# **Transport for London**

Trial of roadside safety mirrors for cycle visibility

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#### Prepared by FDS International

# 1. Executive summary

## **Background**

Transport for London (TfL) has obtained permission from the Department for Transport (DfT) to undertake a trial of roadside safety mirrors, which are designed to improve the visibility of cyclists that have entered a large good vehicle (LGV) driver's near side blind spot, thus reducing the risk of a collision between cyclists and LGVs, particularly when the LGV is turning left. These roadside safety mirrors have been installed at key junctions, primarily on the Barclays Cycle Superhighway routes.

In order to evaluate the roadside safety mirrors, TfL is reviewing a number of information streams including feedback from LGV drivers, cyclists and car/van drivers achieved through this research. A separate strand of the assessment involves video monitoring and behavioural analysis which is reported independently of this customer research report. The video monitoring activity took place at junctions not on the Barclays Cycle Superhighways (on Brixton Hill and Mile End Road), while customer research took place on Barclays Cycle Superhighway route 7 (Merton to City, via A24 - A3).

51 LGV drivers were asked about their experience and opinions of the roadside safety mirrors. These interviews were conducted over the telephone. Only drivers that had either been spotted travelling along the route, or were confirmed to have used the route following an approach to their company, were included in the sample.

20 cyclists and 20 car/van drivers were intercepted and interviewed at natural stopping places (for example bicycle/car parks) after they had been through a junction fitted with a roadside safety mirror.

# **Key findings**

The results are based on a relatively small number of individuals and this should be kept in mind when interpreting the findings.

#### Awareness of roadside safety mirrors

Almost half of the LGV drivers that had driven through the trial junctions recalled the roadside safety mirrors when prompted and over a quarter stated that they used them.

A third of cyclists and car/van drivers recalled seeing the mirrors.

#### **Understanding of roadside safety mirrors**

LGV drivers understood that the purpose of the mirrors was to help them see cyclists and other road users in their near side blind spot. Almost all stated that the mirrors would improve the safety at the junctions for cyclists and LGVs. Three quarters stated that the mirrors would increase safety for pedestrians. Cyclists and car/van drivers understood that the mirrors would help increase visibility but fewer made the link specifically with LGVs.

### Perception of roadside safety mirrors' impact on safety

The majority of LGV drivers, cyclists and car/van drivers believed that roadside safety mirrors would improve cyclists' safety, and most LGV drivers said unprompted that they were intended to help them either see cyclists better or reduce their blind spots.

None of the respondents said that they had any problems with the mirrors unprompted. Even when specifically asked about potential glare or confusion from reflections caused by the roadside safety mirrors, only three respondents (two LGV drivers and one car/van driver) reported any issues and these were all considered to be slight.

Roadside safety mirrors were reported to be correctly positioned. Four drivers did state that their view of the mirrors was somewhat obstructed; one driver had to move slightly to see the mirror while the others had reasons not specifically related to the positioning of the roadside safety mirror itself (in one case a bus had obscured the driver's view, another's view was obscured by something in their cab, and one driver had not pulled all the way to the stop line).

Neither cyclists nor car/van drivers expressed that they had any problems with the mirrors unprompted. When specifically asked about potential glare and any confusion from reflections in the mirror, only one car/van driver reported glare, but this did not affect their view of either the junction or other road users.

#### Impact of roadside safety mirrors on behaviour

LGV drivers expressed concern about the safety of cyclists, many mentioning without prompting the dangers of cyclists entering their blind spots (particularly those on the near side of their vehicle, though this was not always specified).

Drivers' comments indicated that roadside safety mirrors offer an additional view of the road to complement in-vehicle mirrors; there was no mention from LGV drivers that the roadside safety mirrors would be relied upon without reference to in-vehicle mirrors.

The majority of LGV drivers said they would drive differently at a junction fitted with a roadside safety mirror, while most did not believe that the mirrors would have an impact on cyclist behaviour. However, those who did believe that cyclists' behaviour would change tended to think this would be a positive effect such as encouraging cyclists to be more aware of their movements and positioning on the road. A minority of LGV drivers, and some cyclists, pointed to the potential for the mirrors to increase cyclist confidence and therefore, they might act with less caution at these junctions.

# 2. Research background and objectives

## **Background**

Transport for London (TfL) has gained approval for a trial of roadside safety mirrors designed to reduce the risk of collisions at junctions by providing the drivers of large goods vehicles (LGVs) a clear view of cyclists and pedestrians in their near side blind spot. The mirrors are positioned specifically for LGV drivers, at a height designed to reduce their near side blind spot and therefore increase the safety of cyclists who are particularly vulnerable with LGVs turning left.

The roadside safety mirrors are already used in some European countries, including Denmark, Germany, the



Netherlands and Switzerland. In London, they are being trialled predominately at junctions on the first two Barclays Cycle Superhighway routes. The Barclays Cycle Superhighways are designed to give cyclists safe and direct routes into central London from the outer boroughs and to encourage greater take-up of cycling. Mirrors were installed at three other junctions (not on the Barclays Cycle Superhighways) however these were not covered in this research.

Market research formed one strand of an evaluation programme. Accompanying work was undertaken looking at video monitoring of road user behaviour, monitoring of glare/reflection issues, and monitoring of vandalism and maintenance issues. Findings within this report are derived from the market research element only.

## **Objectives**

The main objective of the research was to identify the impact of the installation of roadside safety mirrors amongst their primary target users (LGV drivers), cyclists and other road users (car/van drivers).

This objective was divided into the following four strands:

- Awareness of roadside safety mirrors
- Understanding of roadside safety mirrors
- Perception of the roadside safety mirrors' impact on safety
  - Were any problems encountered with the roadside safety mirrors which could affect the safety of trial junctions?
- Impact of roadside safety mirrors on behaviour
  - Did they feel that the roadside safety mirrors would lead to a behavioural change, either for themselves or other road users?

# 3. Research methodology

The research was conducted amongst three audiences: LGV drivers, cyclists and car/van drivers. In each case, all those completing a survey had used at least one of the test junctions during the trial period.

For LGV drivers, a dual approach was used:

 Companies who operate, or deal with, LGVs in the test area (for example supermarkets, local councils and logistics companies) were approached and drivers were interviewed from cooperating businesses. Letters explaining the research (without specific reference to the roadside safety mirrors) and asking for assistance were sent to a number of companies. These letters were later followed up with a telephone call to source drivers.

LGVs were 'spotted' as they passed through trial junctions. Interviewers were located at trial junctions and recorded the company name, telephone number (where possible) and registration number of each LGV to pass. These details were later used to contact companies directly and ask to speak to the driver of the 'spotted' vehicle. Where the driver was not available, some interviews were conducted with other drivers who regularly use the identified test route. 'Spotting' took place from Friday 20 August to Friday 27 August (with the exclusion of Sunday) at varying shift times from 14:00-22:00.

In order to gain the best level of response with such a hard to find group, LGV drivers were entered into a prize draw, and were randomly selected to win one prize of £100, and four prizes of £50.

Cyclists and car/van drivers were interviewed just after they had passed through the test junctions. Interviews were conducted at natural stopping points such bike parks and nearby car parks. These interviews took place on Wednesday 25 August (14:00-20:00) and Tuesday 31 August (13:00-17:00).

# Sample & interpretation of results

Interviewing LGV drivers that had recently driven through specific junctions provided a significant research challenge, due to both the identification of drivers in scope for the research and their availability to complete the survey.

With this in mind the target sample for this research was set at a realistic level of 50 LGV drivers - in total 51 surveys were completed.

To provide an indication of cyclists' and car/van drivers' awareness and impressions of roadside safety mirrors a small sample of 20 cyclists and 20 car/van drivers was included within the research programme.

The results are hence based on a relatively small number of individuals and this should be kept in mind when interpreting the findings.

# 4. Research findings

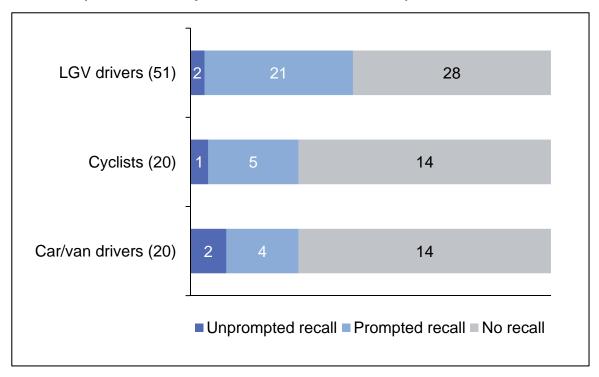
## **Awareness of roadside safety mirrors**

Of the 51 LGV drivers interviewed, a little under half (23) recalled the roadside safety mirrors (14 of these had passed the junction several times since the roadside safety mirrors were installed prior to the research).

Two LGV drivers mentioned the roadside safety mirrors unprompted when asked if they had noticed anything different about these junctions. The remaining 21 LGV drivers who noticed the roadside safety mirrors did so when prompted by a description.

Awareness of the roadside safety mirrors amongst cyclists and car/van drivers was lower than amongst LGV drivers. Six cyclists and six car/van drivers were aware of the roadside safety mirrors (including both unprompted and prompted awareness). Please see chart 4.1 below.

Chart 4.1 Recall of roadside safety mirrors by mode Base: all (number of respondents in brackets below)



Eleven LGV drivers recalled the Barclays Cycle Superhighways unprompted when asked if they had noticed differences to the junctions along the test route. Other differences commented upon by LGV drivers included the removal of traffic islands and increased traffic flows.

Eleven cyclists and five car/van drivers recalled the Barclays Cycle Superhighways unprompted when asked if they had noticed any changes with the junctions on the route. One cyclist and two car/van drivers recalled the roadside safety mirrors unprompted.

LGV drivers' recall of the roadside safety mirrors was not affected by how often they drove along the test route. Drivers who passed along the route less frequently (once or twice a month or less) were just as likely to recall the roadside safety mirrors as those who drove along the route more frequently.

Recall was also unaffected by the recruitment method of the LGV driver, with those whose company was sent a letter being just as likely to remember the roadside safety mirrors as those recruited through the 'spotting' activity.

No discernible patterns could be observed connecting frequency of cycling or driving cars/vans to awareness of roadside safety mirrors. A larger sample size would be needed to identify the existence of such patterns, however, of the 20 cyclists interviewed, 17 passed through the test junction at least once a week, and 19 cycled to get around London at least once a week.

## **Understanding of roadside safety mirrors**

All respondents aware of the roadside safety mirrors gave unprompted answers to the question, "what do you think these mirrors are for?" The answers are given in tables 4.1, 4.2 and 4.3.

The LGV drivers generally understood the purpose of the roadside safety mirrors. Eleven of the 20 LGV drivers aware of the mirrors (before the final prompt, which told respondents the purpose of the mirrors) stated that they were intended to help LGV drivers see cyclists better. A similar number noted that they were intended to enable them to see their blind spots more easily.

Table 4.1 Understanding of purpose of roadside safety mirrors (LGV drivers)

Base: all LGV drivers who had noticed roadside safety mirrors before final

prompt (20<sup>1</sup>) – multiple response question

Response	Number of responses from LGV drivers
So that LGV drivers can see cyclists better	11
So that LGV drivers can see blind spots more easily	9
To improve visibility for all vehicle drivers	3
To prevent collisions between LGVs and cyclists	1
Other answers not related to road safety <sup>2</sup>	3
Don't know	3

All cyclists and car/van drivers were interviewed face to face and so could be either shown a picture of the mirrors or shown them in situ.

When asked to comment on the purpose of the roadside safety mirrors, over half of the cyclists (12) mentioned increased visibility for all road users combined (LGV drivers, car/van drivers and 'all vehicle drivers') and a further two mentioned blind spots (one mentioning blind spots in general, and the other specifically mentioning LGV blind spots). In total, four cyclists mentioned that LGV drivers specifically would be able to see cyclists/their blind spots more easily due to the roadside safety mirrors. Five individuals thought the roadside safety mirrors would help cyclists to see behind them. Results detailed in table 4.2.

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<sup>&</sup>lt;sup>1</sup> Following this question a further prompt was made including the purpose of the mirror bringing total recall of the roadside safety mirrors to 23

<sup>&</sup>lt;sup>2</sup> Two responses related to cameras (one of which also said 'so that LGV drivers can see cyclists better') and one to improving vision for pedestrians

Table 4.2 Understanding of purpose of roadside safety mirrors (cyclists)

Base: all cyclists (20) – multiple response question

Response	Number of responses from cyclists
So cars/drivers can see cyclists	5
So cyclists can see behind them	5
To improve visibility for all vehicle drivers	4
So LGV drivers can see cyclists better	3
So LGV drivers can see blind spots more easily	1
Generally to see blind spots/increase safety	1
Don't know	3

Car/van drivers showed a similar understanding of the roadside safety mirrors' purpose. Six specifically mentioned that they were aimed at LGV drivers, and five believed the roadside safety mirrors would increase the visibility of cyclists/motorcyclists generally (table 4.3).

Table 4.3 Understanding of purpose of roadside safety mirrors (car/van drivers)

Base: all car/van drivers (20) - multiple response question

Response	Number of responses from car/van drivers
To increase visibility of cyclists/motorcyclists generally	5
So LGV drivers can see cyclists better	4
So LGV drivers can see blind spots more easily	1
To prevent collisions between LGVs and cyclists	1
To improve visibility for all vehicle users	1
Other comments	2
Don't know	7

## Use of roadside safety mirrors

Over half of LGV drivers who had seen the roadside safety mirrors had used them (14 of the 23). Seven stated that they did not use the roadside safety mirrors, and two could not remember, as shown in table 4.4 below.

Table 4.4 Awareness and use of roadside safety mirrors (LGV drivers)

Base: all LGV drivers (51)

Base: all EST all vers (01)					
Awareness and use of roadside safety mirrors	Number of LGV drivers				
Aware of roadside safety mirrors	23				
- Had used mirrors	14				
- Had not used mirrors	7				
- Could not recall	2				
Not aware of roadside safety mirrors	28				

All of the 14 LGV drivers that said that they had used the roadside safety mirrors reported either a completely (reported by 10 LGV drivers) or partially clear (reported by four LGV drivers) view of their vehicle's blind spot.

Of the four LGV drivers who used the mirrors and who reported the view of their blind spot was only partially clear, two had to change their position slightly (although one of these stated that he would have had a clear view if he had pulled up to the junction slightly to the left), one LGV driver's view was obstructed by something in his vehicle, and the other's view was obstructed by a bus.

Amongst the remaining nine LGV drivers who recalled the roadside safety mirrors but either did not use or could not remember whether they had used them, two said that the roadside safety mirrors did not offer a clear view of their blind spot, two felt the roadside safety mirrors offered a clear view and the remaining drivers could not remember.

The six LGV drivers who did not have a completely clear view or did not use the roadside safety mirrors were asked if they were fitted and positioned correctly. None reported any incorrect fitting or positioning - four out of six said that the roadside safety mirrors were fitted correctly, and five out of six said that they were correctly positioned, the others could not recall.

No LGV driver reported encountering any problem with the roadside safety mirrors unprompted; 19 out of the 23 who had seen the roadside safety mirrors said that they had no problems (the remainder could not remember).

#### Glare and reflections

When asked specifically whether the roadside safety mirrors had caused any glare, two LGV drivers (of the 23 who had seen the roadside safety mirrors) reported that they had experienced glare from the roadside safety mirrors which affected their ability to see the traffic lights and other road users 'a little'. For one, the glare was a little more than caused by other sources, for the other the amount of glare was a little less<sup>3</sup>. The light source for this glare was not specified.

LGV drivers were asked whether the roadside safety mirrors had caused any confusion relating to reflections. No LGV driver reported any such confusion, with 20 reporting 'no confusion' and the other three unable to recall.

No cyclists reported that they had experienced any problems with glare or confusing signals. One car driver reported glare when prompted, which was 'a little more' than the amount produced by other sources. However, this did not affect the driver's ability to see either the traffic lights or other road users.

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<sup>&</sup>lt;sup>3</sup> Both of these drivers were recruited through letters sent to companies operating LGVs in the trial area, and so the weather conditions when they were driving are unknown. One driver used the trial route at least once a day, while for the other the frequency was around once a month.

# Perceptions of roadside safety mirrors' impact on safety

The LGV drivers, cyclists and car/van drivers were asked if they thought the roadside safety mirrors would improve safety for any road users. Across the three respondent groups, cyclists and LGVs were the most frequently mentioned road users to benefit from improved safety as a result of the mirrors. These are the two groups of road users which the roadside safety mirrors are intended for.

45 of the 51 LGV drivers surveyed thought the roadside safety mirrors would improve cycle safety. A similar proportion felt the roadside safety mirrors would improve safety for LGVs.

In the cyclist and car/van driver interviewers, cyclists were again the most frequently mentioned road user to benefit from improved safety as a result of the roadside safety mirrors. When compared to the responses given by LGV drivers, smaller proportions of cyclists and car/van drivers thought the roadside safety mirrors would improve safety for LGVs. Please see table 4.5 below.

Table 4.5 Views on whether roadside safety mirrors will improve safety for any road users

Base: all (51 LGV drivers, 20 cyclists and 20 car/van drivers) – multiple response question

	Number of responses from			
Mirrors will improve safety for	LGV drivers	Cyclists	Car/van drivers	
Cyclists	45	15	17	
LGVs	44	8	6	
Pedestrians	38	8	5	
Cars	28	8	5	
Other*	11	3	3	
No	2	2	1	
Don't know	2	2	0	

<sup>\* &#</sup>x27;Other' includes motorcyclists, buses, mobility scooter and wheelchair users

The 15 cyclists interviewed who thought the roadside safety mirrors would improve safety for cyclists were subsequently asked why they thought this. Four specifically mentioned greater visibility for LGV drivers and a further seven mentioned greater visibility more generally.

Most responses from cyclists made reference to the greater visibility of cyclists; for drivers of both cars and larger vehicles such as LGVs:

Cyclists can be better seen if drivers use [the roadside safety mirrors]

### Improved visibility for big vehicles to see cyclists

The remaining five cyclists interviewed did not think the roadside safety mirrors would improve safety for cyclists. Two cyclist respondents referenced the size of the roadside safety mirrors, explaining they were too small to be of much use to road users, though these respondents had only seen a photograph of the roadside safety mirrors and not the roadside safety mirrors in practice.

Very similar reasoning was given by car/van drivers as to why they thought the roadside safety mirrors would improve safety for cyclists. Many acknowledged the issue of blind spots and the improved visibility offered by the roadside safety mirrors. Only three car/van drivers did not think the roadside safety mirrors would improve safety for cyclists at junctions, their reasons being:

It depends. There are a lot more cars on the road and I haven't noticed [the roadside safety mirrors] and wonder if other car drivers have noticed them

[The roadside safety mirror] was not used. It's very difficult for lorries to see cyclists

These junctions are a nightmare. No-one knows how to properly use them and I don't think the mirrors will help

The LGV drivers were only asked to expand upon their answers if they felt the roadside safety mirrors would not improve safety for any road users. The two LGV drivers who claimed no road users would be safer as a result of the mirrors gave the reasons shown below. Neither of these drivers had seen the roadside safety mirrors.

People won't take precautions. Cyclists will presume that the LGV drivers will see them

We are looking in our mirrors anyway. There are no real blind spots as we can adjust our mirrors. Only when we have actually turned left is there a blind spot but I will have seen whether or not there is a cyclist to the left by then

### Impact of roadside safety mirrors on behaviour

Forty-one of the 51 LGV drivers surveyed said that they would use junctions fitted with a roadside safety mirror differently. All but two of the 23 LGV drivers that recalled the roadside safety mirrors said that they would change the way they use the junction.

Of the 41 LGV drivers for whom the roadside safety mirrors would change their behaviour, 33 said that they would be more likely to look out for cyclists, and 27 said they would feel more confident in driving safely around cyclists. Eight other answers were given which were:

I would definitely look out for them and use them

I would look at them and if there is something there I would act accordingly

In rush hour they will be a godsend so I will check more

It will give me a better view, the more I can see the better

Once I am aware of the roadside safety mirrors, when I approach the junction I will use them

They will heighten visibility for potential hazards

More awareness (x2)

Eight of the 51 LGV drivers surveyed claimed the roadside safety mirrors would not change the way they use the junction citing their current careful practice and that they used the mirrors on their own vehicle. However three of these did say that they would use the roadside safety mirrors:

I take up both lanes and have mirrors. I feel I have a good view already but [the roadside safety mirrors] will help and I will look out for them more, but will have to see them again

The mirrors are there to help you see clearly - they wouldn't actually change the way I use the junction

None of the comments received implied that drivers would rely solely on the roadside safety mirrors without reference to their own in-vehicle mirrors.

#### Views of the impact on cyclist behaviour

Cyclists were asked if the roadside safety mirrors would change the way they cycled. The majority (13 of the 20 interviewed) said no. Explanations fell into two categories. Some felt they cycled safely at present and therefore there was no need to change their behaviour (five respondents).

I always take care when cycling anyway

Others felt the roadside safety mirrors were not intended for cyclists but for other road users (three respondents).

I won't notice them. They are more for cars

Of the remaining cyclists who thought the mirrors would not change their cycling behaviour, one cyclist claimed the roadside safety mirrors were too small, and four cyclists did not give an explanation.

Six cyclists felt they *would* change the way they cycled as a result of the roadside safety mirrors. Reasons given were that they would be more confident, that they would be more visible to other road users or that they would use the roadside safety mirrors to view vehicles behind and around them.

I would have more confidence and would be less apprehensive that someone will run me over

I'll look up to see what's coming on either side and behind me

One cyclist did not give a definitive yes or no answer to whether the mirrors would change the way they cycled, but rather referenced the need for greater publicity of the mirrors.

The car/van drivers were also asked if they though the roadside safety mirrors would change the way cyclists behave through junctions fitted with them. Of the 20 car/van drivers interviewed, nine felt the roadside safety mirrors would not change cyclists' behaviour. Many said cyclists exhibited poor road safety and a lack of regard for other road users.

They jump lights and all that stupid stuff sometimes

Two of the car/van drivers felt that cyclists could make false assumptions about their safety as a result of the roadside safety mirrors.

LGV drivers are not going to know [the mirrors] are there, and cyclists will assume more safety and relax

Seven of the car/van drivers interviewed thought that cyclists *would* change their behaviour as a result of the roadside safety mirrors. Most felt this was because

cyclists would be more aware and/or cyclists would feel greater confidence in their visibility to other road users.

[Cyclists] will be a bit more aware

Four of the car/van drivers did not know if the mirrors would change cyclists' behaviour.

Of the 51 LGV drivers, 13 felt the roadside safety mirrors would change the way cyclists use the junction whilst a greater proportion (23 of the 51) said no. The remaining 15 LGV drivers did not know if the mirrors would alter cyclists' behaviour.

LGV drivers expecting a change in cyclist behaviour generally expected that this would be positive:

[The roadside safety mirrors] should make them more aware of what they are doing

Cyclists will understand that the roadside safety mirrors are there for LGV drivers to see them and so therefore they won't move up the side of the LGV

However, two drivers felt cyclists' behaviour may change because of greater confidence rather than caution:

They will be more confident and less apprehensive

If they are aware the mirrors are there then they will be aware of the LGV drivers will be looking out for them

The LGV drivers claiming the roadside safety mirrors will make no difference to cyclists' behaviour tended to express the opinion that cyclists abide by their own rules, and have little regard for road safety and other road users.

They are a law onto themselves as they do what suits them

One further LGV driver expressed a concern that the roadside safety mirrors would give a false sense of security to cyclists:

Cyclists would probably go in the same spot [up the inside] and because the roadside safety mirrors are there, they might chance it a bit more believing the LGV would be able to see them and so wouldn't hit them

# 5. Appendices

# **Respondent profiles**

Table 5.1

	Number			
	LGV drivers (51)	Cyclists (20)	Car/van drivers (20)	
Gender				
Male	50	17	8	
Female	1	3	12	
Age				
18-24/16-24/16-24	1	3	0	
25-34	10	8	7	
35-44	15	5	6	
45-54	15	3	4	
55-64	10	1	2	
65+	0	0	1	

Table 5.2

TUDIC J.E	
	Number of LGV drivers
Vahiolog in company's LGV floot	(51)
Vehicles in company's LGV fleet	
One	0
2-4	4
5-9	7
10-14	0
15-19	8
20-49	9
50-99	12
100 or more	10
Don't know	1
How long have been driving LGV	
Less than a year	1
1-4 years	4
5-9 years	11
10-14 years	8
15-19 years	9
More than 20 years	18

Table 5.3

Table 3.3	
	Number of cyclists (20)
Cycled through junction	
Alone	19
With someone else	1
With a group	0
Frequency of cycling in London	
At least once a week	19
Less than once a week	1
Equipment used*	
None	3
1 piece of equipment	3
2+ pieces of equipment	14
Distance cycled each week	
Under 5 miles	2
5 – 9 miles	2
10-19 miles	2
20-29 miles	7
30-49 miles	2
50+ miles	5

<sup>\*</sup> Counts taken from QEQUIP

Do you usually use any of the following whilst cycling around London? (multicode)

- Cycle helmet
- Reflective clothing
- Lights (after dark)Special cycle clothing (e.g. lycra cycle shorts)
- None of these

Table 5.4

1 4510 011	
	Number of car/van drivers (20)
Frequency of driving in London	
At least once a week	18
Less than once a week	2

Table 5.5

	LGV	Weather conditions	Road condition	Number of mirrors and cameras in use on vehicle (in addition to standard main mirrors)	Awareness of roadside safety mirrors	Use of roadside safety mirrors (for those aware)
	1	Dry	Light traffic	3	Not seen mirrors	
	2	Dry	Heavy traffic	2	Not seen mirrors	
	3	Dry	Heavy traffic	2	Seen mirrors (prompted)	Used mirrors
	4	Dry	Light traffic	2	Seen mirrors (prompted)	Used mirrors
	5	Heavy rain	Light traffic	2	Not seen mirrors	
	6	Don't remember	Don't remember	3	Not seen mirrors	
	7	Don't remember	Don't remember	4	Seen mirrors (prompted)	Did not use mirrors
	8	Don't remember	Don't remember	2	Not seen mirrors	
	9	Dry	Don't remember	3	Not seen mirrors	
	10	Don't remember	Don't remember	2	Not seen mirrors	
les'	11	Don't remember	Heavy traffic	2	Not seen mirrors	
Spotted vehicles'	12	Don't remember	Don't remember	2	Not seen mirrors	
d Ve	13	Dry	Heavy traffic	2	Seen mirrors (prompted)	Can't remember
otte	14	Dry	Light traffic	3	Not seen mirrors	
Sp.	15	Dry	Light traffic	3	Not seen mirrors	
	16	Dry	Light traffic	2	Seen mirrors (prompted)	Did not use mirrors
	17	Dry	Light traffic	4	Seen mirrors (prompted)	Used mirrors
	18	Dry	Light traffic	4	Seen mirrors (prompted)	Used mirrors
	19	Dry	Light traffic	4	Seen mirrors (prompted)	Used mirrors
	20	Dry	Light traffic	4	Seen mirrors (spontaneously)	Used mirrors
	21	Light rain	Heavy traffic	2	Seen mirrors (prompted)	Can't remember
	22	Light rain	Very heavy traffic	1	Seen mirrors (prompted)	Used mirrors
	23	Not raining but roads wet	Heavy traffic	3	Not seen mirrors	
	24	Not raining but roads wet	Light traffic	1	Seen mirrors (prompted)	Used mirrors
	25	Not raining but roads wet	Light traffic	3	Seen mirrors (prompted)	Did not use mirrors

	26	Dry	Don't remember	3	Not seen mirrors	
	27	Don't remember	Heavy traffic	2	Not seen mirrors	
	28	Don't remember	Heavy traffic	3	Not seen mirrors	
	29	Don't remember	Heavy traffic	3	Not seen mirrors	
	30	Don't remember	Light traffic	2	Not seen mirrors	
	31	Don't remember	Light traffic	2	Not seen mirrors	
	32	Don't remember	Very heavy traffic	3	Not seen mirrors	
	33	Don't remember	Don't remember	2	Not seen mirrors	
	34	Don't remember	Don't remember	None	Not seen mirrors	
	35	Don't remember	Don't remember	2	Not seen mirrors	
	36	Don't remember	Don't remember	2	Seen mirrors (prompted)	Used mirrors
	37	Don't remember	Don't remember	2	Seen mirrors (prompted)	Used mirrors
	38	Don't remember	Don't remember	3	Seen mirrors (prompted)	Used mirrors
	39	Not known	Not known	1	Seen mirrors (spontaneously)	Used mirrors
<u>&gt;</u>	40	Not known	Not known	3	Seen mirrors (prompted)	Used mirrors
pan on	41	Not known	Not known	2	Seen mirrors (prompted)	Used mirrors
com	42	Not known	Not known	2	Seen mirrors (prompted)	Did not use mirrors
with compaintroduction	43	Not known	Not known	2	Seen mirrors (prompted)	Did not use mirrors
e w	44	Not known	Not known	2	Seen mirrors (prompted)	Did not use mirrors
ad er o	45	Not known	Not known	1	Seen mirrors (prompted)	Did not use mirrors
ct n lette	46	Not known	Not known	3	Not seen mirrors	
ect contact made following letter of	47	Not known	Not known	None	Not seen mirrors	
low cc	48	Not known	Not known	1	Not seen mirrors	
Direct contact made with company following letter of introduction	49	Not known	Not known	2	Not seen mirrors	
	50	Not known	Not known	1	Not seen mirrors	
	51	Not known	Not known	2	Not seen mirrors	

No LGV drivers encountered problems with the roadside safety mirrors.

Only two LGV drivers reported experiencing glare:

LGV 39: This individual experienced glare. It affected their ability to see the traffic lights "a little", and their ability to see other road users "a little". They felt the glare was "a little <u>less</u>" than the glare they experience from other sources. They did not experience confusion relating to reflections in the roadside safety mirrors.

LGV 45: This individual experienced glare. It affected their ability to see the traffic lights "a little", and their ability to see other road users "a little". They felt the glare was "a little <u>more</u>" than the glare they experience from other sources. They did not experience confusion relating to reflections in the roadside safety mirrors.