‘Measuring Accessibility as Experienced by Different Socially Disadvantaged Groups’

Funded by the EPSRC FIT Programme

Working Paper 5

Bus / DLR / Underground Walk Access Barriers in Tower Hamlets

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CONTENTS

1 SUMMARY OF THE MAIN FINDINGS

1.1 The University of Westminster's Transport Studies Group has received funding from the UK Engineering and Physical Sciences Research Council (EPSRC) to develop more refined and sensitive measures of accessibility that take into account the concerns of various socially disadvantaged groups. The partners for this project include: Transport for London (TfL), the London Borough of Tower Hamlets (LBTH), West Yorkshire PTE (METRO) and Bradford Metropolitan District Council (BMDC).

1.2 As part of this study, surveys of bus, DLR and underground users (see Appendix 1 for a copy of the questionnaires) were carried out in the eastern part of the London Borough of Tower Hamlets. The survey was carried out by the NWA Social and Market Research Company (NWA) in September 2004.

1.3 The accessibility requirements of the following disadvantaged groups were analysed: young people; older people; parents with young children (under 11); Black and Minority Ethnic (BME) people; and people who said they have a health condition that effects their mobility.

1.4 This report is divided into six chapters. Chapter one is a summary of the main findings of the fieldwork. Chapter two introduces the project and outlines the fieldwork methodology. Chapters three to five provide an overview of the bus (chapter 3), DLR (chapter 4) and underground (chapter 5) user survey findings. Chapter six provides some general conclusions.

Public Transport User Survey

1.5 This was based on a two-page, self completion questionnaire for each mode of transport. The aim was to identify the key issues that affect an individual's decision to walk to a bus stop or DLR/Underground station. The survey contained a series of trade-off questions covering: ability to board or not board the first bus; bus stops with or without a seat/shelter; access to bus stops or DLR/Underground stations that involve crossing a busy main road with or without a pedestrian crossing, and conditions of lighting at night.

1.6 The three questionnaires were broadly similar, except that bus users were asked two additional 'trade-off' questions (ability to board the first bus and conditions available at the bus stop).

1.7 The questionnaires consisted of three sections:

Section one asked questions about the respondent's journey, including trip purpose, whether they walked from home to their nearest bus stop or DLR/Underground station and, if so, how long the journey took and whether they had any concerns.

Section two asked the respondents to indicate which hypothetical bus stop or station they would use if they had a choice between bus stops and stations with different conditions / facilities (i.e. a stop which means you can't always get on the 1st bus .v. a stop where you can board the 1st bus (bus

questionnaire only); marked stop .v. shelter and / or seating (bus questionnaire only); cross a busy road without a pedestrian crossing .v. avoid crossing a busy road; poorly lit quiet area .v. well lit busy area .v. prefer not to go out at night .v. travel by car).

Section three asked a few general demographic questions (e.g. age, gender, ethnicity, employment status) and whether people were travelling with young children.

1.8 Although questionnaires were handed out to all bus / DLR / Underground users, table 1 below shows the groups of primary interest and their respective sample sizes for each mode:

Table1: Sample size of surveyed groups

Social Group	Bus	DLR	Tube
Young people (16-24 years) (230 respondents)	90	62	78
Older people (60+ years) (105 respondents)	45	29	31
Mobility Impaired* (78 respondents)	35	20	23
Black and Minority Ethnic people (BME) (314 respondents)	133	83	98
People travelling with young children (78 respondents)	35	25	18

*For the purpose of this survey respondents were asked if they have a health condition that affects their mobility.

Bus Users

1.9 The results of the Pearson chi-square significance tests showed that gender and age do not have a significant impact on the reason why people make a journey by bus. The main reasons why respondents under the age of 60 said they travelled by bus was to access work / education facilities (66% of males, 51% of women; and 62% of people under the age of 60).

1.10 When asked how long it takes them to walk to their usual bus stop, 45% said they could reach their usual bus stop in less than 5 minutes. Sixteen percent of the participants said that they did not use their nearest bus stop and mentioned ‘’more choice of buses’ (e.g. route services) as the main reason for using a different stop. Young people were least likely to use their nearest bus stop and will walk further to access a bus stop which is served by the routes they wish to use.

1.11 The results of the surveys indicate that there are no significant gender or age differences amongst the respondents when choosing either a bus stop where the ability to board the first vehicle is unlikely or a bus stop where there are no boarding problems. However, the ability to board the first vehicle becomes more important to respondents as they grow older, particularly for older women.

1.12 Age has a significant impact on whether someone is prepared to walk 2 minutes to a marked bus stop or 3 minutes (P=0.038), 5 minutes (P=0.000) or 7 minutes (P=0.000) to a stop with a shelter and / or seating. Older people are more likely to choose the bus stop with the seat and / or shelter and younger respondents are more likely to choose the nearest bus stop. The results of the Pearson chi-square tests also showed that ethnicity has a significant impact on whether

someone is prepared to walk further to access a bus stop with a shelter and / or seating at 3 minutes (P=0.025). When the distance is increased there is no significant difference between white and non-white respondents. These results indicate that the facilities available at a bus stop are important criteria for some groups of people when choosing which bus stop to use.

1.13 Gender has a significant impact on whether someone is prepared to walk 2 minutes along a busy road without a pedestrian crossing or 3 (P=0.034) or 5 (P=0.030) minutes along a road to a bus stop that avoids crossing a busy road. When the distance is increased (to 7 minutes), there is no significant difference between the gender groups. The age of the respondent also has a significant impact at 5 minutes (P=0.018) and the impact is very significant at 7 minutes (P=0.000). When the three different age groups are compared, there is a clear gradation of responses, from young to old. Older women have a greater aversion to the volume of traffic or the lack of pedestrian crossings than older men or younger women. Whether someone is travelling with young children or not will also have a significant impact on a person's choice of bus stop at 5 minutes (P=0.014) or 7 minutes (P=0.020).

1.14 Gender has a significant impact on whether someone is prepared to walk 2 minutes to a bus stop along a well lit, busy road or 3 (P=0.002), 5 (P=0.002) or 7 (P=0.002) minutes along a poorly lit, quiet road, or travel by car or even stay at home at night. The age of the respondent is only significant at 7 minutes (P=0.000).

1.15 Less than half (48%) of the sample said they feel safe when walking to or from their usual bus stop at night. Older people (41%) were more likely to state that they have concerns than young people (24%). Men are more likely to feel safe walking to their usual bus stop (57%) than women (42%). The results suggest that young people are more willing to travel at night and older people are least likely to go out.

DLR Users

1.16 The results of the surveys indicate that gender and age do not have a significant impact on the reasons why people make a journey by DLR. The main reason why people said they used the DLR was to access shopping facilities: 49% of females and 44% of males. Young people (under 25) and people in their mid years (between 25 and 59) are more likely to travel to work or education establishments by the DLR than older (aged 60+) people who tend to use it more for shopping related trips.

1.17 When asked how long it takes them to walk to their usual DLR station, 78% said they could reach their usual station in less than 10 minutes (of which 26% said less than 5 minutes). The time it takes people to walk to their usual DLR station varied between the different groups of people. For example 32% of BME people said they could access their usual station in less than 5 minutes. This can be compared to 14% of older people and 5% of mobility impaired people. In other words, older people and people who have a health condition that affects their mobility spend a disproportionate amount of time walking to their usual DLR station compared to other groups of people. Eleven percent of the respondents said that they do not use their nearest DLR station and mentioned 'more choice of train lines', 'easier to get to', 'feel safer walking there' and 'cheaper fares' as the main reasons for using a different station. People in their mid years (15%)

were least likely to walk to their nearest station compared to young people (2%) and older people (8%).

1.18 Gender has a significant impact on whether someone is prepared to walk 2 minutes along a busy road without a pedestrian crossing or 3 minutes (P=0.038) along a road to a DLR station that avoids crossing a busy road. When the distance is increased (to 5, 7 or 9 minutes), there is no significant difference between the gender groups. Men appear to be much less concerned about crossing a busy main road without a pedestrian crossing than women. For example, 20% of women said they would be prepared to walk 9 minutes to a DLR station to avoid a main road, compared to 9% of men. The age of the respondent has a significant impact at 9 minutes (P=0.014). Older people are more likely to walk further to access a DLR station near a pedestrian crossing than any other age group.

1.19 Gender has a significant impact on whether someone is prepared to walk 2 minutes to a bus stop along a well lit, busy road or 7 (P=0.000) or 9 (P=0.000) minutes along a poorly lit, quiet road, or travel by car or even stay at home at night. There are no significant differences between the age groups. However, when asked how safe people feel when walking to and from their usual DLR station at night, the results showed that ethnicity (P=0.005) has a significant impact on whether someone feels safe at night. BME (57%) and people travelling with young children (56%) were more likely to state that they feel safe walking to and from their usual DLR station at night, whereas young people (40%) and mobility impaired people (40%) were more likely to state that they feel unsafe. Young people are more willing to travel at night and older people are more likely to stay at home.

Tube Users

1.20 The results of the surveys indicate that gender and age do not have a significant impact on the reasons why people make a journey by Tube. Unlike bus and DLR users, there is a slight gender difference amongst tube users as men (44%) are more likely to travel by tube for work and education reasons and females (40%) tend to use it more for shopping. Both young people and older people are more likely to use the tube for shopping related trips, whereas as people in their mid years are more likely to travel to work and education establishments by the tube.

1.21 When asked how long it takes them to walk to their usual tube station, 84% said they could reach their usual station in less than 10 minutes (of which 27% said less than 5 minutes). The time it takes people to walk to their usual tube station varied between the different groups of people. For example 35% of young people said they could access their usual station in less than 5 minutes. This can be compared to: 25% of older people, 23% of BME people, 23% of mobility impaired people and 21% of people travelling with young children.

1.22 In other words, older people, BME and people who have a health condition that affects their mobility spend a disproportionate amount of time walking to their usual tube station compared to other groups of people. Only 4% (n=21) of underground users said they did not walk to their nearest station and mentioned that their preferred station ‘is easier to get to’, they ‘feel safer walking there’, ‘better facilities’ and offers ’more choice of train lines’. Men were less likely to walk to their nearest station than women.

1.23 The results of the Pearson chi-square significance tests showed that gender has a significant impact on whether someone is prepared to walk 2 minutes along a busy road without a pedestrian crossing or 3 minutes (P=0.038) along a road to an underground station that avoids crossing a busy road. When the distance is increased (to 5, 7 or 9 minutes) there is no significant difference between the gender groups. Men appear to be much less concerned about crossing a busy main road without a pedestrian crossing than women. For example, 21% of women said they would be prepared to walk 9 minutes to a tube station to avoid a main road, compared to 13% of men. The age of the respondent has a significant impact at 9 minutes (P=0.005). Older people are more likely to walk further to access an underground station near a pedestrian crossing than any other age group.

1.24 Gender has a significant impact on whether someone is prepared to walk 2 minutes to a bus stop along a well lit, busy road or 7 (P=0.000) or 9 (P=0.000) minutes along a poorly lit, quiet road, or travel by car or even stay at home at night. The results of the Pearson chi-square tests showed that there are no significant differences between the age groups. However, when asked how safe people feel when walking to and from their usual underground station at night, the results showed that ethnicity (P=0.005) has a significant impact on whether someone feels safe at night. BME (58%) and young people (58%) were more likely to state that they feel safe walking to and from their usual underground station at night, whereas older people (41%) were more likely to state that they feel unsafe. Young people are more willing to travel at night and older people are more likely to stay at home.

2 INTRODUCTION

2.1 The 'Measuring accessibility as experienced by different socially disadvantaged groups' project, funded by the Engineering and Physical Sciences Research Council aims to develop more refined measures of accessibility that are sensitive to the varying perceptions, needs and constraints of different social groups.

2.2 The project has examined the accessibility requirements of different groups of people living in two areas: three wards in the eastern part of the London Borough of Tower Hamlets and Keighley in West Yorkshire. Issues explored in the two areas include: existing travel patterns (e.g. destinations; timings; purposes and modes); suppressed travel demand and preferred activity patterns; key journey attributes (travel times, reliability, interchange, cost, personal safety, physical access issues); key destination attributes (e.g. type of shop, employment etc); relative importance of attributes and key thresholds (e.g. maximum walking distance).

2.3 The results of initial surveys (see working paper 2) showed that more data about the specific journeys people make to/from their regular bus stop was needed to assess perceptions of accessibility held by different groups of people.

2.4 In September 2004 a public transport survey was carried out in Tower Hamlets, to gain further insight into the journey patterns and bus/DLR/underground access choices of different groups of people living in the area. The respondents were asked to complete a questionnaire based on their travel experiences for the day they were being surveyed. All survey questionnaires were distributed between 11:00 and 21:00 on three Saturdays and three weekdays in September. The weather conditions during the course of the fieldwork were recorded as fine.

2.5 A similar survey was undertaken in Keighley and the results are presented in a separate report (see working paper 4).

2.6 This report provides a summary of the key results that were obtained from the public transport user survey.

Methodology

2.7 The aim of the questionnaire survey was to: identify the key issues that affect an individual's decision to walk to a bus stop or DLR/Underground station. The questionnaire was distributed to bus, DLR and Underground users either waiting to board a bus / train or alighting a bus / train. The bus stop / station location was recorded on the top of each form.

2.8 Figure 1 shows the location of the bus stops. The following bus routes serve the case study area: 8, 25, 108, 277, 323, 339, D6, D7, D8 and S2. Figure 2 shows the location of the stations within the case study area. As shown in the map there are five stations within the local area: two DLR stations - Devons Road and Bow Church and, three Underground stations - Mile End (served by the Central line, Hammersmith and City line and the District line); Bow Road and Bromley-By-Bow stations (both stations are served by the Hammersmith and City line and the District line).

Figure 1: Maps to show the surveyed bus stops in Tower Hamlets

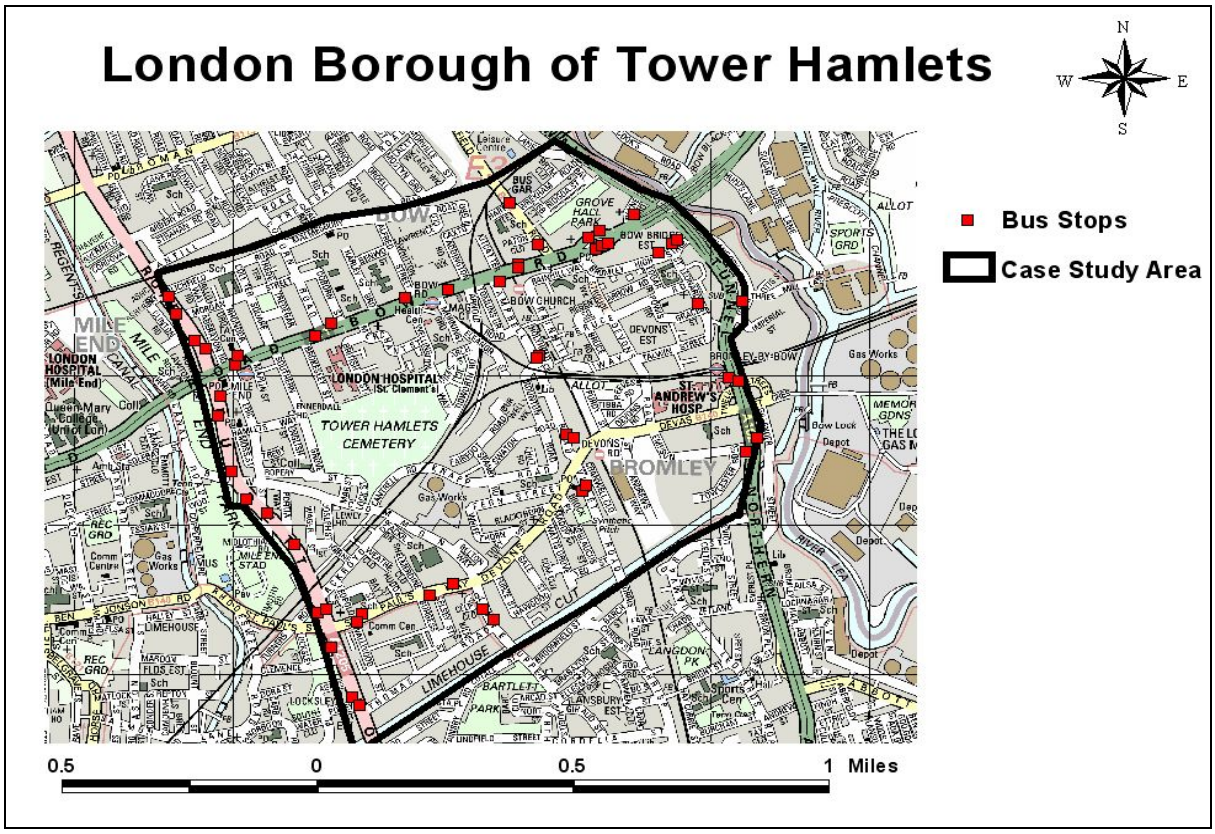

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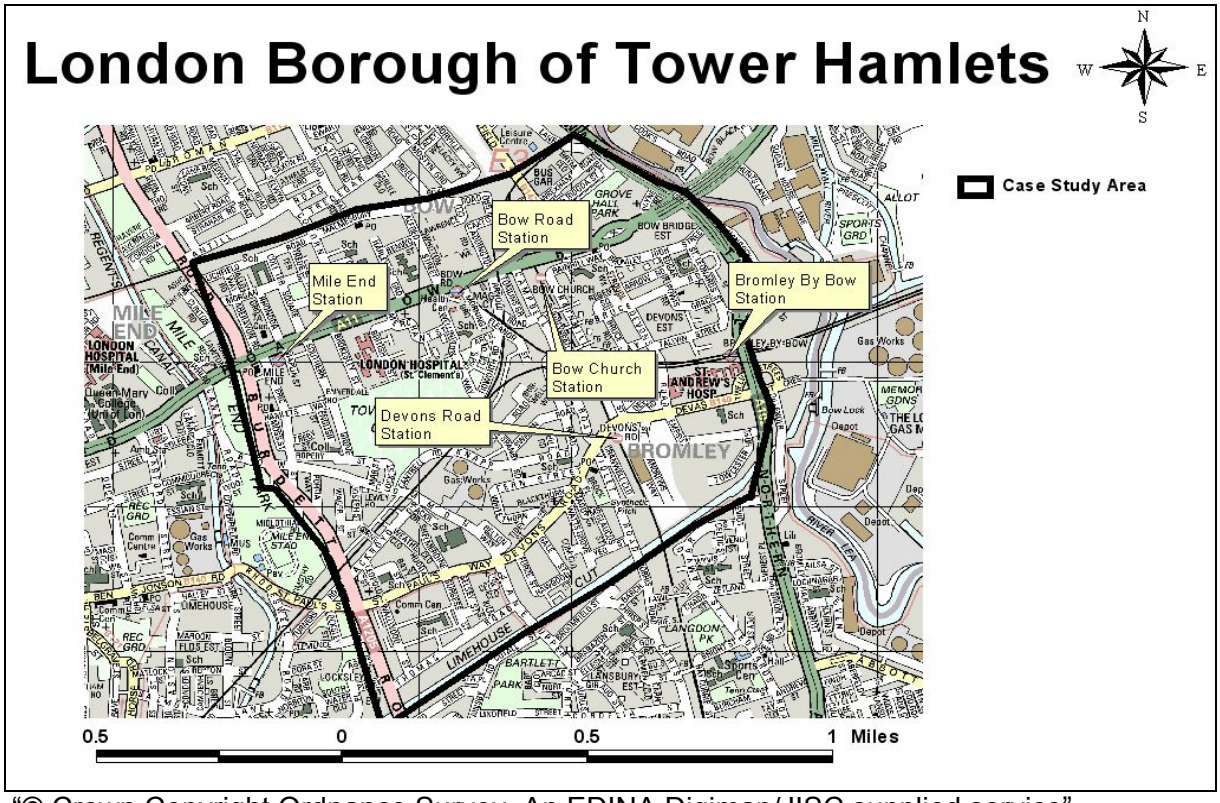
Figure 2: Map to show the surveyed DLR and Underground stations



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2.9 The questionnaires were distributed by hand within the local case study area. Researchers approached passengers whilst they were waiting to board or alighting from a bus or a DLR train or when entering or exiting an underground station. The passengers were shown a map of the case study area and asked if they lived within it, if so, they were then given a copy of the questionnaire and asked to complete it and post it back. A total of 4000 questionnaires were distributed within the case study area:

- DLR: 800 questionnaires (400 at each DLR station);
- Tube: 1200 questionnaires (400 at each Underground station);
- Bus: 2000 questionnaires (random selection of bus stops).

2.10 The total response rate (including bus, DLR and tube users) was 21% (n=847): 16% of bus users returned their completed survey responses, 34% and 21% for DLR and tube users respectively. Table 2 shows the number of responses received for each mode on weekdays and Saturdays. The results show that fewer surveys were returned on a Saturday than on a weekday. Less than 10% of Saturday bus users completed the survey and Bow Road (35%) and Bow Church (29%) rail users were more likely to return their surveys than other station users.

Table 2: Completed questionnaires by mode and weekday / Saturday

Mode	Location	Weekday	Saturday	Total
Bus (326 responses)	All Bus Routes	297	29	326
DLR (269 responses)	Devons Road	61	60	121
	Bow Church	65	83	148
Underground (252 responses)	Mile End	14	24	38
	Bow Road	121	62	183
	Bromley-by-Bow	-	31	31
	TOTAL	**558**	**289**	**847**

2.11 Analysis of the survey results (per mode and day of the week) showed (see table 3):

- Just over one third of the respondents (37%) were from an ethnic minority;
- The majority of respondents were aged between 25 and 59 years (61%), 27% were young people (16-24) and 12% were over the age of 60;
- Less than 10% of the respondents said they have a health condition that affects their mobility;
- Less than 10% of respondents said they were travelling with young children.
- More respondents within the older people group, than any other group, were found among the weekday sample (68%) compared to the weekend sample (32%);
- Parents travelling with young children were the least number of respondents found among the weekday sample (58%) compared to the weekend sample (42%).

Table 3: Completed questionnaires by social group and weekday / Saturday

Social Group (sample size)	**Mode**	**Weekday** (n)	**Saturday** (n)	**Total** (n)
Young people (n=230)	Bus	85	5	90
	DLR	27	35	62
	Tube	39	39	78
Older people (n=105)	Bus	44	1	45
	DLR	11	18	29
	Tube	16	15	31
Mobility Impaired people (n=78)	Bus	32	3	35
	DLR	9	11	20
	Tube	11	12	23
BME people (n=314)	Bus	119	14	133
	DLR	33	50	83
	Tube	43	55	98
People with children (n=78)	Bus	34	1	35
	DLR	7	18	25
	Tube	4	14	18

2.12 The highest and lowest number of completed questionnaires per group on a weekday were:

- Bus: people travelling with young children (76%) (highest) .v. young people (56%) (lowest);
- DLR: young people (18%) .v. older people (15%);
- Tube: young people (26%) .v. people travelling with young children (9%).

2.13 The highest and lowest number of completed questionnaires per group on a Saturday were:

- Bus: jointly the mobility impaired and BME groups (12%) (highest) .v. jointly the older people and people travelling with young children (3%) (lowest);
- DLR: people travelling with young children (55%) .v. jointly the mobility impaired and BME groups (42%);
- Tube: young people (50%) .v. people travelling with young children (42%).

Demographics

2.14 The demographic profile of the respondents for each target group and the total sample of all respondents are shown in table 4.

Table 4: Demographic profile of all respondents (regardless of mode).

	Demographic profile	Social groups					Total Sample N=847
		Young N=230	Older N=105	Mobility Impaired N=78	BME N=314	People travelling with children N=78	
Age Groups	16-24	100%	-	9%	41%	18%	27%
	25-59	-	-	50%	54%	78%	56%
	60+	-	100%	41%	5%	4%	13%
	Missing	-	-	-	-	-	3%
							*
Gender	Male	39%	29%	35%	44%	22%	40%
	Female	59%	70%	65%	53%	74%	57%
	Missing	2%	1%	-	3%	4%	2%
							*
Ethnicity	White	41%	81%	65%	-	53%	61%
	Black	14%	4%	9%	27%	10%	10%
	Indian	1%	2%	-	5%	-	2%
	Pakistani	(0.4%)	-	-	1%	2%	1%
	Bangladeshi	30%	3%	8%	39%	24%	15%
	Chinese	2%	2%	1%	7%	-	3%
	Mixed Race	6%	2%	6%	12%	4%	4%
	Other	3%	2%	5%	8%	1%	3%
	Missing	2%	4%	5%	-	5%	2%
		*		*	*		*
Employment status	Employed (F/T)	24%	6%	12%	28%	19%	43%
	Employed (P/T)	15%	6%	10%	19%	24%	14%
	F-T Parent/Carer	2%	-	5%	4%	27%	4%
	Unemployed	10%	1%	6%	6%	6%	5%
	Student	47%	-	9%	34%	9%	18%
	Retired	-	85%	42%	5%	5%	12%
	Long term sick	1%	1%	14%	3%	6%	3%
	Missing	1%	-	1%	1%	3%	1%
			*	*		*	

* Figures do not add up to 100% due to rounding.

2.15 The demographic profile of the total sample of respondents can be summarised as follows:

Age

- Over half of the overall sample of respondents were aged between 25 and 59 years;
- Over 90% of people who said they had a health condition that affects their mobility were aged 25 or over.

- Only 5% of BME people were over the age of 60 years.

Gender

- Over 50% of those who returned a completed questionnaire were female, 40% were male and the remaining respondents failed to state their gender.

Ethnicity

- Over 60% of the respondents were white, 15% were Bangladeshi and 10% were Black;
- Over a third of the BME group were Bangladeshi and 27% were Black;
- The young people group had the highest number of BME respondents within it;
- The majority of older people were white (81%);
- Nearly two thirds of the mobility impaired group were white;
- Half of the respondents travelling with young children were white, a quarter were Bangladeshi and 10% were black.

Employment Status

- Over half of the sample was employed (57%), either full time (43%) or part time (14%),
- Eighteen percent were students; 12% were retired and the remainder were either unemployed (5%), full time parents or carers (4%), long term sick (3%) or failed to answer the question.

2.16 The following three chapters examine the survey results of the bus, DLR and tube users respectively.

3 BUS SURVEY RESULTS

3.1 This section summarises the main findings from the analysis of the questionnaire, first looking at the reported bus journey and then at the responses to the bus access trade-off questions.

3.2 The demographic profile of the respondents for each social group and the total sample of all the respondents are shown in Table 5.

Table 5: Demographic profile of all bus respondents

		Social groups					
	Demographic profile	**Young N=90**	**Older N=45**	**Mobility Impaired N=35**	**BME N=133**	**People travelling with children N=35**	**Total Sample N=326**
Age groups	16-24	100%	-	3%	42%	20%	28%
	25-59	-	-	46%	53%	80%	58%
	60+	-	100%	51%	5%	-	14%
Gender	Male	32%	22%	29%	39%	17%	33%
	Female	64%	76%	71%	58%	80%	65%
	Missing	3%	2%	-	3%	3%	2%
		*					
Ethnicity	White	37%	82%	66%	-	54%	56%
	Black	14%	7%	9%	28%	14%	11%
	Indian	-	-	-	4%	-	2%
	Pakistani	-	-	-	1%	-	(0.3%)
	Bangladeshi	31%	-	5%	34%	20%	14%
	Chinese	3%	2%	3%	8%	-	3%
	Mixed Race	8%	2%	5%	15%	3%	6%
	Other	6%	2%	5%	10%	-	4%
	Missing	1%	4%	5%	-	9%	3%
			*	*			*
Employment status	Employed (F/P)	18%	7%	9%	22%	17%	34%
	Employed (P/T)	13%	9%	2%	17%	26%	14%
	F-T Parent/Carer	3%	-	2%	3%	31%	6%
	Unemployed	8%	2%	9%	7%	6%	5%
	Student	56%	-	9%	43%	8%	23%
	Retired	-	80%	51%	4%	3%	13%
	Other	1%	2%	14%	3%	6%	3%
	Missing	1%	-	2%	1%	3%	1%
				*			*

* Figures do not add up to 100% due to rounding

3.3 The demographic profile of the respondents can be summarised as follows:

Age

- Over half (58%) of the bus user respondents were aged between 25 and 59 years;
- Over half (51%) of the mobility impaired respondents were aged 60 or over;

- The majority of people who were travelling with young children were aged between 25 and 59 years.

Gender

- The majority of respondents were female (65%), 33% were male and the remaining 2% failed to answer the question;
- The highest percentage of male respondents was in the BME group and the least number of males were in the people travelling with young children group.

Ethnicity

- The main three ethnic groups were: white people (56%), Bangladeshi people 14% and Black people 11%;
- Young people were more likely to represent different ethnic groups than the other social groups. For example 62% of young people were from a non-white ethnic group and this can be compared to: 37% of people travelling with young children, 27% of mobility impaired people and 13% of older people.

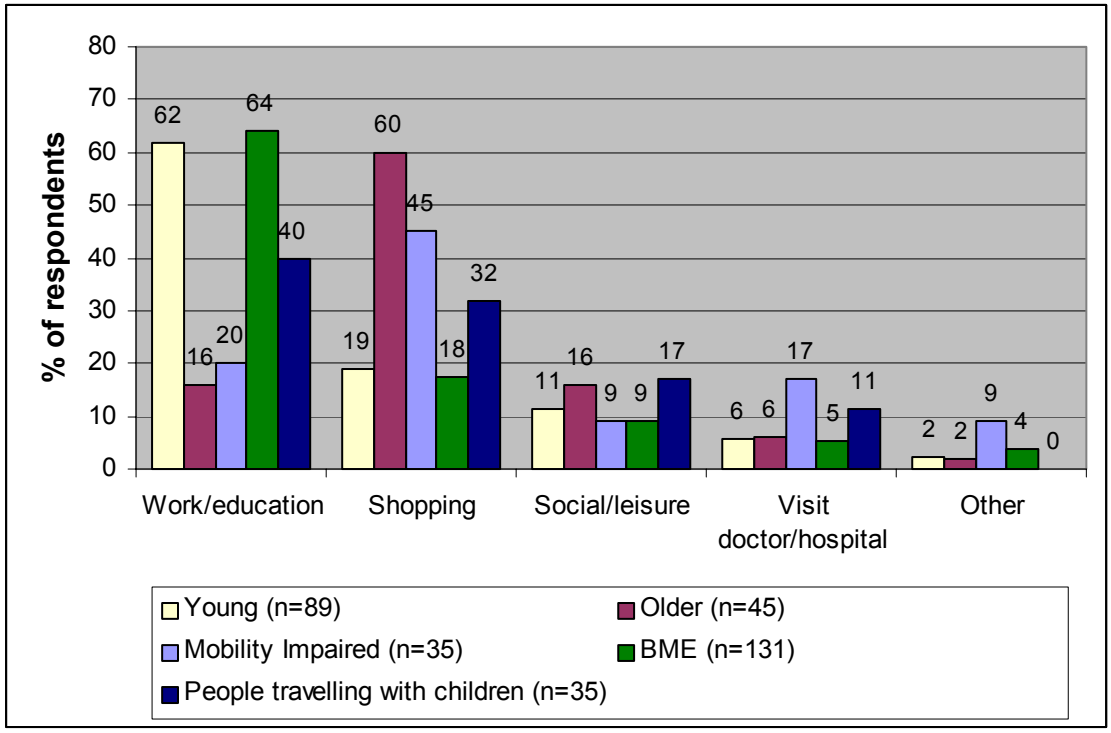
Employment Status

- Less than half (48%) of the sample were employed;
- Half (51%) of the mobility impaired group were retired;
- Forty three percent of 'people travelling with children' group were employed;
- Forty three percent of BME respondents were students;
- Over half (56%) of the young people were students;
- Sixteen percent of older people were employed.

Reported Bus Journey

3.4 Respondents were asked to state the main reason why they were travelling by bus on the day that they were surveyed. As shown in figure 3, the main two journey purposes for all the social groups were either work/education or shopping related. The BME, young and people travelling with children were more likely to travel by bus for work/education related trips, whereas older people and the mobility impaired were more likely to use it to go shopping. Older people and those travelling with children said they were more likely than other groups to access social and leisure facilities by bus. Seventeen percent of mobility impaired people said they use the bus to visit their doctor or attend a hospital appointment, which is more than any of the other groups.

Figure 3: Journey purpose by bus

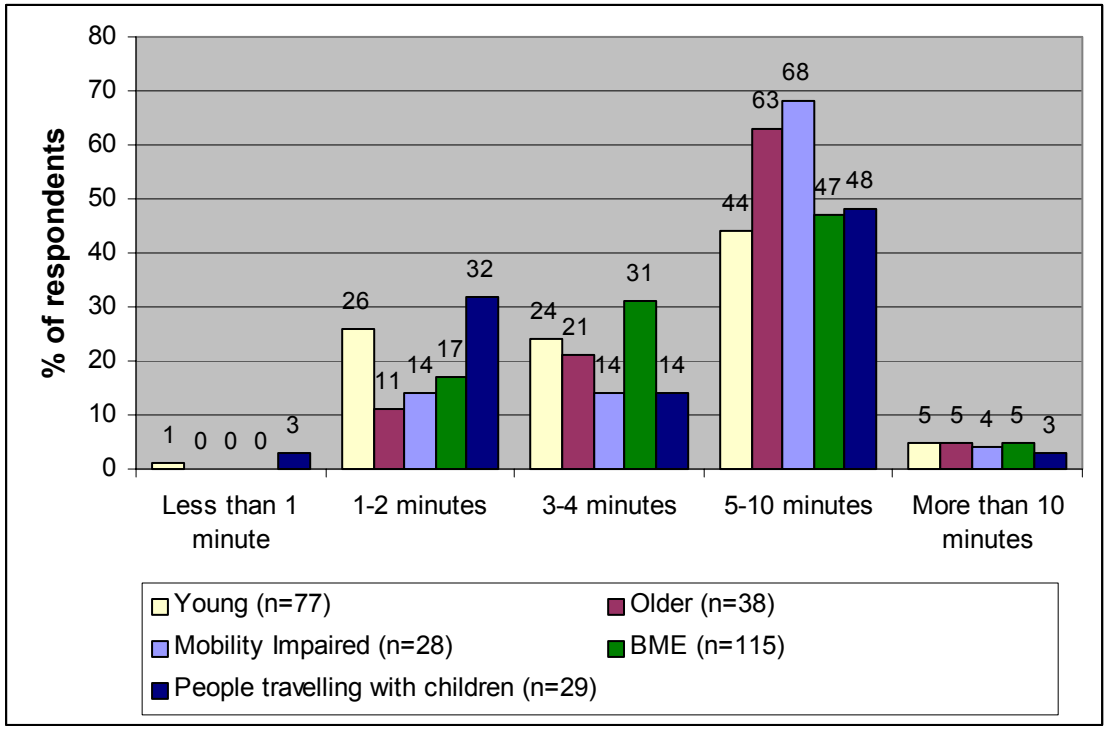


N.B: 'Other' purposes include: go to the 'bank', 'post office', 'library' or 'take children to school'.

3.5 The respondents were then asked to state if they walked from home to catch the bus and if so, how long their journey took. Overall, 88% of bus respondents said they walked from home to catch the bus and the remainder were using the bus to travel home (e.g. they used a different mode to access their destination and caught the bus back home). Forty five percent of those who walked to the bus stop said they could reach their usual stop in less than 5 minutes (see figure 4).

3.6 The time it takes people to walk to their usual bus stop varied between the different groups of people. For example 51% of young people said they could access their usual bus stop in less than 5 minutes. This can be compared to 49% of people travelling with young children, 48% of BME people, 32% of older people and 28% of mobility impaired people (see figure 4). In other words, older people and people who have a health condition that affects their mobility spend a disproportionate amount of time walking to their usual bus stop compared to other groups of people.

Figure 4: Walk time to the bus stop (minutes)



3.7 Table 6 shows the average walk time to the bus stop for each group of respondents. Those within the mobility impaired and older people groups spend an extra minute walking to their usual bus stop, compared to the other three groups and the total sample average.

Table 6: Average walk time to the bus stop

GROUP	MINUTES
Young people	5
People travelling with children	5
Mobility impaired people	6
BME people	5
Older people	6
Total sample population	5

3.8 When asked if they walked to their nearest bus stop, 76% said ‘yes’, 16% said ‘no’ and 8% failed to answer the question. Of the respondents who said ‘no’, 60% were female, 26% were aged 16-24, 55% were aged 25-59 and 19% were over the age of 60, 59% were white, 34% were BME, 52% were employed, 10% said they have a health condition that limits their mobility and 6% were travelling with young children. Figures 5 to 11 (on the following page) illustrate the main reasons respondents gave for not using their closest bus stop; note the small sample sizes, in most cases.

Figure 5: All Social Groups

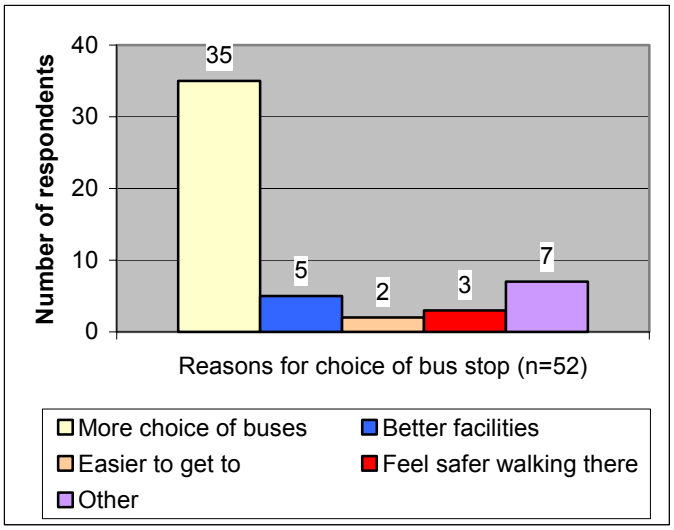


Figure 6: Gender

Figure 7: Young people

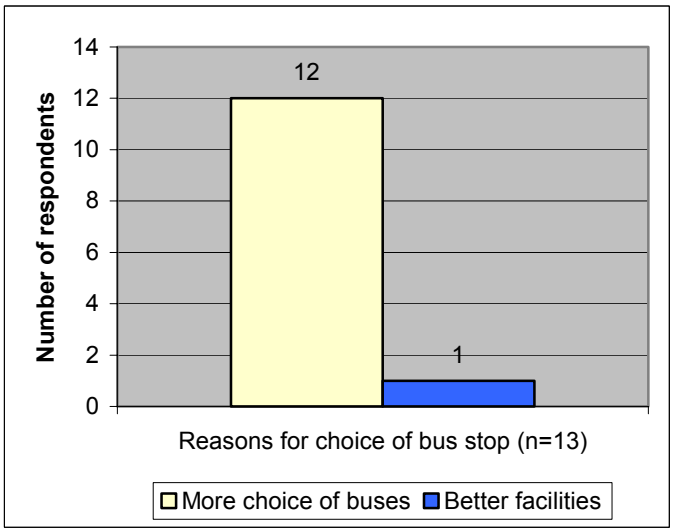


Figure 8: Older People

Figure 9: BME People

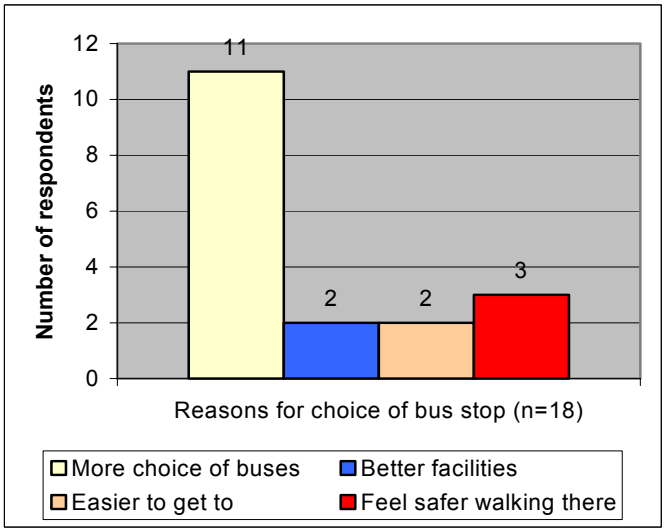


Figure 10: Mobility Impaired

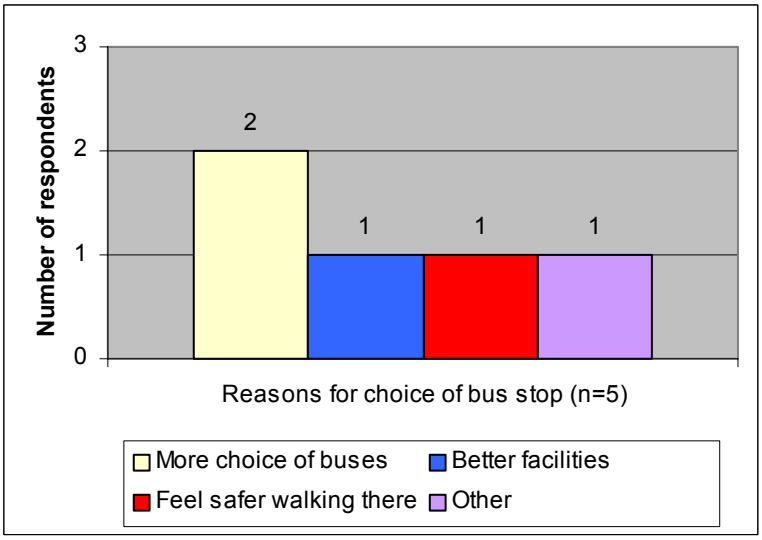
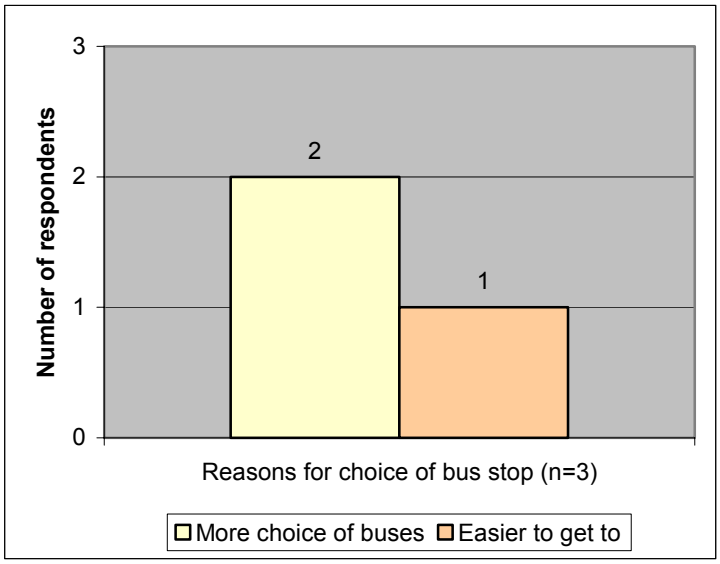


Figure 11: People travelling with children



3.9 'More choice of buses' (e.g. route services) is one of the main reasons why respondents are prepared to use a bus stop that is not their nearest stop. Young people were least likely to use their nearest bus stop and will walk further to access a bus stop which is served by the routes they wish to use.

3.10 There are slight differences between the groups in terms of their reasons for using a different bus stop. For example, the older people, BME and mobility impaired groups were the only respondents to mention 'feel safer walking there' as a reason for choosing a bus stop.

3.11 The main reasons per group are as follows (in order of preference):

- Young people: more choice of buses and better facilities;
- Older people: more choice of buses, better facilities and feel safer walking there;
- BME people: more choice of buses, fee safer walking there, better facilities and easier to get to;
- Mobility impaired people: more choice of buses, better facilities and feel safer walking there;
- People travelling with children: more choice of buses and easier to get to.

Walk Access Trade-offs

3.12 As one of the main aims of the survey was to identify the importance of the walking environment in relation to accessing a bus stop, some specific questions about this were included in the questionnaire.

3.13 The respondents were asked to consider which of two hypothetical bus stops they would use if the first stop is situated 2 minutes away offering less favourable conditions (on route and at the stop) and the second stop (with favourable conditions) is 3 minutes away. The question was then repeated, with the distance to the second bus stop increased to 5 and then 7 minutes.

5.1 The trade-off questions covered:

1. Can't always board the first bus or can always board the first bus;
2. Marked bus stop or a stop with a shelter and or seating;
3. Cross a busy road without a pedestrian crossing, or cross a road with a pedestrian crossing;
4. Poorly lit quiet road, or a well lit busy road.

5.2 A number of logic checks were carried out on the trade-off data. For example, when respondents answered '2mins' to case 1, logically they should answer '2mins' to the remaining cases, rather than '5mins' or '7mins'. Similarly, if the respondents answered '3mins', followed by '2mins' where the alternative was 5 minutes, then they should not then answer '7mins' for the final case. If respondents followed this logical response pattern, their answers were included in the analysis. However, if responses deviated from this pattern, they were excluded.

A Bus Stop that you can't board the first bus or a stop where you can get on the first bus?

3.14 Exploring the extra distance people are prepared to walk to access a bus stop where they are more likely to be able to board the first bus was the first of four trade-off questions. Respondents were asked which bus stop they would use if the choice was between a bus stop where 'you can't always board the first bus' that is 2 minutes away from their home or varying distances (3 mins, 5 mins and 7 mins) to a bus stop where they can board the first bus.

3.15 Table 7 shows the demographic profile of the respondents who answered the ability to board question. Overall, 57% (n=187) of the respondents answered this question.

Table 7: Demographic profile of respondents who answered the ability to board the first bus question.

	Demographic profile	Social groups					Total Sample N=187
		Young N=63	Older N=17	Mobility Impaired N=9	BME N=70	People travelling with children N=13	
Age groups	16-24	100%	-	-	51%	*31%*	34%
	25-59	-	-	*44%*	47%	*69%*	57%
	60+	-	*100%*	*56%*	1%	-	9%
					*		
Gender	Male	32%	*37%*	*11%*	39%	-	36%
	Female	67%	*63%*	*89%*	60%	*92%*	63%
	Missing	1%	-	-	1%	*8%*	1%
Ethnicity	White	41%	*94%*	*78%*	-	*92%*	62%
	Black	18%	*6%*	-	24%	-	9%
	Indian	-	-	-	4%	-	1%
	Pakistani	-	-	-	-	-	-
	Bangladeshi	22%	-	-	26%	*8%*	10%
	Chinese	5%	-	-	13%	-	5%
	Mixed Race	5%	-	-	16%	-	6%
	Other	8%	-	*22%*	-	-	6%
	Missing	1%	-	-	-	-	1%
Employment status	Employed (F/P)	16%	-	-	17%	*15%*	37%
	Employed (P/T)	13%	*18%*	*11%*	13%	*15%*	13%
	F-T Parent/Carer	1%	-	*11%*	-	*46%*	5%
	Unemployed	5%	-	-	6%	-	4%
	Student	64%	-	*22%*	60%	*15%*	31%
	Retired	-	*82%*	*56%*	1%	-	8%
	Other	1%-	-	-	3%	*8%*	1%
	Missing	-	-	-	-	-	1%
						*	

* Figures do not add up to 100% due to rounding. Figures in italics indicate social groups with a sample size of less than 20 respondents.

3.16 Overall (Figure 12), over two thirds of the respondents indicated a preference for an additional 3 minutes walk (5 minutes in total) to a bus stop where they are more likely to be able to board the first vehicle, rather than a stop closer to home. There is only a slight gender difference between the respondents in this respect (Figure 13). Women are more likely to walk further than men in two of the three cases: 85% of women compared to 79% of men are prepared to walk 3 minutes; men and women are equally prepared to walk 5 minutes (69%) and 36% of women compared to 33% of men at 7 minutes.

Figure 12: All Social Groups

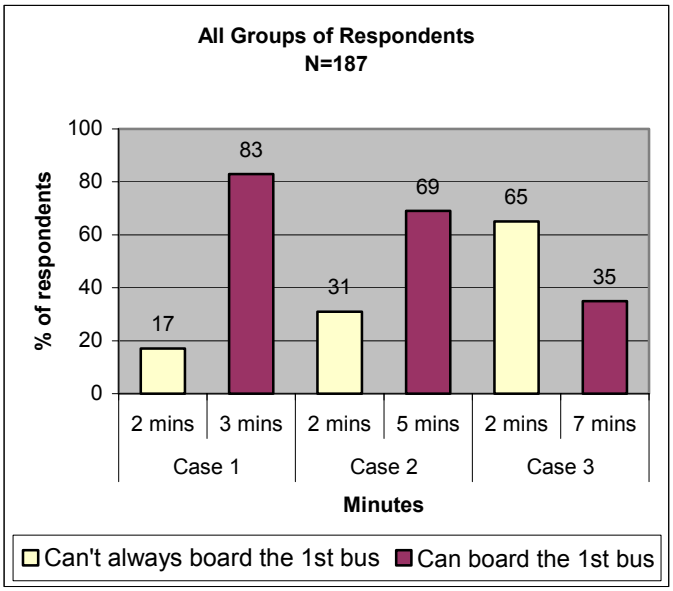
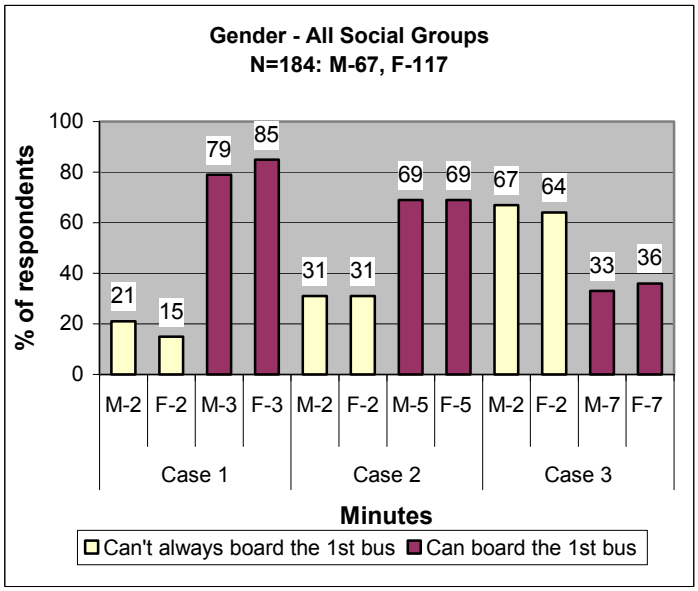


Figure 13: Gender



3.17 In the base case (i.e. 2 minutes versus 3 minutes), there are no differences between young people (Figure 14) and people aged between 25-59 (Figure 15) in their choice of bus stop, as both groups prefer to walk further to access a bus stop where they are likely to be able to board the first bus. However, in the second and third cases, young people are more likely to select the closest bus stop than those respondents aged 25-59 years. When the two age groups are divided along gender lines, women in the mid years group (77%) are more likely to walk an extra 3 minutes (5 minutes in total) and young women are more likely to select the closest bus stop (38%). At 7 minutes, young men are most likely to select the nearest bus stop (75%) and women in the mid years group are most likely to walk an extra 5 minutes.

Figure 14: Young People (16-24)

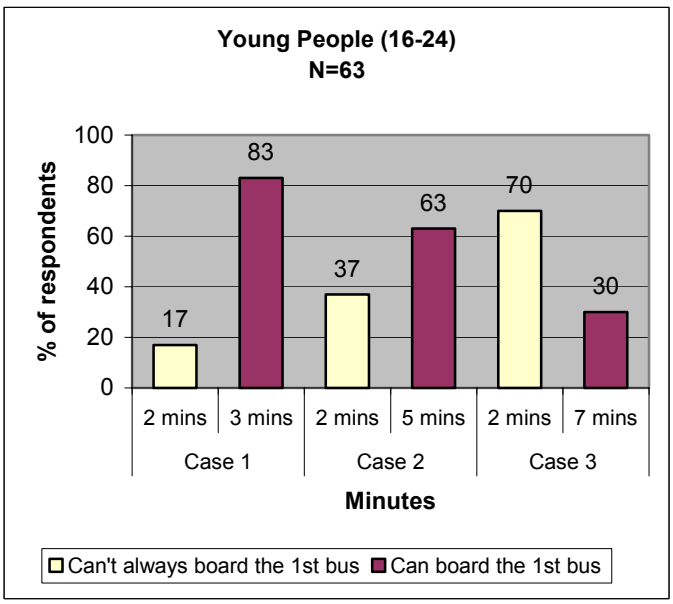
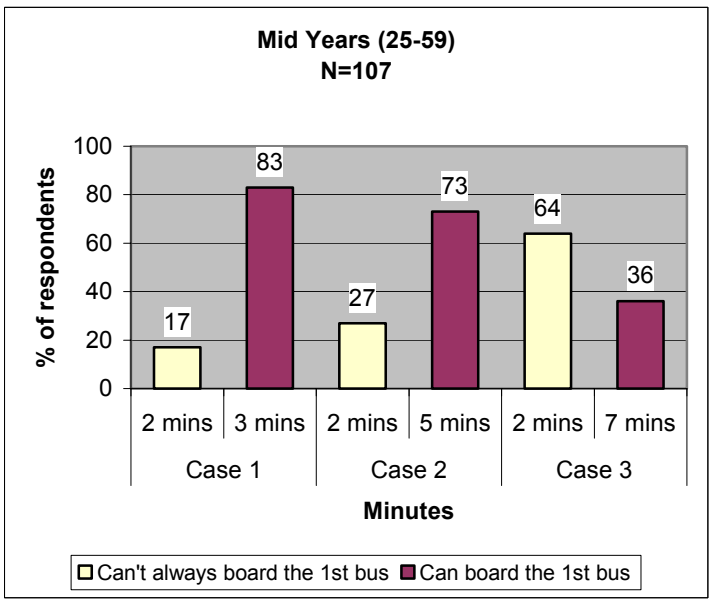


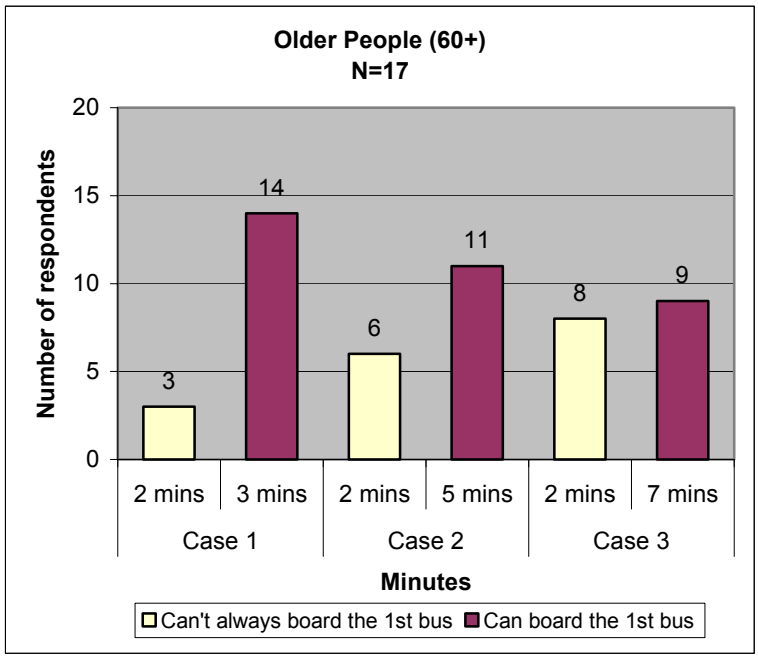
Figure 15: People aged 25-59 years



3.18 Responses are rather different for the 60-plus age group (Figure 16). Here in all three cases, respondents said they would be more likely to walk further to a bus

stop where they can board the first bus. Men are more likely to select the closest bus stop than women.

Figure 16: Older People (60+)



3.19 The data for those respondents who said they have a health condition that affects their mobility (n=9) is not substantial enough to be able to make any general conclusions about a respondent's health condition (Figure 17) and their choice of route. The aggregate results of the able-bodied group (Figure 18) are very similar to those of the 25-59 aged group. Analysis of those respondents within the able-bodied group who are aged between 25-59 years shows that men are most likely to walk to the closest bus stop, and over half (56%) of the female respondents are prepared to walk up to 5 minutes to a bus stop slightly further away.

3.20 Respondents from the able-bodied and BME groups (Figure 19) are least likely to walk to the nearest bus stop. Once again, there is a slight difference between the genders within the BME group. In the first two cases men are more likely to select the furthest bus stop (case 1: 93% and case 2: 74%) than women (case 1: 81% and case 2: 69%). At 7 minutes, women (45%) are most likely to select the furthest bus stop than men (37%).

Figure 17: Mobility Impaired

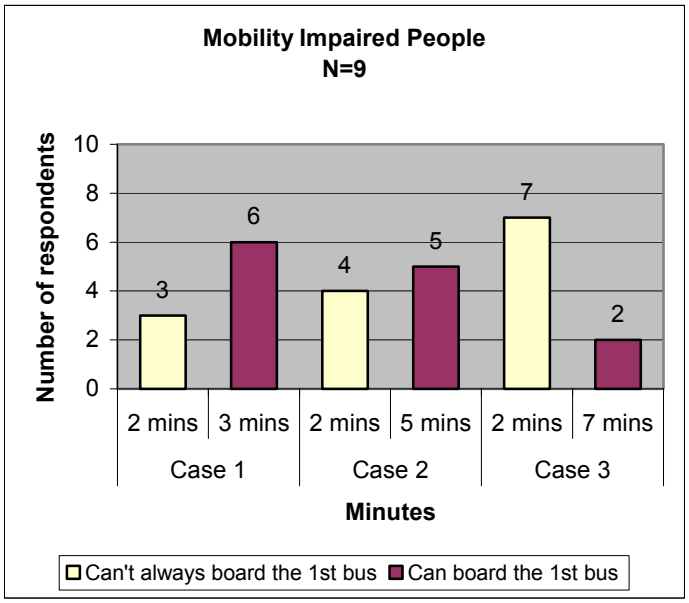
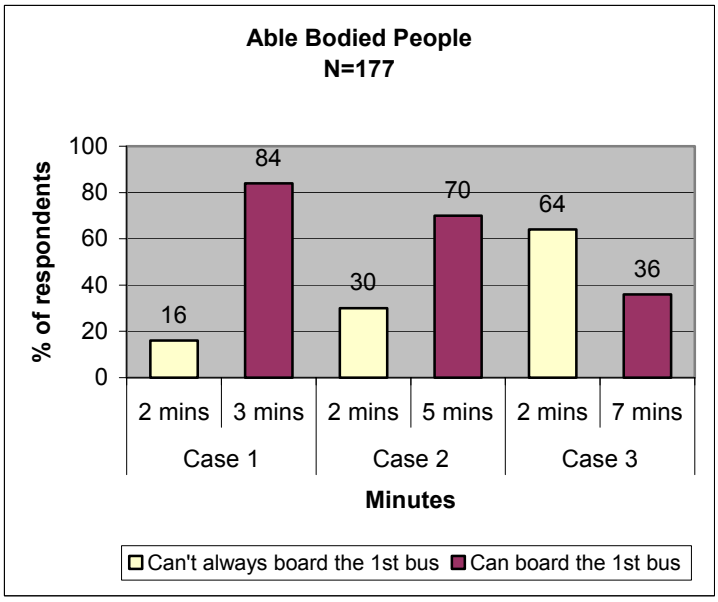


Figure 18: Able Bodied People



3.21 The results for the people travelling with young children (Figure 20) show that respondents are prepared to spend an extra 3 minutes (total of 5 minutes) walking to a bus stop where they are more likely to be able to board the first bus. Once again the sample size for this group of people is too small to enable further analysis.

Figure 19: BME People

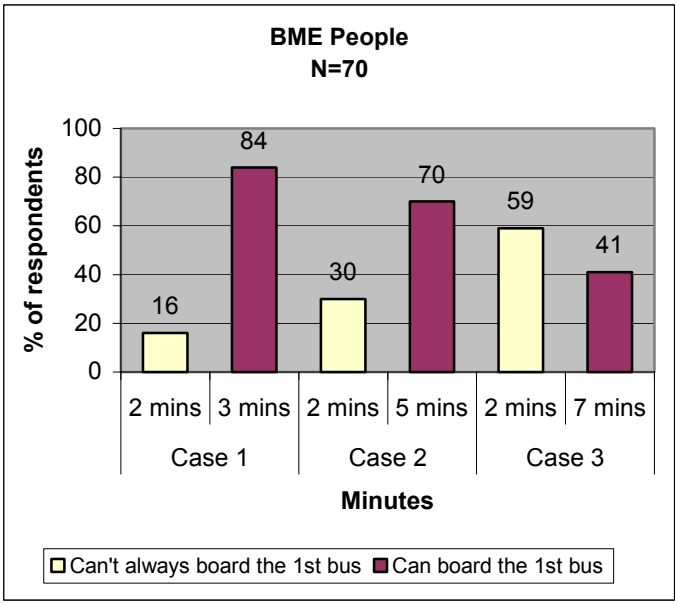
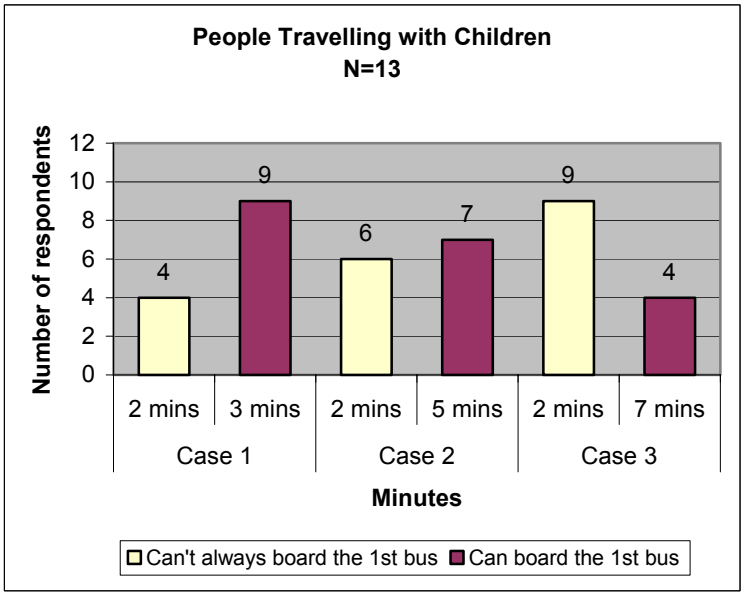


Figure 20: People travelling with children



A Marked Bus Stop or A Bus Stop With A Shelter and / or Seating?

3.22 Exploring the extra distance people are prepared to walk to access a bus stop with a shelter and / or seating was the subject of the second of four trade-off questions. Respondents were asked which bus stop they would use if the choice was between a bus stop with just a marked post that is 2 minutes away from their home or varying distances (3 mins, 5 mins and 7 mins) to a bus stop with a shelter and / or seating.

3.23 Table 8 shows the demographic profile of respondents who answered this particular question about bus stop conditions. Overall, 55% (n=178) of the respondents answered this question.

Table 8: Demographic profile of respondents answering the bus stop facility question.

		Social groups					
	Demographic profile	**Young N=61**	**Older N=15**	**Mobility Impaired N=9**	**BME N=68**	**People travelling with children N=16**	**Total Sample N=178**
Age groups	16-24	100%	-	-	53%	*25%*	34%
	25-59	-	-	*44%*	45%	*75%*	57%
	60+	-	*100%*	*56%*	2%	-	8%
							*
Gender	Male	33%	*36%*	*11%*	37%	-	35%
	Female	66%	*64%*	*89%*	62%	*94%*	64%
	Missing	1%	-	-	1%	*6%*	1%
Ethnicity	White	39%	*93%*	*78%*	-	*81%*	61%
	Black	16%	*7%*	-	25%	*13%*	10%
	Indian	-	-	-	4%	*13%*	1%
	Pakistani	-	-	-	-	-	-
	Bangladeshi	25%	-	-	25%	*6%*	10%
	Chinese	5%	-	-	13%	-	5%
	Mixed Race	5%	-	-	15%	-	5%
	Other	8%	-	*22%*	18%	-	7%
	Missing	2%	-	-	-	-	1%
Employment status	Employed (F/P)	16%	-	-	18%	*19%*	38%
	Employed (P/T)	13%	*13%*	*11%*	13%	*25%*	14%
	F-T Parent/Carer	2%	-	*11%*	6%	*38%*	5%
	Unemployed	5%	-	*22%*	59%	-	4%
	Student	62%	-	-	1%	*12%*	29%
	Retired	-	*87%*	*56%*	-	-	8%
	Other	2%	-	-	3%	*6%*	1%
	Missing	-	-	-	-	-	1%

* Figures do not add up to 100% due to rounding. Figures in italics indicate social groups with a sample size of less than 20 respondents.

3.24 Overall (Figure 21), over half the respondents said they would be prepared to walk an extra minute (3 minutes) to a bus stop with a shelter and or seating, rather than a

stop closer to their home. At 5 and 7 minutes, more respondents prefer to walk to the closest bus stop, implying that bus stop conditions are not a concern for two thirds of the respondents that answered this question. In all three cases, older people and mobility impaired people are most likely to select a bus stop with seating and a shelter than the other groups. Whereas, the mid years and able-bodied groups are least likely to select the furthest bus stop.

3.25 There is only a slight gender difference between the respondents (Figure 22). Women are slightly more likely to walk further than men in all three cases: 61% of women compared to 52% of men are prepared to walk 3 minutes; 42% compared to 31% at 5 minutes and 26% vs.21% at 7 minutes.

Figure 21: All Social Groups

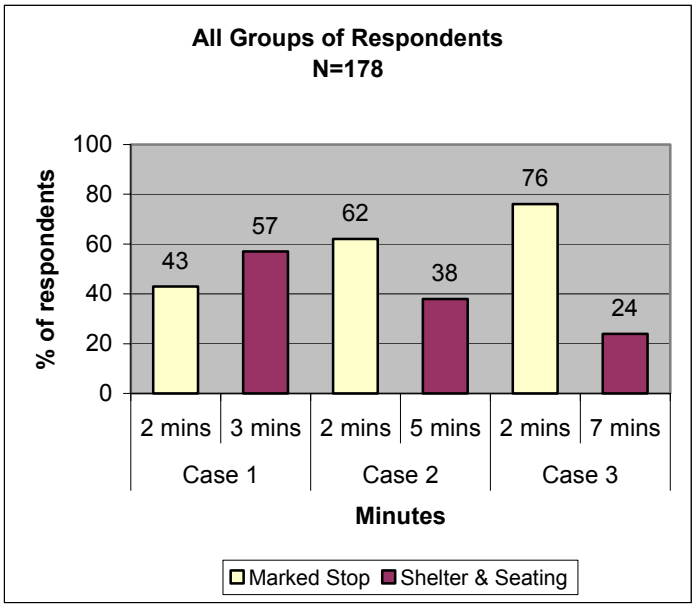
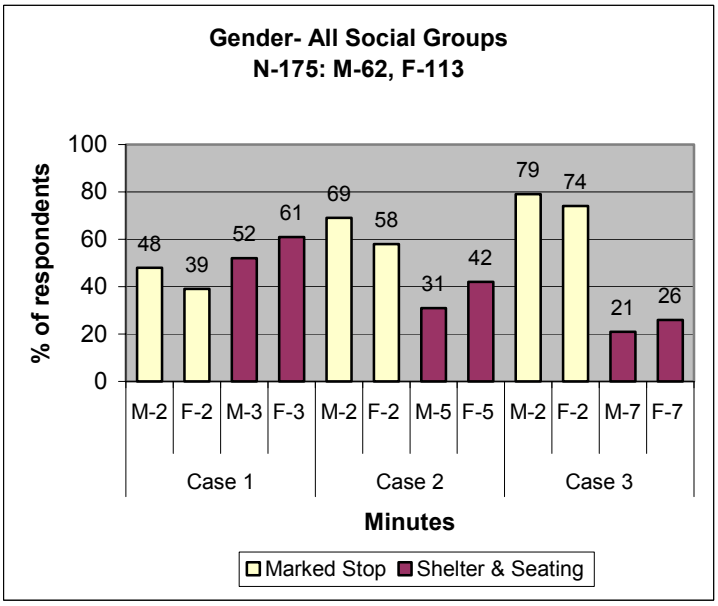


Figure 22: Gender



3.26 In the base case (i.e. 2 minutes versus 3 minutes), more young people (Figure 23) than people aged between 25 and 59 (Figure 24) selected the shelter and / or seating option. In the other two cases, young people are more likely to select the nearest bus stop. When the sample of young people is divided along gender lines, in all three cases, men (case 1: 70%, case 2: 30% and case 3: 20%) are more likely to walk to the bus stop with a shelter and / or seating than women (case 1: 55%, case 2: 22% and case 3: 17%). However, this does not apply to the mid years group as women (case 1: 61%, case 2: 48% and case 3: 25%) are more likely to walk further than men (38%, case 2: 24% and case 3: 16%). When comparing the two age groups, young males (70%) are most likely to walk an extra minute (3 minutes in total) and males in their mid years (38%) are least likely to select the furthest bus stop. Women in their mid years (48%) are most likely to walk an extra 3 minutes (5 minutes in total) and young women are least likely to select this stop (22%). Finally, at 7 minutes, women in their mid years (25%) are most likely to select this stop and men in their mid years (16%) are the least likely to do this.

Figure 23: Young People (16-24)

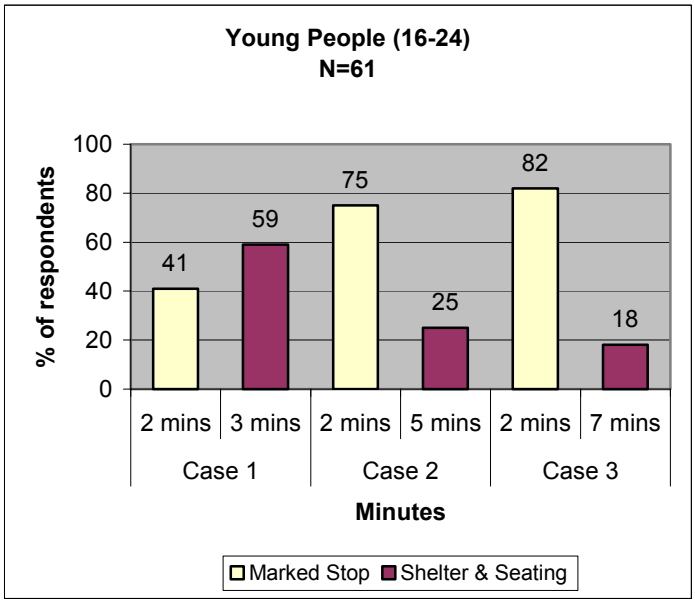
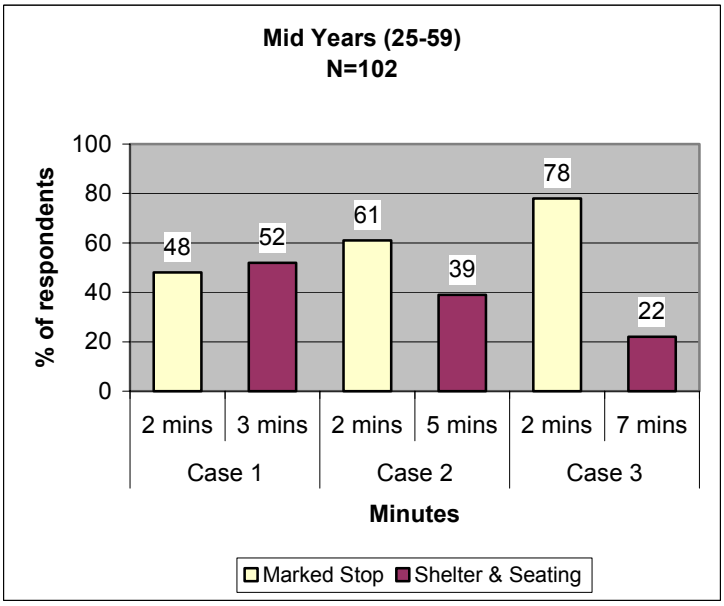
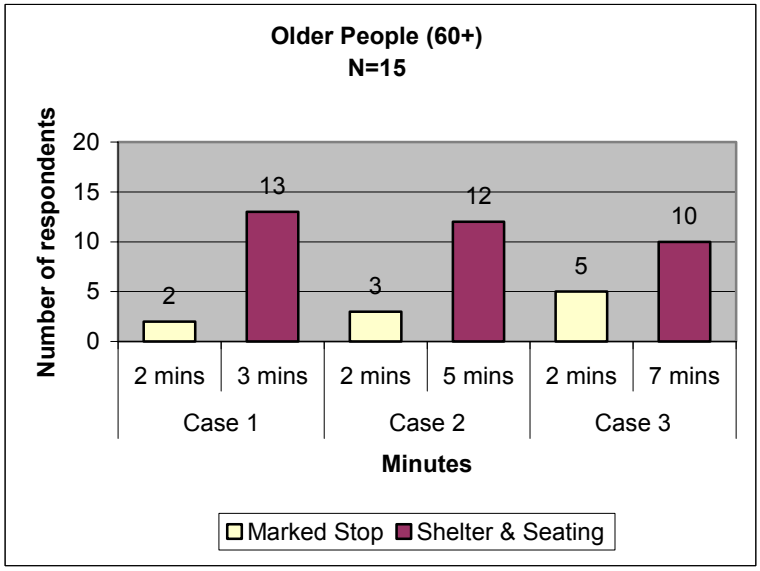


Figure 24: People aged 25-59 years



3.27 The results of the older people (Figure 25) group showed that regardless of distance, older people are more likely to choose to walk further to a bus stop with a shelter and / or seating than the younger age groups. The sample size for this group of people is too small to enable further analysis.

Figure 25: Older People



3.28 The results of the mobility impaired group (Figure 26) show that regardless of distance, people who are concerned about their mobility limitations are more likely to choose a bus stop with a shelter and / or seating than able bodied people (figure 27). Once again, the sample size of mobility impaired respondents is too small to enable further analysis. However, within the able-bodied group, those respondents over the age of 60 (case 1: 100%, case 2: 80% and case 3: 60%) are most likely to walk further to access a bus stop with a shelter and / or seating than any other age group. At 3 minutes, men in their mid years (38%) are more likely to select the

nearest bus stop: at 5 minutes young women (22%) and at 7 minutes more men in their mid years opt to walk to the closest bus stop without facilities (16%).

Figure 26: Mobility Impaired

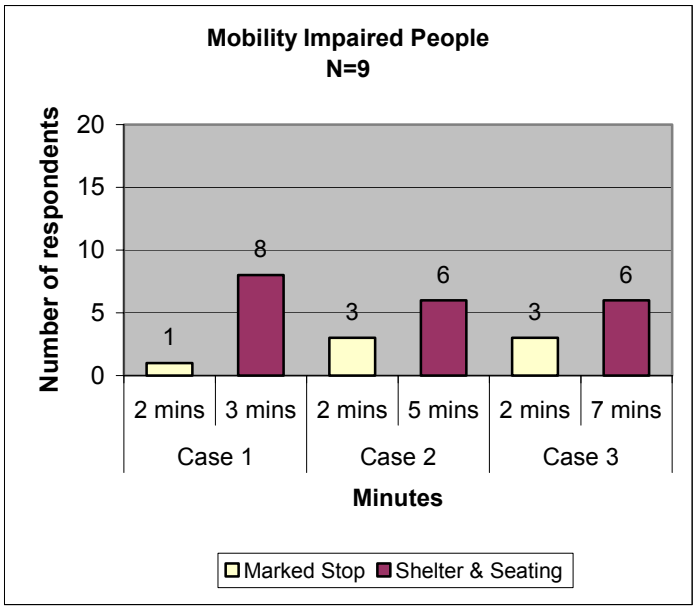
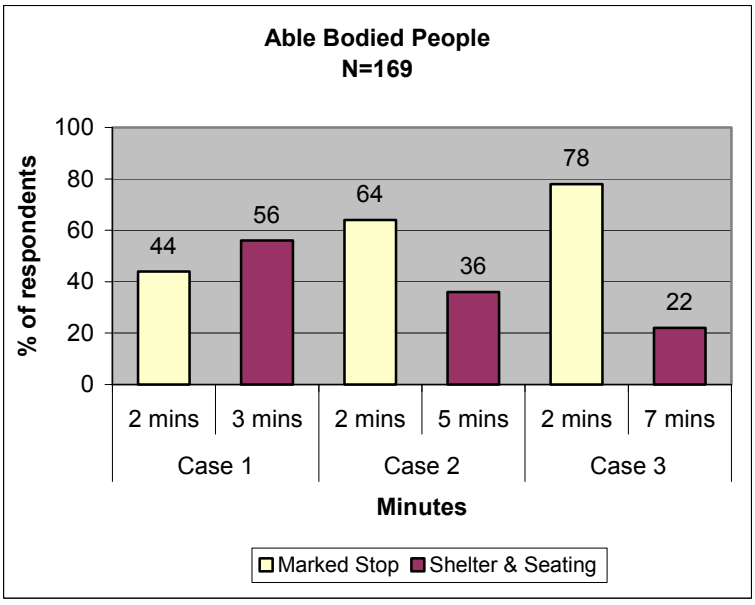


Figure 27: Able Bodied People



3.29 When comparing the results of the BME respondents (Figure 28) against those of the total sample population, BME people are more likely to walk an extra minute (2 minutes vs. 3 minutes) to a bus stop with facilities. At 7 minutes there is no difference between the groups. When the group is divided along gender and age lines, it becomes apparent that there are differences between young people and people in their mid years aswell as slight gender differences (there was only one respondent who was over the age of 60 years). At 3 minutes, young males (80%) are most likely to walk an extra minute to a bus stop with facilities and males in their mid years (40%) are most likely to walk to the nearest stop. At 5 minutes, more women in their mid years (50%) state a preference for a bus stop with facilities and young women (76%), Finally, at 7 minutes more men in their mid years (27%) prefer to walk an extra 5 minutes and young males (80%) are least likely to walk further.

3.30 Just over half of the people travelling with children (56%) (Figure 29) said they would be prepared to walk an extra minute to access a bus stop with facilities, but this figure reduces as the time differential increases (5 minutes: 37.5% and at 7 minutes: 25%). Once again, the sample size for this group of people is too small to enable further analysis.

Figure 28: BME People

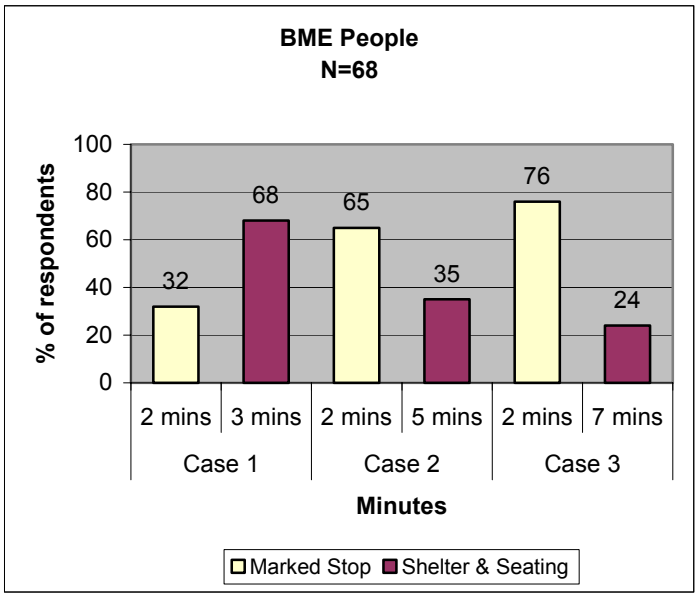
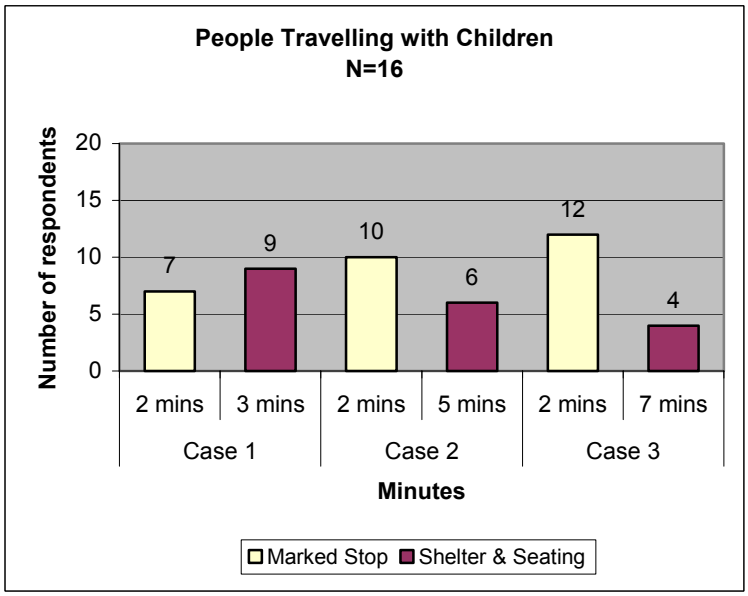


Figure 29: People travelling with children



Crossing A Busy Road Without A Pedestrian Crossing Or Avoid Crossing The Road?

3.31 Respondents were asked which bus stop they would use if they had a choice between a stop that is 2 minutes away from their home, but involves crossing a busy road without a pedestrian crossing or a stop that is further away (3 mins, 5 mins or 7 mins) and avoids crossing a busy road.

3.32 Table 9 shows the demographic profile of the respondents who answered the question about crossing busy roads. Overall, 57% (n=185) of the respondents answered this question.

Table 9: Demographic profile of respondents answering busy road without crossing question.

	Demographic profile	Social groups					Total Sample N=185
		Young N=61	Older N=16	Mobility Impaired N=8	BME N=71	People travelling with children N=17	
Age groups	16-24	100%	-	-	52%	*23%*	33%
	25-59	-	-	*50%*	46%	*77%*	58%
	60+	-	*100%*	*50%*	1%	-	9%
					*		
Gender	Male	33%	*40%*	*12%*	37%	-	35%
	Female	66%	*60%*	*88%*	62%	*94%*	64%
	Missing	1%	-	-	1%	*6%*	1%
Ethnicity	White	38%	*94%*	*75%*	-	*77%*	61%
	Black	18%	*6%*	-	25%	*11%*	10%
	Indian	-	-	-	4%	-	1%
	Pakistani	-	-	-	-	-	-
	Bangladeshi	25%	-	-	28%	*11%*	11%
	Chinese	5%	-	-	13%	-	5%
	Mixed Race	5%	-	-	13%	-	5%
	Other	8%	-	*25%*	17%	-	6%
	Missing	1%	-	-	-	-	1%
						*	
Employment status	Employed (F/P)	16%	-	-	17%	*18%*	38%
	Employed (P/T)	13%	*19%*	*12%*	16%	*29%*	15%
	F-T Parent/Carer	2%	-	*12%*	-	*35%*	5%
	Unemployed	3%	-	-	6%	-	3%
	Student	64%	-	*25%*	59%	*12%*	30%
	Retired	-	*81%*	*50%*	1%	-	7%
	Other	2%	-	-	1%	*6%*	1%
	Missing	-	-	-	-	-	1%
				*			

* Figures do not add up to 100% due to rounding. Figures in italics indicate social groups with a sample size of less than 20 respondents.

3.33 Overall, 57% (n=185) of the respondents answered this the question, of which 35% (n=65) were male, 63% (n=117) were female, while 2% failed to state their gender. At the aggregate level (Figure 30), the results indicate that even a journey of 5 minutes (i.e. an additional walk of 3 minutes) is an attractive choice for over half (54%) of the respondents.

3.34 Men appear to be much less concerned about crossing a busy main road without a pedestrian crossing than women (Figure 31). For example, 37% of women said they would be prepared to walk 7 minutes to a bus stop to avoid a main road, compared to 26% of men.

Figure 30: All Social Groups

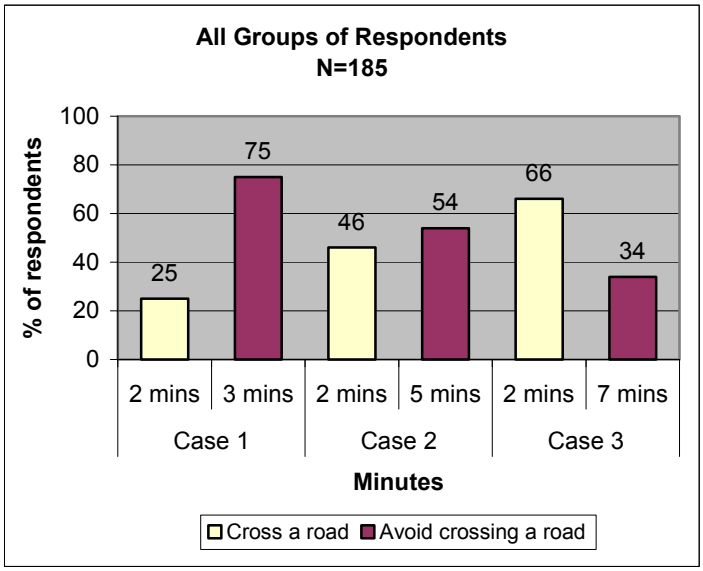
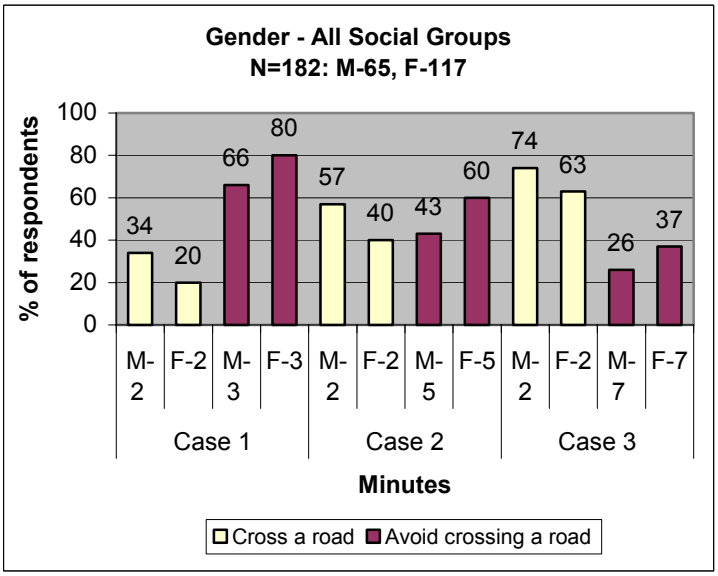


Figure 31: Gender

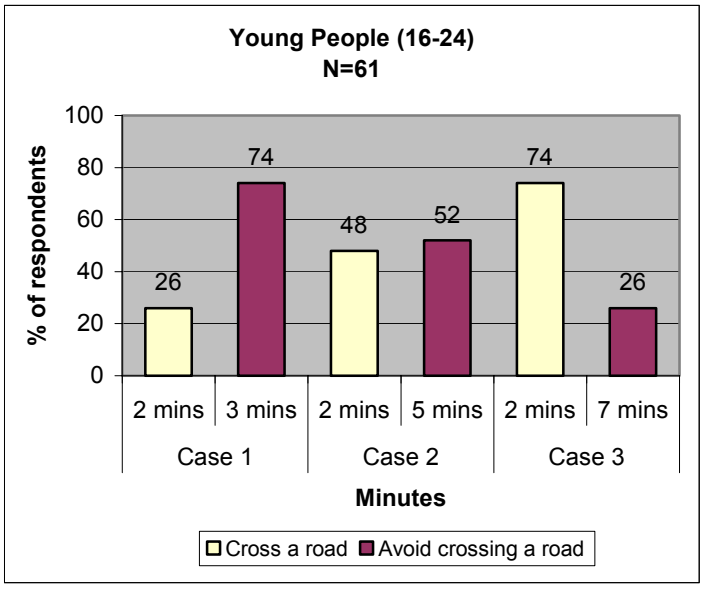


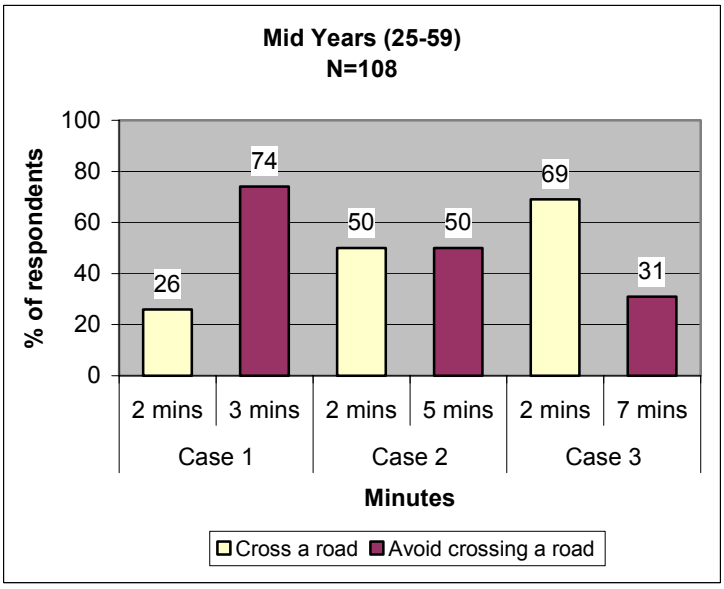
3.35 When the three different age groups are compared, there is a clear gradation of responses, from young to old. A comparison of the groups shows that there is no difference between the young (Figure 32) and mid years (Figure 33) groups at 2 minutes vs. 3 minutes, but in cases 2 and 3 there are slight differences between the groups. However, at 5 minutes, among young people aged 16-24, 48% opt for the 2 minute walk across a busy road and at 7 minutes this figure rises to 74%; for the mid-aged group, at 5 minutes, 50% opt to cross the road without a crossing and at 7 minutes this figure rises to 69%. In other words, respondents in their mid-years are more likely to walk further to a bus stop if it means they can avoid a main road, compared to younger people.

3.36 Over half of the respondents within the three different age groups were female (66%, 63% and 60%, respectively). Across all the different age groups, women are more likely to walk further to avoid crossing a busy road without a pedestrian crossing than men. For example, 89% of older women are prepared to walk as far as 7 minutes compared to 67% of older men, 32% of both women in their mid years and young women. These results indicate that older women have a greater aversion to the volume of traffic or the lack of a pedestrian crossing than males, or younger age groups.

Figure 33: People aged 25-59 years

Figure 32: Young People (16-24)





3.37 Not surprisingly, older people (Figure 34) are more likely to walk further to access a bus stop near a pedestrian crossing than any other age group. Once again, the sample size for this group of people is too small to enable further analysis.

Figure 34: Older People

3.38 Respondents with a health condition that affects their mobility are more likely to walk as far as 7 minutes to avoid cross a busy road without a pedestrian crossing (Figure 35) than those within the able-bodied group (Figure 36). Indeed, with 50% of the mobility impaired group being prepared to walk the extra 5 minutes, compared to 33% of able-bodied people.

3.39 There are differences between the respondents in different age groups who do not have a health condition that affects their mobility. As the age of the respondent increases their willingness to cross a busy road reduces. When asked if the respondents would be prepared to walk an extra minute (3 minutes in total): among

young people aged between 16 and 24, 75% of both males and females said they would be prepared to walk an extra minute. Among respondents aged between 25 and 59, 81% of females opt for the 3 minutes walk compared to 62% of men, and for those in the 60-plus group, all the females opt to avoid crossing the busy road compared to 80% of men.

3.40 When the respondents were asked if they would be prepared to walk an extra 3 minutes, the results show that there is a gender difference amongst those who are in their mid-years: men (64%) are more likely to opt for the 2 minute option than women (41%). However, there is no gender difference amongst young people until case 3, when males (15%) are least likely to walk 7 minutes to avoid crossing a busy road than women (32%).

Figure 35: Mobility Impaired People

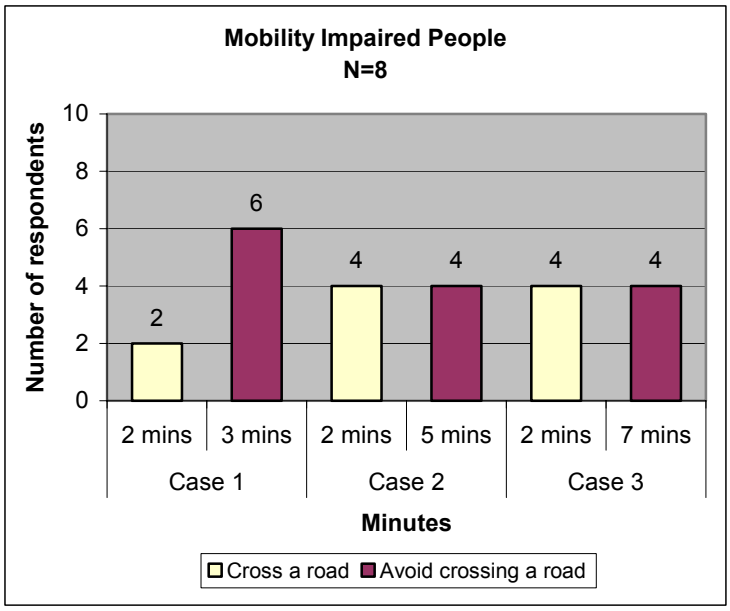
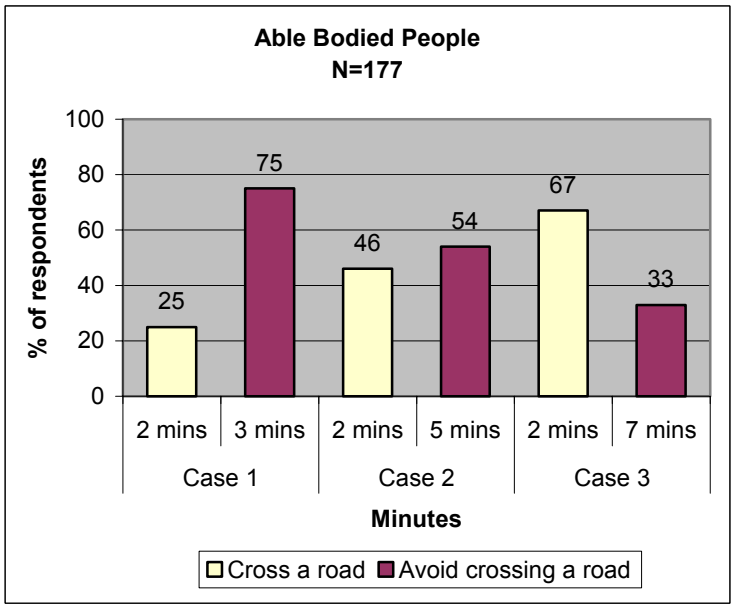


Figure 36: Able-Bodied People



3.41 Over a third (38%) of respondents who answered the question said they were from an ethnic minority background (Figure 37). Apart from the respondents within the older people and people travelling with young children groups, BME respondents are less likely to cross a road a busy road without a pedestrian crossing (in cases 1 and 2). BME women (aged between 16 and 59) are more likely to choose a bus stop that is further away from their home than the sample of BME men.

3.42 Forty nine percent (n=17) of people travelling with young children (Figure 38) answered this question. As can be seen, this group of people are more likely than the total sample of respondents to choose a bus stop that avoids crossing the main road without a pedestrian crossing. Once again, the sample size for this group of people is too small to enable further analysis.

Figure 37: BME People

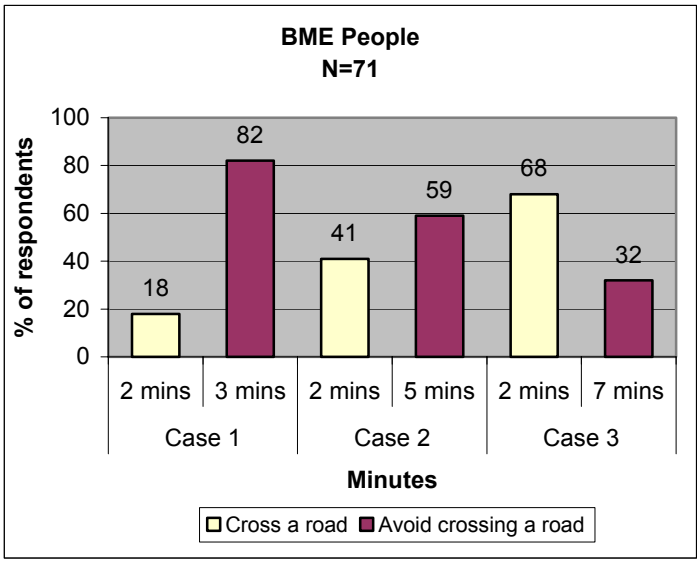
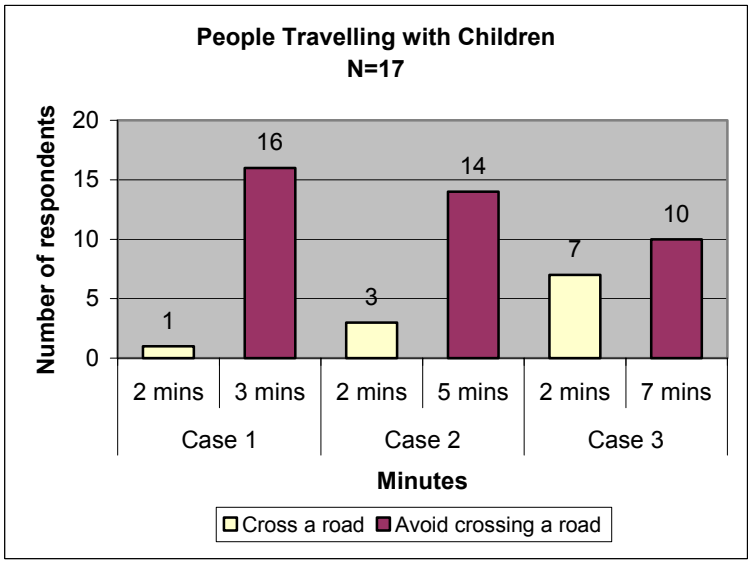


Figure 38: People travelling with children



A Bus Stop Along a Poorly Lit Quiet Road or a Stop Along a Well Lit, Busy Road?

3.43 Respondents were asked which bus stop they would use at night, involving a trade-off between distance and lighting levels, or whether they would prefer to stay at home and not make the trip or travel by car instead. The respondents could choose between i) a bus stop that is 2 minutes along a poorly lit quiet road or ii) a stop that is 3, 5 or 7 minutes further away along a well lit, busy road or iii) not make the trip at all.

3.44 Table 10 below shows the demographic profile of the respondents who answered the question about lighting conditions. Overall, 57% (n=185) of the respondents answered this question.

Table 10: Demographic profile of respondents answering level of lighting question.

	Demographic profile	Social groups					Total Sample N=185
		Young N=59	Older N=21	Mobility Impaired N=15	BME N=71	People travelling with children N=15	
Age groups	16-24	100%	-	-	49%	*27%*	32%
	25-59	-	-	*33%*	48%	*73%*	57%
	60+	-	100%	*67%*	3%	-	11%
Gender	Male	34%	35%	*20%*	39%	-	34%
	Female	66%	65%	*80%*	59%	*93%*	65%
	Missing	-	-	-	1%	*7%*	1%
					*		
Ethnicity	White	39%	86%	*73%*	-	*73%*	60%
	Black	14%	10%	*7%*	24%	*13%*	9%
	Indian	-	-	-	4%	-	2%
	Pakistani	-	-	-	-	-	-
	Bangladeshi	29%	-	-	32%	*13%*	12%
	Chinese	3%	-	-	11%	-	4%
	Mixed Race	5%	-	-	14%	-	5%
	Other	9%	-	*13%*	14%	-	5%
	Missing	1%	4%	*7%*	-	-	2%
					*	*	*
Employment status	Employed (F/P)	14%	-	-	20%	*6%*	36%
	Employed (P/T)	12%	9%	*7%*	11%	*27%*	12%
	F-T Parent/Carer	3%	-	-	1%	*47%*	5%
	Unemployed	7%	-	-	9%	-	5%
	Student	63%	-	*13%*	55%	*13%*	28%
	Retired	-	91%	*67%*	3%	-	11%
	Other	1%	-	*13%*	1%	*6%*	2%
	Missing	-	-	-	-	-	1%

* Figures do not add up to 100% due to rounding. Figures in italics indicate social groups with a sample size of less than 20 respondents.

3.45 Looking first at the 'All Groups' sample (Figure 39), over two thirds said that they would choose a bus stop 3 minutes away that is situated along a busy, well lit road, in preference to walking 2 minutes to a bus stop on a quiet, poorly lit route. As the distance to the bus stop along a well lit road in a busy area increases, more respondents switch to using the poorly lit stop or decide not to make a trip at night or to travel by car. In all three cases, respondents state a preference for walking to a bus stop along a well lit, busy main road.

3.46 The majority of the respondents who answered the question were female (65%), while 34% were male and 1% failed to state their gender (Figure 40). There are clear gender differences, with women both being prepared to walk further than men to enjoy a safer route, being more willing to stay at home at night and prefer to use a car. When the distance is increased to 7 minutes, the gender gap widens, with 18% of women saying that they would prefer not to go out, while only 6% of men selected this option.

3.47 For those who state an intention to travel at night, the respondents (regardless of gender) were more likely to choose a 'safer' route to a bus stop that is slightly further away from their home than a bus stop that is nearest to their home.

Figure 39: All Social Groups

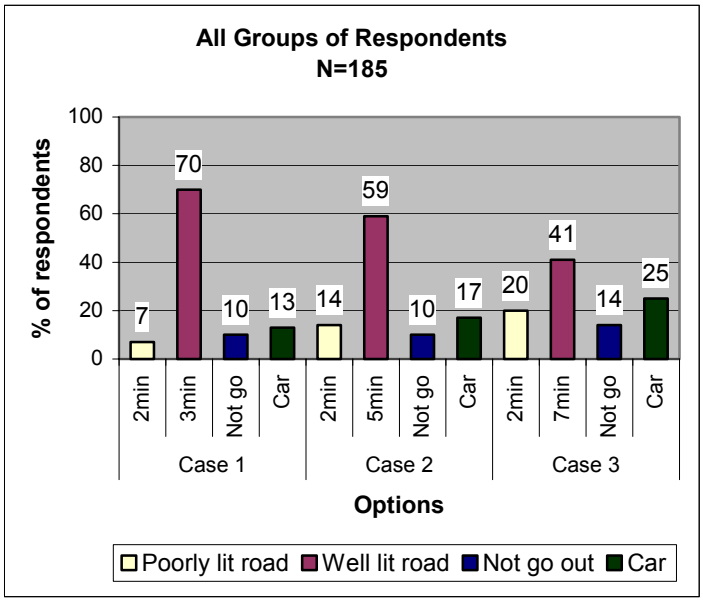
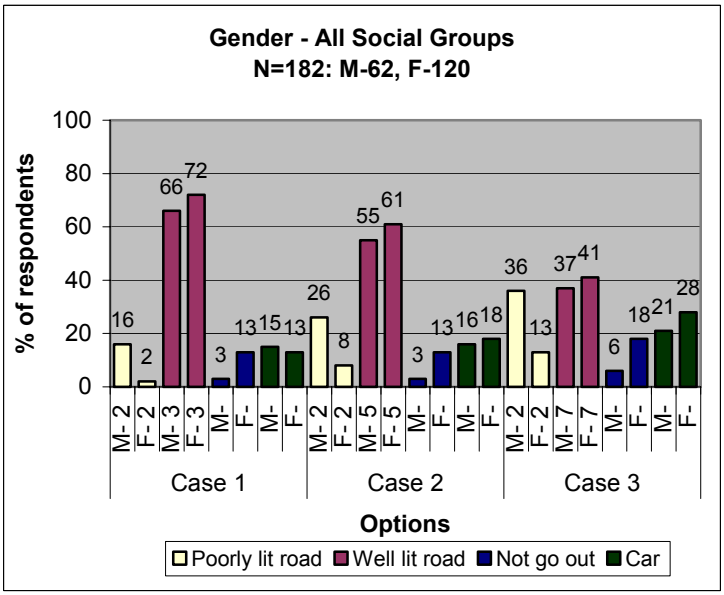


Figure 40: Gender



3.48 Of all the social groups, young people (Figure 41) are least likely to state that they would travel by car at night, indicating that they may not have the same access to a car (as either the driver or as a passenger) as people aged 25+, or that they tend to travel independently. When the two groups are divided along gender lines, men in their mid-years are more likely to walk to the nearest bus stop and women in their mid-years are least likely to walk along a poorly-lit, quiet road. Women in their mid-years are most likely to opt to use a car at night and young women are least likely to select the car option. Women in their mid-years are most likely to select a bus stop that is further away along a well-lit, busy road than men in their mid-years who prefer the nearest bus stop.

3.49 Young people are more likely to choose the nearest bus stop (in cases 2 and 3) than the mid-aged or older groups. When the distance is increased to 7 minutes, respondents within the mid-years group are more likely to walk further to a bus stop along a well lit busy road than young and older people.

Figure 41: Young People (16-24)

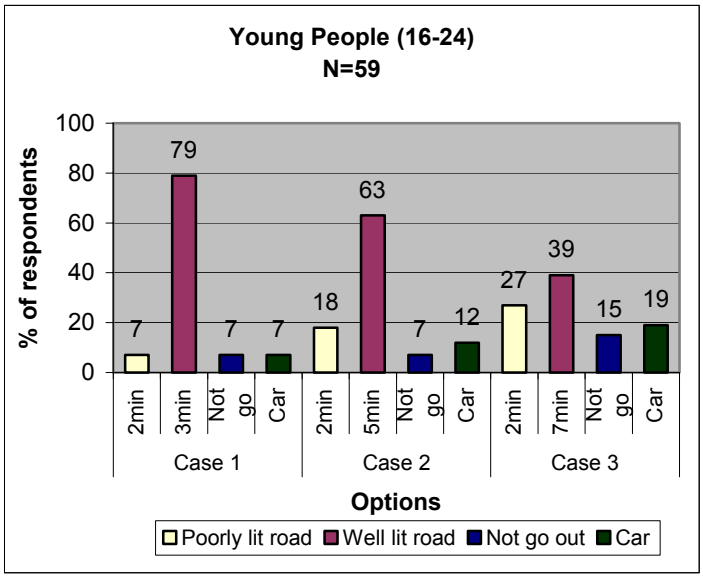
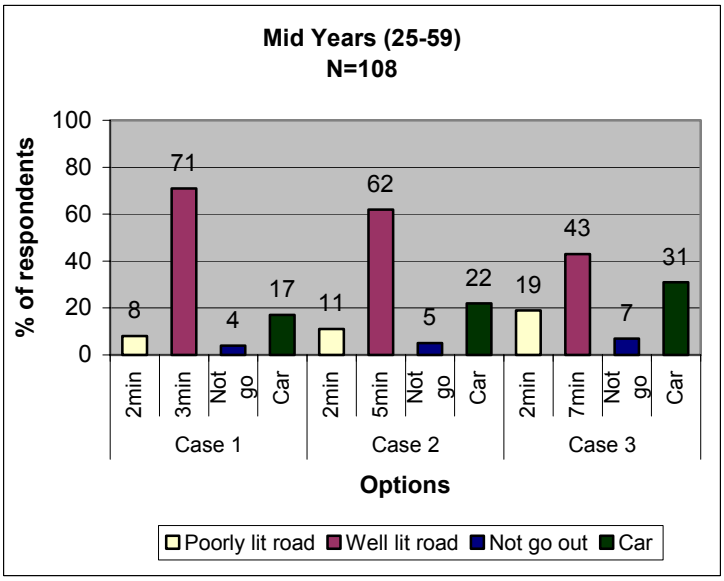
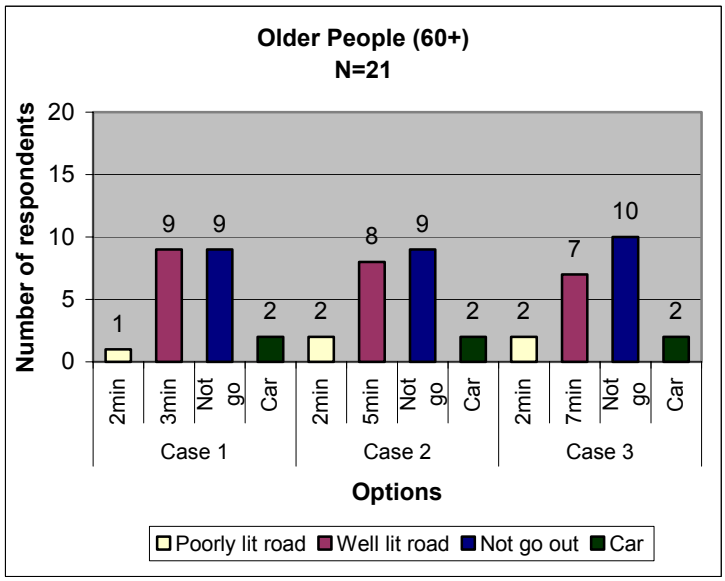


Figure 42: People aged 25-59 years



3.50 The likelihood of not going out at night increases with age, varying between 4% and 7% for the 25-59 age group (Figure 42), and rising sharply to 43 - 48% among the 60-plus age group (Figure 43). There is a slight gender difference amongst the respondents within the older people group. Men are less likely to indicate a preference for not going out at night and are more likely to choose the shortest route along a poorly lit quiet road.

Figure 43: Older People



3.51 Respondents with a health condition (Figure 44) are most likely to say that they would not travel by bus at night, than any other social group. Able-bodied respondents (Figure 45) are twice as likely to choose the bus stop that is along a well-lit, busy road than people with a health condition.

3.52 There is age and gender differences amongst the respondents within the able-bodied group, as older women are least likely to walk to the nearest bus stop and men in their mid-years are most likely to walk along a poorly lit road. When asked if they would be prepared to walk 3 minutes to a bus stop along a well-lit road, both

young men and women are more likely to choose this bus stop and older women are less likely to select this stop. When the distance is increased to 5 and 7 minutes, older men are more likely to be prepared to walk along a well-lit road and older women are less likely to choose this stop and they prefer not to go out at night. More women in their mid-years said they would prefer to travel at night by car than any other group.

Figure 44: Mobility Impaired People

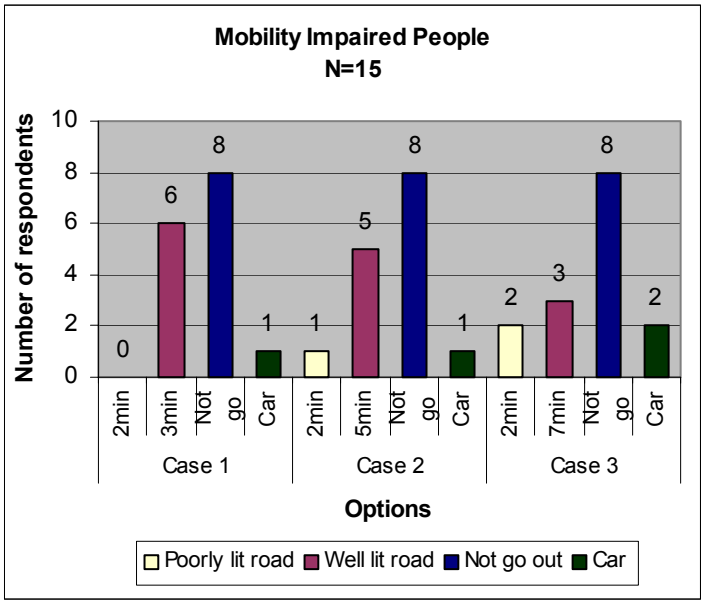
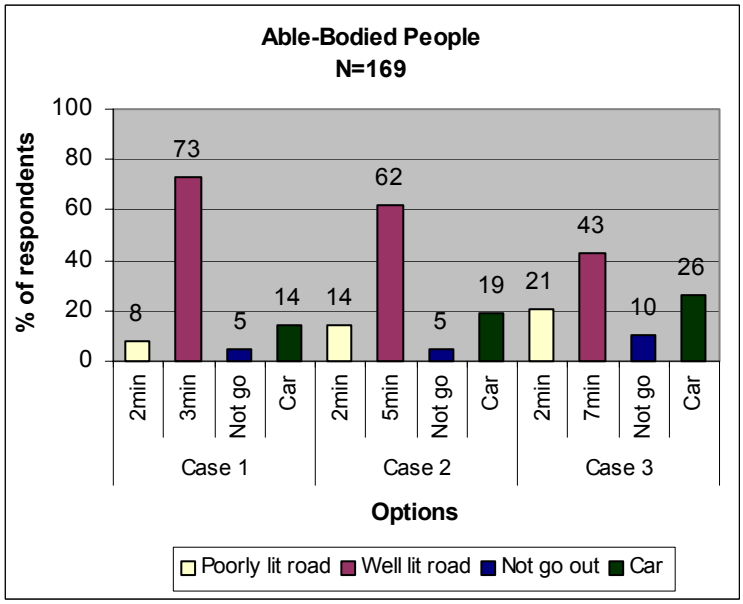


Figure 45: Able-Bodied People



3.53 The proportions of BME (Figure 46) people saying they would not go out at night are about the same as the total sample of respondents (Figure 39), ranging from 9% to 14%, and they are more likely to opt for the longer route. Within this group at 3 and 5 minute options, women are less likely to select the nearest bus stop and men in their mid-years are most likely to select this stop. Young men are least likely to stay at home at night and are more likely to select the car option than women or men in their mid-years. When the distance to the well-lit bus stop is increased to 7 minutes, young women are most likely to stay at home at night, women in their mid years are most likely to walk along the well-lit road, men in their mid years are most likely to walk to the nearest bus stop and young men are most likely to travel by car.

Figure 46: BME People

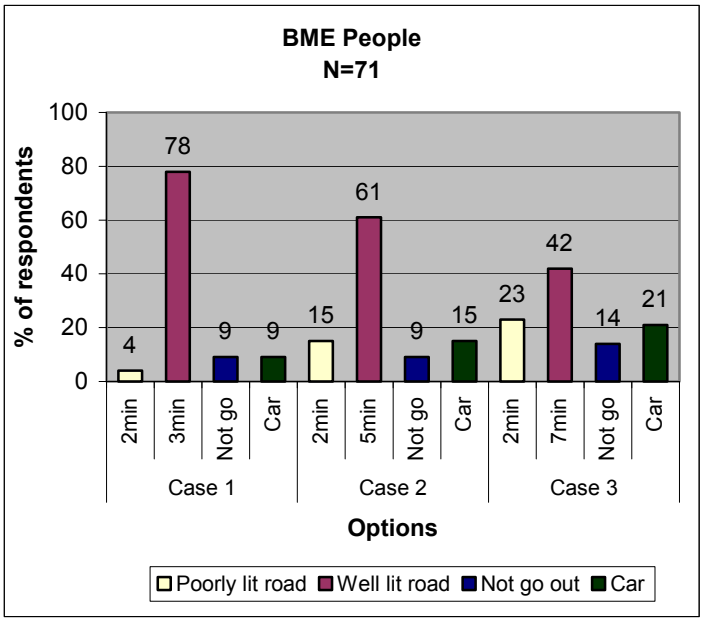
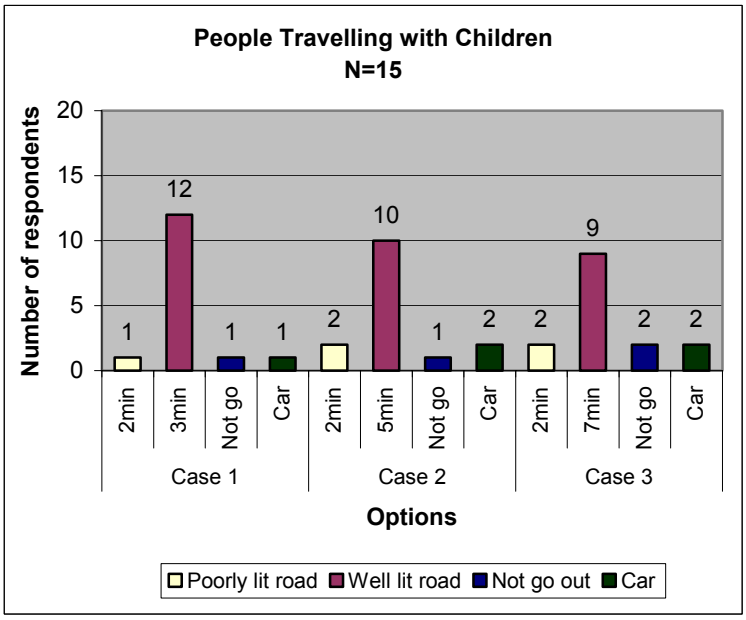


Figure 47: People travelling with children



3.54 The results for the people travelling with young children (Figure 47) show that as the distance to the bus stop along a well-lit, busy road increases, the number of people who choose this stop decreases. The sample size for this group of people is too small to enable further analysis.

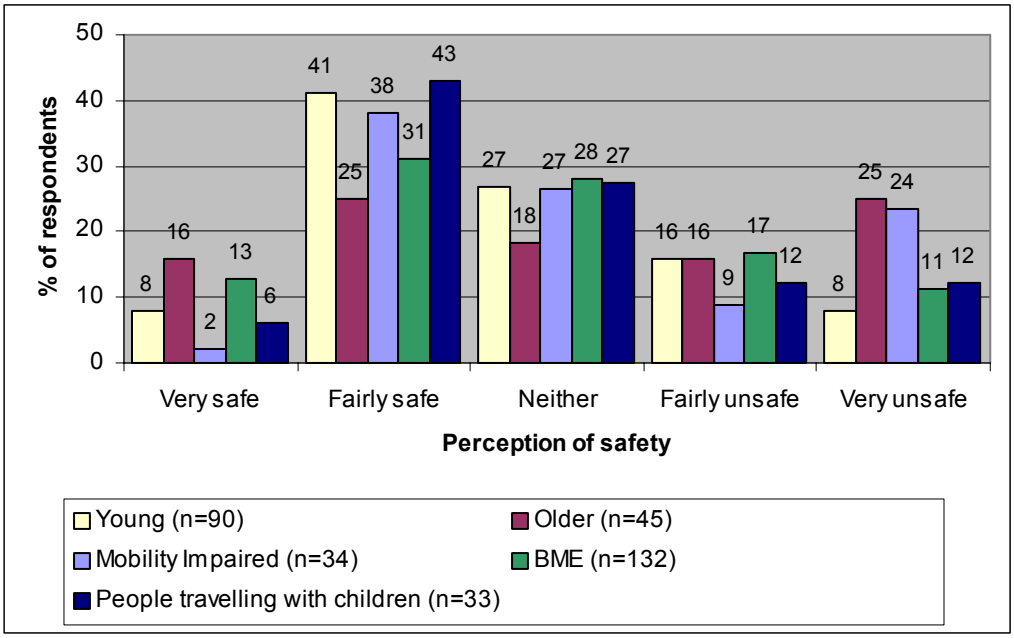
Perception of Personal Safety by Each Group

3.55 Respondents were asked to indicate how safe they feel when walking to and from their usual bus stop at night (Figure 48). Forty eight percent of the total sample said that they feel 'very' or 'fairly' safe when walking to and from their usual bus stop at night, of which 12% felt 'very' safe. However, 29% of the respondents said they feel 'very' or 'fairly' unsafe, of which older people (41%) were more likely to state that they have concerns than young people (24%). Seventeen percent of the respondents said they feel neither safe nor unsafe.

3.56 Figure 48 disaggregates these results by social group. The results suggest that the highest proportion of the groups that feel safe are the young people and people travelling with young children (both at 49%), and that the lowest proportion is found among the mobility impaired group (40%). Conversely, the older age respondents are the group with the highest percentage feeling of being unsafe (41%).

3.57 When the results are divided along gender lines, men are more likely to feel safe walking to their usual bus stop (57%) than women (42%). Men (27%) are also more likely to state a preference for neither feeling safe nor unsafe than women (21%). Women (36%) are more likely than men (16%) to feel unsafe when using their usual bus stop at night.

Figure 48: Perception of safety by each group



4 DLR SURVEY RESULTS

4.1 This section summarises the main findings from the analysis of the questionnaire, first looking at the reported DLR journey and then at the responses to the DLR access trade-off questions.

4.2 The demographic profile of the respondents for each social group and the total sample of all the respondents are shown in Table 11.

Table 11: Demographic profile of all DLR respondents.

	Demographic profile	Social groups					Total Sample N=269
		Young N=62	Older N=29	Mobility Impaired N=20	BME N=83	People travelling with children N=25	
Age groups	16-24	100%	-	15%	36%	16%	23%
	25-59	-	-	55%	59%	80%	66%
	60+	-	100%	30%	5%	4%	11%
Gender	Male	44%	28%	50%	43%	24%	44%
	Female	53%	69%	50%	52%	68%	52%
	Missing	3%	3%		5%	8%	4%
Ethnicity	White	45%	86%	75%	-	52%	67%
	Black	10%	3%	15%	29%	8%	9%
	Indian	2%	7%	-	8%	-	3%
	Pakistani	2%	-	-	2%	4%	1%
	Bangladeshi	27%	3%	10%	34%	32%	10%
	Chinese	3%	-	-	11%	-	3%
	Mixed Race	3%	-	-	11%	4%	3%
	Other	2%	-	-	5%	-	1%
	Missing	6%	- *	-	-	-	3%
Employment status	Employed (F/P)	37%	7%	10%	37%	32%	55%
	Employed (P/T)	18%	3%	15%	22%	28%	13%
	F-T Parent/Carer	-	-	-	2%	20%	2%
	Unemployed	10%	-	-	5%	-	3%
	Student	32%	-	10%	24%	12%	12%
	Retired	-	90%	45%	6%	4%	11%
	Other	1%	-	20%	2%	4%	4%
	Missing	1% *	-	-	1% *	-	(0.4%) *

* Figures do not add up to 100% due to rounding

4.3 The demographic profile of the respondents can be summarised as follows:

Age

- Two thirds (66%) of the DLR user respondents were aged between 25 and 59 years;

- Eleven percent of the respondents were aged 60+ and 23% were between 16 and 24 years;
- Over half of the mobility impaired (55%) and BME (59%) respondents were aged between 25 and 59 years;
- Eighty percent of people travelling with young children were aged between 25 and 59 years.

Gender

- The majority of respondents were female (52%), 44% were male and the remaining 4% failed to answer the question;
- The highest percentage of male respondents was in the mobility impaired group (50%) and the least number of males were in the people travelling with young children group (24%).

Ethnicity

- The main three ethnic groups were: white people (67%), Bangladeshi people 10% and Black people 9%;
- Young people were more likely (just) to represent different ethnic groups than the other social groups. For example, 49% of young people were from a non-white background and this can be compared to: 48% of people travelling with young children, 25% of mobility impaired people and 14% of older people.

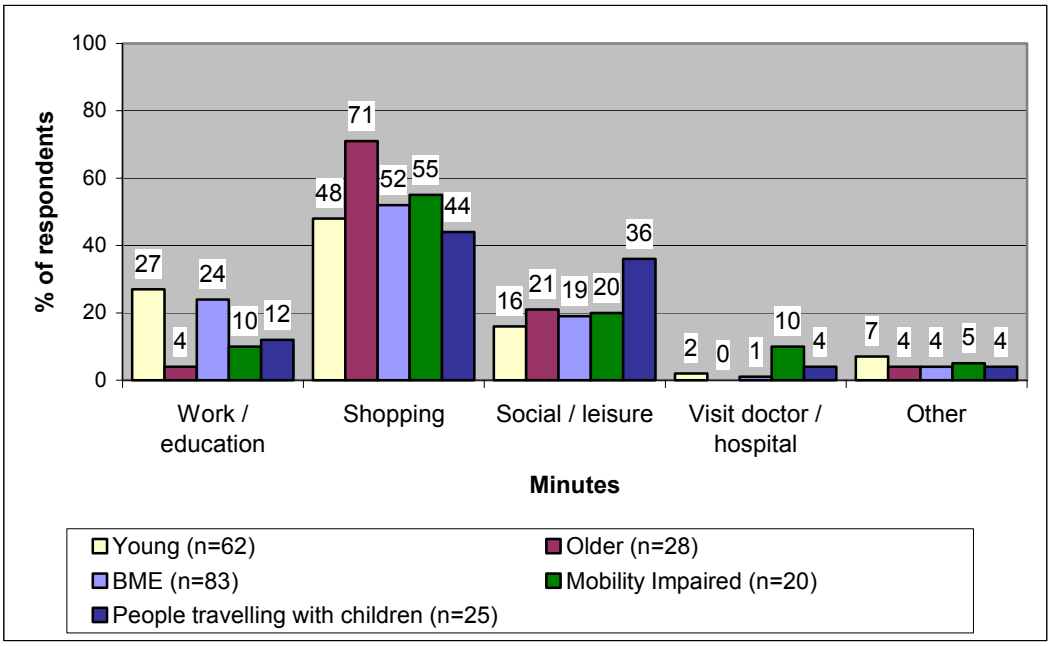
Employment Status

- Over two thirds (68%) of the sample were employed;
- Forty five percent of the mobility impaired group were retired;
- Sixty percent of people travelling with young children were employed;
- Nearly a quarter of BME respondents were students;
- Nearly a third of young people were students;
- Ten percent of older people were employed.

Reported DLR Journey

4.4 Respondents were asked to state the main reason why they were travelling by DLR on the day that they were surveyed. As shown in Figure 49, the main journey purpose for all the social groups was ‘shopping’. The second main reason why young people and BME people said they use the DLR is to access work and education, whereas people travelling with children, older people and people with mobility concerns said they used it to access social and leisure facilities. The mobility impaired (10%) respondents and those travelling with young children (4%) said they often used the DLR to access healthcare facilities; these figures can be compared against 2% of young people and 1% of BME respondents. Older people did not state access to healthcare as their DLR journey purpose.

Figure 49: Journey purpose by DLR

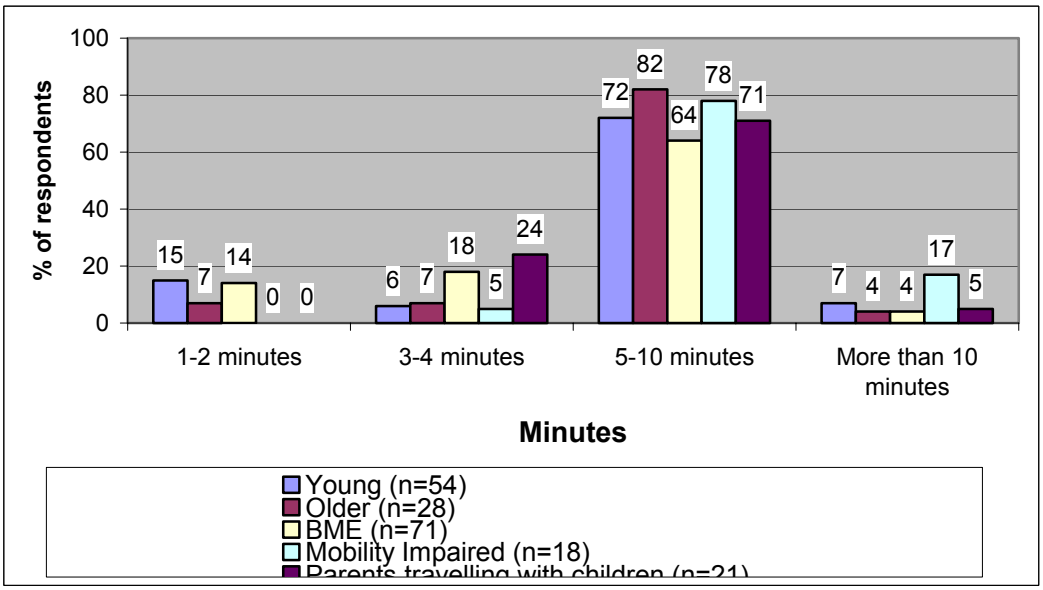


N.B: 'Other' purposes include: 'going to the bank', 'collecting my children from the nursery' and 'going to the airport / bus station'.

4.5 The respondents were then asked to state if they walked from home to their usual DLR station and if so, how long their journey took. Overall, 96% (n=258) said they walked from home to access the DLR station.

4.6 The time it takes people to walk to their usual DLR station varied between the different groups of people. For example 32% if BME people said they could access their usual DLR station in less than 5 minutes. This can be compared to 24% of people travelling with young children, 21% of young people, 14% of older people and 5% of mobility impaired people (Figure 50). In other words, older people and people who have a health condition that affects their mobility spend a disproportionate amount of time walking to their usual DLR station compared to other groups of people.

Figure 50: Walk time to the DLR Station (minutes)



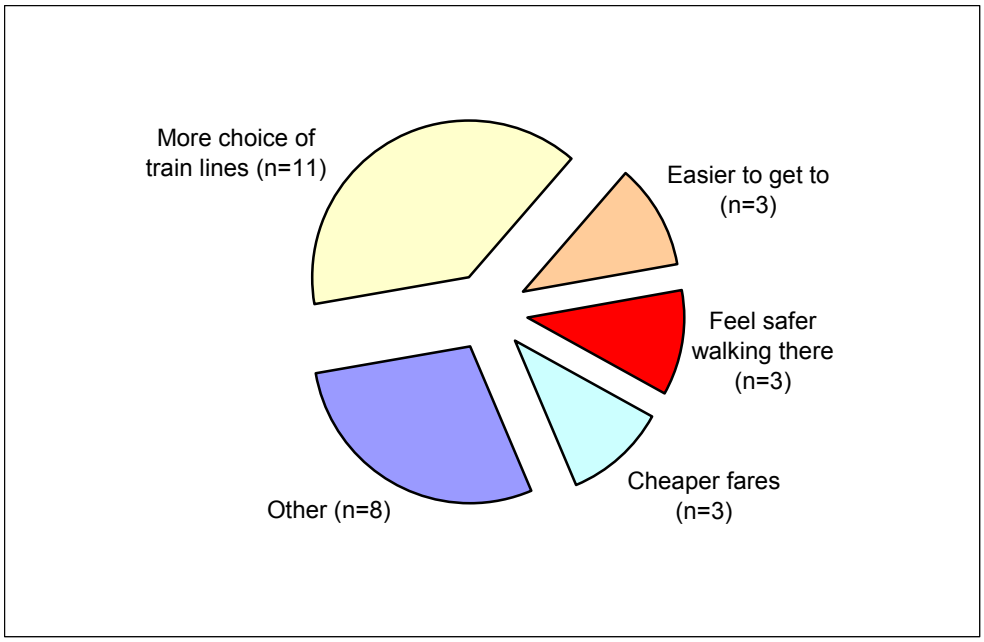
4.7 Table 12 shows the average walk time to the DLR station for each group of respondents. Mobility impaired people spend an extra minute walking to their usual DLR station and BME spend a minute less, compared to the other groups and the total sample average.

Table 12: Average walk time to the DLR station.

GROUP	MINUTES
Young people	7
People travelling with children	7
Mobility impaired people	8
BME people	6
Older people	7
Total sample population	7

4.8 When asked if they walked to their nearest DLR station, 11% (n=28) of users said they did not use their nearest station and the main reasons why not can be illustrated in Figure 51; note the small sample sizes. 'More choice of train lines' is one of the main reasons why respondents are prepared to walk to a different station.

Figure 51: Reasons why people do not use their nearest DLR station



Walk Access Trade-offs

4.9 As one of the main aims of the survey was to identify the importance of the walking environment in relation to accessing a DLR station, some specific questions about this were included in the questionnaire.

4.10 The respondents were asked to consider which of two hypothetical DLR stations they would use if the first station is situated 2 minutes away offering less favourable conditions (on route) and the second station (with favourable conditions) is 3 minutes away. The question was then repeated, with the distance to the second station increased to 5 and then 7 minutes.

4.11 The trade-off questions covered:

1) Cross a busy road without a pedestrian crossing, or cross a road with a pedestrian crossing;
2) Poorly lit quiet road, or a well lit busy road, or not go out at night, or travel by car.

4.12 A number of logic checks were carried out on the trade-off data. For example, when respondents answered '2 mins' to case 1, logically they should answer '2 mins' to the remaining cases, rather than '5 mins' or '7 mins'. Similarly, if the respondents answered '3 mins', followed by '2 mins' where the alternative was'5 mins', then they should not then answer '7 mins' for the final case. If respondents followed this logical response pattern, their answers were included in the analysis. However, if responses deviated from this pattern, they were excluded.

Crossing A Busy Road Without A Pedestrian Crossing Or Avoid Crossing The Road?

4.13 Exploring the extra distance people are prepared to walk to access a DLR station where they do not have to cross a busy main road without a pedestrian crossing was the first of two trade-off questions. Respondents were asked which DLR station they would use if they had a choice between a station that is 2 minutes away from their home, but involves crossing a busy road without a pedestrian crossing or a station that is further away (3 mins, 5 mins, 7 mins or 9 mins) and avoids crossing a busy road.

4.14 Table 13 shows the demographic profile of the respondents who answered the question about crossing busy roads.

4.15 Overall, 61% (n=165) of the respondents answered this question, of which 41% (n=67) were male, 58% (n=96) were female, while 1% (n=2) failed to state their gender. At the aggregate level (Figure 52), the results indicate that even a journey of 5 minutes (i.e. an additional walk of 3 minutes) is an attractive choice for over half (52%) of the respondents.

Table 13: Demographic profile of respondents answering the busy road without a crossing question.

	Demographic profile	Social groups					Total Sample (n=165)
		Young (n=39)	Older (n=10)	Mobility Impaired (n=6)	BME (n=41)	People travelling with children (n=12)	
Age groups	16-24	100%	-	-	39%	*8%*	24%
	25-59	-	-	*50%*	56%	*83%*	60%
	60+	-	*100%*	*50%*	5%	*8%*	10%
	Missing	-	-	-	-	- *	6%
Gender	Male	38%	*20%*	*33%*	29%	*17%*	41%
	Female	59%	*80%*	*67%*	71%	*83%*	58%
	Missing	3%	-	-	-	-	1%
Ethnicity	White	51%	*80%*	*83%*	-	-	72%
	Black	8%	*10%*	*17%*	22%	*17%*	5%
	Indian	-	*10%*	-	7%	-	2%
	Bangladeshi	23%	-	-	32%	*25%*	8%
	Chinese	3%	-	-	15%	-	4%
	Mixed Race	5%	-	-	22%	*8%*	5%
	Other	3%	-	-	2%	-	1%
	Missing	8% *	-	-	-	-	3%
Employment status	Employed (F/P)	44%	*10%*	-	41%	*33%*	67%
	Employed (P/T)	10%	-	*17%*	15%	*17%*	7%
	F-T Parent/Carer	-	-	-	2%	*25%*	1%
	Unemployed	10%	-	-	5%	-	3%
	Student	33%	-	-	27%	*8%*	12%
	Retired	-	*90%*	*67%*	5%	*8%*	6%
	Other	3%	-	*17%*	5%	*8%*	4%
	Missing	-	-	- *		-	-

* Figures do not add up to 100% due to rounding. Figures in italics indicate social groups with a sample size of less than 20 respondents.

4.16 Men appear to be much less concerned about crossing a busy main road without a pedestrian crossing than women (Figure 53). For example, 20% of women said they would be prepared to walk 9 minutes to a DLR station to avoid a main road, compared to 9% of men.

Figure 52: All Social Groups

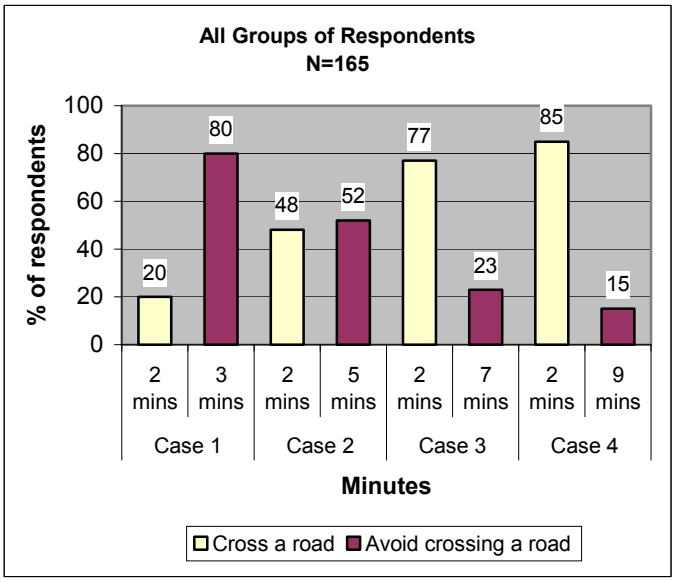
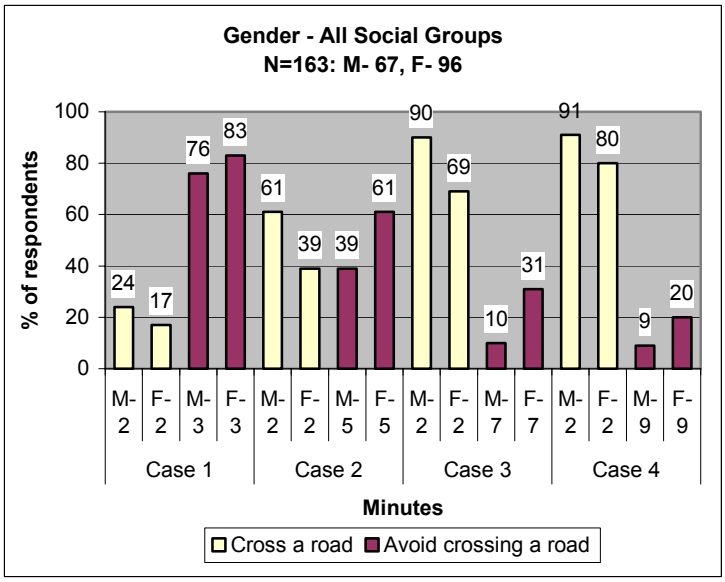


Figure 53: Gender



4.17 When the three different age groups are compared, there is a clear gradation of responses, from young to old. A comparison of the groups shows that there is a difference between the young (Figure 54) and the mid years (Figure 55) groups as young people are more likely to cross a busy main road without a pedestrian crossing and people in their mid years are more likely to avoid crossing the road.

4.18 Over half of the respondents within the three different age groups were female (61%, 57% and 80%, respectively). Across all the different age groups, women are more likely to walk further to avoid crossing a busy road without a pedestrian crossing than men, except in the young group where at 7 and 9 minutes young men (20% and 13%, respectively) are more likely to walk further than young women (17% and 9%, respectively). There is also a difference between young men and men in their mid years: at 5, 7 and 9 minutes young men (60%, 80% and 87%, respectively) are less likely to cross a busy road than men in their mid years (62%, 92% and 92%). Amongst young and mid years women, in all four cases young women (26%, 52%, 83% and 91%) are more likely to cross a busy road than women in their mid years (15%, 37%, 71% and 83%). These results indicate that women in their mid years have a greater aversion to the volume of traffic or the lack of a pedestrian crossing than males, or young women.

Figure 54: Young People (16-24)

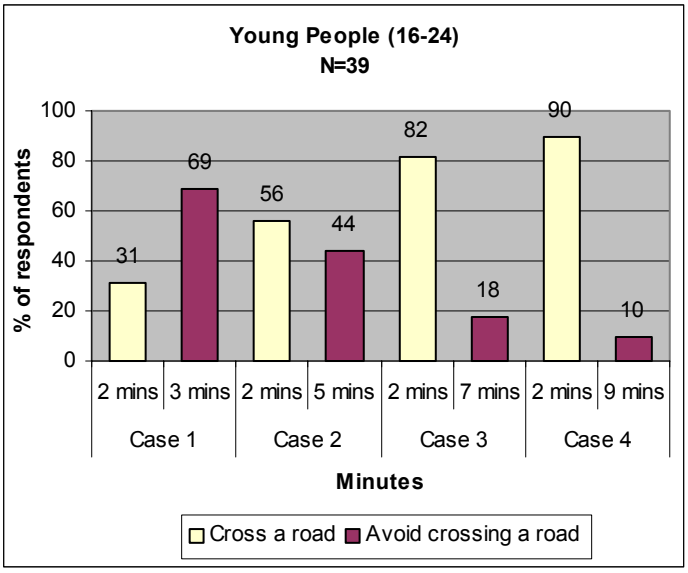
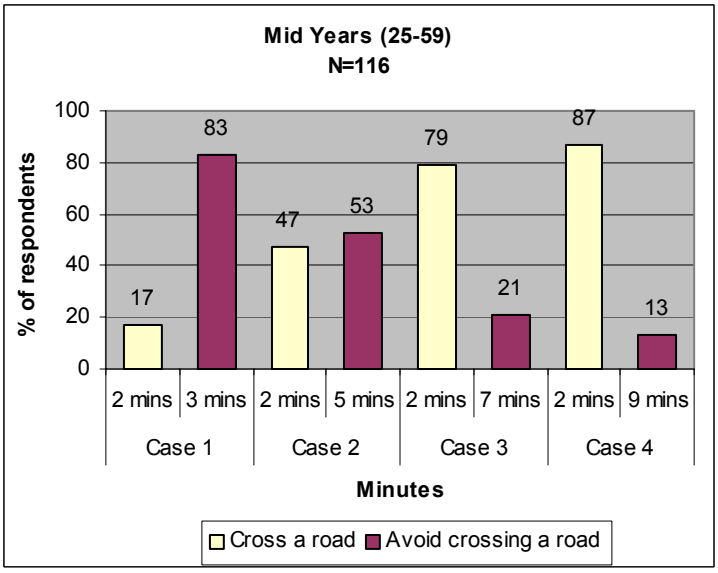
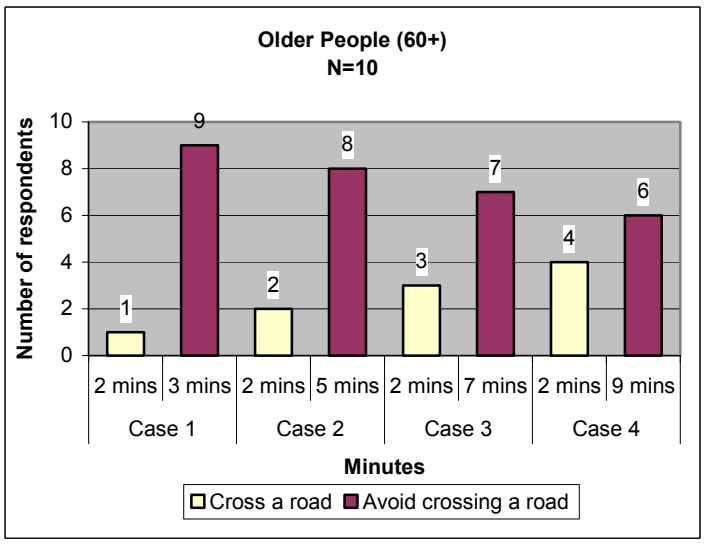


Figure 55: People aged between 25-59 years



4.19 Not surprisingly, older people (Figure 56) are more likely to walk further to access a DLR station near a pedestrian crossing than any other age group. The sample size for this group of people is too small to enable further analysis.

Figure 56: Older People



4.20 Half of the respondents with a health condition that affects their mobility said that they would be prepared to walk as far as 5 minutes to avoid crossing a busy road without a pedestrian crossing (Figure 57); this can be compared to 52% of those within the able-bodied group (Figure 58). The sample size of the mobility impaired group is too small to enable further analysis. However, there are age and gender differences amongst the respondents in the able-bodied group. When comparing young and mid year able bodied respondents, the results show that women in their mid years are least likely to cross a busy road and young men (67%) are less likely to walk an extra minute compared to young women (73%), men (80%) and women (86%) in their mid years. When the distance to avoid crossing a road increases to 5 and 7 minutes, men in their mid years (39% and 8%, respectively) are less likely to walk the extra distance than women in their mid years (63% or 30%), young women (45% and 4%) or young men (40% and 13%). When the distance is increased even

further, to 9 minutes, young women (4%) are least likely to walk this far to avoid crossing a road, compared to men in their mid years (8%), young men (13%) or women in their mid years (17%).

Figure 57: Mobility Impaired People

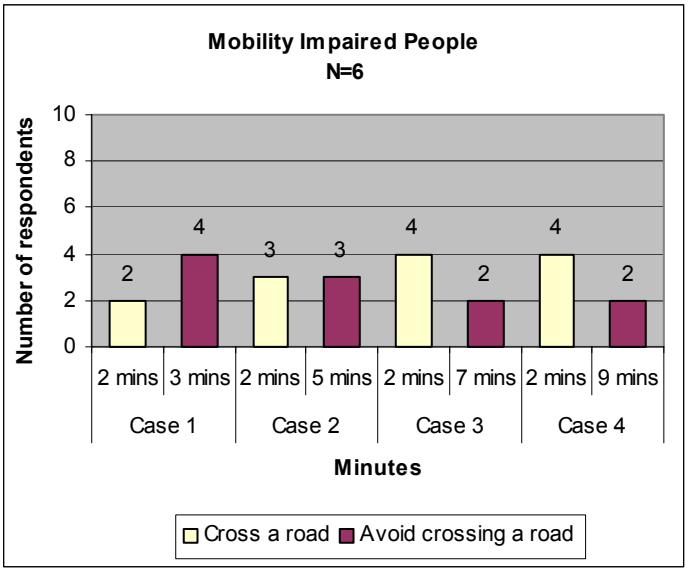
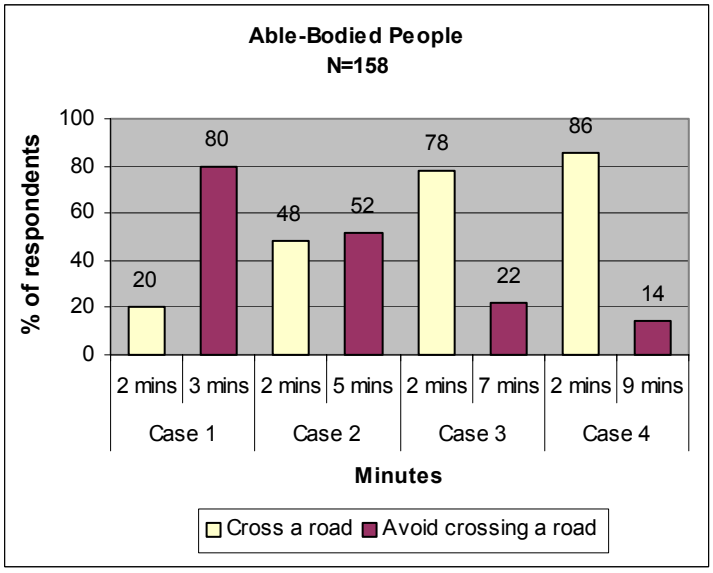


Figure 58: Able-Bodied People



4.21 A quarter of respondents who answered this question said they were from an ethnic minority background (Figure 59). When comparing the results of the BME respondents against those of the total sample population, BME people are more likely to walk further to avoid crossing a busy road.

4.22 Forty eight percent (n=12) of people travelling with young children answered this question (Figure 60). The results indicate that two thirds of people travelling with young children prefer to walk an additional 3 minutes (total of 5 minutes) to access a station where they can avoid crossing a busy road, rather than cross a busy road to a station nearer to home. The sample size for this group of people is too small to enable further analysis.

Figure 59: BME People

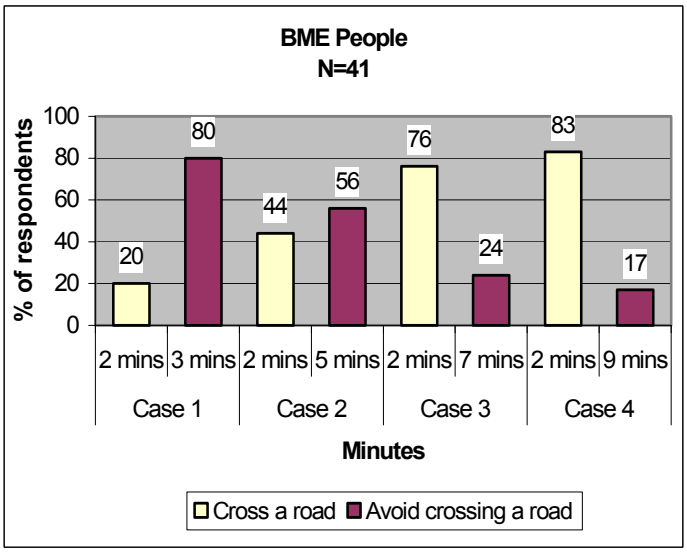
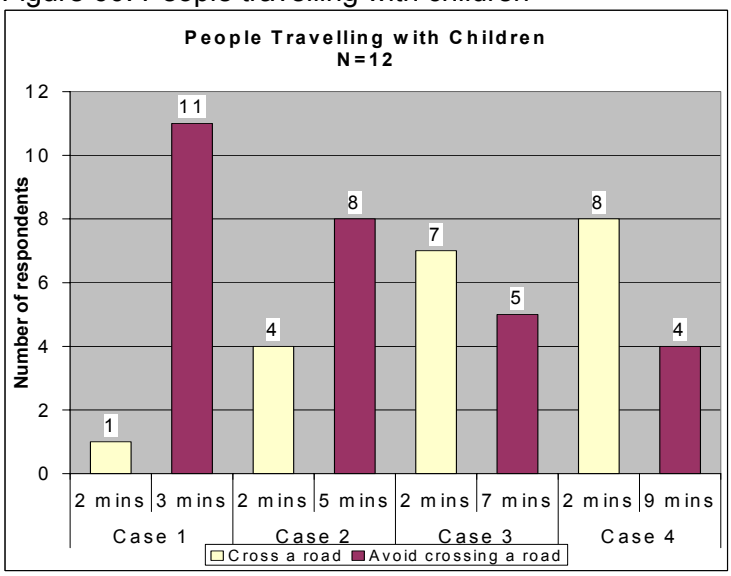


Figure 60: People travelling with children



A DLR Station Along a Poorly Lit Quiet Road or a Stop Along a Well Lit, Busy Road?

4.23 Respondents were asked which DLR station they would use at night, involving a trade-off between distance and lighting levels, or whether they would prefer to stay at home or travel by car. The respondents could choose between i) a DLR station that is 2 minutes along a poorly lit quiet road or ii) a station that is 3, 5, 7 or 9 minutes further away along a well lit, busy road or iii) not make the trip at all or iv) travel by car.

4.24 Table 14 below shows the demographic profile of the respondents who answered this question. Overall, 62% (n=168) of the respondents answered this question.

Table 14: Demographic profile of respondents answering the level of lighting question.

		Social groups					
	Demographic profile	**Young (n=40)**	**Older (n=10)**	**Mobility Impaired (n=10)**	**BME (n=39)**	**People travelling with children (n=13)**	**Total Sample (n=168)**
Age groups	16-24	100%	-	-	38%	*8%*	24%
	25-59	-	-	*60%*	54%	*92%*	70%
	60+	-	*100%*	*40%*	8%	-	6%
Gender	Male	40%	*30%*	*40%*	36%	*23%*	43%
	Female	58%	*70%*	*60%*	64%	*69%*	54%
	Missing	2%	-	-	-	*8%*	2%
							*
Ethnicity	White	55%	*70%*	*90%*	-	*46%*	73%
	Black	5%	*10%*	*10%*	18%	*15%*	4%
	Indian	2%	*20%*	-	13%	-	3%
	Pakistani	-	-	-	2%	*8%*	1%
	Bangladeshi	20%	-	-	31%	*31%*	7%
	Chinese	2%	-	-	13%	-	3%
	Mixed Race	5%	-	-	18%	-	4%
	Other	2%	-	-	5%	-	1%
	Missing	8%	-	-	-	-	4%
		*					
Employment status	Employed (F/P)	48%	*10%*	-	41%	*31%*	65%
	Employed (P/T)	10%	*10%*	*20%*	10%	*15%*	8%
	F-T Parent/Carer	-	-	-	5%	*31%*	2%
	Unemployed	10%	-	-	5%	-	3%
	Student	30%	-	-	23%	*15%*	11%
	Retired	-	*80%*	*60%*	8%	-	6%
	Other	2%	-	*20%*	5%	*8%*	5%
	Missing	-	-	-	3%	-	1%
							*

* Figures do not add up to 100% due to rounding. Figures in italics indicate social groups with a sample size of less than 20 respondents.

4.25 Looking first at the 'All Groups' sample (Figure 61), only 10% said that they would choose a DLR station 2 minutes away that is situated along a poorly lit road in a quiet area, in preference to walking 3 minutes to a station on a busy, well lit route.

As the distance to the station along a well lit road in a busy area increases, more respondents switch to using either the poorly lit station, or decide not to make a trip at night or to travel by car. The proportion indicating that they would not travel at night increases from 3% at 2 vs 3 minutes, to 7% at 2 vs 9 minutes.

4.26 Overall, (Figure 61), the results indicate that even a journey of 7 minutes (i.e. an additional walk of 5 minutes) is an attractive choice for over half (54%) of the respondents. Less than two thirds of the respondents, 62% (n=168) answered this question, of which 43% (n=73) were male, 54% (n=91) were female, while 3% (n=4) failed to state their gender. There are clear gender differences, with women being prepared to walk further than men to enjoy a safer route, and being more willing to stay at home and preferring to travel by car at night. The proportion indicating that they would travel by car at night increases from 6% (women) and 3% (men) at 2 vs 3 minute trade-off to 23% (women) and 6% (men) at 2 vs 9 minute trade-off.

4.27 For those who do state an intention to travel at night, when the distance is increased to 7 minutes, the gender gap widens, with 41% of men saying that they would walk to the nearest station, while only 15% of women selected this option.

Figure 61: All Social Groups

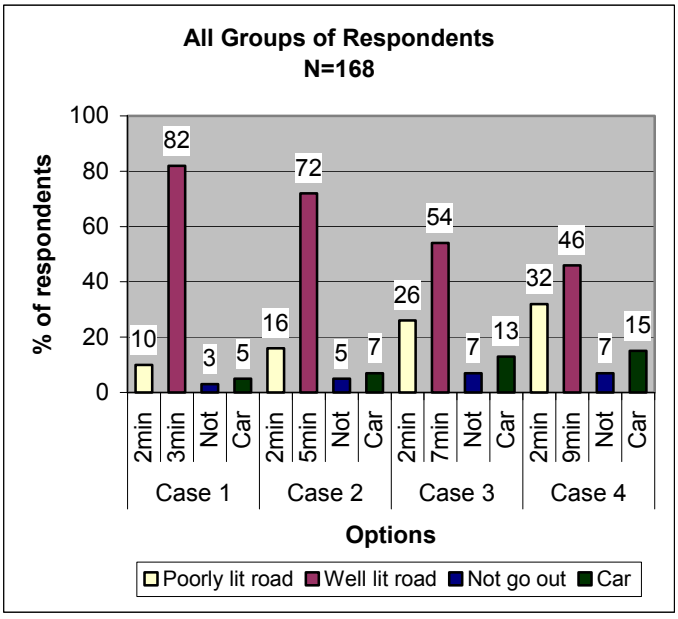
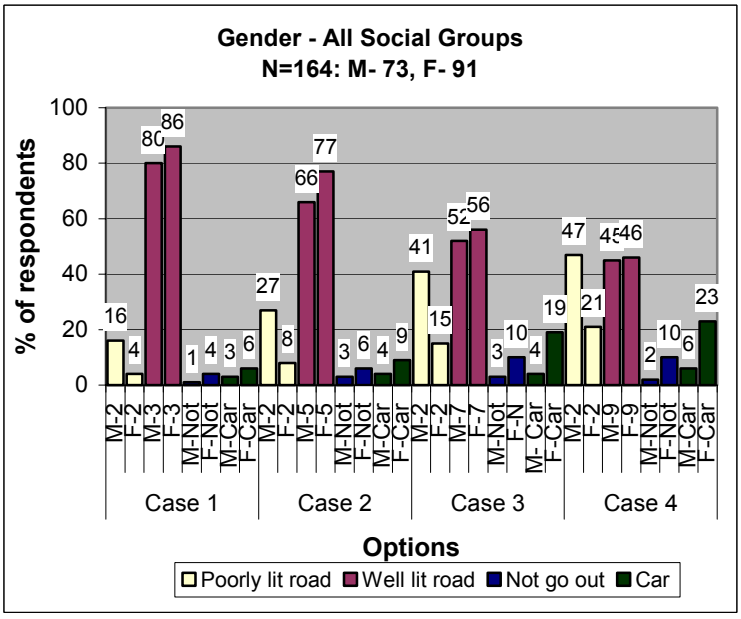


Figure 62: Gender



4.28 When the three different age groups are compared, young people (Figure 63) are more likely to walk further to access a station in a busy well lit area than people in their mid years (Figure 64). Young people are more likely to be deterred from travelling by DLR at night, than the mid-years group, at all the time trade-off values. Respondents aged between 25 and 59 years are more likely to choose the shorter, less safe route, than the younger respondents. These results suggest that younger people are more likely to feel unsafe when walking to and from DLR stations at night than respondents in their mid years.

4.29 There is a gender difference in behaviour between the respondents across all three age groups. Men are less likely to indicate a preference for not going out at night and are more likely to choose the shortest route along a poorly lit quiet road. Young women are most likely to stay home at night, if the journey time to a station along a busy road is 5 minutes or more. At 2 vs. 7 minutes and 2 vs. 9 minutes, over half of

the young men stated a preference for the busy well lit station (63% and 56%, respectively), compared to young women (57% and 48%), women in their mid years (57% and 46%) and men in their mid years (48% and 41%).

Figure 63: Young People (16-24)

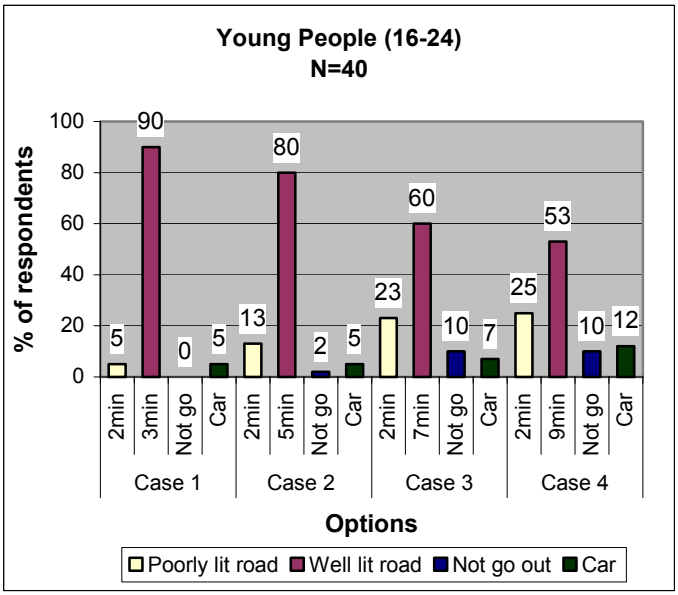
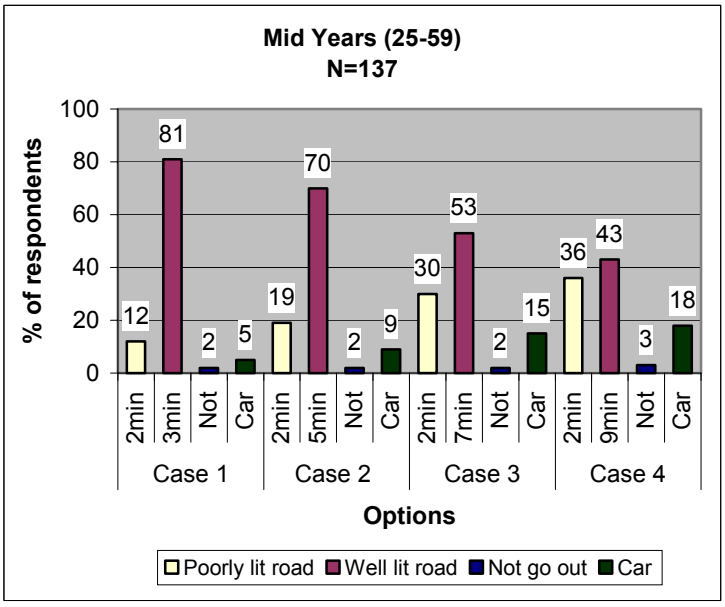
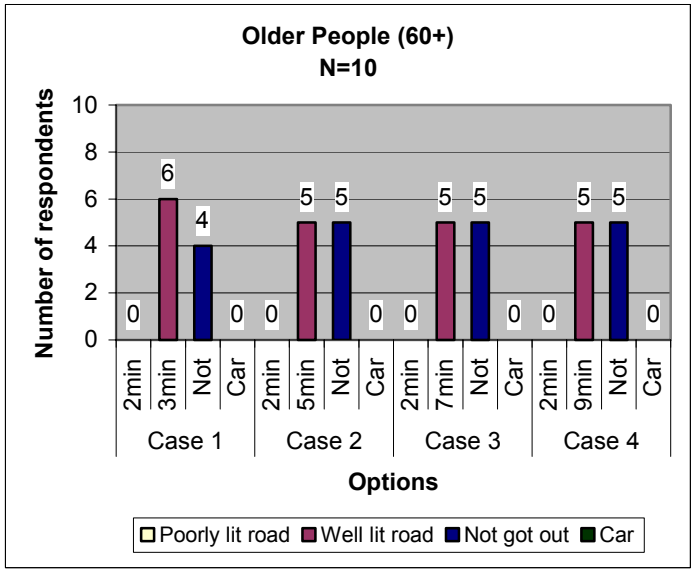


Figure 64: People aged between 25-59



4.30 Of all the social groups, older people (Figure 65) are the most likely to state that they would not go out at night: 40% did so at the 2 vs. 3 minute trade-off, rising to 50% in the remaining cases. The respondents did not state a preference for the shortest route or to travel by car. These results indicate that older people have a greater aversion to travelling at night.

Figure 65: Older People



4.31 Respondents with a health condition (Figure 66) are far more likely to state that they will not go out at night than able bodied people (Figure 67). When asked if they would be prepared to walk 3 minutes to a station along a well lit road, 50% of the mobility impaired respondents said 'yes', 30% said they would prefer to stay at home, 10% opt for the shorter route and 10% said they would rather travel by car.

This can be compared to those respondents within the able bodied group: 84% choose the well lit road, 10% prefer the shortest route, 5% would rather go by car and only 1% would prefer to stay at home.

4.32 Among the respondents who opt for going out at night, those in the able-bodied group are more likely to walk along a well lit busy road to access a station at night than those within the mobility impaired group. Once again there are gender differences amongst the respondents within the able-bodied group, as more women stated a preference for not making a trip at night. Among those who do go out, at 7 and 9 minutes, young men are more likely to walk to a DLR station along a well lit busy road (63% and 56%, respectively) than young women (59% and 50%), men in their mid years (47% and 39%) and women in their mid years (60% and 48%). The results suggest that young men are more concerned about walking to and from a DLR station at night than older people (25-59 years only) or young women.

Figure 66: Mobility Impaired People

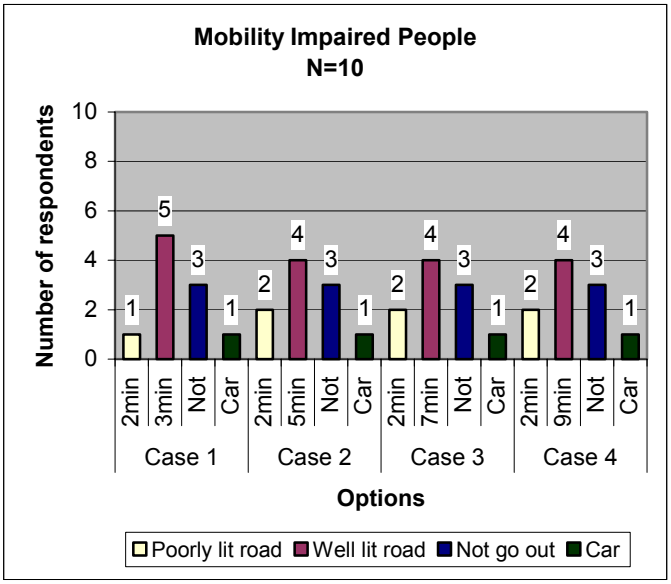
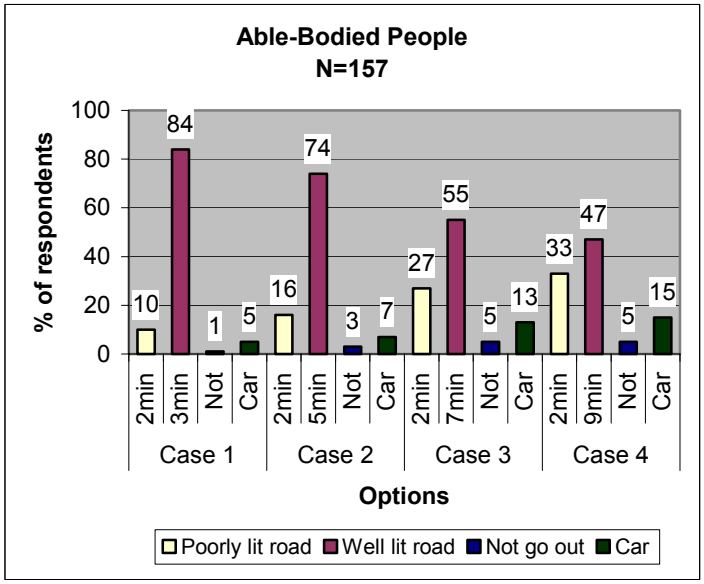


Figure 67: Able-Bodied People



4.33 Nearly a quarter (23% (n=37)) of the respondents were from a BME group (Figure 68). The largest groups of BME respondents were: Bangladeshi (n=12), Black (n=7), Indian (n=5) and Chinese (n=5). As the results in figure 68 show, over two thirds of the BME respondents said they would be prepared to walk an additional 3 minutes (total of 5 minutes) to avoid walking along a poorly lit quiet road. When comparing the responses of the BME group against those of 'All Social Groups', the results show that BME respondents are more likely to not make a trip at night and are more likely to select the car option than the total population sample.

Figure 68: BME People

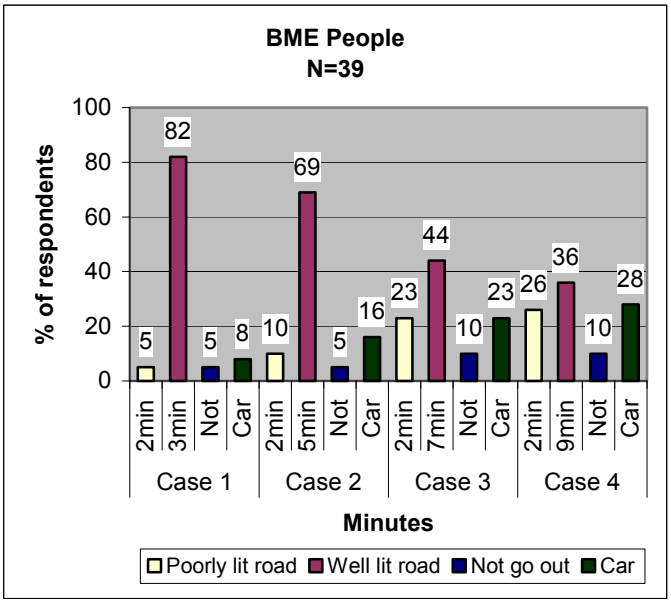
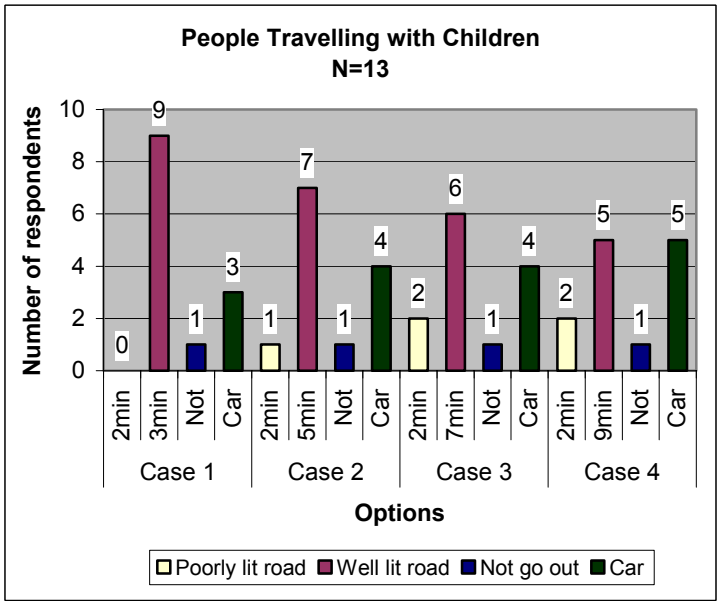


Figure 69: People travelling with children



4.34 Eight percent (n=13) of people travelling with young children answered this question (figure 69). The results indicate that over half of the respondents prefer to walk an additional 3 minutes (total of 5 minutes) to access a station along a well lit busy road, rather than a poorly lit quiet road that is closer to home. The sample size for this group of people is too small to enable further analysis.

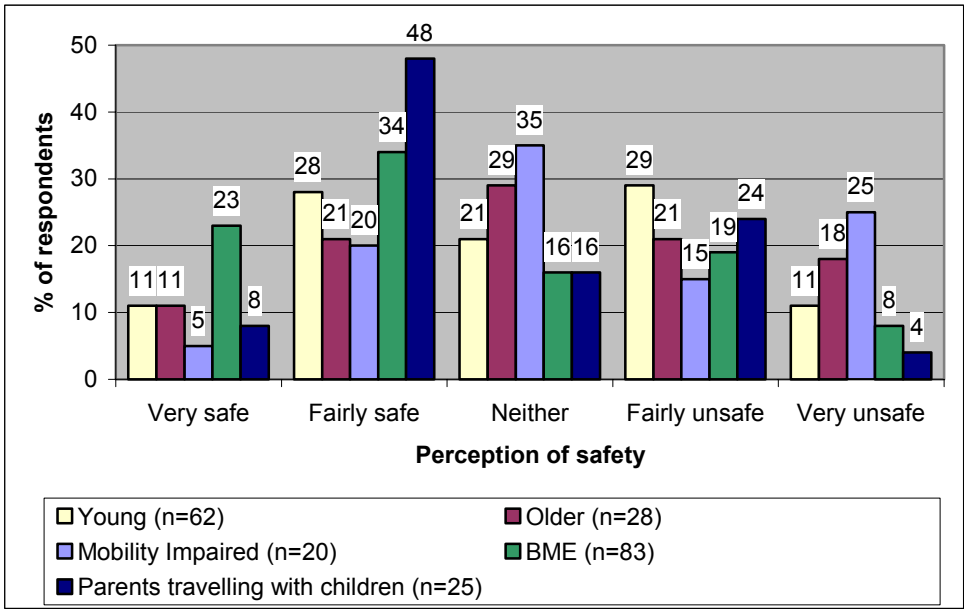
Perception of Personal Safety by Each Group

4.35 Respondents were asked to indicate how safe they feel when walking to and from their usual DLR station at night (Figure 70). Ninety nine percent (n=267) of the respondents answered this question. Nearly half of the sample (49%) said they felt 'safe', of which, 12% said they felt 'very safe'. Twenty two percent said their felt 'neither safe nor unsafe' and twenty nine percent said they felt 'unsafe', of which 8% said 'very unsafe'. Of the 29% of respondents who said they feel 'very' or 'fairly' unsafe, 33% were young people, 53% were aged between 25-44 years and 14% were over the age of 60 years.

4.36 Figure 70 disaggregates these results by social group. The results suggest that the highest proportion of the groups that feel safe are the BME (57%, compared to 45% of white respondents) and people travelling with young children (56%), and the lowest proportion is found among the mobility impaired (25%). Conversely, the young people (40%) and mobility impaired (40%) are the groups with the highest percentage feeling of being unsafe.

3.58 When the results are divided along gender lines, men (55%) are more likely to feel safe walking to their usual DLR station than women (42%). Women (23%) are more likely to state a preference for neither feeling safe nor unsafe than men (22%). Women (35%) are also more likely than men (23%) to feel unsafe when accessing their nearest DLR station at night.

Figure 70: Perception of safety by each group



5 UNDERGROUND SURVEY RESULTS

5.1 This section summarises the main findings from the analysis of the underground questionnaire, first looking at the reported tube journey and then at the responses to the underground access trade-off questions.

5.2 The demographic profile of the respondents for each social group and the total sample of all the respondents are shown in Table 15.

Table 15: Demographic profile of all tube respondents.

	Demographic profile	Social groups					Total Sample N=252
		Young N=78	Older N=31	Mobility Impaired N=23	BME N=98	People travelling with children N=18	
Age groups	16-24	100%	-	13%	45%	*17%*	31%
	25-59	-	-	52%	50%	*72%*	57%
	60+	-	100%	35%	5%	*11%*	12%
Gender	Male	44%	39%	30%	52%	*28%*	46%
	Female	56%	61%	70%	47%	*72%*	53%
	Missing	-	-	-	1%	-	1%
Ethnicity	White	44%	77%	56%	-	*50%*	60%
	Black	15%	7%	4%	25%	*5%*	10%
	Indian	3%	-	-	4%	-	2%
	Pakistani	-	-	-	1%	*5%*	(0.4%)
	Bangladeshi	32%	-	9%	52%	*22%*	20%
	Chinese	-	3%	-	3%	-	1%
	Mixed Race	5%	3%	13%	8%	*5%*	3%
	Other	1%	3%	9%	7%	*5%*	3%
	Missing	-	7%	9%	-	*5%*	1%
						*	*
Employment status	Employed (F/P)	22%	7%	17%	28%	*5%*	41%
	Employed (P/T)	14%	7%	17%	20%	*17%*	13%
	F-T Parent/Carer	3%	-	13%	5%	*28%*	4%
	Unemployed	14%	-	9%	7%	*17%*	7%
	Student	47%	-	9%	32%	*5%*	19%
	Retired	-	86%	26%	4%	*11%*	12%
	Other	-	-	9%	3%	*11%*	3%
	Missing	-	-	-	1%	*5%*	1%
						*	

* Figures do not add up to 100% due to rounding. Figures in italics indicate social groups with a sample size of less than 20 respondents.

5.3 The demographic profile of the respondents can be summarised as follows:

Age

- Nearly a third (31%) of the tube respondents were aged between 16 and 24 years, and over half (57%) of respondents were aged between 25 and 59 years and 12% were over the age of 60 years;

- Less than a fifth of the mobility impaired group (13%) were under the age of 25 years and only 5% of the BME group were over the age of 60 years;
- More than two thirds of those people travelling with young children (72%) were aged between 25 and 59 years.

Gender

- The majority of respondents were female (53%), 46% were male and the remaining 1% failed to answer the question;
- The highest percentage of male respondents was in the BME group (52%) and the group with the least number of males was the mobility impaired (30%). Conversely, the lowest percentage of female respondents was in the BME group (47%) and people travelling with young children (72%) had the highest percentage of female respondents.

Ethnicity

- The main three ethnic groups were: white people (60%), Bangladeshi people (20%) and Black people (10%).
- Young people were more likely to represent different ethnic groups than the other social groups. More than 50% of the young respondents were from a non-white background, this can be compared to 16% of older people.

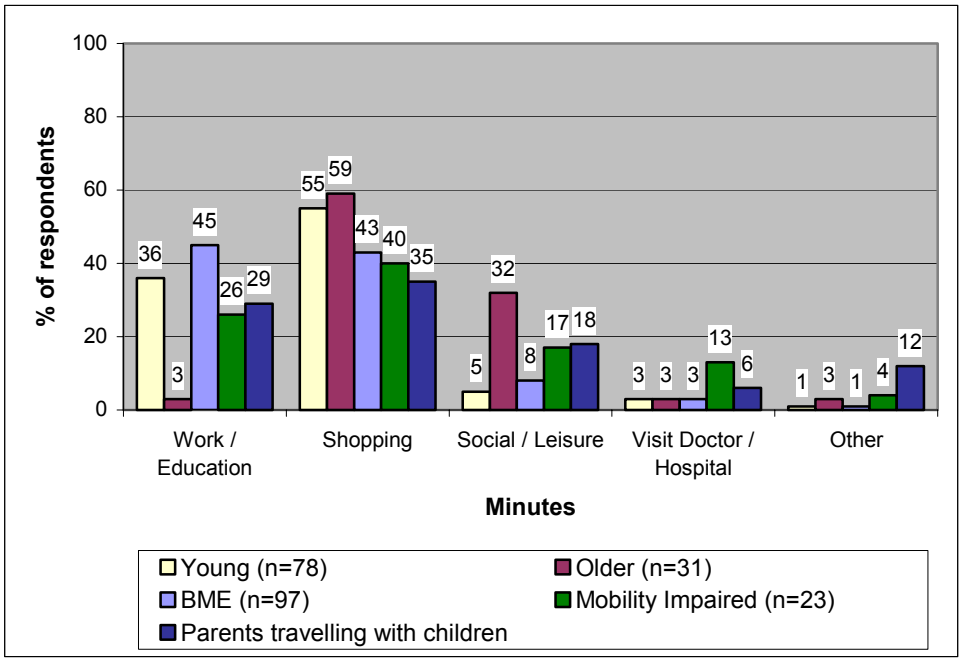
Employment Status

- Over 50% of the sample were employed either full or part time;
- A quarter (26%) of the mobility impaired group were retired, this compares to 11% of people travelling with young children (who were over the age of 60 years).
- Seventeen percent of people travelling with young children and 14% of young people were unemployed;
- Nearly half of the young respondents (47%) were students.

Reported Tube Journey

5.4 Respondents were asked to state the main reason why they were travelling by tube on the day that they were surveyed. As shown in figure 71, unlike bus and DLR journeys, the groups were using the tube for very different purposes and there wasn't one main reason common to all groups. Over half of the respondents within the older people and young people groups, 40% of mobility impaired people and 35% of parents travelling with young children said their main journey purpose by tube was to access shopping facilities. The BME group was most likely to use the tube to access work and education facilities than any other group. Older people were most likely to use the tube for leisure and social purposes and the young people group were least likely to travel by tube for these purposes. The mobility impaired group were most likely to use the tube to access health facilities. Parents of young children were most likely to use the tube for 'other' purposes, including: 'going to the bank' and 'accompany children to and from nursery and/or school'.

Figure 71: Journey purpose by tube

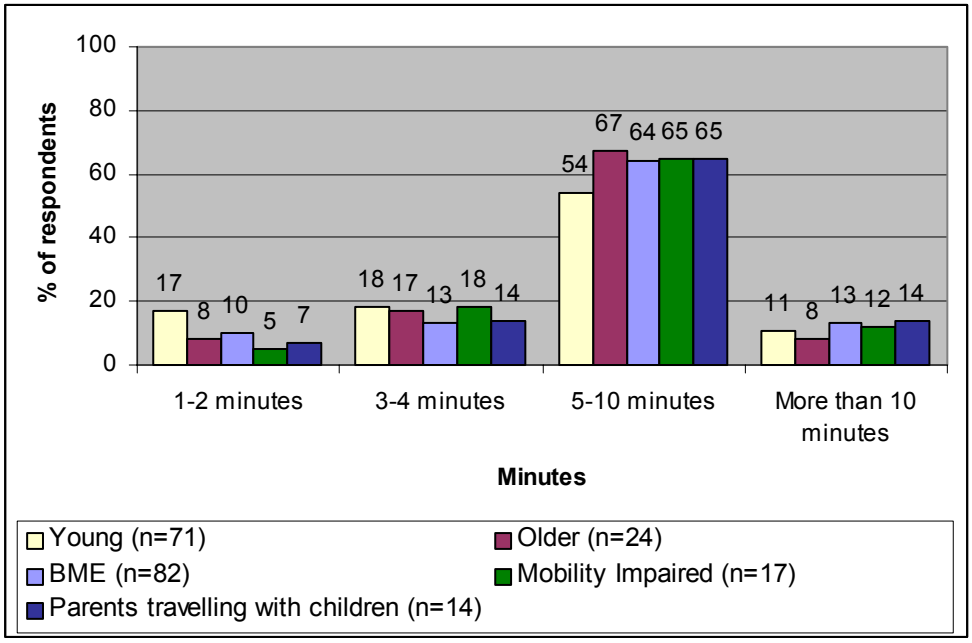


N.B: 'Other' purposes include: 'going to the bank', 'collect my child from nursery' and 'take children to school'.

5.5 The respondents were then asked to state if they walked from home to the tube station and if so, how long their journey took. Overall, 96% of respondents said they had walked from home to the underground station (see figure 72) and it could be argued that the remaining 4% who said 'no' either caught the bus or the DLR to the underground station or they got a lift to their destination and used the tube to travel back). Those respondents who said they walked from home to the underground station were asked how long it takes them to reach their usual station: 13% said their journey takes them between 1-2 minutes; 14% spend 3-4 minutes travelling; 57% said 5-10 minutes; 7% said their journey takes them more than 10 minutes and 9% did not provide an answer.

5.6 The time it takes people to walk to their usual tube station varied between the different groups of people. For example, less than half of the respondents across all the groups said they could reach their usual underground station in less than 5 minutes (Figure 72). People travelling with young children (14%) and BME (13%) respondents said they spend more than 10 minutes walking to their usual tube station. Older people (8%) were more likely than any other group to say that they could reach their usual tube station in less than 10 minutes.

Figure 72: Walk time to the underground station (minutes)



5.7 Table 16 shows the average walk time to the underground station for each group of respondents. Older people (5 mins) and young people (6 mins) spend less time walking to their usual underground station, compared to the other social groups and the total sample average.

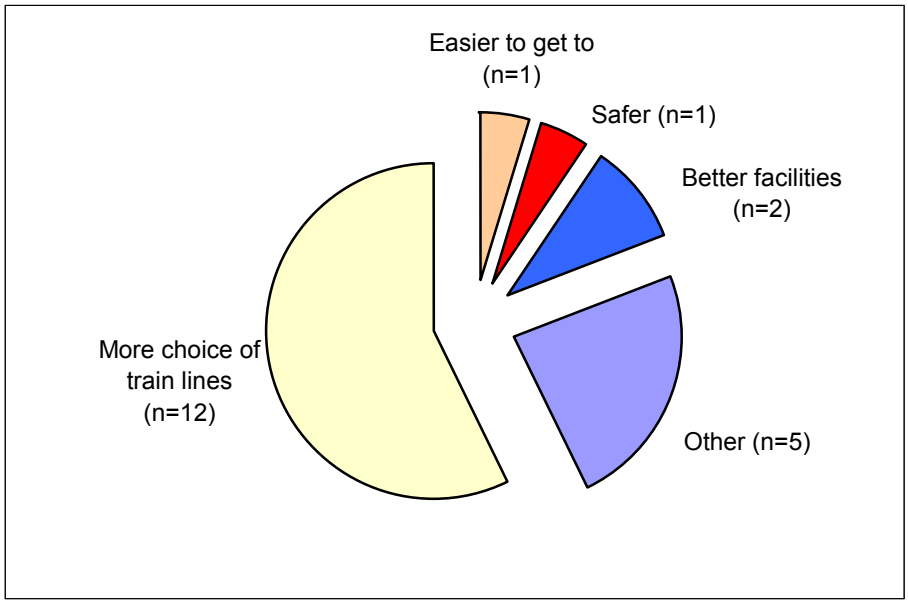
Table 16: Average walk time to the Underground station

GROUP	MINUTES
Young people	6
People travelling with children	7
Mobility impaired people	7
BME people	7
Older people	5
Total Sample Population	6

5.8 When asked if they walk to their nearest underground station, 87% (n=218) said 'yes', 8% (n=21) said 'no', 4% (n=10) said they didn't walk to the station and 1% (n=3) failed to answer the question. Of the respondents who said 'no', 12 people were male and 9 were female; 6 respondents were aged between 16 and 24, 10 were aged between 25-59 and 5 were over the age of 60. The majority of these respondents were white (n=11), did not have a health condition (n=15), were not travelling with children (n=20) and were either employed (n=8), students (n=7) or retired (n=4).

5.9 The main reasons why these respondents said they did not walk to their nearest station include: i) easier to get to, ii) feel safer walking there, iv) better facilities, v) more choice of train lines and 'other' (e.g. visibility of station staff; better train connection and it is on the way to the shop) (see figure 73); note the small sample sizes.

Figure 73: Reasons why people do not walk to their nearest underground station



5.10 When asked how long it would have taken them to walk to their nearest underground station, the results show that the respondents are walking a further 2-10 minutes to their preferred station.

5.11 The respondents were also asked if they had any difficulties or concerns in getting to and / or from their usual underground station that prevented them from making some journeys by tube: 16% (n=42) said 'yes'. Of those respondents who answered yes, women (59%) were more likely to state that they have a concern than men (44%). The list of concerns include: broken pavements / personal safety / poor lighting / access to the station and platforms. The list of concerns was almost identical for men and women, except women were more concerned about broken pavements than men. Young people (n=10) were more likely to state that they have a concern than older people (n=7) and 29 able-bodied people compared to 11 people with a mobility impairment.

Walk Access Trade-offs

5.12 As one of the main aims of the survey was to identify the importance of the walking environment in relation to accessing an underground station, some specific questions about this were included in the questionnaire.

5.13 The respondents were asked to consider which of two hypothetical stations they would use if the first station is situated 2 minutes away offering less favourable conditions (on route) and the second station (with favourable conditions) is 3 minutes away. The question was then repeated, with the distance to the second station increased to 5, 7 and 9 minutes.

5.14 The trade-off questions covered:

1. Cross a busy road without a pedestrian crossing, or cross a road with a pedestrian crossing;
2. Poorly lit quiet road, or a well lit busy road, or stay at home or travel by car.

5.15 A number of logic checks were carried out on the trade-off data. For example, when respondents answered '2 mins' to case 1, logically they should answer '2 mins' to the remaining cases, rather than '5 mins' or '7 mins'. Similarly, if the respondents answered '3 mins', followed by '2 mins' where the alternative was 5 minutes, then they should not then answer '7 mins' for the final case. If respondents followed this logical response pattern, their answers were included in the analysis. However, if responses deviated from this pattern, they were excluded.

Crossing A Busy Road Without A Pedestrian Crossing Or Avoid Crossing The Road?

5.16 Exploring the extra distance people are prepared to walk to access an underground station where they do not have to cross a busy main road without a pedestrian crossing was the first of two trade-off questions. Respondents were asked which underground station they would use if they had a choice between a station that is 2 minutes away from their home but involves crossing a busy road without a pedestrian crossing or a station that is further away (3 mins, 5 mins or 7 mins) and avoids crossing a busy road.

5.17 Table 17 shows the demographic profile of the respondents who answered this question.

5.18 Looking first at the 'All Groups' (Figure 74), only 58% (n=146) of the respondents answered this question, of which 51% (n=74) were male, 48% (n=71) were female, while 1% (n=1) failed to state their gender. The results indicate that even a journey of 5 minutes (i.e. an additional walk of 3 minutes) is an attractive choice for nearly half (47%) of the respondents and an additional walk of 7 minutes (total of 9 minutes) is still considered to be a preferred option for nearly a fifth (17%) of the respondents.

5.19 There is a slight gender different between the respondents as men appear to be much less concerned about crossing a busy main road without a pedestrian crossing than women (Figure 75). In all three cases, women are more likely to walk further than men. For example, 35% of men (compared to a fifth of women) said they would rather cross the busy road than walk an extra minute to a station near a crossing, whereas 21% of women said they would be prepared to walk 9 minutes to an underground station that avoids a main road, compared to 14% of men.

Table 17: Demographic profile of respondents answering the busy road without crossing question.

	Demographic profile	Social groups					Total Sample (n=146)
		Young (n=54)	Older (n=7)	Mobility Impaired (n=5)	BME (n=47)	People travelling with children (n=6)	
Age groups	16-24	100%	-	*20%*	57%	-	37%
	25-59	-	-	*40%*	43%	*100%*	58%
	60+	-	*100%*	*40%*	-	-	5%
Gender	Male	41%	*57%*	*80%*	53%	*33%*	51%
	Female	59%	*43%*	*20%*	45%	*67%*	48%
	Missing	-	-	-	2%	-	1%
Ethnicity	White	50%	*86%*	*80%*	-	*67%*	67%
	Black	17%	-	-	28%	-	9%
	Indian	4%	-	-	8%	-	3%
	Bangladeshi	24%	-	-	47%	*17%*	15%
	Chinese	-	-	-	2%	-	1%
	Mixed Race	4%	-	-	6%	-	2%
	Other	2%	-	*20%*	8%	*17%*	3%
	Missing	-	*14%*	-	-	-	1%
			*		*	*	*
Employment status	Employed (F/P)	24%	*14%*	*20%*	28%	*17%*	48%
	Employed (P/T)	13%	-	*20%*	17%	-	12%
	F-T Parent/Carer	-	-	-	2%	*33%*	2%
	Unemployed	13%	-	*40%*	8%	*33%*	9%
	Student	50%	-	-	43%	-	23%
	Retired	-	*86%*	*20%*	-	-	4%
	Other	-	-	-	2%	*17%*	2%
	Missing	-	-	-	-	-	-

* Figures do not add up to 100% due to rounding. Figures in italics indicate social groups with a sample size of less than 20 respondents.

5.20 In the base case (i.e. 2 minutes versus 3 minutes) and case two (i.e. 2 minutes versus 5 minutes), more young people (Figure 76) (30% and 57% respectively) than people aged between 25 and 59 (Figure 77) selected the closest route (29% and 54% respectively). However, in case three (i.e. 2 minutes versus 7 minutes) the results for both age groups was the same with 80% of the respondents selecting the nearest underground station, but this pattern changes once again in case four when young people are more likely to select the nearest station (87% compared to 84% of people in their mid years).

Figure 74: All Social Groups

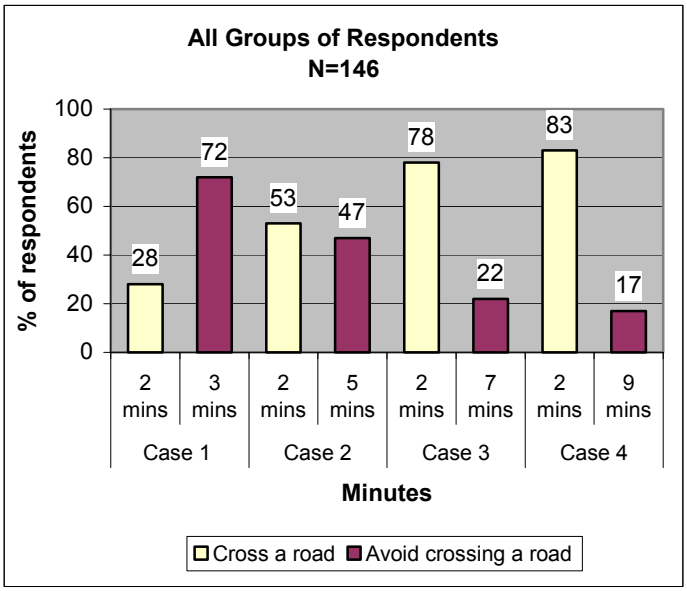


Figure 75: Gender

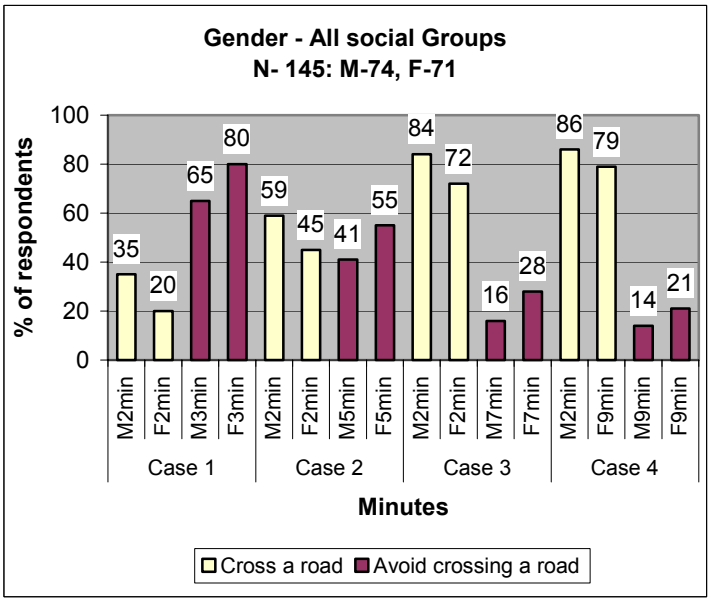


Figure 76: Young People (16-24)

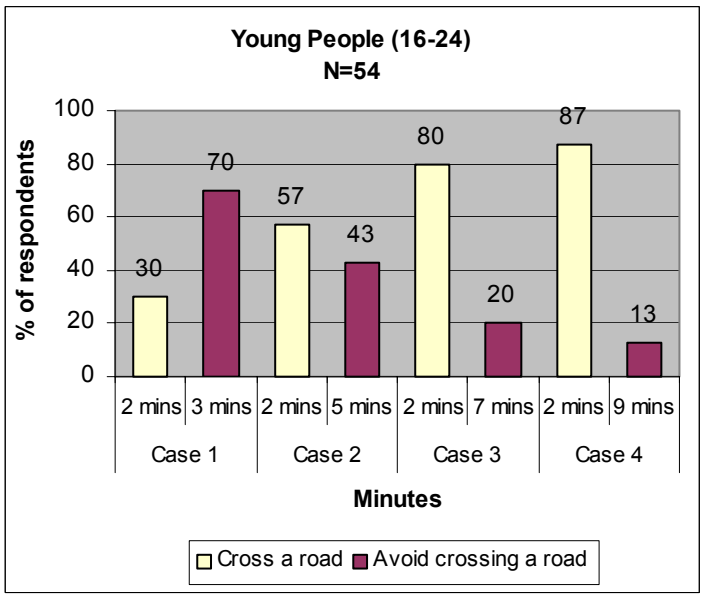
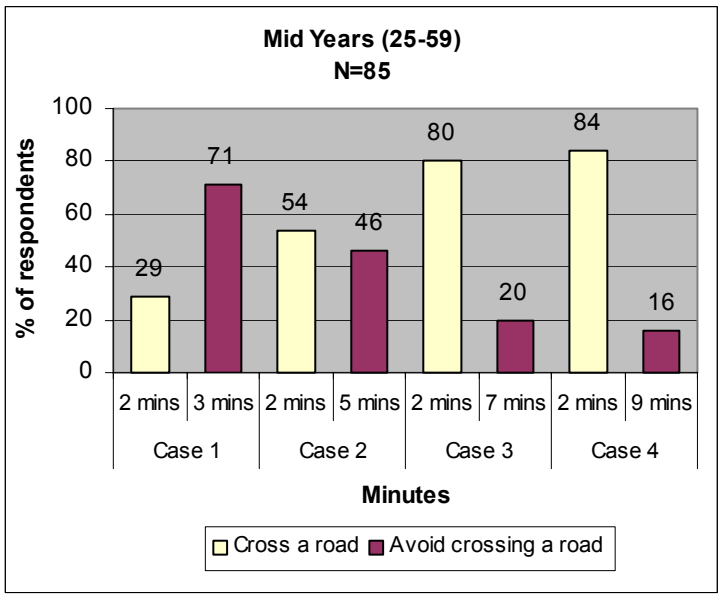
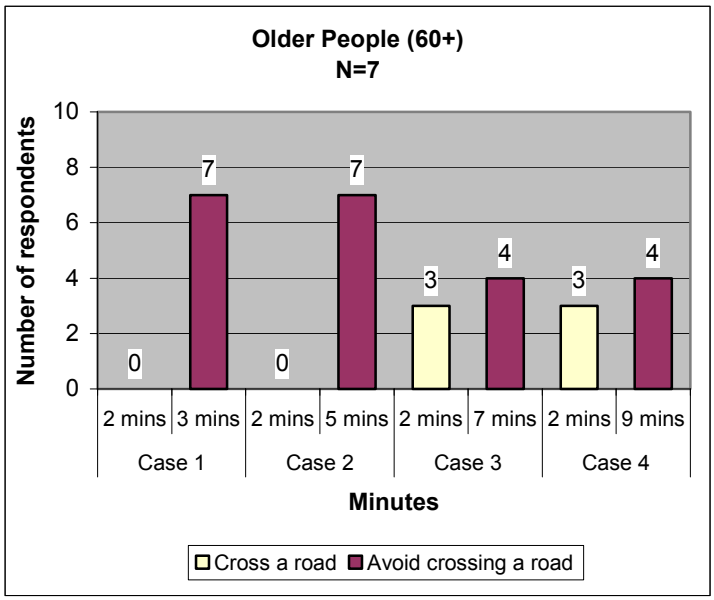


Figure 77: People aged between 25-59 years



5.21 In cases one and two, all the respondents within the older people group selected the station that is further away from home but with access to a pedestrian crossing (Figure 78). When asked if the respondents would be prepared to walk an additional 5 or 7 minutes (total of 7 and 9 minutes respectively), there is a trade-off as 4 out of the 7 respondents said they would be prepared to walk slightly further. Due to the small sample size, it is not possible to conduct any further analysis of this group of respondents.

Figure 78: Older People



5.22 In all four cases, those respondents with a health condition that affects their mobility (Figure 79) are not prepared to walk to a station without a pedestrian crossing nearby, therefore the importance this group places on their ability to safely cross a busy road is paramount. Once again, due to the small number of respondents within this group, it is not possible to conduct any further analysis of their responses.

Figure 79: Mobility Impaired People

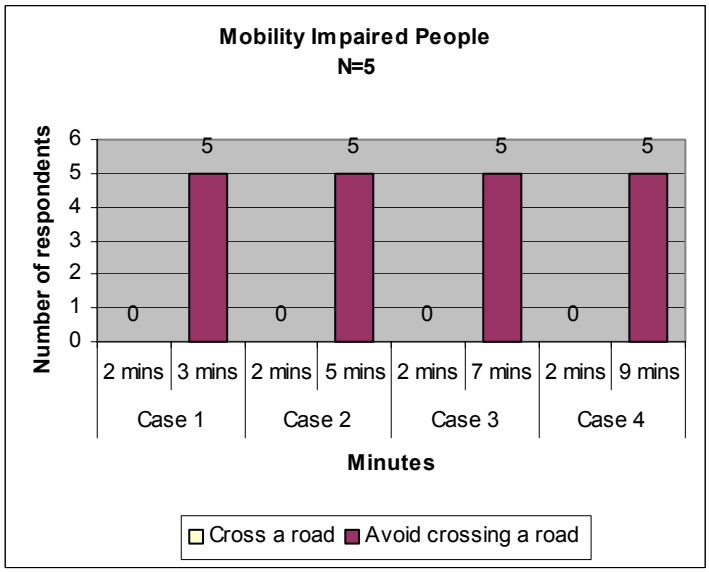
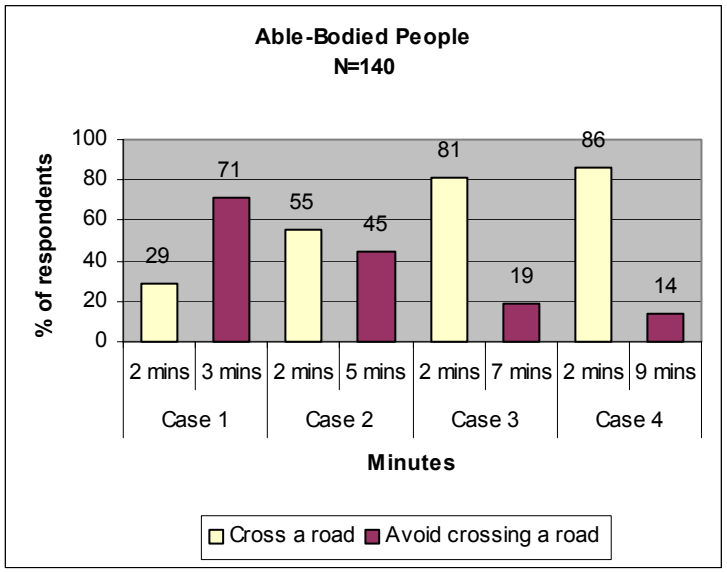


Figure 80: Able-Bodied People



5.23 For those respondents in the able-bodied group (Figure 80), as the age of the respondent increases their willingness to cross a busy road to access an underground station reduces. When asked if the respondents would be prepared to walk an extra minute (3 minutes in total): among young people aged between 16 and 24, 69% said they would be prepared to walk the extra minute, compared to 71% of people in their mid-years and 100% of older people. However, when asked if they would be prepared to walk an extra 5 minutes, only 19% of both young people and people in their mid years, compared to 40% of older people said they would walk the extra distance.

Figure 81: BME People

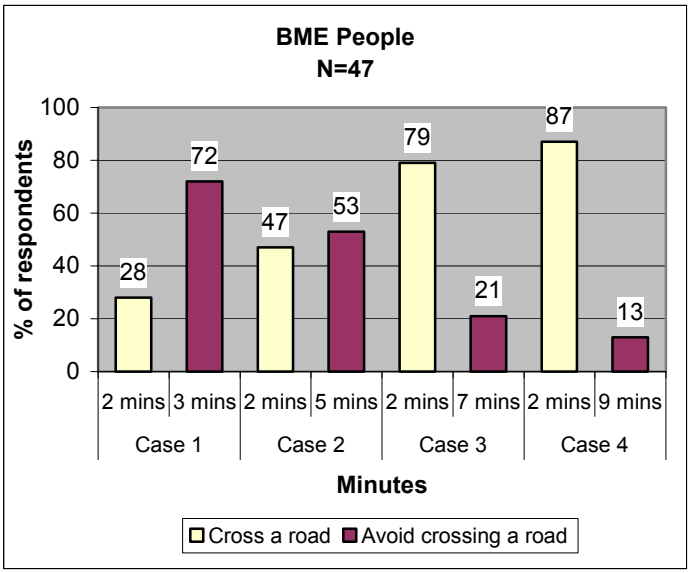
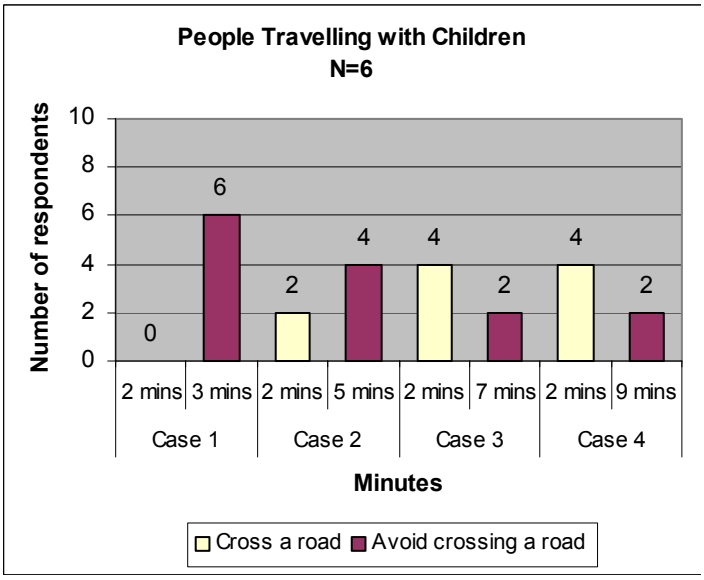


Figure 82: People travelling with children



5.24 A third of the respondents who answered the question said they were from an ethnic minority background (Figure 81). The male BME respondents (68%) said that they are more likely to walk an extra minute to avoid crossing a busy road, this can be compared to 63% of white male respondents. When asked if they would be prepared to walk an extra 2 minutes, 52% of the male BME respondents and 16% of the white male respondents said 'yes'. However, the gap between BME males and white males is reduced significantly at 7 and 9 minutes (16% (BME) .v. 15% (white) and 12% (BME) .v. 13% (white) respectively). However, when females across the different ethnic backgrounds are compared, there is very little different between BME women and white women (case 1: 81% (BME women) .v. 80% (white women); case 2: 57% .v. 54%; case 3: 29% .v. 28% and case 4: 14% .v. 24%). In other words, men, regardless of ethnic background, are more likely to walk to the nearest underground station than women.

5.25 One third of people travelling with young children answered this question (Figure 82). The results indicate that a trade-off between walking to a station that is further away from home but closer to a pedestrian crossing occurs between 5 and 7 minutes. Until that point, all the respondents said they would be prepared to walk an extra minute and two thirds said they would be prepared to walk an extra 3 minutes. The sample size for this group of people is too small to enable further analysis.

An Underground Station Along a Poorly Lit Quiet Road or a Stop Along a Well Lit, Busy Road?

5.26 Respondents were asked which bus stop they would use at night or whether they would prefer to stay at home and not make the trip or to travel by car instead. The respondents could choose between i) a bus stop that is 2 minutes along a poorly lit quiet road or ii) a stop that is 3, 5 or 7 minutes further away along a well lit, busy road or iii) not make the trip at all.

5.27 Table 18 below shows the demographic profile of the respondents who answered the question about lighting conditions. Overall, 63% (n=158) of the respondents answered this question.

Table 18: Demographic profile of respondents answering the lighting question.

	Demographic profile	Social groups					Total Sample (n=158)
		Young (n=55)	Older (n=15)	Mobility Impaired (n=7)	BME (n=50)	People travelling with children (n=6)	
Age groups	16-24	100%	-	*14%*	56%	-	35%
	25-59	-	-	*43%*	40%	*100%*	56%
	60+	-	*100%*	*43%*	4%	-	9%
Gender	Male	44%	*33%*	*43%*	52%	*33%*	48%
	Female	56%	*67%*	*57%*	46%	*67%*	51%
	Missing	-	-	-	2%	-	1%
Ethnicity	White	49%	*80%*	*57%*	-	*67%*	68%
	Black	15%	-	-	24%	-	8%
	Indian	4%	-	-	8%	-	2%
	Bangladeshi	29%	-	-	46%	*17%*	15%
	Chinese	2%	-	-	2%	-	1%
	Mixed Race	-	*7%*	*29%*	8%	-	2%
	Other	2%	*7%*	*14%*	12%	*17%*	4%
	Missing	-	*7%*	-	-	-	1%
		*	*			*	*
Employment status	Employed (F/P)	22%	*7%*	*14%*	24%	*17%*	46%
	Employed (P/T)	13%	-	-	10%	-	8%
	F-T Parent/Carer	2%	-	*14%*	6%	*33%*	4%
	Unemployed	15%	-	*29%*	14%	*33%*	10%
	Student	49%	-	-	40%	-	21%
	Retired	-	*93%*	*43%*	2%	-	9%
	Other	-	-	-	4%	*17%*	2%
	Missing	-	-	-	-	-	-
		*					

* Figures do not add up to 100% due to rounding. Figures in italics indicate social groups with a sample size of less than 20 respondents.

5.28 Looking first at the 'All Groups' sample (Figure 83), four fifths said that they would choose an underground station 3 minutes away that is situated along a busy, well lit road, in preference to walking 2 minutes to a station on a quiet, poorly lit route. As the distance to the station along a well lit road in a busy area increases, more respondents switch to using the poorly lit station or decide not to make a trip at night or to travel by car. In all four cases, respondents state a preference for walking to a station along a well lit, busy main road.

5.29 The majority of the respondents who answered the question were female (51%), while 48% were male and 1% failed to state their gender (Figure 84). There are clear gender differences, with women both being prepared to walk further than men to enjoy a safer route, being more willing to stay at home at night and prefer to use a car. When the distance is increased to 7 minutes, the gender gap widens, with 64% of women saying that they would prefer to walk further to a station, while only 36% of men selected this option.

5.30 For those women who stated an intention to travel at night, they were more likely to choose a safer route to an underground station that is slightly further away from their home than a station that is nearest to home. However, men were more likely to switch to their nearest station than walk 7 minutes along a well lit busy road.

Figure 83: All Social Groups

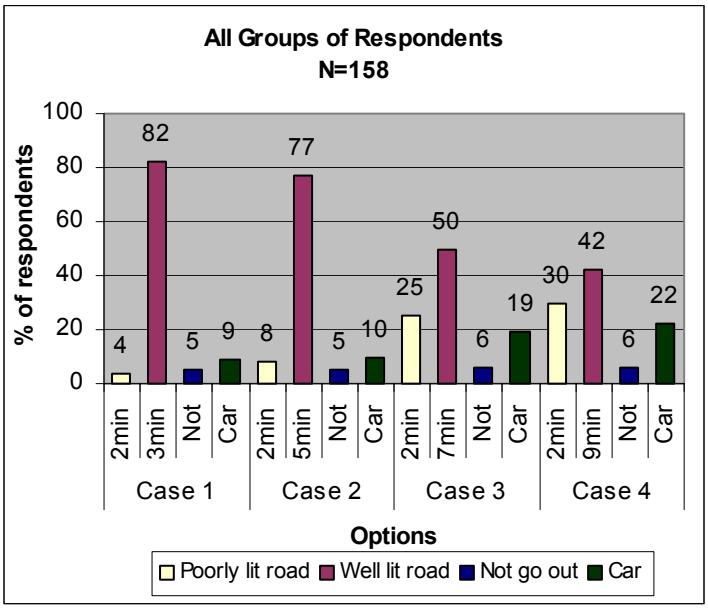
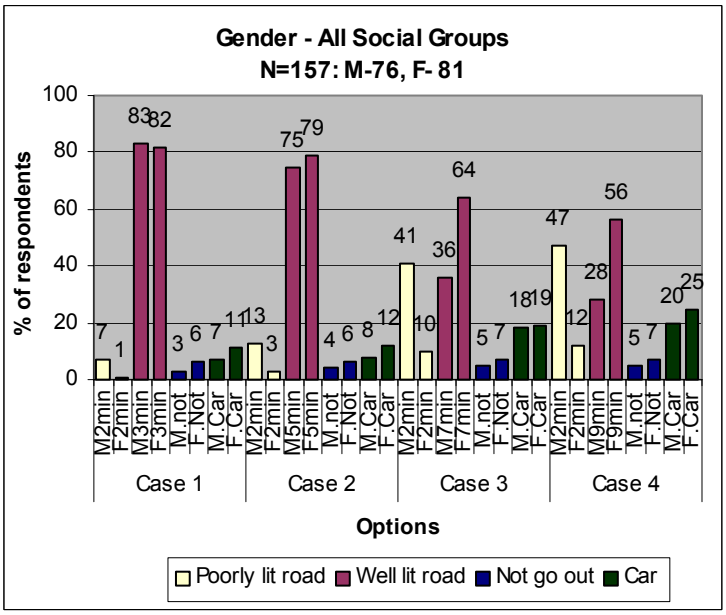


Figure 84: Gender



5.31 Of all the social groups, young people (Figure 85) were least likely to state that they would not be prepared to go out at night. When the young people and people in their mid-years groups are compared, as the distance to a station along a well lit busy road increases, young people are more likely to switch to using a car rather than not go out at night. When the two groups are divided along gender lines, men in their mid-years are more likely to walk to their nearest station and women in their mid-years are least likely to walk along a poorly-lit, quiet road. Women in their mid-years are most likely to opt to use a car at night and young women are least likely to say that they will not go out at night and are more likely to walk along a well lit road.

5.32 In the base case, there are no differences between the two age groups regarding the number of respondents who would be prepared to walk along a well lit, busy road. In case 2, young people are more likely to walk further to a station but in cases 3 and 4, when the distances are increased to 7 and 9 minutes, people in their mid years are more likely to walk further than young people.

Figure 85: Young People (16-24)

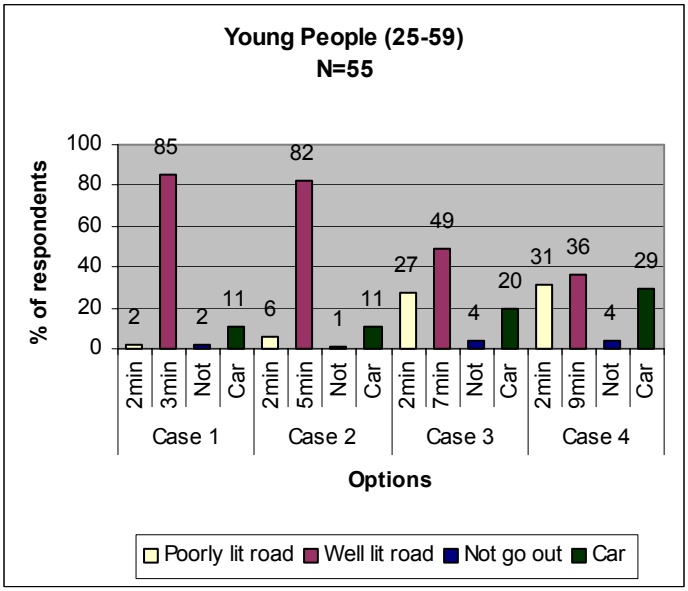
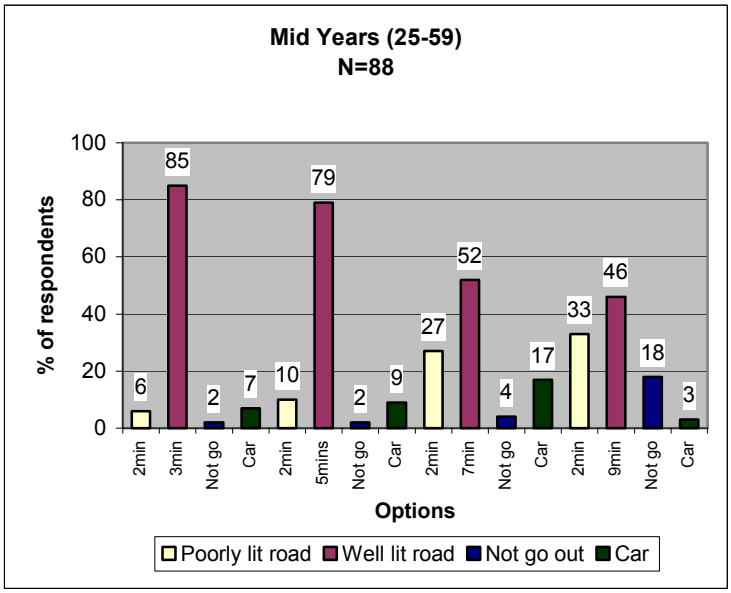
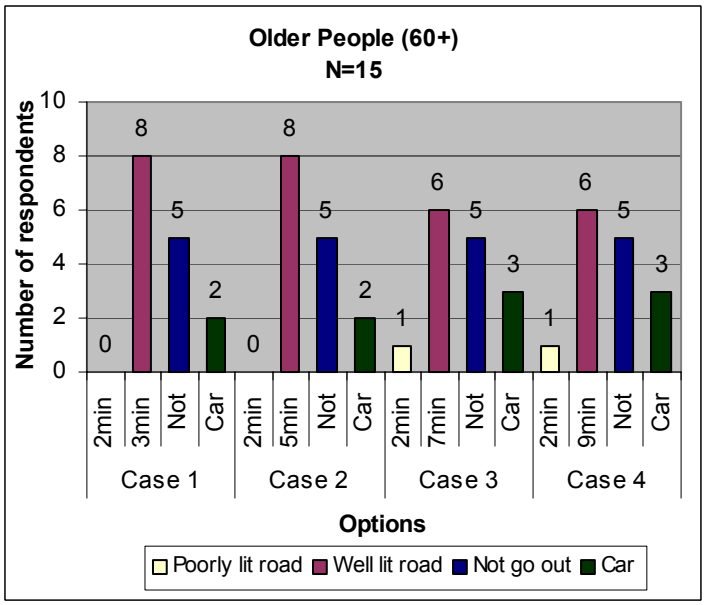


Figure 86: People aged between 25-59



5.33 The likelihood of not going out at night increases with age, varying between 2% and 4% for the young people group rising to 2% - 18% among the 25-59 age group and rises sharply to 33% among the respondents within the 60 plus age group (Figure 87). There is a slight gender difference amongst the respondents within the older people group. Men are less likely to indicate a preference for not going out at night and are more likely to choose the shortest route along a poorly lit quiet road than older women. Due to the small number of respondents within this group, it is not possible to conduct any further analysis of their responses.

Figure 87: Older People



5.34 Respondents with a health condition (Figure 88) are more likely than any other group to say that they would not travel to an underground station along a poorly lit quiet road. However, due to the small number of respondents within this group, it is not possible to conduct any further analysis of their responses.

Figure 88: Mobility Impaired People

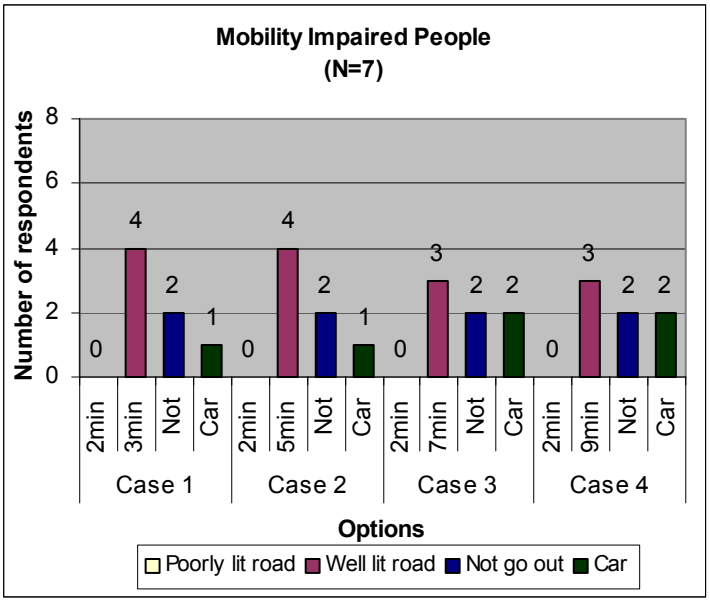
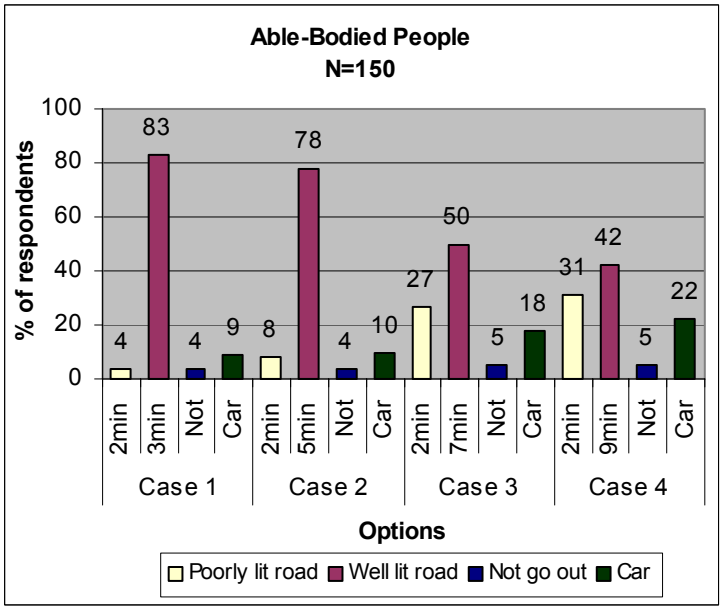


Figure 89: Able-Bodied People



5.35 There are age and gender differences amongst the respondents within the able-bodied group (Figure 89), as older women are least likely to walk to the nearest underground station and men in their mid years are most likely to walk along a poorly lit road.

5.36 The percentages of BME (Figure 90) people saying that they would not go out at night are slightly higher than that of the total sample of respondents (Figure83), ranging from 4% to 6%, and they are more likely to opt for the longer route. Men in their mid years are least likely to stay at home at night. Men are more likely to walk to the nearest station than women, and women are more likely to either not go out at night or travel by car than men.

Figure 90: BME People

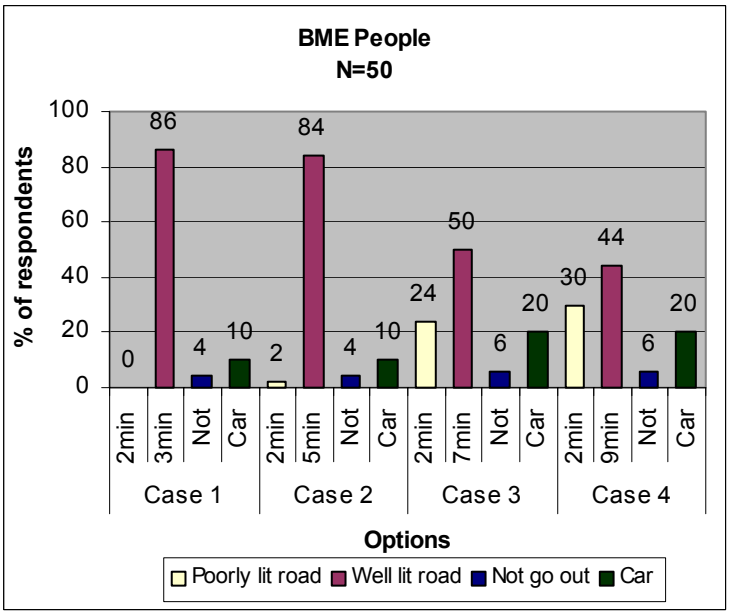
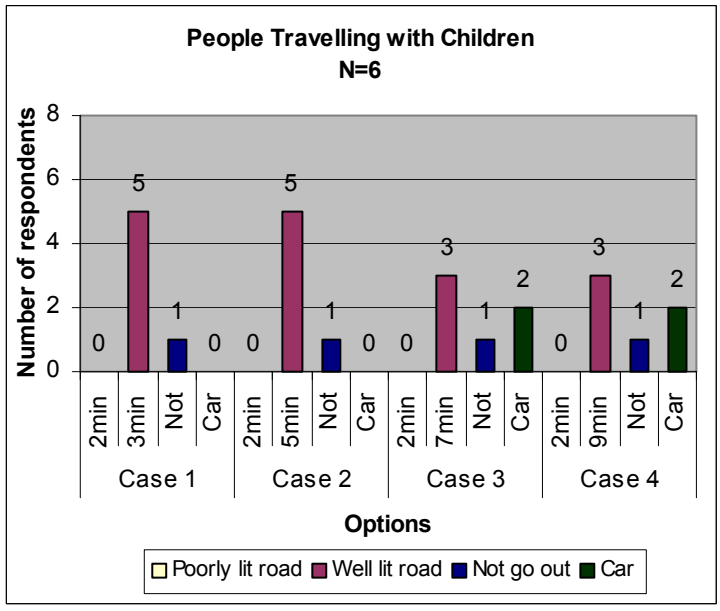


Figure 91: People travelling with children



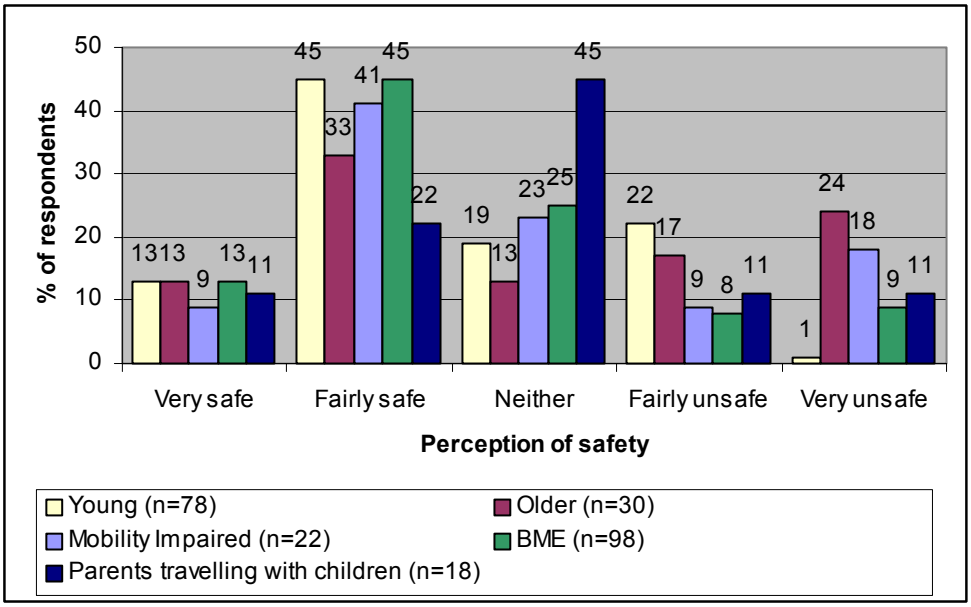
5.37 The results for the people travelling with young children (Figure 91) shows that as the distance to the station along a well lit busy road increases, the number of people who

chose this stop decreases. The sample size for this group of people is too small to enable further analysis.

Perception of Personal Safety by Each Group

5.38 The respondents were asked to indicate how safe they feel when walking to and from their usual underground station at night (Figure 92). Half of the total sample said that they feel 'very' or 'fairly' safe when walking to and from their usual station at night, of which 11% felt 'very' safe. However, 29% of the respondents said they feel 'very' or 'fairly' unsafe, of which older people (40%) were more likely to state that they have concerns than young people (23%). Over a fifth (21%) of the respondents said they feel neither safe nor unsafe.

Figure 92: Perception of safety by each group



5.39 Figure 92 disaggregates these results by social group. The results suggest that the highest proportion of the groups that feel safe are the young people and BME people (both at 58%), and that the lowest proportion is found among the people travelling with young children (33%). Conversely, the older people (41%) are the group with the highest percentage feeling of being unsafe, compared to BME people (17%).

5.40 When the results are divided along gender lines, men (56%) are more likely to feel safe walking to and from their usual underground station at night than women (43%). Women (23%) are more likely to state a preference for neither safe nor unsafe than men (19%).

6 CONCLUSIONS

6.1 This report has identified the main journey purposes for which different groups of people travel by bus, DLR and the underground; the time it takes them to walk to their usual bus stop and/or rail station (see table 19); any concerns they might have with their journey, particularly at night; and, how far they are prepared to walk to different bus stops with a variety of conditions (e.g. a bus stop that is nearest to home but you cannot board to first vehicle or a stop slightly further away but you can board the first bus; a marked bus stop post or a shelter and/or seating; along a busy road with or without a pedestrian crossing; along a poorly-lit quiet road or along a well-lit busy road).

Table 19: The differences between bus / DLR and underground users and the time they spend walking to their public transport node.

Group (Sample Size)	Bus Stop (BS)	DLR Station (DS)	Underground Station (US)
Young people (BS-n=65; DS-n=53; US-n=71)	5	7	6
Older people (BS-n=38; DS-n=24; US-n=22)	6	7	5
BME people (BS-n=115; DS-n=71; US-n=82)	5	6	7
Mobility Impaired (BS-n=28; DS-n=17; US-n=17)	6	8	7
People travelling with children (BS-n=29; DS-n=21; US-n=14)	5	7	7
Total Population (BS-n=283; DS-n=244; US-n=220)	5	6	6

Bus Travel

6.2 The average walk time to the bus stop is 5 minutes, except for older people and mobility impaired people who spend an average of 6 minutes walking to their usual bus stop. Older people and people who have a health condition that affects their mobility spend a disproportionate amount of time walking to their usual bus stop compared to other groups of people.

6.3 Gender: The results indicate that gender does not have a significant impact on the reasons why people make a journey by bus. The results indicate that there are slight gender differences in the responses to the trade-off questions. Women are more likely to walk further to a bus stop if it has a seat and shelter than men. There is no significant gender difference when choosing a bus stop where the ability to board the first vehicle is unlikely or a bus stop where there are no boarding problems. Gender also has a significant impact on whether someone is prepared to walk 2 minutes along a busy road without a pedestrian crossing or 3 or 5 minutes along a road to a bus stop that avoids crossing a busy road. Men appear to be much less concerned about crossing a busy main road without a pedestrian crossing than women. When asked which option they would choose at night, women were more likely than men to say that they would be prepared to walk further to enjoy a safer route. As the distance increases, the gender gap widens with more women willing to stay at home at night or if they do need to make a trip at night, they prefer to travel by car.

6.4 Age: The results of the surveys indicate that age does not have a significant impact on the reasons why people make a journey by bus. The main reason why respondents under the age of 60 said they travelled by bus was to access work / education facilities. Whereas older people were more likely to use it to go shopping. Young people were least likely to use their nearest bus stop and will walk further to access a

stop which is served by the routes they wish to use. Whereas older people said they feel safer walking to their nearest bus stop and are less likely to use a different stop. The ability to board the first vehicle becomes more important to respondents as they grow older. Age does have a significant on whether someone is prepared to walk 2 minutes to a marked bus stop with a shelter and/or seating. Older people are more likely to choose the bus stop with the seat and/or shelter and younger respondents are more likely to choose the nearest bus stop. Respondents in their mid-years are more likely to walk further to a bus stop if it means they can avoid a main road, compared to younger people. Older women have a greater aversion to the volume of traffic or the lack of pedestrian crossings than older men or younger women. Older people were more likely than young people to state that they have concerns about travelling at night. Young people are more likely to choose their nearest bus stop when travelling at night. Whereas, respondents in their mid-years are more likely to walk further to a bus stop along a well lit, busy road. Young people are least likely to state that they would travel by car at night, indicating that they may not have the same access to a car as people aged 25+.

6.5 Ethnicity: Access to work or education is the main reason why BME respondents said they travel by bus. The results of the surveys showed that ethnicity does have a significant impact on whether someone is prepared to walk further to access a bus stop with a shelter and/or seating at 3 minutes. When the group is divided along gender and age lines, there are differences between young people and people in their mid-years as well as slight gender differences. Young males are most likely to walk an extra minutes to a bus stop with facilities and males in their mid-years are most likely to walk to the nearest stop. BME women (aged between 16 and 59) are more likely than BME men to choose a bus stop that is further away from their home than cross a busy road without a pedestrian crossing. The respondents from this group are also more likely to choose a bus stop along a well-lit, busy road than a stop nearer to home but along a poorly-lit, quiet road. However, when the distance to the well-lit bus stop is increased to 7 minutes, young BME women are most likely to stay home at night and women in their mid years are most likely to walk along the well-lit road, whereas men in their mid years are most likely to walk to the nearest bus stop and young men are most likely to travel by car.

6.6 Health: Access to food shops is the main reason why people with a mobility impairment said they travelled by bus. This group was also more likely to travel by bus to visit their doctor or attend a hospital appointment than any other group. Respondents with a health condition that affects their mobility said they would be prepared to walk slightly further, than those without, to access a bus stop with seating and a shelter than most other groups. They are also more likely to walk as far as 7 minutes to avoid crossing a busy main road without a pedestrian crossing than those within the able-bodied group. Respondents with a health condition were most likely to say that they would not be prepared to travel by bus at night, than any other social group. It was not possible to analyse the results of the trade-off questions any further because the sample sizes were too small.

6.7 Travelling with young children: Access to food shops is the main reason why respondents from this group said they travel by bus. Whether someone is travelling with young children or not will also have a significant impact on a person's choice of a bus stop; whether they will be prepared to walk up to 5 minutes to a bus stop near a pedestrian crossing or to a stop nearer to home without a pedestrian crossing. Those travelling with young children are more likely than those without to walk further to access a bus stop where they are more likely to be able to board the first bus (total of 5 minutes). Over half of the respondents from this group said they would be prepared to walk an extra minute to access a bus stop with facilities, but this figure reduces as

the time differential increases. This group of respondents are less likely to use a bus stop along a well-lit road as the distance to the stop increases, they are more likely to not go out at night. It was not possible to analyse the results of the trade-off questions any further because the sample sizes were too small.

DLR Travel

6.8 The average walk time to the DLR station is 6 minutes, except for the young people, older people and parents of young children (7 minutes) and the mobility impaired groups (8 minutes) who spend an extra 1 or 2 minutes walking to their usual DLR station. Older people and people who have a health condition that affects their mobility spend a disproportionate amount of time walking to their usual DLR station compared to other groups of people.

6.9 Gender: The results of the surveys showed that gender does not have a significant impact on the reasons why people make a journey by DLR. The main reason why men and women said that they travel by DLR was to access shopping facilities. Gender has a significant impact on whether someone is prepared to walk 2 minutes along a busy road without a pedestrian crossing or 3 minutes along a road to a DLR station that avoids crossing a busy road. Men appear to be much less concerned about crossing a busy main road than women. Gender has a significant impact on whether someone is prepared to walk 2 minutes to a bus stop along a well lit, busy road or 7 or 9 minutes along a poorly lit, quiet road, or travel by car or even stay at home at night. Women are more likely than men to walk further to a DLR station if it is along a safer route. They are also more likely to not go out at night, or if making a trip, would prefer to travel by car.

6.10 Age: Young people and people in their mid years are more likely to use the DLR to travel to work or education establishments and older people are more likely to use it for shopping related trips. The age of the respondent has a significant impact on whether someone is prepared to walk 2 minutes along a busy road without a pedestrian crossing or 3 minutes along a road to a DLR station that avoids crossing a busy road. Women in their mid-years have a greater aversion to the volume of traffic or the lack of a pedestrian crossing than males, or young women. Older people are more likely to walk further to access a DLR station near a pedestrian crossing than any other social group. There are no significant differences between the age groups and their preparedness to walk 2 minutes to a DLR station along a well lit, busy road or along a poorly lit, quiet road. However, people in their mid years are most likely to travel at night than any other age group and older people are least likely to go out at night. Young people are more likely to walk further to access a station in a busy well-lit area than people in their mid-years. Those respondents aged between 25 and 59 are also more likely to choose the shorter, less safe route, than the other age groups.

6.11 Ethnicity: The main reasons why BME respondents said they use the DLR is to access shopping facilities, followed by access to work and education. When asked how safe people feel when walking to and from their usual DLR station at night, the results showed that ethnicity has a significant impact on whether someone feels safe at night. They are also more likely to walk further to avoid crossing a busy road than other social groups. BME respondents who travel at night said they are more likely to travel by car than any other social group. For those who use rail services, the walk along a well lit busy road is most important across all four cases.

6.12 Health: The main reasons why respondents with a health condition that affects their mobility use the DLR are to access shopping facilities, followed by access to social

and leisure facilities and access to healthcare services. They are more likely to walk further to access a DLR station near a pedestrian crossing than able-bodied respondents. When travelling at night, respondents with a health condition are far more likely to state a preference for not making a trip. It was not possible to analyse the results of the trade-off questions any further because the sample sizes were too small.

6.13 Travelling with young children: The main reasons why respondents travelling with young children use the DLR are to access shopping facilities, followed by social and leisure facilities and access to healthcare services. The ability to cross a busy road at a pedestrian crossing is important to this group and they would be prepared to walk an additional 3 minutes (total of 5 minutes) but after that time, they are more likely to access the nearest DLR station. When travelling at night, the walk to a DLR station along a well-lit, busy road rather than the nearest DLR station is most important across all four cases. It was not possible to analyse the results of the trade-off questions any further because the sample sizes were too small.

Underground Travel

6.14 The average walk time to the underground station is 6 minutes, except for older people who said they could reach their usual station is less than 6 minutes (5 minutes) and BME people, mobility impaired and parents travelling with young children (7 minutes) who spend an extra minute walking to their usual underground station. Older people, BME and people who have a health condition that affects their mobility spend a disproportionate amount of time walking to their usual tube station compared to other groups of people.

6.15 Gender: The results of the surveys indicate that gender and age do not have a significant impact on the reasons why people make a journey by tube. There is a slight gender difference amongst tube users as men are more likely to travel by tube for work and education reasons and females tend to use it more for shopping. Men were less likely to walk to their nearest station than women. Gender has a significant impact on whether someone is prepared to walk 2 minutes along a busy road without a pedestrian crossing or 3 minutes along a road to a tube station that avoids crossing a busy road. Men appear to be much less concerned about crossing a busy main road without a pedestrian crossing than women. When the distance is increased (to 5, 7 or 9 minutes) there is no significant difference between the gender groups. There are clear gender differences, with women being prepared to walk further than men to enjoy a safer route, more likely to not make a trip at night and more likely to travel by car. As the distance to the station increases, the gender gap also widens with men more likely to switch to walking to their nearest station.

6.16 Age: Both young people and older people are more likely to use the tube for shopping related trips, whereas people in their mid years are more likely to use it to travel to work and education establishments. The age of the respondent has a significant impact on whether someone is prepared to walk 2 minutes along a busy road without a pedestrian crossing or 9 minutes along a road to a tube station that avoids crossing a busy road. Older people are more likely to walk further to access an underground station near a pedestrian crossing than any other age group and young people are most likely to choose the nearest station. As the distance to a station along a well lit busy road increases, young people are more likely to travel by car than those in their mid-years, who are more likely to say that they will not go out. The likelihood of not making a trip at night increases with age, varying between 2% and 4% for the young people group rising to 2% -18% among the 25-59 age group and rises sharply to 33%

among the respondents within the 60 plus age group. People in their mid-years are also more likely to walk further to a station along a well lit busy road than young people. There is a slight gender difference amongst respondents in the older people group. Older men are more likely to go out at night and are more likely to choose the shortest route than older women.

6.17 Ethnicity: There is a gender gap amongst the respondents within the BME group. Men are more likely to cross a busy road without a pedestrian crossing than women. BME men are also more likely to walk to their nearest station than white males. There is very little difference between BME women and white women, both groups are more likely to choose a station near a crossing. When comparing the responses of the BME group against the total sample, BME are more likely to not make a trip at night. There is a slight gender difference with more BME men making a trip at night and being more likely to walk to their nearest station than BME women.

6.18 Health: The respondents within this group were most likely to travel by tube to access shopping facilities and health services. The ability to cross a busy road at a pedestrian crossing is paramount to this group of people; in all four cases all the respondents chose the station near a pedestrian crossing. They are more likely than any other group to say that they would not travel to an underground station along a poorly lit quiet road. It was not possible to analyse the results of the trade-off questions any further because the sample sizes were too small.

6.19 Travelling with young children: The respondents within this group were most likely to travel by tube to access shopping facilities and accompanying children to/from nursery and/or school. Those travelling with young children are prepared to walk slightly further to access an underground station near a pedestrian crossing (total of 5 minutes) but after that they are more likely to select the nearest station. When travelling at night, the results show that as the distance to a station along a well-lit busy road increases, the number of people prepared to walk to that station decreases. It was not possible to analyse the results of the trade-off questions any further because the sample sizes were too small.

APPENDIX 1 -

Copy of the Questionnaires