1996 Transit Fact Book



American Public Transit Association

TRANSIT FACT BOOK

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Technical Notes

The American Public Transit Association (APTA) and its predecessor has published the **Transit Fact Book** since 1942. APTA obtains data from member transit systems in the United States and uses these figures to estimate national totals for all U.S. transit systems. All data tables are for the U.S. only, except for the few that indicate data is for Canada. Data for Canadian transit were provided by the Canadian Urban Transit Association (CUTA), except for fixed guideway data obtained from an APTA survey.

Only transit data are included in this book. Non-transit services such as taxicab, school bus, unregulated jitney, sightseeing bus, intercity bus, military bus, bus service not open to the public (e.g., governmental and corporate shuttles), and special application systems (e.g., amusement parks, airports, and international, rural, rural interstate, island, and urban park ferries) are excluded.

Except as noted, prior-to-1984 data exclude commuter rail, automated guideway, urban ferry boat, and demand response, as well as most transit systems outside of urbanized areas. Data for these systems were not available prior to that date; accordingly, all data tables are non-continuous between 1983 and 1984.

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

Prior to 1984, data are based on information voluntarily provided by APTA member transit systems. All data are expanded by standard statistical methods to provide estimates of national totals.

Beginning in 1984, data are based on the annual National Transit Database (NTD) report published by the Federal Transit Administration (FTA). This document is the annual summary of reports submitted to FTA to comply with requirements of the Federal Transit Act; prior to 1994 it was called the Section 15 report.

APTA conducts surveys to obtain data for various tables that are not collected in the NTD.

Beginning in 1984, motor bus and demand response data are calculated based on 1980 U.S. Census Bureau urbanized area population categories to allow for variances in data by size of area.

Beginning in 1990, urbanized areas designated by the 1990 census are used.

Beginning in 1984, only active vehicles are counted in vehicle tables to conform with data reported to the FTA.

The initial adoption of the NTD requirements effective in 1979 resulted in several alterations to previous transit recordkeeping practices. Passenger trip data are collected for the NTD by a sample survey technique not normally used by transit systems prior to NTD implementation. This has resulted in a break in the continuity of passenger trip data between 1980 and earlier years. Passenger trip data reported are total passenger rides before 1980 and unlinked passenger trips beginning in 1980.

Salaries and wages data prior to 1977 include employee compensation in the form of paid sick leave, paid vacation time, and paid holidays. Beginning in 1977 these compensation types are included in fringe benefit costs. Prior to 1980, the number of employees is the average number of persons during the year. Beginning in 1980, the number of employees is based on the concept of employee equivalents where each employee equivalent is equal to 2,080 labor hours. Beginning in 1993, the number of employees is based on the actual number of persons at the end of the fiscal year. Data is not continuous between 1992 and 1993.

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

APTA is an international organization of transit systems and related organizations in the United States, Canada, and other countries. APTA members serve the public interest by providing safe, efficient, and economical transit services, and by improving those services to meet national energy, environmental, and financial concerns. Over ninety percent of persons using urban public transit in the United States are carried by APTA members.

APTA members total over 1,000 and include transit systems, organizations responsible for planning, designing, constructing, financing, and operating transit systems, business organizations which supply products and services to transit systems, academic institutions,

and state associations and departments of transportation.

A nonprofit cooperative organization, APTA's objectives are:

- to represent the public interest in improving transit for all;
- to represent the interests, common policies, requirements, and purposes of the operators of public transit;
- to provide a medium for exchange of experiences, discussion, and comparative study of public transit affairs;
- to promote research and investigation to the end of improving public transit;
- to aid members in dealing with special issues;
- to encourage cooperation among its members, their employees, and the general public;
- to encourage compliance with the letter and spirit of equal opportunity principles;
- to collect, compile, and make available to members data and information relative to public transit;
- to assist in the training, education, and professional development of all persons involved in public transit; and,
- to engage in any other activities which will serve the members and promote public transit.

APTA is organized to function on behalf of all of transit's diversified interests. It is governed by a Board of Directors with voting control and authority vested in transit policy board members, transit operating officials, and associate members who are elected by the membership.

SECTION I

Overview of Transit Facts and Issues

OVERVIEW OF TRANSIT FACTS AND ISSUES

1. WHAT IS TRANSIT?

Transit includes all multiple-occupancy-vehicle passenger services of a local and regional nature provided for general public use such as:

public bus, rail, and water services; private bus, rail, and water services; AMTRAK and Greyhound service under contract to a transit system; vanpools operated by or under contract to a transit system; taxi services under contract to a transit system; and, non-profit agency transportation for the aged, disabled, disadvantaged.

2. TYPES OF SERVICE

Different types of transit service are called modes, which are defined in the Glossary in the back of this book. All operate on a specific route except demand response.

<u>Road modes</u> include motorbus, trolleybus, vanpool, jitney, and demand response.

Rail modes include heavy rail, light rail, commuter rail, automated guideway, inclined plane, cable car, monorail, and aerial tramway.

Water modes include ferryboat.

3. NUMBER OF SYSTEMS

There are almost 6,000 transit systems in the U.S. About 2,250 operate motorbus service, 5,200 operate demand response service, and about 150 operate other modes. Most operate more than one mode. Almost two-thirds are non-profit elderly and disabled service providers. The number of providers actually operating transit service is several thousand higher since many systems have several or even dozens of contractors.

4. VEHICLES

Transit fleets contain over 118,000 active vehicles. About 67,000 motorbuses, 32,000 demand response vehicles, 10,000 heavy rail cars, and 4,500 commuter rail cars comprise the bulk.

5. EMPLOYEES

It takes over 300,000 employees to operate, maintain, and administer transit service. About 179,000 of those are employed in motorbus service, 52,000 in heavy rail, 37,000 in demand response, 22,500 in commuter rail, and the balance in other modes. Of the total, operators and conductors on board the vehicles comprise 49%, maintenance personnel 27%, and all others 24%.

In addition, there are 10,500 capital employees. Perhaps 10,000 to 20,000 other persons are employed by manufacturers of transit equipment, consultants, engineering firms, local governments, and other transit-related businesses.

6. RIDERS

About 8.4 billion trips were taken on transit in 1994. Of these, 5.4 billion were motorbus trips, about 2.7 billion were on the various rail modes, and the remainder on other road and water modes. An estimated 6.8 million people use transit each weekday. Fifty-four percent of transit trips are worktrips, 52 percent of riders are women, 45 percent are white, 31 percent are black, 18 percent are Hispanic, 6 percent are Asian or Native American, and 1.5 percent are disabled, according to an APTA report (Americans in Transit: A Profile of U.S. Transit Passengers, October 1992).

Transit serves two markets:

People in the <u>transit-dependent market</u> have no personal transportation, no access to such transportation, or are unable to drive. Included are those with low incomes, the disabled, elderly, children, families whose travel needs cannot be met with only one car, and those who opt not to own personal transportation. In 1988, the U.S. Energy Department estimated that 13% of the 91.6 million U.S. households did not own a car,

truck, van, motorcycle, or motor scooter, and that another 34% owned only one vehicle.

People in the <u>transit-choice market</u> are workers, environmentalists, travelers, and people on recreational, social, medical, or other journeys who do not have to use transit, but do so for reasons of speed, comfort, convenience, traffic avoidance, or environmental principle.

7. FUNDING SOURCES

About 72% of transit operating funds come from the area in which the service is provided: 38% comes from the passengers, 31% from local governments, and 4.5% from non-government sources. State and federal governments contribute 21.5% and 5%, respectively.

The mean adult base fare in 1995 was 99 cents, but most passengers pay well over \$1.00 when zone and other charges are included.

Governmental aid comes in two forms: general appropriations taken from all funds received, and funds specifically dedicated to transit by law such as a one-half cent sales tax or a one cent gas tax.

<u>Capital funds</u> are used to fund transit infrastructure. Federal law provides for federal funding to be a maximum of 80% of the project cost, with the remainder to be provided by state and local governments. However, some projects are entirely funded at the local or state level, and many areas provide more than the minimum requirement. Thus, only about 44% of transit capital funding comes from the federal government.

8. EFFECTS OF FARE INCREASES ON RIDERSHIP

There is a direct relationship between transit fares and ridership. An APTA study, "Effects of Fare Changes on Bus Ridershp" (May 1991), found that on the average, a 10% increase in bus fares would result in a 4% decrease in ridership (elasticity = -0.40). This shows that today's transit users react more strongly to fare changes than previously believed.

The study also found that bus riders in small cities are more responsive to fare increases than those in large cities, and peak-hour commuters are much less responsive to fare changes than other passengers.

9. TRANSIT VS. AUTOMOBILE COSTS

For many persons, transit is much more economical than driving to work alone, especially those commuting to central business districts, as illustrated by the following examples for a ten-mile trip*:

Walking to transit stop and taking transit	Daily Cost (Dollars)
Fares	\$ 2.00
Driving alone Gasoline & oil Maintenance & tires Parking Total	\$1.12 0.70 <u>5.00</u> 6.82

Driving 3 miles to a park-and-ride lot and using transit for the remainder of the tripFares\$2.00Gasoline & oil0.34Maintenance & tires0.21Total2.55

These amounts do not include the fixed cost to own an automobile that AAA estimates at \$4,551 per year or \$12.47 per day. This includes insurance, license and registration, depreciation, and finance charges.

Also excluded from the costs listed above are costs to build, maintain, and operate highways, parking facilities, and transit systems. These costs are mostly paid by all citizens through taxes and are not directly related to use of an automobile or transit.

^{*}Examples are based on American Automobile Association 1994 gasoline and oil cost estimates of \$0.056/mile and maintenance and tire costs of \$0.035/mile. APTA estimates central business district parking costs to be \$5.00/day and the average transit commuting fare to be \$2.00 per day. (Purchase of a monthly pass could reduce the \$2.00 by 10% to 30% or more.) In many large cities, bridge, tunnel, and/or highway tolls could add \$2.00 to \$6.00 per day.

10. EXPENSES

Operating expense in 1994 was about \$18.8 billion. Motorbus accounted for \$10.8 billion, heavy rail for \$3.8 billion, light rail for \$0.4 billion, commuter rail for \$2.2 billion, trolleybus for \$0.1 billion, demand response for \$1.1 billion and the remaining modes for \$0.3 billion.

The largest types of expenses were salaries and wages (46%), fringe benefits (25%), purchased transportation (10%), and fuel and supplies (9%). Services, utilities, insurance, and other costs made up the remaining 10%.

About 46% of expenses are devoted to scheduling and operation of revenue vehicles, 18% to their maintenance, 10% to facilities maintenance, 10% to purchased transportation, and 16% to administration.

<u>Capital expenses</u> are monies paid for transit infrastructure (facilities, vehicles, and major equipment). In 1994, 25% of the \$5.8 billion total went for vehicles, 51% for facilities, and 24% for equipment.

11. GOVERNMENTAL FINANCIAL ASSISTANCE

Transit, like all public services and many private segments of the U.S. economy, receives governmental financial assistance. While transit assistance is explicitly identified in government budgets and appropriations, governmental assistance to many other segments, such as automobile owners, is largely indirect and not identified as such. Examples are the large tax write-offs that may total several thousand dollars a year for employer-provided or paid free parking and the hidden costs of highways (parking lots and garages, maintenance, police, insurance, licensing, etc.) that are paid by virtually all taxpayers rather than just the users of the highways.

Part of the governmental assistance to transit is required to cover a government-induced gap between expenses and funding. Numerous federal regulations and court decisions require the provision of services for the aged and disabled. Most of these are operated as expensive demand response service and wheelchair-accessible buses and rail vehicles. Regardless of these requirements, the regulations require reduced fares for the aged and disabled during off-peak periods.

TABLE 1
Source of Transit Operating Funding, 1984 and 1994

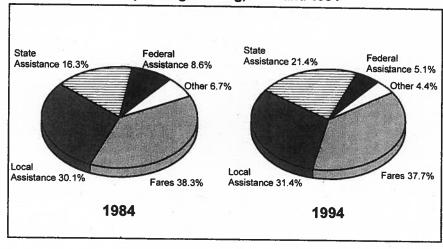
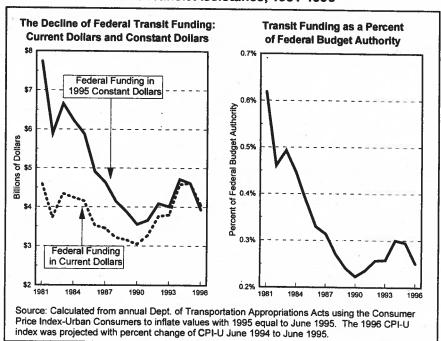


TABLE 2
Real Value of Federal Transit Assistance, 1981-1996



Additional regulations regarding low-polluting bus engines, safety features, etc. also lead to more expensive vehicles and operating practices. Large transit systems also require extensive security forces because of the huge numbers of people that patronize them.

Another reason for public assistance is that transit is considered a necessary public service. Transit systems must operate non-profitable routes, sometimes even during late-night hours.

12. BENEFITS OF TRANSIT

Transit use has many benefits to society:

1. Reduced energy consumption

Public transit's energy efficiency and conservation potential are considerable:

Based on U.S. Department of Energy data, APTA estimates fuel efficiency of transit compared to the average commuter auto:

- 1 bus with 7 passengers equals 1 auto.
- 1 full bus equals 6 autos.
- 1 full rail car equals 15 autos.

Annual gasoline savings possible from transit use are:

200 gallons for each person switching from driving alone;

85 million gallons for a 10% increase in transit ridership in the five largest U.S. cities; and,

135 million gallons for a 10% nationwide increase in transit ridership.

In 1989, 21% of this country's energy and 49% of its petroleum consumption was by motor vehicles, according to the U.S. Departments of Energy and Transportation. However, transit vehicles are more efficient than automobiles when passenger miles are considered. The Energy Department estimated the following 1989 energy consumption rates:

	BTU/Passenger Mile
Automobile	4,063
Transit bus	3,711
Transit rail	3,397
Commuter rail	3,102

A BTU (British Thermal Unit) is a measure of energy consumption regardless of whether it is fossil-fuel, nuclear, electric, water power, or some other type. Passenger miles are the number of passengers times the miles they travel.

2. Rational development

One only has to look at the development patterns of a metropolitan area from the air to see the relationship between development and transit. Office buildings, residential complexes or buildings, hospitals, universities, shopping areas, and large manufacturing plants all generate large amounts of traffic. High-capacity vehicle access (i.e., transit) is the only way such areas can avoid gridlock due to the limited capacity of streets, highways, and parking facilities. In the most highly developed cities such as New York and Chicago, 75% or more of all people arrive on transit: street and parking capacity cannot handle more than a small fraction of the vehicles needed to convey the numbers of people involved.

3. Mobility

The ability to travel freely is one of the hallmarks of a free society. Yet millions of people have restricted mobility because they do not own a motor vehicle, cannot afford to drive, or are physically unable to drive. Transit is the only means of mobility for most of these people--to jobs, medical services, recreation, and shopping.

4. Greater retail sales

Numerous estimates have been made around the country that retail sales --especially in central business districts--are enhanced by the presence of good transit service. There are several reasons:

- a. A high proportion of commuters in large cities use transit to shop near work, before or after work, or during their lunch hours.
 - b. The transit-dependent shop in locations they can get to by transit.

c. Many department stores, urban malls, and commercial areas are located in congested areas adjacent to rail stations, bus terminals, and transit routes.

An APTA study, "National Impacts of Transit Capital and Operating Expenditures on Business Revenues," estimates that a dollar invested in transit would result in a \$3 to \$3.50 increase in business revenues nationwide.

5. Less traffic congestion

One full 40-foot bus is equivalent to a line of moving automobiles stretching*:

6 city blocks (if traffic operates at 25 mph)

4.5 blocks (if traffic operates at 15 mph)

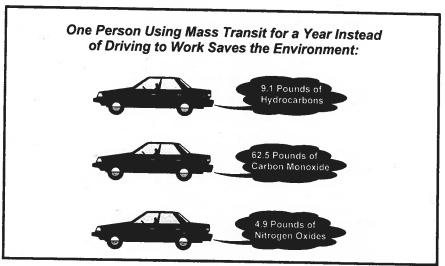
One full six-car heavy rail train is equivalent to a line of moving automobiles stretching*:

95 city blocks (if traffic operates at 25 mph) 68 blocks (if traffic operates at 15 mph)

6. Creation of jobs

In addition to the over 300,000 people directly employed by transit, tens of thousands of others are dependent on transit for their livelihood. These include engineering and construction workers planning and building transit facilities, transit consultants, manufacturers of transit vehicles, equipment and parts, retail employees serving transit passengers, and employees in all sectors of the U.S. economy indirectly supporting transit activities.

TABLE 3 Adverse Environmental Impact of Automobiles



Source: APTA, Mass Transit - The Clean Air Alternative, 1991.

^{*}A full 40-foot bus holds about 70 people including standees. At the estimated national average of 1.2 persons per automobile, one bus is equivalent to 58 automobiles. A full heavy rail car accomodates about 180 people including standees; a train of six cars carries 1,080 people, thus replacing 900 automobiles. There are normally ten city blocks per mile. Average automobile length is estimated at 16 feet, and a one-car-length-per-each-ten-mile-per-hour following length is assumed.

It is estimated that 2,400 direct and 5,800 total jobs are created by each \$100 million transit capital investment. Operating expenditures of \$100 million would generate 3,100 direct and 7,300 total jobs.

7. Mobility during crises

During snow and ice storms, transit patronage often rises as numerous people avoid driving under such conditions.

After the 1989 San Francisco earthquake the entire city was paralyzed, but the BART rail system resumed operations after just a few hours to check for damage. Service was expanded to 24-hours-per-day since the bridge connecting San Francisco and Oakland was closed for several weeks.

8. Less air pollution

Transit vehicles contribute far less pollution to the atmosphere than automobiles. The following is derived from U.S. Department of Energy data.

Pollution by Mode of Travel

For typical work trips based on national average vehicle occupancy rates, pollutant emissions in grams per passenger mile are:

0.01 0.02 0.47 0.20 3.05 1.54 0.36 2.42 0.38 0.70 5.02 0.69 Auto 2.09 15.06 2.06
0.70

Reduction in pollution when riding transit instead of driving

		Carbon	Nitrogen
Mode	Hydrocarbons	Monoxide	<u>Oxides</u>
Electric Rail	99%	99%	60%
Motorbus	90%	75%	10-15%
Vanpool	80%	80%	80%

9. Safety

Transit is one of the safest methods of passenger travel, according to the National Safety Council. The 1991-1993 average death rates in terms of 100 million passenger miles are as follows:

	Death Rate
Automobiles	0.85
Intercity & commuter railroads	0.17
Airlines	0.02
Intercity buses	0.02
School buses	0.01
Transit buses	0.01
Heavy & light rail vehicles	Not reported

10. Increased Productivity

Investment in transit is estimated to improve worker output of about \$520 billion over the next 10 years, assuming an investment of \$100 billion. The better facilities and services provided by the investment result in more efficient movement of people and goods which saves time, reduces costs and increases productivity. This finding is from "Transportation Spending and Economic Growth," a 1991 study by Professor David A. Aschauer.

Cost of Motor Venicle Use III 1990; Dillone		
7/	LOW	HIGH
1. NATIONAL PAYMENTS	265.4	265.4
New Vehicles & financing costs	124.0	124.0
Gasoline & oil	167.3	179.8
Other automobile	278.1	278.1
Highway freight transportation	-39.2	-39.2
Less taxes also reported in item 2	795.6	808.2
TOTAL		
2. TAXES & OTHER FEES PAID BY USERS	70.3	72.3
3. HIDDEN PRIVATE SECTOR EXPENDITURES	404.4	217.8
Free nonresidential parking (excluding taxes)	101.4	71.1
Other hidden costs	45.1	-32.6
Less payments for parking	-57.9	256.3
TOTAL	88.6	200.0
4. PUBLIC EXPENDITURES FOR HIGHWAY		
INFRASTRUCTURE & SERVICES		
Highway construction, maintenance,	76.5	76.5
services, and administration	70.3	12.6
Police	1.4	3.2
Fire	6.5	13.5
Court, judicial system, and corrections	10.6	30.1
Other public expenditures	103.0	135.9
TOTAL	-70.3	-72.3
Less taxes also reported in item 2	32.6	63.6
NET TOTAL	-	
5. NONMONETARY EXTERNAL COSTS	128.9	149.5
Congestion time costs on others	132.1	138.8
Dain & suffering inflicted on others due to accidents	40.0	200.0
Mortality & morbidity effects of air pollution	25.5	96.7
Other external costs	326.5	585.0
TOTAL	0_0.0	
6. NONMONETARY PERSONAL COSTS	132.1	138.8
Personal pain & suffering due to accidents	132.1	100.0
Travel time excluding external congestion	677.7	814.3
& naid freight drivers	40.9	97.9
Other nonmonetary personal costs	850.7	1,051.0
TOTAL	2.164.3	2.836.4
TOTAL COSTS OF MOTOR VEHICLE USE	2,104.3	2,000.4
PER CENT PAID BY USERS		
Motor vehicle user fees (Item 2 total)	68.3%	53.2%
divided by public expenditures (Item 4 total)	00.370	OO.2 70

Source: Saving Energy in U.S. Transportation, Office of Technology Assessment, Congress of the United States, July, 1994.

SECTION II

Profile of U.S. Transit

883

289,519

204

613

301,010

Ferry Boat (b)

Vanpool

Other (a)

24

ransit Modal Statistics a	t a Glance					
	NUMBER OF	SYSTEMS (c)	ACTIVE	VEHICLES	OPERATING	EMPLOYEES (d)
MODE	1994	1993	1994	1993	1994	1993
Motor Bus Demand Response Heavy Rail Light Rail Trolleybus Commuter Rail	2,250 5,214 14 22 5 16	1,934 3,917 14 20 5 16	67,492 31,872 10,138 1,054 877 4,517	64,850 23,527 10,261 1,025 851 4,494 109	179,112 36,802 51,943 5,086 1,960 22,526 2,764	177,167 30,021 52,433 3,920 1,944 20,634 2,344

168

2,361

118,589

1,818

107,095

160

Total

(a) includes 1 cable car, 4 inclined plane, 1 aerial tramway, 1 monorail, 1 jitney, and 5 automated guideway systems.

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

25

55

13

5,973

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

27

51

13

5,088

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

TABLE 5 (continued)

Transit Modal Statistics at a Glance

	VEHICLE OPERATED	MILES (MILLIONS)	VEHICLE OPERATED	HOURS (MILLIONS)	AVERAGE (MILES PER	SPEED HOUR) (d)
MODE	1994	1993	1994	1993	1994	1993
Motor Bus	2,162.7	2,209.6	162.5	166.2	13.0	13.0
Demand Response	552.7	406.0	38.4	30.5	14.0	13.5
Heavy Rail	531.8	522.1	27.3	27.2	20.7	20.4
Light Rail	33.9	27.7	2.4	2.1	14.4	13.6
Trolleybus	13.7	13.6	1.8	1.8	8.2	8.1
Commuter Rail	230.7	223.9	6.9	6.6	33.8	33.9
Ferry Boat (b)	2.1	2.6	0.2	0.4	8.4	6.6
Vanpool	26.1	25.7	0.8	0.8	32.6	31.9
Other (a)	2.3	3.9	0.5	0.6	5.7	6.7
Total	3,556.0	3,435.1	240.8	236.2	14.7	14.6
Total Motor Bus Mile Equivalents (c)	4,265.2	4,233.8				

Data for most recent year are preliminary.

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

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

(c) Estimate based on average seating plus standing capacity of vehicle compared to that of a motor 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.

(d) In revenue service.

25

TABLE 5 (continued)

Transit Modal Statistics at a Glance

	PASSENGER	FARES	OPERATING	EXPENSE
	(MILLIONS	OF DOLLARS)	(MILLIONS	OF DOLLARS)
MODE	1994	1993	1994	1993
Motor Bus Demand Response Heavy Rail Light Rail Trolleybus Commuter Rail Ferry Boat (b) Vanpool Other (a) Total	3,329.7	3,116.7	10,820.9	10,109.6
	178.3	93.9	1,145.7	793.0
	1,975.7	1,913.3	3,786.2	3,668.6
	133.1	102.5	413.3	315.9
	54.5	52.4	132.9	131.9
	1,083.4	995.5	2,224.8	2,088.4
	40.9	39.9	200.4	185.2
	9.3	9.8	16.7	17.8
	35.6	26.9	41.4	39.4
	6,840.5	6,350.9	18,782.3	17,349.8

Data for most recent year are preliminary.

(a) Includes cable car, inclined plane, aerial tramway, monorail, and automated guideway. (b) Excludes international, rural, rural interstate, island, and urban park ferries.

TABLE 5 (continued)

Transit Modal Statistics at a Glance

	UNLINKED TRIPS	PASSENGER (MILLIONS)	PASSENGER (MILLIONS)	MILES	AVERAGE LENGTH	TRIP (MILES)
MODE	1994	1993	1994	1993	1994	1993
Motor Bus	5,402	5,381	20,238	20,247	3.7	3.8
Demand Response	87	81	636	562	7.3	6.9
Heavy Rail	2,206	2,046	10,780	10,231	4.9	5.0
Light Rail	203	188	722	705	3.6	3.7
Trolleybus	118	121	187	188	1.6	1.6
Commuter Rail	338	322	7,996	6,940	23.7	21.5
Ferry Boat (b)	47	48	294	260	5.7	5.4
Vanpool	6	. 7	204	227	32.4	33.9
Other (a)	28	23	27	24	1.0	1.1
Total	8,435	8,217	41.084	39,384	4.9	4.8

Data for most recent year are preliminary.

(a) Includes cable car, inclined plane, aerial tramway, monorail, and automated guideway.(b) Excludes international, rural, rural interstate, is land, and urban park ferries.

Transit Modal Statistics at a Glance

	= 12		ENERGY	CONSUMPTION		
	GALLONS	(MILLIONS)	KWH	(MILLIONS)	CNG POUNDS	(MILLIONS)
MODE	1994	1993	1994	1993	1994	1993
Motor Bus Demand Response Heavy Rail Light Rail Trolleybus Commuter Rail Ferry Boat (b) Vanpool Other (a)	602.1 76.9 0.0 0.0 0.0 60.9 20.4 2.2 0.0 762.5	583.5 59.0 0.0 0.0 0.0 59.8 20.0 1.9 0.0 724.2	0.3 0.0 3,431.4 285.5 102.7 1,250.7 0.0 0.0 25.8 5,096.4	0.2 0.0 3,286.6 281.4 78.7 1,196.3 0.0 0.0 21.5 4,864.7	10.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7.2 2.7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 9.9

Data for most recent year are preliminary.

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

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

TABLE 6

File: SYSBYST

Number of Transit Systems By State (a)

	FEDERALLY	FUNDED	SYSTEMS		
STATE	URBANIZED AREA SYSTEMS (b)	RURAL SYSTEMS (c)	SPECIALIZED TRANSPORTATION SYSTEMS (d)	OTHER SYSTEMS (e)	TOTAL
Alabama .	13	21	52	24	110
Alaska	1	3	17	11	32
Arizona	11	12	61	5	89
Arkansas	4	9	159	6	178
California	76	72	200	121	469
Colorado	6	13	16	28	63
Connecticut	23	4	58	11	96
Delaware	3	0	41	1 9	45
District of Columbia	1 1	0	24	0	25
Florida	22	32	139	23	216
Georgia	9	54	77	13	153
Hawaii	1 1	3	28	0	32
Idaho	3	6	33	6	48
Illinois	15	29	99	6 8	151
Indiana	28	17	77	17	139
lowa	10	23	0 =	14	47
Kansas	3	91	56	15	165
Kentucky	6	17	6	9	38
Louisiana	12	36	81	12	141
Maine	9	10	0	5	24
Maryland	7	16	46	4	73
Massachusetts	14	5	31	6	56

Footnotes: see Page 29.

(continued on Page 28)

TABLE 6 (continued)

Number of Transit Systems By State (a)

	FEDERALLY	FUNDED	SYSTEMS		
STATE	URBANIZED AREA SYSTEMS (b)	RURAL SYSTEMS (c)	SPECIALIZED TRANSPORTATION SYSTEMS (d)	OTHER SYSTEMS (e)	TOTAL
Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania Rhode Island South Carolina South Dakota Tennessee Texas	16 5 3 6 3 2 3 3 4 3 54 15 3 19 2 4 22 1 10 2 9 31	52 52 16 30 9 54 2 6 13 10 35 27 27 27 31 13 15 17 1 1 5	42 99 40 154 51 61 53 19 111 55 271 55 15 221 115 70 105 24 59 57 90 247	33 18 5 12 4 14 6 4 7 21 45 12 3 31 7 11 63 0 4 8 5	143 174 64 202 67 131 64 32 135 89 405 109 48 302 137 100 207 26 78 78 115 344

Footnotes: see Page 29.

(continued on Page 29)

TABLE 6 (continued)

Number of Transit Systems By State (a)

	FEDERALLY	FUNDED	SYSTEMS		·
STATE	URBANIZED AREA SYSTEMS (b)	RURAL SYSTEMS (c)	SPECIALIZED TRANSPÖRTATION SYSTEMS (d)	OTHER SYSTEMS (e)	TOTAL
Utah Vermont Virginia Washington West Virginia Wisconsin Wyoming	2 1 13 15 5 17 2	3 10 13 15 12 29 43	51 29 40 4 73 69 13	2 6 22 20 6 13 5	58 46 88 54 96 128 63
Total	552	1,074	3,594	753	5,973

(a) Systems operating in two or more states are counted in the state in which they operate the largest portion of their service. (b) Systems that have reported data for U.S. Federal Transit Administration Annual National Transit Database Report.

(c) Data from *Directory of Rural Public Transportation Providers Funded by FTA's Section 18 Program*, U.S. Department of Transportation, October 1994. Excludes systems included in Urbanized Area Systems.

(d) Data from Directory of Specialized Transportation Providers Funded by FTA's Section 16 Program, U.S. Department of Transportation, December 1994. Excludes systems included in Urbanized Area Systems and Rural Systems.

(e) Data from various federal and state sources, Bus Ride Magazine Bus Industry Directory, and other sources. Several hundred of these systems do not appear in any current directory or reporting system, and some may not exist. Conversely, numerous other systems exist that have never made it into any data source. Data should be considered estimates only.

TABLE 8

35 Largest Transit Systems, Fiscal Year 1994, Ranked by Number of Unlinked Passenger Trips (a)

	ed by Number of Offiniked 1 assenger 1.	URBANIZED AREA
RANK	TRANSIT SYSTEM	
1	Metropolitan Transportation Authority (Includes MTA New York City Transit, MTA Long Island Rail Road, MTA Metro-North Railroad, MTA Long Island Bus, & MTA	New York, NY
2	Staten Island Railway) Regional Transportation Authority (Includes Chicago Transit Authority, Northeast Illinois Regional Commuter Railroad Corp, & PACE Suburban Bus)	Chicago, IL
3	Los Angeles County Metropolitan Transp Auth	Los Angeles, CA
4	Maccachusetts Ray Transportation Authority	Boston, MA
5	Machington Metropolitan Area Transit Authority	Washington, DC Philadelphia, PA
6	Southeastern Pennsylvania Transportation Auth	New York, NY
7	New Jersey Transit Corporation	San Francisco, CA
8	San Francisco Municipal Railway Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA
9	New York City Department of Transportation	New York, NY
10 11	Mace Transit Administration, Maryland DOI	Baltimore, MD
12	Metropolitan Transit Authority of Harris County	Houston, TX
13	Motro-Dade Transit Agency	Miami, FL Seattle, WA
14	King County Department of Metropolitan Syces	San Francisco, CA
15	San Francisco Bay Area Rapid Transit District	Honolulu, HI
16	City & County of Honolulu DOT Services	Pittsburgh, PA
17	Port Authority of Allegheny County Regional Transit Auth of Orleans & Jefferson	New Orleans, LA
18 19	Port Authority of New York and New Jersey	New York, NY
20	Motropolitan Council Transit Operations	Minneapolis, MN
21	Tri-County Metropolitan Transp Dist of Oregon	Portland, OR
22	Alameda-Contra Costa Transit District	San Francisco, CA Denver, CO
23	Regional Transportation District	Detroit, MI
24	City of Detroit Department of Transportation	Cleveland, OH
25	Greater Cleveland Regional Transit Authority Milwaukee County Department of Transp	Milwaukee, WI
26	Delles Area Panid Transit	Dallas, TX
27 28	San Diego Metropolitan Transit Develop Board	San Diego, CA
20	Lineludes San Diego Transit Corporation, San	
	Diego Trolley, several small suburban systems)	Saint Louis, MO
29	Bi-State Development Agency	San Antonio, TX
30	VIA Metropolitan Transit	San Jose, CA
31	Santa Clara County Transit District Orange County Transportation Authority	Los Angeles, CA
32		Hartford, CT
33 34	Dublic Transit Department	Phoenix, AZ
34	Niagara Frontier Transit Metro System	Buffalo, NY
- 50		ntly by Amtrak

(a) Excludes commuter-type services operated independently by Amtrak.

35 Largest Motor Bus Transit Systems, Fiscal Year 1994, Ranked by Number of Unlinked Passenger Trips

RANK	TRANSIT SYSTEM	URBANIZED AREA
1	Metropolitan Transportation Authority (includes MTA New York City Transit & MTA Long Island Bus)	New York, NY
2	Los Angeles County Metropolitan Transp Auth	Los Angeles, CA
3	Regional Transportation Authority (includes Chicago Transit Authority & PACE Suburban Bus)	Chicago, IL
4	New Jersey Transit Corporation	New York, NY
5	Southeastern Pennsylvania Transportation	Philadelphia, PA
6	Washington Metropolitan Area Transp Auth	Washington, DC
7	New York City Department of Transportation	New York, NY
8	Massachusetts Bay Transportation Authority	Boston, MA
9	San Francisco Municipal Railway	San Francisco, CA
10	Mass Transit Administration, Maryland DOT	Baltimore, MD
11	Metropolitan Transit Authority of Harris County	Houston, TX
12	City and County of Honolulu DOT Services	Honolulu, Hi
13	Metropolitan Atlanta Rapid Transit Authority	Atlanta, GA
14	Metropolitan Council Transit Operations	Minneapolis, MN
15	Port Authority of Allegheny County	Pittsburgh, PA
16	Metro-Dade Transit Agency	Miami, FL
17	Alameda-Contra Costa Transit District	San Francisco, CA
18	City of Detroit Department of Transportation	Detroit, MI
19	Regional Transportation District	Denver, CO
20	Regional Transit Auth of Orleans & Jefferson	New Orleans, LA
21	King County Department of Metropolitan Svces	Seattle, WA
22	Milwaukee County Department of Transp	Milwaukee, WI
23	Tri-County Metropolitan Transp Dist of Oregon	Portland, OR
24	Dallas Area Rapid Transit	Dallas, TX
25	Greater Cleveland Regional Transit Authority	Cleveland, OH
26	VIA Metropolitan Transit	San Antonio, TX
27 28	Bi-State Development Agency	Saint Louis, MO
29	Santa Clara County Transit District	San Jose, CA
30	Orange County Transportation Authority	Los Angeles, CA
ا ٥٠	San Diego Metropolitan Transit Devel Bd	San Diego, CA
	(includes San Diego Transit Corporation &	
31	several small suburban systems) Connecticut Transit	
32		Hartford, CT
33	City of Phoenix Public Transit Department Westchester County Transit System	Phoenix, AZ
34	Capital Metropolitan Transportation Authority	New York, NY
35	Southwest Ohio Regional Transit Authority	Austin, TX
	Coddinios. Onlo Negional Transit Authority	Cincinnati, OH

Commuter Rail Transit Systems (a)

URBANIZED AREA	TRANSIT SYSTEM
Baltimore, MD	Mass Transit Administration, Maryland DOT
Boston, MA	Massachusetts Bay Transportation Authority
Chicago, IL	Regional Transportation Authority (includes
S.I	Northeast Illinois Regional Commuter Railroad)
Chicago, IL	Northern Indiana Commuter Transportation Dist
Los Angeles, CA	Southern California Regional Rail Authority
Miami, FL	Tri-Rail Commuter Rail Authority
New Haven, CT	Connecticut Department of Transportation
New York, NY	Metropolitan Transportation Authority
	(includes MTA Long Island Rail Road &
	MTA Metro-North Railroad)
New York, NY	New Jersey Transit Corporation
Philadelphia, PA	Pennsylvania Department of Transportation
Philadelphia, PA	Southeastern Pennsylvania Transp Auth
San Diego, CA	North San Diego County Transit District
San Francisco, CA	Peninsula Corridor Joint Powers Board
Syracuse, NY	ON TRACK
Washington, DC	Virginia Railway Express

(a) Excludes commuter-type services operated independently by Amtrak.

TABLE 10

File: HRSYSTEM

Heavy Rail Transit Systems

URBANIZED AREA	TRANSIT SYSTEM
Atlanta, GA Baltimore, MD Boston, MA Chicago, IL	Metropolitan Atlanta Rapid Transit Authority Mass Transit Administration, Maryland DOT Massachusetts Bay Transportation Authority Regional Transportation Authority (includes Chicago Transit Authority)
Cleveland, OH Los Angeles, CA Miami, FL New York, NY	Greater Cleveland Regional Transit Authority Los Angeles County Metropolitan Transp Auth Metro-Dade Transit Agency Metropolitan Transportation Authority (includes MTA New York City Transit & MTA Staten Island Railway)
New York, NY Philadelphia, PA Philadelphia, PA San Francisco, CA Washington, DC	Port Authority of New York and New Jersey Port Authority Transit Corporation of PA and NJ Southeastern Pennsylvania Transp Auth San Francisco Bay Area Rapid Transit District Washington Metropolitan Area Transit Authority

TABLE 11

URBANIZED AREA	TRANSIT SYSTEM
Baltimore, MD	Mass Transit Administration, Maryland DOT
Boston, MA	Massachusetts Bay Transportation Authority
Buffalo, NY	Niagara Frontier Transit Metro System
Cleveland, OH	Greater Cleveland Regional Transit Authority
Dallas, TX	McKinney Avenue Transit Authority
Dallas, TX	Tandy Corporation
Denver, CO	Regional Transportation District
Galveston, TX	Island Transit
os Angeles, CA	Los Angeles County Metropolitan Transp Auth
/lemphis, TN	Memphis Area Transit Authority
New Orleans, LA	Regional Transit Auth of Orleans & Jefferson
New York, NY	New Jersey Transit Corporation
Philadelphia, PA	Southeastern Pennsylvania Transp Auth
Pittsburgh, PA	Port Authority of Allegheny County
Portland, OR	Tri-County Metropolitan Transp Dist of Oregon
Sacramento, CA	Sacramento Regional Transit District
Saint Louis, MO	Bi-State Development Agency
San Diego, CA	San Diego Metropolitan Transit Devel Bd
3	(includes San Diego Trolley)
San Francisco, CA	San Francisco Municipal Railway
San Jose, CA	Santa Clara County Transit District
Seattle, WA	King County Department of Metropolitan Svces

Other Rail Transit Systems

URBANIZED AREA	TRANSIT SYSTEM
AERIAL New York, NY	TRAMWAY Roosevelt Island Operating Authority
AUTOMATED Detroit, MI Jacksonville, FL Miami, FL Morgantown, WV Tampa, FL	GUIDEWAY Detroit Transit Corporation Jacksonville Transportation Authority Metro-Dade Transit Agency West Virginia University Hillsborough Area Regional Transit Authority
<u>CABLE</u> San Francisco, CA	CAR San Francisco Municipal Railway
INCLINED Chattanooga, TN Dubuque, IA Johnstown, PA Pittsburgh, PA	PLANE Chattanooga Area Regional Transp Auth Fenelon Place Elevator Cambria County Transit Authority Port Authority of Allegheny County
MONORAIL Seattle, WA	City of Seattle

TABLE 13

File: TBSYSTEM

Trolley Bus Transit Systems

	·
URBANIZED AREA	TRANSIT SYSTEM
Boston, MA Dayton, OH Philadelphia, PA San Francisco, CA Seattle, WA	Massachusetts Bay Transportation Authority Miami Valley Regional Transit Authority Southeastern Pennsylvania Transp Auth San Francisco Municipal Railway King County Department of Metropolitan Svces

TABLE 14

Ferry Boat Transit Systems (a)

URBANIZED AREA	TRANSIT SYSTEM
Bellingham, WA Boston, MA Bremerton, WA Cincinnati, OH Galveston, TX Hartford, CT Houston, TX Jacksonville, FL Los Angeles, CA New Orleans, LA New Orleans, LA New York, NY New York, NY Norfolk, VA Philadelphia, PA Port Townsend, WA Portland, ME San Diego, CA San Francisco, CA	Lummi Island Ferry Massachusetts Bay Transportation Authority Kitsap Transit Anderson's Ferry Texas Department of Transportation Connecticut Department of Transportation Texas Dept of Transp Harris County Ferry Fort George-Mayport Ferry Balboa Island Ferry Louisiana DOT Crescent City Connection Plaquemines Parish New York City Department of Transportation Port Authority of New York & New Jersey Tidewater Transportation District Commission Riverbus Washington State Department of Transportation Casco Bay Island Transit District Harbor Excursion Alameda-Oakland Ferry Service Angel Island-Tiburon Ferry Golden Gate Bridge, Highway & Transp Dist Harbor Bay Maritime Harbor Bay Ferry Red & White Fleet
San Francisco, CA Seattle, WA Tacoma, WA	Vallejo Transit Washington State Department of Transportation Pierce County Ferry
Tacoma, WA	Washington State Department of Transportation

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

Fixed Guideway Mileage and Status and Mileage of Future Projects (a)

MODE (b)	STATUS	OPENS	MILES (c)
?	planning	?	153.6
? TOTAL	pianing		153.6
AG	construction	1995	1.9
AG	construction	1997	1.4
AG	design	?	0.4
	open	open	11.2
AG	planning	?	2.0
AG	planning	1996	1.5
AG	planning	1997	1.0
AG	planning	1998	1.0
AG	· ·	2003	22.0
AG TOTAL	planning		42.4
AG TOTAL		open	4.5
CC	open		4.5
CC TOTAL		1995	12.0
CR	construction construction	1996	63.0
CR		1997	36.2
CR	construction	2001	0.0
CR	construction	?	84.5
CR	design	1995	78.1
CR	design	1996	42.0
CR	design	1998	37.7
CR	design	open	2,908.1
CR	open	?	1,195.0
CR	planning	1995	8.0
CR	planning	1996	12.0
CR	planning	1997	143.0
CR	planning	1998	5.0
CR	planning	1999	26.0
CR	planning	2000	105.9
CR	planning	2002	86.0
CR	planning	2002	3.0
CR	planning	2010	111.4
CR	planning	?	52.0
CR	proposed		5,008.9
CR TOTA		1996	28.7
FB	construction	1996	24.5
FB	design	1990	

Fixed Guideway Mileage and Status and Mileage of Future Projects (a)

MODE (b)	STATUS	OPENS	MILES (c)
FB	open	open	310.8
FB	planning	1996	12.3
FB	planning	1997	32.2
FB TOTA	Ĺ		408.5
HR	construction	1996	48.4
HR	construction	1997	3.3
HR	construction	1998	6.4
HR	construction	1999	2.9
HR	construction	2001	12.8
HR	design	?	1.4
HR	design	2000	. 1.8
HR	design	2001	4.1
HR	design	2003	2.3
HR	open	open	692.3
HR	planned	?	2.8
HR	planning	?	22.1
HR	planning	1999	7.0
HR	planning	2000	6.7
HR	planning	2002+	21.0
HR	proposed	?	
HR TOTAL	= = = = = = = = = = = = = = = = = = = =	*	835.3
IP	construction	1995	0.1
IP	open	open	1.4
IP TOTAL			1.5
LR	construction	1995	0.3
LR	construction	1996	27.5
LR	construction	1997	27.5
LR	construction	1998	13.6
LR	construction	1999	7.6
LR =	design	?	54.4
LR	design	1996	4.7
LR	design	1998	6.0
LR	design	1999	- 10.7
LR	design	2000	15.0
LR	design	2002	11.8
LR	open	open	332.0
LR	planning	?	257.6

Fixed Guideway Mileage and Status and Mileage of Future Projects (a)

MODE (b)	STATUS	OPENS	MILES (c)
LR	planning	1997	4.4
LR	planning	1999	2.1
LR	planning	2000	21.7
LR	planning	2001	18.4
LR	planning	2002	5.5
LR	planning	2005	30.0
LR TOTAL			850.8
MB	construction	?	
MB	construction	1995	76.0
MB	construction	1996	65.2
MB	construction	1997	43.4
MB	construction	2003	3.9
MB	design	1993	2.3
мв	design	1995	7.0
MB	design .	1996	47.2
МВ	design	1997	55.6
MB	design	1998	14.0
MB	design	1999	28.3
MB	design	2000	58.2
MB	design	2008	2.3
МВ	open	open	758.6
MB	planning	?	80.9
MB	planning	1995	32.2
MB	planning	1996	8.5
MB	planning	1998	19.5
МВ	planning	1998+	2.2
MB	planning	1999	2.3
МВ	planning	2000	39.5
MB	planning	2000+	10.0
MB	planning	2001	2.8
MB	planning	2002	26.6
MB	planning	2003	17.9
MB	planning	2005	5.0
MB	planning	2007	22.8
MB	planning	2015	5.0
MB TOTAL			1,437.2
MO	open	open	2.7

Fixed Guideway Mileage and Status and Mileage of Future Projects (a)

MODE (b)	STATUS	OPENS	MILES (c)
МО	planning	?	10.1
MO TOTAL			12.8
TB	construction	1995	11.7
ТВ	design	1996	1.2
ТВ	design	2000	1.0
ТВ	open	open	312.7
ТВ	planning	1996	15.5
ТВ	planning	1997	3.9
ТВ	planning	1999	14.0
ТВ	planning	2000	5.7
тв	planning	2008	0.5
TB TOTAL			366.2
TR	open	open	0.6
TR TOTAL			0.6

? = Uncertain, unknown, or not reported.

(a) Data as of January 1, 1995, plus updated information where known.

(b) Motor bus data includes only fixed guideways 1.0 miles in length or longer; data for all other modes includes all guideways.

(c) Excludes data for a few guideways for which mileage was not reported.

Source: APTA survey

TABLE 16

Motor Bus Fixed Guideways Over 3 Miles in Length (a)

LOCATION	GUIDEWAY	SEGMENT	MILES
Atlanta, GA	I 20 East HOV Lanes	Hill St-Columbia Drive	9.0
Baltimore, MD	US 29 Bus Lanes	MD 650-MD 198	5.9
Boston, MA	1 93 South HOV Lane	?-?	6.0
Dallas, TX	I 30 East HOV Lanes E/B	Central Expressway-Dolphin Rd	3.3
Dallas, TX	I 30 East HOV Lanes W/B	Jim Miller-Central Expressway	5.2
Denver, CO	I 25 North HOV Lanes	Union Terminal-70th	6.8
Denver, CO	US 36 HOV Lanes I/B	Sheridan-I 25	3.9
Hartford, CT	I 84 HOV Lanes	East Hartford-Vernon	9.5
Hartford, CT	I 91 North HOV Lanes	Hartford-Windsor Locks	10.0
Honolulu, HI	I H1 HOV Lanes	Waiawa-Keehi	8.9
Houston, TX	I 10 West HOV Lanes	TX 6-West Loop Terminus	13.0
Houston, TX	I 45 North HOV Lanes	I 10-Beltway 8	13.5
Houston, TX	I 45 South HOV Lanes	US 59-Almeda/Genoa	12.1
Houston, TX	US 290 Northwest HOV Lanes	I 10-FM 1960	13.5
Houston, TX	US 59 South HOV Lanes	Shepherd-West Bellfort	11.6
Los Angeles, CA	CA 55 HOV Lanes	CA 91-CA 73	11.0
Los Angeles, CA	CA 57 HOV Lanes	CA 22-Lambert	10.0
Los Angeles, CA	CA 91 HOV Lanes	I 110-Orange County Line	14.3
Los Angeles, CA	CA 91 HOV Lanes Eastbound	I 110-I 605	- 8.0

TABLE 16 (continued)

FILE:MBFBUS

Motor Bus Fixed Guideways Over 3 Miles in Length (a)

LOCATION	GUIDEWAY	SEGMENT	MILES
Los Angeles, CA	I 10 HOV Lanes	Alameda/Arcadia-Santa Anita	12.0
Los Angeles, CA	I 210 HOV Lanes	CA 134-Sunflower	18.5
Los Angeles, CA	I 405 HOV Lanes	CA 22-1 5	20.5
Los Angeles, CA	I 405 HOV Lanes	I 110-Century Blvd	12.0
Los Angeles, CA	15 HOV Lanes	1 405-Red Hill Ave	7.8
Miami, FL	FL 112 HOV Lanes	1 95-NW 22nd	7.8
Miami, FL	1 95 HOV Lanes	Broward County Line-FL 112	11.2
Minneapolis, MN	Coon Rapids Blvd HOV Lanes	Avocet St-Yucca St.	4.0
Minneapolis, MN	1 35W South HOV Lanes	76th St-MN 13	6.3
Minneapolis, MN	I 394 HOV Lanes	N. 12th St-I 494	9.0
Minneapolis, MN	MN 252 HOV Lanes	I 694-93rd Ave N.	3.4
Minneapolis, MN	MN 47 HOV Lanes	35th Ave NE-85th Ave NE	5.5
Minneapolis, MN	MN 77 HOV Lanes	Old Shakopee Rd-I 35E South	4.9
Nashville, TN	I 65 South HOV Lanes	Concord Rd-Armory Dr	8.0
New York, NY	First Avenue HOV Lanes N/B	34th-96th	3.1
New York, NY	180 HOV Lanes	1 287-NJ 15	
New York, NY	Long Island Expressway HOV Lanes	NY 110-Exit 57	10.0
New York, NY	Second Ave HOV Lanes S/B	14th-96th	12.0
Norfolk, VA	I 64/I 564 HOV Lanes	VA 407-?	10.3

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45

Motor Bus Fixed Guideways Over 3 Miles in Length (a)

LOCATION	GUIDEWAY	SEGMENT	MILES
Norfolk, VA	VA 244 HOV Lanes	164-?	11.0
Phoenix, AZ	AZ 202 HOV Lanes	I 10-Rural Rd	7.0
Phoenix, AZ	I 10 HOV Lanes	91st Ave-AZ 360	22.0
Pittsburgh, PA	I 279-I 579 HOV Lanes	Bedford Ave-Perrysville Ave	6.9
Pittsburgh, PA	M.L. King East Busway	Liberty/Grant-Wilkinsburg	7.8
Pittsburgh, PA	South Busway	South Hills Junction-Glenbury	4.3
Saint Louis, MO	Hodiamont Busway	Enright Avenue-Hamilton Avenue	3.2
San Diego, CA	I 15 HOV Lanes	?-?	7.6
San Francisco, CA	US 101 HOV Lanes	Marin Co Civic Center-CA 37	6.5
San Francisco, CA	US 101 HOV Lanes	Richardson Bay-Sir Francis Drake Blvd	3.9
San Jose, CA	CA 237 HOV Lanes	I 880-Mathilda	5.5
San Jose, CA	CA 85 HOV Lanes	CA 237-US 101 South	22.0
San Jose, CA	I 280 HOV Lanes	Magdalena Ave-Bascom Ave	10.5
San Jose, CA	Montague Expressway HOV Lanes	US 101-I 680	6.0
San Jose, CA	San Tomas Expressway HOV Lanes	CA 17-US 101	8.0
San Jose, CA	US 101 HOV Lanes	Bernal Rd-San Mateo County Line	25.0
San Juan, PR	Fernandez Juncos Contraflow Lane	Gonzalez St-Villa Verde St	3.2
San Juan, PR	Ponce de Leon Contraflow Lane	Olimpo St-Guayama St	3.8
Seattle, WA	Airport Road HOV Lanes	86th PI SW (Casino Rd)-8th Ave W.	3.5

TABLE 16 (continued)

FILE:MBFBUS

Motor Bus Fixed Guideways Over 3 Miles in Length (a)

LOCATION	GUIDEWAY	SEGMENT	MILES
Seattle, WA	I 405 HOV Lanes	I 5-Renton	5.4
Seattle, WA	I 405 HOV Lanes	Sunset Blvd-Northup	21.2
Seattle, WA	I 5 Express HOV Lanes	Cherry St-Northgate	
Seattle, WA	I 5 HOV Lanes	I 405-Kent/Des Moines S/B	10.8
Seattle, WA	I 5 HOV Lanes	Northgate-Snohomish Co Line	5.0
Seattle, WA	I 5 HOV Lanes	S. Lucille St-Mercer St	10.0
Seattle, WA	I 5 HOV Lanes N/B	S. 272nd St-S. 200th St N/B	10.8
Seattle, WA	I 5 HOV Lanes S/B	King County Line-44th Ave W.	4.0
Seattle, WA	I 5 Mainline HOV Lanes	Mercer St-Northgate	3.0
Seattle, WA	I 90 HOV Lanes	5th Ave SE. Channel Bridge	10.7
Seattle, WA	I 90 HOV Lanes	Richards Rd-WA 900	13.3
Seattle, WA	WA 522 HOV Lanes S/B	Kenmore-NE 145th St	10.6
Washington, DC	I 66 HOV Lanes	VA 110-US 29	3.1
Washington, DC	I 95/I 395 HOV Lanes	14th/C St SW-VA 2000	22.5
Washington, DC	US 29 Congestion Bypass Shoulder Lns	MD 198-Industrial Parkway	24.9

(a) Data as of January 1, 1995, plus updated information where known.

Source: APTA survey

Milestones in U.S. Transit History

1630	Bostonreputed first publicly operated ferry boat
1740	New Yorkreputed first use of ox carts for carrying of passengers
1811	New York-first mechanically operated (steam-powered) ferry boat
1827	New York-first horse-drawn urban stagecoach line (Dry Dock & East Broadway)
1830	Baltimore—first railroad (Baltimore & Ohio Railroad Co.)
1832	New Yorkfirst horse-drawn street railway line (New York & Harlem Railroad Co.)
1835	New Orleansoldest street railway line still operating (New Orleans & Carrollton line)
1838	Bostonfirst commuter fares on a railroad (Boston & West Worcester Railroad)
1850	New Yorkfirst use of exterior advertising on street railways
1856	Boston—first fare-free promotion
1861	New Yorkfirst failed attempt to form street railway labor organization
1868	New Yorkfirst cable-powered (& first elevated) line (West Side & Yonkers Patent Railway)
1870	New York-first pneumatic-powered (& first underground) line (Beach Pneumatic Railroad Co.)
1870	Pittsburghfirst 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)
1882	Boston-American Street Railway Association (APTA's original predecessor) formed
1883	New Yorkfirst surviving street railway labor organization (Knights of Labor Local 2878)
1884	Cleveland-first electric street railway line (East Cleveland Street Railway)
1884	first transit-only publication (The Street Railway Journal)
1885	New York—first recorded strike by street railway workers (Third Avenue & Sixth Avenue Elevateds)
1886	Montgomery, ALfirst semi-successful citywide street railway system (Capital City Street Railway Co.)
1888	Richmond, VAfirst successful electric street railway line (Union Passenger Railway)
1889	New Yorkfirst major strike by street railway workers

TABLE 17 (continued)

Milestones in U.S. Transit History

1892	Indianapolisfirst national street railway labor union founded (Amalgamated Association of Street Railwa now called the Amalgamated Transit Union)	y Employees of	America,
1893	Portland, OR-first interurban rail line (East Side Railway Co.)		
1894	Bostonfirst public transit commission (Boston Transit Commission)		
1895	Chicagofirst electric elevated rail line (Metropolitan West Side Elevated Railway)		
1897	Boston—first electric underground (& first publicly-financed) street railway line (West End Street Railway)		
1898	Chicagofirst electric multiple-unit controlled rail line (Chicago & South Side Rapid Transit Railroad Co.)		
1904	New Yorkfirst electric underground (& first 4-track express) heavy rail line (Interborough Rapid Transit Co.)		
1905	New Yorkfirst public takeover of a private transit company (Staten Island Ferry)	<i>'</i>	
1905	New Yorkfirst motor bus line (Fifth Avenue Coach Co.)		
1906	Monroe, LAfirst public takeover of a street railway		
1908	New Yorkfirst interstate underground heavy rail line (Hudson & Manhattan Railroad to New Jersey)		
1910	Hollywood, CAfirst trolleybus line (Laurel Canyon Utilities Co.)		
1912	San Franciscofirst publicly operated street railway in a large city (San Francisco Municipal Railway)		
1912	Clevelandfirst street railway to operate motor buses (Cleveland Railway)		
1914	Los Angelesfirst jitney		
1917	New Yorklast horse-drawn street railway line closed		
1918	New YorkAPTA's predecessor organization first calls for public takeover of transit		
1920	first motor bus not based on truck chassis (Fageol Safety Coach)		
1921	New York-first successful trolleyous line		
1923	Bay City, MI, Everett, WA, Newburgh, NY-first cities to replace all streetcars with motor buses	,	
1926	highest peacetime transit ridership before World War II (17.2 billion)		
1927	Detroitfirst motor bus without cowl-type engine		
1927	Philadelphiafirst automobile park and ride lot and first bus-rail transfer facility for a non-commuter rail line		
1932	New Yorkfirst publicly operated heavy rail line (Independent Subway)		

Milestones in U.S. Transit History

1933	San Antoniofirst large city to replace all streetcars with motor buses
1934	New YorkTransport Workers Union of America founded
1935	WashingtonPublic Utility Holding Company Act of 1935 enacted requiring most power companies to divest themselves of transit operations and eliminating much private transit financing
1936	motor bus manufacturers began to assume control of or influence street railways, leading to rapid replacement of streetcars with motor buses
1936	New Yorkfirst industry-developed standardized street railway car (P.C.C. car) (Brooklyn & Queens Transit System)
1938	Chicagofirst use of federal capital funding to build a transit rail line
1939	Chicagofirst street with designated bus lane
1940	first time motor bus ridership exceeded street railway ridership
1940	San Francisco becomes last surviving cable car system
1943	Los Angelesfirst rail line in expressway median (Pacific Electric Railway)
1946	highest-ever transit ridership (23.4 billion)
1952	San Franciscolast new PĆC car for U.Ś. transit system placed in service
1961	Washington-first significant federal transit legislation (Housing & Urban Development Act of 1961)
1962	Seattlefirst monorail (Seattle World's Fair)
1962	New Yorkfirst automated heavy rail line (Grand Central Shuttle)
1963	Chicago becomes last surviving city with interurban line (Chicago, South Shore, & South Bend Railroad)
1964	Washingtoncreation of Urban Mass Transportation Administration (Urban Mass Transportation Act of 1964)
1966	New Yorkfirst public takeover of commuter railroad (Long Island Rail Road Co.)
1966	Providencefirst statewide transit system (Rhode Island Public Transit Authority)
1966	WashingtonUrban Mass Transportation Administration moved to new Department of Transportation
1968	Minneapolisfirst downtown transit mall (Nicollet Mall)
1968	Clevelandfirst rail station at an airport opened
1969	Washingtonfirst transitway (Shirley Highway)

TABLE 17 (continued)

Milestones in U.S. Transit History

1969	Philadelphiafirst modern heavy rail system replacing former rail line (Port Authority Transit Corporation)
1970	Fort Walton Beach, FL-first dial-a-ride demand response bus
1971	Washingtonfirst federally subsidized intercity railroad providing commuter service (AMTRAK)
1972	San Franciscofirst computer-controlled heavy rail system (Bay Area Rapid Transit District)
1972	transit ridership hits all-time low (5.3 billion)
1973	Washington-some transit service required to be accessible to disabled (Rehabilitation Act of 1973)
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	Washingtonfirst federal transit operating assistance legislation (National Mass Transportation Assistance Act of 1974)
1974	American Public Transit Association formed from merger of 2 organizations
1975	Morgantown, WVfirst automated guideway peoplemover (West Virginia University)
1977	San Diegofirst wheelchair-lift-equipped fixed-route bus
1979	Seattlefirst successful wheelchair-lift-equipped fixed-route bus service
1979	Washingtonfirst standardized transit data accounting system (Section 15)
1980	San Diegofirst completely new light rail system (San Diego Trolley)
1982	Washington-transit trust fund for capital projects created thru dedication of one cent of federal gas tax
1990	Washingtonvirtually all transit 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
1991	Washington-transit buses subject to strict pollution controls (Clean Air Act of 1990)
1991	Washingtonfederal government allowed to subsidize its employees' commuting costs
1991	Washingtonfirst general authorization of use of highway funds for transit (Intermodal Surface Transp. Efficiency Act of 1991)
1992	Washingtonfirst limitation on amount of tax-free employer-paid automobile parking benefits and tripling of value of tax-free benefit
4000	for transit use (National Energy Policy Strategy Act)
1993	Washingtontransit workers in safety-sensitive positions subjected to drug and alcohol testing
1995	Washington1.5 cents dedicated portion of federal fuel tax increased to 2 cents

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Expenses, Operating

Airports With Direct Access to Rail Transit (a)

CITY	AIRPORT	RAIL TYPE	STATION LOCATION (b)
Atlanta, GA	Atlanta International	HR	In building
Chicago, IL	Midway	HR	In building
Chicago, IL	O'Hare International	HR	In building
Cleveland, OH	Cleveland-Hopkins International	HR	In building
Philadelphia, PA	Philadelphia International	CR	Outside building
Saint Louis, MO	Lambert-St. Louis International	LR	In building
South Bend, IN	Michiana Regional	CR	In building
Washington, DC	Washington National	HR	Outside building

HR = heavy rail, LR = light rail, CR = commuter rail

(a) Excludes airports that require a bus or van ride between the station and building and airports that only have internal non-transit rail circulation systems.

⁽b) "In building" indicates rail transit station is within or directly connected to the passenger terminal building via a weather-protected passageway. "Outside building" means station is within walking distance, but not connected to the building.

Operating Expense for 1994 Classified 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	4,718.5	1,677.4	1,127.6	1,125.0	0.0	8,648.5
Fringe Benefits	2,617.9	851.4	625.2	674.8	0.0	4,769.3
Services	77.1	148.2	106.1	537.8	0.0	869.2
Fuels & Lubricants	396.6	53.8	1.8	0.0	0.0	452.2
Materials & Supplies	99.8	713.4	180.8	227.1	0.0	1,221.1
Utilities	111.5	38.1	318.1	183.4	0.0	651.1
Casualty & Liability	28.8	7.7	11.5	603.4	0.0	651.4
Purchased Transp.	0.0	0.0	0.0	0.0	1,939.0	1,939.0
Other	603.9	-94.2	-497.1	-432.1	0.0	-419.5
Total	8,654.1	3,395.8	1,874.0	2,919.4	1,939.0	18,782.3
			PER CENT			
Salaries & Wages	25.12	8.93	6.00	5.99	0.00	45.05
Fringe Benefits	13.94	4.53	3.33	3.59	0.00	25.39
Services	0.41	0.79	0.56	2.86	0.00	4.63
Fuels & Lubricants	2.11	0.29	0.01	0.00	0.00	2.41
Materials & Supplies	0.53	3.80	0.96	1.21	0.00	6.50
Utilities	0.59	0.20	1.69	0.98	0.00	3.47
Casualty & Liability	0.15	0.04	0.06	3.21	0.00	3.47
Purchased Transp.	0.00	0.00	0.00	0.00	10.32	10.32
Other	3.22	-0.50	-2.65	-2.30	0.00	-2.23
Total	46.08	18.08	9.98	15.54	10.32	100.00

TABLE 20

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File: EXFUN

Operating Expenses by Function Class, Millions of Dollars (a)

	g mxponeou	ay i alloui			onaro (u)			9	
CALEN- DAR YEAR	VEHICLE OPERA- TIONS	VEHICLE MAINTE- NANCE	NON- VEHICLE MAINTE- NANCE	GENERAL ADMINIS- TRATION	PURCHASED TRANSPORT- ATION	TOTAL OPERATING EXPENSE	DEPRECI- ATION & AMORTIZA- TION	OTHER RECON- CILING ITEMS	TOTAL EXPENSE
1980	3,248.2	1,274.3	499.7	1,224.3 (b)	(b)	6,246.5	277.6	186.5	6,710.6
1981	3,596.5	1,397.8	547.9	1,482.1 (b)	(b)	7,024.3	386.3	211.1	7,621.7
1982	3,882.3	1,555.8	611.8	1,503.0 (b)	(b)	7,552.9	507.1	254.3	8,314.3
1983	3,930.8	1,696.6	694.9	1,633.7 (b)	(b)	7,956.0	472.5	307.2	8,735.7
1984	5,141.9	2,149.4	912.3	2,914.7	455.7	11,574.0	885.5	497.6	12,957.1
1985	5,654.7	2,522.6	1,149.6	2,505.3	548.7	12,380.9	1,097.6	598.6	14,077.1
1986	5,690.6	2,733.6	1,295.2	2,748.0	484.3	12,951.7	1,148.2	626.2	14,726.1
1987	5,790.3	2,730.2	1,363.5	2,869.4	718.7	13,472.1	1,212.5	720.7	15,405.3
1988	6,052.3	2,865.1	1,447.6	3,077.8	844.5	14,287.3	1,377.6	776.9	16,441.8
1989	6,275.3	2,942.3	1,550.5	3,251.0	953.2	14,972.3	1,502.5	693.9	17,168.7
1990	6,653.3	3,038.8	1,592.0	3,449.9	1,008.1	15,742.1	1,593.1	643.9	17,979.1
1991	6,726.6	2,992.4	1,604.7	3,584.5	1,633.2	16,541.4	1,763.3	1,027.2	19,331.9
1992 (c)	7,659.7	3,047.5	1,783.9	2,674.2	1,616.1	16,781.4	2,033.9	1,218.3	20,033.6
1993	7,941.4	3,049.3	1,845.0	2,714.0	1,800.1	17,349.8	2,479.3	850.1	20,679.2
1994 P	8,654.1	3,395.8	1,874.0	2,919.4	1,939.0	18,782.3	2,902.4	1,009.9	22,694.6

P = Preliminary

⁽a) Excludes commuter rail, automated guideway, urban ferry boat, demand response, and most rural and smaller systems prior to 1984. Series not continuous between 1983 and 1984.

⁽b) General Administration and Purchased Transportation combined.

⁽c) Beginning 1992, total operating expense declined about \$400 million due to change in accounting procedures at New York City Transit Authority.

TABLE 21

File: EXOBJ

Operating Expenses by Object Class, Millions of Dollars (a)

	CALEN- DAR YEAR	SALARIES & WAGES	FRINGE BENEFITS	SERVICES	MATERIALS & SUPPLIES	UTILITIES	CASUALTY & LIABILITY	PURCHASED TRANSPORT- ATION	OTHER	TOTAL
1	1980	3,280.9	1,353.1	237.6	759.4	231.3	237.8	146.4 (b)	(b)	6,246.5
	1981	3,493.5	1,649.1	266.8	940.8	280.9	252.8	140.4 (b)	(b)	7,024.3
	1982	3,731.4	1,756.5	298.3	1,129.9	322.5	188.1	126.1 (b)	(b)	7,552.1
	1983	3,921.3	1,977.3	309.4	1,023.9	431.2	192.6	100.3 (b)	(b)	7,956.0
1 1 1 1 1	1984 1985 1986 1987 1988 1989 1990	5,487.8 5,843.1 6,119.2 6,324.1 6,675.0 6,897.7 7,226.3 7,394.5	2,716.7 2,868.3 3,125.9 3,266.9 3,528.9 3,737.3 3,986.0 3,998.4	469.2 491.9 583.8 655.5 715.3 765.0 794.3 818.0	1,462.2 1,561.2 1,524.3 1,421.0 1,446.2 1,507.6 1,608.4 1,559.7	465.7 494.7 497.1 509.2 503.9 540.2 552.9 575.9	328.5 347.1 491.4 536.1 527.8 559.4 640.5 625.6	455.7 548.7 484.3 718.7 844.5 953.2 1,008.1 1,633.2	188.2 225.9 125.7 40.6 45.7 11.9 -74.4 -63.9	11,574.0 12,380.9 12,951.7 13,472.1 14,287.3 14,972.3 15,742.1 16,541.4
1	1992 (c)	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 P	8,648.5	4,769.3	869.2	1,673.3	651.1	651.4	1,939.0	-419.5	18,782.3

P = Preliminary

(b) Purchased Transportation and Other combined.

TABLE 22
Operating Expenses by Mode. Millions of Dollars

File: EXMODE

CALENDAR YEAR	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL	TROLLEY BUS	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL
1988	198.4	3,521.7	1,675.3	101.7	8,136.4	462.6	191.2	14,287,3
989	210.8	3,701.0	1,841.4	105.5	8,415.1	481.1	217.4	14,972.3
1990	237.1	3,825.0	1,938.5	108.6	8,903.1	517.8	212.0	15,742.
1991	291.1	3,858.6	1,942.4	113.5	9,501.4	608.5	225.9	16,541.4
1992 (a)	308.9	3,555.1	2,012.6	124.4	9,881.2	667.3	231.9	16,781.4
1993	315.9	3,668.6	2,088.4	131.9	10,109.6	793.0	242.5	17,349.8
1994 P	413.3	3,786.2	2,224.8	132.9	10.820.9	1,145.7	258.5	18,782.3

P = Preliminary

⁽a) Excludes commuter rail, automated guideway, urban ferry boat, demand response, and most rural and smaller systems prior to 1984. Series not continuous between 1983 and 1984.

⁽c) Beginning 1992, total operating expense declined about \$400 million due to change in accounting procedures at New York City Transit Authority.

⁽a) Beginning 1992 total operating expense declined about \$400 million due to change in accounting procedures at New York City Transit Authority.

SECTION IV

Funding, Operating

Operating Funding Sources, Millions of Dollars (a)

		OPERATING	FUNDS	7	OPERATING	ASSISTANCE		
CALEN- DAR YEAR	PASSENGER (b)	OTHER	TOTAL	LOCAL (d)	STATE	FEDERAL	TOTAL	TOTAL
1980 1981 1982 1983	2,556.8 2,701.4 3,077.0 3,171.6	248.3 343.8 380.0 332.5	2,805.1 3,045.2 3,457.0 3,504.1	2,611.2 (c) 3,225.7 (c) 3,582.0 (c) 4,194.6 (c)	(c) (c) (c) (c)	1,093.9 1,095.1 1,005.4 827.0	3,705.1 4,320.8 4,587.4 5,021.6	6,510.2 7,366.0 8,044.3 8,525.7
1984 1985 1986 1987 1988 1989 1990 1991 1992 (e) 1993 1994 P	4,447.7 4,574.7 5,113.1 5,114.1 5,224.6 5,419.9 5,890.8 6,037.2 6,152.5 6,350.9 6,840.5	780.5 701.8 737.3 776.6 840.7 836.7 895.0 766.8 645.9 764.0 802.2	5,228.2 5,276.5 5,850.4 5,890.7 6,065.3 6,256.6 6,785.8 6,804.0 6,798.4 7,114.9 7,642.7	5,399.1 (c) 5,978.5 (c) 4,244.5 4,680.6 4,893.1 4,995.4 5,326.8 5,373.4 5,268.1 5,490.6 5,683.5	(c) (c) 2,305.6 2,564.6 2,677.1 2,796.3 2,970.6 3,199.5 3,879.5 3,704.2 3,878.7	995.8 939.6 941.2 955.1 905.1 936.6 970.0 955.9 969.1 966.5 929.3	6,394.9 6,918.1 7,491.3 8,200.3 8,471.3 8,728.3 9,267.4 9,728.8 10,116.7 10,161.3	11,623.1 12,194.6 13,341.7 14,091.0 14,536.6 14,984.9 16,053.2 16,532.8 16,915.1 17,276.2

P = Preliminary

(b) Beginning 1984 includes fares retained by contractors; beginning 1991 includes fare subsidies formerly included in "Other".

(c) Local and state combined.

(e) Beginning 1992, local operating assistance and other operating funds declined by about \$500 million due to change in accounting procedures at New York City Transit Authority.

TABLE 24

File: POFMODE

Passenger Operating Funding by Mode, Millions of Dollars (a)

CALENDAR YEAR	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL	TROLLEY BUS	MOTOR	DEMAND RESPONSE	OTHER	TOTAL
1990	82.6	1,740.8	952.2	45.8	2,966.8	40.9	61.7	5,890.8
1991 (b)	97.8	1,700.6	958.0	51.6	3,098.4	68.9	61.9	6,037.2
1992	97.8	1,830.3	970.1	48.7	3,058.8	75.8	71.0	6,152.5
1993	102.5	1,913.3	995.5	52.4	3,116.7	93.9	76.6	6,350.9
1994 P	133.1	1,975.7	1,083.4	54.5	3,329.7	178.3	85.8	6,840.5

P = Preliminary

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

⁽a) Excludes commuter rail, automated guideway, urban ferry boat, demand response and most rural and smaller systems prior to 1984. Series not continuous between 1983 and 1984.

⁽d) Local operating assistance includes taxes levied directly by transit system and other subsidies from local government such as bridge and tunnel tolls and non-transit parking lot funds.

⁽a) This data is not available from the Federal Transit Administration Section 15 reports. Estimates made by APTA from transit system estimates, which are made according to each transit system's procedures.

Passenger Operating Funding

. =		ADULT	BASE CASH	FARE	PER CENT	OF SYSTEMS	WITH (c)
CALENDAR	PASSENGER FUNDS RECEIVED PER UNLINKED TRIP (a)(d)	нен	ТОМ	MEAN(b)	PEAK PERIOD SURCHARGES	TRANSFER SURCHARGES	ZONE OR DISTANCE SURCHARGES
1980	0.298	0.75	00.00	0.403	5.1	29.6	31.4
1981	0.326	1.00	00.00	0.473	4.2	23.7	31.6
1982	0.382	90.1	0.00	0.528	0.6	28.4	38.9
1983	0.387	1.00	0.00	0.549	8.9	37.1	35.9
1984	0.503	1.50	00.0	0.569	9.5	36.6	34.0
1985	0.530	1.50	00:0	0.584	8.6	37.0	33.1
1986	0.583	2.10	00:0	0.617	8.8	30.7	27.9
1987	0.585	2.75	0.00	0.634	8.4	29.5	33.1
1988	0.603	2.75	00:00	0.662	7.8	30.2	33.2
1989	0.607	2.75	00:00	0.670	6.4	27.7	31.5
1990	699.0	2.75	0.00	0.730	6.5	28.8	38.9
1991	0.704	00.9	0.00	0.823	5.5	24.2	39.4
1992	0.724	9.00	0.00	0.860	5.6	26.6	39.0
1993	0.773	00.9	0.00	0.860	5.6	26.6	39.0
1994	0.811	00.9	00:00	0.955	6.4	25.2	37.7
1995	¥	7.00	0.00	0.992	6.5	23.8	36.9

P = Preliminary

(a) Includes transfer charges and zone charges; includes reduced-fare trips, free-fare trips, and free-transfer trips.

(b) Unweighted average of fixed-route adult cash fares; excludes transfer, premium, or zone charges; each transit system counted equally. Beginning in 1984, calculation based on basic Adult Cash Fare only.

Beginning in 1984, calculation based on basic Adult Cash Fare only.

(c) Per cents represent an approximately 300-transit-system sample, not estimated for all transit systems.

(d) Excludes commuter rail, automated guideway, urban ferry boat, demand response, and most rural and smaller systems prior to 1984. Series not continuous between 1983 and 1984.

TABLE 26

File: GOVOP

Federal Operating Grant Approvals, Millions of Dollars

GRANT APPROVALS UNDER FEDERAL TRANSIT ACT
571.8
685.3
868.5
1,120.7
1,129.5
1,055.5
887.9
922.4
881.1
872.5
820.4
780.0
779.1
765.4
779.4
768.4
795.7
757.4

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

SECTION V

⁽a) Total amounts estimated from survey data, amounts for specific uses estimated from historical data. Source: APTA, Transit Funding Needs, 1995-2004, 1994.

Capital Expenses by Mode, Millions of Dollars

CALENDAR YEAR	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL	TROLLEY BUS	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL
1992	494.9	2,054.1	1,310.5	34.8	1,301.9	67.6	171.9	5.435.7
1993	488.3	1,901.5	1,645.1	18.8	1,567.3	91.8	126.8	5,839.6
1994 P	317.7	2,065.5	1,327.5	57.4	1,747.9	111.9	147.7	5,775.6

P= Preliminary

TABLE 29

File: CAPEXTYP

Capital Expenses by Type, Millions of Dollars

CALENDAR YEAR	ROLLING STOCK	FACILITIES	OTHER	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 P	1,431.3	2,963.8	1,380.5	5,775.6

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SECTION VI

Funding, Capital

Capital Funding, Millions of Dollars

CALENDAR YEAR	FEDERAL ASSISTANCE	STATE ASSISTANCE	LOCAL ASSISTANCE	DIRECTLY GENERATED (a)	LOCAL PLUS DIRECTLY GENERATED	TOTAL
1988	2,519.5	489.6	769.0	86.5	855.5	3,864.6
1989	2,426.5	665.5	802.6	118.3	920.9	4,012.9
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 P	2,519.2	1,068.5	1,006.7	1,181.2	2,187.9	5,775.6

P = Preliminary

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TABLE 31 Federal Appropriations for Transit, Fiscal Years 1989-1996, Millions of Dollars

File: GOVAPP

PROGRAM	1989	1990	1991	1992	1993	1994	1995	1996
MAJOR CAPITAL INVESTMENT PROGRAM:	985.0	982.0	1,115.0	1,342.2	1,725.0	1,785.0	1,725.0	1,665.0
New Starts/Extensions	402.0	419.2	440.0	536.9	721.8	667.9	646.7	666.0
Fixed-Guideway Modernization	439.0	430.7	455.0	536.9	666.3	760.1	725.0	666.0
Bus	144.0	132.1	220.0	268.4	336.9	357.0	353.3	333.0
FORMULA PROGRAM:	1,705.0	1,724.8	1,835.0	1,983.7	1,700.0	2,414.9	2,500.0	2,052.9
Urbanized Area Operating Limit	804.7	802.3	802.3	802.3	802.3	802.3	710.0	400.
Urbanized Area Capital Only	798.9	822.0	932.3	1,020.5	758.2	1,424.3	1,573.9	1,491.
Rural Capital & Operating	66.4	65.6	65.4	106.1	90.8	129.6	132.9	110.
Elderly & Disabled	35.0	34.9	35.0	54.9	48.6	58.7	59.2	51.
Other						- -	24.0	
PLANNING & RESEARCH:	60.0	59.9	58.0	109.1	85.0	92.2	92.2	85.
Metropolitan Planning	45.0	44.9	45.0	43.7	38.3	41.5	41.5	39.
Rural Transit Assistance Program	5.0	5.0	5.0	5.0	4.3	4.6	4.6	4.
All Other Research & Training	10.0	10.0	8.0	60.4	42.5	46.1	46.1	41.
University Research Centers	5.0	5.0	5.0	7.0	6.0	6.0	6.0	6.
Interstate Transfer	200.0	159.5	160.0	160.0	75.0	45.0	48.0	
Washington DC Metro	168.0	84.7	64.1	124.0	170.0	200.0	200.0	200.
FTA Administration	31.9	31.8	32.6	37.0	38.6	39.5	43.1	42.
TOTAL	3,154.9	3,047.7	3,269.7	3,763.0	3,799.6	4,582.6	4,614.3	4,051.

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

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

Federal Capital Grant Approvals by Use, Millions of Dollars (a)

FISCAL YEAR	BUS (b)	RAPID TRANSIT (c)	COMMUTER RAIL	OTHER (d)	TOTAL
1979	544.6	1,318.7	232.6	6.0 (f)	2,101.9
1980	935.8	1,474.3	340.4	40.0 (f)	2,790.5
1981	994.3	1,546.1	373.5	36.7 (f)	2,950.6
1982	854.4	1,307.1	323.0	68.3 (f)	2,552.8
1983	1,138.4	1,455.5	465.4	103.0 (f)	3,162.3
	BUS	RAIL MODERNIZATION	NEW STARTS	OTHER (e)	
1984	1,039.6	1,110.0	709.9	16.5	2,876.0
1985	921.2	1,080.2	490.2	18.7 (f)	2,510.3
1986	1,022.7	869.1	1,228.3	17.2	3,137.3
1987	864.3	975.5	617.7	17.2	2,474.7
1988	820.0	1,145.7	538.2	16.9	2,520.8
1989	789.7	1,105.1	671.2	23.5	2,589.5
1990	760.9	998.9	603.7	16.5	2,380.0
1991	826.0	1,029.2	515.2	26.0	2,396.4
1992	941.7	1,153.8	492.5	24.9	2,612.9
1993	1,295.2	1,145.9	996.5	27.5	3,465.1
1994	1,401.6	1,474.3	657.2	44.2	3,577.3

(a) Data is for net amounts; excludes cancelled and reduced projects. Includes funding from Section 3 and Section 16(b)(2) of the Federal Transit Act, Urban Systems and Interstate Transfers Sections of the Federal-Aid Highway Act of 1973, as amended, and funding from Section 14 of the National Capital Transportation Act of 1969, as amended.

(b) Motor bus and trolleybus.

(c) Heavy rail and light rail.

(d) Urban ferry boat, cable car, inclined plane, and automated guideway transit.

(e) Planning grants from Section 9A, Section 9, Interstate Transfer, and Section 18.

(f) Includes retroactive FTA revisions up to \$10,000 not published by FTA.

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

TABLE 33 File: CAPPROG

Federal Capital Grant Approvals by Program, Millions of Dollars (a)

FEDERAL FISCAL YEAR	DISCRETIONARY (b)	FORMULA (c)	OTHER(d)	TOTAL
1979	1,225.0	255.6	621.3	2,101.9
1980	1,655.0	431.2	704.3	2,790.5
1981	1,925.0	361.1	664.5	2,950.6
1982	1,634.5	297.7	620.6	2,552.8
1983	1,640.9	863.1	658.3	3,162.3
1984	1,096.0	1,339.2	440.8	2,876.0
1985	727.7	1,491.6	291.0	2,510.3
1986	1,132.3	1,324.8	680.2	3,137.3
1987	694.5	1,376.5	403.7	2,474.7
1988	875.4	1,380.6	264.8	2,520.8
1989	1,199.7	967.7	422.1	2,589.5
1990	1,169.4	962.6	248.0	2,380.0
1991	1,108.4	1,035.0	253.0	2,396.4
1992	1,027.3	1,207.7	377.9	2,612.9
1993	1,792.8	1,426.5	245.8	3,465.1
1994	1,606.0	1,647.4	323.9	3,577.3

(a) Data excludes cancelled and reduced projects.

(b) Federal Transit Act: Section 3 and Section 16(b) 2.

(c) Federal Transit Act: Section 5, Section 9A, Section 9, and Section 18.

(d) Federal Aid Highway Act of 1973, as amended; Federal Aid Urban Systems and Interstate Transfer; and National Capital Transportation Act of 1969, as amended.

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

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Flexible Highway Funds Obligated to Transit Under Provisions of Intermodal Surface Transportation Efficiency Act of 1991, Millions of Dollars

FISCAL YEAR	CONGESTION MITIGATION & AIR QUALITY IMPROVEMENT PROGRAM	SURFACE TRANSPORTATION PROGRAM	INTERSTATE SUBSTITUTE & EARMARKED FEDERAL HIGHWAY ADMINISTRATION FUNDS	TOTAL
1992	121.2	20.8	101.6	243.6
1993	289.0	125.7	13.9	428.6
1994	259.7	114.8	99.3	473.8
1995	494.4	280.2	132.7	907.3

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

TABLE 35

Capital Investment Needs.	1995-2004 Mil	lions of 1993 Dollars	Not Adjusted for	or Inflation
Caulai nivesuneni Necus.		nuna ur 1333 bunara	. HUL AUIUSICU II	a minauvii

CATEGORY	MAINTAIN CURRENT SERVICE	EXPAND SERVICE
NEW PASSENGER VEHICLES:	Z (1 8: 38)	J.
Regular Replacement and Growth	21,419.0	24,831.6
New Starts and Extensions	1,001.8	5,629.8
Fixed-Guideway Modernization	3,603.1	4,487.9
Total New Passenger Vehicles	26,023.9	34,949.3
FIXED-GUIDEWAY NEW STARTS AND EXTENSIONS:	1 2	12 2
Without New Vehicles	11,779.5	42,569.7
New Vehicle Needs	1,001.8	5,629.8
Total Including New Vehicles	12,781.3	48,199.5
TOTAL OTHER NEW FACILITIES AND CAPITAL ITEMS	15,109.3	23,468.2
PASSENGER VEHICLE REHABILITATION:		
Regular Rehabilitation Projects	910.7	917.0
Fixed-Guideway Modernization	2,955.1	2,960.7
Total Passenger Vehicle Rehabilitation	3,865.8	3,877.7
FIXED-GUIDEWAY MODERNIZATION:		
Without Vehicle Costs	18,609.8	21,587.9
New Vehicle Needs	3,603.1	4,487.9
Vehicle Rehabilitation Needs	2,955.1	2,960.7
Total Fixed-Guideway Modernization	25,168.0	29,036.5
TOTAL FACILITY AND OTHER CAPITAL ITEM REHABILITATION	12,231.0	12,358.6
TOTAL LESS ALL DUPLICATION	87,619.4	138,811.5

Source: APTA, Transit Funding Needs, 1995-2004, 1994

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SECTION VII

Ridership and Transit Usage

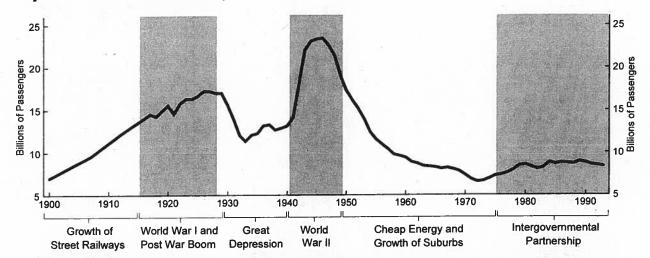
Passenger Trips, Millions (a)

CALENDAR YEAR	LIGHT RAIL	.HEAVY RAIL	COMMUTER RAIL	TROLLEY BUS	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL
1980	133	2,108	280	142	5,837		67	8,567
1981	123	2,094	268	138	5,594		67	8,284
1982	136	2,115	259	151	5,324		67	8,052
1983	137	2,167	262	160	5,422		55	8,203
1984	135	2,231	267	165	5,908	62	61	8,829
1985	132	2,290	275	142	5,675	59	63	8,636
1986	130	2,333	306	139	5,753	63	53	8,777
1987	133	2,402	311	141	5,614	64	70	8,735
1988	154	2,308	325	136	5,590	73	80	8,666
1989	162	2,542	330	130	5,620	70	77	8,931
1990	175	2,346	328	126	5,677	68	79	8,799
1991	184	2,172	318	125	5,624	71	81	8,575
1992	188	2,207	314	126	5,517	72	77	8,501
1993	188	2,046	322	121	5,381	81	78	8,217
1994 P	203	2,206	338	118	5,402	87	81	8,435

P = Preliminary

-- Data not available

TABLE 37
Major Trends of Transit Ridership



Transit ridership has gone through six major cycles of growth and decline during the Twentieth Century influenced by social and economic forces external to transit. From 1900 to 1929 transit ridership grew steadily; first due to technical innovation and investment opportunities during the early development of street railways and then due to the economic boom of World War I and the post-war period. The Great Depression caused a steep decline in ridership between 1929 and 1939 as people made fewer work trips and often could not afford to take pleasure trips. A new federal law limiting utilities' ability to subsidize transit, as had been normal practice, led to a decline in transit capital facilities. World War II caused motor fuel rationing and an economic boom that led to a new rapid growth cycle in transit ridership. Ridership quickly declined from artificially high war levels as people fled to suburbs spurred on by cheap fuel and government policy favoring low-density suburban growth. In 1973 the ridership cycle reversed again and transit began a modest growth based on a partnership of local, state, and federal government committed to improving America's transportation infrastructure.

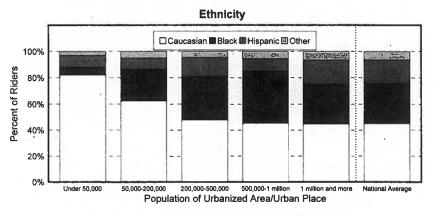
76

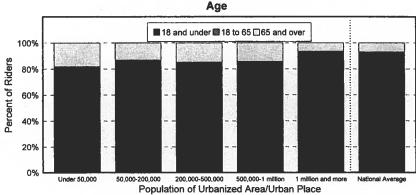
77

⁽a) Prior to 1984, excludes demand response and most rural and smaller systems. Series not continuous between 1983 and 1984.

TABLE 38

Profiles of Transit Riders





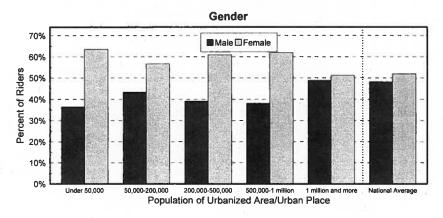
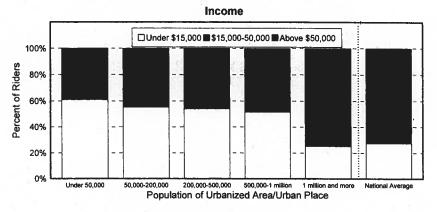


TABLE 38
Profiles of Transit Riders (continued)



Trip Purpose

100%

80%

100%

40%

20%

Under 50,000

50,000-200,000

200,000-500,000

50,000-1 million 1 million and more National Average Population of Urbanized Area/Urban Place

Riders with Disabilities

Population of Urbanized Area/Urban Place	Percent with Disabilities
National Average	1.2%
1 million and more	1.1%
500,000-1 million	1.4%
200,000-500,000	2.5%
50,000-200,000	6.0%
Under 50,000	5.2%

Source: APTA, Americans in Transit, 1992.

Passenger Miles, Millions

CALENDAR YEAR	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL	TROLLEY BUS	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL (a)
1980	381	10,558	6,516	219	21,790	II //	390	39,854
1981	346	10,244	6,236	254	21,012		390	38,482
1982	379	10,049	6,027	295	19,987		387	37,124
1983	391	10,350	6,097	325	20,047		392	37,602
1984	416	10,111	6,207	364	21,595	349	382	39,424
1985	350	10,427	6,534	306	21,161	364	439	39,581
1986	361	10,649	6,723	305	21,395	402	369	40,204
1987	405	11,198	6,818	223	20,970	374	360	40,348
1988	477	11,300	6,964	211	20,753	441	434	40,580
1989	509	12,030	7,211	199	20,768	428	458	41,603
1990	571	11,475	7,082	193	20,981	431	410	41,143
1991	662	10,528	7,344	195	21,090	454	430	40,703
1992	701	10,737	7,320	199	20,336	495	453	40,241
1993	705	10,231	6,940	188	20,247	562	511	39,384
1994 P	722	10,780	7,996	187	20,238	636	525	41,084

P = Preliminary

--- Not available

TABLE 40

File: VEHMILE

Vehicle Miles Operated, Millions

	CALENDAR YEAR	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL	TROLLEY BUS	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL (a)	TOTAL MOTOR BUS MILE EQUIVALENTS (b)
	1980 1981 1982 1983	17.5 16.5 16.1 16.0	384.7 420.1 429.1 407.5	179.0 176.0 175.0 177.0	13.0 11.9 13.7 15.0	1,677.2 1,684.6 1,668.8 1,677.8	1 da	15.4 15.4 15.4 12.6	2,286.8 2,324.5 2,318.1 2,305.9	
2	1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 P	16.8 16.5 17.0 18.4 20.8 21.3 24.2 27.6 28.6 27.7 33.9	435.8 450.8 475.8 490.2 517.4 532.1 536.7 527.2 525.4 522.1 531.8	167.9 182.7 188.6 188.9 202.2 209.6 212.7 214.9 218.8 223.9 230.7	15.3 15.5 14.7 15.0 14.7 14.5 13.8 13.6 13.9 13.0	1,844.7 1,862.9 2,002.3 2,079.4 2,097.3 2,109.3 2,129.9 2,166.6 2,178.0 2,209.6 2,162.7	256.1 247.4 274.5 250.0 288.9 300.4 305.9 335.0 363.5 406.0 552.7	13.0 14.9 12.9 13.3 16.0 15.7 18.3 21.5 26.4 32.2 30.5	2,749.5 2,790.7 2,985.8 3,055.2 3,157.3 3,202.9 3,241.5 3,306.4 3,354.6 3,435.1 3,556.0	3,461.9 3,552.1 3,765.7 3,879.1 4,011.2 4,080.4 4,127.5 4,159.1 4,187.0 4,233.8 4,265.2

P = Preliminary

-- Data not available

⁽a) Prior to 1984 excludes demand response and most rural and smaller systems funded via Sections 18 and 16(b)2, Federal Transit Act. Series not continuous between 1983 and 1984.

⁽a) Prior to 1984 excludes demand response and most rural and smaller systems funded via Sections 18 and 16(b)2, Federal Transit Act. Series not continuous between 1983 and 1984.

⁽b) Estimate based on average seating plus standing capacity of vehicle compared to that of a motor 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.

File: VEHHOUR

Vehicle Hours Operated, Millions

CALENDAR YEAR	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL	TROLLEY BUS	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL
1986	1.5	25.6	5.8	1.9	153.7	21.7	0.8	211.0
1987	1.6	26.0	5.8	1.9	160.3	21.9	1.1	218.6
1988	1.8	27.4	6.4	1.9	160.5	23.5	1.2	222.7
1989	1.9	28.2	6.6	1.8	161.4	24.0	1.0	224.9
1990	2.0	28.4	6.5	1.8	163.0	24.4	1.4	227.5
1991	2.2	24.6	6.4	1.8	163.8	26.3	1.4	226.5
1992	2.2	25.6	6.5	1.8	165.1	28.7	1.6	231.5
1993	2.1	27.2	6.6	1.8	166.2	30.5	1.8	236.2
1994 P	2.4	27.3	6.9	1.8	162.5	38.4	1.5	240.8

P = Preliminary

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Passenger Vehicles

CALENDAR YEAR	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL (a)	TROLLEY BUS	MOTOR BUS (a)	DEMAND RESPONSE	OTHER (a)	TOTAL (a)(b)
			PASSENGER	VEHICLES	OWNED &	LEASED		
1980	1,013	9,641	4,500	823	59,411			75,388
1981	1,075	9,749	4,465	751	60,393			76,433
1982	1,016	9,815	4,497	763	62,114	-:		78,205
1983	1,013	9,891	4,423	686	62,093			78,106
			ACTIVE	PASSENGER	VEHICLES			
1984	733	9,083	4,075	664	67,294	14,164	888	96,901
1985	717	9,326	4,035	676	64,258	14,490	867	94,368
1986	697	10,386	4,440	680	66,218	15,346	942	98,709
1987	766	10,168	4,686	671	63,017	15,944	875	96,127
1988	831	10,539	4,649	710	62,572	16,812	1,096	97,209
1989	755	10,506	4,472	725	58,919	15,856	1,060	92,293
1990	913	10,419	4,415	832	58,714	16,471	1,197	92,961
1991	1,095	10,331	4,370	752	60,377	17,879	1,595	96,399
1992	1,058	10,245	4,413	907	63,080	20,695	1,853	102,251
1993	1,025	10,261	4,494	851	64,850	23,527	2,308	107,316
1994 P	1,054	10,138	4,517	877	67,492	31,872	2,639	118,589

P= Preliminary

--- Data not available

(a) Demand response and other mode data not available prior to 1984.

(b) Prior to 1984 includes total vehicles owned and leased. Also prior to 1984 excludes most rural and smaller systems funded via Sections 18 and 16(b)(2), Federal Transit Act. Series not continuous between 1983 and 1984.

TABLE 43

File: NEWVEH

New Passenger Vehicles Delivered

	RAIL	CARS	(c)	<i>⊒</i> ′′ =	MOTOR	BUSES &	DEMAND	RESPONSE (a)	
CALEN- DAR YEAR	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL	TROLLEY BUS	29 SEATS OR FEWER	30-39 SEATS	40 SEATS OR MORE	TOTAL	TOTAL (b)
1980 1981 1982 1983	32 188 10 30	130 276 126 88		98 0 0 0	287 153 67 151	143 171 138 74	4,142 3,735 2,757 3,856	4,572 4,059 2,962 4,081	4,832 4,523 3,098 4,199
1984 1985 1986 1987 1988 1989 1990 1991 1992 1993	59 63 149 51 24 52 55 17 35 54 72	521 441 854 758 311 207 10 6 163 260 55	128 179 140 198 74 56 83 187 110 8	0 0 47 4 0 118 149 0 24	393 353 739 1,091 766 1,353 1,389 1,781 1,322 1,919	509 220 240 429 474 771 489 411 549 566 490	2,992 2,794 2,400 2,704 2,308 2,836 2,901 2,530 1,555 2,351 3,016	3,894 3,367 3,379 4,224 3,548 4,960 4,779 4,722 3,426 4,836 6,068	4,602 4,050 4,522 5,278 3,961 5,275 5,045 5,081 3,734 5,182

P = Preliminary

--- Data not available

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

(c) Source for rail modes after 1983; Railway Age, January issue.

⁽a) Motor buses and demand response only; excludes vanpool vans. Motor bus comprises about 25% of the 29-seats-or-fewer size group and virtually 100% of the other size groups. Excludes most demand response, rural and smaller systems prior to 1984. Series not continuous for motor buses and demand response between 1983 and 1984.

New Motor Buses & Demand Response Vehicles Delivered by Length (a)

CALENDAR YEAR	27'5" AND BELOW	27'6" - 32'5"	32'6" - 37'5"	37'6" - 45'0"	ARTICULATED/ DOUBLE DECK	TOTAL
1988	599	250	518	2,181	0	3,548
1989	1,151	320	810	2,635	44	4,960
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 P	2,391	179	371	3,059	68	6,068

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

P = Preliminary

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TABLE 45

File: VEHCHAR

Characteristics of the Fleet as of December 31

CHARACTERISTIC	YEAR	MOTOR BUS	TROLLEY BUS	DEMAND RESPONSE	COMMUTER RAIL	HEAVY RAIL	LIGHT RAIL
Vehicles Owned	1990	61,063	847	17,130	4,574	10,562	1,062
and Leased	1991	63,154	817	18,701	4,473	10,410	1,304
	1992	66,234	963	21,264	4,538	10,393	1,264
V 1	1993	68,092	934	24,859	4,674	10,365	1,240
	1994	70,927	934	33,239	4,652	10,357	1,229
Vehicles in	1990	58,714	832	16,471	4,415	10,419	913
Active Service	1991	60,377	752	17,879	4,370	10,331	1,095
	1992	63,080	907	20,695	4,413	10,245	1,058
	1993	64,850	851	23,527	4,494	10,261	1,025
	1994	67,492	877	31,872	4,517	10,138	1,054
Rehabilitation (b)	1990	10.2	0.0		47.2	37.1	25.6
(Per cent)	1991	9.6	0.0		47.2	46.9	26.9
(4)	1992	14.0	0.5	1.6	48.4	49.5	24.4
	1993	14.2	1.2	1.4	49.8	46.0	25.2
= 1	1994	14.1	1.1	0.8	55.0	45.7	25.1

--- Data not available

TABLE 45 (continued)

Characteristics of the Fleet as of December 31

CHARACTERISTIC	YEAR	MOTOR BUS	TROLLEY BUS	DEMAND RESPONSE	COMMUTER RAIL	HEAVY RAIL	LIGHT RAIL
Average Age (b) (Years)	1990 1991 1992 1993 1994	8.1 8.0 8.7 8.9 8.9	11.2 10.5 11.9 12.5 13.1	3.9 4.0 3.8	17.2 17.6 18.1 18.8 19.6	17.3 18.1 18.5 18.9 19.1	20.1 20.9 20.8 20.9 20.2
Average Length (b)	1990 1991 1992 1993 1994	37' 8" 37' 7" 39' 4" 39' 4"	43'11" 46' 4" 45'10" 46' 6" 46' 8"	 21' 5" 21' 5" 21' 5"	84'10" 84'10" 84'10" 84'11" 84'11"	61' 1" 61' 1" 61' 4" 61' 5" 61' 5"	64' 6" 64' 9" 65'10" 66' 8" 67'11"
Average Number of Seats (b)	1990 1991 1992 1993 1994	41.7 41.2 43.8 43.7 43.3	50.7 52.1 52.2 52.8 52.4	 12.9 12.9 12.0	125.6 126.7 127.0 127.7 127.2	55.7 55.7 55.7 55.7 55.7	57.3 57.6 58.4 59.1 59.7

Data not available

TABLE 45 (continued)

Characteristics of the Fleet as of December 31

CHARACTERISTIC	YEAR	MOTOR BUS	TROLLEY BUS	DEMAND RESPONSE	COMMUTER RAIL	HEAVY RAIL	LIGHT RAIL
Vehicles	1990	80.5	20.5	- - -	100.0	92.3	56.5
Equipped with	1991	83.3	17.4		100.0	93.6	57.2
Air Conditioning (b)	1992	82.9	17.9	95.2	100.0	94.8	59.4
(Per cent)	1993	84.0	12.7	95.5	100.0	95.5	60.8
	1994	85.7	17.0	96.8	.100.0	96.3	64.2
Vehicles Equipped	1990	90.7	92.5		65.2	79.6	72.0
with Two-Way	1991	89.9	93.6		63.9	78.3	73.2
Radios (b)(c)	1992	94.0	99.4	96,0	63.3	77.3	72.6
(Per cent)	1993	96.4	99.4	96.3	63.7	27.2	75.3
	1994	96.4	94.2	96.2	64.1	27.5	77.1
Vehicles with	1990	43.5	32.9		(a)	(a)	(a)
Wheelchair	1991	49.5	42.9		(a)	(a)	(a)
Accessibility (b)	1992	50.8	47.0	84.7	32.4	82.8	40.7
(Per cent)	1993	54.9	51.1	86.9	33.3	93.2	45.5
V	1994	59.8	51.0	89.1	43.3	93.3	49.2

⁻⁻⁻ Data not available

⁽a) Wheelchair accessibility for high-platform-boarding railcars is provided by station modifications; beginning in 1992 data reported includes lift and ramp-equipped railcars and high-platform accessibility.

(b) Data from APTA survey.

⁽c) Decline in heavy rail in 1993 results from MTA New York City Transit replacing all vehicle radios with portable radios.

Motor Buses by Manufacturer (a)

MANUFACTURER	NUMBER OWNED AND LEASED	PER CENT
Flxible Corporation	12,305	23.6%
General Motors Corporation	11,625	22.3%
Transportation Manufacturing Company	5,238	10.0%
Gillig Corporation	4,284	8.2%
Neoplan USA Corporation	4,072	7.8%
Bus Industries of America	3,316	6.4%
Motor Coach Industries	2,301	4.4%
American MANCorporation	2,085	4.0%
New Flyer Industries	1,406	2.7%
Flyer Industries, Ltd.	1,009	1.9%
General Motors of Canada, Ltd.	997	1.9%
Ikarus USA, Inc.	465	0.9%
AM General Corporation	268	0.5%
Eagle Bus Manufacturing	267	0.5%
Chance Coach, Inc.	248	0.5%
Crown Coach Corporation	237	0.5%
Volvo	227	0.4%
Stewart & Stevenson Services, Inc.	225	0.4%
Saab Industries	222	0.4%
Bluebird Corporation	198	0.4%
National Coach Corporation	156	0.3%
El Dorado-National Bus	138	0.3%
Thomas Built Buses	107	0.2%
Others	791	1.5%
TOTAL	52,187	100.0%

⁽a) Data as of January 1, 1995 from APTA survey of 270 transit systems. Understates shares of small vehicle manufacturers since most smaller transit systems not reporting data to survey only purchase small vehicles.

TABLE 47

File: MBYEAR

Motor Buses by Year Built (a)

	NUMBER		PER	CENT
YEAR BUILT	OWNED AND LEASED	IN ACTIVE SERVICE	OWNED AND LEASED	IN ACTIVE SERVICE
1994	3,020	2,805	5.8%	5.6%
1993	2,921	2,901	5.6%	5.8%
1992	2,127	2,127	4.1%	4.3%
1991	2,597	2,554	5.0%	5.1%
1990	4,337	4,331	8.3%	8.7%
1989	3,534	3,515	6.8%	7.1%
1988	2,777	2,769	5.3%	5.6%
1987	2,890	2,868	5.5%	5.8%
1986	3,069	3,060	5.9%	6.2%
1985	3,352	3,300	6.4%	6.6%
1984	2,908	2,874	5.6%	5.8%
1983	3,866	3,755	7.4%	7.6%
1982	2,588	2,489	5.0%	5.0%
1978-1981	9,000	7,849	17.2%	15.8%
1977 and earlier	3,201	2,464	6.1%	5.0%
Total	52,187	49,661	100.0%	100.0%
Average Age in Years (b)	8.9	8.6		

⁽a) Data as of January 1, 1995 from APTA survey of 270 motor bus systems. Understates share of most recent years since most smaller transit systems not reporting data purchase primarily smaller vehicles that last only a few years. (b) 1994 = 0.5 years old; 1993 = 1.5 years old; 1992 = 2.5 years old; etc.

90

91

Demand Response Vehicles by Year Built (a)

	NUMBER		PER CENT		
YEAR BUILT	OWNED AND LEASED	IN ACTIVE SERVICE	OWNED AND LEASED	IN ACTIVE SERVICE	
1995 (model year built in 1994) 1994 1993 1992 1991 1990 1989 1988 1987 1986 1985 1984 1983 and earlier TOTAL	70 1,314 953 595 750 784 761 383 290 260 162 87 102 6,511 3.8	70 1,263 923 594 721 782 743 370 234 238 146 74 85	1.1% 20.2% 14.6% 9.1% 11.5% 12.0% 11.7% 5.9% 4.5% 4.0% 2.5% 1.3% 1.6%	1.1% 20.2% 14.8% 9.5% 11.5% 12.5% 11.9% 5.9% 3.7% 3.8% 2.3% 1.2% 1.4%	

⁽a) Data as of January 1, 1995 from APTA survey of 209 demand response systems. (b) 1994 = 0.5 years old; 1993 = 1.5 years old; 1992 = 2.5 years old; etc.

TABLE 49

TOTAL

Average Age in Years (b)

Trolleybuses by Year Built (a)

File: TBYEAR

100.0%

	NUMBER		PER	CENT
YEAR BUILT	OWNED AND LEASED	IN ACTIVE SERVICE	OWNED AND LEASED	IN ACTIVE SERVICE
1994	36	36	3.5%	4.1%
1993	24	24	2.3%	2.7%
1992	0	0 [0.0%	0.0%
1991	114	111	. 11.1%	12.7%
1990	118	118	11.5%	13.5%
1989	0	0	0.0%	0.0%
1988	4	4	0.4%	0.5%
1987	46	46	4.5%	5.2%
1980-1986	2	0	0.2%	0.0%
1979	219	149	21.4%	17.0%
1978	1 0	0	0.0%	0.0%
1977	62	42	6.0%	4.8%
1976	391	345	38.1%	39.3%
1971-1975	3	2	0.3%	0.2%
1950-1970	0	lol	0.0%	0.0%
1949 and earlier	6	0	0.6%	0.0%

1,025 13.1

877

12.3

100.0%

⁽a) Data as of January 1, 1995 from APTA survey of all 5 trolleybus systems. (b) 1994 = 0.5 years old; 1993 = 1.5 years old; 1992 = 2.5 years old; etc.

Heavy Rail Cars by Year Built (a)

	NUMBER	/a	PER	CENT
YEAR BUILT	OWNED AND LEASED	IN ACTIVE SERVICE	OWNED AND LEASED	IN ACTIVE SERVICE
1994	76	76	0.7%	0.8%
1993	266	266	2.6%	2.6%
1992	149	149	1.4%	1.5%
1991	8	8	0.1%	0.1%
1990	14	14	0.1%	0.1%
1989	97	97	0.9%	1.0%
1988	.345	342	3.3%	3.4%
987	206	206	2.0%	2.0%
986	664	664	6.4%	6.6%
1985	330	330	3.2%	3.3%
980-1984	2,116	2,058	20.4%	20.3%
1975-1979	1,485	1,439	14.3%	14.2%
970-1974	858	840	8.3%	8.3%
1969 and earlier	3,743	3,649	36.1%	36.0%
Total	10,357	10,138	100.0%	100.0%
Average Age in Years (b)	19.1	18.9	<u> </u>	

(a) Data as of January 1, 1995 from APTA survey of all 14 heavy rail systems. (b) 1994 = 0.5 years old; 1993 = 1.5 years old; 1992 = 2.5 years old; etc.

TABLE 51

File: LRYEAR

No. of the Control of	NUMBER		PER CENT		
YEAR BUILT	OWNED AND LEASED	IN ACTIVE SERVICE	OWNED AND LEASED	IN ACTIVE SERVICE	
1994	49	34	4.0%	3.3%	
1993	29	29	2.4%	2.8%	
1992	35	35	2.8%	3.4%	
	16	16	1.3%	1.5%	
1991	30	30	2.4%	2.9%	
1990	47	47	3.8%	4.5%	
1989	70	68	5.7%	6.6%	
1988	100	98	8.1%	9.5%	
1987	82	82	6.7%	7.9%	
1986	32	32	2.6%	3.1%	
1985		26	2.1%	2.5%	
1984	26	6	0.5%	0.6%	
1983	6		34.7%	39.7%	
1976-1982	426	412	0.0%	0.0%	
1954-1975	0	0	•	11.8%	
1953 and earlier	281	122	22.9%	11.5%	
Total	1,229	1,037	100.0%	100.0%	
Average Age in Years (b)	20.2	16.0	_		

(a) Data as of January 1, 1995 from APTA survey of 18 of 22 light rail systems. Most missing vehicles are over 50 years old. (b) 1994 = 0.5 years old; 1993 = 1.5 years old; 1992 = 2.5 years old; etc.

97

Commuter Rail Cars by Year Built (a)

54	NUMBER		PER	CENT
YEAR BUILT	OWNED AND LEASED	IN ACTIVE SERVICE	OWNED AND LEASED	IN ACTIVE SERVICE
1994	39	39	0.8%	0.9%
1993	47	31	1.0%	0.7%
992	128	128	2.8%	2.8%
1991	156	156	3.4%	3.5%
1990	90	89	1.9%	2.0%
989	54	53	1.2%	1.2%
1988	147	147	3.2%	3.3%
1987	134	134	2.9%	3.0%
986	68	68	1.5%	1.5%
1985	252	252	5.4%	5.6%
1980-1984	373	363	8.0%	8.1%
1975-1979	656	564	14.1%	12.6%
1970-1974	1,379	1,375	29.6%	30.6%
1969 and earlier	1,129	1,095	24.3%	24.4%
Total	4,652	4,494	100.0%	100.0%
Average Age in Years (b)	19.6	19.6		

⁽a) Data as of January 1, 1995 from APTA survey of 15 of 16 commuter rail systems. Vehicles missing are owned by AMTRAK and are about 15 years old.

TABLE 53

File: VEHNEED

	MAINTAIN	CURRENT	SERVICE		EXPAND	SERVICE
CATEGORY	1995 - 1999	2000 - 2004	10-YEAR TOTAL	1995 - 1999	2000 - 2004	10-YEAR TOTAL
Buses 35 Feet or Longer	27,400	23,400	50,800	33,300	27,200	60,500
Buses Below 35 Feet	3,000	3,000	6,000	3,800	3,500	7,300
Vans	23,000	20,900	43,900	26,800	24,600	51,400
Trolleybuses	200	50	250	200	70	270
Heavy Rail Cars	1,570	1,460	3,030	1,760	2,420	4,180
Light Rail Cars	350	0	350	1,050	580	1,630
Self-Propelled Commuter Rail Cars	790	830 -	1,620	930	960	1,890
Locomotive-Hauled Commuter Rail Cars	520	240	760	690	320	1,010
Other Passenger Vehicles	70	40	110	110	60	170
TOTAL	56,900	49,920	106,820	68,640	59,710	128,350

Source: APTA, Transit Funding Needs, 1995-2004, 1994.

⁽b) 1994 = 0.5 years old; 1993 = 1.5 years old; 1992 = 2.5 years old; etc.

TABLE 54 Passenger Vehicles in Need of Rehabilitation

	MAINTAIN	CURRENT	SERVICE		EXPAND	SERVICE
CATEGORY	1995 - 1999	2000 - 2004	10-YEAR TOTAL	1995 - 1999	2000 - 2004	10-YEAR TOTAL
Buses 35 Feet or Longer	5,500	3,500	9,000	5,600	3,500	9,100
Buses Below 35 Feet	100	100	200	100	100	200
Vans	100	100	200	100	100	200
Trolleybuses	200	0	200	200	0	200
Heavy Rail Cars	1,400	1,500	2,900	1,400	1,500	2,900
Light Rail Cars	460	370	830	460	370	830
Self-Propelled Commuter Rail Cars	420	0	420	420	10	430
Locomotive-Hauled Commuter Rail Cars	640	150	790	640	150	790
Other Passenger Vehicles	200	70	270	200	70	270
TOTAL	9,020	5,790	14,810	9,120	5,800	14,920

Source: APTA, Transit Funding Needs, 1995-2004, 1994.

Employment

SECTION IX

TABLE 55

8

Employees by Job Category (a) (b) (c)

	CALEN- DAR YEAR	VEHICLE OPERATORS(d)	OTHER OPERATIONS	VEHICLE MAINTENANCE	OTHER MAINTENANCE	ALL OTHER	TOTAL OPERATING	CAPITAL	TOTAL
	1980 1981 1982 1983	95,690 96,930 95,800 94,170	22,830 22,740 22,580 22,400	22,220 23,640 24,830 25,030	32,350 33,190 33,240 33,980	13,910 15,100 17,500 19,380	187,000 191,600 193,950 194,960	 	187,0000 191,600 193,950 194,960
•	1984	122,843	32,397	31,420	43,227	25,522	255,409	7,788	263,197
	1985	127,065	25,277	30,514	45,400	33,781	262,037	7,983	270,020
	1986	129,263	24,543	33,621	45,629	36,052	269,108	8,746	277,854
	1987	126,770	25,269	33,467	46,453	36,124	268,083	8,527	276,610
	1988	126,565	25,149	33,743	44,054	35,971	265,482	10,101	275,583
	1989	126,154	25,613	32,464	43,800	34,886	262,917	9,570	272,487
	1990	127,039	23,517	31,424	44,282	35,914	262,176	10,663	272,839
	1991	129,145	24,136	31,861	42,708	38,007	265,857	10,288	276,145
	1992 (e)	130,312	39,237	48,270	24,062	25,221	267,102	11,893	278,995
2	1993	142,486	36,940	53,041	28,043	29,009	289,519	9,665	299,184
	1994 P	147,347	38,920	53,885	27,733	33,125	301,010	10,563	311,573

P = Preliminary

-- Data not available

(a) Excludes commuter rail, automated guideway, urban ferry boat, demand response, and most rural and smaller systems prior to 1984. Series not continuous between 1983 and 1984.

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

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

(d) Includes conductors.

(e) Beginning 1992, ticketing, fare collection, and security personnel reclassified from "All Other" to "Other Operations," and vehicle maintenance administrative and support personnel reclassified from "Other Maintenance" to "Vehicle Maintenance."

TABLE 56

File: EMPMODE

CALENDAR YEAR	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL	TROLLEY BUS	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL
1984	3,242	47,047	21,884	2,012	154,326	23,798	3,100	255,409
1985	2,980	49,670	22,929	1,893	157,581	23,767	3,217	262,037
1986	3,511	51,028	22,414	2,140	165,839	20,664	3,512	269,108
1987	3,806	51,333	23,270	2,090	165,176	19,068	3.340	268,083
1988	3,922	46,212	23,188	2,039	165,407	21,391	3,323	265,482
1989	3,952	46,690	22,215	2,013	162,990	21,453	3.604	262,917
1990	4,066	46,102	21,443	1,925	162,189	22,740	3,711	262,176
1991	4,175	47,423	21,083	1,826	163,555	24,196	3.599	265.857
1992	3,849	47,493	21,151	1,691	163,387	25,863	3,668	267,102
1993	3,920	52,433	20,634	1,944	177,167	30,021	3,400	289.519
1994 P	5,086	51,943	22,526	1,960	179,112	36,802	3,581	301,010

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 systems and whose compensation is classified as "services"--e.g. boiler repairman, marketing consultant, independent auditor.

Employment and Labor Expense, Millions of Dollars (a)

CALENDAR YEAR	NUMBER OF EMPLOYEES (b)(c)	SALARIES AND WAGES	FRINGE BENEFITS	TOTAL LABOR EXPENSE
1980	187,000	3,280.9	1,353.1	4,634.0
1981	191,600	3,493.5	1,649.1	5,142.6
1982	193,500	3,731.4	1,756.5	5,487.9
1983	194,960	3,921.3	1,977.3	5,898.6
1984	263,197	5,487.8	2,716.7	8,204.5
1985	270,020	5,843.1	2,868.3	8,711.4
1986	277,854	6,119.2	3,125.9	9,245.1
1987	276,610	6,324.1	3,266.9	9,591.0
1988	275,583	6,675.0	3,528.9	10,203.9
1989	272,487	6,897.7	3,737.3	10,635.0
1990	272,839	7,226.3	3,986.0	11,212.3
1991	276,145	7,394.5	3,998.4	11,392.9
1992	278,995	7,670.5	4,318.6	11,989.1
1993	299,184	7,932.1	4,400.3	12,332.4
1994 P	311,573	8,648.5	4,769.3	13,417.8

P = Preliminary

Energy and Environment

⁽a) Excludes commuter rail, automated guideway, urban ferry boat, demand response, and most rural and smaller systems and capital employees prior to 1984. Series not continuous between 1983 and 1984.
(b) 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.
(c) Excludes an estimated 10,000-20,000 individuals not employed by transit systems and whose compensation is classified as "services."

Fossil Fuel Consumption, Thousands of Gallons and Pounds (a)

CALENDAR YEAR	1 1 2 mg		DIESEL	GALLONS			OTHER GALLONS (b)	CNG POUNDS
1980 1981 1982 1983	y y	e v	431,400 445,950 455,590 450,260			jii esi T	11,400 13,950 11,670 9,460	R =
	COMMUTER RAIL	FERRY BOAT (c)	MOTOR BUS	DEMAND RESPONSE	OTHER	TOTAL		N VI
1984	58,320	21,624	505,049	15,371 (d)	(d)	600,364	49,907	y e
1985	55,372	20,747	518,137	14,482 (d)	(d)	608,738	45,704	
1986	54,608	22,655	546,892	15,868	21	640,044	38,156	
1987	51,594	19,901	543,314	15,393	71 65	630,273	34,220 40.055	
1988	53,054	19,202	552,658	15,090	118	640,069 638.016	39,389	
1989	52,516	19,402 19,627	551,156 563,151	14,824 15,497	74	651,030	33,906	
1990	52,681	20,465	572,861	17,422	95	665,158	34,467	
1991 1992	54,315 54,951	20,465	592,049	16,896	122	684.944	37,179	6,352
1993	59,766	19,968	575,740	22,890	147	678,511	45,672	9,939
1994 P	60,888	20,417	586,912	29,907	171	698,295	64,204	16,182

P = Preliminary

--- Data not available

(d) Demand response and other combined.

TABLE 59

File: ALTFUEL

Non-Diesel Fossil Fuel Consumption, Thousands of Gallons and Pounds (a)

			GALLONS			POUNDS
CALENDAR YEAR	GASOLINE	PROPANE (LIQUID PETROLEUM GAS)	LIQUID NATURAL GAS	METHANOL	OTHER	COMPRESSED NATURAL GAS
1992 1993 1994 P	32,906 37,928 48,248	2,487 2,098 2,371	191 474 1,345	1,583 4,975 12,101	12 197 139	6,352 9,939 16,182

P = Preliminary

⁽a) Data includes passenger vehicles and locomotives; excludes non-passenger-vehicle and non-vehicle consumption. Excludes commuter rail, automated guideway, urban ferry boat, demand response, and most rural and smaller systems prior to 1984. Series not continuous between 1983 and 1984.

(b) Includes gasoline and all other non-diesel fossil fuels except CNG.

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

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

TOTAL

2,446 2,655 2,722 2,930

4,238 4,216

82222222

70 70 68 68 69 69 72 80 73

173 191 243 242 239 274 297 281 285

FABLE 60

ALL OTHER TROLLEY BUS 245 (b) 245 (b) Electric Power Consumption, Millions of Kilowatt Hours (a) LIGHT RAIL HEAVY RAIL 3,092 2,928 COMMUTER RAIL CALENDAR YEAR 1980 1981 1982 1983 1984

P = Preliminary

non-passenger-vehicle and non-vehicle consumption. 84. Series not continuous between 1983 and 1984. prior to 1984. excludes cles and locomotives; automated guideway (a) Data

bus, and all other combined.

TABLE 61

Energy Efficiency of Transit

- A bus with as few as seven passengers is more fuel efficient than the average single-occupant auto used for commuting.
- The fuel efficiency of a fully-occupied bus is six times greater than that of the average commuter single-occupant auto.
- The fuel efficiency of a fully-occupied rail car is 15 times greater than that of the average commuter single-occupant auto.
- A single person commuting via transit instead of driving alone will save 200 gallons of gasoline in a year.
- A 10 percent increase in transit ridership in the five largest U.S. cities would save 85 million gallons of gasoline a year.
- A 10 percent nationwide increase in transit ridership would save 135 million gallons of gasoline a year.

Every Commuter Who Switches From Driving Alone to Transit Saves 200 Gallons of Gasoline Per Year!



Source: APTA, Public Transit - The Vehicle For Conserving Energy, 1991.

1986 1987 1989 1989 1990

TABLE 62

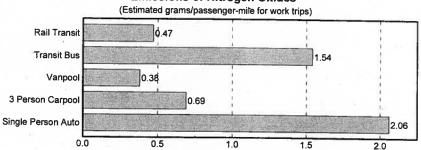
Transportation Energy	Transportation Energy Use by Mode, 1993, Trillions of BTUs	f BTUs
19	FUEL CONSUMPTION	PER CENT
Automobiles	9,392.6	40.0%
Transit Buses	87.8	0.4%
Other Buses	94.1	0.4%
Trucks	7,925.2	33.7%
Motorcycles	24.7	0.1%
TOTAL HIGHWAY	17,524.4	74.6%
Off-highway	706.5	3.0%
Air	1,995.9	8.5%
Water	1,472.8	6.3%
Pineline	889.1	3.8%
Transit Rail	42.2	0.2%
Committer Rail	21.4	0.1%
Intercity Rail	17.8	0.1%
Freight Rail	381.6	1.6%
Military (a)	450.0	1.9%
TOTAL	23 501.7	100.0%

(a) Military data no longer reported; estimate based on slight reduction in 1992 data. Source: U.S. Department of Energy, *Transportation Energy Data Book: Edition 15*, Table 2.7

TABLE 63

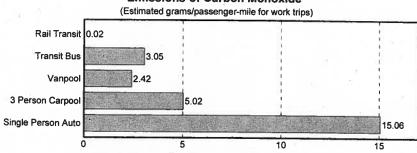
Pollution Reduction Resulting From Transit Use

Emissions of Nitrogen Oxides*



*Damages lung tissues. Also precursor of ozone which irritates respiratory tract and eyes, decreases the lungs' working ability and causes both cough and chest pain.

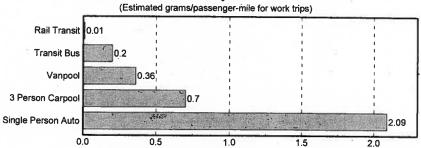
Emissions of Carbon Monoxide*



*Limits blood's ability to transport oxygen to body tissues.

Can cause dizziness, headaches, impaired coordination and death.

Emissions of Hydrocarbons*



*Precursor of ozone which irritates respiratory tract and eyes, decreases the lungs' working ability and causes both cough and chest pain.

Source: APTA, Mass Transit - The Clean Air Alternative, 1991.

SECTION XI

Federal Legislation

110

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 systems for capital equipment purchases.

Continuing this commitment through its third decade, Congress enacted the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). The ISTEA not only authorizes higher levels of funding for transit than any previous law, it also provides for flexible use of additional funds for either highway or transit purposes and requires greater coordination of highway and transit planning to provide for the most efficient surface transportation system to meet local needs.

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

- 1961: The Housing and Urban Development Act of 1961 provided transit demonstration funding and mass transportation project loans.
- 1964: The Urban Mass Transportation Act of 1964 established the Urban Mass Transportation Administration (UMTA) within the Department of Housing and Urban Development to provide capital grants to transit systems.
- 1966: The Urban Mass Transportation Act of 1966 expanded capital funding and allowed funding for research, planning, and training. UMTA was moved to the newly created Department of Transportation (DOT).
- 1970: The Urban Mass Transportation Assistance Act of 1970 authorized a \$3.1 billion program of capital grants.
- 1973: The Federal-Aid Highway Act of 1973 increased the federally funded portion of transit capital projects from 66 2/3% to 80% and authorized the use of Federal-Aid Urban Systems highway funds and Interstate Highway Transfers for qualifying transit projects.
- 1974: The National Mass Transportation Assistance Act of 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.

- 1978: The Federal Public Transportation Act of 1978, Title III of the Surface Transportation Assistance Act of 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.
- 1982: The Federal Public Transportation Act of 1982, Title III of the Surface Transportation Assistance Act of 1982 provided that $1 \, \phi$ of a $5 \, \phi$ 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 transit service data as well as population data.
- 1987: The Federal Mass Transportation Act of 1987, Title III of the Surface Transportation and Uniform Relocation Assistance Act of 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 raised to 1.5¢ the portion of the Highway Trust Fund tax on motor fuels to be placed in the Mass Transit Account.
- 1991: The Federal Transit Act Amendments of 1991, Title III of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) extended transit assistance through FY 1997, vastly increased the amounts authorized, re-named the transit law the Federal Transit Act and the Urban Mass Transportation Administration the Federal Transit Administration, and converted the rail modernization portion of Section 3 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 transit 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.

- 1993: The Omnibus Budget Reconciliation Act of 1993 raised to 2¢ 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.

Funds for federal transit assistance come from two sources. Money from general governmental revenues is appropriated each year by Congress. As part of that process Congress sets a limit on the amount of money from the Highway Trust Fund Mass Transit Account that can be used to fund transit projects during the next year.

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

Major Capital Investment, 49 USC 5309 (formerly Section 3): Original grant program, begun in FY 1964, provides capital assistance to eligible transit 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 FY 1997.

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. New Start and Bus Capital funds are distributed by discretion of the Federal Transit Administration or may have amounts "earmarked" by Congress during the legislative process. Authorizing legislation designates 40% of the funds for New Starts, 40% for Rail Modernization, and 20% for Bus Capital.

Matching Ratio: 80% federal, 20% state and local.

Urbanized Area Formula (UAF), 49 USC 5307 and 5336 (formerly Section 9): Apportions operating and capital assistance on a formula basis to urbanized areas.

Status: Authorized through FY 1997.

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

Eligible Expenditures: Operations or capital projects by local decision up to a specific amount called the "operating limit" or "operating cap." Apportioned funds in excess of each urbanized area's operating limit may be used only for capital projects. The operating limit is calculated separately from each area's apportionment and is a limit on the use of apportioned funds—it is not additional money.

Method of Allocation: By six formulas based on urbanized area population and mode of transit service. These formulas are:

(1) Fixed guideway operations in urbanized areas over 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 over 750,000 population that have commuter rail operations receive a minimum of 0.75% of this formula.

- (2) Fixed guideway operations in urbanized areas over 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 over 750,000 population that have commuter rail operations receive a minimum of 0.75% of this formula.
- (3) Bus operations in urbanized areas over 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.
- (4) Bus operations in urbanized areas from 200,000 to 1,000,000 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.
- (5) Bus operations in urbanized areas over 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.
- (6) Mass transportation operations in urbanized areas less than 200,000 population, 9.32% of the UAF. The formula is 50% urbanized area population and 50% urbanized area population density weighted by population.

Matching Ratios: Operating assistance: 50% federal, 50% state and local. Capital assistance: 80% federal, 20% state and local.

Elderly and Disabled Persons, 49 USC 5310 (formerly Section 16(b)): Established by the UMT Act of 1970 to assure mass transportation availability to elderly and disabled persons.

Status: Authorized through FY 1997.

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

Eligible Expenditures: For capital equipment, contracted service, and state administrative costs.

Method of Allocation: Allocated by formula to states based on of elderly and disabled population with a fixed minimum amount for each state.

Matching Ratio: 80% federal, 20% state and local.

Rural Area Formula (RAF), 49 USC 5311 (formerly Section 18): Established by the STA Act of 1978 to apportion funds for mass transportation in rural areas outside of urbanized areas.

Status: Authorized through FY 1997.

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 5.5% of total UAF and RAF funds.

Matching Ratio: Operating assistance: 50% federal, 50% state and local. Capital assistance: 80% federal, 20% state and local.

Rural Transit Assistance Program, 49 USC 5311(b)(2) (formerly Section 18(h)): 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.

• 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 transit 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.

In particular, all transit buses and rail cars ordered after August 25, 1990 must be accessible to the mobility-impaired and contain audible and visual features to aid the hearing and sight-impaired. At least one car on every train had to be accessible by July 26, 1995.

All new passenger stations built after the effective date of the act must be accessible, and all "key" stations (end-of-line, transfer, and major traffic-generator) had to be retrofitted for accessibility by July 26, 1994, unless an extension was granted for extraordinarily expensive retrofitting.

By January 26, 1997, full compliance with the provisions requiring paratransit service is required.

• 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 transit 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 transit 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 nonattainment areas meet the requirement of reducing pollutant emissions.

The Environmental Protection Agency imposed emissions standards as a result of the Act that require transit 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 Major 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 antidrug and alcohol-misuse programs for their own as well as contracted safety-sensitive employees. All transit systems 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. Ferry boat employees are covered, but are also subject to Coast Guard regulations.

Educational, testing, and rehabilitation programs are required.

• Energy Policy Act of 1992 (Transit Benefit Law), authorized a tax-free employer-provided transit pass or subsidy fringe benefit for employees of \$60 per month and limited the similar benefit for parking to \$155 per month, which could be used when parking at a transit park-and-ride facility. Subsequent legislation made this a permanent benefit for federal employees, including the military.

SECTION XII

Canadian Statistics

Canadian Fixed-Route Summary Statistics, Millions

CALENDAR YEAR	NUMBER OF SYSTEMS (a)	REVENUE PASSENGER TRIPS	TOTAL VEHICLE MILES	OPERATING REVENUE (b)	DIRECT OPERATING EXPENSE (b)
1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1993	74 74 78 70 73 72 74 76 77 92 92 91	1,355.8 1,385.7 1,371.6 1,434.1 1,521.3 1,500.0 1,538.4 1,519.3 1,532.4 1,450.0 1,398.7 1,370.1 1,354.4	447.5 443.1 427.0 444.4 477.5 443.7 479.6 468.4 487.1 484.0 467.5 483.4 483.7	763.6 839.4 871.8 932.0 1,060.7 1,085.5 1,163.2 1,241.3 1,312.9 1,401.0 1,377.7 1,457.8 1,467.0	1,482.0 1,573.4 1,630.9 1,680.4 1,853.2 1,969.8 2,114.0 2,260.6 2,451.4 2,518.6 2,580.2 2,719.7 2,712.0

Source: Canadian Urban Transit Association.

TABLE 65

File CANVEH

CALENDAR YEAR	LIGHT RAIL	HEAVY RAIL	COMMUTER RAIL	TROLLEY BUS	MOTOR BUS	OTHER	TOTAL
1982	415	1,638 (a)	(a)	649	10,500	0	13,202
1983	392	1,619 (a)	(a)	649	10,396	2	13,058
1984	405	1,619 (a)	(a)	600	10,538	2	13,164
1985	398	1,574 (a)	(a)	552	10,114	75	12,713
1986	507	1,558 (a)	(a)	551	10,284	80	12,980
1987	516	1,449 (a)	(a)	513	10,434	77	12,989
1988	524	1,439 (a)	(a)	523	10,492	76	13,054
1989	593	1,652 (a)	(a)	488	9,961	235	12,929
1990	532	1,381 (a)	(a)	472	10,626	446	13,457
1991	527	1,379 (a)	(a)	272	10,992	372	13,542
1992	500	1,724 (a)	(a)	358	10.507	119	13,208
1993	547	1,679 (a)	(a)	308	10,710	279	13,523
1994	547	1,381	331	345	10,616	179	13,399

(a) Prior to 1994, heavy rail and commuter rail combined. Source: Canadian Urban Transit Association.

Canadian Fixed-Route Active Passenger Vehicles

⁽a) Number of systems is actual number.
(b) Monetary data are Canadian Dollars. Operating revenue excludes governmental subsidies.

Canadian Fixed-Route New Passenger Vehicle Purchases

CALENDAR YEAR	LIGHT RAIL	HEAVY RAIL	TROLLEY BUSES	MOTOR BUSES	OTHER	TOTAL
1982	8	10	120	813	0	951
1983	44	71	224	469	0	808
1984	29	0	24	340	0	393
1985	0	0	0	407	0	407
1986	0	0	0	326	0	326
1987	0	0	0	500	0	500
1988	0	0	0	354	0	354
1989	20	77	0	641	15	753
1990	0	0	0	487	67	554
1991	0	0	0	528	8	536
1992	16	0	0	549	60	625
1993	0	0	0	163	45	208
1994	0	0	0	250	37	287

Source: Canadian Urban Transit Association.

TABLE 67

File: CANFARES

Canadian Fixed-Route Fares (a)

		ADULT	CASH FARE (BASE	PERIOD)
CALENDAR YEAR	AVERAGE FARE PER PASSENGER TRIP	HIGH	LOW	AVERAGE
1982	0.56	0.85	0.40	0.62
1983	0.61	1.00	0.40	0.69
1984	0.64	1.00	0.50	0.74
1985	0.65	1.50	0.50	0.79
1986	0.70	1.50	0.50	0.86
1987	0.72	1.50	0.60	0.90
1988	0.76	1.50	0.50	0.95
1989	0.82	1.50	0.50	1.01
1990	0.86	1.75	0.50	1.07
1991	0.97	2.00	0.75	1.18
1992	0.97	2.50	0.75	1,22
1993	1.03	2.60	0.75	1.31
1994	1.05	2.60	0.75	1.35

(a) Data reported in Canadian dollars.
Source: Canadian Urban Transit Association.

TABLE 69

Canadian Fixed Guideway Mileage and Status and Mileage of Future Projects (a)

MODE (b)	STATUS	OPENS	MILES (c)
?	planning	?	0.0
? TOTA	NĹ .	34	0.0
AG	construction	?	0.0
AG	open	open	15.2
AG	planning	?	0.0
AG TOTA	\L		15.2
CR	design	?	0.0
CR	open	open	320.0
CR	planning	?	0.0
CR	proposed	?	
CR TOTA	L .		320.0
FB	construction	?	0.0
FB	design	?	0.0
-B	open	open	3.1
₹B	planning	?	0.0
B TOTA	L		3.1
HR	construction	1996	1.0
I R	construction	2001	6.9
HR	design	?	3.2
łR	open	open	71.3
łR .	planning	?	0.0
IR TOTA	Ĺ		82.4
P	open	open	0.1
P TOTA			0.1
₹	design	?	1.9
₹	open	open	4.0
R TOTAL	<u>L</u>		5.9
R	construction	1996	2.3
R	design	?	0.0
R	open	open	92.5
R	planning	?	10.4
R	planning	2005	
R	planning	2008	
R TOTAL			105.2
IB	construction	1996	21.0
IB	construction	1999	6.8
IB	design	1996	2.5

Canadian Fixed-Route Employees

TABLE 68

	0 4 01 11 1		CLINE	LIGHT	L 1011 LJ 14014	0111110	TOTAL
	YEAR	VEHICLE OPERATORS	OPERATIONS	MAINTENANCE	MAINTENANCE	ALL OTHER	
	1982	20,693 (a)	(a)	5,576	2,303	6,680	35,252
	1983	20,259 (a)	(a)	3,799	4,490	6,224	34,772
	1984	19,804 (a)	(a)	5,486	2,537	6,301	34,128
	1985	20,505 (a)	(a)	5,976	2,782	5,550	34,813
	1986	19,206	2,840	6,824	3,174	3,952	39,996
	1987	19,951	2,902	6,939	3,165	4,061	37,018
	1988	20,402	3,028	7,235	3,031	4,297	37,993
	1989	20,739	2,870	7,374	3,262	5,061	39,306
	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	21,209	2,657	6,620	3,219	4,452	38,156
	1994	21,558	2,811	6,857	3,282	4,755	39,327
ļ							

(a) Vehicle operators and other operations combined. Source: Canadian Urban Transit Association.

Canadian Fixed Guideway Mileage and Status and Mileage of Future Projects (a)

MODE (b)	STATUS	OPENS	MILES (c)
MB	design	1997	7.5
МВ	open	open	55.2
МВ	planning	?	0.0
MB TOTAL			93.0
тв	construction	?	0.0
тв	design	?	0.0
ТВ	open	open	210.3
тв	planning	?	0.0
TB TOTAL		3 2 3	210.3

^{? =} Uncertain, unknown, or not reported.

Source: APTA survey

Canadian Motor Bus Fixed Guideway Over 3 Miles in Length (a) TABLE 70

FILE:MBFBCAN

LOCATION	GUIDEWAY	SEGMENT	MILES
Montreal, PQ	Cote des Neiges Bus Lanes	Jean Talon-Rene Levesque	3.4
Montreal, PQ	Du Parc Bus Lanes	Jean Talon-Rene Levesque	3.2
Montreal, PQ	Henri Bourassa Bus Lanes	Lacordaire-St. Laurent	4
Montreal, PQ	Pie IX Bus Lanes	47th-Pierre de Coubertin	3.7
Montreal, PQ	Rene Levesque Bus Lanes	Atwater-St. Denis	4
Ottawa, ON	East-West Transitway	Blair-Baseline	10.0
Ottawa, ON	Southeast Transitway	Hurdman-South Kevs	. r.
Quebec, PQ	Boul du Jardin-1e Ave Bus Lanes	Boul du Jardin/des Loutres-1e Ave/24e Rue	4.3
Quebec, PQ	Quatre-Bourgeois-Boul Laurier Bus Lanes	Entre des 3 drapeaux U.LEdifice Marly	3.7

Source: APTA survey

⁽a) Data as of January 1, 1995, plus updated information where known.

⁽b) Motor bus data includes only fixed guideways 1.0 miles in length or longer; data for all other modes includes all guideways.

⁽c) Excludes data for a few guideways for which mileage was not reported.

TABLE 71

	OPERATING EXPENSE (a)	64.4 75.6 118.3
	OPERATING REVENUE (a)	15.9
Aillions	TOTAL VEHICLE MILES	17.0 18.7 29.3
nmary Statistics, N	REVENUE PASSENGER TRIPS	4.6 5.2 7.2
s for Disabled Sun	NUMBER OF SYSTEMS	47
Canadian Services for Disabled Summary Statistics, Millions	CALENDAR YEAR	1991

64.4 75.6 118.3

(a) Number of systems is actual number.
(b) Monetary data are Canadian Dollars. Operating revenue excludes governmental subsidies. Source: Canadian Urban Transit Association.

Glossary

GENERAL DEFINITIONS

File: GLOSS

Commuter

A person who travels regularly between home and work or school.

Fixed Guideway System

A system of vehicles that can operate only on its own guideway constructed for that purpose (e.g., rapid rail, light rail). Federal usage in funding legislation also includes exclusive right-of-way bus operations, trolley buses and ferryboats as "fixed guideway" transit.

Intermodal

Those issues or activities which involve or affect more than one mode of transportation, including transportation connections, choices, cooperation and coordination of various modes. Also known as "multimodal."

Mass Transit

Another name for "Public Transportation."

Mass Transportation

Another name for "Public Transportation."

Multi-Mode Transit System

A system operating more than one mode of service.

National Transportation System

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.

Public Transit System

An organization that provides transportation services owned, operated, or subsidized by any municipality, county, regional authority, state, or other governmental agency, including those operated or managed by a private management firm under contract to the government agency owner.

Public Transportation

Transportation by bus, rail, or other conveyance, either publicly or privately owned, which provides to the public general or special service on a regular and continuing basis. Also known as "mass

transportation," "mass transit" and "transit."

Reverse Commuting

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

A form of transportation, other than public transit, in which more than on person shares the use of the vehicle, such as a van or car, to make a trip. Also known as "carpooling" or "vanpooling."

Transit

Another name for "Public Transportation."

Transit System

An organization (public or private) providing local or regional multioccupancy-vehicle passenger service. Organizations that provide service under contract to another agency are generally not counted as separate systems.

GEOGRAPHIC AND INFRASTRUCTURE DEFINITIONS

Arterial Street

A major thoroughfare, used primarily for through traffic rather than for access to adjacent land, that is characterized by high vehicular capacity and continuity of movement.

Auto Restricted Zone

An area in which normal automobile traffic is prohibited or limited to certain times, and vehicular traffic is restricted to public transit, emergency vehicles, taxicabs and, in some cases, delivery of goods.

Bus Lane

A street or highway lane intended primarily for buses, either all day or during specified periods, but sometimes also used by carpools meeting requirements set out in traffic laws.

Busway

Exclusive freeway lane for buses and carpools.

Central Business District (CBD)

The downtown retail trade and commercial area of a city or an area of very high land valuation, traffic flow, and concentration of retail business offices, theaters, hotels and services.

Commuter Lane

Another name for "High-Occupancy Vehicle Lane."

Contraflow Lane

Reserved lane for buses on which the direction of bus traffic is opposite to the flow of traffic on the other lanes.

Corridor

A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways and transit route alignments.

Crosstown

Non-radial bus or rail service which does not enter the Central Business District (CBD).

Exclusive Right-of-Way

A highway or other facility that can only be used by buses or other transit vehicles.

Fringe Parking

An area for parking usually located outside the Central Business District (CBD) and most often used by suburban residents who work or shop downtown.

High-Occupancy Vehicle (HOV) Lane

Exclusive road or traffic lane limited to buses, vanpools, carpools, and emergency vehicles. Also called "busway," "transitway," or "commuter lane."

Kiss and Ride

A place where commuters are driven and dropped off at a station to board a public transportation vehicle.

Park and Ride Lot

Designated parking areas for automobile drivers who then board transit vehicles from these locations.

Transfer Center

A fixed location where passengers interchange from one route or vehicle to another.

Transitway

Another name for "High-Occupancy Vehicle Lane."

Urban Place

A U.S. Bureau of Census-designated area consisting of incorporated political units or closely settled unincorporated areas outside an urbanized area.

Urbanized Area (UZA)

A U.S. Bureau of Census-designated area of 50,000 or more inhabitants consisting of a central city or two adjacent cities plus surrounding densely settled territory, but excluding the rural portion of cities.

MODE AND VEHICLE DEFINITIONS

Active Vehicle

Transit passenger vehicles licensed, where required, and maintained for regular use, including spares and vehicles out of service for maintenance purposes, but excluding vehicles in "dead" storage, leased to other operators, in energy contingency reserve status, permanently not usable for transit service, and new vehicles not yet outfitted for active service.

Aerial Tramway

An electric system of aerial cables with suspended unpowered 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.

Automated Guideway

An electric railway operating without vehicle operators or other crew on board the vehicle.

Cable Car

An electric railway operating in mixed street traffic with unpowered, individually-controlled transit vehicles propelled by moving cables located below the street surface and powered by engines or motors at a central location not on board the vehicle.

Carpool

An arrangement where two or more people share the use and cost of privately owned automobiles in traveling to and from pre-arranged destinations together.

Commuter Rail

Railroad local and regional passenger train operations between a

central city, its suburbs, and/or another central city. It may be either locomotive-hauled and self-propelled, and is 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. Also known as "suburban rail."

Demand Response

Non-fixed-route service utilizing vans or buses with passengers boarding and alighting at pre-arranged times at any location within the system's service area. Also called "Dial-a-Ride."

Dial-a-Ride

Another name for "Demand Response."

Downtown People Mover

A type of automated guideway transit vehicle operating on a loop or shuttle route within the central business district of a city.

Ferryboat

A boat providing fixed-route service across a body of water.

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 and taxicabs. Modes include motorbus, trolleybus, jitney, vanpool, heavy rail, light rail, commuter rail, aerial tramway, automated guideway, monorail, cable car, inclined plane, and ferryboat.

Heavy Rail

An electric railway with the capacity for a "heavy volume" of traffic and characterized by exclusive rights-of-way, multi-car trains, high speed and rapid acceleration, sophisticated signaling, and high platform loading. Also known as "rapid rail," "subway," "elevated (railway)," or "metropolitan railway (metro)."

High Occupancy Vehicle (HOV)

Vehicles 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."

High Speed Rail

A rail transportation system with exclusive right-of-way which serves

densely traveled corridors at speeds of 124 miles per hour (200 km/hr) and greater.

Inclined Plane

A railway operating over exclusive right-of-way on steep grades with unpowered vehicles propelled by moving cables attached to the vehicles and powered by engines or motors at a central location not on board the vehicle.

Jitney

Privately-owned, small or medium-sized vehicle usually operated on a fixed route but not on a fixed schedule.

Light Rail

An electric railway with a "light volume" traffic capacity compared to "heavy rail." Light rail may use shared or exclusive rights-of-way, high or low platform loading, and multi-car trains or single cars. Also known as "streetcar," "trolley car," and "tramway".

Magnetic Levitation (Mag-Lev)

A rail transportation system with exclusive right-of-way which is propelled along a fixed guideway system by the attraction or repulsion of magnets on the rails and under the rail cars.

Metropolitan Railway

Another name for "Heavy Rail."

Mode

Transit service operated in a particular format. There are two types: fixed-route and non-fixed-route.

Monorail

An electric railway in which a rail car or train of cars is suspended from or straddles a guideway formed by a single beam or rail. Most monorails are either heavy rail or automated guideway systems.

Motorbus

A rubber-tired, self-propelled, manually-steered vehicle with fuel supply carried on board the vehicle. Types include:

Advanced Design Bus: A bus introduced in 1977 that incorporates new styling and design features compared to previous buses.

Articulated Bus: A bus usually 55 feet or more in length with two connected passenger compartments that bends at the connecting point when the bus turns a corner.

Charter Bus: A bus transporting a group of persons who, pursuant to a common purpose, and under a single contract at a fixed price, have acquired the exclusive use of a bus to travel together under an itinerary.

Circulator Bus: A bus serving an area confined to a specific locale, such as a downtown area or suburban neighborhood with connections to major traffic corridors.

Double: **Deck Bus:** A bus with two separate passenger compartments, one above the other.

Express Bus: A bus that operates a portion of the route without stops or with a limited number of stops.

Feeder Bus: A bus service that picks up and delivers passengers to a rail rapid transit station or express bus stop or terminal.

Intercity Bus: A bus with front doors only, high-backed seats, separate luggage compartments, and usually with restroom facilities for use in high-speed long-distance service.

Medium Size Bus: A bus from 29 to 34 feet in length.

New Look Bus: A bus with the predominant styling and mechanical equipment common to buses manufactured between 1959 and 1978.

Sightseeing Bus: A bus adapted for sightseeing use, usually with expanded window areas.

Small Bus: A bus 28 feet or less in length.

Standard-Size Bus: A bus from 35 to 41 feet in length.

Subscription Bus: A commuter bus express service operated for a guaranteed number of patrons from a given area on a prepaid, reserved seat basis.

Suburban Bus: A bus with front doors only, normally with high-backed seats, and without luggage compartments or restroom facilities for use in longer-distance service with relatively few stops.

Transit Bus: A bus with front and center doors, normally with a rearmounted engine, low-back seating, and without luggage compartments or restroom facilities for use in frequent-stop service.

Van: A 20-foot long or shorter vehicle, usually with an automotive-type engine and limited seating normally entered directly through side or rear doors rather than from a central aisle, used for demand response, vanpool, and lightly patronized motorbus service.

Non-Fixed-Route

Service <u>not</u> provided on a repetitive, fixed-schedule basis along a specific route to specific locations. Demand response is the only non-fixed-route mode.

Paratransit

Comparable transportation service required by the Americans with Disabilities Act (ADA) of 1990 for individuals with disabilities who are unable to use fixed-route transportation systems.

Rapid Rail

Another name for "Heavy Rail."

Rapid Transit

Rail or motorbus transit service operating completely separate from all modes of transportation on an exclusive right-of-way.

Rehabilitation

Major rebuilding or repair of a transit passenger vehicle for the purpose of preserving its useful service life.

Rolling Stock

The vehicles used in a transit system, including buses and rail cars.

Shuttle

A public or private vehicle that travels back and forth over a particular route, especially a short route or one that provides connections between transportation systems, employment centers, etc.

Streetcar

Another name for "Light Rail."

Suburban Rail

Another name for "Commuter Rail."

Trackless Trolley

Another name for "Trolleybus."

Tramway

Another name for "Light Rail."

Transit Passenger Vehicle

A vehicle used to carry passengers in transit service.

Trolley Car

Another name for "Light Rail."

Trolley Coach

Another name for "Trolleybus."

Trolleybus

An electric rubber-tired transit vehicle, manually steered, propelled by a motor drawing current through overhead wires from a central power source not on board the vehicle. Also known as "trolley coach" or "trackless trolley."

Urban Ferryboat

A boat providing fixed-route service across a body of water with one or more terminals within an urbanized area, excluding international and urban park ferries.

Vanpool

An arrangement in which a group of passengers share the use and cost of a van in traveling to an from pre-arranged destinations together.

Wheelchair Accessible Vehicle

A vehicle that a wheelchair-bound person may enter either 1) via an on-board retractable lift or ramp, 2) directly from a station platform reached by an elevator or a ramp that is either level with the vehicle floor or can be raised to floor level.

OPERATING EXPENSE DEFINITIONS

Vehicle Operations

Expense for labor, materials, fees, and rents required for operating transit vehicles and passenger stations including all fuels for vehicle propulsion except electric propulsion power.

Vehicle Maintenance

Expense of labor, materials, services, and equipment used to repair and to service transit vehicles and service vehicles.

Non-Vehicle Maintenance

Expense of labor, materials, services, and equipment used to repair and service way and structures, vehicle movement control systems, fare collection equipment, communication systems, buildings and grounds, and equipment other than vehicles including expense of electric propulsion power for transit vehicles.

General Administration

Expense of labor, materials, and fees associated with general office functions, insurance, safety, legal services, and customer services.

Purchased Transportation

Expense of labor, materials, and fees paid to companies or organizations providing transit service under contract.

Total Operating Expense

The sum of "Vehicle Operations," "Vehicle Maintenance," "Non-Vehicle Maintenance," "General Administration," and "Purchased Transportation."

Depreciation and Amortization

Decline in value of transit system assets incurred through use of tangible property (depreciation) and intangible property (amortization). Because property is depreciated or amortized on a formula basis over several years, the amount recorded as depreciation or amortization normally does not represent the actual money spent for property in any specific time period.

Many public transit systems receive financial assistance for the purchase of property (capital assistance). Although the property purchased with capital assistance might be depreciated or amortized and thus reported as an "expense" in this book, any financial assistance received for the purchase of property is not included in "revenue" or "operating assistance" amounts.

Other Reconciling Items

All other expenses in addition to "Total Operating Expense" and "Depreciation and Amortization" including interest expenses and leases and rentals.

Total Expense

The sum of "Total Operating Expense," "Depreciation and Amortization," and "Other Reconciling Items."

Salaries and Wages

Pay and monetary allowances, including overtime, to employees for performance of their work.

Fringe Benefits

Pay or accruals to or on behalf of employees <u>not</u> for performance of their work, including sick pay, holiday pay, vacation pay, pension plans, life insurance, health insurance, unemployment insurance, social security, workmen's compensation, and other allowances.

Total Labor Costs

Sum of "Salaries and Wages" and "Fringe Benefit Costs."

Services

Labor or other work provided by outside organizations for a fee.

Fuel and Lubricants

Gasoline, diesel, other fuels, and vehicle lubricants.

Other Materials and Supplies

Materials and supplies other than "Fuel and Lubricants."

Utilities

Utilities including electric, gas, water, and telephone service, and propulsion power for electric vehicles.

Casualty and Liability

Protection of transit system from loss through insurance programs or for compensation of others for losses due to acts for which the transit system is liable.

Purchased Transportation

Expense of labor, materials, and fees paid to companies or organizations providing transit service under contract.

Other

Taxes, expense transfers, and miscellaneous expenses.

OPERATING FUNDING DEFINITIONS

Operating Assistance

Financial assistance for transit operations (not capital expenditures). Such aid may originate with federal, local, or state governments.

Other Operating Funds

Funds derived from (1) organizations paying money in lieu of passenger fares, and charter, school bus, and freight service; (2) transit-related services such as station and vehicle concessions and advertising; and (3) non-transit-related services, such as rental of vehicles and properties, investment income, and non-park-and-ride parking funds.

Passenger Fares

Money, including fares and transfer, zone or distance, and park-andride parking charges, paid by transit passengers; also known as "farebox revenue." Prior to 1984, data does not include fares collected by contractors operating transit service.

Adult Base Fare

Basic fare paid by one person for one transit ride; excludes transfer charges, zone or distance charges, express service charges, peak period surcharges, and reduced fares.

Average Fare per Unlinked Passenger Trip

"Passenger Fares" divided by "Unlinked Passenger Trips."

Peak Period Surcharge

An extra fee required during peak periods (rush hours).

Transfer Charge

An extra fee charged for a transfer to use when boarding another transit vehicle to continue a trip.

Zone or Distance Charge

An extra fee charged for crossing a predetermined boundary.

RIDERSHIP AND EMPLOYEE DEFINITIONS

Capital Employee

An employee involved with construction or capital procurement and who has no involvement with operation of the transit system.

Operating Employee

An employee involved with operation, maintenance, or administration of the transit system, excluding those involved in construction and capital procurement.

Passenger Miles

The total number of miles traveled by passengers on transit vehicles; determined by multiplying the number of unlinked passenger trips times the average length of their trips.

Revenue Passenger Trips

The number of fare-paying transit passengers with each person counted once per trip; excludes transfer and non-revenue trips.

Ridership

The number of rides taken by people using a public transportation system in a given time period.

Route Miles

The total number of miles included in a fixed route transit system network.

Single-Vehicle Transit Trip

A trip in which a person uses only one vehicle.

Total Motorbus Mile Equivalents

The number of vehicle miles that would have been operated by a transit mode if the service had been provided by motorbuses. Based on average seating plus standing capacity of the vehicle as compared to the capacity (70 people) of a standard-size motorbus.

Total Passenger Trips

Sum of all single-vehicle transit trips by (1) initial-board (first-ride) revenue passengers, (2) transfer passengers on second and successive rides, and (3) non-revenue passengers entitled to transportation without charge.

Unlinked Passenger Trips

The number of transit vehicle boardings, including charter and special trips. Each passenger is counted each time that person boards a vehicle.

Vehicle Miles Operated

Sum of all miles operated by passenger vehicles, including mileage when no passengers are carried. When vehicles are operated in trains, each vehicle is counted separately—e.g., an eight-vehicle train operating for one mile equals eight vehicle miles.

SECTION XIV

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