

# EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

A report for the Department for Transport

20 OCTOBER 2026

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## Glossary

| Term  |                                                 |
|-------|-------------------------------------------------|
| ABODS | Analyse Bus Open Data Service                   |
| ATCO  | Association of Transport Co-ordinating Officers |
| AVL   | Automatic Vehicle Location                      |
| BFC   | Bus Fare Cap                                    |
| BODS  | Bus Open Data Service                           |
| BSIP  | Bus Service Improvement Plan                    |
| BSOG+ | Bus Service Operators Grant Plus                |
| CAGR  | Compounded Annual Growth Rate                   |
| CMA   | Competition and Markets Authority               |
| CPT   | Confederation of Passenger Transport            |
| CRSTS | City Region Sustainable Transport Settlements   |
| DfT   | Department for Transport                        |
| DRT   | Demand Responsive Transport                     |
| DVSA  | Driver and Vehicle Standards Agency             |
| EP    | Enhanced Partnerships                           |
| EV    | Electric Vehicle                                |
| GPS   | Global Positioning System                       |
| HCC   | Hertfordshire County Council                    |
| LSME  | Larger, Small or Medium Enterprise              |
| LTA   | Local Transport Authority                       |
| LTF   | Local Transport Fund                            |
| M&E   | Monitoring and Evaluation                       |
| MSA   | Mayoral Strategic Authority                     |
| MCA   | Mayoral Combined Authority                      |
| NBS   | National Bus Strategy                           |
| NECA  | North East Combined Authority                   |
| ONS   | Office for National Statistics                  |
| OTC   | Office of the Traffic Commissioner              |

## EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

| Term  |                                   |
|-------|-----------------------------------|
| RMF   | Rural Mobility Fund               |
| RTPI  | Real-time passenger information   |
| SME   | Small or Medium Enterprise        |
| TCF   | Transforming Cities Fund          |
| UTG   | Urban Transport Group             |
| VfM   | Value for Money                   |
| ZEBRA | Zero Emissions Bus Regional Areas |

## Acknowledgements

This evaluation has benefited from the commitment, dedication and valuable time from Local Transport Authorities to provide monitoring data, along with other essential information about schemes, Bus Service Improvement Plans and local context. Without this, the evaluation would not have been possible.

The evaluation team is therefore very grateful to all LTAs who have contributed to this work.

Our gratitude also goes to Transport Focus for generously sharing the *Your Bus Journey* aggregated data on bus passenger satisfaction to inform this evaluation.

This evaluation has also been enriched by the insights from the BSIP Evaluation Stakeholder Panel which met quarterly during the 3-year evaluation period. This forum brought together Local Transport Authorities, passenger representative bodies and operator representative bodies to share feedback on the evaluation approach; hear from each other about BSIP Phase 1 intervention delivery experiences; and to share evidence and observations on the lived experience of passengers and operators during the BSIP Phase 1 delivery period.

# 1 Executive summary

The previous Government's 2021 National Bus Strategy for England (DfT, 2021) set out clear goals for improving bus services. They were to become more frequent, faster, more reliable, cheaper, easier to understand and use, better co-ordinated with other modes, accessible and inclusive, greener and seen as safe. To deliver these aims, local areas were invited to develop and publish Bus Service Improvement Plans (BSIPs) and to establish Enhanced Partnerships or pursue franchising. BSIPs approved by the Department for Transport (DfT) were allocated government funding to support delivery.

DfT allocated £1.085 billion to 34 areas comprising 27 LTAs and 7 Mayoral Strategic Authorities (MSAs) over the 3-year period from April 2022 to March 2025, known as 'BSIP Phase 1'.<sup>1</sup> To monitor the outcomes using this funding, LTAs and MSAs were required by DfT to report on four key metrics: bus punctuality, journey times, passenger satisfaction and patronage.

The impacts and value for money of interventions delivered with the funding and the process of their delivery have been evaluated by Frontier Economics and SYSTRA Ltd. The findings are presented in this report, focusing on the BSIP Phase 1 interventions delivered by the 27 LTAs only. Interventions delivered by MSAs are the focus of a separate evaluation.

Across the 27 LTAs, BSIP Phase 1 allocations ranged from £2.6m to £163.5m, and this enabled some LTAs to make transformational investments in their bus networks. Funding was originally allocated for the 3-year period ending in March 2025. In December 2024, the Government agreed with LTAs that BSIP Phase 1 allocations, and those of BSIP Phases 2 and 3, could be spent over an extra year, by March 2026. This was because the first year of funding was released towards the end of 2022/23 after Enhanced Partnerships had been established.

Due to data availability, this evaluation focuses only on the schemes delivered by 31 March 2025. By this point, around 43% of initial funding allocations had been invested, with many capital schemes expected to be delivered in the subsequent financial year and could not therefore be evaluated at this point.<sup>2</sup>

The evaluation was carried out in line with the HM Treasury Magenta book, using the most robust methods feasible to assess the contribution of BSIP investment to economic, social and environmental outcomes. The evaluation drew on data collected directly from LTAs and operators, along with data from the Analyse Bus Open Data Service (ABODS), Ticketer,

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<sup>1</sup> This was followed by £160 million over 2023/24 and 2024/25 to protect and support bus services in LTAs that did not receive BSIP Phase 1 allocations. This was known as BSIP+ (and subsequently, BSIP Phase 2). In October 2023, BSIP Phase 3 funding was announced and allocated more than £1 billion to LTAs in the North of England and the Midlands, the first £150m of which was provided in 2024.

<sup>2</sup> This is estimated from internal DfT delivery data, based on information self-reported by LTAs. The figure of 43% reflects only the 16 representative LTAs for which detailed impact evaluation has been undertaken for this report.

published statistics, a survey of 2,085 people (two waves) in a sample of 5 LTAs that received BSIP Phase 1 funding, interviews and focus groups. The value for money assessment draws on DfT Transport Analysis Guidance (TAG) assumptions, robust modelling of BSIP Phase 1 impacts and credible published sources. Further details of the methodology are outlined in Section 3.

### **Evaluation key findings: impact, process and value for money**

A detailed impact and value for money evaluation analysis was undertaken for a representative sample of 16 LTAs across the country that received BSIP Phase 1 funding. The sample was carefully selected using specified criteria, with the intention that findings generated from the 16 LTAs reflect the likely outcomes across the mix of all 27 LTAs.<sup>3</sup>

The impact evaluation focuses on BSIP Phase 1 interventions delivered by 31 March 2025, with outcomes assessed over the 6-month period from 01 April 2025 to 31 October 2025.

The evaluation was designed to maximise the learning from the available data while navigating many of the difficult challenges associated with the scale, diversity and timing of BSIP Phase 1 scheme delivery. Moreover, evaluating the impacts over the 6-month period to October 2025 allowed a 'post-intervention' period of data collection that enabled the evaluation findings to be generated by early 2026 to inform local and national policy development.

This timeframe does have limitations. For example, some of the revenue-funded interventions (such as bus fare changes or service changes) ended before 31 March 2025, therefore, their full impacts may not be directly observed within the 6-month 'post-intervention' period. However, some of the schemes continued beyond March 2025, and those that ended before March 2025, would be expected to have legacy effects on some metrics such as patronage. The 6-month 'post-intervention' period is a short period of time to observe impacts, given the lifetime of the capital investments could be several decades, and the full effects take time to realise. However, impacts on punctuality and journey times would be expected to be observed. These are precursors for later patronage effects to be unlocked.

Below are the key findings from the impact, VfM and process evaluation.

### **Key findings: impact evaluation (see Section 5 for more detail)**

#### **Changes in journey times, punctuality, passenger satisfaction and patronage**

Overall, the BSIP Phase 1 interventions delivered by 31 March 2025 contributed to improvements across each of the four key metrics. This is summarised in Table 1. Quasi-experimental analysis that provides a robust estimate of the scale of the impact attributable to BSIP Phase 1 was possible for three out of four metrics, leading to strong evidence of

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<sup>3</sup> The focus on 16 representative LTAs was mainly for reasons of minimising the data collection burden on LTAs. The sample of 16 was selected to the diversity of intervention types, area types, socio-economic demographics, and level of BSIP Phase 1 funding. Further detail is in Section 3.

contribution. It was not feasible to apply these methods to passenger satisfaction. However, moderate strength evidence was gathered through the 5-LTA panel survey (see Annex E for more detail).

**Table 1 Contribution of BSIP Phase 1 to four key metrics**

| Metric                 | Change               | Description                                                                       | Evidence of contribution                                                                                                                |
|------------------------|----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Journey time           | -7.0%                | Change in journey time on corridors with BSIP Phase 1 bus priority infrastructure | <b>Strong.</b> Quasi-experimental analysis isolates impact of BSIP Phase 1                                                              |
| Punctuality            | -19.4%               | Change in LTA-wide average delay in bus stop departure time                       | <b>Strong.</b> Quasi-experimental analysis isolates impact of BSIP Phase 1                                                              |
| Passenger satisfaction | +4 percentage points | Change in average bus satisfaction                                                | <b>Moderate-strength.</b> Change reported in 5-LTA panel survey. Other factors affected satisfaction (e.g. increased national fare cap) |
| Patronage              | +4.2%                | Change in LTA-wide patronage                                                      | <b>Strong.</b> Quasi-experimental analysis isolates impact of BSIP Phase 1                                                              |

Source: ABODS (journey time and punctuality); Ticketer (patronage); 5-LTA panel survey (passenger satisfaction) comparing November 2025 with November 2023.

Note: Quasi-experimental analysis is a statistical approach that quantifies the impact of BSIP Phase 1 interventions using robust counterfactuals that represent what would have happened without BSIP Phase 1 and comparing these with what was observed with BSIP Phase 1 interventions.

## Bus journey times

**BSIP Phase 1 bus priority capital (infrastructure) investment delivered by 31 March 2025 led to a 7.0% reduction in average bus journey times on those corridors, compared to what would have happened without BSIP Phase 1.<sup>4</sup>** This is strong evidence that isolates the positive impact of BSIP Phase 1 bus priority capital investments on journey times.

Journey times are considered by operators as very important for efficient operations and affect passengers' perception of buses compared to other modes. For passengers, however, fewer than 6% of the 5-LTA panel survey respondents had noticed a change in journey times. This is likely to be because they may not have travelled on a corridor with bus priority capital investment. The other interventions such as fare reductions, marketing, or passenger experience interventions would not be expected to affect journey times.

<sup>4</sup> These are typically on-street interventions designed to give buses priority over general traffic to minimise their exposure to congestion.

## Bus punctuality

**BSIP Phase 1 interventions delivered by 31 March 2025 directly led to a 19.4% reduction in LTA-wide average delay in bus stop departure times<sup>5</sup>, compared to what would have happened without BSIP Phase 1.** This impact was larger on weekends compared to weekdays. This is strong evidence that isolates the positive impact on punctuality of the packages of BSIP Phase 1 interventions delivered by LTAs.

**These improvements were noticed by some bus users, though perceptions of punctuality remained mixed.** Of the 5-LTA panel survey respondents, 70% said they were satisfied with the punctuality and reliability of their bus service in 2025 compared to 62% in 2023. Interviews suggested bus priority measures, such as the removal of pinch-points, were found to be particularly linked with improvements in punctuality. However, bus users commonly suggested that bus service reliability remains an important barrier to using buses frequently, especially for time-critical journeys.

**Passengers in rural areas, however, were less likely to benefit from punctuality improvements than those in urban areas.** This is likely to be because bus priority capital investments (that are most likely to improve punctuality) were typically delivered in urban areas. Relatively lower service frequencies in rural areas could magnify the effects of unreliability.

## Bus passenger satisfaction

**Overall passenger satisfaction improved 4 percentage points between 2023 and 2025,** based on the 5-LTA panel survey. Key drivers of this change were improvements in frequency, reliability, quality of buses and ease of interchange (each with an 8-percentage point improvement over the 3-year period). Satisfaction with bus stops and journey times also increased by 3 percentage points and 4 percentage points respectively.

However, satisfaction with the cost of bus travel declined by 5 percentage points over the period. Focus group participants suggested that this decline was likely to be linked to the increase in the national single ticket bus fare cap from £2 (in place from January 2023 to December 2024) to £3 from January 2025. Although it is not possible to determine the extent to which changes in passenger satisfaction were specifically attributable to BSIP Phase 1, the impacts that BSIP Phase 1 had on some aspects of improved satisfaction (such as punctuality and journey times) indicate moderate-strength evidence BSIP made an important contribution.

**Passengers in urban areas were likely to feel more satisfied with the bus service improvements than passengers in rural areas.** In the 5-LTA survey, just under half of bus users in urban areas perceived the bus service improvements to have had a positive impact on their bus experience, compared to a third of bus users from rural areas. Focus group participants suggested this was in part due to their lower confidence to use buses for time-

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<sup>5</sup> This is measured as the delay in buses departing bus stops relative to timetable.

critical activities because bus service frequency tends to be lower, so any unreliability would have a greater impact on their ability to get to work on time.

### Bus patronage

**BSIP Phase 1 interventions delivered by 31 March 2025 directly led to a 4.2% increase in LTA-level patronage, compared to what would otherwise have happened without BSIP Phase 1.** This is strong evidence that isolates the positive impacts of the packages of BSIP Phase 1 interventions.

**Bus improvements were a key factor in driving up patronage.** Bus use was reported by 27% of survey respondents to have increased in the six months after March 2025 compared to the prior six months. Of these, 60% stated bus service improvements (funded by BSIP Phase 1) were the only, or the primary, reason for using the bus more.

**Younger passengers aged 16-24 showed the greatest shift towards bus travel of all age groups.** Of these younger survey respondents, 42% stated they made more bus journeys in the 6 months after March 2025 compared to the previous 6 months. This was a higher share than the 25% of individuals aged 25+ who said they used the bus more over this period. Young person specific fares funded by BSIP Phase 1 in several LTAs were likely to have been an important factor in driving this response. This finding illustrates the importance of bus services for the lives of many younger people.

**People in urban areas increased bus use more than in rural areas.** Of survey respondents living in urban areas, 29% reported making more bus journeys in the 6 months after March 2025 compared to 20% of individuals living in rural areas. The additional bus trips made by passengers in urban areas were often new 'generated' trips with 20% of respondents stating that they would not have made those additional journeys at all (not even on another transport mode) without the improvements. Therefore, these bus improvements enabled new and additional social or economic activity to happen.

### Travel behaviours including mode shift and modal integration

**BSIP Phase 1 improvements led to a shift towards using buses from other modes, especially amongst car owners in urban areas. Mode shift in rural areas remained challenging as cars continued to be more flexible and lower cost.** Of the 27% of survey respondents who made more bus journeys post March 2025, about half stated that they would have travelled by car instead if the BSIP Phase 1 funded bus service improvements had not been made.

**BSIP Phase 1 improvements supported new social or economic activity among people who did not own cars, though shifted some away from active travel (walking or cycling).** Of those surveyed without a car, 31% said they would have otherwise walked or cycled, or would not have travelled at all. Of those owning cars, 61% said they would have used their private vehicle before service improvements prompted a shift to bus.

**Partial mode shift was an attractive option for some people living in rural areas, even if full mode shift away from the car was more challenging.** Some areas delivered Park and Ride schemes with BSIP Phase 1 funding. These were valued by passengers if the bus leg of the journey offered a frequent and reliable service. Using the bus for some of their journey meant they could avoid parking charges or driving in congestion.

**BSIP Phase 1 interventions contributed to an increase in multi-modal journeys and passengers felt more satisfied with this form of travel over the period.** The share of passengers combining bus with other modes increased to 42% of survey respondents in 2025 from 36% in 2023.

### **Economic outcomes such as improved access to work**

**BSIP Phase 1 improvements played an important role in supporting some people to find or keep a job.** Over the delivery period, the proportion of survey respondents aged 25 and above who perceived local bus services to have a positive impact on their ability to find or keep a job increased from 15% in 2023 to 25% in 2025. This suggests bus improvements in the BSIP Phase 1 period, especially those that improved integration with other transport modes (such as Park & Ride) and increased frequency for evening services, contributed to supporting economic activity.

**Commuter-focused interventions (including Park and Ride and multi-operator tickets) reduced costs and improved access to work for working-age populations.** For example, in healthcare and for other large employment hubs. For young people, although overall bus travel increased where services had improved, their ability to rely on buses to access education and training was constrained where reliability, frequency, and timetable co-ordination had not improved.

**Engagement between bus operators and major site employers was essential to ensure timetables were able to support access to work, though this did not happen in some cases.** In healthcare settings for example, although some new services had been provided, limited engagement by operators to optimise bus timetables meant bus timings were not able to support working patterns. Participants in focus groups said the stress and risk of lateness due to bus unreliability and frequency gaps were barriers to using the bus to get to work, particularly for shift work.

### **Social outcomes such as safety, social inclusion and rural connectivity**

**Leisure trips and visits to friends and family remained the primary journey purposes among bus users and these were supported by the BSIP Phase 1 interventions.** Of the passengers who made more bus trips in the six months post March 2025 (compared to the previous 6-months), 33% reported those additional journeys were to go shopping or make leisure trips, and a further 13% for visiting friends and family, therefore demonstrating the influence BSIP Phase 1 interventions had on social value.

**BSIP Phase 1 funded training for drivers and on-board information provision enhanced accessibility and inclusivity of buses, often with small-scale yet vital interventions.** A representative from a disability group explained that drivers' attitudes were particularly important in supporting access to the buses for disabled users. However, some disabled people had experiences of drivers not accommodating mobility needs and routes not being direct enough, which created a barrier to blind or deaf passengers. One neurodivergent participant of a focus group spoke of the sensory challenges of travelling by bus at peak times and the reliance on audio announcements.

**Bus service improvements that support accessibility and inclusion were crucial for some groups and benefited all passengers.** BSIP Phase 1 interventions identified as important for improving accessibility by bus users included the installation of spaces to accommodate buggies and mobility aids, as these particularly helped passengers with disabilities and caring responsibilities, and the improvements in information availability through the installation of real-time information screens. Just under a quarter of survey respondents said they particularly valued improvements in real-time information screens and on-bus information.

**DRT services, used by passengers of all ages, played an important role in meeting the needs of some passengers.** Particularly for rural residents of all ages where fixed-route services may not meet local needs.

**Reliability remains of great importance for increasing the accessibility of bus use for disabled people and those who need support travelling.** Bus service improvements that increase bus reliability, as well as passenger perceptions of reliability, were noted in focus groups as central to unlocking the benefits associated with introducing new or more frequent bus routes. The bus priority interventions that deliver punctuality improvements contributed to these impacts.

### **Financially sustainable passenger services**

**BSIP Phase 1 funding enabled LTAs and operators to implement bus service improvements that would not have been funded otherwise.** Several LTAs and operators said that BSIP Phase 1 funding allowed them to carefully consider the feasibility of interventions that they would not have been able to undertake with internal funding alone. Some LTAs highlighted the role played by the funding in supporting existing services that may have otherwise been scaled back or stopped.

**BSIP Phase 1 funding unlocked the ability of LTAs and operators to undertake their own investments, building on BSIP Phase 1 interventions.** Several operators suggested that BSIP Phase 1 funding provided them with a platform to undertake their own incremental investment to improve their services.

**BSIP Phase 1 funding generated a positive 'feedback loop'.** Some operators stated that several interventions generated bus patronage and revenue which was then funnelled back into the service or the network to increase reliability, frequency, and quality.

### **Key findings: Value for money of BSIP Phase 1 (see Section 6 for more detail)**

The value for money of the BSIP programme was assessed in line with the HMT Green Book (2026). This was a partial assessment given that many BSIP Phase 1 interventions had not been delivered at the time of the evaluation, and the assessment focuses on the 16 representative LTAs. The assessment used evidence of the impacts on journey times, punctuality and patronage that were directly attributable to BSIP Phase 1, alongside other effects such as mode shift. Sensitivity tests of alternative assumptions have been carried out to account for any uncertainties. Non-monetisable impacts (such as changes in passenger satisfaction and social inclusion) have been considered qualitatively.

The value for money assessment considered whether strategic objectives had been met; how far benefits (monetisable and non-monetisable) exceeded costs, and; the distribution of benefits across sub-populations or geographies.

**The strategic objectives of BSIP Phase 1 interventions delivered by March 2025 were met.** Strong evidence shows BSIP Phase 1 investments directly improved journey time, punctuality and patronage. They also made important contributions to improvements in bus satisfaction.

**BSIP Phase 1 interventions delivered by 31 March 2025 in the 16 representative LTAs are overall likely to be medium to high value for money.** An initial assessment of monetisable benefits alone suggests a monetised BCR of 1.7 to 2.1. These monetisable benefits reflect journey time benefits on corridors with completed bus priority capital infrastructure, as well as punctuality and patronage benefits at the LTA-level (i.e. reflecting the impact of the whole package of BSIP Phase 1 interventions delivered by 31 March 2025 in each of the 16 representative LTAs). BCRs of individual schemes are likely to vary. Non-monetisable benefits would boost this further and would include the increase in passenger satisfaction, improved access to work, and the social benefits associated with driver training to accommodate the needs of people with disabilities.

Data limitations meant it was not possible to explore local variations or the VfM of specific types of individual intervention at this stage.

**Total benefits were higher in urban areas as most interventions were focused in those areas, though on a per passenger basis, journey time savings were higher in rural areas.** On corridors with bus priority capital interventions, estimated journey time benefits per passenger in year 1 were 2.4 pence per trip in rural areas, compared with an average 1.4 pence for all areas. At the LTA-wide level, estimated punctuality benefits per passenger in year 1 were 14.1 pence in urban areas, compared with an average of 8.2 pence for all areas.

### **Key findings: Process evaluation (see Section 7 for more detail)**

**BSIP Phase 1 capital interventions experienced significant delay and rescoping due to the complexity of their delivery.** The 3-year window for delivery was reported by many LTAs as extremely challenging. LTAs attributed this to several factors, particularly consultation

requirements, planning and the number of stakeholders involved. Practical issues related to procurement or technology, physical constraints such as roadworks, the weather and health and safety aspects, along with external factors such as cost increases.

**Enhanced Partnerships (EPs) helped foster productive relationships between LTAs and operators, though for some, it simply formalised existing ways of working.** Interviewees suggested that relationships between operators and LTAs were key to delivering BSIP Phase 1 interventions effectively, along with partnerships, working across different teams within LTAs.

**Capability funding provided by DfT was valuable at the start of the delivery process.** In cases where BSIP Phase 1 was used to provide additional resource, such as appointing delivery leads, this was considered by LTAs a key enabler to delivery. Likewise, dedicated and committed teams were considered a strength.

**LTAs were positive about the support provided by DfT.** However, LTAs said they would have liked the dedicated support of a Relationship Manager to continue throughout the funding period, instead of ending in early 2025.

### Policy Considerations

This process evaluation has identified a series of factors that DfT may wish to consider in the design and delivery of future local transport schemes of this scale. These include:

- Enhanced Partnerships have been effective in helping deliver the ambition of BSIPs and similar governance structures should be considered in future.
- Many capital schemes were delayed, with the overall 3-year timescale (or in some cases less) for delivery considered to be too short due to the complexity of delivery for such interventions.
- Capability funding was welcomed to kick-start early delivery and provide additional resources.
- LTAs and operators expressed some frustration at the volume and complexity of data requests and frequent changes in requirements from the DfT.
- LTAs showed mixed participation in knowledge-sharing but welcomed forums such as the Bus Centre of Excellence.

### Next steps

This evaluation has delivered robust analysis of the impacts and value for money of BSIP Phase 1 interventions delivered by 31 March 2025, and an evaluation of the processes involved. At the time of the evaluation, only 43% of the initial allocations had been spent. An evaluation after all schemes have been delivered and outcomes have been observed for 6-12 months would be needed to assess the full scale of impacts of the BSIP Phase 1 programme.

## 2 Context to this evaluation

In March 2021, the previous Government published its National Bus Strategy (NBS) Bus Back Better.<sup>6</sup> This laid out plans for improving bus services across England, making them cheaper, more reliable and easier to access. These improvements were also expected to deliver wider benefits including improving safety standards, reducing carbon emissions, supporting market innovation, and increasing the financial sustainability of the bus market.

Local Transport Authorities (LTAs) were invited to submit Bus Service Improvement Plans (BSIPs) setting out how they planned to improve services to meet local objectives and align with the NBS's aims. To deliver these Plans, LTAs were also required to establish Enhanced Partnerships or pursue franchising.

Following an assessment of the BSIPs, the Department for Transport (DfT) allocated £1.085 billion to 27 LTAs and 7 Mayoral Strategic Authorities (MSAs) over the 3-year period from April 2022 to March 2025, known as 'BSIP Phase 1'. This was followed by £160 million over 2023/24 and 2024/25 to protect and support bus services in LTAs that did not receive BSIP Phase 1 allocations. This was known as BSIP+ (and subsequently, BSIP Phase 2). In October 2023, the previous Government announced BSIP Phase 3 funding of over £1 billion for LTAs in the North of England and the Midlands (the first £150m of which was provided in 2024).<sup>7</sup>

BSIP Phase 1 interventions offered a valuable opportunity to develop evidence-based insights into what works, for whom and under what circumstances in relation to improving bus services. DfT therefore commissioned Frontier Economics and SYSTRA Ltd. to lead a 3-year Monitoring and Evaluation (M&E) study of BSIP Phase 1.<sup>8</sup> This report relates only to the M&E of BSIP Phase 1 interventions delivered by the 27 LTAs only, as interventions delivered by MSAs are the focus of a separate evaluation.

LTAs used their BSIP Phase 1 funding, both capital and revenue, to deliver packages of interventions across their areas with some interventions delivered earlier than others. For this evaluation the interventions were categorised into five typologies: bus priority infrastructure (e.g. bus lanes and signalling); fares and ticketing (e.g. discounts for selected groups of users, or multi-operator tickets); passenger environment (e.g. real-time information screens or bus shelters); scheduled route and timetabling changes and brand investment (e.g. service alterations or marketing); and on-demand bus services (flexible bus services operated via phone, app or website).

Interventions were delivered within a complex and dynamic set of conditions. Many other local and national policies and programmes were implemented over the BSIP Phase 1 period. For

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<sup>6</sup> DfT (2021). [Bus Back Better. National Bus Strategy for England](#)

<sup>7</sup> DfT (2024). [BSIP Guidance to LTAs](#)

<sup>8</sup> Note that this M&E focuses on BSIP Phase 1 only and does not aim to assess any impacts associated with BSIP Phases 2 and 3.

example, BSIP Phases 2 and 3 both delivered funding to some LTAs overlapping the BSIP Phase 1 period; and national bus fare caps were introduced from January 2023 (£2 until December 2024, then £3 until March 2027) which affected the demand for bus travel and interacted with local interventions. This context was important for the design of the evaluation approach (see Section 3).

The remainder of this report is structured as follows:

- **Section 3** sets out the evaluation approach, including the interventions delivered and methodology for robust analysis.
- **Section 4** sets out observed trends in key monitoring metrics over the 3-year period.
- **Section 5** sets out the impact evaluation findings.
- **Section 6** sets out the Value for Money (VfM) analysis.
- **Section 7** presents the process evaluation findings, covering design and delivery.
- The **Annexes** provide further detail on the data sources used and the methodologies underlying the impact, VfM, and process evaluations.

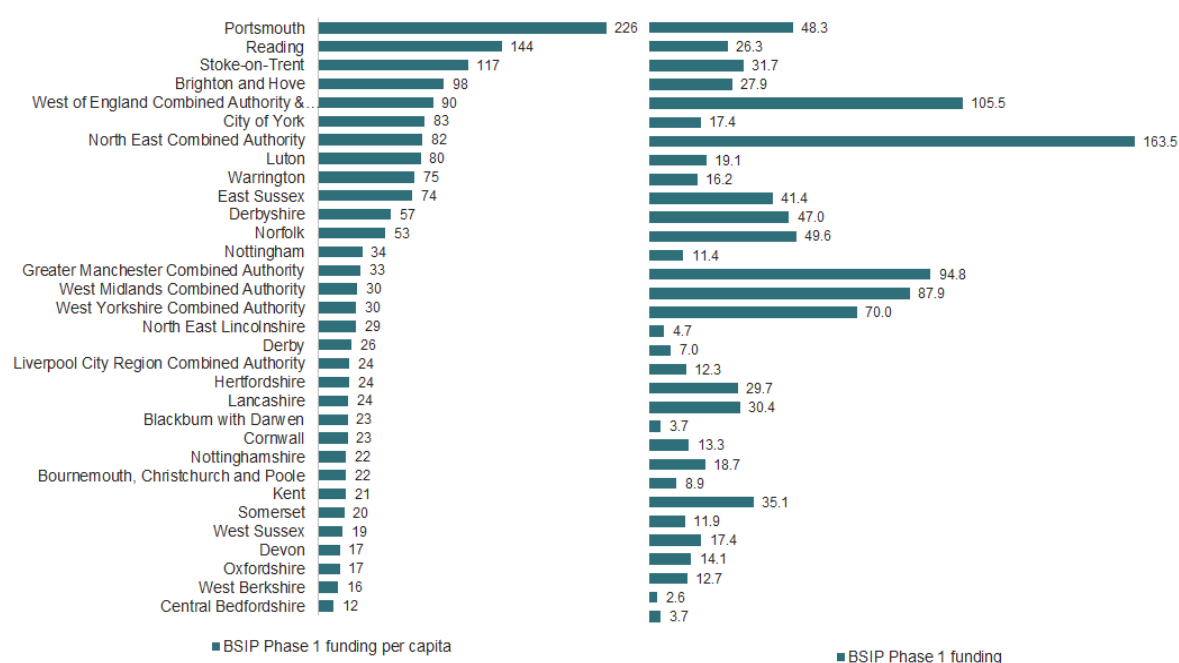
### 3 Evaluation Approach

The evaluation was undertaken in line with the best practice of the HM Treasury Magenta Book (HMT, 2020). The programme is described first, then the approach to evaluating it.

#### 3.1 The Phase 1 BSIP programme

BSIP Phase 1 funding was awarded to 27 LTAs and 7 MSAs, with individual area-level funding ranging from £2.6m to £163.5m, as shown in Figure 1 below.

**Figure 1 BSIP Phase 1 funding and funding per capita (LTAs and MSAs)**



Source: DfT: Bus service improvement plans: local transport authority final allocations 2022 to 2025. Available here: <https://www.gov.uk/government/publications/bus-service-improvement-plans-local-transport-authority-allocations/bus-service-improvement-plans-local-transport-authority-final-allocations>

Note: The figure presents 26 LTAs and 6 MSAs because some LTAs submitted joint BSIPs. Specifically, North Somerset received joint funding with West of England Combined Authority, and North of Tyne Combined Authority received joint funding with North East Combined Authority

BSIP Phase 1 funding and programme delivery was one part of a broader context of significant investment in buses at the local level. Other funding programmes delivered within the same 3-year period include the City Region Sustainable Transport Settlements (CRSTS), which provided consolidated, long-term capital funding to 8 Mayoral Strategic Authorities (MSAs) only; the Zero Emissions Bus Regional Areas (ZEBRA) scheme; the Transforming Cities Fund (TCF), which delivered capital investment to improve sustainable transport networks in 18 cities across England, and; the Rural Mobility Fund (RMF), which provided funding to trial on-demand bus services in rural or suburban areas of England. The Bus Service Operators Grant

Plus (BSOG+) scheme was also in place from July 2023 to March 2026 to lower operating costs for eligible commercial services.

Fares also changed substantially over this period due to the £2 bus fare cap funded by DfT, which lowered single fares from January 2023 to December 2024. The national cap was increased to £3 from January 2025 and will be in place until March 2027.

### 3.2 The M&E Framework

This M&E Framework includes **monitoring** of the changes over time in the four reported metrics and the evaluation of the **impacts** observed. It explores how those changes came about, for whom and which of the observed changes are attributable to BSIP and not to other influencing factors. The evaluation also considered the **processes** involved to design, deliver and implement BSIP Phase 1 interventions, to provide insight into their delivery performance, and key enablers and barriers to delivery. The **value for money** of the programme was also assessed by examining the evidence on whether the strategic aims of BSIP Phase 1 were met, and whether the monetised and non-monetised benefits (net of disbenefits) were likely to exceed the costs.

**Monitoring data was reported for the 3-year period from January 2023 to December 2025, relating to the 27 LTAs that received BSIP Phase 1 funding.** Mayoral Combined Authorities were not included as they are evaluated separately.

**The impact, process and value for money evaluation focused on a representative sample of 16 LTAs that received BSIP Phase 1 funding.** This approach was agreed with DfT to lower data collection burdens where feasible and ensure appropriate coverage of a diverse set of LTAs. The 16 LTAs were identified at the start of the evaluation in collaboration with DfT by applying selection criteria designed to reflect different types of bus interventions, funding levels, socioeconomic factors and area characteristics in which they are being delivered. While this sample covers a wide range of LTAs across these dimensions, the extent of scheme delivery by 31 March 2025 relative to what was planned is likely to vary across the 16 LTAs. The sample is, however, intended to be reflective of the outcomes of BSIP Phase 1 interventions delivered by all 27 LTAs to the extent feasible.

### 3.3 BSIP Phase 1 interventions included in the impact evaluation

The BSIP Phase 1 funding was used by LTAs to invest in a variety of long-term and short-term bus service improvements, based on an assessment of the needs of the local bus service network. By the end of the 3-year funding allocation period from April 2022 to March 2025, although many interventions had been successfully delivered, the full capital programme across LTAs had not been completed. This evaluation focused only on the schemes delivered by 31 March 2025. By this point, across the 16 representative LTAs 43% of the initial funding allocations had been spent with many capital schemes yet to deliver which therefore could not be evaluated at this point.

## EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

Each BSIP Phase 1 funded intervention was categorised into one of five ‘typologies’ based on the activities invested in and the purpose of the intervention. These are:

- **Bus priority infrastructure investment:** Capital investment relating to bus priority lanes, junction modification, and signal junctions.
- **Passenger environment investment:** Capital and revenue investment relating to passenger service information, public transport interchange and waiting area facilities.
- **Fares and ticketing investment:** Revenue investment (though with some capital for supporting hardware) relating to new and/or simpler fare structures and flexible payment systems and multi-operator ticketing.
- **Scheduled route and timetabling and brand investment:** Capital and revenue investment in new and modified routes and timetables and improved communication of services through common numbering, branding and digital timetables.
- **On-demand bus services:** On-demand bus services implemented by LTAs through their BSIPs including the introduction of new demand responsive transport (DRT) services, booking applications and contracts with bus operators.

Table 2 sets out the types of interventions invested in under each typology.

**Table 2**      **Example interventions by typology**

| Investment Typology                    | Intervention Examples                                                                                                                                                                                                              |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bus Priority Infrastructure Investment | Priority lane extensions and creations<br>Bus detection at traffic lights and priority systems<br>Bus lane infringement detection<br>Addressing network pinch points (e.g. improving junctions and crossings)<br>Bus rapid transit |
| Passenger Environment                  | Driver training<br>Bus stop improvements including real-time passenger information (RTPI) screens and lighting<br>Multi-modal interchanges<br>Vehicle quality standards<br>On-bus information                                      |
| Fares and Ticketing                    | Blanket fare reductions<br>Fare simplification<br>Ticketing options e.g. capping or carnets                                                                                                                                        |

## EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

| Investment Typology                    | Intervention Examples                                                                                                                                                                                              |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                        | Promotions/targeted fare reduction e.g. Job Seekers, Young Persons<br>Multi-operator tickets                                                                                                                       |
| Scheduled Route, Timetabling and Brand | Network planning capability building<br>Targeted increases in frequencies and operating times<br>Trialling of new services<br>Marketing, promotion, and brand identity initiatives<br>Carbon reduction initiatives |
| On-Demand Bus Services                 | Implementation and support                                                                                                                                                                                         |

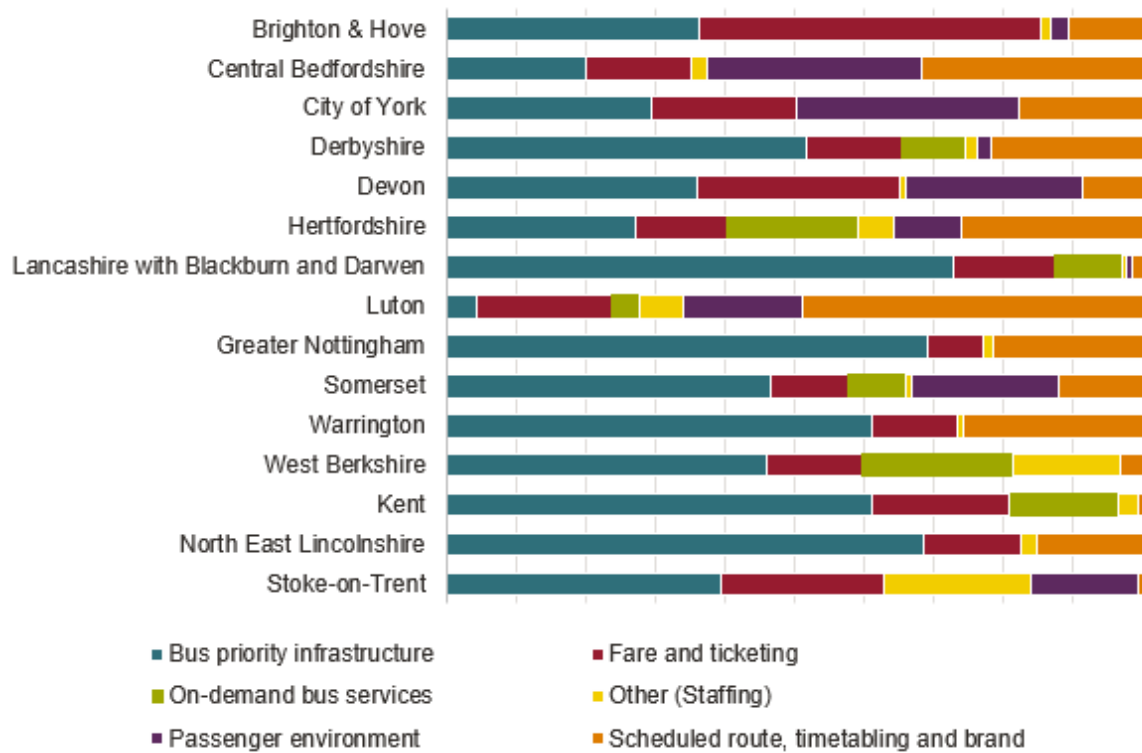
Source: Frontier Economics categorisation of BSIP Phase 1 funded interventions

The typologies differ in the type and scale of investment. LTAs delivered interventions by 31 March in packages combining capital and revenue interventions, and these were operational at different times.

As shown in Figure 2, the majority of funding was allocated to bus priority infrastructure' schemes (primarily capital funding) and 'fares and ticketing' schemes (primarily revenue funding). Figure 3 shows that as of 31 March 2025, bus priority infrastructure schemes represented a relatively lower proportion of completed schemes. On the other hand, the majority of delivered schemes were accounted for by the fares and ticketing and 'scheduled route, timetabling and brand' typologies. This suggests that these interventions were typically faster to implement than capital interventions and that they were more likely to be delivered within the 3-year funding period.

Figure 3 shows the schemes that were delivered by 31 March 2025 within the 16 representative LTAs only. Therefore, these are the interventions that were included in the impact evaluation.

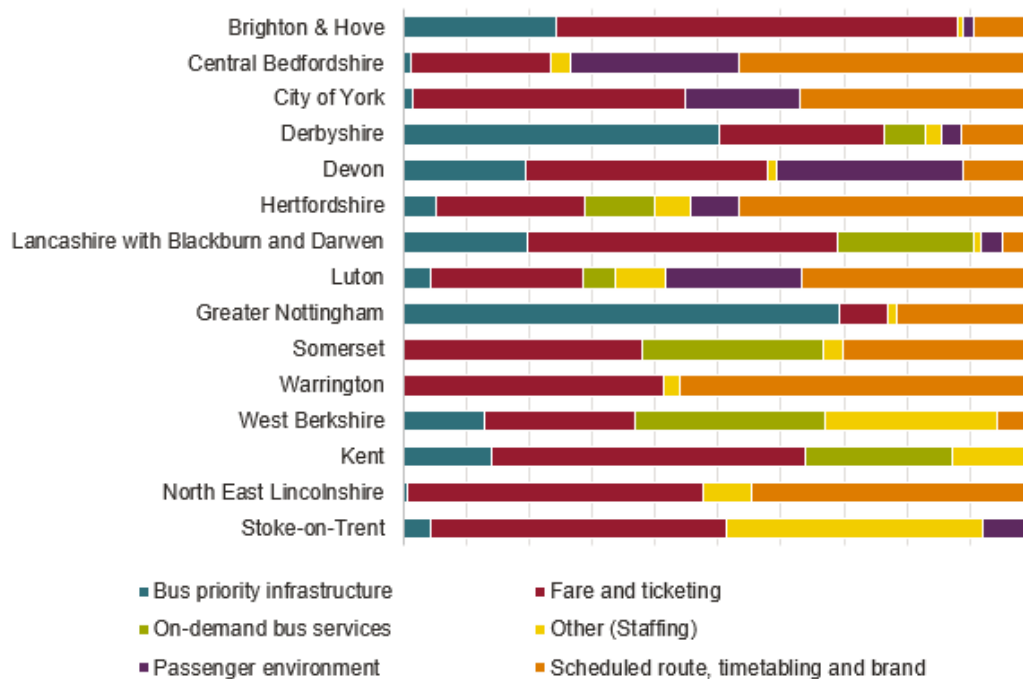
**Figure 2** Share of total funding allocation accounted for by each scheme type in the 16 representative LTAs (i.e. planned investments)



Source: LTA monitoring submissions

Note: This information is only presented for the 16 representative LTAs, excluding North East Combined Authority due to data limitations

**Figure 3** Share of total funding spend accounted for by each scheme type in the 16 representative LTAs (actual investments delivered by 31 March 2025)



Source: Internal DfT delivery data, based on information self-reported by LTAs

Note: This information is only presented for the 16 representative LTAs, excluding North East Combined Authority due to data limitations

### 3.4 Monitoring trends

The previous government's National Bus Strategy (DfT, 2021) identified four key metrics that BSIP Phase 1 aimed to improve. These are:

1. **Bus journey times** which measure the amount of time taken to complete a given bus journey;
2. **Bus punctuality** which measures the extent to which bus services are consistent with their scheduled timetables;<sup>9</sup>
3. **Bus passenger satisfaction** which measures self-reported satisfaction of bus users across a variety of elements of their bus journey, and;
4. **Bus patronage** which measures the number of bus trips over a specified time horizon.

<sup>9</sup> The Traffic Commissioner defines 'late' bus services to be those that depart no more than 5 minutes and 59 seconds after their scheduled departure time.

By presenting and discussing the trends observed in these four metrics over the 3-year funding period from January 2023 to December 2025, the changes associated with (though not necessarily caused by) BSIP Phase 1 interventions were tracked over time, providing important context along with any variations across LTAs.,

To track these over time, all 27 LTAs in receipt of BSIP Phase 1 funding provided monthly patronage data. Other data sources were used for the remaining metrics (including ABODS, Transport Focus passenger surveys and locally commissioned passenger surveys).<sup>10</sup>

### 3.5 Evaluation analysis

The evaluation included the three dimensions of impact, value for money and process.

An important factor for this evaluation was the timing of the analysis. Monitoring of the outcomes was undertaken for the full 3-year period of the BSIP Phase 1 funding with data reported for the 3 calendar years of 2023, 2024 and 2025.

The impact evaluation assessed the outcomes observed over the 6-month ‘post-intervention’ period after 31 March 2025 (only schemes delivered before this date were included in the evaluation). This time was chosen so that a period of ‘post-intervention’ outcomes could be evaluated to deliver findings in early 2026 to inform policy development. Data to inform this analysis was from four main sources:

- LTAs provided patronage data on a monthly basis (and some provided route-level data along with LTA-wide data);
- Ticketer data of bus boardings was used for LTA patronage changes, both for the LTAs that received BSIP Phase 1 funding, and those that did not;
- ABODS was used to obtain data on punctuality and journey times, and;
- Transport Focus (and a small number of LTAs) provided survey data on bus passenger satisfaction.

These data sources were complemented by a large programme of primary research including a 5-LTA panel survey carried out in November 2023 (baseline) and then again in November / December 2025 (post-intervention) with around 2,100 respondents in each wave (see Annex H). This was supported by interviews conducted with LTAs, operators, employers and community organisations, and focus groups with passengers. This research provided insight into bus user characteristics, journey purposes, travel behaviour choices, factors important to passengers, and their perceptions of bus travel and other modes.

The need for a ‘post-intervention’ period so that a quantitative evaluation could be carried out created challenges. Firstly, the 3-year window for programme delivery was ambitious for major

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<sup>10</sup> For further detail on the data sources utilised for this evaluation, please refer to Annex A.

capital interventions such as bus priority infrastructure and many schemes were delayed. Secondly, many revenue interventions such as fares schemes, marketing and branding were delivered within the 3-year period but ended as the period ended or continued with left over funding from BSIP Phase 1 or funding from the local area. Therefore, the analysis of impacts in the 6-month period after March 2025 that data was not available on. This included the legacy effects of those revenue schemes funded by the BSIP Phase 1 programme, or in some cases, the effects of schemes initially funded by BSIP Phase 1 and subsequently, continued with other funding sources.

### 3.5.1 Impact Evaluation

The impact evaluation was underpinned by a Theory of Change (ToC) for each intervention typology. These set out how the inputs (such as funding and people time) are used to carry out activities which deliver outputs (such as new infrastructure, new or adapted bus services etc). In turn, changes in outcomes such as journey times, punctuality, and bus passenger satisfaction arise which can lead to increased patronage and other changes. Longer term social, economic, and environmental impacts then follow. These theories of change are in Annex E.

The impact evaluation focused only on the 16 representative LTAs. All impact and value for money findings relate to these 16 representative LTAs and the schemes they delivered by 31 March 2025.

The complexity of the BSIP Phase 1 funding programme meant that no single method or quantitative assessment alone can tell the whole story about the impacts on individuals, communities, the economy and the environment. **For this reason, all the evidence, quantitative and qualitative, was brought together using a theory-based Contribution Analysis framework.**

The Contribution Analysis involved developing a series of ‘contribution claims’ which represent different elements of the ToC. These claims were tested to determine whether the evidence supported them, countered them, or whether some other factors may have led to the changes observed in the outcome. This analysis supported conclusions about the strength of evidence that BSIP Phase 1 funding contributed to the changes in outcomes, wholly or in part.<sup>11</sup>

The quantitative methods used to inform the Contribution Analysis were:

- **Quasi-experimental methods:** these methods isolated the impacts of BSIP Phase 1 interventions by using statistical methods that compare observed outcomes with counterfactuals, representing what would have been expected to happen without BSIP Phase 1. The evaluation of journey times was at the corridor level. This used a sample of

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<sup>11</sup> For further detail on the contribution analysis framework utilised for this evaluation, please refer to Annex E.

37 corridors across 11 LTAs with interventions completed and operational by 31 March 2025, compared to a set of similar corridors without BSIP phase 1 interventions to act as a counterfactual group. Further detail on this corridor-level analysis is included in Annex E. The evaluation of punctuality and patronage was LTA-wide and compares outcomes in LTAs that received BSIP Phase 1 funding (i.e. the 16 representative LTAs) with a counterfactual that represents what would have been expected without BSIP Phase 1 (a sample of similar LTAs that did not receive BSIP Phase 1 funding). Statistical tests were used to ensure counterfactuals were robust and appropriate. This analysis is discussed further in Annex E.

- **Before vs after:** this compared outcomes after BSIP Phase 1 funding (the 6-month post-intervention period) with those outcomes before. The quantified the scale of change over time, though cannot claim to be all resulting from BSIP interventions. This was used for passenger satisfaction, along with helping to understand changes in passenger behaviour, passenger experience, and passenger journey purpose.
- **Descriptive or trend analysis:** this set the scene and context for changes over time to show the profile of change.
- **Segmentation analysis:** this involved comparing outcomes and impacts for sub-groups (e.g. younger people compared to other age groups) or by type of area (e.g. urban compared to rural). This means the evaluation was able to look at changes in the behaviour of younger compared to older passengers, or how urban areas differ from rural.

The assessment of evidence for each contribution claim drew on the evidence using the quantitative methods above, along with the evidence from the interview and focus group primary fieldwork. This was further supplemented with local insights which drew on primary research evidence of the lived experiences of different passengers and stakeholders.

### 3.5.2 Value for Money Evaluation

The VfM evaluation focused on the 16 representative LTAs and only reflected the interventions delivered in those LTAs by 31 March 2025. It therefore presented a partial view of the value for money of the BSIP Phase 1 programme.

This assessment considered whether the strategic objectives of BSIP Phase 1 had been met, how far benefits (both, monetisable and non-monetisable) exceeded the costs, and what the distributional effects were. It considered the social, economic and environmental outcomes that could be robustly monetised, alongside the many important impacts that at this stage could only be assessed qualitatively.

Uncertainties were described and sensitivity tests were carried out to demonstrate the effects on the analysis of alternative assumptions and outcomes over time. Further details on the value for money approach, assumptions, data sources and sensitivity analyses are described in Annex F

### 3.5.3 Process Evaluation

The process evaluation collated and synthesised insights on the design, delivery and implementation of BSIP Phase 1 funded interventions. It drew on extensive engagement with key stakeholders carried out over the 3-year period, focusing on the key enablers and barriers to design and delivery, along with other factors such as governance, co-ordination across partners, re-programming and public engagement. Local authority capacity and capability were also considered via a survey of LTAs where they self-reported ratings across different dimensions.

These stakeholders include the DfT, LTAs, bus operators, regulators and transport commissioners. This was carried out across 44 interviews and workshop sessions throughout the course of the evaluation. All 16 representative LTAs and operators were invited to participate in the evaluation. Those interviewed were selected to represent a range of intervention typologies, geography, engagement level and delivery progress. In some cases, LTAs and operators were interviewed more than once at different phases of the evaluation to understand how their experiences changed over time. Annex I presents a full list of the research activities undertaken for this evaluation.

## 4 Trends in monitoring metrics

Monitoring data was collected for all 27 LTAs<sup>12</sup> in receipt of Phase 1 BSIP funding and is reported in this chapter. This covers the four BSIP Phase 1 key metrics:

1. Journey Time
2. Punctuality
3. Bus passenger satisfaction
4. Patronage

### 4.1 Data quality and methodology

Monitoring data was drawn from several sources, some of which differs from DfT's annually published bus statistics data tables.<sup>13</sup> This is because more frequent and granular data was needed for the evaluation than is published.

Analyse Bus Open Data Service (ABODS) is a platform provided by DfT for accessing bus open data such as speeds, journey time and punctuality. Use of this service across the evaluation provided a consistent source and reduced the data collection burdens placed on operators. However, there were limitations to this data such as some data gaps, particularly for smaller operators<sup>14</sup>.

ABODS data was collected only for the purpose of this M&E and was not used to monitor performance of operators, nor did it replace the reporting relationship with the Traffic Commissioner.<sup>15</sup>

While roadworks and other events can impact punctuality and journey time, the evaluation collected monthly data for 36 months to observe the trends in these metrics. As a result, any localised disruption will feature within this longer-period context.

As part of their BSIP submission, LTAs set ambitions for what they would like to achieve in terms of Key Performance Indicators (KPIs), including these four metrics. DfT annual statistics will continue to be the official measure with which an LTA will measure the success of their BSIP, so the analysis in this report is complementary.

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<sup>12</sup> This refers to all LTAs that are not Mayoral Combined Authorities or Mayoral Strategic Authorities.

<sup>13</sup> <https://www.gov.uk/government/statistical-data-sets/bus-statistics-data-tables>

<sup>14</sup> Punctuality data was, in some cases over-reporting early departures as buses were being identified as leaving the stop zone prior to actual departure due to interpretation of GPS data. This issue was rectified for this analysis.

<sup>15</sup> <https://www.gov.uk/government/publications/traffic-commissioners-local-bus-services-in-england-outside-london-and-wales-november-2018/statutory-document-no-14-local-bus-services-in-england-outside-london-and-wales> (Section 3.2)

## 4.2 Journey Time

### Key messages

- **Journey times and speeds** improved along corridors with BSIP Phase 1 bus priority infrastructure interventions completed by 31 March 2025.
- **Journey times on these corridors reduced by 6.9%** and speeds increased by 8.6%.

Journey time data from ABODS (or the operators in some LTAs) were used to monitor changes in journey times for the 3-year period from January 2023 to December 2025. Changes in journey time and speeds were reported at corridor-level only, as it was not possible to collect and report this at an LTA level. Therefore, data relates only to corridors where BSIP Phase 1 bus priority capital schemes were completed by 31 March 2025.

Journey times and speeds for completed schemes were available in ABODS for 12 LTAs, which together completed 39 capital schemes by 31 March 2025. This resulted in 131 individually monitored corridors (some schemes are monitored across multiple corridors and directions).

A comparison of the change in average speed and journey times across intervention corridors between 2023 and 2025 is presented in Table 3. This shows that the average journey time decreased by 6.9% and speed increased by 8.6%.

**Table 3** Journey time and speed change from 2023 to 2025

| Corridors                                                                                          | Number of completed schemes | ABODS monitored corridors | Journey Times change (%) | Journey Speed change (%) |
|----------------------------------------------------------------------------------------------------|-----------------------------|---------------------------|--------------------------|--------------------------|
| Corridors with BSIP Phase 1 bus priority infrastructure interventions (completed by 31 March 2025) | 39                          | 131                       | -6.9%                    | 8.6%                     |

Source: LTA data: self-reported and ABODS

Note: This table reports data relating to 131 corridors across 12 LTAs.

Although these results show improvements associated with the BSIP Phase 1 bus priority infrastructure interventions, this analysis looks at averages across corridors which have varying lengths and bus priority infrastructure interventions, ranging from pinch point removal to bus lanes, which can have significant variations on the impacts to journey times.

## 4.3 Punctuality

### Key messages

- **Annual ‘on time’ performance improved by 3.5 percentage points between 2023 and 2025** for LTAs that received BSIP Phase 1 funding.
- **The gap between LTAs with poorer and better on-time performance in 2023 narrowed by 2025.** Those LTAs with high performance remained high and improved further in some instances.

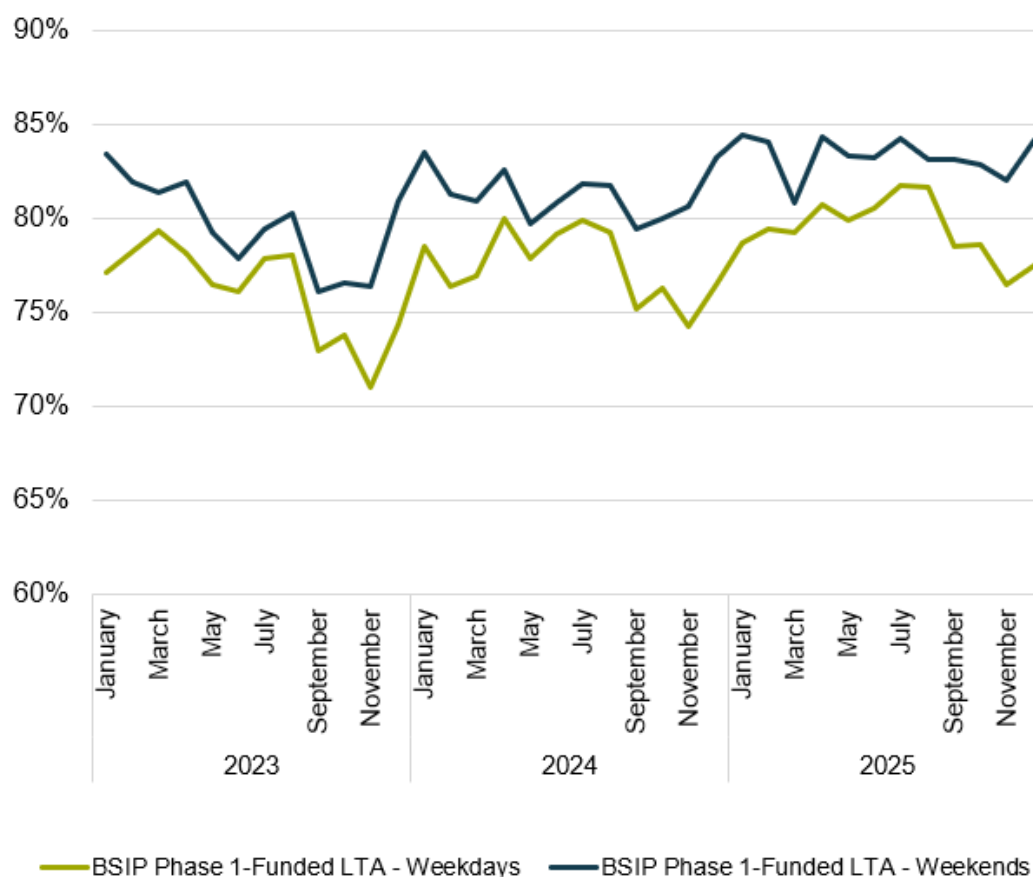
Punctuality was measured for monitoring purposes as the percentage of departures that were on time. This was collected through ABODS (which uses bus GPS data). ‘On time’ is defined by the Traffic Commissioner’s guidelines as between 1 minute before scheduled departure and 5 minutes and 59 seconds after scheduled departure. An annual version of this data is collected by DfT and reported through Bus Statistics Table BUS09a.<sup>16</sup> However, Bus Statistics Table BUS09a reports on non-frequent services only and the methodology differs from that used for this evaluation.<sup>17</sup> ABODS data used in this evaluation was monthly and included all services, therefore, it is not comparable with DfT statistics.

Figure 4 presents the percentage of on-time departures for weekdays and weekends across BSIP Phase 1 funded LTAs. For BSIP funded LTAs, annual on time performance improved by 3.5 percentage points between 2023 and 2025. It is challenging to interpret LTA-wide punctuality changes for several reasons:

- Schemes to improve punctuality were generally very local. Therefore, impacts were not observable and could be undetectable using data at an LTA level.
- Many factors affected punctuality at an LTA level, such as local events, roadworks and weather. These will vary across LTAs and at different times.

<sup>16</sup>DfT Bus Statistics BUS09. <https://assets.publishing.service.gov.uk/media/65662505312f40000de5d539/bus09.ods>

<sup>17</sup>DfT Bus Statistics Methodology. <https://www.gov.uk/government/publications/buses-statistics-guidance/annual-bus-statistics-quality-report-2023#the-dft-bus-punctuality-statistics>

**Figure 4** On time performance, January 2023 to December 2025

Source: LTA data from ABODS

The data presented in Figure 4 is aggregated across all 27 LTAs that received BSIP Phase 1 funding. When comparing the percentage of on time departures in 2025 with 2023, Table 4 shows that 24 of the BSIP Phase 1 funded LTAs improved, 3 remained steady and only 1 deteriorated.

**Table 4** On time departures from 2023 to 2025 for LTAs that received BSIP Phase 1 funding

| LTA                                 | Departures on time (%) |       |       |                                    |
|-------------------------------------|------------------------|-------|-------|------------------------------------|
|                                     | 2023†                  | 2024† | 2025† | 2025 v 2023<br>(percentage points) |
| Blackburn with Darwen               | 82                     | 84    | 85    | 3                                  |
| Bournemouth, Christchurch and Poole | 82                     | 87    | 87    | 5                                  |

## EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

|                                       |    |    |    |    |
|---------------------------------------|----|----|----|----|
| Brighton & Hove                       | 77 | 79 | 79 | 3  |
| Central Bedfordshire                  | 70 | 70 | 76 | 6  |
| Cornwall                              | 66 | 76 | 77 | 11 |
| Derby                                 | 79 | 79 | 79 | 0  |
| Derbyshire                            | 76 | 77 | 78 | 2  |
| Devon                                 | 73 | 75 | 77 | 4  |
| East Sussex                           | 74 | 76 | 77 | 3  |
| Hertfordshire                         | 77 | 78 | 77 | 0  |
| Kent                                  | 77 | 77 | 80 | 3  |
| Lancashire                            | 81 | 83 | 83 | 2  |
| Luton                                 | 70 | 71 | 79 | 9  |
| Norfolk                               | 77 | 78 | 78 | 1  |
| North East Combined Authority (NECA)* | 79 | 81 | 82 | 3  |
| North East Lincolnshire               | 72 | 77 | 85 | 13 |
| North Somerset                        | 79 | 78 | 81 | 2  |
| Greater Nottingham                    | 88 | 81 | 91 | 3  |
| Nottinghamshire                       | 76 | 75 | 76 | 0  |
| Oxfordshire                           | 74 | 77 | 79 | 5  |
| Portsmouth                            | 77 | 78 | 83 | 6  |
| Reading                               | 81 | 84 | 86 | 5  |
| Somerset                              | 73 | 71 | 75 | 2  |
| Stoke-on-Trent                        | 82 | 82 | 83 | 1  |
| Warrington                            | 81 | 80 | 77 | -4 |
| West Berkshire                        | 82 | 84 | 85 | 4  |
| West Sussex                           | 78 | 77 | 81 | 3  |
| York                                  | 79 | 81 | 80 | 1  |

Source: ABODS, some self-reporting from operators and DfT Bus Statistics Table BUS09a

Note: \* Average of the constituent authorities. This table includes 28 LTAs because Lancashire is listed separately from its BSIP partners Blackburn and Darwen. On time departure percentages have been rounded to the nearest percentage point.

To understand the variation in 'on time' performance, Table 5 shows the range in on-time performance across BSIP Phase 1 funded LTAs for 2023, 2024 and 2025. The table also shows the data availability, which is important to consider when interpreting ABODS results

(the number of departures captured by BODS relative to the scheduled). As compliance with requirements to publish ABODS data improved over the course of the evaluation, so too did the data availability and as a result, the confidence in monitoring data.

**Table 5**      **Range in ‘on time’ performance, 2023 to 2025**

|                           | 2023                 | 2024                 | 2025                 |
|---------------------------|----------------------|----------------------|----------------------|
| <b>Weekdays</b>           |                      |                      |                      |
| Average On Time           | 76%                  | 78%                  | 79%                  |
| Min On Time Average       | 54%                  | 53%                  | 68%                  |
| Max On Time Average       | 86%                  | 90%                  | 91%                  |
| Gap between max and min   | 32 percentage points | 37 percentage points | 23 percentage points |
| Data Availability Average | 66%                  | 75%                  | 78%                  |
| <b>Weekends</b>           |                      |                      |                      |
| Average On Time           | 80%                  | 81%                  | 83%                  |
| Min On Time Average       | 63%                  | 68%                  | 70%                  |
| Max On Time Average       | 91%                  | 92%                  | 93%                  |
| Gap between max and min   | 28 percentage points | 24 percentage points | 23 percentage points |
| Data Availability Average | 67%                  | 76%                  | 78%                  |

Source: LTA data; self-reported and ABODS

Note: On-time performance data is rounded to the nearest percentage point

Table 5 shows that the gap between the lowest performing and the highest performing LTAs in terms of punctuality narrowed between 2023 and 2025. This is observed on both weekdays and weekends, along with improving maximum ‘on time’ averages. This suggests that improvements were made across the board with relatively greater improvements in performance in areas with lower starting points.

## 4.4 Bus passenger satisfaction

### Key messages

- **Overall satisfaction increased** for the majority of BSIP Phase 1 funded LTAs from 2023 to 2025. Around half improved more than the England average.
- **The average increase in bus passenger satisfaction across all LTAs with data available was 5 percentage points.** This mirrors the average increase across England over the same period.
- **Value for money of bus travel was the only dimension for which satisfaction declined between 2023 and 2025.** This decline was also seen for England as a whole and is likely to reflect the change in the national fare cap on single tickets in January 2025.

The majority (21 of 27) of BSIP Phase 1 LTAs in this evaluation took part in the Transport Focus 'Your Bus Journey' survey, either for all three years (2023 to 2025) or two of them.<sup>18</sup> Initial baselining was conducted in 2019 and used in BSIP bids, but this was undertaken using a different survey methodology and represents a pre-pandemic scenario and is therefore not shown below.

Some LTAs undertook their own surveys to monitor passenger satisfaction. In most cases the methodology differed from that of the 'Your Bus Journey' survey and therefore was not comparable. Devon undertook a survey aligned with Transport Focus so has been included, though was not specifically using the Transport Focus methodology. This section presents changes in overall satisfaction, along with the following underlying themes:

- Value for money
- Bus stops
- Punctuality
- Journey time
- Bus driver

Change in satisfaction, from 2023 to 2025, for each of these themes is presented in Annex C

<sup>18</sup> NECA is represented by three constituent authorities in this data: County Durham, Northumberland and Tyne & Wear

## Overall satisfaction

Bus passenger satisfaction was measured in terms of satisfaction with the bus journey on the day of the survey. This is the measure used in the Transport Focus survey. BSIP Phase 1 interventions were intended to improve bus satisfaction. Results from the 'Your Bus Journey' and Devon Bus Passenger Satisfaction surveys for overall satisfaction are in Table 6.

**Table 6 Overall bus passenger satisfaction from 2023 to 2025**

| Local Authority Area*                | Satisfaction 2023 (%)            | Satisfaction 2024 (%) | Satisfaction 2025 (%)            | Change 2023 to 2025 (percentage points) |
|--------------------------------------|----------------------------------|-----------------------|----------------------------------|-----------------------------------------|
| Bournemouth Christchurch and Poole   | 90                               | 91                    | 90                               | 0                                       |
| Brighton and Hove                    | 82                               | 86                    | <i>Did not take part in 2025</i> | +4 (2023 to 2024)                       |
| City of York                         | 84                               | 88                    | 87                               | +3                                      |
| County Durham***                     | 75                               | 82                    | 85                               | +10                                     |
| Cornwall                             | 85                               | 86                    | 84                               | -1                                      |
| Derby City                           | <i>Did not take part in 2023</i> | 92                    | 87                               | -5 (2024 to 2025)                       |
| Derbyshire                           | 83                               | 91                    | 91                               | +8                                      |
| Devon^                               | 86                               | 88                    | 80                               | -6                                      |
| East Sussex                          | 79                               | 87                    | 87                               | +8                                      |
| Greater Nottingham                   | 87                               | 90                    | 93                               | +6                                      |
| Lancashire and Blackburn with Darwen | 80                               | 83                    | 89                               | +9                                      |
| Luton                                | 80                               | 80                    | 82                               | +2                                      |
| Norfolk                              | 81                               | 86                    | 88                               | +7                                      |
| North East Lincolnshire              | 83                               | 87                    | 91                               | +8                                      |
| Northumberland***                    | 80                               | 83                    | 85                               | +5                                      |
| Nottinghamshire                      | 85                               | 90                    | 90                               | +5                                      |
| Oxfordshire                          | 78                               | 84                    | 86                               | +8                                      |

## EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

|                                    |           |           |           |           |
|------------------------------------|-----------|-----------|-----------|-----------|
| Portsmouth                         | 83        | 88        | 92        | +9        |
| Reading Buses**                    | 86        | 89        | 92        | +6        |
| Stoke-on-Trent                     | 85        | 82        | 85        | 0         |
| Tyne & Wear***                     | 83        | 85        | 85        | +2        |
| Warrington                         | 76        | 85        | 84        | +8        |
| West of England and North Somerset | 77        | 81        | 82        | +5        |
| West Sussex                        | 81        | 86        | 85        | +4        |
| <b>England****</b>                 | <b>80</b> | <b>83</b> | <b>85</b> | <b>+5</b> |

Source: Transport Focus – ‘Your Bus Journey’ (excluding Devon, see note)

Note: \* Naming convention in Transport Focus surveys, this differs slightly from some of the names used in the evaluation.

\*\* Covers Reading Buses network around the Reading Area.

\*\*\* Constituent district of North East Combined Authority, results are treated as one authority.

\*\*\*\* BSIP Phase 1 LTAs account for 50% of LTAs surveyed by Transport Focus.

^ Devon: Bus Passenger Satisfaction Survey – Travel Devon

A comparison between 2023 and 2025 is available for 22 LTAs (three of which are constituent districts of NECA). Of these LTAs, satisfaction increased for 18 LTAs between 2023 and 2025, remained unchanged for two and declined for two. The greatest improvement was 10 percentage points (Durham), and 14 LTAs saw an improvement in overall satisfaction at or above the national average of 5 percentage points.

## 4.5 Patronage

### Key messages

- **Patronage increased on average 5%** across LTAs that received BSIP Phase 1 funding between 2023 and 2025.
- **Individual LTA patronage changes varied**, ranging from 19% growth to 12% decline between 2023 and 2025.

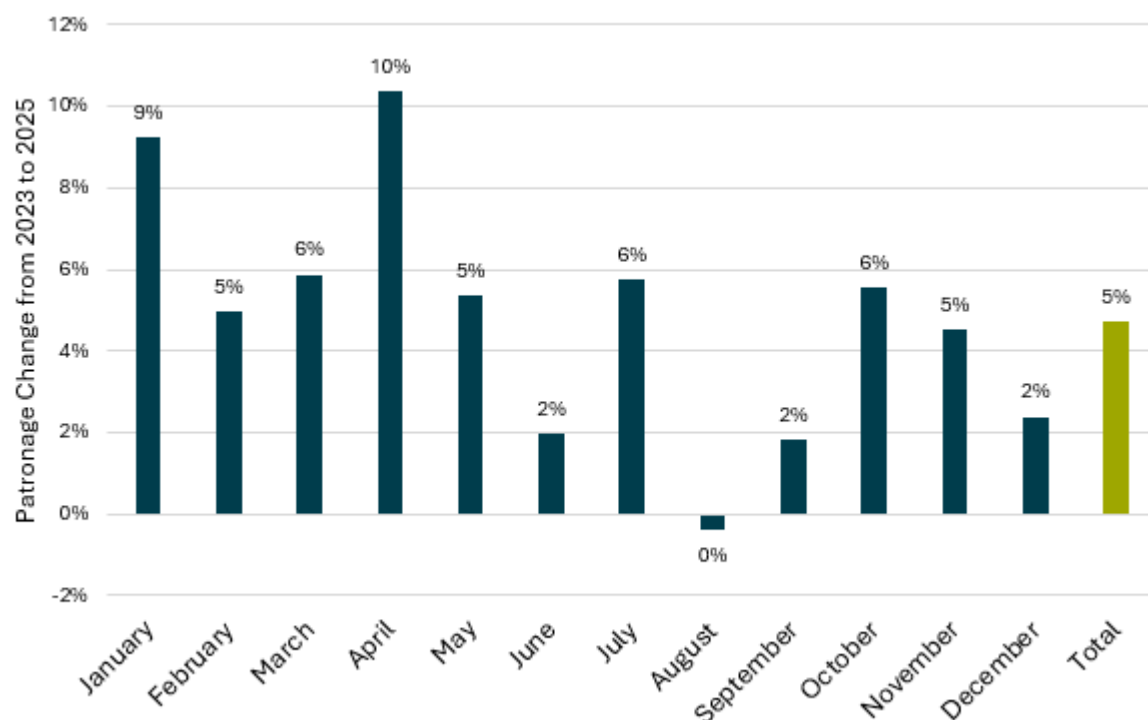
Patronage represents the number of people boarding a bus. For monitoring changes in patronage, data reported by LTAs was used. DfT publishes annual statistics on patronage in Table BUS01e<sup>19</sup>, though it was not possible to use this table as it is available with a lag.

<sup>19</sup>DfT Bus Statistics. <https://assets.publishing.service.gov.uk/media/65662505312f400013e5d534/bus01 ods>

Patronage data used for monitoring in this evaluation differs from published statistics due to different coverage and treatment of cross-boundary services.

Total patronage increased by an average of 5% for BSIP Phase 1-funded LTAs between 2023 and 2025.<sup>20</sup> Seasonality affects monthly patronage figures within each year, and between 2023 and 2025, the strongest growth in patronage was observed in the months of April (10.4%) and January (9.2%). However, the former was impacted by the occurrence of Easter. This is shown in Figure 5.

**Figure 5** Change in patronage by month and total between 2023 and 2025



Source: LTA self-reported patronage (22 LTAs included)

Note: Not all LTAs have been able to obtain data from all operators, usually smaller operators and this can vary from month to month.

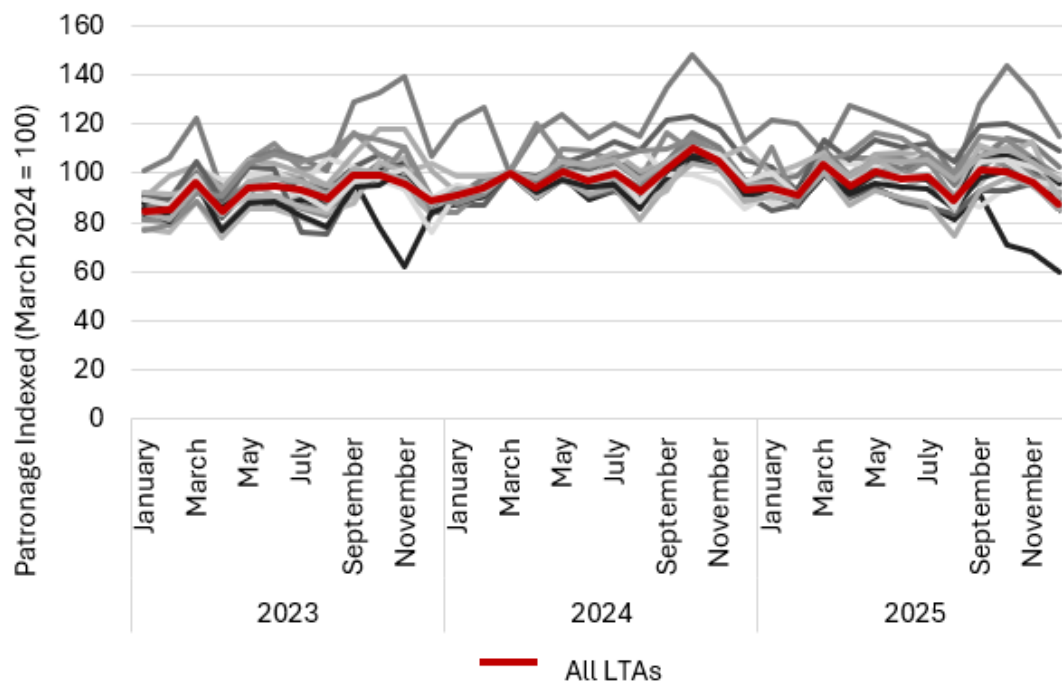
Data for five authorities is not available for some periods so are not included here.

Figure 6 presents monthly patronage change between January 2023 and December 2025, indexed to March 2024. This shows how each of the 22 LTAs for which data was available compared against the change in total patronage for the 22 LTAs combined (the individual LTAs are shown in grey and the total for all 22 in red). For more detailed charts on each LTA please refer to Annex D .

<sup>20</sup> This relates to the 22 LTAs for which data is available for the whole period.

Patronage change varied across BSIP Phase 1-funded LTAs (see Figure 6). Total annual changes between January 2023 and December 2025 ranged from growth of 19% to a decline of 12% (see Figure 20 in Annex D).

**Figure 6** Patronage change between January 2023 and December 2025, indexed to March 2024



Source: LTA self-reported patronage

Note: Indexed to March 2024 to mitigate the drop in patronage due to industrial action in NECA (Sep to Dec 2023) and to allow authorities that were not able to provide a full set of data in 2023 to be included in the individual charts found in Annex D.

## 5 Impact Evaluation

The impact evaluation integrated several best practice methods, quantitative and qualitative, within a Contribution Analysis framework. This section presents the contribution claims that describe how the BSIP Phase 1 interventions would be expected to deliver their impacts if the ToC holds true. These claims were then tested with the evaluation evidence. Other factors likely to have contributed to observed outcomes were also noted.

Due to the granular data requirements, the impact evaluation has been conducted focusing on the 16 representative LTAs, and not the full set of 27 BSIP Phase 1 funded LTAs. The 16 LTAs were selected to be a representative sample, based on the different types of bus interventions, funding levels, socioeconomic factors and area characteristics in which they are being delivered.

However, not all BSIP Phase 1 interventions had been delivered by 31 March 2025 and what had been delivered varied across LTAs. This sample of 16 LTAs is 60% of all BSIP LTAs. Therefore, the outcomes of the impact evaluation were intended to reflect the likely impacts of BSIP Phase 1 interventions delivered by all 27 LTAs to the extent that is feasible.

### Contribution claims

As described in Section 3.5.1, this impact evaluation was underpinned by a ToC (see Annex E2). To test the extent to which this holds true and outcomes unfold as intended, contribution claims were developed in collaboration with DfT. These were:

1. **Claim 1:** BSIP Phase 1 has contributed to changes in:
  - a. **Claim 1a:** Bus journey times
  - b. **Claim 1b:** Bus punctuality
  - c. **Claim 1c:** Bus passenger satisfaction
  - d. **Claim 1d:** Bus patronage
2. **Claim 2:** BSIP Phase 1 has contributed to modal shift and active travel.
3. **Claim 3:** BSIP Phase 1 has contributed to changes in social, health, and well-being measures.
4. **Claim 4:** BSIP Phase 1 has contributed to changes in economic outcomes such as education and employment.
5. **Claim 5:** BSIP Phase 1 has contributed to social outcomes including safety, community engagement, accessibility, volunteering, health, and pride in place.
6. **Claim 6:** BSIP Phase 1 has contributed to integration of the bus with other modes of transport and fare systems.
7. **Claim 7:** BSIP Phase 1 has contributed to enhanced sustainable revenues from bus services.

8. **Claim 8:** BSIP Phase 1 has contributed to more effective operations to reduce Greenhouse Gas (GHG) emissions.

Evaluation evidence to test these claims is below.

## 5.1 Claim 1: BSIP Phase 1 has contributed to changes in:

### 5.1.1 Bus journey times

Bus priority infrastructure schemes that focused on alleviating road congestion, including pinch point removals and the introduction of red routes and traffic signals, were expected to facilitate journey time improvements. Across the schemes delivered by 31 March 2025 in the 16 representative LTAs, 10 schemes related to pinch point removals and a further 4 specifically stated that the intended outcome was to improve journey times.

#### Key messages

- **BSIP Phase 1 bus priority infrastructure interventions led to a 7.0% reduction in average bus journey times** on corridors across the 16 representative LTAs with bus priority capital investment, compared to what would have been expected without BSIP Phase 1 (the counterfactual).
- **Reduction in journey times was perceived to be important by bus passengers though it was often not noticed.** The survey revealed fewer than 6% of passengers perceived a change in journey times, noting that bus reliability was a more important consideration. However, given the scale of LTAs, the survey respondents may not have travelled on a corridor with new investment.

#### Evidence of changes in journey times

Robust quasi-experimental analysis was used to isolate the impact of BSIP Phase 1 bus priority infrastructure. This revealed that these interventions had a positive impact, leading to a 7.0% reduction in bus journey times on those corridors, compared to what would have happened without BSIP Phase 1 investment.<sup>21</sup>

The change in journey times, however, was not widely apparent to passengers in the 5-LTA panel survey, as in 2025 only 6% noticed a reduction in journey times. More than three-quarters of survey respondents had not observed a change in the time taken by their bus

<sup>21</sup> This identification of treated and counterfactual bus corridors is based on information on the geographic location of the bus service improvements funded by the BSIP Phase 1 programme. The locations have been identified through extensive engagement with each LTA to ensure that the analysis accurately categorises those bus corridors that would be expected to benefit from the interventions, and those corridors that would not (directly) benefit to act as counterfactuals as part of a synthetic control method. For further detail on the methodology and assumptions underlying the quasi-experimental analysis, please refer to Annex E.2.

journey over the six months after 31 March 2025 and 14% suggested their bus journey had got longer (7.5% stated 'Don't Know'). This may be expected given the delays in capital scheme delivery, as passengers in the survey may not have travelled on routes that had capital investments and therefore would not be expected to notice a change.

Where changes in journey time had been noticed, this tended to be in response to bus priority infrastructure interventions. For example, some focus group participants who travel by bus noted they have:

*"...seen a big improvement in the speed of journeys since bus lanes have been introduced" (Focus group participant).*

However, engagement with LTAs and operators consistently suggested that journey time savings are important for bus operations, though are often relatively less important for bus passengers than reliability of bus services.

### Other contributing factors to observed change

Several of the interviewed operators and LTAs mentioned the dampening effect of roadworks and utilities works on achieving the intended outcomes of schemes to improve bus journey times. These were outside of their control but could have had significant impacts on their bus services.

Other bus interventions, funded by either BSIP or other external funding, could also interact with and affect journey times, such as bus driver training or changes in service timetables.

### Overall assessment of the contribution of BSIP Phase 1 programme

**Strong evidence** shows the BSIP Phase 1 bus priority infrastructure reduced average journey times on those corridors across the 16 representative LTAs by 7.0% compared to the counterfactual without BSIP Phase 1. Bus passengers may not be aware of these changes if they had not travelled on those specific corridors.

#### 5.1.2 Bus punctuality

BSIP Phase 1 interventions were designed as packages to improve services from several perspectives. Punctuality was only likely to be affected by some types of interventions within those packages. Those most likely to improve punctuality included capital schemes that addressed road congestion, such as bus priority lanes, red routes or traffic signalling.

## Key messages

- **BSIP Phase 1 interventions directly led to a 19.4% reduction in average delay in services departing from bus stops compared to timetable.** This was assessed across the 16 representative LTAs relative to the counterfactual without BSIP Phase 1. This was equivalent to 93.8 seconds average reduction in delays of buses departing bus stops across BSIP Phase 1-funded LTAs. This impact was larger on weekends, compared to weekdays.
- **Improvements in bus punctuality over the 3-year period were noticed by bus users.** A relatively larger proportion of survey respondents stated they were satisfied with the punctuality and reliability of their bus service in 2025 (81%) compared to 2023 (74%).

## Evidence of changes in punctuality

Robust quasi-experimental analysis was used to isolate the impact of BSIP Phase 1 bus interventions delivered by 31 March 2025 on bus punctuality across the 16 representative LTAs. On average, BSIP Phase 1 funded interventions directly led to a 19.4% reduction in bus stop departure delay.<sup>22</sup> This was equivalent to 93.8 second average reduction in departure delay because of the better flowing operations.

The analysis also showed that this reduction was larger at weekends, where the reduction in average delay times was 23.9%. In comparison, weekdays saw a 15.3% reduction in average delay times, relative to the counterfactual without BSIP Phase 1. It was not possible to specifically determine what led to the difference between weekends and weekdays.

The improvement in bus punctuality over the 3-year period was noticed by bus users with 70% of the 5-LTA panel survey respondents having stated that they were satisfied with the punctuality and reliability of their bus service in 2025 compared to 62% in 2023.

Bus priority interventions were noted as particularly important for addressing punctuality challenges, as one interviewed operator noted:

*“...you can see the corridors of growth compared to where we haven’t had the bus priority, and it’s just a huge contrast.” (Operator)*

The operators also explained that the one-off BSIP investment allowed them to make the bus service more consistently reliable, which brought more people to buses, and therefore was helping sustain the revenue of running the service.

<sup>22</sup> For further detail on the methodology and assumptions underlying the quasi-experimental analysis, please refer to Annex E.2.

LTAs also highlighted in interviews that the entire package of bus service improvements funded by BSIP were important. Several of those interviewed expressed that maintaining improvements in bus punctuality over time was crucial to bring about long-term change in travel behaviours.

However, there were different perceptions of punctuality by some passengers. For example, some focus group participants held the view that services were uncertain and lacked punctuality. This was a view expressed particularly among bus users in rural areas, who suggested that they would likely use buses more often if they were more reliable. This view may be related to the tendency of capital interventions to be delivered at pinch-points in urban areas.

### Other contributing factors to observed change

As with journey times, several of the interviewed operators and LTAs mentioned the dampening effect of roadworks and utilities works on achieving the intended outcomes of schemes to improve bus punctuality.

One LTA explained that following the implementation of significant enhancements to their bus service, they had to change their timetables to accommodate ongoing roadworks. This adversely impacted punctuality for reasons beyond their control. When the roadworks had completed, timetables had to change again to suit the new running time.

It is therefore possible that some of the negative perceptions and experiences associated with unreliability of buses may be related to external factors.

### Overall assessment of the contribution of BSIP Phase 1 programme

**Strong evidence** shows the BSIP Phase 1 programme reduced average bus stop departure delay times by 19.4% across the 16 representative LTAs, equivalent to an average reduction in delay of 93.8 seconds. This was also noted by operators and LTAs. While there has been some improvement in passenger satisfaction with bus reliability, there is further scope for improvement, with continued negative perceptions of unreliability and uncertainty particularly in rural areas.

#### 5.1.3 Bus passenger satisfaction

Bus passenger satisfaction covers several dimensions including passenger experience on the bus, at the bus stop, perceived value for money, bus service reliability and frequency, among others. The majority of BSIP Phase 1 interventions were expected to directly or indirectly affect satisfaction. Interventions within the BSIP Phase 1 packages are likely to reinforce each other to boost passenger satisfaction, for example, improved punctuality from capital interventions coupled with better real-time information at bus stops.

## Key messages

- **Passenger satisfaction increased by 4 percentage points on average between 2023 and 2025 according to the panel survey.**
- **BSIP Phase 1 funded schemes that were more ‘customer-facing’ were associated with improvements in passenger satisfaction.** These included bus stop improvements, real-time information screens, and introduction of new services.
- **Passengers in urban areas felt more satisfied with changes in bus experience than passengers in rural areas.** Just under half of bus users in urban areas perceived the bus service improvements to have had a positive impact on their bus experience, compared to a third of bus users from rural areas.

## Evidence of changes in passenger satisfaction

The 5-LTA panel survey showed an increase in the proportion of respondents satisfied with their overall bus journey from 83% in 2023 to 87% in 2025. As shown in Table 7, the greatest improvements in reported satisfaction were associated with bus service frequency and reliability, whereas satisfaction with the cost of bus journeys declined over the period.

**Table 7      Bus passenger satisfaction, 2023 v. 2025**

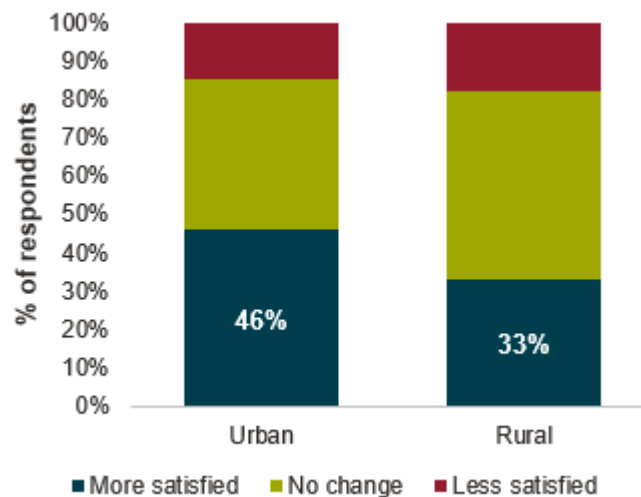
| Aspect of bus journey                             | Percentage of survey respondents ‘satisfied’ |            |           |
|---------------------------------------------------|----------------------------------------------|------------|-----------|
|                                                   | 2023                                         | 2025       | Change    |
| <b>Overall bus journey</b>                        | <b>83%</b>                                   | <b>87%</b> | <b>4%</b> |
| Bus service frequency                             | 63%                                          | 71%        | 8%        |
| Reliability of buses arriving and leaving on time | 62%                                          | 70%        | 8%        |
| Quality of the bus                                | 68%                                          | 76%        | 8%        |
| Ease of interchanging to other transport modes    | 69%                                          | 78%        | 9%        |
| Journey time                                      | 76%                                          | 80%        | 4%        |
| The bus stop                                      | 76%                                          | 79%        | 3%        |
| Cost of bus journey                               | 76%                                          | 71%        | -5%       |

Source: October 2025 Panel Survey and 2023 Panel Survey

Note: The number of respondents differs across each response, ranging from 1,258 to 1,555

There were differences in satisfaction across area types. In urban areas, 46% of survey respondents stated that they were more satisfied with their bus journey following the recent bus service improvements, compared with 33% in rural areas. This is shown in Figure 7.

**Figure 7**      **Reported impact of bus service improvements on overall satisfaction, urban vs. rural (2025)**



Source: October 2025 Five Area Panel Survey

Note: n = 1,643

Insights from the operator and LTA interviews as well as passenger focus groups also indicated a positive role played by the BSIP Phase 1 programme regarding bus passenger satisfaction. For example, focus group participants praised new bus shelters which in their view would:

*“... encourage people to, perhaps if it’s pouring with rain, to go and wait more or get a bus.” (Focus group participant)*

Operators and LTAs also reported that visible bus stop improvements funded through the programme were well received by passengers. One operator stated that real-time information (RTI) screens:

*“...help significantly in terms of making the bus a more attractive choice.” (Operator)*

Some focus group participants highlighted the importance of reliable bus journeys in giving them the confidence to use buses.

*“They’re pretty reliable. So, I always know one’s going to show up within about 10-15 minutes at most.” (Focus group participant)*

The focus groups, however, also highlighted aspects of bus services that passengers still felt less satisfied with. These related to overcrowding on services (particularly due to recent

patronage growth on their local service) and increases in bus fares (particularly due to the increase in the national bus fare cap from £2 to £3). Some participants also noted that they were less confident to use buses for time-critical activities such as travelling to work. This was particularly noted by passengers who live in rural areas, where bus service frequency tends to be lower, meaning that the unreliability of buses has a greater impact on their ability to get to work on time.

### Other contributing factors to observed change

The impact of different kinds of BSIP Phase 1 funded interventions on passenger satisfaction varied. Bus stop improvements (such as real-time information screens, or shelters), fare schemes, or specific new services were likely to be noticed by bus passengers. However, other interventions such as pinch point removal, or red routes were less likely to directly impact passenger satisfaction, as they would only be noticed if they led to improved punctuality.

This was observed in the qualitative findings where focus group participants noted their satisfaction with RTI screens and bus stop improvements (which were more ‘customer-facing’). However, some passengers continued to have lower satisfaction with bus reliability and journey times, despite several interventions made by the LTAs to address them. This could be because the latter interventions are corridor-specific only and focus group participants may not have experienced them directly.

As noted above, satisfaction with the cost of the bus journey declined over the period. This is likely to be driven by the change in the national fare cap from £2 (in 2023 and 2024) to £3 (in 2025).

### Overall assessment of the contribution of BSIP Phase 1 programme

**Moderate evidence** shows the BSIP Phase 1 programme led to improvements in passenger satisfaction associated with certain types of schemes and interventions. However, not all of this impact could be attributed to the BSIP Phase 1 interventions given the number of factors that affect satisfaction. Nonetheless, there was sufficient evidence of a contribution towards these outcomes. Satisfaction with bus fares declined over the period, likely due to the national bus fare cap increasing from £2 to £3 in January 2025.

#### 5.1.4 Bus patronage

Almost all BSIP Phase 1 interventions were expected to influence bus patronage directly, or indirectly. For example; revenue-funded fare policies were expected to reduce the cost of bus travel relative to other modes; passenger experience interventions, such as real-time information, were expected to ease the use of bus relative to other options, and; capital schemes that improved bus flow, such as priority lanes, signalling or red routes were expected to make services more punctual.

## Key messages

- **BSIP Phase 1 interventions overall led to a 4.2% increase in LTA-level patronage across the 16 representative LTAs, compared to the counterfactual without BSIP Phase 1.** This change can be attributed to BSIP and reflected outcomes in the 6-month period after March 2025.
- **Bus use was reported to have increased compared to six months previously by 27% of survey respondents,** with 60% stating bus service improvements were the only, or the primary, reason.
- **Younger passengers aged 16-24 showed the greatest shift towards bus travel of all age groups,** with 42% stating that they made more bus journeys in the 6 months after March 2025, compared to 24% of individuals aged 25+. Young person-specific fares funded by BSIP Phase 1 were likely to have been important in driving this.
- **29% of individuals living in urban areas reported making more bus journeys in the 6 months after March 2025 compared to 20% of individuals living in rural areas.** Bus improvements were a major driver of these changes; 60% of these urban and rural respondents making more bus journeys said bus service improvements were the only, or the main, reason they did so, and; 20% of those in urban areas said they would not have made those additional journeys at all without the improvements.

## Evidence of impacts on patronage

In the 6-month period after 31 March 2025, average patronage was 4.2% higher across the 16 representative LTAs compared to the counterfactual without BSIP Phase 1.<sup>23</sup> This overall average effect is likely to differ across LTAs because interventions were typically targeted on particular locations (such as pinch-points) or on particular sub-groups of populations, such as fare reductions for young passengers. The average 4.2% increase includes all passengers, including those eligible for free bus travel through national and local concessionary fare schemes, who would not be affected by local fares.

Self-reported evidence in the 5-LTA panel survey revealed that 27% of those surveyed increased their bus travel compared to the previous six months. Interventions to improve services materially influenced this behaviour change with 60% of this group stating bus service improvements as the only, or the primary, reason.

Buses enabled new journeys that would not have been made otherwise, particularly for individuals who did not have access to private vehicles. Evidence from the survey suggested

<sup>23</sup> For further detail on the methodology and assumptions underlying the quasi-experimental analysis, please refer to Annex E.2

that 15% of individuals who used buses in 2025 did not previously make the journey. Of those bus users who did not have access to a private vehicle, 29% did not make the journey previously, compared to only 10% of those who did have access. This demonstrates the importance of bus services to people who did not have access to a car because buses allowed them to make journeys that they could not before, therefore opening opportunities for economic and social connections and activities.

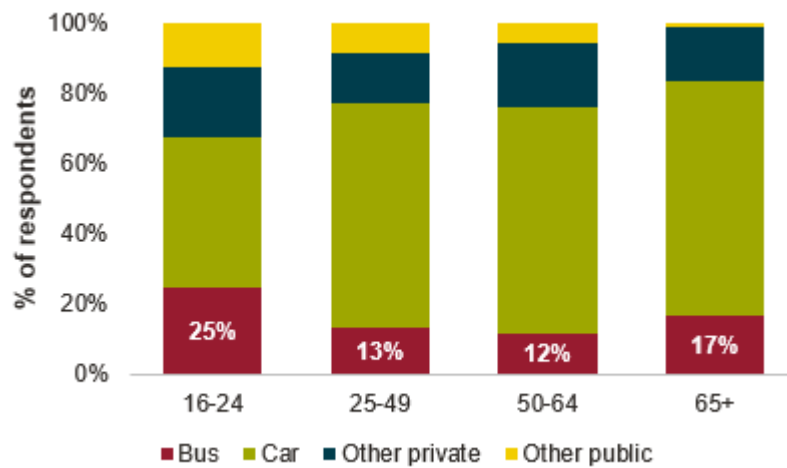
Young people appeared to rely on the bus relatively more than older travellers. When asked in 2025, younger passengers aged 16-24 were found to use the bus as their primary mode of transport at a higher rate compared to older travellers. As Figure 8 shows, this was the case for 25% of people aged 16-24, compared to 12-17% for older groups.

Coupled with this, young people appeared to have been more responsive to bus interventions by changing their travel patterns, compared to older age groups. Of the 5-LTA panel survey respondents, a significantly larger proportion of younger passengers reported increasing their bus use over the six months after March 2025 (42%), compared to passengers aged 25 or over (with an average of 24%), as shown in Figure 9.

Of these young people who used the bus more over that period (relative to the prior six months), just over a half suggested that recent bus service improvements were the only, or the main reason for this change. Bus service improvements appear to have been more readily noticed by these younger travellers as a significantly larger proportion of younger passengers reported that they would not have made the additional journeys at all had the bus service improvements not been made (28%) compared to passengers aged 25 and over (16%), as shown in Figure 10.

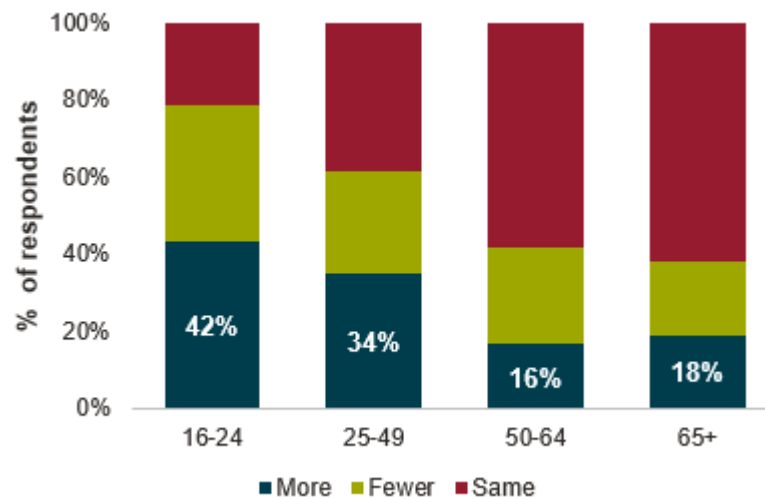
This evidence was also supported by insights from stakeholder interviews with several LTAs and operators highlighting the relatively positive response from younger passengers, especially to specific ticketing products geared toward this group. Bus operators suggested that BSIP Phase 1 funding allowed an LTA to fund a subsidised flat fare for younger people which has:

*“[The Young Person fare] generated a lot of interest and we’ve seen growth in the young person travel market, which obviously is important because they are the customers of tomorrow.” (Operator)*

**Figure 8** Primary mode of transport used, by age (2025)

Source: October 2025 Five Area Panel Survey

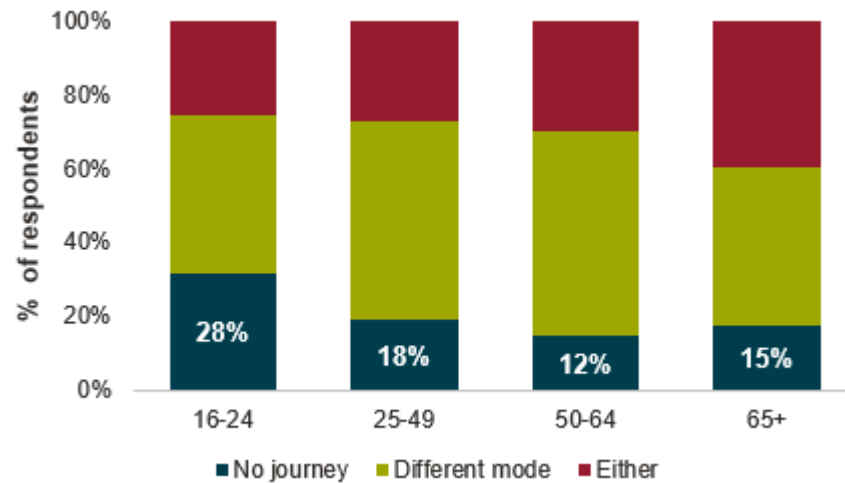
Note:  $n = 2,083$

**Figure 9** Number of bus journeys undertaken in Autumn 2025 relative to six months ago, by age

Source: October 2025 Five Area Panel Survey

Note:  $n = 2,084$

**Figure 10** Travel decision if bus service improvements had not been made, by age (2025)



Source: October 2025 Five Area Panel Survey

Note: n = 571

Individuals living in urban areas appeared to be more responsive to bus interventions than those living in rural areas. Understanding how the BSIP Phase 1 interventions impacted patronage in rural areas compared to urban is more challenging because ONS LTA rurality classifications average across the whole LTA, despite populations living in both rural and urban locations within an LTA.

However, respondents in the 5-LTA panel survey in late-2025 were asked to self-report whether they live in an urban or rural area. A larger proportion of survey respondents living in urban areas reported making more bus journeys compared to six months ago (29%) compared to those in rural areas (20%). Approximately 60% of both, urban and rural respondents who reported making more bus journeys stated that the bus service improvements were the only, or the main, reason they did so. Also, 20% of those individuals in urban areas who reported making more bus journeys relative to six months ago suggested that they would not have made those additional journeys at all, had the bus service improvements not been made.

### Local insights

Operators and LTAs reported strong take-up of revenue-based interventions aimed at young people, with some of this success attributed to marketing and promotion measures. One operator introduced a £1.50 cap on fares for individuals up to the age of 19, funded by the BSIP Phase 1 programme. Monthly under-19 ticket sales at a depot affected by this cap increased from 22,000 in 2023 to 40,000 in 2025 following the introduction of the cap, and related marketing efforts funded by the programme.

*“It’s the promotion work done to try and drive take up of the [capped product above], because it also doubles up as a library card as well. I think in [the LTA], I think it’s starting to pay dividends.” (Operator)*

Another operator noted an increase in young people using a BSIP Phase 1 funded local fare cap for travelling to their place of education. Following expiration of the BSIP Phase 1 funding, the operator opted to fund the cap privately to maintain observed patronage levels. The operator noted that:

*“When the [local fare cap] scheme ended, I think there was a bit of concern from a large number of families who travelled on that route that their fare would probably more than double. So, we as the operator decided that we would introduce our own cheaper fare” (Operator)*

This evidence suggested that bus patronage among younger people may be particularly sensitive to the cost of travel.

### Other contributing factors to observed change

Changes in bus patronage were expected to be influenced by several factors, alongside BSIP Phase 1 interventions.

One important national policy likely to have affected patronage in all LTAs over the 3-year funding period (and beyond) is the £2 Bus Fare Cap (£2BFC) that was in place from 1 January 2023 in England (outside London).<sup>24</sup> The national fare cap increased from 1 January 2025 under the £3 National Bus Fare Cap (£3NBFC).<sup>25</sup> These policies capped all single bus journeys offered by participating operators. The introduction of the £2BFC scheme led to an increase in bus patronage across all LTAs over the first 10 months of 2023 of around 5 percentage points.<sup>26</sup> This is important context because the effectiveness of all BSIP Phase 1 schemes would be affected by the change in the national bus fare cap. For example, BSIP-funded local fare cap schemes targeting particular population groups or locations could have a lower relative impact on patronage when set against a £2 national cap, than if those local caps were implemented and local passengers would otherwise have had to pay higher fares. The impact of the £3NBFC was also observed in the focus groups, with one participant noting that:

*“£3 to [town] is fantastic, especially because apps like Uber or even getting a cab these days is getting really expensive. But just in the same way that that incentivised me to take the bus, I’m now actually finding myself more incentivised to walk places just to avoid paying like a six quid return.” (Focus group participant)*

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<sup>24</sup> [DfT announces the £2 Bus Fare Cap scheme](#)

<sup>25</sup> [DfT announces the £3 National Bus Fare Cap scheme](#)

<sup>26</sup> [DfT publishes evaluation of the first 10 months of the £2BFC](#)

## Overall assessment of the contribution of BSIP Phase 1 programme

**Strong evidence** shows the BSIP Phase 1 programme contributed to an average increase in LTA-level patronage of 4.2% across the 16 representative BSIP Phase 1 funded LTAs relative to the counterfactual without BSIP Phase 1. The impact on young people was greater than for older age groups, and some of the increase was from young people who otherwise would not have travelled at all. Therefore, new social and economic connections were enabled.

## 5.2 Claim 2: BSIP Phase 1 has contributed to modal shift and changes in active travel

Modal shift towards buses depends on the degree to which travellers perceive buses to be a better, more convenient, more reliable and cheaper alternative to their prevailing mode of transport. As a result, almost all BSIP Phase 1 funded interventions would be expected to influence modal shift since they all seek to make buses more appealing.

Given the importance of travel costs, especially for regular travellers, schemes that made buses more affordable (such as targeted fare caps) were likely to have had a greater impact on modal shift, at least in the short-term. Long-term sustained shift was also likely to be impacted by large capital interventions that improved bus reliability and frequency.

### Key messages

- **Most mode shift was from cars.** Of the 27% of survey respondents who made more bus journeys post March 2025, about half stated that they would have travelled by car instead had the BSIP Phase 1 funded bus service improvements not been made.
- **Car ownership was an important factor in what modes people shifted from.** People who did not own cars were more likely to shift to bus from active travel (31%) or to not have travelled at all. Of those owning cars, 59% were likely to have used their vehicle before shifting to bus.
- **19% of bus passengers who reported making more bus journeys post March 2025 suggested they would not have made those journeys at all without the bus improvements,** suggesting that the BSIP interventions enabled new trips.

### Evidence of impacts on mode shift and active travel

The previous government's NBS (DfT, 2021) intended to create a shift away from private vehicles to public transport by making buses an attractive alternative. As 60% of people responding to the 5-LTA panel survey stated private cars as their primary mode of transport in 2023, this suggests bus service improvements have the potential to support continued mode shift.

Mode shift is difficult to evidence given the range of factors that affect an individual's mode of choice. Although cars were a prevalent mode choice, noted by 56% of survey respondents in 2023 as their main mode and 61% in 2025, there was evidence of some mode shift. Around 27% of survey respondents reported they have made more bus journeys in the six months post-March 2025. Just over half suggested that they would instead have travelled by car had the bus service improvements not been introduced. This suggests that the bus service improvements enabled some degree of modal shift from cars.

Of survey respondents who reported making more bus journeys in the six months post March 2025, 19% suggested that they would not have made the additional journey(s) at all had the bus service improvements not been made and 44% suggested that they would have made this journey using a different mode of transport.

Interviews with employers in the healthcare and tourist industries suggested that in some cases, bus service timings and routes were not optimised to the working or visitor patterns of the organisation, therefore, limiting the potential for modal shift. One community group representative described the bus service provision as “misplaced”, and others discussed the barriers to bus use.

*“All of these [...] strategic routes are really vital to get people in. What we're kind of missing a little bit is getting those connections onward.” (Community group representative)*

Another noted:

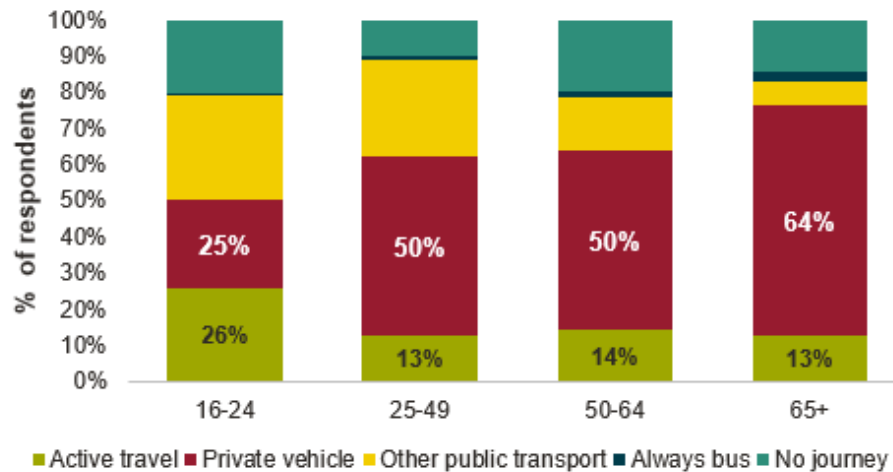
*“...if you want people to use public transport, you've got to provide enough buses going at the right times at the right prices, [...], at the minute, it's not quite that in some places.” (Community group representative)*

In addition to mode shift from private vehicles, the Government has also outlined its proposed objectives to increase active travel. The DfT's third Cycling and Walking investment Strategy consultation outlines government plans to significantly increase the number of journeys walked or cycled.<sup>27</sup> Of people who used buses in the 5-LTA panel survey in late-2025, 15% stated that they previously used to engage in active travel before switching to using the bus for their most frequent bus journey. This proportion was relatively higher among younger people aged 16-24 (26%) compared to people aged over 25 (13%), as shown in Figure 11. This suggests that there was likely a larger shift away from walking and cycling among younger people, compared to other groups, as they were less likely to own a car.

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<sup>27</sup> [The DfT's third cycling and walking investment strategy](#)

**Figure 11** Mode of transport used before regularly using the bus for most the frequent bus journey, by age (2025)

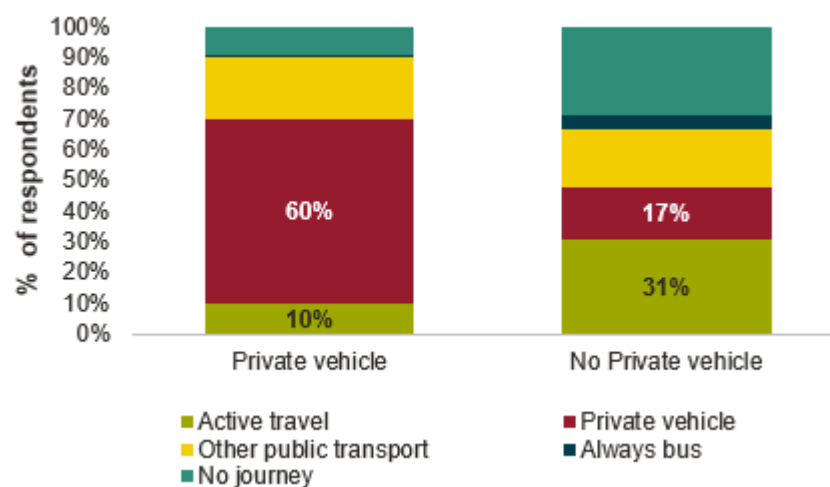


Source: October 2025 Five Area Panel Survey

Note:  $n = 1,568$ . Private vehicle includes scooter/ e-scooter, car or van (driver/ passenger) and motorbike/ moped.

There was also a notable difference in mode shift and active travel among survey respondents depending on whether they had access to private transport or not. As shown in Figure 12, those with no access to private vehicles were significantly more likely to have engaged in active travel for their most frequent bus journey prior to using the bus (31%) compared to those who did have access to private vehicles (10%).

**Figure 12** Mode of transport used before regularly using bus for most frequent bus journey, by access to private vehicle (2025)



Source: October 2025 Five Area Panel Survey

Note:  $n = 1,568$

### Local insights

#### **Scope for modal shift was more limited in rural areas.**

Focus group participants explained that they relied on using private vehicles for certain journeys, particularly for time-sensitive journeys. Participants also suggested that they often used the Park & Ride bus service to visit the town centre and the hospital because of the more favourable costs compared to car parking charges in the town.

Focus group participants in a high-deprivation urban area also highlighted how integrated ticketing (tram and most buses), mobile and tap-on/off technology and parking charges made buses more convenient and affordable than driving. Environmental concerns and health-related non-driving also contributed to more bus use.

#### **Discretionary leisure trips generated greater shift towards buses.**

Evidence from operators and LTA interviews suggested that the degree of modal shift was likely to be higher for leisure trips. Since leisure trips are more discretionary, parking is often costly or scarce, so integrated affordable tickets made taking the bus a realistic choice for these types of journeys. One operator cited a Phase 1 BSIP-funded tourist route that became commercially viable and presented strong incentives for travellers to shift to buses:

*“What I would say is that leisure travel seems to perform better, so our [route]... goes [to large towns], which are more likely to be for leisure or a day out.” (Operator)*

#### **Time sensitive journeys need reliable buses to make them viable for mode shift.**

Some focus group participants indicated that cars remained a preferable and more convenient option relative to buses especially for time-sensitive commitments such as commuting to work or going to medical appointments, primarily due to perceptions of poor reliability of bus services. In addition, the cost associated with bus travel and concerns about lack of accessibility and availability of bus services, especially in rural areas, were stated as important factors that suppressed potential for modal shift.

Local businesses and community groups also suggested that, at the time of the evaluation, they perceived their local bus network, the associated scale of service improvements and the enhancements implemented, as insufficient to engender long-term consistent modal shift.

*“We just need the buses to be there and available and they need to run at a time which suits staff and patients.” (Healthcare organisation)*

Overall, a package approach, including investment in improving reliability, speed, fares, coverage, and integration with other modes, was suggested as more likely to deliver a sustained modal shift.

## Other contributing factors to observed change

The differences in the modes of travel passengers switch from could reflect several factors, including whether they own a car and the relative cost of running the car compared to using the bus (especially with national fare caps in place). The bus competes against these options and therefore would need to be relatively more attractive. This can be challenging to achieve for some journeys if the cost of those modes changes for external reasons, or if those modes offer features that buses cannot (such as flexibility or ease of use for people with disabilities).

Other factors can also affect perceptions of buses, such as roadworks.

## Overall assessment of the contribution of BSIP Phase 1 programme

**Limited to moderate evidence** suggests that the BSIP Phase 1 programme contributed to a material and sustained modal shift away from private vehicles towards buses at this early stage. Young people appeared to be more readily inclined to shift to using the bus than older groups.

## 5.3 Claim 3: BSIP Phase 1 has contributed to changes in social, health, and well-being measures

Interventions that improved accessibility to social and leisure activities were likely to have had the greatest impact on improving health and well-being measures. Specifically, the introduction of new routes, additional evening services, and localised fare caps (for access to city centres).

### Key messages

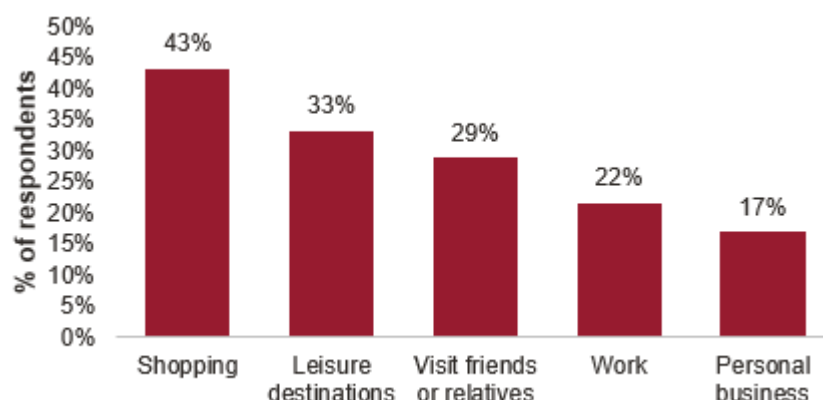
- **BSIP Phase 1 interventions directly influenced additional leisure and social trips.** Of passengers who made more bus trips in the six months post March 2025, 33% used those additional journeys to go shopping or make leisure trips, and a further 13% for visiting friends and family. These additional journeys are expected to lead to better social and wellbeing outcomes.
- **Around 30% of the people surveyed in late-2025 perceived local buses to have had a positive impact on their ability to make social journeys,** a slight increase from the proportion in 2023.

## Evidence of impact on social, health, and well-being outcomes

Bus use is an important factor in supporting daily life. Survey respondents stated they used the bus regularly for going shopping (43% agreed they used the bus for this purpose), making leisure trips (33%), and visiting friends and family (29%). These activities were important for

social connectivity. Therefore, buses were an important factor in facilitating this social value and connectedness as shown in Figure 13.

**Figure 13 Purpose of making bus journeys (2025) (Multi-choice) top 5**

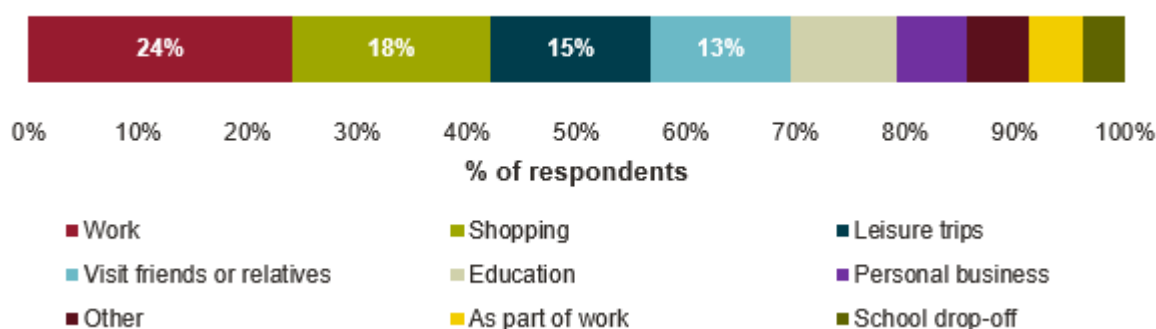


Source: October 2025 Five Area Panel Survey

Note:  $n = 1,568$

The role of bus improvements in supporting daily life activities was demonstrated by the reasons why people were making additional bus journeys. Of those passengers that made more bus journeys in the six months post March 2025, 33% stated that these additional journeys were shopping or leisure trips, and a further 13% noted that these were trips made to visit friends and family. This is shown in Figure 14.

**Figure 14 Journey purpose for additional bus journeys made in 6-month period post-March 2025**



Source: October 2025 Five Area Panel Survey

Note:  $n = 255$

This contribution of BSIP Phase 1 improvements was also indicated by the increase in people noting the positive effects of local buses over time. The proportion of people who suggested that local buses had a positive impact on their ability to participate in leisure activities

increased from 27% to 31% between 2023 and 2025, and visiting friends and family increased from 24% to 29%. This is shown in Table 8.

**Table 8** Positive impact of local buses on social and leisure activities, 2023 v. 2025

| Journey Purpose                     | % positive impact |      | % No impact | % negative impact |
|-------------------------------------|-------------------|------|-------------|-------------------|
|                                     | 2023              | 2025 | 2025        | 2025              |
| Participating in leisure activities | 27%               | 31%  | 58%         | 11%               |
| Visiting friends and family         | 24%               | 29%  | 61%         | 10%               |
| Going shopping                      | -                 | 31%  | 60%         | 9%                |

Source: October 2025 Five Area Panel Survey

Note: n = 2101 (2023), 2,084 (2025)

For each stated journey purpose, survey respondents were invited to choose whether they perceived local bus services to have a 'Very positive', 'Positive', 'Negative', 'Very Negative' impact, or 'No Impact'. The figures in the table report the proportion of respondents who chose 'Very Positive' or 'Positive' for these specific journey purposes. The remainder of respondents indicated either a 'Negative' or 'Very Negative' impact.

### Other contributing factors to observed change

Wider trends in travel patterns and social and behavioural changes can influence journey purpose (on bus or other modes) and therefore, the role played by buses in improving social and wellbeing outcomes. One bus user group representative in a rural area described how new evening services enabled young people to access social opportunities in the evening.

### Overall assessment of the contribution of BSIP Phase 1 programme

**Moderate evidence** suggests that the BSIP Phase 1 programme had a positive impact on the ability to make leisure trips and visit friends and family, which would be expected to lead to positive social and wellbeing outcomes.

## 5.4 Claim 4: BSIP Phase 1 has contributed to changes in economic outcomes like education and employment

Interventions that improved accessibility of buses to employment and education centres were likely to have the greatest impact on improving economic outcomes. These include the introduction of new routes, especially during peak hours when people commute to and from work, as well as the introduction of evening services for shift workers.

## Key messages

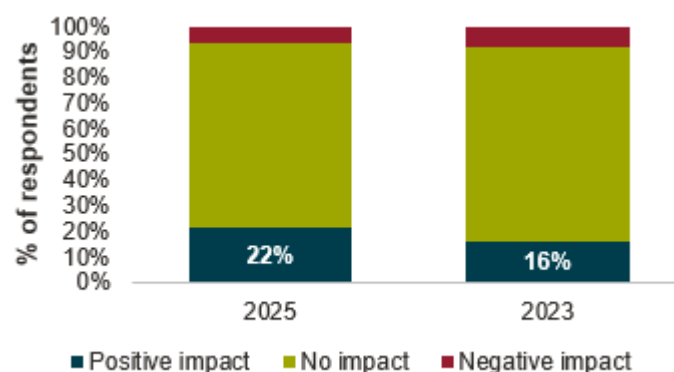
- **Bus improvements facilitated access to work.** Of those individuals who increased their bus use over the six months post-March 2025 and attributed this increase to the bus service improvements, the largest proportion (24%) stated that these additional bus journeys were to commute to or from work.
- **Bus service improvements played an important role in helping some people find or keep a job.** Over the BSIP delivery period, the proportion of survey respondents who perceived local bus services to have had a positive impact on their ability to find or keep a job increased from 16% in 2023 to 22% in 2025. This was noted particularly among individuals aged 25-49 (from 15% in 2023 to 25% in 2025).

## Evidence of impacts on economic outcomes

Figure 14 in the section above showed that for those people who increased their bus use over the 6-month period post-March 2025, 24% of the 5-LTA panel survey respondents used buses to commute to and from their place of work. This was the largest category of all journey purposes for those additional journeys and therefore demonstrates the importance of buses for economic activity.

The survey also suggested an increase the proportion of respondents who perceived local bus services to have had a positive impact on their ability to keep a job (from 16% in 2023 to 22% in 2025). This increase was particularly noted among individuals aged 25 and above (from 15% in 2023 to 25% in 2025). This is presented in Figure 15Figure 16.

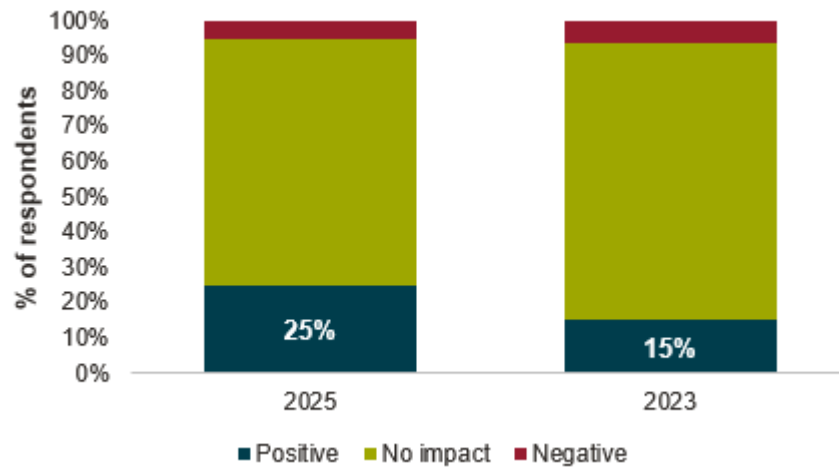
**Figure 15** Perceived impact of local bus services on ability to keep a job, all ages, 2023 v. 2025



Source: 2023 and 2025 5-LTA Panel Surveys

Note: n = 2,084 in 2025 and 2,101 in 2023

**Figure 16** Perceived impact of local bus services on ability to keep a job, ages 25 and above, 2023 v. 2025

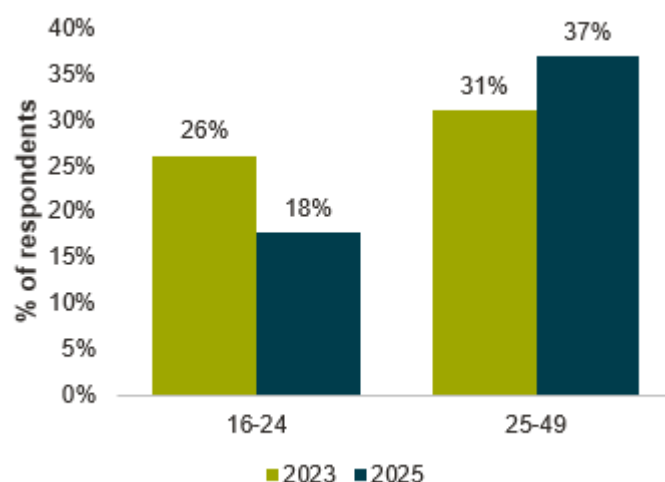


Source: 2023 and 2025 5-LTA Panel Surveys

Note:  $n = 2,084$  in 2025 and 2,101 in 2023

As Figure 17 shows, there are differences in the age groups of people using the bus to get to work. People aged 25 to 49 were more likely than younger people to use the bus for work in 2025 (37%, up from 31%) compared to younger people aged 16 to 24 (18%, down from 26%). This could be for many reasons and is likely to reflect economic conditions and youth employment levels, along with other factors. It could also reflect young people preferring education to employment at that age.

For the youngest age group, travelling to education remained the primary bus journey purpose, with 34% of 16–24-year-olds using buses for this purpose in 2025. In late-2025, more than a quarter of 16–24-year-old passengers who said they used the bus more in the six months post-March 2025 said they did so for travelling to their place of education.

**Figure 17** Proportion of people who use buses to commute to work, by age

Source: October 2025 5-LTA Panel Survey

Note:  $n = 284$  for 16-24 and 1,284 for 25+

Focus group participants highlighted the role played by interventions focused on accessibility and modal integration (such as Park & Ride services) in reducing costs and improving access to other modes of transport such as rail for working-age populations, especially in healthcare and for other large employment hubs.

*“So, I work in the hospital, so I’ve been getting Park and Rides to and from where I live over to the hospital.” (Focus group participant)*

Park & Ride was a popular intervention with 7 of the 16 representative LTAs investing in new or enhanced Park and Ride services through the BSIP Phase 1 investments, including the development of new Park and Ride sites, the introduction of new services, and the reduction of Park and Ride fares. The evidence from stakeholders suggested a positive contributing role played by such schemes in supporting local employment.

Community groups and bus representative groups highlighted the impact of new and more frequent evening bus services on unlocking the ‘night-time economy’ and opening up job opportunities in the service sector, particularly for those in lower-paid employment. This emphasises the important role that local bus services and bus improvements played in supporting economic activity. One bus representative group said:

*“...pound for pound, the economic impact had been greater with the evening bus services.” (Bus representative group)*

However, focus group participants noted that the risk of delays due to service and frequency gaps, particularly for people using the bus to access shift work and education, represented a sizeable barrier to using buses for making such journeys.

*“When I do use our local bus service, I feel I cannot trust that the bus to get me there to work on time is actually going to turn up [...]. I worry about being late to work.” (Focus group participant)*

*“...it’s incredibly frustrating for particularly, I think for young people, [...], it just becomes a huge barrier to their social mobility and getting to jobs, they don’t even apply for jobs if they know that there’s no way they could get there.” (Focus group participant)*

This highlights the importance of the full package of bus service improvements, with investment in bus reliability and frequency (and passenger information) playing an important role in giving people the confidence to use new bus routes for time-critical travel.

Variations by area-type are also important to note. Individuals from urban areas were more likely to have a positive perception of the impact of local bus services on their ability to access education and training (23%), compared to those from rural areas (12%).

### Local insights

#### **Commuter fare discounts can directly target commuter journeys effectively.**

To support commuting journeys, one LTA used part of its BSIP Phase 1 funding to offer a 20% ‘commuter’ discount on annual multi-modal passes. This initiative reportedly sold nearly 5,000 passes over a year and encouraged continued use of the buses to commute to work.

*“That’s been really positive, been taken up by lots of employers and it gives the employers something to sell to their employees...of course it’s a much longer-term scheme as well. So, it’s encouraging continual everyday use of public transport rather than that sort of ad hoc ‘one journey here, one journey there.’ (LTA)*

In one LTA, a local fare cap was felt to be vital for lower-income households with a suggestion that the subsequent increase in the national fare cap reportedly reduced motivation to take up employment. It was suggested that affordable fares, which formed part of many BSIP Phase 1 packages, directly influenced willingness to accept or retain lower-paid shift roles.

*“I think it’s particularly for people on the lower pay scales that [bus services] would have an impact on whether they take the job or not.” (Education provider)*

#### **Dialogue between bus operators and local employers is vital to align timetables to employee needs.**

Some focus group participants and community stakeholders also noted that there was limited dialogue between bus operators and local employers to co-ordinate on shift timings. As a result, route design and timetables did not adequately reflect large employers’ shift patterns, which restricted the ability of shift workers to use the buses to commute.

*“I work at [...] Hospital and then the bus goes direct into there, but it’s times that the bus really that it doesn’t really suit with work.” (Focus group participant)*

### **Demand Responsive Transport services can support access to work effectively, especially for young people.**

Two LTAs that introduced new Demand Responsive Transport (DRT) services, or extended pre-existing services, noted a greater usage amongst young people, as well as by those commuting to and from work.

*“What we’re finding is... actually, the younger generation are using it more than the older generation.” (LTA)*

*“We are getting people who use it for work every five days a week.” (LTA)*

### **Other contributing factors to observed change**

Economic changes can influence journey purpose and the extent of travel across all modes and, therefore, the role played by buses in improving economic outcomes. Some LTAs and operators reported in their interviews that commuting patterns had changed in their areas over recent years which would be expected to have had an impact on travel, both generally and by bus.

General levels of employment, especially amongst younger people, could explain part of the observed trends among this age group using buses to commute to work less frequently. For example, the unemployment rate for people aged 18 to 24 was 13.7% in 2025, up from 12.8% the year before (Francis-Devine, 2026).<sup>28</sup>

### **Overall assessment of the contribution of BSIP Phase 1 programme**

**Moderate evidence** suggests that the BSIP Phase 1 programme had a positive impact on the ability to access education and employment, and therefore, influence local economic outcomes. However, the reliability of services and the alignment of service timetables to key employment sites served are important to encourage people to use the bus for time-critical commuting.

## **5.5 Claim 5: BSIP Phase 1 has contributed to changes in social outcomes including safety, community engagement, accessibility, volunteering, health, and pride in place**

Bus service improvements that improved access to community and healthcare activities (such as access to hospitals and community centres) were expected to have an impact on social outcomes. Interventions included the introduction of new or more frequent services, and capital investments that improve the reliability of these services. In addition, capital schemes that improved the quality of the bus stops, and revenue schemes that improved the on-board

<sup>28</sup> Francis-Devine, B (2026). Youth unemployment statistics. Available at <https://researchbriefings.files.parliament.uk/documents/SN05871/SN05871.pdf>

experience, including cleaner buses and driver training, were expected to improve passengers' feeling of safety when using bus services.

### Key messages

- **Bus service improvements that supported accessibility by installing space for mobility aids and buggies were positively received by bus passengers with disabilities.** This enabled them better access to public transport.
- **Several focus group participants spoke positively about improvements in real-time information screens.** Around one quarter of all survey respondents noticed and valued the improvements in real-time information screens and the information provided on board.
- **DRT services played an important role in meeting the needs of some passengers - passengers of all ages use these services.** Particularly for rural residents of all ages where fixed-route services may not meet local needs.
- **Bus service improvements that increased bus reliability, as well as passenger perceptions of reliability, were central to unlocking the benefits associated with introducing new or more frequent bus routes.** This was a priority for passengers and where this occurred, it increased their confidence to use the bus.

### Evidence of impacts on accessibility, wellbeing, and other social outcomes

All the BSIP Phase 1 interventions were expected to deliver improvements in social outcomes. Those most likely to be particularly valued by passengers were those which improved their experience of using buses. For example, improvements in real-time information, on-board provisions such as for people with mobility aids, or buggies and driver training to be aware of the accessibility needs of different passengers. Capital interventions that supported safety on-board and passengers waiting for buses, such as bus stop improvements, were also expected to be important.

The role of local bus services in contributing to social outcomes was found to be important for many of the participants to the focus groups.

Some of the BSIP Phase 1 funded LTAs invested in skills training for bus drivers. Focus group participants were generally very positive about their improved experience with bus drivers and their helpfulness, particularly with supporting accessibility needs. A representative from a disability group explained that drivers' attitudes are particularly important in supporting access to the buses for users with disabilities, so these improvements were welcomed.

The majority of the BSIP Phase 1-funded LTAs also invested in accessibility improvements, including the installation of bus stop kerbs to accommodate buggies and mobility aids. These were very positively received by focus group participants with disabilities.

Respondents to the 5-LTA panel survey were also positive about the safety and accessibility of buses and noted several types of improvements they had observed over the 3-year BSIP Phase 1 delivery period. For example, the quality of bus stops (23% stated they felt this had improved) and personal safety on the bus (22%).

Almost every BSIP Phase 1-funded LTA invested in improving bus service information and transparency through the installation of real-time information screens at bus stops and improved information on-board buses. Several focus group participants spoke positively about these improvements in information availability.

*“I just wanted to say that the screens on the buses I find helpful because as you're travelling on your journey, it's highlighting each stop that you're approaching.” (Focus group participant)*

The 5-LTA panel survey also revealed such improvements were visible and valued, as more than a fifth (21%) of respondents noted the improvements in real-time information screens and information on buses in general.

Across the focus groups, a common theme that emerged was the importance of local bus services in facilitating access to healthcare, such as hospital appointments. Participants spoke about challenges with the cost and availability of parking at their local hospitals and about the nature of medical appointments which could mean that it is not safe or appropriate to drive. This was taken into account by several LTAs in their BSIPs, as they invested in improving the frequency and operating hours for hospital services. One such LTA noted that:

*“There is a requirement often for people to [travel to the hospital], if only to visit patients in hospitals in the evenings, but also quite often for appointments. These can require travelling in in the evenings. It has had a transformative effect.” (LTA)*

However, although some LTAs introduced such services as part of their BSIP Phase 1 programme, passengers were in some cases were hesitant to use them where they had concerns around reliability. One focus group participant stated:

*“...our village bus service is so infrequent and unreliable, I probably wouldn't use that to attend a hospital appointment or to meet anybody because I wouldn't guarantee getting there in time.” (Focus group participant)*

This highlights the importance of, not only service provision, but also ensuring that services are punctual and reliable. Capital interventions that reduce road congestion (such as removal of pinch points and introduction of red routes), as well as smaller but more visible interventions like accurate real-time information screens together, therefore, played an important enabling role in achieving the benefits of such schemes.

Meeting the needs of local passengers involves carefully designed packages of interventions that work together to deliver outcomes. Where this worked well, passengers noticed it and responded with greater bus use.

### Local insights

#### **Demand Responsive Transport services were effective for some groups including young passengers.**

BSIP Phase 1 funding was used by some LTAs to support DRT services. Some used it to provide new DRT services where none existed previously, and others used the funding to expand the service offer (such as by adding evening services or offering longer running hours). The types of DRT services on offer varied across LTAs, for example, in terms of operating area size, times of operation and the booking processes, as some used an app-based booking system while others include telephone.

Although volumes of passengers are typically smaller than fixed route services, which would be expected given the nature of these services and the capacity of vehicles, some DRT services experienced significant growth (especially where marketing and ease of access worked well) whilst others saw recent declines.

Nearly half of the respondents to the 5-LTA panel survey who increased their use of DRT services between late-2024 and late-2025 cited ‘better availability of services’ as the primary reason for doing so.<sup>29</sup> Further, 87% of DRT users attributed their increased frequency of use to BSIP Phase 1 funded service changes.

Users indicated that over half of these new journeys would have otherwise been made by private car (as driver or passenger). Between 2023 and 2025, there was an increase in use of DRT for shopping and visiting friends and relatives; there was little change for other journey purposes.

The late-2025 survey also revealed that the most frequently cited barrier to using DRT or using it more often were “Do not know where or when services run” and “Do not know how to book the services”.

LTAs that used part of their BSIP Phase 1 funding to offer new, or improve existing, DRT services, noted the role played by these services in improving social and health outcomes. DRT service providers shared the same view:

*“There’s an awful lot of people who rely heavily [on DRT], all age ranges, school children, college students, people who don’t work, and obviously older people trying to keep independent living. They rely on those services to get them out and about, but also into the facilities that they need, including healthcare.” (DRT operator)*

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<sup>29</sup> Noting the small sample size of n=46.

By providing discretionary access where fixed-route buses are more limited, particularly in rural areas, operators and LTAs saw the potential social benefits and witnessed an increase in demand for these services.

*“It’s a big sort of social addition that stops rural isolation, really.” (DRT operator)*

*“It’s almost coming to the point where we’re having to further increase vehicles [and] drivers on our DRT because the usage is going up, the demand is so high.” (LTA)*

### **Support for young carers and care leavers supported independence.**

Two LTAs introduced BSIP Phase 1 funded schemes aimed at young carers and/or care leavers to support improved school attendance, employment prospects and provide wider support for families.

A representative from the care leaver sector spoke about the value of the interventions that delivered free travel to these young people, as they enabled care leavers to not be reliant on friends and family and instead increased their independence.

In one LTA, the child poverty reduction team suggested that free travel for care leavers has been ‘*life changing*’ for recipients.

### **Other contributing factors**

Wellbeing and social outcomes are influenced by many factors, such as local economic conditions, housing conditions, healthcare provision, local population health and the cost of living alongside many others. Travel is just one part of a lifestyle. Therefore, changes in any of these external factors can affect social outcomes.

### **Overall assessment of the contribution of BSIP Phase 1 programme**

**Moderate evidence** suggests that the BSIP Phase 1 programme has had a positive impact on social outcomes such as safety, accessibility, and health. The evidence suggests that interventions that were relatively swift to deliver (such as driver training, bus shelters or information provision) can be very important for bus user experience, especially for people who have disabilities or feel vulnerable, for whom safety is extremely important. However, improvements in bus reliability were not sufficiently wide scale to provide confidence for all to use buses. DRT played a very valuable role in providing services where fixed-route services are less able to meet needs.

## **5.6 Claim 6: BSIP Phase 1 has contributed to integration of the bus with other modes of transport and fare systems**

Interventions specifically targeting multi-modal integration and multi-operator ticketing products were likely to make buses more accessible. These include improved interchange facilities, common branding across modes, multi-mode information provision, smart ticketing,

and easier interfacing across payment systems. More than half of the 16 representative LTAs invested in such schemes, highlighting the importance of such integration to provide passengers with a seamless experience.

### Key messages

- **BSIP Phase 1 interventions contributed to an increase in multi-modal journeys and passengers felt more satisfied with them over the period.** The share of passengers combining bus with other modes increased to 42% of survey respondents in 2025 from 36% in 2023. Satisfaction with interchanging between the bus and other modes of transport increased from 69% in 2023 to 78% in 2025, though urban passengers had higher satisfaction than those living in rural areas.
- **Park & Ride services were commonly cited as providing access to local towns or cities for shopping, leisure and hospital appointments.** Users in focus groups found these services more frequent and reliable.
- **Several operators across the 16 representative LTAs introduced new, or discounted, multi-operator ticketing products** allowing passengers to use the same ticket across services provided by different operators.

### Evidence of impacts on multimodal and multi-operator integration

The extent of integration of bus use as part of multi-modal journeys increased in BSIP Phase 1 funded LTAs. The 5-LTA panel survey indicated that the proportion of individuals that combined the bus with other transport modes increased from 36% in 2023 to 42% in 2025. Satisfaction with the ease of interchanging between the bus and other modes also increased over the period from 69% in 2023 to 78% in 2025.

Park & Ride was noted as playing a valuable role in improving modal integration. Such services delivered improvements in several LTAs. These allowed people to combine the use of buses with other modes of transport including private vehicles as well as providing onward connections to the rail network.

Several bus users described how Park & Ride services had provided access to local towns or cities for shopping, leisure and hospital appointments, with users finding the services:

*“...far more frequent and far more reliable.” (Focus group participant)*

The perception of modal interchange including bus services improved over the period. Focus group participants explained how the ease of interchanging modes of transport had been improved as a result of timetable co-ordination, real-time information upgrades, and visible amenities (e.g., bike storage), as well as marketing and advertising of services.

One operator noted how the package of supporting interventions played a role in encouraging people to use the bus as part of a multi-modal or multi-bus-service journey:

*“The marketing and awareness activity has been wide reaching. [...], I think the significant discount on the multi-operator ticket has, and continues to, encourage people to use it.” (Operator)*

Several operators across the BSIP Phase 1 funded LTAs introduced new, or discounted, multi-operator ticketing products allowing passengers to use the same ticket across services provided by different operators. Several of the interviewed operators spoke positively about the uptake of such products with one noting that:

*“...more and more people switch to the discounted multi-operator ticket because it doesn't have inflation on it in the same way that other products do.” (Operator)*

This highlights the importance of relative prices in the passengers' decisions. However, some bus passengers pointed to the challenge of such products including complex rules, especially if there are geographical boundaries on where the tickets are valid. One focus group participant noted that:

*“...I have to look at the small print to make sure that I can actually use it, and I'm not going over some sort of invisible border where my ticket will all of a sudden become void.” (Focus group participant)*

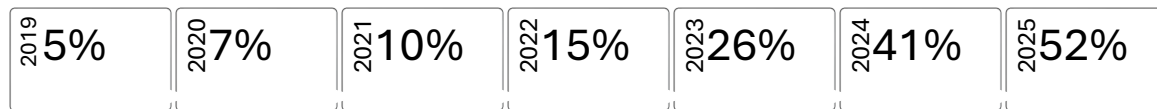
This challenge also had implications for bus drivers, as one bus operator noted:

*“...our poor drivers are having to explain these fares initiatives, and it ended up just generating so much negativity from what was supposed to be a positive – all aimed at us. And it was frustrating.” (Operator)*

### Local insights

#### Multi-operator ticketing products

In one LTA where the BSIP Phase 1 funding was used to provide a discount on existing multi-operator ticketing products, they observed that passengers responded by significantly increasing their demand for these tickets. Following the discount, the number of boardings rose from around 7,000 a month in 2019 to 43,000 a month in 2025. The profile is shown in Figure 18.

**Figure 18** Demand (% of boardings) profile for multi-operator tickets in one LTA

Source: BSIP Phase 1 LTA

### Other contributing factors

Around the country, public transport is trending towards multimodal and multi-service integration. Some of these changes in BSIP Phase 1 areas could therefore be a continuation of an existing trend.

Also, as technology develops, options for tickets and multi-fares systems are more cost-effective to deliver than previously, making them a viable option for operators. This is further bolstered by the large-scale shifts away from cash to digital or contactless payment.

### Overall assessment of the contribution of BSIP Phase 1 programme

**Moderate evidence** suggests that the BSIP Phase 1 programme continued to support the integration of buses with other modes of transport, specifically private cars. The Park & Ride schemes invested in by many LTAs received very positive feedback among bus passengers, allowing them to engage in multi-modal journeys including cars, buses, and trains. There was, however, **limited evidence** of the programme contributing to integration with other modes of transport.

## 5.7 Claim 7: BSIP Phase 1 has contributed to enhanced sustainable revenues from bus services

### Key messages

- **BSIP Phase 1 funding enabled LTAs and operators to implement bus service improvements that would otherwise not have been funded.** Several LTAs and operators said that the BSIP Phase 1 funding allowed them to look at the feasibility of schemes they would not have been able to with internal funding alone.
- **BSIP Phase 1 funding unlocked the ability of LTAs and operators to undertake their own investments, building on the foundations of BSIP Phase 1.** Several operators suggested that BSIP Phase 1 funding has provided them with a platform to undertake their own incremental investment to improve their services.
- **BSIP Phase 1 funding generated a positive ‘feedback loop’.** Some operators explained that several BSIP Phase 1 -funded interventions generated bus patronage and revenue which was subsequently funnelled back into the service or the network to increase reliability, frequency, and quality.
- **Some LTAs highlighted the role played by the funding to support existing services, that may have otherwise been scaled back or stopped.** This was very important, especially for socially necessary services. However, operators raised concerns about funding those services following the end of the BSIP Phase 1 funding.
- **Operators and LTAs reported notable improvements in staff experience and better staff retention** linked to newer vehicles and less time spent in traffic since the implementation of BSIP Phase 1 funded interventions.

### Evidence of impact on operator financial sustainability

Most LTAs and operators suggested they introduced several schemes and interventions that would not have been possible without BSIP Phase 1 funding due to their cost and resource requirements. One LTA noted that:

*“...the enhancements that we’ve got [...] I don’t think they’d have been delivered [without BSIP funding]. So, the BSIP funding was critical to that.” (LTA).*

Another noted that:

*“...the BSIP gave us the opportunity to look at the design and the feasibility elements and costing. And if we didn’t have that, we would struggle to implement that with internal funding, and we’d have to do our own internal capital bids.” (LTA)*

Several bus operators suggested that the BSIP Phase 1 funding enabled them to undertake their own investments to improve their services. They explained that they would likely not have made these investments on their own, but the BSIP Phase 1 funded investments provided a sufficient platform for the incremental investments to be commercially viable. One operator mentioned that following the installation of a BSIP Phase 1 funded investment:

*“...we'll be looking at over £50 million worth of private sector investment into this partnership [...] and we wouldn't be doing that if we didn't think the partnership was strong.” (Operator)*

Other operators mentioned how they invested in new vehicles and more efficient service provision since the BSIP Phase 1 funding:

*“We have improvements to infrastructure that allow us to operate services more efficiently, that makes the business case for investment.” (Operator)*

Several LTAs highlighted the ‘feedback loop’ generated by the BSIP Phase 1 funded investments. One LTA described how a ticketing scheme that was introduced using BSIP Phase 1 funding was able to generate growth in patronage and, subsequently, revenue. That additional revenue, combined with operator investment, was used to enhance the frequency and operating hours of the service and purchase new vehicles. The LTA noted that these additional investments were:

*“...not something that BSIP has funded. That's investment we've made as a consequence of the BSIP work.” (LTA)*

Another operator that delivered a young person's fare cap funded through the BSIP Phase 1 programme noted:

*“...we [had done] such a good job of attracting kids and students to use that route we were then faced with suddenly not using it when the fare cap zone ended. It seemed like a way of capitalising on the benefits from that scheme to have our own cap in place.” (Operator)*

This suggests that BSIP funding not only had direct impacts on delivery but that it unlocked other investment beyond the funding itself.

Some operators noted the role played by the BSIP Phase 1 interventions to maintain and support existing services that may otherwise have been discontinued due to being commercially unviable. Several operators acknowledged that significant portions of Phase 1 BSIP funding primarily sustained non-commercial services, maintaining coverage that would otherwise have been cut. One operator noted that:

*“...by and large, of the money that we're putting into the network, a lot of it is just maintaining the status quo and propping up services that are no longer commercially viable.” (Operator)*

Operators also suggested that socially necessary routes, often evening, weekend, and lower-demand corridors and/or those linking to more deprived or rural areas with those at risk of isolation, require continued support where revenue alone does not cover operating costs.

*“I think it's an acceptance that the economic value of the bus service is really high ... and that justifies some public expenditure on running bus services that aren't self-sustaining.” (Operator)*

However, other operators expressed concerns over the future viability of certain services and ticket products, especially inter-operator initiatives, which would be difficult to maintain following the expiration of the BSIP Phase 1 funding. This was especially the case for interventions that led to notable increases in patronage that cannot be supported in the absence of BSIP funding. One operator noted that:

*“The ticketing arrangements we have increased dramatically the number of people using our bus services. So, in all cases, we've now got a problem which is ‘can we afford to continue to fund those evening and weekend services?’. The answer is no.” (Operator)*

Operators and LTAs reported improvements in staff experience and better staff retention linked to newer vehicles and less time spent in traffic since the implementation of BSIP Phase 1 funded interventions. Job satisfaction was reported to have increased, with lower attrition and recruitment costs.

*“...the result of the investment is the job has become a lot, a lot, a lot easier for the drivers in the sense that they you know they're not sat in as much traffic as they were previously. The fact that they're driving [...] newer vehicles – we've seen that our rates of attrition have come down, which has meant that we're obviously [...] spending a lot less on bringing in new drivers and replacing people that [were] leaving for other industries or potentially going to work [...] elsewhere in the region. So that's definitely been a benefit.” (Operator)*

*“I think they've got a higher satisfaction in their drivers, which again benefits the passenger. They've got happy drivers; they've got more drivers willing to stay at the local depot.” (LTA)*

### Other contributing factors to observed change

BSIP Phase 1 programme is not the only source of public funding for buses. It sits alongside other sources of local and national funding (including the BSIP Phase 2), all of which are intended to improve bus services and make bus operations sustainable. These other funding sources will have played a role in the provision of some ticketing products and in the provision of services, such as some socially necessary services, defined as ‘services that provide access to essential goods, services, education, or employment, where cancellation would significantly harm accessibility.’

The national fare cap schemes (the £2 National Bus Fare Cap between 1 January 2023 and 31 December 2024, and the £3 National Fare Cap since 1 January 2025) will also have played a role in boosting patronage above where it would otherwise have been. This will have therefore increased the commercial viability of some services.

### Overall assessment of the contribution of BSIP Phase 1 programme

**Strong evidence** suggests that the BSIP Phase 1 programme contributed to increasing sustainable revenues and services for bus operators. This is through the boost to bus patronage and revenues, as well as providing a platform of investment from which to build, which de-risked some private investment. However, there were concerns about the future viability of certain services that were only introduced using the BSIP Phase 1 funding and cannot be sustained without it.

## 5.8 Claim 8: BSIP Phase 1 has contributed to more effective operations to reduce Greenhouse Gas (GHG) emissions

### Key messages

- **Indicative evidence suggested that BSIP Phase 1 funding delivered a reduction in greenhouse gas emissions through mode shift away from private vehicles.** Improvements to bus services from BSIP Phase 1 scheme delivery led to increases in patronage and mode shift. Associated reductions in greenhouse gas emissions were estimated to be between 14.7ktCO<sub>2</sub>e and 30.8ktCO<sub>2</sub>e for the lifetime of BSIP Phase 1 schemes delivered by the 16 representative LTAs.
- **BSIP Phase 1 funding was not directly used to invest in low emission vehicles.** Therefore, little direct reduction in greenhouse gas emissions was anticipated.

### Evidence of change

The BSIP Phase 1 funding did not directly deliver funding zero emission buses, though reductions in GHGs were enabled through the mode shift that followed improvements in services. This was described in Section 5.2.

The GHG reductions associated with the degree of mode shift away from private vehicles observed were estimated indicatively. This was achieved by estimating the savings from displacing some car journeys with bus travel. Based on standard appraisal assumptions and information from the 5-LTA panel survey about journey lengths, the estimated GHG emission savings were between 14.7ktCO<sub>2</sub>e and 30.8ktCO<sub>2</sub>e over the lifetime of the BSIP Phase 1 schemes for the 16 evaluated LTAs. This would be higher still, when scaled up over all LTAs that received BSIP Phase 1 funding.

BSIP Phase 1 impacts such as improvements to bus journey speeds (evidenced through this impact evaluation) may have also resulted in reduced GHG emissions through improved bus fuel efficiency. However, potential patronage impacts that follow on from these improvements could offset these benefits as increased bus loads and/or the introduction of additional services to cope with higher demand could result in additional fuel consumption and higher GHG emissions. There is insufficient evidence on this potential at this stage.

### Other contributing factors to observed change

Several other funding streams have also incentivised reductions in bus GHGs. For example, Government has funded the Zero Emission Bus Regional Areas (ZEBRA) programme. In October 2021, this awarded £54 million to four LTAs under the fast-track process of the ZEBRA programme, with the standard programme announced in March 2022 which awarded £198 million to 12 LTAs and a further four LTAs sharing £54.3 million from March 2023. ZEBRA 2 provided up to £142.8 million to support the delivery of zero emission buses and associated infrastructure across 25 LTAs, 10 of which also received BSIP Phase 1 funding.

These directly reduce GHGs by replacing fossil-fuelled buses with zero tailpipe emission buses and are likely to far outweigh the GHG savings attributable to BSIP Phase 1.

### Overall assessment of the contribution of BSIP Phase 1 programme

**Low strength evidence** suggests BSIP Phase 1 funding contributed to reducing GHG emissions, and what was achieved was likely to be through mode shift away from private vehicles. While there is no evidence at this stage on bus operation GHG emissions, estimated GHG reductions from mode shift suggest that this impact is likely across all LTAs that received BSIP Phase 1 funding. Other factors such as replacing fossil fuel buses with zero emission buses would, however, be expected to have a more significant impact on GHG emissions (and air pollution) and are primarily funded through other channels.

## 6 Value for Money (VfM) Evaluation

### Key messages

- **The value for money of the BSIP Phase 1 programme was partially assessed.** It considered interventions delivered by 31 March 2025 in the 16 representative LTAs. To that point, 43% of funding allocations had been spent in those areas.
- **The analysis was carried out in line with the HMT Green Book (2026).** This considered whether strategic objectives have been met, how far benefits (monetisable and non-monetisable) exceeded costs, and the distribution of benefits across sub-populations or geographies.
- **BSIP Phase 1 interventions delivered by 31 March 2025 had met their strategic objectives.** Journey time, punctuality and patronage improved, and the impacts were directly attributable to BSIP Phase 1. Passenger satisfaction also improved, though other factors also influenced this.
- **BSIP Phase 1 interventions are likely to be medium to high value for money.** Preliminary analysis of monetised impacts suggested an indicative BCR of 1.7 to 2.1, with non-monetised impacts, such as improved bus satisfaction, providing further benefits. This was based on the benefits and costs of BSIP Phase 1 interventions delivered by 31 March 2025 in the 16 representative LTAs. Individual scheme BCRs would be likely to vary.
- **Total benefits were higher in urban areas, where most interventions were focused, though per passenger journey time savings were higher in rural areas.** On corridors with bus priority capital interventions, estimated journey time benefits per passenger in year 1 were 2.4 pence per trip in rural areas, compared with 1.4 pence for all areas. At the LTA-wide level, estimated punctuality benefits per passenger in year 1 were 14.1 pence in urban areas, compared with 8.2 pence for all areas.

### 6.1 The purpose of this value for money assessment

The value for money (VfM) evaluation was undertaken in line with the HMT Green Book (2026). This considered whether strategic objectives have been met; how far benefits (monetisable and non-monetisable) exceeded costs, and; what the distribution of benefits across sub-populations or geographies looked like. It focused on the 16 representative LTAs.

This assessment of VfM included the monetised benefits attributable to BSIP Phase 1 interventions over their lifetime, as well as the non-monetised effects identified in the impact evaluation. These were compared to the intervention costs.

This assessment of VfM is not for the full BSIP Phase 1 programme, for four main reasons:

- **The focus was on BSIP Phase 1 interventions delivered by 31 March 2025 in the 16 representative LTAs.** Best available data suggested these accounted for 43% of initial funding allocations.<sup>30</sup>
- **This evaluation used evidence on the impacts observed over the 6-month period post 31 March 2025.** Medium- to long-term impacts were not yet observable.
- **Revenue funding for BSIP Phase 1 schemes** such as fare discounts, enhanced services or other operational changes, accounted for 69% of the value of all schemes completed by 31 March 2025. As many of these schemes were no longer active after 31 March 2025, only their legacy effects are observable and captured by this assessment.
- **Revenue funding for BSIP PHASE 1 schemes that had not been completed by 31 March 2025 and schemes funded through BSIP 2 or 3** may have also influenced some outcomes over the 6-month period post-March 2025.<sup>31</sup>

As a result, the findings reported on BSIP Phase 1 value for money should be considered as indicative and based on the best available evidence on impacts observed. Further detail and sensitivity tests are provided in Annex F.

## 6.2 The modelling data sources and scenarios

The modelling used to generate the VfM analysis adhered to the DfT's best practice appraisal and VfM guidance to the extent feasible. This is published in **DfT transport analysis guidance (TAG)** and **DfT value for money framework**.<sup>32</sup>

It relied on data from the TAG data book, Office for National Statistics, patronage data sourced from Ticketer and the LTAs, primary evidence from the 5-LTA panel survey and the quasi - experimental analysis of BSIP Phase 1 impacts conducted to support this evaluation.<sup>33</sup>

The VfM analysis produced results under **two central scenarios**; a '**TAG scenario**', which relied on TAG data book values for specific assumptions, and; the '**survey scenario**', which

<sup>30</sup> This is estimated from internal DfT delivery data, based on information self-reported by LTAs. The figure of 43% reflects only the 16 representative LTAs for which detailed impact evaluation has been undertaken for this report.

<sup>31</sup> While the impact evaluation approach robustly controls for revenue schemes such as the £3BFC (as these were delivered in the same way across all LTAs), some outcomes may have been affected by revenue schemes funded under BSIP Phase 2 and Phase 3 (in the North and Midlands). However, the main monetised components of VfM are journey times, patronage and punctuality and these have been assessed using quasi-experimental methods which isolate the impact of BSIP Phase 1. BSIP Phase 2 only provided funding for non-capital schemes (such as service operations), and while every effort has been made to control for these, some impacts are still possible.

<sup>32</sup> Department for Transport, Transport analysis guidance (TAG), Last updated 11 December 2025: <https://www.gov.uk/guidance/transport-analysis-guidance-tag> and Department for Transport, Value for Money framework, last updated 29 May 2025. <https://www.gov.uk/government/publications/dft-value-for-money-framework>

<sup>33</sup> Department for Transport, TAG data book. Last updated 18 December 2025. <https://www.gov.uk/government/publications/tag-data-book>

relied on analysis of data from the 5-LTA panel survey for those assumptions (see table below).

**Table 9 Description of the VfM scenario assumptions**

| VfM modelling assumption                                                                                             | TAG scenario value                              | Survey scenario value                            |
|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------------------|
| Proportion of baseline trips undertaken for commuting purposes                                                       | 18%                                             | 44%                                              |
| Average bus trip length                                                                                              | 15 minutes (commute) / 11 minutes (non-commute) | 24 minutes (commute)<br>27 minutes (non-commute) |
| Proportion of 'new trips' that would not have been taken without BSIP Phase 1 interventions (i.e., were 'generated') | 18%                                             | 32%                                              |
| Proportion of 'new trips' that increase active travel (i.e., were previously made by private vehicle)                | 36%                                             | 63%                                              |

Source: Frontier Economics analysis of data from the DfT TAG Databook and the 5-LTA panel survey.

Note: Annex F Table 20 sets out the full list of key modelling sources

The values used to model benefits under the survey scenario were higher than those used under the TAG scenario (Table 9). This reflects fundamental differences between these data sources and location specificity. TAG data is intended to provide a best practice representation of bus transport journey characteristics at the national level for use in transport appraisal, whereas the 5- LTA survey is representative of recent, actual bus user behaviour at the local level for 5 BSIP Phase 1 LTAs (i.e. is based on evaluation data).

Examples of their different underlying sources and assumptions are:

- Data on average bus trip length reported under the TAG scenario used TAG data book assumptions on average (non-London) local bus trips across England. The survey scenario relied on self-reported average bus trip lengths by frequent bus users in BSIP Phase 1 LTAs.
- Data on the proportion of 'new' bus trips (that would not have been made at all without BSIP investment) in the TAG scenario used TAG data book assumptions of the proportion of bus trips that hypothetically 'would not go'. The survey scenario relied on self-reported

data of new trips frequent bus travellers would not otherwise have made without BSIP Phase 1 bus improvements.

The VfM results from these two scenarios are presented side by side as a **range estimate**, for full transparency.

Annex F sets out full details of the underlying data sources, modelling approach, assumptions used in this VfM assessment, and the sensitivity analyses conducted as part of the analysis.

### 6.3 Costs of BSIP Phase 1 interventions delivered to March 2025

DfT allocated a total of £470 million BSIP Phase 1 funding to the 16 representative LTAs. For the purposes of this evaluation, only BSIP Phase 1 schemes delivered by 31 March 2025 were considered. Best available data from DfT suggests that significant delivery delays have been experienced by some BSIP Phase 1 schemes, especially those that have large capital requirements. Therefore, the full allocation of £470 million was not invested before the end of March 2025, and many LTAs applied to DfT to carry over some funding to the following financial year. Based on this information for the 16 representative LTAs, by the end of March 2025, an estimated £204 million out of the allocated £470 million, or 43% of total BSIP Phase 1 funding for these 16 LTAs had been invested. Therefore, this VfM assessment relates only to that 43% of BSIP Phase 1 funding allocations.

### 6.4 The key drivers of BSIP Phase 1 monetisable benefits

The VfM analysis focused on three BSIP Phase 1 impact metrics:

- **Journey time impacts:** the average % change in bus journey time resulting from BSIP Phase 1 bus priority infrastructure interventions (i.e., on relevant corridors only).
- **Punctuality impacts:** the average change in delays in service departure from bus stops relative to timetable resulting from BSIP Phase 1 interventions.
- **Patronage impacts:** the average % change in the number of bus passenger journeys resulting from BSIP Phase 1 interventions.

Passenger satisfaction impacts were not possible to monetise and are therefore considered a non-monetised benefit. Monetised lifetime benefits were robustly estimated for each of the three metrics using data for the 16 representative LTAs. The relative scale of impacts is likely to be applicable to all LTAs (excluding Mayoral Combined Authorities) that received BSIP Phase 1 funding.

### 6.4.1 Monetising journey time benefits

Journey time benefits reflected a reduction in the on-board bus journey time experienced by bus passengers. They are classified by the DfT as *established* monetisable benefits.<sup>34</sup> They are considered as a benefit to ‘baseline’ bus passengers only (i.e., passengers who were already using the bus service prior to BSIP Phase 1 investment).

The scale of journey time benefits was determined by the on-board journey time improvement **on corridors that had bus priority infrastructure completed before 31 March 2025**, the value of on-board time savings and the number of baseline passengers experiencing the improvement. The net present value (NPV) lifetime benefit assumed benefits persist for 15 years (reflecting the expected lifetime of BSIP Phase 1 bus priority schemes) and decay at an annual rate of 10% (reflecting the expected rate of asset wear and tear and technology obsolescence).

As the impact evaluation showed, BSIP Phase 1 bus priority capital interventions delivered by 31 March 2025 led to an estimated 7.0% reduction in average bus journey times on affected corridors compared to what would have been expected without BSIP Phase 1 (Section 5.1.1). This translated to realised **lifetime journey time benefits** for the **16 representative LTAs** of between **£39.7 million (TAG scenario) and £101.7 million (survey scenario)**, or a **year 1 per passenger trip journey time benefit** of between **1.4 pence (TAG scenario) and 3.7 pence (survey scenario)**.

The difference between the journey time related benefits estimated under the core TAG and survey scenarios reflects higher reported values in the 5-LTA panel survey for the proportion of trips used for commuting purposes (which are associated with higher average values of time) and higher average bus trip lengths.<sup>35</sup> Table 20, Annex F provides full details of the underlying sources and modelling approach used.

### 6.4.2 Monetising punctuality benefits

Punctuality benefits to passengers reflected a reduction in the delay of buses departing a bus stop compared to the timetable, which reduced bus passengers’ unplanned waiting time. They are classified by the DfT as *evolving* monetisable benefits in recognition of the practical challenges typically associated with robustly estimating punctuality impacts.<sup>36</sup>

<sup>34</sup> This reflects the fact that “the method used for estimating impact and its monetary value is accepted, well-researched, and tried-and-tested”. See DfT (2025) Value for Money guidance, p.18.

<sup>35</sup> TAG guidance states that the modelling of commuter trips should use a value of time of £15.49 and £7.07 per hour for non-commuting trips. See Annex F for further details.

<sup>36</sup> This classification is made for the purpose of appraisal and reflects ‘higher uncertainty in the modelling’ of these impacts. See DfT (2025) Value for Money guidance, p.18.

The impact evaluation provided robust estimates of BSIP Phase 1 punctuality impacts, based on actual observed changes to bus service punctuality at the LTA-level. They were considered a benefit to baseline bus passengers only.

The scale of BSIP Phase 1 punctuality benefits was determined by the scale of reduction in bus stop departure delays (i.e., reduced unplanned passenger waiting time), the number of (baseline) bus passengers affected, and the value of time saved. To calculate the overall NPV lifetime benefit of BSIP Phase 1, the modelling assumes benefits persisted for 15 years (reflecting the expected lifetime of BSIP Phase 1 bus priority schemes, which were the interventions most likely to lead to punctuality changes) and decay at an annual rate of 10% (reflecting expected asset wear and tear and technology obsolescence).

Delivery of BSIP Phase 1 interventions by 31 March 2025, led to an estimated 19.4% reduction in average bus stop departure delay times, equivalent to an average 93.8 second reduction in delay across BSIP Phase 1-funded LTAs, compared to what would have been expected without BSIP Phase 1 (Section 40). This translated to realised lifetime punctuality benefits for the 16 representative LTAs of between £226 million (TAG scenario) and £272 million (survey scenario). On a per passenger basis, year 1 punctuality benefits were between 8.2 pence (TAG scenario) and 9.9 pence (survey scenario).<sup>37</sup>

The punctuality benefit estimate was higher under the survey scenario because this assumed a higher proportion of commuter trips (44%) than under the core TAG scenario (which assumes that 18% of trips are for commute purposes).<sup>38</sup>

### 6.4.3 Monetising patronage benefits

The estimated patronage benefits involved more nuanced considerations than for journey time and punctuality impacts. This is because:

**Patronage benefits tend to result from several factors**, such as improvements in journey times and punctuality, or other changes such as fares reductions or improved bus service quality. Therefore, further changes in patronage were expected to accumulate and increase over time, especially as more of the BSIP Phase 1 investments are delivered.

**Patronage benefits were considered only for new bus trips:** these benefits were only relevant where patronage is different to the number of passengers that were already using the bus. Therefore, they were included only where they relate to bus trips not previously made by bus, either because they were made by another mode, or the passenger would not have travelled at all. The patronage effect was therefore derived from two groups of bus journeys and users:

<sup>37</sup> The differences between the modelled estimates for punctuality benefits relate to higher reported values in the 5-LTA survey for the proportion of trips used for commuting purposes (which have a higher time value).

<sup>38</sup> Table 20 Annex F provides further details of the modelling assumptions for each scenario.

- **Mode shift journeys:** Journeys that were already being undertaken using a different mode of private or public transport prior to BSIP Phase 1 scheme delivery. The benefits associated with these journeys included impacts on active travel, Greenhouse Gas (GHG) emissions and road congestion as a result of the shift from car to buses, and;
- **Generated trips:** Journeys that would not have been undertaken at all without BSIP Phase 1 scheme delivery. The benefit associated with generated journeys reflects the additional value of the activity that was enabled as a direct result of an improvement to bus service quality.

The scale of patronage benefits was determined by the total number of new bus journeys made as a direct result of BSIP Phase 1 investment, the value placed on generated trip activities, the cost of time associated with the new bus journey, the proportion of journeys previously made on other modes, and the amount of change in active travel conducted by new bus passengers, including those who previously walked or cycled as well as those who used their car or a taxi (Annex F has more detail).

The overall lifetime NPV of BSIP Phase 1 benefits were modelled assuming that benefits persisted for 15 years (this reflects the expected lifetime of BSIP Phase 1 bus priority schemes which were understood to be instrumental to generating sustained patronage benefits as well as evidence that other BSIP investments such as passenger environment improvements can have their lifetime extended to 15 years) and decay at an annual rate of 10% (this reflects expected asset wear and tear and technology obsolescence and would be equivalent to the reinvestment requirements for other non-priority scheme capital investments such as passenger environment improvements).<sup>39</sup>

Delivery of BSIP Phase 1 interventions by 31 March 2025, led to an estimated 4.2% increase in LTA-level patronage growth, compared to what would have been expected without BSIP Phase 1 (Section 5.1.3). This translated to total realised **lifetime patronage benefits** for the **16 representative LTAs** of between **£78.3 million (TAG scenario)** and **£55.6 million (survey scenario)**, or a **year 1 per passenger trip patronage benefit** of between **2.0 pence** and **2.8 pence**.

Patronage benefits split by generated trips and mode shift are shown in Table 10. This shows that under the TAG scenario, generated trips account for the majority of estimated BSIP Phase 1 patronage benefits (£52 million or 66% of the total £78 million patronage benefits). Under the survey scenario, mode shift trips account for the majority of estimated BSIP Phase 1 patronage benefits (£34 million or 61%). This switch between generated trips and mode shift trips accounting for the majority of the benefits between the two scenarios occurs because the

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<sup>39</sup> Evidence from discussions with bus service operators suggests that patronage benefits derived from other BSIP schemes, such as fare schemes and bus passenger environment improvements, will be sustained if bus service journey time and punctuality improvements also persist. This is particularly the case for mode shift trips. Capital investments such as real time passenger information displays can also have their lifetime extended beyond five years through reinvestment in the order of 50% of the original asset value over the course of 10-15 years. This is in line with the central modelling assumption of a 15-year asset lifetime and a benefit decay rate.

survey scenario assumes a significantly higher trip length for generated trips which results in a higher assumed travel time cost for generated trips under the survey scenario.

**Table 10** Lifetime (NPV) BSIP Phase 1 patronage benefits for the 16 representative LTAs for schemes delivered by 31 March 2025

| Patronage benefit                               | 16 LTA NPV<br>(TAG)  | 16 LTA NPV<br>(Survey) |
|-------------------------------------------------|----------------------|------------------------|
| Value of generated trips                        | £51.8 million        | £20.8 million          |
| Active travel benefits                          | £0.5 million         | £0.6 million           |
| Avoided CO2e emission benefits                  | £3.6 million         | £7.6 million           |
| Other avoided external costs (e.g., congestion) | £22.3 million        | £26.6 million          |
| <b>Total patronage benefits</b>                 | <b>£78.3 million</b> | <b>£55.6 million</b>   |

Source: Frontier Economics analysis

Note: See Annex F for full details of the underlying modelling approach, assumptions and sources. The difference between the estimated patronage benefits is driven by higher reported values in the 5-LTA panel survey (compared with TAG standard assumptions) for the number of generated trips post BSIP Phase 1 intervention.

The difference between the patronage value benefits reported in Table 10 under the TAG and survey scenarios result from different assumptions about the proportion of 'new' trips that are 'generated' (would not have been made at all) as opposed to trips that were 'mode shift' (would have been undertaken using a different transport mode). The TAG scenario assumes that 18% of new trips were generated, whereas the survey scenario assumes this to be 32%. Another factor driving the difference in results is the assumed length of a non-commute bus trip. This is used to calculate the time cost of generated trips. Under the TAG scenario, average trip length is assumed as 11 minutes. Under the survey scenario average trip length is assumed as 27.5 minutes.

#### 6.4.4 Lifetime monetised benefits and the drivers of benefits

The percentage contributions made by journey time, punctuality and patronage to overall realised BSIP Phase 1 benefits are shown in Table 11.

**Table 11** NPV lifetime benefits and % contribution of each benefit driver for the 16 representative LTAs

|              | 16 LTA NPV<br>(TAG) | 16 LTA NPV<br>(Survey) | % Contribution<br>(TAG) | % Contribution<br>(Survey) |
|--------------|---------------------|------------------------|-------------------------|----------------------------|
| Journey time | £39.7m              | £102m                  | 12%                     | 24%                        |

|              | 16 LTA NPV<br>(TAG) | 16 LTA NPV<br>(Survey) | % Contribution<br>(TAG) | % Contribution<br>(Survey) |
|--------------|---------------------|------------------------|-------------------------|----------------------------|
| Punctuality  | £226m               | £272m                  | 66%                     | 63%                        |
| Patronage    | £78.3m              | £55.6m                 | 23%                     | 13%                        |
| <b>TOTAL</b> | <b>£374m</b>        | <b>£483m</b>           | <b>100%</b>             | <b>100%</b>                |

Source: Frontier Economics analysis – see Annex F for further details.

Note: These early indicative estimates reflect the lifetime value of only those BSIP Phase 1 impacts that have been observed in the 6-month period post-March 2025, simulated over a 15-year lifetime for the 16 representative LTAs.

The analysis shows that **punctuality benefits accounted for the largest share of benefits**, between 63% (survey scenario) and 66% (TAG scenario). The patronage impact contribution was between 13% (survey scenario) and 23% (TAG scenario) and the journey time impact contribution was between 12% (TAG scenario) and 24% (survey scenario).

This analysis suggests that, based on early observations of BSIP Phase 1 impacts for schemes that were delivered by March 2025, **the total monetisable generated lifetime benefit of BSIP Phase 1 interventions, delivered by 31 March 2025 within the 16 representative LTAs, were between £344 million and £429 million.**

## BSIP Phase 1 benefits over the longer term

It is important to note that the investment lifetime results reported above are for observed BSIP Phase 1 schemes that were delivered by 31 March 2025.

In the longer-term overall BSIP Phase 1 impacts are likely to be greater for several reasons:

- **Delayed capital schemes will be delivered:** A large proportion of BSIP Phase 1 capital schemes that are likely to positively affect journey time, punctuality and patronage will be completed after the period considered by this evaluation. If more schemes are delivered in LTAs, benefits are expected to increase further (though associated investment costs are also).
- **The relative scale of impacts of delayed capital schemes:** If the BSIP Phase 1 schemes that are delivered in the future have greater relative impacts than those delivered by March 2025, this would increase the trajectory of future benefits beyond what has been observed.
- **Patronage benefits may accumulate over time:** Patronage impacts result from sustained improvements to the quality of bus services. Therefore, there are unlikely to be fully realised in the short-time frame of this initial analysis. In future periods, if quality and bus service performance improvements are sustained, patronage impacts should further increase.

In the longer-term, the relative contribution of each type of benefit may, therefore, change over time.

## 6.5 The non-monetisable benefits of BSIP Phase 1 monetisable benefits

The assessment of VfM must consider the full range of benefits, beyond those that can be monetised. The ToC for each intervention typology identified a broad range of impacts and benefits that are not reflected in the monetised benefits.

These include the impacts on the local economy from the bus service improvements, such as supporting young people to access education, or for people aged 25+ to find or keep a job. BSIP Phase 1 enabled some services to be provided that were directly supporting economic activity, such as by providing services to tourist attractions, or to key employment sites.

They also include the social benefits that were delivered through passenger environment investments which improve feelings of safety. Driver training ensured the needs of people with disabilities were appropriately accommodated on relevant services. Other benefits include greater confidence to use the bus arising from interventions such as improved bus stops or real-time information. Convenience of using the bus also increased for particular groups, such as by installing spaces to accommodate buggies and mobility aids as these particularly helped passengers with disabilities and caring responsibilities.

BSIP Phase 1 DRT services delivered benefits that were not monetised. These would include improved social connectivity and access to education and employment, improvements in wellbeing and health as well as the additional option value to non-users (or light users) of DRT services.

The greenhouse gas emission savings are included in the monetised benefit estimates, though other environmental benefits would also be expected. For example, reduced emissions to air of pollutants from the mode shift from cars to buses, and reduced noise.

The evidence gathered on many of these impacts (and discussed in more depth in Sections 5.3, 5.4 and 5.5) suggests that these effects will further increase the value for money of BSIP Phase 1 beyond what is possible to monetise.

## 6.6 Overall VfM assessment

**The implied monetised BCRs were between 1.7 and 2.1, with non-monetised benefits expected to increase the overall value for money even further. Therefore, BSIP Phase 1 scheme delivery by March 2025 in the 16 representative LTAs is expected to be medium to high value for money.** Further analysis exploring whether BSIP Phase 1 VfM changes under different modelling assumptions suggests that VfM would be likely to be medium to high. These BCRs do not reflect the non-monetisable, positive social outcomes of the BSIP Phase 1 programme, which would further increase the value for money.

## 6.7 Variation in scale of BSIP Phase 1 benefits by LTA characteristics

Variations across LTAs with different characteristics could affect the VfM. This was explored by grouping the 16 representative LTAs according to their rural urban classification (RUC), as defined by the ONS, as well as their population density.<sup>40</sup>

For illustration, two groups analysed were (see Annex F for further details):

1. Urban LTA group – Urban classification + high population density
2. Rural LTA group – Rural classification + low population density

Additional quasi-experimental analysis (using counterfactuals) was used to isolate the impacts of BSIP Phase 1 in these area-type LTA groups. This generated evidence of the extent to which BSIP Phase 1 intervention impacts vary between urban and rural LTAs.

Statistically significant impact estimates were obtained for:<sup>41</sup>

- **Rural LTA journey times:** BSIP Phase 1 bus priority infrastructure interventions delivered by 31 March 2025 led to an **11.7%** average reduction in journey times within 6 months on rural LTA corridors, compared with the all-area estimate (for the 16 representative LTAs) of 7.0%.
- **Urban LTA punctuality:** BSIP Phase 1 interventions delivered to 31 March 2025 led to a **162 second** reduction in the size of average service bus stop departure delay, compared with the all-area average estimate (for the 16 representative LTAs) of 93.8 seconds.

TAG scenario analysis of the corresponding benefits is shown in Table 12.

**Table 12** Area type analysis for BSIP Phase 1 journey time impacts

|            | Number of LTAs<br>represented by the<br>group | Number of<br>passengers at<br>baseline | 1 year per passenger<br>trip benefit (TAG<br>scenario) |
|------------|-----------------------------------------------|----------------------------------------|--------------------------------------------------------|
| Rural LTAs | 4                                             | 55.5 million                           | 2.4 pence                                              |
| All LTAs   | 16                                            | 410 million                            | 1.4 pence                                              |

Source: Frontier Economics analysis.

<sup>40</sup> Population density was calculated using [Mid-Year Estimates \(MYE 2024\)](#) and ONS [Standard Area Measurements \(SAM\)](#). See Annex F (section F.4) for further details.

<sup>41</sup> It is important to bear in mind that these results are based on impacts assessed over the 6-month period after 31 March 2025. The econometric analysis explored the impact of area type for urban and rural LTAs and the three key monetisable benefit drivers of journey time, punctuality and patronage. The journey time analysis for urban LTAs, punctuality analysis for rural LTAs and patronage analysis for both urban and rural LTAs did not result in statistically significant results. This is likely to be due to the limited available data.

## EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

*Note:* Results were generated using the TAG scenario and assumes benefits persist for 15 years with a decay rate of 10%.

This analysis suggests that when journey time benefits were considered at the individual bus user level, **1 year per passenger benefits in rural areas were relatively higher at 2.4 pence than the all-LTA average at 1.4 pence.**

The area type punctuality benefit analysis is in Table 13.

**Table 13** Area type analysis for BSIP Phase 1 punctuality impacts

|            | Number of LTAs represented by the group | Number of passengers at baseline | 1 year per passenger trip benefit (TAG scenario) |
|------------|-----------------------------------------|----------------------------------|--------------------------------------------------|
| Urban LTAs | 4                                       | 121 million                      | 14.1 pence                                       |
| All LTAs   | 16                                      | 410 million                      | 8.2 pence                                        |

*Source:* Frontier Economics analysis.

*Note:* Results were generated using the TAG scenario and assumes benefits persist for 15 years with a decay rate of 10%.

This analysis suggests that when punctuality benefits were considered at the individual bus user level, **year 1 per passenger benefits in urban areas were relatively higher at 14.1 pence per trip compared to the all-LTA average of 8.2 pence.**

Data limitations meant that analysis of other variations was not possible, including for different types or combinations of intervention.

## 7 Process Evaluation

The process evaluation brings together the findings from in-depth interviews and workshops with LTAs, operators and regulators to inform the overarching question of **‘what worked, and what could be improved?’** in the delivery of the BSIP Phase 1 programme.

Self-assessment data provided by LTAs to the DfT relating to aspects of their Phase 1 BSIP intervention delivery were also analysed. LTAs scored themselves using a ‘RAG’ (‘Red, Amber, Green’) rating and scoring their ‘likelihood of delivery’ (on a scale of 1 to 9, with ‘1’ being ‘achieved’ and ‘9’ being ‘on hold or discontinued’).

The research approach and materials aligned with a detailed process map and evaluation question framework (see Annex G). Aspects of delivery evaluated include the design, mobilisation and implementation stages of the BSIP Phase 1 funding. Findings are presented across the themes of funding allocation, reprogramming and change control, partnership working, key barriers and enablers and knowledge sharing.

### 7.1 Funding Allocation

**Initial delays to funding allocation made the early implementation challenging, however, this improved in subsequent years.**

Delays to the allocation of funding at the start of the BSIP Phase 1 delivery phase were perceived by LTAs to have occurred due to DfT administrative processes and rescope following initial allocations. This had a short-term impact on LTAs’ ability to begin delivery and caused delays to early implementation. However, subsequent funding allocation took place in a timelier manner and did not continue to hinder delivery. LTAs noted that they would welcome DfT being more mindful of the time needed for internal LTA processes, such as in relation to change control processes and the provision of reporting and data.

### 7.2 Reprogramming and Change Control

**Reprogramming of BSIP Phase 1 schemes was required for several reasons. The change control processes were initially found to be onerous, however, improvements made by DfT made this smoother for LTAs.**

BSIP Phase 1 funding allocations to LTAs were typically below the amounts bid for. LTAs therefore needed to rescope their BSIPs in collaboration with DfT to agree a final programme of schemes. Although stakeholders on the whole welcomed the BSIP Phase 1 funding, some expressed frustration at the final allocations:

*“You’re told to be ambitious and then the budget was nowhere near that ambitious... so we were setting ourselves up for conversations for a much bigger project than eventually happened.” (Operator)*

Throughout delivery, many LTAs explained that they went through reprogramming and change control processes. In some cases, reprogramming occurred as an outcome of interventions being funded through other means or rescope in light of other interventions (e.g. LUF, TCF, ZEBRA and their own investment). Factors such as planning constraints, outcomes of consultations and administrative changes also played a role in the need to make programme changes. In other cases, cost increases resulted in reprogramming, which was recognised by both LTAs and the DfT:

*"We've had to kind of shelve some of those [schemes] for potential delivery to a later period just due to the increased costs over the last three years. It has been a case that construction costs...have gone up well above inflation." (LTA)*

In the earlier phases, nearly all LTAs felt the change control process was onerous, with some considering the process not 'fit for purpose' for individual circumstances. In addition, LTAs stated they would like more autonomy. This was also recognised by the DfT:

*"The change control process was complex, with multiple tiers. It was difficult for some LTAs to navigate." (DfT)*

As a result, DfT adapted their processes, moving from a 4-tier system to a 2-tier system of review. The LTAs generally found that processes got easier over time.

*"I think the process has got a lot easier and better from the beginning...it's got a lot more slick." [LTA]*

## 7.3 Partnership Working

### 7.3.1 Working with operators

**Enhanced Partnerships (EPs) have helped foster positive relationships between LTAs and operators, though for some, it simply formalised existing ways of working.**

*"Having the enhanced partnership there has been a positive for us and it helps us engage more with operators and it sets out the obligations on both the local authority and the operators. So, it's much more clearly documented in terms of what we've agreed and what what's expected from each party." [Operator]*

Most operators felt that the relationships with LTAs were a key enabler of success, although some operators noted significant differences in the ways of working and levels of collaboration across different LTAs they worked with. They highlighted some challenges that had emerged such as resolving cross-boundary issues, increased data requirements and increased paperwork and resource implications. Others noted unexpected positive outcomes in relation to partnership working, such as increased cross-boundary working:

*"Those neighbouring authorities are working together, which is really, really good and it's pleasing to see. Even though it was never part of the original scope of the EP. But it is absolutely the way to go." (Operator)*

DfT policy officials felt that EPs were a particular success of the National Bus Strategy. However, most LTAs and some operators felt it was simply formalising their 'business as usual.'

*"...we've always worked closely with operators; it's key having a good relationship with operators...but the EP itself has not given us anything over and above what we would have got already." (LTA).*

On a more practical basis, collaboration between LTAs and operators facilitated knowledge sharing to inform the BSIP Phase 1 programme design, such as to inform network improvements. This included identifying pinch points, and provision of data which supported targeted interventions as part of the wider programme.

Operators also expressed that the funding 'de-risked' interventions which otherwise may not have been possible. For some operators, the funding allowed them to invest in improvements to their operations with consequent higher levels of driver and staff satisfaction.

### 7.3.2 Working with DfT

**LTAs were positive about working relationships with DfT. However, LTAs would have welcomed continuation of the Relationship Manager model.**

From the start of the BSIP Phase 1 programme, LTAs were allocated a 'Relationship Manager' to be a day-to-day point of contact for programme related queries, change control and data requests. At the outset of the programme, some LTAs raised concerns about the timeliness of responses, however, this improved throughout the 3-year programme and the Relationship Managers were strongly valued by LTAs. In addition, DfT also valued having a close understanding of schemes and programmes.

In 2025, as the BSIP Phase 1 delivery period was nearing its completion, DfT opted to remove the Relationship Manager role, with only certain LTAs retaining them, and others instead raising queries and requests via a dedicated email address. Following this, feedback on DfT support continued to be positive although some raised concerns about the new model of support, suggesting the new communication channels are not as 'prompt' or 'efficient'.

The DfT team also felt that not having the dedicated Relationship Managers created a challenge, particularly when reviewing change control requests and queries, as they did not have the same depth of knowledge about the programme and local conditions as previously.

*"I feel that sometimes without having the relationship managers, we tend to react more rather than being proactive... We don't know if things are happening or are going wrong until the quarterly reports are through and then we have to go back and explore what went wrong and why and trying to rectify it." (DfT)*

LTAs indicated they would like more support on aspects such as expertise for capital delivery, and to help overcome barriers arising from consultation. The DfT explained that the Bus Centre of Excellence was a platform to offer targeted support in response to LTA feedback.

Similarly, some LTAs expressed some frustration around the expectations and timescales for delivery.

*“It would be appreciated if the DfT didn’t underestimate how much time we actually need in engagement and development in order to make decisions and then move forward.”*  
(LTA)

### 7.4 Enablers and Barriers

#### 7.4.1 Working with other stakeholders

**The broad range of internal stakeholders were generally considered an enabler of delivery. However, more engagement with external stakeholders could better shape delivery.**

The range and number of those involved internally was highlighted by many LTAs, ranging from highways departments to finance and IT departments, and senior leaders. In most cases, LTAs mentioned positive internal working relationships along with strong and capable delivery teams as important enablers of delivery.

*“...having a team that is so committed, so knowledgeable and ready to get the hands dirty, it’s great.”* (LTA)

Some LTA delivery teams recognised they lacked experience in delivering capital schemes, and this was a barrier for them.

As well as operators, LTAs engaged to some extent with businesses and organisations in their local area when shaping BSIP Phase 1 proposals, through informal and formal consultation. However, as noted in the impact evaluation, feedback from these stakeholders suggests this was not as effective as it could have been, with bus service enhancements not always reflecting the needs of trip-generating sites. For example, timetables not aligning with typical shift times or lesson times.

As outlined in the interim report, both the Competition and Markets Authority (CMA) and Traffic Commissioners Office (TCO) acted in a regulatory capacity in the earlier phases of delivery. Their input was relatively light-touch, and this level of involvement was felt to be appropriate to the programme.

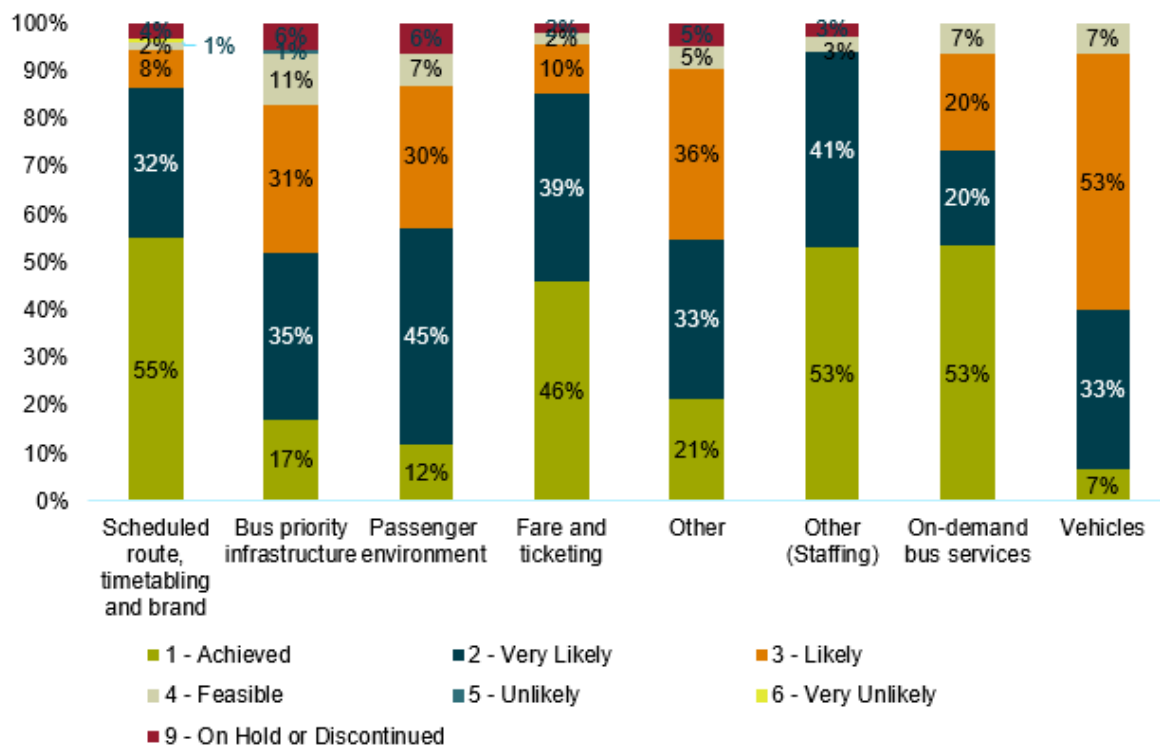
#### 7.4.2 Delivery progress

**Delivery delays were more likely for bus priority and passenger environment schemes.**

In monitoring data, LTAs were asked to provide a self-reported ‘on track’ score for each scheme. As of October 2025, both ‘bus priority infrastructure’ and ‘passenger environment’ were most likely to be ‘on hold or discontinued’, whereas ‘on-demand bus services’ (representing the small number of schemes by typology) ‘scheduled route, timetabling and

brand', and other (staffing) were most likely to be 'achieved' or 'very likely' to be achieved. This is shown below in Figure 19.

**Figure 19 LTA self-reported delivery progress (October 2025)**



Source: October 2025 monitoring returns from LTAs [some bars do not total 100% due to rounding]

This was further highlighted in interviews, with LTAs showing most confidence and progress with revenue interventions compared to capital. The reasons for this are further outlined below.

### 7.4.3 Delivery of Capital Interventions

**Capital interventions experienced greater levels of delay and rescoping than revenue interventions, due to the complexity of their delivery.**

Throughout the evaluation, capital interventions continued to be more challenging than revenue interventions to deliver. This was apparent through both monitoring data and qualitative evidence.

During interviews, some LTAs shared some successful “quick wins” such as junction painting, double yellow lines or removal of overgrown vegetation:

*“These [double yellow lines] have been really well received by local bus operators. It's literally one of the best things that we've ever, ever done for them... It's just talking to the bus operators to see where problems are and doing something about it.” (LTA)*

Similarly, smaller-scale capital interventions, such as real-time information and bus stop improvements, experienced fewer barriers to delivery, particularly for interventions that the LTAs had previous experience of delivering.

**Consultation, planning and related political aspects** resulted in delays for many LTAs. This also included local administrative changes resulting in changing priorities and challenges with cross-boundary interventions. In some cases, bus priority schemes were rescope or abandoned due to the outcome of consultation. Other activities, such as planning permissions and Traffic Regulation Orders, took time to implement:

*“The hardest thing about the bus lane is the requirement to go through the consultation and the process involved there and the objections to bus lanes. Natural objections from businesses and residents make it challenging.” (LTA)*

The influence of support provided through political stakeholders and local consultation was consistently raised by stakeholders. One LTA noted that having support from their operator to gather feedback helped generate a more balanced view during consultation:

*“I think the key issue is ... you sometimes find that local councillors can have quite a strong sway in the argument to support or object to the proposal, which is a bit frustrating.” (LTA)*

In some cases, **procurement** delayed the roll-out of capital interventions. For example, when acquiring vehicles for DRT, technology for bus priority or infrastructure for at-stop improvements.

**Physical construction delays** due to weather, location of utilities, health and safety requirements, conflicts on the road space or interactions with other schemes were also a factor for some schemes. **The extent of roadworks and utility works** was felt to limit the realisation of some bus priority interventions, as well as service enhancements.

More broadly, some schemes were amended due to **cost increases** both externally and internally (i.e., inflation and National Insurance increases), and in some cases, due to a lack of internal capacity and capability, particularly for more specialist interventions such as DRT:

*“I think the biggest challenge is lack of knowledge. Not of knowledge of what a DRT scheme is, but actually delivering a DRT scheme, both in terms of procurement, choosing the right supplier and then setting it up and running it. That was the biggest challenge... in quite a tight timescale as well.” (LTA)*

DfT also stated they wished to be supportive of those LTAs persevering to deliver the more challenging interventions, rather than opting to do quicker and easier schemes. This was to encourage ambition in interventions:

*“...a lesson learned going forward is, don't be hard on places that are trying to do the difficult stuff and give the people who just avoid doing any difficult or high benefit stuff, an easy ride.” (DfT)*

#### 7.4.4 Delivery of Revenue Interventions

**LTAs made good progress with revenue-based schemes throughout the BSIP Phase 1 funding period, as these required less input from stakeholders beyond the LTA and operator.**

Revenue interventions were generally felt to be relatively quick and easy to implement. This was evident through the monitoring data and qualitative research activities. This was particularly the case where interventions were fully LTA-delivered, such as marketing and promotional activities:

*“...the thing for us is the fact if we're in fully in full control of it, we're able to deliver it.” (LTA)*

Several planned fares schemes were delayed, aborted or revised due to the ongoing national fare cap and concerns about the ability to compete with it. The £2 bus fare cap was felt to play in a role in supporting BSIPs, by reducing the cost barrier to bus use, but also acted as a barrier to local fare schemes:

*“... we're finding that actually the £2 is kind of overshadowing all the ticketing products that we've looked to deliver.” (LTA)*

However, some LTAs did opt to bring in local fare caps or multi-operator products, either geographically based or aimed at particular user groups, such as young people, commuters or care leavers. As outlined in the impact section, in some cases, users found these complex to access and this was mirrored in some examples by operators:

*“.... our poor drivers are having to explain these fares initiatives, and it ended up just generating so much negativity from what was supposed to be a positive - all aimed at us. And it was frustrating.” (Operator)*

Alongside fares and ticketing products, service enhancements were generally felt to be the most straightforward to implement and deliver, with the Enhanced Partnerships making these easier as well as the expertise within the local bus teams responsible for delivery of the BSIP Phase 1 programme. This is also evidenced in monitoring data in which 70% of fares and ticketing interventions and 68% of ‘scheduling, timetable and brand’ interventions were ‘achieved’ or ‘very likely’ to be achieved as of October 2025.

*“...we are more the experts at running our services and not the experts of major capital programmes.” (LTA)*

Some additional challenges were evident with delivery of revenue interventions, such as fuel shortages and challenges with driver recruitment (both of which improved over the time of BSIP Phase 1 delivery), difficulties in realising service improvements due to roadworks and congestion, and complexities around cross-boundary services and products.

### 7.4.5 Capacity and Capability

**Capacity and capability were felt to be necessary for successful delivery. However, in some cases these were lacking within LTAs. In cases where BSIP Phase 1 funding was used to provide resource, this was considered a key enabler to delivery.**

LTAs were provided with capacity and capability funding at the outset of the BSIP Phase 1 period, which was welcomed. In some instances, resourcing the additional volume of work created a delivery challenge so many LTAs opted to utilise BSIP Phase 1 funding for recruitment of dedicated delivery resource, either through in-house recruitment or through using external consultants. This additional resource was felt to be an enabler of delivery:

*“I would say every appointment that we put in terms of resources through BSIP has been fundamental in terms of being able to deliver this [BSIP Phase 1 interventions].” (LTA)*

A committed and knowledgeable delivery team was felt to be a key factor in success, from the perspective of both LTAs and operators:

*“I suppose one of one of the main strengths of this partnership really is the people... They've [the LTA] built a team of people with the right experiences, the right passion and enthusiasm.” (Operator)*

### 7.4.6 Data Returns and Reporting

**Most LTAs felt that the data requirements were demanding but improvements were noted over the course of the BSIP Phase 1 funding.**

LTAs were required to report progress, including on delivery, risk and spend, to DfT on a quarterly basis. Both LTAs and operators felt they would like more guidance from DfT on monitoring and consistency in requests. This challenge was also recognised by DfT:

*“Lessons learned for me going forward, would be set a template and don't change it unless it's really strictly necessary.” (DfT)*

While some operators felt that there had not been significant issues with data requests, others found the data requirements and processes laborious. Operators flagged a need to ensure that the data requested is useful and proportionate. They expressed that they were not always confident that the data requested would be utilised and were sometimes unclear on what it would be used for:

*“The trouble is, some of this data is very difficult to get, and then whether it's actually accurate or not so... Yes, we've provided things that they've asked for and wanted to see ... we tried to steer them towards things that are genuinely useful and reasonably easy to produce to try get the right balance between all those things.” (Operator)*

### 7.4.7 Knowledge Sharing

**Knowledge sharing, in particular with the Bus Centre of Excellence, was welcomed and supported by LTAs and DfT.**

Nearly all LTAs participated in regular bus forum meetings facilitated by DfT, some had engaged with the Bus Centre of Excellence, and some with the Association of Transport Coordinating Officers (ATCO). Most also noted that they worked closely with neighboring LTAs, for example, by sitting on their EP boards, setting up shared contracts for service efficiency, and providing general support and advice. Several LTAs noted it was reassuring and encouraging to hear LTAs experiencing similar issues as themselves.

*“I think one of the key things for me is having that platform [BCoE] where we can come together with best practice and giving examples of what's worked well, what's not worked well, how they've [other LTAs] resolved things. So, I think that's it's a really useful platform.” (LTA)*

DfT highlighted that the Bus Centre of Excellence was designed as a longer-term programme to boost skills in the sector. The sessions were shaped around LTA feedback, and they seemed to be positively received:

*“...there was this real sense, I felt, of a community of practice.” (DfT)*

## 7.5 Policy Considerations

This process evaluation has identified several factors that DfT may wish to consider in the design and delivery of future local transport schemes of this scale. These include:

- **Enhanced Partnerships have been effective in helping deliver the ambition of BSIP Phase 1 and similar governance structures should be considered in future.** However, the design of BSIP programmes would benefit from greater and earlier engagement between DfT, LTAs and the stakeholders that services are expected to support (e.g., local businesses or employment sites on the service routes).
- **Many capital schemes were delayed, with the 3-year timescale for delivery considered to be unsuitable due to the complexity of the delivery of such interventions.** Future programmes could better estimate the time required for approvals, procurement, and consultation.
- **Capability funding was welcomed to kick-start early delivery and provide additional resources.** Later in the programme, stakeholders expressed some dissatisfaction at the move away from having dedicated Relationship Managers. For significant programmes, it is important to consider whether sufficient mechanisms are in place to provide the right level of support to LTAs.

- **LTAs and operators expressed some frustration at the volume and complexity of data requests and frequent changes to requirements.** Future programmes and reporting could benefit from having defined data collection approaches defined at the outset and maintained throughout, with minimal changes to the process.
- **LTAs showed mixed participation in knowledge-sharing but welcomed forums such as the Bus Centre of Excellence.** It may be helpful to ensure that knowledge sharing continues to be facilitated through a range of channels during delivery of large-scale-programmes.

## Annex A Data Sources

This evaluation relied on a mix of data sources, ranging from data specifically collected for this evaluation to public data sources adopted for the assessment. The former set of data was collected directly from LTAs in receipt of BSIP Phase 1 funding, and features some variation in data quality, based on the complexity of the requested information. However, the assessment was based on robust data sources where possible, and caveats have been included where the available data is less reliable.

The data sources include:

- **LTA Monitoring and Evaluation submissions:** All LTAs in receipt of BSIP Phase 1 funding were required to provide monthly data on total LTA-wide monthly patronage from January 2022 to December 2025, as well as information on scheme completion.
- **Data from LTAs on route-level patronage:** LTAs (through their operators) provided additional data on route-level bus patronage over the same period, as well as identifying intervention and counterfactual corridors.
- **ABODS data on journey times and punctuality:** Data on LTA-wide average monthly on-time performance and corridor-level average journey times (for a subset of corridors affected by BSIP Phase 1 funded capital interventions) was sourced from the Analyse Bus Open Data Service (ABODS) platform.
- **Ticketer patronage data:** Data from the Ticketer on-board software has been used to inform the QE analysis. This dataset presents total daily bus patronage at the LTA level, presented as a proportion of the observed patronage in the same (or equivalent) day in the previous year. The data covers the period January 2022 to October 2025.
- **Transport Focus ‘Your Bus Journey’ survey:** Outcomes for the annual Your Bus Journey (YBJ) survey conducted by Transport Focus over 2023 to 2025 have been used in this evaluation.
- **Transport Appraisal Guidance (TAG) and HM Treasury Green book:** Guidance from the Green Book and webTAG has been used to inform the assumptions underlying the Value for Money assessment
- **ONS Rural Urban Classifications (2021).** This provides a consistent and standardised method for categorising geographies as either rural or urban.

## Annex B Counterfactual LTAs for Punctuality

LTAs not in receipt of BSIP Phase 1 funding were selected as comparator LTAs for the purposes of monitoring punctuality differences. These LTAs were selected and agreed with the DfT using the following criteria:

- No Phase 1 BSIP funding
- No RMF or CRSTS funding
- 70% or higher availability on ABODS
- Different levels of Rurality

The 12 selected LTAs were:

- Bracknell Forest
- Dorset
- Leicester
- North Yorkshire
- Rutland
- Slough
- Southampton
- Southend-on-Sea
- Telford and Wrekin
- Thurrock
- Windsor and Maidenhead
- Wokingham

## Annex C Transport Focus results for key themes

**Table 14** Percentage point (p.p.) change in bus passenger satisfaction key themes, 2023 to 2025

| Local Authority Area*                | Value for money (p.p.)                                                                                                                                          | Bus stop (p.p.) | Punctuality (p.p.) | Journey time (p.p.) | Bus driver (p.p.) |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------|---------------------|-------------------|
| Bournemouth Christchurch and Poole   | -5                                                                                                                                                              | -1              | 0                  | +1                  | 0                 |
| Brighton and Hove                    | <i>Did not take part in 2025</i>                                                                                                                                |                 |                    |                     |                   |
| City of York                         | -4                                                                                                                                                              | +3              | +3                 | 0                   | +1                |
| County Durham***                     | -1                                                                                                                                                              | +11             | +13                | +7                  | +6                |
| Cornwall                             | -25                                                                                                                                                             | +3              | +2                 | 0                   | -1                |
| Derby City                           | <i>Did not take part in 2023</i>                                                                                                                                |                 |                    |                     |                   |
| Derbyshire                           | -4                                                                                                                                                              | +8              | +8                 | +4                  | +3                |
| Devon^                               | <a href="https://www.traveldevon.info/bus/bsip/bus-passenger-satisfaction-survey/">https://www.traveldevon.info/bus/bsip/bus-passenger-satisfaction-survey/</a> |                 |                    |                     |                   |
| East Sussex                          | -4                                                                                                                                                              | +12             | +9                 | +3                  | +3                |
| Greater Nottingham                   | -1                                                                                                                                                              | +2              | +2                 | +4                  | +2                |
| Lancashire and Blackburn with Darwen | -5                                                                                                                                                              | +12             | +8                 | +3                  | +1                |
| Luton                                | -8                                                                                                                                                              | +13             | +6                 | -1                  | 0                 |
| Norfolk                              | -5                                                                                                                                                              | +5              | +4                 | +5                  | +3                |
| North East Lincolnshire              | -3                                                                                                                                                              | +8              | +7                 | +5                  | 0                 |
| Northumberland***                    | 0                                                                                                                                                               | +4              | -1                 | 0                   | 0                 |
| Nottinghamshire                      | +4                                                                                                                                                              | +8              | +4                 | +5                  | +4                |
| Oxfordshire                          | -4                                                                                                                                                              | +9              | +12                | +4                  | +1                |
| Portsmouth                           | -2                                                                                                                                                              | +9              | +11                | +7                  | +2                |
| Reading Buses**                      | -7                                                                                                                                                              | +9              | +10                | +5                  | +3                |
| Stoke-on-Trent                       | -14                                                                                                                                                             | +3              | 0                  | -2                  | -2                |
| Tyne & Wear***                       | -3                                                                                                                                                              | +4              | 0                  | -2                  | 0                 |

## EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

|                                    |           |           |           |           |           |
|------------------------------------|-----------|-----------|-----------|-----------|-----------|
| Warrington                         | +9        | +9        | +4        | +9        | +2        |
| West of England and North Somerset | -6        | +7        | +3        | +2        | 0         |
| West Sussex                        | -20       | +9        | +7        | +2        | +2        |
| <b>England</b>                     | <b>-4</b> | <b>+5</b> | <b>+7</b> | <b>+2</b> | <b>+2</b> |

Source: Transport Focus – ‘Your Bus Journey’ (excluding Devon, see note)

Note: \* Naming convention in Transport Focus surveys, this differs slightly from some of the names used in the evaluation.

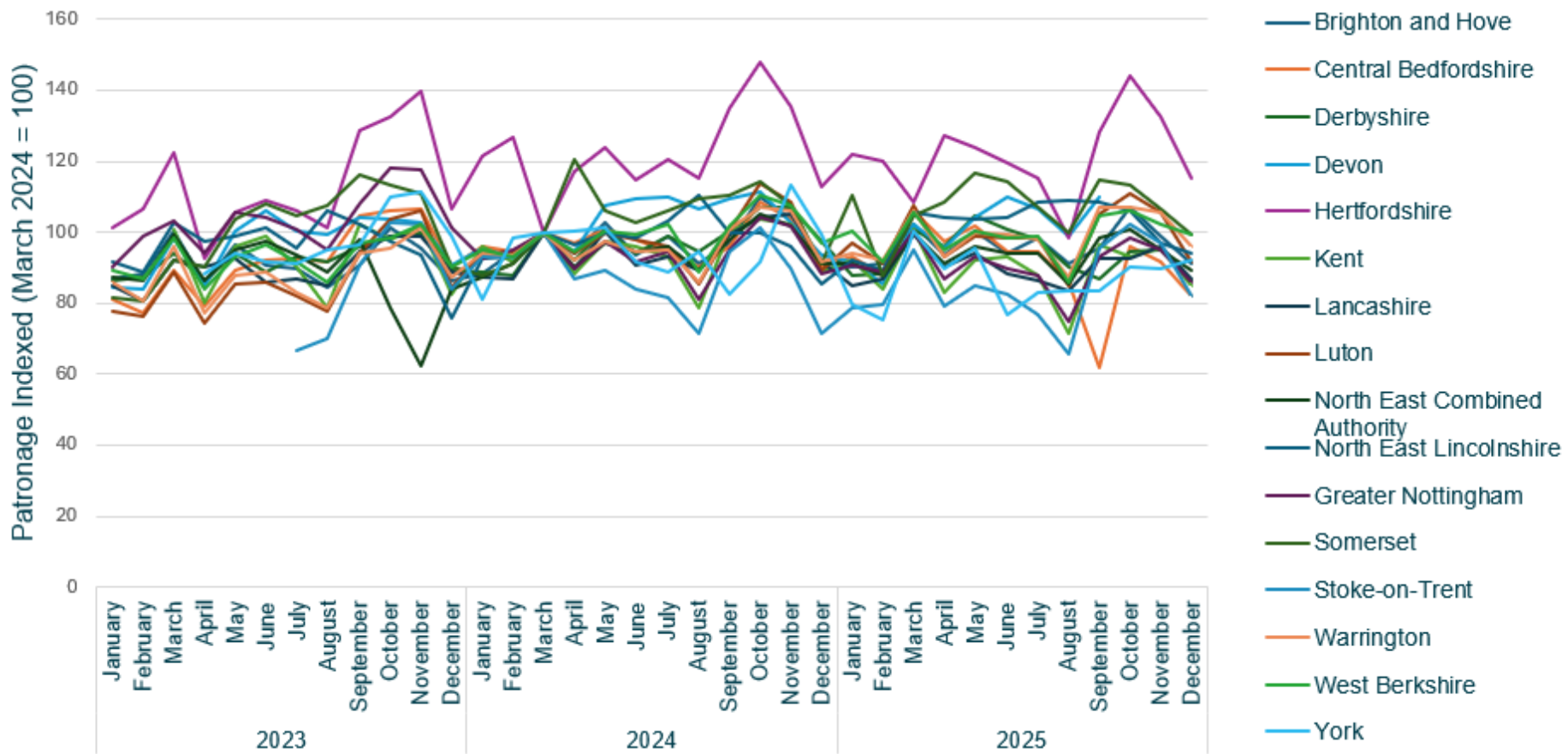
\*\* Covers Reading Buses network around the Reading Area.

\*\*\* Constituent district of North East Combined Authority.

^ Devon: Bus Passenger Satisfaction Survey – Travel Devon. Data for these themes only available in charts.

## Annex D Indexed Patronage by LTA

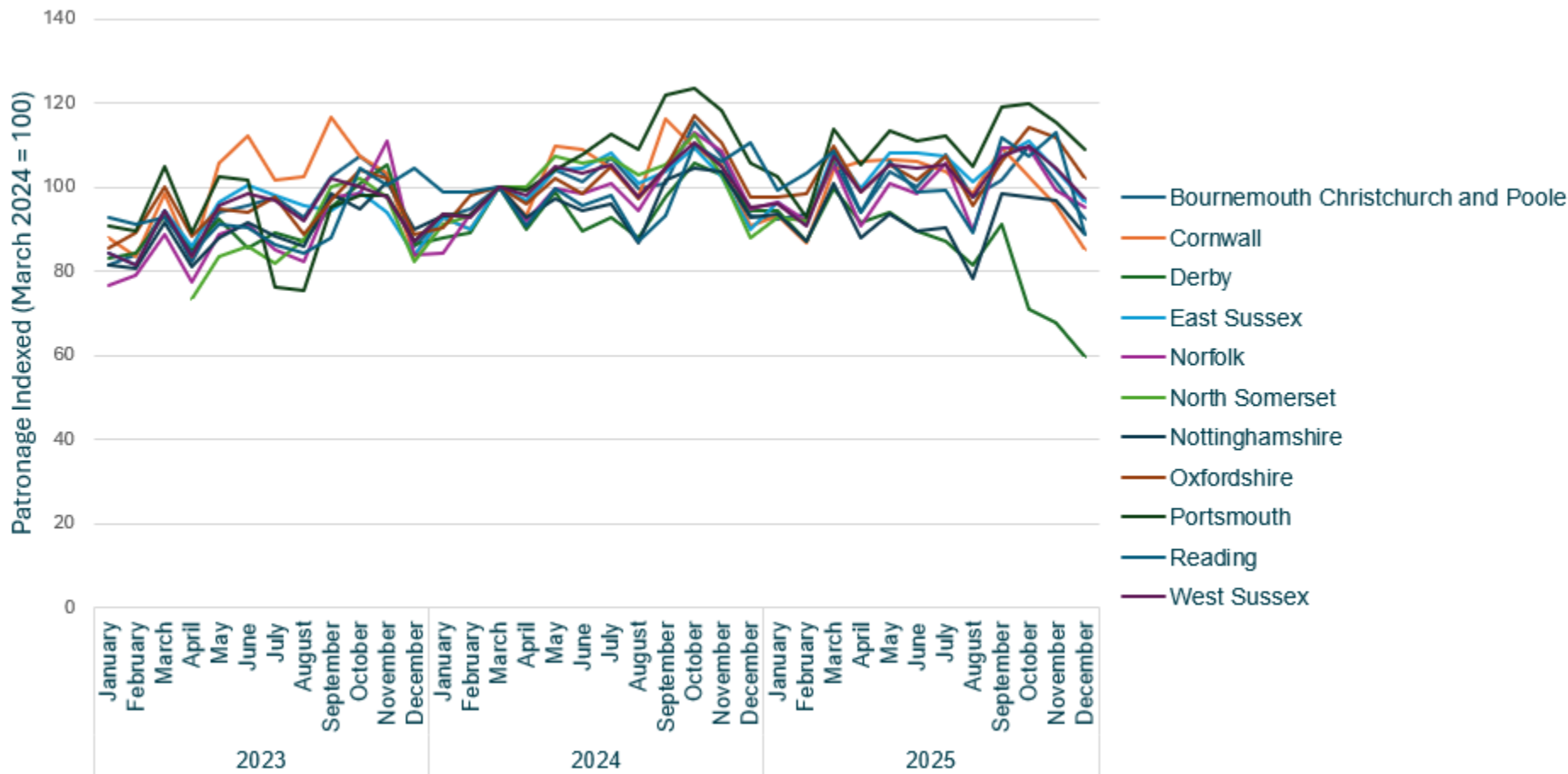
Figure 20: Patronage, indexed to March 2024, for representative LTAs



Source: Monitoring data reported by LTAs

Note: Some authorities were not able to provide data from January 2023 so start when data was first available. NECA was impacted by industrial action October to December 2023.

Figure 21: Patronage, indexed to March 2024, for remaining LTAs



## Annex E Impact Evaluation methodology

### E.1 Contribution Analysis

The impact evaluation used a theory-based Contribution Analysis methodology. This approach develops contribution claims that reflect the key pathways to impact set out in the BSIP Phase 1 theories of change. These claims define how BSIP Phase 1 interventions were expected to influence outcomes and provide a structured basis for testing whether the expected pathways set out in the theory of change are supported in practice.

The evaluation tested these claims using a combination of quantitative evidence (including quasi-experimental analysis, before vs after analysis from a 5-LTA panel survey of 2,085 people, trend analysis and segmentation analysis) and qualitative evidence (interviews and focus groups) to assess how and why outcomes occurred. A structured framework was used to assess the strength of evidence supporting each contribution claim, considering the quality, volume and consistency of evidence, and the extent to which alternative explanations could be ruled out.

For each contribution claim, the report sets out the scale of change observed in key outcomes and whether there was sufficient evidence to attribute this change to the BSIP Phase 1 interventions (supported by quasi-experimental analysis where possible). Where quasi-experimental analysis was not feasible, complementary qualitative evidence was used to understand whether BSIP Phase 1 interventions contributed to the observed outcomes. The analysis also identified other factors that may have influenced outcomes.

### The building blocks of the contribution analysis methodology

Contribution analysis is typically structured with the following steps:

1. **Developing the Theory of Change:** The fundamental building block of a contribution analysis is the Theory of Change (ToC). The ToC sets out the clear and defined causal mechanisms that link inputs and activities to outcomes and impacts. The ToC sets out underlying impact channels, key contextual considerations, and any external factors. This is explored further in Annex E.2.
2. **Specify contribution claims (hypotheses reflecting the pathways to impact):** As part of developing the ToC, the analysis develops hypotheses for the outcomes of interest, and other contextual factors. These were captured in a series of contribution claims.
3. **Gather evidence to test the contribution claims:** Combining quantitative evidence with qualitative insights, each contribution claim can be tested to understand whether the evidence supports it or counters it.
4. **Identify alternative factors that may have contributed to the observed outcomes:** Quantitative and qualitative evidence is used to identify other factors that could have influenced the observed outcomes (such as other local policies).

## EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

5. **Assess the strength of evidence for each contribution claim:** Evidence across the various sources is synthesised, including the potential influence of other factors to observed outcomes. The strength of evidence supporting or countering each contribution claim is assessed by considering the quality and volume of evidence and the consistency of findings across sources.

## E.2 Theory of Change

This section sets out the theories of change for each of the categories of intervention funded through the BSIP Phase 1 programme. These are shown as logic models.

There are five intervention typologies. For each of the typologies, this section sets out the key inputs, outputs, and outcomes, followed by a detailed logic model additionally stating any key enablers, barriers, and unintended effects.

- **Bus priority infrastructure investment:** These include capital investments relating to bus priority lanes, junction modification, and signal junctions.
  - *Inputs:* The inputs include activities relating to the creation of new or improved bus priority infrastructure (such as pre-construction preparatory work, obtaining required planning and delivery approvals, the preparatory design, procurement and construction work associated with the priority infrastructure and wider stakeholder engagement activities to promote new services and comply with the statutory processes).
  - *Outputs:* The outputs of these activities are the new and improved priority infrastructure of bus priority lanes, junctions that prioritise bus traffic flows and, in some LTAs, segregated Bus Rapid Transit links
  - *Outcomes:* By creating dedicated bus lanes and improved junctions, bus punctuality should improve and bus journey times should become more predictable and shorter, generating bus passenger-related outcome benefits such as improved satisfaction levels for existing bus passengers and a switch from other transport modes to bus travel for those currently not using the service because of journey time and reliability. These may then give rise to a set of third order effects such as changes in the level of town centre and high street footfall due to higher bus patronage, and change in overall active travel levels (for those conducting additional bus journey, or switching from car to bus travel) increased local business investment (as a result of footfall increases) and finally a change in the accessibility of health, education, leisure and employment locations.
- **Passenger environment investment:** These include capital investment relating to passenger service information, public transport interchange and waiting area facilities.
  - *Inputs:* The inputs include activities relating to the design, procurement, installation and marketing of BSIP passenger environment outputs.
  - *Outputs:* The outputs of these activities include improving passenger service information (including on-board audio-visual service information and live bus services information in bus waiting areas), public transport interchange (including improved parking facilities including Park and Ride, and improving signage to onward non-bus

public transport) and waiting area facilities (new and improved bus shelters and more street lighting).

- *Outcomes:* Current bus users may increase their level of satisfaction with bus services as a result of feeling safer waiting for and using bus services. This may lead to them increasing their use of bus services and finding local employment, education, health or leisure services more accessible. For some non-bus users, investment that increases information and accessibility may overcome their barriers to bus travel may result in significant benefits relating to being able to access health, leisure, employment and education destinations as well as day to day commerce and social destinations (including friends and family).
- **Fare and ticketing investment:** These include capital and revenue investment relating to new and/or simpler fare structures and flexible payment systems and multi-operator ticketing.
  - *Inputs:* The inputs include activities related to the design, roll-out and marketing of new fare structures that offer bus customers simpler and lower fares, and the specification, procurement and installation of operator ticketing infrastructure that enables LTAs to offer bus passenger multi-operator tickets.
  - *Outputs:* The outputs of these activities include simplifying the fare purchase process (from selecting the best fare through to buying a bus ticket) and making bus travel more affordable.
  - *Outcomes:* Lower fares will enable people on low incomes with no viable alternative to bus travel to start to travel using the bus or increase their number of bus journeys. In this case some employment, education, health and leisure destinations may become more accessible and the local town centres and high streets may experience higher footfall. Fare simplification will reduce the time potential passengers need to spend journey planning and will enable them to budget for travel expenses with greater certainty. For current bus users, effective fare simplification should also lead to an increase in passenger satisfaction and increased welfare (from reduced stress and time spent planning). Ticket simplification, through multi operator tickets and flexible payment systems, should reduce boarding times (increasing bus reliability), and because of the ease of payment afforded to passengers may improve the overall passenger experience, and increase satisfaction levels.
- **Scheduled route and timetabling and brand investment:** These include capital and revenue investment in new and modified routes and timetables and improved communication of services through common numbering, branding and digital timetables.
  - *Inputs:* The inputs include researching new bus routes and timetables, engaging with local communities, health, leisure and education institutions and employers to understand where and when there is the greatest need for services and where to place stops.

- *Outputs:* The outputs of these activities include the introduction of cross-operator timetabling (removing overlaps and ensuring that services are timed to best meet passenger service needs), and changes to the frequency and regularity of bus services along existing routes and, as well as improved communication of services through common numbering, branding and digital timetables.
- *Outcomes:* These changes are intended to drive a number of outcomes including an increase in the accessibility of businesses, schools and essential services targeted by the route and timetabling amendments. Changing from operator-specific route numbering and timetabling to common cross operator route information and branding should make it easier for passengers to capture all the information they need for route planning and make faster, less onerous journey decisions. This should increase overall passenger satisfaction and potentially attract more people to use these bus services.
- **On-demand bus services:** These include on-demand bus services implemented by LTAs through their BSIPs including the introduction of new DRT services, booking applications and contracts with bus operators.
  - *Inputs:* The inputs include investments in online booking technology, new buses, new operator contracts and significant marketing and awareness campaigns to maximise uptake of these services.
  - *Outputs:* The outputs of these activities include non-scheduled or partly scheduled local bus services (such as evening or weekend DRT services).
  - *Outcomes:* These are expected to increase the number of individuals that have ready access to a bus service that will enable them to access businesses, schools, local commerce and leisure facilities and essential services. As more people access these facilitates and services, footfall levels in urban centres should increase, and the number of car journeys in the local area may reduce.

Figure 22 BSIP Phase 1 logic model – Bus Priority Infrastructure

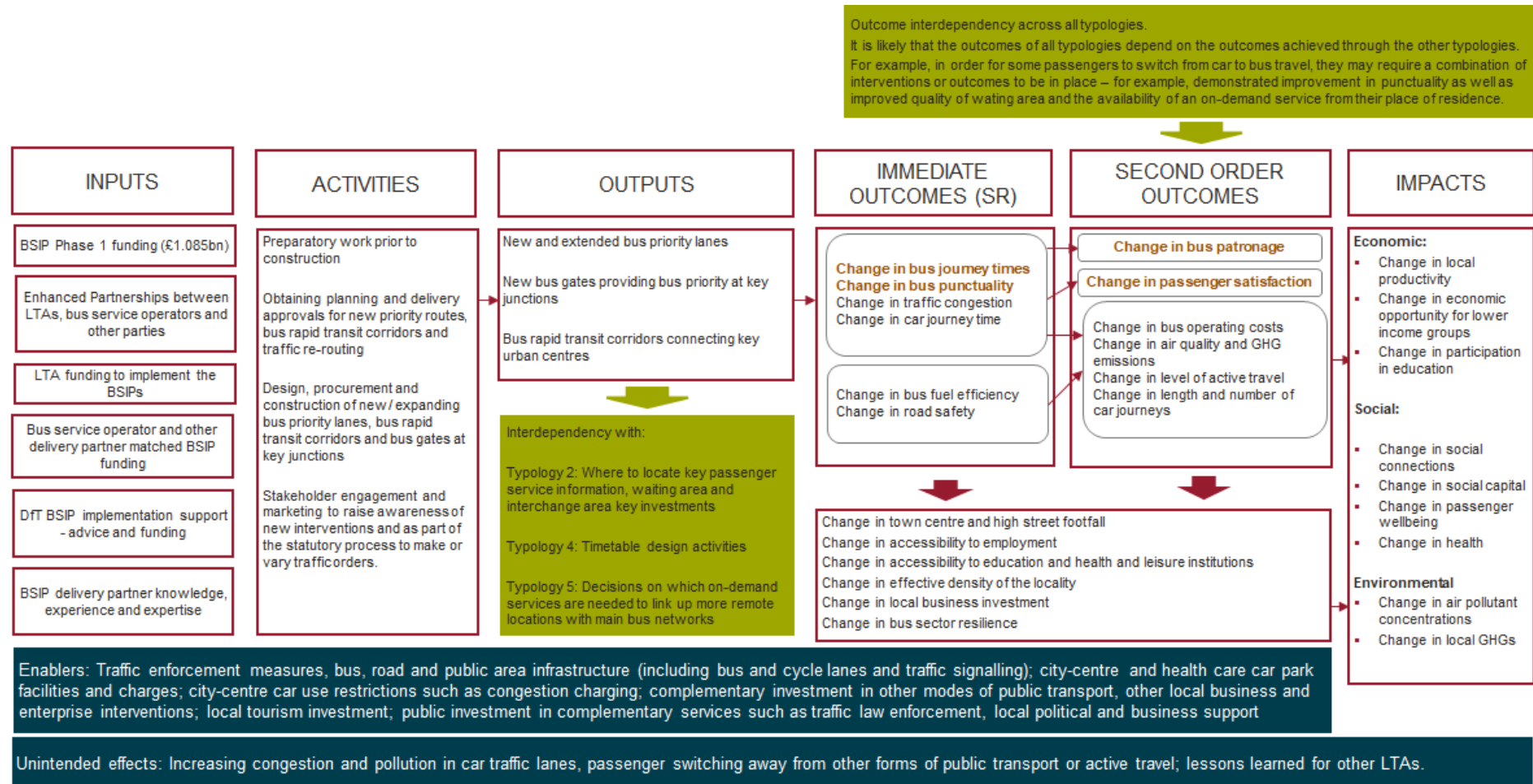


Figure 23 BSIP Phase 1 logic model – Passenger Environment

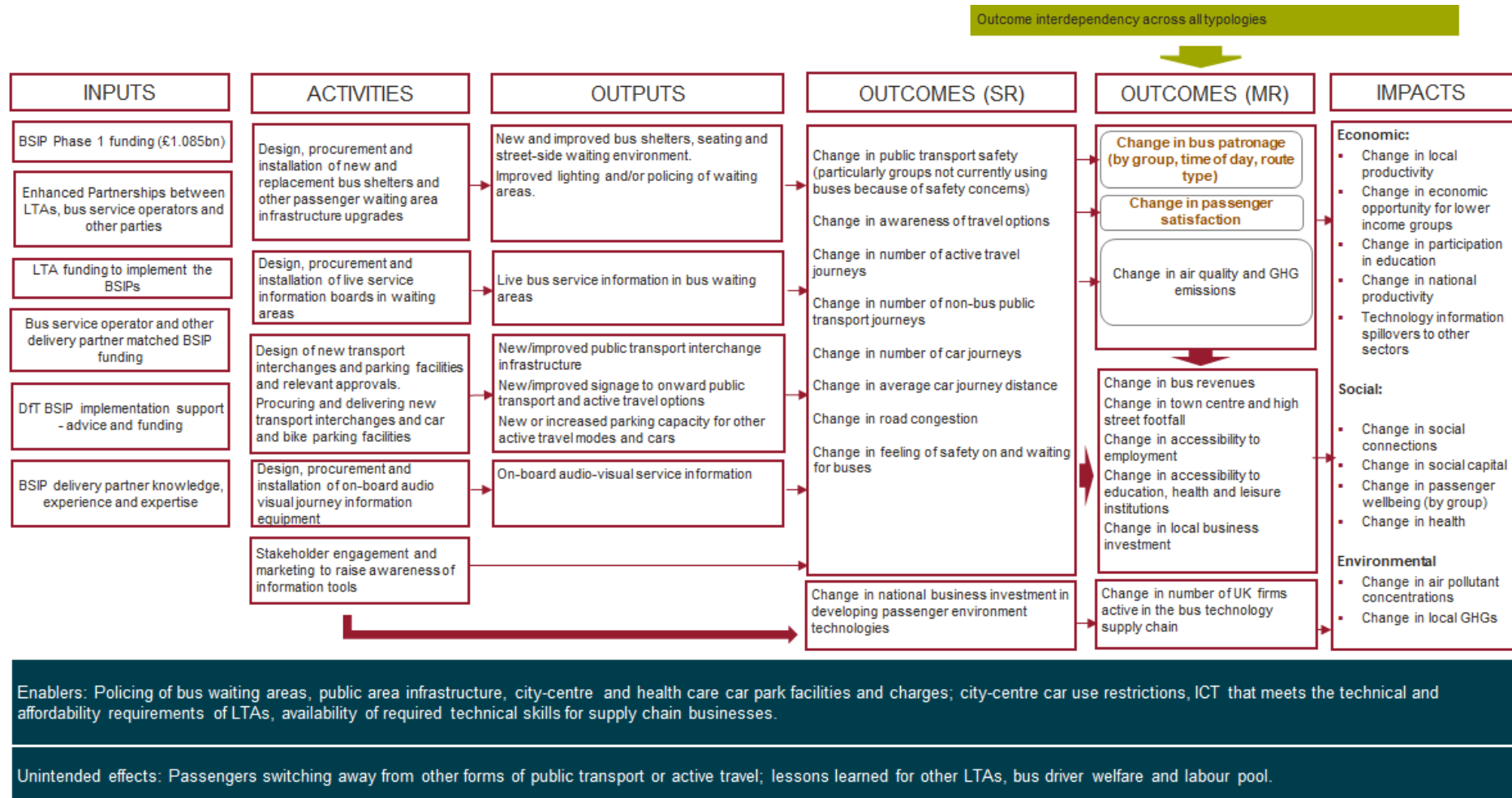


Figure 24 BSIP Phase 1 logic model – Fares and Ticketing

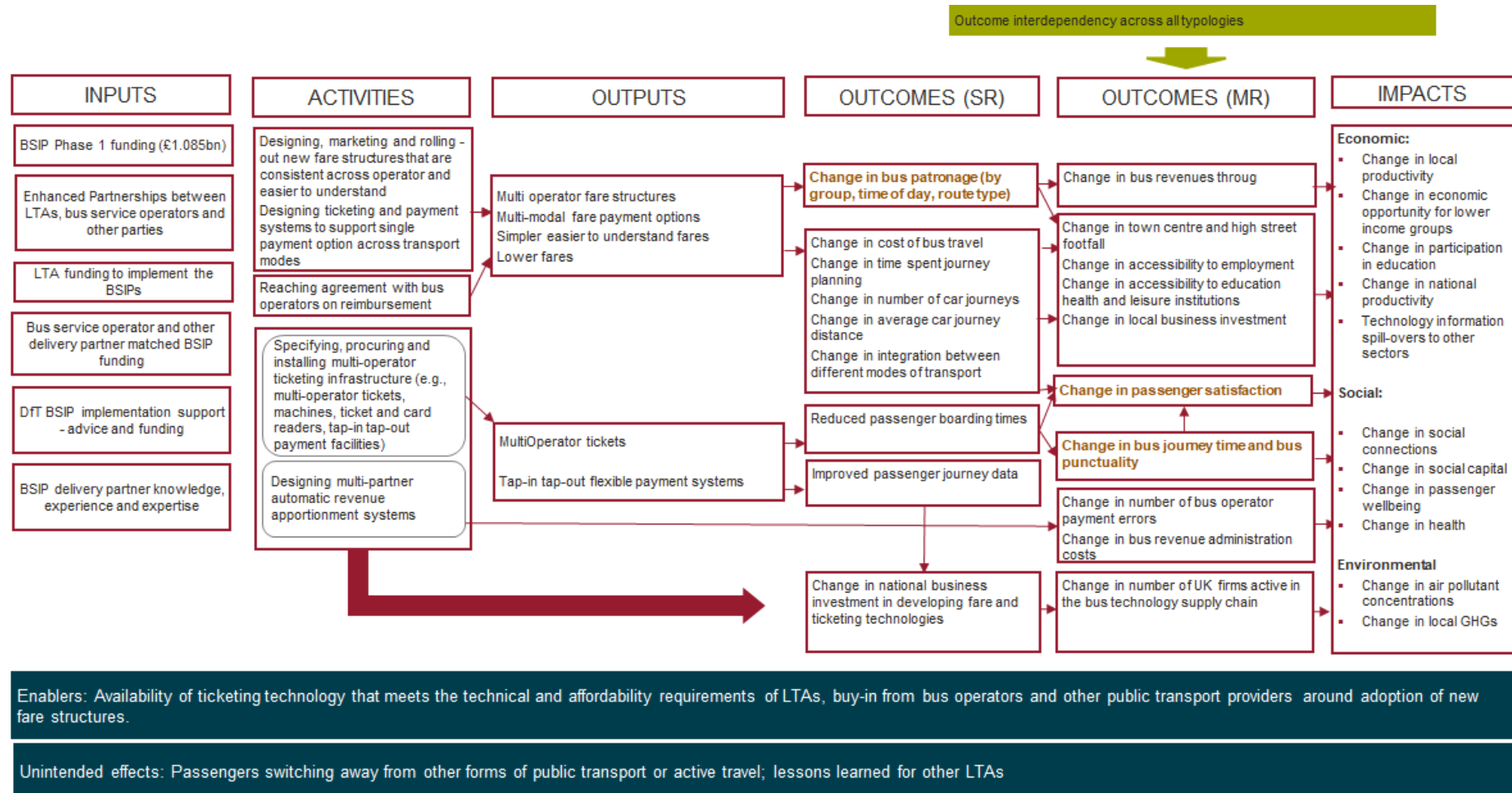
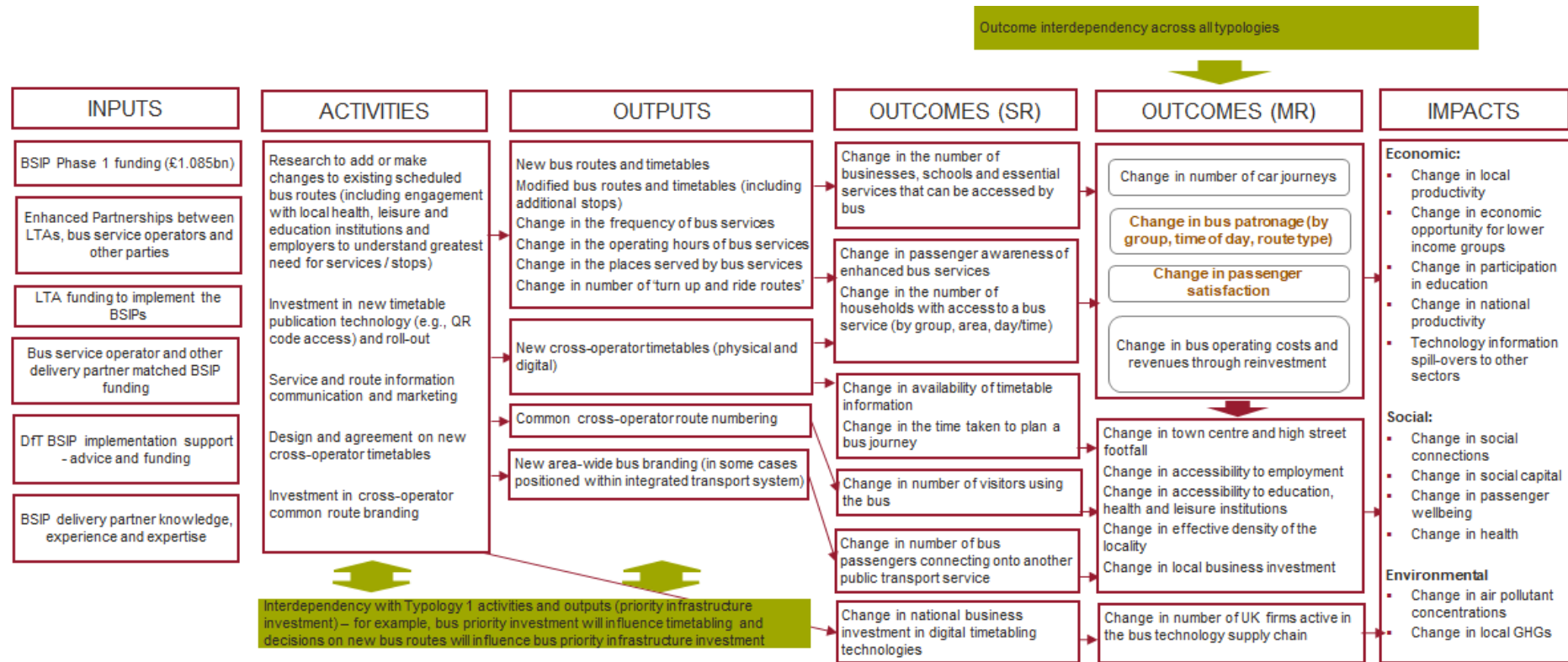


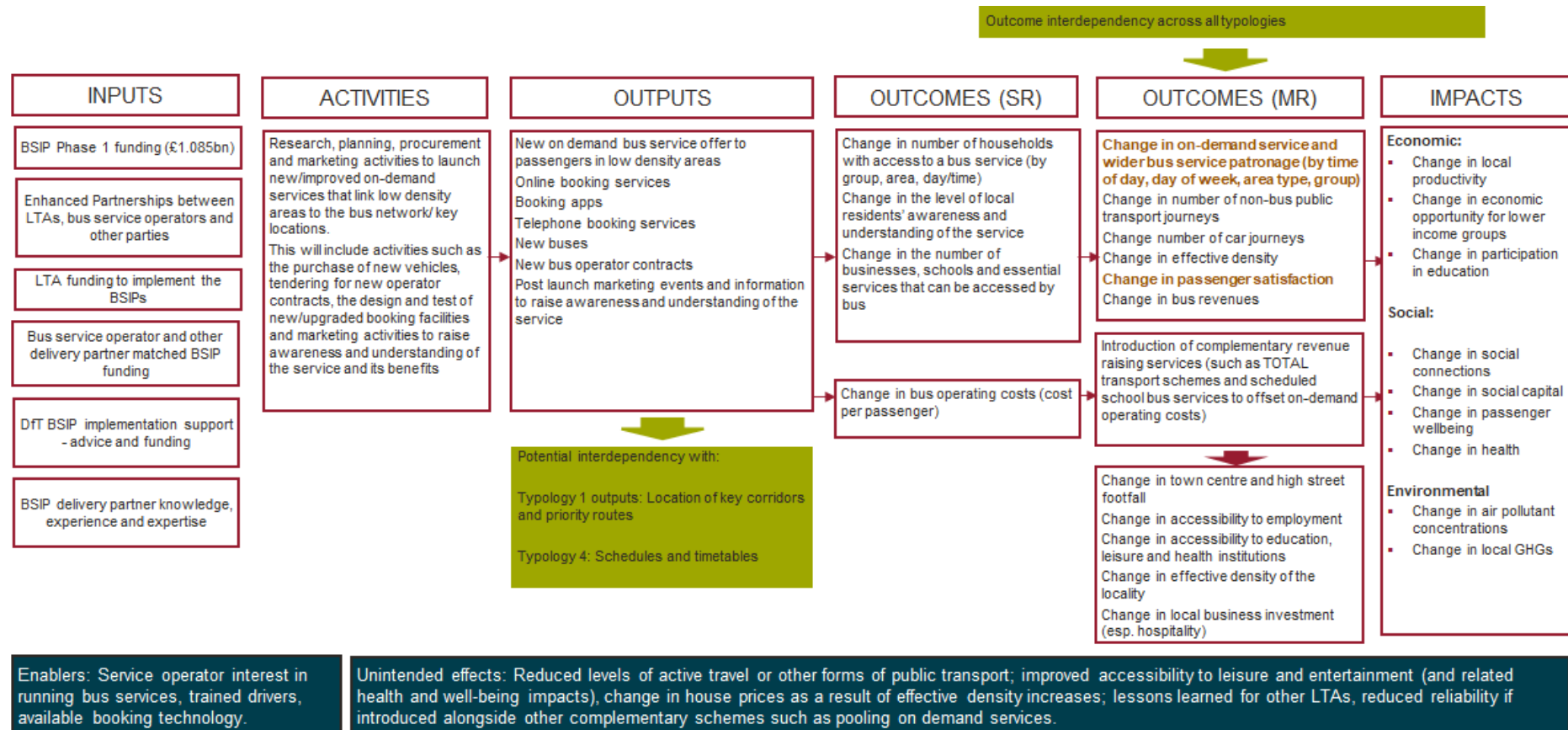
Figure 25 BSIP Phase 1 logic model – Scheduled route and timetabling and brand



**Enablers:** ICT that meets the technical and affordability requirements of LTAs, buy-in from bus operators and other public transport providers around adoption of common branding and changes to bus operation schedules, supply of qualified bus drivers where bus frequency is being increased.

**Unintended effects:** Passenger switching away from other forms of public transport or active travel; change in house prices as a result of effective density increases; lessons learned for other LTAs.

Figure 26 BSIP Phase 1 logic model – On-demand bus services



## E.3 Quasi-experimental (QE) analysis

### Aims of the analysis

The primary aim of the analysis is to use the most robust methods feasible to assess the impacts on transport outcomes that can be directly attributed to the BSIP Phase 1 interventions i.e. the impacts that would not otherwise have been observed without BSIP investment. Quasi-experimental analysis is the most robust way to assess these impacts, as randomised control trials are not feasible given the inability to randomise interventions and who received ‘treatment’.

The Evaluation Framework incorporated quasi-experimental analysis to identify the extent to which any observed changes in three of the four key metrics (namely, bus journey times, bus punctuality, and bus patronage) could be directly attributed to the BSIP Phase 1 programme.

To do so, the QE analysis used a counterfactual, measuring the observed outcomes in the metrics among LTAs (or bus corridors) affected by the BSIP Phase 1 funding, and comparing these to observed outcomes in ‘counterfactual’ LTAs or bus corridors. This comparison aims to differentiate between the extent of change between the observed outcomes and how the outcomes *would have evolved in the absence of the funding* as an estimate the direct impact of the BSIP Phase 1 funding on the outcome.

This builds on the conventional difference-in-differences (DID) framework, which identifies impacts by comparing changes in outcomes for the intervention group before and after the intervention start date with the corresponding changes over the same period for the comparator group. The estimated treatment effect is the difference between the changes for these groups.

For this complex programme, a major first piece of analysis was to set the parameters of the analysis. This involved making informed and transparent decisions about the following:

- **Quality of data** – a thorough assessment of the completeness, frequency, time series and geographical coverage of the data was undertaken before it was used in the analysis.
- **Interventions to incorporate within the analysis** - not all interventions would be expected to impact all outcome measures. For example, fare changes would not be expected to affect journey times or punctuality directly and are implemented over different geographies as they tend to be passenger-group focused, wherever those passengers travel, though capital interventions such as bus priority lanes are very specific to a corridor. Given the data available and the nature of interventions, two forms of analysis have been undertaken:

- LTA-level analysis: all interventions would be reflected in LTA-level analysis, where suitable LTA-level data was available. This means package effects are captured (the interaction between interventions).
- Corridor-level analysis: only capital bus priority interventions completed by 31st March 2025 specifically are reflected in this analysis.
- **Timing** - a key consideration in the analysis is the timing of treatment. A robust analysis requires the definition of a clear ‘treatment’ date to accurately compare pre- and post-treatment outcomes.

This is challenging for this complex evaluation because some interventions were implemented and in place for several years and would be expected to have impacts while they are live. This is the case for fares policies, for example. Other interventions would involve changes to infrastructure and are delivered on different corridors at different times. They could only lead to the intended changes in transport outcomes after they have completed and are operational. This is the case for bus priority lanes, for example. Due to gaps in scheme delivery data, it is not possible to determine when some interventions were delivered and became operational, so a sample was selected for which data was available. While it is possible to identify the delivery date for individual schemes at the bus corridor level, this is less feasible for the LTA-level analyses. To account for this and based on an analysis of the profile of scheme delivery, **31st March 2025 is used as the ‘treatment date’ for the LTA-level analysis**, to delineate pre- and post-intervention. This also aligns with the end of the 3-year funding period, before extensions.

### Method for the analysis

A thorough assessment was carried out on the most appropriate and proportionate form of quasi-experimental analysis that would be feasible for each metric given (i) the quality of the data; (ii) the types of interventions (packages or capital infrastructure for example), (iii) the extent to which a suitable counterfactual could be identified.

To inform this assessment, a number of different analyses were run:

1. **Bus journey times:** Comparing observed bus journey times in bus corridors within BSIP Phase 1 funded LTAs that have been affected by funded interventions (‘treated’ corridors) with those in bus corridors not affected by funded interventions (‘counterfactual’ corridors)
2. **Bus punctuality:** Comparing observed bus stop arrival delay times in BSIP Phase 1 funded LTAs (‘treated’ LTAs) with those in LTAs not funded by the programme (‘counterfactual’ LTAs)
3. **Bus patronage:** Comparing observed trends in total bus patronage (number of boardings) within BSIP Phase 1 funded LTAs that have been affected by funded interventions (‘treated’ corridors) with those in bus corridors not affected by funded interventions (‘counterfactual’ corridors)

### Counterfactual estimation procedure

The QE analysis primarily relied on a **Synthetic Difference-In-Differences (SDID)** approach.

SDID is a method for estimating the causal effect of a policy or intervention when only some units are treated and others are not. It does this by constructing a credible counterfactual: what would have happened to the treated unit(s) in the absence of the intervention. The counterfactual is built from a weighted combination of untreated units, chosen so that the weighted control group closely matches the treated group in the pre-intervention period. The method then compares how outcomes evolve after the intervention, adjusting for common time shocks that affect both treated and untreated units. In the context of this evaluation, a unit would be an LTA or corridor.

Rather than selecting a single comparator (or taking a simple average across all controls), SDID chooses weights on untreated units so that the resulting weighted average reproduces the treated group pre-intervention trajectory as closely as possible. This aims to ensure that the comparison group has similar underlying dynamics to the treated group before treatment begins. SDID then applies a difference-in-differences adjustment so that shocks that affect treated and control units at the same time are netted out. The remaining post-intervention divergence between treated and the synthetic comparison is attributed to the intervention. SDID thus produces a counterfactual path for the treated unit(s) that is calibrated to match the pre-period, and removes shared time variation, to give an estimated treatment effect.

SDID is suitable in this context because it makes maximum use of the available control units, typically putting more weight on untreated units that best replicate the treated pre-period pattern. This can be especially useful when there is no single obvious comparator. By contrast, standard DID gives all control units equal weight, regardless of whether that comparator has a parallel trend. By spreading weight across the candidate counterfactuals in a way that fits the pre-period, SDID can be less fragile than selecting one control unit or using a simple average of many weakly comparable controls.

SDID is well suited to this analysis because it places more weight on comparator units that best replicate the treated pre-period pattern, rather than giving equal weight to all controls. This is valuable where there is no single obvious comparator and where parallel trends may not hold across the full pool of untreated LTAs. A drawback of SDID is that it requires a fully balanced panel, i.e. no gaps in time periods or units used in the analysis. Some of the data sources used in this project have issues with data gaps, and an important step in framing the analysis is determining which time periods or units should be dropped and how far the gaps can be filled. To ensure that this requirement is satisfied, and the analysis is robust, the time period for the analyses is chosen such that there is a balanced panel available.

A standard diagnostic test that DiD (and subsequently, SDiD) analysis is robust is the establishment of parallel pre-treatment trends between the treatment and control groups, to show the groups evolved in a similar manner and had similar responses to external shocks and would be expected to evolve similarly in the future.

## Bus Punctuality

The punctuality analysis used monthly data on average bus arrival delay (in seconds) averaged at the LTA level, extracted from the BODS database. It covers 28 BSIP Phase 1 funded (treated) and 20 unfunded (counterfactual) LTAs.

While the data collection in BODS starts at 2022, the earlier years have data gaps for the delay time measure. As such, the analysis period covered September 2024 to October 2025<sup>42</sup>, with a treatment date of March 2025.

The analysis looked to identify the additional reduction in bus arrival delay across the funded LTAs, compared to the counterfactual LTAs. The results are shown in Table 15 below. The analysis shows that average delay times were 19.4% lower in the treated LTAs compared to counterfactual LTAs, equivalent to a 93.8 second reduction in bus arrival delays. Both results were statistically significant at the 1% confidence level.<sup>43</sup>

The analysis used a logarithmic specification since it tempers the impacts of outliers. As such, the generated co-efficient needs to be exponentiated to arrive at the percentage impact.

**Table 15 Evidence of impact of BSIP Phase 1 on bus punctuality**

| Outcome / estimator | Average treatment |                | P-value |
|---------------------|-------------------|----------------|---------|
|                     | effect            | Standard error |         |
| Log delay           | -0.216            | 0.065          | 0.001   |
| Delay seconds       | -93.8             | 19.0           | 0.000   |

Source: Frontier analysis of BODS data

Note:

The analysis also explored how the overall estimated delay differs across different days of the week. The analysis suggests that the punctuality improvement was larger on weekends, at 23.9%, compared to a relatively lower 15.3% on weekdays. All these estimates are statistically significant at the 1% confidence level.

<sup>42</sup> Data prior to September 2024 is excluded for data quality reasons

<sup>43</sup> An alternative regression using the standard DiD approach gives rise to a similar outcome, adding robustness to the result.

**Table 16** Evidence of impact of BSIP Phase 1 on bus punctuality, by time of week

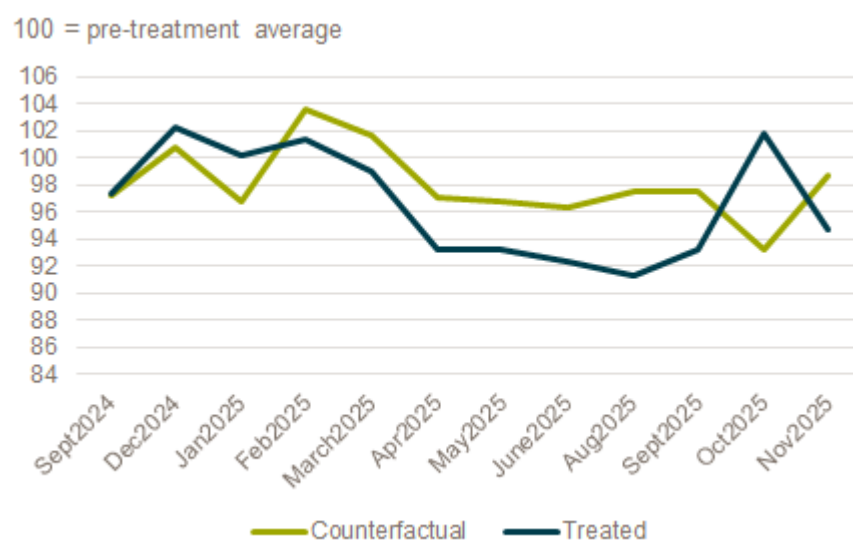
| Time range | Average treatment effect | Percentage change | Standard error | P-value |
|------------|--------------------------|-------------------|----------------|---------|
| All days   | -0.216                   | -19.4%            | 0.065          | 0.001   |
| Weekend    | -0.273                   | -23.9%            | 0.099          | 0.006   |
| Weekdays   | -0.166                   | -15.3%            | 0.062          | 0.007   |

Source: Frontier analysis of BODS data

Note:

### Parallel trends test

A comparison is shown in Figure 27 for log delay time, with series standardised to correspond over the pre-treatment period. While there are some similar patterns between groups in terms of which months show increases or decreases the counterfactual shows more volatility. Note, however, that a specific advantage of SDID is its ability to find within the wider control pool a counterfactual that optimises pre-treatment fit without overfitting the data. The odd spike in October 2025 reflects sharp changes in a small number of LTAs.

**Figure 27** Log delay time – parallel trends

Source: Frontier analysis of ABODS data

## Corridor-level journey time analysis

The journey times analysis used data on average journey times on bus corridors that received BSIP Phase 1 funded capital schemes relative to a selection of qualitatively similar corridors that have not received such interventions, within the funded LTAs. The corridor-level approach used data from LTAs to identify precise delivery dates (where this data is available) therefore strengthening the analysis. By comparing within the same group of LTAs, the analysis better controls for common time shocks and variations between LTAs.

The journey times data was sourced from the BODS database and features gaps which are widely distributed, meaning that relying only on corridors with complete coverage would entail considerable loss of data, potentially reducing the robustness of the analysis. However, given the requirement of a balanced panel dataset, it was necessary to infill the data by copying over previous values into subsequent data gaps.

Since the BSIP Phase 1 funded capital schemes were delivered at different dates, the treatment is ‘staggered’. While conventional DID can lead to biased results if already-treated units get used in the counterfactual and have different impact trajectories, this problem is avoided under the SDID approach, which calculates treatment effects for each cohort in turn without drawing on pre-treated units. This further bolsters SDID as the superior methodological approach for this assessment, given the specific data context.

The dependent variable is the log of the ratio of the monthly journey time to the average for the year 2023. This is used to infer the percentage impact on journey times. The results are shown in table below, with different rows for different completeness thresholds. The impacts were negative and, in most cases, statistically significant.

To minimise the amount of infilling, a threshold was applied, such that only corridors with a certain predetermined level of completeness are included in the analysis. As this completeness threshold increased the number of eligible corridors decreases, implying a trade-off between sample size and completeness of the data used. To ensure a good balance of limited infilling, while maintaining a reasonable sample size, the analysis adopted a central estimate based on completeness threshold of 87% (40 months out of 46) and a sample size of 85 corridors.

Under this approach, the analysis suggests that the BSIP Phase 1 programme led to a 7.0% reduction in average journey times across bus corridors affected by funding, compared to those that were not. While the exact thresholds can be modified, the choice of threshold (and sample size) did not have a material effect in the outcome of the analysis, with journey time savings ranging from 5.4% to 7.0% under alternative assumptions.

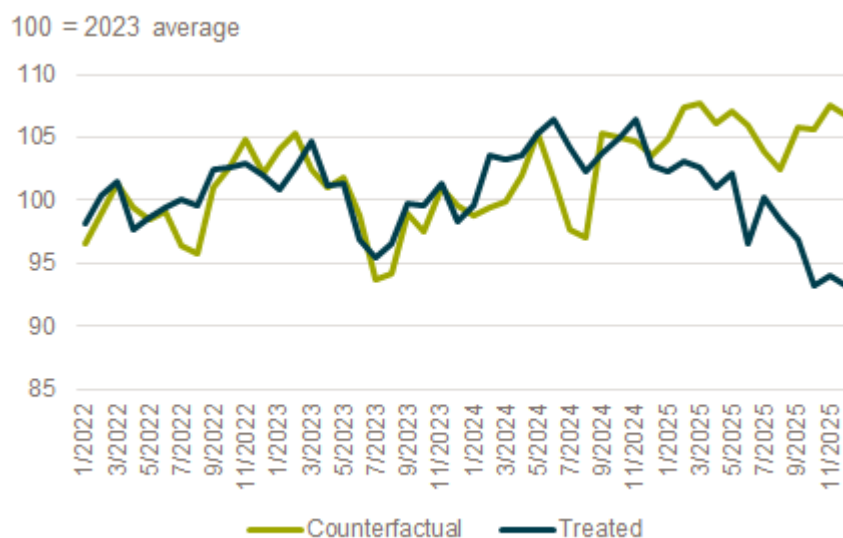
**Table 17** Evidence of impact of BSIP Phase 1 on bus journey times

| Completeness        | Average treatment effect | Percent change | Standard error | P-value      | Number LTAs |
|---------------------|--------------------------|----------------|----------------|--------------|-------------|
| 46 months/46        | -0.055                   | -5.4%          | 0.039          | 0.152        | 47          |
| <b>40 months/46</b> | <b>-0.073</b>            | <b>-7.0%</b>   | <b>0.028</b>   | <b>0.009</b> | <b>85</b>   |
| 34 months/46        | -0.068                   | -6.6%          | 0.025          | 0.007        | 97          |
| 28 months/46        | -0.056                   | -5.5%          | 0.015          | 0.000        | 113         |

Source: Frontier analysis of BODS data

### Parallel trends test

The central specification was subjected to the parallel trends test to assess suitability of the SDiD method. Since the sample includes a range of treatment dates, distributed from January 2024 to January 2025, it is not possible to identify a single treatment date. However, despite this, the treatment and control groups showed consistently parallel trends over the period, especially prior to January 2025, as shown in Figure 28. Overall, this supports the notion of parallel trends pre-treatment.

**Figure 28** Journey time parallel trends

Source: Frontier analysis of ABODS data

Note: Estimated for corridors with 40/46 data completeness or higher

## Ticketer patronage analysis

The patronage analysis used data on number of boardings from the Ticketer on-board software. The dataset presents the total number of bus boardings at the daily level as a year-on-year percentage change, relative to a reference day in the previous year. This data was available at the individual LTA level and therefore allowed the identification of those LTAs funded by the BSIP Phase 1 programme, and how patronage trends differed to those among unfunded LTAs.

The analysis compared observed patronage outcomes among funded LTAs with a weighted combination of unfunded ‘comparator’ LTAs, which represented the counterfactual for how patronage might have evolved in the absence of the BSIP Phase 1 funding. These comparator LTAs were identified based on similarity to the funded LTAs on the basis of transport metrics (such as bus use per capita) and LTA characteristics (such as deprivation IMD scores). This also excluded any Mayoral Combined Authorities or Integrated Transport Authorities (ITAs) due to structural differences with LTAs. This results in a sample of 36 LTAs across the treatment and control groups.

Since the bus patronage is expressed as year-on-year changes, and there is no independent anchor point, it is unfeasible to convert this data into absolute patronage, which would be preferable for this exercise. In addition, the reference day in the prior year can shift due to considerations such as timing of public and school holidays, which can introduce additional volatility in daily year-on-year measures. To improve robustness, the core specifications therefore focused on outcomes defined directly from the year-on-year metric, with sensitivity checks to alternative transformations and temporal aggregation.

As above, the 31<sup>st</sup> of March 2025 was used as the ‘treatment date’ to determine pre- and post-treatment outcomes.

The analysis (based on a log transformation of the year-on-year change in patronage) suggests that the BSIP Phase 1 programme led to a 4.19% increase in bus patronage among BSIP Phase 1 funded LTAs, compared to unfunded LTAs.

**Table 18** Evidence of impact of BSIP Phase 1 on bus patronage

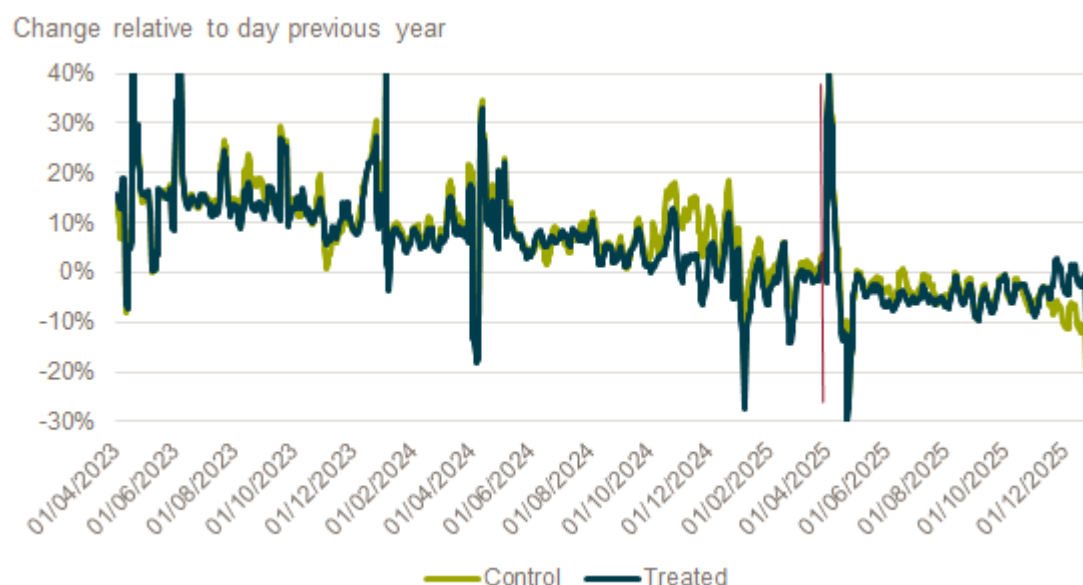
| Variable | Treatment effect | Percent change | SE    | p-value |
|----------|------------------|----------------|-------|---------|
| Log      | 0.041            | 4.19%          | 0.021 | 0.053   |
| %        | 0.035            | 3.5%           | 0.023 | 0.130   |

Source: Frontier analysis of BODS data

The parallel trend plot shows treatment and control groups evolving similarly prior to the highlighted treatment date of 31<sup>st</sup> March 2025, with both series showing similar responses to

external shocks. Over 2023 and 2024 both were increasing relative to previous year levels, albeit at a declining rate. Both series then show a moderate decline, though this is more pronounced for the control LTAs. Therefore, the effect size measuring impacts relative to the counterfactual refers to the treatment trend compared to the declining trend post March 2025 in the counterfactual group.

**Figure 29 Patronage - parallel trends**



Source: Frontier analysis of Ticketer data

Note: Regression estimation sample (36 LTAs)

## Geographic variation in results

In addition to the main analysis, separate analysis was undertaken to understand whether BSIP Phase 1 journey time, punctuality and patronage impacts vary by area type. These analyses followed a very similar approach to those described above, but with the inclusion of a dummy variable to represent the rurality or urbanicity of the LTA (or corridor). This classification was based on information on LTAs' ONS Rural Urban Classification (RUC) and data on population density, to identify a set of 'urban' and 'rural' LTAs (see also Annex F for further details of the categorisation approach). Of the 16 representative LTAs, four were identified as urban, and four as rural, with the remaining eight not classified as 'Mixed'. Results were run on the urban and rural subgroups using a similar sample and approach as in the analysis presented above.

**Table 19** Econometric results by rural/urban classification

| Outcome              | Area  | Treatment effect | percent change | standard error | p-value |
|----------------------|-------|------------------|----------------|----------------|---------|
| Journey time (log)   | All   | -0.073           | -7.0%          | 0.028          | 0.009   |
| Journey time (log)   | Urban | n/a              | n/a            | n/a            | n/a     |
| Journey time (log)   | Rural | -0.125           | -11.7%         | 0.053          | 0.019   |
| Delay time (seconds) | All   | -93.8            | n/a            | 21.18          | 0.000   |
| Delay time (seconds) | Urban | -162.0           | n/a            | 57.37          | 0.005   |
| Delay time (seconds) | Rural | -58.0            | n/a            | 53.19          | 0.276   |
| Patronage (log)      | All   | 0.041            | 4.19%          | 0.021          | 0.053   |
| Patronage (log)      | Urban | 0.030            | 3.09%          | 0.040          | 0.451   |

Source: Frontier analysis of BODS, ABODS and Ticketer data

Note: The estimates above are based on the four urban and four rural LTAs only

## Annex F Value for Money methodology

This annex describes the approach and assumptions used to deliver a partial value for money evaluation of BSIP Phase 1 interventions delivered by 31 March 2025 in the 16 representative LTAs.<sup>44</sup> While the focus of much of this chapter is the quantitative analysis of costs and benefits that can be expressed in monetary terms, the value for money analysis must also take into full consideration the impacts, benefits and disbenefits that cannot be monetised.

### F.1 Modelling purpose

This evaluation focused on the interventions delivered between April 2022 and March 2025, with a 6-month 'post-intervention' period for observed impacts. By 31 March 2025, 43% of the BSIP Phase 1 funding allocation from DfT had been spent by the 16 representative LTAs.

In addition, as the capital schemes that had been delivered had become operational towards the end of the 3-year BSIP Phase 1 period and their lifetime is likely to be 15 years or more, the majority of their benefits had not been realised at the time of the evaluation. A 15-year lifetime has been assumed with impacts simulated forwards over the period, building on what had actually been observed following the interventions.

A further challenge is that revenue schemes, such as fares changes were for the most part delivered and active within the 3-year period and most ended before 31 March 2025. Therefore, BSIP Phase 1-funded fares reductions may no longer have been in place during the 6-month 'post-intervention' period, though the legacy of those fare changes may still have been impacting outcomes.

As a result, this analysis is indicative only and must be interpreted with these limitations in mind.

The modelling is therefore intended to provide DfT with:

- an early assessment of total programme-wide realised monetisable benefits for schemes delivered before 31 March 2025 over the 6-month period post-intervention (i.e. April to October 2025) with a simulated forward period of 15 years;
- an early assessment of the key drivers of these benefits and how these drivers may evolve over time;
- assessment of variations by area-type; and

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<sup>44</sup> The scope of this value for money analysis was agreed at the outset with DfT as a programme-wide assessment of BSIP PHASE 1 and not assessing the VfM of individual schemes or LTAs.

- an early indicative benefit-cost ratio and qualitative assessment of non-monetised effects of BSIP Phase 1 scheme delivery in the 16 representative LTAs.

The quantitative analysis focused on three key impact measures: journey time, punctuality and patronage. Passenger satisfaction was not feasible to include in this analysis as there was no available evidence of how to monetise changes in this metric, nor to assess what was directly attributable to BSIP Phase 1 interventions.

The standard approach in TAG to estimate user benefits due to a reduction in generalised travel cost (time plus money) is the RoH. Conventional economic theory assumes that when the generalised cost of travel changes, the net value of new trips (modal shift and generated trips) is half of the change in generalised cost.

TAG also sets out guidance for a disaggregated approach considering how to estimate the social impact of bus travel. This is not intended as an alternative to the RoH and is intended as complementary (e.g. to provide greater detail on the nature of benefits estimated by the RoH).

Due to the absence of appropriate data on generalised costs, the analysis here departs from TAG best practice guidelines and adopts the disaggregated approach to estimating the user benefits of generated trips. This approach was taken after discussions between Frontier and DfT concerning the data available to this evaluation and the nature of the BSIP Phase 1 intervention. A disaggregated approach was agreed upon as the most appropriate approach for this evaluation. It is based on robust behavioural response estimates and TAG assumptions, but the results are less robust than the conventional RoH framework (that would have been used if appropriate data on fare costs, journey time and the social benefits associated with improved transport accessibility, had been available) and so should be interpreted within this context. A conservative approach has been employed throughout, and sensitivity analysis shows that variations in the main assumptions would not be expected to significantly reduce the overall reported BCR.

The results should therefore be interpreted as a best available, early indicative estimate of BSIP Phase 1 generated trip value which is modelled using the following approach:

- The disaggregated approach is based on a robust estimate of the observed change in patronage that can be attributed to BSIP Phase 1. This robust behavioural change is applied to LTA baseline patronage data and DfT TAG assumptions concerning generated trips and mode shift trips (TAG A1.3.16 and A1.3.17) to model the number of additional generated and mode shift trips.
- Generated trips are valued using information on fare costs, travel time costs and the assumed social value of making a new trip.

## EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

- **Fare costs** are assumed to be £2.59 (September 2025 prices), based on evidence from the Frontier Economics/SYSTRA (2025) evaluation of the £2 bus fare cap.<sup>45</sup> Sensitivity analysis shows that changes to the assumed average fare level does not affect the overall reported BCR categories.
- **Travel time costs** are based on the TAG recommendation for 'non-work/other' trips (A1.3.2), as evidence from this evaluation suggests that the majority of generated trips are for leisure purposes and that non-bus users are reluctant to switch to the bus for time sensitive journeys (see sections 5.1.4 and 5.2). In practice, the journey purpose mix is likely to contain some work trips, which have a higher value of time.
- The assumed **social value of a bus trip** is assumed as £12.77 per return trip for a non-concessionary pass holder, £6.00 for a concessionary pass holder for a return trip (2023 values and prices, taken from TAG A1.3.18). This estimated social impact value reflects the fact that buses increase the accessibility to public services, employment opportunities and social connections which can reduce the risk of social exclusion. Using this disaggregated approach, the social value of a return bus trip (£12.77 for a non-concessionary pass holder, £6.00 for a concessionary pass holder, 2023 values and prices) was halved to reflect single trips and then multiplied by the number of generated trips.

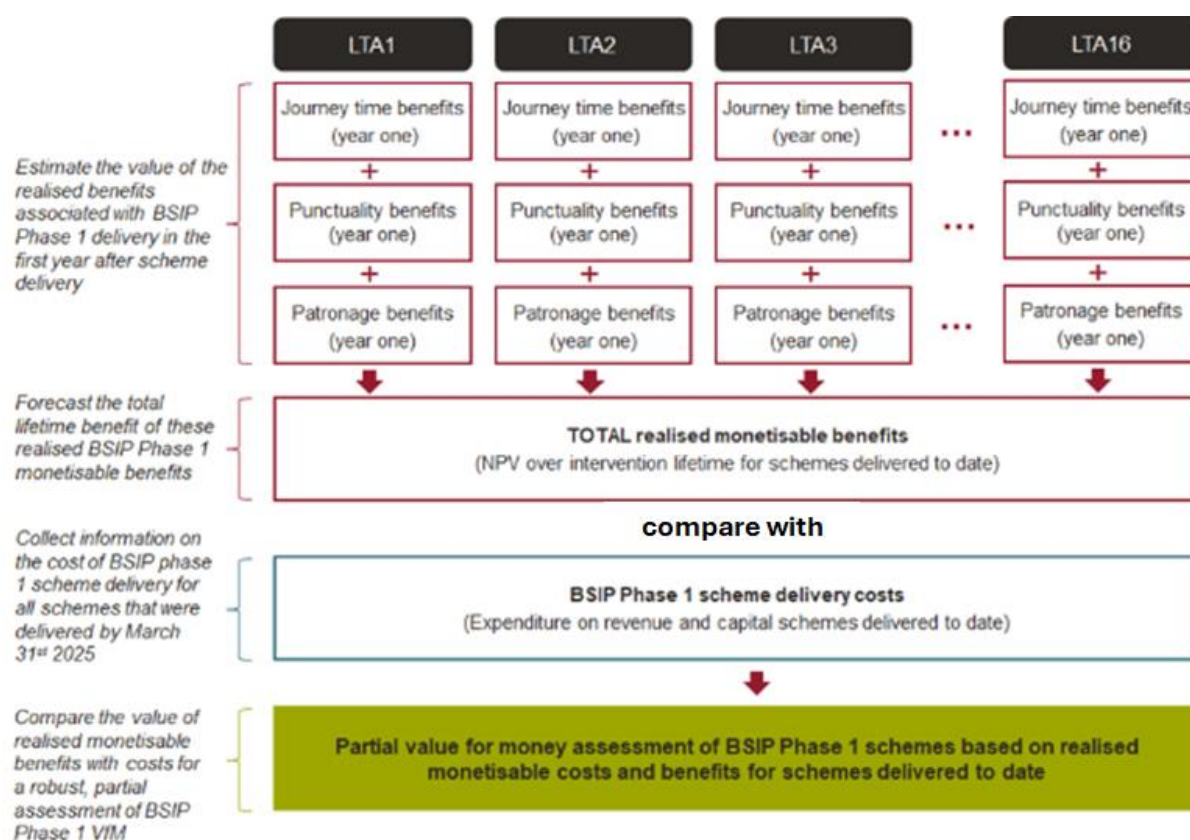
Overall, generated trip benefits are estimated to represent 13% of the total BSIP Phase 1 monetisable benefits under the survey scenario and 23% under the TAG scenario.

The overall structure of the BSIP Phase 1 VfM model is represented in Figure 30.

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<sup>4545</sup> Frontier Economics/ SYSTRA (2025). [Evaluation of the first ten years of the £1 bus fare cap. A report prepared for the Department for Transport](#). Page 8.

Figure 30 BSIP Phase 1 value for money modelling overview



Source: Frontier Economics

The impact driver modelling was built up using LTA-level assessments then aggregating to the overall assessment for the 16 representative LTAs. This provides analytical flexibility, such as enabling an investigation of whether benefits and VfM differ across different LTA groupings. In practice full tailoring of the model at LTA level was not possible because of data limitations (for example, there is insufficient data to model journey time, punctuality and patronage impacts individually for each LTA). **The purpose of this analysis was not to assess the VfM of individual interventions, or the packages of interventions delivered in each LTA individually.**

The remainder of this modelling annex describes how benefits and costs are estimated, as well as the sensitivity analyses and data sources applied at each stage of the modelling process.

## F.2 Modelling BSIP Phase 1 Benefits

The modelling builds on the impact evaluation to provide robust estimates of the value of benefits and disbenefits of BSIP Phase 1. This was undertaken for three key metrics that reflect overall improvements to bus service quality:

- **Journey time impacts** - the average percentage change in bus journey time resulting from BSIP Phase 1 intervention.
- **Punctuality impacts** - the average change in service departure lateness resulting from BSIP Phase 1 intervention.
- **Patronage impacts** - the average percentage change in the number of bus passenger journeys resulting from BSIP Phase 1 intervention.

Each impact was estimated using quasi-experimental analysis to isolate the impact of BSIP Phase 1 interventions. The impacts were monetised using programme monitoring data (including annual patronage and average journey and waiting times), published statistics (including ONS, DfT and NOMIS), data from the 5-LTA panel survey conducted for this evaluation, and best-practice appraisal parameters set out in DfT's TAG<sup>46</sup> and HM Treasury's Green Book<sup>47</sup> to generate annual benefit values. These benefits were subsequently projected over the assumed lifetime of the interventions, informed by evidence from qualitative interviews with bus operators and transport specialists.

Two modelling scenarios were applied to provide a robust range estimate for these benefits. The first relies solely on the assumptions and data set out in DfT's TAG ('**TAG scenario**'). The second followed DfT best-practice guidance but incorporated, where relevant, bespoke BSIP Phase 1 survey evidence derived from analysis of the 5-LTA panel survey conducted as part of this evaluation ('**Survey scenario**').

### Modelling journey time benefits

The journey time metric captured the extent to which BSIP Phase 1 investment impacted the bus journey times of passengers.

#### *Baseline patronage (capital scheme routes) x $\Delta$ journey time x value of time*

- **Baseline patronage along capital scheme routes** captures the volume of existing passenger journeys directly affected by the intervention. The estimated journey time impact was derived from the corridor-level impact evaluation and so relates only to routes where BSIP Phase 1 capital interventions were delivered. Journey time benefits were scaled based on the share of total baseline patronage that occurs on routes affected by capital interventions (i.e. treated routes). To estimate this proportion, each capital scheme (e.g. bus priority infrastructure) was mapped to the specific bus routes it affects. Baseline patronage was then identified for each treated route and summed to give total patronage on treated routes within the LTA. This total was compared to the LTA's overall baseline patronage to derive the share of trips occurring on routes where journey time improvements are expected.

<sup>46</sup> DfT (2013). [Transport Analysis Guidance](#).

<sup>47</sup> HM Treasury (2022). [The Green Book](#).

- **Reduction in journey time attributable to BSIP Phase 1** measured the average time saving per trip, expressed in minutes. This was derived from the impact evaluation estimated percentage change in journey times, combined with pre-intervention average bus journey duration data sourced from the 5-LTA panel survey analysis and relevant secondary data.
- **Value of Time** converted these time savings into monetary terms using DfT TAG values, differentiating by journey purpose (commute or non-commute), which reflect differences in travellers' willingness to pay for time savings.<sup>48</sup>

## Modelling punctuality benefits

Punctuality represents the extent of delay in buses departing bus stops. Deviation from this (i.e. departure lateness) was treated as additional unplanned waiting time for the passenger.

*Baseline patronage x  $\Delta$  waiting time (min) x value of time x waiting time multiplier*

- **Baseline patronage** captured the scale of impact - specifically, the volume of existing passenger journeys for services that were affected by buses departing late from bus stops after BSIP Phase 1 scheme delivery.
- **Reduction in waiting time attributable to BSIP Phase 1** represented the average reduction in unplanned waiting time per trip, expressed in minutes. Service lateness was treated as equivalent to unplanned passenger waiting time. The estimate was based on the estimated average reduction in lateness of buses departing bus stops attributable to BSIP Phase 1 interventions.
- **Value of Time** converted these time savings into monetary terms using DfT TAG values, differentiating by journey purpose (commute or non-commute), which reflected differences in travellers' willingness to pay for time savings
- **Waiting time multiplier** reflected the higher disutility associated with waiting time relative to in-vehicle time (which is the research underpinning value of time). In line with TAG guidance, waiting time was valued at twice the in-vehicle time.

## Modelling patronage benefits

Patronage benefit modelling captured the extent to which BSIP-funded interventions influenced bus demand, reflecting improvements in service quality, reliability, fares, marketing and overall attractiveness. Unlike journey time and punctuality benefits, which accrue to existing users, patronage-related benefits arise from incremental or 'new' demand. This includes:

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<sup>48</sup> DfT (2026). [TAG Unit A1.3](#)

- **Generated trip benefits**, reflecting the additional social value associated with trips that would not otherwise have occurred, minus the fare cost and cost of time associated with making the trip;
- **Mode shift benefits**, which include:
  - **Active travel benefits**, arising from changes in walking and cycling linked to modal shift and generated trips;
  - **Emissions reduction benefits**, resulting from reduced private vehicle use due to modal shift; and
  - **Avoided external cost benefits**, reflecting reductions in congestion and other external costs imposed on society as a result of road vehicle use.

### Modelling generated trip patronage benefits

This benefit category reflects the social value of enabling trips that would not otherwise have taken place. The social benefit therefore equates with the value bus users place on the activity undertaken at the destination of the trip.

#### *Additional patronage × % generated trips × net social value of a generated trip*

- **Additional patronage attributable to BSIP Phase 1** represented the increase in bus demand attributable to BSIP Phase 1. It was calculated by applying the estimated percentage uplift in patronage that resulted from BSIP Phase 1 to pre-intervention bus demand, yielding the total number of additional trips generated by the programme.
- **Proportion of new trips that are generated** distinguished between entirely new trips from those arising from modal shift. Only the proportion classified as generated trips contributes to the additional social value captured in this calculation.
- **Net social value of a generated trip** represented the monetised value of each additional trip, expressed in monetary terms using DfT TAG parameters reported in Table A1.3.18 on the social value of return bus trips that “would not go” if bus was not available, differentiated by concessionary status (concessionary and non-concessionary travellers), net of the costs of making that trip. This is considered a best estimate. It does not capture the wider benefits to society of generated trips (such as the economic benefits to local retailers and volunteer organisations or the well-being of people receiving a ‘new’ visit) which would increase social value. For further details see Department for Transport (2013).<sup>49</sup> Travel time costs are subtracted from the social value using data from the 5-LTA panel survey for average bus trip length in the ‘survey scenario’, National Travel Survey data on average trip length (local bus trips, non-London) is combined with DfT data on rolling average speeds on local ‘A’ roads in England as reported in Table CGN0503a for the TAG scenario, and DfT TAG parameters reported in Table A1.3.2 on the value of non-

<sup>49</sup> Department for Transport (2013). [Valuing the social impacts of public transport](#).

working time (other) are used across all modelling scenarios. Fare costs are assumed as £2.59, in line with the evidence reported in Frontier/SYSTRA (2025).

### Modelling active travel patronage benefits

Increases in bus patronage attributable to BSIP Phase 1 may lead to changes in levels of active travel, as bus journeys typically involve walking or cycling to and from stops. Where additional bus trips arise from modal shift or generated demand, this can result in a net change in walking and cycling activity.

#### *Additional patronage × Δ in Active Travel × value of change in active travel*

- **Additional patronage attributable to BSIP Phase 1** represented the increase in bus demand attributable to BSIP Phase 1. It was calculated by applying the estimated percentage uplift in patronage resulting from BSIP Phase 1 interventions to pre-intervention bus demand, yielding the total number of additional trips generated by the programme.
- **Change in active travel** represented the net change in walking and cycling associated with additional bus trips and is treated as a net benefit in the modelling. Bus journeys typically involve access and egress legs undertaken by active modes. The parameter therefore captured the incremental change in total active travel, reflecting both increases in walking and cycling (for example, where car users switch to bus). It also includes dis-benefits associated with bus service improvements where people have switched away from active travel modes to bus travel. The proportion of mode shift trips coming from car and active travel are derived from the TAG Table A5.4.6 bus diversion factors by recipient/source mode.
- **Value of change in active travel** represented the monetised health benefit associated with changes in physical activity. Reductions in the relative risk of all-cause mortality were translated into avoided Years of Life Lost (YLLs) and valued using the Green Book<sup>50</sup> recommended value of a Quality-Adjusted Life Year (QALY).

### Modelling emission reduction patronage benefits

Increases in bus patronage can lead to a net reduction in emissions where additional bus trips arise from modal shift away from private motorised vehicles. Reduced car use lowers greenhouse gas emissions and air pollutants associated with road transport. The benefit was therefore driven by the net change in vehicle kilometres travelled by private vehicles, taking into account both reductions from car-to-bus mode shift and any offsetting impacts.

#### *Additional patronage × % mode shift trips × marginal external cost of emissions per trip*

- **Additional patronage attributable to BSIP Phase 1** represented the increase in bus demand attributable to BSIP Phase 1. It was calculated by applying the estimated

<sup>50</sup> HM Treasury (2022). [The Green Book](#).

percentage uplift in patronage to pre-intervention bus demand, yielding the total number of additional trips generated by the programme.

- **% mode shift trips** identified the proportion of additional trips that represented a switch from car-use to bus.
- **Marginal external cost of emissions per trip** represented the avoided carbon cost associated with each mode-shift trip. It was calculated in line with TAG guidance through the following steps.

First, diversion ratios based on the TAG (TAG Unit A5.4.5) and from the 5-LTA panel survey were applied to identify the proportion of additional bus trips that replaced trips previously made by car driver or taxi. The diversion ratio therefore determines the share of additional bus journeys that correspond to avoided private motorised vehicle trips.

Second, the average trip distance was derived using National Travel Survey data (NTS0303d) to estimate the vehicle kilometres avoided as a result of modal shift.

Third, avoided CO<sub>2</sub> emissions were calculated by applying appropriate fuel consumption and emissions factors by vehicle type (petrol, diesel, electric), drawing on relevant DfT and TAG sources (e.g. CGN0503a; TAG Units A1.3, A3.3, A3.4).

Finally, the avoided emissions for each car type were monetised using the TAG carbon values set out in Unit A3.4 and summed up, yielding the avoided carbon cost per mode-shift trip.

### Modelling other external cost reduction patronage benefits

Increases in bus patronage resulting from BSIP Phase 1 may generate wider societal benefits where additional trips arise from modal shift away from private motorised vehicles. In line with TAG Unit A5.4, the use of road vehicles incurs both private costs borne by the individual traveller and external costs borne by others. These external costs include congestion, local and global air pollution, noise, infrastructure wear and tear, and accident costs. Changes in travel demand therefore affect the marginal external costs associated with road transport.

#### *Additional patronage × % mode shift trips × marginal other external cost per trip*

- **Additional patronage attributable to BSIP Phase 1** represented the increase in bus demand attributable to BSIP Phase 1. It was calculated by applying the estimated percentage uplift in patronage to pre-intervention bus demand, yielding the total number of additional trips generated by the programme.
- **% mode shift trips** identified the proportion of additional trips that represent a switch from car-use to bus.
- **Marginal other external cost per trip** represented the avoided external costs associated with each mode-shift trip. In line with TAG Unit A5.4, these costs include congestion, air pollution, noise, infrastructure wear and tear, and accidents. The avoided cost per trip was calculated by applying TAG marginal external cost parameters to the estimated reduction in car-travel resulting from modal shift.

Diversion ratios (TAG Unit A5.4.5) were applied to identify the proportion of additional bus trips that replaced trips previously made by car. The diversion ratio therefore determined the share of additional bus journeys that correspond to avoided private motorised vehicle trips.

Average trip distance was derived using National Travel Survey data (NTS0303d) to estimate the vehicle kilometres avoided as a result of modal shift.

Since congestion and other external costs vary by road type and location, the avoided kilometres were distributed across road types and area types using share of bus miles by road type (TRA0204), and traffic distribution by road and area type (TAG Unit A5.4.1). This ensured that avoided kilometres are allocated consistently with where traffic typically occurs.

Relevant TAG marginal external cost values (TAG Unit A5.4.2) were applied to the avoided kilometres by road and area type. This converted the reduction in car travel into a monetary value representing avoided congestion, pollution, noise, infrastructure damage and accident costs.

### Forecasting lifetime scheme benefits

To model lifetime benefits an evidence-based future benefit profile was applied to the one-year BSIP Phase 1 benefit, and these future benefits were discounted to calculate the total lifetime net present value of the schemes (applying the HM Treasury Green Book social discount rate of 3.5%<sup>51</sup>).

### Profiling future BSIP PHASE 1 benefits

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The future benefit profile was developed based on two core assumptions:

**Benefit persistence:** Engagement with DfT and bus operators indicated an expected asset life of approximately 10–15 years for capital schemes. This range was reflected in the sensitivity analysis. Benefits were assumed to accrue over this period and were discounted to present values using the HM Treasury Green Book social discount rate of 3.5%, consistent with social time preference.

**Benefit decay:** In addition to the assumed asset lifespan, engagement with bus operators indicated that benefits may reduce progressively over time, reflecting the need for ongoing reinvestment to manage asset wear and tear, performance degradation, and required maintenance and technology upgrades. An annual decay rate of up to 10% has therefore been assumed, with the upper and lower bounds examined through sensitivity testing.

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<sup>51</sup> HM Treasury (2026). [The Green Book Supplementary Guidance: Discounting](#)

## Benefit sensitivity analysis

A key component of the modelling approach was testing the sensitivity of results to variations in assumptions. This ensured that the estimated benefits were not overly dependent on any single parameter and provides a transparent assessment of uncertainty.

Across these areas, the central case was primarily based on TAG values where available, with minimum and maximum bounds reflecting TAG sensitivity tests. An alternative survey-based scenario is also presented to reflect locally observed travel behaviour and scheme-specific evidence. Together, these variations provide a structured framework for assessing the robustness of the benefit estimates.

The table below summarises the principal variables that are varied across the different benefit categories, alongside the alternative values applied under TAG and survey-based scenarios.

**Table 20** Overview of key variables that are varied across the different scenarios

| Benefit type                                                     | Variable                                                    | What is varied                                                                   | TAG           | TAG (min) | TAG (max) | Survey        |
|------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------|---------------|-----------|-----------|---------------|
| <b>Journey time and punctuality benefits</b><br>(baseline users) | Value of time (Commute)                                     | TAG sensitivity test: Value of Time for commuting trips varied by $\pm 25\%$     | <b>£15.49</b> | £11.62    | £19.36    | <b>£15.49</b> |
|                                                                  | Value of time (Non-commute)                                 | TAG sensitivity test: Value of Time for non-commuting trips varied by $\pm 60\%$ | <b>£7.07</b>  | £2.83     | £11.31    | <b>£7.07</b>  |
|                                                                  | % baseline trips (Commute)                                  | TAG scenarios: TAG values sourced from the TAG Data Book.                        | <b>18%</b>    | 18%       | 18%       | <b>44%</b>    |
|                                                                  | % baseline trips (Non-Commute)                              | Survey scenario: Values derived from all LTA survey responses                    | <b>82%</b>    | 82%       | 82%       | <b>56%</b>    |
| <b>Journey time benefits</b><br>(baseline users)                 | Pre-intervention average length of trip - commute (min)     | TAG scenario: TAG values sourced from DfT public data.                           | <b>15</b>     | 15        | 15        | <b>24</b>     |
|                                                                  | Pre-intervention average length of trip – non-commute (min) | Survey scenario: Values derived from all LTA survey responses                    | <b>11</b>     | 11        | 11        | <b>27</b>     |

# EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

| Benefit type                                                                                                              | Variable                                                                   | What is varied                                                                   | TAG           | TAG (min) | TAG (max)         | Survey        |
|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------------|-----------|-------------------|---------------|
| <b>Patronage benefits</b><br>(Social value)<br>(Generated trip users)                                                     | % new trips that are generated trips - concessionary pass holders          | TAG scenarios:<br>Values sourced from the TAG Data Book.                         | <b>8%</b>     | 6%        | 8%                | <b>14%</b>    |
|                                                                                                                           | % trips that were generated trips - non-concessionary pass holders         |                                                                                  | <b>10%</b>    | 10%       | 15%               | <b>18%</b>    |
|                                                                                                                           | Value of time (Non-commute)                                                | TAG sensitivity test: Value of Time for non-commuting trips varied by $\pm 60\%$ | £7.07         | £2.83     | £11.31            | £7.07         |
|                                                                                                                           | Pre-intervention average length of trip – non-commute (min)                | Survey scenario results derived from all LTA survey response                     | 11            | 11        | 11                | 27            |
| <b>Patronage benefits</b><br>(Active travel, emission reduction, external costs)<br>(Mode shift and generated trip users) | % of new trips that are mode shift trips                                   | TAG scenarios:<br>Values sourced from the TAG Data Book.                         | <b>82%</b>    | -         | 79% <sup>52</sup> | <b>68%</b>    |
|                                                                                                                           | % mode shift journeys that increase active travel (private vehicle to bus) |                                                                                  | <b>36%</b>    | -         | 36%               | <b>63%</b>    |
|                                                                                                                           | % mode shift trips that decrease active travel (active travel to bus)      | Survey scenario:<br>Values derived from all LTA survey responses                 | <b>18%</b>    | -         | 18%               | <b>21%</b>    |
|                                                                                                                           | % generated trips                                                          |                                                                                  | <b>18%</b>    | -         | 21%               | <b>32%</b>    |
|                                                                                                                           | Carbon appraisal values (£/tCO2e)                                          | TAG sensitivity test: Carbon appraisal value is varied 'High', 'Central', 'Low'  | <b>£293.1</b> | £146.59   | £439.77           | <b>£293.1</b> |

Source: Frontier Economics Vfm model

<sup>52</sup> The mode shift percentage is lower than the central estimate, but as mode shift and generated trips together represent all additional trips, a lower mode shift share means a higher generated trip share. The greater uplift from generated trips results in higher overall active travel benefits, hence it is captured under the TAG Max scenario.

### F.3 Modelling BSIP Phase 1 costs

The costs used in the modelling reflect the BSIP Phase 1 funding cost for schemes that were completed on or before 31 March 2025, across the 16 representative LTAs.

The best available data from DfT indicates the level of BSIP funding that LTAs have requested to carry forward into FY2025/26. By subtracting this from the original BSIP Phase 1 allocations, an estimate was derived of the proportion of funding spent by 31 March 2025. This suggests that 43% of original allocations had been spent by March 2025, therefore 57% - primarily relating to capital interventions – was to follow in FY2025/26.

The underlying data source for carry forward expenditure is based on LTAs' delivery plans submitted to DfT for the 2025-26 financial year. A number of LTAs submitted their plans earlier than March 2025. In these cases, the reported values may be partially based on forecast expenditure values and so not fully reflective of actual expenditure.

### F.4 Conducting BSIP Phase 1 VfM sensitivity analysis

BSIP Phase 1 VfM is reported as a range reflecting two key scenarios: a TAG scenario and a survey scenario. These are based on the assumptions presented in Table 20 above (which are used to derive year one benefits) and a benefits persistence assumption of 15 years with a decay factor of 10% per year.

Additional sensitivity analysis has been conducted to reflect the sensitivity analyses recommended by the DfT's WebTAG guidance (shown in Table 20 in the TAG (min) and TAG (max) columns).

Further sensitivities have been explored by:

- adopting a more conservative benefits persistence assumption of 12 years (maintaining the assumption of a decay factor of 10% per year)
- adopting a less conservative decay factor assumption of 5% instead of 10% (maintaining benefits persistence at 15 years)
- assuming a higher average fare cost for generated trips of £3.00 instead of £2.59 (maintaining benefits persistence at 15 years and a decay rate of 10%).

The results of these sensitivity analyses are shown alongside the central scenarios in Table 21.

**Table 21** BSIP Phase 1 BCR sensitivity analysis

|                                | <i>£3.00 average<br/>fare cost<br/>(sensitivity<br/>scenario)</i> | <i>5% annual benefit<br/>decay (sensitivity<br/>scenario)</i> | <i>12-year benefits<br/>persistence<br/>(sensitivity<br/>scenario)</i> | <b>Central BCR<br/>estimate</b> |
|--------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------|
| TAG                            | <b>1.7</b>                                                        | <b>2.2</b>                                                    | <b>1.6</b>                                                             | <b>1.7</b>                      |
| Survey                         | <b>2.1</b>                                                        | <b>2.8</b>                                                    | <b>2.0</b>                                                             | <b>2.1</b>                      |
| <i>TAG min<br/>sensitivity</i> | <b>1.1</b>                                                        | <b>1.4</b>                                                    | <b>1.0</b>                                                             | <b>1.1</b>                      |
| <i>TAG max<br/>sensitivity</i> | <b>2.3</b>                                                        | <b>3.0</b>                                                    | <b>2.1</b>                                                             | <b>2.3</b>                      |

Source: Frontier Economics analysis

Note: The core modelling results are shown in bold and the sensitivity analysis result in italic. The DfT Value for Money framework categorises BCRs as follows: Poor < 1.0; Low:  $1.0 \leq \text{BCR} < 1.5$ ; Medium:  $1.5 \leq \text{BCR} < 2$ ; High:  $2.0 \leq \text{BCR} < 4.0$

## F.5 Conducting BSIP Phase 1 sub-group analysis

Although each LTA will have some variation in terms of the rurality of different routes, illustrative analysis was carried out using a rurality classification framework developed from ONS Rural–Urban Classification (RUC) data with population density estimates. Population density (persons per km<sup>2</sup>) was calculated using ONS mid-2024 population estimates and UK Government local authority area data.<sup>53</sup> Thresholds were defined using the 33rd and 66th percentiles of the full sample (54 LTAs, including beneficiary and counterfactual authorities), resulting in: Low:  $\leq 416.9$  per km<sup>2</sup>, Medium:  $> 416.9$  and  $< 1,189.16$  per km<sup>2</sup>, High:  $\geq 1,189.16$  per km<sup>2</sup>.

To be classified as Urban an LTA had to satisfy the dual condition of High population density + Urban/Intermediate Urban RUC. To be classified as Rural, an LTA had to satisfy the dual condition of Low population density + Rural/Intermediate Rural RUC.

<sup>53</sup> Sources: ONS. Standard Area Measurements for the County and Unitary Authorities (December 2024) in the UK. Last updated 25 November 2025; and ONS. Estimates of the population for England and Wales, mid-2024: 2023 local authority boundaries edition. Release date, July 2025.

## Annex G Process Evaluation Research Questions

The question matrix below was used to design the research materials to answer the overarching process evaluation question of what worked well and what could be improved in the delivery of BSIP PHASE 1 funding.

| Process Items                   | Design and Funding                                                                                                                                                                                                                         | Procurement and Mobilisation                                                                                                                                                                                                                                                                                                            | Implementation                                                                                                                                                                                                                                                       |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Funding Allocation</b>       | What worked well/less well in the funding allocation process?<br>Was the design stage capable of responding to funding changes?<br>What differed between capital and revenue funding?<br>If applicable, how was capacity funding utilised? | Was the funding allocation able to respond to changes at the procurement and mobilisation stage?                                                                                                                                                                                                                                        | Was funding allocation (capital and revenue) sufficient to implement the proposal in full?<br>What funding barriers, if any, prevented full delivery?                                                                                                                |
| <b>Reprogramming</b>            | Was there a need to amend the programme to match the funding allocation?<br>Was clear guidance provided?<br>How was the reprogramming approached?<br>What lessons can be learnt from this?                                                 | Was further reprogramming required after the procurement stage?<br>Was clear guidance provided?                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                      |
| <b>Partnership Working (EP)</b> | Were effective partnerships formed to inform the programming and design stages?<br>What worked well and less well?<br>Were there specific issues in dealing with neighbouring or cross-boundary schemes?                                   | Was partnership working capable of informing the procurement and mobilisation stages?<br>What barriers or opportunities existed?<br>Were barriers to delivery discussed with Traffic Commissioners and the Competition & Markets Authority?<br>Was a satisfactory resolution found to any regulatory and competition issues that arose? | Did partnership working endure once the proposal was implemented?<br>Were there ways to effectively review and amend the proposal in partnership?<br>How did LTAs and operators approach partnership working during implementation?<br>Which approaches worked well? |
| <b>Enablers</b>                 | How did the BSIP document and other tools                                                                                                                                                                                                  | Did the BSIP document provide useful context for the procurement stage?                                                                                                                                                                                                                                                                 | Was the implementation stage assisted by the                                                                                                                                                                                                                         |

## EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

|                                                   |                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                   | assist in enabling the design and funding stage?                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                               | content of, and existence of, the BSIP document?<br><br>To what extent was providing the quarterly and 6-month process appropriate?<br><br>What benefits or difficulties arose?                                                                                                                                                                                                  |
| <b>Barriers</b>                                   | Were there any barriers to the agreement of funding and the design stages?                                                                                                                                                              | What procurement and mobilisation barriers were encountered?                                                                                                                                                                                                                                                                                  | What barriers to implementation arose, and how did they affect the delivery of outcomes?                                                                                                                                                                                                                                                                                         |
| <b>Complementary and Wider Contextual Factors</b> | <p>What complementary investments and policies supported the delivery of proposals?</p> <p>Were there any issues in securing these complementary investments or policy drivers?</p> <p>How was equality considered throughout this?</p> |                                                                                                                                                                                                                                                                                                                                               | <p>Which contextual factors, if any, impacted the delivery of the BSIP Phase 1 programme, including, for example, COVID-19 recovery or wider economic factors? If so, how?</p> <p>How did implementation differ in areas where other bus-funding schemes were also being implemented?</p> <p>What other changes and schemes are implemented during the implementation phase?</p> |
| <b>Governance</b>                                 | <p>Was an effective governance structure set up that was able to support the design phase of the EP Scheme?</p> <p>Did the EP processes align with existing governance approaches or require new or amended structures?</p>             | <p>Were there sufficient governance arrangements in place to secure effective and timely procurement and mobilisation?</p> <p>Were barriers to delivery discussed with Traffic Commissioners and the Competition &amp; Markets Authority?</p> <p>Was a satisfactory resolution found to any regulatory and competition issues that arose?</p> | Was there sufficient governance in place to support the work of the EP in optimising the implementation stage?                                                                                                                                                                                                                                                                   |
| <b>Public Engagement</b>                          | What opportunities and barriers arose as a result of public engagement at the design stage?                                                                                                                                             | Was there any local press/social media coverage of the proposals during procurement and mobilisation that affected proposals?                                                                                                                                                                                                                 | <p>What opportunities and barriers arose as a result of public attitudes once the proposal was implemented?</p> <p>Was there any local press/social media coverage of the proposals</p>                                                                                                                                                                                          |

## EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

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following implementation  
and how accurate was this?

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## Annex H Panel Survey methodology

### Panel survey overview

An initial baseline wave that was conducted via online panel in 2023 across the five selected areas of: Hertfordshire, Blackburn (with Darwen and Lancashire), Kent, Brighton and Hove, and The North-East (encompassing Newcastle, North Tyneside, Northumberland, Durham, Gateshead, Sunderland, South Tyneside). These areas were selected at baseline from a list of areas across England that received Phase 1 BSIP funding. Areas were selected based on a number of criteria, including the rural, socioeconomic and transport profile of the area, the level of BSIP funding allocation, and the planned implementation date for the intervention, to ensure these would be implemented prior to the launch of the second wave of the panel survey.

The initial baseline wave in 2023 collected data prior to the majority of Phase 1 BSIP-funded interventions being implemented, while a second wave in 2025 collected data following the implementation of a large proportion of Phase 1 BSIP-funded interventions in all five areas.

The second wave of the online panel survey ran between Wednesday 19<sup>th</sup> November – Monday 15<sup>th</sup> December 2025, following an initial soft launch (for 10% of the target sample per region) conducted between Friday 14<sup>th</sup> November– Monday 17<sup>th</sup> November 2025.

The survey aimed to obtain an overall target sample size of 2,100 across the five areas. Non-interlocking age and gender quotas were specified for each region, based on 2021 Census data. The table below shows the sample sizes and quotas specified for each region. In addition to these, minimum quotas for bus users and non-users were set for each region.

To achieve the final ~20% of the target sample size within the required timeframe, some of the quotas were relaxed during fieldwork due to recruitment challenges and composition of panel participants, specifically the 16-24 age quota, in all areas except Kent, and the non-bus user quotas in the North East and in Brighton and Hove.

Overall, a final sample of 2,085 respondents was obtained. The total number of responses received per area broken down by each specified quota are shown in the table below.

# EVALUATION OF BUS SERVICE IMPROVEMENT PLAN (BSIP) PHASE 1 INTERVENTIONS

|               |               | Hertfordshire      |                       | Transport for NE   |                       | Blackburn, with Darwen and Lancashire |                       | Kent               |                       | Brighton & Hove    |                       |
|---------------|---------------|--------------------|-----------------------|--------------------|-----------------------|---------------------------------------|-----------------------|--------------------|-----------------------|--------------------|-----------------------|
|               |               | Quota %<br>(n=400) | Achieved %<br>(n=401) | Quota %<br>(n=600) | Achieved %<br>(n=598) | Quota %<br>(n=400)                    | Achieved %<br>(n=401) | Quota %<br>(n=400) | Achieved %<br>(n=401) | Quota %<br>(n=300) | Achieved %<br>(n=283) |
| Age Quotas    | Aged 16 to 24 | 28%                | 12%                   | 13%                | 11%                   | 13%                                   | 14%                   | 12%                | 13%                   | 18%                | 11%                   |
|               | Aged 25 to 49 | 27%                | 38%                   | 37%                | 41%                   | 37%                                   | 37%                   | 38%                | 38%                   | 43%                | 39%                   |
|               | Aged 50 to 64 | 24%                | 26%                   | 25%                | 23%                   | 25%                                   | 22%                   | 25%                | 25%                   | 22%                | 25%                   |
|               | Aged 65+      | 21%                | 24%                   | 25%                | 26%                   | 25%                                   | 27%                   | 25%                | 24%                   | 17%                | 25%                   |
| Gender Quotas | Male          | 48%                | 45%                   | 48%                | 50%                   | 49%                                   | 47%                   | 48%                | 47%                   | 49%                | 43%                   |
|               | Female        | 52%                | 55%                   | 52%                | 50%                   | 51%                                   | 53%                   | 52%                | 53%                   | 51%                | 57%                   |

## Survey Overview

The 15-minute survey consisted of questions covering the following key topics: travel behaviour before and after the implementation of BSIP-funded intervention, barriers / opportunities to bus travel, bus fares and ticketing, satisfaction metrics on overall satisfaction, frequency of service, reliability, journey time, ease and cost of most recent bus journey, modal shift and generated bus travel post-intervention, and the broader impacts of bus services on access to employment, education, leisure and social activities, and on financial savings and disposable income.

To allow for comparisons against baseline, the majority of the questions asked about in the 2025 survey wave were consistent with those asked at baseline. Where new questions were added, these aimed to understand whether bus use has changed from pre- to post-intervention, and, if so, how (i.e. modal shift vs generated use) the changes to bus services that have been observed post-intervention and the barriers to bus travel that continue to exist.

## Data cleaning and analysis approach

During the data collection phase, several measures were in place to ensure the quality and robustness of the fieldwork. These included automated quality checks on open-ended responses, detection of straight-line responses and anomalous in-survey behaviour, such as quick response times or passive behaviour (i.e. mouse movement / inactivity levels / page resubmissions). In total, 42 respondents were removed and replaced throughout the fieldwork period due to poor quality of open-ended responses. During these data checks, the survey programming logic was also checked and verified.

Data cleaning and analysis was conducted in-house by key members of the project team assigned to this study, ensuring the data and research objectives were fully understood. A detailed analysis specification was agreed prior to the commencement of the data analysis.

All data cleaning, weighting and analysis of survey data by SYSTRA was conducted in SPSS and recorded in an auditable SPSS syntax file, guaranteeing an auditable record as to how the analysis was undertaken. Data cleaning involved defining variable and value labels, defining multiple responses sets, and condensing variables where appropriate. All 'other' data greater than 2% of the question response was coded up thematically in Excel and then assigned to the relevant participants using SPSS Syntax.

Further routing and logic checks were conducted to check for flat line or non-sensical responses, duplicated responses, and partially completed responses. During the final data check, one response was removed due to the respondent indicating that they lived outside of England, bringing the final sample size to 2,084.

Weighting was applied based on interlocking age and gender categories. Weighting factors for each region were calculated using 2021 Census data, based on interlocking proportions of residents within four age categories (16-24; 25-49; 50-64; 65+) and two gender categories (Male; Female). This means that for each of the eight 'age x gender' interlocking sub-samples, the 2021 Census population proportions were multiplied with the proportions achieved in the survey sample, to create the relevant weighting factors assigned to each age x gender interlocking sub-sample in the analysis. This replicated the weighting process followed at baseline, allowing for comparison analysis between the two waves.

The analysis involved running frequencies on all survey questions. Crosstabulations and statistical chi-square tests of significance were conducted on all questions by key respondent characteristics, such as age, gender, occupation, disability status and intervention area. Crosstabulations and statistical chi-square tests of significance were also conducted on key questions around travel behaviour, bus travel frequency, barriers and opportunities to bus travel and satisfaction with bus services between the baseline 2023 and post-intervention 2025 survey waves. To allow for these comparisons, the baseline survey data was merged with the 2025 survey data into one combined SPSS datafile.

In addition, crosstabulations by area and concessionary pass holder status (holder/non-holder) were conducted on a number of key survey questions for input into the Value for Money analysis. These included questions on travel to/from the bus stop, bus journey times, bus journey purpose, and questions around mode shift (i.e. transport mode used before switching to bus / transport mode that would have been used if changes to bus services had not been made). Some of these crosstabulations were conducted on filtered data to capture the responses of specific subsamples within the dataset (i.e. frequent bus users / mode shifters / new generated bus users).

## Annex I Primary research activities undertaken for this evaluation

**Table 22** List of primary research activities undertaken

| Research Activities                                                          | Time period                               |
|------------------------------------------------------------------------------|-------------------------------------------|
| Survey with 2,100 bus users and non-users in 5 LTAs                          | Autumn 2023                               |
| 5 x Depth interviews with BSIP Phase 1 funded LTAs                           |                                           |
| 10 x Depth interviews with bus service operators in BSIP Phase 1 funded LTAs | Spring 2024                               |
| 2 x Depth interviews with relevant service regulators                        |                                           |
| 3 x Depth interviews with community stakeholders                             |                                           |
| 7 x Depth interviews with BSIP Phase 1 funded LTAs                           |                                           |
| 5 x Depth interviews with bus service operators in BSIP Phase 1 funded LTAs  | Spring 2025                               |
| 2 x workshops with DfT                                                       |                                           |
| 5 x Depth interviews with BSIP Phase 1 funded LTAs                           |                                           |
| 7 x Depth interviews with bus service operators in BSIP Phase 1 funded LTAs  |                                           |
| 6 x Focus groups with bus users and non-users                                | Autumn 2025 to Spring 2026                |
| 16 x Depth interviews with community stakeholders                            |                                           |
| 1 x workshop with DfT                                                        |                                           |
| Survey with 2,100 bus users and non-users in 5 LTAs                          |                                           |
| Stakeholder Panels with BSIP Phase 1 funded LTAs                             | Quarterly from Autumn 2023 to Spring 2026 |

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