14	0.3%	418	68.6%	0	0.0%
Diesel/electric catenary/third rail	0	0.0%	111	18.2%	0	0.0%
Electric catenary/third rail	2,559	47.8%	79	13.0%	10,971	100.0%
Unpowered	2,785	52.0%	1	0.2%	0	0.0%

Source: APTA survey. Data are about 99% of national totals.

**TABLE 126: Light and Other Rail Power Sources, 2005**

	LIGHT RAIL	PER CENT	OTHER RAIL	PER CENT
Total	1,684	100.0%	175	100.0%
Diesel	0	0.0%	0	0.0%
Diesel/electric catenary/third rail	4	0.2%	0	0.0%
Electric catenary/third rail	1,680	99.8%	131	74.9%
Unpowered	0	0.0%	44	25.1%

Source: APTA survey. Data are about 99% of national totals.

**TABLE 127: New Rail Car Market by Power Source, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	646	100.0%	1,740	100.0%	1,352	100.0%
Diesel	0	0.0%	3	0.2%	0	0.0%
Diesel and electric	0	0.0%	12	0.7%	0	0.0%
Electric	481	74.5%	1,503	86.4%	1,319	97.6%
Unpowered	165	25.5%	222	12.8%	33	2.4%

Source: APTA survey. Data are about 99% of national totals.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 128: Rail Vehicle Fuel and Power Consumption, Thousands of Gallons (a)**

FISCAL YEAR	DIESEL		ELECTRICITY (KWH) (000)				TOTAL
	COMMUTER RAIL	LIGHT RAIL	COMMUTER RAIL	HEAVY RAIL	LIGHT RAIL	OTHER RAIL	
1994	61,900	8	1,243,754	3,431,441	281,954	21,338	4,978,487
1995	63,064	8	1,253,112	3,401,499	288,027	24,418	4,967,056
1996	61,888	14	1,255,171	3,332,286	321,364	28,561	4,937,382
1997	63,195	18	1,270,259	3,252,510	361,312	24,876	4,908,957
1998	69,200	18	1,297,578	3,279,706	381,484	38,635	4,997,403
1999	73,005	17	1,321,828	3,384,494	415,626	38,859	5,160,807
2000	70,818	16	1,370,452	3,548,942	463,241	48,870	5,431,505
2001	72,204	14	1,353,800	3,645,943	487,138	47,857	5,534,738
2002	72,847	8	1,334,423	3,683,065	509,646	45,486	5,572,620
2003 P	72,264	8	1,383,342	3,631,574	506,696	50,750	5,572,362

P = Preliminary

(a) Data includes passenger vehicles and locomotives only.

**TABLE 129: Locomotive Exhaust Emission Standards**

YEAR BUILT	GASEOUS & PARTICULATE EMISSIONS (Grams/Brake Horsepower-hour)					SMOKE STANDARDS (Per cent Opacity--Normalized)		
	DUTY CYCLE	HYDRO-CARBONS	CARBON MONOXIDE	NITROGEN OXIDES	PARTICULATE MATTER	STEADY STATE	30-SECOND PEAK	3-SECOND PEAK
1973-2001	Line-haul	1.00	5.0	9.5	0.60	30	40	50
	Switch	2.10	8.0	14.0	0.72			
2002-2004	Line-haul	0.55	2.2	7.4	0.45	25	40	50
	Switch	1.20	2.5	11.0	0.54			
2005+	Line-haul	0.30	1.5	5.5	0.20	20	40	50
	Switch	0.60	2.4	8.1	0.24			

Source: United States Environmental Protection Agency.

**TABLE 130: Power Source Efficiency**

MODE	ELECTRIC POWER (miles/kwh)	DIESEL (miles/gallon)
Automated Guideway	0.16	NA
Cable Car	0.13	NA
Commuter Rail	0.11	0.10
Heavy Rail	0.15	NA
Inclined Plane	0.07	NA
Light Rail	0.13	NA
Monorail (a)	0.32	NA

Source: Federal Transit Administration, 2002 National Transit Database.

(a) Data based on 2000 National Transit Database



The Chicago Transit Authority operates all three types of rail fixed guideway--surface and elevated, shown here, and tunnel.

## Fixed Guideways

All rail services are classified as fixed guideways.

A **Fixed Guideway** is a mass transit facility using and occupying a separate right-of-way or rail for the exclusive use of mass transportation and other high-occupancy vehicles; or using a fixed catenary system usable by other forms of transportation.

Fixed guideways are generally on the surface, but about half of heavy rail mileage and short distances of other types of rail are in tunnel or elevated.



A Toronto Transit Commission subway tunnel near Sheppard-Yonge Station in Toronto.

**TABLE 131: Rail Route Mileage and Status of Future Projects (a)**

STATUS	MILES (b)
<b>AERIAL TRAMWAY</b>	
Design	1.5
Open	3.6
<b>TOTAL</b>	<b>5.1</b>
<b>AUTOMATED GUIDEWAY</b>	
Construction	5.2
Design	4.7
Open	23.2
Planning	4.7
Proposed	0.7
<b>TOTAL</b>	<b>38.5</b>
<b>CABLE CAR</b>	
Open	5.2
<b>TOTAL</b>	<b>5.2</b>
<b>COMMUTER RAIL</b>	
Construction	29.5
Design	261.3
Open	3,979.1
Planning	1,798.3
Proposed	1,046.0
<b>TOTAL</b>	<b>7,114.2</b>
<b>HEAVY RAIL</b>	
Construction	16.7
Design	1.0
Open	1,168.3
Planning	100.4
Proposed	102.7
<b>TOTAL</b>	<b>1,389.1</b>
<b>INCLINED PLANE</b>	
Open	1.4
<b>TOTAL</b>	<b>1.4</b>
<b>LIGHT RAIL</b>	
Construction	149.6
Design	157.9
Open	560.0
Planning	481.2
Proposed	281.6
<b>TOTAL</b>	<b>1,630.3</b>
<b>MAGNETIC LEVITATION</b>	
Planning	40.0
<b>TOTAL</b>	<b>40.0</b>
<b>MONORAIL</b>	
Open	1.1
Proposed	14.0
<b>TOTAL</b>	<b>15.1</b>

Source: APTA survey

(a) Data as of January 2003, plus updated information where known.

(b) Segments used by more than one route counted for each route using those segments. Mileage listed is end-to-end mileage. Excludes data for a few routes for which mileage was not reported

**TABLE 132: Rail Routes Under Construction (a)**

MODE AND LOCATION	MILES
<b>AUTOMATED GUIDEWAY</b>	
Las Vegas, NV	5.2
<b>TOTAL</b>	<b>5.2</b>
<b>COMMUTER RAIL</b>	
Boston, MA	28.5
Los Angeles, CA	1.0
<b>TOTAL</b>	<b>29.5</b>
<b>HEAVY RAIL</b>	
New York, NY	2.9
San Juan, PR	10.7
Washington, DC	3.1
<b>TOTAL</b>	<b>16.7</b>
<b>LIGHT RAIL</b>	
Little Rock, AR	2.1
Memphis, TN	2.0
Minneapolis, MN	12.0
New Orleans, LA	3.7
Newark, NJ	45.3
Philadelphia, PA	8.3
Phoenix, AZ	20.3
Pittsburgh, PA	5.3
Portland, OR	5.8
Sacramento, CA	10.2
Saint Louis, MO	8.0
San Diego, CA	5.9
San Francisco, CA	5.4
San Jose, CA	11.7
Seattle, WA	14.0
<b>TOTAL</b>	<b>160.0</b>

Source: APTA survey

(a) Data as of January 2003, plus updated information where known.

**TABLE 133: Rail Track Miles by Type**

MODE	ELEVATED	SURFACE	TUNNEL	TOTAL
Automated Guideway	17.7	0.0	0.0	17.7
Cable Car	0.0	8.8	0.0	8.8
Commuter Rail	534.5	6,859.9	39.5	7,433.9
Heavy Rail	586.4	828.7	794.4	2,209.5
Inclined Plane	0.0	1.5	0.0	1.5
Light Rail	107.7	975.7	63.8	1,147.2
Monorail	2.0	0.0	0.0	2.0
<b>TOTAL</b>	<b>1,248.3</b>	<b>8,674.6</b>	<b>897.7</b>	<b>10,820.6</b>

Source: Federal Transit Administration, 2003 National Transit Database.

Elevated mileage can be either on a structure or on fill dirt.

**TABLE 134: Airports With Direct Rail  
Public Transportation Access (a)**

CITY	AIRPORT	RAIL TYPE
Atlanta, GA	Hartsfield-Atlanta	HR
Baltimore, MD	Baltimore-Washington	LR
Chicago, IL	Midway	HR
Chicago, IL	O'Hare	HR
Cleveland, OH	Cleveland-Hopkins	HR
Los Angeles	Burbank	CR
Minneapolis, MN	Minneapolis-St. Paul	LR
New York, NY	Kennedy	AG
Newark, NJ	Newark	AG
Philadelphia, PA	Philadelphia	CR
Portland, OR	Portland	LR
Saint Louis, MO	Lambert-St. Louis	LR
San Francisco, CA	San Francisco	HR
South Bend, IN	Michiana	CR
Washington, DC	Reagan National	HR



*This elevated section of the St. Louis Metro light rail line terminates at the Lambert-St. Louis airport terminal.*

AG = automated guideway, HR = heavy rail, LR = light rail, CR = commuter rail

(a) Excludes airports that require a bus or van ride between the station and terminal and airports that only have internal rail circulation systems.

**TABLE 135: New Rail Car Market by Manufacturer, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	646	100.0%	1,740	100.0%	1,352	100.0%
Alstom Transportation	45	7.0%	62	3.6%	NA	NA
Alstom/Kawasaki	0	0.0%	660	37.9%	NA	NA
AnsaldoBreda	0	0.0%	50	2.9%	NA	NA
Bombardier Corp.	334	51.7%	431	24.8%	NA	NA
Breda Transportation	11	1.7%	23	1.3%	NA	NA
Brookville	16	2.5%	0	0.0%	NA	NA
Colorado Railcar	0	0.0%	5	0.3%	NA	NA
CAF	26	4.0%	0	0.0%	NA	NA
Gomaco	4	0.6%	0	0.0%	NA	NA
Inekon Group, a.s.	0	0.0%	3	0.2%	NA	NA
Kawasaki Rail Car	50	7.7%	58	3.3%	NA	NA
Kinki Sharyo Company	33	5.1%	123	7.1%	NA	NA
Nippon Sharyo	120	18.6%	118	6.8%	NA	NA
Siemens	7	1.1%	207	11.9%	NA	NA

Source: APTA survey. Data are about 99% of national totals.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 136: Average New Rail Vehicle Costs, 2004-2005, Thousands of Dollars (a)**

TYPE OF VEHICLE	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL CAR	COMMUTER RAIL LOCOMOTIVE	OTHER
1-level cab	564	1,205	1,184	NA	720
1-level non-cab	NA	1,030	NA	NA	NA
2-level cab	NA	NA	NA	NA	NA
2-level non-cab	NA	NA	NA	NA	NA
Articulated cab	2,388	NA	NA	NA	NA
Diesel	NA	NA	NA	NA	NA
Diesel-electric	NA	NA	NA	NA	NA
Double-articulated cab	2,300	NA	NA	NA	NA
Electric	NA	NA	NA	NA	NA

Source: APTA survey of 85% of rail transit agencies.

(a) Cost includes amount paid to manufacturer or agent. Not all orders were reported. Each year of a multi-year order is counted as a separate order.

**TABLE 137: Commuter Rail Transit Agencies Service and Usage Data, Fiscal Year 2003 (Thousands)(a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	ANNUAL VEHICLE REVENUE MILES	ANNUAL VEHICLE REVENUE HOURS	ANNUAL UNLINKED TRIPS	ANNUAL PASSENGER MILES
Anchorage, AK	Alaska Railroad Corporation	101.7	5.0	88.9	1,887.3
Baltimore, MD	Maryland Transit Administration	4,796.6	118.1	6,334.8	193,541.8
Boston, MA	Massachusetts Bay Transportation Authority	22,592.2	704.1	40,570.1	792,662.5
Chicago, IL	Northeast Illinois Reg Commuter Railroad Corp	38,023.2	1,220.6	67,727.0	1,506,371.0
Chicago, IL	Northern Indiana Commuter Trp District	3,066.2	87.6	3,573.6	97,915.8
Dallas, TX	Dallas Area Rapid Transit	785.9	38.8	1,445.5	16,566.0
Dallas, TX	Fort Worth Transportation Authority	667.1	23.8	958.6	13,765.7
Hartford, CT	Connecticut Department of Transportation	647.4	13.8	378.0	7,956.4
Los Angeles, CA	Southern California Regional Rail Authority	8,147.2	201.9	7,910.8	265,147.7
Miami, FL	South Florida Regional Trp Auth	2,057.6	56.5	2,725.1	81,879.6
New York, NY	Metro-North Commuter Railroad Company	48,745.7	1,368.8	72,573.4	2,058,434.0
New York, NY	MTA Long Island Rail Road	56,788.2	1,975.9	97,958.0	2,147,141.3
New York, NY	New Jersey Transit Corporation	50,233.0	1,587.5	64,618.2	1,600,250.4
Philadelphia, PA	Pennsylvania Department of Transportation	761.5	14.6	217.1	15,006.1
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	15,643.3	579.4	30,023.1	430,202.3
San Diego, CA	North San Diego County Transit District	1,271.8	29.9	1,348.5	37,867.5
San Francisco, CA	Peninsula Corridor Joint Powers Board	4,832.8	162.6	6,710.5	144,746.9
Seattle, WA	Central Puget Sound Regional Transit Auth	382.0	9.8	751.2	18,972.5
Stockton, CA	Altamont Commuter Express	747.3	20.3	665.3	31,230.9
Syracuse, NY	ON TRACK	NA	NA	NA	NA
Washington, DC	Virginia Railway Express	1,747.7	51.5	3,180.0	95,724.4
TOTAL REPORTED (excludes "NA" entries)		262,038.4	8,270.5	409,757.7	9,557,270.1

Source: Federal Transit Administration National Transit Database. Agencies that do not participate in the NTD have "NA" entries.

(a) Excludes commuter-type services operated independently by AMTRAK.

**TABLE 138: Commuter Rail Transit Agencies Mileage and Station Data (a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	DIRECT- IONAL ROUTE MILES	TRACK MILES	CROSS- INGS	STA- TIONS	ADA ACCESS- IBLE STATIONS (b)
Anchorage, AK	Alaska Railroad Corporation	92.4	46.2	27	10	10
Baltimore, MD	Maryland Transit Administration	400.4	471.0	40	42	22
Boston, MA	Massachusetts Bay Transportation Authority	702.1	583.7	0	125	81
Chicago, IL	Northeast Illinois Reg Commuter Railroad Corp	940.4	1,144.0	512	227	134
Chicago, IL	Northern Indiana Commuter Trp District	179.8	130.4	117	20	11
Dallas, TX	Dallas Area Rapid Transit	29.0	20.7	15	4	4
Dallas, TX	Fort Worth Transportation Authority	40.5	22.6	19	5	5
Hartford, CT	Connecticut Department of Transportation	101.2	103.0	3	8	8
Los Angeles, CA	Southern California Regional Rail Authority	778.0	629.0	443	53	53
Miami, FL	South Florida Regional Trp Auth	142.2	104.0	72	18	18
New York, NY	Metro-North Commuter Railroad Company	545.7	799.6	161	109	32
New York, NY	MTA Long Island Rail Road	638.2	701.1	402	124	99
New York, NY	New Jersey Transit Corporation	1,070.2	1,115.9	329	168	52
Philadelphia, PA	Pennsylvania Department of Transportation	144.4	144.0	7	12	4
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	449.2	695.0	116	156	51
San Diego, CA	North San Diego County Transit District	82.2	83.7	34	8	8
San Francisco, CA	Peninsula Corridor Joint Powers Board	153.7	130.0	49	34	24
Seattle, WA	Central Puget Sound Regional Transit Auth	78.6	140.0	35	9	9
Stockton, CA	Altamont Commuter Express	172.0	180.0	127	10	10
Syracuse, NY	ON TRACK	3.5	3.5	NA	3	3
Washington, DC	Virginia Railway Express	161.5	190.0	23	18	18
TOTAL REPORTED (excludes "NA" entries)		6,905.2	7,437.4	2,531	1,163	656

Source: Federal Transit Administration National Transit Database plus other sources.

(a) Excludes commuter-type services operated independently by AMTRAK.

(b) Additional stations may be wheelchair accessible, but not comply with other provisions of the Americans with Disabilities Act.

**TABLE 139: Commuter Rail Transit Agencies Vehicle and Financial Data, Fiscal Year 2003 (a)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	REVENUE VEHICLES	CAPITAL EXPENSE (000)	FARE REVENUE (000)	OPERATING EXPENSES (000)
Anchorage, AK	Alaska Railroad Corporation	92	8,040.5	814.1	1,868.9
Baltimore, MD	Maryland Transit Administration	153	14,836.4	21,717.2	58,654.4
Boston, MA	Massachusetts Bay Transportation Authority	457	85,973.0	84,853.9	198,332.5
Chicago, IL	Northeast Illinois Reg Commuter Railroad Corp	1,153	478,163.8	191,131.1	431,421.4
Chicago, IL	Northern Indiana Commuter Trp District	66	33,897.5	13,944.7	29,214.3
Dallas, TX	Dallas Area Rapid Transit	33	19,169.3	644.6	18,180.3
Dallas, TX	Fort Worth Transportation Authority	21	6,379.8	837.0	8,674.3
Hartford, CT	Connecticut Department of Transportation	31	0.0	1,118.2	6,481.2
Los Angeles, CA	Southern California Regional Rail Authority	157	50,717.3	41,682.3	98,702.1
Miami, FL	South Florida Regional Trp Auth	30	77,565.7	6,306.1	23,765.3
New York, NY	Metro-North Commuter Railroad Company	957	281,298.2	378,093.1	628,815.8
New York, NY	MTA Long Island Rail Road	1,006	542,376.8	393,329.2	830,783.0
New York, NY	New Jersey Transit Corporation	940	447,799.0	283,416.4	529,767.3
Philadelphia, PA	Pennsylvania Department of Transportation	12	6,725.2	2,727.7	8,115.7
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	357	62,959.3	86,532.0	178,873.0
San Diego, CA	North San Diego County Transit District	29	15,463.1	4,749.0	12,372.1
San Francisco, CA	Peninsula Corridor Joint Powers Board	153	107,479.4	19,429.6	56,862.8
Seattle, WA	Central Puget Sound Regional Transit Auth	69	199,716.5	1,843.3	13,302.8
Stockton, CA	Altamont Commuter Express	19	4,778.7	3,844.3	12,885.6
Syracuse, NY	ON TRACK	NA	NA	NA	NA
Washington, DC	Virginia Railway Express	93	9,476.6	15,048.3	27,360.8
TOTAL REPORTED (excludes "NA" entries)		5,828	2,452,816.1	1,552,062.1	3,174,433.6

Source: Federal Transit Administration National Transit Database. Agencies that do not participate in the NTD have "NA" entries.  
(a) Excludes commuter-type services operated independently by AMTRAK.

**TABLE 140: Heavy Rail Transit Agencies Service and Usage Data, Fiscal Year 2003 (Thousands)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	ANNUAL VEHICLE REVENUE MILES	ANNUAL VEHICLE REVENUE HOURS	ANNUAL UNLINKED TRIPS	ANNUAL PASSENGER MILES
Atlanta, GA	Metropolitan Atlanta Rapid Transit Authority	22,706.6	863.4	71,859.6	487,349.4
Baltimore, MD	Maryland Transit Administration	4,540.2	182.9	13,196.4	55,736.0
Boston, MA	Massachusetts Bay Transportation Authority	21,204.2	963.8	150,159.5	537,032.5
Chicago, IL	Chicago Transit Authority	63,555.6	3,465.8	181,135.1	1,060,355.4
Cleveland, OH	The Greater Cleveland Regional Transit Auth	2,191.7	99.8	7,372.5	50,159.7
Los Angeles, CA	Los Angeles County Metropolitan Trp Auth	5,986.5	263.9	31,695.0	151,901.3
Miami, FL	Miami-Dade Transit	7,701.2	310.2	14,306.1	109,218.7
New York, NY	MTA New York City Transit	334,505.3	18,009.5	1,701,453.3	7,820,491.8
New York, NY	Port Authority Trans-Hudson Corporation	11,416.5	610.3	61,030.7	254,002.7
New York, NY	Staten Island Rapid Transit Operating Auth	2,145.7	101.9	3,383.4	21,681.9
Philadelphia, PA	Port Authority Transit Corporation	4,146.2	143.0	8,863.9	76,419.7
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	16,484.8	841.8	85,523.8	382,138.1
San Francisco, CA	San Francisco Bay Area Rapid Transit District	58,880.7	1,637.6	93,591.4	1,147,851.9
Washington, DC	Washington Metropolitan Area Transit Auth	56,470.2	2,241.8	243,188.1	1,451,856.6
TOTAL		611,935.4	29,735.7	2,666,758.8	13,606,195.7

Source: Federal Transit Administration National Transit Database.

**TABLE 141: Heavy Rail Transit Agencies Mileage and Station Data**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	DIRECT- IONAL ROUTE MILES	TRACK MILES	CROSS- INGS	STA- TIONS	ADA ACCESS- IBLE STATIONS (a)
Atlanta, GA	Metropolitan Atlanta Rapid Transit Authority	96.1	103.7	0	38	38
Baltimore, MD	Maryland Transit Administration	29.4	34.0	0	14	14
Boston, MA	Massachusetts Bay Transportation Authority	76.3	108.0	0	53	42
Chicago, IL	Chicago Transit Authority	206.3	287.8	25	144	66
Cleveland, OH	The Greater Cleveland Regional Transit Auth	38.1	41.9	0	18	9
Los Angeles, CA	Los Angeles County Metropolitan Trp Auth	31.9	34.1	0	16	16
Miami, FL	Miami-Dade Transit	45.0	55.9	0	22	22
New York, NY	MTA New York City Transit	493.8	835.0	0	468	50
New York, NY	Port Authority Trans-Hudson Corporation	28.6	43.1	2	13	7
New York, NY	Staten Island Rapid Transit Operating Auth	28.6	32.7	0	23	4
Philadelphia, PA	Port Authority Transit Corporation	31.5	38.4	0	13	5
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	76.1	102.0	0	75	17
San Francisco, CA	San Francisco Bay Area Rapid Transit District	209.0	267.6	0	43	43
Washington, DC	Washington Metropolitan Area Transit Auth	206.6	225.3	0	83	83
TOTAL		1,597.3	2,209.5	27	1,023	416

Source: Federal Transit Administration National Transit Database plus other sources.

(a) Additional stations may be wheelchair accessible, but not comply with other provisions of the Americans with Disabilities Act.

**TABLE 142: Heavy Rail Transit Agencies Vehicle and Financial Data, Fiscal Year 2003**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	REVENUE VEHICLES	CAPITAL EXPENSE (000)	FARE REVENUE (000)	OPERATING EXPENSE (000)
Atlanta, GA	Metropolitan Atlanta Rapid Transit Authority	292	194,175.2	43,286.0	129,475.0
Baltimore, MD	Maryland Transit Administration	100	40,820.5	9,824.6	40,945.0
Boston, MA	Massachusetts Bay Transportation Authority	408	116,201.6	89,509.1	213,986.0
Chicago, IL	Chicago Transit Authority	1,190	362,489.3	147,251.8	356,229.9
Cleveland, OH	The Greater Cleveland Regional Transit Auth	22	5,474.0	4,743.3	23,353.5
Los Angeles, CA	Los Angeles County Metropolitan Trp Auth	102	38,053.8	16,152.1	67,100.0
Miami, FL	Miami-Dade Transit	136	16,162.3	9,665.3	65,889.2
New York, NY	MTA New York City Transit	6,127	2,207,016.0	1,690,812.9	2,378,387.7
New York, NY	Port Authority Trans-Hudson Corporation	259	512,374.0	66,195.1	169,391.6
New York, NY	Staten Island Rapid Transit Operating Auth	64	1,681.3	4,240.3	25,270.3
Philadelphia, PA	Port Authority Transit Corporation	121	11,519.2	18,430.0	33,580.1
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	371	153,559.0	70,443.2	123,279.0
San Francisco, CA	San Francisco Bay Area Rapid Transit District	668	306,347.4	190,926.3	331,785.5
Washington, DC	Washington Metropolitan Area Transit Auth	894	375,155.8	292,800.8	487,504.8
TOTAL		10,754	4,341,029.4	2,654,280.8	4,446,177.6

Source: Federal Transit Administration National Transit Database.

**TABLE 143: Light Rail Transit Agencies Service and Usage Data, Fiscal Year 2003 (Thousands)**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	ANNUAL VEHICLE REVENUE MILES	ANNUAL VEHICLE REVENUE HOURS	ANNUAL UNLINKED TRIPS	ANNUAL PASSENGER MILES
Baltimore, MD	Maryland Transit Administration	2,781.1	176.9	7,238.0	48,554.1
Boston, MA	Massachusetts Bay Transportation Authority	5,730.7	382.0	72,599.0	173,900.0
Buffalo, NY	Niagara Frontier Transportation Authority	761.0	69.1	5,857.7	14,443.5
Cleveland, OH	The Greater Cleveland Regional Transit Auth	954.1	63.7	3,160.5	18,678.9
Dallas, TX	Dallas Area Rapid Transit	5,633.7	273.0	16,996.4	120,674.1
Dallas, TX	McKinney Avenue Transit Authority	NA	NA	NA	NA
Denver, CO	Denver Regional Transportation District	3,764.2	205.9	10,636.0	45,495.1
Detroit, MI	City of Detroit DOT (ended service in 2003)	7.8	1.7	27.2	21.7
Galveston, TX	Island Transit	8.3	1.4	54.3	67.9
Houston, TX	Metro Transit Auth of Harris County	NA	NA	NA	NA
Kenosha, WI	Kenosha Transit	20.3	2.9	67.6	76.4
Los Angeles, CA	Los Angeles County Metropolitan Trp Auth	6,782.6	286.2	31,869.2	225,711.9
Memphis, TN	Memphis Area Transit Authority	500.8	38.2	2,136.5	1,562.4
New Orleans, LA	New Orleans Regional Transit Authority	732.8	77.1	6,340.2	13,475.2
New York, NY	New Jersey Transit Corporation	1,304.2	123.9	8,746.5	25,885.4
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	3,126.6	330.7	24,850.2	61,017.8
Pittsburgh, PA	Port Authority of Allegheny County	1,468.1	111.6	7,157.8	31,987.6
Portland, OR	Portland Streetcar	NA	NA	NA	NA
Portland, OR	Tri-County Metropolitan Trp District of Oregon	5,823.8	351.8	31,149.0	169,571.6
Sacramento, CA	Sacramento Regional Transit District	2,171.0	105.8	8,859.0	47,364.9
Salt Lake City, UT	Utah Transit Authority	2,281.9	162.2	9,814.1	55,205.5
San Diego, CA	San Diego Trolley, Inc.	6,921.7	363.0	25,174.8	159,356.4
San Francisco, CA	San Francisco Municipal Railway	5,531.1	577.0	42,896.3	109,941.0
San Jose, CA	Santa Clara Valley Transportation Authority	1,840.2	125.3	6,052.5	26,815.3
Seattle, WA	Central Puget Sound Regional Transit Auth	34.4	1.8	266.8	0.0
Seattle, WA	King County Dept of Trp - Metro Transit Division	42.9	11.1	403.6	410.2
St. Louis, MO	Bi-State Development Agency	5,229.0	179.5	14,844.0	124,972.6
Tampa, FL	Hillsborough Area Regional Transit Authority	80.2	17.3	503.7	843.0
TOTAL REPORTED (excludes "NA" entries)		63,532.5	4,039.1	337,700.8	1,476,032.6

Source: Federal Transit Administration National Transit Database. Agencies that do not participate in the NTD have "NA" entries.

**TABLE 144: Light Rail Transit Agencies Mileage and Station Data**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	DIRECT- IONAL ROUTE MILES	TRACK MILES	CROSS- INGS	STA- TIONS (a)	ADA ACCESS- IBLE STATIONS (a) (b)
Baltimore, MD	Maryland Transit Administration	57.6	52.0	52	32	32
Boston, MA	Massachusetts Bay Transportation Authority	51.0	78.0	56	70	25
Buffalo, NY	Niagara Frontier Transportation Authority	12.4	14.1	8	15	7
Cleveland, OH	The Greater Cleveland Regional Transit Auth	30.4	33.0	22	34	8
Dallas, TX	Dallas Area Rapid Transit	87.7	98.4	98	34	34
Dallas, TX	McKinney Avenue Transit Authority	2.8	2.8	NA	0	0
Denver, CO	Denver Regional Transportation District	31.6	32.1	39	24	24
Detroit, MI	City of Detroit DOT (ended service in 2003)	0.0	1.3	8	8	0
Galveston, TX	Island Transit	11.8	5.0	57	3	3
Houston, TX	Metro Transit Auth of Harris County	15.0	20.2	64	16	16
Kenosha, WI	Kenosha Transit	1.9	1.9	19	2	1
Los Angeles, CA	Los Angeles County Metropolitan Trp Auth	82.4	85.7	77	36	36
Memphis, TN	Memphis Area Transit Authority	5.8	6.1	0	1	1
New Orleans, LA	New Orleans Regional Transit Authority	16.0	16.0	124	9	9
New York, NY	New Jersey Transit Corporation	28.3	31.6	30	27	15
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	69.3	171.0	1,702	46	0
Pittsburgh, PA	Port Authority of Allegheny County	34.8	44.8	39	14	14
Portland, OR	Portland Streetcar	4.8	5.0	87	0	0
Portland, OR	Tri-County Metropolitan Trp District of Oregon	81.3	81.3	196	52	52
Sacramento, CA	Sacramento Regional Transit District	40.7	40.7	93	31	30
Salt Lake City, UT	Utah Transit Authority	37.3	37.3	58	23	23
San Diego, CA	San Diego Trolley, Inc.	96.6	97.0	96	49	48

**TABLE 144: Light Rail Transit Agencies Mileage and Station Data**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	DIRECT- IONAL ROUTE MILES	TRACK MILES	CROSS- INGS	STA- TIONS (a)	ADA ACCESS- IBLE STATIONS (a) (b)
San Francisco, CA	San Francisco Municipal Railway	72.9	72.9	351	9	9
San Jose, CA	Santa Clara Valley Transportation Authority	58.4	58.9	97	44	44
Seattle, WA	Central Puget Sound Regional Transit Auth	3.6	1.8	25	6	6
Seattle, WA	King County Dept of Trp - Metro Transit Division	3.7	2.1	14	9	9
St. Louis, MO	Bi-State Development Agency	75.8	81.0	24	28	28
Tampa, FL	Hillsborough Area Regional Transit Authority	4.8	3.2	21	8	8
TOTAL REPORTED (excludes "NA" entries)		996.1	1,147.2	3,306	614	466

Source: Federal Transit Administration National Transit Database plus other sources.

(a) Many light rail lines have numerous stops in the street that do not meet the definition of station.

(b) Additional stations may be wheelchair accessible, but not comply with other provisions of the Americans with Disabilities Act.

**TABLE 145: Light Rail Transit Agencies Vehicle and Financial Data, Fiscal Year 2003**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	REVENUE VEHICLES	CAPITAL EXPENSE (000)	FARE REVENUE (000)	OPERATING EXPENSES (000)
Baltimore, MD	Maryland Transit Administration	53	41,262.8	5,491.4	34,501.5
Boston, MA	Massachusetts Bay Transportation Authority	198	74,276.8	49,244.6	103,742.3
Buffalo, NY	Niagara Frontier Transportation Authority	27	2,772.0	3,178.6	17,045.7
Cleveland, OH	The Greater Cleveland Regional Transit Auth	17	3,263.2	2,033.3	12,694.2
Dallas, TX	Dallas Area Rapid Transit	91	122,225.1	7,566.4	57,543.3
Dallas, TX	McKinney Avenue Transit Authority	NA	NA	NA	NA
Denver, CO	Denver Regional Transportation District	49	254,753.9	7,463.4	20,068.2
Detroit, MI	City of Detroit DOT (ended service in 2003)	4	718.3	13.6	800.8
Galveston, TX	Island Transit	4	552.4	37.0	96.8
Houston, TX (b)	Metro Transit Auth of Harris County	NA	NA	NA	NA
Kenosha, WI	Kenosha Transit	5	0.0	15.3	308.4
Los Angeles, CA	Los Angeles County Metropolitan Trp Auth	105	89,511.9	17,087.9	86,200.1
Memphis, TN	Memphis Area Transit Authority	10	24,352.6	364.6	3,537.6
New Orleans, LA	New Orleans Regional Transit Authority	42	48,468.3	4,798.7	9,472.9
New York, NY	New Jersey Transit Corporation	43	303,259.6	8,266.2	48,483.2
Philadelphia, PA	Southeastern Pennsylvania Trp Auth	141	34,513.2	14,875.5	43,854.5
Pittsburgh, PA	Port Authority of Allegheny County	55	67,150.3	5,904.4	31,907.8
Portland, OR	Portland Streetcar	NA	NA	NA	NA
Portland, OR	Tri-County Metropolitan Trp District of Oregon	83	99,422.9	36,044.9	55,295.9
Sacramento, CA	Sacramento Regional Transit District	36	99,744.3	6,782.5	30,375.4
Salt Lake City, UT	Utah Transit Authority	40	53,636.8	5,280.9	19,926.4
San Diego, CA	San Diego Trolley, Inc.	123	15,456.9	22,071.2	38,985.9
San Francisco, CA	San Francisco Municipal Railway	177	94,382.8	17,876.7	107,822.8
San Jose, CA	Santa Clara Valley Transportation Authority	98	291,829.0	4,143.6	50,943.4
Seattle, WA	Central Puget Sound Regional Transit Auth	3	117,155.8	0.0	1,627.6
Seattle, WA	King County Dept of Trp - Metro Transit Division	5	1.5	218.9	1,421.5
St. Louis, MO	Bi-State Development Agency	65	103,157.5	9,931.8	36,707.0
Tampa, FL	Hillsborough Area Regional Transit Authority	8	7,081.3	407.7	1,844.8
TOTAL REPORTED (excludes "NA" entries)		1,482	1,948,949	229,099	815,208

Source: Federal Transit Administration National Transit Database. Agencies that do not participate in the NTD have "NA" entries.

**TABLE 146: Other Rail Transit Agencies Service and Usage Data, Fiscal Year 2003 (Thousands)**

<b>M O D E (a)</b>	<b>URBANIZED AREA (Primary City)</b>	<b>TRANSIT AGENCY</b>	<b>ANNUAL VEHICLE REVENUE MILES</b>	<b>ANNUAL VEHICLE REVENUE HOURS</b>	<b>ANNUAL UNLINKED TRIPS</b>	<b>ANNUAL PASSENGER MILES</b>
AG	Detroit, MI	Detroit Transportation Corporation	170.8	23.8	1,267.9	1,801.7
AG	Indianapolis, IN	Clarian Health People Mover	NA	NA	NA	NA
AG	Jacksonville, FL	Jacksonville Transportation Authority	267.8	20.2	723.0	237.5
AG	Las Colinas, TX	Las Colinas Area Rapid Tr	NA	NA	NA	NA
AG	Miami, FL	Miami-Dade Transit	1,031.3	94.6	6,229.3	6,391.5
AG	Morgantown, WV	West Virginia University	NA	NA	NA	NA
CC	San Francisco, CA	San Francisco Municipal Railway	405.1	125.4	7,418.8	8,598.2
IP	Chattanooga, TN	Chattanooga Area Regional Trp Auth	15.4	5.4	383.0	383.0
IP	Dubuque, IA	Fenelon Place Elevator	NA	NA	NA	NA
IP	Johnstown, PA	Cambria County Transit Authority	1.7	0.6	72.4	12.3
IP	Pittsburgh, PA	Port Authority of Allegheny County	35.2	12.8	1,096.5	138.7
MO	Seattle, WA	Seattle Center Monorail Transit	245.4	22.9	2,102.3	1,892.1
TR	Mountain Village, CO	Mountain Village Metro Dist	NA	NA	NA	NA
TR	New York, NY	Roosevelt Island Operating Corporation	23.2	8.0	696.0	348.0

Source: Federal Transit Administration National Transit Database. Agencies that do not participate in the NTD have "NA" entries.  
(a) AG = automated guideway transit, CC = cable car, IP = inclined plane, MO = monorail, TR = aerial tramway

**TABLE 147: Other Rail Transit Agencies Mileage and Station Data**

<b>M O D E (a)</b>	<b>URBANIZED AREA (Primary City)</b>	<b>TRANSIT AGENCY</b>	<b>DIRECT- IONAL ROUTE MILES</b>	<b>TRACK MILES</b>	<b>CROSS- INGS</b>	<b>STA- TIONS</b>	<b>ADA ACCESS- IBLE STATIONS (b)</b>
AG	Detroit, MI	Detroit Transportation Corporation	2.9	2.9	0	13	12
AG	Indianapolis, IN	Clarian Health People Mover	2.8	2.8	0	3	3
AG	Jacksonville, FL	Jacksonville Transportation Authority	5.4	5.4	0	8	8
AG	Las Colinas, TX	Las Colinas Area Rapid Tr	2.8	1.4	0	4	4
AG	Miami, FL	Miami-Dade Transit	8.5	9.4	0	21	21
AG	Morgantown, WV	West Virginia University	7.2	8.7	0	5	0
CC	San Francisco, CA	San Francisco Municipal Rwy	8.8	9.0	77	0 (c)	0 (c)
IP	Chattanooga, TN	Chattanooga Area Regional Trp Auth	2.0	1.0	0	2	2
IP	Dubuque, IA	Fenelon Place Elevator	0.1	0.1	0	2	0
IP	Johnstown, PA	Cambria County Transit Auth	0.3	0.3	0	2	2
IP	Pittsburgh, PA	Port Authority of Allegheny County	0.5	0.5	0	4	4
MO	Seattle, WA	Seattle Center Monorail Transit	1.8	2.0	0	2	2
TR	Mountain Village, CO	Mountain Village Metro Dist	5.0	2.5	0	4	0
TR	New York, NY	Roosevelt Island Oper Corp	1.2	0.6	0	2	0
<b>TOTAL</b>			<b>49.3</b>	<b>46.6</b>	<b>77</b>	<b>72</b>	<b>58</b>

Source: Federal Transit Administration National Transit Database plus other sources.  
(a) AG = automated guideway transit, CC = cable car, IP = inclined plane, MO = monorail, TR = aerial tramway  
(b) Additional stations may be wheelchair accessible, but not comply with other provisions of the Americans with Disabilities Act.  
(c) Cable cars stop in the middle of the street and do not have stations.

**TABLE 148: Other Rail Transit Agencies Vehicle and Financial Data, Fiscal Year 2003**

<b>M O D E (a)</b>	<b>URBANIZED AREA (Primary City)</b>	<b>TRANSIT AGENCY</b>	<b>REVENUE VEHICLES</b>	<b>CAPITAL EXPENSE (000)</b>	<b>FARE REVENUE (000)</b>	<b>OPERATING EXPENSES (000)</b>
AG	Detroit, MI	Detroit Transportation Corporation	8	3,707.4	425.6	12,169.5
AG	Indianapolis, IN	Clarian Health People Mover	NA	NA	NA	NA
AG	Jacksonville, FL	Jacksonville Transportation Authority	8	4,636.9	354.2	4,239.6
AG	Las Colinas, TX	Las Colinas Area Rapid Tr	NA	NA	NA	NA
AG	Miami, FL	Miami-Dade Transit	29	828.5	47.9	19,324.2
AG	Morgantown, WV	West Virginia University	NA	NA	NA	NA
CC	San Francisco, CA	San Francisco Municipal Railway	40	1,974.7	11,023.7	41,049.1
IP	Chattanooga, TN	Chattanooga Area Regional Trp Auth	2	387.5	1,346.5	845.2
IP	Dubuque, IA	Fenelon Place Elevator	NA	NA	NA	NA
IP	Johnstown, PA	Cambria County Transit Authority	2	32.1	102.7	442.7
IP	Pittsburgh, PA	Port Authority of Allegheny County	4	97,929.2	1,064.1	924.0
MO	Seattle, WA	Seattle Center Monorail Transit	8	0.0	2,761.5	NA
TR	Mountain Village, CO	Mountain Village Metro Dist	NA	NA	NA	NA
TR	New York, NY	Roosevelt Island Operating Corporation	2	89.9	1,044.0	2,514.8

Source: Federal Transit Administration National Transit Database. Agencies that do not participate in the NTD have "NA" entries.

(a) AG = automated guideway transit, CC = cable car, IP = inclined plane, MO = monorail, TR = aerial tramway

# Vanpool

## Highlights.....

See National Totals on page 102.

Vanpool service operates primarily from rural and outer suburban areas into urban area central business districts or suburban employment centers. Most vanpools serve large urban areas, though a few states have statewide programs.

The vast majority of vanpools are privately-operated, are not available to the public, and are not considered public transportation, which is limited to the several dozen transit agencies that do fund and operate public vanpools.

**Vanpool** mode is comprised of vans (and very rarely, small buses and other vehicles) operating as a ridesharing arrangement, providing transportation to a group of individuals traveling directly between their homes and a regular destination within the same geographical area. The vehicles have a minimum seating capacity of seven persons, including the driver. It is considered mass transit service if it is operated by a public entity or is one in which a public entity owns, purchases, or leases the vehicle(s). Vanpool(s) must also be in compliance with mass transit rules including Americans with Disabilities Act (ADA) provisions, and be open to the public and that availability must be made known. Other forms of public participation to encourage ridesharing arrangements such as the provision of parking spaces, use of high occupancy vehicle (HOV) lanes, coordination or clearing house service, do not qualify as public vanpools.

## Types of Service

**Vanpool service** is operated in two ways. Either transit agency vehicles are leased to companies or directly to volunteer drivers, or the service is contracted to a vanpool

management company that has its own vehicles and administers the service. Under either arrangement, many vanpools serve large private corporations or government agencies and consist solely of their employees.

Vanpool service generally serves areas far outside the normal bus service area, or intra-suburban trips where bus service cannot be justified. The average trip length is nearly 35 miles, and trips well over 50 miles are not uncommon.

Vanpool fares often vary depending on the number of people in the vanpool, the size of van used, and the distance traveled. The driver collects fares (unless there is a pay-by-mail program), operates the van, and arranges for maintenance. In return, the driver rides free, may keep the van at home overnight, and may often use it for personal use within prescribed limits.

The transit agency, or sometimes another local governmental unit, runs a vanpool matching service to recruit new riders and usually pays insurance, fuel, and maintenance costs. If the number of vans involved is large enough, the transit agency may perform the maintenance itself, though the usual procedure is for the driver to take the van to a local automobile dealer.

## Types of Vehicles

Almost all vanpool service is operated with vans less than 21 feet in length.

Vans cost about \$21,000, according to a 2004 APTA survey including about 64% of vanpool vehicles.

A **van** has a typical seating capacity of 5 to 15 passengers and is classified as a van by vehicle manufacturers. Very rarely, a **modified van (body-on-chassis van)**--a standard van that has undergone some structural changes by another company, usually made to increase its size and particularly its height--may be used. The seating capacity of modified vans is approximately 9 to 18 passengers.

**TABLE 149: New Vanpool Vehicle Market by Length, 2004-2009**

CATEGORY	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	450	100.0%	302	100.0%	1,774	100.0%
20-24 feet	61	13.6%	52	17.2%	265	14.9%
17-19 feet	170	37.8%	94	31.1%	644	36.3%
10-16 feet	219	48.7%	156	51.7%	865	48.8%

Source: APTA survey. Data are about 50% of national total.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 150: Vanpool National Totals, Fiscal Year 2003**

Agencies, Number of	70
Fares Collected, Passenger	\$30,074,000
Fare per Unlinked Trip, Average	\$1.84
Expense, Operating Total (a)	\$60,853,000
Salaries and Wages (b)	\$9,733,000
Fringe Benefits (b)	\$4,588,000
Services (b)	\$10,395,000
Fuel and Lubricants (b)	\$7,235,000
Materials and Supplies, Other (b)	\$1,885,000
Utilities (b)	\$415,000
Casualty and Liability (b)	\$3,970,000
Purchased Transportation (b) (c)	\$16,738,000
Other (b)	\$5,894,000
Vehicle Operations (c)	\$11,694,000
Vehicle Maintenance (c)	\$8,421,000
Non-vehicle Maintenance (c)	\$900,000
General Administration (c)	\$23,099,000
Expense, Capital Total	\$19,749,000
Rolling Stock	\$15,123,000
Facilities, Stations, Administrative Buildings	\$793,000
Other	\$3,833,000
Trips, Unlinked Passenger, Annual	16,311,000
Miles, Passenger	540,697,000
Trip Length, Average (miles)	33.1
Miles, Vehicle Total	89,270,000
Miles, Vehicle Revenue	87,419,000
Hours, Vehicle Total	2,868,000
Hours, Vehicle Revenue	2,677,000
Speed, Vehicle in Revenue Service, Average (m.p.h.)	32.7
Revenue Vehicles Available for Maximum Service	6,624
Vehicles Operated at Maximum Service	5,514
Age, Average (years)	4.5
Air-conditioned	86.6%
Lifts, Wheelchair	2.7%
Ramps, Wheelchair	0.8%
Accessible Only via Stations	0.0%
Power Source, Diesel or Gasoline	99.1%
Power Source, Alternative	0.9%
Rehabilitated	0.0%
Employees, Operating	310
Vehicle Operations	45
Vehicle Maintenance	36
Non-vehicle Maintenance	7
General Administration	222
Employees, Capital	3
Diesel Fuel Consumed (gallons)	176,000
Other Fuel Consumed (gallons)	5,899,000
Electricity Consumed (kwh)	0

(a) is the sum of (b) lines OR the sum of (c) lines.

## Accessibility

Vanpool service is not required to be accessible by law, as are other modes, since the passengers are voluntary participants. Rather, a vanpool would be assigned an accessible van if a person in need of such a van became a vanpool participant.

An **accessible vehicle** is a public transportation revenue vehicle that does not restrict access, is usable, and provides allocated space and/or priority seating for individuals who use wheelchairs.

**High-floor vans** require all riders except the person next to the driver to climb into the van from street level through a sliding door on the side of the van. A few such vans accommodate wheelchair-bound and other riders who cannot climb steps by using a retractable lift that raises and lowers persons and equipment between street and van floor levels.

**Low-floor vans** generally use a side sliding door for passengers and have a level floor in the entire passenger-seating area. Only a short retractable ramp is necessary to accommodate wheelchairs and those who cannot bridge the gap between van and street level.

**TABLE 151: Vanpool Accessibility, 2005**

	VEHICLES	PER CENT
Total	3,563	100.0%
Via on-board lift	91	2.6%
Via on-board ramp	30	0.8%
Non-accessible	3,442	96.6%

Source: APTA survey. Data are about 50% of national total.



*This vanpool van is operated by the Capital Metropolitan Transportation Authority in Austin, Texas. Many vanpools use even larger vans.*

**TABLE 152: New Vanpool Vehicle Market by Seating Capacity, 2004-2009**

CATEGORY	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	450	100.0%	302	100.0%	1,774	100.0%
16 or more seats	20	4.4%	0	0.0%	0	0.0%
14-15 seats	44	9.8%	67	22.2%	393	22.2%
10-13 seats	163	36.2%	37	12.3%	807	45.5%
6-9 seats	223	49.6%	198	65.6%	574	32.4%

Source: APTA survey. Data are about 50% of national total.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 153: New Vanpool Vehicle Market by Accessibility, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	450	100.0%	302	100.0%	1,774	100.0%
Via on-board lift	11	2.4%	0	0.0%	29	1.6%
Via on-board ramp	0	0.0%	0	0.0%	10	0.6%
Non-accessible	439	97.6%	302	100.0%	1,735	97.8%

Source: APTA survey. Data are about 50% of national total.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 154: Vanpool Vehicle Power Sources, 2005**

	VEHICLES	PER CENT
Total	3,563	100.0%
Compressed natural gas	13	0.4%
Diesel	242	6.8%
Gasoline	3,293	92.4%
Gasoline & electric battery	15	0.4%

Source: APTA survey. Data are about 50% of national total.

**TABLE 155: Vanpool Power Source Efficiency, Miles per Gallon**

DIESEL	GASOLINE
14.15	14.67

Source: Federal Transit Administration, 2002 National Transit Database.

**TABLE 156: New Vanpool Vehicle Market by Power Source, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	450	100.0%	302	100.0%	1,774	100.0%
Diesel fuel	53	11.8%	0	0.0%	20	1.1%
Gasoline	382	84.9%	302	100.0%	1,754	98.9%
Gasoline & electric battery	15	3.3%	0	0.0%	0	0.0%

Source: APTA survey. Data are about 50% of national total.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 157: Vanpool Fuel Consumption, Thousands of Gallons**

FISCAL YEAR	DIESEL	COMPRESSED NATURAL GAS	GASOLINE	PROPANE	OTHER	TOTAL NON-DIESEL
1994	160	0	1,950	24	0	1,974
1995	182	0	2,282	57	0	2,339
1996	219	0	2,449	5	15	2,469
1997	202	2	3,141	4	0	3,147
1998	227	2	4,178	3	0	4,183
1999	238	35	4,547	4	0	4,586
2000	179	34	4,681	4	0	4,719
2001	97	31	4,849	3	0	4,883
2002	129	33	5,087	1	0	5,121
2003 P	176	20	5,819	0	59	5,899

P = Preliminary

**TABLE 158: New Vanpool Vehicle Market by Manufacturer, 2004-2009**

	BUILT IN 2004		ON ORDER JANUARY 2005		POTENTIAL ORDERS (a)	
	NUMBER	PER CENT	NUMBER	PER CENT	NUMBER	PER CENT
Total	450	100.0%	302	100.0%	1,774	100.0%
DaimlerChrysler	28	6.2%	0	0.0%	NA	NA
Ford	238	52.9%	129	42.7%	NA	NA
General Motors	169	37.6%	173	57.3%	NA	NA
Toyota	15	3.3%	0	0.0%	NA	NA

Source: APTA survey. Data are about 50% of national total.

(a) DATA ARE TENTATIVE; SOME POTENTIAL ORDERS MAY NOT OCCUR.

**TABLE 159: Vanpool Transit Agencies Service and Usage Data, Fiscal Year 2003 (Thousands)**

<b>URBANIZED AREA (Primary City)</b>	<b>TRANSIT AGENCY</b>	<b>ANNUAL VEHICLE REVENUE MILES</b>	<b>ANNUAL VEHICLE REVENUE HOURS</b>	<b>ANNUAL UNLINKED TRIPS</b>	<b>ANNUAL PASSENGER MILES</b>
Anchorage, AK	Municipality of Anchorage - Public Trp Dept	531.9	14.2	83.6	3,776.2
Atlanta, GA	Douglas County Rideshare	300.2	8.1	57.1	1,485.8
Atlanta, GA	Georgia Regional Transportation Authority	1,451.8	334.2	318.2	6,167.8
Austin, TX	Capital Metropolitan Transportation Authority	1,255.2	41.9	240.0	4,755.0
Bremerton, WA	Kitsap Transit	913.2	33.1	219.4	5,285.4
Burlington, VT	Chittenden County Transportation Authority	22.0	0.6	13.3	22.0
Cape Coral, FL	Lee County Transit	27.5	0.9	8.0	244.6
Charlotte, NC	Charlotte Area Transit System	1,841.7	37.7	301.2	14,436.2
Chicago, IL	Pace - Suburban Bus Division	6,692.9	220.2	1,281.1	31,630.4
Dallas, TX	Dallas - VPSI, Inc.	2,367.7	51.9	366.1	13,628.0
Dallas, TX	Dallas Area Rapid Transit	1,672.2	48.2	418.8	17,968.6
Davenport, IA	Rock Island County Metropolitan Mass Transit	36.8	1.3	3.5	256.4
Daytona Beach, FL	County of Volusia	212.2	4.4	49.8	1,847.4
Denver, CO	Denver Regional Transportation District	1,284.7	30.9	136.8	6,741.9
Des Moines, IA	Des Moines Metropolitan Transit Authority	1,399.8	27.6	197.7	8,112.6
Durham, NC	Research Triangle Regional Public Trp Auth	857.5	21.9	304.2	11,483.0
Honolulu, HI	Honolulu - VPSI, Inc.	2,602.9	90.9	349.4	8,282.8
Houston, TX	Houston - VPSI, Inc.	3,517.8	92.0	825.0	24,782.8
Kansas City, MO	Kansas City Area Transportation Authority	490.0	10.9	67.2	2,325.5
Kennewick, WA	Ben Franklin Transit	1,830.2	68.8	507.5	19,844.1
Milwaukee, WI	Milwaukee County Transit System	258.1	5.8	26.5	1,068.9
Minneapolis, MN	Metropolitan Council	691.7	16.2	103.1	0.0
Nashville, TN	Metropolitan Transit Authority	447.3	22.0	152.0	4,797.3
New York, NY	New Jersey Transit Corporation	3,759.6	101.6	655.8	25,247.1
Olympia, WA	Intercity Transit	1,324.8	31.2	263.9	9,512.1
Orlando, FL	Central Florida Regional Trp Auth	1,227.2	30.1	222.3	6,692.4
Palm Bay, FL	Space Coast Area Transit	992.6	18.5	125.0	6,555.2
Phoenix, AZ	Phoenix - VPSI, Incorporated	3,688.9	90.3	713.6	19,608.1
Pittsburgh, PA	Southwestern Pennsylvania Commission	489.7	14.9	138.8	4,400.9
Pittsburgh, PA	University of Pittsburgh	200.4	8.3	69.1	1,570.9
Portland, OR	Clark County Public Trp Benefit Area Auth	104.6	3.2	36.4	888.1
Richmond, VA	Greater Richmond Transit Company	949.5	18.0	112.1	7,052.1
Salt Lake City, UT	Utah Transit Authority	3,908.0	99.2	701.4	32,004.8
San Diego, CA	San Diego Association of Governments	6,588.0	136.2	822.9	42,591.5
Sarasota, FL	Manatee County Area Transit	68.3	1.2	2.3	110.2
Sarasota, FL	Sarasota County Area Transit	17.9	0.5	1.8	17.9
Seattle, WA	King County Dept of Trp	8,997.6	250.3	1,793.7	44,729.2
Seattle, WA	Pierce County Trp Benefit Area Auth	3,421.8	83.0	636.7	21,702.5
Seattle, WA	Snohomish County Trp Benefit Area Corp	3,124.2	56.8	594.7	15,941.3
Spokane, WA	Spokane Transit Authority	352.7	10.3	102.4	2,456.4
St. Louis, MO	Madison County Transit District	1,005.9	24.5	153.5	5,243.8
Stockton, CA	San Joaquin Regional Transit District	6.0	0.1	0.5	33.1
Sumter, SC	Santee Wateree Regional Trp Auth	36.2	1.3	7.2	258.5
Tampa, FL	Hillsborough Area Regional Transit Authority	268.1	6.9	34.7	1,122.6
Virginia Beach, VA	Trp District Commission of Hampton Roads	703.9	33.7	219.3	9,313.4
Yakima, WA	Yakima Transit	199.0	4.8	22.6	199.0

Source: Federal Transit Administration National Transit Database; excludes agencies that do not participate in the NTD.

**TABLE 160: Vanpool Transit Agencies Vehicle and Financial Data, Fiscal Year 2003**

URBANIZED AREA (Primary City)	TRANSIT AGENCY	REVENUE VEHICLES	CAPITAL EXPENSES (000)	FARE REVENUE (000)	OPERATING EXPENSES (000)
Anchorage, AK	Municipality of Anchorage - Public Trp Dept	27	0.0	297.0	393.4
Atlanta, GA	Douglas County Rideshare	31	251.3	102.2	251.7
Atlanta, GA	Georgia Regional Transportation Authority	235	942.9	277.6	631.6
Austin, TX	Capital Metropolitan Transportation Authority	152	1,269.8	215.6	709.7
Bremerton, WA	Kitsap Transit	109	168.0	163.4	667.1
Burlington, VT	Chittenden County Transportation Authority	0	0.0	0.0	0.0
Cape Coral, FL	Lee County Transit	6	0.0	6.8	100.1
Charlotte, NC	Charlotte Area Transit System	94	16.7	479.3	803.2
Chicago, IL	Pace - Suburban Bus Division	659	3,280.6	2,486.4	4,865.4
Dallas, TX	Dallas - VPSI, Inc.	116	0.0	256.7	804.3
Dallas, TX	Dallas Area Rapid Transit	71	0.0	411.6	1,308.7
Davenport, IA	Rock Island County Metropolitan Mass Transit	4	0.0	27.5	24.7
Daytona Beach, FL	County of Volusia	14	0.0	59.9	84.5
Denver, CO	Denver Regional Transportation District	67	0.0	0.0	248.3
Des Moines, IA	Des Moines Metropolitan Transit Authority	74	147.9	481.4	438.2
Durham, NC	Research Triangle Regional Public Trp Auth	78	0.0	371.5	1,236.8
Honolulu, HI	Honolulu - VPSI, Inc.	167	0.0	1,010.0	1,480.5
Houston, TX	Houston - VPSI, Inc.	270	0.0	277.1	1,586.9
Kansas City, MO	Kansas City Area Transportation Authority	37	0.0	156.5	295.3
Kennewick, WA	Ben Franklin Transit	163	597.4	806.4	1,088.1
Milwaukee, WI	Milwaukee County Transit System	17	0.0	95.7	95.7
Minneapolis, MN	Metropolitan Council	47	0.0	259.0	681.9
Nashville, TN	Metropolitan Transit Authority	32	0.0	258.6	195.5
New York, NY	New Jersey Transit Corporation	174	0.0	1,622.0	2,011.6
Olympia, WA	Intercity Transit	84	452.0	383.3	381.7
Orlando, FL	Central Florida Regional Trp Auth	65	30.2	248.4	713.9
Palm Bay, FL	Space Coast Area Transit	42	583.3	295.7	295.7
Phoenix, AZ	Phoenix - VPSI, Incorporated	224	0.0	1,219.5	1,486.7
Pittsburgh, PA	Southwestern Pennsylvania Commission	30	111.4	249.7	475.9
Pittsburgh, PA	University of Pittsburgh	16	0.0	141.4	71.3
Portland, OR	Clark County Public Trp Benefit Area Auth	9	0.0	68.3	64.3
Richmond, VA	Greater Richmond Transit Company	38	0.0	316.4	443.1
Salt Lake City, UT	Utah Transit Authority	230	1,163.5	693.8	2,316.9
San Diego, CA	San Diego Association of Governments	279	0.0	2,935.2	4,267.7
Sarasota, FL	Manatee County Area Transit	2	0.0	2.7	16.6
Sarasota, FL	Sarasota County Area Transit	3	0.0	0.0	112.3
Seattle, WA	King County Dept of Trp	1,044	4,535.7	4,860.7	7,299.8
Seattle, WA	Pierce County Trp Benefit Area Auth	270	190.1	1,467.7	2,562.1
Seattle, WA	Snohomish County Trp Benefit Area Corp	319	847.4	1,253.9	2,033.9
Spokane, WA	Spokane Transit Authority	34	0.4	159.8	182.1
St. Louis, MO	Madison County Transit District	57	1,454.0	242.0	725.2
Stockton, CA	San Joaquin Regional Transit District	5	0.0	0.0	0.7
Sumter, SC	Santee Wateree Regional Trp Auth	2	0.0	5.5	14.2
Tampa, FL	Hillsborough Area Regional Transit Authority	13	0.0	73.9	84.0
Virginia Beach, VA	Trp District Commission of Hampton Roads	46	0.0	0.0	145.7
Yakima, WA	Yakima Transit	10	190.4	77.9	64.9

Source: Federal Transit Administration National Transit Database; excludes agencies that do not participate in the NTD.

# CANADIAN DATA

Data in this section are extracted from the **Summary of Canadian Transit Statistics** and predecessor documents published each year by APTA's Canadian counterpart, the Canadian Urban Transit Association (CUTA). Although definitions of terms are generally similar to U.S. terms, many are somewhat different, and comparison of Canadian and U.S. data can be misleading.

Public transportation use in Canada (as well as in the rest of the world) has historically been much greater than the U.S. because it has a less automobile-dependent culture. Consequently, measures of public transportation use will be considerably higher than the U.S.

For more Canadian statistical information, see CUTA's web site, [www.cutaactu.on.ca](http://www.cutaactu.on.ca).



*The Societe de Transport de Montreal operates the only rubber-tired rail system in Canada.*

**TABLE 161: Canadian Fixed-Route Summary Statistics, Millions**

YEAR	NUMBER OF AGENCIES (a)	REVENUE PASSENGER TRIPS	VEHICLE MILES	NON-GOVT OPERATING FUNDING (b)	OPERATING EXPENSE (b)
1990	77	1,532.4	487.1	1,312.9	2,451.4
1991	92	1,450.0	484.0	1,401.0	2,518.6
1992	92	1,398.7	479.8	1,404.8	2,644.0
1993	91	1,370.1	483.4	1,457.8	2,719.7
1994	88	1,353.2	482.2	1,465.0	2,707.4
1995	88	1,354.2	486.9	1,496.5	2,716.4
1996	86	1,348.6	479.3	1,576.2	2,754.3
1997	66	1,377.7	481.1	1,713.8	2,749.9
1998	68	1,387.2	474.9	1,743.8	2,755.5
1999	89	1,437.5	501.9	1,854.6	2,922.2
2000	90	1,486.9	513.8	2,000.0	3,107.8
2001	90	1,473.7	506.5	2,053.4	3,210.8
2002	90	1,531.0	532.7	2,196.5	3,445.6
2003	92	1,552.9	545.0	2,197.1	3,695.4

Source: Canadian Urban Transit Association.

(a) Number of agencies reporting.

(b) Monetary data are Canadian Dollars.

**TABLE 162: Canadian Fixed-Route Revenue Vehicles by Mode**

YEAR	LIGHT RAIL	HEAVY RAIL (a)	COMMUTER RAIL (a)	TROLLEY BUS	BUS	OTHER	TOTAL
1990	532	1,381	NA	472	10,626	446	13,457
1991	527	1,379	NA	272	10,992	372	13,542
1992	500	1,724	NA	358	10,507	119	13,208
1993	547	1,679	NA	308	10,776	255	13,565
1994	547	1,381	331	345	10,560	179	13,343
1995	548	1,381	359	305	10,542	85	13,220
1996	520	1,373	359	320	10,506	102	13,180
1997	520	1,381	336	322	10,481	36	13,076
1998	520	1,395	346	315	10,888	35	13,499
1999	520	1,419	505	304	11,244	37	14,029
2000	521	1,431	531	303	11,502	47	14,335
2001	530	1,451	539	304	11,695	54	14,573
2002	594	1,451	579	293	11,712	36	14,665
2003	611	1,451	586	290	11,996	36	14,970

Source: Canadian Urban Transit Association.

(a) Prior to 1994, heavy rail and commuter rail combined.

**TABLE 163: Canadian Fixed-Route New Revenue Vehicle Purchases by Mode**

YEAR	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL	TROLLEY BUS	BUS	OTHER	TOTAL
1990	0	0	0	0	487	67	554
1991	0	0	0	0	528	8	536
1992	16	0	0	0	549	60	625
1993	0	0	0	0	163	45	208
1994	0	0	0	0	250	37	287
1995	20	0	0	0	348	61	429
1996	0	18	0	0	517	64	599
1997	0	80	0	9	283	19	391
1998	0	80	0	0	651	58	789
1999	0	56	0	0	706	43	805
2000	0	82	7	0	358	54	501
2001	14	54	2	0	446	134	650
2002	21	0	0	0	490	59	570
2003	0	0	20	0	1,057	44	1,121

Source: Canadian Urban Transit Association.

**TABLE 164: Canadian Fixed-Route Passenger Fares (a)**

YEAR	AVERAGE OPERATING REVENUE PER REVENUE PASSENGER TRIP	ADULT BASE CASH FARE		
		HIGH	LOW	AVERAGE
1990	0.86	1.75	0.50	1.07
1991	0.97	2.00	0.75	1.18
1992	1.00	2.50	0.75	1.22
1993	1.06	2.60	0.75	1.31
1994	1.08	2.60	0.05	1.35
1995	1.11	2.60	0.05	1.45
1996	1.17	3.00	0.05	1.57
1997	1.21	2.60	1.20	1.69
1998	1.22	2.60	1.25	1.78
1999	1.26	2.60	1.00	1.68
2000	1.31	2.75	1.00	1.70
2001	1.35	2.70	1.00	1.73
2002	1.40	3.00	1.00	1.81
2003	1.45	3.00	1.25	1.88

Source: Canadian Urban Transit Association.

(a) Data reported in Canadian dollars.

**TABLE 165: Canadian Fixed-Route Employees by Type**

YEAR	VEHICLE OPERATORS	OTHER VEHICLE OPERATIONS	VEHICLE MAINTENANCE	NON-VEHICLE MAINTENANCE	GENERAL ADMINISTRATION	TOTAL
1990	21,040	3,223	7,336	3,569	4,560	39,728
1991	21,502	3,135	7,936	2,641	4,364	39,578
1992	21,316	2,621	7,195	2,820	5,378	39,330
1993	21,240	2,619	6,657	3,272	4,283	38,071
1994	21,475	2,806	6,845	3,282	4,747	39,218
1995	21,495	2,835	6,964	3,227	4,477	38,976
1996	20,878	2,786	6,982	3,324	4,564	38,531
1997	20,158	3,099	6,651	3,714	4,459	38,078
1998	20,521	2,976	6,621	3,608	3,589	38,357
1999	21,310	2,826	6,836	3,725	4,145	39,548
2000	21,784	2,890	6,908	3,803	4,133	40,373
2001	22,383	3,114	7,031	3,624	5,270	41,422
2002	23,150	3,093	7,219	3,672	4,813	41,947
2003	23,626	3,290	7,320	3,767	4,792	42,795

Source: Canadian Urban Transit Association.

**TABLE 166: Canadian Specialized Transit Services Summary Statistics, Millions**

YEAR	NUMBER OF AGENCIES (a)	PASSENGER TRIPS	VEHICLE MILES	NON-GOVT OPERATING FUNDING (b)	OPERATING EXPENSE (b)
1991	47	4.6	17.0	15.9	64.4
1992	47	5.2	18.7	17.9	75.6
1993	50	7.2	29.3	19.2	118.3
1994	46	8.0	26.8	11.0	141.9
1995	49	8.6	28.8	12.9	144.9
1996	49	8.6	28.6	13.1	145.6
1997	51	8.8	29.1	14.5	146.2
1998	52	9.1	28.2	14.9	152.2
1999	59	10.4	31.5	33.0	170.8
2000	58	10.9	33.7	18.7	185.7
2001	60	11.1	32.6	18.8	197.4
2002	60	11.6	34.5	19.9	215.1
2003	60	11.8	34.6	20.6	231.3

Source: Canadian Urban Transit Association.

(a) Number of agencies reporting.

(b) Monetary data are Canadian Dollars.

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