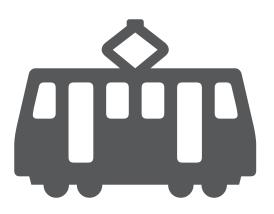
known/unknowns

one year aboard the manchester metrolink

what the data teaches us and what it doesn't St Peter's Square Deansgate - Castlefield Piccadilly Piccadilly Gardens Victoria Market Street Exchange Square Chorlton Cornbrook Altrincham Old Trafford Burton Road MediaCityUK Sale East Didsbury Exchange Quay Trafford Bar Bury Didsbury Village Shudehill Brooklands Stretford West Didsbury New Islington The Trafford Centre Navigation Road Whitefield Timperley Salford Quays Etihad Campus Wharfside Prestwich Firswood Heaton Park Harbour City Radcliffe St Werburgh's Road Manchester Airport Dane Road Ashton-under-Lyne Imperial War Museum Barlow Moor Road Withington Anchorage Barton Dock Road Shaw and Crompton Besses o'th' Barn Bowker Vale Crumpsall Velopark Derker Roundthorn Hollinwood Failsworth Parkway Oldham Mumps Edge Lane Pomona Eccles Northern Moor Oldham Central Park Rochdale Town Centre Newton Heath and Moston Sale Water Park Droylsden South Chadderton Oldham King Street Ladywell Wythenshawe Park Queens Road Weaste Freehold Ashton Moss Westwood Abraham Moss Langworthy Moor Road Wythenshawe Town Centre Audenshaw Milnrow Rochdale Railway Station Clayton Hall Kingsway Business Park Ashton West Village Cemetery Road Holt Town Martinscroft Baguley Benchill Newhey Shadowmoss Monsall Newbold Crossacres Peel Hall Broadway Robinswood Road St Peter's Square Deansgate - 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The next stop will be...



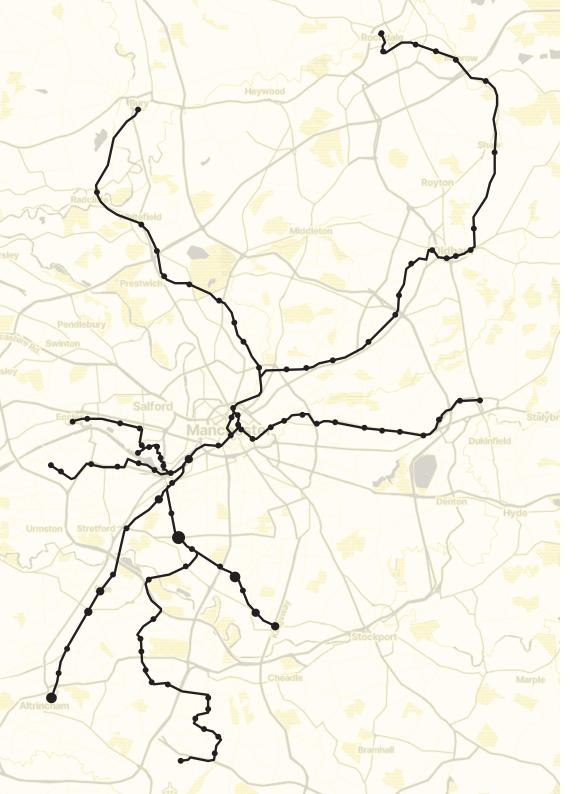
Every time someone travels on the Manchester Metrolink network, and pays via a contactless card, their journey is logged. This helps the system calculate the total cost of the trips they've made during the day, and charge them accordingly. But each of those trips also get collated into a dataset. And thanks to Britain's strangely accommodating Freedom of Information laws, the public get access to that data, and anyone so inclined can analyse the journeys that have been made. All 8,932,955 of them - every journey that anyone made during 2022. It's anonymised - we don't know the particular trips that any one individual made throughout the year - all we know is how often people made any one journey between two stops. Like how **15,124** people went from Prestwich to Victoria. Or how 14 people went from **Newbold** to **Cornbrook**. Or the **1** person who went from **Crossacres** to **Langworthy**. By analysing this data we can gain a unique insight into the collective mobility of the population of Greater Manchester. But, more than that, we gain a unique insight into the decisions behind something so personalised as someone's daily routine and habits.

We'll start off by examining what is **known** about the journeys made on the Metrolink; things that can be learned by analysing the data. And then in the second half, we'll look at what is **unknown**; the things that data can't teach us, about the people making those trips and why.

The next stop might well be St Peter's Square.

| 76,480 Chorlton to St Peter's Square |
|--|
| 70,164 St Peter's Square to Chorlton |
| 57,470 Burton Road to St Peter's Square |
| 54,432 Altrincham to St Peter's Square |
| 52,522 St Peter's Square to Burton Road |
| 50,848 Cornbrook to St Peter's Square |
| 48,448 St Peter's Square to Altrincham |
| 47,786 East Didsbury to St Peter's Square |
| 42,294 St Peter's Square to Cornbrook |
| 42,231 St Peter's Square to East Didsbury |
| 38,638 Old Trafford to St Peter's Square |
| 38,525 Didsbury Village to St Peter's Square |

The most common journey on the Metrolink is between **Chorlton** and **St Peter's Square**. Every day of the year, an average of **209** people make that journey, and another **192** people go the opposite way. All of the top twelve most common journeys on the network start or end at **St Peter's Square**.

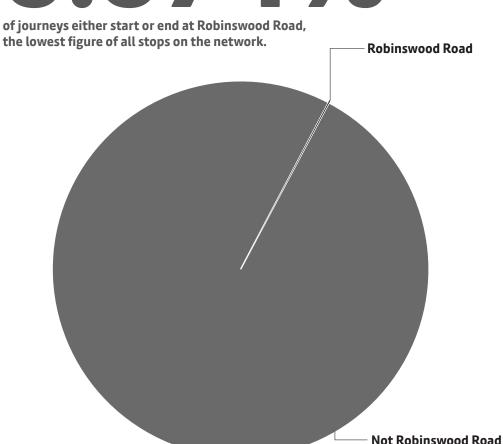


← This map shows where everyone who touched in at **St Peter's Square** went on to touch out. The larger circles represent the more popular destinations. These tend to be to the south of the city centre, including in **Chorlton** and **Didsbury Village**.

St Peter's Square is the busiest stop on the Metrolink. It's effectively the hub of the network - the two city crossings split to travel north from here, via either **Market Street** or **Exchange Square**. And to the south, it's where the busy corridor through Castlefield begins, with a tram every **40 seconds** on average passing through.

The next stop probably won't be Robinswood Road.



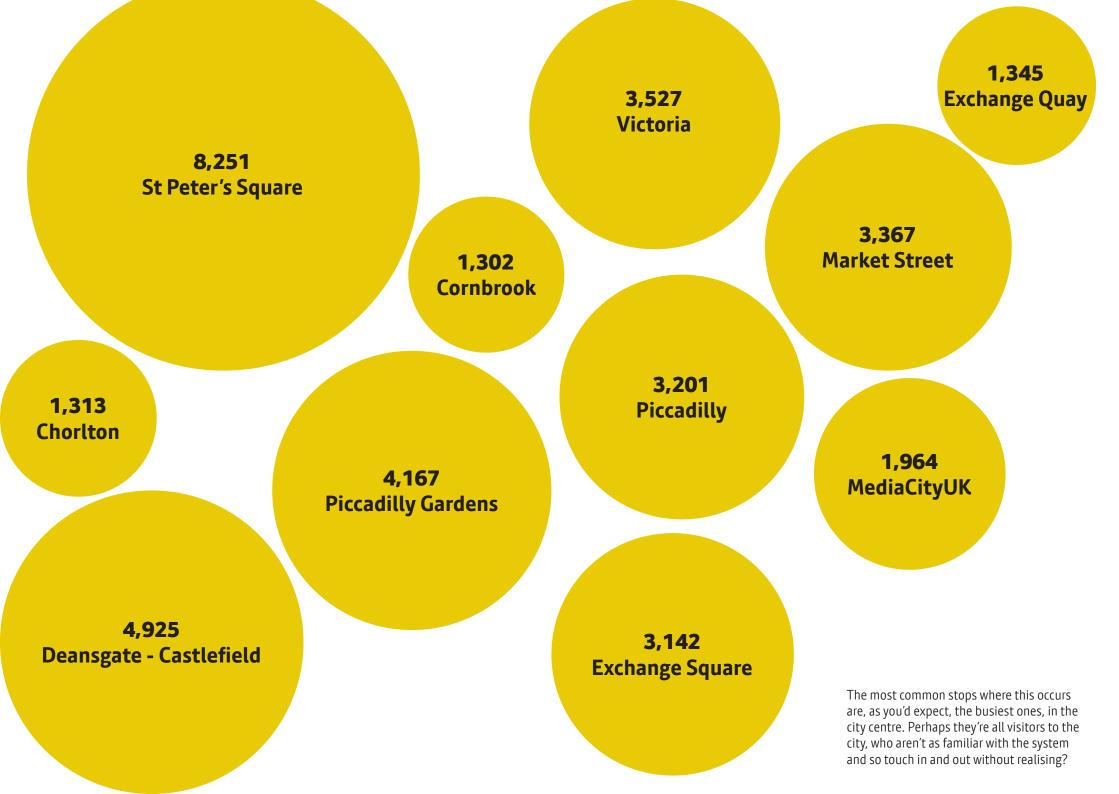


The least common station to touch in or out at is **Robinswood Road**. Each day, an average of just **17** people make a journey that starts or ends there. Is **Robinswood Road** in fact a hidden gem? Are the **24,473** people who make a journey every day to a different stop missing out? Will Robinswood Road eventually be spoken about in the same breath as Paris, New York, and Tokyo?

The next stop will be the same as the last stop, but that'll be £4.60 please.



One quirk of the tram payment system is that there's no gateline. Unlike the railways, there's just a single contactless reader that's used both at the start and the end of each journey. It's therefore possible to touch in and touch out at the same stop, an excursion which nets Metrolink the maximum fare of £4.60 each time. That happens 64,727 times a year, totalling £297,744 that Mancunians are overpaying thanks to their own forgetfulness.





Having public transport connections like the Metrolink built is proven to improve the prosperity of an area. And house prices too, with properties within **500 metres** of a tram stop said to be worth **4.6%** more. But it'd be wrong to suggest that every area the tram passes through is as cosmopolitan as the middle-class hotspots of **Didsbury** or **Chorlton**. And going by the contactless journeys data, those stops in the posher areas have many times more people using them. That isn't reflected in how people actually use the trams though - other lines are just as busy. It's fair to assume therefore that the lines out towards **Ashton** or **Eccles** must just have more pensioners travelling free, more passengers paying using cash, or just loads of people not bothering to pay. Quantitative datasets can't tell you the whole story of what's really about human behaviour.

The next stop could inflate your house price by up to 4.6%.*

| St Peter's Square | 72,516 |
|-------------------------|--------|
| Deansgate - Castlefield | 41,808 |
| Piccadilly | 37,547 |
| Old Trafford | 36,955 |
| Piccadilly Gardens | 35,883 |
| Victoria | 34,468 |
| Market Street | 25,766 |
| Altrincham | 25,430 |
| Chorlton | 22,182 |
| Exchange Square | 22,170 |
| Cornbrook | 21,528 |
| Bury | 19,584 |
| Etihad Campus | 16,948 |
| Burton Road | 15,841 |
| Trafford Bar | 13,562 |
| Sale | 13,491 |
| MediaCityUK | 12,786 |
| East Didsbury | 11,990 |

The next stop is a mystery.

Because of the lack of gatelines on the system, it's easy to forget to touch out. And every year, **796,995** people start a journey and fail to end it. We know where they touched in, but where they ended up remains unknown...



1098 passengers

Market Street

Piccadilly Gardens

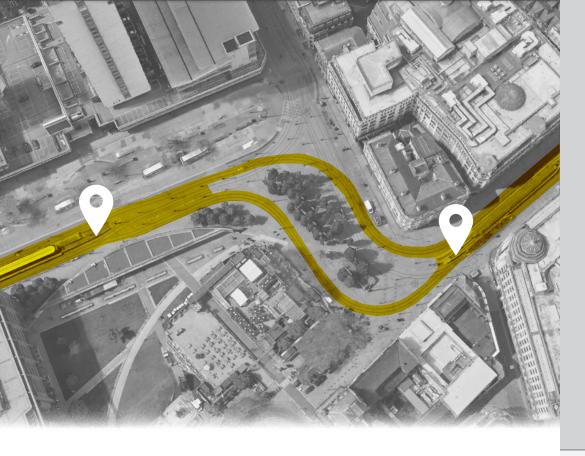
902 passengers

Piccadilly Gardens

Market Street

Two of the closest stops on the network are Market Street and Piccadilly Gardens, which are just **142m** from each other. They're located on two arms of the junction after St Peter's Square, so not many trams call at both. One of the lines does, however, so there's a tram every twelve minutes between the two stops. And each day, **5.47** people make the journey between **Piccadilly Gardens** and **Market Street** or vice versa. Who are these people? They'd be waiting an average of six minutes for the tram to turn up; you could walk the journey three times in that time. Indeed, there are only a handful of destinations between the two stops that the tram would take you closer to - from the front door of Primark, to the back door of Primark.

next stop will be just 142 metres from the previous stop.



Attention tram passengers

Are YOU one of the 2000 people each year who gets the tram between **Piccadilly Gardens and Market Street?**

- Why?
- Who are you?
- Are you lost?
- Have you got money to burn?

Please call our confidential helpline today to explain yourself. We want to know.

Perhaps some of these **2000** people are tourists who don't realise their destination is just round the corner from where were already stood. They could all be people who'd struggle to walk the distance or who had mobility impairments, but they get free travel anyway so wouldn't be paying contactless. Or maybe there was a sudden downpour, and **2000** people had to take refuge beneath the canopy at Market Street, and decided that getting the tram around the corner would give their paper Primark bags less chance of disintegrating all over the pavement.

496

496 0735

496 0735

0161 496 0735

0161 496 0735

496 0735

Kingsway Business Park Oldham Mumps Ahraham Moss Monsall Ashton Moss Ftihad Campus Broadway **Cemetery Road** Imperial War There are 408 pairs of stops which only one person made a journey between. Those 408 people have stories to tell; they're unique among the eight million journeys within the dataset. But who were they? We don't know. Because the data is (rightfully) anonymised, it's impossible to know for sure why those trips were made. There's nothing to stop us Manchester imagining though...

The next stop will be unique.

Queens Road to **Kingsway Business Park**

A devout royalist that wishes the Metrolink could be a little bit more regal?

Broadway to **Imperial War Museum**

Someone who works in the Broadway Industrial Estate wanted to learn more about the Blitz, but didn't know they could just walk over the bridge to get there.

Oldham Mumps to Cemetery Road

Somebody wanted to find the North's most morbid day out? Next stop, Bolton Measles?

Ashton Moss to **Abraham Moss**

Perhaps they just really like moss.

Etihad Campus to **Monsall**

A football fan who prefers to travel all the way into town and back out again instead of just getting the bus half a mile up the road.

Manchester Airport to Kingsway Business Park

Someone who's flown in for a disappointing business meeting in a warehouse by the M62.

Newhey to Parkway

A poet wanted to make sure at least one line on the spreadsheet rhymed. Thanks.

Clayton Hall to Hollinwo Clayton Hall to Milnrow Abraham Moss to Peel Hall Clayton Hall to Moor Road Clayton Hall to Moor Road Clayton Hall to Newhey Clayton Hall to Oldham King Street Clayton Hall to Peel Hall Clayton Hall to Robinswood Road Clayton Hall to Shadowmoss Clayton Hall to South Chadderton Ashton Moss to Besses O' th' Barn Clayton Hall to St Werburgh's Road Clayton Hall to Westwood Crossacres to Oldham Central Crossacres to Oldham King Street Crossacres to Oldham Mumps Crossacres to Rochdale Railway Station Derker to Audenshaw Derker to Audenshaw
Derker to Baguley
Derker to Barlow Moor Road
Derker to Benchill
Derker to Cemetery Road
Derker to Clayton Hall
Derker to Droylsden Derker to Droylsden
Derker to Martinscroft
Derker to Robinswood Road
Derker to Robinswood Road
Derker to Robinswood Road
Derker to Wythenshawe Town Centre
Holdsbury Village in Robinswood Road
Droylsden to Central Park
Droylsden to Central Park
Droylsden to Derker
Droylsden to Derker
Droylsden to Nerkood
Droylsden to Milinrow
Droylsden to Newbold Audenshaw to Rochdale Railway Station Droylsden to Oldham Central Droylsden to Oldham King Street Droylsden to Oldham Mumps Droylsden to Peel Hall Droylsden to Robinswood Road Droylsden to Robinswood Road Droylsden to Shadowmoss Baguley to Audenshaw Baguley to Besses O' th' Barn Baguley to Newhey
Baguley to Prestwich
Baguley to Rochdale Railway Station
Baguley to South Chadderton
Baguley to Timperley
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Ladywell to Kingsway Business Park
Ladywell to Newhey
Ladywell to Peel Hall
Langworthy to Moor Road Martinscroft to Holt Town

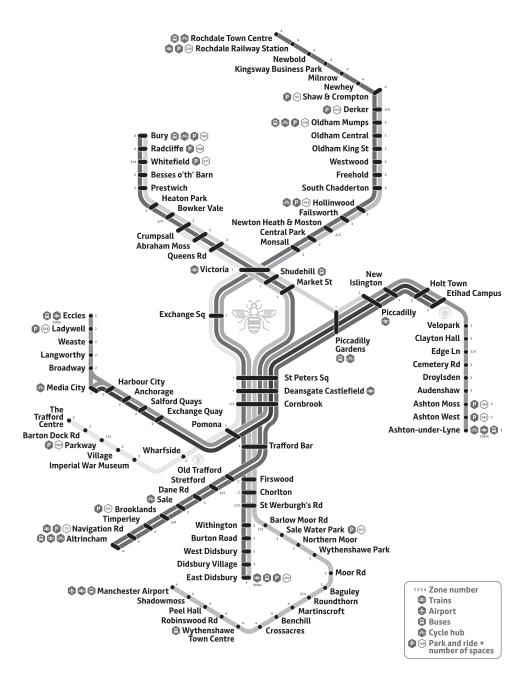
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next stop was never...

There are **602** combinations of stations on the network where nobody ever made a journey between the two. Most of these are between residential areas on opposite ends of the city, where there would be very few reasons for people to make those trips. The least used stop on the network, Robinswood Road, is also the one with the most journeys to and from that were never made, with 28 missing destinations. The stop closest to the city centre that has any missing journeys is **Pomona**, which has nine trips that haven't been made. The stations at the end of the East Manchester line, Ashton Moss and Ashton West, appear 75 times in this list, being two quite isolated stations with park and ride facilities that are mostly used by those travelling into town. If you fancy a trip out this weekend, why not make one of these journeys? You'll be able to pick yourself out on next years' spreadsheet and tell all your friends...





The next stop could be...

99 stops.

8,932,955 journeys made and analysed. **602** possible journeys that were never made. **Where next?**



Explore more insights into your local tram stop online.

First of all, this publication couldn't have been possible without **the people of Greater Manchester**. We're lucky to have a half-decent mass transit system, so thanks to everyone who uses it and provides something for this project to analyse.

Thanks must also go to the **staff of Transport for Greater Manchester**, firstly for running the network and letting people make those journeys, but also to those who compiled and released this dataset. Even if converting it from an awkward PDF was an arduous task. We love you, TfGM.

Map data

OpenStreetMap contributors

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