



Travel Survey Report 2010

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Introduction

This report provides a summary of the findings of the travel surveys carried out in October 2010. It was distributed electronically to approximately 25,315 members of the University community (staff and students). The results of the travel survey will help quantify the University's progress towards the aims laid out in its Travel Plan and allow areas of concern to be targeted.

Methodology

25,315 questionnaires were sent out to the majority of University staff and students. Approximately 18% of these were usable returns down slightly from 23% usable returns in 2008.

Data was converted to SPSS files, where variable labels and value labels were added, to allow results to be more easily interpreted. Text entries were analyzed individually and recoded where appropriate.

The survey was confidential and anonymous with only the gender, age range and partial postcode being requested.

Findings

This report is compiled from all of the usable returns from the survey. If a return lacked any responses in any field, it was excluded from the report. There were 4,586 usable returns in total (representing a return rate of 18%) which comprised 1,411 staff returns and 3,175 student returns. The data which follows comprises all of the usable returns except in cases where subsets of usable returns are used due to routing rules present in the questionnaire. Routing was used to question respondents more specifically about their particular mode of travel. In these instances the size of the subset is indicated as follows: *(Percentages calculated from a subset of # respondents)*.

It should be noted that in some situations people who answered positively to a routed question did not go on to answer all the related questions.

Results

Data from all usable surveys was used in the preparation of this report. As can be seen in figure 1.0 the response rate of the survey was 18% overall which comprised a 50% return rate from staff and an 11% return rate from students.

Figure 1.0 Survey Return Rate

Total number of surveys distributed	25,315
Total number of surveys returned	4,611 (18.2%)
Spoilt returns	25
Total number of usable returns	4,586 (18.1%)

The survey was divided into nine subsections:

- 1) **Personal Details** – A common stream which requests personal details of the respondent.
- 2) **Travel Habits** – A common stream which ascertains which mode of travel the respondent uses for commuting.
- 3) **Car** – A stream restricted to those who travel by car.
- 4) **Car Share** – A stream restricted to those who car share.
- 5) **Bicycle** – A stream restricted to those who travel by bicycle.
- 6) **Public Transport** – A stream restricted to those who travel by bus or train.
- 7) **Powered Two Wheelers** – A stream restricted to those who travel by motorcycle or moped.
- 8) **Walking** – A stream restricted to those who travel by foot.
- 9) **Alternatives, Opinions and Incentives** – A common stream to elicit opinions of what infrastructure or service improvements would help the respondent travel in a sustainable way.

The results of each of these sections are separated into staff and student survey responses and are detailed below.

Staff Survey Responses

RESPONSE RATES

Overall 1,411 staff responded to the survey which amounts to a 50% response rate of those distributed.

PERSONAL DETAILS

Role at University

Figure 2.01 illustrates the breakdown of respondents' role at the University.

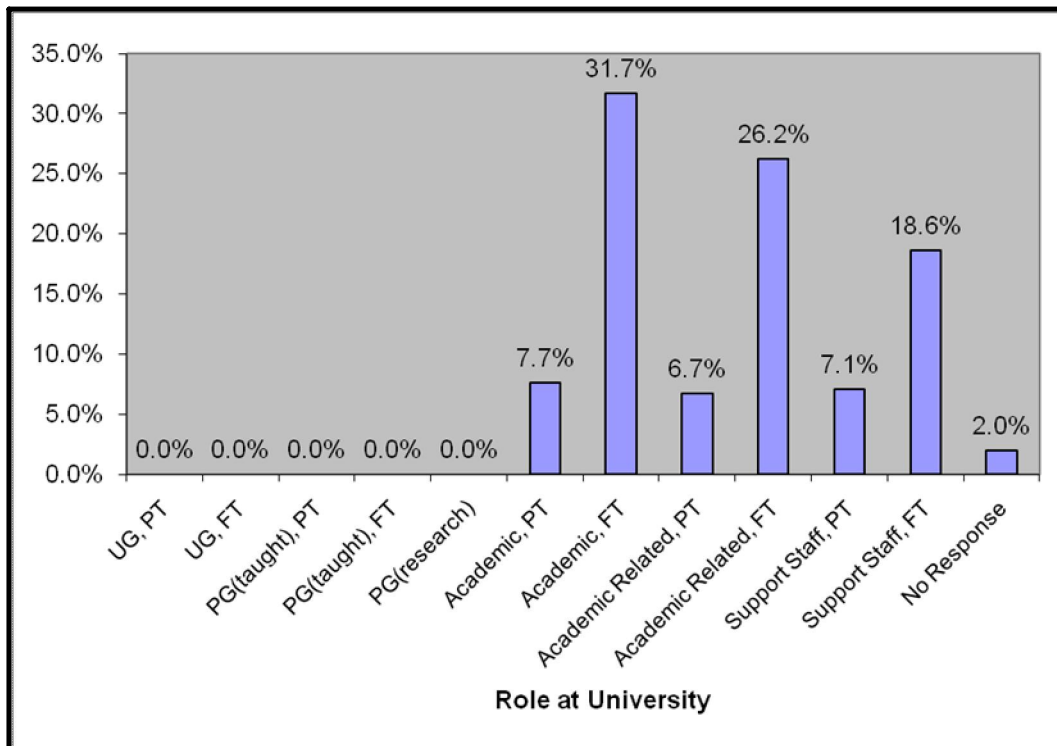


Figure 2.01 Role at University

Gender Split

The information obtained indicated that 58% of staff respondents were female, with 38% male.

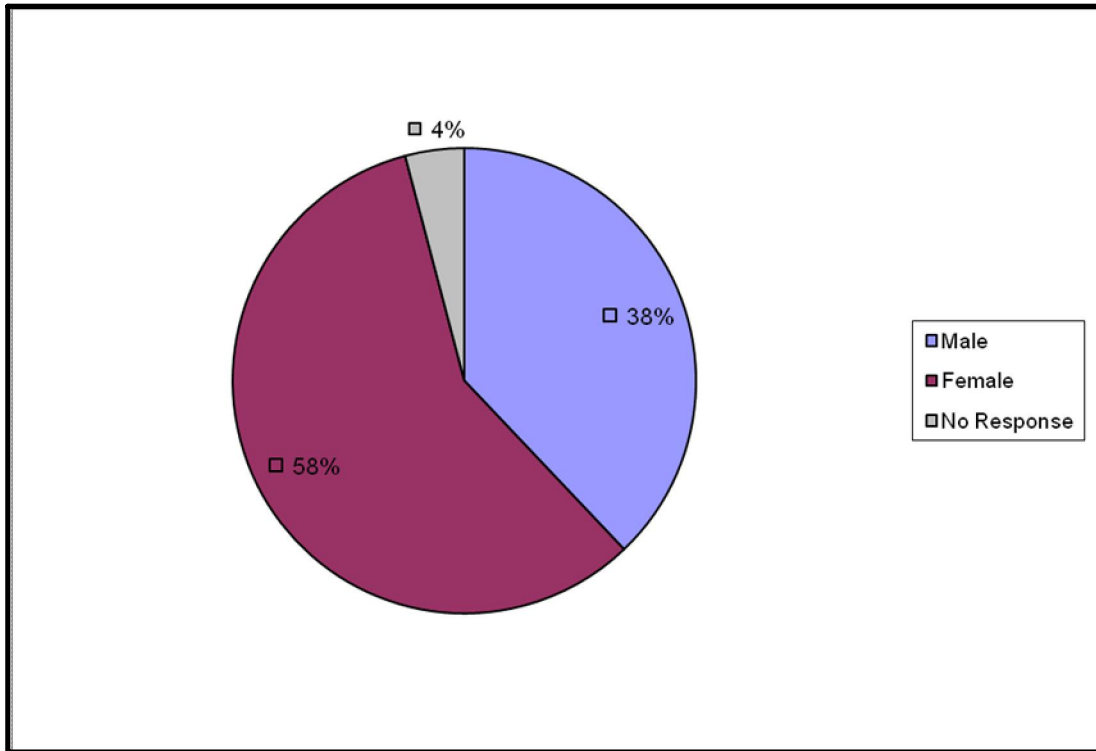


Figure 2.02 Age of Respondents

Age

As can be seen from Figure 2.03 the majority of staff respondents (50.3%) were aged between 40 and 59 years of age with a significant remaining proportion (36.9%) being between 25 and 39.

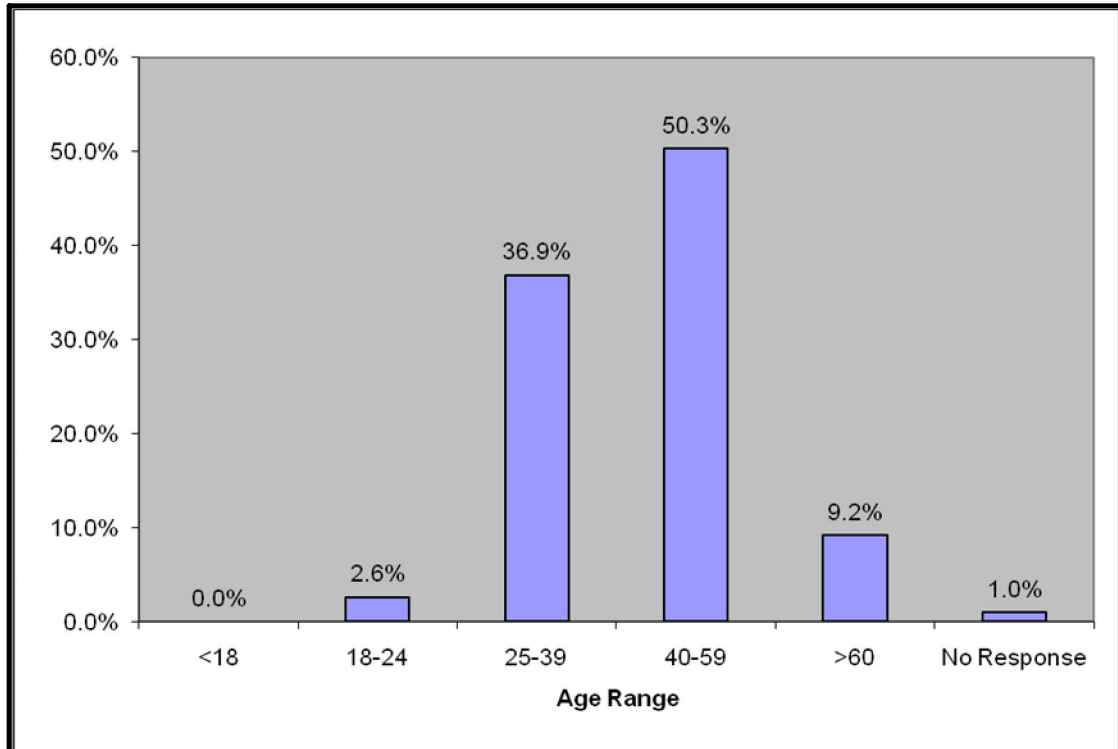


Figure 2.03 Age of Staff Respondents

Distance from Work

Figure 2.04 illustrates the range of distances that staff estimate they travel to work. These represent a single journey and therefore should be doubled to give a daily commute.

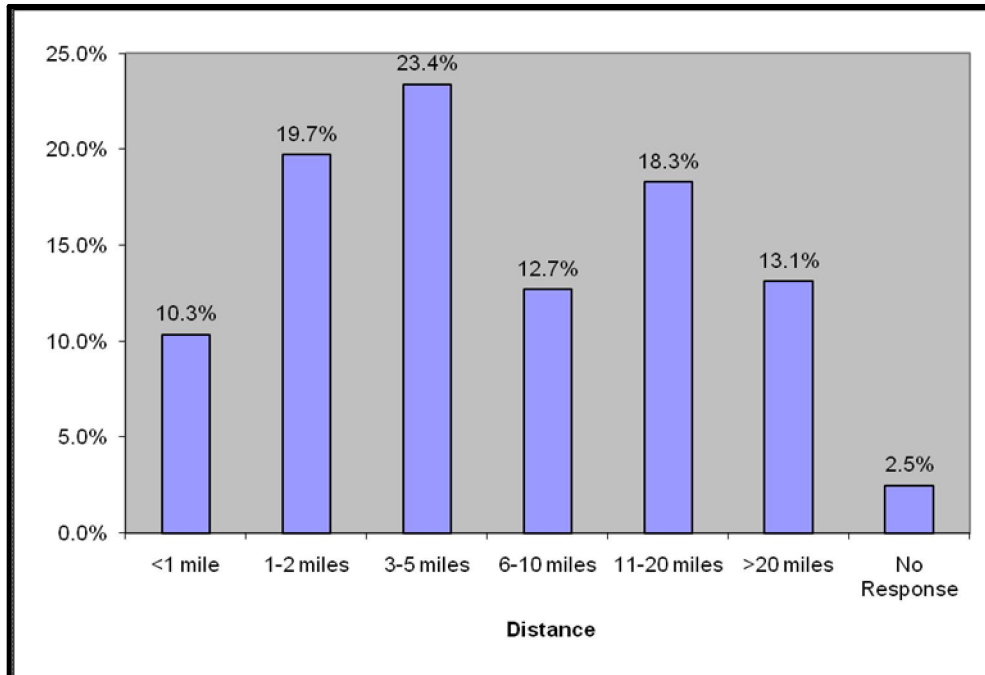


Figure 2.04 Estimated Distance Travelled

Duration of Travel

Figure 2.05 illustrates the time typically taken for people to travel to their workplace. These represent single journey times. This is suggestive of the time that staff are willing to spend commuting.

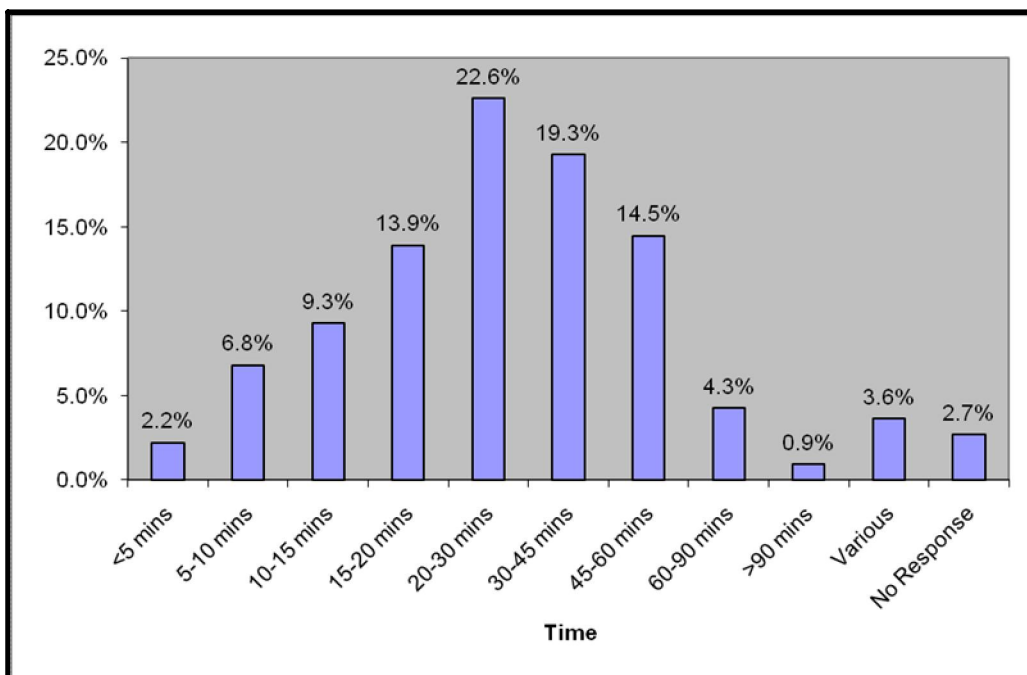


Figure 2.05 Duration of Journey

TRAVEL HABITS

Main Mode of Travel

The most common mode of travel used by staff remains the car at 53.6% however this is a continued downturn in comparison to the 2006 figure of 59% and the 2008 figure of 56%. This is likely to be as a result of national trends caused by escalating fuel prices as well as reductions in car parking on campus and various travel plan initiatives undertaken by the University. It is encouraging to note that this figure is far below the average experienced in Aberdeen as a whole which was 65.1% in 2009 (*Aberdeen City Council Citizen's Panel Survey – City Voice, 2009*). Car sharing and bicycle use both see increases over 2006 and 2008 figures while bus use saw a significant decline.

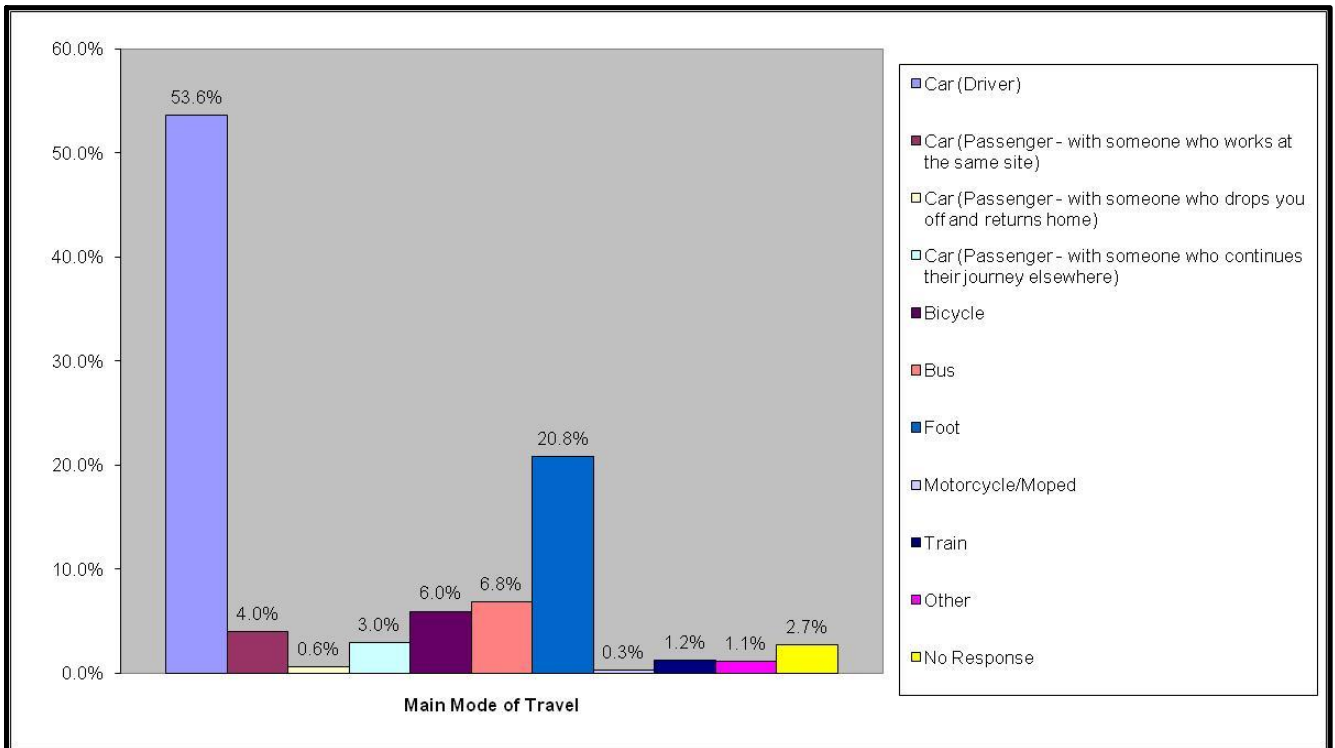


Figure 2.06 Main Mode of Travel by Staff

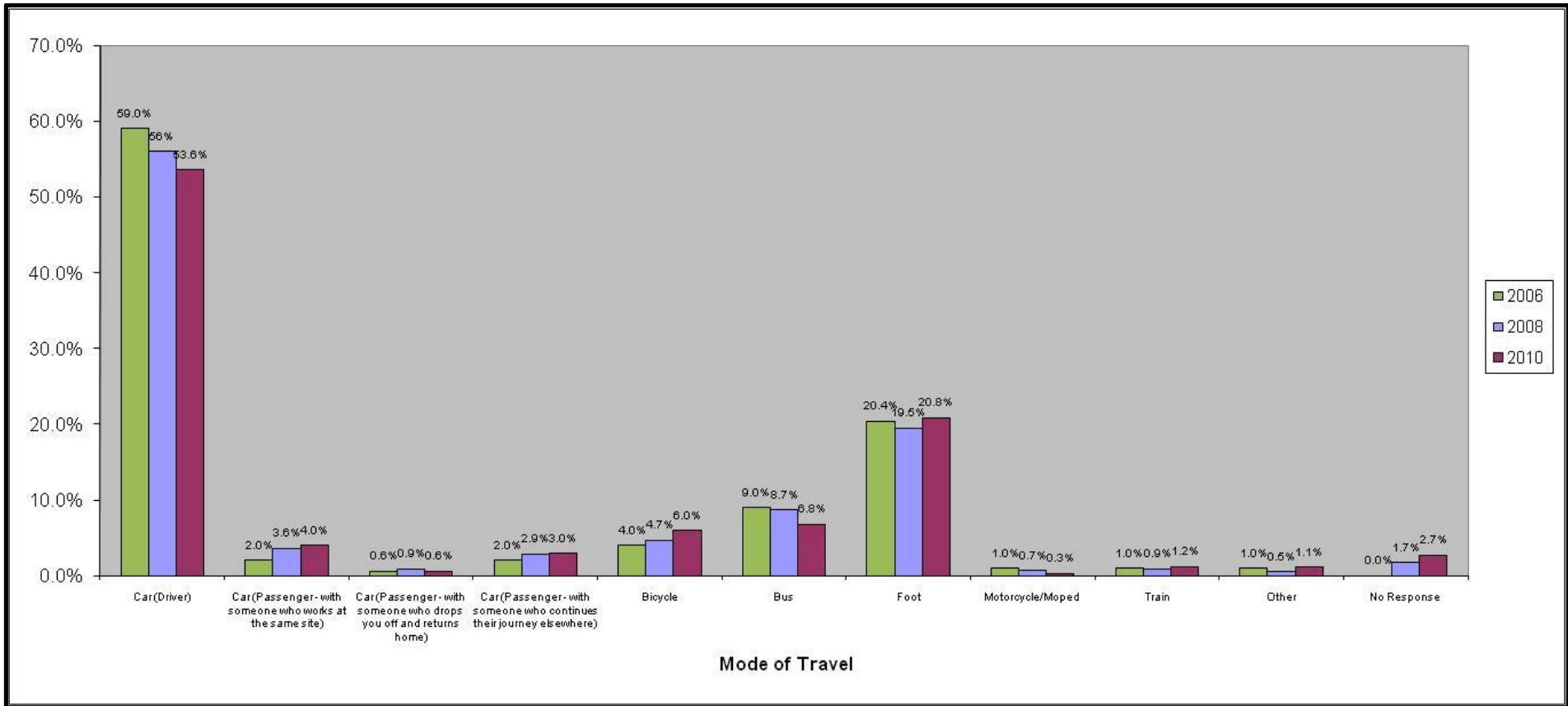
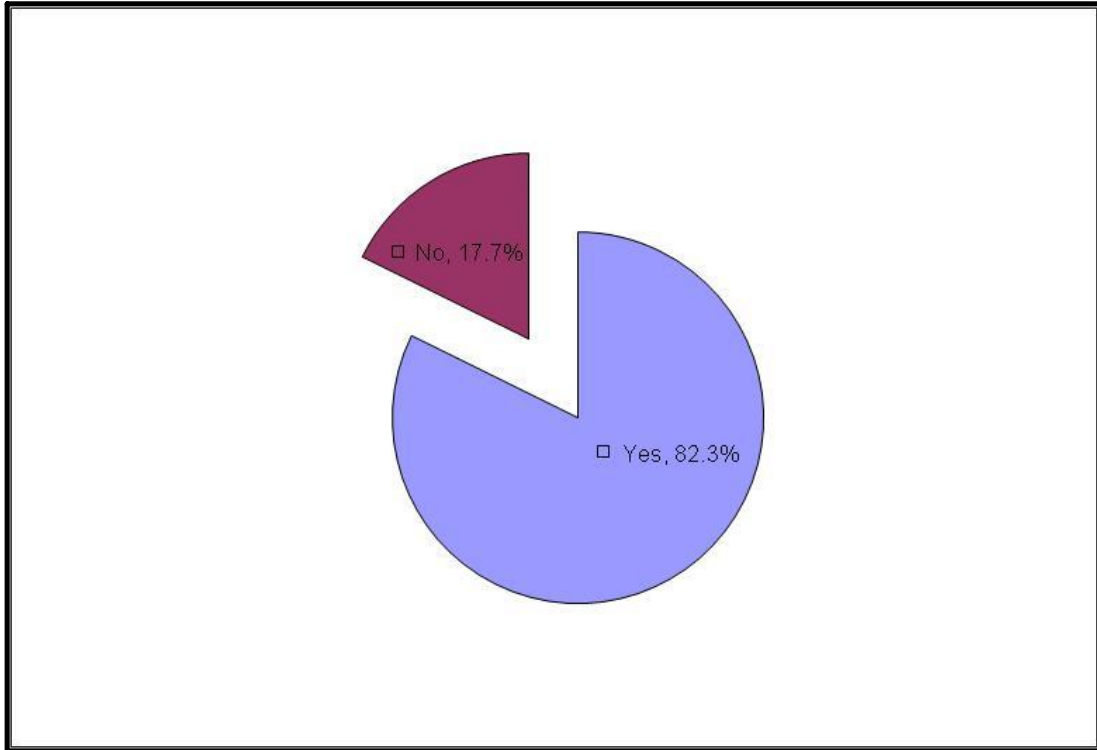


Figure 2.07 Comparison of Main Mode of Travel by Staff between 2006 and 2010

CAR USEPermit Holders

Of those who drive to work the majority hold a University parking permit with virtually the same number of respondents indicating that they use that permit to park in University car parks. The majority of respondents who were not permit holders but who did drive to work indicated that they parked using local, on street, parking facilities.



(Percentages calculated from a subset of 740 respondents)

Figure 2.08 Percentage of Car Users Who Hold a University Parking Permit

Reasons for Travelling by Car

No values are used in figure 2.09 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons given for using a car to commute. As can be seen in figure 2.09 time constraints and convenience feature heavily in staff member's decisions to commute using their car. Cost, business use, personal use and the lack of a suitable alternative also appear to feature commonly. There are various solutions available to address these issues, for example, the introduction of pool cars would help reduce the need for staff to use their cars for business use. The reasons given therefore help to identify a list of priorities to help address the issues that staff have. Reasons given under the "other" option primarily centred around childcare responsibilities with some being used to qualify previous responses given.

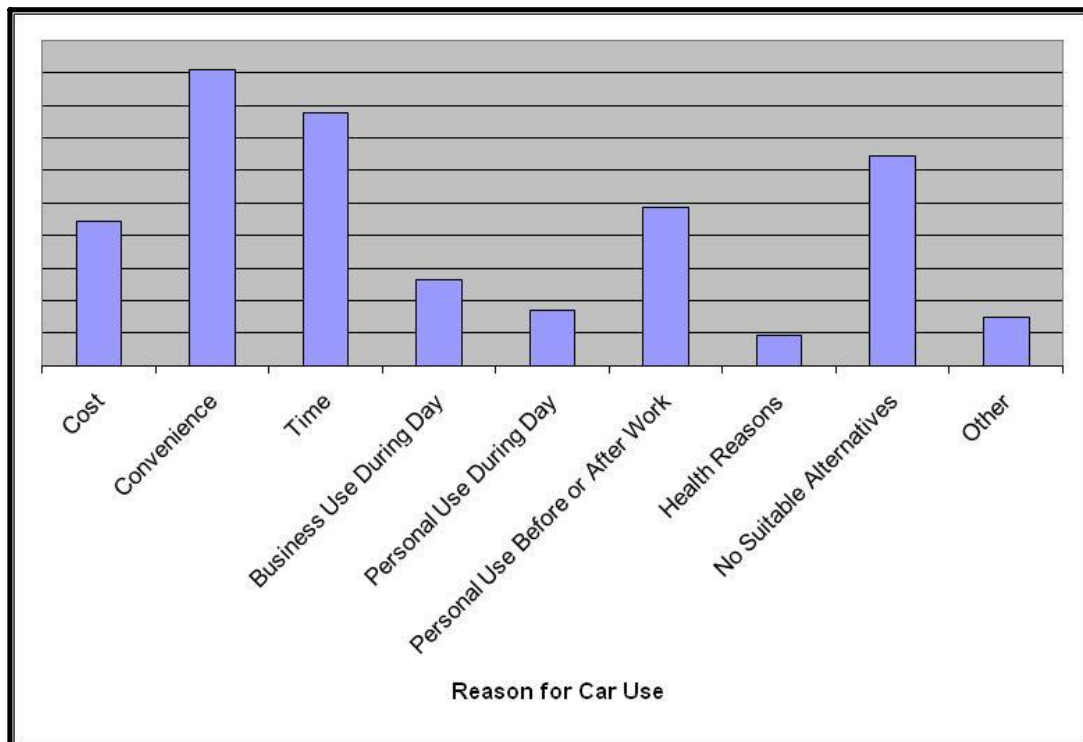


Figure 2.09 Reasons for Car Use

Business Travel Alternatives

No values are used in figure 2.10 as respondents could select as many options as were appropriate. The figure therefore represents the comparative preference of alternative travel options for business travel. A clear preference for public transport and pool cars can be seen over using conferencing technology. This could be due to the limitations such technology has or be due to a lack of knowledge on how to use the facilities to their potential. Additional information and training could help overcome some of these difficulties.

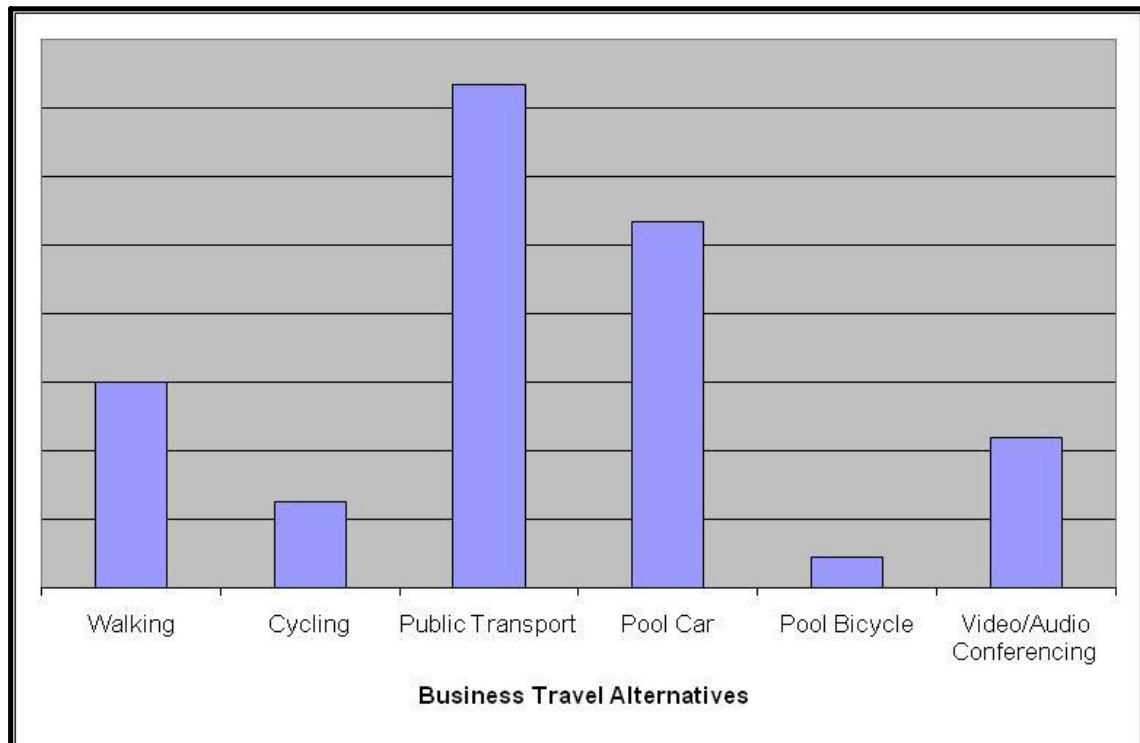


Figure 2.10 Preferred Business Travel Alternatives

Encouragement of Car Sharing

No values are used in figure 2.11 as respondents could select as many options as were appropriate. The figure therefore represents the comparative preference of incentives to encourage car sharing. Preference for parking space and a guaranteed ride home were evident from the responses while most staff seemed content with the level of information available.

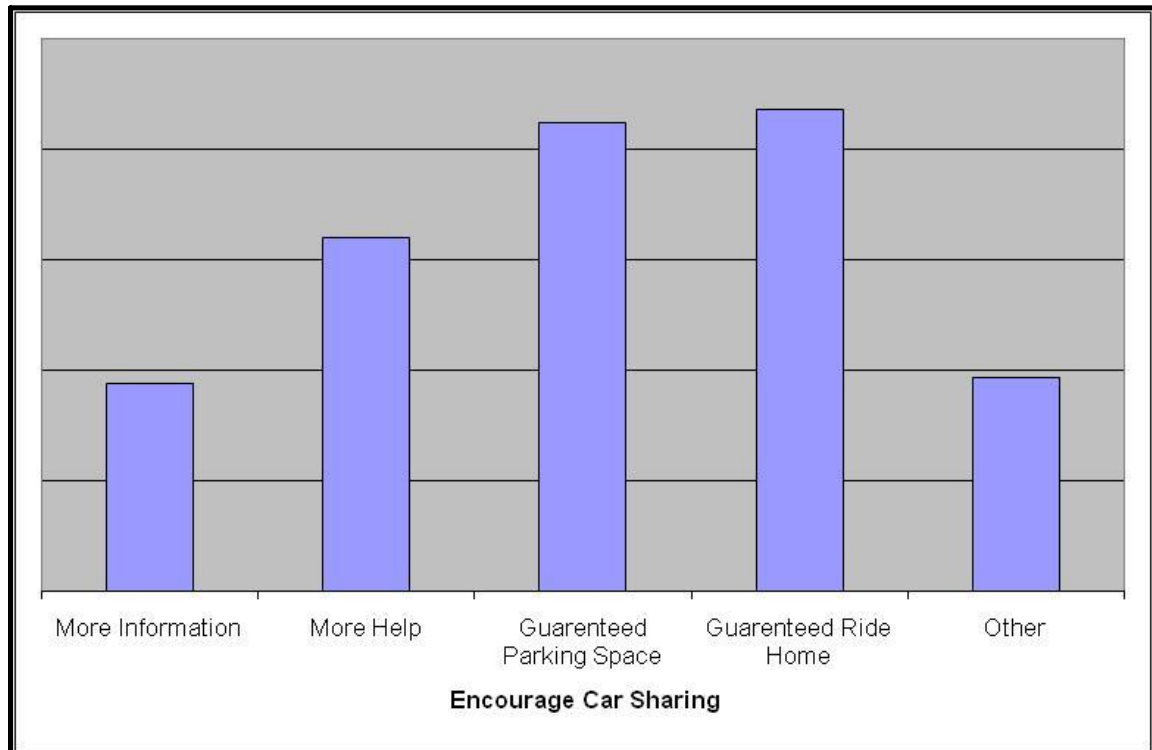


Figure 2.11 Preferred Business Travel Alternatives

CAR SHARING**Reasons for Car Sharing**

No values are used in figure 2.12 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons why staff members car share. Convenience can clearly be seen as the most prominent reason while cost, time and a lack of suitable alternatives also feature strongly.

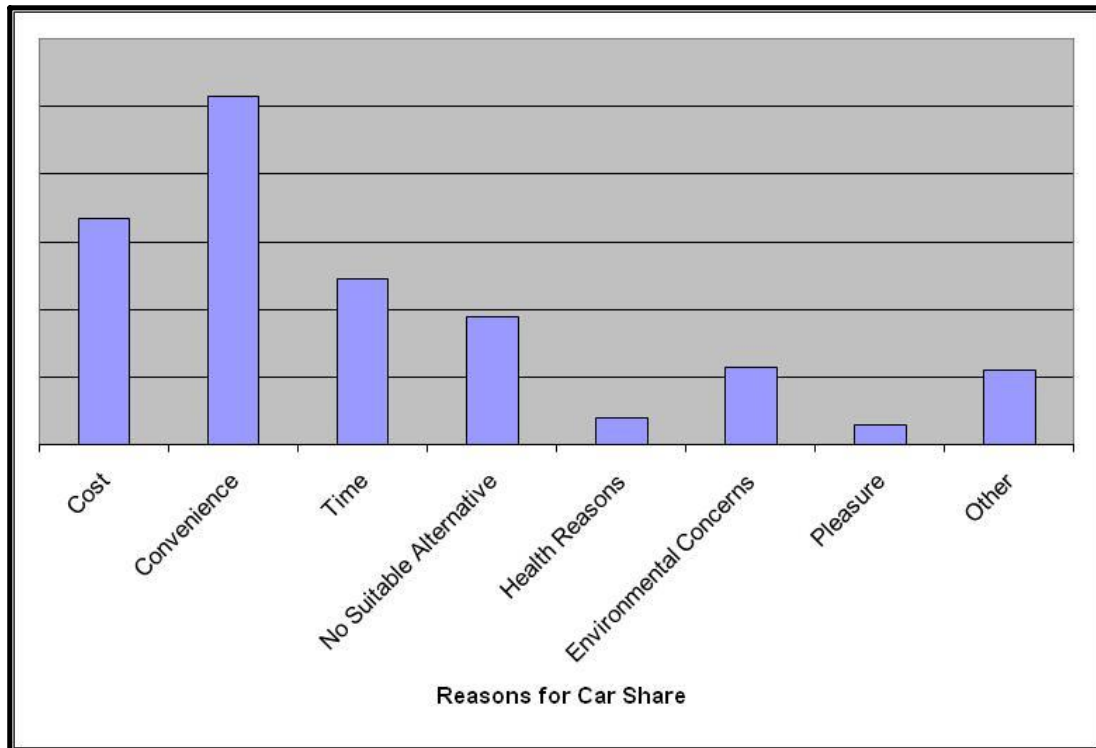


Figure 2.12 Reasons for Car Sharing

CYCLING**Reasons for Cycling**

No values are used in figure 2.13 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons why staff members cycle to work. With the exception of there being no suitable alternatives all reasons seem to influence cyclists to a fairly large extent with health and fitness featuring most prominently.

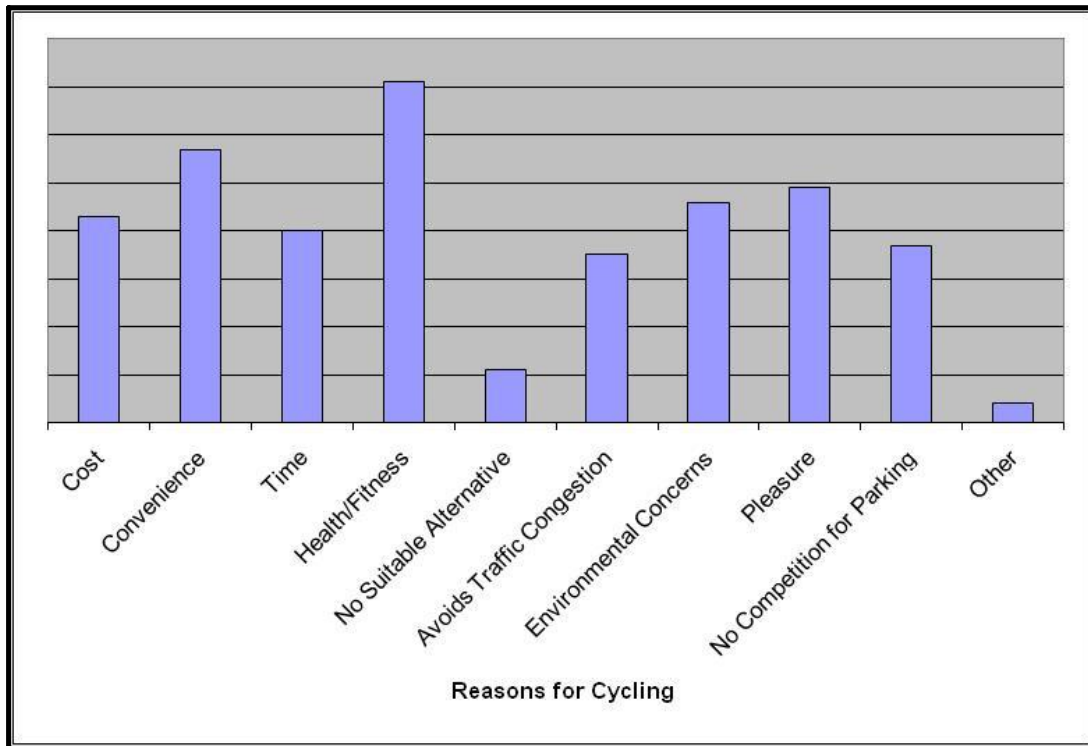
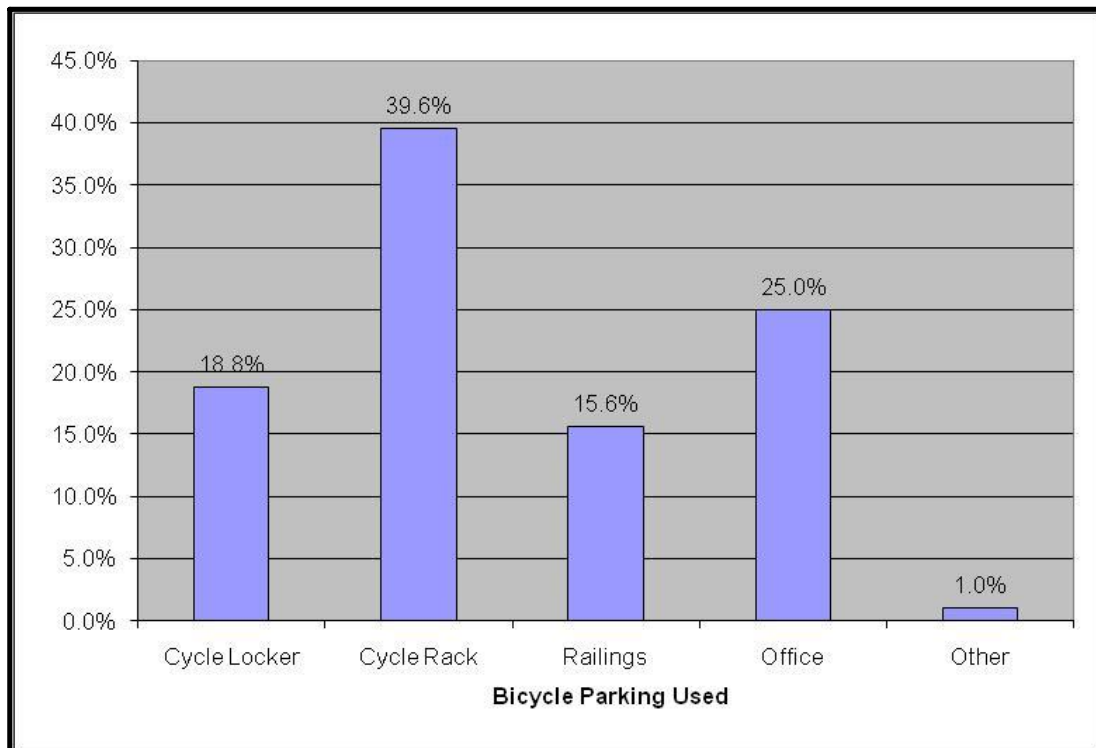


Figure 2.13 Reasons for Cycling

Cycle Parking Used

Figure 2.14 shows a significant change from 2008 in a number of respects. Firstly, a very large proportion of staff are now storing bicycles in office space, a practice which is discouraged at the University, and which suggests existing bicycle parking is not adequate. A significant change has also occurred in external storage locations with double the number now indicating they use cycle racks in preference to railings or lockers. This could be due to additional racks and covered storage that was installed during the last year.



(Percentages calculated from a subset of 96 respondents)

Figure 2.14 Cycle Parking Used

BUS TRAVEL**Reasons for Travelling by Bus**

No values are used in figure 2.15 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons why staff members use the bus to travel to work. No suitable alternative features heavily suggesting that bus travel is often used out of necessity rather than choice. Time features least prominently suggesting that the service frequency is perceived to be poor.

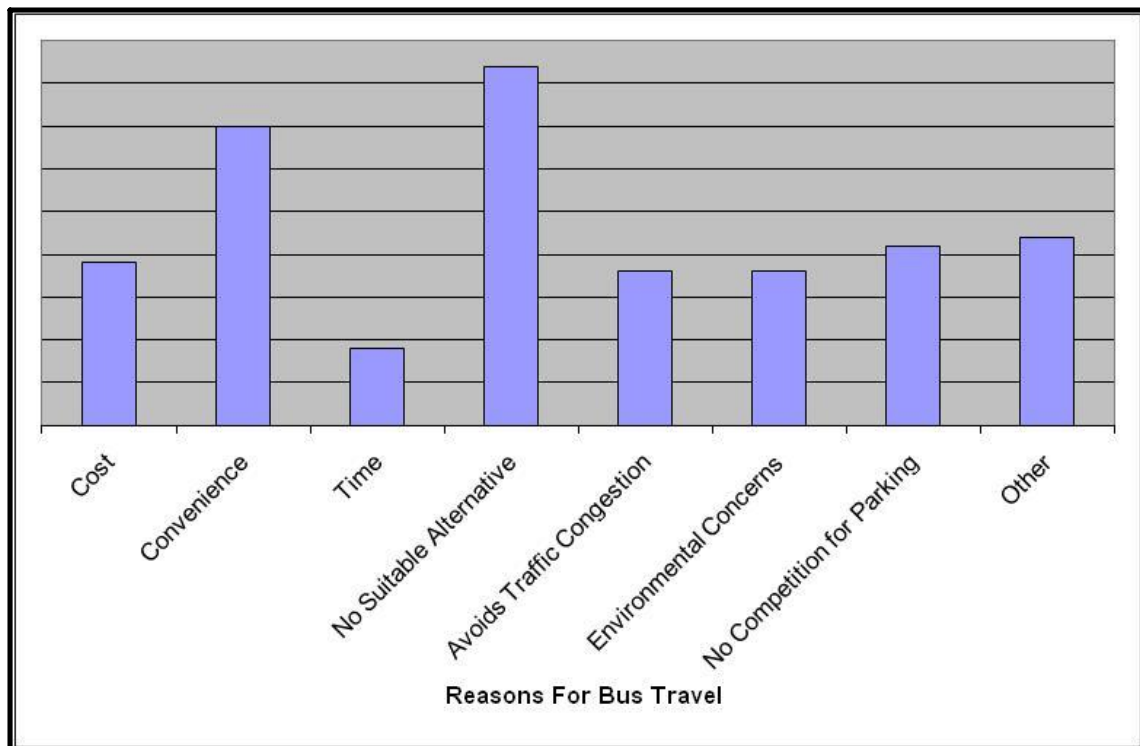


Figure 2.15 Reasons for Bus Travel

Bus Routes Used

No values are used in figure 2.16 as respondents could select as many bus services as they use on a regular basis. The figure therefore represents how much each service is used compared to others. The most common route used is that of the 1/2 which serves Old Aberdeen both from the Bridge of Don and from Garthdee. Country services were predictably used less than city services. A broader range of services is being used than in previous years however the overall decline in bus use is concerning.

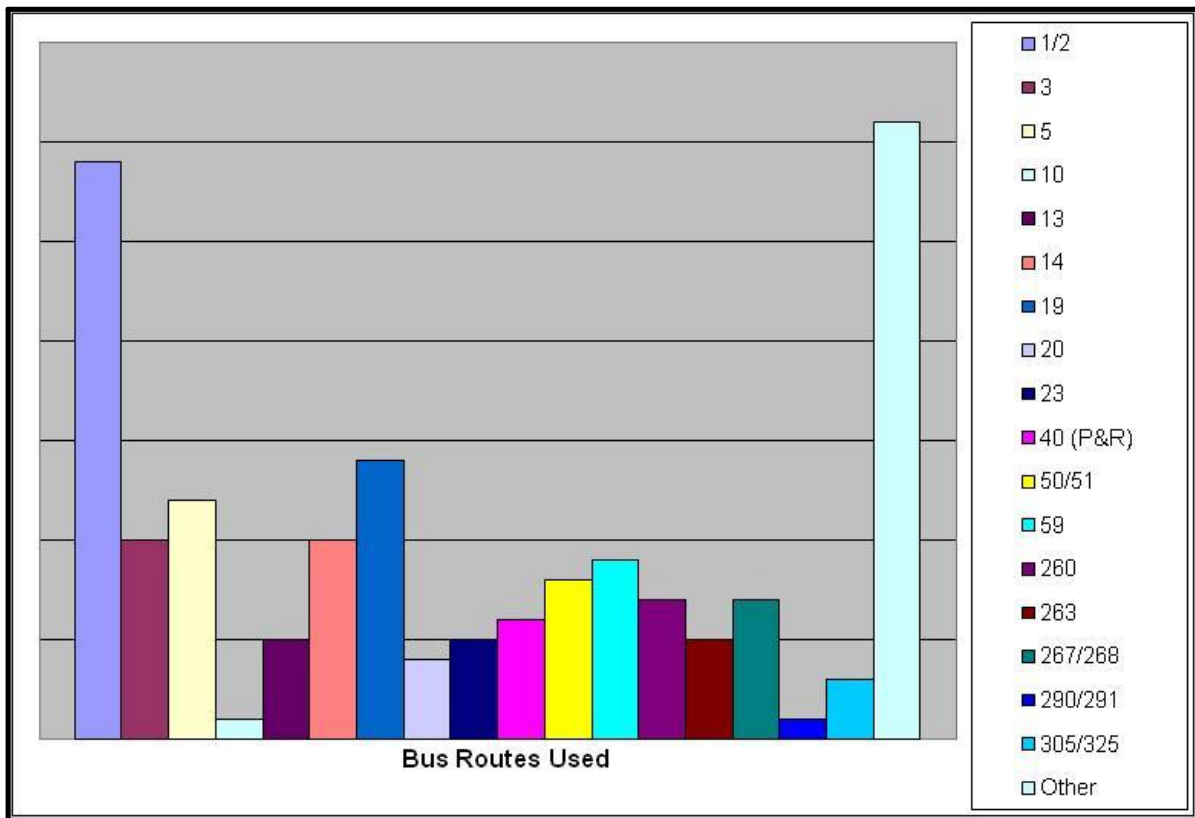


Figure 2.16 Bus Routes Used

WALKING**Reasons for Walking**

No values are used in figure 2.17 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons why staff members walk to work. Convenience and health reasons feature most highly with cost, environmental concerns and pleasure also making a significant impact.

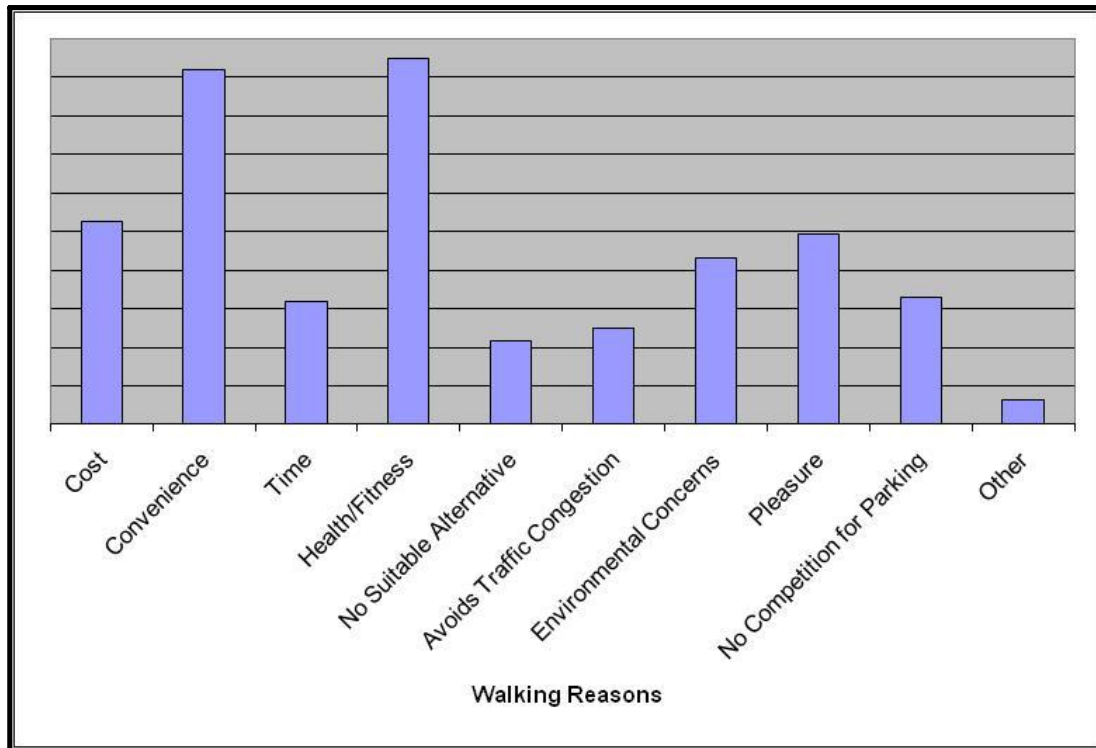


Figure 2.17 Reasons for Walking

MOTORCYCLING**Reasons for Travelling by Motorcycle**

No values are used in figure 2.18 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons why staff members travel by motorcycle to work. Like cycling, there seem to be many contributing factors why people choose this mode of travel. Again, like cycling, there is a perception among motorcyclists that it is not due to a lack of suitable alternatives that they choose to use a motorcycle. It is also evident that pleasure and personal use do not factor into the decision to use a motorcycle for commuting.

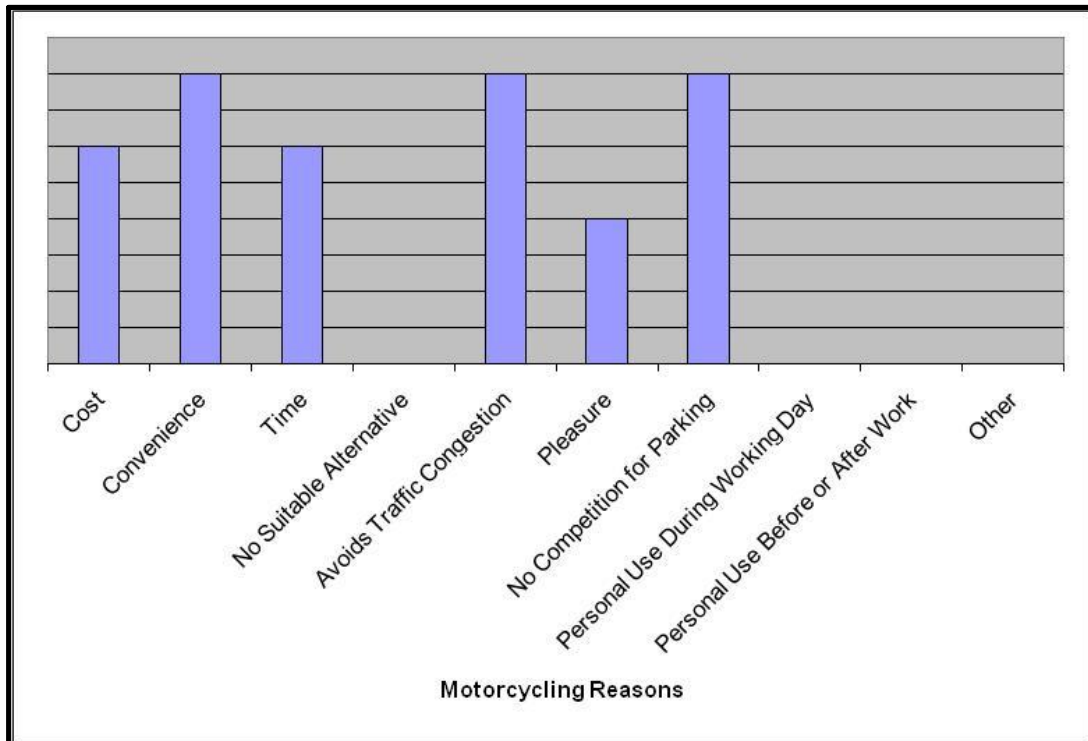


Figure 2.18 Reasons for Travelling by Motorcycle

RAIL TRAVEL**Reasons for Travelling by Train**

No values are used in figure 2.19 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons why staff members travel by train to work. Avoiding congestion, convenience and cost feature most prominently. The relatively low numbers of people saying that there are no suitable alternatives is surprising given the locations of stations which serve the Aberdeen area and suggests that people see driving or bus use as a reasonable alternative even if the commute is of considerable distance.

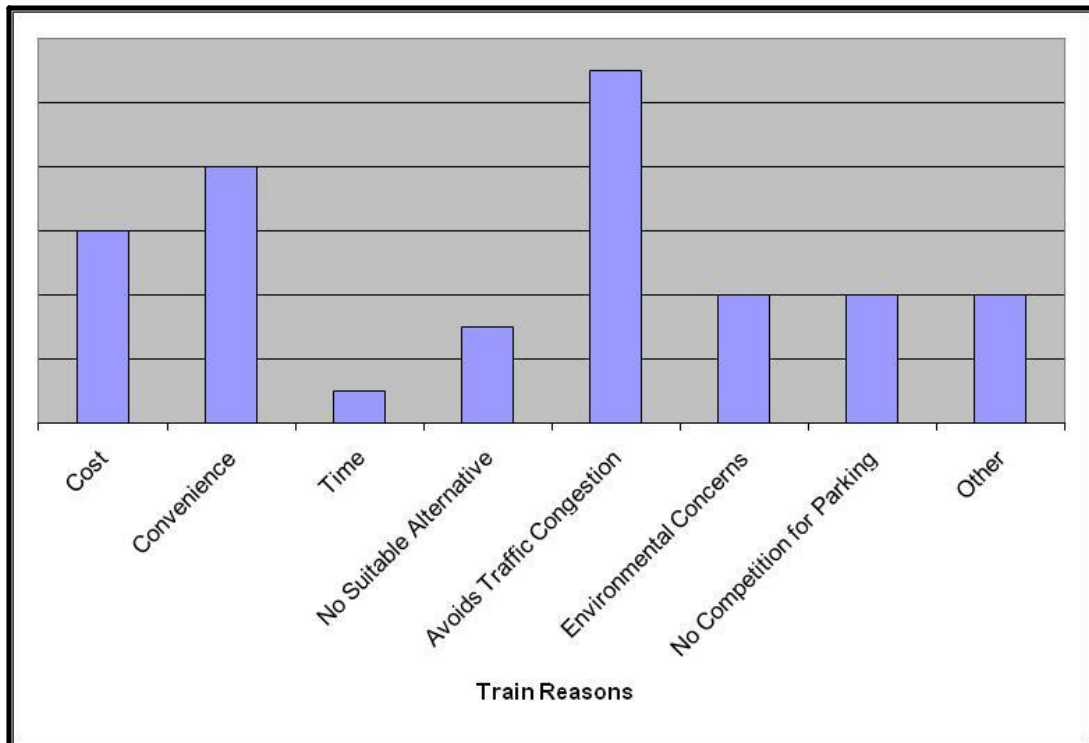


Figure 2.19 Reasons for Travelling by Train

ALTERNATIVE TRAVEL**Alternative Modes of Travel Used**

To determine what modes of travel were considered most viable as an alternative to the main mode of travel used, respondents were asked to give their preferred alternative, if any. Of the 21.5% of staff who indicated that they did not use any alternative the majority (59.4%) were single occupancy car users. This is a slight downturn from 2008 when 62% were single occupancy car users but is still a cause for concern.

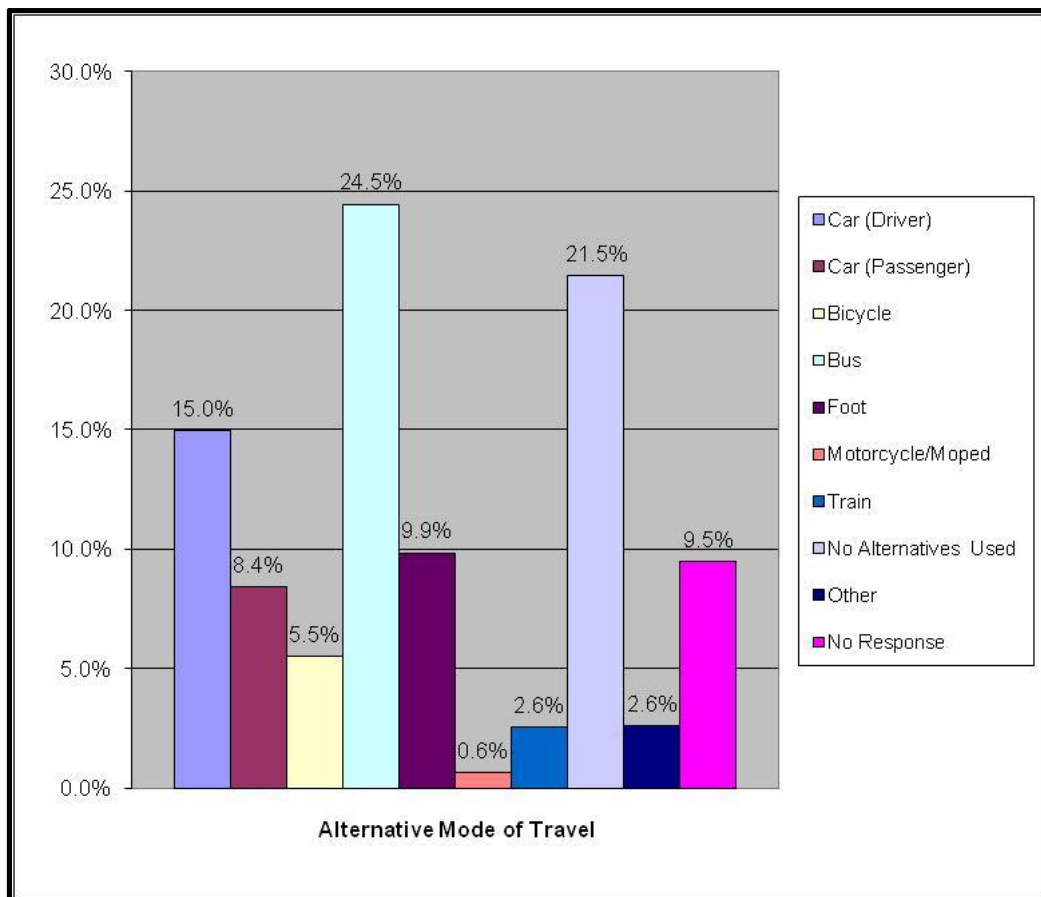


Figure 2.20 Alternative Modes of Travel Used

WILLINGNESS TO CHANGE

Willingness to Change Travel Habits

Staff were asked whether they would be willing to change their travel habits to make it more environmentally sustainable. Generally speaking equal numbers of staff were willing and unwilling to change their habits with a significant number remaining undecided.

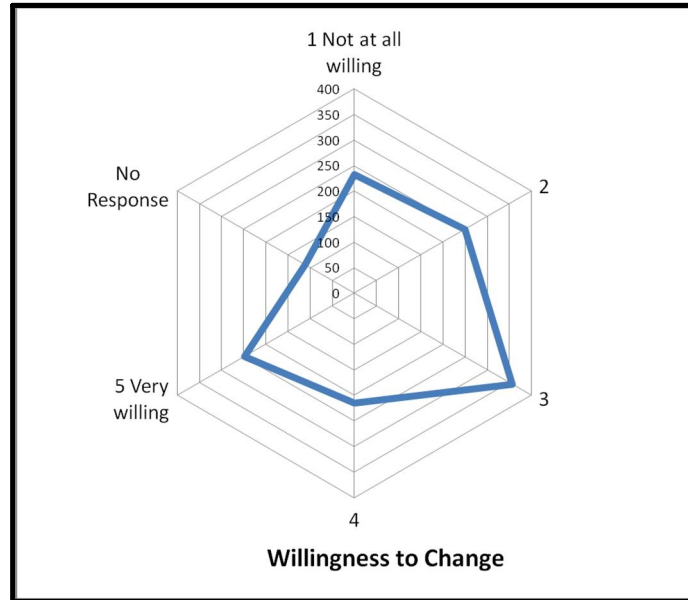


Figure 2.21 Willingness to Change Travel Habits

Given that a primary aim of the University's Travel Plan is to reduce single occupancy cars additional analysis was carried out on this specific group of staff. The group showed more unwillingness to change in comparison to staff generally. This is a concern since this is the group the University most wants to change the travel habits of.

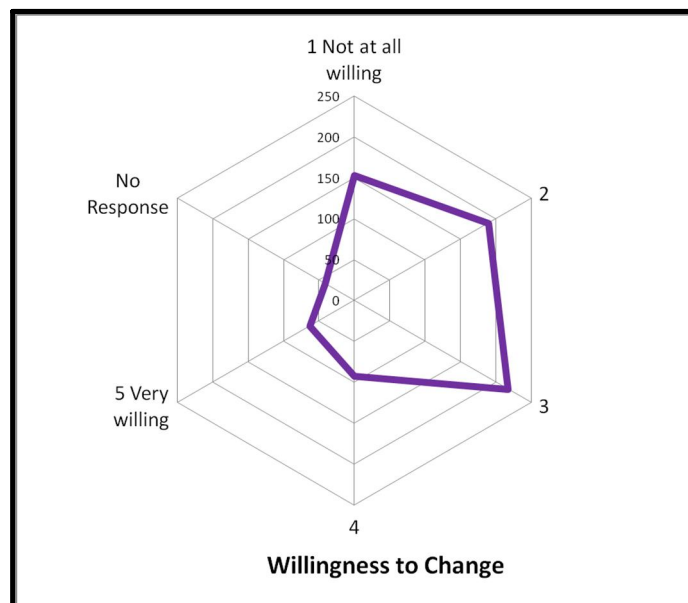


Figure 2.22 Willingness to Change Travel Habits – Car Driver Sub-set

Student Survey Responses

RESPONSE RATES

The student response rate for this years survey was 11%, down from the 17% response rate recorded in 2008. This may be partially due to the removal of incentives to complete the survey (a prize draw was previously offered). Although this response rate is relatively low there is nothing to suggest that it does not represent a fair sample of the student community.

PERSONAL DETAILS

Role at University

Figure 3.01 illustrates the breakdown of respondents' role at the University.

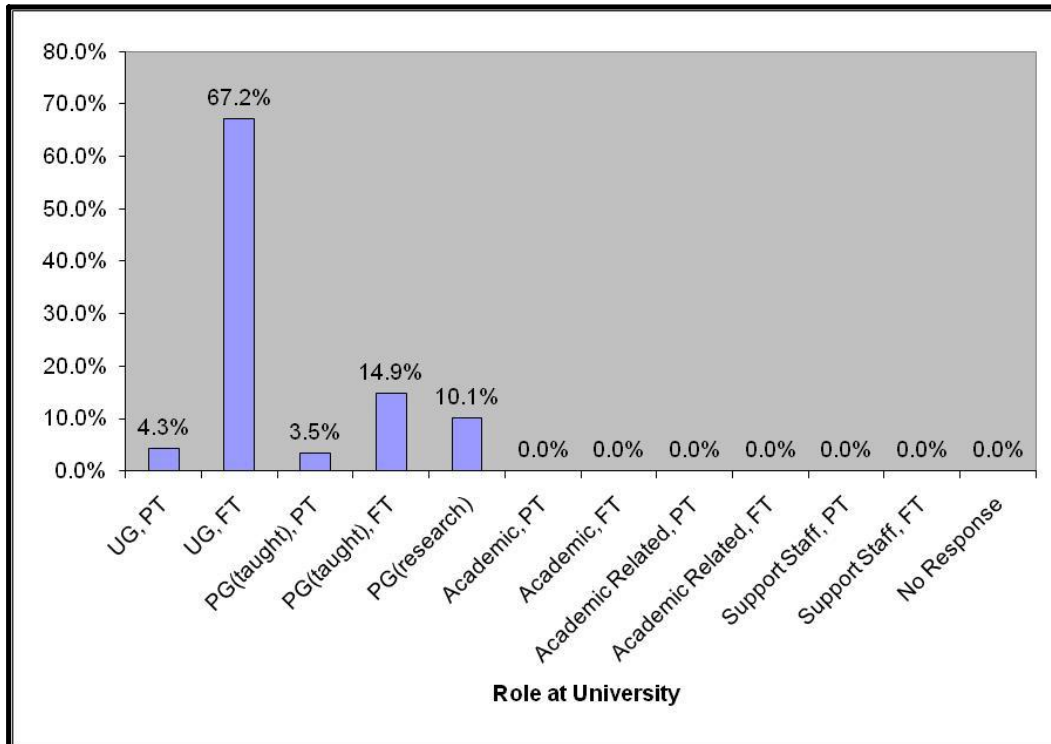


Figure 3.01 Role at University

Gender Split

The information obtained indicated that 62% of student respondents were female, with 37% male.

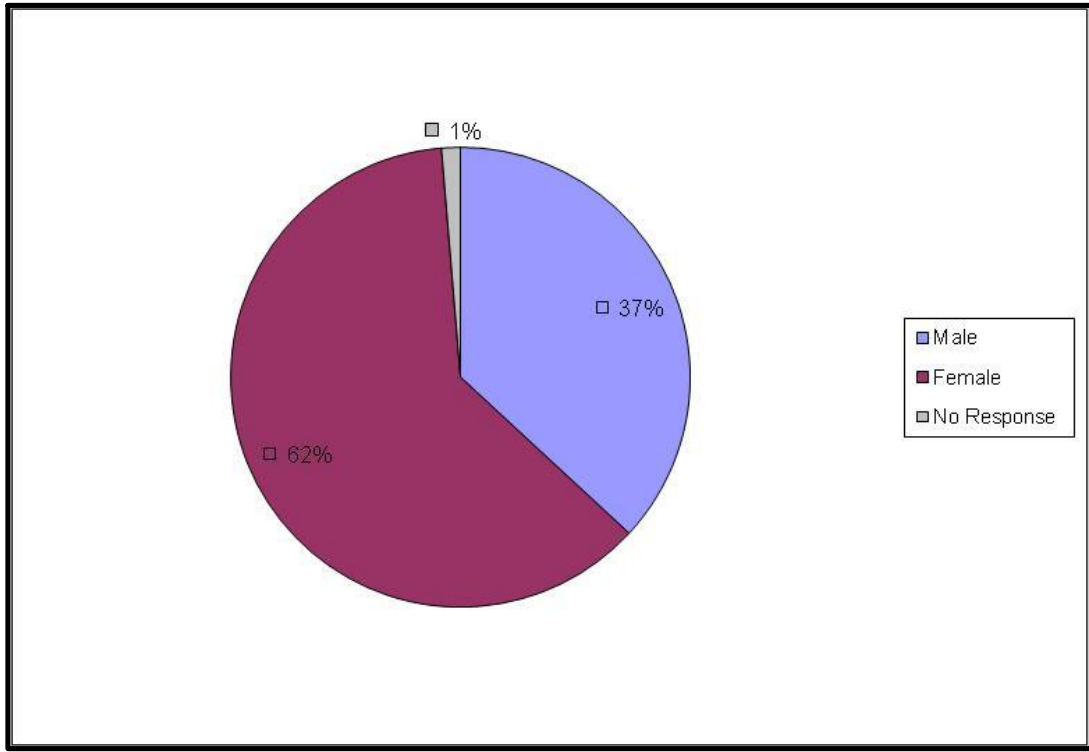


Figure 3.02 Gender of Respondents

Age

As can be seen from Figure 3.03 the majority of student respondents (70%) were aged between 18 and 24 years of age with a much smaller proportion (20%) being in the older 25-39 bracket.

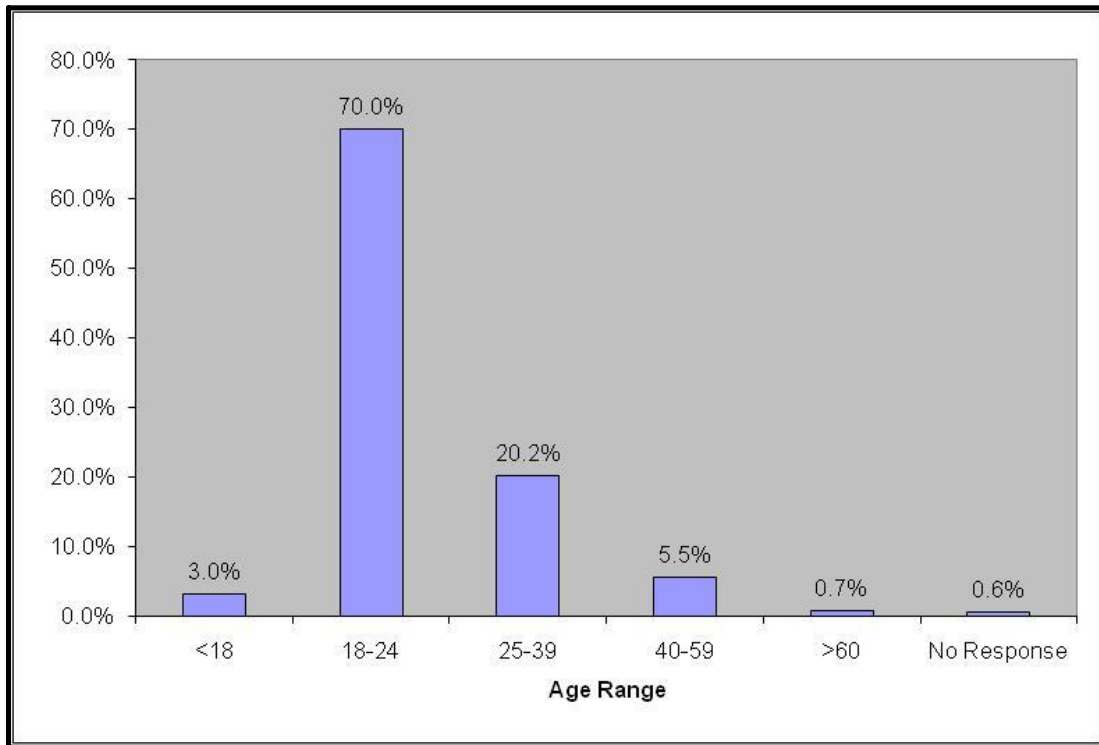


Figure 3.03 Age of Student Respondents

Distance from Work

Figure 3.04 illustrates the range of distances students estimate they travel to their place of study. This is consistent with data gathered in previous years suggesting the travel challenges for students are fairly consistent, at least in respect of the distance to be travelled.

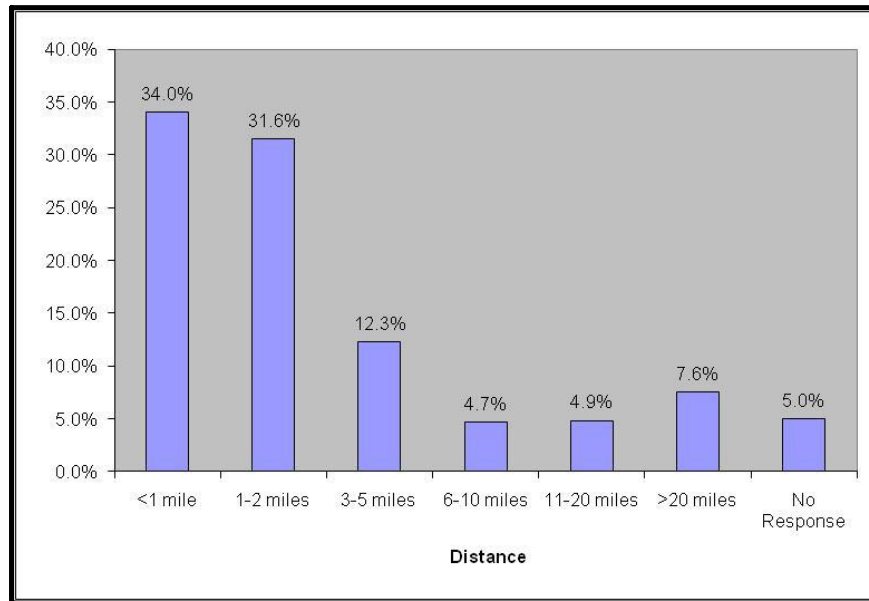


Figure 3.04 Estimated Distance Travelled

Duration of Travel

Figure 3.05 illustrates the time typically taken for people to travel to their place of study. It is interesting to note that the peak for students occurs at 15-20mins and for staff at 20-30mins.

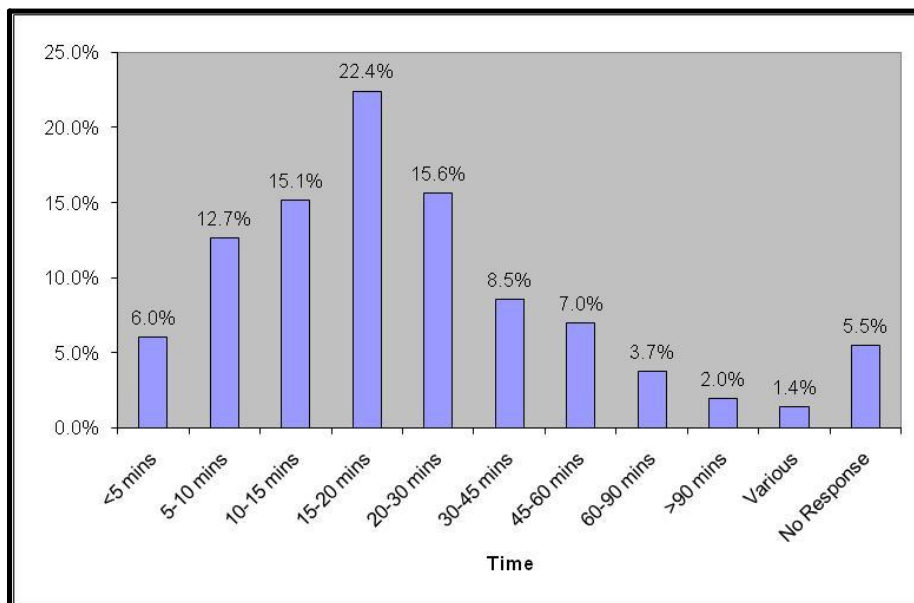


Figure 3.05 Duration of Journey

TRAVEL HABITS

Main Mode of Travel

The most common mode of travel used by students remains walking at 59.3% which is a slight rebound towards the figure recorded in 2006 of 64.7% compared to the relatively low 57.9% recorded in 2008. It is difficult to account for this change since there is little difference in the distances students are travelling to get to University. Car use continues to decline while cycling has increased slightly. Other modes have remained relatively static.

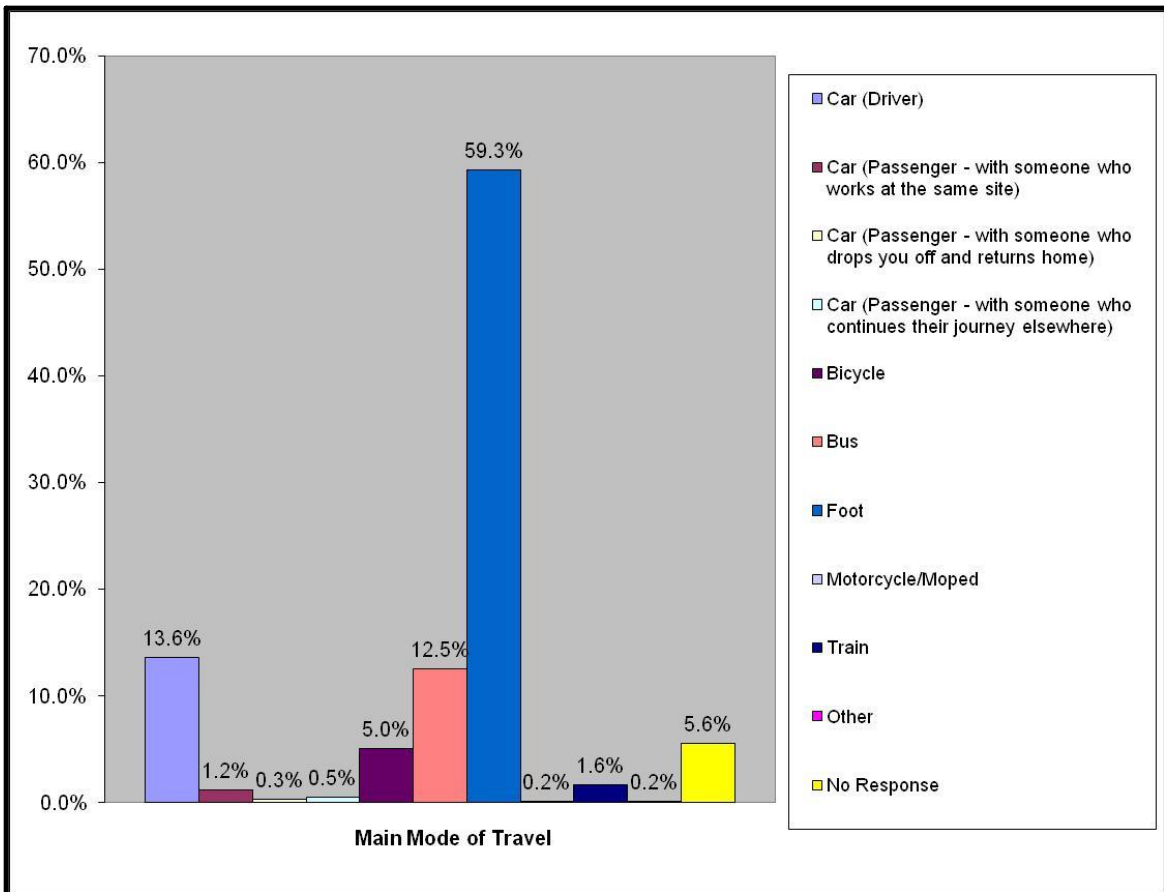


Figure 3.06 Main Mode of Travel by Students

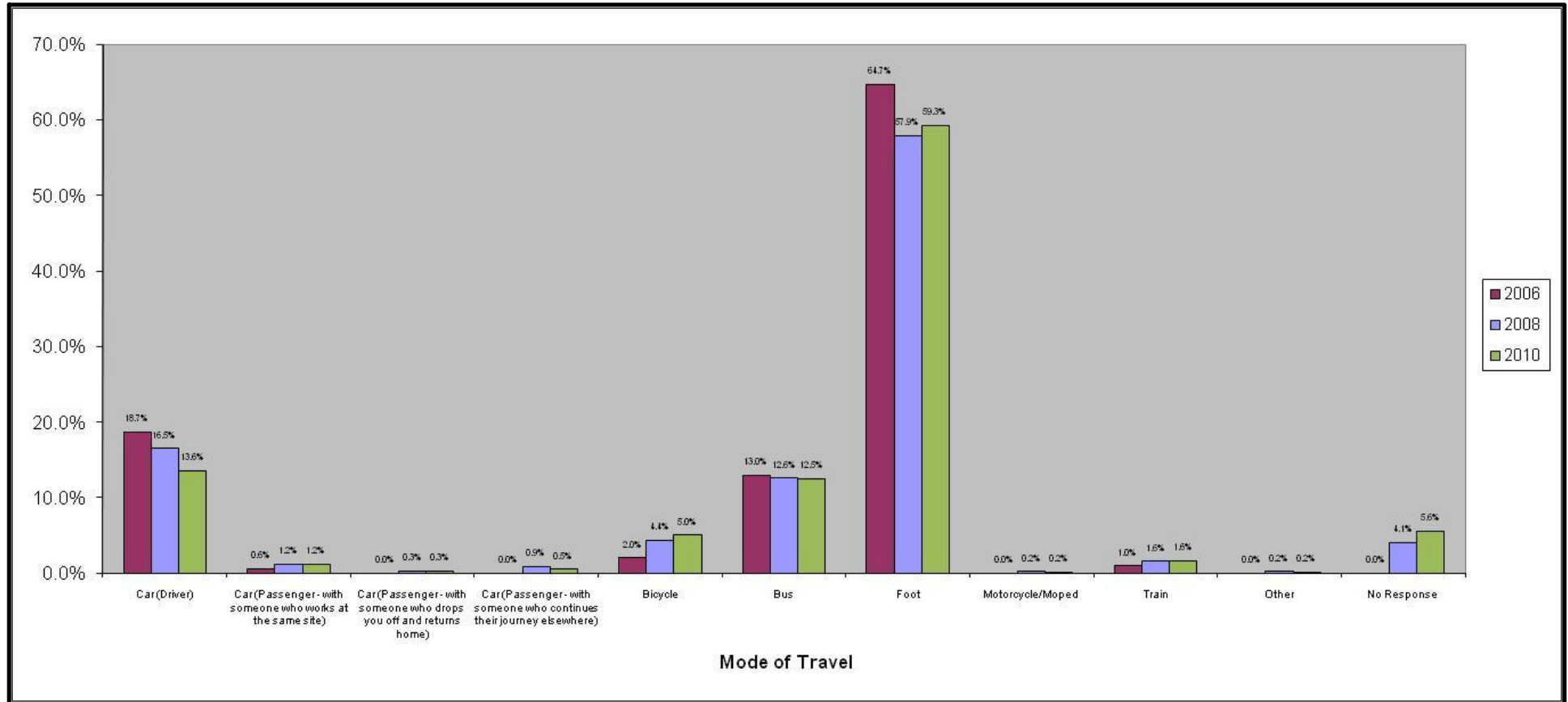


Figure 3.07 Comparison of Main Mode of Travel by Students between 2006 and 2010

CAR USE**Reasons for Travelling by Car**

No values are used in figure 3.08 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons given for using a car to commute. As can be seen in figure 3.08 time constraints and convenience feature heavily in students' decisions to commute using their car. Cost, personal use and the lack of a suitable alternative also appear to feature commonly.

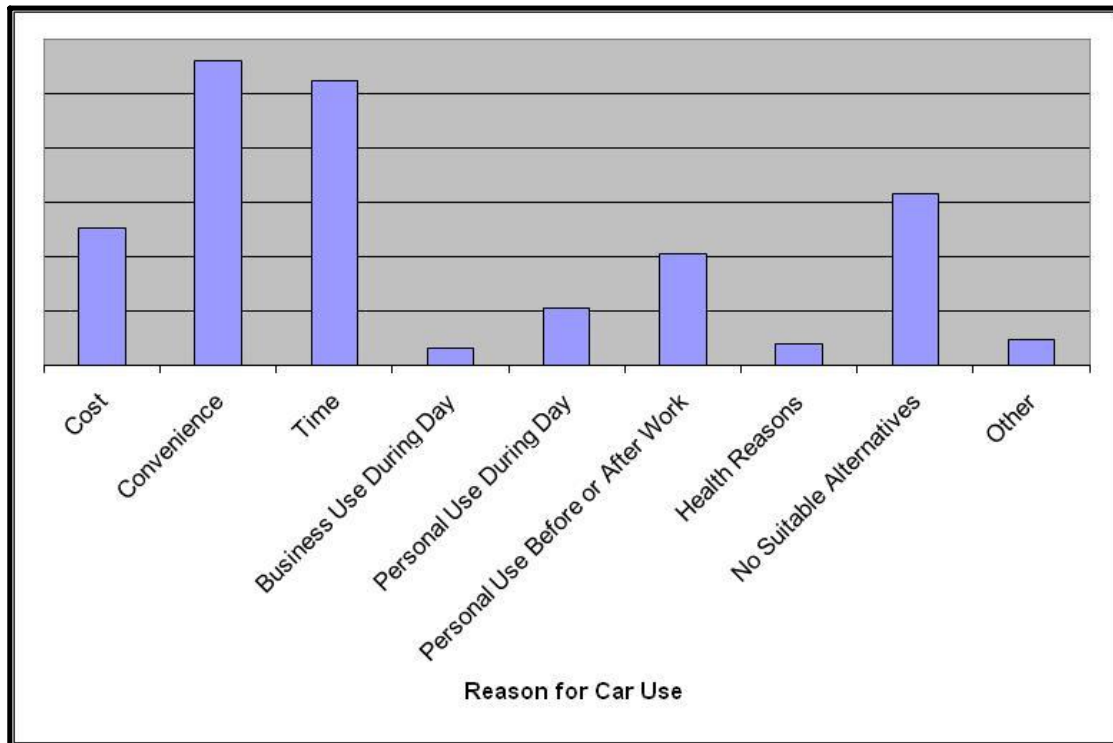


Figure 3.08 Reasons for Car Use

Encouragement of Car Sharing

No values are used in figure 3.09 as respondents could select as many options as were appropriate. The figure therefore represents the comparative preference of incentives to encourage car sharing. Guaranteed parking and ride home featured strongly together with more help in finding a car share partner. Further investigation is required to ascertain what further help would be useful.

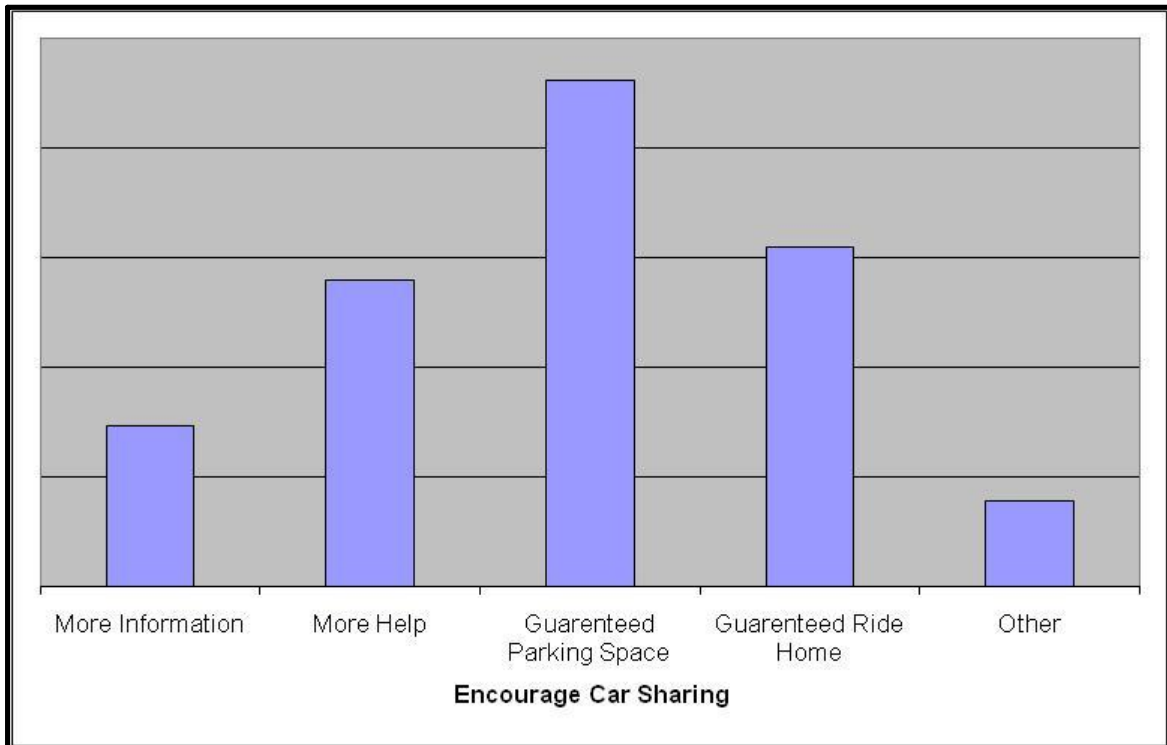


Figure 3.09 Encouragement of Car Sharing

CAR SHARING**Reasons for Car Sharing**

No values are used in figure 3.10 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons why students car share. Convenience can clearly be seen as the most prominent reason while cost and time also feature very strongly.

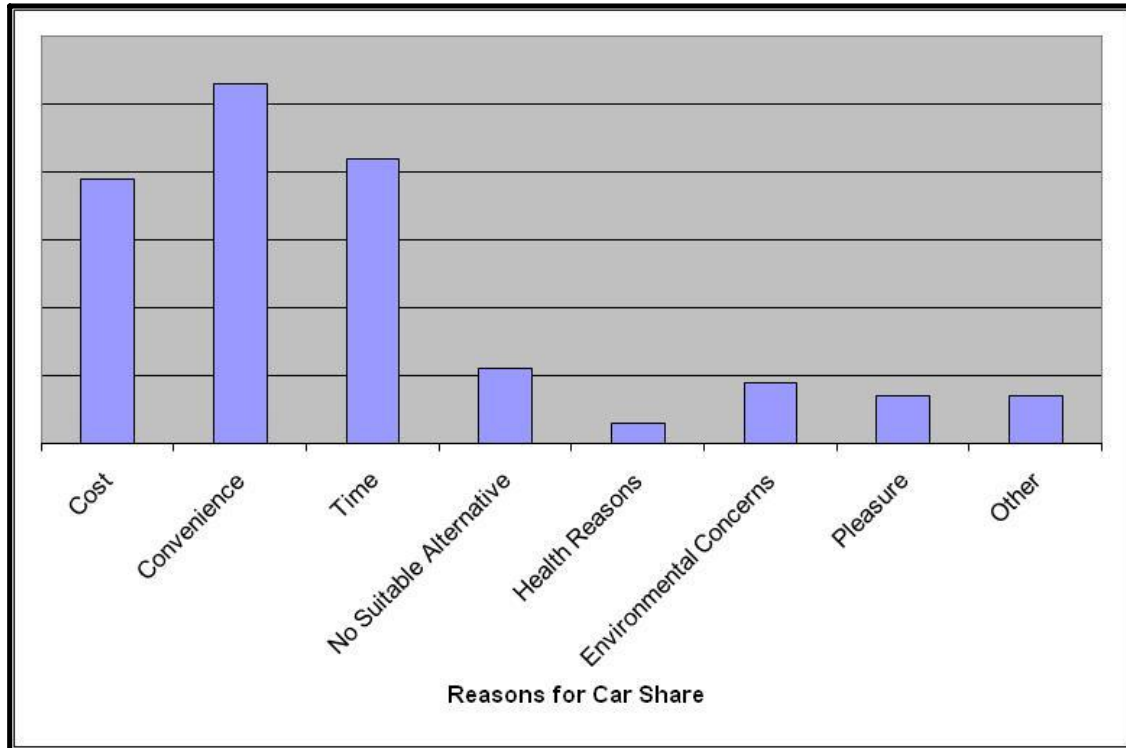


Figure 3.10 Reasons for Car Sharing

CYCLING**Reasons for Cycling**

No values are used in figure 3.11 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons why students cycle to work. With the exception of there being no suitable alternatives all reasons seem to influence cyclists to a fairly large extent although the lack of competition for parking and avoiding traffic congestion feature least prominently.

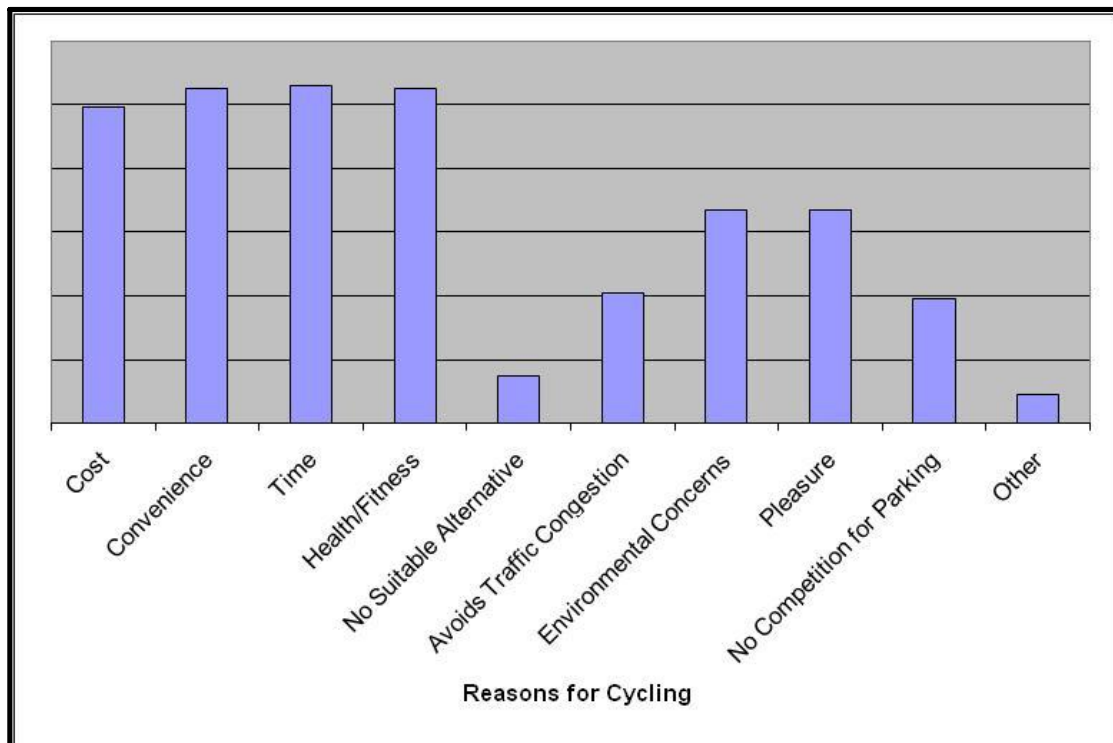
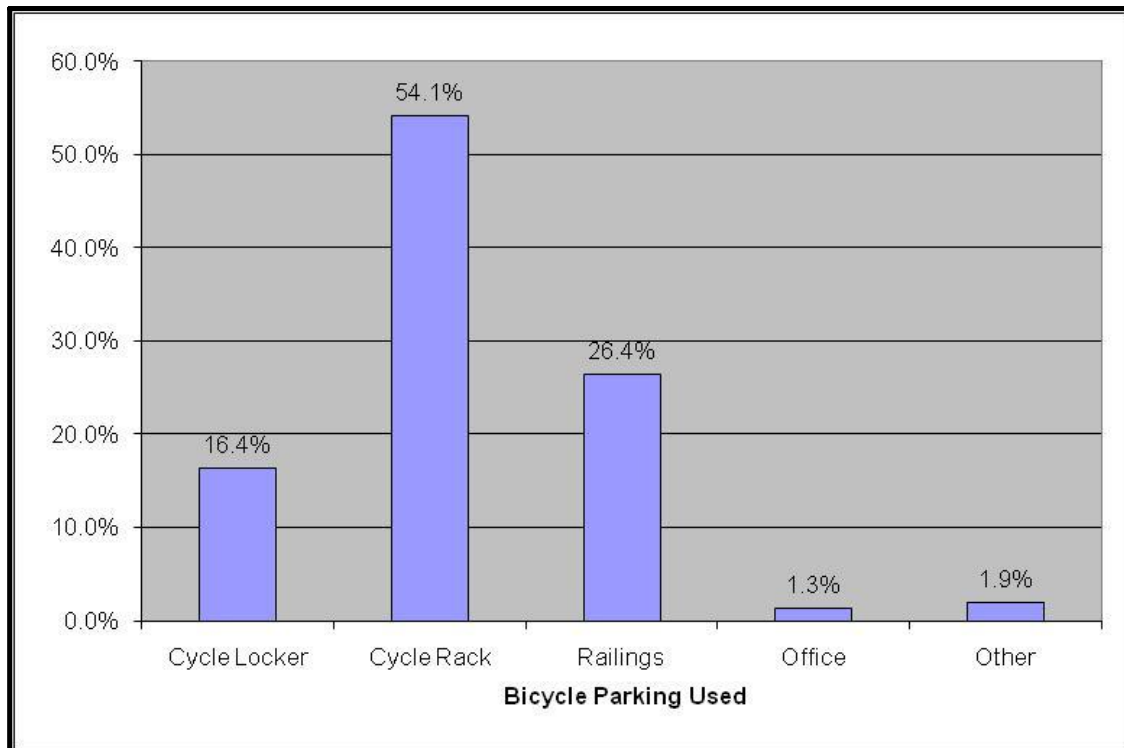


Figure 3.11 Reasons for Cycling

Cycle Parking Used

Figure 3.12 shows the majority of students use cycle racks. Railings appear to be used commonly as an alternative, presumably if there are no cycle racks nearby or cycle racks are full. The relatively low percentage of students using cycle lockers may be due to the cost of the locker deposit (£60) or the perception that lockers are not available to students. No data was requested to specify where “other” cycle storage was being utilised. Although only a small number of students admit to storing bicycles inside buildings it is still of concern since this can represent a safety hazard in buildings.



(Percentages calculated from a subset of 159 respondents)

Figure 3.12 Cycle Parking Used

BUS TRAVEL**Reasons for Travelling by Bus**

No values are used in figure 3.13 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons why students use the bus to travel to their place of study. No suitable alternative features heavily suggesting that bus travel is often used out of necessity rather than choice.

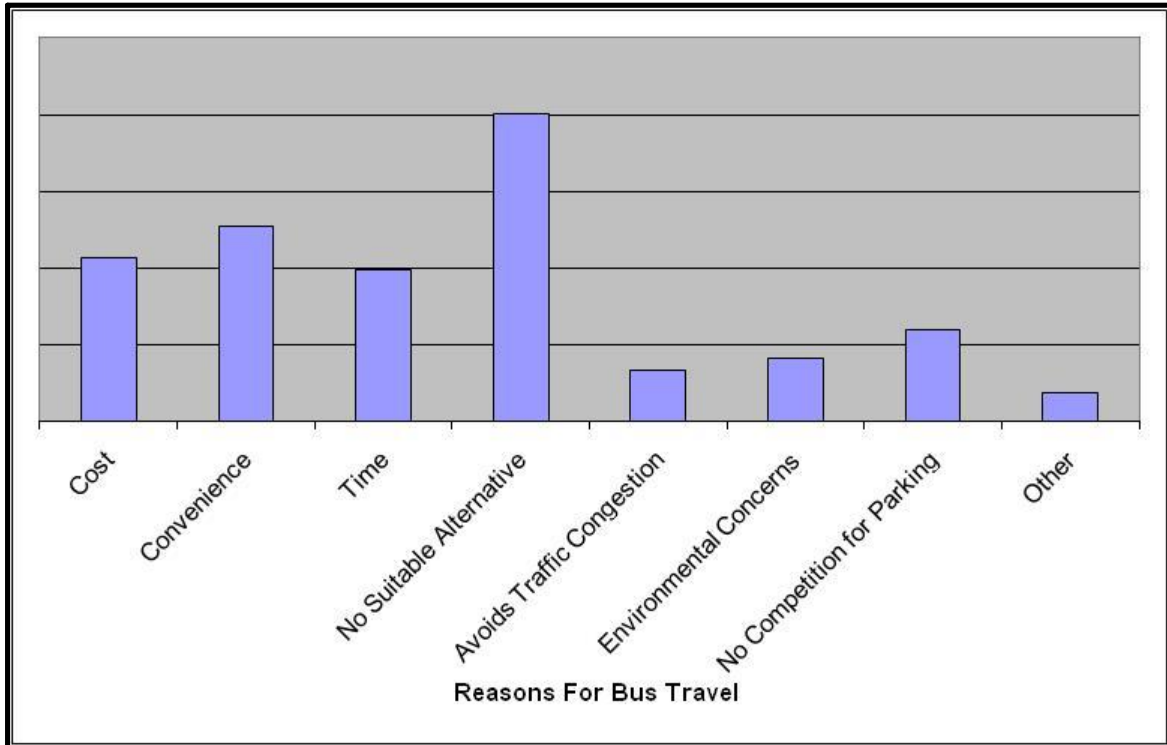


Figure 3.13 Reasons for Bus Travel

Bus Routes Used

No values are used in figure 3.14 as respondents could select as many bus services that they use on a regular basis. The figure therefore represents how much each service is used compared to others. The most common route used is that of the 1/2 which serves Old Aberdeen both from the Bridge of Don and from Garthdee. Services 14 and 20 which serve Foresterhill and Hillhead also feature significantly for students. The number of responses received for 'other' services indicates that students use a wide variety of services in the city and not just those which directly serve University campuses.

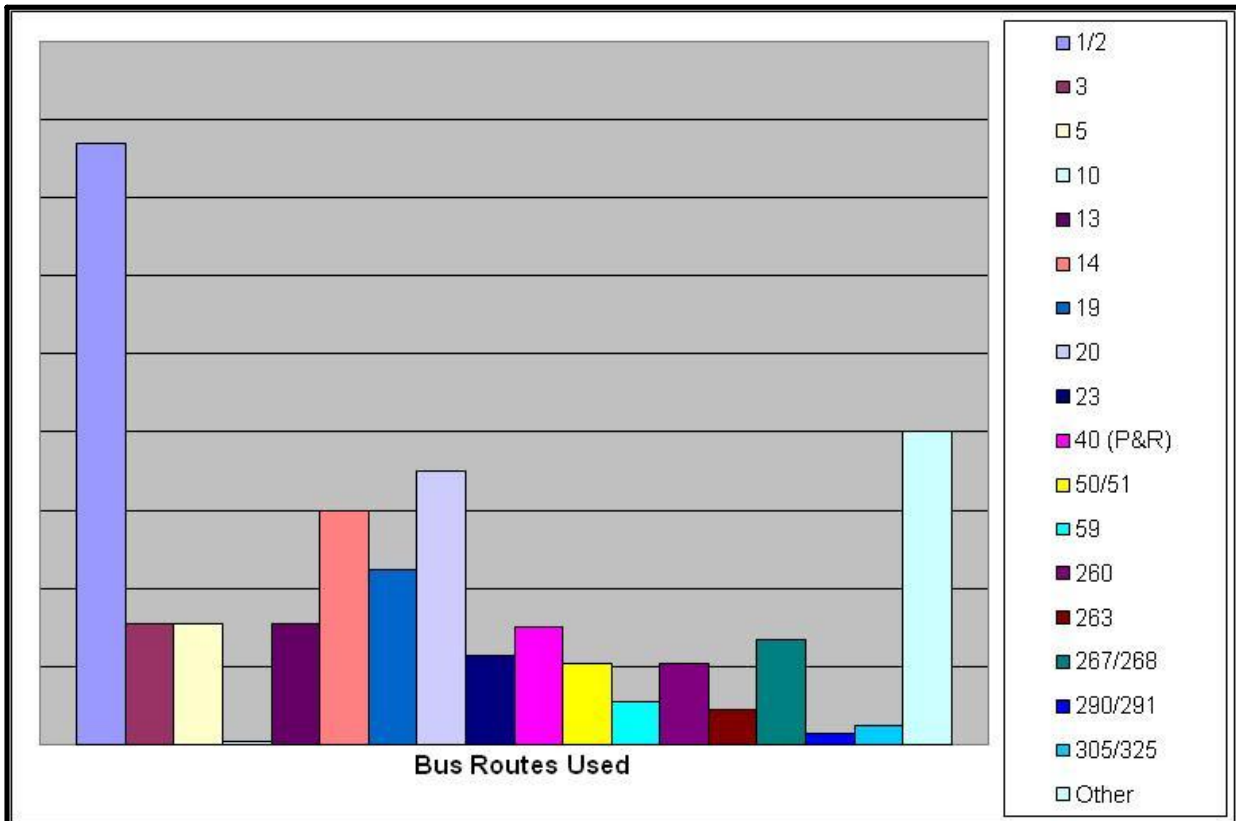


Figure 3.14 Bus Routes Used

WALKING**Reasons for Walking**

No values are used in figure 3.15 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons why students walk to their place of study. Cost, convenience and health reasons feature most highly however all reasons feature to some extent probably due to the relatively large numbers of students who walk to University.

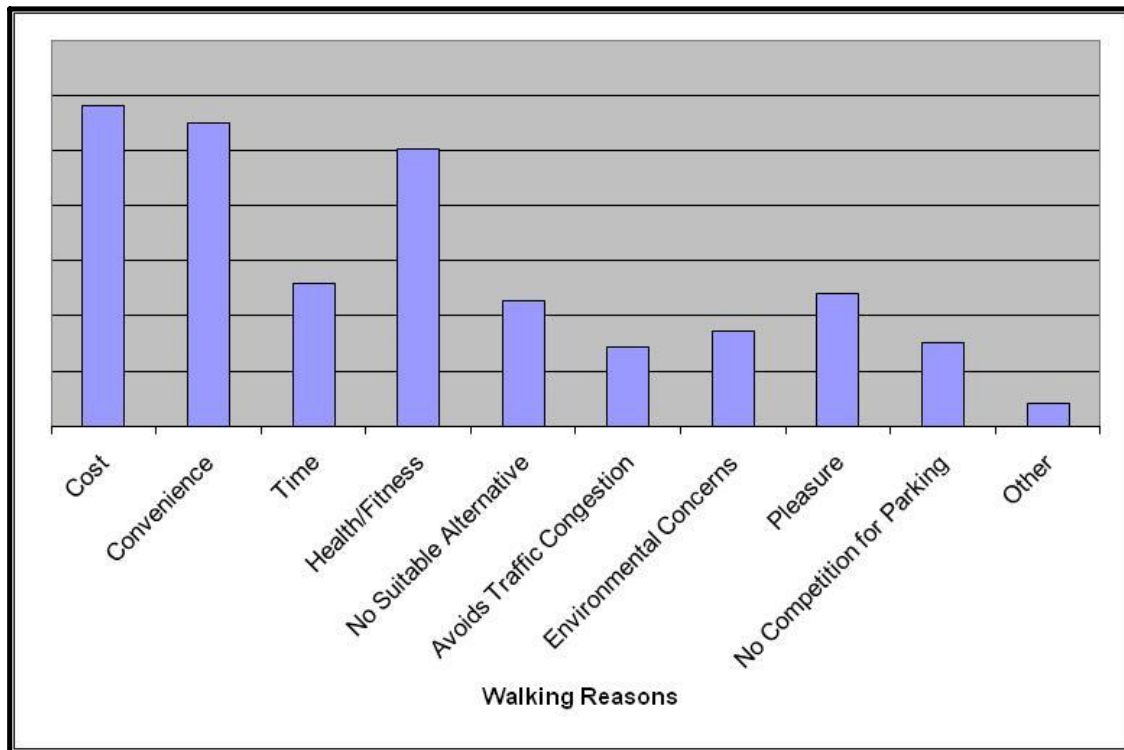


Figure 3.15 Reasons for Walking

MOTORCYCLING**Reasons for Travelling by Motorcycle**

No values are used in figure 3.16 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons why students travel by motorcycle to their place of study. It is interesting to note that there seems to be a wide range of reasons for people to use motorcycles. No responses were received to say that no suitable alternative was available suggesting that motorcycling is seen as a choice rather than a necessity.

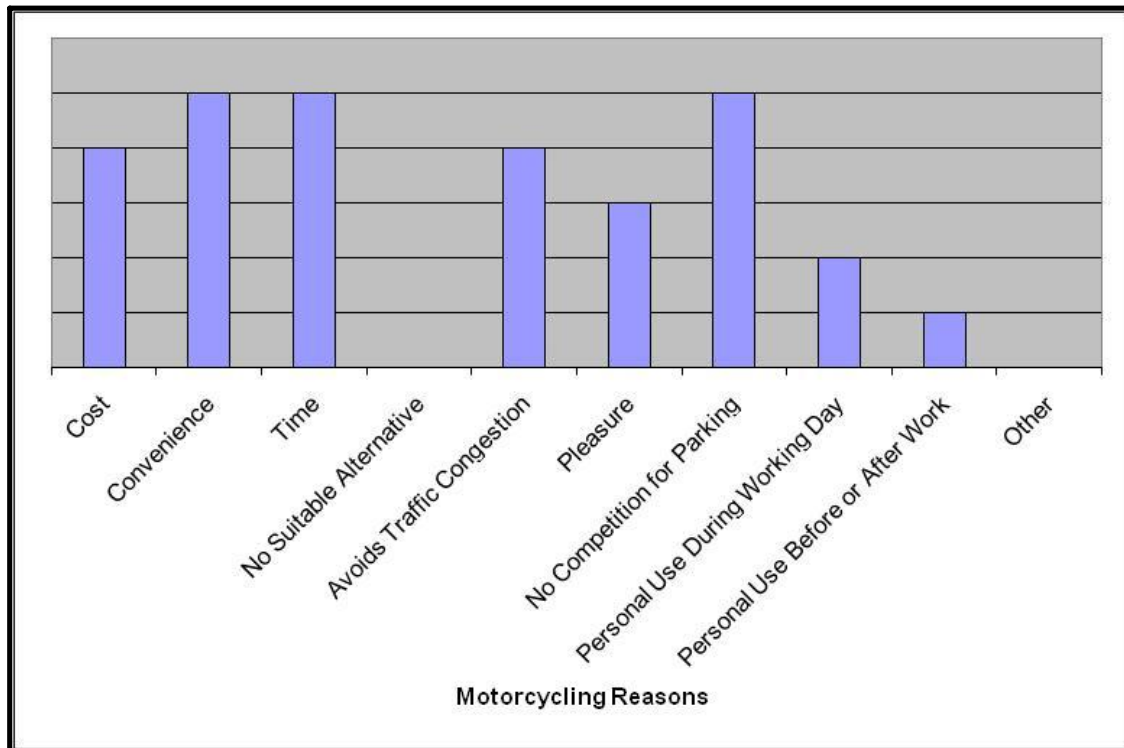


Figure 3.16 Reasons for Travelling by Motorcycle

RAIL TRAVEL**Reasons for Travelling by Train**

No values are used in figure 3.17 as respondents could select as many options as were appropriate. The figure therefore represents the comparative reasons why students travel by train to their place of study. It is surprising that cost features so highly as a response given the common perception that rail travel is expensive. A possible explanation for this is that the use of student rail cards makes rails travel a cheaper option.

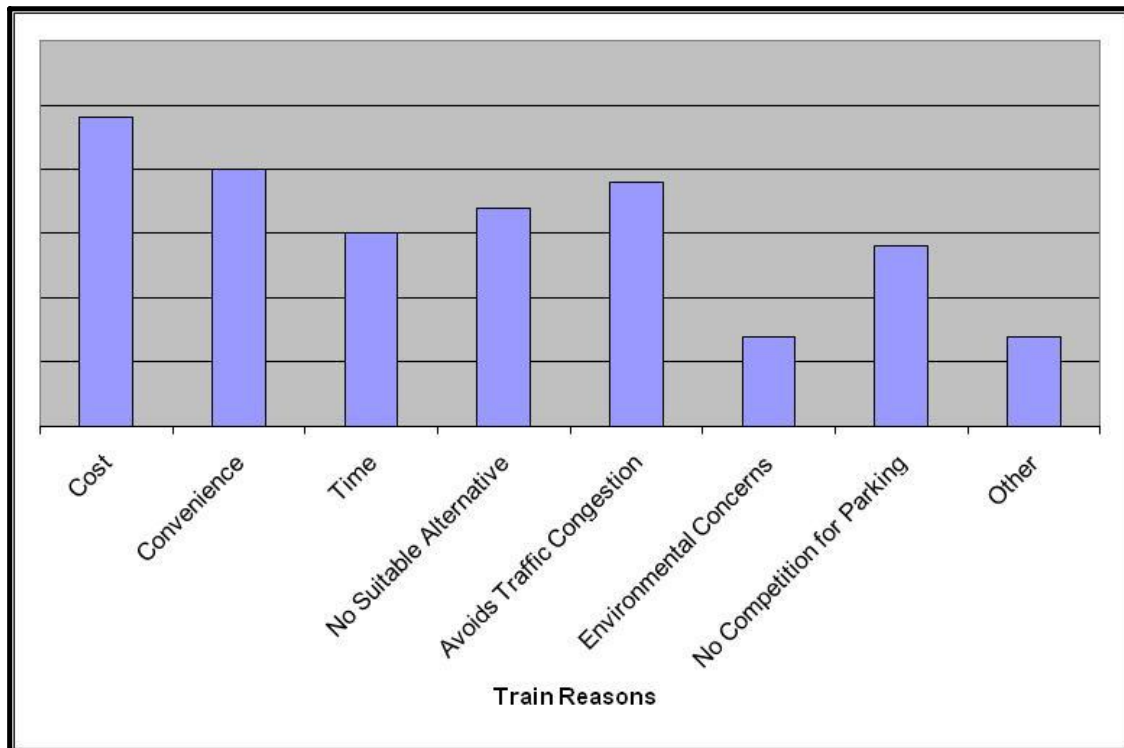


Figure 3.17 Reasons for Travelling by Train

ALTERNATIVE TRAVEL**Alternative Modes of Travel Used**

To determine what modes of travel were considered most viable as an alternative to the main mode of travel used, respondents were asked to give their preferred alternative, if any. The majority of students who indicated that they would not use an alternative walked to University. Of those who drove to University most (73%) said they would use some form of alternative with only 27% saying they would not use any alternative.

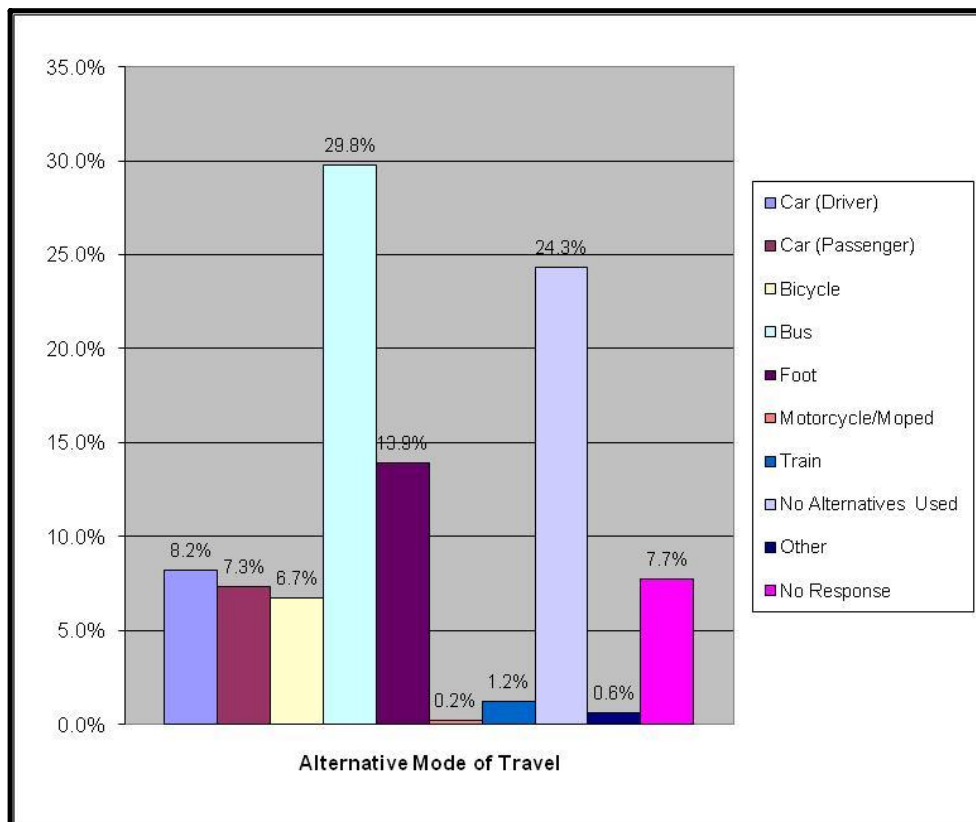


Figure 3.18 Alternative Modes of Travel Used

WILLINGNESS TO CHANGE

Willingness to change travel habits

Students were asked whether they would be willing to change their travel habits to make it more environmentally sustainable. This is relatively meaningless in the case of students since the majority of them already travel in a relatively sustainable way.

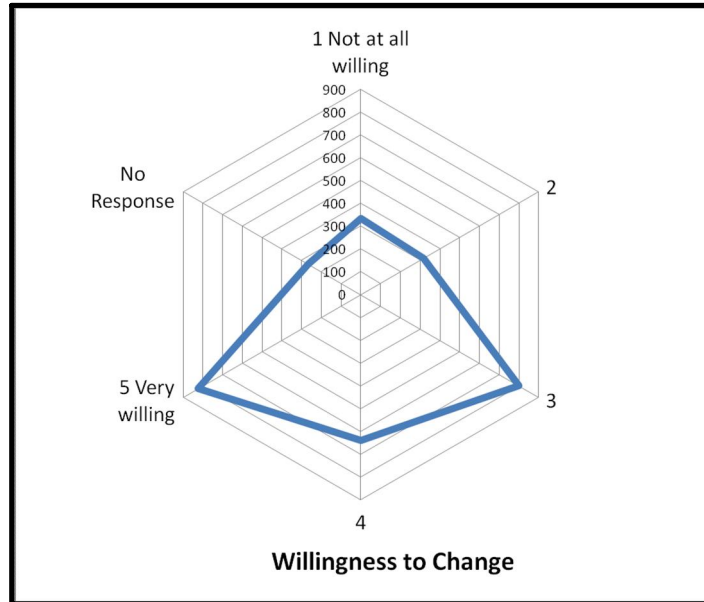


Figure 3.19 Willingness to Change Travel Habits

The more important subset of students to consider are those who currently drive. Of these we can see that the majority are either willing or indifferent to the prospect of changing their habits to be more environmentally sustainable.

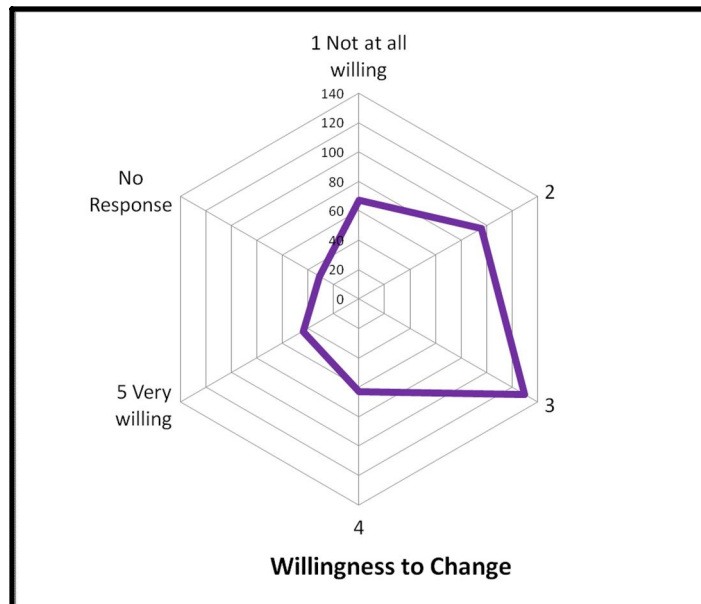


Figure 3.20 Willingness to Change Travel Habits – Car Driver Sub-set

Carbon Emissions of Travel

The University can group carbon emissions from transport into two categories; commuting and business travel. The later is not considered in this report since data is not currently gathered in a format suitable for any meaningful analysis.

STAFF COMMUTING

Certain assumptions and calculated averages are used in conjunction with the data gathered to arrive at an approximate figure for emissions from staff commuting.

- Pre 2001 <1549cc vehicles are assumed to emit $174\text{gCO}_2/\text{Km}^1$
- Pre 2001 >1549cc vehicles are assumed to emit $185\text{gCO}_2/\text{Km}^2$
- Post 2001 'A' vehicles are assumed to emit $90\text{gCO}_2/\text{Km}^3$
- Post 2001 'M' vehicles are assumed to emit $275\text{gCO}_2/\text{Km}^4$
- Average days worked p.a. is estimated to be 206.8.⁵
- 'Don't Know' VED responses were assumed to be the average emissions of those who selected a VED band.

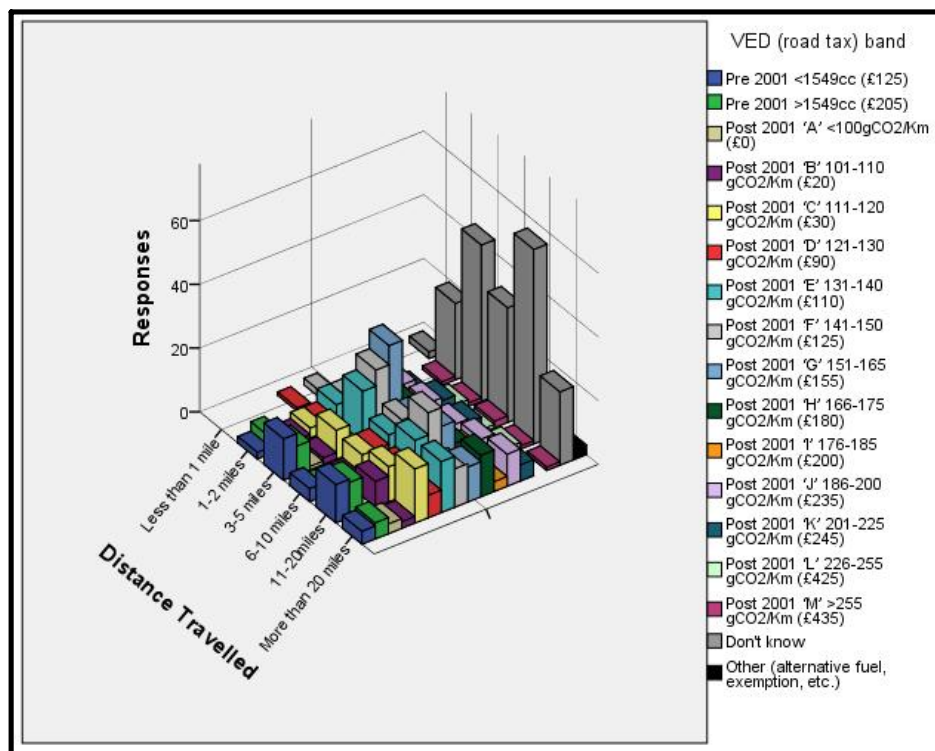


Figure 4.01 Staff drivers; distances travelled by vehicle emissions

The total CO₂ emissions of staff car commuting travel was calculated to be 3,416.18 Tonnes. As this is the first year that this has been calculated no comparisons can be drawn. It is anticipated that this will decrease in the future due both to a decline in the emissions of new vehicles and as progress is made towards reducing the number of staff who drive to work.

¹ Based on 1995-1999 Ford Fiesta 1.4 and 1993-2000 Vauxhall Corsa 1.4

² Based on 1993-2000 Ford Mondeo 1.8 and 1995-2002 Vauxhall Vectra 1.8

³ Based on a random selection of 'A' class vehicles

⁴ Based on a random selection of 'M' class vehicles

⁵ Based on 4.7 working days per week as gathered from the survey and 44 working weeks p.a.

Conclusion

Although progress has been made in reducing single occupancy car use it is not in line with the targets set out in the Travel Plan. To address this more needs to be done to encourage the key areas of modal shift namely; car sharing, public transport, cycling and walking. Disincentives to discourage the use of single occupancy car use should also be applied although this should be in conjunction with increased facilities to cope with modal shift.

A particular area of concern is the reduction in public transport use. This is contrary to modal shift in most other areas of the country but in line with what other local organisations are experiencing. This, together with input received during the survey, suggests that it is the cost and quality of public transport service in the area that is causing a reduction in public transport use. This is largely outwith the control of the University since transport operators are private companies however work will continue with transport operators and local authority public transport units to reverse this trend.

A positive and encouraging result of the survey is the increase in cycling. This is a three fold benefit since it reduces traffic emissions, parking congestion and increases the health and fitness of the organisation resulting in a healthier and more productive University community. Positive working relationships have been developed with local cycling organisations and the University is continuing its Bike to Work scheme to encourage further staff and students to take up cycling.

The progress made by the University should be put into context and, in a city where car use is increasing; the University is performing well by showing consistent, albeit moderate, reductions in car use as well as demonstrating car modal share which is substantially lower than the city as a whole.