

Public Transportation Investment Background Data

**Updated:
July 12, 2010**

PUBLISHED BY

American Public Transportation Association



American Public Transportation Association

1666 K Street, N.W., Suite 1100

Washington, DC 20006

TELEPHONE: (202) 496-4800

E-MAIL: statistics@apta.com

www.apta.com

APTA's Vision Statement

Be the leading force in advancing public transportation.

APTA's Mission Statement

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

Prepared by

John Neff, Senior Policy Researcher
jneff@apta.com
(202) 496-4812

Public Transportation Investment Background Data

American Public Transportation Association
Washington, DC
July 12, 2010

Material from *Public Transportation Investment Background Data* may be quoted or reproduced without obtaining the permission of the American Public Transportation Association.

Suggested Identification: American Public Transportation Association. *Public Transportation Investment Background Data*. Washington, DC, July 12, 2010.

Table of Contents

I. Introduction 6

II. State of the Transit Industry 6

Figure 1: Since 1995 Transit Passenger Trips Have Grown More Rapidly Than Population or Highway Vehicle Miles of Travel

III. Where Transit Funds Come From 7

III. A. Directly Generated Revenues 7

III. B. Local Revenues 7

III. C. State Revenues 7

III. D. Federal Revenues 7

Figure 2: Sources of Capital Funds

Figure 3: Sources of Operating Funds

Table 1: Source of Capital Funding (Accrued Revenue)

Table 2: Source of Operating Funding (Accrued Revenue)

III. E. Overall Funding Sources 8

Table 3: Source of Total Funding, Operating and Capital Combined (Accrued Revenue)

III. F. Dedicated Revenues 9

III. G. The Trend in Funding 9

Figure 4: Growth in Capital Funding by Source, 1995-2008

Figure 5: Growth in Operating Funding Sources, 1995-2008

Table 4: Dedicated Revenue by Type of Source Tax, 2008, Urbanized Areas Only

III. H. Federal Transit Funding 10

Table 5: Federal Funding 2000 to 2010

Figure 6: Federal Appropriations and Total Funding Including Flexed Funds

Figure 7: Federal Authorizations and Appropriations

III. I. American Recovery and Reinvestment Act of 2009 (ARRA) Funds 13

Table 6: American Recovery and Reinvestment Act of 2009 (ARRA) Compared the FY 2009 Federal Transit Administration Appropriation

IV. What Transit Funds Are Spent For	13
<u>IV. A. Capital Expenditures</u>	13
Table 7: Capital Expense by Mode and Type of Investment, Millions of Dollars	
<u>IV. B. Vehicle Fleet Size and Vehicle Purchases</u>	15
Table 8: Number of Transit Vehicles by Mode, 1997 through 2008	
Table 9: Number of New Passenger Vehicles Delivered by Mode, 1997 through 2008	
Table 10: Active Roadway Vehicles from 2008 National Transit Database Revenue Vehicle Inventory for Urbanized Areas	
Table 11: Active Bus Vehicles by Length and Mode of Service from 2008 National Transit Database Revenue Vehicle Inventory for Urbanized Areas	
Table 12: Active Roadway Vehicles by Type of Vehicle and Length from 2008 National Transit Database Revenue Vehicle Inventory for Rural Areas	
Table 13: Roadway Vehicles Listed in 2008 and 2007 National Transit Database Vehicles Data by Year Built	
Table 14: Rail Vehicles Listed in 2008 and 2007 National Transit Database Vehicle Data by Year Built	
Table 15: FTA Required Minimum Useful Life Before Replacement by Vehicle Type	
Table 16: Rail Vehicles by Year of Manufacture from 2010 APTA Public Transportation Vehicle Database	
Table 17: Roadway Vehicles by Year of Manufacture from 2010 APTA Public Transportation Vehicle Database	
<u>IV. C. Fixed-Guideway Infrastructure</u>	21
Table 18: Openings of Entirely New Fixed-Guideway Systems, 2004 through May 2010	
Table 19: Miles of Track by Mode, 2002 through 2008	
Table 20: Stations and Maintenance Facilities by Mode, 2008	
<u>IV. D. Federal Capital Expenditures</u>	23
Table 21: Federal Capital Expenditures by Federal Use Purpose (Grant Approvals)	
Table 22: Status of New Starts Projects in Annual Federal Transit Administration New Starts Reports	
<u>IV. E. Operating Expenditures</u>	24
Table 23: Operating Expenditures by Function Class, 2005 through 2008	

V. How Much Could Be Spent 25

Table 24: Annual Capital Needs for Alternative Growth Scenarios, Billions of Dollars

VI. Are Voters Willing to Support Transit Investment? 25

Table 25: Local Referenda Approvals

VII. References 26

VI. A. American Public Transportation Association Publications 26

VI. B. Federal Transit Administration Publications 26

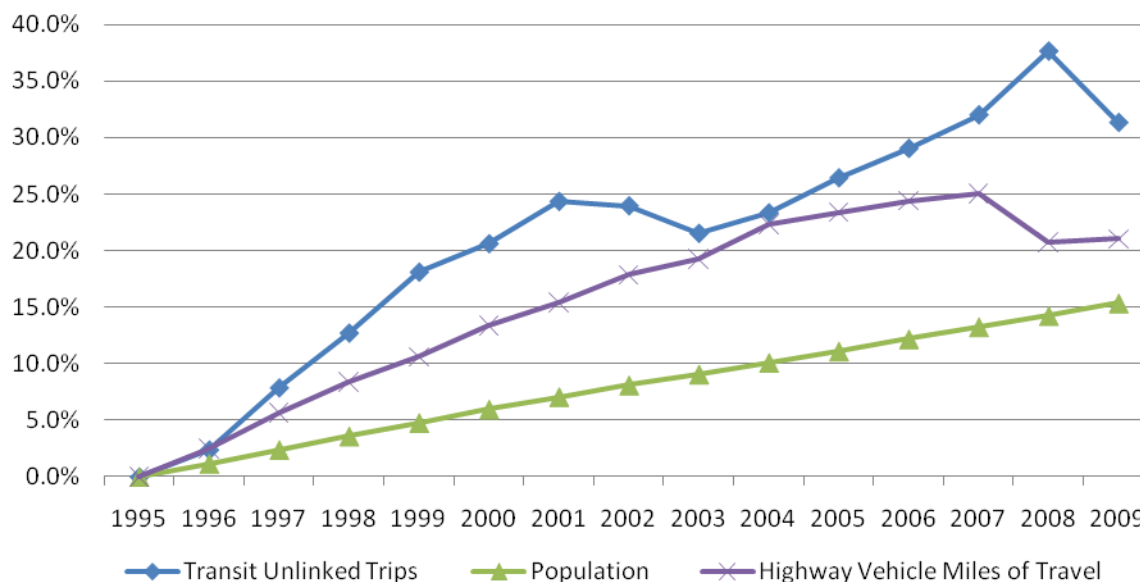
I. Introduction

This report assembles in one place brief answers for those questions which APTA is most frequently asked for background data about investment in transit with references to sources with more detailed information. Investment questions focus on transit financing: where do transit funds come from, how does the funding process work, how dependable are the funding sources, what do transit funds buy, and what level of funding does the transit industry need to meet the Nation's transportation needs?

II. State of the Transit Industry

The transit industry has recently experienced significant growth. In 2009 America's transit systems carried more than 10 billion passenger trips for the fourth consecutive year. Transit ridership grew 31 percent from 1995 through 2009, compared to 15 percent growth in population and 21 percent growth in highway vehicle miles of travel over the same period.

Figure 1: Since 1995 Transit Passenger Trips Have Grown More Rapidly Than Population or Highway Vehicle Miles of Travel



Over that same period entirely new light rail, heritage light rail, and streetcar systems opened in 16 cities: Charlotte, NC; Dallas, TX; Houston, TX; Jersey City, NJ; Kenosha, WI; Little Rock, AR; Los Angeles, CA; Minneapolis, MN; Phoenix, AZ; Portland, OR; Salt Lake City, UT; San Diego, CA; Seattle, WA (2 agencies have opened light rail lines in Seattle); Tacoma, WA; Tampa, FL; and Trenton, NJ. Since 1995, eleven new commuter rail lines have opened in Albuquerque, NM; Austin, TX; Dallas, TX; Minneapolis, MN; Nashville, TN; Portland, ME; Portland, OR; Salt Lake City, UT; San Diego, CA; Seattle, WA; and Stockton, CA; and a new heavy rail system opened in San Juan, PR. Many extensions to existing systems have also been completed since 1995

III. Where Transit Funds Come From

Transit revenue is categorized into four source groups based on the original source of the funds: funds directly generated by transit agencies, local government financial assistance, state government financial assistance, and federal government financial assistance. The words "funds" and "revenues" are used interchangeably.

Transit funding is also classified by use, either for operations or for capital. The definition of operating and capital funds differs between accounting practice and federal transit law. Federal transit law, as codified in Title 49, Chapter 53 of the United States Code, defines capital expenditures to include the purchase of capital items and the maintenance of rolling stock and facilities. The Federal Transit Administration's National Transit Database (NTD) defines a standard accounting system to meet the annual federal requirement for all transit agencies in urbanized areas receiving federal assistance to report financial and operating data. The NTD classifies maintenance expenditures as an operating expenditure, not a capital expenditure. Funds received for transit expenditures are classified in the NTD as operating or capital revenues based on their eventual use.

All funding data reported on the following tables is accrued revenue based on data from the National Transit Database expanded by APTA using accepted statistical procedures to account for transit agencies that do not report to the NTD such as agencies operating in rural areas, not for profit elderly and disabled service providers, small agencies in urbanized areas that obtain reporting waivers, and private systems that choose not to report to the NTD. The years for the data are NTD Report Years, which are a flexible time period that includes the Fiscal Year for each reporting transit agency that ends in the identified Calendar Year.

III. A. Directly Generated Revenues are any funds acquired by the transit agency or its oversight agency by their own activity as a business or by taxing actions where the agency has been enabled by the state to collect a specific tax in a specific area.

Directly Generated Funds account for 44.1 percent of all operating revenue and 32.4 percent of all capital revenue as shown on Tables 1 and 2. The largest portion of Directly Generated Revenue comes from Passenger Fares, 31.2 percent of all operating revenue, and smaller portions of operating revenue, as reported on Table 2, come from Directly Generated Other and Directly Generated Dedicated revenues. Directly Generated Other funds do not come from taxes and include advertising, concessions, parking revenues, and toll revenues from other sectors of operations. Directly Generated Dedicated funds are revenues that come from taxes controlled by the transit agency but enabled by a state government.

III. B. Local Revenues are any revenues where the tax or fee is assessed in a local or regional area and a local or regional government is empowered to implement the tax or fee. The actual collection of the tax or fee could be by another government, for example as an add-on to a state sales tax or income tax. Local revenue, also termed local financial assistance, in 2008 accounted for 23.1 percent of operating revenue and 15.4 percent of capital revenue. Both Directly Generated Revenues and Local Revenues are obtained in the transit agency's service area and should be combined when determining the funding that comes from "local" sources.

III. C. State Revenues, also called state financial assistance, are any revenue where the source tax or fee is imposed by a state government on the entire state. In 2008 state funds accounted for 25.8 percent of operating revenue and 12.3 percent of capital revenue.

III. D. Federal Revenues, also called federal financial assistance, are revenues that originated from federal government funds, even if they are transferred to other levels of government for final distribution. Federal funds provide 7.0 percent of operating revenue and 39.9 percent of capital revenue.

Figure 2: Sources of Capital Funds

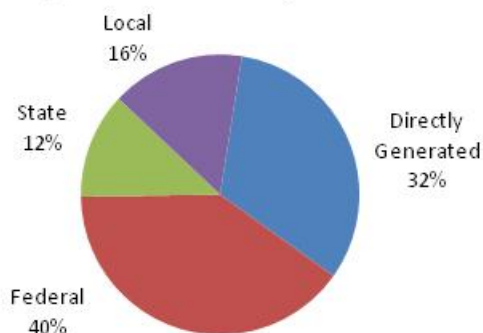


Figure 3: Sources of Operating Funds

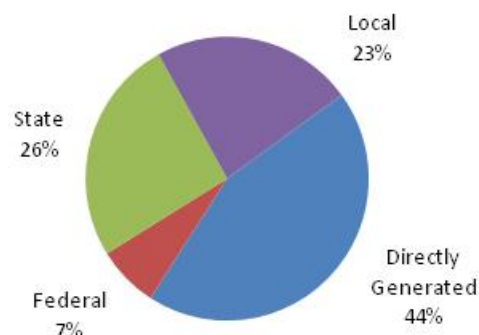


Table 1: Source of Capital Funding (Accrued Revenue)

Year	Directly Generated by Transit Agency		Federal	State		Local		Total
	Other	Dedicated		General Revenue	Dedicated	General Revenue	Dedicated	
Amount of Funding (Millions of Dollars)								
2005	1,376.5	1,902.7	4,824.8	334.2	1,229.0	329.5	2,386.8	12,383.4
2006	1,713.1	1,970.5	5,808.3	455.1	1,321.5	515.0	1,557.0	13,340.4
2007	2,280.3	2,509.4	5,864.4	473.6	1,126.5	454.7	1,601.3	14,310.2
2008	2,366.7	3,284.1	6,953.7	489.2	1,657.0	799.3	1,895.2	17,445.2
Percent of Annual Total								
2005	11.1%	15.4%	39.0%	2.7%	9.9%	2.7%	19.3%	100.0%
2006	12.8%	14.8%	43.5%	3.4%	9.9%	3.9%	11.7%	100.0%
2007	15.9%	17.5%	41.0%	3.3%	7.9%	3.2%	11.2%	100.0%
2008	13.6%	18.8%	39.9%	2.8%	9.5%	4.6%	10.9%	100.0%

Table 2: Source of Operating Funding (Accrued Revenue)

Year	Directly Generated by Transit Agency			Federal	State		Local		Total
	Passenger Fares	Other	Dedicated		General Revenue	Dedicated	General Revenue	Dedicated	
Amount of Funding (Millions of Dollars)									
2005	10,269.1	2,289.5	2,693.6	2,303.4	2,124.0	5,370.5	2,653.0	4,004.8	31,707.8
2006	11,194.9	2,349.9	2,796.6	2,591.9	2,147.7	5,526.6	2,816.5	4,288.7	33,712.8
2007	11,144.6	2,327.9	2,697.8	2,677.9	2,290.9	6,079.7	3,321.3	5,000.7	35,540.8
2008	11,860.0	2,444.4	2,448.1	2,674.0	2,867.0	6,927.8	3,757.3	4,996.4	37,975.0
Percent of Annual Total									
2005	32.4%	7.2%	8.5%	7.3%	6.7%	16.9%	8.4%	12.6%	100.0%
2006	33.2%	7.0%	8.3%	7.7%	6.4%	16.4%	8.4%	12.7%	100.0%
2007	31.4%	6.5%	7.6%	7.5%	6.4%	17.1%	9.3%	14.1%	100.0%
2008	31.2%	6.4%	6.4%	7.0%	7.5%	18.2%	9.9%	13.2%	100.0%

III. E. Overall Funding Sources for capital and operating revenue combined are shown on Table 3. All types of Directly Generated funds account for 40.4 percent of total revenue, Federal funds are 17.4 percent, State funds 21.5 percent, and Local funds 20.7 percent. Funds solely from the transit agency service areas, Directly Generated and Local combined, account for 61.1 percent of all revenue.

Table 3: Source of Total Funding, Operating and Capital Combined (Accrued Revenue)

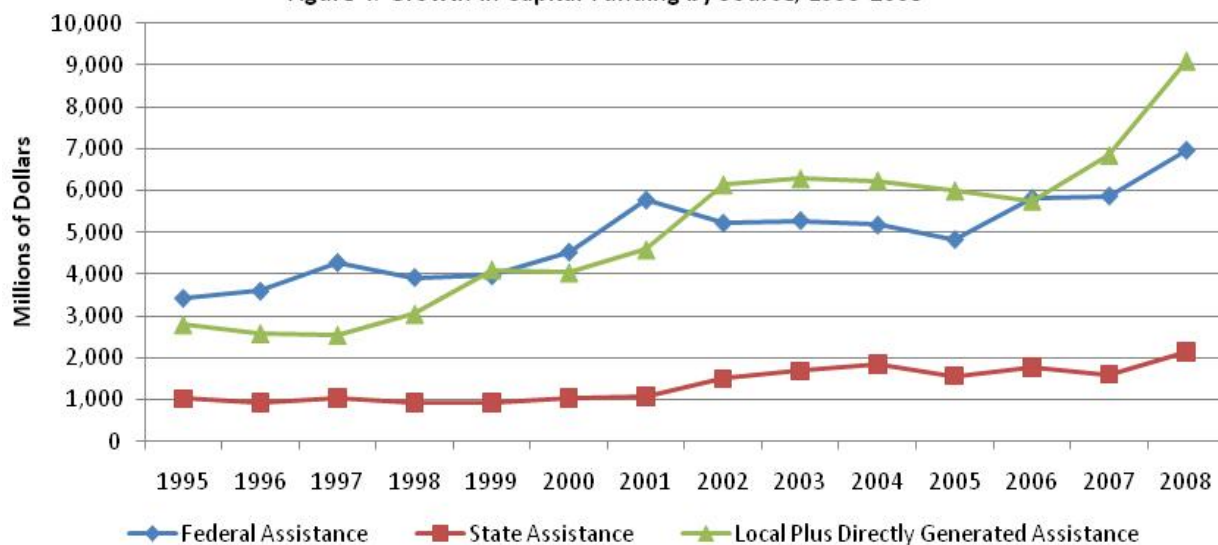
Year	Directly Generated by Transit Agency			Federal	State		Local		Total
	Passenger Fares	Other	Dedicated		General Revenue	Dedicated	General Revenue	Dedicated	
Amount of Funding (Millions of Dollars)									
2005	10,269.1	3,666.0	4,596.3	7,128.2	2,458.2	6,599.5	2,982.5	6,391.6	44,091.4
2006	11,194.9	4,063.0	4,767.1	8,400.2	2,602.8	6,848.1	3,331.5	5,845.7	47,053.3
2007	11,144.6	4,608.2	5,207.2	8,542.3	2,764.5	7,206.2	3,776.0	6,602.0	49,851.0
2008	11,860.0	4,811.1	5,732.2	9,627.7	3,356.2	8,584.8	4,556.6	6,891.6	55,420.2
Percent of Annual Total									
2005	23.3%	8.3%	10.4%	16.2%	5.6%	15.0%	6.8%	14.5%	100.0%
2006	23.8%	8.6%	10.1%	17.9%	5.5%	14.6%	7.1%	12.4%	100.0%
2007	22.4%	9.2%	10.4%	17.1%	5.5%	14.5%	7.6%	13.2%	100.0%
2008	21.4%	8.7%	10.3%	17.4%	6.1%	15.5%	8.2%	12.4%	100.0%

III. F. Dedicated Revenues are funds from any level of government that are "dedicated" for use to fund transit. Dedication does not guarantee a specific amount of funds will be collected, but does promise that funds, or a specified portion of funds, which are collected will be used for transit purposes. Dedicated funds from the Directly Generated, State, and Local sources accounted for 37.8 percent of operating revenue and 39.2 percent of capital revenue in 2008. In addition, a large portion, around 80 percent, of federal funds are from the Mass Transit Account of the Highway Trust Fund, which is a dedicated federal tax, and passenger fares and other transit agency earnings are by practice dedicated. Including these sources, approximately 75 percent of all operating revenue and more than 70 percent of capital funds come from "dedicated sources."

Non-dedicated funds would be funds that voted by a municipal, county, state, or other legislative body each year with funds being drawn from general revenues. Federal assistance derived from general revenues is non-dedicated.

III. G. The Trend in Funding from different sources is shown on Figures 4 and 5. Capital funding, on Figure 4, has seen significant growth from combined Directly Generated and Local Sources, 226 percent over the thirteen-year period, while Federal funds have grown 103 percent and state funds 110 percent.

Figure 4: Growth in Capital Funding by Source, 1995-2008



Federal operating funds have increased 227 percent from 1995 through 2008 but remain the smallest source of funding at only 7.0 percent of operating funds. State operating funds have increased 156 percent over the thirteen-year period, combined Directly Generated, except Passenger Fares, and Local Funds have increased 101 percent, and passenger fare revenue has increased 74 percent.

Figure 5: Growth in Operating Funding by Source, 1995-2008

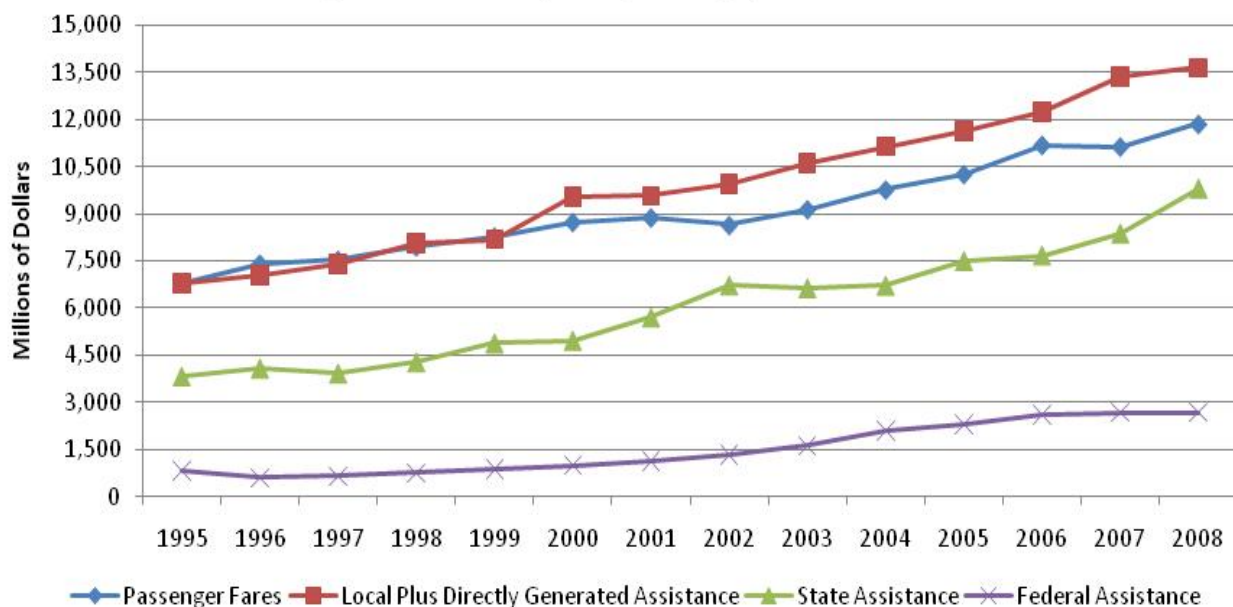


Table 4 reports the types of taxes that support dedicated funds from Directly Generated, State, and Local sources for operating assistance and capital assistance. The data are taken from the NTD and are only for agencies that report to the NTD, they are not expanded to represent all transit. The primary tax source is sales taxes, which account for 67.2 percent of dedicated taxes from those funding sources. Gasoline taxes are the source for 6.2 percent of all dedicated funding, income taxes for 7.8 percent, property taxes for 5.7 percent, and other taxes for 13.1 percent.

Table 4: Dedicated Revenue by Type of Source Tax, 2008, Urbanized Areas Only

Type of Tax	Dedicated Operating Revenue				Dedicated Capital Revenue			
	Directly Generated	State	Local	Total	Directly Generated	State	Local	Total
Dollars in Millions, 2008								
Income Tax	0.0	1,075.7	87.6	1,163.3	0.0	0.0	11.6	11.6
Sales Tax	1,547.3	3,216.2	3,396.4	8,159.9	969.9	218.4	735.5	1,923.8
Property Tax	322.5	0.1	404.6	727.2	2.8	0.0	119.2	122.0
Gasoline Tax	0.0	601.0	184.7	785.7	0.0	123.3	19.3	142.6
Other Tax	229.6	960.5	564.8	1,754.9	111.5	95.5	0.9	207.9
Total	2,099.4	5,853.4	4,638.2	12,591.0	1,084.3	437.2	886.4	2,407.9

III. H. Federal transit funding programs have provided transit funding since 1964. Table 5 and Figure 6 report federal funding from the Department of Transportation from 2000 through 2010. Authorizations and appropriations for the federal transit program, Title 49, Chapter 53, of the U.S. Code, are shown in Columns B and C of Table 5. An authorization is a long-term law, typically six years, that permits an annual appropriation of funds of money up to the amount authorized. The authorization also makes permanent changes to how the law operates, such as how funds are distributed and what activities they

can be used for. The laws which authorize annual appropriations are extensions to the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) which expired at the end of FY 2009. A new multi-year authorization law has not yet been enacted and FY 2010 funds have been authorized by shorter-term extensions. If a new authorization law has not been enacted by the time the existing law expires, the normal practice is to pass at the same time a short-term extension to the expiring authorizing law and an appropriation for the same time period. Before the enactment of SAFETEA-LU, several short and medium term extensions were enacted. The transit program did not stop functioning during that period, but full year funding was delayed.

The annual appropriation determines the amount of money in each authorized program that will be given to the Federal Transit Administration in that year for distribution to transit systems and other recipients and to fund FTA operations. The determination of the amounts that are distributed to transit agencies or designated recipients is called an apportionment.

Authorizations have grown from \$5.8 billion in FY 2000 to \$10.5 billion in FY 2010. The authorizing law passed in 1998 included a "Guarantee" provision. Before 1998, appropriations were often significantly lower than the authorization level. Since the introduction of the "Guarantee," the appropriation has nearly matched the authorization every year as shown in Column D of Table 5 and on Figure 7. Most of the shortfalls have resulted from across-the-board rescissions that affected most or nearly all federal programs. Nevertheless, the success of the "Guarantee" results from the on-going intent of Congress and from federal transit funds being primarily from dedicated sources; the mechanisms through which it could be enforced would not prohibit a reduction in federal funding if that were the intent of Congress.

In addition to funds appropriated to Federal Transit Administration programs, some funds appropriated to the Federal Highway Administration for highway programs may be transferred to transit uses at the request of states. These amounts are shown as "Flexed Funds" in Column E of Table 5 and also on Figure 6. No specific amount of funds are appropriated or apportioned to be flexed, therefore, the amounts are not known until the end of the year after the flexing decisions have occurred. Column F of Table 5 and Figure 6 show the total amount appropriated and flexed for transit uses. Some transit agencies receive limited amounts of federal funds from non-transportation programs that are not shown in these amounts.

Table 5: Federal Funding 2000 to 2010

Fiscal Year	Authorization (Millions)	Appropriation (Millions)	Percent of Authorized Funds Appropriated (Millions)	Flexed Funds (Millions)	Appropriation Plus Flexed Funds (Millions)
(Column A)	(Column B)	(Column C)	(Column D)	(Column E)	(Column F)
2000	5,797	5,786	99.8%	1,599	7,385
2001	6,271	6,261	99.8%	1,233	7,494
2002	6,747	6,747	100.0%	1,118	7,865
2003	7,226	7,179	99.3%	1,009	8,188
2004	7,309	7,266	99.4%	981	8,247
2005	7,646	7,646	100.0%	966	8,612
2006	8,623	8,505	98.6%	1,326	9,830
2007	8,975	8,975	100.0%	1,023	9,998
2008	9,731	9,492	97.5%	894	10,386
2009	10,338	10,231	99.0%	NA	NA
2010	10,508	(a) 10,508	100.0%	NA	NA

(a) An additional 225.0 million was appropriated that was separately authorized.

NA = Not available until end of Fiscal Year.

Figure 6: Federal Appropriations and Total Funding Including Flexed Funds

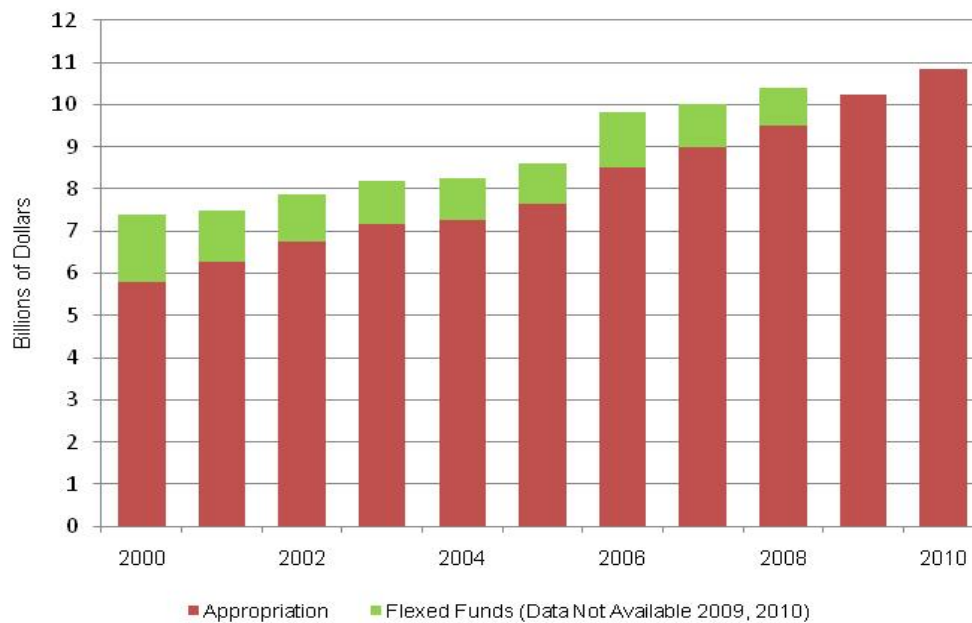
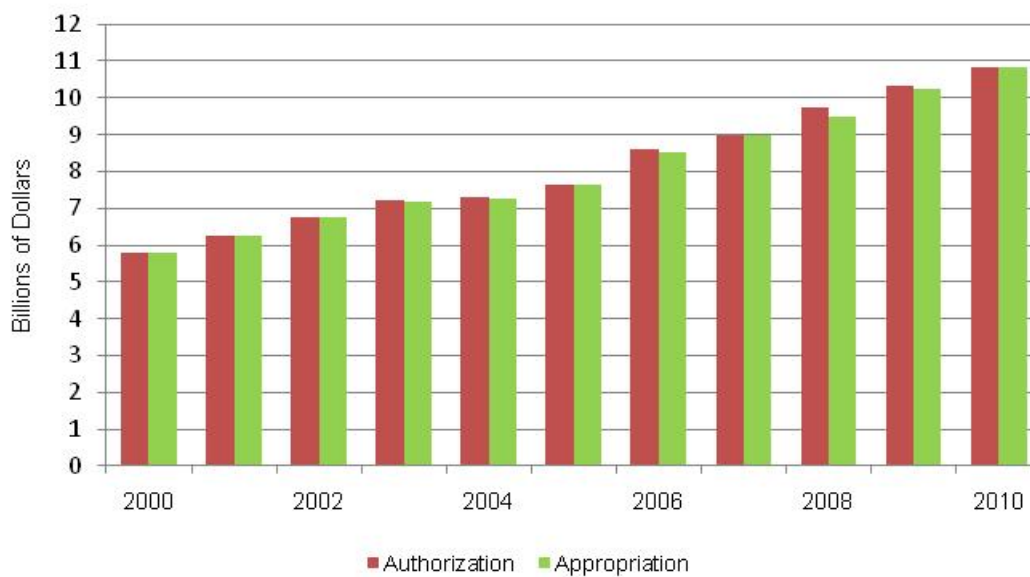


Figure 7: Federal Authorizations and Appropriations



Federal assistance is distributed through a variety of programs that may be for specific uses such as fixed-guideway modernization, elderly and disabled transportation, and bus capital programs; while funds from other programs can be used for any eligible expense such as urbanized area formula funds and rural formula funds. There are two distribution mechanisms, formulas and allocations. Formula programs distribute funds to all participants in a category. Urbanized Area Formula Funds, for example, are distributed to the designated recipients in all medium-size and large urbanized areas and to state Departments of Transportation for small urbanized areas. Formula programs typically fund needs that are on-going and evenly distributed such as vehicle or equipment purchases and vehicle and facility

maintenance. Allocated programs typically fund "lumpy programs" where needs are large but not continuous such as fixed-guideway new starts and extensions or facility construction. Allocated programs usually have the recipients selected each year by Congress but Congress often defers allocating a portion or all of a program's funds, instructing the Federal Transit Administration to make allocations for those funds.

A detailed history of the enactment of and descriptions of formulas and the allocation process and other provisions of federal funding laws can be found in APTA's *Primer On Transit Funding, The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Extensions, and Other Related Laws, FY 2004 Through FY 2011* at www.apta.com.

III. I. American Recovery and Reinvestment Act of 2009 (ARRA) provided additional funds for transit. The ARRA was enacted in February, 2009 to stimulate the economy. The ARRA appropriated a total of \$787 billion including \$48 billion for transportation of which \$8.4 billion was specifically for transit capital investment. Transit funds were directed to seven programs. Over \$7.5 billion or nearly 90 percent of the funds were apportioned through existing Federal Transit Administration formula programs with amounts available to recipients published in the Federal Register in early March 2009. The remaining \$867 million was distributed through discretionary grants by the FTA.

ARRA funds are in addition to funds provided under the regular, on-going FTA program authorized by SAFETEA-LU. They do not replace or substitute for those funds. Table 6 shows the magnitude of the ARRA appropriation by comparing it the FY 2009 Federal Transit Assistance appropriation.

Table 6: American Recovery and Reinvestment Act of 2009 (ARRA) Compared the FY 2009 Federal Transit Administration Appropriation

Program	ARRA Appropriation	FY 2009 FTA Appropriation	ARRA Compared to FY 2009 Appropriation
	(Millions)	(Millions)	(Percent)
Urbanized Area Formula	5,440.0	4,160.4	130.8%
Nonurbanized Area "Rural" Formula	663.0	440.7	150.4%
Growing States and High Density States	680.0	465.0	146.2%
Fixed-Guideway Modernization	750.0	1,666.5	45.0%
New Starts and Extensions	750.0	1,809.2	41.5%
Public Transportation on Indian Reservations	17.0	15.0	113.3%
Energy Consumption and Greenhouse Emissions Reduction	100.0	---	---
Other Programs	---	1,674.4	---
Total	8,400.0	10,231.2	82.1%

Overall, the ARRA equals 82 percent of the value of FY 2009 FTA appropriations. The funds are concentrated in formula programs which provide funds throughout the transit industry for any eligible capital purpose, thereby allowing agencies to use the funds as quickly as possible for their most needed investments.

IV. What Transit Funds Are Spent For

IV. A. Capital expenditures are defined in two ways. In the National Transit Database capital expenditures are spending for acquisition of equipment and construction of facilities. In federal funding law, however, capital uses are any uses designated as eligible by the law and include capital expenditures as defined in the National Transit Database plus expenses for maintenance of vehicles and facilities and some planning activities considered to be operating expenditures in the National Transit Database

Capital expenditures as defined by the National Transit Database, categorized by their use, are shown on Table 7. These amounts are expanded to include all transit systems, not just those reporting to the NTD. The larger part of capital expenditure goes for facility construction, in 2008 a total of 58.8 percent,

including 33.2 percent for fixed-guideways, 12.8 percent for stations, and 12.9 percent for administration buildings and maintenance facilities.

Table 7: Capital Expense by Mode and Type of Investment, Millions of Dollars
(Funds from All Levels of Government, Accrued Expenditures)

Type	Bus	Commut- er Rail	Para- transit	Heavy Rail	Light Rail	Trolley- bus	Other	Total	% of Annual Total
Guideway									
2005	347.7	897.7	0.0	1,124.0	1,584.9	24.2	0.5	3,979.0	32.10%
2006	370.3	1,049.2	0.0	1,095.1	2,026.1	10.9	0.1	4,551.7	34.10%
2007	151.7	1,045.7	0.0	1,390.7	2,211.8	18.3	1.9	4,820.1	33.20%
2008	183.7	1,043.2	0.0	2,143.4	2,501.2	12.0	5.8	5,889.4	33.15%
Stations									
2005	327.9	346.6	4.4	846.7	225.7	18.8	194.7	1,964.7	15.90%
2006	436.6	343.6	2.0	1,083.5	308.5	15.3	67.4	2,257.0	16.90%
2007	308.3	419.2	7.2	1,104.9	175.1	0.1	82.0	2,096.8	14.40%
2008	383.1	450.9	13.4	1,054.6	305.3	0.0	60.1	2,267.3	12.76%
Buildings and Facilities									
2005	763.9	156.0	45.2	402.4	223.2	6.8	3.5	1,600.9	12.90%
2006	644.4	192.9	33.5	388.1	272.4	5.6	12.0	1,548.9	11.70%
2007	614.5	347.6	163.4	666.5	125.3	1.0	7.3	1,925.6	13.30%
2008	822.4	317.0	132.9	874.2	130.1	1.2	16.9	2,294.7	12.92%
Passenger Vehicles									
2005	1,326.3	945.8	168.7	479.2	311.8	30.3	143.7	3,405.9	27.50%
2006	1,728.1	713.3	143.9	419.3	250.7	9.3	125.1	3,389.8	25.40%
2007	1,680.5	427.8	495.4	774.0	323.4	10.1	126.1	3,837.3	26.40%
2008	2,045.8	698.4	583.0	1,212.1	514.0	29.0	133.2	5,215.5	29.36%
Service Vehicles									
2005	24.9	5.5	1.0	15.4	2.2	0.2	0.1	49.3	0.40%
2006	26.0	7.7	1.1	37.7	2.6	0.4	0.2	75.7	0.60%
2007	39.3	7.4	4.8	34.0	3.5	0.4	0.3	89.7	0.60%
2008	58.4	12.2	6.4	28.2	5.4	0.9	0.0	111.6	0.63%
Fare Revenue Collection Equipment									
2005	73.3	3.7	1.3	51.8	14.9	0.5	8.3	153.9	1.20%
2006	83.0	5.1	1.3	109.5	20.3	0.6	0.1	219.8	1.60%
2007	97.2	5.1	1.0	84.2	25.5	0.8	0.4	214.2	1.50%
2008	107.2	11.1	0.1	92.0	14.8	0.0	0.3	225.6	1.27%
Communication and Information Systems									
2005	182.7	56.0	19.1	383.7	51.7	1.2	1.8	696.1	5.60%
2006	230.7	64.3	18.6	444.4	71.3	0.8	3.2	833.4	6.20%
2007	236.1	77.0	49.1	433.8	85.9	0.6	3.4	885.9	6.10%
2008	280.1	106.7	48.5	623.8	76.4	1.1	8.4	1,144.9	6.44%
Other									
2005	205.7	77.0	8.9	151.8	74.3	1.8	14.2	533.7	4.30%
2006	168.7	111.4	8.3	114.8	47.6	0.9	12.6	464.2	3.50%
2007	163.4	116.6	26.8	202.5	91.2	0.2	58.0	658.7	4.50%
2008	204.2	103.6	56.4	124.5	112.9	0.3	14.0	615.9	3.47%
Total									
2005	3,252.4	2,488.3	248.6	3,455.1	2,488.6	83.8	366.8	12,383.4	100.00%
2006	3,687.7	2,487.5	208.8	3,692.4	2,999.6	43.8	220.8	13,340.4	100.00%
2007	3,291.0	2,446.4	747.7	4,690.6	3,041.7	31.5	279.4	14,528.5	100.00%
2008	4,085.0	2,743.0	840.8	6,152.8	3,660.0	44.6	238.7	17,764.8	100.00%
% of Total									
2005	26.30%	20.10%	2.00%	27.90%	20.10%	0.70%	3.00%	100.00%	---
2006	27.60%	18.60%	1.60%	27.70%	22.50%	0.30%	1.70%	100.00%	---
2007	22.70%	16.80%	5.10%	32.30%	20.90%	0.20%	1.90%	100.00%	---
2008	22.99%	15.44%	4.73%	34.63%	20.60%	0.25%	1.34%	100.00%	---

Note: All capital as defined by National Transit Database accounting system but also including all transit agencies not in the NTD.

Source: APTA *Public Transportation Fact Book* and supporting data.

Vehicles accounted for 30.0 percent of capital expenditures in 2008, 29.4 percent of which was for passenger vehicles and 0.6 percent for service vehicles. Fare revenue collection equipment accounted for 1.3 percent of capital expenditures in 2008, communication and information systems for 6.4 percent, and other capital uses for 3.5 percent.

The portion of funds for each use appears to be relatively constant over the four year period. The portion spent for passenger vehicles, for example, varied from a low of 25.4 percent in 2006 to a high of 29.4 percent in 2008.

IV.B. Vehicle Fleet Size and Vehicle Purchases are reported for the last ten years on Table 8 and 9. These data are taken from the *2010 APTA Public Transportation Fact Book, Appendix A: Historical Data*. These data have limitations. They are expansions estimated from sources that report vehicles by the mode of service in which they operate. For rail vehicles this is obvious, heavy rail service is operated by heavy rail vehicles, etc. For roadway service, however, this can be misleading. Bus service is fixed-route service and any variations of fixed-route service that offer variable destination or times. This service may be provided by the physical vehicle called a bus or it may be provided by vans or other vehicles not normally called buses. In the same way, demand-responsive service is a variable origin and destination paratransit service. The service is normally provided by vans but some paratransit service is operated by buses or larger vehicles that might be called buses.

Table 8: Number of Transit Vehicles by Mode, 1997 through 2008, as Reported in *2010 Public Transportation Fact Book, Appendix A: Historical Tables*

Year	Mode of Service							Total
	Bus	Commuter Rail	Paratransit	Heavy Rail	Light Rail	Trolley Bus	Other (a)	
1997	72,770	5,426	32,509	10,228	1,078	655	3,807	126,473
1998	72,142	5,536	29,646	10,296	1,076	646	4,706	124,048
1999	74,228	5,550	31,884	10,362	1,180	657	5,076	128,937
2000	75,013	5,498	33,080	10,311	1,327	652	5,360	131,241
2001	76,075	5,572	34,661	10,718	1,371	600	5,792	134,789
2002	76,190	5,724	34,699	10,849	1,448	616	5,581	135,107
2003	77,328	5,959	35,954	10,754	1,482	672	6,141	138,290
2004	81,033	6,228	37,078	10,858	1,622	597	6,406	143,822
2005	82,027	6,392	41,958	11,110	1,645	615	7,080	150,827
2006	83,080	6,403	43,509	11,052	1,801	609	8,741	155,195
2007	(b) 65,249	6,391	(b) 64,865	11,222	1,810	559	(b) 13,877	163,973
2008	66,506	6,617	65,799	11,377	1,969	590	16,578	169,436

(a) Ferry boat, aerial tramway, automated guideway transit, cable car, inclined plane, monorail, and other; publico beginning 2007.

(b) Data not continuous for modes noted,

On Table 8 and Table 9 there is a discontinuity between 2006 and 2007 for roadway vehicles. This results from the availability of extensive data for rural transit service providers for the first time. Prior to World War II when APTA first collected and published data in the *Public Transportation Fact Book*, data reported by APTA members were expanded to the entire transit industry based on data reported to the United States Census Bureau in discontinued surveys of transportation, and data from other available sources. The Federal Transit Administration's National Transit Database (NTD) replaced APTA surveys as the primary source for data expansion beginning in 1982 but the NTD only collected data for urbanized area transit agencies receiving federal financial assistance, not for rural agencies or agencies in urbanized areas not receiving federal assistance. Amounts for non-reporting agencies and rural agencies continued to be estimated by APTA from available data. The 1990 and 2000 Censuses expanded the number of urbanized areas and the size of urbanized areas, thus expanding the number of transit agencies included in NTD data. At the same time the number of agencies in areas that were still rural was believed to have grown.

For the 2007 report year, NTD data for rural transit agencies, were made available on request but were not yet published. Although a small data set, the number of vehicles by physical characteristics and the amount of service by mode was reported; but data for vehicles by mode was not included. This led to a

change is the number of vehicles by mode for national data estimates in the *Fact Book*. Bear in mind that these data are for a mode of service and this data redistribution is based on service characteristics, not the physical type of vehicle providing that service. This redistribution applied only to roadway vehicles and was further refined in 2008 data.

Table 9: Number of New Passenger Vehicles Delivered by Mode, 1997 through 2008, as Reported in *2010 Public Transportation Fact Book, Appendix A: Historical Tables*

Year	Mode of Service							Total
	Bus	Commuter Rail	Paratransit	Heavy Rail	Light Rail	Trolley Bus	Other (a)	
1997	5,709	198	4,820	34	76	0	---	10,837
1998	5,737	122	4,233	120	80	54	---	10,346
1999	6,949	132	4,382	122	123	0	---	11,708
2000	6,764	116	5,152	204	136	0	---	12,372
2001	8,158	54	7,700	751	111	149	---	17,023
2002	5,613	166	4,988	828	107	88	---	11,789
2003	6,263	338	5,491	470	169	103	---	12,834
2004	4,754	571	4,619	76	127	31	---	10,178
2005	4,527	476	5,867	50	129	23	---	11,072
2006	4,673	137	6,271	462	102	6	---	11,651
2007	(b) 3,590	118	(b) 11,500	394	91	2	754	16,449
2008 P	3,562	218	12,457	555	53	36	1,751	18,631

(a) Ferry boat, aerial tramway, automated guideway transit, cable car, inclined plane, monorail, publico, and other.

(b) Data not continuous for modes noted.

The recent decline in vehicles for the bus mode of service shown on Table 9 is likely to be in part a result of the redistribution of data for rural service and other service in 2007. Detailed data not completely categorized by mode of service and which show the subtypes of roadway and rail vehicles purchased each year and in the current fleet are available from several sources. Unfortunately, no single data source that provides detailed data on the composition of vehicle purchases is complete for the entire transit fleet and the data sources have different categories into which the data may be summarized. Each of the sources is, therefore, summarized separately in Tables 10 through 14 and 16 and 17 to present an overview of available data.

The 2008 National Transit Database vehicle data for urbanized areas report vehicles in fleets by the mode of service in which they are operated and the type of physical vehicle they are. A fleet is a group of vehicles with the same major characteristics manufactured in the same model year. Modes of roadway service are, very generally defined, "bus" which is any fixed-route or variable fixed-route service; "demand response" which is any type of door-to-door paratransit service; "vanpool" which is group coordinated service to a single destination; and "publico" which is independently operated fixed-route service with small vehicles found only in San Juan, Puerto Rico. Types of vehicles are descriptions of the physical vehicle, articulated buses, large buses, vans, automobiles, etc. The classification is confused because "bus" is a mode of service and "a bus" is a vehicle. The confusion results because not all vehicles operated in bus mode service are buses, and not all buses are used to provide bus mode service. Buses as vehicles are, in fact, totaled in four categories. Vans and automobiles are also further differentiated as vehicle types depending upon whether they are operated by a taxicab contractor or not.

Table 10 shows 2008 NTD vehicle data for urbanized areas by mode of service and physical type of vehicle. These data include most vehicles operated in urbanized areas. The NTD grants reporting waivers to agencies with fewer than 10 vehicles and a small number of agencies which do not receive federal funds, either directly or indirectly, choose not to report to the NTD. APTA estimates that the NTD data include between 98 percent and 99 percent of all roadway vehicles operated by transit agencies in urbanized areas, but do not include demand response mode vehicles operated by non-profit elderly and disabled service providers which do report to the NTD.

Table 10: Active Roadway Vehicles from 2008 National Transit Database Revenue Vehicle Inventory for Urbanized Areas (Not Expanded for Systems That Do Not Report to NTD)

Type of Vehicle (NTD Categories)	Mode of Service, All Vehicles							
	Bus		Demand Response		Vanpool and Publico		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Articulated Bus	2,340	3.62%	0	0.00%	0	0.00%	2,340	2.10%
Automobile	2	0.00%	3,017	9.36%	37	0.25%	3,056	2.74%
Bus	61,564	95.23%	9,590	29.74%	18	0.12%	71,172	63.78%
Double Decked Bus	56	0.09%	0	0.00%	0	0.00%	56	0.05%
Other Vehicle	64	0.10%	57	0.18%	0	0.00%	121	0.11%
School Bus	49	0.08%	23	0.07%	0	0.00%	72	0.06%
Taxicab Sedan	0	0.00%	4,224	13.10%	0	0.00%	4,224	3.79%
Taxicab Station Wagon	0	0.00%	13	0.04%	0	0.00%	13	0.01%
Taxicab Van	0	0.00%	696	2.16%	0	0.00%	696	0.62%
Van	572	0.88%	14,628	45.36%	14,633	99.63%	29,833	26.74%
Total	64,647	100.00%	32,248	100.00%	14,688	100.00%	111,583	100.00%

Source: 2008 National Transit Database.

Table 11 reports NTD data for bus vehicles only, showing the number of buses by various length categories in each mode of service. Nearly all full sized buses over 35 feet long are operated in bus service. Most buses reported as being operated in demand response service are shorter than 30 feet and over half are shorter than 25 feet.

Table 11: Active Bus Vehicles by Length and Mode of Service from 2008 National Transit Database Revenue Vehicle Inventory for Urbanized Areas (Bus Vehicles Only in Urbanized Areas with All Modes of Service Combined)

Length of Vehicle	Mode of Service for Bus Vehicles Only							
	Bus Vehicles in Bus Service		Bus Vehicles in Demand Response Service		Bus Vehicles in Vanpool and Publico Service		Total Bus Vehicles	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
46 ft and Longer	3,827	6.04%	2	0.02%	0	0.00%	3,829	5.31%
42 ft to 45 ft	3,216	5.07%	2	0.02%	0	0.00%	3,218	4.47%
35 ft to 41 ft	47,270	74.58%	127	1.47%	0	0.00%	47,397	65.77%
30 ft to 34 ft	4,794	7.56%	374	4.32%	0	0.00%	5,168	7.17%
25 ft to 29 ft	3,203	5.05%	3,434	39.65%	7	38.89%	6,644	9.22%
24 ft and Shorter	1,073	1.69%	4,721	54.52%	11	61.11%	5,805	8.06%
Subtotal Length Reported	63,383	100.00%	8,660	100.00%	18	100.00%	72,061	100.00%
Length Not Reported	626	---	953	---	0	---	1,579	---
Total	64,009	---	9,613	---	18	---	73,640	---

Source: 2008 National Transit Database.

NTD vehicle data for rural transit systems present roadway vehicle data summarized by fleets in a different format. Vehicles are not identified by the mode of service in which they are operated. They are identified by physical type only, with classifications that differ from NTD urbanized area fleet data. On Table 12 they are identified by physical type and length. Less than 10 percent of all roadway vehicles are 30 foot long or longer with nearly three-fourths only 24 feet long or shorter. Two types of vehicles each represent a little less than one-quarter of rural area transit vehicles: buses and vans, while cutaways with bus bodies on truck frames are over one-third of rural area transit vehicles.

Table 12: Active Roadway Vehicles by Type of Vehicle and Length from 2008 National Transit Database Revenue Vehicle Inventory for Rural Areas (Rural Areas Only, All Modes of Service Combined)

Length of Vehicle	Type of Vehicle, Rural Areas Only						
	Bus, All Types	Cutaway	Van	Automobile, Minivan, and SUV	Other	Total	
	Number	Number	Number	Number	Number	Number	Percent
35 ft and Longer	1,023	19	0	6	51	1,099	5.22%
30 ft to 34 ft	787	115	1	0	24	927	4.40%
25 ft to 29 ft	1,357	2,115	3	19	31	3,525	16.74%
24 ft and Shorter	1,994	4,981	5,161	3,294	80	15,510	73.64%
Total, Number	5,161	7,230	5,165	3,319	186	21,061	100.00%
Total, Percent	24.51%	34.33%	24.52%	15.76%	0.88%	100.00%	---

Source: Calculated from *National Transit Database 2008* rural data.

The roadway vehicle fleet is also identified by year of manufacture in the NTD vehicle inventory. The number of vehicles by year of manufacture for the past five years from both the 2008 NTD and the 2007 NTD are shown on Table 13. The year of manufacture is a calendar year whereas the reporting year for each transit agency is that agency's fiscal year that ends during the calendar year. This results in the current year for each report being, therefore, significantly underreported. A comparison of the 2008 and 2007 report data shows some variations which indicate that the year for which a vehicle is identified may vary because of probable uncertainty over year of delivery compared to year of manufacture and model year.

Table 13: Roadway Vehicles Listed in 2008 and 2007 National Transit Database Vehicle Data by Year Built (Urbanized Area Data Only)

Vehicle Type	From 2008 National Transit Database, Reported Year of Manufacture					From 2007 National Transit Database, Reported Year of Manufacture				
	2008	2007	2006	2005	2004	2007	2006	2005	2004	2003
Bus, 46 ft and Longer	121	205	160	243	431	33	159	244	423	661
Bus, 35 ft to 45 ft	1,511	2,486	3,307	2,843	3,137	1,448	3,065	2,824	3,140	3,669
Bus, 34 ft or Shorter	1,142	1,862	1,984	1,672	1,765	934	1,960	1,745	1,730	1,913
Vans and Other	3,128	3,699	5,179	2,673	1,863	2,805	5,578	3,099	2,202	2,645
Automobile Based	179	365	404	325	274	305	510	337	274	116
Total Vehicles	6,081	8,617	11,034	7,756	7,470	5,525	11,272	8,249	7,769	9,004

Data in shaded areas are only for that part of each agency's fiscal year which falls within that calendar year, therefore, the data are incomplete.


(a) Includes only buses for which both year built and length data were reported and other vehicles for which year built data were reported.

Source: National Transit Database, 2008 and 2007.

Data are also available about the number of rail vehicles manufactured. Table 14 reports rail vehicles by year of manufacture for the previous five years from the 2008 NTD and the 2007 NTD. Once again agencies are reporting their fiscal year that ended during the Calendar Year 2008 or 2007. Because of this the current year for each report is significantly underreported. The rail data show the same phenomena as bus data where the year of manufacture for vehicles appears to vary between the two reports.

Table 14: Rail Vehicles Listed in 2008 and 2007 National Transit Database Vehicle Data by Year Built (Urbanized Area Data Only)

Vehicle Type	From 2007 National Transit Database Reported Year of Manufacture					From 2006 National Transit Database Reported Year of Manufacture				
	2008	2007	2006	2005	2004	2007	2006	2005	2004	2003
Commuter Rail Car	30	203	338	466	534	58	338	465	534	266
Commuter Rail Locomotive	13	17	1	33	9	2	1	33	9	43
Heavy Rail Car	26	928	0	0	6	396	0	0	6	86
Light Rail Car	28	30	37	72	114	11	25	64	105	67
Other Rail Car	3	0	0	0	0	0	0	0	36	0
Total Rail Vehicles	100	1178	376	571	663	467	364	562	690	462

 Data in shaded areas are only for that part of each agency's fiscal year which falls within that calendar year, therefore, the data are incomplete.

Source: National Transit Database, 2007 and 2006.

Both roadway and rail vehicles by year of manufacture and physical category are also found in the APTA 2008 *Public Transportation Vehicle Database*. Those data are reported on Table 16 for rail vehicles from 1980 through 2009 and Table 17 for roadway vehicles from 1990 through 2009. These time periods are chosen to exceed the FTA defined minimum life for replacement of a typical vehicle and show vehicles which might need replacement. Note that the data do not indicate how many vehicles have had mid-life overhauls which, especially for rail-cars, significantly extend their service lives.

The FTA prescribes economic service lives before which, under normal circumstances, a vehicle cannot be replaced using federal funds. Those minimum useful lives are reported on Table 15.

Table 15: FTA Required Minimum Useful Vehicle Life Before Replacement by Vehicle Type

Type of Vehicle	FTA Minimum Useful Life
Large, heavy-duty transit buses including over the road buses (approximately 35'-40', and articulated buses)	at least 12 years of service or an accumulation of at least 500,000 miles
Small size, heavy-duty transit buses (approximately 30')	at least ten years or an accumulation of at least 350,000 miles
Medium-size, medium-duty transit buses (approximately 25'-35')	at least seven years or an accumulation of at least 200,000 miles
Medium-size, light-duty transit buses (approximately 25'-35')	at least five years or an accumulation of at least 150,000 miles
Other light-duty vehicles used in transport of passengers revenue service) such as regular and specialized vans, sedans, light-duty buses including all bus models exempt from testing in the current 49 CFR Part 665	at least four years or an accumulation of at least 100,000 miles
Fixed guideway electric trolley-bus with rubber tires obtaining power from overhead catenary	at least 15 years
Rail vehicle (all types)	reached or exceeded its 25-year minimum useful life

Source: Extracted from Federal Transit Administration Circular C 9300.1B, Capital Investment Program Guidance and Application, November 1, 2008.

APTA 2010 *Public Transportation Vehicle Database* data are as of January 1, 2010, hence many vehicles manufactured in 2009 may not yet have been delivered and accepted by agencies and hence, may not be included in 2009 numbers. The APTA *Public Transportation Vehicle Database* includes only data from APTA members which voluntarily report their data; the data are not expanded to include the entire transit industry.

Table 16: Rail Vehicles by Year of Manufacture from 2010 APTA Public Transportation Vehicle Database (Data are a sample from an APTA member survey, they are NOT expanded to national totals)

From 2010 APTA Public Transportation Vehicle Inventory Reported Year of Manufacture of Vehicles In Active Service on January 10, 2010 by Physical Vehicle Type						
Year of Manufacture	Commuter Rail Car		Heavy Rail Car		Light Rail Car	
	Number	Percent	Number	Percent	Number	Percent
2009	120	2.14%	42	0.38%	19	1.00%
2008	168	3.00%	543	4.93%	80	4.21%
2007	119	2.12%	281	2.55%	150	7.89%
2006	385	6.86%	170	1.54%	80	4.21%
2005	416	7.42%	112	1.02%	86	4.52%
2004	487	8.68%	50	0.45%	98	5.16%
2003	395	7.04%	442	4.01%	110	5.79%
2002	180	3.21%	534	4.84%	29	1.53%
2001	26	0.46%	849	7.70%	107	5.63%
2000	71	1.27%	214	1.94%	52	2.74%
1999	165	2.94%	121	1.10%	143	7.52%
1998	126	2.25%	102	0.93%	26	1.37%
1997	137	2.44%	86	0.78%	79	4.16%
1996	153	2.73%	13	0.12%	55	2.89%
1995	30	0.53%	92	0.83%	93	4.89%
1994	55	0.98%	70	0.64%	9	0.47%
1993	10	0.18%	252	2.29%	82	4.31%
1992	50	0.89%	148	1.34%	43	2.26%
1991	144	2.57%	4	0.04%	15	0.79%
1990	55	0.98%	14	0.13%	21	1.10%
1989	62	1.11%	297	2.69%	74	3.89%
1988	126	2.25%	562	5.10%	38	2.00%
1987	162	2.89%	122	1.11%	9	0.47%
1986	168	3.00%	1,036	9.40%	94	4.94%
1985	143	2.55%	560	5.08%	0	0.00%
1984	144	2.57%	219	1.99%	1	0.05%
1983	7	0.12%	281	2.55%	0	0.00%
1982	150	2.67%	349	3.17%	10	0.53%
1981	0	0.00%	146	1.32%	188	9.89%
1980	55	0.98%	24	0.22%	15	0.79%
Before 1980	1,300	23.18%	3,287	29.82%	95	5.00%
Total Sample	5,609	100.00%	11,022	100.00%	1,901	100.00%

Table 17: Roadway Vehicles by Year of Manufacture from 2010 APTA Public Transportation Vehicle Database (Data are a sample from an APTA member survey, they are NOT expanded to national totals)

From 2010 APTA Public Transportation Vehicle Inventory Reported Year of Manufacture of Vehicles In Active Service on January 10, 2010 by Physical Vehicle Type						
Year of Manufacture	Buses, 35 Feet or Longer		Buses, 34 Feet or Shorter		Small Road Vehicles	
	Number	Percent	Number	Percent	Number	Percent
2009	2,641	6.10%	341	8.42%	2,197	12.17%
2008	2,914	6.73%	338	8.35%	3,278	18.15%
2007	2,350	5.42%	362	8.94%	2,943	16.30%
2006	2,404	5.55%	388	9.58%	3,362	18.62%
2005	2,575	5.94%	220	5.43%	1,655	9.17%
2004	2,648	6.11%	267	6.60%	1,219	6.75%
2003	3,360	7.75%	252	6.23%	1,333	7.38%
2002	3,309	7.64%	290	7.16%	679	3.76%
2001	4,350	10.04%	361	8.92%	501	2.77%
2000	3,821	8.82%	433	10.70%	326	1.81%
1999	3,949	9.11%	193	4.77%	243	1.35%
1998	2,585	5.97%	168	4.15%	94	0.52%
1997	2,022	4.67%	262	6.47%	62	0.34%
1996	1,890	4.36%	7	0.17%	63	0.35%
1995	870	2.01%	19	0.47%	47	0.26%
1994	731	1.69%	33	0.82%	18	0.10%
1993	214	0.49%	9	0.22%	15	0.08%
1992	281	0.65%	25	0.62%	2	0.01%
1991	102	0.24%	27	0.67%	6	0.03%
1990	167	0.39%	36	0.89%	5	0.03%
Before 1990	145	0.33%	17	0.42%	9	0.05%
Total Sample	43,328	100.00%	4,048	100.00%	18,057	100.00%

IV.C. Fixed-Guideway Infrastructure growth is described in the following tables. Table 18 lists all entirely new fixed-guideway transit systems opened from 2004 through early 2010. New extensions to existing fixed-route systems are not included.

Nine entirely new light rail systems have been opened in Houston, TX; Trenton, NJ; Minneapolis, MN; Little Rock, AR; Charlotte, NC; Seattle, WA (2 systems); San Diego, CA (not part of the existing system); and Phoenix, AZ. Entirely new commuter rail systems opened in Albuquerque, NM; Nashville, TN; Salt Lake City, UT; Portland, OR; Minneapolis, MN; and Austin, TX.

A variety of systems in other rail modes have also opened from 2004 to now. A monorail system began operation in Las Vegas, NV; a heavy rail system in San Juan, PR; and an aerial tramway in Portland, OR. This is in addition to extensions of existing routes or new routes added to existing fixed-guideway systems over the same period.

Table 18: Openings of Entirely New Rail Systems, 2004 through May 2010

Location	System	Mode	Year
Houston, TX	Metropolitan Transit Authority of Harris County Metro Rail	Light Rail	2004
Trenton, NJ	New Jersey Transit Corporation River Line	Light Rail	2004
Minneapolis, MN	Metro Transit Hiawatha Line	Light Rail	2004
Las Vegas, NV	Las Vegas Monorail	Monorail	2004
Little Rock, AR	Central Arkansas Transit Authority River Rail	Light Rail	2004
San Juan, PR	Alternativa de Transporte Integrado Tren Urbano	Heavy Rail	2005
Albuquerque, NM	New Mexico Rail Runner Express	Commuter Rail	2006
Nashville, TN	Regional Transportation Authority Music City Star	Commuter Rail	2006
Portland, OR	Portland Aerial Tram	Aerial Tramway	2006
Charlotte, NC	Charlotte Area Transit System LYNX Blue Line	Light Rail	2007
Seattle, WA	Seattle Department of Transportation South Lake Union Streetcar	Light Rail	2007
San Diego, CA	North County Transit District Sprinter	Light Rail	2008
Salt Lake, City UT	Utah Transit Authority FrontRunner	Commuter Rail	2008
Phoenix, AZ	Valley Metro Rail	Light Rail	2008
Portland, OR	Tri-Met Westside Express Service	Commuter Rail	2009
Seattle, WA	Sound Transit Central Link Light Rail	Light Rail	2009
Minneapolis, MN	Metro Transit Northstar Commuter Rail	Commuter Rail	2009
Austin, TX	Capital Metro Rail Red Line	Commuter Rail	2010

Another measure of the growth for rail systems is length of the systems. The NTD reports miles of track beginning in 2002. These data are shown on Table 19. Miles of track reported in the NTD include main line, siding, and yard trackage.

Table 19: Miles of Track by Mode, 2002 through 2008 (Agencies Reporting to the NTD Only)

Year	Commuter Rail Track Miles	Heavy Rail Track Miles	Light Rail Track Miles	Other Rail Track Miles	Total Rail Track Miles
2002	7,267.1	2,179.2	1,113.6	29.7	10,589.5
2003	7,433.9	2,209.5	1,147.2	30.0	10,820.6
2004	7,284.1	2,209.5	1,321.2	30.3	10,845.1
2005	7,947.5	2,277.3	1,385.1	30.3	11,640.2
2006	8,016.7	2,277.3	1,463.8	38.3	11,796.1
2007	8,058.9	2,277.3	1,493.0	38.3	11,867.5
2008	8,017.9	2,277.3	1,538.5	30.3	11,864.0

Source: National Transit Database

Table 20 reports the number of stations and maintenance facilities reported in the NTD for 2008. Stations are defined as significant structures on transit rights-of-way. They do not include street stops or shelters at street stops for bus, light rail, trolley bus, or cable car modes. NTD reporting instructions describe a bus or trolley bus station to be a facility "in a separate ROW that have an enclosed structure (building) for passengers for such items as ticketing, information, restrooms, concessions, and telephones." NTD reporting instructions describe maintenance facilities as "garages and buildings where routine maintenance and repairs are performed (general purpose maintenance facility) and, in larger transit agencies, where engine and other major unit rebuilds are performed (heavy maintenance facility). General purpose maintenance facilities generally also serve as operating garages where vehicles are stored and dispatched daily for revenue service. In some transit agencies, the same facility is used for both general purpose and heavy maintenance." A joint general purpose/heavy maintenance facility is reported as a general purpose maintenance facility.

Table 20: Stations and Maintenance Facilities by Mode, 2008 (Agencies Reporting to the NTD Only)

Mode	Passenger Stations	General Maintenance Facilities	Heavy Maintenance Facilities
Automated Guideway	41	3	0
Cable Car	0	1	0
Commuter Rail	1,199	71	20
Demand Response	0	504	5
Ferryboat	81	12	1
Heavy Rail	1,041	49	11
Inclined Plane	8	0	0
Light Rail	787	40	8
Bus	1,346	778	34
Monorail	2	1	0
Trolleybus	5	5	0
Vanpool	0	14	1

Source: 2008 National Transit Database

IV. D. Federal Capital expenditures are recorded at the time a grant is made. Transit agencies submit grant requests to the Federal Transit Administration for a specific purchase or project. When the FTA approves that request the money is obligated or granted for that expense and the transit agency initiates the activity that the grant is for. All FTA tables concerning federal expenditures are based on the year the grant was made. The items purchased, for example new buses, must then be manufactured and delivered, a process that may require several months or over a year. Table 21 shows federal expenditures by federal use category for the past five years. Operating as well as capital uses are included.

Table 21: Federal Capital Expenditures by Federal Use Purpose (a), 2004 through 2008 (Millions of Dollars - Grant Approvals)

Use Purpose	2004 (Millions)	2005 (Millions)	2006 (Millions)	2007 (Millions)	2008 (Millions)	Five-Year Average Percentage
Bus Purchase	881.2	1,008.1	1,108.9	1,003.0	1,653.1	1,130.9
Bus Other	1,951.8	2,390.6	2,606.6	2,510.6	3,227.8	2,537.5
Bus Maintenance Facility	205.1	180.7	340.7	252.5	293.3	245.5
Total Bus	3,038.1	3,579.4	4,056.3	3,766.1	5,174.1	3,922.8
Fixed-Guideway Modernization	3,264.5	2,762.2	3,247.0	3,709.8	3,197.8	3,236.3
New Starts or Extensions	1,445.2	1,186.6	1,234.7	2,035.3	1,553.6	1,491.1
Total Capital	7,747.8	7,528.2	8,538.1	9,511.2	9,925.5	8,650.2
Planning	164.9	219.3	224.5	244.3	246.3	219.9
Operating	604.2	663.3	687.8	754.5	859.0	713.8
Other	1.1	6.7	9.1	10.3	11.4	7.7
Total	8,517.9	8,417.6	9,459.4	10,520.2	11,042.1	9,591.4

(a) Funds categorized by use purpose are not funds from specific funding programs, for example, fixed-guideway modernization funds reported above are funds used for fixed-guideway modernization but their source includes funds from the Fixed-Guideway Modernization funding program, the Urbanized Area Formula funding program, and other funding programs.

Source: Federal Transit Administration *Statistical Summaries*, annual.

Federal funds are distributed in two ways. Most programs are apportioned where there is a formula that determines how much funding an urbanized area or a state will receive. Major capital funds for New Start or Extension projects, Bus and Bus Capital projects, and Alternative Analysis are allocated, that is, either the Congress in the authorizing or appropriation law designates or "earmarks" specific projects for funding or the Federal Transit Administration is directed to select or administratively "earmark" projects based on

criteria in law or regulation. This process is described in detail in APTA's *Primer On Transit Funding, The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Extensions, and Other Related Laws, FY 2004 Through FY 2011* at www.apta.com.

New Start and Extension projects go through an extended approval process. The FTA produces an *Annual Report on New Starts* which provides Congress with detailed descriptions of all projects in the new starts "pipeline" that have reached the status of preliminary engineering or higher. Table 22 reports the number of projects, by stage in the funding process, in the last six reports. The reports are dated for the year in which funds will be granted. The 2011 report is intended to aid Congress in decisions concerning FY 2011 funding, was written in 2010, and is based on 2009 data. The projects are described in detail in the *Annual Report on New Starts* at www.fta.dot.gov.

Table 22: Status of New Start Projects in Annual Federal Transit Administration New Starts Reports

Proposed for Fiscal Year	Number of Projects by Status				
	Full Funding Grant Agreements, Actual, Pending, and Recommended (a)	Project Construction Grant Agreements, Actual and Pending (a)	Final Design	Preliminary Engineering	Small Start Project Development
2011	18	0	5 (b)	10 (b)	10
2010	23	2	6	13	16
2009	17	0	4	10	17
2008	13	0	5	14	4
2007	18	0	7	15	0
2006	20	0	5	25	0

(a) Includes Early System Work Agreements

(b) Excludes projects also identified as recommended Full Funding Grant Agreements.

Source: federal Transit Administration *Annual Report on New Starts*

IV. E. Operating expenditures are the major portion of transit agency expenditures. In 2008, 67 percent of all transit expenditures were for operations compared to 33 percent for capital. Table 23 reports operating expenditures for the past four years classified by function. Operating functions describe expenditures by their output rather than inputs. Each category includes all inputs such as labor, materials and supplies, utilities, insurance and other costs used for each activity. The largest cost function is vehicles operations at 46.1 percent of total operating costs, followed by vehicle maintenance at 17.4 percent, general administration at 13.7 percent, purchased transportation at 13.7 percent, and non-vehicle maintenance at 9.1 percent. Purchased transportation costs would include the operations, maintenance, and administrative cost of transportation services that are purchased under contract from a private provider or another public agency. Federal funding law considers vehicle maintenance and non-vehicle maintenance to be eligible for capital funding from federal assistance programs. Data on Table 23 are totals for the entire transit industry, not just for agencies reporting data to the NTD.

Table 23: Operating Expenditures by Function Class, 2005 through 2008 (All Public Transportation Agencies)

Year	Vehicle Operations	Vehicle Maintenance	Non-Vehicle Maintenance	General Administration	Purchased Transportation	Total
Amount (Millions of Dollars)						
2005	13,793.0	5,293.6	2,965.0	4,074.8	4,168.5	30,294.9
2006	14,742.8	5,681.5	3,008.0	4,301.2	4,303.6	32,037.2
2007	15,559.6	5,981.6	3,154.0	4,779.0	4,403.1	33,877.3
2008	16,780.2	6,332.1	3,319.3	4,982.7	4,983.4	36,397.9
Percent of Total						
2005	45.5%	17.5%	9.8%	13.5%	13.8%	100.0%
2006	46.0%	17.7%	9.4%	13.4%	13.4%	100.0%
2007	45.9%	17.7%	9.3%	14.1%	13.0%	100.0%
2008	46.1%	17.4%	9.1%	13.7%	13.7%	100.0%

Source: 2010 APTA *Public Transportation Fact Book*

V. How Much Could Be Spent

Capital investment needs for the transit industry are a function of the goals assumed when the needs are estimated. APTA and the American Association of State Highway and Transportation Officials (AASHTO) jointly requested the Transportation Research Board's Transit Cooperative Research Program to sponsor an estimate of transit capital funding needs. The research was conducted by Cambridge Systematics, Inc. The research was sponsored by the TCRP but the findings of the study are by design solely those of the research agency and do not represent official findings of the TCRP; the report was therefore not reviewed or accepted by the Transportation Research Board Executive Committee or the Governing Board of the National Research Council.

Three variables representing goals for asset and service quality and ridership growth determine the level of needs produced by the study's model. The physical condition of transit assets can either be maintained at their current level or improved; the quality of transit service can either be maintained at its current level or improved; and the rate of annual ridership growth is varied. Table 24 shows the capital investment funding needs for various combinations of these conditions. These capital costs include maintenance costs that may be in part accounted as operating costs but are considered eligible for capital funding under federal transit law. APTA asserts that the annual capital needs of the transit industry over the next six years are \$59.2 billion which would result in an improved condition of physical assets, improved service provision, and an annual growth of 3.53 percent in ridership.

Table 24: Annual Capital Needs for Alternative Growth Scenarios, Billions of Dollars

Scenario		Annual Capital Funding Need, Billions of Dollars		
Physical Condition Status	Service Performance Status	at 2.40% Annual Ridership Growth	at 3.53% Annual Ridership Growth	at 4.63% Annual Ridership Growth
Maintain	Maintain	35.1	48.2	64.2
Improve	Maintain	38.9	52.0	68.0
Maintain	Improve	42.4	55.4	71.4
Improve	Improve	46.1	59.2	75.2

Source: *State and National Transit Investment Analysis*, Cambridge Systematics, 2008.

VI. Are Voters Willing to Support Transit Investment?

Voters consistently approve ballot measures that include transit funding. Table 25 reports data collected by the Center for Transportation Excellence (CFTE). The CFTE tracks the outcomes of transit ballot measures throughout the United States. From 2003 through 2009, between 64 percent and 84 percent of all transit referenda were approved by voters, with an average approval rate of 73 percent over the seven year period.

Table 25: Local Referenda Approvals

Year	Measures on Ballots	Measures Approved	Percentage Approved
2009	11	8	73%
2008	32	23	72%
2007	18	12	67%
2006	50	32	64%
2005	25	21	84%
2004	50	40	80%
2003	17	12	71%

Source: Center for Transportation Excellence

VI. References

The following references provide detailed explanations and extended data to expand on the material in this report.

VI. A. American Public Transportation Association Publications:

Public Transportation Fact Book: The Fact Book is a summary of national total data for the entire transit industry for a single year. Operating statistics and financial data are included. A supplemental volume, *Public Transportation Fact Book, Appendix A: Historical Data*, lists basic national total statistics for every year since they were first collected, as far back as 1902. *Public Transportation Fact Book, Appendix B: Agency and Urbanized Area Operating Statistics*, ranks for one year transit agencies and urbanized areas by size for six operating statistics by mode and for total amounts. The *Fact Book* is on-line at www.apta.com.

Primer On Transit Funding, The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Extensions, and Other Related Laws, FY 2004 Through FY 2011: The Primer describes distribution and uses of federal transit funds. The report summarizes where federal funds come from, where they go and why, and what they can be used for in detail. A history of federal authorizing and appropriation laws is included along with a legislative terms glossary and a description of highway funds that can be used for transit investments. The Primer is on-line at www.apta.com.

Public Transportation Vehicle Database: The Vehicle Database lists transit vehicles by fleet of vehicles with the same characteristics manufactured in the same year. Vehicle characteristics such as model, power source, year built, seats, length, and various types of equipment are quantified. Pricing data for new vehicles are also included. Based on voluntary survey of APTA members. Available for free APTA member download or for purchase by non-members through the APTA Bookstore on the MyAPTA page at www.apta.com.

Public Transportation Infrastructure Database: The Infrastructure Database provides data on transit agency physical infrastructure. Lengths and termini are provided for all fixed-guideway route segments in operation, under construction, or projected. Data included by agency for number of and characteristics of passenger stations and non-station stops including parking, ADA access, information display, security cameras, and many other types of equipment. Based on voluntary survey of APTA members. Available for free APTA member download or for purchase by non-members through the APTA Bookstore on the MyAPTA page at www.apta.com.

Public Transportation Fare Database: The Fare Database provides details on transit agency fare structures including base fares, passes, zones, transfers, special fares for students and elderly, and other variations in individual agency fare structures. Fixed-route and paratransit fare structures are presented separately. Details on fare media sale equipment and fare collection equipment are also included. Based on voluntary survey of APTA members. Available for free APTA member download or for purchase by non-members through the APTA Bookstore on the MyAPTA page at www.apta.com.

State and National Public Transportation Needs Analysis: The Needs Analysis was prepared by Cambridge Systematics, Inc. under the sponsorship of the Transit Cooperative Research Program at the request of APTA and the American Association of State Highway and Transportation Officials. The analysis projects transit capital funding needs over the next six years. The Needs Analysis is on-line at www.apta.com.

VI. B. Federal Transit Administration Publications:

Annual Report on New Starts: The New Starts Report details the status, financing, and characteristics of new start and extension projects in the federal funding "pipeline" that have reached at least the preliminary engineering stage in the funding application process. Prepared as background material for

the Congress to make funding allocation decisions, the report is highly detailed. Available on-line at www.fta.dot.gov.

Statistical Summaries: The Statistical Summaries provide extensive detail concerning federal financial assistance expenditures. Tables detail in cross tabulations where programs funds are taken from, what they are used to buy, and which state and local jurisdictions they go to. Available on-line at www.fta.dot.gov.

Apportionment Notices: Apportionment Notices, printed in the *Federal Register*, advise transit agencies on the amount of funding available to each urbanized area or state from each Federal Transit Administration funding program. Available on-line at www.fta.dot.gov.

National Transit Database: The National Transit Database (NTD) is an extensive assemblage of financial, operating, and asset data for transit agencies in urbanized areas that receive federal funding either directly or indirectly. Separate data sets describe revenues by source government or transit agency activity, and capital and operating expenditures by function class, object class, or material purchased. Details are provided on vehicles and fixed-guideway infrastructure. Available on-line at www.ntdprogram.gov/ntdprogram/.

FTA Circular C 9300.1B, Capital Investment Program Guidance and Application: This circular provides guidance about submitting grants for federal capital funding programs including minimum useful requirements for replacing transit passenger vehicles. Available on-line at www.fta.dot.gov.