


TLRN Cycling Scheme

Monitoring Report

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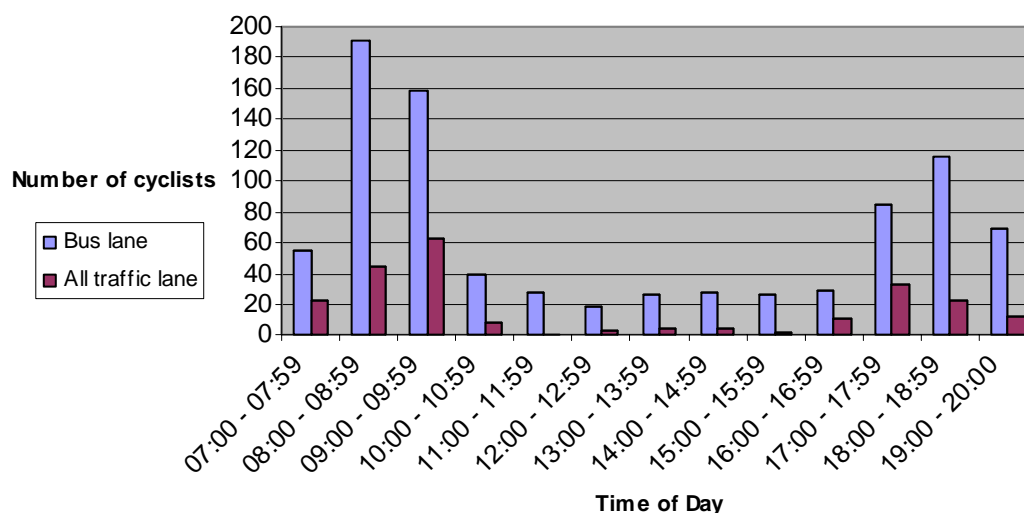
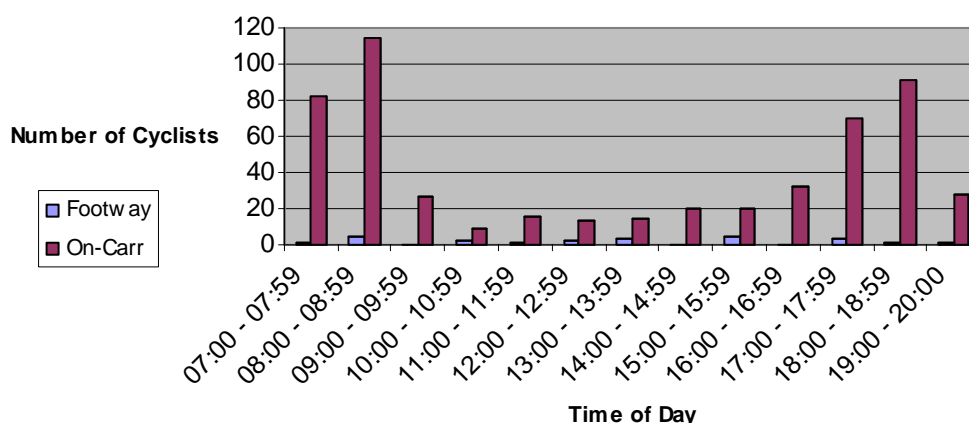


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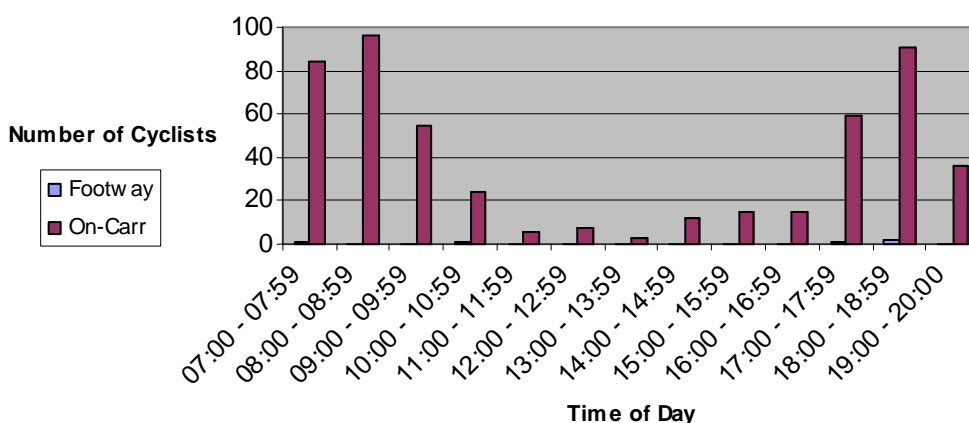


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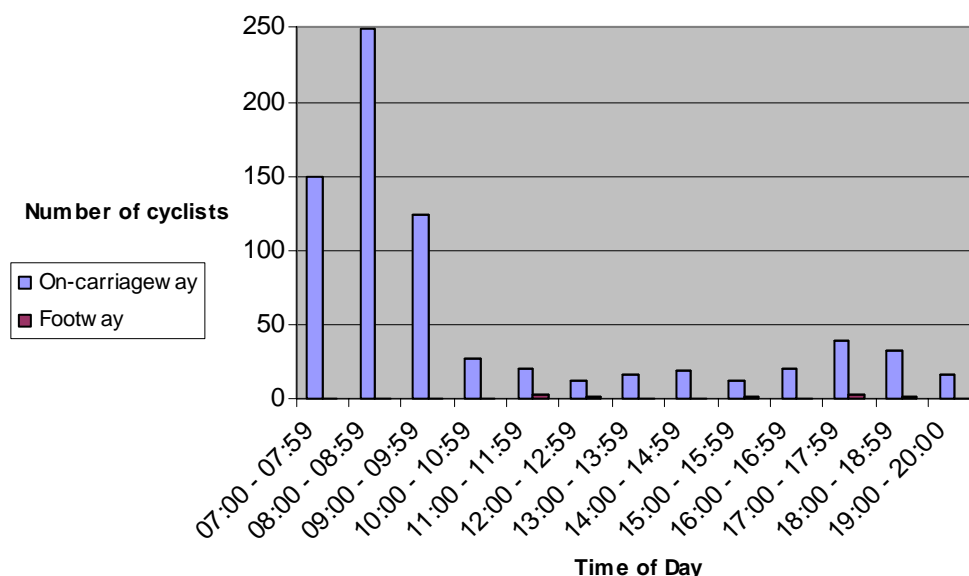


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EXECUTIVE SUMMARY

The London Cycling Action Plan sets out key objectives to deliver improvements to the TLRN. The objective of this report is to gather public opinion on the impact of a number of schemes implemented in 2005 and 2006 in terms of the following indicators:

- ◆ Cycle and pedestrian flows (pre and post-implementation, where available);
- ◆ Questionnaire survey responses from members of the public, with 'before' and 'after' comparisons where available on each scheme.

Below is a brief summary of the details for each of the seven sites in this study:

FARRINGDON STREET NORTHBOUND BUS AND CYCLE LANE

The Farringdon Street northbound bus lane runs in a northerly direction, passing beneath the Holborn Viaduct, from the junction with Stonecutter Street to the junction with Charterhouse Street. It was implemented in November 2005. There was no 'before' cycle count to enable a before and after flow comparison.

Cyclists generally reported that the scheme had a positive impact to their journey. The most frequent improvements reported related to comfort and 'overall cycling experience'. However survey results indicated that the scheme appeared to have little impact on travel behaviour (modal shift, frequency of cycling or route selection).

LOWER THAMES/BYWARD STREET

The scheme for the Lower Thames and Byward Streets site comprised an eastbound and westbound cycle lane running from the junction with Byward Street to Blackfriars Bridge. This scheme was completed in September 2004. There was no 'before' cycle count to enable a before and after flow comparison.

Cyclists generally reported that the scheme has had a very positive impact upon their journey. The most frequent improvements reported related to overall cycling experience and safety. The scheme has had some impact upon route selection with over a fifth of respondents changing their route to use the scheme. Modal shift and frequency of cycling were also positively affected to a lesser extent.

TOOLEY STREET CONTRA-FLOW BUS AND CYCLE LANE

The part of the Tooley Street bus and cycle lane scheme that was assessed was the contra-flow bus lane from Tanner Street to Tower Bridge Road. The scheme had been in place for several years. It was therefore not considered to be suitable for a 'before and after' monitoring study as only a small minority of cyclists would have had experience of the route before the scheme was implemented. However, comparisons were made with cycling on similar roads without a bus lane and the finding from this was very positive. Hardly any cyclists used the footway which emphasises the attractiveness of a contra-flow bus lane with an infrequent bus service and virtually no other motor vehicles.

Cyclists generally reported that the scheme was better than a similar road with a bus lane. One third of respondents reported a near miss, many related to insufficient space or excess speed. Two collisions were reported, one serious.

CHEYNE WALK

The scheme, located to the south-west of Battersea Bridge, comprised a right-turn filter lane to provide cyclists with access from Lots Road to the Cheyne Walk footway, and a shared pedestrian/cyclist surface between Lots Road and Battersea Bridge. The scheme was completed in December 2005. There was no 'before' cycle count to enable a before and after flow comparison.

Cyclists generally reported that the scheme has had a positive impact upon their journey. The most frequent improvements reported related to overall cycling experience and safety. The scheme has had some impact upon travel behaviour; route selection has been influenced for 20% of respondents and 10% reported to have increased their cycling as a result of the scheme.

BLACKFRIARS BRIDGE

The Blackfriars Bridge scheme involved the provision of a new near-side cycle lane across the bridge in the northbound direction. The facility replaced an off-side cycle lane. The junction with Embankment was also altered with the provision of a new advanced stop line. The scheme was implemented in November 2006.

The 'before and after' cycle counts revealed a considerable decrease in cycle traffic from the 'before' count (close to 500 cyclists per hour) to the 'after' count (300 per hour). However, it is likely that the time of year of the two counts would have had a large impact; the first survey was in the summer and the second in the winter.

Cyclists generally reported that the scheme has had a strong positive impact upon their journey. The most frequent improvements reported related to safety, comfort, interaction with vehicles and overall cycling experience. The scheme appears to have had little impact upon travel behaviour (modal shift, frequency of cycling or route selection).

A12, EASTERN AVENUE CYCLE LANES, REDBRIDGE

The scheme comprised advisory cycle lanes on both carriageways of the A12 between the roundabouts with the A406 and the A1400 (Redbridge to Gants Hill). The scheme was completed in April 2006. There was no 'before' cycle count to enable a before and after flow comparison.

A small sample size of six questionnaires makes it difficult to draw firm conclusions about the success of this scheme. However, most assessments of (and comments about) the scheme were positive and four out of the six respondents thought that their overall cycling experience had improved.

WOODFORD TOUCAN

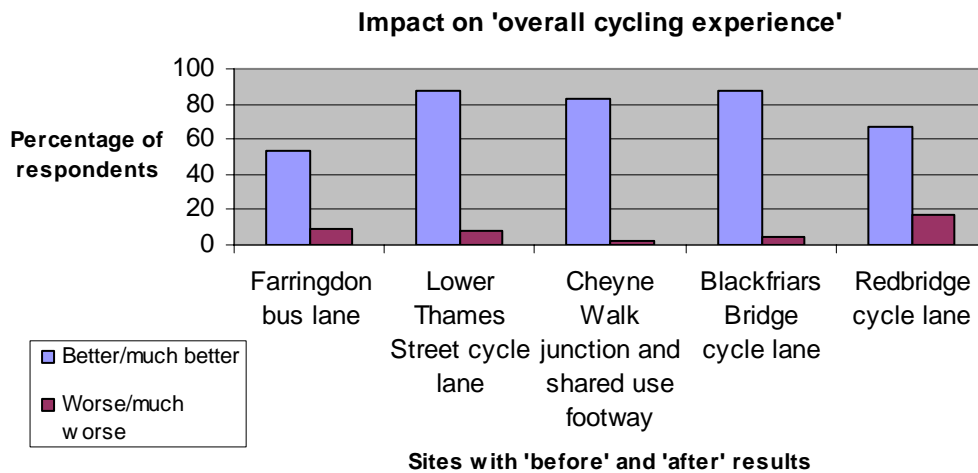
The scheme comprised a staggered Toucan crossing with associated measures to provide connections to the carriageway. The scheme was completed in November 2006.

A 'before' count was conducted in April 2006 and an 'after' count in December 2006. The number of cyclists using the crossing doubled from 5 to 10 between the two counts. Given that the 'after' count was carried out in the winter, this suggests an even higher rise in numbers. The number of pedestrians using the new Toucan crossing during the 'after' count was 537, nearly 100 more than in the 'before' count.

Unfortunately, neither of the two respondents was able to provide a 'before and after' assessment of the Toucan crossing. One of the two said the new facility had caused them to change their route specifying that 'previously I used to get off and walk the bike. It was too dangerous to cycle.'

SUMMARY

On the whole, all the schemes appeared to have had a net positive impact on the cycling environment according to the sample of cyclists who responded to the questionnaires. The graph below compares the impact that each scheme has had on 'overall cycling experience'.



1. BACKGROUND TO THE STUDY

- 1.1 Atkins was commissioned to carry out this monitoring project of Transport for London Route Network (TLRN) cycling schemes by Transport for London (TfL) in March 2006.
- 1.2 The London Cycling Action Plan sets out key objectives to deliver improvements to the TLRN. The objective of this project is to verify the impact of a number of schemes implemented in 2005 and 2006 in terms of the following indicators:
- ◆ Cycling casualties;
 - ◆ General road safety and road danger;
 - ◆ Number of people walking and cycling for local trips;
 - ◆ Number of people cycling in London, particularly during peak hours;
 - ◆ Dedicated cycle facilities, to offer priority or protection to cyclists from motor traffic; and
 - ◆ Interruptions to; suitable standard and priority of; and ease to follow; the cycle route.

METHODOLOGY

- 1.3 Seven sites were initially suggested by TfL for the monitoring project. However, it became clear that several of these sites had schemes which were not close to completion and would have considerably delayed the study. Alternatives were therefore sought. The final selection of sites and the surveys carried out at each site are detailed below:

Table 1.1 - Summary of survey types at the different sites

Site Location	Site description	Questionnaire survey?	'Before' count?	'After' count?
Farringdon Street	Northbound bus & cycle lane	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lower Thames/Byward Street	Cycle lanes (both directions)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tooley Street	Contra-flow bus & cycle lane	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cheyne Walk/Lots Road	Junction improvement and shared-use footway	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Blackfriars Bridge	Northbound cycle lane	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A12, Eastern Avenue	Cycle lanes (both directions)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Woodford Avenue, Gants Hill	Toucan crossing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

- 1.4 Traffic counts for each site were carried out by video survey using the survey company 'Count On Us'. Cycle flows were recorded at each site and pedestrian flows were recorded at the shared-use sites (i.e. shared-use footways and Toucan crossings).
- 1.5 Questionnaire surveys were carried out at every site. This involved survey staff handing out questionnaires to passing cyclists at carefully chosen locations, where cyclists would be more likely to stop and where it was safe for them to do so. Commuter cyclists cycle at relatively high speeds and are generally reluctant to take a questionnaire if it means they will lose speed and momentum.
- 1.6 The questionnaires were analysed using SPSS software. The traffic counts were analysed using Excel spreadsheets.

REPORT STRUCTURE

- 1.7 The remainder of this report comprises a separate chapter for each of the sites listed in Table 1.1 in the same order.
- 1.8 Each chapter addresses the details of the scheme, site observations, cycle count results, and provides questionnaire survey results. A summary is also provided for each location.

2. FARRINGDON STREET NORTHBOUND BUS AND CYCLE LANE

SCHEME DETAILS

- 2.1 The Farringdon Street bus lane runs in a northerly direction from the junction with Stonecutter Street to the junction with Charterhouse Street. It was implemented in November 2005 and has a varying width (starting at 6.5m, narrowing to a minimum of 3.2m under the Holborn Viaduct and then widening to approximately 3.5m until the end).
- 2.2 The bus lane is located towards the southern side of the city. This means that, due to its northbound orientation, the largest cycle flow is in the morning peak with commuters heading towards the main employment areas of central London.

SITE OBSERVATIONS

- 2.3 The bus lane was used by most of the northbound cycle traffic during the site visits. It ends shortly before a signalised junction which has a dedicated left-turn lane. Theoretically, the bus lane should help straight-ahead cyclists to position themselves correctly. However, during the site visits, this area was often congested and cyclists got caught behind buses (see the photographs below). The bus lane may be of greater use for straight-ahead cyclists during the inter peak.

Figure 2.1 - Cyclist held up at the northern end of the bus lane in the morning peak

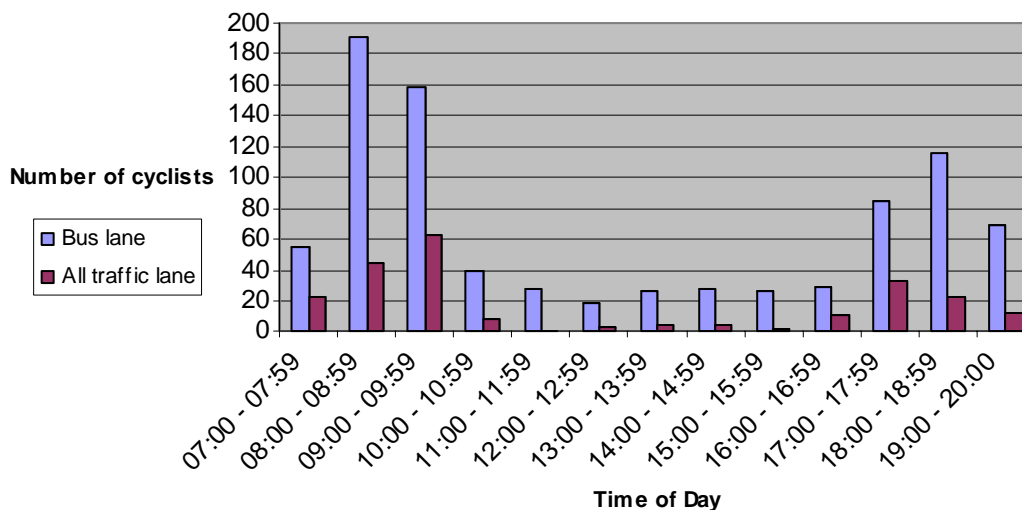


- 2.4 An informal sample bus count indicated that flows were relatively high (approximately 35 buses per hour). A similar taxi count indicated flows in the region of 90 per hour within the bus lane (and another 50 per hour in the all-traffic lane). These indicative counts show that cyclists have to share the bus lane with quite a lot of motor vehicle traffic (as well as cars and powered two wheelers using the bus lane illegally). N.B This was an informal count and therefore appears in this 'Site observations' section.

CYCLE COUNT RESULTS

- 2.5 A cycle count was carried out from 07:00 to 20:00 on a dry and warm August week day. The hourly cycle flows are shown in Figure 2.1 below.

Figure 2.2 - Northbound cyclist numbers in Farringdon Street



Morning peak (07:00-10:00)

- 2.6 Northbound cycle flows exceeded 200 per hour between 08:00 and 10:00 when the flows in the bus lane and adjacent northbound all-traffic lane are combined. The highest hourly flow (235 cyclists) was between 08:00 and 09:00, and the morning peak total was 533 cyclists.
- 2.7 76% of cyclists travelled in the bus lane with the remainder using the all-traffic lane. Levels of footway cycling were very low in the morning peak and remained low throughout the day (with no more than three cyclists per hour).

Inter peak (10:00-17:00)

- 2.8 Average inter-peak flows were 33 cyclists per hour (ranging from 22 to 48 per hour). A higher proportion of cyclists (85%) used the bus lane in the inter peak.

Evening peak (17:00-20:00)

- 2.9 Evening cycle flows were considerably lower than the morning peak (average 112 per hour; highest 138 from 18:00-19:00) although there was a clearly defined peak from 17:00 to 20:00. Eighty percent of cyclists travelled in the bus lane and 20% used the adjacent all-traffic lane.

Total daily flow

- 2.10 A total of 1101 cyclists used the bus lane and adjacent all-traffic lane during the 13 hour count period. Seventy nine percent used the bus lane with the remaining 21% in the adjacent all-traffic lane. The main reasons for not using the bus lane were likely

to be the need to pass stationary traffic (especially queuing buses at the northern end of the bus lane) and positioning in advance of a right turn into West Smithfield or Charterhouse Street.

QUESTIONNAIRE SURVEY RESULTS

- 2.11 Questionnaires were distributed on two separate occasions between Stonecutter Street and Holborn Viaduct; Monday 21st August (evening peak) and Tuesday 5th September (morning peak). In total 198 questionnaires were handed out. By late September, 114 completed questionnaires had been returned (of which 100 were analysed) giving a response rate of 58%.
- 2.12 The weather conditions were warm and slightly cloudy for both surveys.
- 2.13 The results of the questionnaire survey results are summarised in the sections, figures and tables provided below.

Figure 2.3 - The questionnaire distribution point in Farringdon Street



Journey details

- 2.14 Seventy seven respondents were able to provide data on journey distances and 99 respondents provided information on their journey duration.

Table 2.1 - Farringdon Street respondent journey details

Journey Detail	Duration
Median distance	6.0 miles
Mean distance	6.9 miles
Range of distances	2-25 miles
Journey duration (median)	30 minutes

Journey Detail	Duration
Journey duration (mean)	35 minutes (mean speed; 11.8 mph)
Range of durations	10-90 minutes (10% over an hour)

Figure 2.4 - What was the main purpose of your journey? (100 responses)

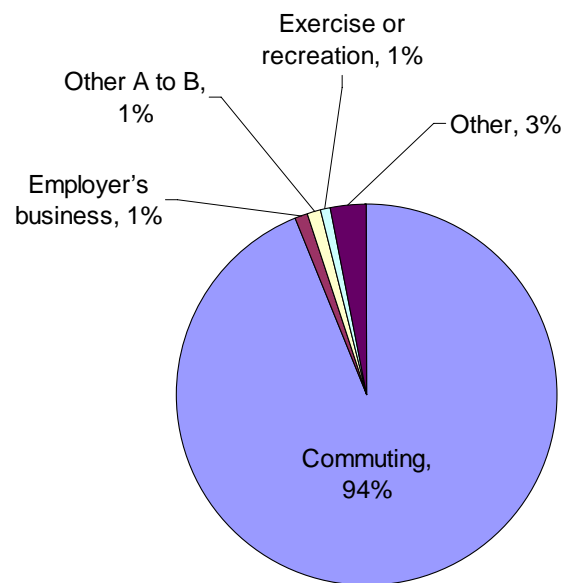


Figure 2.5 - Did you use any other form of transport for part of the journey today? (100 responses)

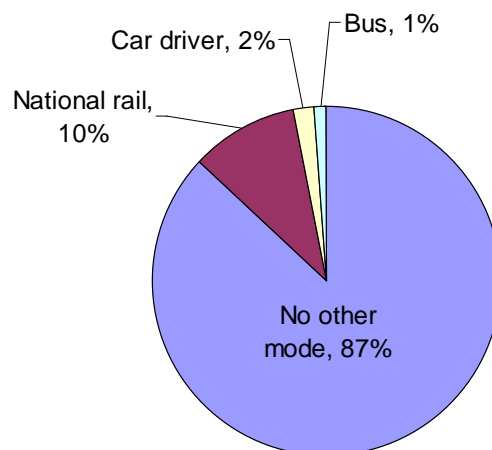


Figure 2.6 - How often do you make this journey by bike? (100 responses)

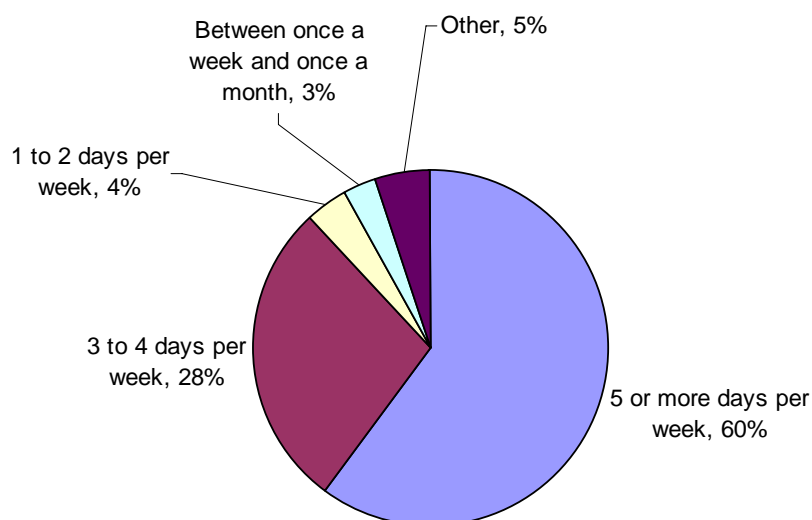


Table 2.2 - For how long have you been making this journey? (99 responses)

Amount of time	Percentage of respondents (cumulative)
Up to 6 months	32%
Up to 12 months/1 year	49%
Up to 2 years	66%
Up to 3 years	77%
Up to 5 years	90%

Mean, 2 years 4 months: Median, 14 months

‘Before and after’ assessment of the scheme

2.15 Respondents who had cycled along Farringdon Street before the scheme went in (59 out of 100) were asked to give a ‘before and after’ assessment of the scheme. The results are provided in the following tables.

Table 2.3 - Compared to the old layout, how, if at all, do you think your cycle journey along Farringdon Street has changed in terms of... (59 respondents)

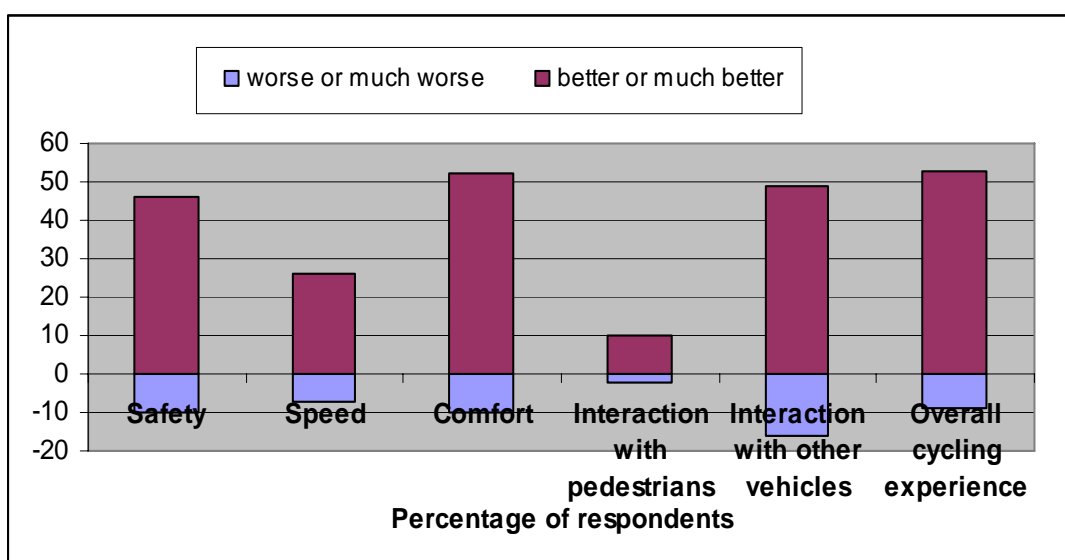
	A lot worse	Worse	No difference	Better	A lot better
Safety	3%	7%	44%	41%	5%
Speed	2%	5%	68%	24%	2%
Comfort	3%	7%	37%	49%	3%
Interaction with pedestrians	2%	0%	88%	10%	0%

	A lot worse	Worse	No difference	Better	A lot better
Interaction with other vehicles	9%	7%	36%	44%	5%
Overall cycling experience	2%	7%	39%	48%	5%

2.16 Table 2.3 shows that, although assessments of the scheme were generally positive, there were only two categories (comfort and ‘overall cycling experience’) where at least 50% considered there to be an improvement.

2.17 The scheme scored quite well for safety and ‘interaction with other vehicles’. However, only a quarter thought that speed had improved (68% thought there had been no difference), and just 10% thought that interaction with pedestrians was now better (nearly 90% said there was no difference).

Figure 2.7 - Percentage of respondents who rated Farringdon Street as better, a lot better, worse, or a lot worse.



Impact of the scheme on travel behaviour

Have you switched from any other type of transport as a result of the new scheme? (60 respondents)

2.18 98% said no, 2% (one person) said yes but did not say which mode they had switched from.

Have you changed your route as a result of the new scheme? (59 respondents)

2.19 97% said no, 3% said yes.

Have you increased or decreased the amount you cycle as a result of the scheme? (60 respondents)

2.20 98% said no, 2% (one respondent) said yes.

Figure 2.8 - Would you have made the journey by bicycle if the scheme had not been provided? (58 respondents)

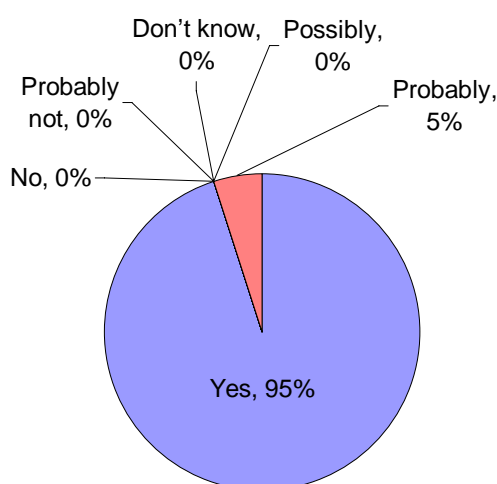
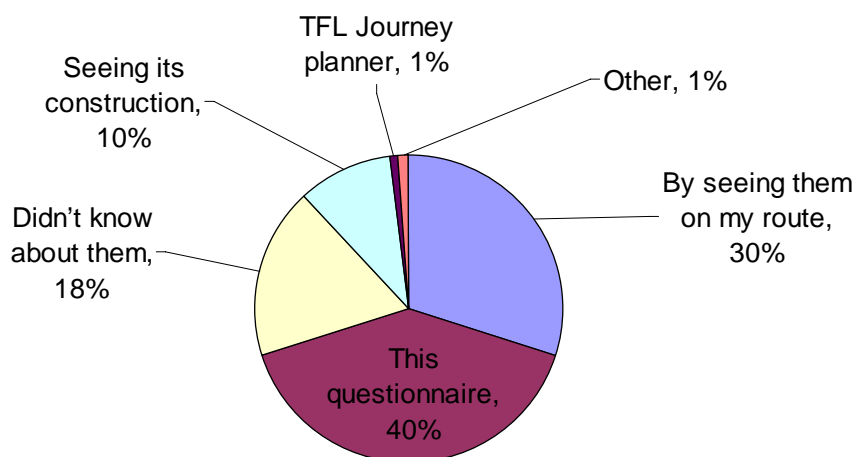


Figure 2.9 - How did you first hear about the new cycling facilities? (73 responses)



General comments about the new facilities

- 2.21 44 respondents provided comments; 13 were positive, 11 were negative and 20 were neutral or mixed. The comments are provided in full in **Appendix A**.
- 2.22 Many of the **positive comments** relate to general improvements to safety. One respondent also claimed that the bus lane had made it easier to make a right turn into Snow Hill although some negative comments made by other respondents suggest this may not always be the case.

- 2.23 The main issue in the **negative comments** was the difficulty of turning right out of the bus lane. One respondent claimed that the problem had worsened as a result of the bus lane as they now have to cross moving traffic to make a right turn (whereas previously the bus lane would have been a more congested all-traffic lane). The need for greater bus lane enforcement was mentioned by two respondents; as was the safety barrier at the edge of the bus lane beneath the Holborn Viaduct. One respondent claimed that the bus lane had resulted in faster moving buses which allow less space for cyclists. Apart from a comment about the road surface, the remaining comments were about general problems with bus lanes and isolated cycling infrastructure.
- 2.24 The issue of the safety barrier beneath the Holborn Viaduct was raised again in **neutral/mixed comments**; as was the difficulty of making a right turn from the bus lane. Three separate respondents mentioned problems they experienced further south when leaving Blackfriars Bridge. One respondent observed that illegal use by other vehicles was more prevalent during congested times.

Cycling in London

Has the amount of cycling you do in London increased or decreased in the last five years? If it has, please provide up to three reasons for this change. (98 respondents)

- 2.25 23% had not changed the amount of cycling, 69% had increased and 7% had decreased. The reasons given for decreasing cycling were; buying a powered two wheeler, working part-time, risk of theft, getting bored with cycling, and moving house.
- 2.26 The reasons for increasing cycling are provided in Table 2.4.

Table 2.4 - Reasons for increased cycling (77 comments provided by 47 respondents)

Reason for increase	Percentage of all comments
Problems with public transport (mainly cost, overcrowding and lack of reliability). All PT modes mentioned but mainly the tube.	23%
Exercise, fitness, health	16%
Speed of journeys	10%
Moving job or place of residence	9%
Convenience and enjoyment of cycling	6%
New cycling infrastructure	5%
Bought a new (or better) bike	5%
The London bombs (and the continued threat of terrorism)	4%
To save money (not specifically related to public transport)	4%

Reason for increase	Percentage of all comments
'Effort by mayor', TFL publicity, cycle map	4%
Safety	4%
Reliability	4%
Congestion charge (and issues relating to it e.g. less traffic in central London and wider presence of cyclists)	1%
Other	4%

2.27 As at other sites in this monitoring study, problems with London's public transport network were the key reason for an increase in cycling among respondents. The congestion charge (and issues relating to it) was mentioned by only 1%; a lot less than at other sites.

Personal details

2.28 Nearly two thirds of the respondents were male; with 83% in the 25-44 age category. Nearly all respondents were white (97%) and working full time (96%).

SUMMARY

2.29 This survey has shown that the Farringdon Street bus lane has generally had a positive impact on the sample of cyclists who responded to the survey with over half stating that it had resulted in an improved 'overall cycling experience'.

2.30 The bus lane had relatively high flows of buses and taxis (over 100 per hour) so most respondents would have been used to sharing it with motor vehicles. Comments from the questionnaire survey and photographs from the site visits showed that there was also some level of illegal use by private motor vehicles (particularly powered two wheelers), especially at congested times.

2.31 Cycle flows exceeded 200 per hour in the morning peak. The distribution of cycle traffic was heavily peaked; the inter-peak had less than 20% the cycle flow of the peak hour.

2.32 Over 20% of cyclists chose not to use the bus lane and cycled in the adjacent all-traffic lane. Site observations and questionnaire results suggested that this was due to the positioning needed to make a right turn from the bus lane, (see photograph below) or the need to overtake queuing traffic at the northern end.

Figure 2.10 - The right turn into West Smithfield (looking south)



- 2.33 The mean journey distance was just under 7 miles and the mean speed was close to 12mph. Most respondents were commuters making door-to-door journeys by bike; 10% combined their journey with national rail and a very small number also used buses or cars as part of their journey. Nearly half of all respondents had only been using the facility for 12 months or less. This emphasises the need to carry out monitoring work relatively quickly after a scheme's implementation.
- 2.34 The greatest improvements that the scheme has brought relate to comfort and 'overall cycling experience'. The impact on safety and 'interaction with other vehicles' was also positive. The impact on speed was smaller (although nearly four times as many respondents thought it had improved than thought it had got worse) and the large majority (88%) thought that there had been no difference to the impact on interaction with pedestrians. The bus lane has provided a more comfortable cycling experience, perhaps because cyclists no longer have to weave past queuing traffic, and get to share the lane with fewer motor vehicles. It is not surprising that the scheme has had little impact on the interaction with pedestrians.
- 2.35 The relatively small impact on speed is unexpected as a bus lane would normally improve journey times for cyclists. However, site observations and questionnaire feedback suggest that the northern end of the bus lane on the approach to the Charterhouse Street junction is frequently congested with many cyclists unable to pass queuing traffic.

**Figure 2.11 - Congestion at the northern end of the bus lane
(note cars and taxis straying into the lane)**



- 2.36 The scheme appears to have had little impact on travel behaviour with only one or two respondents claiming it had caused them to switch mode, change route, or increase their amount of cycling. The reason for this lack of impact may be the scheme's relative length (shorter than many of the other monitored schemes) and the fact that, with relatively high bus and taxi flows (over 100 per hour), and illegal use by private motor vehicles, cyclists still had to share space with a lot of other motor traffic.
- 2.37 The main specific problems with the scheme were the safety barrier under the Holborn Viaduct which some respondents found intimidating, and the difficulty of turning right off Farringdon Street (although there was disagreement as to whether the scheme had made this worse or better). Congestion at the northern end of the scheme meant that the bus lane provided relatively little benefit to cyclists at the signalised junction. There were also reported problems with illegal use of the bus lane by motorbikes and cars. A few comments were made about the poor quality of the road surface.
- 2.38 The questionnaire provided some interesting results on how respondents found out about the scheme. The main source of information was the questionnaire itself; many had not realised that they were using a new facility until taking part in the survey. The next source of information was 'seeing the scheme whilst cycling' and 10% found out about it when it was being built. One respondent had discovered it through the TfL journey planner.
- 2.39 The reasons for an increase in cycling in London in the last five years can be divided into different categories e.g. positive reasons to choose cycling (fitness, enjoyment, reliability, journey speed) and negative reasons to avoid other forms of transport (mainly problems with public transport). There is evidence that specific TfL policies are causing people to start cycling e.g. new infrastructure and publicity, although the main reasons are not directly related to specific pro-cycling measures.

- 2.40 Over 80% of respondents were in the 25-44 age category and the gender split was 36% female, 64% male. 97% were 'white' and the remaining 3% were black/black British and middle eastern.

3. LOWER THAMES/BYWARD STREET

SCHEME DETAILS

- 3.1 The scheme for the Lower Thames and Byward Streets site comprised an eastbound and a westbound cycle lane running from the junction with Byward Street to Blackfriars Bridge. This scheme was completed in September 2004.
- 3.2 For most of the route there is a central median dividing the eastbound and westbound carriageways. The larger junctions are signal controlled. Each carriageway has two lanes and an advisory cycle lane except in narrow sections where a coloured 'informal' cycle lane (i.e. without a lane marking) is provided.

SITE OBSERVATIONS

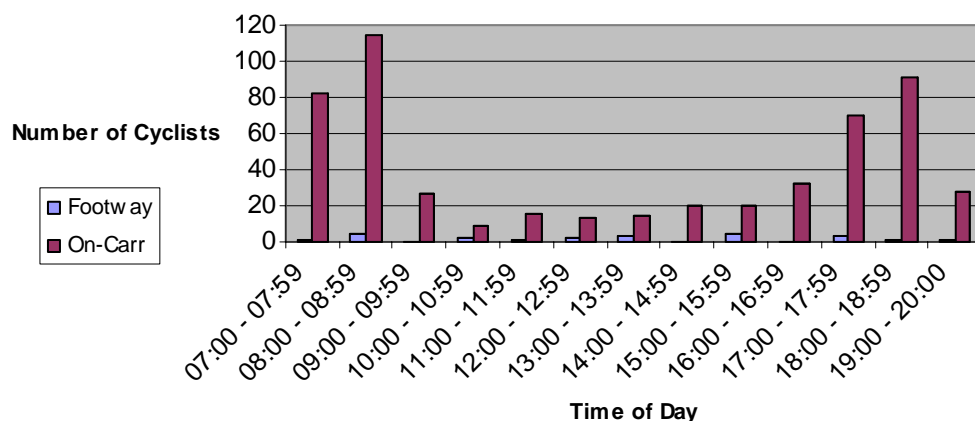
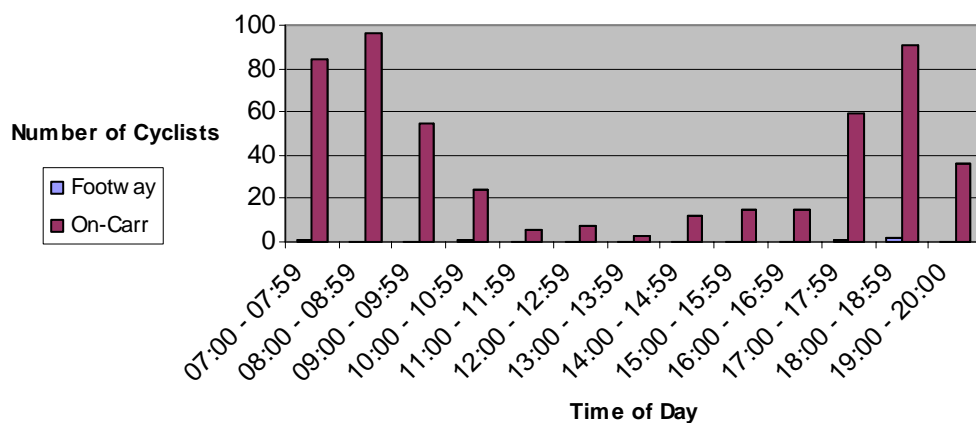
- 3.3 A number of cyclists were seen travelling down the hill from the Toucan crossing on Byward Street in the middle of the all-traffic lane, rather than in the cycle lane. This was presumably to make themselves more visible to motorists (approaching from the left) where Byward Street merges with Lower Thames Street at the bottom of the hill.
- 3.4 In an informal sample count from 16.30 to 17.00, there were 68 powered two wheelers (PTWs) in the cycle lane heading up the hill on Byward Street (estimated to be about half to two thirds of all PTWs).

Figure 3.1 - Byward Street cycle lane on approach to Great Tower Street junction



CYCLE COUNT RESULTS

- 3.5 A cycle count was carried out from 07:00 to 20:00. The results from the count are shown in the two figures below.

Figure 3.1 - Westbound cyclist numbers on Lower Thames Street**Figure 3.2 - Eastbound cyclist numbers on Lower Thames Street****Morning peak (07:00-10:00)**

3.6 The morning peak flows were similar in the eastbound and westbound direction. Flows were high (around 80 cyclists) between 07:00 and 08:00, peaked between 08:00 and 09:00, and dropped off considerably from 09:00-10:00. The highest hourly cycle flows of the day were recorded in the morning peak (96 eastbound, 114 westbound).

Inter-peak

3.7 Inter-peak flows were very low ranging from between 3 and 20 cyclists per hour.

Evening peak

3.8 The three hour evening peak flow was an hour later in the eastbound direction (17:00-20:00) than the westbound (16:00-19:00).

Total daily flows (07:00 to 20:00)

- 3.9 A total of 1067 cyclists were counted throughout the day in both directions, of which 508 (48% of the total) travelled eastbound and 559 (52%) travelled westbound. 3% of all cyclists were on the footway; 1% eastbound and 4% westbound.

QUESTIONNAIRE SURVEY RESULTS

- 3.10 Questionnaires were distributed on three separate occasions in Lower Thames Street and Byward Street between London Bridge and Tower Hill; on Wednesday 10th May (inter-peak and evening peak) Wednesday 31st May (morning peak) and Thursday 3rd August (morning peak). Over the three days, a total of 218 questionnaires were handed out. By 9th August, 102 completed questionnaires had been returned giving a response rate of 47%. The weather conditions were warm and sunny for the May surveys but cooler with showers in August.

Figure 3.3 - The main questionnaire distribution point in Byward Street



- 3.11 The results of the questionnaire survey results are summarised in the sections, figures and tables provided below.

Journey Details

- 3.12 Information was not provided on journey length in this questionnaire (it was the first of all sites to be monitored; the decision to request distance data was made after this survey was carried out).
- 3.13 Ninety nine respondents provided information on their journey duration. Journeys ranged in length from 12 minutes to 2 hours although only six respondents were travelling for over an hour. The mean journey duration was 37 minutes and the median was 35 minutes.

Figure 3.4 - What was the main purpose of your journey? (102 responses)

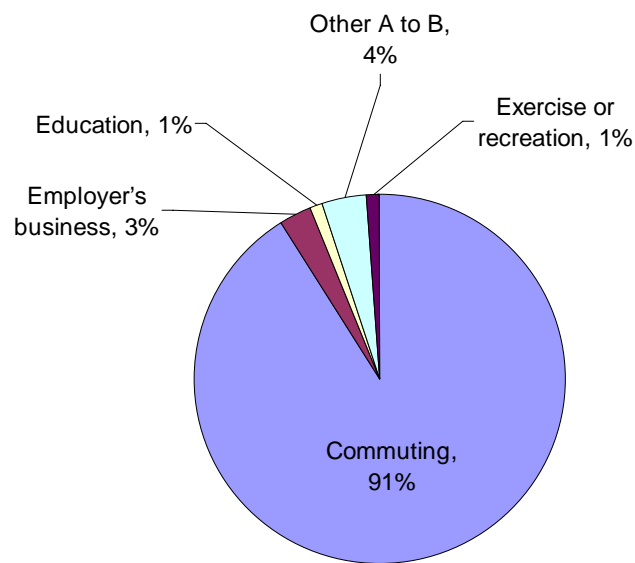


Figure 3.5 - Do you use any other form of transport for part of the journey today? (102 responses)

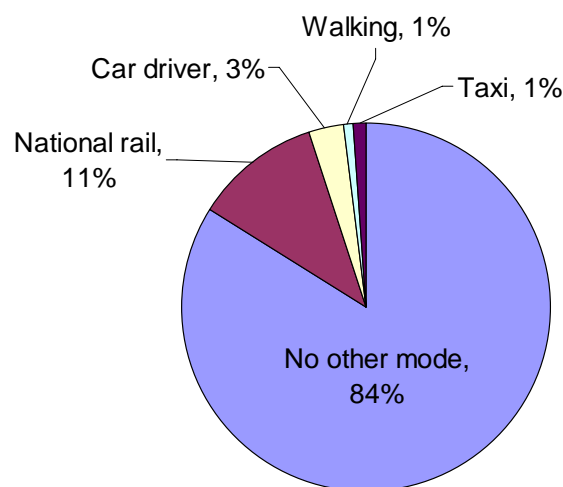
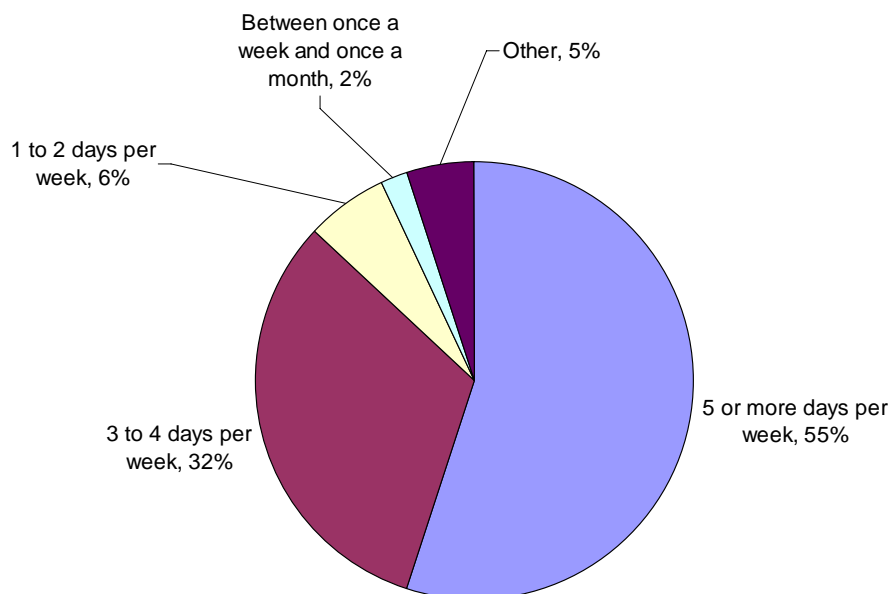


Figure 3.6 - How often do you make this journey by bike? (101 responses)**Table 3.1 - For how long have you been making this journey? (100 responses)**

Amount of Time	Percentage of Respondents
Up to 6 months	21%
Up to 12 months/1 year	45%
Up to 2 years	64%
Up to 3 years	73%
Up to 5 years	91%

Mean; 2 years, 6 months: Median; 18 months

- 3.14 91% of respondents were commuters and 87% cycled along Lower Thames Street at least three times per week. Most used their bike to get from door to door but just over 10% combine cycling with rail. Half the respondents had only been cycling along Lower Thames Street for the last 18 months.

'Before and after' assessment of the scheme

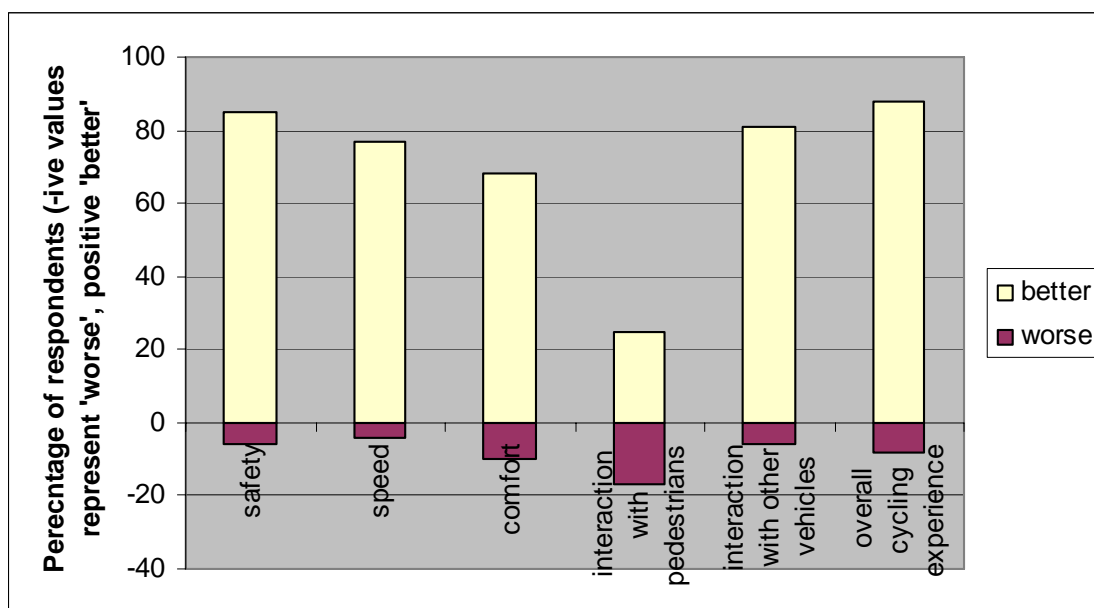
- 3.15 Respondents who had cycled along Lower Thames Street before the scheme went in were asked to give a 'before and after' assessment of the scheme. The results are provided in the following tables.

Table 3.2 - Compared to the old layout, how, if at all, do you think your cycle journey along Lower/Upper Thames Street has changed in terms of ... (52 respondents)

	A lot worse	Worse	No difference	Better	A lot better
Safety	2%	4%	10%	59%	26%
Speed	2%	2%	19%	69%	8%
Comfort	2%	8%	23%	58%	10%
Interaction with pedestrians	2%	15%	58%	21%	4%
Interaction with other vehicles	2%	4%	14%	64%	17%
Overall cycling experience	2%	6%	4%	67%	21%

3.16 Table 3.2 above shows that the large majority (at least 68%) of respondents felt that the Lower Thames Street cycle lanes had provided an improvement to the level of service in all categories except 'interaction with pedestrians'. Figure 3.7 below focuses on the percentage of respondents who considered the scheme to have had a positive impact in the different assessment categories. All categories scored above 65% except 'interaction with pedestrians' where only a quarter of respondents thought conditions had improved. The highest scoring category was 'overall cycling experience' at nearly 90% followed by safety at 85%.

Figure 3.7 - Percentage of respondents who rated Lower Thames Street as better or worse (better and 'a lot better' combined).



Impact of the scheme on travel behaviour

*Have you switched from any other type of transport as a result of the new scheme?
(52 respondents)*

3.17 92% no; 8% yes. Three respondents had switched from the underground and one from the bus.

Have you changed your route as a result of the new scheme?

3.18 79% no; 21% yes.

Have you increased or decreased the amount you cycle as a result of the scheme?

3.19 90% no; 10% yes.

Figure 3.8 - Would you have made the journey by bicycle if the scheme had not been provided?

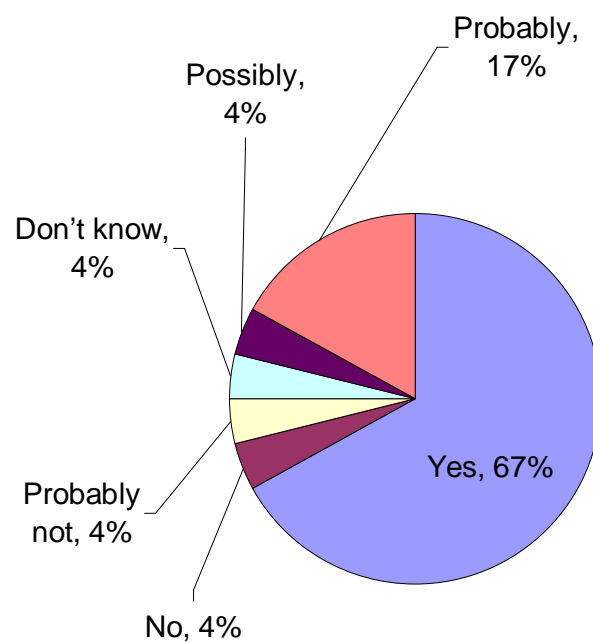
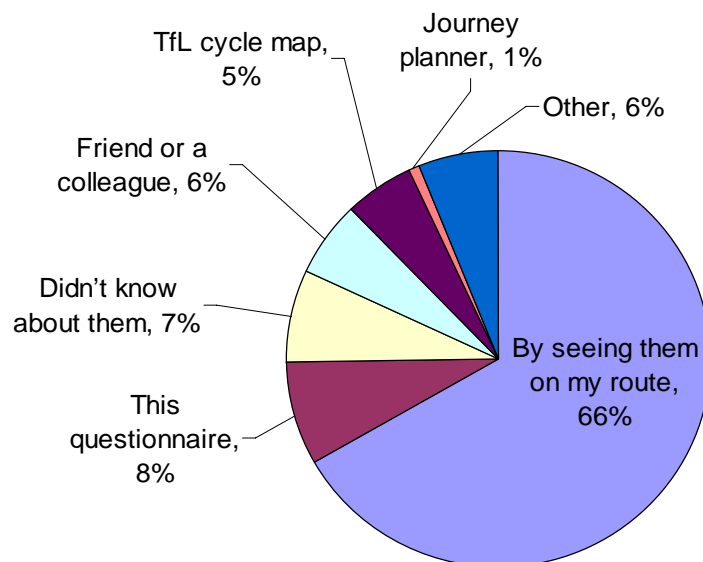


Figure 3.9 - How did you first hear about the new cycling facilities? (83 responses)

General comments about the new facilities

- 3.20 This question was not part of the original TfL questionnaire and was not used at this site (but was included at all others).

Cycling in London

Has the amount of cycling you do in London increased or decreased in the last five years? If it has, please provide up to three reasons for this change.

- 3.21 30% had not changed, 68% had increased and 2% had decreased. The reasons for decreasing cycling were 'moving further from place of work' (or changing jobs). The reasons for increasing cycling are provided in the following table.

Table 3.3 - Reasons for increased cycling (115 comments provided by 66 respondents)

Reason for increase	Percentage of all comments
Problems with public transport (mainly the cost, overcrowding and lack of reliability. All PT modes mentioned but mainly the underground)	28%
Moving job or place of residence	17%
Exercise, fitness, health	15%

Reason for increase	Percentage of all comments
New cycling infrastructure	10%
Congestion charge (and issues relating to it e.g. less traffic in Central London and wider presence of cyclists)	8%
The London bombs (and the continued threat of terrorism)	6%
Convenience and enjoyment of cycling	6%
Speed of journeys	4%
To save money (not specifically related to public transport)	2%
'Other' (e.g. flexibility, new showers at work, environmental reasons)	5%

3.22 The results from the table above are discussed in the summary section.

Personal details

3.23 There was a small proportion (less than 20%) of female respondents at this site. The large majority (close to 80%) fell in the 25-44 age category. Nearly all respondents (95%) described themselves as 'white' and a similar percentage were working full time.

SUMMARY

3.24 This survey has shown that the Byward Street/Lower Thames Street cycle lane has had a very positive impact on the sample of cyclists who responded to the questionnaire with over 80% stating that it had resulted in an improved 'overall cycling experience'.

3.25 Hourly cycle flows in the peak period were around 80 with the maximum at just over 100 cycles per hour. These flows were lower than at other central London sites. Inter-peak flows were extremely low (less than 10 cyclists per hour for much of the time).

3.26 Respondent's journey times (mean of 37 minutes) were similar to those at other sites although journey time data was not collected. The large majority (over 90%) of respondents were commuters and used no other mode for their journey to work. Eleven percent combined with national rail. Just under half (45%) of the respondents had been using the facility for up to 12 months emphasising (as at other sites) the need to carry out monitoring shortly after the scheme's implementation.

3.27 The greatest improvement that the scheme had brought related to safety and 'interaction with other vehicles'. However, the impact on all criteria, other than pedestrian interaction, was considered positive with nearly 90% of respondents noting an improvement to the overall cycling experience.

3.28 The scheme has had some impact on travel behaviour; over a fifth of respondents had changed their route as a result of the scheme, and approximately 10% had either switched modes or increased the amount they cycle.

- 3.29 Most respondents found out about the scheme simply through cycling along it. A small number (between 5% and 10%) heard about it through the questionnaire, a friend/colleague or the TfL cycle map.

Figure 3.10 - The westbound cycle lane providing cyclists with a clear route past congested traffic.



- 3.30 Over two thirds had increased their level of cycling in London in the previous five years. The main reason for this was problems with public transport followed by changing jobs or place of residence. Other reasons accounting for more than 5% were exercise/fitness, the provision of new cycling infrastructure, the congestion charge (and issues relating to it), the London bomb attacks (and the continued threat of terrorism), and the convenience/enjoyment of cycling. As at other sites, therefore, a wide range of reasons were given including factors which made cycling intrinsically attractive, factors which discouraged the use of other modes, and lifestyle changes relating to place of residence and work.
- 3.31 Although the age and ethnicity categories were similar to those at other sites, there was a low proportion of female respondents (below 20%).

4. TOOLEY STREET CONTRA-FLOW BUS AND CYCLE LANE

SCHEME DETAILS

- 4.1 The scheme comprised a contra-flow bus lane from Tanner Street to Tower Bridge Road.
- 4.2 The scheme had been in place for several years and was therefore not considered to be suitable for a 'before and after' monitoring study as only a small minority of cyclists will have had experience of the route before the scheme was implemented.

SITE OBSERVATIONS

- 4.3 The Tooley Street contra-flow bus and cycle lane appeared to provide cyclists with an excellent facility. There was very little bus traffic, and no motor cyclists or cars were seen using the facility during the survey. Due to the phasing of the signals and the high cycle flows, there were often large groups of cyclists (around 10 to 20) waiting at the junction. Cyclists waited in the Advanced Stop Line (ASL) reservoir as well as in the pedestrian crossing area in front of the ASL (see photo below).

Figure 4.1 - Tooley Street in the inter peak

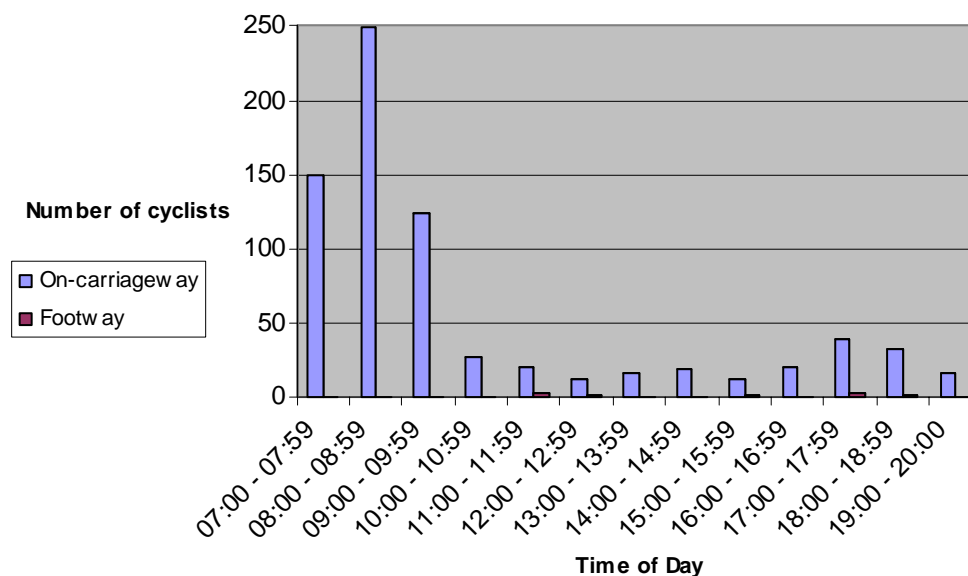


- 4.4 The bus service along the contra-flow lane had a frequency of one every 8-12 minutes (used by just one bus route). This low bus frequency and a lack of private motor vehicles combined to provide what appeared to be a tranquil environment for cycle traffic.

CYCLE COUNT RESULTS

- 4.5 The cycle count was carried out in early August, 2006, on a dry and warm day with temperatures (23 degrees Celsius) at around the seasonal norm.

Figure 4.2 - Westbound cyclist numbers on Tooley Street



Morning peak (07:00 to 10:00)

- 4.6 Cycle flows were heavily peaked between 08:00 and 09:00 with a flow of 249 cyclists per hour. Each of the three morning peak hour flows was above 100 cycles per hour. No cyclists used the footway during this period.

Inter peak (10:00-4am)

- 4.7 The inter-peak cycle traffic flow was much lower than the peak; between 10 and 20 cyclists per hour for most of the period; around 10% of the morning peak flow. Levels of footway cycling remained low.

Evening peak (16:00 to 19:00)

- 4.8 The evening-peak flow was only marginally higher than the inter peak (average of 30 per hour).

Total daily flow (07:00 to 20:00)

- 4.9 A total of 737 cyclists were counted throughout the day of which 730 (99% of the total) travelled in the bus lane and 7 (1%) used the footway.

QUESTIONNAIRE SURVEY RESULTS

- 4.10 Questionnaires were handed out during the morning peak of Tuesday 15th August 2006. A total of 200 were distributed. 100 were returned within 10 days.
- 4.11 Weather conditions were warm and dry on the day of the survey.

**Figure 4.3 - Tooley Street questionnaire distribution point
(at junction with Tower Bridge Road)**



- 4.12 The results of the questionnaire survey results are summarised in the sections, figures and tables provided below.

Journey details

- 4.13 One hundred respondents provided data on journey distance (and hence mean speed); 107 responded on journey duration.

Table 4.1 - Tooley Street Respondent journey details

Journey Detail	Duration
Median distance	6.0 miles
Mean distance	7.8 miles
Range of distances	1-24 miles
Percentage over 10 miles	34%
Journey duration (median)	35 minutes
Journey duration (mean)	36 minutes (mean speed; 13 mph)
Range of durations	10-80 minutes (12% over an hour)

Figure 4.4 - What was the main purpose of your journey? (102 responses)

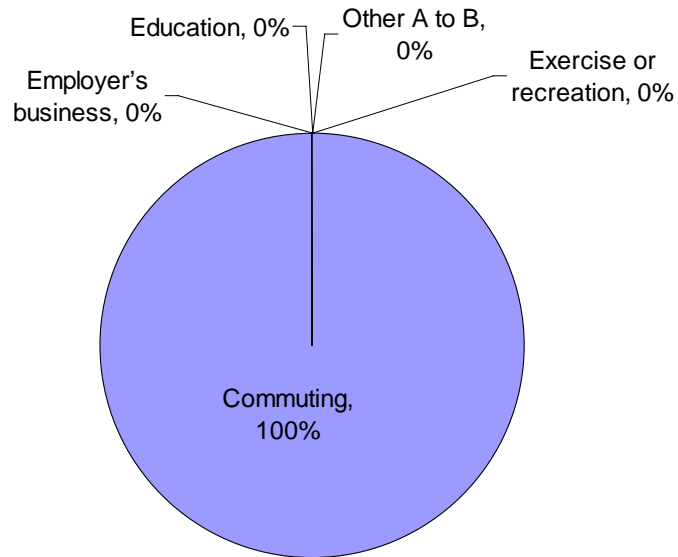


Figure 4.5 - Did you use any other form of transport for part of the journey today? (108 responses)

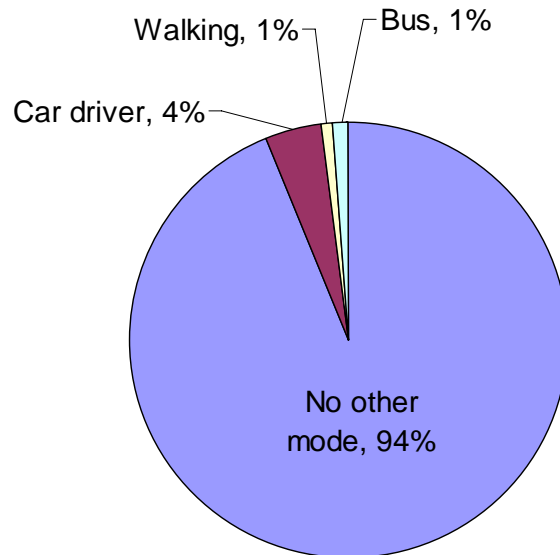
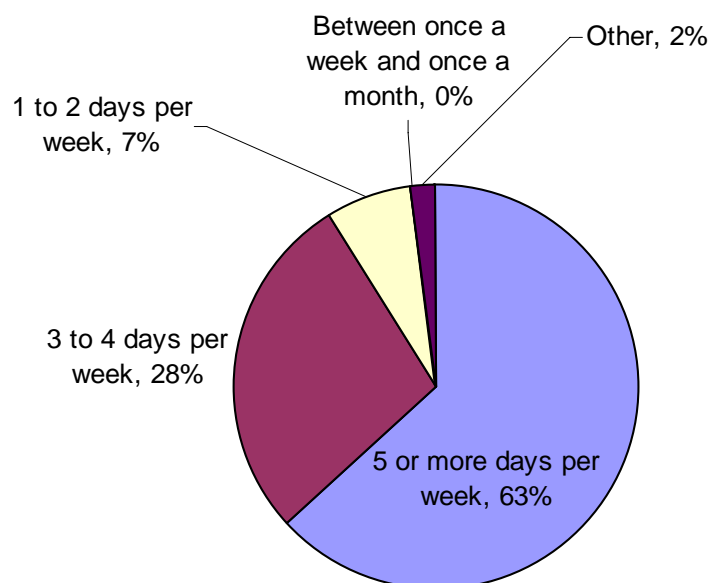


Figure 4.6 - How often do you make this journey by bike?**Table 4.2 - For how long have you been making this journey by bike?**

Amount of Time	Percentage of respondents
Up to 6 months	29%
Up to 12 months	51%
Up to 2 years	69%
Up to 3 years	81%
Up to 5 years	87%

Median 12 months

Table 4.3 - Do you make this journey by other forms of transport at other times? (108 responses)

Mode	Percentage of respondents
No other mode	25%
National Rail	31%
Bus	17%
Underground	14%
Car as driver	6%
Walking	3%
Motorcycle	3%

Mode	Percentage of respondents
Other	3%

Specific questions about the bus lane

Figure 4.7 - How do you rate cycling along this bus lane compared with cycling along a similar road but without a bus lane? (108 responses)

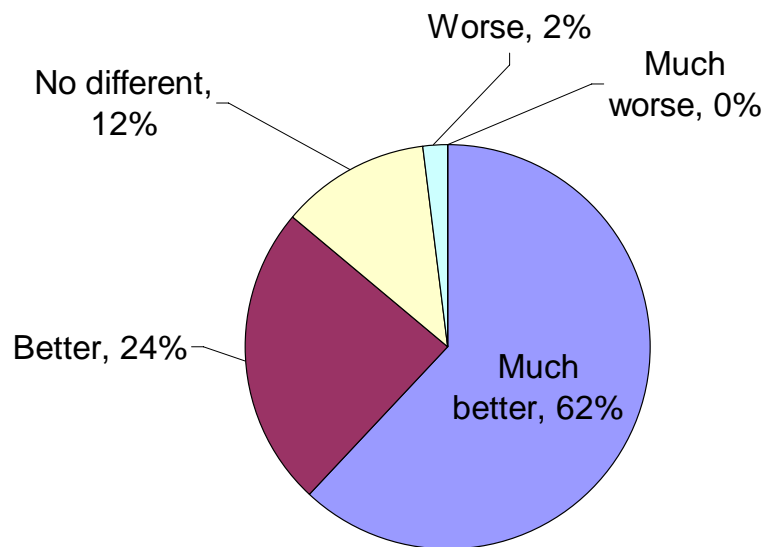
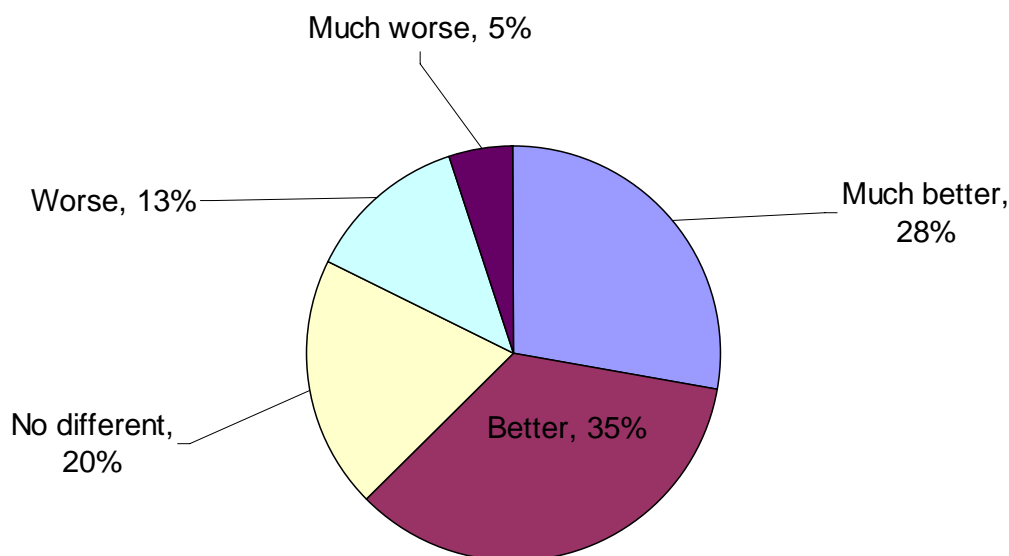


Figure 4.8 - How do you rate cycling along this bus lane compared with cycling along a similar road but in a cycle lane? (107 responses)



- 4.14 The figures above show that the respondents thought the bus lane offered a large improvement over a similar road without a bus lane, and a considerable (but smaller) improvement over a similar road with a cycle lane.

Have you ever been involved in a collision whilst cycling in this bus lane? (107 responses)

- 4.15 Two respondents (2%) had been involved in a collision. The descriptions are below;
- ◆ Hit by a car turning right onto Tooley Street from fair Lane. Received serious injuries. Driver prosecuted.
 - ◆ Van pulled out not looking to right (one-way for cars)

Specific feedback on the contra-flow bus lane

- 4.16 The following section summarises the categories of comments which were provided in response to several questions about the contra-flow bus lane. The actual comments are provided in tables in **Appendix C**.

Have you ever been involved in a 'near miss' whilst cycling in this bus lane? If yes, please provide a description

- 4.17 Thirty two percent of respondents said they had been involved in a near miss. Thirteen descriptions of near misses involving buses were provided; with another 12 descriptions of near misses involving cars, taxis and vans.

Are there any particular sections of the bus lane which cause problems? If so, please describe them.

- 4.18 Fourteen respondents reported problems with the road surface, and another 13 reported problems at entry/exit points, 4 problems at bus stops and 9 miscellaneous problems (most at specific locations) were listed/

Do you have any suggestions about how conditions could be improved for cyclists and buses sharing this bus lane?

- 4.19 Seventeen suggestions related to improvements to road surface, 12 to bus driver issues (such as training, more respect for cycle traffic and ASLs etc), 13 for specific cycling facilities, 5 for junction improvements, and 12 'other' suggestions.

If you have any other general comments about cycling in this bus lane (positive or negative), please make them below.

- 4.20 Twenty one positive comments and nine negative comments were provided.

Table 4.4 - Has the amount of cycling you do in London increased or decreased in the last five years? If it has, please provide up to three reasons for this change (90 comments from 66 respondents)

Reason for increase	Percentage of all comments
Problems with public transport (mainly the cost, overcrowding and lack of reliability. All PT modes mentioned but mainly the underground)	18%
Exercise, fitness, health	18%
Moving job or place of residence	13%
Congestion charge (and issues relating to it e.g. less traffic in Central London and wider presence of cyclists)	9%
Speed of journeys	9%
New cycling infrastructure	7%
The London bombs (and the continued threat of terrorism)	7%
To save money (not specifically related to public transport)	4%
Buying a bike (or a better bike)	4%
Cycle-friendly, trip-end facilities (new or improved showers/parking etc)	3%
Environmental concerns	2%
Convenience and enjoyment of cycling	0%
'Other' (e.g. increased confidence, switch from motorbike to safer mode)	6%

Personal details

- 4.21 The gender split was approximately one quarter female and three quarters male. Eighty five percent were in the 25-44 age category. All but two of the respondents classified themselves as 'white', and over 95% were working full time.
- 4.22 Further details are provided in **Appendix C**.

SUMMARY

- 4.23 The implementation date of the Tooley Street scheme meant that it was not possible to do a 'before and after' comparison as too few cyclists would have been familiar with the before situation. However, comparisons were made with cycling on similar roads without a bus lane and the finding from this was very positive.
- 4.24 The bus service along this stretch had a low frequency (around 6 an hour) so cyclists would encounter buses much less often than on other bus lanes such as the monitored site on Farringdon Street. Cycle flows were tidal and heavily peaked with nearly 250 cyclists counted during the busiest hour. There was very little cycle traffic in the evening peak presumably due to the location of Tooley Street relative to the main central London commuter destinations. Hardly any cyclists used the footway which emphasises the attractiveness of a contra-flow bus lane with an infrequent bus service and virtually no other motor vehicles (some respondents mentioned having seen cars use it occasionally).
- 4.25 The journey profile of respondents was a little different to that of other sites. The mean distance was slightly longer (at 8 miles) with a higher mean speed (13 mph). Just over a third of respondents were travelling more than 10 miles. All respondents were commuters and nearly all (94%) were cycling for the entirety of their journey (at other sites, around 10% were combining cycling with national rail). Similar to other sites, almost half the respondents had been using the route for 12 months or less and 70% for up to two years. This confirms that relatively few respondents would have been able to provide a 'before and after' comparison (the scheme was more than two years old).
- 4.26 The bus lane compared very favourably with a 'similar road with a bus lane'; over 85% said it was better. Over 60% claimed that it was better than a cycle lane.
- 4.27 Two of the respondents had been involved in collisions; one resulted in a serious injury. One involved a car turning right onto Tooley Street perhaps not expecting to see cyclists in the contra-flow direction, and the other involved a van not looking to the right. A third of responses reported a 'near miss'. Around half of these related to bus incidents (e.g. bus drivers pulling out without apparently checking mirrors, buses leaving insufficient passing space, or stopping suddenly). Near misses relating to other vehicles included problems with taxis (travelling too fast or too close) and cars using the lane illegally or not expecting to see cyclists at junctions.
- 4.28 Three problem areas were identified by respondents. 'Entry and exit points' was the main one and it was the right turn into Tooley Street from Jamaica Road that caused the most difficulty. Problems with the road surface and bus stops were the other two main areas.

Figure 4.9 - The difficulty of entering the bus lane (at the junction with Tanner Street) was mentioned by several respondents.



- 4.29 Respondents were asked to suggest improvements and, in line with the previous question, many mentioned the need for improved surfacing. Bus driver issues were also frequently raised; bus driver training/education was requested and one respondent said that cyclists and bus drivers needed to have more respect for each other. Many respondents requested the provision of cycle lanes within the bus lane e.g. 'the road is wide enough to subdivide the bus lane so there is a cycle lane too' and 'an actual cycle lane to guide bus drivers'. Cycle design guidance is neutral about the provision of cycle lanes within bus lanes but many of the respondents clearly thought that this would help here. Several comments related to junction improvements (e.g. clearer markings and a larger ASL). Other suggestions related to enforcement (keeping out cars, taxis and motorbikes).
- 4.30 General comments about cycling in the bus lane were requested; thirty were received and most were positive. The positive ones included; 'I feel very safe cycling in this lane', 'It's good that very few buses take this road', 'it is a vast improvement on most roads in London' and 'buses are one of the better motor vehicles to cycle with in London; predictable speed, low acceleration, predictable path, no wide opening doors to hit'. Negative comments related to issues such as obstructions, vandalised bus shelters and delays at signals.
- 4.31 The reasons for an increase in cycling in London (in the previous five years) were similar to other sites although not exactly the same. There were two most important reasons; problems with public transport and 'exercise, fitness, health' both mentioned in around 20% of all comments. Moving house or changing work location was the third reason, and both the congestion charge and the speed of cycle travel were mentioned in around 10% of comments. Other reasons mentioned in more than 5% of comments were the provision of new cycling infrastructure, and the London bomb attacks. Lower down the scale were saving money, acquiring a bike (or improved bike), trip-end facilities, and environmental concerns.

4.32 The gender split at this site was 23% female and 77% male. 85% fell into the 25-44 age category and most described themselves as white and working full time.

5. CHEYNE WALK

SCHEME DETAILS

- 5.1 The scheme comprised a right-turn filter lane to provide cyclists with access from Lots Road to the Cheyne Walk footway. Dropped kerbs were also provided at the access to the shared-use footway for east and west-bound cyclists with give way markings and cycle symbols on the footway. In addition a shared surface between Lots Road and Battersea Bridge completes the path.
- 5.2 At the time of the survey, a formal crossing of Battersea Bridge (from the Embankment path) had yet to be provided. It is likely that, once implemented, cycle flows along the Cheyne Walk shared path will increase.

Figure 5.1 - The Cheyne Walk scheme



SITE OBSERVATIONS

- 5.3 The right-turn filter lane/reservoir (see photo above left) received little use from the cyclists during the survey period. Most of those observed cycled across the road before reaching the filter lane, effectively cycling on the 'wrong' side of the road. This manoeuvre enabled them to follow the most direct route or 'desire line'. Many cyclists used the Zebra crossing on Cheyne Walk to cross the road and then proceed along the carriageway rather than remain on the shared use footway to Battersea Bridge.
- 5.4 The visibility on the shared use footway adjacent to the Zebra crossing is restricted (see photo below). Several minor conflicts between pedestrians and fast-moving cyclists were seen during survey times.

Figure 5.2 - Visibility restriction adjacent to Zebra crossing



CYCLE COUNT RESULTS

5.5 A cycle and pedestrian count was carried out between 07:00 and 20:00 on a dry and warm August weekday. The hourly flows for cyclists and pedestrians are shown in the figures below.

Figure 5.3 - North-eastbound cyclist numbers from Lots Road

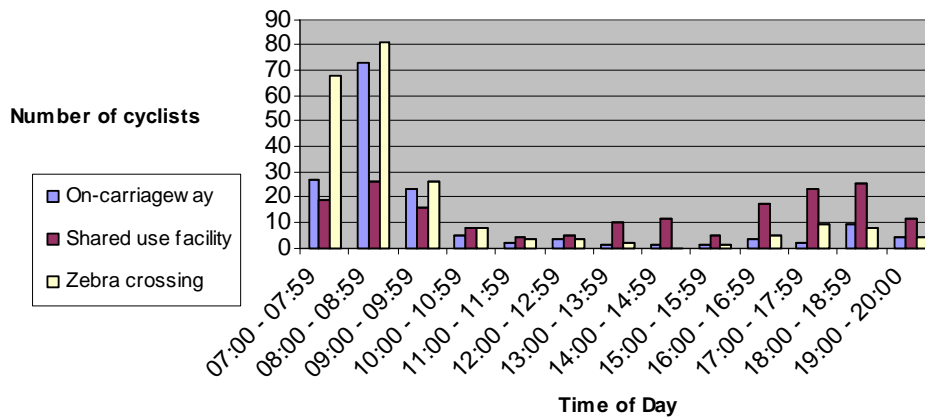
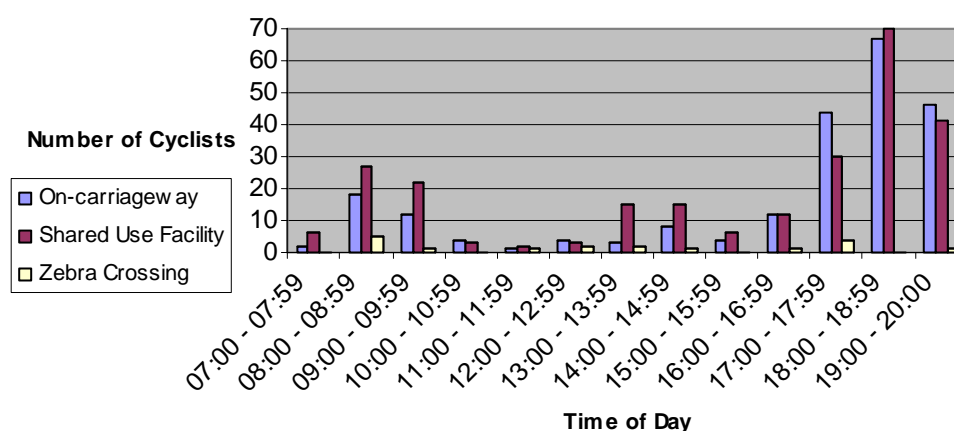


Figure 5.4 - South-westbound cycle traffic to Lots Road**Morning peak (07:00-10:00)**

5.6 In the morning peak, most cycle traffic headed in a north-east direction, towards central London. The highest hourly flow in this direction was 180 cycles between 08:00 and 09:00 (including those cyclists on carriageway, on the footway, and on the Zebra crossing). The flow decreased to 65 cycles during the following hour before falling further to the inter-peak level. The flow in the opposite direction (away from Central London) was much lower peaking at 50 cycles between 08:00 and 09:00.

5.7 Nearly 50% of the north-eastbound cyclists used the Zebra crossing, a third remained on carriageway, and the remaining 17% used the off-carriageway facility. Use of the off-carriageway facility was much higher in the south-westbound direction with 59% of cyclists choosing this route; 34% rode on carriageway, while the remaining 6% used the Zebra crossing.

Inter peak (10:00-17:00)

5.8 Average inter-peak flows were 14 cyclists per hour in each direction (ranging from 7 to 25 each way). The shared-use facility was the most popular option in both directions in the inter peak.

Evening peak (17:00-20:00)

5.9 Flows were slightly lower than in the morning peak with a highest hourly flow of 137 cyclists from 18:00-19:00. Fifty two percent of cyclists travelled on the carriageway and 47% used the shared use facility. The remaining 2% used the Zebra crossing to reach Lots Road.

Total daily flow

5.10 A total of 1047 cyclists travelled through the study area (i.e. between Lots Road and Cheyne Walk) during the 13 hour count period. Fifty three percent travelled north-

westbound and 47% south-eastbound. Forty one percent used the shared-use facility, 36% stayed on carriageway, and 23% used the Zebra crossing.

Pedestrian traffic

Figure 5.5 - North-eastbound pedestrian numbers from Lots Road.

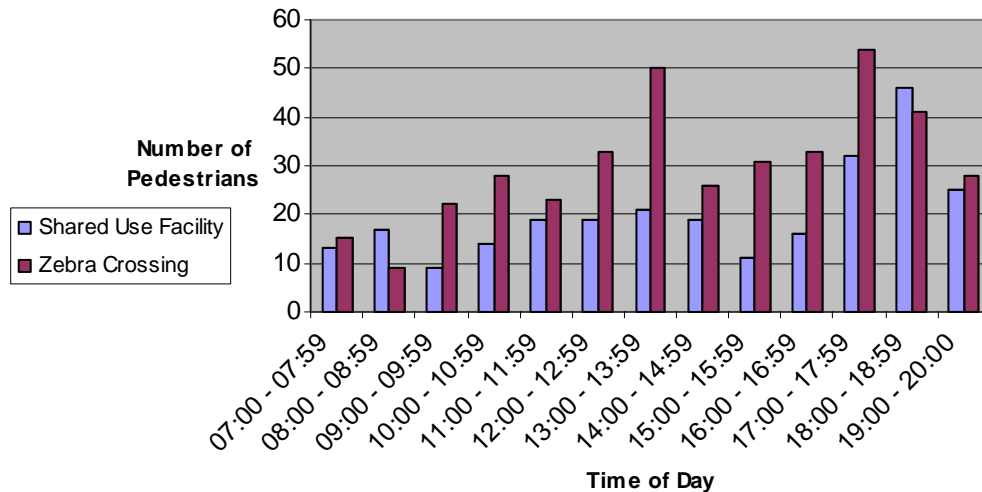
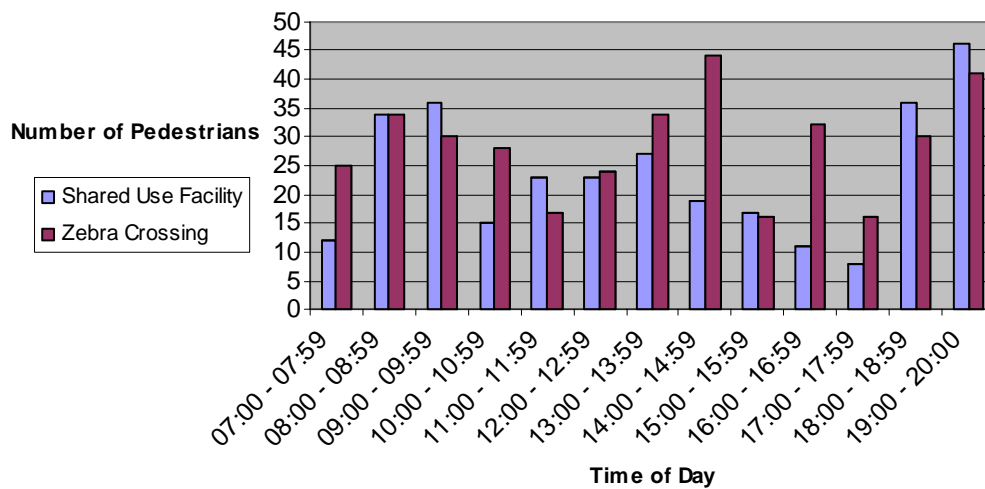


Figure 5.6 - South-westbound pedestrian numbers into Lots Road



Comment on pedestrian flows

5.11 There were no clear peaks other than at lunchtime for pedestrian traffic. It is useful to note the pedestrian flows on the shared-use facility in order to help determine how well a shared use facility can operate at different levels of pedestrian and cyclist activity. Hourly pedestrian flows on the shared use footway were mainly between 20 and 50 (in each direction). A total of 1332 pedestrians passed through the study area in both directions during the 13 hour count period.

QUESTIONNAIRE SURVEY RESULTS

- 5.12 Considerable efforts were made to achieve a sample size of 100 at this site. Although flows were moderately high, cyclists were reluctant to lose their momentum and relatively few were prepared to stop and take a questionnaire (due to the absence of a signalised junction or a steep hill). Three separate visits were made to the site (covering both morning and evening peaks) between mid July and mid August and, in the end, a total of 94 completed questionnaires were received.
- 5.13 The results of the questionnaire survey results are summarised in the sections, figures and tables provided below.

Journey details

- 5.14 Eighty one respondents provided information on their journey distance and another 92 on duration. The main figures are shown in the table below.

Table 5.1 - Cheyne Walk Respondent journey details

Journey Detail	Duration
Median distance	6.0 miles
Mean distance	7.6 miles
Range of distances	1-24 miles
Percentage over 10 miles	20%
Journey duration (median)	30 minutes
Journey duration (mean)	37 minutes (mean speed; 12.3 mph)
Range of durations	10 minutes- 5 hours (3% over an hour)

Figure 5.7 - What was the main purpose of your journey? (93 responses)

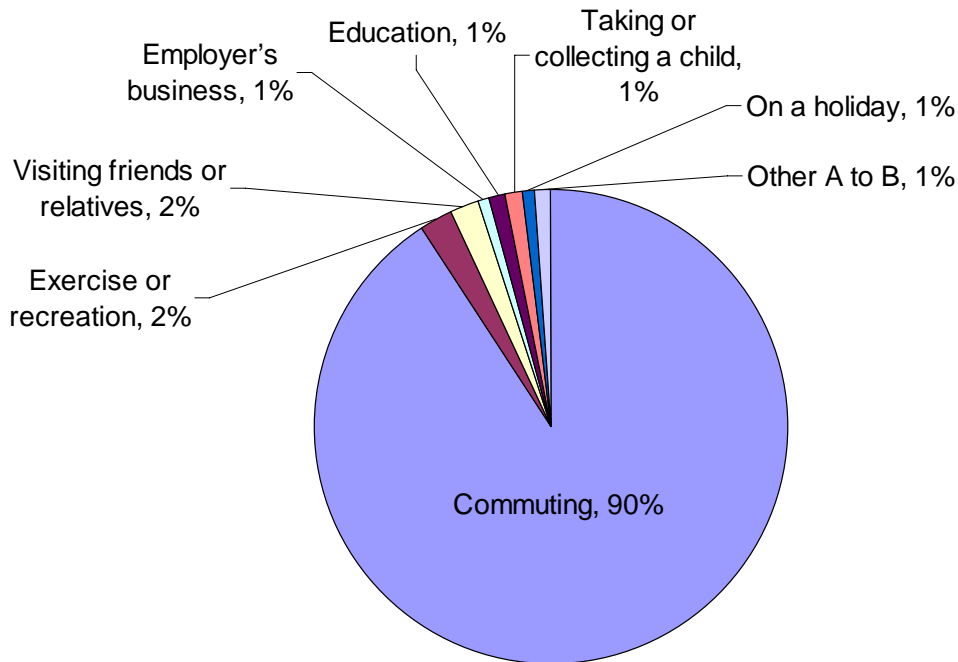


Figure 5.8 - Did you use any other form of transport for part of the journey today? (93 responses)

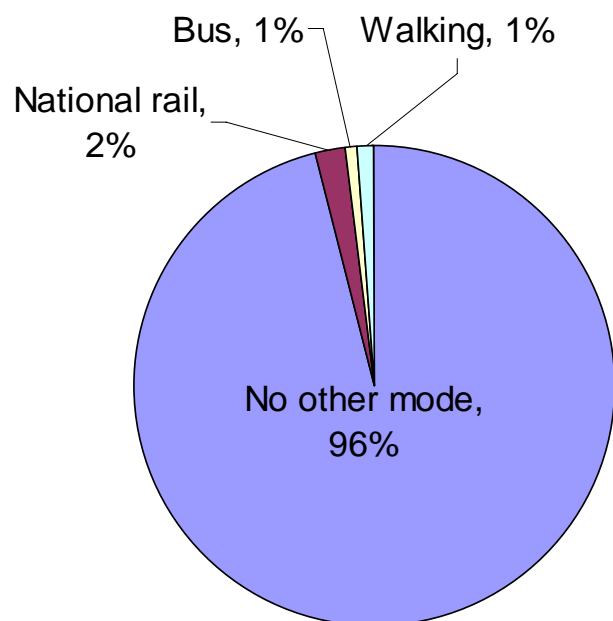
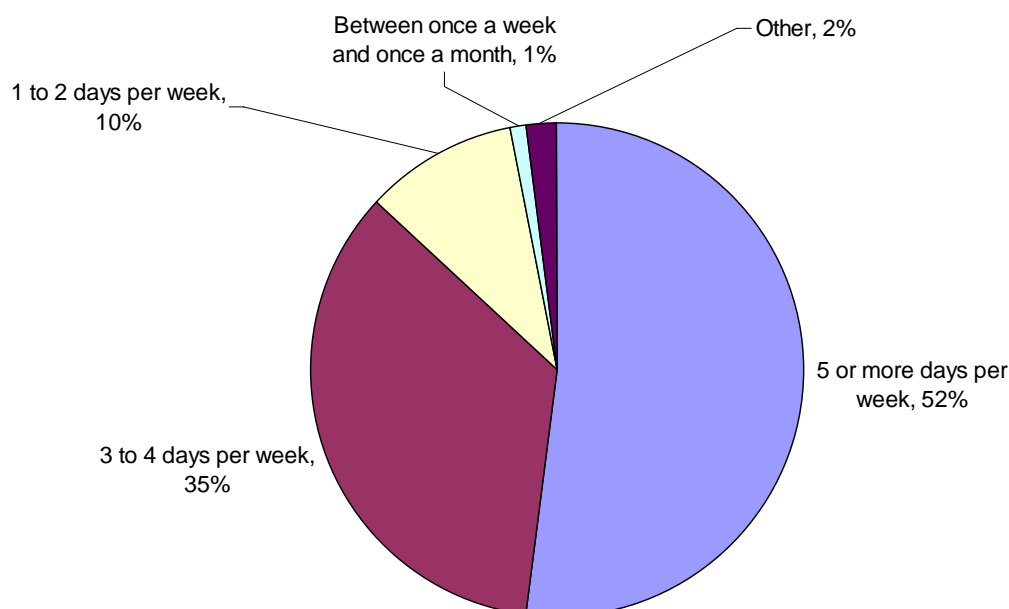


Figure 5.9 - How often do you make this journey by bike? (94 responses)**Table 5.2 - For how long have you been making this journey?**

Amount of time	Percentage of respondents
Up to 6 months	36%
Up to 12 months/1 year	58%
Up to 2 years	69%
Up to 3 years	82%
Up to 5 years	96%

Mean; 2 years (24 months): Median; 12 months

5.15 The large majority of respondents (87%) were commuters who cycle along Cheyne Walk at least three days per week. Ninety six percent use their bikes to get from door to door, with the remainder combining cycling with rail, bus or walking. Half the respondents had only been travelling along the route for 12 months or less.

'Before and after' assessment of the scheme

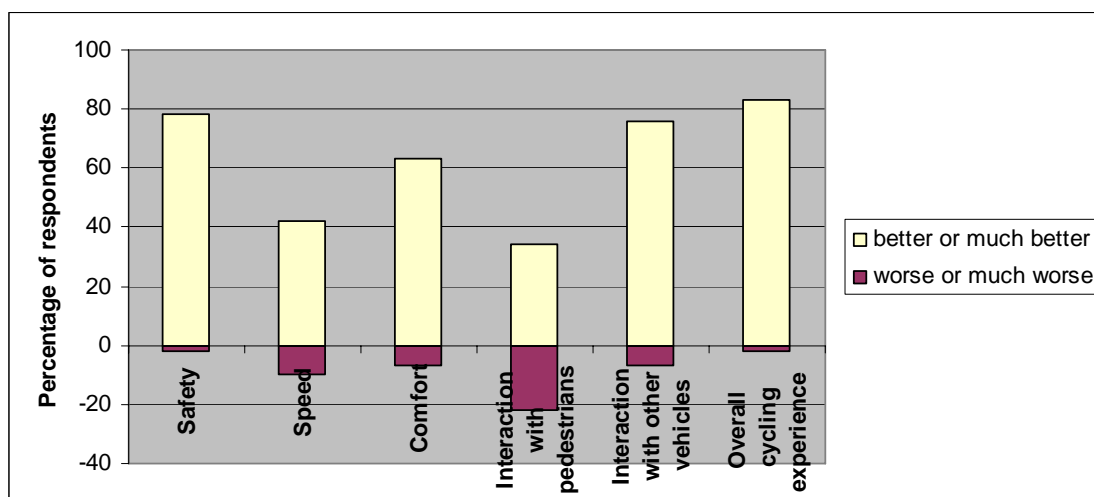
5.16 Respondents who had cycled along Cheyne Walk before the scheme was implemented were asked to give a 'before and after' assessment of the scheme. The results are provided in the table below.

Table 5.3 - Compared to the old layout, how, if at all, do you think your cycle journey along Cheyne Walk has changed in terms of ... (59 respondents)

	A lot worse	Worse	No difference	Better	A lot better
Safety	0%	2%	20%	49%	29%
Speed	0%	10%	48%	39%	3%
Comfort	0%	7%	31%	49%	14%
Interaction with pedestrians	3%	19%	44%	29%	5%
Interactions with other vehicles	0%	7%	17%	49%	27%
Overall cycling experience	0%	2%	16%	57%	26%

5.17 The figure below focuses on the percentage of respondents who considered the scheme to have had a positive or negative impact in the different assessment categories. All categories scored above 60% except 'interaction with pedestrians' where only a third of respondents thought conditions had improved, and 'speed' with just over 40%. The highest scoring category was 'overall cycling experience' at 83% followed by safety at 78%.

Figure 5.10 - Percentage of respondents who rated Cheyne Walk scheme as better or worse.



Impact of the scheme on travel behaviour

Have you switched from any other type of transport as a result of the new scheme? (65 respondents)

5.18 97% no, 3% (two people) yes (from bus/tram and bus/walk).

Have you changed your route as a result of the new scheme? (65 respondents)

5.19 83% no, 17% yes.

Have you increased or decreased the amount you cycle as a result of the scheme? (65 respondents)

5.20 89% said no, 11% said yes.

Figure 5.11 - Would you have made the journey by bicycle if the scheme had not been provided?

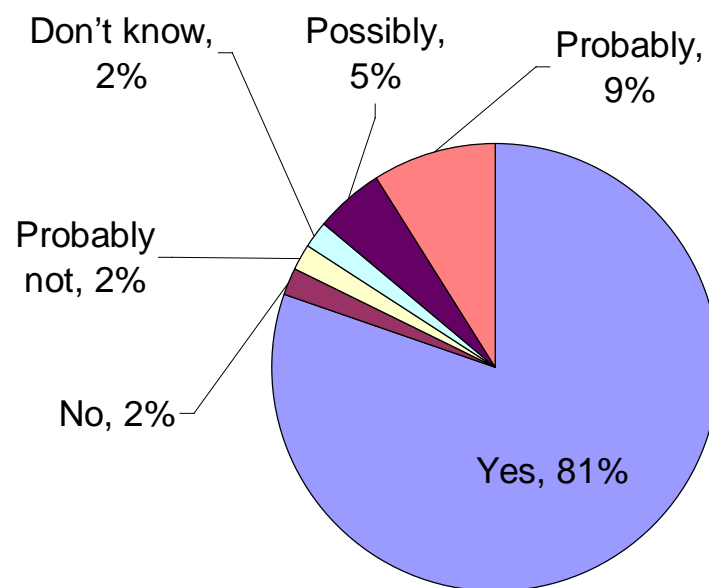
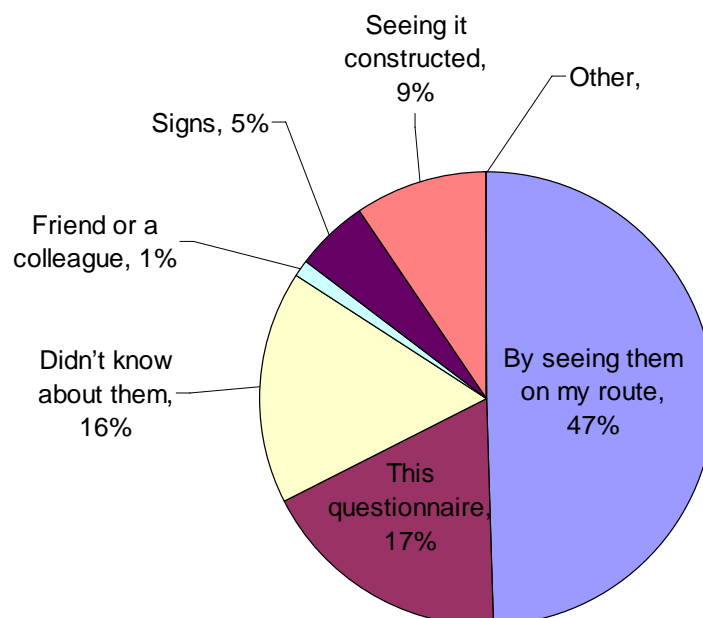


Figure 5.12 - How did you first hear about the new cycling facilities? (81 responses)

General comments about the new facilities

- 5.21 Respondents were asked to provide general comments about the scheme. Comments were made by 51 respondents; 17 were considered to be positive, 24 negative and 10 neutral. The comments are provided in full in **Appendix D**.
- 5.22 The positive comments were encouraging but there was little useful feedback about the scheme (this is not surprising due to the nature of positive comments e.g. 'much appreciated', 'very good', 'fantastic idea', etc).
- 5.23 Of the 24 negative comments, most related to the shared-use facility between Lots Road and Battersea Bridge and there was a general perception that the quality of this facility was poor. Typical comments included; 'the Lots Road junction is much better; Cheyne Walk still seems to be a no-cycling zone', 'this stretch is narrow and has several trees and signposts along it', 'too narrow at times for pedestrians and cyclists to share; needs more signs and notices to indicate that it is indeed a cycle path', 'it is not clear the cycle route goes along the pavement to cyclists or pedestrians', 'police community worker stopped me without realising it is a shared path'.
- 5.24 The photographs below show the problems with the facility i.e. a lack of signage, fairly high pedestrian flows and a narrow effective width due to trees, walls and street furniture.
- 5.25 There was confusion about the Zebra crossing on Cheyne Walk with one respondent stating 'motorists are unaware that the Zebra crossing is for cyclists and pedestrians'.

Figure 5.13 - The shared use path on Cheyne Walk

Cycling in London

Has the amount of cycling you do in London increased or decreased in the last five years? If it has, please provide up to three reasons for this change.

- 5.26 Twenty eight percent of respondents had not changed their amount of cycling, 71% had increased and 1% (one person) had decreased.

Table 5.4 - Reasons for increasing cycling (80 comments from 58 respondents)

Reason for increase	Percentage of 80 comments for increasing cycling
Problems with public transport (mainly the cost, overcrowding and lack of reliability. All PT modes mentioned but mainly underground)	23%
Exercise, fitness, health	20%
Moving job or place of residence	8%
Convenience and enjoyment of cycling	8%
New (or better) bike purchase	8%
New cycling infrastructure	6%
Congestion charge (and issues relating to it e.g. less traffic in Central London and wider presence of cyclists)	5%
The London bombs (and the continued threat of terrorism)	4%
Efficiency/reliability/independence	4%
Improved safety	4%
Speed of journeys	3%
To save money (not specifically related to public transport)	3%
Triathlon training	3%
'Other'	5%

Personal details

- 5.27 The proportion of female respondents (close to 50%) was much higher at this site than elsewhere. Just over three quarters of all respondents were in the 25-44 age category, and around 95% described themselves as 'white' and a similar percentage were working full time.

SUMMARY

- 5.28 This survey has revealed that the Cheyne Walk scheme has had a largely positive impact on the sample of cyclists who responded to the survey; with over 80% stating that it resulted in an improved overall cycling experience.
- 5.29 The profile of the cycle flow was fairly typical of an Inner London site to the west of the city i.e. maximum hourly flows of close to 200 and a much larger flow towards central London in the morning peak and away in the evening. Inter-peak flows were around 10% of the peak and, at this site, the three hour evening peak for cycle traffic was from 17:00-20:00.
- 5.30 The use of the new facilities was variable. The shared-use area at the Lots Road junction attracted high levels of cycle traffic although many cyclists used the Zebra crossing (not a shared use facility) and relatively few used the right-turn cycle lane/reservoir to access the footway. The use of the Cheyne Walk cycle route varied considerably between direction of travel and time of day. Not surprisingly, it was more popular with cyclists in the evening peak (when most were travelling westbound, on the side of the shared-use footway) than the morning peak. It was also more popular in the inter peak; this is likely to reflect the type of cyclist travelling at this time (i.e. non-commuter) who is willing to accept a slower journey if it means greater segregation from motor traffic.

Figure 5.14 - The Zebra crossing (used by over 200 cyclists on the survey day)



- 5.31 Pedestrian flows were less clearly peaked with a more constant level throughout the day. The maximum hourly flow was less than half that of the maximum hourly cycle flow.

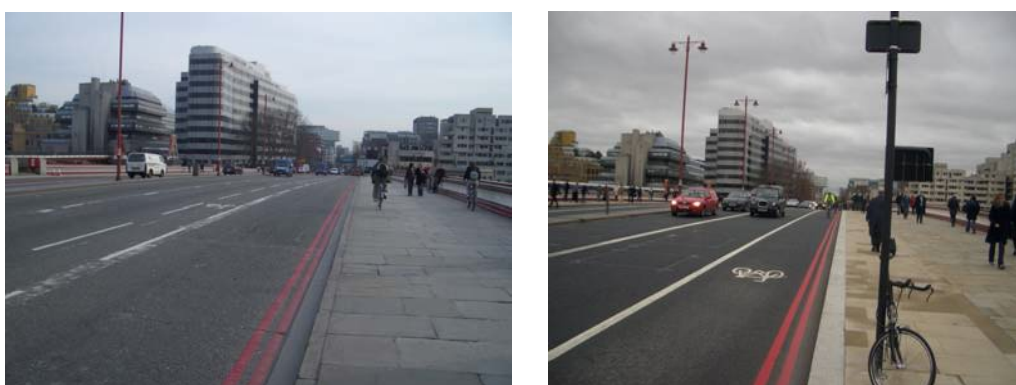
- 5.32 On average the respondents were cycling slightly longer distances at this site with a mean of around 8 miles and 20% cycling more than 10 miles. Nearly all respondents were commuting although there was a wide range of journey purposes among the remainder. Over 95% were making the entirety of their journey by bicycle with the remainder combining cycling with national rail, bus or walking. Nearly 60% of cyclists had been cycling through the site for no longer than a year.
- 5.33 The greatest improvements that the scheme had brought were reported to be safety and overall cycling experience; both were considered to have improved by around 80% of respondents. The scheme has had a much smaller impact on speed. This is not surprising as off-carriageway facilities do not normally result in improved journey times (unless they allow cyclists to bypass signalised junctions or take a shorter route than motor vehicles) and the junction alterations at Lots Road will not have made much difference. The criteria with the lowest score was 'interaction with pedestrians'; although a third thought this had improved, over 20% considered it to have got worse. This supports the many complaints that were received about the shared-use footway in the open question where respondents claimed that the facility was insufficiently signed and many pedestrians seemed unaware that it had become part of a cycle route.
- 5.34 The scheme has had some impact on travel behaviour; nearly 20% claimed to have changed their route, around 10% had increased their amount of cycling and 3% (two people) had switched modes (from bus/tram and bus/walk combinations). Nearly all (90%) would (at least) probably have made their journey by bike regardless of the new scheme.
- 5.35 Most respondents found out about the scheme by cycling along it, seeing its construction or reading the questionnaire. A small number found out about it through seeing signs and one person was told about it by a friend or colleague.
- 5.36 Most of the critical feedback received related to the lack of clarity (signage etc) or the lack of space on the shared use footway. This appears to have been the main problem with the scheme. It is likely that if pedestrians had been interviewed, they would have had particularly strong negative views on the subjects (other shared-use studies carried out by Atkins which have included the views of pedestrian have found this to be the case).
- 5.37 Problems with public transport and exercise/fitness/health were, again, the main reasons for a recent increase in cycling among the respondents. There were a few positive factors (mentioned by at least 5%) including convenience and enjoyment of cycling, new cycling infrastructure, and the purchase of a new or better bike. The congestion charge (and issues relating to it) was also mentioned by 5% of respondents.
- 5.38 The demographic data was similar to other sites except for the high proportion of female respondents.

6. BLACKFRIARS BRIDGE

SCHEME DETAILS

- 6.1 The Blackfriars Bridge scheme involved the provision of a new near-side cycle lane across the bridge in the northbound direction. The facility replaces the central cycle lane which was previously there (see photo below left). The junction with Embankment was also altered with the provision of a new advanced stop line.

Figure 6.1 - Blackfriars Bridge cycle lane before (left) and after (right) the scheme implementation



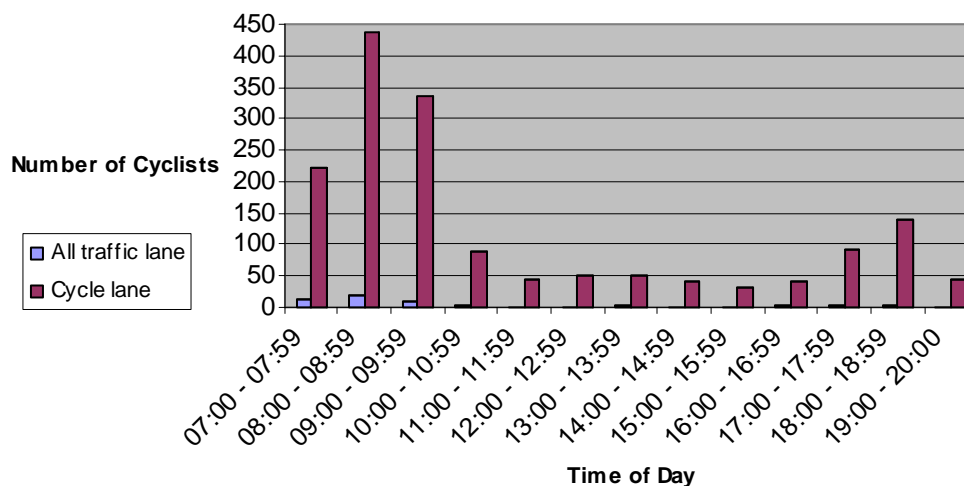
SITE OBSERVATIONS

- 6.2 The following observations were made during the 'after' survey in December 2006. There was a high number of motorcycles encroaching into the cycle lane, especially on the approach to the ASL where they used the lane to bypass the queuing traffic. Taxis and some other motor vehicles encroached on the mandatory cycle lane to bypass traffic queuing across the ASL and the rest of the junction, in order to turn left onto Victoria Embankment. Approximately 10% of all cyclists waited on the right hand side of the ASL reservoir. Around 25% of cyclists stopped in front of the ASL.

CYCLE COUNT RESULTS

Original layout (with off-side cycle lane)

- 6.3 The 'before' traffic count took place on 17th May 2007. The results are shown in the graph below.

Figure 6.2 - Northbound cyclist numbers on Blackfriars Bridge (original layout)**Morning peak (07:00-10:00)**

- 6.4 The count revealed very high cycle flows across the bridge during the morning peak with an average of 331 cyclists per hour. The highest hourly flow, 470 cyclists, was recorded between 08:00 and 09:00. This was the highest hourly cycle flow for any of the monitored schemes.

Inter peak (10:00-17:00)

- 6.5 The inter-peak flows were very low reducing after the first hour (90) to an hourly flow of between 33 and 51 cyclists (around 10% to 15% of the morning peak hourly flow).

Evening peak (17:00-20:00)

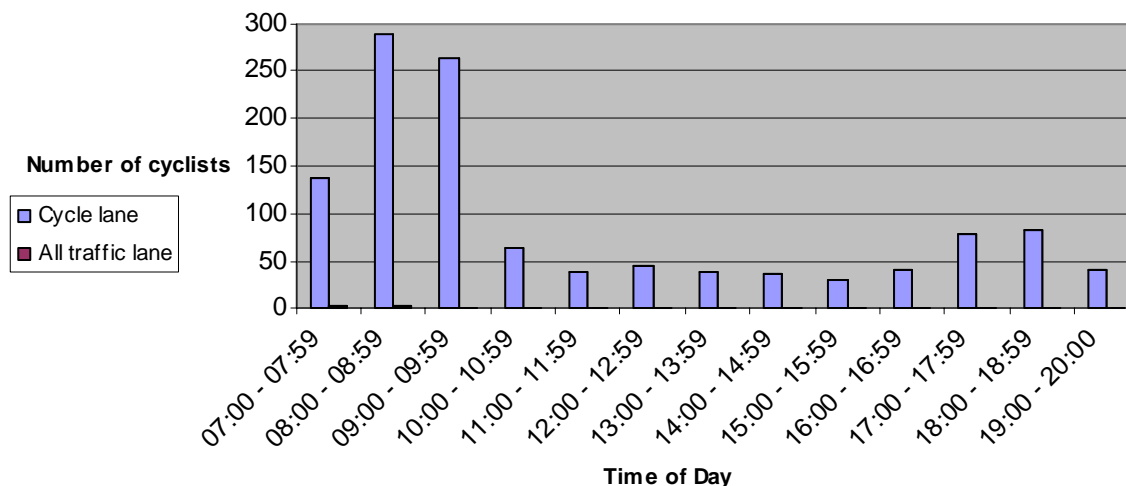
- 6.6 There was a noticeable evening peak but it was much smaller than the morning peak; with the highest hourly flow of 140 cyclists and an average of 92.

Total daily flow

- 6.7 The total daily flow was 1773 cyclists.

Revised layout with nearside cycle lane

- 6.8 A count was carried out on 14th December 2006, several weeks after the new scheme had been implemented. The results are provided in the graph below.

Figure 6.3 - Northbound cyclist numbers on Blackfriars Bridge (new layout)***Morning peak (07:00-10:00)***

- 6.9 The morning peak flows averaged 230; considerably lower than in the previous count. The peak hour was 08:00-09:00 where the flow reached 288.

Inter peak (10:00-17:00)

- 6.10 The inter-peak hourly flows were 64 at 10:00-11:00 and then ranged between 30 and 45 throughout the rest of the period (between 13% and 20% of the peak flow).

Evening peak (17:00-20:00)

- 6.11 There was a small increase in the evening peak with the highest hourly flow of 83 cyclists and an average of 67. This was also considerably lower than the previous count.

Before and after comparisons

- 6.12 The cycle count revealed a considerable decrease in cycle traffic from the 'before' to the 'after' count. However, it is likely that the time of year of the two counts would have had a large impact; the first survey was in the summer and the second in the winter.

QUESTIONNAIRE SURVEY RESULTS

- 6.13 Questionnaires were handed out on 14 December 2006. The weather was dry, overcast, and relatively mild (maximum forecast temperature 14 degrees Celsius). An effective distribution point was found at the signalised junction on the north side of the bridge (cyclists were stopped in the red phase for 50 seconds). Due to the high

flow of cyclists on Blackfriars Bridge, only one site visit was required to generate 100 responses.

- 6.14 The results of the questionnaire survey results are summarised in the sections, figures and tables provided below.

Journey details

- 6.15 Eighty one respondents provided information on their journey distance and 97 on their journey duration.

Table 6.1 - Blackfriars Bridge Respondent journey details

Journey Detail	Duration
Median distance	6.0 miles
Mean distance	6.6 miles
Range of distances	1.5 – 40 miles
Percentage over 10 miles	9%
Journey duration (median)	30 minutes
Journey duration (mean)	32 minutes (mean speed; 12.4mph)
Range of durations	8 minutes – 2 hours (5% over an hour)

Figure 6.4 - What was the main purpose of your journey? (100 responses)

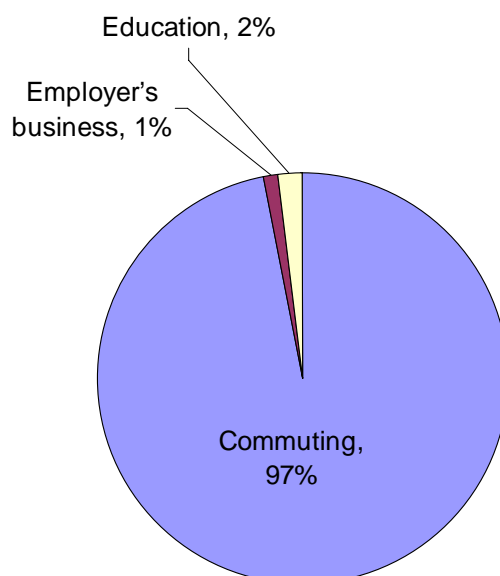


Figure 6.5 - Did you use any other form of transport for part of the journey today? (100 responses)

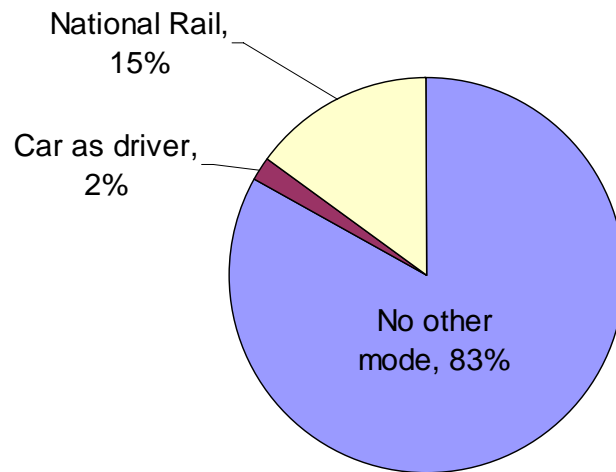


Figure 6.6 - How often do you make this journey by bike? (100 responses)

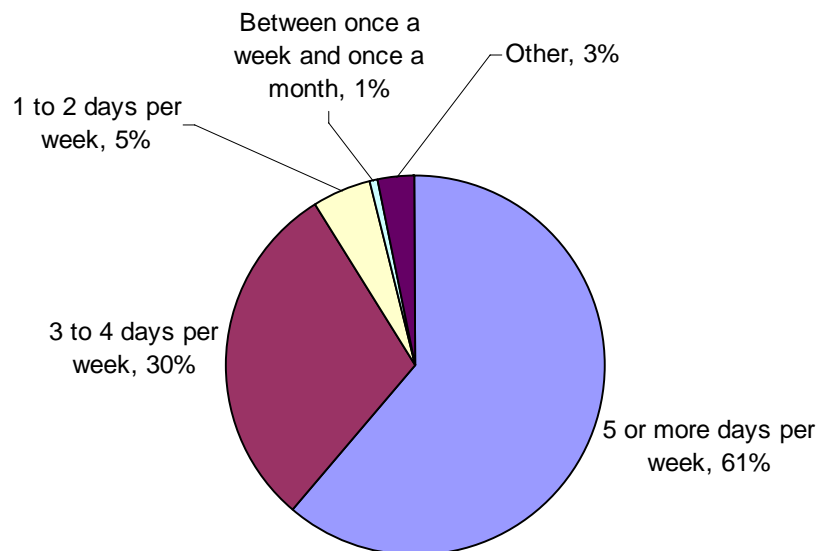


Table 6.2 - For how long have you been making this journey? (98 responses)

Amount of time	Percentage of respondents
Up to 6 months	29%
Up to 12 months	46%
Up to 2 years	64%
Up to 3 years	77%
Up to 5 years	88%

6.16 All but 3% of respondents were commuters, and over 90% cycle across Blackfriars Bridge at least three days per week. Most used no other mode as part of their journey although 15% combined cycling with rail. Close to 50% of respondents had been cycling across Blackfriars Bridge for 12 months or less.

'Before and after' assessment of the scheme

6.17 Respondents who had cycled along Blackfriars Bridge before the new scheme was implemented were asked to give a 'before and after' assessment. The 'after' survey was carried out very quickly following scheme implementation. This meant that a much higher percentage of respondents were able to make 'before and after' comparisons. The results are shown in the following table and graph.

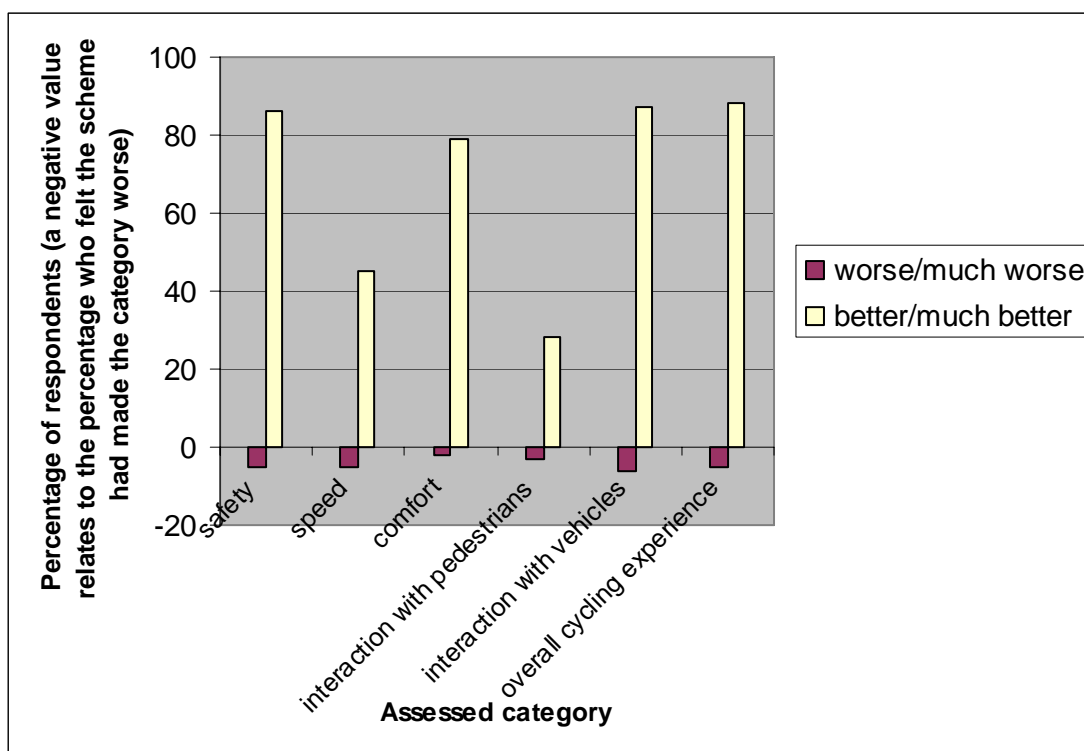
Table 6.3 - Compared to the old layout, how, if at all, do you think your cycle journey along Blackfriars Bridge has changed in terms of ... (93 respondents)

	A lot worse	Worse	No difference	Better	A lot better
Safety	2%	3%	9%	40%	46%
Speed	0%	5%	50%	36%	9%
Comfort	0%	2%	19%	47%	32%
Interaction with pedestrians	1%	2%	69%	20%	8%
Interaction with other vehicles	1%	5%	6%	55%	32%
Overall cycling experience	1%	4%	6%	52%	36%

6.18

6.19 The graph below shows that over 50% of respondents felt that the scheme had led to an improvement in all of the assessed categories except speed and 'interaction with pedestrians'.

Figure 6.7 - Percentage of respondents who rated the Blackfriars Bridge scheme as better or worse than the previous situation



Impact of the scheme on travel behaviour

Have you switched from any other type of transport as a result of the new scheme? (93 respondents)

6.20 99% no, 1% yes (from motorcycle)

Have you changed your route as a result of the new scheme? (93 respondents)

6.21 97% no, 3% yes ('I now think of BFB as a good route whereas previously I did not', 'Used to cross London Bridge', 'Was going to next bridge to avoid BFB').

Have you increased or decreased the amount you cycle as a result of the scheme? (92 respondents)

6.22 98% no, 2% yes

Figure 6.8 - Would you have made this journey by bicycle if the scheme had not been provided? (94 respondents)

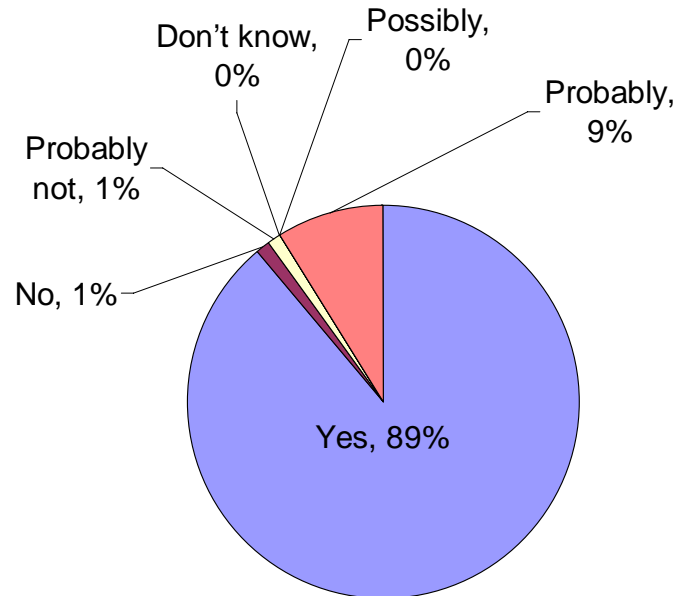
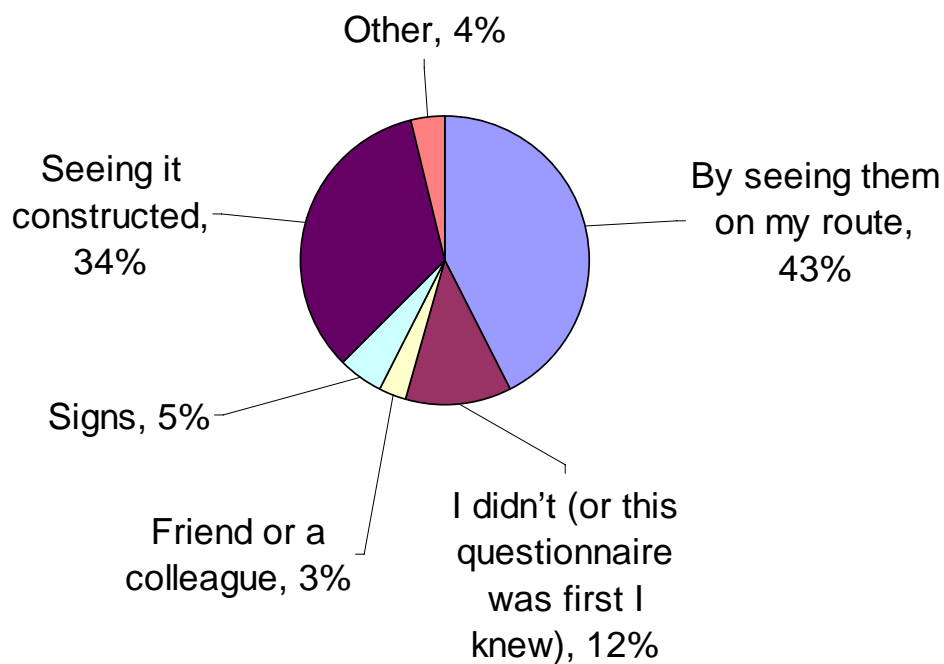


Figure 6.9 - How did you first hear about the new facilities?



General comments about the new facilities

- 6.23 Respondents were asked to provide general comments about the scheme (positive or negative). Comments were made by 80 respondents; 38 were considered to be positive, 21 negative and another 21 mixed or neutral. The comments are provided in full in the **Appendix E**.
- 6.24 A lot of the positive comments, not surprisingly, did not provide any specific useful feedback about the new facility. However, a few useful issues were raised. The width of the cycle lane was mentioned with one respondents emphasising how it enabled safe overtaking, and another mentioning that the new scheme removed the ambiguity of the previous situation.
- 6.25 The negative comments generally focused on two key areas. The main one was the junction on the north side of the bridge and the conflict between left-turning motor vehicles and the straight ahead movement for cycle traffic e.g. 'Traffic can now turn left into Embankment on top of cyclists in the new cycle lane - very dangerous' and 'Cars turn left at end of bridge. This is dangerous as they turn into the cyclists.' The second main group of comments referred to the junction with Upper Ground; comments included; 'Problems with Upper Ground junction (cars and pedestrians converge here, especially when lights are red)', and 'lack of space at the pedestrian crossing at junction of Upper Ground'. One respondent simply stated 'the previous system was equally unsafe but in a different way.'

Figure 6.10 - Cyclists waiting in the ASL reservoir on the north side of the bridge



Cycling in London

Has the amount of cycling you do in London increased or decreased in the last five years? If it has please provide up to three reasons for this change?

- 6.26 Thirty two percent of respondents had not changed their amount of cycling, 64% had increased and 4% had decreased. The decreases were due to moving house or changing work routine, and fears of social safety in Burgess Park. The reasons for

increasing are provided in the table below.

Table 6.4 - Reasons for increasing cycling (93 comments from 58 respondents)

Reason for increase	Percentage of 93 comments for increasing cycling
Problems with public transport (mainly the cost, overcrowding and lack of reliability. All PT modes mentioned but mainly underground)	28%
Exercise, fitness, health	12%
Moving job or place of residence	11%
New (or better) bike purchase	9%
New cycling infrastructure	6%
Awareness/normalisation/promotion of cycling	5%
The London bombs (and the continued threat of terrorism)	5%
To save money (not specifically related to public transport)	5%
Speed of journeys	4%
Congestion charge (and issues relating to it e.g. less traffic in Central London and wider presence of cyclists)	3%
TfL maps	2%
Improved safety	1%
Convenience and enjoyment of cycling	1%
'Other' e.g. showers at work, environmental reasons, can't park motorbike	6%

6.27 The gender split of respondents was approximately 25% female and 75% male with over 80% of respondents falling into the 25-44 age category. Around 95% described themselves as 'white' and 90% were working full time.

SUMMARY

6.28 The Blackfriars Bridge scheme has had a strong positive impact on the sample of cyclists who responded to the survey. Around 80% of respondents stated that it had provided an improvement in four out of the six categories.

6.29 The 'before and after' cycle counts showed a similar pattern with a strong morning peak and a relatively small evening peak. The total volume of cycle traffic was considerably higher in the 'before' survey with a peak flow of close to 500 per hour compared with 300 in the 'after' count. However, the time of year of the two counts is likely to be the key explanatory factor. Inter-peak cycle flows were between 10% and 20% of the peak hour flow.

- 6.30 The new facility was well used by cyclists (with over several hundred per hour in the peak periods). However, during the questionnaire distribution, it was noted that it was also being heavily used by motorcycle traffic.
- 6.31 The respondents at this site were cycling an average distance of 7 miles and travelling at a mean speed of 12mph. Commuting accounted for virtually all journey purposes. A relatively large number of respondents had combined their cycle trip with national rail. This may be due to the proximity of several large rail termini including London Bridge, Waterloo and Blackfriars. Forty six percent of cyclists had been making the journey for up to a year.
- 6.32 Around 80% of the respondents considered that the scheme had resulted in an improvement for cyclists in the four main categories of safety, comfort, interaction with other vehicles and overall cycling experience. 'Interaction with pedestrians' and speed scored less highly but responses were still largely positive. It is interesting to note the high 'safety' rating when considering the number of complaints about the junctions on both sides of the bridge.
- 6.33 The scheme had relatively little impact on route choice. When cyclists are crossing the river, there are obviously fewer route options open compared with the usual urban street environment. Similarly, the large majority (98%) of respondents would have made the journey anyway, regardless of the scheme.
- 6.34 Similar to other sites, most respondents found out about the scheme by cycling along it or seeing its implementation. Some had heard about it in the media (the scheme had a higher media profile as it was developed following a fatality involving a cyclist and a bus).
- 6.35 Most of the critical feedback related to the difficulty in negotiating left-turning traffic at the north end of the bridge when the cyclists want to go straight ahead. Other problems were described at the southern side of the bridge at the junction with Upper Ground and in the vicinity of the bus stop.
- 6.36 In terms of the key reasons for a recent increase in cycling, similar reasons were provide to other sites although the percentages were a little different. The main one, as elsewhere, by a considerable margin, was dissatisfaction with public transport commuting options. This was followed by exercise/fitness/health and moving home/jobs (both over 10% of all comments). Other reasons mentioned in at least 5% of all suggestions were buying a new bike (or bringing one to London), the provision of new infrastructure, an increased awareness of cycling (as a normal activity), the impact of the July 7 bomb attacks, and to save money. Factors mentioned by fewer than 5% but more than one person including the TfL cycling guides, the congestion charge, and the speed of journeys made by bike.
- 6.37 The demographic data was similar to other sites; around 25% of respondents were female, 80% were aged 25-44, and at least 90% described themselves as 'white' and were in full time employment.

7. A12 EASTERN AVENUE CYCLE LANES, REDBRIDGE

SCHEME DETAILS

- 7.1 The scheme comprised advisory cycle lanes on both carriageways of the A12 (a dual carriageway) between the roundabouts with the A406 and the A1400. The cycle lanes had short stretches of coloured surfacing where they passed junctions with side roads (see the photo below left).

Figure 7.1 - The A12 Eastern Avenue cycle lane



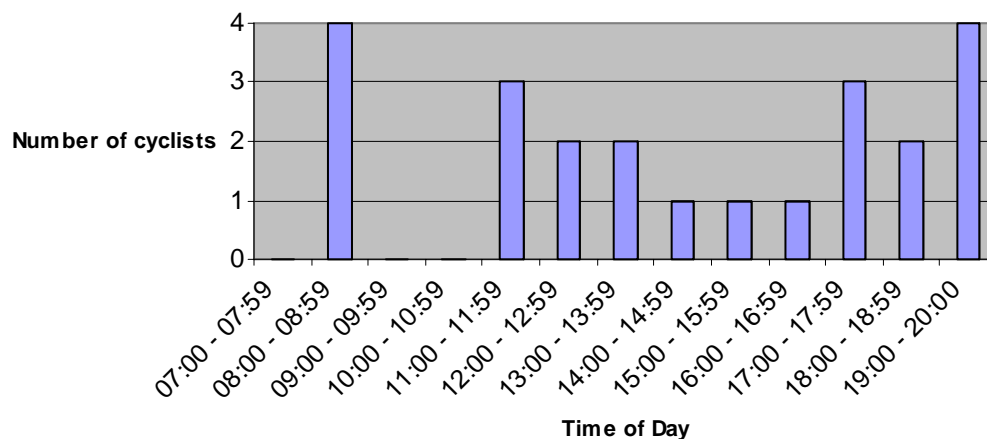
SITE OBSERVATIONS

- 7.2 Very few cyclists were seen during the three site visits that were made to Eastern Avenue. This low level of cycle use was confirmed in the cycle count survey. However, it was observed that motor vehicles generally kept clear of the cycle lane despite its advisory status (see photo above right).

CYCLE COUNT RESULTS

- 7.3 A cycle count was carried out on April 5th 2006. The hourly cycle flows are shown below.

Figure 7.2 - Two-way cycle flows on the A12 (immediately west of the junction with Beehive Lane)



Cycle flows throughout the day

- 7.4 As the graph above shows, there were very low levels of cycle traffic throughout the day on the A12. The highest hourly flow was just four cyclists (from 08:00-09:00 and 19:00-20:00). Throughout the rest of the day hourly flows were between zero and three. The total daily flow was 23.

QUESTIONNAIRE SURVEY RESULTS

- 7.5 The low level of cycle traffic clearly limited the potential sample size for the respondents on the A12. As a rough guide, it is normally possible to receive questionnaires back from a quarter of the daily cycle flow. This would mean just 6 respondents at this site. However, questionnaires were also distributed via the local cycling campaign group (and unsuccessful attempts were made to distribute via the council. There were too many procedures to make the latter a realistic option within the available time. A total of 11 responses were received.
- 7.6 The results of the questionnaire survey results are summarised in the sections, figures and tables provided below.

Journey details

- 7.7 Eight respondents provided information on journey distance and ten on journey duration.

Table 7.1 - A12, Eastern Avenue Journey details

Journey Detail	Duration
Median distance	4.0-4.5 miles
Mean distance	4.9 miles
Range of distances	1.5-12.0 miles
Percentage over 10 miles	13% (one person)
Journey duration (median)	25 minutes
Journey duration (mean)	31 minutes (mean speed 9.5mph)
Range of durations	12-90 minutes

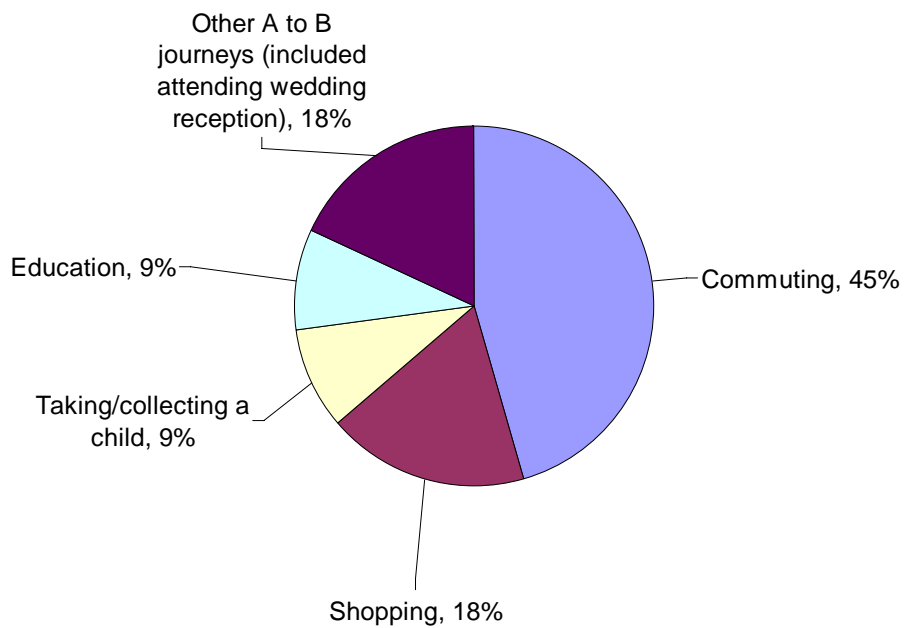
Figure 7.3 - What was the main purpose of your journey? (11 responses)

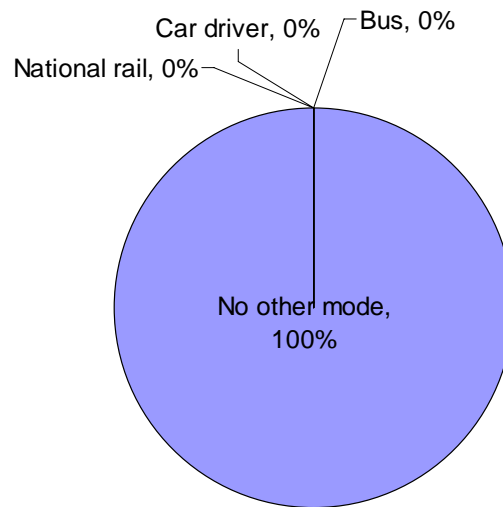
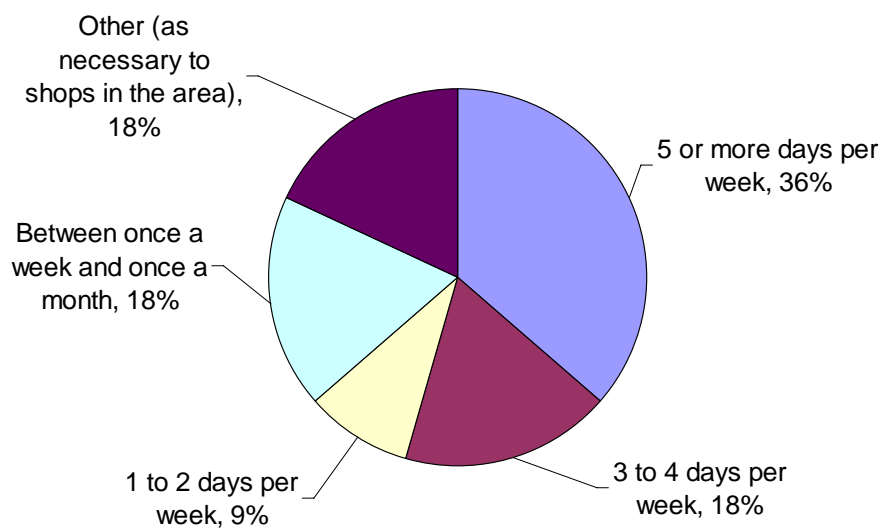
Figure 7.4 - Did you use any other form of transport for part of your journey today?**Figure 7.5 - How often do you make this journey by bike? (11 responses)**

Table 7.2 - For how long have you been making this journey by bike? (10 responses)

Amount of time	Percentage of respondents
Up to 6 months	30%
Up to 12 months/1 year	30%
Up to 2 years	40%
Up to 3 years	40%
Up to 5 year	60%

Mean; 4 years, 4 months. Median 3.5-4 years

- 7.8 Respondents who had cycled along Eastern Avenue before the scheme were asked to give a 'before and after' assessment of the scheme. The results are provided in the following table. However, due to the small sample size, the number of respondents (rather than the percentage) is provided.

Table 7.3 - Compared to the old layout, how, if at all, do you think your cycle journey has changed in terms of ... (6 respondents)

	A lot worse	Worse	No difference	Better	A lot better
Safety	0	1	1	3	1
Speed	0	0	4	2	0
Comfort	0	0	3	2	1
Interaction with pedestrians	0	0	4	1	0
Interaction with other vehicles	1	1	1	1	1
Overall cycling experience	1	0	1	4	0

Impact of the scheme on travel behaviour

Have you switched from any other type of transport as a result of the new scheme?

- 7.9 83% no, 17% (one person) yes (from car and sometimes public transport)

Have you changed your route as a result of the scheme?

- 7.10 75% no, 25% (two people) yes (previously I used to get off and walk the bike. It was too dangerous to cycle).

Have you increased or decreased the amount you cycle as a result of the scheme?

7.11 100% no.

Figure 7.6 - Would you have made the journey by bicycle if the scheme had not been provided?

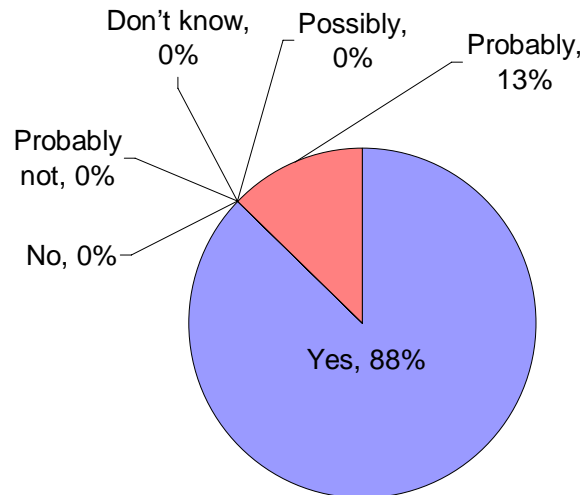
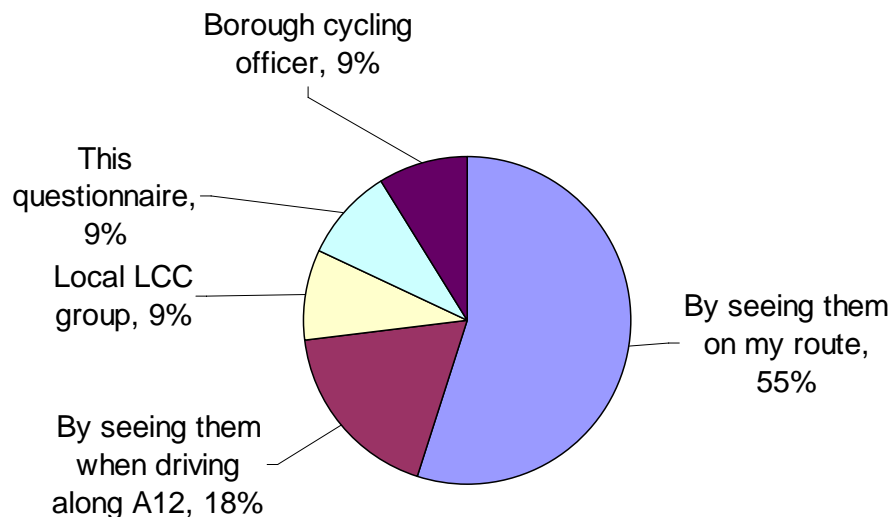


Figure 7.7 - How did you first hear about the new facilities? (11 respondents)



General comments about the new facilities

7.12 Due to the small sample size at this site, all comments provided are shown in the table below. These are generally positive about the scheme.

Table 7.4 - Comments on the A12 Cycle Lanes

Comment
A token gesture. Cycling facilities in this country are a waste of time. Build proper roads for cyclists
Immediately cars leave Redbridge roundabout, (towards Gants Hill) they drive in the cycle lane at high speed, not looking for/expecting cyclists
Generally very useful – I felt much safer cycling through the heavy traffic
New facilities are good but roads are too narrow still. Car drivers don't see cyclists.
The cycle lanes are a huge improvement for cyclists
The new facilities are an improvement but could be better linked to facilities at the Redbridge Rdbt, and have no link to any facilities at Gants Hill
They look good; I'd feel happy using them
Traffic moves very fast so cycle lane provides security. Could do with ASLs. Lorries are very intimidating. It is necessary to use the pavement on approach to Gants Hill to access the underpass. Don't cycle on A12 for pleasure; out of necessity. I'm grateful that after years of LCC campaigning, LB Redbridge is responding to cyclists' needs.

Figure 7.8 - The start of the eastbound cycle lane by Redbridge tube station

Cycling in London

Table 7.5 - Has the amount of cycling you do in London increased or decreased in the last five years? If it has please provide up to three reasons for this change.

Comment (one row per respondent)
Car travel = traffic jams
Environment, save money, health
Family commitments, varying job location
It's quicker than other means, there's now more recognition and support for cyclists, fitness.
Just moved down
Quicker and less stressful than driving, more reliable journey time.
Quickest way to take a child to school

- 7.13 The comments above cover similar themes to those made by respondents at other monitoring sites. Health and fitness, the speed of bicycle travel, and changing job or place of residence are all raised. There was no mention of problems with public transport but this site was in an Outer London borough where car travel is more common (hence the comments about car travel; very few were made at other sites).

Personal details

- 7.14 The gender split of respondents was 36% (four) female, 64% (seven) male. Of the 11 respondents, 4 were aged 25-44, 5 were 45-59, and 2 were 60 or over.

SUMMARY

- 7.15 The small sample size makes it difficult to draw firm conclusions about the success of the scheme. However, most assessments of (and comments about) the scheme were positive and four out of the six respondents thought that their overall cycling experience had improved.
- 7.16 The cycle count results were markedly different to the Inner London sites with extremely low flows. The maximum hourly cycle flow was just 4 compared with around 200 (or more) at some of the other monitored sites.
- 7.17 Respondents were cycling relatively short distances compared with the other sites (and compared with the data that Atkins has collected in its other London cycling surveys). The mean distance was just under 5 miles and the mean speed less than 10mph (although low sample sizes make these findings less reliable). While commuting was the largest single journey-purpose category, most respondents were making other journeys such as shopping, education and escorting children. Most had been using the facility for a relatively long period of time (only 30% were 'less than a year').
- 7.18 The greatest improvements that the scheme had brought were to safety and overall cycling experience (4 out of 6 respondents said that these had improved). The

categories showing the least improvement were the impacts on interaction with pedestrians and other vehicles.

- 7.19 The scheme had a low impact on travel behaviour. All respondents would probably have made the journey by bike in the absence of the new cycle lanes, and none had increased their level of cycling as a result. However, two people had changed their route with one stating that they used to get off and walk because they felt it was too dangerous.
- 7.20 As at other sites, most respondents found out about the scheme simply by cycling along it. Unlike the other sites, two respondents mentioned that they first saw it when driving along the A12.
- 7.21 Some of the critical feedback related to the high speed traffic environment of the scheme. This is understandable as the cycle lanes are on a 40mph dual carriageway. There did not appear to be any speed cameras on this particular stretch so it is likely that mean speeds were at or above the limit in free-flow conditions.
- 7.22 Reasons for increasing cycling covered similar themes to those made by respondents at other monitoring sites. Health and fitness, the speed of bicycle travel, and changing job or place of residence were all raised. There was no mention of problems with public transport but this site was in an Outer London borough where car travel is more common (hence the comments about car travel; very few were made at other sites). One respondent had decreased their level of cycling due to eligibility for a freedom pass.
- 7.23 The demographic data revealed an older cycling 'population' than at other sites although the gender split was similar to that found elsewhere (just over one third female).

8. WOODFORD AVENUE TOUCAN, GANTS HILL

SCHEME DETAILS

- 8.1 The scheme comprised a staggered Toucan crossing with associated measures to provide connections to the carriageway (see the photographs below)

Figure 8.1 - Woodford Avenue before (left) and after (right) the implementation of the Toucan crossing



SITE OBSERVATIONS

- 8.2 During the site visit there were extremely low levels of cycling with just one cyclist seen crossing the Toucan in 1.5 hours. The cyclists did not use the Toucan formally and went across during the 'red man' phase whilst there was very little traffic on the carriageway. The facility appeared to have been well designed for cycle traffic with a jug handle for bringing cyclists off carriageway and a protected entry point at the transition from cycle track to cycle lane (see photograph below left). However, there was an unnecessary 'cyclists dismount' sign adjacent to the new cycle parking provided on the footway next to the roundabout.

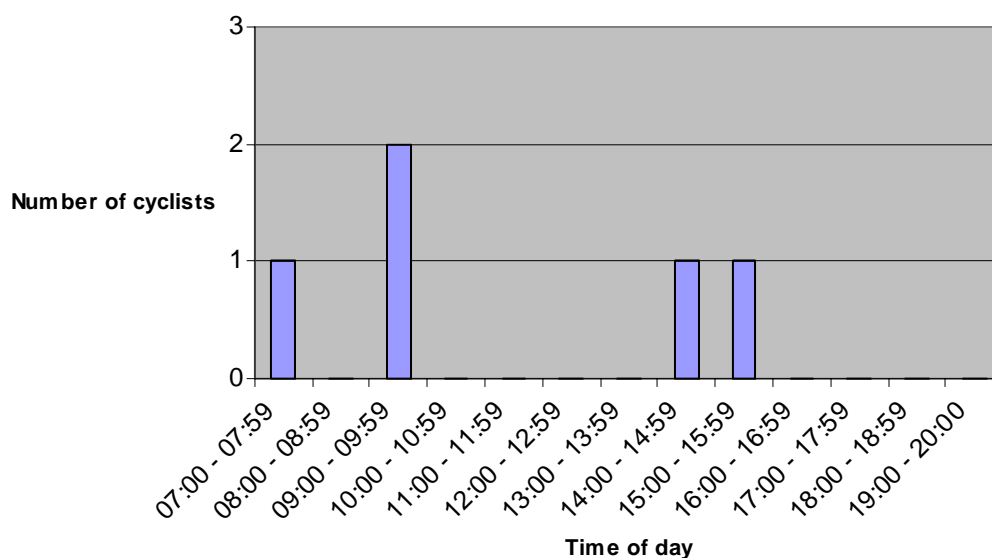
Figure 8.2 - Protected transition from cycle track to cycle lane (left); Cyclist dismount sign next to new cycle parking (right)



CYCLE COUNT RESULTS

8.3 A 'before and after' count was carried out at Woodford Avenue. The before count took place on April 5th 2006 at the location where the new Toucan crossing was due to be implemented. There were two places where cyclists could cross the road; one was a formal uncontrolled crossing and the other was a gap in the fence between the two carriageways which pedestrians and cyclists could easily use. The data in the graph below are for both these crossings.

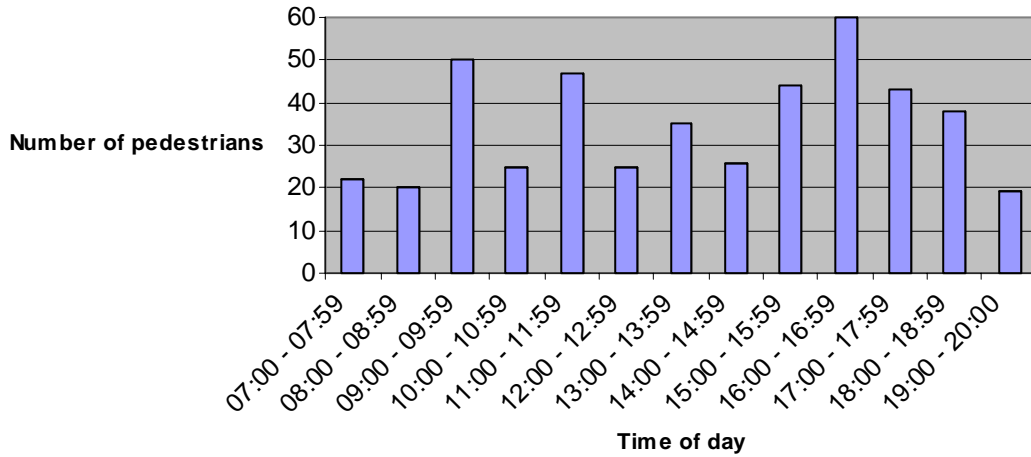
Figure 8.3 - Before scheme implementation cyclist numbers on uncontrolled crossings at the location of the proposed Toucan



8.4 The graph above shows that there were hardly any cyclists crossing Woodford Avenue on the survey day (before the implementation of the Toucan crossing). There was no cycle traffic throughout most of the day with a daily total of five cyclists.

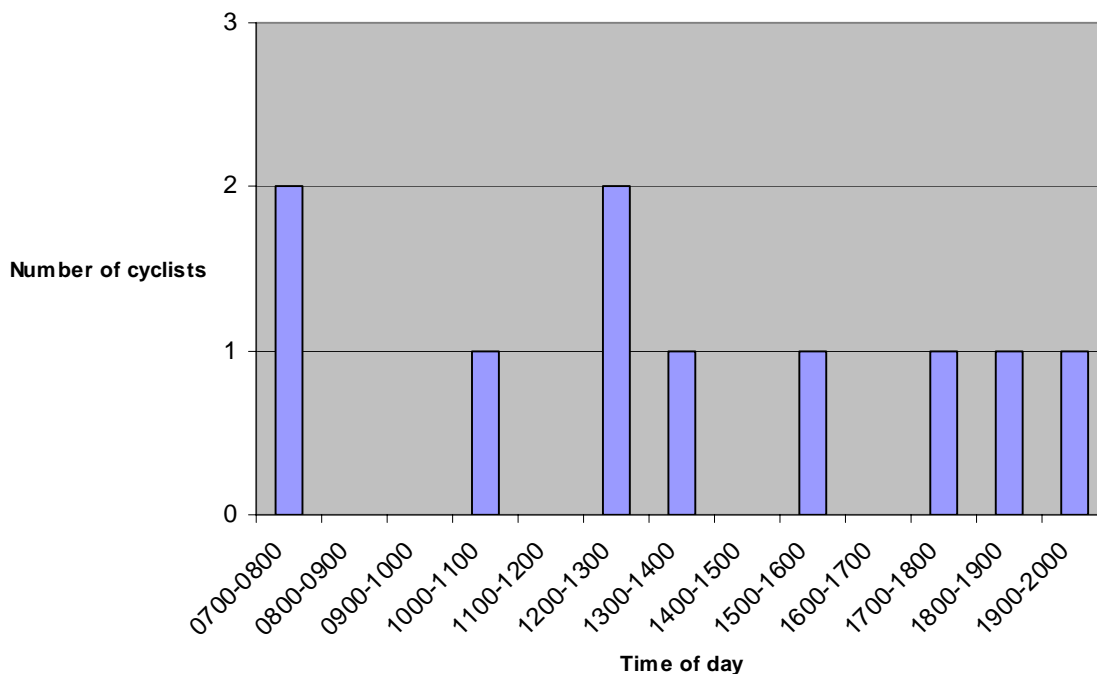
8.5 The graph below provides the data for pedestrian flows at the same location and on the same day. There was a considerable amount of pedestrian traffic throughout the day with a total daily flow of just over 450 pedestrians.

Figure 8.4 - Before scheme implementation pedestrian numbers on uncontrolled crossings at the location of the proposed Toucan



8.6 Post-implementation counts were carried out on 14th December 2006. The graph below shows the cycle flows.

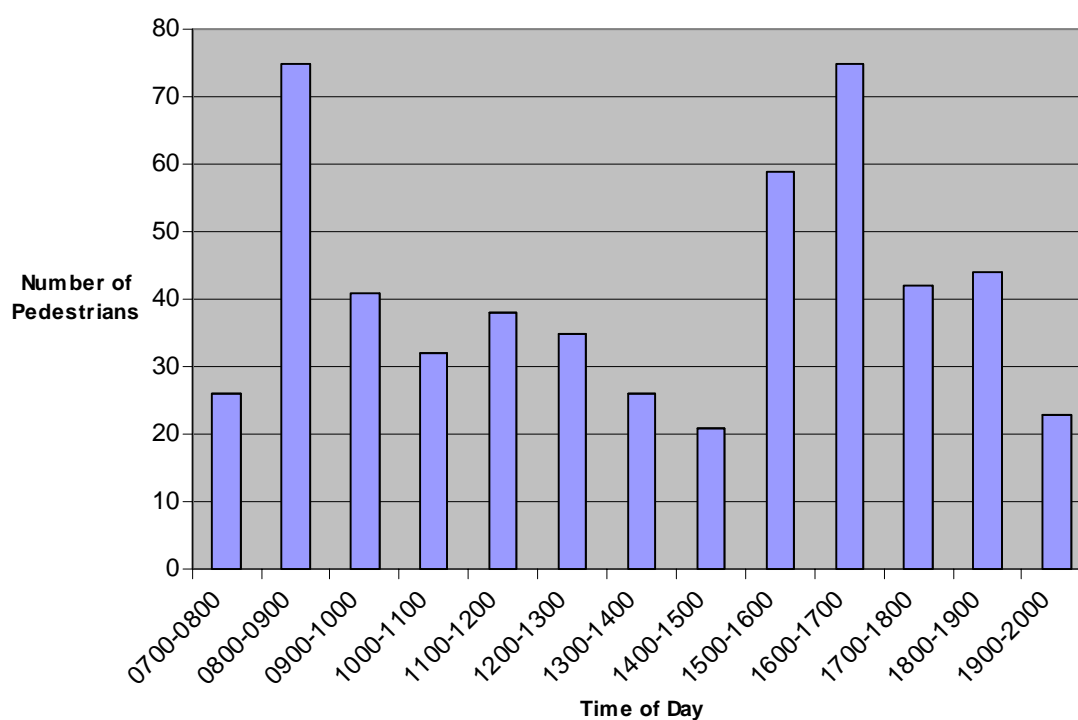
Figure 8.5 - Post implementation cyclist numbers on Woodford Avenue Toucan crossing



8.7 Cycle traffic remained low on the Woodford Avenue crossing. However, there was exactly double the number of cyclists using it during the 'after' survey than in the before survey. The 'after' survey was carried out in December when levels of cycling

are typically much lower than in April so, from these two surveys at least, it would appear as if cycle traffic has increased considerably at this location albeit from a very low base.

Figure 8.6 - Post implementation pedestrian numbers on Woodford Avenue Toucan crossing



8.8 The graph above shows the amount of pedestrian traffic using the new Toucan crossing shortly after it was implemented. The total daily pedestrian flow was 537, nearly 100 more than in the previous count.

8.9 It would appear from this before and after count, therefore, that the scheme has led to a considerable increase in pedestrian and cycle traffic especially when considering that the 'after' count took place in the middle of December.

QUESTIONNAIRE RESULTS

8.10 There were only two questionnaires completed for this scheme. Both respondents also provided feedback for the A12 cycle lane scheme and their 'general' data is therefore included in the analysis of the previous chapter. It is worth briefly looking at the results of the two returned questionnaires for the Toucan crossing.

8.11 Unfortunately, neither of the two respondents who were familiar with the new Toucan crossing was able to provide a 'before and after' assessment. One of the two said the new facility had caused them to change their route specifying that 'previously I used to get off and walk the bike. It was too dangerous to cycle.' Neither had increased or

decreased their amount of cycling as a result of the scheme and both would have made the same journey regardless of the facility being provided. In the open comments section, one stated 'It would be nice to have a lead-in joining to Highwood Gardens, as this would allow cyclists to avoid the quite busy Longwood Gardens. I haven't changed my riding pattern and am still using the roundabout. A crossing to the North & South of the roundabout is great.'

SUMMARY

- 8.12 This was one of two 'before and after' sites in the monitoring study. The pedestrian and cycle traffic counts revealed large increases in flows for both modes. Furthermore, the 'after' count took place at a time of year (December) when levels of cycling tend to be considerably lower than at the time of the 'before' count (April). However, despite a relatively large increase, the size of the cycle flows was very small with just 10 cyclists using the Toucan crossing throughout the entire 'after' count.
- 8.13 Due to the small amount of cycle traffic on the crossing, feedback on the scheme was provided by just two respondents. Neither had used the crossing before the Toucan was implemented so it was not possible to obtain a 'before and after' comparison. One respondent claimed, however, that the new Toucan had caused them to change their route as previously they had considered it too dangerous to cycle.