

CHANCELLOR'S BUILDING

Transport Assessment

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Chancellor's Building
Transport Assessment
Version -
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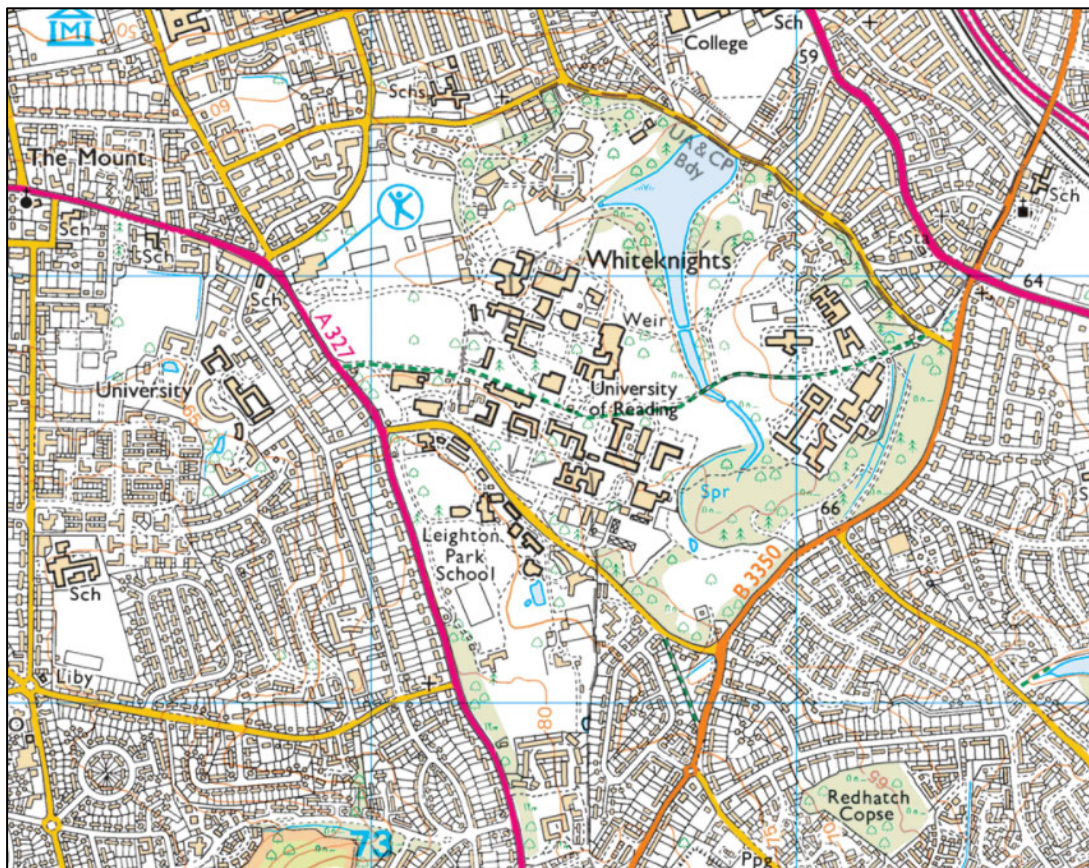
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1 INTRODUCTION

- 1.1 RPS has been commissioned to prepare a Transport Assessment (TA) in support of a planning application for the Chancellor's Building at the Whiteknights Campus at the University of Reading (UoR), Whiteknights Road. The proposed site location is shown on **Figure 1** and the site masterplan is shown at **Appendix A**.

Figure 1: Site Location



- 1.2 A temporary consent was granted for the Chancellor's Building for a five year period in 2016. The application sought to construct a temporary building on the site of the former Rural History Centre (RHC) located on The Chancellor's Way. This was to accept the staff and students which were temporarily relocated as part of the University of Reading's 2026 TRANSFORM programme, which seeks to modernise a number of buildings across the campus.
- 1.3 The Chancellor's Building was required for about 5 years in order to support the implementation of the various development projects across the campus over this time.
- 1.4 It is now proposed for the Chancellor's Building to remain in place indefinitely.

Report Structure

- 1.5 This TA considers the highway and transport matters associated with the proposed development and has been produced in accordance with the National Planning Policy Framework (NPPF) and Planning Practice Guidance: Travel Plans, Transport Assessments and Statements (PPG).
- 1.6 The remainder of the report is divided into the following sections:
- Section 2: Existing Situation;
 - Section 3: Transport Policy and Guidance;
 - Section 4: Development Proposals;
 - Section 5: Trip Generation and Development Impact; and
 - Section 6: Summary and Conclusions.
- 1.7 This report concludes that there are no transport or highways related reasons for not permitting this development.

2 EXISTING SITUATION

- 2.1 This section describes the existing transport facilities around the site such as pedestrian access, cycle access and parking, public transport, car access, base traffic flows and personal injury accident data.

Highway Network and Access

- 2.2 Chancellor's Way is a private road and operates one-way west to east, providing an egress from the campus onto the A327 Shinfield Road. The one-way operation is a choice by the University rather than being mandated through a formal Traffic Regulation Order made by the Highway Authority.
- 2.3 The Whiteknights Campus has an internal private road network which links buildings on the campus to The Queens Drive access/egress onto A327 Shinfield Road, The Chancellor's Way egress onto A327 Shinfield Road, and the Pepper Lane access / egress. The site is bounded by the Russell Building and Car Park 7 to the south and The Chancellor's Way and sports pitches to the north.
- 2.4 The majority of the internal campus road network is subject to a 20mph restricted speed limit (10mph in some places), and has a range of traffic calming measures, including zebra crossings and road narrowing. The Chancellor's Way, on which the site is located, has a priority T-junction onto A327 Shinfield Road at its western end for vehicles exiting to campus.
- 2.5 The Campus itself is located east of A327 Shinfield Road, north-east of Pepper Lane, north-west of B3350 Wilderness Road, south-west of Whiteknights Road and south of Upper Redlands Road. The Campus is approximately 2.6 kilometres to the south-east of Reading town centre. The campus spans both Reading and Wokingham Borough areas.

Accessibility

Pedestrian Provision

- 2.6 Whiteknights Campus is conducive to pedestrian movements with a network of traffic-free footpaths throughout the campus connecting to the various academic, catering, leisure and other facilities in addition to halls of residence. This includes a public footpath running along The Chancellor's Way adjacent to the proposed The Chancellor's Way Building.
- 2.7 There are several pedestrian crossing points within the campus internal road network for the safety of students, staff and visitors including on all arms of the mini roundabout north of the Queens Drive access point into the campus.
- 2.8 The Queen's Drive provides pedestrian access from the central point of the campus to the University sports centre and has footway provision on its northern and eastern side. The Queen's Drive forms a priority 'T' junction with the A327 Shinfield Road, and 140 metres further north the signalised junction between A327 / Elmhurst Road / Redlands Road is located. There is a controlled pedestrian crossing on the A327 arm of the junction and an uncontrolled pedestrian crossing point marked by a traffic island and pedestrian refuges on the Elmhurst Road arm. A parade of shops is located on the south-western side of the A237 immediately north of the

- junction which students and staff are likely to access. Northcourt Avenue forms a minor arm to the A237 immediately south of the parade of shops which leads to halls of residence.
- 2.9 The route travelling north along Redlands Road provides access to Royal Berkshire Hospital, other University of Reading halls and facilities. There is footway provision on both sides of Redlands Road.
- 2.10 The most direct walking route from the Whiteknights Campus into Reading town centre is via the A327 Christchurch Road / Mount Pleasant / Southampton Street north-west of the signalised junction with Redlands Road / Elmhurst Road, covering a distance of approximately 2.5 kilometres. There is footway provision along the length of the A327 into the town centre, accompanied by street lighting, dropped kerbs and tactile paving at junctions with side roads and controlled pedestrian crossing points at major junctions and across the A327 itself. Bridge Street and London Street provided routes into the town centre area from the A327. There is footway provision and safe crossing points on both these routes. There are several commercial, retail and leisure facilities in the town centre along Broad Street, St Mary's Butts, Gun Street, Minster Street, Friar Street (and interconnecting streets) and within the Oracle shopping centre.
- 2.11 Reading railway station is located 550 metres in walking distance to the north of Castle Street / Gun Street / Bridge Street crossroad junction. The total walking distance between the railway station and Chancellor's Way building is circa 3 kilometres.

Cycle Provision

- 2.12 The UoR encourages staff, students and visitors to cycle to access University facilities, therefore the campus has good levels of infrastructure to facilitate this. There are some shared and segregated cycleways / footpaths within the eastern Campus grounds, and through the main area of the Campus, cyclists are currently encouraged to use campus access roads but may share pedestrian routes with pedestrians having priority.
- 2.13 Reading Borough Council has issued a cycle route map for the Reading area, identifying the suitability of cycle routes in the south-west part of the town. Reading's cycle network connects all the town's major public facilities, employment and leisure areas. There are several cycle routes in the vicinity of the Whiteknights Campus:
- R20 routes from Reading town centre to the Lower Earley Way roundabout via Whiteknights Road. R20 is an on-road cycle route between London Road to the north, and the Lower Earley Way roundabout to the east and therefore provides a direct route from the site to the wider cycle routes throughout Reading. R20 also provides direct access from the campus to Earley railway station;
 - R2 is an additional on-road route accessed from Redlands Road via the Shinfield Road entrance to the Whiteknights campus. R2 routes from Reading town centre, routing south to Lower Earley centre; and
 - R30 routes along Wokingham Road and is accessible approximately 200m from the UoR Whiteknights access. Route R30 routes north along Wokingham Road to Reading town centre.
- 2.14 Redlands Road and Erleigh Road (accessed north from Whiteknights Road) form junctions with the A4 London Road, which exhibits a blue signed shared cycleway / footway on both sides of

the carriageway separated from the traffic. The A4 London Road serves as a link cycle route between Reading town centre and routes R2, R20 and R30. Watlington Street routes north from the A4 opposite Redlands Road and offers an on-road cycle route. The town centre area can then be reached from the traffic-free cycle route on the southern side of River Kennet and Yield Hall Place. This is the long distance National Cycle Network Route 4 which follows the Kennet and Avon Canal. Route 5 is accessible from the footbridge at the River Thames / Kennet confluence east of Cholmeley Road, which routes north towards Oxfordshire.

- 2.15 Reading railway station can be reached by continuing north on London Street, Duke Street, The Forbury and Forbury Road. There is secure and covered cycle parking available at the railway station.

Bus Services

- 2.16 There is a bus stop located adjacent to the development site on Chancellor's Way, served by Reading Bus service 21 / 21a. The bus stop has a large shelter with seating, street lighting, real time travel information and a litter bin. The Claret 21a operates from Chancellor's Way during University term time, with an average frequency of one service every 15 minutes. Routes 21/21a route between Reading and Lower Earley via the Whiteknights campus.
- 2.17 Additional bus stops are provided outside of the University campus on the A327 with the northbound and southbound bus stops located either side of the priority 'T' junction with The Chancellor's Way. Both bus stops are marked by a flag and pole with the addition of a shelter, seating and real time information for the northbound stop. Reading Bus services 3, 8 and 9 call at these stops which operate throughout the year and are not constrained to University term time.
- 2.18 The bus service details are outlined below in **Table 2.1** with their routes attached at **Appendix B**.

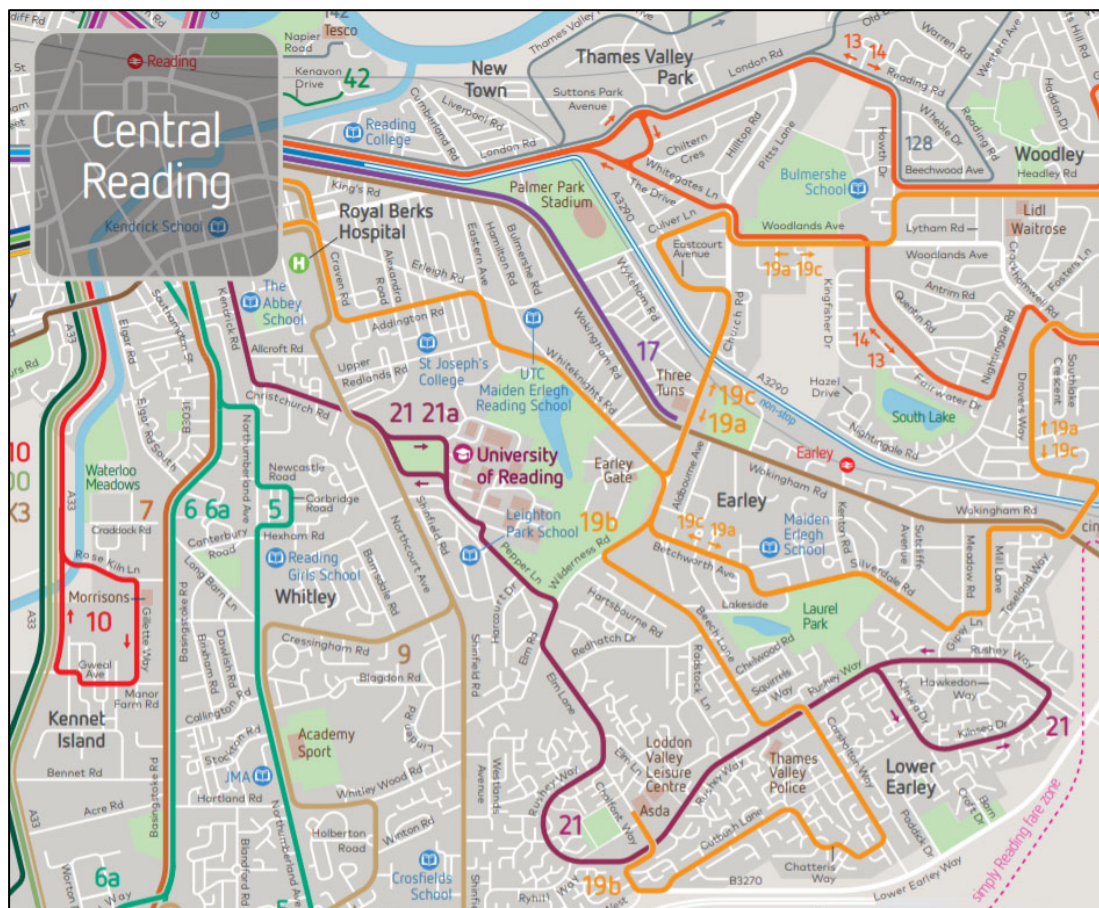
Table 2.1: Local Bus Services

Stop	Service	Operator	Route	Weekday				
				Frequency (per hour)			Time	
				AM Peak	Off Peak	PM Peak	First Service	Last Service
Chancellor's Way	21 / 21A	Reading Buses	Lower Earley – St Mary's Butts	4	4	4	00:09	23:41
A327 opposite Chancellor's Way	3	Reading Buses	Wokingham – Shinfield – St Mary's Butts	2	3	2	05:59	00:02
A327 opposite Chancellor's Way	8	Reading Buses	Spencers Wood – St Mary's Butts	1	1	1	05:38	23:22
A327 opposite Chancellor's Way	9	Reading Buses	Spencers Wood – St Mary's Butts	1	1	1	06:19	19:33

- 2.19 The bus services set out in **Table 2.1** combine to offer bus frequencies of only seven minutes.

- 2.20 Additional bus stops are located 1.3km from the Chancellor's Building, on Whiteknights Road approximately 30m and 50m to the south of the Earley Gate access, facilitating travel in both directions. The following bus services operate from the Earley Gate bus stops:
- Bus service 19a circulates between Reading town centre, Woodley and Earley with an hourly frequency;
 - Bus service 19b routes between Reading town centre and Lower Earley District Centre, with an hourly frequency; and
 - Bus service 19c circulates between Reading town centre, Woodley and Earley with an hourly frequency.
- 2.21 These bus routes either commence or terminate at Reading railway station which provides rail services to several key regional and national destinations.
- 2.22 A summary of the bus routes within the vicinity of the Whiteknights Campus is set out in **Figure 2**.

Figure 2: Reading Bus Services Network Map



Source: Reading Buses

Rail Services

- 2.23 Earley Railway Station is located approximately 2.5km from the proposed development site access, equating to a 31-minute walk. From Earley, regular services between Reading and London Waterloo operate with a half-hourly frequency in both directions.
- 2.24 Reading Railway Station is located approximately 2.9km walk from the development site, equating to a 37-minute walk. As aforementioned, several bus services accessible from the Whiteknights campus commence or terminate at Reading railway station, therefore allowing staff and visitors to the site to combine modes of public transport in their commute.
- 2.25 A summary of the services available from Earley and Reading railway stations are summarised in **Table 2.2**.

Table 2.2: Rail Services

Station	Destination	Average Frequency (minutes)
Earley	Reading	30
	London Waterloo	30
Reading	London Waterloo	30
	London Paddington	8
	Basingstoke	16
	Plymouth	60
	Cardiff Central	30
	Bournemouth	60
	Didcot Parkway	15
	Bristol Temple Meads	15
	Cheltenham Spa	60 (direct service)
	Newbury	20
	Manchester Piccadilly (via Birmingham)	60
	Newcastle (via Birmingham)	60

- 2.26 It should be noted that the services listed in **Table 2.2** is not an exhaustive list of the destinations accessible from Reading railway station, and each rail line serves multiple destinations between Reading railway station and the final destination along each route.
- 2.27 Combined with rail and bus services, the site is very accessible for staff and students, particularly for those enrolled at the university part time and travelling longer distances infrequently. Reading railway station is a major transport hub and the network of rail services makes it very accessible by rail.

Personal Injury Accident Data

- 2.28 Personal Injury Accident (PIA) data has been obtained for the latest available five-year period. The extent of the search area includes the A327 from the signalised junction with Redlands Road / Elmhurst Road, to the Pepper Lane junction.
- 2.29 The data shows that 11 PIAs were recorded during the time period, all of which were slight injury accidents. No serious or fatal incidents occurred during the time period.
- 2.30 There was a cluster of four injury accidents reported at the Elmhurst Road / A327 Shinfield Road junction:
- One slight injury accident occurred in May 2017 involving two vehicles and resulting in one casualty;
 - Two slight injury accidents occurred in June 2017 involving two vehicles and resulting in one casualty; and
 - One slight injury accident occurred in August 2015, involving one vehicle and resulting in two casualties.
- 2.31 All of the injury accidents occurred at different locations and there were no further clusters of injury accidents. This combined with the low number of injury accidents suggests there are no aspects with the local highway network that contributes to an existing road safety issue.

Traffic Flow Data

- 2.32 For the purposes of the original 2016 planning application, traffic surveys of the movement of people into and around the campus by all modes of travel were undertaken in October 2015, giving new starters to the University time to familiarise themselves and develop travel patterns.
- 2.33 The University also operates an Automatic Number Plate Recognition system (ANPR) at the site accesses and egresses and data for University term time Tuesdays and Thursdays in April 2015 were examined for the previous Transport Assessment for the temporary consent (RPS Reference JNY8671-01B). Whilst the ANPR did not guarantee to pick-up every vehicle, the vast majority of vehicles were captured and the proportions of arrivals and departures from each access/egress were examined.
- 2.34 For the purpose of vehicle movements, the construction of a car park on The Queen's Drive was being undertaken at the time when traffic surveys were undertaken. This resulted in temporary traffic management one-way operation of The Queen's Drive for vehicles between 0700 and 1600 daily. In order to ensure that traffic flows were considered on a 'neutral' basis when temporary traffic management was not in place, the recorded traffic surveys were compared with the proportions of arrivals and departures from the accesses and egresses from the University recorded through the ANPR surveys.
- 2.35 For morning peak and inter-peak periods the ANPR proportions were used to re-proportion the recorded traffic departures at The Chancellor's Way and The Queen's Drive. For the evening peak, when traffic surveys were recorded when temporary traffic management was lifted, the proportions of departures recorded and those from the ANPR results are similar and therefore the traffic survey departures were not re-proportioned.

- 2.36 The resulting traffic flows into and out of the University during each time period for a 2015 base year is set out in **Table 2.3**. These are the same traffic flows that were utilised in the previous Transport Assessment for the temporary consent, which were deemed representative and acceptable.

Table 2.3: 2015 Base Traffic Flows

Access / Egress	AM Peak 08:00 - 09:00*			PM Peak 17:00 - 18:00		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
1. Chancellor's Way	0	38	57	0	131	128
2. Pepper Lane	604	84	688	84	365	449
3. Earley Gate	278	43	321	125	115	240
4. Queens Drive	325	74	380	180	152	335

Access / Egress	Inter Peak 11:00 - 12:00*			Inter Peak 12:00 -13:00*		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way
1. Chancellor's Way	0	24	25	0	39	40
2. Pepper Lane	81	95	176	87	150	237
3. Earley Gate	128	76	204	136	77	213
4. Queens Drive	135	76	210	147	101	247

Notes: * indicates that recorded traffic flows have been re-proportioned for The Chancellor's Way and The Queens Drive based upon ANPR records to account for the effect of temporary traffic management on The Queens Drive when traffic flows were recorded.

- 2.37 The UoR undertakes travel surveys every 2 years in accordance with the requirements of its Travel Plan. Travel Survey reports were published in 2014, 2016 and 2018, details of which are set out in **Section 5**.

Summary

- 2.38 This site accessibility appraisal demonstrates that the Chancellor's Building and Whiteknights Campus as a whole are highly accessible and can be reached by sustainable modes from a large range of local and regional destinations; this accords with the University's sustainability principles and local and national policy. It should be further emphasised that a wide range of facilities are located within the campus boundaries itself which internalise staff, student and visitor trips.

3 TRANSPORT POLICY

- 3.1 This section details the transport policy documents against which the development proposals will be considered from national and local guidelines.

National Planning Policy Framework (NPPF)

- 3.2 The NPPF, dated February 2019, sets out the government's planning policies for England and how these are expected to be applied. National policy in relation to the transport planning of developments is set out in the NPPF.
- 3.3 Key sections from section 9: 'Providing Sustainable Transport – considering development proposals' are summarised below.
- 3.4 When considering development proposals, paragraph 108 states the following:
- “In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:
- Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;
 - Safe and suitable access to the site can be achieved for all users; and
 - Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.”
- 3.5 Paragraph 109 states the following:
- “Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”
- 3.6 Paragraph 111 states the following:
- “All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement of transport assessment so that the likely impacts of the proposal can be assessed.”
- 3.7 With regard to parking, Paragraph 105 of the NPPF states the following:
- “If setting local parking standards for residential and non-residential development, policies should take into account:
- The accessibility of the development;
 - The type, mix and use of the development;
 - The availability of and opportunities for Public Transport;
 - Low car ownership levels; and
 - the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.”

3.8 Paragraph 106 states the following:

“Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with Chapter 11 of this Framework). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists.”

Planning Practice Guidance (PPG) ‘Travel Plans, Transport Assessments and Statements (March 2014)’

3.9 *Planning Practice Guidance “Travel Plans, Transport Assessments and Statements”* provides a concise report on the use and importance of Transport Assessments / Statements and Travel Plans.

3.10 With regard to whether to provide a Transport Assessment, Transport Statement or no assessment, the guidance states;

“Local planning authorities, developers, relevant transport authorities, and neighbourhood planning organisations should agree what evaluation is needed in each instance.”

3.11 The guidance states that Transport Assessments / Statements and Travel Plans can positively contribute to the following:

- “encouraging sustainable travel;
- lessening traffic generation and its detrimental impacts;
- reducing carbon emissions and climate impacts;
- creating accessible, connected, inclusive communities;
- improving health outcomes and quality of life;
- improving road safety; and
- reducing the need for new development to increase existing road capacity or provide new roads.”

3.12 The PPG states that Transport Assessments should be proportionate to the size and scope of the proposed development to which they relate and build on existing information wherever possible. They should be established at the earliest practicable possible stage of a development proposal and be tailored to particular local circumstances.

3.13 The guidance continues by stating that these reports should be brought forward through collaborative ongoing working between the Local Planning Authority / Transport Authority, transport operators, Rail Network Operators, Highways Agency and other relevant bodies.

- 3.14 With regard to parking, the guidance moves away from the use of maximum parking guidance and states the following:

“Maximum parking standards can lead to poor quality development and congested streets, local planning authorities should seek to ensure parking provision is appropriate to the needs of the development and not reduced below a level that could be considered reasonable.”

Local Policy

- 3.15 The campus spans both Reading and Wokingham Borough areas; therefore, WBC and RBC policy will be set out in the paragraphs below.

Reading Borough Council Local Plan (adopted November 2019)

- 3.16 The Local Plan for Reading is the document that contains the policies for how Reading will develop up to 2036, which is the end date of the plan. It identifies the amount of development that will take place, the areas and sites where development is expected to be accommodated, and where it will be restricted, and sets out policies for how planning applications will be decided.
- 3.17 Policy ER2 relates to the Whiteknights Campus at the University of Reading. Policy ER2 states the following:

“The University of Reading is a national and international educational establishment of strategic importance which will continue to adapt and expand over the plan period. The Whiteknights Campus as shown on the Proposals Map will continue to be a focus for development associated with the University of Reading. Such development may include additional staff, teaching, research and enterprise accommodation, infrastructure and services, and sports and leisure facilities among other uses. Access to and within the site will be improved where necessary.

Where development would result in a material need for additional students to be housed, it should be supported by an appropriate increase in existing or planned student accommodation. Provision of new student accommodation on the Whiteknights Campus, or as a reconfiguration or extension of nearby dedicated accommodation, will therefore be acceptable subject to other policies in the Plan.

Development will accord with the following criteria:

- Areas of wildlife significance and current or potential green links will be retained or enhanced, and not detrimentally affected by development, including through light effects;
- The safety of those using the campus will be maintained or enhanced;
- There will be no significant detrimental impact on the amenity of neighbouring residential properties; and
- The loss of undeveloped areas on the site will be weighed against the benefits of development to the wider community.”

- 3.18 Paragraph 9.3.8 states that students, staff and visitors need to be supported by services, facilities and infrastructure. This policy is therefore required for the part of the Whiteknights campus that lies within the Borough.

- 3.19 Paragraph 9.3.12 states that developments will need to consider matters such as parking (TR5 and Parking and Design Standards SPD), biodiversity (EN12), the historic environment (EN1-EN6), residential amenity (CC8) and landscape (EN13).

Policy TR5: Parking Standards

- 3.20 Policy TR5: Car and Cycle Parking and Electric Vehicle Charging Points states that development should provide car parking and cycle parking that is appropriate to the accessibility of locations within the Borough to sustainable transport facilities, particularly public transport.

Development should make provision for electric vehicle charging points within communal car parks for residential or non-residential developments of at least 10 spaces, 10% of spaces should provide an active charging point.

Wokingham Borough Council Local Transport Plan 2011-2026

- 3.21 The WBC Local Transport Plan (LTP) 2011-2026 is the third LTP for WBC and provides details of how the Council intends to improve transport and accessibility over the duration of 2011 to 2026. The LTP aims to address the transport and wider local challenges related to transport facing WBC. Wokingham's LTP supports the national priorities of transport as an engine for economic growth, building a balanced dynamic low carbon economy, greener & safer transport and improving the quality of life in our communities.
- 3.22 Policy AT1: Increasing opportunities to walk and cycle, states that WBC will actively encourage integrating walking and cycling routes and facilities into key destinations including: Retail, Leisure and Social Facilities; Public Transport interchanges; Schools, Colleges and other educational facilities; and Employment Areas.
- 3.23 Wokingham Borough Council's Core Strategy policy CP6 describes the need to manage travel demand. This states that:

"Planning permission will be granted for schemes that:

- a. Provide for sustainable forms of transport to allow choice;
- b. Are located where there are or will be at the time of development choices in the mode of transport available and which minimise the distance people need to travel;
- c. Improve the existing infrastructure network, including road, rail and public transport, enhance facilities for pedestrians and cyclists, including provision for those with reduced mobility, and other users;
- d. Provide appropriate vehicular parking, having regard to car ownership;
- e. Mitigate any adverse effects upon the local and strategic transport network that arise from the development proposed;
- f. Enhance road safety; and
- g. Do not cause highway problems or lead to traffic related environmental problems."

4 DEVELOPMENT PROPOSALS

- 4.1 The Chancellor's Building was granted full planning consent in June 2016 for a temporary five-year period. It currently houses the School of Construction Management and Engineering following its relocation from the URS and Engineering buildings as well as providing an alternative teaching space over the course of further campus improvements as part of the University's 2026 TRANSFORM project.
- 4.2 A Transport Assessment was prepared in support of the 2016 planning application and this was prepared on the predication of the building being a temporary location in which to decant students whilst other works were ongoing. The 2016 Transport Assessment therefore considered the effects during construction of the Chancellor's Building and in particular focussed on the construction traffic management arrangements, taking into account other projects and improvement works scheduled to be undertaken on the Whiteknights campus.
- 4.3 It is now proposed for the Chancellor's Building to remain in place indefinitely. The proposals could be seen as a permanent increase in teaching space and associated increase in staff and students, however, this is not necessarily the case.
- 4.4 The Chancellor's Building is located on the site of the former Rural History Centre, which itself was formerly an active on-campus building. Teaching is decanted to the Chancellor's Building as part of its temporary use but this does not coincide with any changes in staff and student numbers over and above the annual variation in student intake and numbers of staff and students on campus.

Site Access

- 4.5 Access will remain unchanged from Chancellor's Way, which is a private road operating one-way west to east, providing an egress from the campus onto the A327 Shinfield Road. The one-way operation is a choice by the University rather than being mandated through a formal Traffic Regulation Order made by the Highway Authority.
- 4.6 The Whiteknights Campus has an internal private road network which links buildings on the campus to The Queens Drive access/egress onto A327 Shinfield Road, The Chancellor's Way egress onto A327 Shinfield Road, and the Pepper Lane access/egress.

Parking Provision

- 4.7 Car parking for the Chancellor's Building will make use of the existing facilities across the campus. There are two disabled car parking spaces provided on the western side, the dimensions of which accord with current guidance.
- 4.8 Cycle parking is provided on the eastern side, where there are circa 36 Sheffield stands, providing capacity of circa 72 cycle spaces.

5 TRIP GENERATION AND DEVELOPMENT IMPACT

- 5.1 This section sets out the estimated trip generation and transport impact as a result of the development proposals.

Onsite Facilities and Building Capacity

- 5.2 The existing Chancellor's Building contains 46 staff and research offices with desk space for 99 staff and researchers plus seminar rooms and classrooms that have been designed to accommodate an upper limit capacity of 880 students.
- 5.3 An upper limit capacity of 880 is simply a design capacity and assumes all seminar rooms and classrooms are all fully occupied to their upper limit and all in use simultaneously. This does not occur in practice.
- 5.4 This is in part because the rooms provide a range of teaching facilities that are not always in use but form only a part of the syllabus. For example, laboratories are only required for parts of the syllabus that require such work (for example, one lecture per week), therefore they are not in use all the time, but such facilities need to be provided to deliver the syllabus.
- 5.5 These numbers are therefore an upper limit for the design capacity and they do not reflect the practical capacity or the practical occupation of the Chancellor's Building.

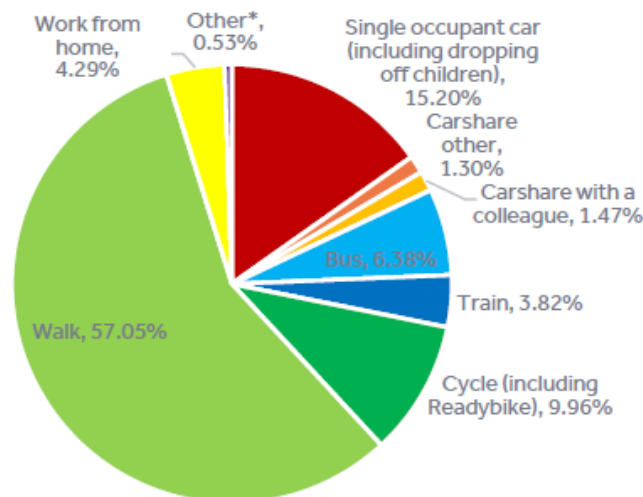
Travel Patterns at the University

- 5.6 The Whiteknights Campus is conducive to pedestrian movements with a network of traffic-free footpaths throughout the campus connecting to the various academic, catering, leisure and other facilities in addition to halls of residence. The majority of students live locally to the campus and primarily utilise walking and cycling when travelling around the campus.
- 5.7 The UoR undertakes travel surveys every 2 years in accordance with the requirements of the Travel Plan. The 2018 report highlights the findings of the 2018 University of Reading Staff and Student Travel Survey. The aims of the 2018 survey include monitoring of the SOV (single occupant vehicle) mode share against their Travel Plan (2017) targets and identifying opportunities to promote and facilitate sustainable travel at the University.
- 5.8 Data was collected using the Survey Monkey online tool between 8 January and 7 February 2018. The 2018 Travel Survey Report is attached at **Appendix C**.

Mode Share

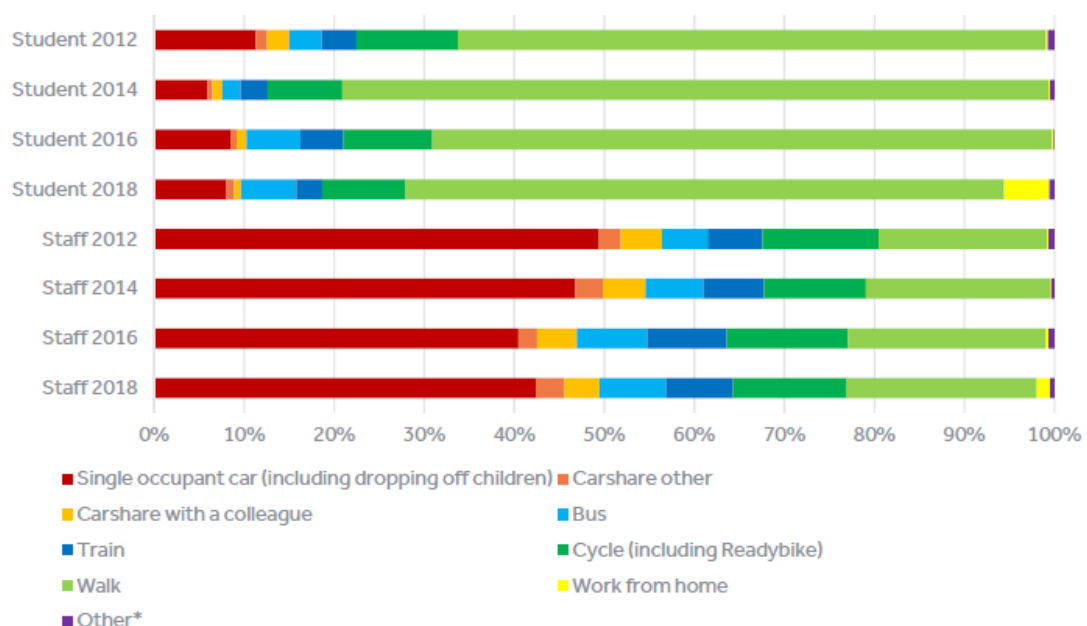
- 5.9 The recorded mode share as extracted from the 2018 travel survey is set out on **Figure 3**.

Figure 3: 2018 Mode of Travel



- 5.10 It should be noted that **Figure 3** does not provide a breakdown of the mode share of staff and students separately. As the Whiteknights Campus provides accommodation for students, it is expected that a greater proportion of students would walk to the Chancellor's Building in comparison to staff.
- 5.11 **Figure 4**, taken from the 2018 Travel Survey, breaks down the mode shares into staff and students.

Figure 4: Staff and Student Mode Shares



5.12 The 2018 Travel Survey Report also summarises some of its key finding relating to the mode share:

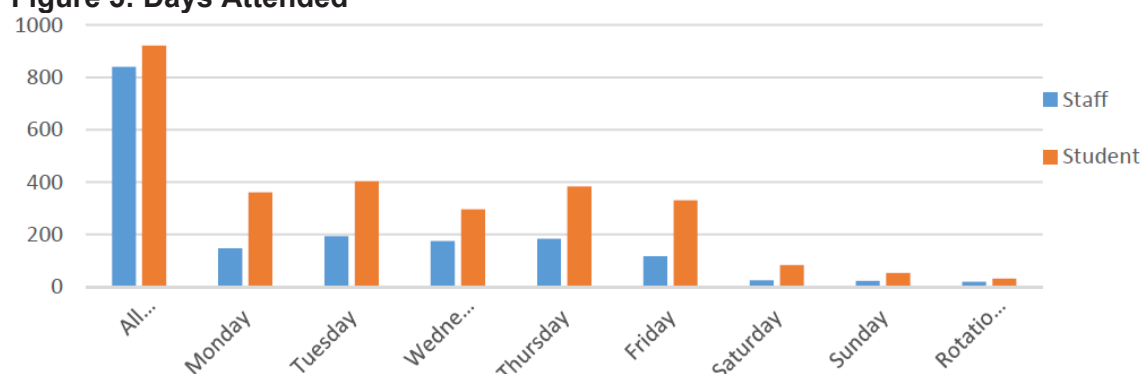
- University staff and students use a range of different modes to reach the UoR campuses rather than just a single main mode every single day. This could be different modes on different days, or using multiple modes within a journey (e.g. train then bus);
- A large number of staff report working from home a few times a month or a few times a year;
- A large number of students work from home a few times a week;
- A much higher level of bus use is demonstrated than was indicated by main mode alone (7%), with higher levels of staff and students using the bus most days (presumably as part of a journey with a different main mode, e.g. train); a few times a month; or a few time a week;
- Students are particularly unlikely to consider driving to the University; and
- The mode both staff and students do not currently use but would most likely consider in future is cycling. Work from home and bus are also considered.

Number of Staff and Students on Site Per Day

5.13 Section 1.1 of the appendices of the 2018 Travel Survey sets out that the majority of staff and students attend the University throughout the week, Monday to Friday. The quietest day for students is Wednesday, and for staff is Friday followed by Monday. Tuesdays and Thursdays are the busiest days for both staff and students on campus.

5.14 The 2018 Travel Survey details the number of days that staff and students attend the university. This data is summarised in **Figure 5**.

Figure 5: Days Attended



Arrival and Departure Times

5.15 The 2018 Travel Survey report details the typical arrival and departure times for staff and students across the university:

- Staff have a much more staggered arrival time than students, starting from 06:30 with the majority on campus by 09:15;

- Peak staff arrival is between 08:15 and 09:15;
- Despite the fact that for the vast majority of students their arrival times vary a lot each day, there is a definite peak arrival time on campus between 08:46 and 09:15 with over 25% of students arriving at this time each day;
- Therefore 08:45 to 09:15 is the busiest time for both staff and students to arrive; and
- Student departure time from the University is much more varied, the peak is 17.46 to 18.15 but this is only 12% of students. The peak staff departure time is 16.46 – 17.15, with many staff also leaving the university until 17.45 and again until 18.15.

5.16 The typical arrival times for staff and students is set out in **Figure 6**, with the typical departure times set out in **Figure 7**.

Figure 6: Typical Arrival Times

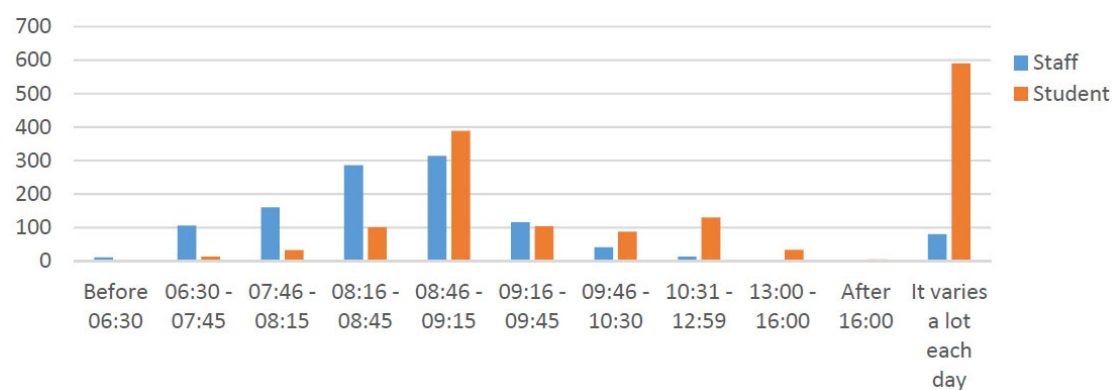
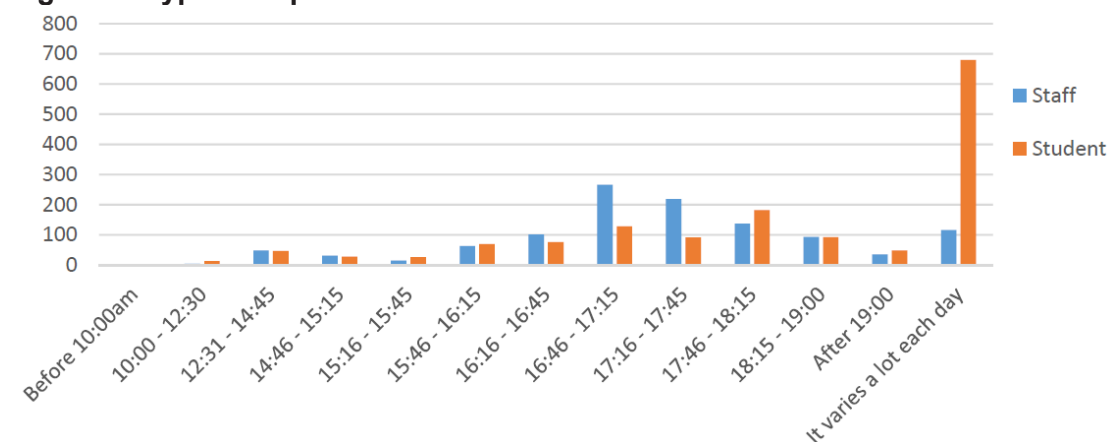


Figure 7: Typical Departure Times



Trip Generation

- 5.17 Based on the above, the following assumptions have been made to estimate the person trip movement at the Chancellor's Building:
- Assume a practical capacity of 50% of the upper limit design capacity for students but no such assumption for staff or researchers (i.e. 100%);
 - Apply the above mode shares derived from the 2018 Travel Survey to students and staff;
 - The proportions of staff and students on site on each weekday have been applied using data derived from the 2018 Travel Survey to calculate the number of staff and students on site on an average weekday;
 - The proportions of arrivals for the typical AM peak hour (08:00-09:00) have been applied to calculate the number of staff and students arriving to the site via each mode of travel; and
 - The proportions of arrivals for the typical PM peak hour (17:00-18:00) have been applied to calculate the number of staff and students departing from the site via each mode of travel.
- 5.18 The total daily trip generation at the Chancellor's Building for a typical weekday is calculated at **Appendix D** and summarised in **Table 5.1**.

Table 5.1: Average Weekday Trip Generation

Method of Travel	Mode Share		Weekday Average		
	Student	Staff	Student	Staff	Total
Walking	69.5%	21.8%	299	8	307
Cycling	9.5%	12.7%	41	5	46
Bus	6.8%	8.1%	29	3	33
Train	3.2%	8.1%	14	3	17
Car Driver / SOV	8.4%	42.6%	36	17	53
Car share with colleague	1.1%	3.6%	5	1	6
Car share other	1.1%	2.5%	5	1	6
Other	0.5%	0.5%	2	0	2
Total	100.0%	100.0%	430	39	469

- 5.19 **Table 5.1** sets out that across a typical weekday, there are 430 student person trips and 39 staff person trips generated. Of these, only 8.37% of students travel as car drivers equating to 36 daily vehicle movements. A further 42.6% of staff trips are undertaken as car drivers, resulting in 17 daily vehicle movements on a typical weekday.
- 5.20 The AM peak hour trip generation is set out in **Table 5.2**.

Table 5.2: Average Weekday 08:00-09:00 Trip Generation

Mode of Travel - Arrivals	Average Weekday		
	Student	Staff	Total
Walking	80	3	83
Cycling	11	2	12
Bus	8	1	9
Train	4	1	5
Car Driver / SOV	10	5	15
Car share with colleague	1	0	2
Car share other	1	0	2
Other	1	0	1
Total	115	12	127

5.21 The PM peak hour trip generation is set out in **Table 5.3**.

Table 5.3: Average Weekday 17:00-18:00 Trip Generation

Mode of Travel - Departures	Average Weekday		
	Student	Staff	Total
Walking	49	2	52
Cycling	7	1	8
Bus	5	1	6
Train	2	1	3
Car Driver / SOV	6	4	10
Car share with colleague	1	0	1
Car share other	1	0	1
Other	0	0	0
Total	71	10	81

5.22 **Tables 5.2 and 5.3** confirm that the highest number of trips (127) occur during the AM peak hour. Of these, 83 are on foot, 12 are by bicycle, nine are by bus, five are by train, 15 are as a car driver and five are by car sharing / other.

Transport Impact

5.23 By themselves, the trips generated at the Chancellor's Building are low and would not create or significantly add to any highway congestion, public transport overcrowding or footway overcrowding. They are negligible in the context of the total number of trips across the Whiteknights Campus.

5.24 The Chancellor's Building may not be regarded as a permanent increase in teaching space and associated increase in staff and students because they have been decanted from other parts of the Campus, in which case these trips would already be generated onto the transport network.

- 5.25 Notwithstanding, even if these trips were to be considered as ‘new’, they are low and would not be considered to result in a cumulative impact on the highway network that is severe (NPPF test).

Road Safety

- 5.26 **Section 2** sets out that there are no existing road safety issues within the vicinity of the site.
- 5.27 The proposed development would generate vehicle movements in a similar way to the current road users in the vicinity and would use the A327 Shinfield Road to access the wider highway network.
- 5.28 Therefore, there is nothing to suggest that the Chancellor’s Building, if it were to be regarded as ‘new’ would alter the injury accident rates within its vicinity. It is therefore considered that the proposed development would not result in an unacceptable impact on road safety (NPPF test).

Summary

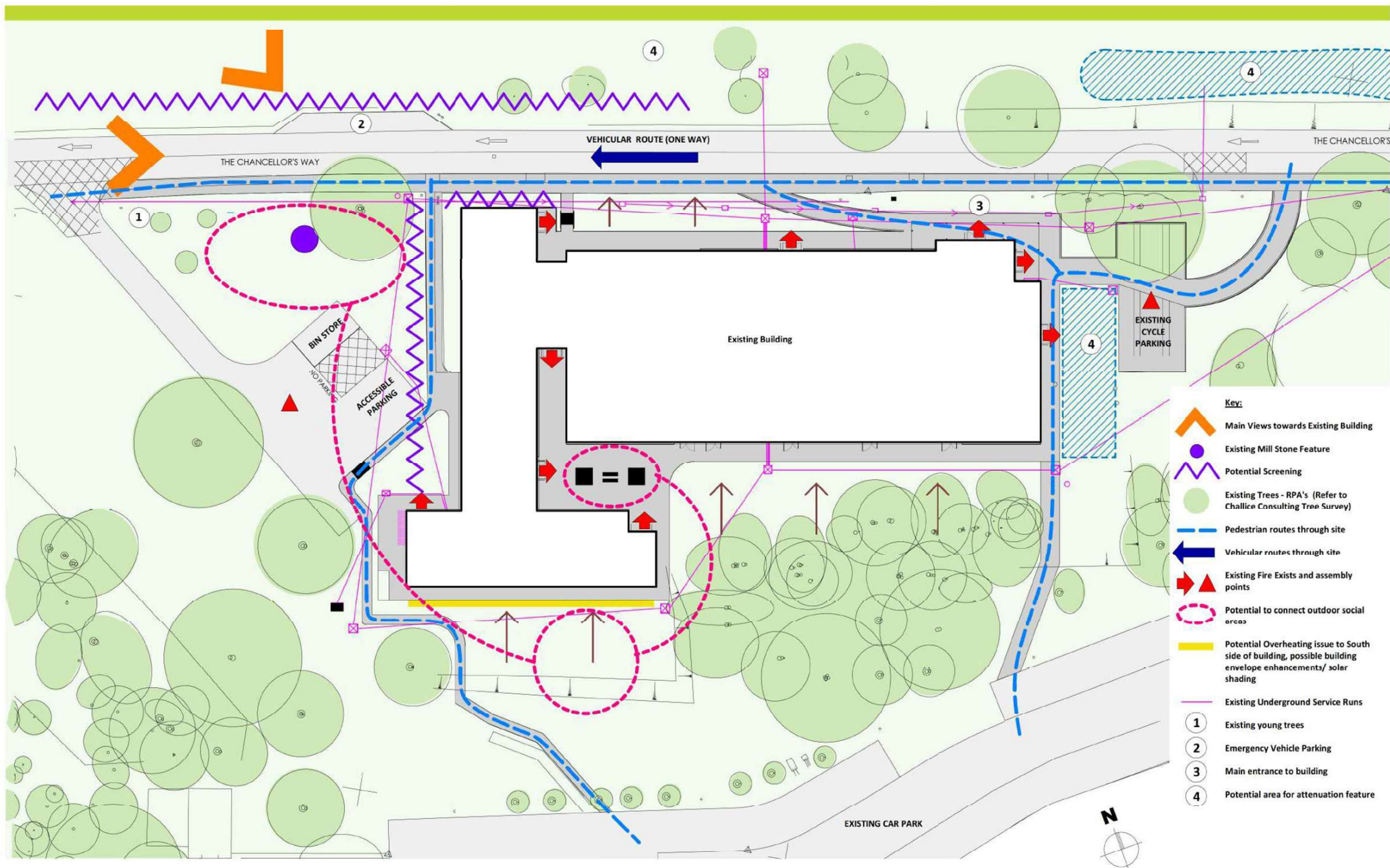
- 5.29 The above has set out that the development proposals will result in a net increase of only 53 daily vehicle movements per day, of which 15 occur during the AM peak hour and 10 occur during the PM peak hour. This is well within what would typically be considered to be day-to-day variations in traffic flows.
- 5.30 The vehicle movements would thus not create a severe impact upon the highway network.
- 5.31 The NPPF states in paragraph 109:
 “Developments should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”
- 5.32 The analysis based on the assessment work has demonstrated that the proposed development would not result in a severe impact on the road network or an unacceptable impact on highway safety.

6 SUMMARY AND CONCLUSIONS

- 6.1 This Transport Assessment report assesses the transport and travel implications of the University of Reading's proposal for the Chancellor's Building to remain in place indefinitely.
- 6.2 Consent was granted for the Chancellor's Building for a five year period in 2016. The application sought to construct a temporary building on the site of the former Rural History Centre (RHC) located on The Chancellor's Way. This was to accept the staff and students which were temporarily relocated as part of the University of Reading's 2026 TRANSFORM programme, which seeks to modernise a number of buildings across the campus.
- 6.3 The Chancellor's Building may not be regarded as a permanent increase in teaching space and associated increase in staff and students because they have been decanted from other parts of the Campus, in which case these trips would already be generated onto the transport network.
- 6.4 Notwithstanding, even if these trips were to be considered as 'new', the proposal will not lead to a significant increase staff or student numbers at the University as a whole. Car parking and demand will be catered for using the existing facilities within the campus, there are two disabled car parking spaces on the western side of the building and there are circa 72 cycle parking spaces on the eastern side of the building.
- 6.5 No transport implications are predicted and it is therefore considered that there are no traffic or transport reasons for not permitting development.

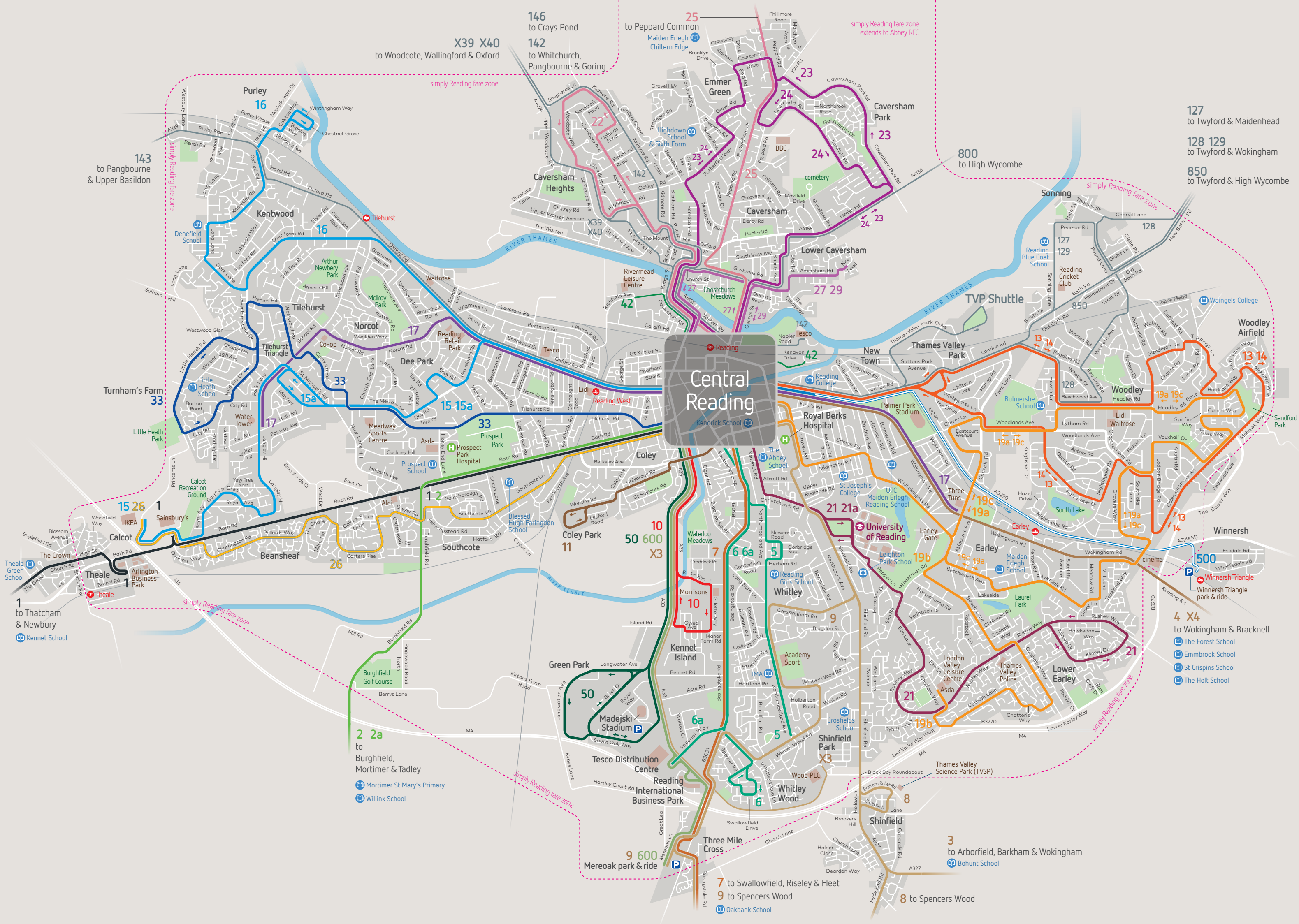
Appendices

Appendix A – Site Masterplan



Chancellors Building, Reading University
(S)05revA - Constraints and Opportunities Plan

Appendix B – Bus Routes



143
to Pangbourne
& Upper Basildon

X39 X40
to Woodcote, Wallingford & Oxford

146
to Crays Pond
142
to Whitchurch,
Pangbourne & Goring

25
to Peppard Common
Maiden Erleigh
Chiltern Edge

simply Reading fare zone
extends to Abbey RFC

800
to High Wycombe

127
to Twyford & Maidenhead
128 129
to Twyford & Wokingham
850
to Twyford & High Wycombe

1
to Thatcham
& Newbury
Kennet School

2 2a
to Burghfield,
Mortimer & Tadley
Mortimer St Mary's Primary
Willink School

9 600
Mere oak park & ride

7 to Swallowfield, Riseley & Fleet
9 to Spencers Wood
Oakbank School

3
to Arborfield, Barkham & Wokingham
Bohunt School

8 to Spencers Wood

4 X4
to Wokingham & Bracknell
The Forest School
Emmbrook School
St Crispins School
The Holt School

500
Winnersh Triangle
Winnersh Triangle
park & ride

Central
Reading
Kendrick School

Appendix C – 2018 Travel Survey Report

UNIVERSITY TRAVEL SURVEY 2018 RESULTS

Results report of the 2018 University of Reading staff
and student travel survey

1 CONTENTS

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4	Travel Plan targets	9
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7	Driving and car initiatives	22
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1 Summary

1.1 Context

This report highlights the findings of the 2018 University of Reading Staff and Student Travel Survey. The aims of the 2018 survey include monitoring of the SOV (single occupant vehicle) modal split against our Travel Plan (2017) targets, and identifying opportunities to promote and facilitate sustainable travel at the University.

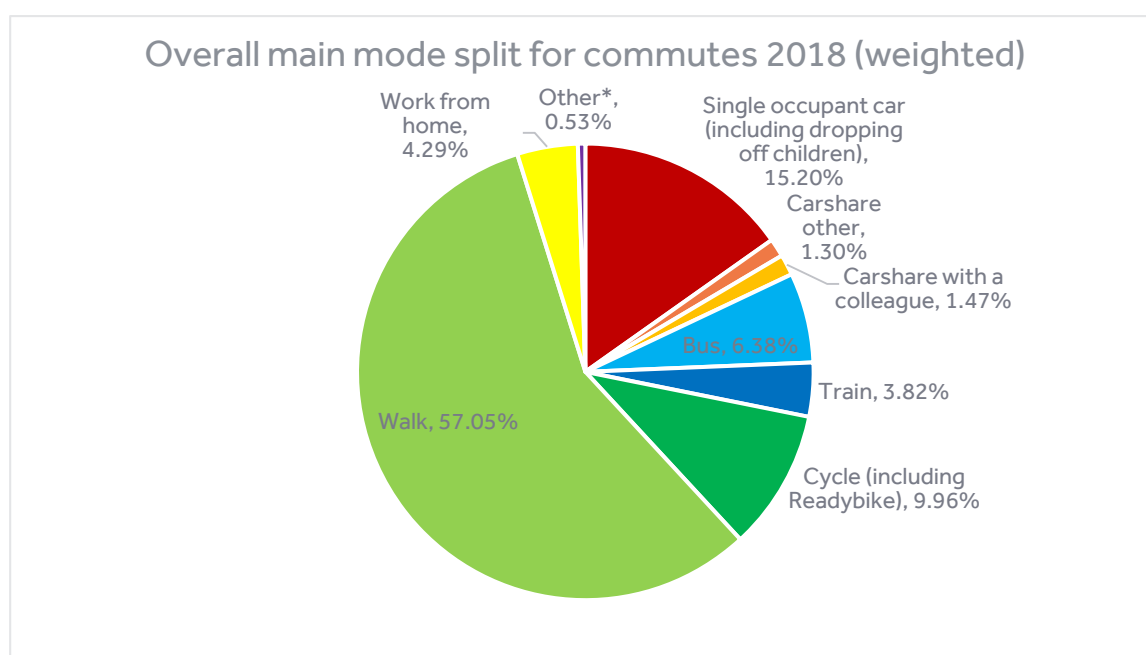
1.2 Methodology and response rates

Data was collected using the Survey Monkey online tool between 8 January and 7 February 2018. 1566 complete responses were received from staff and students across the University; a student response rate of 4.4% and a staff response rate of 18.9%. This number of responses, while not as high as in previous years, nevertheless provides a useful picture of travel to the University and helps identify areas where improvements can be made.

1.3 Results – modal splits and targets

The overall (combined staff and student) modal split for commutes to the University in 2018 is shown below:

Figure 1: Combined staff and student commute mode split 2018



The University Travel Plan (2017) sets a headline target of 83% of commuter travel to the University to be by other than SOV by 2022. Figure 1 shows that as 15.2% of overall commutes were by SOV that this target for 2022 is currently being exceeded.

This however does not provide the full picture as improved data has meant alterations to how our overall SOV rates have been calculated since the 2017 Travel Plan. Details of these changes are provided within the body of this report. Individual staff and student SOV rates are considerably further from meeting their 2022 targets. Staff SOV rates have in fact increased slightly since 2016 (by 2%) and student rates reduced by only 0.5%, so these individual targets now look more challenging to achieve.

1.4 Key issues identified

The survey data aids with understanding the issues faced by staff and students when commuting to the University. It helps identify initiatives and actions that would improve travel to the University by sustainable modes and therefore facilitates choice to travel by these modes. Some of the common issues and suggestions raised in the 2018 survey are summarised below.

- **Travel Plan targets** - our modal split targets need reviewing since we have improved the way we calculate SOV rates.
- **Shared routes / paths on campus** - Complaints about the path between Friends Bridge and Agriculture have substantially reduced since it was widened. The route with the most issues reported (other than the Quads) was Hopkins to Friends Bridge which has since been widened at Easter 2018. The areas with next priority include Queen's Drive; the route from RUSU to Black Bridge; and routes to the Halls.
 - The quads continue to receive large numbers of reports of pedestrian and cyclist issues. As the proposed Quad remodelling is unlikely to take place in the near future it may be worth reviewing what minor improvements can be made here.
 - Requests for cycle lanes on campus remain, but have reduced in number since 2016, perhaps because we have explained our reasons for widening paths rather than segregating in the programme of route improvements.
 - The path surface and the access gate to the path through the Wilderness remains a concern to many pedestrians and cyclists.
- **Off campus routes and pedestrian crossings** – Concerns over lack of pedestrian crossings outside campus entrances including at Pepper Lane; Christchurch Green and Whiteknights Road.
- **Showers and changing facilities** – availability and quality of showers and changing facilities on campus is a key concern to cyclists in particular. Locations cited without a nearby shower included: Russell Building; Polly Vacher and JJT.
 - The condition of the showers and changing facilities on campus was also a concern, with some not having hooks or benches to keep clothes dry and not having space to change. Where only a single shower is available this could result in concerns of queuing.
- **Lockers** – requests for lockers for a range of purposes were received including from students for cycle helmets; and shower users for shower equipment. The feedback received in the travel survey has fed into a separate student led project looking at installing lockers on campus.
- **Gated cycle parking** – a number of requests were received for additional gated cycle parking provision on campus, but without a clear indication of preferred additional locations.
- **Cycle lights** - a barrier noted for some cyclists using lights was a fear of them being stolen. This issue could be solved via education regarding removing lights when not in use. The Sustain it emergency lights giveaway was appreciated.
- **Working from home** – is a frequently used occasional 'mode' by many University staff. The most popular reasons for working from home were work related such as finding quiet to concentrate.
 - The most **popular alternative reported by drivers** if they would not be able to drive to campus on a given day was working from home.
 - IT facilities for working from home (or at least staff and students perception and understanding of those facilities) varied greatly across the University.
 - The culture of working from home seems to vary greatly across the University, with some areas allowing it freely while many others permit it but only for occasions with specific need such as waiting for a tradesperson .
- **Bus route 21/21a** - complaints of peak time bus overcrowding and out of term time bus frequency.
- **Bus route 19/9/12** – changes to this route mean that for many staff or students working at Earley Gate there is no longer a bus that allows them to reach work for 9am.

- **Bus tickets** - Staff would like to see a staff discount for occasional bus travel reintroduced.
- **Car sharing** – poor awareness of initiatives supporting car sharing, and requests for improved information.
- **Car club** - poor awareness of the Co-wheels car club car, and requests for improved information.
- **Electric Vehicle Charging** - good awareness of the electric charging points available on campus with requests for additional points in other locations. Usage levels of our existing points are not sufficient to justify the substantial costs involved at this time.
- **Travel information online** - poor awareness of some of the travel offers for staff and students, including the web pages that summarise it.

1.5 Conclusion

The 2018 Travel Survey provides a clear indication of some priorities to consider when reviewing our Travel Plan Action Plan of initiatives to further our progress towards the targets of our University Travel Plan. Some of the key activities that would benefit staff and students identified from the survey include:

- Review of the SOV targets in the light of improved methods of calculation.
- Promotion and advertising of the Co-wheels car club.
- A review of the provision and promotion of the car sharing initiatives available.
- Define and agree a standard specification for shower/changing/storage provision for any major building developments on campus. A review of existing shower and changing facilities on campus.
- A continuation of the campus routes programme widening shared paths.
- Feedback to local councils relating to pedestrian crossings and routes around campus, with a specific focus on a Pepper Lane crossing.
- Feedback to Reading Buses the issues being experienced by peak time and out of term time travellers; as well as those who previously used route 19.
- Contribution of the information on working from home to the University wide review of flexible working practises.
- Improved promotion of the available travel offers via improved webpages and promotion of those pages, particularly to new staff and students.

These suggested activities will be considered for inclusion in the Travel Plan Action Plan which is reviewed annually (see separate document). Action Plan Initiatives are prioritised according the following criteria:

- Priority for inclusion is given to those initiatives with the best potential for achieving our Travel Plan targets of reducing the need to travel to the University by single occupant vehicle.
- Initiatives supporting continued use of sustainable travel modes, addressing issues raised / experienced by larger numbers of the University population are given greater priority.
- Initiatives aligning with the Carbon Hierarchy identified in the Travel Plan (2017), where reducing the need to travel is prioritised over more carbon intensive alternatives to driving.
- Initiatives that fit with other university projects, eg resurfacing of Queen's Drive.

2 Introduction

2.1 Context and report structure

This report sets out the findings of the 2018 University of Reading Staff and Student Travel Survey. The full University Travel Survey is undertaken every two years with the first full survey completed in January 2012. Prior to this a site entry count at the Whiteknights campus was undertaken in 2006.

2.2 Aims of 2018 Survey

- To record the modal split for commutes to our campuses.
- To enable monitoring of the SOV modal split against our Travel Plan (2017) targets.
- To identify opportunities to facilitate and promote sustainable travel at the University in general.
- To identify specific locations which are felt to be the greatest issues for pedestrian and cyclist issues on campus.
- To provide feedback to local Councils and transport operators (eg Reading Buses; Readybike, Co-wheels) relating to how to improve their services for the University Community.
- To monitor awareness of the different initiatives supporting sustainable travel provided through the Travel Plan.
- To fulfil conditions of planning permission for development of the Park Group of Halls by monitoring of trips made by building occupants.
- To learn more about flexible working and working from home practises at the University – both in terms of what is already done and what changes people would like to see. Reducing the need to travel in the first place is a key element of the 2017 Travel Plan.
- To learn about University Business Travel in order to minimise carbon impacts.
- To learn about travel between Reading and London Road campuses in order to minimise carbon impacts.

2.3 Methodology

- The survey data was collected using the online Survey Monkey tool between 8 January and 7 February 2018. The questions used are included as an appendix to this report.
- Promotional channels used included: the staff web portal; the me@reading student portal; In Brief staff newsletter; posters in catering outlets; an image on the Carrington outdoor screen; department secretaries email distribution; an all student news email; social media including Yammer, Twitter and Facebook; paid Facebook adverts; and via UPP halls emails/ notifications.
- RUSU supported via social media as the RUSU President no longer sends all student emails.
- Paper surveys were not distributed this year as all University staff members now have access to email and computers and receive payslips online.
- Two iPads were again offered as a prize draw (one for staff entries, one for student entries) to encourage participation in the survey.

2.4 Responses

- A total of 1566 usable responses were received.
- Student response rate = 4.4%.
- Staff response rate = 18.8%.
- The proportion of responses received from each of our campuses remains reasonably consistent to previous years, with the majority of responses coming from our largest Whiteknights Campus (see Figure 3). **Error! Reference source not found.**
- Very few students at London Road completed the survey this year.
- Overall response numbers/rates were lower than in previous years, but particularly lower for students (see Figure 2).

Figure 2 UoR 2018 Travel Survey response rates, with comparisons to previous years¹

	Response Rate %		No. Survey Responses			University population (actual)		Response proportion staff v student	
Survey / year	Student	Staff	Total responses	Student	Staff	Student	Staff	Student	Staff
2018 Staff & Student	4.39%	18.93%	1566	734	832	16718	4394	46.87%	53.13%
2016 Staff & Student	10.47%	25.35%	2670	1499	1171	14317	4620	56.14%	43.86%
2014 Staff & Student	8.73%	31.37%	2386	1134	1252	12988	3991	47.53%	52.47%
2012 Staff & Student	12.80%	39.94%	3088	1617	1471	12628	3683	52.36%	47.64%

Figure 3: Campus base of travel survey respondents 2012-2018

Year		Whiteknights	Whiteknights (Earley Gate)	London Road	Greenlands	Other	Total
2018		76.8%	12.6%	6.1%	3.5%	1.0%	1566
2018 staff		606	91	79	55	0	832
2018 students		596	107	17	0	14	734
2016		77.6%	13.5%	5.2%	2.2%	1.5%	2632
2016 staff		823	185	67	52	7	1134
2016 students		1220	170	70	5	33	1498
2014		75.6%	15.3%	4.9%	3.2%	0.8%	2387
2014 staff		864	231	73	75	9	1252
2014 students		942	135	45	2	11	1135
2012		76.6%	13.0%	7.8%	1.5%	1.1%	3088
2012 staff		1123	214	76	45	13	1471
2012 students		1243	187	166	1	20	1617

¹ The figures reported in Figure 1 may be slightly different to those included in previous years survey reports due to an updated methodology for calculating University population data each year – see footnote 2 for detail.

3 Modal split of commutes to the University of Reading

The 2018 overall modal split for travel to the University of Reading can be seen in Figure 4, with comparisons to previous years shown in Figure 5. Please see footnote 2 on page 10 for a summary of improvements to how we calculate our modal splits since 2016.

Figure 4 Overall modal split for University of Reading 2018

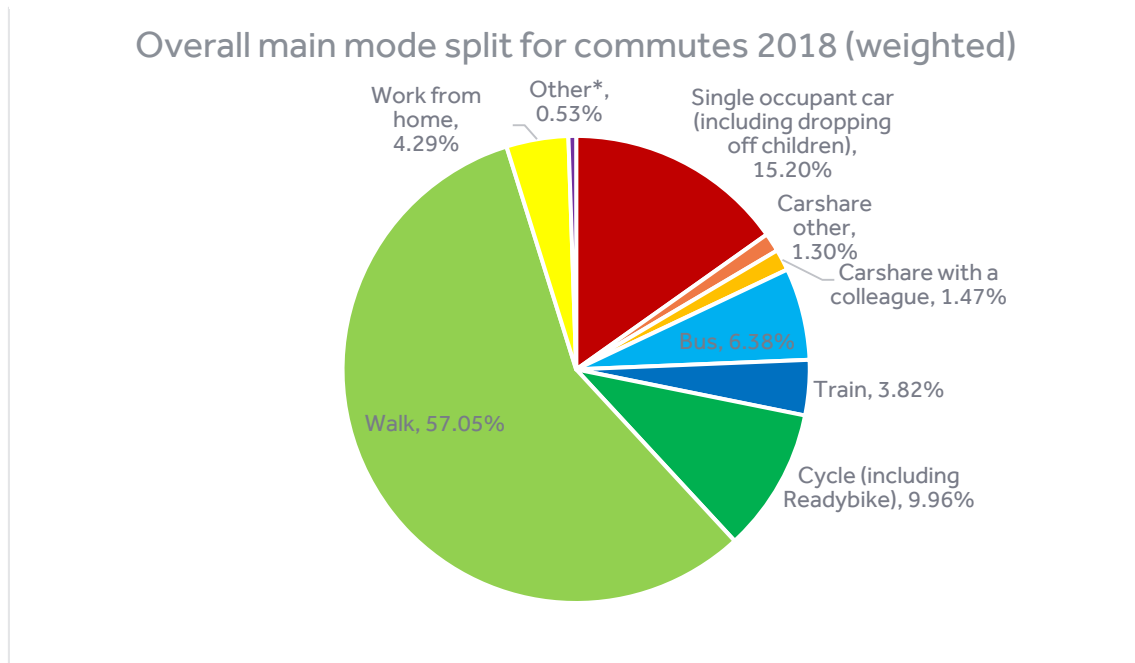
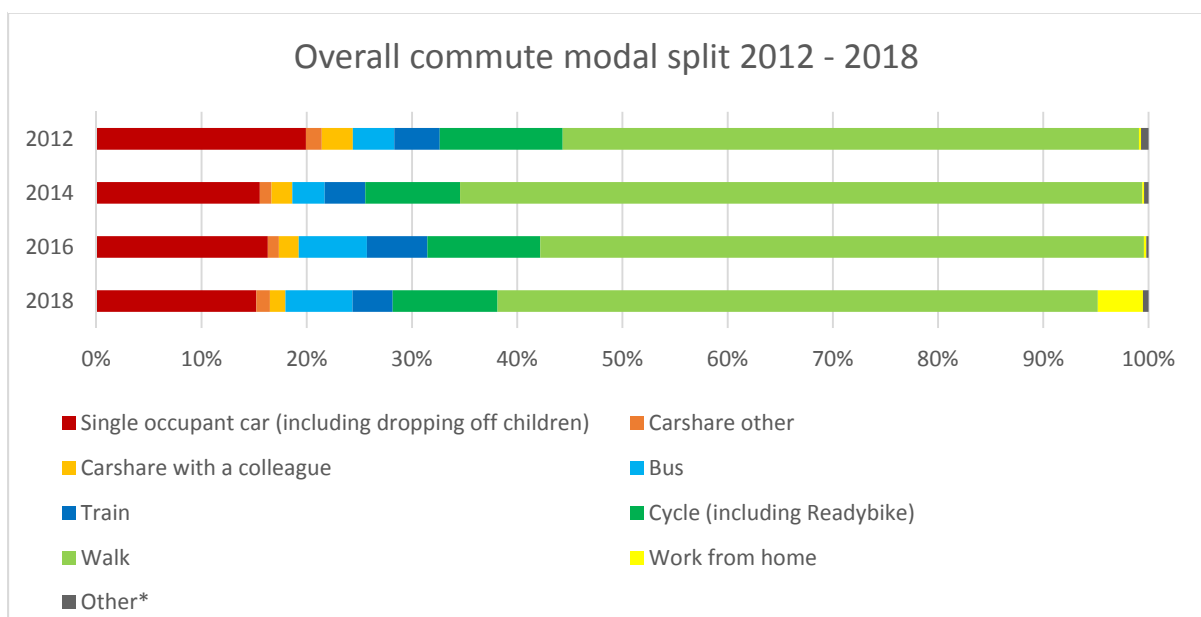


Figure 5: Combined staff and student commute modal split 2012 - 2018



- The majority of commutes to the University remain on foot at 57%.
- There has been a large increase in working from home as the main 'mode' of choice between 2016 and 2018 (see Figure 5).
- Overall cycling rate remains at 10%.
- Train modal split is much lower in 2018 than 2016, it has fallen from 5.73% (2016) to 3.82% in 2018.

Separate modal splits for staff and students are shown in Figure 6.

- Differences between staff and student travel patterns remains similar to previous years.
- Student walking levels have fallen slightly. This could be due to receiving responses from a higher number of non-halls based students in 2016.
- Levels of student drivers has continued to fall slightly to 8%.
- For staff, both cycle and train use have fallen slightly.
- For staff it's the first year that bus proportion has fallen since records started (only by 0.5%).

Figure 6 staff and student modal splits since 2012

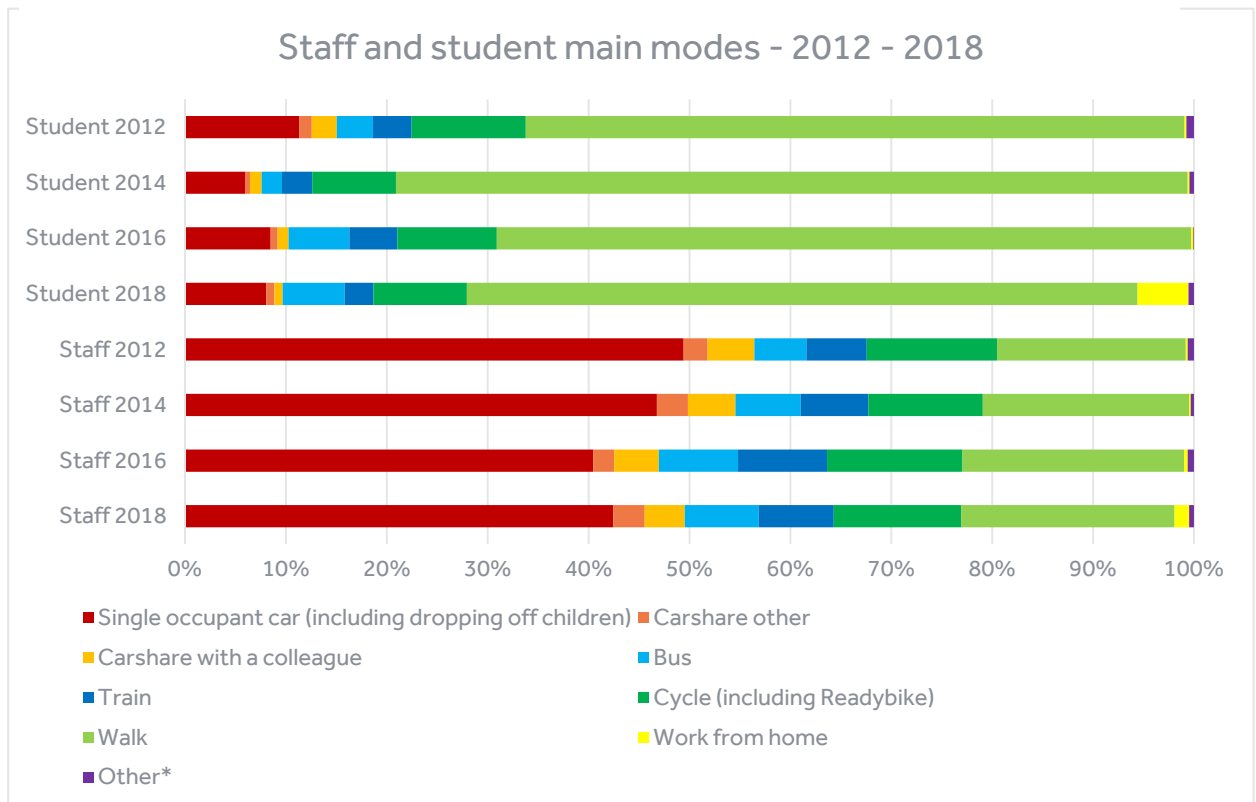


Figure 6 and Figure 7 show not just the main commute mode use, but the frequency with which each of the mode common modes are used, or considered, by staff and students for travelling to the University.

- University staff and students clearly use a range of different modes to reach our campuses rather than just a single main mode every single day. This could be different modes on different days, or using multiple modes within a journey (eg train then bus).
- A large number of staff report working from home a few times a month or a few times a year.
- A large number of students work from home a few times a week.
- A much higher level of bus use is demonstrated than was indicated by main mode alone (7%), with higher levels of staff and students using the bus most days (presumably as part of a journey with a different main mode, eg train); a few times a month; or a few time a week.
- Students are particularly unlikely to consider driving to the University.
- The mode both staff and students do not currently use but would most likely consider in future is cycling. Work from home and bus are also considered.

Figure 7: Frequency of staff use of modes 2018

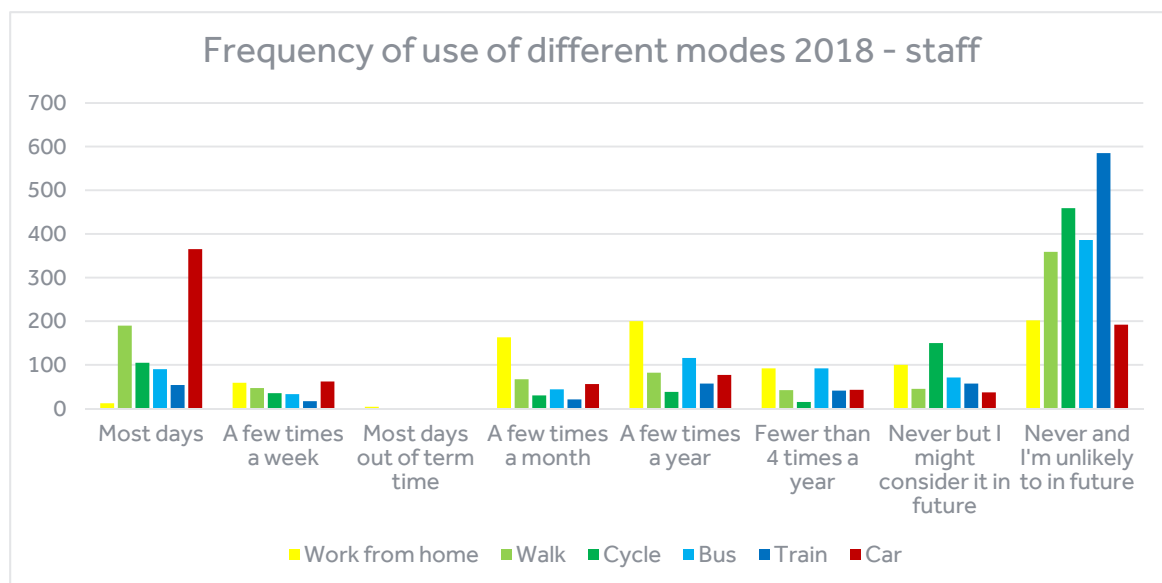
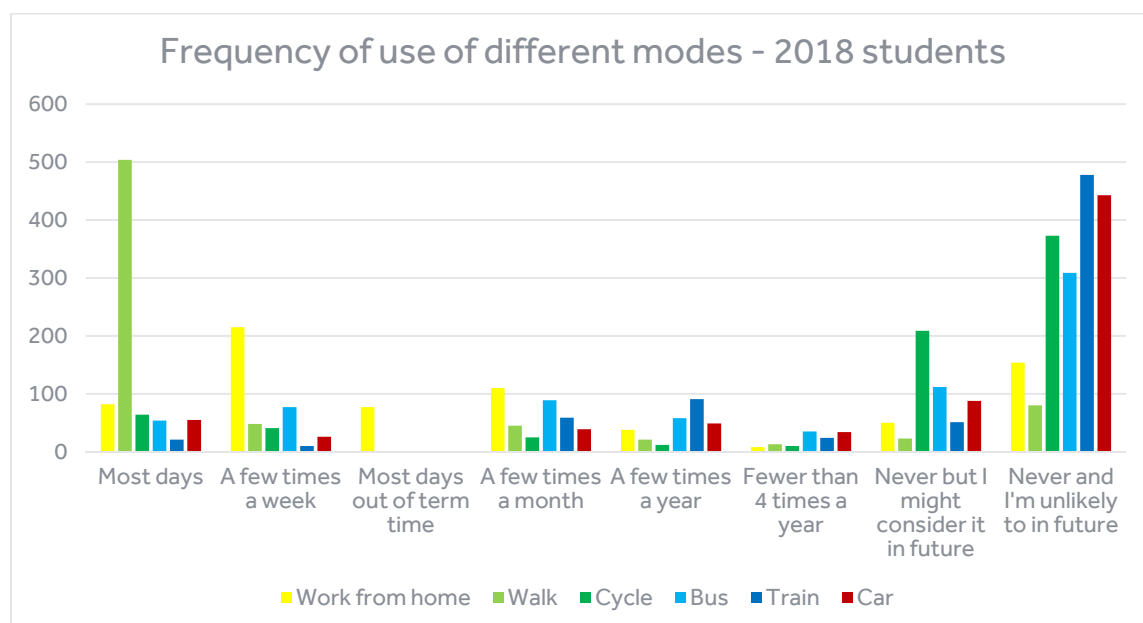


Figure 8: Frequency of student use of modes 2018



4 Travel Plan targets

The University Travel Plan (2017) has a headline target of reducing the proportion of commutes to our campus being undertaken by single occupant vehicle (SOV). The identified headline target levels for commutes to the University by SOV by 2022 are:

SOV percentage and targets from 2017 Travel Plan

	2012	2014	2016	2022 target	Difference 2012-2016	Target difference
Overall	25%	24.5%	20.8%	17.5%	-4.2%	3%
Staff	44%	42%	37%	34%	-7%	3%
Student	8%	6%	8%	5%	0%	3%

4.1 SOV proportion of modal split in 2018:

Following the 2018 travel survey, the proportion of staff and students indicating that single occupant vehicle (SOV) was their main mode of commute to the University is as follows:

Figure 9: Proportion of commutes by SOV compared to targets (includes amended figures 2012-2018 – see footnote

SOV modal %	2012	2014	2016	2018	2022 Target set in 2017 TP
Overall%	19.91%	15.54%	16.24%	15.20%	17.5%
Staff %	49.42%	46.77%	40.42%	42.43%	34%
Student %	11.30%	5.94%	8.44%	8.04%	5%

- Figure 9 shows that the overall rate achieved in 2018 was 15.2%, so the 17.5% target has in fact already been met. This is largely due to improved data (see² for details).
- Overall SOV modal split has reduced by 1% since 2016 to 15.2%.
- Staff SOV% has increased by 2% since 2016. This is concerning and makes our staff 2022 target seem difficult to achieve.
- Student SOV% has reduced by 0.5% since 2016
- As a result of the improved data*, it is proposed to re-visit the targets set, as they now seem somewhat inappropriate.

This report will look at each mode in turn to see what the survey results suggest can be done to address any increases in SOV rate and continue to reduce SOV journeys to our campuses.

2 *Calculating our SOV modal split proportion

Improvements to data have meant that we have made some alterations to how we calculate our SOV modal split proportion since we developed the targets. Two significant changes have been made since the original 83% (17.5% SOV) target was identified:

Improved carsharing data

The 2018 survey was clearer in the question wording relating to car sharing and has identified the need to differentiate between adult passengers (car sharing) or for only children passengers (caring responsibilities and arguably single occupant vehicles as the child would not be driving themselves separately). Given this we have gone back to our data from the previous years and amended our modal split and SOV proportions accordingly.

Weighting of student and staff figures.

We identified an anomaly in the calculations of our targets for the 2017 Travel Plan, as the overall modal split calculations did not use weighting to take account of the vastly different numbers of staff and students that are based at the University, instead viewing them as equal. We have now amended this to better reflect the proportions of staff and students on campus, and their different travel mode patterns. We have now recalculated the modal splits for the previous years. Going forwards overall modal split figures are calculated with weighting.

We would like to additionally conduct weighting based on campus base of the respondents, however accurate campus location data is not currently available within the University so this is something for future.

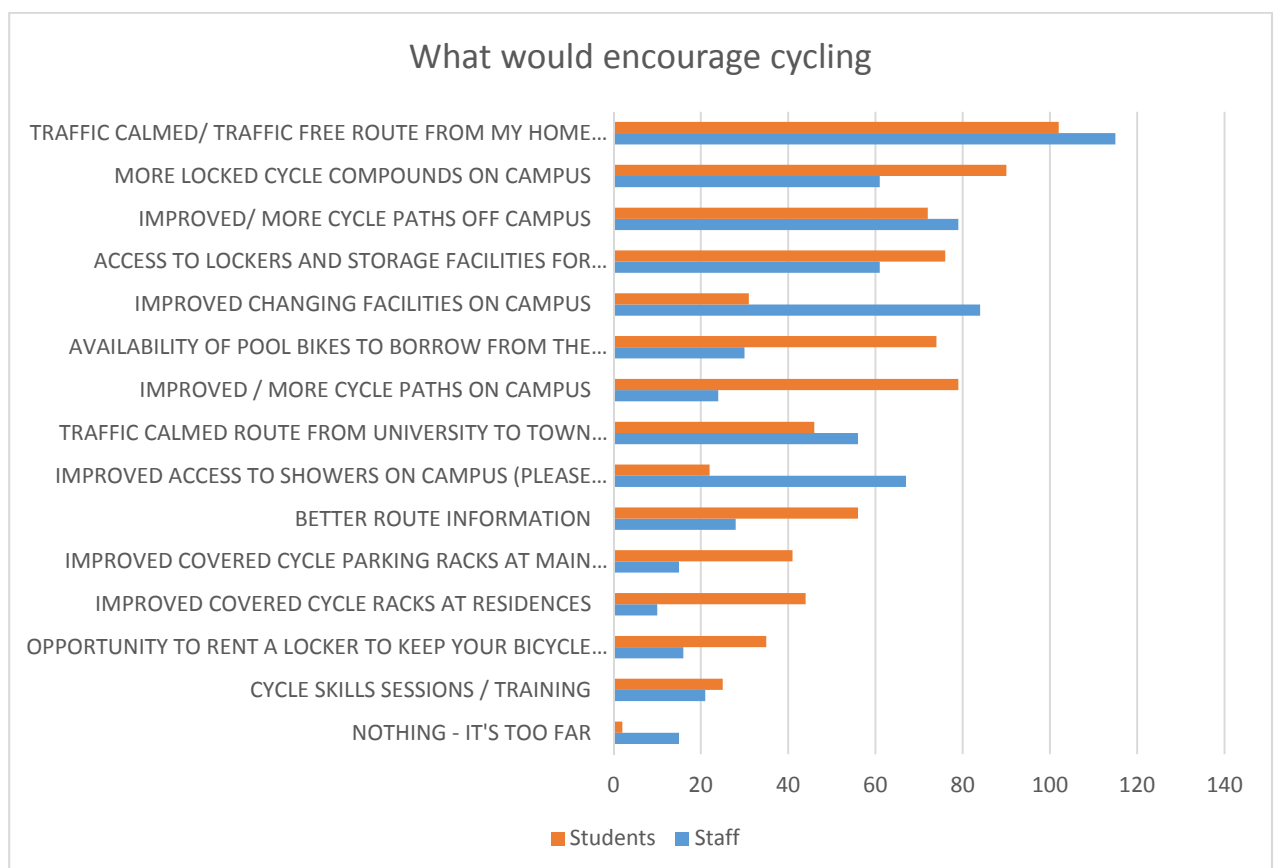
5 Walking and Cycling to the University

- Walking continues to be the most popular commute mode to reach our Reading campuses with nearly 60% of commutes overall undertaken on foot.
- Cycling levels are fairly constant, but have fallen very slightly by less than 0.5%. Ideally we would like to see cycling levels increasing. Cycling is particularly popular among staff and students based at Earley Gate.
- Many staff and students report that they do not currently cycle but would consider doing so in future, indicating scope for increased cycling levels (see Figure 6 & Figure 8 figure in Section 3).

5.1 What would most encourage you to cycle?

Survey respondents were asked to select the top three items that would most encourage them to cycle, or improve their current cycle journey to the University. The responses are shown in Figure 10.

Figure 10: What would most encourage you to cycle?



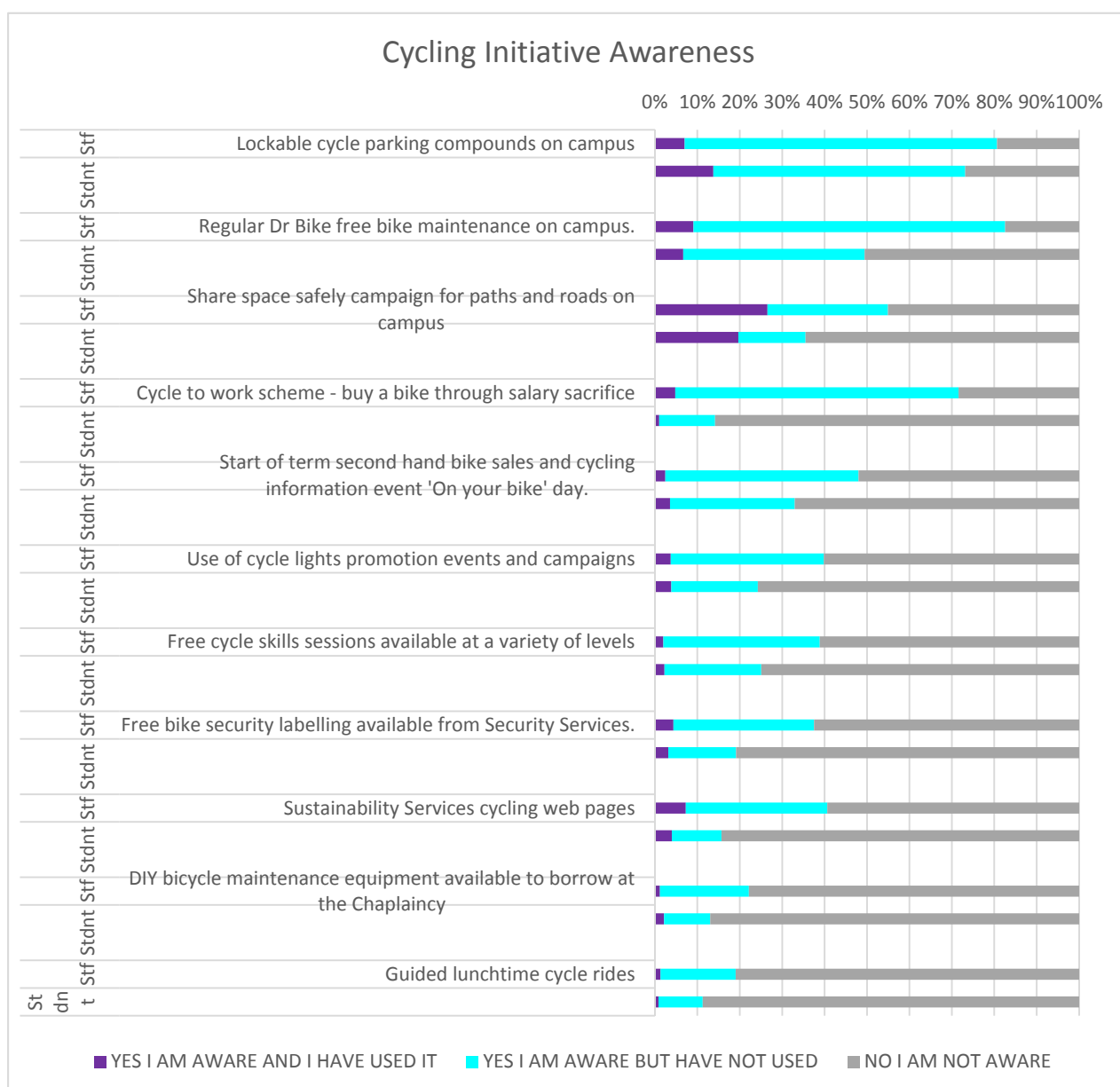
- **Cycle paths and traffic calmed routes off campus** remains the biggest issue for both staff and students. This will be discussed under routes.
- **More locked cycle parking compounds was the second ranked initiative**, however the many comments did not specify locations that they would like to see additional gated cycle parking, or where they did there were only one or two requests for a similar location, so no clear message of location/s for additional cycle parking has emerged.
- **Access to lockers and storage facilities** was the 4th most popular improvement, which will also be discussed in a separate section along with showers (5th most important).
- **Pool bikes** appeared popular in Figure 10, particularly among students. We already have unicycle and Readybike, but this indicates that pool bikes are possibly something to consider further.

5.2 Awareness and use of initiatives

Monitoring both awareness and use of the various initiatives for supporting and encouraging cycling at the University is valuable to understand where further promotion may be required.

- Overall awareness of cycling initiatives is fairly good, particularly when compared to other travel mode initiatives (see Figure 11 and later sections), and has improved or is fairly consistent compared to previous years (see Appendix 3 which shows comparisons to previous years).
- Awareness and use is particularly high for the gated cycle compounds (over 70%); Dr Bike; the share space safely campaign; and of the cycle to work scheme (for staff – 70%). Awareness of the start of term 2nd hand bike sale was much higher than in 2016.
- Awareness levels of the free cycle training sessions has doubled since the 2016 survey which is an excellent reflection of our work with Avanti in providing and promoting these services.

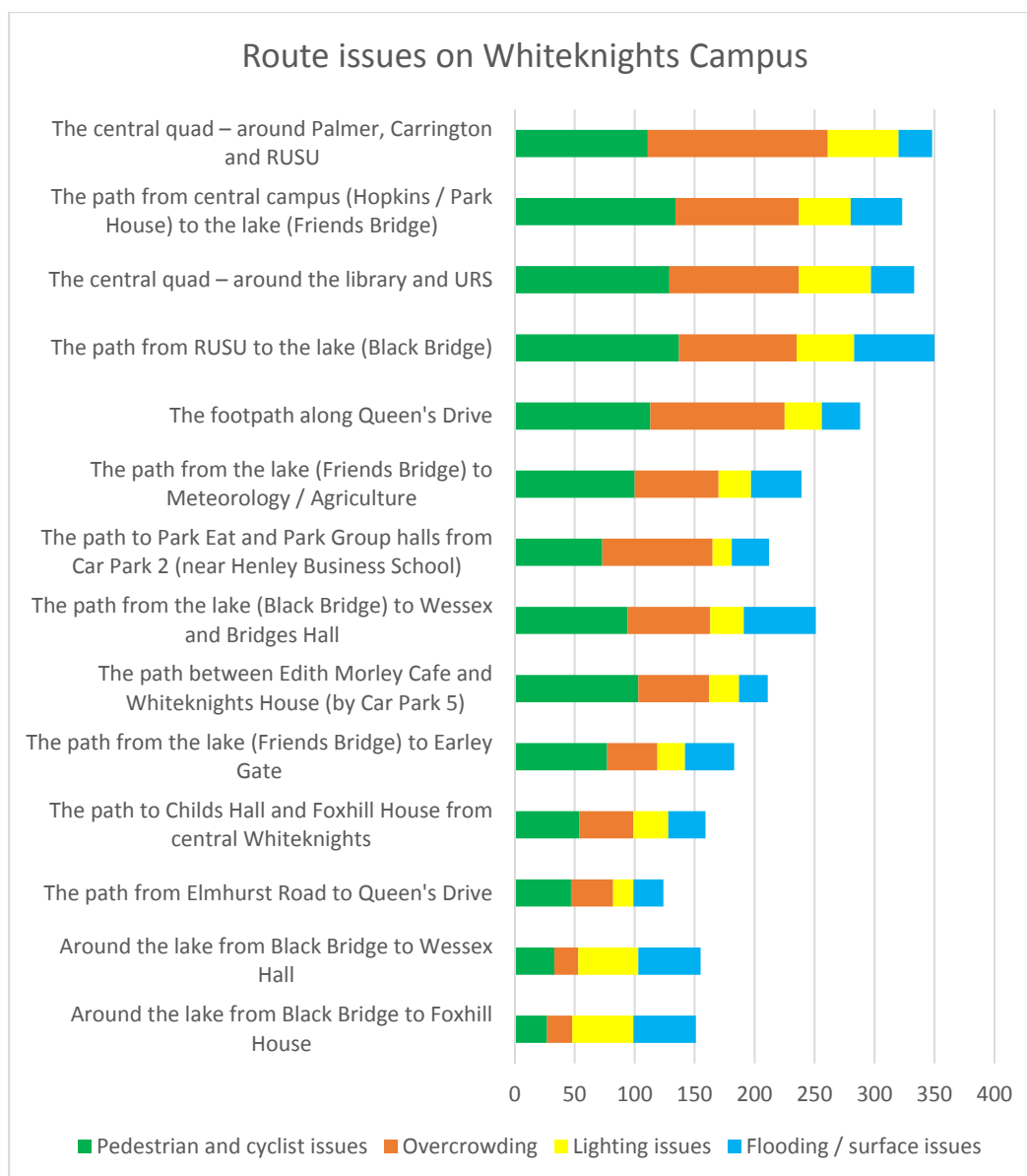
Figure 11: Awareness and use of cycling initiatives



5.3 Issues with routes on campus for pedestrians and cyclists

A programme of route improvements³ on Whiteknights campus is currently underway having been developed following feedback from previous travel surveys that this was a top priority. Figure 10 (for cyclists) and over 80 general survey comments relating to path overcrowding highlight that this remains a key issue in 2018. The 2018 survey sought to confirm that staff and student priorities regarding routes on Whiteknights campus remain aligned to this programme.

Figure 12: Experiences of route issues on Whiteknights Campus



- Staff and student experiences remain broadly consistent with those previously reported. Only combined staff and student responses are shown in Figure 12 as the results were similar.
- The path from Friends Bridge to Agriculture is no longer the top issue following the improvements (widening) made to the path over summer in 2017.
- The 2nd highest scoring path in terms of space concerns (from Hopkins to Friends Bridge) has already been widened since the 2018 travel survey.

³ Due to funding restrictions and other University development priorities the consulted on proposed large scale improvements to the University quads and routes is unlikely to take place in the foreseeable future, but the programme continues focus on achieving improvements in a small area each year. funded largely from the Travel Plan budget.

- The highest level of remaining route issues were reported in both the Palmer and Library quads. Proposals for Quad improvements exist but are unlikely to take place for the foreseeable future due to cost constraints. It may be worth reviewing what minor improvements could take place in the quads in the meantime.
- Queen's Drive footpath clearly remains an issue. Improvements here are proposed for 2019.
- The next priority areas to consider after Queen's Drive and the quads are the route from RUSU to Black Bridge, and routes to the Halls. Both these routes were more of a concern to students than staff (not shown in Figure 12) – they are likely to use these paths more frequently than staff. Students were also generally more concerned about lighting which is not surprising as they are more frequently on campus at night than staff.

Additional comments were made regarding numerous locations and route issues on campus. All comments / suggestions have been reviewed and where appropriate will be included within our review of the campus routes prioritisation programme. A few of the more commonly raised issues (minimum 5 instances) are listed below:

- **Requests for cycle lanes on campus.** This was a common request, however instances were fewer than in 2016 perhaps because since then we have started our programme of route improvements and outlined our justification for opting to widen routes without segregation.
- **Concerns were raised over the narrowness of the bridges over the lake.** This is something we would like to be able to address, but it is extremely expensive to replace bridges so not a short term goal given other priorities.
- **Lighting concerns on campus were also highlighted.** There is a programme of improvements on campus. Queen's Drive was mentioned a few times but that has been addressed since the survey was completed.
- **Additional locations with issues raised include:**
 - the pedestrian crossing and fencing outside the E&F Building,
 - the path surface and access gate to the Wilderness from Beech Lane.
 - Pedestrian and cycle access at the Pepper Lane entrance.
 - Road from Russell Building to Pepper Lane does not have a pedestrian route.

5.4 Off campus route issues

In terms of encouraging more cycling (see Figure 10), cycle paths and traffic calmed routes off campus remains the biggest issue for both staff and students. Many staff and student also raised concerns related to issues off campus, particularly the pedestrian crossings around the edge of all our campuses (including the main road outside Greenlands).

Areas / roads with the most comments included:

- **The crossing over Pepper Lane is a particular concern** (17 requests)
- Christchurch Green crossing / junction is also a concern.
- Upper Redlands Road / Eastern Avenue junction crossing outside Foxhill and Childs Hall entrance.
- Whiteknights Road lack of crossing outside Wessex Hall;
- Lack of crossing at Upper Redlands Road / Elmhurst Road.

Comments here highlighting specific locations will be passed to the local Councils and we will use this feedback to encourage improvements to be made. These comments are also an opportunity to engage more senior University bodies with support for these requests for improvements. A particular focus will be to push harder for a Pepper Lane pedestrian crossing which would benefit bus travellers as well as pedestrians and cyclists, as repeated surveys show this is a significant concern to staff and students who travel in this area.

5.5 Requests for improved showers, changing facilities, and lockers

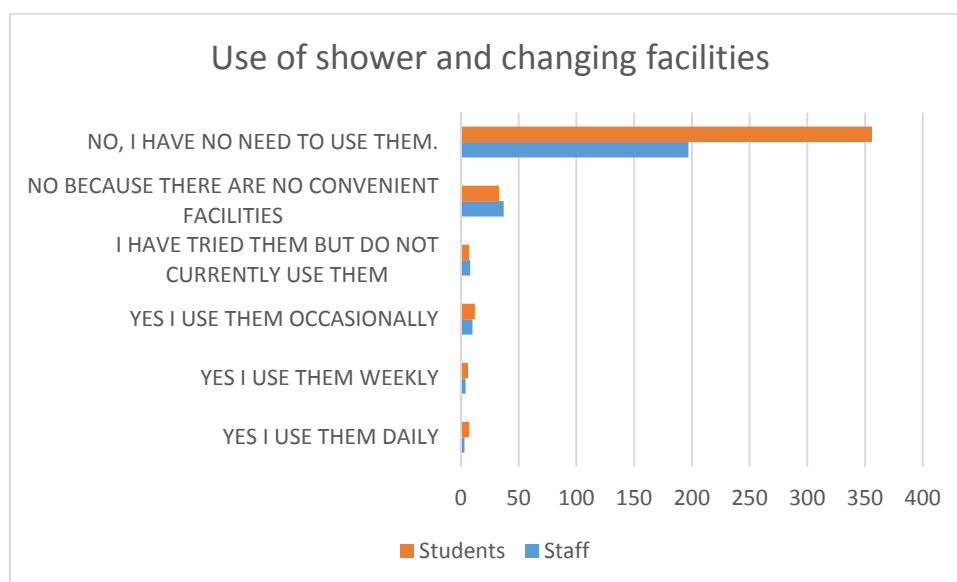
- There is a clear demand for both additional and improved showers and changing facilities on our University campuses:
 - 33 students and 37 staff members indicated they do not currently use shower or changing facilities on campus due to a lack of convenient facilities (Figure 13). An additional 20 comments stated that there were no showers close-by for them to use, and 17 comments requested changing rooms.
 - Buildings mentioned a few times for lack of shower and changing facilities close by included Russell Building; Polly Vacher and JJT.

I would like to ride a push bike to work but feel the shower facilities dotted around the University are sparse and not the greatest plus there isn't anything near the building I currently work in JJT

- Improved changing facilities were the 5th most popular response to 'what would most encourage you to cycle' and improved showers was the 6th (even more important for staff) (see Figure 10).
- 33 individual responses were received explicitly stating how improved showers would encourage them to cycle to University.
- For some the issue was one of **awareness**, with 29 additional respondents stating they did not know about any showering or changing facilities at all. 7 of these stated that awareness of availability of shower facilities would encourage them to cycle.

Did not know there were changing facilities or showering facilities. Normally use the men's toilets to change.

Figure 13: Use of shower and changing facilities on campus



- There is clear demand for improved quality of the existing shower and changing facilities on our campuses.
 - Lack of hooks and benches to keep clothes dry while showering was an issue frequently raised, Lack of mirrors, and no changing space outside the shower were also a concern.
 - Lone showers can create issues with queuing, or stress that there may be a long wait if they are already being used.

If the showers were not in the middle of the building but in a separate easy location (not in the toilets e.g. HBS) and there was more than one. It needs to be more like a changing room with all facilities.

- o **Lockers for shower equipment** was another issue raised (13 requests, in addition to lockers for cycle equipment).

I would use the showers at university if it wasn't for the case of carrying a wet towel around with me for the rest of the day.

The need to use a shower or changing facilities on campus only affects those staff and students who are cycling long distances or very fast. Therefore the number of issues raised in this area is very high relative to the number of people using showers indicating a widespread concern. We need to continue to look at opportunities for improving the shower and changing facilities at the University, including having a standard specification for shower installation in new buildings and promoting the existing shower maps.

5.6 Requests for lockers

- There is a demand for lockers on campus for a variety of purposes.
 - o Improved lockers and storage facilities ranked 4th in the list of what would encourage staff and students to cycle (see Figure 10).
 - o 34 comments were received requesting storage facilities, eg:

I don't bring or wear a helmet as there is nowhere to put it, except attaching to the bike - gets wet. It is not practical to take into lectures, due to space restrictions. No lockers for commuters is an issue that needs addressing. We have to lug around lots of books, laptops, sports equipment, lunch, drinks etc all day.
 - o Students in particular would like to see general lockers available for commuters to allow storage for items such as books; coats; and cycle helmets.
 - o Lockers for shower items such as wet towels and clothes was more of an issue for staff.

A project to look at lockers provision at the University has been launched in response to a separate student campaign on the issue. The feedback received in the travel survey has been provided to this project.

5.7 Readybike usage and feedback

Readybike is Reading's on-street bicycle hire system which has two docking stations on our main Whiteknights Campus and one at London Road. Use of on street hire bikes is an excellent way for people to get into cycling without needing their own bicycle and space to store it. Its use is something we are keen to encourage.

- Only a limited number of staff and student survey respondents use the Readybikes either regularly or occasionally (see Figure 15).
- Awareness of the scheme is high so general lack of awareness this is not the main issue (see Figure 15).
- Lack of docking stations in a convenient location was the main reason people had not tried them, or did not use them - 89 comments referred to there not being a station close by.
 - o This included 19 requests for docking stations nearer halls including at Park Bar. Requests were also received for Agriculture.
 - o A range of off campus locations were mentioned, with common responses including Oxford Road; Lower Earley; and Cemetery Junction and the roads between there and the hospital.
- Issues highlighted as reasons for not continuing to use the scheme after trying it included:

- o Finding the bikes heavy (13 comments)
- o Issues with the maintenance of the bikes brakes and lights (11 comments).

If they weren't so heavy and were better maintained

- o Issues with getting them from the docking station (3 comments).
- o Occasional users finding it difficult to turn up and hire.

An easier/quicker way to hire- It needs to be really speedy- Could campus cards be integrated within the system so you can just touch the reader- a light by the bike to take illuminates- and off you go?

- The majority of respondents (particularly staff) with no appetite for the scheme either already have their own bicycle or do not want to cycle (see Figure 14).
- Students would be most encouraged to try the scheme with a free taster ticket, further docking station locations, cheaper costs, and more help/information on how to hire them (see Figure 14).

This feedback and the comments will be passed to Readybike to see if improvements in these areas can be made.

Figure 15: Usage of Readybikes

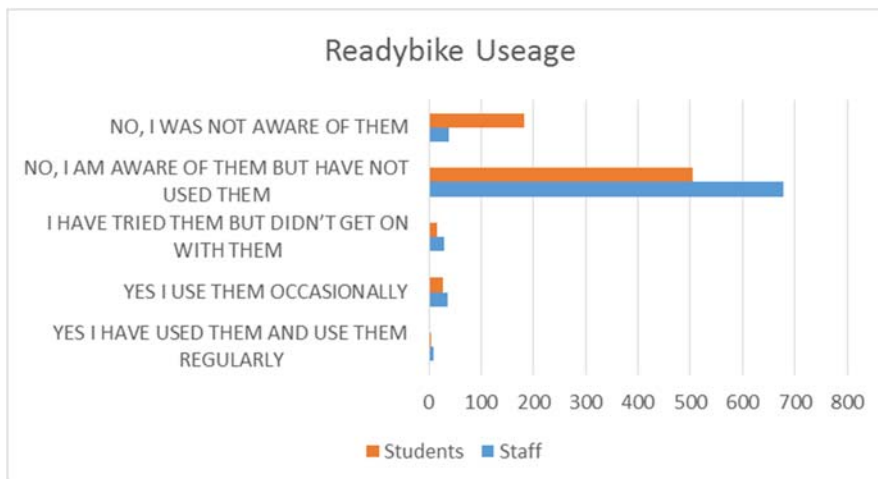
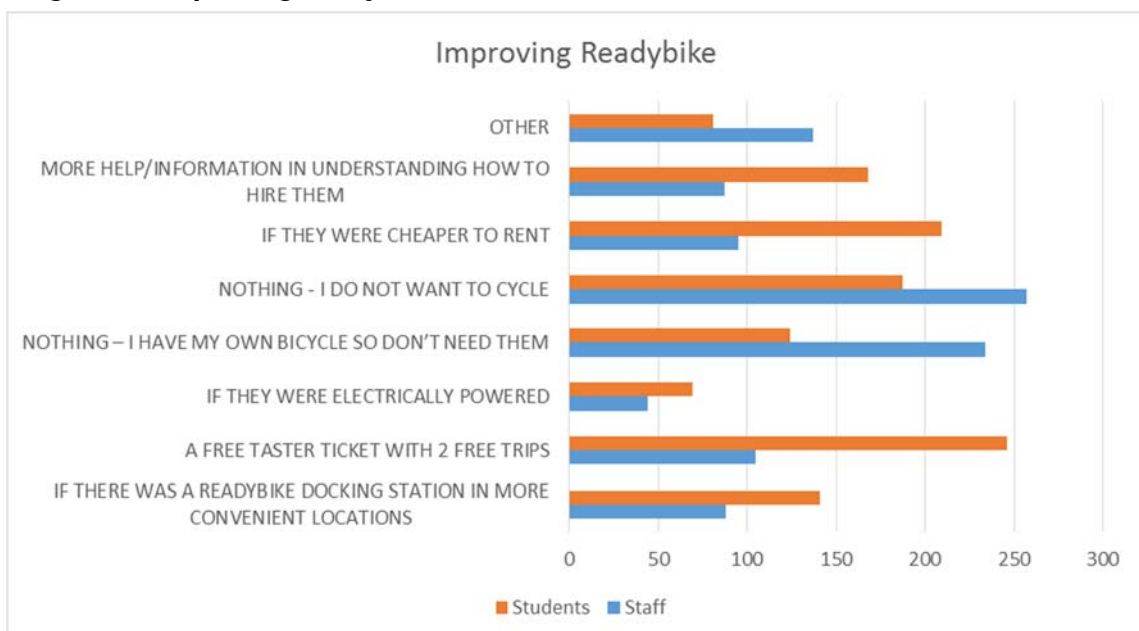


Figure 14: Improving Readybike



6 Public Transport / Low carbon modes

- Proportions of staff and students reaching the University campuses by public transport, both bus and train, have fallen slightly in the 2018 survey. We need to understand any reasons for this to encourage staff and student to continue to choose these modes.

6.1 Train travel to the University

- 3.82% of travel to University is by train, we would like to increase that where possible.
- Most travel is to Reading Station, with staff and students also using Earley, and one train traveller to Henley Station (none had previously been recorded in the travel surveys), (see Appendix 4).
- Bus remains the most popular way to reach our campuses from the train station, but many staff and students opt to walk. Students also take taxis which is more likely to be more when returning after a weekend away (see Appendix 4).
- 38% of staff did not use any of the listed available rail discounts, 90% of students used a '16-25 railcard' which was considerably higher than any of the other options. 30% of staff used the easit discount – it is not available on all routes (see Appendix 4).
- Only a limited number (89) of additional comments were made about train travel compared to comments on other modes.
- **The largest barrier to train use (for those with a feasible rail journey) seems to be cost, even when using available discounts:**

I always use public transport bus and train but the latter is becoming prohibitively expensive.

The charge for the trains WITH EASIT DISCOUNT is the same as running a car.

I would travel to the University by public transport a lot more if I could afford it. However, the train ticket prices from Swindon are far more expensive than my drive.

- Awareness of the easit discount could be improved (Figure 16), and there have been more requests for the extension of easit to Earley station, which we have previously requested from easit but has not been possible.

6.2 Bus travel to the University

- 6.38% of commutes to the University use bus as the main mode. This is a slight decrease compared to the constant increases from previous years and we would like to explore reasons for this (see Figure 4).
- Staff and students do seem to be more likely to use the bus occasionally or as part of a train journey, rather than as their main commute mode. (See Figure 6 & Figure 8 figure in Section 3).
- Bus travel received a much higher number of comments in the 2018 survey than in previous years. A mixture comments were received but many of them were negative.

Bus routes

- The vast majority of bus travel to the University is on the claret 21 and 21a services, which reflects that this is the only route that comes directly onto our Whiteknights campus, although other routes do come to the campus perimeter (see Appendix 4). **Awareness of bus route 21 is very high among staff and students – both awareness and use of this service has increased each survey year since 2014** (see Appendix 3).
- Awareness of the night bus service is also high in 2018, with both use and awareness being slightly higher than in 2016, and limited comments made regarding this service.

- The second most used route by both staff and students is the purple 17 which goes close to the Earley Gate entrance. Routes 9 / 19 were also fairly popular, particularly among students (see Appendix 4).
- The majority of bus travellers to the University live within Reading itself, across the whole town. There are a large number living in West Reading, which does not have a direct link to the University (postcode plot not shown).
- Requests for direct routes or ones that do not go via Reading town centre were received from a range of locations, including a number of requests by staff and students living in West Reading/Tilehurst, Caversham, Woodley, Earley, Calcot, Burghfield Common, Cemetery Junction and Erleigh Road which is just a 10-15 minute walk from the university.

I would have to take two buses to get to the University, going into town and out again both during rush hour so it's not a particularly good option. I would consider it on occasion if I could get both journeys on one ticket.

Bus route from Earley/Woodley that goes directly to Uni rather than having to go in to town and then out again.

- Some requests for buses to a Park and ride were received (11 comments, with 7 requests for direct bus from Mereok). This was previously explored and demand not found to be sufficient.

Bus tickets and fares

- Awareness and use among students of the discounted boost rate fares is very high at 83% (see Figure 16).
- 40% of the student respondents had used their free new student boostsaver pass (this may have been higher but the pass was renamed in 2017 from unisaver, so only the newest intake of students would have received a free boost ticket.) (see Appendix 4).
- Awareness among staff of the taster bus pass for new staff however is only 16%.
- For staff bus to work passes both awareness and use levels have increased since 2016 and 2014.
- Pay by mobile phone was popular with students (see Appendix 4).
- There are still staff and students using on bus cash fares, which is the most expensive way to travel – many staff reported not using any of the discounts available. (see Appendix 4).
- Awareness of the separate 'offers for staff' and 'offers for students' webpages which outline these offers could also be improved, particularly for students, although staff awareness is almost 50%.
- Awareness and use of the short hop fare between London Road and Whiteknights has fallen slightly since 2014 and 2016 so this ticket would also benefit from promotion.
- **Staff would like to see the reintroduction of a staff discount for occasional bus travel**– 24 comments received.

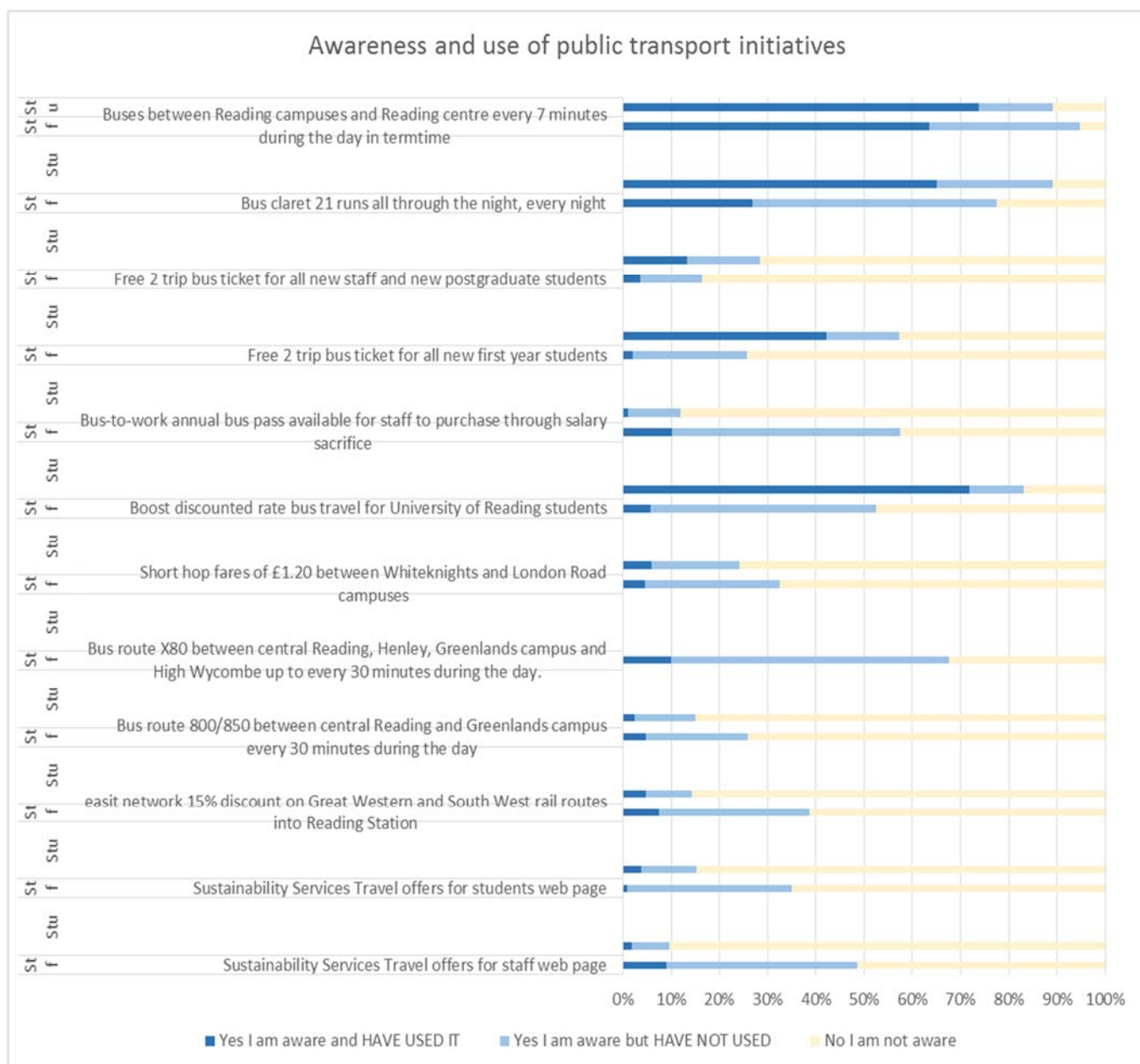
A special price for staff to get an EasySaver10 bus card with Reading buses would encourage me to use it more.

A better offer on bus fares for staff who only need to use the bus occasionally. I do not use the bus enough to purchase a termly/annual ticket, but would be more likely to use the bus if there was a card that offered discounted fares (similar to the one that used to be offered) when you top it up to purchase 10 trips.

- Cost of bus fares received a number of comments that reduction would encourage use.

I have considered the Leopard bus but the cost is extremely high in comparison to using my car. As such, there is no real incentive to use public transport, even though I actively use it for all my other roles and promote it to my peers.

Figure 16: Awareness and use of public transport initiatives



- Awareness of bus services fairly high so this is clearly not the cause of any reduced usage. Awareness of the ticket discounts could be higher, but it is high compared to awareness of other mode initiatives. Other issues concerning bus travel were highlighted in the comments section:

6.3 Issues raised with bus routes and ticketing

Issues raised regarding frequency, reliability, and overcrowding on route 21/21a

- Issues with reliability, frequency and overcrowding on route 21/21a, particularly at peak times, received a large number of comments from staff and students (43 comments). Comments included:

- o Buses are not able to keep to their advertised every 7 minutes,
- o When buses do arrive on campus (or at the train station) on time, there are so many people waiting that it takes 10 minutes to load.
- o **Buses are overcrowded at peak times** (35 comments)

The advertised frequency of the buses to the University is not accurate and the buses during peak hours are not frequent enough or are often full.

- o **Buses often reach capacity and cannot take any more passengers**, meaning people are left waiting at the stops for the next bus to arrive (which is often also at capacity and not able to take anyone else) (15 comments).

The bus service needs to be timed better from Reading station to the campus (routes 21A and 21). It's not 7 minute intervals as advertised.

- o **There is a continued perception that spritzer 21a provides less seats and is therefore contributing to the overcrowding issue** (11 comments). This is despite communications from Reading Buses that the number of seats remains the same as the buses are bigger.

- **Buses out of term time are no longer frequent enough** which causes issue for staff particularly (24 comments)

Outside the term time when 21a is not operating, the service is every 20-25 minutes, which is unacceptable. If this could be every 10-15 minutes then it would make people happier.

I travel to work on the 21/21a bus. It isn't viable outside of term time though as buses are so infrequent you cannot guarantee you will get to work at anything close to a reasonable time. Even in Term time buses are overcrowded. Increasingly the bus isn't much use for staff.

- Reliability and frequency was also an issue with other routes: 17 and 3 and 4 (12 comments)

Issues with changes to routes 12/9/19 mean people can no longer use this route

In late 2017 Reading Buses made substantial changes to the existing bus route 19a/b/c, and route 9. Reducing frequency and altering routes to form a new route 12. This has clearly caused issues for a number of staff and students, with 16 individuals commenting this has now made their bus journey to the University much more inconvenient or even no longer possible to reach the University by 9am.

Buses from where i live (Woodley) to the University campus. Currently, the 19/12 runs right past my house and right past my office but the first one is not until 9.30AM and there is one per hour to get home. Not feasible.

I would happily travel by bus from my home to the university however there is no direct route for this (from Earley). The bus route which did exist earlier in the year (#19) was re-directed so walking or driving is the only option.

Staff and students are clearly less happy now with route 21/21a buses than when they ran every 5 minutes, and less happy after changes to route 19. These issues are likely to be contributing to the slight decline in bus use. These issues will be fed back to Reading Buses as a priority.

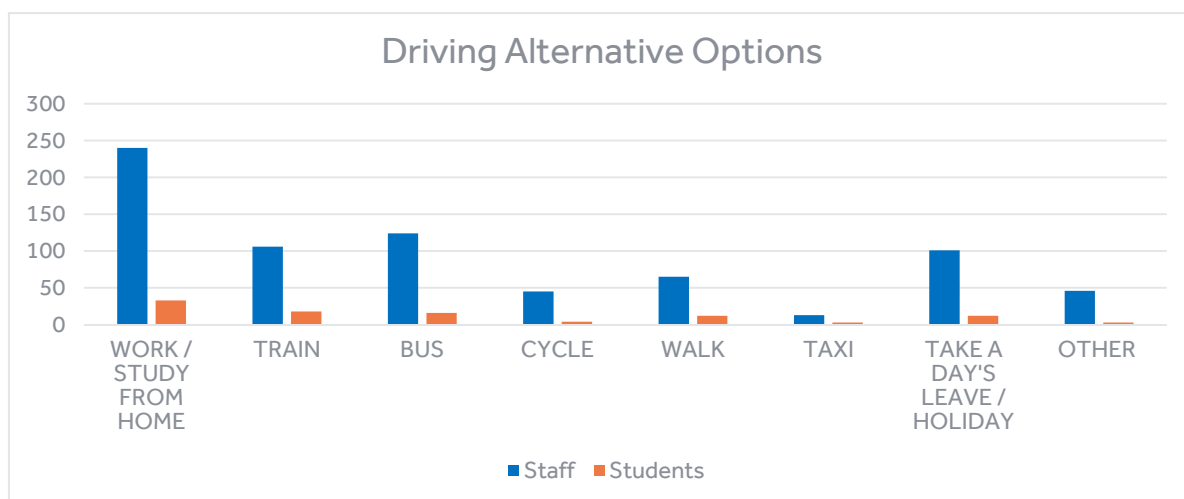
7 Driving and car initiatives

7.1 Commuting to the University by car

- Levels of single occupant vehicle (SOV) being used as the main commute mode has risen slightly among staff (2% higher). This is of concern as the University Travel Plan seeks to reduce these levels.
- Student levels of SOV use have fallen slightly (0.5% lower).
- A large proportion of staff and students report never traveling to the University by car, and that they are not likely to in future (see Figure 6 & Figure 8 figure in Section 3).
- Drivers to the University live over a wide area, but include a considerable number who live close to the campus.

7.2 How would you reach the University / complete your role if you were unable to drive in on a given day?

Figure 17: What alternatives to driving would you be most likely to use?



- Work/study from home was the most popular alternative mode that drivers might use, along with taking a day's leave. (see Figure 17). This indicates that driving is a key mode of transport that many people depend upon with limited alternatives available for actually getting to campus.

Improvements in policy, culture and permission to work from home more, as well as IT facilities allowing this would help facilitate working from home (specified by 35 respondents). A separate section of this report looks at this 'travel mode' in more detail.

A planned and acceptable approach to regular working from home without feeling guilty or that it is somehow a favour to the employee.

- Public transport was indicated as an alternative by a number of drivers, predominantly the bus followed by the train.

The relative costs of public transport compared to driving / parking were raised as a barrier, with 20 comments specifying cheaper trains would be needed as driving and parking ends up costing less. Caring responsibilities of dropping off dependents is also a factor limiting public transport use.

Buses from Caversham to the university; safer cycle routes from town to campus, showering facilities on campus

- Walking and cycling was also raised as an alternative to driving by a number of drivers. This is of concern if those living close enough for these options are choosing to drive. Their precise reasons for opting to drive require more exploration but are likely to include dropping off

dependents or needing the car for work reasons. Lack of decent showering facilities for cyclists were also cited as a barrier to giving up driving to campus by 4 respondents. Hopefully many of these drivers could be encouraged to leave their cars at home and not drive in future.

7.3 Carsharing

Carsharing is a good option for those with limited alternatives to driving to reduce the impacts and financial costs of their commute, and something we encourage at the University with our own Liftshare scheme and additional initiatives supporting carsharing.

- Levels of carsharing with a colleague are not high, and has fallen to 4% from 4.5%.
- **Awareness levels of initiatives supporting carsharing such as shared parking permit costs and emergency ride home is very low** (see Figure 17). 12 specific requests were also made for better information on car sharing in the comments section.
- Barriers to carsharing raised included: inability to participate due to different/awkward working hours; being unable to find people to share with; finding it impractical due to living rurally; and due to childcare/dependent commitments.

I have signed up to the car sharing website, but there are no others who make the same journey at the same times.

It would be great to use a car share etc. However, it's not a practical option due to the nature of my work. I am in the office at irregular times due to meetings, and I regularly need my own vehicle for University business trips when I'm on campus.

Carsharing clearly requires additional promotion at the University to increase awareness (as well as use) of the initiatives available. A review of the available initiatives would also be beneficial.

7.4 Car Club

The university is keen to encourage use of a car club as a more sustainable method of car use than individual car ownership. The Co-Wheels Car Club allows students and staff to hire a car from Whiteknights Campus by the hour, meaning they can still have access to a car when required, but they do not need to bring their own vehicle to campus.

- **Awareness and use of the Co-wheels car on campus is fairly low**, indicating that more promotion is clearly required (see Figure 17). This was also reflected in the comment section:

The co-wheel car club should be promoted more!

Never heard of it and I also live in the Park Group Halls

- The current free membership and £25 driving credit offer for staff and students, has low awareness levels but a little reported usage, see Figure 20.
- Given the low awareness it is not possible to specify whether any improvements need to be made to the scheme to increase usage (other than awareness raising). **A more convenient location of the car was not a popular option**, (although a more prominent spot may increase awareness) and 101 students and 45 staff did report that they would now look into using it since learning about it in the survey. (See Figure 18).

Figure 19: Awareness of Co-wheels car club on campus

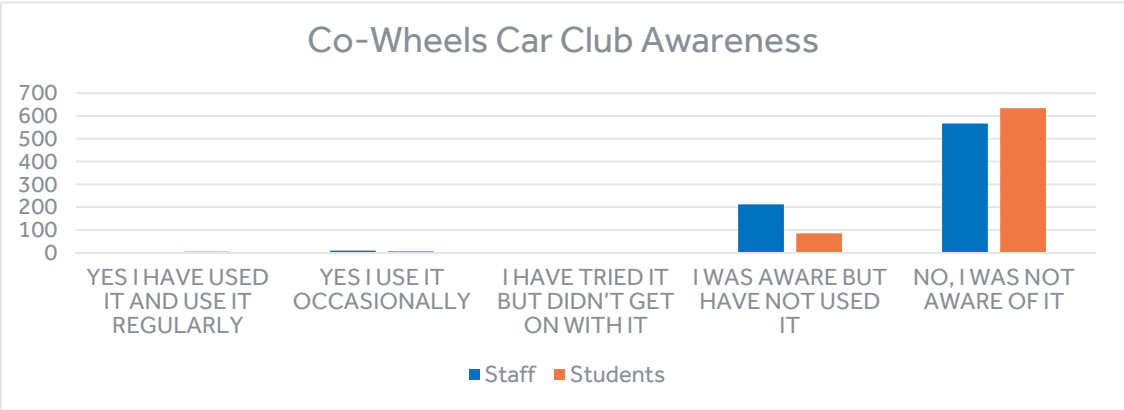
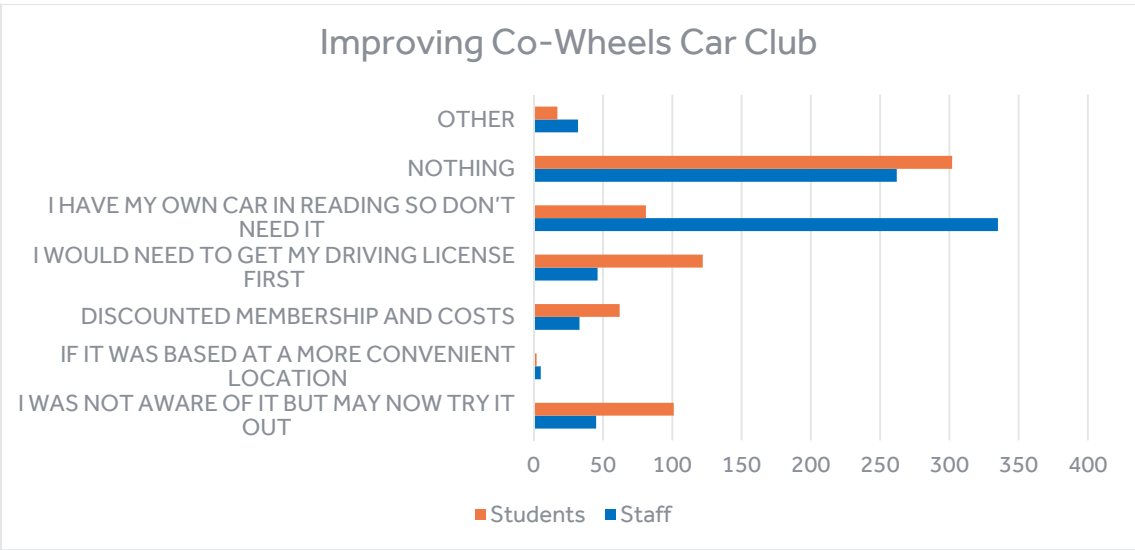


Figure 18: What would improve Co-wheels car club?



7.5 Electric vehicles

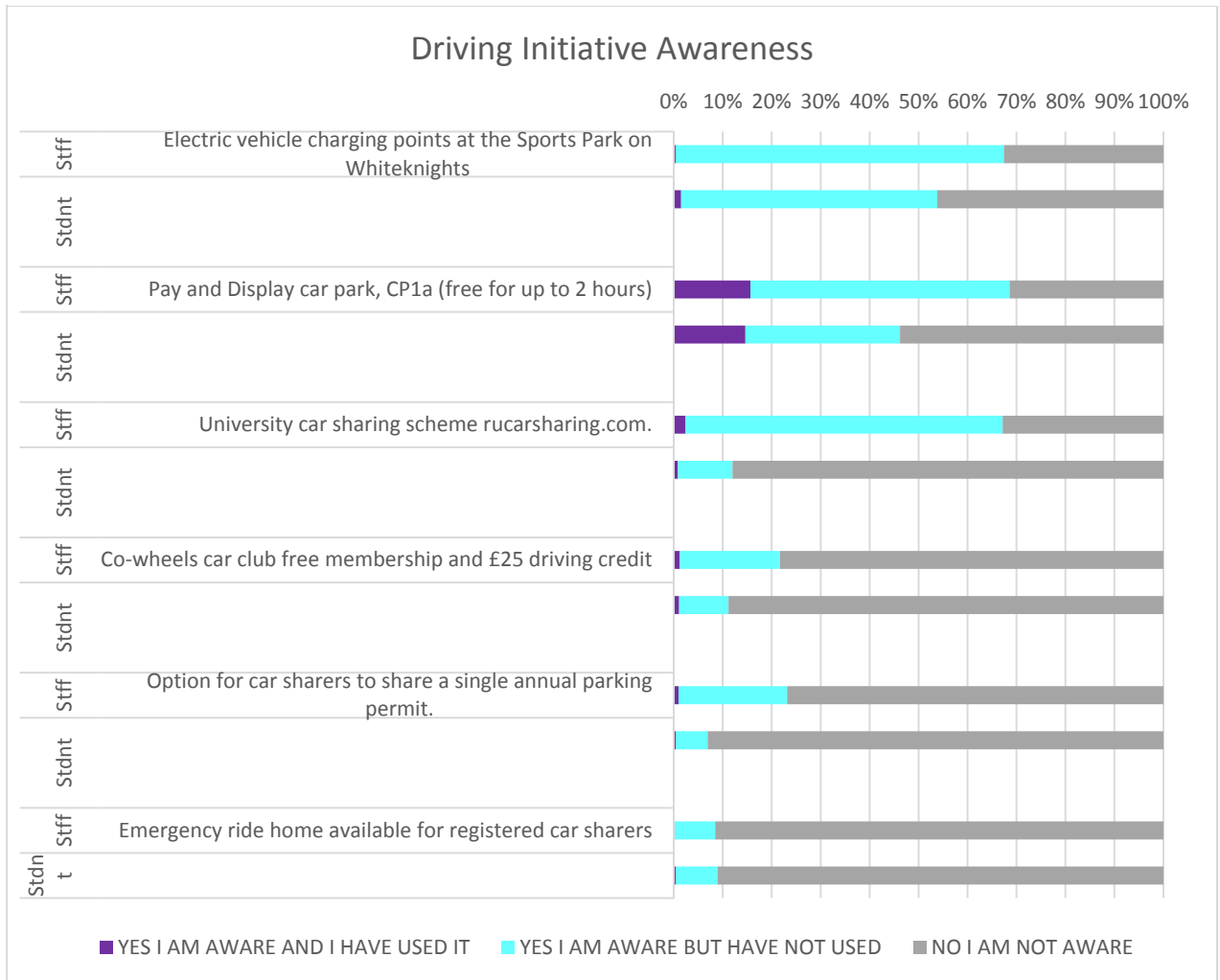
Electric vehicles emit less carbon than standard engine vehicles. We have installed charging points on our Whiteknights Campus to facilitate use of electric vehicles to campus..

- Awareness of the electric chargepoints is relatively high at over 50% for students and nearly 70% for staff (see Figure 20)
- Reported use of the chargepoints is much lower at 1%.
- 17 requests were received for further points at different locations on campus to encourage greater uptake of electric vehicles. Unfortunately installation costs is currently prohibiting a wider roll out of charging points in other locations without significant levels of demand.

If you want to encourage use of electric and hybrid vehicles, you need more charging points, ideally located in most/every car park.

When I bought my current car I would have liked to have bought an electric car but at the time there were no charging points on the campus.

Figure 20: Awareness and use of driving initiatives



7.6 Summary of more sustainable car travel

- The clear message from the survey is that initiatives to support those needing to drive to choose less impactful ways of doing this these need better promotion.
- Though not a sustainable travel initiative, the only driving related initiative that had seen substantial levels of reported use (among both staff and students) was the new pay and display car park.

Improve advertising of car sharing and car clubs.

These are very good initiatives however they are not publicised hence I would appreciate if this can be improved.

8 Working from home

For the 2018 survey we wanted to find out more information about working from home at the University than in previous surveys. The carbon hierarchy in the 2017 Travel Plan places removal of travel (which includes working from home) as a top priority. Two open response questions about how and why staff and students currently work from home were included in the 2018 Travel Survey.

Regarding working from home, earlier sections of this report have already identified that:

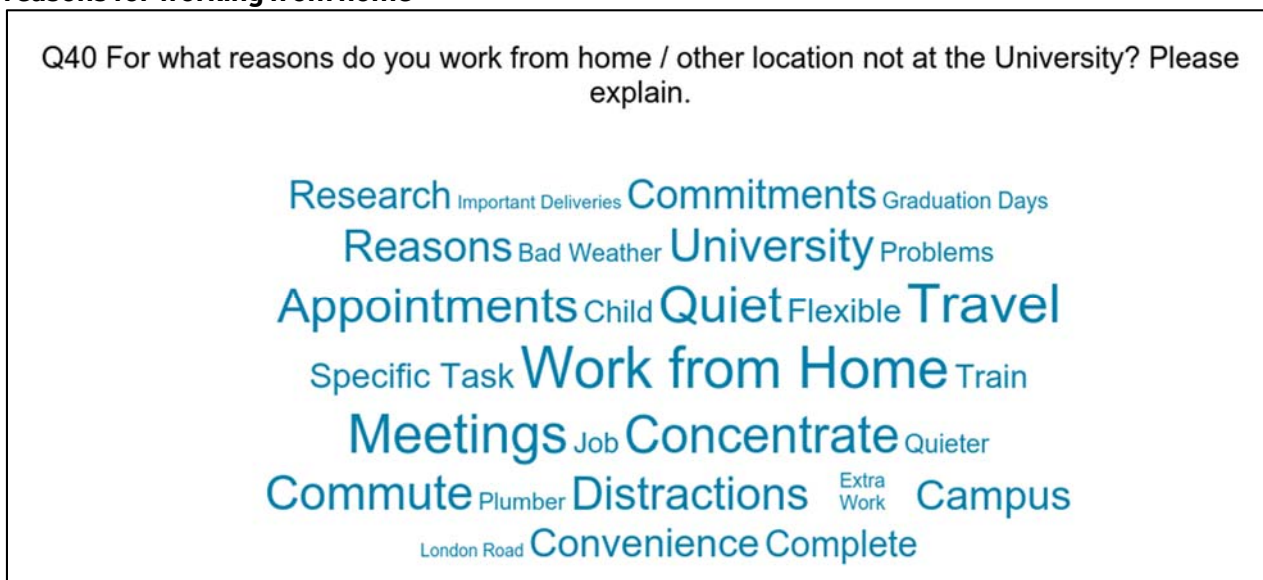
- Working from home is the main mode for a tiny proportion of staff (1.4%) or students (5%) (see Figure 6 in Section 3).
- Working from home is a frequently used alternative mode, with large numbers of both staff and students reporting it a few times a month (163 staff) or year (200 staff), or even a few times a week (59 staff), (see Figure 6 & Figure 8 in Section 3).
- Working from home was the most selected alternative option for if drivers were unable to drive to the University on a given day. (See Figure 17).

8.1 Why do you work from home?

750 comments were received in response to this question. The Wordcloud below and more detailed table in the appendix (Appendix 5) highlight some of the most common responses only.

- Work related reasons were cited more often than personal reasons for working from home, specifically
 - For quiet time to focus and concentrate (see Appendix 5).
- Personal reasons were also given:
 - Waiting for a tradesperson or delivery was a popular reason (many staff reported only being permitted to work from home for reasons such as this, but not generally).
 - Childcare commitments, or caring for sick children was another personal reason.
- Students cited a lack of good study space lead to them work at home (including 11 complaints about library study space).

Figure 21: Wordcloud illustrating the most frequently used words and phrases when explaining reasons for working from home



8.2 How do you work from home?

700 responses were provided to this question with a brief summary provided below. A table summarising the most common responses is provided in the appendix (Appendix 5). Many further comments and technologies were referred to.

- A range of different equipment and technologies were used for accessing files, keeping in touch with colleagues and completing work.
- Experiences regarding the technological ease of access to systems, equipment and emails were very mixed across the University.
 - 49 people had experienced no technology barriers allowing people to be connected at home just as well as on campus.
 - For others difficulties in accessing shared drives and unreliability of the VPN was an issue.
- There are also substantial differences in the ease with which staff reported being permitted to regularly work from home.
 - Some reported it being fine to work from home as and when they chose,
 - A few staff reported needing a justified reason as to why it was required, eg a need to wait at home for a delivery would be permitted, but that otherwise it was not allowed despite there being no work related requirement to be present at the University.

I would be keen to work from home more, but I'm not allowed to for work-related reasons, so can only do it when I need to be at home for gas safety checks/home repair issues.

- Others understood that their job role didn't allow it as they were customer facing,

As a student support coordinator it is important for me to be physically available to see students so this is not really an option unless I am snowed in or otherwise unable to make it in to work

8.3 Summary of working from home

- Working from home clearly exists across the University already whether formally or informally.
- The large number of responses to the two open response questions in this section highlight the level of interest in this area.
- There appears to be large differences across the University regarding ease of working from home, in terms of both technology but also culture.
- Working from home is one form of flexible working that can assist with supporting individuals with different needs to remain employed, so has other potential benefits than reducing travel impacts, and aligns with diversity drives at the University. The feedback from this survey will be fed into University work in this area.

I work using my own equipment, but using University licensed software for staff. A section on the webpages devoted to access options available to facilitate working from home would be a great help.

9 Conclusions

The 2018 Travel Survey provides a clear indication of some priorities to consider when reviewing our Travel Plan Action Plan of initiatives to further our progress towards the targets of our University Travel Plan. Some of the key activities that would benefit staff and students identified from the survey include:

- Review of the SOV targets in the light of improved methods of calculation.
- Promotion and advertising of the Co-wheels car club.
- A review of the provision and promotion of the car sharing initiatives available.
- A review of shower and changing facilities on campus with a view to assessing where improvements or additional facilities can be provided.
- A continuation of the campus routes programme widening shared paths.
- Feedback to local councils relating pedestrian crossings and routes around campus, with a specific focus on a Pepper Lane crossing.
- Feedback to Reading Buses the issues being experienced by peak time and out of term time travellers; as well as those who previously used route 19.
- Contribution of the information on working from home to the University wide review of flexible working practises.
- Improved promotion of the available travel offers via improved webpages and promotion of those pages, particularly to new staff and students.

These suggested activities will be considered for inclusion in the Travel Plan Action Plan which is reviewed annually (see separate document). Action Plan Initiatives are prioritised according the following criteria:

- Priority for inclusion is given to those initiatives with the best potential for achieving our Travel Plan targets of reducing the need to travel to the University by single occupant vehicle.
- Initiatives supporting continued use of sustainable travel modes, addressing issues raised / experienced by larger numbers of the University population are given greater priority.
- Initiatives aligning with the Carbon Hierarchy identified in the Travel Plan (2017), where reducing the need to travel is prioritised over more carbon intensive alternatives to driving.
- Initiatives that fit with other university projects, eg resurfacing of Queen's Drive.

10 List of Available appendices

1. Modal split by campus.
2. General commute information – distance, arrival and departure time.
3. Awareness and use of initiatives compared to previous years (2012 -2018).
4. Public transport tickets and routes used.
5. Working from home comments summary table.

UNIVERSITY TRAVEL SURVEY 2018 : APPENDICES

1 CONTENTS

1	General travel to the University of Reading	2
2	Mode split by campus	4
3	Awareness and use of initiatives – comparison 2012 to 2018	7
4	Public Transport tickets and routes used	16
5	Working From Home Open response summaries.....	18

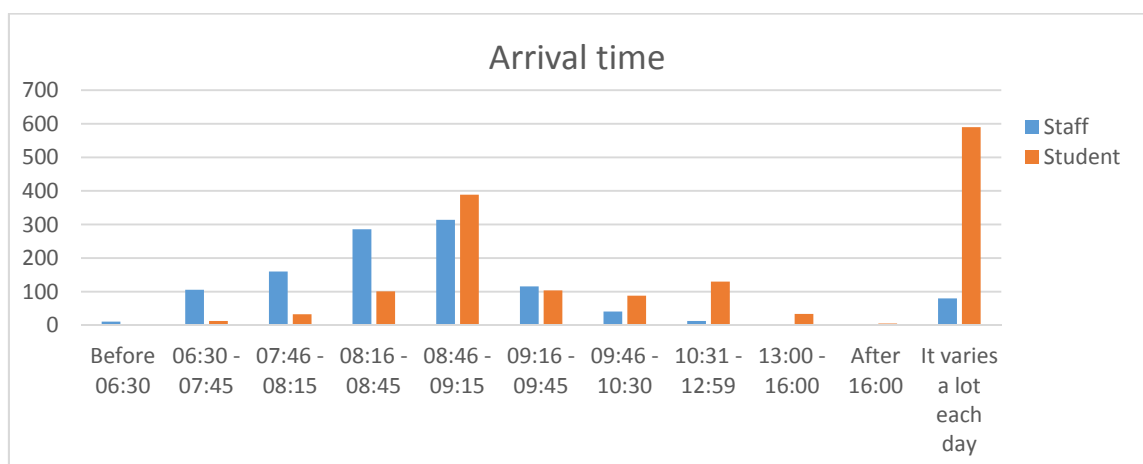
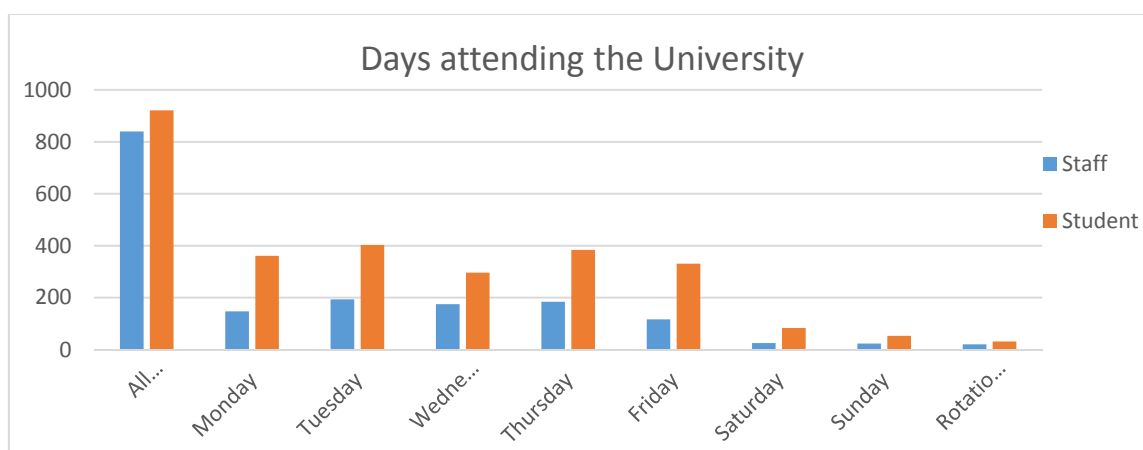
1 General travel to the University of Reading

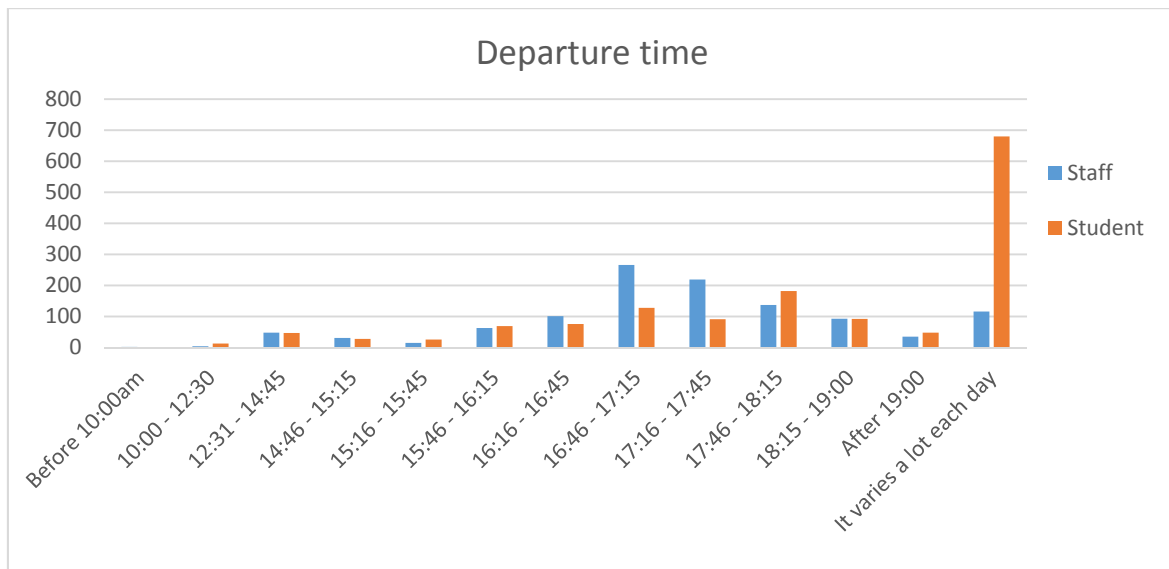
1.1 Days attending the University and arrival and departure

The majority of both staff and students attend the University throughout the week, Monday to Friday. The quietest day for students is Wednesday, and for staff is Friday followed by Monday. Tuesdays and Thursdays are the busiest days for both staff and students on campus. This pattern matches previous years.

Staff have a much more staggered arrival time than students, starting from 6.30 am with the majority on campus by 9.15. Peak staff arrival is between 8.15 and 9.15. Despite the fact that for the vast majority of students their arrival times vary a lot each day, there is a definite peak arrival time on campus between 8.46 and 9.15 with over ¼ of students arriving at this time each day. Therefore 8.45 to 9.15 is the busiest time for both staff and students to arrive.

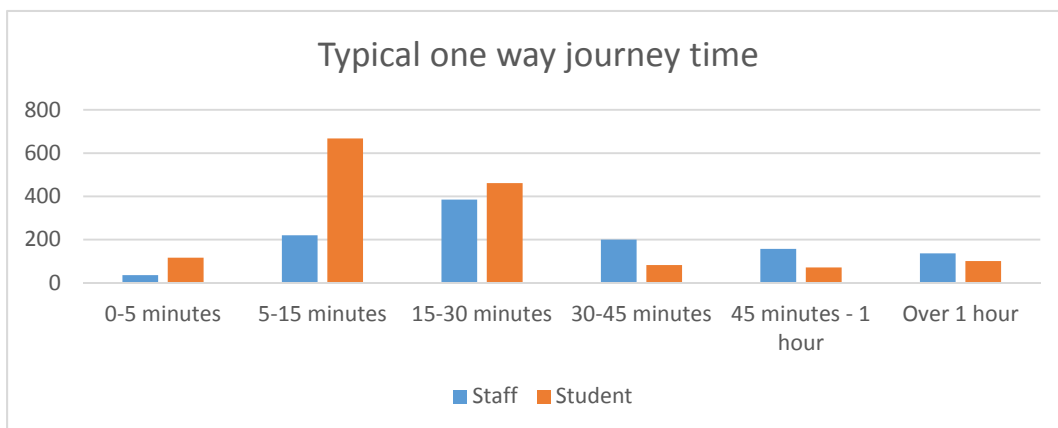
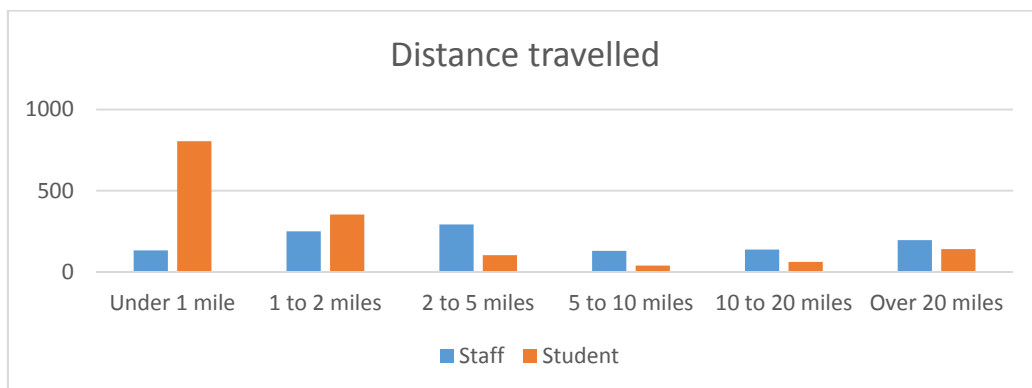
Student departure time from the University is much more varied, the peak is 17.46 to 18.15 but this is only 12% of students. The peak staff departure time is 16.46 – 17.15, with many staff also leaving the university until 17.45 and again until 18.15.





1.2 Journey time and distance

For the largest proportion of students their journey to campus takes 5-15 minutes, and is over a distance of less than 1 mile. This would reflect the large number of particularly first year students living in halls on and around campus. A large number of students also live between 1-2 miles away and their journey takes 15-30 minutes.



2 Mode split by campus

Our different campuses are very different in nature and location and therefore have different modal split profiles. Greenlands and London Road campuses are much smaller than Whiteknights, and Earley Gate is really one side of the main Whiteknights Campus, so the responses from the smaller campuses are also more sensitive to changes as there are far fewer respondents.

2.1 Whiteknights and Earley Gate

Whiteknights profile is very similar to the overall university profile given that the majority of staff and students are based here. The main difference for Earley Gate is that there continues to be high proportions of both staff and students cycling to Earley Gate.

2.2 Travel to London Road

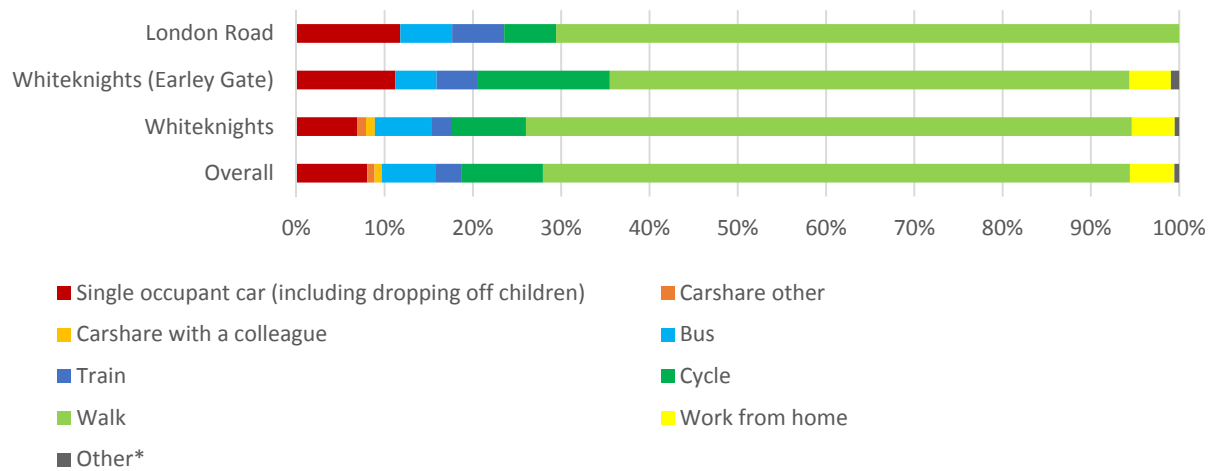
In 2018 the London Road modal split profile is broadly similar to the combined campuses one, however there is more train use, and very little working from home. The train use is likely to be due to the closer proximity of the campus to Reading Train station. The staff profile is slightly different in that there is lot more car sharing with colleagues, more train use and no bus use reported by respondents from London Road, compared to combined charts. The higher levels of car sharing may be due to promotion of car sharing to new departments that recently moved down to London Road, following concerns of availability of parking spaces.

The 2016 modal split profile of London Road was very different. It had a poorer profile than Greenlands in terms of sustainability, despite its proximity to Reading town centre, which was felt to likely be due to the nature of courses there requiring placements access. This is now changed, and the survey responses from London Road were fewer this time. In 2016 there were 67 staff and 70 students responded from London road. In 2018 it was 79 staff and 17 students, so very different proportions.

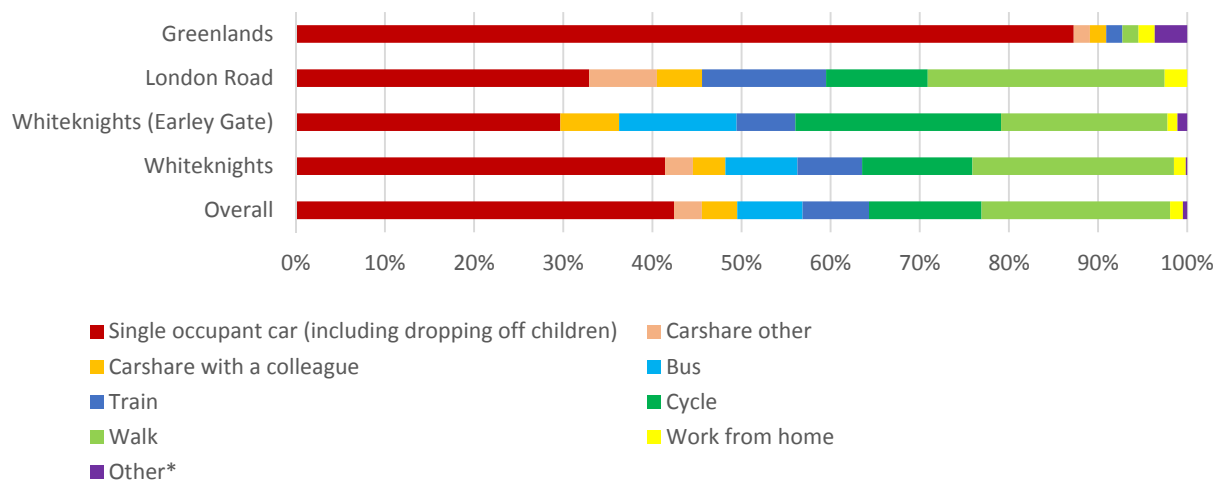
2.3 Travel to Greenlands

Student courses at Greenlands are very different, being largely professional short courses, so travel data was not collected for Greenlands students as they are not there full time. There are also a number of residential staff at Greenlands which accounts for the high proportion of walking as a modal split for the campus achieved in previous years, as these staff had been encouraged to complete the survey a session arranged during their working day. In 2018 this did not happen, thus explaining the sudden jump in SOV proportion for Greenlands between 2016 and 2018. Due to the nature of the location of the site the majority of non-residential staff opt to drive there, hence the substantial impact on the proportion of SOV. In 2016 there was no train travel to Greenlands but there now is a little bit, there is still no bus travel reported by survey respondents though, despite access being possible by bus.

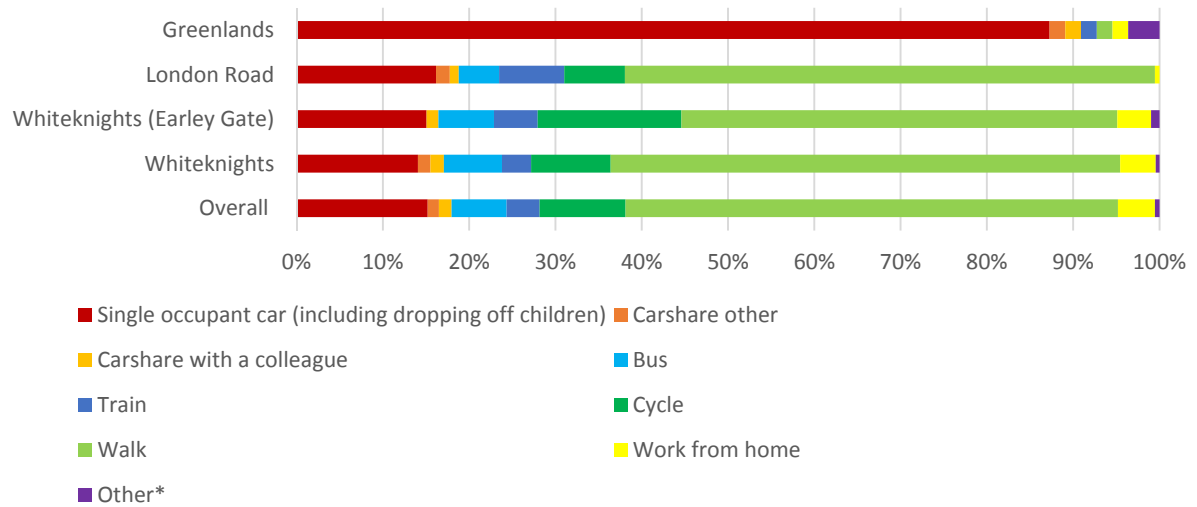
Student mode by campus 2018



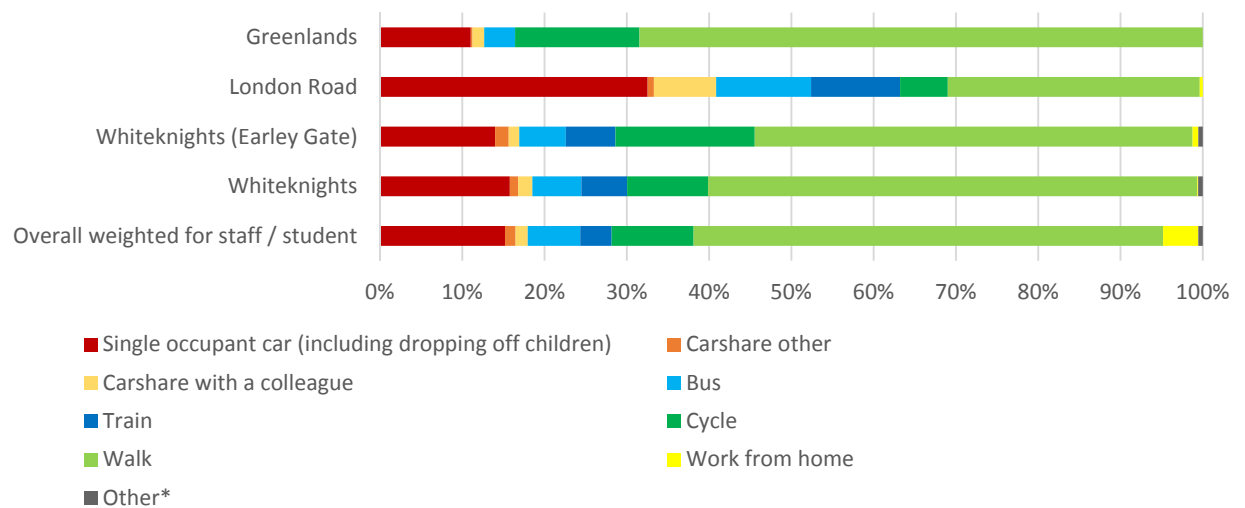
Staff mode by campus 2018



2018 combined staff / student modal split for each campus (weighted for staff / student using whole uni population data)

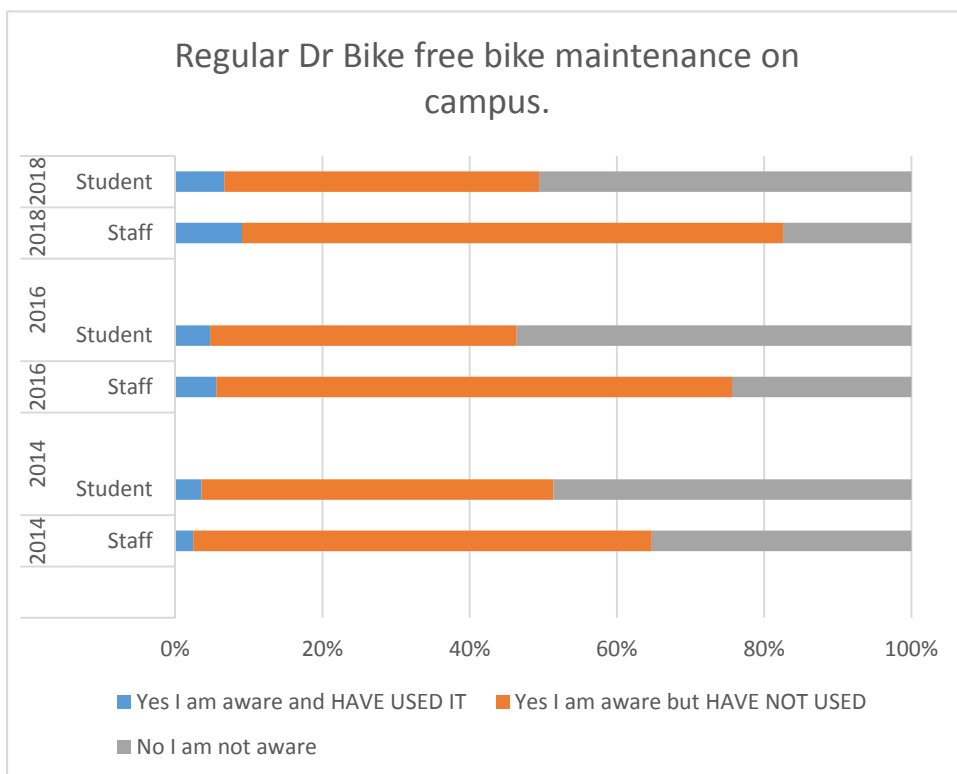
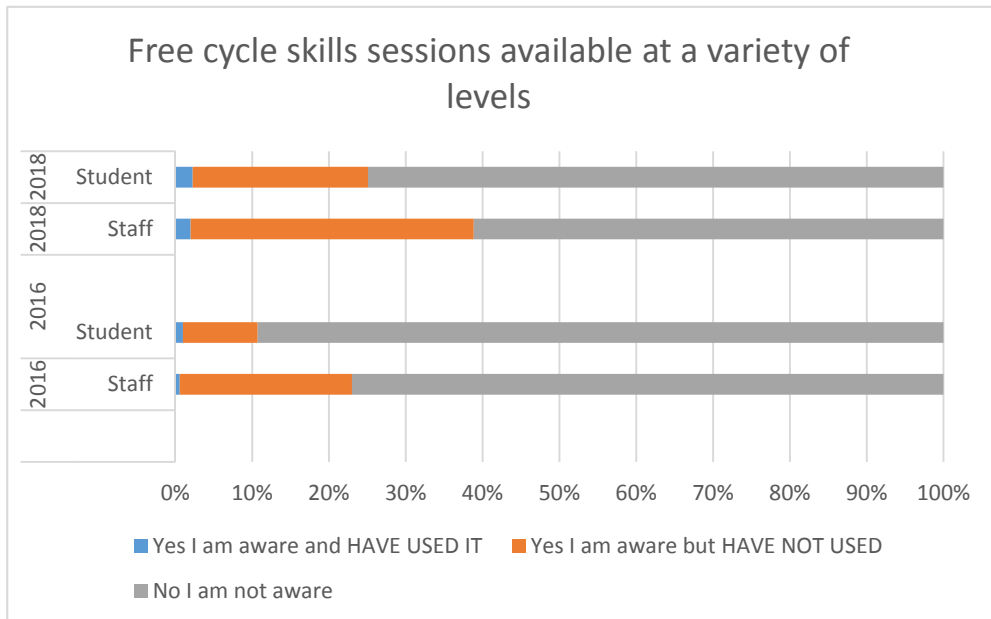


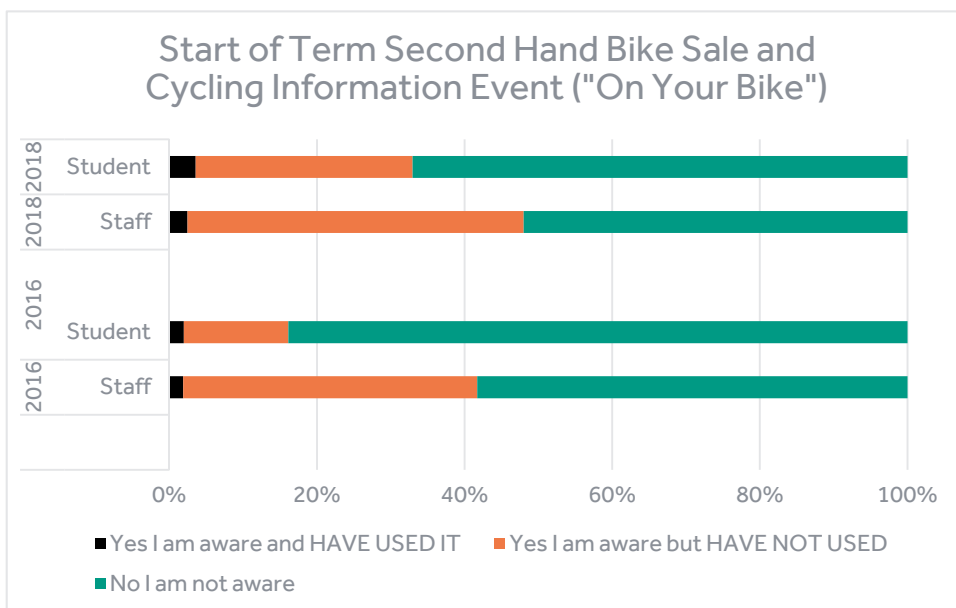
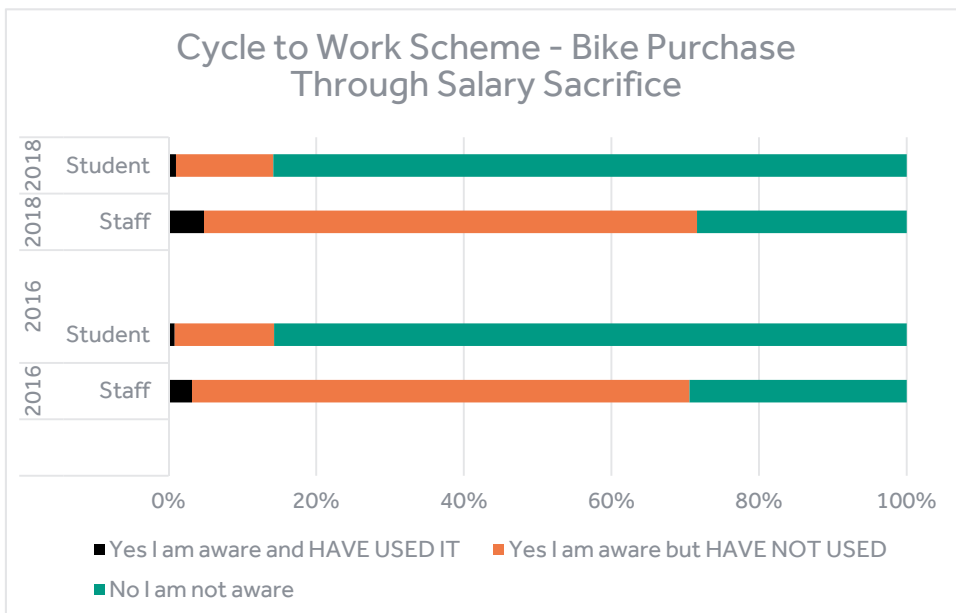
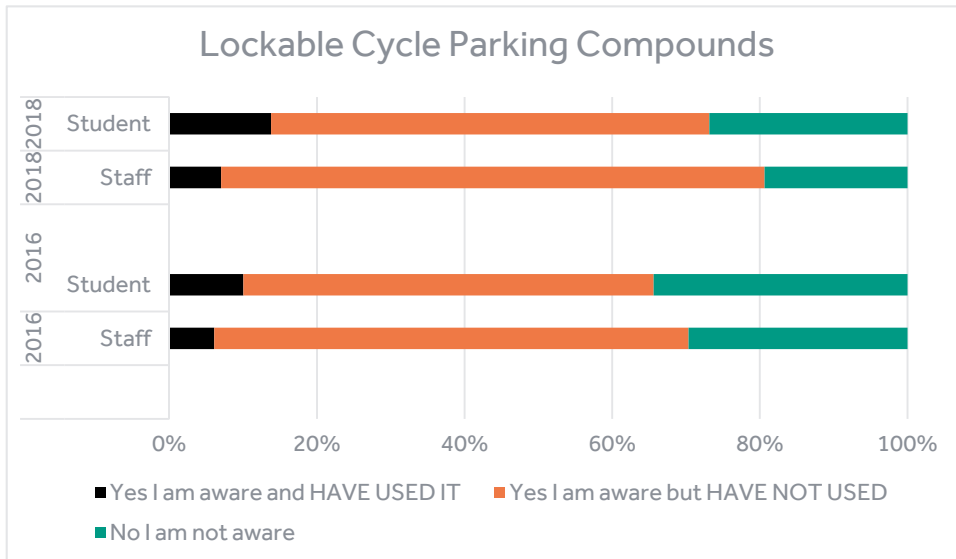
Combined weighted campus modes 2016

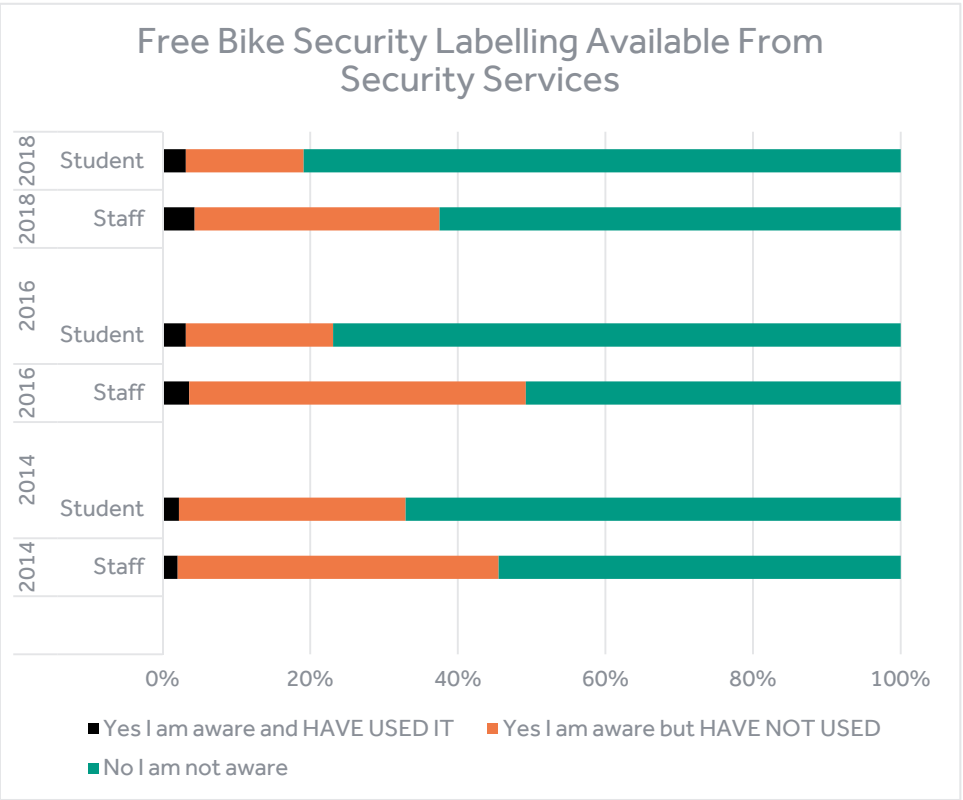
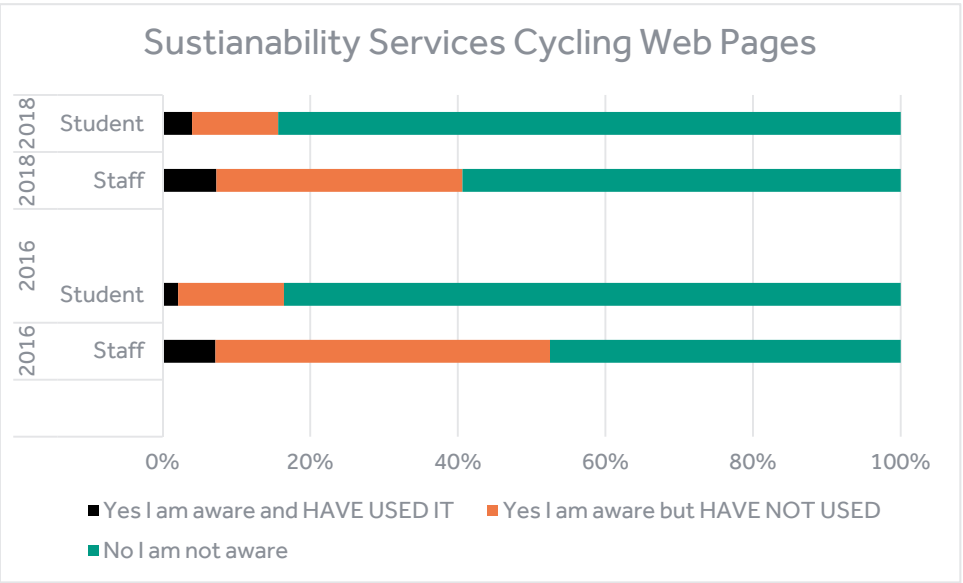


3 Awareness and use of initiatives – comparison 2012 to 2018

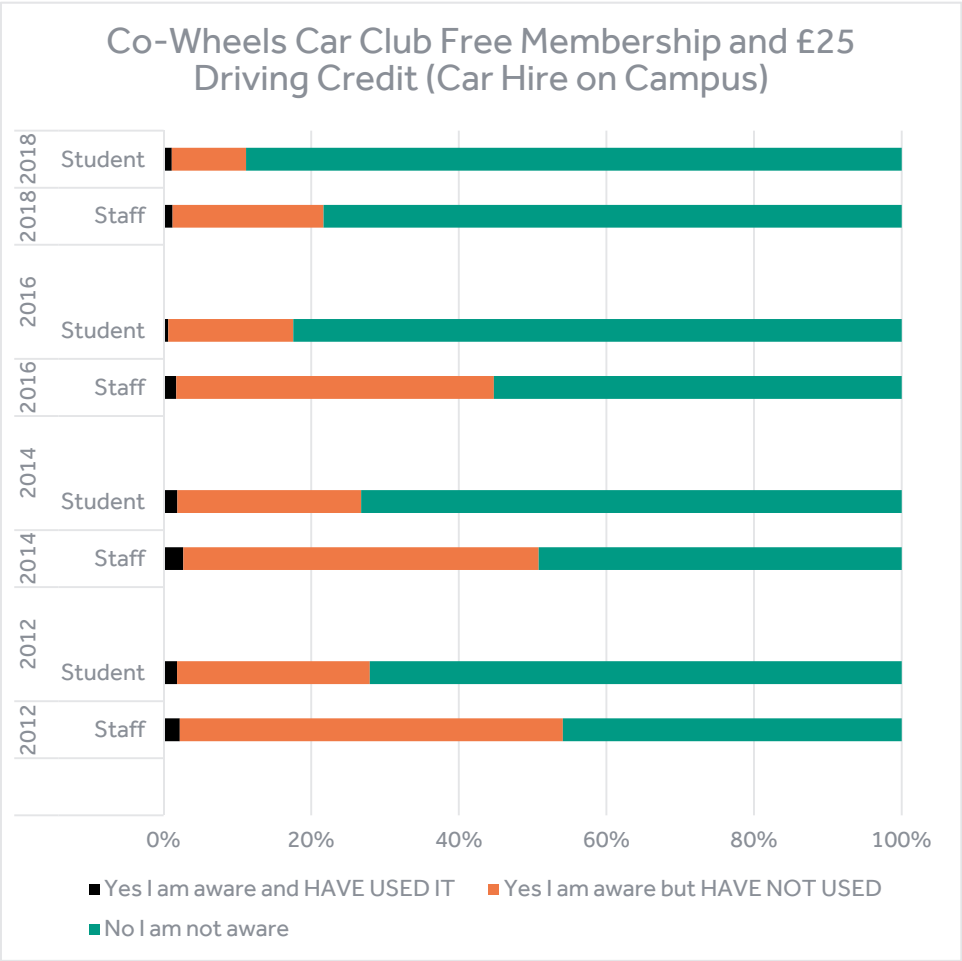
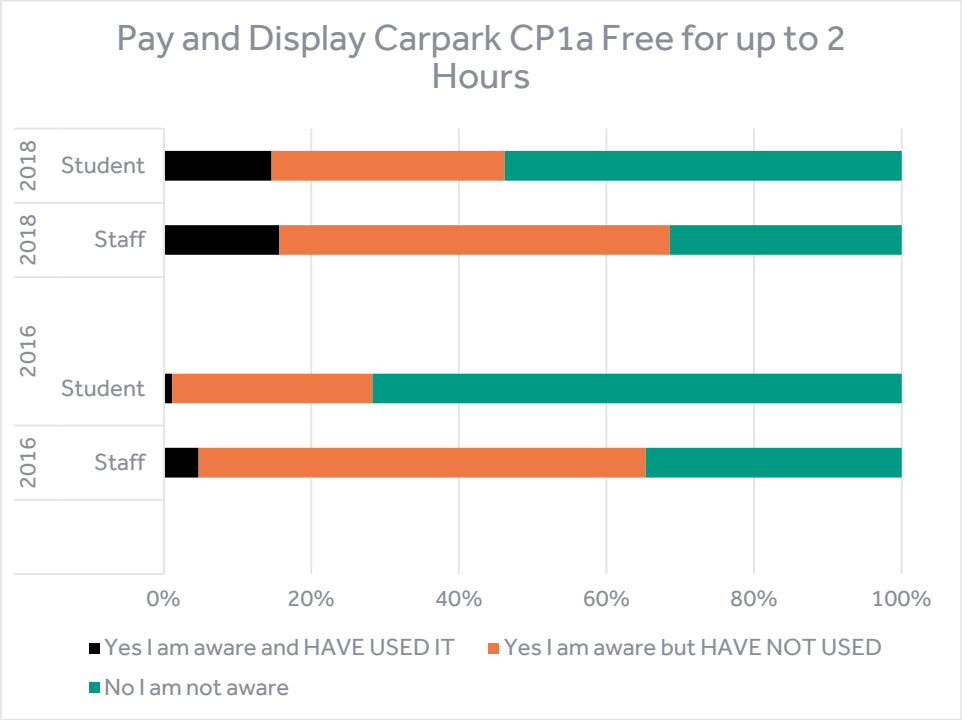
3.1 Awareness and use of cycling initiatives

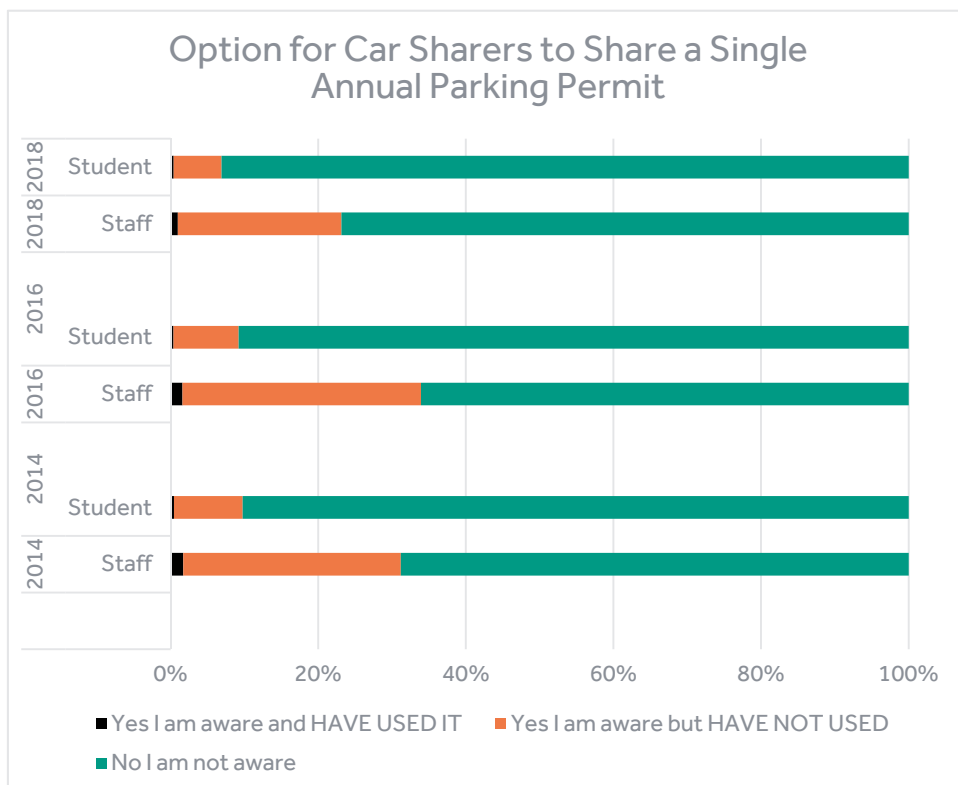
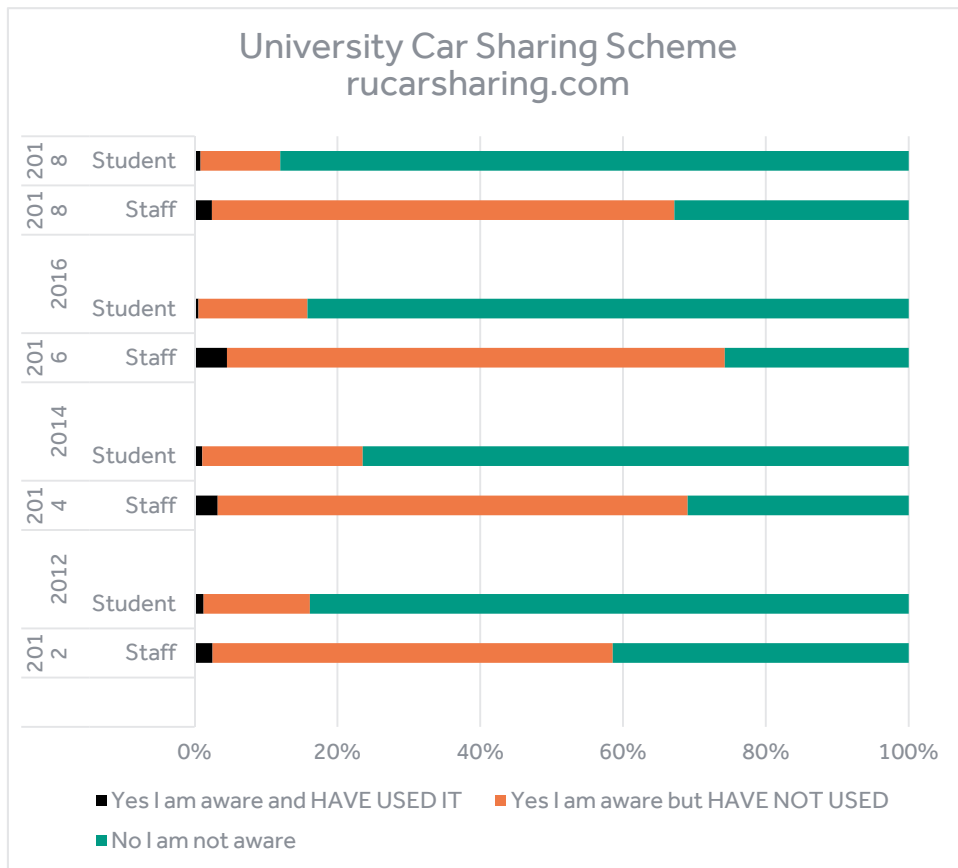


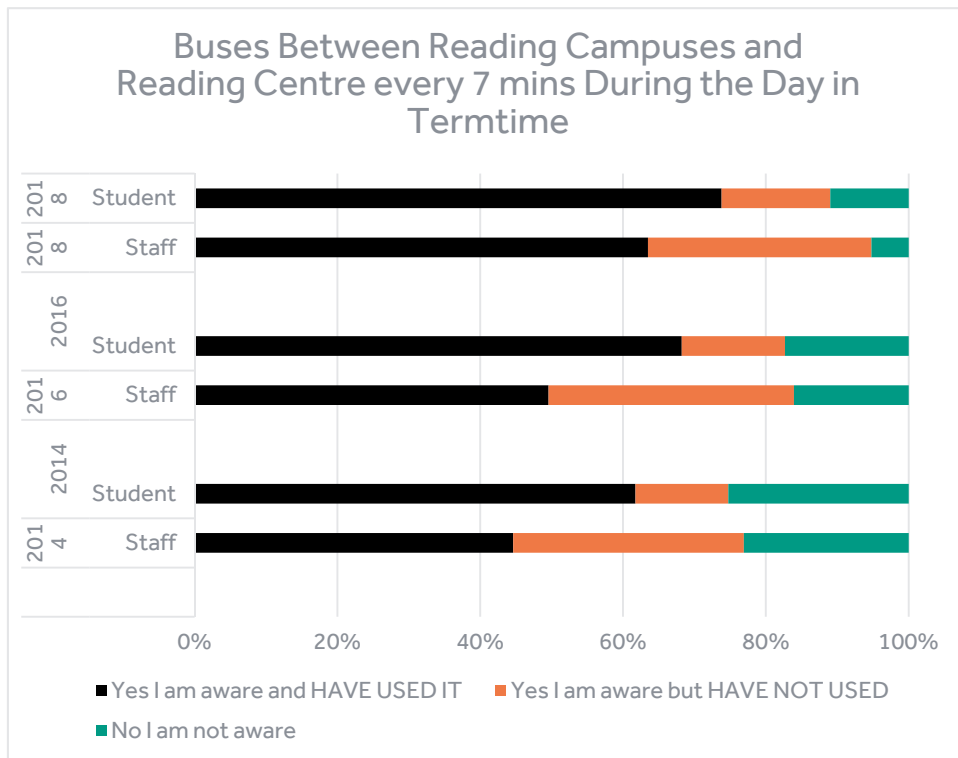




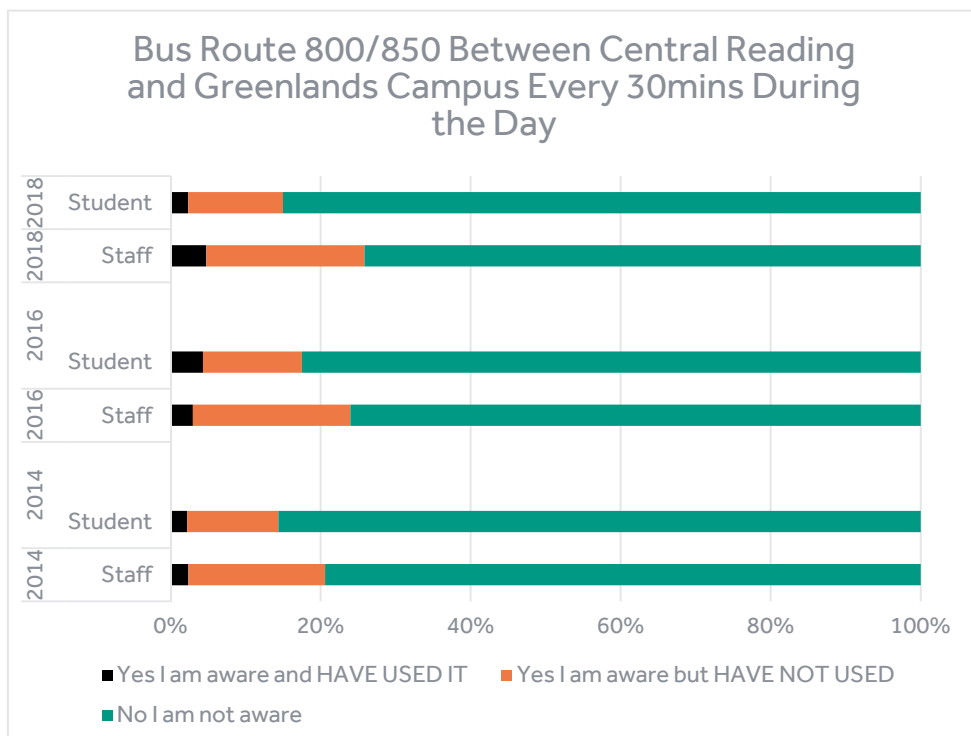
3.2 Awareness and use of driving Initiatives

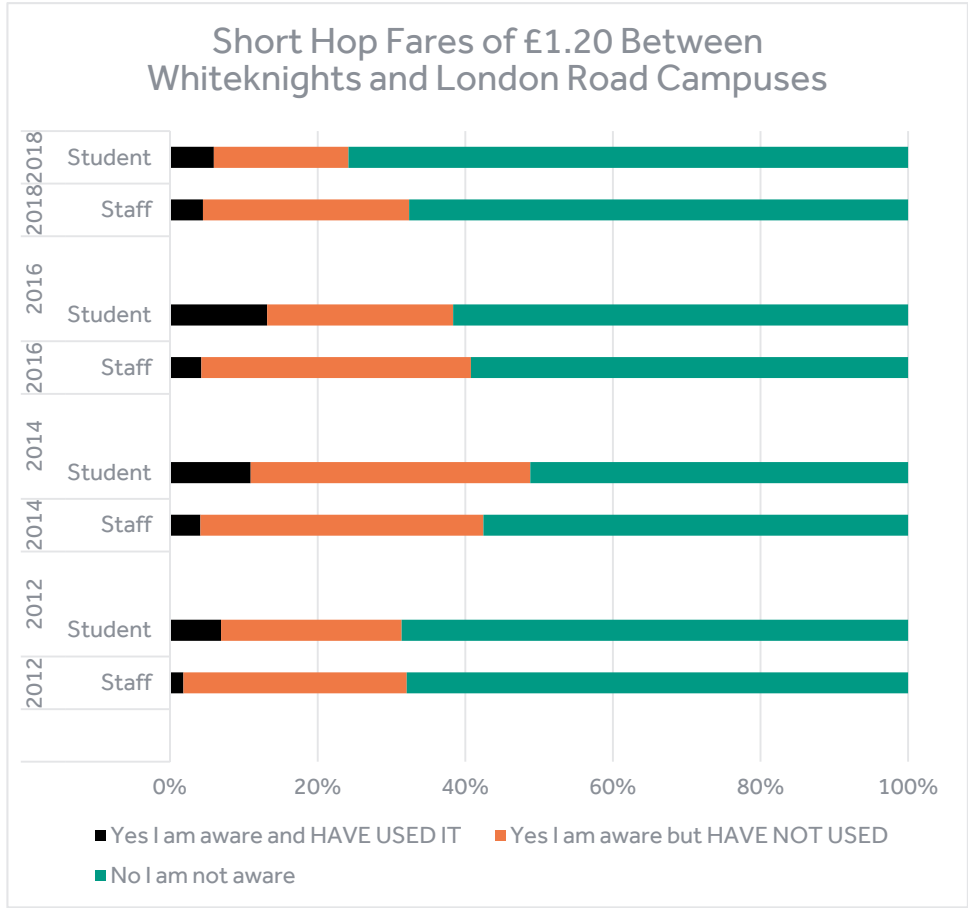
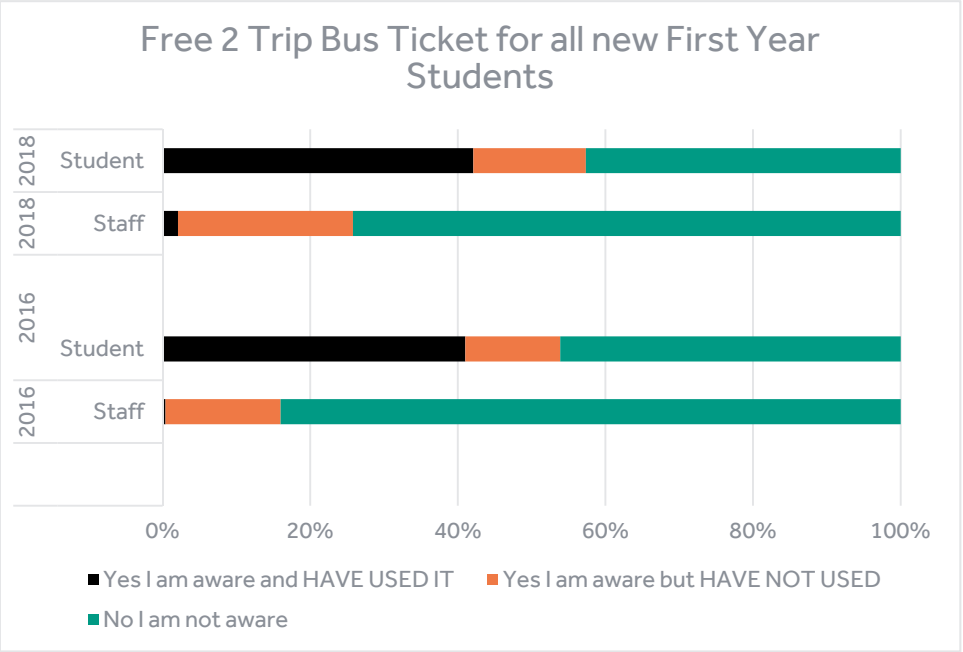


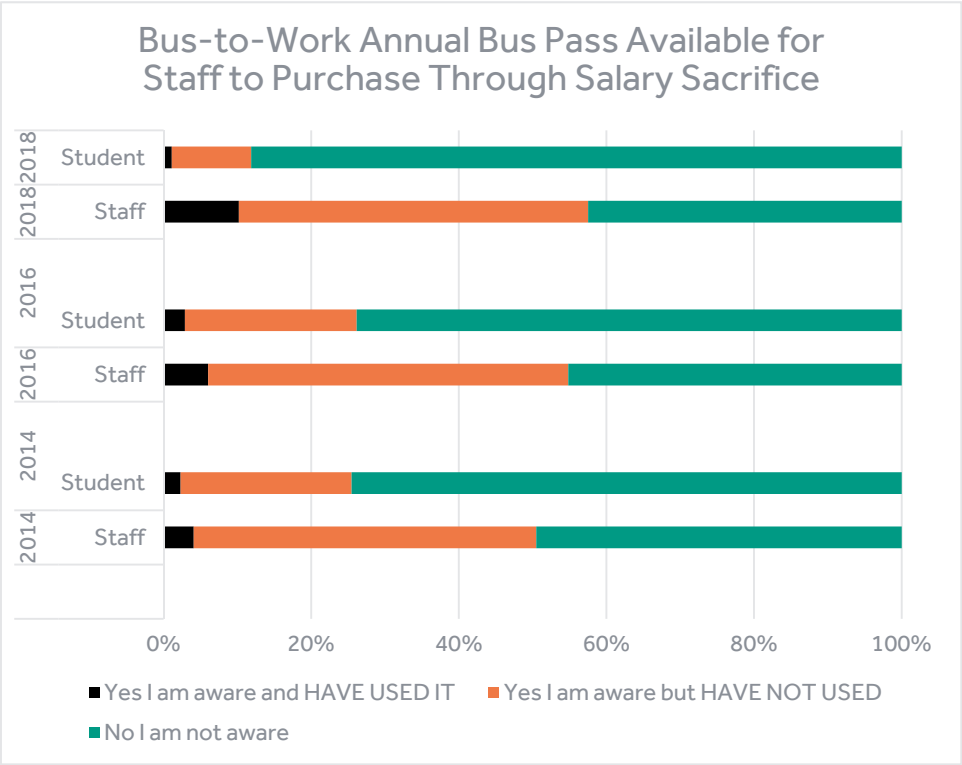
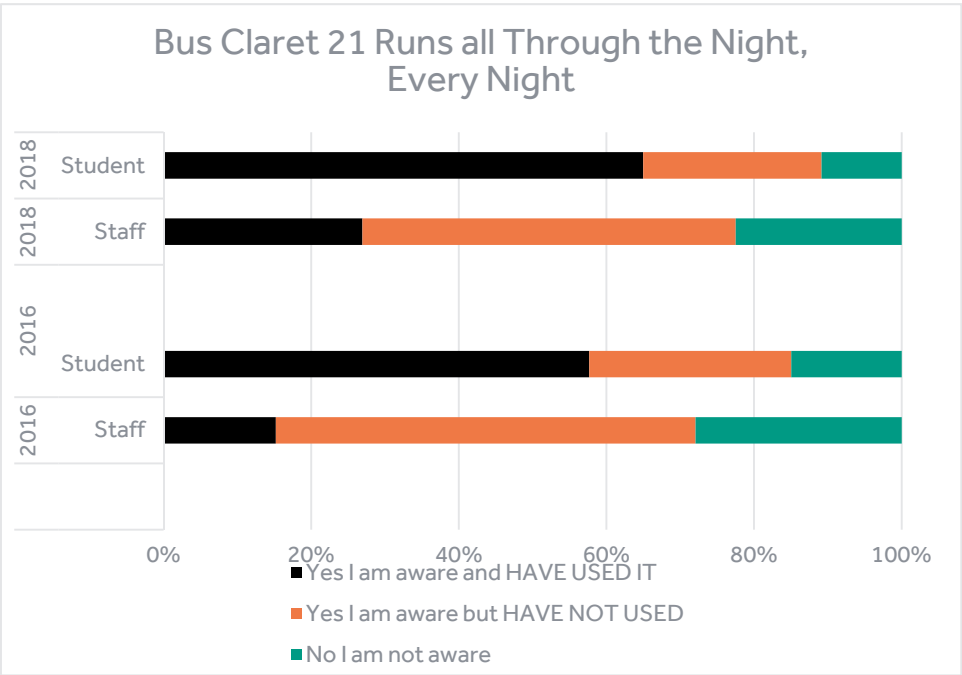


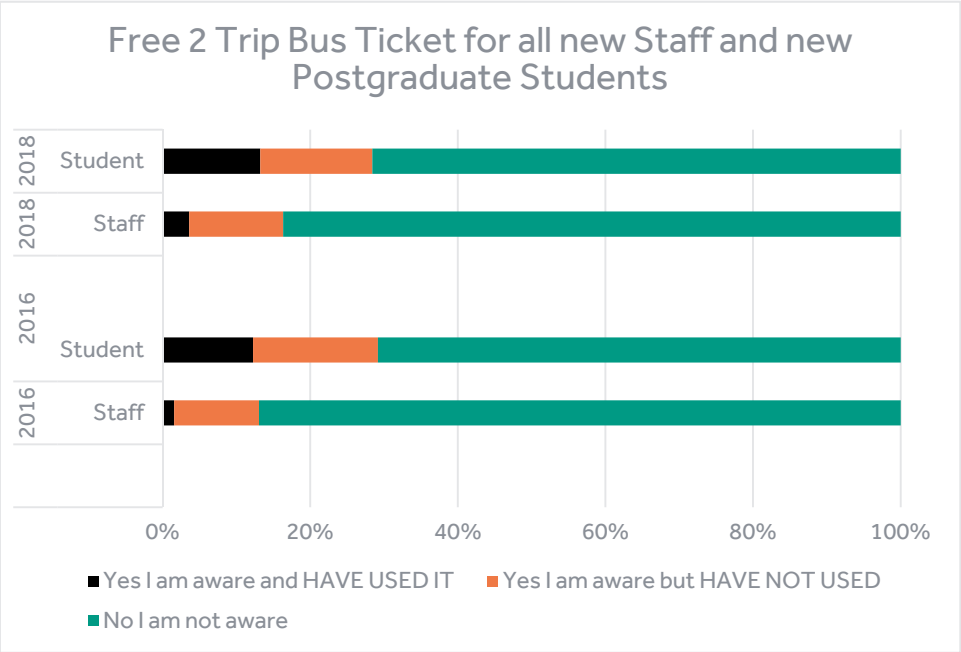
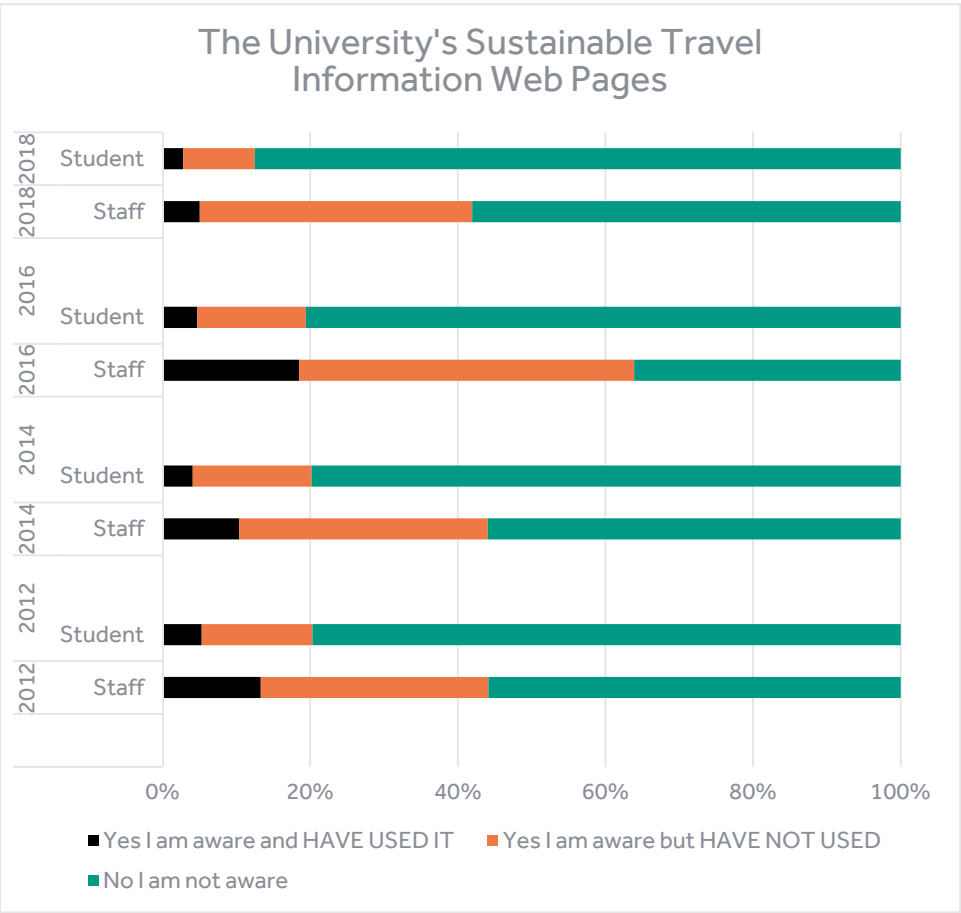


3.3 Awareness and use of public transport initiatives

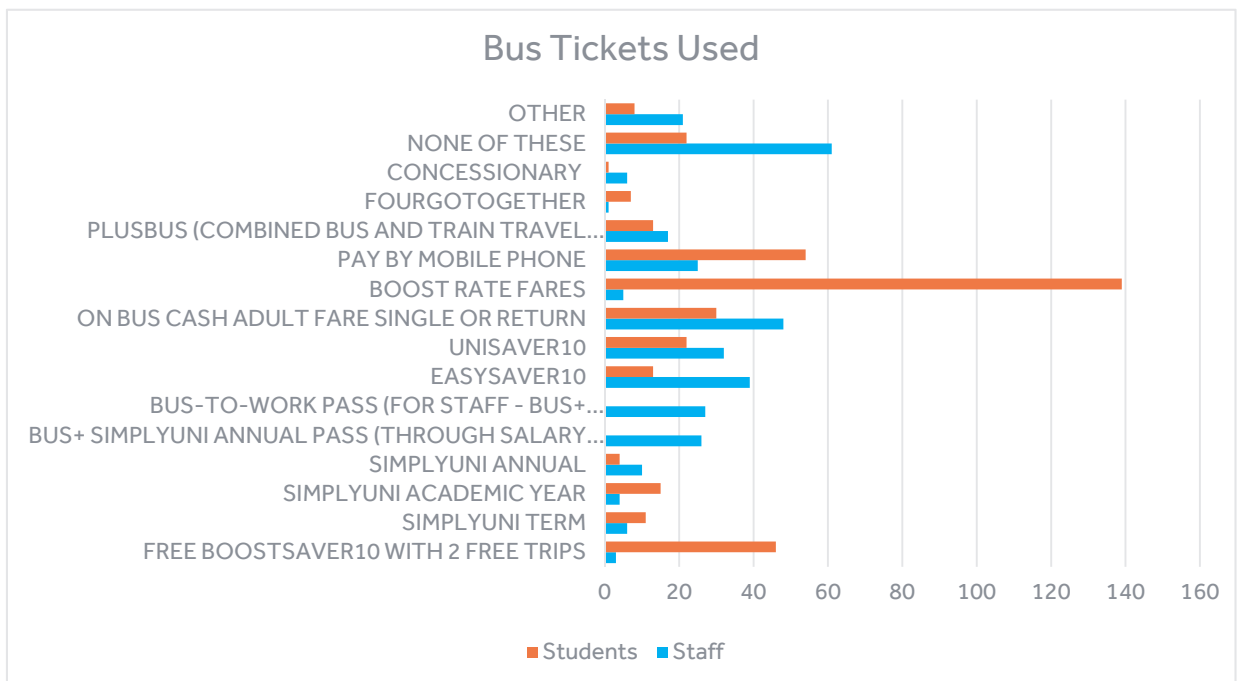
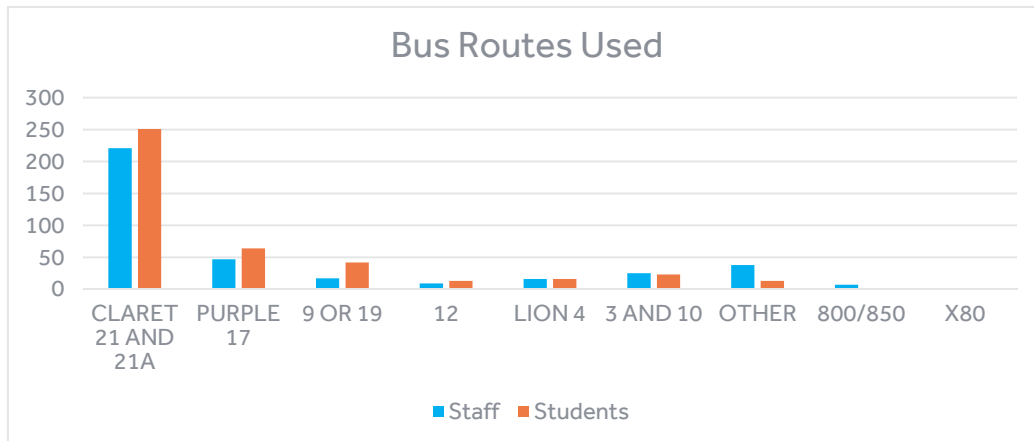


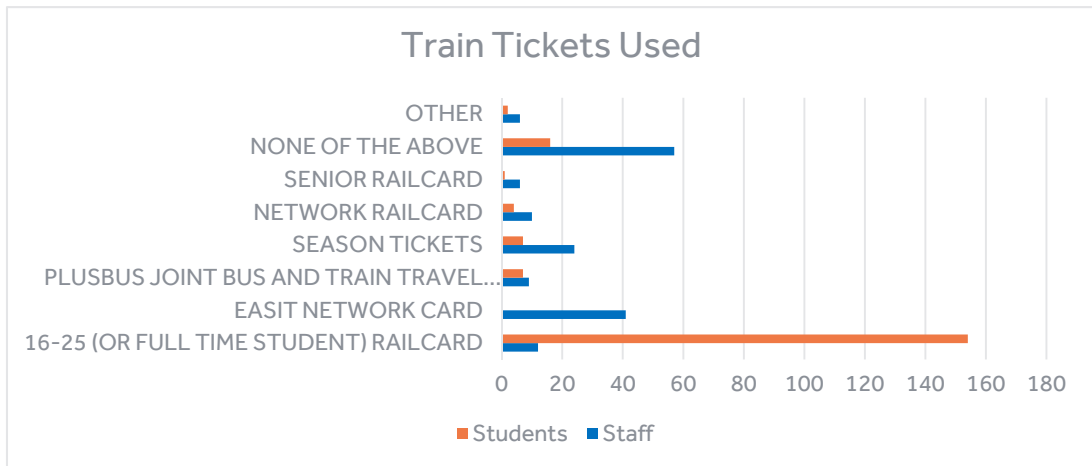
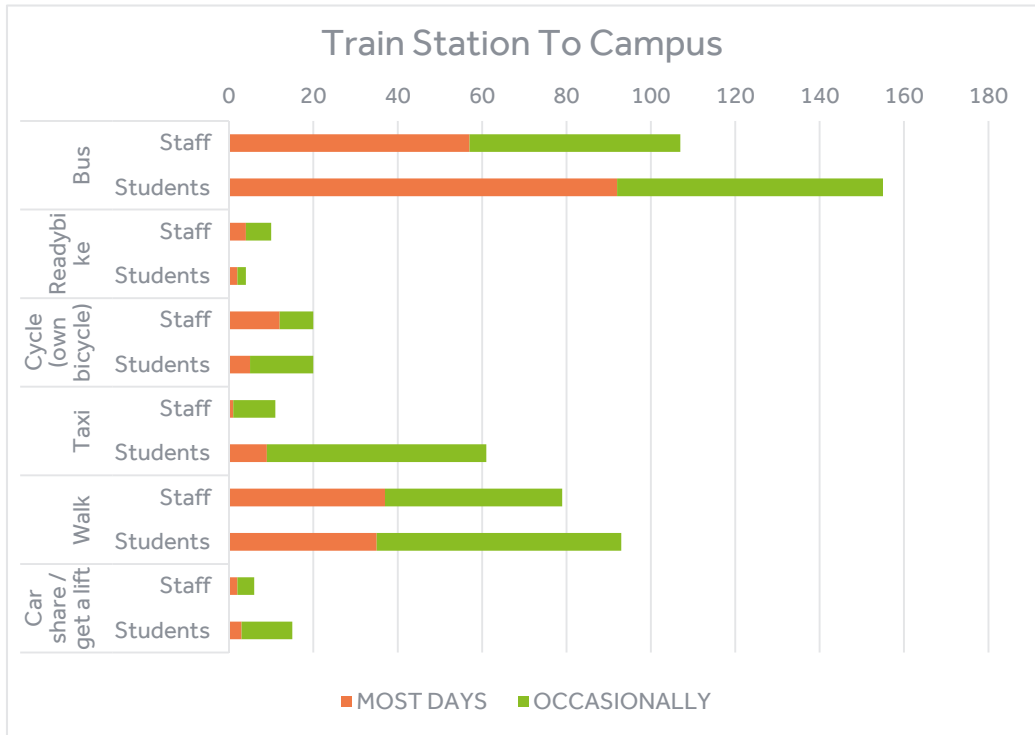
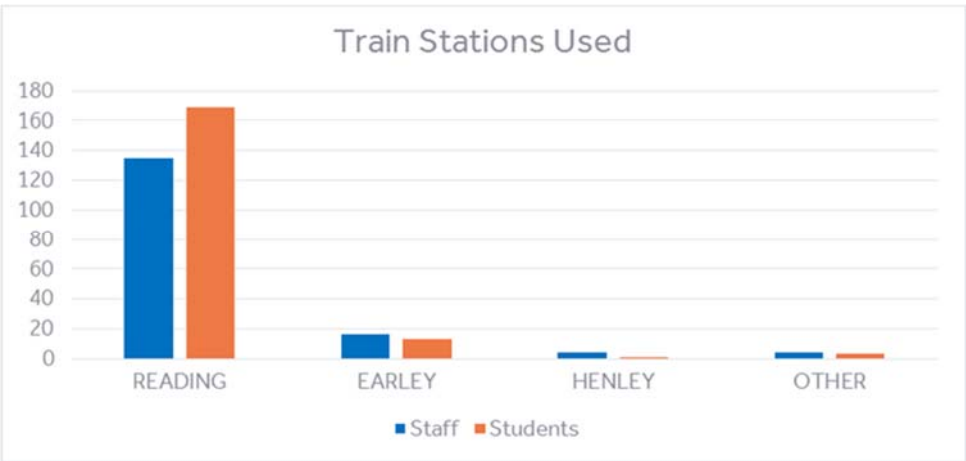






4 Public Transport tickets and routes used





5 Working From Home Open response summaries

The two tables below provide a summary of the most common responses only. Many additional comments were received.

5.1 For what reasons do you work from home / other location? - Summary of common responses.

	Staff	Student	Examples / issues raised
Staff work related responses			
For quiet time / to facilitate focus and concentration.	103		<i>When I'm working on big projects and need quiet time away from others I may work from home for a day.</i> <i>Better IT equipment at home than at work - can work faster Less interruptions for jobs that require full concentration and uninterrupted time.</i>
The office is too noisy	80		
More efficient at home	37		
When they had deadlines to meet	10		
When attending meetings off campus and it being more convenient to work from home afterwards rather than travel to campus			
Staff personal reasons			
When waiting for tradespeople or deliveries	71 general		
Caring responsibilities	38		
When children are sick	15		
Transport or weather problems that mean it is difficult to reach the office.	38		
To save work journey time.	64		<i>When I am not needed on Campus for meetings or events I can easily work remotely and it helps save the cost of trains</i>
To save journey costs	15		
If no specific reason to be in the office, and was more convenient.	76 general		
Student specific responses			
A lack of good study space		61	
Lack of Library study space		52	Included 11 complaints about the existing library study space

5.2 How do you work from home – summary table of common responses and wordcloud

How do you work from home staff wordcloud

Q41 Please tell us about how you work from a remote location / home. What software or equipment do you use to access documents and University systems and to keep in touch with colleagues? Have you faced any barriers, or is there something that has helped support your remote working?



How do you work from home – summary table of common responses

	Staff	Student	Issues raised / example quotes
<u>Access to systems</u>			
Work personal laptop	96		
Own laptop	98	95	
VPN	149		Slow; Unreliable; and disruptive when it becomes unavailable. (15 comments). Issues with having to connect through Internet Explorer. <i>University issued laptop with VPN. However, this would be greatly enhanced by a proper remote desktop system that would allow me to use a home laptop. I do not always take my work laptop home for practical reasons unless I know I'm going to be working from home. If urgent out of hours work was required or I was caught out by weather or other unexpected reason, being able to use a VPN and remote desktop access system from my home laptop would be extremely helpful.</i>
Pulse Secure	48		
Eduroam	1	7	

Blackboard		100	Very few complaints given the number of mentions
Library ebook service		49	
me@reading portal		7	2 students had issues accessing it.
<u>Access to Files</u>			
Shared drive / N drive	54		Staff can't access this from home (11 comments)
USB stick	13	4	
Cloud storage			Limited storage capacity
Apps Anywhere			6 of those reported issues, that it's not available off campus and never works when needed.
<u>Staying in touch with colleagues</u>			
Emails			
Skype for business	50	4	

Appendix D – Trip Generation and Modal Split Calculations

	Number		Percentage	
	Staff	Students	Staff	Students
Monday	150	380	18.0%	51.8%
Tuesday	195	400	23.4%	54.5%
Wednesday	180	300	21.6%	40.9%
Thursday	190	390	22.8%	53.1%
Friday	100	325	12.0%	44.3%
Saturday	20	50	2.4%	6.8%
Sunday	20	40	2.4%	5.4%
Average Weekday	163	359	19.6%	48.9%

832 staff
734 students
1566 total responses

4394 staff employed
16718 students enrolled

Arrival Times				Departure Times			
Start	End	Staff	Students	Start	End	Staff	Students
06:30	07:45	100	10	16:16	16:45	100	75
07:46	08:15	160	25	16:46	17:15	275	125
08:16	08:45	290	100	17:16	17:45	220	90
08:46	09:15	320	380	17:46	18:15	130	180
Network Peak Hour		530	393	Network Peak Hour		423	243

Assumes 75% of all students between 08:46 and 09:15 arrive for 09:00 lectures

	Daily Arrivals																	
	2018		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		5 Day average	
	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff
Walking	69.5%	21.8%	6013	173	6329	225	4747	207	6171	219	5143	115	791	23	633	23	5681	188
Cycling	9.5%	12.7%	820	101	863	131	647	121	842	127	701	67	108	13	86	13	775	109
Bus	6.8%	8.1%	592	64	623	84	468	77	608	81	506	43	78	9	62	9	559	70
Train	3.2%	8.1%	273	64	288	84	216	77	281	81	234	43	36	9	29	9	258	70
Car Driver / SOV	8.4%	42.6%	729	338	767	439	575	405	748	428	623	225	96	45	77	45	689	367
Car share with colleague	1.1%	3.6%	91	28	96	37	72	34	94	36	78	19	12	4	10	4	86	31
Car share other	1.1%	2.5%	91	20	96	26	72	24	94	25	78	13	12	3	10	3	86	22
Other	0.5%	0.5%	46	4	48	5	36	5	47	5	39	3	6	1	5	1	43	4
WfH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	100.0%	100.0%	8655	792	9111	1030	6833	951	8883	1003	7402	528	1139	106	911	106	8177	861
Checks			51.8%	18.0%	54.5%	23.4%	40.9%	21.6%	53.1%	22.8%	44.3%	12.0%	6.8%	2.4%	5.4%	2.4%	48.9%	19.6%

		Daily Departures																	
		2018		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		5 Day average	
		Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff
Walking			6013	173	6329	225	4747	207	6171	219	5143	115	791	23	633	23	5681	188	
Cycling			820	101	863	131	647	121	842	127	701	67	108	13	86	13	775	109	
Bus			592	64	623	84	468	77	608	81	506	43	78	9	62	9	559	70	
Train			273	64	288	84	216	77	281	81	234	43	36	9	29	9	258	70	
Car Driver / SOV			729	338	767	439	575	405	748	428	623	225	96	45	77	45	689	367	
Car share with colleague			91	28	96	37	72	34	94	36	78	19	12	4	10	4	86	31	
Car share other			91	20	96	26	72	24	94	25	78	13	12	3	10	3	86	22	
Other			46	4	48	5	36	5	47	5	39	3	6	1	5	1	43	4	
WfH																			
Total			8655	792	9111	1030	6833	951	8883	1003	7402	528	1139	106	911	106	8177	861	

	Daily Two-Way Movements																	
	2018		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		5 Day average	
	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff
Walking			12026	346	12659	450	9494	415	12343	438	10285	231	1582	46	1266	46	11361	376
Cycling			1640	201	1726	261	1295	241	1683	255	1403	134	216	27	173	27	1549	218
Bus			1184	129	1247	167	935	154	1216	163	1013	86	156	17	125	17	1119	140
Train			547	129	575	167	432	154	561	163	468	86	72	17	58	17	516	140
Car Driver / SOV			1458	676	1534	878	1151	811	1496	856	1247	450	192	90	153	90	1377	734
Car share with colleague			182	56	192	73	144	68	187	71	156	38	24	8	19	8	172	61
Car share other			182	40	192	52	144	48	187	51	156	27	24	5	19	5	172	44
Other			91	8	96	10	72	10	94	10	78	5	12	1	10	1	86	9
WFH																		
Total			17310	1584	18221	2060	13666	1901	17766	2007	14805	1056	2278	211	1822	211	16354	1722

		08:00-09:00 Arrivals																	
		2018		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		5 Day average	
		Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff
Walking		69.5%	21.8%	3215	110	3385	143	2538	132	3300	140	2750	73	423	15	338	15	3038	120
Cycling		9.5%	12.7%	438	64	462	83	346	77	450	81	375	43	58	9	46	9	414	70
Bus		6.8%	8.1%	317	41	333	53	250	49	325	52	271	27	42	5	33	5	299	45
Train		3.2%	8.1%	146	41	154	53	115	49	150	52	125	27	19	5	15	5	138	45
Car Driver / SOV		8.4%	42.6%	390	215	410	280	308	258	400	273	333	143	51	29	41	29	368	234
Car share with colleague		1.1%	3.6%	49	18	51	23	38	22	50	23	42	12	6	2	5	2	46	19
Car share other		1.1%	2.5%	49	13	51	17	38	15	50	16	42	9	6	2	5	2	46	14
Other		0.5%	0.5%	24	3	26	3	19	3	25	3	21	2	3	0	3	0	23	3
WfH		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total		100.0%	100.0%	4628	505	4872	656	3654	606	4750	639	3958	336	609	67	487	67	4372	548

		17:00-18:00 Departures																
2018		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		5 Day average		
	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff		
Walking	69.5%	21.8%	1987	88	2091	114	1568	105	2039	111	1699	59	261	12	209	12	1877	95
Cycling	9.5%	12.7%	271	51	285	66	214	61	278	65	232	34	36	7	29	7	256	55
Bus	6.8%	8.1%	196	33	206	42	154	39	201	41	167	22	26	4	21	4	185	36
Train	3.2%	8.1%	90	33	95	42	71	39	93	41	77	22	12	4	10	4	85	36
Car Driver / SOV	8.4%	42.6%	241	172	253	223	190	206	247	217	206	114	32	23	25	23	227	186
Car share with colleague	1.1%	3.6%	30	14	32	19	24	17	31	18	26	10	4	2	3	2	28	16
Car share other	1.1%	2.5%	30	10	32	13	24	12	31	13	26	7	4	1	3	1	28	11
Other	0.5%	0.5%	15	2	16	3	12	2	15	3	13	1	2	0	2	0	14	2
WfH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	100.0%	100.0%	2859	402	3010	523	2257	483	2935	510	2446	268	376	54	301	54	2701	437

proposed staff / students are estimated
880 assumes max capacity of all rooms
estimate occupancy of lecture rooms - 50%

99 staff
440 students (factor 50% from 880)
total daily arrivals / departures

Daily Trip Generation

	Arrivals																	
	2018		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		5 Day average	
	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff
Walking	69.5%	21.8%	158	4	167	5	125	5	162	5	135	3					150	4
Cycling	9.5%	12.7%	22	2	23	3	17	3	22	3	18	2					20	2
Bus	6.8%	8.1%	16	1	16	2	12	2	16	2	13	1					15	2
Train	3.2%	8.1%	7	1	8	2	6	2	7	2	6	1					7	2
Car Driver / SOV	8.4%	42.6%	19	8	20	10	15	9	20	10	16	5					18	8
Car share with colleague	1.1%	3.6%	2	1	3	1	2	1	2	1	2	0					2	1
Car share other	1.1%	2.5%	2	0	3	1	2	1	2	1	2	0					2	0
Other	0.5%	0.5%	1	0	1	0	1	0	1	0	1	0					1	0
WfH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	100.0%	100.0%	228	18	240	23	180	21	234	23	195	12	0	0	0	0	215	19
Checks			228	18	240	23	180	21	234	23	195	12	0	0	0	0	215.2044	19.39543

	Departures																	
	2018		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		5 Day average	
	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff
Walking			158	4	167	5	125	5	162	5	135	3	0	0	0	0	150	4
Cycling			22	2	23	3	17	3	22	3	18	2	0	0	0	0	20	2
Bus			16	1	16	2	12	2	16	2	13	1	0	0	0	0	15	2
Train			7	1	8	2	6	2	7	2	6	1	0	0	0	0	7	2
Car Driver / SOV			19	8	20	10	15	9	20	10	16	5	0	0	0	0	18	8
Car share with colleague			2	1	3	1	2	1	2	1	2	0	0	0	0	0	2	1
Car share other			2	0	3	1	2	1	2	1	2	0	0	0	0	0	2	0
Other			1	0	1	0	1	0	1	0	1	0	0	0	0	0	1	0
WfH			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	0.0%	0.0%	228	18	240	23	180	21	234	23	195	12	0	0	0	0	215	19
Checks			228	18	240	23	180	21	234	23	195	12	0	0	0	0	215	19

	Two-Way																	
	2018		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		5 Day average	
	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff
Walking			317	8	333	10	250	9	325	10	271	5					299	8
Cycling			43	5	45	6	34	5	44	6	37	3					41	5
Bus			31	3	33	4	25	3	32	4	27	2					29	3
Train			14	3	15	4	11	3	15	4	12	2					14	3
Car Driver / SOV			38	15	40	20	30	18	39	19	33	10					36	17
Car share with colleague			5	1	5	2	4	2	5	2	4	1					5	1
Car share other			5	1	5	1	4	1	5	1	4	1					5	1
Other			2	0	3	0	2	0	2	0	2	0					2	0
WfH			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total			456	36	480	46	360	43	468	45	390	24	0	0	0	0	430	39
Checks			456	36	480	46	360	43	468	45	390	24	0	0	0	0	430	39

Method of Travel	Mode Share		5 Day average	
	Student	Staff	Student	Staff
Walking	69.5%	21.8%	299	8
Cycling	9.5%	12.7%	41	5
Bus	6.8%	8.1%	29	3
Train	3.2%	8.1%	14	3
Car Driver / SOV	8.4%	42.6%	36	17
Car share with colleague	1.1%	3.6%	5	1
Car share other	1.1%	2.5%	5	1
Other	0.5%	0.5%	2	0
WfH	-	-	-	-
Total	100.0%	100.0%	430	39
			430	39

307
46
33
17
53
6
6
2
469

Peak Hours Trip Gen

		08:00-09:00 Arrivals															
2018		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		5 Day average	
Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff
Walking		85	2	89	3	67	3	87	3	72	2	0	0	0	0	80	3
Cycling		12	1	12	2	9	2	12	2	10	1	0	0	0	0	11	2
Bus		8	1	9	1	7	1	9	1	7	1	0	0	0	0	8	1
Train		4	1	4	1	3	1	4	1	3	1	0	0	0	0	4	1
Car Driver / SOV		10	5	11	6	8	6	11	6	9	3	0	0	0	0	10	5
Car share with colleague		1	0	1	1	1	0	1	1	1	0	0	0	0	0	1	0
Car share other		1	0	1	0	1	0	1	0	1	0	0	0	0	0	1	0
Other		1	0	1	0	1	0	1	0	1	0	0	0	0	0	1	0
WfH																	
Total		122	11	128	15	96	14	125	14	104	8	0	0	0	0	115	12

		17:00-18:00 Departures															
2018		Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday		5 Day average	
Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff	Student	Staff
Walking		52	2	55	3	41	2	54	3	45	1	0	0	0	0	49	2
Cycling		7	1	8	1	6	1	7	1	6	1	0	0	0	0	7	1
Bus		5	1	5	1	4	1	5	1	4	0	0	0	0	0	5	1
Train		2	1	3	1	2	1	2	1	2	0	0	0	0	0	2	1
Car Driver / SOV		6	4	7	5	5	5	7	5	5	3	0	0	0	0	6	4
Car share with colleague		1	0	1	0	1	0	1	0	1	0	0	0	0	0	1	0
Car share other		1	0	1	0	1	0	1	0	1	0	0	0	0	0	1	0
Other		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WFH																	
Total		75	9	79	12	59	11	77	11	64	6	0	0	0	0	71	10

Mode of Travel - Arrivals	Weekday		
	Student	Staff	Total
Walking	80	3	83
Cycling	11	2	12
Bus	8	1	9
Train	4	1	5
Car Driver / SOV	10	5	15
Car share with colleague	1	0	2
Car share other	1	0	2
Other	1	0	1
WfH	0	0	0
Total	115	12	127

Mode of Travel -	Weekday		
	Student	Staff	Total
Walking	49	2	52
Cycling	7	1	8
Bus	5	1	6
Train	2	1	3
Car Driver	6	4	10
Car share	1	0	1
Car share	1	0	1
Other	0	0	0
WfH	0	0	0
Total	71	10	81

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