

2018

Staff and student travel survey



Executive Summary

This report sets out the key findings of the 2018 University of Birmingham staff and student travel survey, undertaken between 1st and 31st October. The survey acts as the primary mechanism for measuring the impact of the University's Sustainable Travel Plan.

The University of Birmingham has been conducting a travel survey amongst staff and students since 2008. The aim of the survey and the resultant action plan is to gain an understanding of staff and student travel habits, identify areas for improvement, reduce single occupancy car usage and in turn help reduce its carbon footprint.

An online questionnaire was designed and distributed to staff and students at the University of Birmingham, through a variety of communication platforms including paper copies for those without access to a computer. The survey attracted a response rate of 14.2% for students and 36.6% for staff, providing a fair representation of staff and student travel behaviour. Response rates improved in both categories compared to 2016 with an additional 1085 responses.

The University has seen a reduction of 3.5% in single use occupancy car usage amongst staff since 2016. Use of public transport, car sharing and cycling has also increased amongst staff.

Use of single occupancy cars has also decreased amongst students with a 1% reduction for undergraduates plus a significant reduction of 5% amongst postgraduate students. Walking and cycling has also increased amongst the student population.

The decrease in single occupancy car usage amongst staff reverses the results from 2016 which saw a shift away from public transport back to cars. There has however been a significant reduction in the number of staff walking to the University.

As with previous years the majority of undergraduate students are travelling actively with 73% walking and 5% cycling. There have also been significant increases in the number of postgraduate students walking and a small increase in cycling.

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Section 1: Introduction

The survey results provide valuable information about staff and student travel behaviours, whilst also gauging both groups' awareness and perceptions of the sustainable travel options that are available to them. The results help to inform the University's ongoing Sustainable Travel Plan.

Campus location

The University's main campus is located in Edgbaston, approximately 4 miles from Birmingham City Centre, in an accessible urban location. The main campus is well served by a range of public transport options and is the only University in the United Kingdom to have a mainline train station located on campus. The University operates a controlled car park management system to ensure the correct usage of the main campus parking facilities. Car parking is predominantly offered to staff on a pay-as-you-go basis to try and increase the use of alternatives modes of travel where possible. Students are not allowed to park in central areas of campus unless they meet certain criteria.

Sustainable Travel Action Plan 2016-2021

The University's Sustainable Travel Action outlines the strategic framework that aims to encourage more staff and students to travel to the University via more sustainable methods. Originally developed by the University Travel Plan Steering group, the focus is to implement a range of initiatives that remove barriers to and encourage sustainable travel.

The main objectives are to:

- Reduce single occupancy vehicle usage by staff, students and visitors
- Encourage the use of sustainable modes of travel to the above groups
- Reduce the number of staff, students and visitors parking on campus
- Encourage the use of sustainable modes of travel for work related journeys
- Reduce the negative impacts of travel to the University on local roads and the local community

The Action Plan sets out all of the travel plan measures and objectives in a clear time specific manner.

Report structure

Following this introductory section, section two of the report outlines the methodology of the study and then section three details the survey findings with specific reference to the

progress made towards the sustainable travel plan targets. Section four outlines a series of subsequent recommendations to reflect the survey results. Section six provides a conclusion.

Section 2: Methodology

Following consultation with the University Sustainable Travel Coordinator, it was decided that the survey questions should be parallel to those in the 2016 travel survey. Using similar questions enables a direct comparison of survey results from previous years. A question was added to the survey regarding awareness of travel initiatives and incentives in order to identify areas of improvement for communication.

The survey content was reviewed by a number of key stakeholders at different stages of its construction, which allowed amendments to be made in light of feedback. The survey was created online using Survey Monkey, with the link to the survey being emailed to staff and students and a reminder email circulated for students. Paper surveys were also made available for staff without regular access to a computer. Students were employed to collect survey responses on campus directly from staff and students. This method proved very successful with over 1000 responses collected.

Section 3: Survey Results and Analysis

Response Rate

Response rates were calculated after obtaining staff employment statistics from Human Resources and this indicated that there are 8,058 staff currently working at the University.

Student statistics were obtained through accessing enrolment statistics on the University mailing list and this revealed that a total of approximately 32,000 students were enrolled at the University, during the survey period. Using these figures, the response rate was calculated, as seen in Table 1.

Table 1: Response Rate

Response Rate	Total	Percentage of total
Staff	2926	36.6%
Student	4019	14.2%
Total	7455	18.4%

Response rates for both staff and students increased in comparison to 2016 from 31.8% for staff and 13.1% for students.

The continued improvement in response rates for the travel survey demonstrates that communication methods are working and that staff and students are engaging.

Campus Location

Table 2: Campus Location

	Undergraduates		Postgraduates		Staff		Total	
	%	N	%	N	%	N	%	N
Main Campus (Edgbaston)	91.9%	3,226	89.8%	915	90.3%	2,643	91%	6,784
Selly Oak Campus	2.5%	88	3.6%	36	1.7%	47	2.2%	171
Dental School	1.7%	63	0.8%	8	0.9%	29	1.3%	100
Shakespeare Institute	0.1%	4	0.7%	7	0.1%	5	0.2%	16
Ironbridge Institute	0.03%	1	0.9%	9	0.03%	1	0.2%	11
Raymond Priestly Centre	0.06%	2	0%	0	0.3%	4	0.08%	6
Guild of Students	0.3%	11	0.7%	8	0.9%	27	0.7%	46
Other	3.4%	115	3.5%	36	5.9%	170	4.3%	321

Table 2 shows that the majority of survey respondents selected the main campus, in Edgbaston, as their main place of work or study (91.9% undergraduate, 89.7% postgraduate and 90.3% staff). This is representative of the majority of teaching and corporate service activity taking place in this location. A small proportion of staff and students nominated either the Dental Hospital or the Selly Oak Campus as their place of work or study, with teaching also taking place at these locations. In addition a similarly low proportion of staff and students selected “other” study/work locations, which accounts for staff and students on placement and also distance learners.

The report shall focus on the travel issues that affect staff and students that commute to the main campus in Edgbaston, to allow for a more concise analysis. However travel issues for the other University locations shall be referred to in the analysis of open responses and also form part of the recommendations section.

Campus Arrival Time

Figure 1: Campus arrival time

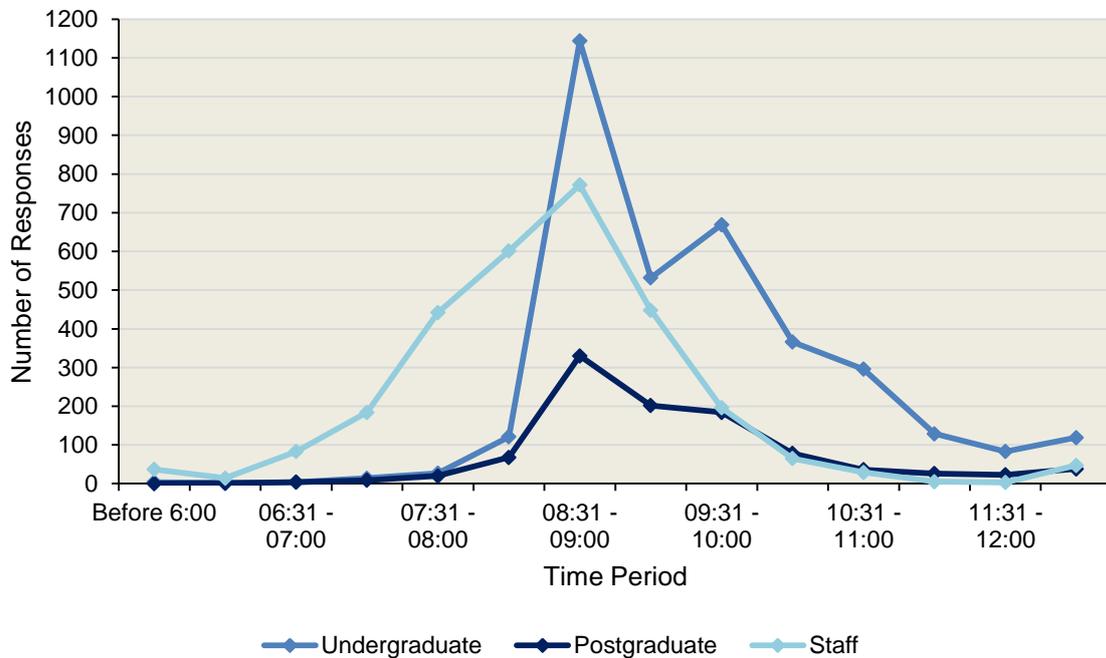


Figure 1 shows that the majority of staff and students arrive on campus between 08:00 and 10:00 however there are significant differences in arrival times patterns between staff, undergraduates and postgraduates.

Peak arrival time for staff is between 08:00 and 09:00 with a sharp decline thereafter. There is a similar peak with undergraduates students arriving on campus between 08:30 and 09:00. As with previous years there is a further peak around 10:00 which can be explained by lecture start times. The majority of postgraduates arrive between 08:30 and 09:00 with no secondary spike.

Main travel method

Perhaps the most important question contained in the survey asks the respondents to specify their main method of travel to the University. The results are shown below in Table 3.

Table 3: Main travel method

Method	Undergraduates		Postgraduates		Staff		Total	
	n	%	n	%	n	%		
Car/Van as a single occupant	118	3.4%	104	10.4%	992	34.5%	1,214	16.6%
Car/Van as a shared journey	26	0.7%	16	1.6%	259	9%	301	4.1%
Bus	276	7.9%	115	11.5%	232	8.1%	623	8.5%
Train	293	8.5%	230	23.1%	744	25.9%	1,267	17.3%
Metro	12	0.4%	4	0.5%	9	0.3%	25	0.3%
Walk/Jog	2,530	73.2%	430	43.1%	334	11.5%	3,294	44.9%
Bicycle	182	5.3%	91	9.1%	290	10.1%	563	7.7%
Motorcycle/ Scooter	5	0.2%	3	0.3%	8	0.3%	16	0.3%
Taxi	11	0.3%	4	0.4%	6	0.2%	21	0.3%
Other	2	0.1%	0	0.00%	4	0.1%	6	0.1%
TOTAL	3,455	100%	997	100%	2,878	100%	7,330	

Figure 2: Main travel method

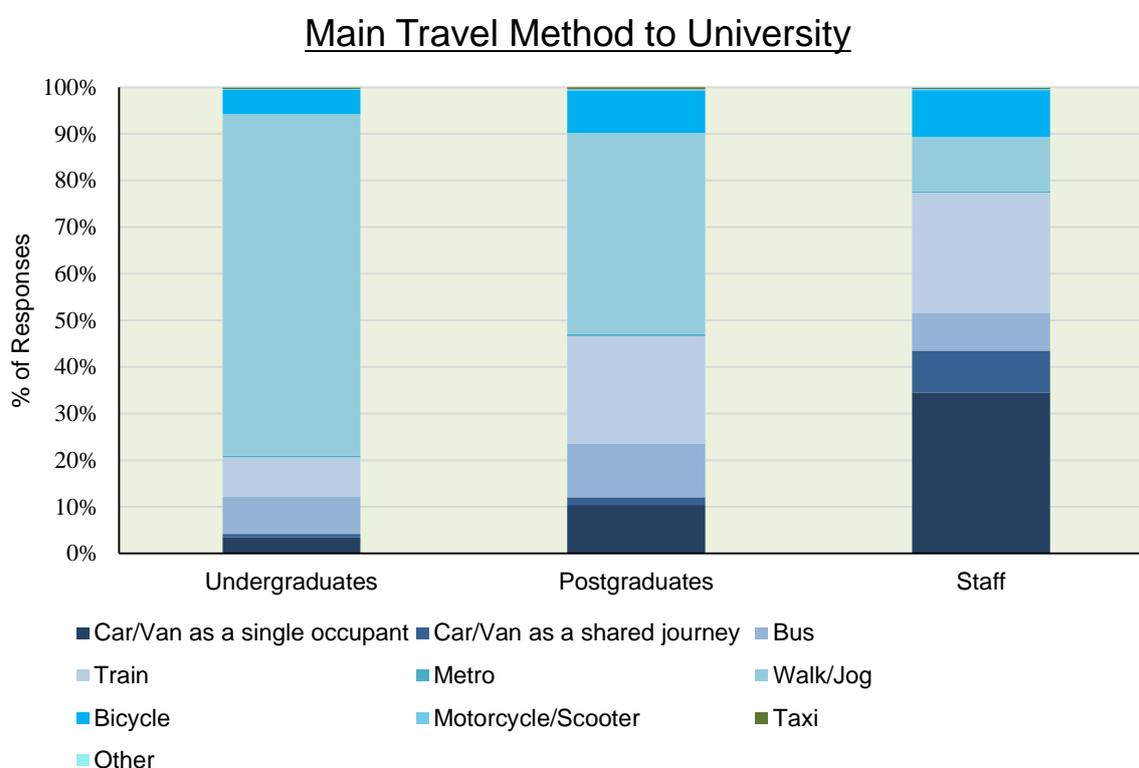


Figure 2 demonstrates car travel as still the most popular method amongst staff, with 34.5% travelling as a single occupant and a further 9% as a shared journey. Car usage is considerably lower amongst the student population with just 3.4% of undergraduates travelling as a single occupant and 10.4% of postgraduates. Car sharing amongst students is also minimal with less than 1% of undergraduates and 1.6% of postgraduates.

More than 30% of staff travel to the University by public transport with 25.8% using the train and 8.1% travelling by bus. As in previous years this is mirrored in the postgraduate population with 23.1% on the train and 11.5% on the bus. Public transport use is lower amongst undergraduates with 7.9% using the bus and 8.5% on the train.

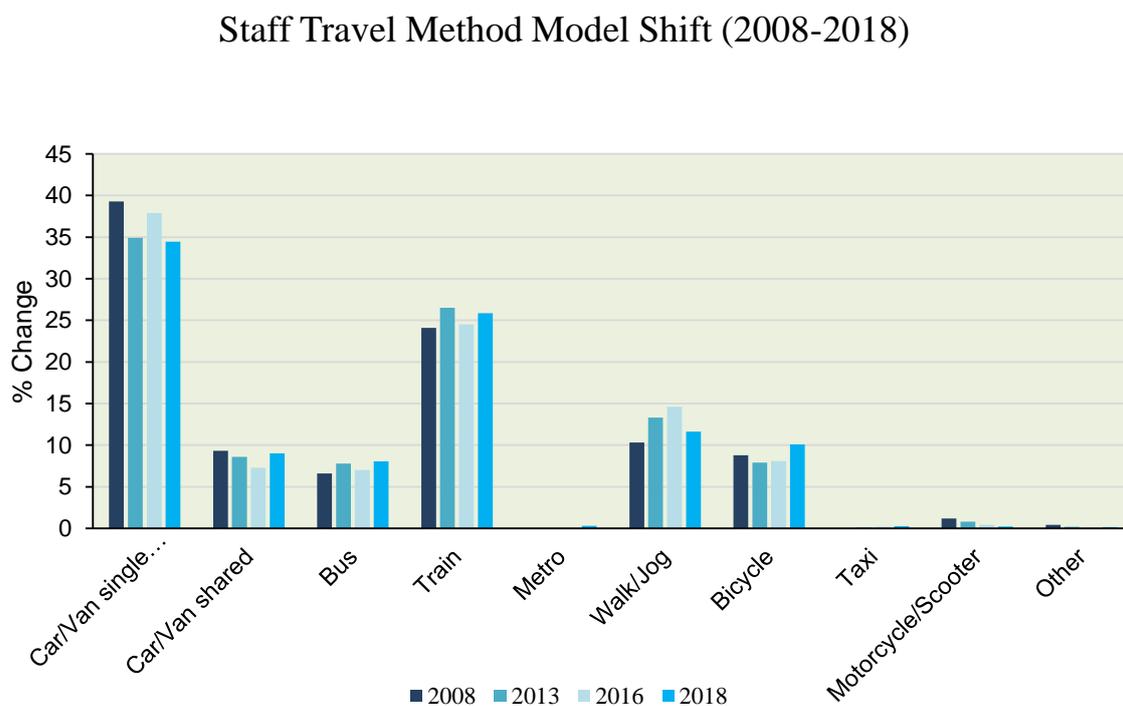
Nearly 80% of undergraduate students travel to university by active travel methods, with 73.2% walking and 5.2% choosing to commute by bicycle. In comparison 52% of postgraduate students travel to commute by active methods, of which 43.1% walk or jog and 9.1% cycle. Active travel levels are lower amongst staff but still significant with 10% cycling and 11.6% walking.

Modal shift since 2008

Since 2008 the University has used the travel survey data to identify areas for improvement and inform the Sustainable Travel Plan. A number of targets were devised and are summarised below:

- Achieve a 5% reduction in the proportion of staff and student single occupancy car journeys
- Increase the proportion of staff and students walking and/or cycling to the University
- Increase the proportion of staff and students using public transport to access the University
- Increase the proportion of staff car sharing

Figure 4: Travel method modal shift amongst staff 2008-2018



Staff Travel method trends (Annual % change): 2008-2018							
	2008	2013	2016	2018	Change from 2008	Change from 2013	Change from 2016
Car/Van single occupant	39.3	34.9	37.9	34.5	-4.83	-0.4	-3.43
Car/Van shared	9.3	8.6	7.3	9.00	-0.3	0.4	1.7
Bus	6.6	7.8	7	8.1	1.46	0.3	1.06
Train	24.1	26.5	24.5	25.8	1.75	-0.65	1.35
Metro	-	-	-	0.3	-	-	-
Walk/Jog	10.3	13.3	14.6	11.6	1.31	-1.69	-2.99
Bicycle	8.8	7.9	8.1	10.1	1.28	2.18	1.98
Taxi	0	0.1	0.2	0.2	0.28	0.18	0.08
Motorcycle/Scooter	1.2	0.8	0.4	0.2	-0.99	-0.59	-0.19
Other	0.4	0.2	0.1	0.1	-0.26	-0.06	0.04

Table 4: Travel method modal shift amongst staff 2008-2018

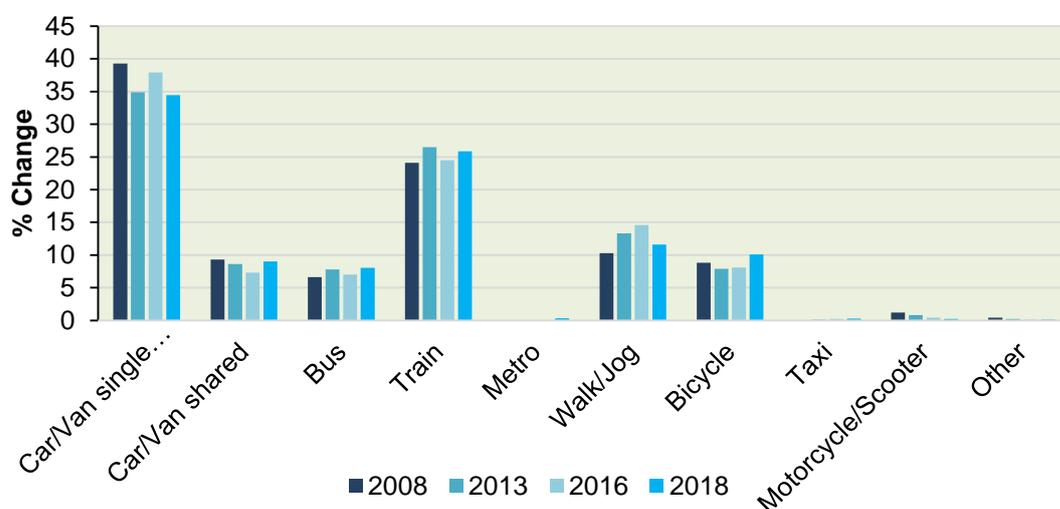
The table above shows the modal shift of staff travel habits between 2008 and 2018. The University has almost achieved its aim of a 5% reduction in single occupancy car usage amongst staff with a 4.8% decrease since 2008. This is despite an increase of 3% between 2013 and 2016. Since 2016 there has been a 3.4% decrease in the number of staff commuting via single occupancy vehicle. This reversal of the 2016 results can be attributed to an increase in cycling, car sharing and staff returning to public transport.

The 2016 report showed reductions in patronage of buses and trains which has been reversed with a 1% increase in bus and train usage.

There has been a significant increase in the number of staff cycling to the university up 2% since 2016 to 10%. Less encouraging is the 3% reduction in the number of staff walking to work.

Figure 5: Travel method modal shift amongst students 2008-2018

Student Travel Method Model Shift (2008-2018)



The table above shows there has been a reduction in single occupancy car usage amongst both undergraduate and postgraduate students. There has been a small reduction of 1.3% down to 3.4% amongst undergraduates but amongst postgraduates the reduction is nearly 5%.

Usage of public transport amongst both groups of students has also increased.

Cycling levels amongst students have remained stable with a slight increase amongst undergraduates of 1.2% to 5.3%. Postgraduate cycling levels have dropped very slightly by 0.4%. As expected walking is still the most dominant method of travel amongst students with 73% of undergraduates and 43% of postgraduates choosing to walk to the University.

Table 5: Student travel method modal shift between 2008-2018

Student Travel method trends (Annual % change): 2008-2018							
	2008	2013	2016	2018	Change from 2008	Change from 2013	Change from 2016
Car/Van single occupant	9	9.9	8.3	4.9	-4.1	-5	-3.3
Car/Van shared	3	1.7	1.3	0.9	-2.1	-0.8	-0.3
Bus	12	7.7	8	8.7	-3.3	1	0.7
Train	17	16.4	16.3	11.7	-5.3	-4.7	-4.5
Metro	-	-	-	0.3	-	-	-
Walk/Jog	55	57.9	59.2	66.4	11.4	8.5	7.2
Bicycle	4	5.7	6.1	6.1	2.1	0.4	0.03
Taxi	0	0.3	0.5	0.1	0.1	-0.1	-0.3
Motorcycle/Scooter	0	0.1	0.2	0.3	0.3	0.2	0.1
Other	0	0.3	0.2	0.04	0.04	-0.1	-0.1

Occasional Travel Method

Table 6: Occasional travel methods

Method	Undergraduates		Postgraduates		Staff		Total
	n	%	n	%	n	%	
Car/Van as a single occupant	187	5.4%	100	10%	747	25.9%	14.1% 1,034
Car/Van as a shared journey	188	5.4%	60	6%	218	7.6%	6.4% 466
Bus	410	11.8%	192	19.3%	442	15.4%	14.2% 1,044
Train	555	16.1%	180	18.1%	611	21.2%	18.4% 1,346
Metro	16	0.5%	10	1.0%	11	0.4%	0.5% 37
Walk/Jog	1,555	45%	316	31.7%	351	12.2%	30.3% 2,222
Bicycle	286	8.3%	67	6.7%	176	6.1%	7.2% 529
Motorcycle/ Scooter	3	0.1%	1	0.1%	22	0.7%	0.3% 26
Taxi	212	6.1%	50	5%	143	4.9%	5.5% 405
None	43	1.3%	21	2.1%	157	5.6%	3.1% 221
TOTAL	3,455	100%	997	100%	2,878	100%	7,330

Table 6 shows that over a quarter of staff (25.9%) occasionally travel by car as a single occupant, this is a larger proportion than both undergraduates (5.4%) and postgraduates (10%). Car sharing numbers are similar across undergraduates (5.4%), staff (7.6%) and postgraduates (6%).

Public transport shows a similar modal split for occasional train usage in particular (21.2% of staff, 16.1% undergraduates and 18.1% postgraduates). Occasional bus usage is highest amongst postgraduates at 19.3% with 15.4% of staff and just 11.8% of undergraduates.

Walking as an occasional method of travel has increased for both undergraduates (45%) and postgraduates (31.7%) but has seen a decrease amongst staff to 12.2%. Cycling as an occasional mode of travel is down amongst all groups with less than 10% split.

It is encouraging that more than 50% of staff occasionally travel on public transport or via active methods of walking or cycling. The low numbers and decrease from 2016 in students using cars as occasional methods of travel is also encouraging.

The following section focuses on the occasional travel methods of single occupancy car users and this shall therefore provide a better indication of where the travel plan needs to focus in order to encourage a shift away from cars.

Occasional travel for car users

The University is seeking ways in which to reduce the proportion of single occupancy car journeys made by staff and students. By filtering out the occasional travel method of the respondents that travel by car as a single occupant, as their main method, the University can investigate the best ways to encourage these groups to adopt their occasional as their main method. Table 7 shows the occasional travel method of single occupancy car users.

Table 7: Occasional travel for car users

Method	Undergraduates		Postgraduates		Staff		Total	
	n	%	n	%	n	%	n	%
Car/Van as a shared journey	12	10.1%	8	7.7%	68	6.8%	88	7.2%
Bus	16	13.5%	12	11.7%	132	13.3%	160	13.1%
Train	48	40.7%	43	41.5%	336	33.8%	427	35.1%
Metro	1	0.8%	0	0.00%	1	0.1%	2	0.1%
Walk/Jog	8	6.8%	5	4.8%	75	7.5%	88	7.2%
Bicycle	4	3.3%	5	4.8%	57	5.7%	66	5.5%
Motorcycle/ Scooter	1	0.8%	1	0.9%	12	1.3%	14	1.3%
Taxi	1	0.9%	1	0.8%	32	3.3%	34	2.8%
None	27	22.9%	29	27.8%	279	28.2%	335	27.7%
Total:	118	100%	104	100%	992	100%	1,214	100%

Car journey distance

The University is striving to reduce the number of single occupancy journeys to its main campus in Edgbaston with particular focus on staff and students that live within 10 miles. Table 8 shows the distance that staff and student car users commute.

Table 8: Distance travelled by car

Distance travelled for single car users								
	Undergraduate		Postgraduate		Staff		Total	
	n	%	n	%	n	%	n	%
Less than 2 miles	12	10.2	12	11.5	46	4.6	70	5.8
2 - 5 Miles	22	18.6	25	24	354	35.7	401	33
6 - 10 Miles	35	29.7	20	19.5	270	27.2	325	26.8
11 - 15 Miles	29	24.6	13	12.7	124	12.5	166	13.7
16 - 20 Miles	7	5.9	7	6.7	59	5.9	73	6
21 - 30 Miles	8	6.8	7	6.9	63	6.4	78	6.4
Over 30 Miles	5	4.2	20	19.2	76	7.7	101	8.3
Total:	118	100%	104	100%	992	100%	1,214	100%

Table 8 shows that 67.5% of staff, who commute in a single occupancy car, live within 10 miles of the University. This figure has increased by just 0.3% since 2016 illustrating that the distances staff in single occupancy cars are travelling from remain consistent.

This is a greater figure than both student groups (58.5% undergraduates and 54.7% postgraduates). The figure for undergraduate's shows minimal change since 2016 as with staff but the number of postgraduates driving within a 10 mile radius has increased significantly by 13%.

Most viable alternative travel methods

Table 9: Most viable alternative travel methods

Most Viable Travel Method for Single Car Users								
	Undergraduate		Postgraduate		Staff		Total	
	n	%	n	%	n	%	n	%
Car (single occupant)	2	2.1	4	4.4	56	6.5	62	18.5
Car (shared journey)	7	7.4	3	3.3	53	6.2	63	5.9
Bus	19	20.2	13	14.3	160	18.8	192	6.1
Train	46	48.9	39	42.9	336	39.4	421	40.6
Metro	1	1.0	1	1.1	1	0.1	3	0.3
Walk/Jog	3	3.3	5	5.5	44	5.1	52	5
Bicycle	6	6.5	6	6.56	70	8.2	82	7.9
Motorcycle/Scooter	1	1.3	0	0.00	8	0.9	9	0.8
Taxi	1	1.3	3	3.3	19	2.2	23	2.2
No viable alternative	7	7.8	15	16.5	91	10.6	113	10.9
Total:	94	100%	91	100%	851	100%	1,036	100%

Respondents who confirmed they travelled in a car, signally or as part of a shared journey were also asked to state their most viable alternative travel method.

Amongst staff, as in previous years, public transport was deemed the most viable alternative with 39.4% stating the train and 18.8% stating the bus. This pattern was also reflected within both student groups with 48.9% of undergraduates stating the train and 20.2% the bus. The split is similar with postgraduates with 42.9% stating the train and 14.2% the bus. It is encouraging that the number of respondents stating the train is their most viable alternative has increased significantly across all groups since 2016. There are similar if less noteworthy increases in relation to buses as well.

As in 2016 a higher percentage of staff identified active travel methods as their most viable alternative to driving than both student groups. This indicates there is scope to further increase walking and cycling amongst staff as well as public transport.

Car Park locations

Respondents who indicated that they travel by car were asked where they usually parked. Table 10 and Figure 6 shows where staff and students park when travelling to the University.

Table 10: Car park locations (staff and student)

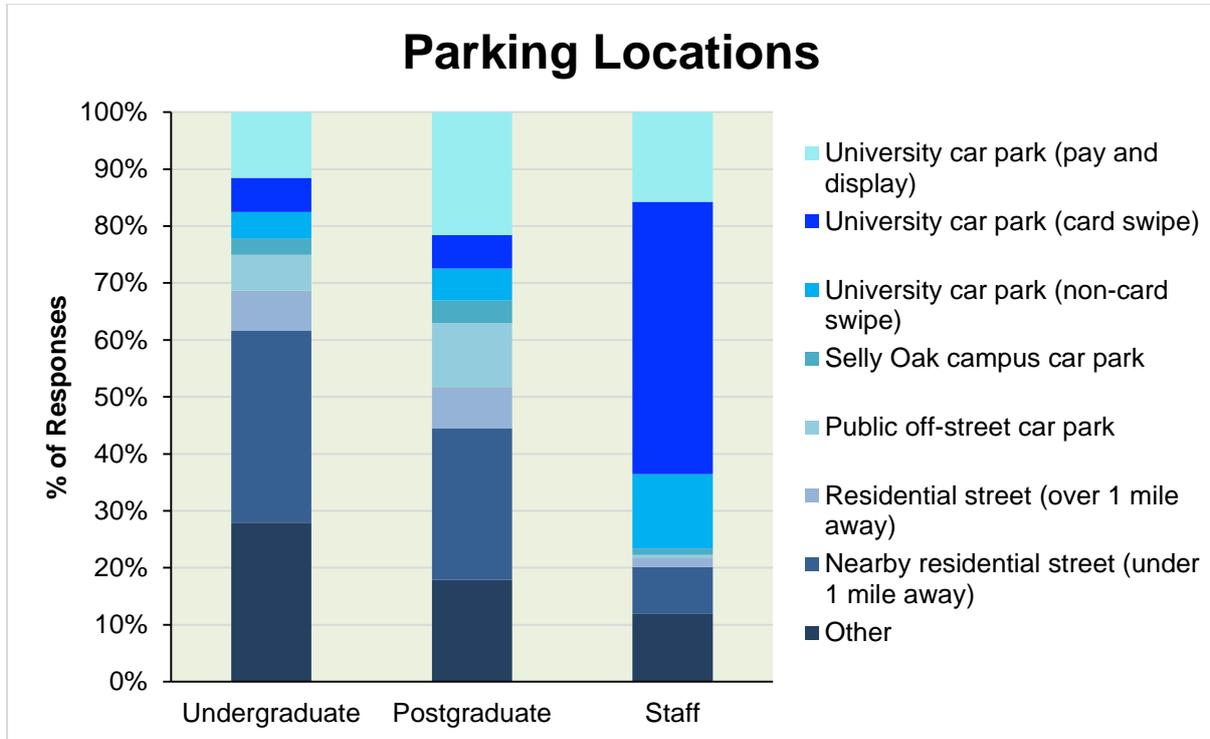
	Undergraduate		Postgraduate		Staff		Total	
	n	%	n	%	n	%	n	%
Other	196	27.9	67	17.8	207	11.9	470	16.6
Nearby residential street (under 1 mile away)	237	33.7	100	26.6	143	8.2	480	17.1
Residential street (over 1 mile away)	49	6.9	27	7.2	29	1.6	105	3.7
Public off-street car park	44	6.2	42	11.2	8	0.4	94	3.3
Selly Oak campus car park	20	2.8	15	4	20	1.1	55	1.9
University car park (non-card swipe)	33	4.7	21	5.6	227	13	281	9.9
University car park (card swipe)	42	5.9	22	5.8	831	47.7	895	31.7
University car park (pay and display)	81	11.5	81	21.6	274	15.7	436	15.4
Total:	702	100%	375	100%	1,739	100%	2,816	100%

The table shows the majority of staff members park within University car parks accessible via card swipe (47.8%) with a further 15.7% using pay and display car parks.

The majority of undergraduate students park on a nearby residential street (33.7%) with a significant percentage (27.9%) stating 'other' which could indicate they are parking at halls of residence or more than a mile away on a residential street.

Postgraduates are also most likely to park on nearby residential streets. The increase in postgraduates parking in residential streets has slowed after a significant increase between 2013 and 2016. Undergraduate parking habits remain similar to 2016. Undergraduate parking habits remain similar to 2016.

Figure 6: Car park locations



Reasons for travelling by car

To help understand why staff and students commute by car, both groups were asked to select the reasons for why they travel by car, as illustrated in the following graphs.

Figure 7: Reasons for travelling by car (staff and students)

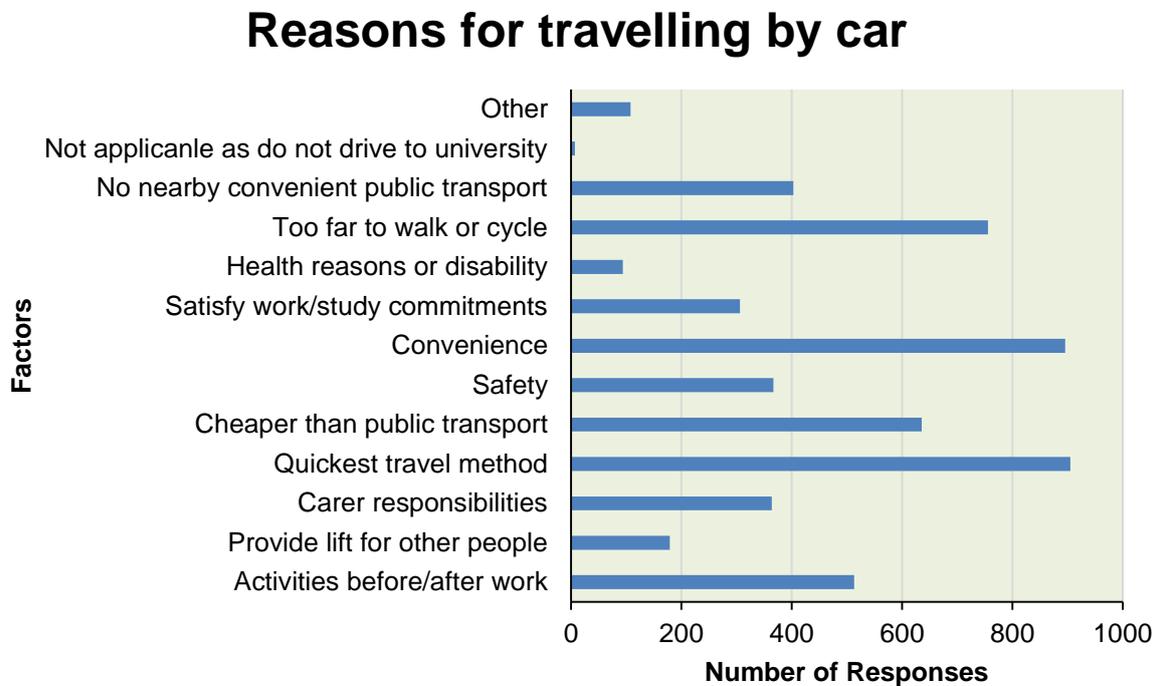
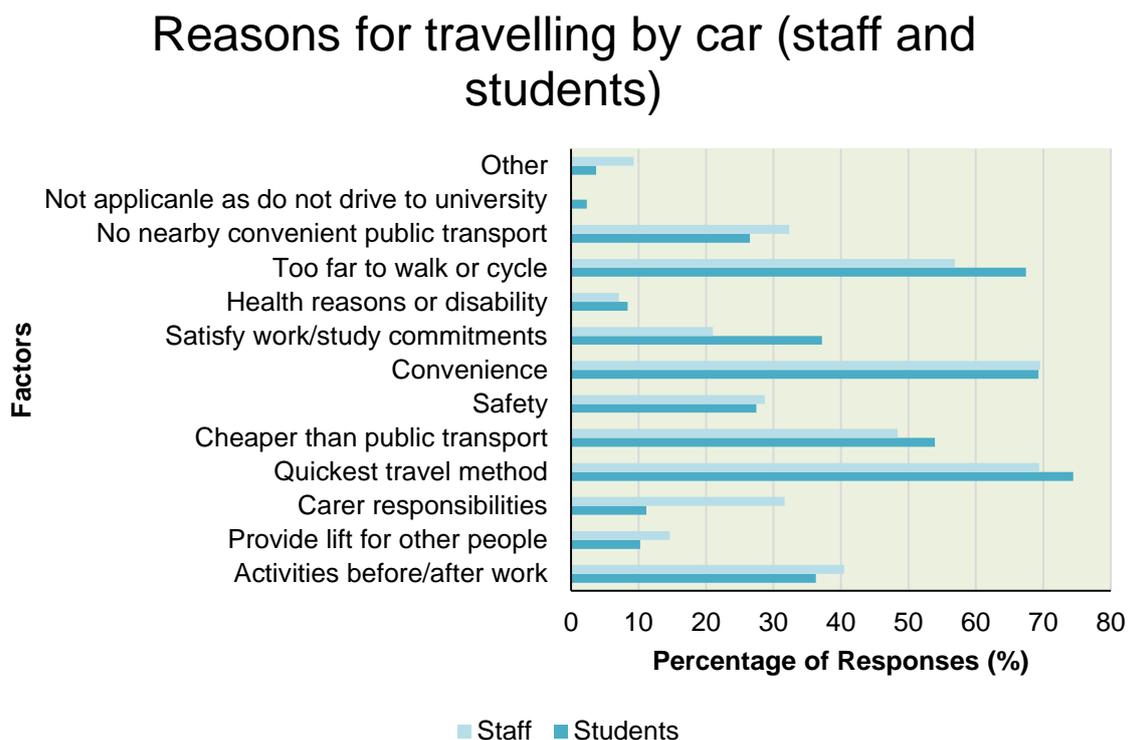


Figure 8: Reasons for travelling by car broken down by staff and students



As in previous years the reasons for travelling by car are similar across all three groups. Convenience is the main motive for commuting by car for both staff and students. Travelling by car is cited as the quickest method of travel as another key reason.

Measures to encourage sustainable travel

Encouraging staff and students to walk

Respondents were asked which measures would most encourage them to walk to University; they were asked to choose up to four options.

Figure 9: Encouraging staff and students to walk

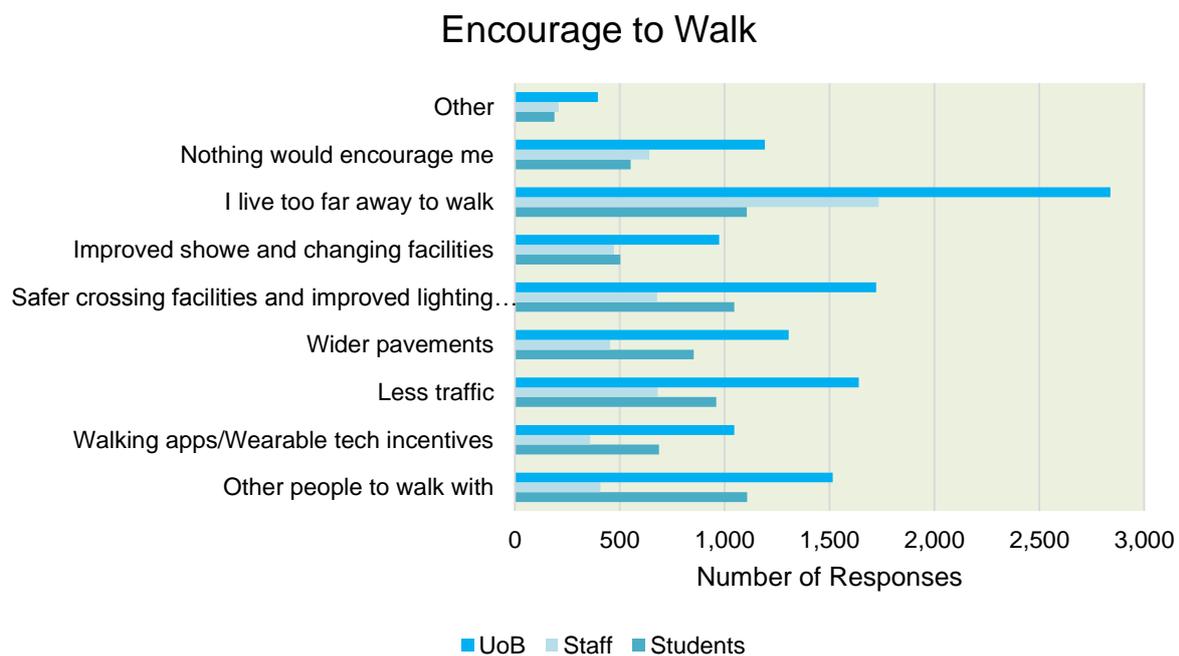


Figure 9 shows that safer crossing facilities, improved lighting and wider pavements would encourage more staff and students to walk to university. Less traffic on routes is also identified as a key issue across both groups. Most of these factors are outside of the control of the University as we do not have jurisdiction to alter the highway however the installation of the 'Path to the vale' has provided a safe and pleasant route to campus for staff and students away from traffic.

Open responses to a later question have also highlighted the lack of lighting on campus which will be addressed by the University Estates team. A large proportion of students have also stated that due to safety concerns in Selly Oak they would be more encouraged to walk if group walking was organised.

As in previous years distance has been highlighted as the primary barrier to walking especially amongst staff.

Encouraging staff and students to cycle to the University

Respondents were asked what measures would most encourage them to cycle to University; they were asked to choose up to four options.

Figure 10: Encouraging staff and students to cycle

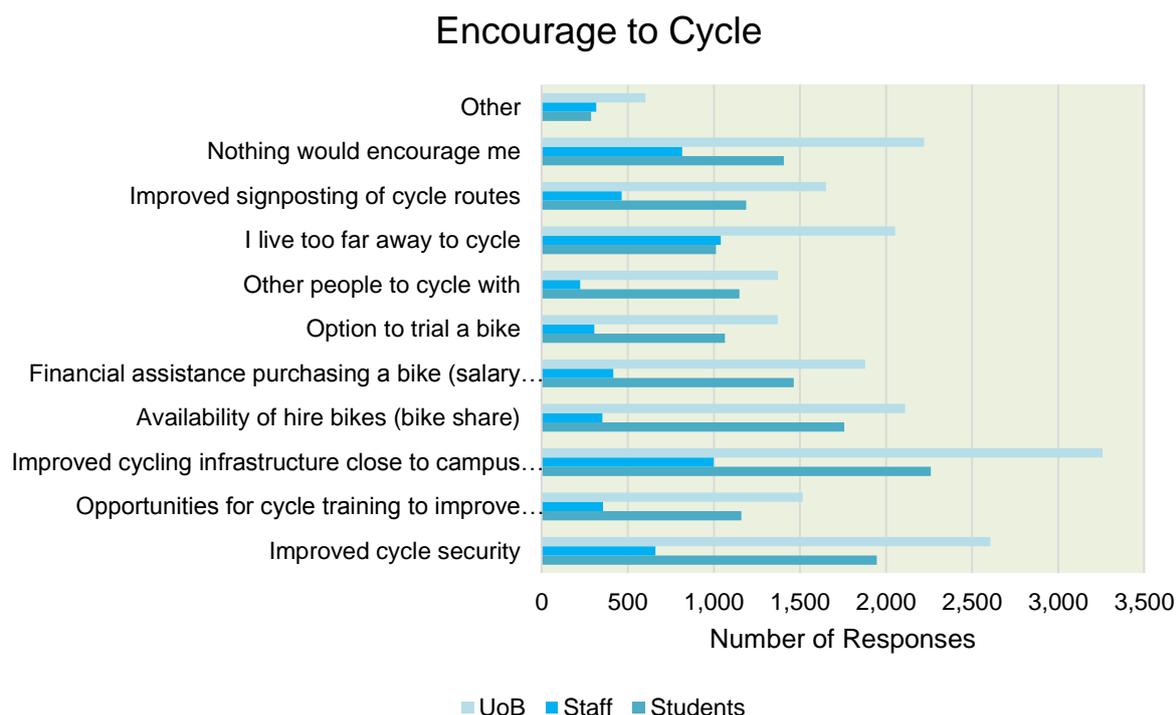


Figure 10 illustrates that to encourage cycling, the most important factor is improved cycling infrastructure close to campus for both staff and students. This has been a common theme since the travel survey began in 2008 and is reflected nationally as a key barrier to cycling. The opening of the A38 and A34 cycle tracks in 2019 will provide a safer, segregated route from the north of the city through the city centre to the main Edgbaston campus which is welcomed. The University will however continue to lobby for safer, segregated routes via engagement with Birmingham City Council.

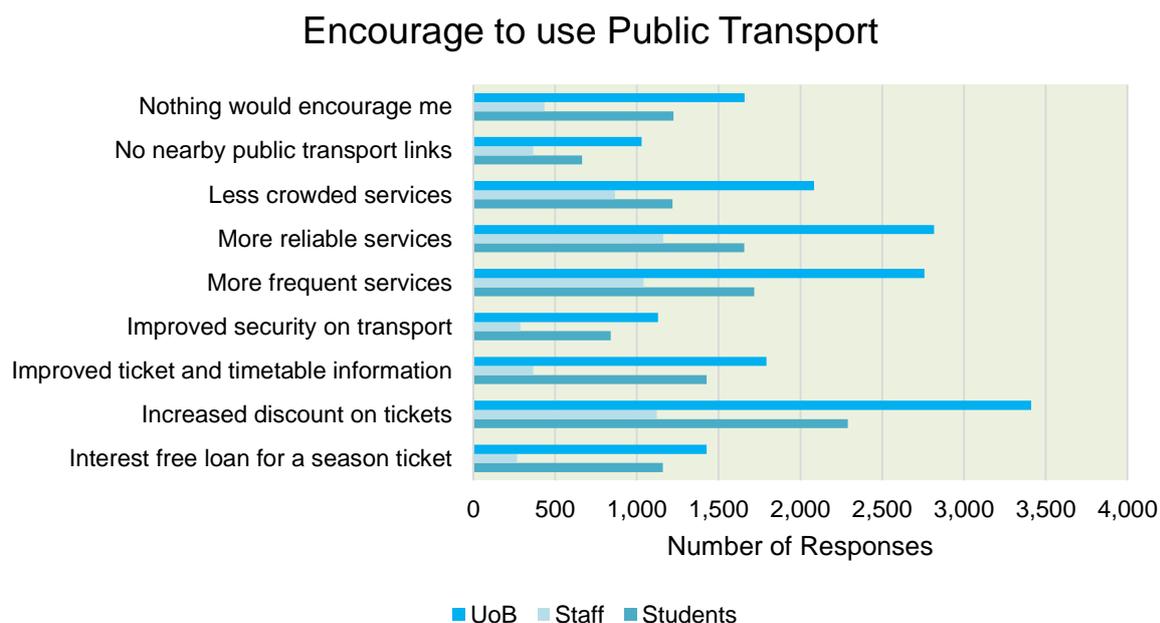
Cycle security has again been highlighted as a barrier particularly amongst students. The University has experienced a spate of cycle theft during the period the survey was conducted which has further increased concerns. Almost all thefts are to bikes that are either not secured correctly or with insufficient cable lock. This highlights a need for more promotion of D Locks and best practice.

As with walking, distance is a key barrier to cycling.

Encouraging staff and students to travel by public transport

Respondents were asked which measures would most encourage them to travel by public transport to University; they were asked to choose up to four options.

Figure 11: Encouraging staff and students to use public transport



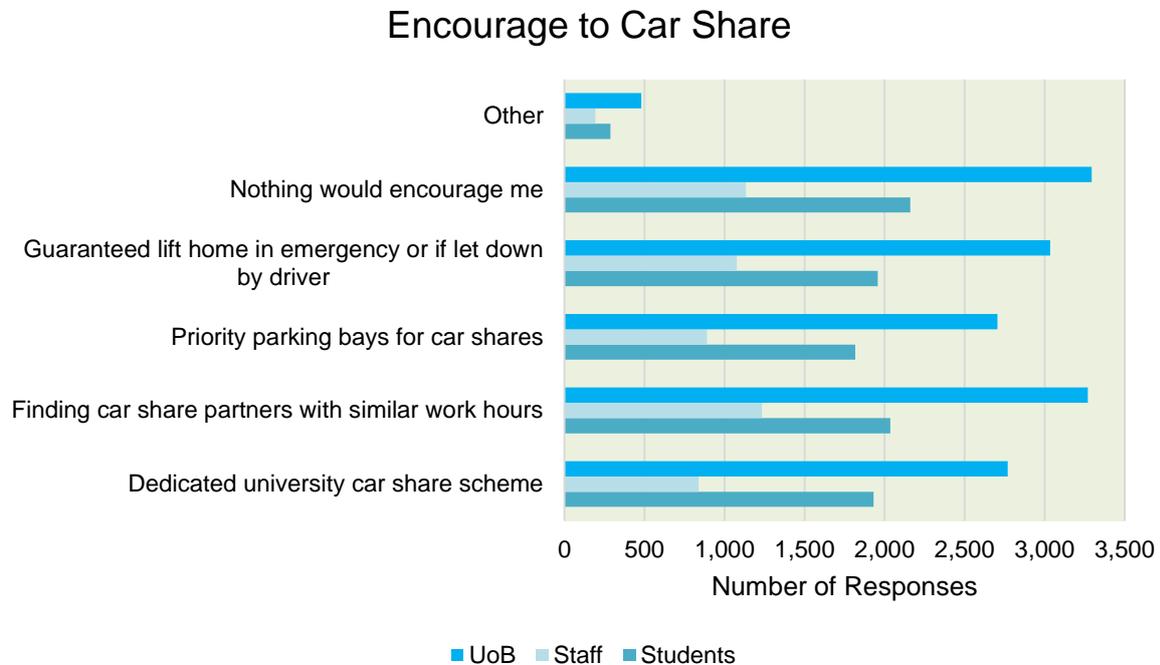
As in previous years reliability and frequency of services were highlighted as key factors in encouraging more use of public transport. This has been particularly highlighted by staff.

Students have also stated that an increased discount in the price of tickets would be a big encouraging factor. It should be noted that local bus providers do provide significant student discounts in addition to the £1 special fare introduced in 2017 between Selly Oak and the city centre. Students can also access railcards to discount train prices however this is not valid during peak times.

Encouraging staff and students to car share

Respondents were asked which measures would most encourage them to car share to University; they were asked to choose up to four options.

Figure 12: Encouraging staff and students to car share



As in previous years a barrier to car sharing is finding other people that work or study at similar times. This is the key factor for people considering car sharing.

The University has invested considerably to a car sharing system called Liftshare which is available to staff and students. The scheme has 57 priority car parking bays which would indicate more promotion needs to be done with both groups.

Awareness of sustainable travel initiatives

For the 2018 survey a question was added asking respondents if they were aware of the numerous incentives and benefits available to them as staff and students at the University.

Staff awareness

Amongst staff 60% are aware of the salary sacrifice scheme for bicycles but only 21% aware of the staff loan bike scheme. As you would expect more visual incentives such as the Urban Cycles shop (66% of staff respondents aware) and priority car parking bays (54%) have the highest levels of awareness.

Only 22% of staff are aware of the 25% discount available to staff on National Express buses which indicates that more needs to be done around this initiative. More encouragingly 39% of staff were aware of the relatively new £1 fare on local bus services.

Areas with low awareness amongst staff need more promotion include the Liftshare system (25%), the availability of folding Brompton 'pool' bikes (7%) and the opportunity to buy a low emission vehicle via salary sacrifice (13%).

Student awareness

Students indicated that they have reasonable awareness of the public transport initiatives and incentives on offer to them. In particular 43% are aware of the additional train ticket machines on campus while 39% have awareness of the new £1 fare on local buses and 40% aware of the free shuttle bus service on campus.

Only 22% of students indicated they are aware of the fact discounted D Locks are available to buy on campus. This will be covered in more detail in the conclusion but further promotion and engagement is required to help reduce cycle crime on campus.

Open responses

Respondents were given the opportunity to provide comments on their travel and issues they would like to raise. These are broken down in to categories and summarised in the tables below.

Table 11: Summary of contents relating to cycling

Cycling facilities on campus	<ul style="list-style-type: none"> • More covered and secure cycle parking is needed • Specifically around Medical School, University centre, Arts and Gisbert Kapp • Increased capacity – some areas are full • More shower, changing and drying facilities for cyclists • Bike share scheme would be welcome
Route improvements and suggestions	<ul style="list-style-type: none"> • Improvement of roads around campus specifically Edgbaston Park Road, • More segregated, safe cycling routes on local roads • More cycle routes on campus • More notice if cycle routes around campus are to be blocked by developments • Improvements to canal access make cycling to University better
Safety issues	<ul style="list-style-type: none"> • Local roads viewed as too dangerous to cycle on • Fear of motorists • More lighting on off road routes
Incentives	<ul style="list-style-type: none"> • Cycle to work scheme is good • Help with purchase of E-bikes

Table 12: Summary of comments relating to buses

Service provision	<ul style="list-style-type: none"> • Suggestions of using Selly Oak campus for park and ride for staff • More regular services on 76 and 48 • Improved service from Harborne and Bearwood
Frequency	<ul style="list-style-type: none"> • Some negative comments around changes to frequency since recent route changes in particular the 48
Cost	<ul style="list-style-type: none"> • New £1 fare promotion well received and useful for journeys to city centre
Reliability	<ul style="list-style-type: none"> • Lack of bus lane provision leading to long journey times • Improve reliability of 76
Shuttle bus service	<ul style="list-style-type: none"> • Service starts too late for staff to utilise • Provision during non-term time • Shuttle service for students in accommodation further afield such as Liberty Gardens and Queens Hospital Close.

Table 13: Summary of comments relating to train

Service provision	<ul style="list-style-type: none"> • Cross City is over capacity – rarely able to sit • Need bigger trains
Frequency / reliability	<ul style="list-style-type: none"> • Cross City not reliable
Cost	<ul style="list-style-type: none"> • Season tickets not affordable
University station	<ul style="list-style-type: none"> • Queues and delays getting off at station • Overcrowded platforms
Safety	<ul style="list-style-type: none"> • Anti-social behaviour on trains • Overcrowding on platforms at University is a concern – feels dangerous

Table 14: Summary of comments relating to walking

External issues	<ul style="list-style-type: none"> • Crossing at Somerset Road identified as dangerous especially at rush hour • Lack of lighting in Cannon Hill park when walking and cycling • Crossing needed on junction of Pritchatts Road and Vincent Drive • Inattentive drivers on local roads • Pavements locally covered in leaves and are slip hazard • Improved lighting needed on canal
Campus issues	<ul style="list-style-type: none"> • More lighting on campus • Bad driving on campus
Safety	<ul style="list-style-type: none"> • Don't feel safe walking after dark in Selly Oak • Respondents don't feel safe walking after dark with laptops etc • More security presence on campus and in Selly Oak • Suggestion a of a 'walking bus' to Selly Oak after dark • Install emergency call points for students walking home
Initiatives or incentives	<ul style="list-style-type: none"> • Rewards for people who walk
Facilities	<ul style="list-style-type: none"> • Need access to a shower
Positive comments	<ul style="list-style-type: none"> • Walk from Vale very pleasant • Walking has health benefits and should be encouraged • Journey time is consistent

Table 15: Comments relating to car sharing and car parking

Car sharing priority bays	<ul style="list-style-type: none"> • Need for more bays as often full • Time should be extended to 10 from 9:30 • Reports of abuse of the car share bays • Introduce sharing bays for students
Car sharing suggestions	<ul style="list-style-type: none"> • Opportunity to car share with QE colleagues would be welcomed
Car parking issues	<ul style="list-style-type: none"> • More provision for staff with carer responsibilities • Perceived lack of car parking on campus • Mailing list for permit holders suggested to make them aware of car park closures • Staff and student car parking on local roads leading to congestion: Bournbrook area highlighted • Complaints around contractor parking • Park and ride scheme suggested • Car parking too cheap
Car parking permits	<ul style="list-style-type: none"> • Negative comments regarding introduction of purple permits
Electric vehicles	<ul style="list-style-type: none"> • More EV chargers on campus

Section 5: Recommendations

Recommendations to improve student travel

To encourage more walking and cycling to the University, it is recommended that the following measures are taken in to considerations, when updating the Sustainable travel plan:

- Safety has been highlighted by students as a barrier to active travel. Students do not feel safe walking in Selly Oak after dark and that they feel lighting on campus needs to be improved also. In addition students have highlighted a need for better cycle infrastructure around campus as cycling on surrounding roads is viewed as dangerous.
- Increased promotion of the new 'Selly Express' night bus service for students living in Selly Oak
- Improvements need to be done by local stakeholders including Birmingham City Council to improve pedestrian safety and increase road crossings. Areas such as the crossing of Somerset Road, Vincent Drive and Pritchatts Road were all identified as dangerous by students.
- Improvements to cycle parking both in terms of quantity and quality. The lack of secure and covered cycle parking across campus is viewed as a barrier to cycling.
- Cycle security is still perceived as a big issue by the student population despite continued efforts to promote the discounted D Locks available on campus and a new scheme to offer free D Locks and security marking to students. Increased communication is needed around personal responsibility to bike theft as students continue to use insufficient cable locks to secure their bikes. Continued promotion of D –Locks and best practice to tackle bike security.
- Large scale promotion of the new A38 cycle track once completed
- Increased awareness for students of the availability of cycle training on campus

Measures undertaken since 2016

- Opening of shared 'path to the Vale' alongside Edgbaston Park Road providing a safe and pleasant alternative for students to walk and cycle along when travelling to campus
- Introduction of 'Selly Express' evening bus service from campus in to Selly Oak
- Removal of all 'wheel bender' cycle parking on campus and replaced with Sheffield stands at JG Smith, Chemical Engineering and Education building
- Additional cycle parking provision around University Centre, Alan Walters building, Sports & Fitness centre and Chemical Engineering
- Continued growth of student bike hire scheme – 17 additional bikes added to the pool since 2016
- Improved canal access at University station and widening of Edgbaston Tunnel making canal more attractive for walking and cycling
- 'Bikeability' training offered to all student bike hirers and at regular events throughout the year

In terms of public transport, the following recommendations should be given consideration for updating the University travel plan:

- Increase promotion and awareness of ticketing offers available to students on local public transport
- Promotion of University shuttle bus service between main campus and Selly Oak
- Continue to cascade use of additional train ticket machines on campus to avoid crowding the station unnecessarily

Measures taken since 2016:

- Installation of a further ticket machine on campus to reduce pressure on University station at peak times
- Worked closely with London Midland and now West Midlands Trains to increase staffing at University station
- Secured a special £1 fare for staff and students on selected National Express services between Selly Oak and city centre
- University is a key stakeholder in the plans for redevelopment of University station
- Lobby our key rail and TFWM stakeholders to ensure smart ticketing is available as standard on all forms of public transport locally.

Recommendations to improve staff travel

To encourage more staff to walk and cycle to work it is recommended that the following measures are taken in to consideration when updating the Sustainable Travel Plan:

- Work with Birmingham City Council to improve pedestrian safety on roads around campus
- Increase the quantity and quality of cycle parking on campus. More secure and covered cycle parking has been identified as a key issue amongst staff and students.
- Improvements to cycle security on campus
- Continued promotion of safe local cycling routes including the canal and soon to be opened cycle route along the A38
- Work collaboratively with Birmingham City Council to develop further improvements to local cycling infrastructure
- Promotion of the staff loan bike scheme at inductions and other engagement events
- Further promotion of University owned folding Brompton bikes to increase active business travel

Measures that have been undertaken since 2016

- Further growth of staff loan bike scheme – now 7 bikes available
- Introduction of two folding Brompton bikes for offices / teams to use as a pool bike option
- Regular led rides and training available to staff as part of events on campus focussing on Wellbeing and national awareness days

In terms of public transport, the following recommendations should be given consideration for updating the University travel plan:

- Increased promotion of special £1 fare to staff at inductions
- More targeted promotion of 25% discount
- Working closely with rail partners to deliver a new train station in the next 4 years bringing substantial improvements for commuters
- Continue to work collaboratively with National Express and other operators to improve route provision and reliability for campus
- Promotion of ticket machines on campus to avoid queues at University station

Section 6: Conclusion

The 2018 travel survey results are generally positive and have reversed some of the negative results seen in 2016 around single occupancy car usage. Since 2016 the University has employed a Sustainable Travel Co-ordinator (STC) who has been assigned the responsibility of reducing the number of single occupancy journeys and increasing sustainable travel to campus. The STC role has targeted inductions and engagement with staff to improve awareness of the sustainable travel initiatives on offer to staff. Students have been discouraged to bring vehicles from the onset of their studies and are actively engaged throughout their academic cycle to use active travel and the public transport options available. There is also targeted engagement during the 'Welcome' period to ensure students are provided with as much information as possible on arrival and encouraged to leave their cars at home.

For staff, the University has seen a 3.5% decrease in single occupancy car journeys which brings it closer to the 5% reduction target set in 2008. There has also been a 2% increase in cycling amongst staff with similar small increases on public transport. The modal shift for staff seems to be a move away from walking which will be examined in more detail later.

Amongst students the results are similarly encouraging with reduction in single occupancy car usage of 3.4%. As expected active travel methods are still the primary option for students with some small increases in walking and cycling. Bus and train usage has also increased.

In 2016 the results of the survey suggested that staff had shifted away from public transport due to issues with University station and the unreliability of services (both bus and train). In the last 2 years the University has worked closely with West Midlands Trains (previously London Midland) to improve the customer experience and safety at University station. A further ticket machine was installed on campus to reduce pressures on the station at peak times. In addition, the train operator allocated more staff to the station to manage the queues. Engagement with the student population has also taken place encouraging them to buy tickets in advance and use mobile ticketing where possible.

Reliability and frequency of services was highlighted by staff as the main reason for a shift away from bus usage in 2016. The University has been proactive in sharing this intelligence with bus operators via regular stakeholder meetings to ensure the requirements of our staff and students are met. One of the notable successes of this approach has resulted in the introduction of a new 1A service from Moseley. This has long been highlighted as a gap in the network for staff and students wanting to travel by bus and is evidence of the effectiveness of the collaborative approach the University has taken with operators.

Another example of improvements to the local bus provision is the introduction of a new £1 fare for staff and students on selected services between Selly Oak and the city centre. This has been particularly popular with students as offers them a convenient and cheap method of reaching the city centre. This has reduced pressures on the Cross City Line train services as more students opt to take the bus. National Express have also introduced new 'Platinum' buses on a number of services around the campus which provide comfortable seating, WIFI and USB charging making them a more attractive proposition especially for students. The

introduction of contactless payments on local bus services has made bus travel more convenient.

University station and issues around overcrowding and reliability on the Cross City Line have contributed to the limited modal shift to rail. The University is working together with partners to deliver a station able to manage a substantial increase in commuters from economic growth of the area. Projected increase is 7.5m footfall pa by 2030 against current build size of 0.75m. The anticipated new station together with the introduction of new 'rolling stock' on the Cross City Line will lead to large improvements by 2021. In the meantime the University will continue to work with West Midlands Trains to improve conditions for staff and students wherever possible.

It is clear that improvements to access on the canal; increases in the availability of hire bikes for both staff and students and continued promotion of cycling has worked with growths in numbers amongst all groups. A 2% increase in the number of staff cycling is significant and reflects the emphasis the University has put on promoting cycling. The staff loan bike scheme has gone from strength to strength with over 50 staff loaning a bike since 2016. Feedback on the scheme is very positive with staff mentioning how the opportunity to 'try before you buy' has really encouraged them to adopt cycling. Staff are also offered support in route planning. A large proportion of the staff who loan bikes go on to purchase their own via the salary sacrifice scheme. The student loan bike scheme is also increasingly popular and has grown by more than 50% since 2016 enabling more students to get access to a good quality bicycle and support from Urban Cycles.

Historically access to the canal has been an issue for cycle commuters due to the previously steep steps at University station. In 2017 a bespoke cycle/pedestrian stair access was installed with wheeling ramps for bicycles which enabled commuters to transfer their bikes with considerable ease. The previously narrow Edgbaston Tunnel has been widened resulting in improved accessibility.

Whilst the above improvement is welcomed and has had a positive impact on cycling numbers the lack of safe local cycling infrastructure is still a key barrier to cycling amongst all groups. There has been little improvement locally since 2016 however this will change with the completion of the new A38 cycle track which ends at the main University campus. This will provide a segregated and safe route for people to cycle from the city centre and further afield with the A34 route in North Birmingham also set for completion.

Another barrier to cycling is the risk of theft and this has again been highlighted by all groups. The University currently offers discounted D Locks for staff and students; in addition to recently introducing a scheme to offer free security marking and D Locks for students. However there is a lack of ample secure cycle parking on campus which will be addressed and improved in 2019. These improvements coupled with ongoing promotion of D Locks should mitigate these concerns going forward.

The University has been selected to host a number of bike share stations as part of the wider West Midlands scheme being operated by NextBike. The scheme will deliver 5,000 bikes across the region and the University will see stations located at key locations across campus and halls of residence giving staff and students another sustainable travel option.

The sole discouraging trend of modal shift since 2016 has been the reduction in staff walking to campus. It was noted in 2016 that scope for increasing the number of staff walking was limited by commuter distance however the decrease of 3% is concerning. Comments received in relation to walking highlight unsafe crossings on roads around campus in particular Somerset Road, Edgbaston Park Road and Vincent Drive. These concerns have been raised with Birmingham City Council previously and the University will continue to lobby. In 2016 the University built a new pathway from The Vale to main campus which improved active travel safety from campus sites however the crossing at Somerset Road has again been highlighted as dangerous.

One theory for the reduction of staff walking could be increased awareness of air quality issues nationally. Staff have highlighted that they would be more open to walking if the environment was less car dominated and pleasant.

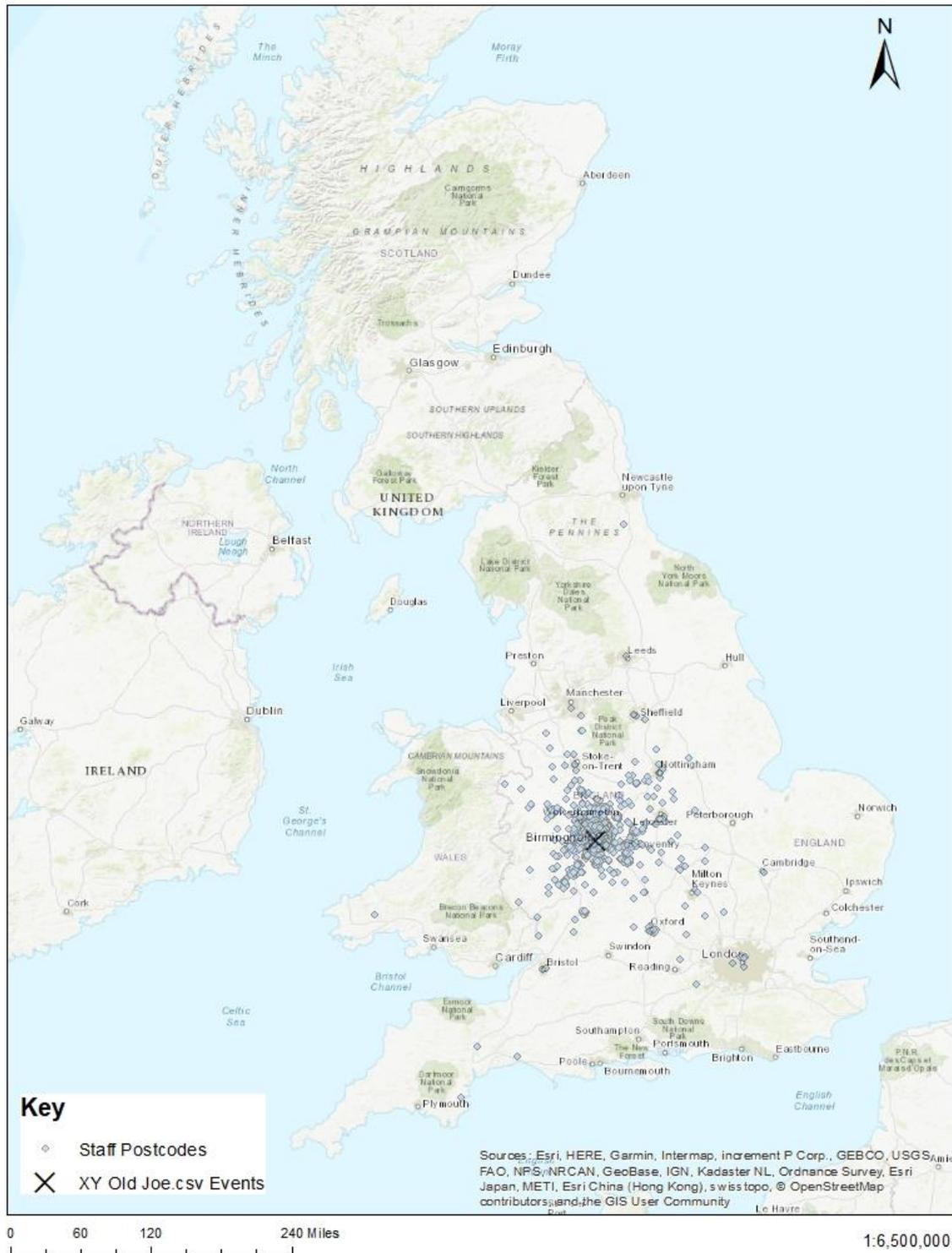
A seasonal difference of when the survey was conducted could also have influenced the number of staff walking. The 2016 survey took place in May and June whilst the 2018 survey was conducted in the October.

The recent introduction of 20mph speed limits on local roads surrounding the campus aims to reduce speeds locally and create a more attractive environment for walking and cycling which will go some way to reversing this negative trend.

Car sharing amongst staff has increased since 2016 by 1.7%. The University used postcode mapping data in 2016 to highlight the numbers of staff commuting from similar areas in single occupancy cars and promote car sharing further. The introduction of priority car parking bays on campus has led to a rise in the number of staff using the Liftshare system and car sharing to the University. There are now 57 car sharing bays on campus with plans for more in 2019 as well as a proposed extension of the time the bays are reserved for in order to accommodate staff who arrive later on campus. The University will also implement a new 'authentication' feature to Liftshare in 2019 that will enable real time reporting on car sharing which will help to identify trends and areas for improvement.

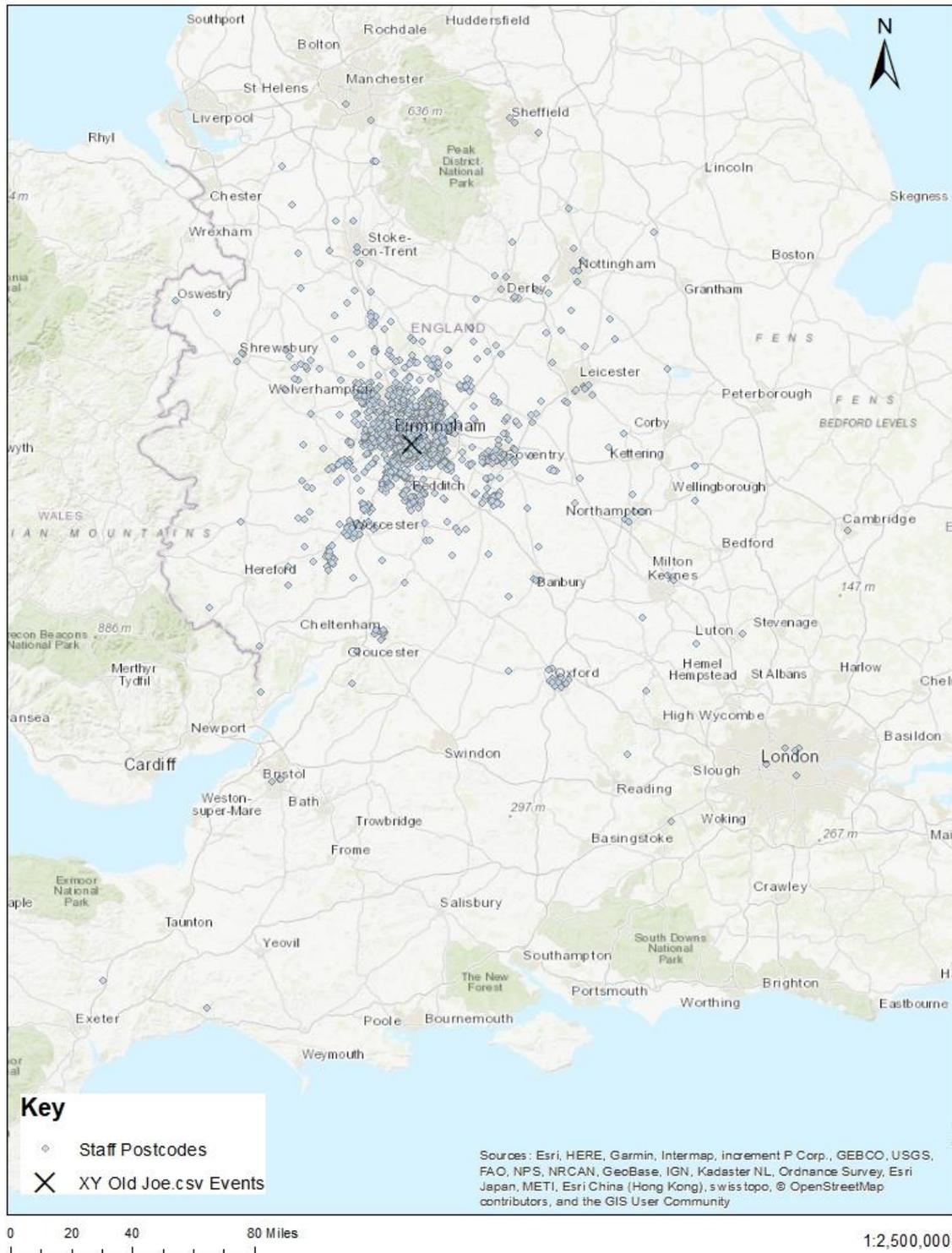
Appendix A: Staff based in the UK

Postcode Locations of Staff (National)



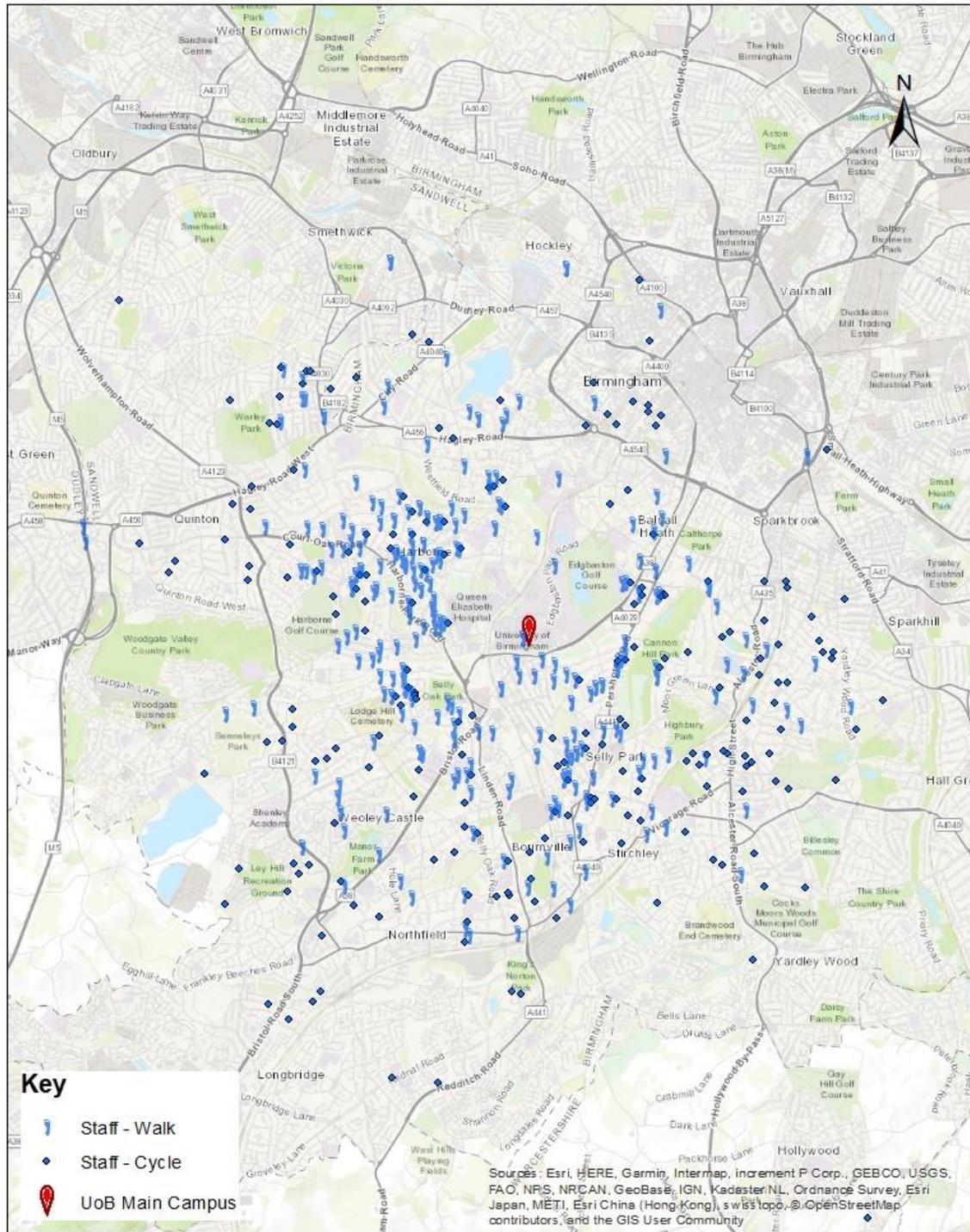
Appendix B: Staff based in the West Midlands

Postcode Locations of Staff (Regional)



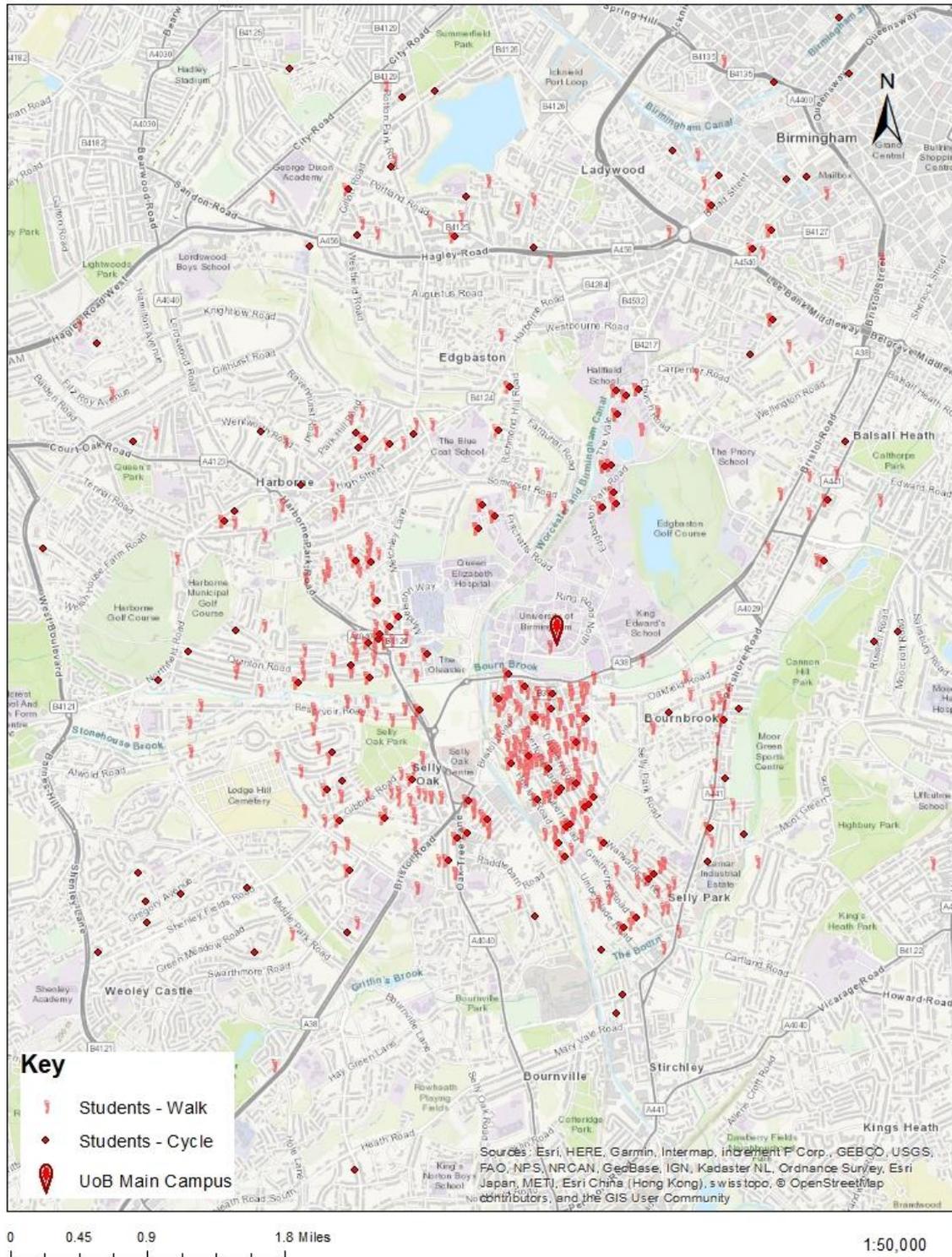
Appendix C: Staff who walk or cycle

Postcode Locations of Staff who Walk & Cycle



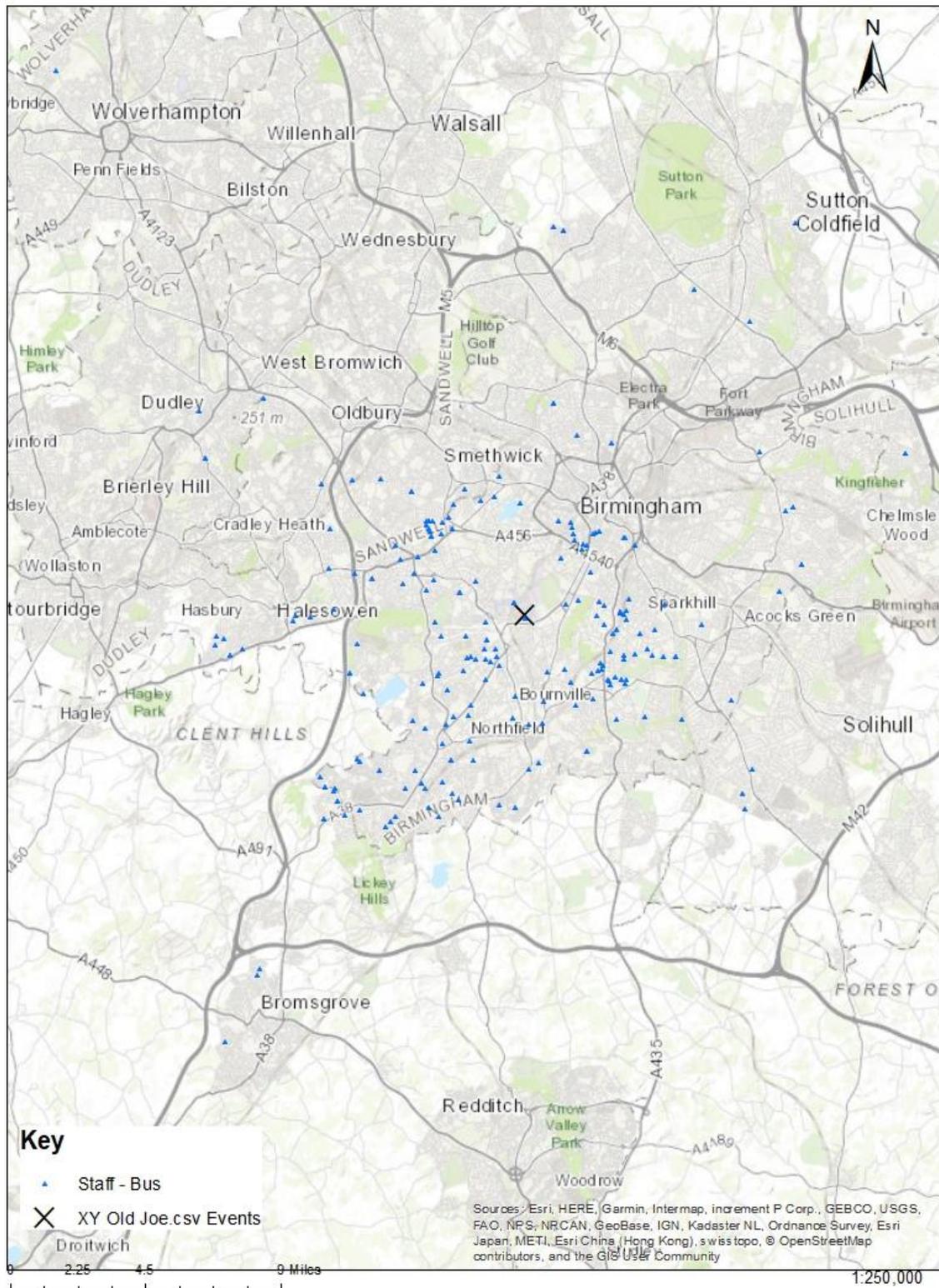
Appendix D: Students who walk or cycle

Postcode Locations of Students who Walk & Cycle



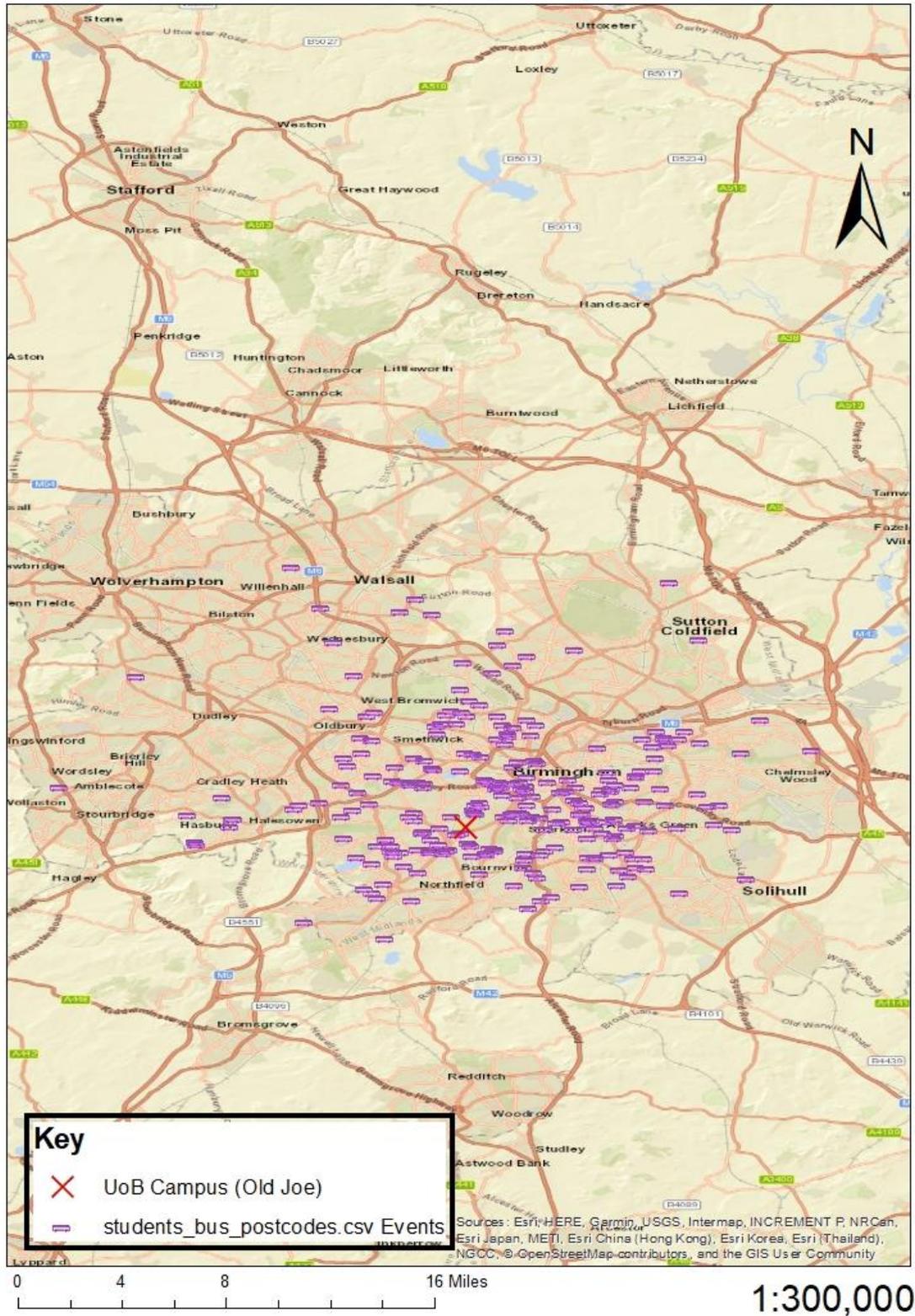
Appendix E: Staff who commute by bus

Postcode Locations of Staff in Birmingham who Travel by Bus



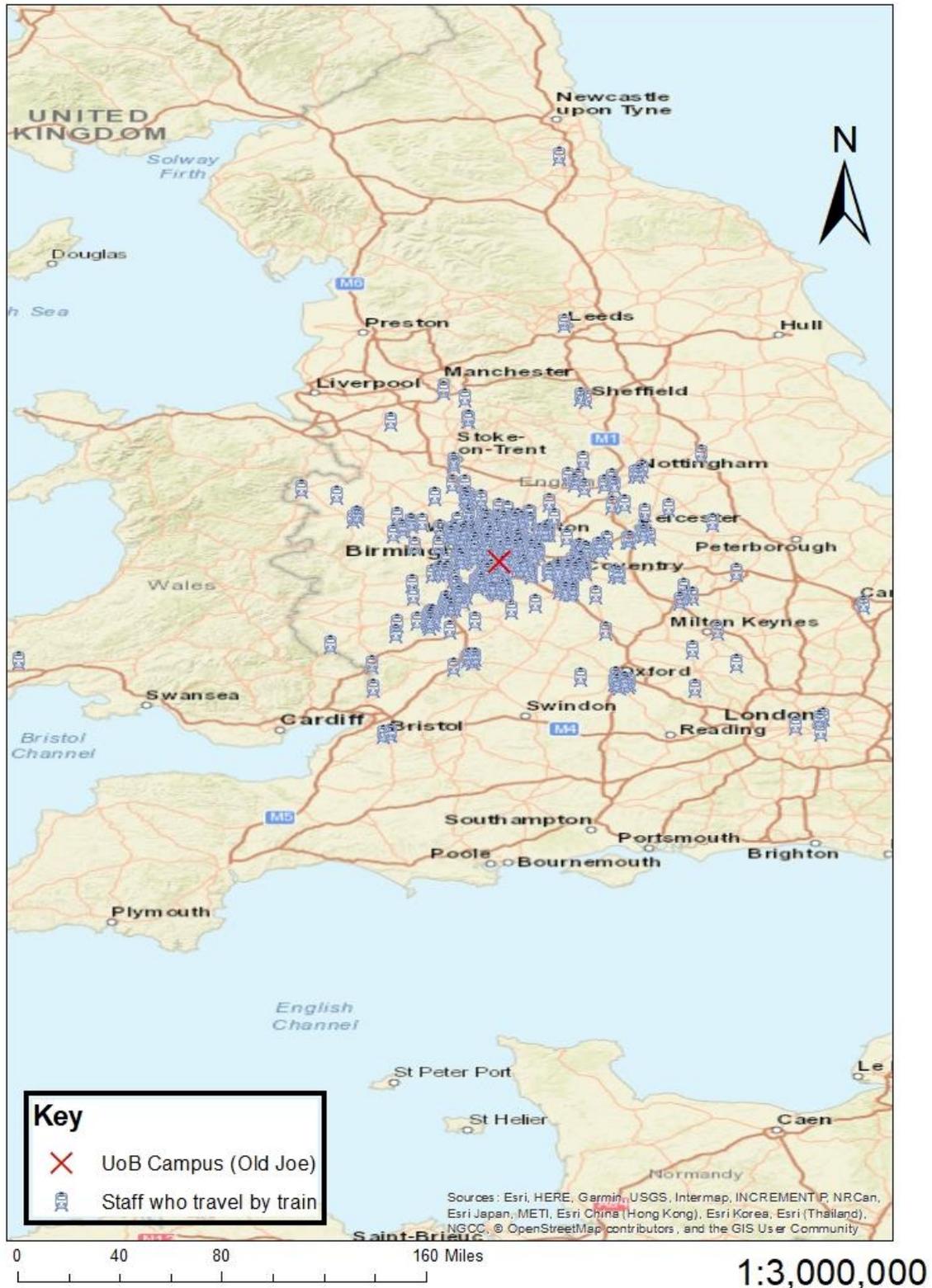
Appendix F: Students who commute by bus

Postcode Location of Students who Travel to Campus by Bus



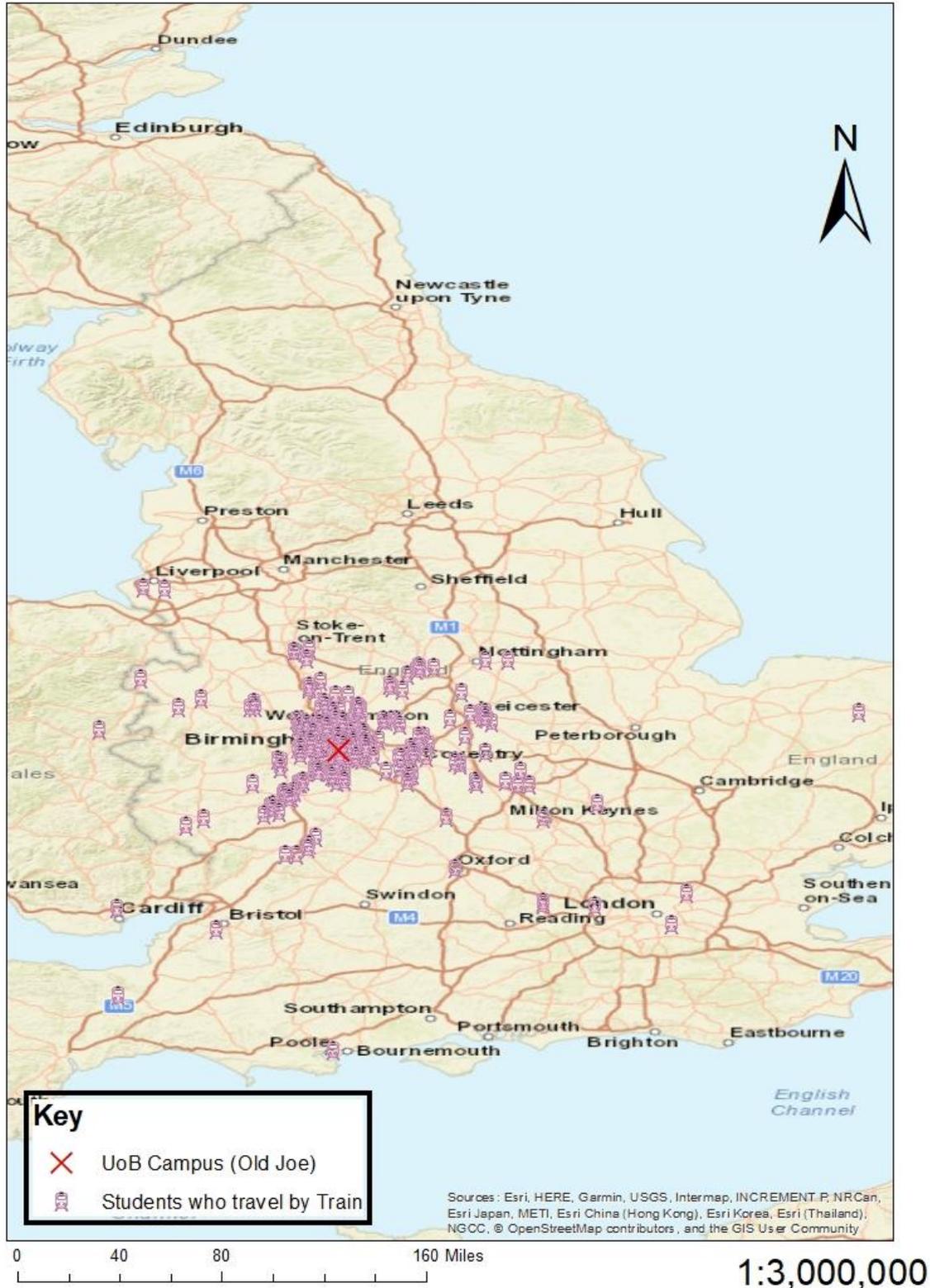
Appendix F: Staff who commute by train

Postcode Location of Staff who travel to Campus by Train



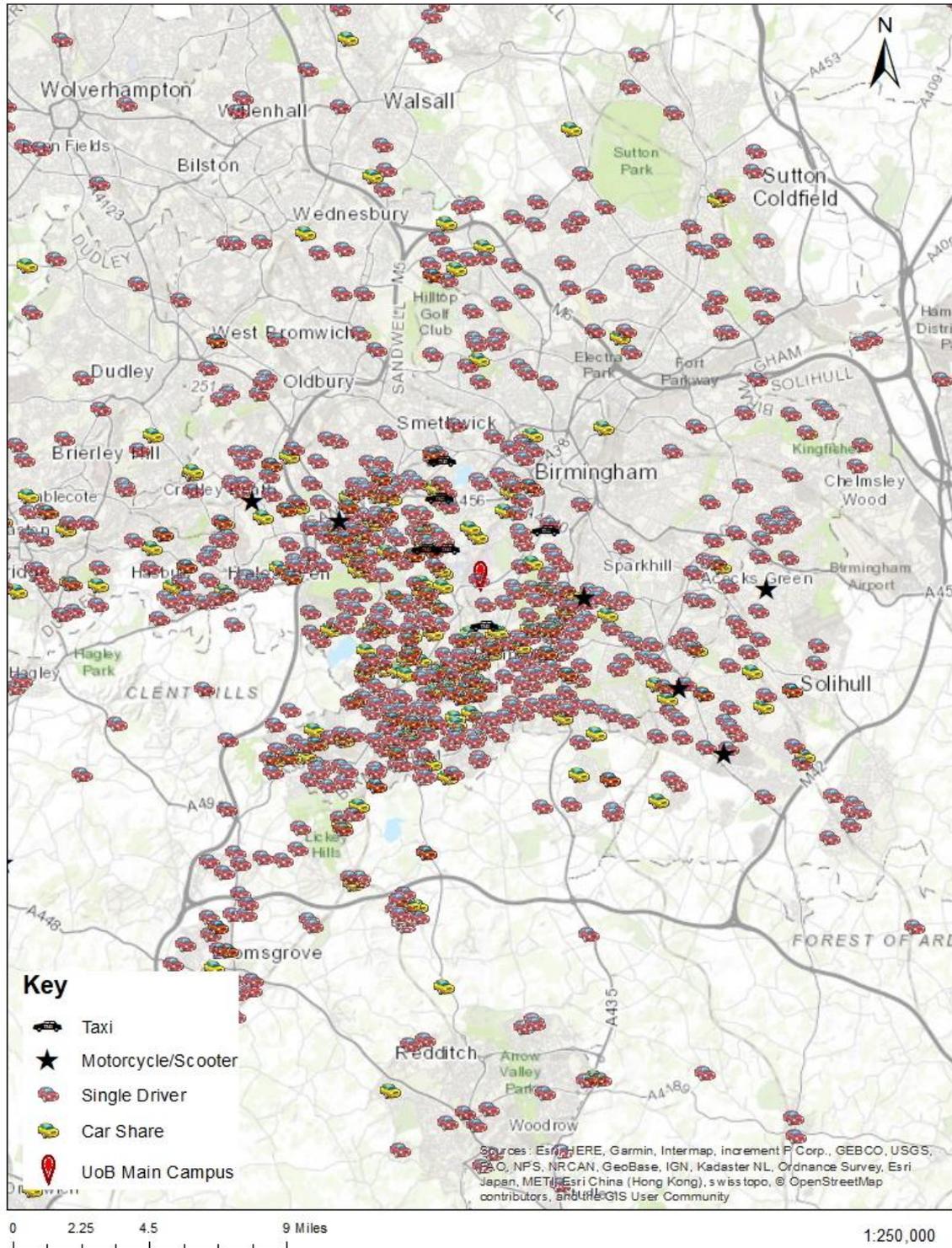
Appendix G: Students who commute by train

Postcode Location of Students who Travel to Campus by Train



Appendix H: Staff who travel by vehicle

Postcode Locations of Staff who Travel by Vehicles



Appendix I: Students who travel by vehicle

Postcode Locations of Students who Travel with Vehicles

