



Transport for
Greater Manchester



Travel Diary Surveys 2022 - Summary

Version 1

Published April 2024



Contents

1. Introduction	7
1.1 Purpose of document	7
1.2 Impact of the pandemic on the TRADS research programme	7
1.3 Spatial themes	8
1.4 Trip purpose categories	9
1.5 Main mode	10
2. How many trips did GM residents make?	11
2.1 Key facts summary - How many trips did GM residents make?	11
2.2 Total number of trips per person per day - GM residents	11
2.3 Total number of trips per person per day – national picture	11
2.4 Percentage of GM residents not travelling on an average day	12
3. How did GM residents travel?	13
3.1 Key facts summary - How did GM residents travel?	13
3.2 Mode share of trips in 2022	13
3.3 Mode share comparison to previous years	14
3.4 Mode share of distance travelled (person kms)	15
3.5 Spatial themes overview - 2022	16
3.6 Trips and distance travelled by mode by spatial theme – 2022	17
3.6.1 Neighbourhood	18
3.6.2 Wider City Region	18
3.6.3 Regional Centre	19
3.6.4 City-to-City	19
3.6.5 Town Centres	20
3.7 Modal distance profile	20
3.8 Frequency of public transport use	21
3.9 Acorn Category profile of trips by method of travel	23
4. Why did GM residents travel?	25
4.1 Key facts summary - Why did GM residents travel?	25
4.2 Journey purpose of trips	25
4.3 Distance travelled by journey purpose (person kms)	26

4.4	Comparison of journey purpose share and trip distance	28
4.5	Spatial themes and journey purpose analysis - 2022	29
4.5.1	Neighbourhood.....	30
4.5.2	Wider City Region	30
4.5.3	Regional Centre	31
4.5.4	City-to-City.....	31
4.5.5	Town Centres.....	32
4.6	Journey purpose by method of travel.....	32
5.	When did GM residents travel?.....	33
5.1	Key facts summary - When did GM residents travel?.....	33
5.2	Mode share of trips by time of day	33
5.3	Mode share of person kms by time of day.....	34
5.4	Journey purpose by time of day	35
6.	Car availability in Greater Manchester	39
6.1	Car availability and method of travel (2022 trips)	39
6.2	Car availability trends in GM	40
6.3	Key facts summary - Car availability and in Greater Manchester.....	42
7.	Car occupancy	43
8.	Travel market deep dive: Education	44
	Glossary	46
	Appendix	51
	What is TRADS?.....	51
	Spatial theme definitions.....	52

Table of figures

Figure 1: Pandemic travel restrictions by month	7
Figure 2: Average (mean) trips per person per day - GM residents.....	11
Figure 3: Percentage of GM residents not travelling on an average day	12
Figure 4: Trip mode share by GM residents – 2022	14
Figure 5: Daily trip count and mode share - GM residents	15
Figure 6: Daily person kms and mode share - GM residents	16
Figure 7: Trips and distance travelled by GM residents by spatial theme	16
Figure 8: Daily trips and mode share by spatial theme - GM residents.....	17
Figure 9: Daily person kms and mode share by spatial theme - GM residents	18
Figure 10: Trip length distribution profile by method of travel - GM residents	21
Figure 11: Frequency of bus use by people, and trips by frequency of use - GM residents	21
Figure 12: Frequency of Metrolink use by people, and trips by frequency of use - GM residents	22
Figure 13: Frequency of train use by people, and trips by frequency of use - GM residents	22
Figure 14: Acorn Category profile of trips by method of travel - GM residents.....	23
Figure 15: Journey purpose of trips - GM residents	25
Figure 16: Daily trip count and journey purpose - GM residents	26
Figure 17: Daily person kms and journey purpose - GM residents	27
Figure 18: Purpose of travel – trips and distance travelled by GM residents 2022	28
Figure 19: Daily trip count and journey purpose by spatial theme - GM residents	29
Figure 20: Daily person kms and journey purpose by spatial theme – GM residents.....	30
Figure 21: Journey purpose by method of travel - GM residents.....	32
Figure 22: Mode share of trip by journey start hour - GM residents	34
Figure 23: Mode share of person kms by journey start hour - GM residents	35
Figure 24: Journey purpose of trip by journey start hour - GM residents.....	36
Figure 25: Journey purpose of person kms by journey start hour - GM residents.....	37
Figure 26: Trip mode share by car keepership (%) - GM residents.....	39
Figure 27: Household car or van availability - GM Households.....	40
Figure 28: % of GM households without access to a car - by local authority area	41
Figure 29: % of GM households with no access to a car - by English Indices of Deprivation 2019.....	41
Figure 30: Percentage of car trips that were unaccompanied - GM residents.....	43
Figure 31: Percentage of car trips that were unaccompanied by journey purpose - GM residents	43
Figure 32: Trips by mode on a typical school day by education market segments - GM	44
Figure 33: Typical school day trips by pupil age group and distance travelled in km - GM residents	45
Figure 34: Statistically significant confidence intervals between survey periods.....	52
Figure 35: Spatial Theme definitions used alongside TRADS.....	52
Figure 36: Zoning system used in Spatial Theme analysis.....	53

Acknowledgements

This document includes outputs derived from Acorn data. The applicable copyright notices can be found at <http://www.caci.co.uk/copyrightnotices.pdf>.

Executive Summary

This document primarily presents the key findings from the Greater Manchester Travel Diary Survey (TRADS) in 2022. Other sources are used to provide relevant context. We intend to publish findings from TRADS 2023 in the second half of 2024. TRADS estimates the travel behaviour of Greater Manchester residents on a “typical day”. Key findings for 2022 (unless stated otherwise) are:

How many trips did GM residents make?

- There were 4.9 million trips by GM residents on a typical day, 15% below pre-pandemic levels.
- A third of GM residents did not travel on a typical day.
- GM residents travelled 30 million kilometres on a typical day, which was only 7% below pre-pandemic levels. This indicates that whilst residents made fewer trips in 2022 than pre-pandemic, the trips they did make were longer on average.

How did GM residents travel?

- Car was the dominant mode, accounting for nearly 60% of all trips, and over 80% of the distance travelled. Walking accounted for 30% of the trips but only 4% of the distance. Public transport accounted for 7% of the trips, and 12% of the distance. The car share of total distance travelled by GM residents (81%) was slightly higher than pre-pandemic (77%).
- 15% of car trips were 1km or less. This equated to about 150 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 6% of all car trips made by GM residents, but around half of the total distance travelled by GM residents in cars.
- A small proportion of frequent users generated most trips across all public transport modes. For bus, 84% of trips were made by just 10% of GM residents (those who use the bus at least three or four days a week).
- More deprived residents were more likely to travel by bus, taxi, or minicab.

Why did GM residents travel?

- Shopping, education (including escort) and commuting or business were the three most common trip purposes, each making up around a fifth of trips.
- Collectively ‘commuting or business’ and ‘other’ (which includes visiting friends, personal business) accounted for nearly three-quarters of the total distance travelled by GM residents.

- Commuting and business trips' share of the total distance travelled has declined compared to pre-pandemic, but it still accounted for over a third of all distance travelled by GM residents.
- Shopping trips' share of the total distance travelled also declined over this period from 12% to 8%.
- The group of trips classed as 'other' (which includes visiting friends, and personal business) was the only journey purpose to have increased its share of the total distance travelled, rising from 30% to 38% (between 2017-19 and 2022).

When did GM residents travel?

- GM residents started nearly nine-in-ten of their trips (88%) in the 12 hours between 7am and 7pm, 7% of their trips started between 7pm and 10pm. Only 5% of trips were made at night (between 8pm and 7am), of which 70% were by private vehicle (compared to 60% outside of these hours).
- The peak periods for trip making were 8am to 9am and 3pm to 4pm, accounting for over a quarter of all trips by GM residents. During these hours almost 60% of trips were for education.
- Around a third of trips by GM residents in the periods 7am to 9am, and 5pm to 7pm were to / from work. Over 50% of commuting trips were made outside of these times.

Car availability in GM

- Private car keeping is high in GM and has been increasing. In 2022 there were well over 1.1m cars being kept privately in GM, which equated to roughly one car for every two residents aged 17 or over.
- 27% of households had no access to a car, rising to 40% in our most deprived households. The most deprived households were four-times more likely to have no access to a car than the least deprived households.
- Residents in households with no cars were nine times more likely to use a bus for their journeys than residents in households where there was at least one car per adult.
- Residents with no cars in their households made 83% of their trips by active travel or public transport. In households where there were fewer cars than adults 36% 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.
- 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 2022, 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 2022 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.

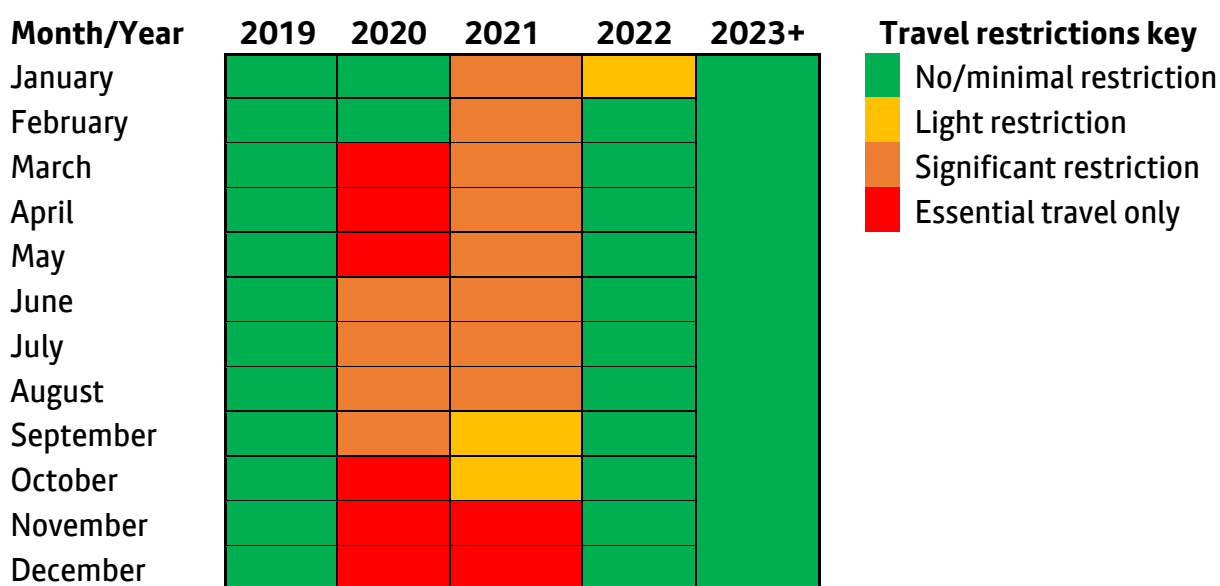
The main dataset underpinning this document is the Greater Manchester Travel Diary Survey (TRADS). TRADS provides a comprehensive picture of the travel of GM residents but has some limitations. For example, the nature of the TRADS survey means that it is not suited to exploring seasonal trends. We intend to publish a more comprehensive 'Travel in GM' in the second half of 2024 that will utilise additional datasets to 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 to 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 as pre-pandemic.

However, travel behaviour in 2022 was still undoubtedly influenced by the pandemic. The year was still atypical, in that residents' travel behaviours changed more significantly over the period due to growing confidence and a return to 'normal' as we moved away from the pandemic. This has led to some irregularities, as TRADS approximates a 'typical day' across the year.

For 2022, the Metrolink trip estimates in TRADS are 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 Metrolink 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 Metrolink trips for 2022. Therefore, the impact on the overall trip estimates is negligible, as there are nearly 5 million daily trips in 2022, but caution should still be used when interpreting charts in this report that contain Metrolink trip estimates for 2022.

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 many different 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 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 Centre 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 Centre, 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 (ie 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 student 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 (eg, 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 mode

This report contains references to mode shares (ie, the proportions of trips taken by GM residents on different forms of transport). These are based on the 'main' mode 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.

DRAFT

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 2022...

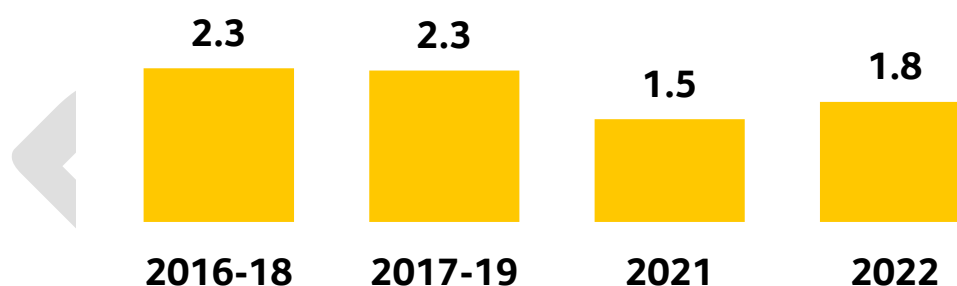
- There were 4.9 million trips by GM residents, 15% below pre-pandemic levels.
- A third of GM residents did not travel.

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 1.8 trips per person per day during 2022. However, **the total number of daily trips in 2022, 4.9 million, was 15% lower than pre-pandemic.**

In 2022, the average GM resident made 660 trips a year, down from 844 trips a year during 2016-18, a 22% reduction.

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



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

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 was below the 2.3 by trips per person per day in 2019 by GM residents).

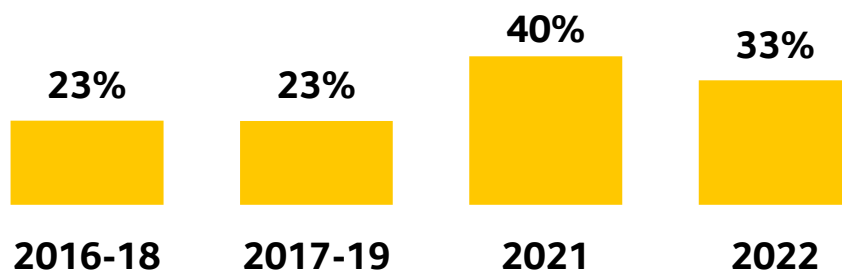
This decline in the national trip rate has been seen against most trip purposes. For example, between 2002 and 2019 commute trips declined by 15%, shopping trips declined by 19%, business trips declined by 21%, and visiting friends declined by 33%¹.

¹ National Travel Survey, 2021
Travel Diary Surveys 2022 - Summary

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 2022, a year only very modestly impacted by travel restrictions, the percentage of GM residents not travelling dropped to 33%. In 2022, **the number of residents that did not travel at all on a typical day was 10 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)

3. How did GM residents travel?

This section contains references to 'mode shares' - the percentage distribution of trips taken by GM residents using different modes. These mode shares are based on the 'main' mode 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 2022...

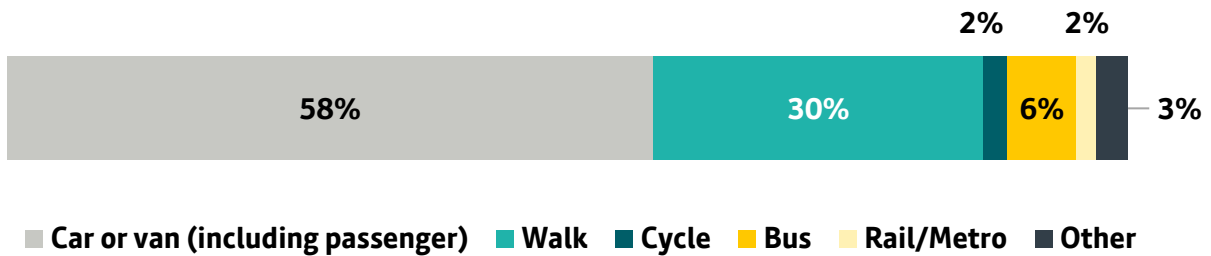
- **Across all modes GM residents travelled 30 million kilometres, which was only 7% below pre-pandemic levels. This indicates that whilst residents made fewer trips in 2022 than pre-pandemic, the trips they did make were longer on average.**
- **Car was the dominant mode, accounting for nearly 60% of all trips by GM residents, and over 80% of the distance travelled. Walking accounted for 30% of the trips by GM residents, but only 4% of the distance. Public transport accounted for 7% of the trips, and 12% of the distance. The car share of total distance travelled by GM residents (81%) was slightly higher than pre-pandemic (77%).**
- **City-to-City car trips accounted for just 6% of all car trips made by GM residents, but around half of the total distance travelled by GM residents in cars.**
- **Nearly half of the distance travelled by GM residents was by trips with at least one end beyond 10km of Greater Manchester.**
- **The 15% of car trips that were 1km or less equated to about 150 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 public transport modes. In the case of bus, 84% of trips were made by just 10% of GM residents (those who use the bus at least three or four days a week).**

3.2 Mode share of trips in 2022

In 2022, the most used method of travel was car or van (including passenger), making up nearly three-in-five trips by GM residents. Nearly a third of trips were made by active travel (30% walking and 2% cycling), while nearly one-in-ten trips

were made by public transport (6% bus and 2% rail/Metro). The remaining 3% of trips were made by taxi, minicab, motorcycle, scooter, moped, or any other type of vehicle.

Figure 4: Trip mode share by GM residents – 2022



Source: GM TRADS 2022

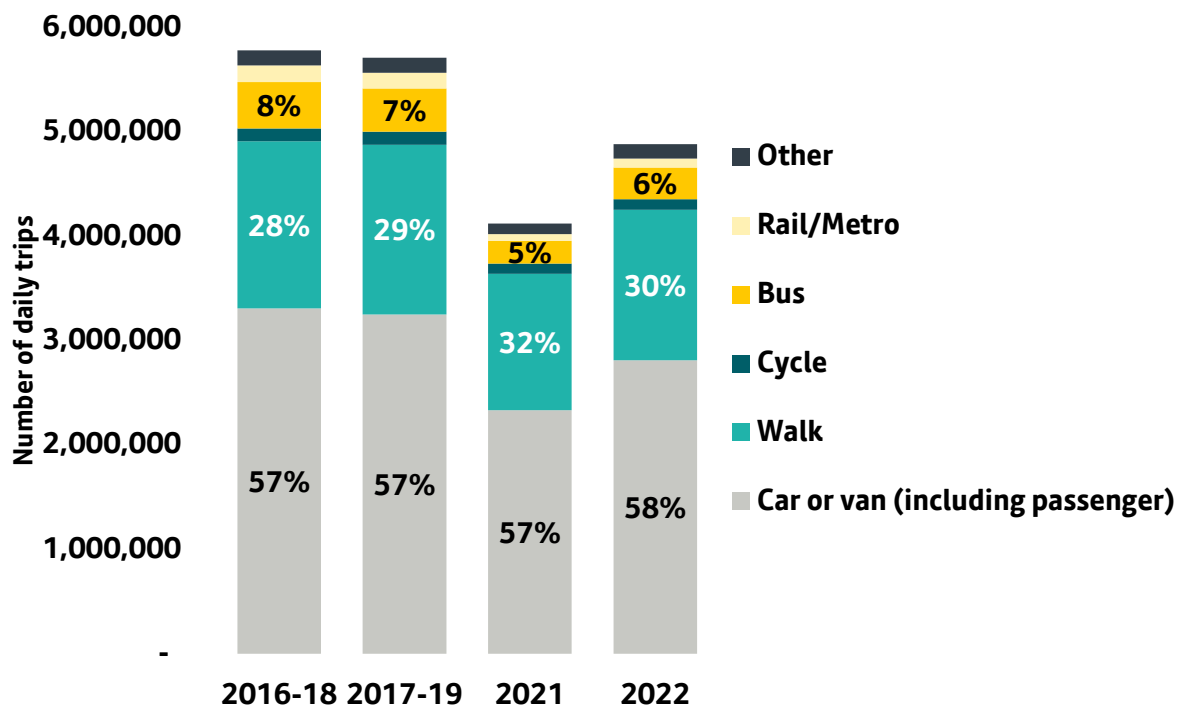
Note: Other = taxi, minicab, motorcycle, scooter, moped, or any other

3.3 Mode share 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, for 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 mode. For example, for 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 mode share has remained relatively stable with car trips making up nearly three-in-five trips, active travel making up around a third of trips, and very broadly one in ten trips using public transport.

Figure 5: Daily trip count and mode share - GM residents



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

Note: Other = taxi, minicab, motorcycle, scooter, moped, or any other

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 next decade. However, the 2022 mode share indicates the impact of the pandemic has created an additional challenge in achieving our 2040 Right Mix vision: the proportion of trips by car or van has increased, while the proportion by public transport has decreased.

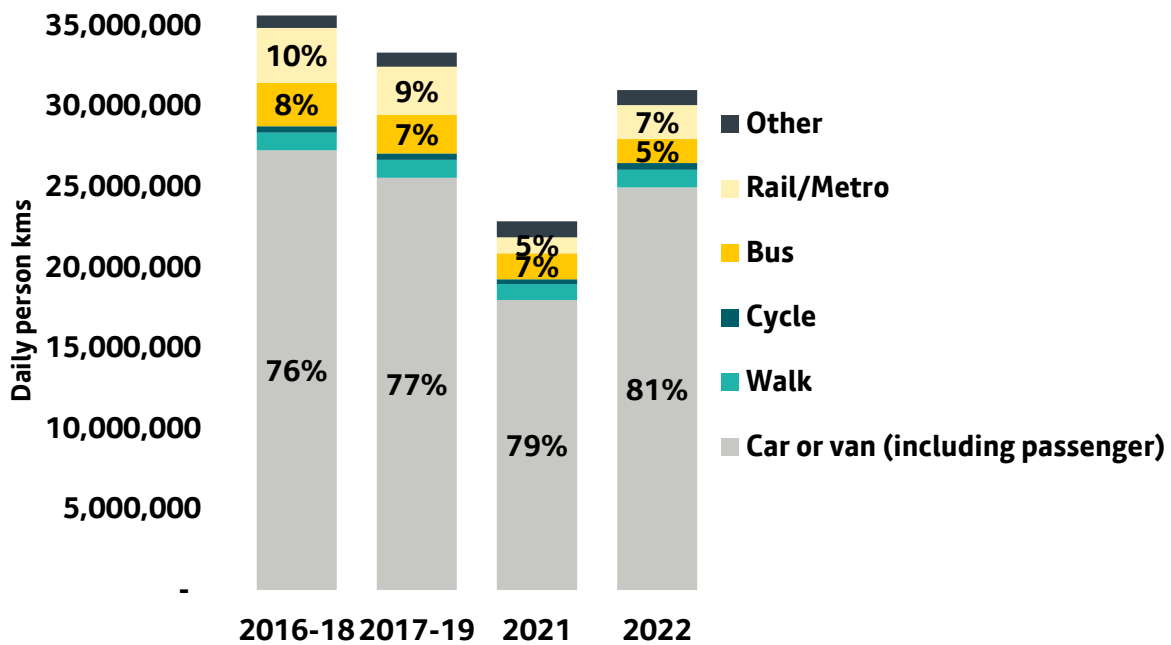
3.4 Mode share of distance travelled (person kms)

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 mode. 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. Despite a significant rebound in 2022, the total distance travelled was 7% below the 2017-2019 survey period.

The share of the total distance travelled by car or van (including passenger) has steadily increased from 76% for 2016-18 to 81% in 2022. Conversely, the share of the total distance travelled by public transport has fallen from 17% for 2016-18 to 12% in 2022.

Figure 6: Daily person kms and mode share - GM residents



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

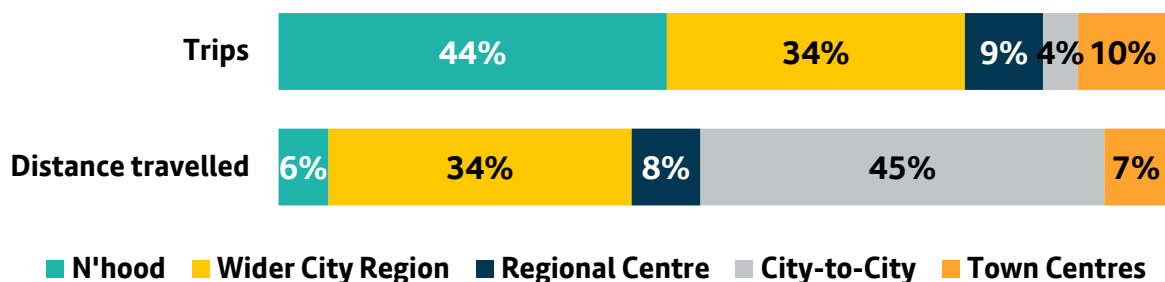
Note: Other = taxi, minicab, motorcycle, scooter, moped, or any other

3.5 Spatial themes overview - 2022

In 2022, over three quarters of the trips made by GM residents were either Neighbourhood (44%) or Wider City Region (34%). 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.

When it comes to distance travelled the narrative is very different. Neighbourhood trips are less than 2km in length and therefore they 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 45% of the distance travelled by GM residents despite only accounting for 4% of trips.**

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

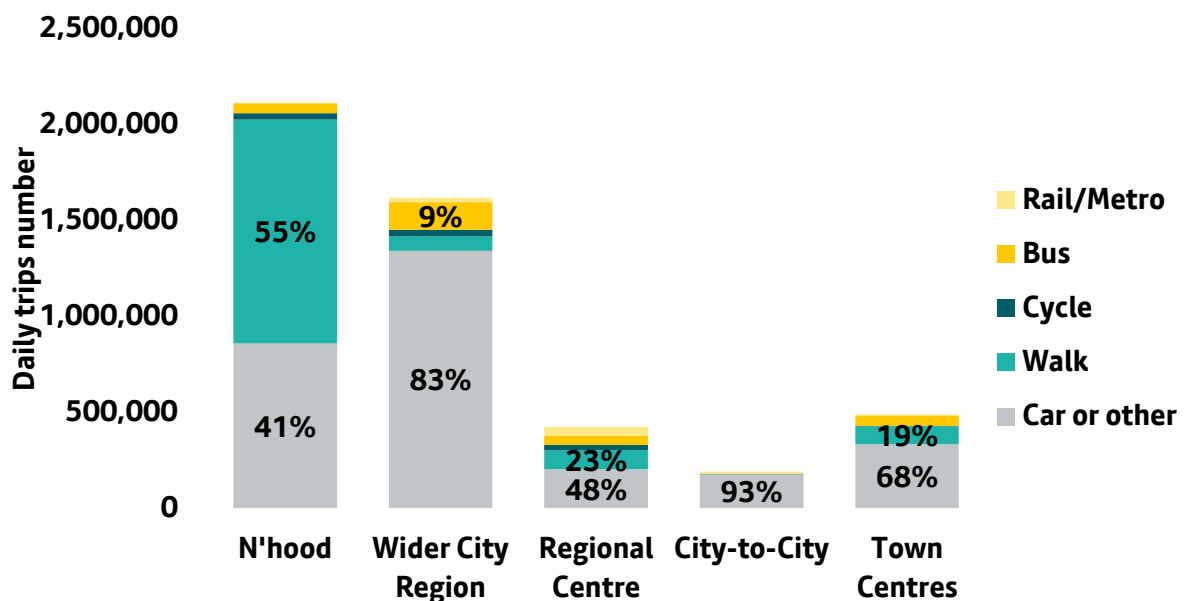


Source: GM TRADS 2022

3.6 Trips and distance travelled by mode by spatial theme – 2022

The length of each bar in Figure 8 shows the total number of daily trips for GM residents by spatial theme. For example, it shows that GM residents made about 2 million daily Neighbourhood trips. The figures in each bar show the percentage of the total daily trips that were made by each mode. For example, it shows that 41% of Neighbourhood trips were made by private vehicle.

Figure 8: Daily trips and mode share by spatial theme - GM residents

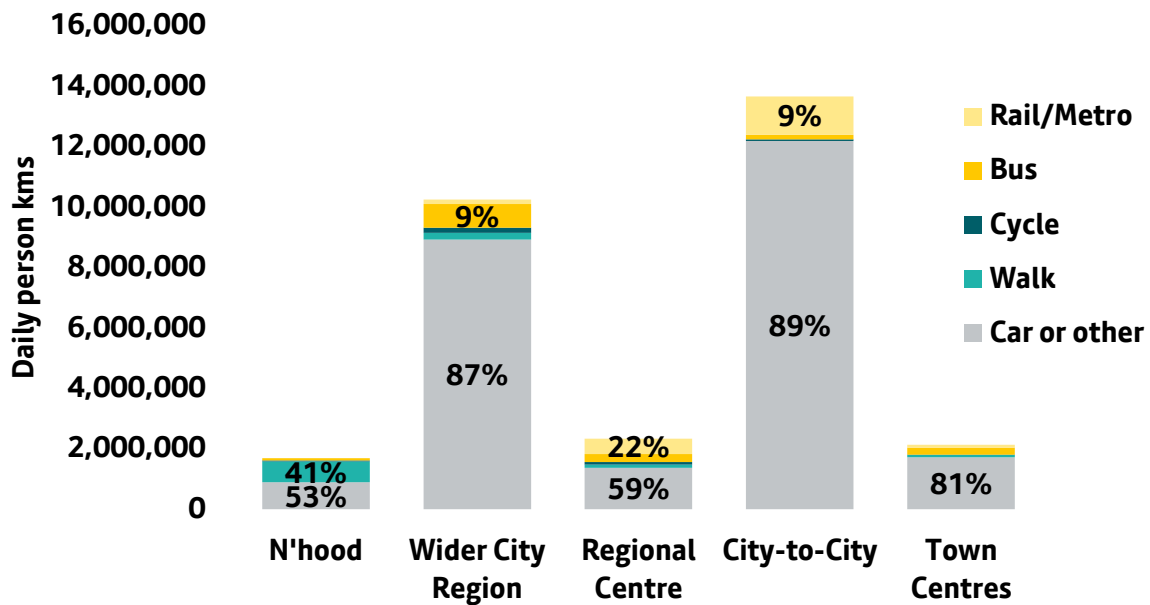


Source: GM TRADS 2022

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 less than 2 million kilometres each day. The figures in each bar show the percentage of the distance travelled by each mode. For example, it shows that for the Neighbourhood spatial theme 53% of the distance travelled was by private vehicle.

Figure 9: Daily person kms and mode share by spatial theme - GM residents



Source: GM TRADS 2022

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 over 2 million Neighbourhood trips a day, around 44% of all trips. Neighbourhood trips accounted for:

- Nearly 1.2 million walking trips, which represented over 80% of all walking.
- Around 850,000 private vehicle trips, which represented 30% of all private vehicle trips.
- Around a third of all cycling trips.
- Less than 20% of all bus trips.

Neighbourhood trips are less than 2km in length. Consequently these 44% of trips only account 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 1.6 million Wider City Region trips a day, around 34% of all trips. Wider City Region trips accounted for:

- Over 1.3 million private vehicle trips, which represented nearly half of all private vehicle trips.

- Nearly 150,000 bus trips, which represented nearly 50% of all bus trips.

Wider City Region trips accounted for 34% of all trips by GM residents and as a result of the more dispersed and longer nature of these trips, they also account for around 34% of the total distance travelled.

- Private vehicles accounted for 87% of all distance travelled within the Wider City Region, with this representing 36% of all distance travelled in private vehicles.
- Bus accounted for 8% of all distance travelled within the Wider City Region, with this representing over half of all distance travelled by bus.
- Cycle accounted for 2% of all distance within the Wider City Region, with this representing nearly half of all distance travelled by cycle.

3.6.3 Regional Centre

On average GM residents made over 400,000 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 means that this was only 7% of all private vehicle trips.
- Nearly a quarter of Regional Centre trips made by GM residents were walking, which represented 7% of all walking trips.
- 12% of Regional Centre trips made by GM residents were by bus, which represented 16% all bus trips.
- 11% of Regional Centre trips were by rail / metro, which represented over half all rail / metro trips.

Regional Centre trips account for 8% of the total distance travelled by GM residents.

Regional Centre trips accounted for:

- Around a quarter of all the distance travelled by cycle.
- Around a quarter of all the distance travelled by rail / metro.

3.6.4 City-to-City

On average GM residents made nearly 200,000 City-to-City trips a day, around 4% 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 means that this was only 6% of all private vehicle trips.
- 5% of City-to-City trips were by rail / metro, which represented over 10% of all the rail / metro trips.

City-to-City spatial theme trips accounted for 45% of the total distance travelled by GM residents. Put another way, this means that nearly half 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:

- Around half of all the distance travelled in private vehicles.
- Over 60% of all the distance travelled by rail / metro.

3.6.5 Town Centres

On average GM residents made around 500,000 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 means that this was only 11% of all private vehicle trips.
- Around a fifth of Town Centres trips made by GM residents were walking, which represented 7% of all walking trips.
- 11% of Town Centres trips made by GM residents were by bus, which represented 17% of all bus trips.

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

- 15% of all the distance travelled by bus.

3.7 Modal distance profile

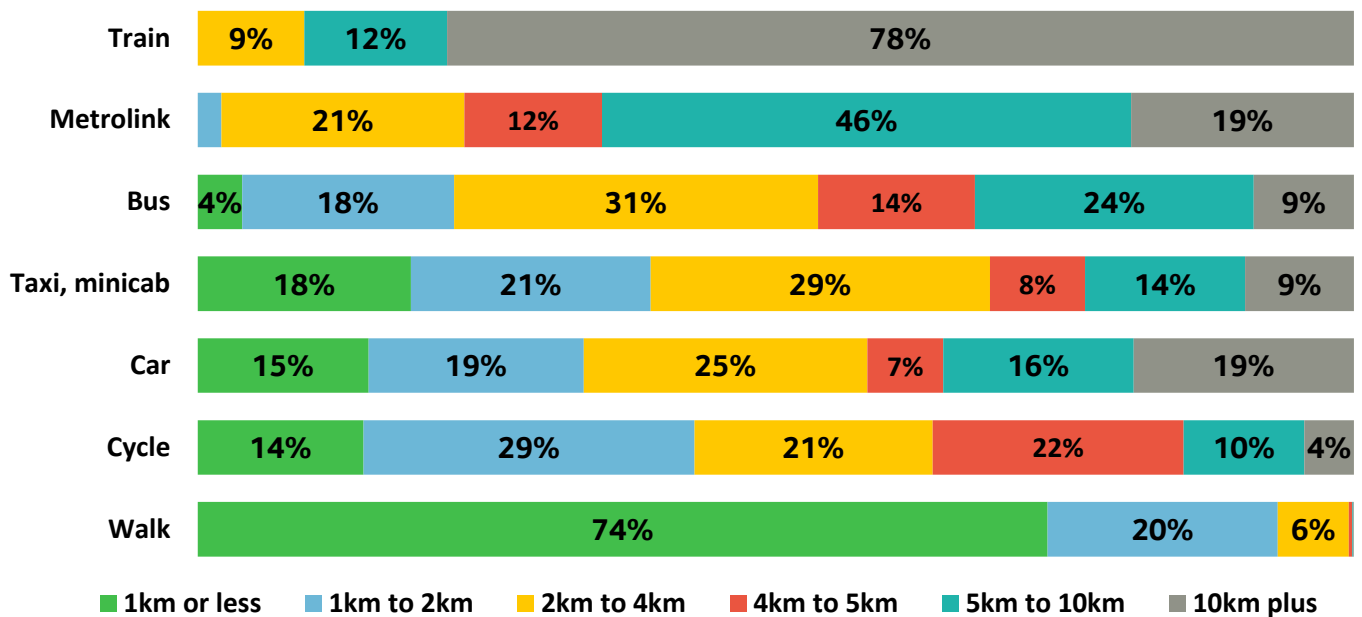
Figure 10 shows the percentage of trips that fell within different distance bands for each method of travel. For example, it shows that 74% of walking trips were 1km or less, while 78% of train trips were 10km plus.

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, Metrolink 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 2022, the 15% of car trips that were 1km or less equated to about 150 million annual car journeys by GM residents. These could have been walked in around 15 minutes or cycled in around 4 minutes.

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



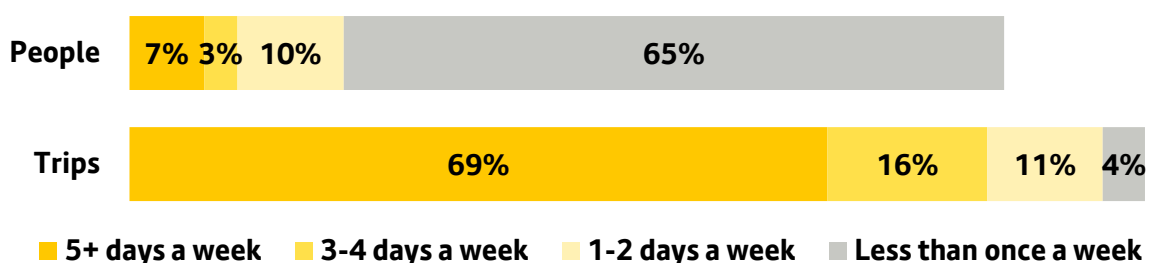
Source: GM TRADS 2022

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 by how frequently they used the bus. 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 that said that 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, 69% of bus trips by GM residents were made by people who used the bus five or more days a week.

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

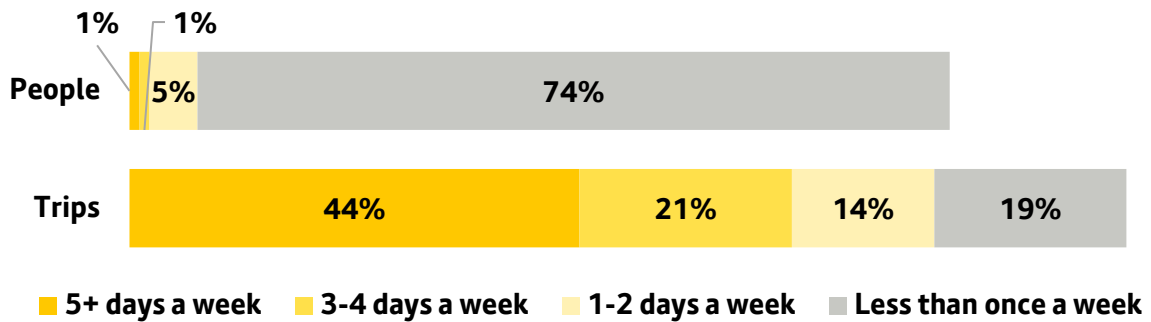


Source: GM TRADS 2022

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 Metrolink five or more days a week, while the 'trips' bar shows that 44% of Metrolink trips by GM residents were made by people who used Metrolink five or more days a week.

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

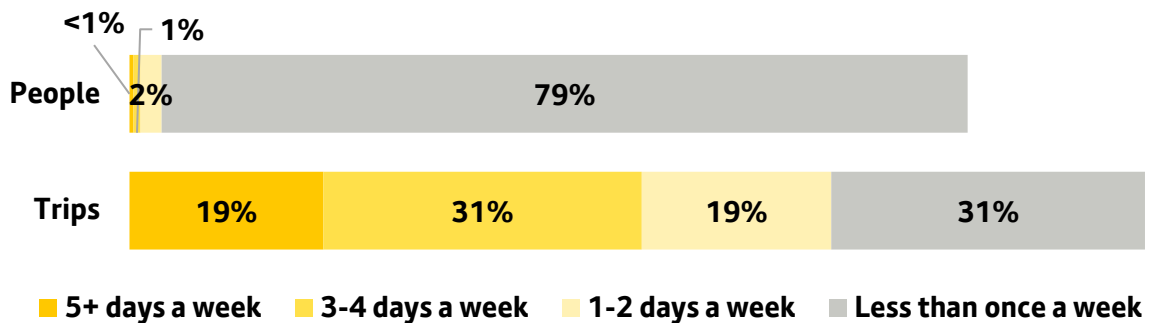


Source: GM TRADS 2022

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 19% 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



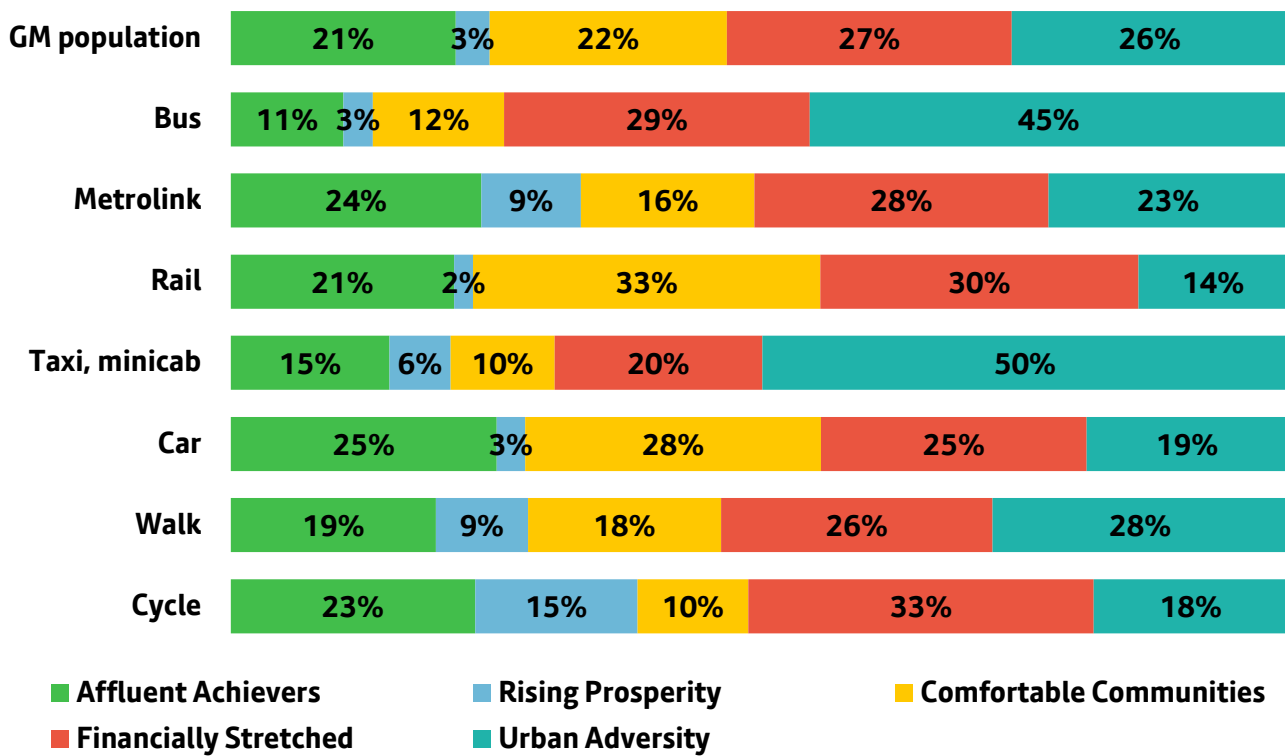
Source: GM TRADS 2022

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 public transport modes. For example, 84% of bus trips were made by just 10% 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, 74% of GM residents used Metrolink 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 2022 and Acorn 2022

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 26% of the GM population were classed as Urban Adversity, but only 14% of rail trips by GM residents were made by people classed as Urban Adversity.

People in the Urban Adversity category also made fewer trips than we would expect by cycle (18%), and by car (19%). However, they made more trips than we would expect for Bus (45%) and taxi, minicab (50%).

People classed as Financially Stretched were 27% of the GM population. For each method of travel their percentage share of trips was broadly comparable to their population share. The two main exceptions being they were under-represented in the share of taxi, minicab trips (20% - not unexpected given the dominance of Urban Adversity in this market), and they were slightly over-represented in the cycle market (33%).

People classed as Comfortable Communities were 22% of the GM population. For most methods of travel they were under-represented in their share of trips. The two exceptions were car trips (28%) and rail (33%).

People classed as Rising Prosperity were the small group in GM and only made up 3% of the population. They were generally based in high density areas with good access to public transport, so it's not surprising to see that they were over-represented in their share of trips for Metrolink (9%), walk (9%), and cycle (15%).

People classed as Affluent Achievers were 21% of the GM population. They made up a slightly larger share of Metrolink (24%) and car trips (25%) than would be expected given their percentage share of the population. They were also under-represented in bus (11%), and taxi, minicab (15%) trips.

DRAFT

4. Why did GM residents travel?

4.1 Key facts summary - Why did GM residents travel?

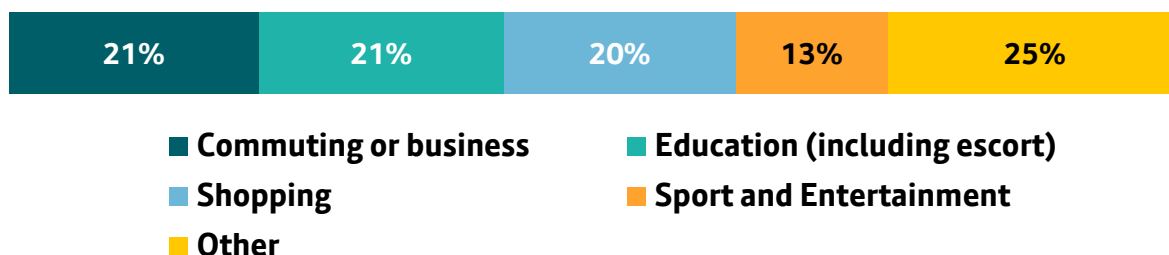
On a typical day in 2022...

- Shopping, Education (including escort) and Commuting or Business were the three most common trip purposes, each making up around a fifth of trips.
- Collectively 'commuting or business' and 'other' (eg visiting friends, personal business) accounted for nearly three-quarters of the total distance travelled by GM residents.
- Commuting and business trips' share of the total distance travelled declined compared to 2017-19, but it still accounted for over a third of all distance travelled by GM residents. Shopping trips' share of the total distance travelled also declined over this period from 12% to 8%. The group of trips classed as 'other' (which includes visiting friends, and personal business) was the only journey purpose to have increased its share of the total distance travelled, rising from 30% to 38%.
- Neighbourhood trips accounted for nearly two-thirds of all Education (including escort) trips made by GM residents.
- Wider City Region trips accounted for nearly half of all Commuting and business trips made by GM residents.

4.2 Journey purpose of trips

Shopping, education, and commuting were the three most common trip purposes, each making up around a fifth of trips. The largest trip category, accounting for 25% of trips was 'other' which includes visiting friends and personal business.

Figure 15: Journey purpose of trips - GM residents



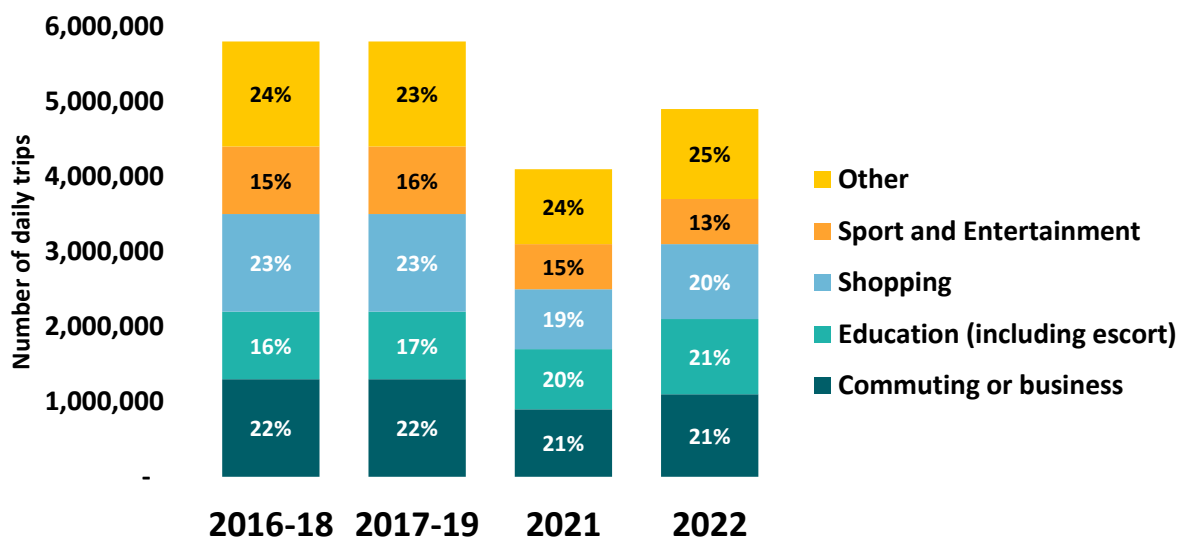
Source: GM TRADS 2022

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 2022, it shows that there were nearly 5 million daily trips and that 21% of these were for commuting or business.

At 20%, shopping's share of total number of trips made by GM residents has slightly decreased from its pre-pandemic level, when it accounted for 23% of all trips.

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



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

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

The percentage of trips that were for education increased from 16% during 2016-18 to 21% in 2022. This is because the number of education trips grew slightly, while the total number of trips for all other purposes declined.

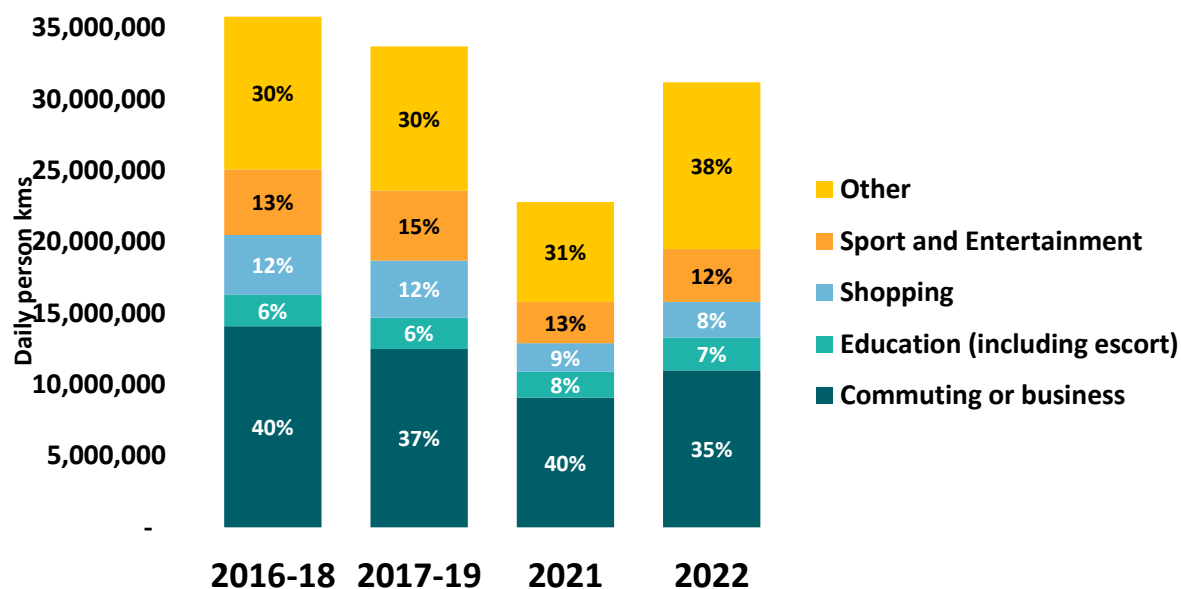
The percentage share of commuting or business trips has remained reasonably stable since 2017-19, but the number of daily trips had declined by about 200,000 in 2022.

4.3 Distance travelled by journey purpose (person kms)

In 2022 GM residents travelled a total of 11.3 billion kms, this was 7% lower 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)

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 and the figures in each bar the percentage of the distance travelled for each journey purpose. For example, in 2022, it shows that GM residents travelled about 30 million kilometres each day, of which 35% were for business or commuting.

In 2022, the trip category that made up the highest proportion of person kms was 'other' (eg visiting friends, personal business), making up 38% of all person kms. The second largest trip category was 'commuting or business', making up 35% of person kms. Collectively 'commuting or business' and 'other' accounted for nearly three-quarters of the total distance travelled by GM residents. The remaining distance travelled was made up of sport and entertainment trips (12%), shopping trips (8%), and education (including escort) trips (7%).

Comparing the 2022 journey purpose splits with those from 2017-19 highlights some marked changes. Commuting and business trips' share of the total distance travelled has declined between these survey periods, but it still accounted for over a third of all distance travelled by GM residents. Shopping trips' share of the total distance travelled also declined over this period from 12% to 8%. The group of trips classed as 'other' (which includes visiting friends, and personal business) was the only journey purpose to increase its share of the total distance travelled, rising from 30% to 38%.

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 trips and percentage of distance travelled. This shows that trips like '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 like '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.

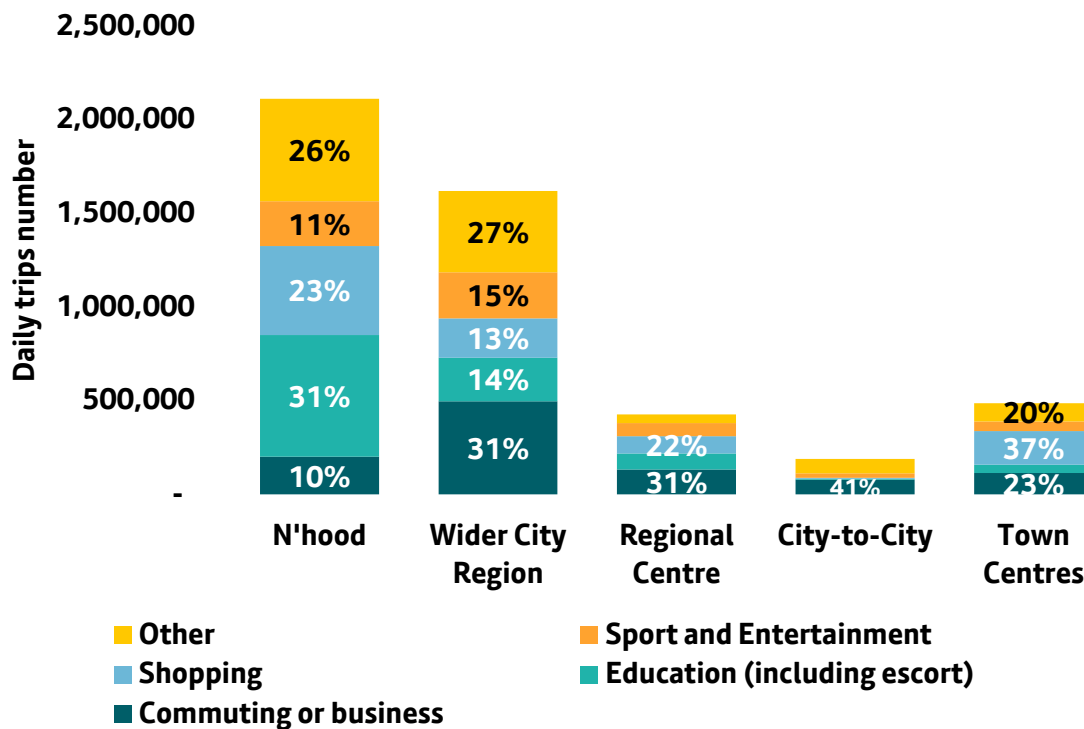
Figure 18: Purpose of travel – trips and distance travelled by GM residents 2022

Trip purpose	Number of daily trips (millions)	% of total trips	Daily distance travelled (million kms)	% of distance travelled
Commuting or business	1.1	21%	11	35%
Education (including escort)	1.0	21%	2.3	7%
/Shopping	1.0	20%	2.5	8%
Sport and entertainment	0.6	13%	3.7	12%
Other	1.2	25%	11.7	38%

4.5 Spatial themes and journey purpose analysis - 2022

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 1.5 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 31% of Wider City Region trips were made for commuting or business.

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

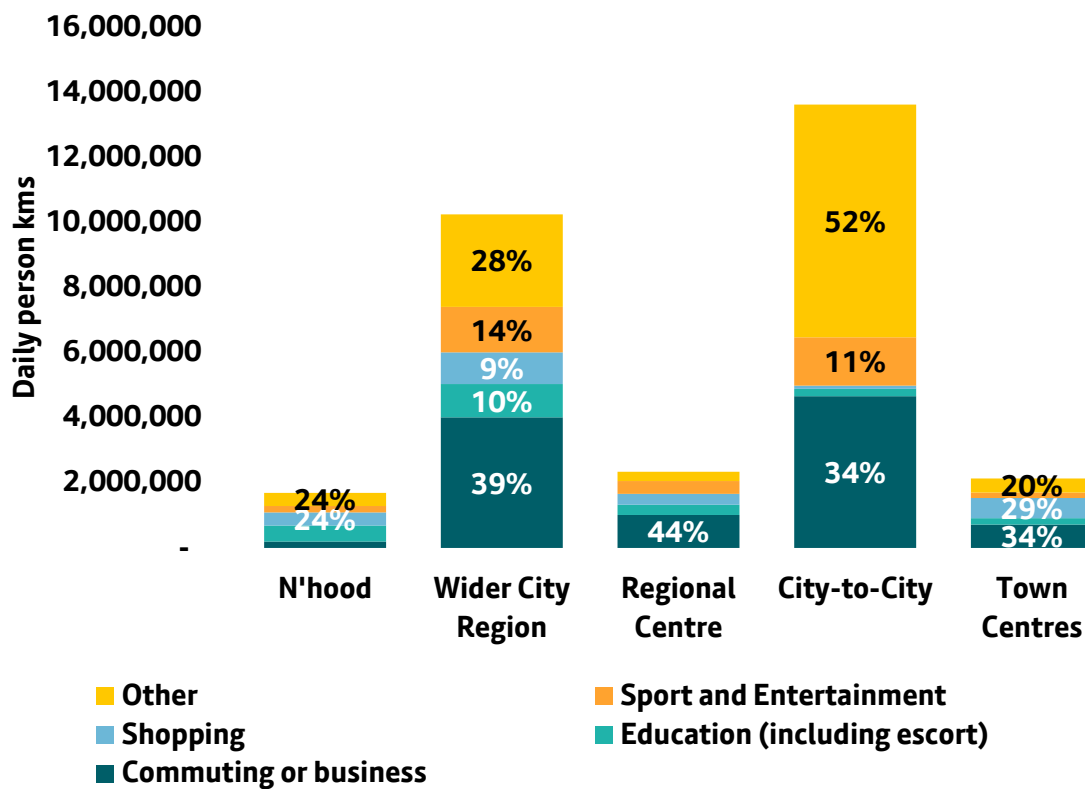


Source: GM TRADS 2022

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 10 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, 39% 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 2022

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

4.5.1 Neighbourhood

On average, GM residents made over 2 million Neighbourhood trips a day, around 44% of all trips. Neighbourhood trips accounted for:

- Nearly two-thirds of all education trips
- Nearly half of all shopping trips
- Nearly half of all 'other' trips (eg visiting friends, personal business)
- A relatively small proportion of commuting and business trips (20%).

Neighbourhood trips are less than 2km in length. Consequently these 44% of trips only account for 6% of the total distance travelled by GM residents.

4.5.2 Wider City Region

On average, GM residents made over 1.6 million Wider City Region trips a day, around 34% of all trips. Wider City Region trips accounted for:

- Nearly half of all commuting or business trips
- Nearly 40% of all sport and entertainment trips

Wider City Region trips accounted for 34% of all trips by GM residents and around 34% of the total distance travelled. Wider City Region trips accounted for:

- Nearly 40% of the distance travelled for commuting or business
- Nearly 40% of the total distance travelled for sport and entertainment (despite representing only 14% of the distance travelled in the Wider City Region spatial theme)
- Around 45% of the total distance travelled for education (including escort) (despite representing only 10% of the distance travelled in the Wider City Region spatial theme)

4.5.3 Regional Centre

On average, GM residents made over 400,000 Regional Centre trips a day, around 9% of all trips. Key findings for Regional Centre trips are:

- Nearly a third of Regional Centre trips were for commuting or business purposes, but its smaller total market size means that this was only 13% of total commuting or business trips.
- One in five Regional Centre trips were for education, which reflects the number of higher education establishments in the Regional Centre.

Regional Centre trips account for 8% 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 4% of all trips. Key findings for City-to-City trips are:

- Over 40% of City-to-City trips were for commuting or business, but again the smaller market size means that this was only 8% of all commuting or business trips.
- Other trips (eg visiting friends, personal business) also made up over 40% of City-to-City trips.

City-to-City spatial theme trips accounted for 45% of the total distance travelled by GM residents. City-to-City trips accounted for:

- Nearly 45% of the total distance travelled for commuting or business (despite representing around a third of the distance travelled in the City-to-City spatial theme)
- Over 40% of the total distance travelled for sport or entertainment (despite representing 11% of the distance travelled in the City-to-City spatial theme)

24% 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 around 500,000 Town Centres trips a day, around 10% of all trips. Key findings for Town Centre trips are:

- Over a third of Town Centres trips were for shopping (19% of all shopping trips), and nearly a quarter of all Town Centres trips were for commuting and business (11% of all commuting and business trips).

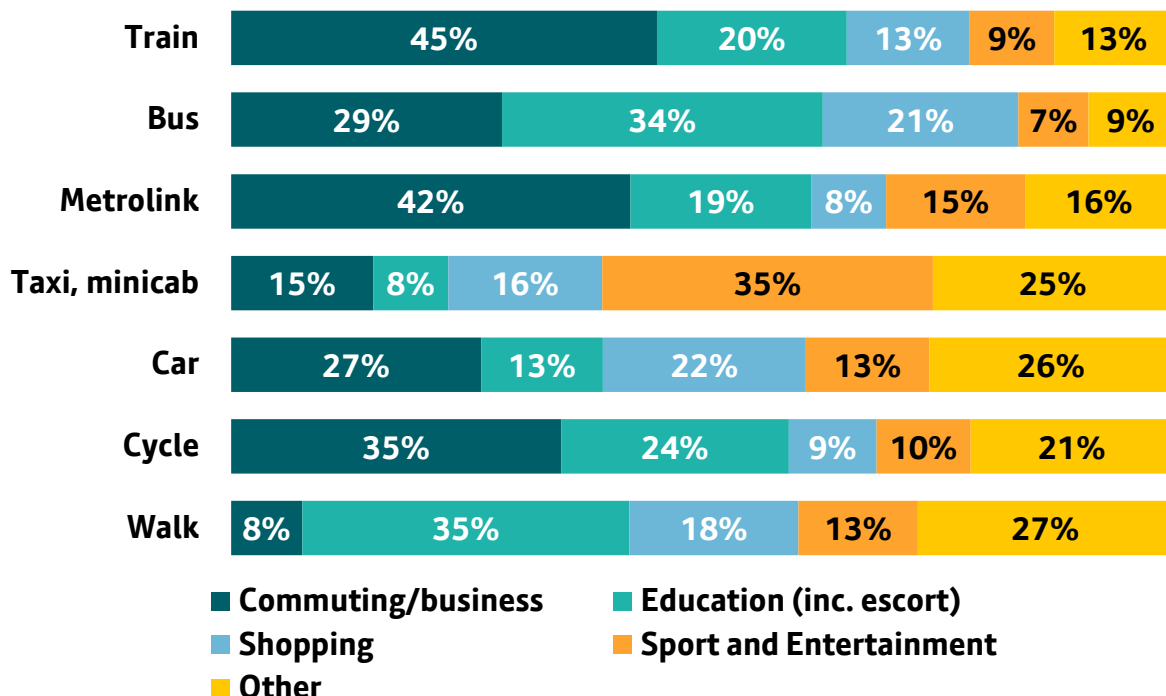
Town Centres trips accounted for 7% of the total distance travelled by GM residents.

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 45% of train trips were for commuting or business, while only 29% of bus trips were for commuting or business.

Commuting is the most common journey purpose for train, Metrolink, car, and cycle trips (45%, 42%, 27%, and 35% respectively), while education (inc escort) is the most common purpose for bus and walk trips (34% and 35% respectively). For taxi, mini cab trips the most common journey purpose is sport and entertainment (35%).

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



Source: GM TRADS 2022

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?

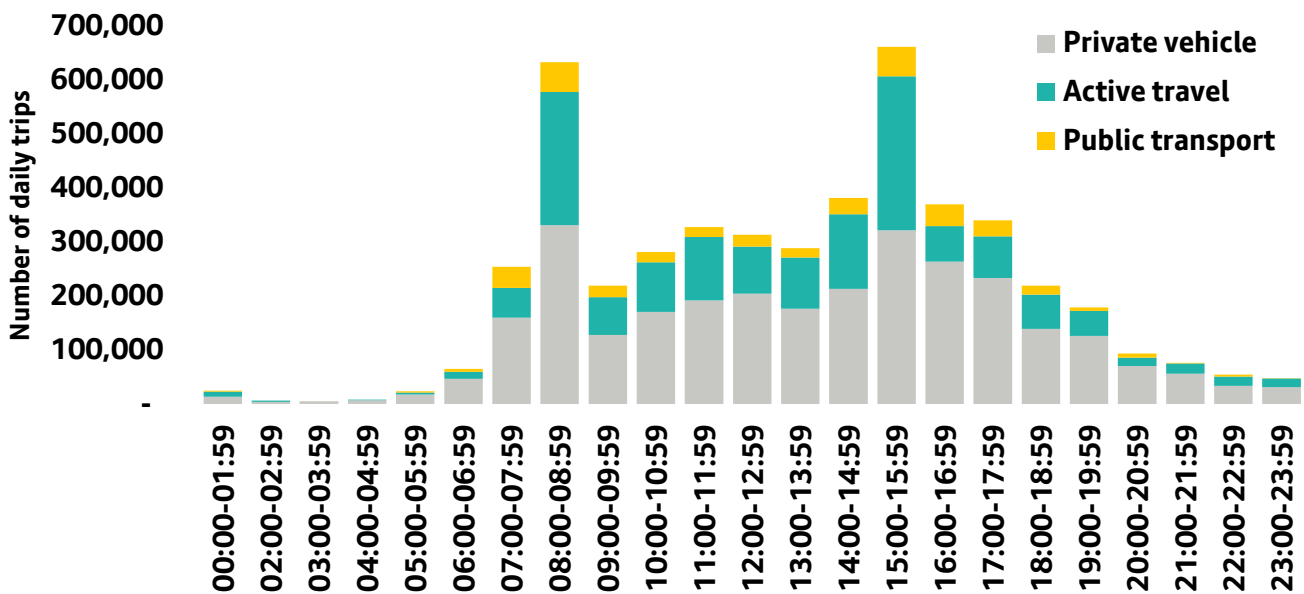
On a typical day in 2022...

- **GM residents started nearly nine-in-ten of their trips (88%) in the 12 hours between 7.00 and 18.59, 7% of their trips started between 19.00 and 21.59. Only 5% of trips started between 20.00 and 07.00, of which 70% were by private vehicle (compared to 60% outside of these hours).**
- **The peak periods for trip making were 08:00-08:59 and 15:00-15:59, accounting for over a quarter of all trips by GM residents. During these hours almost 60% of trips were for education.**
- **Around a third of trips by GM residents in the periods 07:00-08:59, and 17:00-18:59 were to / from work. Over 50% of commuting trips were made outside of these times.**

5.2 Mode share 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 mode used. For example, there were over 600,000 daily trips that started between 08:00-08:59 and just under 350,000 of these were made by private vehicle.

Figure 22: Mode share of trip by journey start hour - GM residents



Source: GM TRADS 2022

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 2022 (Figure 22) shows two extreme peaks at 08:00-08:59 and 15:00-15:59. Together these hours accounted for over a quarter of all trips by GM residents. GM residents started nearly nine-in-ten of their trips (88%) in the 12 hours between 7.00 and 18.59, 7% of their trips start between 19.00 and 21.59. **Only 5% of trips started between 20.00 and 07.00, of which 70% were by private vehicle (compared to 60% outside of these hours).**

The two peak hours (08:00 and 15:00) were particularly important for active travel trips, with 35% of active travel trips occurring during these hours on an average day. During the day (07.00 to 16.59) active travel’s mode share was 34%, this was higher than its mode share outside of these hours, which was only 25%.

The three hours between 07:00-09:59 was when 21% of private vehicle trips occurred. This was slightly below the three-hour period between 15:00-17:59, which accounted for 28% of private vehicle trips.

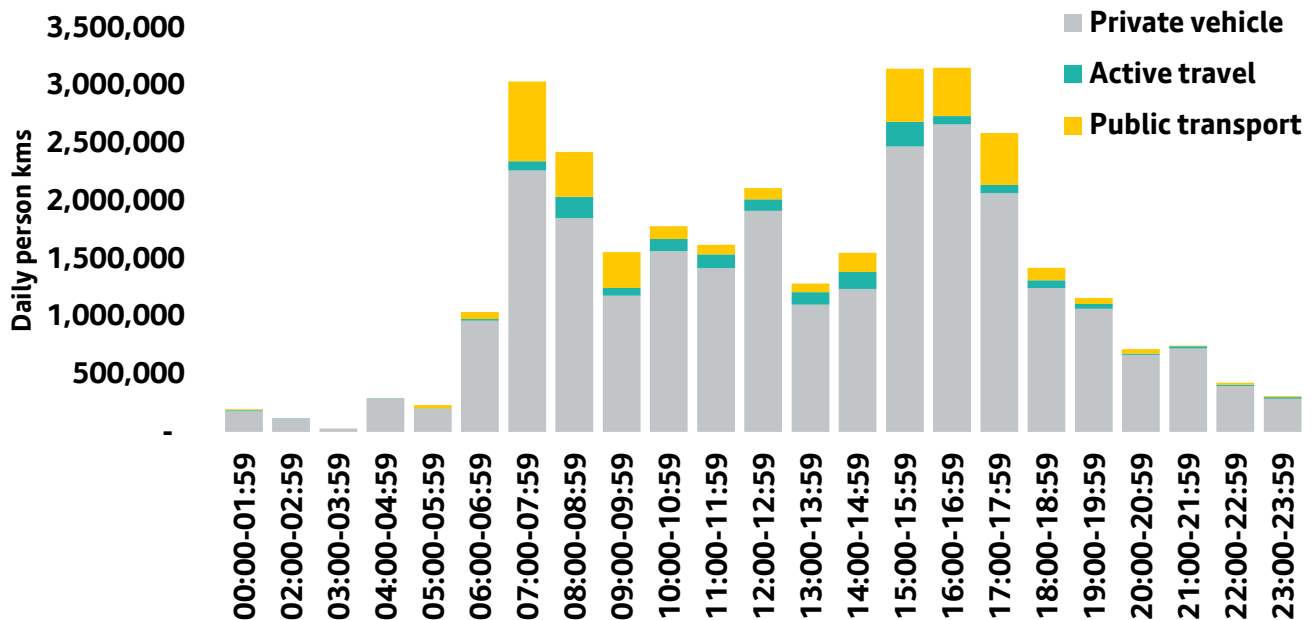
Public transport trips were particularly concentrated, with 48% occurring over four hours (07:00-08:59 and 15:00-16:59).

5.3 Mode share 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 mode used. For example, there were about 3

million daily kilometres travelled by trips that started between 07:00-07:59 and over 2 million of these were made by private vehicle.

Figure 23: Mode share of person kms by journey start hour - GM residents



Source: GM TRADS 2022

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

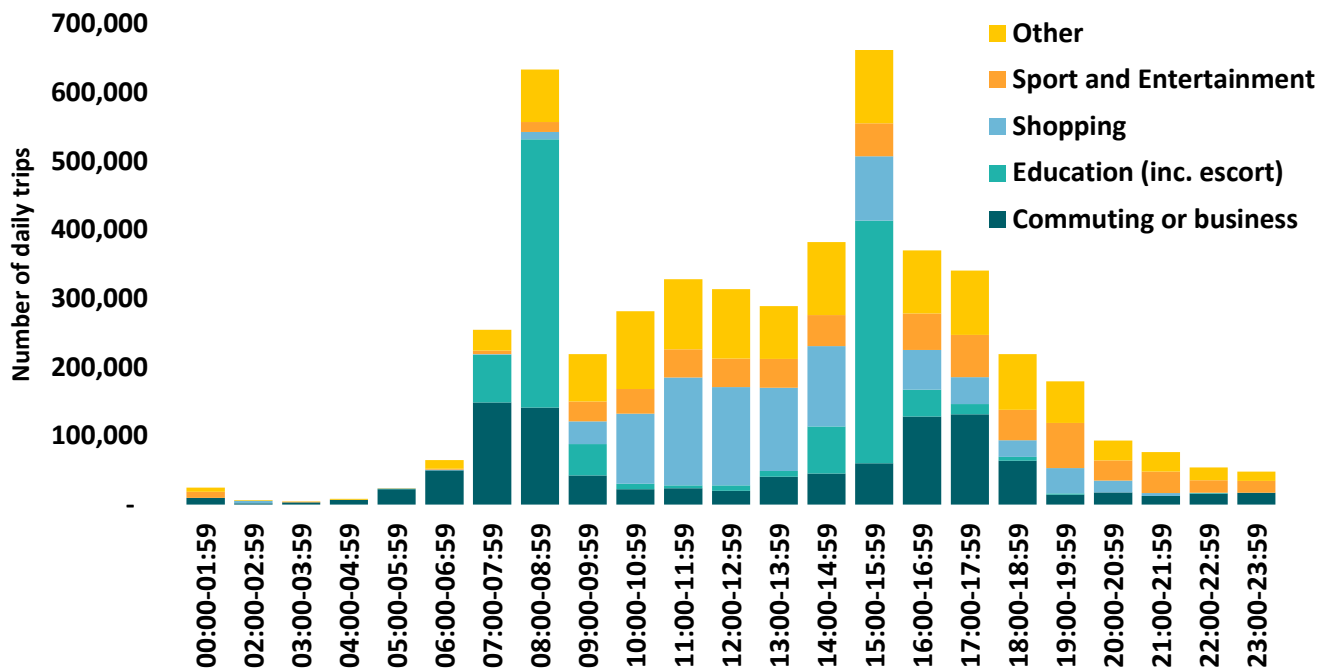
The hourly distribution of the distance travelled by GM residents during the day (Figure 23) differed from hourly profile of trip start times (Figure 22). For example, while only 5% of trips started between 07:00-07:59, these trips accounted for 10% of total distance travelled by GM residents on an average day. Similarly, 15% of trips started between 16:00-17:59 and these trips accounted for 19% of total distance travelled by GM residents. In the case of public transport, the single hour between 07:00-07:59 accounted for 19% of the distance travelled by people on public transport.

At 17%, public transport’s percentage share of the distance travelled was significantly higher during the peaks (07.00-08.59 and 15.00-17.59) than it was outside of these hours (7%). 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 over 600,000 daily trips that started between 15:00-15:59 and just under 350,000 of these were for education (inc. escort).

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

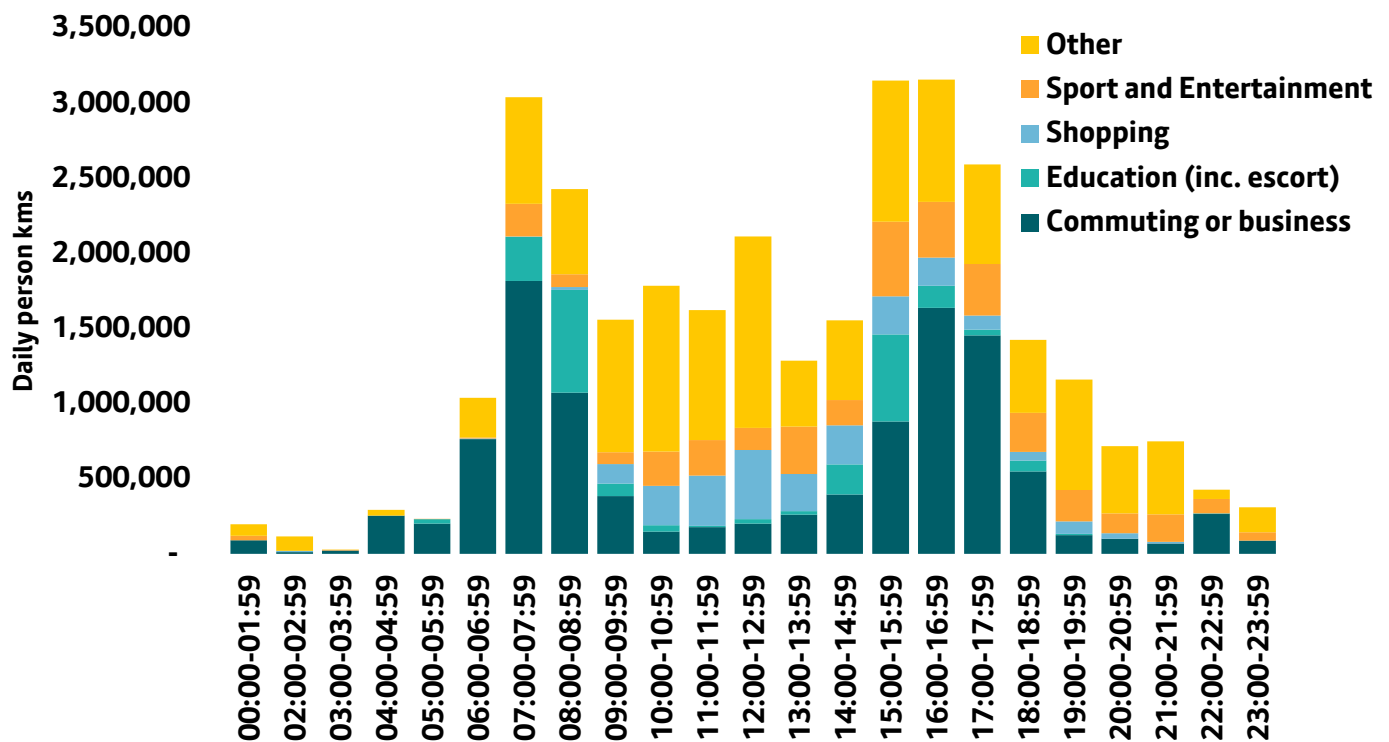


Source: GM TRADS 2022

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 over 3 million daily kilometres travelled in trips that started between 15:00-15:59 and just under 600,000 of these were for education (inc. escort).

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



Source: GM TRADS 2022

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

As may be expected, **the two main peak periods for trips were dominated by education travel, accounting for 57% of all the trips that started in these two single hours.**

Around three-quarters of all 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 two-thirds of shopping trips starting between 10:00-14:59.

Around a third of trips by GM residents in the periods 07:00-08:59, and 17:00-18:59 were to / from work. Over 50% of commuting trips by GM residents were made outside of these periods.

Between the hours of 20.00 and 06.59 both 'commuting or business' and 'sport and entertainment' increased their mode share compared to the period 07.00 to 19.59. 'Commuting or business' increased to 32% from 20% and 'sport and entertainment' increased to 31% from 12%.

55% of the distance travelled for commuting or business trips was by trips that start within four hours of the day (07:00-08:59 and 16:00-17:59).

The category 'other', which includes visiting friends, was widely dispersed across the 24-hour period. It accounted for over half of the total distance travelled between the peaks

(9.00 to 14.59). It was also an important trip purpose for trips between 20.00 and 6.59 making up 40% of the total distance travelled by GM residents.

'Commuting or business' was also important in terms of distance covered by GM residents between 20.00 and 6.59, accounting for 45% of the total distance travelled.

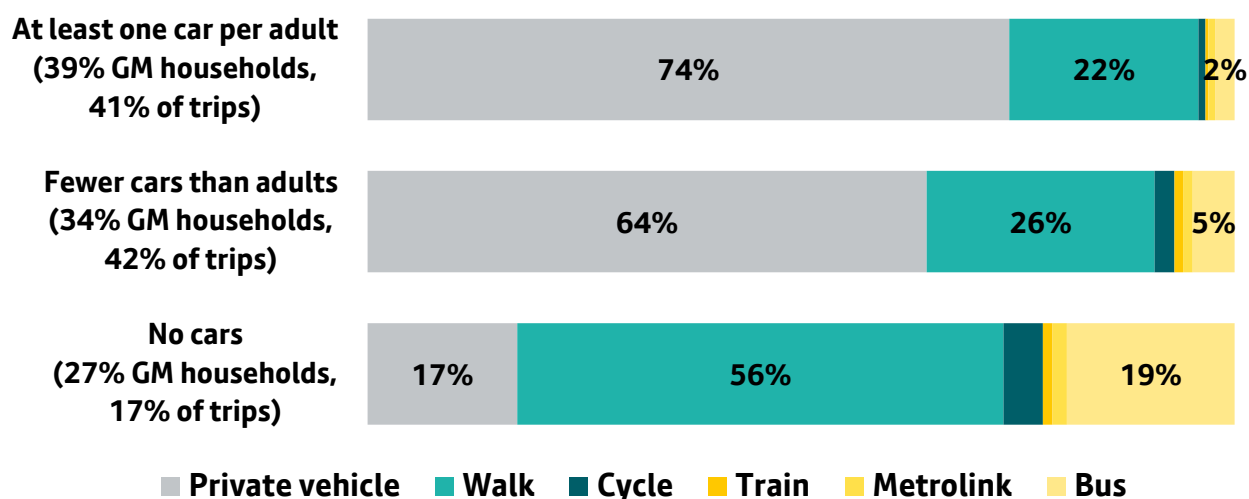
DRAFT

6. Car availability in Greater Manchester

6.1 Car availability and method of travel (2022 trips)

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

Figure 26: Trip mode share by car keepership (%) - GM residents



Source: GM Travel Diary Survey 2022

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 - 27% of GM households - and the percentage of total trips made by people from households with no access to a car - 17% 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, 17% of trips by people living in households with no access to a car were made by a private vehicle.

In 2022, residents with no cars in their households made 83% of their trips by active travel or public transport. In households where there were fewer cars than adults 36% 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.

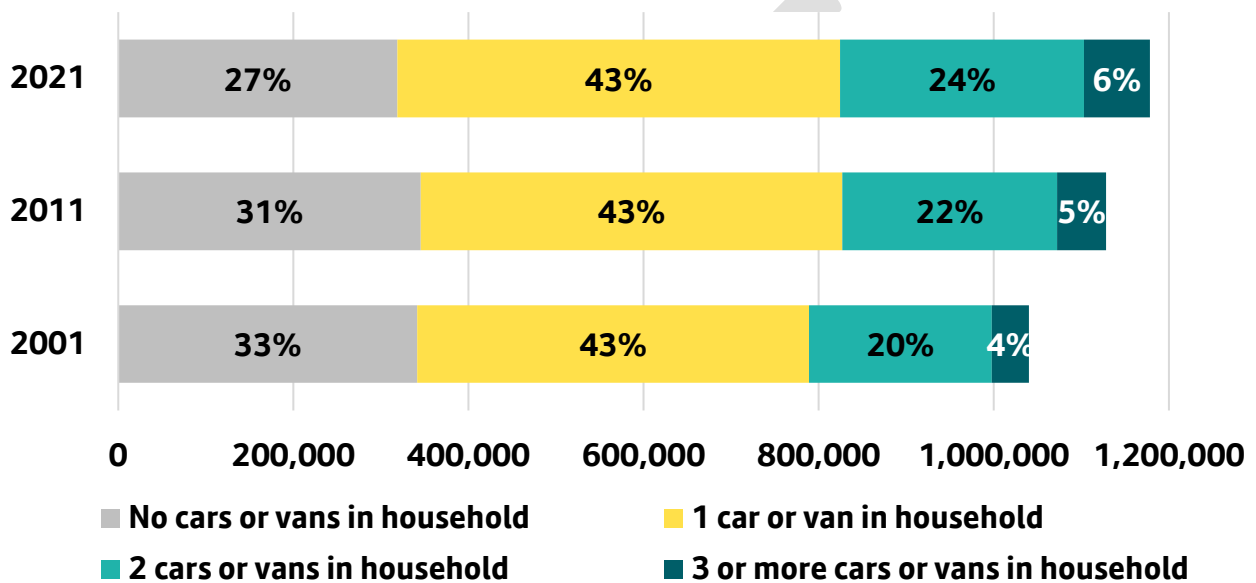
Comparing residents in households with no car to those where there was at least one car per adult highlights a particularly stark differences for bus use; **residents in households with no cars were nine times more likely to use a bus for their journeys.** The same

comparison for rail-based modes was less pronounced, but residents in households with no car were still 2.5 times more likely to make their trips using rail-based modes.

6.2 Car availability trends in GM

The length of each bar in Figure 27 shows the number of households in GM by year and 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 less than 1.2 million GM households and 6% had three or more cars or vans available to them.

Figure 27: Household car or van availability - GM Households



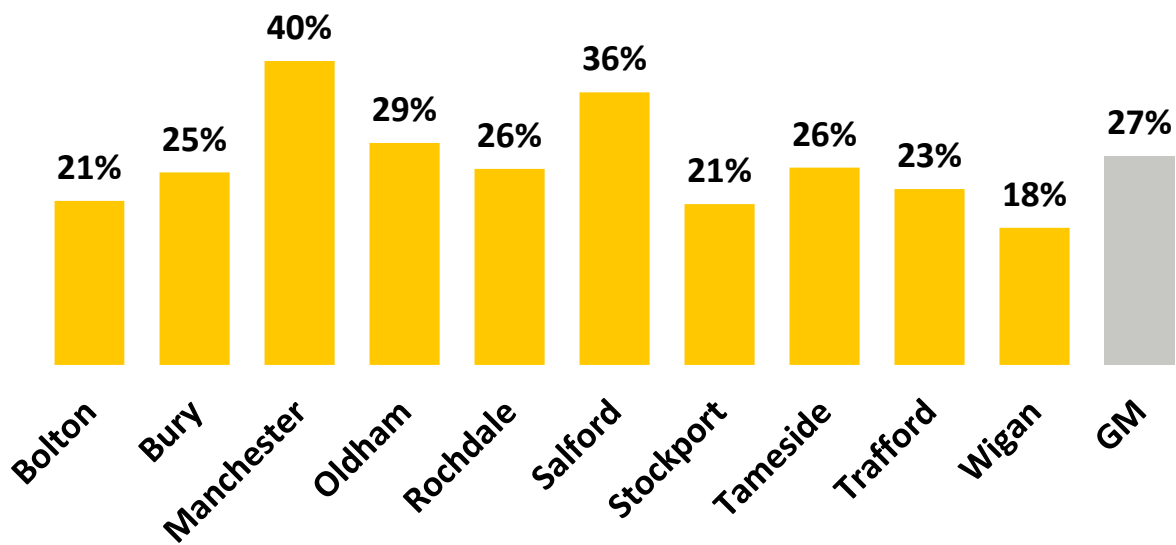
Source: Census 2001, Census 2011, Census 2021

Private car keeping is high in GM and has been increasing. In 2022 there were well over 1.1m cars being kept privately in GM, which equated to roughly one car for every 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.** (Sources: DfT Table VEH0105, 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 two or more car households.

Across GM, 27% of households did not have access to a car in 2022. The proportion of households without access to a car varied significantly by local authority area. Manchester had the highest proportion at 40%, closely followed by Salford (36%), whilst Wigan had the lowest proportion at 18%. For context, 24% of households across England did not have access to a car (Source: Census 2021).

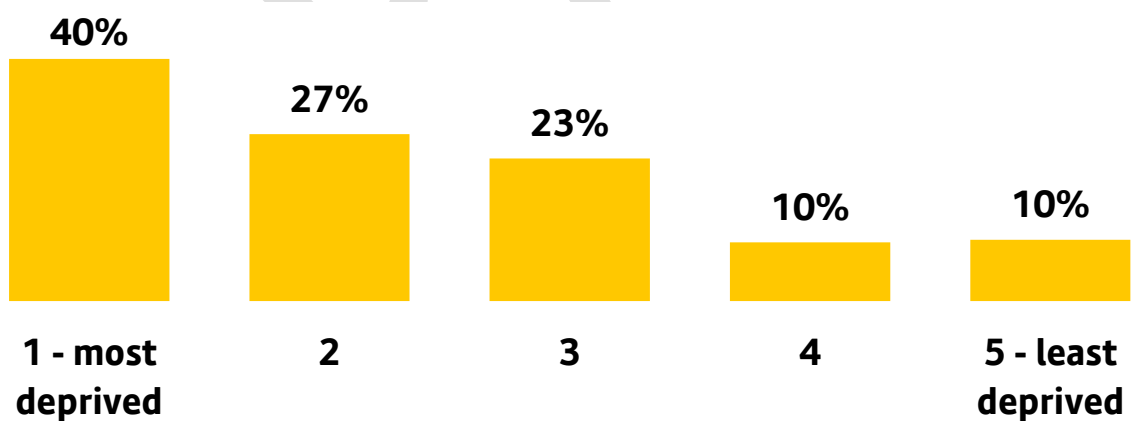
Figure 28: % of GM households without access to a car - by local authority area



Source: GM TRADS 2022

There was a strong relationship between levels of deprivation and the proportion of households without access to a car. **Across GM, the most deprived households were four-times more likely to have no access to a car than the least deprived households.** Overall, 27% of households had no access to a car, rising to 40% in our most deprived households.

Figure 29: % of GM households with no access to a car - by English Indices of Deprivation 2019



Source: GM TRADS 2022 & English Indices of Deprivation 2019

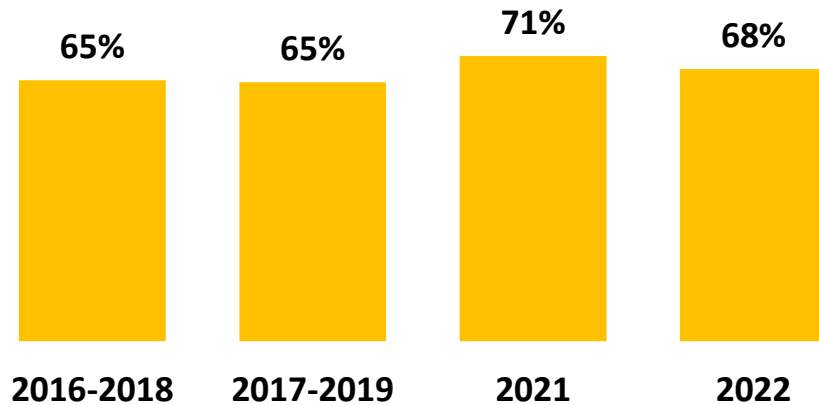
6.3 Key facts summary - Car availability and in Greater Manchester

- **Residents with no cars in their households made 83% of their trips by active travel or public transport. While in households where there were fewer cars than adults 36% 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.**
- **Residents in households with no cars were nine 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. In 2022 there were well over 1.1m cars being kept privately in GM, which equated to roughly one car for every 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 most deprived households were four-times more likely to have no access to a car than the least deprived households. Overall, 27% of households had no access to a car, rising to 40% in our most deprived households.**

7. Car occupancy

Over the period 2016-18, the average car occupancy for a car trip was about 1.5 people (65% of car trips unaccompanied), only decreasing slightly in 2021 to 1.4 (71% of car trips unaccompanied), before rebounding to 1.5 in 2022 (68% of car trips unaccompanied). The [National Travel survey](#) (NTS0905) has found similar car occupancy rates at a national-level in recent years.

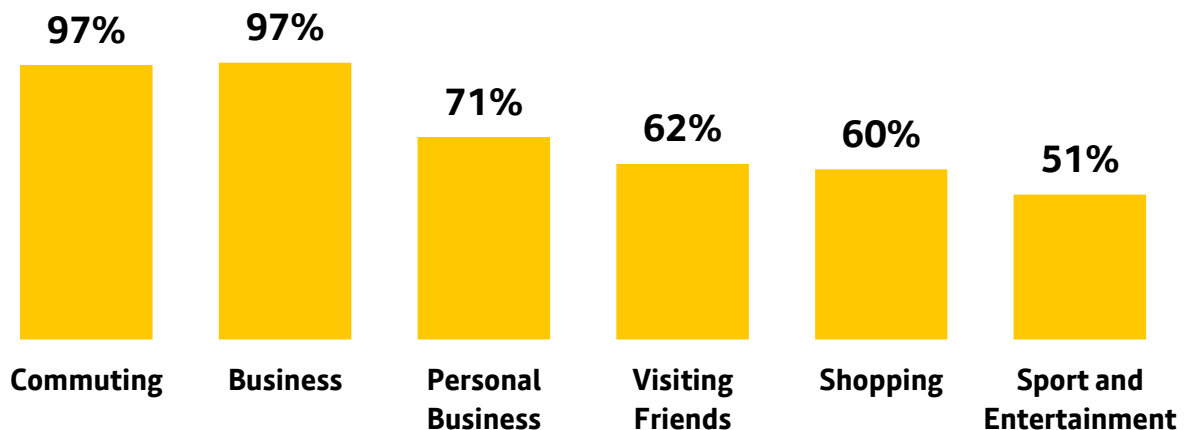
Figure 30: Percentage of car trips that were unaccompanied - GM residents



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

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

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



Source: GM TRADS 2022

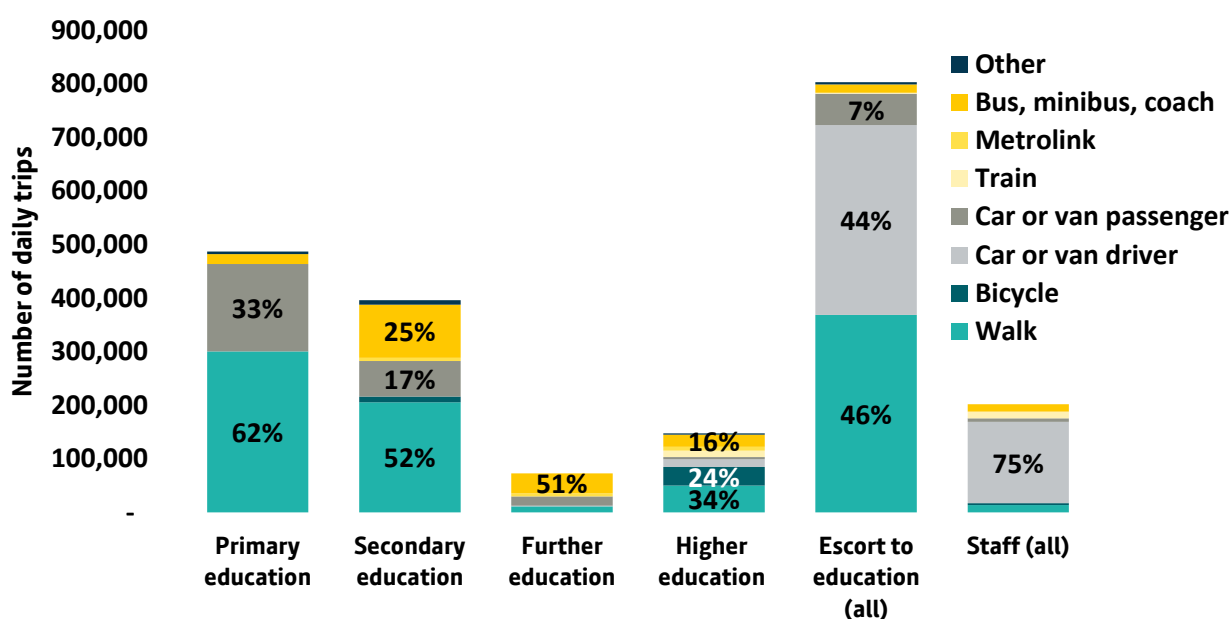
8. Travel market deep dive: Education

In this report we have taken a more in-depth look at the education travel market. In future reports we intend to do the same for other travel markets.

As shown in Figure 24, the education travel market was highly concentrated on two peak periods (08.00-08.59 and 15.00-15.59). Segmenting the education travel market clearly demonstrates that there were different travel characteristics associated with different types of pupils accessing education, parents and guardians escorting, and staff commuting.

Figure 32 shows the number of trips made on a typical school day, by different segments of the education travel market, by the modes they use. The length of each bar equates to the number of trips and the figures in each bar show the percentage share of each method of travel. For example, staff made about 200,000 daily trips and 75% of these were as a car or van driver.

Figure 32: Trips by mode on a typical school day by education market segments - GM



Source: GM TRADS 2022 and Business Register and Employment Survey (BRES) 2021

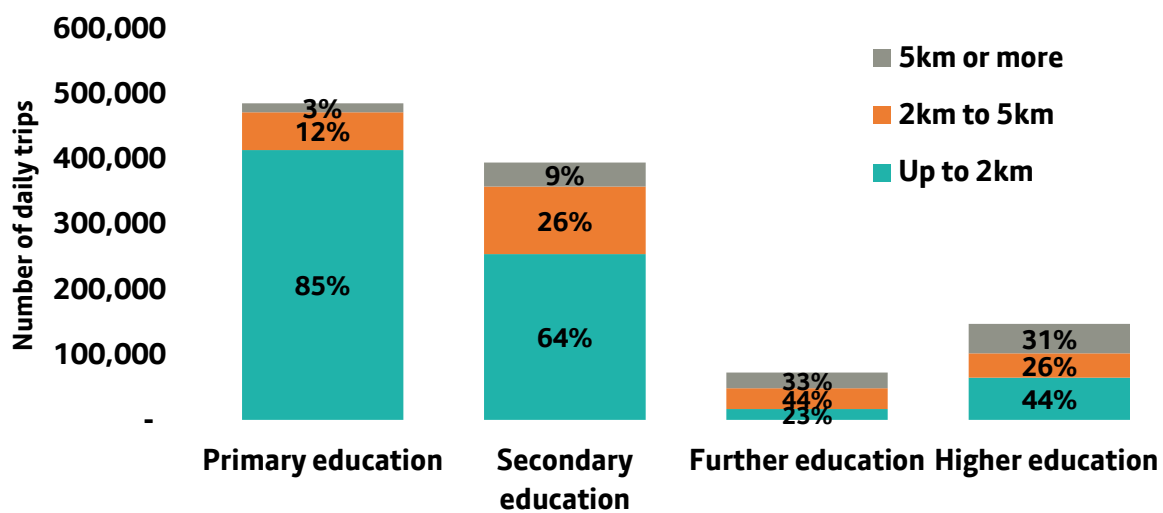
Note: Other = taxi, minicab, motorcycle, scooter, moped, or any other

For both primary and secondary pupils the majority of trips were made by walking - 62% for primary, and 52% for secondary. A third of trips by primary school pupils were by car - this represented over 160,000 trips on a typical school day. For secondary school pupils, car was less important at 17% of trips, with public transport playing a much bigger role accounting for 25% of trips. For further education students, bus was the dominant mode with around half of the share, while higher education students stood out as having a particularly strong association with cycling.

As well as students travelling to education, the education travel market also consists of students being escorted to education, and staff who work at education establishments travelling to/from work. It is estimated that on a typical school day over 800,000 escort trips were made - 46% of which were walking, and 44% were car or van driver (with an additional 7% car or van passenger).

Figure 33 shows the number of trips made on a typical school day by different types of students and by the distance of their trip. 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 distance bands. For example, primary age pupils made close to 500,000 daily trips for education purposes and 85% of these were up to 2km in distance.

Figure 33: Typical school day trips by pupil age group and distance travelled in km - GM residents



Source: GM TRADS 2022 and Business Register and Employment Survey (BRES) 2021

For GM residents, it is estimated that 125,000 escort to education car driver trips were less than 2km in distance and not part of a trip chain (ie a trip chain being a series of shorter stages that make up a journey, such as the following sequence - home - school drop off - work), which was just over a third of all car driver trips for the purposes of escort to education.

Glossary

The terms in this glossary refer to their use in this document and may have different meaning 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.

- **Affluent Achievers** – these are some of the most financially successful people in the UK. They live in affluent, high-status areas of the country. They are healthy, wealthy, and confident consumers. © CACI 2019
- **Comfortable Communities** – this category contains much of middle-of-the-road Britain, whether in the suburbs, smaller towns, or the countryside. They are stable families and empty nesters in suburban or semi-rural areas. © CACI 2019
- **Financially Stretched** – this category contains a mix of traditional areas of Britain, including social housing developments specifically for the elderly. It also includes student term-time areas. © CACI 2019
- **Rising Prosperity** – these are generally younger, well educated, professionals moving up the career ladder, living in our major towns and cities. Singles or couples, some are yet to start a family, others will have younger children. © CACI 2019
- **Urban Adversity** – this category contains the most deprived areas of towns and cities across the UK. Household incomes are low, nearly always below the national average. © CACI 2019

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. In this report the statistics used from the census are car keepership and tenure.

Confidence interval – having a 95% confidence interval of +/-1% and an estimate of 50% means if we measured something in exactly the same way 100 times we would expect that 95 times of those times we would 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.

English Indices of Deprivation – an attempt to measure a broader concept of multiple deprivation, made up of several distinct dimensions, or domains, of deprivation. The English Indices of Deprivation can be used to rank every LSOA in England according to their relative level of deprivation. More information can be found at [gov.uk/government/statistics/english-indices-of-deprivation-2019](https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019).

Further education – in this report, this covers education for students aged 17-18. It includes things like vocational certificates and apprenticeship training.

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 over 4 years of age 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.

Higher education – in this report, this covers education for anyone aged 19 or older. It includes things like vocational certificates and apprenticeship training.

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 (eg attending a business meeting). Does not include trips where driving is part of the job (eg 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 or 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 (eg, 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 stay). 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 mode – the method of travel used for the stage of the trip that covered the longest distance (also see main method of travel) – eg walking, cycling, Metrolink.

Method of travel – the method of travel used for the stage of the trip that covered the longest distance (also see main mode) – eg walking, cycling, Metrolink.

Metrolink – the tram/light rail system in GM.

Modal – refers to a particular method of travel such as road or rail.

Mode share – refers to the percentage distribution of trips taken by GM residents using different modes.

Mortgage (incl. shared ownership) – occupants live in a property that has been bought with a loan (typically from a bank or building society) and that loan 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 of the accommodation.

Owner occupied mortgaged households – 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.

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.

Primary education – the first stage of formal education. In this report, this includes children aged 5 to 10 years old.

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 modes – includes both light (trams) and heavy rail (trains).

Secondary education – the second stage of formal education. In this report, this includes children aged 11 to 16 years old.

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 9.58 its start hour will be 9.00-9.59.

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 can be said to be statistically significant when the difference in the estimates is larger than the confidence interval for comparing two samples of their given size (see Figure 34 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).

Travel market – all travel by GM residents associated with a specified type of activity or activities - eg education travel market which as well as including pupils whose journey purpose is education, also includes 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 mode 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 over 4 years of age² 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 days after a bank holiday.

Data is collected on about 7,000 trips, made by 4,500 residents of 2,000 GM households each year. The information gathered includes trip origins and destinations, travel times, transport modes used and journey purpose.

The information is used primarily by TfGM 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 as 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 used 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, for the difference between the estimates for two years to be statistically significant the difference needs to be at least as large as the values in the following table. For example, if the estimates being compared are about 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 about 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 34: 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	3%	2%	2%
2021 to 2022	3%	3%	2%

Spatial theme definitions

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

Figure 35: 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.	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • 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 36: Zoning system used in Spatial Theme analysis

Contains OS data © Crown copyright and database right 2023

