#### TRANSPORT FOR LONDON

#### **BOARD**

SUBJECT: TfL GROUP ANNUAL HEALTH AND SAFETY REPORT - 2009/10

DATE: 22 SEPTEMBER 2010

#### 1 PURPOSE AND DECISION REQUIRED

1.1 To inform members of the Health and Safety performance of the TfL Group during 2009/10, where appropriate drawing comparisons with prior years' performance. The Board is asked to note the report.

#### 2 BACKGROUND

- 2.1 The TfL Group Annual Health and Safety Report is an important part of the health and safety performance and assurance information that is provided to the Safety, Health and Environment Assurance Committee (SHEAC). This is the seventh year that the report has been produced.
- 2.2 The report addresses the health and safety of employees and the safety of customers across all modes. The report also addresses progress towards the London road safety targets for 2010.

#### 3 INFORMATION

- 3.1 A draft of the report was reviewed and approved, subject to minor amendments, by the SHEAC at its meeting on 20 July 2010, with the Commissioner in attendance. The SHEAC Advisers had reviewed the report and provided their comments to the Committee. The Committee and the Advisers considered the report to indicate a substantial commitment to health and safety throughout TfL and a generally good performance.
- 3.2 The Advisers made some proposals for improvement to the report in coming years, principal among these were:
  - (a) That each mode should consider developing 5 10 performance indicators which best tracked their health and safety performance that could be used to highlight performance through the use of 'red/amber/green' status reports. These would include some input or leading indicators (e.g. progress against plans) and some output or indicators (e.g. injury rates); and
  - (b) That customer assault data, not currently collated at Group level as they are not comparable across the modes, should be reviewed with a view to identifying a way to present them in future reports.
- 3.3 The amended TfL Group Annual Health and Safety Report 2009/10 is attached as Appendix 1.

### 4 RECOMMENDATION

4.1 The Board is asked to NOTE the report.

### 5 CONTACT

5.1 Contact: Howard Carter, General Counsel

Number: 020 7126 4097

Email: <u>HowardCarter@tfl.gov.uk</u>



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### **Executive summary**

This is the seventh annual health and safety report produced by Transport for London (TfL). The report is a summary of health and safety activities, performance and progress from across the TfL Group, which comprises London Underground, Surface Transport, London Rail, Crossrail and the Corporate Directorates.

This report covers performance for the period from 1 April 2009 to 31 March 2010 and, where appropriate, comparisons have been made with previous years' data.

Health and safety data from Crossrail and London Underground's former Metronet employees are included in the report for the first time.

Road safety data is included from January to December 2009. This data is compared with the 1994–98 averages and the data for the 12 months ending December 2008.

TfL's environmental performance during 2009/10 is reported separately in the Annual Environment Report.

#### Progress against health and safety plans/objectives

All business health and safety plans were monitored throughout the year with progress reported at the quarterly Safety, Health and Environment Assurance Committee and to the TfL Board. The majority of plans were met and those that were not met have been carried forward to 2010/11.

### Health and safety performance

#### Employee safety

This is the fifth year of no work related employee fatalities. In 2009/10, there were 18 employee major injuries in TfL compared with 17 in 2008/09.

In London Underground, there were eight employee major injuries compared with seven in 2008/09. Surface Transport's employee major injuries decreased from 10 to seven in the year and London Rail had one. The Corporate Directorates had two employee major injuries and there were none in Crossrail in 2009/10.

The TfL employee major injury rate for 2009/I0 was 0.74 per I,000 employees compared with 0.85 per I,000 employees in 2008/09. This compares favourably with the most recent major injury rate for the UK transport sector, reported by the Health and Safety Executive (HSE) which is 1.50 per I,000 employees.

#### Customer safety

There were five customer accidental fatalities in 2009/10, compared to two last year. There was one customer accidental fatality in London Underground and four in Surface Transport. The customer fatality incident rate remained low at 0.0014 per million passenger journeys.

There was a 14 per cent decrease in customer major injuries across the TfL Group in 2009/10, with 912 customer major injuries this year compared to 1,062 in 2008/09.

TfL continually develops customer safety campaigns and improvements to promote customer safety.

#### Contractor safety

There were no contractor fatalities in TfL in 2009/10.

The number of contractor major injuries has generally remained constant in each of the businesses over the last five years. This year Surface Transport showed a 17 per cent reduction.

#### Health and wellbeing

The annual sickness absence across the TfL Group was 9.86 days per full time equivalent (FTE) in 2008/09 compared with 10.0 in 2009/10. There was a slight increase in each business area except Surface Transport.

Forty health fairs were held across the TfL Group in 2009/10 and excellent feedback was received from staff who attended.

#### Road safety

In general there was good progress towards the London road safety targets for 2010.

During 2009, TfL supported and undertook a number of road safety education, training and publicity initiatives in London, focusing on groups that have been identified as particularly at risk, such as powered two-wheeler (P2W) users, children, teenagers and cyclists.

In 2009, TfL continued with its cycle safety campaign, created a cycle and HGV safety DVD and continued to distribute Fresnel lenses, which assist the reduction of drivers' blind spots, to freight companies.

There were 23,239 road traffic collisions on the public highway within Greater London that resulted in personal injury reported to the Metropolitan Police Service (MPS) and City of London Police during 2009. This represents a 0.5 per cent increase compared with 2008. These collisions resulted in 27,979 casualties. Of these, 184 were fatally injured, while 3,043 were seriously injured and 24,572 were slightly injured.

#### Introduction

This is the seventh year for which TfL has produced an annual report of health and safety performance.

This report provides a summary of health and safety performance across the TfL Group from 1 April 2009 to 31 March 2010. Where relevant, comparisons have been drawn with 2008/09 data and earlier years' performance.

Metronet was integrated into London Underground in 2008 and Crossrail became a subsidiary of TfL in December 2008. This year's report includes data from Crossrail and data for the former Metronet are included within London Underground.

Road safety data has been provided from January to December 2009. There are comparisons with the 1994–98 averages and previous data for the 12 months ending December 2008.

Environment performance is reported separately in the annual Environment Report.

### I Progress against HSE plans and objectives

Each business develops annual health and safety plans and objectives that enable a systematic process of identifying hazards, evaluating risks, and the monitoring and reviewing of control measures introduced to reduce risks to As Low As Reasonably Practicable. The annual HSE Assurance letter process, in which Chief Officers confirm to the Commissioner and the Safety, Health and Environment Assurance Committee the extent to which their health, safety and environment management systems (HSEMSs) meet the requirements of the TfL Group HSEMS, was completed in 2009/10.

Progress against plans and objectives is reported quarterly to the Safety, Health and Environment Assurance Committee that reports to the TfL Board.

### 1.1 London Underground

London Underground produces an annual safety improvement plan based on research and analysis that identifies opportunities for improvement.

In 2009/10 the top three HSE improvement priorities for London Underground were to:

- Reduce the risk of derailment of trains in customer service
- Convert the staff competence assurance system into a risk based competence management system and
- Improve the efficiency and use of safety critical communications.

Detailed programmes of work with defined milestones, completion dates and accountable managers for delivery existed for all its safety improvement activities.

All programmes were recorded and monitored by the London Underground Safety Action Tracking System. Progress was reported periodically to the Executive Committee, chaired by the Managing Director. Planned objectives for 2009/I0 were completed and fully delivered to plan.

### 1.2 Surface Transport

Good progress was made against health and safety objectives set through the Surface Transport service delivery planning process.

Surface Transport set 18 strategic objectives that addressed priority areas. The priority areas of its improvement plan for 2009/10 were to:

- Improve the health and safety of staff and contractors
- Reduce road casualties
- Prioritize the safety of highways on the Transport for London Road Network (TLRN) and in tunnels
- Improve the safety and security of the public transport network and its users.

Individual business areas within Surface Transport then had some 100 specific local objectives aligned with the strategic ones. Progress against the local objectives was monitored through the Surface Transport Safety Governance meetings. The great majority of the local objectives were delivered and as a result, good progress was made against the strategic objectives. Those that were not delivered have been taken forward into the 2010/11 plan.

#### 1.3 London Rail

Good progress was made against health and safety plans and priorities.

The key safety priorities for London Overground were to:

- Develop and implement a HSEMS to address the responsibilities of Infrastructure Manager
- Maintain the construction phase East London Line project's processes and procedures and progress the assurance of HSE improvements
- Ensure the delivery of a safe and efficient rail service for the London Rail Concessionaire-London Rail Operations Limited (LOROL).

All the safety priorities were fully delivered to plan.

For Docklands Light Railway the safety priorities were to:

- Ensure that all projects including the three car upgrade were completed safely with the safety benefits of reduced congestion and overcrowding being achieved
- Develop, as Infrastructure Manager, a strategy to enable the delivery of the HSEMS objectives
- Develop an audit programme in line with the Group HSEMS and best practice.

All objectives in the 2009/I0 HSE plan for the Docklands Light Railway were completed on schedule with the exception of the development of the audit programme which has been carried forward to 2010/I1.

For London Trams, the safety priority in 2009/10 was to:

• Ensure that the operation, maintenance and development of trams in London sets a benchmark for safety and security preformance within the UK tramway industry.

This priority was largely delivered to plan with further improvements programmed for 2010/11.

#### 1.4 Crossrail

Crossrail produced an annual health and safety improvement plan which focused on the preparation and organisation of the construction phase of the Crossrail project.

The top three HSE improvement priorities for Crossrail in 2009/10 were to:

- Review and update the HSEMS to reflect the new contract arrangements and meet the requirements of the British Standard OHSAS 18001
- Develop and embed a new behavioural safety process across stakeholders and contractors
- Develop and implement an occupational health strategy.

Detailed programmes of work with defined milestones, completion dates and accountable managers for delivery ensured that Crossrail successfully completed these priority actions within the 2009/I 0 plan.

Progress on delivering the health and safety improvement plan was regularly reported to the Crossrail Executive and Investment Committee, chaired by the Chief Executive.

#### 1.5 Corporate Directorates

All planned objectives were met in 2009/10. Planned health and safety improvements and risk assessments were completed. A number of health and wellbeing events were held across the Directorate. An online risk assessment tool was developed to aid the management of occupational road risk for staff that drive on TfL business. A phased roll out of the tool across the TfL Group will take place in 2010/11.

### 2 HSE management

Each business area develops HSEMSs and procedures aligned to the TfL Group HSEMS that are suitable for its operation which are evaluated, monitored and reviewed.

### 2.1 Status of HSE management systems

#### 2.1.1 London Underground

The London Underground HSEMS has been refined over 20 years and drives the improving HSE performance of the business. The core standards of the HSEMS are mandated on its supply chain, this makes a significant contribution to the overall performance.

During 2009/10, London Underground undertook a three-yearly review of the management system and integrated key standards into the newly developed management system guidance for operational managers.

The integration has made it easier for managers to comply with the requirements of the system and facilitates compliance verification. London Underground will continue to ensure consistent compliance with standards by integrating the HSEMS into the new organisation management system guidance for all maintenance and project managers.

### 2.1.2 Surface Transport

A number of the Surface Transport HSEMSs were updated. The fully updated systems are now aligned to the TfL Group HSEMS and relevant information was communicated to staff.

The completion of the updating of the HSEMSs is a priority for 2010/11.

#### 2.1.3 London Rail

The Docklands Light Railway Safety Management System was revised as part of the Capability Enhancement Programme in 2009. The focus of the improvements included the further development of safety governance, change management, assurance, engineering safety management, safety reporting, safety issues management and risk management. Work was carried out to develop risk models and the Docklands Light Railway safety performance index.

London Overground has developed a new management system in line with its new responsibilities as infrastructure manager for the East London Line, covering infrastructure and operations. The organisational structure and associated standards will be reviewed during 2010/11.

The key health and safety standards for London Tramlink's new integrated management system have been issued. The integrated management system incorporates the management of HSE and meets the requirements of the TfL Group HSEMS.

#### 2.1.4 Crossrail

The health and safety management system was developed during 2009/10. This provides the arrangements that guide the delivery of health and safety activity at strategic, tactical and front line levels. Early in the year, the health and safety management system was reviewed by an independent auditor (Lloyd's Register Quality Assurance services) against the requirements of the British Standards Occupational Health and Safety Assessment Series 18001:2007 and met its requirements. Crossrail was awarded the certificate of accreditation in March 2010.

#### 2.1.5 Corporate Directorates

The Corporate Directorates HSEMS is fully implemented and is in use across all business activities. It was reviewed during 2009/I0 to update legislative changes and it will be further updated in 2010/II to reflect organisational changes.

### 2.2 Review of progress against audit plans

### 2.2.1 London Underground

London Underground completed its safety audit programme in 2009/10. This programme covered its own operations and those of its suppliers, including Tube Lines.

Progress with the safety audit programme and actions to address significant findings were regularly monitored. In addition, following the integration of the former Metronet companies, consolidation of actions were also satisfactorily completed, with one standard audit approach now in place across the business. There were no major safety concerns identified in the audits undertaken.

#### 2.2.2 Surface Transport

Audit programmes for London Buses, Dial-a-Ride, Taxi and Private Hire, London River Services, and Victoria Coach Station, as well as driver and engineering quality monitoring, were completed in 2009/10. Bus companies responded with action plans in respect of corrective action for identified areas for improvement. The HSEMS for London Streets was also audited. Actions against the audits were monitored regularly through the year. There were no major safety concerns identified and the audit actions will be taken forward in 2010/11.

#### 2.2.3 London Rail

The annual independent audit of the Docklands Light Railway Safety Management System was completed in December 2009. The report made 43 recommendations and these are now under active management through the safety issues register.

The London Overground audit plan was completed. There were 24 audits carried out. Good progress was made in completing audit actions and those not completed will be taken forward in 2010/11.

During 2009/10 London Tramlink undertook structured audit planning for the coming five years. The focus during 2010 was on the development of the safety management system and four audits took place. The audits undertaken did not identify any major safety concerns in London Rail.

#### 2.2.4 Crossrail

The Crossrail health and safety assurance regime was established in November 2009. The assurance regime consists of compliance based audits, surveillance of particular activities/topics and inspections of records and work locations.

Audits were carried out to assess compliance with the Crossrail Health and Safety Management System in targeted areas across the current phase of the programme including procurement and design management. The audit programme has been developed to enable quality and environmental audits to be co-ordinated with health and safety audits.

#### 2.2.5 Corporate Directorates

The agreed recommendations from the independent audit of the Corporate Directorates HSEMS and the Group HSEMS carried out in 2007/08 were completed.

### 3 Health and safety performance statistics

This section summarises TfL's health and safety performance for the year 2009/I0 and compares it with the four previous years where data are available. In the graphs in this section, the numbers inserted in the chart legends are the actual figures.

### 3.1 Employee safety

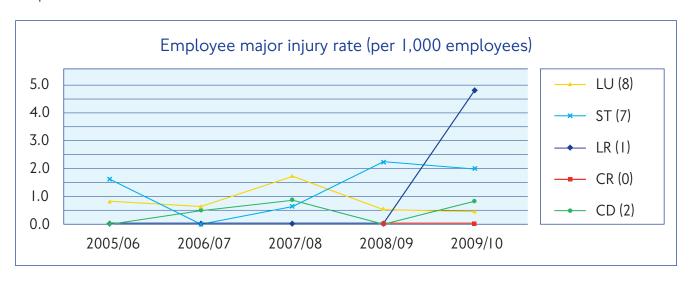
#### 3.1.1 Employee fatalities

For the fifth consecutive year there were no employee fatalities.

### 3.1.2 Employee major injuries

Employee major injuries are defined by the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) and must be reported to the Health and Safety Executive (HSE).

They include injuries such as limb fractures, injuries leading to unconsciousness or admittance to hospital for more than 24 hours.



In 2009/10, there were 18 employee major injuries in TfL, compared with 17 in 2008/09. The TfL major injury rate for 2009/10 was 0.74 per 1,000 employees and this is lower than the 2000/09 employee major injury rate of 0.85 per 1,000 employees. The most recent major injury rate for the UK transport sector reported by the HSE is 1.50 per 1,000 employees.

In London Underground, there were eight employee major injuries compared with seven in 2008/09.

In Surface Transport, employee major injuries decreased from ten in 2008/09 to seven in 2009/10. Slips, trips and falls accounted for 71 per cent of its employee major injuries.

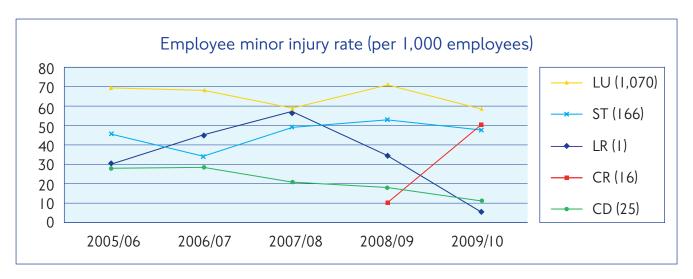
London Rail had its first employee major injury in the past three years. The sharp upward trend in the graph is a result of the comparatively small number of employees in London Rail.

There were no employee major injuries in Crossrail in 2009/10.

The Corporate Directorates had two employee major injuries, compared to none in 2008/09.

#### 3.1.3 Employee minor injuries

Employee minor injuries are any injuries that are not defined as major in RIDDOR.



In London Underground, employee minor injuries increased slightly from 979 in 2008/09 to 1,070 in 2009/10, despite a large increase in the number of employees. The primary cause of these injuries was slips, trips and falls.

In Surface Transport, there was a decrease of 30 per cent from 239 in 2008/09 to 166 in 2009/10. Surface Transport recorded its lowest number of employee minor injuries for the past three years and 56 per cent of the minor injuries were from slips, trips and falls.

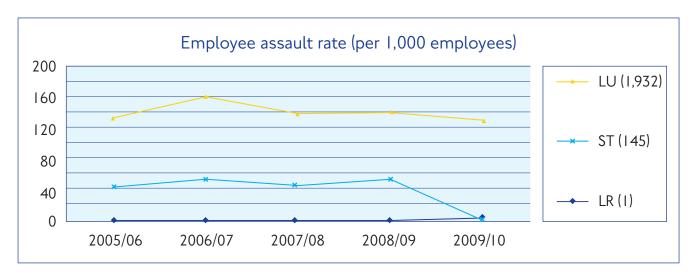
Employee minor injuries in London Rail decreased from eight to one in 2009/10. Crossrail had 16 employee minor injuries in 2009/10.

The Corporate Directorates employee minor injuries decreased 34 per cent, from 38 in 2008/09 to 25 in 2009/10.

### 3.1.4 Employee assaults

Employee assaults include any incident in which a person is verbally or physically abused, threatened or assaulted in circumstances related to their work.

For London Underground only, this includes employees who are travelling to and from work in uniform. The graph below illustrates the employee assaults within the operational, customer-facing businesses.



London Underground had an increase in employee assaults of four per cent, 1,857 in 2008/09 and 1,932 in 2009/10. However, the rate of assaults decreased slightly due to staff numbers increasing. Significant efforts are being made to prevent such violence, to improve the response to incidents and in supporting staff post incident.

Surface Transport employee assaults decreased by 40 per cent. There were 245 in 2008/09 and 145 in 2009/10, the lowest number recorded in the last six years.

A number of initiatives have been introduced aimed at tackling workplace violence including setting up a workplace violence unit and role-specific conflict avoidance and incident investigation training.

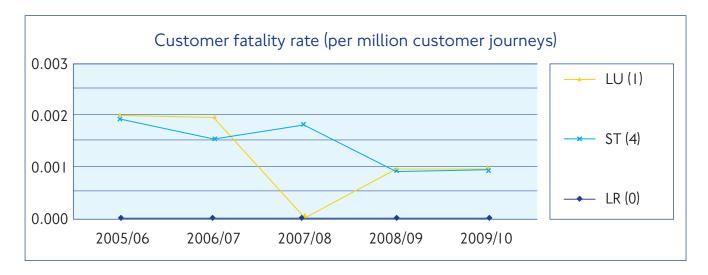
There was one employee assault in London Rail this year and none in 2008/09.

### 3.2 Customer safety

TfL continually develops customer safety campaigns and improvements to promote customer safety. TfL provided more than 3.4 billion customer journeys in 2009/10.

#### 3.2.1 Customer accidental fatalities

This performance indicator is a measure of the number of customer fatalities arising from incidents involving a TfL business operation. Suicides, crime-related fatalities and medical fatalities are excluded.



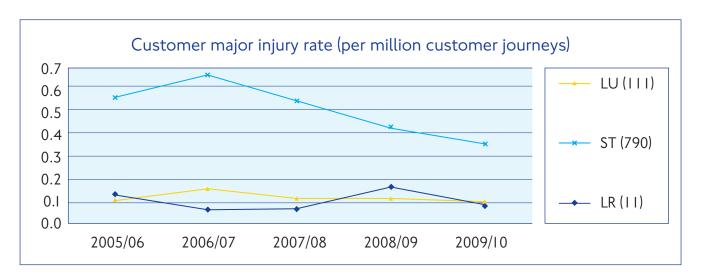
The definition of customer includes members of the public using a TfL business or premises, including people using rights of way, trespassers, tenants and off-duty employees.

There were five customer fatalities in 2009/10, compared to two in 2008/09. One fatality took place on London Underground and four related to Surface Transport.

The customer fatality incident rate (0.0014 per million passenger journeys) in 2009/10 remained low.

### 3.2.2 Customer major injuries

Customer major injuries are those that result in the customer being taken to hospital arising from incidents that involve a TfL business operation.



London Underground's customer major injuries decreased by 17 per cent from 134 in 2008/09 to 111 in 2009/10. The reduction in the number of customer major injuries continued in London Underground in 2009/10, with the lowest number of injuries (111) reported over the last five years. The continuing customer safety awareness poster campaigns in part contributed to reducing the number of these incidents.

In Surface Transport, customer major injuries decreased by 13 per cent from 908 in 2008/09 to 790 in 2009/10, continuing a downward trend seen over the last three years. In 2009/10, the independent covert driver quality monitoring regime for bus drivers was reinforced to assess driving accelerations and decelerations. To improve the safety and comfort of bus passengers, work is underway to implement a mechanism to restrict the acceleration rate of new buses.

In London Rail, customer major injuries decreased by 45 per cent from 20 in 2008/09 to 11 in 2009/10. This was despite the severe winter weather and the extensive construction work underway on the Docklands Light Railway.

#### 3.2.3 Customer minor injuries

The collection and collation of customer minor injury data are not sufficiently developed to allow reporting at the Group level.

### 3.3 Contractor safety

#### 3.3.1 Contractor fatalities

	London	Surface			Corporate
Year	Underground	Transport	London Rail	Crossrail	Directorates
2005/06	0	1	0	0	0
2006/07	0	0	0	0	0
2007/08	0	1	0	0	0
2008/09	1	1	0	0	0
2009/10	0	0	0	0	0

There were no contractor fatalities in 2009/10.

#### 3.3.2 Contractor major injuries

	London	Surface			Corporate
Year	Underground	Transport	London Rail	Crossrail	Directorates
2005/06	17	158	0	-	0
2006/07	10	106	3	-	0
2007/08	13	149	10	-	0
2008/09	24	105	4	0	0
2009/10	20	87	0	3	1

The number of contractor major injuries has not varied greatly in each of the businesses over the past five years. This year Surface Transport showed a 17 per cent reduction.

Normalised incident figures for contractors are not given because precise numbers of contractors employed are not available and the numbers of contractors may fluctuate year-on -year and therefore data may not be readily comparable from year to year. Contractor minor injury data may not be fully consistent in the business and is not comparable across the TfL Group.

#### 3.3.3 Contractor assaults

	London	Surface			Corporate
Year	Underground	Transport	London Rail	Crossrail	Directorates
2005/06	24	1,105	97	-	0
2006/07	12	708	88	-	0
2007/08	24	1,168	41	-	0
2008/09	15	888	217	0	0
2009/10	58	618	188	0	0

The increased level of contractor assaults reported for London Underground reflects both an improved reporting procedure in Tube Lines and an increase in on site activity.

Contractor assaults in Surface Transport predominantly relate to bus drivers and the downward trend continued. The workplace violence unit's emphasis on conflict management continues to have a positive impact.

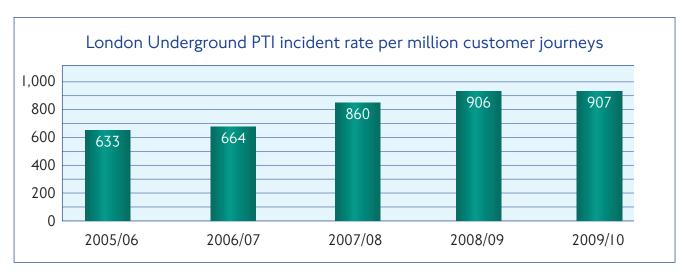
Contractor assaults reduced in London Rail. The targeted use of the British Transport Police at hotspots, staff training, and data analysis have contributed towards this reduction.

### 3.4 Business-specific indicators

### 3.4.1 London Underground

#### I Platform/train interface incidents

Platform/train interface (PTI) incidents are those that occur at the boundary where the platform and train meet. While there is a very low probability of PTI incidents occurring to an individual, due to the high frequency of daily crossings of the platform/train interface, this is the top risk to customers and it accounts for 46 per cent of London Underground's major accident risk profile.

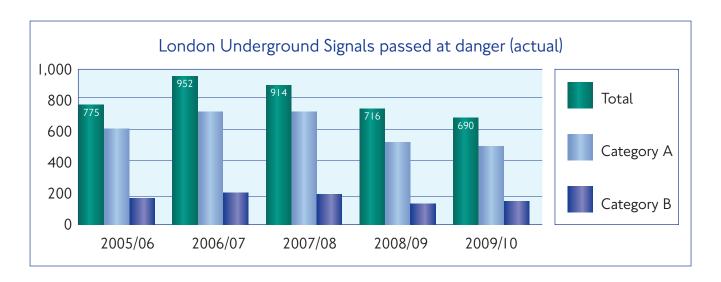


A number of control measures are used to manage the PTI incident risk as low as reasonably practicable. These include targeted customer advertising campaigns, platform and on-train announcements and warning messages on the 'next train' indicators. The number of PTI incidents in 2009/IO at 907 was almost the same as the number of incidents (906) in 2008/09. This is a very small proportion of the more than 2.5 billion customer crossings of the PTI each year.

#### II. Signals passed at danger

Signals passed at danger (SPAD) is defined as any red, or 'danger', signal that is passed without proper authority. SPAD risks are primarily controlled through the protected signalling system that automatically applies the emergency brake if a SPAD occurs.

Category A SPADs arise from the action of the driver. Category B SPADs are caused by signalling equipment failing, malfunctioning or returning to 'danger' in error.

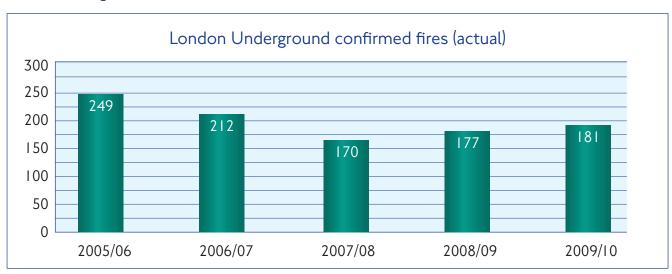


The continuing reduction in SPADS reflects the success of the ongoing SPAD reduction programme.

The engineering safety control systems which automatically activate the braking system on the trains (train stops and trip cocks) provide protection against SPADs and ensured that none of the SPAD incidents in 2009/10 resulted in any safety risk to passengers or staff.

#### III Confirmed fires

This indicator measures the number of observed fires, or serious arcing/fusing involving a train on London Underground infrastructure.

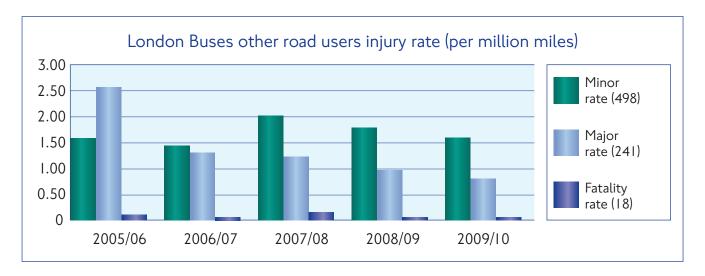


The number of confirmed fires remained stable at one of the lowest levels ever recorded with 181 fires in the year, compared with 170, the lowest ever recorded, in 2007/8. The improved litter-picking regime continues to contribute to this performance.

### 3.4.2 Surface Transport

#### I. London Bus Services /road user incident rates

This indicator measures the number of minor, major and fatal injuries to road users (including pedestrians but excluding on-duty TfL employees, bus operator staff and customers) arising as a result of London Bus services contracted operations.

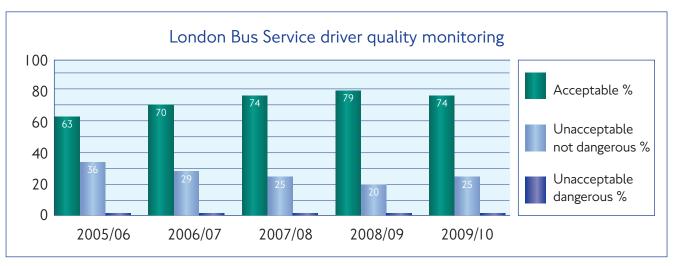


Road user fatalities involving buses increased from 16 in 2008/09 to 18 in 2009/10. Of the 18 fatalities, 13 were pedestrians. The others were the drivers of a private hire vehicle, a van, a private car, a motorcyclist and a cyclist.

London Buses has continued to coordinate a range of initiatives including the bus operators forum safety sub-group where managing directors of all major bus companies share best practice and benchmark incident statistics. Safety improvement workshops for bus company representatives also took place.

Bus operators undertake route risk assessments, with guidance produced jointly by bus operators and TfL. These assessments inform the communication of hazards to bus drivers. Some bus operators have introduced electronic bus monitoring systems to improve driver performance and fuel efficiency, and others are either trialling or considering similar systems. These devices assist in identifying poor driving habits, which can then be addressed to reduce risks to passengers and other road users.

#### II. Driver quality monitoring



Independent driver quality assessments are carried out by the Driving Standards Agency.

Of the individual driver quality assessments, 74 per cent were considered to be 'acceptable', this is a five per cent decrease in driver quality from 2008/09. Less than one per cent of assessments were rated as 'unacceptable dangerous'.

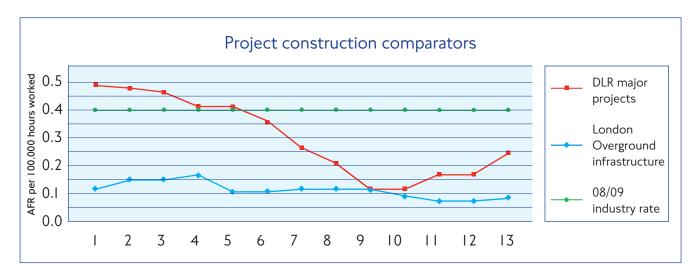
An 'unacceptable dangerous' score applies to an element of the assessment that is considered to have the potential of leading to an incident/accident. This may represent a single event occurring during the whole assessment. However, these scores are taken seriously by TfL and bus operators who are notified within 24 hours and are expected to take immediate action by interviewing the driver and, where appropriate, reviewing other evidence such as on-bus closed circuit television recordings. The specific action taken depends on the individual circumstances of each observation and can range from the provision of advice to formal disciplinary action and, in some cases, dismissal.

Bus drivers in these situations often receive additional training and close supervision by the bus operator's driver training staff. There are frequent independent audits of driver quality processes and these are reviewed annually by Surface Transport.

#### 3.4.3 London Rail

#### I. Project construction contractor comparators

London Rail uses Accident Frequency Rates (AFR) to monitor the performance of construction contractors. Rates are classified as RIDDORs per 100,000 hours worked. In 2009/10, London Rail maintained a clear focus on construction safety performance during a time of significant construction activity.



Docklands Light Railway major projects included the Stratford international extension, three-car upgrade works, new vehicles and Serco projects. The overall AFR fell from 0.49 at the beginning of the year to 0.28. The fall was due to specific initiatives to improve project safety and the fact that some of the major projects were nearing completion. The slight increase at the end of the year is associated with two relatively minor injuries, which resulted in more than three days absence from work.

London Overground Infrastructure, which incorporates the development of the East London line, maintained a low AFR throughout the year with no reportable accidents in the last three periods.

#### II Procedural irregularities

Procedural irregularities are events that can potentially lead to incidents on the railway. This indicator relates specifically to Docklands Light Railway. In 2009/10, various initiatives were introduced to reduce the number of procedural irregularities, reinforcing the training provided for staff and analysing the irregularities to take on board lessons to be learnt.



There were 38 procedural irregularities during 2009/10, down from 61 in the previous year. Of these, 27 related to operations, six to maintenance, three to depots and two to Serco worksites. All irregularities have been investigated and where necessary actions implemented to prevent reoccurrence.

### 4 Major incidents

Incidents which are classified as major incidents are:

- Fatality to employee, contractor, transport user or member of the public on TfL property or premises (excluding suicide or suspected suicide, crime-related fatality or non-work-related medical fatality)
- Incidents resulting in three or more people requiring treatment in hospital due to accidental injury
- Significant incidents where the final total costs (loss) are (likely to be) more than £1m, to TfL, including those covered by insurance
- Incidents (including environmental incidents) where prosecution is likely, there is a regulatory interest, or there is (or there is likely to be) significant media interest.

TfL specifically excludes public road traffic accidents (RTAs) from this group as they are not within TfL's directly managed activities. However, it should be noted that TfL remains responsible for collating and reporting on RTAs and instigating, where appropriate, action to improve road safety. Road safety performance is reported in detail in Section 6.

### 4.1 Major incidents involving fatalities

There were five major incidents during the year all of which were customer fatalities:

- In June 2009, a passenger suffered fatal injuries as a result of a fall down the stairs of a bus
- In August 2009, an intoxicated passenger suffered fatal injuries as a result of a fall down stairs, at Harrow and Wealdstone station
- In September 2009, an intoxicated passenger suffered a fatal heart attack after falling down the stairs of a bus
- In September 2009, a passenger suffered fatal injuries after falling from his seat as the bus approached a roundabout
- In February 2010, a passenger tripped while alighting a bus with a trolley, was taken to hospital with leg injuries and died from a heart attack some days later.

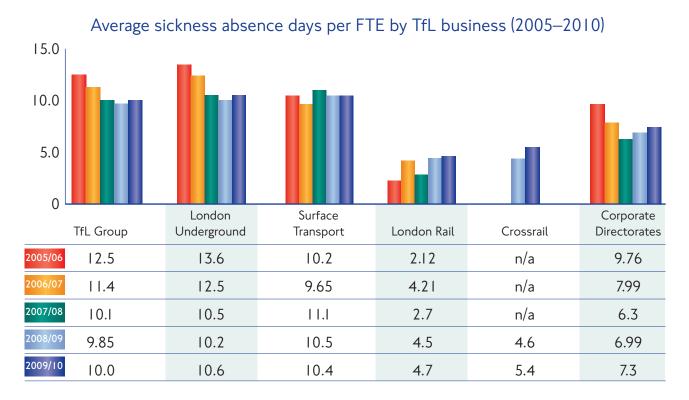
### 5 Occupational health and wellbeing

#### Introduction

This section provides information on sickness absence across the TfL Group and summarises activities to encourage employees to improve their health and wellbeing during 2009/10.

The report compares medical reasons for sickness absence in the year 2009/10 and summarises the average days lost per employee reported as being due to sickness. TfL has used the sickness absence data reported here to identify key areas of health risk in order to focus corporate interventions at an appropriate level and to consider further health interventions.

### 5.1 Analysis of medical causes of sickness absence



The annual sickness absence across the TfL Group increased slightly from 9.86 days per full time equivalent (FTE) in 2008/09 to 10.0 in 2009/10. There was a slight increase in every business area except Surface Transport.

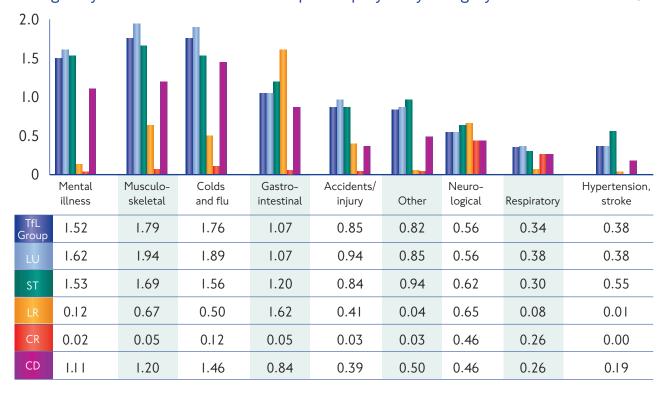
#### Medical causes of sickness absence as a percentage of total sickness absence

	Musculoskeletal	Coughs, colds and		
Per cent	disorders	influenza	Mental ill health	Gastro-intestinal
TfL Group	17.7	17.4	15.0	10.6
London				
Underground	18.2	17.7	15.2	10.1
Surface Transport	16.3	15.0	14.7	11.6
London Rail	14.4	10.7	2.6	34.6
				27.0
Crossrail	11.0	32.5	11.0	(other categories)
Corporate				
Directorates	16.4	20.0	15.3	11.5

The three most frequently reported categories of sickness absence were musculoskeletal disorders, coughs, colds and influenza, and mental ill health. Due to the outbreak of swine flu during the summer and autumn of 2009, sickness absence as a result of coughs, colds and influenza was a higher proportion of sickness absence this year. To minimise the spread of outbreak Government advice encouraged those with swine flu symptoms to stay off work.

The graph above shows the average days lost due to sickness absence per employee by category and business area for the year 2009/10.

### Average days lost to sickness absence per employee by category and business 2009/10



### 5.2 Health-related activities during 2009/10

# 5.2.1 Cross-business agreement of service levels for occupational health services

The occupational health team held cross-business discussions on a quarterly basis to review performance levels of service and facilitate the sharing of good practice.

#### 5.2.2 Usage of occupational health services

Percentage usage of occupational health services compared with permanent headcount

	Total staff usage (contact with occupational health)	Per cent of usage	Headcount	Per cent headcount	Ratio of usage to headcount
London Underground	27,867	84.0	17882.0	74.4	1.55:1
Surface Transport	3,477	10.5	3575.3	14.9	0.97:1
London Rail	125	0.4	213.1	0.9	0.58:1
Corporate Directorates	1,695	5.1	2372.1	9.9	0.71:1
Total	33,164	100.0	24042.4	100.0	1.45:1

The occupational health team provides services across the TfL Group and regularly reviews its services across each business. London Underground continues to use occupational health services more heavily than other areas, which reflects its large number of operational staff.

#### 5.2.3 Health fairs

Forty health fairs were held across TfL this year including at Northumberland Park and Stonebridge Park depots for former Metronet maintenance employees. In total, 1,995 staff attended the fairs, which is a 46 per cent increase on the attendance in 2008/09. This is mainly as a result of fairs being held for the first time for the Greater London Authority (an extended TfL service) and Surface Transport. Excellent feedback was received and the majority of staff (66 per cent) who attended a health fair did so for the first time.

#### 5.2.4 Mental health plan

The key focus of the 2009/IO mental health plan was to develop managers' skills in overseeing staff with mental health issues. Absence for this cause continued to decrease slowly as a result.

#### 5.2.5 Crossrail occupational health services

There are separate occupational health services and arrangements for Crossrail staff and the Crossrail programme.

In 2009/10 the Crossrail occupational health procurement standard was developed and providers were appointed to deliver a range of services.

Occupational health guidance 'Healthy in Design' was produced to set out the expectations on the management of occupational health and a number of workshops were held with design staff.

TfL occupational health provide services to office-based Crossrail staff and will provide healthy lifestyle roadshows over the coming year.

### 6 Road safety

There were 23,239 road traffic collisions on the public highway within Greater London that resulted in personal injury reported to the MPS and City of London Police during 2009. This represents a 0.5 per cent increase compared with 2008. These collisions resulted in 27,979 casualties. Of these, 184 were fatally injured, 3,043 were seriously injured and 24,572 were slightly injured.

In March 2000, the Government announced a new national road safety strategy and casualty reduction targets for 2010. The casualty reduction targets to be achieved by 2010, compared with the 1994-98 average, are:

- Forty per cent reduction in killed or seriously injured (KSIs)
- Fifty per cent reduction in child KSIs
- Ten per cent reduction in the slightly injured casualty rate, expressed as the number of people slightly injured per 100 million vehicle kilometres.

London's Road Safety Plan supports the national targets and recommends further ones for reducing the number of pedestrian, cyclist and powered two-wheeler (P2W) rider KSIs by 40 per cent by 2010.

By 2005, these targets had largely been achieved in London, apart from those for P2W riders. Following consultation with key stakeholders, more stringent targets for the Capital were announced in March 2006, to be achieved by 2010. These are:

- Fifty per cent reduction in the number of KSIs
- Fifty per cent reduction in the number of cyclist and pedestrian KSIs
- Forty per cent reduction in P2W rider KSIs (unchanged)
- Sixty per cent reduction in child KSIs
- Twenty five per cent reduction in the slightly injured casualty rate, expressed as the number of people slightly injured per 100 million vehicle kilometres.

The following graphs show a breakdown of the type of injury by road user, comparing the numbers for Greater London as a whole and for the Transport for London Road Network (TLRN), for which TfL is responsible.

They also show progress towards the new revised targets for the year ending December 2009.

### 6.1 Programmes to reduce casualties in vulnerable groups

During 2009, TfL supported and undertook a number of education, training and publicity initiatives in London, focusing on groups that have been identified as particularly at risk, such as P2W users, children, teenagers and cyclists.

Major activities to improve road safety in London are in the areas of monitoring and research, education, training and publicity, as well as road safety engineering.

#### 6.1.1 Monitoring and research

TfL managed the collision and casualty database referred to as STATS19 for London. The data are used to identify high-risk sites to prioritise remedial road safety engineering works. The data are also analysed to identify problems by road user type, for example, children, pedestrians, cyclists and P2W users.

TfL supported road safety professionals throughout London to achieve casualty reduction targets by undertaking and commissioning research, building up a body of evidence and communicating findings to promote evidence-based policy and practice in London.

Current research and development activities include Intelligent Speed Adaptation, a set of technologies designed to assist drivers in speed management.

#### 6.1.2 Education, training and publicity

Initiatives developed to target young people are The Children's Traffic Club, the Junior Road Safety Officer scheme and Theatre in Education. Through these initiatives a number of young people learn vital road safety messages that will make them better road users.

The recent teenager publicity campaign 'Don't let your friendship die on the road' consisted of cinema commercials and posters aimed at young people aged 13 to 16 years. Postcards were also distributed within schools.

TfL, in conjunction with the MPS and the City of London Police currently operates the Bikesafe London and Scootersafe London initiatives.

The initiatives are aimed at motorcyclists and scooter riders to improve their riding skills and to change their attitudes and behaviours when riding on London's roads.

The TfL publicity campaign for P2W users involved a number of cinema and TV advertisements. These have focused on highlighting the dangers of speeding and loss of concentration by riders, and on encouraging drivers of other vehicles to look out for P2Ws.

In 2009, the Mayor launched the Cycle Safety Action Plan. The plan, which included input from expert groups as well as ordinary Londoners, identifies the types of incidents that are most likely to result in serious cycling collisions and sets out more than 50 actions to reduce them over the coming years.

In 2009, TfL continued with its cycle safety campaign including the 'moon walking bear' TV advertisement. It also created a cycle and HGV safety DVD and continued to distribute Fresnel lenses, which assist the reduction of drivers' blind spots, to freight companies.

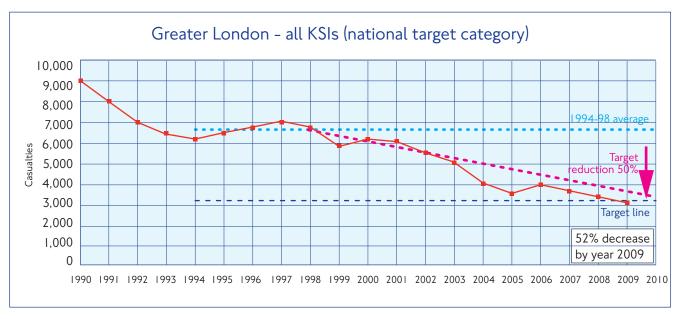
One of the national casualty reduction targets is to improve safety in areas of deprivation, where communities are at higher risk. TfL's research in London has identified high-risk communities and TfL has encouraged local interventions to improve safety for these groups in a number of boroughs.

### 6.1.3 Road safety engineering

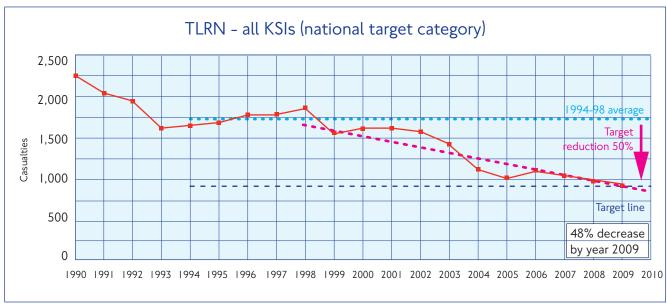
TfL is responsible for operating and improving conditions for all users of the TLRN, which is made up of approximately five per cent of London's roads but carries 33 per cent of its traffic. Support to the boroughs currently includes funding 20 mph zones (of which there are currently more than 400 in London) and for local education, training and publicity programmes. To ensure that all changes to the TLRN are designed and implemented as safely as possible, a safety audit of the changes is carried out. A team of experienced safety engineers within TfL undertook these audits.

### 6.2 All KSI casualties

Fatalities in 2009 decreased by 10 per cent compared with 2008, from 204 to 184, the lowest number recorded and the first year in which they had fallen below 200 in London. Serious injuries decreased by eight per cent while slight injuries increased by one per cent. Overall, casualties decreased by 0.6 per cent.

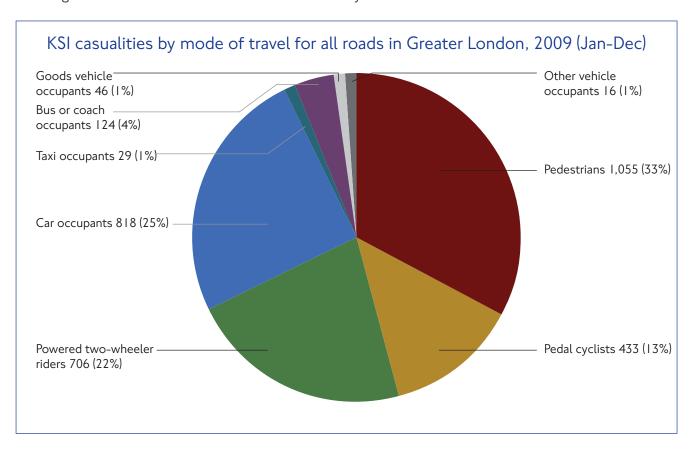


All KSIs were 52 per cent below the 1994-98 average following an eight per cent decrease in 2009, thus achieving the casualty reduction target. By 2009, fatalities were 26 per cent below the 1994-98 average, with a decrease of ten per cent in 2009/10.



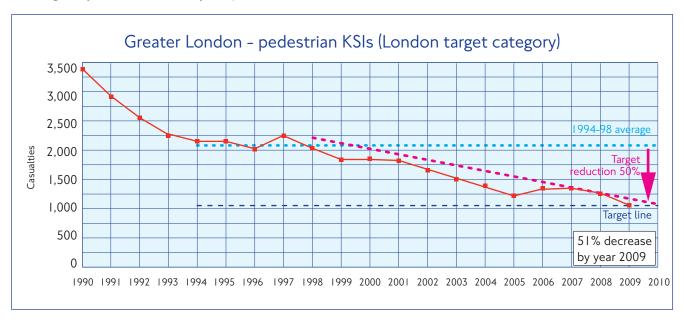
The trend for the TLRN broadly reflects that for Greater London, with a decrease of 48 per cent from the 1994-98 average, following a decrease of two per cent in 2009.

The diagram below indicates the distribution of KSIs by business for all roads in Greater London in 2009.

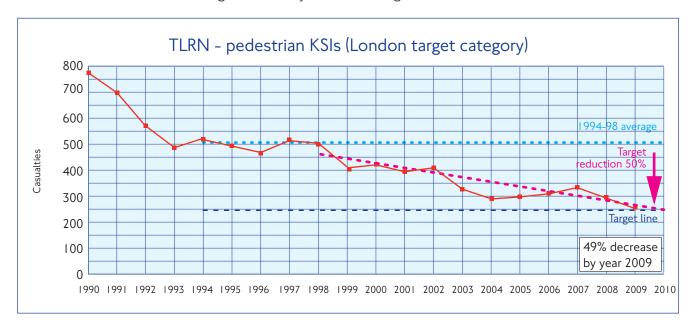


#### 6.3 Pedestrian KSIs

Pedestrians accounted for 48 per cent of all fatalities and 32 per cent of all serious injuries in 2009. Overall, pedestrian casualties increased by two per cent compared with 2008. Within this figure, pedestrian fatalities decreased by six per cent from 94 to 88, serious injuries decreased by 13 per cent and slight injuries increased by six per cent.



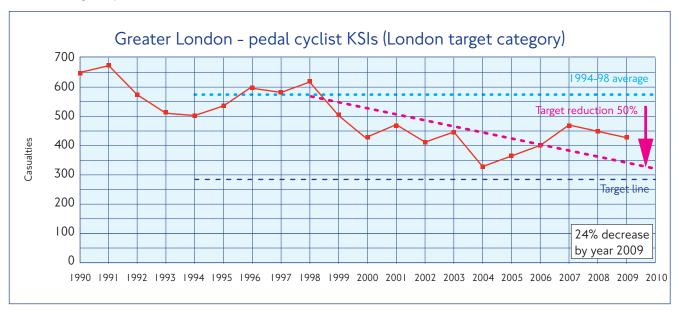
Pedestrians killed or seriously injured were 51 per cent below the 1994-98 average, after a 13 per cent decrease in 2009, thus achieving the casualty reduction target.



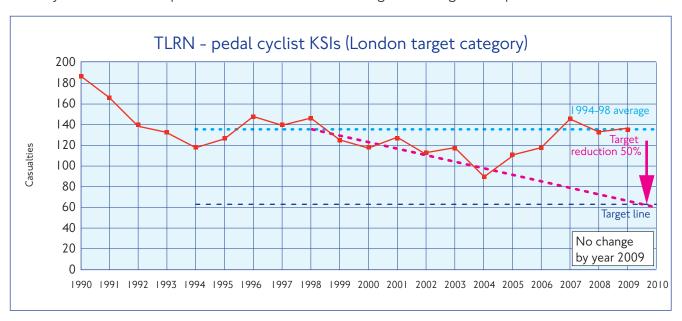
The trend for the TLRN largely mirrors that for Greater London as a whole, with a decrease of 49 per cent compared with the 1994-98 average, as a result of 15 per cent decrease in pedestrian KSIs during 2009.

### 6.4 Pedal cyclist KSIs

In 2009, pedal cyclists accounted for 13 per cent of all casualties and seven per cent of all fatalities. Casualties increased overall by 15 per cent compared with 2008. Within this, the number of fatalities reduced from 15 in 2008 to 13 in 2009. Serious injuries decreased by two per cent and slight injuries increased by 17 per cent.

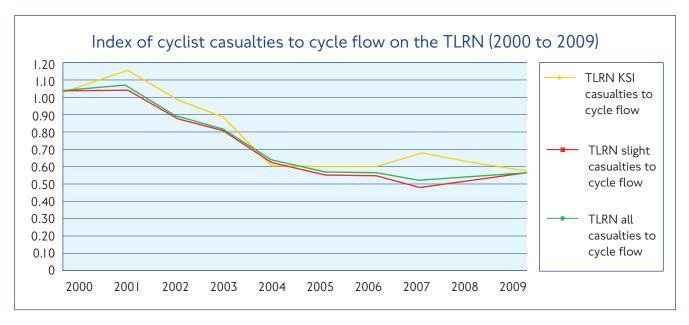


Pedal cyclist KSIs were 24 per cent below the 1994-98 average, following a three per cent decrease in 2009.



The general trend for the TLRN broadly follows that for Greater London as a whole, but with an increase of two per cent from 2008 to 2009. This means that by 2009, cyclist KSIs were back to the same levels as the 1994-98 average.

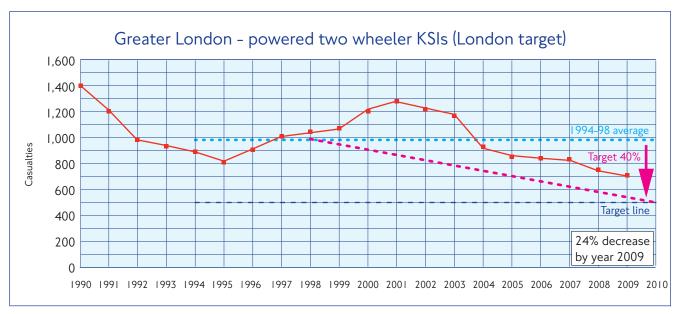
The increases in cyclist casualties on all roads and the TLRN for 2004-2009 are associated with a considerable increase in the amount of cycling in London in recent years. The following chart illustrates the changes in cyclist casualties on the TLRN relative to the change in cycle flow on the TLRN. The cyclist casualty rates are shown as indices with the year 2000 set as 1.00.



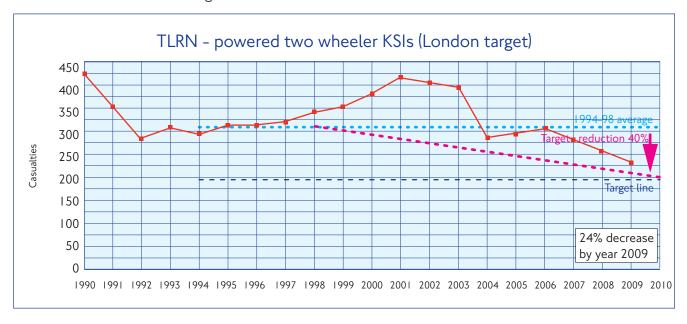
Since 2000, after a small increase in 2001, there has been a substantial decrease in the 'cyclist casualty rate' as measured by this index. By 2009, the 'cyclist casualty rate' had fallen over 40 per cent compared with 2000 for each of the severity levels (all, KSI and slight casualties). It should be noted that there has been more year-to-year fluctuation in the KSI 'rate' due to their relatively smaller numbers compared with slight and all TLRN casualties, and that the fall in casualty rate has slowed since 2004.

#### 6.5 Powered two-wheeler rider KSIs

In 2009, riders and passengers of P2Ws accounted for 16 per cent of all casualties and 21 per cent of all fatalities. P2W casualties saw an overall increase of seven per cent from 2008, but fatalities decreased by 22 per cent from 50 to 39. Serious injuries decreased by three per cent and slight injuries increased by nine per cent.

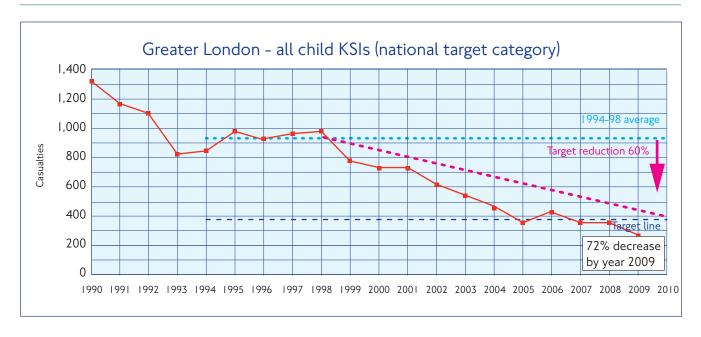


P2W rider KSIs are below the 1994-98 average for the sixth year running. By 2009, they were 24 per cent below the 1994-98 average.

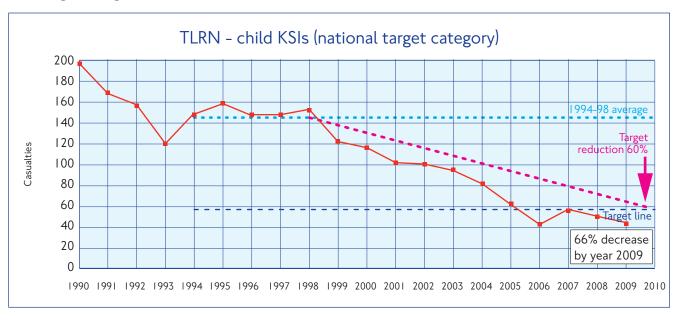


The trend for P2W KSIs on the TLRN is broadly similar to that of Greater London as a whole, with a decrease of 11 per cent in 2009. KSI casualties are now 24 per cent below the 1994-98 average.

#### 6.6 Child KSIs



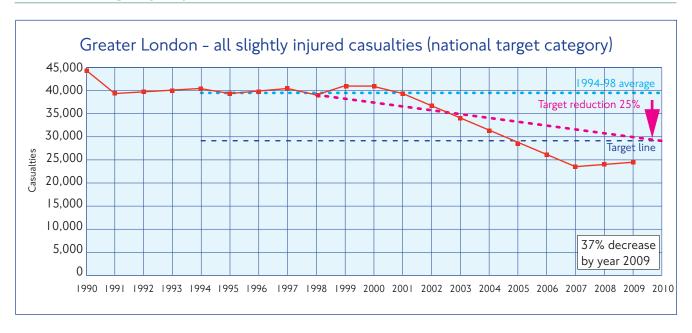
After a 15 per cent decrease in 2009, all child KSIs were 72 per cent below the 199498 average, thus achieving the target reduction.



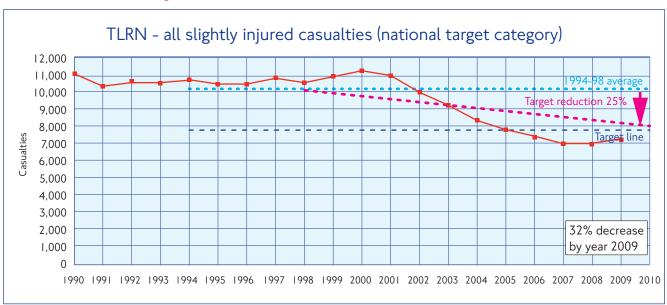
In 2009, child KSIs on the TLRN decreased by two per cent. By 2009, child KSIs on the TLRN were 66 per cent below the 1994-98 average.

## 7.0 Appendices

## 6.7 All slightly injured casualties



After an increase of less than one per cent in 2009, all slightly injured casualties were 37 per cent below the 1994-98 average.



The trend for the TLRN mirrors that of Greater London as a whole, with all slightly injured casualties being 32 per cent below the 1994–98 average, following an increase of two per cent in 2009.

## 7.1 London Underground data

### **Customer injuries**

Year	Fatal	Major	Customer journeys (millions)
2005/06	2	117	964.53
2006/07	2	150	1,014.33
2007/08	0	144	1,072.50
2008/09	0	134	1,089.50
2009/10	1	111	1,064.70

#### **Employee on-duty injuries**

Injuries sustained as a result of physical assault are included

Year	Fatal	Major	Minor	Employee numbers
2005/06	0	10	847	12,348
2006/07	0	8	861	12,787
2007/08	0	23	781	13,422
2008/09	0	7	979	13,215
2009/10	0	8	1,070	17,882

#### **Contractor injuries**

Year	Fatal	Major	Minor
2005/06	0	17	787
2006/07	0	10	117
2007/08	0	13	138
2008/09	1	24	910
2009/10	0	20	897

## 7.1 London Underground data continued

#### **Employee assaults**

Year	Actual	Employee numbers
2005/06	1,766	12,348
2006/07	2,069	12,787
2007/08	1,884	13,422
2008/09	1,861	13,215
2009/10	1,932	14,212*

<sup>\*</sup> Numbers exclude Chief Maintenance Office employees

#### **Contractor assaults**

Actual
24
12
24
15
58

#### **SPADs (London Underground)**

Year	Actual
2005/06	775
2006/07	952
2007/08	914
2008/09	716
2009/10	690

#### **PTI** incidents

#### **Confirmed fires**

Year	Actual	Year	Actual
2005/06	633	2005/06	249
2006/07	664	2006/07	212
2007/08	860	2007/08	170
2008/09	906	2008/09	177
2009/10	907	2009/10	181

## 7.2 Surface Transport data

### **Customer injuries (including East Thames Buses values)**

Year	Fatal	Major	Customer journeys (millions)
2005/06	3	866	1,560.43
2006/07	3	1,238	1,906.10
2007/08	4	1,169	2,215.69
2008/09	2	908	2,217.00
2009/10	4	790	2,294.80

#### **Employee on-duty injuries**

Year	Fatal	Major	Minor	Employee numbers
2005/06	0	6	172	3,744
2006/07	0	0	159	4,577
2007/08	0	3	224	4,632
2008/09	0	10	239	4,482
2009/10	0	7	166	3,545

### **Contractor injuries (including ETB)**

Year	Fatal	Major	Minor
2005/06	1	158	450
2006/07	0	106	419
2007/08	1	149	455
2008/09	1	105	421
2009/10	0	87	302

#### **Employee assaults**

Year	Actual	Employee numbers
2005/06	170	3,744
2006/07	229	4,228
2007/08	215	4,632
2008/09	245	4,482
2009/10	145	3,545

## 7.2 Surface Transport data continued

#### **Contractor assaults**

Year	Actual
2005/06	1,105
2006/07	708
2007/08	1,168
2008/09	888
2009/10	618

#### LBS road user incident rates (per million miles operated)

	2005/06	2006/07	2007/08	2008/09	2009/10
Minor total	403	397	576	527	498
Minor rate	1.680	1.417	1.978	1.791	1.632
Major total	614	388	336	294	241
Major rate	2.559	1.385	1.154	0.999	0.790
Fatality total	15	12	34	16	18
Fatality rate	0.063	0.043	0.120	0.05	0.060
Miles - millions	239.92	280.23	291.18	294.22	305.14

#### **Driver quality monitoring**

Per cent	2005/06	2006/07	2007/08	2008/09	2009/10
Acceptable	63	70	74	79	74
Unacceptable not dangerous	36	29	25	20	25
Unacceptable dangerous	[	-	1		1

## 7.3 London Rail data

### **Customer injuries**

Year	Fatal	Major	Customer journeys (millions)
2005/06	0	7	53.00
2006/07	0	4	61.00
2007/08	0	4	66.60
2008/09	0	20	119.0
2009/10	0	11	130.0

### **Employee on-duty injuries**

				Employee
Year	Fatal	Major	Minor	numbers
2005/06	0	0	3	101
2006/07	0	0	6	138
2007/08	0	0	10	180
2008/09	0	0	8	232
2009/10	0	1	1	235

#### **Contractor injuries**

Year	Fatal	Major	Minor
2005/06	0	0	26
2006/07	0	3	73
2007/08	0	10	104
2008/09	1	4	107
2009/10	0	0	95

#### **Employee assaults**

Year	Actual	Employee numbers
2005/06	0	101
2006/07	0	170
2007/08	0	180
2008/09	0	232
2009/10	1	235

## 7.3 London Rail data continued

#### **Contractor assaults**

Year	Actual	
2005/06	97	
2006/07	88	
2007/08	41	
2008/09	217	
2009/10	188	

### **Procedural irregularities**

Year	Number
2005/06	25
2006/07	26
2007/08	28
2008/09	61
2009/10	38

## 7.4 Crossrail data

## **Employee on-duty injuries**

				Employee
Year	Fatal	Major	Minor	numbers
2008/09	0	0	3	294
2009/10	0	[	16	326

#### **Contractor injuries**

Year	Fatal	Major	Minor
2008/09	0	1	
2009/10	0	2	4

### **Employee assaults**

		Employee
Year	Actual	numbers
2008/09	0	294
2009/10	0	326

## 7.5 Corporate Directorate data

## **Employee on-duty injuries**

Year	Fatal	Major	Minor	Employee numbers
2005/06	0	0	43	1,613
2006/07	0	1	54	2,011
2007/08	0	2	48	2,336
2008/09	0	0	38	2,177
2009/10	0	2	25	2,372

#### **Contractor injuries**

Year	Fatal	Major	Minor
2005/06	0	1	3
2006/07	0	3	11
2007/08	0	1	9
2008/09	0	0	4
2009/10	0	1	0

### 7.6 Road safety casualty data

The table below monitors all casualties in London in the year to December 2009, compared with 1994-98 average and year to December 2008

		Casualty numbers		Percentage change in 2009 over:		
		1994-1998				1994-1998
Casualty severity User group		average	2008	2009	2008	average
Fatal	Pedestrians	136.0	94	88	-6%	-35%
	Pedal cyclists	14.8	15	13	-13%	-12%
	Powered two-wheeler riders	33.6	50	39	-22%	16%
	Car occupants	55.4	39	41	5%	26%
	Bus or coach occupants	3.0	1	3	200%	0%
	Other vehicle occupants	6.0	5	0	-100%	-100%
	Total	248.8	204	184	-10%	-26%
Fatal	Pedestrians	2,136.6	1,208	1,055	-13%	-43%
and serious	Pedal cyclists	566.8	445	433	-3%	-21%
	Powered two-wheeler riders	932.8	738	706	-4%	-21%
	Car occupants	2,568.8	880	818	-7%	-66%
	Bus or coach occupants	256.4	152	124	-18%	-41%
	Other vehicle occupants	223.0	103	91	-12%	-54%
	Total	6,684.4	204	3,227	-8%	-26%
	Child pedestrians	591.6	226	174	-23%	-71%
	Child pedal cyclists	110.6	32	39	22%	-65%
	Child car passengers	195.0	27	34	26%	-83%
	Child bus/coach passengers	20.8	15	6	-60%	-71%
	Other child casualties	17.4	10	10	0%	-43%
	Children (under 16 years)	935.4	310	263	-15%	-72%
Slight*	Pedestrians	7,155.2	3,919	4,154	6%	-42%
	Pedal cyclists	3,845.6	2,757	3,236	17%	-16%
	Powered two-wheeler riders	5,139.4	3,484	3,795	9%	-26%
	Car occupants	19,314.0	12,149	11,230	-8%	-42%
	Bus or coach occupants	2,017.4	1,340	1,319	-2%	-35%
	Other vehicle occupants	1,525.2	978	1,018	4%	-33%
	Total	38,996.8	24,627	24,752	1%	-37%
All severities	Pedestrians	9,291.8	5,127	5,209	2%	-44%
	Pedal cyclists	4,412.4	3,202	3,669	15%	-17%
	Powered two-wheeler riders	6,072.2	4,222	4,501	7%	-26%
	Car occupants	21,882.8	13,029	12,048	-8%	-45%
	Bus or coach occupants	2,273.8	1,492	1,443	-3%	-37%
	Other vehicle occupants	1,748.2	1,081	1,109	3%	-37%
	Total	45,681.2	28,153	27,979	-1%	-39%

NB. Shaded areas show the national and London casualty reduction target categories.

<sup>\*</sup> The government's target is for 10 per cent reduction in the slight casualty rate per 100 million vehicle kilometres. Until guidance is received from DfT on how this should be measured, slight casualties are shown as casualty numbers rather than a casualty rate.