

Massachusetts Bay Transportation Authority

Statistics Presentation – Board of Directors

1. General Information
2. Service and Infrastructure Profile
3. Map of MBTA Service Area
4. Accessibility of Subway & Commuter Rail stations and Ferry Terminal
5. Operating Expenses and Fare Revenue by Mode
6. Capital Budget
 - a. Uses of Capital Funds
 - b. Sources of Capital Funds
 - c. Capital Investment Program
7. Service Efficiency:
 - a. Operating Expense per Vehicle Revenue Mile
 - b. Operating Expense per Vehicle Revenue Hour
8. Cost Effectiveness:
 - a. Operating Expense per Passenger Mile
 - b. Operating Expense per Unlinked Passenger Mile
9. Service Effectiveness:
 - a. Unlinked Trips per Vehicle Revenue Mile
 - b. Unlinked Trips per Vehicle Revenue Hour
 - c. Net Operating Costs per Unlinked passenger trip by mode compared to other peer transit agencies
10. Fare and Revenue Recovery Ratios
 - a. MBTA Fare and Recovery Ratios
 - b. Revenue Recovery Ratio Comparison to other peer transit agencies
11. Vehicles Required for Peak Service
12. Growth in Annual Vehicle Revenue Miles compared to peer transit agencies

Massachusetts Bay Transportation Authority

General Information

Urbanized Area (UZA) ⁽¹⁾ Statistics - 2000 Census Boston, MA - NH - RI

Square Miles	1,738
Population	4,032,484
Population Ranking out of 465 UZAs	7

Other UZAs served ⁽¹⁾

#34, #74, #234

Service Area Statistics

Square Miles	3,244
Population (2010 Census)	5,078,204
Cities and Towns Served	175

Service Consumption

Annual Passenger Miles	1,843,855,012
Annual Unlinked Trips ⁽²⁾	367,247,601
Average Weekday Unlinked Trips	1,239,753
Average Weekday Saturday Trips	502,404
Average Weekday Sunday Trips	338,611

Service Supplied

Annual Vehicle Revenue Miles	93,994,720
Annual Vehicle Revenue Hours	6,441,612
Vehicles Operated in Maximum Service	2,338
Vehicles Available in Maximum Service	2,712
Base Period Vehicle Requirement ⁽³⁾	1,038

⁽¹⁾ NTD statistics must be allocated over the urbanized areas (UZAs) that are served. Boston is UZA # 7 (7th largest in US), # 34 is Providence, # 74 is Worcester. UZAs can change based on each 10 year census.

⁽²⁾ Unlinked Trips - The number of passengers who board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.

⁽³⁾ The Base Period Vehicle Requirement is the number of revenue vehicles required to maintain base period schedules



MBTA Service and Infrastructure Profile

July 2011

MBTA Service District

Cities and Towns	175
Size in Square Miles	3,244
Population (2010 Census)	5,078,204

Typical Weekday Ridership (FY 2011)

By Line Unlinked

Red Line	250,182
Orange Line	190,939
Blue Line	58,004

Total Heavy Rail **499,125**

Total Green Line (Light Rail & Trolley) **219,513**

Bus (includes Silver Line)	367,082
Silver Line SL1 & SL2	14,566
Silver Line SL4 & SL5	15,406
Trackless Trolley	9,199

Total Bus and Trackless Trolley **376,281**

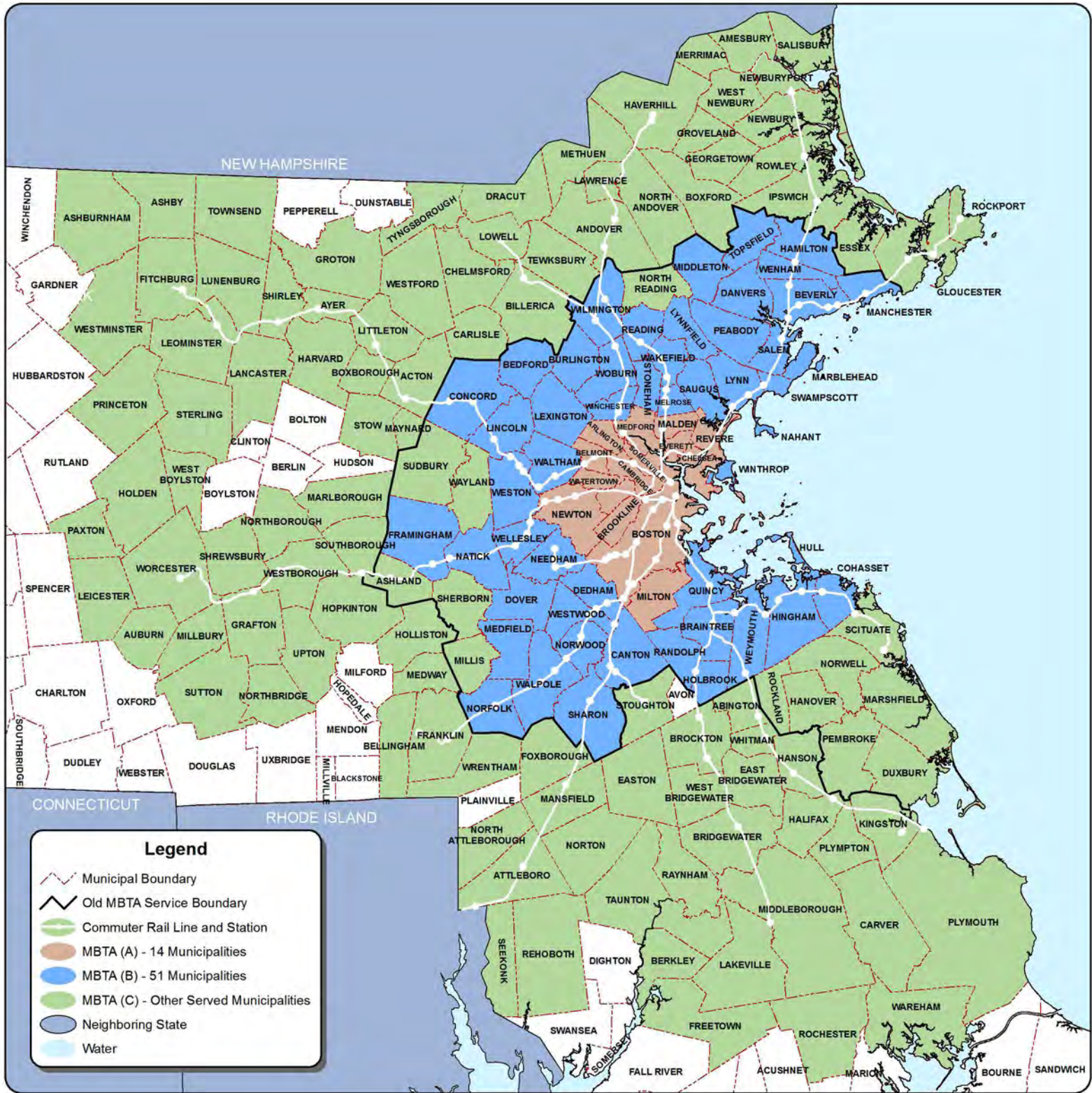
TOTAL MBTA-Provided Urban Service **1,094,919**

System Unlinked

MBTA - Provided Urban Service	1,094,919
Commuter Rail Boardings (Inbound + Outbound)	130,261
Contracted Bus	2,570
Water Transportation	4,429
THE RIDE Paratransit Trips Delivered	7,574

TOTAL ALL MODES UNLINKED **1,239,753**

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





Accessibility of Rapid Transit Stations

August 2011



STATION		STATION		STATION		
RED LINE : 22 Stations		21	Orient Heights	Y	Washington Street	Y
Braintree	Y	Suffolk Downs	Y	Sutherland Street	No	
Quincy Adams	Y	Beachmont	Y	Chiswick Road	No	
Quincy Center	Y	Revere Beach	Y	Chestnut Hill Avenue	No	
Wollaston	Planned	Wonderland	Y	South Street	No	
North Quincy	Y			Boston College	Y	
Ashmont	Y	SILVER LINE WATERFRONT: 16 St		16		
Shawmut	Y	South Station	Y	C LINE: 13 Stations		
Fields Corner	Y	Courthouse	Y	St. Mary's Street	Y	
Savin Hill	Y	World Trade Center	Y	Hawes Street	No	
JFK/U. Mass.	Y	Silver Line Way	Y	Kent Street	No	
Andrew	Y	Logan (5 stops)	Y	St. Paul Street	No	
Broadway	Y	Dry Dock Ave & Design Center	Y	Coolidge Corner	Y	
South Station	Y	306 Northern Avenue	Y	Summit Ave	No	
Downtown Crossing	Y	Northern Avenue @ Tide St.	Y	Brandon Hall	No	
Park Street	Y	21& 25 Dry Dock Avenue (2 stops)	Y	Fairbanks	No	
Charles/MGH	Y	88 Black Falcon	Y	Washington Square	Y	
Kendall/MIT	Y	Black Falcon Ave & Design Center	Y	Tappan Street	No	
Central	Y			Dean Road	No	
Harvard	Y	SILVER LINE WASHINGTON: 13 St		13	Englewood Avenue	No
Porter	Y	Downtown Crossing	Y	Cleveland Circle	Y	
Davis	Y	Boylston*	Y			
Alewife	Y	Chinatown	Y	D LINE: 13 Stations		
		Tufts Medical Center	Y	Fenway	Y	
Mattapan-Ashmont Trolley: 8 Sta		7	Herald Street	Y	Longwood	Y
Mattapan	Y	East Berkeley Street	Y	Brookline Village	Y	
Capen Street	Y	Union Park Street	Y	Brookline Hills	Y	
Valley Road	No	Newton Street	Y	Beaconsfield	No	
Central Avenue	Y	Worcester Square	Y	Reservoir	Y	
Milton	Y	Mass Ave.	Y	Chestnut Hill	No	
Butler Street	Y	Lenox Street	Y	Newton Centre	Y	
Cedar Grove	Y	Melnea Cass Blvd.	Y	Newton Highlands	No	
Ashmont	Y	Dudley Square	Y	Eliot	No	
				Waban	No	
ORANGE LINE : 19 Stations		19	GREEN LINE SUBWAY: 13 Stations		8	
Oak Grove	Y	Lechmere	Y	Woodland	Y	
Malden	Y	Science Park	U/C	Riverside	Y	
Wellington	Y	North Station	Y			
Sullivan Square	Y	Haymarket	Y	E LINE: 9 Stations		
Community College	Y	Government Center	Planned	Northeastern University	Y	
North Station	Y	Park Street	Y	Museum of Fine Arts	Y	
Haymarket	Y	Boylston	No	Longwood Med. Area	Y	
State Street	Y	Arlington	Y	Brigham Circle	Y	
Downtown Crossing	Y	Copley	Y	Fenwood Street	No	
Chinatown	Y	Hynes	Planned	Mission Park/Parker Hill	No	
Tufts Medical Center	Y	Kenmore	Y	Riverway	No	
Back Bay	Y	Prudential	Y	Back of the Hill	No	
Mass Ave.	Y	Symphony	Planned	Heath Street/VA Hosp.	Y	
Ruggles	Y					
Roxbury Crossing	Y	GREEN LINE SURFACE:		GREEN LINE SURFACE: 53 Stas		
Jackson Square	Y	B LINE: 18 Stations		Accessible	22	
Stony Brook	Y	Blandford Street	No	Not Accessible	31	
Green Street	Y	BU East	Y			
Forest Hills	Y	BU Central	Y	TOTAL GREEN LINE: 66 Stas		
		BU West	No	Accessible	30	
BLUE LINE : 12 Stations		10	St. Paul Street	No	Not Accessible	36
Bowdoin	No	Pleasant Street	No			
Government Center	Planned	Babcock Street	No	TOTAL STATIONS (146 Stations)		
State Street	Y	Packards Corner	No	Accessible	116	
Aquarium	Y	Harvard Avenue	Y	Not Accessible	43	
Maverick	Y	Griggs Street/Long Avenue	No	TOTAL STATIONS (146 Stations) %		
Airport	Y	Allston Street	No	Accessible	73%	
Wood Island	Y	Warren Street	No	Not Accessible	27%	

Note: Green Line accessibility is provided by one or more of the following: mini-high level platform, raised platform, or mobile lift.
*only Silver Line portion of Boylston Station is accessible



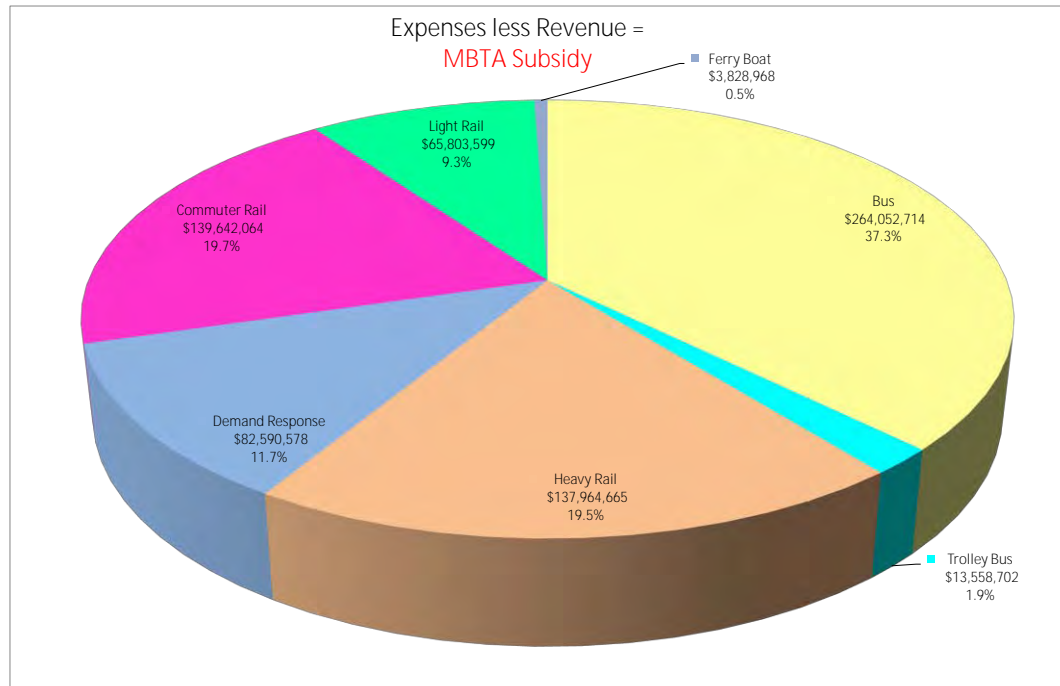
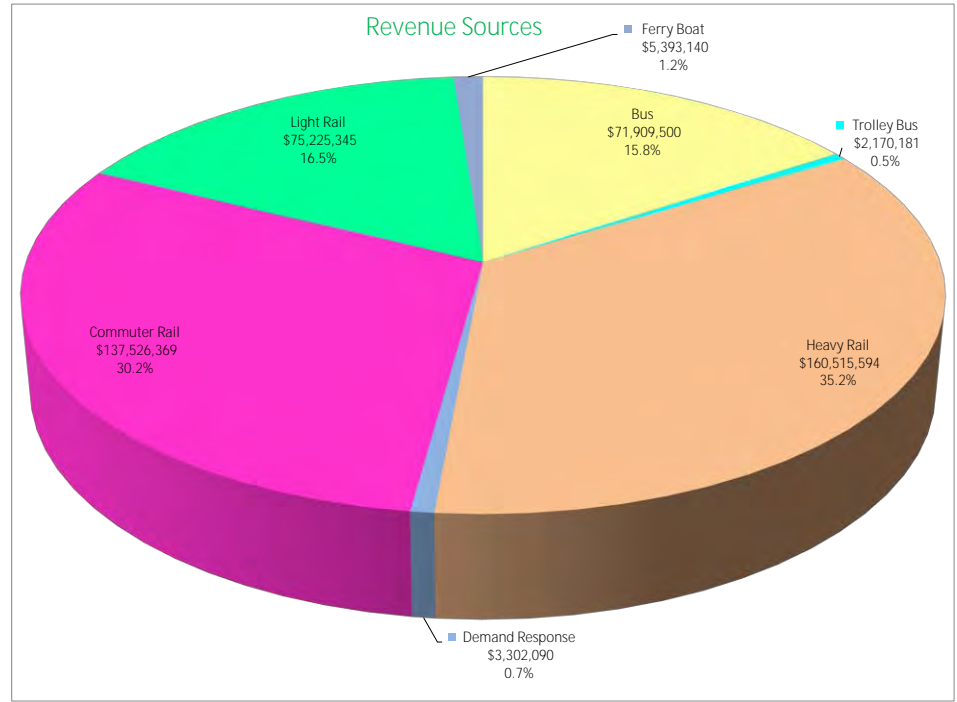
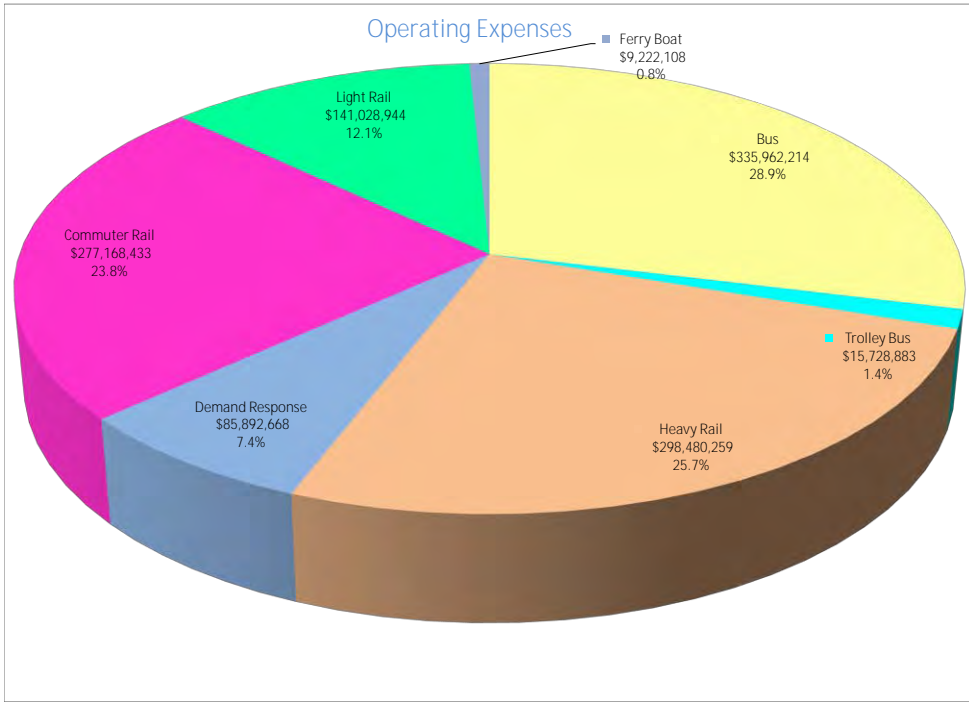
Accessibility of Commuter Rail Stations and Ferry Terminals

August 2011



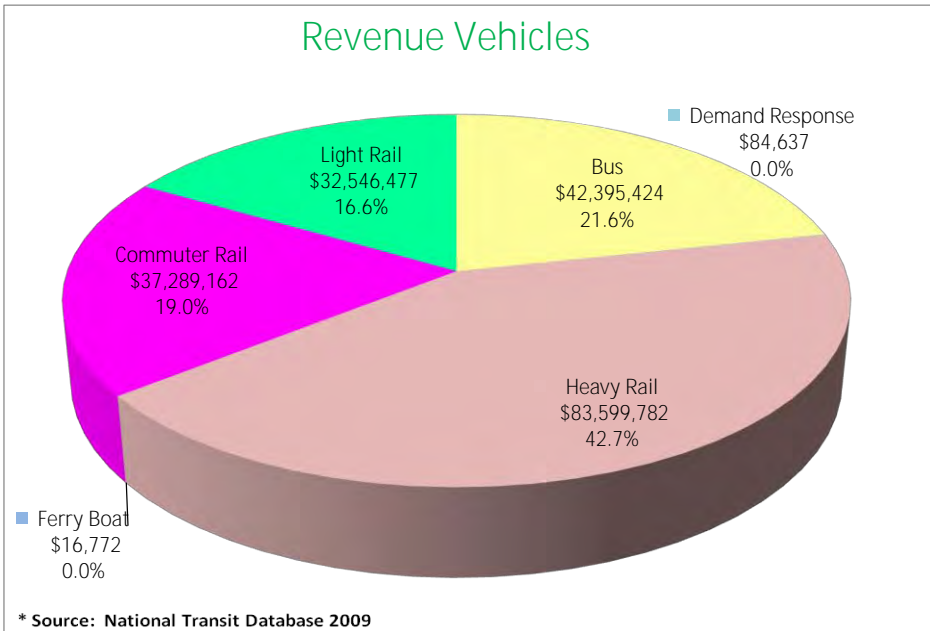
STATION		STATION		STATION	
Newburyport/Rockport (18 stas)	15	Framingham/Worcester (15 stas)	8	Plymouth-Kingston (10 stations)	10
Newburyport	Y	Worcester	Y	Plymouth	Y
Rowley	Y	Grafton	Y	Kingston	Y
Ipswich	Y	Westborough	Y	Halifax	Y
Hamilton-Wenham	Y	Southborough	Y	Hanson	Y
North Beverly	Y	Ashland	Y	Whitman	Y
Rockport	Y	Framingham	Y	Abington	Y
Gloucester	Y	West Natick	Y	South Weymouth	Y
West Gloucester	Y	Natick	N	Braintree	Y
Manchester	Y	Wellesley Square	N	Quincy Center	Y
Beverly Farms	Y	Wellesley Hills	N	JFK/UMass	Y
Prides Crossing	Y	Wellesley Farms	N		
Montserrat	Y	Auburndale	Planned	Greenbush (7 stations)	7
Beverly	Y	West Newton	N	Greenbush	Y
Salem	Y	Newtonville	N	Scituate	Y
Swampscott	Y	Yawkey Station	Y	Cohasset	Y
Lynn	Y			Nantasket Junction	Y
Riverworks	N	Needham (9 stations)	9	W. Hingham	Y
Chelsea	N	Needham Heights	Y	E. Weymouth	Y
		Needham Center	Y	Weymouth Landing	Y
		Needham Junction	Y		
Haverhill/Reading (13 stations)	8	Hersey	Y	Ruggles	1
Haverhill	Y	West Roxbury	Y	Back Bay	1
Bradford	Y	Highland	Y	Readville	1
Lawrence	Y	Bellevue	Y	South Station	1
Andover	Y	Rosindale Village	Y		
Ballardvale	Y	Forest Hills	Y	TOTAL STATIONS - South Side	76
North Willmington	N			Accessible	62
Reading	Y	Franklin (12 stations)	6	Not Accessible	14
Wakefield	N	Forge Park/495	Y		
Greenwood	N	Franklin/Dean College	N	TOTAL RAIL STATIONS - Systemwide	
Melrose Highlands	Y	Norfolk	Y	Accessible	73% 97
Melrose Cedar Pk	N	Walpole	N	Not Accessible	27% 36
Wyoming Hill	N	Plimptonville	N	Total	133
Malden Center	Y	Windsor Gardens	N		
		Norwood Central	Y	FERRY TERMINAL	
Lowell (8 stations)	5	Norwood Depot	Y	F1 (2 terminals)	2
Lowell	Y	Islington	N	Hingham Shipyard	Y
North Billerica	Y	Dedham Corp Ctr.	Y	Rowes Wharf	Y
Wilmington	Y	Endicott	N		
Anderson	Y	Hyde Park	Y	F2/F2H (4 terminals)	4
Mishawum	Y			Fore River Shipyard	Y
Winchester Center	Planned	Fairmount (3 stations)	3	Hull	Y
Wedgemere	U/C	Fairmount	Y	Logan Airport	Y
West Medford	N	Morton Street	Y	Long Wharf	Y
		Uphams Corner	Y	F4 (2 terminals)	2
Fitchburg (17 stations)	6			Charlestown Navy Yard	Y
Fitchburg	Y	Stoughton (2 stations)	2	Long Wharf	Y
North Leominster	Y	Stoughton	Y		
Shirley	N	Canton Center	Y	TOTAL FERRY TERMINALS - Systemwide	
Ayer	N			Accessible	100% 8
Littleton/495	Planned	Attleboro/Providence (8 stas)	7	Not Accessible	0% 0
South Acton	Planned	Providence	Y	Total	8
West Concord	Y	South Attleboro	Y		
Concord	N	Attleboro	Y		
Lincoln	N	Mansfield	Y		
Silver Hill	N	Sharon	Planned		
Hastings	N	Canton Junction	Y		
Kendal Green	N	Route 128	Y		
Brandeis/Roberts	Y	Foxboro	Y		
Waltham	Y				
Waverley	N	Middleborough/Lakeville (6 stas)	6		
Belmont	N	Middleborough/Lakeville	Y		
Porter	Y	Bridgewater	Y		
		Campello	Y		
North Station	1	Brockton	Y		
		Montello	Y		
TOTAL STATIONS - North Side	57	Holbrook/Randolph	Y		
Accessible	35				
Not Accessible	22				

MBTA Fiscal Year 2009*

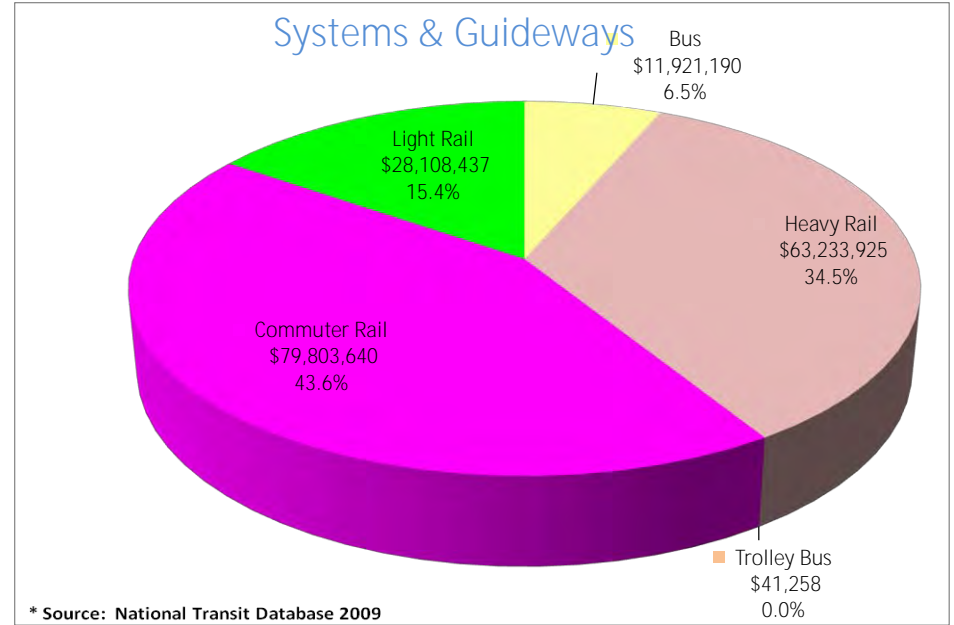


Uses of Capital Funds

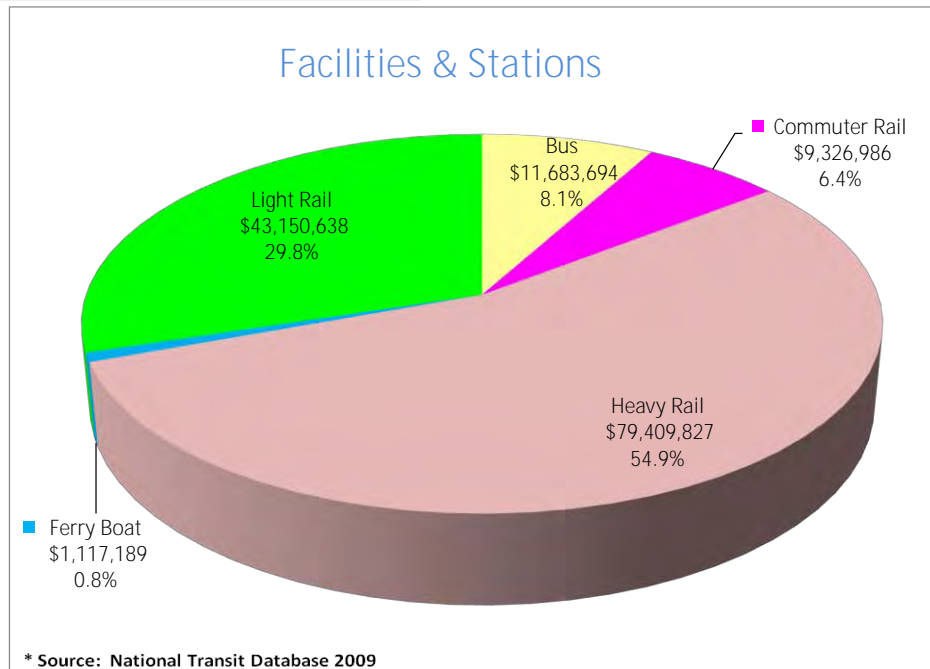
Revenue Vehicles



Systems & Guideways

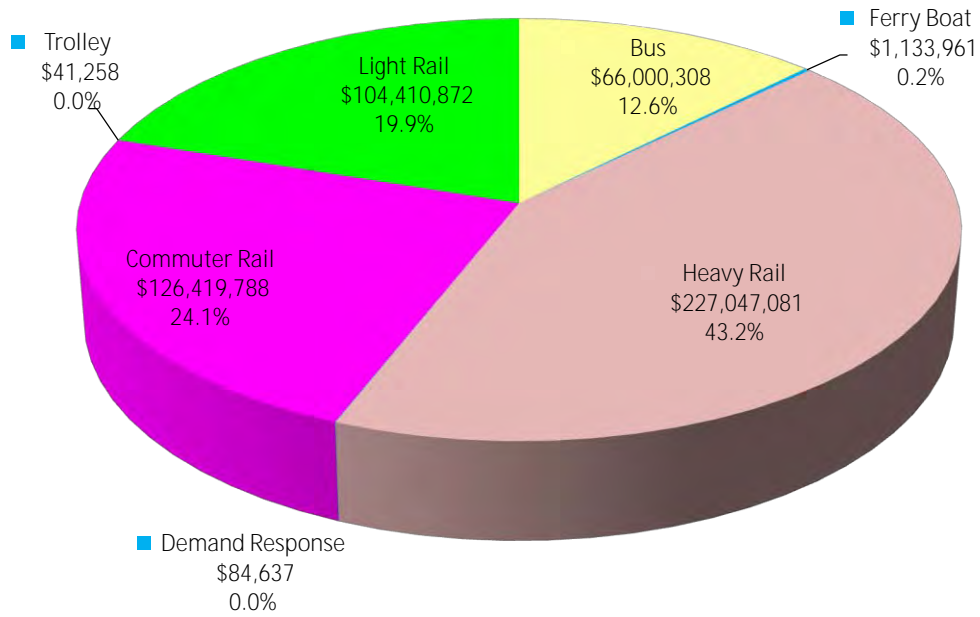


Facilities & Stations



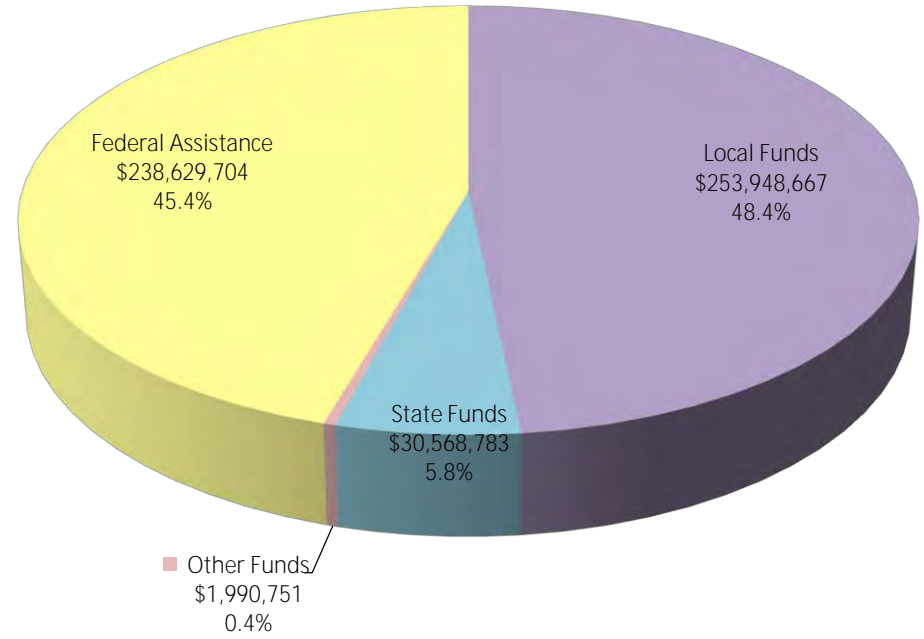
Capital Funding

Total Uses



Source: 2009 National Transit Database

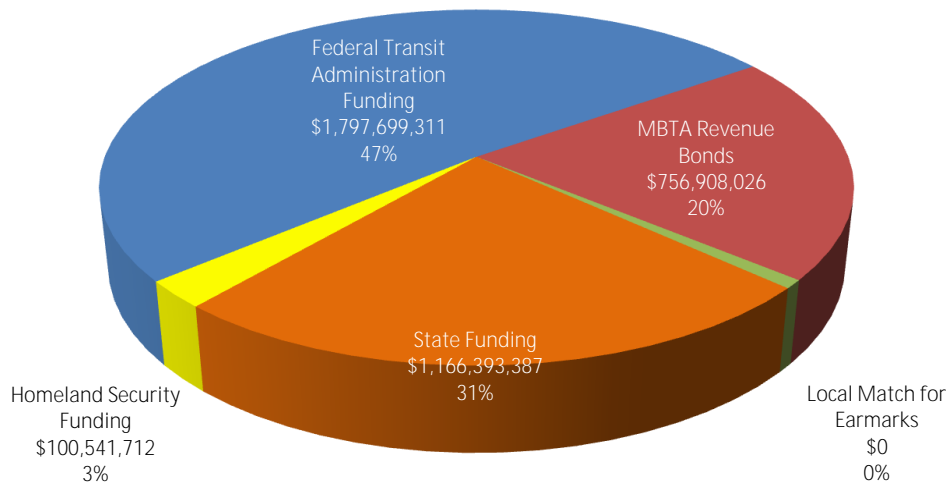
Total Expended by Source



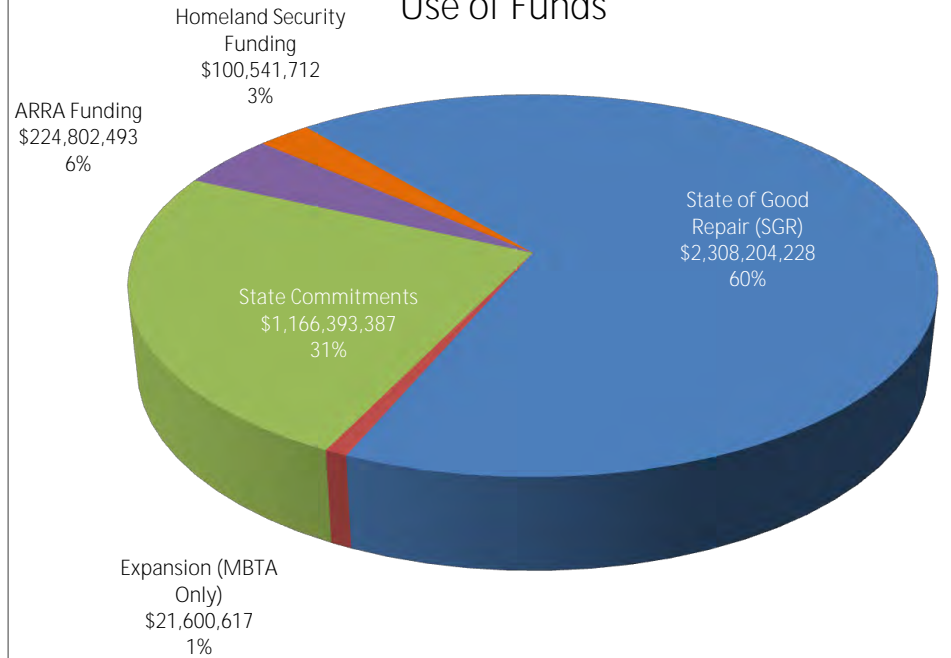
Source: 2009 National Transit Database

MBTA FY12 - FY16 Capital Investment Program

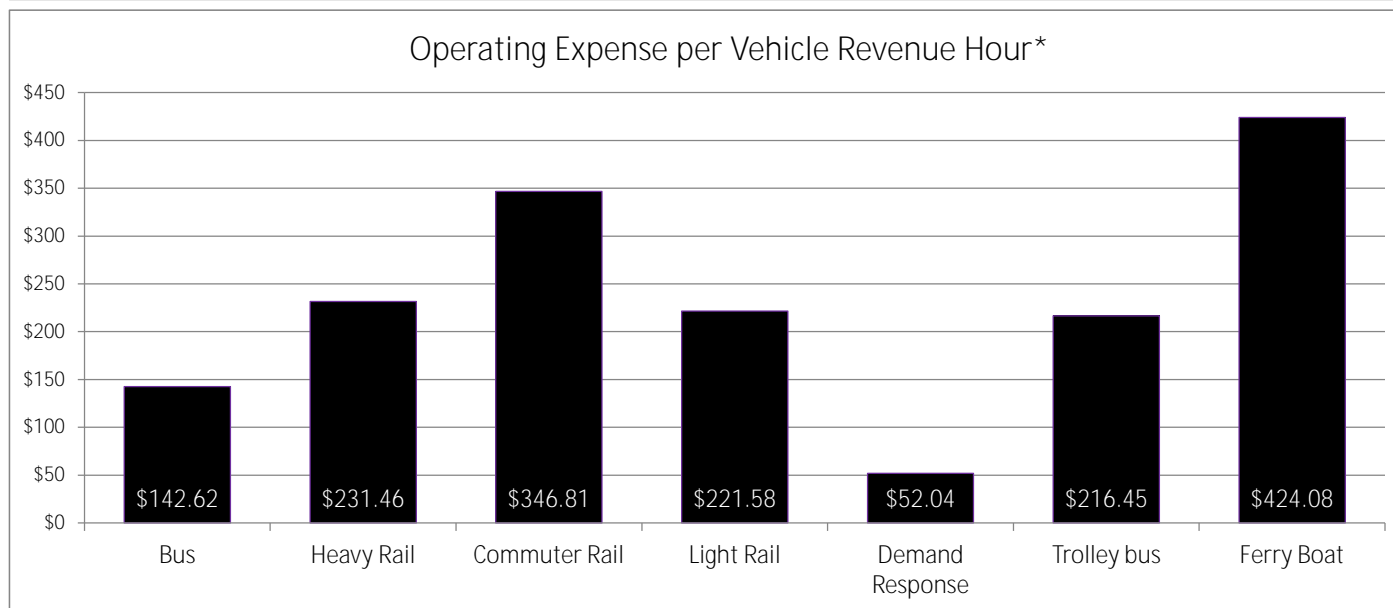
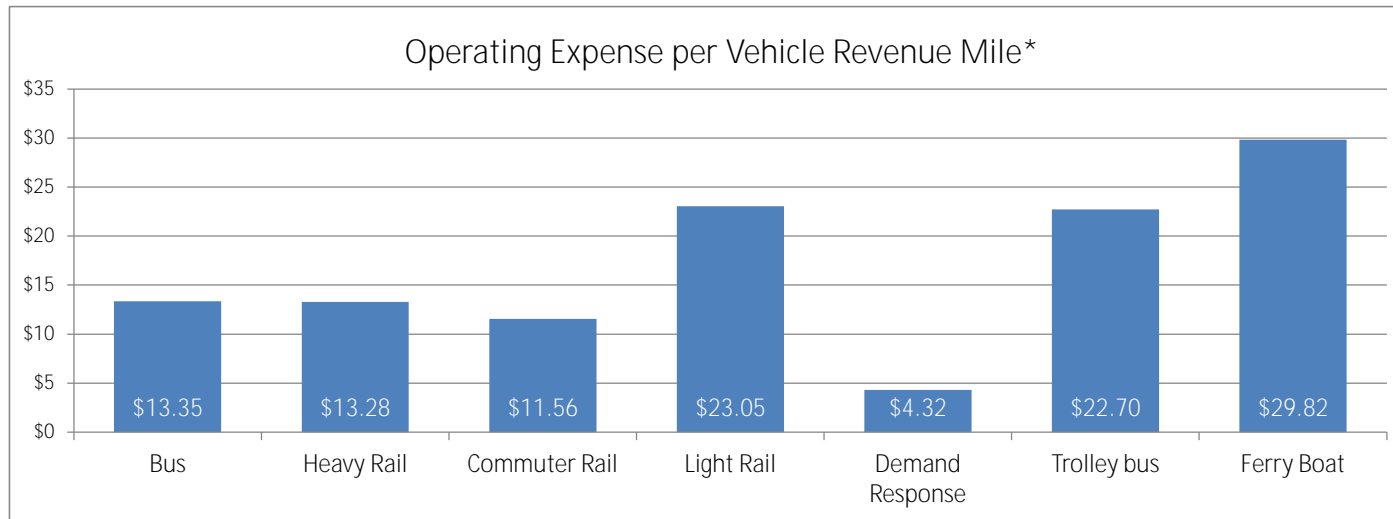
Sources of Funds



Use of Funds



Service Efficiency



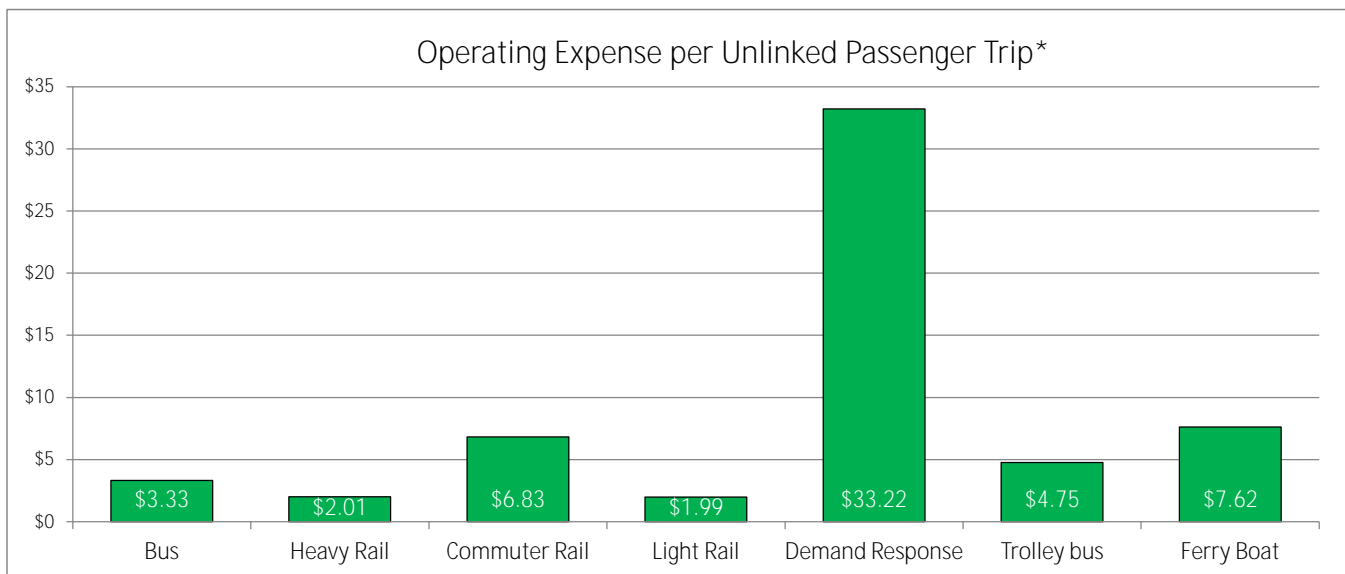
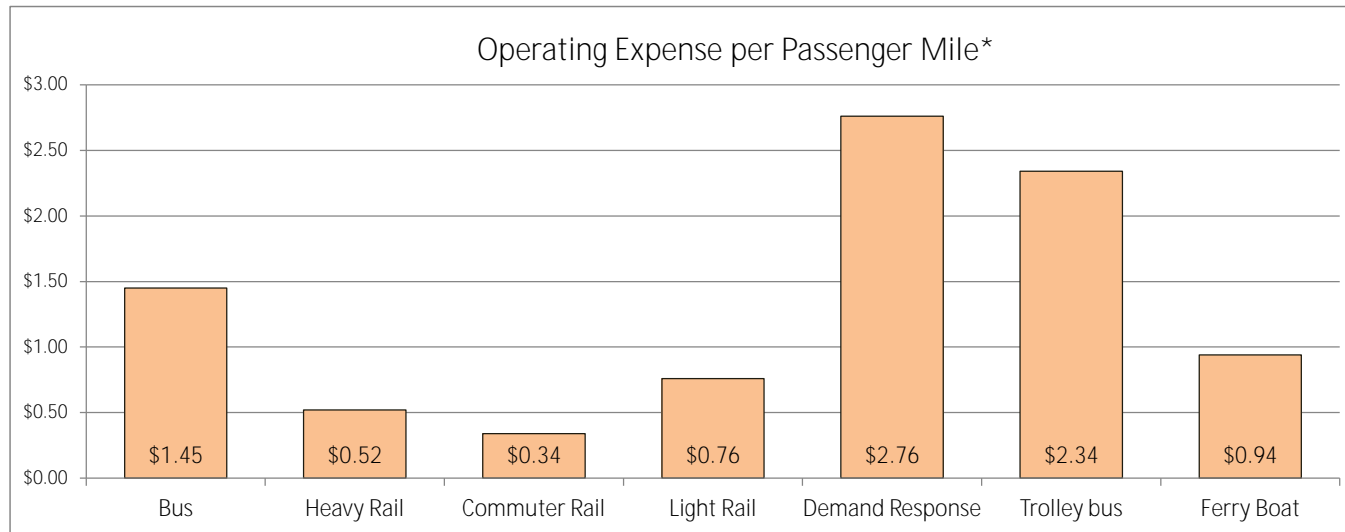
Notes:

[Operating Expenses](#) - expenses associated with the operation of the transit agency, and classified by function or activity, and the goods and services purchased.

[Vehicle Revenue Miles](#) - the miles that vehicles are scheduled to or actually travel while in revenue service.

[Vehicle Revenue Hours](#) - the hours that vehicles are scheduled to or actually travel while in revenue service.

Cost Effectiveness



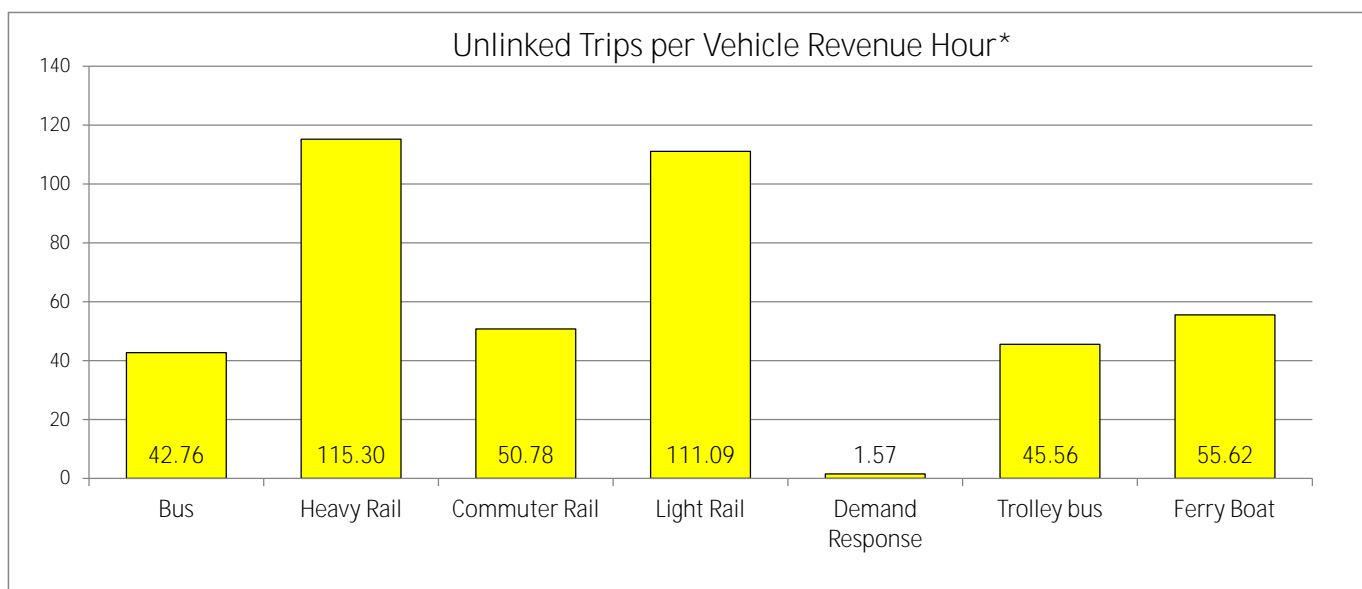
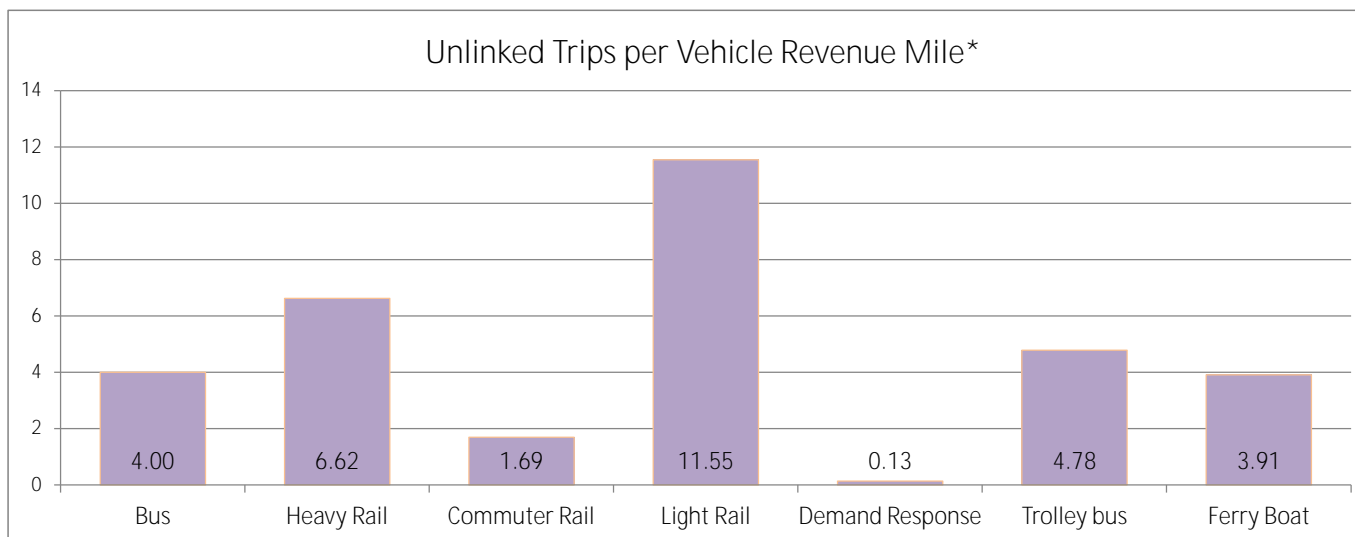
Notes:

[Operating Expenses](#) - expenses associated with the operation of the transit agency, and classified by function or activity, and the goods and services purchased.

[Passenger Miles](#) - the cumulative sum of the distances ridden by each passenger.

[Unlinked Passenger Trip](#) - the number of passengers who board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.

Service Effectiveness



Notes:

Unlinked Trip - The number of passengers who board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.

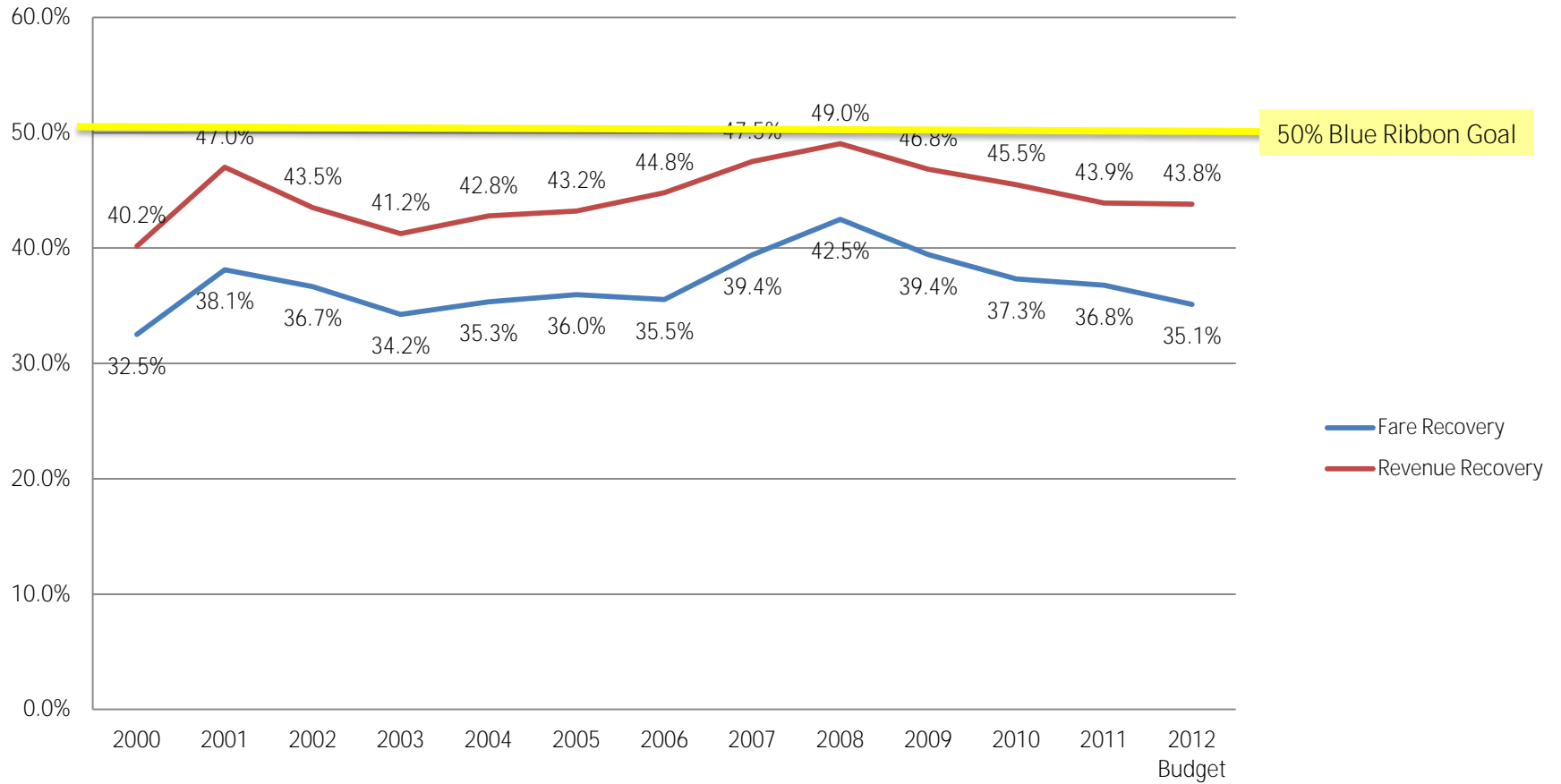
Vehicle Revenue Miles - the miles that vehicles are scheduled to or actually travel while in revenue service.

Vehicle Revenue Hours - the hours that vehicles are scheduled to or actually travel while in revenue service.

Comparison of Net operating Costs per Unlinked Passenger-trip by Mode with Peer Agencies.

	Metro Area	Agency	Fare Revenues Earned	Total Operating Expenses	Unlinked Passenger Trips	Net Operating Cost / Unlinked Passenger Trip	Average fare / Unlinked Passenger Trip	Fare Recovery Ratio
Heavy Rail	San Francisco	BART	\$317,485,269	\$484,177,232	114,654,578	\$1.45	\$2.77	65.6%
	Atlanta	MARTA	\$50,298,714	\$167,025,973	83,346,491	\$1.40	\$0.60	30.1%
	Los Angeles	LACMTA	\$34,784,500	\$88,792,020	46,891,008	\$1.15	\$0.74	39.2%
	Chicago	CTA	\$230,587,978	\$462,014,895	202,569,039	\$1.14	\$1.14	49.9%
	Washington, DC	WMATA	\$506,151,701	\$804,763,471	296,857,158	\$1.01	\$1.71	62.9%
	Boston	MBTA	\$160,515,594	\$298,480,259	148,684,327	\$0.93	\$1.08	53.8%
	Philadelphia	SEPTA	\$83,946,647	\$158,029,363	95,110,125	\$0.78	\$0.88	53.1%
	New York City	NYCT	\$2,245,620,228	\$3,313,127,436	2,358,313,445	\$0.45	\$0.95	67.8%
Light Rail	New Jersey	NJ TRANSIT	\$16,524,437	\$98,327,800	16,176,471	\$5.06	\$1.02	16.8%
	Seattle	King County Metro	\$342,835	\$2,366,620	451,203	\$4.49	\$0.76	14.5%
	Los Angeles	LACMTA	\$31,092,141	\$150,103,773	46,027,518	\$2.59	\$0.68	20.7%
	New Jersey	NJ TRANSIT	\$4,818,669	\$20,472,335	6,152,598	\$2.54	\$0.78	23.5%
	San Francisco	MUNI	\$29,266,571	\$156,466,590	50,744,862	\$2.51	\$0.58	18.7%
	Philadelphia	SEPTA	\$26,554,588	\$60,281,517	29,588,034	\$1.14	\$0.90	44.1%
	Boston	MBTA	\$75,225,345	\$141,028,944	70,707,186	\$0.93	\$1.06	53.3%
	Motor Bus, Direct-Operated	Seattle	King County Metro	\$93,937,578	\$373,438,207	90,502,036	\$3.09	\$1.04
Washington, DC	WMATA	\$111,328,651	\$516,012,695	133,773,567	\$3.03	\$0.83	21.6%	
New York City	MTABUS	\$160,016,443	\$506,992,920	119,975,835	\$2.89	\$1.33	31.6%	
New Jersey	NJ TRANSIT	\$301,717,152	\$729,689,044	154,906,967	\$2.76	\$1.95	41.3%	
Boston	MBTA	\$70,012,369	\$331,334,211	99,570,675	\$2.62	\$0.70	21.1%	
Atlanta	MARTA	\$51,530,071	\$206,182,897	72,716,409	\$2.13	\$0.71	25.0%	
Philadelphia	SEPTA	\$163,669,307	\$533,823,570	180,654,500	\$2.05	\$0.91	30.7%	
San Francisco	MUNI	\$54,900,012	\$237,166,251	95,190,296	\$1.91	\$0.58	23.1%	
New York City	NYCT	\$821,110,623	\$2,289,448,330	842,637,587	\$1.74	\$0.97	35.9%	
Los Angeles	LACMTA	\$260,205,372	\$899,018,156	373,098,259	\$1.71	\$0.70	28.9%	
Chicago	CTA	\$277,525,084	\$786,905,237	318,672,798	\$1.60	\$0.87	35.3%	
Commuter Rail	New York City	MTA LIRR	\$509,332,964	\$1,104,479,277	97,350,595	\$6.11	\$5.23	46.1%
	New Jersey	NJ TRANSIT	\$417,474,880	\$841,817,971	83,586,312	\$5.08	\$4.99	49.6%
	New York City	MTA-MNCR	\$501,937,095	\$858,509,601	79,464,160	\$4.49	\$6.32	58.5%
	Boston	MBTA	\$137,526,369	\$277,168,433	40,582,915	\$3.44	\$3.39	49.6%
	Philadelphia	SEPTA	\$123,337,758	\$219,782,314	35,653,018	\$2.71	\$3.46	56.1%
Demand Response	New York City	NYCT	\$12,160,564	\$440,774,480	5,920,164	\$72.40	\$2.05	2.8%
	Seattle	King County Metro	\$850,905	\$51,134,908	1,142,452	\$44.01	\$0.74	1.7%
	Washington, DC	WMATA	\$3,521,539	\$86,566,628	2,107,775	\$39.40	\$1.67	4.1%
	Atlanta	MARTA	\$869,858	\$17,296,511	479,493	\$34.26	\$1.81	5.0%
	Boston	MBTA	\$3,302,090	\$65,892,668	1,983,489	\$31.56	\$1.66	5.0%
	Philadelphia	SEPTA	\$6,283,963	\$49,469,779	1,798,211	\$24.02	\$3.49	12.7%
	New Jersey	NJ TRANSIT	\$1,872,646	\$68,916,287	3,971,830	\$16.88	\$0.47	2.7%
	San Francisco	MUNI	\$1,676,879	\$20,401,201	1,140,049	\$16.42	\$1.47	8.2%
Ferry Boat	Seattle	King County Ferry Distr	\$153,584	\$1,999,324	52,164	\$35.38	\$2.94	7.7%
	New York City	NYCDOT	\$254,462	\$1,222,912	43,756	\$22.13	\$5.82	20.8%
	New York City	MTA-MNCR	\$205,895	\$3,130,673	196,345	\$14.90	\$1.05	6.6%
	New York City	NYCDOT	\$0	\$125,204,929	21,193,271	\$5.91	\$0.00	0.0%
	New York City	NYCDOT	\$2,796,391	\$5,221,193	698,796	\$3.47	\$4.00	53.6%
	Boston	MBTA	\$5,393,140	\$9,222,108	1,209,478	\$3.17	\$4.46	58.5%
	Trolley Bus	Boston	MBTA	\$2,170,181	\$15,728,883	3,310,893	\$4.10	\$0.66
Seattle	King County Metro	\$17,892,872	\$55,870,673	19,719,226	\$1.93	\$0.91	32.0%	
San Francisco	MUNI	\$41,607,430	\$140,633,398	72,142,492	\$1.37	\$0.58	29.6%	
Philadelphia	SEPTA	\$4,960,826	\$11,482,268	5,510,768	\$1.18	\$0.90	43.2%	
Motor Bus, Purchased	New Jersey	NJ TRANSIT	\$12,533,661	\$80,931,457	15,831,635	\$4.32	\$0.79	15.5%
	Washington, DC	WMATA	\$1,670,392	\$9,842,250	3,120,391	\$2.62	\$0.54	17.0%
	New York City	MTA-MNCR	\$413,980	\$1,409,333	385,419	\$2.58	\$1.07	29.4%
	Boston	MBTA	\$1,897,131	\$4,628,003	1,198,638	\$2.28	\$1.58	41.0%
	Los Angeles	LACMTA	\$7,907,457	\$36,079,870	12,931,499	\$2.18	\$0.61	21.9%
	Seattle	King County Metro	\$11,238,115	\$6,296,965	846,678	-\$5.84	\$13.27	178.5%

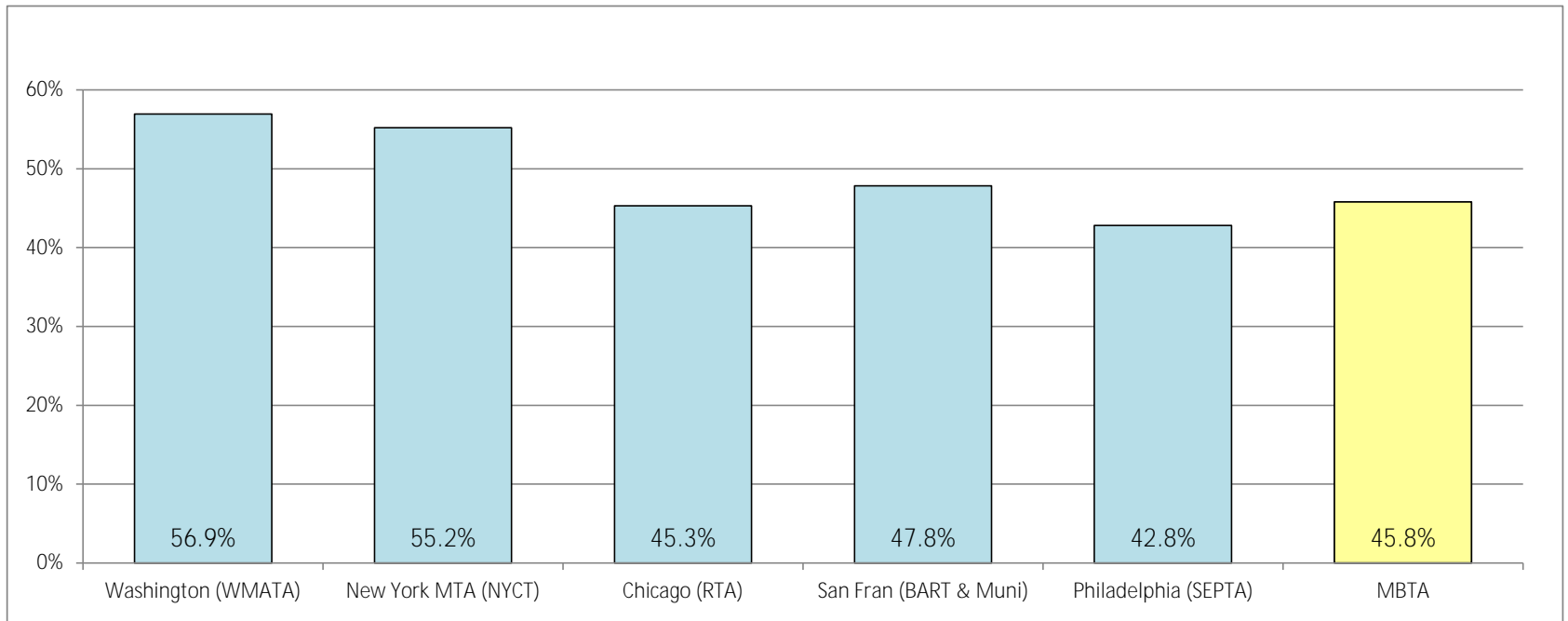
MBTA Fare and Revenue Recovery Ratios FY2000 - FY2012



Notes: **Fare Recovery Ratio** = Fares divided by operating expenses
Revenue Recovery Ratio = Total revenue (excluding dedicated sources) divided by operating expenses
 The recovery ratio calculations do not include debt service.

Comparison to Peer Transit Agencies

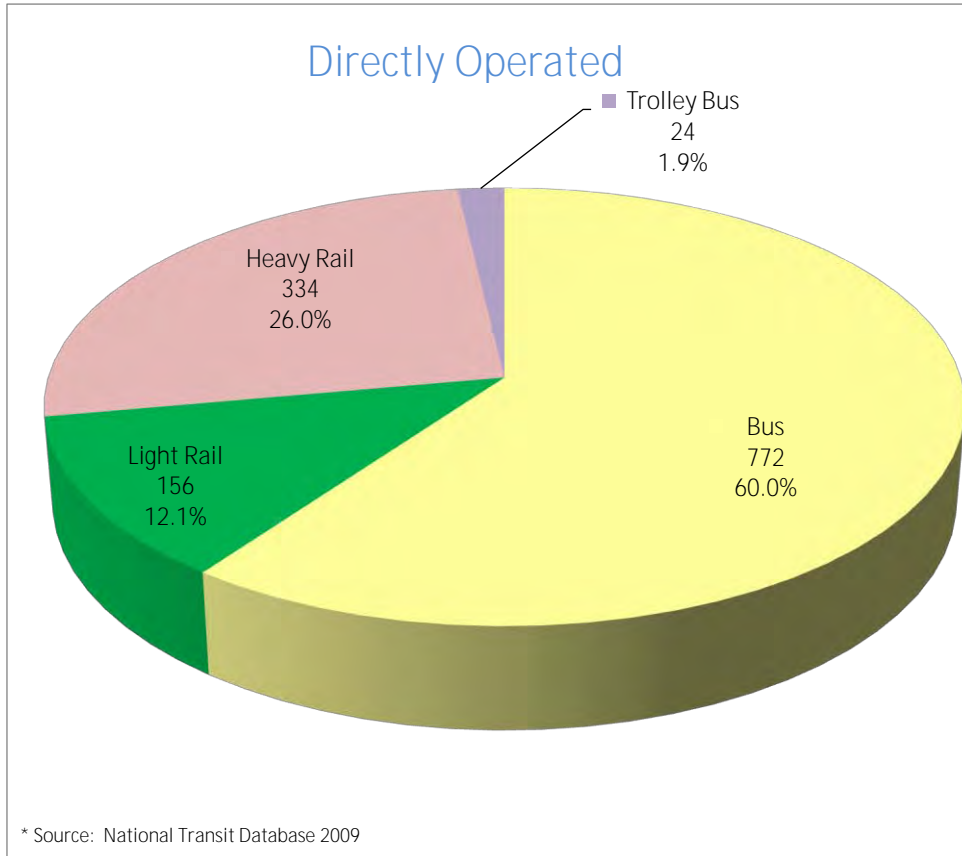
Revenue Recovery Ratio 2009*



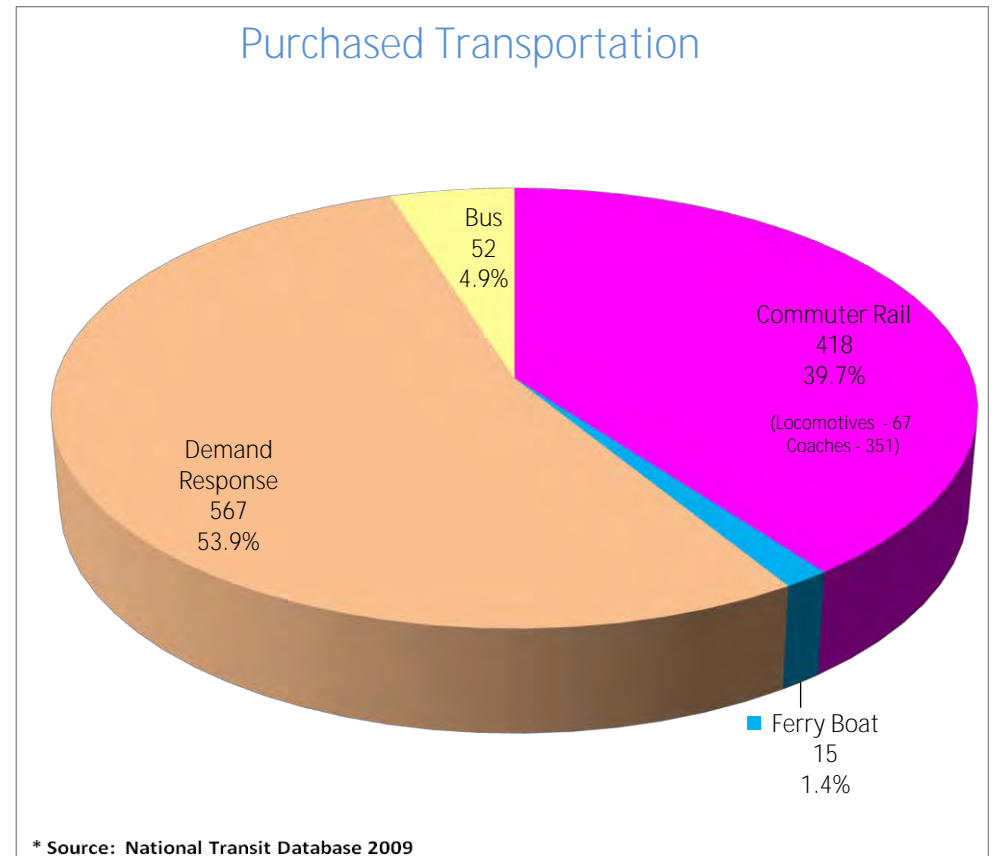
* Revenue Recovery Ratio - from NTD 2009 data - fare revenue plus other funds divided by Total Operating Expenses

Source: 2009 NTD Database

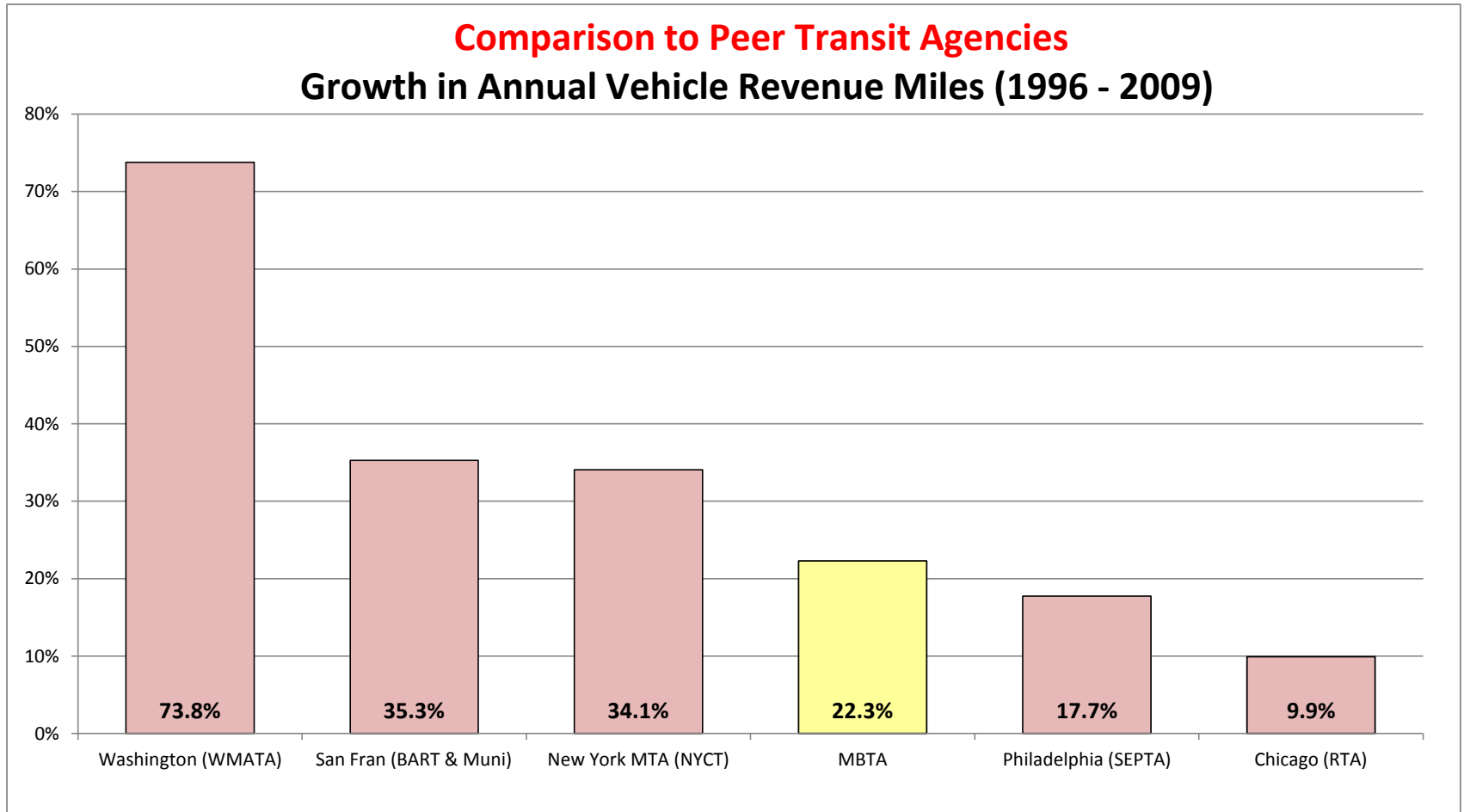
Vehicles Required for Peak Service



Directly Operated - Transportation service provided directly by a transit agency, using their employees to supply the necessary labor to operate the revenue vehicles



Purchased Transportation - Transportation service provided to a public transit agency or governmental unit from a public or private transportation provider based on a written contract.



Vehicle Revenue Miles - the miles that vehicles are scheduled to or actually travel while in revenue service.

Source: 2009 NTD Database