



# University of Edinburgh Travel Surveys

University of Edinburgh

## Report of Travel Surveys 2016

KU034900-002 | 3

August 2016



## University of Edinburgh Travel Surveys

Project No: KU034900  
Document Title: Report of Travel Surveys 2016  
Document No.: 2  
Revision: 3  
Date: August 2016  
Client Name: University of Edinburgh  
Client No:  
Project Manager: Grant Davidson  
Author: Tom Bisset  
File Name: \\europe.jacobs.com\glasgow\Projects\Data\Edinburgh University Travel Surveys\Deliverables\Reports\University of Edinburgh Travel Surveys 2016 Rev3.docx

Jacobs U.K. Limited

95 Bothwell Street  
Glasgow, Scotland G2 7HX  
United Kingdom  
T +44 (0)141 243 8000  
F +44 (0)141 226 3109  
www.jacobs.com

© Copyright 2016 Jacobs U.K. Limited. The concepts and information contained in this document are the property of Jacobs. Use or copying of this document in whole or in part without the written permission of Jacobs constitutes an infringement of copyright.

Limitation: This report has been prepared on behalf of, and for the exclusive use of Jacobs' Client, and is subject to, and issued in accordance with, the provisions of the contract between Jacobs and the Client. Jacobs accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this report by any third party.

### Document history and status

Revision	Date	Description	By	Review	Approved
0	27.06.16	Minor text and formatting revisions	TB	JC	GD / KG
1	14.07.16	Revisions following client comments and meeting	TB	JC	GD / KG
2	12.08.16	Additional revisions	TB	JC	GD / KG
3	19.08.16	Final report	TB	JC	GD / KG

## Contents

<b>Executive Summary .....</b>	<b>1</b>
<b>1. Introduction .....</b>	<b>3</b>
1.1 Background .....	3
1.2 Purpose and Design of the 2016 University Travel Survey .....	3
1.3 Existing Travel Plans .....	3
1.4 Travel Planning Activity Since 2013 .....	4
1.5 University of Edinburgh 2016-21 Integrated Transport Strategy .....	4
1.6 Report Structure .....	5
<b>2. Overall Survey Results .....</b>	<b>6</b>
2.1 Introduction .....	6
2.2 Survey Responses .....	6
2.3 Mode Share .....	6
2.4 Travel Planning Activity .....	9
2.5 Encouraging Public Transport .....	9
2.6 Carbon Footprint .....	11
2.7 Electric Vehicles .....	13
<b>3. Central Area .....</b>	<b>15</b>
3.1 Introduction .....	15
3.2 Mode Share .....	15
3.3 Encouraging Sustainable Travel .....	16
3.4 Summary & Recommendations .....	19
<b>4. King's Buildings .....</b>	<b>21</b>
4.1 Introduction .....	21
4.2 Mode Share .....	21
4.3 Encouraging Sustainable Travel .....	22
4.4 Summary & Recommendations .....	25
<b>5. Easter Bush .....</b>	<b>26</b>
5.1 Introduction .....	26
5.2 Mode Share .....	26
5.3 Encouraging Sustainable Travel .....	28
5.4 Summary & Recommendations .....	29
<b>6. BioQuarter .....</b>	<b>30</b>
6.1 Introduction .....	30
6.2 Mode Share .....	30
6.3 Encouraging Sustainable Travel .....	31
6.4 Summary & Recommendations .....	33
<b>7. Western General Hospital .....</b>	<b>34</b>
7.1 Introduction .....	34

7.2	Mode Share .....	34
7.3	Encouraging Sustainable Travel.....	36
7.4	Summary & Recommendations .....	37
<b>8.</b>	<b>Royal Edinburgh Hospital .....</b>	<b>38</b>
8.1	Introduction.....	38
8.2	Mode Share .....	38
8.3	Encouraging Sustainable Travel.....	39
8.4	Summary & Recommendations .....	41
<b>9.</b>	<b>Edinburgh College of Art .....</b>	<b>42</b>
9.1	Introduction.....	42
9.2	Mode Share .....	42
9.3	Encouraging Sustainable Travel.....	43
9.4	Summary & Recommendations .....	46
<b>10.</b>	<b>Pollock Halls.....</b>	<b>47</b>
10.1	Introduction.....	47
10.2	Mode Share .....	47
10.3	Encouraging Sustainable Travel.....	48
10.4	Summary & Recommendations .....	49
<b>11.</b>	<b>Other Sites.....</b>	<b>50</b>
11.1	Introduction.....	50
11.2	Mode Share .....	50
11.3	Encouraging Sustainable Travel.....	51
11.4	Summary & Recommendations .....	53
<b>12.</b>	<b>Conclusions.....</b>	<b>54</b>

**Appendix A. Carbon Footprint Calculation Methodology**

## Executive Summary

### Introduction

The University of Edinburgh is a major contributor to the movement of people in the City of Edinburgh and its surrounding areas due to its large staff and student populations across multiple campuses located in and around the City. In consideration of local and global transport and environmental issues, the University understands it has a key role to play in influencing sustainable travel practices amongst its staff and students.

The University of Edinburgh has commissioned Jacobs UK Ltd to design, manage and analyse their 2016 staff and student travel survey. The University began surveying its staff in 2000 and students from 2004. Since 2007, the University has conducted a travel survey of both staff and students every 3 years in order to understand and improve their mode share and carbon footprint; and to achieve a higher level of sustainability and reduce its impact to the local and global environment.

### Findings

There were 3,797 staff who completed the survey out of a total of 13,750 staff, which equates to an overall response rate of 28%.

There were 3,464 students who completed the survey out of a total of 35,582 students, which equates to an overall response rate of 10%.

Overall, the 2016 survey has shown the University continues to have a high rate of active travel and public transport usage amongst its staff and students. There has been little change regarding the overall results as a whole since 2013, though there has been small but positive increase in active travel. This is highlighted by the overall 2% increase in walking and cycling journeys by both staff and students.

The University's Carbon Footprint has reduced by 5% since 2013. The staff carbon footprint has decreased by 10%, largely due to a reduction in car-based travel. Conversely, the student carbon footprint has increased by 6% which is largely a result of more car-based journeys however there has also been an increase in public transport usage too which is a contributing factor.

- Car travel has reduced by 3% overall, with significant decreases occurring at locations such as Central Area, King's Buildings and the Western General Hospital. This is largely due to staff changing their primary mode of transport and reduced provision of car park spaces in the Central Area.
- Walking remains as the most popular method of travel and accounts for 48% of all trips made to and from the University.
- Cycling has seen an overall 2% rise since 2013, with particular interest and uptake from staff – especially at Central Area, King's Buildings and Edinburgh College of Art campus areas which is likely to be a direct impact from the reduced car parking spaces available.
- Public Bus patronage accounts for 20% of journeys – a slight increase since 2013. Notably, the Western General Hospital and BioQuarter have seen a small and positive growth in public bus usage.
- Rail patronage is consistent with 2013, accounting for 5% of journeys. However, there has been a small increase in rail usage in the Central Area, which may be as a result of a reduction of car parking provision in this area.
- Shuttle Bus usage is 5% overall. Feedback from staff and students show that there is a lack of capacity, especially during peak times; and the timetable does not synchronise well with lecture/class times.
- Taxis are used by less than 1% of the overall staff and student population surveyed.
- Mobility Scooters account for less than 1% of the overall response rate, however the survey has found that staff and students with mobility issues have a high dependence on car-based travel and should be catered for accordingly.
- Electric Vehicles are used by 7 staff member car-owners who completed the survey, with 20% of car owners considering purchasing an electric vehicle and 80% having not considered purchasing an electric vehicle. The

main limitation to staff purchasing electric vehicles are the high upfront costs, concerns over distance limitations and availability of charging points at home and at work.

## **Conclusion & Recommendations**

The University should be commended for continuing its high active travel and public transport mode shares amongst staff and students, as well as the general awareness of some of the sustainable transport measures. The 2016 – 21 University of Edinburgh Integrated Transport Strategy makes a clear commitment to achieve its vision that *'by 2021 our students, staff and visitors will be able to access our estate by the mode of transport best suited to their needs, and have in place facilities and incentives that make walking, cycling and public transport the obvious and preferred way to travel both for commuting and business travel'*.

Notwithstanding this, it is recommended that the University continues to both:

- facilitate its current sustainable transport measures in order maintain its progress and provide the necessary assistance and means for staff and students who already – or wish to - travel sustainably; and
- Promote, encourage and *engage* staff and students who are less aware - or not aware at all - of the University's travel planning measures and how they, the University and surrounding environments can benefit from sustainable travel.

# 1. Introduction

## 1.1 Background

Jacobs UK Ltd was commissioned by the University of Edinburgh to design, manage and analyse their 2016 Staff and Student travel survey.

The 2016 survey provides an update to the 2007, 2010 and 2013 surveys and takes account of changes which have occurred since the 2013 survey was undertaken.

## 1.2 Purpose and Design of the 2016 University Travel Survey

The University is committed to minimising the transport impacts of its activities through the adoption of a number of transport related policies and the implementation of Travel Plans. The University has undertaken travel surveys every 3 years with the most recent completed in 2013. The surveys provide a valuable opportunity to measure and understand existing travel behaviours; and gauge staff and student propensity to consider alternative travel modes, allowing the University to focus travel planning measures effectively.

As with the previous travel surveys, the 2016 survey was designed to calculate an estimate of the University's travel to work/study Carbon Footprint.

The 2016 survey was designed as an entirely online questionnaire and was conducted from the 8<sup>th</sup> March to the 1<sup>st</sup> April which is comparable with previous survey dates. It was made available to all staff and students across all University sites, with the results below taking into account fully completed questionnaires only.

## 1.3 Existing Travel Plans

As highlighted within the 2013 report, the University undertakes a number of travel planning activities, including the following measures:

- Shuttle Buses (serving various campuses);
- Shower and locker facilities
- Easter Bush campus travel map
- Transport and travel information on the website: [www.ed.ac.uk/transport](http://www.ed.ac.uk/transport)
- Interest free staff travel loan for the purchase of public transport season ticket /bicycle purchase
- Subsidy of Lothian Buses Service 67, which operates between the City Centre and Easter Bush
- Cycle to Work Scheme Bicycle User Groups at each main campus
- Secure cycle stores in addition to Sheffield Racks
- Bike Doctor visiting each University site every month in rotation
- Discounts at bicycle shops
- Bike Buddies Scheme for those who want a little support starting out
- Free cycle training for learners / returners to cycling
- Emergency toolkits for bikes in specific locations
- Parking management
- Member of the TripShare scheme
- Member of the Corporate City Car Club
- Introduction of electric vehicle charging points.

## 1.4 Travel Planning Activity Since 2013

Since the last travel survey in 2013 there have been a number of developments which have impacted on transport and travel at the University:

- There has been a 12% reduction (315 spaces) in car parking space provision since 2013. This has predominantly taken place in the Central Area where 250 spaces have been lost due to the Capital Development Programme delivering new buildings such as the Holyrood Student Residential development, and the decision to remove car parking from the Old Medical School Quad and at Moray House. This reduction in parking provision has been carefully managed through the criteria based parking permit allocation system. At other sites the most notable reduction has been at the Western General where all general car parking has been removed with the development of the IGMM building.
- Introduction of electric vehicle charging points across Central Area and at King's Buildings for the use of car parking permit holders, the University vehicle fleet and the public. Users do not have to pay to use these facilities. To incentivise EV ownership, EV owners who successfully apply for a University parking permit are issued with a free permit. Two of the charge points host City Car Club EVs which provide staff, students and the public with the opportunity to experience EVs.
- The University secured £49,000 of funding from Cycling Scotland to deliver the University's first bike hire scheme: UniCycles. The bike hire scheme was developed in partnership with EUSA (Edinburgh University Student Association) and was officially launched in September 2015. The scheme targeted 1st year students living at Pollock Halls to support them in taking up cycling as soon as they arrive to study in Edinburgh. The scheme has been very popular, with all 50 bikes hired out from the start of Semester 1. It is planned to continue with the scheme from academic year 2016-17. A small fleet of 8 electric bikes was launched in 2014 to encourage staff to cycle for local business trips.
- Public bus connections for Easter Bush have continued to evolve to better serve the students and staff commuting to and from the site. At King's Buildings the shuttle bus was run in the evenings and weekends on a trial-only basis during 2012-13. Following review this was replaced by a bus ticket reimbursement scheme from 2013-14. At Little France / Western General, student access to the NHS Shuttle Bus was extended to the full operating hours of the service with the University now funding 50% of the costs.
- The University continues to promote cycle safety and security through its Roadshow events, Doctor Bike sessions and the implemented Cycle to Work Scheme.
- The University is a member of the City Car Club, which was acquired by Enterprise Holdings in April 2015 and now called 'Enterprise Car Club'. The company's website states that Enterprise Car Club acts as an extension to the Enterprise Rent-A-Car service which is able to provide a wider range of locations and vehicles – including hybrids and electric vehicles. For existing users, membership details have remained the same.
- It should also be noted that since the previous survey, The Edinburgh Tram commenced operations in May 2014, along with the Borders Railway in September 2015. The Edinburgh Tram was included as a travel option within the survey.

## 1.5 University of Edinburgh 2016-21 Integrated Transport Strategy

The University is in the process of preparing and publishing its 2016 – 21 University of Edinburgh Integrated Transport Strategy, which makes a clear commitment to achieve its vision that *'by 2021 our students, staff and visitors will be able to access our estate by the mode of transport best suited to their needs, and have in place facilities and incentives that make walking, cycling and public transport the obvious and preferred way to travel both for commuting and business travel'*.

By 2021 the University aim to achieve the following objectives:

- Our estate will be safe, welcoming and accessible for all via a range of transport modes.
- Prioritised pedestrian and cyclist routes within our sites.



- Encouraged and supported more of our students and staff to undertake active travel.
- Secured the best possible public transport provision to connect to and between our sites and eliminated our reliance on private shuttle services.
- Secured financially attractive public transport ticketing options for our students and staff.
- Reduced the proportion of staff and students who drive to University.
- Reduced the proportion of staff who rely on their private vehicle to undertake local business journeys.
- Reduced the proportion of combustion engine vehicles used by our staff and students to commute to University by encouraging them to switch to low or zero carbon vehicles.
- Reduced the proportion of combustion engine vehicles within the University fleet by increasing the proportion of electric vehicles.

In order to ensure that these objectives are achieved, the University has put in place the following targets

For 2021 we aim to achieve the following:

- Increase the proportion of staff walking to University to 30% (from 2016 baseline of 25%).
- Increase the proportion of student and staff cycling to University to 15% (from 2016 baseline of 13%).
- Public transport provision to and between University sites regarded as good to excellent by 100% of our student and staff users (measured against 2016 travel survey baseline).
- Decrease the car mode share to 29% or less at each University site.
- Increase the proportion of parking permit holders using an electric vehicle from 0% to 2%.
- Increase the proportion of electric vehicles in the University fleet to 30%.

The Strategy outlines a package of measures designed to ensure that its aims, objectives and targets have the best chance of success.

The results of the 2016 survey provide the University with an ideal opportunity to measure progress towards these targets and to implement measures necessary in order to help achieve them.

## **1.6 Report Structure**

The main body of this report considers the following:

- Overall survey results
- Results by location, including:
  - Central Area
  - King's Buildings
  - Easter Bush
  - Royal Edinburgh
  - BioQuarter
  - Western General Hospital
  - Pollock Halls
  - Other sites and Accommodation sites
- Conclusions and Recommendations

The survey methodology is presented in Appendix A and the full survey analysis spreadsheet is provided in Appendix B.

## 2. Overall Survey Results

### 2.1 Introduction

This section outlines the survey response rates for each location and considers the overall mode share for all sites.

### 2.2 Survey Responses

A total of 3,797 responses were received from staff representing a 28% response rate (a 5% increase in response on 2013) while 3,464 responses were received by students representing nearly a 10% response rate (a 2% decrease in response from 2013). While the level of responses by both staff and students provides an acceptable sample size when considering overall travel trends to the university, the results for some of the smaller individual locations should be treated with more caution given the smaller sample sizes. At Easter Bush in particular, where 152 students responded to the survey, an increase in bus patronage of 17% was identified. Given the small number of respondents, there is a possibility that a disproportionate number of student bus users undertook the survey which in turn provides a potentially inaccurate picture of modal split at this site. While it is important to take cognisance of the results at the smaller sites, it is important to treat the results for these with a degree of caution.

The breakdown of response rates by location is presented in Table 2.1 below.

**Table 2.1: 2016 Survey Response Rates by Location**

Location	Staff academic	Staff support	Student
Central Area	20%	36%	9%
Easter Bush	30%	26%	10%
Edinburgh College of Art	13%	50%	8%
King's Buildings	21%	37%	13%
BioQuarter	19%	38%	9%
Royal Edinburgh	58%	62%	10%
Western General Hospital	34%	38%	8%
Other site	5%	33%	11%
Pollock Halls & Other University Accommodation sites	0%	20%	N/A

Table 2.1 confirms that the survey response rates across the main locations within the University are relatively consistent, however, Royal Edinburgh has a higher proportion due to the relatively small site in relation to the other University locations.

The 2016 staff response rate is higher than that achieved in 2013 with 864 more responses; however, the 2016 student response rate had 743 fewer responses than the previous survey.

### 2.3 Mode Share

The overall University mode share is illustrated in Figure 2.1, with the overall staff and student mode share shown in Figures 2.2 and 2.3 respectively; followed by mode-by-mode highlights of changes since 2013, including a summary of comments and feedback from staff and students for each mode.

Figure 2.1: Overall University Mode Share (2016)

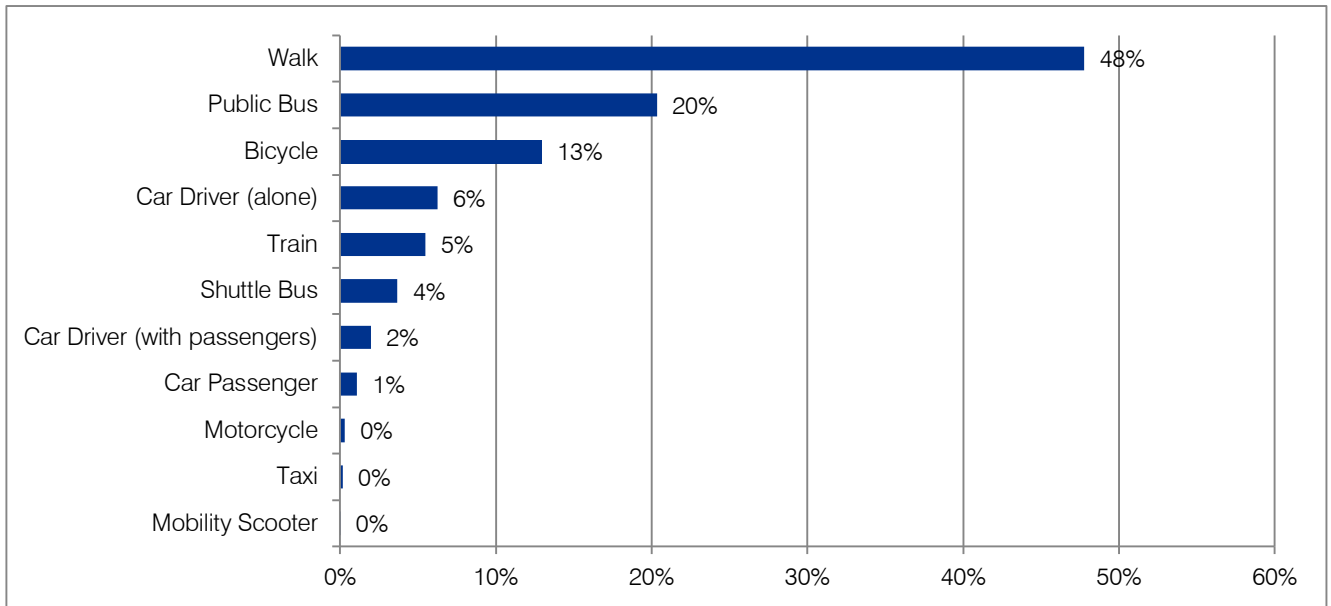
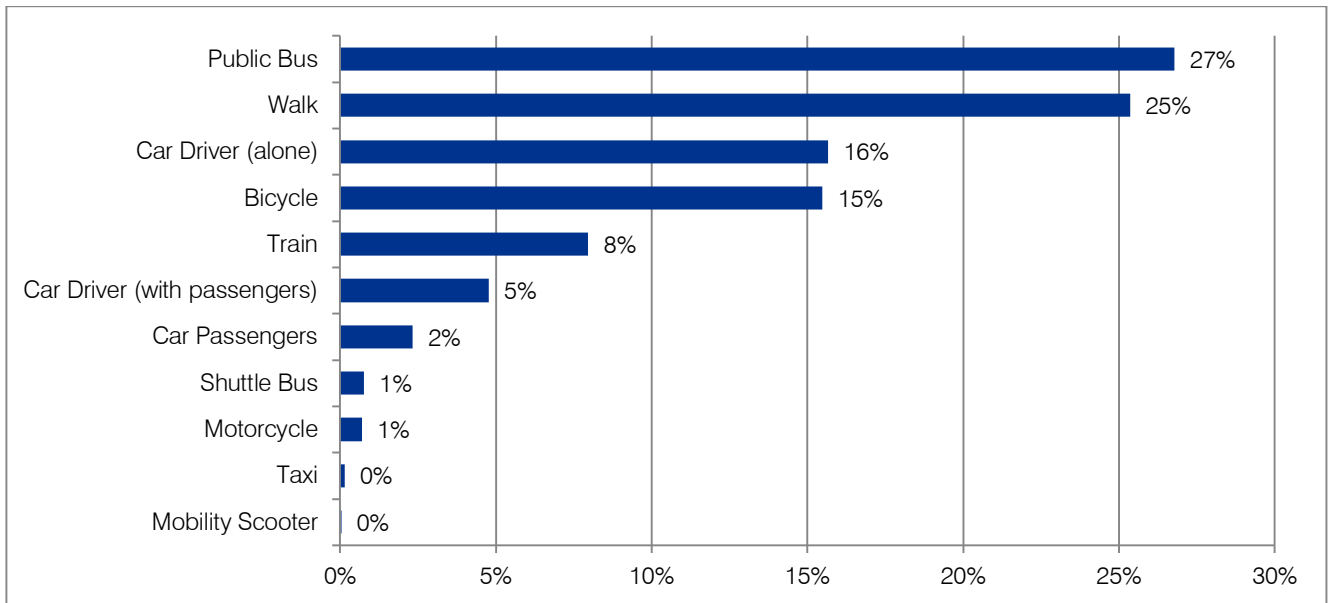
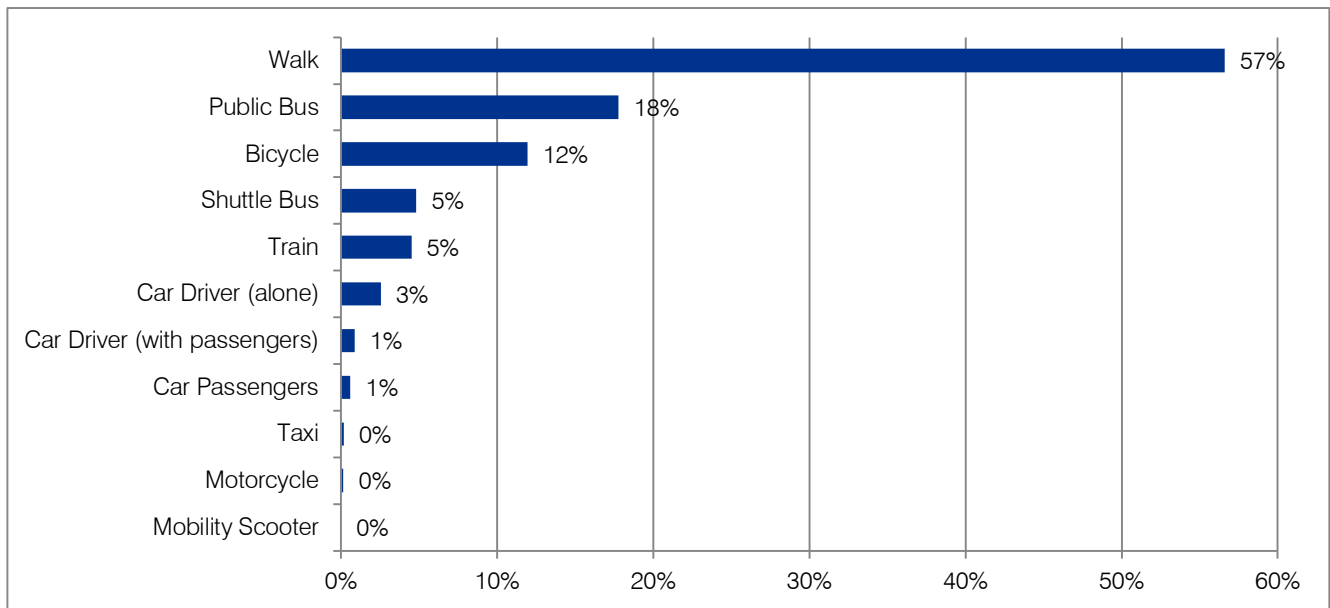


Figure 2.2: Overall Staff Mode Share (2016)



**Figure 2.3: Overall Student Mode Share (2016)**



### 2.3.1 Car-based Travel

Overall, car-based travel has decreased by 3% since 2013 and now accounts for only 9% of the total mode share. There has been a significant decrease in staff using the car in the Central Area and King's Buildings, largely due to the reduced available provision of car parking spaces in and around these sites. This has had a positive impact on travel via sustainable and active modes with more staff now choosing to travel by public bus, train or bicycle to Central Area and King's Buildings.

### 2.3.2 Public Bus

Public bus patronage by both staff and students accounts for a fifth of the total mode share across the University. Increased patronage is evident at sites such as Central Area and King's Buildings, potentially as a result of reduced available parking provision.

Easter Bush staff and students were critical in their comments of the lack of capacity on the X15, 37 and 67 bus services, as well as frequency of services.

In general, more staff and students could be encouraged to use the public bus services (and public transport in general) if they have shorter journey times, with students also demonstrating discounted travel as a major determinant of their travel choices.

### 2.3.3 Rail

Rail patronage has remained static since 2013, contributing to 5% of the overall mode share. It has been seen however at the Central Area, King's Buildings and Edinburgh College of Art that rail travel has increased, again largely due to the reduced available parking provision in the Central Edinburgh area; and introduction of the Edinburgh Trams service. Staff and students commented on the need for more direct bus services between Haymarket and Waverley Stations to University sites.

### 2.3.4 Cycling

Cycling amongst staff and students has increased by 2% since 2013, comprising 13% of the total mode share. The survey shows that most of the increases have occurred in the Central Area, King's Buildings, Royal Edinburgh Hospital and Pollock Halls. The survey also indicates that more staff cycle to King's Buildings than walk. Notwithstanding this, both staff and students have commented on the cycle network and were very critical of it, with many concerned for their safety due to potholes, unsafe drivers and cyclists, and poorly designed cycle lanes (especially where there are car parking spaces). There is also interest in a University-wide cycle hire facility for travelling between campuses, akin to the 'Boris Bike' system in London.

### 2.3.5 Walking

There has been no overall increase in staff and students walking, however walking still represents the highest mode share at 48% of all journeys. As expected, most staff and students walk in the Central Area and King's Buildings due to the close proximity of accommodation. Distance and ease of route is the main determinant of the walking mode share, with many staff and students saying they would walk to the University if they lived closer.

### 2.3.6 Shuttle Bus

Shuttle Bus usage accounts for 5% of the student mode share, however from the qualitative analysis many students are dissatisfied with the service. Most notable was the lack of capacity and services available before the first AM and after the last PM classes; as well as bus timetables not coinciding with class times throughout the day. Furthermore, Easter Bush students were particularly vocal about not having a shuttle bus service provided considering the campus' distance from Central Edinburgh, the cost of bus fares, and other free shuttle buses facilitating student travel across much shorter distances. They would like to see a shuttle bus provided, or discounted travel on public transport to Easter Bush.

### 2.3.7 Taxi

Taxi usage accounts for less than 1% of the mode share as few people use it as a regular mode of transport due to its cost. The average distance travelled by taxi overall has also significantly reduced since 2013. Comments highlight that taxis are used in situations where there is inclement weather, no other public transport available – especially in the evening - or when travelling on business.

### 2.3.8 Motorbike

Although travel by motorcycle accounts for less than 1% of the overall mode share of surveyed staff and students, motorcyclists at the University commented on the lack of sheltered and secure parking for motorcycles at campus locations, especially in comparison with cyclists. These comments are epitomised with the following quote from a staff member at King's Buildings:

*"I use a motorbike as it's the cheapest and easiest mode of transport. This allows me to save on petrol and reduces my carbon footprint [...] Secured M\C parking is non-existent within the University and therefore I have to tie the M\C to any fixed point that I can find - cycle racks, University sign posts etc. This could be improved."*

### 2.3.9 Mobility Scooter

It is clear from the survey that users of mobility scooters and those with mobility issues are heavily dependent on car-based transport. Therefore - whilst it is important to reduce the overall carbon footprint and encourage active and sustainable travel where possible – the necessary infrastructure to support staff and students that are required to drive due to mobility constraints should be planned and implemented in order to facilitate this.

## 2.4 Travel Planning Activity

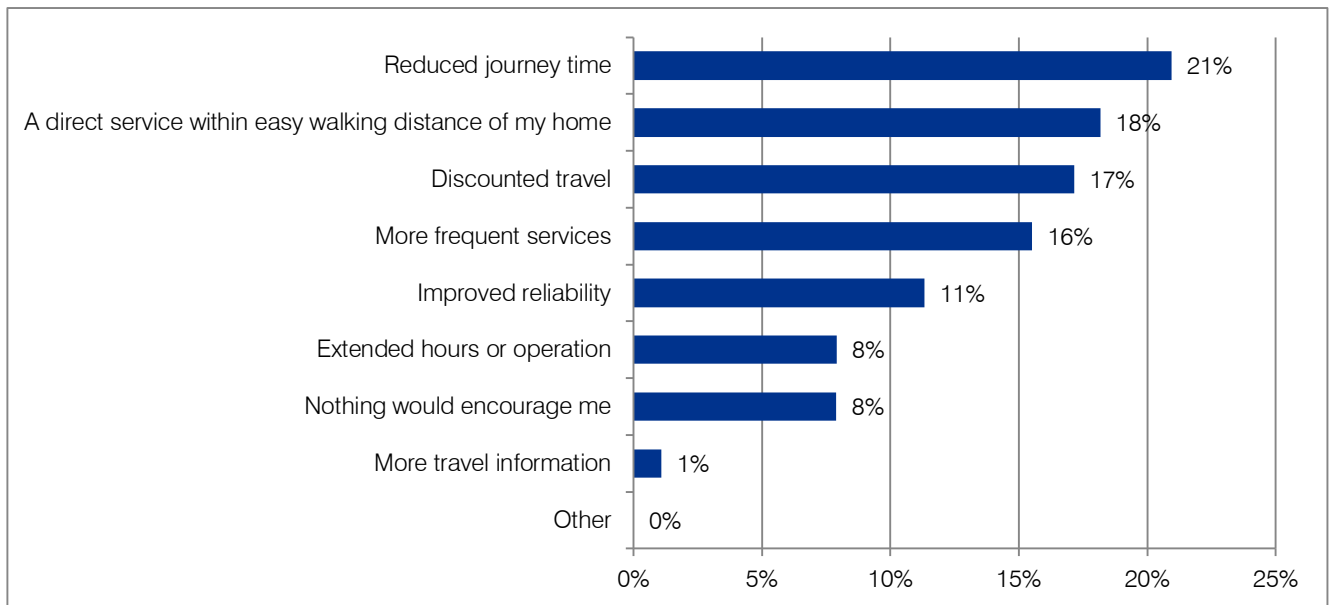
All the campuses are subject to the University's travel planning activity and, from a review of the survey data, overall staff and students are generally aware of a number of sustainable travel measures. The main measures where awareness is high and have been used are:

- Shuttle Buses
- University travel information website
- Cycle parking, shower and locker facilities
- Dr Bike sessions.

## 2.5 Encouraging Public Transport

Staff and students were asked what would encourage them to use public transport on a regular basis, with the results displayed in Figures 2.4 to 2.6 below:

**Figure 2.4: Overall University – What would encourage you to take Public Transport?**



### 2.5.1 Overall

Staff and students are more likely to take public transport if the service had a reduced journey time – accounting for 21% of respondents. A further 17% of respondents would be more encouraged to travel on public transport if there travel discounts available, suggesting that the cost of public transport is a particular issue.

Only 1% of staff and students would travel by public transport if more travel information was made available.

### 2.5.2 Staff

Staff are more concerned about journey time, walking distance from home and frequency of services - collectively accounting for 56%.

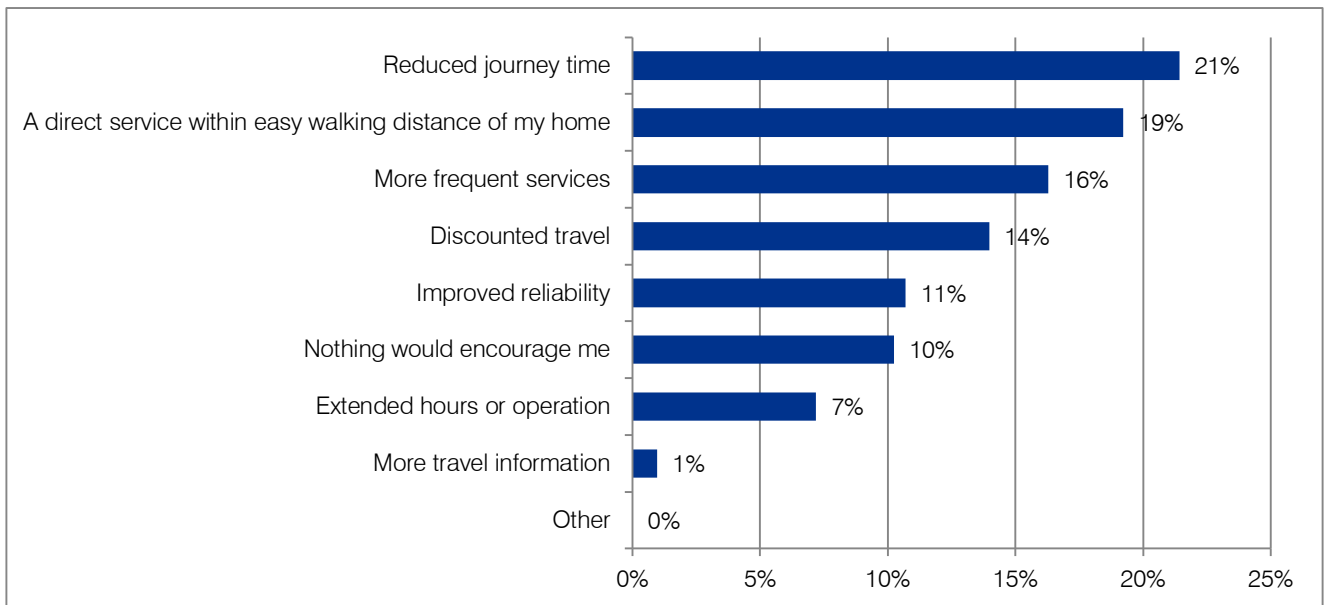
10% of staff cannot be encouraged to use public transport. This would account for staff who live within easy walking or cycling distance of the University and/or reliant on other modes of transport such as the private car.

### 2.5.3 Students

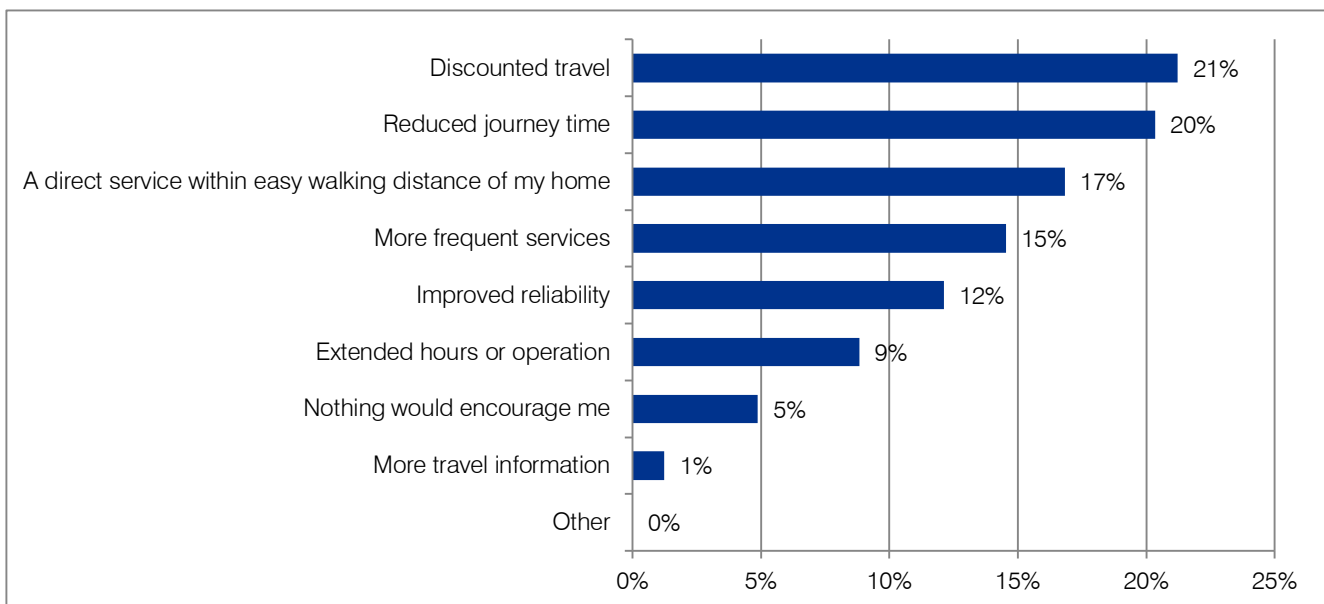
In comparison, students are more influenced by the cost of travel as 21% would be encouraged to travel by public transport more regularly if discounted travel was available for their route.

9% of students would also be encouraged to use public transport more if there were extended hours of operation. This would apply to students working later in the evenings (especially at the Medical campuses) and during exam study periods for all students.

**Figure 2.5: Overall Staff – What would encourage you to take Public Transport?**



**Figure 2.6: Overall Students – What would encourage you to take Public Transport?**



## 2.6 Carbon Footprint

This section provides details of the overall University travel to work / study carbon footprint and the footprint broken down by location. The 2016 DEFRA carbon emissions factors were used for the 2016 University of Edinburgh carbon footprint calculations. Due to differing Carbon Footprint calculation methods in 2013 and 2016, the 2013 data has been re-calculated with the 2016 method in order to facilitate an accurate comparison. Notwithstanding this, the DEFRA factors used in the 2013 assessment have not changed, simply the method in which the carbon footprint has been calculated. A summary of the carbon footprint calculation methodology is contained within Appendix C.

### 2.6.1 University overall carbon footprint

Tables 2.2 to 2.5 provide details of the overall carbon footprint for staff and students, respectively.

**Table 2.2: Overall Carbon Footprint (2016)**

Mode	Average Distance	Annual estimated total CO2e (tonnes)	Annual estimated total CO2e per member (tonnes)
Walk	1.1	0.0	0.0
Cycling	2.4	0.0	0.0
Motorcycle	9.2	146.2	3.5
Car Driver (alone)	12.8	5162.2	5.9
Car Driver (with passengers)	9.9	1351.4	4.7
Car Passenger	7.0	517.5	2.9
Public Bus	3.9	3613.1	1.6
Shuttle Bus	1.8	408.1	0.9
Train	28.6	2035.0	4.2
Taxi	1.8	50.0	1.5
		<b>13283.5</b>	<b>1.8</b>

**Table 2.3: Overall Staff Carbon Footprint (2016)**

Staff Mode	Average Distance	Annual estimated total CO2e (tonnes)	Annual estimated total CO2e per staff member (tonnes)
Walk	1.3	0.0	0.0
Cycling	3.0	0.0	0.0
Motorcycle	9.0	95.9	2.7
Car Driver (alone)	12.9	3856.2	5.2
Car Driver (with passengers)	10.4	1074.6	4.4
Car Passenger	7.4	394.4	3.0
Public Bus	4.3	1689.1	1.3
Shuttle Bus	2.4	54.6	0.8
Train	27.3	971.4	3.0
Taxi	2.3	21.2	1.2
		<b>8157.3</b>	<b>2.2</b>

**Table 2.4: Overall Student Carbon Footprint (2016)**

Student Mode	Average Distance	Annual estimated total CO2e (tonnes)	Annual estimated total CO2e per student (tonnes)
Walk	1.0	0.0	0.0
Cycling	1.8	0.0	0.0
Motorcycle	9.7	50.3	7.2
Car Driver (alone)	12.3	1306.0	9.9
Car Driver (with passengers)	7.1	276.8	5.9
Car Passenger	5.7	123.1	2.8
Public Bus	3.3	1924.1	2.2
Shuttle Bus	1.7	353.5	0.9
Train	31.3	1063.6	7.0
Taxi	1.2	28.9	1.7
		<b>5126.2</b>	<b>1.5</b>



**Table 2.5: Overall Carbon Footprint - 2013 and 2016 Comparison**

	2013 Estimated annual carbon footprint (tonnes of CO2e)	2013 Estimated annual carbon footprint (tonnes of CO2e) per individual	2016 Estimated annual carbon footprint (tonnes of CO2e)	2016 Estimated annual carbon footprint (tonnes of CO2e) per individual
Staff	9105.9	3.1	8157.3	2.2
Students	4821.3	1.2	5126.2	1.5
<b>Overall</b>	<b>13927.2</b>	<b>2.0</b>	<b>13283.5</b>	<b>1.8</b>

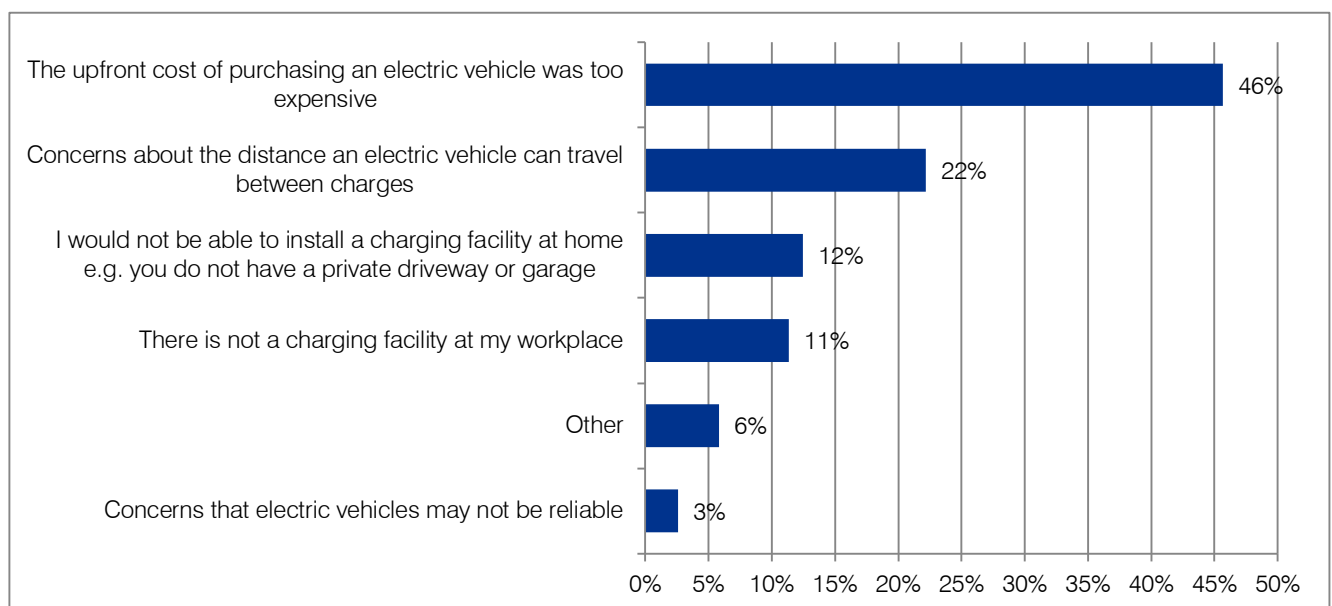
Overall, the University’s carbon footprint has reduced by nearly 5%. This is a positive result and has been induced by the 10% decrease in the staff carbon footprint. Car-based modes have seen the largest decreases in average distance and CO2e produced amongst staff.

Conversely, student carbon footprint has increased by 6% since 2013. Car-based journeys and motorbikes contribute most, especially since there has been an increase in the average distance travelled on these modes. Despite the average distance travelled on public transport remaining consistent with 2013, the carbon footprint for these modes has increased which is due to a rise in the percentage of students taking public transport.

## 2.7 Electric Vehicles

Staff who indicated they were car owners were also asked questions about electric vehicles, including whether they owned an electric vehicle, if they had considered buying an electric vehicles and what best describes their reasons for not switching to an electric vehicle. Of the staff members who answered in the survey they are a car owner, a total of 7 stated their car was an electric vehicle. Furthermore, 20% of car owners in the survey have considered buying an electric vehicle, with the remaining 80% of car owners having not considered buying an electric vehicle. Figure 2.7 below illustrates the reasons staff car owners have not switched to electric vehicles.

**Figure 2.7: Staff reasons for not switching to an electric vehicle**



Comments from the ‘Other’ category include:

*“My current car has not reached the end of its life yet. Hoping to move to an electric vehicle in 2018”*

*“There are not many options available to support a growing family, vehicles are small and consuming more electricity doesn’t necessarily mean less carbon footprint”*

*“The charging port at work as often fully utilised during the day - could not be relied upon to ensure adequate charge for return journey in winter.”*

*“Thought about a hybrid as well, but upfront costs was thousands more”;*

*“The cost of replacing batteries”*

*“More charging points for electric cars would make me consider buying one to cut costs and emissions”.*

It is clear from Figure 2.7 that upfront cost is the main factor influencing the purchase of electric vehicles with 46%. Adding to this, some staff car owners have stated they will not be looking to purchase a new car in the near future, let alone an electric vehicle, until their current car needs replacing.

22% of staff are concerned about the distances electric vehicles can cover on a single charge, with a further 11% stating there is no charging facility at their workplace and 12% unable to install a charging facility at their home. This can be somewhat mitigated with the provision of charging points strategically at all the University’s sites. Staff car drivers are often travelling further distances to travel to the University sites out-with the Central and King’s Buildings areas and/or have other responsibilities which need use of a car, adding extra driving distance on top of their commute.

Should the University be looking to increase electric vehicle usage, it would be best placed to invest in charging point infrastructure at all sites; and offer subsidies or loans to assist staff with the upfront cost of an electric vehicle.

### 3. Central Area

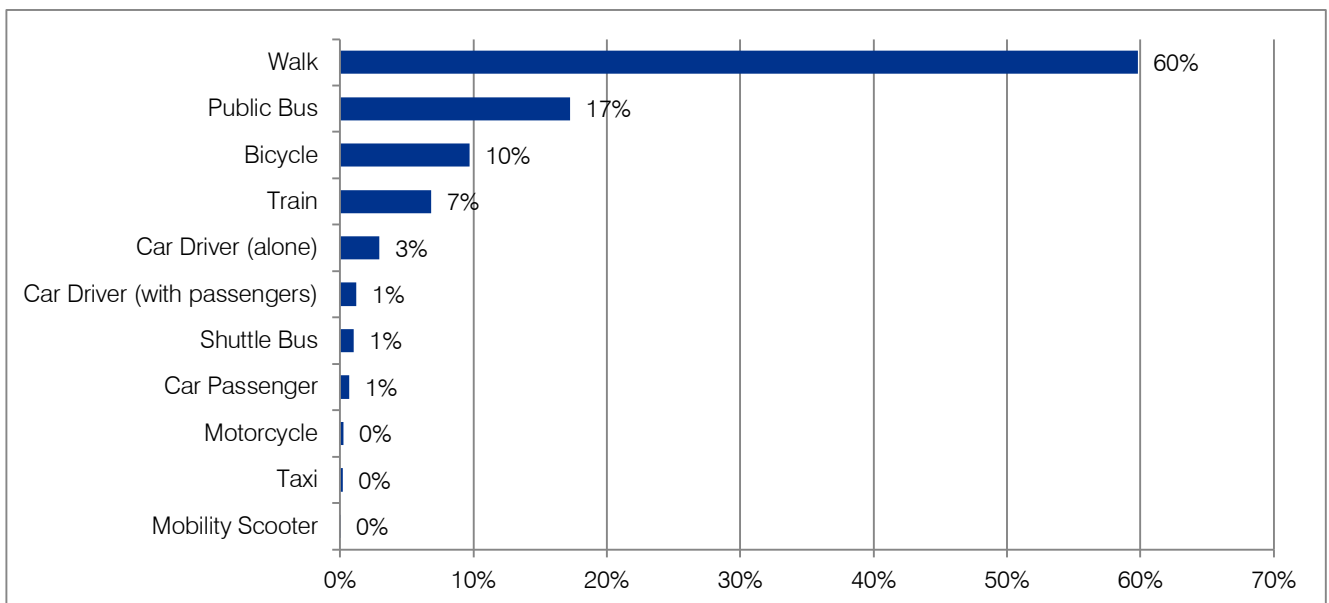
#### 3.1 Introduction

At the Central Area, 2,074 staff and 2,069 students responded to the 2016 travel survey, equating to a Central Area response rate of 28% and 9%, respectively. The Central Area travel survey respondents represent the greatest proportion of travel survey participants. The survey findings are summarised in the following section.

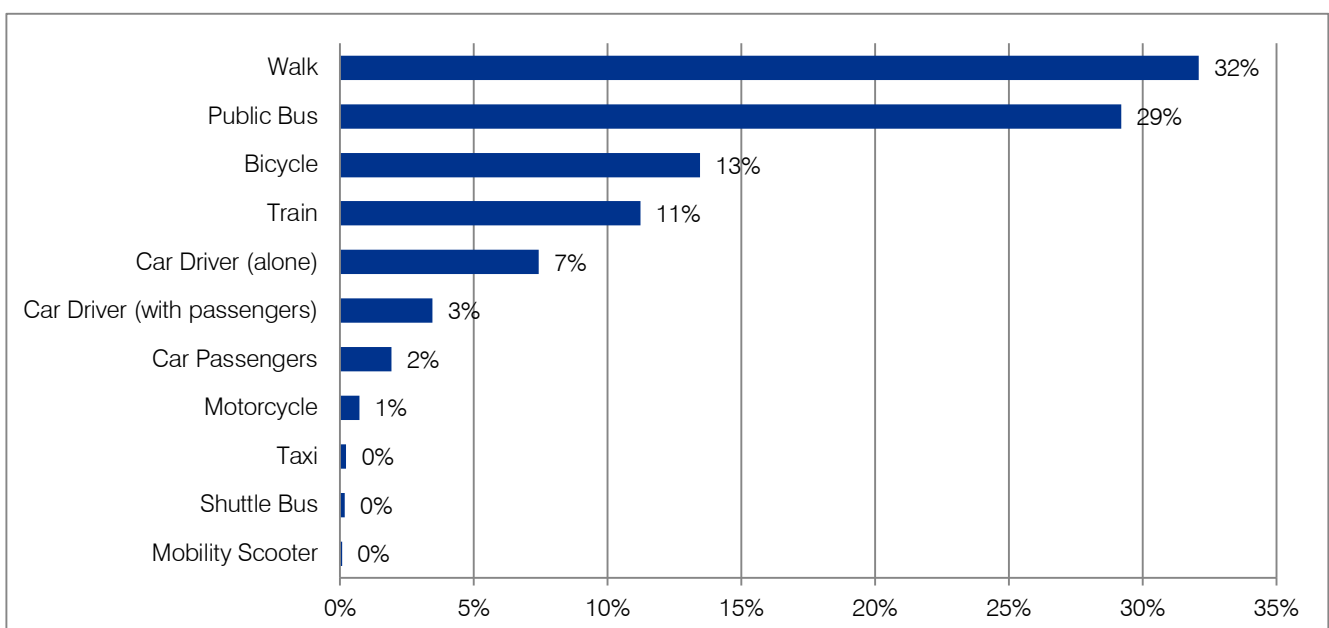
#### 3.2 Mode Share

Figures 3.1 to 3.3 summarise the Central Area mode share for both staff and students.

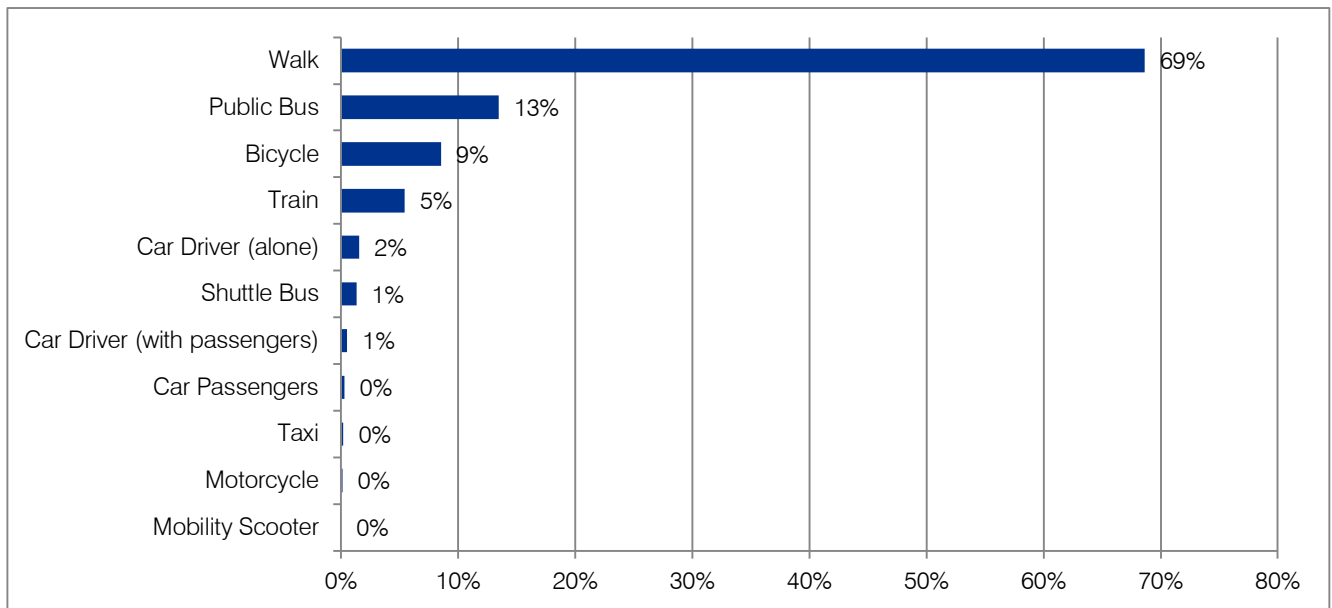
**Figure 3.1: Central Area – Overall Mode Share (2016)**



**Figure 3.2: Central Area – Staff Mode Share (2016)**



**Figure 3.3: Central Area – Student Mode Share (2016)**



The key findings are as follows:

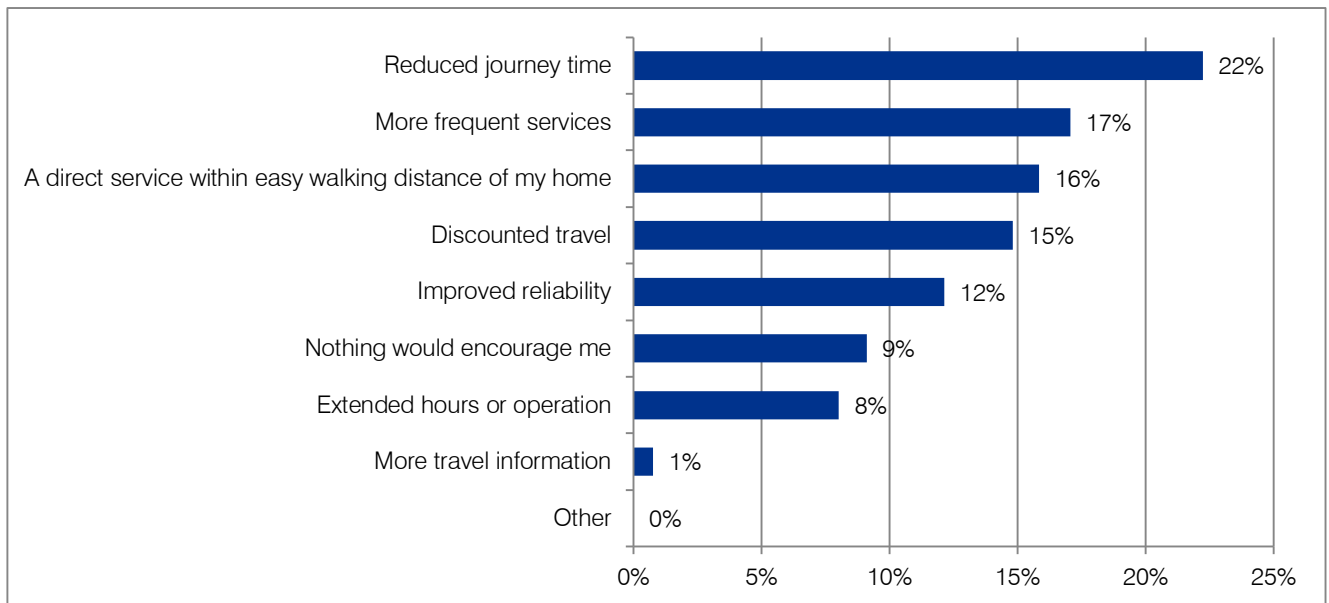
- Staff car-based journeys account for 12% of all staff trips to the Central Area – a reduction of 6% from 2013; whilst student car-based travel remains the consistent. Staff have switched to more sustainable modes such as cycling, public bus and train, increasing by 3%, 2% and 1% respectively; The reduction in car usage is seen as a direct result of the reduction of parking spaces in the Central Area.
- Overall, the mode share for travel to the Central Area has shown a continued high level of sustainable travel since 2013, with 94% travelling by non-car based modes.
- Active travel (walking & cycling) still represents greatest percentage of trips to the Central Area for staff and students (70%), equating to 45% and 78% respectively.
- Student car-based travel has reduced slightly to 3% of all student trips in the Central Area. Staff car-based trips now account for only 12% of all staff trips to the Central Area - a reduction of 6 percent from 2013.
- Shuttle Bus usage remains low, with only 1% of students surveyed utilising the service and less than 1% of staff using the shuttle bus.
- Public transport mode share percentages to the Central Area are good with 29% and 11% of staff travelling to the area by bus and train, respectively. For students, 13% travel by bus and 5% by rail. The number of staff using public bus and rail services has increased by 3%. This may be a direct result of the reduction in car usage.
- Awareness by survey participants of the TripShare scheme has dropped significantly by both staff and students since 2013.
- City Car Club results are consistent with 2013 in regards to awareness, however would have expected to be higher due to the increased provision of the City Car Club network in Edinburgh since 2013.

### 3.3 Encouraging Sustainable Travel

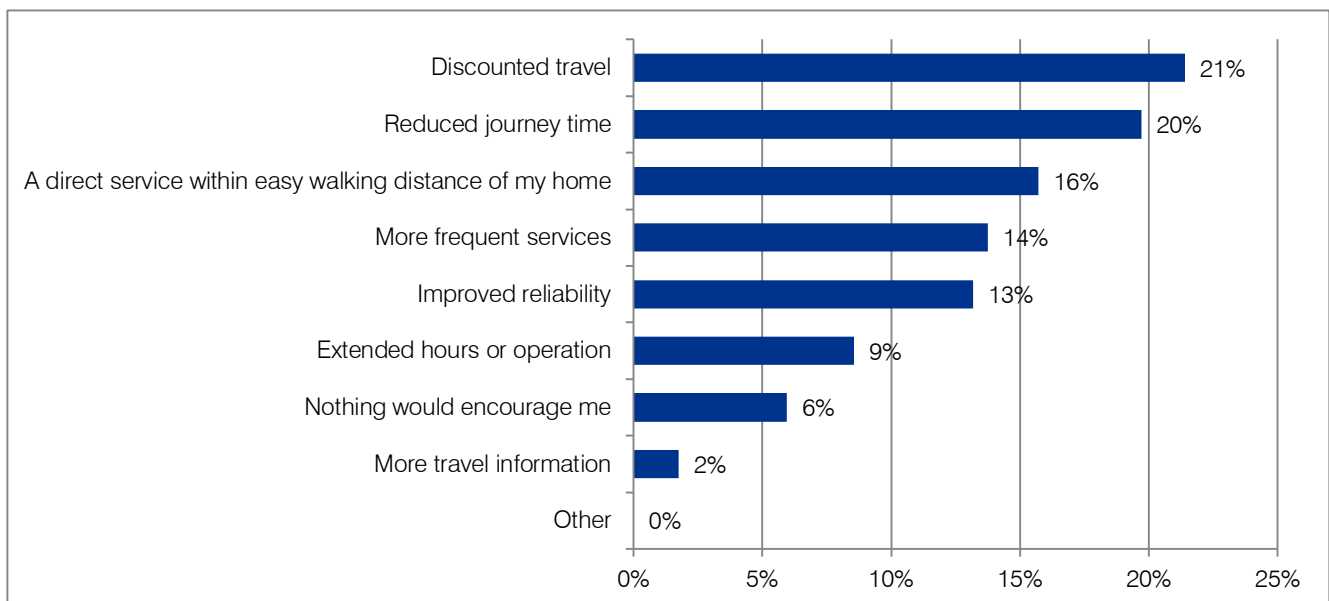
#### 3.3.1 Public Transport

Staff and students who do not take public transport were asked what would encourage them to take public transport. Figures 3.4 and 3.5 display these results:

**Figure 3.4: What would encourage staff to take public transport to Central Area?**



**Figure 3.5: What would encourage students to take public transport to Central Area?**



**Staff:**

- Time and availability are clearly the main factors determining public transport usage, with 39% of staff more likely to take public transport if journey times were shorter (22%) and increased service frequency (17%).
- Accessibility – both locational and financial – are also significant with 16% of staff more likely to use public transport if they had a service within walking distance of their home; and 15% more likely with a discount on fare prices.

**Students:**

- Students are more influenced by the cost of travel, with 21% of students are more likely to use public transport if fares were discounted.
- Though not as highly prioritised as staff, students would still be more encouraged to use public transport if journey times were quicker (20%) and direct services within walking distance of their home (16%).

- 9% of students would use public transport more with extended hours of operation. This would be focussed at evening times for students studying into the evening.

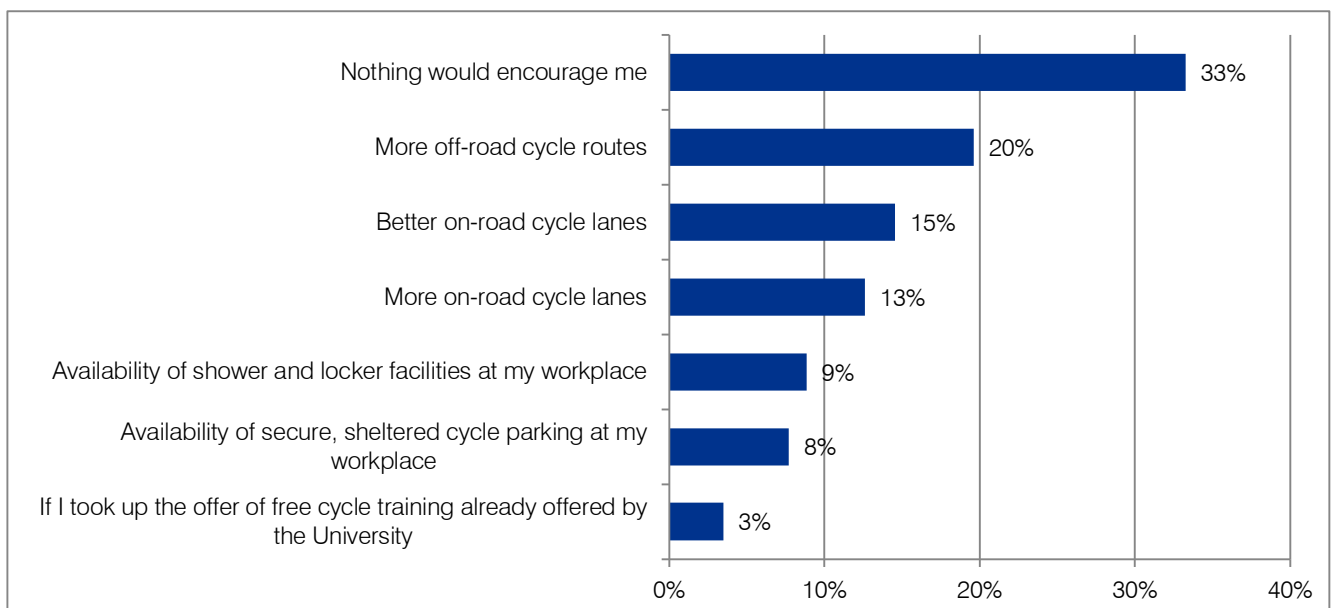
It is very encouraging that the percentage of both staff and students needing more travel information is very low (1% and 2% respectively), showing that both groups at Central Area are aware of and able to access Public Transport information;

However, 12% and 13% of staff and students respectively would use public transport if it is more reliable. Improvements need to be made regarding punctuality and capacity of services – especially at peak times - as it has been seen through qualitative comments that staff and students have experienced public buses skip bus stops once full, or have to wait on the next service which is of great inconvenience.

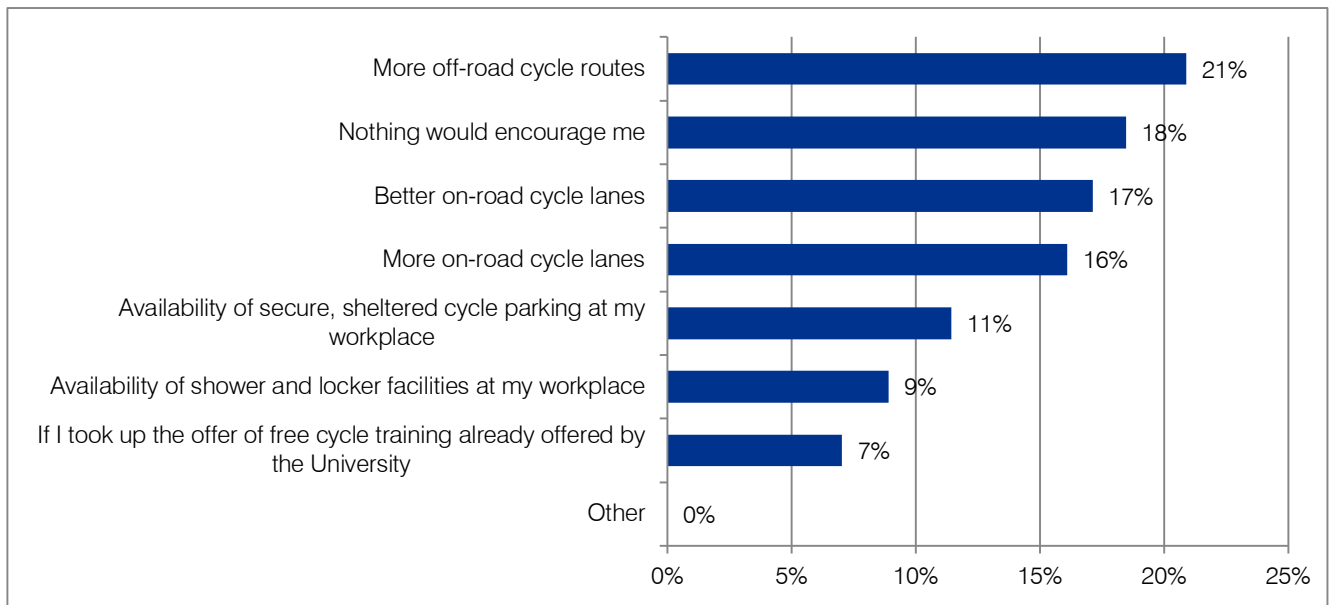
### 3.3.2 Cycling

As the overall cycle mode share for Central Area in 2016 was 10%, there needs to be a 5% increase by 2021 to achieve the University’s cycling mode share target of 15%. Staff and students who do not cycle were asked what would encourage them to cycle to Central Area. Figures 3.6 and 3.7 below show the results.

**Figure 3.6: What would encourage staff to cycle to Central Area?**



**Figure 3.7: What would encourage students to cycle to Central Area?**



**Staff:**

- 48% of staff would be encouraged to cycle more for reasons relating to cycle route provision and quality. 33% would prefer more on and off-road routes, with 15% preferring better on-road cycle lanes.
- A third of staff cannot be encouraged to cycle to Central Area. 27% of staff living within 2 miles of Central Area chose to walk as their main mode. This shows that many staff live within a commuting distance which does not require the use of a bike.
- 27% of staff overall would be encouraged to cycle to Central Area if there was an increase in availability of cycle amenities at Central Area - including secure, sheltered parking as well as shower and locker facilities.
- Only 3% of staff would consider cycling if they took up the offer of free cycle training provided by the University.
- There is potential to increase the cycle mode share of those living up to 5 miles from Central Area. Over a distance of 0-5 miles, 22% of staff take public bus and 3% take car-based modes compared to 13% who cycle to Central Area. There is an opportunity here to encourage Staff who take car-based modes and public bus to consider taking up cycling as 5 miles is within an accepted 30-40 minute journey time.

**Students:**

- Students are similar to staff, with 54% placing most emphasis on the provision of on and off-road cycle route provision and the quality of the routes.
- More students are likely to be encouraged to cycle if there was increased availability of secure, sheltered parking as well as locker and shower facilities compared to staff.
- 7% of students are also more likely to cycle should they take up the free cycle training offered by the University.
- 67% of students walk to Central Area over a distance of 2 miles or less compared to cycling which accounts for 7%. Due to its Central location and proximity to student halls and accommodation, students may not choose to cycle because of the good walking accessibility around the Central Area vicinity. 4% of students take the public bus over a distance of 2-5 miles, compared to cycling which accounts for 1%.

### 3.4 Summary & Recommendations

The University has achieved a very high level of sustainable travel practice at the Central Area and to maintain this, it is recommended that it continues to offer the following assistance to staff and students who are based there:

- Promotion of rail services for longer distance trips.

- Marketing of public bus and tram routes to existing car users.
- Identify and explore options to reduce bus journey times and increase opportunities for discounted student travel.
- To achieve the 15% cycle mode share set out in the Integrated Transport Strategy 2016-21, the University should work with City of Edinburgh Council to develop more on and off-road cycle routes around the Central Area; and to sufficiently maintain them to increase cyclist and pedestrian safety.
- Increase marketing of TripShare to staff car users.
- Increase promotion of City Car Club to all staff for business travel.



## 4. King's Buildings

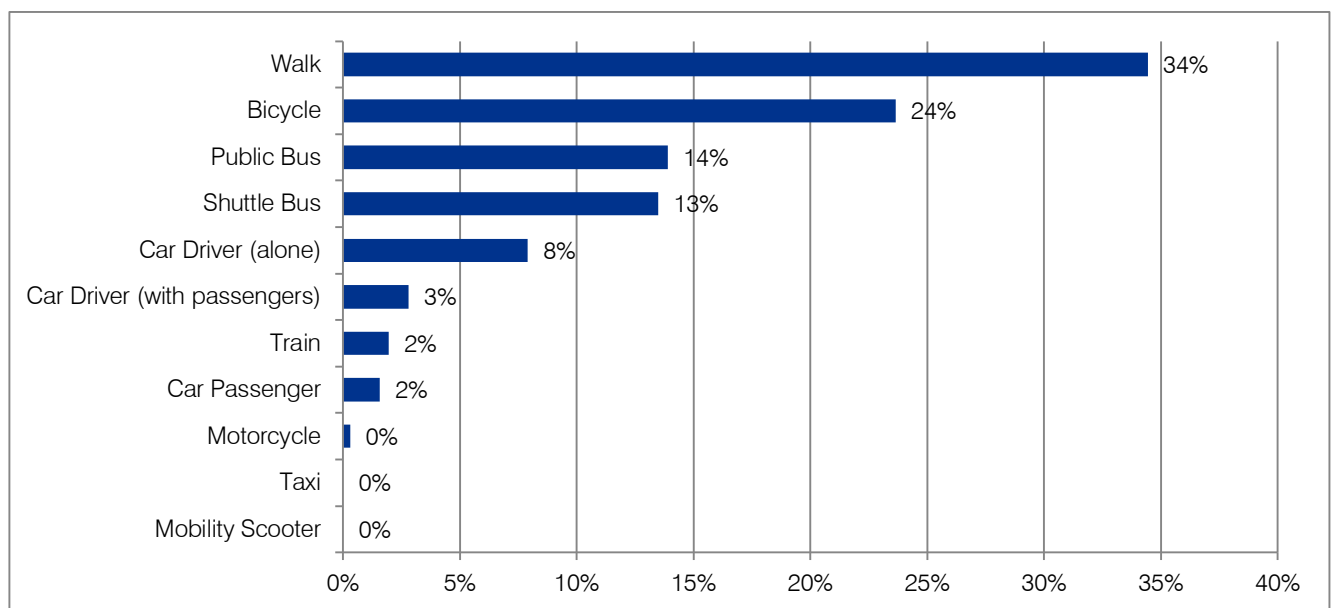
### 4.1 Introduction

At King's Buildings, 685 staff and 884 students responded to the 2016 travel survey, equating to a response rate of 26% and 13% respectively.

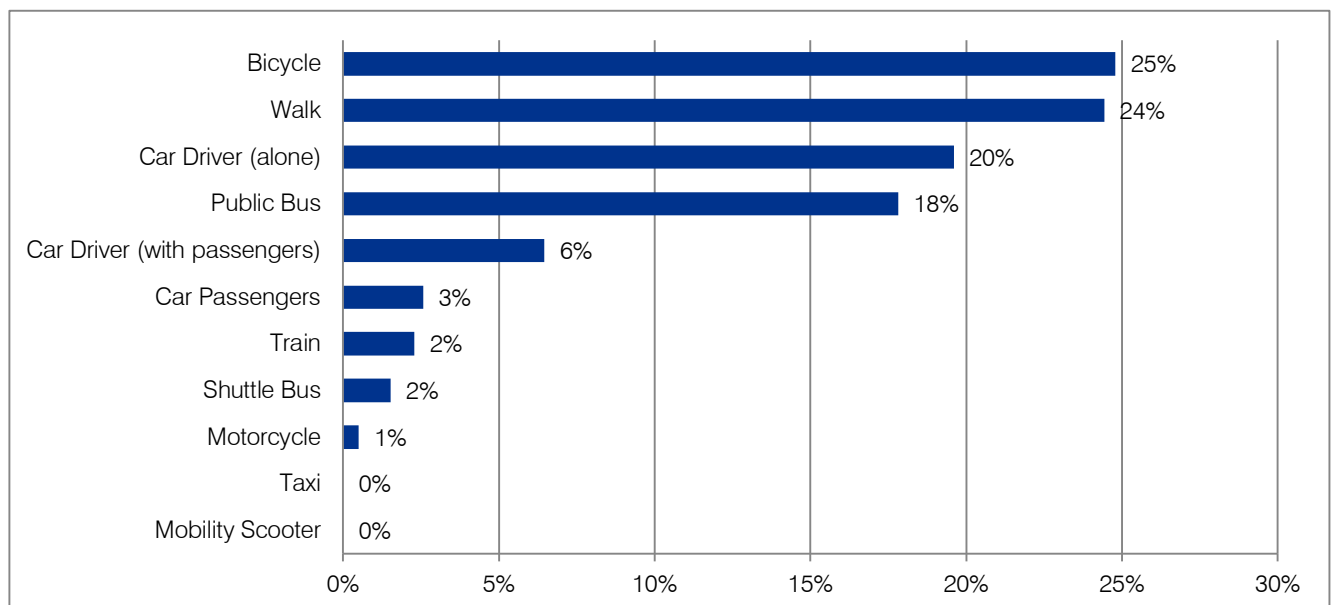
### 4.2 Mode Share

A summary of the 2016 mode share for staff and students is presented in Figures 4.1 to 4.3 below.

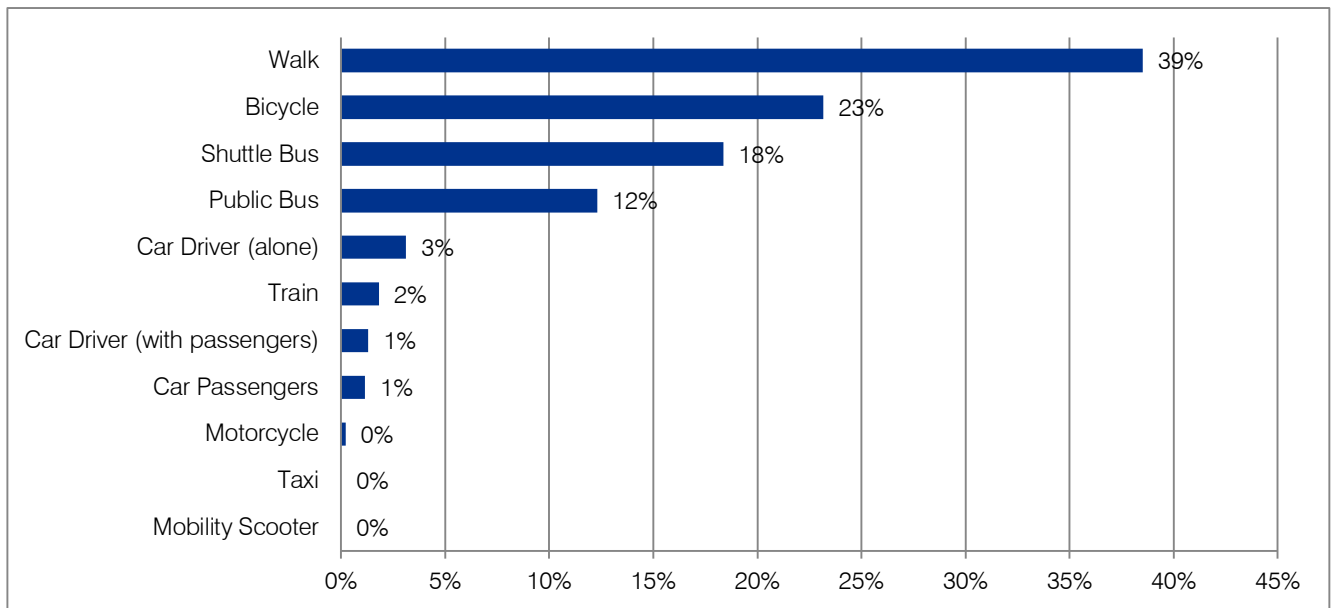
**Figure 4.1: King's Buildings – Overall Mode Share (2016)**



**Figure 4.2: King's Buildings – Staff Mode Share (2016)**



**Figure 4.3: King's Buildings – Student Mode Share (2016)**



The key findings are:

- Car usage amongst staff has reduced significantly, with a 4% and 2% drop in single-car occupancy and car driver with passenger journeys respectively; with car passenger journeys remaining the same since 2013. This may have been caused by the reduction in car parking spaces around the King's Buildings areas. Student car usage remains low and at the same levels as 2013.
- The majority of staff and students (58%) based at King's Buildings walk or cycle, showing a strong participation level of Active Travel. Despite a small decrease in walking, the staff active travel share has increased by 9% since 2013 due to a large uptake in cycling.
- The staff and student cycling mode shares of 25% and 23%, respectively, exceed the Government's 10% target by 2020 and the Edinburgh 2030 Transport Vision<sup>1</sup> target of 15% by 2020.
- Public bus use has remained at 18% for staff and increased to 12% for students (up 2%). The University's shuttle bus is used by 18% and 2% of the students and staff, respectively. This is consistent with the 2013 results.
- Since 2013, TripShare use and awareness has declined significantly and City Car Club use and awareness has remained consistent.
- Overall King's Buildings has achieved a high sustainable travel mode share, with active travel, public and shuttle bus usage all exceeding car-based usage.

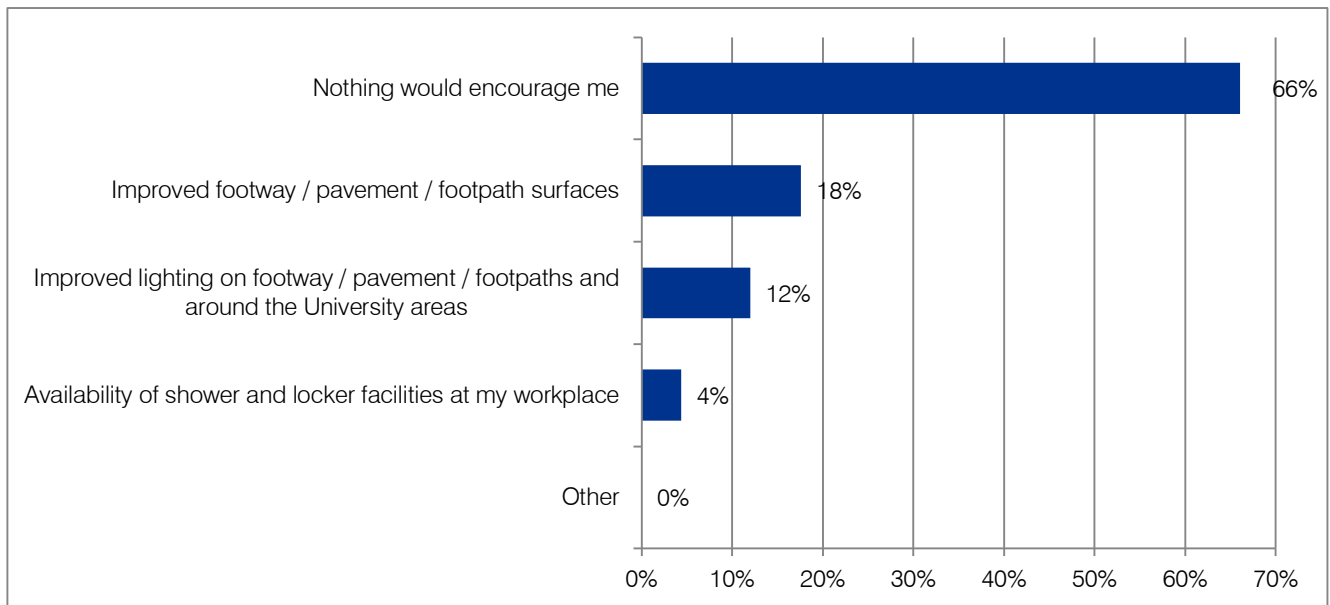
## 4.3 Encouraging Sustainable Travel

### 4.3.1 Walking

The staff mode share for walking is currently 24% and therefore short of University's 30% walking mode share target for 2021. Figure 4.4 below shows what would encourage staff to walk to King's Buildings.

<sup>1</sup> Transport 2030 Vision will guide the work of the City Of Edinburgh Council City Development Transport Service over the next 20 years. It is an Internal Document that sits alongside the regularly updated Local Transport Strategy.

**Figure 4.4: What would encourage staff to walk to King’s Buildings?**



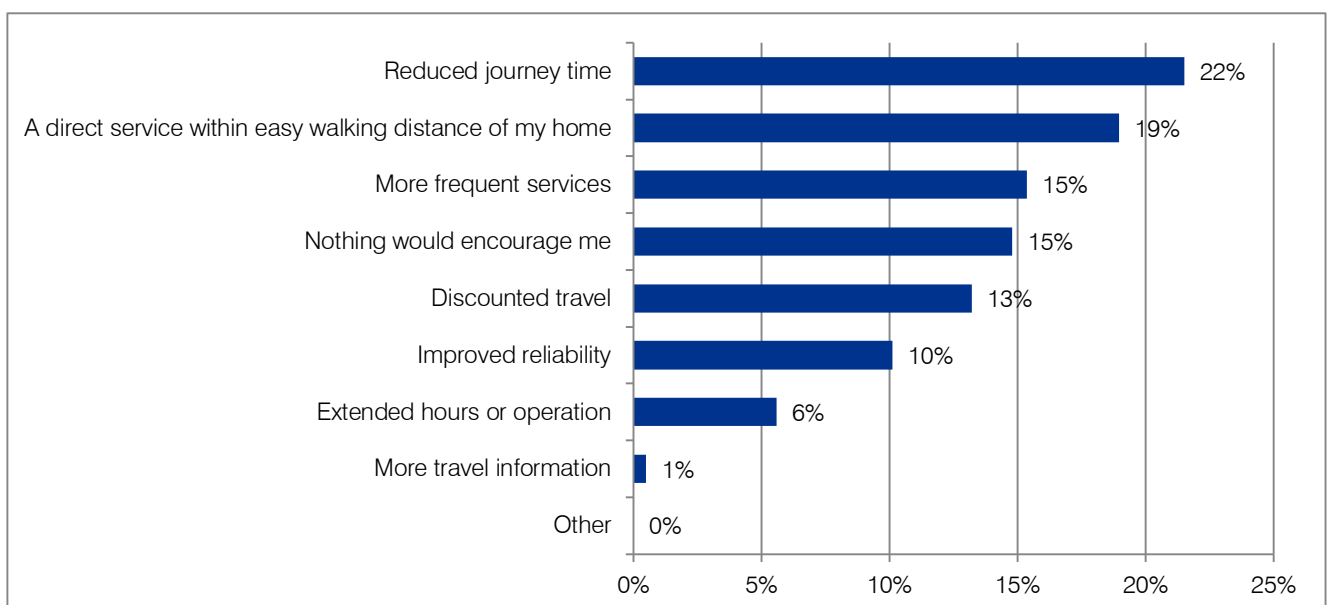
Overall:

- 66% of staff are unlikely to be encouraged to walk to King’s Buildings. Despite this, there was an increase in the staff cycle mode share, showing there is an appetite amongst staff to use active forms of travel.
- 30% of staff could be encouraged to walk if the pedestrian infrastructure was improved – such as pavement surfaces and street-lighting. Comments from both staff and students have called for more and better street-lighting for reasons relating to personal safety.

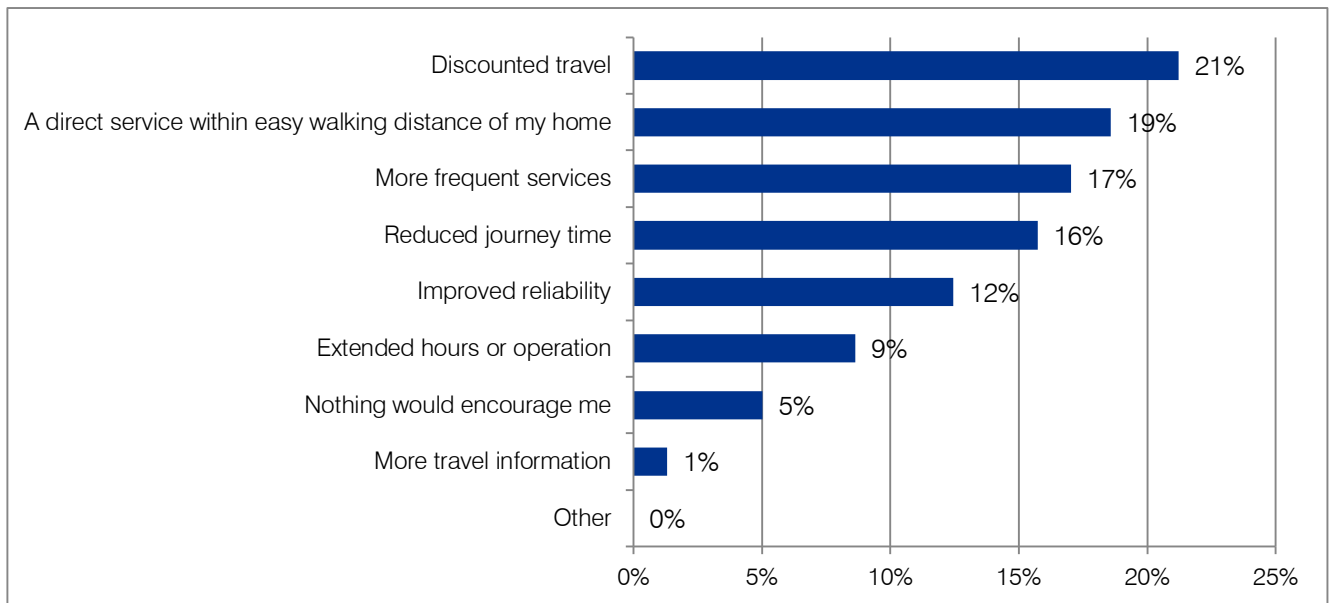
### 4.3.2 Public Transport

Staff and students who do not take public transport were asked what would encourage them to take public transport. Figures 4.5 and 4.6 display these results:

**Figure 4.5: What would encourage staff to take public transport to King’s Buildings?**



**Figure 4.6: What would encourage students to take public transport to King’s Buildings?**



**Staff:**

- Reduced journey time would encourage 22% of staff to take public transport to and from King’s Buildings; and a further 19% would if they had a direct service within walking distance of their home. More frequent services account for 15%, highlighting that overall Staff are most concerned about total journey time when they are considering public transport.
- Only 10% and 6% of staff would be encouraged to use public transport if the reliability improved and if service providers extended their hours of operation respectively.
- Interestingly, 15% of staff say they nothing would encourage them to take public transport. This response is likely due to some respondents stating that private car and even cycling have quicker journey times; as well as personal mobility issues, family commitments, extra-curricular activities and fare-cost.

**Students:**

- Discounted travel would encourage 21% of students to take public transport; and just like staff, 19% would be encouraged to take public transport if they had a direct service within close proximity to their home. Regarding issues related to overall journey time, 33% of students would be encouraged to take public transport if there were more frequent services (17%) and reduced journey times (16%).
- Significantly, public transport would more likely to be used if the service had improved reliability (12%); and extended hours of operations would encourage 9% of students to take public transport.

Only 1% of staff and students respectively would be more encouraged to take public transport if more travel information was available. Just like the Central Area, it shows awareness of travel of travel information amongst staff and students is good.

Staff and students were asked to comment on how transport services could be improved at King’s Buildings. Both Staff and students are most concerned about the availability and overcrowding of shuttle buses during the AM and PM peaks, citing they do not coincide with lecture times and do not have enough capacity:

*“Evening shuttle buses from 4pm between KB [King’s Buildings] and Central are too infrequent and often over-crowded during terms (apart from Wednesdays). They should be more frequent due to high student usage” [Student].*

*"...it would be better if there was an additional shuttle bus service leaving the Central area between 9am and 10am because there is a big gap between the 9.18am and 10.08am service and this is not ideal for people who have classes starting at 10am" [Staff].*

Regarding public transport, there are calls from staff to introduce a connection between the Edinburgh Rail stations and King's Buildings:

*"We need a bus from Waverley Station to KB again. In the past the 41/42/67 were routed via Waverley Bridge but no longer and it is off putting for people arriving by train as the walk either onto the Bridges or the Mound involves either step or a steep hill. Perhaps as a start the 67 could be diverted to Market St?" [Staff].*

Furthermore, there are concerns over the quality and safety of the cycle routes around King's Buildings:

*"I don't feel safe commuting by bike, even though I do it every day. I would feel safer if, in the main streets, there were dedicated bike lanes where cars can't park" [Student].*

*"The 'Cycle corridor' is not very good at all as cars park all over it. I tend to cycle the other route from Marchmont to King's Buildings up Blackford Avenue and this can be quite dangerous. There are many, many cyclists around King's Buildings who should go on the cycle skills course - some are very dangerous - cycling with no lights in the dark, cutting up other cyclists constantly etc." [Staff].*

#### **4.4 Summary & Recommendations**

It is recommended that the following measures be considered to maintain and increase sustainable travel mode share at the King's Buildings:

- Review shuttle bus service to accommodate peak hours and facilitate timetable to coincide with classes.
- Continued promotion of cycling and the bike-related services provided by the University, especially at staff and students who live within commuting distance by walking and cycling.
- Focussed discussions with the City of Edinburgh Council and Sustrans in relation to maintaining and improving the surrounding pedestrian infrastructure and cycle network for safety.
- Promotion of Tripshare to staff car drivers; and City Car Club to staff for business travel.
- Promotion of public buses to staff and students, focusing on staff car drivers.
- Identifying potential for quicker direct bus routes, especially from Haymarket and Waverly Rail Stations.

## 5. Easter Bush

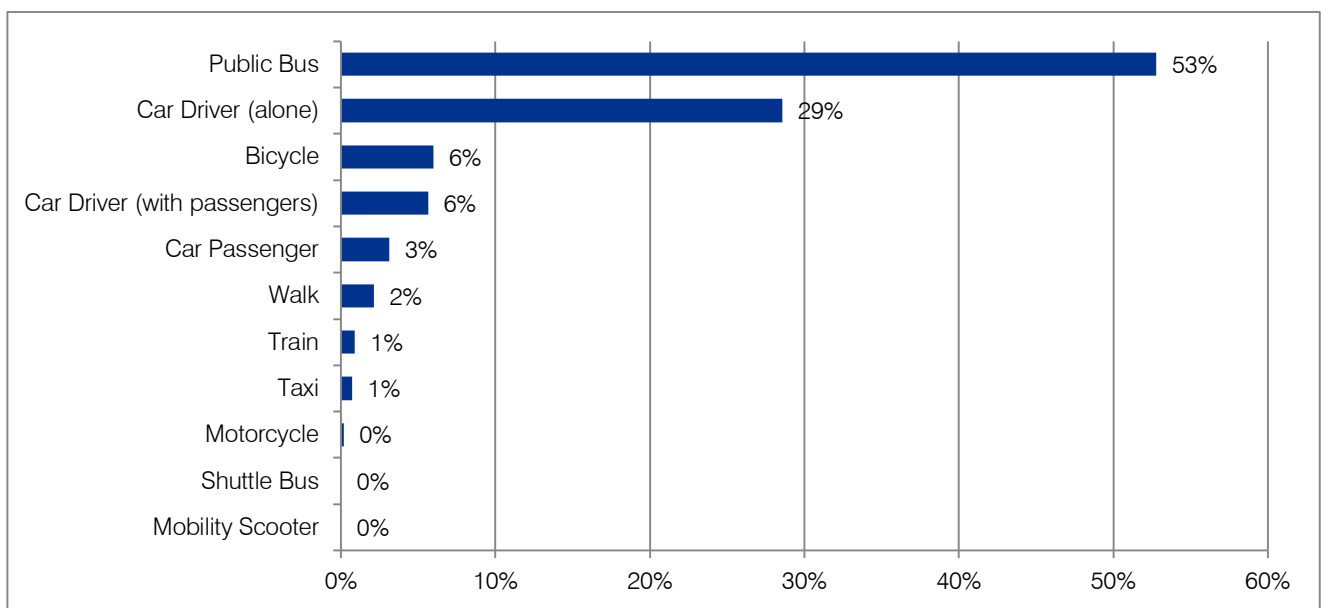
### 5.1 Introduction

At Easter Bush, 215 staff and 152 students responded to the 2016 travel survey, equating to a response rate of 28% and 10%, respectively. The survey findings are summarised in the following section.

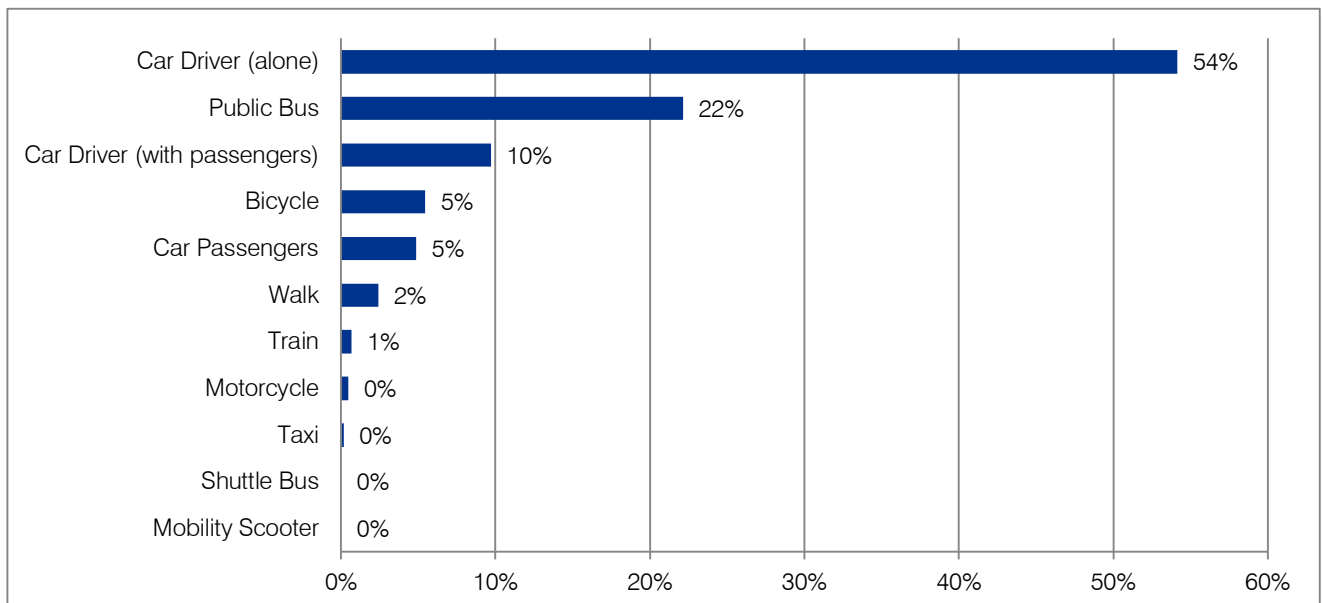
### 5.2 Mode Share

The 2016 Easter Bush mode share for staff and students is presented in Figures 5.1 to 5.3 below.

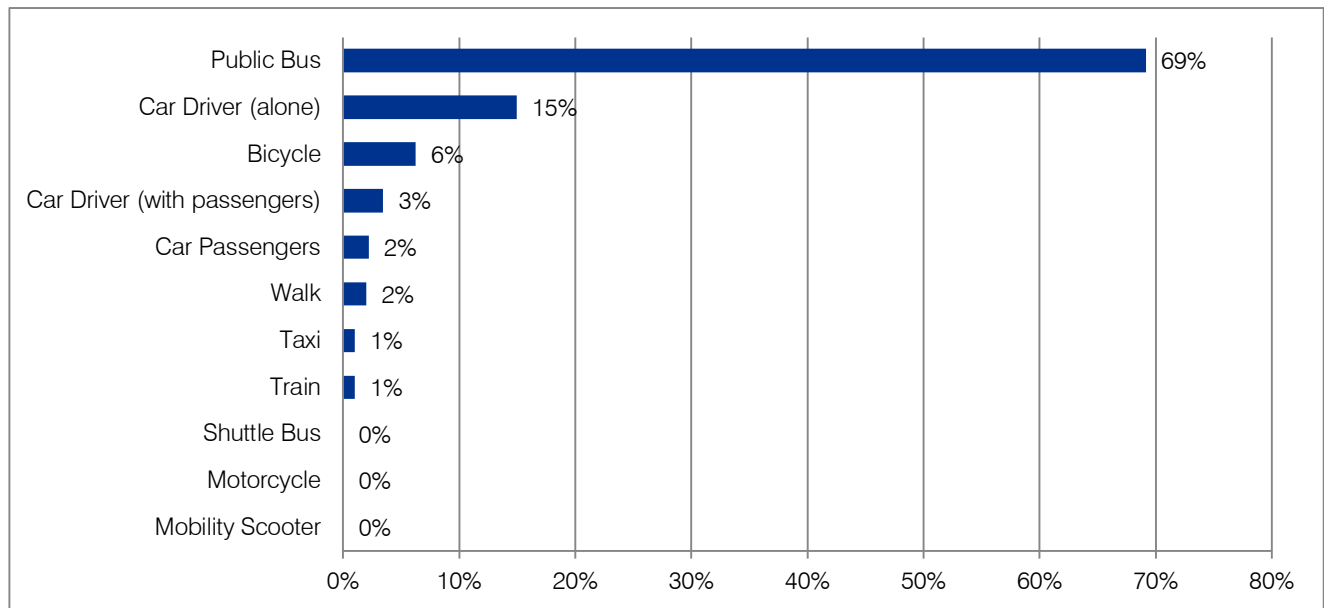
**Figure 5.1: Easter Bush – Overall Mode Share (2016)**



**Figure 5.2: Easter Bush – Staff Mode Share (2016)**



**Figure 5.3: Easter Bush – Student Mode Share (2016)**



The key findings are:

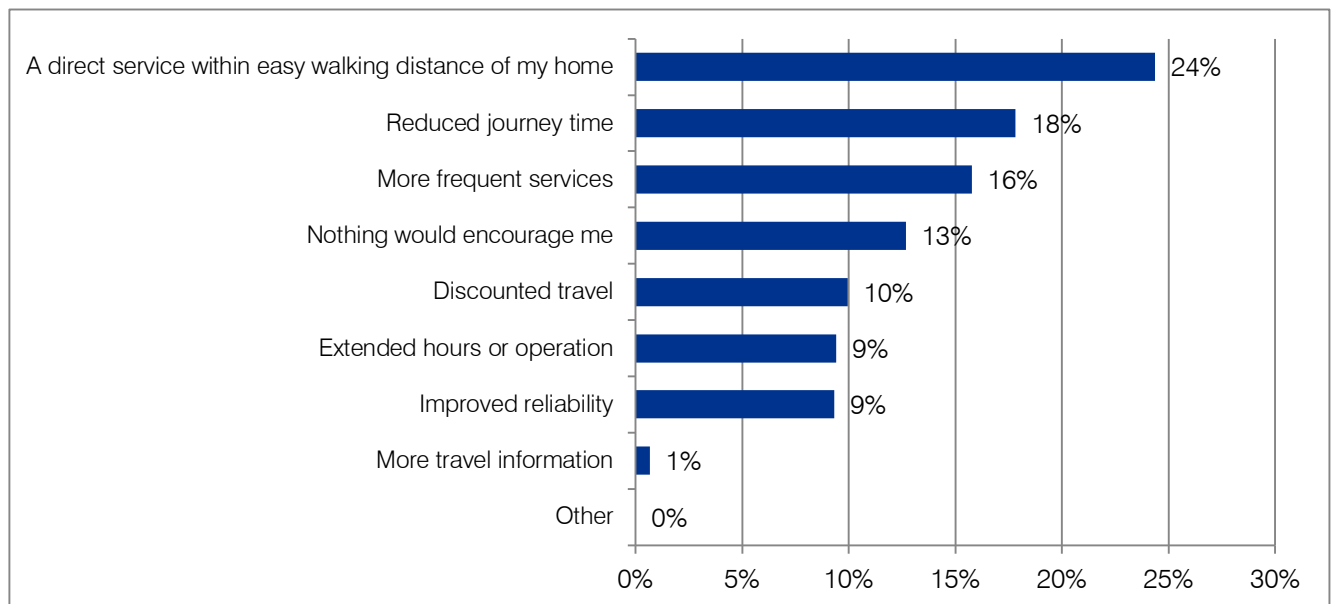
- Giving consideration to its semi-rural location, Easter Bush Campus has a high sustainable mode share with public bus being the most dominant of all modes.
- According to the survey results, the percentage of students travelling to Easter Bush campus by public bus has increased substantially from 52% to 69% since 2013; and 22% of staff choose to travel to Easter Bush by public bus. As explained previously, it is important to treat this with a degree of caution due to the small number of Easter Bush student respondents and the high number of public transport users that have responded.
- Overall, car-based travel accounts for 38% of the overall mode share. Single car occupancy trips have risen by 1% and 2% respectively for staff and students. Compared to 2013, car sharing has dropped significantly. Student and staff car drivers with passenger(s) have reduced from 16% to 3% and 14% to 10% respectively. Students travelling as a car passenger have also reduced by 9%, though staff car passengers remain the same as 2013.
- The walking mode share associated with Easter Bush is low, accounting for 2% of all modes and is lower than 2013. This is not unexpected given that Easter Bush is located out-with a reasonable walking catchment of nearby settlements (in excess of 1.6 km / 20 minute walk).
- The cycling mode share of 6% (5% staff and 6% students) is very good given the semi-rural location of Easter Bush. The number of students cycling has also increased by 2% since 2013. This is also high in comparison to the cycling mode share of 1.4% for Midlothian West Electoral Ward Area (taken from the 2011 Scottish Census Online results for Method of Travel to Study or Work).
- Rail mode share remains static at 1% for both students and staff as there is no local rail station. Though the new Borders Railway heads south from Edinburgh, the nearest stations of Eskbank and Gorebridge are an approximate 7 mile journey to the east of Easter Bush Campus, accessible only by car or cycle.
- Though TripShare membership has significantly reduced amongst survey participants, overall awareness has increased since 2013.

### 5.3 Encouraging Sustainable Travel

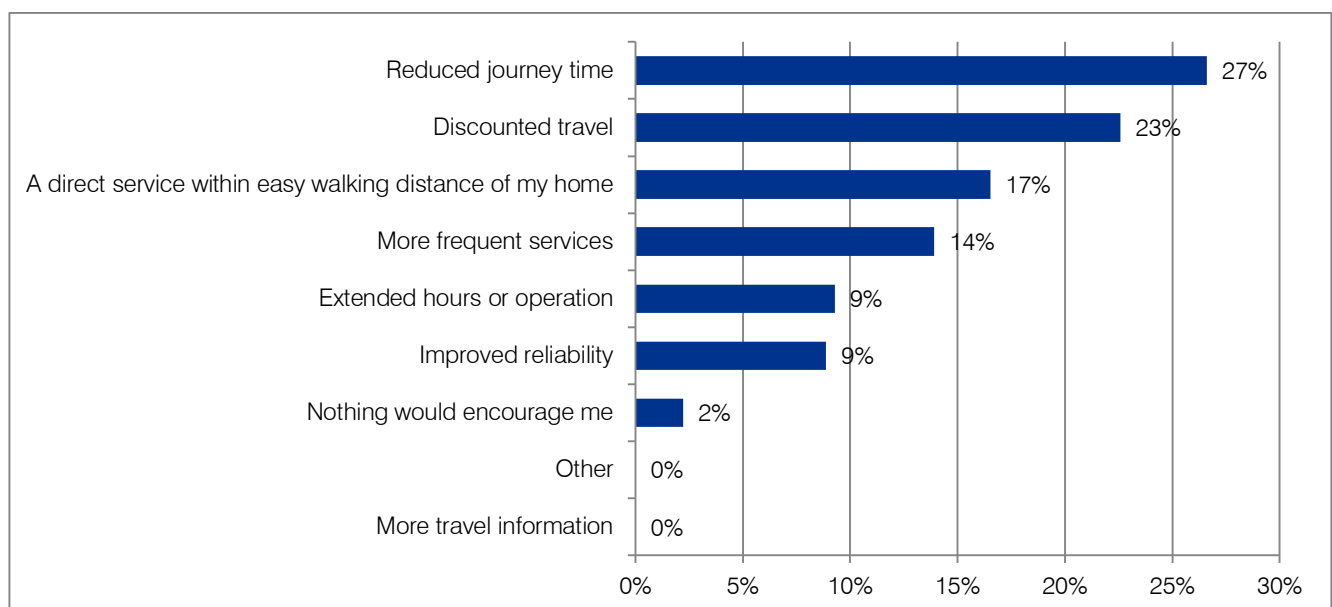
#### 5.3.1 Public Transport

Staff and students who do not take public transport were asked what would encourage them to take public transport. Figures 5.4 and 5.5 display these results:

**Figure 5.4: What would encourage staff to take public transport to Easter Bush?**



**Figure 5.5: What would encourage students to take public transport to Easter Bush?**



Staff:

- 24% of staff at Easter Bush would be encouraged to take public transport if they had a direct service within walking distance from their home. This suggests that there is disconnect between where staff live and the nearest bus stop location that provides a service to Easter Bush.



- Journey time (18%) and more frequent services (16%) were also a factor for encouraging more staff to take public transport to Easter Bush.
- However, 13% could not be encouraged to take public transport to Easter Bush. The reasons for this as commented by Easter Bush staff include needing the flexibility of the private car for personal and caring responsibilities; distance is too long to travel feasibly by public transport; and the cost as it favours longer distance passengers.

#### Students

- More students at Easter Bush would be encouraged to take public transport if the journey time was reduced (27%) and fares were cheaper (23%).
- Regarding reduced fares, many students would prefer a free shuttle bus service to Easter Bush from other University sites as it is offered to Central Area and King's Buildings staff and students and as such feel it is unfair considering the longer distance they must travel to reach Easter Bush and have to pay for the public bus.
- Students would also be more encouraged to use public transport if there were more direct services to the site within walking distance from their home (17%) and more frequent services (14%). Extending hours of operation and improved reliability also account for 9% each.

Staff and students were asked to comment on how transport services could be improved at Easter Bush campus. Public Buses were the main concern to staff:

*"Still problems with overcrowding on X15 service at peak times, with passengers further along the route being left standing at bus stops. Even if it's "only one or two people" each day, this is still one or two people missing lectures, meetings etc. which is not acceptable."*

Students are also concerned about public bus availability along with its cost and feel a low quality service is provided. Students are also vocal about the lack of shuttle bus services and would suggest they are provided either with a shuttle bus to other University sites or subsidised public transport:

*"It's quite unfair that students that travel to King's Buildings receive a daily free shuttle, while us, to go to Easter Bush (double [the] distance) have to pay £45 a month for the bus."*

#### 5.3.2 Cycling

As commented above, given Easter Bush's location the cycle mode share of 6% is very good. In order to improve this share in accordance with the University's targets, staff and students responses indicated they would be encouraged to cycle with more on and off-road; and better quality cycle infrastructure to the Easter Bush Campus. There were also further comments and concerns about cycle safety due to driver behaviour and cycle infrastructure:

*"Two students in our class have had accidents on the way to school on their bikes this year due to insufficient bike lanes and cars recklessly driving. They were both visible with neon vests and adequate lights and reflectors on their bikes when it happened. There are just no bike-paths out to Easter Bush that are safe".*

### 5.4 Summary & Recommendations

It is recommended that the following sustainable travel measures are considered at Easter Bush:

- Address problems of overcrowding and infrequent public bus services to and from the campus.
- Create a shuttle bus service between Easter Bush and other University sites.
- Capitalise on increased Tripshare awareness and continue to promote to staff and students.
- Review the parking management system on an annual basis to ensure that it is still fit for purpose.
- Work with other Bush Area tenants to improve cycle routes within the area. Further encouragement and incentives could be achieved by installing cycle racks on public bus services (and shuttle buses, if adopted).

## 6. BioQuarter

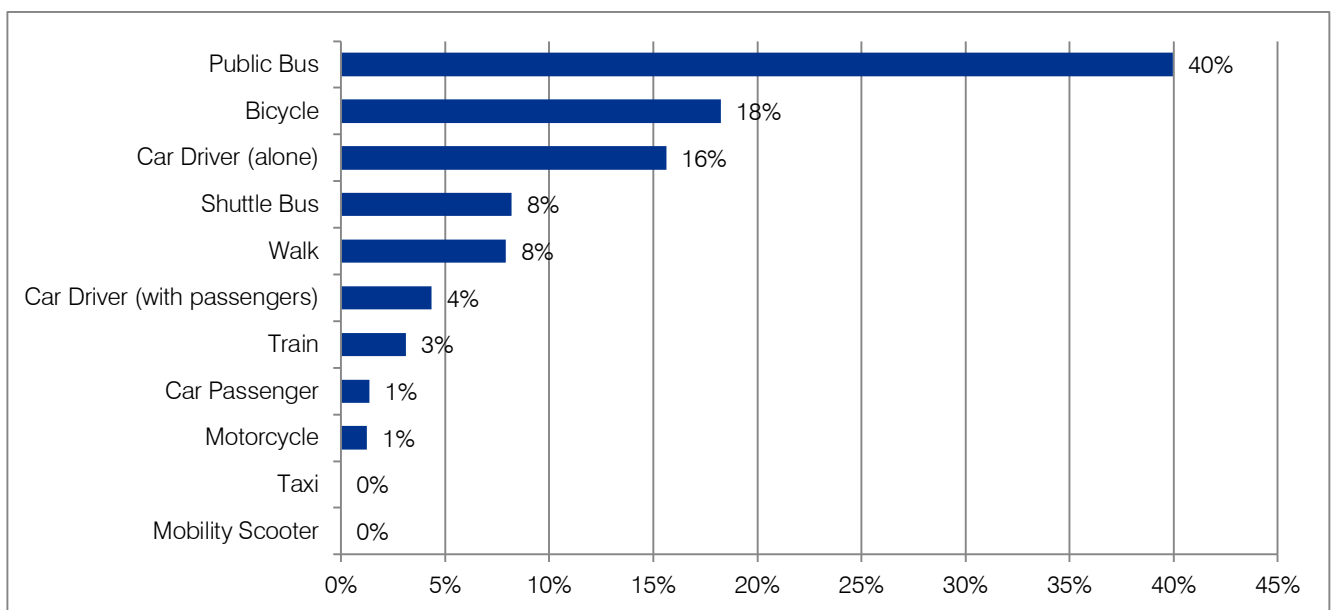
### 6.1 Introduction

At BioQuarter, 341 staff and 134 students responded to the 2016 travel survey, equating to a response rate of 27% and 9% respectively. The survey findings are summarised in the following section.

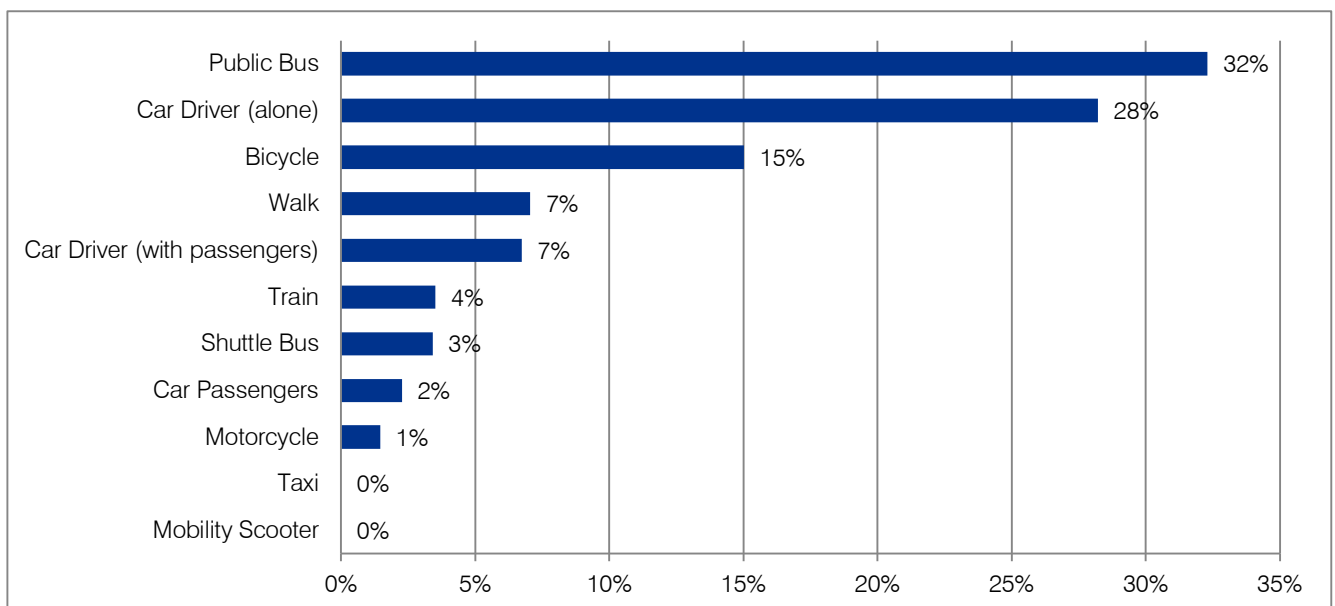
### 6.2 Mode Share

The mode share for staff and students in 2016 is presented in Figures 6.1 to 6.3 below.

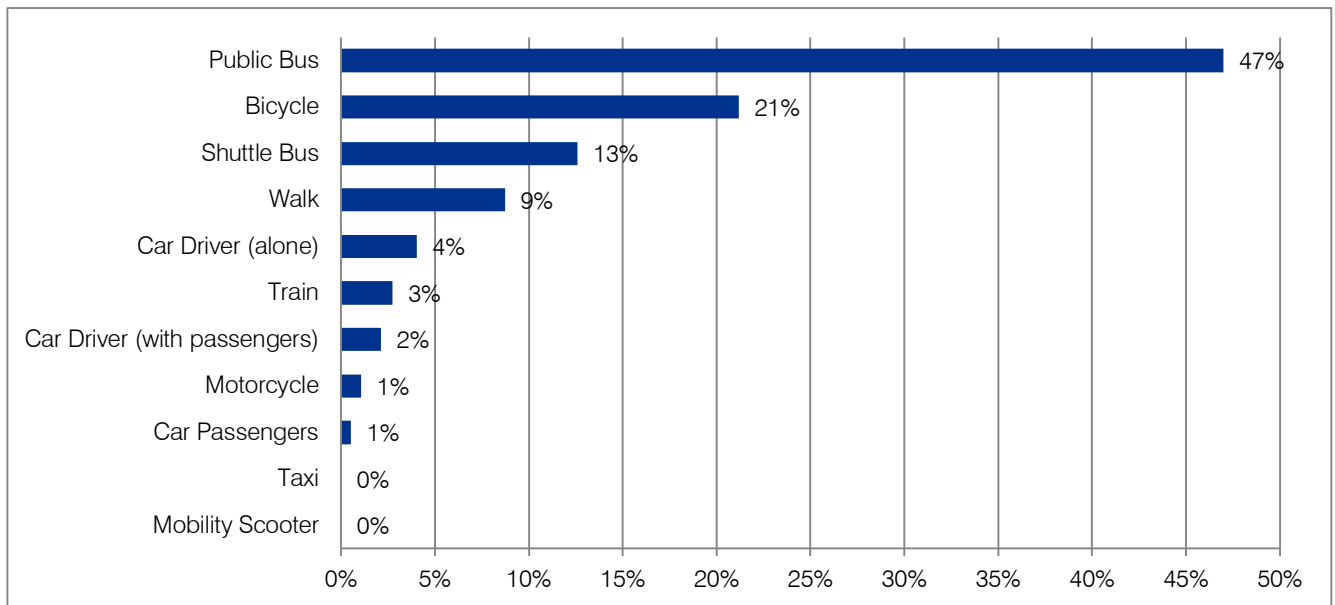
**Figure 6.1: BioQuarter – Overall Mode Share (2016)**



**Figure 6.2: BioQuarter – Staff Mode Share (2016)**



**Figure 6.3: BioQuarter – Student Mode Share (2016)**



The key findings are:

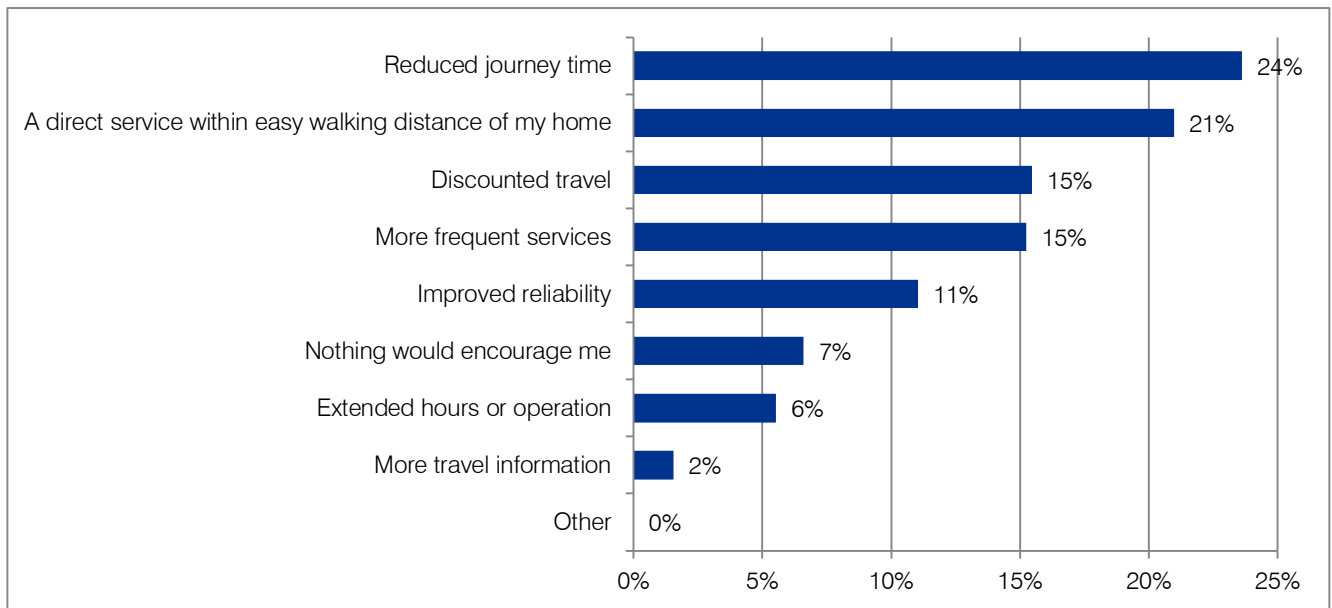
- The majority of staff and students (58%) travel to BioQuarter by public bus or bicycle. There is still however a significant share of single occupancy car trips by staff, totalling 28%.
- A total of 22% and 30% of staff and students respectively choose to walk or cycle to BioQuarter.
- The staff and student cycling mode shares exceed the Government's 10% target by 2020 and the overall BioQuarter cycle mode share of 18% exceeds the Edinburgh 2030 Transport Vision2 target of 15% for 2020. Cycle mode share has remained consistent with 2013 results.
- Public bus usage is an important means of transport to BioQuarter and is used by 32% of staff and 47% of students, though student usage has dropped 5% since 2013.
- The Shuttle Bus, which runs between BioQuarter and the Western General Hospital is used by 3% of staff and 13% of students. Student usage has increased by 7% since 2013, which relates to the drop in student usage of the public bus services as mentioned above.
- Car-based travel is 37%, with 28% accounting for staff single occupancy car driver trips. Overall, this is a reduction of 7% since 2013.
- Since 2013, there has been a slight increase of staff public bus, train and cycle journeys with a corresponding decrease in car driver trips. Student walking trips have decreased, with cycle journeys and car driver trips remaining constant since 2013.
- Tripshare awareness of survey respondents has reduced since 2013.
- More staff are aware of City Car Club since 2013 though use of the scheme by survey participants is consistent with 2013 figures.

### 6.3 Encouraging Sustainable Travel

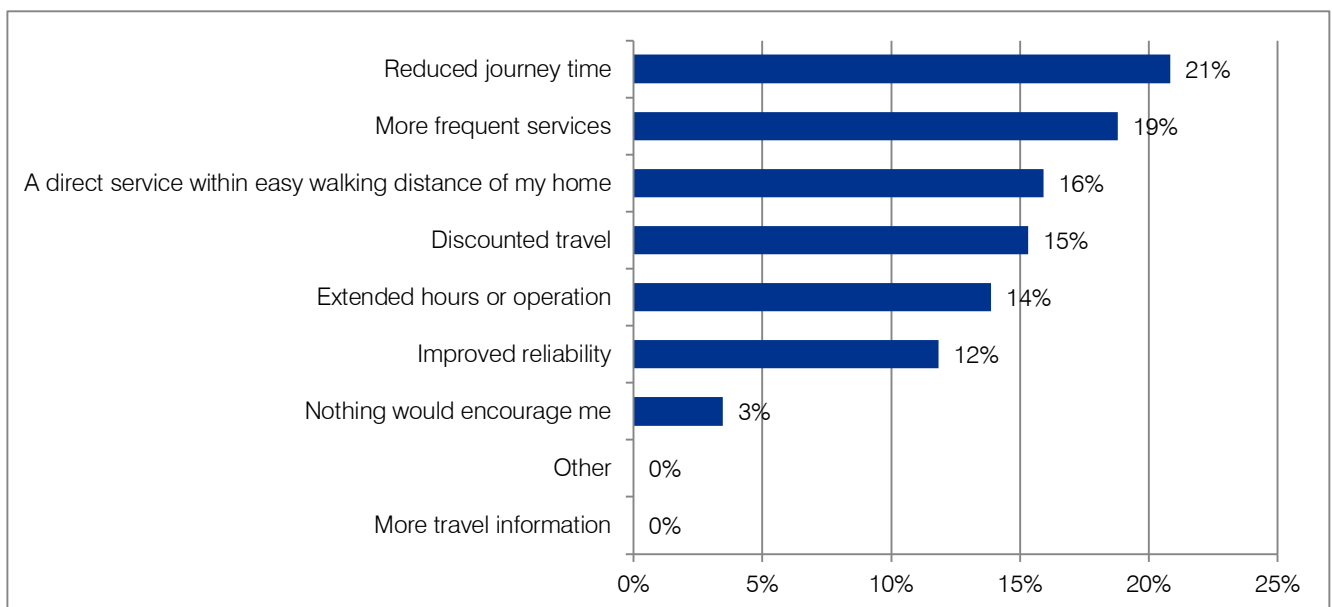
Staff and students who do not take public transport were asked what would encourage them to take public transport. Figures 6.4 and 6.5 display these results:

<sup>2</sup> Transport 2030 Vision will guide the work of the City Of Edinburgh Council City Development Transport Service over the next 20 years. It is an Internal Document that sits alongside the regularly updated Local Transport Strategy.

**Figure 6.4: What would encourage staff to take public transport to BioQuarter?**



**Figure 6.5: What would encourage students to take public transport to BioQuarter?**



Staff:

- 24% of staff at BioQuarter could be encouraged to take public transport if the journey times were to be reduced. Furthermore, 21% would be encouraged if there was a direct service within walking distance from their home. These highlight the need for journey time reduction for BioQuarter staff, both in terms of accessing stations/stops and the main journey itself. Furthermore, 15% of staff surveyed at BioQuarter would be encouraged if there were more frequent services available.
- Discounted travel is the third most chosen method of encouraging more public transport by staff, accounting for 15%. Unlike the previous sites where cost was placed lower, it suggests the price of travelling by public transport to BioQuarter is higher than some are willing to pay, hence being discouraged.

Students:

- Significantly, discounted travel (15%) of travel is only fourth on the list, with time factors dominating what would encourage students to take public transport to BioQuarter. Students are more concerned about reduced journey times (21%), more frequent services (19%) and a direct service within easy walking distance of home (16%) which all account for 56% of students surveyed.
- 14% of students surveyed would be encouraged to use public transport if the hours of operation were extended; and 12% would be encouraged if the services ran more reliably.

Staff and students were asked to comment on how transport services could be improved at BioQuarter. Some comments include:

*"A more frequent and extended-hours shuttle service between central campus and Bioquarter would be really helpful -- as things stand, it is difficult and time-consuming to travel between campuses in the normal course of a work day"* [Staff]

*"I find the route from city to RIE quite dangerous. It is broken in many points, with holes in the tarmac. There are many cars parked in the cycle paths (about 10 in front of Toyota in Old Dalkeith Road) forcing the cyclists to go in the middle of the road together with big trucks driving fast"* [Staff].

*"Liaise with council over repairing potholes to improve safety for cyclists. Provide showers and changing rooms at Chancellor's Building. Currently two tiny shower rooms both out of order. I'm not aware of any changing rooms, so most people have to change in toilet cubicles."* [Student]

## 6.4 Summary & Recommendations

It is recommended that the following sustainable travel measures are considered at the BioQuarter:

- Continue to review cycle facilities and routes in the area including working in partnership with NHS Lothian, including shower and cycle storage facilities and security.
- Promote public transport, especially to car users.
- Support improvements to public transport journey times.
- Promote Tripshare, particularly to staff.

## 7. Western General Hospital

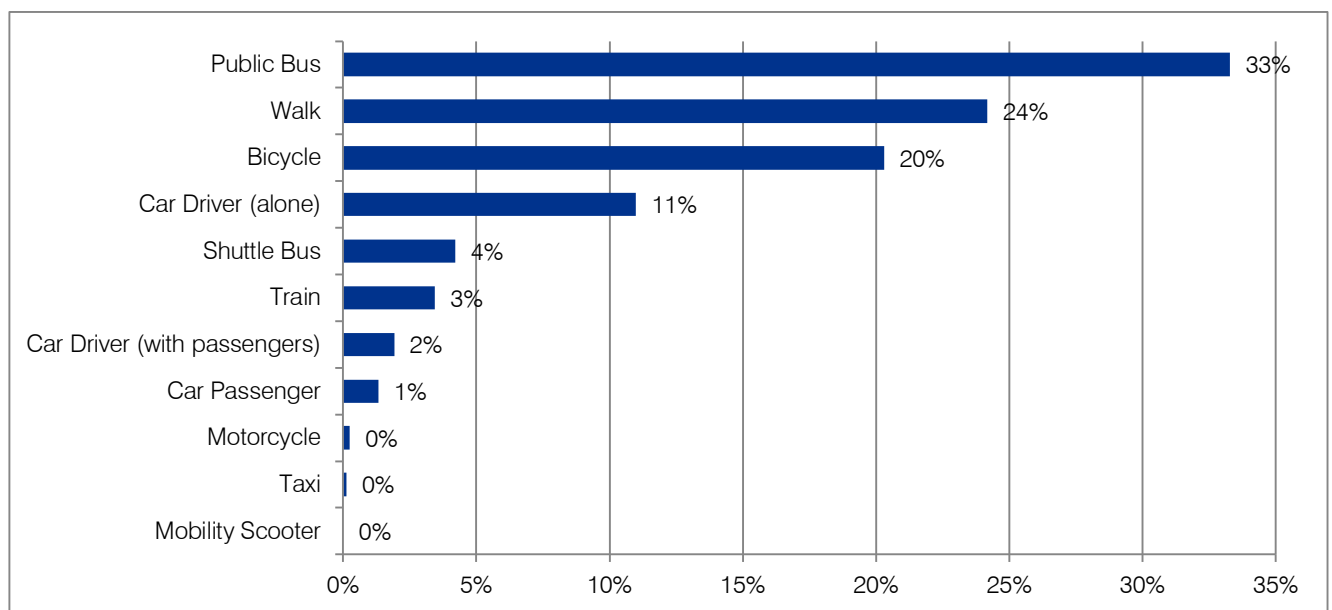
### 7.1 Introduction

At the Western General Hospital (WGH), 199 staff and 44 students responded to the 2016 travel survey, equating to a response rate of 36% and 8% respectively. The survey findings are summarised in the following section.

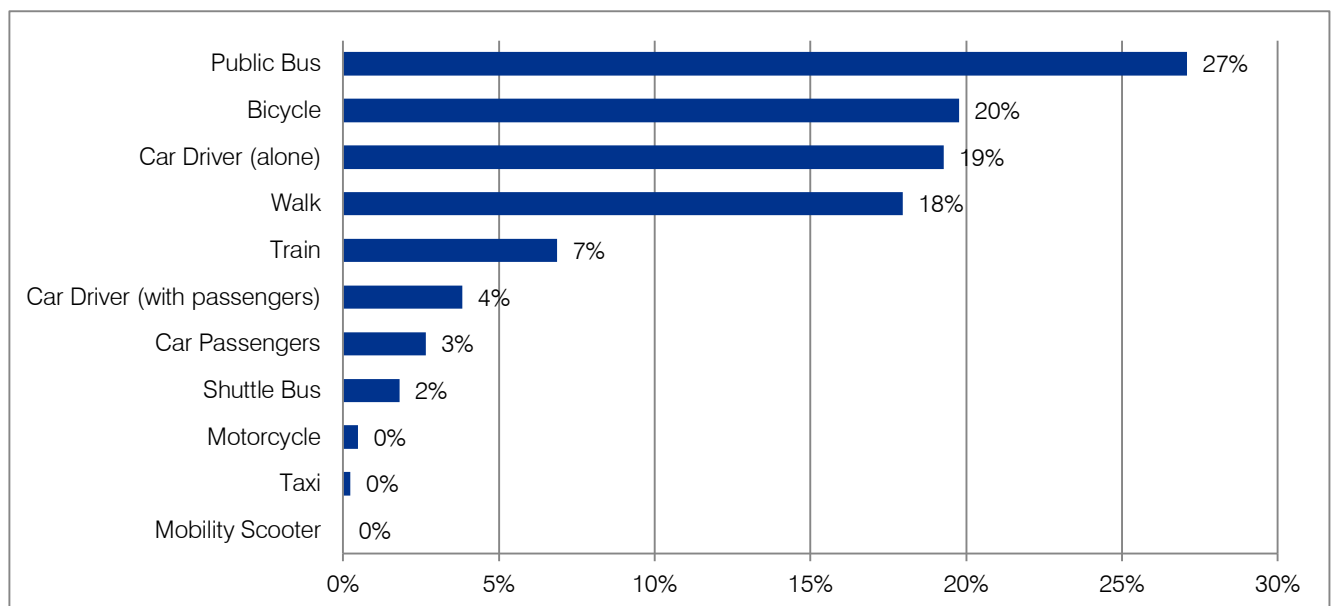
### 7.2 Mode Share

The 2016 mode share for staff and students is presented in Figures 7.1 to 7.3 below.

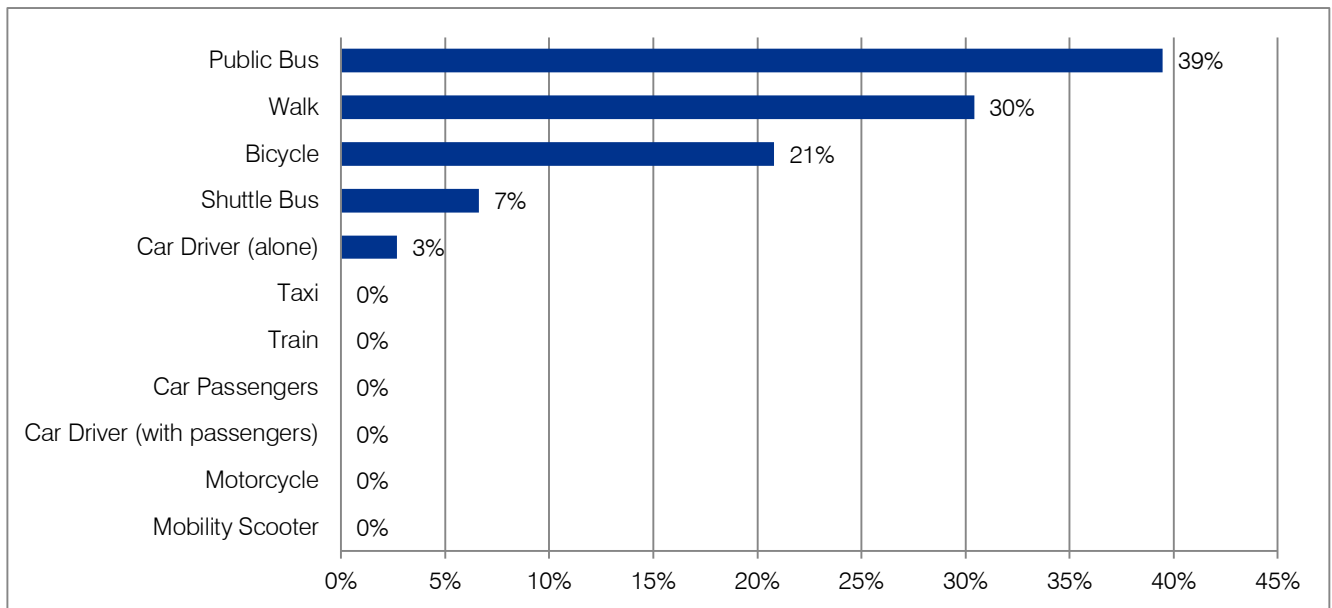
**Figure 7.1: Western General Hospital – Overall Mode Share (2016) .**



**Figure 7.2: Western General Hospital – Staff Mode Share (2016)**



**Figure 7.3: Western General Hospital – Student Mode Share (2016)**



The key findings are:

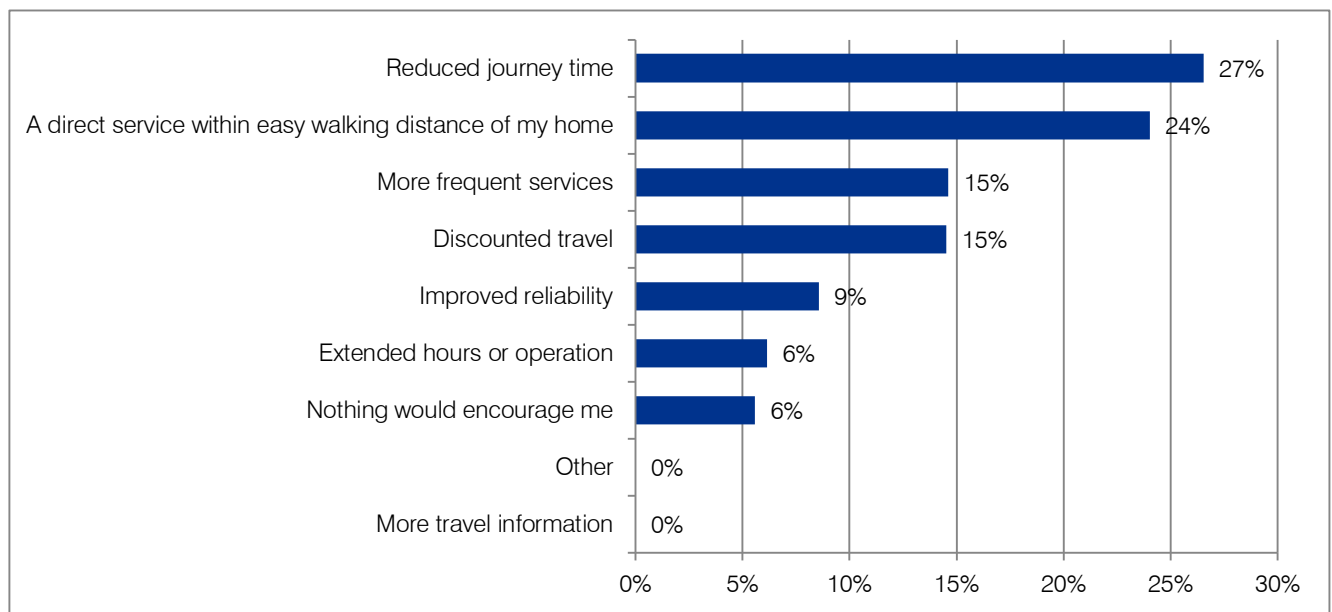
- Though there have been significant changes in mode share distribution since 2013, there is still an overall high proportion of active travel among both staff and students – a total of 44%.
- The staff and student cycling mode shares of 20% and 21%, respectively, exceed the Government's target of 10% and Edinburgh's 2030 transport vision<sup>3</sup> target of 15% for 2020. However, staff cycle journeys have decreased 9% since 2013. Given the small number of respondents from this location, the result should be treated with a degree of caution as a disproportionate number of non-cyclists appear to have responded to this question. Furthermore, there is on-site evidence that cycle parking provision is regularly oversubscribed.
- The public bus mode share has risen for both staff and students, increasing 2% to a high of 39% for students, whilst the staff public bus mode share has increased by 8% to 27% of the mode share since 2013.
- Shuttle bus usage amongst both staff and students has risen significantly by 2% and 5% respectively.
- Single occupancy and car driver with passenger journeys amongst staff seen an overall 7% reduction to 23% since 2013. Compared with 2013, the students who completed the survey do not car share, and single occupancy journeys have remained static.
- Staff journeys by train have increased slightly to 7%, however train services are not used by students who participated in the survey.
- Since 2013, there has been an increase in public bus patronage by staff. This corresponds with the similar decrease in staff cycle trips since 2013.
- A total of 3% of staff and 2% students who participated in the travel survey are members of the Tripshare scheme, a small increase since 2013. This is not indicative of exact membership number. Regarding awareness, 60% of staff and 85% of students have not heard of the scheme.
- Although a total of 62% of staff are not aware of the City Car Club – this is an improvement on 2013. The staff who completed the 2016 survey have not used it for business travel. This is not unexpected given that there are no City Car Club spaces in the vicinity of the Western General Hospital.
- The results of the survey show that, in general, awareness and use of the shuttle bus, cycle parking, shower and locker facilities and Dr Bike are high which is consistent with 2013. However, there is a lack of awareness of other travel planning measures that have been implemented to support travel by bicycle.

<sup>3</sup> Transport 2030 Vision will guide the work of the City Of Edinburgh Council City Development Transport Service over the next 20 years. It is an Internal Document that sits alongside the regularly updated Local Transport Strategy.

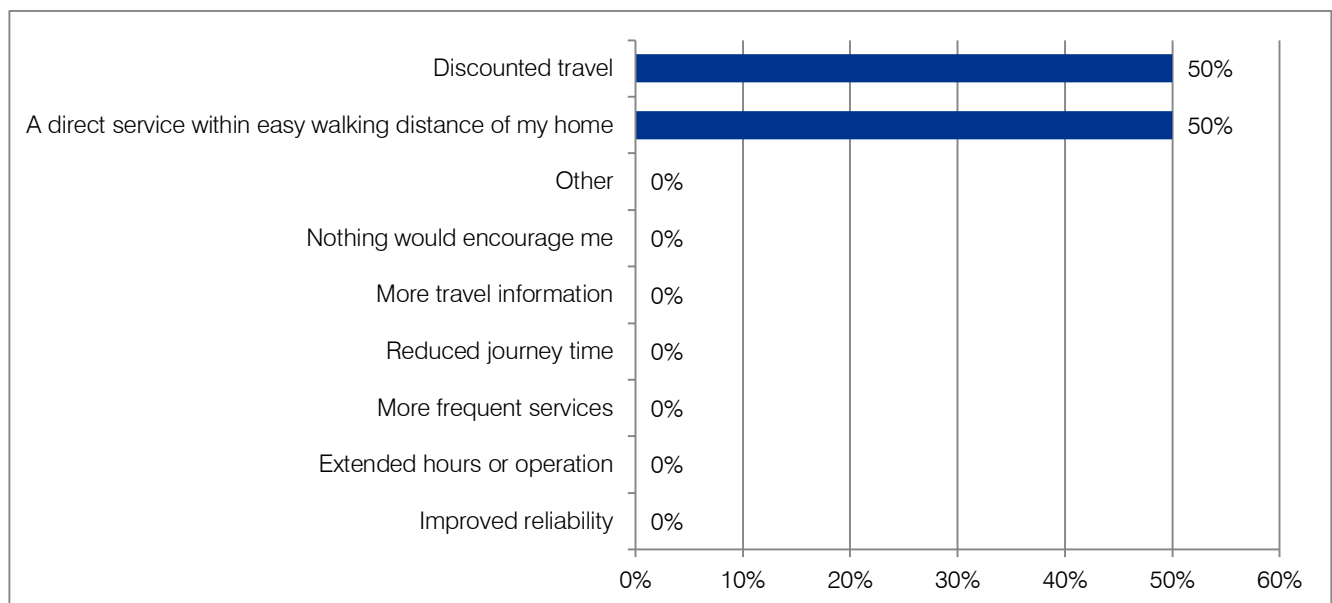
### 7.3 Encouraging Sustainable Travel

Staff and students who do not take public transport were asked what would encourage them to take public transport. Figures 7.4 and 7.5 display these results:

**Figure 7.4: What would encourage staff to take public transport to the Western General Hospital?**



**Figure 7.5: What would encourage students to take public transport to the Western General Hospital?**



Staff:

- At almost a third, 27% of staff could be encouraged to take public transport to the WGH if journey times on public transport were reduced; and a further 24% could be encouraged if there were direct services within walking distance from their home. This shows that just over half of staff (51%) are most influenced by overall journey time.



- Following journey times, more frequent services and discounted travel account for 15% each of what would encourage staff to take public transport to the WGH.
- The survey results indicate that public transport travel information is not a barrier to travel. Significantly, 0% of staff would be encouraged to use public transport on the basis that more travel information is needed. This is a very positive result and the University should continue to promote its travel website and other available information regarding travel via public transport.

Students:

- Due to the lower student response rate, the result of what would encourage students to take public transport at the WGH should be treated with caution.
- Figure 7.5 highlights that discounted travel and a direct service within easy walking distance of home are considered the most influential factors as regards encouraging students to take public transport.

Staff and students were asked to comment on how transport services could be improved at WGH as follows:

*“A larger RIE-WGH shuttle bus. There is nowhere near enough space for students and staff. For this reason I use public buses rather than running the risk of being turned away.” [Student]*

*“Make the availability of how to access the secure bike sheds easier. Push the council to improve the roads - especially to the RIE there are awful potholes. There are no lockers at WGH do not lock!” [Student]*

*“Public transport a fairly expensive here. If you want encouraging people to use it, the best initiative to partially cover (refund) the cost of seasonal pass (or other fares) for train or bus/tram. In addition, more shuttle services connecting the various university sites and at least one of the train stations would be most welcome.” [Staff]*

## 7.4 Summary & Recommendations

It is recommended that the following sustainable travel measures are considered at the Western General Hospital:

- Improve cycle infrastructure between Western General Hospital, Central Area and other hospitals.
- Increase capacity of the shuttle buses.
- Promote walking, cycling and public transport routes.
- Promote Tripshare to staff.
- Support improvements to public transport journey times.
- Support the provision of a City Car Club spaces.

## 8. Royal Edinburgh Hospital

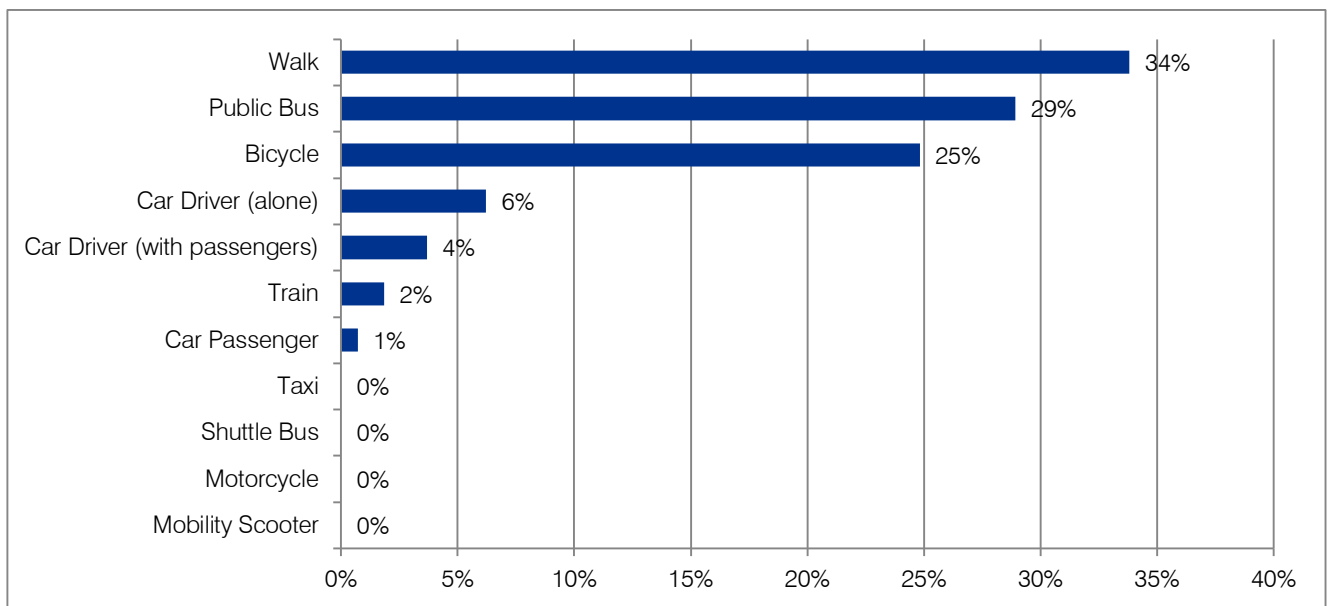
### 8.1 Introduction

At Royal Edinburgh Hospital, 31 staff and 21 students responded to the 2016 travel survey, equating to a response rate of 60% and 10%, respectively. The survey findings are summarised in the following section.

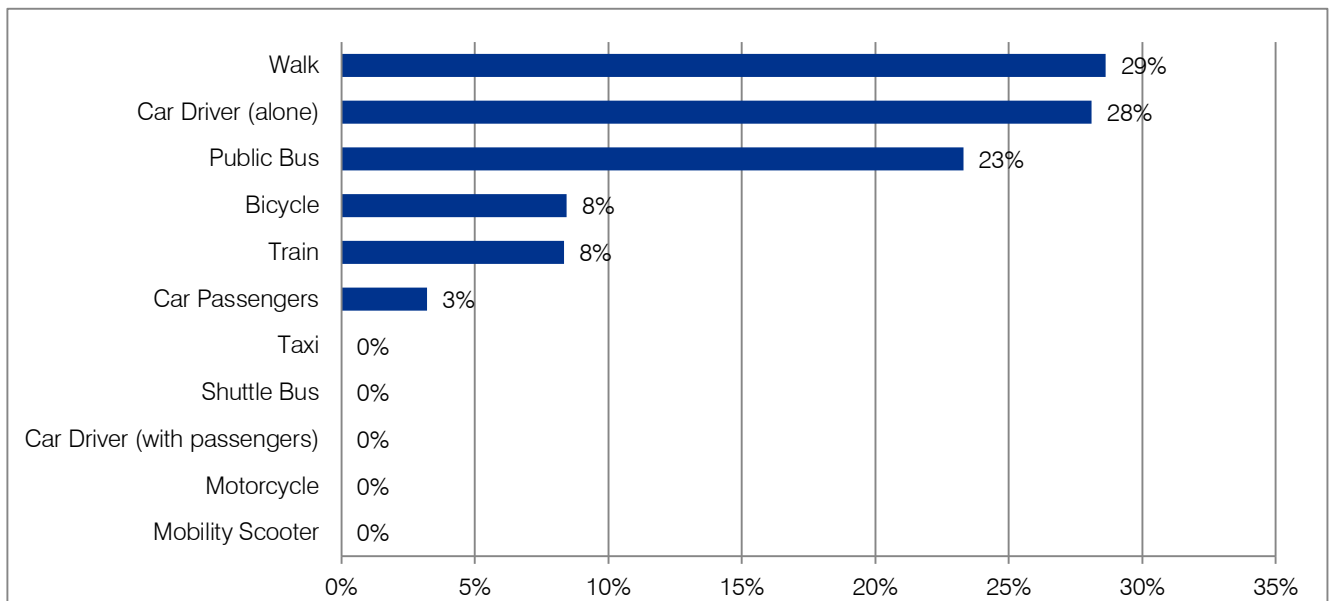
### 8.2 Mode Share

The 2016 mode share for staff and students in 2013 is presented in Figures 8.1 to 8.3 below.

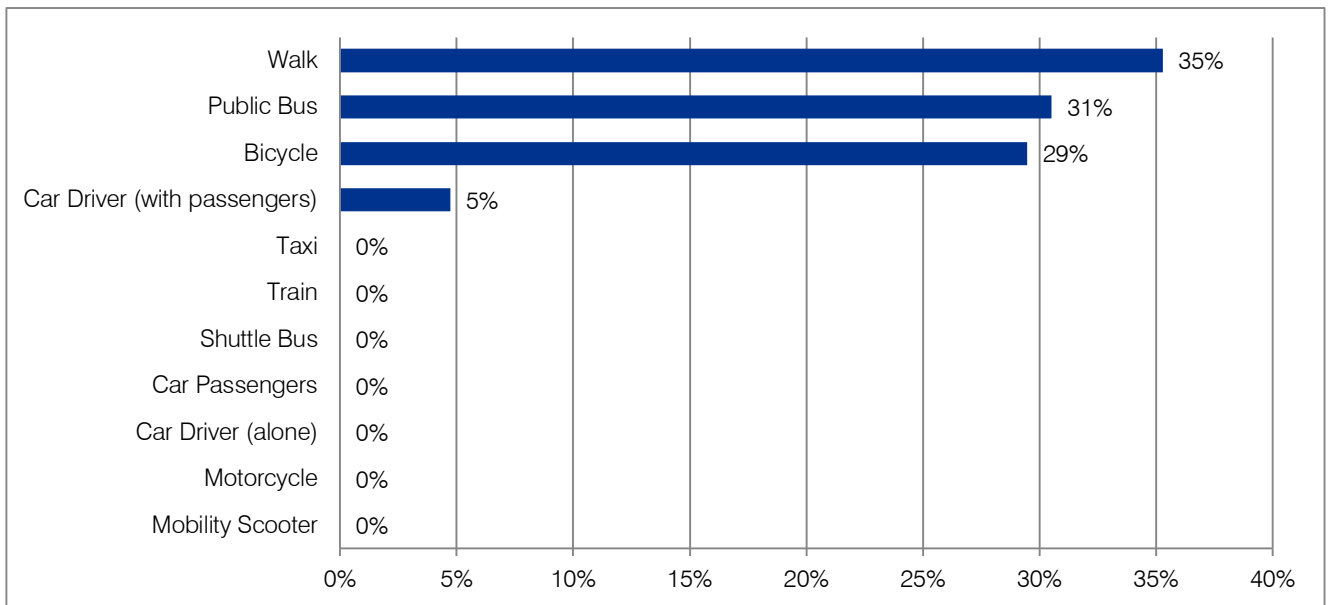
**Figure 8.1: Royal Edinburgh Hospital – Overall Mode Share (2016)**



**Figure 8.2: Royal Edinburgh Hospital – Staff Mode Share (2016)**



**Figure 8.3: Royal Edinburgh Hospital – Student Mode Share (2016)**



The key findings are:

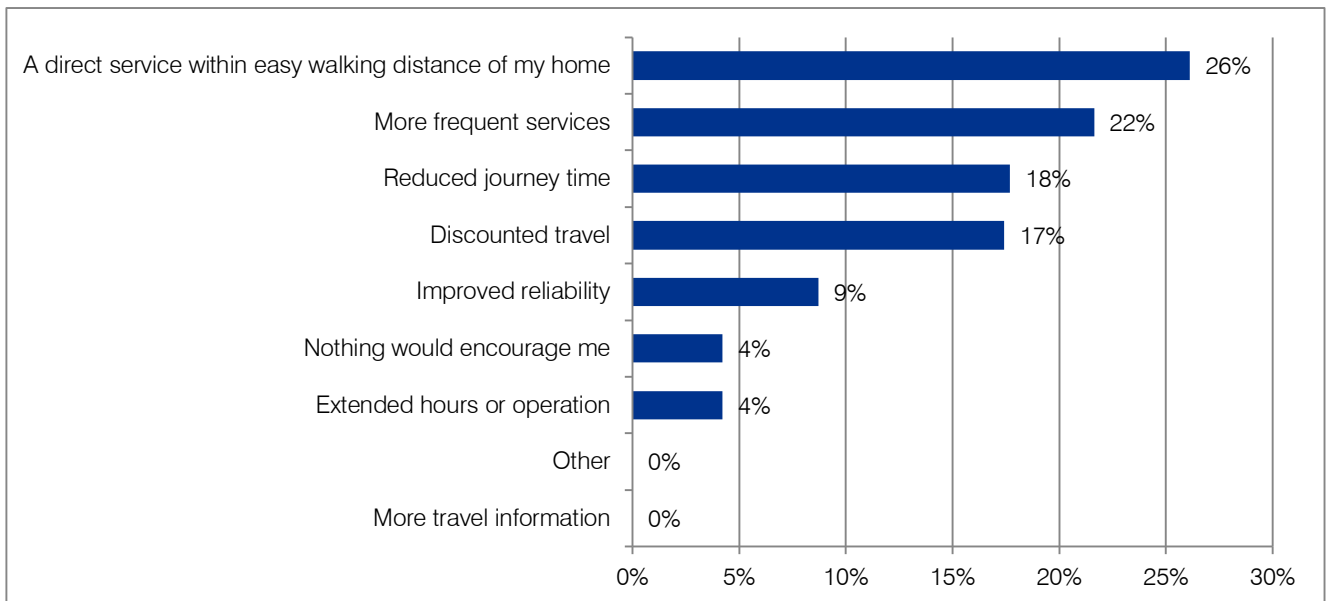
- The proportion of active travel is overall very high with 59% of staff and students walking or cycling.
- The student cycling mode share of 21% exceeds the Government's target of 10% and Edinburgh's 2030 transport vision<sup>4</sup> target of 15% for 2020; and has seen an increase of 8% since 2013.
- Public bus services are well used with 23% of staff and 31% of students using them, which is consistent with 2013 results.
- A total of 28% of staff drive to Royal Edinburgh Hospital. Though this equates to only 16 vehicles trips, it represents a 12% increase in single occupancy car trips to the Royal Edinburgh Hospital site.
- Since 2013 there has been an increase of 9% in student active travel, representing 64% of the mode share and a small reduction in public bus travel. Walking, public bus and bicycle travel has remained static since 2013.
- Although there has been a small increase in the number of survey participants with a TripShare membership, overall staff and student awareness has reduced significantly since 2013.
- City Car Club use is up significantly by 6 percentage points since 2013, though awareness could be further improved.

### 8.3 Encouraging Sustainable Travel

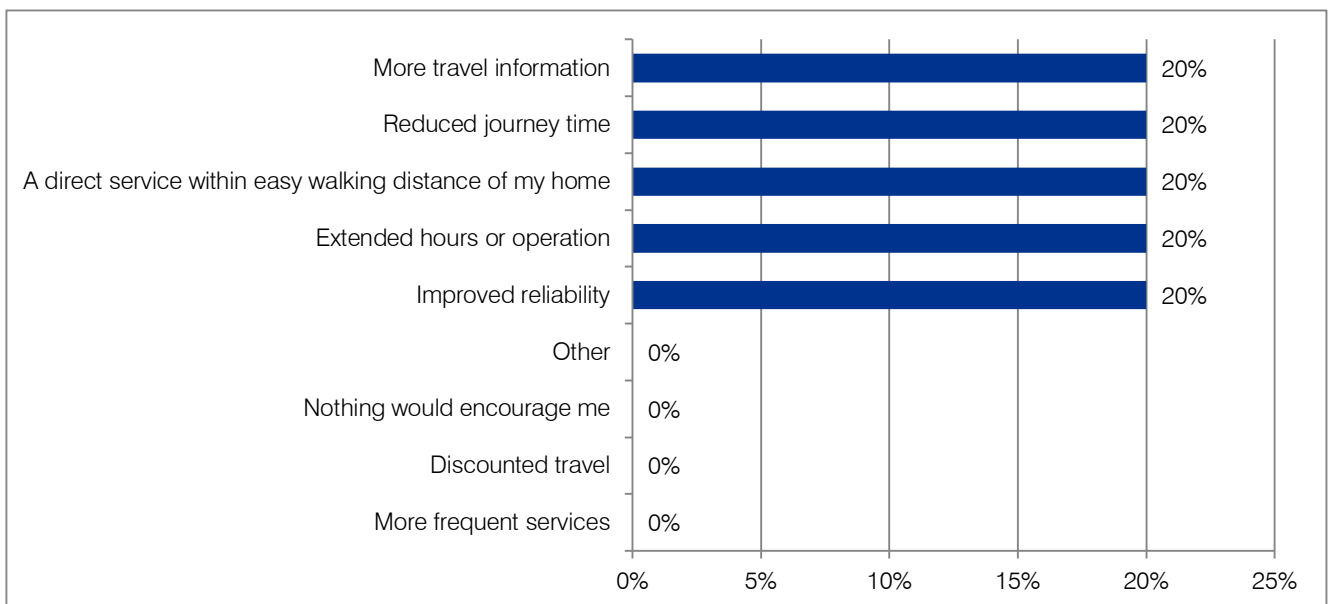
Staff and students who do not take public transport were asked what would encourage them to take public transport. Figures 8.4 and 8.5 display these results:

<sup>4</sup> Transport 2030 Vision will guide the work of the City Of Edinburgh Council City Development Transport Service over the next 20 years. It is an Internal Document that sits alongside the regularly updated Local Transport Strategy.

**Figure 8.4: What would encourage staff to take public transport to Royal Edinburgh Hospital?**



**Figure 8.5: What would encourage Students to take public transport to Royal Edinburgh Hospital?**



Staff:

- 26% of staff surveyed at REH who could be encouraged to take public transport would do so if they had a direct service within easy walking distance from their home.
- A total of 40% would be encouraged to take public transport on the basis of shorter journey times (18%) and more frequent services (22%). This highlights there is a demand for public transport services, but the provision needs to have shorter journey times and higher frequencies to make it attractive to staff.
- A significant number of staff (17%) could also be encouraged to take public transport to and from the REH if there was a travel discount available. This suggests that travelling to and from REH is more expensive than staff are able to or willing to afford.

Students:

The students surveyed at the Royal Edinburgh Hospital have shown that they would be more encouraged to take public transport if: more travel information was available; journey times were reduced; a direct service within easy walking distance of their home was available; operation hours extended; and reliability improved.

Staff and students were asked to comment on how transport services could be improved at Royal Edinburgh Hospital as follows:

*"I would love to walk but too far. Only use car occasionally. Use 2 buses to get to work - would be great if a better service though" [Staff].*

*"Perhaps bikes for students to 'borrow' to move between one site and another" [Staff].*

*"Better changing/showering facilities at work" [Staff].*

*"There are not many buses that goes to Little France [BioQuarter] and the timetables are limited" [Student].*

*"I would not be encouraged to walk 4 miles to and from work every day as I have a busy evening schedule and it would take too long to get home from work" [Student].*

## **8.4 Summary & Recommendations**

It is recommended that the following sustainable travel measures are considered at Royal Edinburgh Hospital:

- More travel information available to students.
- Improve public transport services with extended operating hours and reduced journey times.
- Promote public transport to staff car drivers.
- Continue promotion of City Car Club to staff for business travel.
- Promote available walking and cycling routes to staff and students.
- Work in partnership with NHS Lothian to promote these travel planning measures.

## 9. Edinburgh College of Art

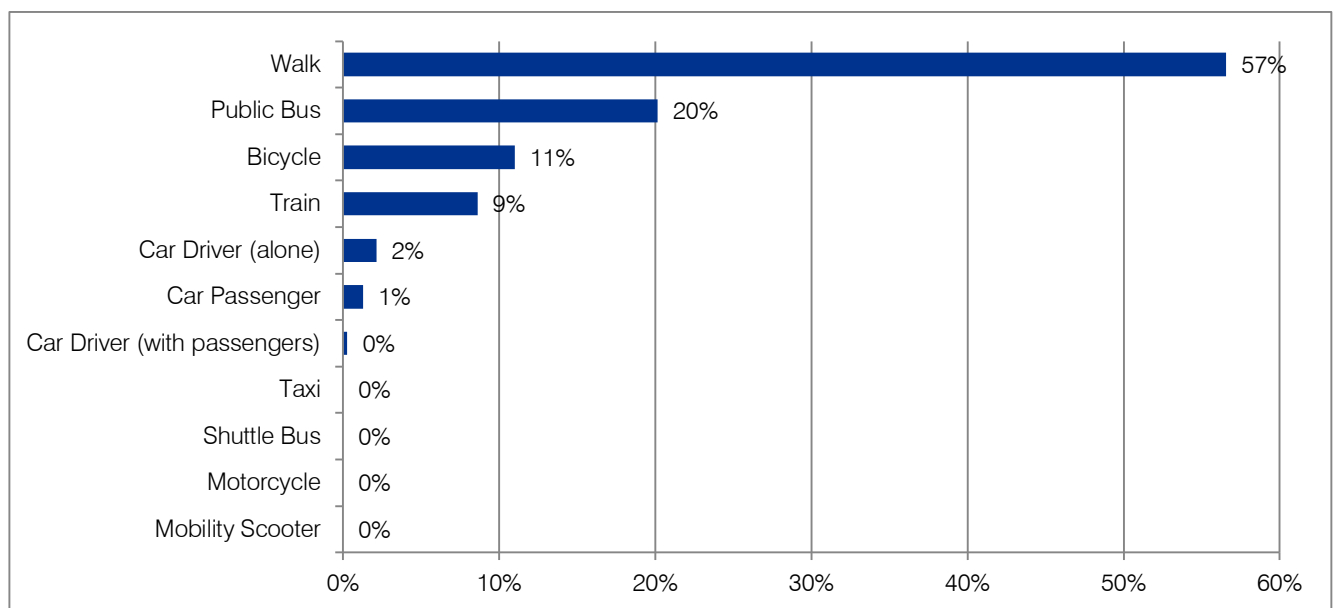
### 9.1 Introduction

At the Edinburgh College of Art (ECA), 89 staff and 109 students responded to the 2016 travel survey, equating to a response rate of 24% and 8% respectively. The survey findings are summarised in the following section.

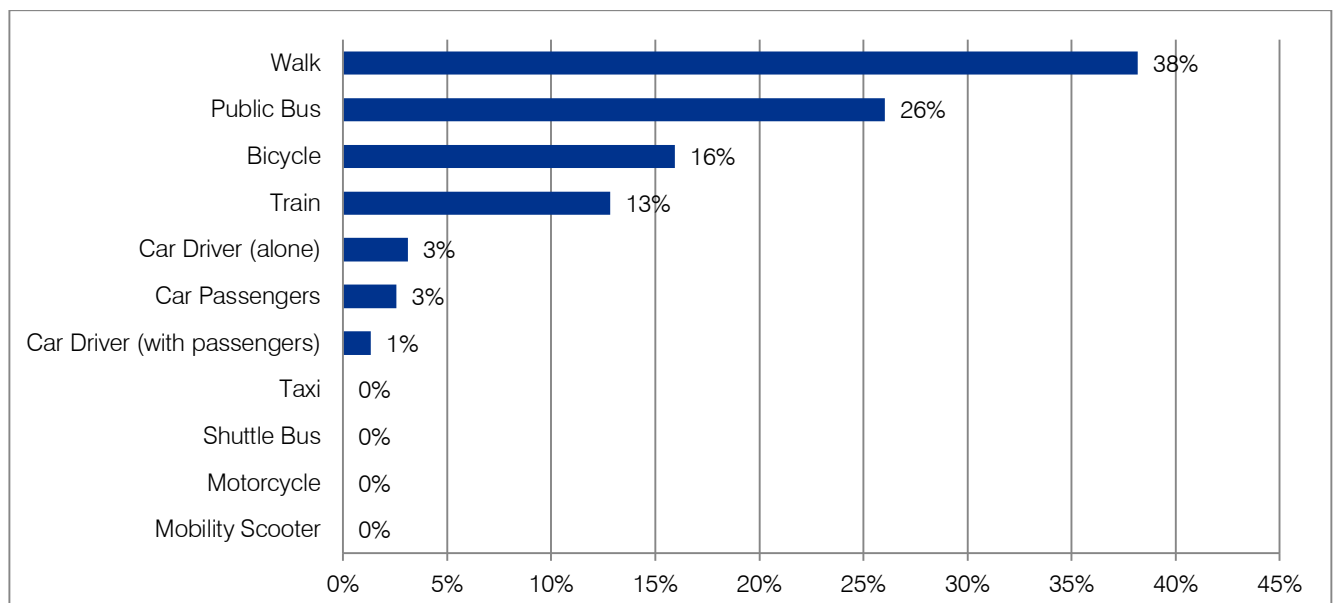
### 9.2 Mode Share

The 2016 mode share for staff and students in 2016 is presented in Figures 9.1 to 9.3 below.

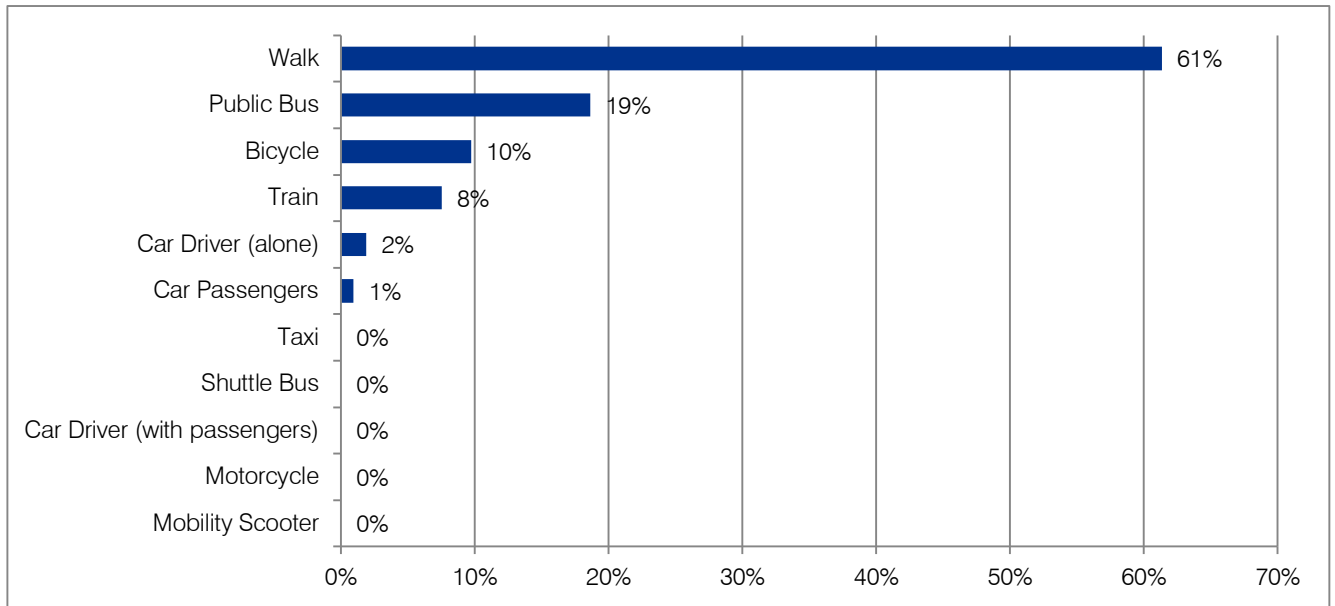
**Figure 9.1: Edinburgh College of Art: Overall Mode Share (2016)**



**Figure 9.2: Edinburgh College of Art: Staff Mode Share (2016)**



**Figure 9.3: Edinburgh College of Art: Student Mode Share (2016)**



The key findings are:

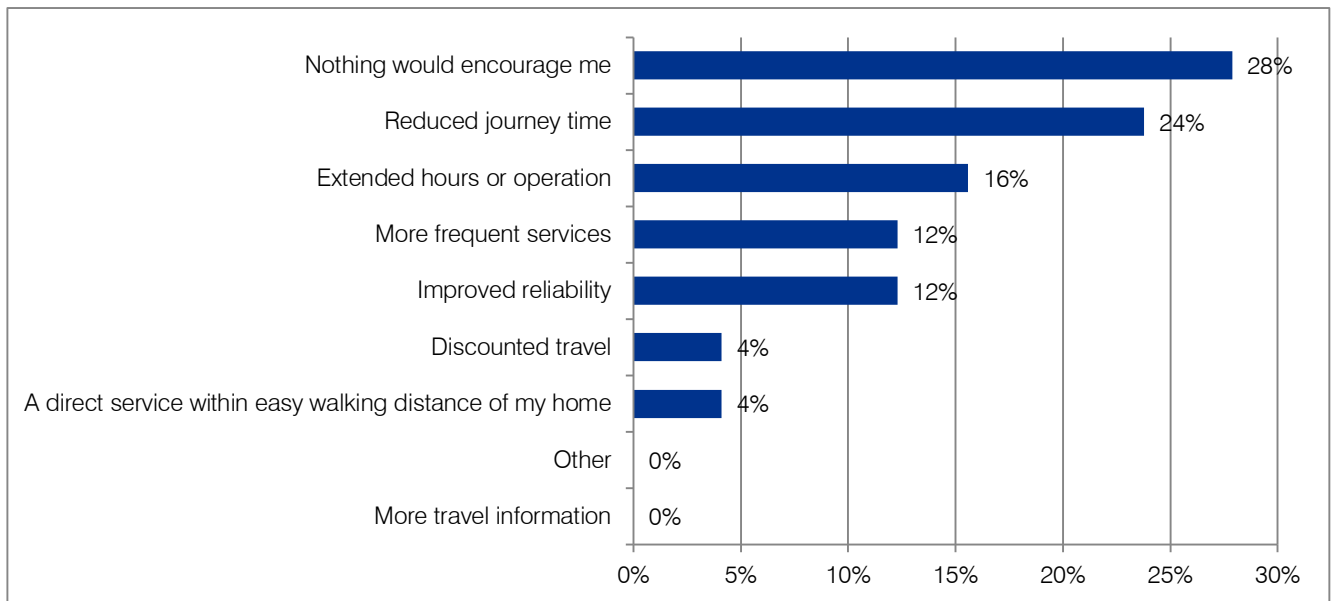
- Overall, 57% of staff and students walk to Edinburgh College of Art. Though 38% of staff and 61% of students walk to the College, these figures are down 3% and 7% respectively since 2013;
- Cycling accounts for 16% of staff trips and 10% of student trips. These results both meet the Government's 10% cycle target by 2020 however student cycling numbers have been decreasing since 2013.
- Public bus travel accounts for 26% of staff trips and 19% of student trips – an 8% rise in student patronage since 2013.
- A low proportion of staff and students drive to Edinburgh College of Art (6% staff and 2% of students).
- Train journeys by staff have doubled to 13% since 2013, as well as a small increase in student trips.
- TripShare awareness and usage has remained consistent with the 2013 travel survey; along with City Car Club usage however a higher number of staff indicated they are not aware of the scheme compared to 2013.

## 9.3 Encouraging Sustainable Travel

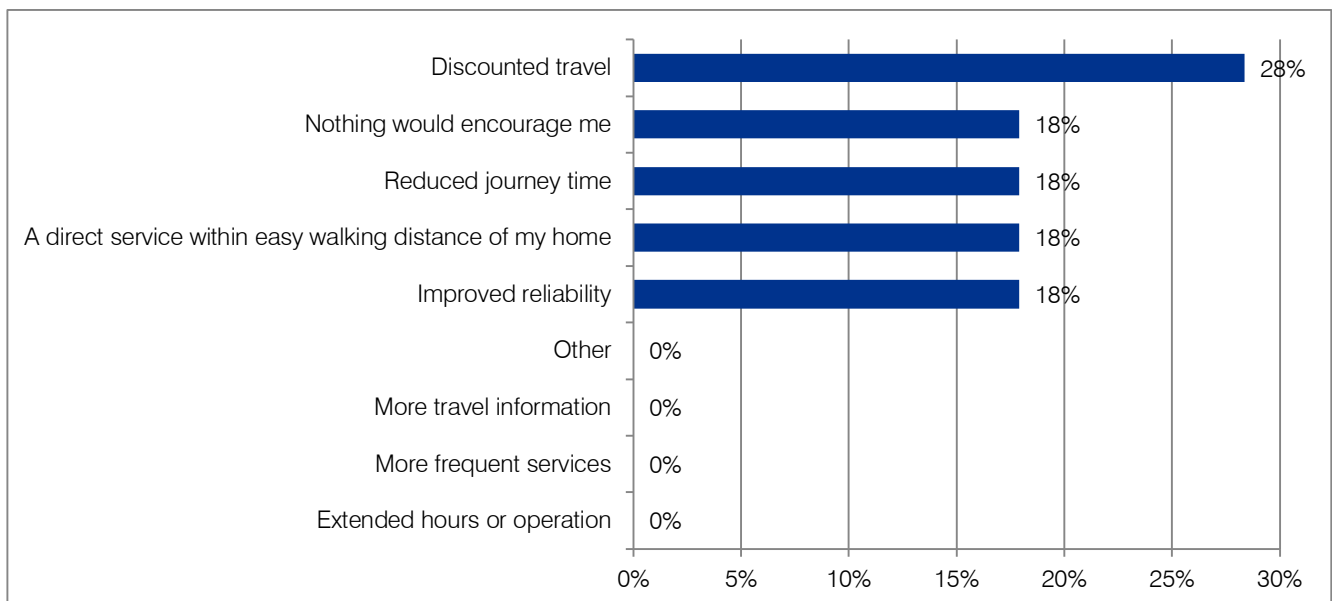
### 9.3.1 Public Transport

Staff and students who do not take public transport were asked what would encourage them to take public transport. Figures 9.4 and 9.5 display these results:

**Figure 9.4: What would encourage staff to take public transport to Edinburgh College of Art?**



**Figure 9.5: What would encourage students to take public transport to Edinburgh College of Art?**



Staff:

- Compared to all previous sites, 28% of staff surveyed at ECA could *not* be encouraged to take public transport. This result is likely due to the already high sustainable travel mode share ECA staff have achieved in 2016. Further comments by some ECA staff have indicated personal and caring responsibilities make it unfeasible to change to public transport.
- The results also show that reduced journey time could encourage staff to take public transport to ECA, accounting for 24% of ECA staff surveyed; whilst a further 16% could be encouraged if services had extended hours of operation.
- Interestingly, only 4% of staff say they would be encouraged to take public transport to ECA if they had a direct service within easy walking distance of their home. This shows that for the majority of staff, proximity to a bus stop or rail station is not seen as a hindrance to using public transport; and the routes available serve



ECA staff well in regards location. The remaining 4% should not be forgotten however and the current infrastructure should be expanded to these areas too.

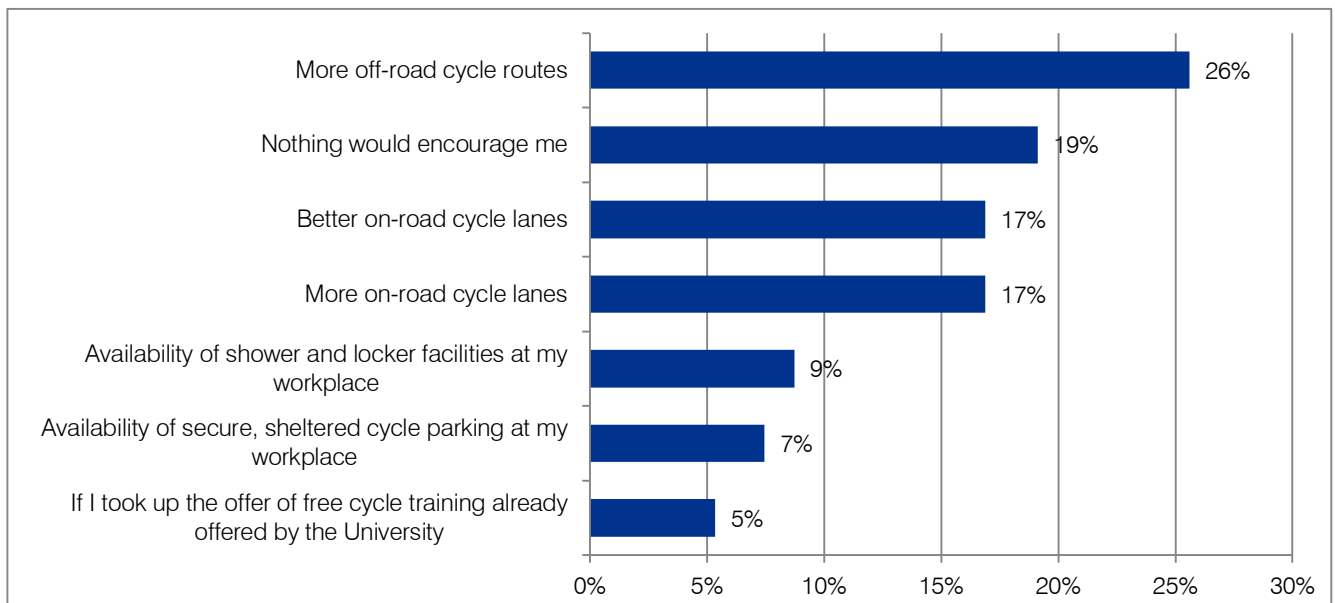
Students:

- Discounted travel is desired most by students (28%) at ECA who could be encouraged to take public transport.
- However, 18% could not be further encouraged to take public transport. Again, this is likely due to its Central location and the high number of students within walking distance of the site.

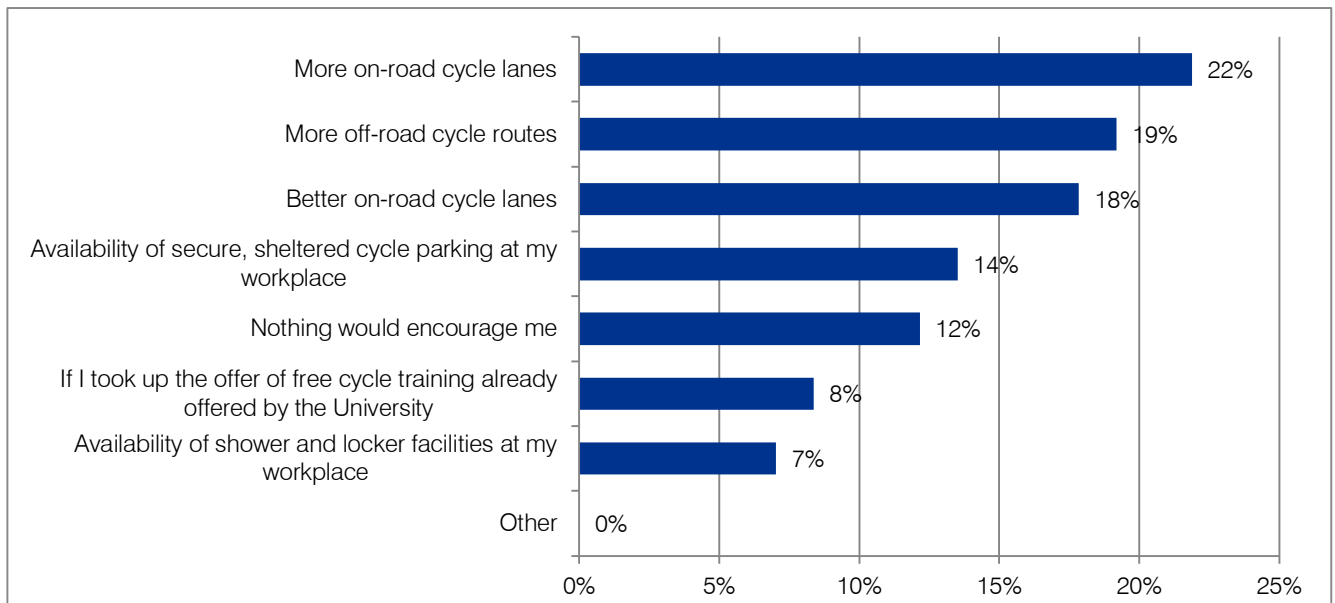
### 9.3.2 Cycling

Edinburgh College of Art has on overall cycle mode share of 11% and therefore needs to increase by 4% by 2021 to meet the University’s mode share target. Figures 9.6 and 9.7 below show what would encourage staff and students at the Edinburgh College of Art to cycle.

**Figure 9.6: What would encourage staff to cycle to Edinburgh College of Art?**



**Figure 9.7: What would encourage students to cycle to Edinburgh College of Art?**



**Overall:**

- Both staff and students wish to have more on and off-road cycle routes – 43% and 41% respectively. A further 17-18% each would also be further encouraged if the quality of cycle routes around the Edinburgh College of Art were improved.
- Cycle facilities at Edinburgh College of Art, such as secure, sheltered storage along with shower and lockers would only encourage 16% of staff to cycle, compared to 21% of students.
- Uptake of the free cycle training offered by the University has been positive, with 5% of staff and 7% of students participating in the scheme.

**9.3.3 Further comments on transport services at Edinburgh College of Art**

Staff and students were asked to comment on how transport services could be improved the Edinburgh College of Art as follows:

*“A roof on the bike rack to provide weather protection is something I have already asked for or ideally an preferably a lockable provision” [Staff].*

*“Greater public transport subsidies! The cost of public transport is too great for me to do regularly so I walk, but this means more than an hour of commuting most days since I often have to go all the way to George Sq.” [Student].*

*“I never cycle to Uni because I am afraid to in Edinburgh. The cycle lanes are not safe enough and the cycling laws do not incentivize drivers to take care. In Holland where I cycle often in the city car drivers take a huge amount of care to be courteous to cyclists, here people in cars yell at me, and nearly run me over even on foot. [Student].*

**9.4 Summary & Recommendations**

It is recommended that the following sustainable travel measures are considered at the Edinburgh College of Art:

- Focus on continuing to promote walking and cycling, in particular improving the cycle and pedestrian infrastructure in the surrounding vicinity of Edinburgh College of Art.
- Promote City Car Club to staff for business travel if too far to walk or cycle.
- Promote available public transport for longer distance trips.

## 10. Pollock Halls

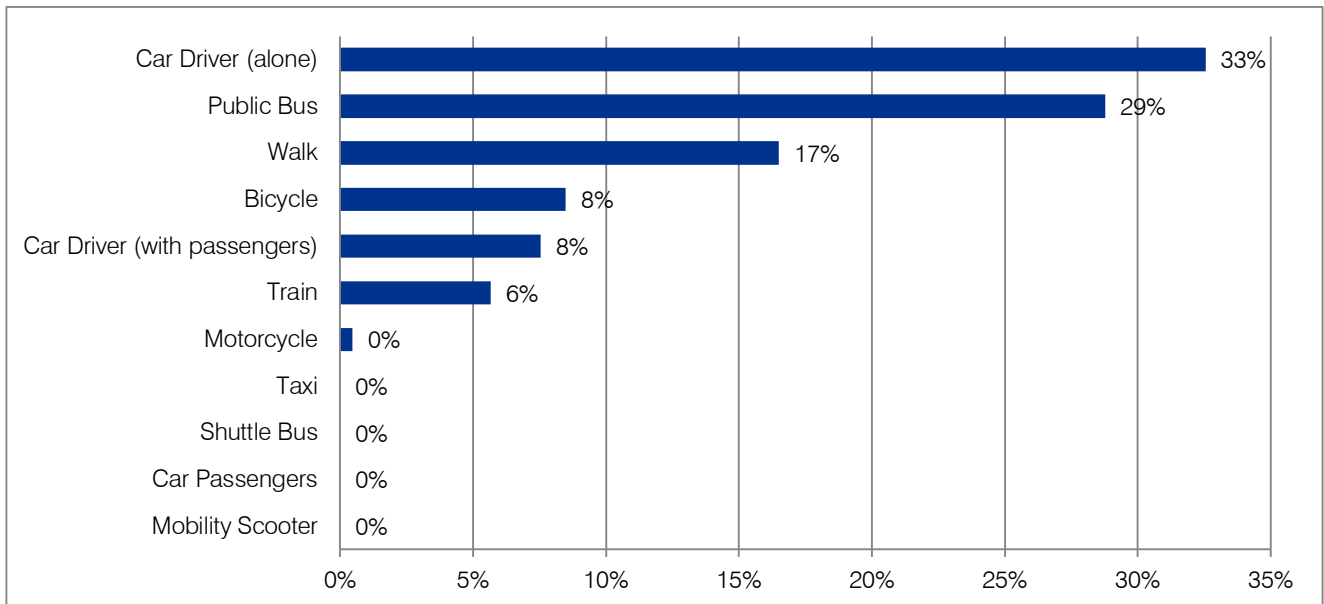
### 10.1 Introduction

At Pollock Halls, 108 staff responded to the survey, equating to a response rate of 21%. The student mode share is based on those students whose term time address is Pollock Halls. No other student information is presented in this section as this is captured in the survey results for the other main teaching locations described elsewhere.

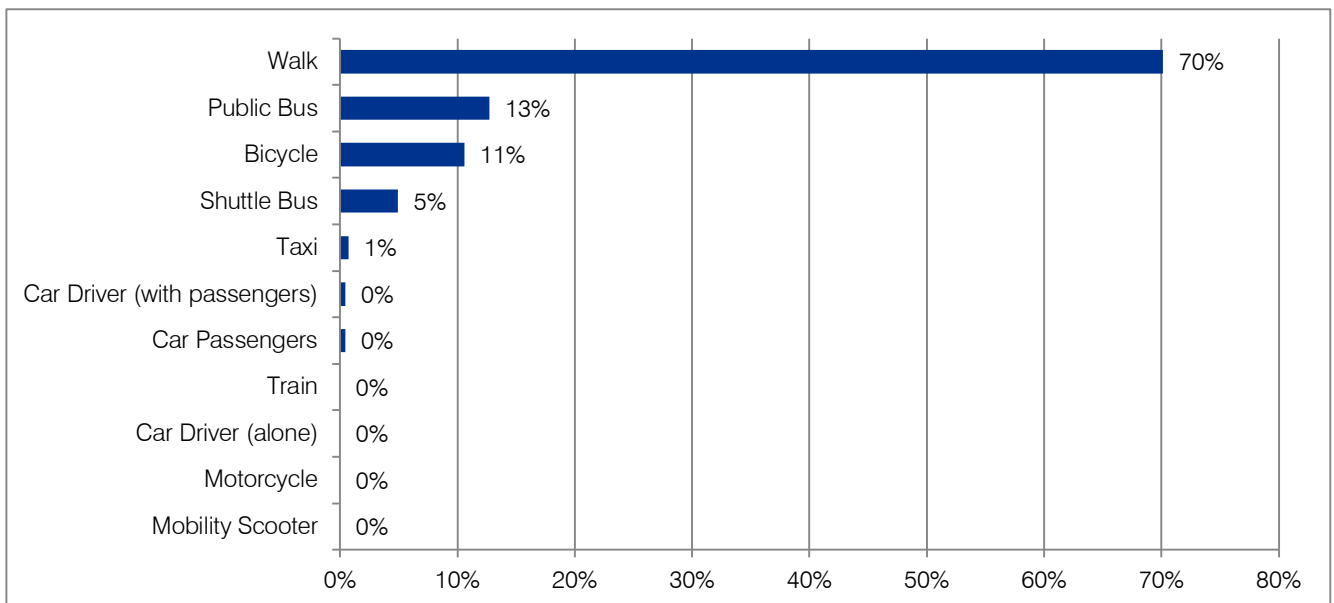
### 10.2 Mode Share

The mode share for staff and students in 2016 is presented in Figures 10.1 and 10.2.

**Figure 10.1: Pollock Halls of Residence – Staff Mode Share (2016)**



**Figure 10.2: Pollock Halls of Residence – Student Mode Share (2016)**



Staff:

- There has been little change in the overall mode share since 2013, with single occupancy driving (33%), public bus (29%) and walking (17%) remaining the most popular modes of transport.
- Journeys by bicycle and train have doubled to 8% and 6% respectively since 2013.
- No staff travel to Pollock Halls as a car passenger, compared to 3% in 2013.

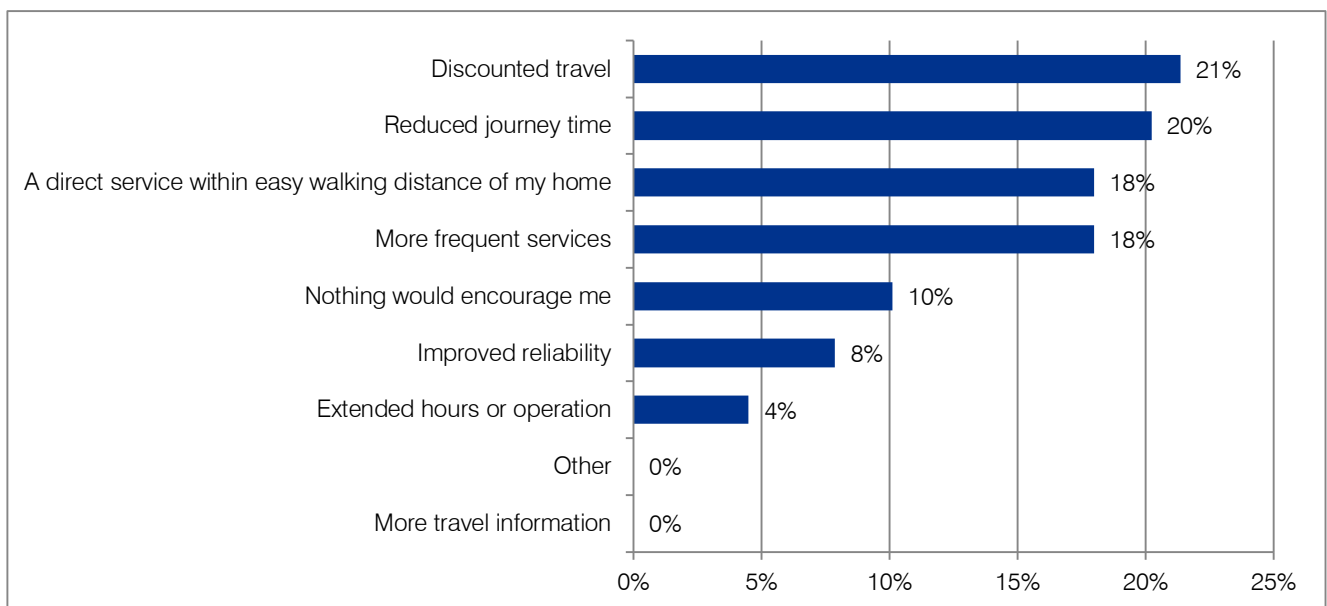
Students:

- Walking still most dominant mode of transport, despite 9% reduction to 70% in 2016.
- Public bus usage has increased by 5%, accounting for 13% of the student mode share.
- 11% of students cycle to and from Pollock Halls, also an increase of 5% from 2013.
- Shuttle bus usage has decreased slightly to 5% of the total mode share.
- 1% of students use taxi as their main mode of transport from Pollok Halls.
- Less than 1% of students drive a car or car-share to and from Pollock Halls.

### 10.3 Encouraging Sustainable Travel

Staff who do not take public transport were asked what would encourage them to take public transport. Figure 10.4 displays the results:

**Figure 10.4: What would encourage staff to take public transport at Pollock Halls?**



In summary:

- A total of 21% of staff could be encouraged to use public transport to travel to and from Pollock Halls if discounted travel were available. It was commented in the survey by a staff member that having a bus fare that was cheaper than the cost of running their diesel car would make them switch to public bus.
- 20% of staff could be encouraged to use public transport if the services available had reduced journey times; 18% if there was a direct service within easy walking distance of their home; and 18% if there were more frequent public transport services available.
- 10% of staff at Pollock Halls answered that nothing could encourage them to use public transport.

Staff were asked to comment on how transport services could be improved the Pollock Halls as follows:

*“Cycle routes near my workplaces are disjointed and not particularly safe, in spite of some recent improvements.” [Staff]*

*“Just a point regarding parking at Pollock Halls of Residence - there are good parking facilities and the area is well lit and I feel safe; however something MUST be done about the white lines marking the spaces - there is always reminders being sent out encouraging people to park within the lines, if white lines could be painted (currently just a different shade of cobble stone to mark lines) this would reduce the amount of people taking up 2 spaces...this has gone on for years at Pollock and so many members of staff want this” [Staff]*

## **10.4 Summary & Recommendations**

It is recommended that the following sustainable travel measures are considered at Pollock Halls:

- Review onsite cycling facilities and cycle infrastructure between Pollock Halls and other University sites to build upon current growth and ensure cycle and pedestrian safety.
- Promote the availability of travel information.

## 11. Other Sites

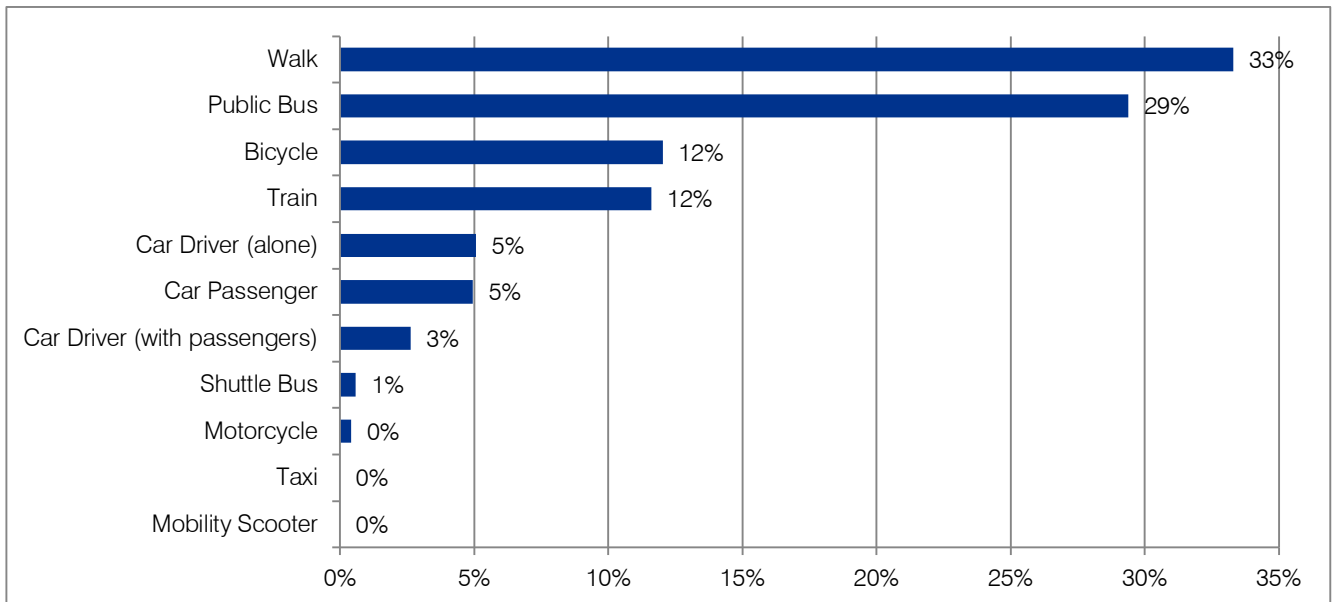
### 11.1 Introduction

This chapter refers to the University's other sites/accommodation sites. It should be noted that the number of responses to these sites is low, therefore, only a high level commentary has been provided. At the Other Sites, 55 staff and 50 students responded to the 2016 survey, equating to a response rate of 20% and 11% respectively.

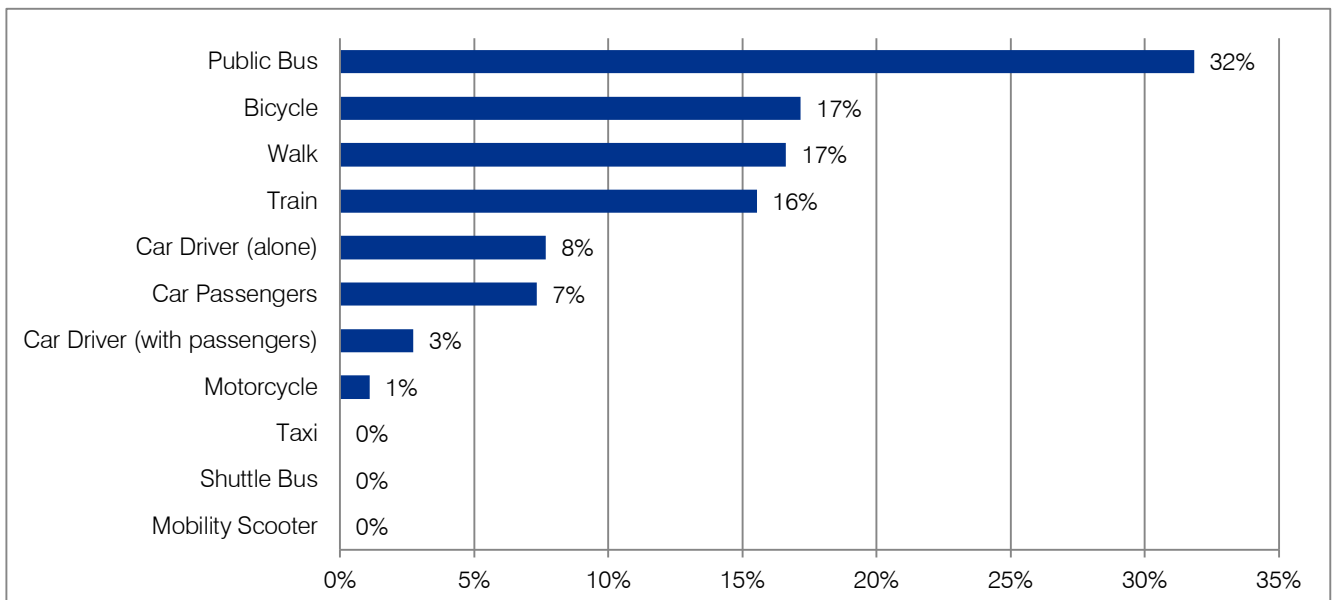
### 11.2 Mode Share

The mode share for staff and students in 2016 is presented in Figures 11.1 to 11.3 below.

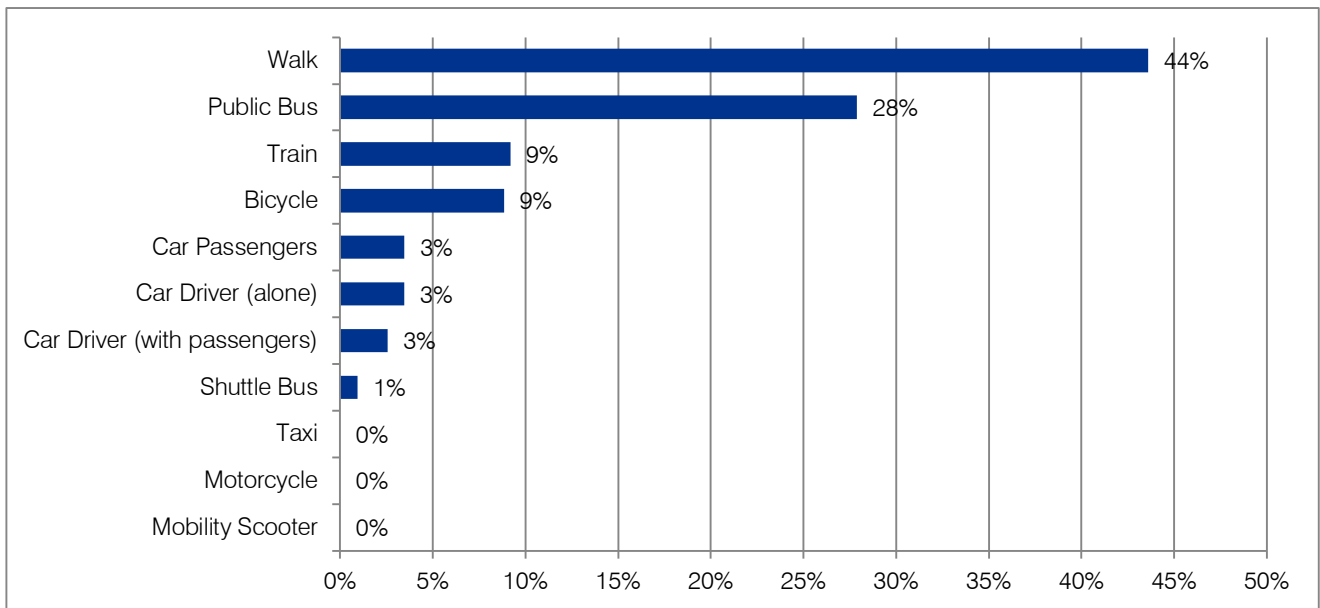
**Figure 11.1: Other Sites – Overall Mode Share (2016)**



**Figure 11.2: Other Sites – Staff Mode Share (2016)**



**Figure 11.3: Other Sites – Student Mode Share (2016)**



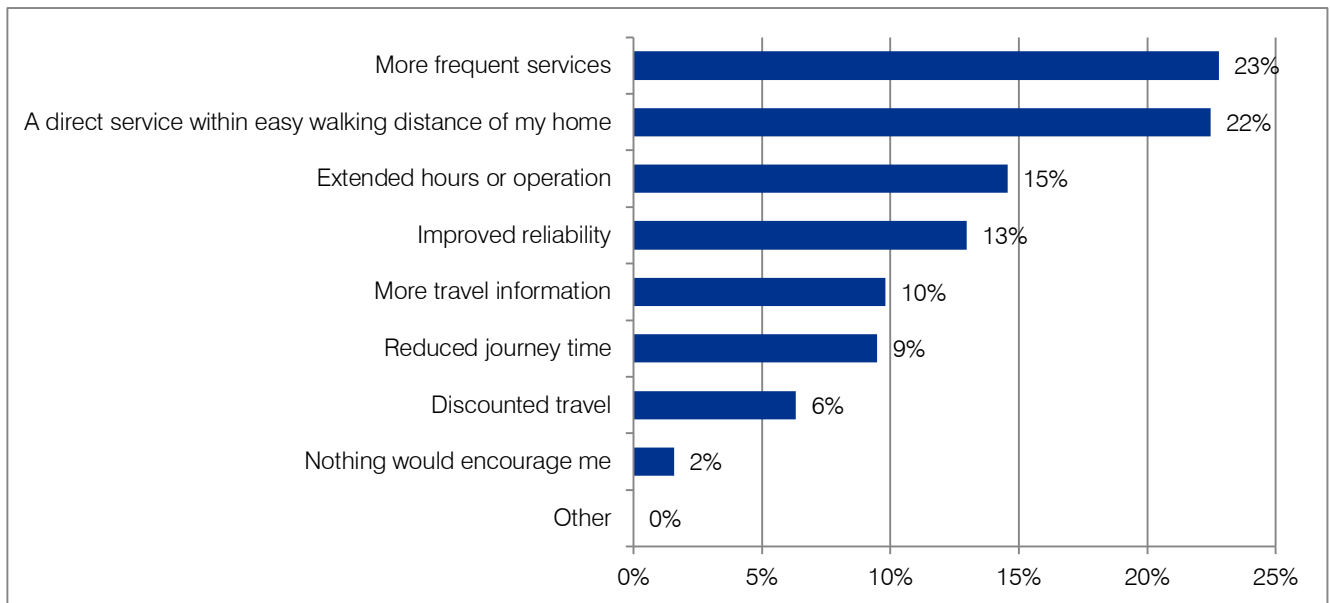
The key findings are:

- Whilst the “Other sites” are spread throughout urban and semi-rural locations, very high levels of active (45%) and sustainable travel (86%) have been achieved by both staff and students overall. It is also noted that since 2013, reliance on the car has decreased overall too.
- Public transport is well used by staff and students (41% overall) with the proportion using rail services higher than at other locations at 12%.
- The shuttle bus is now only used by 1% of students which is a decrease from 2013.
- There has been a large uptake of cycling since 2013 by staff, increasing by 11%. Student cycle journeys remain constant.
- Motorcycle use has increased slightly amongst staff.

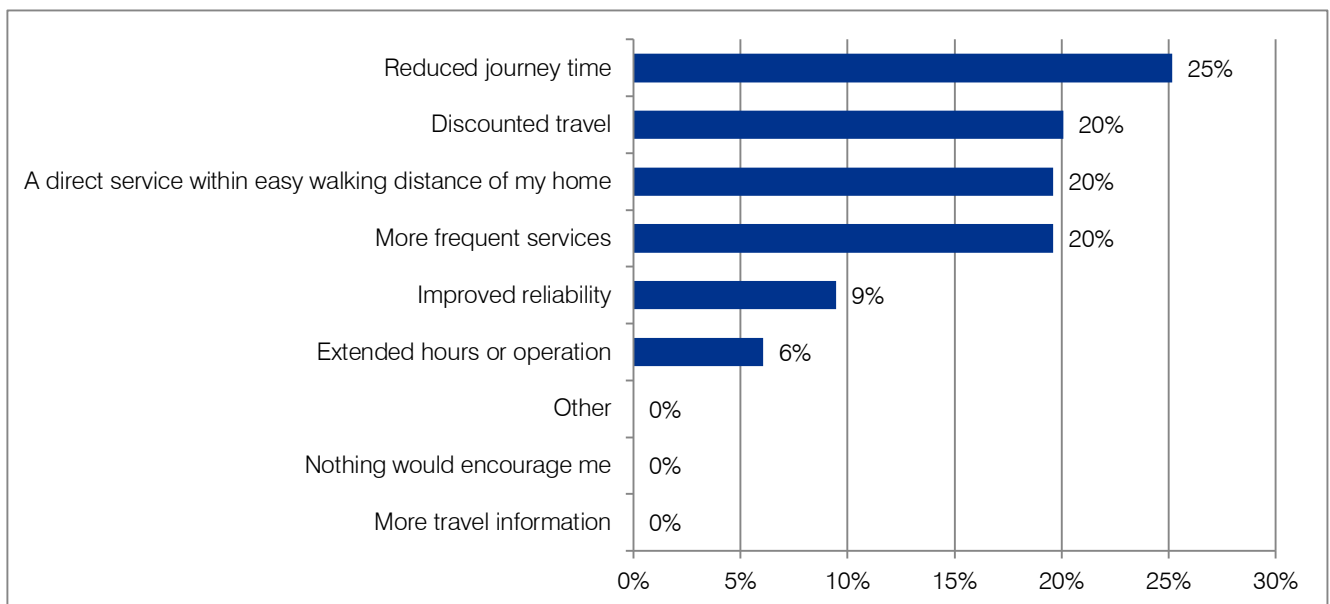
### 11.3 Encouraging Sustainable Travel

Staff and students who do not take public transport were asked what would encourage them to take public transport. Figures 11.4 and 11.5 display these results:

**Figure 11.4: What would encourage staff to take public transport at Other Sites?**



**Figure 11.5: What would encourage students to take public transport to Other Sites?**



Staff:

Encouragingly, only 2% of staff responded with not being able to be encouraged to take public transport. This is significant as it shows that the majority of staff could be encouraged to travel more sustainably under the following conditions:

- 23% of staff who visit other sites could be encouraged to travel by public transport if there were more frequent services available. It would be necessary to identify where the locations of work are, which from the survey consists of places such as Argyle House and Other University sites; as well as sites in Glasgow and Oxford (not owned by the University of Edinburgh). In these cases, it would be useful to encourage business travel planning measures and procedures in order to assist these staff to travel sustainably. This is highlighted as the results also show 10% of staff travelling to other sites are more likely to use public transport if more information was available.



- 15% of staff at other sites would be more likely to take public transport if there were extended operating hours, with a further 13% considering public transport if the services were more reliable.
- Regarding travel information, 10% of staff could be encouraged to use public transport if more travel information was available.

Students:

- 25% of students could be encouraged to travel more on public transport if the journey time on services were reduced. A further 20% would do so if there were travel discounts available, along with a direct service within easy walking distance of home and more frequent service (both 20% respectively)..
- A smaller number of students would use public transport more if there was improved reliability (9%) and extended hours of operation (6%).

Staff and students were also asked to comment on how transport services at Other sites could be improved:

*“Bicycle storage facilities and shower facilities at Argyle house are very poor” [Staff].*

*“The number 15 service has been changed many times over the last couple of years but the service is still poor. With expansion of the campus in progress it really needs to be sorted out. Increased services between 8am and 10 am, and also between 3:30 and 6pm would ensure that not only the students were catered for but also working parents.” [Staff].*

*“I was a regular cyclist before I moved to Edinburgh, but the routes towards the university from Leith do not feel safe. I now walk and/or take the bus, which is not my first preference. I think the cycling network is in desperate need of improvement in the area (and across much of the city). I understand Moray House is due to get some new cycle storage, which is great.” [Student].*

*“University sponsorship of more efficient travel to peripheral medical placements.” [Student].*

## 11.4 Summary & Recommendations

- Provide means of travel planning information that can be utilised by staff and students with non-fixed places of work and study.
- Continue to promote Tripshare and City Car Club.
- Continue to promote rail and public bus travel.
- Investigate the benefits of on-site cycle-hire points for commuting between campuses (e.g. 'Boris Bikes').

## 12. Conclusions

### 12.1.1 Overall

It can be seen that the University as a whole has an excellent sustainable and active travel mode share among both staff and students, with an overall walking, cycling and public transport mode share of 86% and only a 6% single occupancy driver mode share observed. This is an improvement since the previous survey in 2013 and demonstrates how the University has continued to support and encourage sustainable travel behaviour in their staff and students.

The University has exceeded all relevant mode share targets set out in the Edinburgh Local Transport Strategy, Edinburgh's 2030 Transport Vision<sup>5</sup> cycling mode share target of 15% by 2020 and the Scottish Government's target to increase cycling to a 10% mode share by 2020.

Compared to the 2013 survey, the overall results show that travel patterns amongst staff and students have remained generally the same since 2013.

Students and staff are generally aware of a number of measures. The main measures where awareness is high and have been used are:

- Shuttle Buses between campuses
- The University travel planning and information website
- Cycle parking, shower and locker facilities
- Dr Bike sessions

There is a lack of awareness in relation to bike buddy schemes and free cycle training; as well as the TripShare and City Car Club schemes. Further steps should be taken to raise awareness of these measures.

### 12.1.2 Central Area

There is a high level of active travel among both staff and students. This mode share is not unexpected given that the survey indicates that the vast majority of students live less than 2 miles from the Central Area. Though the majority of responses from staff and students who use the car and public transport indicated nothing further would encourage them to walk or cycle, those who could be encouraged would walk and cycle if more and improved on and off road routes were provided.

Public transport has the biggest mode share for longer distance trips. Further promotion of public bus and rail services could assist in increasing this mode share.

Only 7% of staff and 2% of students drive to the Central Area – a significant reduction from 2013. More direct bus services from home, reduced journey time and discounted travel were identified as the main opportunities to increase use of bus services.

Given the low car use, particularly by students, any further promotion of Tripshare for car sharing should focus on staff.

The Central Area is located in close proximity to a number of City Car Club parking spaces and there is an opportunity to increase promotion of City Car Club vehicles - particularly for business travel.

There is a general awareness by staff of a number of measures the University has in place in the Central Area to support sustainable travel practice; however student awareness could be significantly improved upon. Such measures as travel information, free cycle training, discounts at bicycle shops and shower/locker facilities would be

---

<sup>5</sup> Transport 2030 Vision will guide the work of the City Of Edinburgh Council City Development Transport Service over the next 20 years. It is an Internal Document that sits alongside the regularly updated Local Transport Strategy.

beneficial to promote amongst students as many of them already walk and cycle to the Central Area and could improve their journey experience.

### **12.1.3 King's Buildings**

There is a high level of active travel among both staff and students, with particular increases in cycling since 2013. Staff and students could be further encouraged to cycle to King's Buildings if the cycle infrastructure was improved in relation to road quality and safety. Staff and students are critical of the Shuttle Bus service as it is overcrowded at peak hours and the timetable does not align well with the classroom timetable. As with the Central Area, given the low car use, particularly by students, any further promotion of Tripshare for car sharing should focus on staff.

There is an opportunity for more use of City Car Club vehicles for short distance business travel, particularly with the City Car Club space at King's Buildings and this should be further promoted to staff.

With the exception of the shuttle bus, awareness of other travel planning measures is varied. A high proportion of staff and students are still not aware of the available travel information, as well as cycling measures. Improved awareness of this might assist in highlighting pedestrian and cycle routes which can be used to travel to King's Buildings.

### **12.1.4 Easter Bush**

Notwithstanding its semi-rural location, Easter Bush Campus enjoys a high sustainable mode share, with car usage reducing significantly overall since 2013. The majority of students travel to Easter Bush campus by public bus, compared with the majority of staff who drive alone. Whilst it is unlikely that a significant increase in walking to the campus can be achieved, cycling is a realistic alternative for car and public transport users who live within 5 miles of Easter Bush. Improved on and off-road cycle routes would support increased cycling and there is an opportunity to implement a strategy in partnership with other tenants at Easter Bush.

Public bus services are an important means of transport for both staff and students. The 2016 survey has shown that there are capacity issues on existing services such as the X15, especially at Peak Hours; and students are calling for either discounted travel or a shuttle service to be provided due to the long distance the campus is from other University sites.

### **12.1.5 BioQuarter**

The BioQuarter is located to the south of the City Centre and displays a high active travel mode share, with 22% of staff and 30% of students respondents indicating that they travel on foot or by bicycle to the BioQuarter.

Public bus services are an important means of accessing the BioQuarter, reflecting the fact that the campus is served by high frequency bus service provision from the city centre. Student uptake of the shuttle bus to BioQuarter has increased significantly since 2013. The largest proportion of staff stated that direct bus services and reduced journey time would encourage them to shift public transport from car usage. Staff and students however suggest that they are more likely to use the public bus service if it more frequent and direct services were available. As at other sites, given the low car use by students, any further promotion of Tripshare should focus on staff.

There is further opportunity for more use of City Car Club vehicles as awareness of the scheme is high. In particular, business need was cited as a reason for travelling to work by car. This could be facilitated by City Car Club.

Staff and student Awareness of travel planning among is good with the shuttle bus rating the highest in terms of use, however is at full capacity.

### **12.1.6 Western General Hospital**

There are high levels of active travel for both staff and students.

Currently car use by students is very low, however 19% of staff based at the Western General currently drive to work citing journey time, carer responsibilities as reasons for doing so. This has been an excellent decrease from 30% in 2013, showing there have been suitable travel alternatives available to staff. Tripshare should continue to be promoted to staff who live beyond the 5km catchment of the hospital to try to reduce cars travelling to the site.

The highest proportion of staff car users said that a direct bus service, reduced journey time and discounted travel would encourage them to transfer to public transport.

#### **12.1.7 Royal Edinburgh Hospital**

There is a high proportion of active travel at Royal Edinburgh Hospital, reflecting the good quality available walking and cycling infrastructure.

It is very encouraging to see that 23% of staff and 31% of students travel by bus, which is consistent with travel mode share in 2013. This is not unexpected given the location of the campus in relation to a main bus corridor running along Morningside Road.

Compared to 2013 where 16% of staff and no students drove to the Royal Edinburgh Hospital, there has been a substantial increase whereby 28% and 5% of staff and students respectively take single-occupancy trips to the Royal Edinburgh Hospital. Therefore, the promotion of public transport, Tripshare and City Car Club should be a priority in relation to measures to support reducing carbon footprints and encouraging active and public transport travel.

#### **12.1.8 Edinburgh College of Art**

The active travel and public transport mode share is high at Edinburgh College of Art. There is a high provision of bus stops and services, as well as a very good network of cycling routes surrounding the Edinburgh College of Art. These services and routes could be further promoted to ensure that staff and students are aware of this network.

Given the location of the site and restricted parking it is not recommended that the Tripshare scheme is promoted at this location.

The survey indicates that no staff have used the City Car Club vehicles for business travel, which has remained unchanged since 2013. This is surprising given two vehicles are accessible in the vicinity of Edinburgh College of Art. This shows that there is an opportunity for more use of City Car Club vehicles for staff business travel.

#### **12.1.9 Pollock Halls**

Active travel for staff is lower than at other locations, this is not unexpected given the unsociable work patterns for some staff. Students however demonstrate a high sustainable travel mode share, with walking being the dominant mode and very little car-usage.

Staff car and public transport users indicated that improved routes and onsite facilities would offer a good incentive to travel on foot and by cycle. A high proportion of staff car users stated that reduced journey times, direct services and discounted travel were the most popular measures to encourage transferring to public transport.

## Appendix A. Carbon Footprint Calculation Methodology

Summarising the approach taken in the calculation of carbon footprint, if a person answered that they travelled exactly the same distance for two or more modes we have assumed that they have misunderstood the question and they use those different modes on different days. For example, a person might take the bus on Monday, Wednesday, Friday but cycle on Tuesday and Thursday. They would have inputted Bus and Cycle as their main modes each with 5km distance. To include these entries into the calculation we have given them a joint main mode, and calculated the carbon footprint for half the distance by each mode. In the example above, carbon footprint will be calculated using 2.5km Cycling and 2.5km Bus, which provides a good indication of the carbon footprint of each person. If a person stated that they walk 0.2km then get the bus 5km and the train 5km again we have assumed that they get the train and bus on different days so a single journey would be walking 0.2km then bus 5km OR walking 0.2km then train 5km. The carbon footprint halves the two main modes as before but includes the walk section. So the calculation consists of 0.2km walking, 2.5km bus and 2.5km train. If a person has selected three main modes, 5km bus, 5km train and 5km cycling then the carbon footprint would consist of 5/3km bus, 5/3km train and 5/3km cycle etc. While the same approach was undertaken for the 2013 assessment, it wasn't carried through for all entries, hence why we have repeated the calculation for the 2013 survey in order to ensure that an accurate comparison can be undertaken.