## CAST BRIEFING 15 - JULY 2022



## Travel attitudes and behaviours in Cardiff 2021:

Results from the first wave of the Cardiff Travel Survey conducted in May-July 2021

## **Key points**

- Travel decreased substantially in Cardiff during the COVID-19 pandemic when many people were working from home.
- In that period, Cardiff saw a relative shift away from motorised transport towards more walking and cycling.
- Active commuting is particularly high in central areas, whereas car use is more common in the outer areas of Cardiff with almost no walking.
- However, outer areas of Cardiff that are serviced by relatively car-free cycling routes see higher levels of cycling. This shows good quality infrastructure can help promote active travel even over larger distances.
- Local environmental quality problems, such as traffic congestion, air pollution, litter and rubbish, and poor
  pavements, need to be considered to make active travel and in particular walking not only a viable but also a
  more pleasant choice for commuting and leisure.
- Survey participants prioritised sustainable transport policies, with high levels of support for policies that improve public transport and cycling infrastructures, as well as policies that reduce emissions from buses and taxis.
- Concerted action is needed to promote a return to public transport and to 'lock-in' positive changes towards active travel seen during the pandemic.



CAST is a global hub for understanding the role of people in shaping a positive low-carbon future. Based at the University of Bath, our additional core partners are Cardiff University, University of East Anglia, University of Manchester, University of York and the charity Climate Outreach.

#### Introduction

This briefing paper reports the main findings of the Cardiff Travel Survey conducted in May-July 2021. This survey is the first of a longitudinal series that is to be conducted annually. The aims of the study are to explore:

- Cardiff residents' current and pre-coronavirus travel habits.
- Their travel-related attitudes and perceptions.
- How infrastructure influences travel mode choice, in particular the uptake of active travel such as walking and cycling.

The 2021 Cardiff Travel Survey will further be used as a baseline to asses future changes in attitudes and behaviour, as well as for possible interventions and information campaigns.

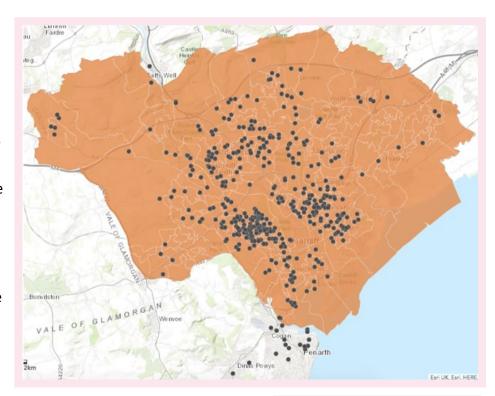


Figure 1: Location of respondents

### Methods and sample

Data for the Cardiff Travel Survey were collected between 19 May 2021 and 9 July 2021. Participants were recruited through posts on social media platforms such as Facebook and Twitter. Inclusion criteria were that participants had to be at least 18 years of age and live in or travel regularly to Cardiff. The English version of the survey was completed by 690 and the Welsh version by 41 respondents. Incomplete responses (n=56), defined as those without any answers beyond socio-demographic information, were removed from the dataset. This left a final sample of 675 adults.

The majority of respondents were female, white, married/in a civil partnership, owned their accommodation, and were employed full-time (30+ hours/week) both before and during the COVID-19 pandemic. Respondents were on average 46 years old, with age ranging from 18 to 80 years. Respondents came from 35 of the 38 wards in Cardiff. The ward with the most respondents was Canton (16%), followed by Roath and Pontcanna with around 9% each. Figure 1 shows the approximate locations

of the respondents. As respondents were not equally distributed across the different Cardiff neighbourhoods, they were grouped together in larger areas (see Table 1).

Table 1. Neighbourhood groups.

Area	Neighbourhoods (n)	Number of respondents
Centre-West	Canton (105) + Pontcanna (60) + Riverside (22)	187
Centre-East	Roath (64) + Penylan (4) + Cathays (28)	96
Centre-South	Splott (20) + Adamsdown (10) + Tremorfa (7) + Butetown (18) + Grangetown (35) + City Centre (4) + Cardiff Marina/bay (1)	95
Centre-North	Heath (60) + Gabalfa (6) + Whitchurch (30) + Llandaff North (17)	113
North-West	Caerau (2) + Danescourt (8) + Ely (5) + Fairwater (12) + Llandaff (27) + St Fagans (2) + Radyr & Morganstown (15)	71
North-East	Lisvane (9) + Llanishen (10) + Rhiwbina (25) + Thornhill (8) + Cyncoed (15) + Llanedyrn (5) + Old St. Mellons (1) + Pontprennau (6) + Rumney (5) + St. Mellons (4) + Trowbridge (1)	89
Outskirts and Outside Cardiff	Lives outside Cardiff (34) + Glan y Llyn (1) + Gwaelod-Y-Garth (1) + Capel Llaniltern (1) + Creigiau (5) + Tongwynlais (3) + Rhydlafar (1)	46

#### Results

#### **Pre-pandemic and current travel habits**

Before the coronavirus outbreak, most participants (60%) commuted to work five or more days per week (see Figure 4). In contrast, almost half (46%) said that they were working from home five or more days per week at the time of the survey (spring 2021). Many of the participants who commuted to work used a car both before the coronavirus outbreak and in spring 2021 (37% and 28%, respectively), followed by the bicycle (28% and 34%, respectively). The number of commuters using public transport decreased by more than half from before the coronavirus outbreak. Overall, these results suggest a relative shift from motorised to active travel during the COVID-19 pandemic.

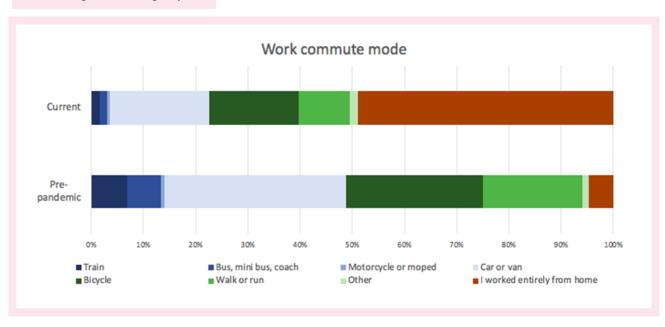


Table 1. Neighbourhood groups.

Mode share differed considerably across the different neighbourhood groups. Before the pandemic, over double the number of participants in the Outskirts and Outside Cardiff area commuted to work by train compared to the overall sample (15% versus 7%). Participants from Centre-South reported the highest bus use (12%), followed by participants from North-East (10%). The highest level of car use for commuting was found in the Outskirts and Outside Cardiff, North-West and North-East areas (44-50%). Participants from the Outskirts and Outside Cardiff area (of which a large number live in Penarth) also had the highest proportion of commuting cyclists (33%), followed closely by the Centre-North area (33%). Walking to work was the most common in Centre-East and Centre-South, both at over 30%.

The most common 'travel mode' in spring 2021 was working from home.

Participants were also asked how often they used different transport modes for any destination or purpose, both before the coronavirus outbreak and at the time of the survey. Regular car travel (i.e. "every day" or "several times a week") dropped by almost a fifth, from 48% before the coronavirus outbreak to 32% at the time of the survey. Regular public transport use dropped from around 10% to almost zero. Over 80% of participants reported taking the train, bus, or taxi/Uber "less than once or twice a month" or "never". The same number of people reported walking "every day" or "several times a week" before the coronavirus outbreak and in spring 2021 (69% and 68%, respectively).

#### Perceptions of infrastructure and environmental quality

Participants were asked how well placed their homes are for several activities, including getting to work, shopping, and cycling. Over 70% of Cardiff participants reported that their homes are well-placed for walking and for visiting parks and other green spaces. The results show that participants from Centre-West were the most likely to consider their homes well-placed for most facilities, except getting to work and leisure facilities. Homes in the North-East and Outskirts and Outside Cardiff areas were considered

less well placed for most facilities, with just under 40% of respondents from North-East and 42% of respondents from Outskirts and Outside Cardiff thinking their homes are well-placed for getting to the city centre. The same areas had low rating for public transport (51% and 56%, respectively) and for general shopping (42% and 44%, respectively). Only a quarter (25%) of participants from North-East rated their homes as very or extremely well placed for cycling, compared to 40% or higher in the other areas. Ratings for parks or other green spaces were particularly low in Centre-South (52%).

A majority of Cardiff respondents reported being fairly or very satisfied with the walking and cycling facilities, public transport, recreation, and parks and green space in their neighbourhood. Overall,

Participants were also asked to rate their satisfaction with a range of facilities in their neighbourhood.

participants were least satisfied with car parking facilities. The neighbourhood breakdown showed that satisfaction with car parking was particularly low in Centre-East, and satisfaction with cycling and public transport facilities was particularly low in North-East. Satisfaction with parks and other green spaces was

highest in Centre-West and lowest in Centre-South.

When asked to rate several problems from not at all serious to extremely serious, traffic congestion, air pollution, litter and rubbish, and poor pavements ranked the highest. The problems were rated as more serious by participants from the Centre-South area, and as less serious by participants from the North-East and Outskirts and Outside Cardiff areas. For example, litter and rubbish was rated a very or extremely serious problem by almost half (46%) of participants from Centre-South, but only by about 10% or less of participants from Centre-North, North-West, and North-East. Additionally, burglaries were considered a fairly or very serious problem by more people in Centre-South (14%) than in any other neighbourhood group (2-8%). Poor pavements were rated a very or extremely serious problem by almost a third (31%) of participants from Centre-East, and air pollution was rated a very or extremely serious problem by about a quarter or more (25-32%) of participants from all four central neighbourhoods. Traffic congestion was rated a fairly or very serious problem by almost half (47%) of participants from the Centre-West area, but by only 18% of participants from the North-East area.

#### Support for travel and transport policies

Attitudes to travel and transport policies in Cardiff were assessed by asking participants to indicate what Cardiff's priorities should be to improve transport in Cardiff. Three policies were rated as a high or very high priority by over 70% of survey participants. These were: (1) Improving the city centre transport interchange, (2) Improving cycle routes, and (3) Constructing separate cycle lanes. In contrast, "Improving road network for cars" was rated as a high or very high priority by less than a fifth of participants (18%), followed by "Constructing separate bus lanes" (30%) and "Constructing new Park & Ride facilities" (37%).

There were some differences across the different parts of Cardiff. Policies aimed at improving conditions for active travellers, especially pedestrians ("Improve pedestrian crossings," "Drop speed limit to 20 mph in residential areas," "Improve walking routes"), were considered a higher priority by participants from central neighbourhoods. In contrast, policies aimed at improving car travel ("Improve road networks for cars") were rated a higher priority by participants from North-West and North-East. "Develop the South

Wales metro network" was a standout policy for Centre-South compared to other neighbourhoods, probably because of higher public transport use in this area. Emission-related policies ("make all buses electric" and "improve emissions standards of licensed taxis") were considered a higher priority in Centre West than in other neighbourhoods. It is notable that participants from Centre West are also the most likely to report that air pollution is a problem in their area.

Participants were further asked whether they were aware of any measures put in place during the coronavirus pandemic to increase space for walking and cycling. A large majority said they were aware of these measures (89%) and expressed support for retaining these measures long term (77%). Support was similarly high for measures to increase space for walking and cycling by reducing road space for cars and vans (77%) and to encourage people to work from home if they can (80%). Support for retaining COVID-19 measures long term (60%) and for those increasing space for walking and cycling (63%) was somewhat lower in the North-East than in other areas.

#### Conclusions and recommendations

Results from the first wave of the Cardiff Travel Survey conducted in May-July 2021 show that travel for any purpose decreased substantially during the coronavirus outbreak when large numbers of people were working from home. Public transport saw the greatest reduction, while the mode share of car for commuting also decreased. There was a relative increase in cycling compared to pre-pandemic levels.

<u>Recommendation</u>: There is a need for a dedicated campaign to promote a return to public transport, as well as for measures to 'lock-in' positive changes towards active travel during the pandemic.

The results further show that mode share differed substantially across different parts of Cardiff. Levels of active commuting (bicycle and walking) were higher in central areas, whereas car use was higher in the outer areas of Cardiff with almost no walking. Bicycle commuting was surprisingly common in the Centre-North and Outskirts and Outside areas of Cardiff, which can be explained by them being serviced by relatively car-free cycling infrastructure (i.e., the Taff trail and barrage routes, respectively).

Areas of Cardiff that are farther away from the city centre were considered less well-placed for a range of facilities, including sustainable travel options such as cycling and public transport. This was coupled with a low satisfaction with those facilities.

<u>Recommendation</u>: Outer areas should be central to Cardiff's Active Travel Strategy. These areas may benefit most from infrastructural investments and policies to promote the use of public transport and active travel.

The most serious problems reported by survey participants were traffic congestion, air pollution, litter and rubbish, and poor pavements, all of which impact on the experience of both residents and active travellers. While many of the most affected neighbourhoods already have relatively high levels of active

travel and bus use, improving local environmental quality would benefit a large proportion of residents and make active travel a more attractive option.

<u>Recommendation</u>: Local environmental quality needs to be considered as part of Cardiff's Active Travel Strategy. Enhancing the residential environment can help make active travel, and in particular walking, not only viable but also a more pleasant choice for commuting and leisure.

Survey participants prioritised sustainable transport policies over those that benefit car users, with high levels of support for policies that improve public transport and cycling infrastructures, as well as policies that reduce emissions from buses and taxis. While there was some variation across Cardiff, in all areas a majority supports measures to make more space for walking and cycling.

<u>Recommendation</u>: The priorities expressed by participants in the 2021 Cardiff Travel Survey align well with active travel and air pollution policies. The current efforts to improve travel and local environmental quality, and how they benefit residents across Cardiff, should be communicated clearly to sustain support for these policies.

**Suggested citation:** Betts, G., Poortinga, W., (2022). Travel attitudes and behaviours in Cardiff 2021: Results from the first wave of the Cardiff Travel Survey conducted in May-July 2021. CAST Briefing Paper 15.

# CAST is a global hub for understanding the role of people in shaping a positive low-carbon future.

We explore and communicate the tangible benefits of rapid climate action, asking how we can live in ways that are fairer, happier, and healthier while also radically cutting our carbon emissions. Based at the University of Bath, our additional core partners are Cardiff University, University of East Anglia, University of Manchester, University of York and the charity Climate Outreach.

CAST is funded by the Economic and Social Research Council

**Economic** 

and Social

**Research Council** 



Read more at cast.ac.uk



Follow us on Twitter @CAST\_Centre











