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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 for 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, and what do transit funds buy? This is the 9th edition of Public Transportation Investment History Background Data. Earlier 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 sustained growth. In 2013 America's transit systems carried more than 10 billion passenger trips for the eighth consecutive year as shown on Figure 1. Transit ridership grew 37 percent from 1995 through 2013, compared to 19 percent growth in population and 23 percent growth in highway vehicle miles of travel over the same period.

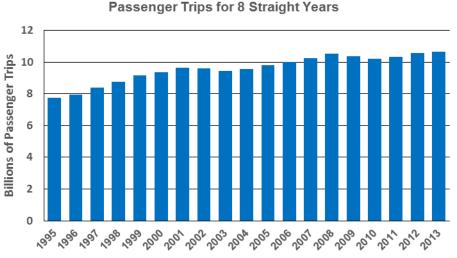


Figure 1: Transit Has Carried Over 10 Billion Passenger Trips for 8 Straight Years

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. Beginning in 2011 the National Transit Database disaggregated existing rail service into additional modes. On Figure 2 commuter rail systems include some of the newly designated mode hybrid rail as well as commuter rail and light rail includes some hybrid rail and all of the newly designated mode streetcar as well as light rail.

Source: APTA 2014 Fact Book Appendix A : Historical Tables and APTA Public Transportation Ridership Report

¹ Includes only what were categorized as commuter rail, heavy rail, and light rail systems in 2010. Excludes cable car, inclined plane, automated guideway, and other types of rail systems. A listing of commuter rail, heavy rail, light rail and other rail mode systems with the year they opened can be found on Table 48 in the 2014 APTA Fact Book Appendix A: Historical Tables at http://www.apta.com/resources/statistics/Documents/FactBook/2014-APTA-Fact-Book-Appendix-A.pdf

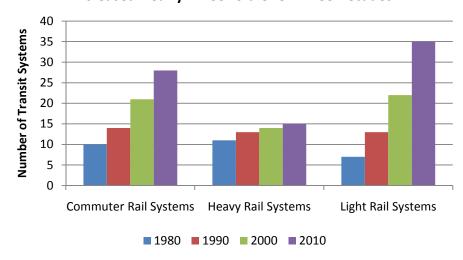


Figure 2: The Number of Rail Transit Systems Has Increased Nearly Three-fold Over Three Decades

Source: APTA 2014 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, 2, 3, and 5 and Figures 3 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 revenue data 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 MAP-21, The Moving Ahead for Progress in the 21st Century Act, Public Law 112-141, enacted July 6, 2012 at http://www.apta.com/gap/logissues/authorization/Decuments/Pamsaver, Ch. 53, Pavisions, Finally 20/

http://www.apta.com/gap/legissues/authorization/Documents/Ramseyer_Ch_53_Revisions_Final%20(2).pdf

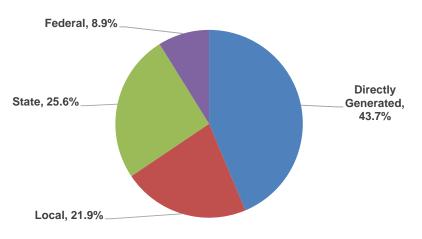
<u>III. A. Directly Generated Revenues</u> are any funds acquired by the transit agency or its oversight agency by their own activity as a business or by taxing actions where the agency has been enabled by the state to collect a specific tax in a specific area.

Directly Generated Funds account for 43.7 percent of all operating revenue and 23.7 percent of all capital revenue in 2012 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, 32.5 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.

<u>III. B. Local Revenues</u> 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 2012 accounted for 21.9 percent of operating revenue and 20.0 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.

<u>III. C. State Revenues</u>, 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 2012 state funds accounted for 25.6 percent of operating revenue and 11.9 percent of capital revenue.

<u>III. D. Federal Revenues</u>, 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 2012 provided 8.9 percent of operating revenue and 44.4 percent of capital revenue.





Source: APTA Public Transportation Fact Book 2014, Appendix A

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

	Directly Ger	nerated by Tra	nsit Agency		Government Funds					
Year	Passenger Fares	Other	Total	Directly Generated	Local	State	Federal	Total Govern- ment Funds	Total Funds	
			Am	ount of Fundin	g (Millions of I	Dollars)				
2009	12,273.2	2,275.6	14,548.8	2,542.6	8,762.6	9,857.1	3,206.7	24,369.0	38,917.8	
2010	12,556.1	2,118.9	14,675.0	2,548.8	8,457.9	9,760.8	3,674.6	24,442.1	39,117.2	
2011	13,557.6	2,044.0	15,601.6	2,563.2	9,068.9	10,048.0	4,028.4	25,708.5	41,310.1	
2012	14,180.4	2,024.5	16,205.0	2,824.7	9,545.8	11,138.9	3,862.5	27,371.9	43,576.9	
				Percent of	Annual Total					
2009	31.5%	5.8%	37.4%	6.5%	22.5%	25.3%	8.2%	62.6%	100.0%	
2010	32.1%	5.4%	37.5%	6.5%	21.6%	25.0%	9.4%	62.5%	100.0%	
2011	32.8%	4.9%	37.8%	6.2%	22.0%	24.3%	9.8%	62.2%	100.0%	
2012	32.5%	4.6%	37.2%	6.5%	21.9%	25.6%	8.9%	62.8%	100.0%	

Table 1: Source of Operating Funds (Accrued Revenue)



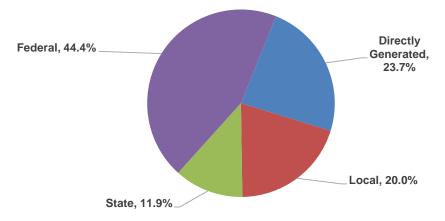




Table 2: Source of Capital Funds (Accrued Revenue)

Veer	Directly Ge Transit		Federal	Sta	ate	Lo	Total	
Year	Other	Dedicated	rederai	General Revenue	Dedicated	General Revenue	Dedicated	TOLAI
			Amount of	Funding (Millio	ons of Dollars)			
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
2011	1,739.0	2,383.0	7,425.8	525.2	1,673.7	726.7	2,389.6	16,863.0
2012	2,316.7	1,893.6	7,907.1	819.6	1,303.3	845.0	2,714.9	17,800.2
			Pe	rcent of Annual	l Total			
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%
2011	10.3%	14.1%	44.0%	3.1%	9.9%	4.3%	14.2%	100.0%
2012	13.0%	10.6%	44.4%	4.6%	7.3%	4.7%	15.3%	100.0%

<u>III. E. Overall Funding Sources</u> for capital and operating revenue combined are shown on Table 3.⁴ In 2012 all types of Directly Generated funds accounted for 37.9 percent of total revenue, Federal funds were 19.2 percent, State funds 21.6 percent, and Local funds 21.4 percent. Funds solely from the transit agency service areas, Directly Generated and Local combined, account for 59.2 percent of all revenue.

	Directly Ger	nerated by Tra	ansit Agency		Sta	ate	Lo	cal	
Year	Passen- ger Fares	Other	Dedicated	Federal	General Revenue	Dedicated	General Revenue	Dedicated	Total
			Amo	unt of Fundin	g (Millions of I	Dollars)			
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
2011	13,557.6	3,783.0	4,946.2	11,454.2	2,832.9	9,414.0	4,389.9	7,795.3	58,173.1
2012	14,180.4	4,341.2	4,718.3	11,769.6	3,349.7	9,912.1	4,839.8	8,266.0	61,377.1
				Percent of	Annual Total				
2009	21.5%	11.8%	6.5%	19.1%	5.5%	16.3%	8.1%	11.3%	100.0%
2010	22.1%	11.6%	6.8%	19.3%	5.6%	16.0%	7.2%	11.3%	100.0%
2011	23.3%	6.5%	8.5%	19.7%	4.9%	16.2%	7.5%	13.4%	100.0%
2012	23.1%	7.1%	7.7%	19.2%	5.5%	16.1%	7.9%	13.5%	100.0%

<u>III. F. The Trend in Funding</u> from different sources is shown on Figures 5 and 6.⁵ Capital funding, on Figure 5, has seen significant growth from combined Directly Generated and Local Sources, 179 percent over the seventeen-year period from 1995 through 2012, while Federal funds have grown 131 percent and state funds 108 percent.

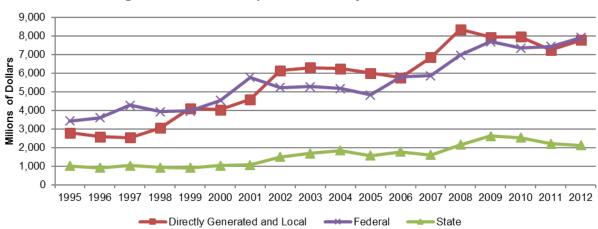


Figure 5: Growth in Capital Revenue by Source, 1995-2012

Federal operating revenue, on Figure 6, has increased 373 percent from 1995 through 2012 but remains the smallest source of funding at only 8.9 percent of operating funds. State operating funds have increased 191 percent over the seventeen-year period, combined Directly Generated, except Passenger Fares, and Local Funds have increased 112 percent, and passenger fare revenue has increased 109 percent.

⁵ APTA Fact Book Appendix A: Historical Tables. Washington: American Public Transportation Association at <u>http://www.apta.com/resources/statistics/Documents/FactBook/2014-APTA-Fact-Book-Appendix-A.pdf</u>

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

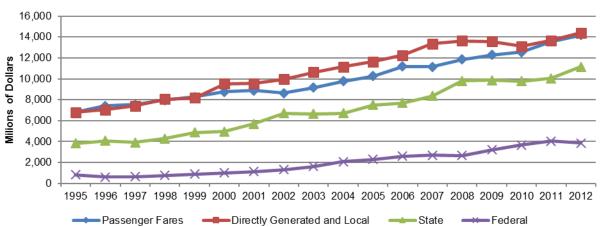


Figure 6: Growth in Operating Revenue by Source, 1995-2012

III. G. Federal transit funding programs have provided transit funding since 1964. Table 4 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 4. 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, a shorter period than the last three authorizations.

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 \$10.7 billion in FY 2014.

<u>III. H. Other federal funds</u> 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.

The Disaster Relief Appropriations Act of 2013 (DRAA) appropriated \$10.9 billion for use by the FTA to make grants "for relief efforts in the areas most affected by Hurricane Sandy." Of those funds, \$5.383 billion could be used to "carry out projects related to reducing risk of damage from future disasters in areas impacted by Hurricane Sandy." These funds were authorized at the level of "such sums as are necessary" for use under 49 USC 5324 by MAP-21.

Fiscal Year	Federal Transit Program Authorization (Millions) (a)	All Transit Appropriation (Millions) (a)	Percent of Authorized Funds Appropriated (Millions) (a)	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%	1,348	9,853
2007	8,975	8,975	100.0%	923	9,898
2008	9,731	9,492	97.5%	894	10,386
2009	10,338	10,231	99.0%	(b) 1,026	11,257
2009 ARRA (c)	8,400	8,400	100.0%	In '09 through '12	8,400
2010	10,529	10,508	99.8%	(b) 1,977	12,530
2011	10,529	10,098	95.9%	(b) 1,890	12,187
2012	10,458	10,458	100.0%	(b) 2,382	12,840
2013	10,578	10,455	98.8%	NA	NA
2013 DRAA (d)	ssaan (d)	10,900			10,900
2014	10,695	10,691	99.9%	NA	NA

Table 4: Federal Transit Act Authorizations and Appropriations, 2000 to 2014⁶

(a) Regular Fiscal Year amounts include only funds authorized by regular transit program under 49 USC 5300, amounts from other authorizing laws are not included except for the ARRA and DRAA.

(b) Includes funds flexed from the ARRA.

(c) American Recovery and Reinvestment Act of 2009 (ARRA) was a one time funding program in addition to annual appropriations.

(d) Appropriated by the Disaster Relief Appropriations Act of 2013 from authorization in MAP-21 for 49 USC 5324 Public

Transportation Emergency Relief Program in the amount of "such sums as are necessary."

NA = Not available until end of Fiscal Year.

Funds for specific uses have been authorized separately from MAP-21 and previous FTA authorizations. One such authorization currently in effect is Title VI – Capital and Preventive Maintenance Projects for Washington Metropolitan Area Transit Authority (WMATA) contained in the Federal Rail Safety Improvements Act of 2008. This Act provided \$1.5 billion for WMATA in "increments" over 10 fiscal years beginning in FY 2009. Appropriations have been or near \$150 million each year since then. These amounts, and amounts from other federal programs beyond regular FTA appropriation, the ARRA, and the DRAA, and not included in Table 4 or Figures 7 and 8.

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 4 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 4 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 included in these descriptions.

⁶ APTA Primer on Transit Finding, The Moving Ahead for Progress in the 21st Century Act and Other Related Laws, FY 2013 Through FY 2014. Washington: American Public Transportation Association at http://www.apta.com/gap/policyresearch/Documents/APTA-Primer-Map-21-Funding.pdf

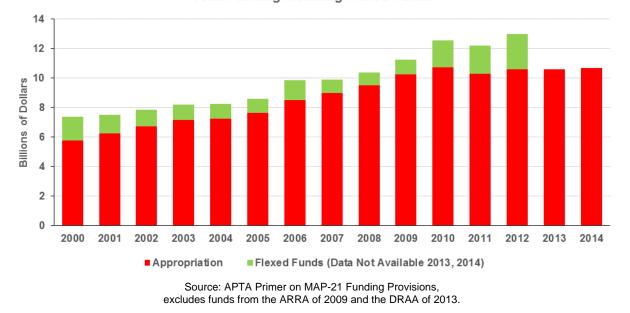


Figure 7: Federal Appropriations and Total Funding Including Flexed Funds

<u>III. I. A "Guarantee Provision"</u> 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 4 and on Figure 8 Most of the shortfalls have resulted from across-the-board rescissions that affected most or nearly all federal programs. The on-going success of the "Guarantee," however, can only result from the on-going intent of Congress and from federal transit funds being primarily from dedicated sources; the mechanisms through which the guarantee had been enforced are no longer able to prevent a reduction in federal transit funding if that is the intent of Congress.

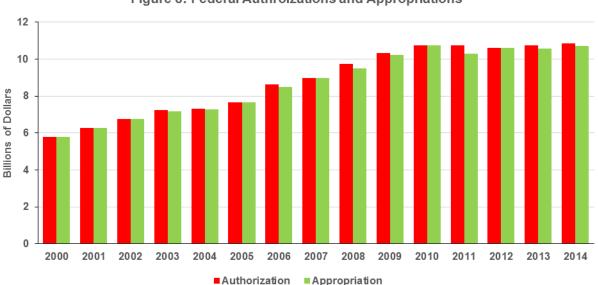


Figure 8: Federal Authroizations and Appropriations

(a) Excludes ARRA funds. (b) Excludes Hurricane Sandy Emergency Relief Funds. Source: APTA Primer on MAP-21 Funding Provisions III. J. Apportionments and Allocations. Federal assistance is distributed through a variety of programs that may be for specific uses such as state of good repair, 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 over time 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. In recent years Congress has not made allocations and the FTA has selected the recipients of allocated programs. 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 the *APTA Primer on Transit Finding, The Moving Ahead for Progress in the 21st Century Act and Other Related Laws, FY 2013 Through FY 2014.*⁷

IV. What Transit Funds Are Spent For

<u>IV. A. Capital expenditures</u> 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 5. 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 2012 a total of 61.8 percent, including 34.4 percent for fixed-guideways, 18.5 percent for stations, and 8.9 percent for administration buildings and maintenance facilities.

Vehicles accounted for 24.8 percent of capital expenditures in 2012, 24.1 percent of which was for passenger vehicles and 0.6 percent for service vehicles. Fare revenue collection equipment accounted for 0.7 percent of capital expenditures in 2012, communication and information systems for 8.8 percent, and other capital uses for 4.0 percent.

⁷ APTA Primer on Transit Finding, The Moving Ahead for Progress in the 21st Century Act and Other Related Laws, FY 2013 Through FY 2014. Washington: American Public Transportation Association at http://www.apta.com/gap/policyresearch/Documents/APTA-Primer-Map-21-Funding.pdf

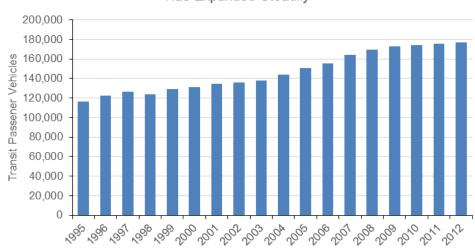
(Funds from All Level	S OI GOVE			xpenaltur	es)				
-		Commut	Demand	Heavy	Light	Trolley-	0.1	-	% of
Туре	Bus (a)	-er Rail	Re-	Rail	Rail (c)	bus	Other	Total	Annual
		(b)	sponse		. ,				Total
Guideway	400.0	4 000 7		0.000.4	0.500.0		07.0	0 400 5	05 700/
2009	100.2	1,383.7	0.0	2,333.4	2,539.9	5.5	37.9	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%
2011 2012	228.8 285.7	979.4 1,510.1	0.0 0.0	1,927.9 1,902.8	2,232.1 2,531.8	16.9 14.5	2.9 3.6	5,388.1 6,248.5	31.59% 34.39%
Passenger Stations	205.7	1,510.1	0.0	1,902.0	2,551.0	14.5	5.0	0,240.5	34.3970
2009	341.7	412.7	5.8	1,311.4	358.4	0.2	50.5	2,480.6	13.84%
2009	410.2	434.3	1.7	1,578.6	342.2	0.2	59.5	2,400.0	15.86%
2011	451.0	418.1	5.0	1,815.8	429.8	0.6	115.3	3,235.5	18.97%
2012	396.4	304.5	4.1	2,103.3	407.7	0.8	136.5	3,353.2	18.46%
Buildings and Facilities				_,				-,	
2009	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%
2011	853.0	130.4	79.1	147.6	136.4	0.1	12.4	1,359.0	7.97%
2012	842.1	222.2	84.3	380.3	77.3	0.2	14.2	1,620.5	8.92%
Passenger Vehicles									
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%
2011	2,543.9	741.1	506.4	442.2	270.2	4.4	235.6	4,743.7	27.81%
2012	2,689.3	631.5	392.6	248.5	232.3	4.0	185.5	4,383.7	24.13%
Service Vehicles									
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%
2011	30.7	10.2	2.6	17.2	20.0	0.0	1.2	81.9	0.48%
2012	60.7	18.7	3.1	28.1	3.2	0.0	0.1	114.0	0.63%
Fare Revenue									
Collection Equipment 2009	103.5	13.1	4.6	81.1	34.2	0.0	1.0	237.5	1.33%
2009 2010	95.5	13.7	4.0	41.0	27.5	0.0	0.6	190.9	1.07%
2010	102.3	11.1	1.1	21.4	27.5	2.9	0.0 5.9	165.7	0.97%
2012	72.4	8.9	1.1	22.9	14.6	0.8	1.8	123.1	0.68%
Communication and	72.1	0.0	1.0	22.0	11.0	0.0	1.0	120.1	0.0070
Information Systems									
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%
2011	290.4	169.9	64.8	670.6	140.4	1.5	13.6	1,351.2	7.92%
2012	410.7	186.1	63.4	799.7	137.7	1.5	4.8	1,603.9	8.83%
Other									
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%
2011	185.4	50.2	34.9	431.6	12.8	0.4	16.7	732.0	4.29%
2012	200.0	72.9	29.3	391.1	23.3	0.2	4.1	720.8	3.97%
Total									
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%
2011	4,685.5	2,510.2	693.9	5,474.3	3,262.9	26.8	403.7	17,057.1	100.00%
2012	4,957.2	2,954.9	578.5	5,876.6	3,427.9	21.9	350.7	18,167.8	100.00%
% of Total	22 4 00/	15.35%	4 000/	21 750/	20.250/	0 4 2 0/	2 050/	100.000/	
2009 2010	23.10%		4.26%	34.75% 31.82%	20.35%	0.13%	2.05%	100.00%	
2010	25.32% 27.47%	17.25% 14.72%	5.62% 4.07%	31.82% 32.09%	18.23% 19.13%	0.03% 0.16%	1.73% 2.37%	100.00% 100.00%	
2011	27.29%	16.26%	3.18%	32.09%	19.13%	0.10%	1.93%	100.00%	
	21.20/0	10.2070	0.1070	02.0070	10.01 /0	0.1270	1.0070	100.0070	

Table 5: Capital Expense by Mode and Type of Investment, Millions of Dollars (Funds from All Levels of Government, Accrued Expenditures)

(a) Includes all types of bus service.(b) Includes hybrid rail.

 (c) Includes streetcar.
Note: All capital expense as defined by National Transit Database accounting system; but also includes amounts for all transit agencies not reporting in the NTD. Source: APTA Public Transportation Fact Book and supporting data.

<u>IV.B. Vehicle Fleet Size and Vehicle Purchases</u> are reported for on Tables 6 and 7. These data are taken from the *2014 APTA Public Transportation Fact Book, Appendix A: Historical Data.*⁸ 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 17 years is illustrated on Figure 9, also based on data in the *2014 APTA Public Transportation Fact Book, Appendix A: Historical Data.*





On Table 6 and Table 7 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 from 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.

Source: 2014 APTA Public Transportation Fact Book Historical Appendix

⁸ APTA Fact Book Appendix A: Historical Tables. Washington: American Public Transportation Association at <u>http://www.apta.com/resources/statistics/Documents/FactBook/2014-APTA-Fact-Book-Appendix-A.pdf</u>

				Mode of	fService			
Year	Bus (c)	Commuter Rail (d)	Demand Response	Heavy Rail	Light Rail (e)	Trolleybus	Other (a)	Total
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
2011	69,175	7,237	65,336	11,342	2,257	479	19,432	175,258
2012	70,187	7,103	68,632	10,469	2,310	570	17,458	176,729

Table 6: Number of Transit Vehicles by Mode, 2000-2012, as Reported in 2014 Public Transportation Fact Book, Appendix A: Historical Tables

(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.

(c) Includes all bus modes.

(d) Includes hybrid rail.

(e) Includes streetcar.

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 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 and 2009 data.

The recent decline in vehicles for the bus mode of service shown on Table 6 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 8 through 14 and 16 and 17 in order to present an overview of available data.

				Mode of	Service			
Year	Bus (c)	Commuter Rail (d)	Demand Response	Heavy Rail	Light Rail (e)	Trolleybus	Other (a)	Total
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
2011	4,546	116	5,710	0	140	0	1,533	12,045
2012	4,370	170	5,491	25	0	0	1,799	11,865

Table 7: Number of New Passenger Vehicles Delivered by Mode, 2000-2012, as Reported in 2014 *Public Transportation Fact Book, Appendix A: Historical Tables*

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

(b) Data not continuous for modes noted.

(c) Includes all bus modes.

(d) Includes hybrid rail.

(e) Includes streetcar.

Table 8 shows 2012 NTD vehicle data for urbanized areas by mode of service and physical type of vehicle.⁹ These data include most vehicles operated in urbanized areas. 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 not report to the NTD and do not include vehicles operated by agencies in rural areas.¹⁰

orbanized Areas (Not Expanded for Systems That Do Not Report to NTD)											
	Mode of Service, All Vehicles										
Type of Vehicle (NTD Categories)	All Types of Bus Service		Demand F and De Respon	•	Vanpool a	nd Publico	Total				
	Number	Percent	Number	Percent	Number	Percent	Number	Percent			
Articulated Bus	4,099	6.4%	0	0.0%	0	0.0%	4,099	3.5%			
Automobile	7	0.0%	2,887	7.8%	151	0.9%	3,045	2.6%			
Bus	59,068	91.9%	14,131	38.2%	7	0.0%	73,206	62.2%			
Double Decked Bus	135	0.2%	0	0.0%	0	0.0%	135	0.1%			
Other Vehicle	214	0.3%	15	0.0%	(a) 2,873	17.5%	3,102	2.6%			
Over the Road Bus	335	0.5%	0	0.0%	0	0.0%	335	0.3%			
School Bus	7	0.0%	18	0.0%	0	0.0%	25	0.0%			
Taxicab Sedan	0	0.0%	5,102	13.8%	0	0.0%	5,102	4.3%			
Taxicab Station Wagon	0	0.0%	54	0.1%	0	0.0%	54	0.0%			
Taxicab Van	0	0.0%	1,348	3.6%	0	0.0%	1,348	1.1%			
Van	423	0.7%	13,433	36.3%	13,379	81.5%	27,235	23.1%			
Total	64,288	100.0%	36,988	100.0%	16,410	100.0%	117,686	100.0%			

Table 8: Active Roadway Vehicles from 2012 National Transit Database Revenue Vehicle Inventory for	
Urbanized Areas (Not Expanded for Systems That Do Not Report to NTD)	

(a) Publico vehicles reported as "other."

Source: 2012 National Transit Database.

Table 9 reports 2012 NTD data for bus vehicles only, showing the number of buses by various length categories in each mode of service.¹¹ 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. Beginning in 2011, NTD bus service data have been reported for three type of service subcategories: bus, commuter bus, and bus rapid transit. These tables do not use those subcategories because the differentiation of data into three service types is voluntary until 2013 so the data may not be accurate, and the differentiation may not provide meaningful information.

http://www.ntdprogram.gov/ntdprogram/datbase/2012_database/NTDdatabase.htm

¹¹ Federal Transit Administration National Transit Database RY 2012 Database Revenue Vehicle Inventory downloadable at

http://www.ntdprogram.gov/ntdprogram/datbase/2012_database/NTDdatabase.htm

⁹ Federal Transit Administration National Transit Database RY 2012 Database Revenue Vehicle Inventory downloadable at <u>http://www.ntdprogram.gov/ntdprogram/datbase/2012_database/NTDdatabase.htm</u>

¹⁰ Federal Transit Administration National Transit Database RY 2012 Database Revenue Vehicle Inventory downloadable at

Table 9: Active Bus Vehicles by Length and Mode of Service from 2012 National Transit Database Revenue Vehicle Inventory for Urbanized Areas (Bus Vehicles Only in Urbanized Areas with All Modes of Service Combined)

	Mode of Service for Bus Vehicles Only									
Length of Vehicle	Bus Vehi Types of E		Demand I and De Respon	hicles in Response emand ise Taxi vice		nicles in nd Publico vice	Total Bus	Vehicles		
	Number	Percent	Number	Percent	Number	Number Percent		Percent		
46 ft and Longer	4,339	6.9%	1	0.0%	0	0.0%	4,340	5.7%		
42 ft to 45 ft	4,751	7.5%	2	0.0%	0	0.0%	4,753	6.2%		
35 ft to 41 ft	45,375	71.9%	72	0.6%	0	0.0%	45,447	59.7%		
30 ft to 34 ft	4,056	6.4%	336	2.6%	0	0.0%	4,392	5.8%		
25 ft to 29 ft	3,468	5.5%	4,914	37.7%	3	42.9%	8,385	11.0%		
24 ft and Shorter	1,154	1.8%	7,706	59.1%	4	57.1%	8,864	11.6%		
Subtotal Length Reported	63,143	100.0%	13,031	100.0%	7	100.0%	76,181	100.0%		
Length Not Reported	501		1,118		0		1,619			
Total	63,644		14,149		7		77,800			

Source: 2012 National Transit Database.

NTD vehicle data for rural transit systems for 2012 present roadway vehicle data summarized by fleets in a different format compared to NTD urbanized area fleet data.¹² 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 physical type data. On Table 10 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 10: Active Roadway Vehicles by Type of Vehicle and Length from 2012 National Transit Database Revenue Vehicle Inventory for Rural Areas (Rural Areas Only, All Modes of Service Combined)

		Type of Vehicle, Rural Areas Only						
Length of Vehicle	Bus, All Types	Cutaway	Van	Automobile, Minivan, and SUV	Other	То	tal	
	Number	Number	Number	Number	Number	Number	Percent	
35 ft and Longer	1,109	25	0	0	0	1,134	5.1%	
30 ft to 34 ft	791	349	0	0	0	1,140	5.1%	
25 ft to 29 ft	1,174	3,107	10	2	0	4,293	19.3%	
24 ft and Shorter	390	7,187	3,983	4,086	2	15,648	70.4%	
Total, Number	3,464	10,668	3,993	4,088	2	22,215	100.0%	
Total, Percent	15.6%	48.0%	18.0%	18.4%	0.0%	100.0%		

Source: Calculated from National Transit Database 2012 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 2012 NTD and the 2011 NTD¹³ are shown on Table 11. 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

¹² National Transit Database 2012 Rural Area Data Table "Revenue Vehicle Inventory." Accessible from <u>http://www.ntdprogram.gov/ntdprogram/rural/2012/2012</u> Revenue%20Vehicle%20Inventory.xlsx

¹³ Federal Transit Administration National Transit Database RY 2012 Database Revenue Vehicle Inventory downloadable at

<u>http://www.ntdprogram.gov/ntdprogram/datbase/2012_database/NTDdatabase.htm</u> and Federal Transit Administration National Transit Database RY 2011 Database Revenue Vehicle Inventory downloadable at <u>http://www.ntdprogram.gov/ntdprogram/datbase/2011_database/NTDdatabase.htm</u>

results in the current year for each report being, therefore, significantly underreported. A comparison of the 2012 and 2011 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 11: Roadway Vehicles Listed in 2012 and 2011 National Transit Database Revenue Vehicle Inventory for Urbanized Areas by Year Built (Urbanized Area Data Only)

Vehicle Type	Fro	From 2012 National Transit Database, Reported Year of Manufacture					From 2011 National Transit Database, Reported Year of Manufacture				
	2012	2011	2010	2009	2008	2011	2010	2009	2008	2007	
Bus, 46 ft and Longer	317	303	386	180	405	215	346	180	398	213	
Bus, 35 ft to 45 ft	1,613	2,900	3,307	3,004	4,360	1,422	3,244	2,904	4,400	2,855	
Bus, 34 ft or Shorter	1,213	1,808	2,904	2,794	3,299	887	2,318	2,228	2,453	2,096	
Vans and Other	2,672	3,702	3,052	3,393	3,460	3,005	3,647	3,993	5,179	3,365	
Automobile Based	53	159	288	309	239	126	341	348	276	383	
Total Roadway Vehicles	5,868	8,872	9,937	9,680	11,763	5,655	9,896	9,653	12,706	8,912	

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, 2012 and 2011.

Data are also available about the number of rail vehicles manufactured. Table 12 reports rail vehicles by year of manufacture for the previous five years from the 2012 NTD and the 2011 NTD.¹⁴ Once again agencies are reporting their fiscal year that ended during the Calendar Year 2012 or 2011. 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 12: Rail Vehicles Listed in 2012 and 2011 National Transit Database Revenue Vehicle Inventory for Urbanized Areas by Year Built (Urbanized Area Data Only)

erbanizea / treas by real	The main and the main and the main and the second s									
Vehicle Type	From 2012 National Transit Database Reported Year of Manufacture					From 2011 National Transit Database Reported Year of Manufacture				
	2012	2011	2010	2009	2008	2011	2010	2009	2008	2007
Commuter Rail Car	125	96	196	44	65	41	123	44	65	413
Commuter Rail Locomotive	0	26	49	46	24	10	49	46	24	13
Heavy Rail Car	130	172	147	69	26	124	147	69	26	1,858
Light Rail Car	0	115	107	18	145	85	107	9	142	30
Other Rail Car	0	0	16	0	0	0	10	0	0	12
Total Rail Vehicles	255	409	515	177	260	260	436	168	257	2,326

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, 2012 and 2011.

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

¹⁴ Federal Transit Administration National Transit Database RY 2012 Database Revenue Vehicle Inventory downloadable at

<u>http://www.ntdprogram.gov/ntdprogram/datbase/2011_database/NTDdatabase.htm</u> and Federal Transit Administration National Transit Database RY 2011 Database Revenue Vehicle Inventory downloadable at <u>http://www.ntdprogram.gov/ntdprogram/datbase/2011_database/NTDdatabase.htm</u> Table 13¹⁵ identifies 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 *APTA Primer on Transit Funding: The Moving Ahead for Progress in the 21st Century Act and Other Related Laws, FY 2013 Through FY 2014.*¹⁶

Sixty-four percent of vehicles purchased for use in urbanized areas were purchased with federal financial assistance including 81 percent of buses, 30 percent of vans and automobiles, 64 percent of rail vehicles, and 41 percent of ferry boats. In this table, buses and vans refer to physical types of vehicles, not to modes of service. Overall, 64 percent of all vehicles were purchased using federal assistance and 36 percent were purchased without federal assistance. The lower value of the percent using federal assistance for rail vehicles compared to buses may be due in part to the age of rail vehicles. As is shown on Table 16, over one-fifth of rail vehicles were purchased before 1980 when the federal financial program was relatively small.

Table 13: Active Transit Vehicles by Source of Federal Funding from 2012 National Transit Database Revenue Vehicle Inventory for Urbanized Areas (Vehicles Only in Urbanized Areas)

			Type of Vehicle						
Funding Source	All Bus	Vans and Automobile Based	All Rail	Ferry Boat	All Vehicles				
Number of Vehicles									
Urbanized Area Formula Program	51,127	6,864	7,817	52	65,860				
Other Federal Programs	11,953	4,051	5,399	7	21,410				
Subtotal All Federal Programs	63,080	10,915	13,216	59	87,270				
No Federal Funding	14,720	25,869	7,272	86	47,947				
Total	77,800	36,784	20,488	145	135,217				
	Pe	ercent of Each Colu	mn						
Urbanized Area Formula Program	65.7%	18.7%	38.2%	35.9%	48.7%				
Other Federal Programs	15.4%	11.0%	26.4%	4.8%	15.8%				
Subtotal All Federal Programs	81.1%	29.7%	64.5%	40.7%	64.5%				
No Federal Funding	18.9%	70.3%	35.5%	59.3%	35.5%				
Total	100.0%	100.0%	100.0%	100.0%	100.0%				

Source: National Transit Database, 2012

Table 14 reports the portion of vehicles in rural areas purchased with federal financial assistance. The categories of financial assistance are different from those in Table 13 for vehicles in urbanized areas.¹⁷ 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.

¹⁵ Federal Transit Administration National Transit Database RY 2012 Database Revenue Vehicle Inventory downloadable at

http://www.ntdprogram.gov/ntdprogram/datbase/2012_database/NTDdatabase.htm

¹⁶ APTA Primer on Transit Funding: The Moving Ahead for Progress in the 21st Century Act and Other Related Laws, FY 2013 Through FY 2014. Washington: American Public Transportation Association at <u>http://www.apta.com/resources/reportsandpublications/Documents/APTA-Primer-MAP-21-Funding.pdf</u> ¹⁷ National Transit Database 2012 Rural Area Data Table "Revenue Vehicle Inventory." Accessible from http://www.ntdprogram.gov/ntdprogram/rural/2012/2012 Revenue%20Vehicle%20Inventory.xlsx

be found in the APTA Primer on Transit Finding, The Moving Ahead for Progress in the 21st Century Act and Other Related Laws, FY 2013 Through FY 2014.¹⁸

A larger portion of rural vehicles, 85 percent overall, were purchased with federal assistance compared to urbanized area vehicles where the overall portion purchased with federal assistance was 64 percent. The vehicles on Table 14 are differentiated by physical type of vehicle, not by mode of service. The portions with federal funding are relatively similar across vehicle types unlike urbanized area purchases which varied significantly among vehicle types.

Table 14: Active Transit Vehicles by Source of Federal Funding from 2012 National Transit Database Revenue Vehicle Inventory for Rural Areas (Vehicles Only in Rural Areas)

	•	-	Type of Vehicle		
Funding Source	All Bus	All Cutaways	All Vans	Automobile, Minivan, and SUV	All Vehicles
	Numbe	er of Vehicles			
Federal Transit Administration Programs	2,800	9,216	3,217	3,296	18,529
Other Federal Agency's Programs	108	170	63	79	420
Subtotal All Federal Programs	2,908	9,386	3,280	3,375	18,949
Private Funding	57	130	140	209	536
State and Local Government Funding Only	499	1,154	573	504	2,730
Total	3,464	10,670	3,993	4,088	22,215
	Percent c	of Each Column			
Federal Transit Administration Programs	80.8%	86.4%	80.6%	80.6%	83.4%
Other Federal Agency's Programs	3.1%	1.6%	1.6%	1.9%	1.9%
Subtotal All Federal Programs	83.9%	88.0%	82.1%	82.6%	85.3%
Private Funding	1.6%	1.2%	3.5%	5.1%	2.4%
State and Local Government Funding Only	14.4%	10.8%	14.4%	12.3%	12.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: National Transit Database, 2012

The FTA prescribes economic service lives before which, under normal circumstances, a vehicle cannot be replaced using federal funds.¹⁹ Those minimum useful lives are reported on Table 15.

Table 15: FTA Required Minimum Useful Vehicle Life Before Replacement by Vehicle Ty	nent by Vehicle Type
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FTA Minimum Useful Life
at least 12 years of service or an accumulation of at least 500,000 miles
at least ten years or an accumulation of at least 350,000 miles
at least seven years or an accumulation of at least 200,000 miles
at least five years or an accumulation of at least 150,000 miles
at least four years or an accumulation of at least 100,000 miles
at least 15 years
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.

 ¹⁸ APTA Primer on Transit Finding, The Moving Ahead for Progress in the 21st Century Act and Other Related Laws, FY 2013 Through FY 2014. Washington: American Public Transportation Association at <u>http://www.apta.com/gap/policyresearch/Documents/APTA-Primer-Map-21-Funding.pdf</u>
¹⁹ FTA Circular C 9300.1B, Capital Investment Program Guidance and Application. at <u>http://www.fta.dot.gov/documents/Final_C_9300_1_Bpub.pdf</u> Both roadway and rail vehicles by year of manufacture and physical category are also found in the APTA 2014 Public Transportation Vehicle Database.²⁰ Those data are reported on Table 16 for rail vehicles from 1981 through 2013 and Table 17 for roadway vehicles from 1991 through 2013. 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 this data summary does not indicate how many vehicles have had mid-life overhauls which, especially for rail-cars, significantly extend their service lives.

APTA 2014 Public Transportation Vehicle Database data are as of January 1, 2014, hence many vehicles manufactured in 2013 may not yet have been delivered and accepted by agencies and hence, may not be included in 2013 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.

The correct way to read Tables 16 and 17 is to pick a mode and year and read the data as the number of vehicles currently, on January 1, 2014, 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 "2004" is "2,014" and "6.7%." This should be read as "On January 1, 2014, there were among the active buses 35 feet and longer in the fleets of the sample of systems reporting to the APTA database, 2,014 that were manufactured in 2004. This is 6.7% of all the active buses 35 feet or longer in those fleets on January 1, 2014."

	From 2014 APTA Reported Year of M	Vanufacture of \		e Service on Jar		
Year of	Commuter Rail and Hybrid Rail Cars Heavy Rail Cars			Light Ra and Stre		
Manufacture	Number	Percent	Number	Percent	Number	Percent
2013	201	5.5%	216	2.0%	0	0.0%
2012	162	4.4%	120	1.1%	0	0.0%
2011	117	3.2%	48	0.4%	79	5.1%
2010	48	1.3%	222	2.0%	116	7.5%
2009	42	1.1%	652	5.9%	5	0.3%
2008	38	1.0%	614	5.6%	37	2.4%
2007	61	1.7%	378	3.4%	93	6.0%
2006	125	3.4%	82	0.7%	47	3.0%
2005	200	5.5%	44	0.4%	24	1.5%
2004	300	8.2%	56	0.5%	87	5.6%
2003	110	3.0%	472	4.3%	104	6.7%
2002	50	1.4%	814	7.4%	9	0.6%
2001	37	1.0%	630	5.7%	89	5.7%
2000	111	3.0%	79	0.7%	52	3.3%
1999	64	1.7%	106	1.0%	76	4.9%
1998	41	1.1%	102	0.9%	26	1.7%
1997	127	3.5%	12	0.1%	65	4.2%

Table 16: Rail Vehicles by Year of Manufacture from 2014 APTA Public Transportation Vehicle Database (Data are a sample from an APTA member survey, they are NOT expanded to national totals)

²⁰ 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

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	From 2014 APTA Reported Year of N	/lanufacture of V		e Service on Jan			
Year of	Commuter Hybrid Ra		Heavy R	ail Cars	Light Rail Cars and Streetcars		
Manufacture	Number	Percent	Number	Percent	Number	Percent	
1996	72	2.0%	13	0.1%	50	3.2%	
1995	27	0.7%	92	0.8%	40	2.6%	
1994	44	1.2%	68	0.6%	0	0.0%	
1993	10	0.3%	240	2.2%	75	4.8%	
1992	17	0.5%	149	1.4%	0	0.0%	
1991	126	3.4%	4	0.0%	18	1.2%	
1990	55	1.5%	14	0.1%	2	0.1%	
1989	54	1.5%	297	2.7%	0	0.0%	
1988	99	2.7%	572	5.2%	37	2.4%	
1987	141	3.8%	132	1.2%	9	0.6%	
1986	68	1.9%	1,007	9.2%	97	6.2%	
1985	77	2.1%	561	5.1%	26	1.7%	
1984	140	3.8%	217	2.0%	0	0.0%	
1983	7	0.2%	309	2.8%	0	0.0%	
1982	34	0.9%	349	3.2%	0	0.0%	
1981	0	0.0%	146	1.3%	188	12.1%	
Before 1981	858	23.4%	2,143	19.6%	105	6.7%	
Total	3,663	100.0%	10,960	100.0%	1,556	100.0%	

Table 17: Roadway Vehicles by Year of Manufacture from 2014 APTA Public Transportation Vehicle Database (Data are a sample from an APTA member survey, they are NOT expanded to national totals)

	From 2013 APTA Reported Year of N	Manufacture of \		e Service on Jar		
Year of	Buses, 35 Fee	Buses, 35 Feet or Longer Buses, 34 Feet or				d Vehicles
Manufacture	Number	Percent	Number	Percent	Number	Percent
2013	1,809	6.0%	146	7.1%	1,474	10.2%
2012	2,042	6.8%	160	7.8%	1,923	13.3%
2011	1,801	6.0%	94	4.6%	1,718	11.8%
2010	1,632	5.5%	185	9.0%	1,555	10.7%
2009	1,986	6.6%	211	10.3%	1,887	13.0%
2008	2,111	7.1%	124	6.0%	2,184	15.1%
2007	1,976	6.6%	196	9.6%	1,292	8.9%
2006	1,906	6.4%	242	11.8%	1,285	8.9%
2005	1,731	5.8%	159	7.7%	372	2.6%
2004	2,014	6.7%	120	5.8%	290	2.0%
2003	2,539	8.5%	76	3.7%	255	1.8%
2002	1,946	6.5%	50	2.4%	119	0.8%
2001	1,951	6.5%	46	2.2%	55	0.4%
2000	1,527	5.1%	103	5.0%	24	0.2%

From 2013 APTA Public Transportation Vehicle Inventory (Sample Data Only) Reported Year of Manufacture of Vehicles In Active Service on January 1, 2014 by Physical Vehicle Type										
Year of	Buses, 35 Fe	et or Longer	Buses, 34 Fe	et or Shorter	Small Road	d Vehicles				
Manufacture	Number	Percent	Number	Percent	Number	Percent				
1999	1,331	4.4%	55	2.7%	23	0.2%				
1998	592	2.0%	20	1.0%	23	0.2%				
1997	392	1.3%	23	1.1%	6	0.0%				
1996	332	1.1%	1	0.0%	11	0.1%				
1995	105	0.4%	2	0.1%	2	0.0%				
1994	87	0.3%	4	0.2%	1	0.0%				
1993	8	0.0%	3	0.1%	0	0.0%				
1992	22	0.1%	8	0.4%	0	0.0%				
1991	31	0.1%	4	0.2%	0	0.0%				
Before 1991	50	0.2%	20	1.0%	0	0.0%				
Total	29,921	100.0%	2,052	100.0%	14,499	100.0%				

The average cost of vehicles is reported on Table 18 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.*²¹ 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*²²

Table 18: Average	Vehicle Costs by	Vehicle Type
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Two- Year Period	Category	Standard Transit Bus (>=27'6", 2 Doors) (a)	Commuter Rail Car (Loco- motive 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)
2007-	Sample Size	2,017	94	1,335	373	70	758
2008	Average Cost	\$ 398,239	\$ 1,799,796	\$ 59,129	\$ 1,453,324	\$ 2,850,000	\$ 22,872
2008-	Sample Size	3,031	314	1,911	394		739
2009	Average Cost	\$ 420,721	\$ 2,240,557	\$ 63,298	\$ 1,642,641		\$ 23,185
2009-	Sample Size	3,388	92	1,235	318	77	403
2010	Average Cost	\$ 469,928	\$ 2,334,565	\$ 73,825	\$ 1,886,095	\$ 3,600,000	\$ 24,941

²¹ 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 <u>http://www.apta.com/resources/statistics/Pages/OtherAPTAStatistics.aspx</u>

²² APTA Fact Book Appendix A: Historical Tables. Washington: American Public Transportation Association at <u>http://www.apta.com/resources/statistics/Documents/FactBook/2014-APTA-Fact-Book-Appendix-A.pdf</u>

Two- Year Period	Category	Standard Transit Bus (>=27'6", 2 Doors) (a)	Commuter Rail Car (Loco- motive 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)
2010-	Sample Size	2,605	8	1,218	156	77	356
2011	Average Cost	\$ 479,585	\$ 2,176,350	\$ 65,629	\$ 1,975,793	\$ 3,600,000	\$ 24,563
2012-	Sample Size	2,475	85	890	16	57	467
2013	Average Cost	\$486,653	\$2,400,000	\$71,593	2,300,804	\$3,300,000	\$24,665
2013-	Sample Size	3,400	10	879	4		177
2014	Average Cost	\$486,986	\$2,824,000	\$83,698	\$2,068,795		\$26,462

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

<u>IV.C. Vehicle Fuel Types</u> have steadily changed. Over the short six-year period since 2007, the portion of bus service vehicles powered by diesel fuel engines has dropped from 80 percent to 58 percent as reported on Table 19. Natural gas, hybrid fuels, and biodiesel now power a significant and increasing portion of the transit buses.²³ 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 2007 to 92 percent in 2013. Self-propelled commuter rail cars are nearly all powered by electricity; unpowered cars are hauled by locomotives which are primarily diesel fueled. Other modes such are heavy rail, light rail, and trolleybus are either totally or approach totally electrically powered fleets.

Table 19: 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:	Percent of Vehicles by Type of Fuel								
Type of Fuel	2013	2011	2010	2009	2008	2007			
Bus:									
CNG, LNG, and Blends	20.0%	18.6%	18.6%	18.3%	18.5%	15.6%			
Diesel	58.4%	63.5%	65.8%	68.9%	70.2%	79.8%			
Hybrid Electric and Other	13.2%	8.8%	7.0%	4.9%	3.8%	2.3%			
Gasoline	1.1%	0.8%	0.7%	0.7%	0.5%	0.6%			
Biodiesel	7.0%	7.9%	7.7%	6.4%	6.6%				
Other	0.3%	0.4%	0.2%	0.8%	0.4%	1.7%			
Demand Response:									
CNG, LNG, and Blends	2.0%	1.9%	1.9%	2.5%	2.7%	2.1%			
Diesel	46.7%	49.3%	49.2%	50.5%	55.9%	64.6%			
Hybrid Electric and Other	1.4%	0.1%	0.5%	0.6%	1.3%	0.5%			
Gasoline	45.1%	43.0%	42.8%	39.0%	35.2%	30.7%			
Biodiesel	4.8%	5.6%	5.5%	7.2%	4.6%	1.6%			
Other	0.1%	0.1%	0.1%	0.2%	0.3%	0.5%			
Commuter Rail Cars:									
Electricity	46.5%	46.5%	46.1%	45.6%	53.4%	49.1%			
Diesel	0.3%	0.2%	0.2%	0.2%	0.4%	0.4%			
Unpowered	53.2%	53.3%	53.7%	54.2%	46.2%	50.5%			
Commuter Rail									
Locomotives:									
Electricity	16.7%	11.8%	11.3%	10.0%	10.7%	11.3%			
Diesel	83.3%	88.2%	88.7%	90.0%	89.3%	88.7%			

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

they are not expanded to include non-reporting systems.

<u>IV.D. Fixed-Guideway Infrastructure</u> growth is described in the following tables. The NTD reports miles of track beginning in 2002. These data are shown on Table 20. Miles of track reported in the NTD include main line, siding, and yard trackage.²⁴ From RY 2002 to RY 2012, miles of track for all modes increased 19 percent, from 10,590 miles to 12,617 miles. These data include only systems reporting to the NTD,

Tables 20 and 22 recognize the new modes of service categories for the NTD beginning in 2011. For rail modes, what had been commuter railroad is now divided into commuter railroad and hybrid railroad, and what had been light rail is now divided into light rail and streetcar. These modes are combined for this report because the data are not required to be reported separately until data are submitted for the 2013 NTD report. Data reported in voluntary divisions in 2011 and 2012 might be inaccurate.

Report Year	Commuter Rail and Hybrid Rail Track Miles	Heavy Rail Track Miles	Light Rail and Streetcar 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
2011	8,468.7	2,271.2	1,674.1	30.1	12,444.1
2012	8,596.7	2,273.6	1,704.2	42.7	12,617.2

Table 20: Miles of Track by Mode, 2002-2012 (Agencies Reporting to the NTD Only)

Source: National Transit Database

Table 21 lists all entirely new fixed-guideway transit systems opened from 2004 through fall 2014. New extensions to existing fixed-route systems are not included.

Ten entirely new light rail and streetcar systems have been opened in Houston, TX; Minneapolis, MN; Little Rock, AR; Charlotte, NC; Seattle, WA (2 systems); Phoenix, AZ; Virginia Beach, VA; Salt Lake City, UT; and Tucson, AZ. Entirely new commuter and hybrid rail systems opened in Trenton, NJ; Albuquerque, NM; Nashville, TN; San Diego, CA; Salt Lake City, UT; Portland, OR; Minneapolis, MN; Austin, TX; Denton, TX; and Orlando, FL.

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.

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	Hybrid 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	Streetcar	2004

Table 21: Openings of Entirely New Rail Systems, 2004-December 2014

²⁴ Federal Transit Administration National Transit Database, annual. See Table 23 at <u>http://www.apta.com/resources/statistics/Pages/NTDDataTables.aspx</u>

Location	System	Mode	Year
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	Streetcar	2007
San Diego, CA	North County Transit District Sprinter	Hybrid 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	Hybrid 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	Hybrid Rail	2010
Denton, TX	Denton County Transportation Authority A Train	Commuter Rail	2011
Virginia Beach, VA	Hampton Roads Transit TIDE	Light Rail	2011
Salt Lake City, UT	Utah Transit Authority Sugar House Streetcar	Streetcar	2013
Orlando, FL	SunRail	Commuter Rail	2014
Tucson, AZ	Sun Link Tucson Streetcar	Streetcar	2014

Table 22 reports the number of stations and maintenance facilities reported in the NTD for urbanized areas only. Stations are defined as significant structures on transit rights-of-way.²⁵ 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 bus or trolley bus stations 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.

Table 22: Stations and Maintenance Facilities by Mode, 2012 (Agencies Reporting to the NTD for Urbanized Areas Only)

Mode	Passenger Stations	General Maintenance Facilities	Heavy Maintenance Facilities
Bus	1,556	895	37
Cable Car	0	1	0
Commuter Rail/Hybrid Rail	1,293	80	16
Demand Response	0	516	3
Ferryboat	94	15	1
Heavy Rail	1,044	49	11
Inclined Plane	8	0	0
Light Rail/Streetcar	879	45	7
Monorail/Automated Guideway	57	7	0
Trolleybus	5	5	0
Vanpool	0	24	0

Source: 2012 National Transit Database

²⁵ Federal Transit Administration National Transit Database, annual. See Table 21 and Table 22 at <u>http://www.apta.com/resources/statistics/Pages/NTDDataTables.aspx</u>

<u>IV. E. The Federal New Starts "Pipeline"</u> 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.²⁶ 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 3 summarizes the amount of federal funds requested for all projects disaggregated by the source of federal funds. Three projects do not yet have proposed funding levels and are not included. The remaining projects request a total of \$24.6 billion, of which \$7.6 billion had already been appropriated through FY 2014.

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.²⁷ The New Starts Reports are dated for the year in which funds would be granted. The 2015 report is intended to aid Congress in decisions concerning FY 2015 funding, was written in 2014, and is based on 2013 data.

Table 23: Federal Funds in New Start Proposed Financial Plans by Federal Funding Program as of May 28, 2014

May 20, 2014			
Proposed Federal Funding Program	Number of Projects Requesting Funding	Proposed Amount of Funding (Millions)	Percent of All Federal New Start Funding
§ 5309 New Starts	25	\$20,732.72	84.11%
§ 5309 Small Starts	23	\$1,183.15	4.80%
§ 5309 Fixed-Guideway Modernization	3	\$48.95	0.20%
§ 5309 Bus Discretionary	2	\$28.98	0.12%
§ 5309 Core Capacity	1	\$1,500.00	6.09%
§ 5307 Urbanized Area Formula	3	\$242.53	0.98%
FHWA Flexible Congestion Mitigation and Air Quality (CMAQ)	12	\$313.22	1.27%
FHWA Flexible Surface Transportation Program (STP)	7	\$107.34	0.44%
FHWA Flexible CMAQ and STP	3	\$258.17	1.05%
FHWA Flexible Transportation Alternatives	1	\$3.07	0.01%
FHWA National Highway System (NHS)	1	\$9.80	0.04%
FHWA Multiple or Unspecified Programs	2	\$132.69	0.54%
Tiger Discretionary Grants	1	\$18.00	0.07%
American Recovery and Reinvestment Act (ARRA)	1	\$4.00	0.02%
State Transportation Improvement Program (STIP)	1	\$41.35	0.17%
U.S. DOT Competitive Grant	1	\$15.26	0.06%
Federal Economic Development Funds	1	\$10.00	0.04%
Total (a)	48	\$24,649.23	100.00%
Amount Appropriated Through FY 2014		\$7,563.29	30.68%
Amount Not Yet Appropriated		\$17,085.94	69.32%
(a) Evolution 2 projects without proposed funding programs			

(a) Excludes 3 projects without proposed funding programs.

²⁶ Annual Report on New Starts. Washington: Federal Transit Administration, annual. Available on-line at <u>http://www.fta.dot.gov/12304_15872.html</u>

²⁷ Capital Investment Program Projects Profiles: FY 2014. Washington, Federal Transit Administration. at <u>http://www.fta.dot.gov/12304_14366.html</u>

				Data at	Discourse		Proposed Financ		Proposed Financial Plan			
Status (a)	State	Urban Area	Project Name	Date of Newest Profile	Planned Date of Opening	Mode (b)	Total Cost (Millions)	Federal Share (Millions)	Federal Share (Percent)	Miles of Line	Vehicles	Stations
SSPD	AZ	Tempe	Tempe Streetcar	Apr 2012	Late 2017	SC	\$129.34	\$88.10	68.1%	2.7	5	18
SSPD	CA	Fresno	Fresno Area Express Blackstone/Kings Canyon BRT	Nov 2014	Late 2015	BRT	\$48.75	\$39.00	80.0%	15.7	8	27
FFGA	CA	Los Angeles	Regional Connector Transit Corridor	Feb 2014	May 29, 2021	LR	\$1,402.93	\$733.90	52.3%	1.9	4	3
NSE	CA	Los Angeles	Westside Purple Line Extension Section 1	Jan 2014	Oct 2024	HR	\$2,821.96	\$1,262.17	44.7%	3.9	34	3
SSPD	CA	Los Angeles	Downtown Los Angeles Streetcar	Feb 2014		SC		\$74.99		3.8	8	24
SSPD	CA	Oakland	East Bay BRT	Jan 2014	Late 2017	BRT	\$177.99	\$119.40	67.1%	9.5	38	34
SSPD	CA	Sacramento	Downtown Riverfront Streetcar Project	Apr 2014	Jan 2018	SC	\$150.00	\$74.99	50.0%	4.0	8	25
NSPD	CA	San Diego	Mid-Coast Corridor Transit Project	Nov 2012	May 2019	LR	\$1,984.69	\$980.43	49.4%	10.9	36	8
FFGA	CA	San Francisco	Third Street Light Rail Phase 2 - Central Subway	Nov 2013	Dec 2018	LR	\$1,578.30	\$983.22	62.3%	1.7	4	4
SSPD	CA	San Francisco	Van Ness Avenue BRT	Nov 2012	Early 2018	BRT	\$125.63	\$88.03	70.1%	2.0	38	9
SSPD	CA	San Jose	El Camino Real Corridor BRT Project	Jul 2013	Late 2018	BRT	\$188.00	\$74.99	39.9%	17.4		16
FFGA	CA	San Jose	Silicon Valley Berryessa Extension Project (BART Extension)	Nov 2013	Jun 2018	HR	\$2,330.02	\$900.00	38.6%	10.2	40	2
SSPD	CA	San Rafael	San Rafael to Larkspur Regional Connection	Sep 2013		CR	\$30.00	\$16.00	53.3%	2.0		1
FFGA	со	Denver	Eagle Commuter Rail	Nov 2012	Dec 2016	CR	\$2,043.14	\$1,092.55	53.5%	30.2	44	13
NSPD	со	Denver	Southeast Extension	Apr 2013	2019	LR	\$210.74	\$99.50	47.2%	2.3	8	3
FFGA	СТ	Hartford	New Britain - Hartford Busway	Nov 2013	Apr 2015	BRT	\$567.05	\$454.84	80.2%	9.4	31	11
SSPD	FL	Fort Lauderdale	Wave Streetcar	Jan 2014	Dec 2016	SC	\$142.59	\$71.15	49.9%	2.7	5	12
SSPD	FL	Jacksonville	JTA BRT Southeast Corridor	Jan 2014	Mid 2016	BRT	\$23.88	\$19.10	80.0%	11.1	8	7
SSPD	FL	Jacksonville	JTA BRT North Corridor	Jan 2014	Dec 2015	BRT	\$33.23	\$26.59	80.0%	9.3	8	14

Table 24: FTA New Starts Capital Investment Pr	ogram Project Profiles as of Ma	v 28. 2014 (Includes Comple	eted Projects Reported in Profile Listing)
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			Data of	Diamand		Proposed Financial Plan			Miles			
Status (a)	State	Urban Area	Project Name	Date of Newest Profile	Planned Date of Opening	Mode (b)	Total Cost (Millions)	Federal Share (Millions)	Federal Share (Percent)	Miles of Line	Vehicles	Stations
SSPD	FL	Orlando	SunRail Phase 2 North	Dec 2013	2017	CR	\$79.20	\$39.60	50.0%	12.0	0	1
NSE	FL	Orlando	SunRail Phase 2 South	Jan 2014	2017	CR	\$173.60	\$86.80	50.0%	17.2	6	4
FFGA	н	Honolulu	High Capacity Transit Corridor Project	Nov 2013	Jan 2020	HCR	\$5,121.69	\$1,764.90	34.4%	20.0	80	21
SSPD	IL	Chicago	Ashland Avenue BRT Phase I Project	Nov 2013		BRT	\$116.90	\$58.30	49.9%	5.4	50	14
CCPD	IL	Chicago	Red and Purple Line Modernization Project	Nov 2013		HR	\$4,700.00	\$1,500.00	31.9%	9.6		
NSE	MA	Boston	Cambridge to Medford Green Line Extension	Jan 2014	2019	LR	\$1,656.56	\$714.41	43.1%	4.7	24	7
NSPD	MD	Baltimore	Baltimore Red Line	Jan 2014	2022	LR	\$2,644.52	\$900.00	34.0%	14.1	26	19
NSPD	MD	Washington	Maryland National Capital Purple Line Bethesda to New Carrollton	Jan 2014	Late 2020	LR	\$2,371.15	\$900.00	38.0%	16.2	58	21
SSPD	МІ	Lansing	Grand River BRT	Apr 2013	Jul 2016	BRT	\$215.36	\$164.46	76.4%	8.5	17	28
NSPD	MN	Minneapolis	Southwest Light Rail Transit	Sep 2011	2018	LR	\$1,250.48	\$625.24	50.0%	15.8	26	17
FFGA	MN	St. Paul- Minneapolis	Central Corridor LRT	Nov 2013	Jun 14, 2014	LR	\$956.90	\$478.45	50.0%	9.8	31	19 new
SSPD	NC	Charlotte	CityLYNX Gold Line Phase 2 Streetcar	Feb 2014	2019	SC	\$126.00	\$63.00	50.0%	2.5	7	11
FFGA	NC	Charlotte	LYNX Blue Line Extension - Northeast Corridor	Nov 2013	Mar 2018	LR	\$1,160.08	\$580.04	50.0%	9.3	22	11
NSPD	NC	Durham	Durham-Orange LRT Project	Feb 2014	2026	LR	\$1,800.00	\$910.30	50.6%	17.1	12	17
SSPD	NM	Albuquerque	Central Avenue Corridor BRT Project	Feb 2014	2017	BRT				17.0		
SSPD	NV	Reno	4th Street/Prater Way BRT Project	Feb 2014	2017	BRT	\$52.60	\$24.60	46.8%	3.2		8
FFGA	NY	New York City	Long Island Rail Road East Side Access	Nov 2013		CR	\$7,386.00	\$2,682.55	36.3%	3.5		1
SSPD	ОН	Columbus	Northeast Corridor BRT Project	Apr 2013	Late 2017	BRT	\$39.43	\$31.54	80.0%	15.6	13	43
SSPD	OR	Eugene	West Eugene EmX Extension	Jan 2014	Early 2017	BRT	\$95.57	\$74.99	78.5%	8.9	7	13

Table 24: FTA New Starts Capital Investment Prog	ram Project Profiles as of May 28, 2014	(Includes Completed Projects Reported in Profile Listing)

					D		Propo	sed Financia	l Plan			
Status (a)	State	Urban Area	Project Name	Date of Newest Profile	Planned Date of Opening	Mode (b)	Total Cost (Millions)	Federal Share (Millions)	Federal Share (Percent)	Miles of Line	Vehicles	Stations
FFGA	OR	Portland	Portland-Milwaukie Light Rail Project	Nov 2013	Mar 2016	LR	\$1,490.35	\$885.83	59.4%	7.3	18	10
NSE	OR	Portland	Columbia River Crossing Project	Jan 2014	2019	LR	\$2,711.83	\$934.23	34.5%	2.9	19	5
SSPD	TN	Nashville	East-West Connector BRT Project (The Amp)	Jan 2014	2016	BRT	\$174.00	\$78.99	45.4%	7.1	11	16
SSPD	тх	El Paso	Dyer Corridor BRT	Jan 2014	Mar 2017	BRT	\$35.89	\$27.69	77.2%	12.0	10	12
SSPD	ΤХ	El Paso	Montana Corridor BRT		Dec 2016	BRT	\$43.36	\$34.59	79.8%	16.8	12	16
NSPD	ТΧ	Fort Worth	TEX Rail	Jan 2014	Dec 2017	CR	\$809.77	\$466.53	57.6%	27.2	8	10
NSE	ТΧ	Houston	University Corridor LRT	Nov 2010		LR	\$1,563.07	\$781.53	50.0%	11.3	32	19
SSPD	тх	San Antonio	San Antonio Modern Streetcar Project	Feb 2014	Late 2017	SC				5.9		
SSPD	UT	Provo-Orem	Provo-Oren Bus Rapid Transit	Apr 2013	Late 2016	BRT	\$159.38	\$74.99	47.1%	10.5	30	15
FFGA	VA	Northern Virginia	Dulles Corridor Metrorail Project Extension to Wiehle Avenue	Nov 2013	2014	HR	\$3,142.47	\$975.00	31.0%	11.7	64	5
FFGA	WA	Seattle	University Link LRT Extension	Nov 2013	Apr 2017	LR	\$1,947.68	\$825.00	42.4%	3.1	27	2
NSPD	WA	Seattle/ Lynnwood	Lynnwood Link Extension	Nov 2013	2023	LR	\$1,200.00 to \$1,700.00	\$600.00 to \$850.00	50.0%	8.5		
SSPD	WA	Vancouver	Fourth Plain Bus Rapid Transit	Jan 2014	Jul 2016	BRT	\$53.40	\$42.72	80.0%	6.0	10	20

- Table 24.1 TA New Starts Cabital Investment From the From Control of the Start and	A New Starts Capital Investment Program Project Profiles as of May 28, 2014 (Includes Completed Projects Reported in Pr	ofile Listina)
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(a) CCE = Core Capacity Engineering CCPD = Core Capacity Project Development FFGA = New Starts Full Funding Grant Agreement NSE = New Starts Engineering NSPD = New Starts Project Development SSGA = Small Starts Construction Grant Agreement SSPD = Small Starts Project Development

(b) BRT = Bus Rapid Transit

(b) BRT = Bus Rapid Trans CR = Commuter Rail HCR = High Capacity Rail HR = Heavy Rail LR = Light Rail SC = Street Car

<u>IV. F. Operating expenditures</u> are the major portion of transit agency expenditures. In 2012, 68.6 percent of all transit expenditures were for operations compared to 31.4 percent for capital. Table 25 reports operating expenditures for the past four years classified by function.²⁸ 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 2012 is vehicle operations at 45.3 percent of total operating costs, followed by vehicle maintenance at 16.8 percent, general administration at 14.6 percent, purchased transportation at 13.8 percent, and non-vehicle maintenance at 9.5 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.

Year	Vehicle Operations	Vehicle Maintenance	Non-Vehicle Maintenance	General Administration	Purchased Transportation	Total
		Am	nount (Millions of Do	ollars)	L.	
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
2011	17,589.8	6481.0	3,534.2	5,674.1	5,083.0	38,362.1
2012	17,987.9	6,650.8	3,781.7	5,786.5	5,493.9	39,700.9
			Percent of Total		i	
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%
2011	45.9%	16.9%	9.2%	14.8%	13.3%	100.0%
2012	45.3%	16.8%	9.5%	14.6%	13.8%	100.0%

Table 25: Operating I	Expenditures by	Function Class	. 2007-2012 (All Public Tra	ansportation Agencies)

Source: 2014 APTA Public Transportation Fact Book Appendix A: Historical Tables

V. Are Voters Willing to Support Transit Investment?

Voters consistently approve ballot measures that include transit funding. Table 26 reports annual ballot measure approval rates from data collected by the Center for Transportation Excellence (CFTE).²⁹

Year	Measures on Ballots	Measures Approved	Percentage Approved
2014	61	42	69%
2013	15	11	73%
2012	62	49	79%
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%

Table 26: Local Referenda Approvals

Source: Center for Transportation Excellence

²⁹ Center for Transportation Excellence at <u>http://www.cfte.org/</u>

²⁸ APTA Fact Book Appendix A: Historical Tables. Washington: American Public Transportation Association at <u>http://www.apta.com/resources/statistics/Documents/FactBook/2014-APTA-Fact-Book-Appendix-A.pdf</u>

The CFTE tracks the outcomes of transit ballot measures throughout the United States. From 2003 through 2014, 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 eleven-year period.

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.

APTA Primer on Transit Finding, The Moving Ahead for Progress in the 21st Century Act and Other Related Laws, FY 2013 Through FY 2014. 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/APTA-Primer-Map-21-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/OtherAPTAStatistics.aspx

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_15872.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 <u>http://www.fta.dot.gov/grants/12853.html</u>

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 <u>www.ntdprogram.gov/ntdprogram/</u> 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 <u>http://www.apta.com/resources/statistics/Pages/NTDDataTables.aspx</u>

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