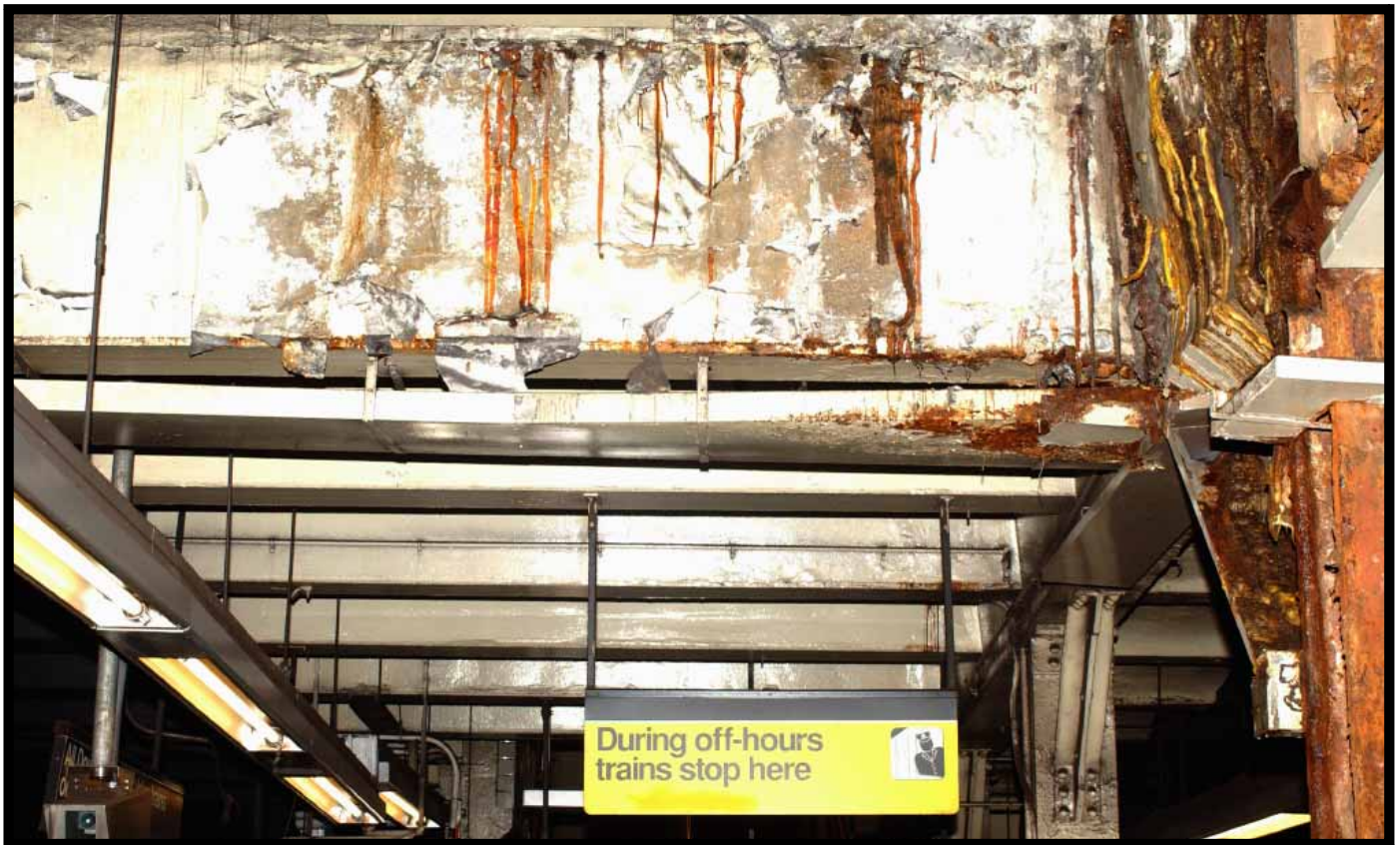


policy report

Office of the New York City Comptroller
Office of Policy Management

**William C. Thompson, Jr.,
Comptroller**

A Review of MTA New York City Transit “State of Good Repair” Capital Expenditures



1 Centre Street
New York, NY 10007
(212) 669-3500



policy report

CONTENTS

Key Findings and Recommendations . . . 3

A. Achieving a State of Good Repair at NYC Transit: A Moving Target: *NYC Transit has fallen far behind the commuter railroads in achieving a State of Good Repair . . . 6*

B. How Delays in Achieving a State of Good Repair Affect Passengers . . . 8

C. How MTA Core Capital Funding Allocation Shortchanges NYC: *Spending on State of Good Repair has decreased as a share of MTA Core Capital Program spending . . . 9*

Spending on State of Good Repair has decreased as a share of MTA Core Capital Program spending . . . 9

Core Capital spending has shifted from NYC Transit . . . 10

Police capital spending allocation disfavors New York City . . . 11

MTA Bus Company exclusion from the MTA capital program places an unfair burden on NYC . . . 11

Network Expansion project spending does not favor NYC Transit over suburban riders . . . 11

D. Why the MTA Capital Funds Allocation Is Unfair to NYC Transit Riders. . . 12

Ridership . . . 12

Mass transit dependence . . . 13

Higher costs associated with the City's system . . . 13

Suburban residents also benefit from bus and subway improvements . . . 13

E. Recommendations . . . 15

Endnotes . . . 17

William C. Thompson, Jr.
Comptroller

Gayle M. Horwitz
Deputy Comptroller
Chief of Staff

Glenn von Nostitz
Director, Office of Policy Management

Steve Strauss
Transportation Policy Analyst

Cover photo credit: Marla Maritzer

Key Findings and Recommendations

Findings

New York City has experienced a mass transit renaissance. Over the last decade, New Yorkers have benefited from improved service reliability, expanded service, a new fare card payment system, and a plunging subway crime rate. Mass transit use has surged. Unfortunately, despite these improvements, service has not reached the levels of reliability, safety and comfort New Yorkers require and deserve.

From outmoded electrical equipment to dilapidated stations, New York City Transit still has much to accomplish in order to reverse the damage from widespread maintenance and repair deferrals. The system is far short of achieving what the MTA terms a “State of Good Repair.” A prime illustration of this failure was the four-month disruption of A and C line service in January 2005 after a fire destroyed antiquated electrical equipment at Chambers Street. The disruption was further compounded because manufacturers no longer even made replacement parts for this equipment.

With New York City’s population surpassing the 8.1 million mark, a projection of nine million New Yorkers by 2026, and suburban counties also expected to add population, public authorities including the Metropolitan Transportation Authority and the Port Authority of New York and New Jersey are embarking on several large mass transportation network expansion projects.

Yet, the reality is that most New York City residents will continue to rely primarily on the existing 468 subway stations, 660 subway track miles and 243-route bus system. For New Yorkers, properly maintaining the existing mass transit system is not only important, it is absolutely critical.

MTA New York City Transit’s efforts to bring its system to a State of Good Repair (SGR) have, by the Authority’s own numbers, progressed much more slowly than it projected in its 1992-1996 Five-Year Capital Plan, a situation which affects not only service reliability, but raises concerns about rider safety and security:

- **New York City Transit overwhelmingly has the greatest State of Good Repair needs among the MTA’s operating agencies.** Its customers continue to suffer from service outages and delays due to the failure of outmoded equipment. Many subway stations remain in poor condition. And many essential safety upgrades are still years away from completion.
- **Major NYC Transit elements including bus depots, subway maintenance shops and subway signals that in 1992 were projected to reach State of Good Repair by 2000, 2005 and 2012 are now scheduled to achieve a State of Good Repair by 2010, 2019 and 2027 respectively.**
- **Essential passenger safety equipment, such as fan plants, which remove smoke from tunnels in the event of fire and other emergency situations, are suffering some of the longest delays in achieving a State of Good Repair;** 76 of 201 fan plants are still not in a State of Good Repair and all fan plants are not expected to achieve a State of Good Repair until 2028, 21 years longer than was projected in 1992. These fans represent a critical safety component of the MTA’s infrastructure; new fans are not only more reliable, they are more powerful and bi-directional.

- **As of last year, only 55 percent of tunnel lighting—another critical safety item—had achieved a State of Good Repair and full State of Good Repair will not be achieved until 2022.** The old incandescent lighting still in use in much of the subway system does not meet current lighting safety standards and lacks the power source redundancy needed to ensure that lights stay on in most emergencies. Key components of the emergency alarm call box system that are used to shut off third rail power in an emergency are no longer manufactured and must be replaced. Furthermore, and as recently reported in the media, during the process of installing the new unified police radio system, approximately 20 percent of the existing antenna cable (72 miles) that runs through subway tunnels was found to be too deteriorated to work with the new system and must be replaced over the next several years.
- **Service reliability is reduced by outmoded signal systems and track switches.** Over 40 percent of the B division (lettered train routes) operates with 70-year-old signal equipment and antiquated track switches. In October 2006 (latest month available), there were 514 weekday train delays due to “signal trouble,” the second most frequent cause of delays from November 2005 through October 2006. In January 2005, A and C line service was greatly reduced for nine days when a switch room fire destroyed electrical equipment. Indeed, because manufacturers no longer made replacement parts for antiquated relays and other equipment, full service was not restored until April.
- **The MTA reduced NYC Transit’s share of the MTA Core Capital Program, which includes spending for State of Good Repair, Normal Replacement, and System Improvement projects, from 77.5 percent in the 1992-1996 MTA Capital Plan to 75.5 percent in the 2000-2004 and 2005-2009 MTA Capital Plans.** If NYC Transit had received 77.5 percent of Capital Program funding in the 2000-2004 and 2005-2009 Plans instead of 75.5 percent, the agency would have received approximately \$300 million more in each of these two Plans than it actually did—a total of \$600 million. This minimal increase in funding—far short of what is necessary—would have allowed at least some additional upgrade of critical safety equipment.
- **Notably, the City’s capital funding has suffered because of the disproportionate spending on the region’s commuter railroads.** Indeed, projected dates for achieving a State of Good Repair in the 1992-1996 Capital Plan at the Long Island Rail Road and Metro-North Railroad have largely been met.

*The Metropolitan Transportation Authority categorizes capital spending into four needs classifications: State of Good Repair, Normal Replacement, System Improvement and Network Expansion. **State of Good Repair** spending reflects the work necessary to put a physical asset in good working condition. **Normal Replacement** spending represents the investment necessary to replace assets as they wear out, based on their standard life expectancy. **System Improvements** are enhancements beyond existing conditions, such as subway car purchases for fleet expansion or a new transfer connection between subway lines. **Network Expansion** spending supports new projects that expand the size and reach of the existing system such as a subway line extension or a new Bus Rapid Transit route.*

Recent reports drawing attention to the Transit Authority’s concern about rapidly escalating construction costs present an even greater challenge. These cost increases could cause even longer delays in achieving SGR for a number of critical projects. It is therefore imperative that officials at all levels of government work closely with the MTA to ensure that these critical safety repairs are made and that America’s largest mass transportation system is not shortchanged.

Recommendations

- **In the next MTA Five-Year Core Capital Plan (2010-2014), NYC Transit should receive an additional \$673 million for Core Capital projects. Based on the 2005-2009 Core Capital Plan, the \$673 million would lift NYC Transit to an 80 percent share of the MTA’s current \$14.9 billion Core Capital Plan from the existing, inadequate 75.5 percent share.** NYC Transit must be provided a larger share of Core Capital spending, particularly because ridership is growing steadily and millions of New York City residents depend on mass transit as their sole means of transportation. Many elements of the system are still in unacceptable condition and the subway system—which is mostly underground—is much more expensive than commuter railroads to restore and repair.
- **Additional funds should be used to accelerate critical NYC Transit State of Good Repair projects such as signal upgrades, fan plant modernizations and other “hidden infrastructure” expenditures that improve reliability, security and safety.**
- **The MTA should seek U.S. Department of Homeland Security Transit Security Grant Program (TSGP) funding to replace antiquated tunnel lighting and communications systems and other key security-related State of Good Repair projects.** TSGP Program Grant Guidelines provide that “specific attention must be paid to the prevention, detection and response to incidents involving IEDs [improvised explosive devices].” With critical security-related infrastructure brought up to State of Good Repair with the help of TSGP grants, NYC Transit would be better able to prevent, detect and respond to IEDs and other threats.
- **MTA operating agencies must provide full explanations for delays in bringing elements of the system into a State of Good Repair.** The MTA Capital Program Oversight Committee should regularly review SGR delays and release a periodic public report explaining the reasons for SGR delays by investment category and operating agency. In addition, there should be more public discussion by the MTA Board of Directors of capital resource allocation among SGR, Normal Replacement, and System Improvement spending and the consequences of those allocations for service.
- **NYC Transit should work more closely with affected communities, City agencies and utility companies to better manage an intensified level of construction activity resulting from the necessary increase in NYC Transit’s share of MTA core capital funding.** Current construction activity already places a heavy strain on the system, causing service disruptions and passenger inconvenience. State of Good Repair work occurs primarily during the night and on weekends and results in subway service diversions and occasional bus shuttles in lieu of subway service.

A. Achieving State of Good Repair at NYC Transit: A Moving Target

NYC Transit has fallen far behind the commuter railroads in achieving SGR

Since the first MTA Five-Year Capital Plan was implemented in 1982, enormous progress has been made throughout the system to reduce the backlog of deferred repairs and reconstruction. Nonetheless, large and growing disparities have emerged in achieving a State of Good Repair between the commuter railroads and NYC Transit.

The MTA divides capital spending into various investment categories such as Rolling Stock, Power, Track, Repair Shops, Stations and Bus Depots. Tables 1 and 2 show the timetable for achieving a State of Good Repair by investment category for the LIRR and Metro-North Railroad reported or projected in the 1992-1996, 2000-2004 and 2005-2009 Capital Plans. Table 3 shows the timetable for NYC Transit. (Because the first 10 years of the MTA’s Five-Year Capital Programs, starting in 1982, focused almost exclusively on State of Good Repair spending at all agencies, this report reviews capital spending allocations since 1992, when spending priorities among the agencies began to diverge.)

Table 1. LIRR reported or projected achievement of State of Good Repair

Investment Category	1992 Plan ¹	2000 Plan	2005 Plan
Rolling Stock	1986	Achieved	Achieved
Passenger Stations	1995	Achieved	Achieved
Communications & Signals	1991	Achieved	Achieved
Power	1983	Achieved	Achieved
Shops & Yards	1991	Achieved	Achieved
Track & Structures ²	2011	2010-2014	2014

Table 1 shows that by 1992, a decade after the first MTA Five-Year Capital Program was launched, the Long Island Rail Road had achieved a State of Good Repair in every category except Passenger Stations, which was achieved in 1995, and Track & Structures. The remaining LIRR Track & Structures work is primarily on bridges and viaducts.

Table 2. Metro-North Railroad reported or projected achievement of State of Good Repair

Investment Category	1992 Plan	2000 Plan	2005 Plan ³	1992-2005 Change (in years)
Rolling Stock	1992	1992	1992	Achieved
Communications & Signals	1996	NA	2000	+4
Miscellaneous	2006	NA	2006	Achieved
Passenger Stations	2006	2009	2014	+8
Line Structures*	2011	2010-2014	2019	+8
Power	2001	2000-2004	90% by 2009	>8
Shops & Yards	2006	2000-2004	97% by 2009	+3

*Track reached SGR in 1986.

Table 2 shows that Metro-North did not make as much progress in achieving a State of Good Repair as the LIRR. By 1992, Metro-North had brought only Rolling Stock and Track into SGR. In 1992, Metro-North projected that Communications and Signals would reach SGR by 1996; it achieved a State of Good Repair in 2000. In 1992, the projected date for full State of Good Repair for Line Structures was 2011, Power,

2001 and Shops & Yards, 2006. However, Line Structures is now projected to achieve a State of Good Repair by 2019, Power 90 percent by 2009 and Shops & Yards 97 percent by 2009.

Table 3 shows the projected years in the 1992-1996, 2000-2004 and 2005-2009 Capital Plans in which State of Good Repair was to be achieved for NYC Transit. NYC Transit has more investment categories than the commuter railroads because it has more components, such as pumps and tunnel fans, and it operates a bus system and the separate Staten Island Railway.

The contrast with the Metro-North Railroad is notable and with LIRR it is remarkable. *Crucial NYC Transit investment categories remain decades from achieving SGR.*

Table 3. NYC Transit projected achievement of State of Good Repair

Investment Category	1992 Plan	2000 Plan	2005 Plan	1992-2005 Change in years
Buses	1986	1986	1986	Achieved
Mainline Track	1991	1991	1991	Achieved
Rolling Stock	1992	1992	1992	Achieved
Depots	2000	2008	2010	+10
Staten Island Railway ⁴	1998	NA	2012	+14
Line Structures	2003	2014	2014	+11
Power*	2007	2009	2015	+8
Yards	2020	2011 (switches) 2012 (track)	2018	-2
Shops	2005	2016	2019	+14
Stations	2009	2022	2024	+15
Signals & Communications	2012	2025	2027	+15
Line Equipment**	2007	2024 (fan plants)	2028 (fan plants)	+21
	2001	2008 (pump rooms)	2008 (pump rooms)	+7

*Power substations

**Line equipment primarily includes ventilation (fan plants), tunnel lighting, and pumps.

In 1992, only three NYC Transit categories had been brought into a State of Good Repair: Buses, Mainline Track and Rolling Stock (subway cars) and four additional categories were projected to achieve a State of Good Repair within 13 years: Depots, Staten Island Railway, Line Structures and Shops. Five more investment categories were more than 15 years away from reaching State of Good Repair: Stations, Power, Yards, Signals & Communications and Line Equipment. NYC Transit extended estimated State of Good Repair completion dates in both the 2000-2004 and 2005-2009 Capital Programs.

While Tables 1, 2 and 3 show delays in achieving State of Good Repair at all three MTA operating agencies, New York City Transit is experiencing the longest delays by far, especially in Stations, Signals & Communications, and Line Equipment. *It will take an extraordinary 36 years from the release of the 1992 Capital Plan for Line Equipment—which encompasses such crucial components as tunnel lighting, pumps and tunnel fans—to achieve State of Good Repair.* It will be 32 years from the release of the 1992 Capital Plan before every subway station in the system is renovated.

In contrast to NYC Transit, Table 1 shows that by 2005, the Long Island Rail Road had achieved a State of Good Repair for all investment categories except for Track & Structures, and within this category, Track achieved a State of Good Repair in the 1986-1991 Capital Program and only Bridges and Viaducts will be delayed in achieving a State of Good Repair. Table 2 shows that Metro-North’s State of Good Repair delays

have been short compared to NYC Transit—four years for Communications & Signals, eight years for Passenger Stations, eight years for Power (in 2009 it will be 90 percent SGR) and three years for Shops & Yards (in 2009 these will be 97 percent SGR). Metro-North’s 2005-2009 Capital Plan delays projected completion of State of Good Repair work on Passenger Stations to 2014 from 2006, but this is primarily due to complex work at two large historic stations; Poughkeepsie and Grand Central Terminal. Except for Passenger Stations, by 2009 the only category where Metro-North will fail to achieve a State of Good Repair is Line Structures, where it appears unlikely SGR will be achieved by 2011, as projected in 1992.

B. How Delays in Achieving a State of Good Repair Affect Passengers

The need for State of Good Repair investment remains enormous:

- **Signal system.** Over 40 percent of the B Division (lettered train routes) continues to operate with mostly original, 70-year-old signal system equipment and mid-20th-century antiquated track switches; approximately 200 miles of the 480-mile B Division system lacks a State of Good Repair signal system. The result has been more frequent signal failures, reduced operational flexibility to respond to service disruptions, and slower trains. From September 2005 to August 2006, signal system-related events were the cause of approximately 38 percent of the delays generated by the ten primary causes of delays for weekday service. In October 2006, there were 514 weekday train delays due to “signal trouble.” From November 2005 to October 2006, “signal trouble” was the second most frequent cause of subway service delays, according to NYC Transit’s service delay report. Track circuit failures, which include instances where signals malfunction and default into the stop position, were the eighth most frequent reason for delays. “Brakes in emergency,” due to signal problems that trigger the emergency braking system on subway cars, are another frequent cause of train delays. In addition, outmoded signal systems limit the ability to increase service at peak periods, resulting in more crowding, longer station dwell times and slower trips.
- **Radio antenna cable.** Furthermore, and as recently reported in the media, during the process of installing the new unified police radio system, approximately 20 percent of the existing antenna cable (72 miles) in subway tunnels was found to be too deteriorated to work with the new system and must be replaced over the next several years.
- **Tunnel fans.** Older emergency fans that remove smoke from tunnels do not meet current safety standards. Most of the older fans move air in only one direction and have inadequate capacity. New fans are more powerful and bidirectional and can pull smoke away from a location or push smoke past a location. Seventy-six of the 201 fan plants, 38 percent, have not achieved a State of Good Repair.
- **Tunnel lighting.** In many locations, there is inefficient, 1930s-era incandescent tunnel lighting original to the system. By 2005, only about 55 percent of the tunnel lighting system had reached SGR and full SGR is not expected to be achieved until 2022. According to the most recent MTA *20-Year Needs Assessment*, current NYC Transit tunnel lighting standards require a higher ambient light level on the trackway than was required by earlier lighting systems. Also included in the lighting replacement program are “blue light” emergency alarm lighting, wayside electrical receptacles and installation of power source redundancy to “assure the system will function in most right-of-way emergencies,” according to the *Needs Assessment*.

- **Power system.** To date, improvements to the power system have focused on key component replacement at the expense of more comprehensive rehabilitation of substations and ancillary equipment, according to the MTA.⁸ The additional subway service that may be added after signal system improvements are completed and the increased electrical demands of the newest model subway cars is raising power loads and stressing aging power cables. This growing demand, coupled with aging equipment, has led to electrical fires. In addition, the system has 2,663 call box alarms that are used to shut off third rail power in an emergency. Key components of this system are no longer manufactured and the system must be replaced.
- **Stations.** The subway system still has large numbers of dilapidated stations, while commuter railroad stations are overwhelmingly in good condition. NYC Transit must still rehabilitate approximately 240 of its 468 stations. At the recently accelerated pace of 16 station renovations per year, SGR still will not be achieved until 2024.⁵
- **Overhaul and maintenance shops.** Nearly 37 percent of the subway car overhaul and maintenance shops and half of the support shops where light maintenance and repairs are conducted are not in a State of Good Repair. Antiquated shops and depots slow repair work, result in less efficient operations, provide a less safe environment for workers and contribute to subway and bus equipment shortages.

The consequences of failing to achieve a State of Good Repair became very clear to the public in January, 2005, when a switch room fire destroyed electrical equipment controlling track switches on the Eighth Avenue (A and C lines) subway line in lower Manhattan. Old equipment in a mechanical room lacking a fire suppression and alarm system was heavily damaged. Manufacturers no longer made replacement parts for antiquated relays and other equipment. A and C line subway service was greatly reduced for nine days and NYC Transit was unable to restore full A and C line service until mid-April.

Aging and obsolete infrastructure makes it harder to respond to growing ridership. Indeed, surging subway ridership has placed a substantial strain on the existing system. As job and population growth continue, even more riders will crowd into the system. More frequent service, full trains, and crowded station stairs have magnified the service consequences of failures and safety risks that can result from outdated infrastructure and equipment.

C. How MTA’s Core Capital Funding Allocation Shortchanges NYC

Spending on State of Good Repair has decreased as a share of MTA Core Capital Program spending

Since the first MTA Five-Year Capital Program in 1982, the agency has broken out capital investment by four needs classifications: State of Good Repair, System Improvements, Normal Replacement and Network Expansion. (See earlier box for descriptions.)

NYC Transit’s share of the Core Program decreased from 77.5 percent in 1992-1996 to 75.5 in the 2005-2009 Plan. This two percentage point reduction in funding for NYC Transit core needs is worth \$300 million in the current Five-Year Plan. That money—at a minimum—should be restored and used for critical safety upgrades throughout the system.

As shown in Table 4 below, one-half of the MTA’s 1992-1996 Capital Program was dedicated to a State of Good Repair, 22 percent to Normal Replacement, 19 percent to System Improvements, and nine percent to all other costs, consisting primarily of Administration and Contingencies. Less than one percent went to

Network Expansion. With such a large share of capital spending on State of Good Repair projects, during the 1990s the MTA made substantial progress reducing the backlog of subway and commuter rail cars operating beyond their useful life, obsolete power systems and worn out track, particularly on the commuter lines. In contrast, only 29 percent of the current 2005-2009 Core Capital Program is for State of Good Repair projects and as shown in Table 6, most of the remaining State of Good Repair spending is for NYC Transit projects. The shift away from State of Good Repair spending is even greater when one considers that the 1992-1996 Program allocated almost nothing to Network Expansion projects and the 2005-2009 Capital Program allocates \$2.5 billion. It should be noted that an agency can categorize capital spending as Normal Replacement only after the element or component is brought into a State of Good Repair. As SGR spending declines, Normal Replacement spending rises to maintain a life cycle replacement schedule.

Table 4. MTA Core Capital Program allocations by needs classification

	1992-1996 Plan	2005-2009 Plan
State of Good Repair	50%	29%
System Improvements	19%	15%
Normal Replacement	22%	53%
All other	9%	3%

Core Capital spending has shifted from NYC Transit

The extensive delays in bringing all of NYC Transit’s bus and subway network components into good working order have been exacerbated by a shift in Core Capital Program funding by the MTA. The largest repair and replacement backlog is for New York City Transit; the Long Island Rail Road has the least amount of SGR work outstanding. Metro-North’s share of Core Capital Program funding is basically unchanged.

Table 5 shows the allocation of MTA Core Capital Program funding by agency in the 1992-1996 and 2005-2009 Plans. NYC Transit’s share of the Core Program decreased from 77.5 percent in 1992-1996 to 75.5 percent in the 2005-2009 Plan. This two percentage point reduction in funding for NYC Transit Core Capital Program projects would total \$300 million in the 2005-2009 Capital Plan, enough to fund at least some additional critical safety upgrades throughout the system. If NYC Transit had received 77.5 percent of Capital Program funding in the plan instead of 75.5 percent, the agency would have received approximately \$60 million more per year.

Table 5. MTA 1992-1996 and 2005-2009 Core Capital Program by agency. (\$ in millions)
MTA Bridges and Tunnels not included.

Agency	1992-1996 ⁶	%	2005-2009	%	% with MTA Bus excluded	2005-2009 adjusted ⁷	%
NYC Transit	\$7,435.8	77.5%	\$11,300.1	75.4%	76.1%	\$11,300.1	75.5%
MTA Bus	0.0	0.0%	138.0	0.9%	0.0%	0.0	0.0%
LIRR	1,209.6	12.6%	2,176.0	14.5%	14.6%	2,176.0	14.5%
Metro-North	952.8	9.9%	1,382.3	9.2%	9.3%	1,490.3*	10.0%
Total	\$9,598.2	100.0%	\$14,996.4	100.0%	100.0%	\$14,966.4	100.0%

* Includes \$108 million which Metro-North used to accelerate the purchase of rolling stock in the 2000-2004 Capital Program.

Table 6 illustrates the wide disparity in State of Good Repair spending by the MTA. In the current Capital Plan, NYC Transit spends 36.9 percent of its capital budget on State of Good Repair while the commuter railroads each spend only 3.6 percent of their program on State of Good Repair. MTA Bus spends about 66 percent of its capital dollars on State of Good Repair projects; this high percentage is attributable to the generally poor condition of the buses and depots taken over from private operators.

Table 6. MTA 2005-2009 Core Capital Program by Needs Classification* (\$ millions)

Agency	State of Good Repair	Normal Replacement	System Improvement	Other	Total	SGR as a % of Agency Program
NYC Transit	\$4,482	\$5,953	\$1,475	\$222	\$12,132	36.9%
MTA Bus	92	46	0	0	138	66.7%
Subtotal	4,574	5,999	1,475	222	12,270	37.3%
LIRR	86	1,360	758	221	2,425	3.5%
Metro-North	51	1,200	87	71	1,409	3.6%
MTA Police	1	27	36	0	64	1.6%
TOTAL	\$ 4,712	\$8,586	\$2,356	\$514	\$16,168	
Percent	29.1%	53.1%	14.6%	3.2%	100.0%	

*Not including MTA Bridges and Tunnels.

Police capital spending allocation shortchanges New York City

The Core Capital Program funding allocation is even more skewed against NYC Transit when capital expenditures for police and the MTA Bus Company are considered. The MTA Capital Program includes spending for commuter railroad police projects and facilities. In contrast, capital spending for the Transit Bureau of the New York City Police Department, which polices the subway and bus system, is provided entirely by the City of New York. *Although the MTA Police protect commuter facilities in New York City and commuter railroad riders while they are in the City, New York City residents pay for all Transit Police Bureau capital and operating costs as well as for a share of the MTA Police through dedicated regional taxes and State subsidies. Suburban commuters, roughly 45 percent of whom also regularly use NYC Transit services, support NYPD Transit Police protection only marginally via the City sales tax.*

The MTA Bus Company's exclusion from the MTA Capital Program places an unfair burden on New York City

The MTA Bus Company was created in 2005 to take over private bus companies serving the Bronx, Queens and Brooklyn and provides local and express bus service exclusively within New York City. It is the tenth largest bus system in the United States. MTA Bus Company capital projects are funded 90 percent with New York City and Federal capital dollars (the State provides the other ten percent). Even though the MTA Bus Company operates City buses on City routes, the \$138 million in capital expenditures the MTA Bus Company has budgeted for State of Good Repair and Normal Replacement projects between 2005 and 2009 are not included in the MTA 2005-2009 Capital Plan and are not being paid for by the MTA.

Network Expansion project spending does not favor NYC Transit over suburban riders

Network Expansion projects, which are not included in the Core Capital Plan, such as the Second Avenue Subway and East Side Access, are commonly viewed as benefiting the entire region. Therefore, geographic funding equity issues have not yet figured prominently in the public discussion regarding these projects.

Nevertheless, it should be noted that from 2006 to 2013, the MTA is projected to spend \$6.3 billion on a commuter railroad project, LIRR East Side Access (completion in 2013), versus \$3.8 billion on Phase I of the New York City Transit Second Avenue Subway (completion also in 2013). Ultimately, all four phases of the Second Avenue Subway are projected to cost \$16.8 billion, but by the time Phases II and III are underway there may be another multi-billion dollar commuter rail project, a Metro-North component in the Tappan Zee Bridge replacement project. Meanwhile, the City of New York is entirely funding the extension of the No. 7 subway line, now budgeted at \$2.1 billion. It is therefore critically important for New York City to receive a fair allocation of network expansion dollars that reflect the City’s urgent mass transit needs and the City’s crucial role in the regional economy.

MTA Bus Company, the newest MTA subsidiary, is an anomaly. It was created to take over operation of the five Queens private bus operators and two Bronx express bus operators when the City of New York determined that subsidizing the private operators was less efficient than paying the MTA to provide this service. With the MTA responsible for providing bus and subway service in NYC, having a separate agency providing bus service funded by New York City has raised a number of issues that could be reviewed in a separate study such as whether suburban bus systems also should be funded through the MTA program.

D. Why the MTA Capital Funds Allocation Is Unfair to NYC Transit Riders

The MTA’s capital spending allocation among operating agencies has not been proportionate to each agency’s share of the MTA region’s mass transit ridership. Nor has it reflected the mass transit dependence of the population in their respective service areas. Even more significantly, MTA’s capital spending allocation has not adequately taken into account the much greater costs inherent in achieving a State of Good Repair for the subway system, which is mostly underground or on elevated track, compared to the commuter rail system, most of which is at grade.

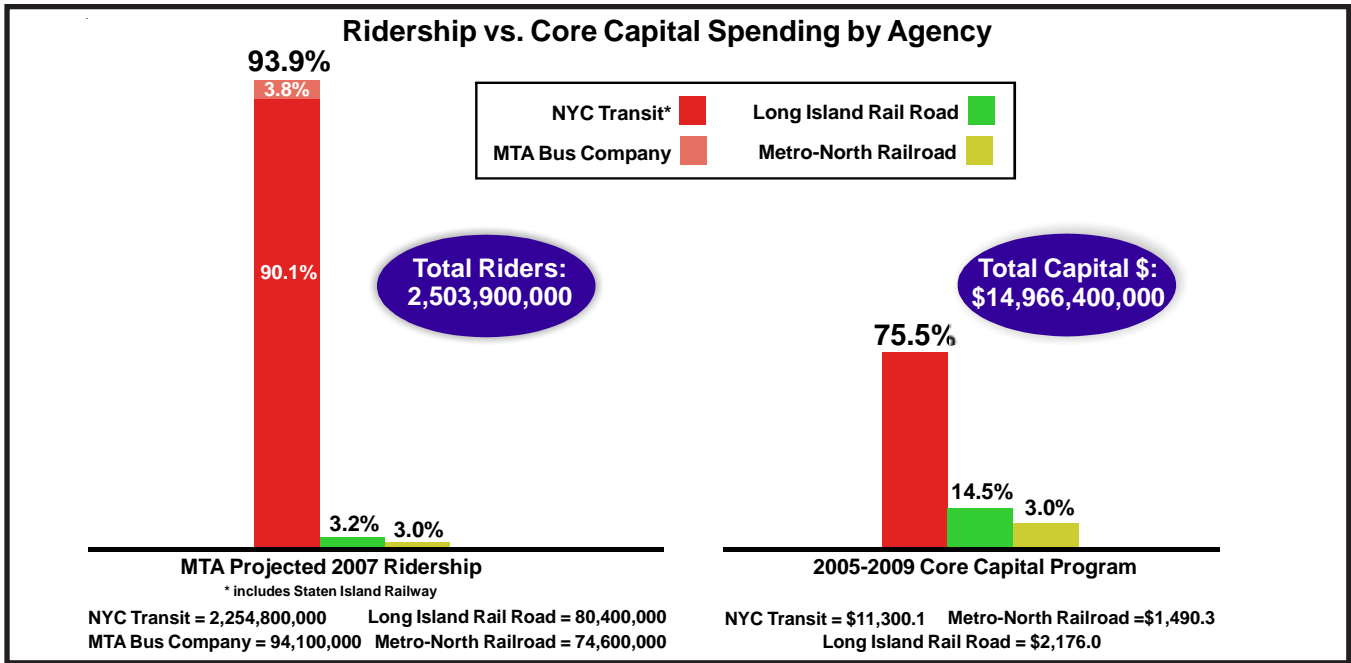
Ridership

As Table 7 shows, in 2007, NYC Transit and the Staten Island Railway are projected to carry 90 percent of MTA customers, substantially exceeding their 75.5 percent share of 2005-2009 Core Capital Plan spending. If the MTA Bus Company is included in the NYC Transit’s market share of the overall MTA, total trips rise to 93.8 percent. MTA Bus alone carries more passengers than either Metro-North or the Long Island Rail Road.

Table 7. Projected 2007 ridership by MTA agency

Agency	Number of riders	Percent
NYC Transit	2,251,100,000	89.9%
MTA Bus Company	94,100,000	3.8%
Staten Island Railway	<u>3,700,000</u>	<u>0.1%</u>
NYC sub-total	2,348,900,000	93.8%
LIRR	80,400,000	3.2%
Metro-North RR	<u>74,600,000</u>	<u>3.0%</u>
TOTAL	2,503,900,000	100.0%

The bar graph below highlights the disparity between NYC Transit’s commanding share of the MTA’s annual ridership versus its significantly lower share of the 2005-2009 Core Capital Program.



Mass transit dependence

New York City has the lowest automobile ownership rate in the nation. Nearly 56 percent of City households owned no automobiles in 2000, and motor vehicle registrations have fallen slightly since then. The automobile ownership rate is higher in the surrounding suburban counties and even higher in the less densely populated areas of eastern Suffolk, Putnam, Orange and Dutchess counties. In 2000, only 7.3 percent of Nassau County households and 14.5 percent of Westchester County households did not possess a vehicle. Clearly, New York City residents are more dependent than suburbanites on a well-functioning mass transit system.

Higher costs associated with the City’s system

A key reason NYC Transit must receive a larger share of MTA Core Capital Program funding is that most of the subway system is underground or on elevated structures while most of the commuter railroad infrastructure is at grade and outdoors (although the LIRR has significant track mileage on elevated structures). Only ten percent of the New York City subway system is at grade; 60 percent is underground and 30 percent on elevated structures. It is much more expensive to maintain and upgrade these tracks, signals, stations and power systems. Subway tunnels also require costly fans, lighting and pumps. Furthermore, all subway cars are electrically propelled while significant portions of the Long Island Rail Road and, to a somewhat lesser extent, Metro-North use diesel locomotive power. Non-electrified track is significantly easier and less expensive to maintain than electrified track. Similarly, diesel-hauled coaches with no propulsion equipment are easier and less expensive to maintain than subway cars, all of which have electric propulsion equipment or shared electric propulsion components.

Suburban residents also benefit from bus and subway improvements

A greater investment in NYC Transit’s State of Good Repair needs would also benefit a substantial number of suburban residents whose daily commutes include both a commuter railroad and bus or subway trip as

well as suburban commuters who drive or take a suburban bus to connect to NYC Transit services. Metro-North reports that approximately 30 percent of its customers regularly use a NYC Transit bus or subway as part of their daily commute and the Long Island Rail Road estimates that 65 percent of its ridership uses NYC Transit. These customers would benefit from accelerated NYC Transit SGR investment. There are, of course, a much smaller number of City residents who commute to work via the Long Island Rail Road and Metro-North who have benefited from capital investments by the two commuter railroads.

E. Recommendations

The need to provide MTA New York City Transit with a greater percentage of MTA Core Capital Program spending is compelling. NYC Transit has fallen far behind its sister operating agencies in bringing its network into a State of Good Repair, yet it serves the most transit-dependent population. It has proportionately far more tunnels, elevated track, pumps and tunnel fans than the commuter railroads. Together with MTA Bus and the Staten Island Railway, it carries 93.8 percent of the MTA region's mass transit trips. However, it continues to account for only three-fourths of MTA Core Capital Program spending.

To help ensure that New York City continues to be an economic growth engine for New York State and to help New York City compete with other global cities such as London, Shanghai and Tokyo, its entire transit system must be brought into good physical condition sooner rather than later. Clearly, the system is far more reliable than in the 1980s. Yet much more remains to be done so that New York City residents can be confident that their trips will be timely and safe. Suburban residents similarly need to be confident that the subway or bus portion of their trip will be as dependable as the commuter rail portion. Also, visitors need to know they can travel around New York City without a car safely and quickly.

To achieve these goals:

- **In the next MTA Five-Year Core Capital Plan (2010-2014), NYC Transit should receive an additional \$673 million for Core Capital projects. Based on the 2005-2009 Core Capital Plan, the \$673 million would lift NYC Transit to an 80 percent share of the MTA's current \$14.9 billion Core Capital Plan from the existing, inadequate 75.5 percent share.** NYC Transit must be provided a larger share of Core Capital spending, particularly because ridership is growing steadily and millions of New York City residents depend on mass transit as their sole means of transportation. Many elements of the system are still in unacceptable condition and the subway system—which is mostly underground—is much more expensive than commuter railroads to restore and repair.
- **Additional funds should be applied especially to accelerating critical NYC Transit State of Good Repair projects such as signal upgrades, fan plant modernizations and other “hidden infrastructure”—expenditures that improve reliability and safety for an increasingly utilized system.**
- **The MTA should seek U.S. Department of Homeland Security (Transit Grant Security Program) funding for certain key security-related SGR projects.** According to the DHS *Fiscal Year 2006 Transit Security Grant Program Guidelines*, “[S]pecific attention must be paid to the prevention, detection and response to incidents involving IEDs [improvised explosive devices].” SGR projects that might be eligible for DHS funding that would help prevent, detect and respond to IEDs include replacement of the subway system's tunnel lighting, fans, outmoded communications systems and emergency exits.
- **MTA operating agencies must provide full explanations for delays in bringing elements of the system into a State of Good Repair.** The MTA Capital Program Oversight Committee should regularly review SGR delays and release a periodic public report explaining the reasons for SGR delays by investment category and operating agency. In addition, there should be more public discussion by the MTA Board of Directors of capital resource allocation among SGR, Normal Replacement, and System Improvement spending and the consequences of those allocations for service.

- **NYC Transit should work more closely with affected communities, City agencies and utility companies to better manage an intensified level of construction activity resulting from increasing NYC Transit's share of MTA core capital funding.** Current construction activity already places a heavy strain on the system, causing service disruptions and passenger inconvenience. State of Good Repair work occurs primarily during the night and on weekends and results in subway service diversions and occasional bus shuttles in lieu of subway service.

While additional capital spending could necessitate more subway service disruptions, as a result of construction activity, the impact of this work could be reduced by using additional partial and full station closures; this would speed the completion of construction work and make it more efficient. The impact of these closures on the riding public could be mitigated with improved communication of service disruptions, expanded use of commuter rail lines to carry subway customers when major subway diversions are under way, and double shifts to speed project completion. Communication improvements could include better and more frequent announcements, more signage, e-mail and Internet notices of alternative transportation options, project specific brochures, direct mail pieces and clear, up-to-date website information.

Only by accelerating the completion of NYC Transit's backlog of SGR projects and maintaining adequate normal replacement cycle spending can the system be expected to reliably, efficiently and safely serve New Yorkers. It is critical that the State legislature and the MTA fully and fairly fund the necessary upgrades to the City's transportation network.

Endnotes

¹ MTA Capital Program 1992-1996.

² Track by the end of 1985.

³ There are some inconsistencies between Metro-North's 20-Year Needs Statement and its 2005-2009 Capital Plan with respect to SGR expenditures. These may be due in part to time differences between contract award and project completion. Metro-North Railroad also categorizes some spending as SGR such as rolling stock component remanufacture that might be considered Normal Replacement.

⁴ SGR year for SI Railway is from New York City Transit 20-Year Needs Statement rather than the 2005-2009 Capital Plan.

⁵ New York City Transit 2006-2024 20-Year Needs Assessment; March 25, 2004.

⁶ Includes \$30 million of commuter rail unassigned category allocated equally between LIRR and Metro-North.

⁷ Metro-North used \$108 million in 2005-2009 capital funds to accelerate the purchase of rolling stock. When this advance is credited back to Metro-North the true capital funding allocation is shown.

⁸ New York City Transit 2005-2024 20-Year Needs Assessment; March 25, 2004.