Transport for Greater Manchester

Travel Diary Survey 2023 - Summary

Version 1

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Executive Summary

This document presents the key findings from the Greater Manchester Travel Diary Survey (TRADS) in 2023. Other sources are used to provide relevant context. TRADS estimates the travel behaviour of Greater Manchester residents on a 'typical day'. Key findings for 2023 are:

How many trips did GM residents make?

- There were 5.6 million trips by GM residents on a typical day, 2% below pre-pandemic levels.
- Nearly three-in-ten GM residents did not travel on a typical day.
- GM residents travelled 34 million kilometres on a typical day, which was similar to pre-pandemic levels. This indicates that while residents made fewer trips in 2023 than pre-pandemic, the trips they did make were slightly longer on average.

How did GM residents travel?

- Car was the dominant method of travel, accounting for nearly 60% of all trips by GM residents, and over three-quarters of the distance travelled. Walking accounted for 31% of the trips by GM residents, but only 4% of the distance. Public transport accounted for 6% of the trips, and 15% of the distance. The car share of total distance travelled by GM residents (76%) was in line with pre-pandemic levels (77%).
- The 16% of car trips that were 1km or less equated to about 185 million annual car journeys by GM residents. These could have been walked in around 15 minutes or cycled in around 4 minutes.
- City-to-City car trips accounted for just 5% of all car trips made by GM residents, but 40% of the total distance travelled by GM residents in cars.
- A small proportion of frequent users generated most trips across all types of public transport. In the case of bus, 77% of trips were made by just 11% of GM residents (those who used the bus at least three or four days a week).
- Less affluent residents were more likely to travel by bus, taxi, or minicab.

Why did GM residents travel?

- Shopping (23%), Commuting or business (18%), and Education - including escort - (15%) were the three most common trip purposes.
- Collectively, 'commuting or business' and 'other' (eg visiting friends, personal business) accounted for 70% of the total distance travelled by GM residents.

- Commuting and business trips' share of the total distance travelled was similar to what it was in 2017-19.
- Shopping trips' share of the total distance travelled was 9% which was lower than the 12% it was in 2017-19.

When did GM residents travel?

- GM residents started nearly nine-in-ten of their trips (88%) in the 12 hours between 7am and 6.59pm, while 7% of their trips started between 7pm and 9.59pm. Only 9% of trips started between 8pm and 7am, of which 65% were by private vehicle (compared to 60% outside of these hours).
- The peak periods for trip making were 8am-8.59am and 3pm-3.59pm, accounting for over a fifth of all trips by GM residents. During these hours, 48% of trips were for education.
- Around three-in-ten trips by GM residents in the periods 7am-8.59am, and 5pm-6.59pm were to/from work. Over half of commuting trips were made outside these times.

Car availability in GM

- Private car keeping is high in GM and has been increasing. At the start of 2024, over 1.1m licensed cars were being kept privately in GM, which equated to roughly one car per two residents aged 17 or over.
- 25% of households had no access to a car, rising to 50% in the least affluent GM households. The least affluent households were twenty-five-times more likely to have no access to a car than the most affluent households.
- Residents in households with no cars were eight times more likely to use a bus for their journeys than residents in households with at least one car per adult.
- Residents with no cars in their households made 86% of their trips by active travel or public transport. In households with fewer cars than adults, 37% of trips were by active travel or public transport. In households with at least one car per adult, 26% of trips were by active travel or public transport.
- Between 2011 and 2021, the number of registered private cars in Greater Manchester grew by 13%, exceeding the 7% growth in the GM population.

1. Introduction

1.1 Purpose of document

This document provides a picture of the travel behaviour of Greater Manchester (GM) residents in 2023. It does not cover all travel in GM as it does not include the travel of non-residents. Some recent trends are presented to help place the 2023 data in context.

This document does not consider what policy interventions are needed to achieve the 2040 Right Mix - our vision to improve our transport system so that we can reduce car use to no more than 50% of daily trips, with the remaining 50% made by public transport, walking and cycling, while ensuring there is no increase in overall motor-vehicle traffic in GM.

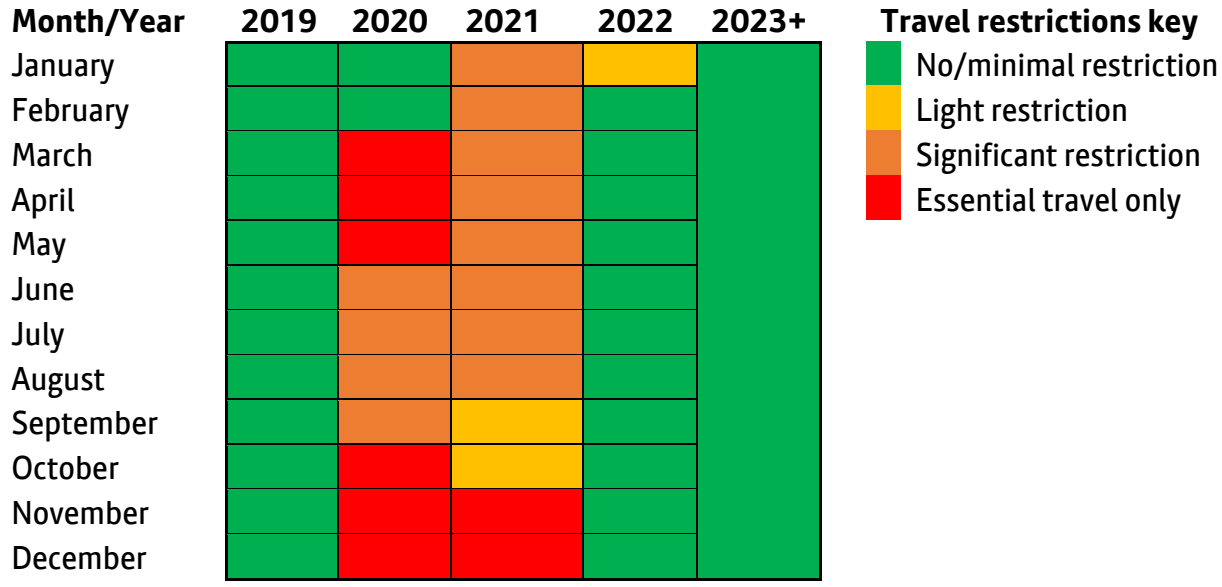
The main dataset underpinning this document is the Greater Manchester Travel Diary Survey (TRADS). TRADS provides a comprehensive picture of the travel of GM residents, but it has some limitations. For example, the nature of TRADS means that it is not suited to exploring seasonal trends. We intend to publish other evidence-base related documents as part of a more comprehensive 'Travel in GM' report later in 2024/25 that will utilise a wider range of datasets than those referred to in this document.

More information about TRADS is provided in the Appendix.

1.2 Impact of the pandemic on the TRADS research programme

The pandemic and related travel restrictions had a significant impact on both travel behaviour and our ability to undertake travel research. Figure 1 below shows the restrictions that were in place by month between 2019 and 2023.

Figure 1: Pandemic travel restrictions by month



During 2020 and 2021, the TRADS research programme was severely disrupted by the pandemic. Face-to-face surveys were either postponed or replaced by alternative data collection methods. The tightening and loosening of restrictions during the survey period resulted in extreme changes to residents' travel behaviour. This meant we were unable to assess a 'typical day' for 2020 and 2021, as we had in previous years.

As Figure 1 shows, 2022 did not have any significant periods of restrictions. As a result, we were able to re-establish our research programme and are confident the data from 2022 can be used in a similar way to pre-pandemic data.

Estimates of travel behaviour from TRADS for 2022 and 2023 were still undoubtedly influenced by the pandemic. Both years are 'atypical' in that residents' travel behaviours were changing significantly over the

period, as we continued to move away from the pandemic. The continued rapid growth in trips, especially on public transport, has led to some irregularities, as TRADS approximates a 'typical day' across the year.

For 2022, the tram trip estimates in TRADS were lower than we would expect given the data available from ticket sales. Analysis of the survey data found that the likely cause of this is that patronage grew significantly over the course of the year. The sampling of households in TRADS is random, but in 2022 tram users (and those living close to stops) tended to be surveyed earlier in the year when usage was lower. Overall, TRADS is missing around 20,000 daily tram trips for 2022. Therefore, the impact on the overall trip estimates is negligible, as there were nearly 5 million daily trips in 2022. However, caution should still be used when interpreting charts in this report that contain tram trip estimates for 2022.

For 2023, the bus trip estimates in TRADS are lower than we would expect given the patronage data. While this could be an issue related to the collection of the data since the pandemic, the possibility of this being an extreme estimate, which can occasionally occur in survey data, cannot be ruled out. Further details about this issue are provided in the appendix.

1.3 Spatial themes

The Greater Manchester Transport Strategy 2040 is structured, in part, around a set of 'spatial themes'. Spatial themes segment trips into different categories. Segmenting travel into different trip types enables us to develop integrated projects and interventions for the various types of journeys that happen across GM, from trips to the shops in local neighbourhoods, to cross city commutes.

We also use the spatial themes to help articulate the changes in travel behaviour that we are targeting in order to deliver our 2040 Right Mix vision.

This document presents analysis for the following five spatial themes:

- **Neighbourhood trips** – less than 2km (straight line), with one end in GM. Excludes trips defined as Regional Centre or Town Centres trips.
- **Wider City Region trips** – one end in GM and both ends no more than 10km outside of GM boundary. Excludes trips defined as Regional Centre, Town Centres, or Neighbourhood trips.
- **Regional Centre trips** – at least one end in the regional centre. Excludes trips with either end more than 10km outside the GM boundary.
- **City-to-City trips** – one end in GM and one end more than 10km outside the GM boundary.
- **Town Centres trips** – at least one end in a town centre, and neither end more than 10km outside the GM boundary.

All five spatial themes exclude trips with a non-work attraction end at Manchester Airport – these trips would likely be captured by our Global spatial theme which is not covered in this document, as TRADS is not an appropriate source for capturing insight on it.

More information about how these spatial themes have been defined is provided in the Appendix.

1.4 Trip purpose categories

This report contains references to trip purposes – these are the reasons that cause people to travel (i.e. why they made their trip). A trip is a complete one-way journey, with an origin and destination. Outward and return halves of a return trip are treated as two separate trips.

For example, a journey to the shop and back contains two trips, one to the shop and one back from the shop, and both are classed as trips for the purpose of shopping.

The purposes used in this report are:

- **Commuting or business** – trips to/from work, or during work as part of the job
- **Education (including escort)** – trips by students to places of education, (including those on day-release and vocational courses); accompanying someone on these trips (i.e. escort)
- **Shopping** – trips to shops even if there is no intention to buy
- **Sport and Entertainment** – trips for entertainment and recreational purposes, to participate in sport, go to pubs/cafes/restaurants etc
- **Other** – trips include:

- Escort other – trips to escort someone/something to somewhere other than an education establishment.
- Holidays or round trips – trips (within Great Britain) to or from any holiday (excluding overnight stays with friends or relatives), or trips for pleasure (not otherwise classified as social or entertainment) within a single day. Includes people just going for a walk, which is why a large proportion are walking trips.
- Personal business – trips to use services (e.g. bank, hairdresser, library), health or medical visit, worship or other religious observance, staying at hotel/other temporary accommodation.
- Visiting friends – all trips to visit friends or relatives (including overnight stay).

More information about how trip purposes are defined is provided in the Appendix.

1.5 Main type of travel

This report contains references to the transport mix (i.e. the proportions of trips taken by GM residents on different types of travel). These are based on the 'main' type of travel, which is defined as the method of travel used for the stage(s) that covered the longest distance of the trip in question.

2. How many trips did GM residents make?

2.1 Key facts summary - How many trips did GM residents make?

On a typical day in 2023...

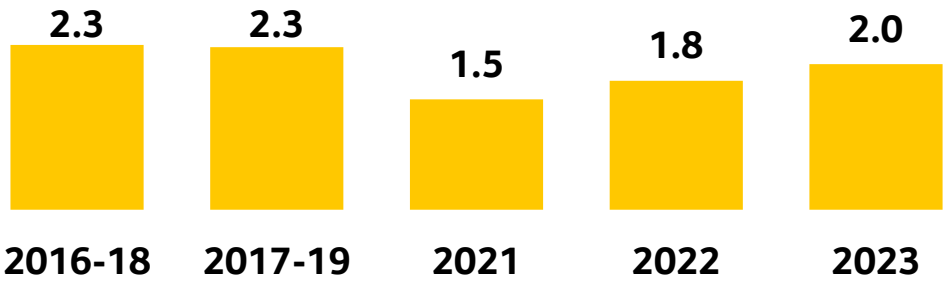
- **There were 5.6 million trips by GM residents, only 2% below pre-pandemic levels.**
- **Nearly three-in-ten GM residents did not travel.**

2.2 Total number of trips per person per day - GM residents

Before the pandemic, GM residents made an average of 2.3 trips per person per day, which totalled about 5.8m daily trips. During 2021, this fell dramatically to just 1.5 trips per person per day (4.1m daily trips). The recovery from the pandemic was evident in the increase to 2.0 trips per person per day during 2023. Long-term growth in the number of people living in GM has helped **the total number of daily trips in 2023 increase to 5.6 million, which is only 2% lower than pre-pandemic.**

In 2023, the average GM resident made 744 trips a year, down from 844 trips a year during 2016-18, a 12% reduction.

Figure 2: Average (mean) trips per person per day - GM residents



Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

2.3 Total number of trips per person per day – national picture

According to the National Travel Survey, the average number of trips per person per day has been declining slowly at a national-level over the last 20 years, falling from 2.4 in 2002 to 2.1 in 2019 (which is below the 2.3 by trips per person per day in 2019 by GM residents).

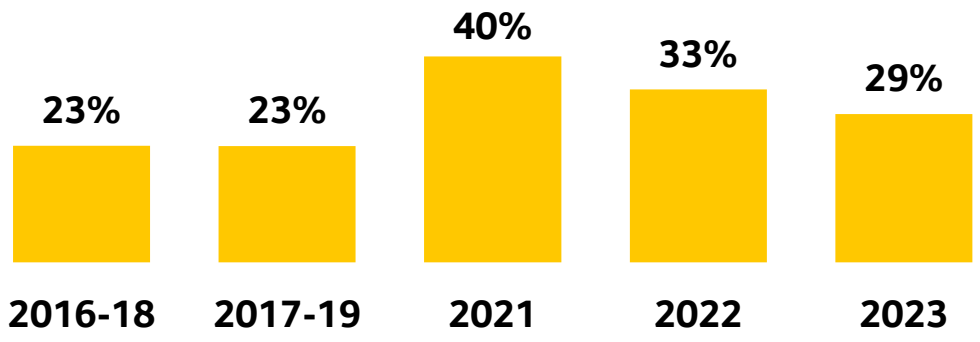
This decline in the national trip rate has been seen for most trip purposes. For example, between 2002 and 2019 commute trips declined by 15%, shopping trips declined by 19%, business trips declined by 21%, and visiting friends declined by 33%[1].

[1] National Travel Survey, 2021

2.4 Percentage of GM residents not travelling on an average day

Before the pandemic, nearly a quarter of GM residents didn't travel on an average day. In 2021, a year when many travel restrictions were in place, this dramatically increased to 40%. In 2023, the percentage of GM residents not travelling dropped to 29%, meaning **the number of residents that did not travel at all on a typical day was 6 percentage points higher than before the pandemic.**

Figure 3: Percentage of GM residents not travelling on an average day



Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

3. How did GM residents travel?

This section contains references to the 'transport mix' - the percentage distribution of trips taken by GM residents using different types of travel. The transport mix is based on the 'main' type of travel, which is defined as the method of travel used for the stage(s) that covered the longest distance of the trip in question.

3.1 Key facts summary - How did GM residents travel?

On a typical day in 2023...

- **Across all types of travel GM residents travelled 34 million kilometres, which is similar to pre-pandemic levels. This indicates that while residents made fewer trips in 2023 than pre-pandemic, the trips they made were slightly longer on average.**
- **Car was the dominant way of travelling, accounting for nearly 60% of all trips by GM residents, and over three-quarters of the distance travelled. Walking accounted for 31% of the trips by GM residents, but only 4% of the distance. Public transport accounted for 6% of the trips, and 15% of the distance. The car share of total distance travelled by GM residents (76%) was in line with pre-pandemic levels (77%).**
- **City-to-City car trips accounted for just 5% of all car trips made by GM residents, but 40% of the total distance travelled by GM residents in cars.**
- **40% of the distance travelled by GM residents was by trips with at least one end beyond 10km of Greater Manchester.**
- **The 16% of car trips that were 1km or less equated to about 185 million annual car journeys by GM residents. These could have been walked in around 15 minutes or cycled in around 4 minutes.**
- **A small proportion of frequent users generated most trips across all types of public transport. In the case of bus, 77% of trips were made by just 11% of GM residents (those who used the bus at least three or four days a week).**

3.2 Transport mix of trips in 2023

In 2023, the most used method of travel was car or van (including passenger), making up nearly three-in-five trips by GM residents. A third of trips were made by active travel (31% walking and 2% cycling), while about one-in-sixteen trips were

made by public transport (4% bus* and 2% train/tram). The remaining 2% of trips were made by taxi, minicab, motorcycle, scooter, moped, or any other type of vehicle.

Figure 4: Trip transport mix by GM residents – 2023

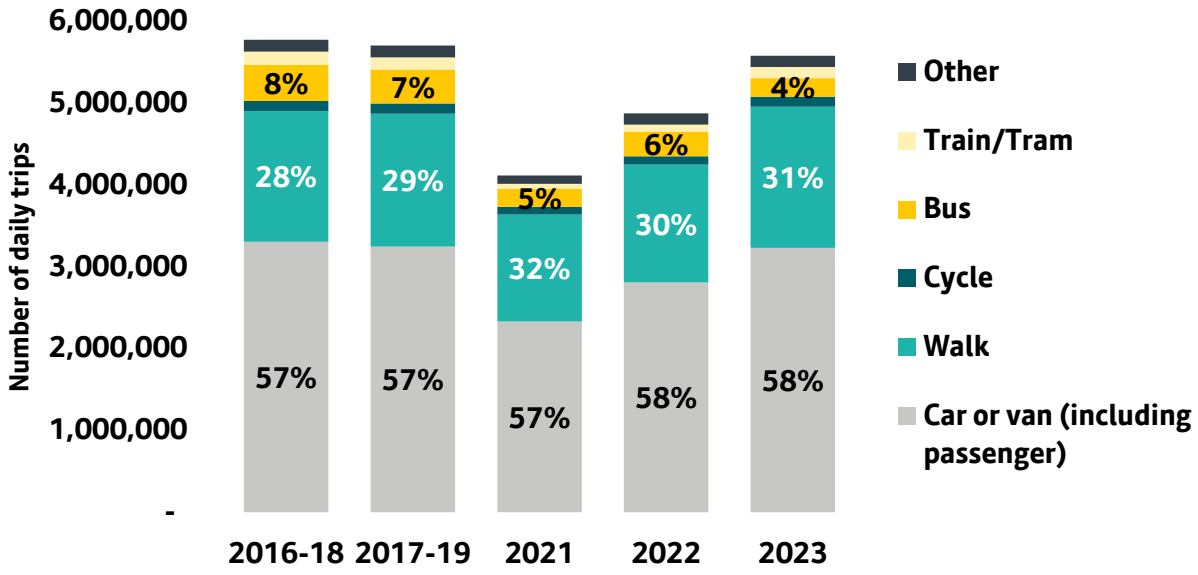
Source: GM TRADS 2023
Note: Other = taxi, minicab, motorcycle, scooter, moped, or any other

3.3 Transport mix comparison to previous years

The length of each bar in Figure 5 represents the total number of daily trips by GM residents by year. For example, in 2021, it shows that GM residents made about 4 million daily trips. The figures in each bar show the percentage of daily trips that were made by each type of travel. For example, in 2021, it shows that 57% of trips were made by car or van (including passenger).

While the overall number of trips for each method of travel has fluctuated since the start of the pandemic, the transport mix has remained relatively stable. Car trips made up nearly three-in-five trips, active travel made up around a third of trips, and very broadly one in ten trips used public transport.

Figure 5: Daily trip count and transport mix - GM residents



Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)
Note: Other = taxi, minicab, motorcycle, scooter, moped, or any other

* Please see the note in section 1.2 (page 9) about the bus trips estimate being lower than expected for 2023.

Our 2040 Right Mix vision targets half of all trips being made by either active travel or public transport. The most significant progress towards the 2040 Right Mix vision was always expected to occur later in this decade and the next decade. However, the fact that the proportion of trips by car or van has not decreased between 2016-18 and 2023 increases the challenge we now face in achieving the 2040 Right Mix Vision.

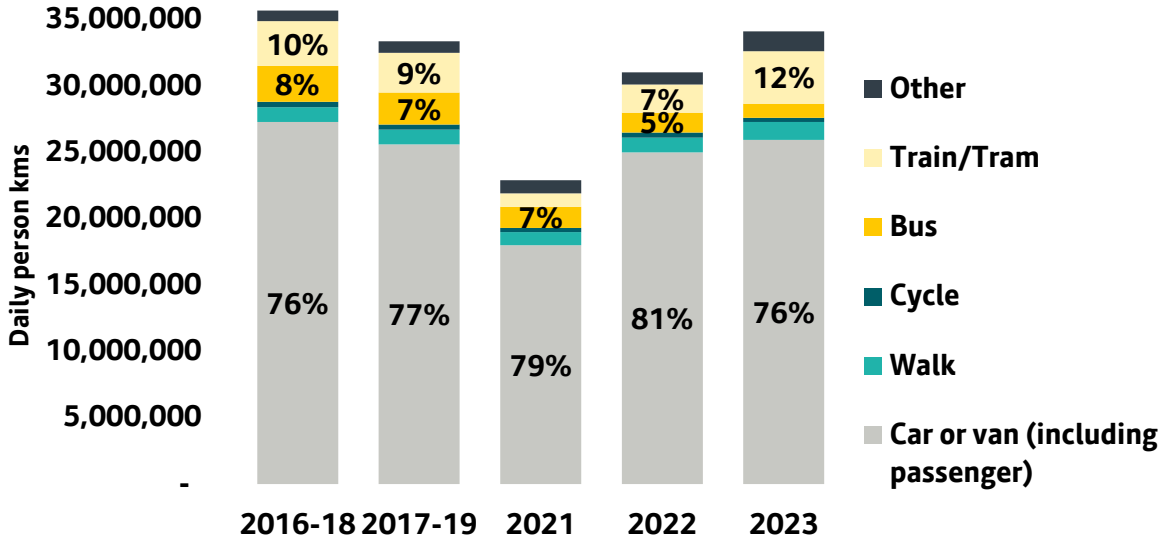
3.4 Transport mix of distance travelled (person kms)

The length of each bar in Figure 6 shows the total daily distance GM residents travel (in kilometres) by year. For example, in 2021, it shows that GM residents travelled over 20 million kilometres each day. The figures in each bar show the percentage of the distance travelled by each type of travel. For example, in 2021, it shows that 79% of the distance travelled was by car or van (including passenger).

Prior to the onset of the pandemic, total distance travelled by GM residents was reducing. The pandemic resulted in a sharp drop. There has been a significant rebound to 2023, with the total distance travelled in 2023 being 2% above the 2017-19 survey period.

The share of the total distance travelled by car or van (including passenger) has returned to pre-pandemic levels: 76% in 2023. The share of the total distance travelled by public transport has returned to near pre-pandemic levels: 15% in 2023.

Figure 6: Daily person kms and transport mix - GM residents



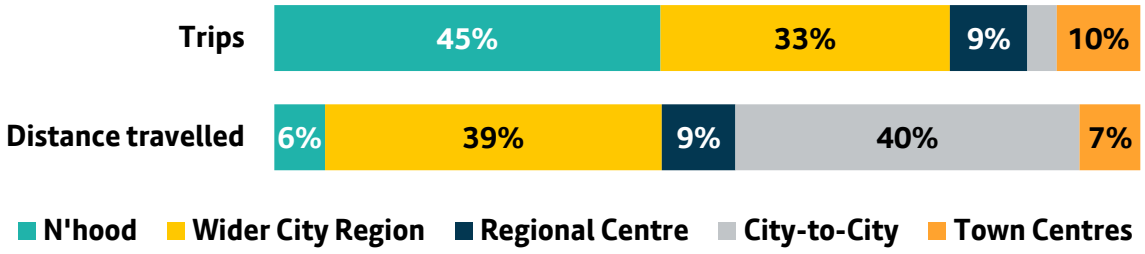
Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)
Note: Other = taxi, minicab, motorcycle, scooter, moped, or any other

3.5 Spatial themes overview - 2023

In 2023, nearly four-fifths of the trips made by GM residents were either Neighbourhood (45%) or Wider City Region (33%) trips. The strategic importance of our Regional Centre and Town Centres was reflected in the fact that those spatial themes together accounted for nearly 20% of trips by GM residents.

In terms of distance travelled, the narrative is very different. Neighbourhood trips are less than 2km in length and therefore only accounted for 6% of the distance travelled by GM residents. Conversely, **City-to-City trips are at least 10km in length and consequently represented 40% of the distance travelled by GM residents, despite only accounting for 3% of trips.**

Figure 7: Trips and distance travelled by GM residents by spatial theme

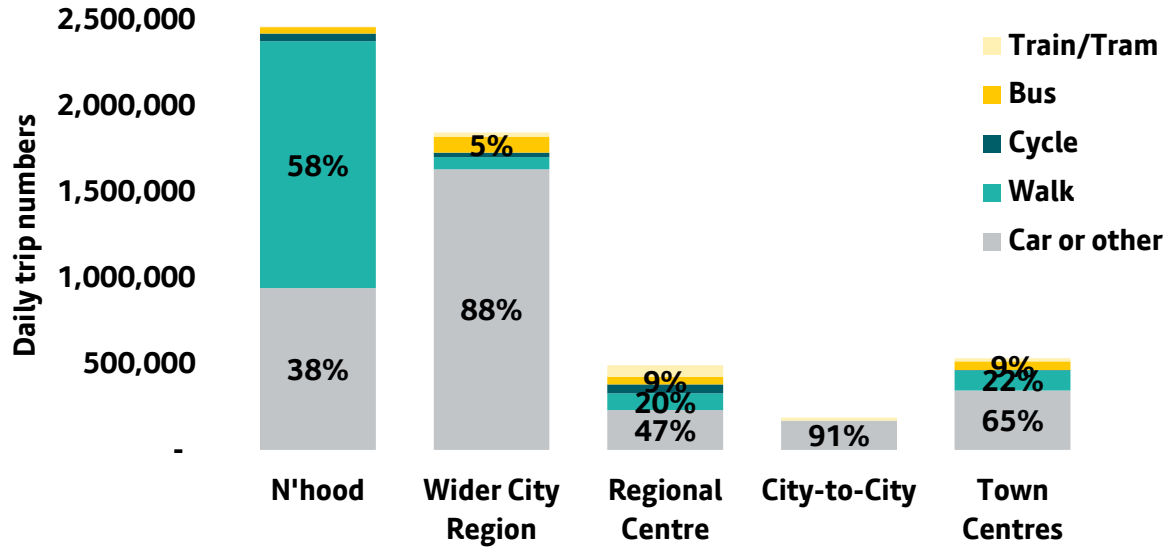


Source: GM TRADS 2023

3.6 Trips and distance travelled by different types of travel by spatial theme – 2023

The length of each bar in Figure 8 shows the total number of daily trips by GM residents, by spatial theme. For example, it shows that GM residents made nearly 2.5 million daily Neighbourhood trips. The figures in each bar show the percentage of the total daily trips that were made by each type of travel. For example, it shows that 38% of Neighbourhood trips were made by 'car or other'.

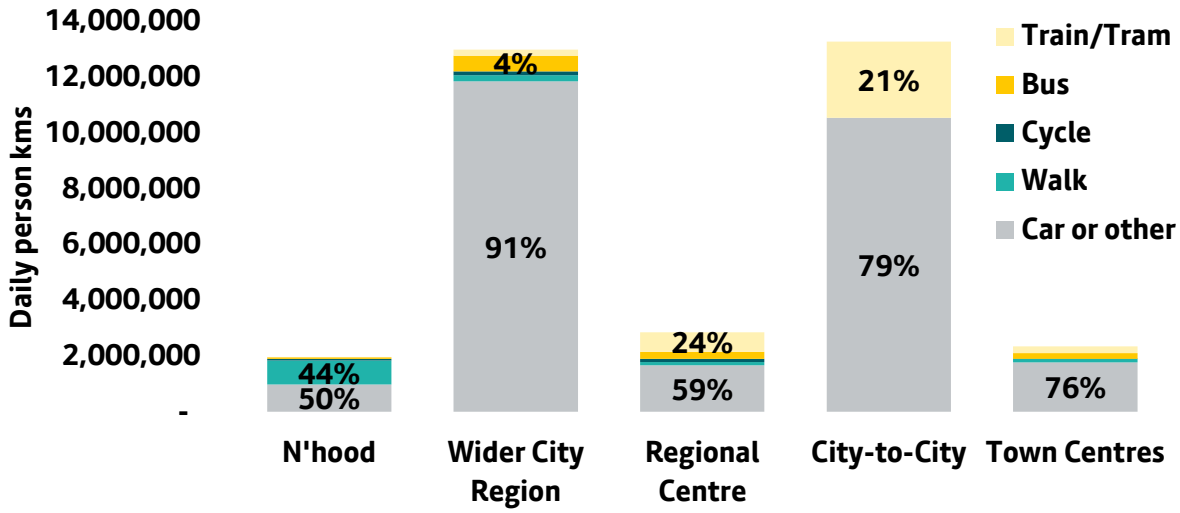
Figure 8: Daily trips and transport mix by spatial theme - GM residents



Source: GM TRADS 2023
Note: car or other = car or van (driver), car or van (passenger), taxi, minicab, motorcycle, scooter, moped, or any other

The length of each bar in Figure 9 shows the total daily distance GM residents travelled (in kilometres) by spatial theme. For example, it shows that, for the Neighbourhood spatial theme, GM residents travelled around 2 million kilometres each day. The figures in each bar show the percentage of the distance travelled by each type of travel. For example, it shows that for the Neighbourhood spatial theme, 50% of the distance travelled was by 'car or other'.

Figure 9: Daily person kms and transport mix by spatial theme - GM residents



Source: GM TRADS 2023
Note: car or other = car or van (driver), car or van (passenger), taxi, minicab, motorcycle, scooter, moped, or any other

3.6.1 Neighbourhood

On average, GM residents made nearly 2.5 million Neighbourhood trips a day, about 45% of all trips. Neighbourhood trips accounted for:

- Over 1.4 million walking trips, which represented 83% of all walking trips.
- Around 940,000 'car or other' trips, which represented nearly 30% of all 'car or other' trips.
- Over a third of all cycling trips.
- About one-in-six of all bus trips.

Neighbourhood trips are less than 2km in length. Consequently, these 46% of trips only accounted for 6% of the total distance travelled by GM residents. Neighbourhood trips accounted for:

- Around two-thirds of all the distance travelled by walking.

3.6.2 Wider City Region

On average, GM residents made over 1.7 million Wider City Region trips a day, which was around a third of all trips. Wider City Region trips accounted for:

- Over 1.5 million private vehicle trips, which represented about half of all private vehicle trips.
- Over 90,000 bus trips, which represented 41% of all bus trips*.

Wider City Region trips accounted for 33% of all trips by GM residents and, due to the longer and more dispersed nature of these trips, they also accounted for nearly 40% of the total distance travelled.

- Private vehicles accounted for 91% of all distance travelled within the Wider City Region, which represented 44% of all distance travelled in private vehicles.
- Bus accounted for 4% of all distance travelled within the Wider City Region, which represented over half of all distance travelled by bus*.
- Cycle accounted for 1% of all distance within the Wider City Region, which represented 45% of all distance travelled by cycle.

* Please see the note in section 1.2 (page 9) about the bus trips estimate being lower than expected for 2023.

3.6.3 Regional Centre

On average, GM residents made nearly 500,000 Regional Centre trips a day, around 9% of all trips. Regional Centre trips accounted for:

- Nearly half of Regional Centre trips made by GM residents were in private vehicles, but its smaller total market size meant that this was only 7% of all private vehicle trips.
- A fifth of Regional Centre trips made by GM residents were walking, which represented 6% of all walking trips.
- 9% of Regional Centre trips made by GM residents were by bus, which represented 20% of all bus trips*.
- 14% of Regional Centre trips were by train / tram, which represented over half of all train / tram trips.

Regional Centre trips accounted for 9% of the total distance travelled by GM residents. Regional Centre trips accounted for:

- 36% of all the distance travelled by cycle.
- Just under a fifth of all the distance travelled by train / tram.

3.6.4 City-to-City

On average, GM residents made nearly 200,000 City-to-City trips a day, around 3% of all trips. City-to-City trips accounted for:

- Over 90% of City-to-City trips were made by private vehicle (noting that City-to-City trips are not limited to trips between city centres), but again the smaller market size meant that this was only 5% of all private vehicle trips.
- 9% of City-to-City trips were by train / tram, which represented over 13% of all the train / tram trips.

City-to-City spatial theme trips accounted for 40% of the total distance travelled by GM residents. Put another way, this meant that two-fifths of the distance travelled by GM residents was by trips with at least one end beyond 10km of Greater Manchester. City-to-City trips accounted for:

- Nearly 40% of all the distance travelled in private vehicles.
- 70% of all the distance travelled by train / tram.

* Please see the note in section 1.2 (page 9) about the bus trips estimate being lower than expected for 2023.

3.6.5 Town Centres

On average, GM residents made nearly 550,000 Town Centres trips a day, around 10% of all trips by GM residents. Town Centres trips accounted for:

- Around two-thirds of Town Centres trips made by GM residents were in private vehicles, but its smaller total market size meant that this was only 10% of all private vehicle trips.
- Over a fifth of Town Centres trips made by GM residents were walking, which represented 7% of all walking trips.
- 9% of Town Centres trips made by GM residents were by bus, which represented 22% of all bus trips*.

Town Centres trips accounted for 7% of the total distance travelled by GM residents. Town Centres trips accounted for:

- 19% of all the distance travelled by bus*.

3.7 Distance profile by method of travel

Figure 10 shows the percentage of trips that fell within different distance bands for each method of travel. For example, it shows that 74% of walking trips were 1km or less, while 84% of train trips were 10km plus.

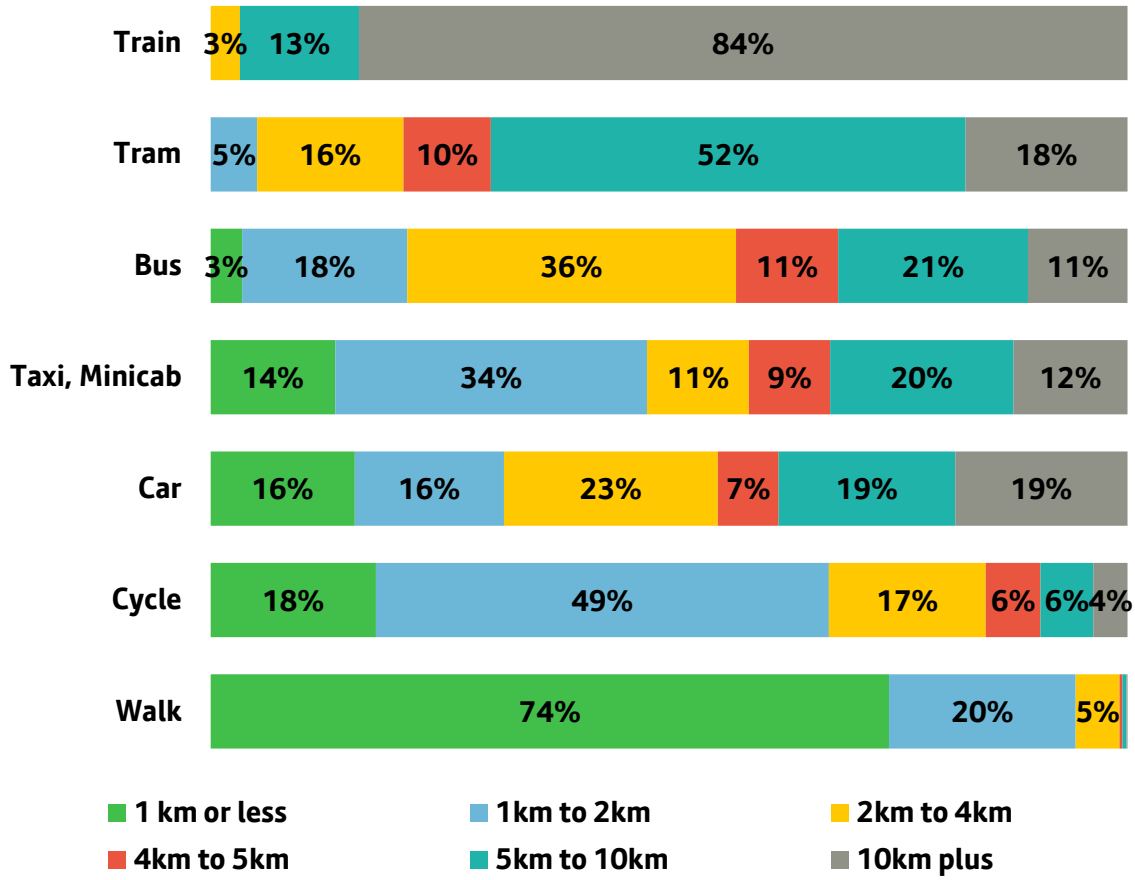
Walking was most commonly used for trips of 1km or less, while bus, taxi, car, and cycle were all attractive for trips of 1km to 5km.

Although car was the most significant method of travel for medium and longer distance trips, tram was mostly used as an alternative for trips that were 5km to 10km, and trains were mostly used as an alternative for trips that were 10km or more.

In 2023, the 16% of car trips that were 1km or less equated to about 185 million annual car journeys by GM residents. These could have been walked in around 15 minutes or cycled in around 4 minutes.

* Please see the note in section 1.2 (page 9) about the bus trips estimate being lower than expected for 2023.

Figure 10: Trip length distribution profile by method of travel - GM residents



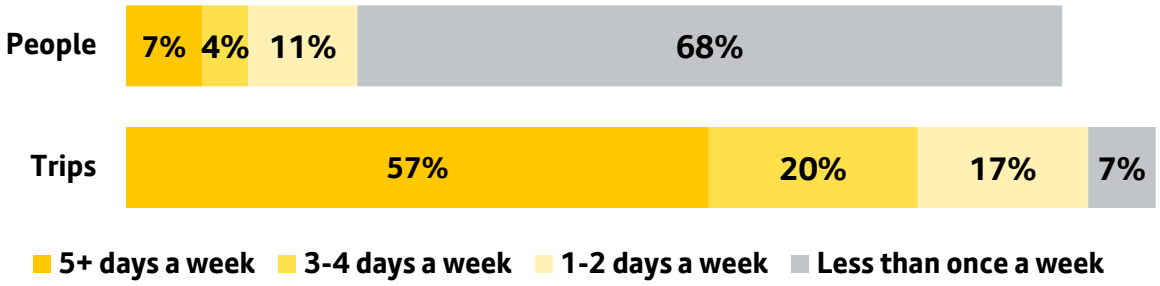
Source: GM TRADS 2023
Note: car = car or van (driver) or car or van (passenger)

3.8 Frequency of public transport use

The 'people' bar in Figure 11 shows the percentage of GM residents used the bus, by their frequency of use. For example, it shows that 7% of GM residents used the bus five or more days a week. The percentages in the 'people' bar don't total 100% because GM residents who said they never used the bus have been excluded from the chart. The 'trips' bar shows the percentage of bus trips made by GM residents by how frequently the person making the trip used the bus*. For example, 57% of bus trips by GM residents were made by people who used the bus five or more days a week.

* Please see the note in section 1.2 (page 9) about the bus trips estimate being lower than expected for 2023.

Figure 11: Frequency of bus use by people, and trips by frequency of use - GM residents

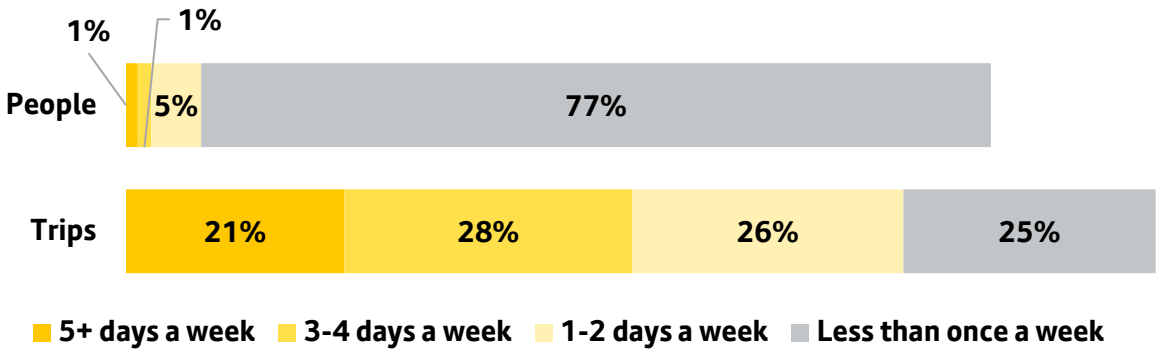


Source: GM TRADS 2023

Note: Less than once a week = at least once a fortnight/at least once a month/at least once a year/not used in the last 12 months

The 'people' bar in Figure 12 shows that only 1% of GM residents used tram five or more days a week, while the 'trips' bar shows that 21% of tram trips by GM residents were made by people who used tram five or more days a week.

Figure 12: Frequency of tram use by people, and trips by frequency of use - GM residents

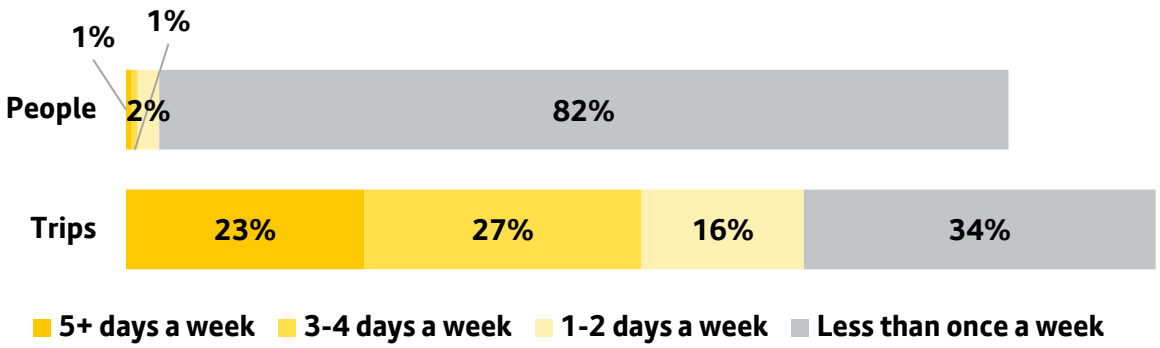


Source: GM TRADS 2023

Note: Less than once a week = at least once a fortnight/at least once a month/at least once a year/not used in the last 12 months

The 'people' bar in Figure 13 shows that less than 1% of GM residents used trains five or more days a week, while the 'trips' bar shows that 23% of train trips by GM residents were made by people who used trains five or more days a week.

Figure 13: Frequency of train use by people, and trips by frequency of use - GM residents



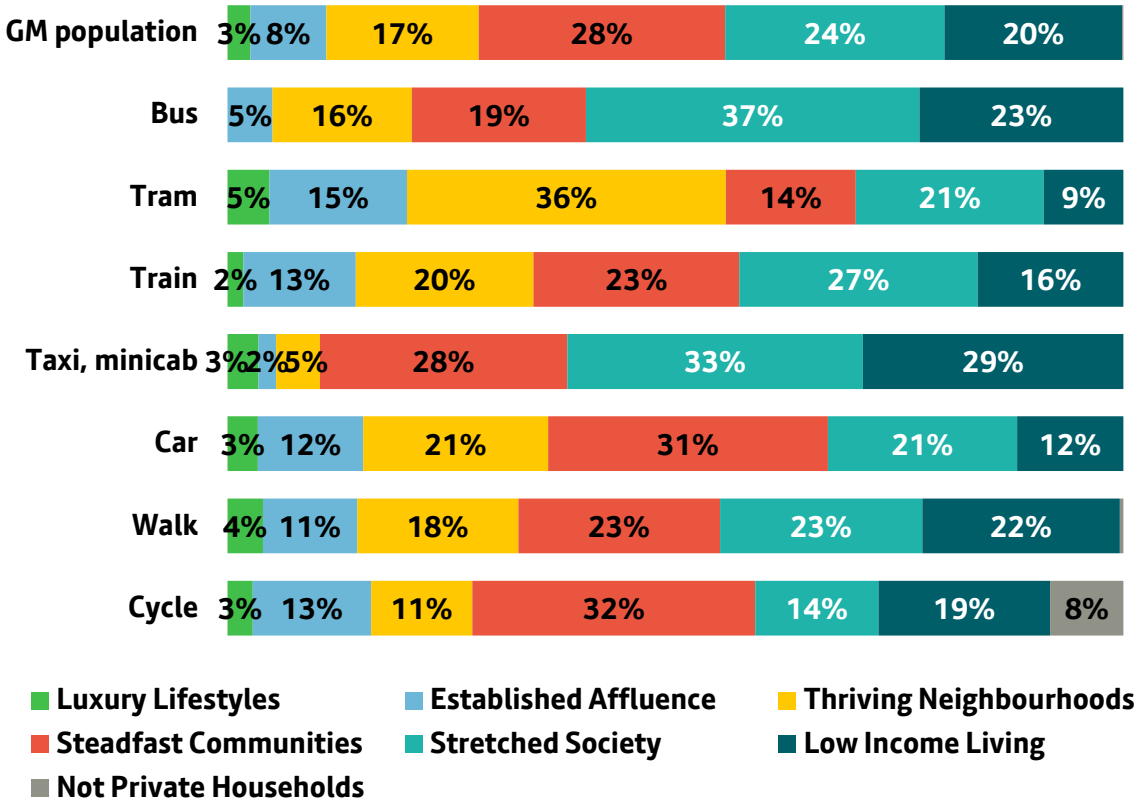
Source: GM TRADS 2023

Note: Less than once a week = at least once a fortnight/at least once a month/at least once a year/not used in the last 12 months

A small proportion of frequent users generated most trips across all types of public transport. For example, 77% of bus trips were made by just 11% of GM residents (those who used the bus at least three or four days a week). However, while they generated far fewer trips, most GM residents did use public transport infrequently. For example, 77% of GM residents used tram less than once a week.

3.9 Acorn Category profile of trips by method of travel

Figure 14: Acorn Category profile of trips by method of travel - GM residents



Source: GM TRADS 2023 and Acorn 2023
Note: car = car or van (driver) or car or van (passenger)

The top bar of Figure 14 shows the Acorn Category (descriptions of each Category are provided in the Glossary) profile of the Greater Manchester population. The subsequent bars show the Acorn Category profile of trips by different methods of travel. For example, the top bar shows that 20% of the GM population were classed as Low Income Living, but only 16% of train trips by GM residents were made by people classed as Low Income Living.

People in the Low Income Living category also made fewer trips than we would expect by tram (9%), and by car (12%). However, they made more trips than we would expect for taxi, minicab (29%).

24% of the GM population were classed as Stretched Society. People in the Stretch Society category made fewer trips than we would expect by cycle (14%). However, they made more trips than we would expect by bus* (37%) and taxi, minicab (33%).

* Please see the note in section 1.2 (page 9) about the bus trips estimate being lower than expected for 2023.

28% of the GM population were classed as Steadfast Communities. People in the Steadfast Communities category made fewer trips than we would expect for walking (23%), train (23%), bus* (19%) and tram (14%).

17% of the GM population were classed as Thriving Neighbourhoods. People in the Thriving Neighbourhoods category made fewer cycle (11%) and taxi (5%) trips than we would expect, but more tram trips (36%).

8% of the GM population of the population were classed as Established Affluence. People in the Established Affluence category made fewer cycle (2%) trips than we would expect, but more tram trips (15%).

3% of the GM population were classed as Luxury Lifestyles. The number of trips they made by each type of travel was broadly as expected expect given the size of the population. The only exception was bus, by which they made fewer trips than expected (0%).

* Please see the note in section 1.2 (page 9) about the bus trips estimate being lower than expected for 2023.

4. Why did GM residents travel?

4.1 Key facts summary - Why did GM residents travel?

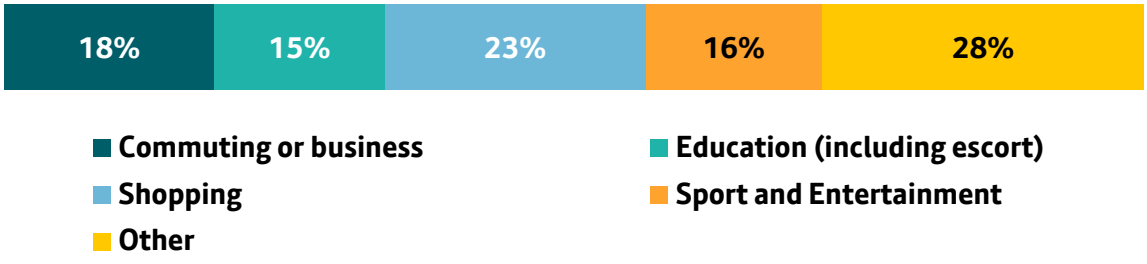
On a typical day in 2023...

- **Shopping (23%), Commuting or business (18%), and Education - including escort - (15%) were the three most common trip purposes.**
- **Collectively, 'commuting or business' and 'other' (eg visiting friends, personal business) accounted for 70% of the total distance travelled by GM residents.**
- **'Commuting or business' trips' share of the total distance travelled is close to what it was in 2017-19. Shopping trips' share of the total distance travelled was 9%, down from 12% in 2017-19.**
- **Neighbourhood trips accounted for just under two-thirds of all Education (including escort) trips made by GM residents.**
- **Wider City Region trips accounted for nearly half of all 'commuting or business' trips made by GM residents.**

4.2 Journey purpose of trips

Shopping (23%) and commuting (18%) were the most common trip purposes. The largest trip category was 'other' (28%), which includes visiting friends and personal business.

Figure 15: Journey purpose of trips - GM residents

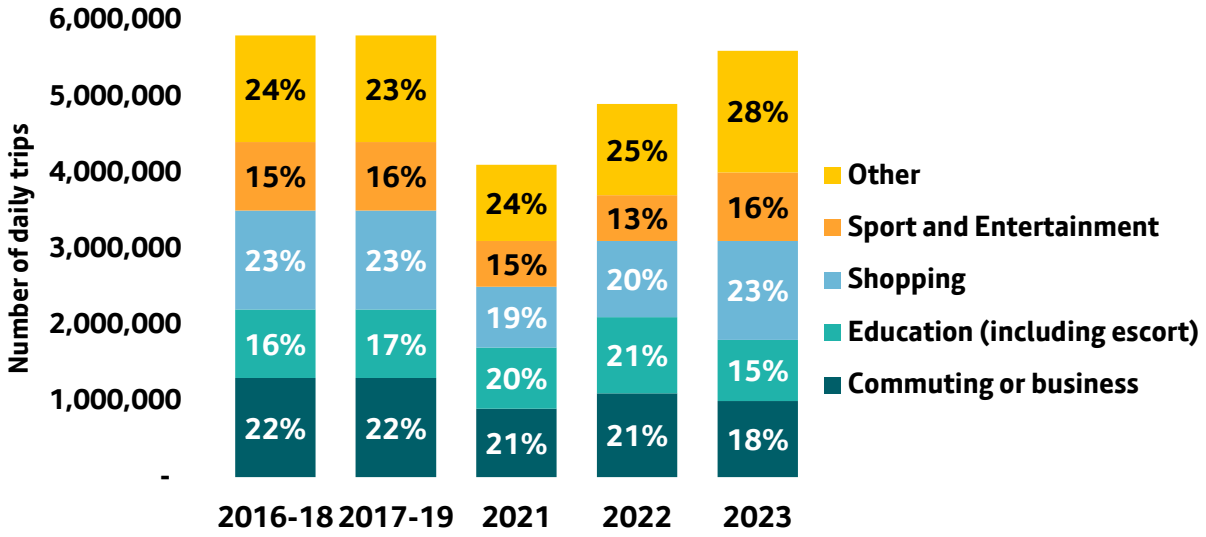


Source: GM TRADS 2023
Note: Other = visiting friends, personal business, escort other, and holiday and round trip

Figure 16 shows the total number of daily trips by journey purpose by year. The length of the bar equates to the number of daily trips and the figures in each bar show the percentage of trips by different trip purposes. For example, in 2023, it shows that there were 5.6 million daily trips and that 18% of these were for commuting or business.

At 23%, shopping's share of the total number of trips made by GM residents returned to its pre-pandemic level.

Figure 16: Daily trip count and journey purpose - GM residents



Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)
Note: Other = visiting friends, personal business, escort other, and holiday and round trip

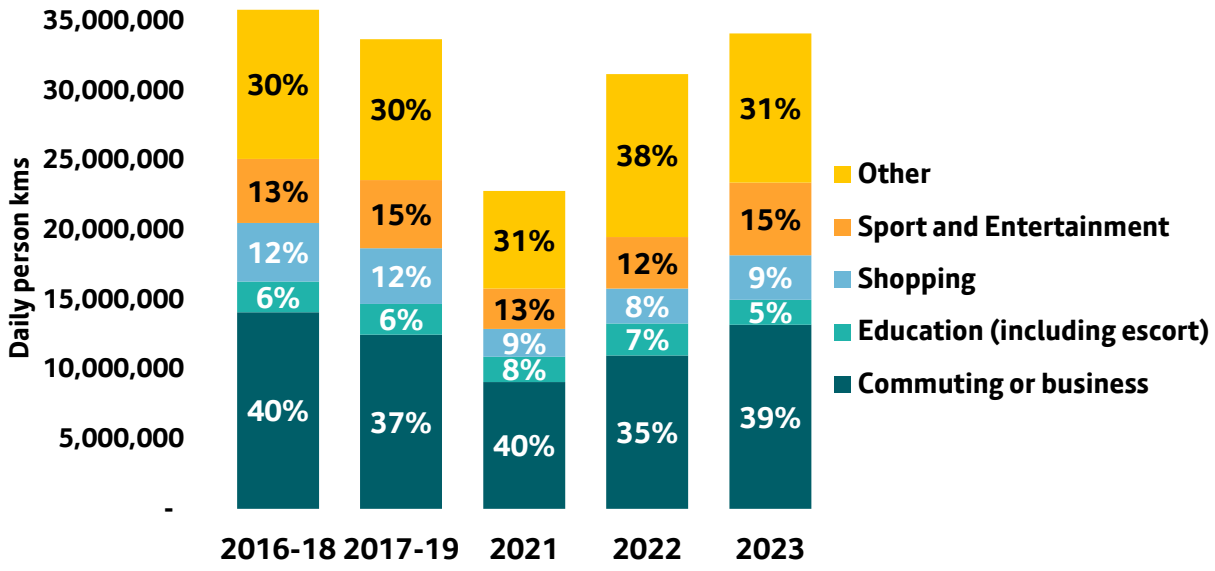
The percentage of trips for education returned almost to what it was before the pandemic: 16% during 2016-18 and 15% in 2023.

The percentage share of commuting or business trips dropped slightly in 2023 to 18%, with the number of daily trips about 300,000 fewer than in 2017-19.

4.3 Distance travelled by journey purpose (person kms)

In 2023 GM residents travelled a total of 12.4 billon kms, this was 1% higher than in 2017-19 (the last survey period prior to the pandemic). The total distance travelled by GM residents (person kms) was decreasing prior to the onset of the pandemic, with the key reason being a reduction in business trip kilometres.

Figure 17: Daily person kms and journey purpose - GM residents



Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)
Note: Other = visiting friends, personal business, escort other, and holiday and round trip

Figure 17 shows the total daily distance travelled by GM residents by journey purpose and year. The length of the bar equates to the daily distance travelled by GM residents, while the figures in each bar represent the percentage of the distance travelled for each journey purpose. For example, in 2023, it shows that GM residents travelled about 34 million kilometres each day, of which 39% were for business or commuting.

In 2023, the trip category with the highest proportion of person kms was 'commuting or business', accounting for 39% of all person kms. The second largest trip category was 'other' (e.g. visiting friends, personal business), accounting for 31% of person kms. Collectively, 'commuting or business' and 'other' accounted for over two-thirds of the total distance travelled by GM residents. The remaining distance travelled comprised of sport and entertainment trips (15%), shopping trips (9%), and education (including escort) trips (5%).

4.4 Comparison of journey purpose share and trip distance

For each trip purpose Figure 18 shows the number of daily trips (in millions) and the daily distanced travelled (in million kms), as well as each purpose's percentage of total trips, and percentage of distance travelled. This shows that trips such as 'commuting or business' and 'other' tended to be longer, as their percentage share of trips was lower than their percentage share of the distance travelled. For example, commuting or business accounted for 21% of trips, but 35% of the distance travelled. Trips such as 'education (including escort)' and 'shopping' tended to be shorter trips, as their percentage share of trips was greater than their percentage share of the distance travelled. For example, shopping trips accounted for 20% of trips, but only 8% of the distance travelled.

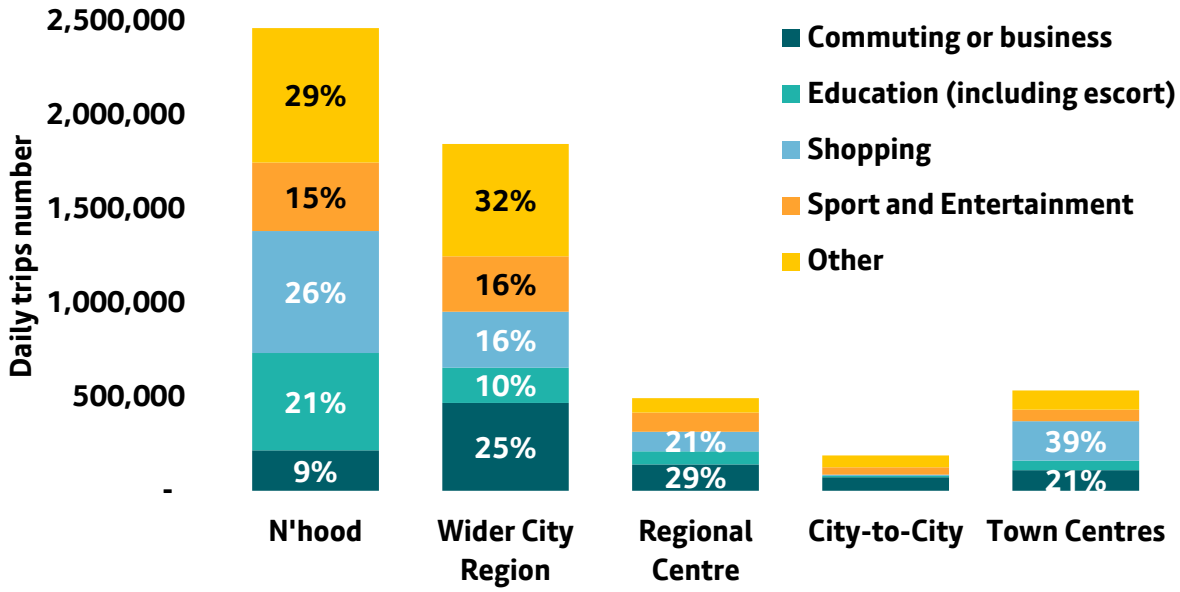
Figure 18: Purpose of travel – trips and distance travelled by GM residents 2023

Trip purpose	Number of daily trips (millions)	% of total trips	Average (mean) trip distance in kms	Daily distance travelled (million kms)	% of distance travelled
Commuting or business	1.0	18%	12.8	13.2	39%
Education (inc. escort)	0.8	15%	2.2	1.8	5%
Shopping	1.3	23%	2.5	3.2	9%
Sport and entertainment	0.9	16%	6.1	5.2	15%
Other	1.6	28%	6.8	10.7	31%

4.5 Spatial themes and journey purpose analysis - 2023

The length of each bar in Figure 19 shows GM residents' number of daily trips by spatial theme. For example, it shows that GM residents made over 1.7 million daily Wider City Region trips. The figures in each bar show the percentage of daily trips that were made for each journey purpose. For example, it shows that 25% of Wider City Region trips were made for commuting or business.

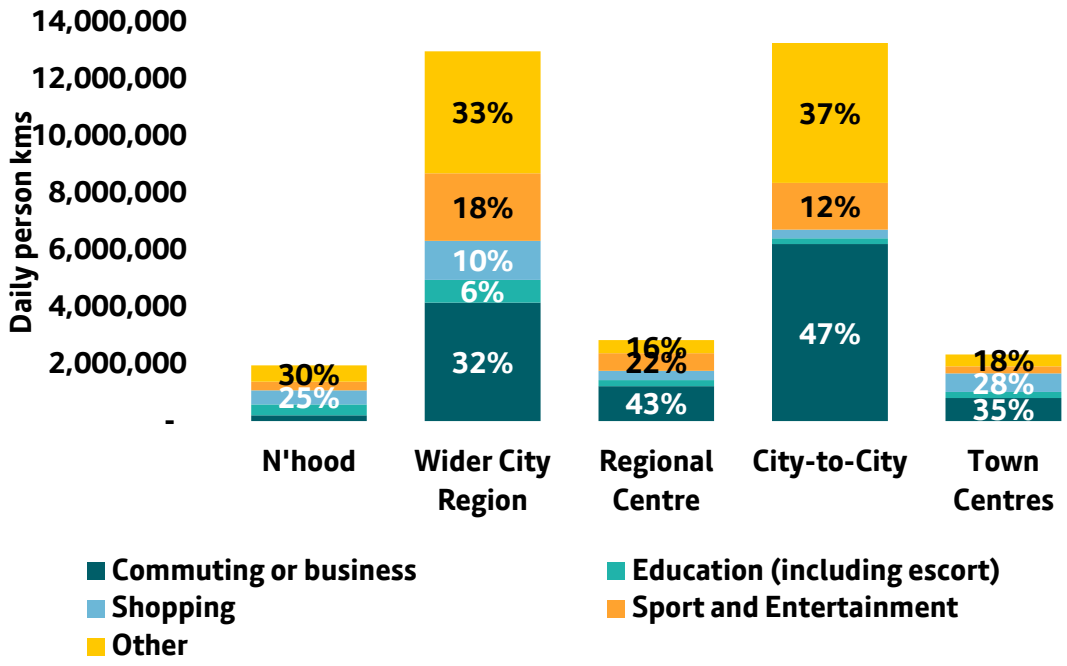
Figure 19: Daily trip count and journey purpose by spatial theme - GM residents



Source: GM TRADS 2023
Note: Other = visiting friends, personal business, escort other, and holiday and round trip

The length of each bar in Figure 20 shows the daily distance GM residents travelled in kilometres by spatial theme. For example, it shows that for the Wider City Region spatial theme GM residents travelled about 13 million kilometres each day. The figures in each bar show the percentage of the distance travelled for each journey purpose. For example, it shows that, for the Wider City Region spatial theme, 32% of the distance travelled was for 'commuting or business'.

Figure 20: Daily person kms and journey purpose by spatial theme – GM residents



Source: GM TRADS 2023
Note: Other = visiting friends, personal business, escort other, and holiday and round trip

4.5.1 Neighbourhood

On average, GM residents made about 2.4 million Neighbourhood trips a day, around 45% of all trips. Neighbourhood trips accounted for:

- Nearly two-thirds of all education trips
- About half of all shopping trips
- Nearly half of all 'other' trips (e.g. visiting friends, personal business)
- A relatively small proportion of 'commuting or business' trips (21%).

Neighbourhood trips are less than 2km in length. Consequently these 45% of trips only account for 7% of the total distance travelled by GM residents.

4.5.2 Wider City Region

On average, GM residents made over 1.8 million Wider City Region trips a day, around 33% of all trips. Wider City Region trips accounted for:

- Nearly half of all 'commuting or business' trips
- A third of all sport and entertainment trips.

Wider City Region trips accounted for 33% of all trips by GM residents and around 39% of the total distance travelled. Wider City Region trips accounted for:

- 33% of the distance travelled for commuting or business
- Nearly half of the total distance travelled for sport and entertainment (despite representing only 18% of the distance travelled in the Wider City Region spatial theme)
- Nearly half of the total distance travelled for education (including escort) (despite representing only 6% of the distance travelled in the Wider City Region spatial theme)

4.5.3 Regional Centre

On average, GM residents made nearly 500,000 Regional Centre trips a day, 9% of all trips. Key findings for Regional Centre trips were:

- About three-in-ten Regional Centre trips were for 'commuting or business' purposes, but its smaller total market size meant that this was only 15% of all 'commuting or business' trips.
- About one-in-seven Regional Centre trips were for education, which reflects the number of higher education establishments in the Regional Centre.

Regional Centre trips accounted for 9% of the total distance travelled by GM residents.

4.5.4 City-to-City

On average, GM residents made nearly 200,000 City-to-City trips a day, around 3% of all trips. Key findings for City-to-City trips were:

- Nearly 40% of City-to-City trips were for 'commuting or business', but again the smaller market size meant that this was only 7% of all 'commuting or business' trips.
- Other trips (e.g. visiting friends, personal business) also made up about a third of City-to-City trips.

City-to-City spatial theme trips accounted for about 40% of the total distance travelled by GM residents. City-to-City trips accounted for:

- 49% of the total distance travelled for 'commuting or business', which was 47% the distance travelled in the City-to-City spatial theme
- 32% of the total distance travelled for sport or entertainment, which was 12% of the distance travelled in the City-to-City spatial theme

11% of the distance travelled by GM residents in the City-to-City spatial theme was for the purpose of visiting friends (in Figure 20 these trips are included in the other category).

4.5.5 Town Centres

On average, GM residents made nearly 550,000 Town Centres trips a day, around 10% of all trips. Key findings for Town Centres trips were:

- Nearly 40% of Town Centres trips were for shopping (17% of all shopping trips), and a fifth of all Town Centres trips were for 'commuting or business' (11% of all 'commuting or business' trips).

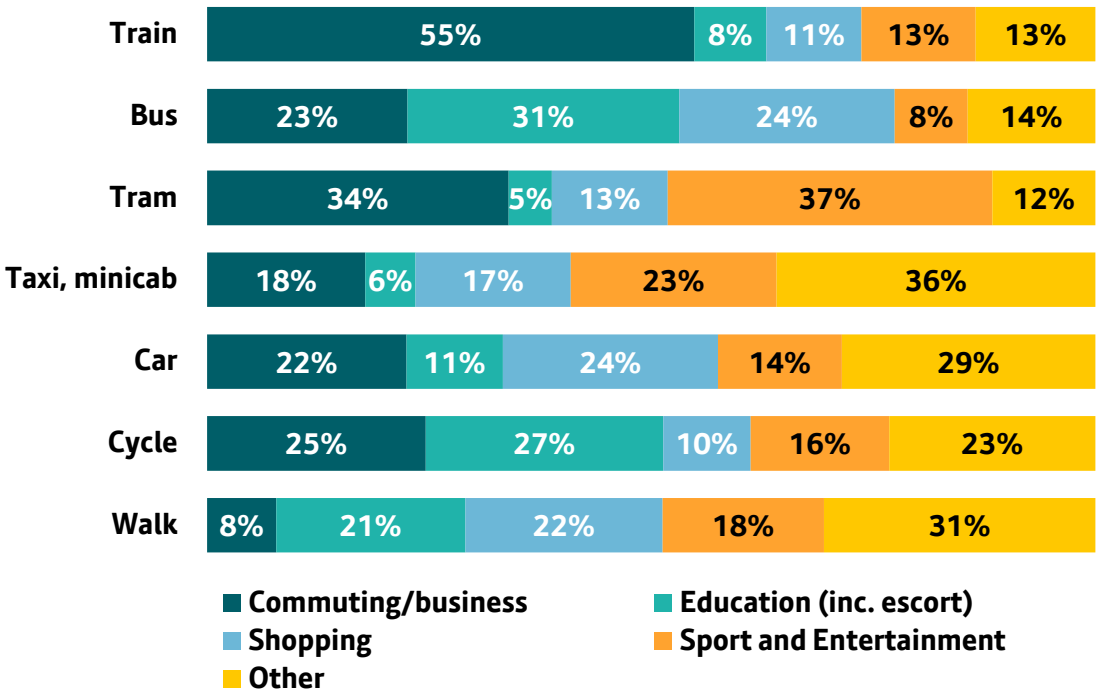
Town Centres trips accounted for 7% of the total distance travelled by GM residents.

4.6 Journey purpose by method of travel

Figure 21 shows the percentage of trips by journey purpose for each method of travel. For example, it shows that 55% of train trips were for commuting or business, while only 23% of bus trips were for commuting or business.

Commuting was the most common journey purpose for train (55%), while education (including escort) was the most common purpose for bus and cycle trips (31% and 27% respectively). Shopping was the most common purpose for car and walking trips (24% and 22% respectively). Sport and entertainment was the most common purpose for tram trips (37%). For taxi, mini cab trips the most common journey purpose was 'other' trips (36%).

Figure 21: Journey purpose by method of travel - GM residents



Source: GM TRADS 2023

Notes: Other = visiting friends, personal business, escort other, and holiday and round trip
Car = car or van (driver) or car or van (passenger)

5. When did GM residents travel?

5.1 Key facts summary - When did GM residents travel?

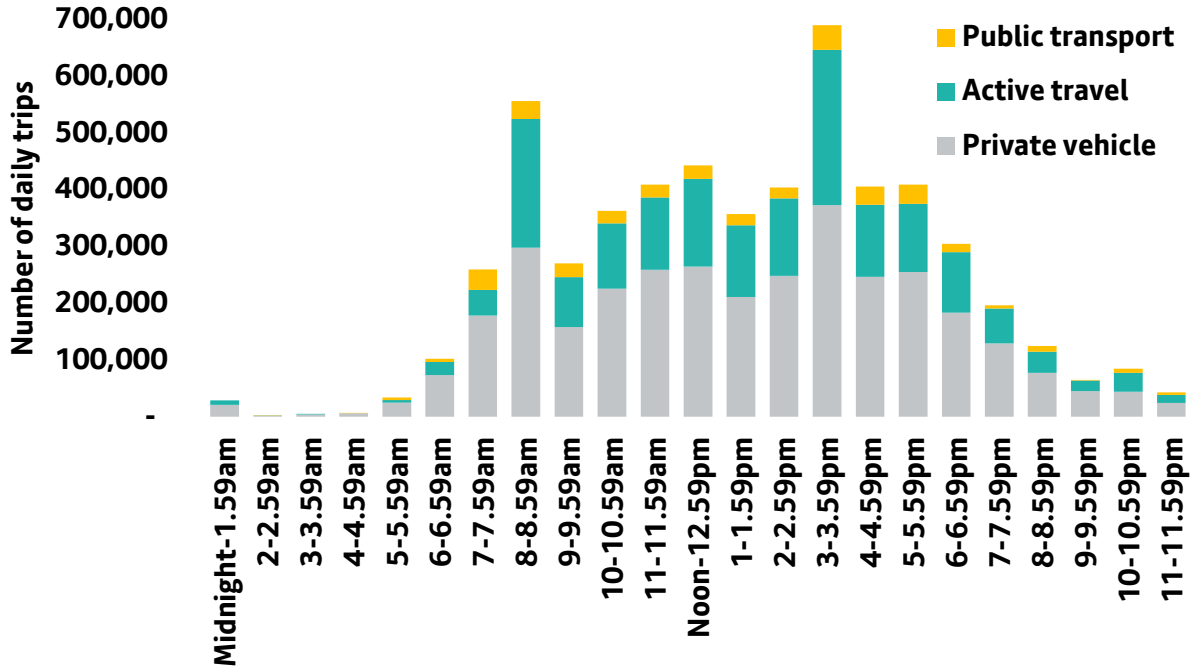
On a typical day in 2023...

- **GM residents started nearly nine-in-ten of their trips (88%) in the 12 hours between 7am and 6.59pm, while 7% of their trips started between 7pm and 9.59pm. Only 9% of trips started between 8pm and 7am, of which 65% were by private vehicle (compared to 60% outside these hours).**
- **The peak periods for trip making were 8am-8.59am and 3pm-3.59pm, accounting for over a fifth of all trips by GM residents. During these hours, 48% of trips were for education.**
- **Around three-in-ten trips by GM residents in the periods 7am-8.59am, and 5pm-6:59pm were to/from work. Over half of commuting trips were made outside these times.**

5.2 Transport mix of trips by time of day

The length of each bar in Figure 22 shows the number of daily trips by GM residents by the trip's starting hour and by the type of travel used. For example, about 560,000 daily trips started between 8am-8.59am, with around 300,000 of these being made by private vehicle.

Figure 22: Transport mix of trip by journey start hour - GM residents



Source: GM TRADS 2023
Note: private vehicle = car or van (driver), car or van (passenger), taxi, minicab, motorcycle, scooter, moped, or any other

The hourly profile of trip start times on an average day in 2023 (Figure 22) shows two extreme peaks at 8-8.59am and 3-3.59pm. Together these hours accounted for over a fifth of all trips by GM residents. GM residents started nearly nine-in-ten of their trips (88%) in the 12 hours between 7am and 6.59pm, while 7% of their trips started between 7pm and 9.59pm. **Only 9% of trips started between 8pm and 7am, of which 65% were by private vehicle (compared to 60% outside these hours).**

The two peak hours (8am and 3pm) were particularly important for active travel trips, with 27% of active travel trips occurring during these hours on an average day.

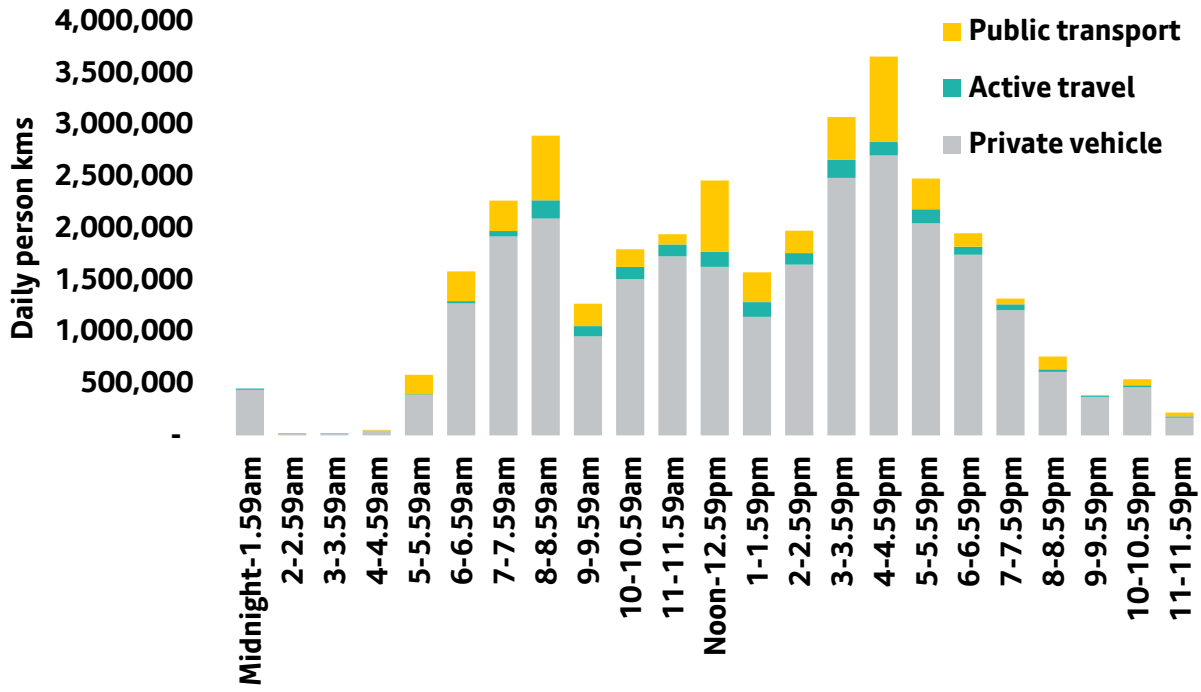
19% of private vehicle trips occurred in the three hours between 7am and 9.59am, which was just below the three hours between 3pm and 5.59pm when 26% of private vehicle trips occurred.

Public transport trips were particularly concentrated, with 40% occurring over four hours (7am-8.59am and 3am-4.59pm).

5.3 Transport mix of person kms by time of day

The length of each bar in Figure 23 shows the daily distance (in kilometres) travelled by GM residents by the trip's starting hour and by the types of travel used. For example, there were about 5 million daily kilometres travelled by trips that started between 7am-8.59am and about 4 million of these being made by private vehicle.

Figure 23: Transport mix of person kms by journey start hour - GM residents



Source: GM TRADS 2023
Note: private vehicle = car or van (driver), car or van (passenger), taxi, minicab, motorcycle, scooter, moped, or any other

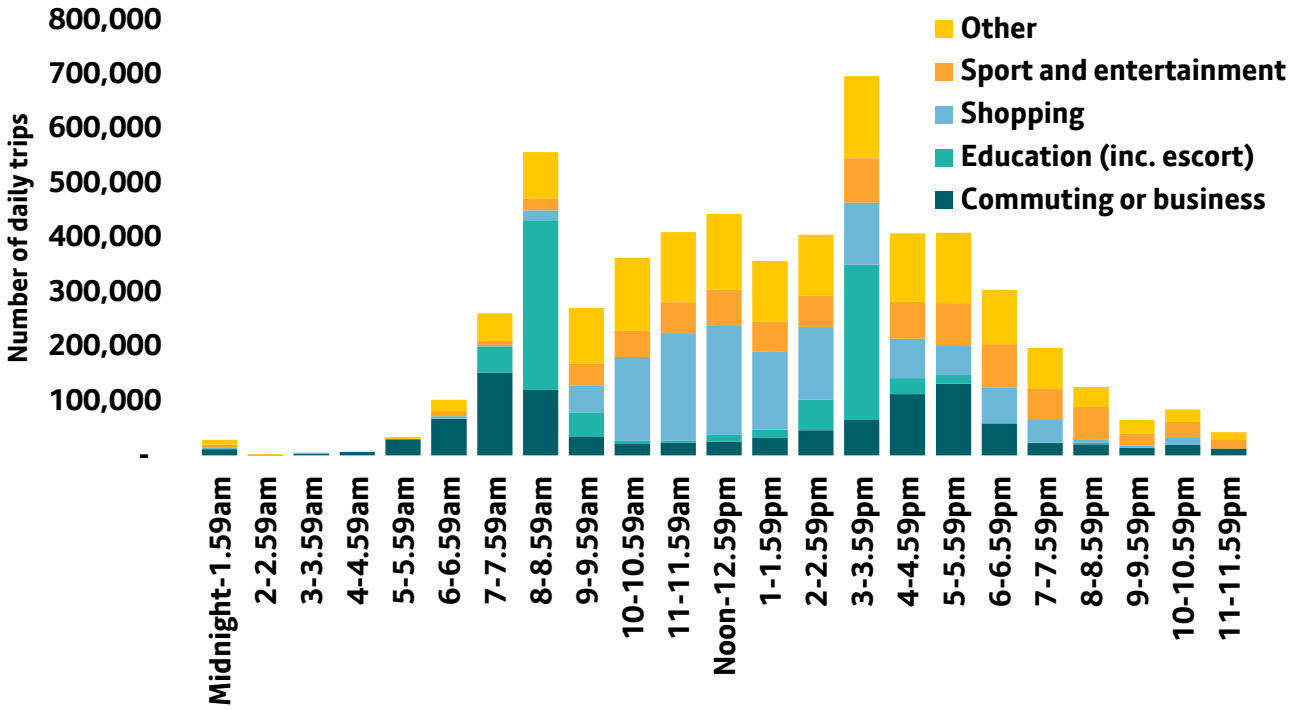
The hourly distribution of the distance travelled by GM residents during the day (Figure 23) differed slightly from the hourly profile of trip start times (Figure 22). For example, while only 7% of trips started between 5am-7.59am, these trips accounted for 13% of total distance travelled by GM residents on an average day. Similarly, 15% of trips started between 4pm-5:59pm, which accounted for 18% of total distance travelled by GM residents. In the case of public transport, the two hours from 7am to 8.59am accounted for 18% of the distance travelled by people on public transport.

Public transport's percentage share of the distance travelled by GM residents was greater during the peaks. For example, trips that started between 7am and 7.59am accounted for 13% for the total distance travelled by GM residents, compared to 5% for trips that started between 11.00am and 11.59am. This highlights the important role public transport played in providing network capacity during these busy periods.

5.4 Journey purpose by time of day

The length of each bar in Figure 24 shows the number of daily trips by GM residents by the trip's starting hour and by the purpose of the trip. For example, there were just under 700,000 daily trips that started between 3pm-3.59pm, with just under 300,000 of these being for education (including escort).

Figure 24: Journey purpose of trip by journey start hour - GM residents



Source: GM TRADS 2023
Note: Other = visiting friends, personal business, escort other, and holiday and round trip

The length of each bar in Figure 25 shows the daily distance (in kilometres) travelled by GM residents by the trip's starting hour and by the purpose of the trip. For example, there were 3.4 million daily kilometres travelled in trips that started between 3pm-3.59pm, with just over 450,000 of these being for education (including escort).

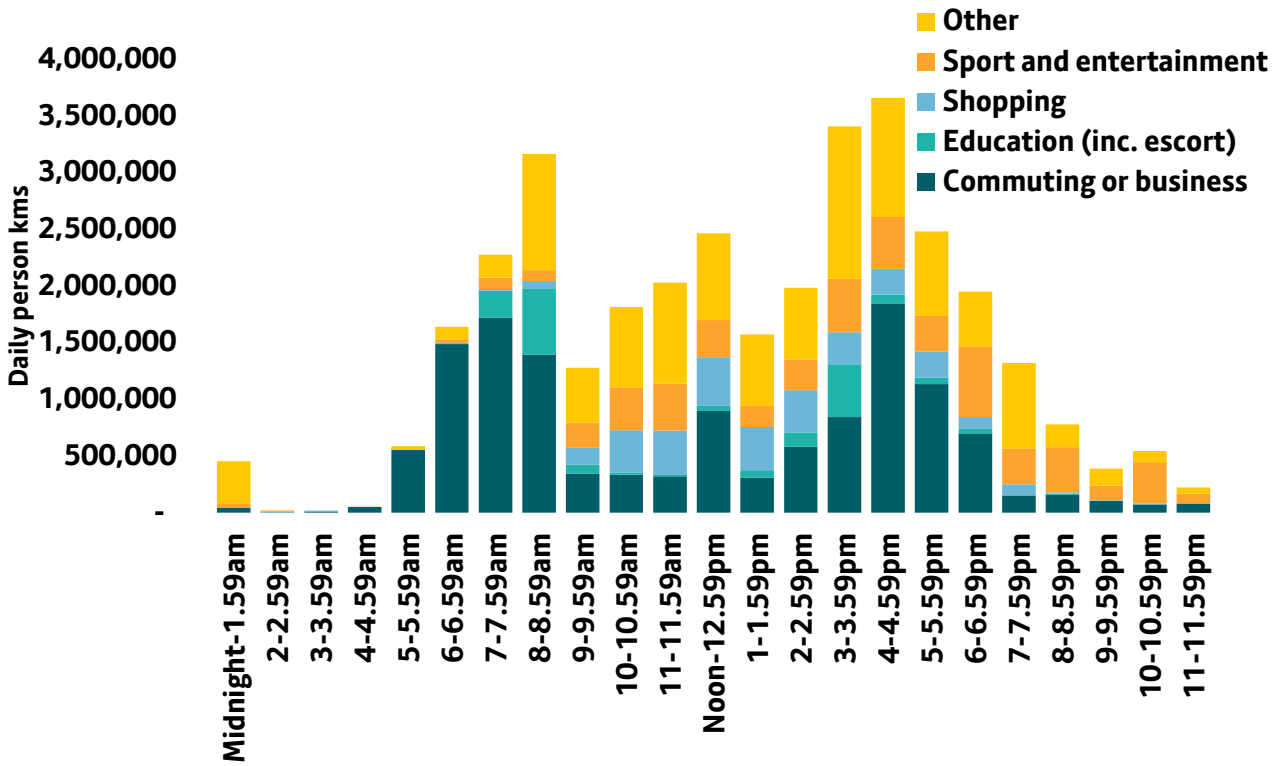
As may be expected, **the two main peak periods for trips were dominated by education travel, accounting for 48% of all the trips that started in these two single hours.** Around seven-in-ten education trips started in these two periods.

Shopping was a particularly important journey purpose during the day, in the period between the two peak hours, with about two-thirds of shopping trips starting between 10am-2.59pm.

About three-in-ten trips by GM residents during the periods 7am-8.59am and 5pm-6.59pm were to/from work/business. Over half of 'commuting or business' trips by GM residents were made outside these periods.

Between 8pm and 6.59am, both 'commuting or business' and 'sport and entertainment' increased their transport mix compared to the period 7am to 7.59pm. 'Commuting or business' increased to 37% from 17% and 'sport and entertainment' increased to 29% from 14%.

Figure 25: Journey purpose of person kms by journey start hour - GM residents



Source: GM TRADS 2023

Note: Other = visiting friends, personal business, escort other, and holiday and round trip

36% of the distance travelled for commuting or business trips was by trips that started within four hours of the day (7am-8.59am and 4pm-5.59pm).

The category 'other', which includes visiting friends, was widely dispersed across the 24-hour period. It accounted for 36% of the total distance travelled between the peaks (9.00am to 2.59pm).

'Commuting or business' was important in terms of distance covered by GM residents between 8pm and 6.59am, accounting for 54% of the total distance travelled.

6. Car availability in Greater Manchester

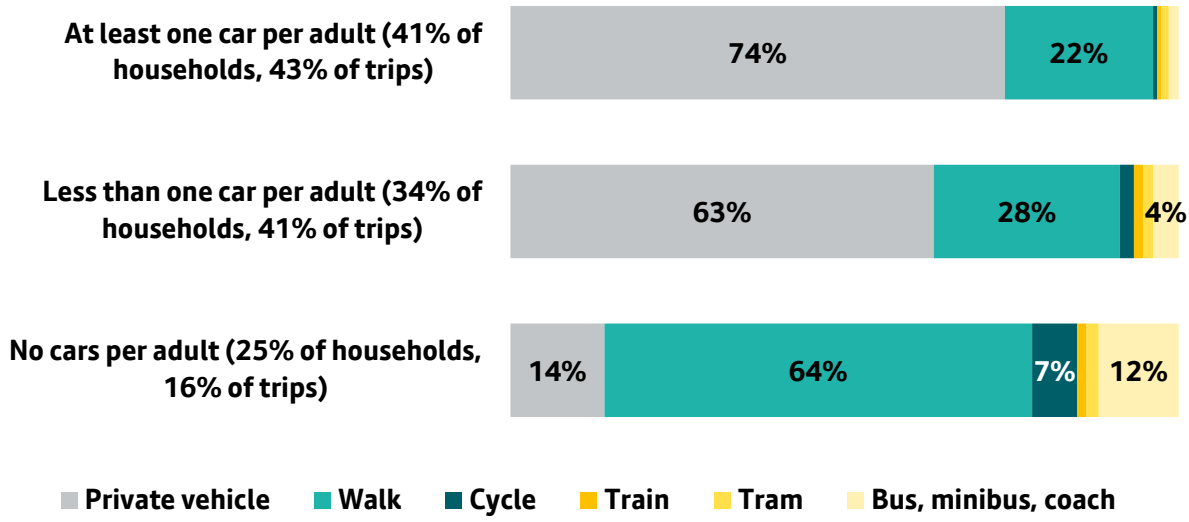
6.1 Key facts summary - Car availability in Greater Manchester

- **Residents with no cars in their households made 86% of their trips by active travel or public transport. While in households where there were fewer cars than adults, 37% of trips were by active travel or public transport. In households where there was at least one car per adult, only 26% of trips were by active travel or public transport.**
- **Residents in households with no cars were eight times more likely to use a bus for their journeys than residents in households where there was at least one car per adult.**
- **Private car keeping is high in GM and has been increasing. At the start of 2024, there were well over 1.1m cars being kept privately in GM, which equated to roughly one car per two residents aged 17 or over.**
- **Between 2011 and 2021, the number of registered private cars in Greater Manchester grew by 13%, exceeding the 7% growth in the GM population.**
- **Across GM, the least affluent households were twenty-five-times more likely than the most affluent households to have no access to a car. Overall, 25% of households had no access to a car, rising to 50% in our least affluent households.**

6.2 Car availability and method of travel

The methods of travel that GM residents used for their trips were strongly correlated to the number of cars available per adult in a household. Simply put, as cars became available for adults to use, their active travel and public transport use declined.

Figure 26: Transport mix of trips by car keepership (%) - GM residents



Source: GM TRADS 2023
Note: private vehicle = car or van (driver), car or van (passenger), taxi, minicab, motorcycle, scooter, moped, or any other

Each bar in Figure 26 represents the trips made by people living in households with different levels of access to cars. For example, the bottom bar represents trips made by people living in households with no car (it also shows the percentage of households that don't have access to a car - 25% of GM households - and the percentage of total trips made by people from households with no access to a car - 16% of trips by GM residents). The figures in each bar represent the percentage of trips by each type of household that were made by different methods of travel. For example, 14% of trips by people living in households with no access to a car were made by a private vehicle.

In 2023, residents with no cars in their households made 86% of their trips by active travel or public transport. In households where there were fewer cars than adults, 37% of their trips were by active travel or public transport. In households where there was at least one car for every adult, only 26% of their trips were by active travel or public transport.

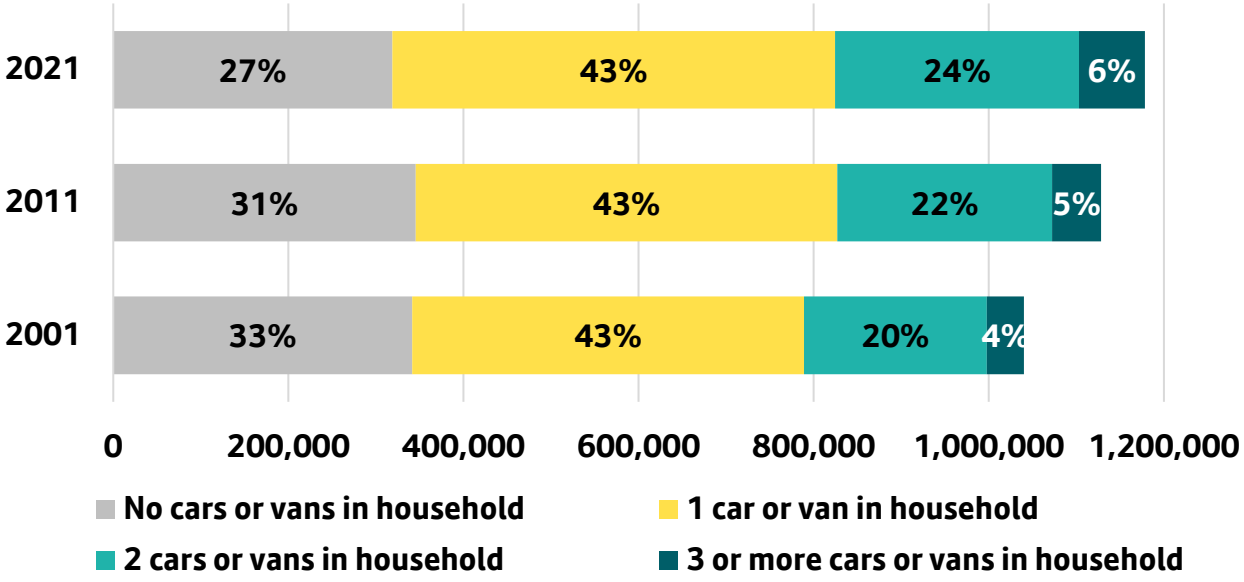
Comparing residents in households with no car to those with at least one car per adult highlights a particularly stark difference in bus* use: **residents in households with no car were eight times more likely to use a bus for their journeys**. The same comparison for rail-based types of travel was less pronounced, but residents in households with no car were still 1.8 times more likely to make their trips using rail-based types of travel.

* Please see the note in section 1.2 (page 9) about the bus trips estimate being lower than expected for 2023.

6.3 Car availability trends in GM

The length of each bar in Figure 27 shows the number of households in GM by year, while the figures in each bar represent the percentage of households that have access to different numbers of cars or vans. For example, in 2021, there were just under 1.2 million GM households and 6% of these had three or more cars or vans available to them.

Figure 27: Household car or van availability - GM households



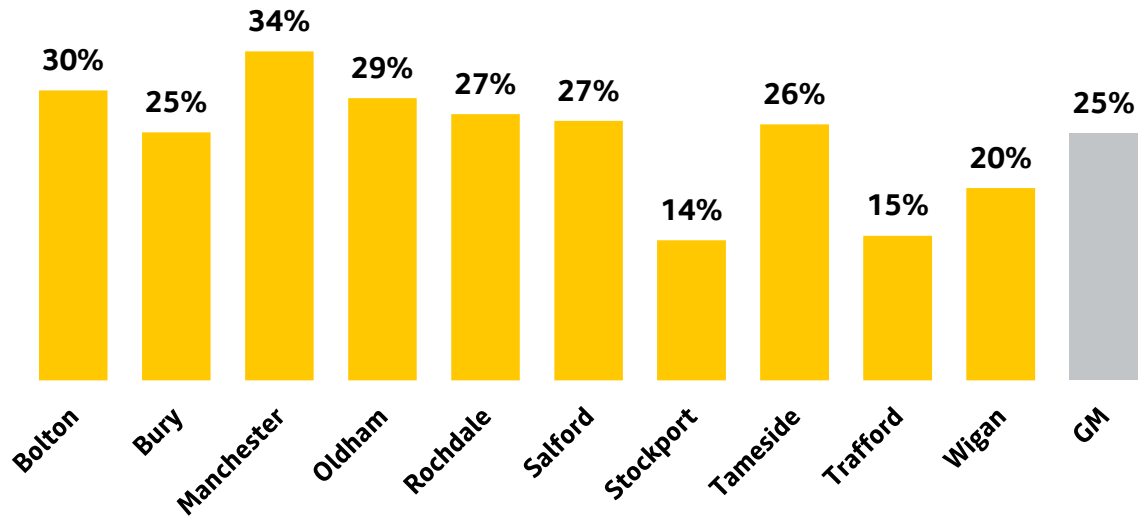
Source: Census 2001, Census 2011, Census 2021

Private car keeping is high in GM and has been increasing. At the start of 2024, there were well over 1.1m licensed cars being kept privately in GM, which equated to roughly one car per two residents aged 17 or over. For context, Greater London has roughly one car for every three residents aged 17 or over. **Between 2011 and 2021 the number of licensed private cars in Greater Manchester grew by 13%, exceeding the 7% growth in the GM population.** (Sources: DfT Tables VEH0105 and VEH0125, Census 2011, Census 2021).

Between 2001 and 2021 both the absolute number and percentage share of households without access to a car or a van has decreased. In 2021, there were 20,000 fewer households without a car than there were in 2001, while comparison of the same two Census periods showed an increase of 100,000 households with two or more cars. For context, between 2001 and 2021 Greater London has seen both the absolute number (+310,000) and percentage share (up to 42% from 37%) of households without access to a car or van increase between 2001 and 2021.

Across GM, 25% of households had no access to a car/van in 2023. The proportion of households without access to a car/van varied significantly by local authority area. Manchester had the highest proportion at 34%, closely followed by Bolton (30%), while Stockport had the lowest proportion at 14%. For context, 24% of households across England did not have access to a car. (Source: Census 2021)

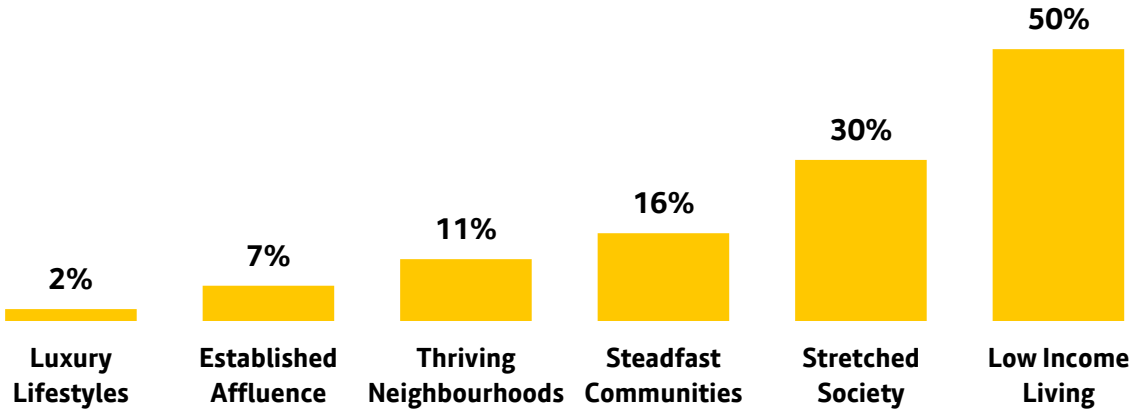
Figure 28: Percentage of GM households without access to a car/van - by local authority area



Source: GM TRADS 2023

There was a strong relationship between levels of deprivation and the proportion of households without access to a car/van. **Across GM, the least affluent households, as classified by Acorn, were twenty-five-times more likely to have no access to a car/van than the most affluent households.** Overall, 25% of households had no access to a car/van, rising to 50% in our least affluent households.

Figure 29: Percentage of GM households with no access to a car/van – by Acorn Category



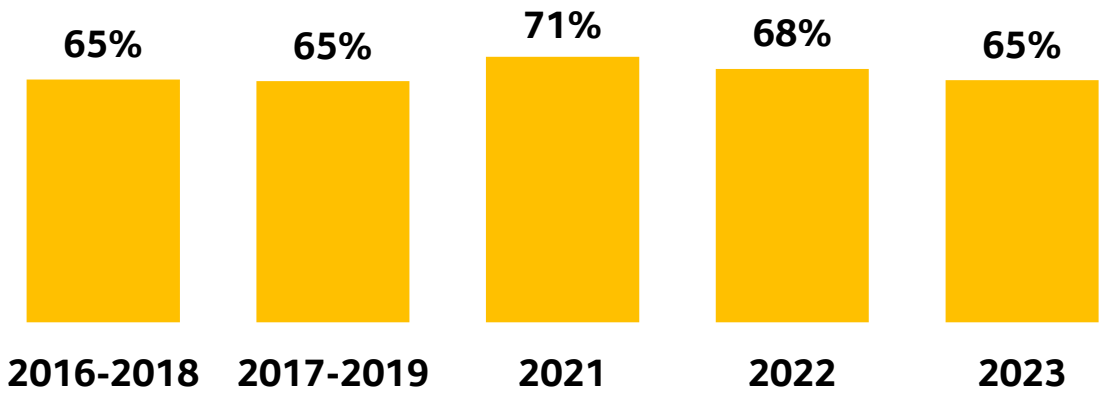
Source: GM TRADS 2023 & Acorn

7. Car/van occupancy

Over the period 2016-18, the average occupancy for a car/van trip was about 1.5 people (65% of car/van trips unaccompanied), only decreasing slightly in 2021 to 1.4 (71% of car/van trips unaccompanied), before rebounding to 1.5 in 2023 (65% of car trips unaccompanied). The National Travel Survey (NTS0905) has found similar car occupancy rates at a national-level in recent years.

In 2023, GM residents made 1.4 million daily trips in cars/vans that had an occupancy rate of one. Car/van trips with an occupancy rate of one accounted for 72% of the distance travelled by GM residents in cars/vans in 2023.

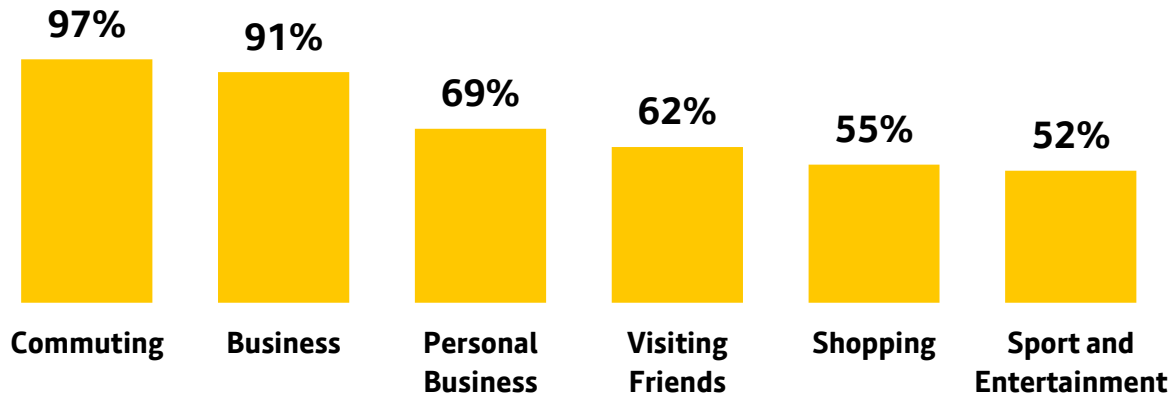
Figure 30: Percentage of car/van trips that were unaccompanied - GM residents



Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

Car/van occupancy varies greatly depending on the purpose of the trip being made. For example, nearly all commuting and business car/van trips were unaccompanied, while only about half of sport and entertainment trips were unaccompanied.

Figure 31: Percentage of car/van trips that were unaccompanied by journey purpose - GM residents



Source: GM TRADS 2023

8. Travel market deep dive: differences between women and men's travel at night

In the TRADS 2022 Summary Report we took an in-depth look at the education travel market (TRADS 2022 Summary Report, page 44). Continuing the approach, in this report we have taken an in-depth look at differences between women and men's travel at.

In this analysis, travel at night is defined as any travel between 8pm and 6.59am.

8.1 Key facts summary - travel at night for women and men

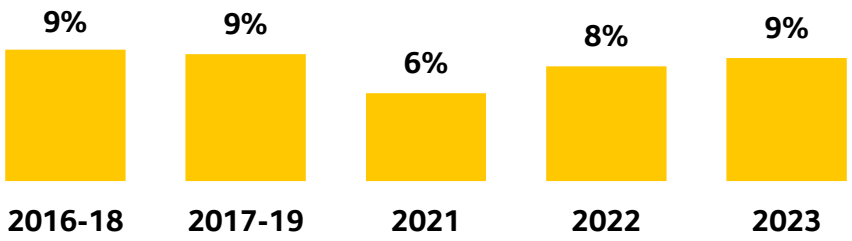
- **Since 2016-18 less than 10% of all trips by GM residents were made at night (between 8pm and 6.59am).**
- **While all GM residents significantly reduce their trip making during the night, women reduce their trip making at night to a greater extent than men. Men make 11% of their trips at night, while women make 7% of their trips at night.**
- **In 2023 only 26% of trips are made by women between midnight and 6.69am, compared to 52% of trips during the day**
- **Commuting trips are a significant part of the travel market at night (at least 30% of trips) and at night they are more likely to made by men (about 60% of commute trips made at night are by men).**
- **Sport and entertainment trips are a significant part of the travel market at night (around 30% of trips) and at night they are more likely to made by men (about 60% of these trips at night are made by men).**
- **Women are more likely than men to use taxis at night, while they are less likely to use active travel at night.**
- **There is no evidence that women's concerns about traveling safely at night cause them to make more of their trips in the company of others.**
- **Having caring responsibilities, in the form of children aged 16 or younger in the household, reduces the trip rate at night for both women and men.**

8.2 Travel at night

Figure 32 shows the percentage trips made in a 24-hour period were made between 8pm and 6.59am. For example, in 2023, it shows that 9% of trips were made between 8pm and 6.59am.

Since 2016-18 less than 10% of all trips by GM residents were made at night (between 8pm and 6.59am).

Figure 32: Percentage of all trips made at night (between 8pm and 6.59am) - GM residents



Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

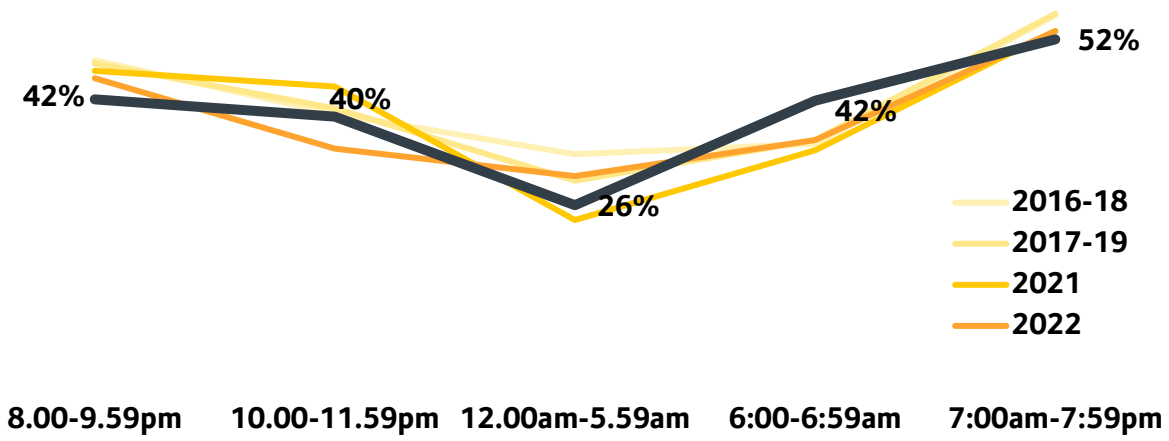
8.3 Travel at night - differences between women and men

Figure 33 shows the percentage of all trips that were made by women at different times of the day. For example, in 2023, it shows that between 10pm and 11.59pm 40% of trips were made by women, and between midnight and 5.59am only 26% of trips were made by women.

Since 2016-18, women have been responsible for over half of all trips made during the day (ranging between 52% and 56% of trips made between 7am and 7.59pm). All things being equal, we would expect women to be responsible for the same percentage of trips at night. However, Figure 33 shows that women were responsible for a much smaller percentage of trips at night (ranging between 39% and 42% of trips made between 8pm and 6.59am), especially during the midnight to 5.59am period (in 2023 women made only 26% of trips during this period).

Therefore, while Figure 32 shows that all GM residents significantly reduce their trip making at night, Figure 33 demonstrates that women reduce their trip making at night to a greater extent than men. Women's percentage share of trips reduced by 12-14 percentage points (pp) for trips between 8pm and 6.59am, with this being especially pronounced between midnight and 05.59am, where women's percentage share of trip making reduced by 21-29pp.

Figure 33: Percentage of all trips made by women by time period - GM residents



Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

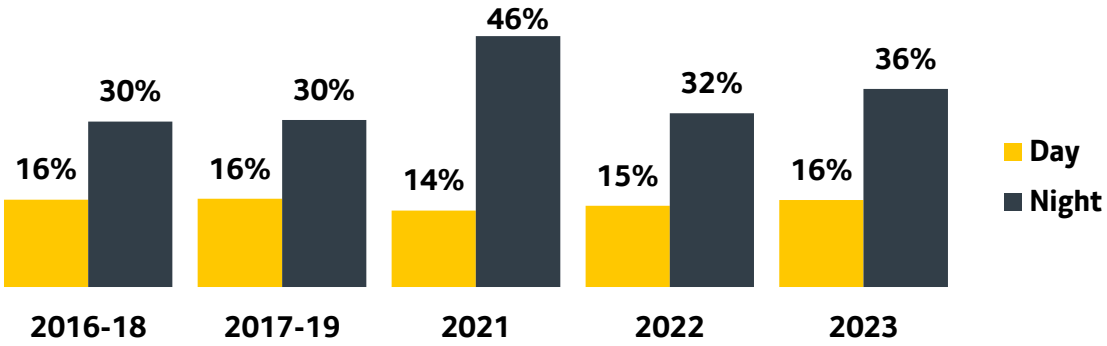
8.4 Employment patterns

Figure 34 shows the percentage of all trips that were for commuting, by day and at night. For example, it shows that 15% of trips during the day in 2022 were commuting trips, while 32% of trips at night were for commuting.

Figure 34 shows how important commute trips were to the travel market during the night. Since 2016-18, commuting trips have made up at least 30% of the travel market at night, which is a significant increase on commuting's market share during the day (14% to 16%).

Commuting's importance at night means it has the potential to explain a substantial proportion of the difference between women and men's travel at night.

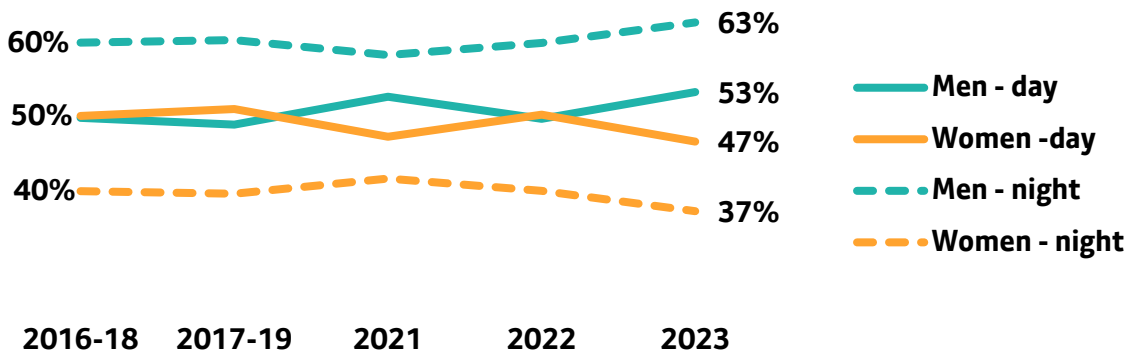
Figure 34: Commute trips as a percentage of all trips, by day and at night - GM residents



Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

Figure 35 shows the percentage of commute trips that were made by women and men during the day, and at night. For example, in the period 2016-18, it shows that during the day women and men each made about 50% of commute trips. However, at night, women were responsible for only 40% of commute trips, with men responsible for the remaining 60% of trips.

Figure 35: Percentage of commute trips made by women and men, by day and at night - GM residents



Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

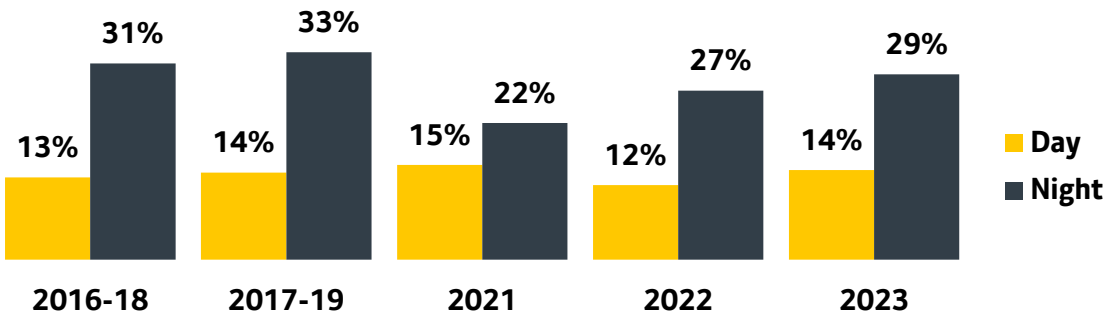
8.5 Sport and entertainment trips

Figure 36 shows the percentage of all trips that were for sport and entertainment, by day and at night. For example, in the period 2017-19, it shows that 14% of trips during the day were sport and entertainment trips, while at night 33% of trips were for sport and entertainment.

Figure 36 shows how important sport and entertainment trips were to the travel market at night. Excluding 2021, which was impacted by the pandemic, sport and entertainment trips accounted for between 27% and 33% of trips at night.

Taken together Figure 34 and Figure 36 show that close to two-thirds of trips made at night were either for commuting, or sport and entertainment.

Figure 36: Sport and entertainment trips as a percentage of all trips, by day and at night - GM residents

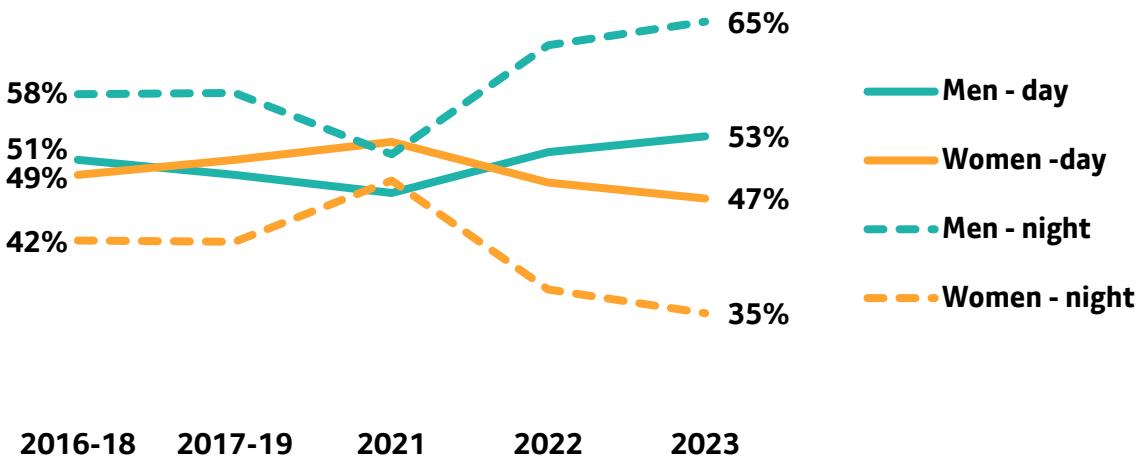


Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

Figure 37 shows the percentage of sport and entertainment trips that were made by women and men during the day, and at night. For example, in the period 2016-18, it shows that during the day, women made 49% of sport and entertainment trips, while men made 51% of trips. It also shows that, at night, women were responsible for only 42% of sport and entertainment trips, with men responsible for the remaining 58% of trips.

Figure 37 shows that since 2016-18, women and men had a similar share of sport and entertainment trips during the day, but that women were responsible for a smaller percentage of sport and entertainment trips at night.

Figure 37: Percentage of sport and entertainment trips made by women and men, by day and at night - GM residents



Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

8.6 Other trips at night

Three trip purposes made up most of the remaining trips at night

- Visiting friends (7-12% of trips made at night)
- Escort other (5-10% of trips made at night)
- Shopping (5-7% of trips made at night)

The percentage of trips made by men for the trip purposes of visiting friends, escort other trips, and shopping trips also increases at night.

8.7 Safety concerns

The GMCA Resident Survey 2023 (Wave 11) found that around 40% of public transport (PT) users avoided PT after 6pm despite having a need for it, with one of the main reasons being safety concerns. The survey found that concern about safety increases between 10pm and midnight, then increases again after midnight.

TfGM's Safety and Personal Security Study (2024) found that, in response to safety concerns, it is common for people to adjust their behaviour to protect their personal security, with women more likely to adjust their travel behaviour to mitigate risk.

Many women adopt risk-based strategies when planning their travel, which include

- **situation avoidance:** choosing different routes or getting on/off at different stops to avoid perceived unsafe situations
- **developing coping strategies:** staying alert by discontinuing music listening, being prepared with keys in hand, or staying connected on the phone
- **choosing safer alternatives:** opting for taxis or rides from friends instead of public transport, as these are seen to offer a greater sense of security
- **time-based restrictions:** avoiding public transport altogether during the night

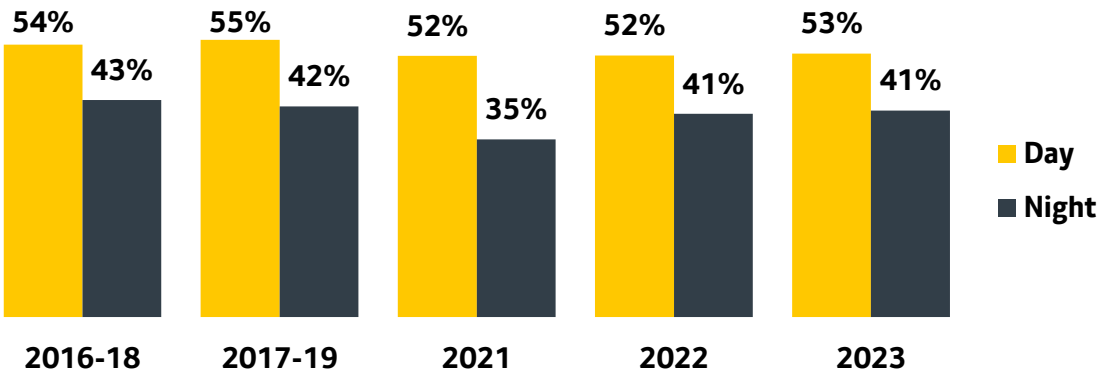
While TRADS can't be used to investigating women's adoption of '*situation avoidance*' and '*developing coping strategies*', by comparing the travel patterns of women during the day and at night, it can help to quantify their adoption of the risk-based strategies '*choosing safer alternatives*' and '*time-based restrictions*'.

8.8 Private vehicle trips

Figure 38 shows the percentage of private vehicle trips made by women during the day, and at night. For example, in 2023, it shows that 53% of private vehicle trips made during the day were by women, while only 41% of private vehicle trips made at night were by women.

Figure 38 shows that since 2016-18 women's share of private vehicle trips at night has been 11-17 percentage points (pp) lower than it was during the day, which is broadly consistent with difference between day and night for trips by all methods of travel (12-14pp lower at night).

Figure 38: Percentage of private vehicle trips made by women, by day and at night - GM residents



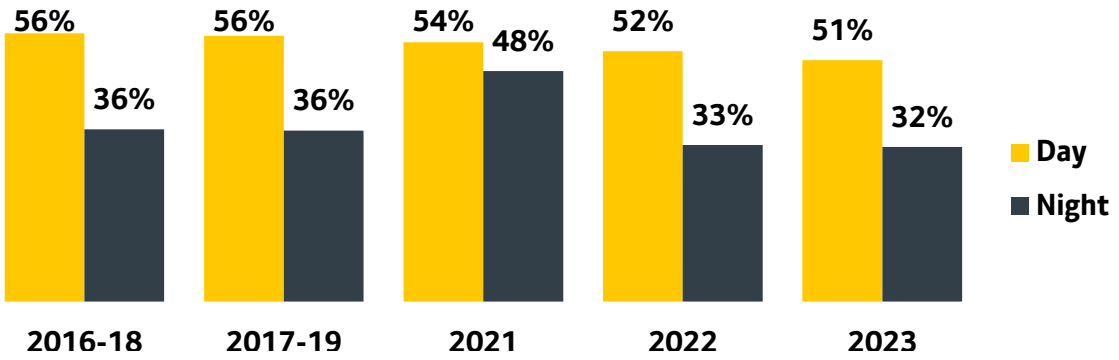
Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

8.9 Active travel trips

Figure 39 shows the percentage of active travel trips that were made by women during the day, and at night. For example, in 2022, it shows that 52% of active travel trips made during the day were by women, but that only 32% of active travel trips made at night were by women.

Excluding 2021, which had an unusually small difference between trips made during the day and at night, Figure 39 shows that since 2016-18, women made a much smaller percentage of the active travel trips made at night than have during the day. Over the whole period, women's share of active travel trips at night was 18-20pp lower share than during the day. This difference is larger than the difference for trips by all methods of travel, which was 12-14pp lower at night. This shows that women are more likely to avoid active travel trips at night than trips by other methods of travel.

Figure 39: Percentage of active travel trips made by women, by day and at night - GM residents



Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

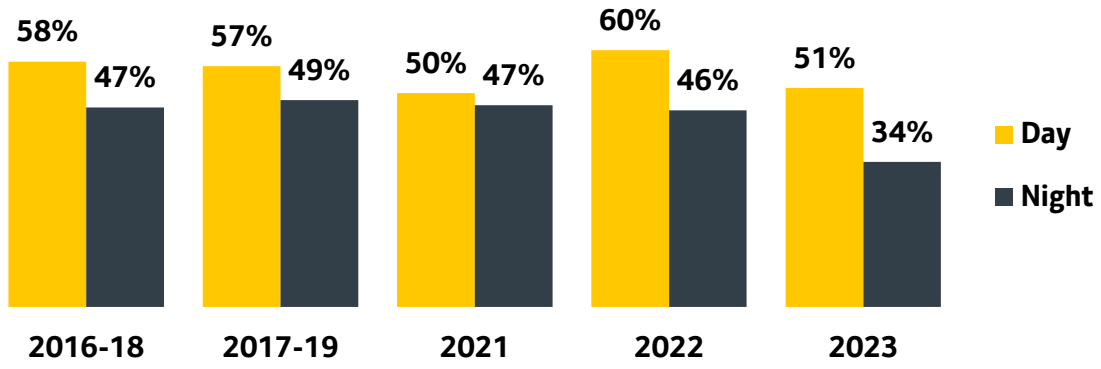
8.10 Public transport trips

Figure 40 shows the percentage of public transport trips that were made by women during the day and at night. For example, in 2017-19 it shows that 57% of public transport trips made during the day were by women, but that only 49% of public transport trips made at night were by women.

Excluding 2021, which had an unusually small difference between trips made during the day and at night, Figure 40 shows that between 2016-18 and 2023 women's share of public transport trips at night was 8-17pp lower than it was during the day. Pre-pandemic, the difference was 8-11pp lower at night, which was lower than the 13-14pp difference for trips by all methods of travel at night. However, for 2022 and 2023 the difference was 14-17pp lower at night, which was higher than the 12-14pp difference for trips by all methods of travel at night.

When interpreting these findings, it should be noted that this analysis covers the whole night (8pm to 6.59am), but that much of the public transport network doesn't operate late at night/in the early morning hours when women are much more likely to avoid making trips (midnight-until 5.59am). A direct comparison with other methods of travel should therefore be treated with caution.

Figure 40: Percentage of public transport trips made by women, by day and at night - GM residents



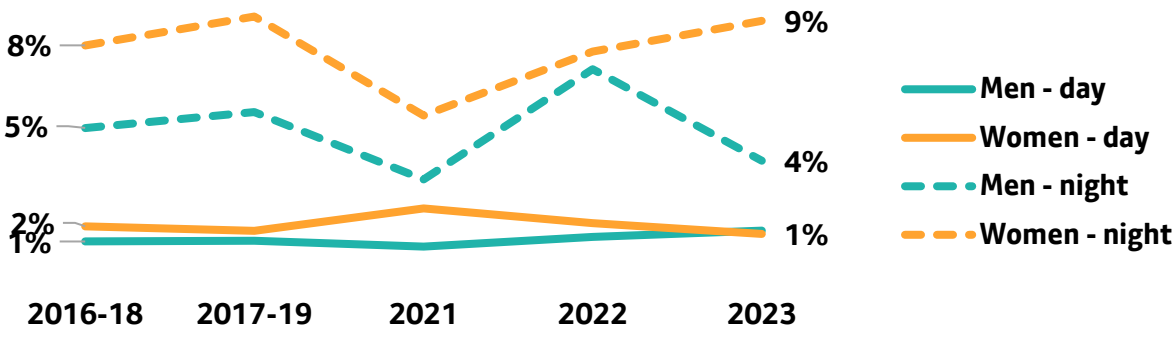
Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

8.11 Trips in taxis/minicabs

Figure 41 shows the percentage of all trips by women and men that are made by taxi/minicab, both during the day and at night. For example, in 2023, it shows that 1% of women's trips during the day were made by taxi/minicab, while 9% of women's trips at night were made by taxi/minicab. It also shows that, in 2023, men made 1% of their trips by taxi during the day, increasing to 4% at night.

Figure 41 shows that, compared to the day, both women and men made a larger percentage of their trips by taxi/minicab at night. It also shows that, compared to men, women made a notably larger percentage of their trips at night by taxi/minicab.

Figure 41: Percentage of all trips made by taxi/minicab for women and men, by day and at night - GM residents



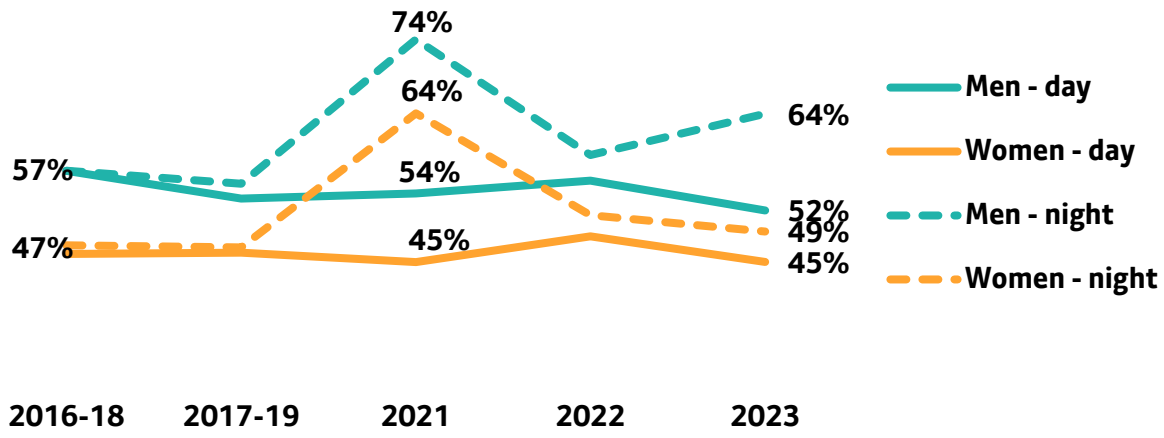
Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

8.12 Unaccompanied trips

Figure 42 shows the percentage of all trips made by women and men that are unaccompanied, both during the day and at night. For example, in the period 2016-18 it shows that during the day and at night 47% of women's trips were unaccompanied.

The hypothesis behind this analysis is that women's safety concerns may result in them making a larger percentage of their trips at night accompanied by someone else. However, the data doesn't show this. It shows that before the pandemic there was no real difference between trips made during the day and those made at night, and that since the pandemic both women and men have made a larger percentage of unaccompanied trips at night than during the day.

Figure 42: Percentage of all trips that were unaccompanied, by women and men, and by day and at night - GM residents



Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

8.13 Access to cars

Figure 43 shows the average number of trips per person per day (TPPPD) for women and men, by day and night, by whether their household has access to a car. For example, in 2023, it shows that, during the day, women with a car in their household made an average of 1.99 TPPPD, while, at night, they made an average of 0.15 TPPPD.

The hypothesis behind this analysis is that a car is likely to be seen as a safer method of travel. Therefore, women without a car in their household may reduce their trip making at night to a larger extent than women who live in households with a car.

Figure 43 shows that household car ownership had an impact on the rate of TPPPD for both women and men. For example, during the day, both men and women in households with access to a car have a greater rate of TPPPD than men and women in households without access to a car.

Interestingly, there is no discernible difference between the rate of TPPPD at night for men in households with a car and households without a car.

However, for women having access to a car does appear to have made a difference to their rates of TPPPD during the day and at night. However, the dataset's sample size means that it is not possible say if the difference at night is significantly larger than the difference during the day.

Figure 43: TPPPD by women and men in households with or without a car, by day and at night - GM residents

			2016-18	2017-19	2021	2022	2023
Day	Car	Men	2.05	2.00	1.44	1.70	1.91
		Women	2.29	2.31	1.58	1.81	1.99
	No car	Men	1.75	1.77	1.05	1.14	1.46
		Women	1.87	1.78	1.27	1.45	1.50
Night	Car	Men	0.27	0.26	0.12	0.19	0.23
		Women	0.19	0.17	0.08	0.12	0.15
	No car	Men	0.28	0.28	0.09	0.18	0.21
		Women	0.14	0.14	0.05	0.09	0.12

Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

8.14 Caring responsibilities

Caring responsibilities come in many forms. For example, looking after elderly parents, or disabled partners/children/friends. Unfortunately, TRADS does not include information relating to all the different types of caring responsibilities. However, it does include information on people living in households with children. This information can be used do demonstrate what impact, if any, having children in a household has on the trip rates of women and men at night.

Figure 44 shows the average number of trips per person per day (TPPPD) for women and men, aged 17 or older, with or without children in the household (aged 16 or under), by day and at night. For example, for 2023 it shows that women with children in the household made an average of 1.47 TPPPD during the day, and 0.08 TPPPD at night.

Figure 44 shows that men without children in the household, women without children in the household, and women with children in the household all have a similar rate of TPPPD during the day, while men with children in the household have a slightly lower rate of TPPPD during the day.

It also shows that both men and women without children in their household have a higher rate of TPPPD at night than men and women with children in their household. Men without children in their household also have a higher rate of TPPPD at night than women without children in their household. Men with children in their household also have a higher rate of TPPPD at night than women with children in their household.

While the dataset's sample size limits our ability to reliably infer that this holds true for GM's population, these findings tentatively suggest that having caring responsibilities for children aged under 16 has an impact on the rate of TPPPD at night for both men and women.

Figure 44: TPPPD for women and men, aged 17 or older, with or without children in the household, by day and at night - GM residents

			2016-18	2017-19	2021	2022	2023
Day	Children	Men	1.25	1.21	0.88	1.08	1.26
		Women	1.82	1.84	1.24	1.38	1.47
	No children	Men	1.89	1.86	1.31	1.44	1.69
		Women	1.93	1.91	1.33	1.50	1.69
Night	Children	Men	0.17	0.15	0.10	0.10	0.13
		Women	0.11	0.10	0.04	0.06	0.08
	No children	Men	0.31	0.31	0.13	0.23	0.27
		Women	0.20	0.19	0.10	0.15	0.17

Source: GM TRADS (2016-18, 2017-19, 2021, 2022, 2023)

Glossary

The terms in this glossary refer to their use in this document and may have different meanings when used in different contexts elsewhere.

2040 Right Mix vision - our vision to improve our transport system so that we can reduce car use to no more than 50% of daily trips, with the remaining 50% made by public transport, walking and cycling, while ensuring there is no increase in overall motor-vehicle traffic in GM. More details can be found at Greater Manchester Transport Strategy 2040 - Appendix 1: Right Mix Technical Note

Acorn – a geodemographic segmentation of the UK population, produced by the company CACI.

Acorn Categories – the UK population is segmented into six Acorn Categories: Affluent Achievers; Rising Prosperity; Comfortable Communities; Financially Stretched; and Urban Adversity.

- **Luxury Lifestyles** – the most affluent people in Britain, confident consumers with high levels of savings and investments, living in the most expensive properties. © CACI 2023
- **Established Affluence** – wealthy and successful people living in large houses which they own in affluent, high-status areas of the country. © CACI 2023
- **Thriving Neighbourhoods** - comfortable, stable families and empty nesters who have a good standard of living, on an income above the UK average. © CACI 2023
- **Steadfast Communities** - this category contains much of middle of the road Britain with working families on incomes just below the UK average. © CACI 2023
- **Stretched Society** - traditional working-class areas of Britain containing younger families, flat sharers and students privately renting their homes. © CACI 2023
- **Low Income Living** – this category contains the most deprived areas of towns and cities across the UK, with the lowest incomes. It contains a higher proportion of single people across the age groups, socially renting their flats. © CACI 2023

Active travel – travel by walking, wheeling, or cycling.

Business Register and Employment Survey (BRES) – the BRES has two purposes: collecting data to update local unit information and business structures on the Inter-Departmental Business Register (IDBR); and producing annual employment statistics which are published via both the Nomis website and the Office for National Statistics (ONS) website.

Car availability – the number of cars or vans owned or available for use by household members.

Car keepership – is an extension of the term 'car or van ownership'. It recognises that many cars or vans that people have available for their personal use aren't owned by them. For example, those who can use their work car or van for personal use.

Cars per head – a measure of the number of cars in private keepership set against the resident population for a specified geographic area.

Census – the official survey the of UK population. It occurs every ten years and collects key information about the population, such as age and gender. The last census was in 2021. The statistics in this report from the census are car keepership and tenure.

Confidence interval – having a 95% confidence interval of +/-1% and an estimate of 50% means that if we measured something in exactly the same way, 95 times out of 100 we would expect to get values between 49% and 51%. It is the margin of error associated with an estimate.

Escort – an escort trip is one made with the sole purpose of accompanying one or more people to a destination. For example, taking a child to school, or taking a relative to an appointment.

Greater Manchester (GM) – includes the ten metropolitan boroughs: Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford, and Wigan

Greater Manchester Travel Diary Survey (TRADS) – collects transport and travel information from all residents of 2,000 households per year, gathering data regarding all trips made by each resident 5 years of age or older in a 24-hour period. TRADS is not an attitudinal survey; its focus is on the details of the trips and the characteristics of the people who make those trips.

Greater Manchester Transport Strategy 2040 – sets out GM's long-term ambition for transport. More information can be found at tfgm.com/2040-transport-strategy.

High-density – an area with a high or relatively high population or number of buildings.

Journey purpose – the activity at a trip's destination unless the destination is 'home', and in some cases 'work'; in these situations, the purpose is the activity at the origin of the trip.

- **Commuting or business** – trips to a usual place of work (including voluntary work) from home, or from work to home. Trips during work that are part of the job (e.g. attending a business meeting). Does not include trips where driving is part of the job (e.g. taxi driver).
- **Education (including escort)** – all trips to school/college/university etc by full-time students, students on day-release, and part-time students following vocational courses. Trips from education that end at home. Accompanying children to school and trip returning home.
- **Shopping** – all trips to shops, and trips from shops to/from home or work, even if there was no intention to buy.
- **Sport and entertainment** – all trips to entertainment, recreation, participation in sport, pubs/cafes/restaurants etc, and all trips from these places to home.
- **Other** – combines the following trips
    - **Escort other** – trips to escort someone/something to somewhere other than an education establishment. Trips from escorting someone/something to home.
    - **Holidays or round trips** – trips (within Great Britain) to or from any holiday (excluding overnight stays with friends or relatives), or trips for pleasure (not otherwise classified as social or entertainment) within a single day.
    - **Personal business** – trips to use services (e.g. bank, hairdresser, library), health or medical visit, worship or other religious observance, staying at hotel/other temporary accommodation. Trips from these places to home or work.
    - **Visiting friends** – all trips to visit friends or relatives (including overnight stays). Trips from visiting friends or relatives to home.

Local Authority areas – local authorities are the bodies responsible for the delivery of local services. There are ten areas in GM that have their own local authority: Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford, and Wigan.

Main type of travel – the method of travel used for the stage of the trip that covered the longest distance (also see main method of travel) – e.g. walking, cycling, tram.

Method of travel – the method of travel used for the stage of the trip that covered the longest distance (also see main type of travel) – e.g. walking, cycling, tram.

Metrolink – the tram/light rail system in GM.

Mortgage (incl. shared ownership) – occupants live in a property that has been bought with a loan (typically from a bank or building society) that is in the process of being paid off. A shared ownership mortgage allows the occupants to buy a share of a property and pay rent on the rest.

Owned outright – where the household owns all the accommodation.

Owner occupied mortgaged household – refers to a residential property where the owner of the property also holds a mortgage on that property (see 'Mortgage (incl. shared ownership)).

Peak period – the busiest or most popular time.

Percentage points – denotes the difference between two percentages. For example, a change from 10% to 15% is an increase of 5 percentage points (PP)

Person kms – (or person kilometres) is a unit of measurement to quantify the total distance travelled by people. For example, if 20 people travel 2km on a bus, the person kilometres will be 40km, while the vehicle kilometres will only be 2km.

Pre-pandemic – the period before March 2020.

Private rental sector – the sector of residential households where residents rent through a private landlord or letting agent.

Private rent (incl. rent free) – households where residents rent through a private landlord or letting agent, or live rent free.

Public transport – includes buses, trains, and trams.

Rail-based types of travel – includes both light (trams) and heavy rail (trains).

Social rent – residents in households that are rented through a local council or housing association.

Spatial theme – the Greater Manchester Transport Strategy 2040 sets out five different trip types. This enables us to develop integrated projects and interventions for the many different types of journeys that happen across GM. More information can be found at tfgm.com/2040-transport-strategy. This document also includes references to a new Town Centres spatial theme which has been introduced to reflect the important role that Town Centres will play in helping to deliver our 2040 Right Mix vision.

Start hour – the hour in which a trip begins. For example, if a trip starts at 9.58am its start hour will be 9am-9.59am.

Statistical significance – is a concept in statistics that indicates whether an observed effect is likely to be 'real' and not due to random variability that is inherent when measuring a sample (sub-set) of a population. For example, the difference in estimates between two samples are statistically significant when the difference in the estimates is

larger than the confidence interval for comparing two samples of their given size (see Figure 45 for examples).

Tenure – the type of ownership someone has over a property and its land (eg social rent, private rent (incl. rent free), mortgage (incl. shared ownership), owned outright).

Transport mix – refers to the percentage distribution of trips taken by GM residents using different types of travel.

Travel market – all travel by GM residents associated with a specified type of activity or activities - eg education travel market which includes pupils whose journey purpose is education, as well as travel by staff delivering education whose journey purpose is commuting.

Trip – a complete one-way journey, with an origin and destination. Outward and return halves of a return trip are treated as two separate trips. Round trips are an exception to this rule and are split into two trips, with the point furthest from the origin being treated as the destination for trip one and vice versa for trip two. A trip can include multiple stages, which are defined as a change in the types of travel used, or a change to a different vehicle of the same type.

Trips per person per day – the total number of annual trips made by GM residents, divided by the number of days in the year, divided by the GM population aged 5+.

Typical/average day – TRADS provides annual estimates for trips. Therefore, a typical/average day in this context is simply the annual estimate divided by the number of days in the year.

Appendix

What is TRADS?

TRADS collects transport and travel information from all residents of 2,000 households per year, gathering data regarding all trips made by each resident 5 years of age or older[2] in a 24-hour period. TRADS is not an attitudinal survey; its focus is on the details of the trips and the characteristics of the people who make those trips. The survey sample is designed so that each GM district is represented proportionately, based upon the demographics of the resident population. The survey programme covers the duration of a full year (beginning of February until the end of January the following year), with surveys in-field every day, excluding Christmas Day and any day after a bank holiday.

Data is collected on about 10,000 trips, made by 4,500 residents of 2,000 GM households each year. The information gathered includes trip origins and destinations, travel times, types of travel used and journey purpose.

The information is used by TfGM primarily for the purpose of developing and monitoring transport policy, strategy, schemes and interventions.

Prior to the pandemic our trip estimates were based on data collected over a three-year period, which provided confidence intervals of +/- 1% at the GM household level. This was possible because people's travel habits were relatively stable over the short-term. However, since the start of the pandemic in 2020, people's travel habits have not been stable enough for this approach to be used, so our estimates are based on survey data from a single year (with confidence intervals of +/- 1-2% at the GM household level).

Caution should be taken when interpreting the sub-group estimates of commute trips, short-trips, age, and by hour and purpose. The confidence intervals around these estimates are much larger and the findings should be treated as indicative.

At the GM-level, between estimates for two years must be at least as large as the values in the following table (Figure 45) to be considered statistically. For example, if the estimates being compared are around 50%, and the years being compared are 2016-18 and 2017-19, then the difference between the two estimates needs to be at least 2%. However, if the estimates being compared are around 10%, then the difference would only need to be at least 1% to be statistically significant.

[2] It is assumed that residents aged under 5 won't travel alone or have any choice about how/when/why they travel.

Figure 45: Statistically significant confidence intervals between survey periods

Years being compared	95% Confidence Interval		
	50%	70%/30%	90%/10%
2016-18 to 2017-19	2%	2%	1%
2016-18 or 2017-19 to 2021 or 2022 or 2023	3%	2%	2%
2021, 2022, and 2023	3%	3%	2%

The transport mix figures for 2023 are a good reminder that while TRADS produces robust estimates, it is survey data and, as such, is subject things like sampling error and confidence intervals.

The bus share of the transport mix was down from 6% in 2022 to 4% in 2023. As we can see from Figure 34, this difference isn't larger than 2%. Therefore, statistical tests find that the difference between bus's share of the transport mix in 2022 and 2023 isn't statistically significant. Essentially, this means we can't rule out that there has been no change between the two years.

However, while the impact on the transport mix was relatively small (6% to 4%) and is not statistically significant. The impact on annual our bus trip estimates, while still not statistically significant, appears as a large difference. For bus, TRADS trip estimates for 2023 were down 25% compared to 2022. This is in stark contrast to the 8% increase as measured by TfGM Continuous Passenger Survey (annual rolling patronage comparison Q3 2022 vs Q3 2023).

Generally, year-on-year there is a remarkable amount of stability in the trip estimates from TRADS, even for types of travel and journey purposes that are small. For example, the number of taxi trips recorded each year has been around 100,000 daily trips since 2017. Just because the estimates can, in an occasional year, vary in the way described above doesn't mean that they will. Therefore, with TRADS trip estimates it is better to focus on changes across multiple years, rather than overinterpreting year-on-year changes.

Spatial theme definitions

We have used the following five spatial theme definitions alongside TRADS to help quantify travel:

Figure 46: Spatial Theme definitions used alongside TRADS

Spatial Theme	Includes	Except
Neighbourhood	Trips less than 2km (straight line) with at least one end within Greater Manchester.	• Trips with a non-work attraction end at Manchester Airport and surrounding developments • Trips with an end in either the Regional Centre or a town centre.
Wider City Region	Trips with at least one end in Greater Manchester, and both ends no more than 10km outside the Greater Manchester boundary	• Trips with a non-work attraction end at Manchester Airport and surrounding developments • Trips with an end in either the Regional Centre or a town centre. • Trips under 2km
Regional Centre	Trips with an end in the Regional Centre.	• Trips with a non-work attraction end at Manchester Airport and surrounding developments • Trips with an end either in a town centre or more than 10km outside the GM boundary
City-to-City	Trips with one end in Greater Manchester, and the other more than 10km outside the Greater Manchester boundary.	• Trips with a non-work attraction end at Manchester Airport and surrounding developments
Town Centres	Trips with at least one end in a town centre[3], and neither end more than 10km outside the Greater Manchester boundary.	• Trips with a non-work attraction end at Manchester Airport and surrounding developments

[3] Town Centres included are: Altrincham, Ashton-under-Lyne, Bolton, Bury, Eccles, Leigh, Oldham, Rochdale, Stalybridge, Stockport, and Wigan.

Figure 47: Zoning system used in Spatial Theme analysis