URBAN TRANSPORT GROUP

Back the Bus to Level Up:

The case for bus revenue funding and reform of how it is provided

September 2021

Introduction

The Urban Transport Group is strongly supportive of the aspirations in the National Bus Strategy for more and better bus services.

However, in the context of driver shortages, the long shadow of the pandemic and the decline that was taking place nationally in bus use prior to the pandemic, it's important that there is a realistic assessment of the revenue funding that will be needed to support such an ambitious transformation.

It is equally important that the way in which this funding is provided achieves best value for public money and can be targeted in the most effective way locally given the hyper-local nature of bus services.

In this context this report:

- Reviews the overall case for revenue support for bus (part one).
- Uses our Metropolitan Bus Model to test different revenue funding scenarios for their impact on service levels, fares and patronage (part two).
- Makes the case for reform of the way in which revenue support for buses is provided (part three).

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Executive Summary

Public support for bus services represents excellent value for public money with the same pound of public subsidy achieving multiple public policy goals from cutting the costs of congestion to business to getting people off benefits and into employment.

In particular, public support for bus services **aligns closely with key overarching Government policy objectives for levelling up and for carbon reduction.**

The bus is intrinsically targeted at the people and places most in need of support to **level up** their access to opportunity, without resorting to complicated means-testing arrangements. This is because the people in places most in need are the same as those most likely to rely on the bus to get around, including young people, people on low incomes and jobseekers.

Low and zero emission buses **reduce carbon emissions** through modal shift from the car. The Government's Transport Decarbonisation Plan states that '*The scale of the challenge demands a step change in both the breadth and scale of ambition and we have a duty to act quickly and decisively to reduce emissions'* and the National Bus Strategy adds that *'buses are vital to ensuring the economy meets Net Zero carbon emissions'.*

However, **revenue funding for bus services was in decline pre-pandemic contributing to the wider decline of buses in the city regions** characterised by above inflation fares increases, network contraction and declining patronage.

Our Metropolitan Bus Model (the most sophisticated bus policy modelling tool currently available) shows that **if revenue funding were to remain at pre-pandemic levels then service levels and patronage would remain well below pre-pandemic levels. The objectives of the Government's national bus strategy would not be met and the decline of the urban bus would continue.**

The report also finds that the **additional £3bn transformational funding pledged for bus over three years (whilst welcome) will not be adequate in itself to meet the objectives of the bus strategy**. Although it is not yet clear how the funding will be allocated, **if it were to be divided equally** between capital and revenue, between each of the three years and between each of the eligible 79 local transport authorities **then the six largest city regions would each receive £6.3 million additional revenue funding per year.**

The Metropolitan Bus Model shows that if revenue support for bus services in the six largest city regions increases by between £1.7 billion and £2.3 billion a year above pre-pandemic levels, then bus networks could be significantly expanded to serve more places and to provide better services on existing

routes. **Fares could also be reduced**. **This in turn would drive growth in patronage of between 15 and 34 per cent by 2026/27.** This would meet key objectives of the national bus strategy.

The focus of this exercise has been primarily on revenue funding but the modelling also shows that **combining additional revenue funding with additional capital funding can be particularly effective in driving patronage growth as bus networks become more reliable and competitive with the car.**

The sums required to revitalise urban bus services are clearly substantial. However, it should be borne in mind that funding available for bus had been substantially reduced prior to the pandemic during the 'austerity' years. So, to some extent additional funding now would be returning fares and patronage levels to what they were relatively recently (depending on the scenario, fares would return to levels last seen between 2008 and 2014 and patronage to where it was between 1999/00 and 2008/09)

There are also wider choices to be made within the finite DfT budget which at present is dominated by long term commitments to improving links between urban areas rather than within urban areas. In particular, choices about the £27 billion National Road Programme which cannot match the environmental, social and economic benefits that supporting bus services can bring.

As well as a greater quantum of revenue support **there is also a need to reform the way that revenue support for bus is provided in order** to ensure that every pound spent represents best value for the taxpayer and is aligned with local circumstances and priorities.

Prior to the pandemic there were six main ways in which bus services were funded, overseen by different Government departments, with poor coordination between them and no consistent or coherent overall objectives. All of these funding formats had also been in decline pre-pandemic and the net result was the ongoing decline of the urban bus.

During the pandemic DfT took a patch and mend approach by adapting these existing funding streams and adding an additional COVID19-specific funding stream to create an overall funding system which is now even more complicated and opaque.

By routing the majority of the additional COVID19 funding directly to commercial operators, transport authorities were left unable to provide the best overall and integrated public transport networks for the places they serve during the crisis and at best value to the taxpayer.

Since the start of the pandemic, we have argued **that the opportunity should be taken to reform what was a failed system for funding the bus and move to**

consolidated and devolved funding which reflects the costs of achieving the objectives of the national bus strategy but allows city region transport authorities to target funding in the most effective way, consistent with local circumstances and aspirations.

The national bus strategy has transformed the context for bus funding by significantly raising aspirations for the sector and by giving Local Transport Authorities a key role in its local delivery. **The approach to bus funding has not kept pace with the transformation on national bus policy that has occurred.**

Now is the time for DfT to seriously address wider bus funding reform given recovery funding has been secured for the short term, giving DfT the opportunity to prepare for the introduction of wider bus funding reform in April 22. This is also the point at which the majority of the £3bn of transformational funding begins to be allocated; when Bus Service Improvement Plans are implemented; and when Enhanced Partnerships begin in most Local Transport Authority areas.

Part One: The case for public support for bus services

Ubiquitous, universal

More people use the bus than any other public transport mode. Pre-pandemic, over four and a half billion bus trips were made every year in Great Britain[1], over two and a half times the total number of rail passenger journeys[2].

Some 91% of people in England live within six minutes' walk of a bus stop[3] and 25% of people are frequent bus users, using services at least once a week[4]. There is the potential for many more people to become regular bus users, given that 79% of all trips of between two and under five miles are made by car, compared to 10% by bus[5].

High quality, convenient, accessible and affordable bus services benefit everyone, including non-bus users who benefit from the resulting reduced congestion, safer roads and improved air quality.

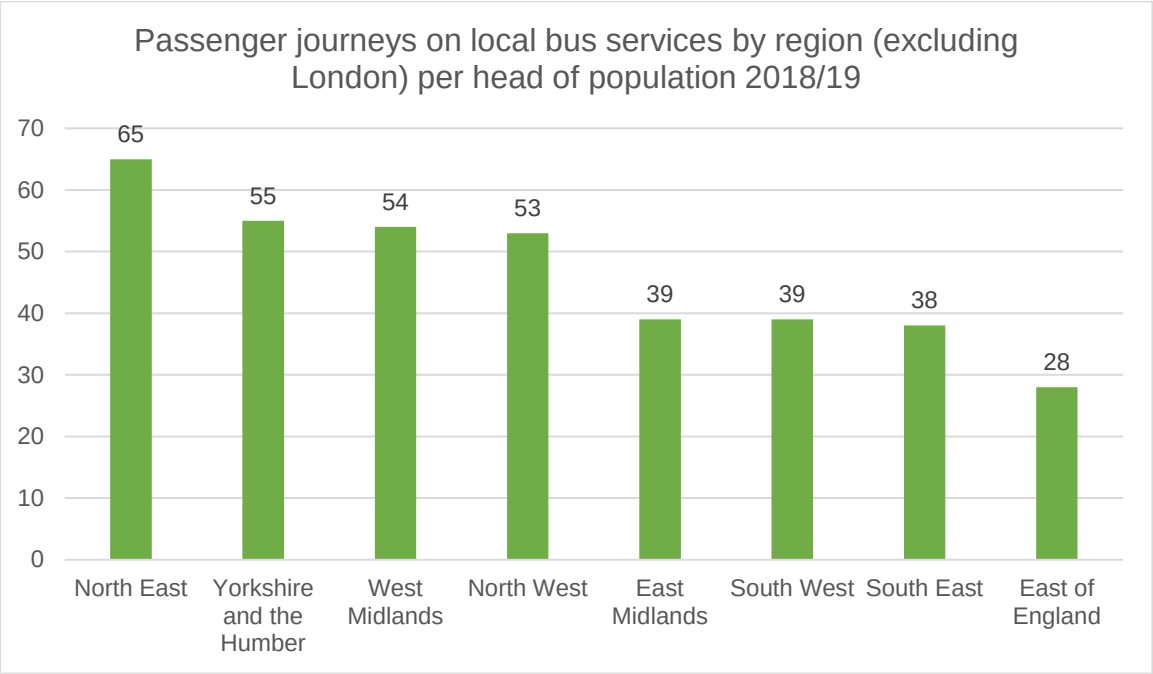
A tool for levelling-up

The Government has expressed its desire to level up opportunities across all parts of the UK. Central to levelling up is the need to address differences in productivity between regions as well as addressing disparities in access to opportunity between different people and places. The bus is a unique policy tool in that it is already set up to target the people and places most in need of levelling up.

Levelling up people and places

Bus use is highest in the regions of the country targeted as requiring support to level up. As the chart below shows, more than double the number of bus journeys are made in the North East, for example, compared to the East of England.

[1] DfT Bus Statistics Table BUS0101 2019-20
[2] ORR Passenger Rail Usage 2019-20
[3] DfT National Travel Survey Table NTS0801 2018
[4] DfT Annual bus statistics England 2019/20
[5] DfT National Travel Survey Table NTS 0308 2019



Furthermore, the bus is intrinsically targeted at the people most in need of support to level up their access to opportunity, without resorting to complicated means-testing arrangements. This is because the groups most in need are the same as those most likely to rely on the bus to get around, including young people, people on low incomes, jobseekers and people with other protected characteristics. For example, we know that:

- Nearly a quarter of all households have no car or van available, rising to 45% for those in the lowest real income quintile[6].
- People in households without access to a car make over four times as many local bus trips as those with car access[7]. Outside London, people in the lowest income quintile make three and a half times more trips on the bus each year than those in the highest quintile[8].
- Non-White adults are more likely than White adults to live in households with no car or van. Black/African/Caribbean/Black British adults are most likely to live in households with no car or van (39% of adults, compared to 17% of White adults)[9].

[6] DfT National Travel Survey Table NTS0703 2019
[7] DfT Annual bus statistics: England 2019/20
[8] DfT National Travel Survey Table NTS0705 2019
[9] DfT National Travel Survey Table NTS0707 2019

- 77% of jobseekers in British cities outside London do not have regular access to a car, van or motorbike[10]. This proportion rises to 87% for jobseekers aged 18-24.
- People employed in routine and manual occupations make more bus trips, and travel further on the bus, than those in managerial/professional or intermediate occupations[11].
- Women make more trips by bus than men, with the difference most marked outside of London[12].
- Outside London, young people aged 17-20 make more trips on local buses than any other age group[13].
- People with a disability are more likely to travel by bus than people without a disability[14].

Many of the groups who rely most on bus services – women, young people, certain black and minority ethnic groups and low-paid workers – correspond to those who have been hardest hit by the economic fallout of the pandemic. These groups have been more likely to have been made redundant, furloughed, on zero hours contracts or juggling caring responsibilities. Additionally, 17-20s have found their education and first steps onto the job market severely disrupted.

The bus will be vital in supporting the participation of these groups in the wider recovery effort and levelling up their access to opportunity. Without it, many would simply be unable to access work and education or would be significantly limited in their choices.

Research among over 900 jobseekers in British cities outside London, for example, found that over 60% felt that they would have less chance of finding a job without bus services[15].

In 2020, assessing progress since his seminal 2010 review of health inequalities in England, Sir Michael Marmot found that *'The government's prioritisation of road and train travel over buses has widened inequalities in access to essential services, employment and social interactions. Current travel policies benefit those on higher incomes, as those on lower incomes tend to travel more on buses.'*[16] The recent £3

[10] Institute for Transport Studies (2013) Buses and the Economy II: Survey of bus use amongst the unemployed
[11] DfT National Travel Survey Table NTS0707 2019
[12] DfT National Travel Survey Table NTS0601 2019
[13] DfT National Travel Survey Table NTS0601 2019
[14] DfT (2017) Disabled people's travel behaviour and attitudes to travel
[15] Institute for Transport Studies (2013) Buses and the Economy II: Survey of bus use amongst the unemployed
[16] Institute of Health Equity (2020) Health Equity in England: The Marmot Review 10 years on – Executive Summary

billion commitment to investment in bus[17], whilst welcome, still pales in comparison to the £27.4 billion commitment to the national road programme[18].

We also know that many of the groups who rely most on the bus pay a disproportionate price for the car dependence of society more widely. Despite being the least likely to use a car and the least travelled, they are the most 'travelled upon'.

For example, children from the lowest income groups are up to 28 times more likely to be killed on the roads than those from the highest income groups[19]. Furthermore, a recent study by the University of the West of England found that young children, young adults, and households in poverty have the highest levels of exposure to air pollution whilst richer households are less exposed but more responsible for creating the problem[20]. This disparity was found to stem from richer households having higher vehicle ownership, owning more diesel vehicles and driving further.

Investing in congestion-busting measures, like bus services, in these communities would help to redress the balance as well as entice people from their cars, avoiding an uneven, car-led recovery.

The bus is fine-tuned to address these kinds of disparities and level up the places and people who need it most.

Levelling-up productivity

Cost-benefit analysis by KPMG shows that every £1 invested in bus generates £4.48 in benefits[21]. Economic benefits account for the largest proportion of these, particularly improved labour market accessibility. In total, around half of the benefits go to bus users and half to the wider community through decongestion, safety and clean air benefits as well as increased access to opportunity. DfT analysis of 33 major bus schemes yielded similar returns, with an average benefit-cost ratio of 4.2[22].

The bus can play a key role in boosting productivity by connecting people and businesses to opportunities and resources, reducing congestion and by directly generating jobs and UK exports.

Connecting people and businesses to opportunities and resources

The bus provides a flexible, responsive means of rapidly opening up access to labour markets and, in so doing, increases the effective density of a given area,

[17] https://www.gov.uk/government/news/prime-minister-launches-3-billion-bus-revolution
[18] https://www.gov.uk/government/news/27billion-roads-investment-to-support-64000-jobs
[19] http://www.sd-commission.org.uk/data/files/publications/fairness_car_dependant.pdf
[20] https://www.sciencedirect.com/science/article/pii/S1361920919300392#!
[21] KPMG (2020) Maximising the benefits of local bus services https://www.cpt-uk.org/media/oo5kczge/greener-journeys-maximising-the-benefits-of-local-bus-services.pdf
[22] DfT (2016) Value for Money Assessment for Major Bus-related schemes

bringing more jobs, workers and customers within reach of each other and boosting agglomeration effects.

The bus is vital for getting people to work, 22% of bus trips are for commuting purposes, compared to 14% of car or van trips[23]. Some 400,000 workers are in better, more productive jobs as a direct result of the bus, producing an economic output of £400 million per annum[24]. If buses were not available, one in ten commuters would be forced to look for another job or give up work altogether[25]. In a survey of businesses, over half considered the bus to have a role in employee recruitment and retention[26].

Also important for levelling-up on productivity are the many 'non-work' trips that the bus enables – trips to care for relatives; escort children to school or childcare; shop; access education; or visit the doctors. All of these journeys play a vital role in supporting the functioning of the economy, which is underpinned by vast amounts of unpaid, and often unseen, care work. Work that tends to be undertaken by women who, in turn, are more likely to rely on the bus.

Reducing congestion

Each full double decker bus can take up to 75 cars off the road, helping to cut congestion and further boost economic growth. The 2019 Global Traffic Scorecard analysed the severity of congestion across the UK's top 102 urban areas[27]. It found that congestion cost the country £6.9 billion in 2019, or £894 per driver. The average person spent 115 hours stuck in traffic that year. The Cabinet Office estimated the cost of congestion in urban areas to be higher still, at £11bn per year[28].

As we emerge from the pandemic, car travel is recovering at a faster rate than any other motorised non-commercial mode. During June and July 2021, car travel has been close to or over 100% of its level in the equivalent pre-pandemic period whilst bus has typically hovered around 60% of pre-pandemic usage[29]. The Government's Bus Strategy recognises that buses 'are the quickest, easiest and cheapest way' to avoid the worst effects of a car-led recovery[30].

Investment in bus services will be critical to ensure city centres, where the most productive jobs cluster, remain accessible and are able to grow, without being choked by congestion. The delays and unreliability caused by congestion add to the

[23] DfT National Travel Survey Table NTS0409 2019
[24] Institute for Transport Studies (2012) Buses and Economic Growth
[25] Institute for Transport Studies (2012) Buses and Economic Growth
[26] Institute for Transport Studies (2012) Buses and Economic Growth
[27] https://inrix.com/press-releases/2019-traffic-scorecard-uk/
[28] Cabinet Office (2009) The wider costs of transport in urban areas
[29] DfT Transport use during the coronavirus pandemic statistics 2021 https://www.gov.uk/government/statistics/transport-use-during-the-coronavirus-covid-19-pandemic
[30] DfT (2021) Bus Back Better: National Bus Strategy for England

end cost of consumer products, reduce the productivity of businesses and employees and therefore restrict their ability to innovate and access new markets and resources.

By removing cars from the road and through bus priority measures, the bus can reduce congestion, stimulating productivity, agglomeration economies and growth. The bus can break the link between congestion and growth by widening the catchment areas of economic centres, making more land available for development and unlocking further space to grow.

Directly generating jobs and exports

Support for bus services also contributes directly to job creation. Over 116,000 people are employed by local bus operators[31], with many more employed in bus manufacturing and other related areas. Unlike many parts of the economy, the bus is largely local in nature. Drivers and maintenance staff tend to live near their place of work and their jobs cannot easily be moved to a different region, let alone a different country.

The UK has also developed considerable expertise in bus manufacturing and there are several companies making buses in the UK, each enjoying a strong international reputation - Alexander Dennis (manufacturing sites in Falkirk, Scarborough and Guildford), Optare (Sherburn-in-Elmet) and Wrightbus (Ballymena).

All export their vehicles across the globe and excel in green innovation. Alexander Dennis has bought the largest range of low and zero emission buses to market[32], Optare vehicles utilise lightweight engineering to increase efficiency and Wrightbus developed the world's first zero-emissions double deck hydrogen bus

Buses need to be replaced every 10-15 years, usually generating a steady stream of orders for around 4,000 new buses every year[33]. However, the sector has been badly hit by the fall in demand triggered by the pandemic with new bus and coach orders down 58.5% for the first quarter of 2021[34]. Fast-tracking investment in bus would give this important industry a much needed shot in the arm.

The role of the bus in tackling the climate emergency

The climate emergency is moving closer to home, with the UK increasingly experiencing more extreme weather conditions, from heatwaves to flooding. The Government's Transport Decarbonisation Plan states that '*The scale of the*

[31] DfT Bus Statistics Table BUS0702 2020
[32] https://www.alexander-dennis.com/about-us/who-we-are/
[33] https://www.smmt.co.uk/2021/05/uk-bus-and-coach-market-plunges-further-with-just-582-vehicles-registered-in-first-quarter/
[34] https://www.smmt.co.uk/2021/05/uk-bus-and-coach-market-plunges-further-with-just-582-vehicles-registered-in-first-quarter/

challenge demands a step change in both the breadth and scale of ambition and we have a duty to act quickly and decisively to reduce emissions'. The Government has also said that as part of its plan for achieving this, public transport and active travel will need to be the natural first choice for daily activities.

The Government is right to recognise that the time for tinkering around the edges has passed – incremental policy change is no longer enough. The National Bus Strategy adds that *'buses are vital to ensuring the economy meets Net Zero carbon emissions'.* The climate emergency demands a substantial swing away from the car, which remains the dominant transport mode for everyday journeys. To achieve this, there will need to be significant long term capital investment and revenue support for public transport, as well as for active travel.

For the bus, this should include accelerating the decarbonisation of the fleet; ensuring the bus network consistently provides a reliable, convenient and affordable service that makes sense to passengers; investing in behaviour change initiatives; and strengthening the resilience of bus infrastructure to climate change.

The National Bus Strategy commits the Government to support the purchase of at least 4,000 new zero emission buses. Whilst very welcome, this still only covers around a tenth of the fleet. Furthermore, the value of investing in a zero-emission bus fleet is significantly reduced if people continue to find the car a more attractive and convenient option for their everyday journeys. Investment in the fleet must be combined with measures to attract car users and increase bus patronage, which, outside London, has been in long-term decline, with the pandemic serving to exacerbate this.

Transport remains the largest emitting sector of domestic greenhouse gases[35], with cars and taxis emitting the majority (55%) of domestic emissions within the sector (the bus emits 3%)[36]. 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 two million tonnes of CO_2[37].

The average petrol car in the UK produces the equivalent of 180g of CO_2 per kilometre, compared to 82g for the average local bus (with the potential to reduce this still further with wider uptake of zero emission technology). The average electric car produces 60g of CO_2 per kilometre but takes up more space per passenger on the road, contributing to congestion. Congested conditions dramatically increase emissions from surrounding traffic as well as serving to hamper economic growth and productivity. A green traffic jam is still a traffic jam.

[35] DfT (2020) Transport Statistics Great Britain 2020
[36] DfT (2020) Transport Statistics Great Britain 2020
[37] https://www.newstatesman.com/transport/2012/02/emissions-car-bus-climate

Buses reduce congestion by making more efficient use of road space. The average car is under occupied, typically carrying 1.6 persons per trip[38]. One fully loaded double decker bus can carry around 120 passengers and so has the potential to remove up to 75 cars from the road, reducing emissions and smoothing traffic flow.

The potential of the bus to contribute to CO_2 reduction is greatest in urban areas[39] where passenger numbers per bus are likely to be higher and where congestion, parking problems and other disadvantages of the car most acute.

Research has found that the best used bus services in major urban centres may be reducing carbon emissions from road transport by 75% or more, if the emissions from bus operations are compared with those that bus passengers would generate if they used cars instead[40].

The flexibility of the bus means that enhancements to services and infrastructure can be made rapidly and at relatively low cost, achieving climate benefits almost immediately.

The role of the bus in improving public health

Transport is among the key factors determining whether a person leads a healthy lifestyle. Walking, cycling and public transport offer an alternative to the sedentary lifestyles that cars encourage. They are also among the cheapest, most accessible ways of encouraging physical activity. It is something that people can easily incorporate into their daily routines, making it more likely that they will keep up the habit.

The role of the bus in promoting physical activity can often go unrecognised, however, walking to the bus stop gets people moving in a way in a way that taking two steps to the car in the drive cannot. The bus does not usually provide a door-to-door service, meaning that a walking or cycling trip at either end will normally be required.

An American study[41] found that people who use public transport spend a median of 19 minutes daily walking to and from public transport. Some 29% of people achieved the required 30 minutes or more daily physical activity solely by walking to and from public transport. People in low income households, minority groups and high-density

[38] DfT National Travel Survey Table NTS0905 2019
[39] David Simmonds Consultancy for Greener Journeys (2012) What is the environmental value of investment to increase use of buses?
[40] David Simmonds Consultancy for Greener Journeys (2012) What is the environmental value of investment to increase use of buses?
[41] Besser, L.M. and Dannenberg, A.L. (2005) 'Walking to Public Transit: Steps to help meet physical activity recommendations' in American Journal of Preventative Medicine 29 (4) pp. 273-280.

urban areas were particularly likely to spend 30 minutes or more walking to and from public transport.

Similar results have been observed in the UK. A study by Mindlab[42] found that walking as part of a return trip by bus provided up to half the recommended daily level of exercise. Study participants walked an average of 1.3km (taking around 15 minutes) when taking a return journey by bus, 2.5 times more than when taking the same journey by car.

Research has also been conducted into the impact free bus travel has on levels of physical activity with the results showing that it results in more trips and more active travel:

- Research by Imperial College London[43] found that older people with a free bus pass are more likely to walk frequently and take more 'active travel' journeys.
- A longitudinal study[44] of 9,000 people in England found that free bus passes for older people had increased their public transport use and that older people who used public transport had reduced odds of being obese compared with those who did not. It found that those who used public transport, or took advantage of free bus travel, were 25% less likely to be obese in 2008 than those who did not.
- Research into the health impacts of free bus travel for young people in London found that it generated extra walking journeys that otherwise either would not have been undertaken, or would have been taken as a car passenger[45].

As well as promoting active travel in itself, the bus also connects people to health promoting activities and places, from sports and leisure clubs to supermarkets stocking a wide range of cheap, healthy food. In some transport authorities, bus tickets and smartcards act as discount vouchers to incentivise the use of sports and leisure facilities. Affordable and available bus services help to equalise access to these health promoting activities and places.

[42] Research commissioned by Greener Journeys and conducted by Dr David Lewis of Mindlab International (2011)
[43] Coronini-Cronberg, S. et al (2012) The impact of free older persons' bus pass on active travel and regular walking in England
[44] Webb, E., Netuveli, G. and Millett, C. (2011) Free bus passes, use of public transport and obesity among older people in England
[45] Jones, A., Steinbach, R., Roberts, H., Goodman, A. and Green, J. (2012) Rethinking passive transport: bus fare exemptions and young people's wellbeing.

Part Two: Modelling the outcomes from different revenue support scenarios for bus

UTG commissioned and maintains the most sophisticated modelling tool available for analysing the impact of different policies on bus services and usage.

We have used the model to undertake a number of different scenarios based on the impacts of different levels of revenue support for an aggregate of the six largest city regions outside London (the Metropolitan areas of West Yorkshire, South Yorkshire, Greater Manchester, West Midlands, Tyne and Wear and Liverpool City Region).

For the purposes of this exercise we have:

- Assumed that motoring costs are broadly stable.
- Made assumptions about what levels of patronage are likely to be for the remaining stages of the pandemic and its immediate aftermath.
- Used franchising as the delivery model as it produces more predictable (and better) outcomes per extra pound of revenue support provided.
- Used 2022/23 as the start year and simulated what could be achieved over a five-year period (a time period equivalent to that used by Government to fund national rail and road).

We have modelled four different scenarios against a base scenario. The base scenario assumes that pre-pandemic levels of bus revenue support in the Metropolitan areas are maintained for each of the five years. This is a total of £521 million per year comprising support for the English National Concessionary Travel Scheme, support for non-commercial services and Bus Service Operators Grant (fuel duty rebate).

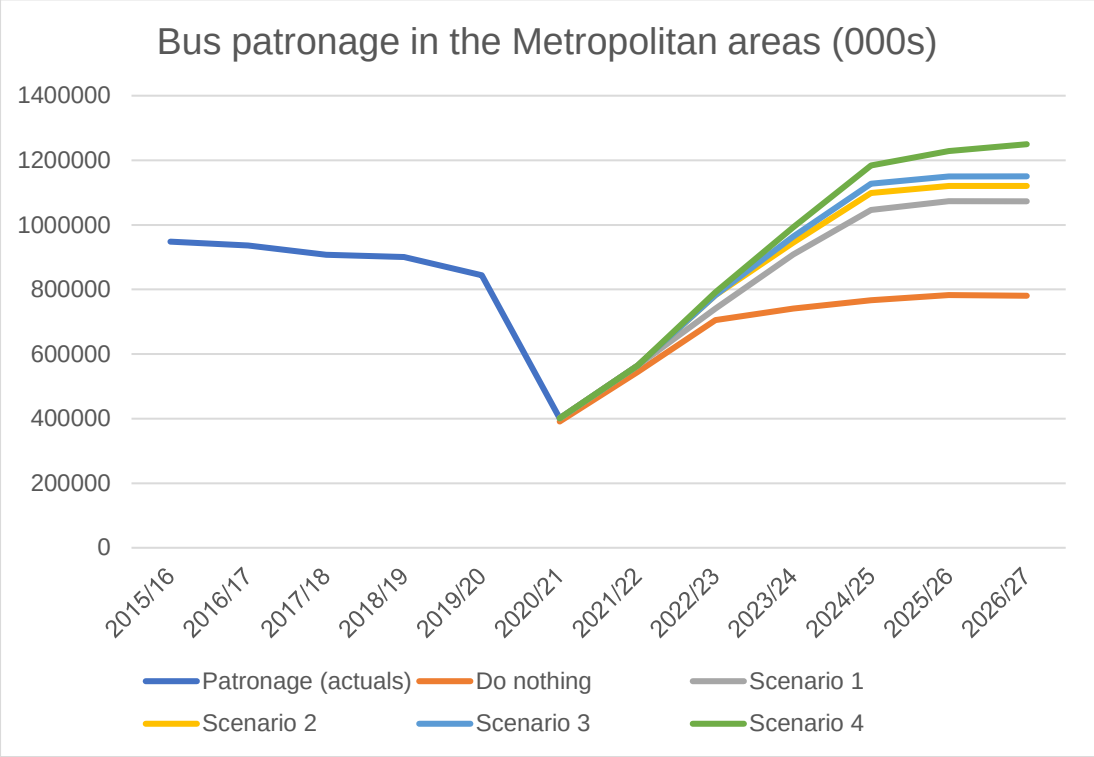
The four other scenarios are based on different levels of additional funding on top of the £521 million per year and different choices about how the funding is used in relation to reducing fares and increasing service levels.

Full results can be found at annex one but, in summary, the model found that:

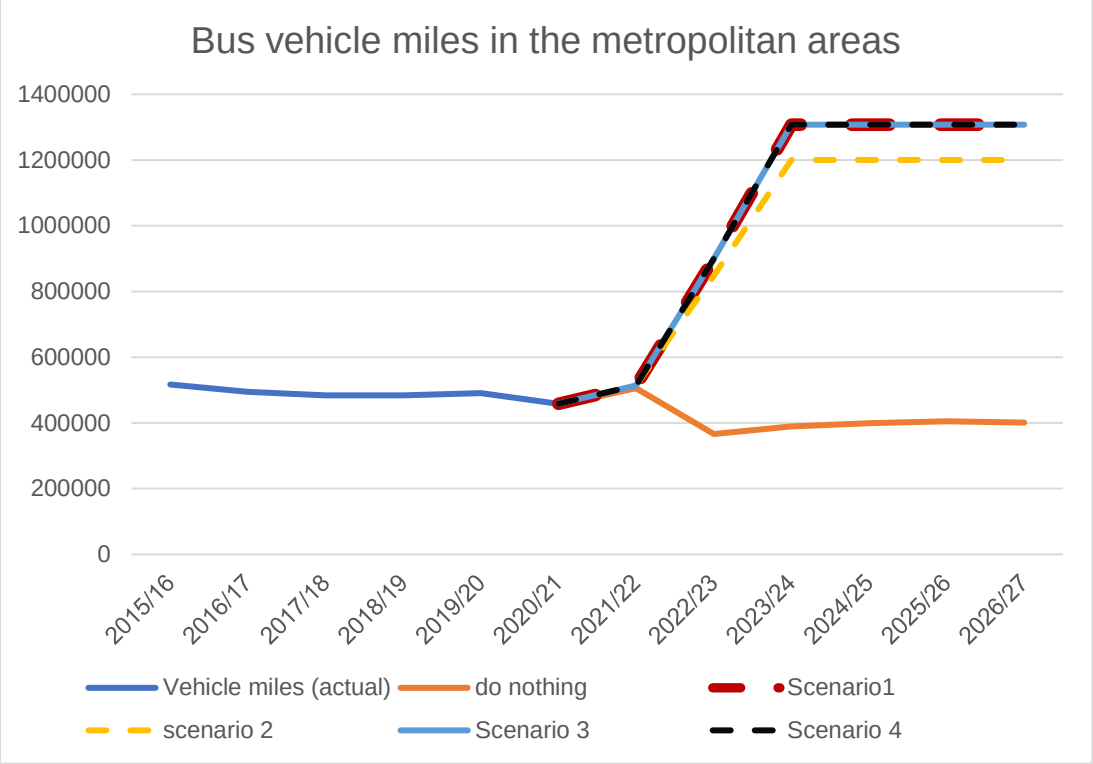
- Under the **Base Scenario** (continuing at pre-pandemic rates of revenue support - £521 million a year) patronage and service levels remain well below pre-pandemic levels with patronage 21% below pre-pandemic levels and vehicle kilometres 18% below pre-pandemic levels by 2026/27.
- Under **Scenario One**, costing £2.2 billion more per year than pre-pandemic levels of funding, vehicle kilometres could be increased by 165%, and fares reduced by 10% from 2024/5 (compared with 2019/20). Patronage would grow over the period from 740 million in the first year of additional spending to 1,073 million in the fifth year of additional spending (15% higher than pre-pandemic levels).

- Under **Scenario Two**, costing £2 billion more per year than pre-pandemic funding levels, vehicle kilometres could be increased by 145%, and fares reduced by 20%, from 2024/5 (compared with 2019/20). Patronage would grow over the period from 781 million in the first year of additional spending to 1,120 million in the fifth year of additional spending (20% higher than pre-pandemic levels).
- Under **Scenario Three**, costing £2.3 billion more per year than pre-pandemic funding levels, vehicle kilometres could be increased by 165%, and fares reduced by 20%, from 2024/5 (compared with 2019/20). Patronage would grow from 781 million in the first year of additional spending to 1,149 million in the fifth year of additional spending (21% higher than pre-pandemic levels).
- Under **Scenario Four**, we also included an element of additional capital funding (£164 million per year) which would improve the competitiveness of bus services through measures like bus priority. We did this to show the impacts of combining revenue and capital funding. Under this scenario the initial cost would be £2 billion a year more than pre-pandemic levels with the cost falling to £1.7 billion a year more than pre-pandemic levels at the end of the five years. Alongside the capital spend, the additional revenue spend would see vehicle kilometres increase by 165%, and fares reduced by 20%, by 2024/5. Patronage would grow from 791 million in the first year of additional spending to 1,249 million in the fifth year of additional spending (31% higher than pre-pandemic levels).

The chart below shows the impact on bus patronage of each scenario.



The chart below shows the impact of each scenario on vehicle kilometres.



The modelling exercise shows that:

- Neither patronage nor the extent of bus networks will recover to pre-pandemic levels without additional revenue support post April 2022. The ambitions of the National Bus Strategy would not be met.
- If revenue support was increased by between £1.7 billion and £2.3 billion above pre-pandemic levels then bus networks could be significantly expanded to serve more places and to provide better services on existing routes. Fares could also be reduced. This in turn would drive growth in patronage of between 15 and 34 per cent by 2026/27. This would meet key objectives of the National Bus Strategy.
- The focus of this exercise has been primarily on revenue funding, but the modelling also shows that combining additional revenue funding with additional capital funding can be particularly effective in driving patronage growth as bus networks become more reliable and competitive compared to the car.
- The sums required to revitalise urban bus services are clearly substantial. However, it should be borne in mind that funding available for bus had been substantially reduced prior to the pandemic during the 'austerity' years (we set this out in more detail in part three). In addition, bus services in the Metropolitan areas had been in long-term decline with patronage falling, networks contracting and fares increasing above the level of inflation. So, to some extent, the scenarios are about returning spending on bus to levels capable of reversing this decline and restoring bus networks to where they were before. For example, in the Metropolitan areas, the scenarios modelled would return fares to levels last seen between 2008 and 2014 (depending on the scenario). They would also return patronage levels to where they were in the Met areas between 1999/00 and 2008/09 depending on the scenario.

Part three: The case for bus revenue funding reform

Bus funding pre-pandemic…and how it was cut

The pre-pandemic public funding streams for buses are still in essence in place.

However, pre-pandemic all these funding streams had been negatively affected by funding cutbacks by national Government.

We summarise the six sources of public funding (and the effects of spending cutbacks pre-pandemic) for bus below.

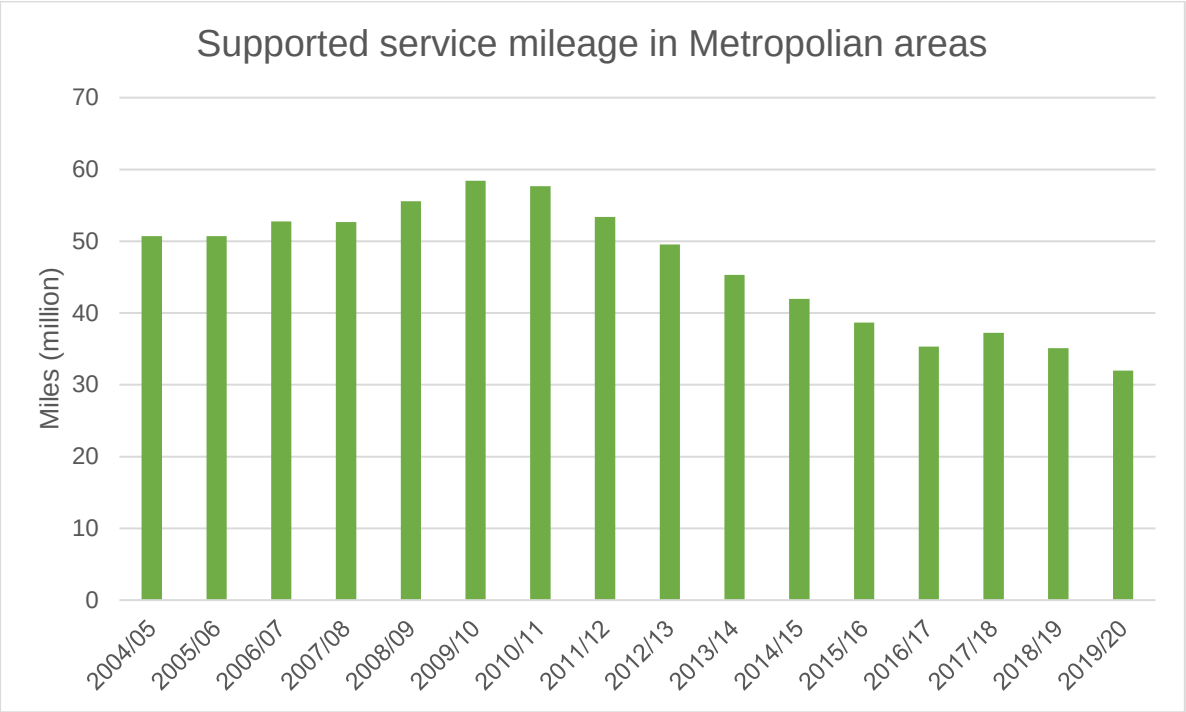
1. Local Transport Authority (LTA) funding of non-commercial, socially necessary bus services ('tendered' or 'supported' services)

LTAs are permitted to step in to support bus services where no commercial service has been provided but where a need exists (for example, unprofitable off-peak services or services to rural areas and isolated housing estates). Pre-pandemic these 'socially necessary' services (also known as 'tendered' or 'supported' services) made up around 15% of the network in the Metropolitan areas.

Impact of public spending cuts

Because of cuts in wider local government funding from the Ministry of Housing, Communities & Local Government (MHCLG), many LTAs had to reduce their budgets for supported bus services.

The chart below shows the reduction in supported service mileage in the Metropolitan areas between 2004/5 and 2019/20. Over the period, supported service mileage fell from a peak of 58 million miles 2009/10 down to 32 million miles by 2019/20.



2. LTA funding of concessionary fare schemes

This includes the Government's English National Concessionary Travel Scheme (ENCTS) for older and disabled people, as well as discretionary spending on enhancements to that scheme and on concessions for other groups like children, young people and jobseekers.

Although it is LTAs who have the statutory responsibility for reimbursing bus operators for the cost of ENCTS, this is a national policy, which is meant to be funded through MHCLG's general purpose grant to Local Authorities.

Pre-pandemic the annual cost of the ENCTS (outside London) was estimated at around £764 million.

Impact of public spending cuts

Unfortunately, MHCLG funding has not kept pace with the rising costs of the ENCTS. Whilst funding previously covered expenditure on ENCTS, it was reduced to the extent that it covered less than half of total expenditure, with the remaining costs having to be met by Local Authorities. There is an additional challenge in the city regions as the MHCLG funding (including the nominal allocation for the cost of ENCTS) goes to the District Councils in a city region, rather than the city region-wide transport authority (which have the responsibility for reimbursing operators for the cost of the scheme).

This shortfall had to be bridged by making cuts to other transport services, such as subsidised bus routes, accessible transport or concessions available to other groups.

In some Shire areas, the shortfall in concessionary funding was credited with wiping out the whole of the subsidised network, leaving many elderly and disabled people with a free bus pass but no services to use it on.

3. Government funding of the Bus Service Operators Grant (BSOG)

BSOG is a rebate on fuel duty for bus operators for commercial services and for LTAs for supported services.

BSOG funding for England outside of London amounted to £246 million in 2019/20.

Impact of public spending cuts

The Government reduced the BSOG funding pot by 20% in 2012/13 compared to the previous year and then by a further 15% in 2013/14. After that, BSOG funding remained broadly stable, but was around £15 million lower in 2019/20 than it was in 2014/15. This is likely to have put pressure on the commercial viability of services, resulting in bus service reductions and/or withdrawals and upwards pressure on fares.

BSOG is also paid to LTAs for tendered services. Reductions in BSOG have meant less funding is available to support these socially necessary services. On top of the reduced viability of commercial services, this contributes to a vicious circle of decline.

4. Ad hoc national funding programmes and LTA capital investment (e.g. in interchanges, stops, shelters and bus priority schemes)

Pre-pandemic the value of national funding programmes varied but LTA capital investment alone is estimated to have amounted to between £150 million and £200 million per year, on average. The main source of LTA capital funding for bus infrastructure was the Integrated Transport Block.

Capital investment in bus priority measures brings direct benefits to bus service reliability, reducing operating costs and improving attractiveness for passengers. This therefore improves the financial viability of bus services which, in turn, eases the pressure on public sector revenue funding to support services.

Impact of public spending cuts

Capital spending comes from a variety of national and local sources, some of which support more than bus schemes. It is therefore difficult to make a precise estimate of the extent to which capital spending on bus services has declined.

5. Local Education Authority (LEA) funding for home to school transport (including bus)

Pre-pandemic expenditure on home to school transport in England was around £1.1 billion per year.

Impact of public spending cuts

Research indicates that LEAs were cutting back on discretionary areas of school transport spending and post-16 transport, raising charges and tightening entitlement criteria. What is provided is often confined to the statutory minimum and transport services for pupils with severe or complex special needs.

The cuts mean that fewer children and young people were receiving free home to school transport and more were likely be travelling on mainstream supported or commercial buses, putting pressure on concessionary travel budgets. High transport costs could also restrict the ability of children and young people to attend the educational establishment that best meets their needs.

Despite fewer pupils being eligible for school transport and an increase in charges, local authority spending on school transport continues to rise. This is attributed to various factors including increasing costs of providing transport, particularly the growing cost of providing transport for pupils with Special Educational Needs, and shortage of school places resulting in pupils having to travel outside of their local area.

Cuts to local authority funding, combined with the rising costs of providing even the bare minimum of home to school transport means that many LEAs were planning further action to manage their budgets – often involving introducing/increasing charges and cutting post-16 transport provision.

6. LTA financial support for bus service information, staffing and other services.

LTA support for bus services in these areas could take the form of providing travel information to the public via call centres, websites, mobile apps and printed information. It could also include the staffing of bus stations, monitoring of service use and the implementation of security measures. The extent to which these services are provided varies between LTAs.

Impact of public spending cuts

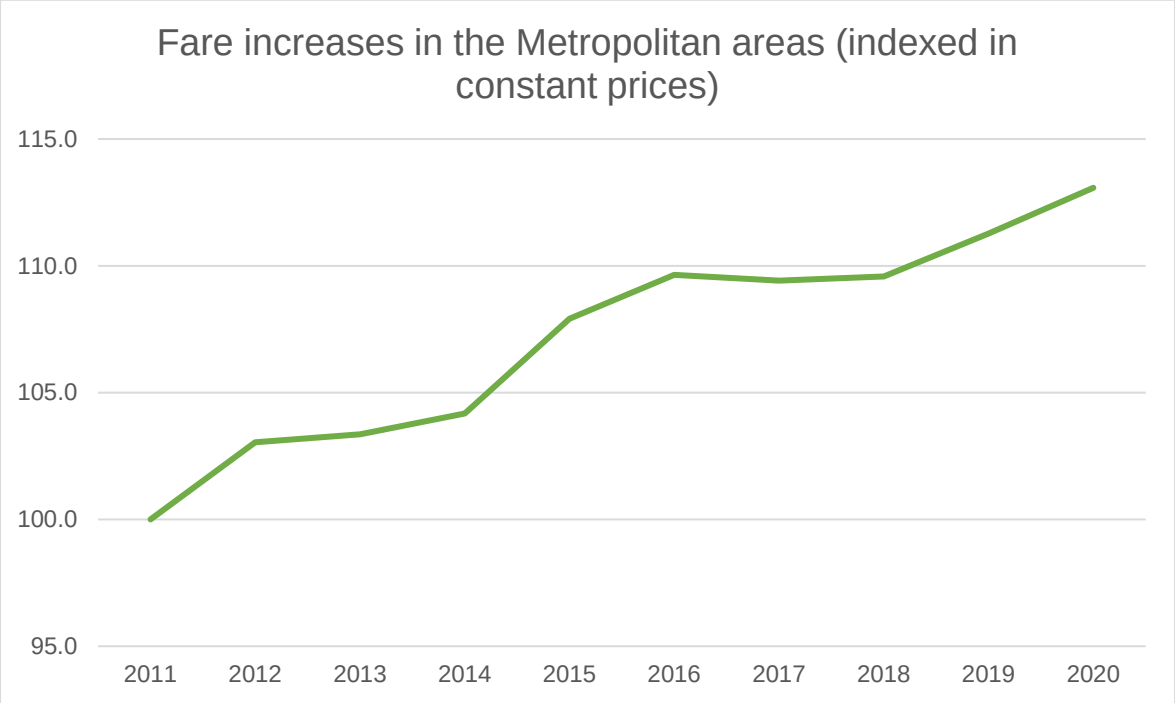
It is hard to quantify the precise impact on information provision, staff and other support for bus services. However, it is fair to say that some LTAs reduced funding for information and staffing. For the purposes of this paper, we estimate the cut in funding to be of the order of tens of millions of pounds.

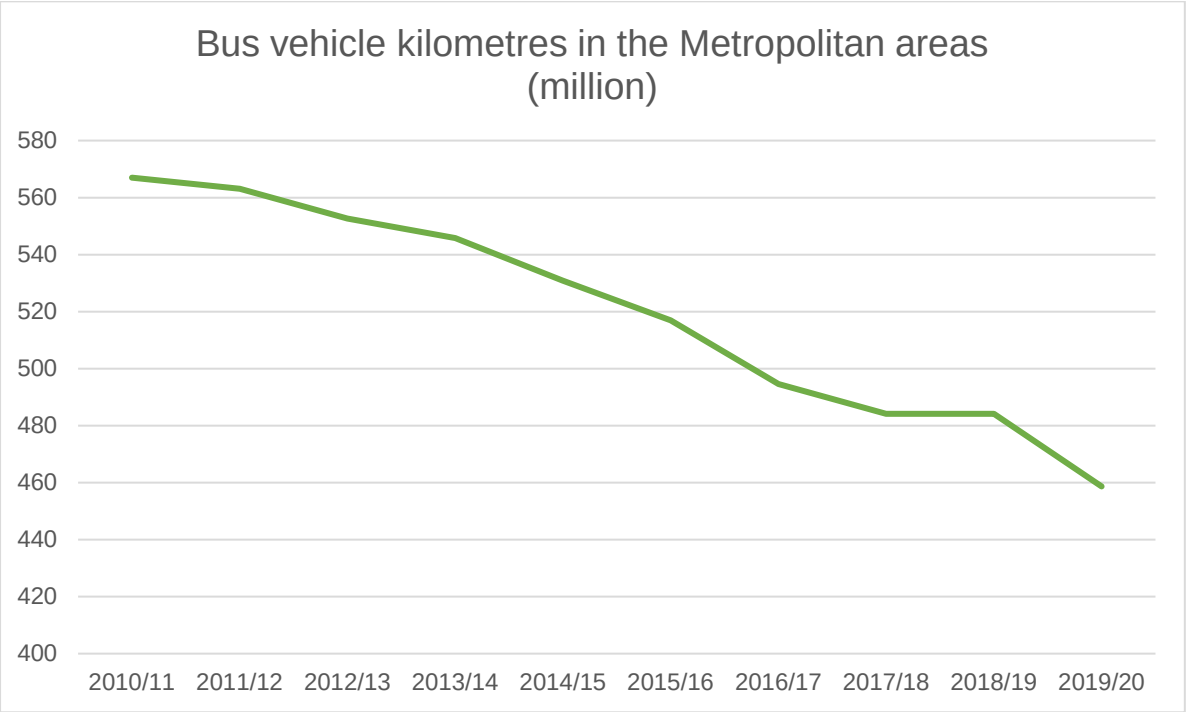
The cumulative impact of public spending cuts

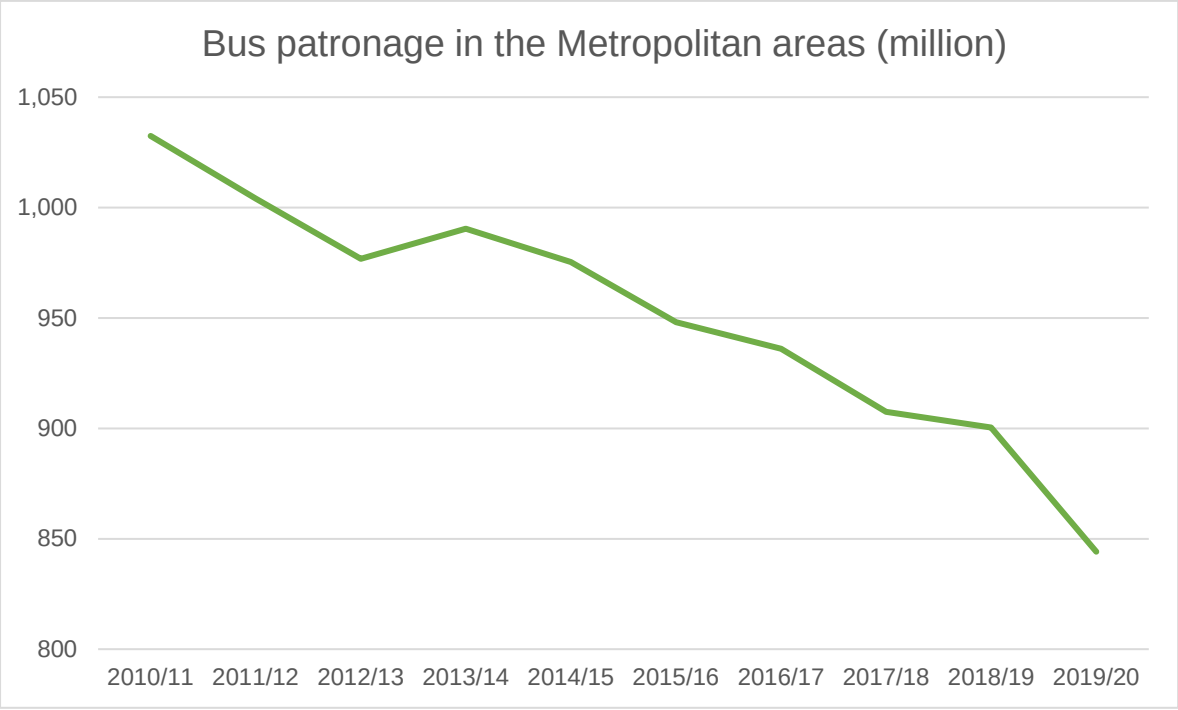
As the section above illustrates, the six main sources of public support for bus services come from a range of different government departments (DfT, Department for Education and MHCLG), working largely in isolation from each other and with restricted understanding of the cumulative effects their decisions on funding have on bus services. Indeed, given that LTA funding for bus comes from wider local government budgets, MHCLG (rather than DfT) has been the department with the most impact on funding for buses but for whom buses are less than a central consideration in their wider decision making.

The cumulative impact of spending reductions prior to the pandemic was a significant reduction in public support for bus services which in turn was a contributory factor in the continuing overall decline in bus provision and ridership.

The charts below show how fares rose and bus service levels and patronage declined before the pandemic in the Metropolitan areas.




Bus vehicle kilometres in the Metropolitan areas (million)
580
560
540
520
500
480
460
440
420
400
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
2017/18
2018/19
2019/20


Bus patronage in the Metropolitan areas (million)
1,050
1,000
950
900
850
800
2010/11
2011/12
2012/13
2013/14
2014/15
2015/16
2016/17
2017/18
2018/19
2019/20

Funding for bus services during the pandemic

Broadly speaking, the basic elements of pre-pandemic funding arrangements have been retained in an adapted form.

- Government has asked LTAs to continue to pay ENCTS reimbursement at pre-pandemic rates irrespective of the number of concessionary passengers actually carried.
- Government is continuing to pay BSOG at pre-pandemic rates and asked local government to do likewise where BSOG has been fully or partially devolved, irrespective of the services actually provided.
- Government has asked LTAs to continue to fund supported services at pre-pandemic levels irrespective of the services actually being provided
- In addition, the Government created a new funding stream called the Coronavirus Bus Services Support Grant (CBSSG), which provided an additional payment for those services that bus operators are continuing to provide (at a rate of £1 per bus kilometre). From September 2021 this has been replaced by Recovery Funding which will be paid by formula driven allocation and is intended to allow services to be maintained but with leeway for operators to return to a more commercial approach (including limited fares increases and service reductions).

Value for money was intended to be secured through a reconciliation process which meant that some (but not all) operators are audited on any overpayment of CBSSG, i.e. payments made were more than was actually required to cover additional costs of providing bus services due to COVID-19.

As a quid pro quo, Government has set a number of conditions on both CBSSG and Recovery Funding including in relation to consultation with LTAs, data and profitability.

The failings in the way buses were funded before and during the pandemic

The key failings in the way buses were being funded before the pandemic were:

- The totality of funding was insufficient to maintain bus networks or ridership and had been subject to significant reductions.
- Funding was highly complex and poorly coordinated, involving separate Government departments with no read-across between decisions made on different funding streams.
- Funding did not correspond to a coherent set of objectives.

The way that funding is being provided during the pandemic is still based on the way buses were funded before the pandemic, so the weaknesses of that approach remain.

However, there are new weaknesses too.

Current funding provides inadequate protection to passengers because leverage over operators (due to the format for funding flows to the industry) is split between national and local government and the conditions that can be set for operators by transport authorities can be broad brush.

Whilst LTAs and bus operators have cooperated to keep networks running during the pandemic, it has not been without considerable challenges; some of which relate to the fundamental flaws of a deregulated environment for the provision of bus services.

These has led to:

- Operators proposing or implementing frequency reductions without adequate consultation or despite the opposition of transport authorities.
- Operators continuing to run services in competition with light rail networks.
- Operators withdrawing funding support for integrated ticketing products.
- A plethora of different operator-specific information sources.
- Lack of inter-available ticketing between operators or across wider public transport networks.
- Operators gaming the concessionary appeals system (including actual or threats of speculative appeals) in order to create leverage or secure a further means of achieving internal revenue targets.
- Inconsistent overall product and branding across bus networks as a whole.
- Excessively frequent schedule changes at short notice making it impossible for transport authorities to provide accurate and consistent travel information for passengers.

All of these issues leave transport authorities unable to fulfil their role for public transport in their areas. Furthermore, they absorb significant corporate bandwidth in reactively responding to what remains essentially a commercial, operator led pattern of bus services.

It also means transport authorities for urban areas (with populations equivalent to those of small countries) unable to coordinate and plan public transport networks as a whole given that buses, light rail and heavy rail networks are all being funded in different ways – and with varying degrees of transport authority influence – including at times when the capacity across those networks was overstretched due to social distancing and staff availability.

Meanwhile auditing of whether operators have been over or under paid is not universal and does not apply to the totality of operator income streams.

There is also a disconnect between the way in which bus services are being funding during the pandemic, and during the immediate recovery period, with the aspirations and objectives of the National Bus Strategy which includes:

- Cheaper fares.
- Integrated ticketing across bus networks (including with other modes).
- Single brands.
- More extensive and frequent bus networks.

COVID-specific funding streams (CBSSG and Recovery funding), as well as the existing funding streams, do not have any of these objectives as explicit aims.

In addition, the National Bus Strategy is predicated on a greater role for LTAs in determining what the overall long-term strategy for bus networks should be, and how they are delivered, through LTAs having responsibility for:

- Bus Service Improvement Plans (the latter in place by October 2021 and being delivered from April 2022).
- Whether or not services should be delivered through Enhanced Partnerships or Franchising (the former in place by April 2022).

Yet at present, commercial bus operators determine, in their interests, the nature of what is a very highly subsidised public service.

The entirely different and high ambition approach to bus policy and delivery as outlined in the National Bus Strategy requires similarly ambitious funding reform as opposed to DfT continuing with a 'path of least resistance', patch and mend approach to what is a broken bus funding system.

Reforming revenue funding for bus services would also be in line with the reform of wider local government transport funding which involves the consolidation of a number of different funding streams within the City Region Sustainable Transport Fund as a first stage towards wider integration focused on delivery of revitalised Local Transport Plans.

A better way to fund and provide bus services during the pandemic and beyond

We share the aspirations and ambitions of the National Bus Strategy. But for those aspirations to be met we need a format for funding that:

- Provides sufficient funding overall to achieve these objectives.

- Is efficient and secures best value for money for the taxpayer.
- Ensures decisions are taken at the right level and in the broader public interest – which, in the city regions, means LTAs.
- Is compatible with transport authorities moving to the formats for bus provision which they judge will best meet local aspirations and circumstances.

Our proposal in summary is that:

A) The DfT undertakes a rolling assessment of the overall funding levels necessary to achieve the objectives of the National Bus Strategy. This assessment should then be used to inform overall revenue support levels. At present there is no linkage between bus funding streams and higher-level long term objectives such as patronage growth. We have a bus model, which can provide a sophisticated assessment of the effects of different policies and external factors on bus patronage in the city regions. We have offered DfT access to this model which so far has not been taken up.

B) Recovery funding (and any subsequent successor funding stream), and BSOG, is routed to those transport authorities that want to take responsibility for these funding streams where they are confident that the totality of revenue funding available to them enables them to meet their aspirations for local bus networks. This should be done as soon as possible, and at the latest by April 2022. This is a critical date because it is i) the point at which the majority of the £3bn transformational funding begins to be allocated ii) when Enhanced Partnerships begin (where LTAs have chosen to go down that route) iii) when BSIP implementation begins.

C) Reform of funding of ENCTS takes place to ensure that i) the formula used by Government to reimburse transport authorities reflects the cost of what is a national scheme ii) that ENCTS funding is linked to transport outcomes not lost in wider local government funding as it is now.

These reforms would:

- Mean all bus funding would be tied to a simpler set of integrated objectives which in turn support the objectives of the National Bus Strategy.
- Enable LTAs to tie funding to the specific outcomes in their BSIPs, and related Enhanced Partnership and Franchising plans, on the basis of longer term and consolidated funding.
- Allow transport authorities to better plan public transport networks for city regions as an integrated whole by enabling them to plan bus and light rail networks together (combined with whatever influence they already have over heavy rail networks).

Interplay with capital funding

The proposals set out above for revenue funding reform would also complement national and local government capital investment in bus fleets and supporting infrastructure (such as bus priority measures).

City region transport authorities have invested heavily in bus priority measures over the years and have extensive plans for further investment.

For example:

- The Transforming Cites Fund programme in Tyne and Wear will include 21 kilometres of new or improved bus priority measures, supported by bus priority at 160 traffic signal junctions.
- In Liverpool City Region new green routes will be introduced with a focus on Liverpool, Knowsley and St Helens. This programme will deliver 41 signal upgrades and 18 priority lanes. There will also be measures such as parking/loading enforcement reviews, two new red routes and a strategic rerouting study in Liverpool.
- Transport for Greater Manchester has undertaken a large programme of bus priority works including flagship projects like the Cross City Bus Package, Oxford Road Corridor and the Leigh Guided Busway. The Oxford Road corridor (one of the busiest bus corridors in England) scheme delivered bus priority, improved cycling and walking facilities, and a transformed urban realm through a single package. A key segment of this was a 1.6 kilometre bus, hackney carriage/taxi and cycle only section leading into the city centre; all of which has increased bus punctuality and reliability.

In addition, there is the funding that flows from the City Region Sustainable Transport Fund and Transformational Bus Funding which can be used to invest in bus priority and improved vehicle fleets.

There is the opportunity therefore for a virtuous circle where capital investment improves bus journey times whilst sufficient, devolved and well targeted revenue support is used to ensure that there is a simple, network of affordable services taking advantage of that new infrastructure.

A timeline for real change for the better

In order to make this transition as soon as is practicable, the following steps will need to be taken by DfT:

- Undertake the necessary legal work to prepare the way for the changes to the regulatory regime which would facilitate this reform. We have been pressing DfT to do this since June 2020 but we are not aware of any substantive progress.

- Undertake modelling of the likely scale of funding required to achieve the objectives of the National Bus Strategy. We have offered DfT access to our Metropolitan Bus Model to assist in this process but this has not been taken up.
- Review their capital investment plans for bus (including the commitment to 4,000 zero emission buses) so that they dovetail and complement these revenue funding reforms.
- Switch resources from a patch and mend / path of least resistance approach to bus funding into the work necessary to make more thoroughgoing reform possible by April 2022.

Annex One: The Metropolitan Bus Model exercise in detail

To understand the impact of revenue funding on the bus market we ran five scenarios through the Metropolitan Bus Model. This included a 'do nothing' scenario to set the baseline and then four scenarios with additional public sector support.

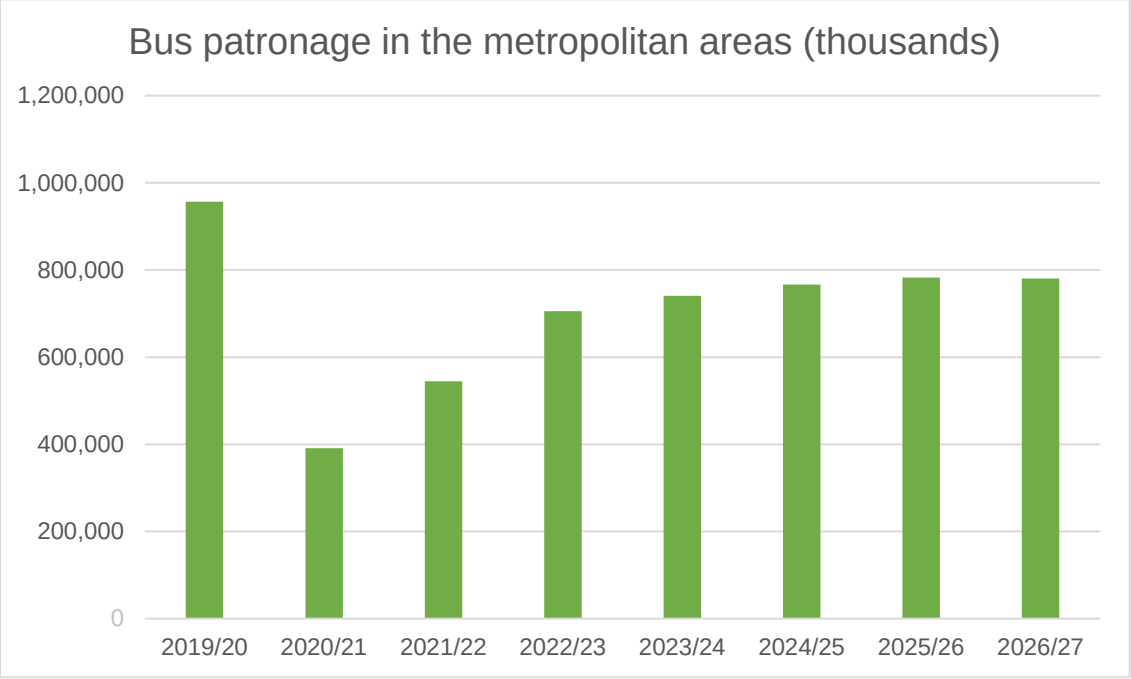
For these scenarios we have used the following assumptions:

- The franchise will start at the end of recovery funding in April 2022 and last for five years.
- Operators were limited to a 4% profit margin.
- The recovery from COVID-19 is linear with no further restrictions being imposed.

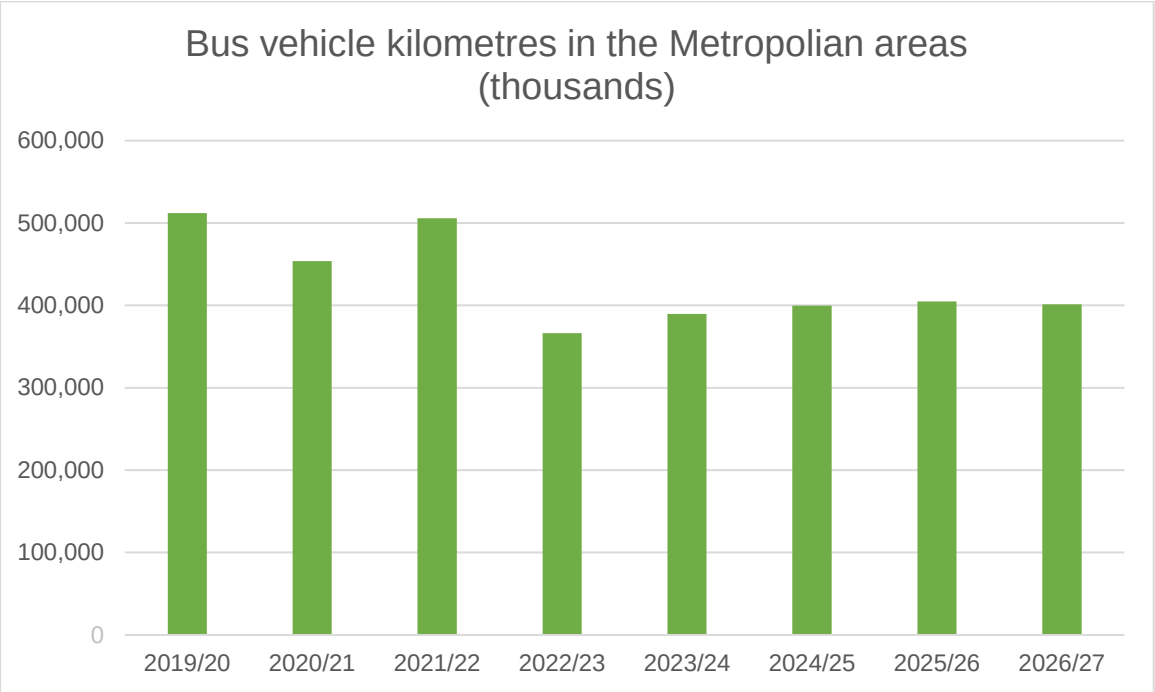
'Do nothing' scenario

Under the 'do nothing' scenario we have assumed the bus market returns to a pre-pandemic level of public sector support. There is a slight decline in funding levels through the forecast period due to the lower number of ENCTS passengers and BSOG payments falling due to reduced vehicle miles.

In this scenario, patronage recovers to 780 million trips per year in the metropolitan areas by 2025/26, 79% of the pre-covid base line.



Bus kilometres fall to 400 million per year by 2025/26, 82% of pre-pandemic levels. This is a significant reduction in the size of bus networks compared with both the pre-COVID and COVID periods..

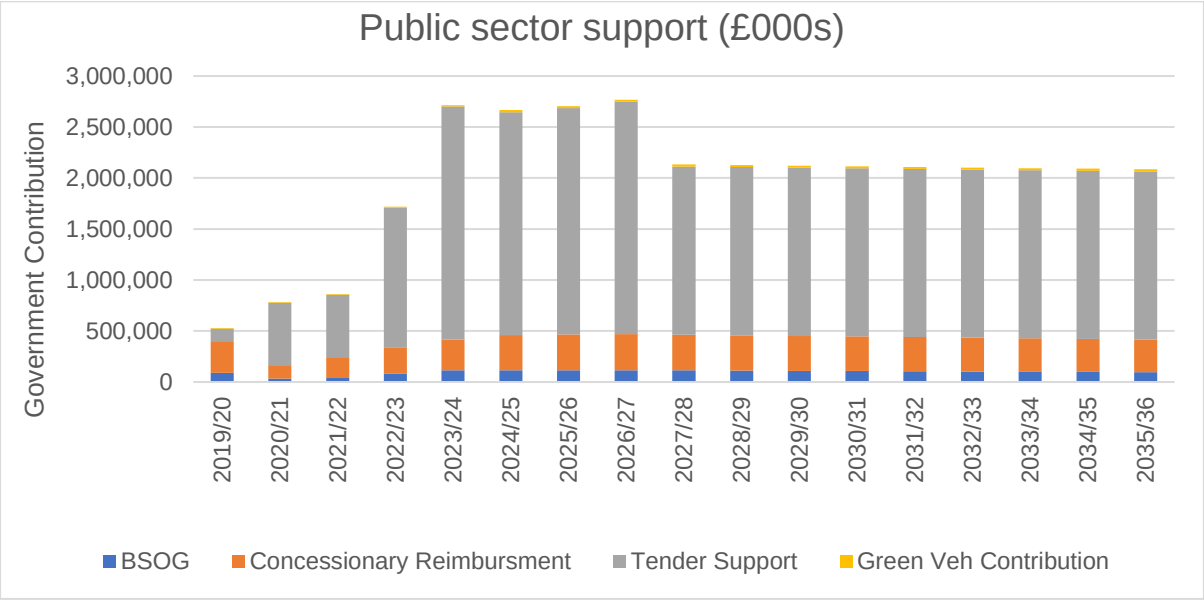


Scenario One

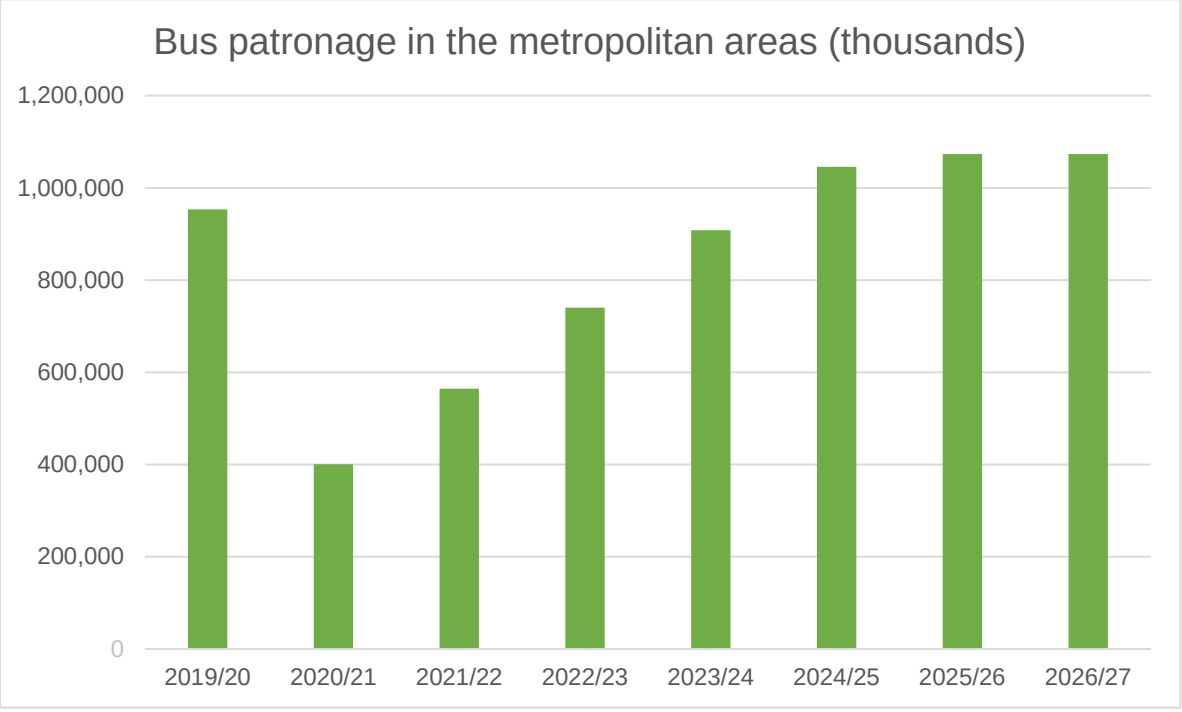
For this scenario we asked the model to deliver the following policy goals:

- 165% increase on base year frequencies and miles by franchise year two
- 10% reduction in single and multi-operator fares by franchise year two

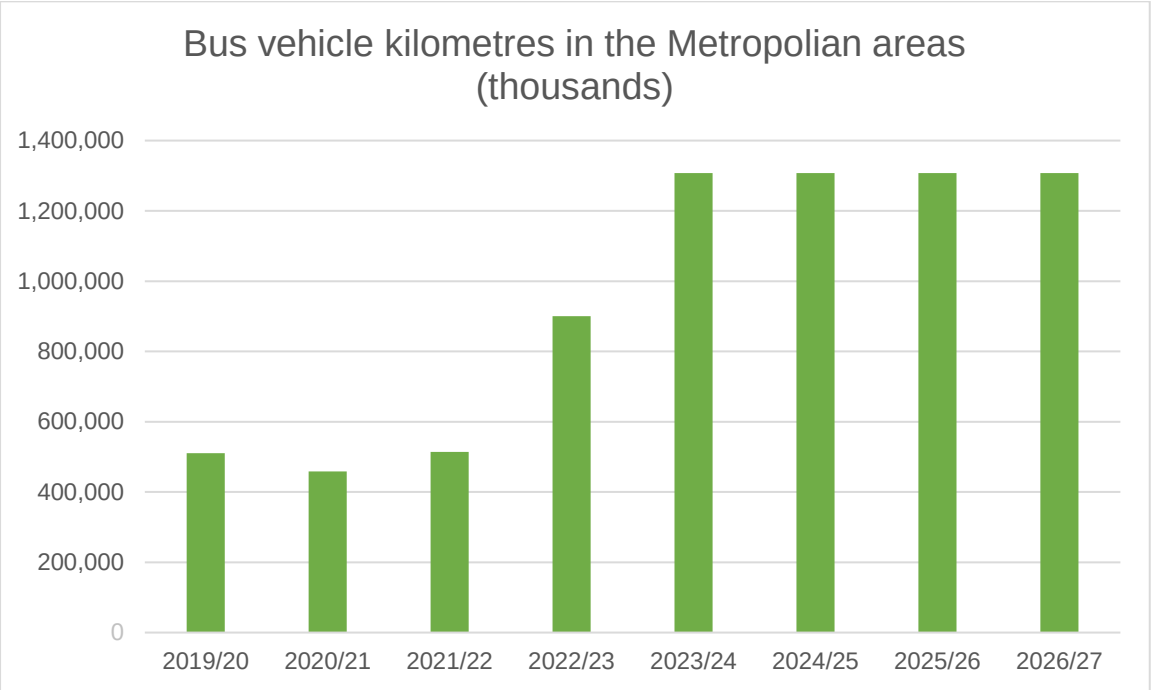
To deliver on these policy goals, the model estimated that we would require total public sector support of £2.7 billion per year, an increase of £2.2 billion per year compared to the pre-covid baseline. Most of this funding is used to expand the bus network.



For this investment, the model predicts that bus patronage recovers to pre-pandemic levels by 2024/25 and goes on to grow 15% above the pre-pandemic level.



This patronage increase is achieved through a significant increase in the bus network, with vehicle kilometres expanding from 510 million in 2019/20 to 1.3 billion in 2023/24.



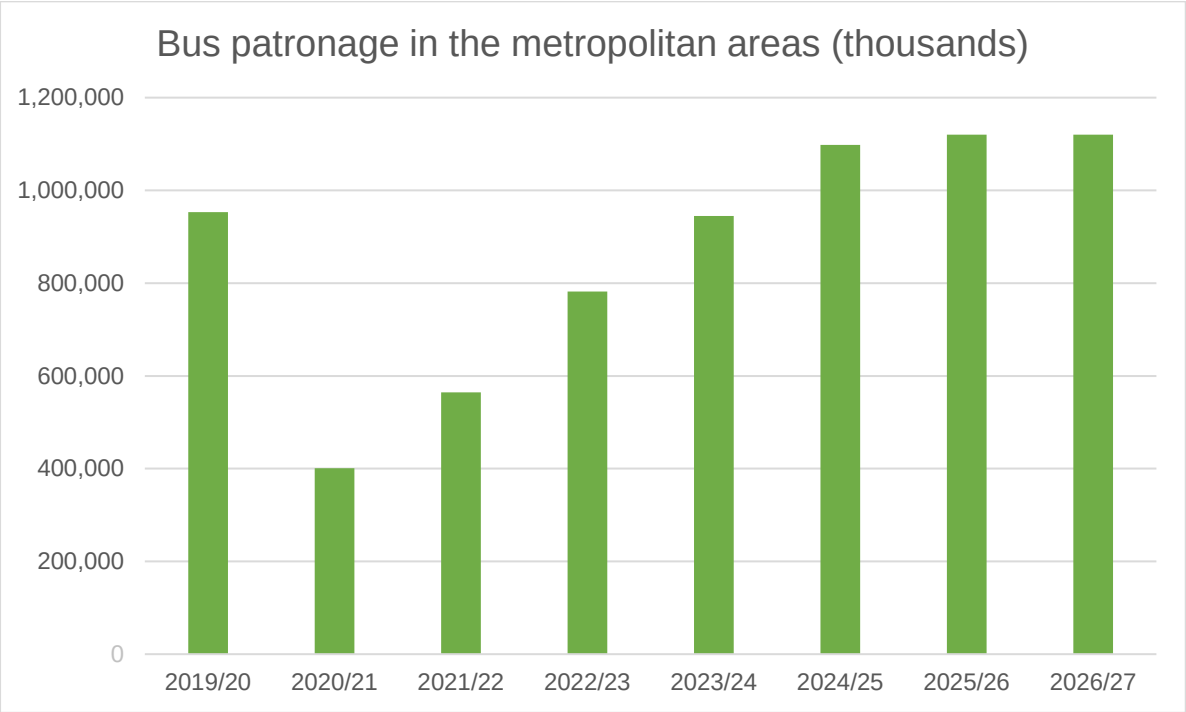
Scenario Two

For this scenario we asked the model to deliver the following policy goals:

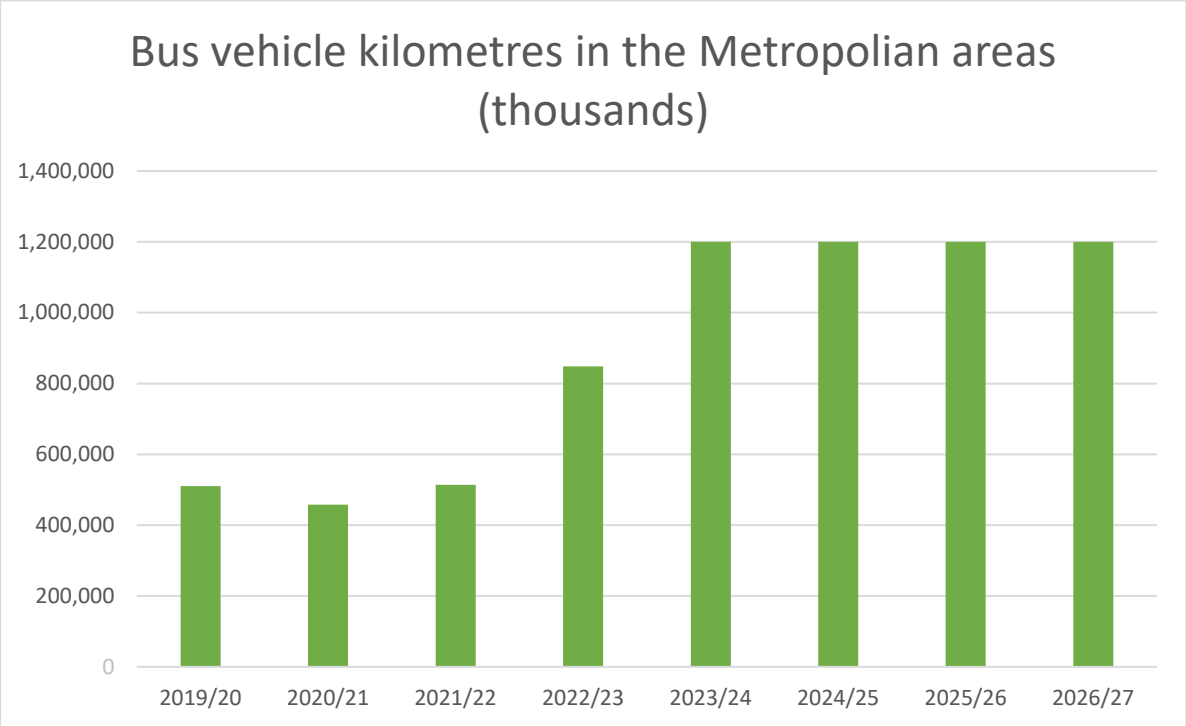
- 145% increase on base year frequencies and miles by franchise year two
- 20% reduction in single and multi-operator fares by franchise year one

To deliver on these policy goals, the model estimated that we would require total public sector support of £2.5 billion per year, an increase of £2 billion per year compared to the pre-covid baseline. Most of this funding is used to support the expanded bus network.

For this investment, the model predicts that bus patronage recovers to pre-pandemic levels by 2024/25 and goes on to grow 20% above the pre-pandemic level.



This patronage increase is achieved through a significant increase in the bus network, with vehicle kilometres expanding from 510 million in 2019/20 to 1.2 billion in 2023/24.

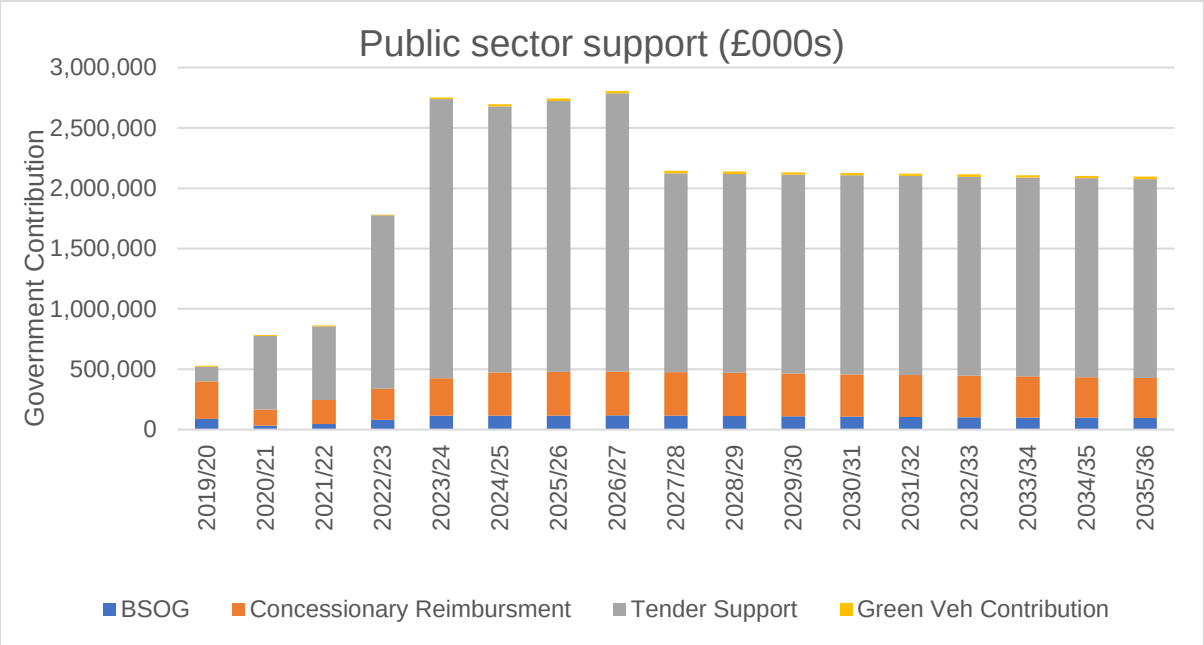


Scenario Three

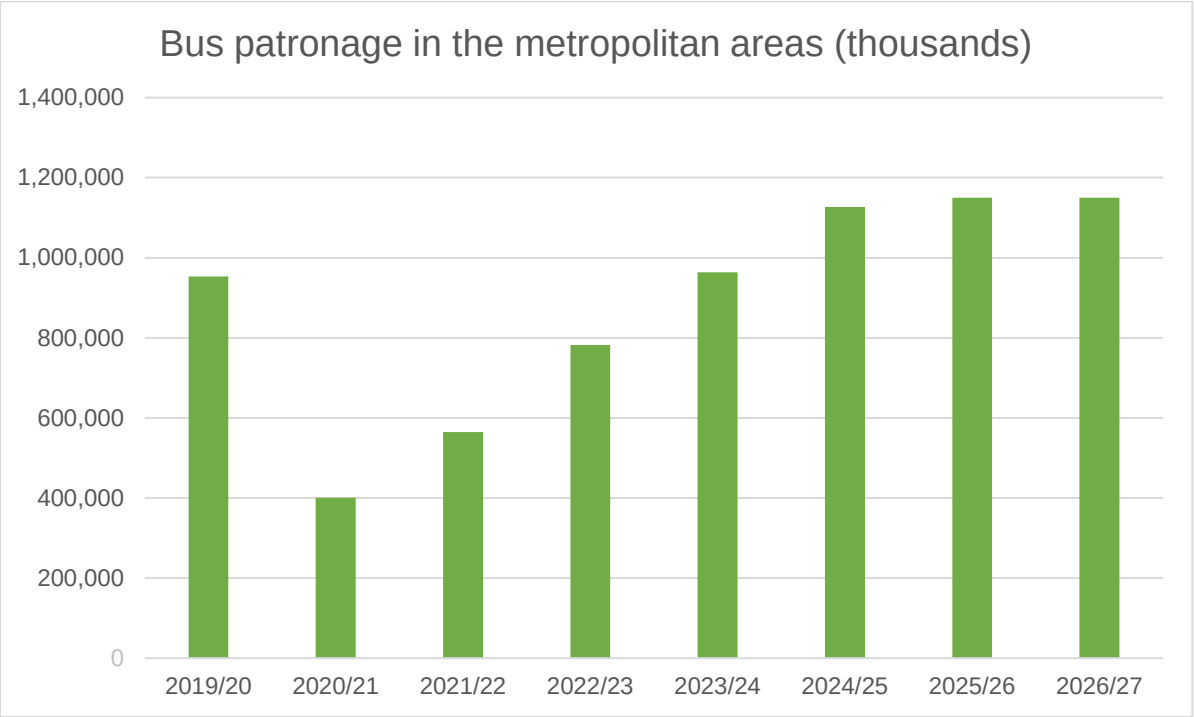
For this scenario we asked the model to deliver the following policy goals:

- 165% increase on base year frequencies and miles by franchise year two
- 20% reduction in single and multi-operator fares by franchise year one

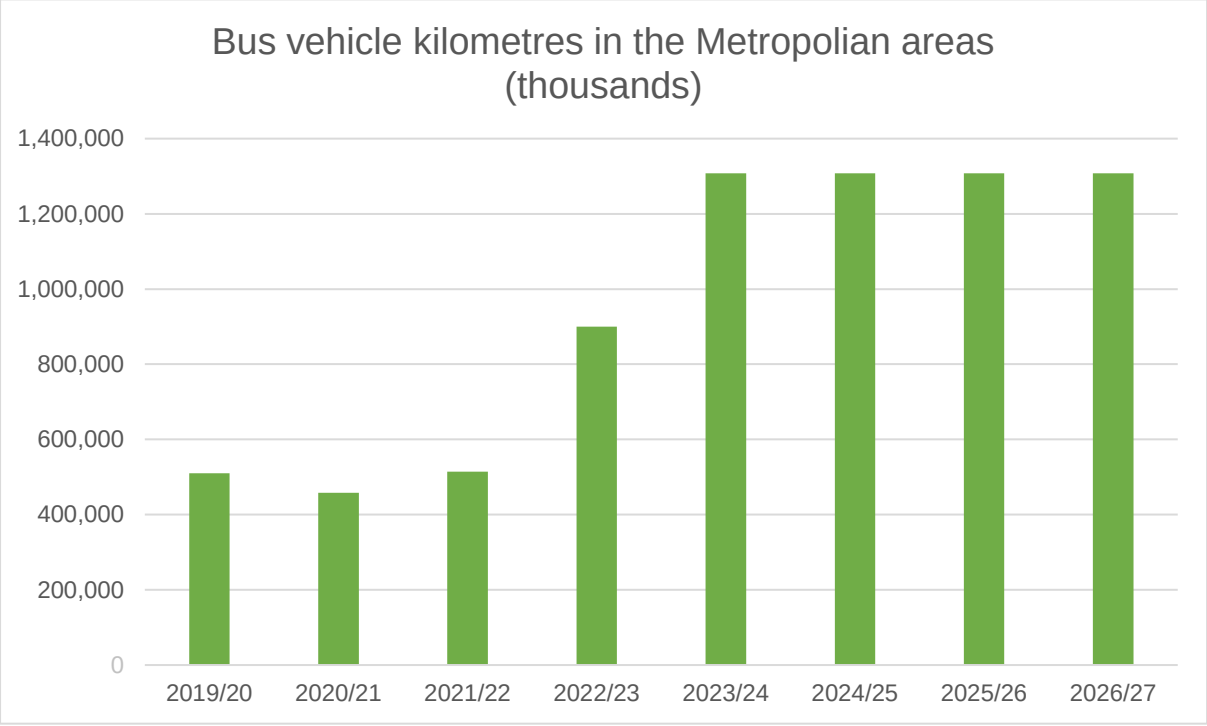
To deliver on these policy goals, the model estimated that we would require total public sector support of £2.8 billion per year, an increase of £2.3 billion per year on the pre-covid baseline. Most of this funding is used to support the expanded bus network.



For this investment, the model predicts that bus patronage recovers to pre-pandemic levels by 2023/24 and goes on to grow 21% above the pre-pandemic level.



This patronage increase is achieved through a significant increase in the bus network, with vehicle kilometres expanding from 510 million in 2019/20 to 1.3 billion in 2023/24.

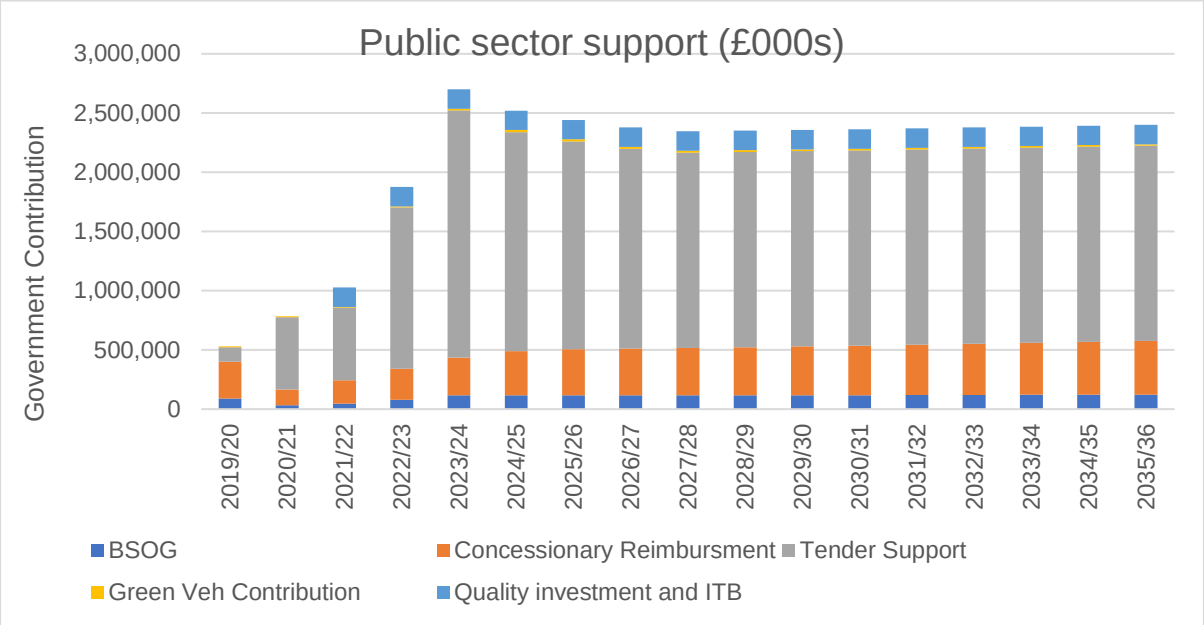


Scenario Four

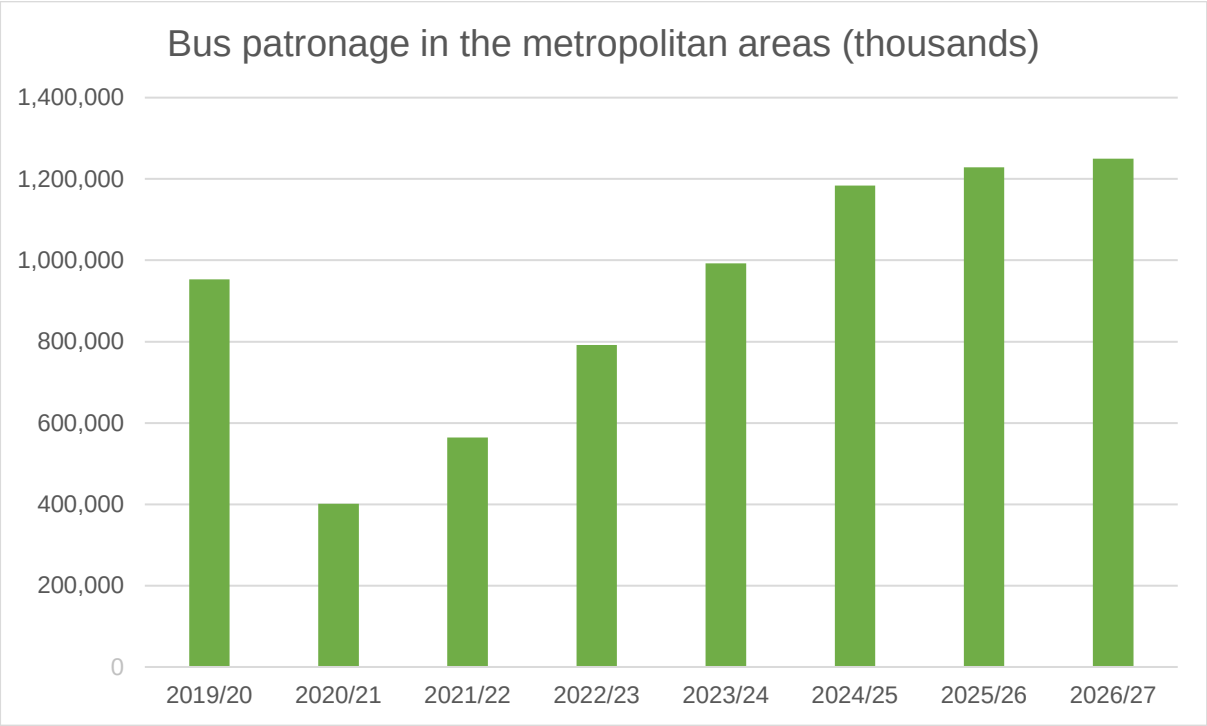
For this scenario we asked the model to deliver the following policy goals:

- 165% increase on base year frequencies and miles by franchise year two
- 20% reduction in single and multi-operator fares by franchise year one
- Capital investment of £164 million a year to speed up journey times

To deliver on these policy goals, the model estimated that we would require total public sector support of £2.5 billion per year at the start of the franchise period, reducing to £2.2 billion by the end, compared to the baseline of 2019/20, where public sector support totalled £521 million. Most of this funding is used to support the expanded bus network.



For this investment, the model predicts that bus patronage recovers to pre-pandemic levels by 2023/24 and goes on to grow 31% above the pre-pandemic level.



This patronage increase is achieved through a significant increase in the bus network, with vehicle kilometres expanding from 510 million in 2019/20 to 1.3 billion in 2023/24, and capital funding of £165 million a year helping to speed up journeys.