Congestion Pricing in the Manhattan Central Business District

Let's Look Hard Before We Leap

Keep NYC Congestion Tax Free
May 2007

Executive Summary

Auto travel and truck transport are essential to a vibrant economy.

- Auto travel is critical to New York City's economy. About 31 percent of the 3.6 million people who come into the Manhattan central business district every day – and about 55 percent of all domestic business and leisure visitors to the city – travel by car.
- The importance of auto and truck transportation to New York's economy means that it is vital to keep traffic moving as efficiently as possible. Concern about traffic congestion has recently led Mayor Bloomberg to propose that the City establish a "congestion pricing" system – similar to one now operating in London – in Manhattan below 86th Street.
- The City's goal should not be simply to reduce the total volume of traffic in the Manhattan CBD. Rather, it needs to make all of its transportation systems work together more efficiently, so that it can simultaneously reduce congestion and accommodate the increased demand for travel that a growing economy and a growing population will inevitably produce.

Despite continued growth in the City population and its economy, the number of vehicles being driven into the Manhattan CBD each day has actually declined.

- Between 1998 and 2004 (the last year for which data are available), the number of automobiles and trucks driven into the Manhattan CBD each day declined by 3.4 percent, while the number of people using mass transit to travel to the CBD rose by 10 percent.
- During the last decade, mass transit ridership has increased City-wide by 36 percent, far outpacing the growth of population and jobs during that period.
- The New York Metropolitan Transportation Council forecasts that even with continued population and job growth through 2030, congestion will be less severe than it was in 2005.
- Since the number of cars entering the Manhattan's CBD is not rising, we need to look elsewhere for the major causes of congestion – double-parked vehicles, blocking the box, poor construction site management, etc. – and for practical ways to reduce it.

The debate over congestion pricing risks diverting attention away from the very real need to invest more in our mass transit system.

- In part because ridership has grown by 36 percent during the last ten years, many of the City's bus and subway lines are overcrowded.
- At the same time, many residents and businesses located in the outer boroughs are underserved and lack convenient mass transit options.

- Congestion pricing would lead 90,000 people to switch to an already overburdened mass transit system. Many will have to travel substantial distances to get to an overcrowded subway.
- The money which would be spent building a flawed congestion pricing system would be better spent directly on mass transit improvements.

London's congestion pricing system should not be seen as a success.

- Advocates for congestion pricing point to the "success" of London's system. But London's congestion charging system has been successful only in the sense that it has reduced the number of cars traveling into central London each day. By many measures, London's system is a major failure.
    - It is expensive and highly inefficient. The initial set-up of the system cost £190 million (about $376 million); and even with a daily charge of £8 (about $15.81), annual operating and administrative costs in 2005-06 ate up 42 percent of total revenues.
    - Businesses within the charging zone have been hurt.
    - Even with reduced traffic volumes, congestion in central London is once again getting worse.
    - In the wake of Mayor Livingstone's decision, despite strong local opposition, to go ahead with expansion of the congestion charging system, residents and leading London business groups have become increasingly vocal in their criticism of the system.
    - Based in part on dissatisfaction with congestion pricing in London, 1.8 million people have petitioned Prime Minister Tony Blair urging that the government not adopt a proposed road pricing program.

The costs associated with the proposed congestion pricing system would far outweigh the benefits.

- ***In New York City, the costs associated with the proposed congestion pricing system would far outweigh the gains from reduced congestion.*** The congestion pricing scheme proposed for Manhattan would reduce the costs that excess congestion now imposes on the City's economy by approximately $140 million annually. The costs incurred to achieve this rather modest economic benefit would be substantial. They can be measured in the following ways:
    - Initial set-up costs that – given the more complex system that has been proposed for New York City, and the fact that it would have to handle many more vehicles and payment transactions per day than London's – could significantly exceed the $376 million set-up cost of London's system. (The City intends to seek federal funding to offset some of these up-front costs – but that funding is by no means guaranteed.)
    - The direct cost of $620 million in congestion charges paid by people who live, work, do business in or visit New York City.
    - Approximately $100 million annually in "compliance costs," the value of time motorists and businesses will

have to spend paying congestion charges (or appealing fines for late payment, etc.)

- A reduction in overall economic activity in the City of as much as $690 million, and a loss of as many as 8,700 jobs.
- The cost of longer commuting times experienced by people who switch from autos to transit ($77 million or more).
- The cost of increased congestion in certain areas where the volume of traffic is likely to increase – such as the Cross-Bronx Expressway – as a result of diversion of traffic away from the CBD.

Congestion pricing is an inefficient way to raise new revenues for mass transit.

- As a means of generating new revenues for mass transit, congestion pricing is extraordinarily inefficient.
    - In London, operating and administrative costs eat up 42 percent of all revenues generated by the City's congestion charging scheme.
    - In New York City, the Office of Long-Term Planning and Sustainability estimates that the proposed system's annual operating costs would total $240 million annually – 39 percent of estimated gross revenues. People who live, work, do business in and visit New York would be paying $620 million each year to generate $380 million for regional transit improvements.

Congestion pricing fees could rise quickly, as they did in London.

- The system's high operating costs, could quickly lead – as they did in London – to a sharp increase in charges.
- In London the fee started at $9.89 (£5) in 2003, and rose to $15.81 (£8) in 2005. In 2007, the size of the zone in which the congestion charge applies was doubled, and now the Mayor of London seeks to raise the charge to $49.43 (£25) on certain vehicles.

Congestion pricing is an unfair flat tax on small businesses and working people.

- London-style congestion pricing also raises serious issues of fairness. Commuting to the CBD by car is not necessarily a sign of affluence. In 2000, the average income of Brooklyn, Queens, Bronx and Staten Island residents who commuted to Manhattan by car was $43,300. For many of these New Yorkers, mass transit commuting options are limited.

Claims that congestion pricing will significantly reduce greenhouse gas emissions are misleading.

- According to data published by the City, the total volume of greenhouse gases generated in New York City by on-road vehicles declined by 5.6 percent between 1995 and 2005, while those generated by all other sources rose by

12.8 percent.

- Congestion pricing would reduce City-wide traffic by only 2 percent. Vehicular emissions, moreover, are only one source of greenhouse gases. PLANYC2030 acknowledges that 79 percent of all such emissions come from buildings, and only 20 percent from on-road vehicles. Even if the system is as effective as its proponents claim, it will reduce emissions by only 0.4 percent.
- The claim that the proposal will make a significant impact on the reduction of greenhouse gas emissions - or that it will significantly reduce the severity of asthma in the City's poorer neighborhoods thus appears to be somewhat disingenuous.
- Congestion pricing could lead to a decline in air quality in those parts of the City where congestion would increase as a result of diversion of traffic away from the CBD – for example, along the Cross-Bronx Expressway or the Staten Island Expressway.
- In the long run, it would make far more sense to focus on speeding the transition to cars and trucks that produce fewer emissions. The City might consider what types of incentives it might provide to encourage that transition.

There are fairer and more effective ways to mitigate congestion.

- There are more effective, more efficient and fairer ways to reduce congestion in the Manhattan central business district – without hurting the City's economy. They include, for example:
    - More active enforcement of existing traffic and parking rules;
    - More intensive use of information technology to manage traffic – as in Lower Manhattan; and
    - Improving mass transit options – for example, through the use of bus rapid transit and ferries, and through carefully-planned expansion of the subway system.

Congestion pricing fails the test of equity, efficiency and economic sense.

- Any initiative that aims to reduce traffic congestion or to provide additional funding for mass transit has to be judged in terms of efficiency, equity and the need to minimize any adverse effects on the City's economy. By all three tests, the proposed congestion pricing system fails.

Contents

Congestion Pricing in the Manhattan CBD: Let's Look Hard Before We Leap

Introduction

Traffic congestion, like bad weather, is one of those things that everybody complains about, but that nobody seems able to fix. And indeed, in large cities like New York, some degree of congestion is inevitable – an unavoidable by-product of urban density. Having large numbers of people and a large volume of activity packed into a relatively small space is inherent in the nature of New York City, and essential to the health of its economy.

But traffic congestion is not purely a product of density. It can also be a result of more mundane (and often controllable) factors such as poor road design, inadequate maintenance, lax enforcement of existing traffic laws and parking rules, bad timing of traffic signals, and construction activity. Excess congestion imposes real costs on all those who use the streets – and indirectly, on all those who live, work or do business in the City.

In 2003, London instituted a new system of "congestion charging," aimed at relieving traffic congestion in the city's commercial core. The congestion charging scheme initially imposed a daily charge of £5 (about $9.89 at recent exchange rates[1]) on all private vehicles traveling in central London between 7 AM and 6:30 PM. (In 2005 the charge was increased to £8 – about $15.81 at recent exchange rates.) The reduction in weekday traffic volumes in the central London charging zone that followed implementation of this initiative has led to suggestions that New York City should institute its own system of congestion pricing for all vehicles traveling in the Manhattan Central Business District.

Responding to concerns about congestion – and to provide a new source of revenues to support an ambitious program of transit improvements – Mayor Michael Bloomberg proposed that New York City adopt a new system of congestion pricing in Manhattan below 86th Street.

But before New Yorkers leap to the conclusion that London-style congestion pricing is the solution to the City's traffic

1 Throughout this report, we use the prevailing exchange rate (as of March 2007) of $1.977 USD per £1 GBP.

problems, we need to take a hard look at the facts. We need to examine carefully:

- Current patterns and recent trends in auto travel in New York City and the surrounding region;
- Current levels of congestion and the costs associated with them;
- The impact that the establishment of a congestion pricing system might have on traffic;
- The costs such a system would impose, and who would be forced to bear them; and
- What alternative means for reducing congestion might be available to the City.

Keep NYC Congestion Tax Free is a coalition of New York City business, labor and civic organizations that believes – based on all of the evidence currently available – that the costs London-style congestion pricing would impose on New York City's economy would far outweigh the benefits that such a system might produce. The members of the coalition agree that traffic congestion is a problem, and that the City needs to develop a more comprehensive approach to alleviating the problem. But we are confident that when New Yorkers have a chance to consider all the facts, they will conclude, as we have, that London-style congestion pricing would be a cure worse than the disease.

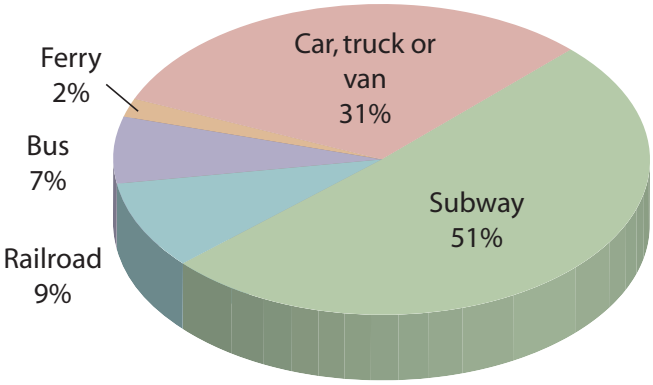
We are confident that when New Yorkers have a chance to consider all the facts, they will conclude, as we have, that London-style congestion pricing would be a cure worse than the disease.

This report lays out some of the reasons why we believe congestion pricing – as now operating in London and as proposed by the Mayor – is not the right remedy for traffic congestion in New York City. Part One of the report provides some background information on auto traffic in the New York metropolitan area, and the Manhattan central business district, and on the nature, extent and cost of traffic congestion. Part Two describes London's congestion charging system, and its impact on traffic, congestion and the city's economy. Part Three discusses the Mayor's proposal for implementation of congestion pricing in the Manhattan central business district – what the benefits of such a system might be – and the costs it might impose on residents of and businesses in New York City. Finally, Part Four of the report highlights several alternative approaches to reducing congestion that New York City should consider.

Part One: Traffic and Congestion in New York City

If the Manhattan central business district is the heart of the New York metropolitan area economy, the constant movement of people, goods and information into, out of, within and through the CBD is its lifeblood. More than any other U.S. region, the New York metropolitan area relies on various forms of mass transit to make this movement possible. Of the 3.65 million people who traveled into the CBD on a typical weekday in 2004, more than two-thirds traveled by subway, bus, commuter rail or ferry.

Figure 1: Mode of weekday entry into Manhattan, 2004



The unique role of mass transit in the daily life of the Manhattan CBD, however, makes it easy to miss the vital importance of auto and truck traffic.

- Every weekday, more than 800,000 cars, trucks and vans carrying more than 1.1 million people drive into the Manhattan central business district – the area south of 60th Street, from the Hudson to the East River. Joining this stream are thousands of other vehicles engaged in trips that begin and end within the Manhattan CBD.
- In 2004, 31 percent of all those who entered the Manhattan CBD on a typical weekday traveled by car, truck or van. That is fewer than the number who arrived

Figure 2: Commuters who travel by car to the Manhattan CBD, by industry, 2000

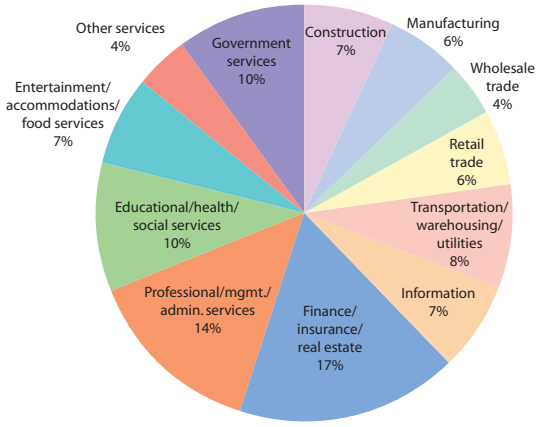


Table 1: Costs of congestion delays per county, NYMTC Congestion Management Status Report 2005

County	Daily vehicle hours of delay	Proportion	Daily cost of congestion	Annual cost of congestion
Nassau	288,801	24.6%	$ 6,642,423	$ 1,667,248,173
Queens	227,575	19.4%	$ 5,234,225	$ 1,313,790,475
Suffolk	192,524	16.4%	$ 4,428,052	$ 1,111,441,052
Kings	151,918	13.0%	$ 3,494,114	$ 877,022,614
New York	143,885	12.3%	$ 3,309,355	$ 830,648,105
Westchester	63,322	5.4%	$ 1,456,406	$ 365,557,906
Bronx	46,491	4.0%	$ 1,069,293	$ 268,392,543
Richmond	35,553	3.0%	$ 817,719	$205,247,469
Rockland	18,968	1.6%	$ 436,264	$ 109,502,264
Putnam	2,994	0.3%	$ 68,862	$ 17,284,362
TOTAL	**1,172,031**	**100%**	**$ 26,956,713**	**$ 6,766,134,963**

by subway (52 percent) – but more than all those who came by bus, commuter rail, and ferry *combined*.

- In 2005, 14 percent of all those who worked in Manhattan commuted to work by car. As Figure 2 shows, people who commute by car are employed in virtually all of the central business district's major sectors – financial and professional services, construction and utilities, health care and government.
- In 2003, according to NYC & Company, 55 percent of all domestic visitors – both business and leisure travelers – came to New York by car. Business and leisure visitors who came by car spent approximately $6.7 billion in the City in 2003.

The vital role of auto and truck transportation in New York's economy make it particularly important to ensure the steady and efficient movement of traffic, both in the Manhattan central business district and elsewhere in the City. Doing so means wrestling continually with the problem of congestion.

Manhattan as a whole accounts for only 12.3 percent of the total time lost to congestion in the ten-county NYMTC region – and only 7.9 percent of the total time lost to congestion in the 23-county New York-New Jersey region.

Excess traffic congestion is a problem for New York City – one that imposes real costs on the City's economy. This cost is manifested in several ways:

- The time that commuters lose in their daily travels to and from work;
- Lost productivity during work hours – sales people who aren't able to call on as many customers, drivers who aren't able to make as many deliveries, meetings that get started late, etc;
- A higher cost of doing business in the City – as suppliers, for example, figure the higher cost of making deliveries into the prices that they charge to New York City customers;
- Revenues lost – by retailers, restaurants, theaters and other businesses – as a result of potential customers deciding that they simply don't want to "buck the traffic."

The urban condition

It is important, however, not to overstate either the nature or the magnitude of New York City's congestion problems. High levels of congestion are in reality unavoidable in Midtown and Lower Manhattan. Congestion is fundamentally a by-product of the central business district's density – density of population, development, employment, commercial activity and social and cultural interaction.

Congestion, moreover, is not a phenomenon peculiar to auto traffic. New York's subways, buses, sidewalks and airports are congested too. Congestion happens because millions of people perceive some economic advantage or personal gain in being here. It is an inseparable part of what makes New York work.

Not all traffic congestion, however, is an inevitable condition of density. Other factors as well contribute to the phenomenon. These can include factors as diverse as poorly-designed roads and interchanges, lax enforcement of existing traffic and parking regulations, poorly-timed traffic signals and inefficient pricing on toll roads and bridges, parking facilities, etc. It is this "excess" congestion that imposes unnecessary costs on the City's economy – and should be the principal focus of any effort to address the problem.

Measuring the cost of congestion

There have been several attempts to quantify the cost of congestion in the New York metropolitan area. The New

York Metropolitan Transportation Council has published data on the number of hours lost to traffic congestion in ten downstate New York counties (the five boroughs of New York City, Nassau and Suffolk counties on Long Island, and three suburban counties – Westchester, Putnam and Rockland – north of the City). For 2005, as Table 1 shows, NYMTC's estimate of the value of time lost to congestion-related traffic delays in Manhattan – including both the CBD and the area north of 60th Street – was nearly $831 million. Manhattan thus accounted for about 12.3 percent of the cost of congestion-related delays in the ten-county region. The cost of congestion-related delays was actually greater in Nassau, Suffolk, Queens and Brooklyn than in Manhattan.

Other data provide further evidence that congestion is not just a CBD problem. In 2005, average driving speeds during the AM peak period was actually slower on local streets in Queens than on local streets in Manhattan – an average of 7.8 miles per hour in Queens, vs. 8.5 in Manhattan.

Although NYMTC's numbers are useful as a basic measure of congestion-related delays, they suffer from several limitations. They represent an estimate of the total time lost to congestion-related delays in traffic, without taking into account the reality that some degree of congestion in inevitable in an urban environment. And they implicitly assume that time spent in traffic has no value – an assumption that may not be valid in an era of nearly-ubiquitous mobile communications. For these reasons, NYMTC's estimates probably overstate the real economic cost of time lost in traffic due to congestion.

Between 1998 and 2004, the number of vehicles entering the Manhattan CBD declined by 3.4 percent, while the number traveling to the CBD by mass transit rose by 10 percent.

On the other side of the ledger, NYMTC's numbers deal only with the value of time lost due to congestion-related delays. They do not fully account for the additional vehicle operating costs that are incurred as a result of excess congestion or the revenue losses that some businesses incur due to congestion. From this perspective, NYMTC's estimates do not account for the full cost of congestion.

In a report prepared for the Partnership for New York City in 2006, HDR (an Omaha-based engineering and consulting firm) sought to assess from several different perspectives the cost of congestion in a more broadly-defined region that includes not only the ten NYMTC counties but also thirteen counties in northern and central New Jersey.[2] The HDR report recognizes (as NYMTC's analysis does not) that only "excess" congestion represents a real cost to the region's economy; and it estimates that about 48 percent of all time lost due to congestion-related traffic delays should be counted as a cost of excess congestion. For the 23-county region, HDR estimates the annual value of time lost due to excess congestion at $5 to $6.5 billion.

The HDR report cites several different ways to calculate the impact of excess congestion on vehicle operating costs, acknowledging that estimates can vary sharply depending on the method used. For a still-larger version of the region – including the 23 New York-New Jersey counties plus Fairfield and New Haven counties in Connecticut – HDR puts the increase in vehicle operating costs as a result of excess congestion at $200 million to $2 billion annually.

HDR also uses another approach to calculating the cost of excess congestion, seeking to estimate industry-by-industry its effects on the 23-county region. On this basis, HDR estimates the cost of congestion in the region at approximately $6.5 billion. It is important to recognize, however – as HDR does explicitly – that this analysis represents an alternative way to look at the cost of excess congestion. Adding together an estimate based on the aggregate value of lost time and an estimate based on industry-by-industry costs would mean double-counting what are to a large extent the same costs, expressed in different ways. In discussing the costs that congestion imposes on the region's economy, some advocates of London-style congestion pricing have made precisely this error.

However, even if we accept (at least for purposes of discussion) that the cost of excess congestion across the entire 23-county region is on the order of $5 to $6.5 billion annually, this estimate is of limited value in assessing the relative costs and benefits of measures aimed at reducing excess congestion *in the Manhattan CBD*. Based on NYMTC's and HDR's findings, along with our own analysis, we estimate that the cost of excess congestion in the Manhattan CBD is probably on the order of $1 billion annually; and in New York City as a whole, on the order of $2.5 billion.

Traffic congestion – a concern, but not a crisis

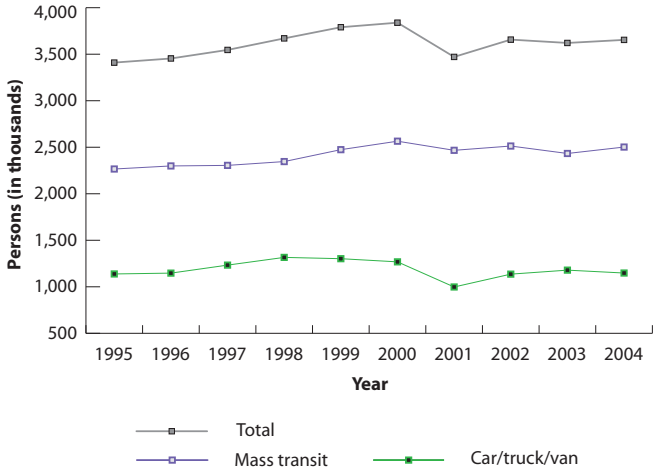
Proponents of congestion pricing warn that congestion in the Manhattan Central Business District is destined to get worse; but the evidence does not necessarily support that conclusion. The number of vehicles entering the CBD each weekday actually peaked in the late 1990's. In 2004 – the last

Table 2: Average speed in Manhattan, AM peak (in mph), 2005 and 2030

	2005	2030
Highways	26.4	27.5
Arterials	10.9	11.8
Local streets	8.5	8.7

2 HDR, *The Economic Costs of Congestion in the New York City Region: Final Report*, November 27, 2006.

Figure 3: Hub-bound travelers, by car/truck/van and in total, 1995-2004



year for which NYMTC has published its annual survey data – 815,000 vehicles entered the CBD on a typical fall weekday – 29,000 fewer than in 1998 – a decline of 3.4 percent over a six-year period. As Figure 3 shows, during the same period, the number of people entering the CBD by mass transit increased by approximately 10 percent.

Perhaps most strikingly, in its forecast on traffic trends in the New York metropolitan area, NYMTC projects that – despite the substantial growth in both population and jobs that is expected to occur in the City – traffic congestion in Manhattan will be less severe in 2030 than it was in 2005, and that average traffic speeds will increase slightly.

Thus, while New York City clearly has a traffic congestion *problem*, current evidence simply doesn't support the claim that we are facing a traffic congestion *crisis*.

NYMTC projects that – despite the substantial growth in both population and jobs that is expected to occur in the City – traffic congestion in Manhattan will be less severe in 2030 than it was in 2005, and that average traffic speeds will increase slightly.

Of course, neither the importance of auto travel to the City's economy, nor the fact that the volume of traffic in the CBD is lower now than it was a decade ago, is in itself a reason to be complacent. In fact, it is precisely *because* auto and truck access are so critical to the City's economy that New York needs to find more effective ways to reduce congestion.

Transport for London (TfL), the city's transportation agency, has now been operating a congestion pricing system in central London for more than four years. Does its experience suggest that New York should follow suit?

Part Two: London's Experience

In 2003, London instituted a new system of "congestion charging," aimed at relieving traffic congestion in the city's commercial core. The congestion charging scheme has been widely hailed for its success in reducing the volume of automobile traffic in the center of the city, and for the resulting decline in congestion. But before we conclude that London's congestion charging system offers an example that New York City should follow, we need to look carefully at what London's experience has been, what its system costs, and how it has affected the City's economy.

How London's congestion charging system works

London's congestion charging scheme initially imposed a daily charge of £5 (about $9.89 at recent exchange rates) on most private vehicles traveling in a 22-square-kilometer area in central London between 7 AM and 6:30 PM. (In 2005 the charge was increased to £8 – about $15.81 at recent exchange rates.) The system operates through a network of cameras located along the perimeter of the charging zone, and at intersections throughout the zone, that record the registration numbers of vehicles traveling into or within the area.

Drivers are offered a number of payment options – paying on-line, by phone, at kiosks, by mail or at selected retail stores and service stations. They can pre-pay the charge for a week, a month or a year. Those who have not pre-paid are expected to pay the £8 ($15.81) charge before midnight on the day they travel within the zone – or the following day, in which case the charge rises to £10 ($19.76).

After one day, those who have not paid are subject to a penalty of £50 ($99) if paid within 14 days, £100 ($198) if paid in 15 to 28 days or £150 ($297) if paid later than 28 days.

London's system offers a variety of exemptions and discounts.

- Disabled drivers are exempted from the charge, as are those who drive alternative-fuel vehicles;
- Residents of the zone pay only 10 percent of the full charge;
- Fleet-owners pay £7 ($13.84) per vehicle per day; and
- Those who pre-pay on a monthly (or annual) basis get a 15 percent discount.

While TfL has sought to make the process of paying congestion charges as easy as possible, the system still imposes significant "compliance costs" on drivers in the form of time and effort involved in paying the charge. Moreover, data on the penalties TfL levies for late payment of charges suggest

that – four years after it was launched – many people are still having difficulty with the system. In 2005-06, fines accounted for about 31 percent of all system revenues (£65 million, or about $128 million). Putting it another way – for every £100 that TfL collected in congestion charges, it levied £46 in fines on people who failed to pay on time, or who otherwise violated the system's rules.

As originally designed, one of the primary purposes of the congestion charging scheme was to generate revenues that could be used to improve transit services. However, the system's costs have proven to be substantially higher than originally anticipated. During the first few years, operating costs consumed most of the system's revenues; and as a result, many of the improvements in bus service that have followed the imposition of congestion pricing have in fact been financed from other sources.

High operating costs remain one of the system's most difficult problems. In 2005-06, operating and maintenance costs totaled £88 million (about $174 million); and net revenues – £122 million (about $241 million). The system's high operating costs – 42 percent of total revenues in 2005-06 – continue to be a target of criticism.

Impact on traffic in central London

Reports published by TfL, the agency responsible for the congestion charging system, provide fairly detailed information on the implementation of this initiative, and its impact on traffic and congestion in central London.

- In the year following initial implementation of the system, the number of vehicles entering the charging zone declined by 14 percent, as did the total vehicle-kilometers driven in the zone on a typical weekday.
- TfL estimates that as a result of the decline in total traffic within the zone, average daytime traffic speeds within the area rose by nearly 20 percent – from 14.3 to 17.1 kilometers per hour.
- TfL estimates that excess congestion in the charging zone, as measured by excess travel time, declined by 30 percent in the year after the initial implementation of congestion charging.[3]

Increasing the charge to £8 (in July 2005), however, appears to have had only a modest impact on traffic – a further reduction of 3 to 4 percent in the number of vehicles entering the zone.

Excess congestion, moreover, has increased since 2004, despite the higher charges; TfL estimates that as of the end of 2005, excess travel time in the zone was 1.8 min/k – 22 percent below the 2002 level. Recent data suggest that congestion continued to worsen in 2006; excess congestion, according to one recent report, is only 8 percent below the level recorded in 2002, before congestion charges were imposed.

While congestion charging was in part intended to encourage motorists to switch to mass transit, increases in transit fares since 2003 may have reduced the incentive to switch. For those

3 TfL measures "excess congestion" by the difference between an average nighttime travel time of 1.9 minutes per kilometer and the observed daytime travel time per kilometer. With average weekday travel times within the zone declining from 4.2 to 3.5 minutes per kilometer, TfL defined "excess" travel time as having declined from 2.3 to 1.6 min/k – a 30 percent reduction.

Figure 4: Map of expanded London congestion zone

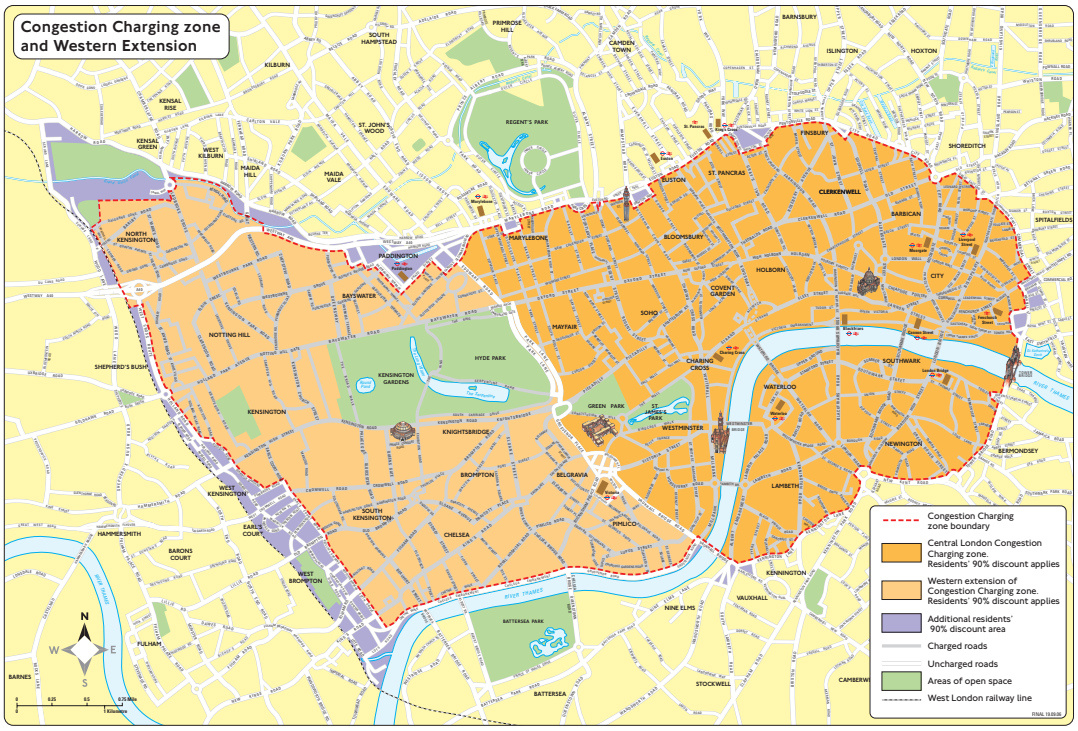


Table 3: London's congestion charge and fines, 2003 - Present

Year	Charge		Fines	
	£	$	£	$
2003 - 2005	£5.00	$9.89	£40 (within 14 days), £80 (15 - 28 days), £120 (later than 28 days)	$79 (within 14 days), $158 (15 - 28 days), $237 (later than 28 days)
2005 - Present	£8.00	$15.81	£50 (within 14 days), £100 (15 - 28 days), £150 (later than 28 days)	$99 (within 14 days), $198 (15 - 28 days), $297 (later than 28 days)
% Change	60%		25%	

who use the Oyster card (TfL's electronic fare medium) tube fares have risen by 30 percent since 2003 – from £1.15 ($2.30) to £1.50 ($2.97); and the single-ride cash fare has risen by 150 percent – from £1.60 ($3.16) to £4.00 ($7.91).

Impact on the economy of central London

The impact of congestion charging on London's economy has been a subject of some controversy. After the system was first implemented, some central London businesses – notably retailers – complained about its cost. In 2005, a survey of Central London retailers conducted for the London Chamber of Commerce and Industry found that:

- 84.2 percent of all respondents said they had experienced a fall in sales since the introduction of the scheme, and 62.7 percent reported a decline in the number of customers.
- Of those who reported a fall-off in sales or customers, 62 percent said they believed that most or all of the loss was due to congestion charging; 10 percent said it was due mostly to general economic conditions.
- 37 percent said they had reduced staffing levels since congestion charging went into effect.
- Overall, 92 percent of the retailers surveyed said that congestion charging had not helped their business.

TfL, in contrast, asserts that "the majority of charging zone businesses continue to recognize that decongestion has created a more pleasant working environment and easier journeys for employees who use public transport for work." TfL provides no data to support that claim, however – and as explained below, several business organizations have during the past few months become increasingly vocal in their criticism of the system.

In the absence of any systematic analysis, it is difficult to gauge the full impact of congestion charging on the economy of central London. It may be worth noting, however, that after reviewing the available evidence regarding the system's costs and benefits, TfL itself concluded in 2006 that the impact of congestion charging on the economy of central London had been "broadly neutral" – hardly a ringing endorsement for a system whose anticipated benefits had been widely touted.

Expanding the charging zone

In February 2007, Mayor Livingstone effectively doubled the size of London's congestion charging zone, by incorporating a predominantly-residential area on the western edge of central London. The "Western Extension Zone" includes areas such as Notting Hill, Kensington, Chelsea and Knightsbridge (Figure 4).

Business organizations in the United Kingdom have reacted sharply to expansion of the congestion zone.

- The Chairman of the Federation of Small Businesses urged a "rethink" of the whole system, saying "Congestion charging is a misnomer. It's a road tax….Many people shop outside the zone so they can load their cars without paying the extra £8. Shops inside the zone are hit hard."
- Another small-business group, the Forum of Private Businesses, said "The zone boundary is like a Berlin Wall, dividing communities and severing well-established social and business links, to the detriment of local people…"
- The Freight Transportation Association renewed its criticism of congestion pricing, "Over the last four years London industry has had to suffer the increased cost of paying the congestion charge, all in the course of going about its essential work. Now the price goes up even further…."

The President of London's leading business organization criticized the western extension of the charging zone as being "like using a sledgehammer to pick a lock."

Perhaps most notably, the CEO of London First – a coalition of large businesses dedicated to enhancing London's competitiveness as a global center of finance and commerce – challenged the idea that area-wide congestion charging schemes are an effective or economically efficient way to manage traffic. She criticized the western extension of the charging zone as being "like using a sledgehammer to pick a lock." London First has called for a more flexible approach that would target the most severely congested "hot spots," and would use road pricing technology in combination with other improvements aimed at easing the flow of traffic. The group also criticized the system's high operating costs.

Table 4: Proposed London congestion charges, 2007

Type of vehicle	Charge	
	£	$
Hybrids, mini-cars	No charge	
SUV's, large sedans	£25	$49.43
All others	£8	$15.81

These comments suggest a growing disenchantment with Mayor Livingstone's congestion charging system among London-area businesses. The Mayor, however, remains unchastened; he has proposed to raise the daily charge for SUV's, large sedans and vans to £25 – more than $49 per day.

In late 2006 and early 2007, a proposal by the Blair government to experiment with the use of "road pricing" to finance highway improvements encountered widespread resistance – including an online petition against road pricing that drew more than 1.8 million supporters. As a result, the government has (at least temporarily) backed off. Popular resistance to road pricing has been attributed to a backlash against the expansion of London's congestion pricing scheme, and to Mayor Livingstone's continuing efforts to increase congestion charges to stratospheric levels.

Part Three: Congestion Pricing in New York City

In April 2007, Mayor Bloomberg proposed that New York City establish a congestion pricing system that would apply to most private vehicles traveling in Manhattan below 86th Street between 6:00 AM and 6:00 PM on weekdays. Most private autos entering or leaving the congestion pricing zone during those hours would pay a charge of $8.00 per day; those driving only within the zone would pay $4.00. Trucks entering or leaving the zone would pay $21.00; those traveling only within the zone would pay $5.50.

Table 5: Proposed congestion pricing scheme

Zone boundaries	Manhattan below 86th Street, except: West Street and West Side Highway; FDR Drive; Battery Park Underpass; Queensboro, Williamsburg, Manhattan and Brooklyn Bridges and their approaches
Hours	6 AM - 6 PM, Monday - Friday (no charges on weekends)
Charges: Autos	$8 daily charge to enter, leave, and move within the zone during charging hours $4 daily charge to travel only within the zone during charging hours
Charges: Trucks	$21 daily charge to enter, leave, and move within the zone during charging hours $5.50 daily charge to travel only within the zone during charging hours
Trips bypassing the zone	Drivers do not pay unless they enter the zone. For example, driving from Brooklyn to the Bronx on the Brooklyn Bridge and FDR Drive would still be free
Toll rebates for E-ZPass users	E–ZPass users paying bridge and tunnel tolls to enter the zone will be credited the amount of their round-trip tolls that day, up to $8. For example, an E–ZPass driver who now uses the Battery Tunnel to enter and leave Manhattan will pay no additional charge, because the current round-trip toll they pay is already $8
Exemptions	No charges for handicapped license plates; emergency vehicles and transit buses; yellow taxis and livery cabs
Collection technology	At-speed E–ZPass readers will allow fee collection without slowing vehicles down. Vehicles not equipped with E–ZPass will be recorded by cameras and drivers can pay the fee by phone, internet, or at participating retailers within 48 hours.
Revenues	All net revenues will be dedicated 100% to transportation investments through the SMART Financing Authority
Operating entity	NYC Department of Transportation will control the system, which will be built and maintained by a contractor yet to be selected

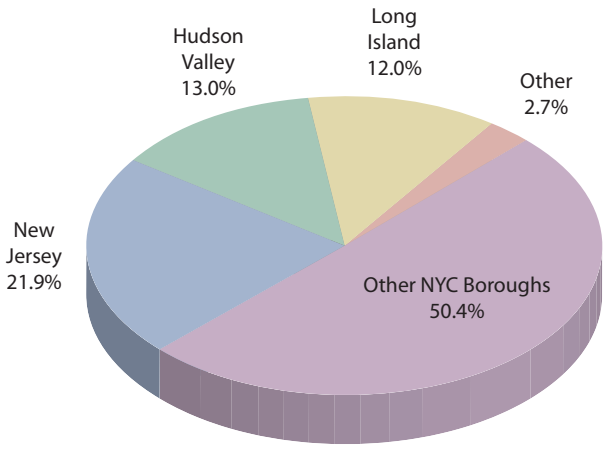
Several types of vehicles would be exempt from congestion pricing – medallion taxis, for-hire (livery) cars, emergency vehicles and those with special plates for the disabled. Vehicles that travel only on the West Side Highway or the FDR without going onto local streets below 86th Street – for example, those traveling from Brooklyn to Upper Manhattan or the Bronx – would not have to pay the congestion charge. Finally, for those who enter or leave the zone via MTA or Port Authority tunnels, congestion charges would be reduced by the amount they pay in tolls. The details of the proposal are summarized in Table 5.

According to a report prepared by the City's Office of Long-Term Planning and Sustainability, the proposed congestion charge would reduce the total volume of traffic within the charging zone by 7 percent; we estimate that this would translate into a reduction of approximately 10 percent in excess congestion. Based on various analyses of the cost of congestion in the CBD (as discussed above in Part One), we estimate that the proposed system would reduce the cost of excess CBD congestion by approximately $100 million.

Advocates of congestion pricing argue that by reducing the number of cars and trucks traveling into the CBD from elsewhere in New York City, the proposed system would reduce excess congestion in other parts of the City as well. The analysis prepared by the Office of Long-Term Planning indicates that CBD congestion pricing would reduce traffic in other parts of the City (that is, outside the congestion pricing zone), by less than 1.8 percent. This would translate into a reduction of about 2.5 percent in congestion outside the charging zone – and a further reduction of about $40 million in the City-wide cost of excess congestion.

While there would thus be some economic benefit as a result of the proposed charge, even a preliminary analysis suggests that the cost of the proposed congestion pricing system – both direct financial costs and the impact on the City's economy – would far outweigh the benefits that such a system might produce.

Figure 5: Residence of auto commuters to Manhattan, 2000



1) Direct costs to drivers and businesses

The first cost to be considered is the cost of the congestion charge itself. The Office of Long-Term Planning and Sustainability estimates that gross revenues from congestion charges would total $620 million annually. It is important to acknowledge who would be paying this cost.

About 30 percent of all those who travel into the CBD each day by car, truck or van – approximately 330,000 people in 2004 – are commuters going to work. According to the 2000 Census, more than half of all those who drove to work in Manhattan in 2000 were New York City residents.

According to the 2000 Census, the earnings of all those who commuted to Manhattan by car averaged $69,448. This average, however, masks a sharp split between City residents and suburbanites who commute by car.

Diversion of traffic away from the CBD could increase the burden on already-congested corridors such as the Cross-Bronx, Brooklyn-Queens and Staten Island Expressways.

- The earnings of residents of Queens, Brooklyn, the Bronx and Staten Island who commuted to Manhattan by car averaged $43,294
- The earnings of those who commute by auto from the counties outside New York City averaged $96,062.

Working and middle-class residents of Queens, Brooklyn, the Bronx and Staten Island would thus be hit particularly hard by an $8-per-day congestion charge. The $21-per-day charge on trucks, moreover, could be especially costly for small businesses that depend on daily access to Manhattan customers.

Visitors to the City from outside the New York metropolitan area – both business and leisure visitors – would also bear part of the cost of congestion pricing – but they account for only about 5 percent of all weekday trips into the CBD.

Other local travel, either for business or personal reasons, accounts for about 65 percent of all auto trips into the CBD. On the business side, this includes travel to meetings, sales and service calls, deliveries, etc. Personal travel includes trips into the Manhattan CBD for shopping, entertainment, health care, etc. While detailed data on these trips is not readily available, it seems reasonable to assume, as with commuters, that New York City residents and businesses account for more than half of these trips.

Taking these various types of trips into account, we can assume that New York City residents and businesses would directly bear more than half the cost of Manhattan CBD congestion pricing – more than $310 million a year added to the cost of living, working and doing business in New York City.

It is not clear whether the City's estimate of $620 million in gross revenues includes the cost of fines imposed on those who don't pay the charge within 48 hours, or who otherwise violate the system's rules. It is worth noting, however, that in London, fines account for more than 30 percent of the system's total revenues – a total of £65 million, or $128.5 million.

In addition to these direct financial costs, people and businesses subject to the charge would also incur "compliance costs" – the value of time spent paying the charge, appealing fines, etc. If we assume (conservatively) that the system handles 200,000 payment transactions a day, each taking an average of 5 minutes of the user's time – and we assume (based on NYMTC's estimate of $23 per hour) that that time is worth $2.00 – then compliance costs would total about $100 million annually.

These estimates represent only the cost of congestion charges paid *directly* by City residents and businesses. Some of the cost of charges paid by non-City residents and businesses would also be passed on to New York City companies – as employees of these companies demand higher pay to offset the cost of the congestion charge, and as suppliers increase their prices to reflect increased delivery costs.

Taking into account these direct and indirect costs, it seems clear that the increased cost of living, working and doing business in New York City that an $8 CBD congestion charge would impose could easily be three to four times the benefits of reduced CBD congestion.

Figure 6: Expressways outside the CBD that could see increased congestion

2) Impact on areas outside the CBD

As noted above, advocates of congestion pricing argue that reductions in CBD-bound traffic would reduce congestion in other parts of the region as well, due to a reduction in the total number of hub-bound trips from or through these areas. However, in some other areas outside the CBD, congestion would almost certainly get worse, as drivers change their routes to avoid the congestion charge. (In London, traffic on some peripheral roads just outside the charging zone increased by 10 percent after the congestion charging scheme went into effect.) Diversion of traffic away from the CBD could increase the burden on already-congested corridors such as the Cross-Bronx, Brooklyn-Queens and Staten Island Expressways.

Moreover, even in the non-CBD areas most likely to see a reduction in congestion – the Brooklyn approaches to the Brooklyn Bridge, the Jersey City approaches to the Holland Tunnel, etc. – the benefits of reduced congestion during the charging period would be offset, at least in part, by a shift in traffic to the hours immediately before and after the charging period. Tillary Street might be less congested after 7:00 AM – but between 6:00 and 7:00 AM, congestion would probably be worse.

3) Impact on business revenues

In addition to direct and indirect costs of the congestion charge itself, many businesses in the City would suffer a loss of revenues. This would occur for several reasons:

- Some of those who have to pay an additional charge to drive into the CBD would seek to offset part of that cost by reducing what they spend on other goods and services.
- Without the added convenience and flexibility that a car provides, some commuters who shift from automobiles to transit, bus or commuter rail would be less likely to stay in the CBD after work to shop, have dinner or go to the theater.
- Businesses specifically geared to serving those who drive in or into the CBD – such as service stations and parking garages – would suffer a direct loss in revenue.
- Finally, some of those who now drive into the City – rather than paying the congestion charge, shifting their driving times or switching to mass transit – simply will not come at all. Based on analyses prepared for the Office of Long-Term Planning, we estimate that the number of people traveling into New York City each day would be reduced by about 19,000.

Predicting the impact of the proposed CBD congestion charge on New York City businesses is not easy; any such prediction is inevitably built on rough assumptions about how those who currently drive into the CBD will react to the charge.

While the impact will vary, depending on the details of the system being proposed, it seems clear that the proposed congestion charge could cost New York City businesses $400 to $450 million annually in lost revenues. This would translate directly into a loss of 6,300 to 7,100 full-time-equivalent jobs at the affected businesses. Through a "reverse multiplier" effect, there would be an additional loss of 1,400 to 1,600 FTE jobs at New York City companies that sell goods and services to the businesses directly affected by the loss of revenue, or to employees that lose their jobs or see their hours cut back. The total loss to the City's economy could be in the range of $615 to $690 million, and 7,700 to 8,700 jobs.

The proposed congestion charge could cost New York City businesses $400 to $450 million annually in lost revenues. This would translate directly into a loss of 6,300 to 7,100 full-time-equivalent jobs at the affected businesses. Through a "reverse multiplier" effect, there would be an additional loss of 1,400 to 1,600 FTE jobs at New York City companies.

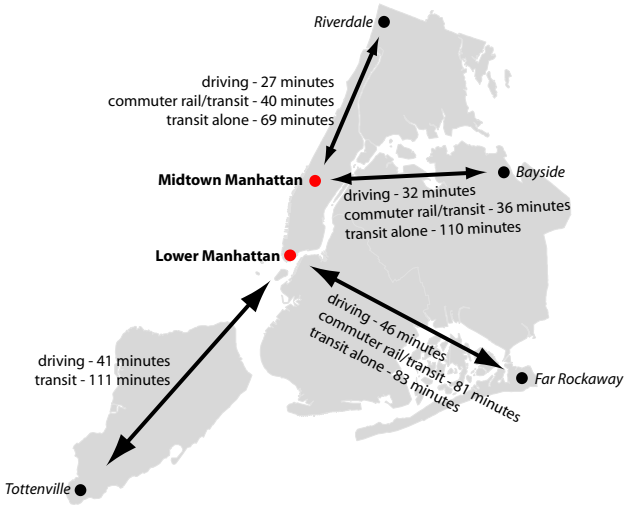
4) Increased commuting time

Advocates of congestion pricing often point to the increased travel times suffered by commuters and drivers as one of the greatest costs of congestion. But for many of those who are being urged to "leave their cars at home," commuting by mass transit would mean substantially *greater* travel times.

This is especially true for those who commute to the CBD from neighborhoods in New York City that are not well-served by mass transit. Figure 7 shows typical travel times by auto and by mass transit for several such areas.

These comparisons highlight a reality that advocates of London-style congestion pricing often seem to miss: most

Figure 7: Comparison of travel times between Manhattan CBD and outer borough locations, by car, commuter rail and transit



people who drive into the CBD from outlying areas do so not because they are perverse or irresponsible, but because it is more efficient for them to do so.

If the extra 10 minutes a business owner spends driving from Riverdale to Midtown due to heavy traffic is counted as a cost of congestion, shouldn't the extra 40 minutes she would spend making the same trip by bus and subway be treated as an added cost of congestion pricing?

By this reckoning, if 40,000 people per day who are deterred from driving into the CBD spend an extra 20 minutes in transit each day as a result of having left their cars at home, they would collectively be losing more than 3.3 million hours in travel time each year. Using NYMTC's estimate of $23 per hour of time lost due to travel delays, this would equate to a loss of nearly $77 million – dramatically reducing any gains that might result from congestion pricing.

A congestion charge of $8 per day ($2,000 per year) would be equal to a tax of 3.2 percent on the gross earnings of City residents who commute to the Manhattan CBD by car.

Advocates of congestion pricing might argue that if a commuter freely chooses to spend an extra 30 minutes each day commuting by bus and subway rather than automobile, the extra time spent in transit shouldn't be counted as a cost to society. And they might be correct – but the same can be said of a commuter who today is willing to put up with 15 minutes of traffic congestion in exchange for a faster and more flexible trip to and from work.

5) Funding mass transit improvements

Advocates of congestion pricing argue that it would provide an important new source of revenue to support investments in mass transit; for some proponents, in fact, this appears to be the principal value of congestion pricing. However, both London's experience and the details of the City's proposal suggest that the proposed congestion pricing system would be an extraordinarily inefficient way to finance mass transit.

Of the £210 million ($415 million) in congestion-charge revenues collected in London in 2005-06 – *after* the charge was increased to £8 – £88 million ($174 million) went to cover the system's operating costs. The operations of London's congestion charging system thus ate up 42 percent of all of the revenues collected.

High operating costs have reduced sharply the net revenues available to improve transit. As a result, many of the improvements in London's bus services – which have been widely touted as one of the greatest benefits of London's congestion pricing system – have in fact been financed from other sources.

Like London's, New York City's proposed congestion pricing system would be expensive. The initial cost of setting up London's system totaled £190 million – about $376 million. Because New York City's system would be more complex than London's, and would have to handle much larger numbers of vehicles and many more transactions each day, the initial set-up costs for the proposed Manhattan CBD system could be significantly higher. The City intends to seek federal funding to help offset these initial costs – but such funding is by no means guaranteed.

The Office of Long-Term Planning and Sustainability estimates that the system's administrative and operating costs would total $240 million annually – 39 percent of the projected gross revenue of $620 million. Advocates of congestion pricing are proposing, in effect, to charge people who live, work, do business in or visit New York City $620 million a year in order to generate $380 million a year to support mass transit.

A good case can be made that New York needs to increase substantially its investments in the City's transit system. If so, then New Yorkers need to think carefully about how best to finance that investment – how to strike the right balance among farebox revenues, City and state taxes, and subsidies paid by motorists – and how to do so efficiently, equitably and with the least possible cost to the City's economy.

6) An issue of fairness

In addition to the damage that it would inflict on New York City's economy, and its gross inefficiency as a means of raising revenue to finance mass transit investments, London-style

What do New Yorkers think about congestion pricing?

In 2006, Quinnipiac University released a poll showing that New Yorkers understand that congestion pricing would hurt the economy. According to the poll:

- New York voters oppose congestion pricing by a 2-to-1 margin: 62% to 31%.
- 57% agree that congestion pricing would unfairly tax people living outside Manhattan (vs. 37% who disagree).
- 49% agree that congestion pricing would hurt the City's economy (vs. 42% who disagree).

congestion pricing presents serious issues of fairness. As noted above, commuting by car from Queens, Brooklyn, the Bronx and Staten Island to Manhattan is not necessarily a mark of affluence – according to the Census Bureau, the earnings of these New Yorkers averaged about $43,300.

Yet it is these New Yorkers – as well as small businesses throughout the City – who would bear a substantial part of the cost of the proposed congestion charge. Assuming that those who commute by car average 1.45 persons per vehicle, and that they earn an average of $43,300, a congestion charge of $8 per day ($2,000 per year) would be equal to a tax of 3.2 percent on the gross earnings of City residents who commute to the Manhattan CBD by car.

Working and middle-class residents of other parts of the City would thus be required to pay $8 to drive into Midtown or Lower Manhattan during the hours when the congestion charge is in effect. Those who live below 86th Street, in contrast – an area that includes some of the City's most affluent neighborhoods – would be charged only $4 to drive within the zone. In 2005, according to the Census Bureau, the median household income of car-owners living in the area of Manhattan roughly corresponding to the proposed congestion pricing zone was $138,500.

Part Four: Better Ways to Reduce Congestion

If the proposed congestion pricing system is not the solution to New York City's congestion problems, what is?

Some basic policy principles

There are in fact many practical steps that New York City can take to reduce excess congestion. Before we highlight a few of them, it may first be useful to define some broad principles that should guide the formulation of a more effective approach to reducing congestion.

1) Excess congestion is the problem – not the volume of traffic.

Many of those who have urged the adoption of congestion pricing in New York City point to the reduction in automobile traffic that followed the establishment of London's congestion charging system as proof of its success. But the number of cars and trucks being driven into and within the CBD is not in itself a problem. Travel by automobile and movement of goods by truck are essential to the daily functioning of our economy – and the volume of vehicular traffic is in many ways a sign of our success.

Instead, the problem is *excess congestion* – and it is on that problem that the City needs to focus. Simply reducing the volume of traffic makes no sense as a goal of public policy – nor should it be taken as a measure of success.

2) The goal of City policy should be to handle a growing volume of traffic more efficiently.

Studies of the cost of excess congestion highlight the importance of efficient movement of cars and trucks to New York City's economy. Reducing excess congestion would allow traffic to flow more efficiently – and if the City is to sustain the kind of growth in population and jobs that is expected to occur during the next twenty years, more efficient movement of traffic will be essential.

The goal of City policy should therefore be to handle the same – or even *higher* – volumes of traffic with *less* congestion.

3) Traffic congestion is a City-wide problem – and needs to be addressed City-wide.

Advocates of congestion pricing in New York City have to date focused primarily on the Manhattan central business district – highlighting (and often exaggerating) the magnitude of the problem in the CBD and, at least by comparison, neglecting the impact of congestion in other parts of the City. But as NYMTC's data show, more time is lost to congestion in Brooklyn and Queens than in Manhattan.

Any comprehensive City strategy for reducing congestion should address not only the Manhattan CBD but critical congestion "hot spots" in other areas as well. At the same time, it is important to recognize that the causes of congestion tend to be highly localized, and that the most effective remedies will be those that are tailored to address specific local conditions.

4) The best way to reduce car and truck emissions is by demanding cleaner cars and trucks.

This report has focused on the economic costs of congestion and the adverse impacts of London-style congestion pricing on the City's economy. Some advocates of congestion pricing would no doubt argue that this focus is too narrow – that congestion pricing has the additional benefit of reducing both air pollution and the emission of greenhouse gases.

But CBD congestion pricing is – from an economic and financial perspective – not a very efficient way to reduce emissions. CBD congestion pricing would reduce City-wide traffic volumes by only 2 percent – and vehicular emissions account for only 20 percent of all greenhouse gas emissions in the City. Even if congestion pricing were to prove as effective as its advocates claim, the result would be a reduction of only *0.4 percent* in greenhouse gas emissions. To claim that the proposal will make a significant contribution to reduction of greenhouse gas emissions – or that it will significantly

reduce the incidence or severity of asthma in the City's poorer neighborhoods – thus seems somewhat disingenuous.

It is important to note, moreover, that the volume of greenhouse gas emissions in New York City that is attributable to cars and trucks is already declining. According to data published by the Office of Long-Term Planning and Sustainability, the total volume of greenhouse gases generated by on-road vehicles in New York City *declined* by 5.6 percent between 1995 and 2005, while those generated by all other sources increased by 12.8 percent.

In the long run, it would make far more sense to focus on speeding the transition to cars and trucks that produce fewer emissions. The City should consider what types of incentives it might provide to achieve that objective.

5) Any strategy for reducing congestion should be carefully evaluated in terms of both costs and benefits.

Reducing excess traffic congestion is a laudable goal – but we need to be disciplined about assessing the cost at which any proposed anti-congestion strategy would encourage that transition.

In retrospect, it is clear that in the planning that led up to the establishment of London's congestion charging scheme, the cost side of the equation was never adequately addressed. Operating costs have proven to be much higher than anticipated – and the question of the system's broader impact on the local economy was never seriously engaged at all. Indeed, it is striking that after four years of operation, TfL can produce detailed data on the system's operations and its impact on traffic – but has yet to undertake any systematic analysis of the impact of congestion charging on the economy of central London. For Mayor Livingstone and other supporters of the system, simply showing that the system has reduced the volume of traffic in central London appears to have been enough.

A recent independent analysis of London's congestion charging scheme compares it to the Concorde – a system that achieves a narrowly-defined technical objective, but which is far too expensive and in the end makes no economic sense.

But it is not. A recent independent analysis of London's congestion charging scheme compares it to the Concorde – a system that achieves a narrowly-defined technical objective, but which is far too expensive and in the end makes no economic sense.

Reducing excess congestion – a menu of options

There are many ways in which New York City could seek to reduce excess congestion, in the CBD and elsewhere, without incurring the costs that a London-style congestion pricing system would inevitably entail. It is not our intention here to prescribe a detailed strategy for combating congestion, but simply to highlight a few of the options the City might consider.

- **Strengthening enforcement**

  Failure to comply with traffic and parking rules already on the books – by "blocking the box," double-parking, parking in delivery zones, etc. – is a major cause of congestion. More active enforcement of existing rules – especially in areas readily identifiable as congestion "hot spots" – could make a significant contribution to reducing excess congestion.

- **Improved signalization**

  Improvements in signal systems could also help ease congestion in some areas. Easing the flow of street traffic, of course, always has to be balanced against other objectives, such as accommodating pedestrian traffic and ensuring pedestrian safety. There nevertheless should be some room for improvement in this area.

- **More extensive use of information technology**

  The City could use a variety of information technologies to manage the flow of traffic more effectively. For example, a consortium of agencies led by the Lower Manhattan Construction Command Center (LMCCC) and New York City DOT has developed a system – using video cameras, traffic sensors and wireless technology deployed on streets and at intersections throughout Lower Manhattan – that will enable it to collect highly detailed information on traffic conditions, for distribution in real time both to the driving public and to the relevant enforcement agencies. A dedicated team of traffic enforcement agents, construction agents and others will be able to respond much more quickly to specific local problems as they emerge; and the data collected can also be used for planning longer-term improvements in traffic management.

  Through more intensive and more integrated use of technologies that City DOT had already begun to deploy City-wide – and by using them as a basis for real-time enforcement actions – LMCCC and its partners could have a significant impact on Lower Manhattan's especially-daunting traffic problems. The City should consider expanding this initiative to Midtown as well.

- **Targeted street and highway improvements**

  While the City may not be able to build its way out of excess congestion, carefully targeted investments in the City's streets and highways can help to improve the flow of traffic, and thus relieve some of the pressure on congestion

"hot spots" throughout the City. Improvements to the Van Wyck Expressway, for example, are essential for reducing congestion and improving access to Kennedy Airport – a need specifically acknowledged in the Mayor's long-term plan.

- **Influencing development patterns**

  As the Mayor's plan rightly recognizes, the City can in the long run reduce reliance on cars and increase use of transit by encouraging the concentration of new development in areas that are already well-served by mass transit – such as downtown Brooklyn and downtown Jamaica – or where new transit services could be added relatively easily. Development policies can help reduce congestion in other ways as well – for example, by requiring that new commercial buildings provide adequate space for off-street loading and unloading.

- **Providing new transit options**

  Rather than imposing excessive costs on those who drive, the City and other agencies (such as the MTA and the Port Authority) should seek to encourage more New Yorkers to use mass transit by improving the transit services available to them. Mayor Bloomberg deserves credit for laying out in his long-term plan an ambitious program of transit improvements.

  The City is currently planning to undertake several "bus rapid transit" pilot projects. BRT improves the quality of bus service by creating physically separated exclusive bus lanes on city streets. It represents a relatively low-cost, quick way to improve bus service. If these pilot projects prove successful, the City should, as the Mayor has proposed, make greater use of BRT.

  As the Mayor's plan recognizes, the commuter railroads' existing infrastructure could also be used to provide new transit options for City residents. For example, by shifting some Long Island Rail Road trains to Grand Central, the MTA's East Side Access project will make it possible for Metro-North to offer residents of Co-op City a direct route to Penn Station.

  For commuters from some New York City neighborhoods that are not now well served by mass transit (such as the South Shore of Staten Island) or where existing transit services are overcrowded (such as waterfront areas in Greenpoint and Williamsburg), new ferry services could provide an attractive alternative. The City should continue its efforts to develop new services in these and other neighborhoods – and should work with the Port Authority, the MTA and other agencies to create new routes linking communities outside New York City to the CBD.

  While the primary focus of the MTA's capital program should continue to be on safe and reliable operation of its existing systems, there are a number of areas within the City – such as the North Shore of Staten Island – where the MTA should explore opportunities for extending some form of rail transit to areas that are not well served by existing networks.

- **Making New York more bicycle-friendly**

  While increased use of bicycles is never likely to be a major source of congestion relief in New York City, it would make at least a modest contribution toward that goal. It is, moreover, something the City should be prepared to encourage for a variety of other reasons as well: to reduce emissions, promote exercise – and perhaps most important, simply to accommodate the growing number of New Yorkers for whom this is a preferred mode of transportation.

London-style congestion pricing: failing the test

New York City needs to find ways to reduce excess traffic congestion. And it will need in the years ahead to invest billions of dollars in maintenance, improvement and expansion of its public transit systems. London-style congestion pricing has been touted as a solution to both problems.

But before it seriously considers adopting any version of London-style congestion pricing, New York City needs to analyze – thoroughly, rigorously and dispassionately – the costs and benefits of such a system. Our review – preliminary as it may be – strongly suggests that the findings of a more detailed analysis will be unequivocally negative. We estimate that the congestion pricing system proposed by Mayor Bloomberg would produce:

- City-wide economic benefits on the order of $140 million annually from reduced congestion; and
- Funding for mass transit improvements that the City estimates will total $380 million annually.

Offsetting these benefits would be a long litany of costs, including (but not necessarily limited to):

- Approximately $620 million annually in congestion charges paid by people living in, working in or visiting, and companies doing business in, New York City;
- On the order of $100 million annually in "compliance costs," the time that residents and businesses have to spend paying the charge, appealing fines, etc;
- $400 to $450 million annually in lost business revenues, resulting in a loss of 7,700 to 8,700 jobs throughout the City and a reduction in City-wide economic activity totaling $615 to $690 million;
- The cost of increased congestion on routes to which traffic would be diverted, such as the Cross-Bronx, Brooklyn-Queens and Staten Island Expressways; and
- Increased travel time for thousands of commuters who switch from cars to mass transit, equivalent to an additional cost of $77 million or more.

The costs of the system, moreover, could quickly get higher. The system's high operating costs, and its inherent inefficiency as a revenue-raising mechanism, could quickly lead – as they did in London – to a sharp increase in charges. (The fact that the City is asking the Legislature not only for authority to establish a congestion pricing system, but also for authority to set congestion charges at whatever level it chooses, could be an early sign of what's to come.) And with higher charges, the cost of congestion pricing – both the direct costs borne by New Yorkers and the damage done to the City's economy – will increase as well.

There is, moreover, simply no evidence that the proposed system is necessary. As a consequence of two decades of sound public policy decisions, major investments in transit, market forces, and the individual choices of millions of people who live, work, do business in and visit New York City – the number of people who drive into the CBD each day is declining, and so is the volume of greenhouse gases they generate. The number of people using mass transit, in contrast, continues to grow. There are no doubt additional steps that should be taken to ensure that we keep moving in the right direction – but overall, the system is working.

Any initiative that aims to reduce traffic congestion or to provide additional funding for mass transit has to be judged in terms of efficiency, equity, and the need to minimize any adverse effects on the City's economy. By all three criteria, London-style congestion pricing fails the test.

Appleseed is a New York City-based economic development consulting firm that works with government, corporations, and non-profit institutions to promote economic growth and opportunity.

80 Broad Street
13th Floor
New York, NY 10004
212-964-9711
www.appleseedinc.com

Keep NYC Congestion Tax Free