

Road Pricing London: Eine aktuelle Zusammenfassung der Auswirkungen

Ein aktueller Bericht der Transport for London TfL fasst die neuesten verfügbaren Informationen über die Auswirkungen und die Durchführung des Road Pricings in der Londoner Innenstadt zusammen. Die Effekte sind grösstenteils positiv. Demnach hat der Gesamtverkehr im Zentrum um 18 Prozent abgenommen. Es sind 30 Prozent weniger Privatleute mit dem Auto im Zentrum unterwegs als früher. Im Gegenzug steigen wesentlich mehr Menschen auf den öffentlichen Verkehr um, um innerhalb Londons von A nach B zu kommen. Anmerkung: Der Bericht ist in Englisch verfasst.

Weitere Informationen:
Transport for London TfL

www.londontransport.co.uk/tfl/

Road Pricing Londres: Bilan actuel

Rapport actuel sur les effets et la poursuite de l'expérience de Road Pricing (péage) dans le cœur de Londres. Les effets sont globalement positifs. Le trafic au centre ville a diminué de 18%, alors qu'il y a 30% de moins de voitures individuelles au centre. En contrepartie, les clients des transports publics ont augmenté considérablement.

Plus d'information (en anglais):

Réduction de trafic :

expérience du Road Pricing à Londres (en anglais) www.londontransport.co.uk/tfl/

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ongestion Charging

Update on scheme impacts and operations
February 2004

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Background and purpose of this report

This report provides a summary of the latest available information about the impacts and operation of the central London congestion charging scheme that was introduced on 17 February 2003.

It updates some of the material previously presented in *Congestion Charging: Six Months On*¹, in October 2003, drawing on data from the monitoring programme available at the beginning of 2004.

Fuller details of emerging results from the monitoring programme will be provided as part of a second annual monitoring report, expected to be published in Spring 2004.

Transport for London's *First Annual Monitoring Report - Conditions Before Charging*² was published in June 2003. It set the scene for subsequent reports and describes the monitoring programme in detail.

The congestion charging scheme – including its associated traffic management and complementary public transport measures – is kept under continual review by Transport for London (TfL). Various adjustments have been made to the scheme since it was first formally proposed in a Scheme Order made by TfL in 2001 and confirmed by the Mayor in 2002.

The material in *Six Months On* was based on surveys and other work carried out up to late Summer 2003. Over the latter part of 2003 a further round of comprehensive traffic surveys have been completed, and the key results from these are reported in this document. In general, the findings confirm the emerging patterns reported previously.

Fieldwork for TfL's main economic and social surveys was undertaken during Autumn 2003. Initial results from this work are now becoming available and some interim findings are set out in this document.

A further presentation and synthesis of the results of TfL's economic, social and environmental monitoring will be included in the second annual monitoring report, following a thorough analysis of the emerging data. This will allow firmer conclusions to be drawn on the key social, economic and environmental effects of the scheme.

¹ Available at www.tfl.gov.uk/congestioncharging

² The report can be purchased from the London Transport Museum (telephone +44 (0) 20 7379 6344) and is available at www.tfl.gov.uk/tfl/cc_monitoring.shtml.

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Summary

In October 2003, Transport for London published *Congestion Charging: Six Months On*. This summarised the emerging effects of the central London congestion charging scheme. This report updates – where possible – the material presented in *Six Months On*. In summary, this report concludes:

- Driver responses to charging remain settled: traffic data, payments data and other survey information all continue to point to new settled patterns of travel.
- Traffic delays inside the charging zone average 30 percent lower than before charging was introduced.
- Latest measurements of traffic volumes in and around the charging zone are confirming the changes previously reported in *Six Months On*, with reductions in traffic entering and circulating within the charging zone broadly in line with TfL's expectation.
- Provisional estimates of year-on-year changes in traffic levels during charging hours show a reduction of 15 percent in traffic circulating within the zone, and a reduction of 18 percent in traffic entering the zone during charging hours.
- There remains no evidence of any significant adverse traffic impacts from the scheme outside the zone. Traffic management arrangements continue to successfully accommodate traffic diverting on to the boundary route, and more widely in inner London.
- Public transport continues to cope well with ex-car users: additional bus capacity is accommodating extra passengers travelling to the zone, both as a result of charging and as part of the wider trend towards increased bus travel throughout London.
- Buses continue to demonstrate significant gains in reliability in and around the charging zone, with up to a 60 percent reduction in disruption caused by traffic delays.
- Surveys of over 700 businesses inside and immediately outside the charging zone have shown that wider economic and other factors were reported most frequently as influences on recent business performance; congestion charging constituted only 12 percent of the reported influences.
- When asked if the business supports congestion charging as long as there is continued investment in public transport, around 60 percent of the surveyed businesses agreed; around 20 percent of businesses disagreed and around 20 percent with no change or don't know.
- Further analysis of economic trend and other data are confirming the key influence that 'external' factors had on the central London retail economy during the first half of 2003, and that the direct congestion charging effects on retail performance are small.

- The improvements in congestion, public transport and amenity are being recognised by businesses and Londoners.
- Following the supplemental agreement of September 2003 with Capita (the main contractors operating the scheme) a phased programme of IT, process, management, training and staffing improvements is being progressed and is already providing improvements.
- The fall in average call times to the Capita call centre after the first three months of the scheme to below three minutes has been sustained, the percentage of blocked calls is now close to zero and the average wait time in early January 2004 was around 20 seconds.
- A phased programme of improvements to the enforcement service is also being introduced. In line with this the number of Penalty Charge Notices (PCNs) issued has increased with an average of some 165,000 per month while representations made in response to PCNs have fallen from 64 percent in the early weeks of the scheme to a recent level of about 22 percent. This indicates both increased familiarity with the scheme and improvements in its operational systems.

1. Introduction

1.1 The central London congestion charging scheme was introduced on 17 February 2003. The primary aim of the scheme is to reduce traffic congestion in and around the charging zone. The scheme is intended to contribute directly to four of the Mayor's ten priorities for transport as set out in his Transport Strategy published in July 2001:

- to reduce congestion
- to make radical improvements in bus services
- to improve journey time reliability for car users
- to make the distribution of goods and services more reliable, sustainable and efficient.

1.2 The scheme also generates net revenues to improve transport in London more generally.

1.3 The congestion charge is a £5 daily charge for driving or parking a vehicle on public roads within the congestion charging zone between 07:00 and 18:30, Monday to Friday, excluding weekends and public holidays.

1.4 The central London congestion charging zone is shown in Figure 1. It covers 22 square kilometres in the heart of London, including centres of government, law, business, finance and entertainment.

Figure 1. The congestion charging zone



- 1.5 The Inner Ring Road forms the boundary of the congestion charging zone, and no charge applies to vehicles using that route.
- 1.6 Certain categories of vehicle, notably taxis, motorcycles and buses, are exempt; and certain categories of vehicle users can register for discounts – for example residents of the congestion charging zone can register for a 90 percent discount (for a minimum weekly payment), and disabled Blue Badge holders are eligible for a 100 percent discount.
- 1.7 In October 2003 Transport for London (TfL) produced *Congestion Charging: Six Months On*, a summary of the information available from the first six months of the scheme. The conclusions then were that driver responses to the scheme appeared to have settled down and that the emerging impacts of the scheme were broadly along the lines expected by TfL.
- 1.8 The reductions in both traffic and congestion that had been observed in the charging zone compared well to TfL's range of expectation, with charging delivering reductions in congestion of around 30 percent within the charging zone (compared to an expectation of between 20 and 30 percent). Few problems had been observed relating to displaced traffic - either on the boundary route itself, the Inner Ring Road, or more widely outside the charging zone.
- 1.9 Emerging findings relating to public transport were that the additional bus capacity put in place was successfully accommodating the net increase of those who had transferred to public transport. The reliability of buses in and around the charging zone had also improved significantly, both as a result of better traffic conditions and other measures.
- 1.10 However, interpretation of charging-related effects was complicated by a number of other 'background' trends in travel to central London. The 'step' reductions in traffic and congestion in the charging zone took place against a longer-term trend of declining car travel to central London. The increased patronage on buses also took place against a background of strongly-increasing bus patronage across London, reflecting wider improvements in the bus network, and an apparent reduction in Underground travel to central London during the first half of 2003.
- 1.11 *Six Months On* provided an initial assessment of the impacts on business of the scheme, based largely on analysis of the measured changes in travel behaviour. These effects had assumed greater prominence because of increasing evidence of a 'slowdown' in the central London economy during the first half of 2003, particularly affecting retail activity. There have been some concerns that congestion charging might have contributed to this.

- 1.12 The main conclusion was that charging is directly responsible for only a small reduction in the number of people coming to the charging zone. This was because travel to the zone is dominated by public transport, and also the majority of car drivers displaced by charging have still been making their journeys by other means.
- 1.13 In addition, there was strong evidence then emerging that contemporaneous events such as the prolonged closure of the Central Line and the international situation (war in Iraq, fall in tourism) had contributed strongly to the observed trends. One indicator of the extent to which this was true would be the degree to which key indicators of economic activity returned to their longer-term trends once these temporary extraneous factors diminished.
- 1.14 This report seeks to update – where possible – the material presented in *Six Months On*. New data are available from the Autumn 2003 round of traffic surveys, enabling provisional year-on-year estimates of change in the key traffic volume indicators used in the monitoring programme. Further surveys of traffic speeds and congestion in and around the charging zone are presented, as are updated information on bus patronage and reliability.
- 1.15 Initial findings are now becoming available from TfL's own comprehensive interview surveys of over 700 businesses in and immediately around the charging zone. An overview of these emerging findings is given in the context of wider trends in the central London economy.
- 1.16 Some initial results are given from the programme of on-street public space surveys conducted in October and November 2003.
- 1.17 Updated information is provided on aspects of the operation of the scheme, relating to payments, revenues and enforcement.
- 1.18 All the indications are that the central London congestion Charging Scheme is continuing to deliver its objectives and to contribute directly to four of the Mayor's ten transport priorities:
- reducing traffic congestion
 - radically improving bus services
 - improving journey time reliability for car users
 - making the distribution of goods and services more reliable, sustainable and efficient.

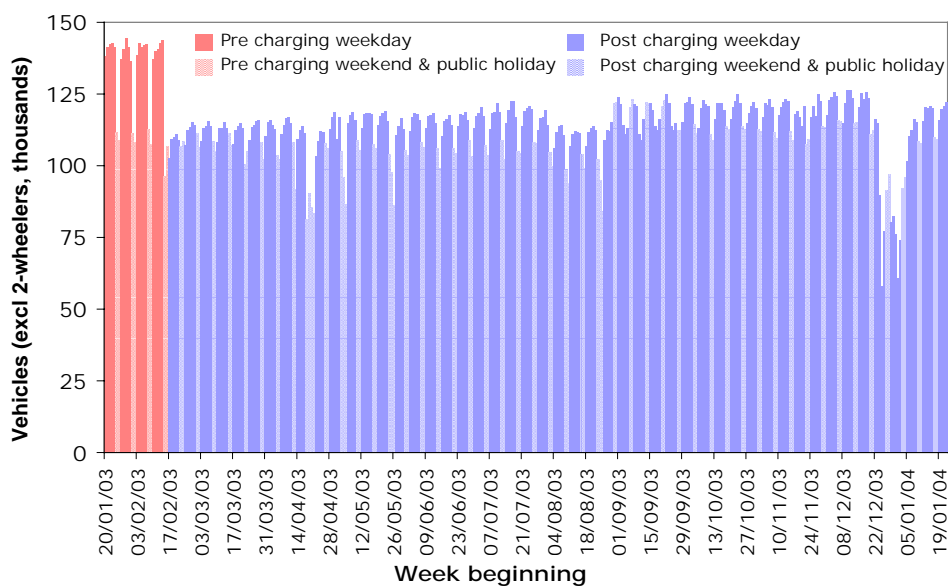
2. Traffic and transport impacts

Settled traffic patterns

Key traffic and congestion indicators show a continuation of the patterns that were established within the first few weeks of the scheme.

- 2.1. Recent data on traffic patterns, charge payments, travel behaviour and congestion levels all continue to indicate that the new patterns of travel are well established and that the traffic and transport effects of the scheme remain stable.
- 2.2. As discussed in Section 6, payment levels for the charge continue to remain relatively constant, at some 110,000 payments per day, including payments by residents and through fleet accounts.
- 2.3. Figure 2 updates results given in *Six Months On*, and shows daily volumes of traffic entering the charging zone across a selection of major road entry points during charging hours, or equivalent on weekends or public holidays, for all days since mid-January 2003.
- 2.4. This is a indicator of traffic entering the charging zone, based on data from automatic traffic counters, and shows that the overall pattern and volumes are consistent with the pattern presented in *Six Months On*.

Figure 2. Traffic entering the charging zone during charging hours on a representative selection of major entry points

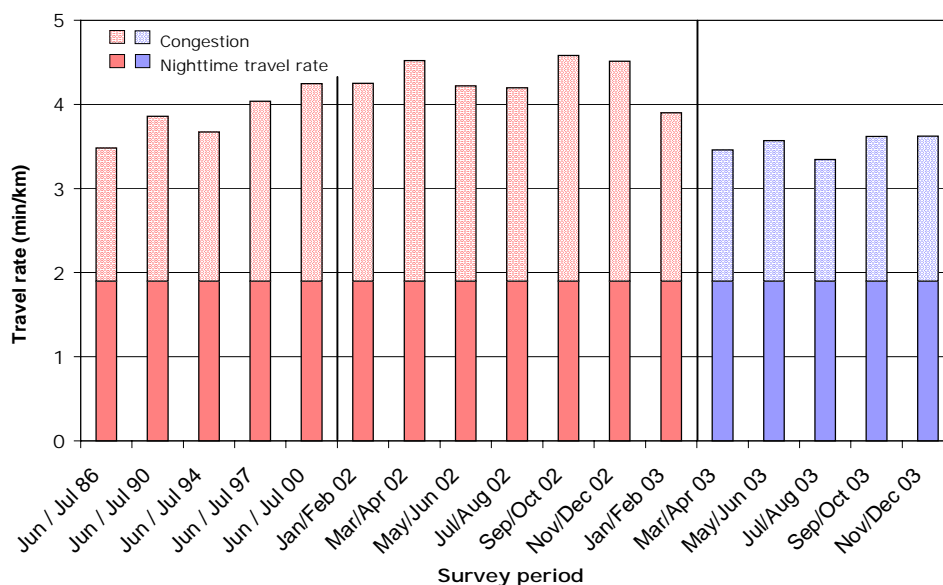


Reduced congestion inside the charging zone

Transport for London surveys show continued reductions in congestion inside the charging zone, which average 30 percent.

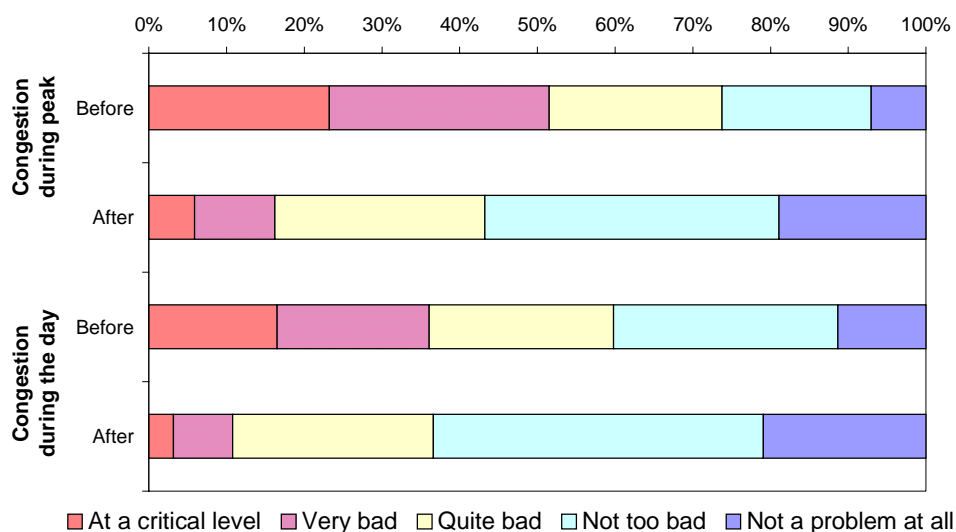
- 2.5 Traffic congestion is measured in terms of the minutes of delay per kilometre travelled, compared to the travel rate for a journey in uncongested conditions. Transport for London expected a 20 to 30 percent reduction in congestion inside the charging zone during charging hours, against typical traffic delays of 2.3 minutes/km, estimated to be representative of conditions before charging was introduced.
- 2.6 *Six Months On* presented results from the three bi-monthly surveys of congestion that had been completed to that point, extending to August 2003. These showed reductions in congestion of around 30 percent, with typical traffic delays in the charging zone being around 1.7 min/km and all-day average network speeds of between 16 and 17 kilometres per hour.
- 2.7 Figure 3 updates the emerging picture by including the two most recent surveys, for September/October and November/December 2003. Results for these two surveys are comparable to those reported previously, both again indicating delays of around 1.7 min/km over and above the uncongested travel rate, a reduction of 26 percent. The average reduction since charging commenced is 30 percent.
- 2.8 The congestion benefits seen in the first few months of the scheme are therefore being sustained, with reductions in congestion towards the upper end of the range of TfL's prior expectation.

Figure 3. Congestion levels in the charging zone during charging hours



2.9 There is increasing evidence that businesses and the general public are recognising the benefits of reduced congestion in central London. Figure 4 shows a shift in the perception of traffic congestion among central London businesses surveyed by TfL, comparing opinions expressed in Autumn 2003 with those of Autumn 2002. There has been a noticeable reduction in the proportion of businesses categorising congestion as 'at a critical level' or 'very bad', with an associated increase in those saying it was 'not too bad' or 'not a problem at all'. Similar, but less pronounced findings from the on-street public place surveys are shown later in Figure 17.

Figure 4. Change in perceived level of congestion in central London



Source: TfL Telephone Business Surveys, Autumn 2002 compared with Autumn 2003

Stable traffic conditions on the Inner Ring Road

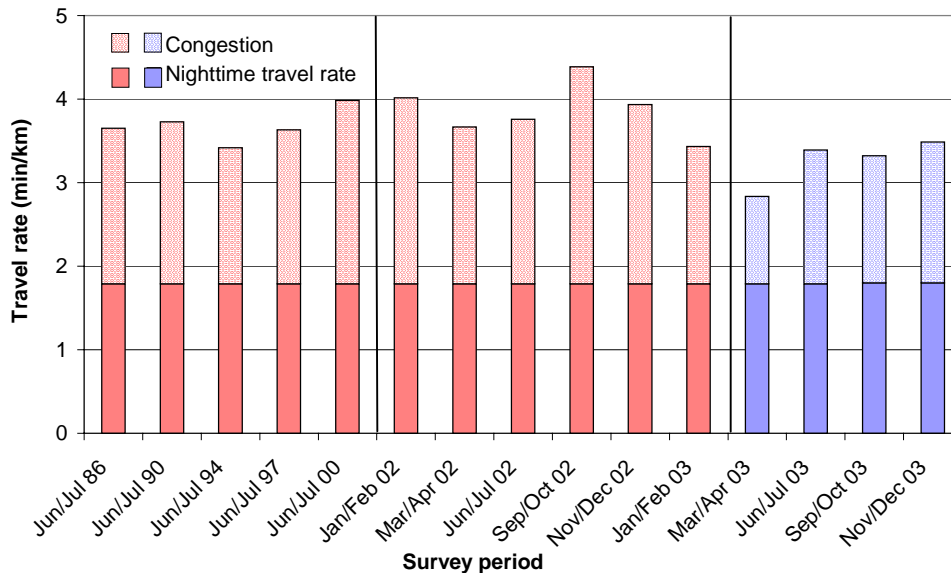
Measurements on the Inner Ring Road continue to show reductions in congestion compared to pre-charging levels, reflecting better operational management of this key route.

2.10 The Inner Ring Road forms the boundary of the congestion charging zone. No charge applies to vehicles using this route. Concerns were raised before the start of the scheme that traffic diverting on to the Inner Ring Road to avoid the charge could lead to increased congestion. Transport for London expected that with the implementation of improved traffic management arrangements, there would be no overall change in congestion on this route.

2.11 *Six Months On* presented results from early bi-monthly surveys of congestion on this route. Figure 5 updates this with results from two more recent surveys, for September/October and November/December 2003. Results from these two are similar to those for June/July 2003, suggesting a stable picture with typical

delays between 1.5 and 1.7 mins/km, compared to a representative pre-charging value of 1.9 mins/km.

Figure 5. Congestion levels on the Inner Ring Road during charging hours



Traffic entering the charging zone

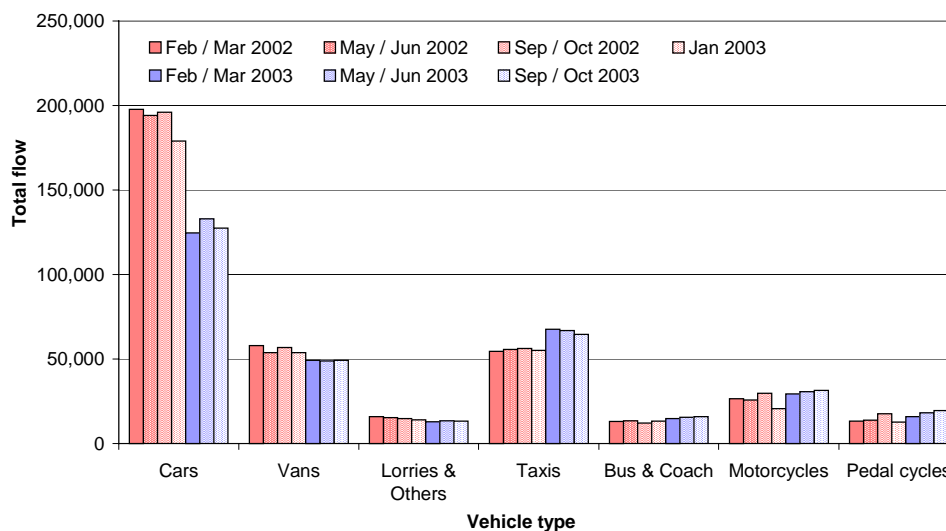
Counts of traffic entering and leaving the charging zone during Autumn 2003 reveal a broadly similar picture of reductions to that observed in Spring 2003.

2.12 *Six Months On* reported changes in traffic entering the charging zone from two sets of comprehensive counts undertaken just inside the boundary of the charging zone in the first few months after the introduction of charging. Although a variety of different comparisons were possible using these data, the most representative assessment was of a 16 percent reduction in vehicles with four or more wheels entering the charging zone during charging hours, using a comparison of Spring 2002 against Spring 2003.

2.13 It is now possible to prepare provisional estimates of annual change, by combining the results of both sets of counts (Spring and Autumn) across 2002 and 2003 as shown in Figure 6.

2.14 This comparison shows that the number of vehicles with four or more wheels (cars, vans, lorries, taxis, buses and coaches) entering the charging zone during charging hours has reduced by 18 percent. The year-on-year reduction in potentially-chargeable vehicles (cars, vans and lorries) is 27 percent, and the reduction in all vehicles (including pedal cycles and powered two-wheelers) is 14 percent.

Figure 6. Total traffic entering the charging zone during charging hours



2.15 The changes to the volumes of different types of vehicle entering the charging zone during charging hours (rounded figures) are as follows:

- Car movements have reduced by about 30 percent, slightly above the top end of TfL's expectations of 17 to 28 percent.
- Taxi movements have increased by about 20 percent.
- Bus and coach movements have increased by over 20 percent, largely reflecting the additional bus service provision introduced by TfL.
- Van and lorry movements have reduced by about 10 percent.
- Pedal cycle movements have increased by about 20 percent.
- Powered two-wheeler movements have increased by between 10 percent and 15 percent.

2.16 Compared with the results presented in *Six Months On*, the reduction in traffic is slightly greater. This is primarily the result of now being able to compare year on year changes, rather than indicating any significant changes in the impact of charging.

2.17 For most vehicle types, the overall patterns shown by the combined Spring and Autumn comparison are similar to those described in *Six Months On*, and the level of traffic reductions observed then are being maintained. The one noticeable difference is for two wheeled traffic, where the annualised increases are of a smaller magnitude than those obtained by comparing Spring 2002 to Spring 2003 counts.

Traffic circulating within the charging zone

Provisional estimates of the year-on-year change in vehicle-kilometres driven within the charging zone during charging hours indicate a reduction of 15 percent for vehicles with four or more wheels between 2002 and 2003. This compares to TfL's expectation of a reduction of between 10 percent and 15 percent.

2.18 *Six Months On* reported that the range of indicators then available of traffic levels within the charging zone were showing reductions within the 10 percent to 15 percent range expected by TfL. It was stated that calculation of the annual change in vehicle kilometres driven by vehicles with four or more wheels (the measure to which TfL's 10 to 15 percent expectation applied) would be possible once data from the Autumn 2003 programme of counts was available.

2.19 Provisional results from the Autumn 2003 counts are now available. Comparing charging hours on a typical 2003 weekday with the 2002 equivalent, they show that:

- For vehicles with four or more wheels, vehicle-kilometres have reduced by about 15 percent.
- For all vehicles, vehicle-kilometres have reduced by about 12 percent.
- For potentially-chargeable vehicles (cars, vans and lorries), vehicle-kilometres have reduced by about 25 percent.
- For cars, vehicle-kilometres have reduced by about 34 percent.

2.20 Whilst further analysis is required, these figures are broadly in line with the upper extent of TfL's expected range.

Traffic levels on the Inner Ring Road

2.21 Small overall increases in traffic have been measured on the Inner Ring Road. Traffic using this route to avoid the charging zone continues to be successfully managed.

2.22 *Six Months On* reported an overall increase of 5 percent in traffic using the Inner Ring Road. Further counts undertaken during Autumn 2003 allow this estimate to be refined; and it is now possible to calculate a provisional year-on-year estimate of change in terms of vehicle-kilometres travelled.

2.23 This shows that – for a typical 2003 post-charging day (07.00 to 18.30) – the total kilometrage travelled by all vehicles in both directions on the Inner Ring

Road was 4 percent higher than for 2002, though changes at the local scale vary from the overall figure.

- 2.24 This change is somewhat lower than TfL's prior expectation. It needs to be seen in the context of improved management of traffic on the Ring Road itself, and the likely impact of traffic management and other infrastructure schemes in the vicinity of the Ring Road completed before the introduction of charging.
- 2.25 It is clear from Figure 5 that overall congestion levels on the Inner Ring Road continue to show a small improvement over those applying during 2002.

Traffic changes outside the charging zone

Varying, but relatively small changes in orbital traffic outside of the charging zone continue to be observed. Transport for London concludes that there is no general evidence of significant increases in orbital traffic beyond the Inner Ring Road.

- 2.26 Small increases in orbital traffic were projected as a result of congestion charging. *Six Months On* reported overall traffic volume changes ranging from increases of 7 percent to decreases of 7 percent from partial surveys of traffic on the more major roads crossing these screenlines in Spring 2003 compared to equivalent surveys in Spring 2002.
- 2.27 Full counts on the set of four radial screenlines extending outwards from the charging zone have now been completed. The comparison for Autumn 2002 and Autumn 2003 (typical weekday, charging hours) includes all roads intercepted by the screenlines (75 sites in total), but again excludes the boundary route itself, the Inner Ring Road.
- 2.28 For all vehicles, provisional results for the charging period show overall increases of 1 percent across the northern and eastern screenlines, and decreases of 6 percent across the southern screenline and 8 percent across the western screenline.
- 2.29 For potentially-chargeable vehicles (cars, vans and lorries – those that would be most expected to divert) the equivalent changes are: no change across the eastern screenline, a decrease of 2 percent across the northern screenline, and larger decreases of 7 percent and 8 percent across the southern and western screenlines respectively.

- 2.30 Based on these results, TfL concludes that there is no evidence of material overall increases in orbital traffic beyond the Inner Ring Road resulting from charging.
- 2.31 Traffic continues to be monitored on a permanent basis at 29 sites on local roads surrounding the charging zone, with a further 17 sites monitored periodically, at the request of individual boroughs. Of the 29 sites for which more recent data is available, flows at over half the sites have remained the same or seen a reduction of up to 13 percent when compared to pre-charging conditions (for the charging hours). The remaining sites have seen increases of up to 7 percent. An exception to this is Old Bethnal Green Road, where a decrease of 31 percent has been recorded, although this is most likely due to abnormal conditions prior to charging.
- 2.32 Although these local sites do not provide an indicator of total traffic within a borough they are a useful gauge when grouped on a borough basis. Sites outside of the charging zone in Camden and Tower Hamlets have seen an overall decrease in traffic of 7 percent. The others have seen minor increases of 1 percent in Westminster, 2 percent in Kensington and Chelsea and 3 percent in Southwark.
- 2.33 Generally there has been little change in these trends since the findings in *Six Months On*. No further data are yet available for sites in Wandsworth, Lambeth and Hackney, where decreases of up to 9 percent have been previously reported.
- 2.34 *Six Months On* highlighted evidence suggesting that the traffic changes observed following the introduction of congestion charging took place against a backdrop of more general changes to traffic and travel across London. Transport for London is continuing to monitor these wider trends, and future assessments will include data from surveys of radial traffic approaching the zone, which are not yet fully available.

Bus patronage and supply

There has been a year-on-year increase of 29,000 bus passengers entering the zone during the morning peak period (07:00 to 10:00). Comparing Autumn 2003 with Autumn 2002, an additional 560 buses were observed entering the charging zone during the morning peak period.

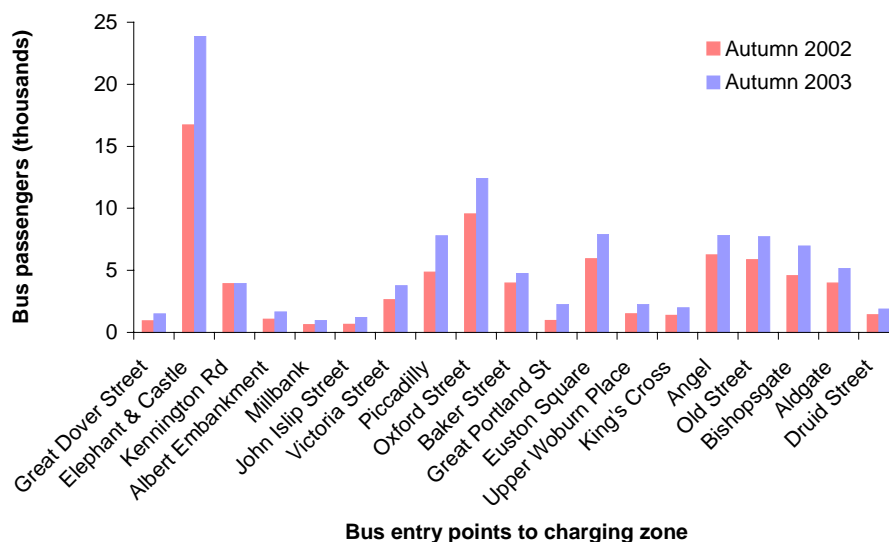
- 2.35 Comprehensive surveys of every bus crossing point at the congestion charging boundary were completed during Autumn 2003. These are comparable to counts done in Autumn 2002. They include 'background' growth, not directly attributable to congestion charging, and reflecting the recent trend of strongly-

increasing bus patronage throughout London due to such factors as improvements in service levels, better reliability, new vehicles and fares effects.

2.36 The data indicates that on all services entering the charging zone during the morning peak period there were approximately 29,000 additional passengers, an increase from 77,000 to 106,000.

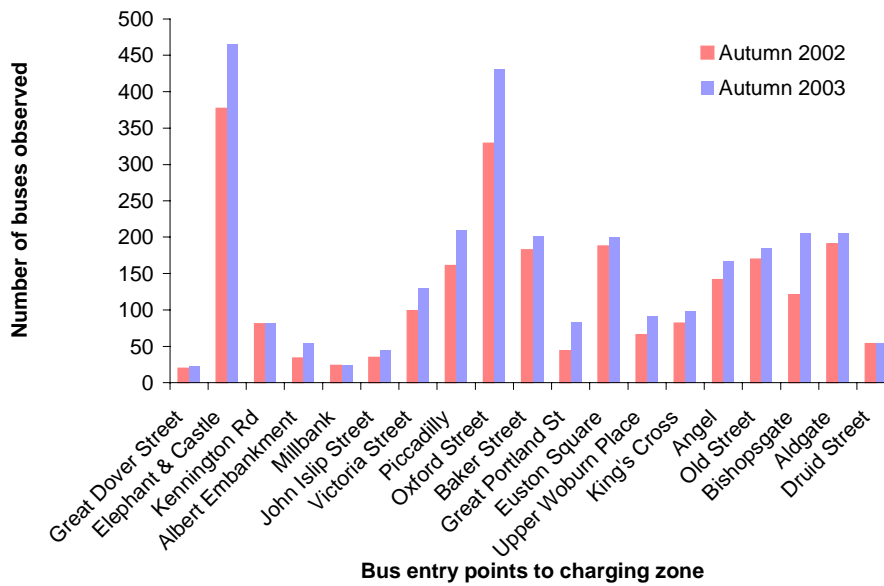
2.37 This additional demand is equivalent to around 14,000 additional passengers to the charging zone in the peak hour, measured at the points shown in Figure 7. The number of places on buses at these points was increased by approximately 13,500, based on 70 to 80 percent of the total capacity of the buses, before charging commenced. A further 1,000 places have since been added, giving a total increase of 14,500 places. Further passenger growth will require more capacity to be provided.

Figure 7. Changes in morning peak period bus passengers by location



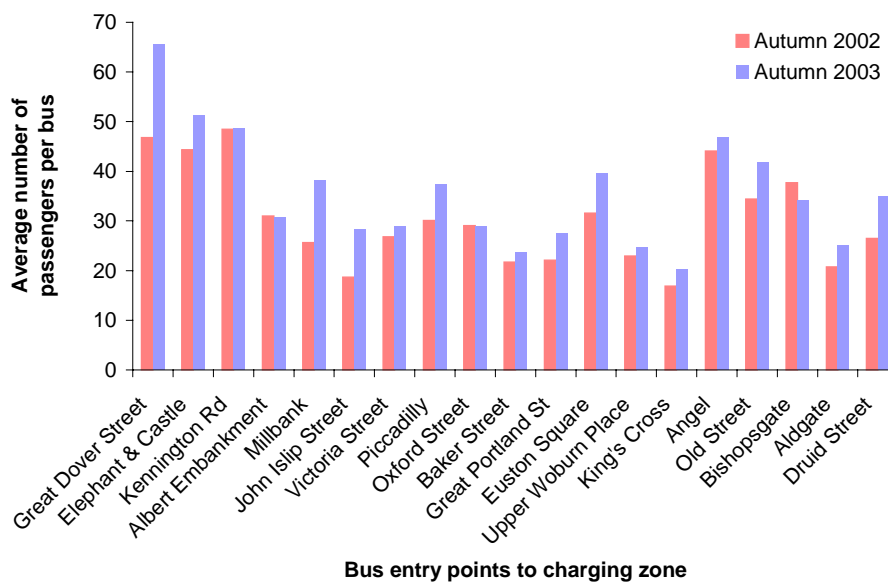
2.38 Figure 8 indicates the change in the number of buses observed at each location entering the charging zone between Autumn 2002 and Autumn 2003. In total there were an extra 560 buses entering the zone during the morning peak period (a 23 percent increase).

Figure 8. Buses observed entering the charging zone by location



2.39 In line with the whole of the bus network, there has been some increase in average passengers per bus. This is reflected in the increase in bus patronage being proportionately greater than the increase in service provision. However, in general these increases have been acceptably accommodated – see Figure 9. In some cases there will need to be further service provision if patronage continues to increase.

Figure 9. Average number of passengers per bus by location



Bus journey times and reliability

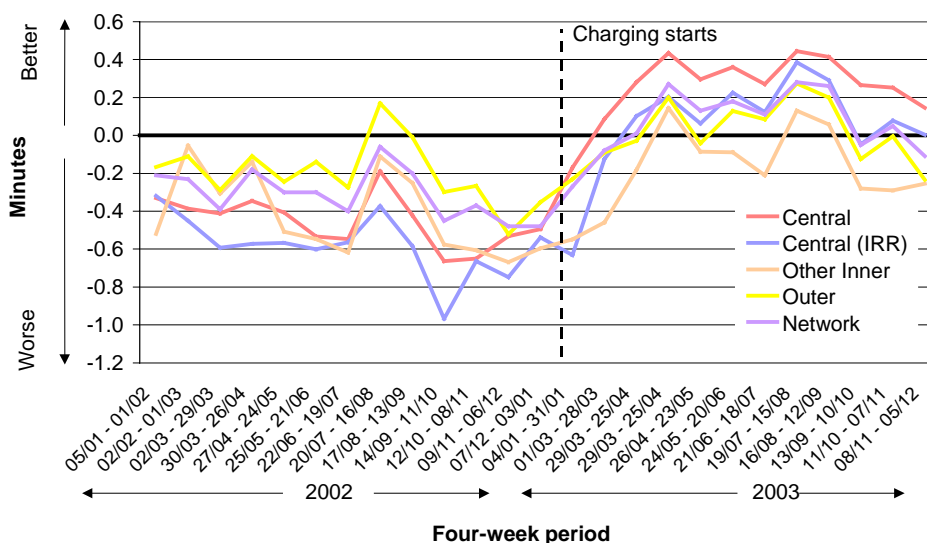
Improvements to bus reliability and journey times reported previously continue to be demonstrated, with the greatest improvements being in and around the charging zone.

2.40 Since charging was introduced, improvements in both reliability and journey times have been reported across the London bus network. This continues to be the case. These improvements are due to a variety of factors including increased investment in robust schedules, the introduction of Quality Incentive Contracts and the effects of charging.

2.41 Across London there has been an improvement of over 20 percent in Excess Waiting Time, the additional wait time at bus stops experienced by passengers caused by service irregularity or missing buses. For passengers in and around the charging zone the improvement is considerably greater with a reduction in waiting time of around one-third since the introduction of the scheme compared to the same periods last year.

2.42 London Buses sets the bus operators performance standards for Excess Waiting Time based on the characteristics of the route. Figure 10 shows decreases in actual Excess Waiting Time relative to the minimum standards.

Figure 10. Bus Excess Waiting Time (Monday to Friday, 07:00 to 19:00) difference between Excess Waiting Time standards and actual Excess Waiting Time



2.43 As with Excess Waiting Time, the level of decline in disruption to services caused by traffic congestion since charging was introduced compared to the

same periods last year remains at around the same level reported in *Six Months On*. Routes serving the charging zone experience 60 percent less disruption due to traffic delays, routes serving the Inner Ring Road experience over 50 percent less, and across London as a whole the fall is around 40 percent.

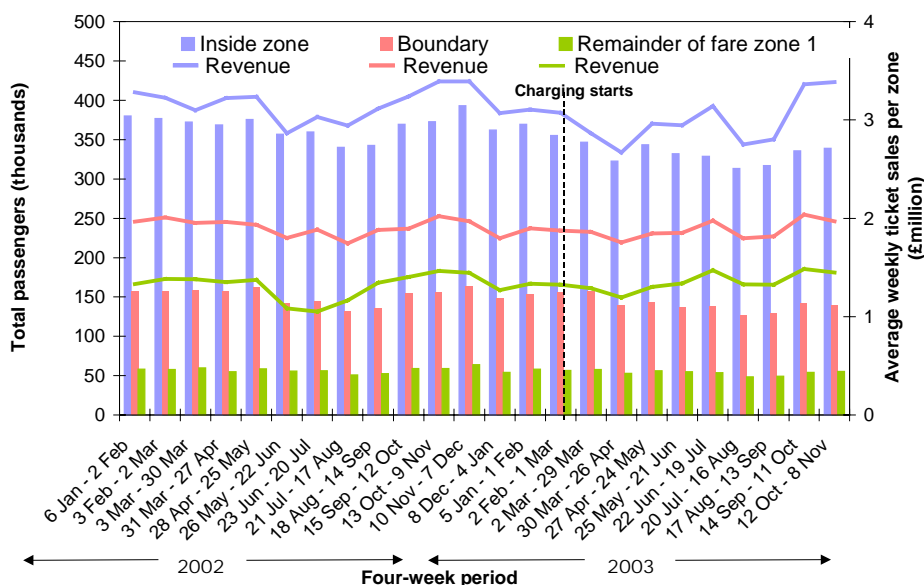
- 2.44 Improvements to bus speeds on a sample of monitored sections also remain at around the same level reported in *Six Months On*. Since charging commenced, the average improvement in the charging zone is around 7 percent compared to the same time last year and on sections close to the zone and on the Inner Ring Road there are improvements of up to 3 percent.

Underground

Updated Underground passenger data continue to suggest lower levels of travel to central London compared to 2002.

- 2.45 *Six Months On* presented data showing falls in Underground travel to the charging zone of between 5 percent and 10 percent between June/July 2002 and June/July 2003. This was part of a London wide network decline of between 2 and 3 percent. Temporary factors such as the Central Line closure, and longer-term mode transfer to improved bus services and a general economic decline were thought to be responsible. The overall reductions in people visiting central London by Underground was thought to be significant in explaining emerging evidence of a 'slowdown' in the London retail economy.
- 2.46 These wider reductions more than outweighed any increases in passengers resulting directly from congestion charging, so no issue of congestion changing increasing overall Underground congestion has arisen.
- 2.47 Figure 11 updates the picture in *Six Months On*, showing estimates of patronage from automatic ticket barriers as well as ticket sales at stations inside the charging zone, around the charging zone and within the rest of Fare Zone 1. Both data sources are broadly corroborative (although ticket sales data are more volatile), and patronage throughout 2003 is noticeably down on equivalent months in 2002. Reductions in gate-based estimates of patronage in and around the charging zone of between 7 and 10 percent compare with reductions of between 4 and 7 percent across the entire network. Revenue-based indications of patronage as reported by LUL indicate overall reductions of up to 3 percent across the network.

Figure 11. Passengers exiting Underground stations in and around the charging zone during morning peak period (07:00 to 10:00)



Accidents

The charging zone and Inner Ring Road are experiencing greater accident reductions than the rest of London. The general trend of year on year decline in road traffic accidents appears to be continuing. However, it is still too early to draw firm conclusions about the impact of congestion charging.

2.48 Based on the first 6 months of provisional data since charging began there has been a reduction of 8 percent in the number of reported personal injury accidents in the charging zone during charging hours compared to the same period last year. Some 6 percent fewer pedestrians were involved in accidents, along with 4 percent fewer motorcycles and mopeds, 7 percent fewer cyclists and 28 percent fewer cars, compared to the same period last year.

2.49 This is consistent with the general trend of year-on-year decreases across London, though the available data indicate decreases in accident levels inside the zone and on the Inner Ring Road that are proportionately greater than for the rest of London.

2.50 Although these data are encouraging, TfL considers that it is still too early to draw firm conclusions about the effect of congestion charging on accidents.

3. Travel behaviour

Results from detailed interview surveys that look at the impacts of congestion charging on households and individuals are now being assembled. It is planned to provide an initial overall view on changed travel behaviour in the second annual monitoring report due in Spring.

3.1 *Six Months On* concluded, *inter alia*, that:

- the reduction in car trips into or through the charging zone as a result of the scheme is around 60,000 per charging day
- 20 to 30 percent of this reduction is estimated to be car journeys which previously travelled through a part of the charging zone and which now divert around the zone or are made less frequently
- 50 to 60 percent of the overall reduction is represented by car users that have transferred to public transport: bus, underground, and rail
- 15 to 25 percent of the reduction in car movements is a result of the occupants switching to other forms of transport or making other adaptations.

3.2 As a consequence of the scheme, TfL estimated in *Six Months On* that up to 4,000 fewer individuals per day were no longer coming to destinations within the charging zone: this was the net effect of those either travelling to other destinations or making fewer trips to the zone.

3.3 The Autumn 2003 traffic counts at the boundary of the charging zone suggest that the year-on-year reduction is 65,000 fewer car movements into or through the charging zone, comparable to the earlier estimates.

3.4 The emerging results from the surveys of households and individuals are confirming that the net changes in the underlying patterns of trips by all means of transport are quite small, as indicated in *Six Months On*, though the final estimates must await a full analysis of the survey information.

4. Impacts on London's economy

Six Months On

- 4.1 *Six Months On* presented a preliminary assessment of the effect of congestion charging on London's economy. It was estimated that congestion charging was contributing the equivalent of around £50 million of net transport benefits to London's economy per year, mainly through quicker and more reliable journeys for road and bus users.
- 4.2 Congestion charging was introduced during a period when the central London economy was being affected by a range of factors. There was heightened international instability associated with the war in Iraq (with knock-on effects on tourism and the willingness of people to visit central London), and more local difficulties such as the prolonged closure of the Central Line during the early months of 2003.
- 4.3 The introduction of congestion charging coincided with a slowdown in the London economy. Several indicators, such as 'footfall' at central London retail locations, tourism numbers and consumer spending and confidence were suggesting reductions in people visiting central London and economic activity more generally. Transport for London's analysis of travel trends suggested net reductions of about 70,000 people per day coming to central London against an equivalent period in 2002, the large majority of this reduction being on the Underground and therefore not directly associated with congestion charging.
- 4.4 A key point of debate was the extent to which congestion charging, as opposed to other factors, might have been responsible for any of these trends.
- 4.5 Transport for London concluded that congestion charging was directly responsible for less than 6 percent of the reduction in trips to central London each weekday.
- 4.6 Transport for London therefore considered that the contribution of congestion charging to reduced economic activity in central London was likely to be small compared to other factors.
- 4.7 Nevertheless, third-party surveys of businesses in the charging zone and individual stakeholder feedback have continued to point to a perception of congestion charging as a factor explaining declining activity, particularly in the retail sector, alongside a more general appreciation of the benefits associated with reduced congestion from charging.

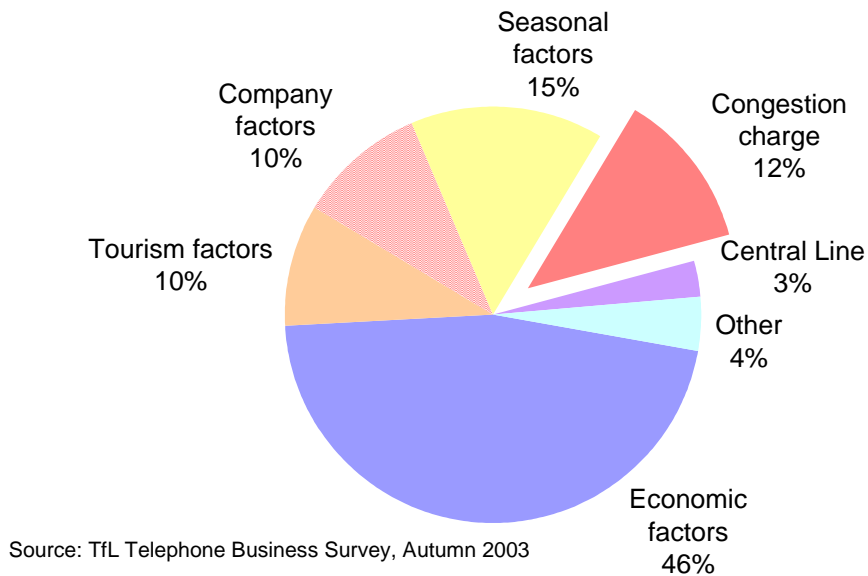
- 4.8 *Six Months On* promised a fuller assessment of these issues in the second annual monitoring report, partly based on TfL's own business surveys programmed for the Autumn of 2003.
- 4.9 Some initial findings from these surveys are available ahead of the annual monitoring report and are summarised below. Other developments that permit an interim update of the earlier analysis are the updated economic trend and travel behaviour data covering the latter months of 2003 and further work by the GLA Economics Unit, looking at the key factors behind recent trends in the London economy.

Transport for London's business surveys

- 4.10 Transport for London carried out interview surveys of over 700 businesses in and immediately around (defined as within 500 metres of the charging zone boundary) the charging zone during October/November 2003. These can be compared to similar surveys conducted at the same time during 2002.
- 4.11 Although largely qualitative in nature – as is conventional with business surveys of this type – the TfL surveys do have certain features that set them apart from other surveys that have been published. These are:
- a comparatively large sample size
 - a sample structure that reflects the make-up of London's economy
 - fieldwork timed to capture a view of the effects of congestion charging after 8 months or so of operation
 - response rates of around 40 percent for the initial contact phase of all surveys, and a successful re-contact rate of 77 percent for the in-depth interview survey (panel) component.
- 4.12 One theme emerging strongly from these surveys is that the impacts of charging vary considerably by economic sector. The internationally-important business services and financial sectors in central London have benefited directly from reduced congestion – for example, getting to and from business meetings has become easier and more predictable. Distribution businesses report a more mixed picture: some are directly experiencing the benefits of reduced congestion; others see the charge as little more than an additional overhead.
- 4.13 Concerns about the potential impact of charging on businesses have been most strongly raised by the retail and leisure sector. Retail and leisure businesses inside and immediately around the charging zone were typically reporting a 2 percent reduction in sales for the first half of 2003, with food and confectioner-tobacconist-newsagent businesses typically reporting reductions of 6 percent.

4.14 When retail businesses were asked about the influences that might have led to these reductions, economic and tourism factors were reported most frequently, though congestion charging constituted about a fifth of the reported influences. This compares to the services sector, where congestion charging was cited by only about 1 in 15 respondents. Overall business responses are shown in Figure 12.

Figure 12. Share of influences on recent business performance: all surveyed businesses in and around the charging zone



4.15 The decline in retail sales was attributed almost equally to fewer customers and reduced spending by customers. In addition to factors prevalent in the first half of 2003, central London retailers also reported the influences of increased Sunday shopping, increased use of 'out-of-town' shopping centres, and increased mail order and internet shopping.

4.16 When asked if the business supports congestion charging as long as there is continued investment in public transport, around 60 percent of businesses, agreed; around 20 percent of businesses disagreed and around 20 percent with no change or don't know.

Wider economic trends affecting central London

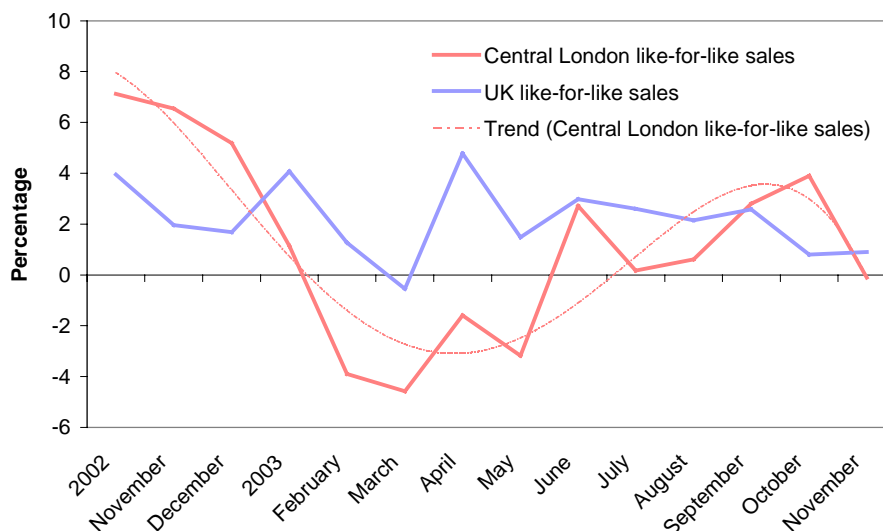
4.17 GLA Economics have updated their assessment of the impact of congestion charging on the retail sector in central London. This, together with other recent work undertaken by TfL, enables us to examine the relationship of retail trends in central London to those elsewhere in London and the UK, and to trends in the wider economy. It also allows us to examine the relationship of these trends to short-term temporary factors applying during 2003.

Recent retail trends

4.18 In line with the economy in general, recent trends in the retail sector in London show that strong growth in the late-1990s has been followed by a period of substantially slower growth since Quarter three 2000. Between Quarter three 2001 and Quarter three 2003, retail lost about 10,000 jobs across Greater London (about 3 percent of total retail employment).

4.19 These trends appear to have been accentuated in central London, with central London retail sales, i.e. the actual value of goods sold undergoing a period of negative growth during the first half of 2003, although with some evidence of a tentative recovery towards the end of the year (Figure 13).

Figure 13. Percentage change in year-on-year retail sales value



Source: LRC London Retail Sales Monitor, November 2003

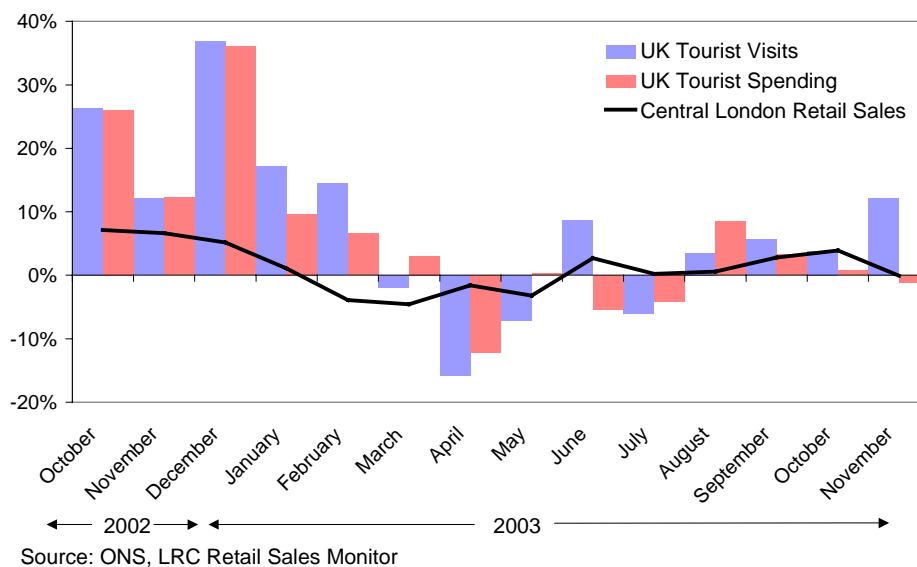
Relationship of recent retail trends to temporary factors applying during 2003

4.20 The London Retail Sales Monitor is compiled by the London Retail Consortium and KPMG. It provides figures on the level of retail sales in London by measuring changes in the actual value of retail sales from a sample of retailers. It includes some shopping areas to the west of the charging zone and it is therefore not an exact indicator of trends within the zone. Nevertheless, it is instructive to examine the relationship to some of the more important non-charging-related influences that have previously been discussed: the effect on tourism of recent security concerns and the Iraq war and recent trends in Underground patronage.

4.21 Figure 14 shows central London retail sales overlaid on overseas tourist visits to the UK together with their spending. Much of this tourist activity will be focused on London, and several retail areas in central London rely heavily on overseas visitors. The two trends appear to be related to each other, with both retail sales and tourism numbers/spending showing negative growth during the early months of 2003. Other data shows that higher-spending North American visitors dipped substantially further than the totals for all visitors, and have taken longer to recover.

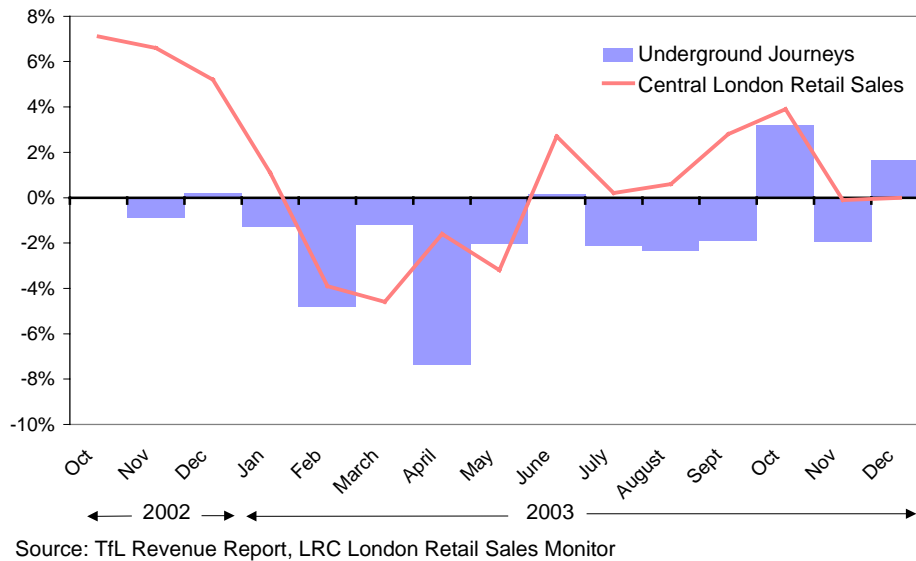
4.22 National statistics show that spending by overseas visitors in London was £100 million lower in the second quarter of 2003 compared to the second quarter of 2002, approximately one-quarter of which might be retail spend. Furthermore, this analysis does not include what might be expected to be a similar 'deterrence effect' of the security situation for domestic visitors to London.

Figure 14. Relationship between overseas tourist visits to the UK and spending and change in retail sales



4.23 Trends in Underground travel during 2003 were discussed in Section 2. Figure 15 superimposes the central London retail sales indicator on one measure of Underground patronage, year-on-year network-wide patronage growth as estimated from ticket sales. Here the relationship is arguably clearer, with the significant reductions in Underground travel in Spring 2003 (reflecting, amongst other things, the Central Line closure) directly coinciding with the period of negative retail growth.

Figure 15. Relationship of Underground journeys to central London retail sales



4.24 Each of these factors are inter-related; for example the decline in Underground travel will be partly accounted for by reduced tourists, and some of the 'lost' Underground trips will have transferred to bus and still be made. Nevertheless, it seems clear that these influences, amongst others, are likely key explanatory factors for recent retail trends in central London and they are – for all practical purposes – independent of congestion charging.

Summary conclusions

4.25 It is difficult to quantify at this stage, and with certainty the effects of charging on London's economy. Based on the evidence currently available, Transport for London's assessment is as follows:

- The benefits of congestion charging are being increasingly recognised, but the balance between benefits and 'costs' is perceived to impact differently on the key sectors of the central London economy, retail and leisure most frequently reporting perceived negative impacts overall.

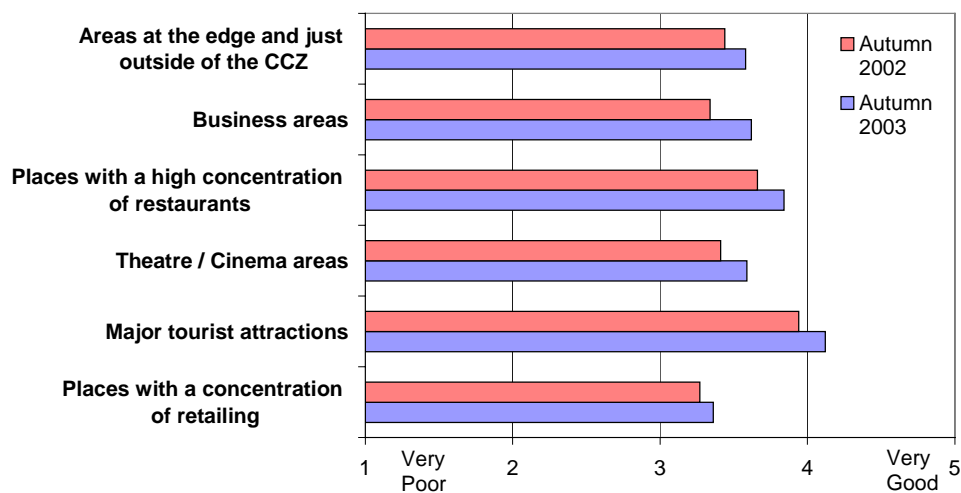
- The scale of the 'financial' impacts of charging on central London's businesses is comparatively very small, and broadly neutral in terms of the Greater London economy.
- Extraneous factors, such as a reduction in tourism, operating at the same time as congestion charging was introduced had significantly greater impact on economic activity.
- The available evidence suggests that temporary factors not related to charging have been largely responsible for recent economic trends.
- There is some recent indication that the impact of these factors is starting to wane, and that the relevant indicators are returning to their longer-term trends.

5. Amenity and environment

Initial data indicating changing perceptions of the central London environment are now available from the On Street Public Space Surveys. Work to assess the early air quality impacts of congestion charging is nearing completion and will be reported as part of the second annual report.

- 5.1 Transport for London has recently completed a large-scale survey of about 8,000 people 'on-street' at a range of shopping and tourist locations and other public spaces in and immediately around the charging zone. Results from these recent surveys can be compared to those from an equivalent survey undertaken in Autumn 2002.
- 5.2 Part of this survey asked respondents to 'score', on a scale of 1 (very poor) to 5 (very good), a range of attributes relating to transport and the quality of the local environment at the survey location. Figure 16 is an example of the results from this comparison, showing in this case consistent improvement in mean scores for overall environmental quality across all groups of areas surveyed.

Figure 16. Mean ratings for overall 'pleasantness of location', by type of area, Autumn 2002 compared to Autumn 2003.

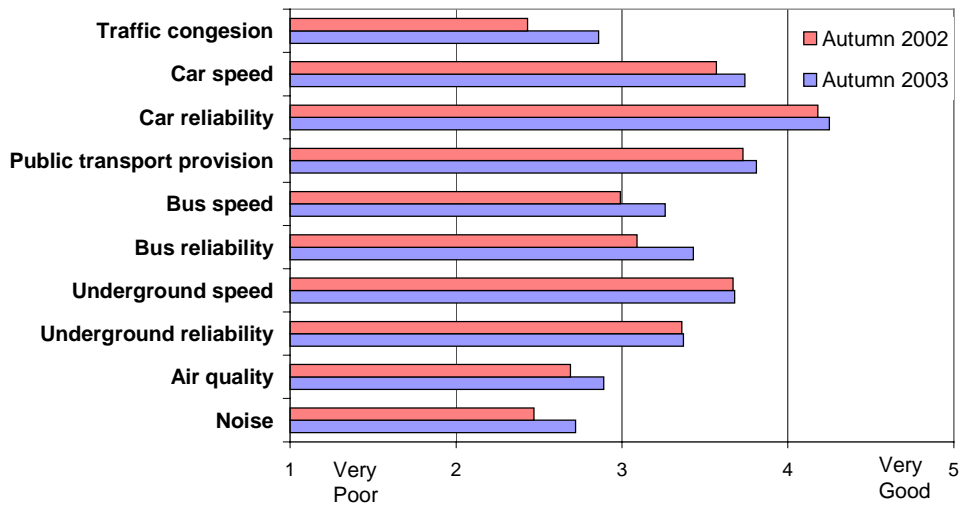


Source: TfL On-Street Public Space Surveys

5.3 Similar results are emerging for other specific attributes. Some of these are summarised in Figure 17, in this case aggregated across all survey locations. There is much of interest in these surveys, and they will be more fully reported in the second annual monitoring report. In particular:

- These scores reflect people's perceptions. Data are also being collected on measured air quality impacts, which will be assessed in due course.
- Responses were 'unprompted' in terms of congestion charging not being mentioned beforehand as a possible cause.

Figure 17. Mean ratings for a range of transport and environmental indicators, Autumn 2002 compared to Autumn 2003.



Source: TfL On-Street Public Space Surveys

6. Scheme operation

The equivalent of about half a million congestion charging payments continue to be processed each week.

Service provision

- 6.1 *Six Months On* outlined the changes made to TfL's contract with Capita – the organisation responsible for much of the day-to-day operation of the scheme. The changes were agreed through a supplement to the contract which covers the processing of camera images, management of the sales channels, operation of the contact centre and associated back office functions and the bulk of the enforcement. Capita will only receive additional payment through the supplemental agreement if service improvements are made.
- 6.2 It is the responsibility of Capita to ensure that they have sufficient staff to enable them to meet the performance regime set out in the contract. Transport for London monitor the performance of Capita and other service providers to assess if the performance regime and the processes, procedures and business rules are being met. Poor service results in reduced payments.

Capita performance

- 6.3 The negotiated supplemental agreement with Capita (the main contractors operating the scheme) followed increasing evidence that in early months of the scheme operation the quality of some aspects of the service was poor. For example, callers were not always able to get through in a reasonable period of time and charge payers were frequently receiving a message stating that the call centre was busy and to try again later. Transport for London was also concerned that the accuracy of information provided by the call centre was not always of sufficient quality and there were other concerns over quality control.
- 6.4 The supplemental agreement of September 2003 with Capita sought to address this and other problems. A phased programme of IT, process, management, training and staffing improvements were agreed.
- 6.5 The additional requirements and quality measures agreed with Capita are already providing an improved service. The first two phases were delivered as programmed in October 2003 and January 2004 with the full programme due to be complete by the end of March 2004.
- 6.6 Transport for London will continue to monitor the operational aspects of the scheme and address any area where it is considered improvements need to be made.

Congestion charge payments

6.7 Current charge payments average around 110,000 per day. These typically comprise of about 80,000 non-residential payments, 18,000 for residents and about 12,000 fleet payments.

6.8 The current split of payment channels is as follows:

retail outlets	36%
the internet	26%
call centre	19% (6% use automated payment system)
mobile phone text messaging	19%
post	<1%

6.9 The payment split is one that is now fairly established. After a sharp rise in use in the early weeks mobile phone text messaging has stabilised at around 19 percent. Postal payments continue to be negligible at less than 1 percent.

6.10 Similarly the breakdown of retail outlet payments continues to show a consistent pattern with 91 percent being made through 'PayPoint' machines in shops and petrol stations and the remainder through self-service machines which are mostly situated in central London car parks.

6.11 A geographical breakdown of payments via 'PayPoint' machines for the second half of 2003 is:

PayPoint sites	Percentage of payments		
	Petrol	Shop	Total
Within charging zone	8%	36%	43%
Outside zone within M25	14%	35%	49%
100 mile radius	2%	5%	7%
Rest of UK	0%	1%	1%

Call centre

6.12 The volume of calls handled by the call centre is currently around 70,000 per week. Payments and enquiries represent around 65 percent and 31 percent of these calls respectively. Around a further 36,000 calls per week are dealt with through an automated process of interactive voice response.

6.13 Average call times reduced from just over three and a half minutes in the early weeks of the scheme, to below three minutes after three months of operation. This is an average time, which has been sustained to date. The percentage of blocked calls is now close to zero and the average wait time in early January 2004 was around 20 seconds.

Registrations

6.14 The total number of registrations for specific payment methods to the end of December 2003 are shown below:

Automated Fleet Accounts	928
Notification Fleet Accounts	763
Text Messaging (SMS)	206,300
Fast Track (excluding SMS)	345,652 (includes certain discounts)

6.15 The total number of registered fleet vehicles amounts to some 125,300 vehicles, a small increase from the 120,500 reported in *Six Months On*.

6.16 Registered charge payer transactions which include those by text messaging (SMS), interactive voice response and those by call centre, web and post where a 'customer number' has been provided, account for 39 percent of payment transactions. Non registered transactions where no 'customer number' is used, which include all retail sales, accounts for 61 percent.

Registration for discounts

6.17 Cumulative discount registration totals up to the week ending 4 January are as follows:

Blue Badge holders	116,900
Residents of the zone	28,100
Alternative fuel vehicles	4,900
Vehicles with 9+ seats	9,750
Other discounts	1,050

6.18 Most discount applications were made between December 2002 and 'Go Live' on 17 February 2003. Since then the volume of applications has remained at around 1,900 per month. This will increase in the first quarter of 2004 as drivers renew their annual discounts.

6.19 On a typical charging day the approximate number of discounted vehicles travelling in the congestion charging zone is as follows:

Residents' vehicles	14,000
Vehicles used by Blue Badge holders	7,000
All other discounted vehicles	3,000

7. Enforcement

- 7.1 There are no tollbooths or barriers around the congestion charging zone and no physical tickets or licenses. Instead, drivers or vehicle operators pay to register their vehicle registration number on a database for journeys within the charging zone. Receipts (or receipt numbers) are available as proof of charge payment.
- 7.2 Cameras capture images of vehicles entering, driving within or leaving the congestion charging zone, and the registration number plates are interpreted by Automatic Number Plate Recognition (ANPR) computer systems.
- 7.3 Once a registration number has been matched, showing that a charge for the vehicle has been paid or the vehicle is exempt or 100 percent discounted the images of the vehicle are automatically removed from the database. Images of all vehicles where no charge has been paid are checked visually against the vehicle make and model details returned by the DVLA before any Penalty Charge Notice (PCN) is issued.
- 7.4 Failure to pay the congestion charge results in a PCN of £80 being issued to the registered keeper of the vehicle. This is reduced to £40 for prompt payment within 14 days. Failure to pay the penalty charge within 28 days results in the penalty being increased to £120.

Enforcement improvements

- 7.5 As part of the Supplemental Agreement with Capita, a phased programme of improvements to the enforcement service is being introduced. The first two phases were completed in October 2003 and January 2004 with the final batch due at the end of March 2004.
- 7.6 Better enforcement processes, additional staff and system improvements are designed to allow more PCNs to be issued, to improve efficiency and quality in the processing of representations and appeals and to improve compliance. The revised performance regime links contractual payments and penalties to contractual performance with increased focus on the quality of service provided.

Penalty charge payments

- 7.7 The number of PCNs issued has increased in line with the Supplemental Agreement with an average for October to December 2003 of some 165,000 per month.

- 7.8 The percentage of recovered PCNs and payment levels have steadily increased since the start of the scheme. For PCNs issued in September 2003, 70 percent have been paid at an average value of £48.50.
- 7.9 Payment and compliance levels are expected to increase further over time, as those who have been issued PCNs recognise that the enforcement process is effective and that unpaid PCNs will be actively pursued.

Representations

- 7.10 There has been a significant reduction, month on month, in the number of representations made by vehicle keepers in response to PCNs. The proportion of PCNs against which representations are made has fallen from 64 percent in the early weeks of the scheme to the more recent level of about 22 percent. This indicates both increased familiarity with the scheme and improvements in the operational systems.
- 7.11 Whereas in the first months of operation the main reasons for representations were as a result of Capita or chargepayer data entry errors, such as an incorrect vehicle registration number, the majority of representations currently being received are made by vehicle hire. Legislation provides circumstances under which vehicle hire companies can transfer their liability for charges and penalty charges. These companies use the representations process to provide details of the hirer to TfL. Other reasons include errors with vehicles or date of travel or issues with discounts or vehicle exemptions.

Appeals

- 7.12 Any vehicle keeper who has received a penalty and has had a representation rejected has the right to appeal to an independent adjudicator. The total number of congestion charge related appeals registered at the Parking and Traffic Appeals Service (PATAS) at the end of December was 26,700. This amounts to 2 percent of all PCNs issued.
- 7.13 To date, TfL has processed some 14,300 appeals received from PATAS. As a result, nearly 6,600 appeals have been heard by the adjudicators, of which 57 percent were found in favour of TfL. Current improvements are expected to reduce the proportion of PCNs that reach appeal.

Debt collection

7.14 Where PCNs remain unpaid and where no representation or appeal is made then they become outstanding and TfL register the debt at County Court and pass the case to bailiffs for recovery action. As at January 2004 just over 53,000 warrants of execution had been issued to bailiffs since mid-June 2003. This equates to just 4 percent of all PCNs issued which have not been paid or are not subject to an outstanding representation or appeal. Currently some 9 percent of warrants issued in the summer have resulted in payment. This figure is expected to rise over time.

Persistent evasion

7.15 Transport for London has powers to remove or immobilise vehicles of persistent evaders, defined as drivers who have failed to pay three or more outstanding PCNs, with no representation or appeal pending. This is additional enforcement that functions in conjunction with the debt recovery process described above.

7.16 In order to allow the scheme to settle down, TfL delayed the exercise of powers to remove and impound vehicles for a number of months. However, between Summer 2003 and the end of January 2004, over 255 persistent evaders have had their vehicle clamped or removed by TfL.

8. Monitoring programme

Transport for London will publish the second annual monitoring report in Spring 2004.

- 8.1 The monitoring programme continues to proceed according to the broad framework set out in the *First Annual Monitoring Report* published in June 2003.
- 8.2 The material described here benefits from the availability of a full set of key traffic surveys for 2003. However, TfL is still in the process of analysing the key business and social surveys, the fieldwork for which was only completed towards the end of 2003. It has therefore only been possible to include selected early indications from these surveys in this report. More details of these surveys, together with a fuller synthesis of observed traffic effects, will be included as part of the second annual monitoring report.
- 8.3 The monitoring programme for 2004 for the central London scheme is expected to proceed according to the framework previously described. There will be a progressively greater emphasis on analysis and research, drawing together the results from different survey programmes, and some minor changes of emphasis reflecting experiences since the introduction of charging.
- 8.4 All reports will be available on the TfL website www.tfl.gov.uk.