Report
February 2022

Continuing COVID Funding Support for Urban Public Transport

Urban Transport Group
Our ref: 24181801

steer

Report
February 2022

Continuing COVID Funding Support for Urban Public Transport

Prepared by:

Steer
67 Albion Street
Leeds LS1 5AA

+44 113 389 6400
www.steergroup.com

Prepared for:

Urban Transport Group
Wellington House
40-50 Wellington Street
Leeds
LS1 2DE

Our ref: 24181801

Contents

Executive Summary ..... **i**

1 Introduction **1**

2 The Benefits of Urban Public Transport **3**

Introduction 3

Public Transport Use Pre Covid 3

Who uses Public Transport 7

The Importance of Local Public Transport 15

How Urban Public Transport Services are Provided 17

Government and Local Public Transport – Policy Position 23

Levelling Up the United Kingdom 29

Local Transport Authorities and Urban Public Transport 29

Summary 30

3 Urban Public Transport During COVID **31**

Introduction 31

Note on Data 31

Operating Public Transport during Covid 32

Bus Use Through the Pandemic 35

Light Rail Use During the Pandemic 38

Government Support to Bus During the Pandemic 40

Light Rail 42

National Rail 43

Total Financial Support to Public Transport 44

4 Urban Public Transport After the Pandemic **45**

Introduction 45

Non-London Bus Demand at the end of March 2022 45

Non-London Bus Demand Post March 2022 47

The Post Covid Bus Network 52

Restoring Demand 54

Light Rail 60

5 The Future of Urban Public Transport 61

Introduction 61

The Future of Urban Public Transport with no Further Government Support 63

Options for Further Supporting Urban Public Transport's Recovery 63

6 Conclusion & Recommendation 67

Conclusion 67

Recommendation 67

Figures

Figure 2.1: Bus Patronage – 1955 to the 2018/19 4

Figure 2.2: Bus Vehicle Miles – 1987 to the 2018/19 5

Figure 2.3: Bus Fares Index – 2005 to 2020 5

Figure 2.4: Why People Travel by Bus (Outside London) 7

Figure 2.5: Propensity to Use Bus (by Age) 8

Figure 2.6: Bus trips made by age brackets (Full population) 9

Figure 2.7: Bus trips made by age brackets (Male) 9

Figure 2.8: Bus trips made by age brackets (Female) 10

Figure 2.9: Bus Trips by Region 11

Figure 2.10: Bus trips by income quintile 12

Figure 2.11: Household car availability by household income quintile 12

Figure 2.12: Reason for Choosing Bus 13

Figure 2.13: Why People Travel by Light Rail 14

Figure 2.14: Propensity to Use Light Rail (by Age) 15

Figure 2.15: Propensity to Use Light Rail (by Household Income) 15

Figure 2.16: Breakdown of English (non-London) bus revenue (2018/19 prices) 21

Figure 3.1: Non London Bus Usage as a percentage of pre Covid levels (7 day moving average) 35

Figure 3.2: Proportion of Population Using Bus in the Last Seven Days 36

Figure 3.3: Main Purpose of Last Bus Journey 37

Figure 3.4: Proportion who had options to make journeys but chose bus (November 2021) 37

Figure 3.5: Metrolink Usage (7 day moving average) 38

Figure 4.1: Post May 2021 Bus Usage as a percentage of pre Covid levels (7 day moving average) 46
Figure 4.2: Polynomial extrapolation of Pre-Omicron London 2021 demand growth 47
Figure 4.3: Metropolitan Area Bus Usage 2009/10 to 2018/19 49
Figure 4.4: Bus Patronage Vicious Circle 51
Figure 5.1: Local Public Transport and Public Policy 62

Tables

Table 2.1: English Light Rail and Tram Outside London (2018/19 statistics) 22
Table 2.2: Enhanced Partnership and Bus Franchising - Summary 25
Table 3.1: Timeline of key Covid events alongside bus use 32
Table 3.2: DfT Light Rail Funding April to October 2020 43
Table 3.3: Total Financial Support to Public Transport 44

Appendix

A Metropolitan Bus Model

Executive Summary

The Consequences of an End to Government Financial Support

Published in March 2021, *Bus Back Better* is the Government's National Bus Strategy for England. In *Bus Back Better*, the Government states that its central aim is to get more people travelling by bus: "first, to get overall patronage back to its pre-COVID-19 level, and then to exceed it".[1] The strategy is to make buses more frequent, more reliable, easier to understand and use, better coordinated and cheaper. Government is taking this approach because it sees buses as the easiest, cheapest and quickest way to improve transport and that such improvements will bring widespread economic, societal and environmental benefits. In its *Levelling Up the United Kingdom* White Paper, Government has committed to deliver by 2030 local public transport connectivity across the country that is significantly closer to the standards of London.

Outside London, six light rail networks complement the connectivity provided by buses and the national rail network. Focussed on the largest town and city centres, light rail is an attractive high capacity and environmentally friendly alternative to car travel. Light rail has been integral to the towns and cities that it serves growing and thriving. Before the pandemic, light rail patronage was growing.

Our central finding is that if Government's Covid-related financial support to urban public transport outside London ceases at the end of March 2022 as currently planned, buses would soon be less frequent and more expensive. Patronage would be substantially less than pre-Covid levels, potentially up to 30% less. Much needed investment in zero emission buses to deliver the Government's net zero commitments would be delayed. The gap between how buses are used and what the Government wants to achieve will be greater than ever. There will be pressure to reduce light rail services and increase fares, which would have negative impacts on town and city centres as they look to recover from the impacts of the pandemic.

The Benefits of Urban Public Transport

Urban public transport matters economically, socially and environmentally. The impacts of urban public transport stretch across a whole range of national policy areas. Urban public transport supports economic, social, industrial, housing, health and environmental policy areas. Growing public transport use will help support the attainment of these polices, falling bus and light rail use will have the opposite effect. The role of bus is recognised by the Government in *Bus Back Better* and it has committed to invest £1.4bn over the life of the current Parliament to improve bus services and support patronage growth.

Around half of all bus users are dependent on bus for their travel. The young and the elderly have the highest propensity to use bus, as do people in the lowest income quintile. A reduced bus service means that some of these people will have no viable travel alternative. A smaller public transport network means that remaining bus users will have reduced access to jobs, education, health and leisure activities, which will have knock-on negative impacts to the economy. Higher fares will make them worse off financially at a time when people are also facing higher gas and electricity bills and food price inflation.

[1] Page 8, DfT (2021) *Bus Back Better: National Bus Strategy for England*

Further financial support would halt the service that would lead to a further decline of bus and light rail patronage and has the potential to get patronage levels back towards their pre-pandemic levels. Our analysis suggests that the funds needed to halt a further decline in bus patronage are substantial, but still less than the average annual support that has been provided over the last two years. Around £635m is needed to stabilise bus patronage outside London, of which around £245m would flow to operations in metropolitan areas. Doubling this funding could return bus patronage to close to its pre-pandemic levels. Reflecting that each is unique in nature, we have not made an estimate for how much funding light rail would need but we anticipate that like bus, this would be less than the annual average support provided over the last two years.

A Time to Act

Once public transport patronage is lost, it is hard to get back. Investing now in revenue support to maintain patronage has the potential to be more cost effective than paying later to invest in capital schemes intended to try and get that demand back. Capital funding, for instance investing in further bus priorities, would also support bus patronage, but it takes time to design and implement such schemes and for their impact to be felt. By the time this happens, without further financial support much patronage will be lost.

Further financial support would also create the opportunity for Government to reform its approach to supporting public transport funding such this is used to the best effect. It would give local transport authorities time to get Enhanced Partnerships in place with their operators and re-focus their Bus Service Improvement Plans (BSIPs) to support post-pandemic recovery. It would allow time for there to be a debate about how in the medium to long term, the public sector supports public transport provision with the goal of levelling-up and decarbonising the country's transport network, and supporting wider economic, social and environmental policy goals.

Accordingly, with the goal of stabilising public transport demand and creating the opportunity to reset the approach to supporting public transport's future growth, we recommend that the Government's Covid-related support to urban public transport is maintained for at least a further 12 months.

1 Introduction

1.1 Covid has led to unprecedented impacts on the way we travel. The decision to 'lockdown' society and, as part of that, advise people not to travel by public transport led to a precipitous decline in use of buses, light rail and the national rail network. Within days of lockdown being announced at the end of March 2020, patronage dropped to a fraction of its pre-Covid levels. To keep public transport services operating, Government had to step in and provide financial support. The funding support for bus services outside London and light rail is scheduled to comes to an end on 5th April 2022.

1.2 In the year ending 31st March 2019, the last full year before the pandemic struck, 908 million bus journeys were made in metropolitan areas (Greater Manchester, Merseyside, South Yorkshire, Tyne & Wear, West Midlands, West Yorkshire) and 1,213 million were made elsewhere in England. A further 124 million journeys were made by the six non-London English light rail systems. Bus is the most utilised form of public transport and outside London, together bus and light carried more passengers than the entire national rail network. Buses and light rail are central to many people's daily lives, giving access to their places of work, schools and colleges, shops and leisure activities, as well as being integral their social lives.

1.3 The Urban Transport Group (UTG) has asked Steer to consider what could happen should Covid-related financial support come to an end at the beginning of April 2022 and what this may mean first in terms of public transport patronage and then, how this outturn will affect the attainment of national and local policy objectives to which public transport makes a contribution.

1.4 In this report "urban public transport" refers to bus and light rail services. National rail services are important parts of urban areas' public transport networks. However, different financial arrangements that have been put in place by the Government to support national rail services throughout the pandemic. Furthermore, Government is in the process of implementing the Williams-Shapps plan for rail, which will change the way passenger rail services are provided and the way that Government financially supports that national rail network. As a consequence, national rail services in urban areas are not a focus of this report.

1.5 Our approach has been as follows:

- Next, in Chapter 2, we set out the benefits of urban public transport. We look at how many people pre-pandemic used urban public transport, why these people travel, as well as their socio-economic characteristics. We set out the nature and scale of the economic, societal and environmental benefits that come about because people use urban public transport.
- In Chapter 3, we go on to describe what has happened to public transport throughout the pandemic and the role that public transport has provided, for instance allowing key workers to get to their jobs, and supporting the recovery of town and city centres. We set out how Government has financially supported urban public transport and the scale of

this funding. We set out the extent to which we think public transport patronage will have recovered to pre-pandemic levels by the beginning of April 2022.

- We look ahead in Chapter 4 to what could happen post March 2022 in a scenario where Government Covid-related funding is withdrawn and what could happen if further revenue and capital funding is provided. To support this analysis we have applied Urban Transport Group's Metropolitan Bus Model.
- Next in Chapter 5, we draw together the analysis and set out what we consider it means for the future of urban public transport.
- Finally in Chapter 6, we set out our conclusions and our recommendation.

1.6 This report has one appendix in which we describe the Metropolitan Bus Model and how it has been applied.

1.7 We gratefully acknowledge the input to this work from the UTG and its members, in particular the provision of data, case studies and access to the Metropolitan Bus Model. This said, the responsibility for any errors or omissions is ours and ours alone.

2 The Benefits of Urban Public Transport

Introduction

2.1 In this Chapter we look at public transport pre-Covid, with a particular focus on the English metropolitan areas. With a focus on the situation before the pandemic, we consider how many people used public transport, their socio-economic characteristics, why they made public transport journeys and the benefits that flowed from this. We go on to describe how public transport is provided and the prevailing policy environment at a local and national level.

Public Transport Use Pre Covid[2]

Bus

2.2 In the year ending 31st March 2019, 4.8 billion bus journeys were made in Great Britain. This is more than the number of journeys made on the national rail network and London Underground added together. For many, bus is the only mode of public transport available to them.

2.3 Of these 4.8 billion journeys made by bus:[3]

- 2,198 million were made in London. As we set out later, bus services in London are currently provided in a different way to those elsewhere in Britain;
- 908 million were made in metropolitan areas (Greater Manchester, Merseyside, South Yorkshire, Tyne & Wear, West Midlands, West Yorkshire);
- 1,213 million were made elsewhere in England;
- 482 million were made in Scotland and Wales.[4]

2.4 While bus is the most utilised mode of public transport, bus passenger numbers have experienced a steady decline over the last seven decades (see Figure 2.1). This is in contrast with the national rail network which, after twenty-five years of growth, pre-Covid carried more people than at any time in the past, and London Underground which has experienced a decade of patronage growth before a modest decline in the year to March 2019. In aggregate, the country's light rail networks also experienced growth as their networks have expanded.

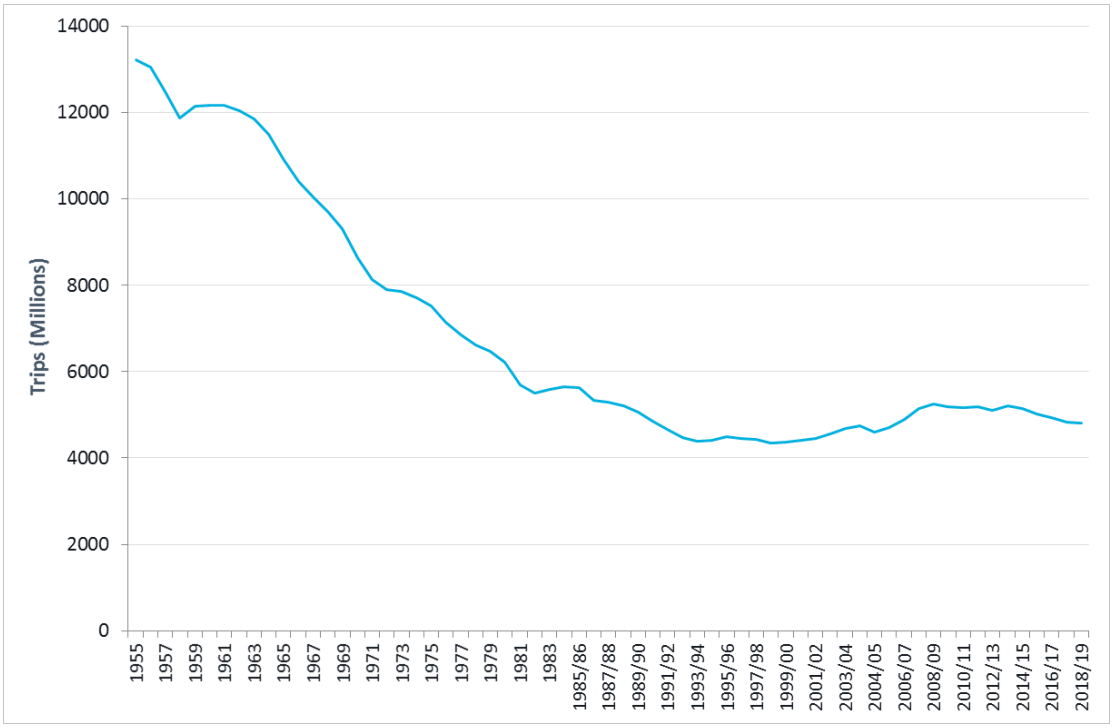
---

[2] In this section, all annual patronage numbers are quoted to March 2019. Even before the announcement of the first Covid 'lockdown' on March 23rd, patronage in the last weeks of March 2020 was affected by people responding to the Government's advice on social distancing and to 'work from home if you can'.

[3] Data Source: BUS0103

[4] Bus policy is a devolved matter and Scottish and Welsh Government policy is not considered in this report.

Figure 2.1: Bus Patronage – 1955 to the 2018/19



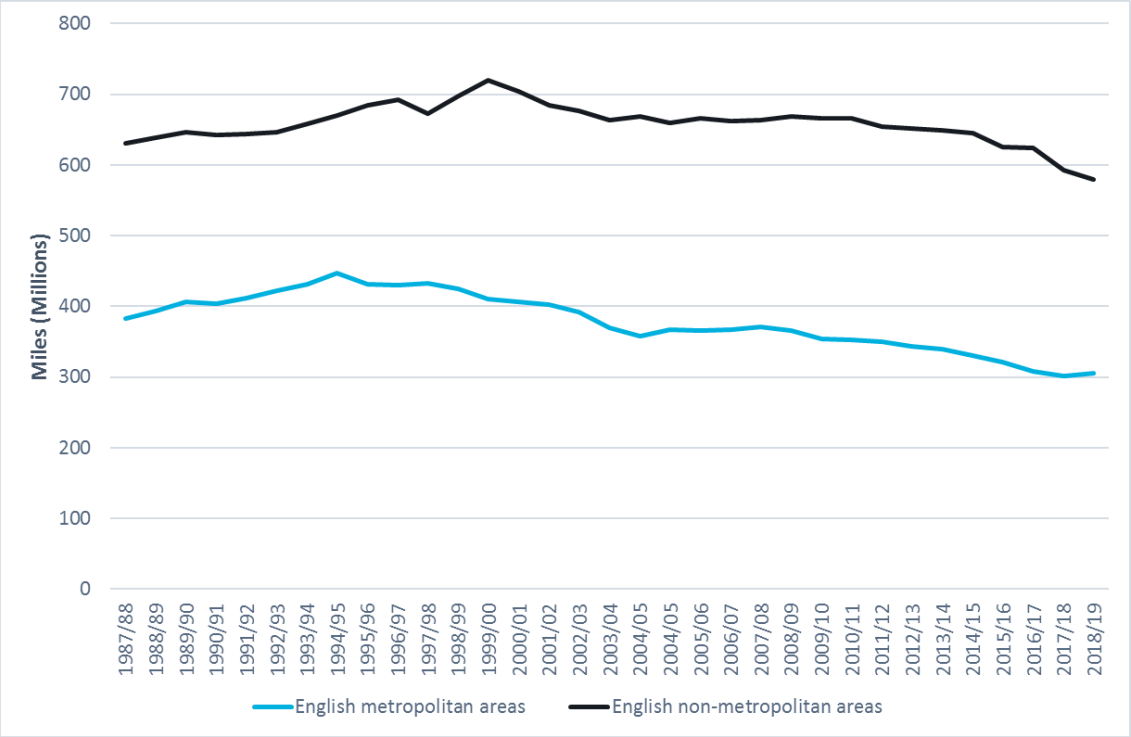
Data Source: Department for Transport Bus Statistics Table BUS0101

2.5 The reasons why bus passenger numbers have declined are deep-rooted. Greater household disposable income, greater car ownership and driving licence holding have made car a more available option. Changing patterns of employment and economic activity have made car a more attractive option than bus, or in many cases the only travel option. Lower demand has led to a reduced bus network in scale and geographic coverage. This is illustrated by looking at bus vehicle miles, a measure of the annual passenger service distance travelled by buses. As shown by Figure 2.2, while bus vehicle miles grew immediately after deregulation in 1986, the last twenty years have seen a steady decline in bus vehicle miles.

2.6 Greater traffic congestion adds to costs as bus operators' principal assets (buses, drivers) are inevitably used less efficiently. This, with other increased unit operating costs combined with lower bus demand have led to real-terms fares increases as operators seek to maintain their profit margins. This is illustrated by Figure 2.3 which shows how bus fares have increased in real terms over recent years.

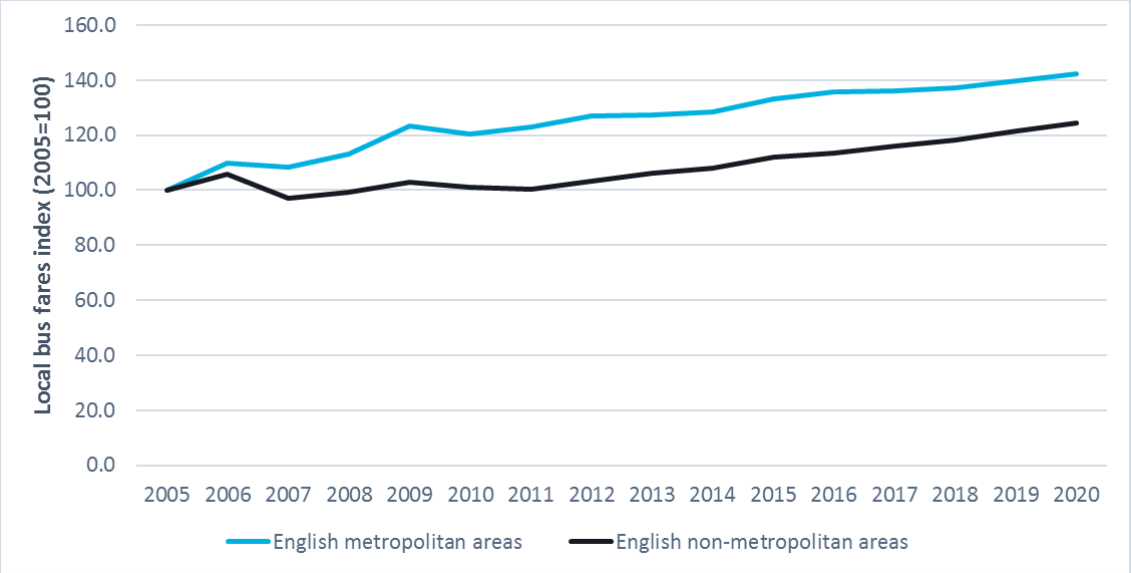
2.7 Reduced bus network coverage leads to bus services being less attractive or buses simply not being available at all. Together with higher fares, this further reduces passenger numbers leading to a negative feedback, the so-called 'vicious circle' of decline.

Figure 2.2: Bus Vehicle Miles – 1987 to the 2018/19



Data Source: Department for Transport Bus Statistics Table BUS0205

Figure 2.3: Bus Fares Index – 2005 to 2020



Data Source: Department for Transport Bus Statistics Table BUS0405b

2.8 Notwithstanding the long-term decline in bus patronage and the reduction in the coverage of the network, bus remains the country's most well utilised mode of public transport. Because of its economic importance (below), as well as the contribution that well-used public transport can make to environmental goals including carbon net-zero, pre-pandemic, local authorities across the country were pushing forward with plans and programmes aimed at increasing bus use.

2.9 Pre-pandemic, towns and cities including Brighton, Bristol, Reading and Southampton each experienced growth in bus use.[5] What these places had in common was a buoyant economy, dynamic local bus company management and an effective partnership between the local authorities and bus operators. Other factors include, but are not limited to, simple fares (e.g. flat fares), high quality and well-maintained fleets, a focus on customer service, limited town/city centre parking, limited urban rail network (and no light rail provision) and congested local roads but extensive bus priority measures. What the experience in Brighton, Bristol, Reading, Southampton and elsewhere shows is that declining bus patronage is not inevitable.

Case Studies

Brighton & Hove

Partnership working between Brighton and Hove Council and local operators is cited as a key reason why the area has the highest bus use per head in England outside of London, with 167 journeys per person made between 2019–2020. It has created a platform for co-operation and innovation, and shared initiatives on greening fleets and modernising the passenger experience.

Within the partnership, the council focused on bus priority measures, improved passenger waiting areas and real-time information displays. The operators focused on improving service frequencies, creating value for money fares and tickets, investing in new buses and improving customer training and marketing.

Reading Buses

Reading Buses is owned by Reading Borough Council and has been transporting passengers for over one hundred years. It has one of the youngest and most environmentally friendly fleets in the UK and, in the Autumn 2019 Transport Focus Bus Passenger Survey, Reading Buses' passenger satisfaction score was 92%.

Bus usage has grown through consistent partnership working between the Council and bus company, resulting in Reading having the second highest bus use in England, outside London, per head of population in 2019/20 – with an average of 137.5 annual bus trips per person. Total bus use in Reading borough had grown to over 22m journeys in 2018/19 before the pandemic, an increase of almost 40% in the last six years.

Source: Pages 23 and 49, DfT (2021) *Bus Back Better: National Bus Strategy for England*

Light Rail

2.11 In England outside London, in the 12 months to 31st March 2019 124.4 million journeys were made by light rail.[6] Use of light rail has been increasing over the last twenty years reflecting:

[5] Table 1, *What's Driving Bus Patronage Change?,* Urban Transport Group

[6] LRT0101. A further 150.5 million journeys were made on Docklands Light Rail and London Tramlink and 7.5 million on Edinburgh Trams.

- the expansion of these networks, which has made them a viable travel option for a greater number of people;
- the growth in employment and economic activity in the town and city centres that they serve;
- that light rail is an attractive alternative to other forms of transport, especially for medium-distance journeys within conurbations.

2.12 Details of the scale of light rail networks outside London are set out later in this section.

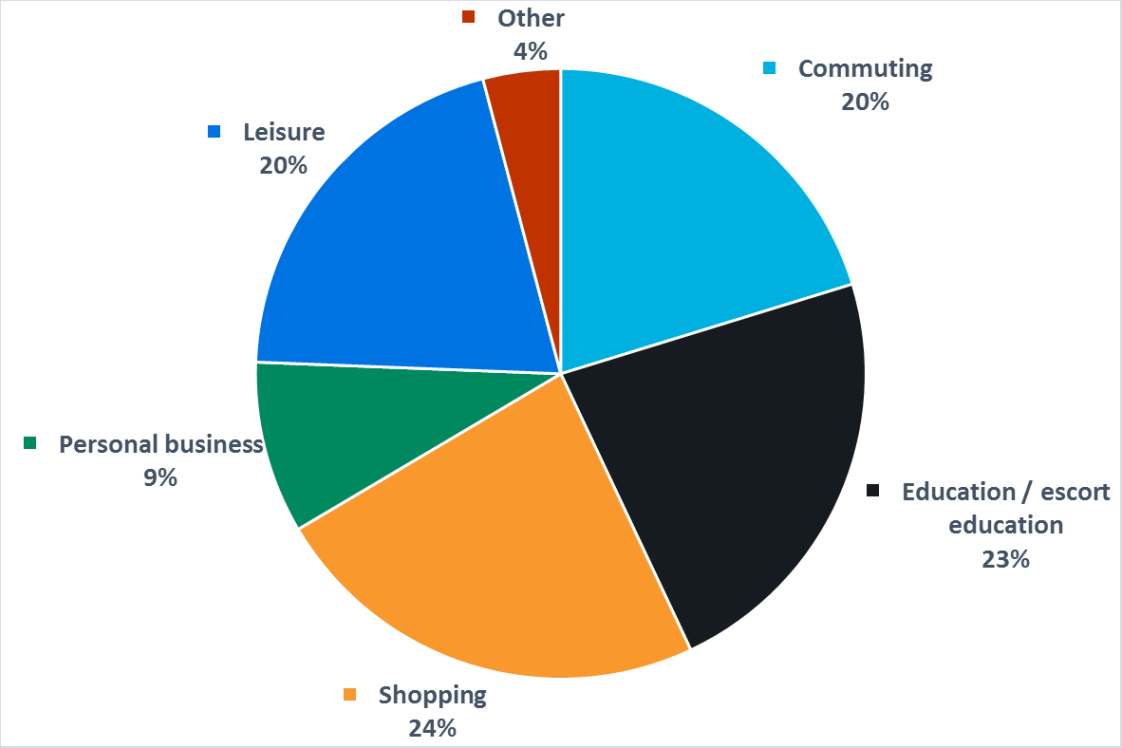
Who uses Public Transport

Bus

Why People Travel by Bus

2.13 The reasons why people travel by bus are shown in Figure 2.4. Outside London, a fifth of all bus trips are for commuting and a quarter are trips to and from school or tertiary education. A further quarter of trips are for shopping. As set out below when we look at the economic importance of bus, large segments of the community are reliant on bus to get to work or to get to school or college. Bus use supports the High Street, particularly in our larger towns and cities.

Figure 2.4: Why People Travel by Bus (Outside London)



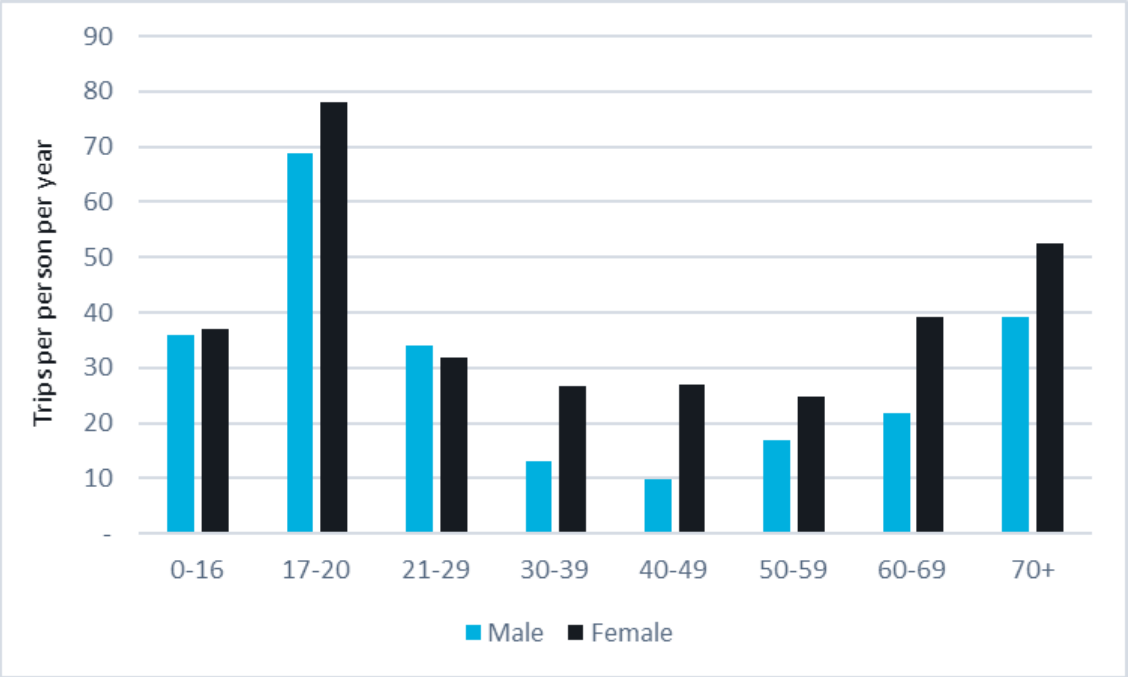
Data Source: National Travel Survey Table NTS0409

Age and Gender

2.14 The greatest users of bus are the youngest and oldest in society. Figure 2.5 shows the propensity to use bus by men and women in different age groups. On average, those under 30 and over 60 are more frequent bus users than those between 30 and 60. In England outside London, 28% of all bus journeys were made by people were elderly or disabled concessionary

journeys.[7] It can also be clearly seen from the figure that women use bus much more often than men, irrespective of age. Outside London, 58% of bus trips are made by women and 42% by men.[8]

Figure 2.5: Propensity to Use Bus (by Age)



Data Source: National Travel Survey Table NTS0601

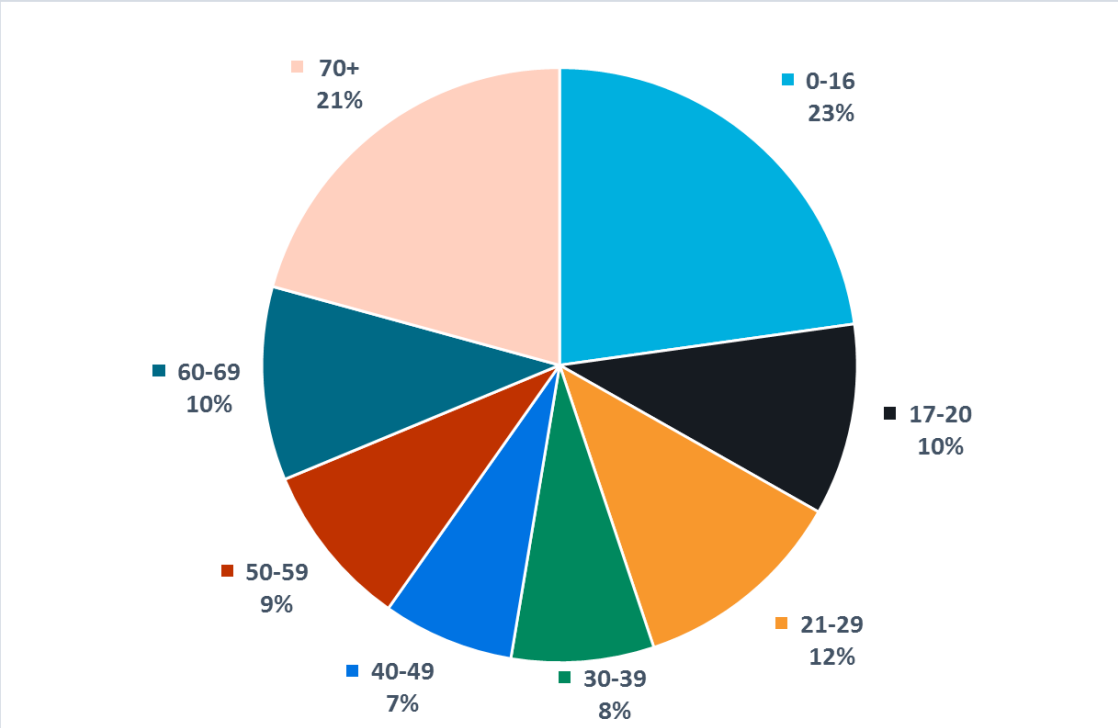
2.15 The importance of bus to the younger and the older in society is further illustrated in Figure 2.6, which shows the share of total bus trips outside London made by people in different age groups. A third of all bus trips are made by the under twenties and a fifth by the over seventies. A third of all bus trips outside London are made by working age women.[9] Figure 2.7 and Figure 2.8 show the age breakdown by gender.

[7] DfT (2019) *Annual Bus Statistics: England 2018/19*

[8] Steer calculations using NTS (NTS 0601) and ONS mid-year population estimates. This approach produces an estimate of bus use that is less than that in the DfT's annual Bus Statistics data set, but is considered adequate to give an indication of the composition of the bus market.

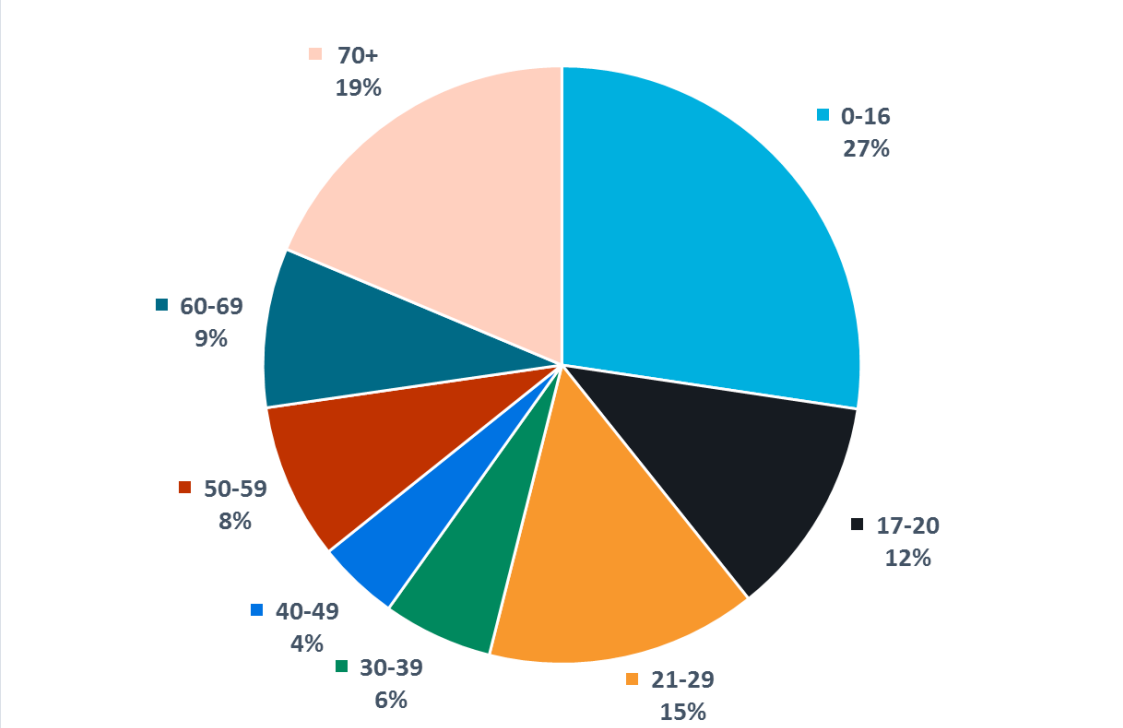
[9] To match data readily available, this has been defined as women between 17 and 70.

Figure 2.6: Bus trips made by age brackets (Full population)



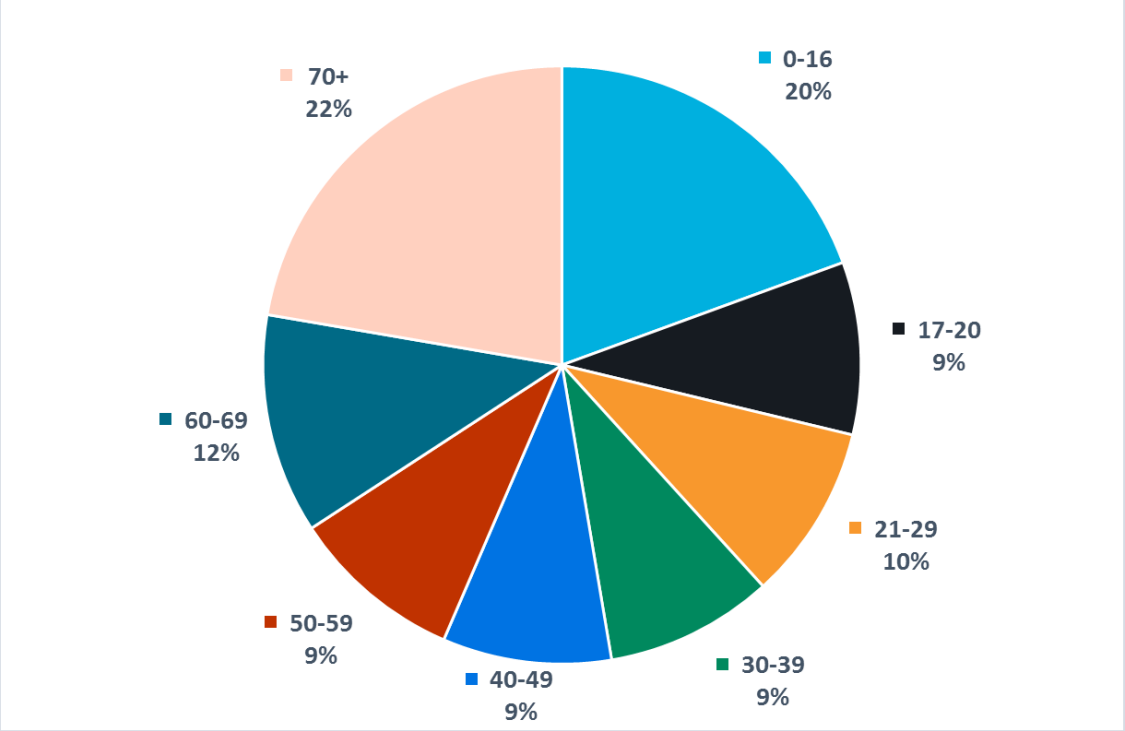
Data Source:National Travel Survey Table NTS0601 and ONS Interactive Population Pyramid

Figure 2.7: Bus trips made by age brackets (Male)



Data Source: National Travel Survey Table NTS0601 and ONS Interactive Population Pyramid

Figure 2.8: Bus trips made by age brackets (Female)



Data Source: National Travel Survey Table NTS0601 and ONS Interactive Population Pyramid

Buses and the Young

"For 17-20 year olds, many of whom have yet to pass their driving test or cannot afford to drive, the bus offers an important independent means to access college, university, work, friends and social life.

A survey by the Association of Colleges estimates that some 72% of students take the bus to college. However, the [Association of Chief Executives of Voluntary Organisations] Commission on Youth Unemployment found that 'for a great many young people, the costs of transport remain a major barrier to engaging in education or work' and highlights that 'high transport costs can eat significant chunks out of the earnings of a young person on the minimum wage, and be a major disincentive to staying in training for a prolonged period, or to undertaking unpaid work experience.'

Available and affordable bus services allow young people and their families – particularly those on lower incomes – a broader choice of learning establishments and pathways, and ensure these options benefit from a diverse intake. Affordable bus services also enable young people of all ages and backgrounds to access positive activities before and after school, such as breakfast clubs, football practice, drama clubs, homework clubs and volunteering. Such activities are key in building the self-esteem, skills, interests and contacts necessary for social mobility.

A report by the All Party Parliamentary Group on Social Mobility found that participation in out of school activities was a key factor in breaking the cycle of social immobility. It recommended that policy makers should explore ways of levelling the playing field on access to, and participation in, out-of-school activities.

Available and affordable bus services have the potential to help equalise access to these positive activities. Evidence suggests that high bus fares, or a lack of available bus services can prevent parents from allowing their children to participate in such activities.

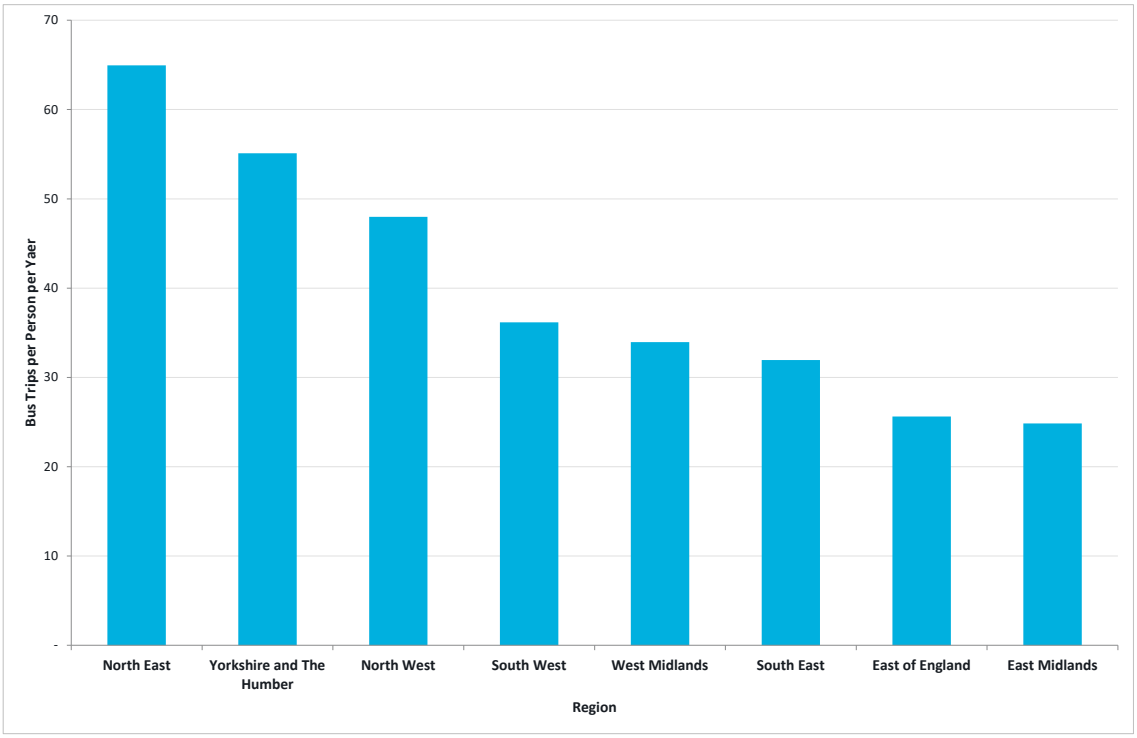
Travelling by bus independently can also be a valuable educational experience in itself, offering the opportunity to develop important life skills such as planning a journey, understanding timetables and handling money. Furthermore, independent travel builds confidence, brings young people into contact with a wide range of people, helps in the development of social skills and expands horizons."

Source: Urban Transport Group (2019) *The Cross-Sector Benefits of Backing the Bus*

Bus Use by Region

2.16 Outside London, bus use is highest in the North East, Yorkshire and the Humber and the North West (see Figure 2.9). These are regions that perform less well economically than the rest of the country and are a focus of the Government's 'Levelling Up' agenda. While the propensity to use bus is lower in the West Midlands region, this region-wide figure hides relatively high bus use in West Midlands metropolitan area and lower bus use elsewhere in the West Midlands region.

Figure 2.9: Bus Trips by Region

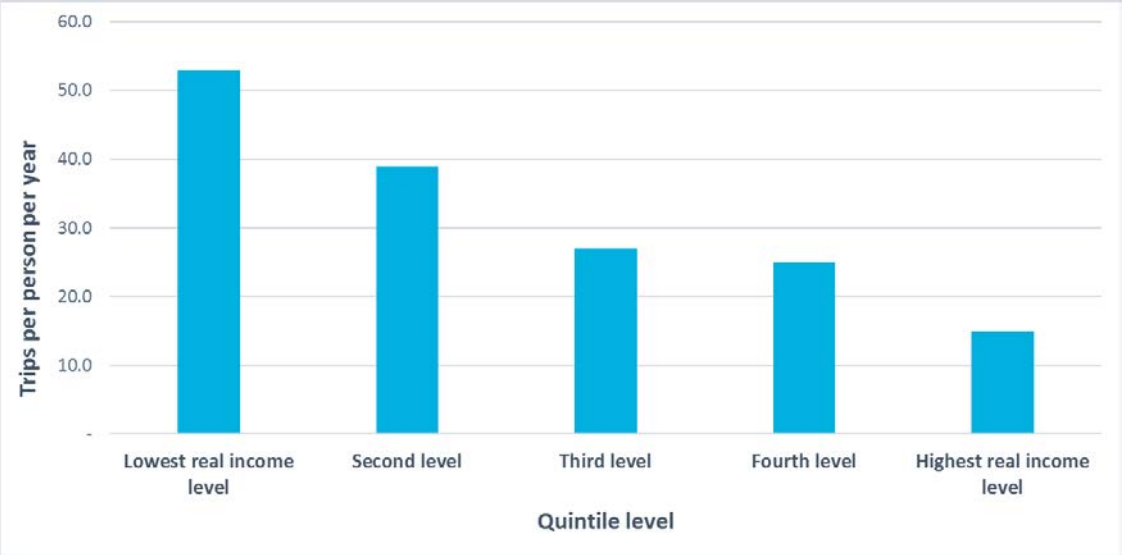


Data Source: National Travel Survey Table NTS0705

Bus Use by Income

2.17 Those in the lowest income quintile make the highest number of bus trips per person, while those in the highest income quintile make the lowest number: bus use declines as income increases. This is shown in Figure 2.10, which shows bus use by income quintile.

Figure 2.10: Bus trips by income quintile

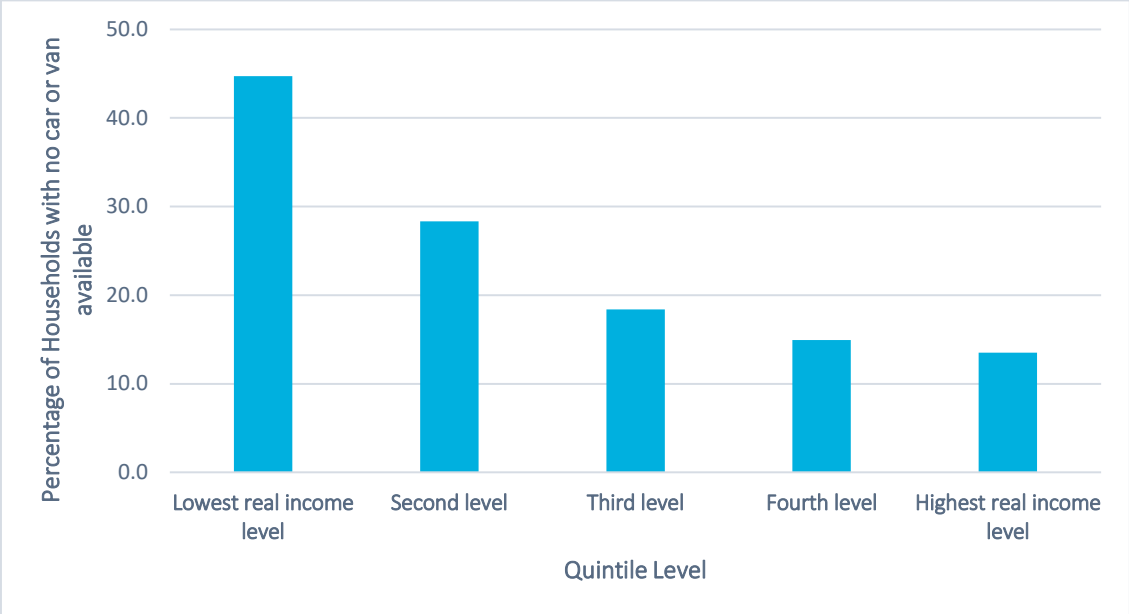


Data Source: National Travel Survey Table NTS0705

Bus Use by Car Availability

2.18 There is also a correlation between the number of households that do not have a car or van available and bus use. This is illustrated by Figure 2.11. From this it can be inferred that those in households in the lowest income quintiles have the greatest dependency on bus for their trip making. Female heads of house, children, young and older people, BME and disabled people are concentrated in this quintile.[10]

Figure 2.11: Household car availability by household income quintile



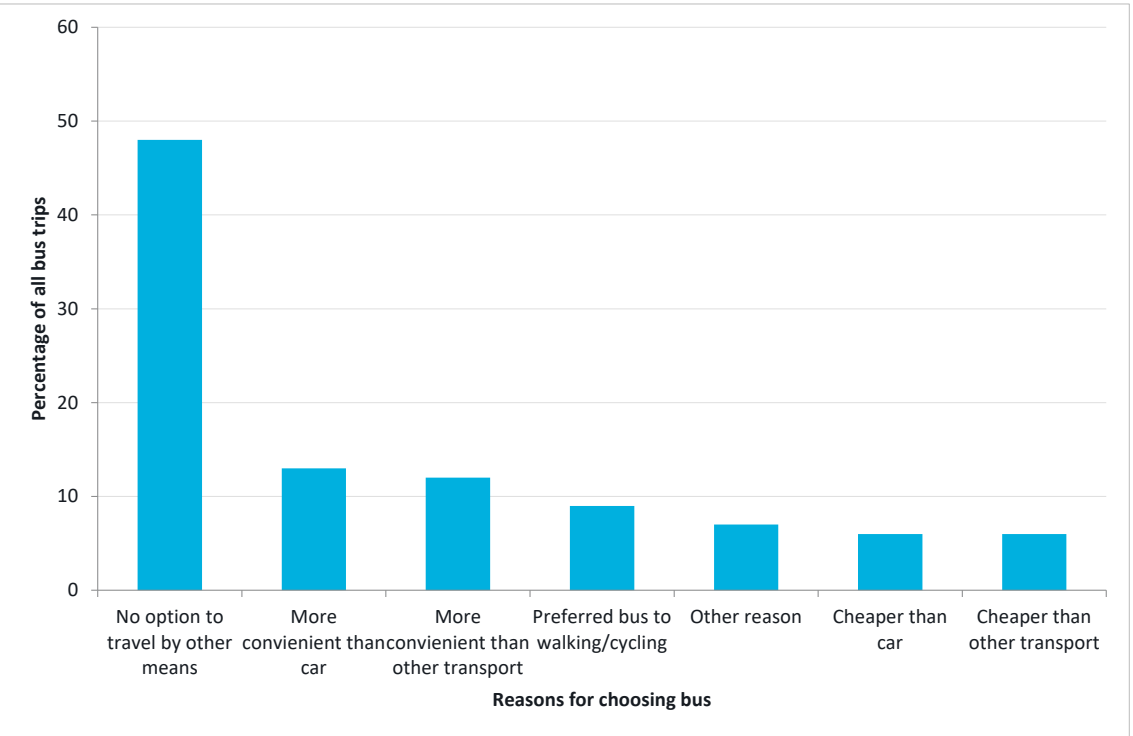
Data Source: National Travel Survey Table NTS0705

[10] Lucas K, Stokes G, Bastiaanssen J and Burkinshaw J (2019) *Inequalities in Mobility and Access in the UK Transport System*, Government Office for Science

Captive Bus Users

2.19 As part of their surveys of bus passengers' satisfaction with bus services, Transport Focus asks respondents whether bus is the only alternative available for their journey and if they have an alternative, the reason why passengers chose bus. The data for England outside London for 2019 is shown in Figure 2.12. This shows that around 50% of bus passengers had no alternative to bus for the journey that they were making. Looking at each metropolitan area, the proportion of bus passengers who had no alternative means of travel varies only slightly from area to area and is not materially different from the England outside London average.

Figure 2.12: Reason for Choosing Bus



Data Source: Transport Focus Bus Passenger Survey 2019

Bus Use Amongst the Unemployed

People in urban areas who are unemployed and seeking work depend heavily on the bus for access to employment.
In a survey of unemployed people undertaken on behalf for Greener Journeys by the Institute for Transport Studies, 57% did not have a full car or motorcycle driving licence. The same survey showed that when in work, 58% of the sample used bus for their commute. It was found that the levels of dependence on buses is particularly acute for females, younger people and the lower skilled.

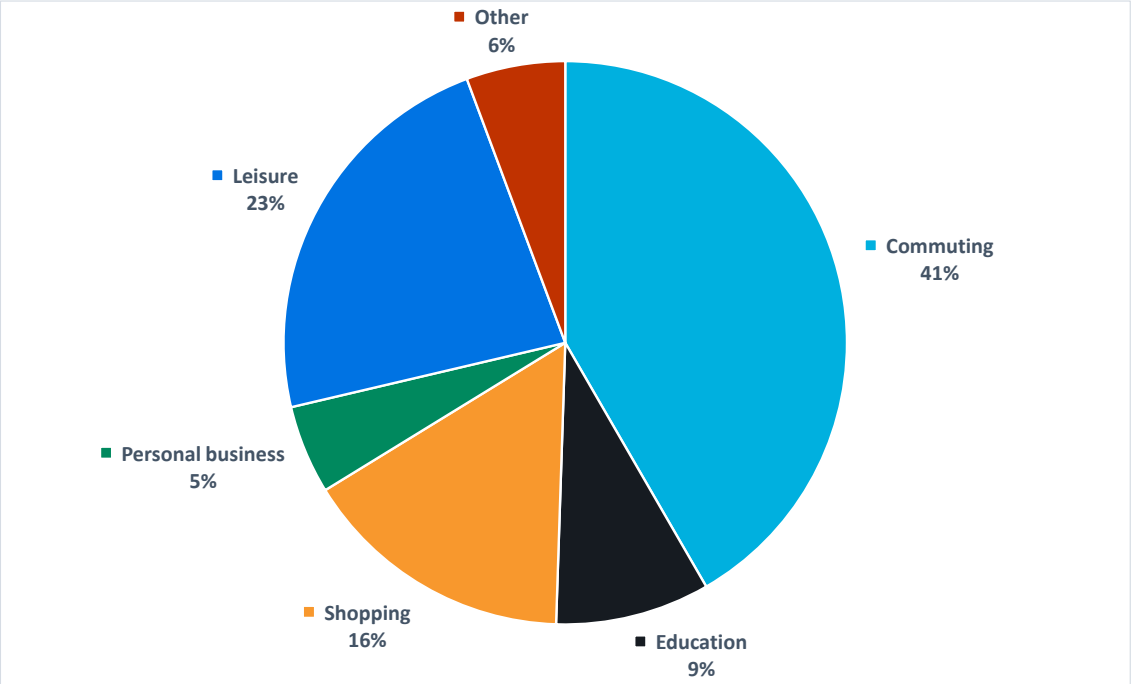
Source: Johnson D and Mackie P (2014) *Buses and the Economy II: Task 4 Report: Bus Use Amongst the Unemployed*, Institute for Transport Studies

> "Those who depend more on the bus network to participate in the labour market tend to be lower paid, live in areas of deprivation, and are more likely to turn down employment due to transport limitations."[11]

Light Rail

2.20 The reasons why people travel by light rail are shown in Figure 2.13. Together, commuting to work and journeys to education account for around 50% of all light rail journeys. Compared with bus, commuting trips make up a larger share of all trips whereas journeys to education make up a smaller share. This reflects that light rail networks are focussed on the centres of the conurbations that they serve, which are the largest centres of employment in their areas.

Figure 2.13: Why People Travel by Light Rail



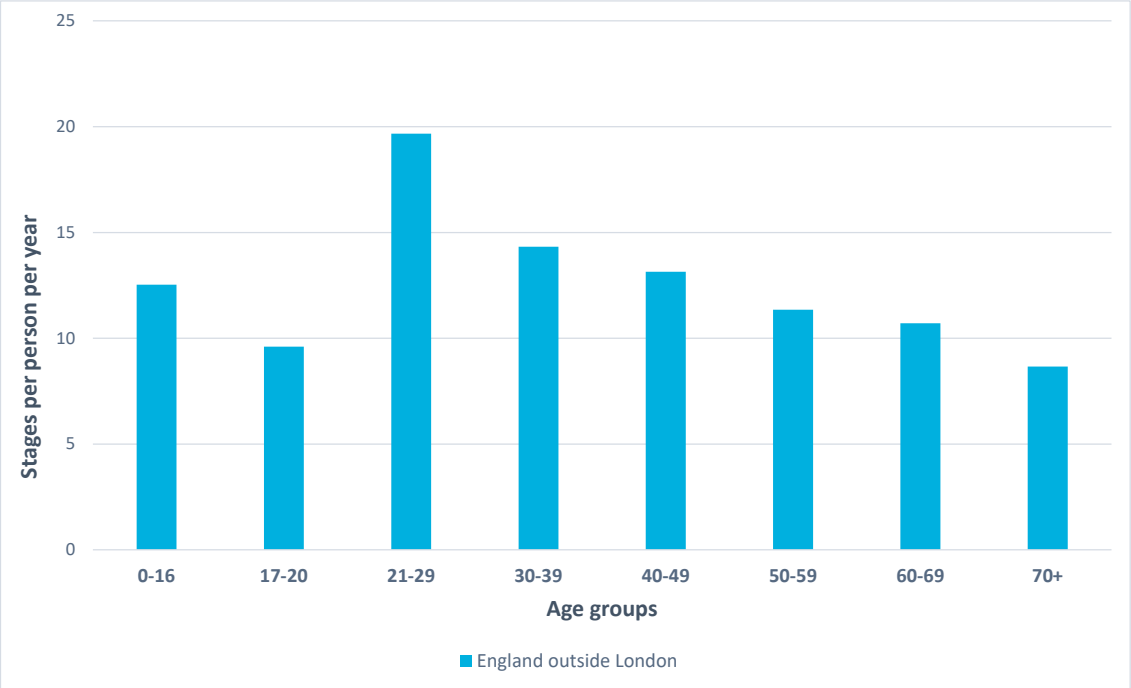
Data Source: LRT0401a

2.21 The younger in society have a greater propensity to use light rail than the older, with those in the 20 to 40 age bracket having the greatest propensity (Figure 2.14). Compared with bus, light rail tends to be used more by the better off (Figure 2.15). Generally, the income distribution reflects where light rail serves and it is city centre markets that light rail serves well – city centres have the highest concentration of better paid knowledge intensive jobs. Overall, men make 54% of light rail journeys and women 46%.[12]

[11] NatCen Social Research (2019) *Transport and Inequality: An Evidence Review for the Department for Transport*

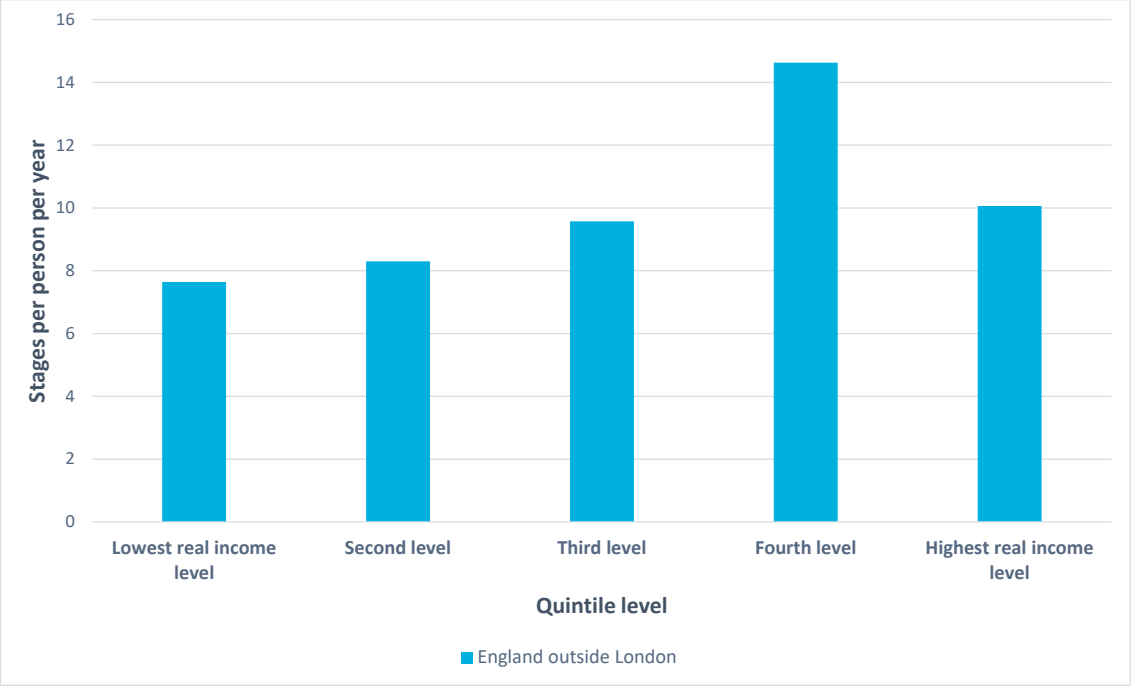
[12] DfT Light Rail and Tram Statistics Table LRT0401c

Figure 2.14: Propensity to Use Light Rail (by Age)



Data Source: LRT 0401b

Figure 2.15: Propensity to Use Light Rail (by Household Income)



Data Source: LRT 0401f

The Importance of Local Public Transport

2.22 A body of research undertaken in recent years has established the importance of local public transport in general and bus in particular. This has included work commissioned by Greener

Journeys[13] and by the Urban Transport Group[14] (or its predecessor the Passenger Transport Executive Group). What this work shows unequivocally is that as well as bringing immediate economic benefits to its users, the provision of local public transport has a much wider positive economic, social and environmental benefit.

Why Bus Matters

The bus matters economically because …

- More people commute to work by bus than all other forms of public transport combined. Bus commuters generate £73.5bn in economic output every year.
- Compared to car trips, a greater proportion of bus trips are linked to economically productive activities – for example, 42% of bus trips are for work or education purposes, whereas the equivalent figure for car trips is 24%.
- More people access the high street by bus than any other mode, and people use the bus to make shopping and leisure trips to a value of £31bn.
- In 2018/18 the bus industry had a revenue in excess of £5.46bn, much of which is ploughed back into regional economies.
- 1 in 10 bus commuters would be forced to look for another job or give up work altogether if they could no longer travel to work by bus.
- 400,000 workers are in better, more productive jobs as a direct result of the bus, and the additional economic output they produce is £460m per annum.

It matters socially because …

- Nearly half of households on the lowest incomes do not have access to a car. Bus use rises as income falls.
- 64% of jobseekers either have no access to a vehicle or cannot drive.
- Young people are amongst the greatest users of bus services – outside London 17-20 year olds make over twice as many bus trips as the average person in Great Britain.
- Nearly 30% of over 60s use the bus at least once a week.
- 60% of disabled people have no car in the household.

It matters environmentally because …

- Each double decker bus can take 75 cars off the road, reducing congestion and improving air quality. Zero emission buses contribute to carbon reduction targets.

[13] For example:

Mackie P, Laird J and Johnson D (2012) *Buses and Economic Growth*, ITS Leeds

Mackie P, Laird J and Shires J (2014) *Buses and the Economy II*, ITS Leeds (plus six supporting technical reports)

KPMG (2016) *A Study of the Value of Local Bus services to Society*

KPMG (2017) *The 'True Value' of Local Bus Services*

[14] For example:

PTEG (2013) *The Case for The Urban Bus: The Economic and Social Value of Bus Networks in the Metropolitan Areas*

PTEG (2014) *Making the Connections: The Cross-Sector Benefits of Supporting Bus Services*

- If drivers switched just one car journey a month to bus or coach, it would mean one billion fewer car journeys and a saving of 2 million tonnes of CO_2.
- The best used bus services in urban centres may be reducing carbon emissions from road transport by as much as 75%.

Source: Developed from PTEG (2013) *A Better Deal for the Bus from the Spending Review*. Data sources are set out in the PTEG report. Data drawn from NTS has been updated to 2019 numbers. Monetary values have been updated to 2019 prices. This panel is reproduced from Steer (2020) *The Covid-19 Funding Gap: The Case for Continuing Support for Urban Public Transport*, a report for the Urban Transport Group.

How Urban Public Transport Services are Provided

Bus Services

2.23 Outside London, bus services are provided in a deregulated environment as established by the 1985 Transport Act and introduced in October 1986:

- Operators are permitted to run bus services when and where they wish (subject to a short notice period) with no restrictions over fares. [15] These "commercial" services can compete with those of other operators, or other public transport services (e.g. rail or light rail) and operate without any direct subsidy other than the Bus Services Operator Grant (BSOG).
- Local transport authorities (LTA) can procure bus services to fill gaps not met by "commercial" services. The procurement has to be by competitive tender (unless the cost is very small). Services can be procured on a net or gross cost basis.

2.24 By the year 2000, it was clear that, whilst deregulation had brought a degree of innovation in bus service provision:

- There had been a continuing decline in aggregate bus use, though the changes in patronage varied between different areas.
- There was a marked reduction in the levels of "on the road" competition, with many bus users having no choice of operator at the time of travel.
- Ownership had consolidated such that the lion's share of bus service provision outside London was in the hands of five groups, three of which were notably bigger than the other two.
- The number of bus services (or part services) that were not being provided "commercially" was rising, placing an increased demand on local authority finances.
- Fare levels had consistently risen above the rate of inflation.
- Multi-operator tickets had either been withdrawn or had risen in relative price such that their use reduced significantly. This particularly disadvantaged two groups of bus users:
  - those who made journeys that required interchange en route between services provided by different operators; and
  - those whose service were provided by different operators at different times of day (for example, when the evening service had been procured by the LTA from a different operator than that which provided day-time services commercially).
- There were questions around the effectiveness of the application of competition law to the bus industry:

[15] The specific length of notice has varied over the years since 1986 and is now different between England and the devolved legislatures of Wales and Scotland.

  - it inhibited multi-operator ticketing (as this could be viewed as a cartel);
  - its application had not prevented larger companies taking over, or competing with smaller ones to the extent that they withdrew from the market; and
  - it was applied by study of the bus market alone, not regarding the private car as a competitive choice.
- It proved very difficult to promote light rail schemes alongside effective redesign of the bus network to complement the scheme. For example, in Sheffield, Supertram revenues were negatively affected by bus competition.
- The efficacy of bus services continued to be afflicted by growing levels of urban traffic congestion. Misalignment of ends and means between bus operators and highway authorities made it difficult to cost effectively design and deliver bus priority schemes.
- Retrenchment of rural bus services. This has continued and in recent years mileage has reduced by 11% between 2011/12 and 2018/19.[16]
- Budgetary challenges for local authorities making it difficult to afford to provide supported local bus services when competing for funds with statutory requirements (such as social services and education) – in 2018/19, there were 12 local authorities in which there were no supported bus services[17]and a further 13 in which less than 5% of bus mileage was in the form of supported bus services.

2.25 The last point can be seen in Metropolitan areas where an overall 13% reduction in bus mileage between 2011/12 and 2018/19 is made up of a 32% reduction in supported mileage and a 9% reduction in commercial mileage.[18]

2.26 To redress this, there have been a series of Acts of Parliament (2000,[19] 2008[20] and 2017[21]) which have amended some aspects of deregulation. In general, these have:

- sought to permit and encourage formal partnerships between operators and LTAs to deliver schemes and measures that would encourage growth in bus use, in particular by encouraging modal change from the car;
- made it easier to design and deliver multi-operator ticketing; and
- allowed LTAs, in specified circumstances, to suspend deregulation in a defined area and replace it with a procured bus network.

2.27 Over this period, bus regulatory legislation was devolved, so while the 2000 Act covered England, Scotland and Wales; the 2008 Act only covered England and Wales; and the 2017 Act only applies in England. As a consequence, legislation in the home nations has diverged with similar, but subtly different approaches being taken in each jurisdiction. Bus service provision in London and Northern Ireland continues to operate in a regulated environment, with the bus operators in the latter being state-owned.

[16] Calculated using DfT Bus Statistics BUS0207

[17] Zero miles recorded in DfT Bus Statistics BUS0208

[18] Calculated using DfT Bus Statistics BUS0205

[19] Transport Act

[20] Local Transport Act

[21] Bus Services Act

Schools Services

2.28 The rights of children to free transport to and from school is covered by the 1996 Education Act (as subsequently amended). Guidance on this is provided by the Department for Education (DfE).[22] In simple terms the Act provides that free transport for 5-16 year olds is to be provided if their nearest suitable school is beyond 2 or 3 miles (if below the age of 8 or aged between 8 and 16 respectively). Certain categories of pupil have enhanced rights to travel or travel arrangements (e.g. to be accompanied).

2.29 Whilst most transport provided is by bus, other modes (e.g. taxi or train) can be used where available and when appropriate. Travel can be provided by a dedicated service (usually a bus or taxi) or by travelling on timetabled services provided at the appropriate times of day.

2.30 Local Education Authorities (LEAs) fund this travel either by procuring dedicated services (usually through competitive tendering), or by purchasing season tickets for regular timetabled services.

2.31 Particularly in rural areas, but not uncommon elsewhere, the practical effect is that much local bus provision of all types is built around school services of one kind or another.

2.32 In some authority areas, school bus services are provided for children who do not qualify for free travel, and so pay a fare. Some are commercially provided, others are tendered by the local transport authority.

Other Local Transport

2.33 As well as conventional bus and light rail services, local transport can be provided in other ways. In some cities, suburban rail plays an important part in the travel mix. At the opposite end of the spectrum, in other areas, Demand Responsive Transport (DRT), for example dial-a-ride, is provided as there is insufficient demand for regular timetabled services.

2.34 Lower cost services are provided in some areas by Community Transport operators. Subject to meeting a number of conditions, Community Transport licences can be issued to various kinds of not-for-profit organisation to enable the operation of, usually, smaller vehicles often driven by volunteers. A number of very rural bus services are provided this way.

Funding

Bus Service Operator Grant (BSOG)

2.35 BSOG is a grant paid directly to bus operators by DfT. In effect, it is a repayment of much of the diesel fuel duty that would be paid on fuel bought conventionally. Additional repayments are made for services meeting certain standards, such has using smart card enabled ticket machines.

2.36 BSOG is payable for most local bus services. For commercial services it is paid to the operator, for tendered services it is paid to the tendering authority. BSOG for London services is wrapped up in the general TfL financial settlement.

[22] Department for Education (2014) Home to School Travel and Transport Guidance: Statutory Guidance for Local Authorities

2.37 In 2018/19, £194m was paid to English bus operators and £55m to English local transport authorities.[23]

English National Concessionary Travel Scheme

2.38 From 1st April 2008, pension age English residents and eligible disabled people are entitled to free bus travel on qualifying bus services between 09:30 and 23:00 weekdays and at any time weekends and public holidays.

2.39 Bus operators carry such passengers without charging them a fare and are compensated using a formula based, in principle, on a proportion of the revenue foregone. They are only paid a proportion on the assumption that were the passengers paying their fares they would make fewer journeys. The proportional reduction is generally known as the generation factor.

2.40 In 2018/19 £981m was paid in concessionary fare reimbursement, made up of £218m for London, £304m in metropolitan areas and £458m elsewhere.[24]

2.41 In real terms, the amount paid out has fallen in recent years, due to a combination of reductions in passenger numbers and the rise in pension age.

2.42 In some areas, local authorities have opted to extend the provision of concessionary travel and fund these locally. Such extensions might consist of:

- Adding light rail or heavy rail free or reduced travel;
- Extending the time availability of free or reduced travel;
- Extending the applicable age range;
- Adding other categories of user qualifying for free or reduced fare travel – e.g. children and young adults.

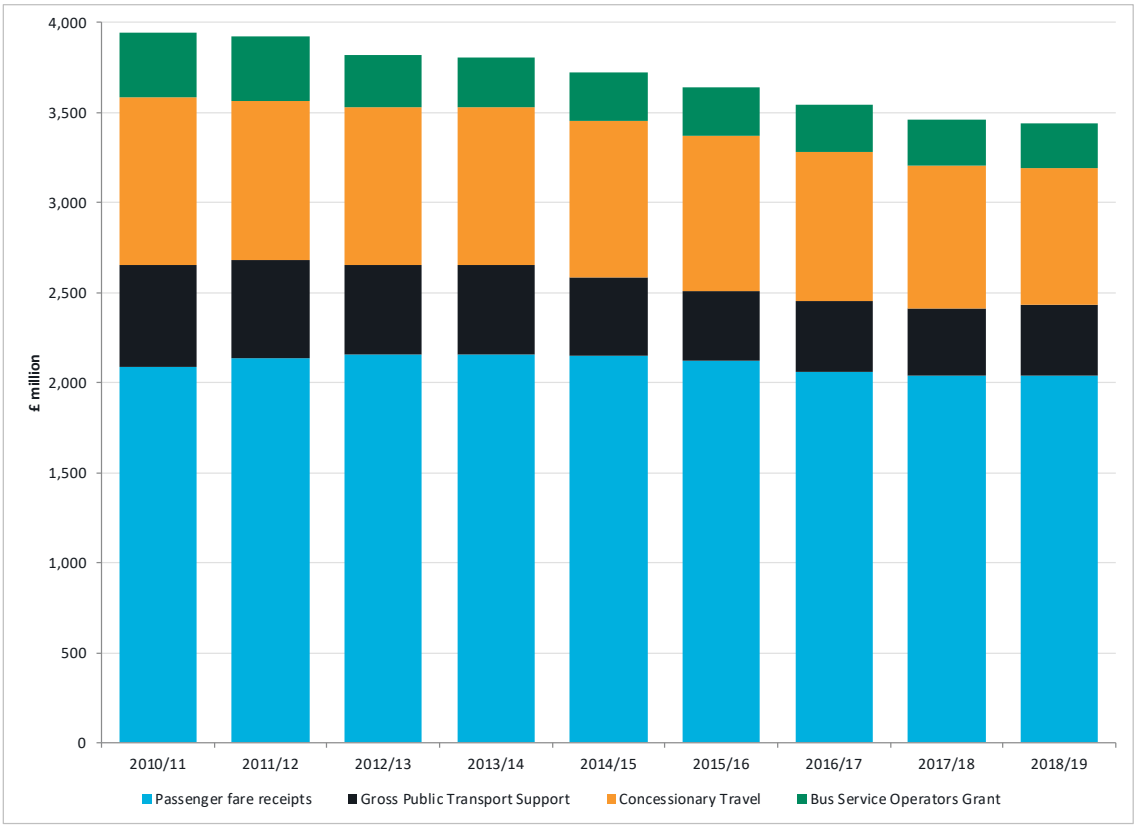
Bus Company Revenues

2.43 For English bus services outside London, the public sector contributed (pre-Covid) around 41% of local bus service revenue in 2018/19, with the balance (59%) comprising fare box revenue. The public sector proportion of bus company revenues has fallen from around 47% in 2010/11. Nonetheless, a substantial share of bus company revenues is provided by the public sector in one form or another. The breakdown is shown in Figure 2.16.

[23] **Bus services: grants and funding**

[24] DfT Bus statistics BUS0502

Figure 2.16: Breakdown of English (non-London) bus revenue (2018/19 prices)



Source: DfT Bus Statistics BUS0501

2.44 What the Figure 2.16 also shows is that real passenger fare revenue element has remained broadly static over this period, while other funding sources have reduced.

Light Rail & Tram

2.45 There are six light rail/tram systems in England outside London. The Tyne & Wear Metro, which is the light rail network that provides local rail services in the North East conurbation, opened in stages from 1980. The first phase of the Manchester Metrolink, a tram-based light rail network, commenced operation in 1992. Modern tram systems have also been introduced in Sheffield, West Midlands and Nottingham, each using former rail alignments for part of their route. The Blackpool tram – the only first-generation tram system to survive the post Second World War closures – has been substantially upgraded and now has the characteristics of a modern tramway, as well as operating tourist-focussed heritage services.

2.46 Whilst the arrangements are unique for each system, reflecting the economic and wider benefits that they bring, the capital costs of each light rail system have been substantially funded through Exchequer contributions. The way each system is operated is also unique, but reflecting Government capital funding conditions, pre-Covid each (other than Tyne & Wear Metro) covered its day-to-day operating costs from fare box revenue.

2.47 The characteristics of the six light rail/tram systems are set out in Table 2.1, which also sets out how each system is operated and where revenue risk lies.

Table 2.1: English Light Rail and Tram Outside London (2018/19 statistics)

Network	Passengers (million)	Revenue (£m)	Length (kilometres)	Fleet (trams/LRVs)	Description	Operation and revenue risk
Blackpool Trams	5.2	£7.0m	18	18[25]	Follows coast between Blackpool and Fleetwood. Significant seasonal traffic	Direct award to council owned bus company which takes revenue risk
Manchester Metrolink	43.7	£82.1m	103	120[26]	Seven lines radiating out from city, mixture of new alignments, on-street and heavy rail conversion	Seven-year concession to KeolisAmey until 2024. TfGM takes revenue risk
Nottingham Express Transit	18.8	£20.6m	32	37	Cross city tram spine with routes to the North, South and West of city	A DBOM concession granted to the Tramlink Nottingham consortium which takes revenue risk
Sheffield Supertram	11.9	£14.0m	34	32[27]	On street or new build lines to north west, north east and south east of city. The link with Rotherham is the UK's only tram-train	Operated by Stagecoach who hold the concession until March 2024. Stagecoach takes revenue risk
Tyne & Wear Metro	36.4	£51.9m	78	89	Combines heavy rail conversions with tunnel section under Newcastle	In house operation with Nexus taking revenue risk
West Midlands Metro	8.3	£10.7m	22	21	Largely follows former rail alignment between Wolverhampton and Birmingham. On street sections in both centres.	In house operation with TfWM taking revenue risk

Data Source: Department for Transport LRT statistic tables 0101, 0202, 0203 and 0301

[25] Excludes historic and B series trams

[26] 131 trams as at October 2021, to be 147 trams by late 2022

[27] Includes 7 tram train vehicles

Government and Local Public Transport – Policy Position

Bus Back Better: National Bus Strategy for England

2.48 Published in March 2021, *Bus Back Better* is the Government's national bus strategy for England.[28] The strategy builds on the Prime Minister's February 2020 statement to Parliament which said that £5bn would be allocated to improve buses and cycling,[29] of which £3bn was subsequently allocated to the bus sector. The strategy states that "buses are the easiest, cheapest and quickest way to improve transport".[30] It sets out the role of bus in serving communities and the Government's vision for future services, including:

- More frequent 'turn-up-and-go' services, where passengers don't need a timetable due to very high frequency, on major urban routes;
- Faster and more reliable services with greater priority for bus on urban roads;
- Cheaper fares with greater adoption of daily (and weekly) price capping;
- Simpler, easier to understand networks with simple high-frequency trunk services rather than many low-frequency services combining together; all operators on the same physical route accepting the same tickets; and routes being the same in the evenings and at weekends as during weekdays;
- 'Greener buses', with more ultra-low-emission and electric vehicles in bus fleets, particularly in urban areas suffering from substandard air quality;
- Returning patronage to pre-Covid levels and raising bus mode share over the longer-term.

2.49 The strategy seeks to deliver other benefits to passengers:

- Key Route and (loosely defined) "Superbus" networks for peri-urban areas;
- More comprehensive "socially necessary" bus services (for which it is stated that new guidance will be issued, including additional definition of "economically necessary" services);
- Lower and simplified fares;
- Multi-operator ticketing at prices close to or the same as single operator tickets;
- Rollout of contactless payment including multi-operator daily and weekly fare capping;
- More multi-modal integration;
- All bus operators to accept Jobcentre Plus Travel Discount Cards;
- Services that are simpler and easier to understand;
- More demand-responsive transport services;
- A passengers' charter.

2.50 To achieve these aims, there is expectation that some of the £3bn will be used to provide additional subsidies to underpin them. However, the bulk of the £3bn funding is viewed as capital funding for:

- Support in delivering zero emission buses (up to 4,000) – the first tranche is £120m for 2021/22;
- Bus priority measures;
- Bus Rapid Transit (BRT) schemes.

---

[28] DfT (2021) *Bus Back Better: National Bus Strategy for England*

[29] **PM statement on transport infrastructure: 11 February 2020**

[30] Page 4, National Bus Strategy, *op. cit.*

2.51 Central to the Bus Back Better approach is what is effectively a mandate that Enhanced Partnerships (see below) become the default way of delivering bus services across England. The strategy also set April 2022 as that date from which each local transport authority should have an Enhanced Partnership in place, although this deadline has recently been relaxed. If local transport authorities chose not to pursue an Enhanced Partnership, the strategy sets out that they and operators in their area will not be able to access DfT bus funding including the Covid-19 Bus Services Support Grant (CBSSG) and its successor, Bus Recovery Grant (see Chapter 3).

2.52 The strategy also introduces Bus Service Improvement Plans, which are to be produced annually by every LTA.

Bus Back Better: the Government's Objectives

"Even before the pandemic started, the Government had committed £3bn of new money during the current Parliament to improve buses outside London. Armed with that transformational funding, this National Bus Strategy will build back better. Its central aim is to get more people travelling by bus – first, to get overall patronage back to its pre-Covid-19 level, and then to exceed it. We will only achieve this if we can make buses a practical and attractive alternative to the car for more people.

To achieve our goal, this strategy will make buses more frequent, more reliable, easier to understand and use, better co-ordinated and cheaper: in other words, more like London's, where these type of improvements dramatically increased passenger numbers, reduced congestion, carbon and pollution, helped the disadvantaged and got motorists out of their cars.

We want the same fully integrated service, the same simple, multi-modal tickets, the same increases in bus priority measures, the same high-quality information for passengers and, in larger places, the same turn-up-and-go frequencies. We want services that keep running into the evenings and at weekends."

Source: Page 8, DfT (2021) *Bus Back Better: National Bus Strategy for England*

Enhanced Partnerships

2.53 The 2017 Bus Services Act introduced Enhanced Partnerships (EPs). These reflect the position from the bus industry that it is capable of voluntarily delivering most of the perceived benefits of franchising through partnership so long as some of the competition law provisions were relaxed.

2.54 The general EP provisions allow for wide ranging arrangements that could, for example, see the coordination between operators of timetables and service connections; the adoption of common branding (i.e. removing the ability of an operator to distinguish itself through its own branding); and the adoption of common ticketing arrangements.[31]

2.55 In summary, the process for developing an EP is as follows:

- Informal discussion between LTA and local bus operators on the viability of an EP;

[31] Though not the setting of actual fare levels

- Formal discussion on the viability of an EP with a decision to pursue this arrangement;
- Planning the EP plan and scheme(s) including:
  - Consultation process where local bus operators are asked to agree to a defined EP scheme;
  - Objection process where local bus operators comprising a certain amount of network mileage can potentially block the scheme as proposed via an objection.
- Wider consultation;
- Making the EP plan and scheme(s), taking into consideration the outcome of the consultation process.

Franchising

2.56 The Bus Services Act 2017 also provides for franchising bus services. Franchising sees the cessation of competition in the market and replaces it with competition for the market.[32] Legislation makes franchising open to mayoral combined authorities, which providing they follow the requirements of the Act and associated guidance can introduce franchising without recourse to Government. Other local transport authorities require ministerial permission to introduce franchising and it is not clear how favourably ministers would consider such requests.

2.57 The National Bus Strategy states that those mayoral combined authorities that have started the statutory process of franchising bus services do not have to introduce an Enhanced Partnership.

2.58 The Greater Manchester Combined Authority is the furthest along the route to franchising. It has prepared a scheme and subjected it to the required independent audit. It was put out to formal consultation between October 2019 and January 2020.[33] Following review of the consultation and the impact of the Covid-19 pandemic, a revised proposal was developed and this was the subject of further consultation.[34] At the end of March 2021, the Greater Manchester Mayor decided to proceed with the franchising scheme.[35]

2.59 Other mayoral combined authorities are considering the potential for franchising options to deliver bus service improvements.

2.60 A summary of the Enhanced Partnership and Franchising approaches is set out in Table 2.2.

Table 2.2: Enhanced Partnership and Bus Franchising - Summary

Option	Provisions
Enhanced Partnership	• Legally binding commitments agreed between both LTA and operators with statutory plans and schemes made by the LTA that all bus operators providing applicable bus services in a specified area have to abide by

[32] DfT (2017) *The Bus Services Act 2017 Franchising Scheme Guidance*

[33] GMCA (2019) *Have Your Say on How Your Buses are Run: Consultation Document*

[34] GMCA (2021) **Doing Buses Differently: The impact of Covid-19 on our proposals for the future of your buses**

[35] GMCA (2021) **Bus Franchising Scheme & Notice – 30 March 2021**

Option	Provisions
	• Only a majority of bus operators (by mileage operated) have to agree to the provisions of the EP, but once the LTA formally makes the statutory plan and schemes all operators have to abide by the provisions • EP Plan (EPP) is a high-level strategic document that sets out a range of policy objectives and desired outcomes in a defined area • EP Scheme(s) (EPS) set out the requirements/standards to be met by bus operators and the facilities/measures to be provided by the LTA to deliver some or all of the policy objectives stated in the EPP
Franchising	• Suspension of the deregulated market • Bus operators provide services under contract to the local transport authority • Franchising provides for: – development of a coordinated bus network (routes/timetables) and closer integration with other modes (tram/rail) – Integrated multi-modal ticketing products and pricing – Single brand networks (e.g. livery) • Decision to implement rests with mayor for mayoral combined authorities or Secretary of State elsewhere

Bus Service Improvement Plans

2.61 As noted above, the National Bus Strategy sets a requirement that each local transport authority in England should produce a Bus Service Improvement Plan (BSIP). The intention is that BSIPs will be updated annually. The first tranche of BSIPs were completed by local transport authorities in October 2021. The scope of BSIPs is that they:

- Be developed by LTAs in collaboration with local bus operators, community transport bodies and local people.
- Cover LTAs' areas fully including all of the local bus services within them.
- Account for the differing needs of any parts of their area (e.g. distinguish between urban and rural elements).
- Focus on delivering the bus network that LTAs (in consultation with operators) want to see, including how to address the under-provision and overprovision of bus services and how to integrate bus with other modes.
- Set out how they will achieve the objectives in the strategy with a detailed plan for delivery.
- Be updated annually and be reflected in the authority's Local Transport Plan.
- Influence the share of the £3bn of additional Central Government funding each LTA receives.

2.62 The Department for Transport's guidance states that BSIPs are expected to:[36]

- Set targets for journey time and reliability improvements (for the LTA as a whole and in each of the largest cities and towns in its area) – progress to be reported publicly at least twice a year.
- Identify where bus priority measures are most needed, including consideration of Bus Rapid Transit routes to transform key corridors and of how traffic management can be improved to benefit buses.

[36] Department for Transport (2021) *National Bus Strategy: Bus Service Improvement Plans: Guidance to Local Authorities and Bus Operators*

- Identify the pressures on the road network, mapping air quality issues and then setting carbon reduction targets, which improved bus services could address, and set out actions.
- Drive improvements for passengers by:
  - Setting targets for passenger growth and customer satisfaction (progress to be reported publicly at least twice a year).
  - Setting out plans for fares, ticketing and multi-modal integration. Initially, we expect LTAs and bus operators to develop plans to enable multi-operator ticketing, where plans do not already exist. Over time, we will expect LTAs to work across several transport modes towards enabling a multi-modal ticketing scheme.
  - Considering the impact of quality roadside infrastructure (e.g. bus stops and shelters) on passenger safety, security and accessibility.
  - Considering how a coherent and integrated network should serve schools, healthcare, social care, employment and other services.
  - Considering the views of local people.
  - Committing to a Bus Passenger Charter (BPC) that sets out what passengers can expect from bus operators delivering local bus services. BPCs should include commitments on the accessibility of bus services.

2.63 Bus Service Improvement Plans also need to explain:

- How current services perform against the expectations listed above.
- How the needed improvements will be delivered through the EP/franchising schemes and the LTAs' and operators' investment plans.
- The financial support that the LTA is providing to public bus services, listing the numbers of routes and total route mileage supported.
- How traffic management and investment will be used to prioritise buses. In mayoral combined authorities (MCA) this will include the extent of the MCA's role over the regional Key Route Network and how that is utilised to prioritise bus services.

Zero Emission Bus Regional Areas (ZEBRA) Scheme

2.64 The Department for Transport launched its Zero Emissions Bus Regional Areas (ZEBRA) scheme in March 2021. While pre-dating the Government's July 2021 Transport Decarbonisation Plan, the ZEBRA initiative can be seen as integral to the overall approach to reduce the carbon impacts of the transport sector as part of the commitment to reach net zero by 2050.

2.65 Initially £120m was initially allocated to the scheme with a further £150m allocated in the October 2021 Spending Review, making a total of £270m. This intention this helps provide for upwards of 1,000 Zero Emission Buses (ZEBs), supporting the Government's February 2020 commitment to introduce 4,000 new ZEBs in the UK by 2025, a commitment repeated in the National Bus Strategy. Local transport authorities outside London were invited to express interest in a proportion of the available funding.

2.66 The purpose of the ZEBRA scheme is to overcome barriers to introducing ZEBs. The capital cost of introducing ZEBs, as well as associated infrastructure (e.g. charging ports), is currently considered prohibitive to local authorities and operators facing enhanced financial constraints in the context of the Covid-19 pandemic. Many local authorities and smaller operators also have little to no experience of running ZEBs on their bus networks.

2.67 Although maintenance and running costs are generally lower for ZEBs than for diesel buses, the need to eventually replace batteries for battery electric vehicles amounts to a further significant capital cost several years after first vehicle delivery.

2.68 Logistical and operational considerations, such as the need to develop robust supply chains for ZEBs, and recharge vehicles at intervals that allow for seamless operation, are also challenging.

2.69 Altogether this represents a high barrier to achieving the necessary adoption to keep strategic national objectives, such as improving air quality and reducing carbon emissions from transport, on track.

2.70 By introducing ZEB infrastructure and facilitating increased expertise in local authorities and the private sector, the ZEBRA scheme could help to mitigate these issues. Through the scheme DfT will contribute up to 75% of the cost difference between a zero emission bus and a standard conventional diesel bus equivalent of the same total passenger capacity. It will also contribute up to 75% of the capital expenditure incurred as a result of its purchase and installation. These could be:

- cost of charging unit or refuelling stations;
- electrical or other power components;
- civil engineering works;
- labour costs (for installation);
- hardware costs;
- capital costs of developing associated software systems;
- surveys at the point of procuring the infrastructure provided they can be capitalised;
- upgrades to the energy grid.

2.71 Integral to the ZEBRA scheme are local authority and bus operator contributions. Given the existing difficulties of increasing the proportion of ZEBs in bus fleets, a financially strong bus sector is essential to support the aims of ZEBRA and ensure the scheme can succeed in encouraging an acceleration in ZEB adoption.

Light Rail

2.72 In contrast with bus, the Government does not have a light rail policy paper. Nonetheless, it is noted in the Transport Decarbonisation Plan that "light rail schemes can be transformational for highly populated areas bringing societal, economic, and environmental benefits to our cities by connecting communities to jobs, hospitals, and leisure activities".[37]

2.73 Recent research undertaken by Steer for the Urban Transport Group concluded that:[38]

- Britain's light rail systems have supported economic growth in the areas that they serve, promoted social inclusion and led to environmental gain, including a reduction in carbon emissions.
- Investment in maintenance and renewal will continue and potentially enhance the benefits that light rail brings to the economy, society and the environment.
- A stable Government policy and funding environment will help promoters come forward with light rail proposals that will bring further economic, societal and environmental benefits.
- There is a need to maintain the connectivity provided by light rail as the economies of the towns and cities that light rail serves recover from the impacts of the pandemic.

[37] Page 162, *op.cit.*

[38] Steer (2021) *Leading Light: What Light Rail can do for City Regions*, a report for Urban Transport Group

Levelling Up the United Kingdom

2.74 In February 2022, the Government published its *Levelling Up the United Kingdom* White Paper.[39] The White Paper notes the importance of bus provision as part of its levelling up approach. It restates the funding commitments made in *Bus Back Better*.

> "Local transport, particularly buses, is crucial to connect people to jobs, education and wider opportunity."[40]

2.75 The Levelling Up White Paper introduces twelve "missions". These include that:

"By 2030, local public transport connectivity across the country will be significantly closer to the standards of London, with improved services, simpler fares and integrated ticketing."[41]

2.76 The "standards of London" are defined in Bus Back Better buses as being, "more frequent, more reliable, easier to understand and use, better co-ordinated and cheaper".[42]

Local Transport Authorities and Urban Public Transport

2.77 Reflecting the economic, social and environmental benefits that bus and tram/light rail use brings, local transport authorities across the country are working to support existing public transport patronage and create the conditions for further growth. Measures include, but are not limited to:

- Delivering reduced bus journey times and more reliable bus journeys through traffic management, including on-street and segregated bus priority and the use of urban traffic control;
- The development of new and regeneration/redevelopment of existing bus stations and multi-modal interchanges;
- Introduction of new park and ride facilities;
- The provision of higher quality waiting environments, including better lighting, CCTV, real time information, etc.
- The provision of better information before and during journeys, including use of journey planner apps and the provision of real time information via mobile phones and other mobile devices;
- Working with operators to introduce new fleets, including low emission and electric vehicles, often with enhanced passenger facilities such as wi-fi and USB charging points.

2.78 Reflecting the benefits that have already been secured, local transport authorities continue to develop proposals for further expansion of their tram/light rail systems, as well as the introduction of new systems elsewhere.

[39] HM Government (2022) *Levelling Up the United Kingdom*, CP 604

[40] Page 177, *ibid.*

[41] Page 176, *ibid.*

[42] Page 8, DfT (2021) *Bus Back Better: National Bus Strategy for England*

Summary

2.79 In the last full financial year before the pandemic, more journeys were made by bus than on the national rail network and London Underground combined. Of the 4.8 billion journeys made by bus, 908 million were made in the metropolitan areas of Greater Manchester, Merseyside, South Yorkshire, Tyne & Wear, West Midlands, and West Yorkshire. Outside London, a further 124 million were made by light rail.

2.80 Buses are used by people to get to work, travel to school, go to the shops or as part of their social and family lives. The youngest and the oldest in society have the greatest propensity to use bus. Around half of all bus users say that they have no alternative to using bus. Buses are carbon efficient. Together, this all means that the use of buses has widespread economic, societal and environmental benefits. Light rail is playing an increasingly important role in the towns and cities that it serves, providing a high capacity and more environmentally sustainable to car travel, light rail has support and facilitated economic growth.

2.81 However, bus patronage has been in steady decline. The reasons for this are deep rooted and multi-faceted, but reflecting the benefits that bus can bring it is Government policy to halt and then reverse this decline. Its *Bus Back Better* strategy sets out an approach that uses regulatory change and capital investment to deliver this objective.

3 Urban Public Transport During COVID

Introduction

3.1 Covid has led to unprecedented impacts on the way we travel. The UK's decision in March 2020 to 'lockdown' society and, as part of that, advise people not to travel by public transport, led to a precipitous decline in use of buses, light rail and the national rail network. Demand dropped to a small fraction of its pre-Covid levels. Government stepped in and provided financial support to ensure that initially bus, light rail and rail networks provided the connectivity needed for key workers to get to their jobs and then to build up the service towards pre-pandemic levels in advance of the easing of lockdown restrictions and so in advance of the patronage and revenue normally expected for the services being provided. Government has stated its intention that these financial support mechanisms will come to an end at the beginning of April 2022.

3.2 In this Chapter we set out what has happened to local public transport patronage throughout the pandemic and how the Government has supported the continued provision of public transport. We set the context for the next Chapter, where we look ahead and set out what we consider could happen to local public transport in the absence of further financial support.

Note on Data

3.3 Throughout the pandemic the Department for Transport has published statistics on day-to-day bus use in London and in England outside London. It has also published similar statistics on the use of the strategic road network, national rail network and London Underground.[43] Data on day-to-day light rail use is not published by DfT, but has been made available to us by a number of Combined Authorities.

3.4 We make use of these statistics in this and subsequent chapters. Each data series is collected in a different way which means that they need to be interpreted differently. Focussing on the bus statistics:

- Bus use outside London is given as a percentage of bus use in the third week of January 2020. There are two interpretive considerations:
  - Because bus use is compared with a fixed period the data inherently includes seasonality effects. As shown in Chapter 2, much bus use is discretionary. People tend to make more retail and leisure related trips in the spring and summer than in the winter. In normal times, bus use is lower in school holidays. This is because of the sizeable proportion of bus trips that are journey to education and that school holidays

[43] The full DfT data series is available here: **Transport use during the coronavirus (COVID-19) pandemic**

are also peak times for families taking holidays, which has a knock-on effect on journey to work trips. Bus use is also lower outside university terms. These seasonal impacts are evident in the DfT data for non-London bus trips.

  - Bus demand in January is typically lower than the monthly average. This means if bus demand is 100% of demand in the third week of January 2020, then this is likely to be lower than the pre-Covid average situation.

- Bus use in London is compared with the equivalent data in the pre-Covid year. This means that this data series does not have the same seasonality effects as the data for bus trips outside London. This is helpful for looking at trends, but care has to be taken when comparing London with elsewhere due to the different demographic make-up of the bus market, the different journey purpose split and the different way that the pandemic has progressed there to the rest of England. There is also a gap in the London data series as for a while in the first lockdown to help maintain social distancing passengers were allowed to board through the centre (exit) door, which in effect nullified using the usual 'tap in' fare collection, in effect making bus travel free.

Operating Public Transport during Covid

3.5 The operation and delivery of public transport during the pandemic has been undertaken in the context of a series of pieces of Government advice and guidance, and regulations. Some of these have directly affected how public transport is provided, while others have either limited or influenced people's activities and where these can take place, which has knock-on impact on local public transport patronage. These are summarised in Table 3.1.

Table 3.1: Timeline of key Covid events alongside bus use

Date	Announcement[44]	Bus Use Outside London (% of Jan 2020)
2020		
14th March	Employers should permit staff to work from home where possible.	85%
16th March	Population advised not to make non-essential travel and avoid contact with others.	88%
20th March	Cafes, pubs and restaurants to close that evening. All nightclubs, cinemas, gyms and leisure centres to close as soon as possible. Legally enforced by 21st March. Most bus companies announce reductions of services to Saturday levels from 23rd March.	53%
22nd March	Prime Minister warns that "tougher measures" may be introduced if people do not follow social distancing advice.	35%
23rd March	Public instructed to stay at home except for "very limited purposes". All non-essential shops, libraries, places of worship are closed. Legally enforced from 26th March.	27%
25th March	Most bus companies announce reductions in services to Sunday levels (enhanced in the morning peak) from 30th March.	14%
5th April	National Express and Megabus suspend all coach services.	12%

[44] Timeline of the COVID-19 pandemic in the United Kingdom

Date	Announcement[44]	Bus Use Outside London (% of Jan 2020)
6th April	CBSSG launched (see below).	11%
11th May	Government advises that facemasks should be worn in enclosed spaces where social distancing is not possible such as on public transport.	12%
13th May	Garden centres, sports courts and recycling centres allowed to re-open.	12%
20th May	Second phase of CBSSG announced (see below).	13%
31st May	Many bus companies increase service levels.	19%
1st June	Primary schools reopen for younger children. Car showrooms, outdoor sports amenities and outdoor non-food markets re-open. People may now leave home but are not allowed to stay overnight away from home. Gatherings of up to six people from more than one household permitted outdoors.	17%
13th June	Rules on gatherings relaxed. Concept of support bubbles introduced.	19%
15th June	General re-opening of retail shops and public facing businesses. Many forms of business still to remain closed including restaurants, pubs, theatres, hairdressers, etc. Face coverings mandatory on public transport.	21%
25th June	Pubs and restaurants allowed to re-open using outside spaces only 1 metre plus social distancing acceptable where other protection measures (e.g. face masks) are in place.	23%
30th June	Local lockdown in Leicester.	26%
4th July	Most remaining forms of business allowed to open including restaurants, pubs, hairdressers, etc.	29%
15th July	Temporary reduction in VAT for hospitality sector.	31%
24th July	Face coverings mandatory in shops and supermarkets.	35%
30th July	Household restrictions put in place in Greater Manchester, parts of East Lancashire and parts of West Yorkshire.	36%
31st July	Further easing of lockdown restrictions postponed.	37%
1st August	Shielding programme paused except for areas of special concern.	42%
2nd August	Major incident declared in Greater Manchester after rises in infection rates.	47%
3rd August	“Eat out to help out” scheme launched. Leicester restrictions eased.	37%
8th August	Mandatory use of face covering extended to more indoor venues. Further tranche of CBSSG announced (see below).	45%
26th August	Various companies announce that they will voluntarily continue the “eat out to help out” discounts for customers.	44%
28th August	Government encourages people to return to their workplace.	43%
1st September	Schools begin to reopen	49%
8th September	Social gatherings of more than 6 to be banned from 14th September	57%

Date	Announcement[44]	Bus Use Outside London (% of Jan 2020)
22nd September	Return to working from home and 10pm curfew for hospitality sector.	60%
14th October	Three tier system of Covid restrictions introduced.	56%
5th November	Second national lockdown commences.	44%
24th November	PM announces that up to three households will be able to meet up during a five day Christmas period.	49%
2nd December	Second lockdown ends with return to three tier system.	55%
19th December	Christmas mixing rules tightened.	52%
21st December	Stricter 4th tier added and applied in London & South East.	42%
2021		
6th January	Third national lockdown commences.	24%
8th March	Step 1. Schools reopen. Two people allowed to meet outdoors for recreation.	38%
29th March	Step 1. Outdoor gatherings of six people or two households allowed, including in private gardens. Stay at home order ended.	42%
12th April	Step 2. Non-essential retail reopens. Outdoor hospitality reopens. Self-contained holiday accommodation reopens.	51%
17th May	Step 3. Groups of 30 people allowed to meet outdoors. Indoor groups of six or two households allowed. Indoor hospitality reopens.	63%
14th June	Step 4. Wedding and funeral restrictions removed.	63%
19th July	Step 4. Remaining restrictions removed.	55%
14th September	Plan B outlined for use in the event of unsustainable NHS pressure.	75%
8th December	Plan B implemented with spread of Omicron. Working from home encouraged.	75%
10th December	Compulsory facemask wearing in most indoor venues and on public transport.	79%
2022		
19th January	Working from home guidance ended.	70%
20th January	Facemask requirement withdrawn in schools.	71%
27th January	Facemask requirement withdrawn from indoor venues and public transport.	74%

3.6 Key aspects of this on bus service provision have been:

- The initial two metre social distancing requirement in Spring 2020 limited bus capacity to around 25% of seating capacity – with no standing allowed;
- The intermediate 1+ metre social distancing requirement limited capacity to approximately 50% of seating capacity – again with no standing;
- The need to put in place enhanced cleaning regimes and PPE for staff, with associated additional costs;
- A requirement for passengers to wear face coverings at some periods.

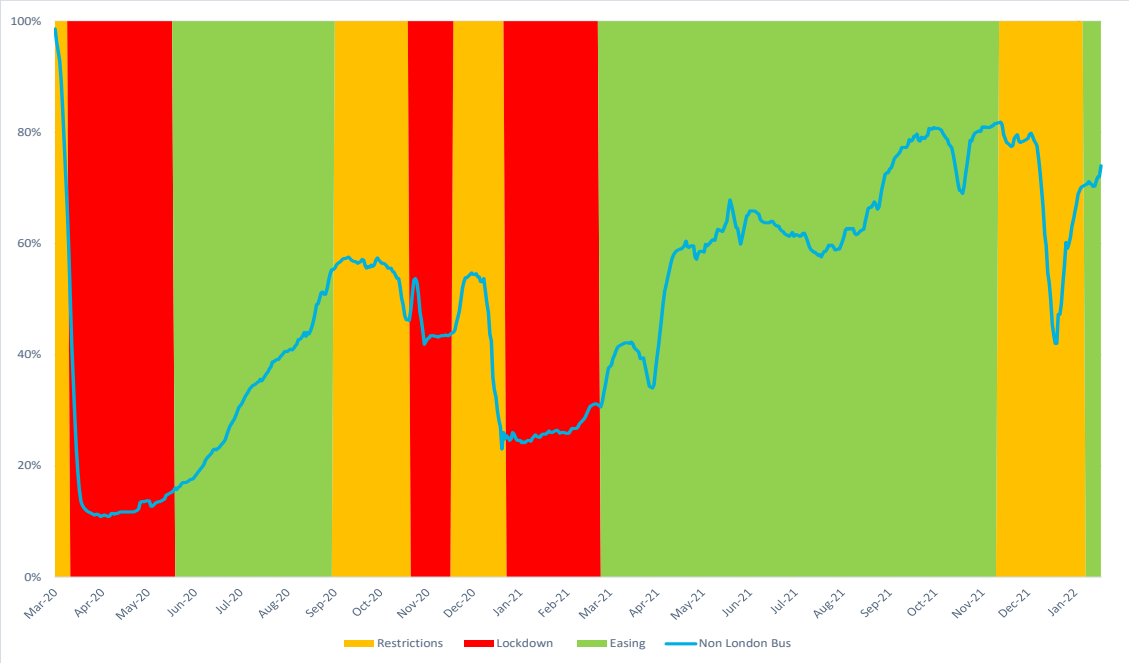
3.7 These vehicle capacity limitations caused challenges to operators where, on some services, it was necessary to provide a higher volume of service than pre-Covid so as to be able to carry those who wish to travel. This issue was exacerbated with the re-opening of schools in September 2020. The 1 metre restriction, together with the ban on standing passengers, was removed during the spring of 2021.

3.8 Regardless of whether there are lasting effects of Covid on the number of people who routinely work from home, or how often and where people go shopping, restrictions on offices, retail businesses and the food and beverage sector have limited the number of people travelled by local public transport.

Bus Use Through the Pandemic

3.9 Bus passenger demand plummeted with the implementation of "Lockdown" between 16th March (when then Health Secretary Matt Hancock told the House of Commons that all unnecessary social contact should cease) and 23rd March 2020 (when the Prime Minister announced that people must stay at home and certain businesses must close). Bus patronage outside London since the beginning of March is plotted in Figure 3.1 where red bands indicate lockdown, yellow bands indicate times of restrictions and green bands indicate periods of the least restriction.

Figure 3.1: Non London Bus Usage as a percentage of pre Covid levels[45] (7 day moving average)



Data Source: Department for Transport COVID-19 Statistics

3.10 Allowing for seasonal effects (the sharp dips are associated with holiday periods), demand has risen steadily during periods of few restrictions (green on the graph), but has at no time reached its pre-pandemic levels. Before the emergence and rapid spread of the Omicron variant and the consequent introduction of so-called 'Plan B' restrictions, bus use outside London had reached around 80% of its January 2020 levels.

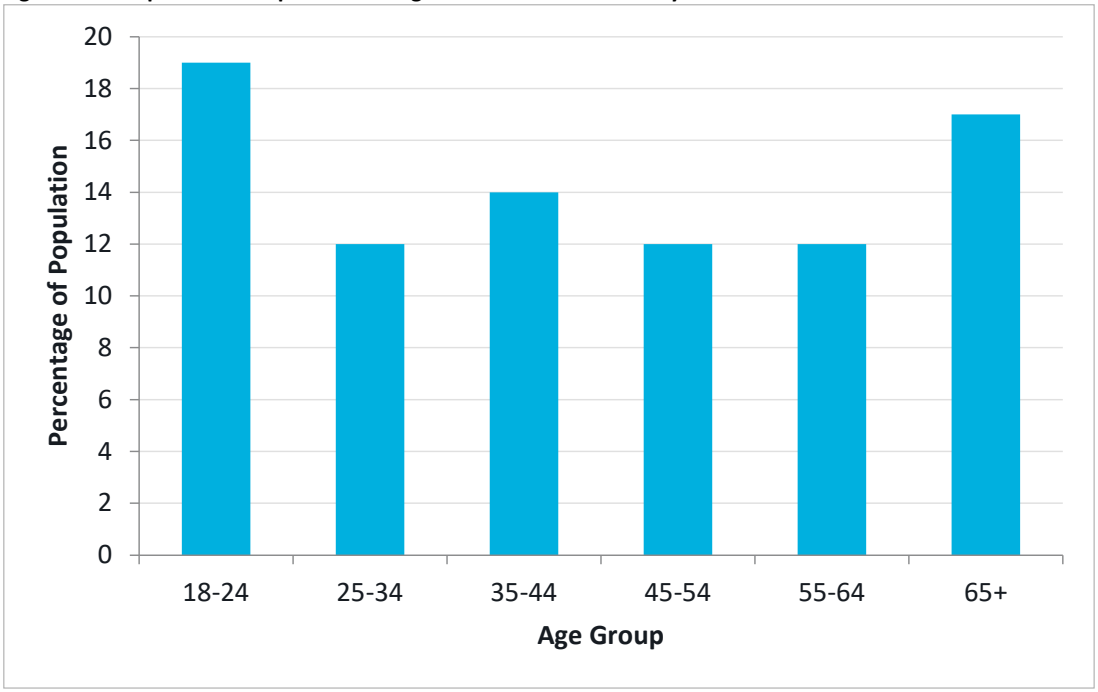
[45] Measured against the equivalent day of the third week of January 2020, adjusted for bank holidays.

Who has been using bus during the pandemic

Throughout the pandemic Transport Focus has been undertaking surveys to understand who is using public transport, why they are travelling and their satisfaction with public transport. This panel summarises findings of their survey of bus users (outside London) for the period 17th to 21st November 2021. This period is chosen as it is representative of the pre-Omicron period and does not have the impacts of people adjusting their travel behaviours in response to the measures announced by Government on 27th November and subsequent announcements.

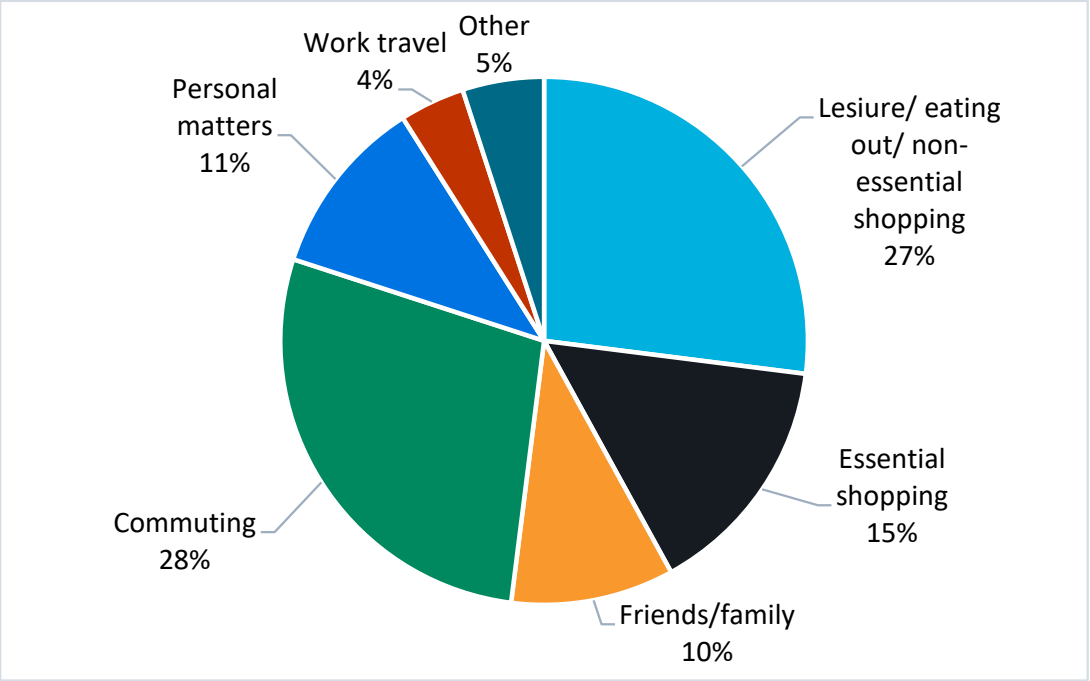
Transport Focus's survey found that one in seven of the population (14%) used bus in the seven days prior to being surveyed. The youngest and eldest segments of the population had the highest proportions using bus. Note that under 18s are not part of the Transport Focus survey sample.

Figure 3.2: Proportion of Population Using Bus in the Last Seven Days



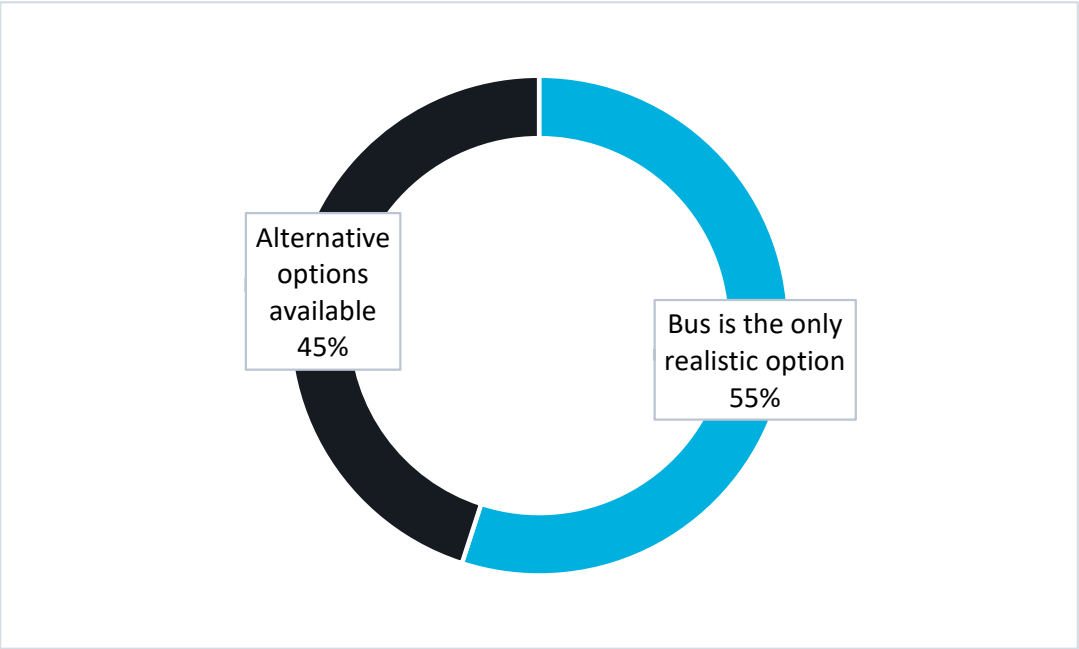
Transport Focus reported that leisure and commuting were the most common reasons for bus use the surveyed week. Noting again that the Transport Focus survey excludes under 18s, the split of journey purpose is the survey is similar to the pre-pandemic journey purpose splits observed in the National Travel Survey (see Figure 2.4).

Figure 3.3: Main Purpose of Last Bus Journey



Transport Focus also asked about what alternatives people had to bus travel. It was found that for 55% bus was the only realistic option. This proportion changed little over the weekly surveys that Transport Focus undertook in autumn 2021. It is also similar to the pre-pandemic proportions of bus users for whom bus was the only realistic option (see Figure 2.12).

Figure 3.4: Proportion who had options to make journeys but chose bus (November 2021)



Source: Transport Focus (2021) *Bus User Weekly Survey Week 10* 17-21 November 2021

Light Rail Use During the Pandemic

3.11 Other than Blackpool Tram, which temporarily closed between the end of March and mid July 2020, Britain's light rail networks continued to operate throughout the pandemic. Like bus, light rail has played a key role in keeping cities moving. It has allowed key workers and others unable to work from home to commute to their jobs. It has provided connections to healthcare facilities and vaccination hubs, and as the economy has reopened, light rail has allowed people to go shopping and return to their offices.

3.12 In contrast to bus, there is no single data source than brings together the patronage trends across England's light rail networks. Broadly, light rail patronage followed similar trends to bus, but the focus of these networks on England's largest city centres, which as well as being retail centres are concentrations of the office-based jobs with a high propensity to be able to work from home, means that light rail has been more acutely affected by work from home guidance.

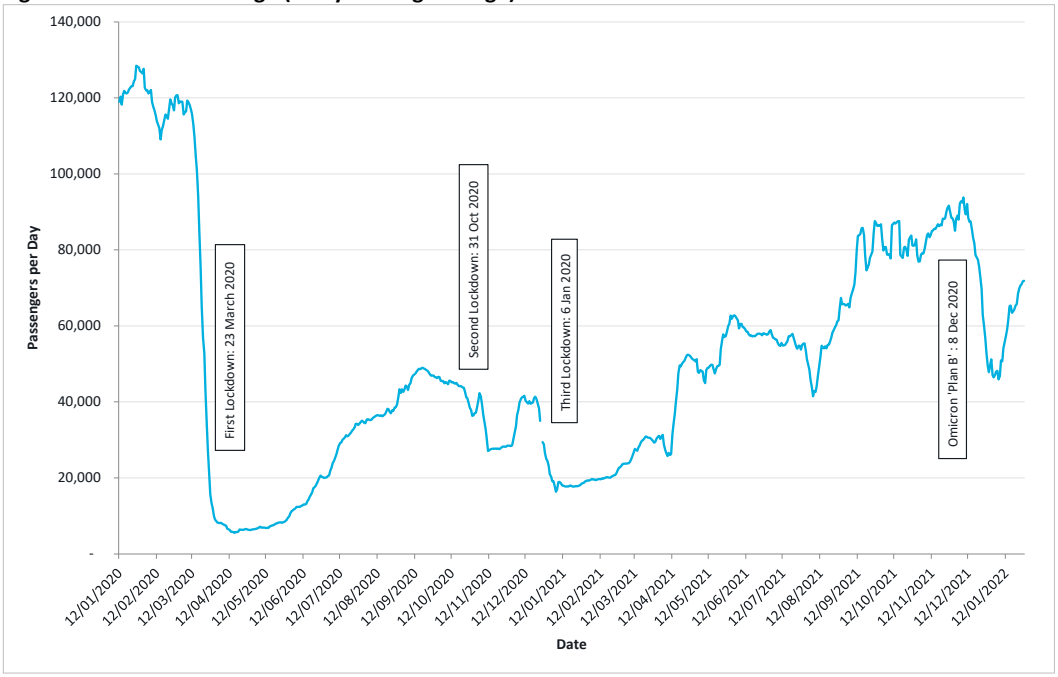
3.13 Manchester Metrolink is the largest light rail network in the country, both in terms of route length and patronage. The panel below sets out how Manchester Metrolink has operated through the pandemic.

Manchester Metrolink – A Covid Case Study

Pre-Covid, Manchester Metrolink operated without subsidy and generated substantial operating surpluses, with a net breakeven position after repaying and servicing borrowings associated with the Phase 3 expansion and the renewal of the existing network assets.

Since March 2020, passenger demand has followed a similar pattern to that observed nationally on local bus services. At the end of March 2020 patronage levels fell to circa 5% of pre-Covid levels

Figure 3.5: Metrolink Usage (7 day moving average)



Data Source: TfGM

Pre-Covid, Metrolink service levels were at 6 or 12 minute intervals, 6 minute service levels were in place on many lines at and between the commuter peaks Mondays to Saturdays.

To allow it to maintain services throughout the pandemic TfGM has been allocated funding of up to £107.1m as a contribution towards Metrolink's forecast losses for the period of 17th March 2020 to 5 April 2022, funded by Department for Transport grant.[46]

Metrolink trams can be run as coupled pairs (known locally as "doubles"). The fleet of 120 trams has been utilised to allow many services to be provided with coupled pairs. This maximises the carrying capacity within social distancing guidelines.

Eight interim service patterns have been in operation since 23rd March 2020, each intended to maintain network connectivity and maximise the opportunity for passengers to social distance while travelling, but within the financial constraints brought about by Covid as well as the operational constraints imposed by some staff being unwell or self-isolating.

A free travel offer was introduced from Saturday 11th April 2020 until Monday 1st June 2020, in recognition that a large number of the trips being made by Metrolink at that point were by key NHS and social care staff to enable them to continue to provide critical services.[47]

TfGM has observed a number of interesting facets to passenger demand in the recovery period:

- The morning peak is much quieter than pre-Covid, whereas the afternoon peak is still noticeably busy
- Individual daily usage is noticeably affected by the weather, suggesting many users have discretion on when they travel
- Lines serving lower-income areas have seen much stronger patronage recovery than the others

The last point is consistent with the national public transport recovery rates where bus has generally outstripped heavy rail – it is well understood that less affluent groups use more bus than rail whereas for the better off it is the opposite. Better-off white collar workers are much more likely to be able to work from home.

Overall, it seems clear that Metrolink is playing a major part in allowing business and retail life in Greater Manchester to recover. It is proving particularly beneficial to more deprived communities that are some distance from Manchester city centre, in particular Wythenshawe, Oldham and Rochdale.

Narrative by TfGM. Taken from Steer (2021) *Leading Light: What Light Rail can do for City Regions*, a report for Urban Transport Group with the graph updated with data to the end of January 2022.

[46] **COVID-19 Light Rail Revenue Restart Grant (LRRRG)**

[47] **Free Metrolink Travel for NHS and Social Care Workers**

Government Support to Bus During the Pandemic

3.14 Government has provided financial support to keep buses running through the pandemic. The Department for Transport initially announced that financial support would be made to the English (non-London) bus industry by:

- continuing to pay Bus Services Operators Grant (BSOG) at pre-Covid levels; and
- local authorities to continue to pay at pre-Covid rates:
  - concessionary travel reimbursement; and
  - home to school transport and tendered service contract payments.[48]

Covid-19 Bus Services Support Grant

3.15 On 6th April 2020, DfT wrote to operators and local authorities to inform them that an additional temporary grant would be introduced; the Covid-19 Bus Services Support Grant (CBSSG). This was to apply for up to three months from 17th March and the fund was capped at £166.8m.

3.16 On the 20th May 2020, a further £254m tranche of funding for bus operators was announced, known as "CBSSG Restart", backdated to apply from 12th May. A number of changes were made including operators being allowed to include additional one-off costs (e.g. PPE provision) as part of their cost base.

3.17 On the 8th August 2020, a £218.4m tranche of funding was announced to cover a further eight weeks. For periods after that, up to £27.3m per week was allocated on a rolling basis.[49] Conditions were largely unchanged, other than service levels were expected to be restored to 100% of pre Covid levels in September 2020.

3.18 From September 2020 to the end of August 2021, CBSSG remained in place using the rolling funding of up to £27.3m per week. Service levels were expected to remain at approximately 100% of pre Covid levels. This requirement was kept through the winter/spring 2021 lockdown largely to maintain schools and essential worker provision.

3.19 Operators were required to consult with and undertake ongoing reviews (at least monthly) with their local transport authorities (LTAs) on the proposed service levels. If required, the operator had to be able to demonstrate to the Department that these consultations took place.

3.20 Operators were not permitted to achieve an operating margin through this funding and this is assessed through an open book reconciliation exercise.

3.21 CBSSG grants for tendered services have been paid directly to the local transport authority. For gross cost contracts, this has sought to compensate the authority for loss of revenue. For net cost contracts, the grant has usually been passed on to operators.[50]

---

[48] Covered under a general **Cabinet Office Procurement Policy Notice**

[49] DfT News Story 8 August 2020: **Government extends coronavirus support for buses and trams, total funding tops £700 million**

[50] For example, **this letter** published by Suffolk shows additional payments to operators from the allocated CBSSG fund

Bus Recovery Grant (BRG)

3.22 From 1st September 2021, CBSSG was replaced by the Bus Recovery Grant (BRG). Announced on 6th July 2021. this provided a further £226.5m.[51] BRG was designed to bridge the gap between revenue at the date of claim and the equivalent revenue two years previously, known as 'lost farebox revenue'. It is paid on the basis of a four-weekly submission by operators in which they declared pre-Covid and current farebox revenue and miles operated by route.

3.23 BRG is scheduled to finish on 31st March 2022 and, at the time of writing, there are no publicly stated plans to extend or replace it beyond that data.

Bus Service Operators Grant (BSOG)

3.24 BSOG has been paid by the Government to operators and local authorities at pre-Covid levels throughout the pandemic. In 2018/19 this amounted to around £250m (Paragraph 2.37), or around £0.5m per week. In normal times, the amount of BSOG that an operator receives is determined by the quantity of fuel used, which in turn is a function of the number of route miles that they operate. During the height of lockdown when operators were operating reduced timetables, they were in effect getting some grant for services that they did not run. From the 1st September 2021, BSOG has been paid in line with actual qualifying mileage operated, as pre-Covid.

Concessionary Fares Reimbursement

3.25 The per kilometre CBSSG rate was calculated on the basis that local authorities continued to pay English National Concessionary Travel Scheme (ENCTS) reimbursement at pre-Covid levels. ENCTS is the scheme that gives those who receive the state old age pension, as well as eligible disabled people, free off-peak travel on bus services anywhere in England. In 2018/19, outside London ENCTS payments amounted to around £762m (see Paragraph 2.40).

3.26 Between March 2020 and March 2022 operators will have received around £1.6bn of ENCTS payments. Assuming concessionary travel followed the overall demand pattern, this represents an overpayment to operators of around £800m, of which around £315m would have been in metropolitan areas. These figures are almost certainly understated as it is understood that throughout the pandemic concessionary passholders have travelled proportionately less by bus than the overall population.

3.27 ENCTS payments to bus operators are made by local authorities. A proportion of each local authority's Revenue Support Grant (RSG) is intended to offset these payments. However, it has been suggested that pre-Covid there was at least a £200m shortfall between what local authorities receive from Government via the RSG and what they pay out.[52] A further complexity in metropolitan areas is that the RSG is paid to the district councils which then fund their Combined Authorities via an annual levy payment. There is a disconnect between the ENCTS element of RSG paid to the districts and the levy paid to the Combined Authorities.

3.28 By meeting the Government's request to continue paying ENCTS at pre-Covid rates local authorities are, in effect, paying grant to bus operators for passengers who are not travelling.

---

[51] Grant Shapps 6 July 2021 *Supporting Vital Bus Services: Recovery Funding* **Written Statement to Parliament**

[52] House of Commons Library (2020) *Briefing Paper: Concessionary Bus Travel*, *CBP 1499, 20 July 2020*

It is estimated that since the start of the pandemic, the Combined Authorities for the six metropolitan areas had spent in the region of £300m reimbursing operators for concessionary journeys that had not been made.[53] Local authorities have also incurred additional costs due to Covid that have not been fully offset by additional Government grants.

3.29 The requirement for LTAs to pay pre-Covid reimbursement rates has been removed from 1st April 2022.

Total Bus Funding

3.30 Published in March 2021, in *Bus Back Better: National Bus Strategy for England* the Government stated that it had spent in excess of £1bn supporting local bus services. The DfT's accounts for the financial year ending 31st March 2021 state that £1,598m was spent on 'subsidies to the bus sector'. The figure for the previous year was £249m meaning the uplift in subsidies to the bus sector in FY20/21 was £1,349m, although it is not necessarily the case that this is all related to the support mechanisms set out above.[54] The National Audit Office states that £1,220 bn was spent in FY20/21 supporting local bus services outside London.[55]

Effect of National Bus Strategy on Funding

3.31 As noted in Paragraph 2.48, the National Bus Strategy states that £3bn is being made available in the current parliament for LTAs outside London for specific improvements targeted at delivering better bus services.

3.32 This is to be accessed by LTAs via their Bus Service Improvement Plans which were submitted in October 2021. The primary condition for accessing these funds was that LTAs have either made an Enhanced Partnership by 1st April 2022 or be "well into" the process of delivering bus franchising. The April deadline has since been relaxed.

3.33 Following submission of the BSIPs, analysis by the Confederation of Passenger Transport, published in November 2021, indicates that the total value of all BSIP submissions was over £7bn.[56] In a letter from DfT to LTA Transport Directors dated 11th January 2022, it is stated that the BSIP "budget available for transformation, including for Zero Emission Buses, is around £1.4bn, for the next three years". It also indicates that LTAs will be given details of indicative funding in February 2022.

3.34 On the basis of this letter it therefore appears that additional money available from the Government to deliver the National Bus Strategy is less than half the figure quoted in *Bus Back Better*.

Light Rail

3.35 A similar three-stage process has been adopted for support to five non-London English light rail systems with initial funding announcements on April 24th, May 20th and August 8th 2020. As each light rail system has a unique operating structure and revenue and cost profile, bespoke agreements were put in place.

---

[53] Estimate by UTG

[54] Page 247, DfT (2021) *Annual Report and Accounts 2020–21*

[55] Page 18, NAO (2021) *Department for Transport Departmental Financial Overview 2020-21*

[56] **Analysis reveals billions of pounds shortfall in National Bus Strategy plans**, 25 November 2021

3.36 Up to the end of October 2020, the funds DfT expected to have provided the five systems are shown in Table 3.2.

Table 3.2: DfT Light Rail Funding April to October 2020

Manchester	Sheffield	Nottingham	West Midlands	Tyne and Wear	Total
£44.0m	£6.8m	£12.1m	£5.7m	£24.7m	**£93.3m**

Source: **Government extends coronavirus support for buses and trams, total funding tops £700 million**, DfT News Story 8th August 2020

3.37 Further funding has been made available to: Manchester Metrolink; Tyne and Wear Metro; Sheffield Supertram; Nottingham Express Transit; West Midlands Metro; and, Blackpool Tramway:

- On October 22nd 2020, a further £67.8m package was announced. This comprised £35.4m for twelve weeks and a further £32.4m for the period to the end of March 2021.[57]
- On 20th March 2021, a package of £33m was announced for an 11 week period.[58]
- On 16th July 2021 Government announced a further funding package of up to £56m for the period 20th July to the beginning of April 2022.[59]

3.38 The National Audit Office reported that in FY20/21 grants totalling £142m had been provided to support light rail operations.[60] Altogether, by 31st March 2022, the Government will have provided grants totalling £250m to support light rail operations.

National Rail

3.39 On 23rd March 2020, Secretary of State for Transport Grant Shapps announced that English rail franchises would be the subject of emergency measures agreements (EMA) that would turn franchises into contracts where the Government would retain revenue and reimburse operating costs to the franchise operators. [61] A small 'cost plus' of up to 2% would be paid to incentivise the operators to meet reliability targets and to collect revenue. The revised arrangements were backdated to 1st March.

3.40 Merseyrail was omitted from these arrangements due to the sharing of financial responsibility for this concession with Merseytravel.

3.41 The Welsh and Scottish Governments have made their own arrangements to support their franchises.

[57] **Government announces further cash boost for trams**

[58] **Further £33 million COVID-19 support funding announced for light rail and trams in the north and the Midlands**, DfT News Story, 20th March 2021

[59] **£56 million package to support light rail through recovery period**, DfT News Story, 16th July 2021

[60] Page 17, NAO (2021) *Department for Transport Departmental Financial Overview 2020-21*

[61] **Rail emergency measures during the COVID-19 pandemic** , Written Statement to Parliament, 23rd March 2020

3.42 On 21st September 2020 the Department for Transport announced Emergency Recovery Management Agreements (ERMAs) for the national railway.[62] These extended Government support for a further 18 months to March 2022 on a comparable basis to the emergency funding introduced in March 2020.

3.43 The National Audit Office has estimated that by the end of March 2022, Government will have spent £13bn supporting the operation of national rail services through the pandemic.

Total Financial Support to Public Transport

3.44 In September 2021, the National Audit Office set out how much money had been spent supporting public transport operations during the pandemic, as well as its estimate of the lifetime costs to end of the committed funding period at that time. This is reproduced in Table 3.3. The Table also shows the financial support per pre Covid passenger. This shows that a less than £1 per pre Covid passenger has been spent by Government maintaining bus and light rail services outside London. In London a little more than £1 per pre Covid passenger has been spent by Government on maintain bus, light rail and London Underground services. The equivalent figure for national rail is nearly £7.50 per passenger.

Table 3.3: Total Financial Support to Public Transport

Title	Description	Estimated lifetime cost as at September 2021 (£m)	Amount reported as spent at September 2021 (£m)	Passenger Numbers 2019/20 (million)	Support per 2019/20 passenger (£ per pax)
Rail emergency measures	Funding to ensure that services continue for essential journeys.	12,939	11,508	1,739	£7.44
Services in London	A funding and financing package for Transport for London to safeguard services, based on a series of conditions.	4,037	3,615	3,572	£1.13
Bus, tram and light rail services	Funding to protect and increase local bus, tram and light rail services.	1,974	1,544	2,101	£0.94
Total		18,949	16,674	7,412	£2.56

Sources: Columns 1-4: National Audit Office **Covid 19 Cost Tracker,** Column 5 ORR Table T1220, DfT Bus Statistic BUS0103, DfT Light Rail Statistics LRT0101, Column 6 is Column 3 divided by Column 5

[62] **Rail update: Emergency Recovery Measures Agreements**, Written Statement to Parliament, 21st September 2020

4 Urban Public Transport After the Pandemic

Introduction

4.1 In this Chapter we set out our estimates for bus use outside London after the planned end of Government financial support at the end March 2022. Supported by analysis using Urban Transport Group's Metropolitan Bus Model,[63] we then go on to look at the prospects for bus services and bus patronage in metropolitan areas thereafter and what this may mean for local transport authority and Government's aspirations for bus.

4.2 We have not produced estimates for light rail patronage. This is because each system in unique in terms of the routes operated and the markets served. Nonetheless, while the position will vary from system to system, we expect the general patronage trend to the planned end of financial support at the beginning of April 2022 to be similar to that expected for buses.

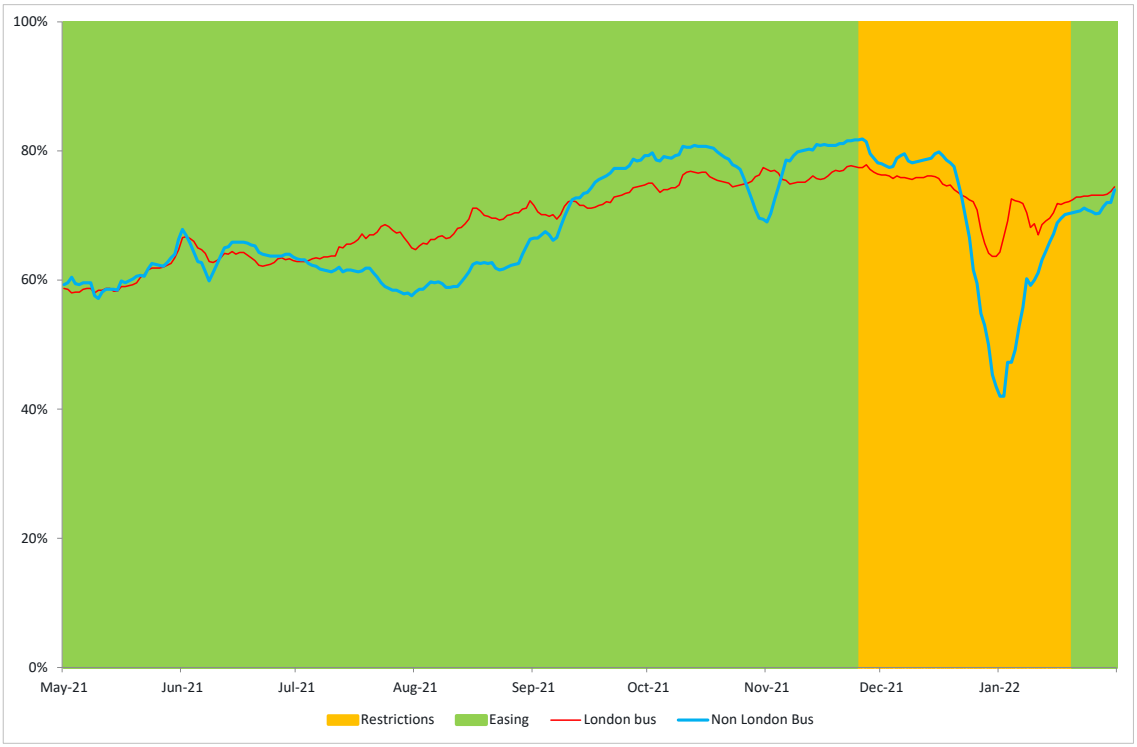
Non-London Bus Demand at the end of March 2022

4.3 In the previous Chapter sets out what has happened to bus patronage throughout the pandemic and Figure 3.1 shows the DfT daily bus usage statistics since March 2020. It is difficult to extrapolate this graph to estimate a position at the end of March 2022. This is due to the limitations of the data comparison with one week in January 2020 and the varying effects of periods of lockdown, varying restrictions at different times and the timings of bank holidays and school holiday. Figure 4.1 seeks to clarify this by taking the period from May 2021 onwards. This is a period when restrictions were being progressively relaxed, for instance non-essential retail and outdoor hospitality reopened in mid-April 2021. The graph also excludes Easter, which with its two Bank Holiday and school and university holidays is a period of relatively low patronage.

4.4 The graph also shows London bus usage figures. As set out in Paragraph 3.4, the London data does not have the same seasonality effects as the non-London data. Comparing London and non-London data suggests that the non-London dip in August (summer holiday) and at the end of October (school half term) are due to seasonal effects rather than changes in the rate of patronage recovery. Because of the seasonality effects in non-London data, even with the differences between the London and non-London bus market, the London growth line is a better indication of the general recovery pattern.

[63] Appendix A is an overview of the Metropolitan Bus Model and how it has been used to support this work.

Figure 4.1: Post May 2021 Bus Usage as a percentage of pre Covid levels (7 day moving average)

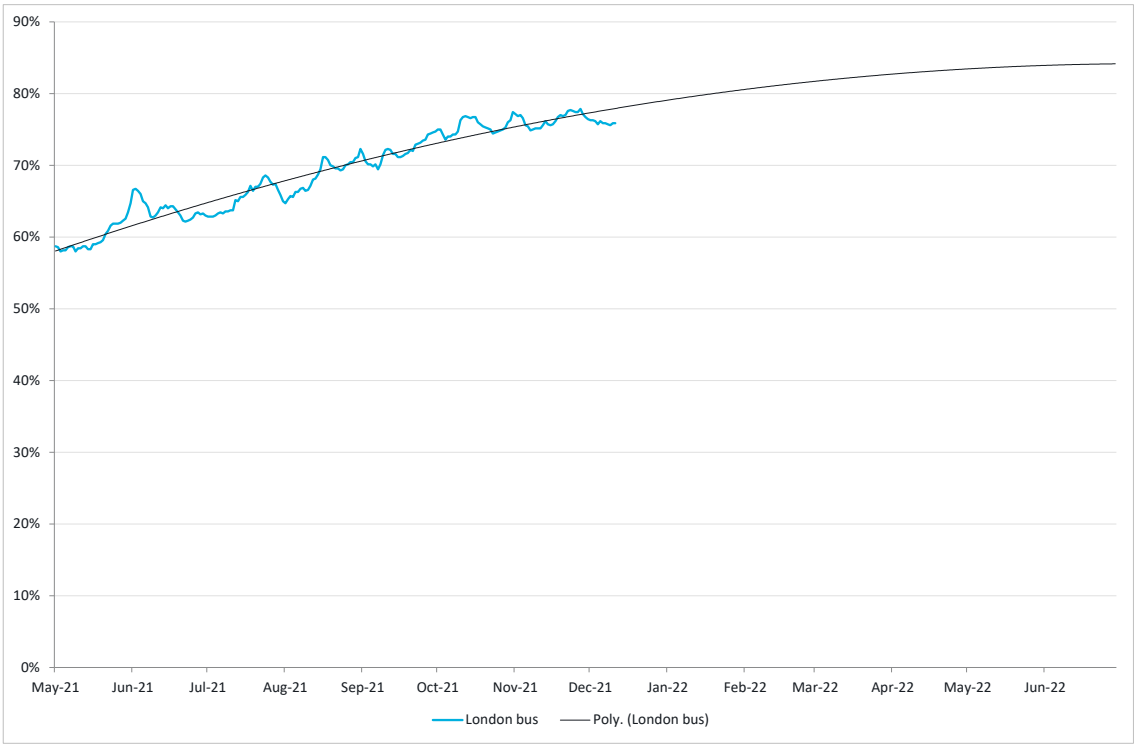


Data Source: Department for Transport COVID-19 Statistics

4.5 Allowing for the limitations of polynomial analysis, it is informative to see the London polynomial trend extension of the May to pre-Omicron period. This is shown in Figure 4.2. While not a forecast, what this simple piece of analysis suggests is that pre-Omicron the rate of patronage recovery was slowing and that in the absence of Omicron, London demand levels would have stabilised at around 85% of pre Covid levels.[64] The correlation between London and non-London levels indicates that 85% is also a reasonable level to propose for non-London recovery levels. In the absence of Omicron, this analysis suggests that the 85% level would have been reached in Summer 2022 with patronage at the end of March in excess of 80% of January 2020 levels.

[64] Before Omicron-related restrictions were introduced at the beginning of December, society was not restriction free. However, inherent in the trend since May is the effect of the gradual rolling back of restrictions, therefore inherent to the extrapolation is further restriction roll back.

Figure 4.2: Polynomial extrapolation of Pre-Omicron London 2021 demand growth



Source: Steer analysis of Department for Transport COVID-19 Statistics

4.6 To help slow the spread of the Omicron variant, additional restrictions were introduced by Government at the beginning of December. As can be seen from Figure 4.1, the introduction of these additional restrictions led to a reverse in the return of bus passengers. However, even with London's seasonally adjusted figures, the Christmas and New Year holiday period complicates the picture and it is difficult to identify what the impact was of Omicron-related restrictions.

4.7 The Government lifted Omicron-related restrictions in England on 27th January. Our assumption is that the Omicron impact on demand will be short lived and that in a few weeks the bus patronage growth trajectory will return to its pre-Omicron trend, although insufficient time has passed since the relaxing of Omicron restrictions to verify this. However, this does not mean that Omicron restrictions will have had no impact on the end of March position. In particular, around eight weeks of the pre-Omicron recovery trend will be lost and it will take some weeks after the end of January to get back to the position bus patronage was at the end of November. Unless the recovery of bus patronage accelerates through February and March, it is now unlikely that bus patronage outside London will exceed 80% of January 2020 levels by the end of March.

Non-London Bus Demand Post March 2022

4.8 Assuming no changes to bus service provision, there are reasons to believe that there will be a further increase in bus passenger number post March 2022:

- As already noted, Omicron restrictions will have set back the recovery in bus demand by at least eight weeks if not more, but the pre-Omicron recovery trend should resume;
- A proportion of those who commute by bus will be people who have been able to work from home some or all the time. While the characteristics of bus users mean that on

average this proportion is small, it will be greater for trips into the largest city centres. The return to the office, which we expect will continue post March, will support further recovery in bus patronage, at least for some markets;
- Further economic recovery will support further recovery of bus patronage.

4.9 There are also reasons why bus demand will not fully recover to a no-Covid counterfactual level. These include:

- The pandemic has led to changes to travel habits as people have adjusted their day-to-day activities so that they no longer need to travel by bus. Some of these changes will persist.
- On-going worries about Covid and a desire to avoid being in crowded spaces means that some pre-pandemic bus users will remain reluctant to travel by bus.
- There will be long-lasting impacts on town and city centre leisure and retail activity. For instance, town and city centres have experienced shop closures and increases in vacancy rates. It will take some time to return to pre-Covid activity levels, if these levels are reached at all.
- Those with the highest propensity to use bus are the least well-off in society. The cost of living crisis is disproportionately affecting this group. Increases in the cost of living will lead to the poorest foregoing discretionary expenditure that might have involved bus travel (e.g. go to the cinema). Also, as it is the poorest who find bus fares most expensive and squeezed household budget will further affect discretionary travel even if the activity would have involved spending no money (e.g. visit a relative).

4.10 There is also evidence from various sources that recovery in concessionary travel is not as fast as the recovery in demand overall. [65] This is likely to be a facet of changed patterns of activity, as well as a reluctance to use public transport.

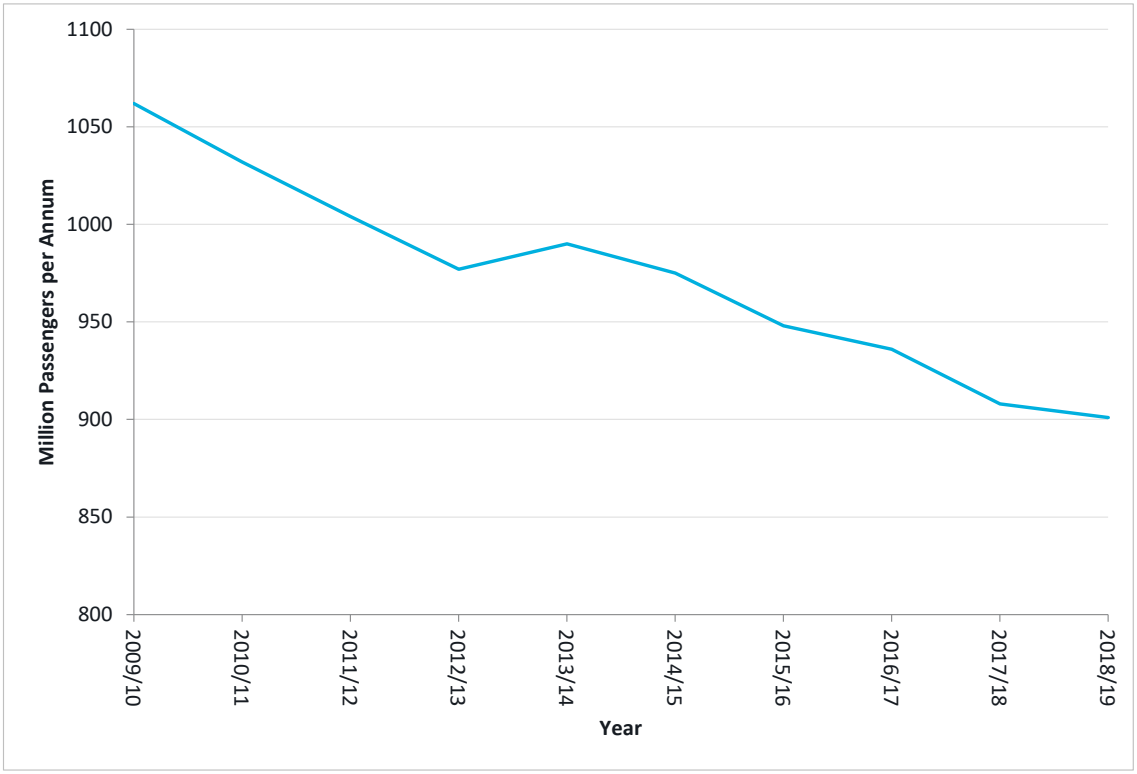
4.11 For the analysis that follows we have taken we assume that with no reduction in bus service provision non-London bus patronage will return to 85% of its January 2020 level and that this position will be reached in Summer 2022. That is, Omicron will not have affected the scale of the recovery, but it will have set back the date when this figure is reached.

April 2022 Counterfactual

4.12 With regard to the metropolitan areas in England, it is also pertinent to note that between 2009/10 and 2018/19 bus patronage fell at an average of 1.8% a year (Figure 4.3). Thus between 2019/20 and 2021/22, if this trend had continued it is reasonable to have expected a decline in bus patronage of around 4%. This suggests that reaching 85% of pre Covid demand levels would put bus patronage around 10% less than would have been expected if past trends had continued. However, this counterfactual also assumes that no effective action would have been taken during this time to reverse the decline.

[65] Including the "10 percent club" of bus company manager quoted in **Route One**

Figure 4.3: Metropolitan Area Bus Usage 2009/10 to 2018/19



Data Source: DfT Bus Statistics BUS0103

Potential Operator Response

4.13 Throughout the pandemic, operators have been running close to pre-pandemic services. However, operators are facing increased costs. The Covid cleaning regime has added costs and is likely to continue for some time. Fuel has become more expensive. There is upward pressure on driver wages, in particular due to the shortage of PCV (bus) and HGV (lorry) drivers.

4.14 If financial support ceases at the beginning of April, operators will be in the position that their operating costs will be around pre-pandemic levels, if not greater, but revenue will be lower than pre-pandemic levels. While it may be reasonable to assume that bus operator revenue recovery would be a little higher than the 85% recovery of passenger numbers,[66] there will still be a significant shortfall in the revenue needed to cover operating costs and to allow operators to make the reasonable profit that will be needed if they are to fund further investment.

4.15 A position where demand and revenues are less than pre-pandemic levels, but operating costs are at or above pre-pandemic levels is not sustainable for any operator. With no prospect of a material change in their operating position, bus operators will respond to reduce operating costs and increase passenger yield (fare per passenger).

4.16 Operators will have three potential responses:

[66] For instance, concessionary journeys have lower income per trip. The view is that concessionary travel has not recovered to same degree as non-concessionary travel. In this case the yield per passenger will increase.

- Reduce services – this could be reductions in frequency, services starting later in the morning or finishing earlier in the evenings, reductions to Sunday services, shortening routes or curtailing services altogether. Bus operators will only get meaningful cost savings by reducing their fleet size (Peak Vehicle Requirement) and the number of staff rostered to operate their services.[67]
- Increase fares – there is already evidence that in January 2022 a number of operators are increasing fares.[68]
- Both reduce services and increase fares.

4.17 Many operators are experiencing driver shortages, so service reductions will bring immediate cost savings to them without needing to consider redundancy payments.

4.18 Operators may take other action to reduce costs such as delaying fleet renewals and cutting overheads, but these actions need time to take effect.

4.19 Past experience is that bus operators have responded to falling demand by reducing service levels *and* increasing fares.[69] We consider this the most likely response to the planned Government cessation of Covid-related bus funding at the beginning of April.

4.20 With no prospect of a material shift in the shortfall between revenue and costs, bus operators will respond quickly, most likely within weeks of Government financial support being removed.

A Vicious Circle

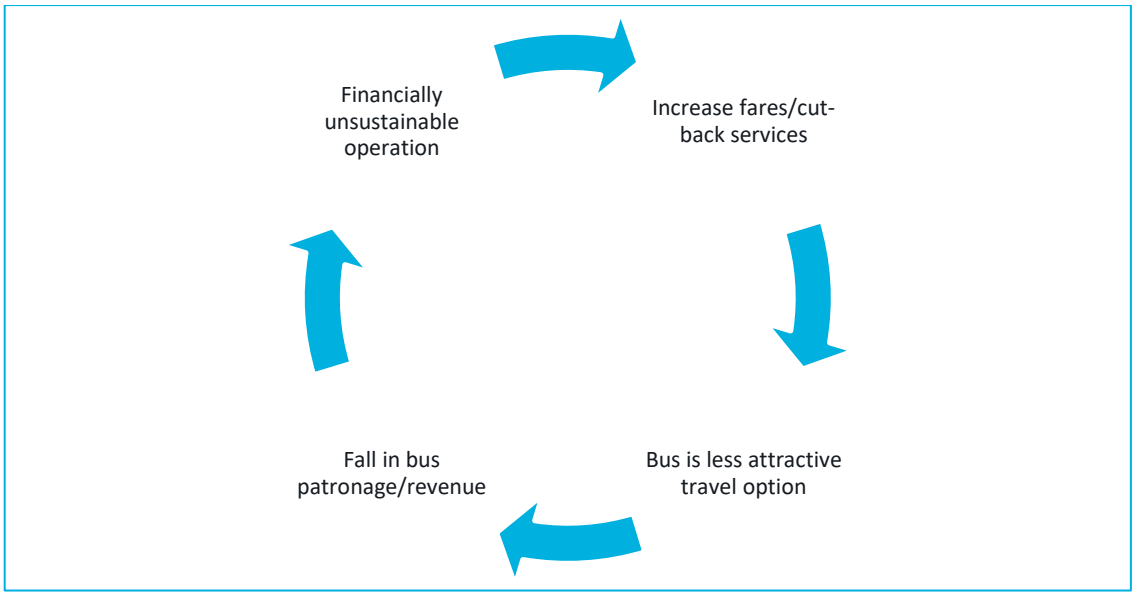
4.21 Increased fares and reduced services will make bus services less attractive to those who currently have choices about how to travel. It will make bus a less attractive option for those who are evaluating new travel choices, for example when they start a new job or go to a new school. Increased fares and reduced services will lead to a further reduction in the number of people travelling by bus, which in turn will lead to a further fall in bus operator revenue. Operators will respond with further service reductions and fares increases with further negative impacts on demand and the cycle will begin again. Illustrated in Figure 4.4, this is the so-called bus patronage vicious circle.

[67] Wakefield Examiner, 27th January 2022 **West Yorkshire Bus Cuts: All the Routes being Changed by Arriva**

[68] York Press, 8th January 2022 **First York bus fares to rise from January 16;** Blackpool Gazette, 7th January 2022 **Blackpool Transport announces price hikes of up to £2 for all bus and tram fares;** LancsLive, 17th January 2022 **Bus fares around Lancashire to increase for the first time in three years**

[69] For instance, see NERA (2006) *The Decline in Bus Services in English PTE Areas: the Quest for a Solution*

Figure 4.4: Bus Patronage Vicious Circle



4.22 We have used Urban Transport Group's Metropolitan Bus Model to explore the potential scale of this further impact in metropolitan areas. As we set out in Appendix A, where we describe how we have used the Metropolitan Bus Model in more detail, there are limitations to this analysis. Most pertinent is that the Model was not specified to look at disruptive events such as the pandemic. Nonetheless, the analysis remains valuable as it helpfully illustrates the potential scale of post-pandemic impacts once the immediate effect of pandemic-related restrictions dissipates.

4.23 The analysis suggests if Government financial support ceases at the beginning of April, bus patronage in metropolitan areas could fall further to 70% of pre-Covid levels, that is the impact of service reductions post the withdrawal of Government financial support would be of similar magnitude to the direct Covid impact on demand. Bus miles would fall to around three-quarters of their pre-Covid levels. This position would be reached within 12 months. Once this new equilibrium is reached, without further intervention bus patronage would resume the downward trend observed in the decade pre-pandemic (see Figure 4.3). This analysis assumes no further investment in bus priority measures aimed at reducing bus journey times and improving bus service punctuality, or in measures to increase the quality of the bus offer. We return what impacts such investment may have later in this Chapter.

4.24 There are also reasons to suggest that this fall to 70% of pre-Covid demand is a worst case position. One reason is that the bus market in metropolitan areas is not homogeneous and some areas will experience smaller Covid-related falls in demand than others. For instance, anecdotal evidence is that bus patronage recovery in Liverpool is above the national trend. Such places will not feel the same scale of impact of post-Covid cuts as those places where demand recovery is below the national trend. The model available to us works at an aggregate geographic scale and is not able to identify local effects such as this.

4.25 Also, the shortfall in bus patronage in March 2022 is an impact of the pandemic, an external 'shock' to the bus market, rather than an acceleration of the factors that have led to the decline in bus demand experienced over previous decades. Some of the loss in patronage in Summer 2022 compared to January 2020 may in effect be post-pandemic patronage loss that has been brought forward in time.

Conclusion – Non-London Bus Demand with no Further Government Support

4.26 Our findings on bus patronage in 2022/23 are:

- By Summer 2022, the best-case position is that non-London bus patronage will be around 85% of its January 2020 levels. This assumes no reduction in service provision.
- The planned cessation of Government Covid-related funding support at the beginning of April would be likely to lead to further fares increases and to service reductions. This would lead to further reductions in bus patronage.
- In metropolitan areas the impact of this could be of the same order as the impact of Covid on bus patronage.
- Modelling suggests that by the end of March 2023, this would result in bus patronage in metropolitan areas at around 70% of January 2020 levels and bus miles around 75% of their pre-Covid levels. We expect similar impacts elsewhere outside London.

The Post Covid Bus Network

4.27 Here we explore what the potential reduction of bus patronage to 70% of pre-Covid levels may mean to the bus services that are provided across metropolitan areas. Because each metropolitan area is different, so are their bus markets. Within metropolitan areas, there are routes that range in levels of operators' profitability, as well as supported services. Different metropolitan areas have different approaches and different budgets for supported services. What we say here can therefore only be a generalisation. This said, it is helpful to consider the bus market comprising of three segments:

- **Core Commercial** services – these are services that operators find most profitable. Such services include:
  - High frequency radial routes to the centres of cities and larger towns;
  - Routes that serve multiple centres, for example linking a string of local centres, and that have multiple and overlapping markets;
  - Routes that fill a niche, for example providing links between outlying towns and key centres that are not well served by rail;
  - Core Commercial routes often have relatively good services in the pre morning peak and post evening peak periods, and on Saturdays and Sundays.
- **Other Commercial** services – while operated profitably these services are the less profitable in an operator's portfolio. Such services are typified by:
  - Radial routes to town and city centres, but with few intermediate significant attractors/generators of demand;
  - Orbital routes, also with few significant attractors/generators of demand;
  - Lower daytime frequencies, perhaps 1 or 2 buses per hour (although low day time frequency is not necessarily an indication of low profitability and some low frequency services will fall into the Core Commercial group);
  - Limited pre morning peak and post evening peak periods, and limited services on Saturdays and Sundays.
- **Supported services**
  - Socially necessary services supported by the local transport authority;
  - Typically low frequency, serving dispersed markets. Patronage can vary such that there is a range of the effective 'subsidy per head' from low to high;
  - Supported services can also include *de minimis* support to commercial services, for example to add early morning, late evening or Sunday services to a schedule.

4.28 For the **Core Commercial** market, operators will look to maintain as much demand as possible. Nonetheless, it should be expected that they will increase fares. In addition, they will look to reduce operating costs through actions such as:

- Less frequent day time services, for example reducing frequency from 6 buses per hour to 4 buses per hour;
- Not running extra services in the morning and evening peak periods;
- Starting services later in the morning and ending them earlier in the evening;
- Reducing weekend services;
- Splitting routes, for example operating a higher frequency on higher demand inner sections of radial routes to city centres while having a lower frequency on outer section of the radial.

4.29 Those passengers who have no option to travel by bus would in most cases still have bus available to them, albeit at higher fare and lower frequency. In welfare terms, they will experience an economic disbenefit which, over time, will be become an impairment to the real economy. For those who have alternative options to bus travel, these will become relatively more attractive and some will choose not to travel by bus. This too would result in a welfare disbenefit. However, most would still be able to travel by bus should they so.

4.30 Users of **Other Commercial** services are likely to experience greater impacts:

- Less frequent day time services, for instance going from a 2 buses per hour service to 1 bus per hour service;
- Withdrawal of early morning, late evening or Sunday services;
- Withdrawal of routes in their entirety.

4.31 For users of these Other Commercial services the impacts of such changes would be more profound than users of Core Commercial services. For those who can continue to use bus, the individual welfare impact will be far greater than for those who use Core Commercial services. Some who are dependent on bus will find that the services they previously used are no longer provided, which would have potential impacts such as no longer being able to get to and from their job or college.

4.32 **Supported Services** will face twin pressures:

- Lower post Covid patronage will worsen the value for money case for supporting what, pre Covid, were the least well-used services;
- There will be pressure on local transport authorities to step in and 'buy back' some services that will be cut from the commercial network. With constrained budgets, this will place further pressure on the least well used supported services.

4.33 Local transport authorities will face difficult choices on which services to add to the supported network, which to continue to support and which to cease to support. With fixed budgets, the outcome will be some places losing supported services, which pre-Covid the local transport authority had judged, by definition, to be socially necessary.

4.34 It takes time for local transport authorities to adjust their supported networks. Notice has to be given if contracts are to be ended. Assessments have to be made of what is the best way to support the network. Consideration has to be given to budgets and what can be afforded. All this creates hysteresis in the system with a consequence that there can be gaps between commercial services ending and a local transport authority stepping in. A high volume of network change over a short period will on amplify this effect.

4.35 A further challenge is that local transport authorities are experiencing upward pressures on tender prices. In part this reflects the increased costs that operators are facing (e.g. driver wages) and driver availability, as well as market uncertainty.[70] Should this trend become established, it will mean that local transport authorities will be able to buy fewer bus services within a fixed budget.

Restoring Demand

4.36 In *Bus Back Better: National Bus Strategy for England* the Government states that its aim is to restore bus patronage to pre-Covid levels and then for bus patronage to increase. Our view is that, at best, by the Summer 2022 patronage outside London will have returned to around 85% of its pre-Covid levels. If Government's Covid related financial support to the bus sector ceases at the beginning of April, there will be further decline in bus patronage as service levels adjust downwards to reach a new equilibrium between patronage and revenue, and operating costs. Analysis using the Metropolitan Bus Model suggest that bus patronage could fall as low as 70% of its pre Covid level. Without further intervention the Government's *Bus Back Better* aims cannot be met.

4.37 We have used the Metropolitan Bus Model to explore the effect of the different levers that can be used to reverse this decline and restore bus patronage towards pre-Covid levels.

4.38 There are two ways to support the restoration of bus patronage:

- Further revenue support can be provided to the bus sector, that is the type of support to the bus sector that Government has provided through the pandemic can be extended beyond the beginning of April;
- Capital funding can be provided to implement more bus priority (bus lanes, traffic signal priority, etc.), improve bus stations and stops, buy new (zero emission) buses and invest in systems that support improvements to fares and ticketing regimes. Each of these would to a degree make travelling by bus more attractive compared with its alternatives and support increased patronage.

4.39 We have explored the impact of revenue support by looking at two scenarios:

- **Scenario 1**: A 50% increase in public sector financial support when compared with pre-pandemic levels. In the financial year 2019/20, the DfT estimated that total net support paid in England outside London was £1.27bn, of which £764m (60%) was for concessionary travel. In the metropolitan areas, total support was £486m, of which £275m was associated with concessionary fares.[71] A 50% increase in annual support for bus services outside London is therefore in the region of £635m in total, of which £243m would be in metropolitan areas.
- **Scenario 2**: A 100% increase in financial support over pre-pandemic levels. This would be an annual increase of £1.3bn in England outside London of which in the region of £450m would be for metropolitan areas.

[70] For instance, see **Operators voice concern over tendered bus costs**, Local Transport Today Issue 838, 31 January 2022

[71] DfT (2020) **Annual Bus Statistics: England 2019/20**

4.40 What the modelling suggests is that:

- **Scenario 1** – a 50% increase in public sector support – would allow Summer 2022 patronage and pre-Covid bus miles to be maintained. That is, bus patronage at the end of financial year 2022/23 would be around 85% of its pre-Covid levels catered for by a network of similar scale to that pre-Covid.
- **Scenario 2** – a 100% increase in public sector support – would reverse the decline but would not allow patronage levels to be fully restored. At around 95% of January 2020 levels, patronage would be at a similar level to the no Covid counterfactual scenario set out in Paragraph 4.8. Measured by bus miles, the network to support this would be around a quarter bigger than its pre-Covid size. In the short term, driver and vehicle availability may be a tangible constraint to this level of service.

4.41 The way we have used the Metropolitan Bus Model to assess an increase in public sector support has been to assume that BSOG, supported service budgets and ENCTS payments all increase by either 50% or 100%. In part this approach is due to the inherent limitations of the modelling approach and in part reflects the purpose of the projections, which is to establish the scale of extra support that would be needed for demand to return to pre-Covid levels rather than develop a detailed plan. It is highly likely that a more targeted and directed use of additional public funds would achieve similar patronage outcomes for less cost. Nonetheless, what the analysis does do is establish the likely scale of additional support that would be needed if revenue funding were to be used to restore patronage.

4.42 Before setting out the potential impacts of capital investment, it is necessary to introduce the concept of 'generalised journey time'. Generalised journey time is a weighted contribution of all elements of a bus journey as perceived by users. It combines time on the bus (in vehicle time) with time spent waiting at stops and walking to and from stops. The waiting and walking elements are weighted higher than the in-vehicle time element. This is because behavioural research indicates that people perceive walking and waiting time to be greater than it actually is, reflecting effort and uncertainty (e.g. whether a bus will arrive on time). Generalised journey time also includes the punctuality of a journey – the impact of arriving early or late – as well as how passengers perceive the 'quality' attributes of their journey, which include the waiting environment (stops, shelter, real time information, etc.) and the bus itself (cleanliness, ride quality, seat comfort, etc.). Finally, generalised journey time can also include the effects of crowding on vehicles – the ability to get a seat, conditions when standing, and so on.

4.43 Capital funding can be used to reduce generalised journey time, for instance through:

- Bus priority measures which reduce journey times (in vehicle time) and/or improve journey punctuality;
- Improved bus stops, for instance with shelter from the weather, seats, real time information, and the like;
- New buses that offer greater comfort (e.g. better seats, better ride quality) and new facilities (e.g. Wi-Fi, USB charging points), as well as on-board real time information during the journey.

4.44 Reducing generalised journey time makes bus more attractive when compared with alternatives, which in turn will lead to a patronage increase. As set out above, generalised journey time reductions can be achieved in many ways – it is not necessary to just reduce in-vehicle time, other capital investments can achieve similar effects. Of particular benefit is making bus journeys more punctual. As well as making buses more attractive to users,

improving punctuality has the twin effect of reducing operators' costs as they can get more efficient use of their buses and staff. Conversely, longer journey times or less punctual services have a twin negative effect as they make bus services less attractive to passengers and increase operators' costs as their assets are used less efficiently.

4.45 For **Scenario 3**, we have used the Metropolitan Bus Model to model the impact of a 5 minute reduction in generalised journey time. That is, each and every bus journey is assumed to take 5 minutes less in generalised journey time terms. The Model suggests that this would support an increase of bus patronage to a little below its projected Summer 2022 level of 85% of January 2020 level – it would reverse the post March 2022 decline, but would not be sufficient to support patronage returning to pre-Covid levels.

4.46 Data for 2019 from the National Travel Survey is that 70% of bus trips were under 5 miles[72] and it can be inferred from DfT Bus Statistics that in metropolitan areas the average bus journey is around 3.5 miles.[73] At an average 12 mph, the average journey would take about 18 minutes. At 15 mph it would be 14 minutes. To reduce journey time by 5 minutes, a 12 mph service would need to be increase to 17 mph and a 15 mph service increase to 23 mph.

4.47 There are a number of reasons why securing such increases in average speed in urban areas is unlikely to be achievable through bus priorities alone:

- The time taken for people to board and alight at stops means there is a practical limit to how fast buses can travel.
- Over past decades bus priority measures have been introduced in towns and cities across the country. Many of the most effective interventions will have already been implemented. Many of the opportunities that remain will be inherently more challenging in terms of their deliverability, cost or value for money case.
- There are competing demands for the use of road space. As well as providing bus priorities, local authorities are looking for opportunities to implement segregated facilities for cyclists and better conditions for pedestrians as per the Government *Gear Change* agenda, all while having regard to their statutory network management duty.[74]
- Most bus passengers make their journeys in the inter-peak periods, off peak periods and at weekends. The impact of congestion in these periods is less than in the peak. In many cases the impact of congestion is negligible and there is therefore little journey time that can be gained through priority.
- Even in peak periods, not all passengers will experience journey time improvements that priority will offer. Many will make journeys that over sections of road where bus frequencies are insufficient to make a value for money case for priorities, or they are making journeys in the counter-peak direction, or they are travelling on roads where bus priority would offer no material journey time advantage.

4.48 Of course, bus priority does not just reduce journey times. It also makes journeys more punctual, and this too reduces passengers' generalised journey times, as well as allowing operators to use their resources more cost effectively. Often improvements to punctuality offered by bus priority can have a greater impact on passenger numbers than reductions in

[72] Source: NTS0308a

[73] Data source: BUS103 and BUS0302a

[74] DfT (2020) *Gear Change: A Bold Vision for Cycling and Walking*

journey time. However, for similar reasons as set out above there are limits to how much punctuality can be improved and how many bus passengers can benefit from this.

4.49 As previously noted, generalised journey times can also be secured through improving the quality of vehicles and stops, but again there is a limit to what can be achieved. Some bus routes will be operating with new or nearly new vehicles that will not be replaced for many years. Often these are deployed on the highest patronage routes that offer the greatest margins to operators. Already, local transport authorities have programmes to enhance the waiting environment. For instance, West Yorkshire Combined Authority has an on-going programme to install 1,000 real time indicators to bus stops across Leeds.[75] Findings from behavioural research is that such investment reduces the perceived waiting time at stops – it reduces the generalised journey time. However, as with other quality enhancements, the benefits of this reduction can only be felt once.

4.50 The final consideration is that implementing bus priority, purchasing new vehicles or improving quality takes time. At best, it would take a year to take a basic bus priority scheme from planning through to delivery. The capacity and capability of the public sector to deliver such change is limited. It will take time for new vehicles to be specified, ordered, built and then delivered. Shelter replacement programmes take time to implement.

4.51 None of this consideration should be interpreted as saying that further bus priority, new buses and improved waiting environments are not worthwhile. Evaluation studies show that such investments give good value for money.[76] Further capital investment will be needed if the decline in bus patronage witnessed over past decades is to be reversed, as per Government's *Bus Back Better* goals. Local transport authorities' ambition in this area is illustrated by the £1.4bn that Government has made available in this Parliament to implement its *Bus Back Better* strategy is reportedly oversubscribed by a factor of at least five – there is insufficient money available to meet the full scale of ambition.

4.52 However, what this analysis does indicate is that:

- Alone, capital funding will not return bus patronage to pre-pandemic levels;
- It will be some years before the benefits of the £1.4bn that Government is making available will be felt. At the time of writing, there is no announcement on how much each local transport authority will secure. Once allocations are made, it will take time to deliver schemes. But the post funding withdrawal reduction in patronage will happen quickly. By the time capital investments are in place, the patronage will already be lost.

4.53 A further reason for continued investment to improve bus services is that the revenue (Scenarios 1 and 2) and capital (Scenario 3) scenarios are focussed at reversing the impacts of the pandemic. They do not address the long term decline in bus patronage. As recognised by *Bus Back Better*, to do so will require concerted effort over many years to improve bus journey times, to make buses more punctual and improve the quality of journeys, which together will increase the value for money that bus services offer to their passengers.

[75] See, **New real-time bus information displays to be installed across West Yorkshire**

[76] For instance, see DfT (2016) *Value for Money Assessment for Major Bus-related Schemes*

Bus Priority Delivery Process

Bus priority has been used within urban areas for more than 50 years to support bus movement and encourage public transport use. The first UK bus lanes were introduced in 1968. Since then, major bus priority programmes have been completed in a number of UK conurbations. Initiatives such as London Bus Priority Programme (LBPN) have delivered significant infrastructure to tackle key hot congestion spots on the network.

In line with any investment programme, the approach to implementing bus priority is to assess the scale of the local problem and then target schemes which generate the greatest benefits to bus operations in terms of both journey time and reliability. These assessments also consider implementation risks and broader impacts on other road users. Given the extent and longevity of these programmes, it is fair to say that many of the most cost effective and beneficial schemes have already been implemented and future opportunities left include areas where there are material risks to delivery, be they financial or political or interventions are more challenging, for instance requiring land-take or building demolition.

A further and more recent challenge for highway authorities is the competing priorities for road space arising from the focus on Active Travel exemplified by LTN 1/20 and Gear Change.[77] This together with a need to support businesses who rely on kerbside space for servicing and deliveries means highway authorities are faced with difficult choices on how to use finite road space for traffic, bus priority, active travel and servicing frontages.

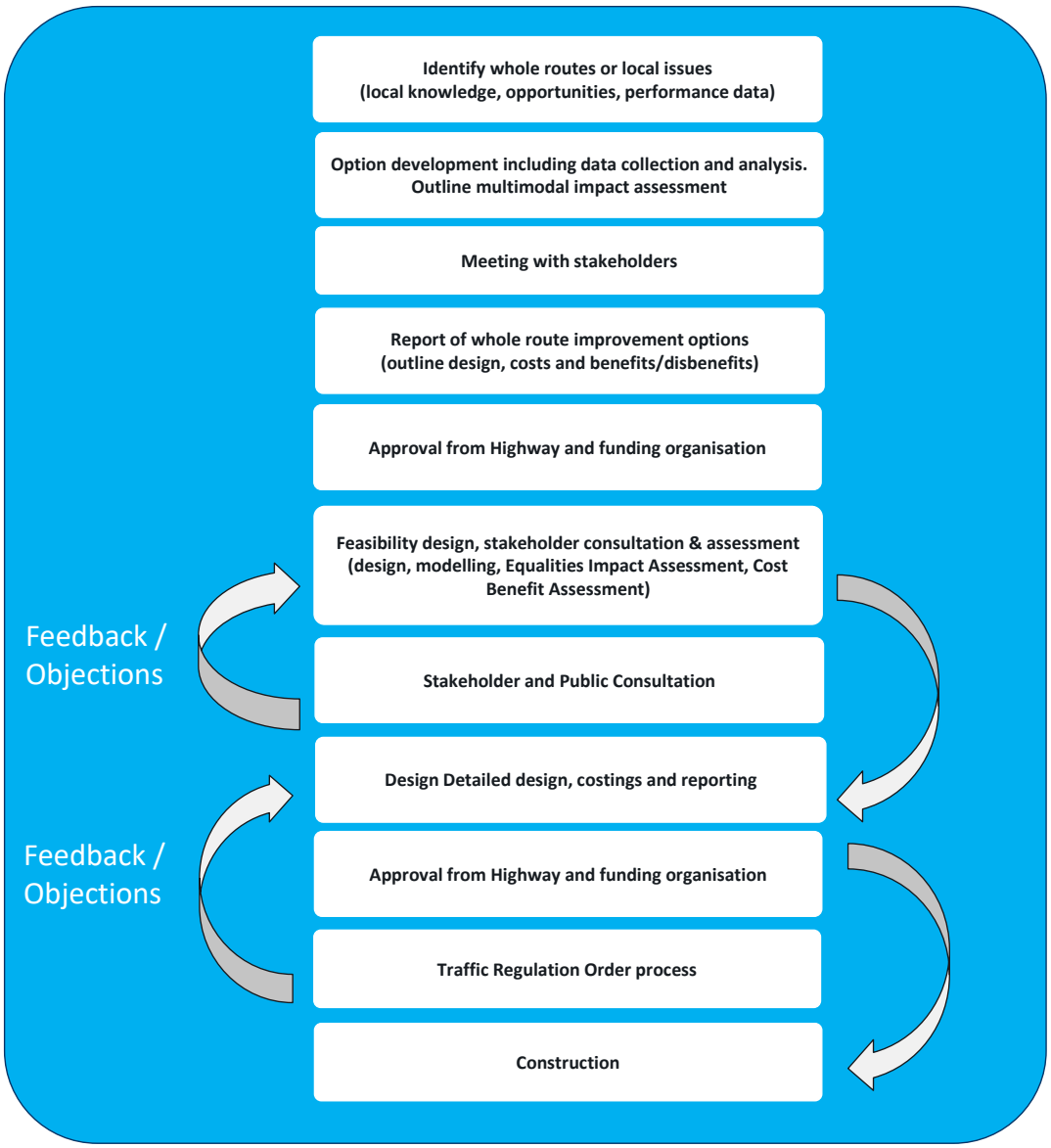
Despite these challenges, highway authorities continue to work with stakeholders to deliver bus priority measures. The steps involved in delivering major infrastructure are set out in the figure below. As is shown the process is complex and needs to be thorough to provide assurance about the appropriateness of the measures and to allow for public engagement. Consultation in particular takes time, but can be integral to ensure proposals are appropriate whilst gathering the views of the locals and gauging the level of support for a scheme. Consultation also allows issues can be addressed in advance of the statutory, formal, processes. Consultation is key to achieve community buy-in and for local input to the design process. It can lead scheme modification, redesign or even abandonment of proposals.

The duration of the formal Traffic Regulation Order (TRO) process is a function of the number and nature of correspondence received at each stage. For example, if a scheme results in numerous complex objections, the TRO process will take longer and cost more money due to resource required to consider and respond to the comments and potentially, amend the scheme. There are also options for formal challenge by seeking a public inquiry.

The process for scheme development is complex. As a result, a major bus priority scheme can take up to 12 months if not longer to come forward for delivery. Schemes that involve land take or property demolition will take longer than this. Local authorities have limited capacity that constrains the number of schemes that can be developed at any one time.

[77] DfT (2020) Local Traffic Note (LTN) 1/20 *Cycle Infrastructure Design*

Bus Priority Delivery Process



Source: Steer

Light Rail

4.54 This Chapter has focussed on buses in metropolitan areas, but light rail services will be affected in similar ways. As set out in Chapter 3, Government has financially supported light rail operations throughout the pandemic and as with bus the current arrangements cease at the beginning of April 2022. Each light rail system has a different exposure to revenue risk, which means that each funding settlement between local transport authorities and Government is bespoke.

4.55 While we have not undertaken any detailed assessment of the impact of the pandemic on light rail patronage, the expectation is that, like bus, by Summer 2022 patronage will still be less than pre-pandemic levels. How much lower will vary from system to systems. For instance, those light rail routes that serve areas with high public transport dependency such as West Midlands Metro have had a relatively strong recovery.

4.56 Across the metropolitan areas, light rail services are being operated at similar service levels to those pre-pandemic. Should financial support cease after March this year, operators will face similar challenges to bus operators with operating costs in excess of what can be supported by revenue.

4.57 There are, however, two material differences between bus and light rail operations:

- Pre-pandemic light rail patronage was growing, reflecting that compared to car and bus alternatives, light rail provides fast and punctual connectivity to the town and city centres which were a focus of pre-pandemic economic growth.
- With light rail, there are fewer opportunities to escape costs than with bus. The wages paid to drivers and other operational staff and the costs per mile operated (electricity, wear and tear, etc.) are a lower proportion of light rail operating costs than of bus operating costs, although they face the same inflationary pressures as with bus services. Operating concessions may also inhibit the ability to secure real cost savings to the public sector, for instance where contracts do not permit the scaling down of payments to the operator. While contracts can be renegotiated or relet, to do so would take time.

5 The Future of Urban Public Transport

Introduction

5.1 Public transport is integral to the economic and social life of our towns and cities. Before the pandemic, more people used buses than the national rail network and London Underground put together. Buses are used by people to get to work, to school or college, to access vital services such as hospitals and go about their social life. Around half of bus users have no viable alternative way to make their journey. It provides a more environmentally sustainable alternative to travel by private car.

5.2 In Chapter 2 we set out why bus matters (Paragraph 2.22 *et. seq.*) economically, socially and environmentally. Light rail, with its attractive journey times, punctual journeys and high quality journey experiences adds to these benefits. Focussed on the largest town and city centres, light rail is an attractive high capacity and environmentally friendly alternative to car travel. Light rail has been integral to the towns and cities that it serves growing and thriving. It has supported and facilitated the growth and regeneration of to the town and city centres that it serves. Before the pandemic, light rail patronage was growing.

5.3 Importantly, the impacts of urban public transport – bus and light rail - stretch across a whole range of national policy areas. This has been explored in detail by Urban Transport Group and by the National Audit Office. [78] [79] Reproduced as Figure 5.1 is the National Audit Office's assessment of how bus use supports economic, social, industrial, housing and environmental policy areas across Government.

5.4 Growing bus use will help support the attainment of these polices; falling bus use will have the opposite effect. This is recognised by the Government's national bus strategy for England, *Bus Back Better* and Government's commitment to invest £1.6bn over the life of the current Parliament to improve bus services and support patronage growth.

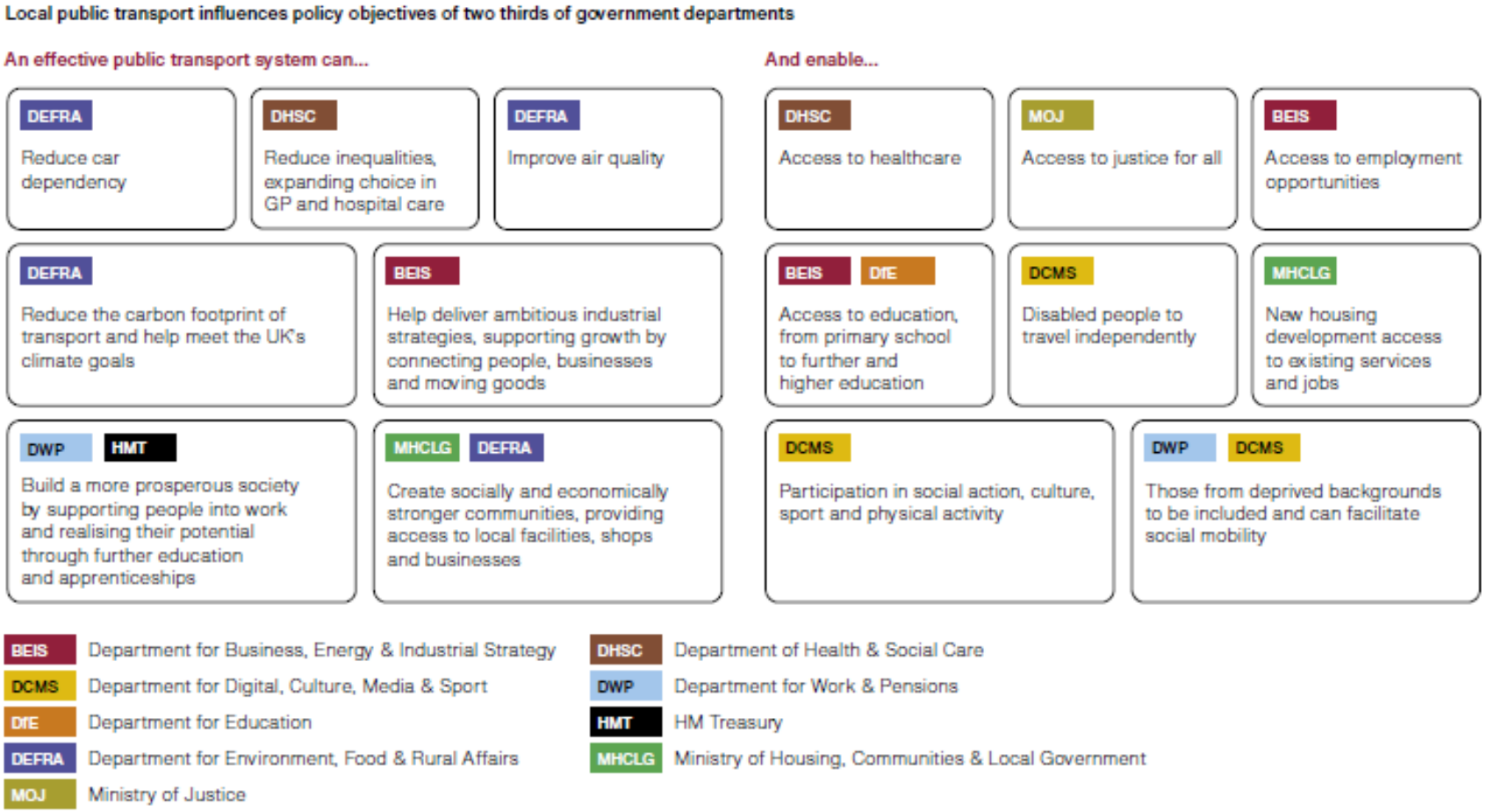
5.5 The role of light rail is also recognised by Government. In its 2021 *Transport Decarbonisation Plan*, Government said, "light rail schemes can be transformational for highly populated areas bringing societal, economic, and environmental benefits to our cities by connecting communities to jobs, hospitals, and leisure activities."[80]

[78] Urban transport Group (2019) *The Cross-Sector Benefits of Backing the Bus*

[79] National Audit Office (2020) *Improving Local Bus Services in England Outside London*

[80] Page 162, DfT (2021) *Transport Decarbonisation Plan*

Figure 5.1: Local Public Transport and Public Policy



Source: Figure 1, National Audit Office (2020) *Improving Local Bus Services in England Outside London*, Report by the Comptroller and Auditor General, HC577

The Future of Urban Public Transport with no Further Government Support

5.6 The restrictions on social and economic life introduced in March 2020 to help tackle the pandemic had an immediate and severe impact on bus patronage. Within days, bus patronage was at 10 to 15% of its pre-pandemic levels. Similar patronage drops were experienced across the country's light rail systems. As restrictions have been progressively relaxed patronage has recovered, but with setbacks as the spread of new Covid variants has required the introduction of new restrictions and guidelines.

5.7 The recovery of bus and light rail patronage has been set back by the spread of the Omicron variant and the restrictions and guidance introduced in response to this. Our assessment is that outside London, by Summer 2022 bus patronage will be around 85% of the levels seen at the end of January 2020. This is an average figure. In some places patronage will have recovered to a greater level than this and in others it will be less. We have not made projections for light rail patronage as the effect of the pandemic on the patronage and the recovery trajectory is unique to each system. Nonetheless, by Summer 2022 we expect light rail patronage to be still below pre-pandemic levels.

5.8 Government financial support has allowed bus and light rail services to be provided at close to pre-pandemic levels. However, there is currently no commitment to further financial support after the beginning of April 2022.

5.9 While bus and light rail operators are providing a comparable level of service that offered pre-pandemic, there have been upward pressures on operating costs, which include pandemic-related cleaning regimes, increased fuel costs and upward pressures on wages.

5.10 Once Government Covid-related financial support ceases at the beginning of April, bus and light rail operators will be faced with a position where their revenues are below pre-pandemic levels and their operating costs are similar, if not greater, than they were pre-pandemic. This position will not be financially sustainable.

5.11 Bus operators are likely to respond by cutting services and increasing fares. This would lead to further decline in bus patronage. An assessment using Urban Transport Group's Metropolitan Bus Model is that patronage could fall to as low as 70% of pre-Covid levels in metropolitan areas and the bus network measured by bus mile could be around three-quarters of its pre-pandemic size. The impact of reduced services and increased fares on bus patronage could be as big as the impact of the pandemic itself.

5.12 Light rail operators and their sponsoring local transport authorities have less ability to respond than bus operators, but without financial support they too will be under pressure to increase fares and pare back services where this is possible.

5.13 The findings of this work are stark: without further intervention there are likely to be further falls in bus patronage. Falling patronage would mean that the Government's *Bus Back Better* ambition, one shared by combined authorities, are unlikely to be met.

Options for Further Supporting Urban Public Transport's Recovery

5.14 If a further fall in public transport patronage is to be avoided there is a need for further Government support. Once the current tranche of funding support comes to an end, the pressure to reduce services and increase fares will be immediate. Only further Government financial support can stop a further fall in public transport patronage.

5.15 There are good reasons to avoid a further fall in public transport patronage:

- *Bus Back Better* sets out the Government's ambition to grow bus patronage from its pre-pandemic levels. Government has this ambition because of the economic, societal and environmental benefits that bus travel brings and it recognises that bus is a cost effective and value for money way of achieving these benefits. This objective is unlikely to be achieved if bus demand is allowed to fall further. It is more effective to spend now to keep bus travellers than it is to spend later to try to get them back.
- At the end of March 2022, bus patronage will not have yet achieved its new post-pandemic levels. Omicron restrictions have set backwards the bus recovery trajectory by at least eight weeks. Work by Professor Iain Docherty of the University of Stirling and Professor Greg Marsden of the University of Leeds have suggested that it could take "12 to 24 months or even longer" for post Covid travel patterns to become clear, a timescale that extends beyond the current Government financial support. [81] They call for the Government to have "strategic patience" to make "the right rather than the rapid decisions on adjusting support for public transport". On-going financial support to maintain service levels creates the opportunity for further recovery and avoids making rapid decisions that may have adverse long-term consequences.
- Capital investment in bus priorities to reduce journey times and improve punctuality will help maintain and grow patronage, as will investment in new buses and improvements to stops. Over the life of the current Parliament, Government has allocated £1.4bn for these types of activities. Across the country, local transport authorities are developing Enhanced Partnerships with their operators, one of the intentions of which is to coordinate public and private sector investment to the greatest effect, as well as bring about beneficial changes in the ways buses are operated. But each of these measures will take time to plan, implement and then for their impacts to be felt. Further revenue support will help maintain patronage levels while these supporting interventions are developed and implemented.
- In response to *Bus Back Better*, each local authority has developed a Bus Service Improvement Plan (BSIP). The intention is that these will be updated annually and provide the policy platform to support growth in bus patronage over the long to medium term. The first tranche of BSIPs were developed in mid-2021 when bus patronage was well below pre-pandemic levels. There was uncertainty about how towns and cities would recover. Many take what in essence is a 2019 pre-pandemic view. Further revenue support will create time for the next tranche of BSIPs to be developed and for these to be more attuned to a post-pandemic world.

5.16 Time is needed to allow bus patronage to recover further. Time will also be needed for local transport authorities to complete the development and implementation of Enhanced Partnerships with their operators, as well as develop their next BSIP in response to the emerging post-pandemic world and the settlement received from the first BSIP round. There is

[81] See: **COVID-19 will have a profound long-term impact on transport policy and travel patterns, but rapid change is less likely**

and

Marsden, G. and Docherty, I (2021) *Mega-disruptions and Policy Change: Lessons from the Mobility Sector in Response to the Covid-19 Pandemic in the UK*, Transport Policy 110 pp 86–97

a need for stability. We propose that a year would be an appropriate duration for a new regime of funding support.

5.17 Analysis using Urban Transport Group's Metropolitan Bus Model suggests that annual support of around £635m in total would be needed to maintain bus patronage at its Summer 2022 levels, of which in the region of £243m would be in metropolitan areas. Around £1.3bn would be needed to get bus patronage close to pre-pandemic levels, of which around £450m would be in metropolitan areas. These figures are upper-end projections because they do not assume that support is targeted to the best effect, rather that each existing financial support mechanism is increased equally. Also, the modelling suggests that to get back to pre-pandemic patronage levels would need an increase in bus miles, which the industry may not be able to deliver. What the projections do usefully do, however, is illustrate the scale of support needed. Since the start of the pandemic, Government's support to urban public transport averages at around £1bn per annum, so the level of annual support needed to stop further decline post March 2022 would be less than the level of support provided previously.

5.18 While the way the analysis has been undertaken has not sought to optimise the support package, given the immediacy of the need to provide further financial support the existing mechanisms available to Government provide the preferred route. This is because the machinery needed to give the support and for bus operators to claim it is already in place. The ways that Government can offer further support are:

- Bus Service Operators Grant (BSOG) – increase the rate of grant awarded per vehicle mile;
- English National Concessionary Travel Scheme (ENCTS) – increase the rate of reimbursement that operators receive;
- Supported services budgets – grant local transport authorities more money to buy further supported services;
- Covid Bus Recovery Grant – extend the scheme into FY 2022/23.

5.19 There would be a need to put in place further bespoke arrangements for each of the country's light rail services. Like bus, there needs to be a period to allow demand to recover and then adjust to a post-pandemic world, including determining what light rail's role will be supporting post-pandemic recovery. Like bus, we suggest a year would be an appropriate period for further financial support.

5.20 Further revenue support to urban public transport will naturally raise questions of the longer-term approach to how urban public transport is paid for and the balance between fare box revenue and public sector support. In English metropolitan areas, in 2018/19 40% of bus revenue was provided by BSOG, ENCTS and other concessions and through supported services budgets.[82] The rest was paid directly by passengers. There are questions of whether this support is directed to best effect. As part of *Bus Back Better*, Government has committed to reform BSOG including the devolution of BSOG to mayoral combined authorities and other local transport authorities that request it, but as yet no proposals have come forward.

5.21 It could well be that reform would allow financial support to be better directed. There may also be a case for greater support, for example explicitly to support the post-pandemic recovery of towns and cities, or to accelerate the decarbonisation of the public transport

[82] BUS0501

sector. Further financial support from April onwards will allow such considerations to take place in a timely and measured way and for interested parties to make their representations.

6 Conclusion & Recommendation

Conclusion

6.1 Covid has led to unprecedented impacts on the way we travel. The decision to 'lockdown' society and as part of that advise people not to travel by public transport led to a precipitous decline in use of buses, light rail and the national rail network. Within days of lockdown being announced at the end of March 2020, patronage dropped to a fraction of its pre-Covid levels. To keep public transport services operating, Government has had to step in and provide financial support for bus and light rail. Currently there is no provision for funding support beyond the beginning of April 2022.

6.2 Since the end of the first lockdown, public transport patronage has recovered towards pre-Covid levels but is still someway short. Our assessment is that outside London bus patronage could reach around 85% of January 2020 levels by Summer 2022, with a comparable recovery for light rail networks. Operators are providing services at similar levels to pre-Covid levels and there is upward pressure on operating costs due to the Covid cleaning regimes, higher fuel prices and wage inflation. With the planned cessation of Government Covid-related funding at the beginning of April, there will be a shortfall between revenue and operating costs. Most likely, operators will respond by increasing fares and cutting back services.

6.3 Cuts to services and fare increases will further supress patronage levels. There is potential for bus passenger numbers to fall to 70% of pre-Covid levels. This would happen quickly once funding ceases. Investment in new bus priority such as that which will be provided by Government to support Bus Service Improvement Plans, new buses and stop enhancements will each support patronage growth, but not of sufficient extent to reverse the downward trend. Also, it will take time for such interventions to be planned, implemented and have an effect. Further patronage falls will mean that Government's *Bus Back Better* goals to return bus patronage to pre-Covid levels and for there to be growth are unlikely to be met. Only on-going revenue support will halt further decline and offer the prospect to reverse the decline.

Recommendation

6.4 To stop the further decline in urban public transport patronage Government financial support should be extended for at least another year. Support needs to be provided for both bus and light rail services. The funding need is likely to be less than the average of each of the previous two years and there is the opportunity to target this to secure the best value for money.

6.5 Further funding would allow time for further recovery of demand. A 12-month extension would create the opportunity for Government to reform its approach to public transport funding such that its support after this period is used to the best effect. It would give local transport authorities time to get their Enhanced Partnerships in place and re-focus their Bus Service Improvement Plans to support post-pandemic recovery. It would allow time for there to be a debate about how in the medium to long term, the public sector supports public

transport provision with the goal of levelling-up and decarbonising the country's transport network and supporting other economic, social and environmental policy goals.

Appendices

A Metropolitan Bus Model

Introduction & Model Review

Introduction

A.1 This Appendix supports the analysis carried out in Chapter 4 of this report by describing Urban Transport Group's Metropolitan Bus Model (MBM), outlining the methodology followed and showing the outputs from the scenarios explored by Steer.

Model Review

A.2 The MBM is a model of bus patronage and bus services in metropolitan areas, namely the West Midlands, Merseyside, Greater Manchester, South Yorkshire, West Yorkshire and the Tyne and Wear conurbation. The model considers the impact of demand on supply, that is if demand falls then supply (route miles) falls such that revenue and costs (including profit) are balanced. Similarly, the model assesses the impact of increasing demand on supply. It allows the impact of measures to stimulate demand growth to be assessed. These include revenue support, as well as investment in capital projects. The model works at an aggregate rather than route level. While this is necessary to make the model tractable, it places limitations on the analysis that can be undertaken and it is a consideration when results are interpreted. A further consideration is the unit of time in the model is financial years, that is it describes the average position across a financial year. In reality, responses are likely to take place over shorter time horizons and there could be marked differences between the situation at the beginning of a financial year and at the end.

A.3 The analysis utilises the "UTG MBM v5.00", which was provided to Steer by UTG for use for this work. This model was originally prepared by WSP for the Urban Transport Group and has been modified to include updated values from TAG Databook v1.12 (published in May 2019).

A.4 Previously to support its submission to the Government's spending review UTG has modelled Covid-19 impacts by making the following assumptions:[83]

- Population was used a proxy for propensity to travel, dropping 50% and then rebounding for 2 years (77% and 17%), after which they are 2% above the non-Covid TAG forecast.
- GDP & employment drop 50% and then recover by 60% and 12.5%, settling at around 12% lower than the non-Covid TAG forecasts. Note Covid employment is not used in the model, the non-Covid OBR forecast is used.
- For long-term impacts of Covid (Covid inputs relative to non-Covid inputs), population is increased by 2% (with an elasticity of 1.00) whilst GDP is 12% lower (with an elasticity of 0.21).

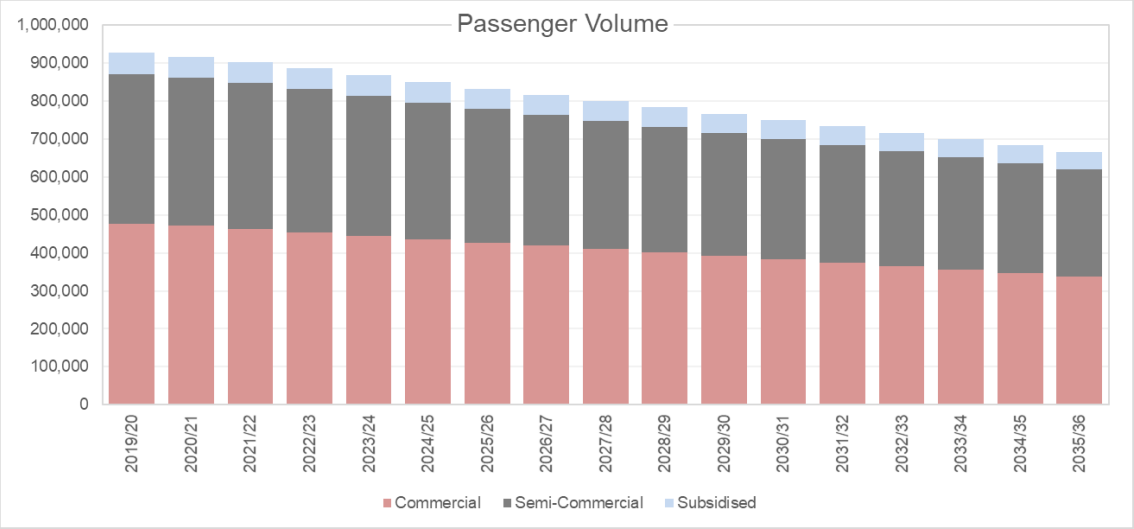
[83] Urban Transport Group (2021) **Submission to 2021 Comprehensive Spending Review**

- There is a significant (400%) increase in the supported budget for 2020/21, which then drops 10% and 77.9% to fall just below the base budget in real terms by 2023/24. This 400% increase is approximately a 60% increase in the total government contribution as there is a reduction in BSOG and concessionary reimbursement as demand is reduced.
- During Covid, operators reduce distance by 10% and increase fares by 10%, the largest changes they are able to make to both. This then rebounds with a 4.7% and 5.5% change to rebalance slightly as demand (population) picks up.

A.5 For this work, we have undertaken an alternative approach and this is set out below. Prior to testing a number of scenarios, the UTG MBM v5.00 model was reviewed updates were made to input parameters to reflect contemporary guidance. Other than these changes, it has been taken that the MBM is error-free and meets its intended purpose.

A.6 Figure A.1 shows passenger volume forecasts in a no-Covid baseline scenario. This is the baseline for our work. This baseline assumes no further investment in bus priority measures and no changes to the approaches to BSOG and ENCTS, and no change to supported services budgets. As can be seen, the MBM forecasts continued decline in bus patronage. .

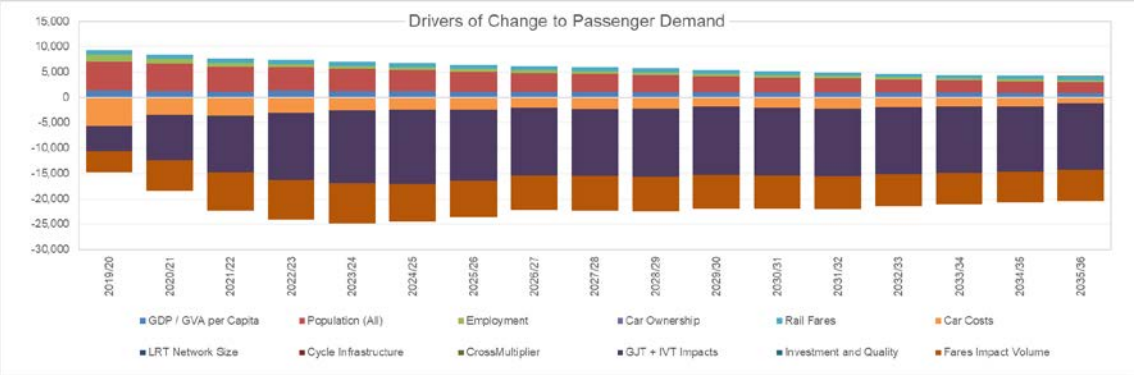
Figure A.1: UTG MBM v5.00– passenger volume forecast – updated inputs.



Source: UTG Metropolitan Bus Model v5.00 with updated inputs from TAG Databook v1.12.

A.7 Shown in Figure A.2 are the main drivers for change in the updated model in terms of drivers of generalised journey time (GJT) and impacts from fares. What can be seen from the figure is that the principal drivers of the downward trend are a reduction in service as demand falls ('GJT + IVT Impacts' on the graph) and the impact of increased fares ('Fare Impact Volume' on the graph).

Figure A.2: UTG MBM v5.00– drivers of change to passenger demand – updated inputs.



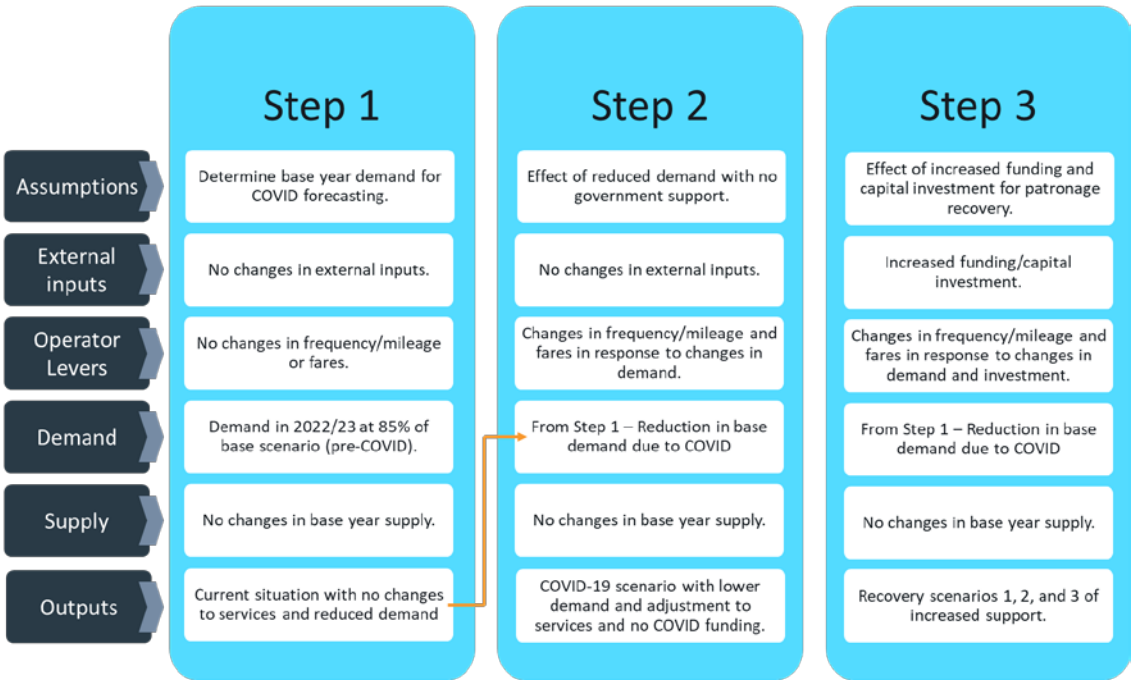
Source: UTG Metropolitan Bus Model v5.00 with updated inputs from TAG Databook v1.12.

Steer's Approach & Modelling Scenarios

Approach

6.6 After reviewing the versions of the provided model, a stepped approach was developed to model the impacts of the end of Government Covid-related funding post March 2022 as well as what could happen if further revenue and capital funding is provided for recovery post Covid. An outline of this approach is shown in Figure A.3 with a description of each step.

Figure A.3: Approach for estimating impacts post March 2022.



Source: Prepared by Steer, 2022

- **Step 1** considers a decrease in demand due to Covid-19 with no changes to the frequency/mileage or fares. Based on observed values to date, this decrease has been estimated at 15% in 2022 (i.e. 85% of the pre-Covid scenario). The aim of this step is to understand the current situation where there has been a significant decrease in demand without adjustments to the services. This step provides the demand for modelling step 2.

- **Step 2** allows the operator levers in the model to adjust frequency/mileage and fares in response to the impacts of reduced demand from Covid-19. This step assumes there is no additional funding and therefore patronage will further decrease as services are reduced and fares increased. Step 2 is used as the Covid-19 scenario with no government support.
- **Step 3** takes on from step 2 and explores the impacts that further government funding and capital investment may have as part of recovery efforts. There are a number of ways in which additional funding and capital investment can be provided and three recovery scenarios were proposed to explore impacts and compare to pre-Covid demand.

Scenarios

A.8 For the purpose of this analysis, a total of five scenarios were analysed, including the base scenario (pre Covid-19 – Step 1 above), the Covid-19 Scenario in which Government Covid-related funding is withdrawn post March 2022 (Step 2 above), and three recovery scenarios with additional funding and capital investment (Step 3 above). Each scenario is further detailed below.

Base Scenario (pre Covid-19)

A.9 The "UTG MBM v5.00" version of the model, with updated inputs outlined above, was used as the counterfactual scenario with no impacts from Covid-19. This scenario serves as the base to evaluate the impacts of the Covid-19 scenario and the three recovery scenarios.

Covid-19 Scenario

A.10 The Covid-19 scenario considers the impact of a reduction in demand and the planned cessation of Government Covid-related funding at the beginning of April 2022. This reduced demand and funding will lead to a response from operators in the form of increased fares and reduction in services. This in turn will further reduce patronage, contributing to the vicious circle of decline.

Recovery Scenario 1 – 50% Increase in Government Support

A.11 This recovery scenario considers a 50% increase in government support which is modelled through an equal percentage increase in BSOG, tender support and ENCTS. The model allows operators to respond by adjusting services and fares.

Recovery Scenario 2 – 100% Increase in Government Support

A.12 Similarly to Scenario 1, this recovery scenario considers a 100% increase in government support which is modelled through an equal percentage increase in BSOG, tender support and ENCTS. The model allows operators to respond by adjusting services and fares.

Recovery Scenario 3 – Increase in Capital Investment (5 mins per journey)

A.13 The increase in capital investment is modelled through an increase in the form of generalised time equivalent benefit. The proposed increase in capital investment has been modelled with a 5-minute reduction in journey time across all passenger trips.

A.14 The modelling results and analysis of scenarios is presented below.

Modelling Results & Conclusions

Modelling Results

A.15 The modelling results for passenger volumes are shown in Figure A.4, including the pre Covid-19 base scenario, the Covid-19 scenario with no government support and the three recovery scenarios with 50% and 100% increase in government support as well as increased capital investment.

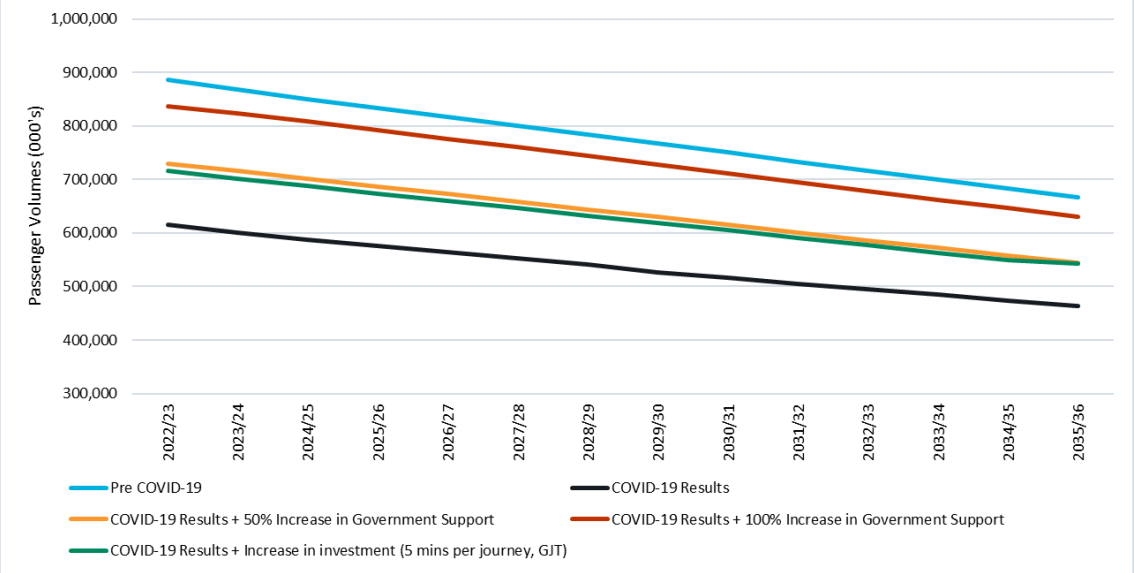
A.16 Results from the model show that the Covid-19 scenario has a 30% decrease in passenger volumes when compared to the base scenario (pre Covid- 19). This considers that government support is withdrawn after March 2022.

A.17 Passenger volumes in Recovery Scenario 1, with a 50% increase in government support, sees an 18% increase compared to Covid-19 levels but is still 18% below pre-Covid levels. Similarly, Recovery Scenario 3 – Increase in Capital Investment, sees demand increase by 16% from Covid-19 levels, which is 20% lower pre-Covid levels.

A.18 The greatest improvement was achieved by Recovery Scenario 2 with an 100% increase in government support, seeing volumes return to 95% of the base scenario, an increase of 36% from the Covid-19 scenario.

A.19 Although the three recovery scenarios show an increase from the Covid-19 situation, demand does not get back to pre-Covid-19 levels and all five scenarios see the decline in forecast demand.

Figure A.4: Passenger volumes forecasts by scenarios.



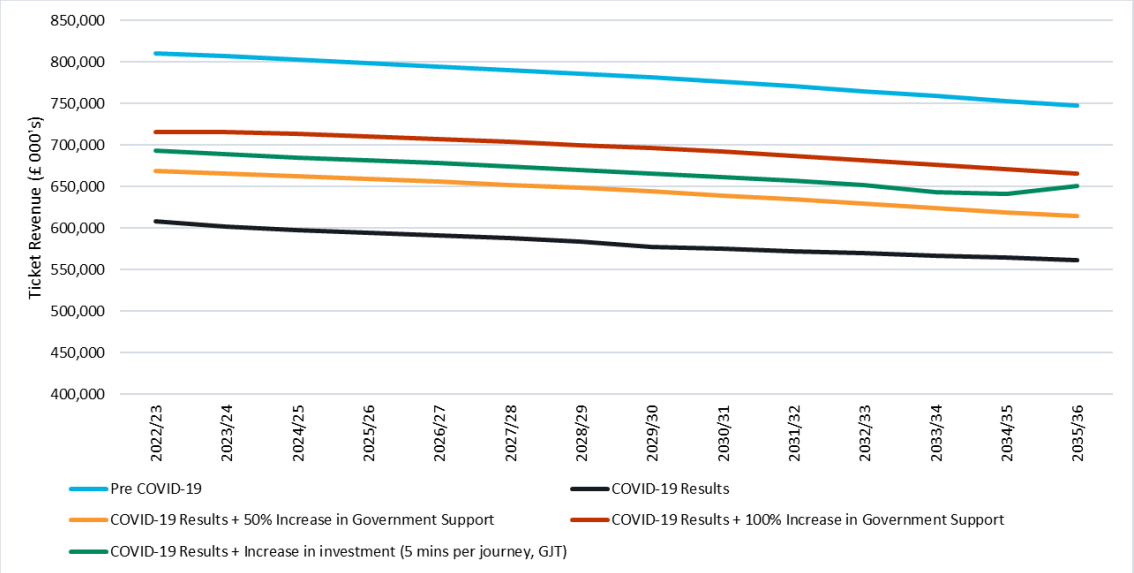
Source: Prepared by Steer with outputs from the UTG – Metropolitan Bus Model, 2022.

A.20 Impacts on ticket revenue follow a similar trend as passenger volumes. Figure A.5 shows the results for the five different scenarios, with the Covid-19 with no government support scenario seeing a significant decrease in revenues of 25% from the base scenario.

A.21 In terms of recovery scenarios, the best performing scenario is Recovery Scenario 2 – 100% increase of government support, increasing ticket revenues by 18%, followed by Recovery

Scenario 3 by 14% and Recovery Scenario 1 by 10%. These figures represent 82%, 85% and 88% of the base scenario, respectively.

Figure A.5: Ticket revenue forecasts by scenarios.



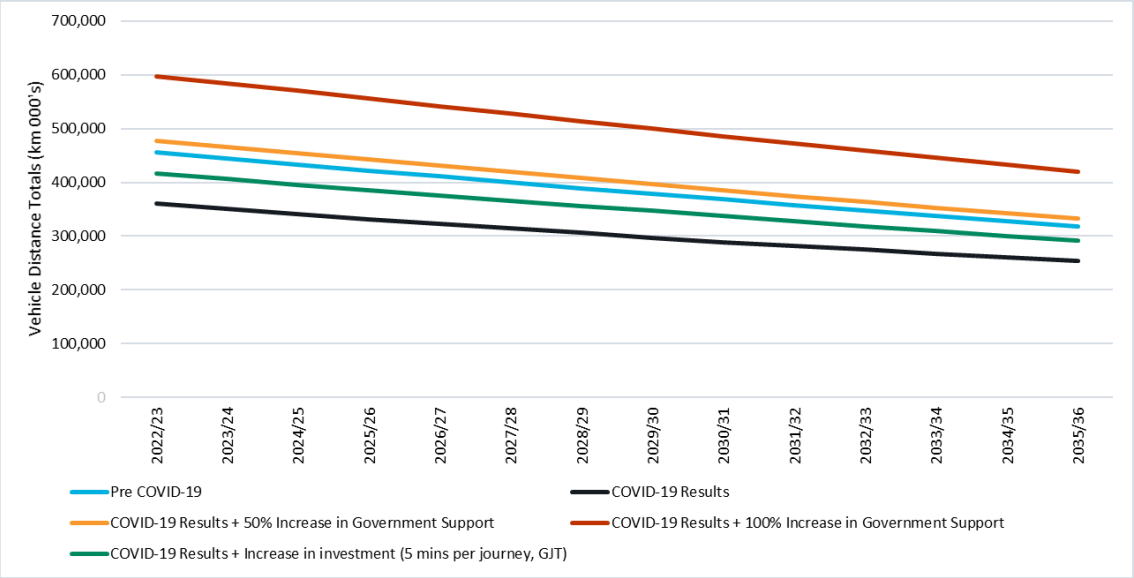
Source: Prepared by Steer with outputs from the UTG – Metropolitan Bus Model, 2022.

A.22 Figure A.6 shows the vehicle distance for each scenario. In contrast with the previous charts, Recovery Scenarios 1 & 2 are above the base pre-Covid-19 scenario by 5% and 30%, respectively. Although there is a significant increase in vehicle distances for these two scenarios, the passenger volumes still remain lower than the base scenario, as described in the previous paragraphs.

A.23 This effect can be contributed to the increase in government support which translates in operators being able to increase frequencies and therefore increase patronage. However, there is no improvement in overall service quality which would revert the bus patronage decline.

A.24 In contrast, Recovery Scenario 3 with increased capital investment sees the number of km reduced by 10% compared to the base scenario and still achieving an increase in demand.

Figure A.6: Vehicle distance forecasts by scenarios.



Source: Prepared by Steer with outputs from the UTG – Metropolitan Bus Model, 2022.

A.25 The change in vehicle distances by type of service, shown in Table A.1, for each of the scenarios, highlights the impacts that Covid-19 and the recovery options may have on the different services.

Table A.1: Analysis of vehicle distances by type of service and impact of scenarios

	Scenario	Vehicle distances in km. Commercial	Semi-Commercial	Subsidised	TOTAL
2019	**Base Scenario (pre Covid-19)**	146,774,322	281,304,919	58,017,757	486,096,998
April 2022	**Covid-19 Scenario**	105,170,352	199,473,109	56,040,933	360,684,394
	Compared to pre Covid-19	-28%	-29%	-3%	-26%
	Recovery Scenario 1 – 50% Increase in Government Support	134,870,271	258,146,978	84,061,400	477,078,649
	Compared to pre Covid-19	-8%	-8%	45%	-2%
	Compared to Covid-19	28%	29%	50%	32%
	Recovery Scenario 2 – 100% Increase in Government Support	164,878,959	320,670,614	112,081,866	597,631,439
	Compared to pre Covid-19	12%	14%	93%	23%
	Compared to Covid-19	57%	61%	100%	66%
	Recovery Scenario 3 – Increase in Capital Investment	125,987,761	235,171,922	56,040,933	417,200,616
	Compared to pre Covid-19	-14%	-16%	-3%	-14%
	Compared to Covid-19	20%	18%	0%	16%

Source: Prepared by Steer with outputs from the UTG – Metropolitan Bus Model, 2022.

A.26 When comparing the Covid-19 scenario when funding is withdrawn, the impact is more severely noticed in commercial and semi-commercial services, with a drop around 30% compared to pre Covid-19.

A.27 Recovery Scenario 1 partially counteracts this drop for commercial and semi-commercial services and significantly increases the number of kms for subsidised services. Overall, a 50% increase in government support allows for the total number of miles to be at similar levels of pre Covid-19 albeit with a change in the share between services.

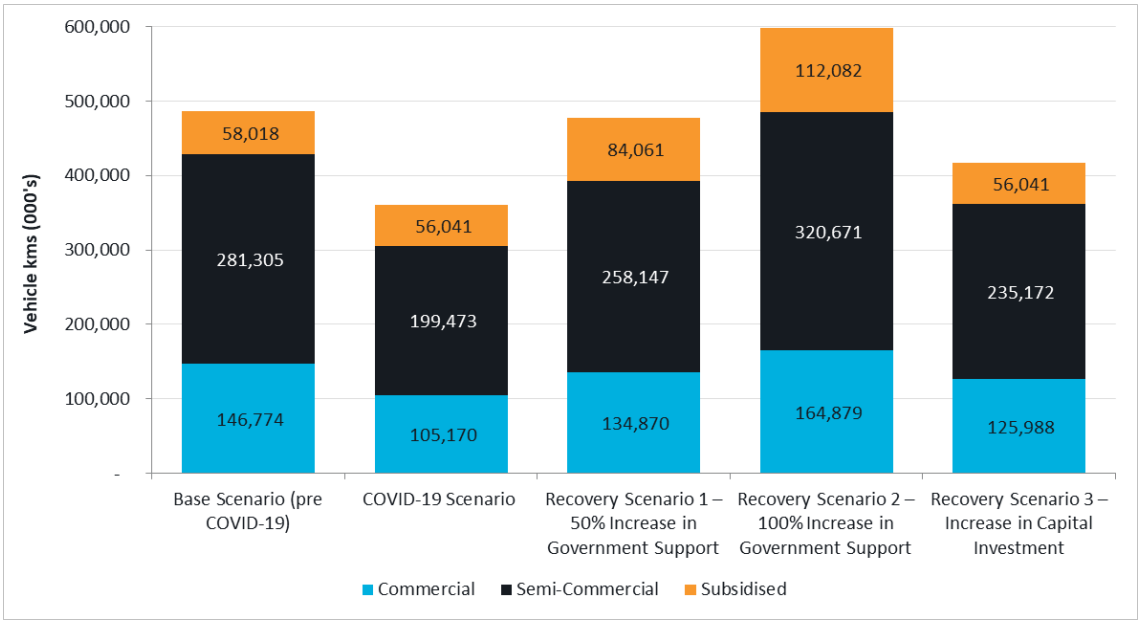
A.28 Recovery Scenario 2, with a 100% increase in government support, sees an increase in total kms of 23%. This increase is mainly driven by subsidised services which have double the number of kms than the pre Covid-19 scenario. Commercial and semi-commercial services also see an increase although much smaller in proportion.

A.29 The impacts of Scenarios 1 and 2 on vehicle kilometres is in part a function of the way additional support has been applied in the model.

A.30 Recovery Scenario 3 sees the number of subsidised services kms remain at similar levels as pre Covid-19. This is expected as funding is mainly targeted at improving commercial and semi-commercial services. However, considering capital investment which translates in a 5-minute GTE benefit, commercial and semi-commercial services remain around 15% lower than pre Covid-19.

A.31 Figure A.7 shows the change in vehicle kms driven by each scenario. Figures shown for Base Scenario consider the situation before Covid-19 (2018/19) and the figures for the rest of the scenarios are after March 2022 (2022/23), when current government support is due to end.

Figure A.7: Variation in vehicle distances by type of service and impact of scenarios.

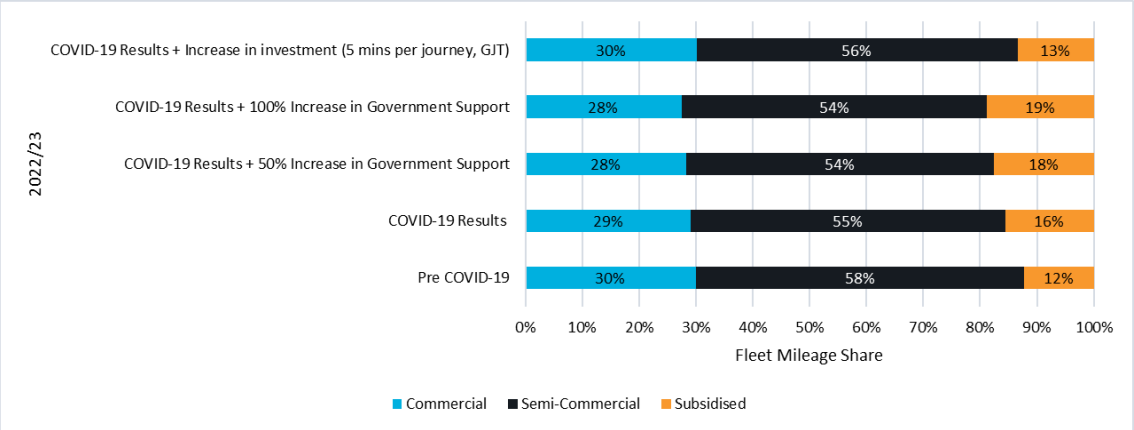


Source: Prepared by Steer with outputs from the UTG – Metropolitan Bus Model, 2022.

A.32 Finally, the analysis included the comparison of fleet mileage share for commercial, semi-commercial and subsidised services as shown in Figure A.8. This analysis also served as validation of the model runs to compare the impacts of Covid-19 and the three recovery scenarios as compared to the base scenario. Results show that, although there are variations

in the mileage share, there is a consistent distribution throughout the models, with the biggest share of semi-commercial services, followed by commercial and subsidised with the smallest proportion.[84] This result is a function of the way that public subsidy has been included in the model (i.e. equal percentage increases to all three sources of public support). Different ways of allocating support would give a different distribution of miles between the three service groups.

Figure A.8: Fleet mileage share in 2022/23 by scenarios.



Source: Prepared by Steer with outputs from the UTG – Metropolitan Bus Model, 2022.

Conclusions

A.33 Analysis using the MBM suggests that:

- A 50% increase in public sector support would allow post March 2022 patronage to be around 82% of pre-Covid levels.
- A 100% increase in public sector support would allow post March 2022 patronage to restore to levels similar to the counterfactual scenario at about 95%.
- An increase in capital investment equating to 5 minutes improvement of generalised time equivalent benefit per every passenger would allow post March 2022 patronage to restore to 80% of pre-Covid levels
- Ticket revenues in the recovery scenarios remain between 12% and 18% below pre-Covid levels.

[84] Note that in MBM the commercial and semi-commercial services are defined by their frequency as opposed to any analysis of revenues and costs.

Control Information

Prepared by

Steer
67 Albion Street
Leeds LS1 5AA
+44 113 389 6400
www.steergroup.com

Prepared for

Urban Transport Group
Wellington House
40-50 Wellington Street
Leeds
LS1 2DE

Steer project/proposal number

24181801

Client contract/project number

Author/originator

Neil Chadwick

Reviewer/approver

Other contributors

Tony Walmsley
Steve Hunter
Fernando Ardavin

Distribution

Client:

Steer:

Version control/issue number

Date

steergroup.com