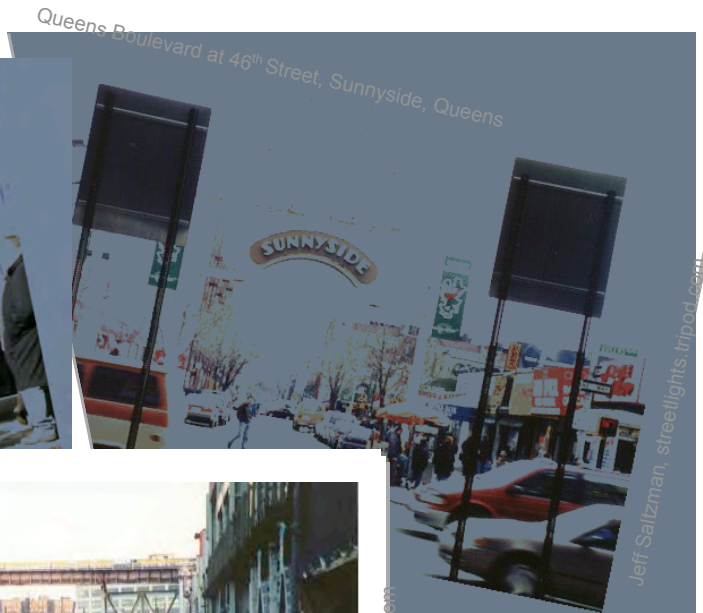


A Cure Worse than the Disease?

How London's "Congestion Pricing" System Could Hurt New York City's Economy



Queens Plaza at 27th Street, Queens



Applesed
February 2006

Executive Summary

Concern about the impact of traffic congestion in the Manhattan Central Business District has led some transportation planners and local civic groups to call for imposition of a “congestion pricing” system similar to that adopted in London in 2003. (London’s program imposes a charge of £8 – nearly \$14 – on most private vehicles traveling in Central London on weekdays between 7 AM and 6:30 PM.)

Shortly after his re-election, Mayor Michael Bloomberg stated that London-style congestion pricing is not on his second-term agenda. The Mayor noted that every city is different, and that what appears to have worked in London might not work here. Nevertheless, some organizations have continued to urge that New York follow London’s lead.

While reducing traffic congestion is certainly a worthwhile objective, City officials, business and community organizations and others who share that goal also need to focus on the costs that a London-style system would entail – the increased cost of doing business and working in the City, and the loss of business and jobs. This report, prepared by Appleseed for the Queens Chamber of Commerce, suggests that the costs associated with such a system would far outweigh its benefits.

Based on London’s experience, we assume for purposes of this analysis that a similar charge imposed on autos, trucks and vans traveling within the Manhattan CBD would reduce by 28 percent the number of vehicles entering the CBD during “charging hours” on a typical week. This would translate into a reduction in the number of vehicles by approximately 197,500; and a reduction of 286,500 in the number of people entering the area by car, truck or van each day.

The majority of those 286,500 people would continue to travel to the CBD, but would shift to other modes of travel, or travel outside the charging period. However, we estimate that about 1 in 7 – more than 40,000 people – would reflect an absolute reduction in the number of people coming into the CBD each day.

We estimate that the loss in spending associated with this reduction in the number of people coming into the CBD – and reduced spending by those who still come to the CBD, but shift to other modes – would total approximately \$1.89 billion annually.

This reduction in spending would mean an annual loss of \$2.7 billion in economic output, 23,100 jobs and \$235 million in City and State tax revenues each year.

The losses from reduced spending cited above do not include any losses that might result from relocation of businesses out of New York City – or decisions not to invest here – as a result of the increased cost of working and doing business in the City. We have not attempted here to quantify these impacts; but over time they could involve a loss of several thousand additional jobs, and several hundred million dollars in lost economic output.

Assuming that 72 percent of those now driving into the CBD continue to do so, we estimate that London-style congestion pricing would increase costs borne by people living and working in the City, New York-area businesses, and visitors to the City by a total of approximately \$1.78 billion annually. Based on data about the origins of travelers to the CBD, we estimate that New York City residents and businesses would bear more than half of this cost.

Especially hard-hit would be working- and middle-class New Yorkers who commute to the CBD by car from outlying areas in Queens and the other boroughs outside Manhattan; and small to mid-sized firms whose business requires frequent trips to the CBD. Of the boroughs outside Manhattan, Queens would most likely bear the heaviest cost. Queens firms whose business requires travel to and from Manhattan would incur costs of more than \$100 million annually. Queens residents – who account for about 40 percent of all New Yorkers who drive to work in Manhattan – would incur more than \$100 million annually in increased commutation costs. And if London’s experience is a guide, we can expect that some of the reduction in traffic congestion in Midtown and Lower Manhattan would be offset by increased congestion in Queens and other boroughs.

The New York Metropolitan Transportation Council estimates that delays caused by traffic congestion in Manhattan generated economic losses of \$831 million. Assuming that congestion pricing in the CBD would reduce traffic delays by 32 percent – the same percentage reported by Transport for London – then the gain from reduced congestion would total \$266 million. In other words, ***the economic losses resulting from reduced spending within the City would be approximately ten times the gains from reduced congestion.***

Moreover, experience in London suggests that any gains from reduction in CBD traffic congestion would be partially offset by increased congestion in adjoining areas, particularly in Queens and Brooklyn – areas where the cost of traffic congestion, according to NYMTC, is already *higher* than it is in Manhattan.

We estimate based on London’s experience that the number of people traveling to the CBD by mass transit during the charging period would increase approximately 164,500 per day – an increase of approximately 7.5 percent. While we estimate that this would increase transit operators’ revenues by approximately \$192 million annually, it would aggravate overcrowding – and the resulting delays – on some of the City’s most crowded subway and bus lines.

New York City does not need to resort to London-style congestion pricing (or sustain the economic costs it would inevitably entail) in order to reduce traffic congestion in the Manhattan Central Business District. There are other steps the City can take – and in some cases has already started to take. They could for example include:

- ∞ More vigorous enforcement of existing traffic and parking rules;
- ∞ Improved signalization;
- ∞ Greater use of information technology to manage the flow of traffic;
- ∞ Better coordination of vehicular and pedestrian traffic – as the City has already done successfully on some Midtown streets;
- ∞ Reviewing existing City policies governing the pricing of on-street parking in the CBD, with the goal of using scarce street space more efficiently, and discouraging drivers from “cruising” for free or low-cost parking;
- ∞ More active management of construction activity throughout the CBD (as the City and State have begun to do in Lower Manhattan) in order to reduce traffic disruptions; and
- ∞ Incentives for businesses to schedule deliveries in off hours.

The City should also recognize that congestion isn’t just a Manhattan problem. Losses resulting from congestion in Queens and Brooklyn are greater than those incurred in the Manhattan CBD. The City’s strategy for reducing traffic congestion needs to focus on these areas as well.

Introduction

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 imposes a daily charge of £8 (approximately \$14) on all private vehicles traveling in central London on weekdays between 7 AM and 6:30 PM. The apparent effectiveness of this initiative in reducing traffic congestion in central London has led to suggestions that New York City should institute its own system of “congestion pricing” for vehicles entering the Manhattan Central Business District – that is, the area below 60th Street.

Shortly after his re-election, Mayor Michael Bloomberg stated that London-style congestion pricing is not on his second-term agenda. The Mayor noted that every city is different, and that what seems to have worked in London might not work here. Nevertheless, some organizations have continued to urge that New York follow London’s lead.

There is no doubt that traffic congestion imposes real costs on New York City’s economy, and detracts from the quality of daily life for many who live, work and do business in the City. But before embracing London-style congestion pricing as the answer to this problem, New Yorkers need to weigh carefully the costs it would impose on the City’s economy. Our preliminary analysis – based both on London’s experience and on data about travel into the Manhattan CBD – suggests that the cost of London-style congestion pricing in terms of lost business activity and jobs would greatly outweigh any benefits it might deliver in terms of reduced congestion.

This report briefly highlights the significance of auto travel to New York City’s economy; provides data on the origins and characteristics of people who drive into the City each day; assesses the impact of a London-style system on the City’s economy; and suggests several other steps the City might take to reduce traffic in the Manhattan Central Business District.

The report is not intended to provide an in-depth analysis of every aspect of congestion pricing. Further research and analysis is needed on a number of questions, such as the cost of implementing and managing a London-style system in New York City; and the impact that such a system would have on New York’s attractiveness as a place to invest and do business. Nevertheless, a preliminary analysis does strongly suggest that in Manhattan’s Central Business District, a London-style congestion charge would cause more problems than it solves.

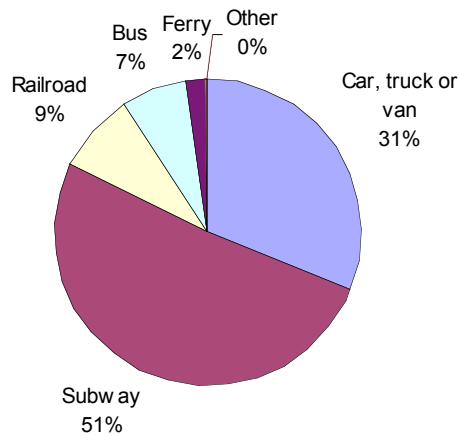
Importance of Auto Travel to New York City’s Economy

The Manhattan Central Business District is the heart of New York City’s (and the entire region’s) economy – and just as with the human body, the steady flow of people, money, information and goods into and out of the CBD is vital to the City’s economic health.

More than any other city center in the U.S., the Manhattan CBD depends for its day-to-day functioning on an extraordinarily dense network of mass transit services. New York’s dependence on mass transit, however, makes it easy to miss the importance of automobiles, trucks and other private vehicles to the City’s economy.

In 2002 (the last year for which detailed data are available), 3,569,000 people traveled into the Manhattan CBD on a typical October weekday. Of that total, 31 percent – about 1.18 million people – came by car, truck or van.¹ That is fewer than came by subway (52 percent of the total) – but more than the number that came by commuter railroad, bus, ferry and all other modes combined.

Figure 1: Mode of Entry into Manhattan



Auto travel is especially important to Manhattan’s visitor-related industries. In 2003, according to NYC & Company, **about 55 percent of all domestic visitors to New York City (including both leisure and business travelers) arrived by car.** Spending within the City by visitors arriving by car totaled approximately \$6.7 billion in 2003.

Who comes to the Manhattan CBD by car?

The role that auto travel to the Manhattan CBD plays in the City economy is especially evident when we examine in greater detail the make-up of the nearly 1.2 million people who come into the CBD by car, truck or van each day.

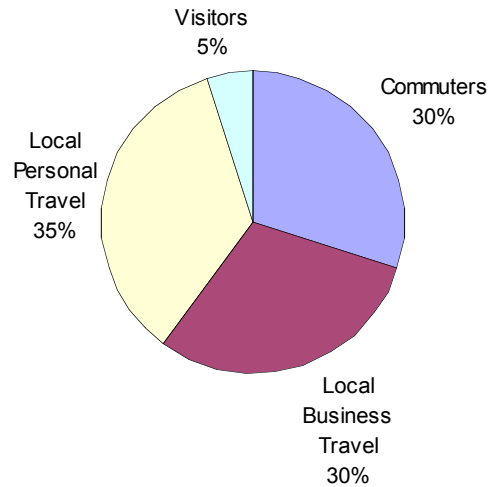
Commuters

Based on data from the 2000 census, we estimate that of those who travel by car, truck or van to the CBD on a typical weekday, approximately 30 percent are commuters. Of all

¹ New York Metropolitan Transportation Council. The number of cars, trucks and vans entering the CBD on NYMTC’s survey day totaled approximately 785,000; each vehicle carried an average of 1.45 people.

non-Manhattan residents who commute by car to jobs in Manhattan, more than half (50.4 percent) live in the other four boroughs of New York City.

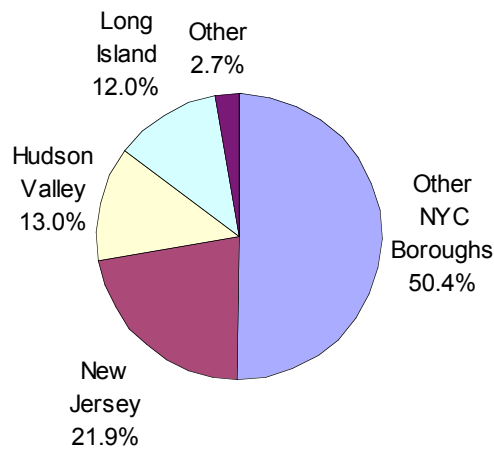
Figure 2: Distribution of Trips into the CBD



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

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

Figure 3: Residence of auto commuters



The borough of Queens is the single largest source of auto commuters. In 2000, about 68,500 people commuted from Queens to jobs in Manhattan each day – about 20 percent of all commuters to Manhattan. Of the 345,000 Queens residents who worked in Manhattan, nearly 20 percent traveled to work by car, truck or van. The earnings of Queens residents who commuted to Manhattan by car, truck or van averaged \$42,964.

Other business and personal travel

Other local business and personal travel 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, we assume for purposes of this analysis that business trips account for 30 percent of the total, and personal travel for 35 percent.

Visitors

We estimate on the basis of NYC & Company data that approximately 5 percent of all those coming into the CBD by car are visitors from outside the New York metropolitan area. About three-quarters of these are leisure travelers, and one-quarter are coming to the City for business reasons. While they may be relatively few in number, visitors from outside the New York area typically spend more money per trip than others coming into the CBD. Leisure visitors stay an average of 2.1 days, and spend an average of \$357 per trip; business visitors stay an average of 2.4 days, and spend an average of \$521.

The impact of congestion charging on travel to the CBD

To gauge the likely impact of London-style congestion pricing on auto travel into the CBD, we can start with the impact that the Congestion Charging Scheme has had in London. Between autumn 2002 and autumn 2004, the number of “potentially chargeable” vehicles (cars, trucks and vans) entering central London declined by approximately 28 percent.

This seems consistent with research conducted by some New York-area transportation analysts that estimates the price-elasticity of auto travel into the CBD at negative 0.4. (That is, every 1 percent increase in the effective cost of auto travel would produce a 0.4 percent reduction in volume.) Assuming current entries of 840,000 per day, this would translate into a reduction of more than 197,500 auto, truck and van trips into the CBD, involving about 286,500 people.

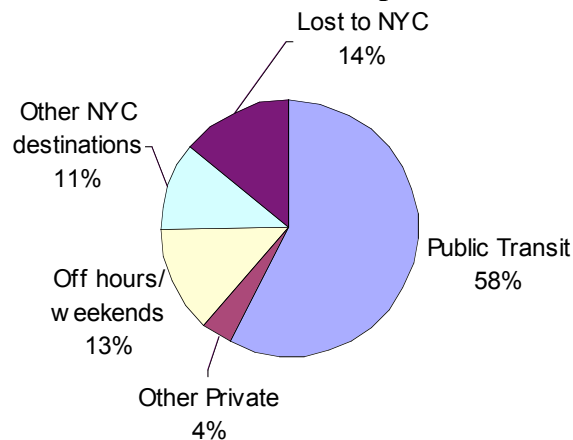
We can reasonably assume that the majority of these 286,500 people per day would still come into the CBD; they would simply switch to other modes of travel, or shift their trips to weekend or evening hours when congestion charges don't apply. Some people, however, would shift their trips to other destinations within the City; and some would not come into New York City at all. Based in part on London's experience (but taking into

account significant differences between New York and London), we assume for purposes of this analysis that:

- ∞ Approximately 57.5 percent of the “lost” trips would represent drivers and passengers shifting to some form of public transit;
- ∞ About 4.0 percent would be absorbed in other types of private transportation (increased carpooling, increased use of taxis, walking, cycling);
- ∞ About 13.3 percent of all potentially chargeable trips would shift to off-hours or weekends;
- ∞ Approximately 11.0 percent would shift to other destinations within New York City but outside the charging zone; and
- ∞ Approximately 14.2 percent would represent a net reduction in the number of people coming into the City for business trips, shopping, entertainment, etc. (or, in the case of City residents, an *increase* in the number of trips that are shifted from the CBD to destinations outside the City).

This translates into a net reduction of approximately 40,680 in the number of people shopping, doing business, etc. in New York City each day.

Figure 4: Distribution of former auto trips to other modes and times



It is important to note that for purposes of this analysis, we have assumed that *all* of those who now commute to work by auto would continue to work in the Manhattan CBD, but would shift to another mode of travel or (to a more limited extent) rearrange their schedules so as to drive outside the charging period. That is, the 40,680 “lost trips” resulting from the imposition of congestion charges would reflect a decline in local business trips to the CBD (other than commuting), in personal business trips, (shopping, entertainment, etc.) and in visitors to New York City from outside the metropolitan area.

While this may be a valid assumption in the short run, over time the added cost of working and doing business in the CBD is likely to result in a shift of businesses and jobs to locations outside New York City. This longer-term impact is discussed below under “Impact on the City’s economy: investment and location decisions.”

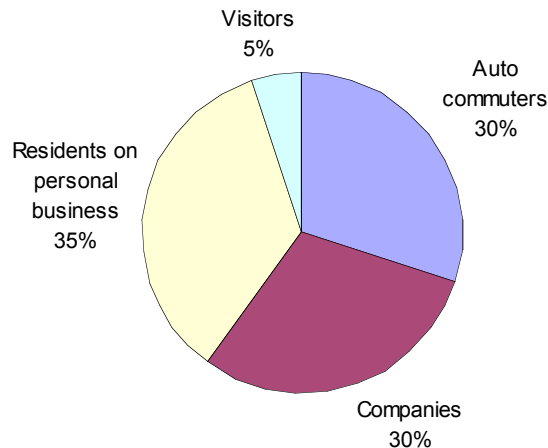
Who would pay?

Assuming that New York City's congestion charge would be set at a level similar to London's, and that the number of vehicles entering the CBD during the affected hours declines by 28 percent, payments by drivers entering the CBD would total approximately \$1.778 billion. If we assume for purposes of this analysis that the distribution of this cost would reflect the current distribution of trips by type of traveler, we can estimate that:

- ∞ People who commute to work by auto would experience an increase of approximately \$533 million;
- ∞ Companies would experience a similar increase in the cost of doing business in New York – approximately \$533 million;
- ∞ Residents of the New York area who drive into the CBD on personal business would bear an increased cost of \$622 million; and
- ∞ Visitors from outside the area would pay approximately \$89 million.

Overall, we estimate that New York City residents and businesses would pay more than half of the total cost of London-style congestion charges. Queens residents and businesses would pay on the order of 20 percent of the total – approximately \$300 to \$350 million annually.

Figure 5: Distribution of congestion pricing costs



The impact of congestion pricing on Queens

People driving to work in the CBD from outlying areas of Queens and other boroughs, where a shift to mass transit might be difficult, would be especially hard-hit. Assuming an average of 1.45 people per vehicle and average earnings of about \$43,300, the congestion charge would be the equivalent of a new, additional tax of 5.6 percent on the gross earnings of City residents who drive to work in Manhattan.

Queens residents, who account for more than 40 percent of all New Yorkers who drive to work in Manhattan, would incur additional costs of more than \$100 million annually – just to get to work.

The potentially regressive (and discriminatory) nature of London-style congestion pricing becomes even more evident when we note that in London, the charge levied on drivers who *live in* central London is discounted by 90 percent. If this policy were adopted in New York, it would mean that many of the City’s most affluent residents would pay only one-tenth as much for the privilege of driving in Midtown Manhattan as working and middle-class residents of Queens and other boroughs – despite the fact that Midtown and Lower Manhattan residents would in many ways be the primary beneficiaries of reduced CBD traffic congestion.

It is also worth noting that people who drive from Queens and elsewhere to jobs in the Manhattan CBD include many who are employed in occupations critical to the City’s welfare – police officers, firemen, and doctors at Manhattan hospitals, for example. For many of the people who serve the City in jobs such as these, irregular or unpredictable hours make it impractical to commute by rail or bus. Whether it is in the City’s interest to increase their annual cost of getting to work by as much as \$3,500 seems at best questionable.

Small companies and trades people whose business requires frequent trips into Manhattan would also bear increased costs. Typical examples would include:

- ∞ Professional service firms located outside the CBD that regularly have business in Midtown or Lower Manhattan – attorneys based in Queens and Brooklyn, customs brokers with offices near Kennedy airport, etc.
- ∞ Bakeries that makes daily deliveries to retail and restaurant customers in the Manhattan;
- ∞ Companies that provide daily delivery of produce from Hunts Point, or flowers from other locations in Queens or the Bronx;
- ∞ Companies that service office equipment or home appliances from locations in the other boroughs;
- ∞ Small renovation contractors and other trades people – electricians, plumbers, etc.

While information about the location of companies whose employees travel to Manhattan on business is not as readily available as information on the residence of workers who commute to Manhattan, it seems reasonable to assume that the proportions are roughly similar – for example, that Queens businesses account for approximately 20 percent of the total. This means that Queens companies whose business requires travel to Manhattan would incur increased costs of more than \$100 million annually.

The cost of this system cannot be measured only in money, however; experience in London suggests that the “hassle factor” could also prove to be significant. In London, drivers who don’t have pre-paid accounts have to pay the charge on the same day it is

incurred. Penalties for late payment are severe – £50 (\$88) if paid within 14 days, £100 (\$176) if paid within 15 to 28 days, and £150 (\$264) if paid after 28 days.

There have been widespread complaints, moreover, about the operations of the system. In 2004, according to Transport for London, 27 percent of all motorists penalized for late payment or non-payment challenged the penalties – and in 68 percent of those cases, TfL acknowledged that the penalty had been improperly levied.

Impact on the City’s economy: the impact of reduced spending

A London-style congestion pricing system could be expected to have major impacts on New York City’s economy. In the near term, the negative impacts would include:

- ∞ Changes in spending among those who respond to congestion charging by changing their travel patterns – lost toll and parking revenues, plus a reduced propensity to spend on retail, restaurants and entertainment;
- ∞ The absolute loss in spending by those who don’t come at all;
- ∞ Changes in spending (by both households and businesses) among those who continue to drive, to compensate for the increased out-of-pocket cost of driving into the CBD.

Some of the reductions in spending associated with a 28 percent reduction in auto trips to the CBD – for example, lost toll revenues and a reduction in parking revenues – can be estimated with a fairly high degree of confidence. Other estimates are by nature more difficult to quantify in advance – for example, the reduction in spending on shopping and entertainment that would occur when commuters shift from autos to mass transit.

Based on what we believe to be some fairly conservative assumptions, we estimate that ***reductions in direct spending associated with a 28 percent reduction in auto trips to the CBD would total more than \$1.89 billion annually.*** As the following table shows, the sectors suffering the greatest losses would include retailing, restaurants, commercial parking, entertainment and government agencies (the Port Authority and MTA Bridges and Tunnels).

Table 1: Spending Reduction by Industry

| Categories | DIRECT SPENDING REDUCTION |
|------------------------------|------------------------------|
| Government | \$ 98,840,690 |
| Local Transportation/Parking | \$ 565,727,655 |
| Retail | \$ 807,124,030 |
| Restaurants | \$ 201,722,929 |
| Entertainment | \$ 75,200,509 |
| Other | \$ 145,593,517 |
| TOTAL | \$ 1,894,209,329 |

We estimate that the decline in spending in these various sectors would translate into a direct loss of nearly 17,700 jobs.

The economic impact of this reduction in spending within the City would not be limited to those sectors that are affected directly. Other companies in New York City that provide goods and services to the affected sectors – such as food wholesalers and restaurant supply firms – would also sustain losses. So would businesses in neighborhoods throughout the City where retail, restaurant and other workers who lose their jobs would otherwise have spent part of their paychecks.

Taking into account this “multiplier effect” of the direct loss of business and jobs, we estimate that ***the reduction in direct spending associated with London-style congestion pricing would generate a loss of:***

- ∞ ***\$2.72 billion in Citywide economic output;***
- ∞ ***Approximately 23,100 full-time-equivalent jobs.***
- ∞ ***Approximately \$155.5 million in City and \$79.4 million in State tax revenues.***

It is important to note that these are not one-time losses. Our estimates of reduced output and reduced City and State taxes represent recurring annual losses; and the loss in full-time-equivalent jobs would similarly be permanent.

Estimates of economic impact such as these inevitably have a somewhat abstract quality. To put them in context, we offer a comparison: ***In terms of its recurring impact on the City’s economy, the imposition of London-style congestion pricing on the Manhattan CBD would be the equivalent of staging an eight-day transit strike every year.***

As in a transit strike, moreover, the cost of lost spending would not be evenly distributed. It would fall most heavily on low-wage workers in the affected industries – retail clerks, waitresses and busboys, garage attendants, etc. As Mayor Michael Bloomberg said of the effects of the December 2005 strike:

....remember when we talk about these big numbers, there are individuals behind them. There are individual people who are losing their jobs in the garment industry, in the hotel industry, in the travel industry. There are a lot of people who are starting their ways up the economic ladder who don’t get paid if they can’t get to work, or if a store doesn’t open, or if the customers don’t show up.²

² Office of the Mayor, *Transcript: Strike Update Remarks and Q&A*, December 20, 2005.

The Impact of Congestion Charging on London Retailers

How has the Congestion Charging Scheme affected London's economy? Studies by advocates and opponents of the Scheme have produced conflicting results; but it is worth noting that the reaction of the business community has for the most part been negative. 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.

The results from London may not be conclusive – but they suggest that London-style congestion pricing would be particularly bad for CBD retailers.

Reduced congestion: how great a benefit?

The loss in business, jobs and taxes that results from a reduction in commuter, consumer and business spending is substantial. Even so, it might be justified if the value of reduced traffic congestion were commensurate with the cost. Currently available data suggests, however, that the gains from reduced congestion would be nowhere near the cost. Moreover, some of the gains from reduced congestion in the Manhattan CBD would be offset by *increased* congestion in other parts of the City – including areas in Queens and Brooklyn where congestion is already as bad as (or worse than) it is in Manhattan.

The New York Metropolitan Transportation Council estimates that in 2005, the cost of traffic delays in the ten-county New York metropolitan area will total approximately \$6.766 billion. While this obviously represents a substantial cost, NYMTC estimates that only 12.3 percent of all traffic delays in the region (measured in hours of vehicle delay) occur in Manhattan. Queens, Brooklyn, Nassau and Suffolk all lose more time in traffic than Manhattan does. NYMTC's data suggest that the annual cost of Manhattan traffic delays (using NYMTC's estimate of \$23 in losses for every vehicle-hour lost) is approximately \$831 million.³

³ NYMTC, 2005 Congestion Management System Report. While NYMTC's estimates reflect a common approach to calculating the cost of congestion, they may in one respect overstate that cost. In the era of the

Transport for London (the municipal agency responsible for management of the Congestion Charging Scheme) estimates that the decline in auto volume following the implementation of the Scheme has resulted in a 32 percent reduction in traffic delays. However, there is reason to believe that imposition of a similar system in New York City might not achieve the same results.

Manhattan's congestion problems are driven less by the number of vehicles coming into the CBD than by the number of vehicle-miles driven. Many of those who commute to work by car, for example, are driving a relatively short distance within the CBD and then parking for the entire day; their contribution to total vehicle-miles driven in the CBD is relatively modest. London-style congestion pricing thus might reduce the number of chargeable vehicles in the CBD by 28 percent; but it is unlikely to reduce the number vehicle-miles driven by anywhere near the same percentage.

Nevertheless, even if we accept the cost of congestion as calculated by NYMTC, and even if we assume that London-style congestion pricing would produce a 32 percent reduction in traffic delays throughout Manhattan, this would still represent a gain of only \$266 million. ***In other words, based on this analysis we estimate that the losses to New York City's economy from reduced spending would be approximately ten times the gains from reduced congestion.***

A reduction in the number of daily auto trips into the CBD could also, of course, reduce traffic on some of the major approach roads in the other boroughs, such as the Long Island Expressway. Any benefits to the other boroughs resulting from this effect would probably be offset, however, since some of the drop in CBD auto trips generated by congestion pricing would simply result in a shift in traffic from the CBD to other parts of New York City. In London, traffic on peripheral roads outside the charging zone *increased* by 10 percent after the Congestion Pricing Scheme was implemented.

Any gains that the City might derive from reduced congestion in the CBD is thus likely to be partially negated by the impact of *increased* congestion in other parts of the City – on the Brooklyn-Queens and the Cross-Bronx Expressways, for example – that are already severely overcrowded. According to NYMTC, the cost of traffic congestion is already substantially *higher* in Queens than in Manhattan – \$1.314 billion in Queens in 2005, vs. \$831 million in Manhattan. NYMTC estimates that the combined cost of congestion in the four boroughs outside Manhattan is \$2.664 billion – more than three times the cost of congestion in Manhattan.

hands-free cell phone and the Blackberry, it may no longer be valid to assume that extra time spent in traffic as a result of congestion is simply “lost.” For some drivers and passengers, time spent in traffic may be productive time.

The impact on transit

In addition to the gains associated with reduced congestion, the increased revenues that transit agencies would realize as travelers shift from autos to subways, buses, railroads and ferries can also be viewed as a benefit of congestion pricing. As noted above, we estimate that about 57.5 percent of the projected decline in people coming into the CBD by auto would be made up by a shift to some form of public transit – a total of approximately 164,500 additional subway, bus, commuter rail and ferry riders each weekday. We estimate that the public agencies (and private bus and ferry operators) that provide these services would realize \$192 million in additional revenues as a result of the shift.

The benefits of increased revenues would be tempered, however, by the implicit costs of increased congestion on some bus and subway lines. The 164,500 people estimated to switch to some type of public transit would represent an increase of 7.5 percent in the number of people using transit to enter the CBD during charging hours.⁴ While commuter rail and ferry services could probably absorb this increase, the burden on major subway lines and on bus services could be substantial.

Rush-hour ridership on several of the City’s most critical subway lines already exceeds capacity. The 4 and 5 trains for example are already approximately 20 percent over capacity during rush hour. Other lines with comparable levels of peak-period crowding include the F train from Queens and the L train from Brooklyn. Increasing ridership on these lines by 7.5 percent would aggravate overcrowding both on trains and at key stations. Increased crowding translates into longer “dwell times” in subway stations, as more time is required to discharge and load passengers – and longer dwell times at rush hour will on the busiest lines mean delays in service. Whatever gains are realized from reduced traffic congestion would to some extent be offset by losses attributable to more frequent delays in subway service.

Bus service would also be affected. According to transportation planning consultant Bruce Schaller, New York City has the slowest bus service of any major U.S. city. This is partly a result of traffic congestion. But on a number of major CBD bus routes, it is also a direct result of overcrowding, which (as on subways) can sharply increase the time required at each stop to discharge and load passengers.⁵ (Ironically, putting more people on buses might actually *increase* congestion on some Manhattan streets.)⁶

⁴ Because autos accounted for a much smaller share of all trips into central London (prior to congestion charging), than the automobile’s current share of travel into the Manhattan CBD, the increase in transit ridership that followed the implementation of congestion charging was much lower – an increase of less than 2 percent. This occurred, moreover, at a time when overall transit ridership had been declining.

⁵ Schaller Consulting, *Bus Rapid Transit for New York City*, June 2002.

⁶ Like New York, London was already experiencing serious overcrowding on its Underground system prior to implementation of its congestion charging scheme. Transport for London (TfL)’s plan for accommodating the shift from autos to public transit therefore emphasized improvements in bus service.

The revenues generated by London-style congestion pricing – as noted above, an estimated \$1.78 billion annually – could, of course, be used to finance major improvements in New York’s transit system. Indeed, for many advocates of a London-style system, this seems to be its greatest virtue.

There is no doubt that a substantial increase in New York’s investment in its mass transit system would greatly benefit the City’s economy. It would allow the MTA and the City to maintain the system in a state of good repair, enhance the quality and reliability of subway and bus services, and develop carefully-selected new services. Investment on the scale made possible by London-style pricing would also generate thousands of new jobs each year in construction and related industries, partially offsetting the jobs lost as a result of reduced spending.

Before we embrace London-style congestion pricing as a solution to New York’s mass transit financing problems, however, we need to ask whether, from an economic perspective, the London system represents the best way for New York to meet its mass transit financing needs. The answer to that question is probably “no.”

As a revenue-raising system, London-style congestion pricing is simply not very efficient. In 2005, operation of London’s system – which relies on the use of cameras to track vehicles traveling in central London – cost approximately £97 million (about \$171 million) and it was expected to net £80 to £100 million (\$140 to \$176 million). Operations and maintenance costs thus take 50 to 55 percent of total system revenues.

In New York City, a London-style system would generate much more in total revenue. But it might cost more to operate as well. Even after taking into account the anticipated reduction in traffic, a Manhattan CBD system would have to process about 500,000 charging transactions per day – about four times as many as London.

Thus, even if New York can achieve a better operating ratio than London has, a London-style system would still be a particularly inefficient way to raise money for transit. There are other ways to increase funding for transit capital projects that would be much more efficient from both an economic and an operating perspective – and much less damaging to the City’s economy.

TfL spent £200 million for 300 new buses and on bus stop, bus lane and terminal improvements. Overall, TfL estimates that peak-hour bus capacity in central London increased by 20 to 25 percent.

In New York City, however, a large-scale shift from autos to buses may not be as feasible. The larger numbers involved, the relatively long distances that many auto users travel to get to Manhattan – the fact that traffic congestion in some areas outside Manhattan is already severe – and the reality that bus travel from outside the CBD (like auto traffic) would have to be funneled through a limited number of river crossings – probably make a major shift to buses much less feasible in New York than it was in London.

Impact on the City's economy: investment and location decisions

The economic cost of London-style congestion pricing would not be limited to the near-term impact of a reduction in the number of people coming into the City, and the resulting loss in spending. Over time, the substantial costs imposed on companies in and commuters to the CBD would make Midtown and Lower Manhattan less competitive, and lead to further erosion of the City's economic base.

Entrepreneurs, managers and professionals who live in the suburbs and drive to work in the CBD are vital to the health of New York City's economy – and they typically have more latitude than the average employee in deciding where to work, or where to locate a business. The loss of high-end workers, the loss of new investments, and business relocations could within a few years cost New York City thousands of additional jobs.

We will not attempt here to quantify these losses. By way of comparison, however, we can note that in 2002 the Manhattan Institute – in an analysis that focused on the impact of tax increases on investment and location decisions – estimated that a \$700 million increase in New York City resident income taxes enacted in 2002 would cost New York City 18,250 private-sector jobs.

Advocates of congestion pricing will no doubt argue that reduced congestion would make the Manhattan CBD a more attractive place to work and do business. As the preceding analysis suggests, however, the costs incurred by those working and doing business in the CBD are likely to outweigh the benefits.

Reducing congestion in the Central Business District – and beyond

Lessening traffic congestion in the Manhattan Central Business District is certainly a worthwhile goal. There are, however, a number of ways in which the City can reduce congestion – and in some cases, has already started to do so – without incurring the economic losses that London-style congestion pricing would entail. These could for example include:

- ∞ More vigorous enforcement of existing traffic and parking rules;
- ∞ Improved signalization;
- ∞ Greater use of information technology to manage the flow of traffic;
- ∞ Better coordination of vehicular and pedestrian traffic – as the City has already done successfully on some Midtown streets;
- ∞ Reviewing existing City policies governing the pricing of on-street parking in the CBD, with the goal of using scarce street space more efficiently, and discouraging drivers from “cruising” for free or low-cost parking;
- ∞ More active management of construction activity throughout the CBD (as the City and State have begun to do in Lower Manhattan) in order to reduce traffic disruptions; and
- ∞ Incentives for businesses to schedule deliveries in off hours.

The continued recovery of the City's economy is likely during the next several years to draw more people and more vehicles into the Manhattan Central Business District each day. The City needs to develop a coherent strategy for managing its growing traffic – one that:

- ∞ Integrates multiple approaches to the problem;
- ∞ Focuses on practical measures that the City already has authority to undertake – and that can be implemented relatively quickly; and
- ∞ Recognizes the need to address the problems and costs of congestion not just in the Manhattan CBD, but in other parts of the City as well.

Most of all, the City also needs to ensure that in the aggregate, the benefits of its congestion management strategy exceed its costs. Based on this analysis, it seems clear that London-style congestion pricing – by a wide margin – will fail to meet that test.