



THE UNIVERSITY *of* EDINBURGH

**The University of Edinburgh
Travel Survey**

Report of 2019 Travel Survey

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THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

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1.0 EXECUTIVE SUMMARY

Introduction

Stantec has been commissioned by the University of Edinburgh to design, manage and analyse its 2019 Travel Survey, which was designed to be completed by staff and students, and provides an update to past surveys which date back to 2000, with the most recent being undertaken in 2017.

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 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 2019 survey was designed to calculate an estimate of the University's travel to work/study carbon footprint and was live from the period 20th November 2019 to 20th December 2019.

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 some of the data based on the postcode provided by respondents and University locations they are based at.

The University undertakes a number of travel planning activities which are outlined at:

<https://www.ed.ac.uk/transport>.

Demographics

Although students make up almost one quarter of the total university population (73%) they were underrepresented within this survey with only 62% of respondent's being students. Most responses were from females, both amongst staff (58%) and students (66%).

There was an overrepresentation of Scottish respondents compared to the University population (30% of responses compared to 22% of population), and EU students with 21% of responses compared to 14% of population. There was an underrepresentation of other categories; Rest of UK was 25% of responses compared to 18% of University population and International was 24% of responses compared to 46% of University population.

Survey Responses

A total of 3,056 responses were received from staff representing a 19.7% response rate (20% completed in 2017), while 4,916 responses were received by students representing a 13% response rate (12% completed in 2017). Although the level of responses by both staff and students provides an acceptable



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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.

For the 2019 survey, staff make up a greater proportion of respondents than in 2017 and, as their travel habits differ from students, this can influence the overall results.

University Mode Share

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).

Students across the University are more likely to walk (50.4%) than staff (25.5%), with staff (16.2%) being more likely to drive alone than students (3.1%). Staff are more likely to cycle (16.7%) and use the bus (25.6%) than students (9.6% cycle and 21.0% get the bus).

In general, the overall University mode share proportions have remained similar to those of the 2017 survey although the percentage of respondents walking has reduced by around 3.9%. This reduction in walking could be seen as a negative with the transfer generally being to use of the shuttle bus (increasing by 2.1%), although rail travel also increases by 2%. However, car driving alone has increased by 1%.

The shift away from walking to the shuttle bus and rail may be driven by staff and students living further away from the University or, in the case of the shuttle bus, students making use of a free bus rather than walking.

Mode Share by Area

Walking tends to be the most common mode choice amongst staff at most locations with car driving dominating at Bio Quarter, Easter Bush and Pollock Halls and bus travel more prevalent at Peffermill, the Western General Hospital and the Central Area.

Walking tends to be the most common mode choice amongst students at Central Area, King's Buildings and other locations with bus use dominating at Bio Quarter, Easter Bush and the Western General Hospital. There is a high uptake of cycling amongst students at BioQuarter and Easter Bush is the only location where more than 10% of students normally drive to get there.

King's Buildings has a high proportion of students who use the shuttle bus. Overall, there are large variations between student travel choices across the various campuses which is reflective of the location of each campus as well as the infrastructure and public transport provision.



Carbon Footprint

The report provides details of the overall University travel to work / study carbon footprint and the footprint broken down by location. The 2019 DEFRA carbon emissions factors¹ were used in the carbon footprint calculations. It is important to note 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.

Every effort has been made to repeat the methodology used in previous surveys but there may be slight variations because the questions asked were not exactly the same.

Overall total transport carbon emissions have increased by around 12% since 2017 and this is largely attributable to the increased overall university population but is also a result of more emissions associated with car driving alone. Combining the emissions associated with car drivers alone, car drivers with passengers and car passengers, the increase in emissions from car travel from 2017 to 2019 is 20%. CO₂e emissions associated with rail and bus travel have both increased, along with the average distance travelled by respondents but the annual estimated CO₂e emissions per person is no greater for either mode.

The total staff CO₂e emissions have increased by around 5% since 2017, largely attributed to an increase in staff numbers by 10% (N=1,623) but also a result of a 25% increase in emissions associated with car drivers alone. It is notable that the distance travelled by car drivers alone has slightly reduced since 2017 and the percentage of staff driving alone has remained relatively constant. However, the increase in total staff numbers, of which 16% drive, equates to around an extra 250 staff driving to the University on an average day and explains the increase.

The CO₂e for students have increased largely as a result of the increase in percentage of students driving alone to the University. Another factor is that the average distance students travel by bus (+3.8 miles) and rail (+7 miles) has increased.

The overall carbon emissions associated with travel have increased by around 12% primarily as a result of both staff and students traveling further by some modes and the increase in staff numbers.

Generally there is a trend that staff and students are travelling further by some modes but this may, in part, be offset by a reduction in the associated emissions (with vehicles becoming more efficient) so the overall emissions per person have not generally increased.

Progress to 2021 Targets

Disappointingly, progress has not been made towards achieving many of the targets identified in the *Integrated Transport Plan 2017 – 2021*. But there are some positives to be taken, as follows:

¹ <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019>



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- Overall there has been a 3.3% increase in the total percentage of staff and students using public transport to access the University.
- Travel patterns of staff continue on a positive trend since 2000, with active travel and public transport use on the increase and car travel on the decrease.
- While car use amongst students has increased since 2017, it is less than any of the previous survey years stretching back to 2000 and, public transport use has increased by around 5% since 2017.
- Positive steps have been made in raising awareness of the various initiatives the University provide to encourage sustainable travel.
- Crucially, although the transport emissions associated with the daily commute to the University have increased since 2017, this is mainly attributable to an increase in the total number of staff and the increased distance students are travelling by bus and rail and the emissions per person have generally fallen.

The modes staff and students choose to travel to the University are also impacted by wider trends in transport and society and cannot be completely influenced by the University. Some evidence suggests that staff and students are living further from the University location they are based at; the proportion of staff and students using the train to access the University since 2000 has almost doubled.

One reason that walking amongst students may have decreased is the increased uptake of the King's Buildings shuttle bus.

Recommendations

A separate spreadsheet tool 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 spreadsheet tool 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, in 2020, the key questions are kept the same and the methodology repeated to allow direct comparisons with the results of the 2019 survey.



2.0 INTRODUCTION

2.1 BACKGROUND

Stantec has been commissioned by the University of Edinburgh to design, manage and analyse its 2019 Travel Survey.

The 2019 survey, which was designed to be completed by staff and students, provides an update to past surveys which date back to 2000, with the most recent being undertaken in 2017.

2.2 PURPOSE AND DESIGN OF THE 2019 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 2019 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 20th November 2019 to 20th December 2019.

2.3 TRAVEL SURVEY SPREADSHEET TOOL

Previous Travel Survey Reports contained a wealth of data but were not necessarily easy to digest. The 2019 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 some of the data based on the postcode 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



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Strategic Objectives; Equality and Diversity Strategy commitments; Climate Strategy targets; Estates 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 2017

This section highlights the most significant travel plan measures that have been delivered since the last travel survey in autumn 2017.

Transport Guides

With grant funding from the Scottish Government Smarter Choices, Smarter Places Programme, a University Transport Guide, and a King’s Buildings Transport Guide, were designed and produced. The objective of the project was to increase the awareness of our travel plan measures as measured by our travel survey. To achieve this objective the project was to provide new students and staff with information on their travel choices by giving them an overview of key transport links and signposting them to the Transport website for further information. The Guides provide a map of the city and the location of key University sites, together with information about walking, cycling, public transport and car sharing. For the King’s Buildings Guide a campus map is provided showing more detailed information such as cycle parking and electric vehicle charging point locations.

17,600 copies were printed and distributed to all new students during September 2019 and January 2020 Welcome Weeks (1,400 KB Guides remain in stock). This was achieved in partnership with the Schools and at the Student Information Fairs. New staff have also received the guides in digital format via the website and at the Staff Welcome Events throughout the year. The impact of the project has been measured by comparing website traffic between 2018-19 and 2019-20 and this has shown a 22% increase. Comparing Sep 2019 with Sep 2018, shows an increase in traffic to the University’s cycling webpage of 44% and to the public transport webpage of 55%.

Unfortunately, the results of the 2019 Travel Survey do not indicate an increase in travel plan measure awareness, however they do confirm that new students are aware of the Transport Guides and awareness of the website has increased.

Edinburgh Cycle Hire Scheme

At the start of 2018-19, the Edinburgh Cycle Hire Scheme, operated by Serco and sponsored by Just Eat, was launched. This followed the University commencing a partnership at the start of 2017-18 with Transport for Edinburgh to support the procurement and delivery of a city-wide public cycle hire scheme. At the scheme launch 7 stations were implemented on the University Estate at: George Sq; Bristo Sq; Pollock Halls; King’s Buildings (x4). Over the course of the last 18 months the city-wide network has expanded from 30 to 106 stations with additional University Estate stations implemented at: Pollock Halls; Crichton Street, Riego Street (student accommodation), Holyrood Road, The Pleasance Courtyard, IGMM and BioQuarter. There are currently around 500 bikes available on-street. The Bristo Square station is consistently in the top 5 stations in the network (often at #1).

The £40 (normally £90) annual pass “UniPass” has been negotiated with a minimal financial risk for the University and launched for 2019-20 Welcome Week. Uptake of the pass has been low (~250), however



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during semester time more than a third of daily trips for the entire scheme are being made by UniPass holders.

The scheme has been promoted through various communication channels throughout the academic year including: advert in the Transport Guides; Twitter; lamppost wraparounds; offer of free 1 hour passes, roadshows.

Cycling

We welcomed a new Cycle Friendly Campus Cycling Officer, funded by Cycling Scotland in August 2018. The Officer provided the Transport Office with invaluable support on a range of cycling projects, many of which are described in detail below.

Look Out For Each Other – Road Safety Campaign: for a number of years the University has partnered with the Council, Lothian Buses, and Police Scotland to develop and deliver this road safety campaign to encourage cyclists to use lights at night. The campaign was delivered via websites, social media and local radio and in autumn 2017 and 2018 it was supplemented by roadshows at the Meadows, King's Buildings, Royal Infirmary, Western General, Napier and Heriot Watt University. Roadshows took the form of "hit squads" who approach cyclists without lights or bright clothing, giving them advice and providing free front and rear lights, snap reflectors and Hi-vis jackets. In autumn 2019 the roadshows were not delivered due to a lack of council resource.

Dr Bike: The University offers free basic bike mechanic services for students and staff at regular sessions across the Estate. This is a very popular and valued service. For 2018-19 and 2019-20 the University partnered with The Bike Station and successfully applied for match funding from Paths for All. In 2018-19 the £3000 budget for Dr Bike was more than doubled to an additional £8545 and increased the Dr Bike sessions from 32 to 46 per year and provided 18 free bike maintenance courses for 100 students and staff. The 46 Dr Bike sessions provided free maintenance and advice to over 550 students and staff. In 2019-20 we plan to deliver 49 Dr Bike and 14 bike maintenance sessions.

The Security Office attends the majority of Dr Bike sessions in order to offer bike security advice, free bike security marking and the sale of D-locks to encourage cyclists to use high quality locks.

Cycle Friendly Employer Award – IGMM: Following investment in the existing IGMM bike store to increase capacity, and reflecting the existing shower and changing facilities and community of cyclists, the University achieved the Cycle Friendly Employer Award for the IGMM in early 2019.

Cycle Friendly Campus Award (with Distinction) – Pollock Halls: In 2018 Cycling Scotland awarded Pollock Halls the award following our efforts since 2015 to support and encourage students and staff to cycle more. With the additional support of our Campus Cycling Officer we worked closely with ACE and the ResLife team to promote UniCycles (bike hire scheme, now closed) and provide more opportunities to take part in cycle training, led rides and cycle maintenance courses. The award also recognised the investment being made by Estates to increase secure cycle parking provision on the site.

Cycle parking and changing facilities: a number of new or refurbished facilities have been delivered since 2017:

- Cycling Scotland provided £43k in match funding to support the delivery of increased parking provision at The Pleasance and Pollock Halls.
- The National Insurance savings (c.£88k) from the Cycle to Work scheme were used to maximise the capacity of the basement level cycle store at the Bayes Institute so that it can function as a secure 378 space Bristo Bike Store for the Central Area. It also provides shower, changing and lockers plus a cycle maintenance station.
- George Square – after securing £17k of match funding from Cycling Scotland, 44 new cycle stands (88 spaces) were provided around the south east corner of George Square. This funding has been matched with £9k of funding from the NI savings ring-fenced from the Cycle to Work Scheme.



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- IGMM cycle store – the existing cycle store was not meeting demand and was poorly laid out. A successful application was made for £23k of match funding from Cycling Scotland, combined with £5k from IGMM to redesign the store using an innovative vertical cycle rack system and a maintenance station. This investment led to the achievement of Cycle Friendly Employer for IGMM.
- Central Area cycle parking and changing facilities - £20k of Cycle to Work NI savings has been allocated to deliver multiple projects to renovate and enhance existing cycle parking, shower and changing facilities. This project is ongoing.

Free King's Buildings Shuttle Bus

Following evaluation and consultation with EUSA the following improvements and initiatives were introduced for 2017-18:

- Improvements to the shuttle timetable to make departure timings consistent
- Improved bus stop facilities: large capacity bus shelter at KB, and change to Central Area bus stop location at Bristo Square providing more space for waiting passengers
- Subsidy of passenger fare on Service 41 in the evenings only, Mon-Fri, to support travel between Central Area and KB. Fare is £1 (instead of £1.70). Passenger numbers using this offer are low, and it is most popular during revision and exam periods.

Since May 2019 the Transport Office has been working closely with EUSA and Information Services to develop and discuss ideas for a new student bus ticketing product. The aim is that this will enable a move away from the provision of free shuttle bus services, to provide students with an affordable and easy to use ticket product that support public transport connectivity between all University sites, residential areas and the city.

Car sharing

We continue to offer the online car share service – Tripshare. The University has a private group within Tripshare to enable students and staff to search for potential car shares within the University community. As of April 2020 we have 691 members, 256 of which joined in the 2 year period between Jan 2018 and Jan 2020. The main points in the year that the scheme was promoted was during parking permit re-application, and as part of University-wide communications on the threatened Lothian Buses strike. The latter resulted in the largest spike in new members, with 75 joining during July 2019.

Electric Vehicles

With grant funding from Transport Scotland, the University now hosts 40 public electric vehicle charging points across Central Area, King's Buildings, BioQuarter, Easter Bush and Pollock Halls.



3.0 OVERALL SURVEY RESULTS

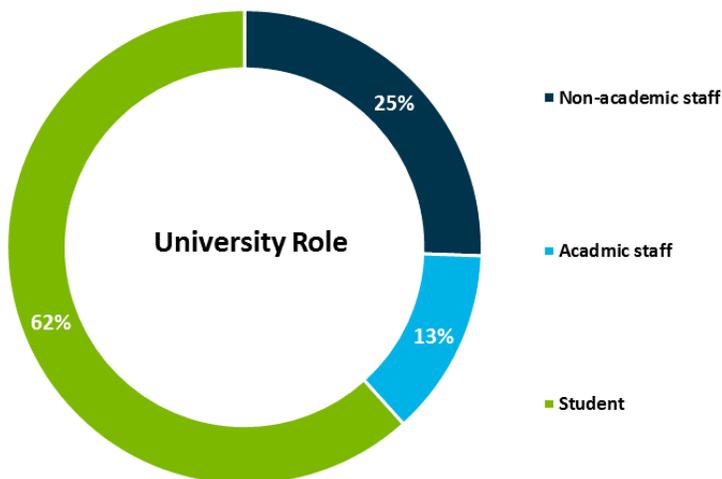
3.1 INTRODUCTION

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 population². 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 (73%) they were underrepresented within this survey with only 62% 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 0.7% of respondents stated they were non-binary and have not been included in these graphs due to the low numbers.

² <https://www.ed.ac.uk/governance-strategic-planning/facts-and-figures/university-factsheet>



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Overall Survey Results

Figure 3-2 Staff Survey Respondents by Age and Gender

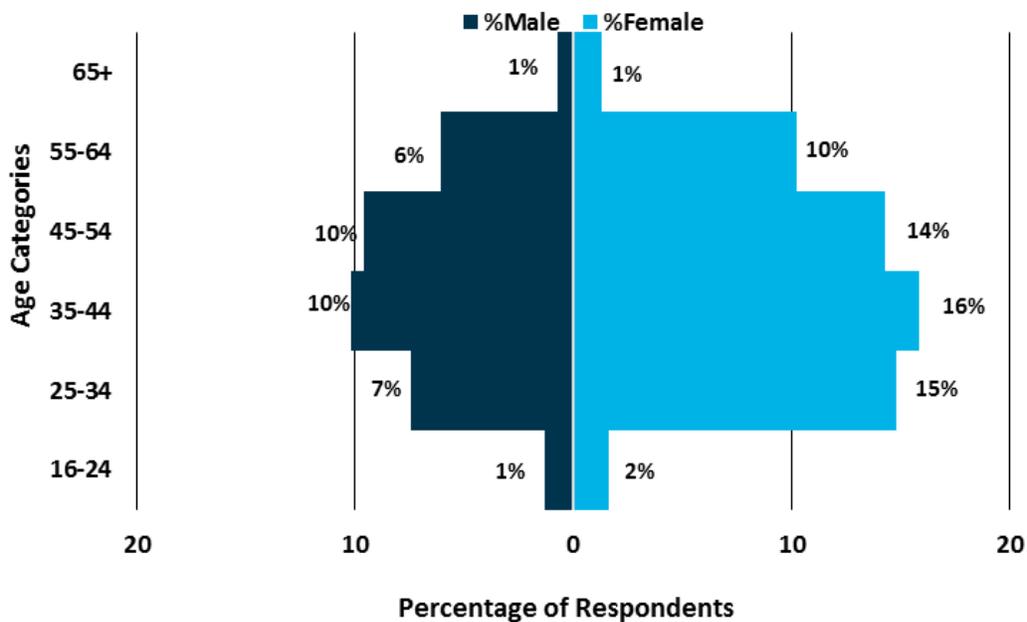
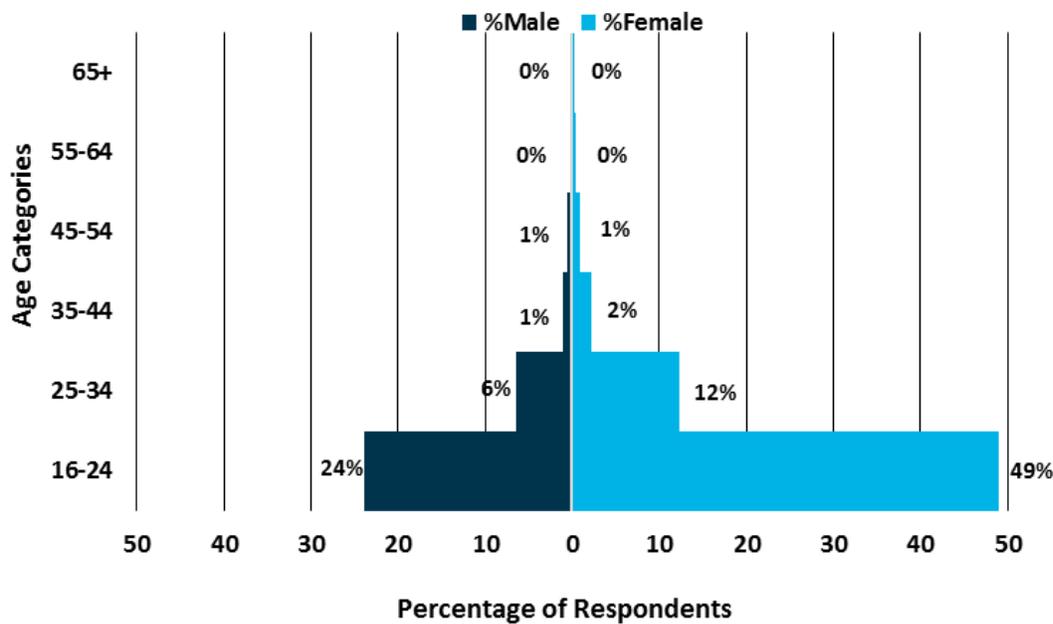


Figure 3-3 Student Survey Respondents by Age and Gender



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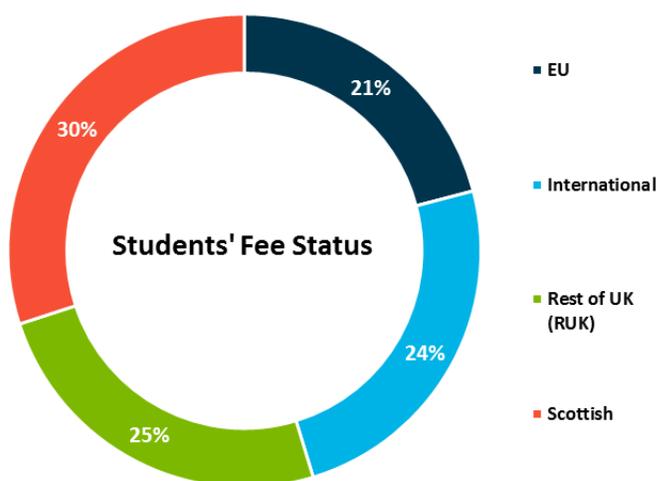
Overall Survey Results

Most responses were from females, both amongst staff (58%) and students (66%). According to the Factsheet of Students Figures for 2018/19³, 61% of the student population is female.

There was an overrepresentation of Scottish respondents compared to the University population (30% of responses compared to 22% of population), and EU students with 21% of responses compared to 14% of population. There was an underrepresentation of other categories; Rest of UK was 25% of responses compared to 18% of University population and International was 24% of responses compared to 46% of University population.

With variations in the makeup of those responding to the survey compared to the overall University population there may be misrepresentations of the University as a whole, but it still provides a good sample size for analysis.

Figure 3-4 Student Survey Respondents Fee Status



3.3 SURVEY RESPONSES

A total of 3,056 responses were received from staff representing a 19.7% response rate (20% completed in 2017), while 4,916 responses were received by students representing a 13% response rate (12% completed in 2017). 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 is presented in Table 3-1, below.

³ http://www.docs.sasg.ed.ac.uk/gasp/factsheet/Student_Factsheet_31072019.pdf



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Overall Survey Results

Table 3-1 2020 Survey Response Rates

Location	Staff Support	Staff Academic	Student
BioQuarter	31%	14%	20%
Central Area - including Edinburgh College of Art, Holyrood and New College	27%	12%	11%
Easter Bush	30%	27%	20%
King's Buildings	27%	11%	16%
Peffermill (staff only)	2%	0%	-
Pollock Halls (staff only)	11%	-	-
Western General Hospital	33%	21%	21%
Total	19.7%		13%

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 2017 survey was estimated at 14,166 and for the 2019 survey was estimated at 15,739 - a 10% increase. The number of students in 2017 was estimated at 39,568 and for 2019 was 37,771 and equates to a 5% decrease. In 2017 the survey report did not exclude distance learners from the total number of students. Excluding them is new for 2019, on the basis that these students do not commute to the University.

The staff and student values 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.

For the 2019 survey, staff make up a greater proportion of respondents than in 2017 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 UNIVERSITY MODE SHARE

2019 Mode Share

The overall University mode share is illustrated in Figure 3-5, with the staff and student mode share shown separately. Mode-by-mode highlights of the changes since the 2017 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

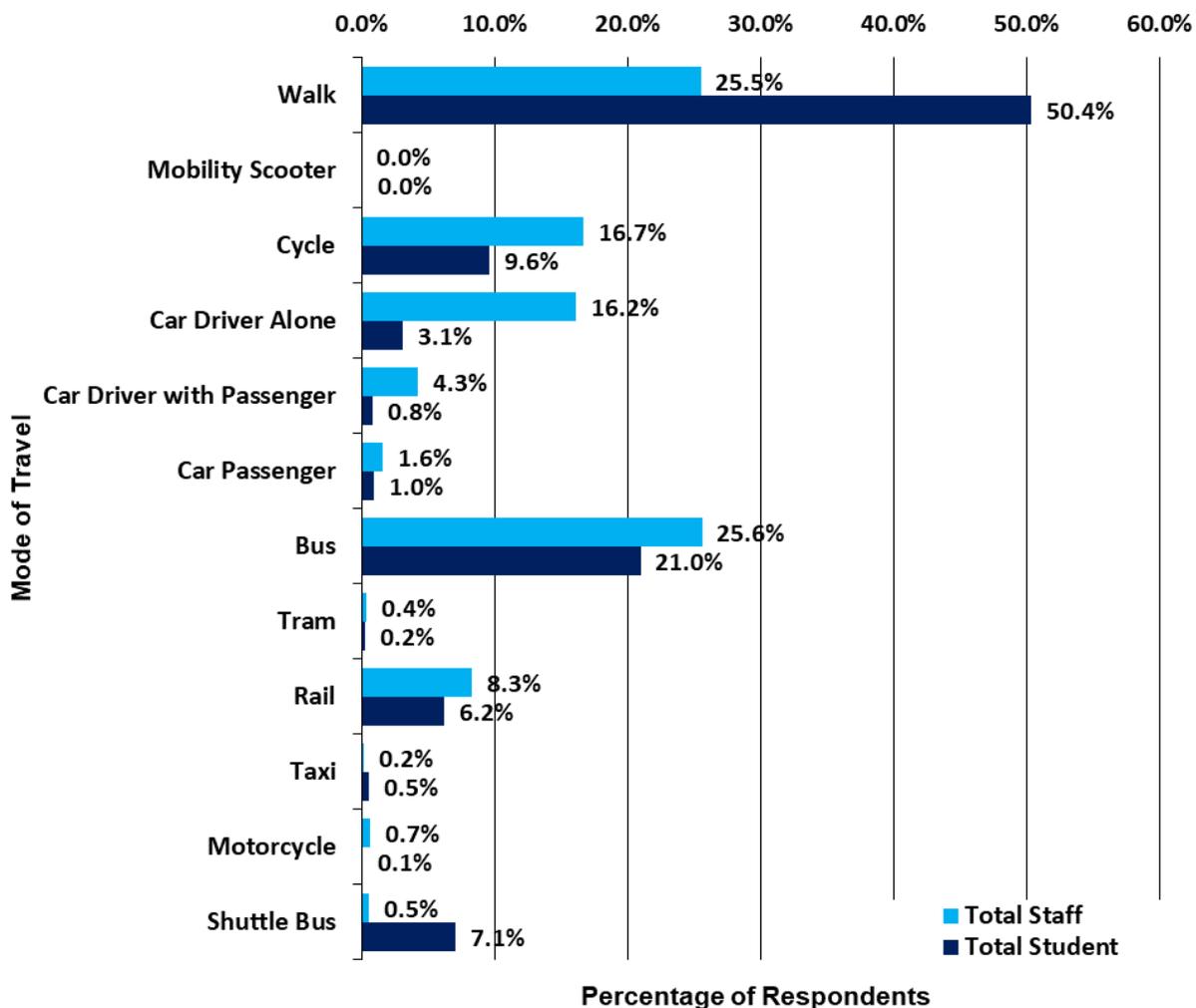


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share calculation, rather than attributing it all to bus travel as the mode where the greatest distance is covered. This allows the closest like-for-like comparison with previous years' data (although the survey questions were different, so they are not exactly comparable).

Figure 3-5 Mode Share 2019



Mode Share Trends

Figure 3-6 and Figure 3-7 show how staff and student mode share has changed over time since the first travel survey was undertaken in 2000. The values are also presented in Table 3-2.



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Figure 3-6 Staff Mode Share Trends

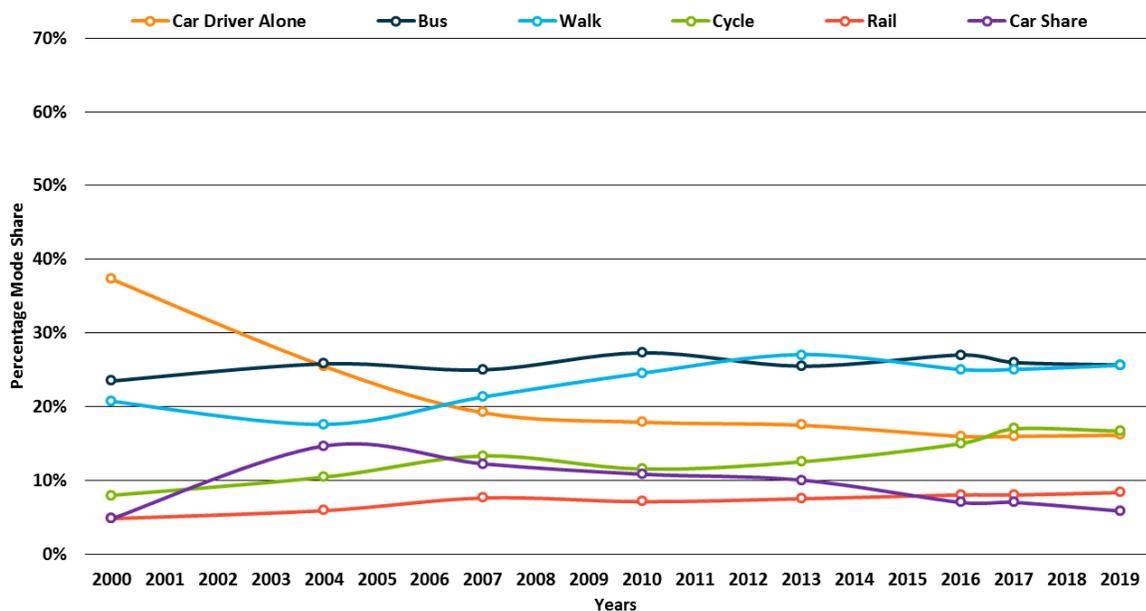
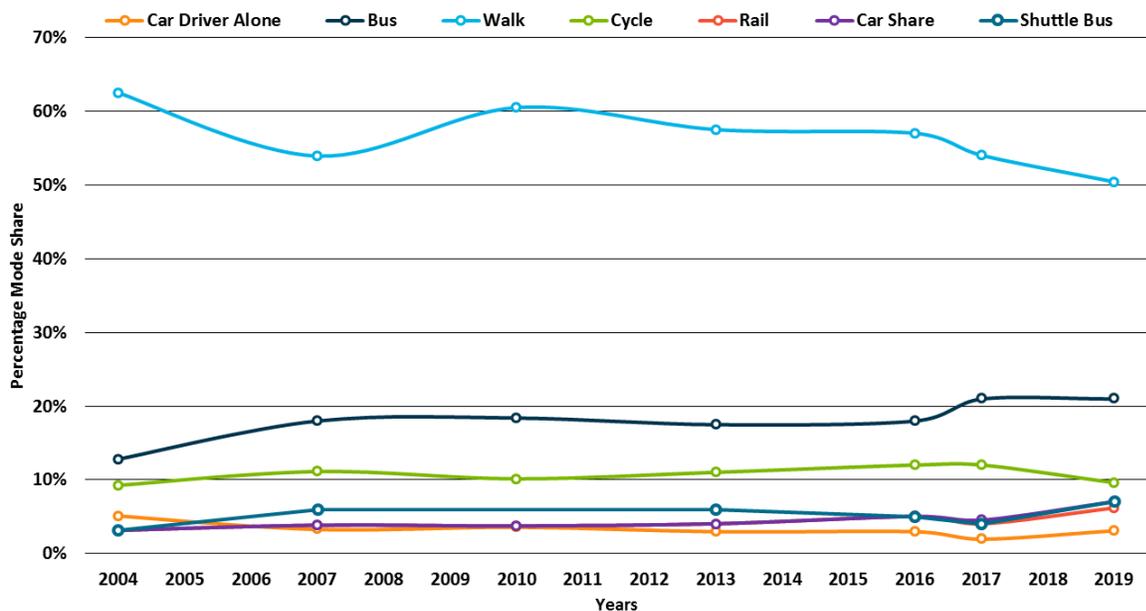


Figure 3-7 Student Mode Share Trends



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Table 3-2 Staff and Student Historic Mode Share

Mode	Staff/Student	2000*	2004	2007	2010	2013	2016	2017	2019
Walk	Staff	20.7%	17.6%	21.3%	24.5%	27.0%	25.0%	25.0%	25.5%
	Students	-	62.5%	53.9%	60.5%	57.5%	57.0%	54.0%	50.4%
Cycle	Staff	7.9%	10.4%	13.3%	11.5%	12.5%	15.0%	17.0%	16.7%
	Students	-	9.2%	11.1%	10.1%	11.0%	12.0%	12.0%	9.6%
Motorcycle	Staff	1.0%	1.5%	1.3%	0.9%	1.0%	1.0%	0.7%	0.7%
	Students	-	0.2%	0.1%	0.2%	0.1%	0.0%	0.1%	0.1%
Car Driver Alone	Staff	37.3%	25.5%	19.2%	17.9%	17.5%	16.0%	16.0%	16.2%
	Students	-	5.1%	3.3%	3.6%	3.0%	3.0%	2.0%	3.1%
Car Driver with Passenger	Staff	4.8%	14.6%	12.2%	10.8%	10.0%	7.0%	5.0%	4.3%
Car Passenger								2.0%	1.6%
Car Driver with Passenger	Students	-	3.9%	5.4%	3.3%	4.0%	2.0%	0.5%	0.8%
Car Passenger								0.8%	1.0%
Bus	Staff	23.5%	25.8%	25.0%	27.3%	25.5%	27.0%	26.0%	25.6%
	Students	-	12.8%	18.0%	18.4%	17.5%	18.0%	21.0%	21.0%
Shuttle Bus	Staff	0.0%	0.8%	-**	-**	0.1%	1.0%	0.3%	0.5%
	Students	-	3.1%	5.9%	-**	6.0%	5.0%	4.0%	7.1%
Tram***	Staff	-	-	-	-	-	-	0.3%	0.4%
	Students	-	-	-	-	-	-	0.2%	0.2%
Rail	Staff	4.8%	5.9%	7.6%	7.1%	7.5%	8.0%	8.0%	8.3%
	Students	-	3.1%	3.8%	3.7%	4.0%	5.0%	4.0%	6.2%
Taxi	Staff	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	0.3%	0.2%
	Students	-	0.0%	0.3%	0.1%	0.1%	0.0%	0.4%	0.5%
Mobility Scooter	Staff	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
	Students	-	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%

*no student survey in 2000

** shuttle bus potentially included within bus travel category

***tram included from 2016 onwards only

The combined staff and student mode share for 2017 and 2019 is shown along with the percentage change.



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Table 3-3 Combined Staff and Student Mode Share Change Since 2017

	2017	2019	% Change
Walk	47%	43.1%	-3.9%
Cycle	13%	11.7%	-1.3%
Motorcycle	0%	0.3%	0.0%
Car Driver Alone	6%	7.0%	1.0%
Car Driver with Passenger	2%	1.8%	-0.2%
Car Passenger	1%	1.1%	0.1%
Bus	23%	22.4%	-0.6%
Shuttle Bus	3%	5.1%	2.1%
Tram	0.3%	0.3%	0.0%
Rail	5%	6.8%	1.8%
Taxi	0.3%	0.4%	0.1%
Mobility Scooter	0.1%	0.0%	-0.1%

3.4.2 Overall

In general, the overall University mode share proportions have remained similar to those of the 2017 survey although the percentage of respondents walking has reduced by around 3.9%. This reduction in walking could be seen as a negative with the transfer generally being to use of the shuttle bus (increasing by 2.1%), although rail travel also increases by 2%. However, car driving alone has increased by 1%.

The shift away from walking to the shuttle bus and rail may be driven by staff and students living further away from the University or, in the case of the shuttle bus, students making use of a free bus rather than walking.

3.4.3 Walking

Overall walking to the University has fallen from 47% in 2017 to 43.1% in 2019 and the shift is attributed to students (-3.6%) as the staff percentage has actually risen by 0.9%. This is likely a result of students travelling further to the University which is evidenced in Section 3.7.

3.4.4 Public Bus

Overall public bus use has fallen slightly since 2017 from 23% to 22.4% amongst staff and students combined and the shift is attributed to staff (-0.5%); student use of the bus is unchanged.

3.4.5 Cycling

Overall cycling to the University has fallen since 2017 from 13% to 11.5% and this shift is split between staff (-2.5%) and students (-2.4%). Overall, this equates to around 2,282 staff and 3,626 students cycling to the University as their main usual mode of travel.



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Academic staff are more likely to cycle, with almost one quarter stating this to be their main mode of travel (22.2%), compared to non-academic staff (10.7%).

3.4.6 Car-based Travel

Overall driving alone to the University has increased since 2017 by 1% and this is almost entirely attributable to students (+1.1%) which again could be attributed to the longer distances that they are travelling to the University. The percentage of car drivers with passengers have decreased slightly overall (-0.2%) with staff reducing by -0.7% and students increasing by +0.3. The percentage of combined staff and students travelling as car passengers to the University is largely the same as 2017 (+0.1%).

3.4.7 Rail

Overall rail travel to the University has increased since 2017 by 2% this is a result of increased uptake by both staff (+1.1%) and students (+2.2%).

3.4.8 Taxi

Overall the use of taxi to access the University since 2017 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 0.1%).

3.4.9 Motorbike

Overall, the use of a motorcycle to access the University since 2017 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.

3.4.10 Tram

Overall, the use of the tram to access the University since 2017 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.

3.4.11 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 2017, 0.1% of staff and 0.1% of students used this mode and only three student respondents to the 2019 survey did (less than 0.1% once weighted).



3.4.12 Targets for 2021

The *University of Edinburgh Integrated Transport Plan 2017 – 2021*⁴ sets a number of targets to be achieved by 2021, these include:

- Increase the proportion of staff travelling on foot to University to 30% (25% in 2016) and students to 60% (57% in 2016). While the proportion of staff walking to the University has increased by 0.9% since 2015 it still has some way to go to reach the target (currently at 25.9%). The proportion of students walking has actually fallen since 2017 to 50.4%, some way off the target; and
- Increase the proportion of students and staff cycling to University to 15% (from 13% in 2016) (to match Edinburgh Council Local Transport Strategy Target). The overall combined mode share for staff and students is 11.7%. It is being exceeded for staff (16.4%), but not yet for students.

3.5 MODE SHARE BY AREA

As noted previously, the overall mode share of staff and students varies by the location they are mostly based at and this is summarised in Table 3-4. This data is not weighted, it simply reports responses received.

⁴ <https://www.ed.ac.uk/files/atoms/files/integratedtransportplan.pdf>

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Table 3-4 Staff Mode Share by Location (%)

	Walk	Mobility Scooter	Cycle	Car			Bus	Tram	Rail	Taxi	Motorcycle	Shuttle Bus
				Driver Alone	Driver with Passenger	Passenger						
BioQuarter (N=524)	8	0	17	32	7	1	30	0	3	1	2	0
Central Area - including Edinburgh College of Art, Holyrood and New College (N=4781)	29	0	14	8	4	1	30	1	13	0	1	0
Easter Bush (N=543)	2	0	7	58	9	2	23	0	0	0	0	0
King's Buildings (N=1738)	21	0	21	24	5	2	22	0	3	0	1	1
Peffermill (staff only) (N=2)	50	0	0	0	0	0	50	0	0	0	0	0
Pollock Halls (staff only) (N=66)	17	0	3	35	8	6	26	0	2	0	3	0
Western General Hospital (N=207)	18	0	19	23	3	1	30	0	6	0	0	0
Other University accommodation site (staff only) (N=22)	22	0	0	22	0	0	44	0	11	0	0	0
Other (N=113)	32	0	12	28	4	0	8	0	12	0	4	0

Table 3-4 shows that walking tends to be the most common mode choice amongst staff at most locations with car driving dominating at BioQuarter, Easter Bush and Pollock Halls and bus travel more prevalent at Peffermill, the Western General Hospital and the Central Area.



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Table 3-5 Student mode Share by Location

	Walk	Mobility Scooter	Cycle	Car			Bus	Tram	Rail	Taxi	Motorcycle	Shuttle Bus
				Driver Alone	Driver with Passenger	Passenger						
BioQuarter (N=205)	10	0	27	5	3	1	51	0	1	0	0	0
Central Area - including Edinburgh College of Art, Holyrood and New College (N=2975)	59	0	6	3	0	1	18	0	8	0	0	5
Easter Bush (N=286)	1	0	1	13	7	1	75	0	1	0	0	0
King's Buildings (N=1295)	34	0	17	2	1	1	19	0	1	0	0	24
Western General Hospital (N=62)	21	0	23	6	2	0	45	0	3	0	0	0
Other (N=88)	60	0	7	3	2	1	9	2	13	2	0	0

*Top three choices for each location highlighted

Table 3-5 shows that walking tends to be the most common mode choice amongst students at Central Area, King’s Buildings and other locations with bus use dominating at BioQuarter, Easter Bush and the Western General Hospital. There is a high uptake of cycling amongst students at BioQuarter and Easter Bush is the only location where more than 10% of students normally drive to get there.

King’s Buildings has a high proportion of students who use the shuttle bus. Overall, the table shows large variations between student travel choices across the various campuses which is reflective of the location of each campus as well as the infrastructure and public transport provision.

3.6 AWARENESS OF TRAVEL PLANNING ACTIVITY

All campuses are subject to the University’s travel planning activity and arrangements and, from a review of the survey data, staff and students are generally aware of a number of measures to promote sustainable travel as shown in Figure 3-8.



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Figure 3-8 Which of the following sustainable transport initiatives available from the University are you aware of?

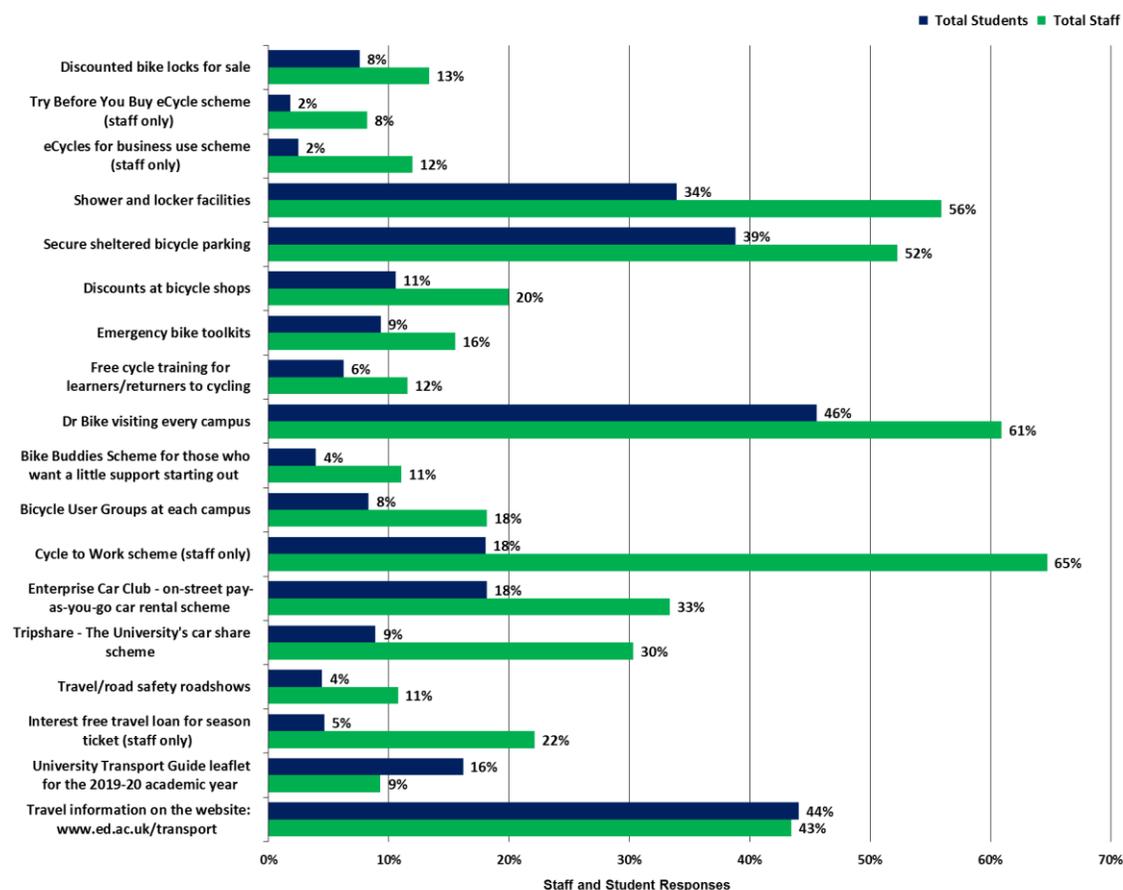


Figure 3-8 shows that overall staff awareness is higher than student awareness, however, some schemes, like the Cycle to Work Scheme, are only available to staff. The University Transport Guide was distributed to all new students beginning their course in 2019 (38% of student responses to the survey). As the leaflet had links to the travel information on the University website the level of awareness of this was also high for students (44%).

3.7 CARBON FOOTPRINT

This section provides details of the overall University travel to work / study carbon footprint and the footprint broken down by location. The 2019 DEFRA carbon emissions factors⁵ were used in the carbon footprint calculations. It is important to note that the carbon emissions factors take into consideration that

⁵ <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019>



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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.

More detail on the carbon footprint calculation methodology is provided in Appendix A. Every effort has been made to repeat the methodology used in previous surveys but there may be slight variations because the questions asked were not exactly the same.

Table 3-6, Table 3-7 and Table 3-8 provide details of the overall carbon footprint for staff and students combined and then separately.

Table 3-6 Overall Carbon Footprint (2019)

	Average Distance		Annual Estimated Total CO ₂ e (tonnes)		Annual estimated total CO ₂ e per member (tonnes)	
	2017	2019	2017	2019	2017	2019
Walk	1.0	1.2				
Cycle	2.3	2.8				
Motorcycle	9.1	9.5	87	130	0.8	0.6
Car Driver Alone	13.5	12.9	4,429	5,875	1.5	1.3
Car Driver with Passenger	11.0	10.1	908	523	1.3	0.5
Car Passenger	0.7	2.4	731	106	0.1	0.1
Bus	4.0	4.6	4,115	4,282	0.3	0.3
Shuttle Bus	1.7	1.7	279	505	0.1	0.1
Tram	3.9	5.8	21	21	0.1	0.1
Rail	27.6	29.7	1,791	2,265	0.7	0.6
Taxi	1.6	3.0	40	152	0.1	0.3
			12,400	13,858		

Table 3-6 shows that overall the total transport carbon emissions have increased by around 12% since 2017 and this is largely attributable to the increased overall university population, but are also a result of more emissions associated with car driving alone which has increased by 26%. Combining the emissions associated with car drivers alone, car drivers with passengers and car passengers, the increase in emissions from cars from 2017 to 2019 is 20%. CO₂e emissions associated with rail and bus travel have both increased, along with the average distance travelled by respondents, but the annual estimated CO₂e emissions per person is no greater for either mode.



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Table 3-7 Staff Carbon Footprint (2019)

	Average Distance		Annual Estimated Total CO ₂ e (tonnes)		Annual estimated total CO ₂ e per member (tonnes)	
	2017	2019	2017	2019	2017	2019
Walk	1.4	1.2				
Cycle	3.4	3.7				
Motorcycle	10.6	8.9	85	79	1.0	0.6
Car Driver Alone	13.7	13.3	3,420	4,396	1.6	1.4
Car Driver with Passenger	11.5	10.8	909	422	1.4	0.6
Car Passenger	8.3	2.2	439	52	1.0	0.1
Bus	4.6	4.8	1,602	1,815	0.4	0.4
Shuttle Bus	1.7	1.7	8	42	0.2	0.1
Tram	4.0	4.6	22	7	0.3	0.1
Rail	24.7	25.8	728	1,016	0.8	0.7
Taxi	3.0	4.5	11	29	0.4	0.6
			7,223	7,859		-

Table 3-7 shows that total staff CO₂e emissions have increased by around 5% since 2017, largely attributed to an increase in staff numbers by 10% (N=1,623) but also a result of a 25% increase in emissions associated with car drivers alone. It is notable that the distance travelled by car drivers alone has slightly reduced since 2017 and the percentage of staff driving alone has remained relatively constant. However, the increase in total staff numbers, of which 16% drive, equates to around an extra 250 staff driving to the University on an average day and explains the increase.

It should be noted that when combining the CO₂e emissions of staff who drive alone, with a passenger or travel as a passenger, the total CO₂e emissions for car travel has decreased by 4% since 2017.



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Table 3-8 Student Carbon Footprint (2019)

	Average Distance		Annual Estimated Total CO ₂ e (tonnes)		Annual estimated total CO ₂ e per member (tonnes)	
	2017	2019	2017	2019	2017	2019
Walk	1.0	1.1				
Cycle	1.9	2.1				
Motorcycle	3.6	12.2	4	51	0.2	0.7
Car Driver Alone	12.9	11.7	1,071	1,479	1.1	0.8
Car Driver with Passenger	0.9	8.2	3	101	0.1	0.3
Car Passenger	6.9	2.5	301	54	0.6	0.1
Bus	3.8	4.4	2,477	2,466	0.2	0.2
Shuttle Bus	1.7	1.7	271	463	0.1	0.1
Tram	3.9	7.2	13	14	0.1	0.1
Rail	29.3	33.8	1,093	1,249	0.7	0.5
Taxi	1.5	2.8	32	122	0.1	0.3
			5,265	5,999		-

Table 3-8 shows that the CO₂e for students have increased largely as a result of the increase in percentage of students driving alone to the University. Another factor is that the average distance students travel by bus (+3.8 miles) and rail (+7 miles) has increased.

Table 3-9 Overall Carbon Footprint – 2016 and 2017 Comparison

	Estimated annual carbon footprint (tonnes of CO ₂ e)			Estimated annual carbon footprint (tonnes of CO ₂ e) per individual		
	2016	2017	2019	2016	2017	2019
Staff	8,157	7,223	7,859	0.4	0.5	0.6
Students	5,126	5,265	5,999	0.1	0.1	0.2
Overall	13,284	12,400	13,858	0.2	0.2	0.3

Table 3-9 shows that the overall carbon emissions associated with travel have increased by around 12% primarily as a result of both staff and students traveling further by some modes and the increase in staff numbers.

Generally there is a trend that staff and students are travelling further by some modes but this may, in part, be offset by a reduction in the associated emissions (with vehicles becoming more efficient) so the overall emissions per person have not generally increased.



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3.8 PUBLIC TRANSPORT

Public Transport Satisfaction

Staff and students were asked how they rate different aspects of bus, tram and train services and the results are shown in Figure 3-9. These include affordability, journey time, route, hours of operation, reliability and timetable.

Figure 3-9 Staff and Student: How Do you Rate Your Public Transport Journey?

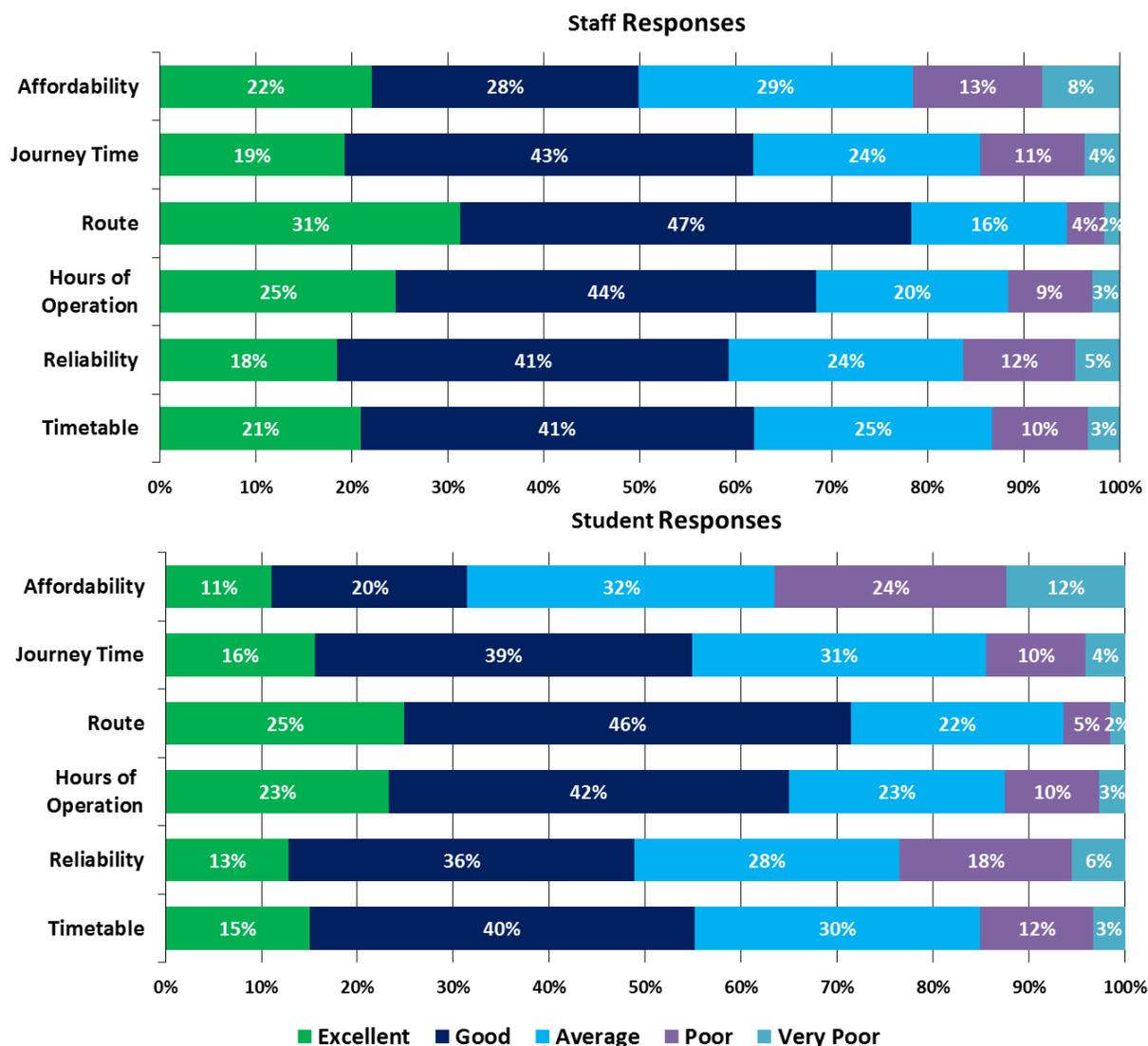


Figure 3-10 shows that staff are generally more likely to be satisfied with public transport than students, particularly when it comes to affordability.



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The University's *Integrated Transport Plan 2017 – 2021* sets a target for 75% of student and staff users to rate public transport provision as good to excellent and this is only currently being achieved by 'Route' satisfaction for staff (78%). Students also feel that routes are the most satisfactory; with 71% stating good to excellent (just below the 75% target). Staff and students most frequently identified affordability as poor or very poor (21% and 36% respectively).

3.9 BUS TRANSPORT

Public Buses Satisfaction

Staff and students were asked how they rate different aspects of public bus services and the results are shown in Figure 3-10. These include affordability, journey time, route, hours of operation, reliability and timetable.



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Figure 3-10 Staff and Student: How Do you Rate Your Bus Journey?

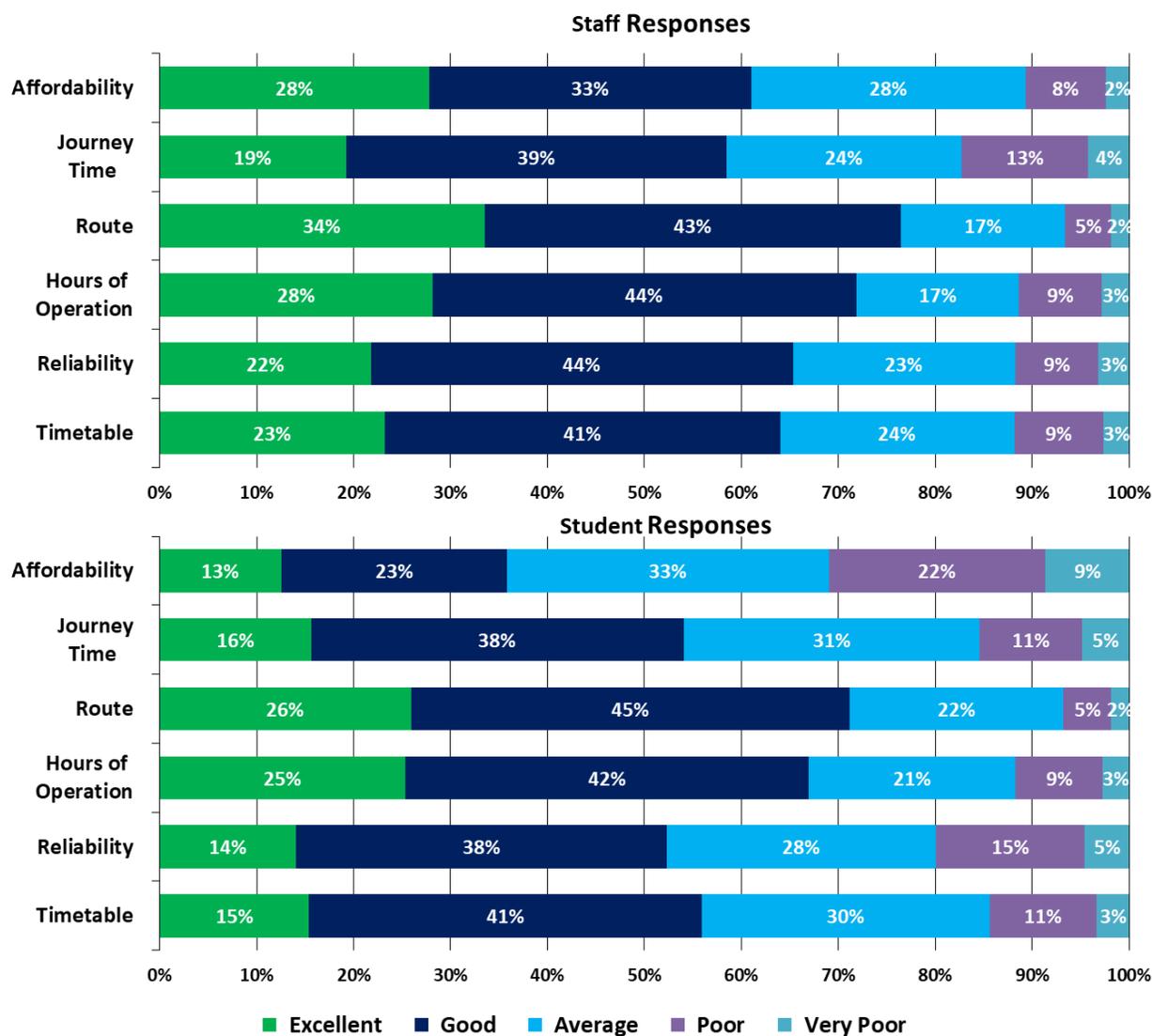


Figure 3-10 shows that staff are generally more likely to be satisfied with bus services than students, particularly when it comes to affordability.

Staff are most likely to rate bus routes as excellent or good (77%) and journey times as poor or very poor (17%) whereas students are most likely to rate routes as excellent or good (71%) and affordability as poor or very poor (31%).

Staff and students' responses on their satisfaction with different aspects of bus services have been aggregated to allow an overall satisfaction to be presented by campus location. The results are shown in

Figure 3-11 and Figure 3-12 respectively.



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Figure 3-11 How do you rate your bus journey (Staff)?

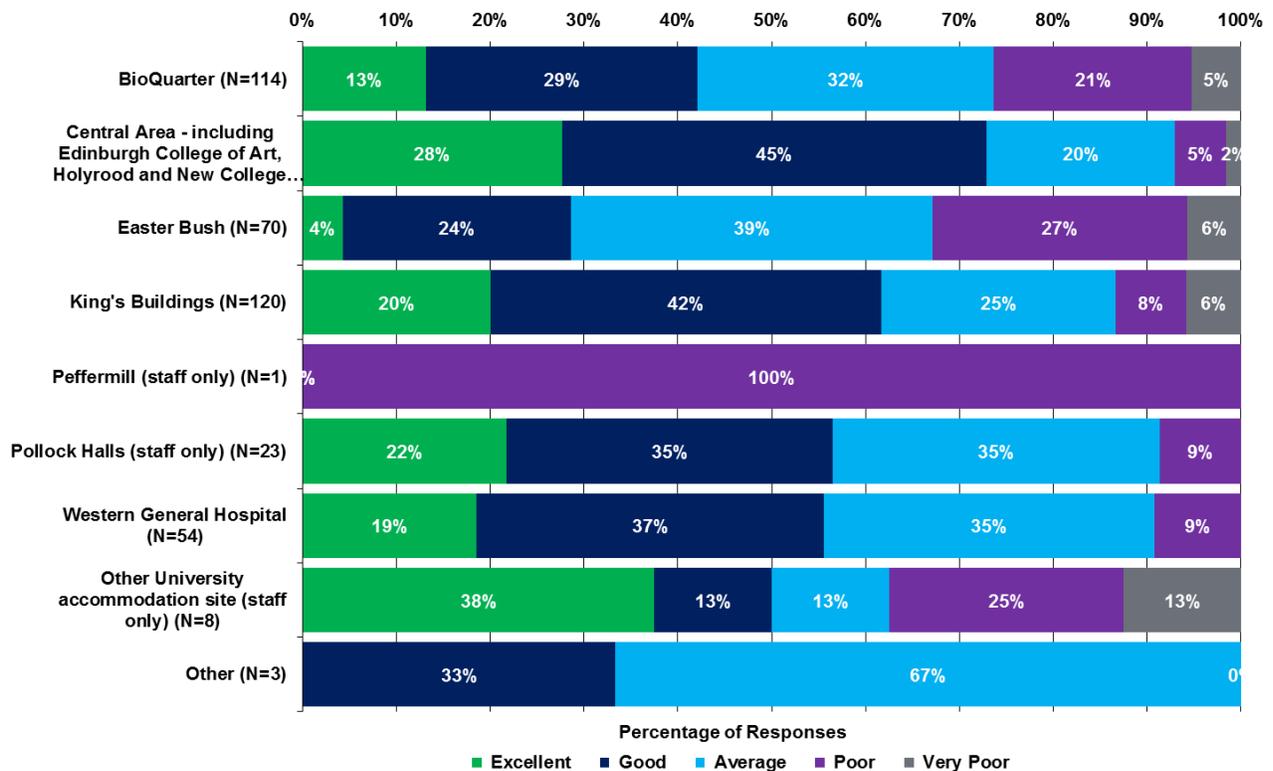


Figure 3-11 shows that staff at Central Area are most likely to rate their bus journey as excellent or good (73%), followed by King's Building (62%), Pollock Halls (57%) and then the Western General Hospital (56%). Staff at other University locations (28%), Easter Bush (33%) and BioQuarter (26%) are most likely to rate their bus journey as poor or very poor.



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Figure 3-12 How do you rate your bus journey (Student)?

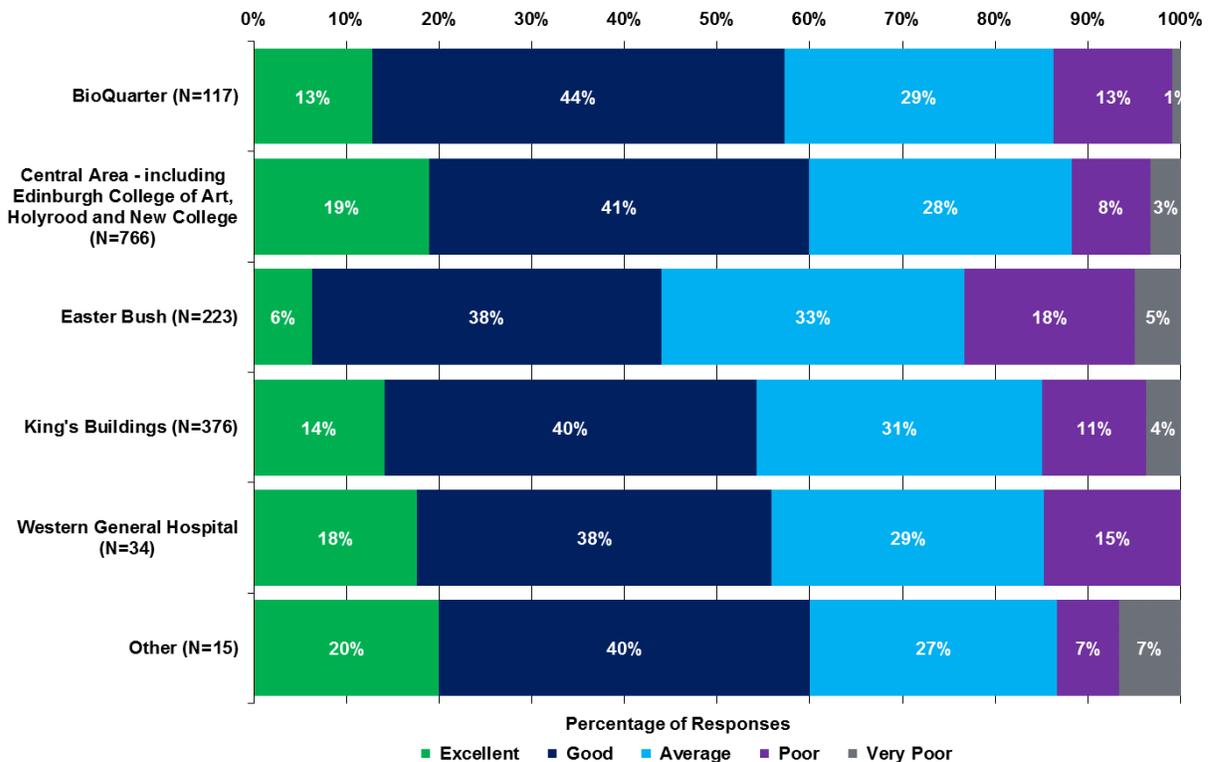


Figure 3-12 shows that students at Central Area or 'other location' are most likely to rate their bus journey as excellent or good (both 60%), followed by BioQuarter (57%) and then the King's Building (54%). Respondents at Easter Bush (23%) are most likely to rate their bus journey as poor or very poor, followed by Western General and King's Buildings (both 15%).

Overall students are happier with bus services with far larger proportions rating them as excellent, good or average than staff.

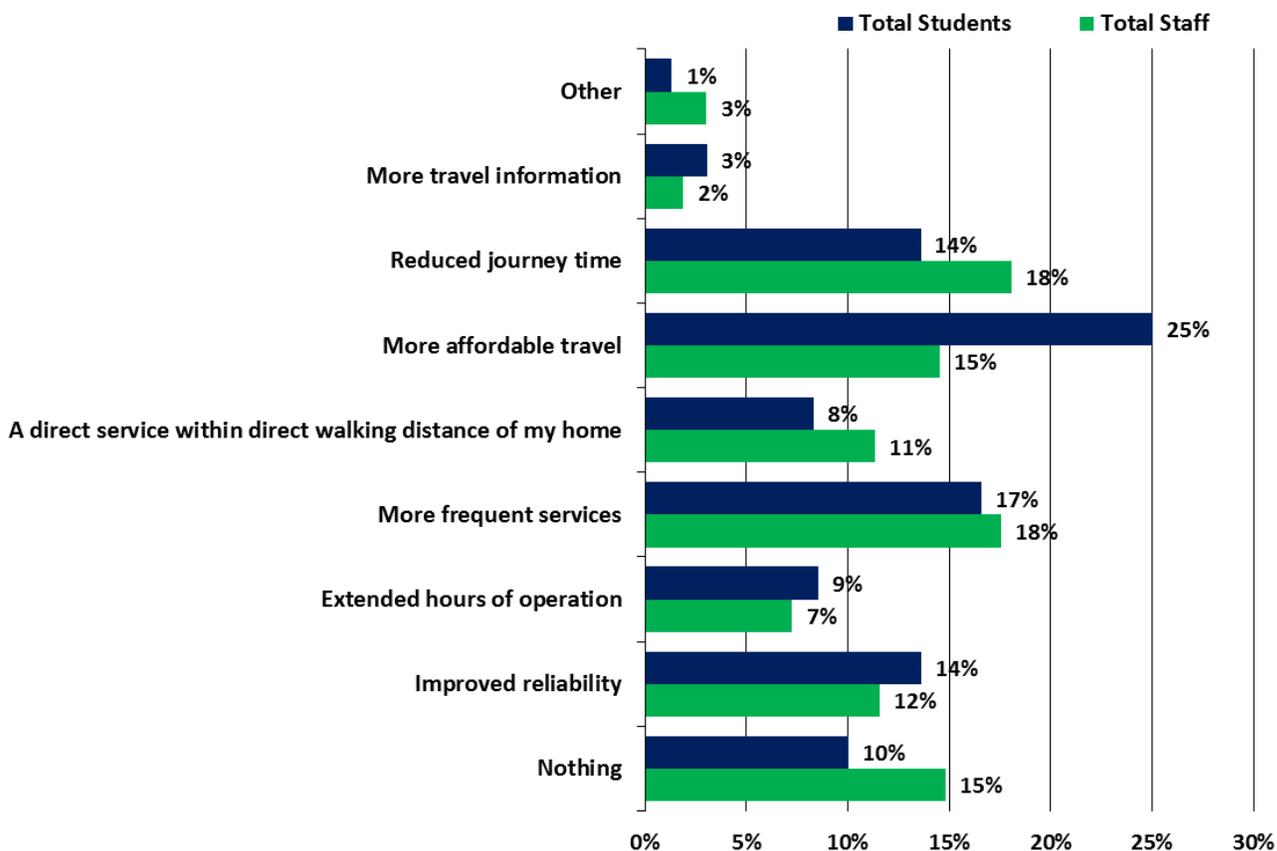
Encouraging Public Bus Use

Respondents were asked what could be done to improve their journey by public bus or encourage them to use this mode of travel on a regular basis (where applicable) and the responses are summarised in Figure 3-13.



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Figure 3-13 What could be done to improve your journey by public bus or encourage you to use this mode of travel on a regular basis?



Staff and Student Responses

Figure 3-13 shows that both staff and students stated that more affordable travel, more frequent services or reduced journey times would improve their journey by public bus or encourage them to use this mode of travel on a regular basis.

Of those who stated ‘other’ the recurring themes related to overcrowding of certain services. For example, one respondent stated:

“Buses get too full in the mornings and either don't stop for you or don't let you on after stopping.”

Student based at King’s Buildings who normally walks to the University

Some respondents also suggested having a system which allowed for multiple bus journeys within a time period so as not to impose a financial penalty on those not do not have a direct service:



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"A big problem with Lothian buses is that if you need to take 2 buses during one journey to get to a specific location, it costs twice as much. There should be a time window (eg. 90 min) in which it is free to swap buses after the first payment."

Staff member based at BioQuarter who normally walks to the University.

Respondents also used this question to raise concern regarding the loss of the free shuttle bus service to King's Buildings:

"The shuttle bus is essential! When I came to Edinburgh's studying biology was sold as having the shuttle bus as standard, due to the distance of the kings campus. If the FREE shuttle bus is taken away I will have to walk over 2 miles everyday to get to the kings campus. I'd just like to stress again that when I was choosing universities Edinburgh made w big deal about the free shuttle bus to kings, otherwise I would have looked at other universities."

Student normally based at King's Buildings who normally walks to the University.

When considering responses by staff and students based on their main campus location, there is little difference in what they say would improve their journey by public bus or encourage them to use this mode of travel on a regular basis.

Table 3-10 presents a breakdown of what respondents said would improve their journey by public bus or encourage them to use this mode of travel on a regular basis (where applicable) by the campus respondents are mainly based at.



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Table 3-10 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)?

Total Responses (count)		Improved reliability	Extended hours of operation	More frequent services	More affordable travel	Reduced journey time	More travel information	Other
BioQuarter	Staff	52	31	71	50	55	71	9
	Student	58	38	76	38	101	61	16
Central Area - including Edinburgh College of Art, Holyrood and New College	Staff	334	198	495	310	393	513	52
	Student	705	434	869	418	1287	682	152
Easter Bush	Staff	54	47	79	40	65	79	7
	Student	60	46	80	46	133	67	18
King's Buildings	Staff	79	46	131	85	133	137	17
	Student	298	183	349	195	549	296	63
Peffermill (staff only)	Staff	0	1	1	0	0	0	0
	Student	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pollock Halls (staff only)	Staff	8	6	10	8	11	14	1
	Student	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Western General Hospital	Staff	25	12	32	24	28	41	4
	Student	12	8	15	12	33	17	3
Other University accommodation site (staff only)	Staff	2	1	6	4	4	5	0
	Student	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other	Staff	7	5	11	6	9	10	2
	Student	18	16	28	14	33	28	5

*Top three combined choices for each location highlighted for staff and student

Table 3-10 shows that more frequent services, more affordable travel and reduced journey time were the most commonly identified measures that would improve or encourage bus use regardless of campus / location.



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Overall Survey Results

Public Bus Payment Method

Staff and students were asked how they normally pay for travel on public bus services with Figure 3-14 below presenting the results.

Figure 3-14 Staff and Students: How do you normally pay for travel on public bus services?

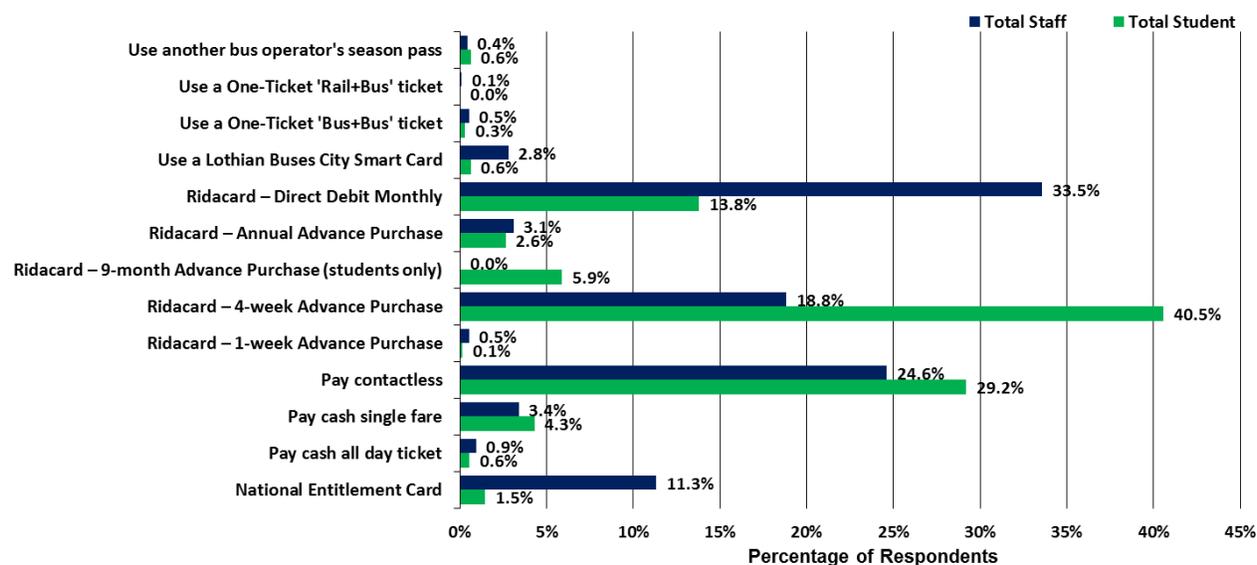


Figure 3-14 shows that students most frequently pay for bus travel using the Ridacard – 4-week advance purchase (41%), paying contactless (29%) or the Ridacard – direct debit monthly (14%). Staff most commonly pay using Ridacard – direct debit monthly (34%), pay contactless (25%) and Ridacard – 4-week advance purchase (19%).

King's Building Shuttle Bus

Around 50% of students based at King's Buildings use the King's Buildings shuttle bus every day or a few times a week compared to 11.8% of academic staff and 11% of non-academic staff. Overall, 64% of students based at King's Building's use the shuttle bus at least once per month, compared to 35% of academic staff and 36.2% of non-academic staff.

Most students say they use the shuttle bus to commute because King's Buildings or the Central Area is their main place of work or study (62%), to travel between lectures/tutorials/meetings (52%) or to travel for leisure or social reasons (25%). In contrast staff say it is to travel between lectures/tutorials/meetings (56%), to commute because King's Buildings or the Central Area is their main place of work or study (48%) or to travel for leisure or social reasons (25%).

Amongst students, the main reasons for using the King's Building shuttle bus are:

- Not having to pay (80%);
- The shuttle bus is more direct than other bus services (52%); and



Overall Survey Results

- The shuttle bus is convenient to use because the respondent lives or works close to the shuttle bus stop (25%).

3.10 CYCLING

Encouraging Cycling

All staff and students were asked about what could be done to improve their journey by bicycle or encourage them to use this mode of travel on a regular basis with Figure 3-15 presenting the results.

Figure 3-15 What could be done to improve your journey by bicycle or encourage you to use this mode of travel on a regular basis?

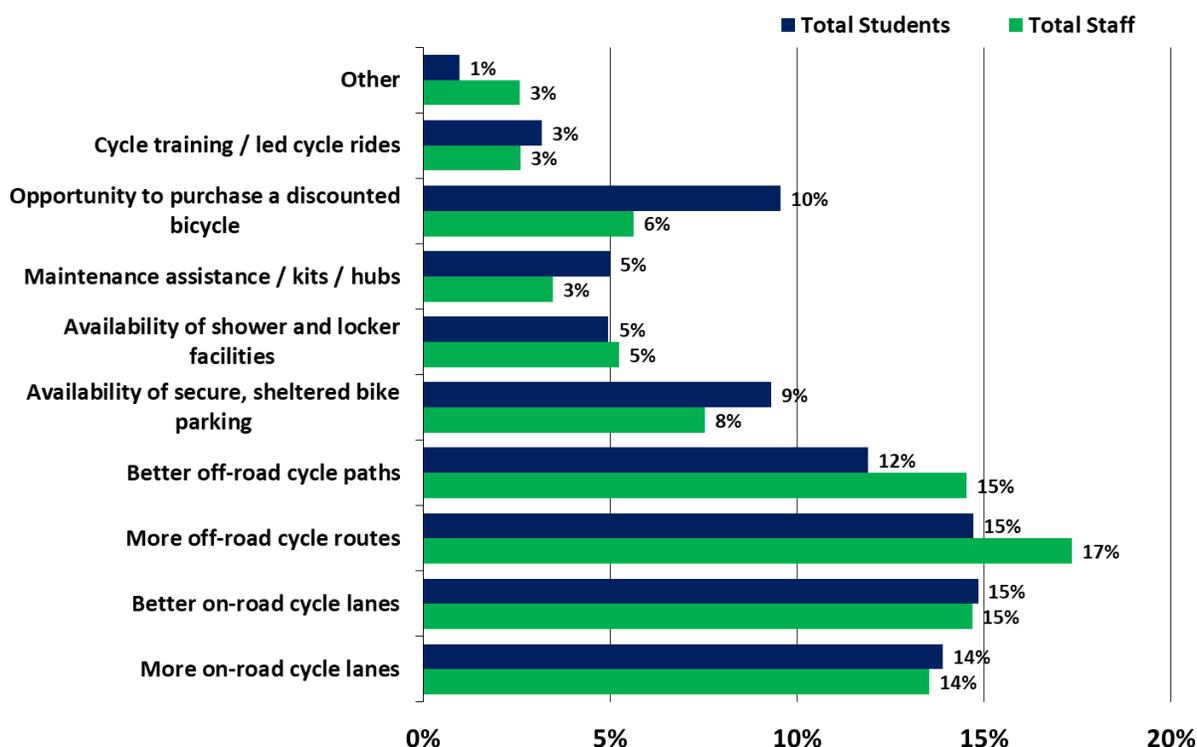


Figure 3-15 shows that both staff and students stated that more cycle paths in a variety of forms, be that on-road, off-road paths and routes, would improve their journey by bicycle or encourage them to use this mode of travel on a regular basis.

Of those who stated ‘other’ the recurring themes related to direct, segregated cycle lanes. For example, one respondent stated:

“Safe lanes segregated from traffic going along key routes, not winding down back streets.”

Staff member based at King’s Building who normally walks to the University



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Overall Survey Results

Some respondents also felt that improved locker and shower facilities would encourage them:

"Changing and locker facilities at QMRI and CRM are inadequate to encourage usage. There is not enough changing space, nor drying space (this is Scotland after all) lockers are too small and spread across an extensive building."

Student based at BioQuarter who normally walks to the University.

There were also calls for more electric bikes due to the steep topography of Edinburgh.

All staff and students were asked what could be done to improve their journey by bicycle or encourage them to use this mode of travel on a regular basis and the responses are summarised in Table 3-11.



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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?

Total Responses		More on-road cycle lanes	Better on-road cycle lanes	More off-road cycle routes	Better off-road cycle paths	Availability of secure, sheltered bike parking	Availability of shower and locker facilities	Maintenance assistance / kits / hubs	Opportunity to purchase a discounted bicycle	Cycle training / led cycle rides	Other
BioQuarter	Staff	79	77	98	72	52	32	21	33	8	17
	Student	65	71	74	54	38	21	19	41	12	5
Central Area - including Edinburgh College of Art, Holyrood and New College	Staff	423	465	562	480	270	177	119	190	95	85
	Student	825	898	876	720	541	294	296	550	185	61
Easter Bush	Staff	83	84	100	75	30	22	11	32	15	10
	Student	80	80	82	63	53	29	27	54	16	6
King's Buildings	Staff	142	160	177	157	88	57	43	67	33	27
	Student	346	367	356	287	226	117	123	244	76	20
Peffermill (staff only)	Staff	2	2	2	2	0	0	1	0	1	0
	Student	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pollock Halls (staff only)	Staff	15	13	18	14	8	7	4	5	4	1
	Student	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Western General Hospital	Staff	26	37	40	32	11	7	7	12	6	5
	Student	25	20	25	24	15	11	9	15	6	3
Other University accommodation site (staff only)	Staff	5	4	6	5	3	4	2	3	1	1
	Student	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other	Staff	10	10	15	13	6	3	3	1	0	3
	Student	33	33	35	29	18	13	10	26	7	2

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

Table 3-11 shows that most locations more on-road cycle lanes, better on-road cycle lane and more off-road cycle routes were the most commonly identified measures that would improve or encourage walking.

Just Eat Cycles

All respondents were asked if they are aware of the Just Eat Cycles Uni Pass with the results presented in Figure 3-16 and Figure 3-17.



Overall Survey Results

Figure 3-16 Were you aware of the Just Eat Cycles Uni Pass?

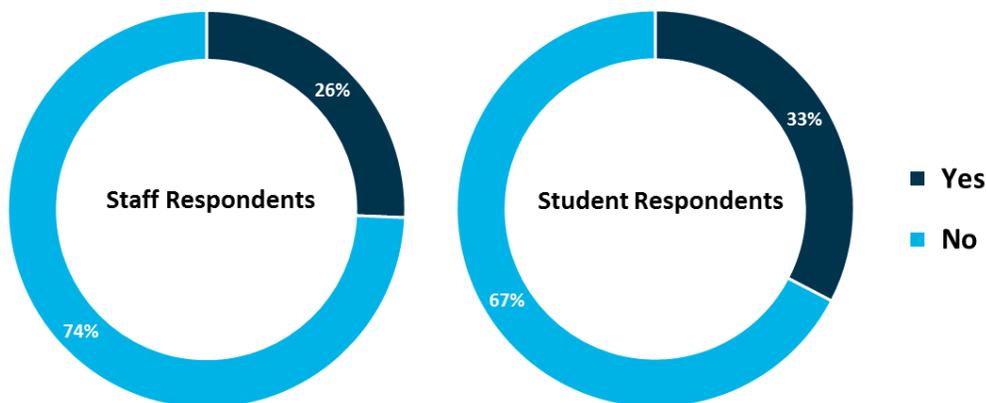


Figure 3-16 shows that more students (33%) are aware of the scheme than staff (26%).

Respondents were then asked if they have used the Just Eat Cycles hire scheme at any time (for commuting or otherwise) with the results presented Figure 3-17, below.

Figure 3-17 Have you used the Just Eat Cycles hire scheme at any time (for commuting or otherwise)?

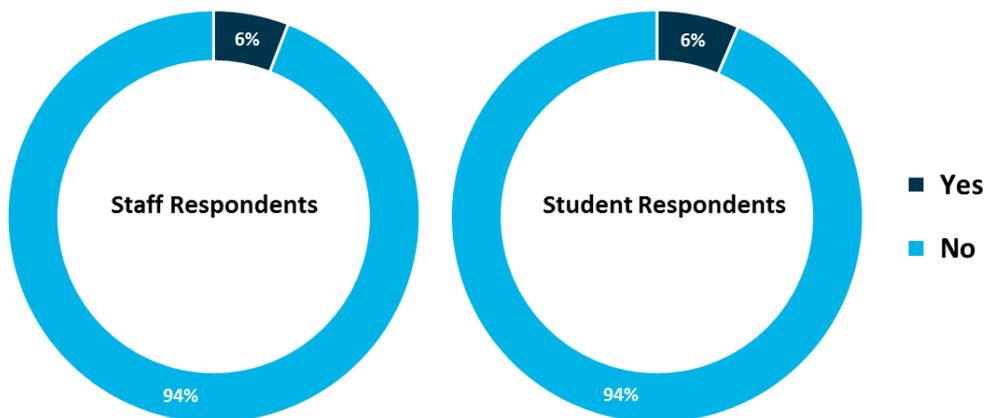


Figure 3-17 shows that only 6% of staff and 6% of students use the Just East Cycle hire scheme for commuting or otherwise.

Uptake of Just East Cycles varies by campus with more respondents at King’s Buildings (9%) and the Western General Hospital (8%) using them while only 3% of respondents from the BioQuarter and Easter Bush use them.

Respondents who have not used the scheme were asked why and the most common reasons were:

- Not interested in cycling (33%);
- I have my own bike (21%) and
- There is no convenient hire point for me (12%).



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Overall Survey Results

Those respondents who have used the scheme were then asked how they rate their experience in relation to bike availability, station location, the app and the bikes. The results are presented in Figure 3-18.

Figure 3-18 Just Eat Cycles: How do you rate your experience of using the scheme?

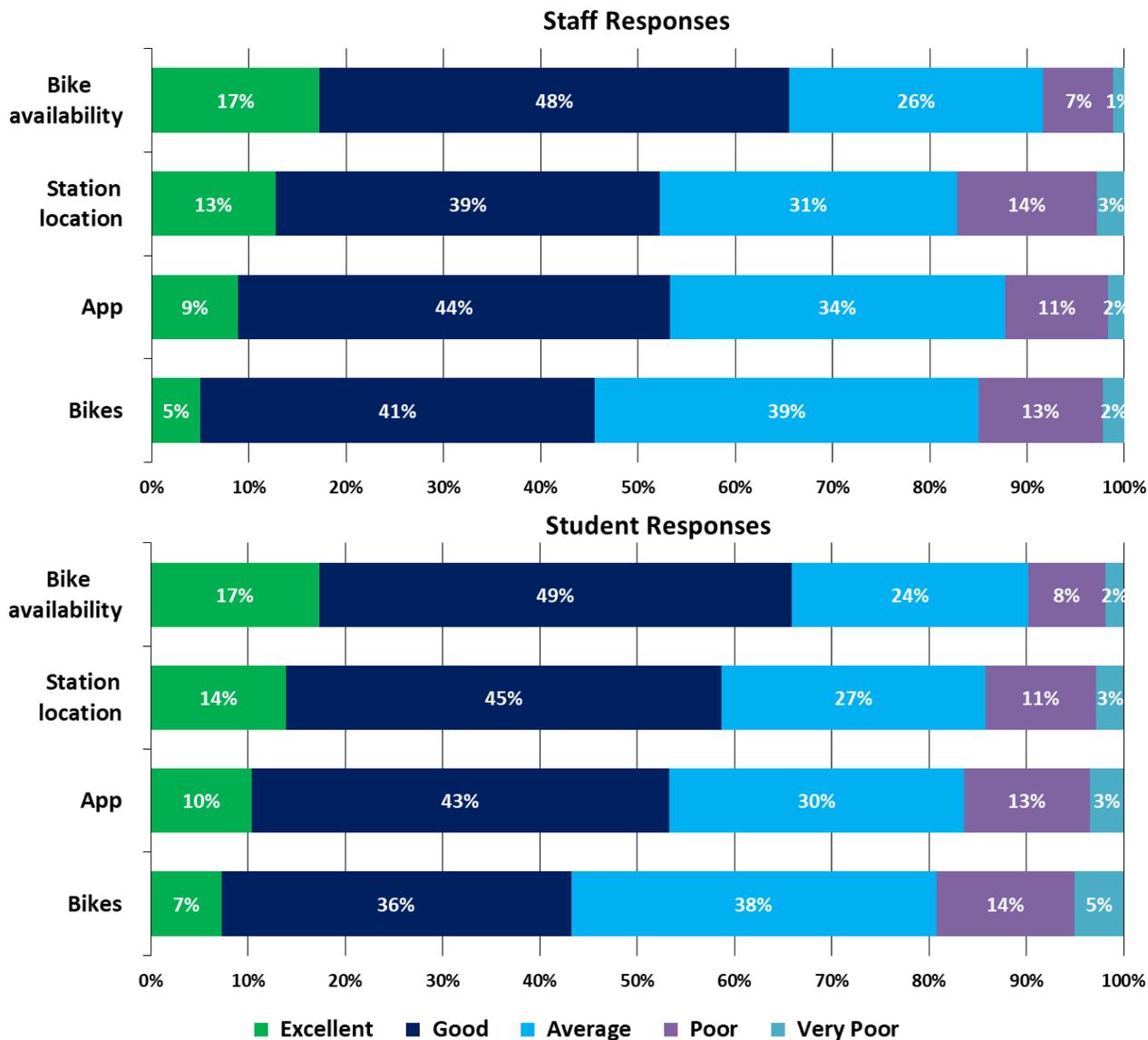


Figure 3-18 shows that there is very little difference between how staff and students rate their experience of using Just Eat Cycles. Both groups are most satisfied with bike availability, while staff appear to be least satisfied with station location (17% saying it is poor or very poor) and students with the bikes provided (19% saying they are poor or very poor).



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Overall Survey Results

The most common feedback was that there are no docking stations close to the homes of respondents, the actual bikes are too heavy, the scheme is too expensive, or the app is unreliable.

“There is no bike station near where I live so the scheme is of little value to me. The bikes themselves are rather heavy and slow. They also have poor capacity for carrying luggage/bags/shopping.”

Staff member based at Central Area who normally cycles to the University

“App completely malfunctioned so wouldn't recognise when had returned bike and was vastly overcharged. Weren't able to get in contact with anyone from the company until Monday (it was a Saturday)”

Student based at Central Area who normally walks to the University

3.11 WALKING

Encouraging Walking

All staff and students were asked about what could be done to improve their journey by walking, running or wheelchair or encourage them to use this mode of travel on a regular basis and Figure 3-19 presents the results.



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Overall Survey Results

Figure 3-19 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?

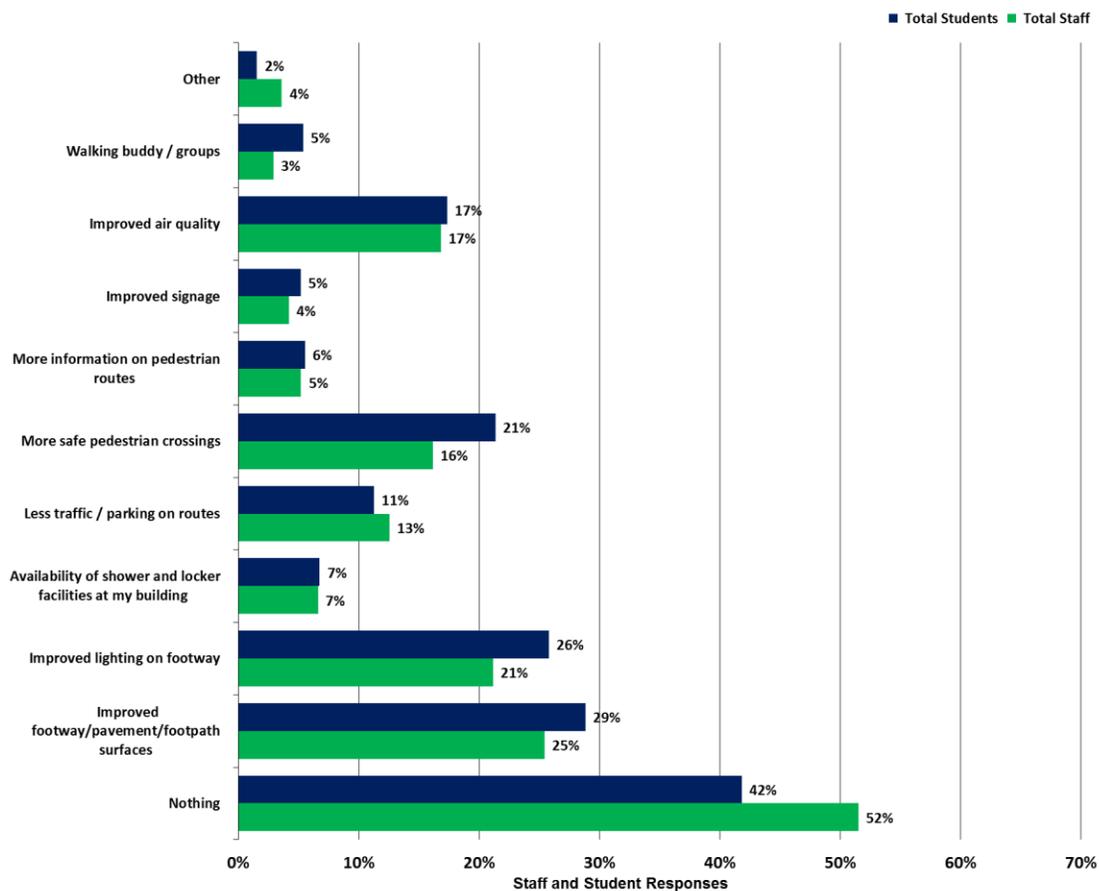


Figure 3-19 shows that many staff (52%) and students (42%) do not think anything could be done to improve or encourage them to walk, run or wheelchair more. In terms of actual measures both staff and students said that improved footways / pavements / footpath surfaces would be most likely to improve their journey by walking or cycling or encourage them to walk or cycle (students 29% and staff 25%). The second most likely improvements which would be likely to improve respondents’ journey by walking or cycling or encourage them to walk or cycle more is improved lighting on footways (students 26% and staff 21%).

Only three respondents (all students) stated that they regularly use a mobility scooter as part of their journey to University and they said that availability of shower and locker facilities at their building, less traffic/parking on route and a walking buddy / groups would improve their journey.

Of those who stated ‘other’ the recurring themes related to footways, in particular, maintenance and gritting, that they are not wide enough or that more remote footways segregated from roads are required. For example, one respondent stated:



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Overall Survey Results

"I walk to work everyday through the meadows, and love it! I'm really thankful that I can easily walk to work through such a pretty area. However, with the colder temperatures I am noticing that the paths can become quite icy/hazardous. I haven't yet noticed any efforts to salt the paths or make them more safe in some way."

Staff member based at Central Area who normally walks to the University

Some respondents also felt that priority seems to be afforded to cars due to, for example, pavement parking and traffic signal timings:

"Traffic lights are car-driven and take ages to be green from pedestrians. Island in the middle of the street are not useful as driver won't stop for you."

Staff member based at Central Area who normally walks to the University.

Another key theme was flexible working:

"More flexible start times to accommodate childcare responsibilities and the additional time it take[s] to travel in a more sustainable way."

Staff member based at Central Area who normally drives to the University.



4.0 LOCATION TRAVEL CHARACTERISTICS

4.1 CENTRAL AREA

A total of 1,278 non-academic and 514 academic staff based at the Central Area responded to the survey: equivalent of 27% and 12% respectively. A total of 2,975 students (11%) 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 2019 (and Change Since 2017)

	Overall	Student	Staff
Walk	47% (-11%)	59% (-7%)	29% (-3%)
Mobility Scooter	0% (0%)	0% (0%)	0% (0%)
Cycle	9% (-1%)	6% (-2%)	14% (-2%)
Car Driver Alone	5% (2%)	3% (1%)	8% (1%)
Car Driver with Passenger	2% (1%)	0% (0%)	4% (0%)
Car Passenger	1% (0%)	1% (0%)	1% (-1%)
Bus	22% (3%)	18% (2%)	29% (2%)
Tram	0% (0%)	0% (0%)	1% (0%)
Rail	10% (3%)	8% (2%)	14% (3%)
Taxi	0% (0%)	0% (0%)	0% (0%)
Motorcycle	0% (0%)	0% (0%)	1% (0%)
Shuttle Bus	3% (2%)	5% (3%)	0% (0%)

Staff

Table 4-1 shows that since 2017 there has been a reduction in the proportion staff walking (-3%) and cycling (-2%) with an increase in the proportion getting the train (+3%) or the bus (+2%). Overall there is a shift from active travel to public transport, while other changes are around or below one percent.

Students

Table 4-1 shows that since 2017 there has been a reduction in the proportion of students walking (-7%) and cycling (-2%) with an increase in the proportion getting shuttle bus (+3%), train (+2%) or public bus



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Location Travel Characteristics

(+2%). As with staff, there is a shift from active travel to public transport. Other changes are around or below one percent.

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 (28%);
- Improved lighting on footway (24%); and
- More safe pedestrian crossings (20%).

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 off-road cycle facilities (42%);
- Better on-road cycle lanes (40%); and
- More on-road cycle lanes (36%).

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 (40%);
- More frequent services (33%); and
- Reduced journey time (29%).

4.2 KING'S BUILDINGS

A total of 228 non-academic and 212 academic staff based at the King's Building responded to the survey: equivalent of 27% and 11% respectively. A total of 1,295 (equivalent to 16%) students based at the King's Buildings also responded.

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

Mode Share

Table 4-2 shows the overall, student and staff mode share for the King's Buildings.



THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

Location Travel Characteristics

Table 4-2 King's Building Mode Share 2019 (and Change Since 2017)

	Overall	Student	Staff
Walk	31% (-3%)	34% (-5%)	20% (-1%)
Mobility Scooter	0% (0%)	0% (0%)	0% (0%)
Cycle	18% (-5%)	17% (-6%)	22% (-2%)
Car Driver Alone	8% (0%)	2% (-1%)	24% (4%)
Car Driver with Passenger	2% (0%)	1% (0%)	5% (-2%)
Car Passenger	2% (0%)	1% (1%)	2% (-2%)
Bus	20% (1%)	19% (0%)	22% (3%)
Tram	0% (0%)	0% (0%)	0% (0%)
Rail	2% (0%)	1% (0%)	3% (0%)
Taxi	0% (0%)	0% (0%)	0% (0%)
Motorcycle	0% (0%)	0% (0%)	1% (-1%)
Shuttle Bus	18% (8%)	24% (10%)	1% (0%)

Staff

Table 4-2 shows that since 2017 there has been a reduction in the proportion staff cycling (-2%) and as a car passenger (-2%) with an increase in the proportion driving alone (+4%) and the bus (+3%). Overall this is a shift from cycling to driving alone and bus use, perhaps as a result of increased travel distances with staff living further from this location. Other changes are around or below one percent.

Students

Table 4-2 shows that since 2017 there has been a reduction in the proportion of students cycling (-5%) and walking (-5%) with an increase in the proportion getting shuttle bus (+8%). There is a shift from active travel to shuttle bus use which is potentially a result of the shuttle bus attracting those that would otherwise walk or cycle with 39% stating they would walk and 12% cycle if they were unable to use the shuttle bus with 29% stating they would substitute the shuttle bus with a public bus. Other changes are around or below one percent.

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 (17%);



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Location Travel Characteristics

- Improved lighting on footway (14%); and
- More safe pedestrian crossings (12%).

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 off-road cycle facilities (15%);
- Better on-road cycle lanes (15%); and
- More on-road cycle lanes (14%).

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 (23%);
- More frequent services (16%); and
- Reduced journey time (15%).

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 (43%);
- I think the shuttle bus is more direct than other bus services I could use to King's Buildings (29%);
and
- The shuttle bus is convenient to use because I live or work close to the shuttle bus stop (13%).

4.3 EASTER BUSH

A total of 154 non-academic and 101 academic staff based at the Easter Bush responded to the survey: equivalent of 30% and 27% respectively. A total of 286 students (equivalent to 20%) based at Easter Bush also responded.

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



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Location Travel Characteristics

Mode Share

Table 4-3 Easter Bush Mode Share 2019 (and Change Since 2017)

	Overall	Student	Staff
Walk	1% (-2%)	1% (-2%)	2% (-1%)
Mobility Scooter	0% (0%)	0% (0%)	0% (0%)
Cycle	4% (-1%)	1% (-2%)	7% (1%)
Car Driver Alone	34% (5%)	13% (2%)	57% (2%)
Car Driver with Passenger	8% (2%)	7% (4%)	9% (0%)
Car Passenger	1% (-3%)	1% (-2%)	2% (-3%)
Bus	50% (-2%)	75% (1%)	23% (3%)
Tram	0% (0%)	0% (0%)	0% (0%)
Rail	1% (-1%)	1% (-1%)	0% (0%)
Taxi	0% (0%)	0% (0%)	0% (0%)
Motorcycle	0% (0%)	0% (0%)	0% (0%)
Shuttle Bus	0% (0%)	0% (0%)	0% (0%)

Staff

Table 4-3 shows that since 2017 there has been a reduction in the proportion of staff as a car passenger (-3%) with an increase in the proportion using the bus (+3%) and driving alone (+2%). Overall this is a shift from being a car passenger to driving alone and bus use. Other changes are around or below one percent.

Students

Table 4-3 shows that since 2017 there has been a reduction in the proportion of students walking (-2%), cycling (-2%) and as car passengers (-2%) with an increase in the proportion who drive with a passenger (+4%) and drive alone (+2%). There is a shift from active travel to driving either alone or with a passenger, perhaps as a result of increased travel distances with students living further from this location. Other changes are around or below one percent.

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 (26%);



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Location Travel Characteristics

- Improved lighting on footway (25%); and
- More safe pedestrian crossings (18%).

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 off-road cycle facilities (48%);
- Better on-road cycle lanes (43%); and
- More on-road cycle lanes (43%).

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 affordable travel (42%);
- More frequent services (34%); and
- Reduced journey time (31%).

4.4 BIOQUARTER

A total of 203 non-academic and 113 academic staff based at the BioQuarter responded to the survey: equivalent of 31% and 14% respectively. A total of 205 (equivalent to 20%) students based at the BioQuarter also responded.

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



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Location Travel Characteristics

Mode Share

Table 4-4 BioQuarter Mode Share 2019 (and Change Since 2017)

	Overall	Student	Staff
Walk	9% (-1%)	10% (1%)	9% (-2%)
Mobility Scooter	0% (0%)	0% (0%)	0% (0%)
Cycle	21% (1%)	27% (5%)	17% (0%)
Car Driver Alone	21% (5%)	5% (-1%)	32% (6%)
Car Driver with Passenger	5% (2%)	3% (2%)	6% (1%)
Car Passenger	1% (-1%)	1% (0%)	1% (-2%)
Bus	38% (-10%)	51% (-9%)	30% (-6%)
Tram	0% (0%)	0% (0%)	0% (0%)
Rail	2% (1%)	1% (0%)	3% (1%)
Taxi	0% (0%)	0% (0%)	1% (1%)
Motorcycle	1% (0%)	0% (0%)	1% (0%)
Shuttle Bus	0% (0%)	0% (0%)	0% (0%)

Staff

Table 4-4 shows that since 2017 there has been a reduction in the proportion of staff using the bus (-6%), walking (-2%) and as a car passenger (-2%) with an increase in the proportion driving alone (+6%). Overall there appears to be a shift from bus to driving alone and other changes are around or below one percent.

Students

Table 4-4 shows that since 2017 there has been a reduction in the proportion of students using the bus (-9%) with an increase in the proportion cycle (+5%) and drive with a passenger (+4%). There has been a shift from bus use towards cycling and other changes are around or below one percent.

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 (28%);
- Improved lighting on footway (21%); and
- More safe pedestrian crossings (17%).



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Location Travel Characteristics

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 off-road cycle facilities (46%);
- Better on-road cycle lanes (40%); and
- More on-road cycle lanes (39%).

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 affordable travel (35%);
- More frequent services (33%); and
- Reduced journey time (30%).

4.5 WESTERN GENERAL HOSPITAL

A total of 83 non-academic and 61 academic staff based at the Western General Hospital responded to the survey: equivalent of 21% and 33% respectively. A total of 62 students (equivalent to 21%) based at the Western General Hospital also responded.

Western General Hospital respondents represent the fifth greatest proportion of travel survey participants and the findings are summarised in this section.



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Location Travel Characteristics

Mode Share

Table 4-5 Western General Hospital Mode Share 2019 (and Change Since 2017)

	Overall	Student	Staff
Walk	19% (0%)	21% (6%)	18% (-6%)
Mobility Scooter	0% (0%)	0% (0%)	0% (0%)
Cycle	20% (-8%)	23% (-11%)	19% (-3%)
Car Driver Alone	17% (7%)	6% (6%)	22% (3%)
Car Driver with Passenger	2% (0%)	2% (0%)	3% (0%)
Car Passenger	1% (0%)	0% (0%)	1% (1%)
Bus	34% (-1%)	45% (0%)	30% (6%)
Tram	0% (-1%)	0% (-2%)	0% (0%)
Rail	5% (1%)	3% (2%)	6% (0%)
Taxi	0% (0%)	0% (0%)	0% (-1%)
Motorcycle	0% (0%)	0% (0%)	0% (0%)
Shuttle Bus	0% (0%)	0% (0%)	0% (0%)

Staff

Table 4-5 shows that since 2017 there has been a reduction in the proportion of staff walking (-6%) and cycling (-3%), with an increase in the proportion using the bus (+6%) and driving alone (+3%). Overall this is a shift from active travel to bus and private car use, perhaps as a result of increased travel distances with staff living further from this location. Other changes are around or below one percent.

Students

Table 4-5 shows that since 2017 there has been a reduction in the proportion of students cycling (-11%) and tram use (-2%) with an increase in the proportion walking (+6%), driving alone (+6%) and using the train (+2%). There is a shift from cycling towards walking, driving and the train suggesting that cycling has become a far less attractive option for students based in Western General Hospital. Other changes are around or below one percent.

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 (16%);



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- Improved lighting on footway (15%);
- More safe pedestrian crossings (8%); and
- Improved air quality (8%).

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 off-road cycle facilities (16%);
- Better on-road cycle lanes (14%); and
- Better off-road cycle paths (14%).

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:

- More affordable travel (19%);
- Reduced journey time (18%); and
- More frequent services (15%).

4.6 POLLOCK HALLS

A total of 65 non-academic staff based at the Pollock Halls responded to the survey; equivalent of 11% and a total of 174 students who live at Pollock Halls (estimated at around 9%).

Pollock Halls respondents represent the sixth greatest proportion of travel survey participants and the findings are summarised in this section.



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Location Travel Characteristics

Mode Share

Table 4-6 Pollock Halls Mode Share 2019 (and Change Since 2017)

	Overall*	Student (residing at Pollock Halls)	Staff (working at Pollock Halls)
Walk	-	64% (-15%)	17% (-1%)
Mobility Scooter	-	0% (0%)	0% (0%)
Cycle	-	5% (-5%)	3% (0%)
Car Driver Alone	-	0% (0%)	35% (-4%)
Car Driver with Passenger	-	0% (0%)	8% (-1%)
Car Passenger	-	1% (1%)	6% (2%)
Bus	-	9% (4%)	26% (7%)
Tram	-	0% (0%)	0% (0%)
Rail	-	0% (0%)	2% (-6%)
Taxi	-	1% (1%)	0% (0%)
Motorcycle	-	0% (0%)	3% (3%)
Shuttle Bus	-	20% (17%)	0% (0%)

*cannot be accurately calculated as staff figures are for working at Pollock halls while the figures for students are those who reside there.

Staff

Table 4-6 shows that since 2017 there has been a reduction in the proportion of staff using the train (-6%) and driving alone (-4%) with an increase in the proportion using the bus (+7%), driving a motorbike (+3%) as a car passenger (+2%). Overall this is a shift from train travel and private car use with an increase in bus use. Other changes are around or below one percent.

Student

Table 4-6 shows that since 2017 there has been a large reduction in the proportion of students walking and cycling (-20%) which seems to be a result of a shift to using the shuttle bus (+17%). Public bus use has also increased amongst students (+4%) while all other changes are around or below one percent.

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 (14%);
- Improved lighting on footway (12%); and
- Improved air quality (11%).



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Location Travel Characteristics

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:

- More off-road cycle facilities (17%);
- More on-road cycle lanes (17%); and
- Better on-road cycle paths (14%).

Bus

Staff and students 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 (18%);
- More affordable travel (15%); and
- More frequent services (13%).

4.7 OTHER SITES

A total of 9 non-academic and 16 academic staff based at other university sites responded to the survey: equivalent of 4% and 5% respectively. A total of 88 students based at other sites also responded.

Mode Share

Table 4-7 Other Sites Mode Share 2019 (and Change Since 2017)

	Overall	Student	Staff
Walk	54% (12%)	60% (14%)	32% (2%)
Mobility Scooter	0% (-1%)	0% (-1%)	0% (0%)
Cycle	8% (-1%)	7% (-2%)	12% (0%)
Car Driver Alone	9% (5%)	3% (1%)	28% (17%)
Car Driver with Passenger	3% (-2%)	2% (-1%)	4% (-3%)
Car Passenger	1% (-3%)	1% (-4%)	0% (-1%)
Bus	9% (-11%)	9% (-10%)	8% (-12%)
Tram	2% (1%)	2% (1%)	0% (0%)
Rail	12% (4%)	13% (7%)	12% (-6%)
Taxi	2% (0%)	2% (-1%)	0% (0%)
Motorcycle	1% (0%)	0% (-1%)	4% (3%)
Shuttle Bus	0% (-3%)	0% (-4%)	0% (0%)

Staff

Table 4-7 shows that since 2017 there has been a reduction in the proportion of staff using the bus (-12%), using the train (-6%) and as a car passenger (-3%) with an increase in the proportion driving alone



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Location Travel Characteristics

(+17%), using a motorbike (+3%) and walking (+2%). Overall this is a shift from public transport to private car use, perhaps as a result of the convenience and cost per journey of the private car compared to public transport. Other changes are around or below one percent.

Students

Table 4-7 shows that since 2017 there has been a reduction in the proportion of students using the bus (-10%), using the shuttle bus (-4%) and as a car passenger (-4%) with an increase in the proportion walking (+14%) and using the train (+7%). Other changes are around or below one percent.

Encouraging Alternative Modes

Active Travel

Staff and students based at other sites 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 (15%);
- Improved lighting on footway (14%); and
- More safe pedestrian crossings (10%).

Staff and students based at other sites 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 off-road cycle facilities (16%);
- Better on-road cycle lanes (15%); and
- More on-road cycle lanes (15%).

Bus

Staff and students based at other sites 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
- Reduced journey time (17%).



5.0 CONCLUSIONS

The results of the 2019 University Staff and Student Travel Survey demonstrate a continued high proportion of sustainable travel amongst both staff and students; overall around 77% of staff and 94% of students normally travel by active travel or public transport to access the University.

This report compares 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.

Progress to 2021 Targets

The *University of Edinburgh Integrated Transport Plan 2017 – 2021* sets a number of targets to be achieved by 2021, as summarised in Table 5-1.

THE UNIVERSITY OF EDINBURGH TRAVEL SURVEY

Conclusions

Table 5-1 Progress to 2021 Targets

Description	2016 Value	Target	2017 Value	2020 Value
Increase the proportion of staff travelling on foot to University to 30% (25% in 2016) and students to 60% (57% in 2016).	Staff 25% Students 57%	30% 60%	25% 54%	25.9% 50.4%
Increase the proportion of students and staff cycling to University to 15% (from 13% in 2016) (to match Edinburgh Council Local Transport Strategy Target.)	13%	15%	13%	11.6%
Through negotiation with Lothian Buses, seek to introduce a number of student ticketing options better suited and priced to the needs of our students.			48% of students felt affordability was good or very good	36% of students felt affordability was good or excellent
Public transport provision to and between University sites regarded as good to excellent by 75% of our student and staff users as measured in our bi-annual travel survey.		75%	Overall, none of the measured categories reached the 75% satisfaction target.	59.3%
Reduce car driving to 29% or less at each University campus. (excluding Easter Bush) (to match Edinburgh Council Local Transport Strategy Target)	All sites achieved this except Pollock Halls	29%	All sites achieved this except Pollock Halls	All sites achieved this except Pollock Halls
Increase the proportion of parking permit holders using an electric vehicle from 0.4% in 2016-17 to 2%.	0.4% 7 respondents	2%	8 respondents	1.6%⁶
Increase the proportion of electric vehicles in the University fleet from 4% in 2016-17 to 30%.	Not measured through Travel Survey			

Table 5-1 shows that, disappointingly, progress has not been made towards achieving many of the targets identified in the *Integrated Transport Plan 2017 – 2021*. But there are some positives to be taken, as follows:

- Overall there has been a 3.3% increase in the total percentage of staff and students using public transport to access the University.
- Travel patterns of staff continue on a positive trend since 2000 with active travel and public transport use on the increase and car travel on the decrease.

⁶ 41 of 2,599



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Conclusions

- While car use amongst students has increased since 2017, it is less than any of the previous survey years stretching back to 2000 and public transport use has increased by around 5% since 2017.
- Positive steps have been made in raising awareness of the various initiatives the University provide to encourage sustainable travel.
- Crucially, although the transport emissions associated with the daily commute to the University have increased since 2017, this is mainly attributable to an increase in the total number of staff and the increased distance students are travelling by bus and rail and the emissions per person have generally fallen.

The modes staff and students choose to travel to the University are also impacted by wider trends in transport and society and cannot be completely influenced by the University. Some evidence suggests that staff and students are living further from the University location they are based at; the proportion of staff and students using the train to access the University since 2000 has almost doubled.

One reason that walking amongst students may have decreased is the increased uptake of the King's Buildings shuttle bus.

Encouraging Sustainable Travel

Only 6% of staff and 6% of students use the Just East Cycle hire scheme for commuting or otherwise and it is recommended that increased promotion and / or provision around the University would increase uptake.

Across all locations, both staff and students stated that 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.

At all locations improved footway / pavement / footpath surfaces and improved lighting on footways were the most commonly identified measures that would improve or encourage walking.

At BioQuarter, Easter Bush and Pollock Halls, where car travel is the dominant mode, increased bus provision would be positive to encourage a shift to this mode.

Recommendations

A separate spreadsheet tool 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 spreadsheet tool 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.



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Conclusions

It is recommended that for the next iteration of the travel survey, in 2021, the key questions are kept the same and the methodology repeated to allow direct comparisons with the results of the 2019 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 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 1 shows the DEFRA carbon emissions values by mode and compares them to those used in the 2017 reporting.



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Appendix A Carbon Footprint Methodology

Table A 1 Carbon Emission Values by Mode (2019 v 2017)

Mode	Category	Kg CO ₂ e/mile (2017)	Kg CO ₂ e/mile (2019)
Car (petrol)	Small	0.252	0.247
	Medium	0.314	0.309
	Large	0.459	0.455
	Average	0.299	0.291
Car (diesel)	Small	0.234	0.171
	Medium	0.280	0.275
	Large	0.351	0.337
	Average	0.288	0.279
Electric Vehicle (battery)		0.129	0.097
Hybrid	Medium	0.181	0.173
	Large	0.210	0.210
Unknown car		0.294	0.285
Motorcycle	Up to 125cc	0.136	0.136
	125cc to 500cc	0.166	0.166
	Over 500cc	0.218	0.217
Public Bus		0.197	0.169
Shuttle Bus		0.197	0.170
Rail		0.075	0.066
Taxi		0.251	0.292
Tram		0.072	0.035

