

Summary of freight transport activity in London

Note prepared for the Central London Freight Quality Partnership

**Julian Allen
London Freight Data and Knowledge Centre
University of Westminster**

June 2011

Contact details:
Julian Allen
Transport Studies Department
University of Westminster
35 Marylebone Road
London, NW1 5LS
Email: allenj@westminster.ac.uk

Contents		Page
1.	Summary of freight transport in London	1
1.1	London freight and logistics industry	1
1.2	London freight transport activity	1
1.3	Road freight transport	1
1.4	Rail freight transport	3
1.5	Freight on the river Thames	4
1.6	Freight on London's canal network	4
1.7.	Air freight transport	4
2.	Selection of figures related to freight transport in London	4
	Annex A: Contents page of the London Freight Data Report 2009	11

1. Summary of freight transport in London

1.1 London freight and logistics industry

- The success of London is dependent on the efficient movement of goods and services as well as people. The growth of London in the medium- to long-term, as set out in the London Plan, will lead to an increase in freight movement to construct, supply and service London's economy in a sustainable way.
- The Office for National Statistics has forecast that, in London, by 2031 there will be an increase in population of 1.3 million (compared with 2008) to a total of 8.9 million people.
- In 2008, approximately 183,000 (5 per cent of the London workforce) were directly employed in organisations whose main activity involves freight transport and logistics (this does not include self-employment). Wholesaling is the logistics sub-sector with the greatest number of employees in London - 67,000 people in 2008.
- An additional 1.5 per cent of the London workforce was employed in freight and logistics activities in other sectors in 2008. Therefore a total of 6.5 per cent of London's workforce was employed in freight and logistics activities (approximately 240,000 people).
- Logistics workplaces employing 10 or fewer people accounted for 86 per cent of all logistics workplaces in London in 2008, while those employing over 200 account for only 1 per cent. However, in terms of employees, workplaces with more than 200 employees accounted for 37 per cent of those employed in the logistics sector in London.
- The total warehousing floorspace in London in 2008 was 4 per cent higher than in 1998. This growth in total warehousing floorspace in London between 1998 and 2008 was substantially less than in all other Government regions in England and Wales.
- The total warehousing floorspace in London in 2008 was equal to 10 per cent of all warehousing floorspace in England and Wales.
- The average size of warehouses in London rose by 24 per cent between 1998 and 2008.

1.2 London freight transport activity

- Road is by far the dominant mode for goods transport in London in terms of the weight of goods lifted. The next most important mode in terms of tonnes lifted is Port of London traffic on the river Thames within London, followed by rail and air.
- London is a net importer, meaning that more freight is unloaded in London than loaded by road, rail, water and air.

1.3 Road freight transport

Road freight transport activity

- All goods vehicles (i.e. LGVs and HGVs) travelled a total of 5.1 billion vehicle kilometres on roads in London in 2009. Eighty per cent of these kilometres were performed by LGVs (up to 3.5 tonnes gross weight), 15 per cent by rigid goods vehicles over 3.5 tonnes, and 5 per cent by articulated goods vehicles over 3.5 tonnes.

- Between 2000 and 2009 vehicle kilometres travelled on London's roads by LGVs increased by 13 per cent, while vehicle kilometres travelled by HGVs decreased by 10 per cent. Total motorised road traffic on London's roads (including cars, taxis, buses and motorcycles) fell by 2 per cent between 2000 and 2009.
- LGVs and HGVs were responsible for 13 per cent and 3 per cent respectively of the vehicle kilometres travelled by all motorised road vehicles in London in 2009. This data is based on vehicle movements; if it were based on equivalent Passenger Car Units (PCUs) then HGVs would represent a greater proportion of total vehicle flow on roads in London.
- Approximately 108 million tonnes of road freight, carried on journeys by UK-registered vehicles with gross weights of over 3.5 tonnes, had its origin and/or destination in London in 2009. The road freight carried on journeys to, from and within London represented approximately 8 per cent of the total freight lifted in Britain by weight in 2009.
- London is a major net importer of freight by road, with 11 million tonnes more freight being lifted on journeys to London than from London in 2009.
- Of the freight lifted in London and delivered elsewhere in the UK in 2009, approximately three-quarters by weight was unloaded in the two regions closest to London, namely the South East and the East of England. Of the freight delivered in London from elsewhere in the UK, approximately two-thirds by weight was loaded in these same two regions.
- Rigid goods vehicles (over 3.5 tonnes gross weight) and articulated goods vehicles were both responsible for lifting 50 per cent of the goods transported on all journeys within, to and from London in 2009.
- For all journeys within, to and from London in 2009, 30 per cent of HGV kilometres were run empty. This compares with an empty running percentage of 28 per cent for all HGV kilometres performed in Britain in 2009.
- The lading factor of 0.57 for all HGV journeys to, from and within London in 2009. This is the same as the lading factor for all HGV activity performed in Britain in 2009.
- In the whole of the South East and Metropolitan Traffic Area (SEMTA - which includes London), 10,873 operator licences were in issue in 2009/10 for a total of 43,041 HGVs. This is equivalent to approximately 12 per cent of all HGVs specified on operator licences in Britain.
- The number of operator licences in SEMTA has fallen by 14 per cent between 2000/1 and 2009/10, while the number of HGVs on these licences has also fallen by 14 per cent.

Road freight transport and society

- Goods vehicles (LGVs and HGVs) were responsible for 17 per cent of total motorised vehicle kilometres on roads in London in 2008, but represented 7 per cent of the total motorised vehicles involved in collisions that resulted in personal injuries on these roads, and were involved in collisions that resulted in 11 per cent of total road traffic casualties.
- However, goods vehicles were involved in collisions that resulted in 20 per cent of total road traffic fatalities in London in 2008.
- All but one of the fatalities in collisions involving goods vehicles over 7.5 tonnes gross weight in London in 2008 were either pedal cyclists, motorcyclists or pedestrians.
- Casualties in collisions involving goods vehicles represented 11 per cent of all road traffic casualties in London in 2008, compared with 15 per cent of all road traffic casualties in London in 1990.

- In 2008, 396 people were killed and seriously injured in collisions involving goods vehicles in London. The total number of people killed and seriously injured in collisions involving goods vehicles was 49 per cent lower in 2008 than the 1994-1998 annual average. The number of slight casualties in collisions involving goods vehicles was 36 per cent lower over the same period.
- Thirty per cent of warden-issued PCNs for parking/loading contraventions on the TLRN were issued to goods vehicles in 2009 (19 per cent to LGVs and 11 per cent to HGVs). The number of warden-issued PCNs to LGVs and HGVs for parking/loading contraventions on the TLRN in 2009 were respectively 41 per cent and 35 per cent lower than in 2008.
- Twenty seven per cent of camera-issued PCNs for parking/loading contraventions on the TLRN were issued to goods vehicles in 2009 (19 per cent to LGVs and 8 per cent to HGVs). The number of camera-issued PCNs for parking/loading contraventions on the TLRN in 2009 to LGVs and HGVs were respectively 43 per cent and 42 per cent lower than in 2008.

Road freight transport and the environment

- Road freight transport was responsible for 25 per cent of road transport CO₂ emissions in London in 2008 - 14 per cent by HGVs and 11 per cent by LGVs (while cars and motorcycles accounted for 64 per cent). Road freight transport accounted for 4 per cent of total CO₂ emissions in London in 2008.
- Road freight transport was responsible for 41 per cent of road transport NO_x emissions in London in 2008 - 31 per cent by HGVs and 10 per cent by LGVs (while cars accounted for 35 per cent). Road freight accounted for 19 per cent of total NO_x emissions in London in 2008.
- Road freight transport was responsible for 38 per cent of road transport PM₁₀ emissions in London in 2008 - 17 per cent by HGVs and 21 per cent by LGVs (while cars and motorcycles accounted for 52 per cent). Road freight accounted for 21 per cent of total PM₁₀ emissions in London in 2008.
- The London Low Emission Zone (LEZ) scheme had achieved compliance rates of 98 per cent for phase 1 vehicles (HGVs over 12 tonnes gross weight), and 96 per cent for Phase 2 vehicles (HGVs between 3.5 tonnes gross weight as well as buses and larger coaches with more than 8 seats or more than 5 tonnes gross weight) by September 2009.

1.4 Rail freight transport

- In 2009, 6.7 million tonnes of rail freight was lifted to, from and within London.
- London is a net importer of freight by rail from other parts of the country, with approximately three times as much arriving as leaving in 2009.
- The freight lifted on journeys to, from and within London in 2009 represented 8 per cent of the total rail freight lifted in Britain.
- Construction materials dominated London's rail freight activity, accounting for 80 per cent by weight in 2009. Waste accounted for 13 per cent of rail freight activity, while other commodities accounted for 7 per cent.
- There were 29 rail freight terminals in use in London in 2009. There were a further 11 terminals located just beyond the London boundary.
- Considerable volumes of rail freight pass through London en route to/from other regions.

1.5 Freight on the river Thames

- The Port of London Authority (PLA) was the UK's second most important port in terms of quantity of freight handled in 2009, handling 9 per cent of all foreign and domestic tonnage handled at UK ports.
- The most important commodities handled on foreign and coastwise movements to and from PLA wharves on the Thames (inside and outside London) in 2009 in terms of weight were unitised traffic, oil and aggregates. Together these commodities accounted for approximately 80 per cent of total foreign and coastwise goods handled.
- Only four types of commodities were handled on internal movements between PLA wharves on the Thames (inside and outside London) in 2009. These were aggregates, waste, vegetable oils and oil seed, and other oil products.
- Twenty eight of the 70 operational wharves in the PLA are within the Greater London boundary.
- The quantity of freight handled at PLA wharves in London in 2008 was 8.2 million tonnes (which represented 17 per cent of the total freight handled at all PLA wharves). Approximately 80 per cent of this cargo handled in London was foreign and coastwise traffic, while 20 per cent was moved between PLA wharves on the Thames.
- The proportion of total PLA cargo handled by wharves in London (by weight) has fallen from 27 per cent of all PLA cargo in 1997, to 20 per cent in 1999, to 17 per cent in 2009. The relatively small proportion of freight (by weight) handled within London is due to the fact that much of the bulk and unitised traffic is handled at the larger wharves in Kent and Essex.

1.6 Freight on London's canal network

- In 2009 approximately 60,000 tonnes of freight was handled on the canal network in London.
- The total quantities handled on the canal network in 2009 were very small compared with other modes (representing only approximately 0.1 per cent of all freight lifted in London).

1.7 Air freight transport

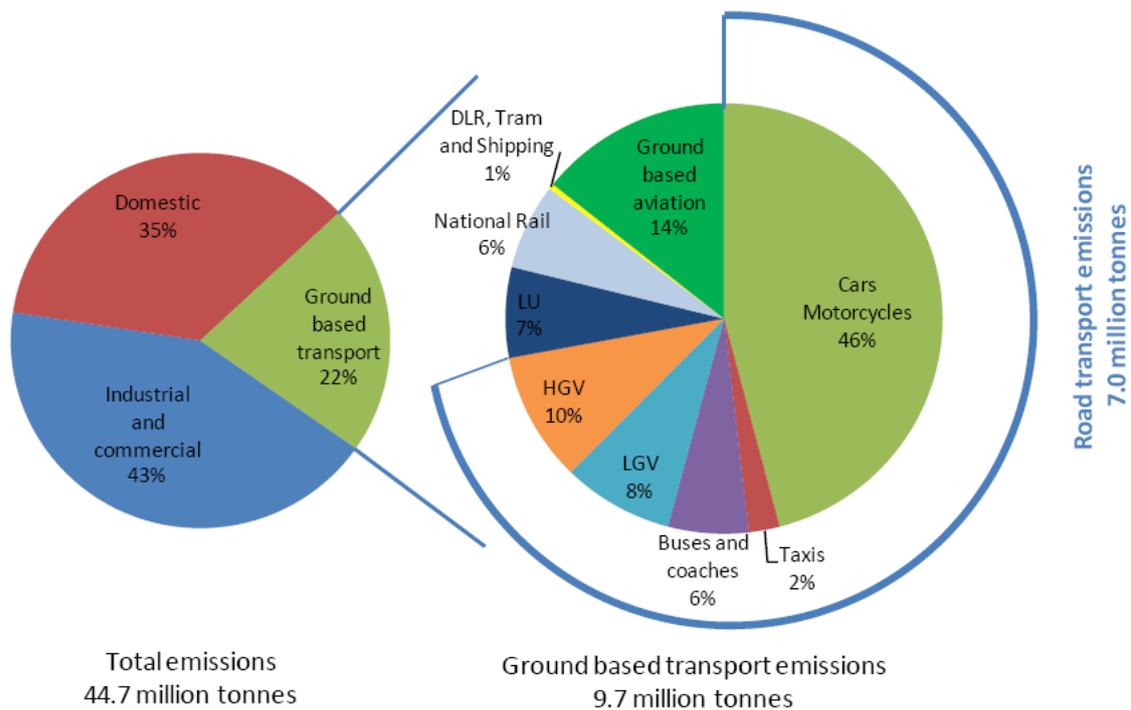
- Approximately 1.6 million tonnes of freight was handled by London area airports of Heathrow, Gatwick, Stansted, Southend and Luton in 2009. This was equivalent to 76 per cent of the UK's total air freight.
- Heathrow is by far the most important airport in terms of freight tonnage handled among the London area airports. Its importance is increasing over time. It accounted for 82 per cent of all air freight handled at London area airports in 2009 compared with 72 per cent a decade earlier.
- In addition, London area airports handled 51 per cent of all the UK's mail handled by air in 2009. Heathrow accounted for 67 per cent of all air mail handled at London area airports in 2009.
- There was a net import of air freight into the London area airports in 2008, with approximately 0.85 million tonnes being set down and 0.72 million tonnes being picked up.

2. Selection of figures related to freight transport in London

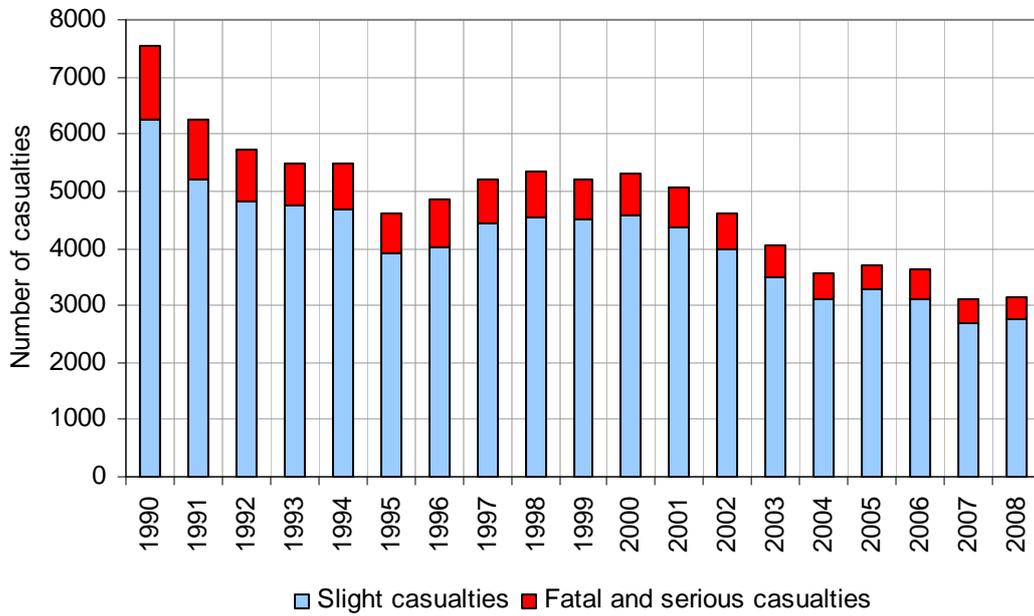
Commercial and industrial land use in London compared with England and Wales in 2008



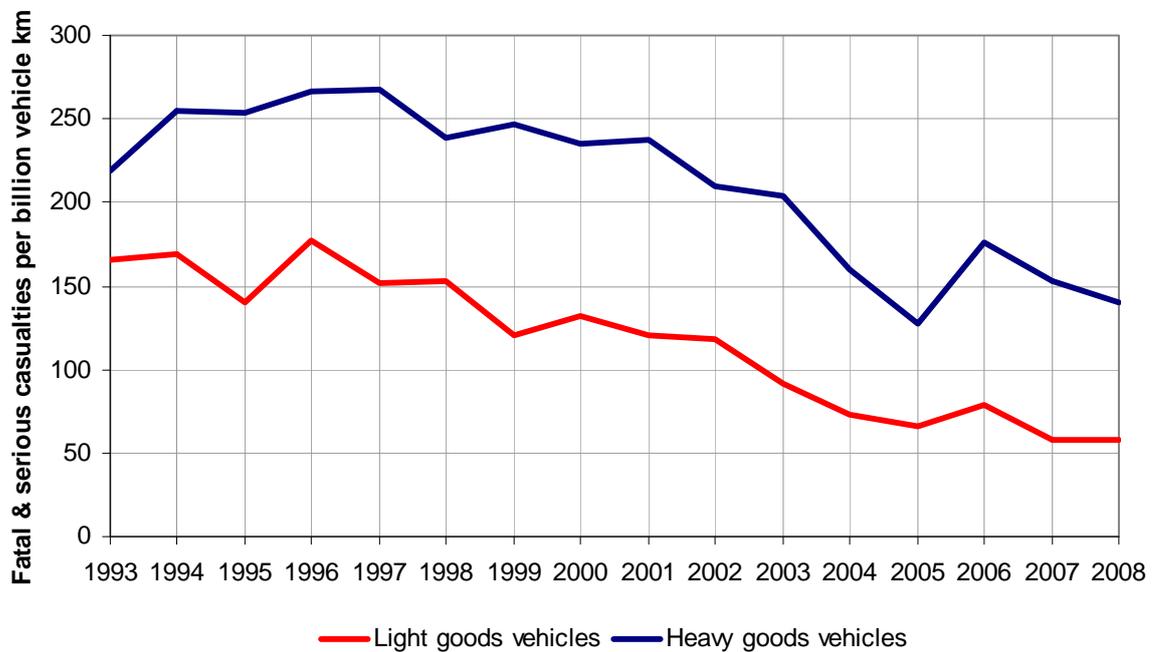
Carbon dioxide emissions in London and contributions to transport emissions, 2008



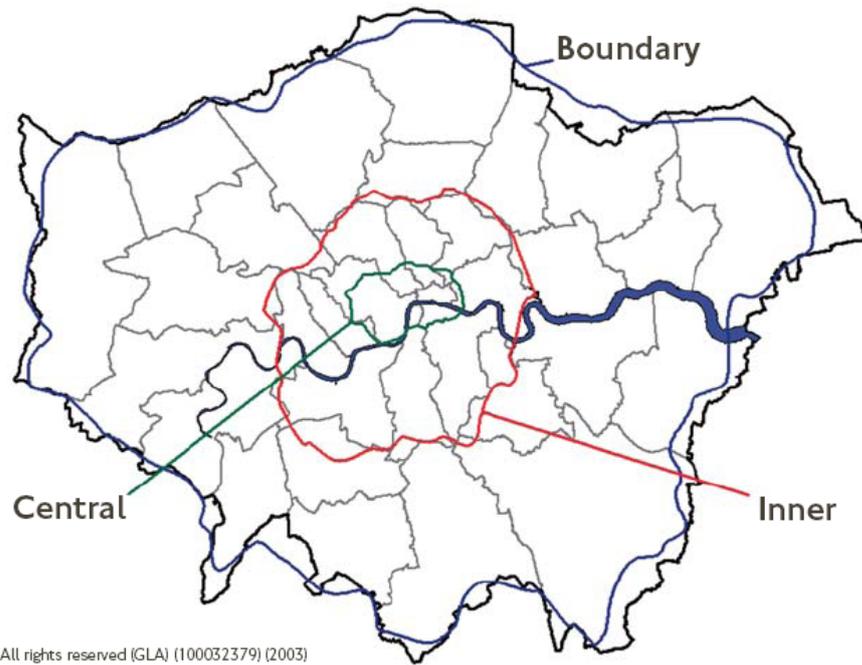
Casualties resulting from collisions involving goods vehicles in London by severity, 1990-2008 (Goods vehicles includes HGVs and LGVs)



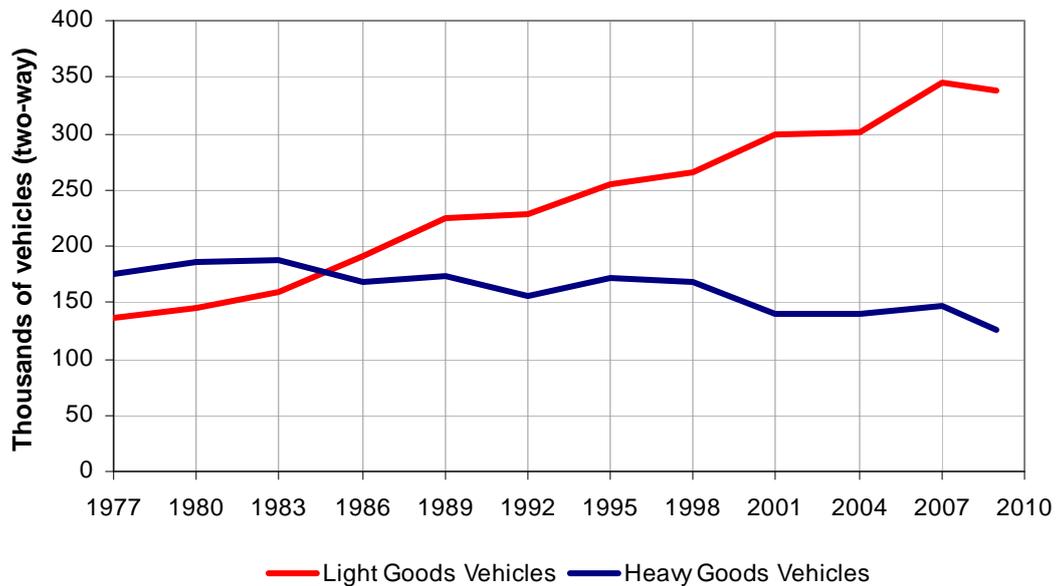
Fatal and serious casualties per billion vehicle kilometres in London, 1993-2008



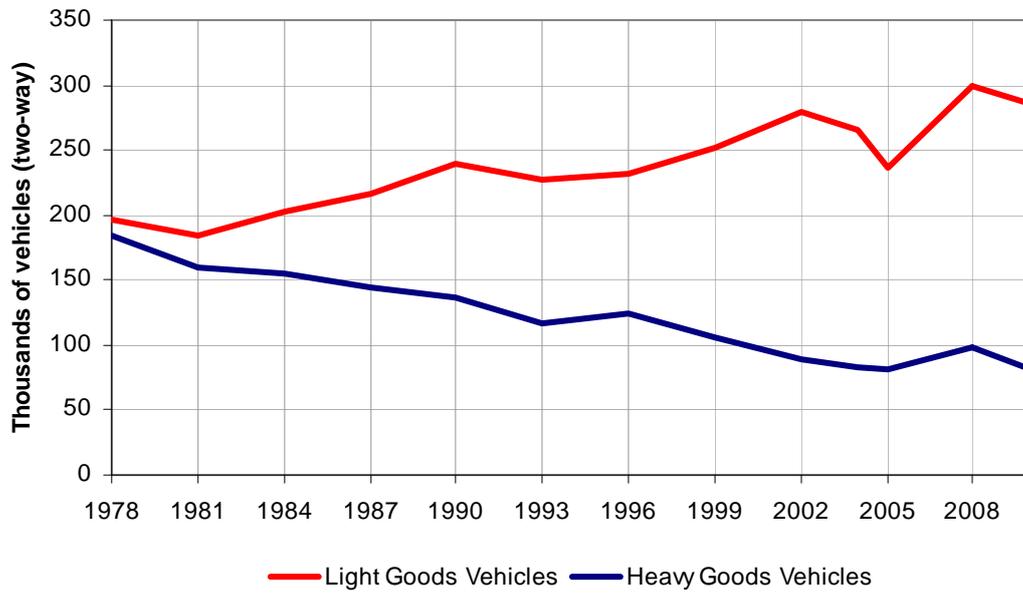
Location of London road traffic cordons



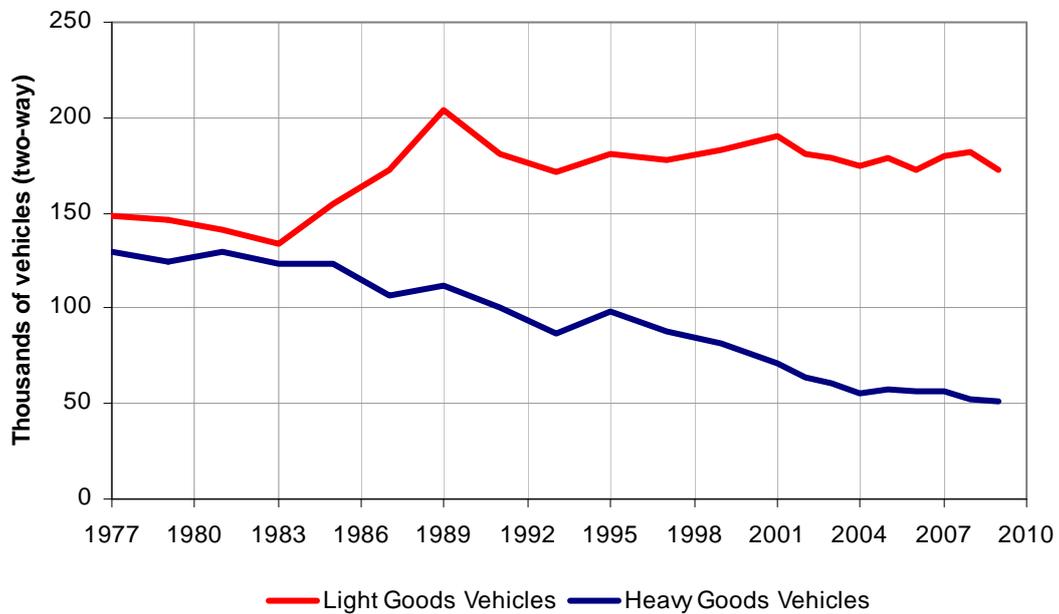
Greater London boundary daily crossings – goods vehicles: 24 hour flows, 1977-2009



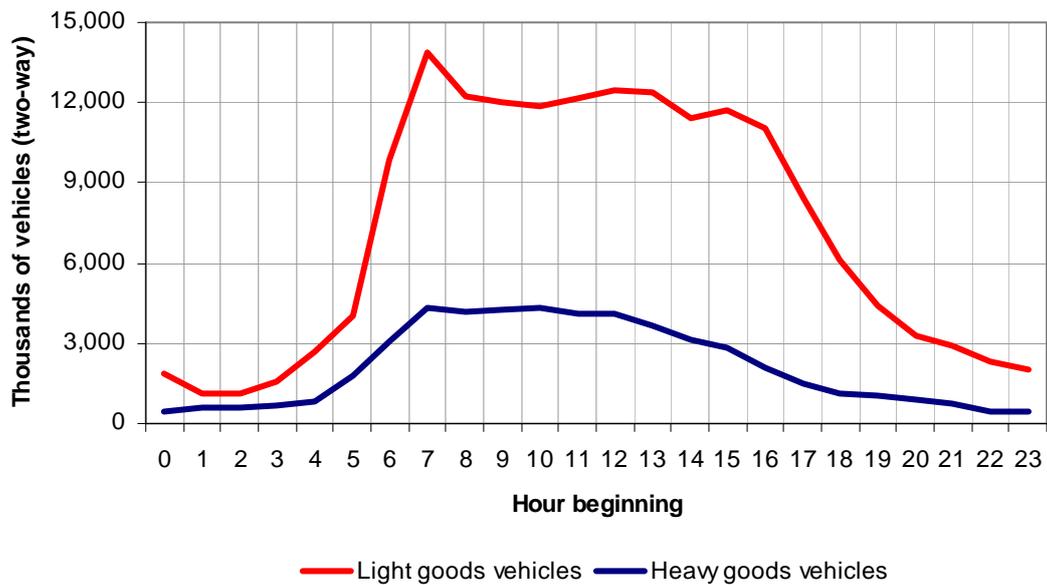
Inner London cordon daily crossings – goods vehicles: 24 hour flows, 1978-2010



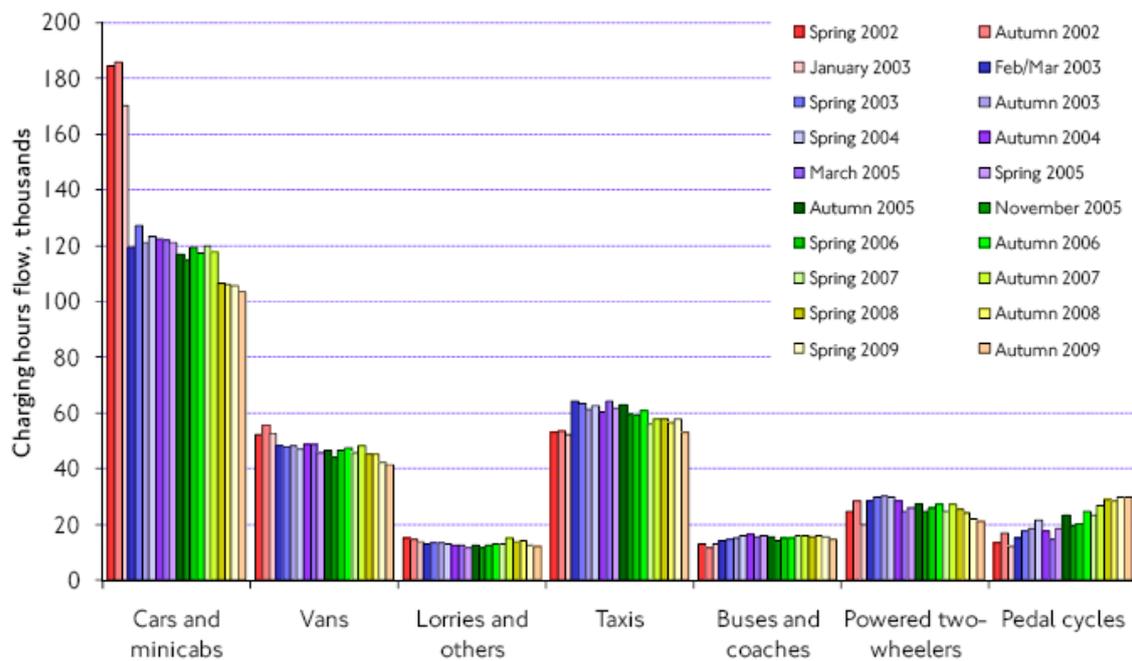
Central London cordon daily crossings - goods vehicles: 24 hour flows, 1977-2009



Goods vehicles crossings at the Central cordon by time of day, 2009

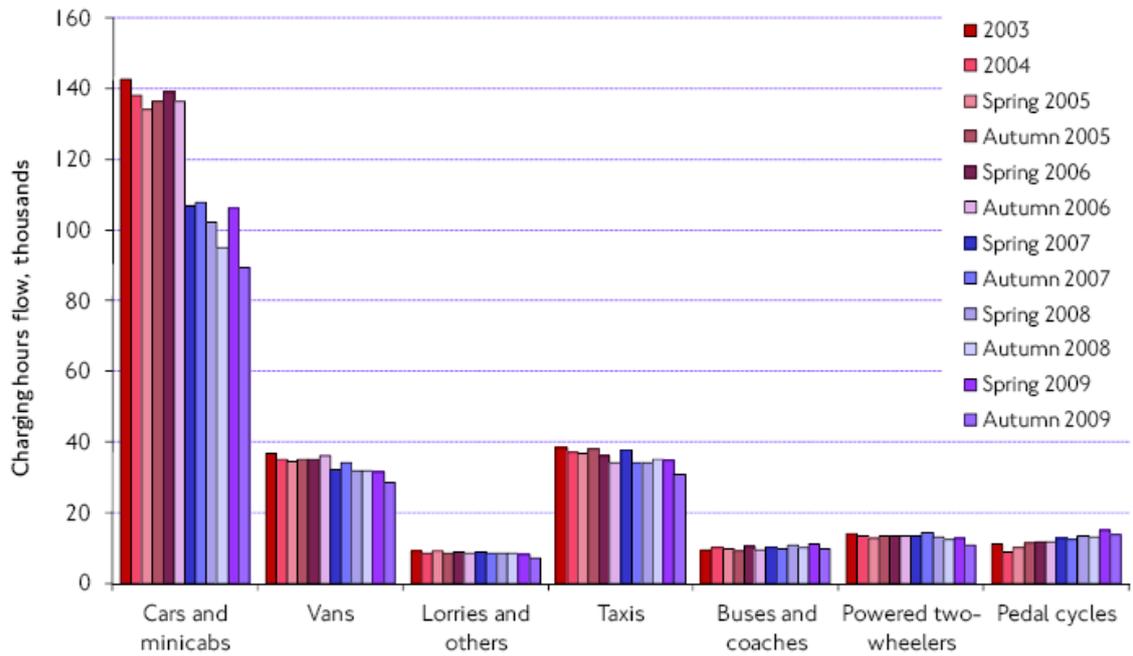


Traffic entering the Central London charging zone (across all inbound roads) during charging hours (07:00-18:00), 2002 to 2009



Note: the central London Congestion Charging zone was introduced in 2003.

Traffic entering the Western Extension zone across all inbound roads during charging hours (07:00-18:00) 2003 to 2009



Note: the western extension of the Congestion Charging zone was introduced in 2007 and was removed from the Congestion Charging scheme in January 2011.

Annex A: Contents page of the London Freight Data Report 2009

Executive summary

- 2. Freight transport and London's economy**
 - 2.1. Economy, population and employment
 - 2.1.1. *Economic and population growth in London*
 - 2.1.2. *Employment in London*
 - 2.1.3. *Employment in freight transport and related activities in London*
 - 2.2. Parking and loading offences on the TLRN
- 3. Freight transport and the environment**
- 4. Freight transport and society**
 - 4.1. Road traffic casualties
 - 4.2. Vehicle maintenance and standards
 - 4.3. London Lorry Control Scheme
 - 4.4. Road freight crime
- 5. Total freight activity in London – Overview**
- 6. Freight transport by road**
 - 6.1. Freight activity by heavy goods vehicles (HGVs)
 - 6.1.1. *Goods lifted and moved to, from and within London*
 - 6.1.2. *Goods lifted and moved by vehicle type and weight*
 - 6.1.3. *Commodities lifted*
 - 6.1.4. *Length of haul*
 - 6.1.5. *Mode of working*
 - 6.1.6. *Empty running*
 - 6.1.7. *Vehicle loads*
 - 6.1.8. *Summary of HGV activity*
 - 6.2. Freight activity by light goods vehicles (LGVs)
 - 6.3. Goods vehicles licensed in London
 - 6.4. Goods vehicle traffic flows in London
 - 6.5. Strategic freight routes
 - 6.6. Vehicle kilometres travelled by goods vehicles in London
- 7. Freight transport by rail**
 - 7.1. Rail freight activity in London
 - 7.2. London rail freight terminals
- 8. Waterborne freight transport**
 - 8.1. Freight on the River Thames
 - 8.2. Freight on other waterways in London
- 9. Freight transport by air**

Report available at:

http://www.tfl.gov.uk/microsites/freight/documents/London_Freight_Data_Report_2009_final_10-06-2010_UoW.pdf