Policy committee
15.12.15

Secretariat memorandum

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Confidential: London road safety and bus safety statistics

1 Purpose of report

1.1 To give some background to members of the various road and bus safety statistics published and propose what may be reported to the Board as part of the TfL Performance Report. To also discuss what how London TravelWatch may progress this issue. This is a confidential and draft report.

2 Background

2.1 Members have asked that the quarterly TfL Performance Report includes the statistics of bus road safety. Rather than focus too narrowly on some casualties but not others this report generally discusses all casualties.

2.1 Road safety statistics are collected by the Department for Transport. They are based on the reports of the records of police officers that attend the scene of a collision. The system of police reporting is widely known as 'Stats 19'. The statistics are reported annually, but it should be noted that there is a long time lag from the end of the year and publication, which is typically in June of the following year. These are the only authoritative statistics on road safety casualties.

2.2 'Stats 19' statistics are now presented by various websites and so are easily viewable by the public. An example is appended taken from the Crashmap site : http://www.crashmap.co.uk/ . Recently TfL has started to report provisional quarterly figures, but again there is a long time lag.

2.3 Additionally TfL now publish statistics collected by the bus operators where one of their buses is involved in a collision. There are also occasional academic studies of road casualties based on hospital admissions.

2.4 All local highway authorities have a legal duty to investigate highways collisions and to have a programme designed to prevent casualties on their roads. They do this in a variety of ways under the banner of Education, Enforcement and Engineering.

2.5 It should be noted that the bus operators (who along with their drivers are primarily responsible for driving standards) and TfL take a variety of measures to maintain and improve bus operation safety. There are around 7,500 covert

assessments per year, carried out by AA DriveTech. There are a further 22,000 mystery traveller surveys undertaken for TfL annually which include a 'safety and comfort' assessment. The bus companies have their own approaches. For example Go-Ahead London use instructors and mentors to monitor drivers covertly on a random basis or if they have concerns. Go-Ahead have signed up to the Institute of Advanced Motorists programme, ensuring that drivers have further advanced driver training. TfL also have training plans to improve safety across London's bus operators including the most recent and innovative 'In the Zone' course.

3 Recommendation

3.1 Members agree the statistics they wish to see reported as part of the TfL Performance Report. Members agree that London TravelWatch should seek external funding from the Road safety Trust to investigate on-bus passenger injury and its causes.

4 Published road safety statistics

4.1 'Stats 19' collision and casualty statistics are presented in many different ways: by transport mode; severity of injury; time of day; the borough where the collision occurred; road type; weather etc. From a pan London perspective the most pertinent statistics are by transport mode and severity of the injury. For example the 2014 table for road casualties within the Metropolitan Police Force area is shown below. The severities are i) killed, ii) severely injured (probably involving hospitalisation) and iii) slight injuries treated at the scene. Often a comparison with the previous year and an average over a number of years is tabulated. Other analysis is possible.

Table 1: Monitoring casualties in London - all roads.

Casualties in the year 2014 compared with the 2005-09 average and 2014

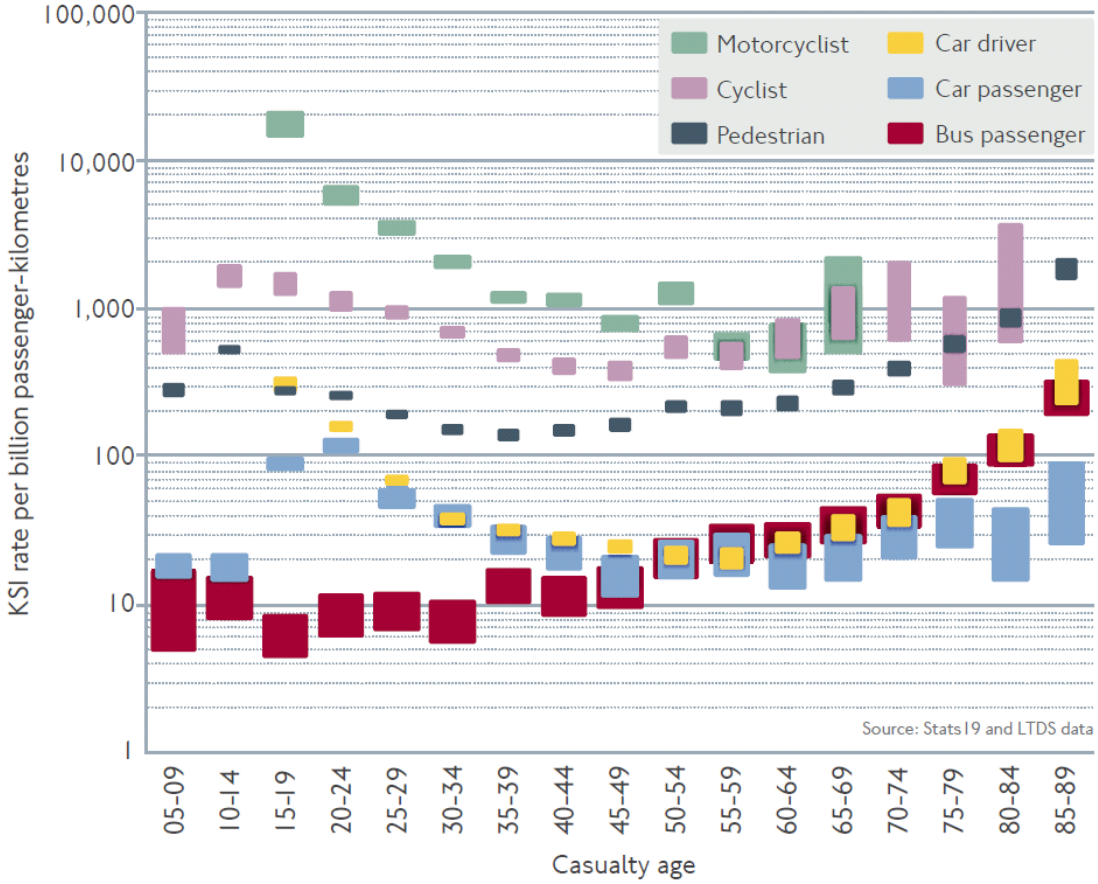
Casualty severity	User group	Casualty numbers			Percentage change in 2014 over	
		2005-2009 average	2013	2014	2013	2005-2009 average
Fatal	Pedestrians	96	65	64	-2%	-33% *
	Pedal cyclists	17	14	13	-7%	-22%
	Powered two-wheeler	43	22	27	23%	-38% *
	Car occupants	49	25	19	-24%	-62% *
	Bus or coach occupants	2	1	0	-100%	-100%
	Other vehicle occupants	3	5	4	-20%	25%
	Total	**211**	**132**	**127**	**-4%**	**-40%** *
	Children (under 16 years)	**12**	**6**	**3**	**-50%**	**-74%** *
Serious	Pedestrians	1,120	773	715	-8%	-36% *
	Pedal cyclists	404	475	419	-12%	4%
	Powered two-wheeler	748	488	499	2%	-33% *
	Car occupants	900	310	297	-4%	-67% *
	Bus or coach occupants	137	89	71	-20%	-48% *
	Other vehicle occupants	107	57	39	-32%	-63% *
	Total	**3,416**	**2,192**	**2040**	**-7%** *	**-40%** *
Child fatal and serious	Child pedestrians	232	153	139	-9%	-40% *
	Child pedal cyclists	33	17	13	-24%	-60% *
	Child car passengers	42	7	6	-14%	-86% *
	Child bus/coach passenger	12	4	5	25%	-57%
	Other child casualties	12	6	3	-50%	-75% *
	Children (under 16 years)	**330**	**187**	**166**	**-11%**	**-50%** *
Slight	Pedestrians	4,214	4,343	4834	11% *	15% *
	Pedal cyclists	2,718	4,134	4714	14% *	73% *
	Powered two-wheeler	3,806	3,992	4707	18% *	24% *
	Car occupants	12,427	9,850	11487	17% *	-8% *
	Bus or coach occupants	1,430	1,381	1508	9% *	5%
	Other vehicle occupants	1,005	1,175	1368	16% *	36% *
	Total	**25,600**	**24,875**	**28618**	**15%** *	**12%** *
	Children (under 16 years)	**1,889**	**1,677**	**1811**	**8%** *	**-4%**
All severities	Pedestrians	5,430	5,181	5613	8% *	3% *
	Pedal cyclists	3,139	4,623	5146	11% *	64% *
	Powered two-wheeler	4,598	4,502	5233	16% *	14% *
	Car occupants	13,376	10,185	11803	16% *	-12% *
	Bus or coach occupants	1,569	1,471	1579	7%	1%
	Other vehicle occupants	1,115	1,237	1411	14% *	27% *
	Total	**29,227**	**27,199**	**30785**	**13%** *	**5%** *
	Children (under 16 years)	**2,219**	**1,864**	**1977**	**6%**	**-11%** *

* **Statistically significant changes at the 95 per cent confidence level**

4.2 The dataset has been maintained for a number of years and so year by year comparisons and trends are possible. However, it must be stressed that there is great variability from one year to the next and so any comparisons of one year with a previous one need to be very cautious. Typically it is the trend over a number of years that is a better indicator. It is generally not helpful to state that one year is better or worse than a previous year, but to consider trends.

4.3 These statistics are absolute numbers of casualties (or collisions) and so do not reflect the volume of travel. As a comparison motorcycling has both the highest rate of casualties per mile travelled and in absolute terms high numbers of casualties. Walking has the highest number of casualties, but because of the volume of walking undertaken, the rate (per kilometre travelled) is much lower than motorcycling. TfL have recently sought to reflect these distinctions by combining the road safety statistics with their mode share statistics to produce a very interesting graph. **Please note the vertical scale is logarithmic** to sensibly accommodate the very high casualty rate of motorcycling. So for example there are 200, 15 to 19 year old pedestrian casualties per billion kilometres compared to 11,000 motorcyclist casualties. Pedestrians, cyclists and motorcyclists are regarded as the 'vulnerable modes' that are focussed on for interventions.

Figure 1: Casualty rate per billion kilometres by age for each mode

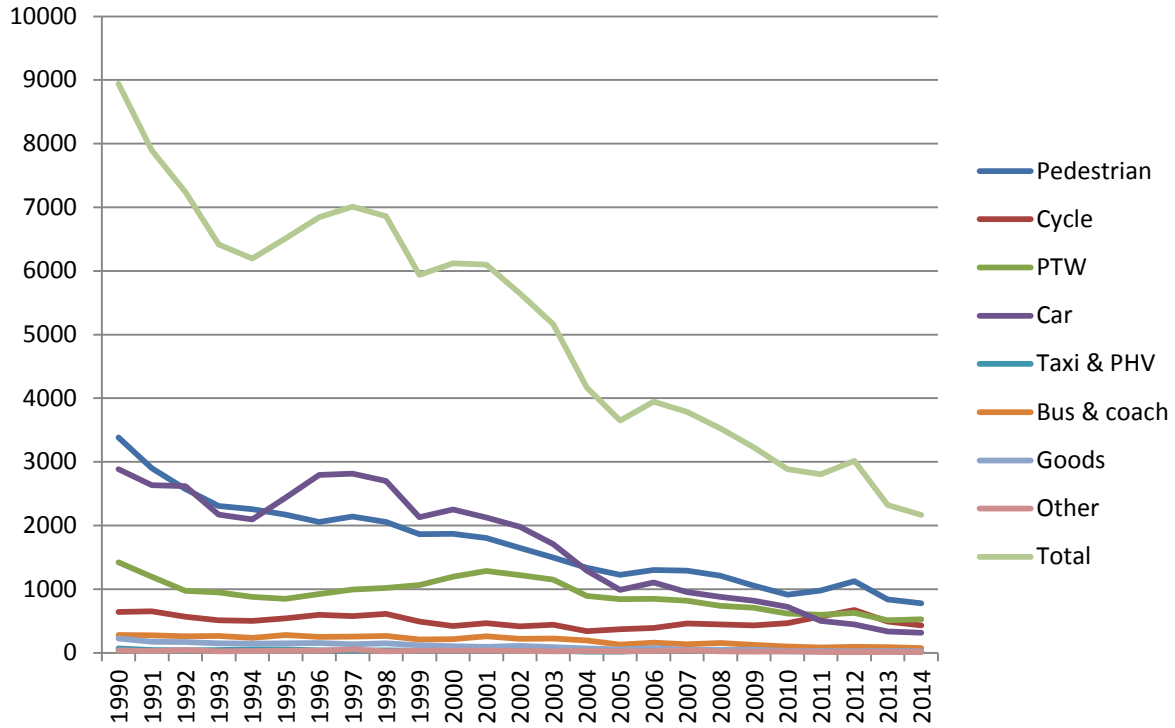


4.4 International comparisons are difficult, but there is a consensus that the UK does well in terms of road safety generally, but less well in terms of child casualties. The evidence confirms that there is a proportionately greater chance of a child of black or ethnic minority background becoming a road casualty for reasons that are not clear, but certainly related to deprivation.

5 London road safety statistics over the past 25 years

5.1 The annual statistics are often presented graphically either as casualties or collisions. The number of casualties is often higher than the number of collisions that caused them due to there sometimes being multiple casualties. They are often presented by mode or as a total.

Absolute number of collisions resulting in killed and serious injuries, by mode, over 25 years



5.2 The above graph shows a generally declining level of collisions on London's roads over the last 25 years, although as discussed below the number of cycling casualties / collisions has increased with the growth in numbers of cycle journeys though at a lower rate. It should be noted that London's population has also increased over this period.

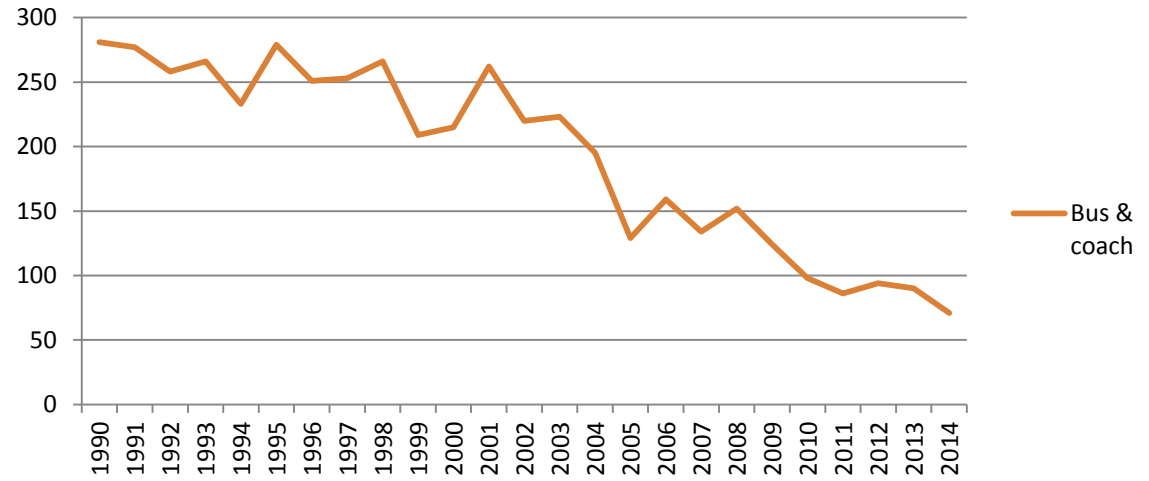
5.3 The statistic for bus and coach casualties is injury to the passenger on the bus or coach, and does not include pedestrians on the street that are involved with collisions with the bus. These will typically be reported as pedestrian casualties.

6 Bus and coach road safety statistics

6.1 Police records (Stats 19) report bus and coach road safety statistics. They record only the casualties that are occupants of the bus or coach. They do not differentiate between buses operated under a TfL contract and all other buses and coaches operating in the London area, such as commuter coaches and sight seeing tour buses. Nor do they record injuries that occur as a result of a fall on the bus etc. that is unrelated to a collision. The 'Stats 19' figures are represented in the graph below. Pedestrians injured as a result of a road collision will be reported as a pedestrian casualty with the other vehicle involved being a bus.

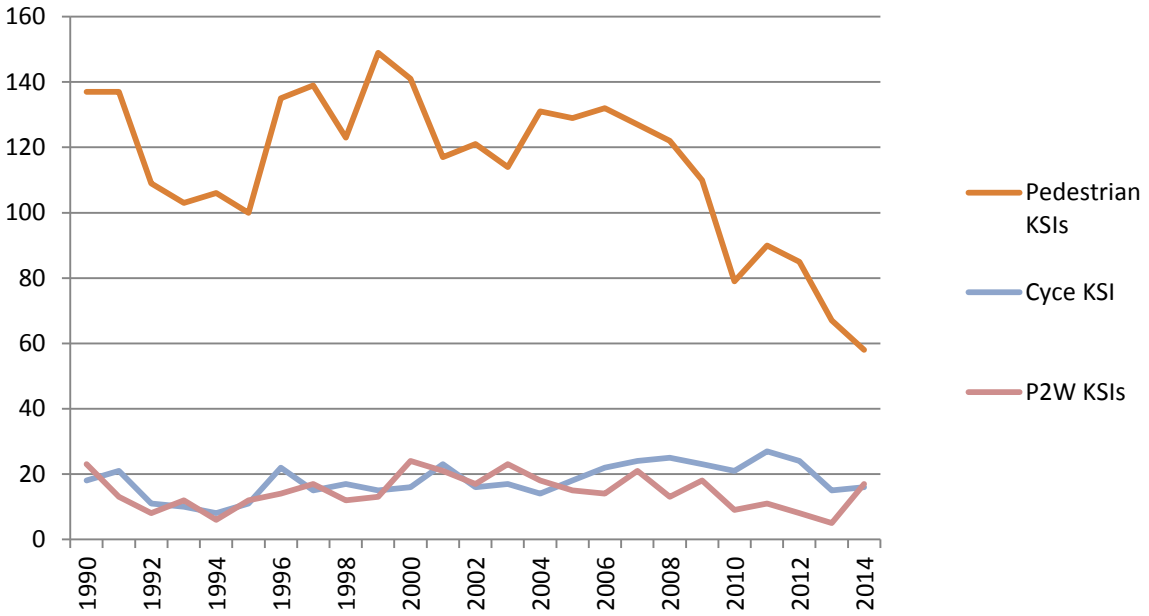
6.2 It should be noted that as well as population growth there has also been a rise in bus mileage of 43% since 1997.

Absolute number of bus *and coach* collisions involving a casualty whom was an occupant of the bus or coach by year in London



6.3 'Stats 19' data will report the 'other vehicles' involved and so a pedestrian, say injured by a collision where a bus or coach is involved could be identified. Please note there is no way of identifying if the other vehicle were a London bus service bus or a coach or other bus service, nor if the bus was the only other vehicle.

Number of collisions involving a Pedestrian, Cyclist or Motorcycle where another vehicle was bus or coach



7 Bus safety statistics reported by the bus operators

7.1 Alongside these statistics TfL has (from Q1 2014) started to report bus safety statistics associated with the vehicles they contract to be operated, i.e. London service buses. These can be found on the TfL website: https://tfl.gov.uk/corporate/publications-and-reports/buses#on-this-page-1

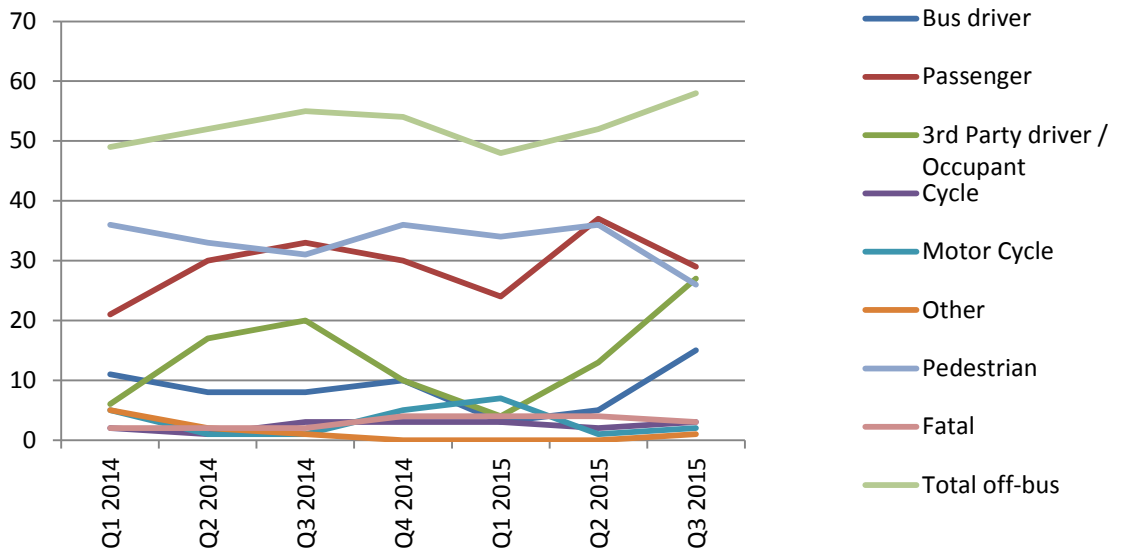
7.2 The information is derived from bus operators reporting directly to TfL on the incidents associated with their buses. It is presented by bus route; borough; bus operator and all-data for each quarter. Early reporting (prior to and including Q3 2014) only included those incidents that resulted in the casualty being a fatality or taken to hospital with severe injuries. After that all fatality, injury and non-injury incidents are reported. This paper only reports fatalities and those taken to hospital with a severe injury.

7.3 The data shows that, for example, in Q 1, 2014, 283 incidents were reported where the casualty was taken to hospital with severe injuries. 2 pedestrians were killed. In Q1 2014 the following are also recorded as events that led to an injury such that the casualty was taken to hospital with serious injuries.

1. 10 passengers were injured following an alighting incident;
2. 7 were assaulted. 5 bus drivers, 1 TfL member of staff and 1 passenger;
3. 22 passengers were injured following a boarding incident;
4. There were 84 collisions that resulted in hospital treatment. 6 were 3rd Party driver / Occupant, 11 bus drivers, 2 cyclists, 5 motorcyclists, 5 other, 21 passengers and 34 pedestrians;
5. 2 collisions led to 2 pedestrian fatalities;
6. 13 passengers fell down the stairs;
7. 117 further passengers were either knocked, tripped or fell plus 1 bus driver;
8. There were 5 other driving incidents involving 1 bus driver, 1 cyclist, two passengers and a pedestrian;
9. There were 4 other non-driving incidents involving 2 bus drivers, 1 pedestrian and 2 passengers;
10. There were 13 Slip, Trip or Falls outside of the bus involving 1 bus driver, 1 operations staff, 4 passengers and 6 pedestrians;
11. There was 1 passenger struck by an object;
12. There was an act of vandalism on 1 bus driver and
13. 5 Wheelchair / Buggy incidents.

7.4 Looking at just those incidents that were the result of a collision that resulted in a serious injury treated by a hospital it is possible to identify the injured party and whether or not they were a passenger or off of the bus, say as a pedestrian or car occupant. The number of these collision incidents is tabulated below. So for example, in Q1 2014 there were 36 pedestrian injuries involving TfL contracted buses that resulted in a fatality or a serious injury being treated at hospital. Please note these are not reconciled with the police's statistics.

Absolute number of passengers and others off-bus associated with bus collisions that were killed or treated at hospital with either a serious injury or of severity unknown

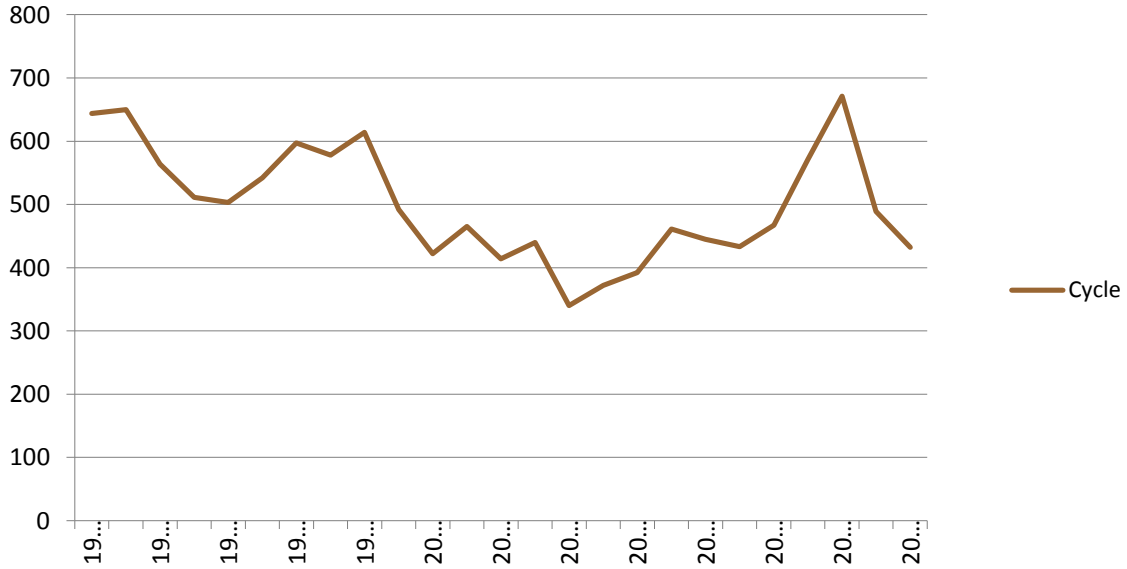


7.5 The London Assembly have asked that we 'help to reduce the number of collisions between buses and cyclists'. It is unclear why London TravelWatch should focus on cyclists rather than other casualties. It is also unclear as to what more we might do given the resources we have except publish more widely the statistics produced by the DfT and TfL.

8 Cycle road safety statistics

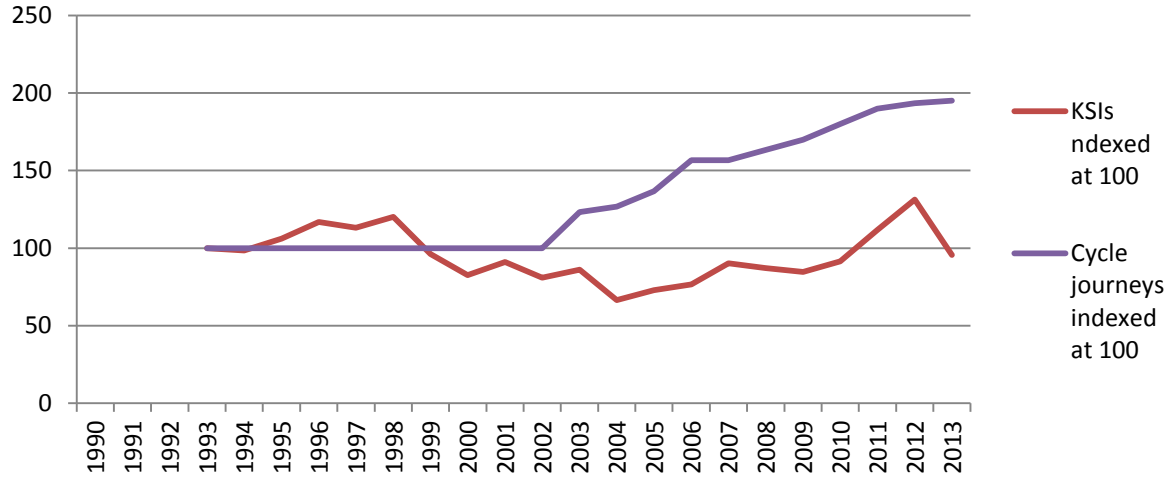
8.1 There has been much focus on cycle safety statistics as cycling is both a vulnerable mode and one that one would nevertheless want to see grow as a proportion of journeys. Indeed the Mayor's Transport Strategy wants to see a rise in cycle journeys to 5% of journeys by 2026. Below is a graph of the 'Stats 19' statistics.

Absolute number of cyclists killed and seriously injured since 1990



8.2 The number of cyclists killed and seriously injured over the last 25 years is on a downward trend, but there has been a noticeable increase over the last few years. This increase in casualties will, in part, be associated with the increase of cycling volumes on London's streets. If the casualty statistics and the numbers cycling are presented together (indexed to 100 in 1993) a sense of the rate of cycling casualties can be shown. The London Cycling Campaign and others are keen that the casualty rate is reported alongside the absolute numbers.

Number of cyclists killed and seriously injured since 1993 and number of cycle journey stages, *both indexed to 100 in 1993*



8.3 Thus whilst the number of cycling casualties is rising slightly, the rate is decreasing. 2012 was an exceptional year that could well be explained by the volume of construction associated with the Olympics.

9 Reporting road safety statistics to members

9.1 All Road Safety Statistics

It is proposed that the annual road safety statistics are reported to members along with the provisional quarterly statistics as they become available. Quarter 2, 2015 is appended below and is reported in comparison to the same quarter in the previous year. It should be noted that there are typically seasonal variations as well as variation from year to year.

9.2 Bus road safety statistics

It is proposed that a summary of the quarterly statistics published by TfL that are associated with road collisions and result in a serious injury needing hospital treatment are reported to members as they become available.

9.3 Cycle road safety statistics

It is proposed that cycle road safety statistics are reported to members annually.

9.4 Other recommendations

It is proposed that London TravelWatch contact the Road Safety Trust to consider if funding might be available to research the bus passenger and pedestrian issues associated with the operation of London buses in its next workplan.

Ask TfL to produce and publicise more widely the rate of casualties alongside the absolute numbers.

11 London TravelWatch priority

11.1 Members have asked that the Board reviews its approach to report road safety statistics. Members are advised that the primary (legal) responsibility for investigating collisions lies with the local highway authorities and the Metropolitan Police Service whom are both funded to undertake this work.

12 Legal powers

12.1 Section 248 of the Greater London Authority Act 1999 places upon London TravelWatch (as the London Transport Users Committee) a duty to consider - and where it appears to the Committee to be desirable, to make recommendations with respect to - any matter affecting the functions of the Greater London Authority or Transport for London which relate to transport (other than of freight).

13 Financial implications

13.1 There is no financial implication for London TravelWatch as a result of this report.

Transport for London

https://www.tfl.gov.uk/roadsafety

Table 7. Reported road casualties by severity and road user: Quarter 2 (01 April to 30 June) 2015, Greater London

				Percentage change compared with same quarter last year	
		Q2 2014 A	**Q2 2015 B**	**Percentage change (B-A)/A %**	
ALL CASUALTIES					
Pedestrians					
	Killed	13	9	*-31%*	
	KSI	187	173	*-7%*	
	Slightly injured	1,135	1,058	*-7%*	
	All casualties	1,322	1,231	*-7%*	
Pedal cyclists					
	Killed	4	4	*0%*	
	KSI	133	110	*-17%*	
	Slightly injured	1,269	1,125	*-11%*	*
	All casualties	1,402	1,235	*-12%*	*
Motorcycle users					
	Killed	4	9	*125%*	
	KSI	123	128	*4%*	
	Slightly injured	1,140	1,182	*4%*	
	All casualties	1,263	1,310	*4%*	
Car users					
	Killed	6	4	*-33%*	
	KSI	78	72	*-8%*	
	Slightly injured	2,967	2,818	*-5%*	
	All casualties	3,045	2,890	*-5%*	*
Taxi & Private hire users					
	Killed	0	1	-	
	KSI	1	7	*600%*	
	Slightly injured	156	174	*12%*	
	All	157	181	*15%*	

	casualties				
Bus or Coach users					
	Killed	0	0	-	
	KSI	23	16	*-30%*	
	Slightly injured	410	409	*0%*	
	All casualties	433	425	*-2%*	
Goods Vehicle users					
	Killed	0	0	-	
	KSI	7	4	*-43%*	
	Slightly injured	166	130	*-22%*	*
	All casualties	173	134	*-23%*	*
Other Vehicle users					
	Killed	0	0	-	
	KSI	1	0	*-100%*	
	Slightly injured	16	12	*-25%*	
	All casualties	17	12	*-29%*	
All road users					
	Killed	27	27	*0%*	
	KSI	553	510	*-8%*	
	Slightly injured	7,259	6,908	*-5%*	*
	All casualties	7,812	7,418	*-5%*	*
CHILD CASUALTIES					
Pedestrians					
	Killed	0	0	-	
	KSI	42	37	*-12%*	
	Slightly injured	221	226	*2%*	
	All casualties	263	263	*0%*	
All road users					
	Killed	0	0	-	
	KSI	51	44	*-14%*	
	Slightly injured	491	484	*-1%*	
	All casualties	542	528	*-3%*	

P: provisional figures

KSI: Killed or Seriously Injured