Greater Manchester's Clean Air Plan to tackle Nitrogen Dioxide Exceedances at the Roadside

Appendix B - Technical Note: Vehicle Sector Review – Taxis (Hackney Carriages and Private Hire Vehicles)

DRAFT FOR APPROVAL

June 2022

1. Introduction

Background

1.1 After the initial Outline Business Case (OBC) submission in March 2019, a series of technical notes were published setting out the results of analysis and research carried out to better understand the vehicles in scope for the scheme. For taxis, this included, in particular, *Technical Note 10: Taxi Behavioural Responses Note*, and *Technical Note 19: Taxi and Private Hire Vehicle Fleet Research.*[1]

1.2 Further notes were produced setting out the development of analytical tools for taxis, with the latest published summary of that work provided in *T4 Appendix A* of the Modelling for Consultation.[2] Research was carried out with taxi owners potentially in scope for the scheme, including deliberative research[3] and a survey with 66 taxi owners.[4]

1.3 This evidence formed the basis of the development of the Option for Consultation. From March 2020, it became clear that the Covid-19 pandemic would affect the Greater Manchester Clean Air Plan (GM CAP); a programme of work was carried out in 2020/2021 to better understand the possible impacts of the Covid-19 pandemic on the GM CAP, published as the Impacts of COVID Report in June 2021.[5] This evidence, alongside feedback from the Consultation, was used to inform the revised GM CAP as approved by the ten GM local authorities in June/July 2021.

1.4 At that time, GM identified several possible risks to the GM CAP, which included concerns about the risk of vehicle price increases and the impact of any further lockdowns in the UK or countries in the supply chain.

1.5 This report, which was originally developed in February 2022, draws a series of findings and conclusions to better understand the circumstances affecting hackney and PHV owners in Spring 2022 (based upon the previous' GM CAP implementation date) and the implications for the GM CAP and surrounding policy framework.

1.6 Since Spring 2022, there have been further dramatic changes to the economic context in the UK which are not explicitly addressed in this report but are set out in **Appendix E**. A range of factors associated with the impact from war in Ukraine, increased costs of energy and fuel, changes to Bank of England base rates and forecasts, global supply chain challenges, and the cost-of-living crisis have combined to create a context of increased financial hardship for businesses and families.

Structure of Note

1.7 The remaining sections of the report are structured as follows:

[1] All available at https://cleanairgm.com/technical-documents/
[2] https://assets.ctfassets.net/tlpgbvy1k6h2/3AKtd1g0fg5OwQFNzc5FlQ/2b42ae34e93d292a5ec2eb26f7f5e8fb/T4_-_Appendix_A_Behavioural_Response_Cost_Models_and_Demand_Sifting_Tool.pdf
[3](ctfassets.nethttps://assets.ctfassets.net/tlpgbvy1k6h2/15ZwMWdJ0EQ1NvqPNG1Hgw/f856512a823040934674eb543573ff70/GM_CAP_Deliberative_Research_ALL_-_Spring_2019.pdf)
[4]https://assets.ctfassets.net/tlpgbvy1k6h2/5e5iXeGPZwXiSvaTTWgID0/4c93aa82e0d4ec3e5f4f7ddcb29ae9ff/GM_CAP_Survey_and_Interviews_VAN_-_Autumn_2019.pdf
[5]https://assets.ctfassets.net/tlpgbvy1k6h2/2vJXVuLxfXON7HexGli29Q/4726e8696145d9f10bd1b19c16bdc1dd/Appendix_5_____Impacts_of_Covid-19_Report.pdf

- **Section 2** provides a review of the in-scope vehicles of the current Taxi sector in GM;
- **Section 3** reviews the impacts of Covid-19 on the Taxis sector, with a particular focus on the availability and prices of purchasing new and used taxis. This chapter also considers the vulnerability impacts of Covid-19 on the sector; and
- **Section 4** provides a summary of the key findings, also presenting details of any key risks or issues facing the sector in responding to GM CAP.

1.8 In addition, **Appendix A** provides a list of data used to inform the report and **Appendix B** reviews the recent changes in travel behaviour within GM through the pandemic up until January 2022.

2. Review of Vehicles in Scope

Overview of Vehicle Sector

2.1 Taxis offer a flexible form of door-to-door public transportation. The taxi vehicle sector comprises of two vehicle types:

- Hackney Carriage; and
- Private Hire Vehicles (PHVs).

2.2 Hackney Carriages can be distinguished from PHVs in their licensing and operating regime. Hackney Carriages can legally be hailed by passengers in the street, pick up fares from taxi ranks and take pre-bookings from within their licensing authority (or an origin outside their area in the case of pre-bookings only). PHVs must be pre-booked with a licensed operator and cannot be hailed by passengers in the street or use taxi ranks. For the purposes of this note, 'taxi' refers to the collective term for both Hackney Carriages and PHVs.

2.3 Local Authorities regulate Hackney Carriage fare tariffs and have control over total Hackney Carriage numbers through the issue of licences. A licence is required for both the Hackney Carriage and for any person driving a Hackney Carriage. PHVs fares are not regulated by the local authorities and the council has no power to regulate fares charged.

2.4 Detailed research on taxis has been carried out as part of the Clean Taxi Fund (CTF) - Case for Measure, produced in Autumn 2020 and Cost Response Model reports.

2.5 It is important to note that there are a small number of Hackney Carriage that operate within GM that are not registered to a GM Local Authority (LA), these vehicles would also be affected by GM CAP. Due to Hackney Carriage operational requirements, non-GM licensed Hackney Carriages are not permitted to take fares solely within GM. Therefore, non-GM Hackney Carriages operating within GM will be for trips where the journey origin is outside GM or for pre booked journeys.

2.6 For context, the proportion of vehicle types in GM, relative to the regional and national averages, are provided in **Table 2-1** based on the latest available registration statistics from the DfT. There will be instances, particularly for commercial usage, where vehicles are registered in one location but used in another, but this table provides an overview of the relative size of each fleet.

Table 2-1 Proportion of Vehicle Types Registered by Area, Jan-22

	Cars	Van	HGV	Bus & Coach	Other
GB	85.0%	11.3%	1.3%	0.4%	2.1%
England	85.1%	11.3%	1.3%	0.4%	1.9%
NW	85.7%	10.9%	1.5%	0.3%	1.6%
GM	85.6%	11.8%	1.6%	0.4%	0.7%

Source: Department for Transport, Statistical data set, All vehicles (VEH01), Last updated 13 January 2022

2.7 Within these national statistics, Hackneys are one of a number of vehicle types categorised as 'other'; PHVs are included within the cars category.

2.8 Referring to ANPR data captured by GM in 2019, compared to the GM Taxi fleet list, GM licensed taxis as a proportion of cars registered in GM equates to approximately 1.4%.

In-scope Vehicles

Compliance of the Hackney Carriage fleet serving GM

2.9 **Table 2-2** presents the number of Hackney Carriages estimated to be serving GM in 2019 and 2023, including splits by compliant and non-compliant vehicles which failed to meet Euro VI standards at that point.

Table 2-2 Number of Hackneys Carriages in GM by compliance – 2019 & 2023 (without CAP)

	2019			2023[6]		
	GM Licensed	Non-GM Licensed	Total	GM Licensed	Non-GM Licensed	Total
Compliant	259 (12%)	37 (13%)	296 (12%)	738 (36%)	105 (36%)	844 (36%)
Non-Compliant	1,821 (88%)	259 (87%)	2,080 (88%)	1,342 (64%)	191 (64%)	1,532 (64%)
Total	2,080 (100%)	296 (100%)	2,376 (100%)	2,080 (100%)	296 (100%)	2,376 (100%)

Source: FBC Appendix V, T4 Annex C: Vehicle Population Estimates (FBC – includes 1 year delay in natural fleet upgrade)

2.10 In 2019, there were 2,376 Hackney Carriages serving GM, with 296 (12%) deemed compliant and 2,080 (88%) non-compliant. Non-GM licensed vehicles represent 10% of the total.

2.11 The large proportion of Hackney Carriages which are non-compliant is partly due to a relatively long lifespan, with many Hackney Carriage owners typically holding onto vehicles for several years (given the limited second-hand market for this vehicle type). Also, compliant Hackney Carriages did not come onto the market until 2015, with the Euro VI standard coming into force for Hackney Carriages in 2015.

2.12 GM forecast that the number of non-compliant Hackney Carriages serving GM will have reduced from 2,080 in 2019 to 1,532 by 2023 as a result of ongoing vehicle upgrades. This means that 548 vehicles would have been upgraded from a non-compliant vehicle as a result of business-as-usual purchase.

2.13 The anticipated rate of upgrade for Hackney Carriages was revised in 2021 based on evidence that the Covid-19 pandemic had delayed vehicle purchases, such that the fleet was estimated to be around 12 months older than previously forecast (note this delay is represented within the values quoted in **Table 2-2)**.

[6] Note: 2023 vehicle volumes include a one-year delay in the natural turnover of the taxi fleet assumption. This assumption was agreed with JAQU in Spring 2021 and incorporated within the 2021 modelling undertaken by GM support the FBC and is currently being reviewed based on new available data.

2.14 The rationale and methodology for this change is set out in the report "GM's proposed approach to representing the impact of Covid-19 in core modelling scenarios".[7] This had the effect of reducing the number of GM-based Hackney Carriages expected to make a business-as-usual upgrade between 2019 and 2023 by 149.[8]

Compliance of the PHV fleet serving GM

2.15 **Table 2-3** presents the number of PHVs estimated to be serving GM in 2019 and 2023, including splits by compliant and non-compliant vehicles which failed to meet Euro VI standards at that point.

Table 2-3 Number of PHVs in GM by compliance – 2019 & 2023 (without CAP)

	2019			2023		
	GM Licensed	Non-GM Licensed*	Total	GM Licensed	Non-GM Licensed	Total
Compliant	3,595 (29%)	1,384 (29%)	4,979 (29%)	8,425 (68%)	3,243 (68%)	11,668 (68%)
Non-Compliant	8,806 (71%)	3,390 (71%)	12,196 (71%)	3,976 (32%)	1,530 (32%)	5,506 (32%)
Total	12,401 (100%)	4,773 (100%)	17,174 (100%)	12,401 (100%)	4,773 (100%)	17,174 (100%)

*Source: FBC Appendix V, T4 Annex C: Vehicle Population Estimates. *Note: Non-GM fleet information estimated based on FOI request data. Note: 2023 values include a 12 month delay to the natural turnover of the fleet due to the pandemic*

2.16 In 2019, there were 17,174 PHVs serving GM, with 4,979 (29%) deemed compliant and 12,196 (71%) non-compliant. Vehicles licensed with one of GM's ten local authorities are as likely to be compliant as non-GM licensed vehicles (29% compliant).

2.17 A proportion of the PHVs within the taxi fleet would normally be upgraded each year, with the oldest vehicles being scrapped out of the fleet. GM's forecast suggests that the number of non-compliant PHVs serving GM will have reduced from 12,196 in 2019 to 5,506 by 2023. Meaning 6,690 vehicles would have been upgraded from a non-compliant vehicle as a result of business-as-usual purchase.

2.18 Based on evidence that the Covid-19 pandemic had delayed vehicle purchases, the anticipated rate of upgrade for PHVs was revised in 2021, such that the fleet was estimated to be around 12 months older than previously forecast. The rationale and methodology for this change is set out in the report "GM's proposed approach to representing the impact of Covid-19 in core modelling scenarios"[9]. This had the effect of reducing the number of GM-based PHVs expected to make a business-as-usual upgrade between 2019 and 2023 by 965[10].

[7] https://assets.ctfassets.net/tlpgbvy1k6h2/2ZMJ3DJXiv7p3xOeZu4CYQ/247196ef60e33ac89f7f8938e1e16418/Appendix_6D_____GM_proposed_approach_to_representing_the_impact_of_Covid-19_in_core_modelling_scenarios.pdf

[8] TN 37 Vehicle Populations, compared to T4 Annex C

[9] https://assets.ctfassets.net/tlpgbvy1k6h2/2ZMJ3DJXiv7p3xOeZu4CYQ/247196ef60e33ac89f7f8938e1e16418/Appendix_6D_____GM_proposed_approach_to_representing_the_impact_of_Covid-19_in_core_modelling_scenarios.pdf

[10] TN 37 Vehicle Populations, compared to T4 Annex C

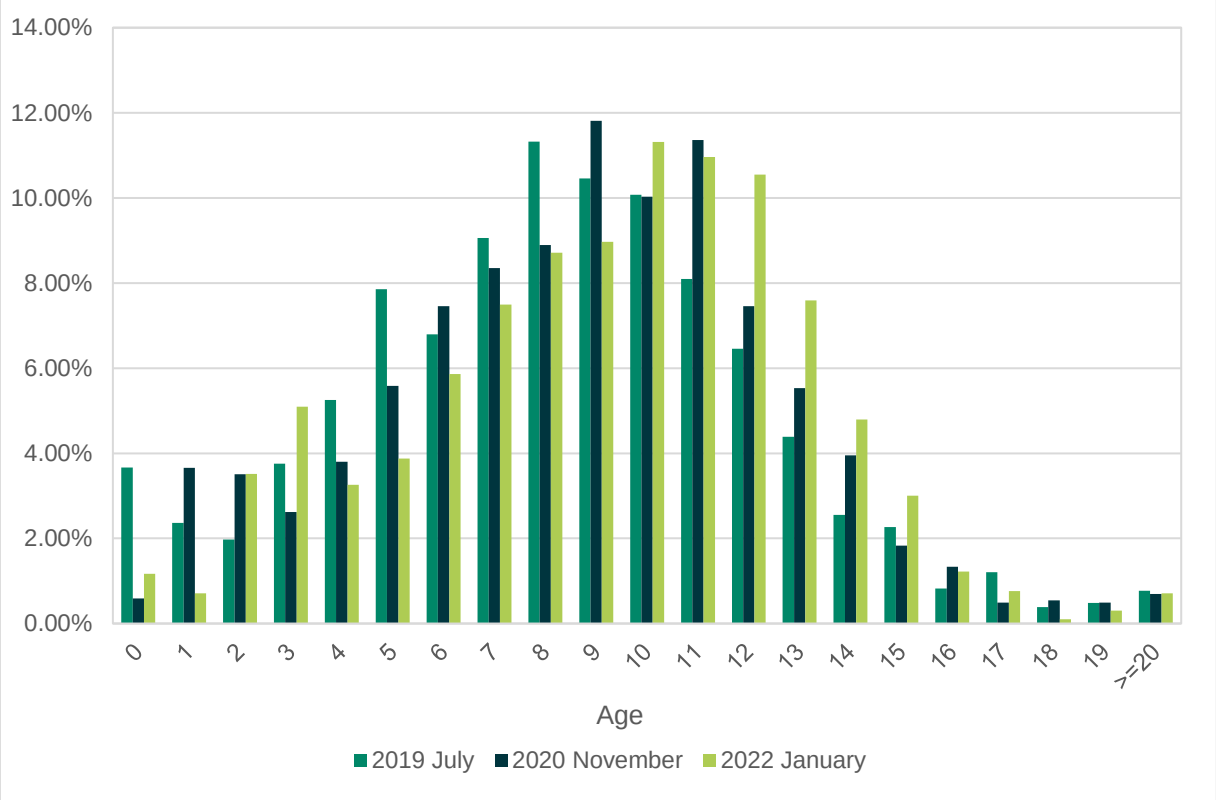
Review of Fleet Profile

2.19 Taxi licensing data from GM local authorities has been obtained and compared across July 2019, November 2020 and January 2022 to understand the taxi fleet profile operating in GM and how it has changed over time.

2.20 **Figure 2-1** below provides an insight into the change of GM-registered Hackney Carriage age profile over time. Only 12 brand-new Hackney Carriages (0-year-old) were licensed within GM within the year before November 2020 which is significantly lower than that of 2019 when 76 brand-new Hackney Carriages were licensed. The number of brand-new Hackney Carriages licensed increased from 12 to 23 in 2022 although this is still lower than the 2019 figure of 76, and suggests that the purchasing of new Hackney Carriages has significantly reduced since 2019.

2.21 It can be seen clearly that the Hackney Carriage age profile has been slightly "shifted" to the right from 2019 to 2022, which indicates that fleet age has grown older, and the fleet natural upgrade process had been delayed slightly.

Figure 2-1 Change in Hackney Carriage Fleet Age Distribution

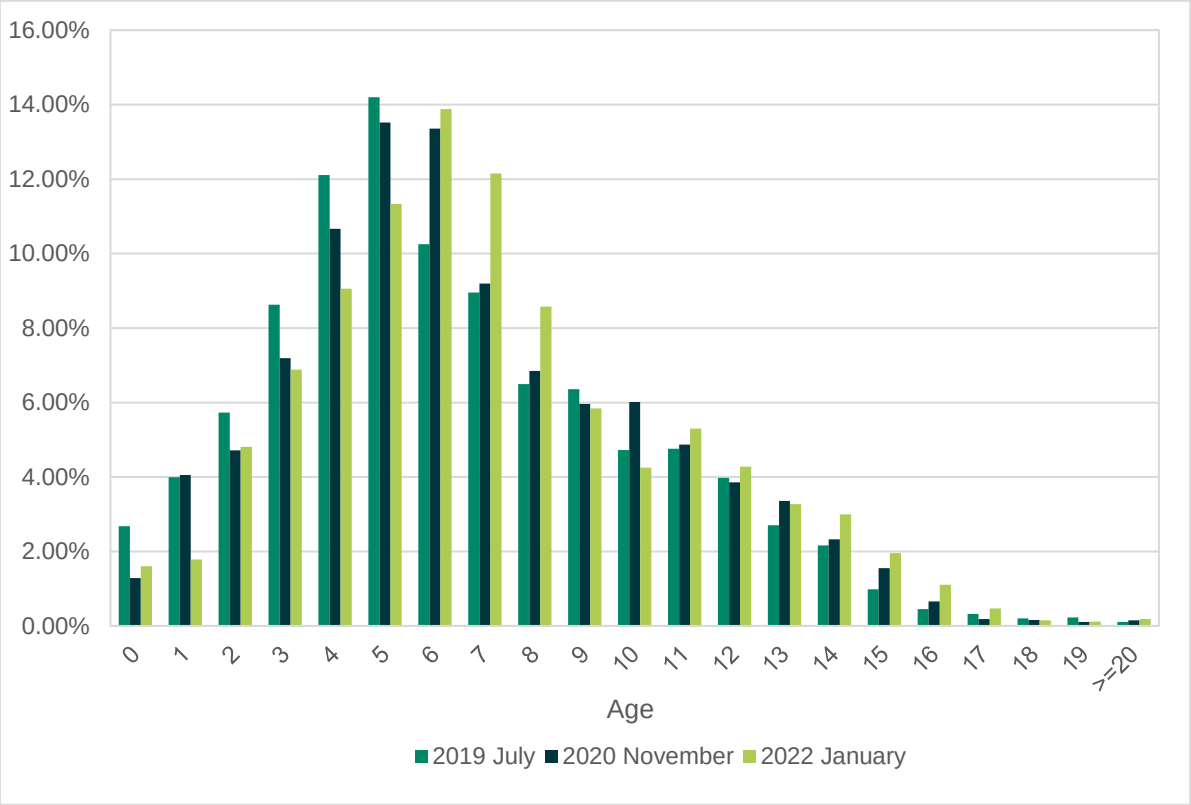


Source: TfGM, GM Taxi Licensing Data (2019, 2020 and 2022)

2.22 A similar trend can be seen in PHVs as shown in **Figure 2-2**, with 147 brand-new PHVs licensed in the year before November 2020, which is less than half of the number in 2019 (327). 181 brand-new PHVs were licensed in 2022, a slight increase from 2020, although still lower than the number in year 2019 (327). This suggests there has been a reduction in the purchasing of brand-new PHVs since 2019.

2.23 The PHV fleet age profile had also grown older in 2020 and 2022 comparing to 2019, which indicates that the PHV fleet natural-upgrade process had also been delayed. However, the upgrade delay seems to be less significant when compared to that of Hackney Carriages.

Figure 2-2 Change in PHV Fleet Age Distribution



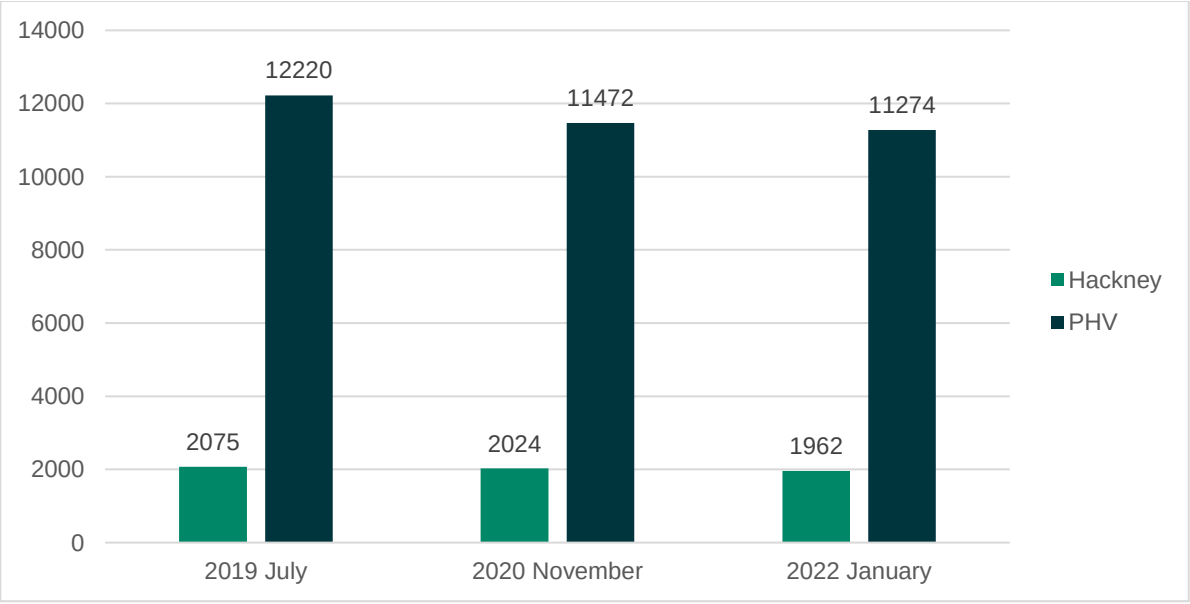
Source: TfGM, GM Taxi Licensing Data (2019, 2020 and 2022)

2.24 ANPR data shows the age distribution for both GM registered Hackney Carriages and PHVs increased from 2019 to 2021. Comparisons of key vehicle profiles have been conducted to examine the changes over time. The key findings are as follows:

Total GM registered taxi numbers

2.25 The total number of GM licensed taxis decreased from 2019 to 2022 by 5.4% for PHVs and 7.7.% for Hackney Carriages as shown in **Figure 2-3**.

Figure 2-3 Total GM Licensed Hackney Carriage and PHV Numbers



Source: TfGM, GM Taxi Licensing Data (2019, 2020 and 2022)

Taxi age profile

2.26 The average age of both PHVs and Hackney Carriages in the GM licensed fleet increased from 2019 to 2022 as shown in **Table 2-4**. The PHV average age increased by 0.7 years and Hackney Carriages by 0.9 years. The average age of PHVs is now 7.1 years and 9.1 years for Hackney Carriages

Table 2-4 Average Vehicle Age

Taxi Types	Data year	2019	2020	2022
Hackney Carriage	Average Age	8.2	8.7	9.1
	Most common age group	8	9	10
PHV	Average Age	6.4	6.8	7.1
	Most common age group	5	5	6

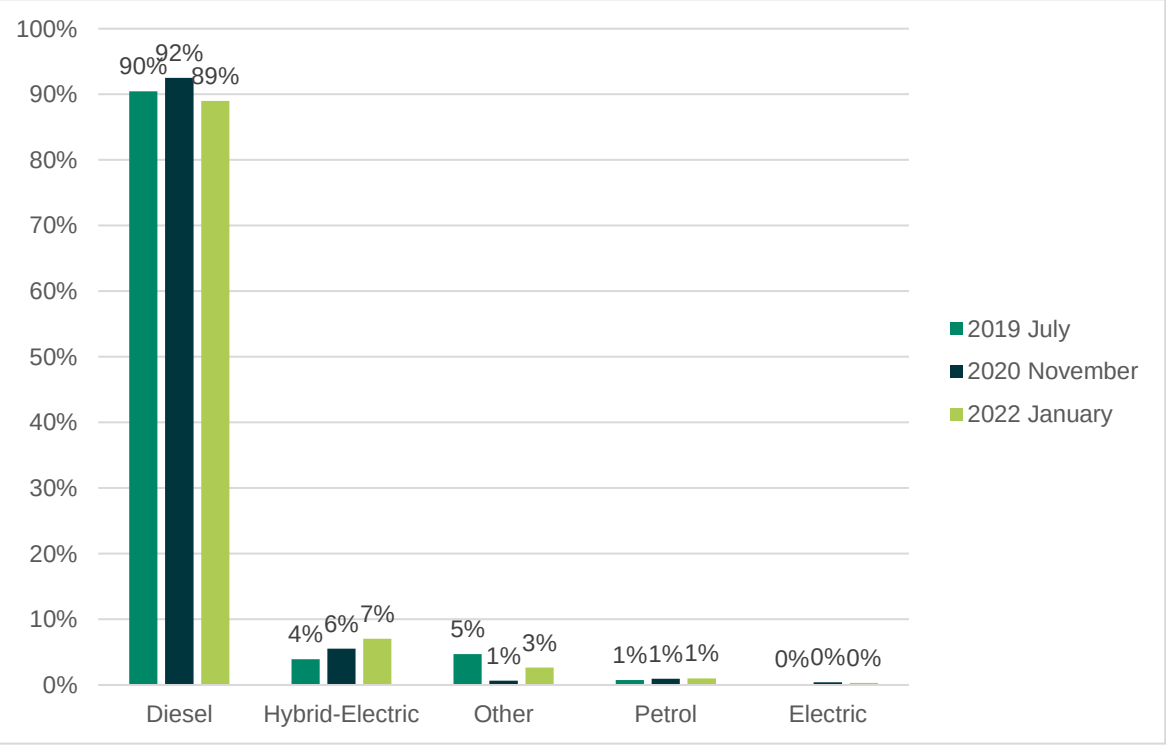
Source: TfGM, GM Taxi Licensing Data (2019, 2020 and 2022)

Fuel types

2.27 The change of the fuel types of Hackney Carriages and PHVs licensed in GM are shown in **Figure 2-4** and **Figure 2-5**.

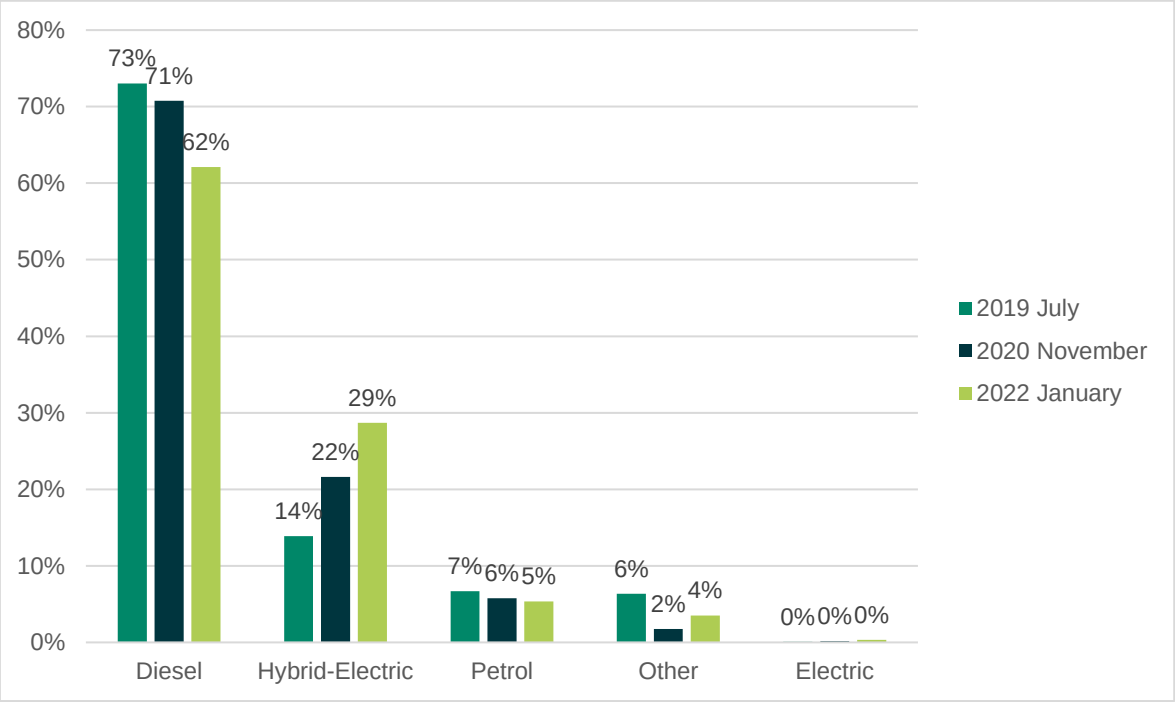
2.28 No significant change has been seen in Hackney Carriage fuel types with 89% still fuelled by diesel. Conversely, the proportion of PHVs fuelled by diesel has fallen from 73% to 62% between 2019 and 2022. There has been a shift from diesel to Hybrid-electric for PHVs, with Hybrid-Electric PHVs rising from 14% 2019 to 29% in 2022. The EV uptakes remain very low at less than 1% for both PHVs and Hackney Carriages.

Figure 2-4 Fuel Types for GM Hackney Carriages



Source: TfGM, GM Taxi Licensing Data (2019, 2020 and 2022)

Figure 2-5 Fuel Types for GM PHVs

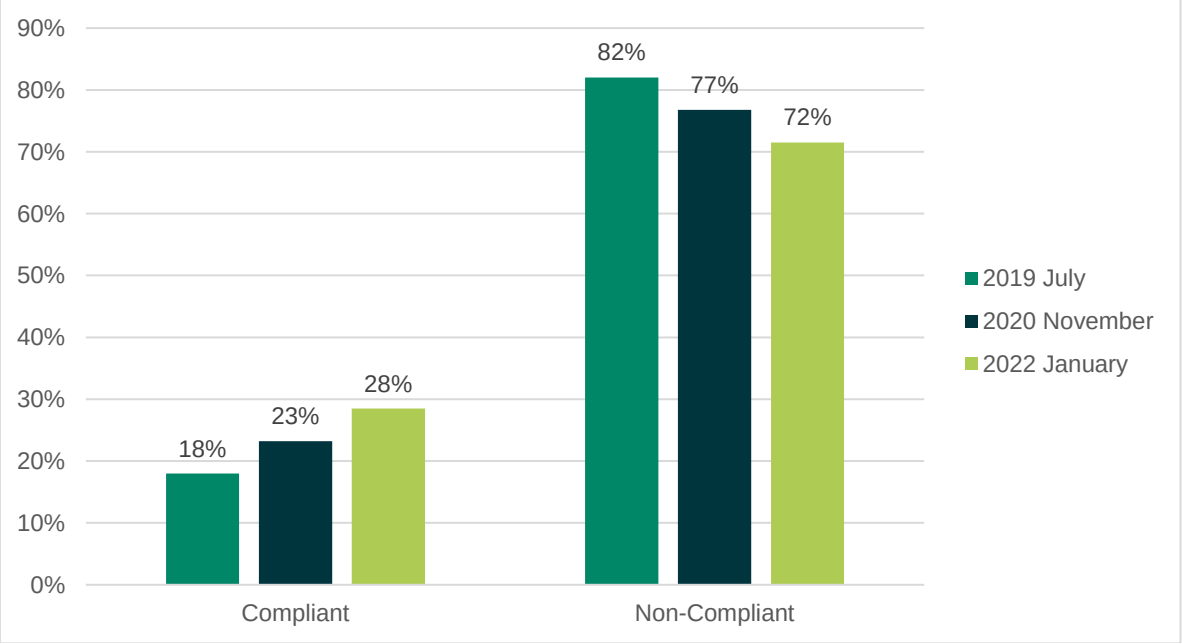


Source: TfGM, GM Taxi Licensing Data (2019, 2020 and 2022)

Compliance rate

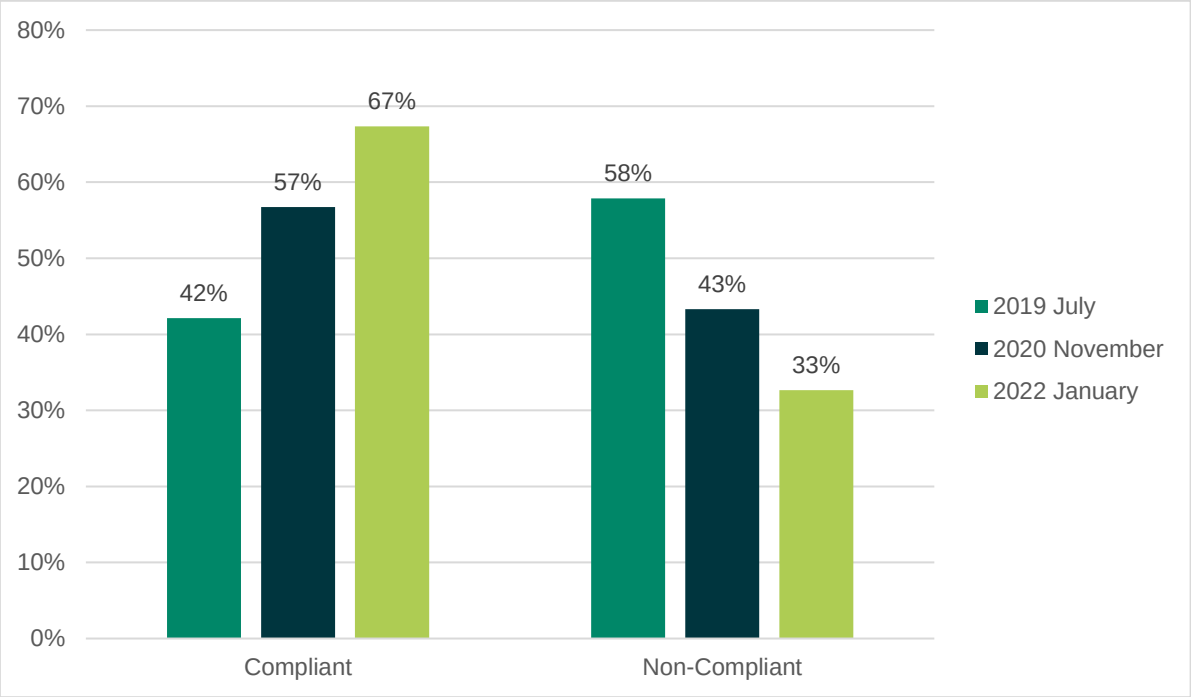
2.29 Hackney Carriage compliance has increased from 18% in 2019 to 28% in 2022, averaging a 20% increasing compliance rate per annum over the observed period as shown in **Figure 2-6**. PHV compliance has increased from 42% in July 2019 to 67% in January 2022, averaging a 21% increase compliance rate per annum over the observed period as shown in **Figure 2-7**. In addition, the PHV compliance level in 2019 is significantly higher than the compliance level of Hackney Carriages.

Figure 2-6 Hackney Carriage Compliance Rates



Source: TfGM, GM Taxi Licensing Data (2019, 2020 and 2022)

Figure 2-7 PHV Compliance Rates



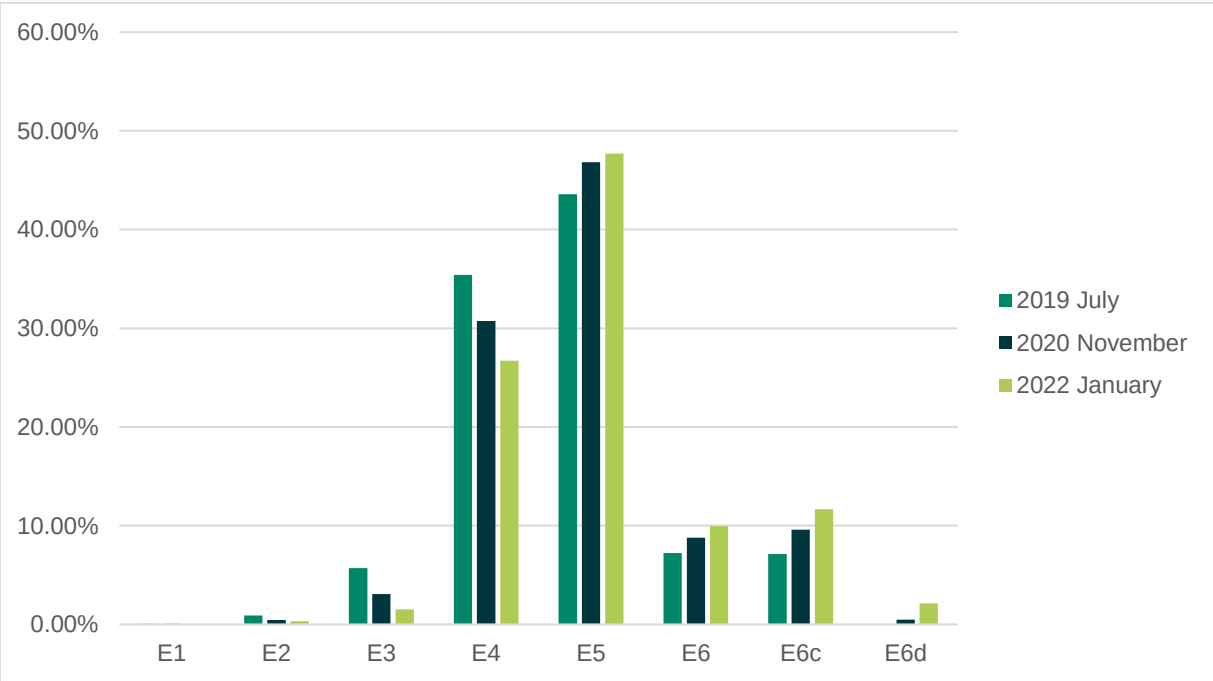
Source: TfGM, GM Taxi Licensing Data (2019, 2020 and 2022)

Euro classifications

2.30 There is a sustained reduction in Hackney Carriage Euro IV (E4) engines across the observed period. The E5 remains the predominant engine standard for Hackney Carriages in 2022 with 48% share which has increased between 2019 and 2022.

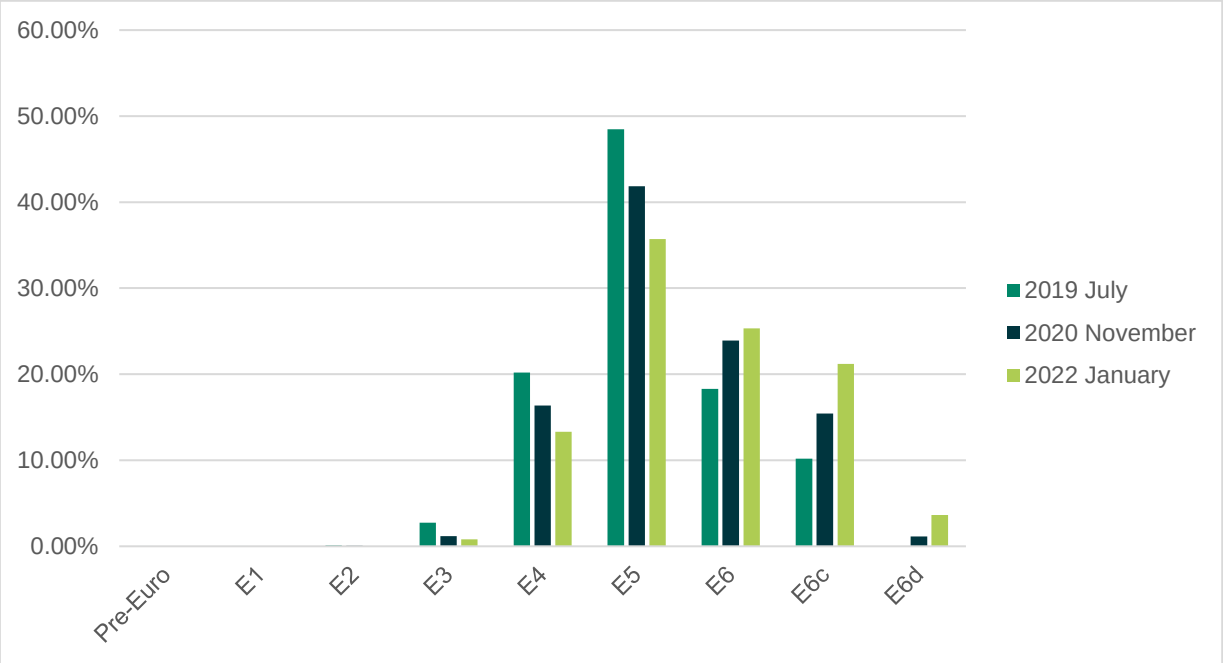
2.31 A significant reduction was seen in PHV E4 and E5 engines and corresponding increases were seen in E6 and E6c. It is worth noting that the proportion of PHVs with E5 engines decreased between 2019 and 2022 unlike Hackney Carriages.

Figure 2-8 Hackney Carriage Euro Classification trend



Source: TfGM, GM Taxi Licensing Data (2019, 2020 and 2022)

Figure 2-9 PHVs Euro Classification trend



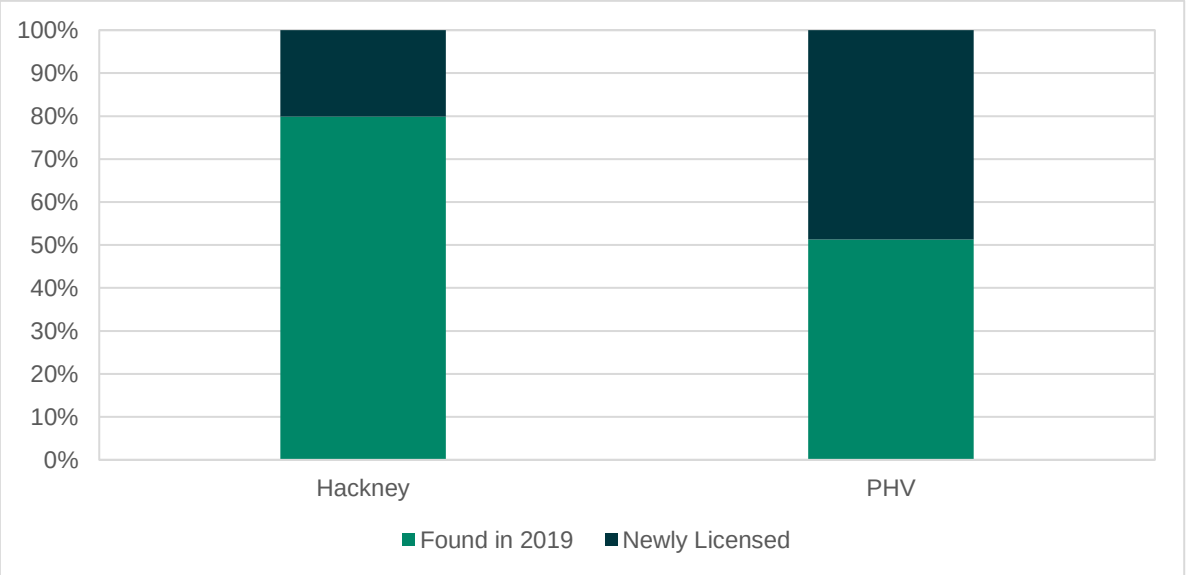
Source: TfGM, GM Taxi Licensing Data (2019, 2020 and 2022)

Registration by LAs

2.32 Vehicle registrations for Hackney Carriages and PHVs have been examined in 2022 to compare with 2019 showing the proportion of unique registration plates in GM to demonstrate the churn in the vehicle market.

2.33 **Figure 2-10** shows the percentage of Hackney Carriages and PHVs licensed in 2022 that were found in 2019, suggesting that since 2019, 20% of licensed Hackney Carriages and 49% of licensed PHVs are 3 years old or less. The level of natural churn experienced in the PHV fleet is significantly higher than in the Hackney Carriage fleet, demonstrating a quicker, natural trajectory within the PHV market to achieve compliance with the GM CAP. This would be in-keeping with the average age of the vehicles, as presented earlier within this section which demonstrates that in GM PHVs are two years younger than Hackney Carriages on average.

Figure 2-10 2022 Hackney Carriages and PHVs found in 2019 records



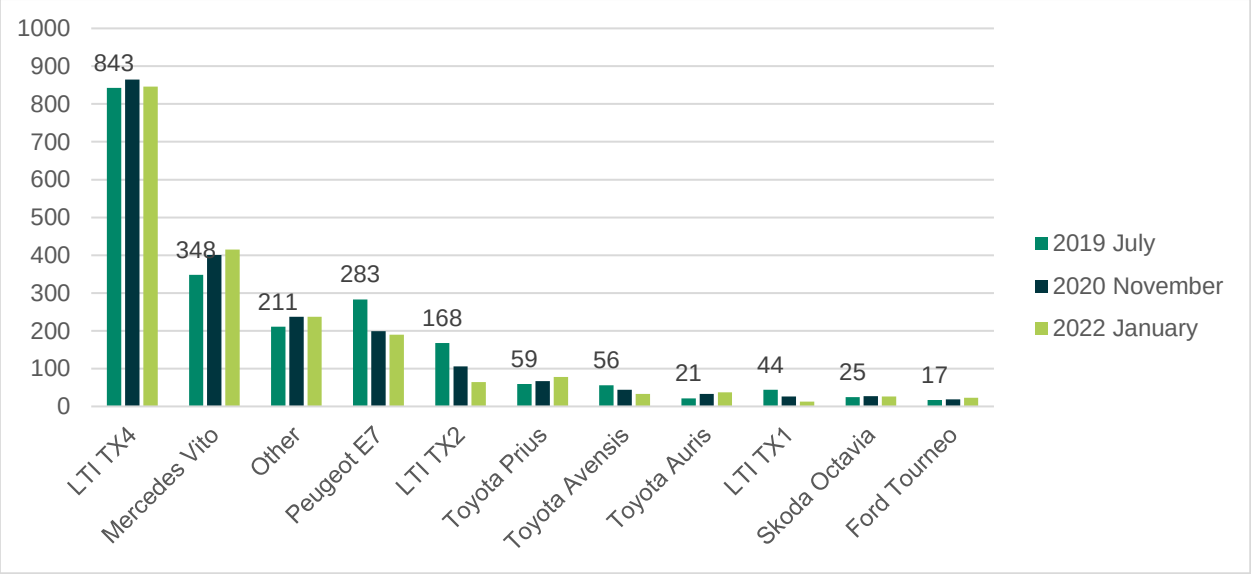
Source: TfGM, GM Taxi Licensing Data (2019, 2020 and 2022)

Taxi makes and models

2.34 The London Taxi Company TX4 (LTI TX4) has remained the most popular vehicle representing 43% of GM's Hackney Carriage fleet in 2022 as shown in **Figure 2-11.**

2.35 The most common PHV used in GM in 2022 is still the Skoda Octavia which accounts for 19% of the fleet as shown in **Figure 2-12**.

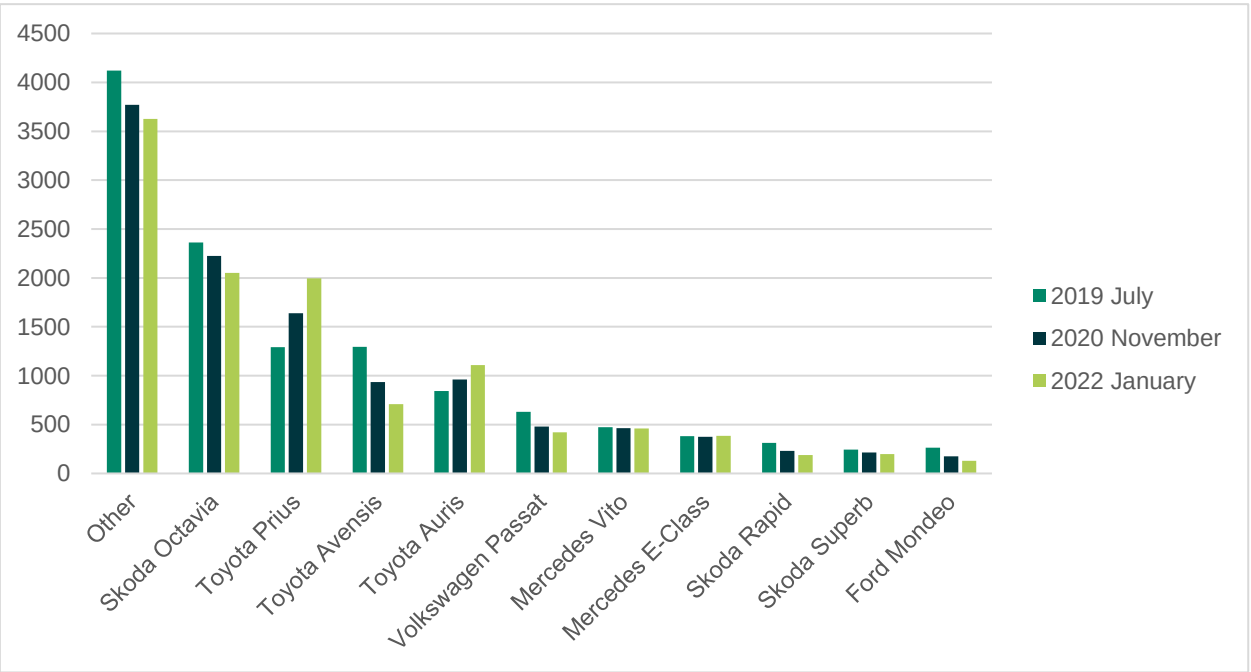
Figure 2-11 GM Hackney Carriage Make and Model Trend



Source: TfGM, GM Taxi Licensing Data (2019, 2020 and 2022)

Note: Some vehicle types included in this graph are typical of a PHV fleet however they are permitted for Hackney Carriage licensing by some GM local authorities

Figure 2-12 GM PHVs Make and Model Trend



Source: TfGM, GM Taxi Licensing Data (2019, 2020 and 2022)

Note: Some vehicle types included in this graph such as Mercedes Vito, are more commonly associated with Hackney Carriages however a smaller proportion are operated as a PHV

Updated traffic and travel patterns

2.36 Using ANPR data, Hackney Carriage and PHV frequencies have been observed across multiple locations within GM[11]. The observations show how proportions of Hackney Carriages and PHVs change over the observed years at different locations.

Hackney Carriage

2.37 **Table 2-5** shows the proportions of Hackney Carriages by GM location and the change in proportions from 2019 to 2021. Using ANPR data, taxis were observed at locations inside the M60, outside the M60 and inside the Inner Ring Road (IRR).

2.38 Across the observed period (2019-2021), there was a reduction in the proportion of Hackney Carriages located in the IRR whilst there was a proportional increase in the number of Hackney Carriages located inside the M60. The largest proportion of Hackney Carriages inside the M60 were observed on the A5103 Princess Road, with 25% in 2019, observing a 4% increase from 2019 to 2021. Inside the IRR a high proportion of Hackney Carriages were observed on the B6469 Fairfield Street in 2019 (21%), close to Manchester Piccadilly rail station, which observed a 6% decrease from 2019 to 2021.

Table 2-5 Proportion of Hackney Carriages by GM Location

	2019	2020	2021	2019-2021 % Change
Inside M60[12]	57%	52%	62%	5%
Outside M60	7%	11%	7%	0%
Inside Inner Ring Road (IRR)	36%	37%	30%	-6%

Source: ANPR (2019, 2020 and 2021)

PHV

2.39 Similar proportions can be seen for PHVs, as shown in **Table 2-6**, with the category 'Inside M60' having the largest proportions and 'Outside M60' having the smallest proportion. However, the proportion of PHVs inside the IRR is lower than Hackney Carriages which could be associated with Hackney Carriage depots located in Manchester City Centre and pick-up areas such as at Manchester Piccadilly rail station.

2.40 The proportion of PHVs inside the M60 increased by 2% from 2019 to 2021, from 71% in 2019 to 73% in 2021. Inside the M60 saw a 1% increase from 2019 and 2021, and inside the IRR a 3% decrease from 2019 and 2021 was observed.

[11] ANPR data based on data collection from following number of sites by location: Inside M60 = 9 sites, Outside M60 = 3 sites, Inside IRR = 3 sites

[12] 'Inside M60' refers to taxis captured inside the M60 motorway but outside the IRR.

Table 2-6 Proportion of PHVs by GM Location

	2019	2020	2021	2019-2021 % Change
Inside M60	71%	68%	73%	2%
Outside M60	9%	12%	10%	1%
Inside IRR	20%	20%	17%	-3%

Source: ANPR (2019, 2020 and 2021)

2.41 Similarly to Hackney Carriage, the largest proportion of PHVs observed inside the M60 in 2019 were on the A5103 Princess Road (27%), with an observed 1% increase from 2019 to 2021. Across both taxi types, the proportion of vehicles recorded inside the IRR fell between 2019 and 2021 which is consistent with the findings by TfGM across modes for the 'regional centre'.Error! Reference source not found.

3. Review of Covid-19 impacts on vehicle sector

Overview

3.1 This section provides an update on the direct impacts the Covid-19 pandemic and associated restrictions have had on taxi fleets and licensed drivers.

3.2 This section also assesses the impact Covid-19 has had on the taxi market for the purchasing of new and second-hand compliant vehicles.

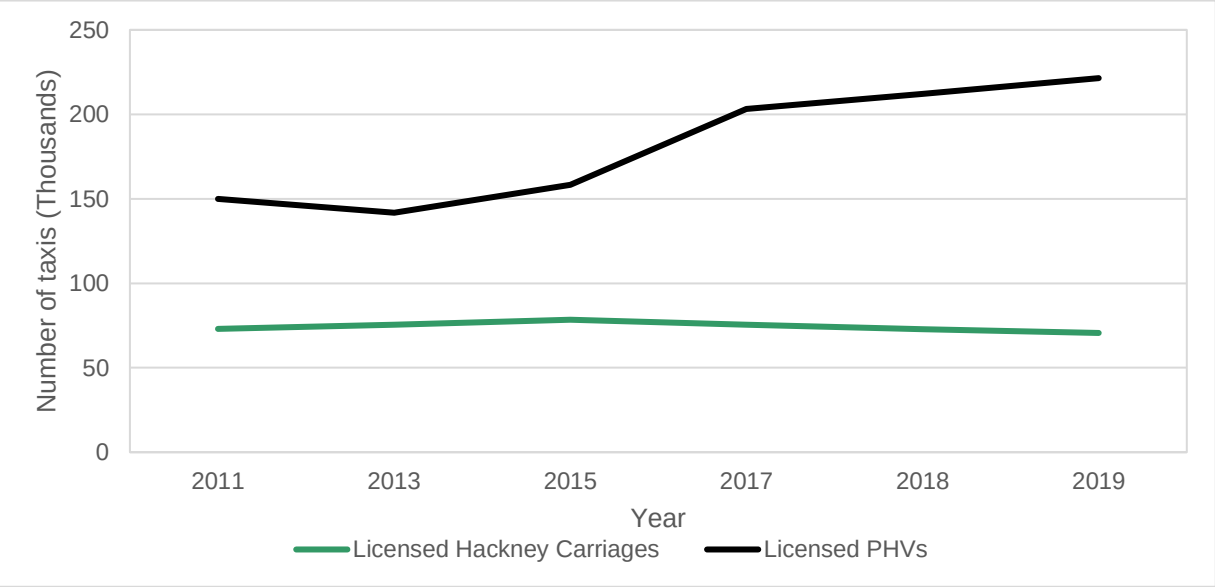
Pre-Pandemic – Sector Related Trends

3.3 The following charts, displaying DfT Taxi Statistics[13], show the trend in licensed taxi vehicles and drivers between 2011 and 2019. The dataset follows the same trend for both.

3.4 Assessing pre-pandemic conditions (2011-2019), **Figure 3-1** and **Figure 3-2** show the following:

- there is a direct collation between the trend in licensed Hackney Carriage and PHVs with the number of licensed Hackney Carriage and PHV drivers;
- the number of licensed Hackney Carriage vehicles and drivers in England has remained stable across the pre-pandemic period. Whilst the number of licensed Hackney Carriage drivers in England has increased by 2% in 2019 compared to 2011, the number of licensed Hackney Carriages in England has decreased by 3%; and
- the number of licensed PHVs and drivers in England has steadily increased over the period, increasing 32% in the number of PHVs in 2019 compared to 2011 and 28% in the number of licensed drivers in 2019 compared to 2011.

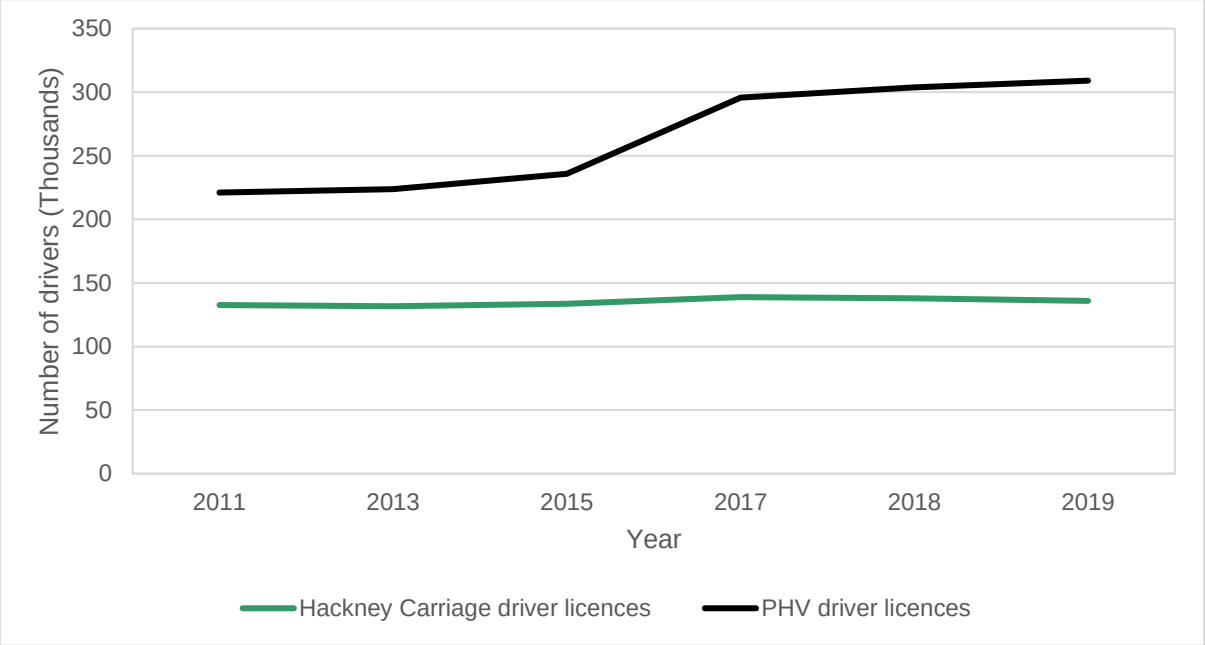
Figure 3-1 Licensed Hackney Carriage and licensed PHVs: England



Source: https://www.gov.uk/government/collections/taxi-statistics

[13] https://www.gov.uk/government/organisations/department-for-transport/series/taxi-statistics

Figure 3-2 Licensed Hackney Carriage drivers and Licensed PHV drivers: England

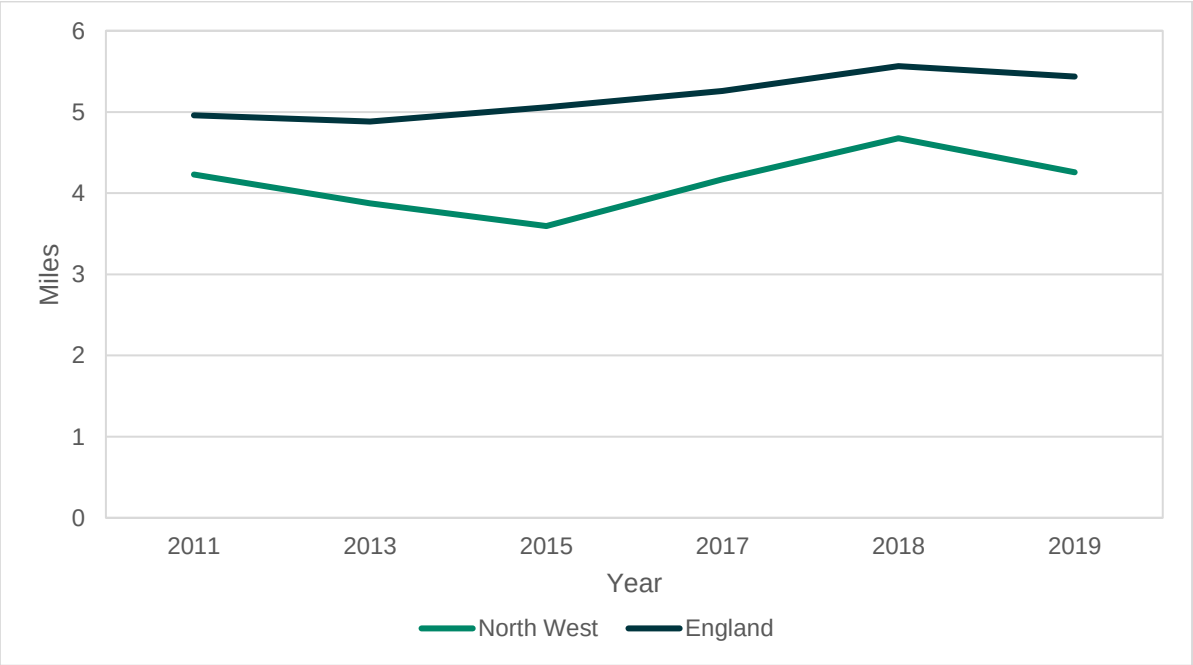


Source: https://www.gov.uk/government/collections/taxi-statistics

Mileage

3.5 The average trip lengths taken in Hackney Carriages and PHVs has remained steady over the observed period as shown in **Figure 3-3**. Assessing pre-pandemic conditions (2011-2019), trends show that the average trip mileage in a taxi in the North West is lower than the average for England however the gap narrowed in 2018.

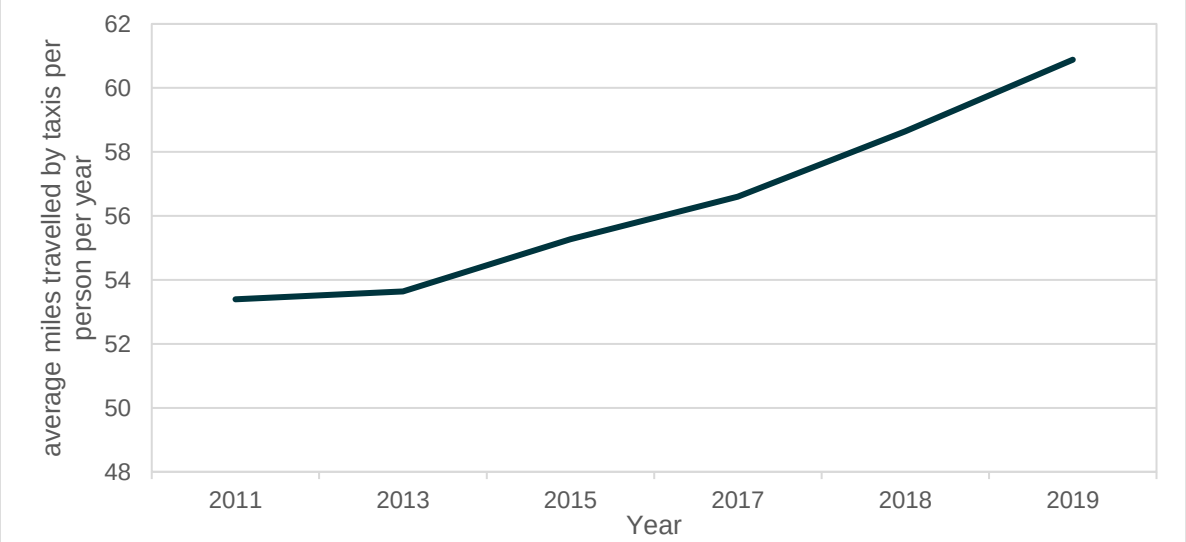
Figure 3-3 Average trip lengths of Hackney Carriage and PHVs



Source: https://www.gov.uk/government/statistical-data-sets/nts03-modal-comparisons

3.6 **Figure 3-4** displays the average miles travelled by taxis per person per year in England. The results show that the average miles travelled by taxis per person per year has increased year-on-year of the observed period prior to the pandemic.

Figure 3-4 Average miles travelled by Hackney Carriage or PHV per person per year: England



Source: https://www.gov.uk/government/statistical-data-sets/nts03-modal-comparisons

Covid-19 Different Industries' Effects on the Hackney Carriage and PHV Sector

Background

3.7 The first UK national lockdown in March 2020 had a significant impact on the Hackney Carriage and PHV sector, with demand significantly decreasing as restrictions limited mobility across the UK.

3.8 After 10 years of stable numbers, licensed Hackney Carriages fell between 2020 to 2021. Licensed PHVs have taken a significant fall from March 2020 to March 2021, a fall of 38,000 vehicles.

3.9 Of the national totals for licensed taxis, 20% are registered within GM (2018 18%) and 15% of licensed drivers are registered within GM (2018 13%). Between 2020 and 2021 there was a reduction of 1,500 licensed vehicles within GM, although there was an increase of 331 licensed drivers within GM between 2020 and 2021, this does not follow the national trend with a decrease of 7,082 in England and Wales during the same time period. However, the number of GM licensed drivers has not recovered to 2019 (pre-pandemic) levels.

3.10 Through review of GM based ANPR data, the number of unique Hackney Carriage vehicles fell 22% between 2019 and 2020 and PHVs fell 7% over the same period. The number of unique Hackney Carriages and PHVs recovered in 2021 with a 14% increase for Hackney Carriages compared to 2020 and 11% increase for PHVs compared to 2020 however 2021 volumes were still below pre-pandemic (2019). In addition, trip frequency between 2019 and 2020 fell 49% for Hackney Carriages and 23% for PHVs. Trip frequency recovered between 2020 and 2021 however 2021 data were marginally below average trip frequency recorded in 2019 with Hackney Carriages 0.6% and PHVs 5% below 2019 levels.

3.11 The Licensed Private Hire Car Association (LPHCA) estimated in 2021 that only 160,000 of the nearly 300,000 pre-Covid-19 cab drivers are now active. An interview conducted with PHV firm, Cresta Cars, based in Manchester, indicated that, since the pandemic, the number of drivers has reduced from 400 to 300[14].

3.12 As a result of the reduction in demand and trade, due to the pandemic, drivers were forced to move into jobs which remained resilient during the pandemic, such as the supermarket and delivery sector with some drivers not returning to the taxi industry.

3.13 Some drivers moved to part time work, only 9% of drivers were working 7 days a week in April 2020, a reduction from 22% in April 2019, this could be explained by reduced trade during the pandemic and the need to find alternative employment. Contributing factors to the driver shortage also include those taking the opportunity to retire in higher numbers than pre-pandemic and a backlog to become licensed again with a 5.7% reduction in the number of Hackney Carriage and PHV driver licences in 2021 compared with 2020[15].

3.14 Along with lack of drivers is the lack of actual vehicles. Hackney Carriages in particular can be expensive to own and insure, and with older diesels falling foul of clean-air rules based upon a London example with circa 5,000 London black cabs were handed back, sold or scrapped as demand reduced in 2020, and only 13,500 remain in 2021.[16]

3.15 According to the NTS the majority of trips taken by Hackney Carriage or PHV are for leisure purposes, with a share of 51% in 2019[17]. As lockdowns were bought into effect across the UK, the leisure industry was hit significantly, bringing profound changes to consumer behaviour and thus adversely reducing the demand on the Hackney Carriage and PHV sector. According to DfT Hackney Carriage and PHV statistics (June 2021), there were 251,100 licensed Hackney Carriages and PHVs in 2021 nationally, a decrease of 15.9% since 2020. There was a 5.4% reduction of drivers between March 2020 and March 2021, equating to over 24,000.

3.16 The following section provides a summary of Covid-19 impacts for the key sectors which the taxi industry relies on.

Covid-19 Impacts on Industry Sectors that are served by the Taxi Sector

3.17 This section provides a narrative for the reduction in demand for taxis during the Covid-19 pandemic which have been influenced by Government policy and public confidence to travel. The section provides the background behind the underlying financial stability of the taxi industry and how the pandemic may have influenced their ability to have sufficient levels of cash reserves to upgrade non-compliant vehicles.

Leisure

3.18 According to the NTS, leisure trips made up 51% of all Hackney Carriage and PHV journeys in 2019, this was significantly impacted during the pandemic[18]. Restrictions introduced on March 23rd ordered people in the UK to “stay at home”, limiting all non-essential business and leisure activities.

[14] https://lphca.co.uk/lphca-news/industry-driver-shortages
[15] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/997793/taxi-and-private-hire-vehicle-statistics-2021.pdf
[16] https://www.theguardian.com/uk-news/2021/nov/13/taxi-taxi-why-its-suddenly-getting-so-hard-to-find-a-cab
[17] Taxi and Private Hire Vehicle Statistics: England 2021
[18] Taxi and Private Hire Vehicle Statistics: England 2021

3.19 As part of the restrictions to curb the spread of Covid-19, a 10pm curfew for bars and restaurants was introduced on 24th September 2020. The closure of these establishments has undoubtedly affected the taxi industry. In February 2021, nightclubs were trading at just 5% of their pre-COVID annual revenue, bars were trading at 9% and pubs at 11%.[19]

3.20 Following the easing of restrictions, consumer demand for leisure activities has increased, the Leisure Consumer state in their 2021 report that in the first quarter of 2021 there was a 50% increase in demand for eating out when compared to the final quarter of 2020, similar increases are expected for visiting pubs and bars and culture and entertainment.[20]

3.21 As COVID restrictions continued to ease, some sectors have bounced back strongly, such as the Manchester evening economy which was previously severely impacted by the pandemic. Although, recent media articles have suggested difficulties in passengers obtaining taxis;

"In Manchester, which has a good night-time economy, it's a real problem," says Derek Brocklehurst, manager of Cresta Cars, one of the city's largest private hire firms. After more than 40 years in business, he says: "We feel embarrassed, unable to fulfil our customers' requirements, with people having to wait one or two hours." Some drivers only want to work workdays since the pandemic, he says: "They've taken on different jobs, their work-life has changed and they are spending more time with their families."[21]

Travel and Tourism

3.22 The Covid-19 pandemic has impacted the travel and tourism sector heavily as restrictions in the UK and worldwide have hindered, and in cases prevented domestic and international travel. Unnecessary travel was first discouraged in March and was again impacted by the second and third English lockdowns in November 2020 and January 2021.

3.23 In June 2021 Eurocontrol published a report stating that the UK aviation sector has lost a total of 2 Million flights since March 2020, a 72% decrease from 2019. In March 2020 the average daily flights departing and arriving Manchester was 135, a 79% decrease from 2019, and flights travelling to or from the UK were down by 49%[22]. In 2019 Hackney Carriages and PHVs made up just under a third (29%) of the transport modes used by passengers travelling to/from Manchester Airport[23].

3.24 The reduction in air travel impacted the demand for airport Hackney Carriage and PHV journeys, with the lack of passengers needing a taxi to travel to or from airports in the UK declining during the pandemic and thus negatively impacting airport trade for Hackney Carriages and PHVs.

3.25 The continued reduced levels of aviation travel, due to wider international Covid-19 restrictions still in place, taxi journeys to / from Manchester airport are likely to continue to be operating at below pre-pandemic levels. It is not clear when tourism activity will reach pre-pandemic growth levels.

[19] APPG submission by UK Hospitality, February 2021
[20] The Leisure Consumer 2021, Emerging from the Pandemic
[21] https://www.theguardian.com/uk-news/2021/nov/13/taxi-taxi-why-its-suddenly-getting-so-hard-to-find-a-cab
[22] Covid-19 Impact on EUROCONTROL Member States, EUROCONTROL States Briefing, June 2021
[23] https://www.statista.com/statistics/303820/modes-of-transport-to-manchester-airport-uk-united-kingdom/

Transport Hubs – Access to Rail

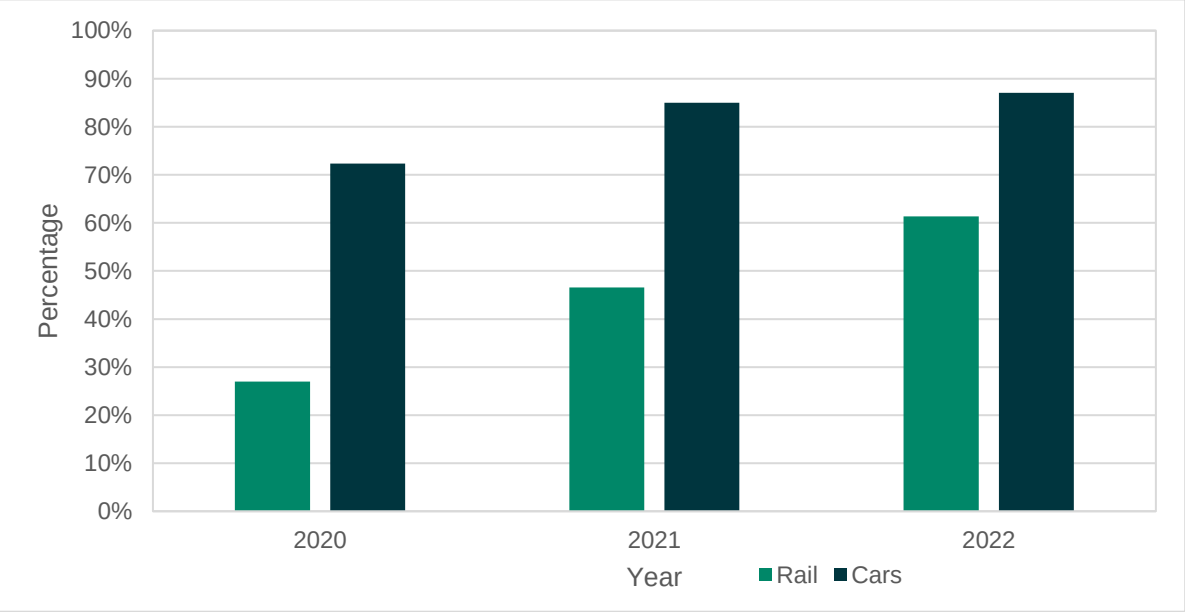
3.26 Taxis also provide an important role serving a mode of access to transport hubs for onward public transport travel, especially at larger rail stations across GM.

3.27 GM has a number of important railway stations that see high volumes of passengers every year. Two of the busiest in the region are Manchester Piccadilly and Manchester Victoria. Both these stations normally have busy taxi ranks. However, Covid-19 has had a significant impact on the number of people travelling by rail as the advice to work from home and avoid unnecessary travel was issued from the government at the start of the pandemic.

3.28 Data released from DfT show the percentage of rail users from the start of the first national lockdown between 2020 and 2022 compared against cars[24]; this is shown in **Figure 3-5**. Rail patronage levels continue to recover in 2022 however they still remain significantly below pre-pandemic levels with less than two thirds (61%) of pre-pandemic rail trips made. In comparison, car has recovered to 87% as a 2022 average compared to pre-pandemic levels.

3.29 For taxis serving transport hubs across Greater Manchester, this significant reduction in rail travel will result in a substantial reduction in the demand for taxis to serve these transport hubs. Although this data does not provide direct findings for GM stations it does give an insight into the significant reductions in train travel which undoubtedly have had an impact on those drivers and operators that rely on train passengers, though it is noted that taxi makes up a small proportion of overall station access trips.

Figure 3-5 Use of transport modes: Great Britain, since 1 March 2020 – Rail and Car



Source: https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic

Note: Data does not represent full year date and corresponds to the following period – 01/03/2020 to 14/03/2022

[24] https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic

Commuting

3.30 Commuting made up 11% share in trip purpose for Hackney Carriages and PHVs in 2019[25], with the ONS Labour Force Survey implying that 70% of the entire UK labour force was commuting most working days prior to the pandemic. Government restrictions and advice to work from home across the nation saw around 40% of the population working from home during the pandemic. This resulted in a significant decrease in commuting numbers, therefore fewer people relied on the Hackney Carriage and PHV sector.

3.31 It is expected that many people will adopt the new working habit of commuting to the workplace part time and working from home part time. The demand for taxis for commuting is therefore expected to rise again, however not to the extent that it was pre pandemic[26].

Shopping

3.32 Shopping made up 14% of all Hackney Carriage and PHV trips in 2019, however the introduction of the lockdown in March 2020 saw the closure of all non-essential high street businesses. Restrictions on shopping continued throughout the pandemic and sales in April 2020 were 19% lower than in February 2020, with significant decrease in the number of people making journeys to and from high-street business and retail outlets [27].

3.33 Restrictions on non-essential high street businesses eased throughout the pandemic, and now operate with no restrictions, which has seen total retail sale volumes recover to above pre-pandemic levels. From data presented in **Section 2**, for both Hackney Carriage and PHVs, the IRR (also known as city centre) had the largest decreases in taxis operating by GM area across 2019-2021 compared to locations inside and outside the M60. This would align to the sector concentrations within GM with the IRR having the highest proportion of leisure and hospitality uses.

Review of Covid-19 impacts on vehicle sales market

Overview

3.34 The UK vehicle market has made a slow recovery due to a combination of manufacturing issues and lack of consumer purchasing. The vehicle market has seen a slow return to pre-pandemic manufacturing levels, experiencing supply chain interruptions, export disruption and the closure of manufacturing plants. In January 2021, commercial vehicle production, including the production of purpose designated taxis, was 31.5% lower when compared to pre pandemic production in January 2020[28].

[25] Taxi and Private Hire Vehicle Statistics: England 2021
[26] https://www.economicsobservatory.com/what-is-the-future-of-commuting-to-work
[27] https://www.ons.gov.uk/economy/grossdomesticproductgdp/articles/impactofthecoronavirusCOVID19pandemiconretailsalesin2020/2021-01-28#:~:text=1.-,Main%20points,remain%20below%20pre%2Dpandemic%20levels
[28] https://www.smmt.co.uk/vehicle-data/manufacturing /

3.35 A lack of consumer purchasing could explain the reduction in the number of Hackney Carriages and PHVs registered between 2019 and 2022. According to PwC Research's QuantiBus survey, there has been a lack of vehicle purchasing as uncertainty has increased and the demand outlook has declined, this is likely due to financial constraints following the pandemic[29].The lack of vehicle upgrades resulted in a limited second-hand market during the pandemic, used car sales, which form the sales for PHVs, fell by 2.2% in March 2020, however between 2020 and 2021 the used car market has seen an increase of 11.5%.

3.36 This section provides an update on the changes in market price of new and second-hand taxi fleet. Vehicle price information has been gathered based on the following:

- Extracted from 2019, 2020 and 2021 to examine whether any changes in vehicle sales could be attributed to the Covid-19 pandemic;
- Prices shown for the most popular taxi fleet for Hackney Carriage and PHV, defined as vehicle make and models which comprise of having a 10% or greater share of the market.
- Based on estimates, gathered from various sources and, in particular for second-hand vehicles, are subject to other variables including vehicle condition, service history, mileage etc.

New Hackney Carriage

3.37 LTI TX4s are the most common Hackney Carriage used in GM with 844 registered in 2019. The LTI TX fleet conjure the 'typical' Hackney Carriage look, however the TX4 is no longer in production as of 2017 so therefore only second-hand vehicles are available. In a shift to cleaner vehicles, LTI relaunched as the London Electric Vehicle Company (LEVC) in 2017 with new petrol/diesel Hackney Carriages no longer available.

3.38 **Table 3-1** and **Figure 3-6** displays the estimated cost for the most popular Hackney Carriage vehicles (greater than 10% market share).

Table 3-1 Estimated Cost for New Hackney Carriage vehicles

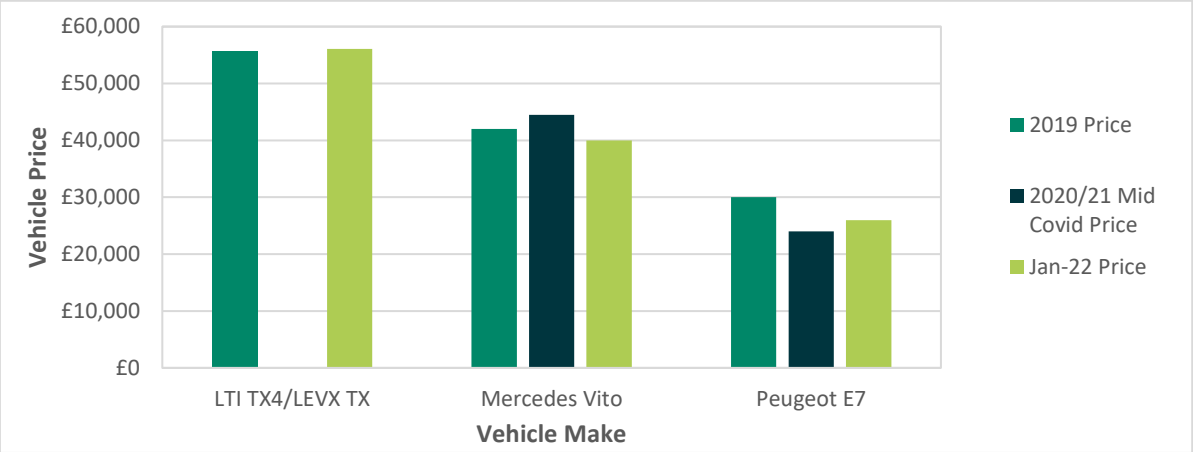
Vehicle Make	Upgrade	Estimate Cost 2019	Estimate Cost 2021	Estimate Cost 2022
LTI TX4 / LEVC TX	LEVC TX Electric Taxi	Prices starting from £55,599	No data	£63,000*
Mercedes Vito	Euro 6 Upgrade	£42,000	£42,000 - £47,000	From £39,995
Peugeot E7	Euro 6 Upgrade	£30,000	£24,000	£26,000

Source Cabdirect[30] and LEVC[31] (2022)

** Does not include Plug-in Taxi Grant (PITG)*

[29] https://www.pwc.co.uk/industries/automotive/insights/uk-automotive-demand-in-the-wake-of-Covid-19.html
[30] https://www.cabdirect.com/
[31] https://levc.com/event/tx-offer-national/

Figure 3-6 Estimated Cost for New Hackney Carriage vehicles



Source: Cabdirect[32] and LEVC[33] (2022) Note: No new Hackney Carriage vehicle price information was available for LTI / LEVC in 2020/21

3.39 For new purpose-built Hackney Carriages, manufacturers do not release their prices online and require individual enquiries to gain a quote, for this reason alternative websites were used to get 2022 prices. The LEVC TX price was obtained from UK price spec guide. The other Hackney Carriage style taxis (Mercedes Vito and Peugeot E7) were priced from Cabdirect.com, directed from Mercedes Benz website as approved Hackney Carriage provider.

3.40 Vehicle price information for new Hackney Carriage vehicles across the period 2019-2022 show that there have been minimal price changes across the most popular models observed however there are slight variances by model type.

New PHV

3.41 **Table 3-2** and **Figure 3-7** displays the estimated cost for the most popular PHV vehicles within GM.

3.42 There has been a number of vehicle model changes for Toyota across the observed period. Due to the Toyota Avensis, Auris and Prius no longer being available to purchase as new vehicles in the UK market[34], the vehicle price information has been combined to represent a typical, popular PHV model. Other available models within a similar price range, such as the Toyota Corolla are available to purchase in the UK. It is worth noting that both, the Toyota Corolla and Skoda Octavia are available as petrol-hybrid models.

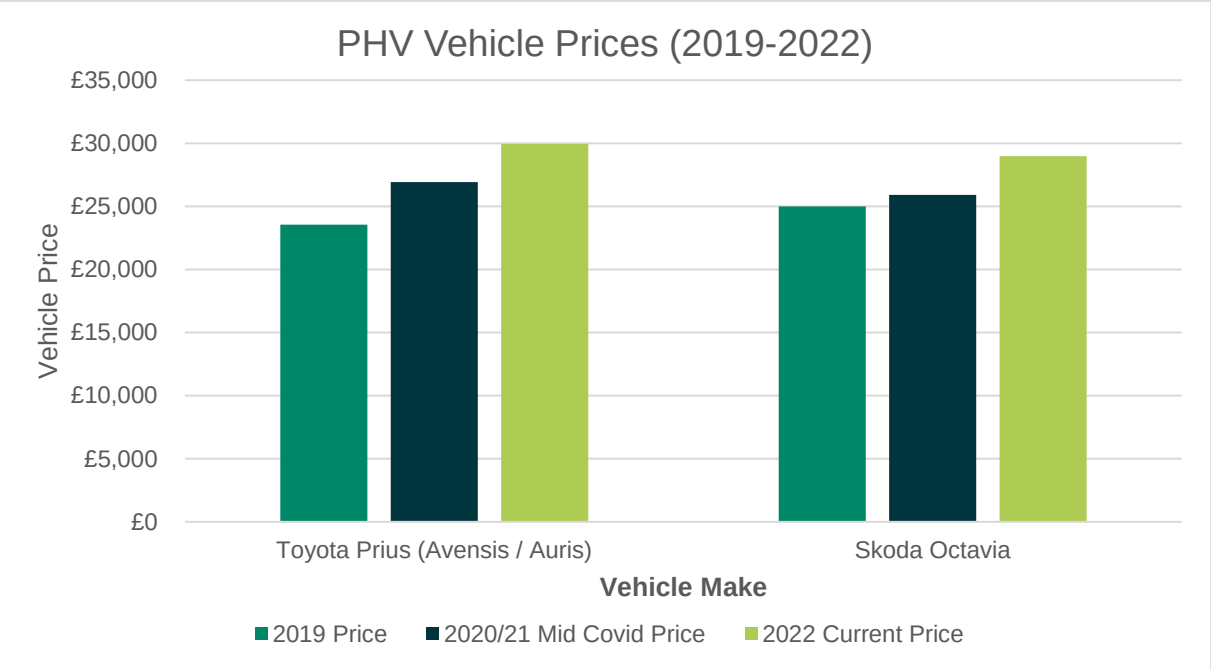
Table 3-2 Estimated Cost for New PHVs

Vehicle Make	Upgrade	Estimate Cost 2019	Estimate Cost 2021	Estimate Cost 2022
Toyota Prius	Euro 6 Upgrade	£19,500 - £27,500	£25,000 - £29,000	£30,000
Skoda Octavia	Euro 6 Upgrade	£18,500 - £31,500	£21,500 - £30,500	£22,000 - £37,000

Source: Toyota[35] and Skoda[36] (2022)

[32] https://www.cabdirect.com/
[33] https://levc.com/event/tx-offer-national/
[34] https://www.toyota.co.uk/new-cars/prius/
[35] https://www.toyota.co.uk/new-cars/model-filter?errType=ToyotaModelNotFound&model=prius
[36] https://cc.skoda-auto.com/gbr/en-GB/summary-scenic?activePage=summary&aid=ced75e7b-4b2f-4a66-94c2-43d8bc93337b&color=1Z1Z&configurationId=C7HZXPDH&extraEquipments=UZZCWA2%7CMMKEEM1%7CMMFA7J2%7CGPT1PT1

Figure 3-7 Estimated Cost for New PHVs



Source: Toyota[37] and Skoda[38] (2022)

3.43 The 2022 market prices were obtained for a mid-specification, new vehicle priced using the dealer websites.

3.44 Consistent across both PHV vehicle model types, there has been an upward trend in vehicle prices across the observed period (2019-2022) with Toyota models increasing 21% in 2022 compared to 2019 prices and Skoda Octavia increasing 14% in 2022 compared to 2019 prices. This included 5 vehicles ranging in age from 1 year to 4 years (registered 2018 – 2021). This is compared to the same data collected in 2019.

Second-hand Hackney Carriage

3.45 There was a wide range of second-hand prices found in the study conducted in 2019. A price range of £15,500 to £42,995 was found, however it is worth noting that the highest end vehicle was 2019 registered so less than 12 months out at the time of the search. The most common price in 2019 was around £20,000.

3.46 The lowest priced vehicle in the same search repeated in January 2022 was £26,995, this is almost £7000 more than the average price in 2019. There was only one vehicle prices within the £20,000 - £30,000 price bracket, all other available second-hand Mercedes Vito's were prices between £35,000 and £40,000. This shows a clear and significant price increase.

%7CMGRA8T8%7CGPWZPWZ%7CGPJAPJA%7CGPJ3PJ3%7CGWU1WU1&id=GBR%3Bskoda%3B2022%3BNX33LD%3B1%3BGYO2YO2%3Bmda20220124120504%3Ben-GB%3B%3B63003%3B63063&interior=BG&modifiedPages=colors%7Cwheels%7Cengines%7Cextraequipments&snapshotVersion=047fedec-cc29-4574-8822-1acfae823c79&state=NEW&trimline=NX3%7CSE6306363003&visitedPages=colors%7Cwheels%7Cinteriors%7Cengines%7Cextraequipments%7Cservices

[37] https://www.toyota.co.uk/new-cars/model-filter?errType=ToyotaModelNotFound&model=prius

[38] https://cc.skoda-auto.com/gbr/en-GB/summary-scenic?activePage=summary&aid=ced75e7b-4b2f-4a66-94c2-43d8bc93337b&color=1Z1Z&configurationId=C7HZXPDH&extraEquipments=UZZCWA2%7CMMKEEM1%7CMMFA7J2%7CGPT1PT1%7CMGRA8T8%7CGPWZPWZ%7CGPJAPJA%7CGPJ3PJ3%7CGWU1WU1&id=GBR%3Bskoda%3B2022%3BNX33LD%3B1%3BGYO2YO2%3Bmda20220124120504%3Ben-GB%3B%3B63003%3B63063&interior=BG&modifiedPages=colors%7Cwheels%7Cengines%7Cextraequipments&snapshotVersion=047fedec-cc29-4574-8822-1acfae823c79&state=NEW&trimline=NX3%7CSE6306363003&visitedPages=colors%7Cwheels%7Cinteriors%7Cengines%7Cextraequipments%7Cservices

3.47 During the desktop study conducted in 2019 for second-hand compliant LTI TX4 it was discovered that there was only one vehicle listed that was CAZ compliant, the vehicle had a 2017 registration plate and was listed for £31,495. This exercise was repeated in 2022 and again only one vehicle was listed at a cost of £28,680. It was therefore worthwhile to again assess the prices of second-hand compliant Mercedes Vito as the second most popular Hackney Carriage a shown in **Table 3-3**. The Mercedes Vito estimate is based on a range of prices available on 18th January 2022 This included 5 vehicles ranging in age from 1 year to 4 years (registered 2018 – 2021). This is compared to the same data collected in 2019.

Table 3-3 Second Hand Compliant Hackney Carriages

	Year of Manufacture	Estimated Cost 2019	Estimated Cost 2022
LTI TX4	2015 – current	£31,495 (2017) *	£28,680 (2016) *
Mercedes Vito	2015 – current	£15,500 - £43,000	£27,000 - £38,500

*Source: Online Vehicle Price Data sourced by AECOM (2022)*only one second-hand vehicle for sale at time of research*

3.48 Due to limitations in second-hand Hackney Carriage vehicle prices, **Table 3-4** provides an overview of the emerging second-hand EV Hackney Carriage market, as stated within Section 2, a second-hand LEVC TX market has started to emerge over the latest few years. As shown in **Figure 2-4**, there has been steady growth in hybrid-electric vehicles from observed ANPR data in GM however the proportion of Hackney Carriages that are electric remain below 1% in 2022.

Table 3-4 Second-Hand EV Hackney Carriage Market

Model	Year	Average Mileage	Average Cost
TX Vista	2018	73,543	£43,750
TX Vista Comfort	2018	77,531	£43,000
TX Vista Comfort Plus	2018	93,004	£42,913

Source: https://levc.com/

Second-hand PHV

3.49 **Table 3-5** displays the data comparison for the PHV Skoda Octavia. The Skoda Octavia is available in both diesel and petrol engine. As there is a difference in manufacturing years for compliance of the Euro 6 diesel engines and Euro 4 petrol engines the table provides data for both engine types separately, this was provided in the original 2019 study. From this table it is clear that the price of available second-hand Skoda Octavia's has increased between 2019 and 2022. The higher end of vehicles available have increased by circa 10%, whereas the lower end vehicles available have increased by circa 5%. This is reflective of the full second-hand vehicle market.

Table 3-5 Second-Hand Compliant Skoda Octavia PHV

Year of Manufacture	Fuel Type	Price Range 2019	2022 Update
2015 – current	Diesel	£5,500 - £32,000	£6,000 - £35,000
2005 – current	Petrol	£1,500 - £33,000	£7,000 - £39,000

Source: Online Vehicle Price Data sourced by AECOM (2022

3.50 An assessment of the price change of second-hand non-compliant taxi models was carried out, as in 2019. The data showed that, for Hackney Carriages registered between 2008 and 2014, there was little price difference between the 2019 and 2022 prices. The second hand non-compliant Skoda Octavia prices mirrored the trend as seen in **Table 3-5**, with there being a notable increase in price of available vehicles at both the lower and higher ends of the market. It is worth noting that whilst PHV prices have been presented based on diesel and petrol vehicles, as shown in **Figure 2-5**, there has been substantial growth in hybrid-electric PHVs with 29% of the total observed ANPR movements in 2022 compared to 14% in 2019. Whilst this substantial growth has been seen in hybrid-electric vehicles, the proportion of electric PHVs remains below 1%.

Review of Vulnerability in responding to GM CAP

3.51 As part of the 2019 data study a qualitative assessment of vulnerability impacts on the taxi sector was prepared and has since been reviewed in January 2022. This assessment has considered how the Covid-19 pandemic has impacted Hackney Carriage and PHV vulnerability in responding to the GM CAP.

3.52 The review findings are presented in **Table 3-6** showing that both Hackney Carriage and PHVs were previously highly vulnerable to the introduction of GM CAP, and vulnerability has increased considerably due to the pandemic.

Table 3-6 Taxi Sector Vulnerability Review

	Vulnerability				
	Oct 2019	Situation: Oct 2020		Situation: Jan 2022	
	GM CAP (Pre-Covid-19)	Covid-19 (2020)	GM CAP (Post-Covid-19)	Covid-19 (2022)	GM CAP (Post-Covid-19)
Hackney Carriage	High	Disadvantaged / Negative Affected	Very High	Disadvantaged / Negatively Affected	Very High
PHV	High	Disadvantaged / Negative Affected	Very High	Disadvantaged / Negatively Affected	Very High

3.53 The Hackney Carriage sector within GM was vulnerable to GM CAP pre-Covid-19 due to the high proportion of non-compliant vehicles that are currently operating within GM. During the early part of the pandemic, the COVID restrictions in place in 2020 and 2021 resulted in a significant reduction in demand for Hackney Carriages, this placed Hackney Carriage owners in a more challenging financial position when responding to GM CAP. Since Covid-19 restrictions have eased, there has been some recovery of the sector, although not to pre-pandemic levels. Also, due to increased average age of GM Hackney Carriage fleet, and reduced natural turnover of the fleet during the pandemic, Hackney Carriage owners continue to face a considerable challenge when responding the GM CAP.

3.54 Similarly to Hackney Carriages, the PHV sector was vulnerable to GM CAP pre-COVID, and has experienced considerable challenges during the pandemic, due to restrictions on sectors serving the taxi market and changing travel behaviours which have affected the taxi market as a whole. Whilst Covid-19 guidance has eased and there has been some recovery of the sector, PHVs continue to face changes in recovery from increasing vehicle prices and the availability of new PHV type vehicles has been identified as a key factor currently impacting on the PHV sector. This will add extra financial pressure to the already vulnerable sector when responding to GM CAP.

4. Conclusion

Summary of Current Conditions

4.1 This note has sought to capture the following key considerations:

- A review of current taxi fleet compliance;
- A summary of the impact of Covid-19 in terms of changes to travel behaviour within GM, including changing transport trends and economic trends as a result of the Covid-19 pandemic;
- Pre-pandemic sector-related circumstances;
- Sector-related trends during the pandemic; and
- Evaluation to how sector-related trends have changed and to what extent has this impacted on the ability of taxi owners to meet GM CAP compliance.

Key Risk and Issues

4.2 The challenges faced by the taxi market, mainly associated with the impact of the Covid-19 pandemic, has affected Hackney Carriages and PHVs, to some extent, unequally. However, it is also important to recognise the unbalanced profile and trends of Hackney Carriages and PHVs individually to provide a more balanced view of the key risks and issues. Key risks and issues have been categorised into: pre-pandemic circumstances, Covid-19 impacts and emerging trends and are report below.

Pre-Pandemic Circumstances

- In 2019, only 12% of Hackney Carriages and 29% of PHVs serving GM were deemed compliant.
- Hackney Carriages operating in GM are typically older than PHVs with the average age of a Hackney Carriage in 2019 being 8 years old compared to 6 years old for a PHV.
- The number of licensed Hackney Carriage vehicles and drivers remained stable across the pre-pandemic period. During this period, the number of licensed PHV drivers increased by 2% in 2019 compared to 2011, the number of licensed PHVs in England has decreased by 3%.
- Average trip length has remained stable for taxis with the average miles travelled by taxi per person per year increasing in England over the pre-pandemic period.

Covid-19 Impacts

- The number of new GM-licensed Hackney Carriages and PHVs was significantly lower during the pandemic compared to pre-pandemic levels. The number of GM licensed taxis decreased from 2019 to 2022 by 5.4% for PHVs and 7.7.% for Hackney Carriages.
- The average age of Hackney Carriages and PHVs has grown older in 2020 and 2022 compared to pre-pandemic levels (2019) with taxi fleets estimated to be one year older than pre-pandemic.

- There has been no significant shift in fuel types for Hackney Carriage with 89% still fuelled by diesel. However, there has been a shift from diesel to hybrid-electric for PHVs, rising from 14% in 2019 to 29% in 2022. The EV uptake remains very low at less than 1% for both Hackney Carriages and PHVs.
- Industries served by the taxi industry have suffered heavily through Covid-19. Leisure trips comprised of over half of all taxi journeys in 2019 with Government restrictions having a significant impact on the leisure market, particularly bars, pubs, restaurants and nightclubs. Equally, other important taxi markets have been constrained during the pandemic, stemming from Government restrictions on commuting, shopping and tourism.
- A higher proportion of Hackney Carriages operate within the Regional Centre (inside the Inner Ring Road (IRR)) compared to PHVs with the Regional Centre believed to have the highest impact from the Covid-19 pandemic across GM due to the location of a large number of hospitality and leisure businesses. This is in-keeping with the taxi licensing data which states that approximately 55% of Hackney Carriages are licensed to Manchester City Council. The proportion of within IRR trips between 2019 and 2021 fell for both Hackney Carriages and PHVs.

Emerging Trends

- Emerging from the pandemic, taxis are older, more non-compliant than previously assumed and there are fewer taxis and taxi drivers operating in GM compared to pre-pandemic levels.
- Hackney Carriages, in particular, are likely to have faced a more significant impact from the Covid-19 pandemic, compared to PHVs, due to their prominent origins and destinations being located in Manchester City Centre where sectors have been hit the hardest. Both Hackney Carriage and PHV owners are likely to have lower cash reserves to upgrade their vehicles than prior to the pandemic.
- Hackney Carriages are older, more non-compliant and being upgraded at a slower rate compared to PHVs.
- The ability for Hackney Carriage owners to upgrade their vehicles is likely to be more constrained compared to PHV owners due to the higher cost of replacement vehicles and the likelihood of more substantive Covid-19-related impacts. However, there is some evidence to suggest that whilst Hackney Carriage vehicle prices are stable, and even falling for certain vehicle types, the vehicle prices for new and second-hand compliant PHVs are increasing in-line with rising wider car market vehicle prices.

Appendix A – List of Data Sources

List of data sources used within this document.

Document Title	Date	Description	Relevance to GM CAP
Chapter 1			
Mayor of Greater Manchester writes to Government reiterating call for non-charging Clean Air Zone	May 2022	Announcement, provide background on current status of GM CAP https://www.greatermanchester-ca.gov.uk/news/mayor-of-greater-manchester-writes-to-government-reiterating-city-region-s-call-for-non-charging-clean-air-plan/	Current Status of GM CAP
GM CAP Technical Documents (various)	various	All available at Technical Documents Clean Air Greater Manchester (cleanairgm.com) https://cleanairgm.com/technical-documents/	Published Technical Reports for GM CAP
Technical Note 10: Taxi Behavioural Responses Note	July 2019	https://cleanairgm.com/technical-documents/	Background on Taxi Sector
Technical Note 19: Taxi and Private hire Vehicle Fleet Research		https://cleanairgm.com/technical-documents/	Background on Taxi Sector
Technical Note 12: Evidence of the Impact of a 2021 Implementation of a CAZ C (Without exemptions)	July 2019	Describes analysis carried out by GM to assess the risks of implementing a CAZ C in 2021 without also implementing a two-year sunset period as was proposed in the OBC. https://cleanairgm.com/technical-documents/	analysis of vulnerability by sector, based on the proportion of the fleet that would be non-compliant
T4 Appendix A (Modelling for Consultation)	Jan 2020	Discusses the modelling tools used to assess the impacts of GM CAP https://cleanairgm.com/technical-documents/	Modelling tools used to assess impacts of GM CAP
Deliberative Research	Nov 2019	Research was carried out with taxi drivers potentially in scope for the scheme, including deliberative research and surveys of van owners https://cleanairgm.com/technical-documents/	Understanding the taxi sector and views of taxi owners
GM CAP Impacts of Covid-19 Report	June 2021	Considers the impacts of the pandemic on GM and reviews the potential and actual impacts of Covid-19 on the GM CAP. https://cleanairgm.com/technical-documents/	Review of impacts of Covid-19, including impacts on taxis
Chapter 2			
Proportion of Vehicle Types Registered by Area	Jan 2022	https://www.gov.uk/government/statistical-data-sets/all-vehicles-veh01	Proportion of the fleet
T4 Appendix V (previously TN37)	2021	(Current version not published) – Provides details of vehicle proportions by mode, including future year forecasts	Number of impacted vehicles
Taxi Fleet Data	Various (2019 – 2022)	Comparison of the changing taxis fleet over time. Sourced from the GM Taxi Licencing data (raw data not published) e.g. age profile / fuel type / number of taxis	Understand changes in taxi fleet over time
GMP ANPR Data	Various (2019 – 2022)	GMP ANPR data – to review changing characteristics of the vehicle fleet operating within GM	Understand changes to taxis over time
Chapter 3			
Taxi and private hire vehicle statistics, England: 2021	June 2021	https://www.gov.uk/government/collections/taxi-statistics	Understanding make up of taxi operations

Industry Driver Shortages	2021	https://lphca.co.uk/lphca-news/industry-driver-shortages	Research
Taxi? Taxi? Why it's suddenly getting so hard to find a cab	Nov 2021	https://www.theguardian.com/uk-news/2021/nov/13/taxi-taxi-why-its-suddenly-getting-so-hard-to-find-a-cab	Research
APPG submission by UK Hospitality	Feb 2021	https://www.ukhospitality.org.uk/page/APPG	Research
Emerging from the Pandemic	2021	The Leisure Consumer Group https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/consumer-business/deloitte-uk-the-leisure-consumer-2021.pdf	Research
Covid-19 Impact on EUROCONTROL Member States	June 2021	https://www.eurocontrol.int/sites/default/files/2021-06/eurocontrol-brief-on-covid19-impact-spain-en-09062021.pdf	Research
Modes of transport used by passengers traveling to Manchester Airport between 2002 and 2019	2019	Historical mode shares for surface access, Manchester Airport (pre-COVID) – showing high taxi mode share https://www.statista.com/statistics/303820/modes-of-transport-to-manchester-airport-uk-united-kingdom/	Research
Transport use during the coronavirus (Covid-19) pandemic	2022	https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic	Research
What is the future of commuting to work?	May 2021	https://www.economicsobservatory.com/what-is-the-future-of-commuting-to-work	Research
Impact of the coronavirus (Covid-19) pandemic on retail sales in 2020	Feb 2021	https://www.ons.gov.uk/economy/grossdomesticproductgdp/articles/impactofthecoronavirusCOVID19pandemiconretailsalesin2020/2021-01-28#:~:text=1.-,Main%20points,remain%20below%20pre%2Dpandemic%20levels.	Research
Manufacturing Data	Various	Review of new vehicle production levels & impacts due to the pandemic https://www.smmt.co.uk/vehicle-data/manufacturing/	Research
Uk automotive demand in the wake of COVID 19	2021	https://www.pwc.co.uk/industries/automotive/insights/uk-automotive-demand-in-the-wake-of-Covid-19.html	Research
Taxi price search	various	Changing prices for taxis https://www.cabdirect.com/	Taxi Prices
LEVC – Taxi Prices	various	https://levc.com/event/tx-offer-national/	Taxi Prices
Toyota Prius vehicle price	various	Review of taxi prices of popular types of PHV https://www.toyota.co.uk/new-cars/prius/	Taxi Prices
Skoda Octavia Prices	Various	Review of taxi prices of popular types of PHV https://cc.skoda-auto.com	Taxi Prices
Chapter 4			
		(No additional Sources in Chapter 4)	
Appendix A			
		No additional Sources in Appendix A	
Appendix B			
Coronavirus (Covid-19) UK Government Dashboard	Oct 2020	https://coronavirus.data.gov.uk/	Background of Covid Timeline

“Greater Manchester's Covid-19 Management Plan: how we control outbreaks”	2022	https://greatermanchester-ca.gov.uk/coronavirus/Covid-19-management-plan/	Background of Covid Timeline
“Prime Minister announces new local COVID Alert Levels”	Oct 2020	https://www.gov.uk/government/news/prime-minister-announces-new-local-covid-alert-levels	Background of Covid Timeline
TfGM’s C2 Database	various	Traffic flow data was extracted and analysed from TfGM’s C2 Database https://tfgmc2.drakewell.com/multinodemap.asp	Information on local traffic impacts
“Budget 2021: Fuel duty rise axed as petrol prices hit record highs”	Oct 2021	Fuel Prices Increase: https://www.standard.co.uk/news/politics/budget-2021-fuel-duty-rise-axed-petrol-prices-record-highs-b962832.html	Information on Economic Related Impacts
“GDP monthly estimate, UK : December 2021”	Dec 2021	GDP information https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpmonthlyestimateuk/december2021	Information on Economic Related Impacts
“Average weekly earnings in Great Britain: February 2022”	Dec 2021	Growth in average total pay (including bonuses) of 4.3% and growth in regular pay (excluding bonuses) of 3.7% among employees was seen in October to December 2021 https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/averageweeklyearningsingreatbritain/february2022	Information on Economic Related Impacts
“UK economy latest”	Dec 2022	Information on Goods import and exports https://www.ons.gov.uk/economy/economicoutputandproductivity/output/articles/ukeconomylatest/2021-01-25#output	Information on Economic Related Impacts
“Cities Outlook 2022”	Jan 2022	Change in pub and restaurant sales in City Centres and Suburbs. Weekday footfall in Birmingham, Manchester and London https://www.centreforcities.org/wp-content/uploads/2022/01/Cities-Outlook-2022-2.pdf	Information on Economic Related Impacts

Appendix B – Review of COVID Impacts

Overview

B.1 Travel behaviour and the economy have been impacted by the Covid-19 pandemic and have resulted in changes in the way that people travel and the way businesses operate. In this chapter we will assess some of the key data findings found throughout the period to better understand the levels of impact on transport and travel generally.

B.2 Chapter 3 focuses on the impacts of Covid-19 on the coach and minibus sectors.

COVID Timeline

B.3 In January 2020, Covid-19 first appeared in the UK. By 30th November 2020, there were an estimated total of 1.6 million people testing positive to the virus in the UK with 58,24539 cases resulting in deaths.[40]

B.4 As stated within the GMCA Covid-19 Management Plan Executive Summary, GM had more than 16,000 confirmed cases and nearly 2,800 people died during the first four months of the Covid-19 pandemic.[41]

B.5 In Summer 2020, North West England was one of the worst affected areas by the pandemic with GM placed under additional restrictions on 31st July 2020. Throughout 2020, GM continued to experience a disproportionate impact to the rest of the UK from these additional restrictions, such as the three-tier system for lockdowns across England. This three-tiered system was first announced by the Government in October 2020 to *'simplify and standardise local rules'*.[42]

B.6 On 5th November 2020, the Government imposed a second national lockdown with restrictions on continued business activity in England. These restrictions were in place between 5th November and 2nd December 2020, followed by a return to 3 Tier system restrictions.

B.7 On 19th December 2020 the Government introduced an additional 4th Tier, with lockdown measures beginning in London and the South East, after having identified the Alpha (Kent) variant, coming into effect on 21st December 2020 until a third nationwide lockdown was re-introduced on 6th January 2021.

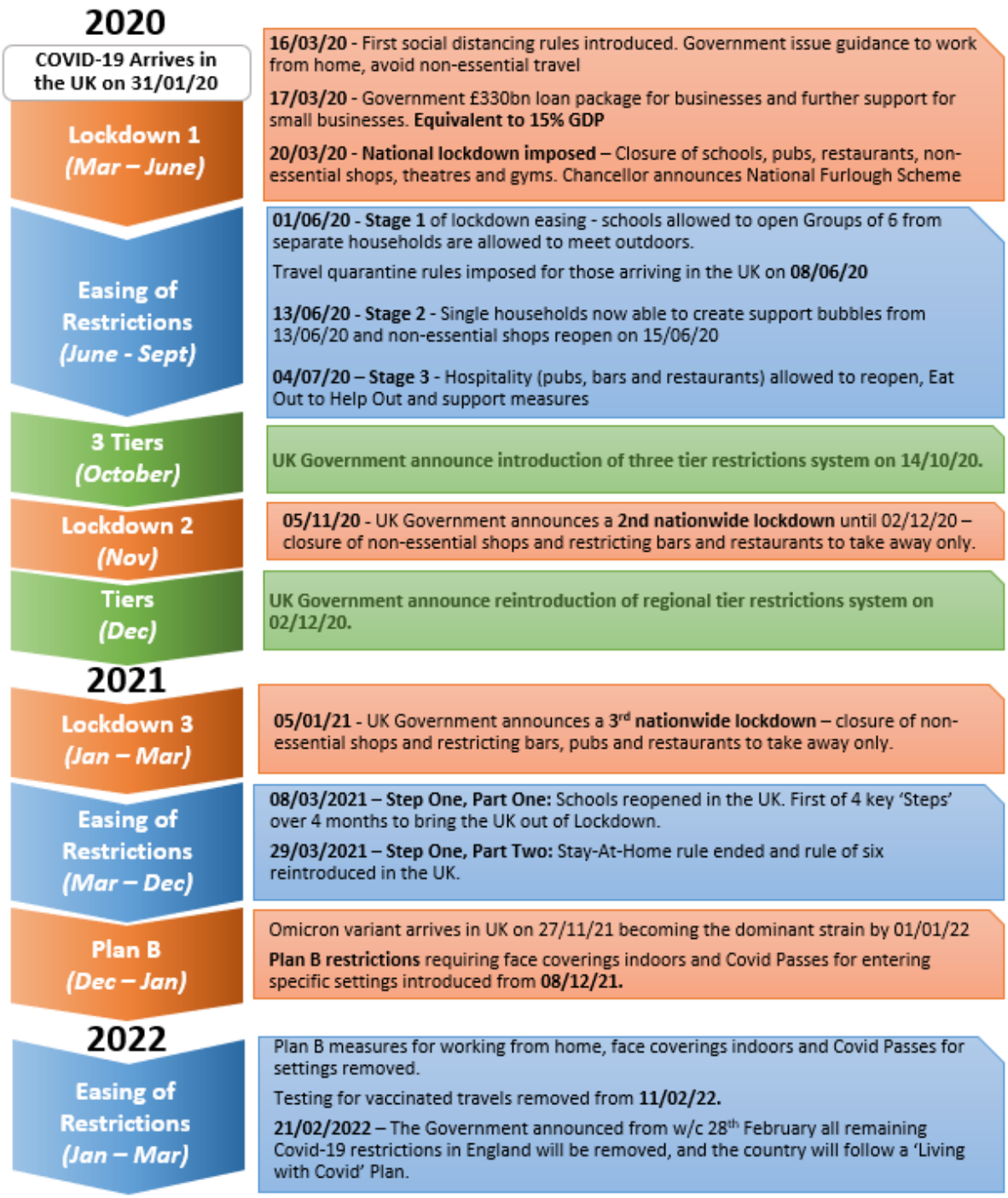
B.8 March 2021 saw Step 1 of the Government's roadmap being introduced, with schools reopening and outdoor gatherings being allowed with the proviso of staying local. April 2021 saw Step 2 of the roadmap allowing limited indoor contact, businesses such as hairdressers to reopen and outdoor hospitality. Step 3 came into effect in May 2021, allowing indoor meetings limited to 6 people and 10,000 people for large sport stadiums. Step 4, on 19th July 2021, saw the remaining venues such as nightclubs reopen, and the removal of most other restrictions.

[39] UK deaths is based on deaths within 28 days of a positive test and does not include excessive deaths.
[40] Coronavirus (Covid-19) UK Government Dashboard https://coronavirus.data.gov.uk/ (accessed 01/10/20)
[41] Covid-19 Management Plan – Executive Summary (GMCA) https://greatermanchester-ca.gov.uk/coronavirus/Covid-19-management-plan/
[42] Prime Minister announces new local Covid Alert Levels - https://www.gov.uk/government/news/prime-minister-announces-new-local-covid-alert-levels

B.9 With the discovery of the Omicron variant, Plan B measures (face coverings indoors and use of Covid Passes at specific settings such as nightclubs), which also recommended working from home where possible, were implemented from 8th December 2021 to 27th January 2022.

B.10 A summary of the key Covid-19 events and Government responses has been captured in **Figure B-1**.

Figure B-1 Covid-19 Timeline January 2020 to March 2022



B.11 The Covid-19 pandemic has had a transformative global impact to health, businesses, the economy, and way we live and interact with one another.

B.12 At the time of the production of this note in March 2022, the UK appears to be exiting the pandemic. Case numbers are stabilising, death and in-patient numbers remain low, reflecting the positive impact of a successful vaccine programme rollout.

B.13 However, emerging evidence gathered over the course of 2020 and 2021 has shown that there have been substantial changes to the economy, travel patterns and our behaviours. These changes have been driven by Government policy in the short term, however some of the behaviours adopted during Government lockdowns may continue as restrictions ease. In addition to this, economic impacts following the recent easing of restrictions have resulted in impacts which can be seen locally, nationally and globally within the economy.

Covid-19 Impacts on Travel Behaviour

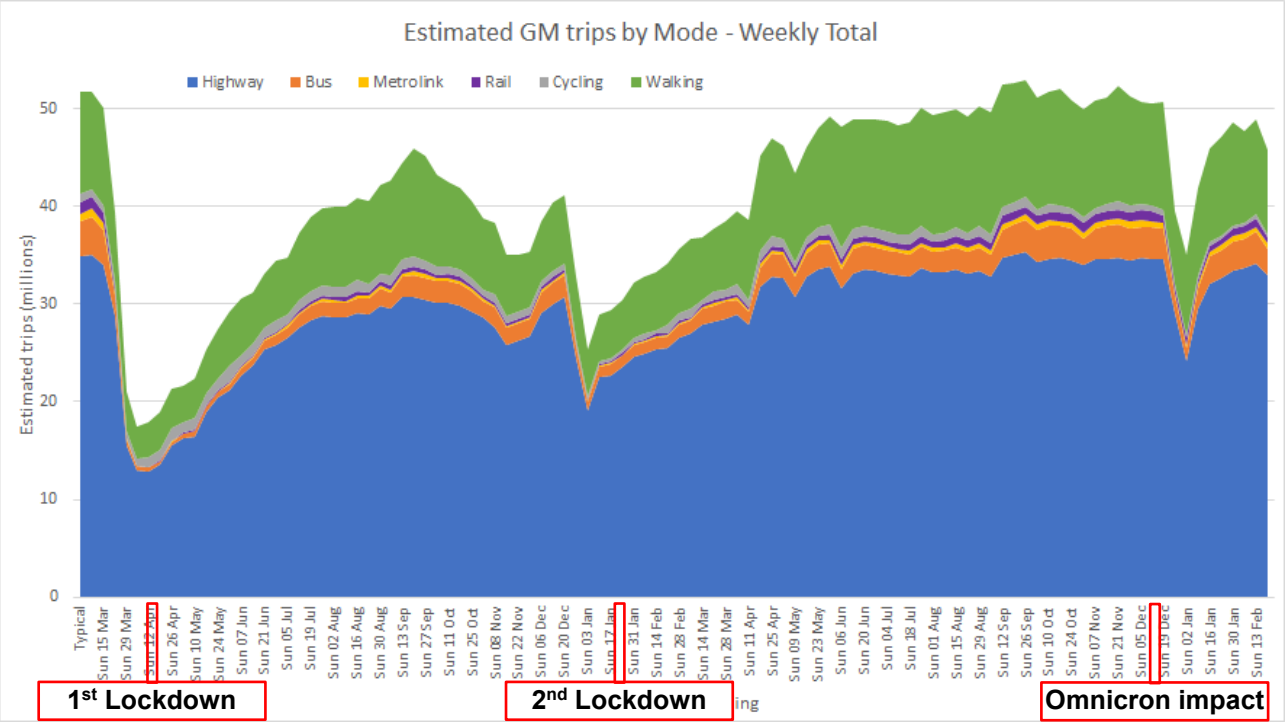
B.14 Detailed analysis has been undertaken on the impacts of Covid-19 on travel demand within GM to compare 'pre-pandemic' and 'during pandemic' travel levels within GM.

B.15 As shown in **Figure B-1**, there are a number of Government interventions which have had an impact on traffic levels (for all modes of transport). These include:

- Government guidance issued on 16th March 2020 to work from home 'where possible';
- Closure of all UK schools to children, apart from those who have key worker guardians on 20th March 2020;
- Closure of the hospitality and leisure sector on the 20th March 2020 including pubs, bars, restaurants, gyms, theatres etc.;
- Re-opening of schools to all children in September 2020 alongside the UK Government encouraging workers to return to the office;
- Implementation and extension of the Government Tiered restrictions;
- Return to lockdown conditions on 5th November 2020, 2nd December 2020 and 6th January 2021; and
- Hotel quarantine for travelers from high-risk countries.

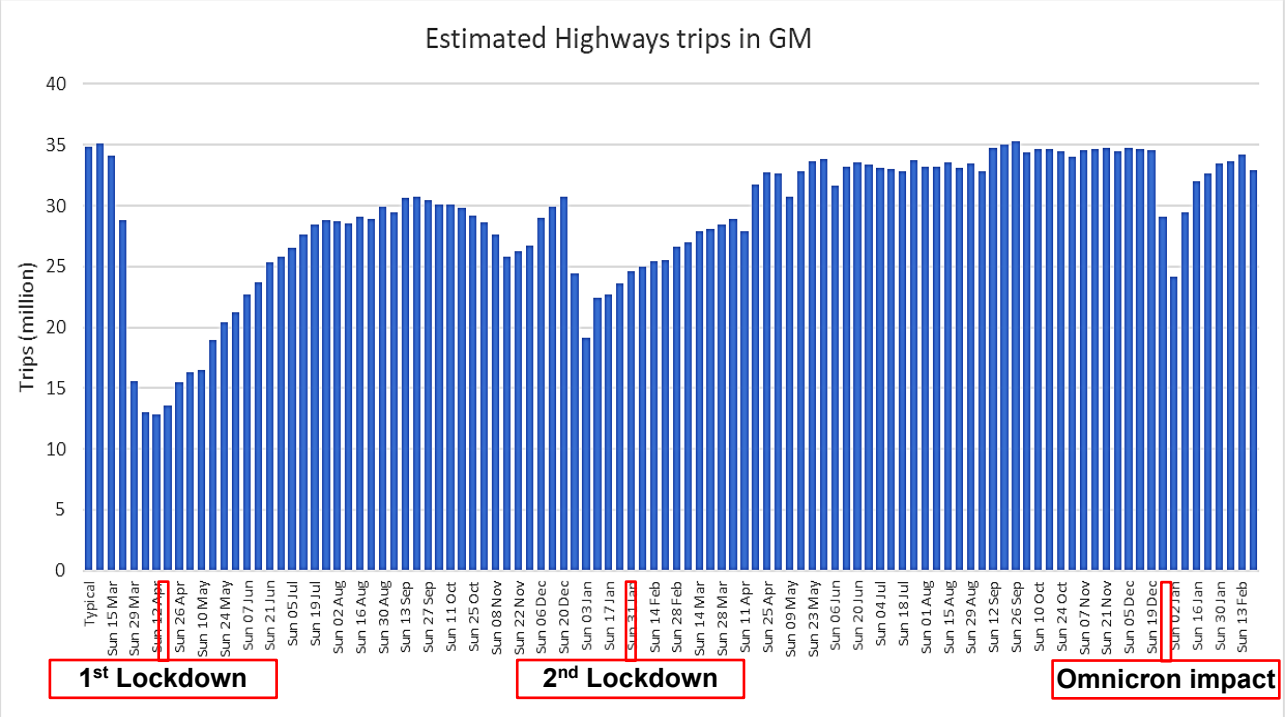
B.16 Since the beginning of the pandemic, travel patterns across the UK have significantly changed, driven by changing Government guidelines and the perception of transmission risks on certain forms of transport. An overview of the changing trends of travel behaviour by mode in Greater Manchester is provided in **Figure B-2** to **Figure B-6**; the data has been provided by TfGM. Three key dates have been flagged in each figure: the first and second national lockdowns plus the emergence of the Omicron variant.

Figure B-2 Overview of travel behaviour – All Modes



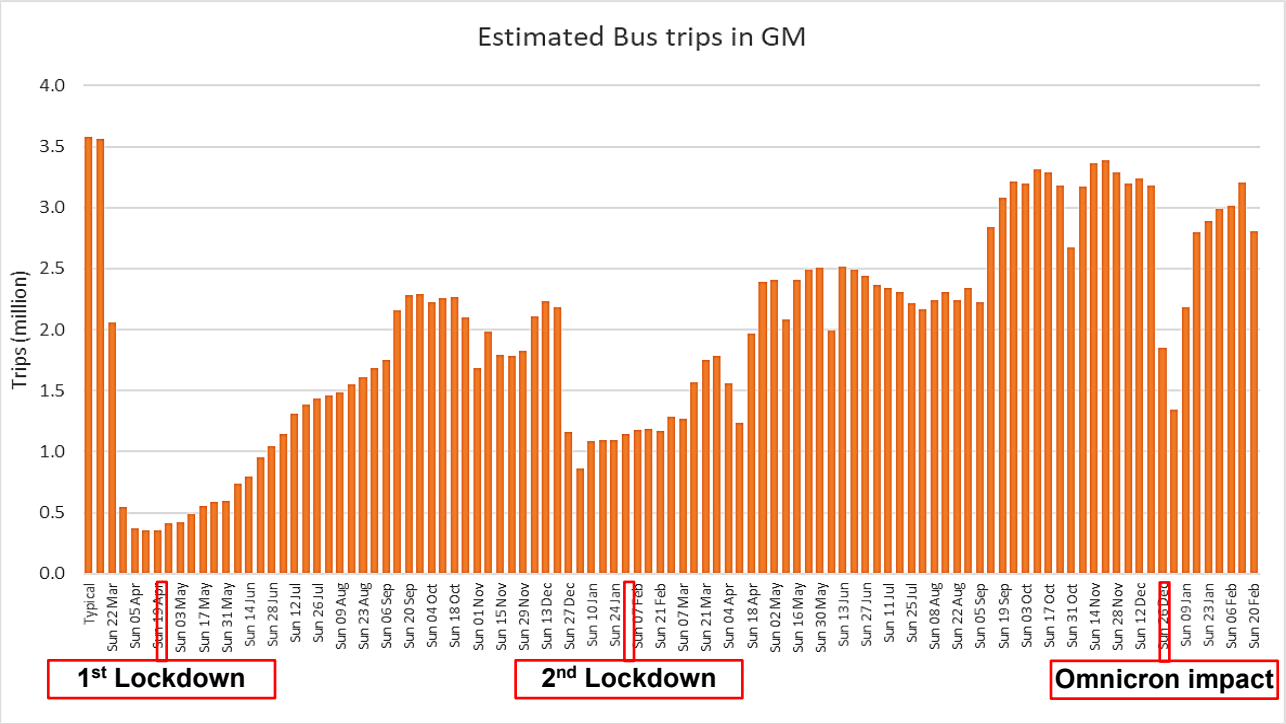
Source: TfGM

Figure B-3 Overview of travel behaviour – Highway



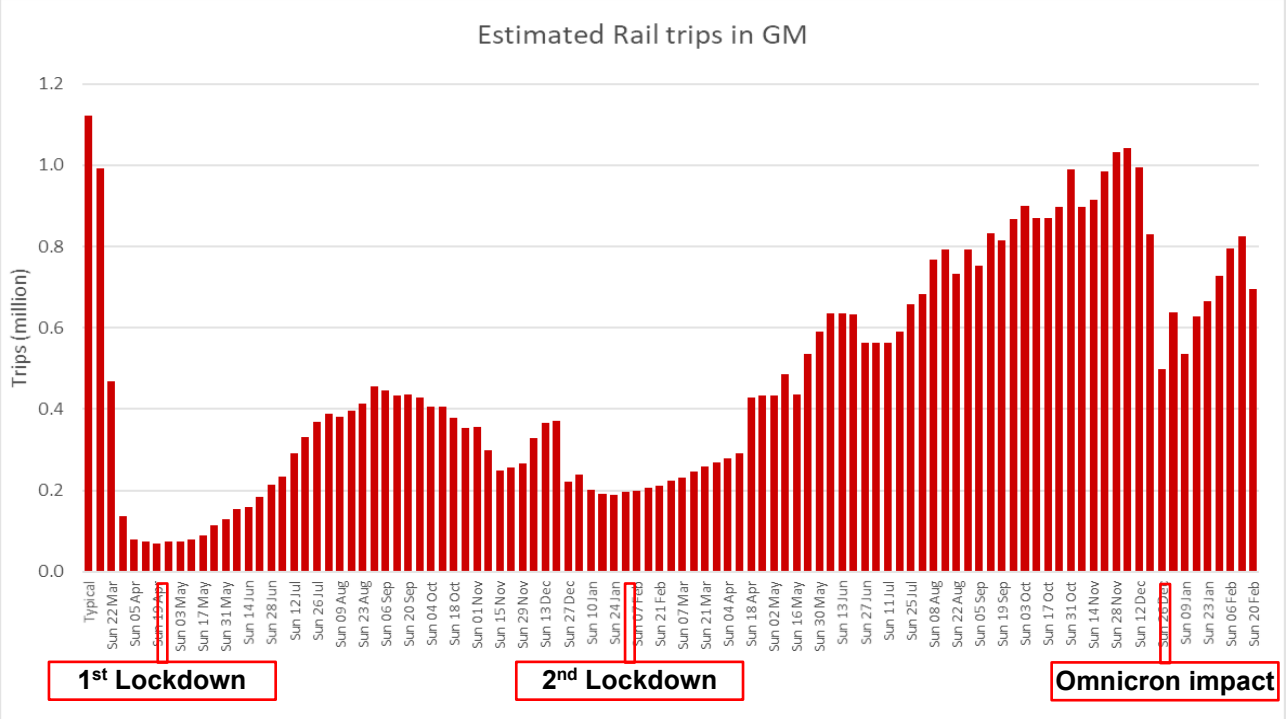
Source: TfGM

Figure B-4 Overview of travel behaviour – Bus



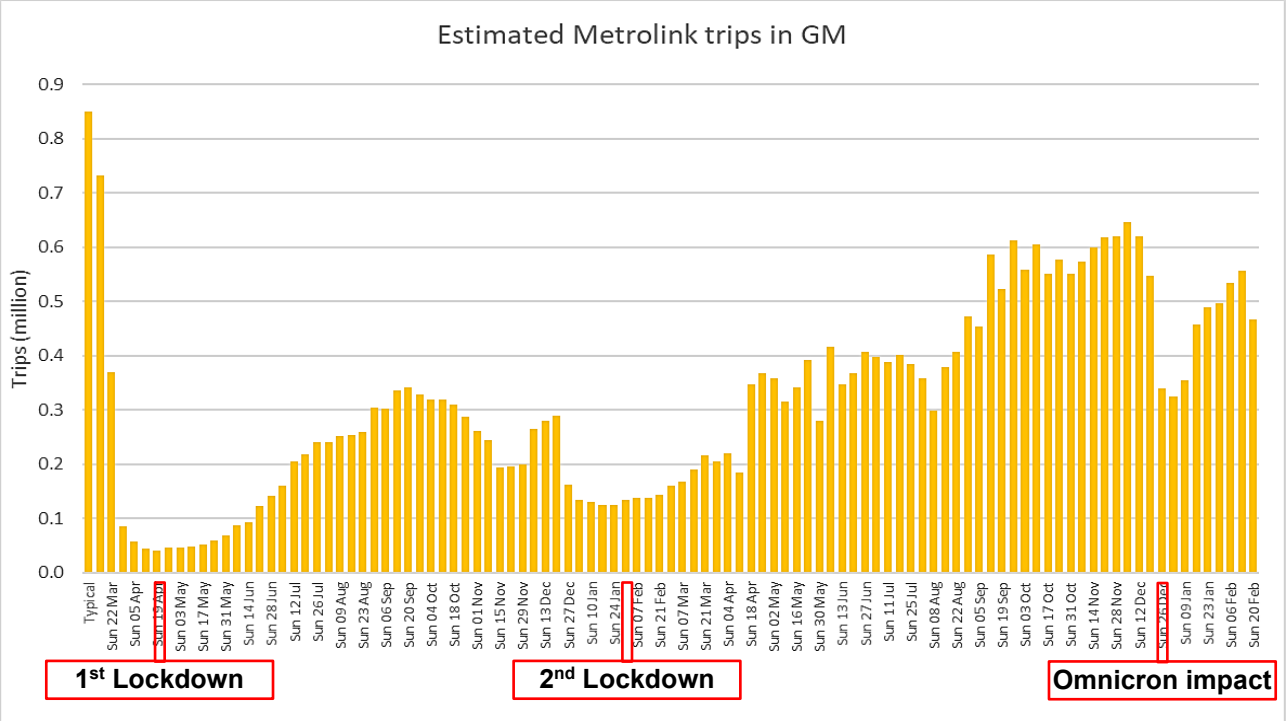
Source: TfGM

Figure B-5 Overview of travel behaviour – Rail



Source: TfGM

Figure B-6 Overview of travel behaviour – Metrolink



Source: TfGM

B.17 These figures illustrate that the impact of the pandemic has been pronounced and the extent to which pre-pandemic travel volumes have returned varies by mode. In summary, at the aggregate level across GM:

- Highway trips are close to pre-pandemic levels (approximately 95% of 'typical'); and
- Public transport trip levels are between 60% and 75% of pre-pandemic / typical levels with bus performing more strongly than rail / Metrolink.

Local Traffic Impacts

B.18 Further analysis was undertaken regarding traffic flows on the local highway network, in order to understand the changing highway demand levels at various points through the pandemic. This has provided an insight into how the Covid-19 related travel guidance and changing behaviours because of the pandemic have impacted travel across GM.

B.19 This analysis has considered changing travel levels at a range of locations across Greater Manchester, to understand how traffic flows have changed on the following:

- Roads near to the Regional Centre;
- Key radial routes;
- Roads adjacent to local centres within GM; and
- Roads accessing centres of employment.

B.20 The analysis has considered several points in time, comparing:

- September 2019 (before the pandemic);

- September 2020 (during the pandemic);
- November 2021 (during pandemic – pre Omicron); and
- January 2022 (most recent, though impacted by Omicron variant).

B.21 Traffic flow data was extracted and analysed from TfGM's C2 Database[43]. These have been reviewed and presented for the 2-way hourly link volumes, by hour, at the following locations:

- Manchester Rd (A56) / 15m South of Ashlor St, Bury (ATC);
- Princess Rd (A5103) / 100m North of Bonsall St, Hulme, Manchester (ATC);
- Washway Rd (A56) / 40m North of Hunston Rd, Sale, Trafford (ATC);
- Bury New Rd (A56) / 90m North of Kingswood Rd, Prestwich, Bury (ATC); and
- Centenary Way (A576) / 160m North of Guinness Rd, Trafford Park, Trafford (ATC)

B.22 Using these specific locations around Greater Manchester the traffic behaviours at each location type can be assessed.

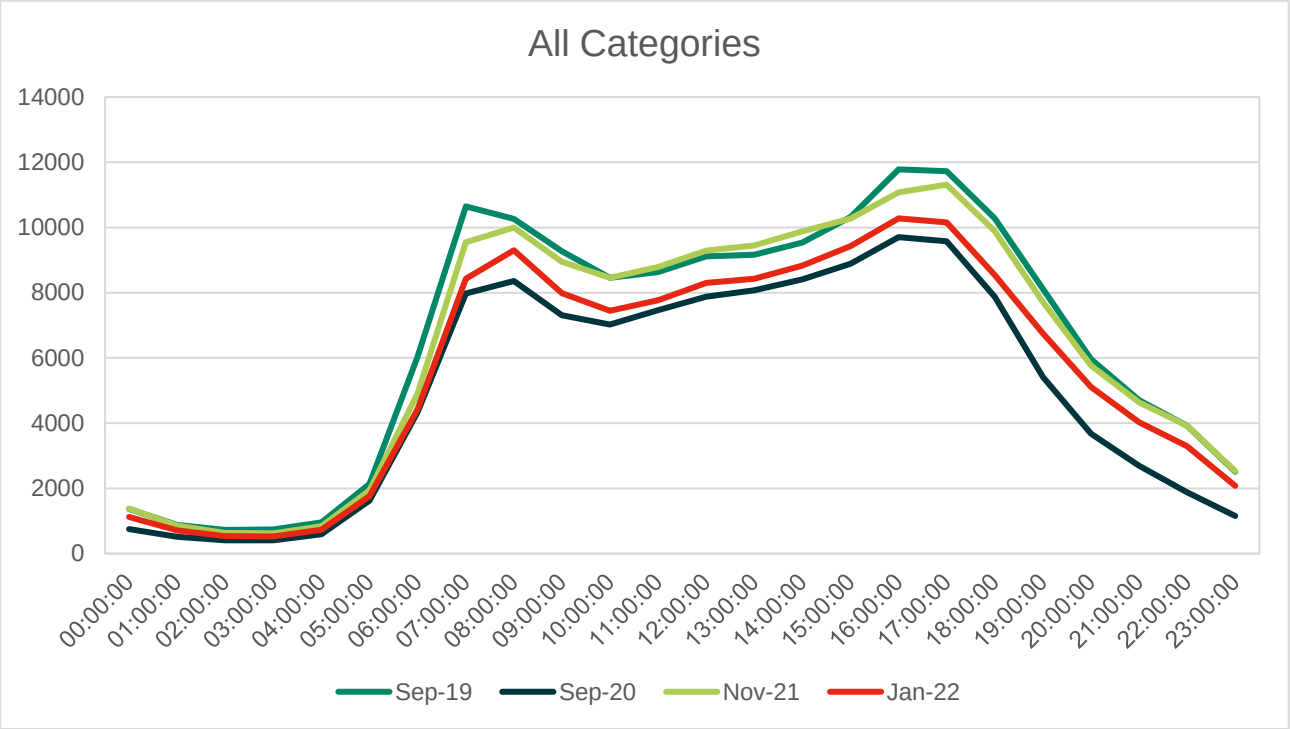
General Traffic Conditions

B.23 Averaging the sites identified above (see **Figure B-7**) suggests there has been a change in travel behaviour throughout the pandemic, noting the following key observations:

- The AM and PM peak periods have remained, although there is a dampening down effect on the peaks, with less variation between peak flows and interpeak flows, as the interpeak has continued to perform strongly.
- During late 2021, highway demand was almost back at pre-pandemic levels, there was then a noticeable drop again in demand as a result of the Omicron variant in December 2021.
- There has been some recovery during the peak periods, though they have not yet returned to pre pandemic levels.
- It is also noted that the earlier part of the AM peak is less strong than pre pandemic levels, with the AM peak now occurring 08:00 to 09:00, rather than 07:00 to 08:00 based on the sample of data sites.
- It also appears that the evening traffic (after 19:00) in 2022 is recovering at a slightly faster rate than the daytime traffic flows. This returned to pre-pandemic levels in November 2021 however, there has been a slight drop again in 2022, although it has been less impacted than other times of day. During the 2020 restrictions, the evening economy was significantly restricted by the Covid-19 restrictions in place at the time.

[43] https://tfgmc2.drakewell.com/multinodemap.asp

Figure B-7 Change in traffic flow levels by time of day (all areas)



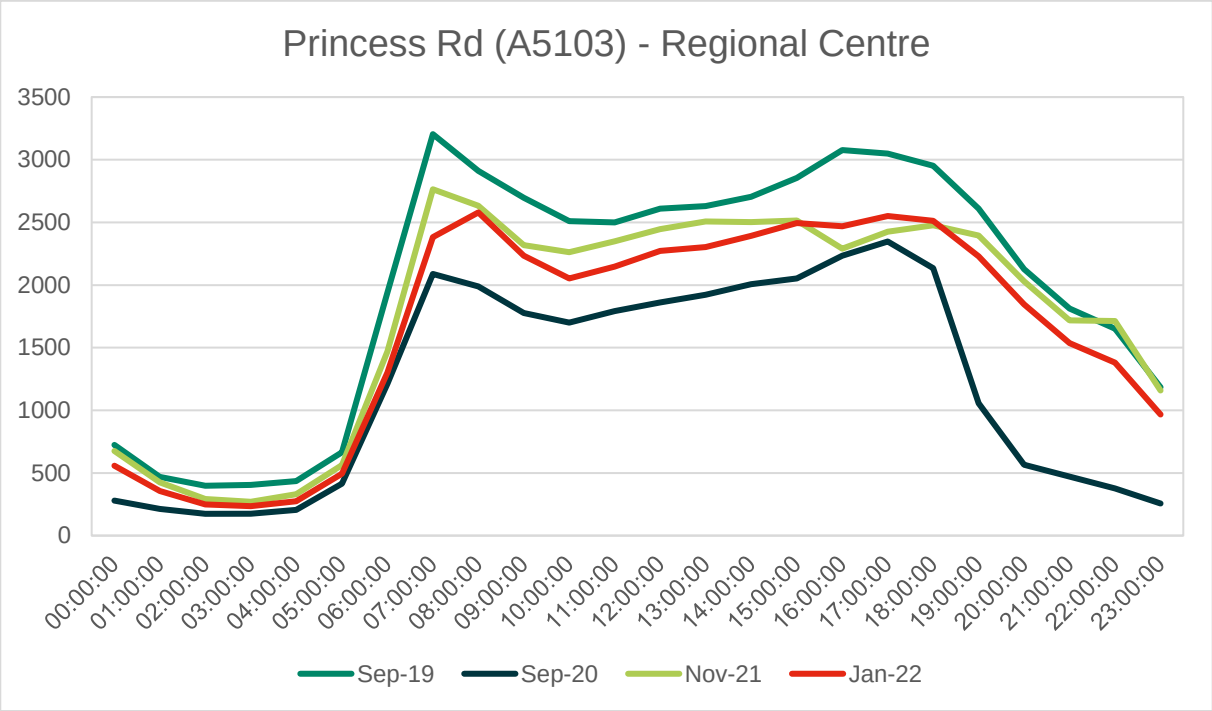
Source: TfGM C2 Database

Roads adjacent to the Regional Centre

B.24 Traffic flows adjacent to the Regional Centre have been significantly impacted throughout the pandemic (see **Figure B-8**). The following key trends have been identified:

- From the data assessed, the pandemic (and associated restrictions) appears to have had the greatest impact on regional centre flows, with the largest decrease in 2020 and the slowest recovery;
- The recovery of traffic flows in the peaks is still subdued, though traffic flows during the Omicron variant have been higher than in Autumn 2020, unlike what is seen at local centres;
- In 2020, Covid-19 restrictions had a considerable impact on demand for travel relating to the Regional Centre, with heavy restrictions placed on sectors such as leisure, tourism, and the night time economy. By November 2021, the easing of COVID restrictions resulted in a return of travel demand to the Regional Centre, showing considerable recovery at particular times of day, reaching close to 2019 levels. The 2022 travel demand to Mar-22 also showed a strong return of traffic during the evening periods, though the Omicron variant is likely to be keeping these slightly below pre-pandemic levels at present.
- The early part of the AM peak is now much weaker than prior to the pandemic, and the PM peak is less pronounced. In November 2021, traffic flows were slightly reduced from pre pandemic levels, with the PM peak most strongly impacted. In January 2022, the PM peak appears to be starting to recover, with a slightly later AM peak.

Figure B-8 Change in traffic flow levels by time of day (Regional Centre)

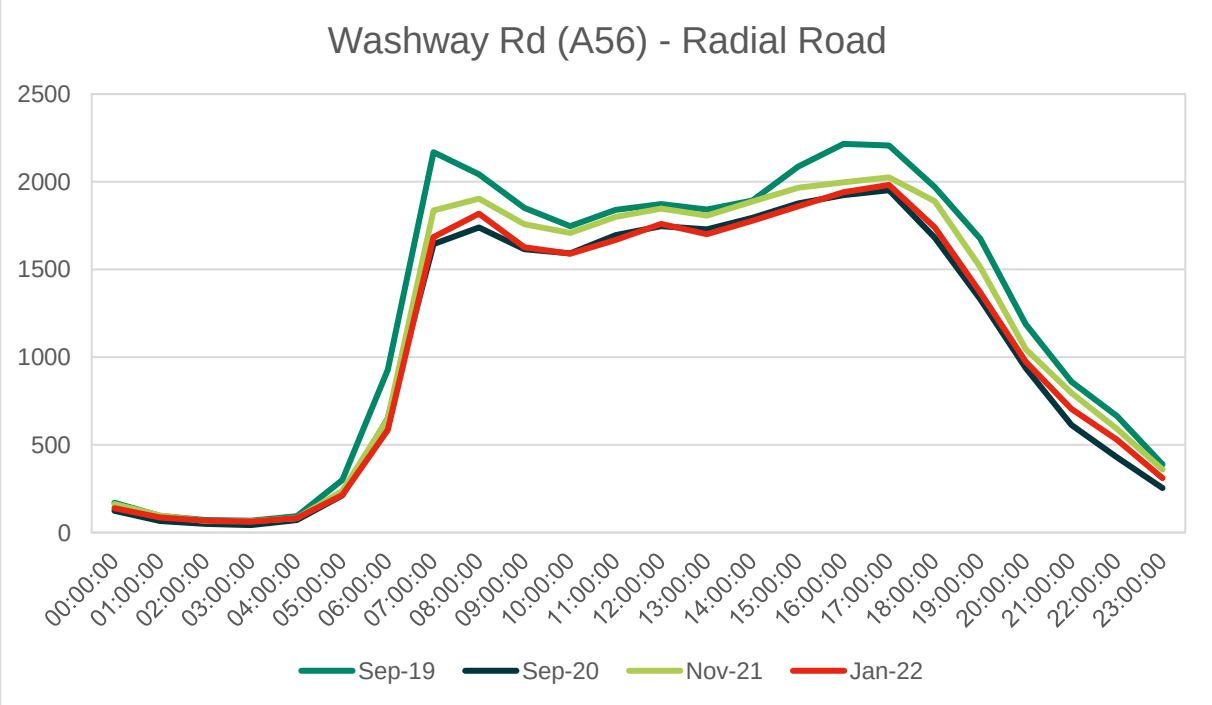


Source: TfGM C2 Database – Location N of Bonsall St, Hulme

Radial Roads

B.25 On Washway Road in Sale (see **Figure B-9**), its proximity close to the M60, and as a key radial route, has resulted in a high level of traffic demand at various points throughout the pandemic. The site is also close to the Local Centre of Sale. Demand has remained strong at the various points assessed although, as with most other locations, the peak periods are showing slightly lower demand in 2022.

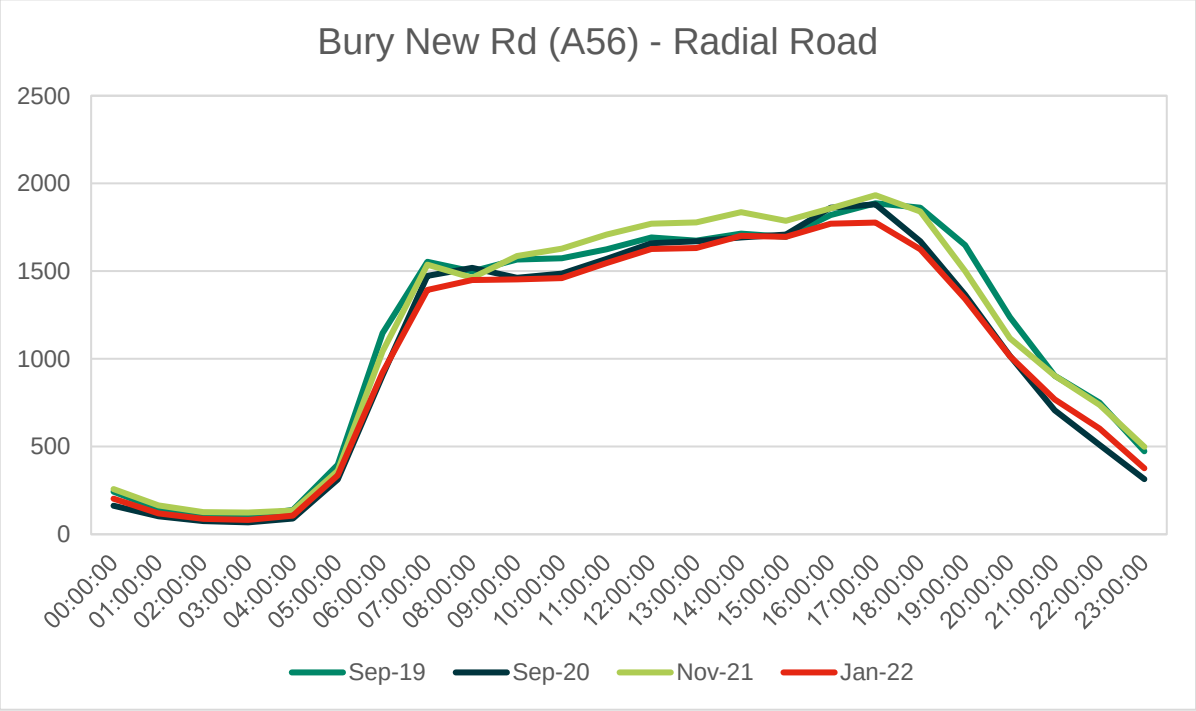
Figure B-9 Change in traffic flow levels by time of day (Radial Roads Outside M60)



Source: TfGM C2 Database – Location adjacent to Sale Local Centre

B.26 Another key radial route north of the Regional Centre is Bury New Road (see **Figure B-10**). This site is also a key radial, though also serves local centres, such as at Prestwich. This location has shown a strong recovery of travel behaviour with travel at certain times of day exceeding pre-pandemic levels, especially during the interpeak, both in autumn 2020, autumn 2021 and currently in 2022. The evening period has, however, shown a slower recovery.

Figure B-10 Change in traffic flow levels by time of day (Radial Roads Inside M60)



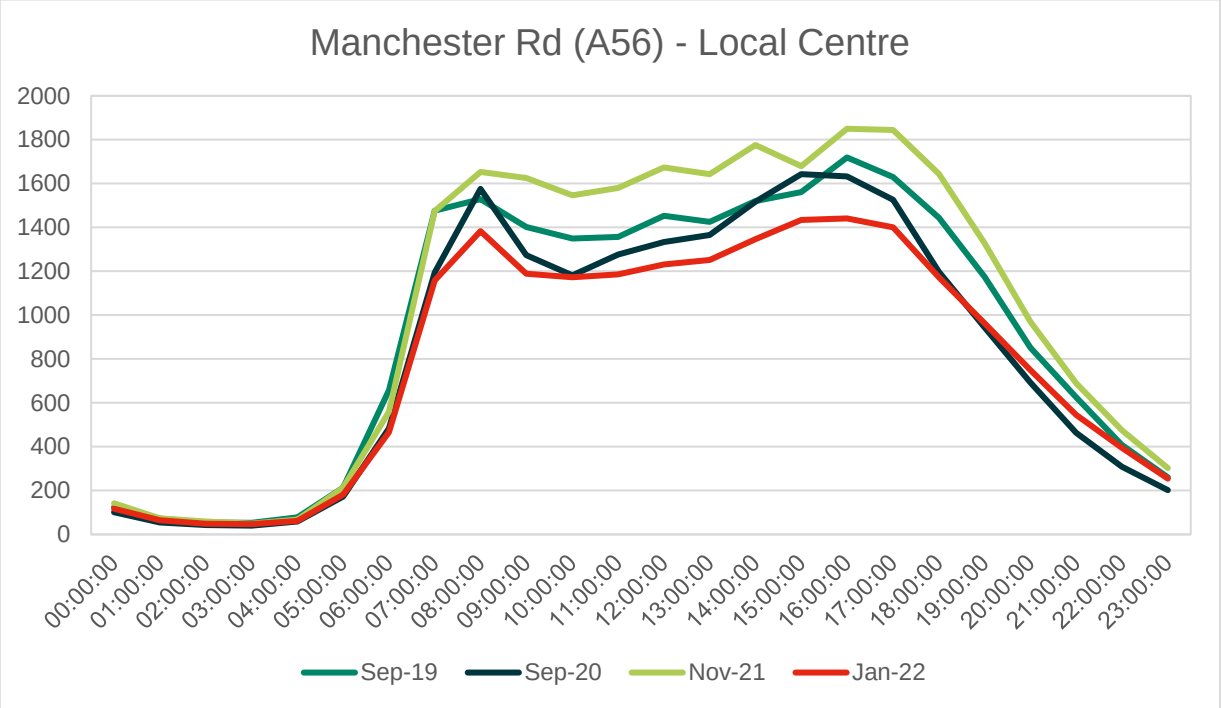
Source: TfGM C2 Database – Location N of Kingswood Rd, Prestwich (Near to M60 J17)

Local Centres

B.27 Throughout the pandemic, as the UK Government eased travel guidance, travel demand in the vicinity of local centres, have bounced back strongly. **Figure B-11**, shows the A56 Manchester Road near Bury, which experienced a strong bounce back effect in Autumn 2020, when travel restrictions were eased. **Figure B-11** shows the later part of the AM peak and the early part of the PM peak exceeding pre pandemic levels, plus a strong interpeak and was likely an impact of more localised travel.

B.28 By the end of 2021, demand had exceeded 2019 pre-pandemic levels by a clear margin, however this demand fell significantly in January 2022. The recent 2022 data shows the impacts of restrictions associated with the Omicron variant which has suppressed traffic flows once again.

Figure B-11 Change in traffic flow levels by time of day (adjacent to Local Centres)



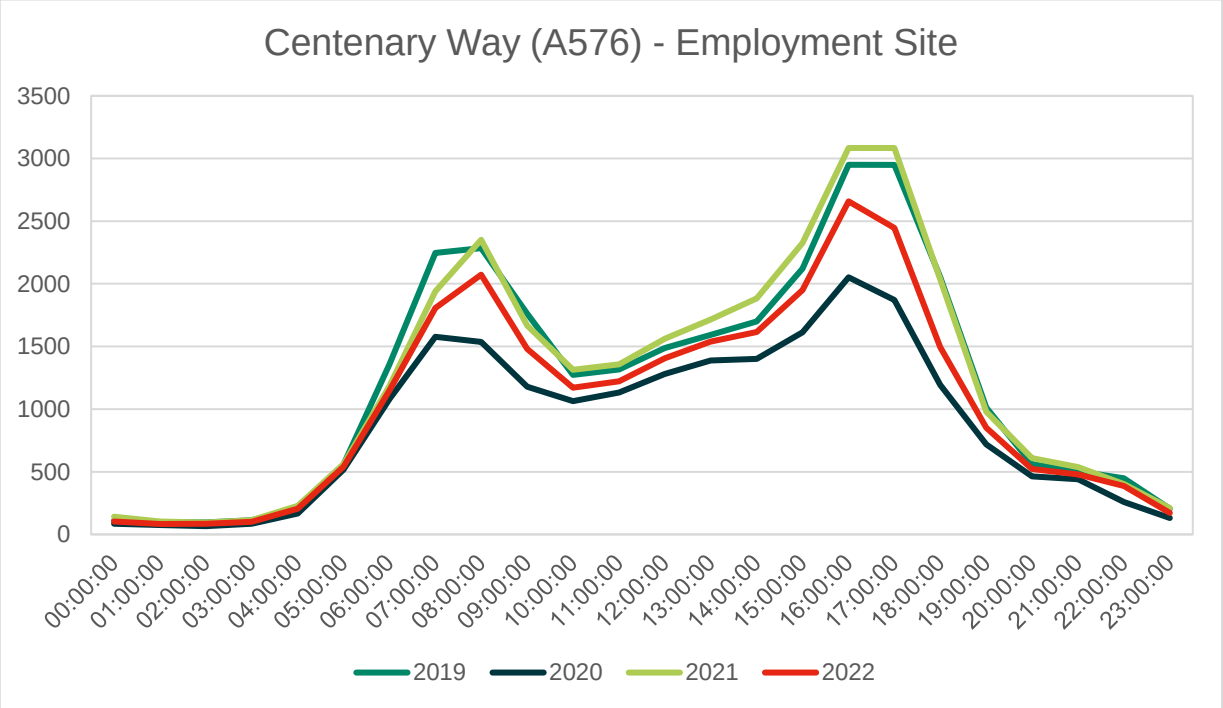
Source: TfGM C2 Database – Location S of Ashlor St, Bury

Centres of Employment (Trafford Park)

B.29 Trafford Park is a major site of employment within Greater Manchester, with traffic flows accessing this employment area changing significantly during the pandemic.

B.30 During the limited easing of travel restrictions in Autumn 2020, traffic flows to/from Trafford Park remained low, with limited return of higher peak time travel flows. This was possibly due to the higher levels of working from home at the time. The more recent data from November 2021 shows flows higher than pre-pandemic levels. January 2022, though impacted by the Omicron variant, shows a recovery of peak hour travel demand, close to pre pandemic levels, although the early part of the AM peak and the later part of the PM peak show a slightly weaker recovery. Interpeak travel is also similar to pre pandemic levels (See **Figure B-12**).

Figure B-12 Change in traffic flow levels by time of day (Centres of Employment)



Source: TfGM C2 Database – Location Trafford Park, Trafford

Summary

B.31 The review of local traffic flows at various locations across GM has shown considerable variations in changing travel behaviour by location, when compared to pre-pandemic levels. This is likely to be impacted by changing travel habits, although the recent Omicron variant is likely to be impacting some travel behaviour in the 2022 data, as shown in **Figure B7**, general traffic levels in Autumn 2021 showed overall recovery in traffic flows above pre-pandemic levels.

B.32 The change in travel behaviour by location since September 2019 is summarised in **Table B-1**.

B.33 Considering the position in November 2021, when travel patterns were least affected, it is notable that Local Centre traffic flows were higher than previously whilst the Regional Centre flows were still much reduced. For radial routes and employment centres, overall (daily) levels were back to pre-pandemic but with some variation during the day; the morning peak being less pronounced but the interpeak higher.

Table B-1 Traffic flow changes by location type from September 2019 to January 2022

Location Type	Period	Change relative to Sep-19 (Index=100)			
		Sep-19	Sep-20	Nov-21	Jan-22
Regional Centre	AM	100	67	88	81
	IP	100	73	95	88
	PM	100	41	92	85
	Eve	100	26	95	85
	Daily	100	61	88	83
Radial inside M60	AM	100	98	98	93
	IP	100	98	105	96
	PM	100	101	102	96
	Eve	100	80	94	83
	Daily	100	92	101	91
Local Centres	AM	100	103	108	90
	IP	100	96	115	88
	PM	100	94	113	86
	Eve	100	74	110	87
	Daily	100	90	111	86
Employment Centre	AM	100	69	95	86
	IP	100	83	108	94
	PM	100	61	102	79
	Eve	100	74	99	91
	Daily	100	74	102	88

Source: TfGM C2 Database

Economic Related Impacts

Introduction

B.34 Changes in the economic situation are also likely to have had an influence on travel behaviour. The section below presents the trends for a range of factors impacting the economy, several of which are likely to impact the way people travel and businesses operate.

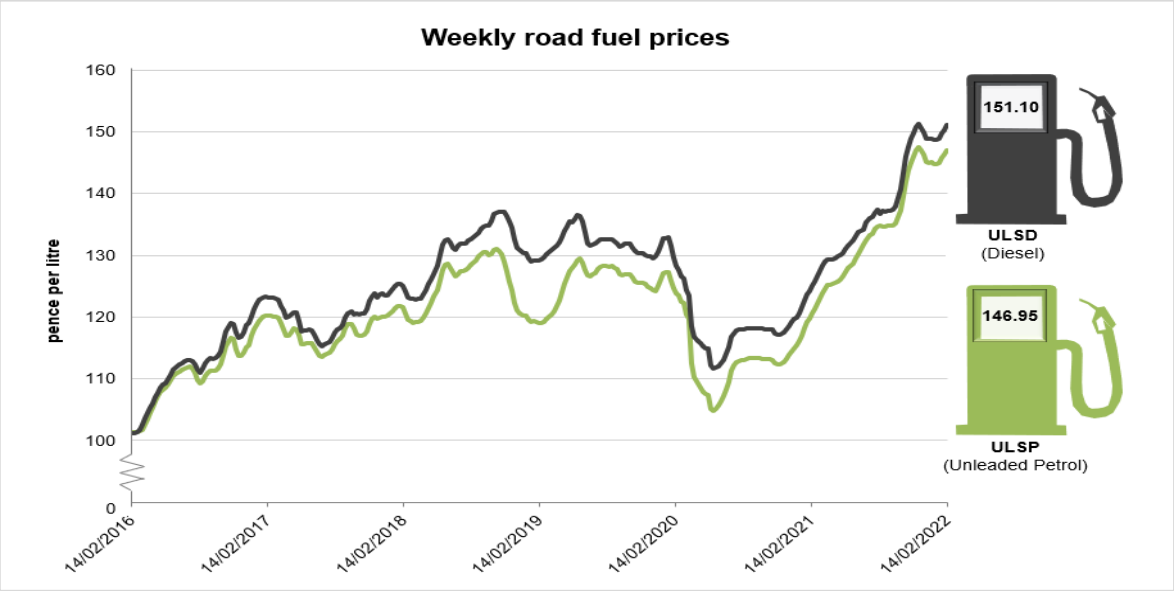
Fuel Prices

B.35 There are six companies (four oil companies and two supermarkets) that feed into the weekly fuel price survey prepared by the government. These companies cover around 65% of the market. The change in fuel price is displayed in **Figure B-13**.

B.36 The price of road fuel is volatile over shorter time periods, with prices regularly rising and falling. The key trends from during the pandemic are:

- At the start of 2020 prices appear to have been on the decline. There was then a significant fall in both Diesel and Unleaded Petrol in early 2020, corresponding with the first national lockdown.
- During the second part of 2020, prices appear to be stable, with prices beginning to rise steadily throughout 2021 in line with global oil market prices.
- There is a steep rise in prices towards the end of 2021, reaching record highs. This corresponds with a sudden rise in post-pandemic energy demand. This has triggered a tax freeze on petrol and diesel for the twelfth year in a row[44].
- In September 2021 long queues and forecourt closures were witnessed, caused by panic buying throughout the country, sparking a fuel shortage in Britain.

Figure B-13 Weekly Road Fuel Prices



Source: gov.uk

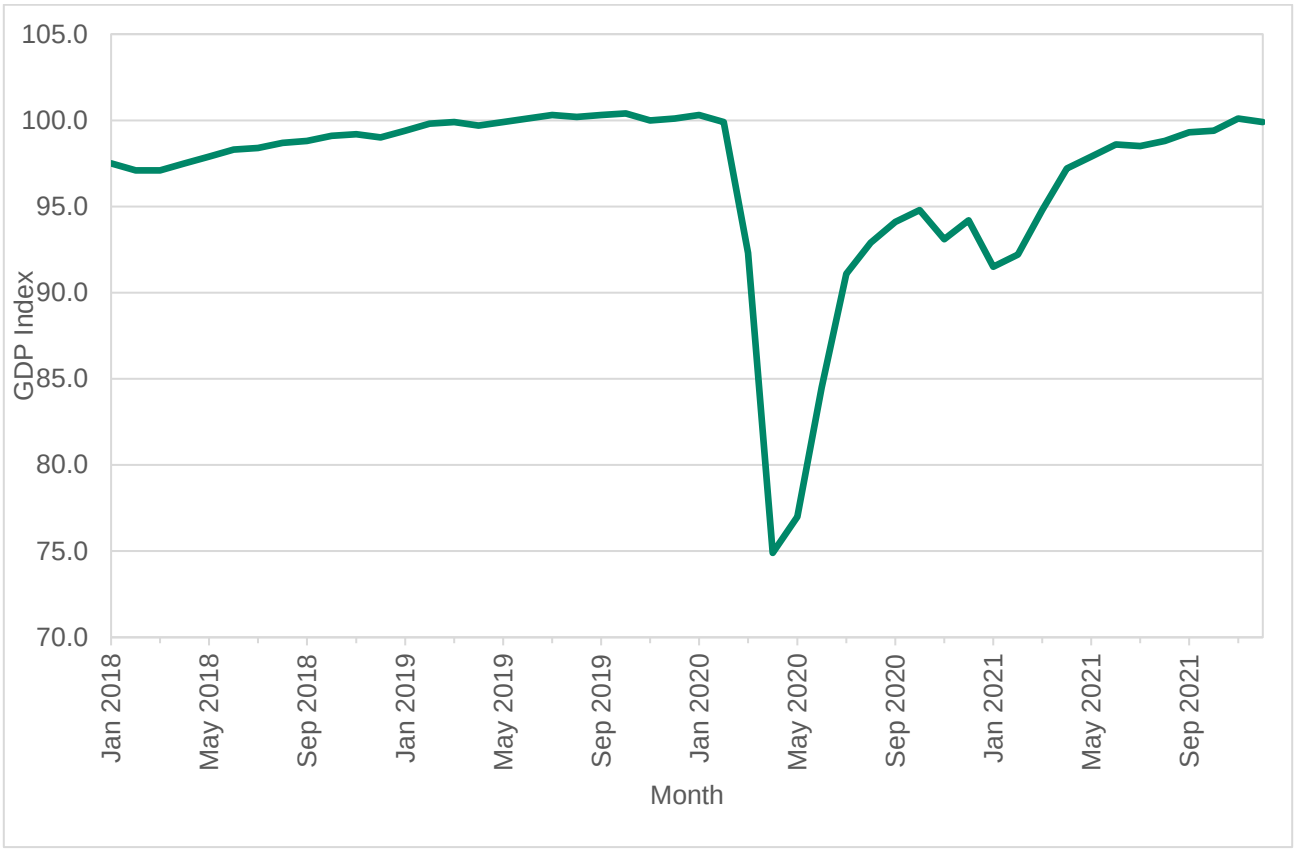
B.37 It was already likely that the price of fuel would remain unsteady for some time as a consequence of the impact of the pandemic and recent events in Ukraine have brough additional uncertainty to that market.

GDP

B.38 From bulletins on the ONS data website[45] the end of 2021 saw a drop in GDP by 0.2%, to equal the pre pandemic level of February 2020. In December 2021 services and construction are both above pre-pandemic levels, while production remained below. Consumer facing services fell within December, driven by a fall in retail, 8.4% below pre-coronavirus levels, contributing to the GDP fall in December 2021 (see **Figure B-14**).

[44] https://www.standard.co.uk/news/politics/budget-2021-fuel-duty-rise-axed-petrol-prices-record-highs-b962832.html
[45] https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpmonthlyestimateuk/december2021

Figure B-14 GDP in the UK (Index, 2019 = 100)



Source: ons.gov.uk/economy[46]

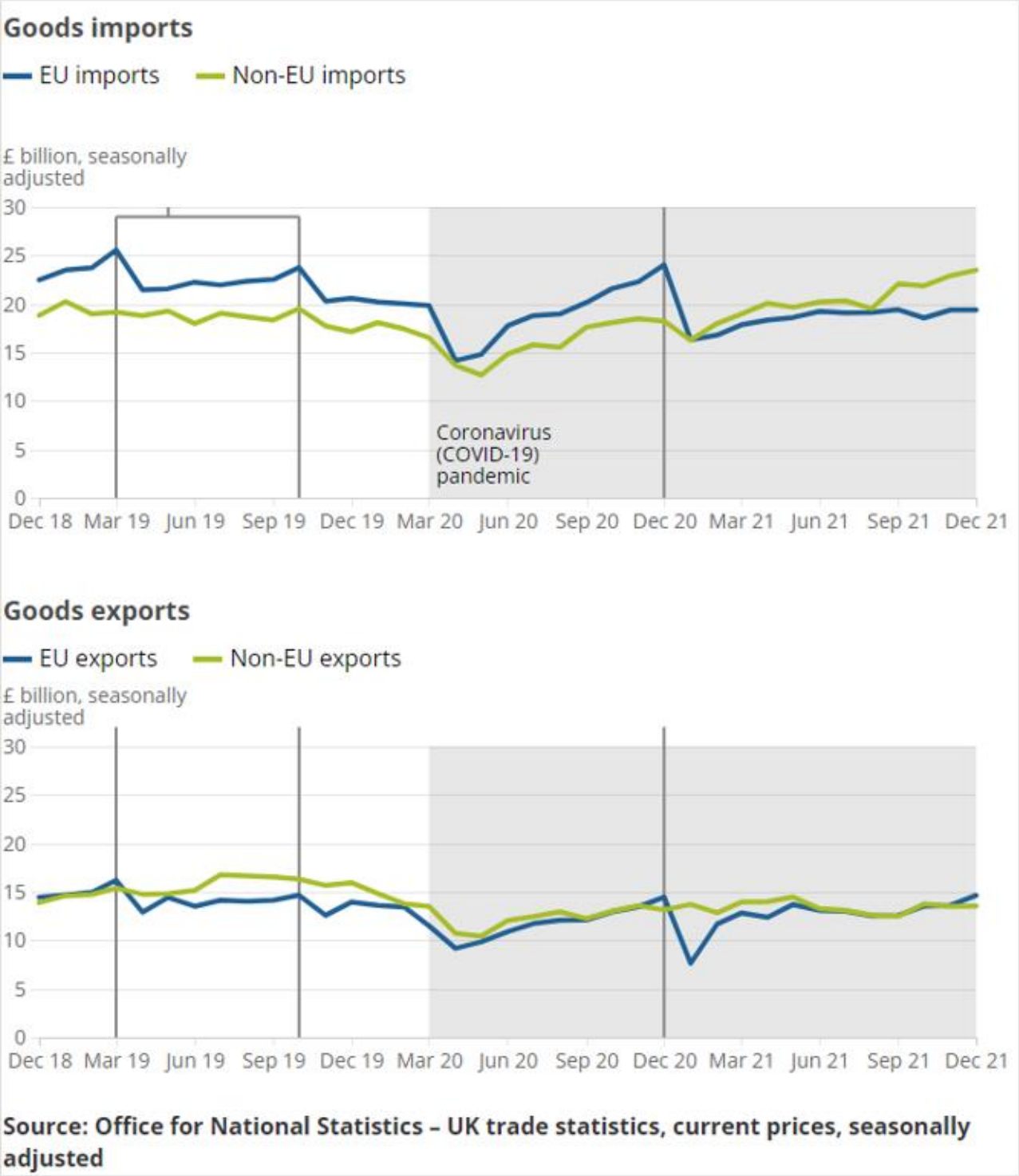
B.39 Growth in average total pay (including bonuses) of 4.3% and growth in regular pay (excluding bonuses) of 3.7% among employees was seen in October to December 2021[47]. In real terms (adjusted for inflation), total and regular pay fell for the year by 0.1% and 0.8% respectively.

Imports and Exports

B.40 **Figure B-15** shows the trends in UK goods imports and exports throughout 2019, 2020, and 2021. After an initial decrease in imports at the beginning of the pandemic, this appears to have recovered. There was another significant decrease at the end of 2020, however imported goods are on the increase back to pre-pandemic levels. There was less impact on exports, with these remaining steady throughout.

[46] https://www.ons.gov.uk/economy/grossdomesticproductgdp/bulletins/gdpmonthlyestimateuk/december2021
[47] https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/averageweeklyearningsingreatbritain/february2022

Figure B-15 Import and Exports



Source: ons.gov.uk/economy[48]

Centre for Cities – Cities Outlook

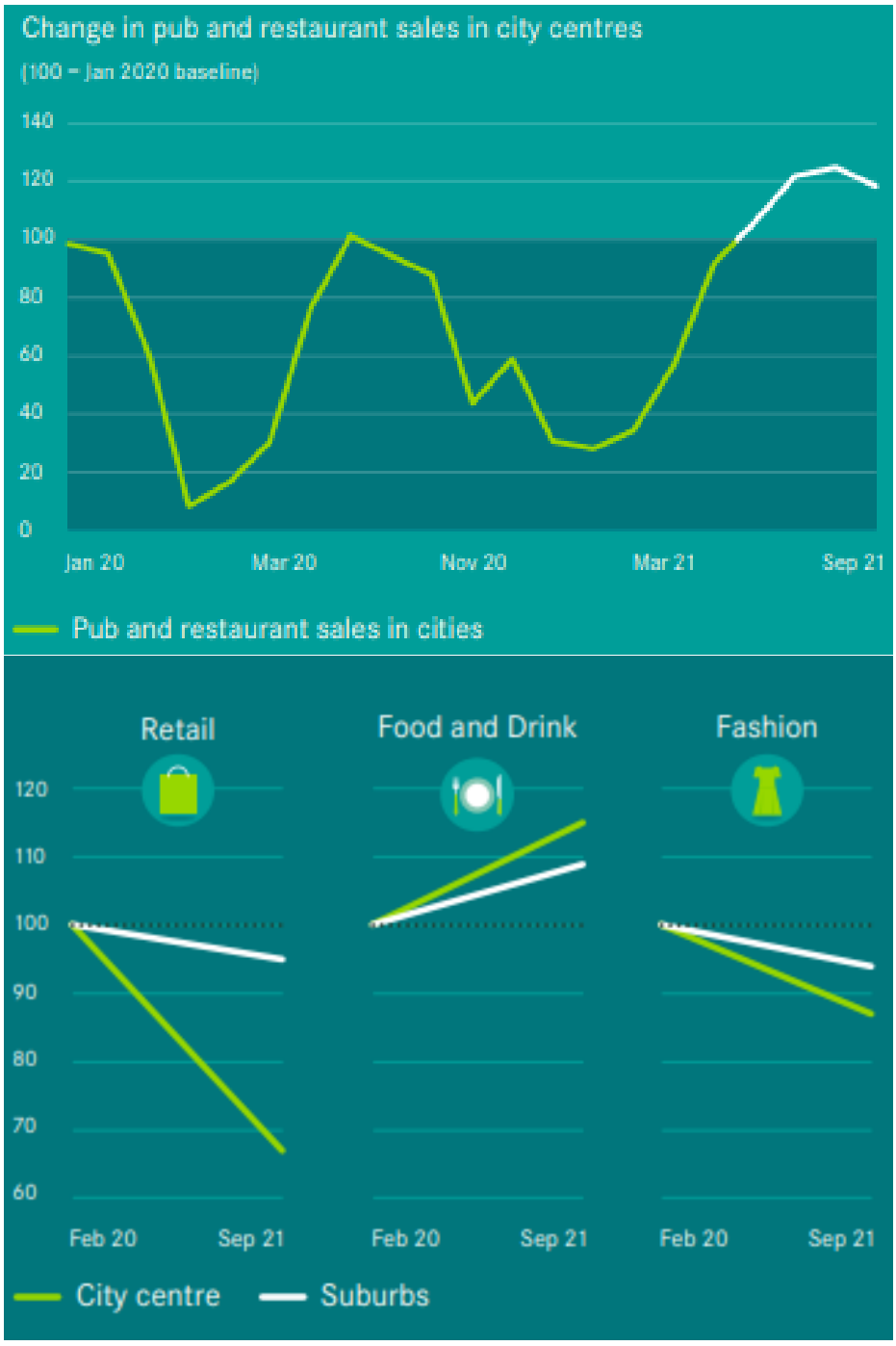
B.41 Centre for Cities produced the Cities Outlook 2022 report looking in-depth at the state of UK high streets, to get a sense of the short-term impact of the pandemic on Britain's town and city centres, and the long-term consequences and implications this has for the Government's levelling up agenda. This report showed that there was a quick and considerable shift away from high streets to online

[48] https://www.ons.gov.uk/economy/economicoutputandproductivity/output/articles/ukeconomylatest/2021-01-25#output

shopping during the pandemic. However, in most cities the shift stalled, or slightly fell again once shops reopened.

B.42 The Cities Outlook report also studies the impacts on pubs and restaurants, stating that the fashion sector was hit harder than pubs and restaurants. **Figure B-16** shows the trend in sales throughout 2020 and 2021. There are clear decreases in sales corresponding to the national lockdowns but in all instances, these soon recover when the sector reopens. This is also reflected in the suburbs, with retail and fashion experiencing a slight decline from Feb 2020 to September 2021 but food and drink on a steady incline.

Figure B-16 Change in pub and restaurant sales in City Centres and Suburbs



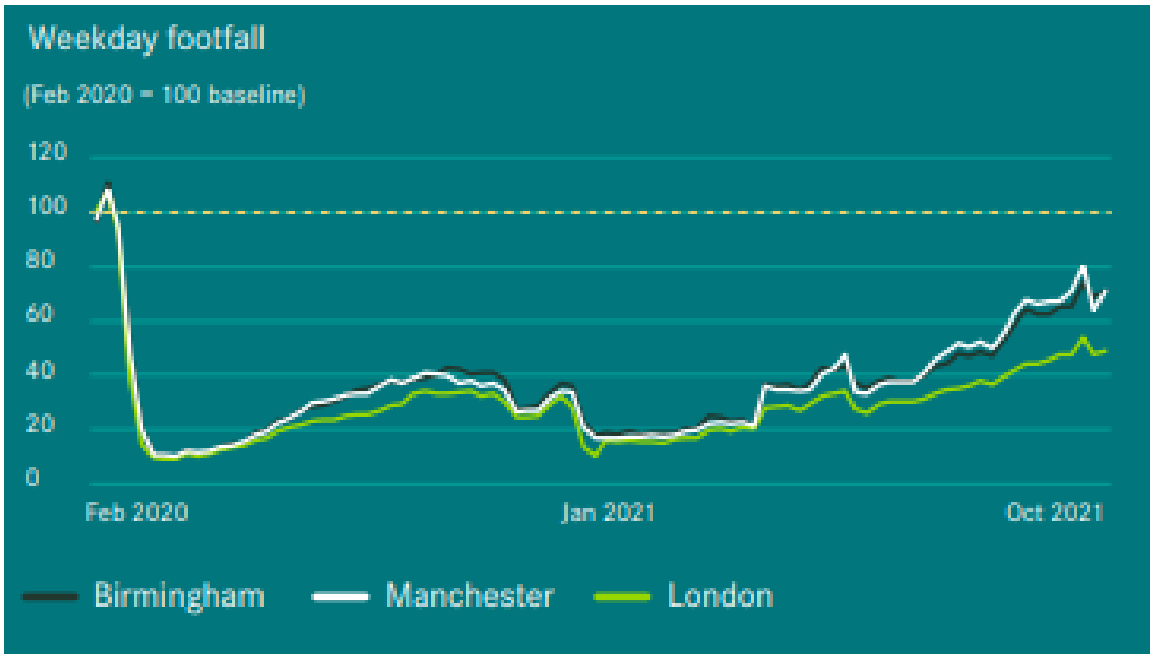
Source: ons.gov.uk/economy[49]

[49] https://www.centreforcities.org/

B.43 Due to the work from home regulations and, for many, working from home becoming a regular part of the working week, it is feared the reduced footfall in cities will have a lasting effect on retail, hospitality, and transport sectors. **Figure B-17** show the weekday footfall in London, Manchester and Birmingham. Although not yet back to pre-pandemic levels, there is a steady climb in footfall in the major cities with Manchester appearing to recover more quickly than Birmingham, and London taking considerably longer.

B.44 The more significant impact on London may be related to the impact of Covid-19 on international tourism.

Figure B-17 Weekday footfall



Source: ons.gov.uk/economy