



Commuting, COVID and Decarbonising Transport:

evidence from five Scottish institutions on
their progress in decarbonising transport and
supporting active and sustainable travel

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Acronyms

CO₂e - Carbon Dioxide equivalent	HE – Higher Education
EV – Electric vehicle	SPCB - Scottish Parliament Corporate Body
GCPH – Glasgow Centre for Population Health	UofS – University of Strathclyde
GCC – Glasgow City Council	UofG – University of Glasgow
GHG – Greenhouse Gases	



Translation



Easy read



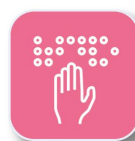
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Executive summary

This report, led by the Glasgow Centre for Population Health (GCPH), is the product of a collaboration between the University of Strathclyde, University of Glasgow, City of Glasgow College, Glasgow City Council, and the Scottish Parliament, and focusses on the progress these five organisations are making in achieving a shift to more active and sustainable travel among staff and students. The information gathered, via a desktop exercise, describes the context of each organisation, staff travel trends, the

impacts of COVID on travel, and active and sustainable travel policies and schemes to promote more sustainable travel.

Each organisational context is unique and core business, ways of working, public transport services, parking policy and location all influence how people travel to work. All the organisations have flexible or agile working policies, and the pandemic has accelerated a shift to home and hybrid working which has been maintained even after the relaxation of restrictions.

In all five organisations levels of public transport commuting and active commuting are higher than the national average, which is perhaps understandable given that these institutions are situated in cities where there is generally better provision of public transport services and active travel routes. Nevertheless, travel survey data show no signs of sustained downward trends in car use or indeed rises in public transport use, walking and cycling as commuting modes. The COVID-19 pandemic has not helped. The easing of parking restrictions during the pandemic along with guidance to avoid public transport led to an increase in car use and it seems that a proportion of people who were previously public transport users have reverted to car commuting. Cuts to public transport timetables and the frequency of services, combined with cancellations/ disruption to services have had an additional detrimental impact. The cost of public transport is also an issue for many staff and students.

There is evidence that where car parking facilities are reduced, levels of car use drops. Nevertheless, while all organisations have limited parking availability, or are considering further reductions to parking, this is a contentious issue and can be met with resistance.



All the organisations provide facilities to support active travel, such as showers and secure bike parking, although the level of provision in relation to staff complement varies substantially. All have supportive policy (e.g., sustainable transport policy, green travel plans, carbon reduction plans) and various schemes to encourage active and sustainable travel to work (e.g., access to the Cycle to Work scheme, free OVO Bikes membership). Encouragement for active and sustainable transport varies in terms of the range of schemes and engagement activities supported in each organisation. There is less obvious overt support for efforts to reduce car use.

A synopsis of the current situation is that much more needs to be done by national government, transport authorities and organisations themselves to achieve a significant shift away from car commuting to public transport use and active travel. We make a range of recommendations on how to make progress. These recommendations are informed by discussions arising out of a workshop held on 28th March 2023, where the findings from this case studies exercise were presented.

Public transport

Post-pandemic, a concerted effort is needed to encourage people back onto buses, trains, the subway and trams. To achieve this, public transport needs to be affordable, accessible, reliable, convenient and safe.

Consistent pricing and integrated ticketing, providing one ticket to cover all public transport in a region, would provide multiple social, economic and environmental benefits.

With the increase in flexible working post-COVID, more flexible ticket options are needed to make public transport more affordable. Public transport also needs to become more frequent outside the standard peak times of 08:00-18:00, have better geographic coverage and quality improvements on services (e.g., improved wifi, charging facilities, etc.). Options should be explored to provide large student populations living in collective accommodation with dedicated buses to campus destinations.

Improving public transport is foundational for progressing our other recommendations. Decisions on investment and development of public transport are led by national agencies and government, and strong leadership is needed to translate progressive policy on climate change, transport and sustainability into real change.

Behaviour change and infrastructure

Behaviour change efforts to promote sustainable transport should be better coordinated across institutions, such as joint-promotion and participation in car-free days. There needs to be a high standard of active travel at facilities installed in any new buildings, as a non-negotiable design requirement, such as the ones highlighted in '[Cycling by Design](#)' [guidance](#)¹.

Promotion of behaviour change, while important in helping to shift societal perspectives, will not be effective on its own. Investment in major active travel and public transport infrastructure schemes, such as the planned Glasgow Metro, is needed to create capacity and improve the quality of the active travel and public transport networks².

Car use and parking

There is inequity in the cost of travel and driving to work is often cheaper than using public transport. Given this, and in the context of a climate emergency, government adoption of the sustainable transport hierarchy and a target to reduce car traffic by 20% by 2030, clear and consistent priority needs to be given by institutions to affordable public transport and active travel over car use.

Organisations should be continuing to reduce car parking capacity, where possible, while not penalising staff who need to use a car because of caring responsibilities, disability, or due to working shifts and unsociable hours. Similarly, there should be a focus on the cost of parking at employers' premises, but with a focus on fairness and affordability, and taking account of the needs of those who have to use their car. Income from parking charges could be used to support sustainable travel initiatives.

Climate change

Given the increasing frequency of extreme weather and the impacts on travel and transport systems, we need to build more resilience into our transport system. Better contingency plans are needed within institutions and from transport operators to provide alternative travel options and greater flexibility to enable online working in such circumstances.

Flexible working

Hybrid and flexible working policies have an important role in not only providing staff with a better work-life balance, but also making it easier to combine work commuting with other journeys. Such policies have the potential to be used to encourage more people to use public transport and to travel actively, avoiding busy times.

Data and monitoring

We should be making collective efforts to improve comparative transport and work pattern-related data collected across organisations, including using standard core questions in travel surveys, coordinating surveys timings and collaborating on the presentation of data and findings. Improving survey response rates, particularly among students, should be a priority in order to provide the most accurate and representative evidence possible. This type of case study analysis could be repeated and expanded across a wider range of organisations to monitor progress in shifting to more active and sustainable travel and in reducing carbon emissions.

As a final point, it is clear that some of the actions that are required to shift to a more sustainable transport system are likely to continue to be contentious. Focused constructive dialogue within and across governments and institutions representing different interests will be crucial in finding and agreeing solutions and overcoming other challenges as they arise.



Introduction

This report summarises a range of sustainable transport and travel information gathered from five large public sector organisations in Scotlandⁱ. This information, which was provided by each organisation via a proforma, covers the context of each organisation, staff travel trends, the impacts of COVID on travel, active travel policies and promotion, car use and parking policy, and developing policies pertaining to e-bikes and electric vehicles.

The context for this work is the global climate change emergency, the effects of which are already being felt³, and thus the necessity to reduce carbon emissions. In Scotland, the government has set a target of reaching net zero Greenhouse Gas (GHG) emissions by 2045 and a 75% reduction by 2030⁴, and to support this is proposing a 20% reduction in car kilometres driven by 2030⁵. Additionally, Scotland's two largest cities, Glasgow and Edinburgh, have committed to achieving carbon neutrality by 2030^{6, 7}.

Despite notable reductions in GHG emissions in Scotland over the last 30 years, domestic transport emissions have only dropped modestly (by 11.3%, 1990-2019) compared to many other sectors. Consequently, domestic transport's share of total GHG emissions has increased, and in 2019 (prior to the COVID-19 pandemic) transport contributed one-quarter of all GHG emissions and over one-third of all CO2 emissions in Scotland⁸.

While climate change and the need to reduce transport-related carbon emissions



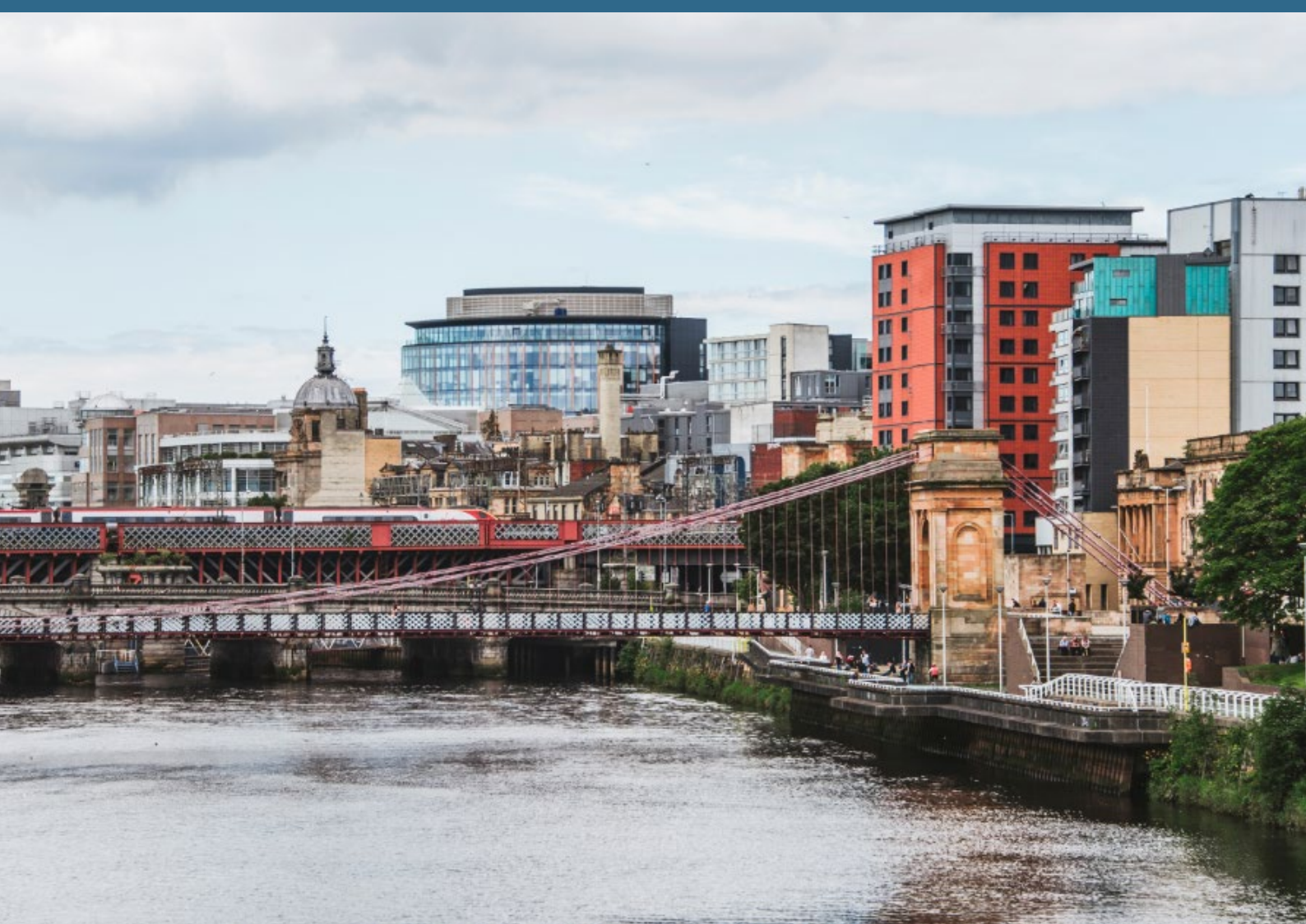
is the principal driver of sustainability policy in Scotland, there are other related policy priorities: the need to reduce air pollution levels, particularly in cities⁹, creating more sustainable liveable communities for people, including the concept of 20-minute neighbourhoods¹⁰, and encouraging people to be more active, including through active travel¹¹.

This report is intended to shed light on how five prominent institutions – one in Edinburgh and four in Glasgow – are decarbonising transport and supporting active and sustainable travel. The comparisons shown illustrate where progress is being made and where stubborn challenges remain. We hope that insights from this report are helpful to a range of local and national organisations grappling with how to support active and sustainable travel and can help shape and improve future sustainable transport policies at a national, local, and organisational level.

ⁱ University of Strathclyde, University of Glasgow, City of Glasgow College, Glasgow City Council, and the Scottish Parliament.

Methodology

This was largely a desk-based exercise with a clear focus on how these five organisations are making progress on active and sustainable travel. Information on organisational contexts, staff travel trends, COVID-19 travel impacts, relevant policies, and promotional activities was collected via a proforma designed by the authors and completed by each organisation. The data gathered by the authors were supplemented with additional relevant information stemming from discussions among the authors as comparisons were made and the report was drafted.



Organisational contexts

Of the five organisations compared, three are Higher or Further Education institutions, one is a local authority and the last, the Scottish Parliament, is the devolved legislature of Scotland. The Scottish Parliament is Edinburgh-based, while the other organisations are all in Glasgow – see **Map 1**.

In the case of the Universities of Strathclyde and Glasgow, the information provided pertains to each university's central campus. Two of the academic campuses (University of Strathclyde and City of Glasgow College) are in the centre of Glasgow, as are Glasgow City Council's main offices and chambers. City of Glasgow College has a second campus, the Riverside Campus, situated on the south bank of the river Clyde adjacent to Glasgow city centre. The Scottish Parliament is in central Edinburgh. The University of Glasgow's Gilmorehill site is in the West End of Glasgow.

Table 1 summarises the different organisational contexts, the size of each institution and operating hours. The four organisations based in city centre locations have more public transport options and better connections for longer distance travel journeys. All the Glasgow locations have on-site or nearby OVO Bikes (formerly nextbike)ⁱⁱ stations. Just Eat ran Edinburgh's bikeshare scheme until September 2021. Edinburgh does not currently have a city-wide bikeshare scheme.



The differing contexts of each organisation dictate the number of people who use or visit their buildings on a regular basis. While most have similar core week-day operating hours – when usage is highest – university campuses remain open all the time to staff and students to enable research and ongoing work. The Scottish Parliament is open to staff all the time, but its main business days are Tuesdays - Thursdays.

ⁱⁱ Although branded OVO Bikes, nextbike is the company that administers Glasgow's public bikeshare scheme, which was introduced in June 2014 at the start of the Commonwealth Games.

Map 1: Case study locations

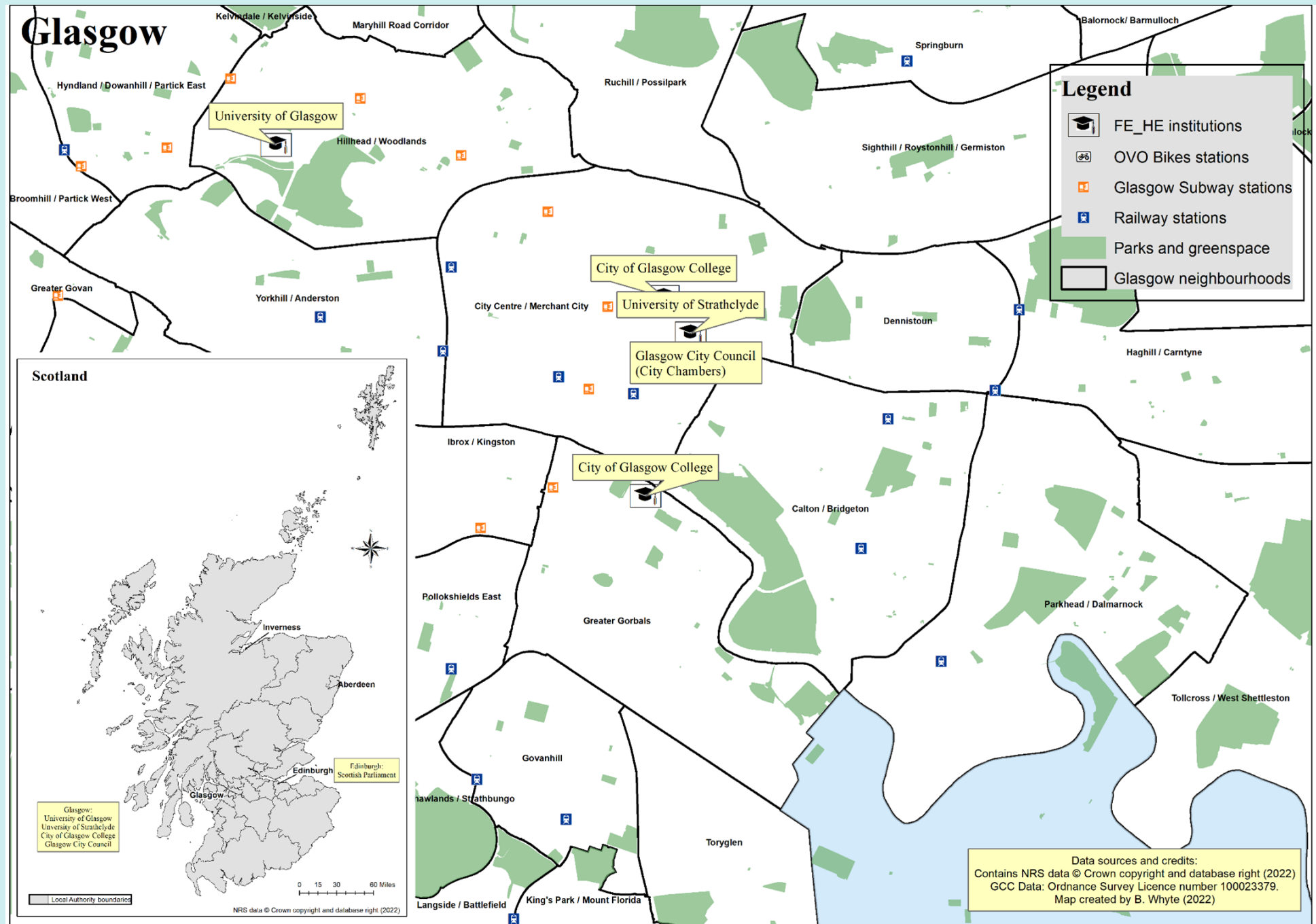


Table 1: Organisational contexts

Organisation	University of Strathclyde	University of Glasgow	City of Glasgow College	Glasgow City Council	The Scottish Parliament
Site	John Anderson Campus (Glasgow City Centre)	Gilmorehill Campus – West End of Glasgow	City & Riverside Campuses	City Chambers Complex	The Scottish Parliament
Sector	Higher Education	Higher Education	Further/Higher Education	Local Authority	Parliamentary
Context	<p>Strathclyde's John Anderson Campus sits in the heart of Glasgow City Centre, within the Low Emission Zone and what is often dubbed the 'Learning Quarter' with Glasgow Caledonian University and City of Glasgow College nearby.</p> <p>The campus is well connected to public transport with major train stations within a 5-10 minute walk and several key bus routes travelling near or through campus.</p> <p>There are few segregated cycle routes on or near campus, however there are a growing number of segregated routes throughout Glasgow that are towards the City Centre, allowing commuters to use these routes for a portion of their journey. The Universities Sustainable Travel Plan gives further detail.</p>	<p>Gilmorehill Campus is the main campus of University of Glasgow. It is open 24/7, but previous surveys show that the busiest times are normal working hours.</p> <p>The campus is currently undergoing an intensive construction programme, and some of the new high footfall buildings have recently opened.</p> <p>The West End of Glasgow is well connected by public transport, but direct bus services to University Avenue are limited. Busier routes (Dumbarton Road, Great Western Road) are a short walking distance away. The University benefits from the Hillhead Subway station nearby, while the nearest train stop is 15 min walk away.</p> <p>NCN route 75 is also nearby, but does not directly touch the campus. Cycling facilities on campus differ in quality and are at capacity in some locations.</p> <p>The campus is not based in Glasgow's Low Emission Zone</p>	<p>City Campus is within easy walking distance of all local transport hubs in the City Centre.</p> <p>Queen Street Station 0.2 m Buchanan Street Bus Station 0.4 m Buchanan Street Subway 0.3 m Central Station 0.7 m Cathedral Street bus routes 0.1 m</p> <p>Riverside Campus is similarly within easy walking distance of the following:</p> <p>Argyle Street Station 0.5 m High Street Station 0.8 m Bridge Street Subway 0.4 m Central Station 0.7 m Ballater & Crown Street bus routes 0.1 m</p> <p>There are some pedestrian and cycle access routes which provide direct connections into both campuses, but the Avenues project will improve these even more.</p>	<p>Glasgow City Council (GCC) is the local government authority for the City of Glasgow, created in 1996. The HQs of most departments are in the City Centre. Public transport links are good with two major railway stations serving an extensive urban and suburban network, a subway system and city-wide bus services run in and out of the centre of Glasgow. GCC is developing its cycling network via the delivery of segregated City Ways and, in the City Centre lanes delivered as part of the Avenues project. The current network is made up of a mixture of segregated routes, shared surface (predominantly in parks) and a small amount of demarcation.</p> <p>The City Centre is one of the 20 mph zones and a number of measures have been taken to reduce City Centre traffic flow. Whilst there have been significant improvements via public realm projects, pavement quality in some areas is variable.</p>	<p>The Scottish Parliament is the devolved, unicameral legislature of Scotland. It is responsible for examining what the Scottish Government is doing, making new laws on devolved matters and debating the issues of the day. It also provides office space for 129 MSPs and their staff to represent their local area in the Parliament. It is in the Holyrood area of Edinburgh and comprises an area of 1.6 ha (4 acres), with a perimeter of 480 m (1570 ft). The Parliament is a 15-minute walk from Edinburgh Waverly train station and is on the bus route for Lothian bus service 35.</p>
Staff numbers overall (FTE, if available)	4,484 (4,069 FTE)	8,149 (Gilmorehill only), (5,073 FTE)	1,451 (1,164 FTE)	430 (average number of staff working in the complex on a daily basis due to post-COVID hybrid working)	546 FTE equivalent SPCB (Scottish Parliament Corporate Body) staff work in the Parliament*
Student/ Patient/Visitor numbers per year	Students: 24,450 - (20,395 FTE)	Students headcount on this campus 35,776	31,959 (15,326 FTE)	Not known	500,000 (pre-COVID), closed to visitors from 2020-2022
Operating hours/core hours	08:00 - 20:00 Monday – Friday. Library and Union open later	Core hours are normal working hours – Monday-Friday, 08:00 - 18:00, but the campus is open and used 24/7	Buildings are open 06:00 – 18:30 Monday & Thursday, 06:00 – 21:30, Tuesday & Wednesday and 06:00 – 17:30 on Friday.	Building is open: 08:00 - 18:00 Core hours: 10:00-16:00	Open to staff 24/7 however business days are Tuesdays, Wednesdays, and Thursdays
Locations	G1 1XQ (Glasgow City Centre)	G12 8QQ (West End of Glasgow)	G4 ORF (Glasgow City Centre) & G5 9XB (South of Glasgow City	G2 1DU (City Chambers, George Sq)	EH99 1SP (Holyrood, Edinburgh)

*There are a range of other building users not included in this figure, including MSPS and their staff, contractors and media teams.

Working patterns and flexible/hybrid working

Prior to the pandemic most organisations operated a five-day working week but with a mix of full-time and part-time work patterns. All the organisations have flexible or agile working policies and the majority operate with flexi-time working systems. The pandemic has resulted in a large shift to home and hybrid working, which has been maintained even after the relaxation of restrictions. **Table 2** summarises this.

Table 2: Working patterns

Organisation	University of Strathclyde	University of Glasgow	City of Glasgow College	Glasgow City Council	The Scottish Parliament
Site	John Anderson Campus (Glasgow City Centre)	Gilmorehill Campus – West End of Glasgow	City & Riverside Campuses	City Chambers Complex	The Scottish Parliament
Agile/flexible working policy?	Yes – introduced following COVID-19	Yes	Yes	Yes	Yes
Flexi-time system?	Yes, as part of agile working policy. Set at line manager level	No	Partial	Yes	Yes
Pre-pandemic work patterns	5 days (or full time)	Average days on campus (2019) – staff 4.5 days a week; students 4.1 days a week	There was no home working pre-pandemic	5 days (or full time)	5 days a week in office
Current work patterns	Around 18% of staff always working from home (2021/22).	Average days on campus – staff 3.1 days a week; students 3.3 days a week. 2% of staff always work from home (2022)	Between 3-4 days on site and 1-2 days from home (2022)	3 days at home and 2 in office (2022)	50% always working from home; 13% do not work from home (2021)

While the information compiled from each organisation is not exactly comparable, it is clear that many staff are either always working from home or working on a hybrid basis, alternating between their home and their workplace. In the universities and colleges there was a huge shift to online learning and working during the pandemic, although institutions have reverted in the main to in-person teachingⁱⁱⁱ. Despite the shift to more homeworking, there is quite a variation in the proportions of staff who always work from home. For example, in the Scottish Parliament in 2021, 50% of survey respondents were always working from home, while in 2022 only 2% of staff at the University of Glasgow were always working from home. Some of this difference will be due to the timing of different surveys and the level of COVID-19 restrictions in place; for example, in 2021, there were more work restrictions in place.

"The pandemic has resulted in a large shift to home and hybrid working which has been maintained even after the relaxation of restrictions."

ⁱⁱⁱ Nevertheless, some staff such as cleaners and technicians have remained on campus despite COVID-related changes.

Commuting trends

All organisations have carried out staff travel surveys, which has enabled comparisons to be made across organisations and over time. Before examining the results, it is important to be aware of the level of response to these surveys (**Table 3**). Response rates across the Higher Education institutions are much lower among students compared to staff, and lower overall than in the Scottish Parliament.

Table 3: Travel surveys and response rates

Organisation:	University of Strathclyde	University of Glasgow	City of Glasgow College	Glasgow City Council	The Scottish Parliament
Travel surveys	2015, 2018, 2020, 2022	2013, 2015, 2019, 2022	2015, 2018, 2019	2015	2015, 2018, 2019, 2021, 2022
Date of latest survey	May 2022	March to April 2022	2019	2015	April 2022
Response rates	28% of staff, 0.5% of students in 2022	21% of staff, 7% of students in 2022	15% of staff, 0.5% of students in 2019	11% of staff in 2022	52% of staff in 2022

Pre COVID-19

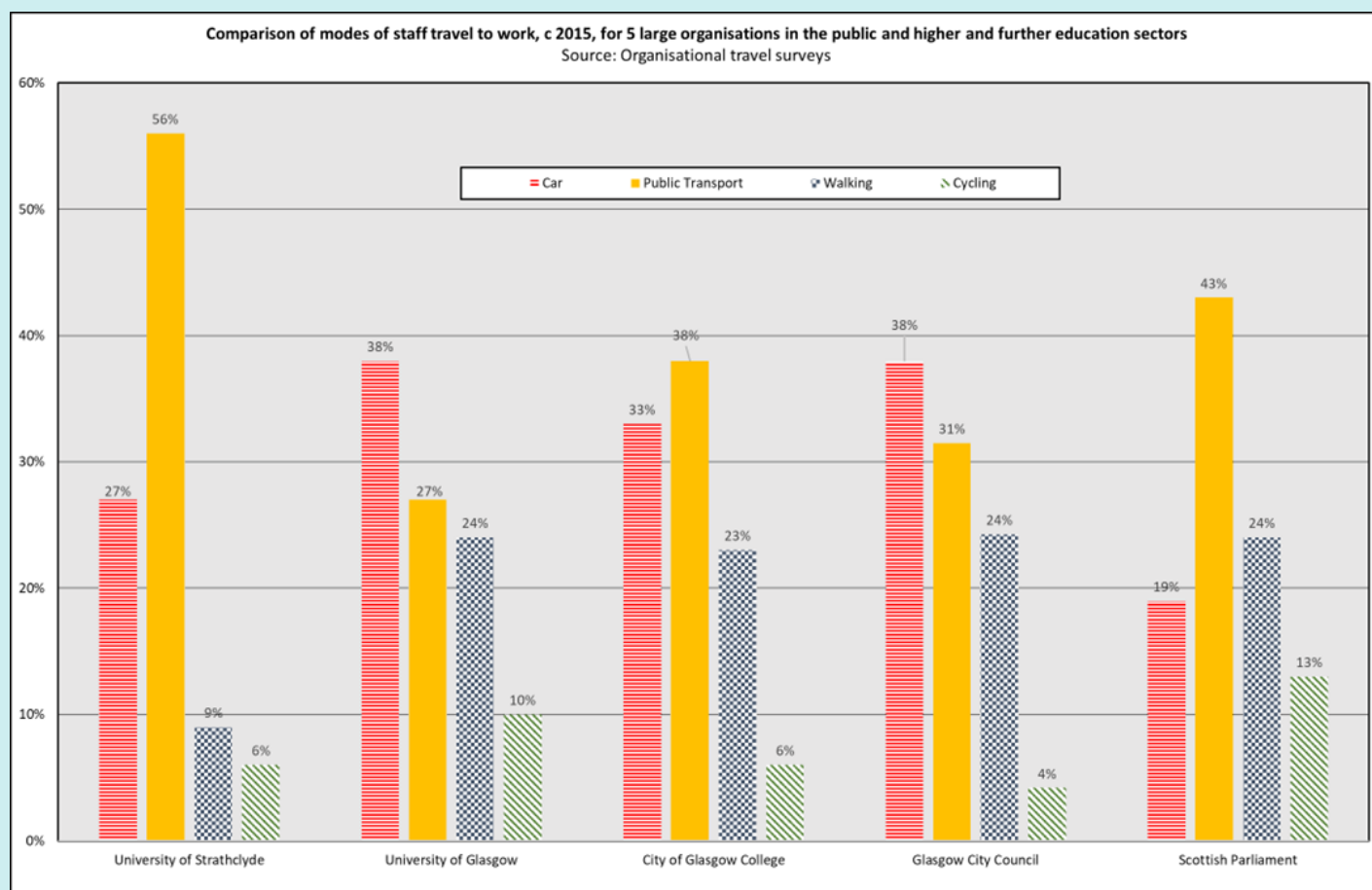
Before examining changes in commuting that have occurred in the last few years and in particular from the beginning of the COVID-19 pandemic, we provide a comparison of pre-COVID commuting patterns. Most organisations had undertaken a survey around 2015 and it is staff commuting in this period that is compared in **Figure 1**. It should be noted that these surveys have been undertaken in different ways, using different questions and sometimes commuting categories, and had different response rates^{iv}. This is therefore an imperfect comparison, made at one point in time, approximately seven years ago. Nevertheless, the data still provide useful insights.

Car commuting (either as a driver or a passenger) was lowest among staff at the Scottish Parliament (19%) and highest in Glasgow City Council and University of Glasgow (38%). However, car commuting among staff at these institutions was lower than that in Scotland overall in 2011, when 69% of adults commuted to work by car (see Appendix 1). Public transport use was highest at the University of Strathclyde (56%), and much lower at the University of Glasgow (27%) and Glasgow City Council (31%). Nevertheless, commuting levels by public transport at every institution were higher than in Scotland as a whole in 2011, when approximately 16% of people commuted to work on public transport. Walking to work was lowest among staff at University of Strathclyde at 9%. It is likely that the distances that staff are commuting is a factor in this. In the other organisations, levels of walking commuting were much higher – 23-24% – approximately double the 2011 Scottish figure of 11%. Cycling commuters made up the smallest share of commuters, but cycle commuting levels in all these organisations were at least twice the Scottish rate in 2011, when 1.6% of workers commuted by bicycle on average.



^{iv} Other minor issues: responses labelled 'other' representing 1-2% of commutes have not been shown; GCC's walking category also includes running to work; City of Glasgow College's car category includes motorbikes.

Figure 1: Comparison of staff commuting by mode across the five organisations, 2015



Trends (including during COVID-19)

There are more limited comparisons that can be made over time and through the COVID-19 period. We can draw upon surveys from three organisations (University of Strathclyde, University of Glasgow and Scottish Parliament) to look at commuting trends in this period. **Figures 2 – 6** summarise these trends^v.

There appears to be a very clear ‘COVID period’ impact on commuting trends among staff at the University of Strathclyde (**Figure 2**). Car use rose steeply in 2022 compared to 2020, while public transport and active travel levels have reduced^{vi}. The switch to

car use from public transport may relate to commuters who travel longer distances having given up using public transport, in line with public health advice in the early phase of the pandemic, and who have not returned to their previous public transport commuting pattern^{vii}.

Figure 3 shows trends in student travel at the University of Strathclyde over three surveys: 2014, 2019, 2020 (data for 2022 could not be shown due to a very low response rate). Most students either took public transport or walked, while car use was low (less than 10%) and bike use appeared to be rising.

^v Due to rounding and exclusions of minor commuting modes the percentages in these graphs do not total to 100.

^{vi} The actual survey dates were: June 2015, July 2018, May 2020, Feb 2022. In May 2020, staff were asked about their ‘normal’ (i.e. pre-COVID) commuting habits as this was in the first phase of lockdown when very little travel was permitted.

^{vii} It is worth repeating the caveat that these comparisons are based on relatively low response rates to staff and student travel surveys. The relatively small sample of respondents may not be representative, which may in turn lead to hidden biases in the patterns of responses provided and affect their accuracy.

Figure 2: Staff commuting trends, University of Strathclyde

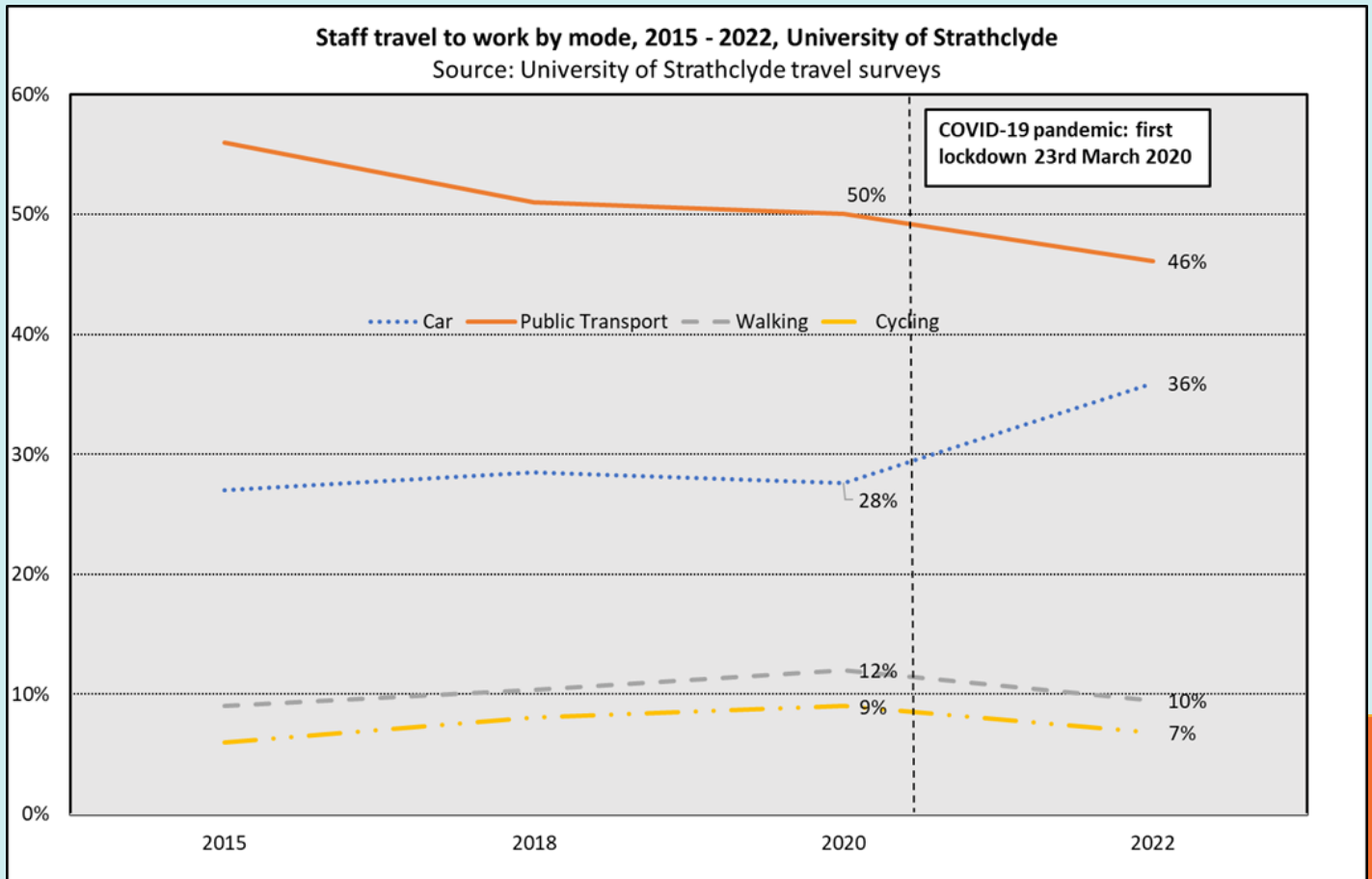


Figure 3: Student commuting trends, University of Strathclyde

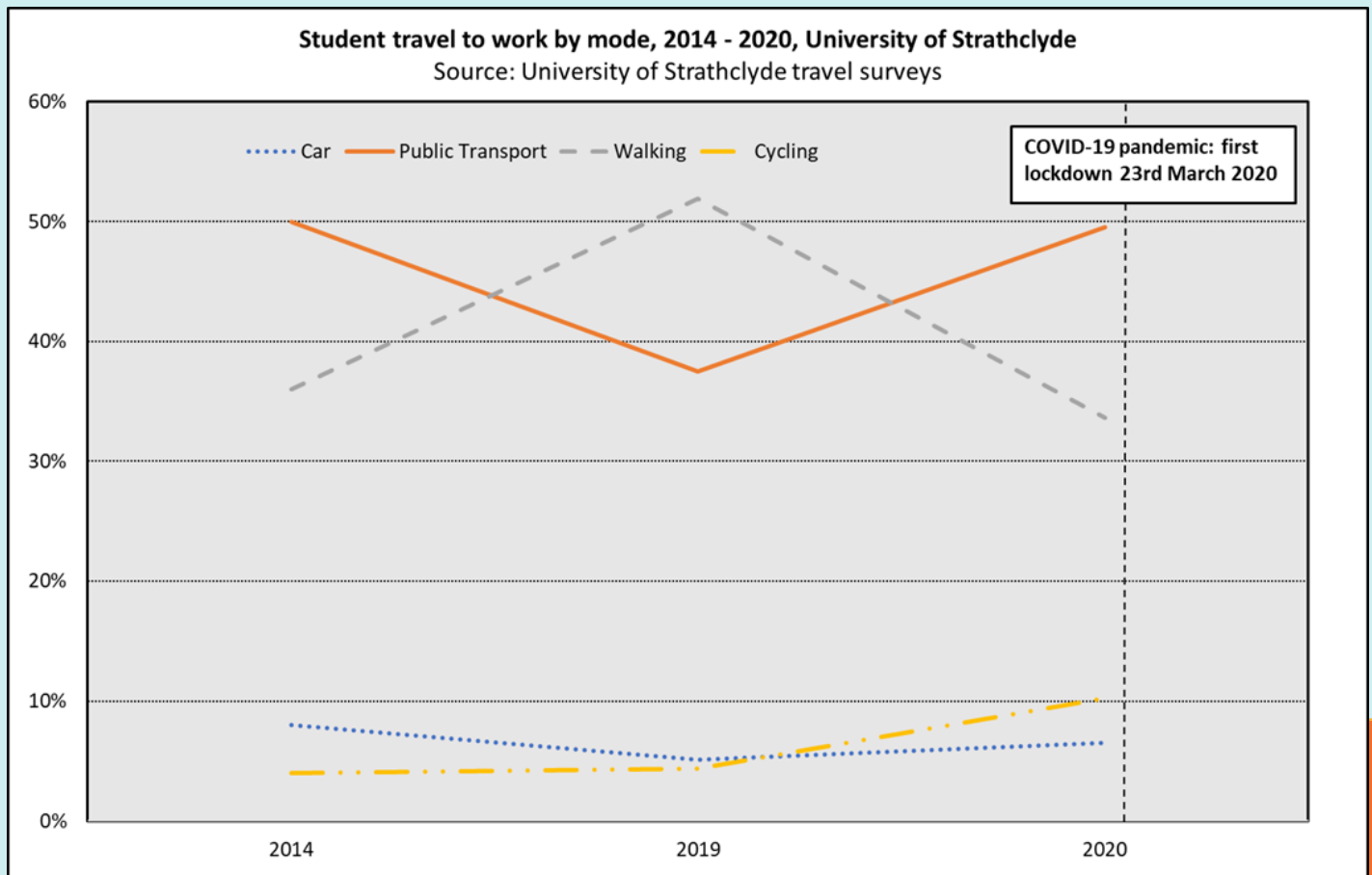
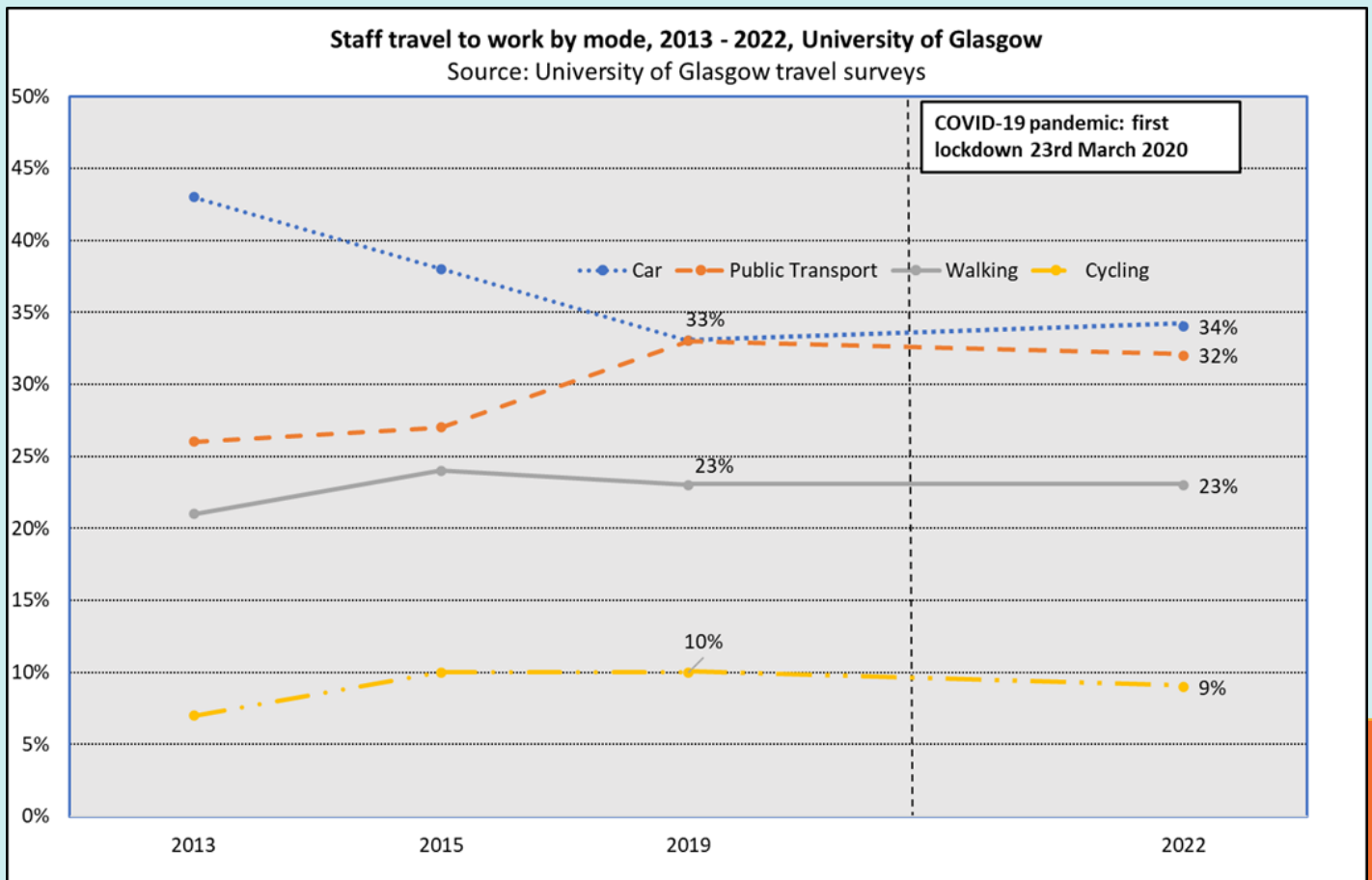


Figure 4: Staff commuting trends, University of Glasgow



The impact of COVID on commuting trends among staff at the University of Glasgow (**Figure 4**) is less apparent than that on staff at the University of Strathclyde, although a positive upward trend in public transport use has clearly stalled. Overall, car use went up one percentage point in 2022 and public transport reduced by a similar amount. The modal shares for staff commuting in 2022 are very similar to those in 2019.

Figure 5 shows trends in student travel at the University of Glasgow. About half of student respondents walk to the university and 35% used public transport in 2022, which has risen from 32% in 2019 (use of the Subway has risen). Bike commuting has reduced since 2019.

The Scottish Parliament have published commuting trends based on surveys conducted between 2015 and 2022 (**Figure 6**). Of those who have participated in the survey, public transport has been the most popular method of getting to the Parliament

with 45% of commuters using this mode in 2022. Active travel was used by 30% of commuters in 2022, with 20% on foot and 10% by bike. The dramatic drop in 2021 was because 41% of staff were fully working from home due to COVID restrictions at the time.

One other pre-COVID trend worth noting pertains to City of Glasgow College, where there was a reduction in staff commuting by car between 2012 and 2015, and this continued to 2019 (data not shown, taken from a City of Glasgow College PowerPoint presentation)¹². The college moved to two new campuses in 2015 and 2017 and as part of this move prioritised sustainable travel, providing better cycle facilities and reducing car parking spaces substantially on the sites. This led to a positive shift in commuting patterns, with greater proportions of staff and students using public transport and travelling actively to the new campuses. (Appendix 2 provides a case study of the City of Glasgow College's move to two new campuses and describes how the college prioritised sustainable travel).

Figure 5: Student commuting trends, University of Glasgow

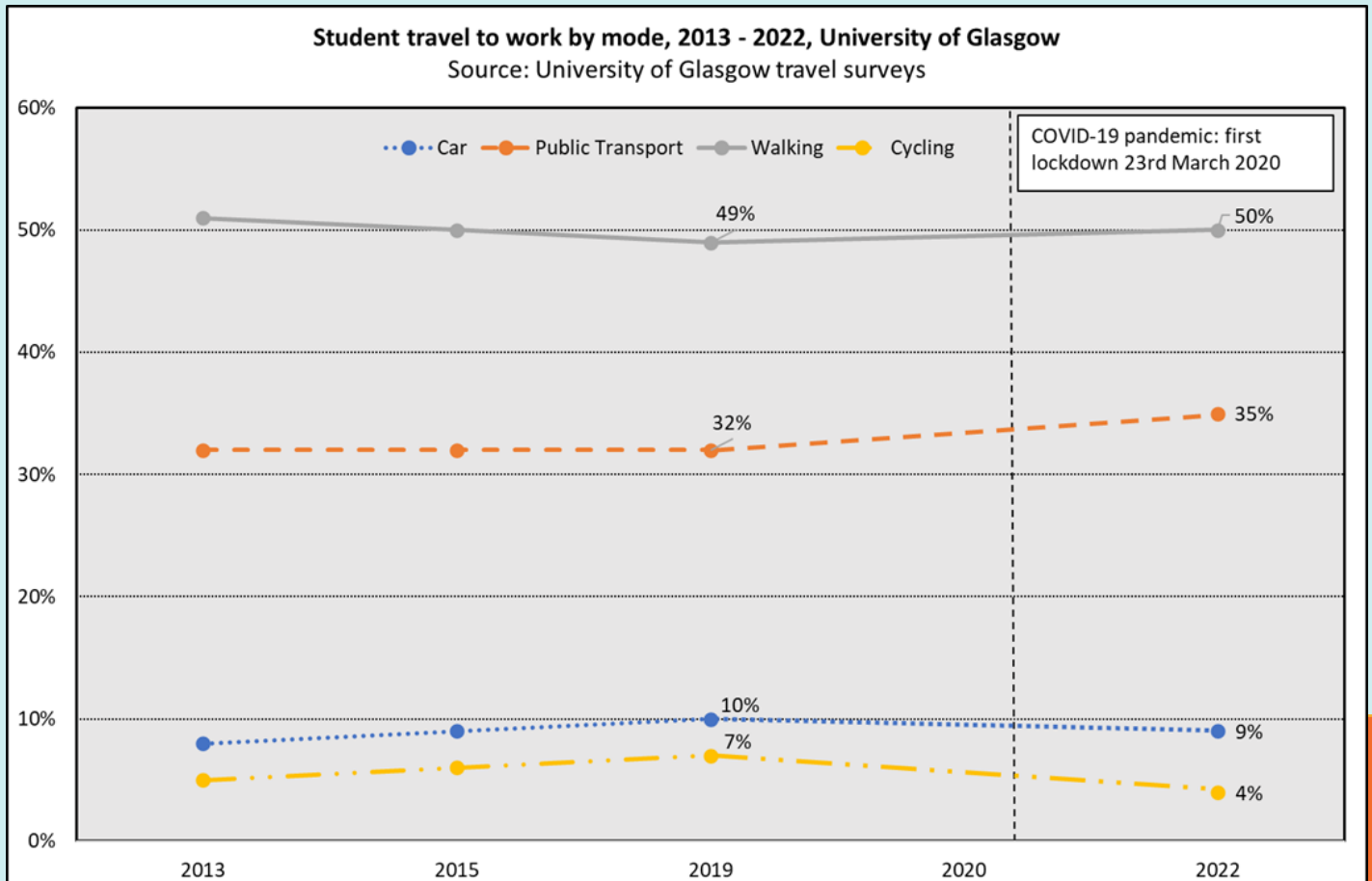
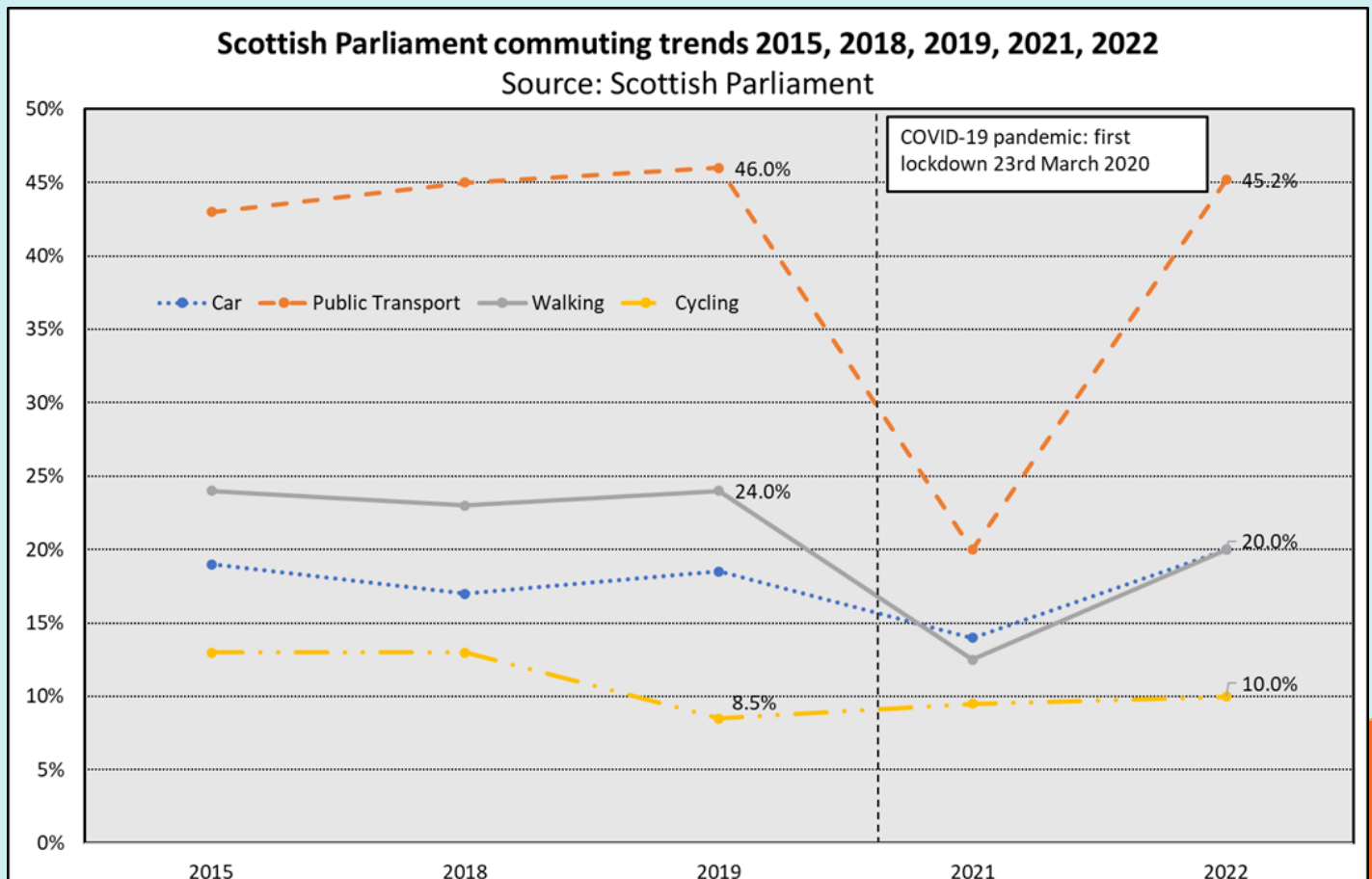


Figure 6: Staff commuting trends, Scottish Parliament



Facilities and schemes to support active and sustainable travel

Active travel

Table 4 summarises some of the facilities and schemes in place in each organisation to support active travel. Shower provision is shown as a number and per 100 FTE staff^{viii}. City of Glasgow College has the highest level of shower provision for staff. The college also has the highest level of secure bike parking^{ix} available to staff. Three organisations provide e-bikes for staff travel^x, but the majority do not.

The two universities have OVO Bikes membership^{xi}, while City of Glasgow College and Glasgow City Council do not. Each organisation offers the Cycle to Work (CTW) salary sacrifice scheme for purchasing a bike and there are partnerships with local bike shops to support this. In most organisations, the maximum value of a purchase has been raised by the Government to make it easier to purchase e-bikes. The University of Strathclyde reported a sharp increase in CTW applications in July 2020, although applications were down over the whole year.

In addition to the tabulated information, there is a long-standing annual programme funded by Cycling Scotland to provide Campus Cycling Officers for a 34-week internship which runs from September-April.

A total of 11 Higher and Further Education institutions in Scotland have been chosen as host organisations under the programme for the 2022-23 term: University of Edinburgh, Edinburgh College, Queen Margaret University, City of Glasgow College, University of Glasgow and Glasgow School of Art (jointly), Glasgow Caledonian University, South of Lanarkshire College, Fife College Students' Association (FCSA), Robert Gordon University, Abertay University and Highlands and Islands Students' Association (HISA).



^{viii} Shower facilities are for staff and students.

^{ix} 'Secure': meaning requiring a code or a lock.

^x Glasgow City Council also have an additional e-cargo bike for staff use.

^{xi} The University of Glasgow and the University of Strathclyde fund full membership, providing the first 60 minutes of all hires free for all staff and students.

Table 4: Facilities to support active travel

Organisation	University of Strathclyde	University of Glasgow	City of Glasgow College	Glasgow City Council	The Scottish Parliament
Site	John Anderson Campus (Glasgow City Centre)	Gilmorehill Campus – West End of Glasgow	City & Riverside Campuses	City Chambers Complex	The Scottish Parliament
Staff numbers - FTE	4,069	5,073	1,164	430*	546
Student/Patient/Visitor numbers per year	Approx. 25,000	Students headcount on this campus 35,776	31,959 (15,326 FTE)	Not available	500,000 (pre-COVID), closed to visitors from 2020-2022
Showers	46	35	80	8	39
Showers per 100 FTE staff	1.1	0.7	6.9	N/A	7.1
Publicly accessible bike parking	405	943	200	34	Nearest public cycle racks are located next to the Holyrood Lodge
Secure bike parking (requiring code or lock)	230	200	330	72	60
Secure bike parking per 100 FTE staff	5.7	3.9	28.4	N/A	11.0
E-bikes for staff	0	8 (+1 e-cargo bike for staff business use)	4	2	0
OVO next bike membership	Yes; 100% off annual fee	Yes; 100% off annual fee	No	No	N/A
Cycle to work	🚲	🚲	🚲	🚲	🚲
Maximum value	£4,000	£1500; £2,500 (e-bikes)	£4,000	£1,500	£2,500
Uptake	25-35 per year	60-85 per year	20 per year	88 per year	?

* Glasgow City Council figures are based on average number of staff working in the complex on a daily basis due to post-COVID hybrid working, so not strictly comparable to the figures for other institutions.

Public transport

Organisations have different schemes to encourage public transport use. The University of Strathclyde and City of Glasgow College offer a First Bus commuter club, the University of Glasgow and the Scottish Parliament offer interest-free loans to pay for public transport season tickets. The University of Glasgow is also able to offer staff a 10% discount on First Bus season tickets.



Facilities for car drivers

Table 5 summarises the car-related facilities available within each organisation. City of Glasgow College has the lowest rate of parking spaces available to staff commuting by car. Glasgow City Council staff can use Duke Street car park near the City Centre for a reduced rate. The costs of staff parking vary dramatically from over £500 per year to being free at the Scottish Parliament.

Table 5: Parking, EV charging points and pool cars

Organisation	University of Strathclyde	University of Glasgow	City of Glasgow College	Glasgow City Council	The Scottish Parliament
Site	John Anderson Campus (Glasgow City Centre)	Gilmorehill Campus – West End of Glasgow	City & Riverside Campuses	City Chambers Complex	The Scottish Parliament
Staff numbers - FTE *	4,069	5,073	1,164	430	546
Staff parking spaces	600	587	80	84	66
Parking spaces per 100 FTE	15	12	7	N/A	12
Annual cost of parking	£514.29	£310.00	£3 per day / £735 per year	Parking reserved for elected members; additional parking £4.50 per day (Duke St)	Free
Visitor parking	No	£6 per day	£0 but only limited number of spaces available	No	No visitors parking. A small number of public parking spaces are reserved for disabled people on Horse Wynd. These parking bays are for visitors to the Holyrood area in general, not just for visitors to the Parliament.
EV charging points	11**	16**	8 (4 twins)	14	15
Pool cars	2	12	2	17	No
Electric pool cars	2	0	0	8	No

* Glasgow City Council figures are based on average number of staff working in the complex on a daily basis due to post-COVID hybrid working, so not strictly comparable to the figures for other institutions.

** The e-charging points are for fleet vehicles only and not for commuting staff.

Transport related policies

There is a range of relevant policy in each institution.

Car parking management

Most organisations have an existing car parking policy or are in the process of renewing existing policy. The University of Strathclyde is planning to introduce a new car parking scheme which will be needs-based and include a minimum distance exclusion zone^{xii}. It is likely that parking numbers will reduce in the future, in line with their sustainable travel plan and GCC City Centre plans to reduce car traffic.

The University of Glasgow operates a parking permit scheme that is criteria-based and applies a two miles from home exclusion zone. Parking space reductions have been proposed but have met with opposition.

City of Glasgow College reduced its parking spaces from 600 to 95 after moving to new buildings in 2016/17, and may reduce its capacity further. This reduction in parking capacity has been linked to a reduction in staff and student commuting by car, particularly as the main mode of commuting¹² (Appendix 2).

The Scottish Parliament operates a booking system for its 60 parking spaces, with priority given to MSPs on business days^{xiii}. There are ongoing discussions about reducing parking availability.



COVID-19 impacts on car parking

In the University of Strathclyde, car parking charges were suspended from April 2020 and staff authorised to work on campus were able to sign up for a car parking space, based on a no guarantee, 'right to roam' model. The 'right to roam' model remained in place throughout the 2021/2022 car parking year, at which point the annual permit

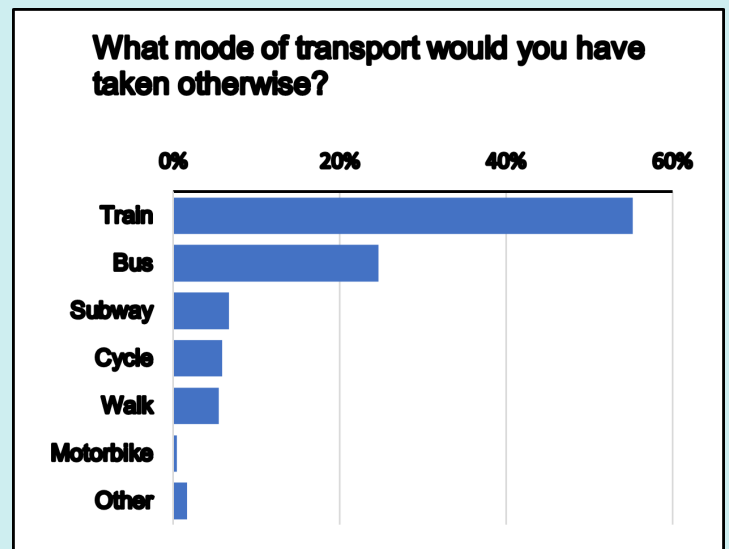
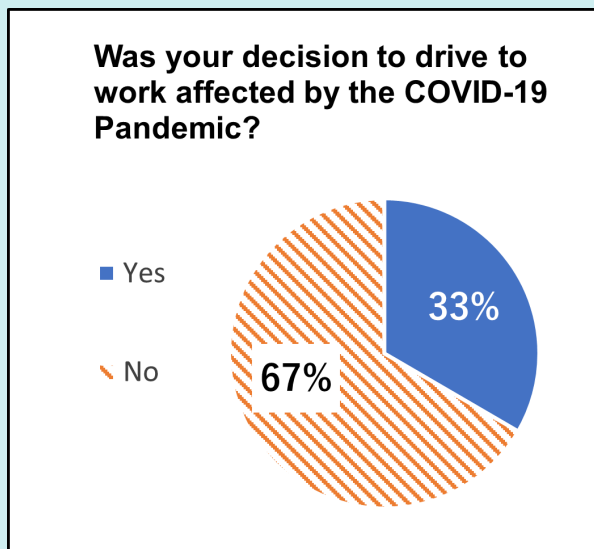
system was reintroduced from August 2022, with monthly charges reinstated for all permit holders. While the removal of the parking charge was justified when the public health advice was to avoid public transport, this advice no longer pertains but there appears to have been a longer-term adverse impact on rates of car use.

^{xii} There will be exceptions to this for blue badge holders and those with certain caring responsibilities.

^{xiii} There are some exemptions to this (i.e., parliament staff with a disability that impacts their ability to travel to work can get priority).

In April 2022, the University of Strathclyde Car Parking team and Sustainability team surveyed staff that drove to work. The survey looked at current and future parking demands, changes in travel choices due to COVID-19, and attitudes toward electric vehicles to help estimate demand for workplace EV charging. Results showed that around one-third of staff currently driving to work had started doing so because of the COVID-19 pandemic, and of them, the vast majority would have otherwise taken the train or bus.

Figure 6: Parking survey results, University of Strathclyde, 2022



While this does show a clear increase in the share of people driving to work, car parks at the University of Strathclyde have anecdotally been seen to be emptier than they were pre-pandemic. Varied working patterns may mean staff choosing to travel by car but only making the journey into

campus 2-3 days per week. This may lead to more car park users, but overall fewer car journeys due to continued working from home. A more agile approach to parking permits is being investigated to help manage this further.

The University of Glasgow's usual parking scheme was suspended in favour of a £1 flat rate during lockdown, for similar reasons as for the University of Strathclyde: fewer public transport options were available – or none – and there was public health advice against using public transport, while at the same time less people travelled in, so more car park spaces were available. However, the spaces would still have to be booked.

City of Glasgow College switched to a daily booking system rather than an annual ballot due to the pandemic and are continuing with this.





Active travel

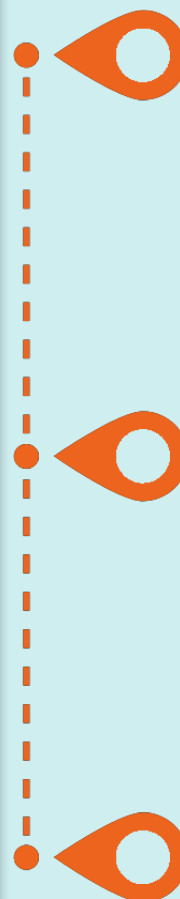
Active travel policy is usually contained within a sustainable travel and transport policy/plan.

Cycling Scotland's Cycle Friendly Award

Most organisations have achieved a Cycle Friendly Award from Cycling Scotland, either as a 'Cycle Friendly Campus' or a 'Cycle Friendly Employer', although some need to renew this.

Sustainable travel and transport plan

All organisations have a version of this, but not always with this name. For example, City of Glasgow College calls its version a Green Travel Plan. Organisations also have guidance for business travel.



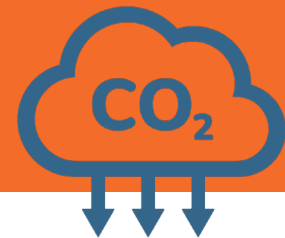
Carbon reduction plans

Some organisations, like the Scottish Parliament and the University of Glasgow, have specific carbon reduction/management plans and all organisations have set targets for reducing emissions (**Table 6**).

The Scottish Parliament calculates homeworking emissions from their staff travel survey results using the EcoAct methodology and DEFRA emission factors. Some organisations are developing policy on electric vehicles charging points on campus.

All organisations include business travel emissions within their carbon emissions targets but, in contrast, while the Higher Education institutions also include commuting travel emissions within their

carbon emissions targets, the Scottish Parliament does not. This is because commuting emissions were not calculated by the Scottish Parliament when its carbon reduction targets were set. The Parliament's 2038 net zero target includes Scope 1, 2, and some of Scope 3 (waste, water, and business travel)^{xiv}. It will then look to include the rest of its Scope 3 (including commuter travel) in its net zero target.



^{xiv} Scope 1 covers direct emissions from sources such as fuel for company vehicles or gas burned for heating. Scope 2 covers the indirect emissions sources such as emissions from electricity. Scope 3 covers indirect emissions due to the activities of an organisation, such as water usage, waste and business travel.

Table 6: Carbon reduction targets and related policy and plans

Organisation	University of Strathclyde	University of Glasgow	City of Glasgow College	Glasgow City Council	The Scottish Parliament
Carbon reduction targets	Their Vision 2025 Strategy includes a target to reduce greenhouse gas (GHG) emissions from a 2009/10 baseline, to leading to 70% reduction by 2025, 80% by 2030 and net zero by 2040 at the latest	The Carbon Management Plan 2020/21-2030/31 includes a carbon footprint target of reducing GHG emissions from 60,358 (in 2020/21) to 27,000 tonne CO ₂ e per annum by 2030/31. There is also a commitment to being net zero for GHG emissions by 2030	Their Sustainability Strategy has targets to reduce emissions from all GHG by 70% by 2030 and reduce carbon emissions by 60% against 1990 baseline by Academic Year 2023/24	Glasgow's Climate Plan has a target for the city to achieve carbon neutrality by the year 2030	Their carbon plan, Session 6 Carbon Management Plan: Net Zero Ready , has a target of achieving a 66% reduction in CO ₂ e per annum by 2025/26 from a 2005/06 baseline
Related policy/ plans	Climate Change and Adaptation Plan and a Sustainable Travel Plan .	Strategic Travel and Transport Plan and Guidance for Business Travel	Sustainability Strategy and a Green Travel Plan (internal document)	Glasgow Transport Strategy , Glasgow City Centre Transformation Plan (in preparation), a Liveable Neighbourhoods Plan and an Active Travel Strategy . An internal staff travel plan exists	Scottish Parliamentary Corporate Body Sustainable Travel Plan 2021-2022

Hybrid working

Hybrid working guidance/policy has been or is being developed by all organisations.

Place-making

There is place-making/campus design work going on in specific locations. The University of Strathclyde is currently involved in two Places for Everyone projects to develop a “Pedestrian First” campus and surrounding area to benefit the local community.



The University of Glasgow is in the process of delivering its major Western Campus development, which will increase the size of its Gilmorehill Campus. Two major buildings are complete with a further three buildings still under construction. The development is supported by a masterplan with place-making principles to ensure pedestrians have priority and this is reflected in the design of the public realm. The aim is for the Western Campus to connect seamlessly into the wider city through a hierarchy of new public streets and lanes providing safe, well-lit continuous walking and cycling routes.

Business travel policy

All organisations have a business travel policy or plans to publish guidance on business travel. The University of Strathclyde is developing a new business travel policy that will aim to minimise international travel, prohibit internal UK flights, and promote active and public transport for short business journeys.

City of Glasgow College has a policy which is currently being reviewed and will be updated to help drive net zero targets. As part of this, it is considering whether to prohibit air travel for domestic UK travel.

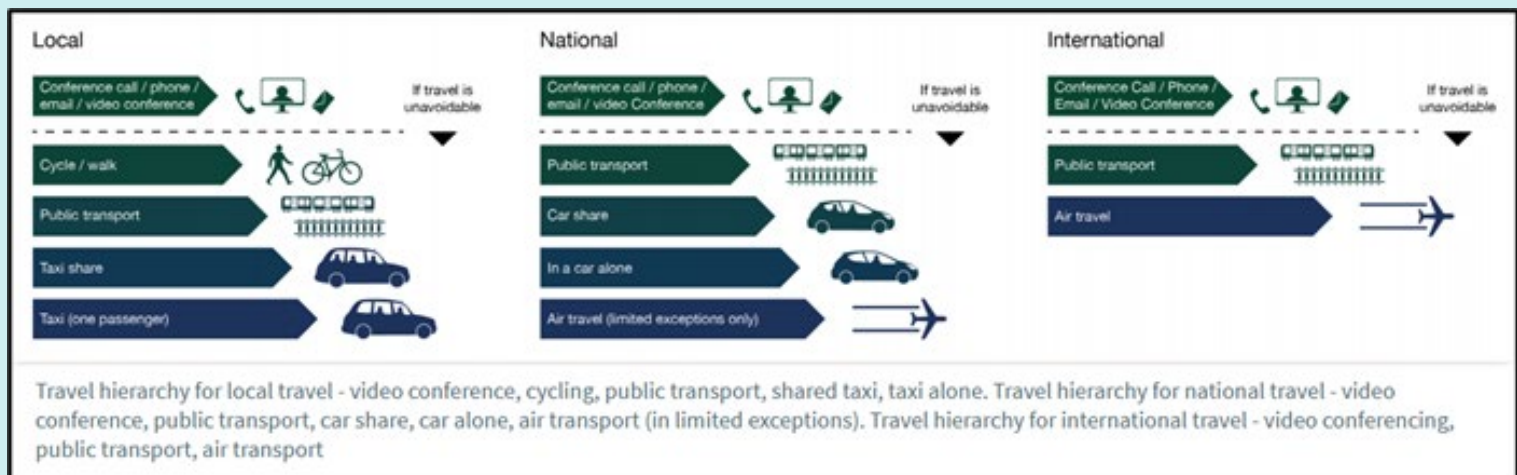
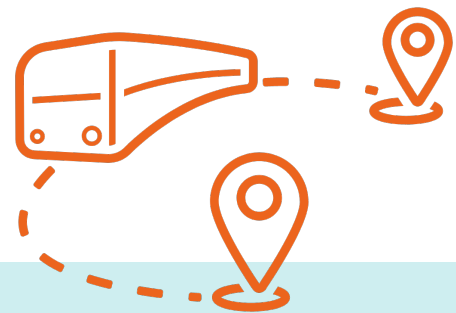
The Scottish Parliament plans to publish guidance on business travel as part of its updated Sustainable Travel plan in 2023. Glasgow City Council’s business case policy is not framed in the context of environmental impact, but these impacts are considered in other policy such as the staff travel plan.

The University of Glasgow has a target to reduce emissions from business travel from 13,194 ton CO₂e in 2018-19 to 5,597 ton CO₂e in 2029-30; this equates to a reduction of 7.6% year on year. The university has staff business travel guidance. Staff are encouraged to avoid travelling where possible and to make use of teleconferencing and videoconferencing. In the guidance, travel by train and other forms of public transport should be the default option for travel within the UK, with domestic flights only taken where there is specific justification^{xv}.

Nevertheless, it is worth noting the challenges that growing internationalisation of universities poses for flight emission targets.

Universities Scotland, the representative body of Scotland's 19 Higher Education (HE) institutions, has asked HE institutions to start estimating (not fully reporting) emissions due to international student travel to university each term, and it is expected that reporting requirements on this will further increase.

The promotion of a sustainable travel hierarchy for business travel is becoming more prominent in public organisations. The infographic below from the University of Edinburgh is a good example of this^{xvi}.



^{xv} <https://www.gla.ac.uk/myglasgow/sustainability/travel/business/target/>

^{xvi} <https://www.ed.ac.uk/sustainability/topics/travel/sustainable-travel-policy-2021/key-policy-information>

Schemes to reduce emissions/promote physical activity

Most organisations have policies and initiatives that aim to subsidise and encourage public transport use and active travel (e.g., Cycle to Work scheme, bus discount scheme, interest-free loans for season tickets, etc.). The University of Strathclyde has been partnering with their Sports Centre's Health and Wellbeing Team to offer led walks and has a programme of light activity aiming to develop a stronger culture of daily physical activity ([Strathclyde Sport-ExHale](#)).

University of Glasgow Sport have created a self-referral '[UofG Sport Active Lifestyle Wellbeing Programme](#)' with the aim to improve activity levels of staff and students at the university and their mental wellbeing. This is promoted by the University's Health, Safety and Wellbeing Team.



Engagement activities and social media

Engagement activities

Organisations are involved in a range of engagement activities to encourage active and sustainable travel. **Table 7** summarises these and the level of organisational involvement.

Table 7: Participation in engagement activities

Organisation	University of Strathclyde	University of Glasgow	City of Glasgow College	Glasgow City Council	The Scottish Parliament
Participation in engagement activities					
Sustrans Workplace Journey Challenge (March 2022)	Yes	Promotion only	Pre-pandemic	Yes	Yes
Paths for All – Spring step count challenge (May – June 2022)	Yes	Occasionally, promotion only	Pre-pandemic. Post-pandemic have organised own version	Yes	No
Clean Air Day (June 2022)	No	No	No	Yes	No
Bike Week (June 2022)	Yes	No	Yes	Yes	Yes
Cycle to Work Day (August 2022)	Yes	Promotion only	No	Yes	Yes
Car Free Day (Sept 2022)	No	No	No	Yes	Yes (closing car park)
Love to Ride Cycle (September)	Yes	Yes	No	Yes	No
Paths for all – Autumn step count challenge (October – November 2022)	Yes	Occasionally, promotion only	Pre-pandemic. Post-pandemic have organised own version	Yes	No
Liftshare Week (in October)	No	No	No	No	No
Cycle training	No	Yes 3 levels of courses. Provided once or twice a year	1-2 times per year	As required	In the past
Dr Bike Events	Every 2-3 months, 2 sessions in a week.	Once a week during term time	2-3 times per year	Every couple of months	Twice in 2022
Other activities	Have previously partnered with Bike Register & Police Scotland to do on-campus bike marking events.	E-bike trials carried out occasionally or on request by staff groups, about once or twice a year. Police have attended bike events to promote secure bike locking, security marking, safe cycling. Social rides offered depending on availability of ride leader – about four times a year. Sport colleagues encourage active travel for events.	E-bike trials, police, Bike Register, social rides. Green Travel Group promotes active travel. Currently offering Learn to Ride cycle training for ESOL students and two sessions have taken place in May 2022 with 24 students signed up.	Cycle to Work scheme	The Scottish Parliament partners with Sustrans to deliver its Active Travel Champions Project. Our Active Travel Champions help to identify site-specific barriers and opportunities for active travel. They also help to define particular active travel aims and objectives and support the parliament's sustainable travel plan. Sustrans coming with e-bike in September.

Most organisations engage in some but not all of these activities. Cycle promotion activities, including cycle training, e-bike trials and cycle maintenance, are prominent. In contrast, only a minority of organisations support Car Free Day, none currently support Liftshare Week and only two organisations^{xvii} promote Clean Air Day. Less formal step count challenges are happening as social activities in some of the organisations.

Social media and staff induction

The use of social media to promote active travel and the inclusion of information on active and sustainable travel options varies widely across organisations (**Table 8**).

Table 8: Social media and staff induction

Organisation	University of Strathclyde	University of Glasgow	City of Glasgow College	Glasgow City Council	The Scottish Parliament
Social Media Presence					
Do you provide any dedicated staff resource?	Social media resourcing is split throughout the sustainability team.	Travel and Transport Co-ordinator regularly inputs via Bicycle User Group Facebook page, Sustainability Twitter Feed and Sustainability Yammer group. GUEST (Glasgow University Environment and Sustainability Team) do promotions using their own SM feeds.	Social media and communications are divided between the Student Experience Directorate, the Marketing Team and Digital Officer.	Yes	Yes
Is active travel featured on main social media channels?	Not frequently	Occasionally	Yes	Yes	Yes and on intranet
Material in staff inductions	Small amount referencing the cycle storage facilities on campus and 50% off nextbike memberships.	HR section will include staff benefits such as Cycle to Work scheme and interest free loans for season tickets. New induction process for Estates Staff includes section on commuting support for new employees.	City of Glasgow College teamed up with Edenred to launch the 'MyLifestyle' Staff Benefits Platform in October 2022. The platform is a one-stop-shop to great discounts and offers available to staff including MyLifestyle Savings, Cycle Solutions -Cycle to Work Scheme, Let's Connect - Tech and Smartphones, MyGym Discounts, Cushon Savings and ISAs and Unum Dental Insurance.	?	No

In addition, City of Glasgow College launched a cycling eBook via their online staff inductions in November 2022. Their student association team manages all social media, and any department can send them information to be promoted.

^{xvii} GCC promoted Clean Air Day internally to all staff. There was outreach to schools in conjunction with SEPA with banners outside schools and some externally-faced presence on social media.

Research interests

Each organisation's staff travel survey provide information on work patterns, travel choices and preferences. Travel surveys are core sources for transport planning and, in the case of the Scottish Parliament, enable carbon accounting to include the impact of home working. The two universities are engaged in relevant research.

The University of Strathclyde's [Power Networks Demonstration Centre](#) focusses on electric vehicle infrastructure and has been involved in some trial projects looking at smarter chargers, better back-office data and remote pre-emptive fault detection. A new research sandpit group has recently been set up which aims to bring together researchers and operational staff from across the university to explore opportunities to apply transport research at the university in a "Living Lab" style.

The University of Glasgow runs the NERC funded [GALLANT \(Glasgow as a Living Lab Accelerating Novel Transformation\)](#) programme, from 31st January 2022 – 31st January 2027. This project aims to help deliver a Climate Resilient City through a City-University Partnership. Additionally, the Urban Big Data Centre is working in collaboration with Glasgow City Council and the Glasgow Centre for Population Health on novel ways of gathering transport data, including the use of CCTV imagery to count pedestrian, cycle and motor vehicles. Research groups at the university have also published research showing the positive association between active commuting and health outcomes.



Discussion

In this section we draw together comparative evidence from this study of how the five organisations are progressing in decarbonising transport and supporting active and sustainable travel.

Context

Each organisation's circumstances are unique and different. The Scottish Parliament is a national body situated in Scotland's capital city, but with staff and visitors from across Scotland and beyond. The four other organisations are in Glasgow, which is the economic centre of the Glasgow City Region. Glasgow City Council is Scotland's largest local authority, but only one among 31 other local authorities across Scotland. The Universities of Glasgow and Strathclyde are two of four universities in Glasgow and are among Scotland's largest Higher Education institutions. City of Glasgow College is situated across two sites in Glasgow City Centre and is one of three colleges in Glasgow^{xviii}. There are no private or third

sector organisations represented in the study. Thus, the evidence presented from these five organisations, all in urban settings, should be considered illustrative but not representative of all sectors or geographic locations across Scotland.

The COVID-19 pandemic has had a lasting impact on the patterns of working at all the organisations. Prior to the pandemic, relatively low numbers of staff worked from home on a regular basis, but during the pandemic many staff were forced to work from home and a hybrid-working pattern has developed which has been maintained after the relaxation of restrictions.

Staff and student commuting

Before discussing our findings, it is worth emphasising the importance of commuting and its large contribution to all personal travel. Commuting accounted for 23% of all personal journeys in Scotland in 2019¹³.

In a West of Scotland context, Glasgow is the economic centre of the region and a key commuting destination; pre-COVID-19, around one in every three people commuting to work within Strathclyde region was travelling to a Glasgow-based workplace¹⁴.



^{xviii} The three colleges are City of Glasgow College, Glasgow Kelvin College and Glasgow Clyde College and they are spread across various campuses.

Staff travel surveys have been conducted by all the organisations and have enabled comparisons to be made of commuting patterns across different organisations. In all five organisations compared, levels of public transport commuting and active commuting are higher than the national average. This is perhaps understandable given that these institutions are situated in cities, often in the centre, and public transport services to these locations are generally more available and relatively frequent. Nevertheless, the evidence from the limited trend data available shows no sign of downward trends in car use or indeed rises in public transport use, walking and cycling as commuting modes, over time.

The limited evidence from student travel surveys, which are hampered by low response rates, suggests that students are much more likely to walk to their campuses than staff. Students also tend to use public transport more and are less likely to commute by car than staff.

The COVID-19 pandemic has had a detrimental impact on sustainable travel. It seems likely that the easing of parking restrictions at some of the institutions during the pandemic, combined with the guidance to avoid public transport (now rescinded), has led to an increase in car use, as people who were previously public transport users have reverted to car commuting. It is worth noting that in the University of Strathclyde's car parking survey mentioned earlier, comments in a free text field often cited reduced public transport services during COVID that have never recovered/been put back on. This finding is backed up by survey feedback from UofG, where reductions in the timetables and frequency of services combined with cancellations/disruption to services have been cited as factors.



Further evidence from UofG suggests the relative cost of public transport is also a concern, particularly to the student body. Whilst some students are benefitting from the new free bus travel, uptake has been limited. Added to this, travelling by bus is not always an option as there are very limited direct buses serving the University of Glasgow campus.

For staff at the Scottish Parliament, the expensiveness of train travel is a big issue, particularly the price of the train from Edinburgh to Glasgow and vice versa. However, it has been noted that the introduction of flexible working means staff can avoid on-peak train ticket prices^{xix}.

Another barrier to using public transport came from a respondent with an invisible disability who finds that buses do not drop their step (due to their disability being invisible). Poor bus services to and from suburban towns outside of Edinburgh was another reoccurring reason for not using public transport.

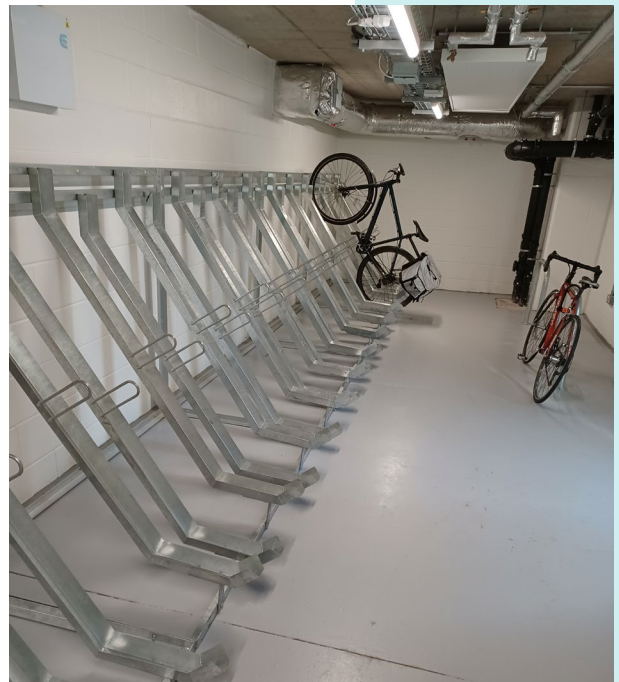
^{xix} The Scottish Government have announced that peak fares on ScotRail will be suspended for six months in 2023/24 in a bid to make train travel more attractive and affordable – [BBC report](#).

Across Scotland, it is likely that hybrid working means traditional weekly or monthly season tickets are no longer value for money. A more flexible multi-mode ticket type is required to meet new ways of working and to provide seamless travel across modes. There is an additional concern that hybrid working encourages people to use their car. The car allows people to attend work for short/sporadic periods without having to worry about timetables or cancellations on public transport. The convenience factor combined with changes in parking policy at institutions, may indirectly encourage greater numbers of staff to commute by car (albeit on fewer days of the week).

Facilities, policies and schemes

In terms of facilities, all the organisations provide facilities to support active travel, such as showers and secure bike parking, although the level of provision in relation to staff complement varies substantially. All have supportive policy (e.g., sustainable transport policy, green travel plans, carbon reduction plans) and schemes to encourage active and sustainable travel to work. For example, all organisations provide staff with the opportunity to access cycles through the Cycle to Work scheme and the monetary value of purchases on these schemes is sufficient to enable e-bikes to be bought.

Encouragement for active and sustainable transport varies in terms of the range of schemes and engagement activities supported in each organisation, and there is less obvious overt support for efforts to reduce car use. For example, Car Free Day is currently only marked by the Scottish Parliament who shut their car park on that day. Given the generally static or rising trends in car commuting, it is questionable whether the messaging and level of support for active and sustainable transport is strong enough or consistent enough.



Car parking

Car parking policy clearly influences how attractive it is to drive to work and study. City of Glasgow College reduced parking spaces substantially when it moved to a new campus, which led to a reduction in staff and students commuting by car. Most organisations are considering how to limit or reduce parking capacity, but parking policy is clearly still a sensitive issue. The COVID period led to a relaxation of parking policy in some of the organisations and there is evidence that people who previously used public transport are continuing to drive to work, even after the end of COVID related restrictions.

Furthermore, in view of the 'cost-of-living' crisis, thinned out public transport timetables resulting from COVID and remaining health concerns when using buses and trains, tensions could arise if organisations decided to restrict access to subsidised car parking. Driving is in many cases cheaper and more convenient than public transport use, and some might argue that in reducing access to parking, employers are not fulfilling their duty of care for their employees' health and wellbeing.

A counter argument is that employers offer little help or subsidy to staff travelling by public transport, so why should car drivers be any different? For many, the costs of getting to work on public transport are greater than the costs of driving and parking at work. If organisations are to achieve carbon reductions in relation to transport, then car parking should not be subsidised and measures such as pay as you earn or permit costs linked to grade could keep costs proportionate to salary.

It was noted that, in some institutions, the administration and management of car parking schemes is carried out by a separate team who sit outwith the Travel Planning and/or Sustainability teams. This can result in a lack of joined-up policy and in some cases a conflict between aims and objectives being delivered by different teams.



The University of Strathclyde is in the process of updating its car parking policy to a more socially progressive one that allocates spaces on a 'needs' basis. While the need for a parking space can often be very personal and subjective, some key agreed priorities around caring responsibilities (clearly defined), out-of-hours working, distance from campus, and vehicle for work requirements have been put as higher priority to ensure these staff have access and that remaining spaces are then booked on a weekly/daily basis by other staff.

Other city-wide policies are likely to provide impetus to alter parking policy. Glasgow's aim of reducing car mileage driven in the city by 30% will require reductions in parking capacity and increasing the cost of commuter parking should help reduce car use. However, the current practice of some organisations of providing employees with subsidised reduced rates for City Centre and workplace parking works against this.

Local authorities in Scotland can now implement a workplace parking levy (WPL), [a scheme pioneered by Nottingham City Council to address congestion](#), which entails a charge on employers who provide workplace parking and where proceeds are invested in public transport improvements. However, to date no Scottish local authority has introduced a WPL scheme.



Electric vehicle charging management plans

Most organisations are in the process of developing strategies for providing electric vehicle charging facilities. The University of Glasgow currently has EV for use by fleet vehicles only, but is developing an EV strategy and is looking to install EV infrastructure at both its main campuses. The management of the EV infrastructure will be part of the wider vehicle management scheme.

There appears to be an expectation among some staff that electric vehicle charging should be provided by employers, for free, and in some cases combined with assigned car parking with charging infrastructure.

EVs are seen as a 'green' driving solution and do have a role in decarbonising transport, due to their zero tail pipe emissions and related improvement in local

air quality. However, EVs do not achieve the positive health impacts of active travel and require on-site car parking space the same as diesel or petrol-powered cars. They do not reduce overall vehicle usage and the cars, regardless of fuel type, still contribute to road congestion. To provide free charging of EV batteries on employers' premises would be another cost benefit for drivers, on top of subsidised car parking permit costs. These costs would have to be carried by the employer, and there is often a lack of equivalent benefits to those commuting by public transport or active travel modes.

Additionally, there are inequalities in access to electric vehicles to consider; electric vehicles are expensive to buy and out of the reach of many households. Any policy which encourages EV may consequently just benefit staff on higher salaries

The environmental costs of producing and maintaining electric cars – beyond the carbon reductions through their use – should also be noted. For example, the manufacturing of electric cars requires material extraction that also has environmental and social consequences, particularly in low- and middle-income countries. Therefore, organisations should continue to focus their resources on encouraging active travel and public transport for those who are able.

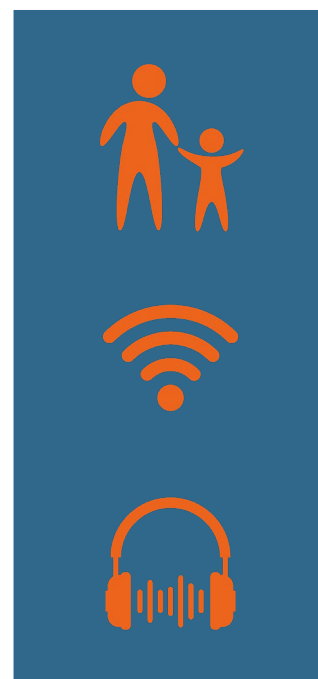
Business travel

Most organisations have or are developing business travel policy, but this tends to be guidance or advice and is difficult to enforce. Several of the organisations are reviewing their business travel policy and considering whether to prohibit internal UK flights, although the growing internationalisation of universities poses a challenge. The adoption of the sustainability travel hierarchy is becoming more prominent; leading to advice to avoid travelling where possible, to make use of online meetings and to travel actively and use public transport for short business trips^{xx}.

Flexible working

The adoption of flexible working practices has the potential to create a better work-life balance for employees and, if interpreted imaginatively, could enable more sustainable travel.

For example, allowing staff with childcare responsibilities more time and flexibility in dropping off children at nursery and school could enable more parents to use active and sustainable travel rather than relying on the car. The ability to work while commuting can provide extra flexibility but requires a good wifi signal and charging facilities on public transport, although this is not always available. In some organisations, staff are listening to work-related podcasts or spoken-word reports/ briefing documents on their pedestrian commutes. There are health benefits associated with active travel which should be encouraged as part of general wellbeing and physical exercise regimes, particularly for those in hybrid working where normal physical exercise levels are impacted.



The University of Strathclyde has introduced a new Agile Working Policy^{xxi} which supports staff with a toolkit of guidance and examples of how a department or team-level flexible approach to working hours and working location can help with work-life balance. The communication about this toolkit has not yet focussed on commuting benefits but examples could be given to highlight how this policy could enable a more sustainable commuting choice.

^{xx} University of Glasgow's [Guidance for Business Travel](#)

^{xxi} University of Strathclyde's [Agile Working Policy](#)

Challenges relating to student accommodation

Student accommodation in the Higher Education sector is under extreme pressure and shortages are leading to difficulties in meeting demand. There are many reasons for this, including a fall in private rental properties, increasing student numbers at institutions, and a contraction in the number of HMO licences. Many institutions are facing immediate challenges in securing enough rental properties, with some having to adjust their policy on which students are

offered guaranteed accommodation. There are examples of institutions having to find accommodation further afield from the normal travel distance, which will require students to commute to campus. For instance, University of Glasgow students were offered accommodation in Paisley or Stirling. This trend will increase reliance on public transport, which needs to be cheap, frequent, and reliable to meet student demand.

Data and evidence

This case study exercise, comparing sustainable transport across organisations, while maybe not unique, is unusual. One reason for this is likely to be the difficulty in comparing sustainable travel across organisations due to a lack of comparable

and accessible data. Collaboration on surveys would enable more consistent and comparable data to be collected across organisations, and would enable insight into the challenges different organisations are facing and the progress that is being made.



Recommendations



Public transport

Post-pandemic, a concerted effort is needed to encourage people back onto buses, trains, the subway and the tram. To achieve this, public transport needs to be affordable, accessible, reliable, convenient and safe.

With the increase in hybrid working post-COVID, more flexible ticket options are needed to make public transport more affordable. Consistent pricing and integrated ticketing, providing one ticket to cover all public transport in a region, would provide multiple social, economic and environmental benefits.

Public transport needs to be an attractive and convenient option in all weather conditions and at all times of year. To achieve this will require improved timetabling, more frequent services outside the standard peak times of 08:00-18:00, better geographic coverage and quality improvements on services (e.g., improved wifi, charging facilities, good quality bus shelters with live-service tracking at all bus stops and via phone apps). Options should be explored to provide large student populations living in collective accommodation with dedicated buses to campus destinations.



Improving public transport is foundational for progressing our other recommendations.

Decisions on investment and development of public transport are led by national agencies and government, and strong leadership is needed to translate progressive policy on climate change, transport and sustainability into real change.



Behaviour change and infrastructure

Behaviour change efforts to promote sustainable transport should be better coordinated across institutions, such as joint-promotion and participation in car-free days. There needs to be a high standard of active travel facilities installed in any new buildings, as a non-negotiable design requirement, such as the ones highlighted in [‘Cycling by Design’ guidance](#)¹.

Promotion of behaviour change, while important in helping to shift societal perspectives, will not be effective on its own. Investment in major active travel and public transport infrastructure schemes, such as the planned Glasgow Metro, is needed to create capacity and improve the quality of the active travel and public transport networks².



Car use and parking

There is inequity in the cost of travel and driving to work is often cheaper than using public transport. Given this, and in the context of a climate emergency, government adoption of the sustainable transport hierarchy and a target to reduce car traffic by 20% by 2030, clear and consistent priority needs to be given by institutions to affordable public transport and active travel over car use.

Organisations should be continuing to reduce car parking capacity, where possible, while not penalising staff who need to use a car because of caring responsibilities, disability, or due to working shifts and unsociable hours. Similarly, there should be a focus on the cost of parking at employers’ premises, but with a focus on fairness and affordability, and taking account of the needs of those who have to use their car. Income from parking charges could be used to support sustainable travel initiatives.



Climate change

Given the increasing frequency of extreme weather and the impacts on travel and transport systems, we need to build more resilience into our transport system. Better contingency plans are needed within institutions and from transport operators to provide alternative travel options and greater flexibility to enable online working in such circumstances.



Flexible working

Hybrid and flexible working policies have an important role in not only providing staff with a better work-life balance, but also making it easier to combine work commuting with other journeys. Such policies have the potential to be used to encourage more people to use public transport and to travel actively, avoiding busy times.

In making these changes work, there clearly needs to be a balance with individual, service and organisational needs and fairness needs to be considered, as not all jobs are suited to hybrid and remote working.



Data and monitoring

We should be making collective efforts to improve comparative transport and work pattern-related data collected across organisations. This includes organisations using standard core questions in travel surveys, coordinating surveys timings, and collaborating on the presentation of data and findings.

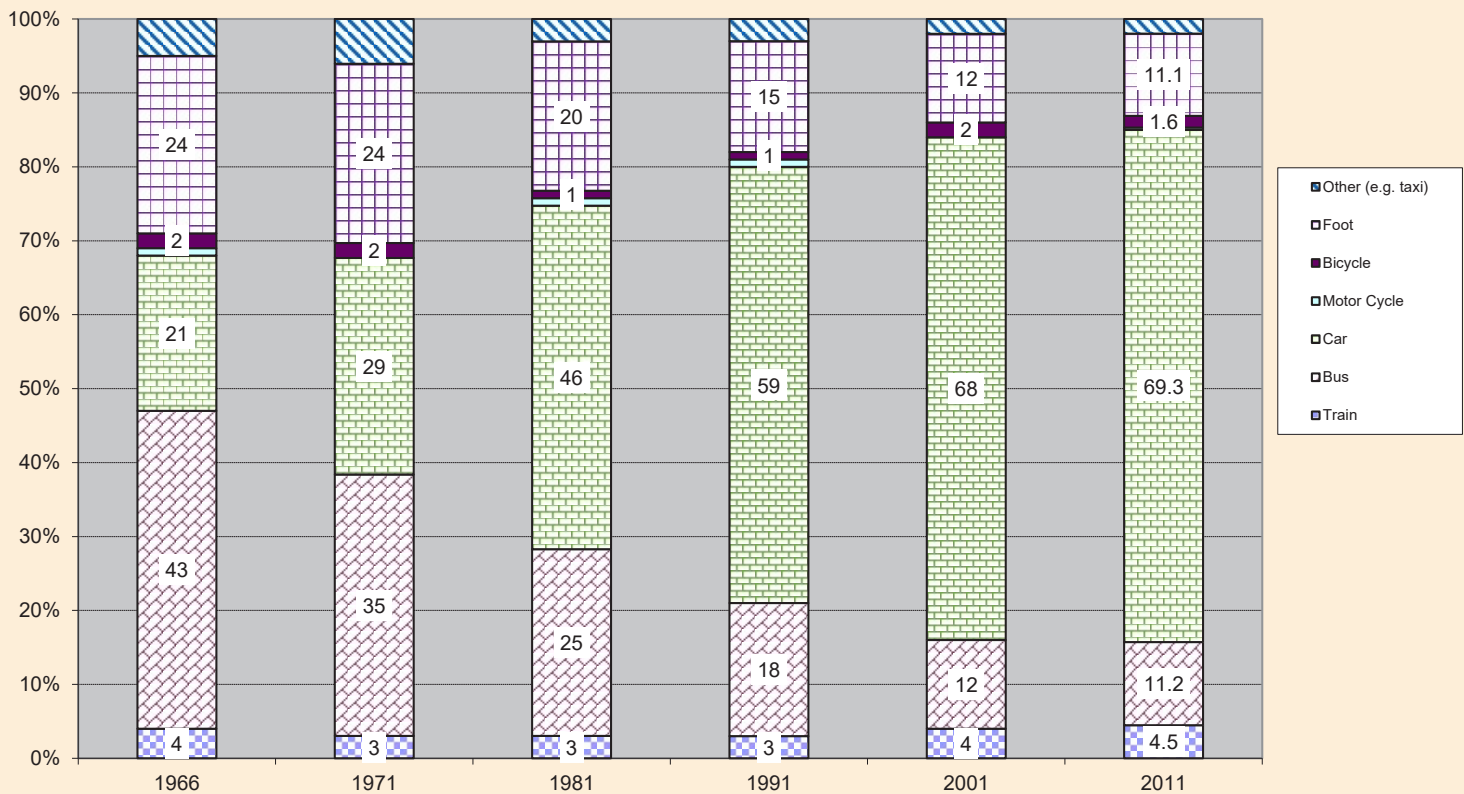
Response rates to travel surveys are generally low but such surveys still provide the best data available to base strategies on. Nevertheless, improving survey response rates, particularly among students, should be a priority in order to provide the most accurate and representative evidence possible.

The relatively crude comparisons presented in this study still provide a benchmark. This type of case study analysis could be repeated and expanded across a wider range of organisations to monitor progress in shifting to more active and sustainable transport and reducing carbon emissions.

Appendix 1: Commuting trends in Scotland by mode

Usual means of travel to work in Scotland, 1966-2011

Source: Census



Appendix 2: City of Glasgow College - Case Study



Transport changes made during City of Glasgow College's move to two new campuses

In 2013 the City of Glasgow College started making plans to move to a new twin site campus in Glasgow city centre at Cathedral Street and on the River Clyde at Thistle Street. This replaced an existing estate which was dispersed across 14 buildings in eight locations throughout the city. At the time, the City of Glasgow College was the largest college in Scotland, with approximately 30,000 students, 32% of whom came from Glasgow's most deprived areas.

The £228M investment in new premises, delivered under the Scottish Government's Non-Profit Distributing (NPD) model, aimed to not only deliver educational benefits but to create a sustainable estate that evidenced commitment to education, regeneration and carbon reduction.

As well as the educational benefits, the College placed a high priority on:

- ▶ improving the public realm and playing a key role in regenerating local communities, reducing CO2 emissions and energy requirement
- ▶ using its educational influence to provide a catalyst for sustainable development
- ▶ encouraging healthy working lives

The College's approach to green travel was also aligned to Glasgow City Council's Transport Strategy and its objectives of *"promoting and enhancing sustainable transport modes such as walking, cycling and public transport."*

Cycling access and provision

The cycling provision at the new buildings was based on the standards required to achieve BREAM (Building Research Establishment Environmental Assessment Method), but went beyond this, taking account of forecasted increased cyclist demand.

When the new campuses opened in 2015 and 2017, the College provided 330 secure (requiring a code or lock) bike parking places and 200 public accessible bike parking spaces, summing to 530 spaces in total. Of the five institutions compared in this case study exercise, the City of Glasgow College had by far the highest ratio of secure bike parking to staff of all the institutions.

There are 80 showers provided across the campuses, equating to seven showers per 100 FTE staff. Drying cabinets have recently been added to the cycle facilities to allow active travel users to dry any clothes for their commute home.

Car access and provision

To meet GCC's stipulation for city centre parking, the College moved from having 622 car parking spaces (414 in the city; 208 at Riverside) to 84 spaces overall (54 in the city; 30 at Riverside). Of these spaces, ten at the City campus and four at the Riverside were designated as spaces for disabled drivers with blue badges.

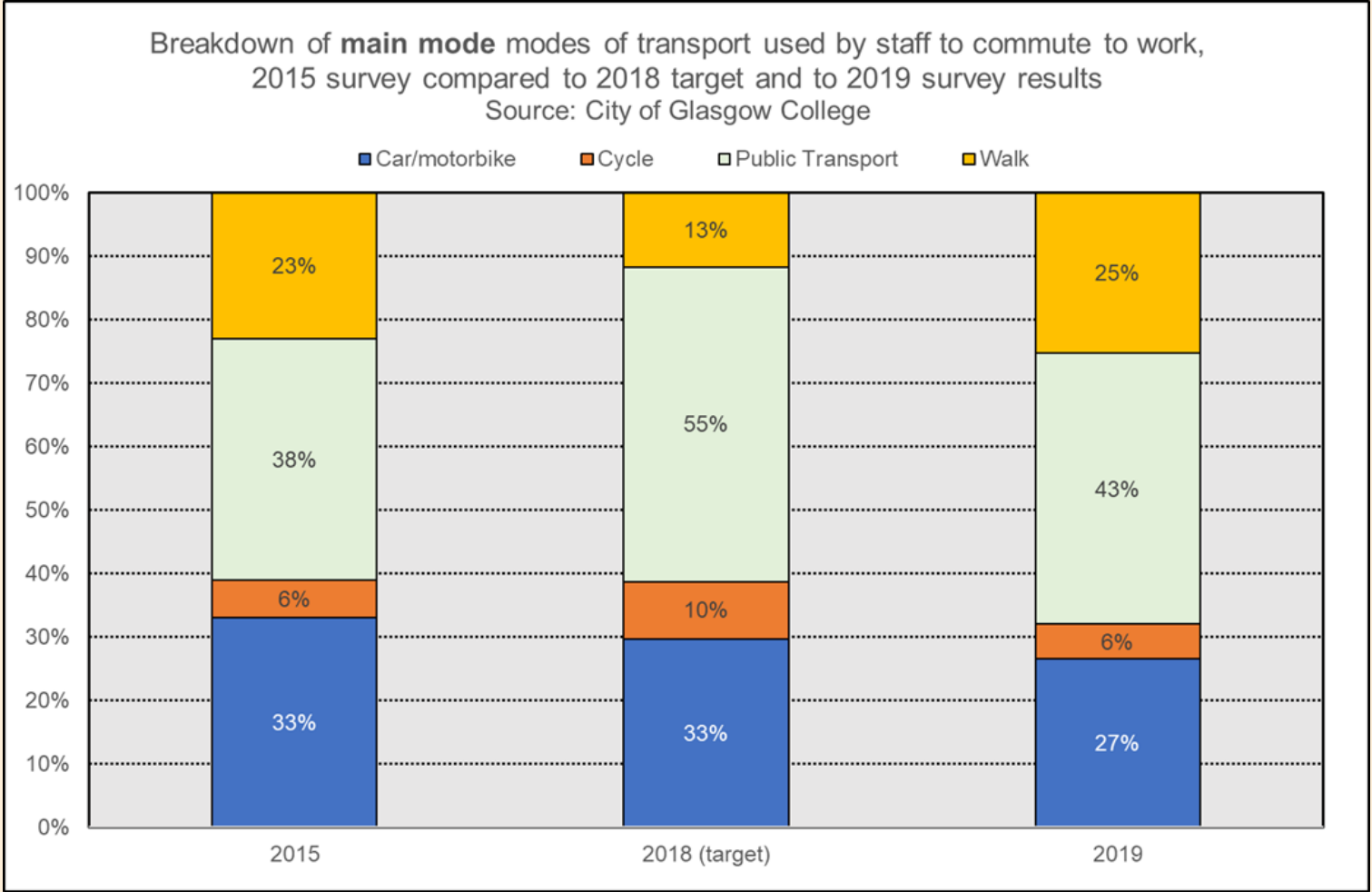
The College has supported a range of initiatives to encourage cycling, walking, and public transport use among staff and students (for more information see Tables 4, 6 and 7 of report).

Impact on commuting travel

As a result of the shift to the new campus sites and accompanying efforts to prioritise sustainable transport options, there was a positive shift in commuting patterns. Car use dropped as the main mode of commuting amongst staff from 33% in 2015 to 27% in 2019, while public transport use rose from 38% to 43% and walking to work rose from 23% to 25% (Figure 1). Amongst students there were increases in the number of journeys made by bicycle,

by walking and on public transport (as a main mode), and a reduction in the use of private vehicles^{xxii}. Commuting figures in the post-pandemic period are not available.

Figure 1: Staff commuting trends, City of Glasgow College



Source: City of Glasgow College Green Travel Plan 2013 & City of Glasgow College Travel Survey responses, 8th July 2019



^{xxii} A note of caution in relation to these results is that only 0.5% of students responded to the 2019 travel survey.

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