Travel Survey Report 2014

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Contents

Introduction
This report provides a summary of the findings of the travel surveys carried out in October 2014. It was distributed electronically to approximately 24,449 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
24,449 questionnaires were sent out to the majority of University staff and students. Approximately 28% of these were usable returns up significantly from 20% usable returns in 2012.

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 in the main part of the survey. E-mail address and a full postcode was requested from those who wished to receive a personalised travel plan with this data being separated and used solely for that purpose.

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 6,893 usable returns in total (representing a return rate of 28%) which comprised 2,136 staff returns and 4,757 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 28% overall which comprised approx. response rates of 32.6% from staff and 26.6% from students.

Figure 1.0 Survey Return Rate

Total number of surveys distributed	24,449
Total number of surveys returned	6,921 (28.3%)
Spoilt returns	28
Total number of usable returns	6,893 (28.2%)

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 and Opinions** – 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 2,136 staff responded to the survey which represents an approx. response rate of 32.6%.

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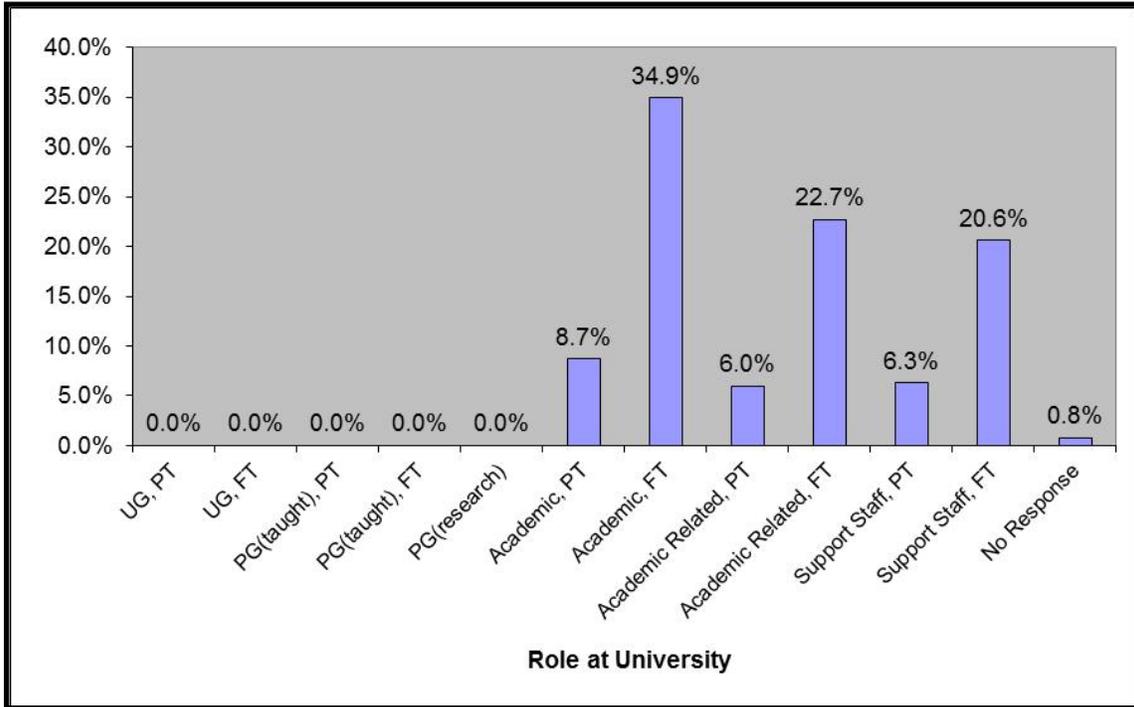

Figure 2.01 Role at University

Gender Split

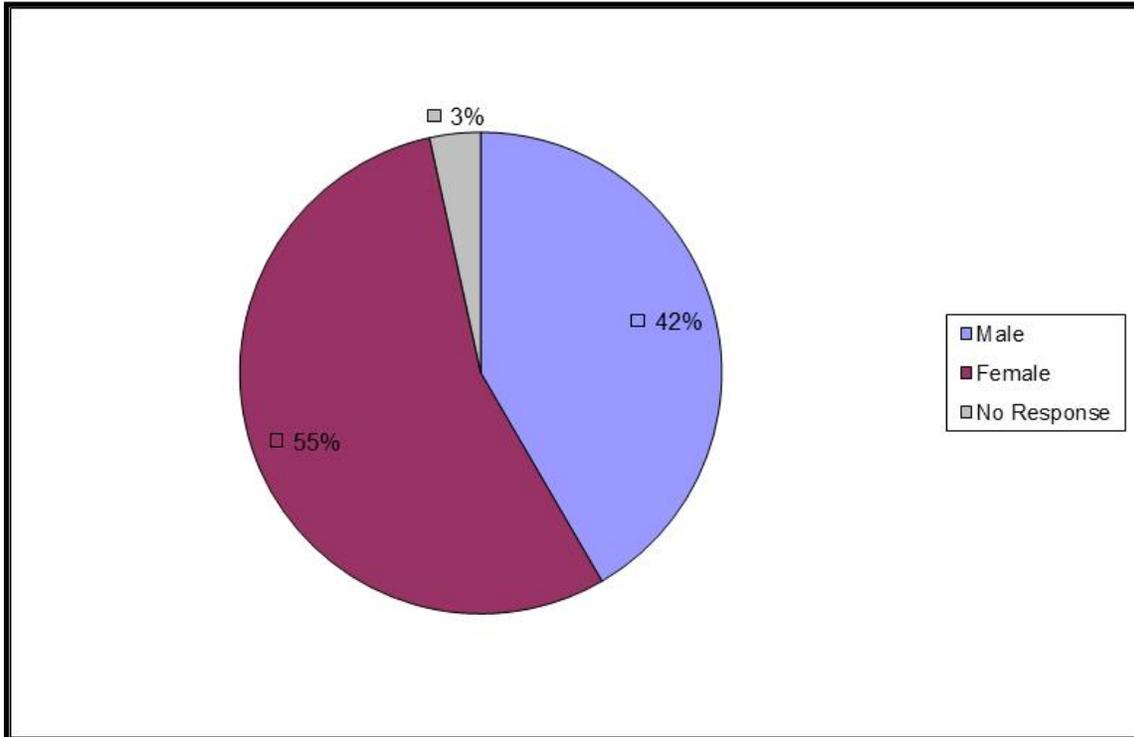The information obtained indicated that 55% of staff respondents were female, with 42% male.

Figure 2.02 Gender of Respondents

<u>Age</u>
As can be seen from Figure 2.03 the majority of staff respondents (51.3%) were aged between 40 and 59 years of age with a significant remaining proportion (33.7%) being between 25 and 39.
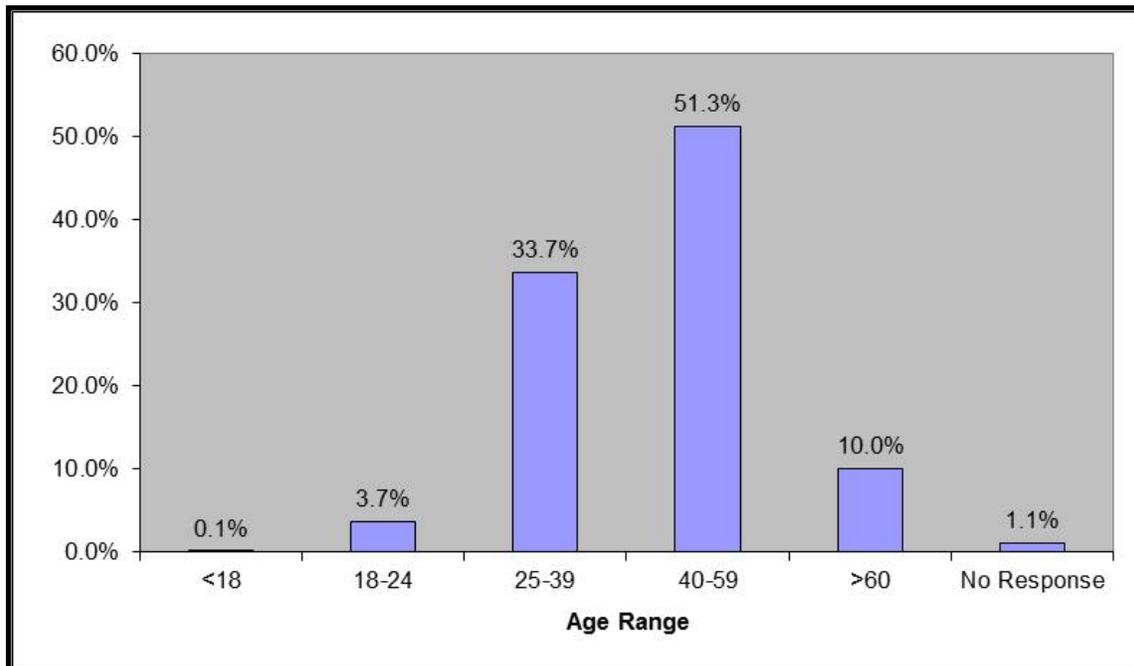

Figure 2.03 Age of Staff Respondents

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.
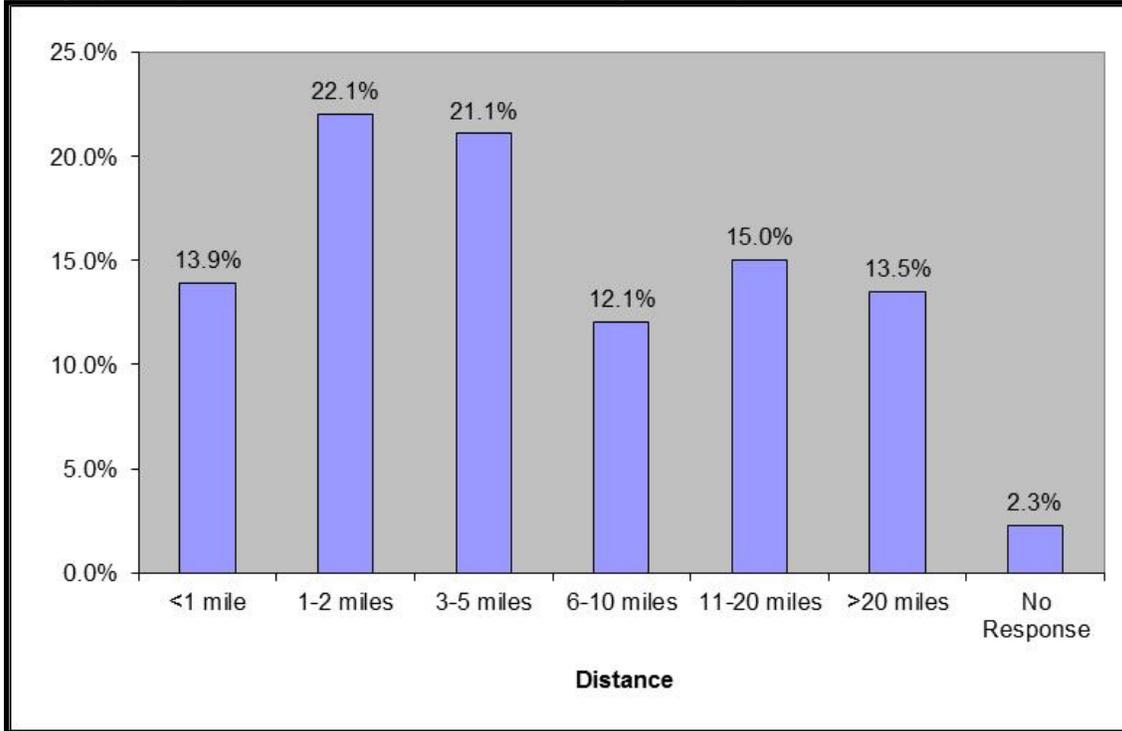

Figure 2.04 Estimated Distance Travelled

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.
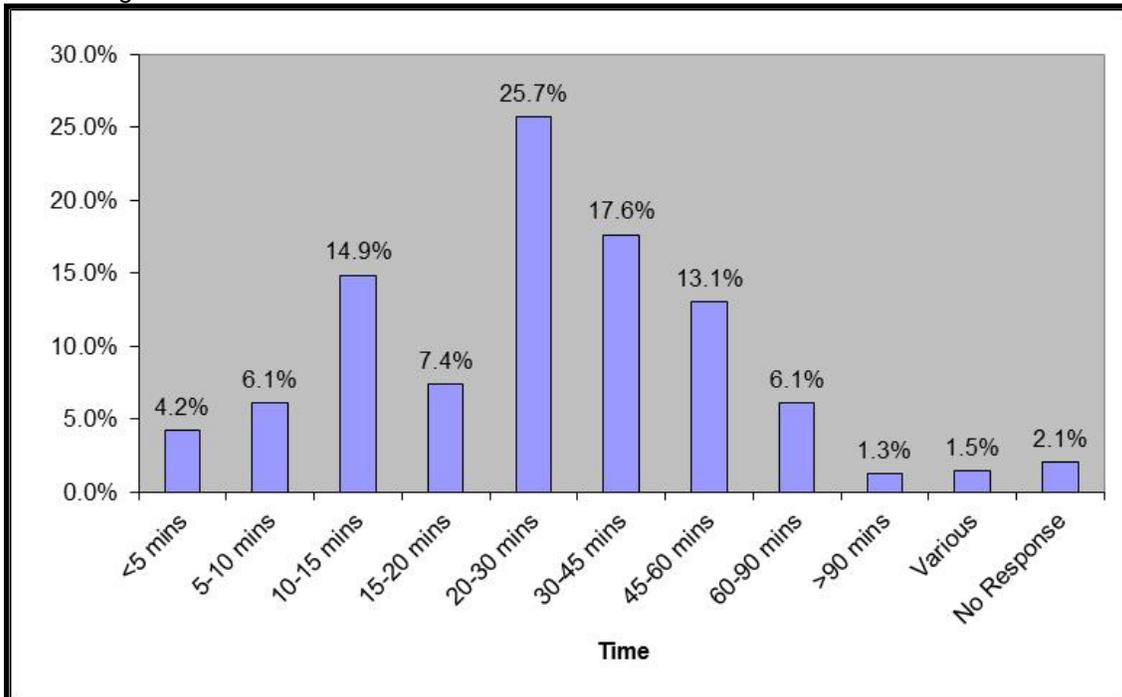

Figure 2.05 Duration of Journey

TRAVEL HABITS

Main Mode of Travel

The single most common mode of travel used by staff remains the car at 47.6% however this is a continued downturn in comparison to figures of 59%, 56%, 54% and 51% in 2006, 2008, 2010 and 2012 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.
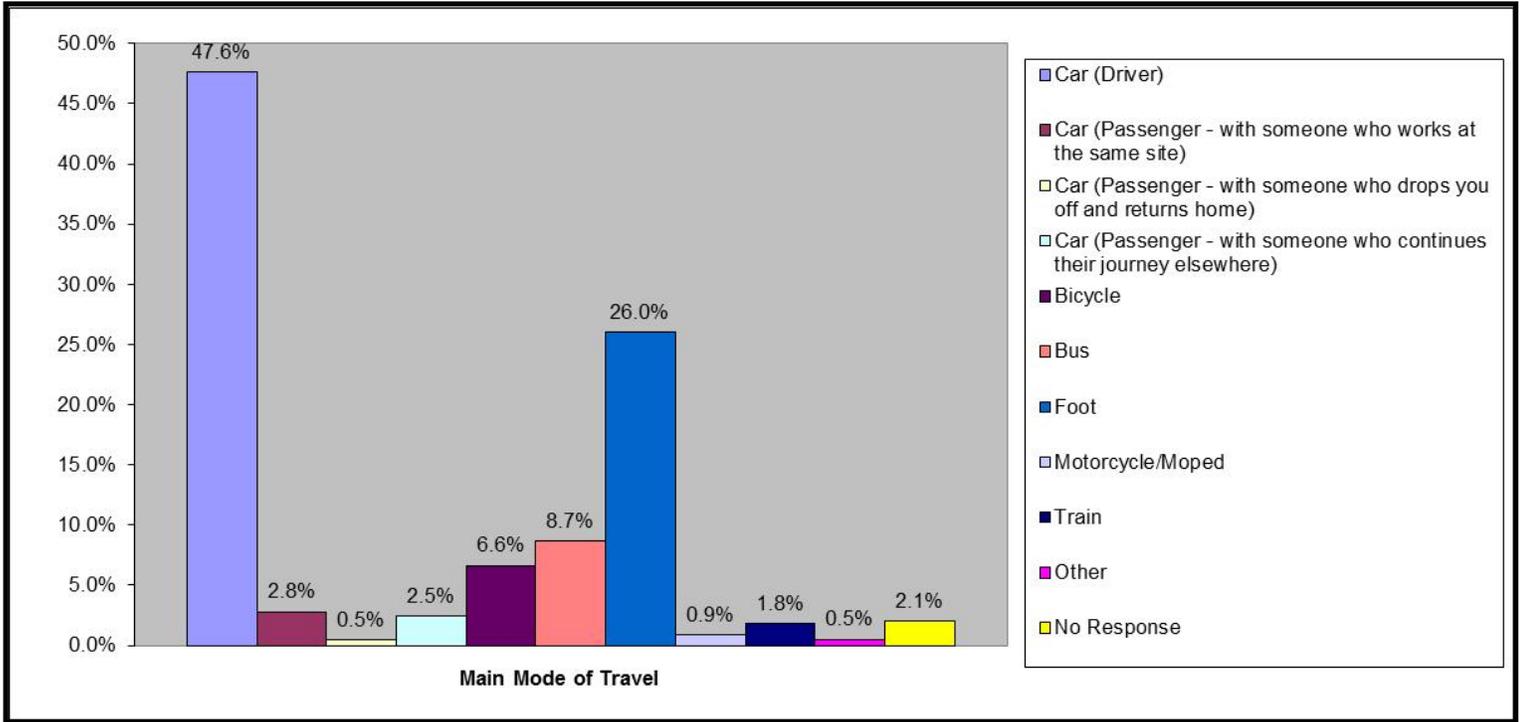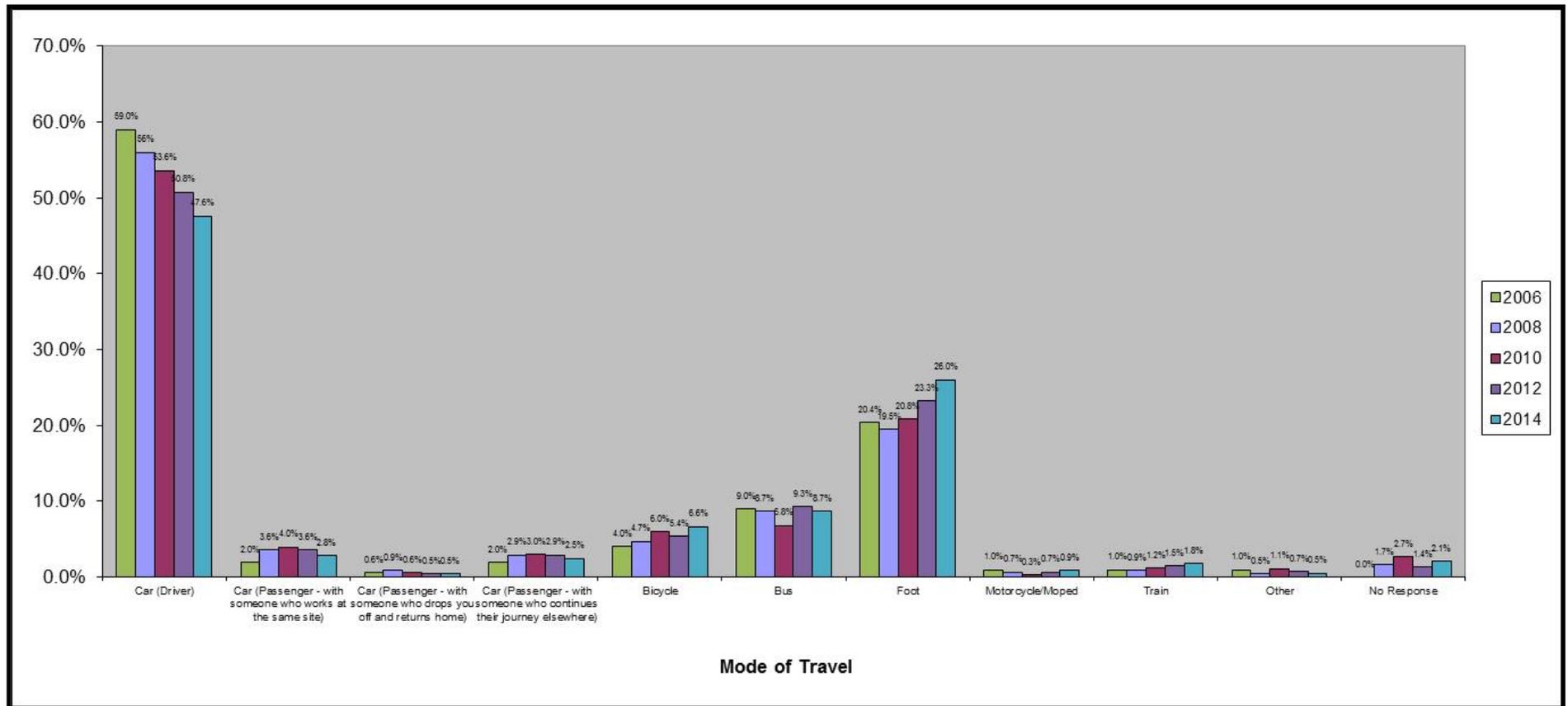

Figure 2.06 Main Mode of Travel by Staff

Figure 2.07 Comparison of Main Mode of Travel by Staff between 2006 and 2014

<u>Reasons for Travelling by Car</u>
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 facilitate other convenient and demand responsive transport modes, like walking, cycling and car sharing, are therefore most likely to influence current car users.
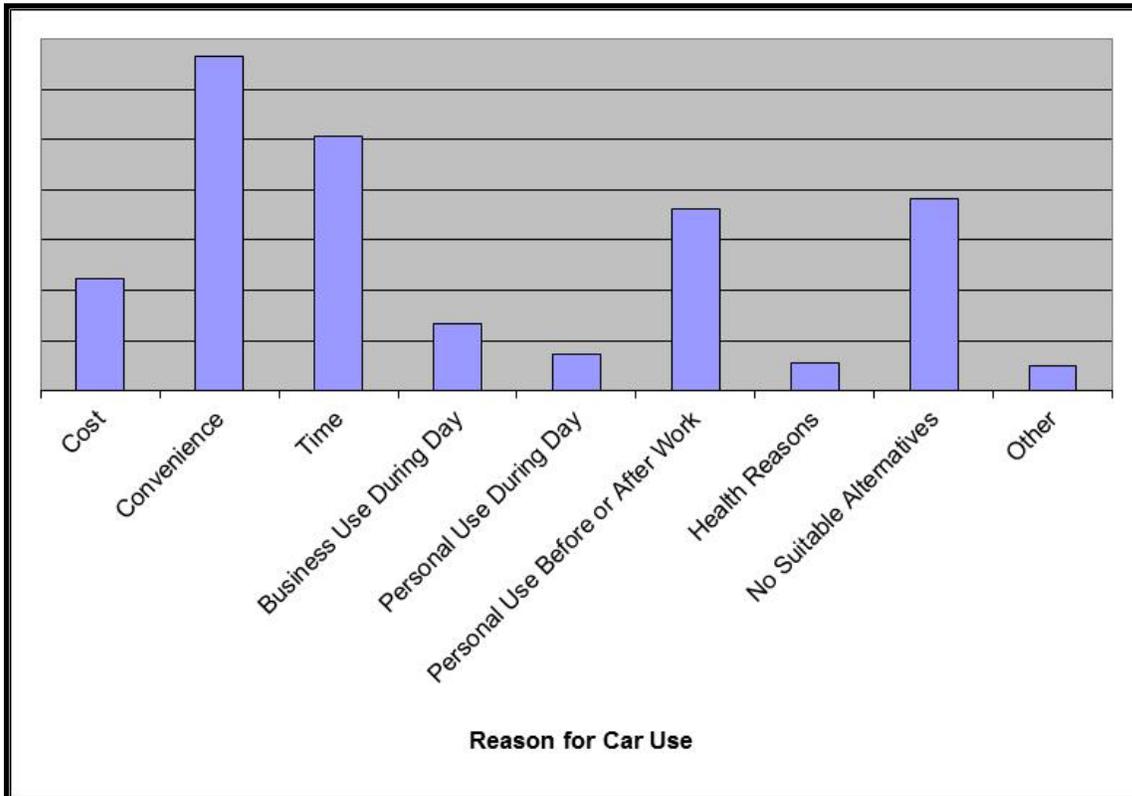

Figure 2.09 Reasons for Car Use

<u>Business Travel Alternatives</u>
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 the shuttle bus can be seen over pool cars and walking.   Cycling and teleconferencing remain relatively undesirable despite improvements in technology making the later far easier in recent years.
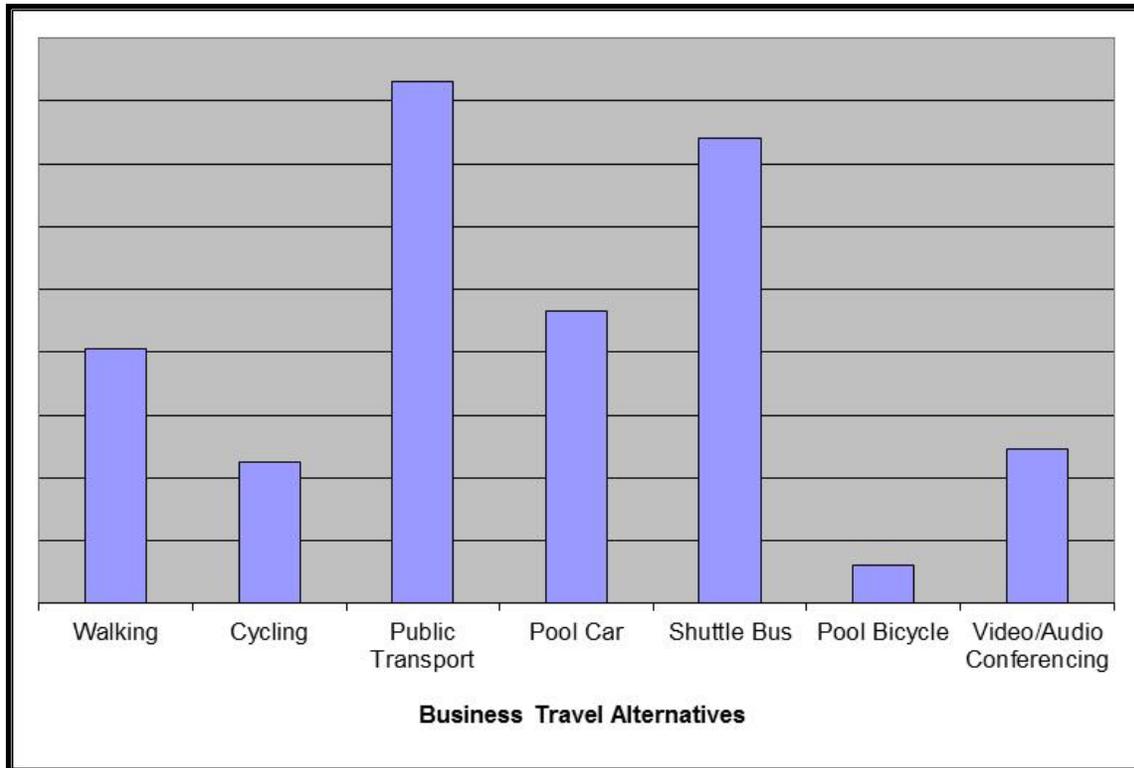

Figure 2.10 Preferred Business Travel Alternatives

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. Responses were fairly flat although staff seem to feel they generally have sufficient information on car sharing. Additional support in getting a parking space and emergency transport in the event of a car share being unavailable were most desirable.
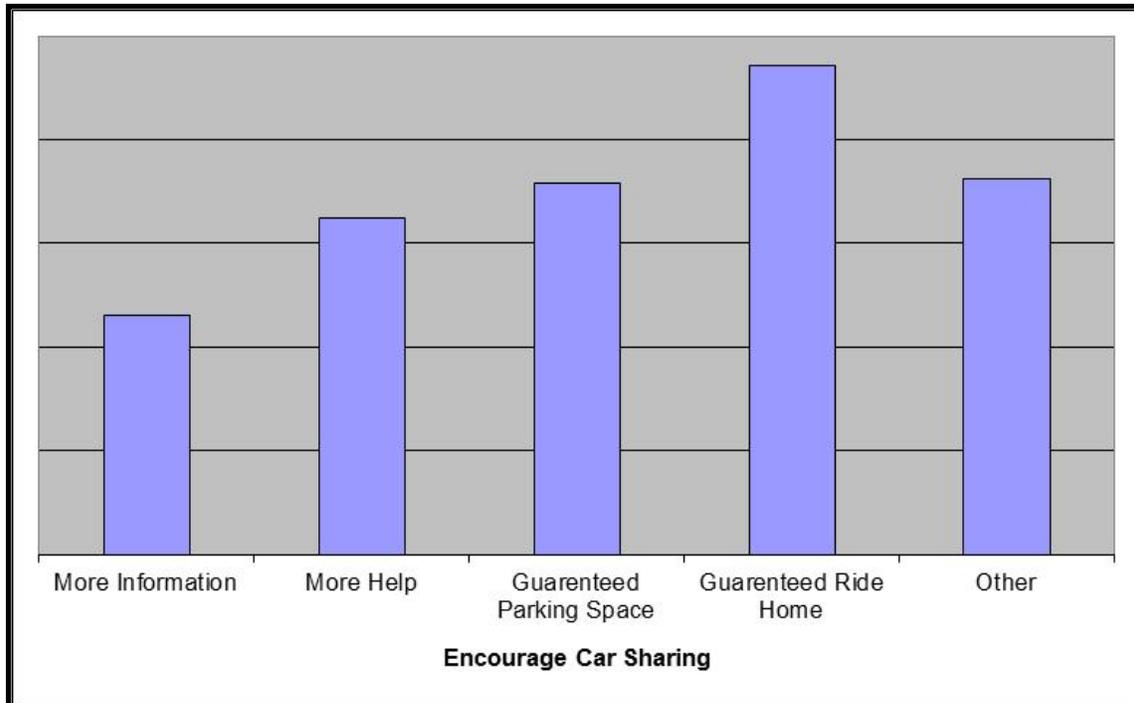

Figure 2.11 Encouragement of Car Sharing

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.
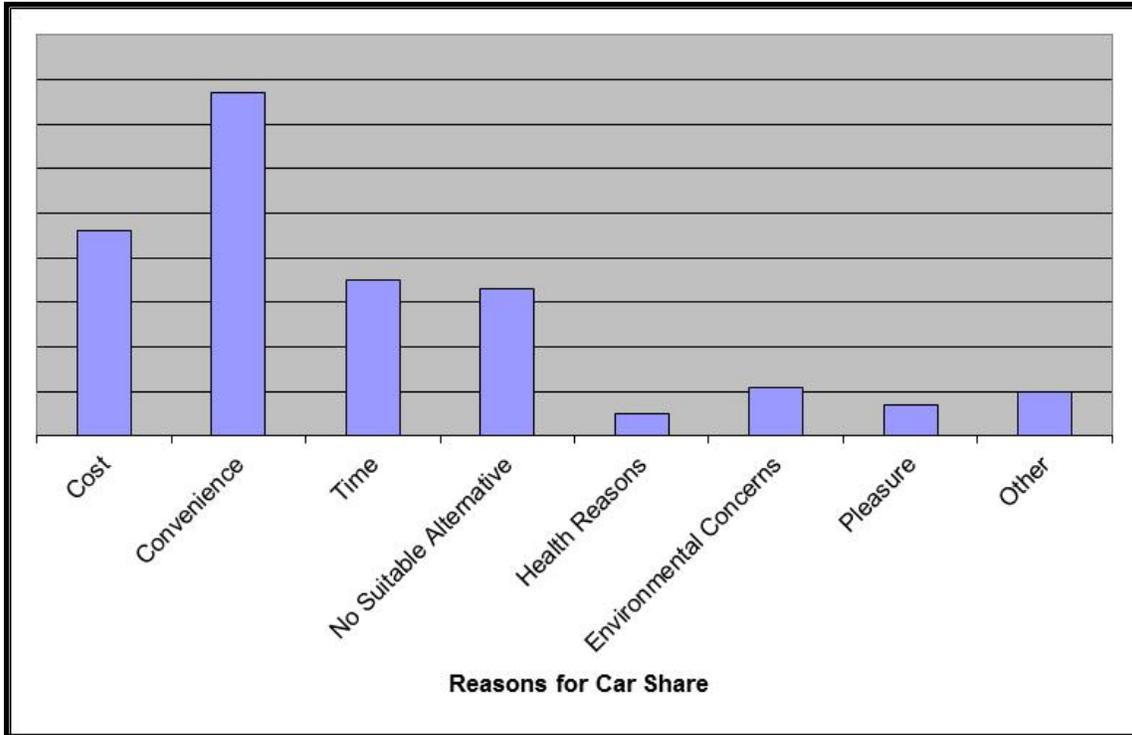

Figure 2.12 Reasons for Car Sharing

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.
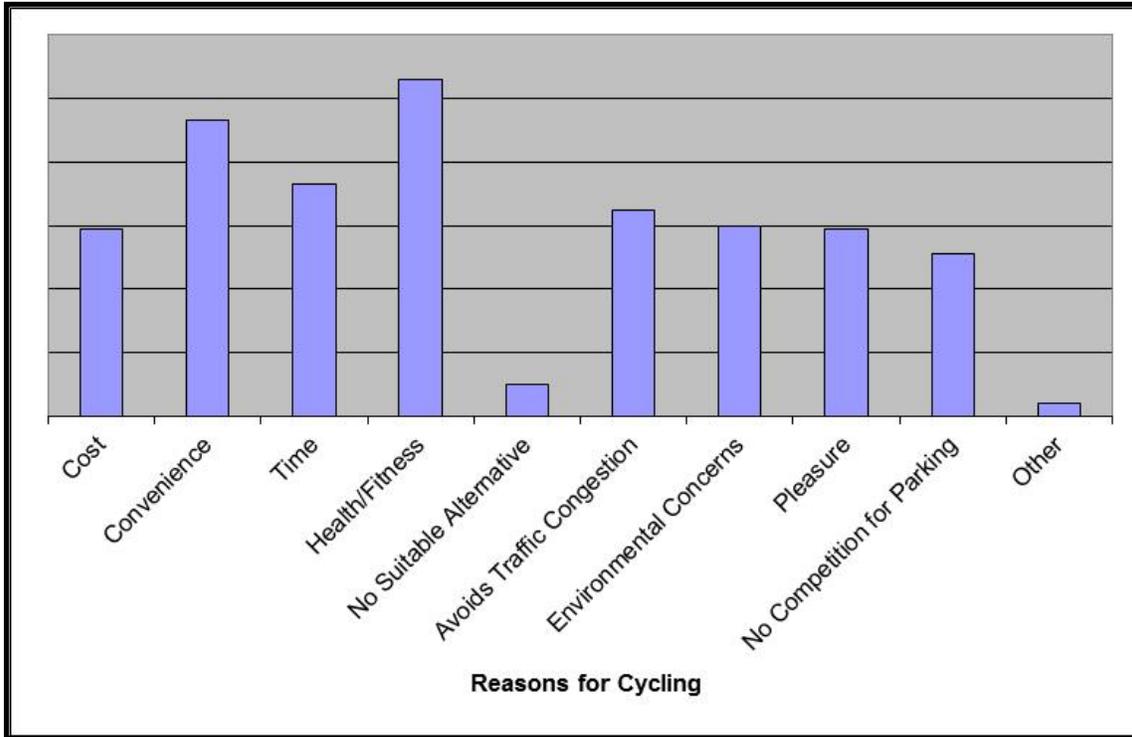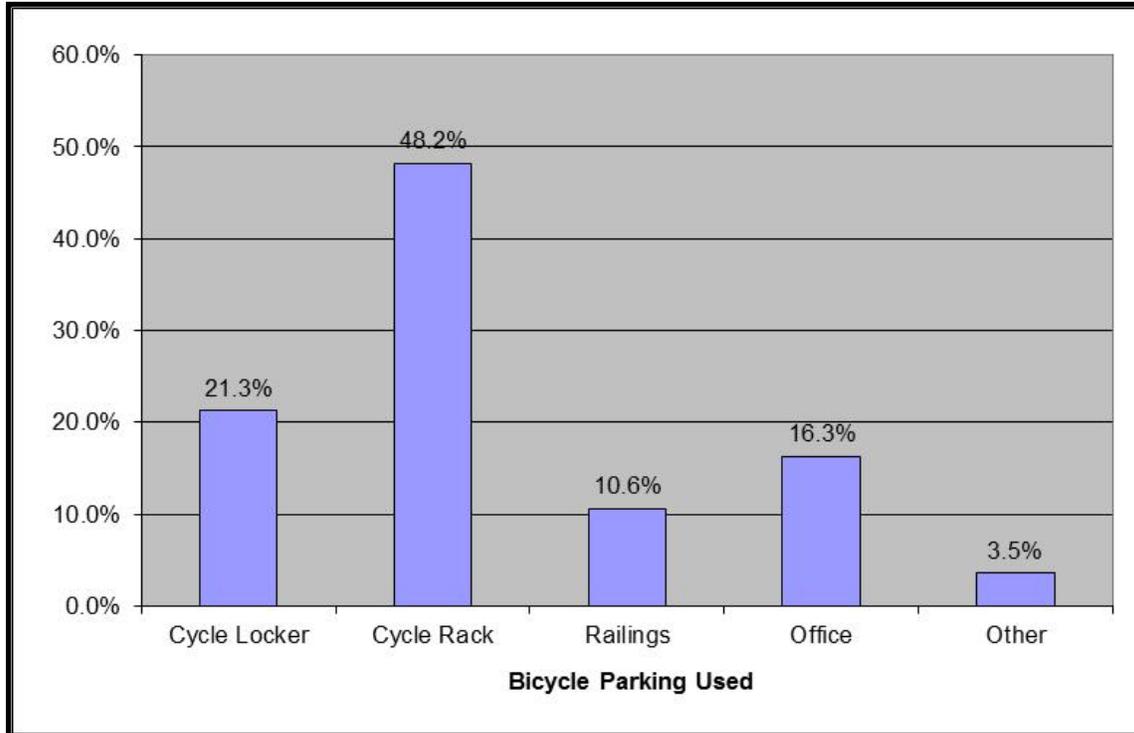

Figure 2.13 Reasons for Cycling

Cycle Parking Used
Figure 2.14 shows some encouraging change from 2012 in two important respects. Firstly, the proportion of staff storing bicycles in office space, a practice which is discouraged at the University, has dropped. A significant change has also occurred in external storage locations with more staff indicating they use cycle racks and lockers in preference to railings. 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 141 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. Convenience features most highly for the first time which may be due to improved ticket options and/or routes. No suitable alternative continues to feature prominently suggesting that bus travel is often used out of necessity rather than choice. Time features least prominently suggesting that the service frequency or reliability 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.
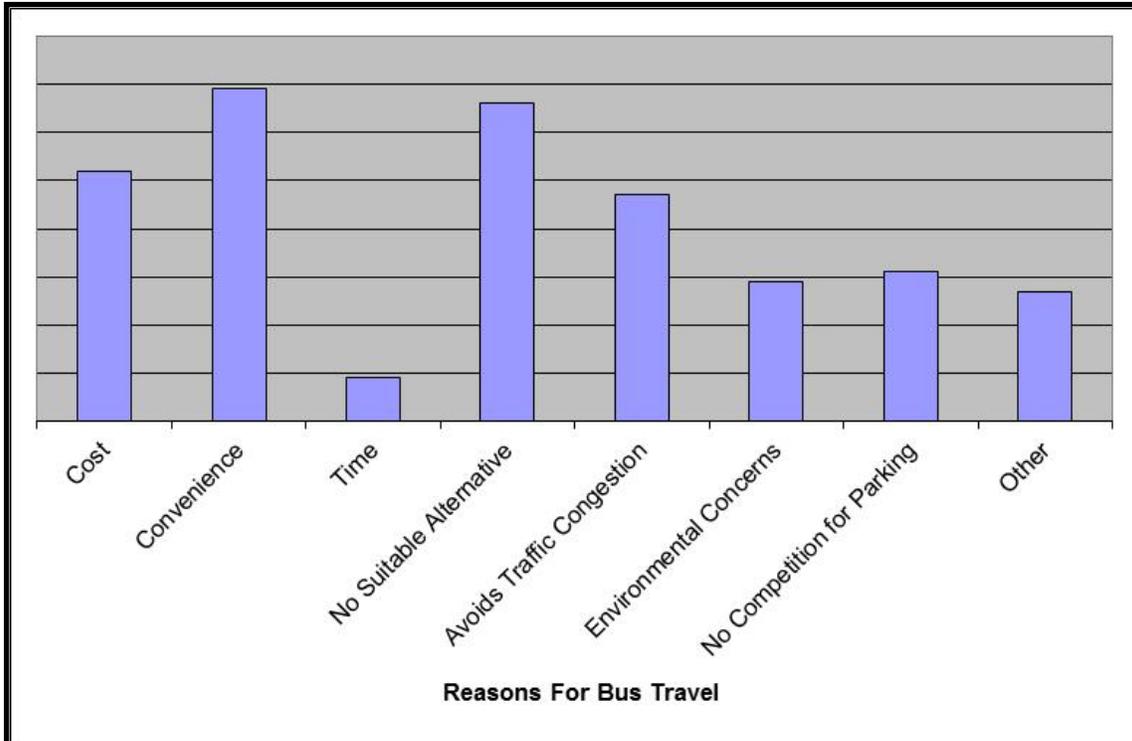

Figure 2.15 Reasons for Bus Travel

WALKING

Reasons for Walking

No values are used in figure 2.16 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.
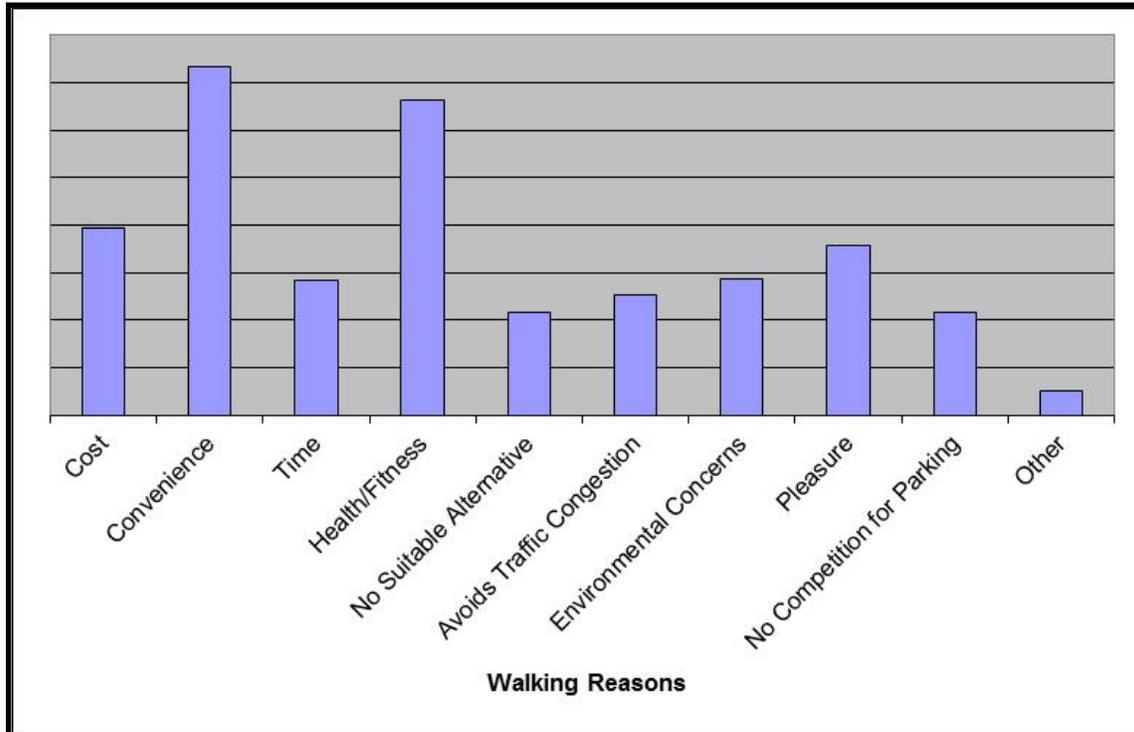

Figure 2.16 Reasons for Walking

MOTORCYCLING

Reasons for Travelling by Motorcycle

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 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.
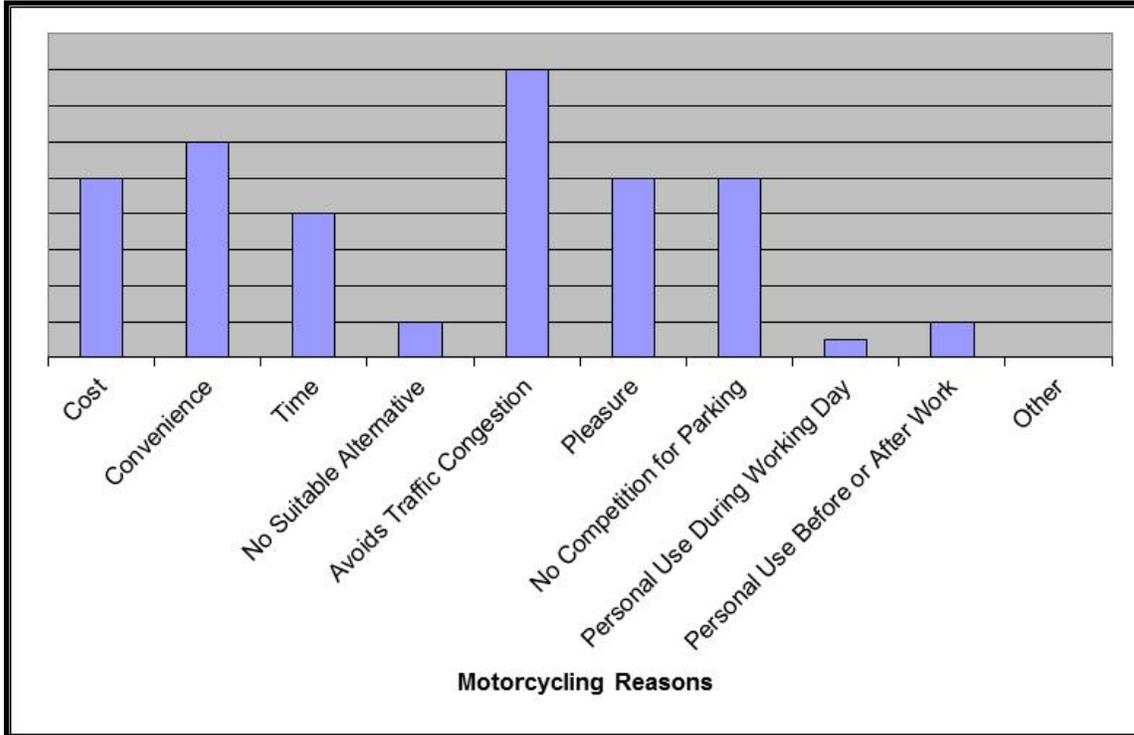

Figure 2.17 Reasons for Travelling by Motorcycle

RAIL TRAVEL

Reasons for Travelling by Train

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 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.
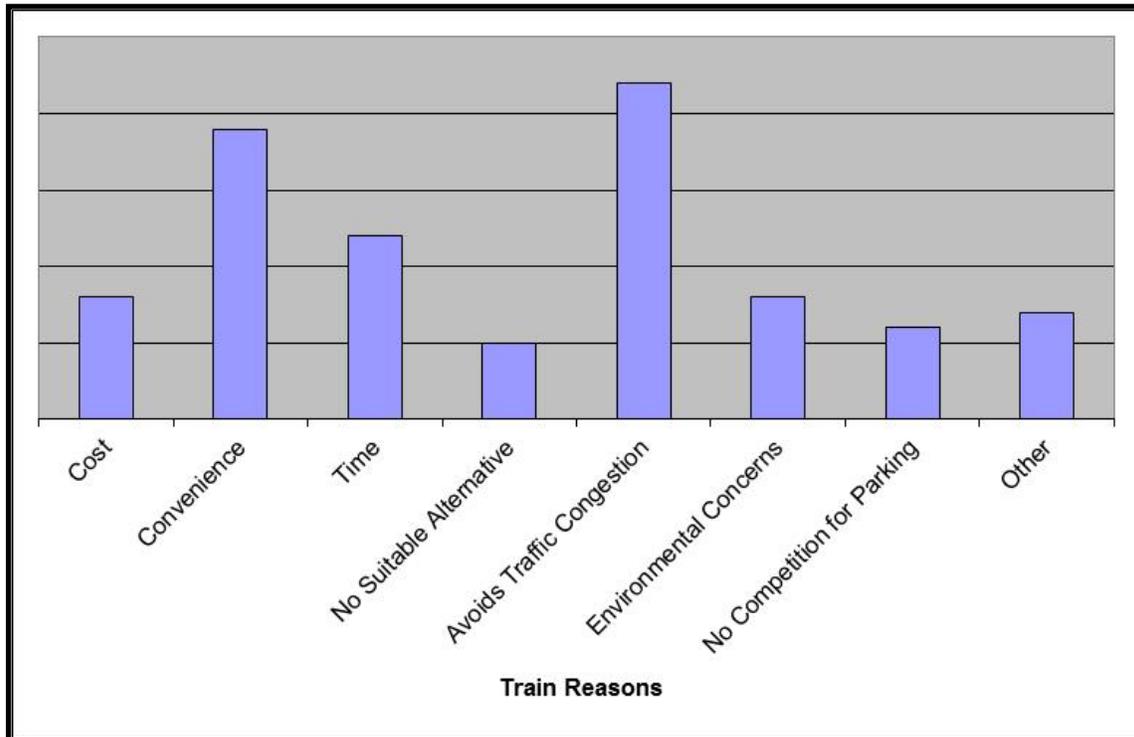

Figure 2.18 Reasons for Travelling by Train

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 27% of staff who indicated that they did not use any alternative approx. 50% 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.
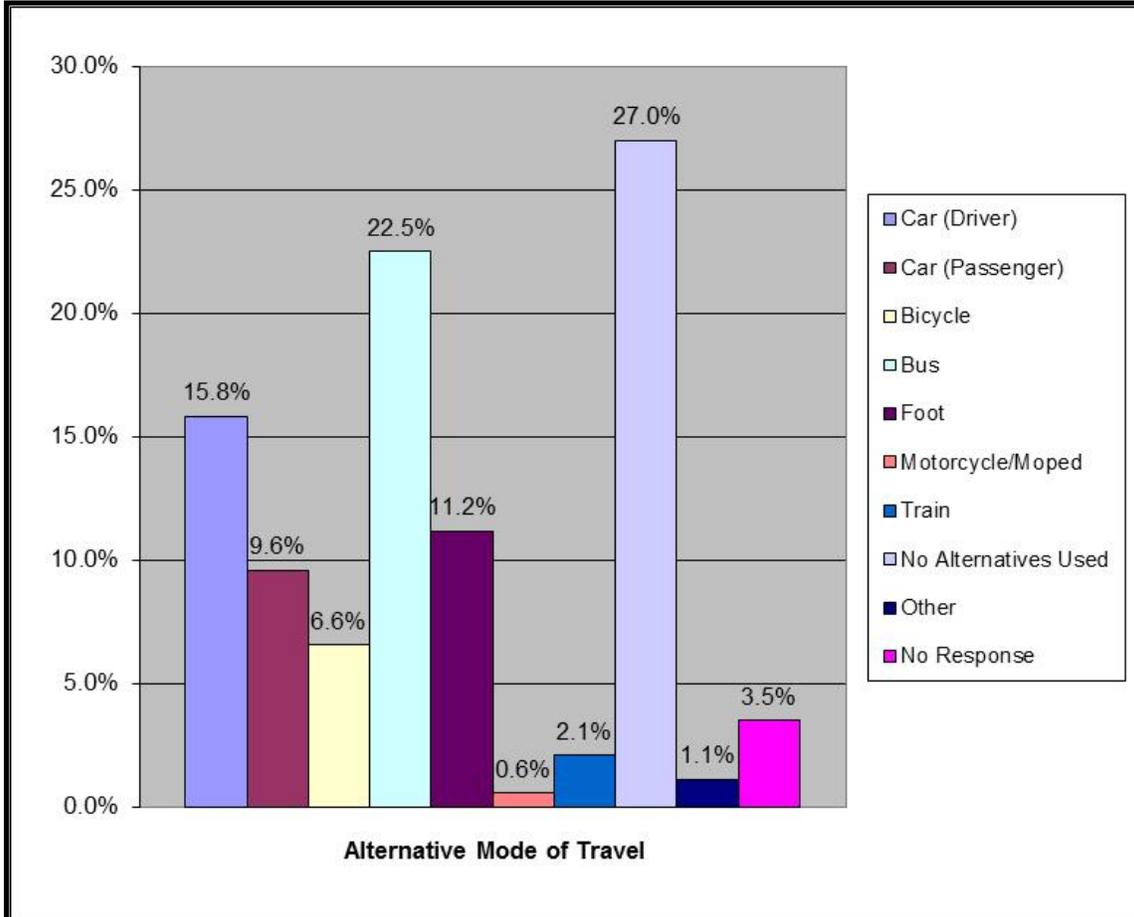

Figure 2.19 Alternative Modes of Travel Used

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.
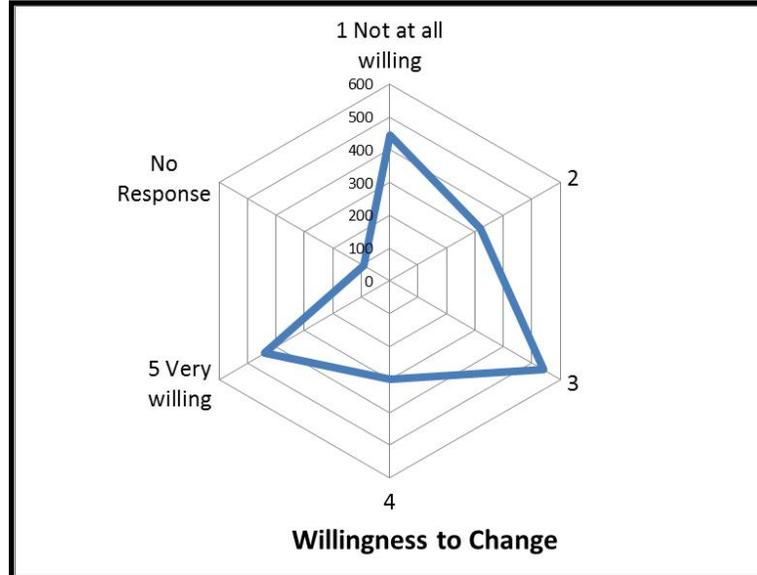

Figure 2.20 Willingness to Change Travel Habits

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.
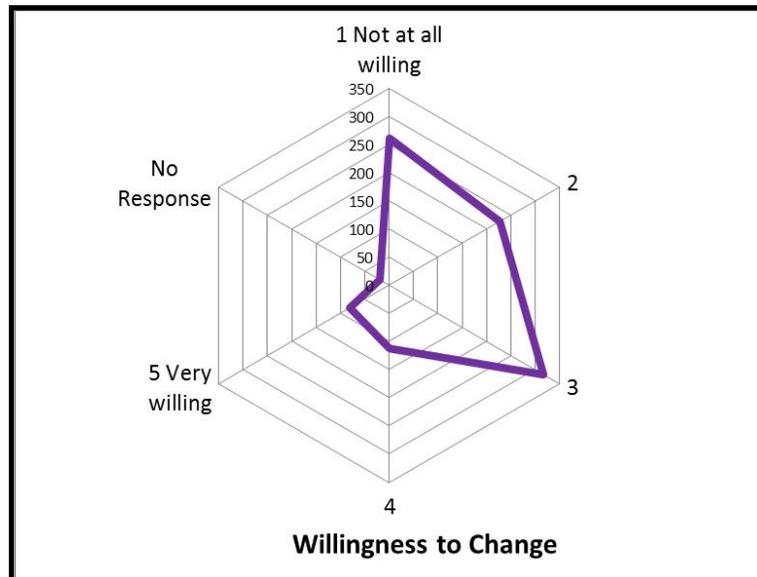

Figure 2.21 Willingness to Change Travel Habits – Car Driver Sub-set

Student Survey Responses

RESPONSE RATES

The student response rate for this years survey was 26.6%, up from the 16% response rate recorded in 2012 and appears to represent an accurate spread of students.

PERSONAL DETAILS

Role at University

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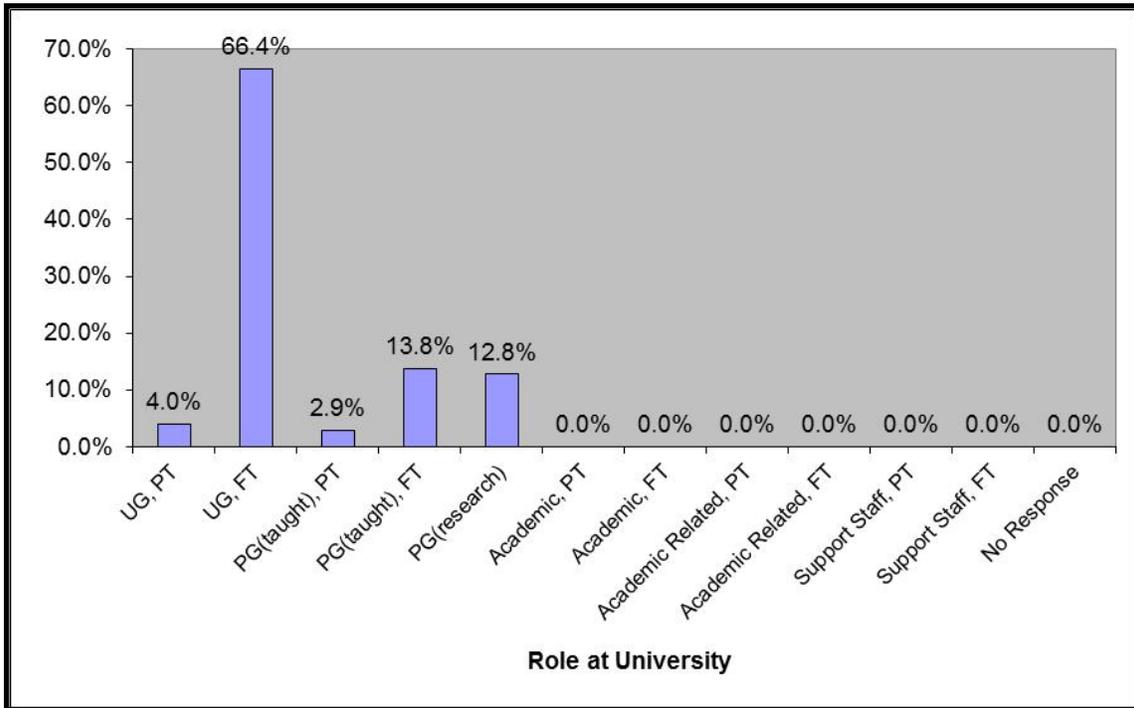

Figure 3.01 Role at University

<u>Gender Split</u>
The information obtained indicated that 59% of student respondents were female, with 40% male.
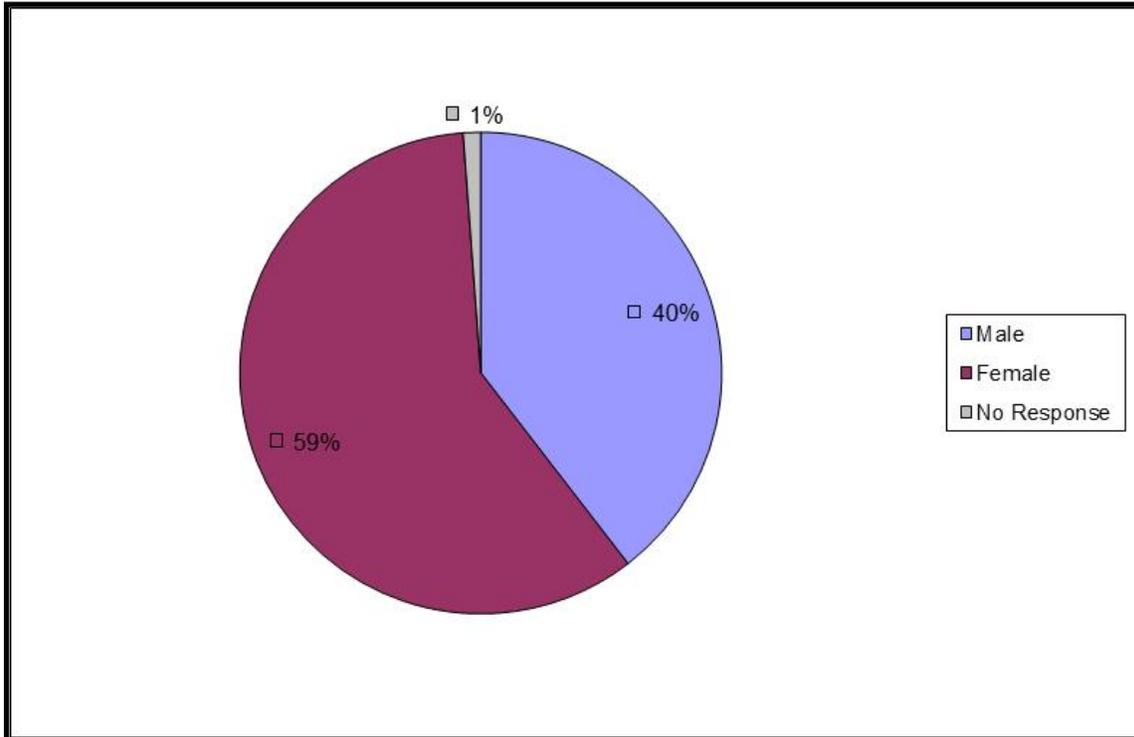

Figure 3.02 Gender of Respondents

<u>Age</u>
As can be seen from Figure 3.03 the majority of student respondents (69%) were aged between 18 and 24 years of age with a much smaller proportion (21.3%) being in the older 25-39 bracket.
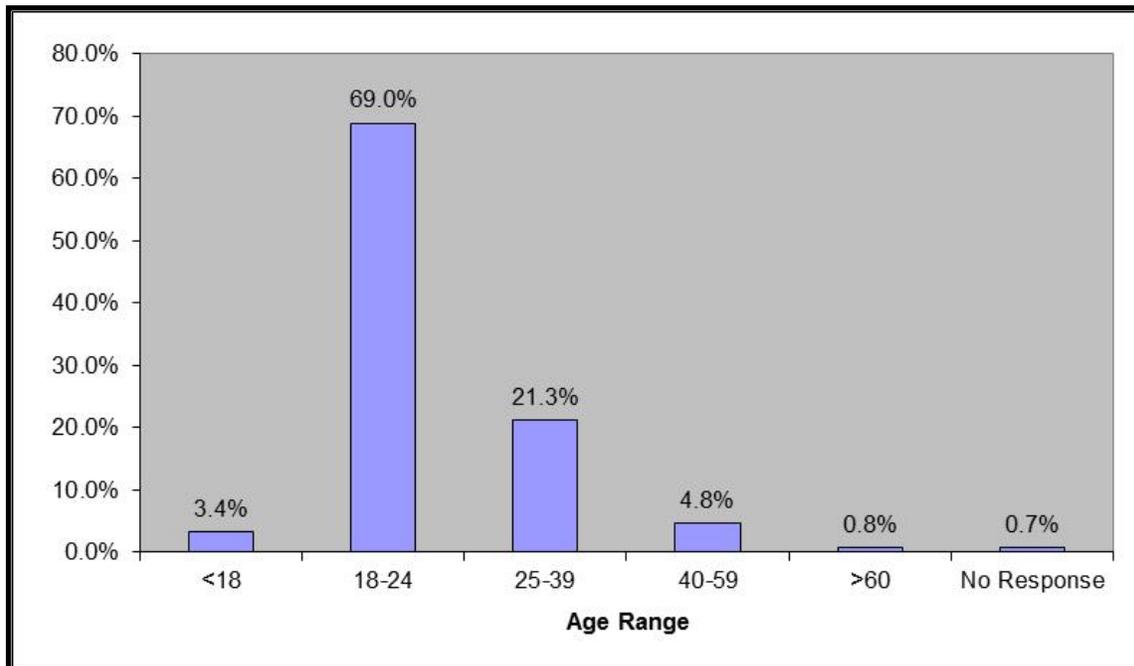

Figure 3.03 Age of Student Respondents

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 continuing trend of students living closer to their place of study (<5 miles). This could help when encouraging students to use active travel methods which are more suited to shorter distances.
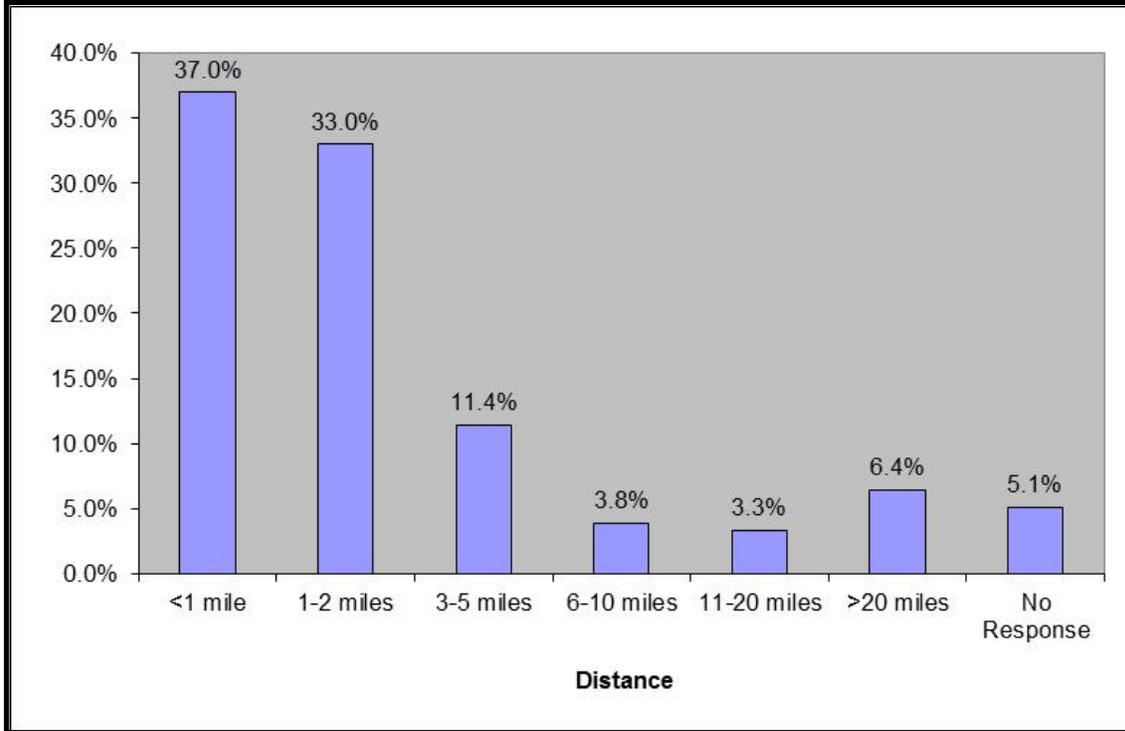

Figure 3.04 Estimated Distance Travelled

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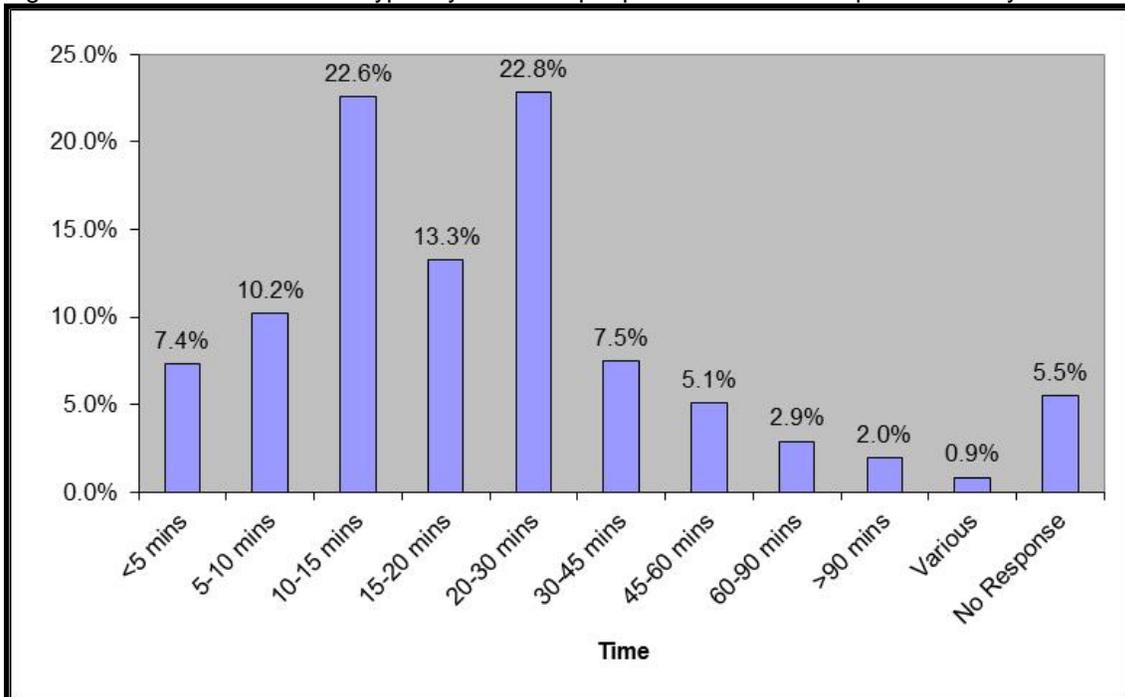

Figure 3.05 Duration of Journey

TRAVEL HABITS

Main Mode of Travel

The most common mode of travel used by students remains walking at 62.8% which shows encouraging, continued growth. It is likely the gradual trend of students living closer to the University is helping this. Car use continues to decline while cycling has seen a small slide against the 2012 figure but consistent with a small rise from 2010. Bus has seen a slight resurgence; this is likely due to the introduction of a free inter-campus shuttle service. Other modes have remained relatively static.
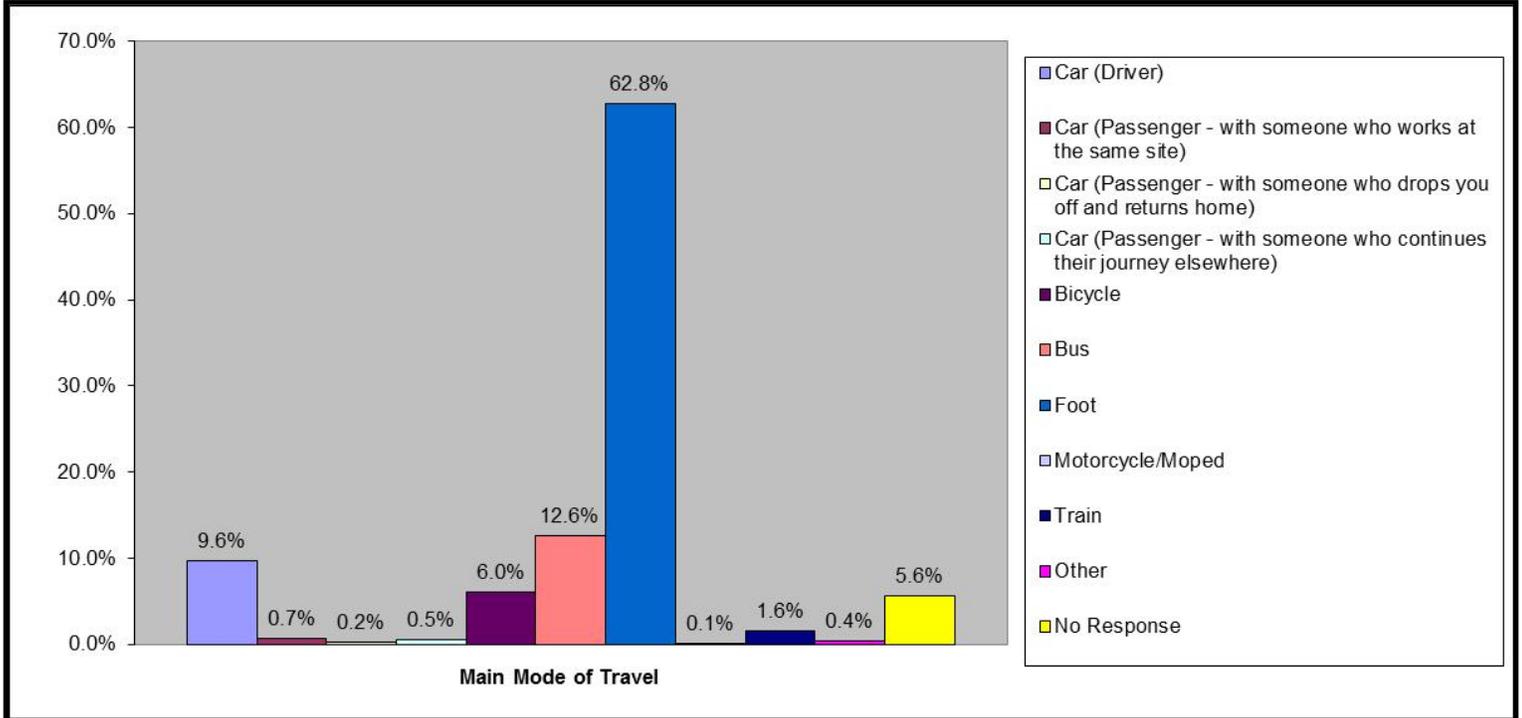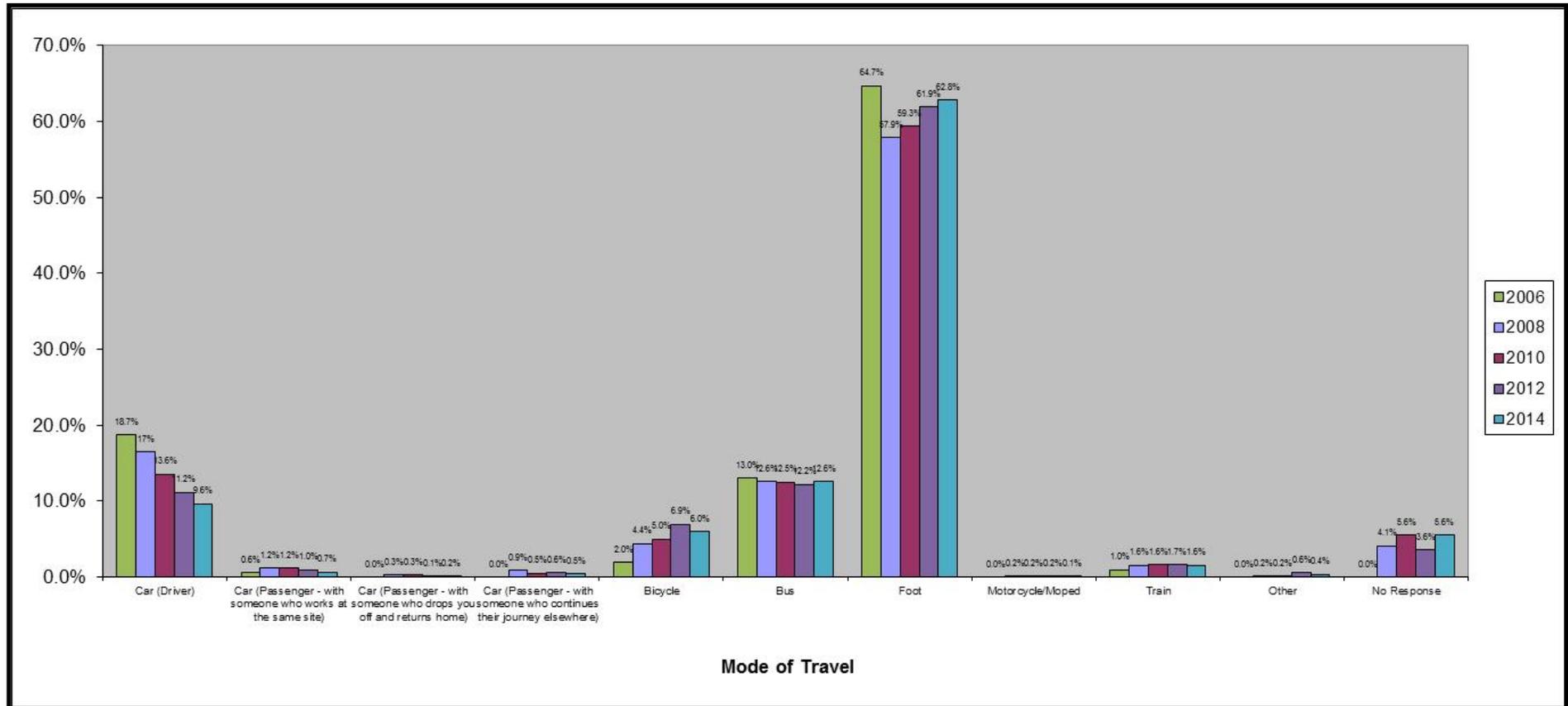

Figure 3.06 Main Mode of Travel by Students

Figure 3.07 Comparison of Main Mode of Travel by Students between 2006 and 2014

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.
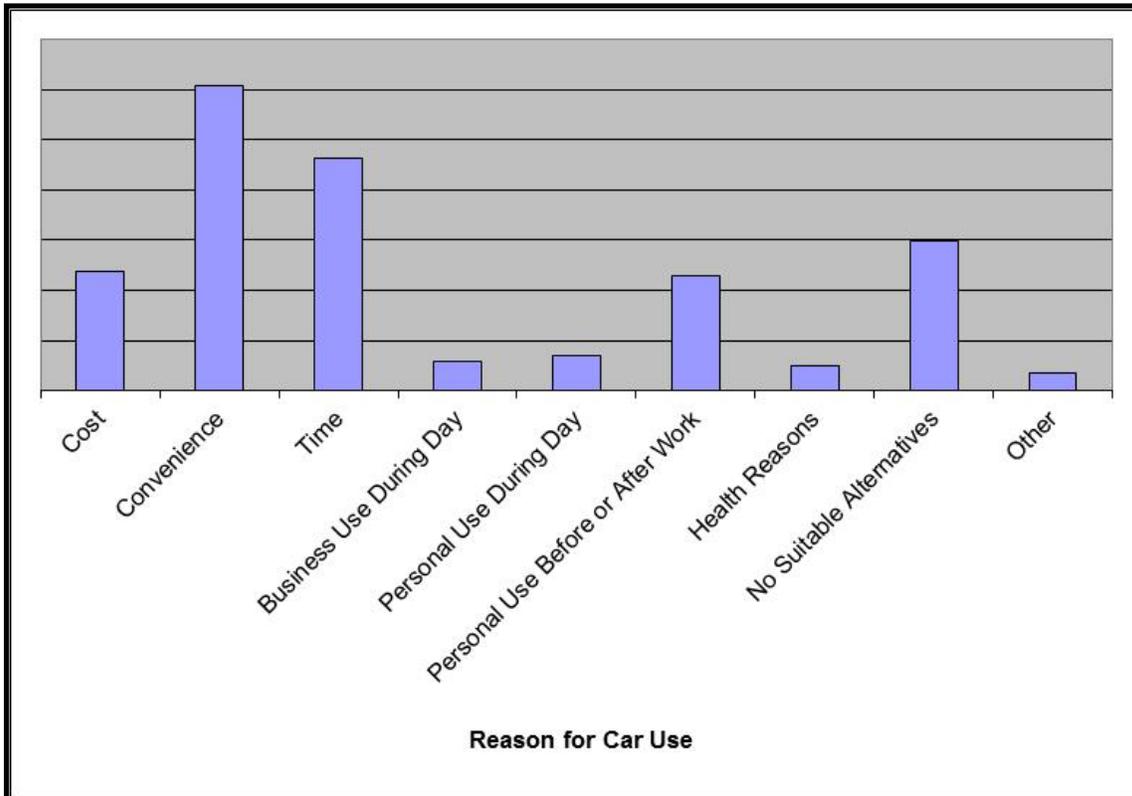

Figure 3.08 Reasons for Car Use

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 and a guaranteed ride home also featured commonly.
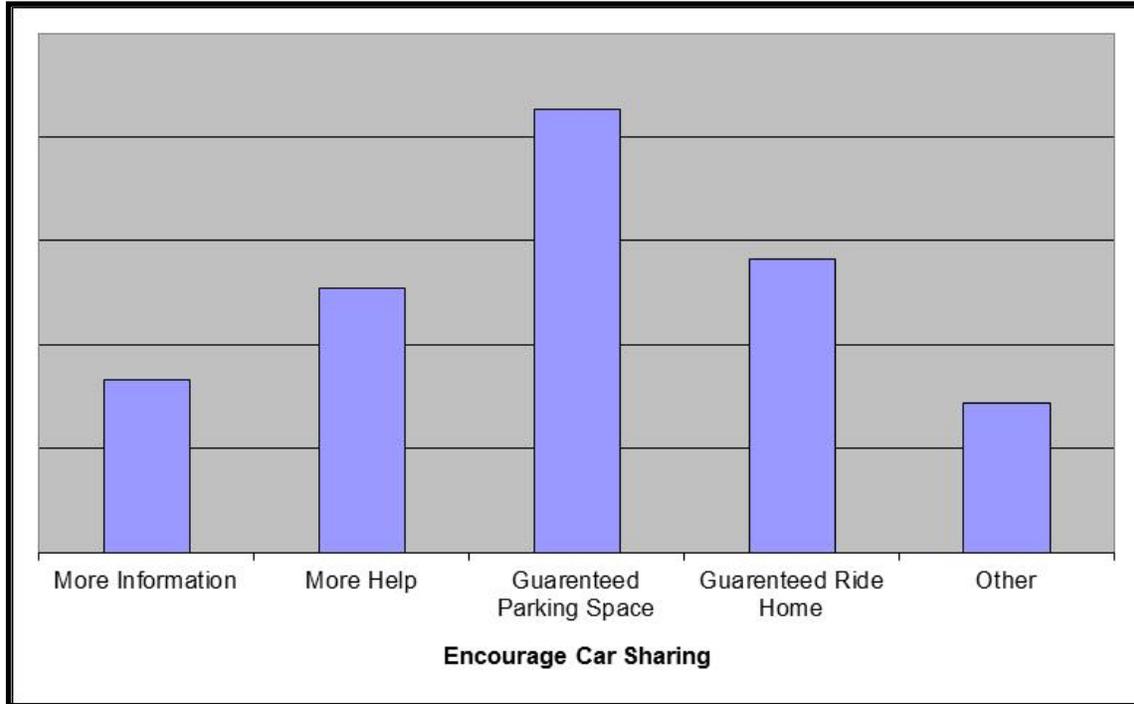

Figure 3.09 Encouragement of Car Sharing

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.
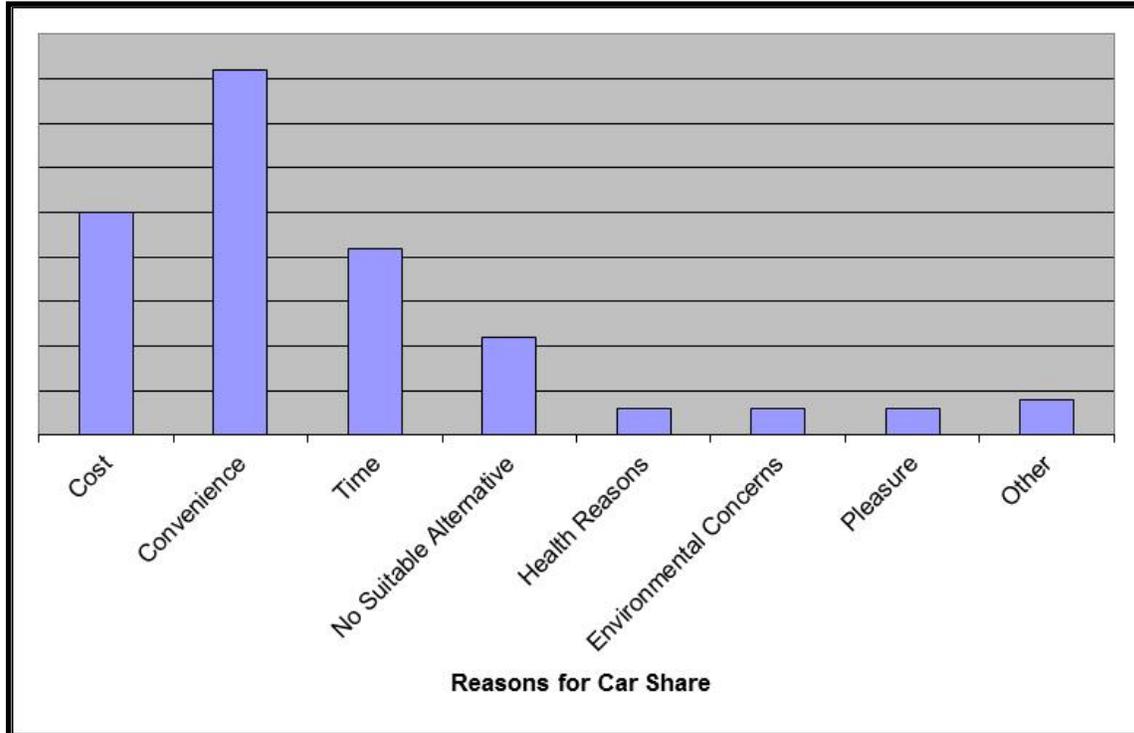

Figure 3.10 Reasons for Car Sharing

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.
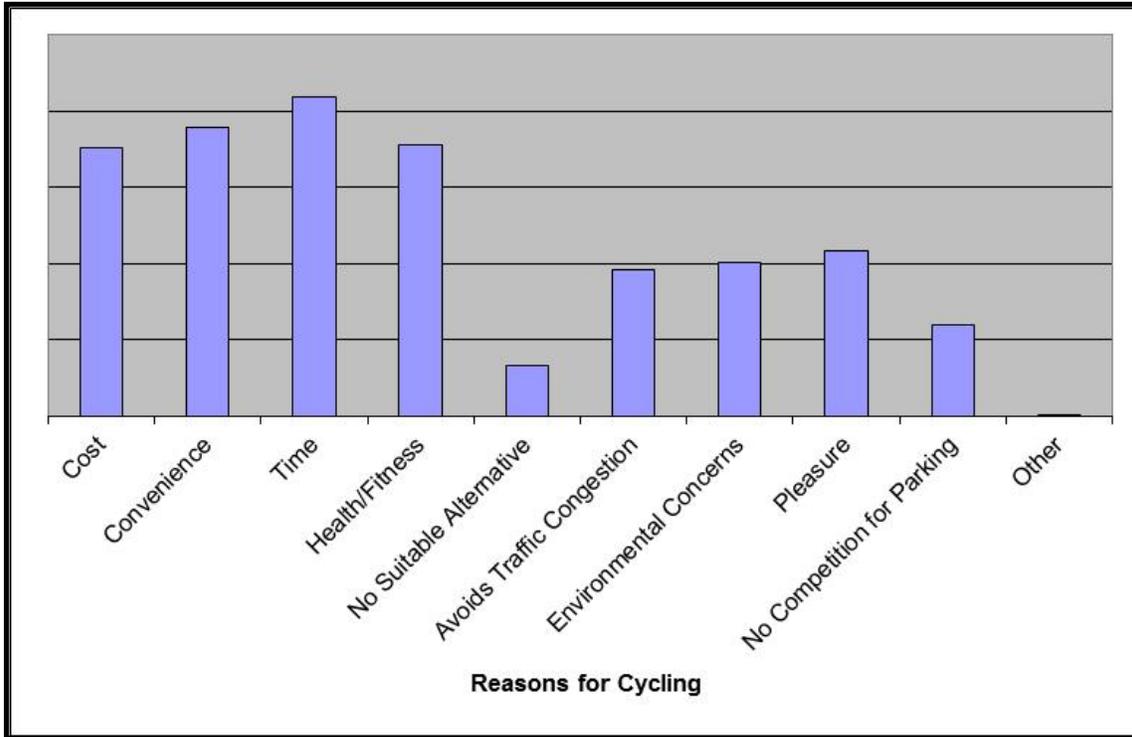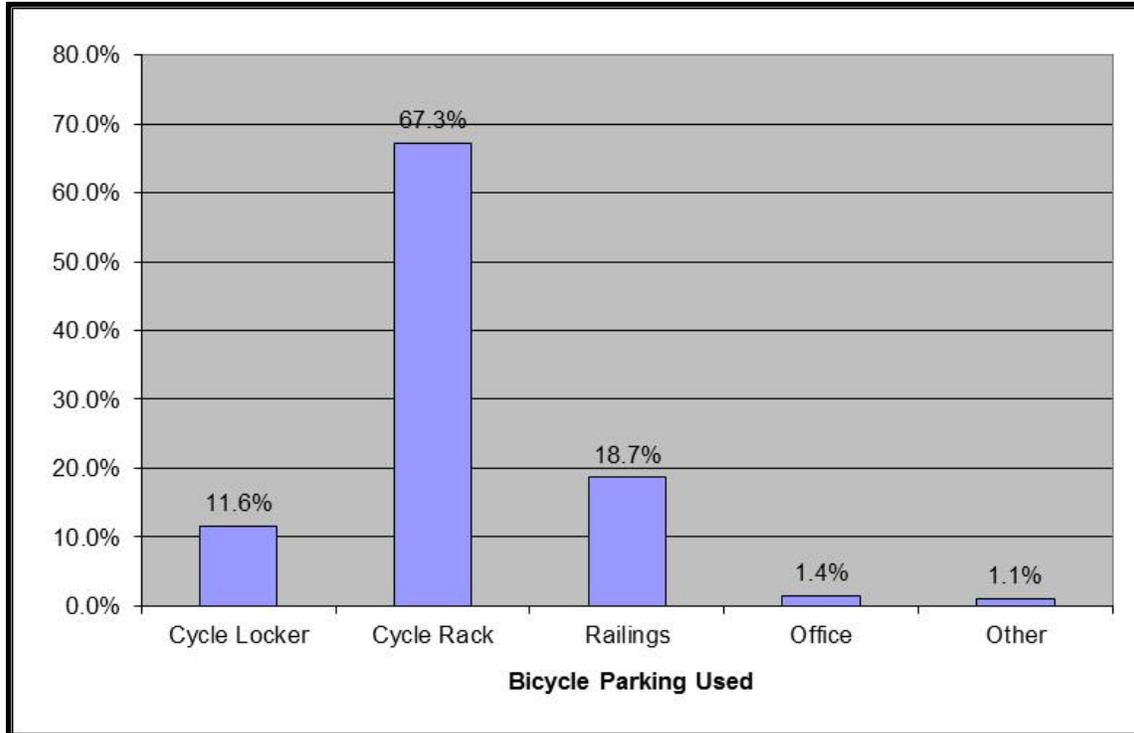

Figure 3.11 Reasons for Cycling

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 proportion of students using railings has dropped while rack and locker use has increased. 'Other' locations were typically said to be hidden due to not locking the bike. The proportion of students storing bikes in buildings has dropped significantly since the last survey.

(Percentages calculated from a subset of 284 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 although students indicate that bus services are generally convenient.
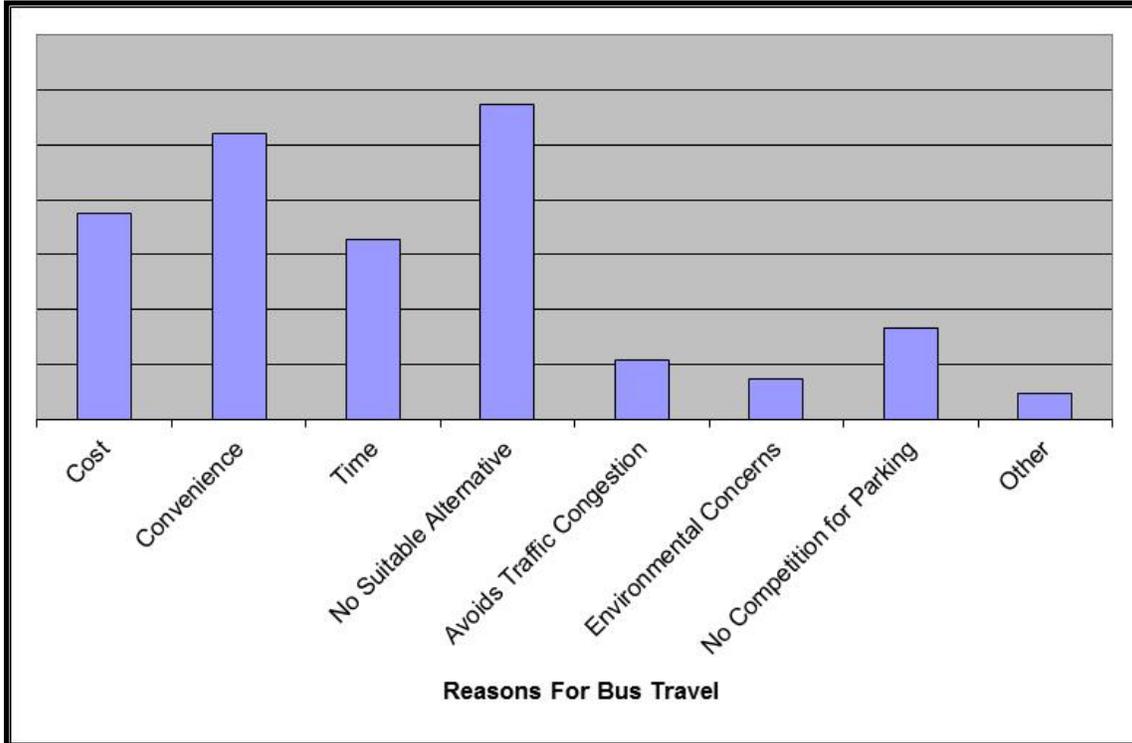

Figure 3.13 Reasons for Bus Travel

WALKING

Reasons for Walking

No values are used in figure 3.14 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.
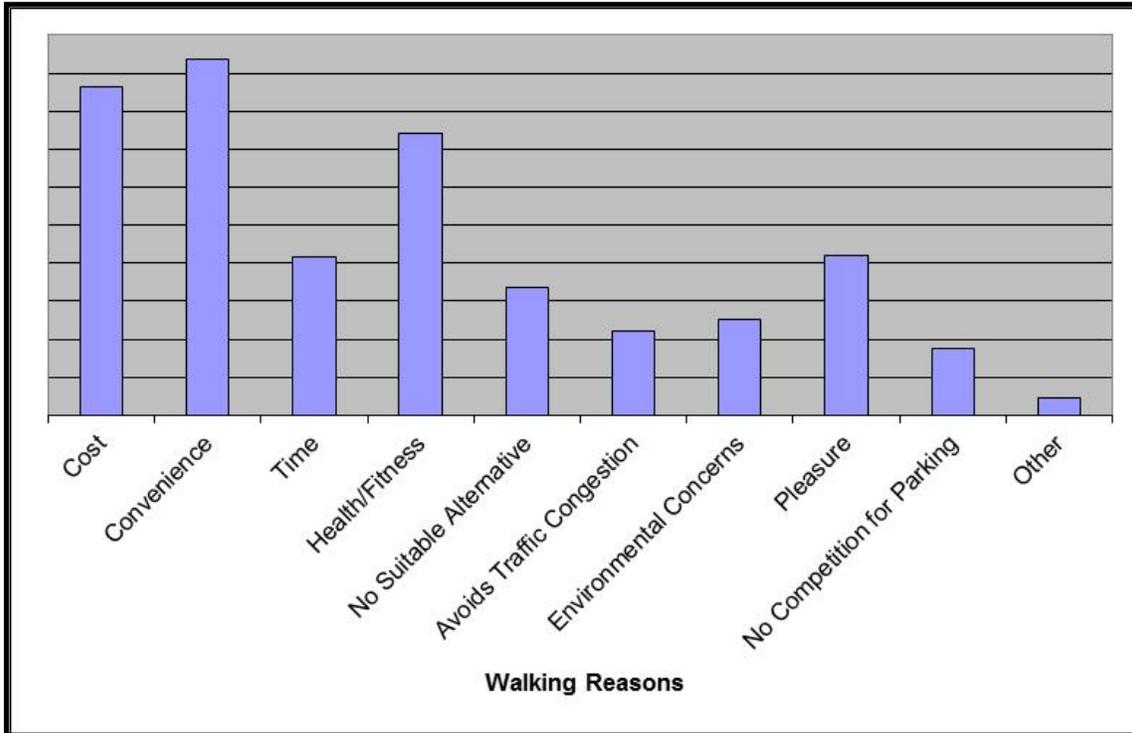

Figure 3.14 Reasons for Walking

MOTORCYCLING

Reasons for Travelling by Motorcycle

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 travel by motorcycle to their place of study. The wide spread of responses suggests there are many reasons students use motorcycles.
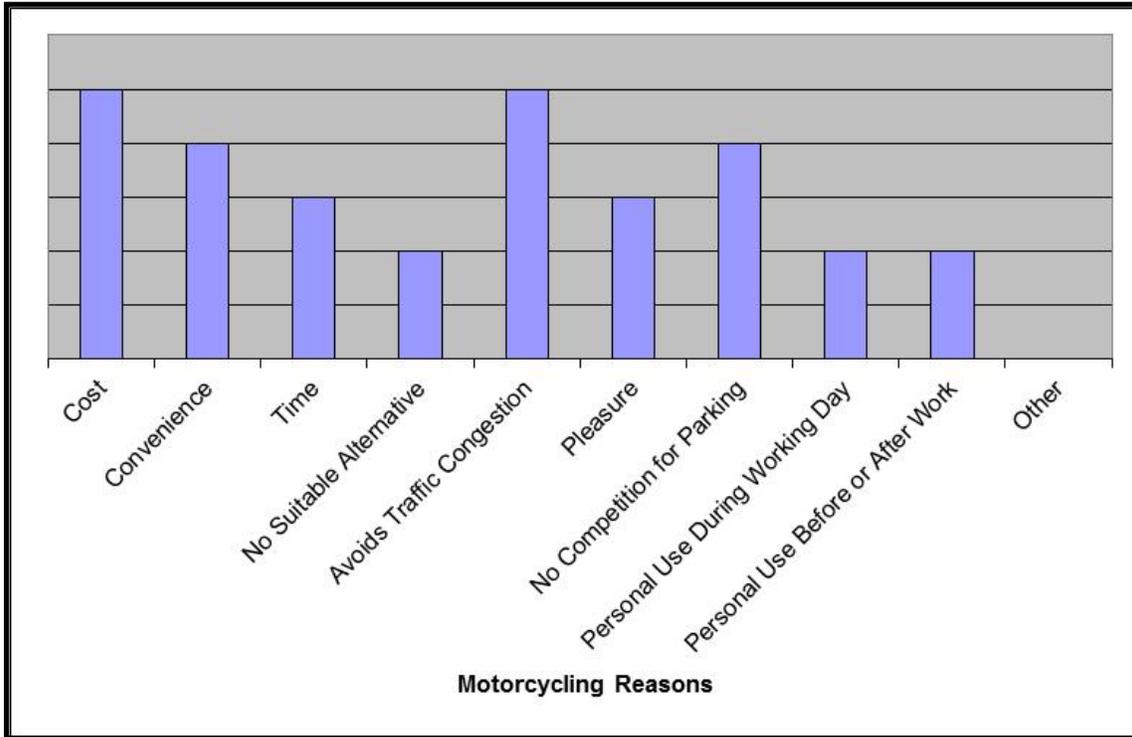

Figure 3.15 Reasons for Travelling by Motorcycle

RAIL TRAVEL
Reasons for Travelling by Train

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 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.
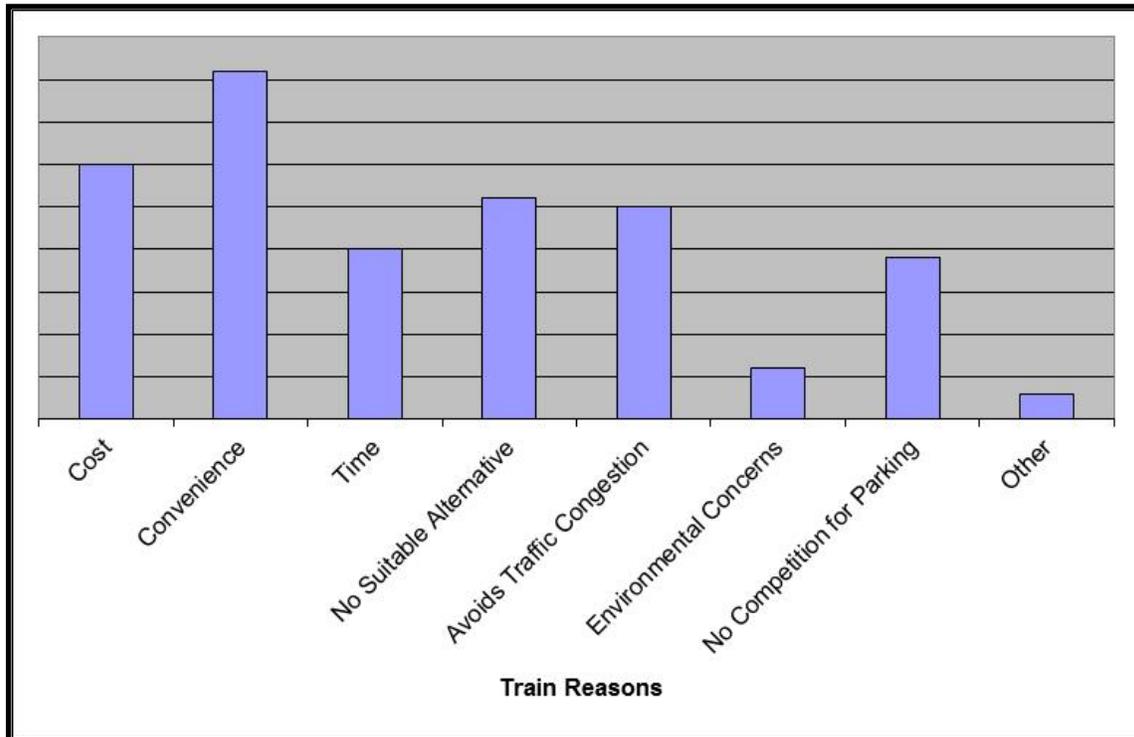

Figure 3.16 Reasons for Travelling by Train

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 26.9% of respondents who indicated that they would not use an alternative the majority (79%) walked to University as their main mode of travel and are therefore already using a sustainable mode of travel. The use of buses as an alternative has increased since the last survey and this may be due to the introduction of a free to use inter-campus shuttle service.
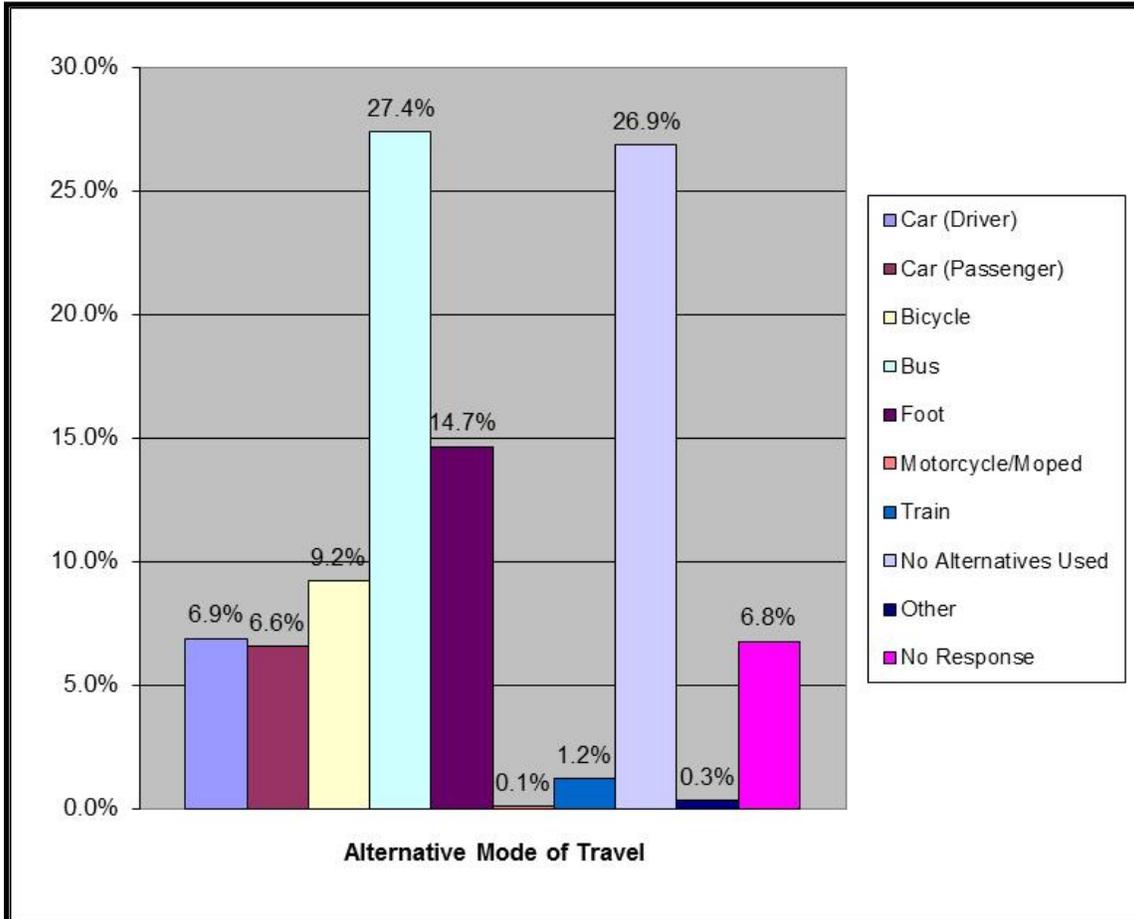

Figure 3.17 Alternative Modes of Travel Used

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.
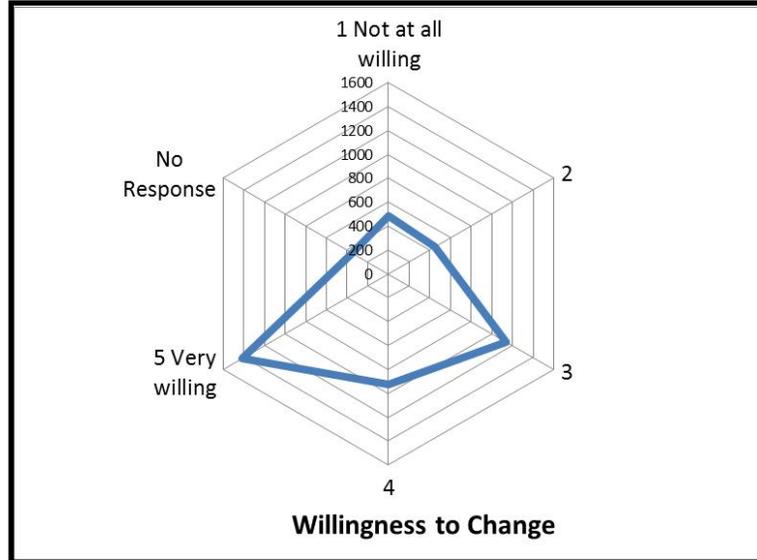

Figure 3.18 Willingness to Change Travel Habits

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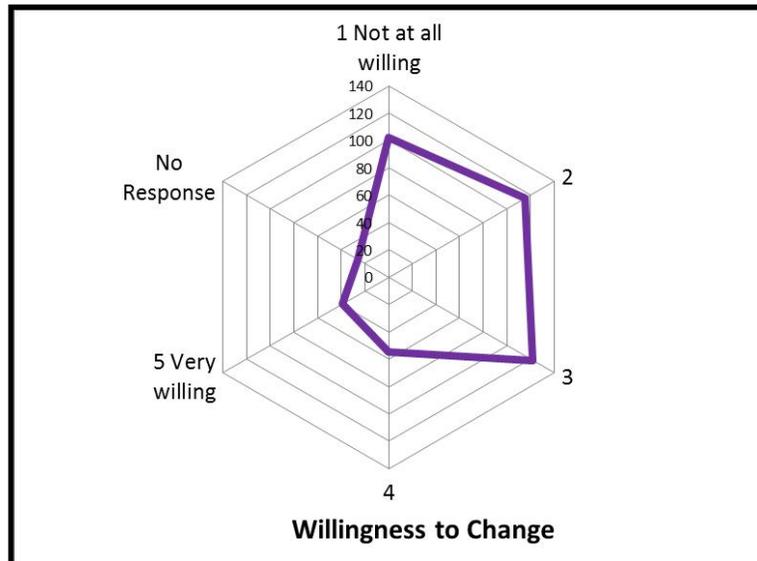

Figure 3.19 Willingness to Change Travel Habits – Car Driver Sub-set

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 gathered by different means.

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 202.4.[5]
- 'Don't Know' VED responses were assumed to be the average emissions of those who selected a VED band.

The total CO_2 emissions of staff car commuting travel was calculated to be 3,496.87 Tonnes. This is a decrease of approx. 7% when compared to 2012. The decrease follows the national trend of new vehicles moving toward lower emissions and tracks the decrease in the proportion of staff travelling by car and the distances travelled.

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[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 4.6 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 and access to public transport.

Despite the improvements made there are still some areas of concern. Carbon emissions, which are being used more frequently to quantify travel, are still relatively high and we have seen a continued reduction in public transport use among staff. 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. 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 walking 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.

The University is performing well by showing consistent, albeit moderate, reductions in car use as well as demonstrating car modal share which is 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.