



THE UNIVERSITY *of* EDINBURGH

**The University of Edinburgh  
Travel Survey**

Report of 2022 Travel Survey

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Prepared for:

The University of Edinburgh

Prepared by:

Stantec



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## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

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## Table of Contents

<b>1.0</b>	<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
1.1	OVERALL MODE SHARE .....	1
1.2	HISTORICAL COMPARISONS .....	1
1.3	CAMPUS COMPARISONS .....	2
1.4	CARBON EMISSIONS .....	2
1.5	PROGRESS TO 2021 TARGETS.....	2
1.6	NEXT STEPS .....	3
<b>2.0</b>	<b>INTRODUCTION.....</b>	<b>4</b>
2.1	BACKGROUND.....	4
2.2	PURPOSE AND DESIGN OF THE 2022 UNIVERSITY TRAVEL SURVEY.....	4
2.3	TRAVEL SURVEY SPREADSHEET TOOL.....	4
2.4	EXISTING TRAVEL PLANNING ACTIVITIES.....	4
2.5	TRAVEL PLANNING ACTIVITY SINCE 2019.....	5
<b>3.0</b>	<b>OVERALL SURVEY RESULTS .....</b>	<b>7</b>
3.1	INTRODUCTION.....	7
3.2	DEMOGRAPHICS .....	7
3.3	SURVEY RESPONSES .....	10
3.4	COVID-19 IMPACT .....	11
3.5	UNIVERSITY MODE SHARE .....	13
3.5.2	Overall .....	18
3.5.3	Walking .....	18
3.5.4	Mobility Scooter.....	18
3.5.5	Cycling .....	18
3.5.6	Bus.....	18
3.5.7	Tram .....	19
3.5.8	Rail.....	19
3.5.9	Taxi.....	19
3.5.10	Motorcycle.....	19
3.5.11	Car.....	19

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

3.6	DISTANCE TRAVELED BY MODE .....	20
3.7	MODE SHARE BY AREA.....	20
3.8	DAYS OF TRAVEL.....	21
3.9	HOME LOCATIONS .....	24
3.10	CARBON FOOTPRINT .....	25
3.11	AWARENESS OF TRAVEL PLANNING ACTIVITY .....	29
3.12	WALKING.....	30
3.13	CYCLING .....	31
3.14	BUS TRANSPORT .....	35
3.15	PUBLIC TRANSPORT .....	39
<b>4.0</b>	<b>LOCATION TRAVEL CHARACTERISTICS.....</b>	<b>41</b>
4.1	CENTRAL AREA.....	41
4.2	KING’S BUILDINGS .....	42
4.3	BIOQUARTER.....	44
4.4	EASTER BUSH.....	46
4.5	WESTERN GENERAL HOSPITAL.....	48
4.6	POLLOCK HALLS .....	49
<b>5.0</b>	<b>CONCLUSIONS.....</b>	<b>52</b>

### LIST OF TABLES

Table 3.1	2022 Survey Response Rates.....	10
Table 3.2	Change in Staff Mode Share between 2000 and 2022 .....	16
Table 3.3	Change in Student Mode Share between 2004 and 2022.....	17
Table 3.4	Overall Mode Share and Percentage Change between 2019 and 2022 .....	17
Table 3.5	Annual Distance Travelled by Mode (km) .....	20
Table 3.6	Mode Share by Location in 2022 (%).....	20
Table 3.7	Overall Carbon Footprint .....	26
Table 3.8	Staff Carbon Footprint .....	27
Table 3.9	Student Carbon Footprint .....	28
Table 3.10	Change in the Overall Carbon Footprint between 2016 and 2022. ....	28
Table 3.11	What could be done to improve your journey by bicycle or encourage you to use this mode of travel on a regular basis?.....	32



Table 3.12 What could be done to improve your journey by public bus or encourage you to use this mode of travel on a regular basis (where applicable)? .....	38
Table 4.1 Central Area Mode Share 2022 (and Change in Percentage Points since 2019) .....	41
Table 4.2 King’s Buildings Mode Share 2022 (and Change in Percentage Points Since 2019) .....	43
Table 4.3 BioQuarter Mode Share 2022 (and Change in Percentage Points Since 2019) .....	45
Table 4.4 Easter Bush Mode Share 2022 (and Change in Percentage Points Since 2019) .....	46
Table 4.5 Western General Hospital Mode Share 2022 (and Change in Percentage Points Since 2019).....	48
Table 4.6 Pollock Halls Mode Share 2022 (and Change in Percentage Points Since 2019) .....	49
Table A 5.1 Carbon Emission Values by Mode (tracking 2017,2019 and 2022) .....	A.2

**LIST OF FIGURES**

Figure 3.1 Survey Respondents University Role .....	7
Figure 3.2 Staff Survey Respondents by Age and Gender .....	8
Figure 3.3 Student Survey Respondents by Age and Gender .....	8
Figure 3.4 Student Survey Respondents Fee Status.....	9
Figure 3.5 Overall University Student Fee Status.....	9
Figure 3.6 Staff Travel Behaviour Changes following the COVID-19 pandemic .....	11
Figure 3.7 Student Travel Behaviour Changes following the COVID-19 pandemic.....	12
Figure 3.8 Mode Share for 2022 .....	13
Figure 3.9 Change in Staff Mode Share between 2000 and 2022 .....	14
Figure 3.10 Change in Student Mode Share between 2004 and 2022 .....	15
Figure 3.11 Overall Number of Days Travelling to the University in 2022, compared to 2019 .....	22
Figure 3.12 Number of Days Travelling to the University for Staff in 2022, compared to 2019 .....	22
Figure 3.13 Overall Number of Days Travelling to the University for Students in 2022, compared to 2019.....	23
Figure 3.14 Location of staff and student term time address by postcode .....	24
Figure 3.15 Miles Travelled per one-way journey by Respondents in 2022 .....	25
Figure 3.16 Awareness of Sustainable Transport Initiatives from the University .....	29
Figure 3.17 What could be done to improve your journey by walking, running or wheelchair or encourage you to use this mode of travel on a regular basis?.....	30



Figure 3.18 What could be done to improve your journey by bicycle or encourage you to use this mode of travel on a regular basis?.....	31
Figure 3.19 Did you use the Just Eat Cycle scheme before it closed in September 2021?.....	33
Figure 3.20 Staff Rating of the Just Eat Cycle Hire Scheme.....	33
Figure 3.21 Student Rating of the Just Eat Cycle Hire Scheme.....	34
Figure 3.22 If an Edinburgh cycle hire scheme returned, would you use it? .....	35
Figure 3.23 Staff Rating of Bus Transport Journey.....	36
Figure 3.24 Student Rating of Bus Transport Journey.....	36
Figure 3.25 What could be done to improve your journey by public bus or encourage you to use this mode of travel on a regular basis?.....	37
Figure 3.26 Payment for Travel on Public Bus Services.....	39
Figure 3.27 Staff Rating of Public Transport Journey .....	40
Figure 3.28 Student Rating of Public Transport Journey .....	40

## LIST OF APPENDICES

<b>APPENDIX A</b>	<b>CARBON FOOTPRINT METHODOLOGY.....</b>	<b>A.1</b>
A.1	Weighting by Location .....	A.1
A.2	Weighting By Modes.....	A.1
A.3	Data Cleaning.....	A.1

## 1.0 EXECUTIVE SUMMARY

The University of Edinburgh regularly conducts surveys of staff and student travel in order to monitor and evaluate travel plans and policies. The most recent survey was in spring 2022. This report provides a headline summary of the results, and places them in the context of previous years' results.

### 1.1 OVERALL MODE SHARE

20.4% of staff and 11.8% of students responded to the 2022 survey. Results were then weighted to ensure all locations/schools are evenly represented. The overall mode share, across all locations, is shown to the right.

Amongst students, walking and travelling by bus are most common, together accounting for just over 70%. Staff travel is more evenly distributed between different modes, with bus and cycling showing similar rates of use to the private car.

The solo occupancy rate of cars is high; 75% of drivers do not carry any passengers with them, however this has reduced since 2019. Bus use has dropped amongst staff, likely a result of a response to COVID measures. Conversely, bus use has increased amongst students which may be a reflection of the Scottish Governments free travel for those aged under 22 initiative.

Mode of Transport	Staff	Students
<b>Walking / wheeling</b>	26.4%	46.9%
<b>Bus</b>	20.1%	25.9%
<b>Cycle</b>	17.3%	7.7%
<b>Car Driver Alone</b>	21.5%	3.5%
<b>Car Driver with Passenger</b>	3.3%	0.8%
<b>Car Passenger</b>	1.7%	1.3%
<b>Rail</b>	7.9%	5.8%
<b>Motorcycle</b>	0.5%	0.3%
<b>Taxi</b>	0.4%	0.9%
<b>Tram</b>	0.3%	0.2%
<b>Mobility Scooter</b>	0.0%	0.1%
<b>Shuttle Bus</b>	0.6%	6.5%

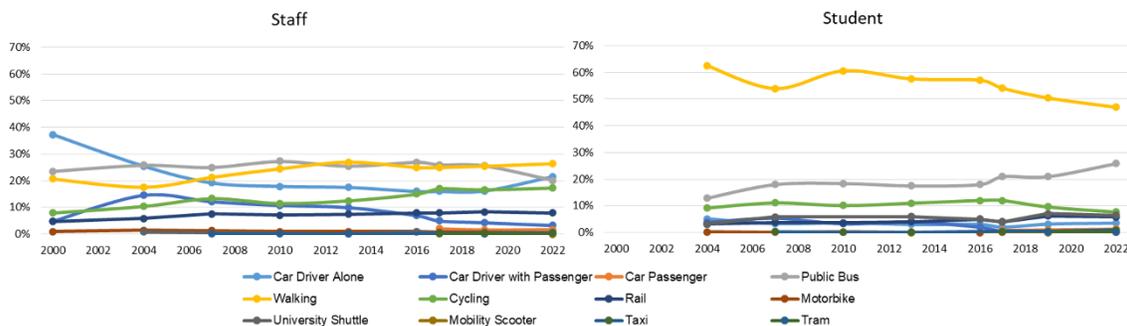
### 1.2 HISTORICAL COMPARISONS

The percentage of students walking is in decline, and this trend continued for 2022, falling 3.5 percentage points since the previous survey in 2019. Bus use by students has increased by 4.9 percentage points however this is in stark contrast to staff bus use which has fallen by 5.5 percentage points. While there has been an increase in staff who drive, staff cycling use is continuing to trend up with an increase of half a percentage point since 2019. This represents success in the University's efforts to influence take up of active modes, such as the relaunched Cycle to Work Scheme. Unfortunately student cycling has dropped by 1.9 percentage points, undercutting the growth in staff cycling.

Over the longer term, staff travel has a clear trend towards more sustainable modes. Whilst car use has increased since 2019 it is too early to draw long term conclusions on this change and falls in bus use. The increase in walking and cycling reflects both the response to COVID restrictions and the investment the

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Executive Summary



Scottish Government, City of Edinburgh Council and the University have made in cycling infrastructure.

### 1.3 CAMPUS COMPARISONS

Travelling by car is the most popular mode of travel for staff in all locations except for the Central Area, where walking and bus travel are most popular. These modes are frequently the second most popular choices for staff in other locations.

Walking is the most common mode of travel for students, particularly in the Central Area and King's Building, which is unsurprising given the city centre locations of each, providing large volumes of academic facilities and surrounded by high density residential areas. As distances increase from the city centre, tendencies to walk reduce in favour of cycling which can be seen at both the BioQuarter and Western General, where cycling rates grow compared with the more central locations. This reflects the fact that these locations are within cycling distance of city centre destinations but of a less comfortable walking distance. Walking and cycling are far less common at Easter Bush where travel patterns are dominated by car use and bus travel. In the areas outwith Central Area, a greater proportion of staff drive to work and a greater proportion of students travel by bus.

### 1.4 CARBON EMISSIONS

The overall annual carbon footprint of commuter travel was calculated (using 2022 DEFRA conversion factors) to be **11,860** tonnes CO<sub>2</sub>e in 2022. This is a 11% decrease since 2019, which is probably a reflection of the response to Covid with less people working from the office full time, and benefits of travel support actions being introduced by the University.

### 1.5 PROGRESS TO 2021 TARGETS

The University has an [Integrated Transport Plan](#) which sets out the targets to be achieved by 2021.

The survey results show that there has been progress since 2019 in key measures with more staff and students cycling, a growth in staff numbers who choose to walk and a larger number of drivers choosing to use electric vehicles. Unfortunately, there are a number of areas where the University is moving further away from the target however this may be a consequence of the COVID-19 pandemic:

Target to be achieved by 2021	2016 Baseline	2017 Result	2019 Result	2022 Result
Walking: 30% of staff and 60% of students	25% (staff) 57% (students)	25% (staff) 54% (students)	25.5% (staff) 50.4% (students)	26.4% (staff) 46.9% (students)

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Executive Summary

Target to be achieved by 2021	2016 Baseline	2017 Result	2019 Result	2022 Result
Cycling: 15% of staff and students (combined)	13%	13%	11.6%	10.5%
Introduce new bus ticket options that are better suited and priced to the needs of our students		48% of students felt affordability was good or very good	Working partnership with Lothian Buses established. 36% of students felt affordability was good or excellent	51% of students felt affordability was good or excellent
75% of respondents rate public transport as good to excellent		No categories measured reached 75% satisfaction	Route Satisfaction (staff) 78%	Route Satisfaction (staff) 75%
Car driving: 29% of staff and students at every site (except Easter Bush)	All sites achieved this except Pollock Halls	All sites achieved this except Pollock Halls	All sites achieved this except Pollock Halls	Achieved at Central Area, Kings Buildings and Western General
2% of parking permit holders driving electric vehicles	0.4% (7 respondents)	8 respondents	1.6% (41 respondents)	2.5% (54 respondents)
University fleet is 30% electric	4%	Not measured through Transport Survey		

Whilst the above paints a mixed picture, significant positives can be observed. Although there has been an overall reduction in those cycling, the University has successfully reduced overall carbon emissions by 11% and individuals' carbon footprints have dropped.

## 1.6 NEXT STEPS

The University Transport Office will continue to analyse the results of the 2022 Travel Survey in detail to inform the development of a new Integrated Transport Plan.

## 2.0 INTRODUCTION

### 2.1 BACKGROUND

Stantec has been commissioned by the University of Edinburgh to design, manage and analyse its 2022 Travel Survey.

The 2022 survey, which was designed to be completed by staff and students, provides an update to biennial surveys dating back to 2000, with the previous one being undertaken in 2019.

### 2.2 PURPOSE AND DESIGN OF THE 2022 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 staff and student travel surveys on a regular basis since 2000. The surveys provide a valuable opportunity to measure and understand existing travel behaviours, gauge staff and student propensity to consider alternative travel modes and allow the University to focus travel planning measures effectively.

As with the previous travel surveys, the 2022 survey was designed to calculate an estimate of the University's travel to work/study carbon footprint. The survey was designed as an online questionnaire and was live from the period 29<sup>th</sup> March 2022 to 27<sup>th</sup> April 2022.

### 2.3 TRAVEL SURVEY SPREADSHEET TOOL

Previous Travel Survey Reports contained a wealth of data but were not necessarily easy to digest. The 2022 Travel Survey Report has deliberately been streamlined to be more user-friendly and concise.

A separate spreadsheet tool has been prepared which contains interactive dashboards and mapping. The tool provides an all-round, user-friendly experience to interrogate the data and identify specific trends which are not possible to obtain from a static report alone. It also maps the home postcode data provided by respondents and University locations they are based at.

It should be noted that for some of the questions the spreadsheet tool simply reports the responses received to the survey. By contrast, many of the mode share statistics quoted in this report have been weighted based on University location and the proportion of a respondent's journey made by different modes so, in some cases, the values may differ.

### 2.4 EXISTING TRAVEL PLANNING ACTIVITIES

The University's 2021 vision is that all University students, staff and visitors will be able to access the Estate by the mode of transport best suited to their needs. The University is also seeking to achieve its Strategic Objectives; Equality and Diversity Strategy commitments; Climate Strategy targets; Estates

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Introduction

Vision and Integrated Transport Plan outcomes by providing efficient, low-emission transport arrangements which provide equitable access for all and contribute to its “One University – Five Campuses” ethos.

The University undertakes a number of travel planning activities which are outlined at: <https://www.ed.ac.uk/transport>.

## 2.5 TRAVEL PLANNING ACTIVITY SINCE 2019

This section highlights the most significant travel plan measures that have been delivered since the last travel survey in autumn 2019. The COVID-19 pandemic seriously reduced commuting to the University and measures were rapidly put in place from March 2020 to support staff and students who needed to commute. This included the removal car parking controls, an increase in cycle parking provision, additional financial support for students to access the Edinburgh Cycle Hire Scheme, and subsidised bus tickets as an alternative to the KB Shuttle Service (which did not operate during Covid-19 restrictions).

### Interactive digital campus maps

A new interactive digital campus map was delivered for the start of academic year 2021-22. It is designed to inform students, staff and visitors about the geographical layout of the University Estate and travel options for reaching them. In addition to showing the location and type of University buildings, the map provides cycle routes, public transport routes, cycle parking, car parking, disabled car parking, and walking and cycling travel time isochrones.

The new map can be viewed here: <https://www.ed.ac.uk/maps/maps>

### Edinburgh Cycle Hire Scheme

The University continued to partner with Transport for Edinburgh (TfE) on the city’s public bike hire scheme.

The scheme experienced phenomenal growth in 2019-20 of 119% year-on-year. During 2020 when the scheme was the fastest growing in Britain there were 234,500 trips and over 1 million KMs ridden. The scheme expanded into South Queensferry and East Lothian, growing to 106 stations. In March 2020 eBikes entered the fleet. From May to August the scheme achieved a key milestone of over 1,000 trips per day on average.

During 2020/21 a joint project with Edinburgh Council and the HEFE sector in Edinburgh provided a subsidy for a 4 month ‘Back to Study’ pass for students. The passes were reduced from £50 to £10. By 31st July 2021 just over 1,000 passes had been sold and Student Pass holders were undertaking a third of all trips within the scheme during the semester time.

Sadly the scheme came to a close in September 2021, when TfE, the Council and Serco (operator of the scheme) were unable to reach a contractual agreement for the extension of the scheme beyond the first 3 years.

The Council have indicated that they intend to have a public bike hire scheme back in the city within the next 2 years. In the meantime the Transport Office is working with TfE and the Council to re-use 60 of the eBikes from the scheme within the University (aiming to launch for 2022-23).

### Cycling Infrastructure

The University lobbied Edinburgh Council to put in place Spaces for People segregated cycle lanes to improve cycling connectivity to our campuses. This included sections of segregation between the city centre and King’s Buildings, and between Cameron Toll and BioQuarter. At the BioQuarter significant

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Introduction

investment by the BioQuarter Partners, with funding support from the City Deal and Sustrans, continues to be made to improve active travel routes to the site as it is developed. Delivery of routes has focused on access from the east of the site into Craigmillar, Niddrie, the Wisp and Danderhall. Further investment is planned with a focus on infilling gaps in the routes on-site, and routes connecting into Midlothian.

### **Cycle to Work Scheme**

The Cycle to Work scheme re-launched in July 2020 with an increased limit of £3k to support staff wishing to access eBikes. New members can opt to repay the cost of the new bike and equipment over 12 or 18 months via salary sacrifice. From September 2021 staff have been able to apply to exceed the £3k limit. This was introduced to increase the accessibility of the scheme reflecting that electric bikes, cargo bikes and adapted bikes are generally more expensive than £3k.

### **Cycle parking, shower and changing facilities**

An additional 1,500 open access cycle spaces and 150 enclosed cycle store spaces have been added to the University Estate since the 2019 Travel Survey. These have been supplemented with 4 cycle maintenance stations and 8 bike pumps to support staff and students to be able to fix their own bikes. Shower refurbishments and 180 lockers have also been delivered, plus improvements to the security of existing bike store facilities.

### **Dr Bike**

The University normally offers free basic bike mechanic services – Dr Bike - for students and staff at regular sessions across the Estate. This is a very popular and valued service delivered by The Bike Station. Due to the pandemic it was not possible to deliver this service during the latter part of 2019-20. Instead, the funding was used to deliver over 40 online bike maintenance training sessions to staff and students.

### **King's Buildings Shuttle Bus**

The shuttle service did not operate during the latter part of 2019-20 and 2020-21 due to the pandemic. It was reintroduced for 2021-22. Restrictions on class size reduced the demand for inter-site travel between King's Buildings and Central Area. Passenger numbers from September 2021 to end of March 2022 were 40% lower than the same period in 2019-20. From January 2022, as more in-person teaching was re-introduced, passenger numbers started to rise but were still on average 27% lower than the same 3 month period in 2019-20.

### **Young Persons' (Under 22s) Free Bus Travel**

The Scottish Government introduced the Young Persons' (Under 22s) Free Bus Travel Scheme on 31<sup>st</sup> January 2022. The scheme means that all students and staff under the age of 22 can access free bus travel in Scotland. The scheme has been widely promoted by the University, local bus operators, local authorities and the Scottish Government. This travel survey included questions about the scheme in order to estimate rates of uptake amongst eligible students and staff.

### **Car sharing**

We continue to offer the online car share service – Liftshare. The University has a private group within Liftshare to enable students and staff to search for potential car shares within the University community. As of March 2022 we had 645 members, 82 of which joined in the period between Jan 2020 and March 2022. The main points in the year that the scheme was promoted was during parking permit re-application. The scheme has otherwise not been promoted, to reflect Government guidance to avoid car sharing during COVID-19 restrictions.

## 3.0 OVERALL SURVEY RESULTS

### 3.1 INTRODUCTION

This chapter summarises survey response rates by University location and considers the overall mode share across all sites.

### 3.2 DEMOGRAPHICS

This survey is a sample of the overall University population and is not wholly representative of the University population<sup>1</sup>. Figure 3.1 below displays the University role (student or staff) of the survey respondents.

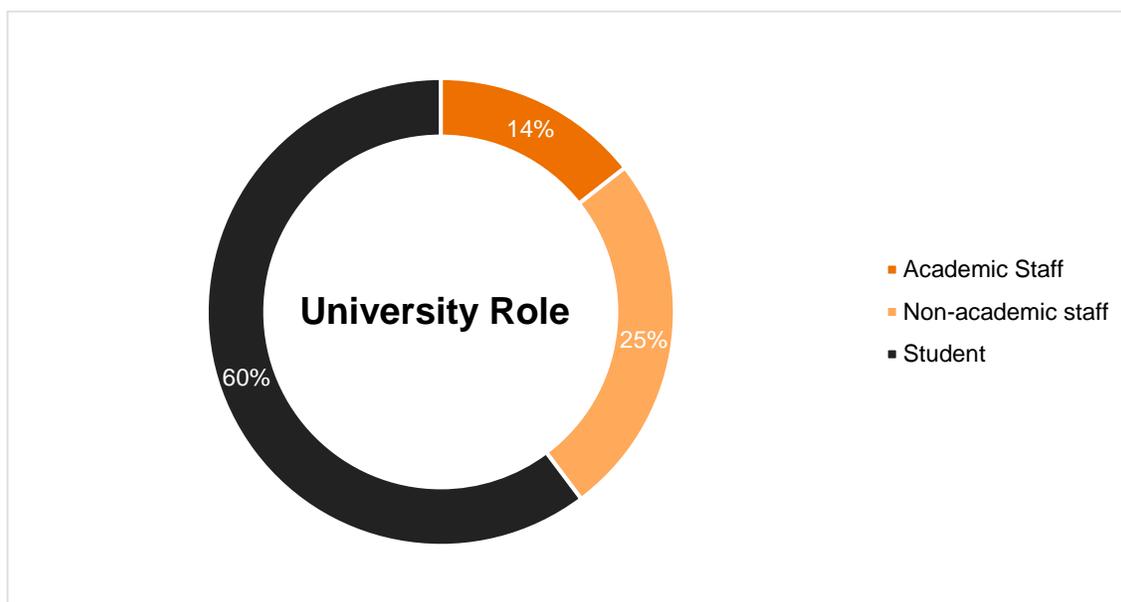


Figure 3.1 Survey Respondents University Role

Although students make up almost three quarters of the total University population (74%) they were underrepresented within this survey with only 60% of respondent's being students.

Figure 3.2 and Figure 3.3 shows the split by age and gender of respondents for staff and students, respectively. It should be noted that 1.5% of respondents stated they identify in another way and have not been included in these graphs due to the low numbers.

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<sup>1</sup> [Student Factsheet 31072021.pdf \(ed.ac.uk\)](#)

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

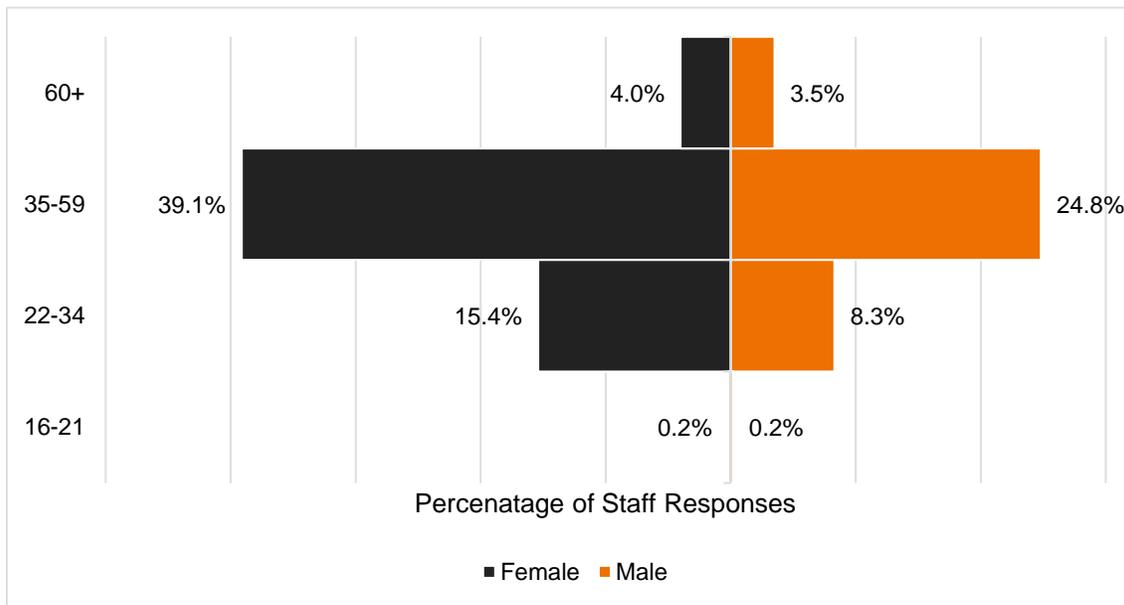


Figure 3.2 Staff Survey Respondents by Age and Gender

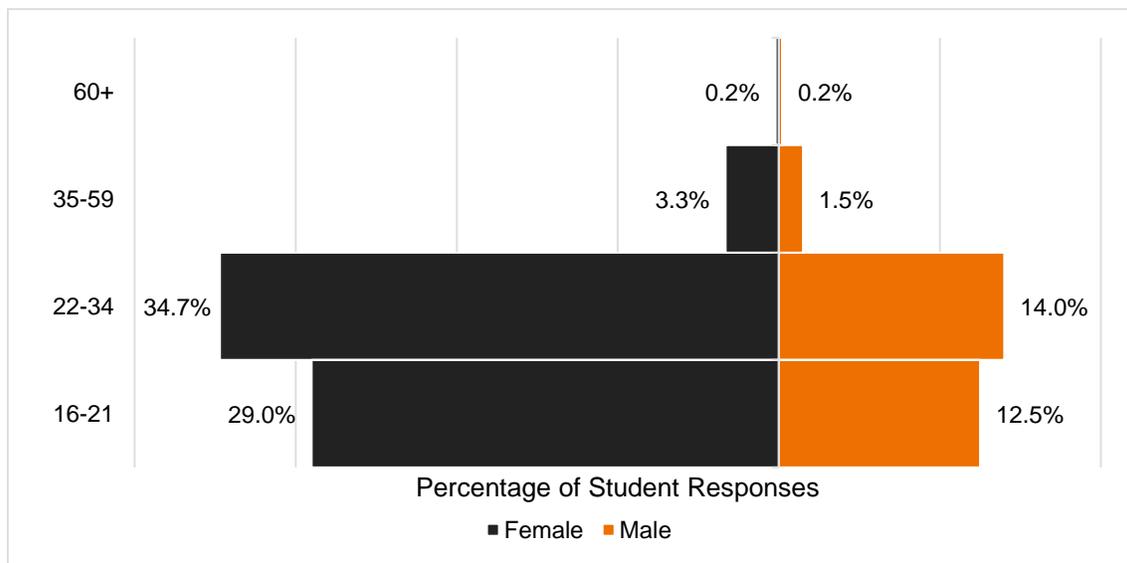


Figure 3.3 Student Survey Respondents by Age and Gender

Most responses were from females, both amongst staff (59.3%) and students (67.1%). The University Student Factsheet for 2020/21<sup>2</sup>, notes that 61% of the student population is female.

<sup>2</sup> [Student Factsheet 31072021.pdf \(ed.ac.uk\)](https://www.ed.ac.uk/student-factsheet/31072021.pdf)

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

Figure 3.4 below, displays the student fee status of the survey respondents and Figure 3.5 presents the overall student fee status for the whole University.

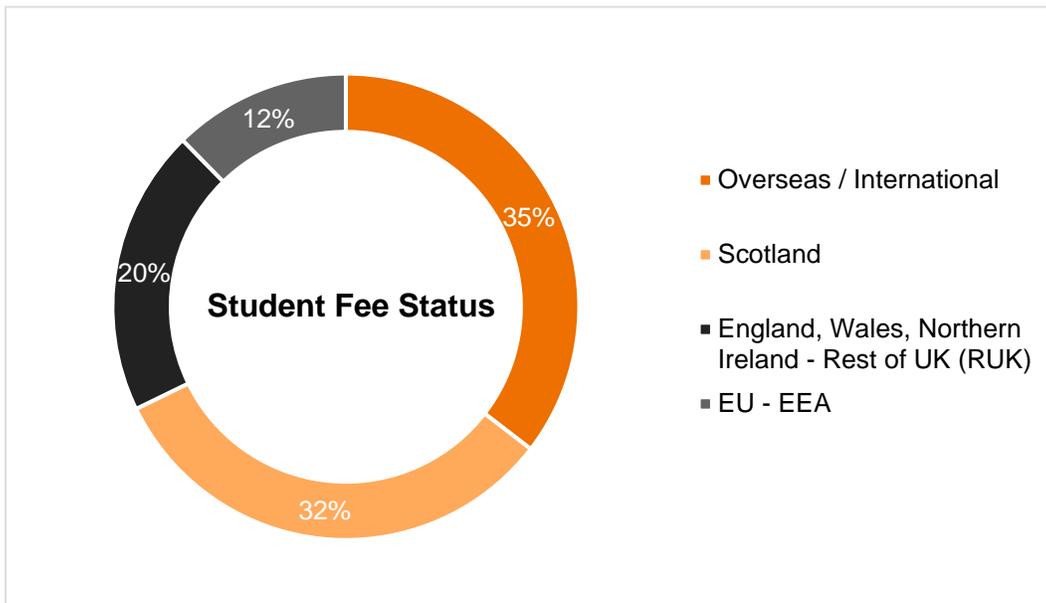


Figure 3.4 Student Survey Respondents Fee Status

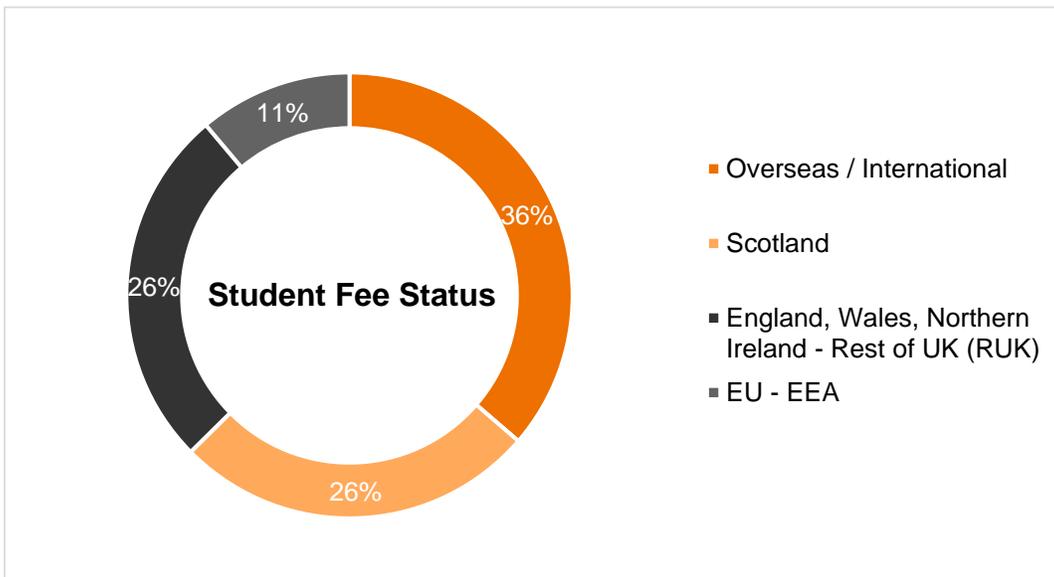


Figure 3.5 Overall University Student Fee Status

From the graphs above, there is a slight over representation of Scottish students as 32% responded to the survey but they only account for 26% of all students. There is also an underrepresentation of those

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Overall Survey Results

who are from the Rest of the UK as only 20% make up the survey respondents but they also represent 26% of the student population.

### 3.3 SURVEY RESPONSES

A total of 3,029 responses were received from staff representing an 18.6% response rate (19.7% completed in 2019), while 4,724 responses were received by students representing an 11.0% response rate (13% completed in 2019).

Although the level of responses by both staff and students provides an acceptable sample size when considering overall travel trends to the University, the results at smaller site locations should be treated with some caution given the smaller sample sizes.

The breakdown of the response rates by location, excluding those who do not work or study on campus, is presented in Table 3.1. This is split by location for academic staff, non-academic staff and students, respectively. The student values are calculated by using the total number of students at the University as there is no value for the number at each site.

Table 3.1 2022 Survey Response Rates

Location	Academic Staff	Non-academic Staff	Student
BioQuarter	22.2%	26.4%	10.5%
Central Area - including Edinburgh College of Art, Holyrood and New College	11.0%	25.3%	11.3%
Easter Bush	18.2%	19.1%	10.8%
King's Buildings	11.6%	28.7%	14%
Pollock Halls and Other University Accommodation (staff only)	0%	21.8%	11.7%
Western General Hospital	19.7%	25.5%	8.7%
<b>Total</b>		<b>18.6%</b>	<b>11.0%</b>

Table 3.1 shows that the response rates vary across the different locations, and this has been considered in the analysis of some later questions.

The number of staff at the time of the 2019 survey was 15,739 and for the 2022 survey was 16,313 - a 3.6% increase. The number of students in 2019 was 37,771 and for 2022 (using the available 2020-21 Student Data) was 42,860 and equates to a 13.5% increase. Those who are distance learners have been excluded, which was also the case in 2019, due to these students not commuting to University Campuses.

The staff and student response rates are important as total carbon emissions are factored up from the sample respondents to reflect the total number of staff and students at the University.

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

For the 2022 survey, staff make up a greater proportion of respondents than in 2019 and, as their travel habits differ from students, this can influence the overall results. These are noted and explored in the remainder of the report.

### 3.4 COVID-19 IMPACT

The COVID-19 pandemic has seen a change in the way people work and study due to various lockdowns and restrictions, which have only recently been fully lifted. During the peak of the pandemic, all staff and students were instructed to work and study from home. The impacts of this may be long-lasting on how students and staff choose to travel.

Most COVID-19 restrictions in Scotland came to an end on 18<sup>th</sup> of April, during the survey period. To account for this, both staff and students were asked to comment on how they expect their travel behaviours to change following the end of the restrictions, compared to during the pandemic. The results of this are presented in Figure 3.6 and Figure 3.7

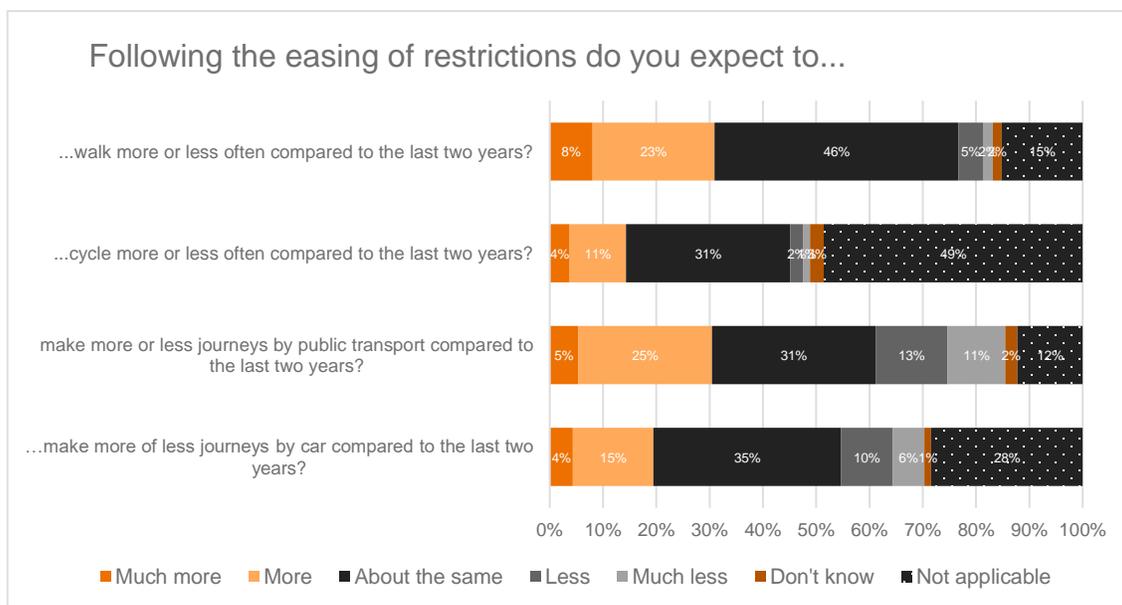


Figure 3.6 Staff Travel Behaviour Changes following the COVID-19 pandemic

From the graph above, the almost half (46%) of the staff respondents noted that they would walk about the same as they did over the past two years, which suggests that during the period of restrictions the shift to walking will remain. A further 31% suggest they will now walk more than they did during the pandemic. Almost half (49%) of staff respondents highlighted that the questions about whether they would cycle more or less often compared to the last two years was not applicable to them. This implies that there was not as big a shift to cycling by staff during the pandemic and therefore they would not make the shift following the easing of restrictions. A total of 15% of staff stated that they would cycle much more or more than they did during the pandemic which shows a shift towards active travel.

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Overall Survey Results

In terms of public transport, 30% of staff noted that they would travel by public transport more than they did in the previous two years. This suggests a return to public transport now that COVID restrictions have eased. A further 31% stated that they would use it about the same amount as they did during the pandemic. The graph indicates that 28% of staff found the question on whether they would make more or less journeys by car compared to the last two years not applicable. This suggests that around one quarter did not commute to work by car during the pandemic and will continue to do this following the lifting of restrictions. A total of 35% stated that they would travel by car about the same as they did during the pandemic and a further 19% would travel by car much more or more.

The results for student travel patterns are illustrated in Figure 3.7 below.

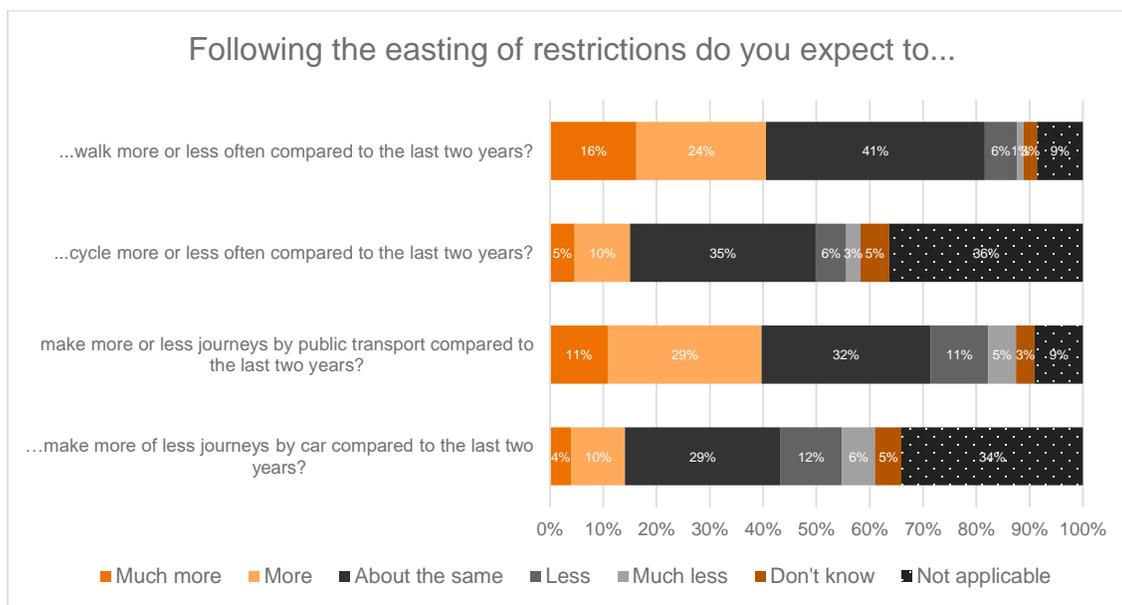


Figure 3.7 Student Travel Behaviour Changes following the COVID-19 pandemic

The results for students are broadly similar to those of staff. Most students' travel behaviours will remain the same as they were during the COVID pandemic as seen for all modes of transport. 40% of students noted that they would both walk and travel by public transport more than they previously did. The proportion travelling by public transport is higher than the staff responses which could be attributed to the U22 National Entitlement Card which allows all under-22 year olds to travel by bus for free.

Around one third of students stated that cycling (36%) and journeys by car (34%) are not applicable, which suggests a low proportion travelled this way during the pandemic.

Overall, there has not been a dramatic shift in travel behaviours since the COVID-19 pandemic however significant numbers of both staff and students have indicated that they intend to walk and travel by bus more than they did previously.

Habituation is an important factor in influencing travel decisions and if staff and students have become accustomed to travelling more sustainably, then it can be reasonably expected that these habits will

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

continue. Ongoing investment in infrastructure and facilities by both the University and Edinburgh City Council will further entrench these new travel patterns.

### 3.5 UNIVERSITY MODE SHARE

#### 2022 Mode Share

The overall University mode share is illustrated in Figure 3.8, with the staff and student mode share shown separately. Mode-by-mode highlights of the changes since the 2019 survey are then summarised.

The reported mode share takes account of response rate per location for staff against the total number of staff at that location and response per student per school and the total number of students in that school. This ensures that no location / school is under or overrepresented.

Respondents' modes are weighted based on where they make use of multiple modes of travel, for example, if a respondent travels nine miles by bus and one by walking then that is reflected in the mode share calculation, rather than attributing it all to bus travel as the mode where the greatest distance is covered. This allows the closest like-for-like comparison with previous years' data (although the survey questions were different, so they are not exactly comparable).

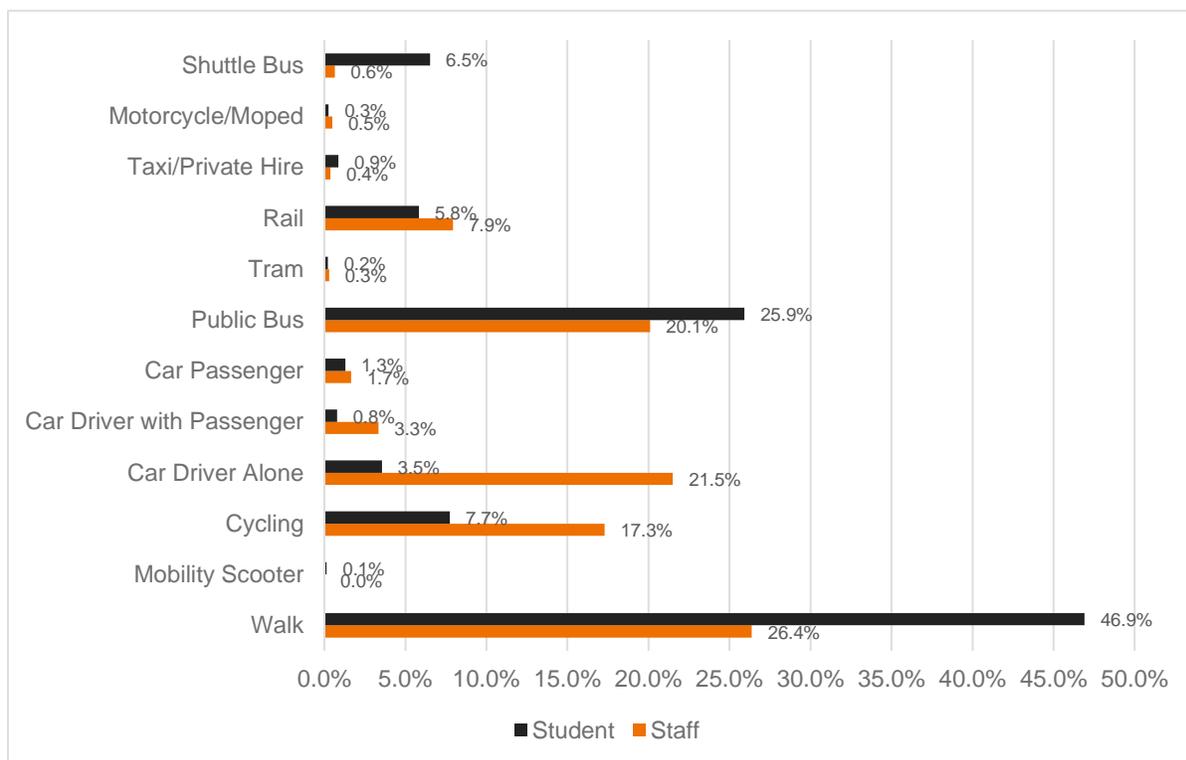


Figure 3.8 Mode Share for 2022

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

### Mode Share Trends

Figure 3.9 shows the change in mode share between 2000 and 2022 for staff and Figure 3.10 shows the change in mode share between 2004 and 2022 for students. Supporting data is also provided in Table 3.2 and Table 3.3 below.

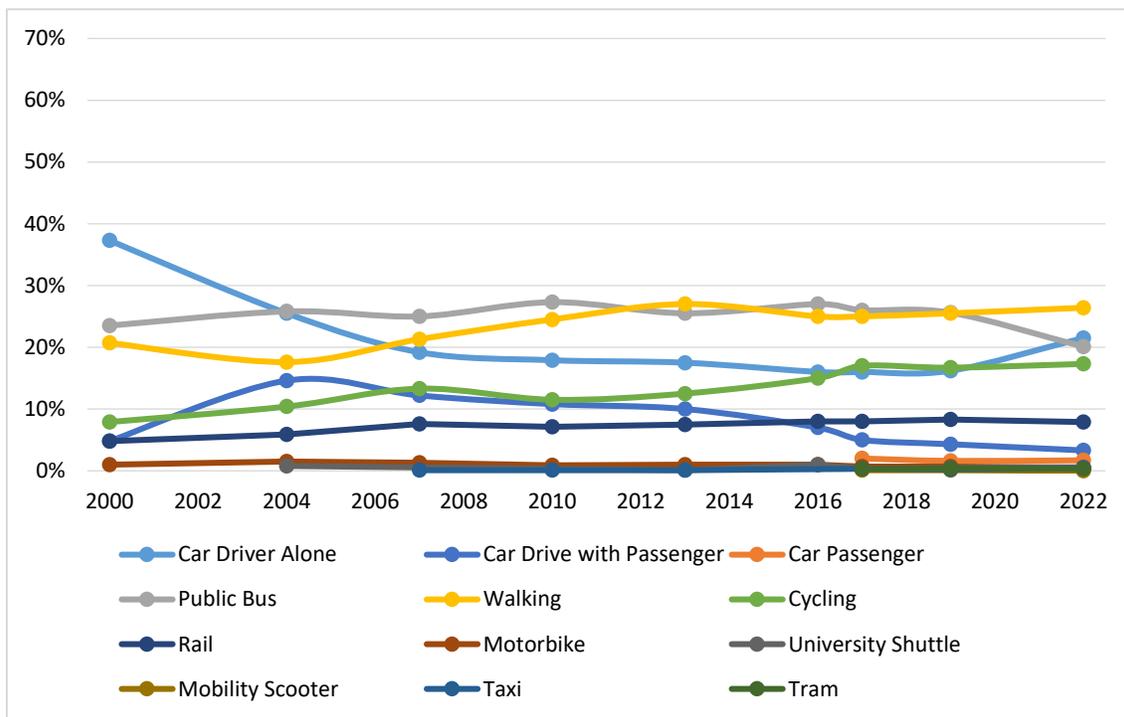


Figure 3.9 Change in Staff Mode Share between 2000 and 2022

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

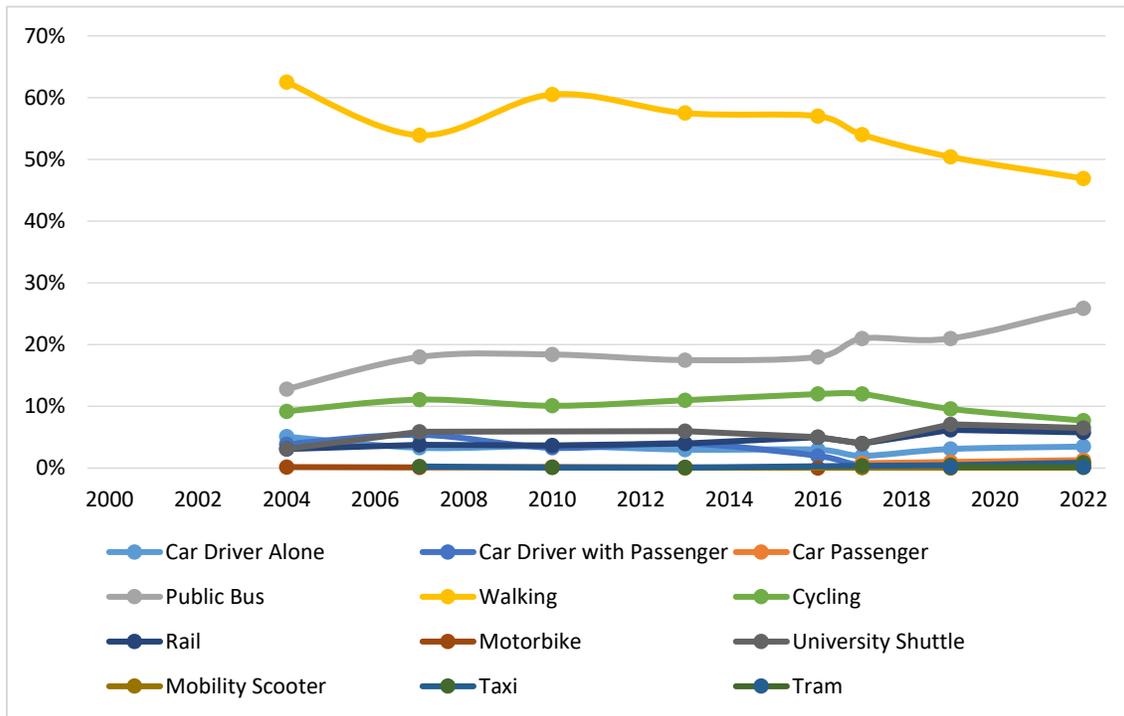


Figure 3.10 Change in Student Mode Share between 2004 and 2022

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

Table 3.2 Change in Staff Mode Share between 2000 and 2022

Mode	2000	2004	2007	2010	2013	2016	2017	2019	2022
Car Driver Alone	37.3%	25.5%	19.2%	17.9%	17.5%	16.0%	16.0%	16.2%	21.5%
Car Driver with Passenger	4.8%	14.6%	12.2%	10.8%	10.0%	7.0%	5.0%	4.3%	3.3%
Car Passenger							2.0%	1.6%	1.7%
Public Bus	23.5%	25.8%	25.0%	27.3%	25.5%	27.0%	26.0%	25.6%	20.1%
Walking	20.7%	17.6%	21.3%	24.5%	27.0%	25.0%	25.0%	25.5%	26.4%
Cycling	7.9%	10.4%	13.3%	11.5%	12.5%	15.0%	17.0%	16.7%	17.3%
Rail	4.8%	5.9%	7.6%	7.1%	7.5%	8.0%	8.0%	8.3%	7.9%
Motorbike	1.0%	1.5%	1.3%	0.9%	1.0%	1.0%	0.7%	0.7%	0.5%
University Shuttle*		0.8%			0.1%	1.0%	0.3%	0.5%	0.6%
Mobility Scooter							0.1%	0.1%	0.0%
Taxi			0.1%	0.1%	0.1%		0.3%	0.2%	0.4%
Tram**							0.3%	0.4%	0.3%

\* shuttle bus potentially included within bus travel category

\*\* tram included from 2016 onwards only

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

Table 3.3 Change in Student Mode Share between 2004 and 2022

Mode	2000*	2004	2007	2010	2013	2016	2017	2019	2022
Car Driver Alone		5.1%	3.3%	3.6%	3.0%	3.0%	2.0%	3.1%	3.5%
Car Driver with Passenger		3.9%	5.4%	3.3%	4.0%	2.0%	0.5%	0.8%	0.8%
Car Passenger	0.8%						1.0%	1.3%	
Public Bus		12.8%	18.0%	18.4%	17.5%	18.0%	21.0%	21.0%	25.9%
Walking		62.5%	53.9%	60.5%	57.5%	57.0%	54.0%	50.4%	46.9%
Cycling		9.2%	11.1%	10.1%	11.0%	12.0%	12.0%	9.6%	7.7%
Rail		3.1%	3.8%	3.7%	4.0%	5.0%	4.0%	6.2%	5.8%
Motorbike		0.2%	0.1%	0.2%	0.1%	0.0%	0.1%	0.1%	0.2%
University Shuttle **		3.1%	5.9%		6.0%	5.0%	4.0%	7.1%	6.5%
Mobility Scooter					0.0%		0.1%	0.0%	0.1%
Taxi		5.1%	0.3%	0.1%	0.1%	3.0%	0.4%	0.5%	0.9%
Tram ***							0.2%	0.2%	0.2%

\* no student survey in 2000

\*\* shuttle bus potentially included within bus travel category

\*\*\* tram included from 2016 onwards only

The overall mode share for 2019 and 2022 is shown in Table 3.4, along with the percentage point change between the years.

Table 3.4 Overall Mode Share and Percentage Change between 2019 and 2022

Mode	2019	2022	Percentage Point Change
Walk	43.1%	41.0%	-2.1%
Cycle	11.7%	10.5%	-1.2%
Motorcycle	0.3%	0.3%	0%
Car Driver Alone	7.0%	8.7%	+1.7%
Car Driver with Passenger	1.8%	1.5%	-0.3%
Car Passenger	1.1%	1.4%	+0.3%
Bus	22.4%	24.2%	+1.8%
Shuttle Bus	5.1%	4.8%	-0.3%

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Overall Survey Results

Mode	2019	2022	Percentage Point Change
Tram	0.3%	0.2%	-0.1%
Rail	6.8%	6.4%	-0.4%
Taxi	0.4%	0.7%	+0.3%
Mobility Scooter	0.0%	0.1%	+0.1%

### 3.5.2 Overall

In general, the overall University mode share proportions have remained broadly similar to those of the 2019 survey. There has been a shift away from active travel (reducing by 2.1 percentage points for walking and 1.2 percentage points for cycling) to private car which may be driven by the coronavirus pandemic which saw the Government encourage the public to keep a two-metre distance from others. The increase of 1.5 percentage points for travelling by public bus could be attributed to the introduction of the National Entitlement Card for U22s, which allows those under 21 to travel by public buses for free.

### 3.5.3 Walking

Overall walking to the University has fallen from 43.1% in 2019 to 41.0% and the shift is attributed to students as the number walking has reduced by 3.5 percentage points. This is likely a result of students travelling further to the University and therefore needing to use alternative modes of travel which are quicker, such as buses. It should also be noted that the Scottish Governments under 22 bus travel scheme is now live which could also affect numbers of those who walk to the University, given these students now have a free alternative option.

### 3.5.4 Mobility Scooter

The number of staff and students using mobility scooters to access the University is so low it is difficult to draw any conclusions about trends in their use. In 2019, only three student respondents to the 2019 survey did (less than 0.1% once weighted) and in 2022 a total of 20 respondents (staff and students) noted they travelled this way.

### 3.5.5 Cycling

Overall cycling to the University has decreased since 2019 from 11.7% to 10.5% and this shift is split between staff which has grown by (0.6 percentage points) and students which has reduced (-1.9 percentage points). Overall, this equates to around 2,822 staff and 3,300 students cycling to the University as their main usual mode of travel.

### 3.5.6 Bus

Overall public bus use has increased slightly since 2019 from 22.4% to 24.1% amongst staff and students combined, with staff decreasing by 5.5 percentage points and students increasing by 4.9 percentage

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Overall Survey Results

point. The significant drop in bus patronage by staff is likely linked to the pandemic and associated concerns with using public transport. Staff are more likely than students to have access to a car (65% vs 15%), so it is probable that they saw driving as a viable alternative to public transport during the pandemic.

#### **3.5.7 Tram**

Overall, the use of the tram to access the University since 2019 has decreased slightly. Travelling by tram only accounts for 0.2% of the total journeys made to the University.

#### **3.5.8 Rail**

Overall rail travel to the University has decreased since 2019 by 0.4 percentage points this is a result of decreased patronage for both staff and students (-0.4 percentage points) most likely due to the pandemic. Students have broadly remained the same.

#### **3.5.9 Taxi**

Overall, the use of taxi to access the University since 2019 has remained fairly static with no notable changes amongst staff or students and it continues to account for only a very small percentage of trips to the University (total 0.8%).

#### **3.5.10 Motorcycle**

Overall, the use of a motorcycle to access the University since 2019 has remained fairly static with no notable changes amongst staff or students and it continues to account for less than one percent of trips to the University.

#### **3.5.11 Car**

Overall driving alone to the University has increased since 2019 by 1.7 percentage points and this is almost entirely attributable to staff who have shown a growth of (+5.3 percentage points) which could be attributed to the restrictions imposed during the pandemic to minimise public transport use and the residual anxiety this has caused. The proportion of students travelling to University by car alone has also increased since 2019 (+0.3 percentage points) which could also be attributed to the restrictions implemented due to the COVID-19 pandemic.

Of all drivers, 75% of these travel alone as calculated by totalling the number who drive alone and dividing by all those who note they travel by car.

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

### 3.6 DISTANCE TRAVELED BY MODE

Using information collected through the survey it was possible to calculate total distance travelled by each mode. This was completed by converting survey responses to two way trips, and considering numbers of days each respondent travelled to the University. Data was then weighted by each mode by staff type and campus or student type and college. These values were then converted from miles to kilometres. Table 3.5 below presents this information which shows total km travelled by each mode.

Table 3.5 Annual Distance Travelled by Mode (km)

	Walk	Mobility Scooter	Cycle	Public Bus	Tram	Rail	Taxi	Motorcycle	Car
Staff	5,173,379	-	6,647,302	12,084,841	263,068	13,924,768	190,969	547,928	29,475,470
Student	13,398,055	159,630	5,337,803	25,591,109	618,242	22,049,992	1,414,129	418,282	13,565,910
Total	18,571,434	159,630	11,985,105	37,675,950	881,311	35,974,761	1,605,099	966,210	43,041,381

### 3.7 MODE SHARE BY AREA

Table 3.6 shows the 2022 mode share split by location for staff and students. This data is not weighted, it simply displays the responses received from the survey.

Table 3.6 Mode Share by Location in 2022 (%)

Location		Walk	Mobility Scooter	Cycle	Public Bus	Tram	Rail	Taxi	Motorcycle	Car
BioQuarter	Staff	10	0	18	22	0	1	0	0	47
	Students	12	0	16	57	0	4	0	1	10
Central Area – including Edinburgh College of Art, Holyrood and New College	Staff	31	0	13	24	0	13	0	0	18
	Students	62	0	5	20	0	7	0	0	4
Easter Bush	Staff	2	0	10	13	0	0	0	0	74
	Students	6	0	4	62	0	1	1	1	26

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Overall Survey Results

Location		Walk	Mobility Scooter	Cycle	Public Bus	Tram	Rail	Taxi	Motorcycle	Car
King's Buildings	Staff	21	0	24	15	0	3	0	0	37
	Students	46	0	14	30	0	3	1	0	7
Pollock Halls (staff only)	Staff	17	0	2	22	0	6	0	0	53
	Students	0	0	0	0	0	0	0	0	0
Western General Hospital	Staff	19	0	24	22	0	4	0	0	31
	Students	35	0	26	32	0	0	0	2	5
Other University Accommodation Site (staff only)	Staff	7	0	0	14	0	0	7	7	64
	Students	75	0	13	13	0	0	0	0	0
Other	Staff	13	0	19	25	0	6	0	0	38
	Students	45	0	3	19	0	10	0	0	23

Table 3.6 shows that the most respondents indicated walking as their main mode of travel, particularly in the Central Area. Bus and car were also prominent modes for both groups combined. In contrast, the least respondents indicated that a mobility scooter as their main mode, regardless of location.

Travelling by car is the most common mode of travel for staff in all locations except for the Central Area, where walking and bus travel are most popular. These modes are also common in other locations.

Walking is evidently the most common mode of travel for students, particularly in the Central Area and King's Building. Bus travel is also common for student respondents located in the Central Area.

### 3.8 DAYS OF TRAVEL

Staff and students were asked how many days of the week they travel to the University and the results are shown in Figure 3.11

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

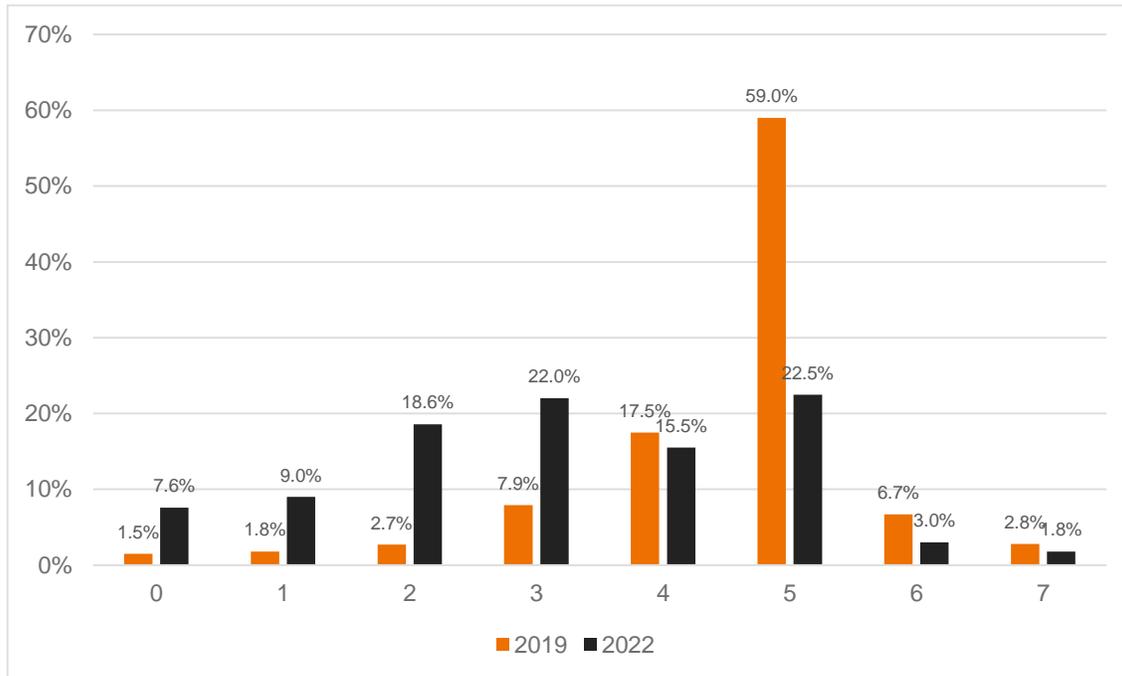


Figure 3.11 Overall Number of Days Travelling to the University in 2022, compared to 2019

Figure 3.11 demonstrates that there has been a significant reduction in the proportion of staff and students travelling to work or study five days a week with a 36.5 percentage point difference between 2019 and 2022. There has also been an increase in the number of people commuting to campus less than five days a week, indicating that the hybrid approach has been adopted by many.

The data has also been split by staff and students and presented in Figure 3.12 and Figure 3.13 below.

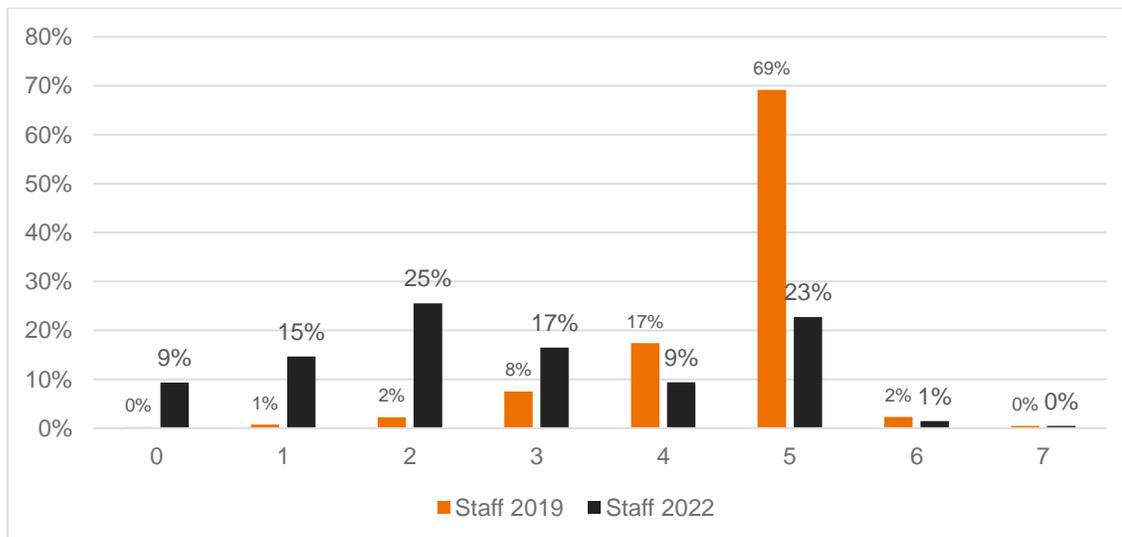


Figure 3.12 Number of Days Travelling to the University for Staff in 2022, compared to 2019

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

Between 2019 and 2022 there has been a reduction of 46 percentage points for staff who travel to work five days a week. This suggests that the work from home message which was enforced during the various lockdowns has remained to some extent as 23% of the staff population now commute to work five days a week. A quarter of staff now work on campus two days which is an increase from 2%, reinforcing the idea of hybrid working. There has been a 9 percentage point increase in the number of staff completely working from home which is a trend seen across all workplaces following the pandemic.

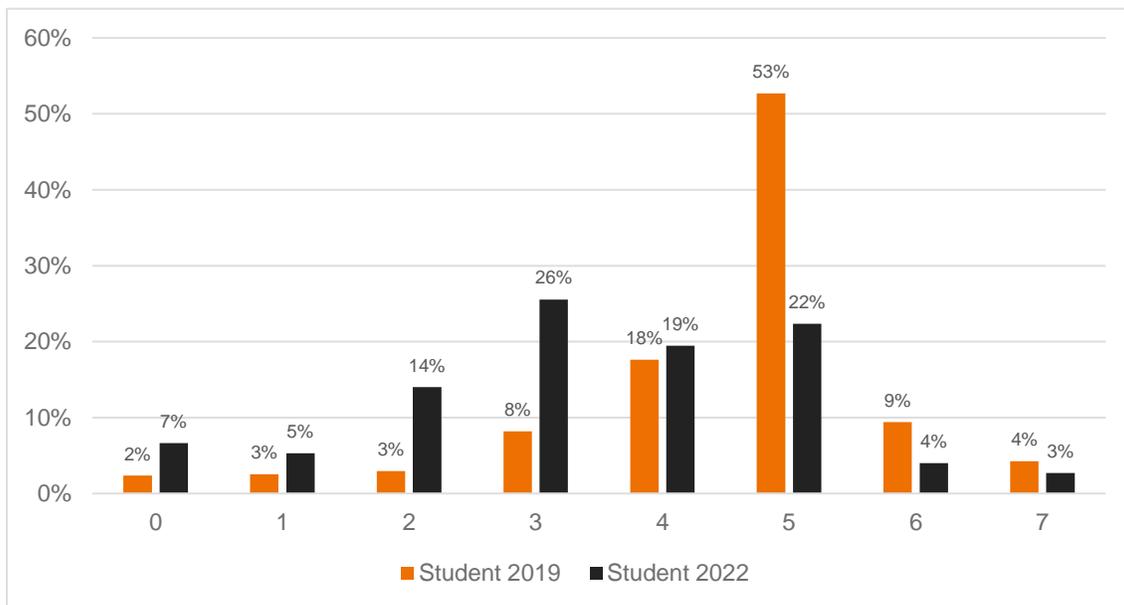


Figure 3.13 Overall Number of Days Travelling to the University for Students in 2022, compared to 2019

A similar trend is seen with the student population, with there being a significant reduction in those working on campus five days a week (53% in 2019 to 22% in 2022). This can be accounted for by the switch to 'online learning', with lectures being held via online or pre-recorded by lecturers and any in person classes also being conducted online. Like staff, there is a clear shift to hybrid studying with there being an increase in the number of students working on campus less than five days a week. Almost one quarter (26%) of students noted that they work on site three days a week.

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

### 3.9 HOME LOCATIONS

Both staff and students were asked to provide the postcodes of their term time address which has been mapped and presented in Figure 3.14 below.

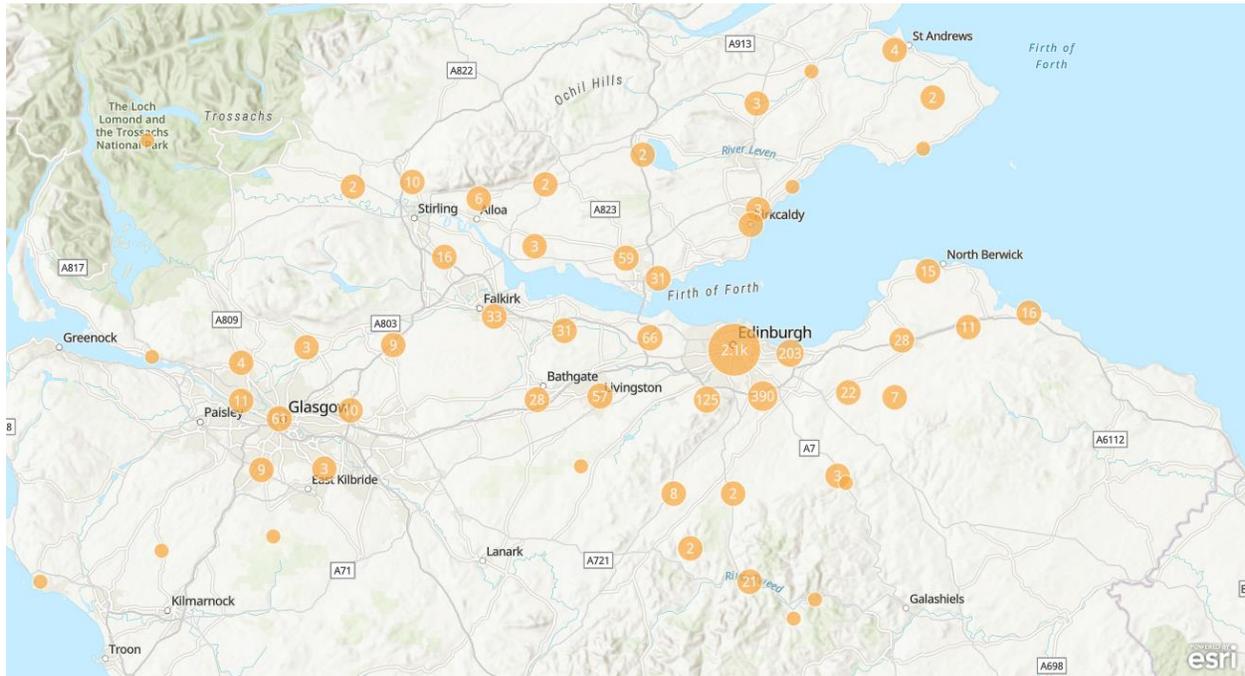


Figure 3.14 Location of staff and student term time address by postcode

The majority of staff and students live in Scotland, with the most living in Edinburgh during term time. There are clusters who noted their postcode as being in Glasgow and other areas in the central belt such as Stirling, Falkirk and West Lothian.

Students and staff respondents were also asked how many miles per day they travel to the University campus. This was calculated through Google Maps for each mode of travel and then totalled to determine the overall commuting distance. The results are shown in Figure 3.15.

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

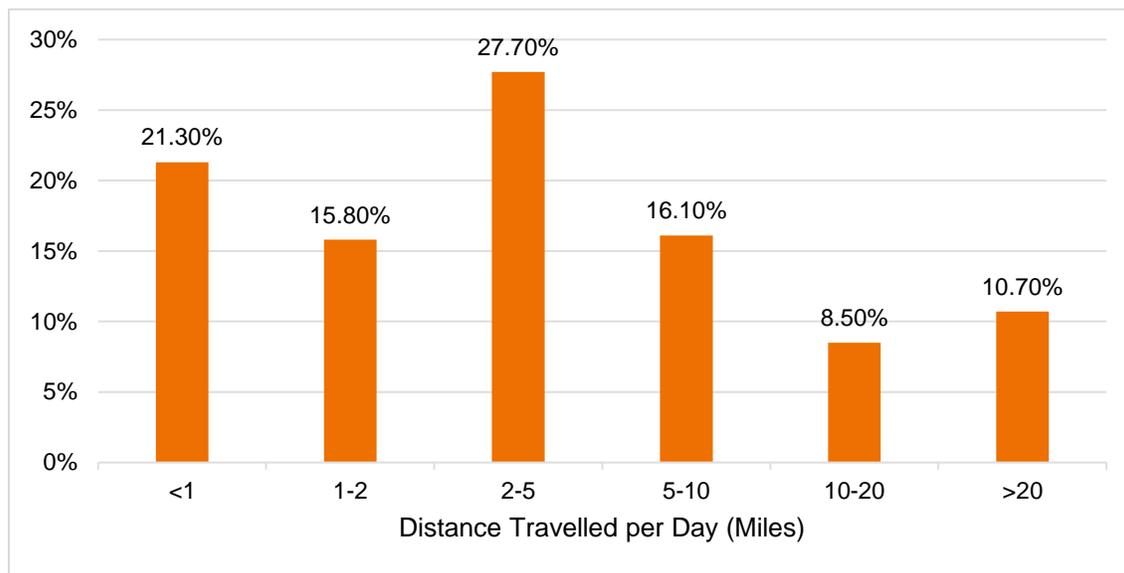


Figure 3.15 Miles Travelled per one-way journey by Respondents in 2022

Figure 3.15 illustrates that almost 65% of respondents travel less than 5 miles to their main place of work/study. Interestingly, 61% of respondents currently travel using active modes which shows that staff and students are making healthy/active choices when considering how to travel short distances.

### 3.10 CARBON FOOTPRINT

This section provides information on the University travel to work / study carbon footprint. The 2022 DEFRA carbon emissions factors<sup>3</sup> were used in the carbon footprint calculations. It should be noted that the carbon emissions factors take into consideration that some respondents use multiple modes as part of their usual journey, and they are weighted based on the response rate by location against the total number of staff and students normally based at each location. Appendix A provides details of the carbon footprint calculation methodology used.

For the purposes of calculating carbon emissions, the maximum commuting travel distances are assumed to be 5 miles for walking, 40 miles for cycling and 60 miles for all other modes. This is consistent with how the data has been analysed and reported in previous years. Table 3.7 shows overall carbon footprint for each mode in the years 2017, 2019 and 2022, followed by Table 3.8 and Table 3.9 which splits the carbon footprint by staff and students. Table 3.10 shows the change in the Overall Carbon Footprint between 2016 and 2022

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<sup>3</sup> <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022>

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

Table 3.7 Overall Carbon Footprint

Mode	Average Distance (miles)			Annual Estimated Total CO <sub>2e</sub> (tonnes)			Annual Estimated CO <sub>2e</sub> per Member (tonnes)		
	2017	2019	2022	2017	2019	2022	2017	2019	2022
Walk	1.0	1.2	1.1						
Mobility Scooter			2.3						
Cycle	2.3	2.8	3.2						
Motorcycle	9.1	9.5	9.4	87	130	120	0.8	0.6	0.5
Car Driver Alone	13.5	12.9	12.6	4,429	5,875	5,180	1.5	1.3	0.9
Car Driver with Passenger	11.0	10.1	9.1	908	523	297	1.3	0.5	0.3
Car Passenger	0.7	2.4	6.7	731	106	391	0.1	0.1	0.2
Bus	4.0	4.6	4.6	4,115	4,282	4,229	0.3	0.3	0.2
Tram	3.9	5.8	6.6	21	21	26	0.1	0.1	0.1
Rail	27.6	29.7	27.0	1,791	2,265	1,262	0.7	0.6	0.3
Taxi	1.6	3.0	3.6	40	152	356	0.1	0.3	0.3
<b>Total</b>				<b>12,122</b>	<b>13,354</b>	<b>11,860</b>			

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

Table 3.8 Staff Carbon Footprint

Mode	Average Distance (miles)			Annual Estimated Total CO <sub>2e</sub> (tonnes)			Annual Estimated CO <sub>2e</sub> per Member (tonnes)		
	2017	2019	2022	2017	2019	2022	2017	2019	2022
Walk	1.4	1.	1.3						
Mobility Scooter			-						
Cycle	3.4	3.7	3.9						
Motorcycle	10.6	8.9	10.1	85.0	79.0	64.9	1.0	0.6	0.6
Car Driver Alone	13.7	13.3	12.7	3,420.0	4,396.0	3,744.8	1.6	1.4	1.0
Car Driver with Passenger	11.5	10.8	9.5	909.0	422.0	208.9	1.4	0.6	0.4
Car Passenger	8.3	2.2	7.5	439.0	52.0	132.6	1.0	0.1	0.3
Bus	4.6	4.8	5.7	1,602.0	1,815.0	1,272.1	0.4	0.4	0.3
Tram	4.0	4.6	4.8	22.0	7.0	7.5	0.3	0.1	0.1
Rail	24.7	25.8	24.8	728.0	1,016.0	480.5	0.8	0.7	0.3
Taxi	3.0	4.5	4.4	11.0	29.0	38.9	0.4	0.6	0.4
<b>Total</b>				<b>7,216.0</b>	<b>7,816.0</b>	<b>5,950.3</b>			

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

Table 3.9 Student Carbon Footprint

Mode	Average Distance (miles)			Annual Estimated Total CO <sub>2e</sub> (tonnes)			Annual Estimated CO <sub>2e</sub> per Member (tonnes)		
	2017	2019	2022	2017	2019	2022	2017	2019	2022
Walk	1.0	1.1	1.1						
Mobility Scooter			2.3						
Cycle	1.9	2.1	2.4						
Motorcycle	3.6	12.2	8.2	4.0	51.0	54.7	0.2	0.7	0.3
Car Driver Alone	12.9	11.7	12.2	1,071	1,479.0	1,435.1	1.1	0.8	0.6
Car Driver with Passenger	0.9	8.2	8.2	3.0	101.0	88.0	0.1	0.3	0.2
Car Passenger	6.9	2.5	6.2	301.0	54.0	258.6	0.6	0.1	0.2
Bus	3.8	4.4	4.0	2,477.0	2,466.0	2,956.5	0.2	0.2	0.2
Tram	3.9	7.2	8.2	12.0	14.0	18.8	0.1	0.1	0.1
Rail	29.3	33.8	29.3	1,093.0	1,248.0	781.1	0.7	0.5	0.3
Taxi	1.5	2.8	3.5	32.0	122.0	316.6	0.1	.3	0.3
<b>Total</b>				<b>3,923.1</b>	<b>5,535.0</b>	<b>5,909.5</b>			

Table 3.10 Change in the Overall Carbon Footprint between 2016 and 2022.

Staff / Student	Estimated Annual Carbon Footprint (tonnes of CO <sub>2e</sub> )				Estimated Annual Carbon Footprint per Individual (tonnes of CO <sub>2e</sub> )			
	2016	2017	2019	2022	2016	2017	2019	2022
Staff	8,157	7,223	7,859	5,950	0.4	0.5	0.6	0.4
Student	5,126	5,265	5,999	5,910	0.1	0.1	0.2	0.1
<b>Overall</b>	<b>13,824</b>	<b>12,400</b>	<b>13,858</b>	<b>11,860</b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>0.2</b>

Overall Survey Results

### 3.11 AWARENESS OF TRAVEL PLANNING ACTIVITY

Respondents were asked about their awareness of sustainable transport initiatives which are provided by the University. The results are shown in Figure 3.16.

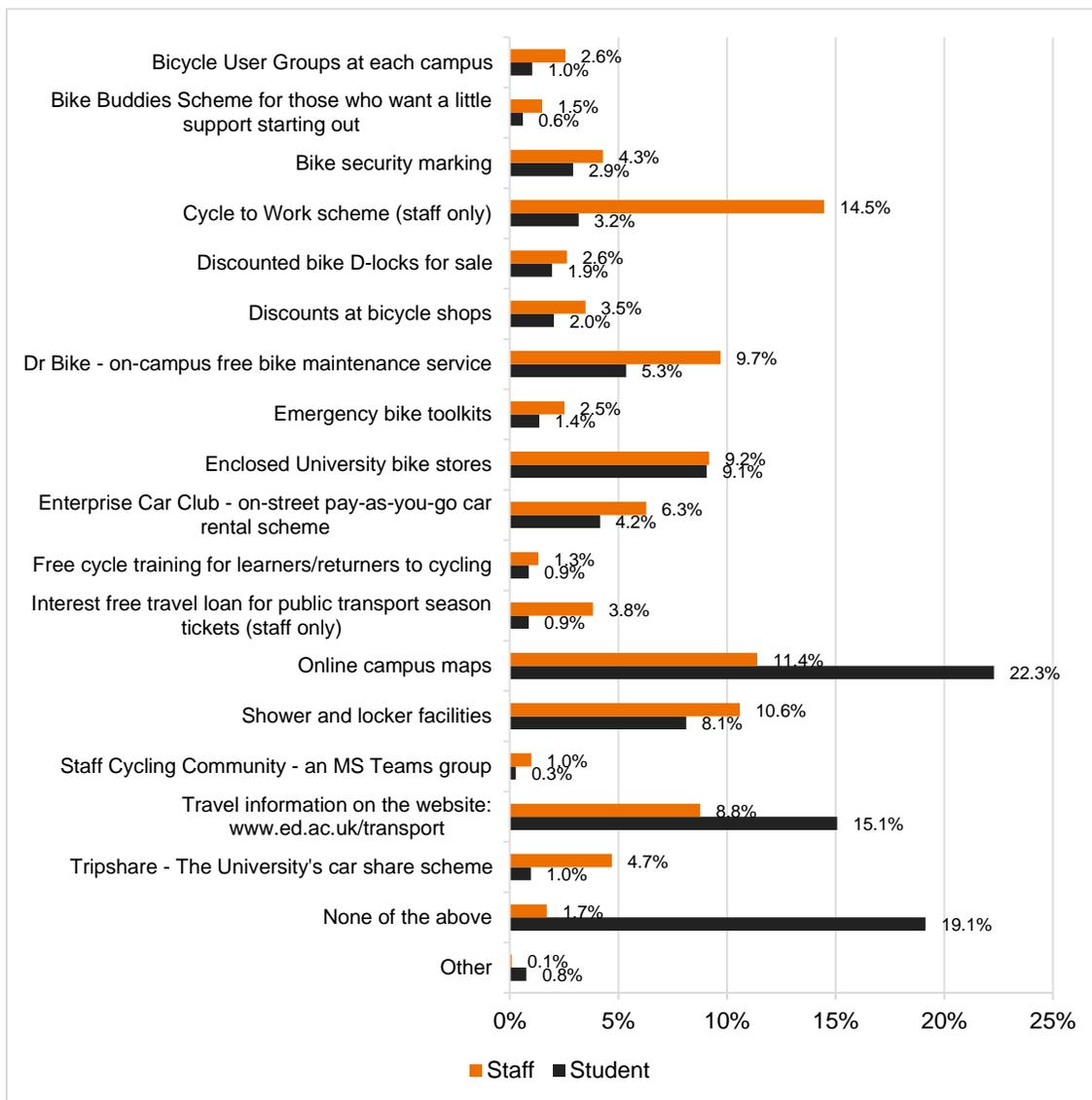


Figure 3.16 Awareness of Sustainable Transport Initiatives from the University

The results show that staff respondents are most aware of the Cycle to Work scheme (14.5%), followed by online campus maps (11.4%) and then shower and locker facilities (10.6%). Meanwhile, online campus maps (22.3%), travel information on the website (15.1%), and enclosed University bike stores (9.1%) received the highest level of awareness among the student respondents.

Overall, there are more initiatives which staff are aware of than students as some initiatives, such as the Cycle to Work Scheme, are only available to staff. Notably, 19.1% of students indicated they were not

Overall Survey Results

aware of the sustainable transport initiatives from the University, which is significantly higher than staff (1.7%).

### 3.12 WALKING

#### Encouraging Walking

All respondents were asked what could be done to improve their journeys made by walking, running or using a wheelchair or encourage them to use this mode of travel on a regular basis. The results are shown in Figure 3.17.

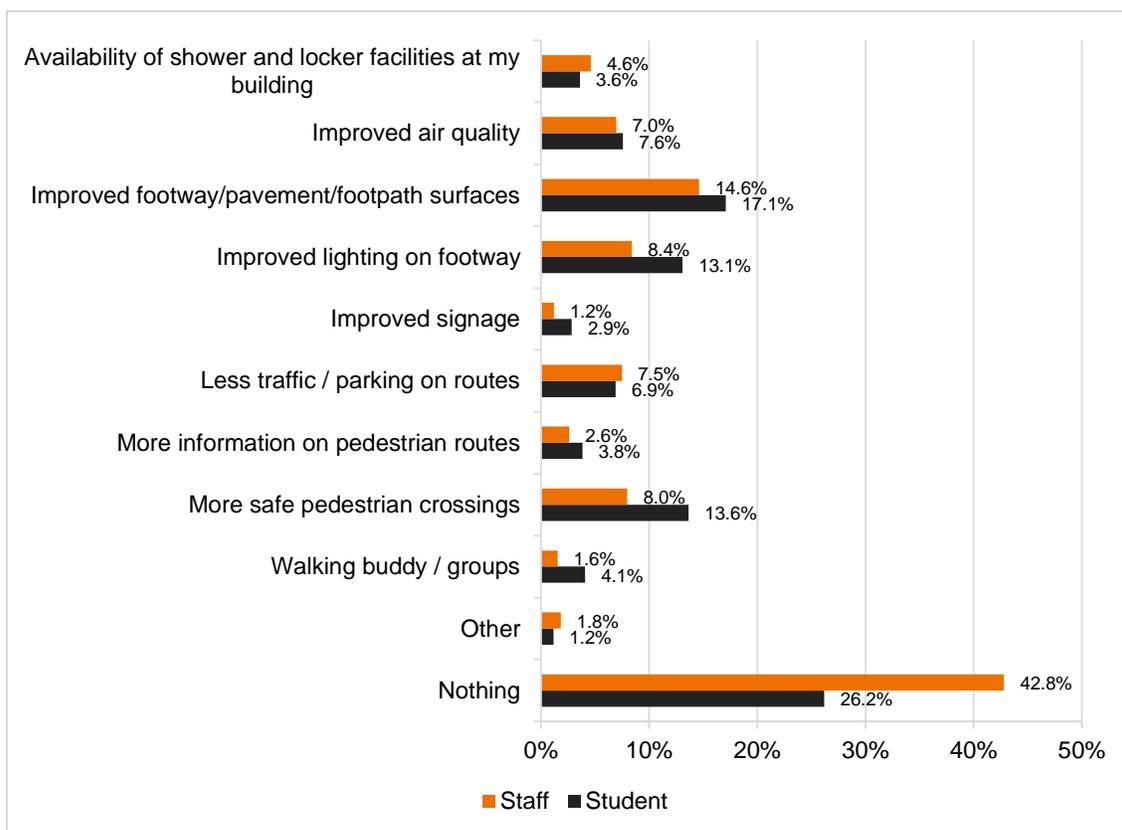


Figure 3.17 What could be done to improve your journey by walking, running or wheelchair or encourage you to use this mode of travel on a regular basis?

Improving footways / pavements / footpath surfaces was noted that most respondents believe would encourage them to walk, run or wheel with 14.6% of staff and 17.1% of students, 14.6% indicating this. This was followed by more safe pedestrian crossings (8.0% staff, 13.6% students) and improving lighting on footway (8.4% staff, 13.1% students).

The measures that were most popular were ones regarding street infrastructure, which is largely outwith the remit of the University. Notably, softer measures like having a walking buddy / groups (1.6% staff / 4.1% students) and improving signage (1.2% staff / 2.9%) received low levels of responses.

Overall Survey Results

Overall, the results illustrate that a large number of staff (42.8%) and students (26.2%) do not believe anything could be done to improve or encourage their journey made by walking, running or wheelchair.

### 3.13 CYCLING

#### Encouraging Cycling

All respondents were asked what could be done to improve their journeys made by bicycle or encourage them to use this mode of travel on a regular basis. The results are shown as percentage of respondents in Figure 3.18, followed by Table 3.11 which provide the number of respondents, split by staff and students.

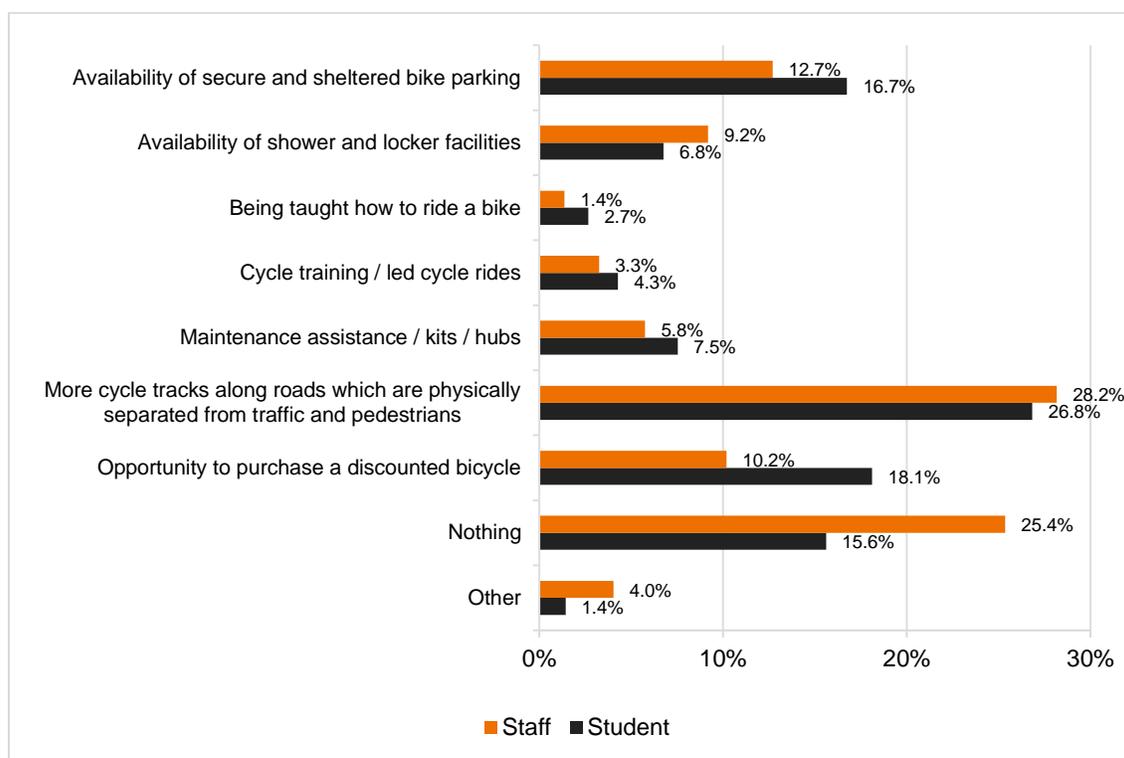


Figure 3.18 What could be done to improve your journey by bicycle or encourage you to use this mode of travel on a regular basis?

Overall, both staff (28.2%) and students (26.8%) indicated that more cycle tracks along roads which are physically separated from traffic and pedestrians would improve their journey by bicycle or encourage the use of this mode of travel on a regular basis. As with walking, infrastructure is a more important factor than “softer” measures. Cycle training and being taught to cycle showed much less support. However, whilst these might not have a big impact in the overall population, they do have a big impact in individuals’ lives; these are important initiatives for those who have never previously cycled or those who have not done so for a number of years.

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

Table 3.11 What could be done to improve your journey by bicycle or encourage you to use this mode of travel on a regular basis?

Location		Availability of secure and sheltered bike parking	Availability of shower and locker facilities	Being taught how to ride a bike	Cycle training / led cycle rides	Maintenance assistance / kits / hubs	More cycle tracks along roads which are physically separated from traffic and pedestrians	Opportunity to purchase a discounted bicycle	Nothing	Other
BioQuarter	Staff	68	60	8	15	29	184	58	127	20
	Student	92	58	8	22	42	160	86	48	7
Central Area – including Edinburgh College of Art, Holyrood and New College	Staff	433	282	34	94	184	810	321	783	110
	Student	999	362	149	218	423	1485	1021	973	74
Easter Bush	Staff	11	17	2	3	5	89	13	72	9
	Student	37	16	9	15	12	105	62	65	7
King's Buildings	Staff	107	79	4	18	52	271	88	195	47
	Student	346	157	50	85	182	613	428	292	35
Pollock Halls (staff only)	Staff	6	14	2	3	8	25	16	54	2
	Student	0	0	0	0	0	0	0	0	0
Western General Hospital	Staff	22	14	2	5	15	51	20	47	11
	Student	23	13	1	1	12	40	20	14	0
Other University accommodation site (staff only)	Staff	1	2	1	0	1	4	3	8	1
	Student	2	0	0	0	2	3	3	4	0
Other	Staff	0	1	1	0	0	3	1	8	2
	Student	11	4	0	2	7	13	13	11	1

\*Top three combined choices for each location highlighted for staff and students

Overall, more cycle tracks along roads which are physically separated from traffic and pedestrians was the most popular response, regardless of University location. The availability of secure and sheltered bike parking as well as the opportunity to purchase a discounted bike were also popular, notably among those located in the Central Area and King's Building.

### Just Eat Cycles

Respondents were also asked whether they had used the Just Eat Cycle scheme prior to the scheme being removed in September 2021. The results are shown in Figure 3.19 below.

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

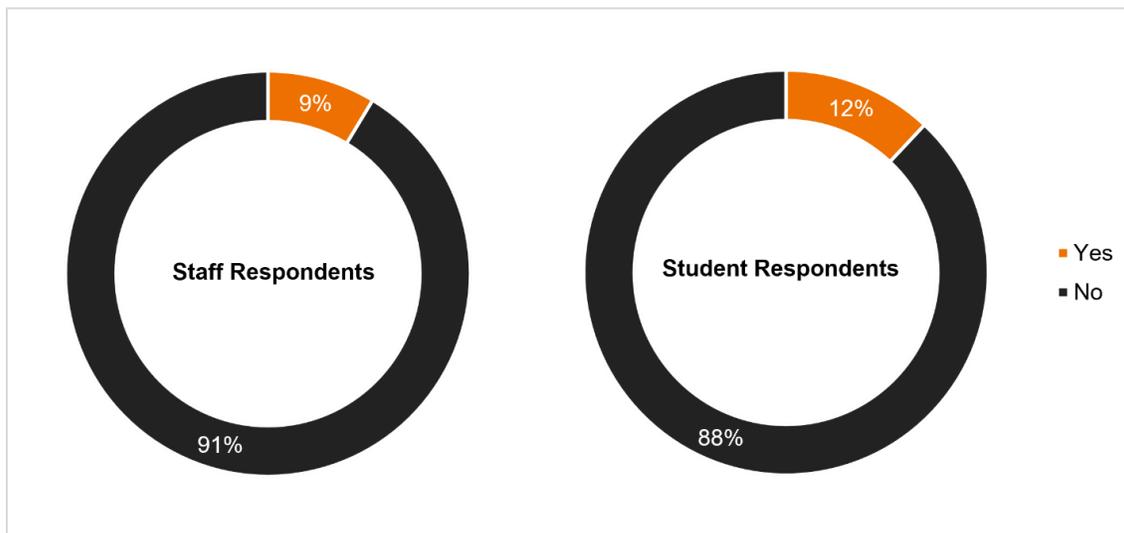


Figure 3.19 Did you use the Just Eat Cycle scheme before it closed in September 2021?

Responses show that the majority of respondents did not use the Just Eat Cycle Hire Scheme, with 91% of staff and 88% of students noting this. Slightly more students used the scheme (12%) compared to staff (9%), however it should be noted that the first years, masters’ students and some postgraduate students will not have been at the University when the scheme was in operation.

Respondents were also asked to rate their experience with regards to the app, bikes, bike availability, and station location. The results are shown in Figure 3.20 for staff and Figure 3.21 for students.

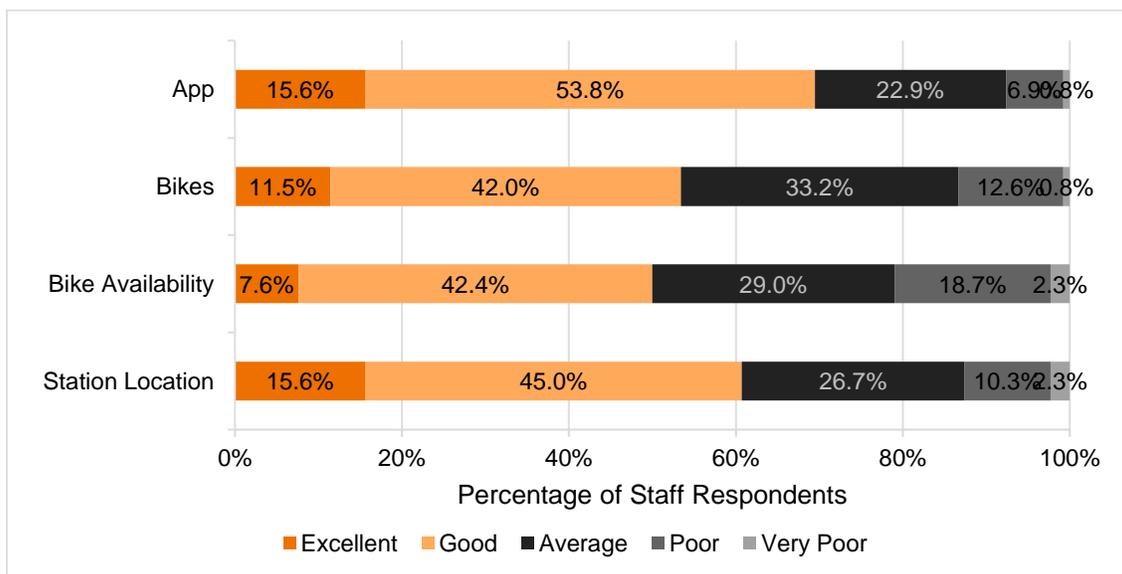


Figure 3.20 Staff Rating of the Just Eat Cycle Hire Scheme

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

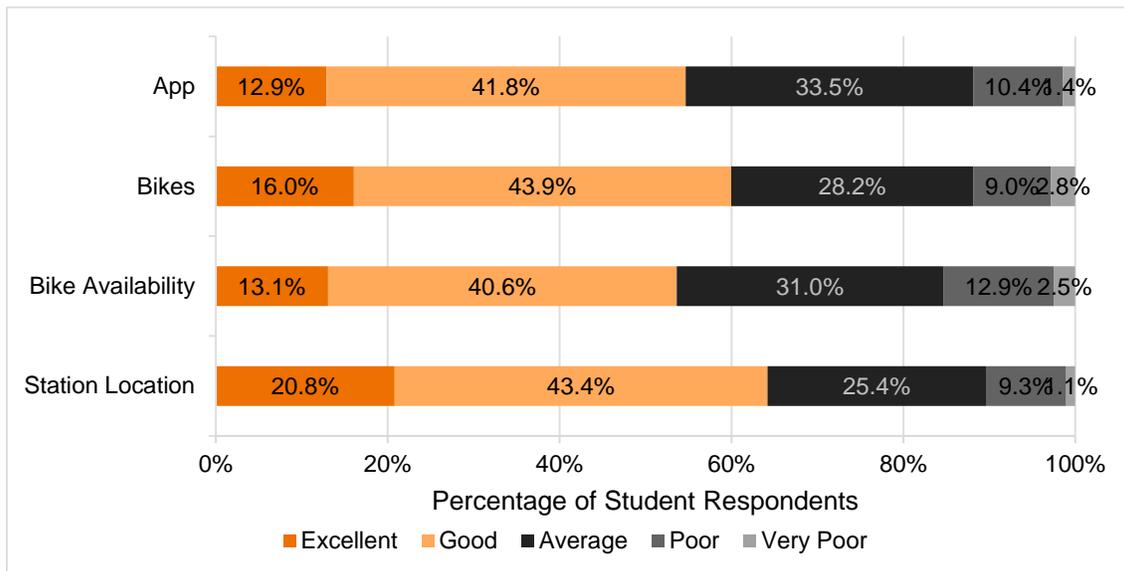


Figure 3.21 Student Rating of the Just Eat Cycle Hire Scheme

The figures above show similar results in terms of the way staff and students rated their experience using the Just Eat Cycle Hire Scheme. Most respondents indicated a ‘Good’ level of satisfaction with regard to their experience using the Just Eat Cycle Hire Scheme. It appears that both groups were most satisfied with the bike station location, with 15.6% of staff and 20.8% of students rating this as ‘Excellent’. In contrast, staff and students were least satisfied with bike availability, with 21% of staff and 15.4% of students rating this as ‘Poor’ and ‘Very Poor’. It should be noted that none of the respondents indicated ‘No opinion’ and was therefore excluded from the figures.

All respondents were asked about whether they would use a cycle hire scheme if one were to return to Edinburgh, with the results shown in Figure 3.22.

Overall Survey Results

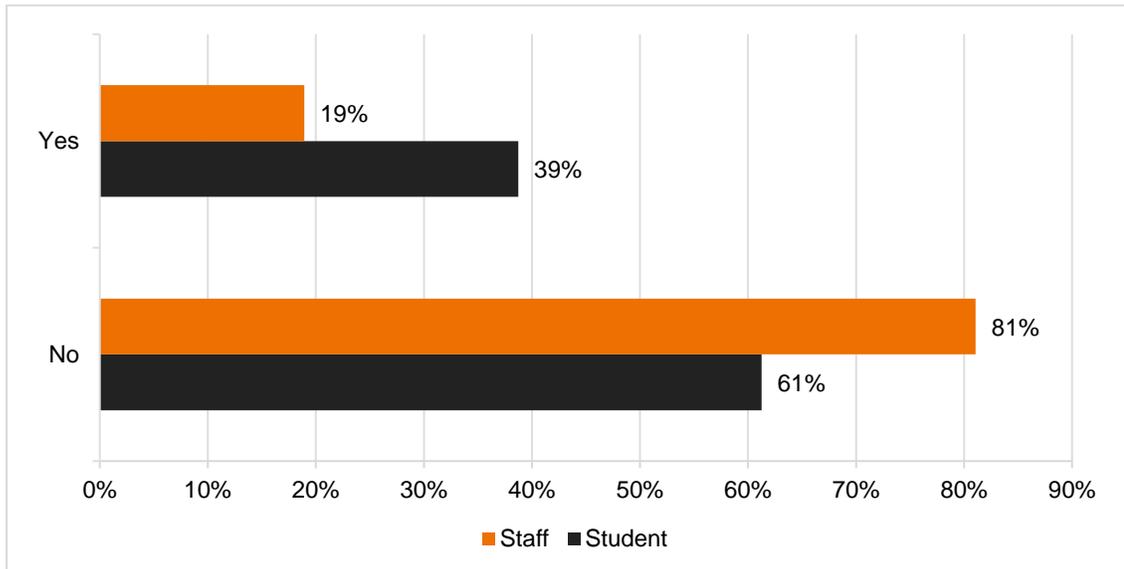


Figure 3.22 If an Edinburgh cycle hire scheme returned, would you use it?

Responses show that almost one fifth of staff and close to half of students would use a cycle hire scheme if one were to be reintroduced in Edinburgh.

### 3.14 BUS TRANSPORT

#### Public Buses Satisfaction

Staff and students were asked to rate their experience using the public bus, with regards to affordability, hours of operation, journey time, reliability, route and timetabling. The results are shown in Figure 3.23 for staff and Figure 3.24 for students.

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

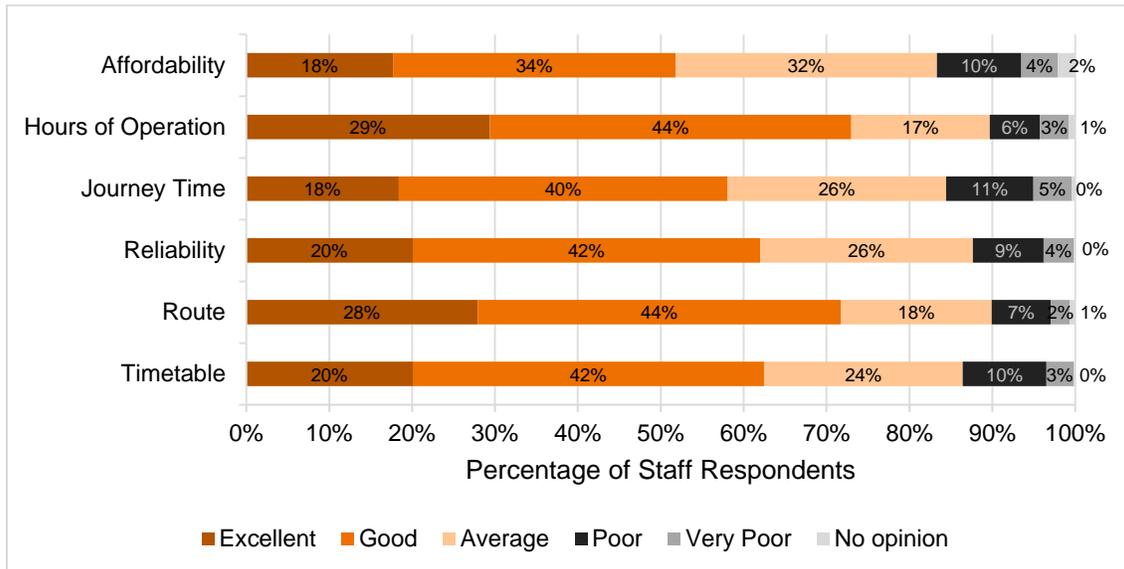


Figure 3.23 Staff Rating of Bus Transport Journey

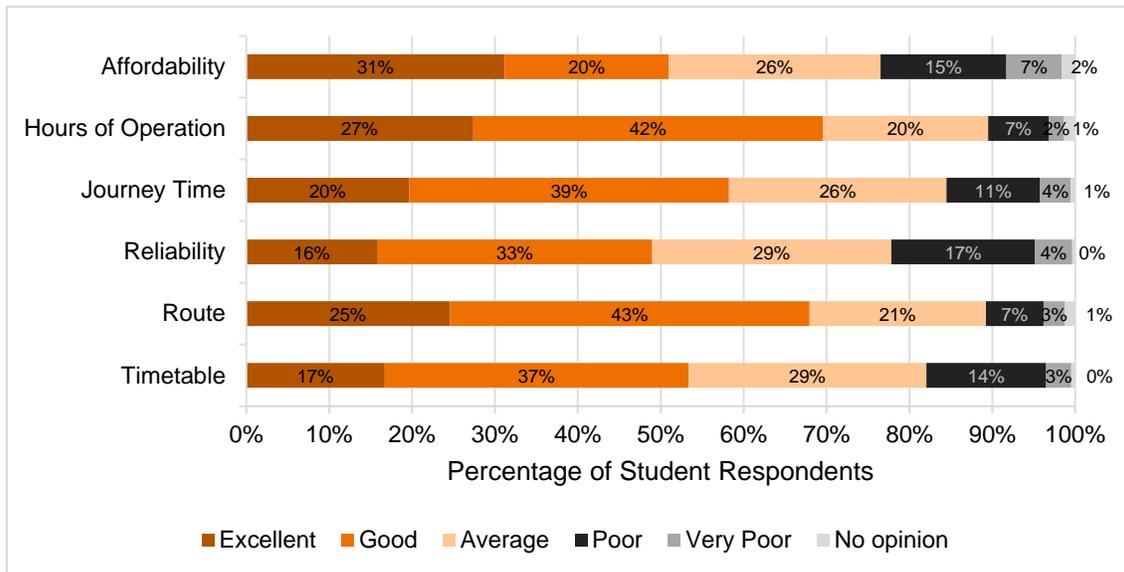


Figure 3.24 Student Rating of Bus Transport Journey

The figures show similarities as most respondents indicated a 'Good' level of satisfaction with their journeys made by public bus. It is evident that staff were more satisfied with the hours of operation, as 29% rated this aspect as 'Excellent'. Students were most satisfied with affordability, with 31% rating this aspect as 'Excellent', being followed by hours of operation as 27% rated this aspect as 'Excellent'.

Concerns were raised by 14% of students and 10% of staff regarding the bus timetable.

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

### Encouraging Public Bus Use

Respondents were then asked what could be done to improve their journey on public bus or encourage them to use this mode of travel on a regular basis. The results are shown as percentage of respondents in Figure 3.25, split by staff and students.

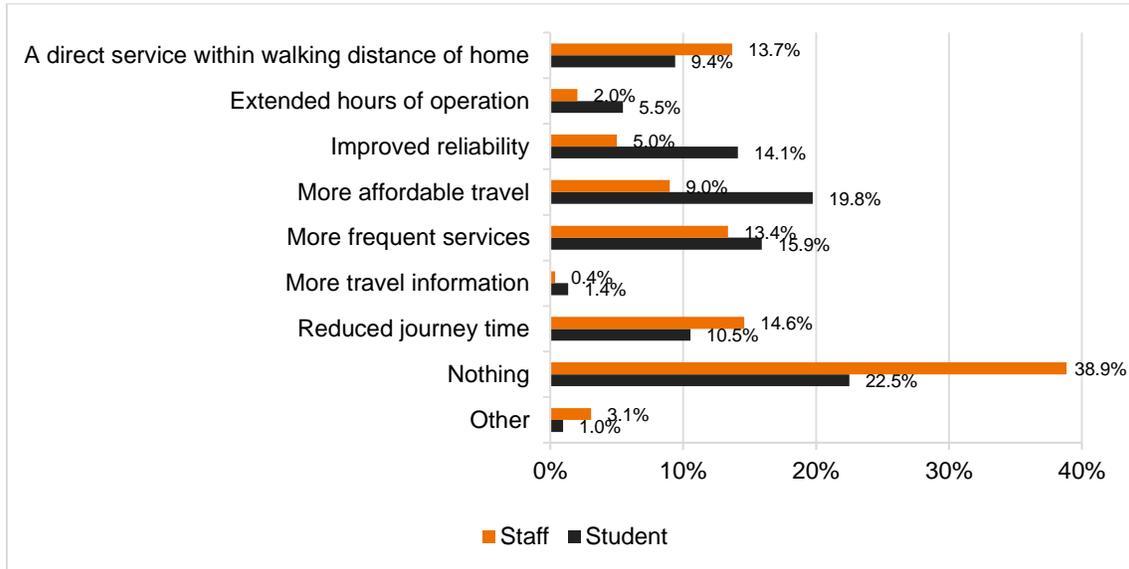


Figure 3.25 What could be done to improve your journey by public bus or encourage you to use this mode of travel on a regular basis?

Responses show that generally, students favoured more affordable travel (19.8%) and more frequent services (15.9%), while staff indicated reduced journey time (14.6%) and a direct service within walking distance of home (13.7%) would improve their journey by public bus.

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

Table 3.12 below shows the responses to this question, split by the main campus each are based at.

Table 3.12 What could be done to improve your journey by public bus or encourage you to use this mode of travel on a regular basis (where applicable)?

Location		A direct service within direct walking distance of my home	Extended hours of operation	Improved reliability	More affordable travel	More frequent services	More travel information	Reduced journey time	Nothing	Other
BioQuarter	Staff	65	7	18	28	56	1	61	90	14
	Student	19	10	37	66	51	0	28	32	1
Central Area – including Edinburgh College of Art, Holyrood and New College	Staff	136	34	94	176	224	4	270	779	54
	Student	267	179	446	564	422	50	303	792	30
Easter Bush	Staff	61	9	3	7	28	0	13	40	5
	Student	18	12	23	28	62	1	37	14	1
King's Building	Staff	106	7	27	44	75	2	61	177	13
	Student	129	50	153	245	204	12	122	200	12
Pollock Halls (staff only)	Staff	12	4	5	3	8	2	19	34	3
	Student	0	0	0	0	0	0	0	0	0
Western General Hospital	Staff	29	1	5	9	9	2	16	44	3
	Student	6	3	5	21	6	0	3	18	1
Other University accommodation site (staff only)	Staff	1	0	0	2	2	0	2	7	0
	Student	1	2	0	3	1	0	1	1	0
Other	Staff	4	0	0	3	3	0	0	5	1
	Student	4	2	3	6	6	1	4	6	0

\*Top three combined choices for each location highlighted for staff and students

Table 3.12 illustrates that Staff and students both favour more affordable travel, more frequent services, and reduced journey times, particularly those located in the Central Area.

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

### Public Bus Payment Method

Respondents were asked how they would normally pay for travel on public bus services. The results are shown in Figure 3.26, and are split by staff and students.

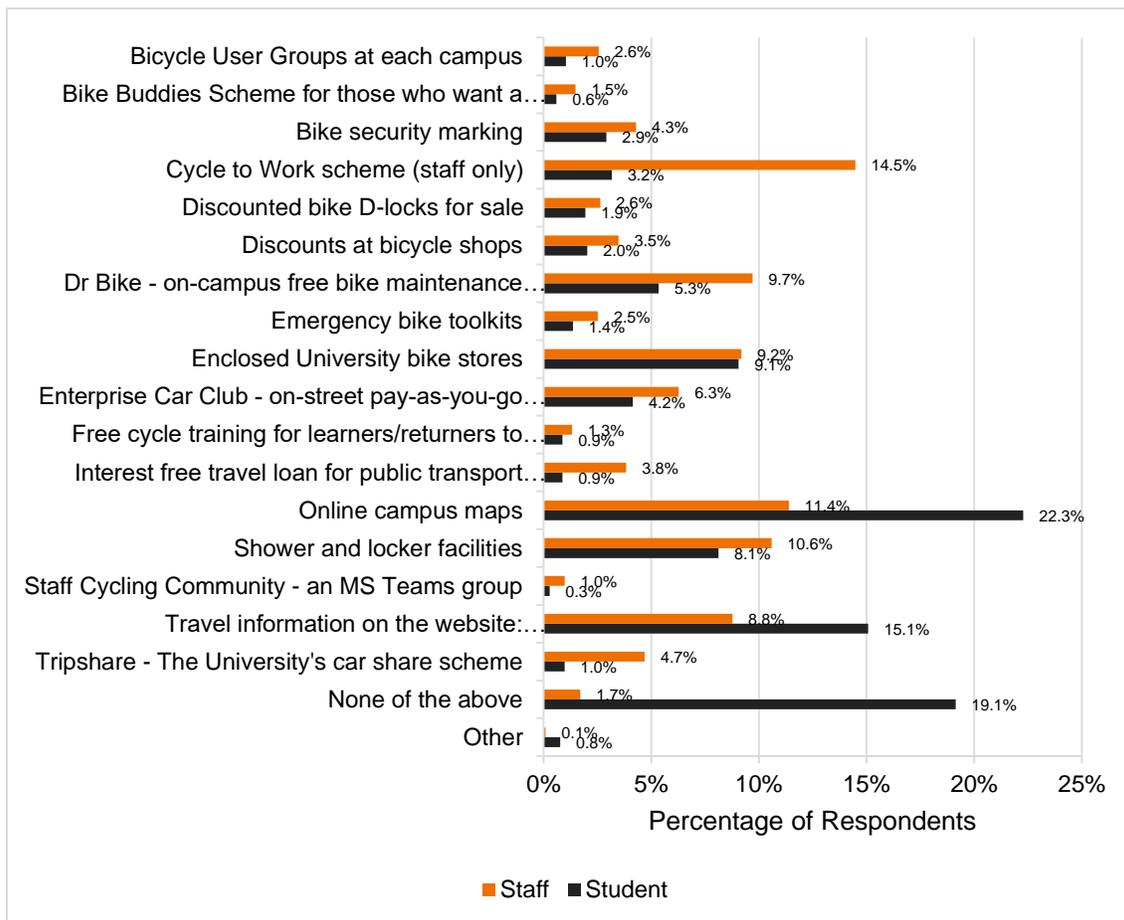


Figure 3.26 Payment for Travel on Public Bus Services

By far the most common payment for travel on public bus services was through a contactless payment, with more staff (63.5%) compared to students (38.8%) using this method. Notably, the National Entitlement Card was another popular response among the students (39.4%) which indicated that the U22 card has already received a high uptake among students. Around 16% of staff and around 13% of students pay for some form of Ridacard season ticket.

### 3.15 PUBLIC TRANSPORT

#### Public Transport Satisfaction

Respondents were asked to rate their experience using public bus, tram and rail services with regards to affordability, hours of operation, journey time, route, and timetabling. The results were combined and are shown in Figure 3.27 for staff and Figure 3.28 for students.

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Overall Survey Results

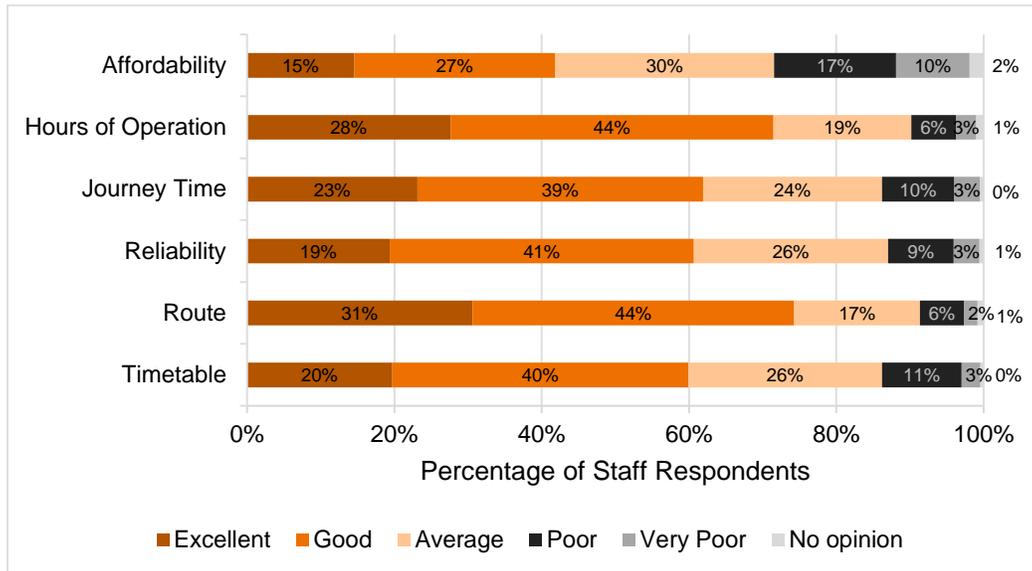


Figure 3.27 Staff Rating of Public Transport Journey

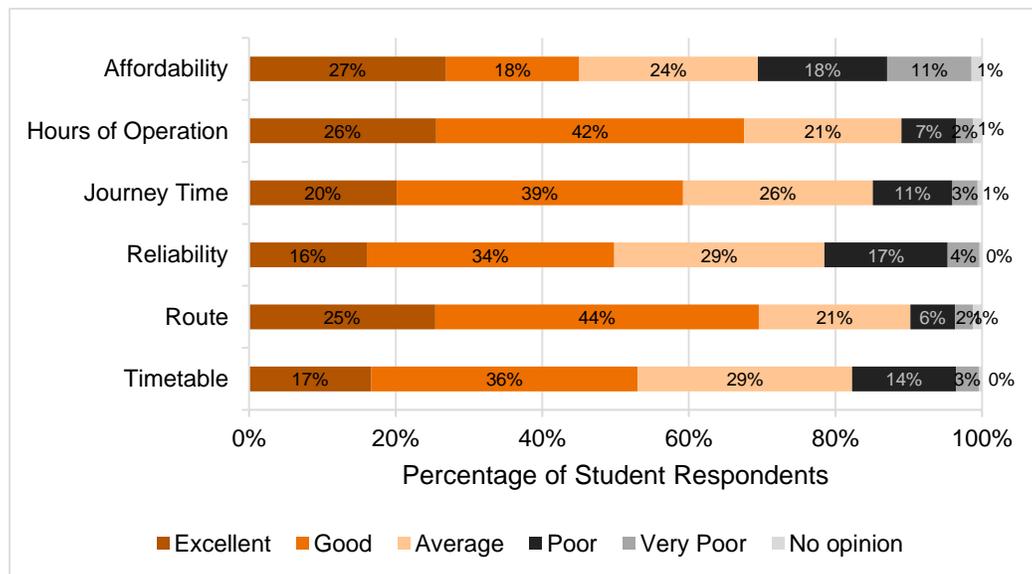


Figure 3.28 Student Rating of Public Transport Journey

The figures above show that most respondents indicated a 'good' level of satisfaction with their journeys made by public transport. It is evident that staff were most satisfied with public transport routes, as 31% rated this aspect as 'excellent'. Students were most satisfied by the affordability, with 27% rating this aspect as 'excellent'. This differed from staff respondents, with 27% indicating the affordability of public transport is 'poor' or 'very poor'

## 4.0 LOCATION TRAVEL CHARACTERISTICS

### 4.1 CENTRAL AREA

A total of 1,234 non-academic and 537 academic staff based at the Central Area responded to the survey, which is 16% and 7% of responses, respectively. A total of 3,053 students (7% of all students) based at the Central Area also responded.

Central Area respondents represent the greatest proportion of travel survey participants, and the findings are summarised in this section.

#### Mode Share

Table 4.1 shows the overall, student and staff mode share for the Central Area.

Table 4.1 Central Area Mode Share 2022 (and Change in Percentage Points since 2019)

	Overall	Staff	Student
<b>Walk</b>	51% (+4%)	33% (+4%)	57% (-2%)
<b>Mobility Scooter</b>	0% (0%)	0% (0%)	0% (0%)
<b>Cycle</b>	8% (-1%)	15% (+1%)	5% (-1%)
<b>Car Driver Alone</b>	5% (0%)	13% (+5%)	3% (0%)
<b>Car Driver with Passenger</b>	1% (-1%)	2% (-2%)	0% (0%)
<b>Car Passenger</b>	1% (0%)	2% (+1%)	1% (0%)
<b>Public Bus</b>	22% (0%)	22% (-7%)	22% (+4%)
<b>Tram</b>	0% (0%)	0% (-1%)	0% (-1%)
<b>Rail</b>	9% (-1%)	12% (-2%)	7% (-1%)
<b>Taxi / Private Hire</b>	1% (+1%)	0% (0%)	1% (+1%)
<b>Motorcycle / Moped</b>	0% (0%)	1% (0%)	0% (0%)
<b>Shuttle Bus</b>	2% (-1%)	0% (0%)	3% (-2%)

#### Staff

Table 4.1 shows that since 2019 there has been a small increase in the proportion staff walking (+4 percentage points) and larger increase in staff traveling by car alone (+5 percentage points). Proportional decreases in those using public transport have been observed bus (-7 percentage points), rail and tram -2 and -1 percentage points, respectively.

The shift away from public transport to walking or travelling by car can be explained by the COVID-19 pandemic and the discouragement from Government to travel by public transport.

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Location Travel Characteristics

#### **Students**

Table 4.1 shows that consistent with staff analysis, since 2019 there has been an increase in the proportion of students travelling by public bus (+4 percentage points). There had been a reduction in the number of students walking (-2 percentage points) and travelling by the shuttle bus (-2 percentage points, which could be explained by the introduction of the U22 Concessionary Bus Scheme. Small reductions in proportions of students who use other modes have been recorded.

#### Encouraging Alternative Modes

##### **Active Travel**

Staff and students based at Central Area most frequently identified the following as improving their journey by walking, running or wheelchair or encouraging them to use this mode of travel on a regular basis:

- Improved footway / pavement / footpath surfaces (16%);
- More safe pedestrian crossings (12%); and
- Improved lighting on footways (11%).

Staff and students based at Central Area most frequently identified the following as improving their journey by bicycle or encouraging them to use this mode of travel on a regular basis:

- More cycle tracks along roads which are physically separated from traffic and pedestrians (27%);
- Availability of secure and sheltered bike parking (15%); and
- Opportunity to purchase a discounted bicycle (15%).

##### **Bus**

Staff and students based at Central Area most frequently identified the following as improving their journey by public bus or encouraging them to use this mode of travel on a regular basis:

- More affordable travel (15%);
- More frequent services (13%); and
- Reduced journey time (12%).

## **4.2 KING'S BUILDINGS**

A total of 243 non-academic and 269 academic staff based at the King's Building responded to the survey, which is both 3% of all responses received. A total of 1,127 (3%) of respondents are students based at the King's Buildings.

King's Buildings respondents represent the second greatest proportion of travel survey participants.

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Location Travel Characteristics

#### Mode Share

Table 4.2 King's Buildings Mode Share 2022 (and Change in Percentage Points Since 2019)

	Overall	Staff	Student
<b>Walk</b>	30% (-1%)	22% (+2%)	33% (-1%)
<b>Mobility Scooter</b>	0% (0%)	0% (0%)	0% (0%)
<b>Cycle</b>	17% (-1%)	27% (+5%)	12% (-5%)
<b>Car Driver Alone</b>	10% (+2%)	25% (+1%)	4% (+2%)
<b>Car Driver with Passenger</b>	2% (0%)	5% (0%)	1% (0%)
<b>Car Passenger</b>	1% (-1%)	1% (-1%)	1% (0%)
<b>Public Bus</b>	21% (+1%)	15% (-7%)	23% (+4%)
<b>Tram</b>	0% (0%)	0% (0%)	0% (0%)
<b>Rail</b>	3% (+1%)	3% (0%)	3% (+2%)
<b>Taxi / Private Hire</b>	1% (1%)	0% (0%)	1% (+1%)
<b>Motorcycle / Moped</b>	0% (0%)	0% (-1%)	0% (0%)
<b>Shuttle Bus</b>	16% (-2%)	2% (+1%)	22% (-2%)

Table 4.2 shows the overall, student and staff mode share for the King's Buildings.

#### **Staff**

Table 4.2 shows that since 2019 the proportions of staff who travel by the following modes has risen, walking (+2 percentage point), cycling (+5 percentage points) and driving alone (+1 percentage points). Conversely, bus use has seen a significant drop of (-7 percentage points).

Overall there is a shift away from travelling by public bus which may be a result of the pandemic and the concerns around contracting the virus on public transport, or alternatively, relate to service availability.

#### **Students**

Table 4.2 shows that since 2019 there has been significant increases in proportions of students using the public bus (+4 percentage points) and train (+2 percentage points). While these figures are encouraging, car use has increased (+2 percentage points) and there has been a (-5 percentage point) reduction in students cycling.

Potentially, the increase in the number of people travelling by bus may be due to the Scottish Governments free bus travel scheme for those under 22 years of age.

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Location Travel Characteristics

#### Encouraging Alternative Modes

##### **Active Travel**

Staff and students based at King's Buildings most frequently identified the following as improving their journey by walking, running or wheelchair or encouraging them to use this mode of travel on a regular basis:

- Improved footway / pavement / footpath surfaces (16%);
- More safe pedestrian crossings (12%); and
- Improved lighting on footway (11%).

Staff and students based at King's Building most frequently identified the following as improving their journey by bicycle or encouraging them to use this mode of travel on a regular basis:

- More cycle tracks along roads which are physically separated from traffic and pedestrians (27%);
- Availability of secure and sheltered bike parking (15%); and
- Opportunity to purchase a discounted bicycle (15%).

##### **Bus**

Staff and students based at King's Building most frequently identified the following as improving their journey by public bus or encouraging them to use this mode of travel on a regular basis:

- More affordable travel (18%);
- More frequent services (17%); and
- A direct service within direct walking distance of my home (14%).

##### **Shuttle Bus**

Staff and students based at King's Building most frequently identified the following as to why they use the shuttle bus service:

- I do not have to pay to use the shuttle bus (39%);
- I think the shuttle bus is more direct than other bus services I could use to King's Buildings (25%);  
and
- The shuttle bus is convenient to use because I live or work close to the shuttle bus stop (16%).

## 4.3 BIOQUARTER

A total of 170 non-academic and 170 academic staff based at the BioQuarter responded to the survey: equivalent of 2% respectively. A total of 244 students based at the BioQuarter responded, which is equivalent to 0.6% of all students.

BioQuarter respondents represent the third greatest proportion of travel survey participants, and the findings are summarised in this section.

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Location Travel Characteristics

#### Mode Share

Table 4.3 BioQuarter Mode Share 2022 (and Change in Percentage Points Since 2019)

	Overall	Staff	Student
<b>Walk</b>	13% (+4%)	12% (+3%)	14% (+4%)
<b>Mobility Scooter</b>	0% (0%)	0% (0%)	0% (0%)
<b>Cycle</b>	18% (-3%)	19% (+2%)	17% (-10%)
<b>Car Driver Alone</b>	17% (-4%)	37% (+5%)	5% (0%)
<b>Car Driver with Passenger</b>	3% (-2%)	4% (-2%)	2% (-2%)
<b>Car Passenger</b>	2% (+1%)	3% (-2%)	2% (+1%)
<b>Public Bus</b>	43% (+5%)	22% (-8%)	55% (+4%)
<b>Tram</b>	0% (0%)	0% (0%)	0% (0%)
<b>Rail</b>	2% (0%)	1% (-2%)	3% (+2%)
<b>Taxi / Private Hire</b>	1% (+1%)	1% (0%)	1% (+1%)
<b>Motorcycle / Moped</b>	1% (0%)	0% (-1%)	1% (+1%)
<b>Shuttle Bus</b>	0% (0%)	0% (0%)	0% (0%)

Table 4.3 shows the overall, staff and student mode share for the BioQuarter campus.

#### **Staff**

Table 4.3 shows that since 2019 proportions of staff who walk and cycle have grown 3 and 2 percentage points respectively. Car use has however increased significantly (5 percentage points) while bus use has reduced (8 percentage points). The growth in the number of staff driving could be a result of parking charges being removed at Edinburgh Royal Infirmary. Again, the reduction in bus use could be a consequence of the pandemic.

#### **Students**

While proportions of students who walk have increased (4 percentage points), the survey shows a large reduction in numbers of students cycling (10 percentage points). There has been an increase in those who travel by bus, up (4 percentage points).

#### Encouraging Alternative Modes

##### **Active Travel**

Staff and students based at BioQuarter most frequently identified the following as improving their journey by walking, running or wheelchair or encouraging them to use this mode of travel on a regular basis:

- Improved footway / pavement / footpath surfaces (16%);
- More safe pedestrian crossings (12%); and

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Location Travel Characteristics

- Improved lighting on footway (11%).

Staff and students based at BioQuarter most frequently identified the following as improving their journey by bicycle or encouraging them to use this mode of travel on a regular basis:

- More cycle tracks along roads which are physically separated from traffic and pedestrians (27%);
- Availability of secure and sheltered bike parking (15%); and
- Opportunity to purchase a discounted bicycle (15%).

### Bus

Staff and students based at BioQuarter most frequently identified the following as improving their journey by public bus or encouraging them to use this mode of travel on a regular basis:

- More frequent services (18%)
- More affordable travel (16%); and
- Reduced journey time (15%).

## 4.4 EASTER BUSH

A total of 94 non-academic and 72 academic staff based at the Easter Bush responded to the survey: equivalent of 1% from each group respectively. A total of 196 students based at Easter Bush responded, which is equivalent to 0.5% of the total student population.

Easter Bush respondents represent the fourth greatest proportion of travel survey participants, and the findings are summarised in this section.

### Mode Share

Table 4.4 Easter Bush Mode Share 2022 (and Change in Percentage Points Since 2019)

	Overall	Staff	Student
<b>Walk</b>	6% (+5%)	3% (+1%)	7% (+6%)
<b>Mobility Scooter</b>	0% (0%)	0% (0%)	0% (0%)
<b>Cycle</b>	6% (+2%)	9% (+2%)	5% (+4%)
<b>Car Driver Alone</b>	33% (-1%)	66% (+9%)	17% (+4%)
<b>Car Driver with Passenger</b>	2% (-6%)	5% (-2%)	1% (-6%)
<b>Car Passenger</b>	4% (+3%)	4% (+3%)	4% (-3%)
<b>Public Bus</b>	44% (-6%)	14% (-9%)	58% (-17%)
<b>Tram</b>	0% (0%)	0% (0%)	0% (0%)
<b>Rail</b>	1% (+1%)	0% (0%)	1% (0%)
<b>Taxi / Private Hire</b>	1% (+1%)	0% (0%)	2% (+2%)

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Location Travel Characteristics

	Overall	Staff	Student
<b>Motorcycle / Moped</b>	1% (+1%)	0% (0%)	1% (+1%)
<b>Shuttle Bus</b>	0% (0%)	0% (0%)	0% (0%)

Table 4.4 shows the overall, staff and student mode share for the Easter Bush campus.

#### **Staff**

Table 4.4 shows that since 2019 there has been a growth in the proportion of staff cycling (2 percentage points) and driving alone (9 percentage point). Public bus use has however reduced by (9 percentage points). This shift from travelling by bus to car and active travel modes could be a result of the pandemic and the associated restrictions.

#### **Students**

Table 4.4 shows that since 2019 there has been a reduction in the proportion of students travelling by bus (17 percentage points). There has also been a significant increase in proportions of those who drive alone (4 percentage points). Whilst driver numbers have risen, there has also been a shift towards active modes with walking showing a (6 percentage points) increase and cycling increasing by (4 percentage points)

As noted above, the shift from public transport to driving and active travel, is potentially a result of the COVID-19 pandemic which deterred people from travelling by bus due to the close proximity to others who could have the virus.

### Encouraging Alternative Modes

#### **Active Travel**

Staff and students based at Easter Bush most frequently identified the following as improving their journey by walking, running or wheelchair or encouraging them to use this mode of travel on a regular basis:

- Improved footway / pavement / footpath surfaces (16%);
- More safe pedestrian crossings (12%); and
- Improved lighting on footway (11%).

Staff and students based at Easter Bush most frequently identified the following as improving their journey by bicycle or encouraging them to use this mode of travel on a regular basis:

- More cycle tracks along roads which are physically separated from traffic and pedestrians (30%);
- Availability of secure and sheltered bike parking (17%); and
- Opportunity to purchase a discounted bicycle (17%).

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Location Travel Characteristics

#### **Bus**

Staff and students based at Easter Bush most frequently identified the following as improving their journey by public bus or encouraging them to use this mode of travel on a regular basis:

- More frequent services (25%);
- A direct service within direct walking distance of my home (22%); and
- Reduced journey time (14%).

## 4.5 WESTERN GENERAL HOSPITAL

A total of 60 non-academic and 58 academic staff based at the Western General Hospital responded to the survey: equivalent to 1% of the total respondent population each. A total of 63 students based at the Western General Hospital (equivalent to 0.1% of the total student population) responded.

### Mode Share

Table 4.5 Western General Hospital Mode Share 2022 (and Change in Percentage Points Since 2019)

	Overall	Staff	Student
<b>Walk</b>	31% (+12%)	22% (+4%)	38% (+17%)
<b>Mobility Scooter</b>	0% (0%)	0% (0%)	0% (0%)
<b>Cycle</b>	24% (+4%)	24% (+5%)	24% (+1%)
<b>Car Driver Alone</b>	12% (-5%)	25% (+3%)	2% (-4%)
<b>Car Driver with Passenger</b>	1% (-1%)	3% (0%)	0% (-2%)
<b>Car Passenger</b>	1% (0%)	3% (+2%)	0% (0%)
<b>Public Bus</b>	27% (-7%)	19% (-11%)	33% (-12%)
<b>Tram</b>	0% (0%)	0% (0%)	0% (0%)
<b>Rail</b>	2% (-3%)	4% (-2%)	1% (-2%)
<b>Taxi / Private Hire</b>	1% (+1%)	0% (0%)	1% (+1%)
<b>Motorcycle / Moped</b>	1% (+1%)	0% (0%)	2% (+2%)
<b>Shuttle Bus</b>	0% (0%)	0% (0%)	0% (0%)

Table 4.5 shows the overall, staff and student mode share for the Western General Hospital.

#### **Staff**

Table 4.5 shows that since 2019 there has been an increase in proportions of staff who travel using active modes with walking up (4 percentage point) and cycling showing an increase of (5 percentage points). Whilst this is encouraging, there are however increases in staff driving alone (3 percentage points) and consequent reductions in staff who travel by bus (11 percentage points).

# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Location Travel Characteristics

### Students<sup>7</sup>

In terms of student travel patterns to the Western General Hospital, the survey shows a significant increase of (17 percentage points) in those who walk, while cyclists have risen by a more modest (1 percentage points). Car use alone has dropped (4 percentage points) by students while the survey shows a far larger drop of (12 percentage points) for those who travel by bus.

### Encouraging Alternative Modes

#### Active Travel

Staff and students based at Western General Hospital most frequently identified the following as improving their journey by walking, running or wheelchair or encouraging them to use this mode of travel on a regular basis:

- Improved footway / pavement / footpath surfaces (17%);
- More safe pedestrian crossings (12%); and
- Improved lighting on footway (12%).

Staff and students based at Western General Hospital most frequently identified the following as improving their journey by bicycle or encouraging them to use this mode of travel on a regular basis:

- More cycle tracks along roads which are physically separated from traffic and pedestrians (27%);
- Availability of secure and sheltered bike parking (15%); and
- Opportunity to purchase a discounted bicycle (15%).

#### Bus

Staff and students based at Western General Hospital most frequently identified the following as improving their journey by public bus or encouraging them to use this mode of travel on a regular basis:

- A direct services within walking distance of my home (19%);
- More affordable travel (17%); and
- Reduced journey time (11%).

## 4.6 POLLOCK HALLS

A total of 85 non-academic staff and 4 academic staff based at the Pollock Halls responded to the survey: equivalent of 1% and 0.04 % respectively. A total of 157 students noted they live at Pollock Halls (estimated at around 0.4% of all students).

### Mode Share

Table 4.6 Pollock Halls Mode Share 2022 (and Change in Percentage Points Since 2019)

	Overall*	Staff	Student
Walk		16% (-%)	64% (0%)

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Location Travel Characteristics

	Overall*	Staff	Student
<b>Mobility Scooter</b>		0% (0%)	0% (0%)
<b>Cycle</b>		2% (-1%)	6% (+1%)
<b>Car Driver Alone</b>		46% (+11%)	0% (0%)
<b>Car Driver with Passenger</b>		4% (-4%)	0% (0%)
<b>Car Passenger</b>		3% (-5%)	1% (0%)
<b>Public Bus</b>		22% (-4%)	19% (+10%)
<b>Tram</b>		0% (0%)	0% (0%)
<b>Rail</b>		5% (+3%)	0% (0%)
<b>Taxi / Private Hire</b>		0% (0%)	2% (+1%)
<b>Motorcycle / Moped</b>		0% (-3%)	0% (0%)
<b>Shuttle Bus</b>		0% (0%)	8% (-12%)

\* The overall mode share for Pollock Halls cannot be accurately calculated as staff figures are for working at Pollock halls while the figures for students are those who reside there, therefore removed from the table.

Table 4.6 shows the overall staff and student mode share for Pollock Halls.

#### **Staff**

In terms of staff, travel by both car alone and rail has increased by 11 and 3 percentage points respectively, while those using the bus has dropped. This is consistent with overall bus use by staff.

#### **Students**

Consistent with wider results, there are significant increases with students using the public bus, which has increased by 10 percentage points, which could be related to the introduction of the U22 Concessionary Travel Scheme. Similarly, proportions of students walking has increased which again is in line with overall student responses across the University.

#### Encouraging Alternative Modes

##### **Active Travel**

Staff based at Pollock Halls most frequently identified the following as improving their journey by walking, running or wheelchair or encouraging them to use this mode of travel on a regular basis:

- Improved footway / pavement / footpath surfaces (22%);
- Improved lighting on footway (16%); and
- Less traffic / parking on routes (10%).

Staff based at Pollock Halls most frequently identified the following as improving their journey by bicycle or encouraging them to use this mode of travel on a regular basis:

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Location Travel Characteristics

- More cycle tracks along roads which are physically separated from traffic and pedestrians (38%);
- Opportunity to purchase a discounted bicycle (21%); and
- Availability of shower and locker facilities (11%).

### **Bus**

Staff based at Pollock Halls most frequently identified the following as improving their journey by public bus or encouraging them to use this mode of travel on a regular basis:

- Reduced journey times (21%);
- A direct services within direct walking distance of my home (13%); and
- More frequent services (10%).

## 5.0 CONCLUSIONS

The results of the 2022 University Staff and Student Travel Survey demonstrate a continued high proportion of sustainable travel amongst both staff and students; overall around 73% of staff and 92% of students normally travel by active travel or public transport to access the University.

This report compares some results with previous travel surveys to allow trends to be identified but these should be treated with caution as the survey questions are slightly different. Even slight variations in the way questions are worded can be interpreted differently by respondents. In addition, the survey results are based on a sample of the University population only, although every effort has been made to weight them to be reflective of the entire University.

### Encouraging Sustainable Travel

While rates of staff cycling is continuing to increase, similar trends are not being observed within the student population. As more facilities are being introduced across the City by the City Council, there is an opportunity for the University to promote cycling, maximising take up.

There has been a significant reduction in the annual estimated total CO<sub>2</sub>e which can be attributed both to changes in travel behaviour due to COVID-19 impacts, and work undertaken by the University to reduce emissions and promote more sustainable practices.

Overall awareness of sustainable transport initiatives is greater among staff compared to students, particularly the Cycle to Work scheme.

Across all University locations, improving footways / pavements / footpath surfaces is the factor which most respondents believe would encourage them to walk, run or wheel.

Across all University locations, more cycle paths in a variety of forms, be that on-road, off-road paths and routes, would improve their journey by bicycle or encourage them to use this mode of travel on a regular basis.

Only 9% of staff and 12% of students used the Just East Cycle hire scheme for commuting but 19% and 39% respectively would be interested in using an Edinburgh cycle hire scheme if reintroduced.

Within the Central Area, both staff and student walking levels have increased whilst cycling has shown a small decrease. Use of public bus has declined across both groups and car use is increasing, albeit at a higher rate amongst staff.

Similar patterns can be observed at the King's Buildings with increases in cycling and driving. Taking the bus has reduced for staff based at the campus while car use has increased.

At Easter Bush, there has been an overall reduction in the proportion travelling by bus and is offset by increases in those travelling by car and using active modes.

## THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

### Conclusions

The BioQuarter has experienced a reduction in the proportion of staff cycling however walking levels have increased. Car use has increased but levels of public transport use appear to have dropped considerably.

At Western General, there have been increases in use of active modes and decreases in public transport use. Car use has increased by a small amount.

### Recommendations

A separate Power BI file has been provided which contains interactive dashboards and mapping and allows the University to interrogate the data and identify specific trends which are not possible to get from a static report alone. It also maps some of the data based on the postcode provided by respondents and University locations they are based at.

It is suggested that the Power BI could be used to further explore areas such as:

- Travel characteristics by gender, age bracket, fee status,
- Travel patterns by home location, college, building staff and students are based at and University managed accommodation which students live in; and
- Inter campus travel patterns.

It is recommended that for the next iteration of the travel survey the key questions are kept the same and the methodology repeated to allow direct comparisons with the results of the 2022 survey.

# **APPENDIX**

## **The University of Edinburgh Travel Survey**

## Appendix A CARBON FOOTPRINT METHODOLOGY

### A.1 WEIGHTING BY LOCATION

Mode share calculations takes account of response rate per location for staff against the total number of staff at that location and response per student per school and the total number of students in that school. This ensures that no location / school is under or overrepresented.

### A.2 WEIGHTING BY MODES

Respondents' modes are weighted based on where they make use of multiple modes of travel, for example, if a respondent travels nine miles by bus and one by walking then that is reflected in the mode share calculation, rather than attributing it all to bus travel as the mode where the greatest distance is covered. This allows the closest like-for-like comparison with previous years' data (although the survey questions were different, so they are not exactly comparable).

### A.3 DATA CLEANING

There are a number of entries where the respondents had given a very large distance of travel to get to the University. All entries were reviewed and if the distance was deemed to be too large for the mode, the results were excluded from the Carbon Footprint Calculation. These cut off were 5 miles for Walking, 40 miles for Cycling and 60 miles for all other modes.

Each staff member and student were asked about their usual modes of transport to the University. For each mode they were asked the distance that they travelled. Using this information and the DEFRA Carbon Conversion factors 2019 from the Gov.UK website, the carbon footprint for each mode was calculated and then summed to give an overall daily carbon footprint per respondent.

$$(\text{CCF of mode a} \times \text{distance} \times 2) + (\text{CCF of mode b} \times \text{distance} \times 2) + \dots = \text{Daily CF}$$

To annualise the carbon footprint for staff, the daily carbon footprint was multiplied by the number of days each staff member works and by 47 weeks. To annualise the student daily carbon footprint, it was multiplied by the number of days each student attends the University and then by 44 weeks for Postgraduates and 30 weeks for Undergraduates. This is the same method as applied to 2016 and 2017 and 2019 survey data.

$$\text{Daily CF} \times \text{number of days per week at work} \times (47) A^* \text{ or } (30) A^{**} \text{ or } (44) A^{***} = \text{Annual CF}$$

Where:

- \*Total number of weeks per year staff work, assuming 5 weeks annual leave
- \*\*Total number of weeks per year undergraduate study
- \*\*\*Total number of weeks per year postgraduate study

Table A 5.1 shows the DEFRA carbon emissions values by mode and compares them to those used in the 2017 and 2019 reporting.



# THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

## Appendix A Carbon Footprint Methodology

Table A 5.1 Carbon Emission Values by Mode (tracking 2017,2019 and 2022)

Mode	Category	Kg CO2e/mile (2017)	Kg CO2e/mile (2019)	Kg CO2e/mile (2022)
Car (petrol)	Small	0.252	0.236	0.236
	Medium	0.314	0.298	0.298
	Large	0.459	0.445	0.445
	Average	0.299	0.275	0.275
Car (diesel)	Small	0.234	0.226	0.226
	Medium	0.280	0.271	0.271
	Large	0.351	0.338	0.338
	Average	0.288	0.275	0.275
Electric Vehicle (battery)		0.129	0.097	0.117
Hybrid	Medium	0.181	0.175	0.175
	Large	0.210	0.247	0.247
Unknown car		0.294	0.285	0.275
Motorcycle	Up to 125cc	0.136	0.134	0.134
	125cc to 500cc	0.166	0.163	0.163
	Over 500cc	0.218	0.214	0.214
Public Bus		0.197	0.169	0.174
Shuttle Bus		0.197	0.170	0.174
Rail		0.075	0.066	0.057
Taxi		0.251	0.292	0.336
Tram		0.072	0.035	0.046
LPG		0.324		0.319
Motorcycle (Average)				0.183
Hybrid Small				0.165

	Estimated annual carbon footprint (tonnes of CO2e)				Estimated annual carbon footprint (tonnes of CO2e) per individual			
	2016	2017	2019	2022	2016	2017	2019	2022
Staff	8,157	7,223	7,859	5,950	0.4	0.5	0.6	0.4
Student	5,126	5,265	5,999	5,910	0.1	0.1	0.2	0.1
Overall	13,824	12,400	13,858	11,860	0.2	0.2	0.3	0.2

