

*While we may not always agree with Mr. Littlefield, we recommend his impressive and comprehensive analysis that follows.*

[http://www.r8ny.com/blog/larry\\_littlefield/the\\_2008\\_13\\_mta\\_capital\\_plan\\_the\\_costs\\_are\\_out\\_of\\_control.html](http://www.r8ny.com/blog/larry_littlefield/the_2008_13_mta_capital_plan_the_costs_are_out_of_control.html)



## **The 2008-13 MTA Capital Plan: The Costs Are Out of Control**

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The situation our transportation system finds itself in, as evidenced by the proposed 2008 to 2013 MTA Capital Plan, is in part an outgrowth of the broader generational war that has also affected federal, state and local debts of all types, labor deals featuring richer pension benefits for those cashing in and moving out and lower pay and benefits for new employees, and a general decline in infrastructure investment. But it is also the result of the capture of our government in Albany by producers of public services, in the public, private and non-profit sectors, at the expense of consumers of public services and taxpayers. If you want to be robbed by public employee unions, you are a Democrat; if you want to be robbed by contractors, you are a Republican; if you want to be robbed by the non-profiteers, you can be either. But if you don't want to be robbed at all, you are out of luck. Given what contractors have been charging the MTA for capital projects, it is no surprise that money has been borrowed, because there is no way New Yorkers could have collectively afforded to spend so much in the past. Given that, how can we afford to spend that much and more, plus the interest on past debts, in the future?

How much are we spending? Let's return to the NYCT portion of the proposed 2008 to 2013 MTA Capital Plan, after looking at the big picture. According to the U.S. Department of Commerce, Bureau of Economic Analysis, the personal income of everyone living in New York City was \$343 billion in 2005, and assuming that figure increased at the same rate from 2005 to 2008 as it did from 2002 to 2005, it may be guesstimated at about \$400 billion in 2008. Ultimately, the income all of us earn, minus the money sucked out of our future by the past, is the limit on what can be spent, both by us as individuals and families and by state and local governments on our behalf (or at least someone's behalf).

In fiscal 2005, with neither New York City nor New York State contributing much of anything to the MTA Capital Plan, New York City's total state and local tax burden was 15.7% of personal income, far higher than the national average of 10.7% of income, according to my tabulation of public finance data from the U.S. Census Bureau. That is an enormous difference. Given about \$400 billion in personal income, an increase in spending funded by tax dollars of \$4 billion per year would mean that an additional 1.0% of our personal income would go to taxes, spreading that difference further. The \$20 billion Tier 1 "core" plan spends, over six years, \$2.4 billion per year on New York City Transit while engaging in large scale deferred maintenance, as I showed in my last post. That is a good way to \$4 billion per year, if we were to actually pay for it rather than borrow and expect someone else to pay for it.

How can we afford to keep up the transit system, if that is what it costs? Remember, operating subsidies are on top of that, as are the massive burdens shifted to us from the past. According to the latest four-year MTA budget plan, the cost of debt service, which was negligible 20 years ago, will soar from \$1.4 billion in 2009 to \$2.0 billion in 2011. In 2009 the MTA will pay \$1.1 billion for health and welfare benefits for those working – and \$1.4 billion for the health and welfare benefits of those retired. That is in addition to the \$870 million in pension contributions, compared with \$4.2 billion in wages. When the Governor signs a 20/50 pension bill, something that is to be expected in light of his decision to allow NYC teachers to retire at 55 instead of 62 in exchange for lower take home pay for new teachers and budget cuts in the city's schools, and the stock market goes down forcing more pension contributions to make up for investment losses, expect the money going to pensions to soar – and service in the transit system to be slashed.

Now it isn't all dire. U.S. residents had \$10.2 trillion in personal income in 2005 according to the BEA, and spent \$875 billion on motor vehicles and parts retailers, 8.6% of their personal income, and another 2.6% of their personal income at gas stations. So to the extent that the transit system allows NYC residents to own and operate fewer motor vehicles, those savings allow them to pay more taxes for transit. With taxes so high as it is, however, clearly the cost of the capital plan is a problem. So what kind of value are we getting?

Terrible.

Let's take an easy comparison. The average automobile operated in the United States, including those wrecked in accidents, lasts 13 years before being scrapped. The capital plan says the average bus needs to be replaced after a similar 12 years. A five-passenger Honda Accord hybrid can be had for \$30,000, or \$5,000 per passenger capacity, a quick check of the web tells me. The Accord probably lasts longer than 13 years on average if it doesn't get wrecked, but for this purpose let's assume its life is comparable to a bus.

The proposed MTA Capital Plan would spend \$1.044 billion for 1,544 standard buses, or about \$676,166 per bus. According to the most recent National Transit Database, the most recent NYCT standard bus purchase was 199 Orion VIIIs in 2005, and their passenger capacity was 38 seated and 32 crush-loaded standing, for a total of 80. Assuming the standard buses to be bought would have the same passenger capacity, that works out to \$9,660 per passenger capacity, or nearly double the cost of 16 Honda Accords. And in the 16 Accords, all 80 people would get a seat.

Don't you think it would be cheaper to build one big vehicle than 16 small ones? Might the rising cost of materials have an effect? Well, a Honda Accord weighs in at 3,616 lbs according to Edmunds.com, which means the 16 Accords needed to carry 80 passengers would weigh 57,856 pounds. The Orion VII weighs in at 40,600 lbs according to the bus company, and therefore may be presumed to contain fewer materials.

Now one could argue that NYCT buses travel more miles per year than private passenger vehicles, and in more difficult stop-and-go conditions. Perhaps taxis or police cars would be a better comparison. But one could also argue that buses have huge maintenance funds poured into them compared with passenger cars, with many parts and components replaced over that 12-year life. One could pay big bucks to hire a consultant to add dozens of variables and factors, but in the end I believe the answer would be the same as my quick and dirty. The MTA is paying twice as much for road vehicles as individuals do with their own money, and we are getting hosed.

Given the 4,547 buses in the fleet, a 12r-year life, and the average cost in the proposed capital program, it would cost \$325 million per year, every year, to replace the buses as they wear out. More if you borrow and have to pay it back with interest.

How about the subway cars? The R160s are costing \$2 million each according to an old contract, but the next contract will cost \$3 million per year according to the proposed capital plan. According to the Second Avenue Subway SDEIS the guideline capacity for a 60-foot long B division car is 145, with 50 seated. That's over \$20,000 per passenger, compared with \$5,000 for the Accord, and that's with two-thirds of them having to stand. But subway cars last much longer – 40 years according to the plan, or three times as long as the typical automobile. Yet that is still \$517 per passenger capacity per year of life, compared with \$462 for the Accord. Who said there were economies of scale? For those worried about materials cost, the R160 weighs 85,200lb. The 29 Honda Accords required to transport the same 145 people, all in seats, would weight 104,864 lbs.

Given the 6,700 (adjusted) subway cars in the fleet, a 50-year life (let's get realistic here), and the average cost in the proposed capital program, it would cost \$400 million per year, every year, to replace the subway cars as they wear out. More of you have to pay it back with interest. Starting to get the picture?

NYCT's 468 stations cover 16 million square feet of floor area, according to the proposed plan, "greater than the commercial office space in many U.S. cities" the plan says on page 30. That works out to 30,400 square feet per station, according to the MTA. On page 21, the plan says "NYCT recognizes that there is a tremendous need for ongoing capital investment in passenger stations to address critical components on a more frequent cycle," but for now let's just consider the station rehabs every 35 years, something that would require 13.37 stations occupying 457,000 square feet to be comprehensively rehabbed every year, or 80 every six. The 2008 to 2013 plan proposed to rehab only 44, at a cost of \$30.4 billion each. At that cost, rehabbing stations at the 35-year rate, and not doing anything else, would cost about \$400 million per year.

The 44 stations to be rehabilitated are easy ones, in the outer boroughs and primarily on elevated structures rather than underground, and are almost certainly far smaller than average. So the real cost per year is more than \$400 million. But even if \$30.4 million were enough to rehab a station of average size, the cost proposed for those 44 stations would amount to – hold on to your shorts real estate people -- \$894 per square foot! Just to fix up an unheated, outdoor space with concrete floors!

From a *New York Sun* article on the bidding to purchase (not fix up, buy the whole thing) the prestigious GM office building: “on a square foot basis, \$3 billion for the 1.9 million-square-foot General Motors Building would come to roughly \$1,578 a square foot, just barely besting the \$1,566 a square foot that Somerset Partners paid when it acquired 450 Park Ave. from Taconic Investment Partners and New York State Common Retirement Fund last year.” That’s right, just to fix up an outdoor transit station costs more than half as much as the purchase of the most expensive office building, quite possibly, in the United States! Probably more than that!

The signal system is perhaps the worst of them all. I don’t have a private sector comparison, because there is nothing to compare it to, and that is part of the problem. And a whole bunch of signal installers merged into one big one, limiting competition for bids. At a 60-year life, which is the actual rate of replacement aside from the 1970s and this plan, New York City needs to replace the signals on 11 track miles, for 3 interlockings with 26 switches per year. That’s about on signal rehab project getting underway every year as these things go. As it happens, though other work would be done, including interlockings by themselves, there is only one signal project in the Tier 1 Core plan, the Dyre Avenue line which has a smaller than average 9.5 track miles, 2 interlockings, and 16 switches. Its cost is \$245 million. For more the ongoing replacement of signal systems with obsolete technology, the cost is upwards of \$300 million per year. CBTC could cost less someday, but has in reality been costing much, much more.

During the three years I worked in budget in the signal programs, I did this analysis, showed the folks there the personal income of city residents, and told them that if this is what the signal system cost, New York City could not afford it. Someway, somehow had be found to bring the cost down. Not by a few dollars by cutting scope (having a less good system) or reducing project contingency (pretending you need less money and over-running later) or fighting with other parts of NYCT over parts of the budget, which turned out to be the job I was hired to do there. I’m talking about cutting the cost of signal projects in half.

Sound impossible? Consider that the Astoria Line, larger than the Dyre Avenue Line with 3 interlockings, 26 switches and 11.6 track miles had it signals modernized in a project that started in 1988 for \$49.8 million, which adjusted for inflation is \$88.9 million. Compared with the \$245 million for the smaller Dyre Avenue line project, that is an increase in cost of 2.75 times, *after adjustment for inflation*, over 20 years. What the hell happened? Again I worked there and can’t say for sure. There were lots of attempts to bring bids down while I was there, splitting projects, seeing about bringing work in house, etc. I guess nothing worked, or nothing worked much. And yes there is a construction boom, but there was one in the late 1980s too, and it was an office boom, something that competes more directly with transit work than housing. There was, moreover, a shift of certain costs that had been operating to the capital program in the early 1990s, I believe. After all capital money is borrowed, so no one misses it, so it is "less green."

So we are up to a need to spend nearly \$1.5 billion every year, and there are still plenty of subway systems not accounted for, not to mention bus depots. Just to maintain the existing NYC transit system. Suburban buses, upstate buses, and commuter rail, not to mention the bridges on roads, are on top of that. And our future has been diminished for two reasons -- because the MTA was made to borrow rather than spending money it received as it went, and because the costs are far too high.

One explanation for the high cost of transit projects is the need to work in an operating system. You pay a bunch of high-paid electricians from Local 3 overtime and a night differential to work on a signal system in the overnight hours. You pay them 8 hours. But with setup and getting out of the way before rush hour, they can only work four. And the next night you do it again.

So wouldn't a new line, like the Second Avenue Subway, be cheaper? The MTA proposes to spend \$4.3 billion for what really can't be called the Second Avenue Subway, but rather a two-track, three-station extension of the BMT Broadway Line. There is no need to operate service on this line while working, although there is expensive, underground construction. There isn't much to compare it to. But think of this. At an average of \$50 per hour in wages and benefits (some earning more and some less), which is somewhat more than I get by the way, \$4.3 billion could buy 86 million hours of work. Including those working on site, and those who worked to make the materials and equipment used in the project, and those who saved some of their hours of work income to invest in the bonds used to finance it, the cost of the project is the equivalent of almost 8,300 people working full time for five years. Figure half of them would be on site. Does anyone see 4,000 people working up on Second Avenue? And do construction workers, engineers and contractors earn more than I do on average? Then they certainly should be more productive, given advances like tunnel boring machines, so there should be fewer of them.

The costs are out of control. The costs, the debts, and the pensions are destroying our transit future, and no one is even thinking in the way I have in this post.