Travel Survey Report 2012

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Introduction

This report provides a summary of the findings of the travel surveys carried out in October 2012. It was distributed electronically to approximately 25,424 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

25,424 questionnaires were sent out to the majority of University staff and students. Approximately 20% of these were usable returns up slightly from 18% usable returns in 2010.

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 5,091 usable returns in total (representing a return rate of 20%) which comprised 1,651 staff returns and 3,440 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 20% overall which comprised approx. response rates of 50% from staff and 16% from students.

Figure 1.0 Survey Return Rate

Total number of surveys distributed	25,424
Total number of surveys returned	5,119 (20.1%)
Spoilt returns	28
Total number of usable returns	5,091 (20.0%)

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 1,651 staff responded to the survey which represents an approx. response rate of 50%.

PERSONAL DETAILS

Role at University

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

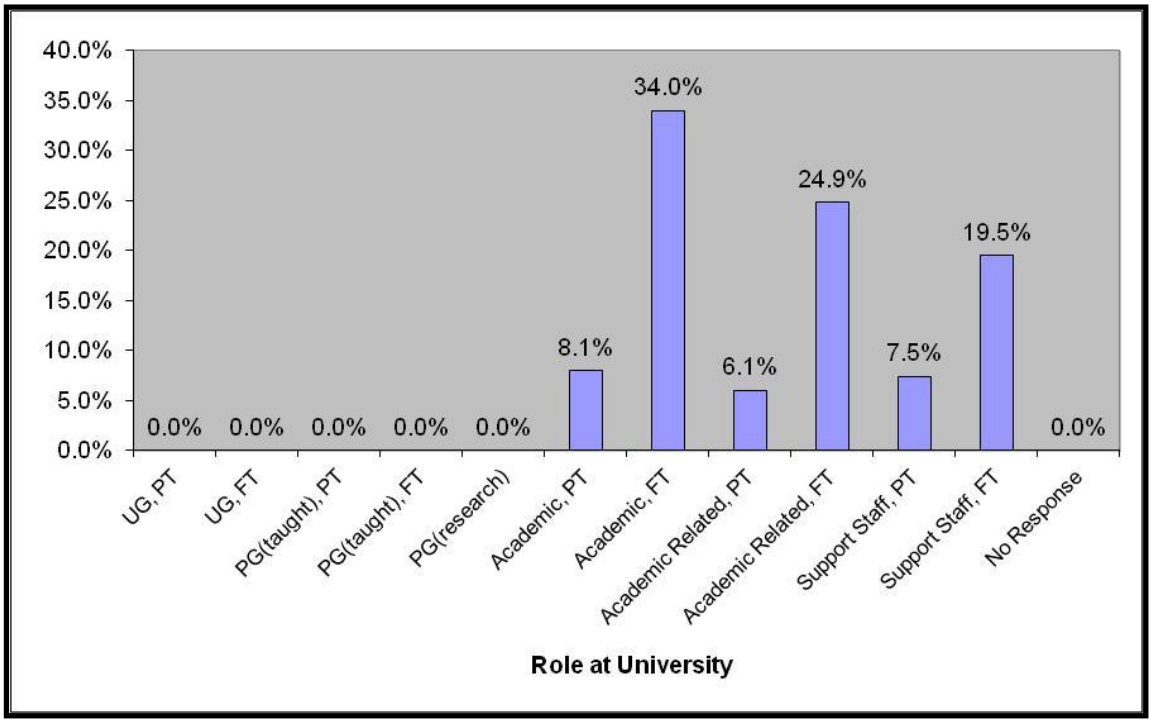


Figure 2.01 Role at University

Gender Split

The information obtained indicated that 59% of staff respondents were female, with 38% male.

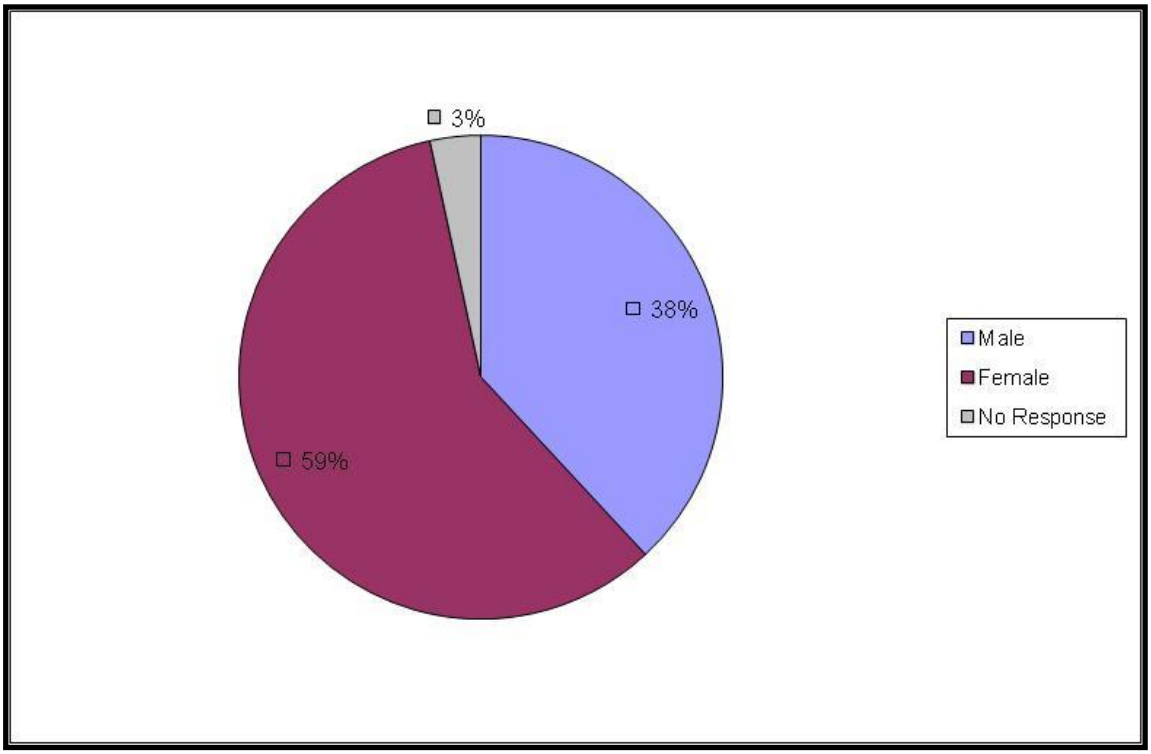


Figure 2.02 Gender of Respondents

Age

As can be seen from Figure 2.03 the majority of staff respondents (54.5%) were aged between 40 and 59 years of age with a significant remaining proportion (33.8%) being between 25 and 39.

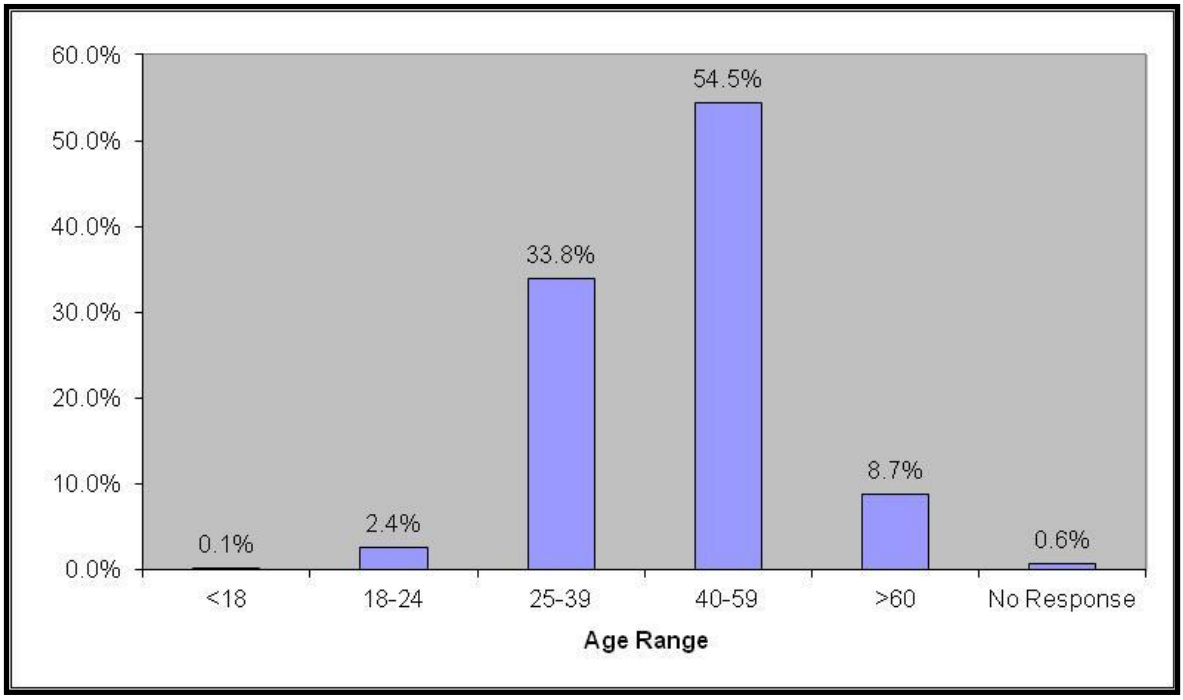


Figure 2.03 Age of Staff Respondents

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.

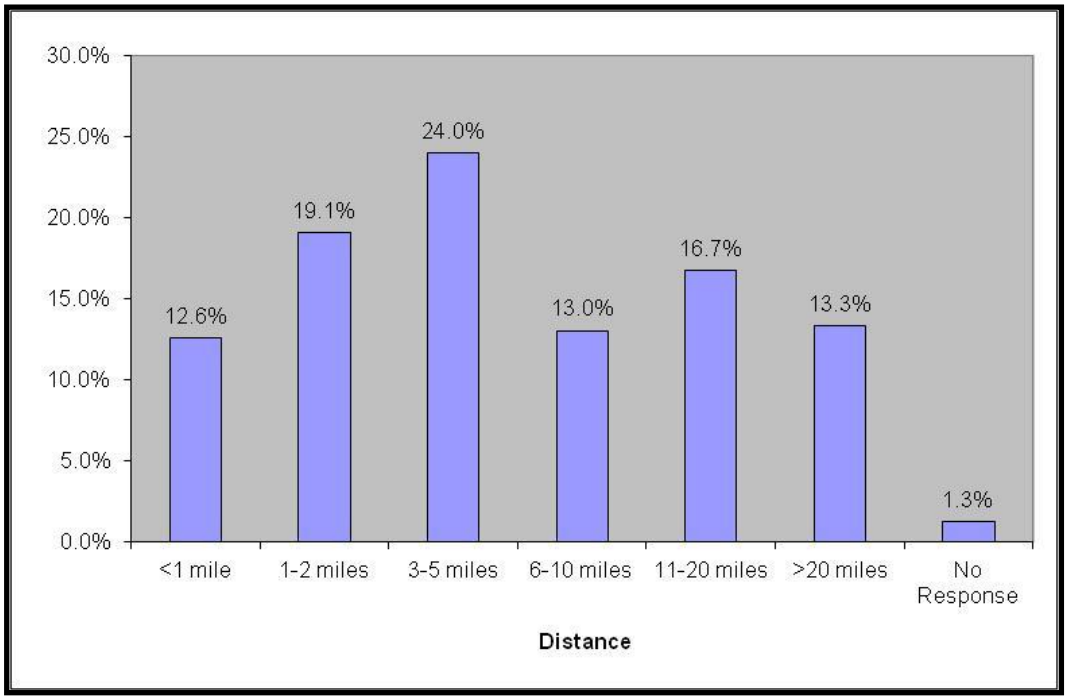


Figure 2.04 Estimated Distance Travelled

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.

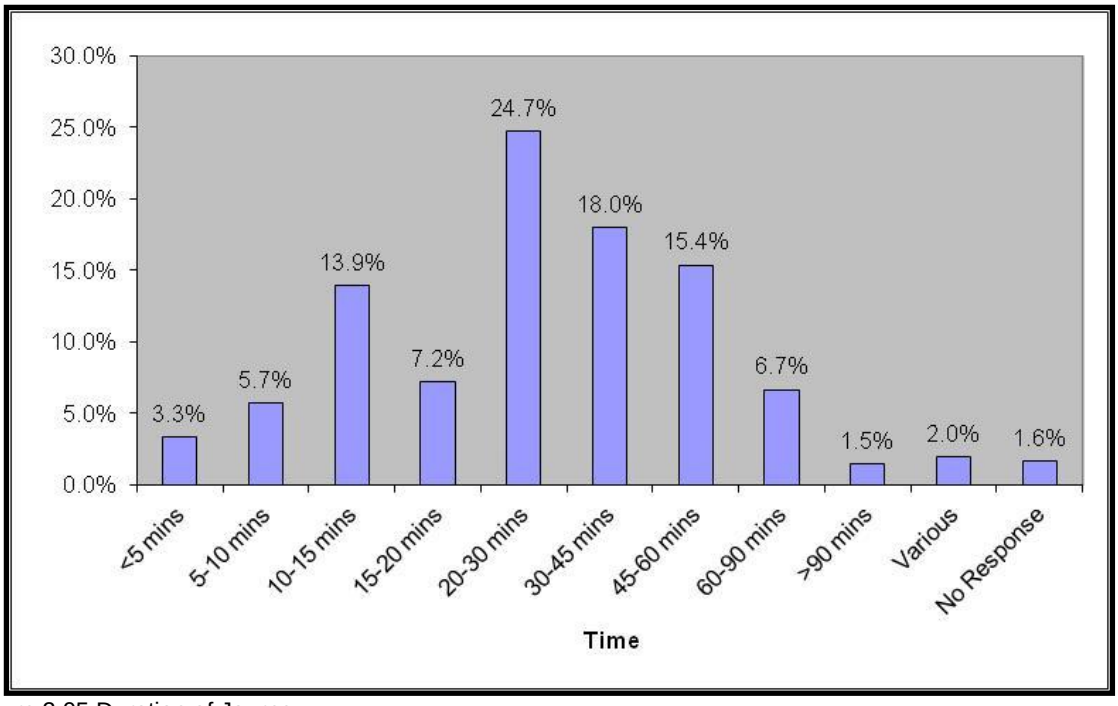


Figure 2.05 Duration of Journey

TRAVEL HABITS

Main Mode of Travel

The most common mode of travel used by staff remains the car at 50.8% 53.6% however this is a continued downturn in comparison to figures of 59%, 56% and 54% in 2006, 2008 and 2010 respectively. 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.

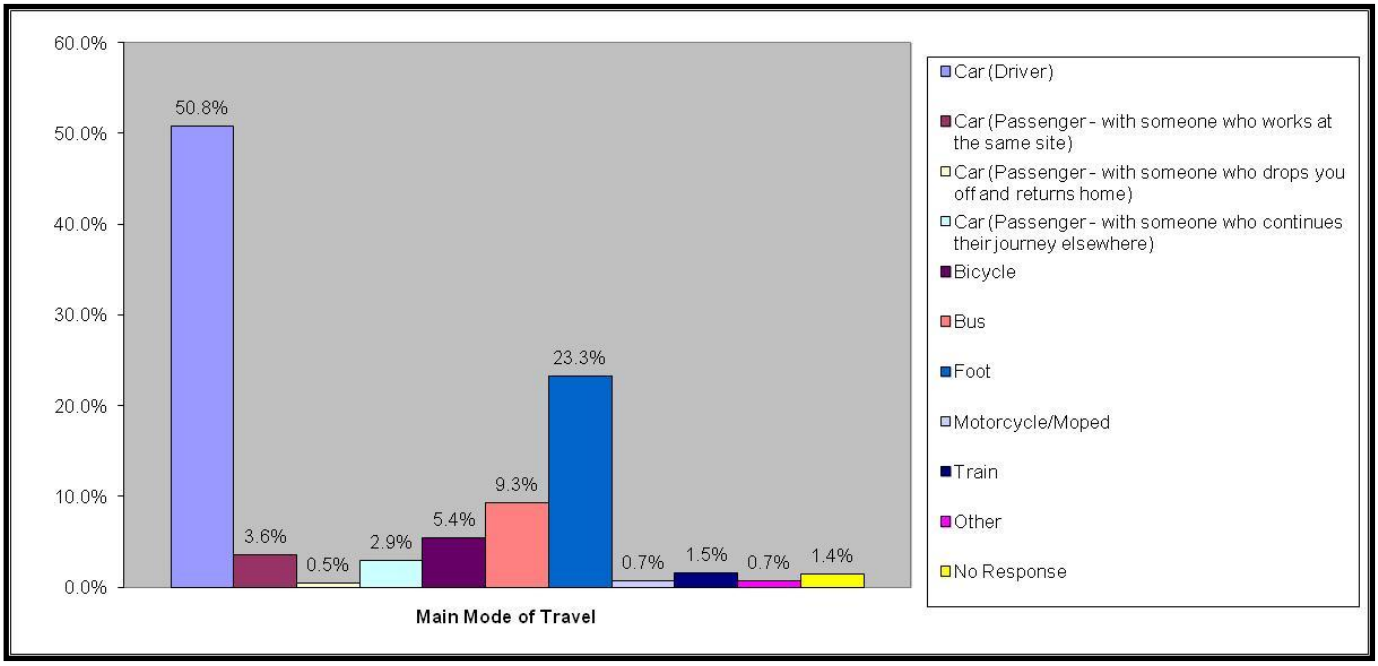


Figure 2.06 Main Mode of Travel by Staff

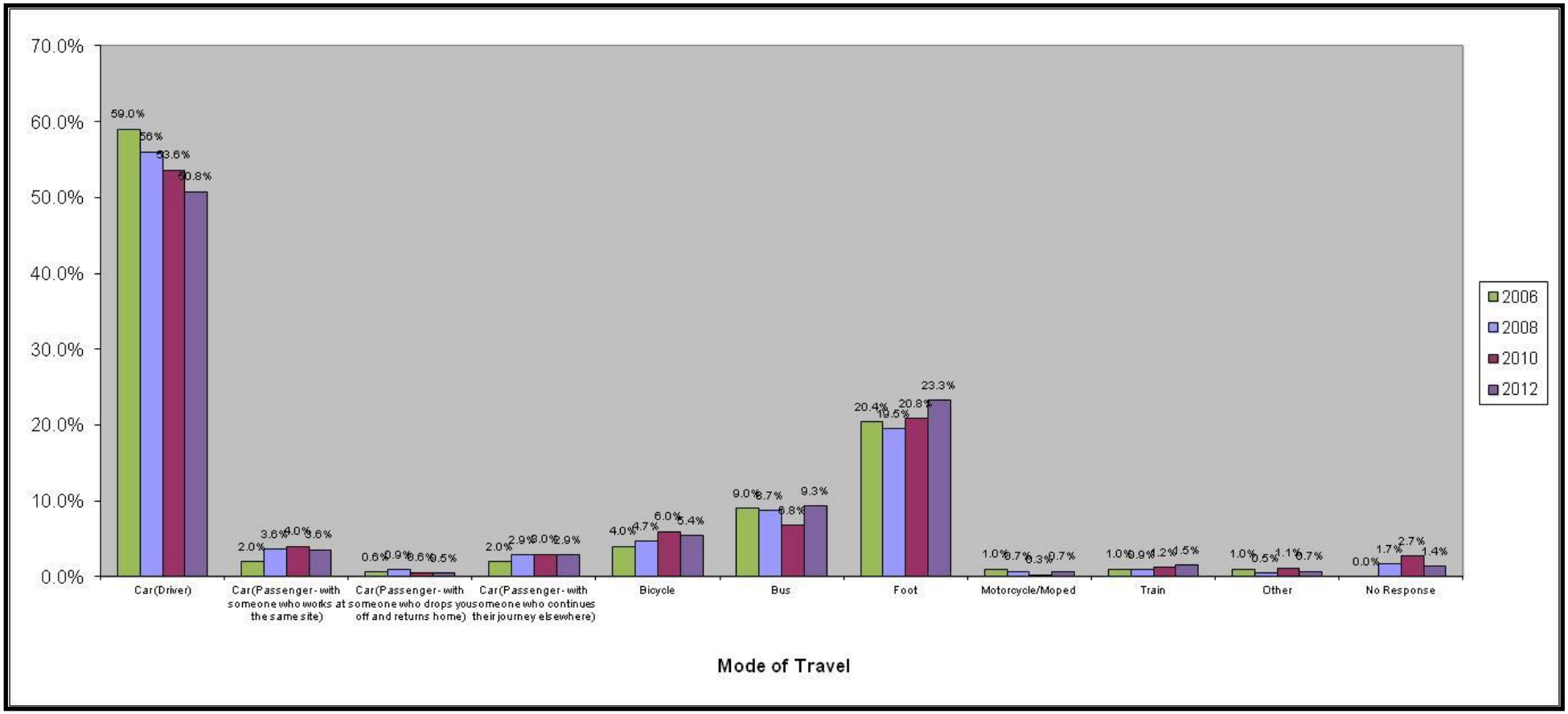


Figure 2.07 Comparison of Main Mode of Travel by Staff between 2006 and 2012

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. These have consistently been provided as reasons for car use and are challenging to address since it is undeniable that cars represent a convenient and demand responsive mode of travel. Measures to facilities other convenient and demand responsive transport modes, like walking, cycling and car sharing, are therefore required.

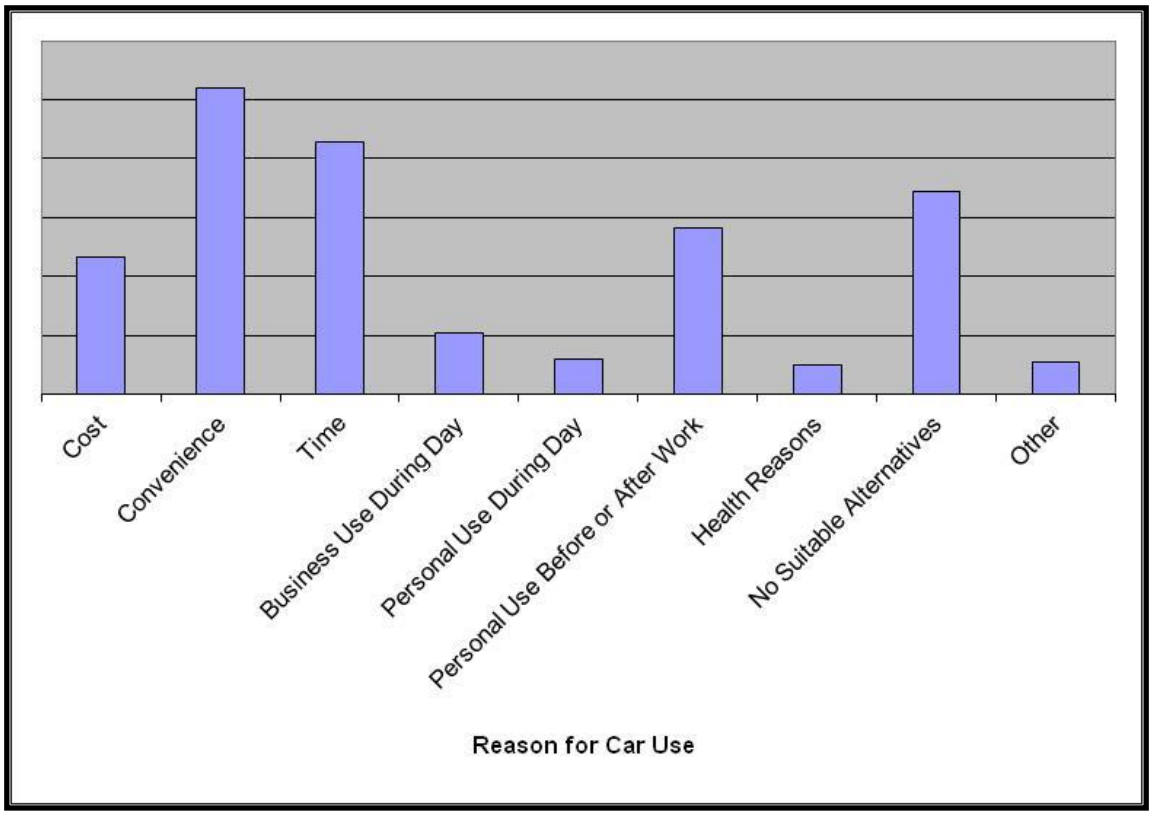


Figure 2.09 Reasons for Car Use

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, the shuttle bus 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.

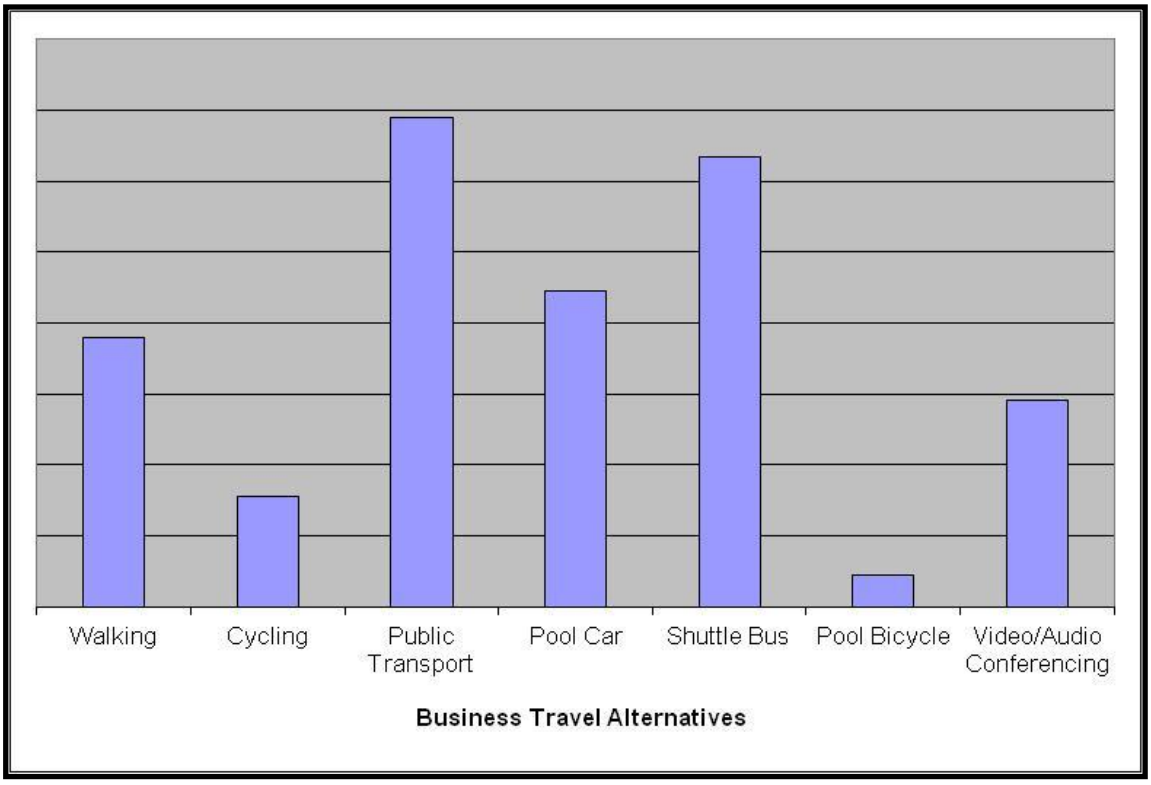


Figure 2.10 Preferred Business Travel Alternatives

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. These responses are consistent with the responses from the 2010 survey and show the need to address these areas if progress is to be made in encouraging more car sharing as desired in the University's travel plan.

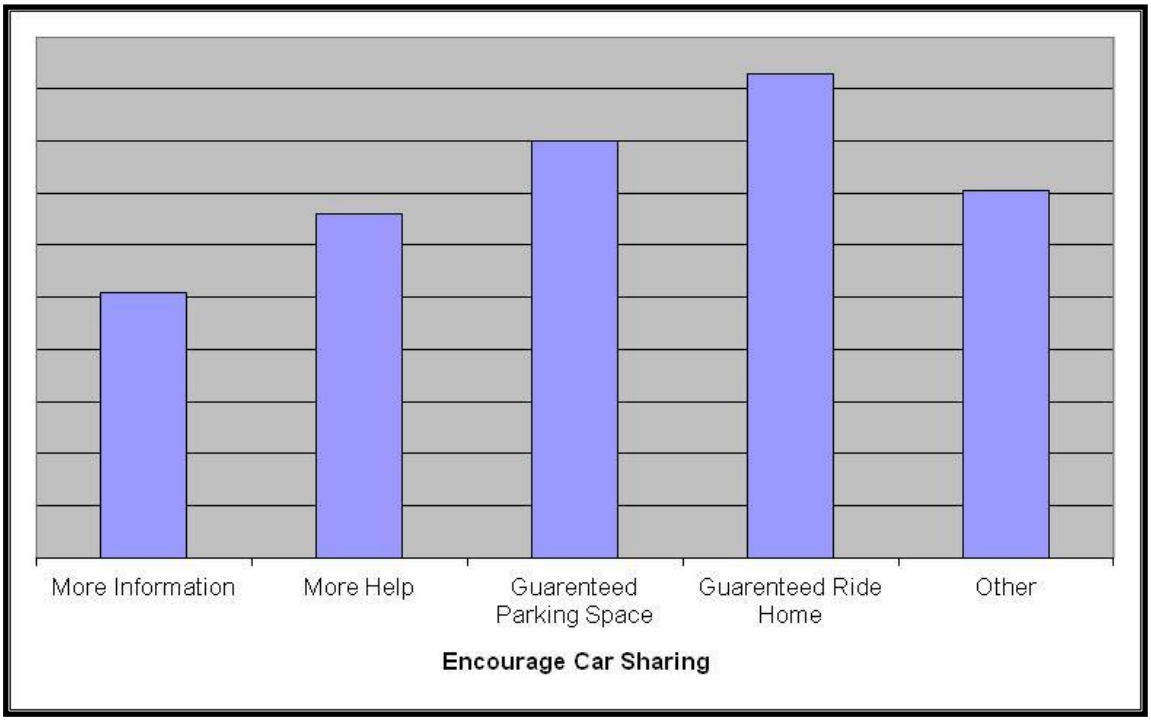


Figure 2.11 Encouragement of Car Sharing

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.

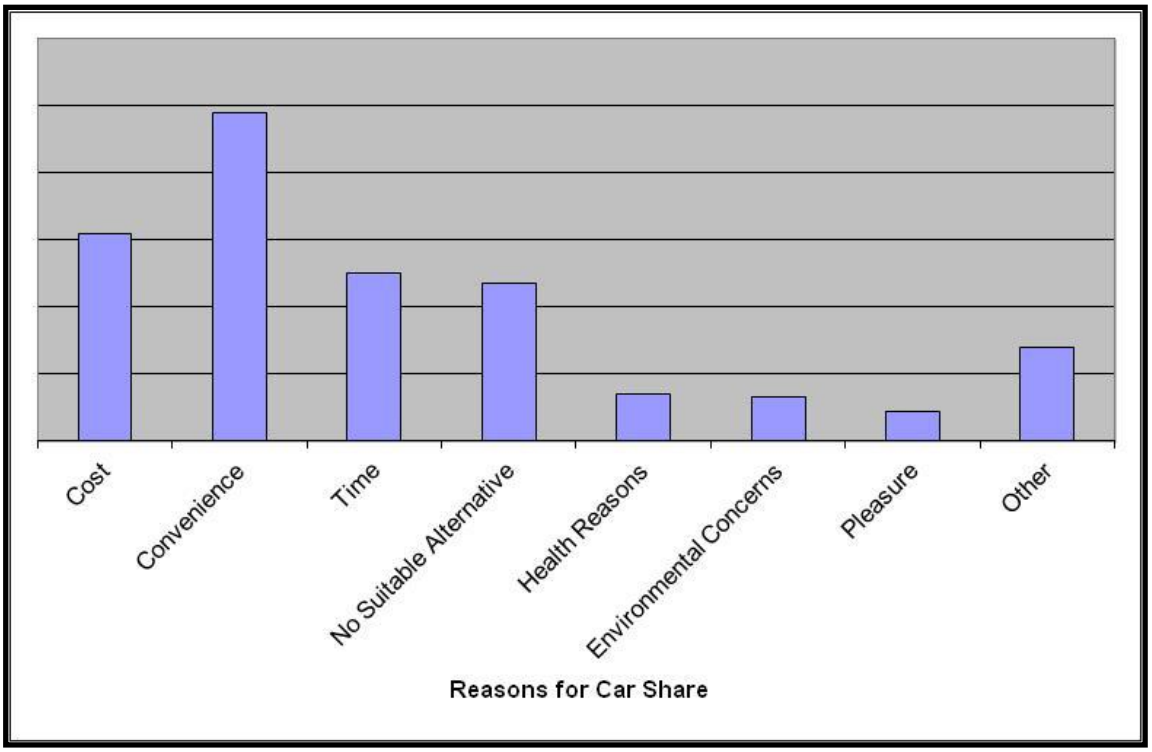


Figure 2.12 Reasons for Car Sharing

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.

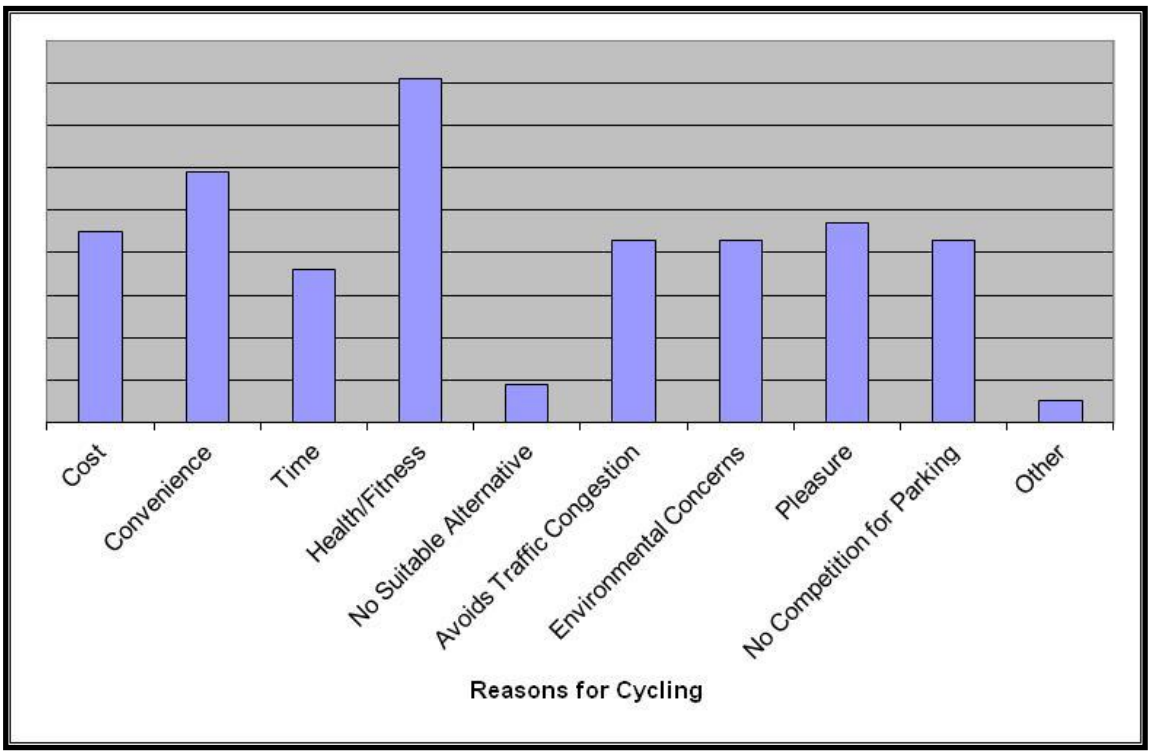
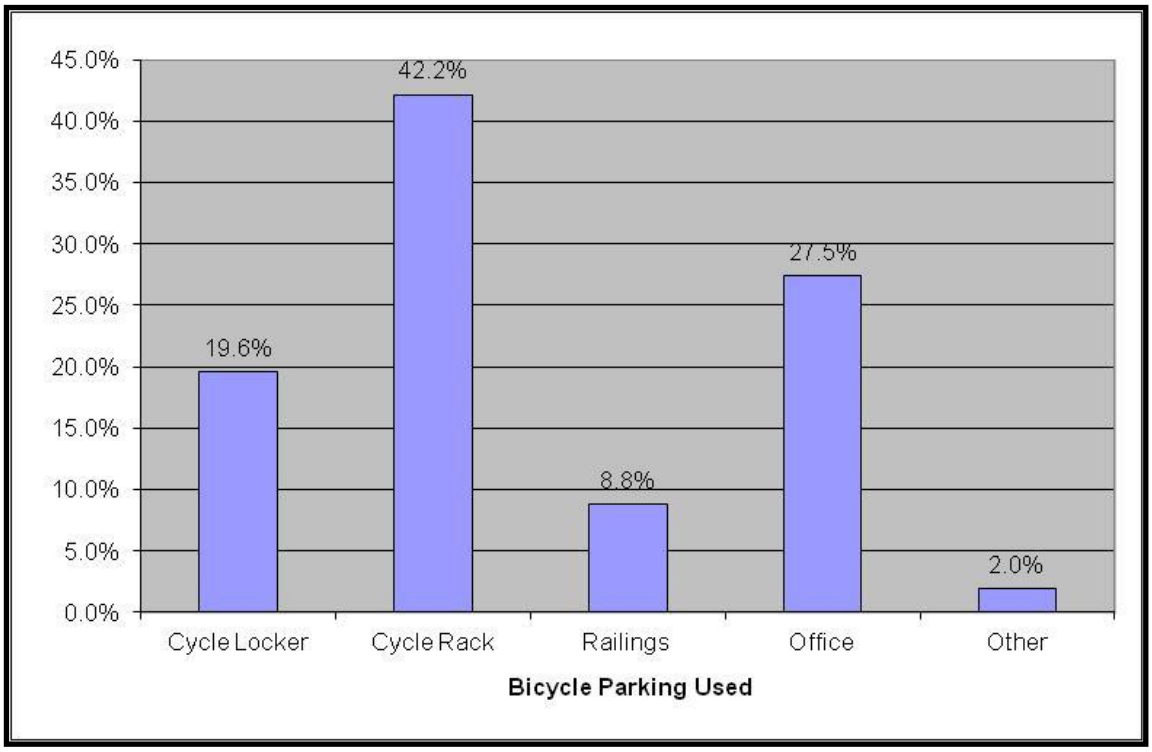


Figure 2.13 Reasons for Cycling

Cycle Parking Used

Figure 2.14 shows some change from 2010 in two important respects. Firstly, an increasing proportion of staff are storing bicycles in office space, a practice which is discouraged at the University, and which suggests existing bicycle parking is not adequate, probably due to its perceived or actual level of security. A significant change has also occurred in external storage locations with more staff indicating they use cycle racks in preference to railings or lockers. This is probably due to additional racks and covered storage that has been installed during the last two years.



(Percentages calculated from a subset of 102 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. Actions to make local bus journeys more attractive are limited since bus companies are private, commercial businesses and difficult for the University to influence.

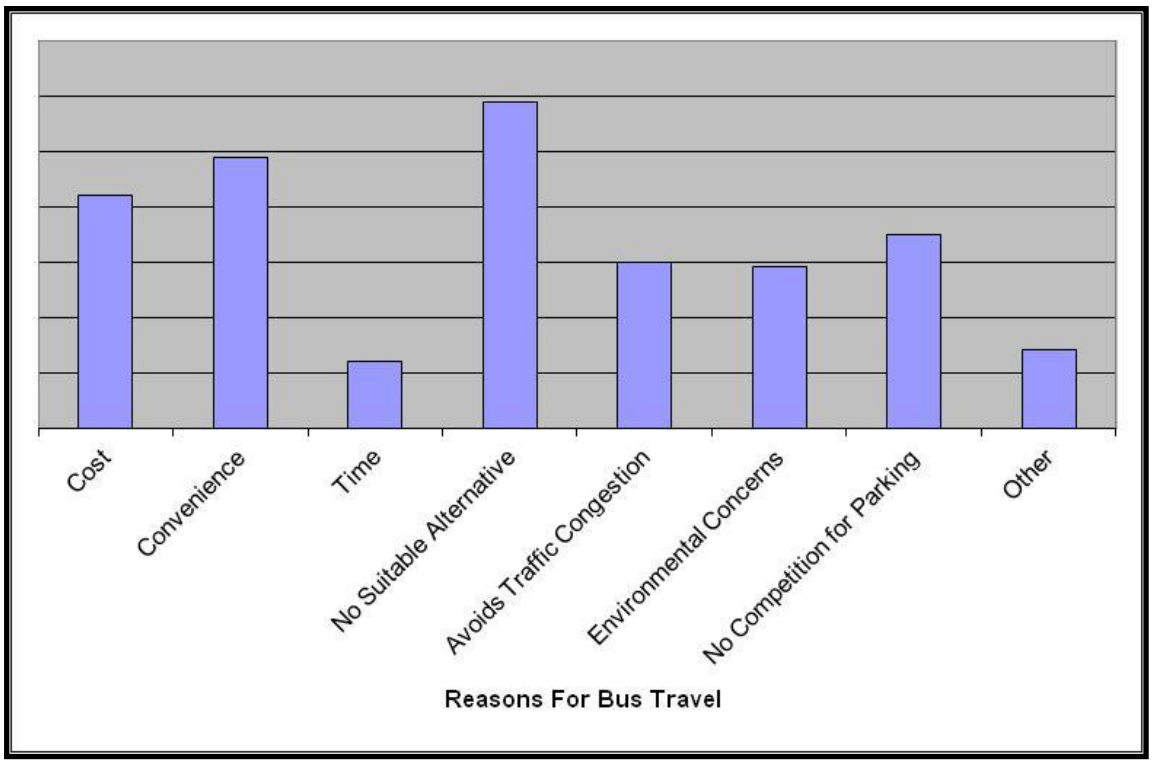


Figure 2.15 Reasons for Bus Travel

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. The University's inter-campus service, the 9U, was also heavily used. Country services were predictably used less than city services. The increase in staff using the bus to commute is encouraging but it is difficult to see what has prompted the shift and if it is likely to be maintained.

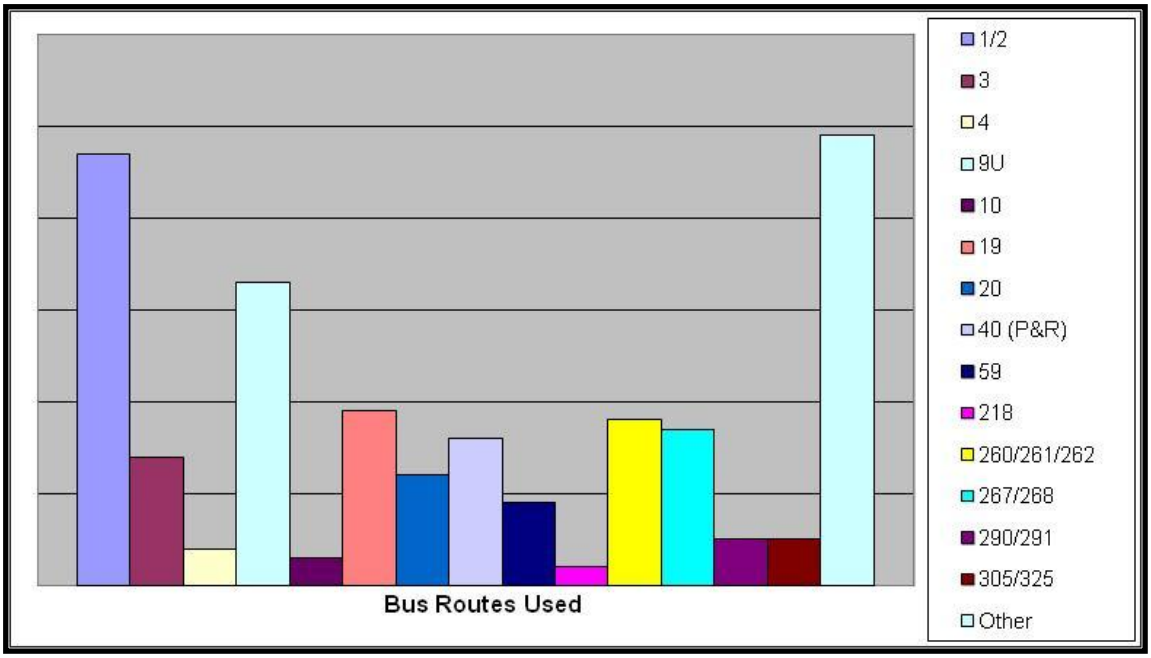


Figure 2.16 Bus Routes Used

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 also being a significant factor.

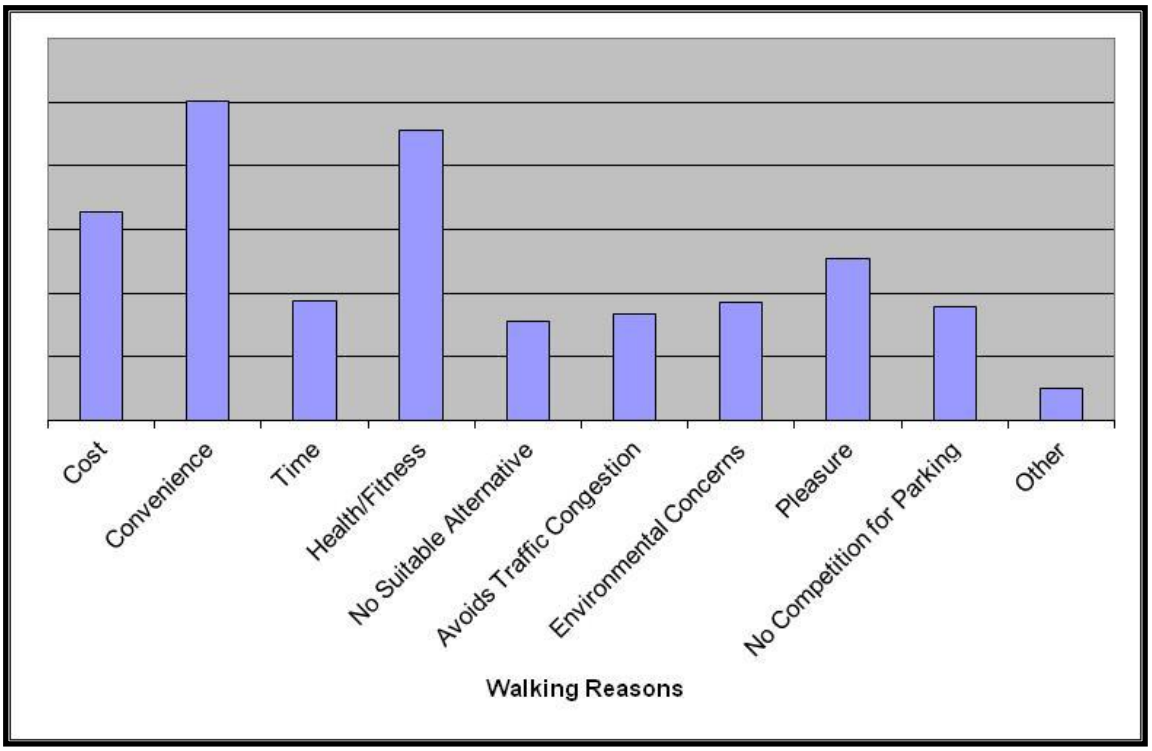


Figure 2.17 Reasons for Walking

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 personal use is not a major factor in the decision to use a motorcycle for commuting.

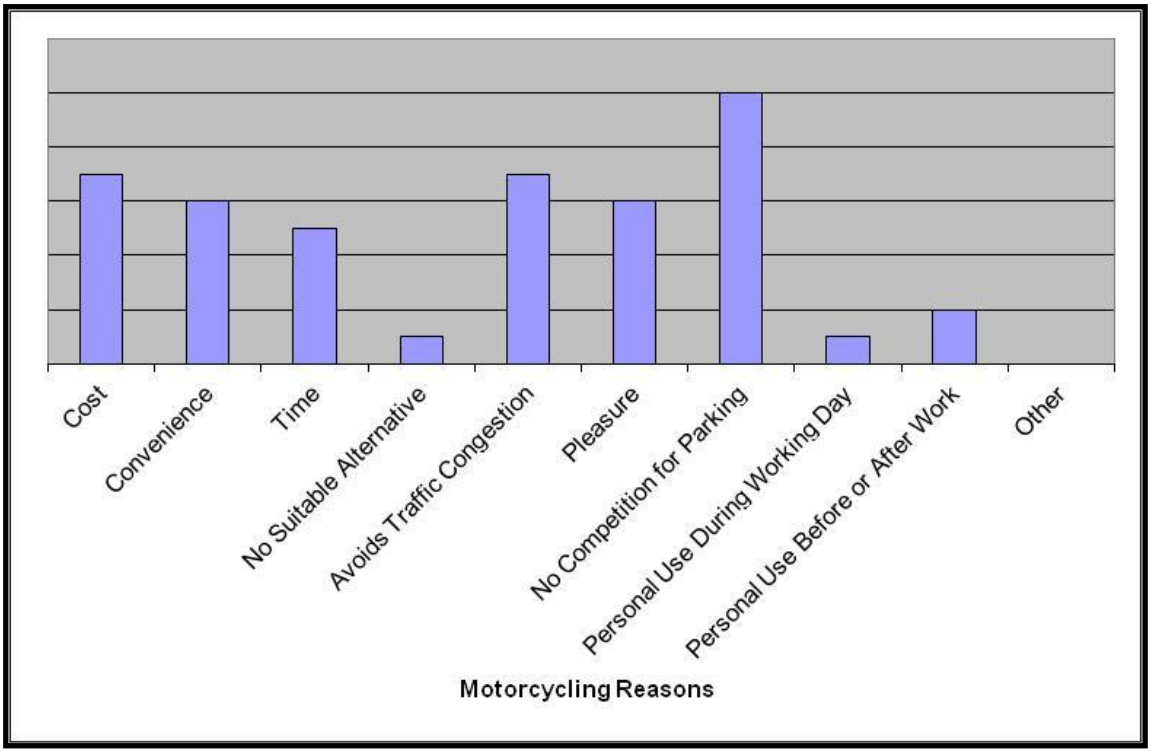


Figure 2.18 Reasons for Travelling by Motorcycle

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 and convenience feature most prominently. Cost, a previously popular reason, has become less significant, probably due to rising rail costs and a squeeze on personal finances.

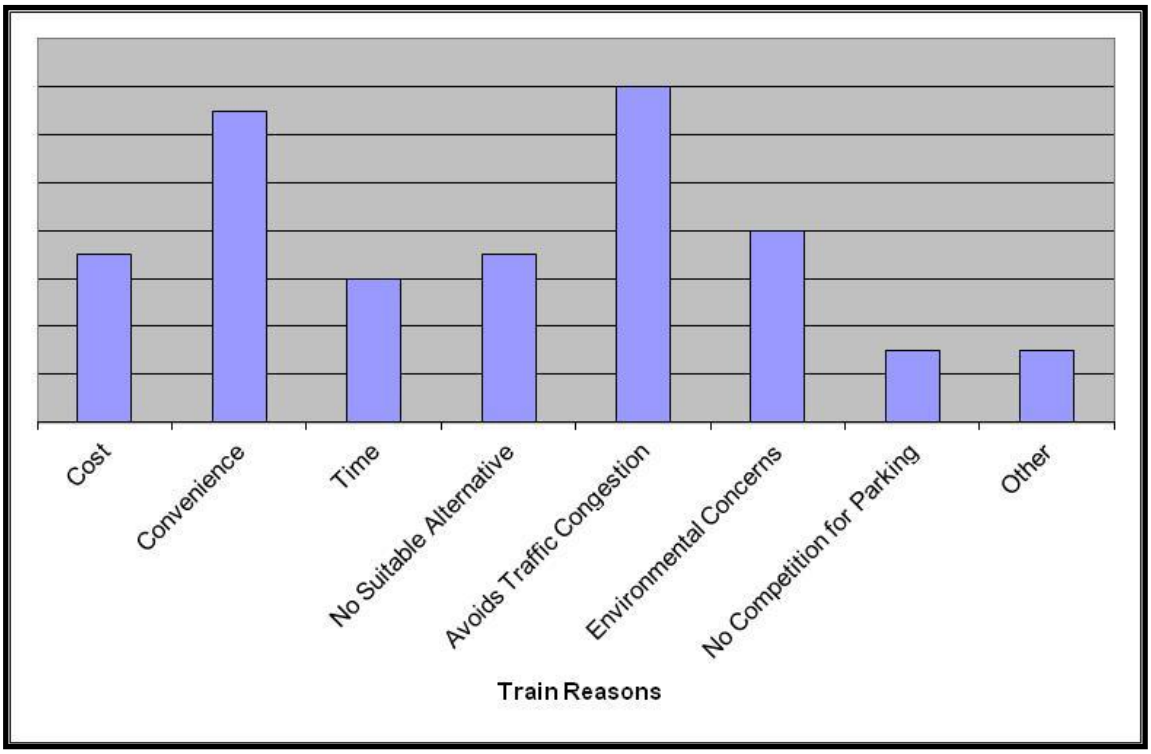


Figure 2.19 Reasons for Travelling by Train

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 24.5% of staff who indicated that they did not use any alternative the majority (52.9%) were single occupancy car users. This is a proportional decrease from previous years which is encouraging, particularly as the percentage of staff not using any alternative is increasing.

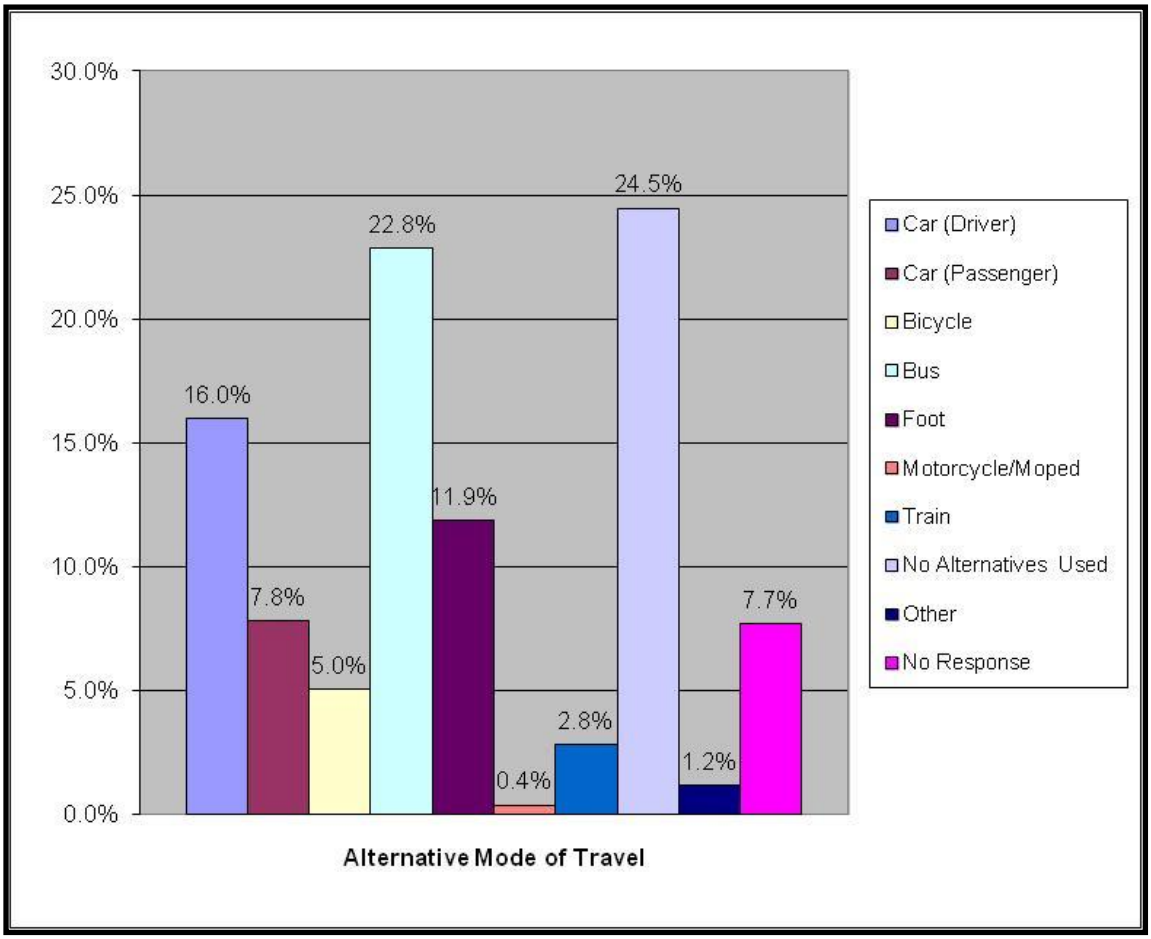


Figure 2.20 Alternative Modes of Travel Used

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.

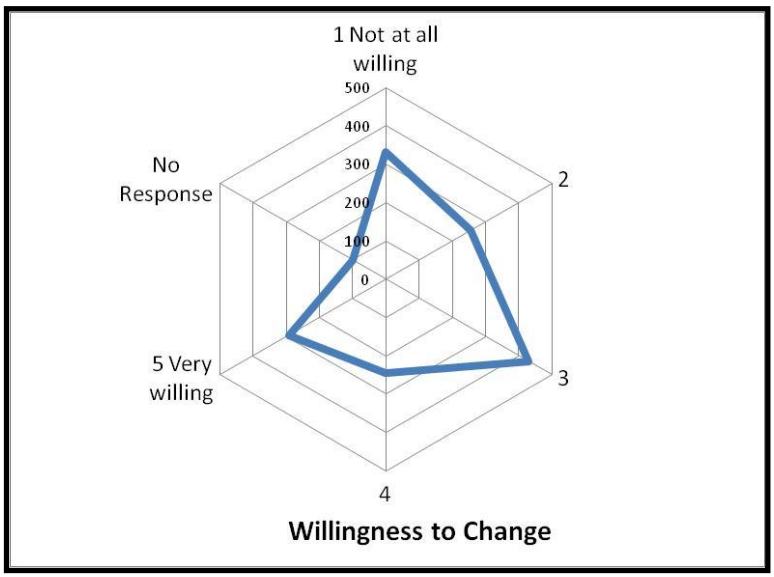


Figure 2.21 Willingness to Change Travel Habits

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.

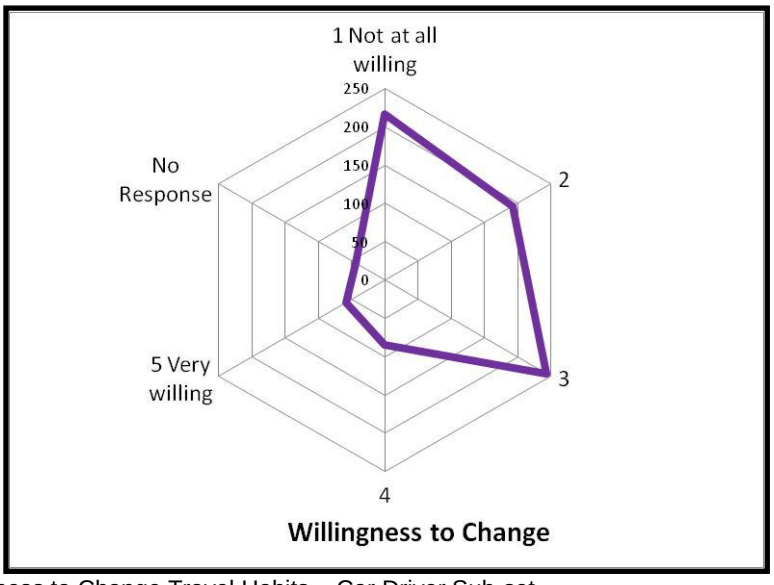


Figure 2.22 Willingness to Change Travel Habits – Car Driver Sub-set

Student Survey Responses

RESPONSE RATES

The student response rate for this years survey was 16%, up from the 11% response rate recorded in 2010. 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.

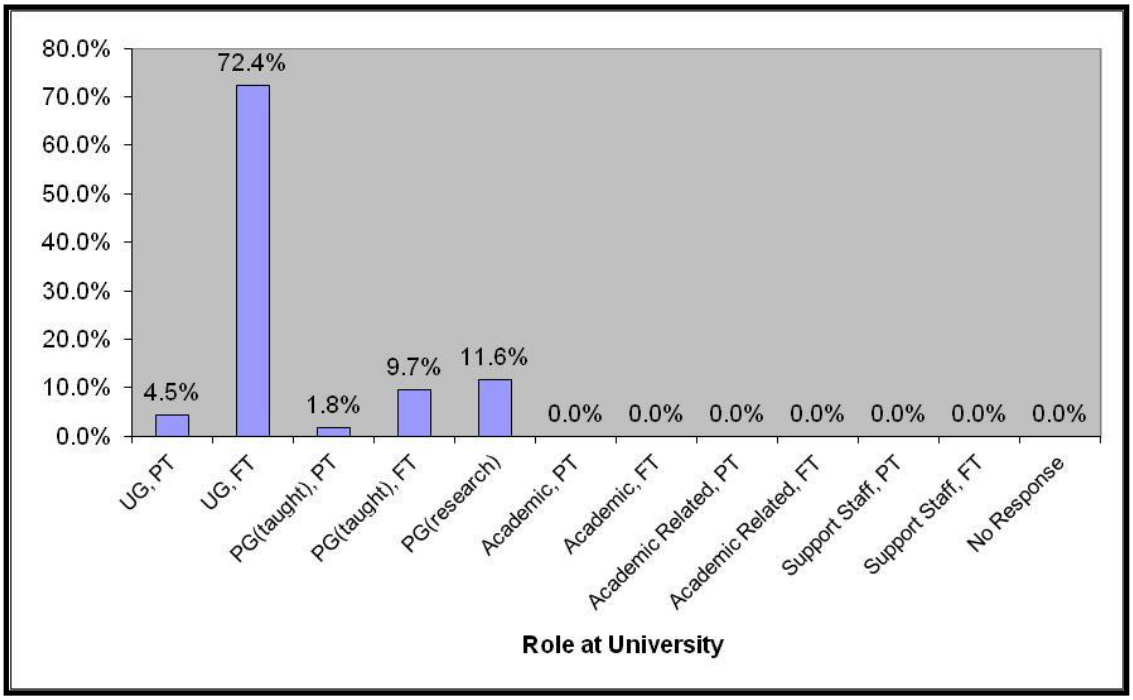


Figure 3.01 Role at University

Gender Split

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

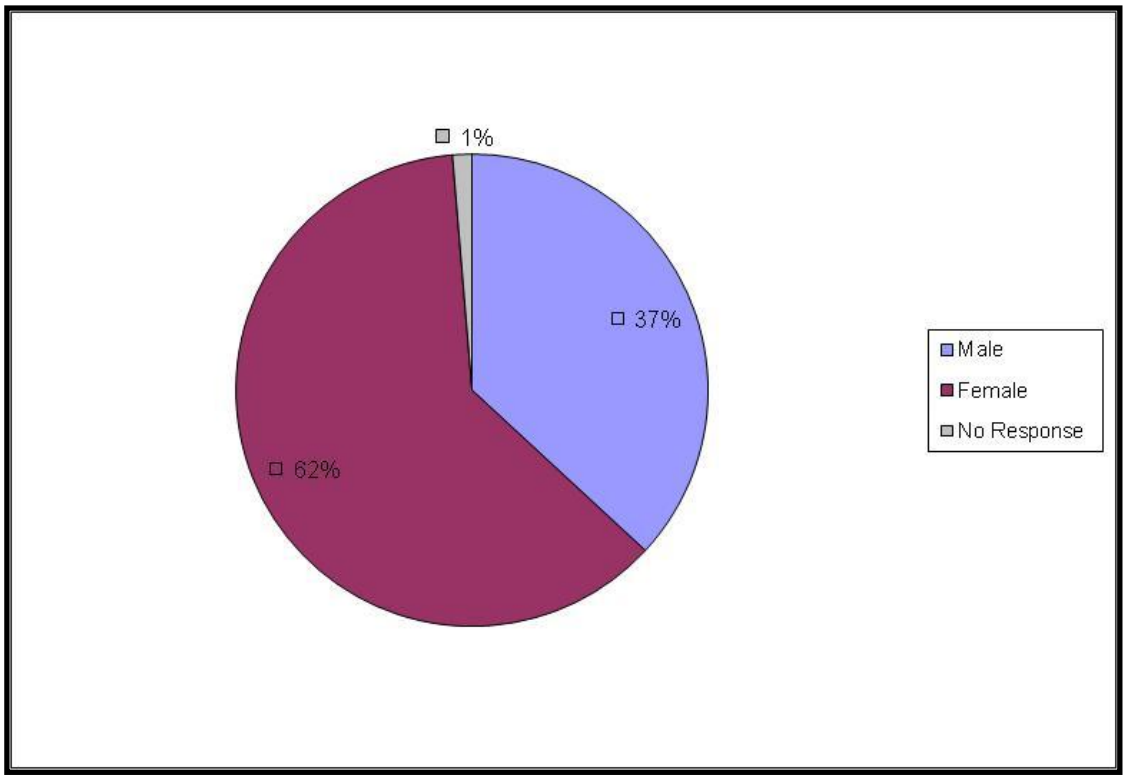


Figure 3.02 Gender of Respondents

Age

As can be seen from Figure 3.03 the majority of student respondents (73.3%) were aged between 18 and 24 years of age with a much smaller proportion (18.5%) being in the older 25-39 bracket.

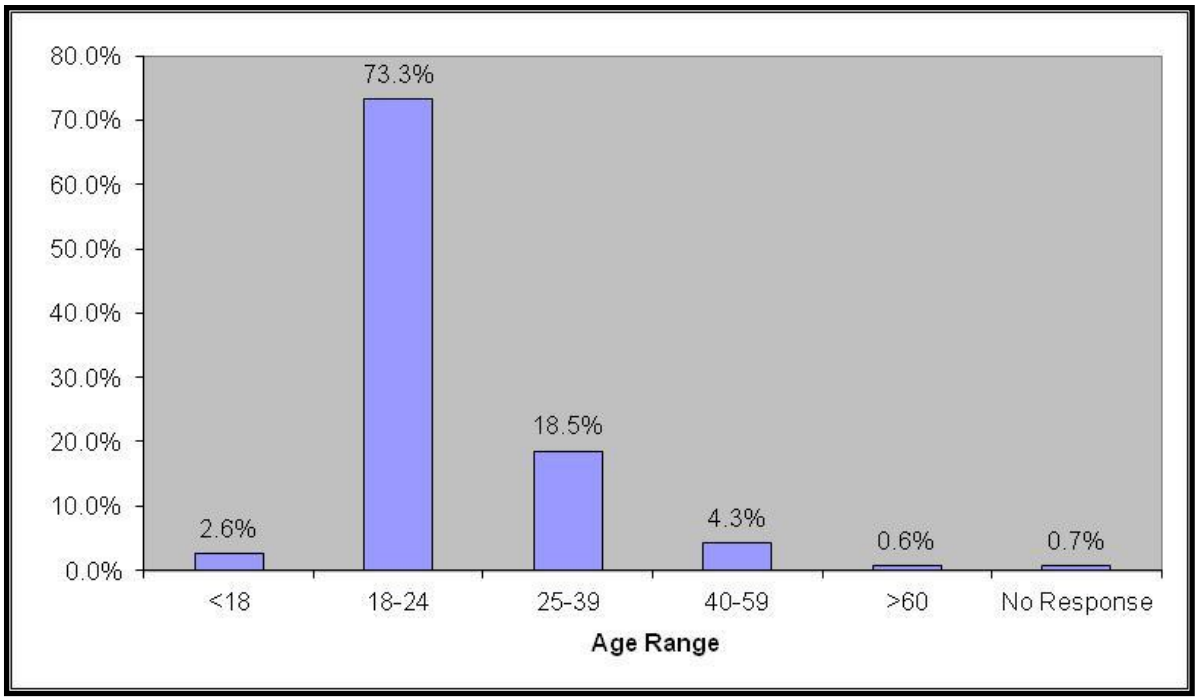


Figure 3.03 Age of Student Respondents

Distance from Work

Figure 3.04 illustrates the range of distances students estimate they travel to their place of study. The data gathered shows a small increase in the proportion of students living closer to their place of study. This could help when encouraging students to use active travel methods which are more suited to shorter distances.

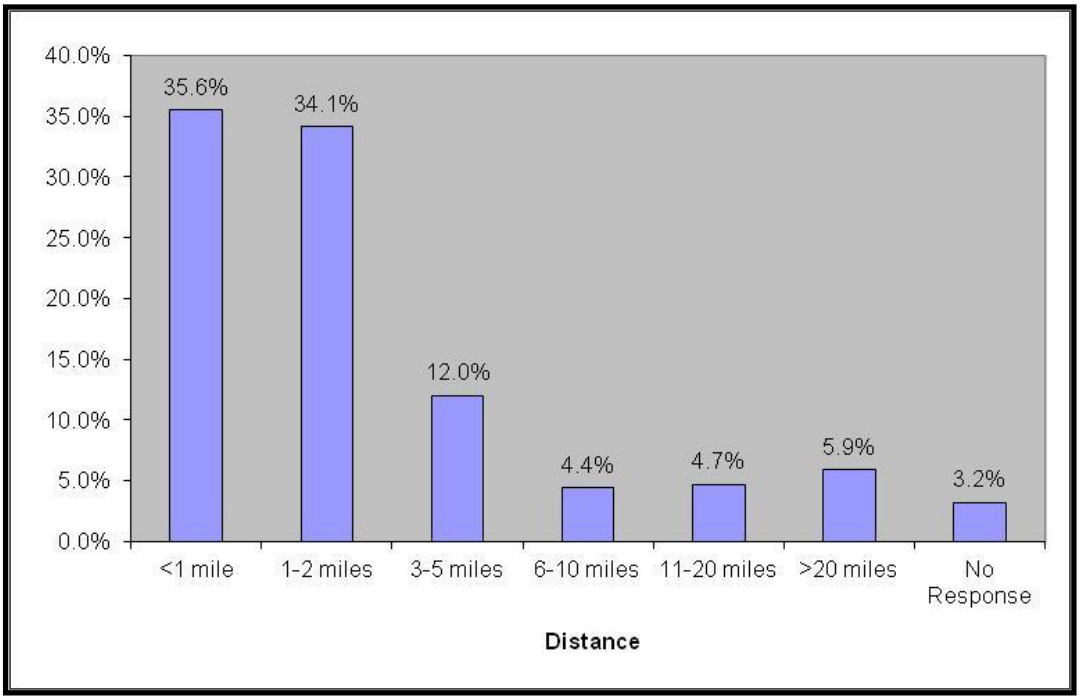


Figure 3.04 Estimated Distance Travelled

Duration of Travel

Figure 3.05 illustrates the time typically taken for people to travel to their place of study.

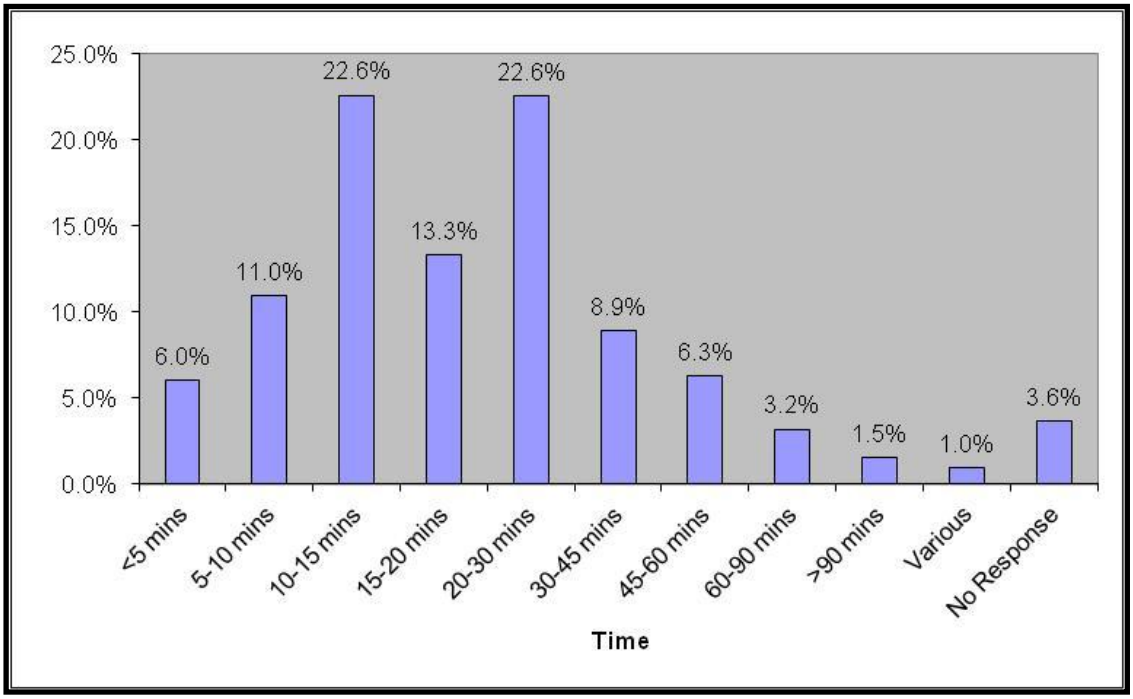


Figure 3.05 Duration of Journey

TRAVEL HABITS

Main Mode of Travel

The most common mode of travel used by students remains walking at 61.9% which shows continued growth back towards the peak figure recorded in 2006 of 64.7% and is encouraging, particularly when 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 shows consistent, although relatively small, growth. Other modes have remained relatively static.

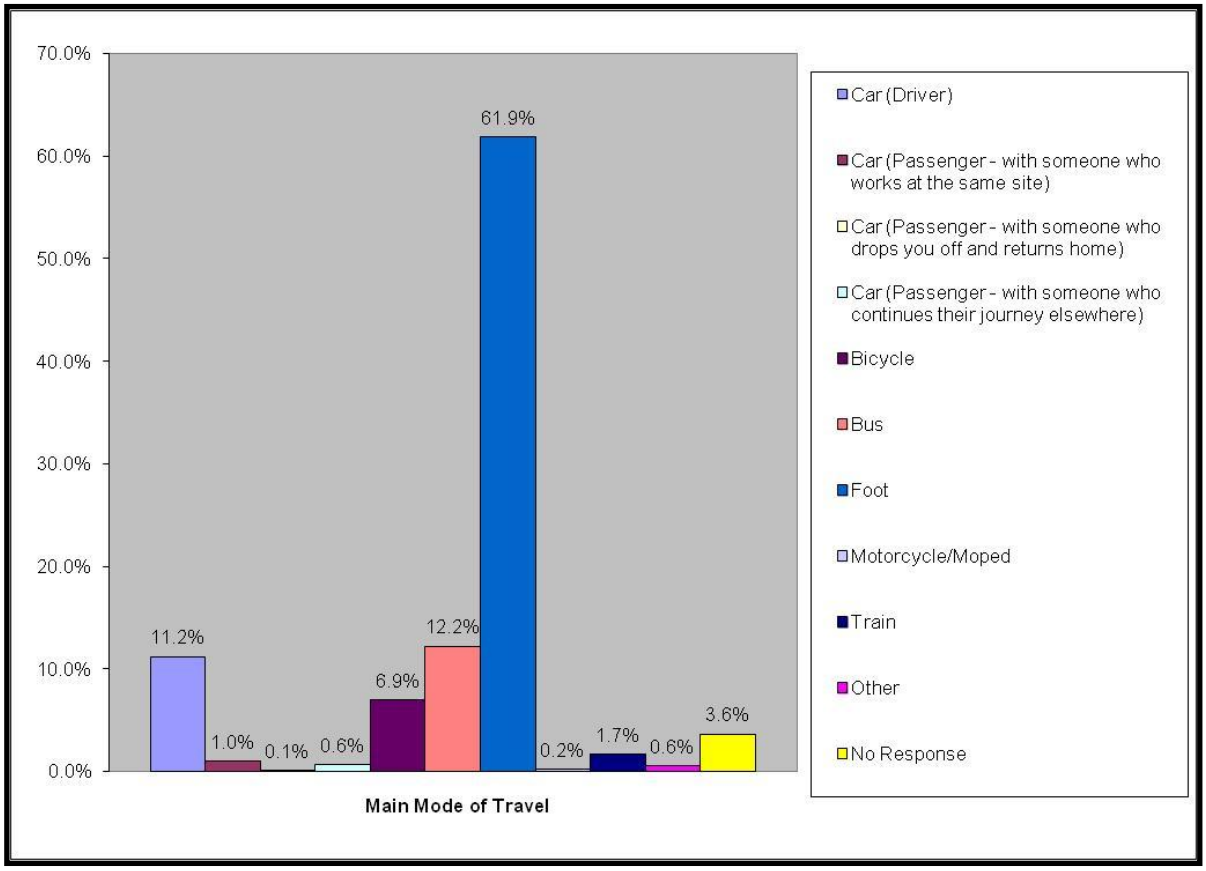


Figure 3.06 Main Mode of Travel by Students

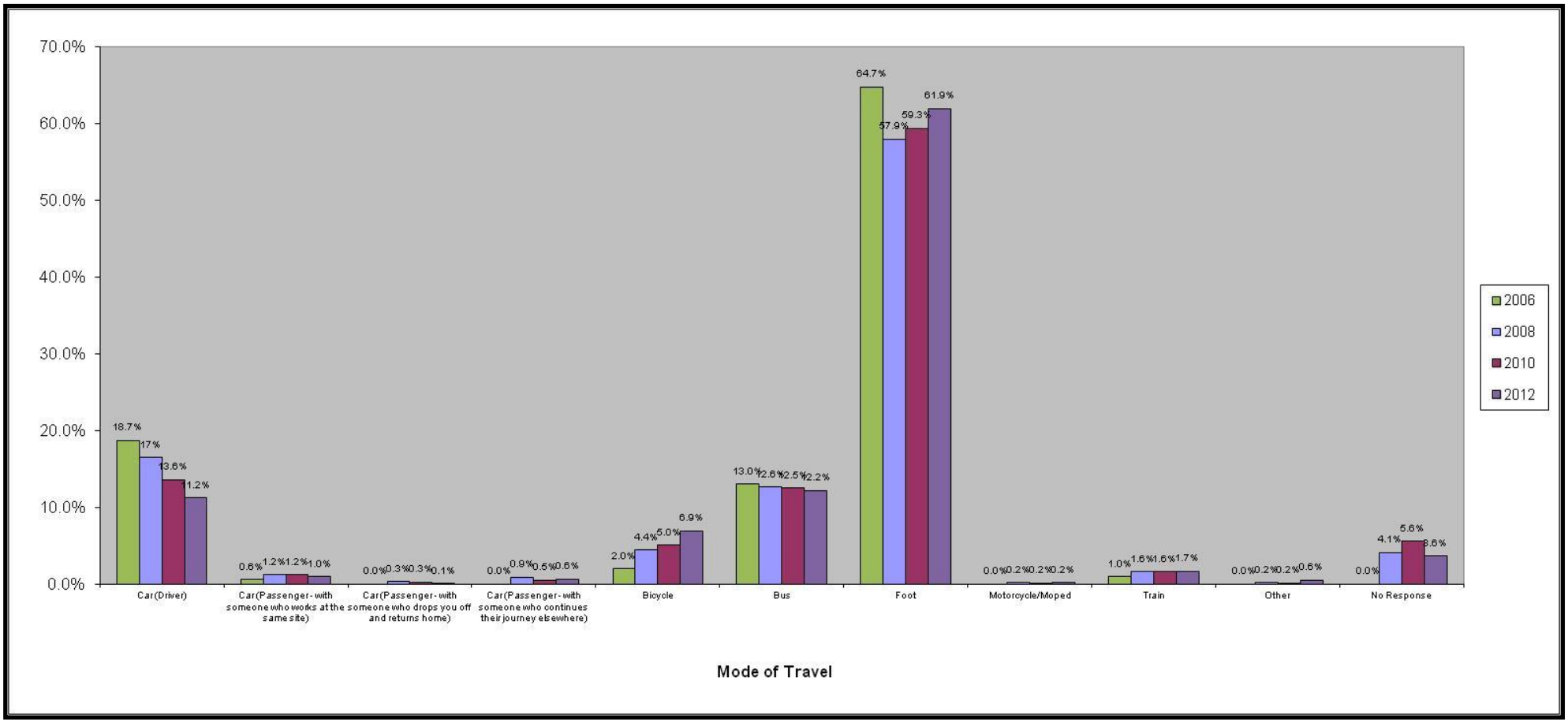


Figure 3.07 Comparison of Main Mode of Travel by Students between 2006 and 2012

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 convenience and time constraints 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.

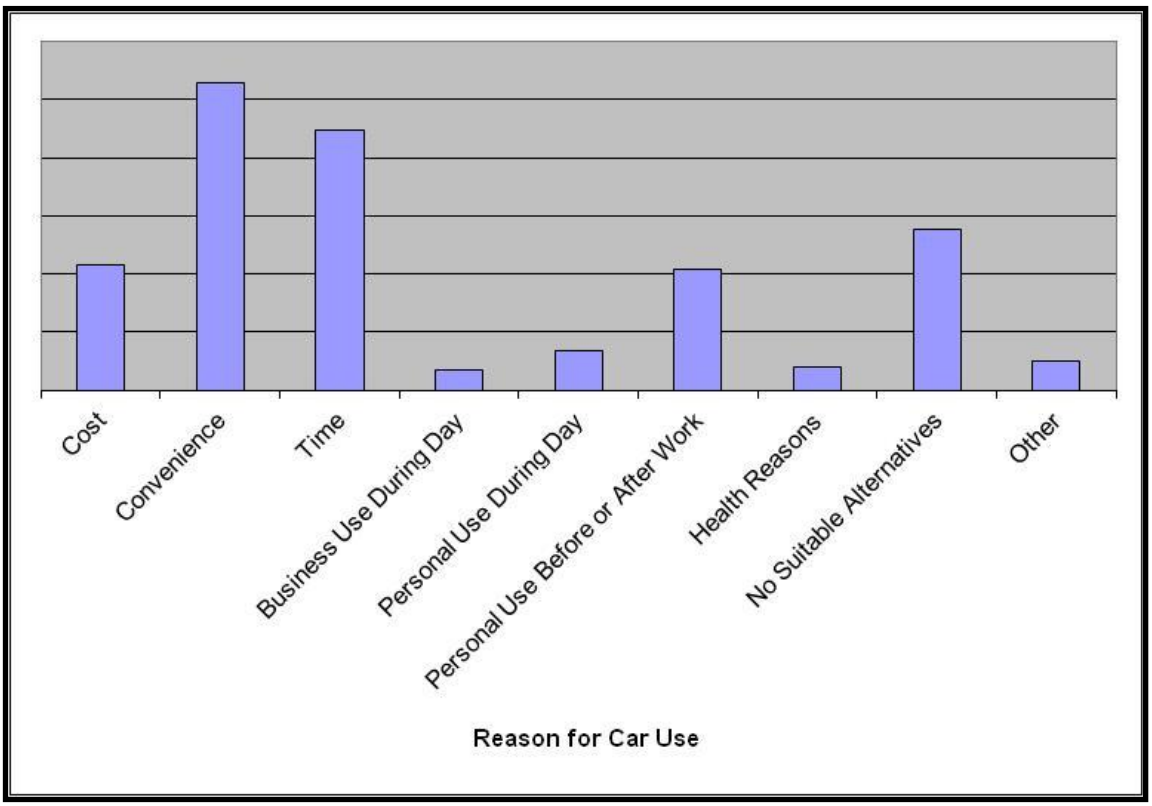


Figure 3.08 Reasons for Car Use

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 featured most strongly. More help in finding a car share partner also featured commonly and further investigation is required to ascertain what further help would be useful.

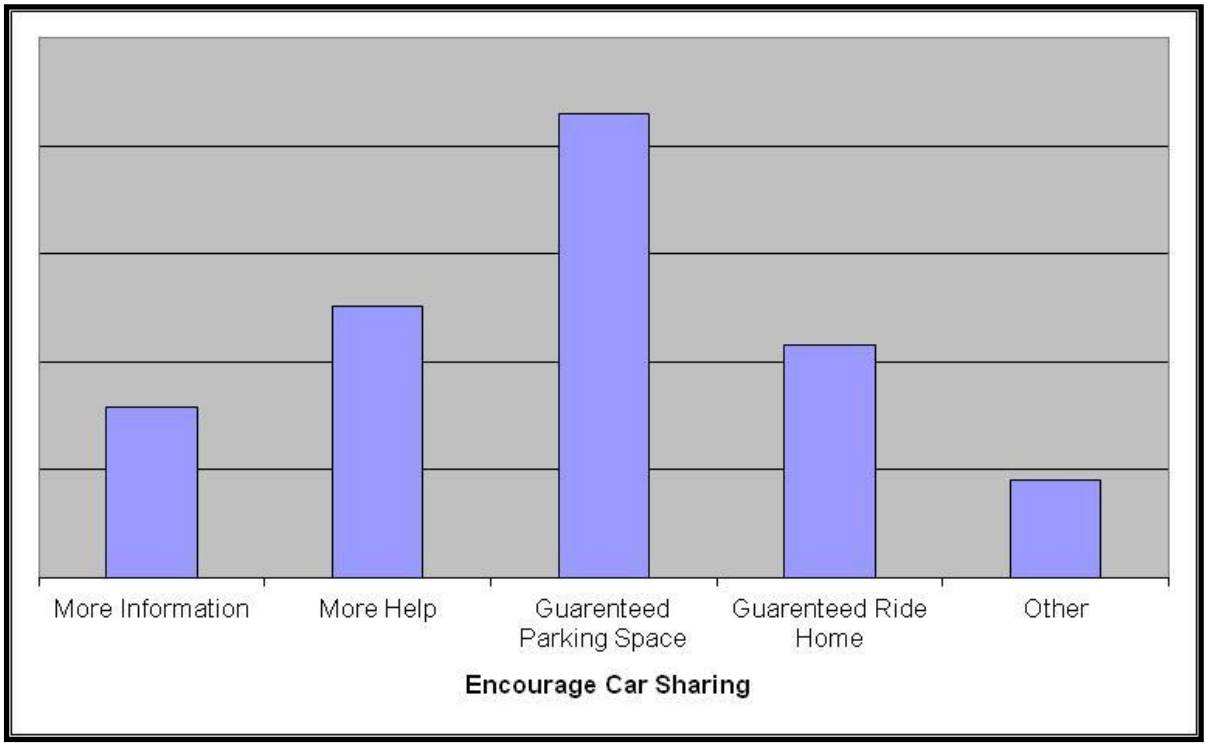


Figure 3.09 Encouragement of Car Sharing

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.

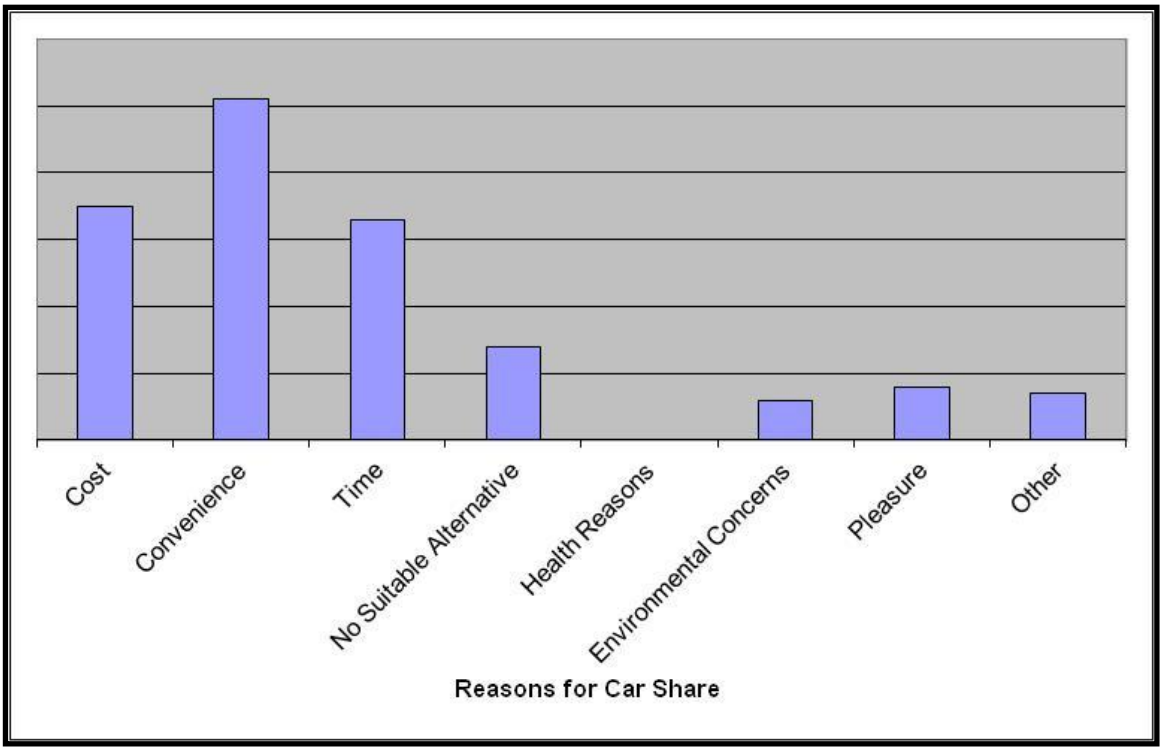


Figure 3.10 Reasons for Car Sharing

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.

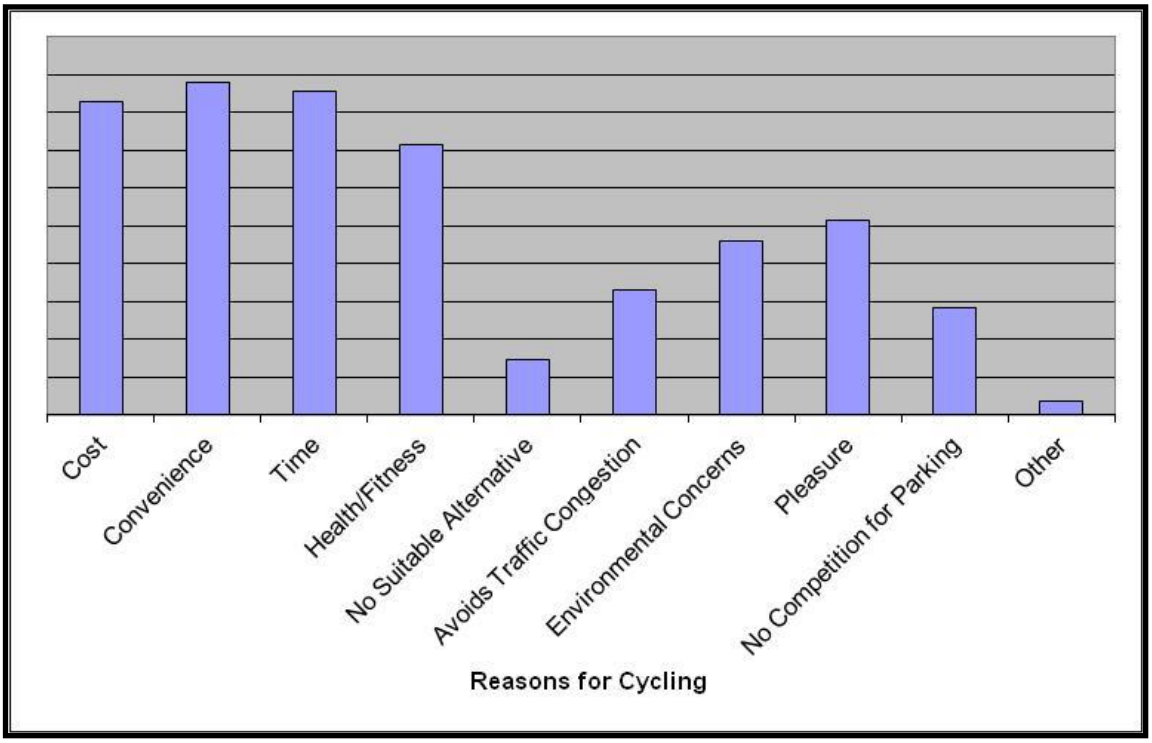
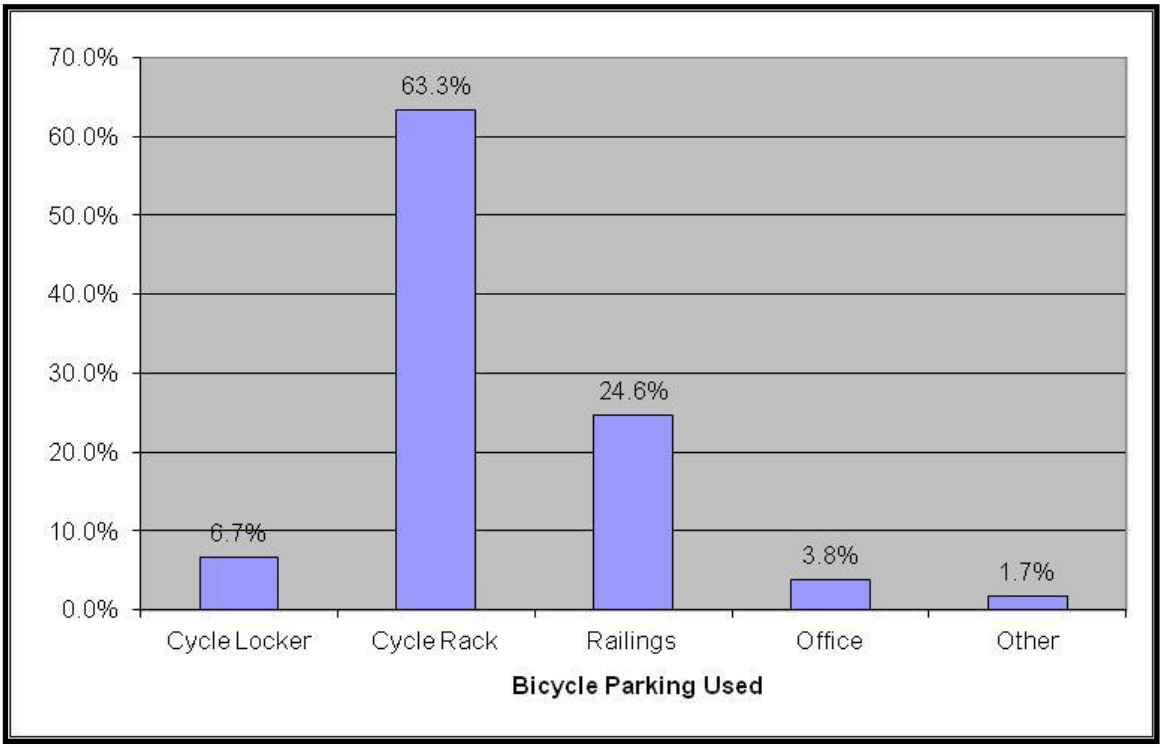


Figure 3.11 Reasons for Cycling

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 and is also an increase over figures recorded in previous surveys.



(Percentages calculated from a subset of 240 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 most commonly suggesting that bus travel is often used out of necessity rather than choice.

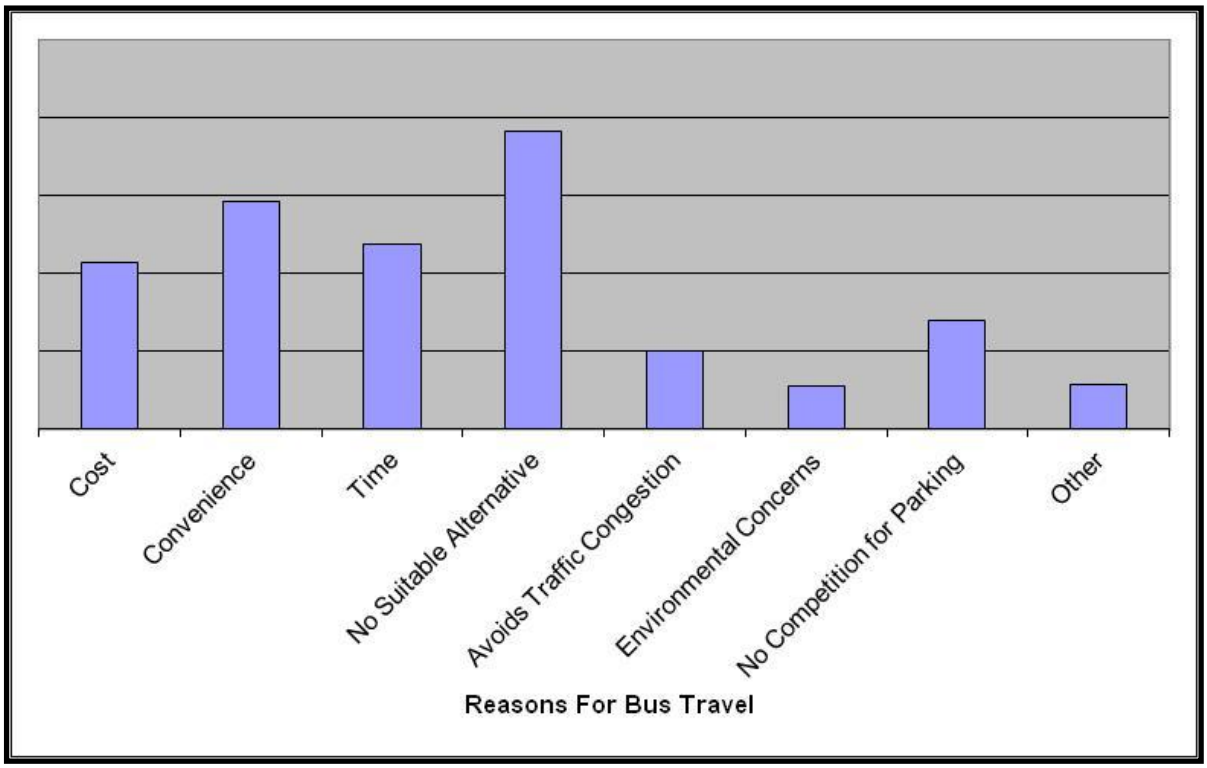


Figure 3.13 Reasons for Bus Travel

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 areas. Services 9U and 20 which serve Foresterhill and Hillhead also feature significantly for students. The 19 also features heavily and a greater interest will be taken in this route in future to ensure its importance to students is represented. 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.

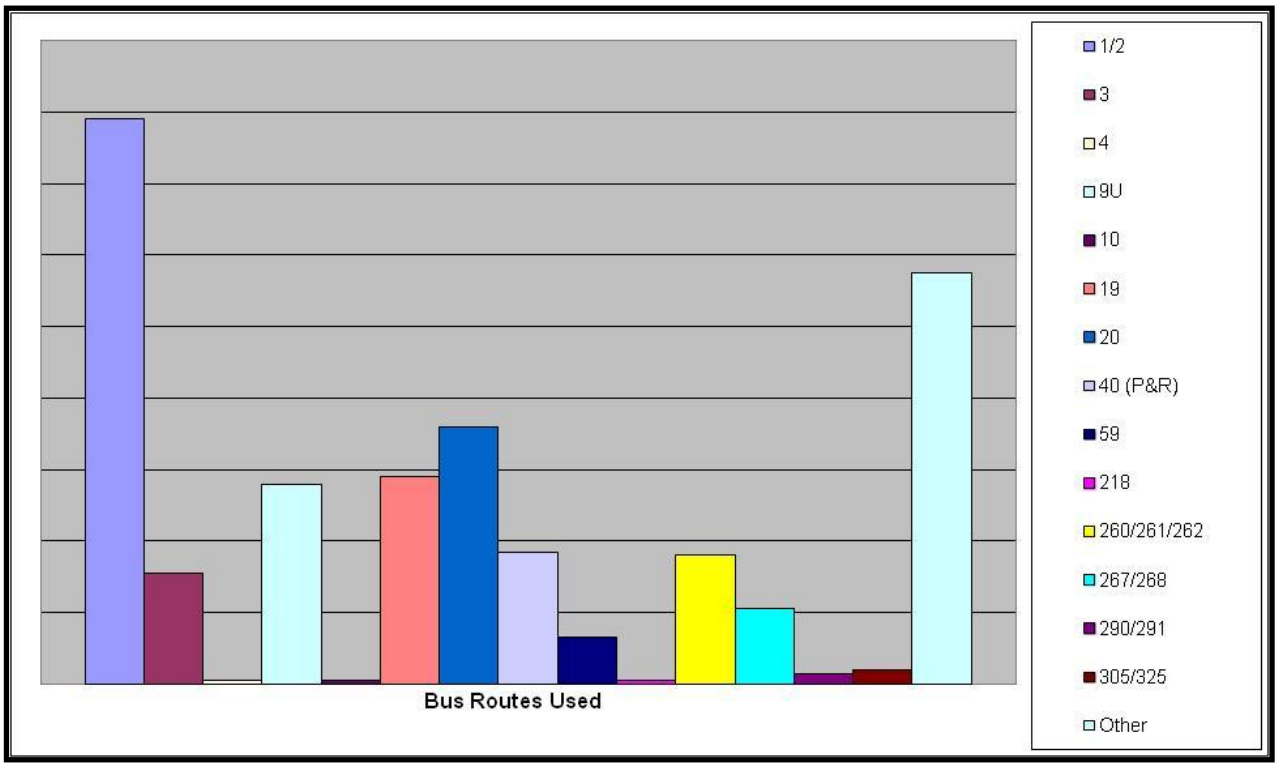


Figure 3.14 Bus Routes Used

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.

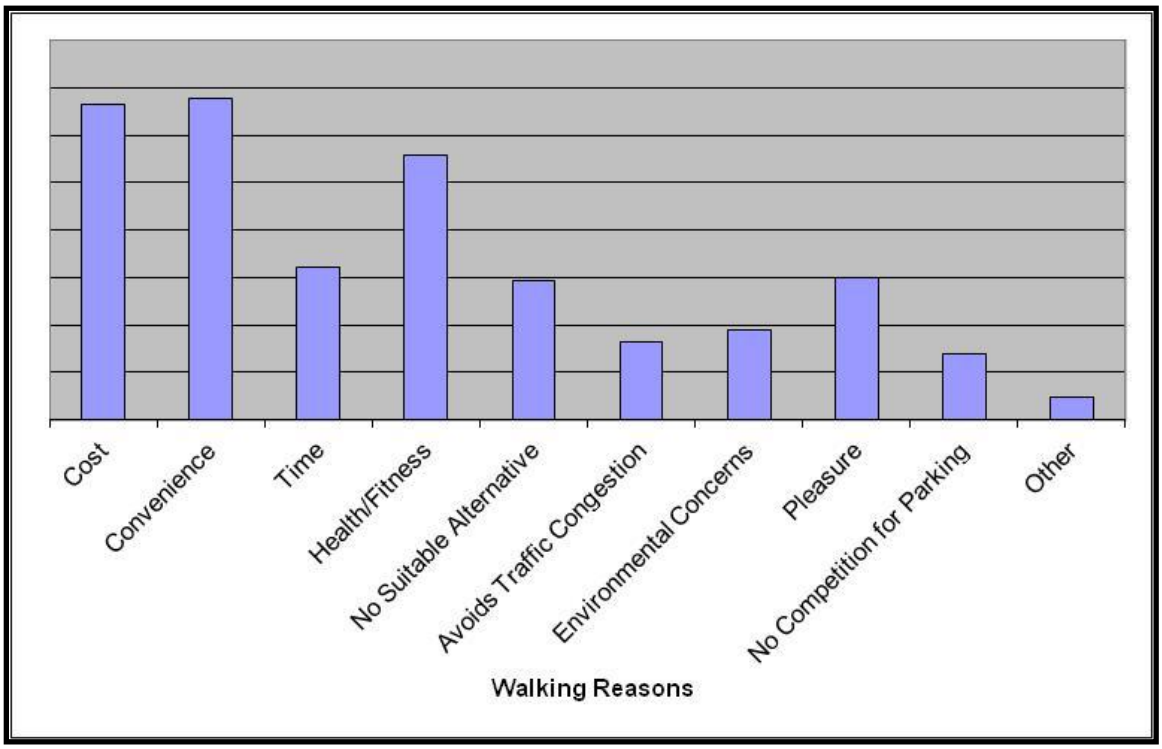


Figure 3.15 Reasons for Walking

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. There wide and relatively uniform spread of responses suggests there are many reasons for people to use motorcycles.

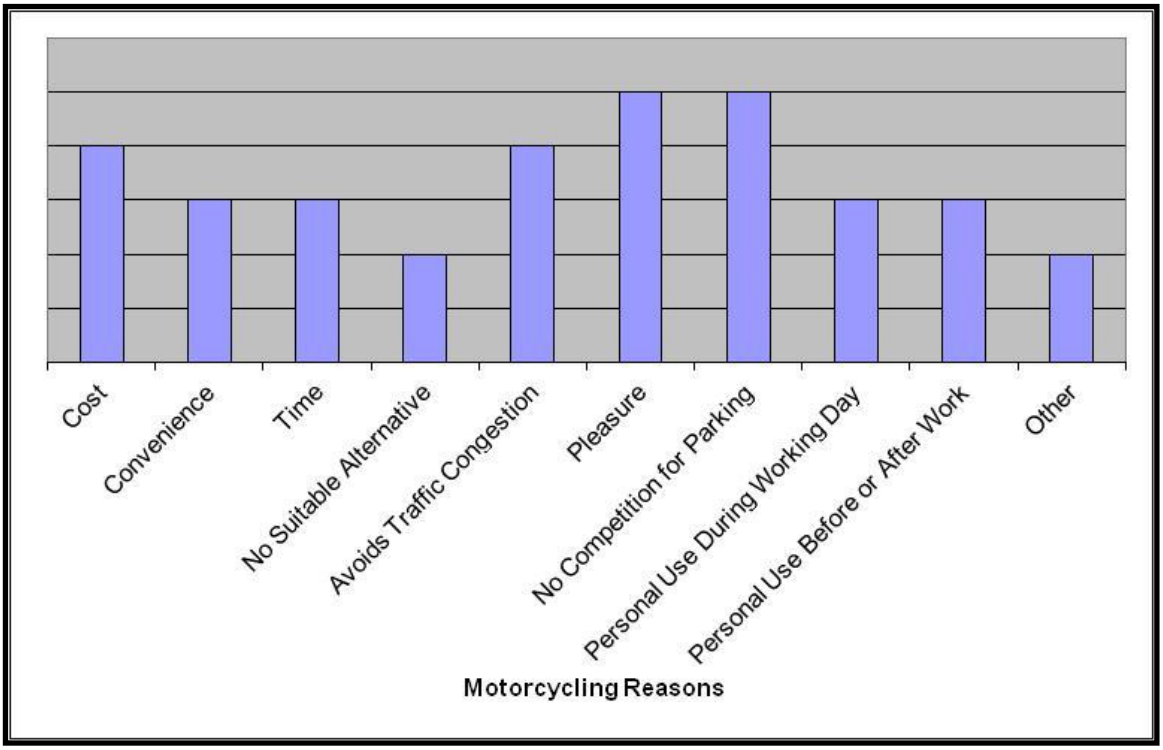


Figure 3.16 Reasons for Travelling by Motorcycle

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. A wide range of responses were received indicating there are many reasons why rail travel is chosen by students.

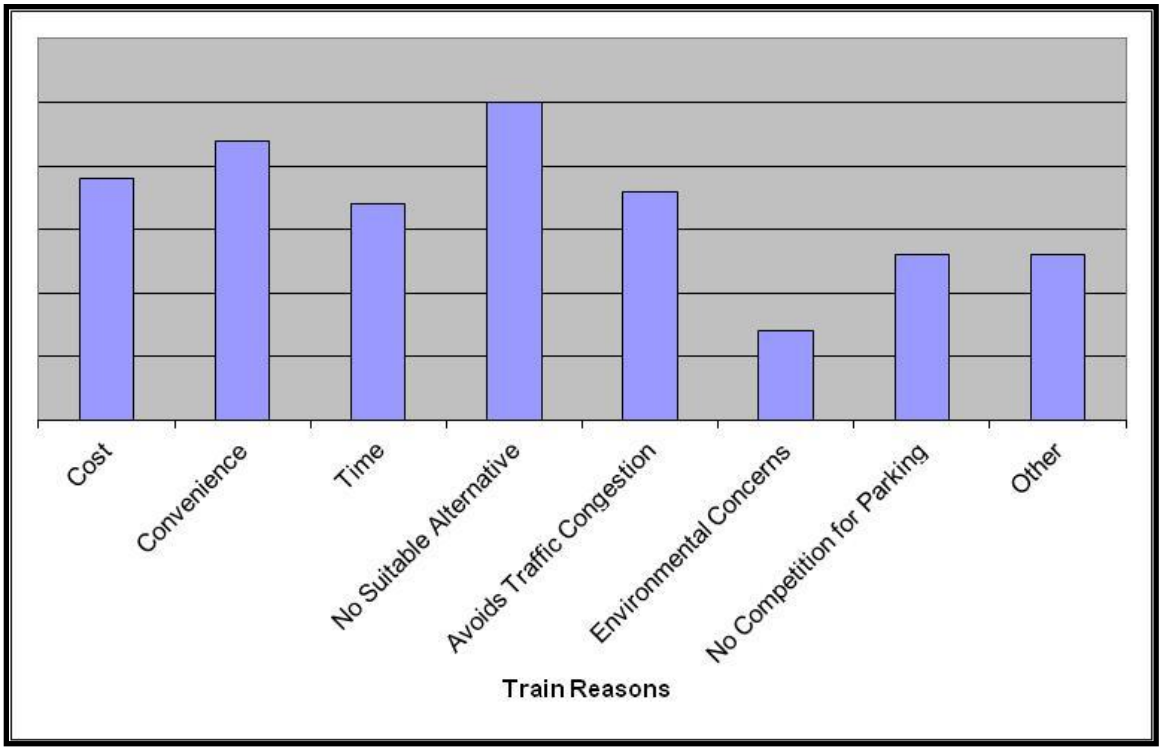


Figure 3.17 Reasons for Travelling by Train

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. Of the 29.3% of respondents who indicated that they would not use an alternative the majority (76.9%) walked to University as their main mode of travel and are therefore already using a sustainable mode of travel. Of those who drove to University most (74.6%) said they would use some form of alternative with only 25.4% saying they would continue to drive.

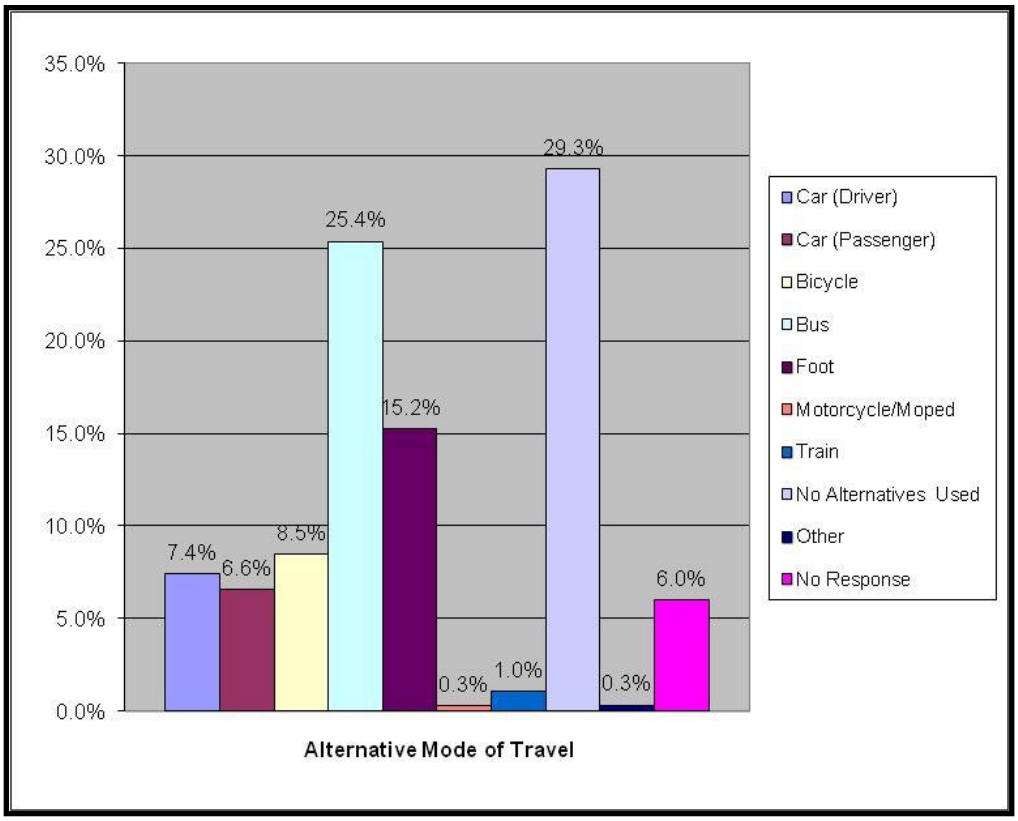


Figure 3.18 Alternative Modes of Travel Used

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 of limited value in the case of students since the majority of them already travel in a relatively sustainably way.

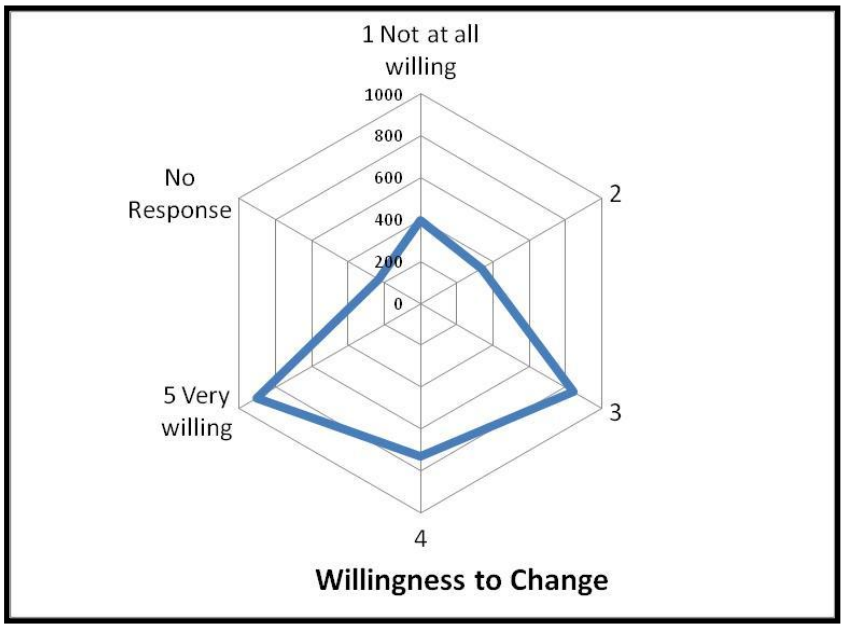


Figure 3.19 Willingness to Change Travel Habits

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.

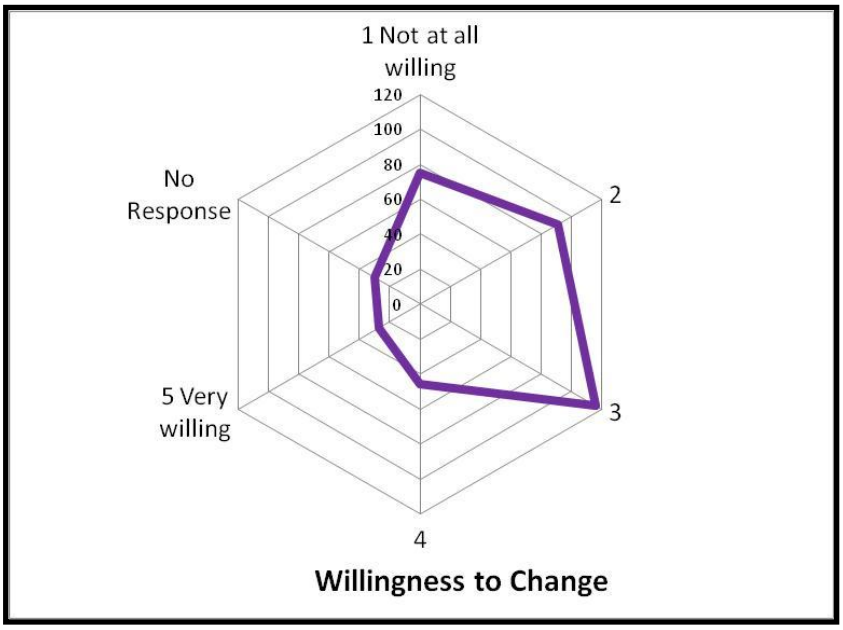


Figure 3.20 Willingness to Change Travel Habits – Car Driver Sub-set

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 174gCO_2/Km[1]
- Pre 2001 >1549cc vehicles are assumed to emit 185gCO_2/Km[2]
- Post 2001 'A' vehicles are assumed to emit 90gCO_2/Km[3]
- Post 2001 'M' vehicles are assumed to emit 275gCO_2/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.

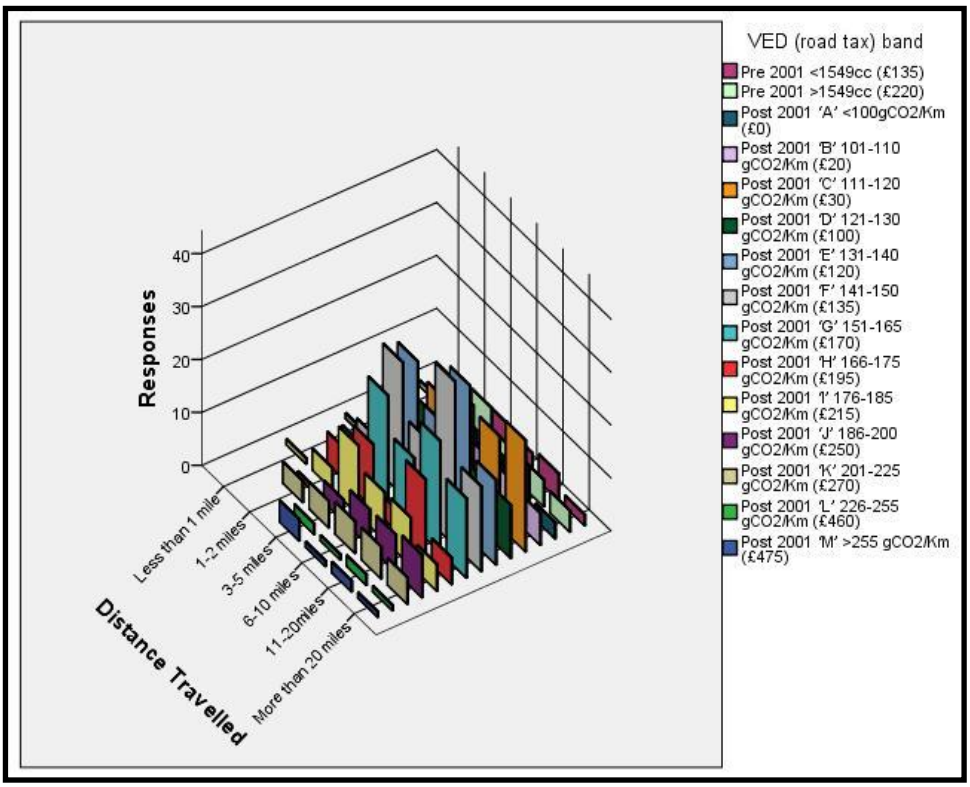


Figure 4.01 Staff drivers; distances travelled by vehicle emissions

The total CO_2 emissions of staff car commuting travel was calculated to be 3,746.51 Tonnes. This is an increase of almost 10% when compared to 2010 figures (3,416.18 Tonnes). The increase is surprising since the national trend of new vehicles is toward lower emissions and the proportion of staff travelling by car continues to decrease. The increase appears to be down to two factors. The first is a general increase in the distances travelled by staff and the second is a shift by staff towards higher emission vehicles.

[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

Continued progress has been made in reducing single occupancy car use and it is good to see the rate of change has not diminished since initial travel planning measures were introduced in 2006. As staff and students move away from single occupancy car use it becomes more and more difficult to maintain a shift in habits. This is partially due to the remaining car users having less opportunity to change, typically because of carer commitments and distance and also partially due to the increased competition for sustainable travel facilities like cycle storage.

Despite the improvements made there are still some areas of concern. Carbon emissions, which are being used more frequently to quantify travel, have shown an increase and we have seen a continued 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. Both of these areas are largely outwith the control of the University since commuting distances and vehicle choice are down to the individual and transport operators are private companies. However work will continue to encourage the adoption of sustainable transport and renewed efforts will be made to work with transport operators and local authority public transport units to reverse the decline in public transport use.

A particularly positive and encouraging result of the survey is the increase in cycling among students. This is a three fold benefit since it reduces traffic emissions, parking congestion and improves health and fitness resulting in a healthier and more productive University community. Positive working relationships have been developed with local cycling organisations and a number of joint working opportunities have been developed which should help build on what we have already achieved.

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 local area as a whole. Staff and students should be justifiably happy that their personal travel habits are helping move the University towards more sustainable travel.