

Public Transportation Investment Background Data

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APTA's Vision Statement

Be the leading force in advancing public transportation.

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

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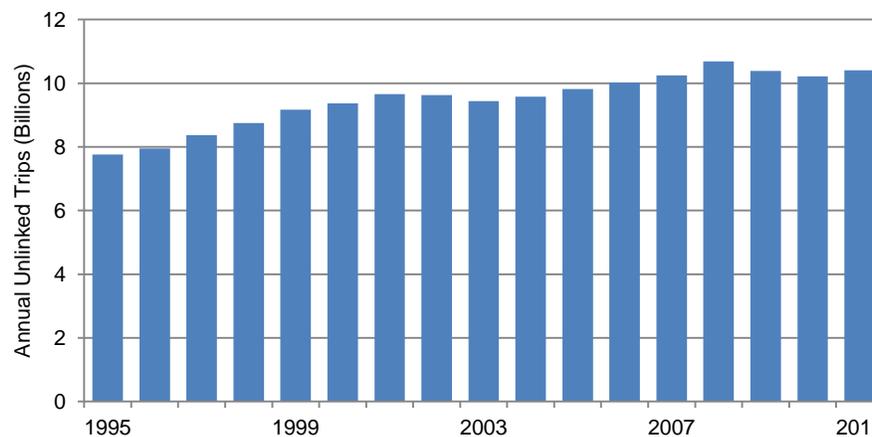
I. Introduction

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? This is the 6th edition of *Public Transportation Investment History Background Data*. Early editions include data for prior years for many of the tables in this edition. Earlier editions are archived on the APTA web site at www.apta.com.

II. State of the Transit Industry

The transit industry has recently experienced significant growth. In 2011 America's transit systems carried more than 10 billion passenger trips for the sixth consecutive year as shown on Figure 1. Transit ridership grew 34 percent from 1995 through 2011, compared to 17 percent growth in population and 22 percent growth in highway vehicle miles of travel over the same period.

Figure 1: Transit Has Carried Over 10 Billion Passenger Trips for 6 Straight Years

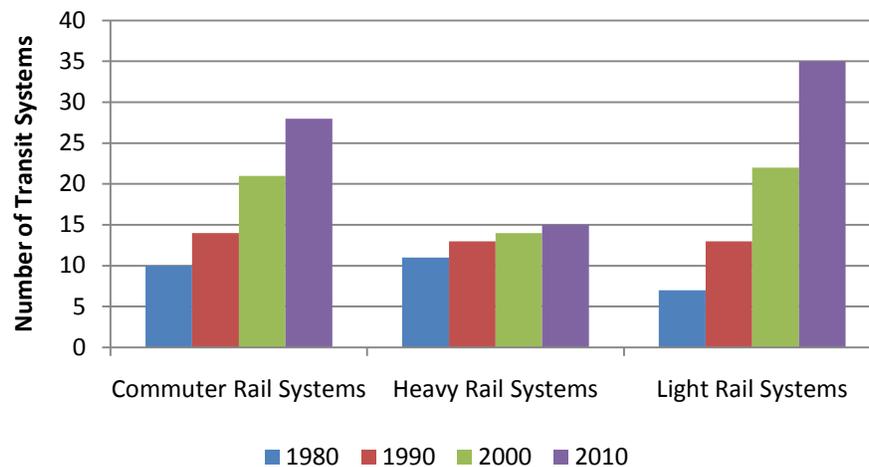


Source: APTA 2012 Fact Book Appendix A : Historical Tables

The rapid increase in the number of rail transit systems over the last three decades illustrates the increased investment in high quality transit services. In 1980 there were 10 commuter rail systems, 11 heavy rail systems, and 7 light rail systems in the U.S. for a total of 28 rail systems.¹ Over the next three decades, an average of 1.6 entirely new rail systems opened every year until, in 2010, there were 78 rail systems in the U.S. As shown on Figure 2, by 2010 there were 28 commuter rail systems, 15 heavy rail systems, and 35 light rail systems.

¹ Includes only commuter rail, heavy rail, and light rail systems. Excludes cable car, inclined plane, automated guideway, and other types of rail systems. A listing of commuter rail, heavy rail, and light rail systems with the year they opened can be found on Table 31 in the 2012 APTA Fact Book Appendix A: Historical Tables at <http://www.apta.com/resources/statistics/Documents/FactBook/2012-Fact-Book-Appendix-A.pdf>

Figure 2: The Number of Rail Transit Systems Has Increased Nearly Three-fold Over Three Decades



Source: APTA 2012 Fact Book Appendix A : Historical Tables

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,² 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 1 through 6 are 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.

² Chapter 53 of Title 49, as amended by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) at http://www.apta.com/gap/legissues/authorization/Documents/safetea_lu_clean.pdf

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.

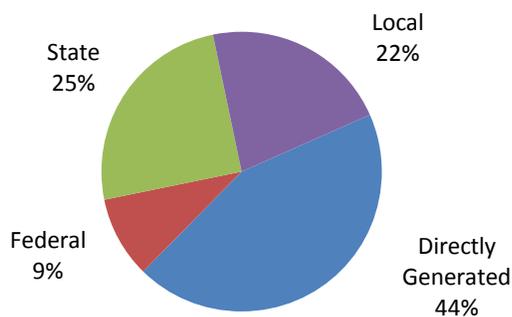
Directly Generated Funds account for 44.0 percent of all operating revenue and 32.8 percent of all capital revenue in 2010 as shown on Tables 1 and 2 and illustrated on Figures 3 and 4.³ The largest portion of Directly Generated Revenue comes from Passenger Fares, 32.1 percent of all operating revenue, and smaller portions of operating revenue, as reported on Table 1, 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 enabled 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 2010 accounted for 21.6 percent of operating revenue and 11.8 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 2010 state funds accounted for 25.0 percent of operating revenue and 14.2 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 in 2010 provided 9.4 percent of operating revenue and 41.2 percent of capital revenue.

Figure 3: Sources of Operating Funds, 2010



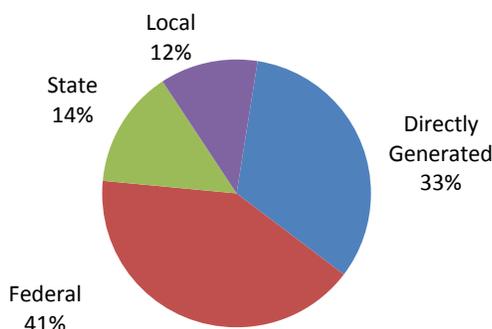
Source: APTA Public Transportation Fact Book 2012

³ APTA Fact Book, annual. Washington: American Public Transportation Association. Accessible from <http://www.apta.com/resources/statistics/Pages/transitstats.aspx>

Table 1: Source of Operating Funds (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)									
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
2009	12,273.2	2,275.6	2,542.6	3,206.7	2,485.0	7,372.1	3,703.0	5,059.6	38,917.8
2010	12,556.1	2,118.9	2,548.8	3,674.6	2,290.9	7,470.0	3,479.1	4,978.8	39,117.2
Percent of Annual Total									
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%
2009	31.5%	5.8%	6.5%	8.2%	6.4%	18.9%	9.5%	13.0%	100.0%
2010	32.1%	5.4%	6.5%	9.4%	5.9%	19.1%	8.9%	12.7%	100.0%

Figure 4: Sources of Capital Funds, 2010



Source: APTA Public Transportation Fact Book 2012

Table 2: Source of Capital Funds (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)								
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
2009	4,457.1	1,156.6	7,685.5	653.4	1,961.4	951.9	1,363.3	18,229.3
2010	4,509.1	1,343.3	7,336.1	890.8	1,646.1	638.7	1,460.3	17,824.4
Percent of Annual Total								
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%
2009	24.5%	6.3%	42.2%	3.6%	10.8%	5.2%	7.5%	100.0%
2010	25.3%	7.5%	41.2%	5.0%	9.2%	3.6%	8.2%	100.0%

III. E. Overall Funding Sources for capital and operating revenue combined are shown on Table 3.⁴ In 2010 all types of Directly Generated funds accounted for 40.5 percent of total revenue, Federal funds were 19.3 percent, State funds 21.6 percent, and Local funds 18.5 percent. Funds solely from the transit agency service areas, Directly Generated and Local combined, account for 59.0 percent of all revenue.

⁴ APTA Fact Book, annual. Washington: American Public Transportation Association. Accessible from <http://www.apta.com/resources/statistics/Pages/transitstats.aspx>

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)									
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
2009	12,273.2	6,732.7	3,699.2	10,892.2	3,138.4	9,333.5	4,654.9	6,442.9	57,147.1
2010	12,556.1	6,628.0	3,892.1	11,010.7	3,181.7	9,116.1	4,117.8	6,439.1	56,941.6
Percent of Annual Total									
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%
2009	21.5%	11.8%	6.5%	19.1%	5.5%	16.3%	8.1%	11.2%	100.0%
2010	22.1%	11.6%	6.8%	19.3%	5.6%	16.0%	7.2%	11.3%	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.

Table 4 reports the types of taxes that support dedicated funds from State and Local sources for the combined total amount of operating assistance and capital assistance.⁵ 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 82.4 percent of dedicated local taxes and 47.9 percent of dedicated state taxes. Historical dedicated tax revenue data are reported The APTA Fact Book Appendix A: Historical Data.⁶

Table 4: Dedicated Revenue by Type of Source Tax, 2010, NTD Data for Urbanized Areas Only

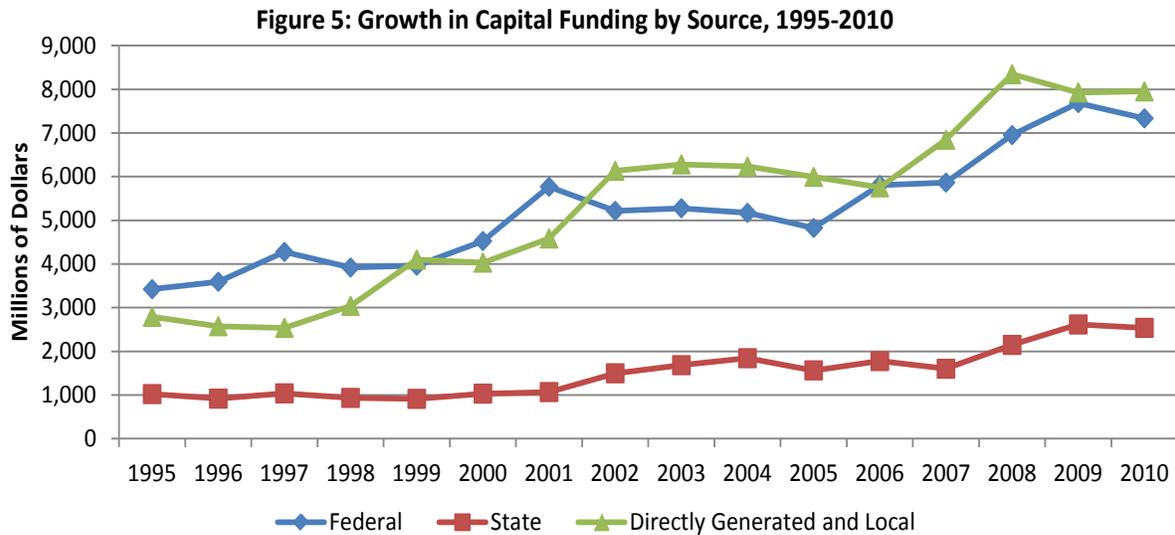
Government Level	Type of Tax					
	Income Tax	Sales Tax	Property Tax	Gasoline Tax	Other Tax	Total
Dollars in Millions, 2010						
Local Dedicated Taxes	78.6	4,556.9	418.1	183.4	294.1	5,531.1
State Dedicated Taxes	478.7	3,140.6	27.4	587.0	2,328.0	6,561.7
Percent of Total, 2010						
Local Dedicated Taxes	1.4%	82.4%	7.6%	3.3%	5.3%	100.0%
State Dedicated Taxes	7.3%	47.9%	0.4%	8.9%	35.5%	100.0%

III. G. The Trend in Funding from different sources is shown on Figures 5 and 6.⁷ Capital funding, on Figure 5, has seen significant growth from combined Directly Generated and Local Sources, 184 percent over the fourteen-year period, while Federal funds have grown 125 percent and state funds 156 percent.

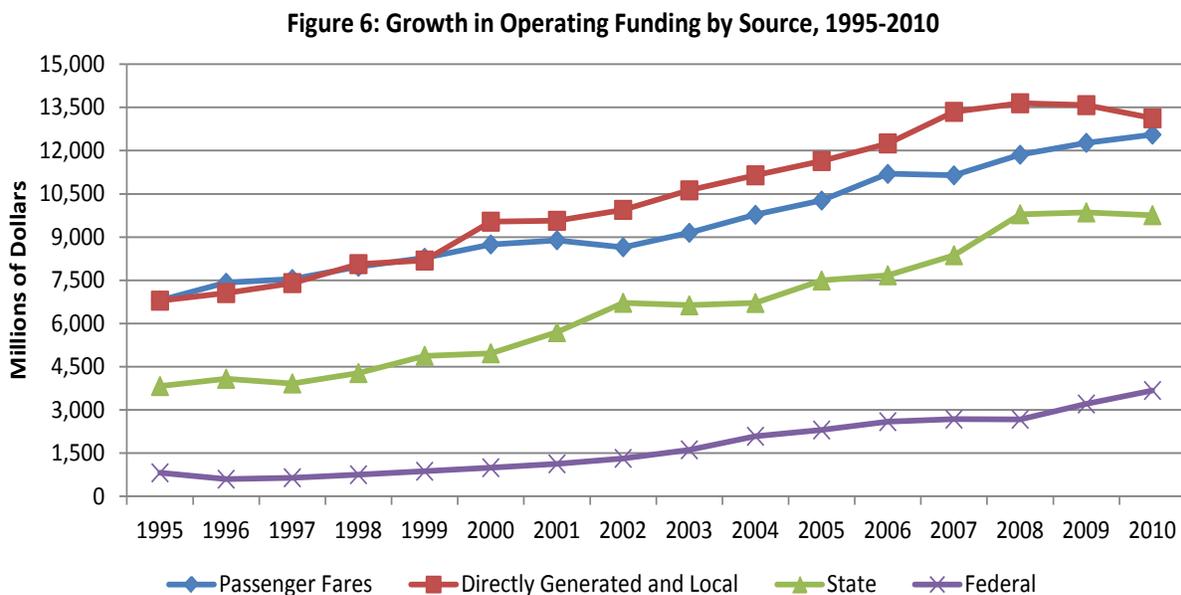
⁵ Federal Transit Administration National Transit Database, Tables 28 and 29 accessible at <http://www.apta.com/resources/statistics/Pages/NTDDDataTables.aspx>

⁶ APTA Fact Book Appendix A: Historical Tables. Washington: American Public Transportation Association at http://www.apta.com/resources/statistics/Documents/FactBook/2011_Fact_Book_Appendix_A.pdf

⁷ APTA Fact Book Appendix A: Historical Tables. Washington: American Public Transportation Association at http://www.apta.com/resources/statistics/Documents/FactBook/2011_Fact_Book_Appendix_A.pdf



Federal operating revenue, on Figure 6, has increased 350 percent from 1995 through 2010 but remains the smallest source of funding at only 9.4 percent of operating funds. State operating funds have increased 155 percent over the fifteen-year period, combined Directly Generated, except Passenger Fares, and Local Funds have increased 93 percent, and passenger fare revenue has increased 85 percent.



III. H. Federal transit funding programs have provided transit funding since 1964. Table 5 and Figure 7 report federal funding from the Federal Transit Administration from 2000 through 2014. 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 law which currently authorizes annual appropriations is the Moving Ahead for

Progress in the 21st Century Act of 2012 (MAP 21) which became law on July 6, 2012. MAP 21 authorizes the transit program for FY 2013 and FY 2014.

Table 5: Federal Transit Act Authorizations and Appropriations, 2000 to 2014 ⁸

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%	1,281	11,512
2009 ARRA (a)	8,400	8,400	100.0%	In '09 and '10	---
2010	10,508	10,508	100.0%	1,455	11,963
2011	10,529	10,098	95.9%	NA	NA
2012	10,458	10,458	100.0%	NA	NA
2013	10,578	---	---	---	---
2014	10,695	---	---	---	---

(a) American Recovery and Reinvestment Act of 2009 (ARRA) was a one time funding program in addition to annual appropriations. NA = Not available until end of Fiscal Year.

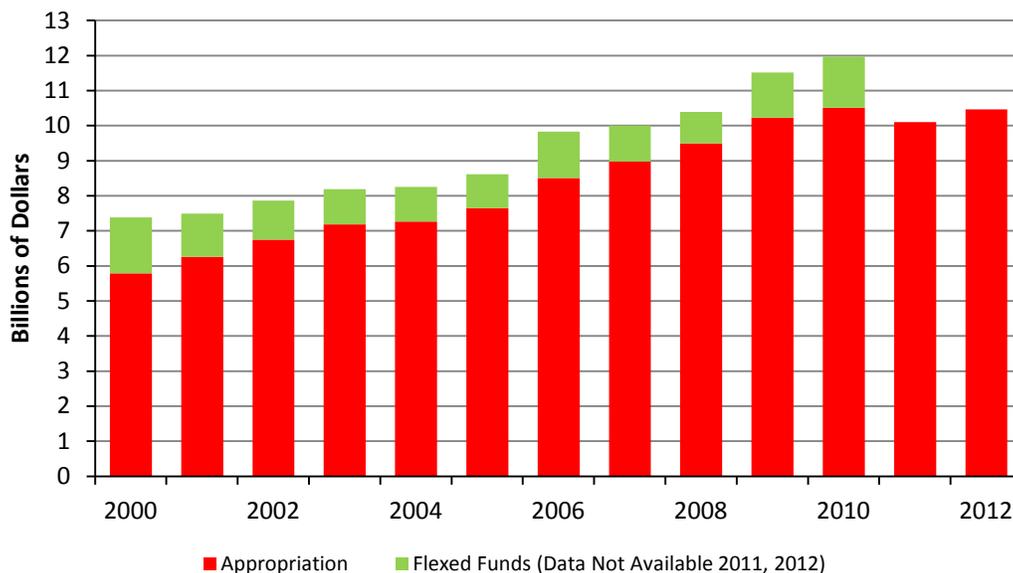
The annual appropriation determines the amount of money in each authorized program that will be given to the Federal Transit Administration in that year for distribution to transit systems and other recipients and to fund FTA operations. The determination of the amounts that are distributed to transit agencies or designated recipients is called an apportionment. Authorizations have grown from \$5.8 billion in FY 2000 to \$10.5 billion in FY 2012.

III. I. Other federal funds are provided for transit investment. The American Recovery and Reinvestment Act of 2009 (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 ARRA 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 were in addition to funds provided under the regular, on-going FTA program authorized by SAFETEA-LU. They did not replace or substitute for those funds. These amounts are reported on row "2009 ARRA" on Table 5.

⁸ *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 2012.* Washington: American Public Transportation Association at http://www.apta.com/gap/policyresearch/Documents/Primer_SAFETEA_LU_Funding.pdf

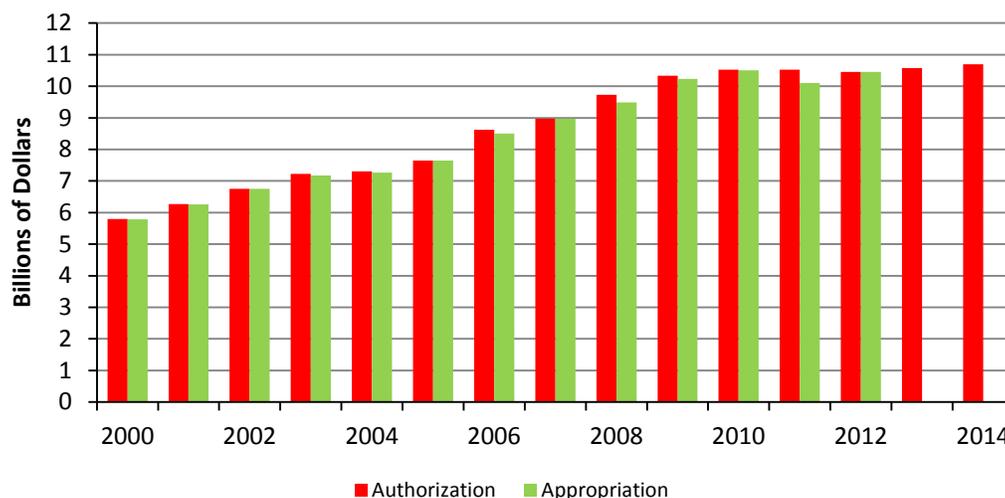
In addition to funds appropriated to Federal Transit Administration programs, some funds appropriated to the Federal Highway Administration for highway programs may be transferred to transit uses at the request of states. These amounts are shown as "Flexed Funds" in Column E of Table 5 and also on Figure 7. 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 7 show the total amount appropriated and flexed for transit uses. Some transit agencies receive federal funds from special transportation programs and non-transportation programs that are not shown in these amounts.

Figure 7: Federal Appropriations and Total Funding Including Flexed Funds



Source: APTA Primer on SAFETEA-LU Funding Provisions

III. J. A "Guarantee Provision" was included in the authorizing law passed in 1998. 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 8. 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 the guarantee could be enforced would no longer be able to prevent a reduction in federal transit funding if that were the intent of Congress.

Figure 8: Federal Authorizations and Appropriations

Source: APTA Primer on SAFETEA-LU Funding Provisions

III. K. Apportionments and Allocations. 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. Formula distributions of funds are called apportionments. 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 by an apportionment. 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. The term "apportionment" is also used for the document that publishes both the apportionment of formula funds and allocation of discretionary funds each year.

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 2012*.⁹

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.

⁹ *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 2012*. Washington: American Public Transit Association at http://www.apta.com/gap/policyresearch/Documents/Primer_SAFETEA_LU_Funding.pdf

Table 6: Capital Expense by Mode and Type of Investment, Millions of Dollars
(Funds from All Levels of Government, Accrued Expenditures)

Type	Bus	Commut- er Rail	Demand Re- sponse	Heavy Rail	Light Rail	Trolley- bus	Other	Total	% of Annual Total
Guideway									
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%
2009	100.2	1,383.7	0.0	2,333.4	2,539.9	5.5	37.9	6,400.5	35.72%
2010	143.7	1,841.2	0.0	2,014.0	2,284.1	1.3	2.9	6,287.1	35.27%
Passenger Stations									
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%
2009	341.7	412.7	5.8	1,311.4	358.4	0.2	50.5	2,480.6	13.84%
2010	410.2	434.3	1.7	1,578.6	342.2	0.8	59.5	2,827.3	15.86%
Buildings and Facilities									
2007	797.7	166.8	178.9	113.7	100.9	0.3	22.6	1,380.9	7.75%
2008	614.5	347.6	163.4	666.5	125.3	1.0	7.3	1,925.6	13.30%
2009	822.4	317.0	132.9	874.2	130.1	1.2	16.9	2,294.7	12.92%
2010	734.6	249.5	75.1	75.9	160.0	0.1	31.0	1,326.4	7.40%
2010	797.7	166.8	178.9	113.7	100.9	0.3	22.6	1,380.9	7.75%
Passenger Vehicles									
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%
2009	2,439.2	456.4	560.6	1,646.3	404.0	14.3	227.8	5,748.5	32.08%
2010	2,598.3	409.0	694.5	881.3	328.4	0.6	197.3	5,109.5	28.67%
Service Vehicles									
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%
2009	38.7	4.6	5.1	39.8	6.6	0.7	0.4	95.8	0.53%
2010	37.4	14.4	5.0	28.5	6.1	0.0	0.0	91.5	0.51%
Fare Revenue Collection Equipment									
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%
2009	103.5	13.1	4.6	81.1	34.2	0.0	1.0	237.5	1.33%
2010	95.5	13.7	11.8	41.0	27.5	0.8	0.6	190.9	1.07%
Communication and Information Systems									
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%
2009	240.6	94.0	84.3	557.9	114.0	1.8	10.5	1,103.1	6.16%
2010	257.8	120.3	74.3	593.8	139.5	1.1	8.2	1,195.0	6.70%
Other									
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%
2009	140.0	137.4	28.0	182.0	29.8	0.3	9.2	526.7	2.94%
2010	172.8	75.0	36.2	420.4	20.9	0.4	16.7	742.3	4.16%
Total									
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%
2009	4,138.5	2,751.2	763.5	6,227.7	3,647.0	22.9	368.2	17,919.2	100.00%
2010	4,513.4	3,074.7	1,002.4	5,671.3	3,249.6	5.3	307.8	17,824.5	100.00%
% of Total									
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%	---
2009	23.10%	15.35%	4.26%	34.75%	20.35%	0.13%	2.05%	100.00%	---
2010	25.32%	17.25%	5.62%	31.82%	18.23%	0.03%	1.73%	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.

Capital expenditures as defined by the National Transit Database, categorized by their use, are shown on Table 6. 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 2010 a total of 58.9 percent,

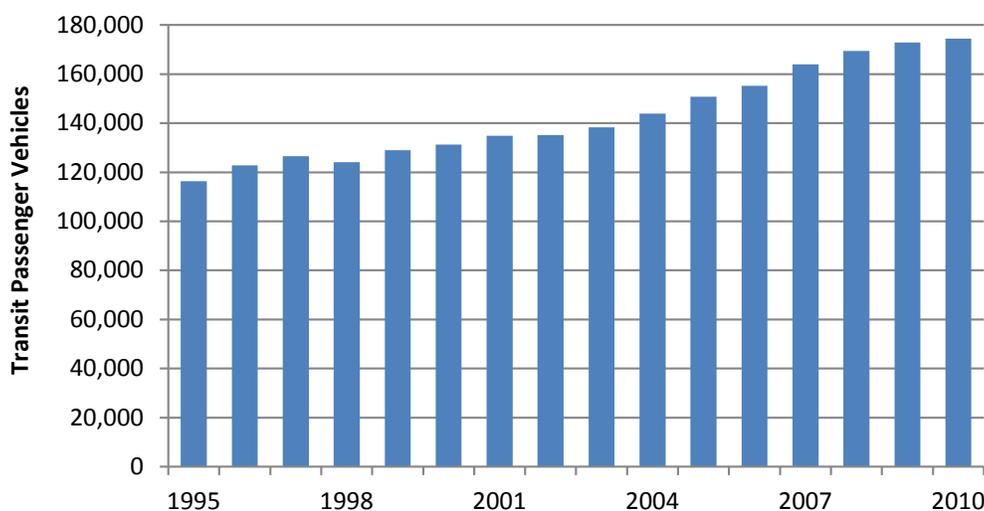
including 35.3 percent for fixed-guideways, 13.8 percent for stations, and 7.8 percent for administration buildings and maintenance facilities.

Vehicles accounted for 29.2 percent of capital expenditures in 2010, 28.7 percent of which was for passenger vehicles and 0.5 percent for service vehicles. Fare revenue collection equipment accounted for 1.1 percent of capital expenditures in 2010, communication and information systems for 6.7 percent, and other capital uses for 4.2 percent.

The portion of funds for each use appears to be relatively consistent over the four year period. The portion spent for passenger vehicles, for example, varied from a low of 26.4 percent in 2007 to a high of 32.1 percent in 2009.

IV.B. Vehicle Fleet Size and Vehicle Purchases are reported for the last ten years on Tables 7 and 8. These data are taken from the *2012 APTA Public Transportation Fact Book, Appendix A: Historical Data*.¹⁰ 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 demand response service. The service is normally provided by vans but some demand response service is operated by buses or larger vehicles that might be called buses. The growth in the entire transit fleet over the past 16 years is illustrated on Figure 9, also based on data in the *2012 APTA Public Transportation Fact Book, Appendix A: Historical Data*.

Figure 9: The Public Transportation Vehicle Fleet Has Expanded Steadily



Source: APTA Public Transportation Fact Book Historical Appendix

¹⁰ *APTA Fact Book Appendix A: Historical Tables*. Washington: American Public Transportation Association at <http://www.apta.com/resources/statistics/Documents/FactBook/2012-Fact-Book-Appendix-A.pdf>

Table 7: Number of Transit Vehicles by Mode, 1999-2010, as Reported in 2012 *Public Transportation Fact Book, Appendix A: Historical Tables*

Year	Mode of Service							Total
	Bus	Commuter Rail	Demand Response	Heavy Rail	Light Rail	Trolley Bus	Other (a)	
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
2009	64,832	6,941	68,957	11,461	2,068	531	18,103	172,893
2010	66,239	6,927	68,621	11,510	2,104	571	18,453	174,425

(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 7 and Table 8 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 in 2007. Beginning during World War II, when the ATA (the American Transit Association, an APTA predecessor) first published data in the *Transit Fact Book*, data reported to the ATA by ATA members were expanded to the entire transit industry based on data that had been reported by the United States Census Bureau in, by then, 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 on the NTD web site. Although a data set with a limited number of items, the number of vehicles by physical characteristics and the amount of service by mode were reported; but data for vehicles by mode were not included. This led to a change in 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 and 2009 data.

The recent decline in vehicles for the bus mode of service shown on Table 7 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 9 through 15 and 17 and 18 in order to present an overview of available data.

Table 8: Number of New Passenger Vehicles Delivered by Mode, 1999-2010, as Reported in 2012
Public Transportation Fact Book, Appendix A: Historical Tables

Year	Mode of Service							Total
	Bus	Commuter Rail	Demand Response	Heavy Rail	Light Rail	Trolley Bus	Other (a)	
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	3,562	218	12,457	555	53	36	1,751	18,631
2009	3,912	150	9,792	69	87	0	1,619	15,629
2010	3,651	7	6,613	404	49	7	1,401	12,132

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

(b) Data not continuous for modes noted.

The 2010 National Transit Database vehicle data for urbanized areas reports 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 demand response service; "vanpool" which is group coordinated service to or from 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 9 shows 2010 NTD vehicle data for urbanized areas by mode of service and physical type of vehicle.¹¹ 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.¹²

Table 10 reports 2010 NTD data for bus vehicles only, showing the number of buses by various length categories in each mode of service.¹³ Nearly all full sized buses over 35 feet long are operated in bus

¹¹ Federal Transit Administration National Transit Database RY 2010 Database Revenue Vehicle Inventory downloadable at

http://www.ntdprogram.gov/ntdprogram/database/2010_database/NTDdatabase.htm

¹² Federal Transit Administration National Transit Database RY 2010 Database Revenue Vehicle Inventory downloadable at

http://www.ntdprogram.gov/ntdprogram/database/2010_database/NTDdatabase.htm

¹³ Federal Transit Administration National Transit Database RY 2010 Database Revenue Vehicle Inventory downloadable at

http://www.ntdprogram.gov/ntdprogram/database/2010_database/NTDdatabase.htm

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 9: Active Roadway Vehicles from 2010 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 and Demand Response Taxi		Vanpool and Publico		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Articulated Bus	4,158	6.44%	0	0.00%	0	0.00%	4,158	3.52%
Automobile	12	0.02%	3,499	9.66%	21	0.12%	3,532	2.99%
Bus	59,484	92.15%	10,663	29.43%	14	0.08%	70,161	59.40%
Double Decked Bus	135	0.21%	0	0.00%	0	0.00%	135	0.11%
Other Vehicle	75	0.12%	67	0.18%	0	0.00%	142	0.12%
Over the Road Bus	48	0.07%	0	0.00%	0	0.00%	48	0.04%
School Bus	14	0.02%	36	0.10%	0	0.00%	50	0.04%
Taxicab Sedan	0	0.00%	5,164	14.25%	0	0.00%	5,164	4.37%
Taxicab Station Wagon	0	0.00%	17	0.05%	0	0.00%	17	0.01%
Taxicab Van	0	0.00%	1,245	3.44%	0	0.00%	1,245	1.05%
Van	626	0.97%	15,536	42.89%	17,296	99.80%	33,458	28.33%
Total	64,552	100.00%	36,227	100.00%	17,331	100.00%	118,110	100.00%

Source: 2010 National Transit Database.

Table 10: Active Bus Vehicles by Length and Mode of Service from 2010 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 and Demand Response Taxi Service		Bus Vehicles in Vanpool and Publico Service		Total Bus Vehicles	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
46 ft and Longer	4,058	6.41%	1	0.01%	0	0.00%	4,059	5.56%
42 ft to 45 ft	4,201	6.64%	2	0.02%	0	0.00%	4,203	5.76%
35 ft to 41 ft	46,362	73.27%	154	1.59%	0	0.00%	46,516	63.72%
30 ft to 34 ft	4,578	7.24%	255	2.63%	0	0.00%	4,833	6.62%
25 ft to 29 ft	3,146	4.97%	3,701	38.12%	0	0.00%	6,847	9.38%
24 ft and Shorter	930	1.47%	5,595	57.63%	14	100.00%	6,539	8.96%
Subtotal Length Reported	63,275	100.00%	9,708	100.00%	14	100.00%	72,997	100.00%
Length Not Reported	564	---	991	---	0	---	1,555	---
Total	63,839	---	10,699	---	14	---	74,552	---

Source: 2010 National Transit Database.

NTD vehicle data for rural transit systems for 2010 present roadway vehicle data summarized by fleets in a different format.¹⁴ 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 11 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

¹⁴ National Transit Database 2010 Rural Area Data Table "Revenue Vehicle Inventory." Accessible from <http://www.ntdprogram.gov/ntdprogram/rural/2010/Revenue%20Vehicle%20Inventory.xlsx>

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 11: Active Roadway Vehicles by Type of Vehicle and Length from 2010 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	1,442	29	0	0	4	1,475	6.38%
30 ft to 34 ft	898	280	0	0	0	1,178	5.09%
25 ft to 29 ft	1,182	3,032	0	1	0	4,215	18.22%
24 ft and Shorter	542	7,280	4,459	3,987	0	16,268	70.31%
Total, Number	4,064	10,621	4,459	3,988	4	23,136	100.00%
Total, Percent	17.57%	45.91%	19.27%	17.24%	0.02%	100.00%	---

Source: Calculated from *National Transit Database 2010* rural data.

The roadway vehicle fleet is also identified by year of manufacture in the NTD urbanized area vehicle inventory. The number of vehicles by year of manufacture for the past five years from both the 2010 NTD and the 2009 NTD¹⁵ are shown on Table 12. 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 2010 and 2009 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 12: Roadway Vehicles Listed in 2010 and 2009 National Transit Database Vehicle Data by Year Built (Urbanized Area Data Only)

Vehicle Type	From 2010 National Transit Database, Reported Year of Manufacture					From 2009 National Transit Database, Reported Year of Manufacture				
	2010	2009	2008	2007	2006	2009	2008	2007	2006	2005
Bus, 46 ft and Longer	281	186	388	212	155	92	364	220	161	244
Bus, 35 ft to 45 ft	1,636	2,846	4,114	2,786	3,230	1,491	3,635	2,946	2,977	2,839
Bus, 34 ft or Shorter	1,299	2,144	2,320	2,128	1,981	1,126	2,294	1,966	2,113	1,496
Vans and Other	2,350	3,898	4,994	3,626	4,164	2,650	5,026	3,809	4,813	2,421
Automobile Based	166	365	272	383	482	224	284	359	436	332
Total Roadway Vehicles	5,732	9,439	12,088	9,135	10,012	5,583	11,603	9,300	10,500	7,332



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, 2010 and 2009.

¹⁵ Federal Transit Administration National Transit Database RY 2010 Database Revenue Vehicle Inventory downloadable at http://www.ntdprogram.gov/ntdprogram/dabase/2010_database/NTDdatabase.htm and Federal Transit Administration National Transit Database RY 2009 Database Revenue Vehicle Inventory (Self-extracting xls) downloadable at <http://www.ntdprogram.gov/ntdprogram/data.htm>

Data are also available about the number of rail vehicles manufactured. Table 13 reports rail vehicles by year of manufacture for the previous five years from the 2010 NTD and the 2009 NTD.¹⁶ Once again agencies are reporting their fiscal year that ended during the Calendar Year 2010 or 2009. 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 13: Rail Vehicles Listed in 2010 and 2009 National Transit Database Vehicle Data by Year Built (Urbanized Area Data Only)

Vehicle Type	From 2010 National Transit Database Reported Year of Manufacture					From 2009 National Transit Database Reported Year of Manufacture				
	2010	2009	2008	2007	2006	2009	2008	2007	2006	2005
Commuter Rail Car	0	40	65	418	338	30	59	363	338	476
Commuter Rail Locomotive	3	22	24	17	1	16	24	17	1	38
Heavy Rail Car	147	79	26	1,858	54	69	26	1,682	0	0
Light Rail Car	39	8	132	30	72	5	98	30	72	72
Other Rail Car	12	0	17	0	0	0	12	0	0	0
Total Rail Vehicles	201	149	264	2,323	465	120	219	2,092	411	586

 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, 2010 and 2009.

The NTD Database Revenue Vehicle Inventory for urbanized areas also indicates which vehicle fleets were purchased with federal financial assistance. Data for vehicles from urbanized areas, reported on Table 14¹⁷ identify three funding source categories: vehicles purchased with federal financial assistance from the Urbanized Area Formula Program, vehicles purchased with assistance from other federal funding programs, and vehicles purchased without any federal assistance. When a vehicle is purchased with federal financial assistance, under normal circumstances the state or local government pays a portion or "share" of the cost. The ratio can be up to 80 percent from the federal share and as low as 20 percent from the state and local share. For some vehicles, especially rail cars purchased for a new rail system, the federal share is lower than 80 percent. Details of federal funding laws can be found 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 2012*.¹⁸

Sixty-three percent of vehicles purchased for use in urbanized areas were purchased with federal financial assistance including 82 percent of buses, 28 percent of vans and automobiles, 64 percent of rail vehicles, and 37 percent of ferry boats. In this table, buses and vans refer to physical types of vehicles, not to modes of service. Overall, 62 percent of all vehicles were purchased using federal assistance and 38 percent were purchased without federal assistance. The lower value of the percent using federal

¹⁶ Federal Transit Administration National Transit Database RY 2010 Database Revenue Vehicle Inventory downloadable at http://www.ntdprogram.gov/ntdprogram/database/2010_database/NTDdatabase.htm and Federal Transit Administration National Transit Database RY 2009 Database Revenue Vehicle Inventory (Self-extracting xls) downloadable at <http://www.ntdprogram.gov/ntdprogram/data.htm>

¹⁷ Federal Transit Administration National Transit Database RY 2010 Database Revenue Vehicle Inventory downloadable at http://www.ntdprogram.gov/ntdprogram/database/2010_database/NTDdatabase.htm

¹⁸ *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 2012*. Washington: American Public Transportation Association at http://www.apta.com/gap/policyresearch/Documents/Primer_SAFETEA_LU_Funding.pdf

assistance for rail vehicles compared to buses may be due in part to the age of rail vehicles. As is shown on Table 17, over one-fifth of rail vehicles were purchased before 1980 when the federal financial program was relatively small.

Table 14: Active Transit Vehicles by Source of Federal Funding from 2010 National Transit Database Revenue Vehicle Inventory for Urbanized Areas (Vehicles Only in Urbanized Areas)

Funding Source	Type of Vehicle				
	All Bus	Vans and Automobile Based	All Rail	Ferry Boat	All Vehicles
Number of Vehicles					
Urbanized Area Formula Program	50,258	8,120	7,678	41	66,097
Other Federal Programs	11,363	4,090	5,654	7	21,114
<i>Subtotal All Federal Programs</i>	<i>61,621</i>	<i>12,210</i>	<i>13,332</i>	<i>48</i>	<i>87,211</i>
No Federal Funding	13,502	31,348	7,435	83	52,368
Total	75,123	43,558	20,767	131	139,579
Percent of Each Column					
Urbanized Area Formula Program	66.9%	18.6%	37.0%	31.3%	47.4%
Other Federal Programs	15.1%	9.4%	27.2%	5.3%	15.1%
<i>Subtotal All Federal Programs</i>	<i>82.0%</i>	<i>28.0%</i>	<i>64.2%</i>	<i>36.6%</i>	<i>62.5%</i>
No Federal Funding	18.0%	72.0%	35.8%	63.4%	37.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Table 15 reports the portion of vehicles in rural areas with federal financial assistance. The categories of financial assistance are different from those in Table 14 for vehicles in urbanized areas.¹⁹ The categories are Federal Transit Administration Programs, Other Federal Agency's Programs, Private Funding, and State and Local Government Funding Only. The FTA funding programs are primarily Outside of Urbanized Areas [Rural] Assistance and Bus and Bus Capital Assistance. As with urbanized area programs, rural program federal funding also requires a state and local share or "match," with a maximum federal share of 80 percent under normal circumstances. Details of federal funding laws can be found 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 2012*.²⁰

A larger portion of rural vehicles, 83 percent overall, were purchased with federal assistance compared to urbanized area vehicles where the overall portion purchased with federal assistance was 63 percent. The vehicles on Table 15 are differentiated by physical type of vehicles, not by mode of service. The portions with federal funding are relatively similar across vehicle types unlike urbanized area purchased which varied significantly among vehicle types.

¹⁹ 2010 National Transit Database Rural Area Data. Accessible Rural Vehicle Inventory at http://www.apta.com/resources/statistics/Documents/NTD_Data/2010_NTD/R6_2010_Vehicle_Inventory.xls

²⁰ *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*. Washington: American Public Transportation Association, updated regularly. at at http://www.apta.com/gap/policyresearch/Documents/Primer_SAFETEA_LU_Funding.pdf

Table 15: Active Transit Vehicles by Source of Federal Funding from 2010 National Transit Database Revenue Vehicle Inventory for Rural Areas (Vehicles Only in Rural Areas)

Funding Source	Type of Vehicle				
	All Bus	All Cutaways	All Vans	Automobiles and Other	All Vehicles
Number of Vehicles					
Federal Transit Administration Programs	3,043	9,149	6,295	309	18,796
Other Federal Agency's Programs	72	161	131	10	374
<i>Subtotal All Federal Programs</i>	<i>3,115</i>	<i>9,310</i>	<i>6,426</i>	<i>319</i>	<i>19,170</i>
Private Funding	93	184	251	111	639
State and Local Government Funding Only	856	1,127	1,204	140	3,327
Total	4,064	10,621	7,881	570	23,136
Percent of Each Column					
Federal Transit Administration Programs	74.9%	86.1%	79.9%	54.2%	81.2%
Other Federal Agency's Programs	1.8%	1.5%	1.7%	1.8%	1.6%
<i>Subtotal All Federal Programs</i>	<i>76.6%</i>	<i>87.7%</i>	<i>81.5%</i>	<i>56.0%</i>	<i>82.9%</i>
State and Local Government Funding Only	2.3%	1.7%	3.2%	19.5%	2.8%
Total	21.1%	10.6%	15.3%	24.6%	14.4%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

The FTA prescribes economic service lives before which, under normal circumstances, a vehicle cannot be replaced using federal funds.²¹ Those minimum useful lives are reported on Table 16.

Table 16: 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.

Both roadway and rail vehicles by year of manufacture and physical category are also found in the APTA 2011 Public Transportation Vehicle Database.²² Those data are reported on Table 17 for rail vehicles from 1980 through 2010 and Table 18 for roadway vehicles from 1990 through 2010. 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.

²¹ FTA Circular C 9300.1B, Capital Investment Program Guidance and Application. at http://www.fta.dot.gov/documents/Final_C_9300_1_Bpub.pdf

²² APTA Public Transportation Vehicle Database. Available for free APTA member download or for purchase by non-members through the APTA Bookstore on the MyAPTA page following instructions at <http://www.apta.com/resources/statistics/Pages/OtherAPTASTatistics.aspx>

APTA 2011 Public Transportation Vehicle Database data are as of January 1, 2011, hence many vehicles manufactured in 2010 may not yet have been delivered and accepted by agencies and hence, may not be included in 2010 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 17: Rail Vehicles by Year of Manufacture from 2011 APTA Public Transportation Vehicle Database (Data are a sample from an APTA member survey, they are NOT expanded to national totals)

From 2011 APTA Public Transportation Vehicle Inventory (Sample Data Only) Reported Year of Manufacture of Vehicles In Active Service on January 1, 2011 by Physical Vehicle Type						
Year of Manufacture	Commuter Rail Car		Heavy Rail Car		Light Rail Car	
	Number	Percent	Number	Percent	Number	Percent
2010	6	0.1%	382	3.5%	46	2.3%
2009	125	2.2%	447	4.1%	23	1.2%
2008	174	3.1%	578	5.3%	99	5.0%
2007	154	2.7%	281	2.6%	150	7.6%
2006	381	6.7%	170	1.6%	80	4.1%
2005	416	7.3%	114	1.0%	80	4.1%
2004	487	8.6%	60	0.6%	98	5.0%
2003	395	7.0%	452	4.1%	110	5.6%
2002	180	3.2%	578	5.3%	29	1.5%
2001	26	0.5%	783	7.2%	107	5.4%
2000	70	1.2%	214	2.0%	52	2.6%
1999	165	2.9%	121	1.1%	143	7.3%
1998	126	2.2%	102	0.9%	26	1.3%
1997	137	2.4%	86	0.8%	85	4.3%
1996	152	2.7%	13	0.1%	55	2.8%
1995	30	0.5%	92	0.8%	93	4.7%
1994	55	1.0%	70	0.6%	9	0.5%
1993	10	0.2%	252	2.3%	82	4.2%
1992	50	0.9%	148	1.4%	43	2.2%
1991	127	2.2%	4	0.0%	15	0.8%
1990	55	1.0%	14	0.1%	21	1.1%
1989	62	1.1%	297	2.7%	74	3.8%
1988	126	2.2%	568	5.2%	38	1.9%
1987	162	2.9%	138	1.3%	9	0.5%
1986	168	3.0%	1,036	9.5%	94	4.8%
1985	143	2.5%	562	5.2%	0	0.0%
1984	144	2.5%	219	2.0%	1	0.1%
1983	7	0.1%	281	2.6%	0	0.0%
1982	150	2.6%	349	3.2%	10	0.5%
1981	0	0.0%	146	1.3%	188	9.5%
1980	53	0.9%	34	0.3%	15	0.8%
Before 1980	1,332	23.5%	2,304	21.1%	96	4.9%
Total	5,668	100.0%	10,895	100.0%	1,971	100.0%

The correct way to read Tables 17 and 18 is to pick a mode and year and read the data as the number of vehicles currently, on January 1, 2011, in active service which the agencies reporting to the *APTA Public Transportation Vehicle Database*. For example, under the columns "Buses, 35 Feet or Longer" and the row "2001" is "4,273" and "10.0%." This should be read as "On January 1, 2011, there were among the active buses 35 feet and longer in the fleets of the sample of systems reporting to the APTA database, 4,273 that were manufactured in 2001. This is 10.0% of all the active buses 35 feet or longer in those fleets on January 1, 2011."

Table 18: Roadway Vehicles by Year of Manufacture from 2011 APTA Public Transportation Vehicle Database (Data are a sample from an APTA member survey, they are NOT expanded to national totals)

From 2011 APTA Public Transportation Vehicle Inventory (Sample Data Only) Reported Year of Manufacture of Vehicles In Active Service on January 1, 2011 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
2010	2,197	5.1%	279	6.7%	1,631	8.8%
2009	2,940	6.9%	351	8.4%	2,571	13.8%
2008	3,031	7.1%	402	9.7%	3,701	19.9%
2007	2,358	5.5%	433	10.4%	2,839	15.2%
2006	2,424	5.7%	390	9.4%	3,179	17.1%
2005	2,570	6.0%	249	6.0%	1,385	7.4%
2004	2,668	6.2%	249	6.0%	1,082	5.8%
2003	3,307	7.7%	261	6.3%	754	4.0%
2002	3,394	7.9%	262	6.3%	547	2.9%
2001	4,273	10.0%	257	6.2%	298	1.6%
2000	3,677	8.6%	351	8.4%	235	1.3%
1999	3,799	8.9%	173	4.2%	221	1.2%
1998	2,085	4.9%	145	3.5%	45	0.2%
1997	1,676	3.9%	218	5.2%	32	0.2%
1996	1,130	2.6%	6	0.1%	42	0.2%
1995	424	1.0%	13	0.3%	25	0.1%
1994	327	0.8%	33	0.8%	18	0.1%
1993	126	0.3%	9	0.2%	13	0.1%
1992	206	0.5%	24	0.6%	1	0.0%
1991	48	0.1%	19	0.5%	5	0.0%
1990	65	0.2%	19	0.5%	4	0.0%
Before 1990	136	0.3%	17	0.4%	8	0.0%
Total	42,861	100.0%	4,160	100.0%	18,636	100.0%

The average cost of vehicles is reported on Table 19 for one specific vehicle group for each of 6 service modes. For bus and demand response these data refer to the physical vehicles described, not to a mode of service. The data are calculated from costs reported in the annual *APTA Public Transportation Vehicle Database*.²³ Not all vehicles fleets reported for the APTA Database include cost data. To insure an adequate sample, data for two years are used in each estimate. Amounts are averages for vehicles with the specific characteristics in each heading, not for all vehicles in that mode. Some cost data are contract amounts and may not be final. Data include amounts paid to manufacturers only. Data should be considered indicative only, specifications of vehicles in sample, including fuel type, vary between years. Historical cost data for these vehicle categories are reported in the *APTA Fact Book Appendix A: Historical Tables*²⁴

Table 19: Average Vehicle Costs by Vehicle Type

Two-Year Period	Category	Standard Transit Bus (>=27'6", 2 Doors) (a)	Commuter Rail Car (Locomotive Hauled, 2 Levels, 0 Cabs)	Demand response (Small Vehicle, <27'6", Minibus, Van, Car, SUV)	Heavy Rail Car (1 Level, 1 Cab)	Light Rail Car (Single Articulated, 1 Level, 2 Cabs)	Vanpool (Small Vehicle, <27'6", Minibus, Van, Car, SUV)
2006-2007	Sample Size	2,841	247	1,432	320	103	725
	Average Cost	\$ 350,366	\$ 2,285,105	\$ 55,767	\$ 1,441,140	\$ 2,663,385	\$ 21,603
2007-2008	Sample Size	2,017	94	1,335	373	70	758
	Average Cost	\$ 398,239	\$ 1,799,796	\$ 59,129	\$ 1,453,324	\$ 2,850,000	\$ 22,872
2008-2009	Sample Size	3,031	314	1,911	394	---	739
	Average Cost	\$ 420,721	\$ 2,240,557	\$ 63,298	\$ 1,642,641	---	\$ 23,185
2009-2010	Sample Size	3,388	92	1,235	318	77	403
	Average Cost	\$ 469,928	\$ 2,334,565	\$ 73,825	\$ 1,886,095	\$ 3,600,000	\$ 24,941
2010-2011	Sample Size	2,605	8	1,218	156	77	356
	Average Cost	\$ 479,585	\$ 2,176,350	\$ 65,629	\$ 1,975,793	\$ 3,600,000	\$ 24,563

(a) Does not include articulated, double-deck, intercity, suburban, or trolley-replica buses of any length.

IV.C. Vehicle Fuel Types have steadily changed. Over the short six-year period since 2006, the portion of bus service vehicles powered by diesel fuel engines has dropped 81 percent to 64 percent as reported on Table 20. Natural gas, hybrid fuels, and biodiesel now power a significant and increasing portion of the transit buses.²⁵ The same trend is not apparent for vehicles used in demand response service, most of which are smaller vehicles such as vans. The portion of demand response vehicles powered by diesel fuel or gasoline engines has only declined from 95 percent in 2006 to 92 percent in 2011. Powered commuter rail cars are nearly all powered by electricity; unpowered cars are hauled by locomotives which are primarily diesel fueled. Other modes such as heavy rail, light rail, and trolleybus are either totally or approach totally eclectically fueled fleets.

²³ *APTA Public Transportation Vehicle Database*. Available for free APTA member download or for purchase by non-members through the APTA Bookstore on the MyAPTA page following instructions at <http://www.apta.com/resources/statistics/Pages/OtherAPTASTatistics.aspx>

²⁴ *APTA Fact Book Appendix A: Historical Tables*. Washington: American Public Transportation Association at <http://www.apta.com/resources/statistics/Documents/FactBook/2012-Fact-Book-Appendix-A.pdf>

²⁵ *APTA Public Transportation Vehicle Database*. Available for free APTA member download or for purchase by non-members through the APTA Bookstore on the MyAPTA page following instructions at <http://www.apta.com/resources/statistics/Pages/OtherAPTASTatistics.aspx>

Table 20: Percent of Bus, Demand Response, and Commuter Rail Vehicles by Type of Fuel from APTA Public Transportation Vehicle Database (Data are a sample from an APTA member survey, they are NOT adjusted to national totals)

Mode of Service: Type of Fuel	Percent of Vehicles by Type of Fuel					
	2006	2007	2008	2009	2010	2011
Bus:						
CNG, LNG, and Blends	15.2%	15.6%	18.5%	18.3%	18.6%	18.6%
Diesel	81.4%	79.8%	70.2%	68.9%	65.8%	63.5%
Hybrid Electric and Other	1.7%	2.3%	3.8%	4.9%	7.0%	8.8%
Gasoline	0.6%	0.6%	0.5%	0.7%	0.7%	0.8%
Biodiesel	---	---	6.6%	6.4%	7.7%	7.9%
Other	1.2%	1.7%	0.4%	0.8%	0.2%	0.4%
Demand Response:						
CNG, LNG, and Blends	2.9%	2.1%	2.7%	2.5%	1.9%	1.9%
Diesel	65.2%	64.6%	55.9%	50.5%	49.2%	49.3%
Hybrid Electric and Other	0.0%	0.5%	1.3%	0.6%	0.5%	0.1%
Gasoline	30.3%	30.7%	35.2%	39.0%	42.8%	43.0%
Biodiesel	0.3%	1.6%	4.6%	7.2%	5.5%	5.6%
Other	1.3%	0.5%	0.3%	0.2%	0.1%	0.1%
Commuter Rail Cars:						
Electricity	49.3%	49.1%	53.4%	45.6%	46.1%	46.5%
Diesel	0.4%	0.4%	0.4%	0.2%	0.2%	0.2%
Unpowered	50.3%	50.5%	46.2%	54.2%	53.7%	53.3%
Commuter Rail Locomotives:						
Electricity	11.3%	11.3%	10.7%	10.0%	11.3%	11.8%
Diesel	88.7%	88.7%	89.3%	90.0%	88.7%	88.2%

IV.D. Fixed-Guideway Infrastructure growth is described in the following tables. The NTD reports miles of track beginning in 2002. These data are shown on Table 21. Miles of track reported in the NTD include main line, siding, and yard trackage.²⁶ From RY 2002 to RY 2010, miles of track for all modes increased 17 percent, from 10,590 miles to 12,438 miles. These data include only systems reporting to the NTD, they are not expanded to include non-reporting systems.

Table 21: Miles of Track by Mode, 2002-2010 (Agencies Reporting to the NTD Only)

Report 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
2009	8,424.3	2,272.2	1,636.4	30.1	12,363.0
2010	8,471.5	2,272.2	1,664.3	30.1	12,438.1

Source: National Transit Database

²⁶ Federal Transit Administration National Transit Database, annual, from 2009 NTD. See Table 23 at <http://www.apta.com/resources/statistics/Pages/NTDDDataTables.aspx>

Table 22 lists all entirely new fixed-guideway transit systems opened from 2004 through summer 2011. New extensions to existing fixed-route systems are not included.

Ten 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); Phoenix, AZ, and Virginia Beach, VA. Entirely new commuter rail systems opened in Albuquerque, NM; Nashville, TN; Salt Lake City, UT; Portland, OR; Minneapolis, MN; Austin, TX, and Denton, 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. These new system openings are in addition to extensions of existing routes or new routes added to existing fixed-guideway systems over the same time period.

Table 22: Openings of Entirely New Rail Systems, 2004-August 2011

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
Denton, TX	Denton County Transportation Authority A Train	Commuter Rail	2011
Virginia Beach, VA	Hampton Roads Transit TIDE	Light Rail	2011

Table 23 reports the number of stations and maintenance facilities reported in the NTD for 2010. Stations are defined as significant structures on transit rights-of-way.²⁷ 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 facilities "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.

²⁷ Federal Transit Administration National Transit Database, annual, from 2009 NTD. See Table 21 and Table 22 at <http://www.apta.com/resources/statistics/Pages/NTDDDataTables.aspx>

Table 23: Stations and Maintenance Facilities by Mode, 2010 (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	1,235	75	21
Demand Response	0	461	2
Ferryboat	82	14	1
Heavy Rail	1,041	49	11
Inclined Plane	8	0	0
Light Rail	848	46	6
Bus	1,462	796	31
Monorail	2	1	0
Trolleybus	5	5	0
Vanpool	0	26	0

Source: 2010 National Transit Database

IV. E. The Federal New Starts "Pipeline" lists projects be considered for funding from the New Starts program. 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.²⁸ The purpose of the *Annual Report on New Starts* is to provide Congress with up-to-date information and recommendations for which New Starts projects to fund at what level in the next appropriation law. Table 24 reports the projects, by stage in the funding process, currently in the New Starts "Pipeline." These projects are described in individual profiles on the FTA web site that may have been updated since the last annual New Starts report was released.²⁹ The reports are dated for the year in which funds would be granted. The 2013 report is intended to aid Congress in decisions concerning FY 2013 funding, was written in 2012, and is based on 2011 data.

Table 24: FTA New Starts Capital Investment Program Project Profiles as of July 26, 2012 (Includes Completed Projects Still Reported in Profile Listing)

Status	State	Urban Area	Project Name						
			Date of Newest Profile	Planned Date of Opening	Mode	Total Capital Cost (Millions)	Miles of Line	Vehicles	Stations
Full Funding Grant Agree.	CO	Denver	Eagle Commuter Rail						
			Nov 2011	Dec 2016	CR	\$2,043.1	30.2	44	13
Full Funding Grant Agree.	CT	Hartford	New Britain - Hartford Busway						
			Nov 2011	Apr 2015	BRT	\$567.5	9.4	31	11
Full Funding Grant Agree.	FL	Orlando	Central Florida Commuter Rail Transit - Initial Operating Segment						
			Nov 2011	May 2014	CR	\$357.2	32.0	21	12
Full Funding Grant Agree.	MN	St. Paul-Minneapolis	Central Corridor LRT						
			Nov 2011	Dec 2014	LR	\$956.9	9.8	31	19 new
Full Funding Grant Agree.	NY	New York City	Long Island Rail Road East Side Access						
			Nov 2011	Dec 2013	CR	\$7,386.0	3.5	---	1
Full Funding Grant Agree.	NY	New York City	Second Avenue Subway Phase I						
			Nov 2011	Jun 2014	HR	\$4,866.6	2.3	68	3

²⁸ *Annual Report on New Starts*. Washington: Federal Transit Administration, annual. Available on-line at http://www.fta.dot.gov/12304_2618.html

²⁹ Capital Investment Program Projects Profiles: Current. Washington, Federal Transit Administration. at http://www.fta.dot.gov/12304_13960.html

Table 24: FTA New Starts Capital Investment Program Project Profiles as of July 26, 2012 (Includes Completed Projects Still Reported in Profile Listing)

Status	State	Urban Area	Project Name						
			Date of Newest Profile	Planned Date of Opening	Mode	Total Capital Cost (Millions)	Miles of Line	Vehicles	Stations
Full Funding Grant Agree.	TX	Dallas	Northwest/Southeast LRT MOS (Opened for Service Dec 2010)						
			Nov 2011	Dec 2010	LR	\$1,406.2	21.0	18	16
Full Funding Grant Agree.	TX	Houston	North Corridor LRT						
			Nov 2011	Jul 2015	LR	\$756.0	5.3	24	8
Full Funding Grant Agree.	TX	Houston	Southeast Corridor LRT						
			Nov 2011	Dec 2015	LR	\$822.9	6.6	29	10
Full Funding Grant Agree.	UT	Salt Lake City	Draper Transit Corridor						
			Nov 2011	Dec 2013	LR	\$193.6	3.8	5	3
Full Funding Grant Agree.	VA	Northern Virginia	Dulles Corridor Metrorail Project Extension to Wiehle Avenue						
			Nov 2011	Dec 2014	HR	\$3,142.5	11.7	64	5
Full Funding Grant Agree.	WA	Seattle	University Link LRT Extension						
			Nov 2011	Apr 2017	LR	\$1,947.7	3.1	27	2
Final Design	CA	San Francisco	Third Street Light Rail Phase 2 - Central Subway						
			Nov 2011	Dec 2018	LR	\$1,578.3	1.7	4	4
Final Design	CA	San Jose	Silicon Valley Berryessa Extension Project (BART Extension)						
			Nov 2011	Jun 2018	HR	\$2,330.0	10.2	40	2
Final Design	DE	Wilmington	Wilmington to Newark Commuter Rail Improvements						
			Nov 2011	2014	CR	\$78.4	1.5	4	1
Final Design	OR	Portland	Portland-Milwaukie Light Rail Project						
			Nov 2011	Mar 2016	LR	\$1,490.4	7.3	18	10
Final Design	HI	Honolulu	High Capacity Transit Corridor Project						
			Nov 2011	2019	HCR	\$5,347.7	20.1	---	21
Preliminary Engineering	CA	Los Angeles	Regional Connector Transit Corridor						
			Nov 2011	2019	LR	\$1,342.5	1.9	4	3
Preliminary Engineering	CA	Los Angeles	Westside Subway Extension						
			Nov 2011	2022	HR	\$5,662.5	8.9	104	7
Preliminary Engineering	CA	Sacramento	South Sacramento Corridor Phase 2						
			Nov 2011	Jun 2015	LR	\$270.0	4.3	0	4
Preliminary Engineering	CA	San Diego	Mid-Coast Corridor Transit Project						
			Aug 2011	Dec 2017	LR	\$1,803.2	10.9	36	8
Preliminary Engineering	MD	Baltimore	Red Line LRT						
			May 2011	2021	LR	\$2,219.2	14.5	38	20
Preliminary Engineering	MD	Baltimore	National Capital Purple Line						
			Sep 2011	2020	LR	\$1,925.5	16.3	53	21
Preliminary Engineering	MN	Minneapolis	Southwest Corridor LRT						
			Sep 2011	2017	LR	\$1,250.5	15.8	26	17
Preliminary Engineering	NC	Charlotte	LYNX Blue Line Extension - Northeast Corridor						
			Nov 2011	2016	LR	\$1,169.2	9.3	---	11
Preliminary Engineering	RI	Pawtucket	Pawtucket/Central Falls Commuter Rail Station						
			Nov 2010	2018	CR	\$53.6	0.0	0	1
Preliminary Engineering	TX	Fort Worth	TEX Rail						
			Mar 2012	2016	CR	\$758.0	37.0	32	14
Preliminary Engineering	TX	Houston	University Corridor LRT						
			Dec 2009	2020	LR	\$1,563.1	11.3	32	19
Preliminary Engineering	WA	Vancouver	Columbia River Crossing Project						
			Dec 2010	2019	LR	\$3,565.0	2.9	19	5
Project Development	AZ	Mesa	Central Mesa LRT Extension						
			Jul 2010	2016	LR	\$198.5	3.1	0	4
Project Development	CA	Fresno	Fresno Area Express Blackstone/Kings Canyon BRT						
			Nov 2010	2014	BRT	\$48.2	13.8	8	26

Table 24: FTA New Starts Capital Investment Program Project Profiles as of July 26, 2012 (Includes Completed Projects Still Reported in Profile Listing)

Status	State	Urban Area	Project Name						
			Date of Newest Profile	Planned Date of Opening	Mode	Total Capital Cost (Millions)	Miles of Line	Vehicles	Stations
Project Development	CA	Oakland	East Bay BRT						
			Nov 2011	2016	BRT	\$205.5	14.4	38	47
Project Development	CA	San Francisco	Van Ness Avenue BRT						
			Nov 2011	Aug 2016	BRT	\$125.6	2.0	60	9
Project Development	FL	Jacksonville	JTA BRT North Corridor						
			Nov 2011	Dec 2013	BRT	\$33.5	9.3	8	14
Project Development	FL	Jacksonville	JTA BRT Southeast Corridor						
			Nov 2011	2014	BRT	\$23.9	11.1	8	7
Project Development	MI	Grand Rapids	Silver Line BRT						
			Nov 2011	2014	BRT	\$35.3	9.6	10	18
Project Development	OR	Eugene	West Eugene EmX Extension						
			Dec 2011	2017	BRT	\$95.6	5.9	7	13
Project Development	TX	El Paso	Dyer Corridor BRT						
			Dec 2011	Sep 2015	BRT	\$35.2	12.0	10	12

Also in the federal funding pipeline are projects that have received Alternatives Analysis (AA) grants. The FTA allocates AA funds annually. These grants allow communities to examine the value of proposed investments and determine which mode and level of investment is most appropriate to the community need. These projects may in the future advance into the FTA "pipeline." Projects that were funded in FY 2011 are described on the FTA web site at http://www.fta.dot.gov/documents/AA_Descriptions-Final.pdf

IV. F. Operating expenditures are the major portion of transit agency expenditures. In 2010, 67.9 percent of all transit expenditures were for operations compared to 32.1 percent for capital. Table 25 reports operating expenditures for the past four years classified by function.³⁰ 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 in 2010 is vehicle operations at 45.1 percent of total operating costs, followed by vehicle maintenance at 16.9 percent, general administration at 15.2 percent, purchased transportation at 13.8 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 25 are totals for the entire transit industry, not just for agencies reporting data to the NTD.

³⁰ APTA Fact Book Appendix A: Historical Tables. Washington: American Public Transportation Association at <http://www.apta.com/resources/statistics/Documents/FactBook/2012-Fact-Book-Appendix-A.pdf>

Table 25: Operating Expenditures by Function Class, 2006-2010 (All Public Transportation Agencies)

Year	Vehicle Operations	Vehicle Maintenance	Non-Vehicle Maintenance	General Administration	Purchased Transportation	Total
Amount (Millions of Dollars)						
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
2009	16,997.0	6,349.1	3,344.3	5,330.2	5,224.5	37,245.0
2010	17,008.7	6,373.9	3,422.6	5,731.2	5,218.4	37,754.9
Percent of Total						
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%
2009	45.6%	17.0%	9.0%	14.3%	14.0%	100.0%
2010	45.1%	16.9%	9.1%	15.2%	13.8%	100.0%

Source: 2012 APTA Public Transportation Fact Book

V. How Much Should 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.³¹

Table 26: 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.

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 26 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 accommodate an annual growth of 3.53 percent in ridership.

³¹ *State and National Transit Investment Analysis*, Cambridge Systematics, 2008 at http://www.apta.com/gap/policyresearch/Documents/transit_needs_studies.pdf

VI. Are Voters Willing to Support Transit Investment?

Voters consistently approve ballot measures that include transit funding. Table 27 reports data collected by the Center for Transportation Excellence (CFTE).³² The CFTE tracks the outcomes of transit ballot measures throughout the United States. From 2003 through 2011, between 67 percent and 84 percent of all transit referenda were approved by voters each year, with an average approval rate of 76 percent over the nine-year period.

Table 27: Local Referenda Approvals

Year	Measures on Ballots	Measures Approved	Percentage Approved
2011	28	22	79%
2010	56	43	77%
2009	11	8	73%
2008	47	35	74%
2007	18	12	67%
2006	45	34	76%
2005	25	21	84%
2004	50	40	80%
2003	17	12	71%

Source: Center for Transportation Excellence

³² Center for Transportation Excellence at <http://www.cfte.org/>

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 <http://www.apta.com/resources/statistics/Pages/transitstats.aspx>.

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 http://www.apta.com/gap/policyresearch/Documents/Primer_SAFETEA_LU_Funding.pdf

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 following instructions at <http://www.apta.com/resources/statistics/Pages/OtherAPTASTatistics.aspx>

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 following instructions at <http://www.apta.com/resources/statistics/Pages/OtherAPTASTatistics.aspx>

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 demand response 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 following instructions at <http://www.apta.com/resources/statistics/Pages/TransitFareDatabase.aspx>

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 http://www.apta.com/gap/policyresearch/Documents/transit_needs_studies.pdf

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 http://www.fta.dot.gov/12304_2618.html Updated profiles of products can be found at http://www.fta.dot.gov/12304_14366.html

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 <http://www.fta.dot.gov/grants/13473.html>

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 http://www.fta.dot.gov/12309_38.html

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/ and copies of the NTD Tables with urbanized area names and populations added by APTA can be found at the APTA U.S. Government Statistics web page, annual, at <http://www.apta.com/resources/statistics/Pages/NTDDataTables.aspx>

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 http://www.fta.dot.gov/documents/Final_C_9300_1_Bpub.pdf