Bus Strategy Appendix D

CUSTOMER-BUS PROBLEMS AND ISSUES

June 2016
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1 Introduction

1.1 This appendix provides further information and evidence to underpin Chapter 4 of the Bus Strategy.

1.2 The process of problem identification has been informed from a number of sources including:

- Consultation with bus operators and with WYCA officers (summarised in Appendix A);
- A number of focus groups undertaken as part of an initial consultation about the principles that should underpin the strategy, and broader consultation with stakeholders across West Yorkshire and the Leeds City Region (summarised in Appendix H);
- A review of published evidence from a variety of national, sub-regional and local sources including:
  - The annual Bus Passenger Survey by Passenger Focus (re-named Transport Focus in 2015, and referred to as Transport Focus throughout this appendix for consistency);
  - The West Yorkshire Tracker Survey;
  - Passenger complaints to Metro during 2015;
  - Evidence from national and local data sources;
  - Local, regional and national case studies.
2 Bus services and infrastructure

BUSES ARE NOT ALWAYS ON TIME, AND OCCASIONALLY FAIL TO TURN UP AT ALL

2.1 There is consensus amongst partners in the industry, both operators and WYCA, that basic aspects of bus services such as punctuality and reliability are fundamental expectations from passengers. Furthermore, contributors to the early engagement process that helped set the context for the Bus Strategy identified that in order to effect a step change in bus service provision, and promote real growth in the market, improvements are needed to frequency and journey times (see Appendix A). This is supported by the views of wider stakeholders across West Yorkshire (see Appendix H), which indicate that providing a reliable, frequent service is the most important factor identified. Improving reliability is a key theme from stakeholders, although this is tempered by pragmatic views on the constraints and wider factors affecting bus service reliability.

2.2 To investigate this further we have reviewed evidence on the reliability of bus services in West Yorkshire, together with supporting evidence on punctuality and the factors that affect journey times.

Customer views on reliability, focus on buses not turning up

2.3 Feedback from passengers in West Yorkshire during 2015 identifies the importance of factors that influence customer satisfaction, such as basic reliability. Headlines from passenger complaints data indicate that almost 70% of complaints were about reliability, the top source of complaint. When examining ‘specific’ complaints, over half of the issues concerning reliability and punctuality are about the bus not turning up.

2.4 WYCA does not hold data regarding the number of services which fail to arrive. This is in contrast to local rail standards where performance is monitored and used as a performance specification tool.

Figure D2.1 Passenger complaints breakdown
2.5 Stakeholders highlighted that infrequent services, such as those in the early morning or in the evenings are often a source of complaint if they are unreliable, highlighting the fact that when things go wrong the impact for the bus user is often more severe where the service frequency is low.

**BUSES CAN TAKE A LONG TIME TO REACH THEIR DESTINATION, AND THE JOURNEY TIME CAN VARY FROM DAY-TO-DAY**

2.6 Passengers indicate that they consider that the main reasons why journey speed is not adequate and time is not reliable are related to boarding/alighting times, traffic congestion and highway design (Transport Focus 2014). Boarding and alighting times are affected by:

- the volumes of passengers boarding and alighting;
- their characteristics (e.g. older people and parents with toddlers will tend to be slower boarders);
- the design of the fare structure and the means of payment, and therefore slow transactions between drivers and passengers;
- infrequent travellers asking questions around their journey to bus drivers;
- the design of the vehicle;
- the inability of the vehicle to dock at the bus stop and then re-enter the traffic flow.

2.7 The variability of journey times (measured as the average deviation divided by the scheduled time) has been estimated to be valued three times more highly than in-vehicle time by bus passengers\(^1\). As a result, high journey time variability severely undermines the attractiveness of bus networks. This is the top driver of satisfaction for regular bus users (Transport Focus, 2014), a figure that is up from the previous year. The dissatisfaction mirrors the evidence of what is happening to reliability across the network which will be affected by a range of factors including:

- the volume of traffic and constraints on road space;
- the design and capacity of junctions and signals;
- pedestrian crossings;
- Other disruptions which can be caused by parking and loading, exiting bus stations or pulling away from bus stops, and exacerbated by inadequate recovery times built into the timetables
- Illegal parking and vehicle breakdowns
- Road works and the activities of utility providers.

2.8 Some stakeholders feel that insufficient strategic network planning in West Yorkshire can also be contributory. A number of them identified the need for better transport planning and route management as an aspect that should be addressed within the Bus Strategy, and felt there is an absence of an integrated plan for transportation across modes (see Appendix H), which if provided could contribute to improvements in bus reliability.

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\(^1\) Out of the jam: reducing congestion on our roads - Transport Committee, Written evidence from the Passenger Transport Executive Group http://www.publications.parliament.uk/pa/cm201012/cmselect/cmtran/872/872we13.htm
The desire for improved journey times

2.9 Stakeholders were clear that the bus offer must be dependable, punctual, reliable and stable. Journey times are seen as being an important part of this. If a step change in service provision and growth in ridership is going to happen they felt that improvements to frequency and to journey times are required. Journeys need to be convenient and as quick as possible in order to retain bus users and attract new ones.

2.10 The Transport Focus survey of 2014 identified in West Yorkshire that since 2011 the frequency with which a number of the factors which passengers consider to adversely affect journey times have occurred has slightly increased. All of these factors contribute to a perception of a lack of reliability of the bus service.

Table D2.1 Factors Affecting Journey Times in West Yorkshire

<table>
<thead>
<tr>
<th>Factor</th>
<th>% occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
</tr>
<tr>
<td>Congestion/traffic jams</td>
<td>22</td>
</tr>
<tr>
<td>Road works</td>
<td>7</td>
</tr>
<tr>
<td>Bus driver driving too slowly</td>
<td>5</td>
</tr>
<tr>
<td>Waiting too long at stops</td>
<td>7</td>
</tr>
</tbody>
</table>

Transport Focus 2014

Punctuality

2.11 Punctuality is identified as an issue with bus services within West Yorkshire. The evidence shows that since 2010/11 punctuality (defined as where the bus arrives less than one minute early or five minutes late at its final destination) is typically in the 86-91% range and does not appear to be getting better or worse. It fell in all areas in 2012/13 but has generally improved slightly according to the most recent data available. Punctuality is poorest in Leeds where 88.5% of services arrived on time in 2013/14, and best in Bradford where the figure is 91.6%.

Table D2.2 Bus Service Punctuality Rates (%)

<table>
<thead>
<tr>
<th></th>
<th>2010/11</th>
<th>2011/12</th>
<th>2012/13</th>
<th>2013/14</th>
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<tr>
<td>West Yorkshire</td>
<td>88.0</td>
<td>88.5</td>
<td>87.1</td>
<td>89.1</td>
</tr>
<tr>
<td>Bradford</td>
<td>91.0</td>
<td>91.8</td>
<td>90.7</td>
<td>91.6</td>
</tr>
<tr>
<td>Calderdale</td>
<td>89.2</td>
<td>90.2</td>
<td>89.2</td>
<td>90.8</td>
</tr>
<tr>
<td>Kirklees</td>
<td>89.0</td>
<td>88.0</td>
<td>86.0</td>
<td>88.9</td>
</tr>
<tr>
<td>Leeds</td>
<td>86.1</td>
<td>87.1</td>
<td>86.0</td>
<td>88.5</td>
</tr>
<tr>
<td>Wakefield</td>
<td>87.1</td>
<td>86.5</td>
<td>84.8</td>
<td>86.6</td>
</tr>
</tbody>
</table>

WY LTP Monitoring Report 2014

Journey time variability

2.12 In contrast, journey time data from the West Yorkshire LTP Monitoring Report indicates that there is significant variability in the reliability of bus times and that this pattern is not consistent between different times of the day, nor from year to year. Table D2.3 illustrates the proportion of the WY bus journey time variability in the weekday morning peak period. For this indicator the lower the percentage the better.

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2 West Yorkshire LTP 2011 – 2026 Annual Monitoring Report 2014
2.13 On a year to year basis there is still a lot of variation, with some Districts jumping 10% in a year. The reasons behind this are not always clear. The WY target is to cut the figure to 55% overall (being the approx. half way point between the morning peak and during the middle of the day in 2010). Calderdale, Bradford and Leeds are consistently below the WY average, Wakefield and Kirklees above. There is however a lot more variation between routes, across districts but also dependent on the type of route.

Table D2.3 Morning peak period bus journey time variability (0730 – 0930)

<table>
<thead>
<tr>
<th></th>
<th>Year 2010</th>
<th>Year 2011</th>
<th>Year 2012</th>
<th>Year 2013</th>
<th>Year 2014</th>
<th>Year 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Yorkshire</td>
<td>59%</td>
<td>58%</td>
<td>60%</td>
<td>61%</td>
<td>60%</td>
<td>64%</td>
</tr>
<tr>
<td>Bradford</td>
<td>58%</td>
<td>54%</td>
<td>60%</td>
<td>55%</td>
<td>56%</td>
<td>59%</td>
</tr>
<tr>
<td>Calderdale</td>
<td>49%</td>
<td>61%</td>
<td>58%</td>
<td>53%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Kirklees</td>
<td>73%</td>
<td>66%</td>
<td>77%</td>
<td>77%</td>
<td>70%</td>
<td>81%</td>
</tr>
<tr>
<td>Leeds</td>
<td>56%</td>
<td>55%</td>
<td>55%</td>
<td>59%</td>
<td>58%</td>
<td>66%</td>
</tr>
<tr>
<td>Wakefield</td>
<td>66%</td>
<td>61%</td>
<td>62%</td>
<td>68%</td>
<td>75%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Source: LTP Monitoring Report

2.14 As well as presenting data at the District level, the monitoring report also examines the data at a route level and it is clear there is a high degree of variation within routes. Of the 61 routes which are analysed for this indicator only four have been classified as reliable in each of the four years reported since 2010, and 20 of the routes have been classified as reliable on only one occasion. This reinforces the variability in journey times across the network.

2.15 Other research based on 2012 data\(^3\) from bus services using the section of route between West Park (in North Leeds on the A660) and Leeds City Centre shows that 25% of the services had a journey time which varied by more than 5 minutes from the mean travel time. The analysis showed that travel times are more varied (less punctual) in the morning peak period, with a number of services having a travel time of more than 30 minutes longer than the mean travel time of about 18 minutes. The data is shown in Figure D2.2. A similar picture can be found on many other bus corridors.

\(^3\) Steer Davies Gleave, 2014, Modelling Service Punctuality (report supporting NGT project)
The impact of bus priority and infrastructure

2.16 While car drivers can change their route to avoid congestion bus services cannot, making them particularly vulnerable to the congestion hotspots that can occur in a network. Highways often operate close to capacity and therefore there is little or no resilience to network disruption. Bus priority measures often deliver journey time benefits, but their principal benefit is in delivering the journey time certainty that passengers desire.

2.17 A 2009 study\(^4\) examined how existing bus priority measures in Leeds have affected punctuality. This showed that, on average, bus priority measures reduced the variation in the ratio of actual to average travel time by 17.5%. In the same study a review of published evidence from other cities on the extent to which successful priority schemes have improved punctuality suggested that travel time variation reduced by 50\(^5\).

2.18 Targeted bus priority initiatives were introduced throughout West Yorkshire, including the introduction of traffic light priority for buses at 240 signalised junctions between 2011 -2014\(^6\). However, the extent of priority across the network is still relatively limited and there is potential to introduce further bus priority as part of wider packages of measures within individual corridors, an approach which has been shown to deliver significant benefits – for example the A65 Quality Bus Corridor case study below.

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\(^4\)Reported in Steer Davies Gleave, 2014, op cit
\(^5\)Steer Davies Gleave, 2014, op cit
\(^6\) [http://www.wymetro.com/itp/](http://www.wymetro.com/itp/)
Case Study: A65 Kirkstall Road Quality Bus Corridor

The A65 Quality Bus Corridor has three distinct sections. The first and third sections have bus priority measures. The central section is designed to be free flowing through the use of signal gating. Analysis presented below is based on comparing data collected prior to the start of construction in spring 2010, and during the first year after completion. It shows:

- Bus journey times are now faster with on average a 1 minute saving has been achieved in the peak hours;
- Journey time variability results – based on the range of times taken by 90% of buses - are also mixed, with some improvements and some deterioration. However, journey time standard deviations have fallen by between 10-20% in the peaks reflecting the fact that journey times are more consistent with the scheme.
- However, the bus journey times being experienced are slower than the predicted journey times in the scheme business case;
- As a result of the queue management, general traffic is taking longer to travel through the first inbound segment of the scheme, up by one and a half minutes during the morning peak hour;
- Passenger surveys reveal a highly positive response to the QBC, and associated improvements implemented by bus operators. Surveys have also revealed that there has been a small increase in passengers as a result of modal shift or changing bus routes to use Kirkstall Road.
- Alongside these operational improvements the corridor has seen bus patronage increase by 12% on some services, with morning boardings up by 50%.

2.19 The effectiveness of bus priority measures is enhanced by enforcement measures to ensure buses are able to take full advantage of the priority, however not all priority measures in West Yorkshire currently have enforcement measures in place.

2.20 Evidence shows that in some locations bus lane offences have reduced by 80 per cent following the introduction of enforcement measures, largely through the deployment of cameras. Bus lane infringements still frequently occur in a number of locations in West Yorkshire. In Leeds, for example, 90,000 penalty notices were issued in the two years up to 2014.

2.21 A further source of unreliability in bus journey times can arise where the operation of buses is not coordinated with the operation of the highway network, leading to congestion and delays for both buses and cars. A simple example is that of bus stop design. Where buses are not required to pull out of the traffic flow at bus stops, other traffic on the highway is held up behind the bus, but buses can pull away easily into the traffic flow, minimising delays for passengers. Another example is presented in the case study on the following page of the 110 service between Leeds and Wakefield, which highlights that delays leaving the bus station and entering the general traffic can be significant.

The impact of ticket purchase on delays

2.22 A feature of the West Yorkshire bus network is that most tickets are sold on-board, including weekly tickets, most of which are bought at the start of the working week on a Monday morning. These take longer to issue as they involve a protracted transaction with the driver needing to prepare the ticket and provide change for a comparatively high-value transaction.

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7 A65 Quality Bus Corridor, One Year Monitoring and Evaluation Report, November 2014
Analysis has been carried out by WYCA on bus journeys within West Yorkshire to understand the impact of purchasing weekly tickets on a Monday. The analysis was based on peak time journeys over a 60 day period on Service 7, covering the A61 corridor in Leeds. The analysis focused on three bus stops (King Lane Park & Ride, Potternewton Lane and Vicar Lane) and considered the deviation of services from the scheduled run time. The largest differential was found at the Vicar Lane stop, where there was a difference of over 8 minutes between the Monday morning and Tuesday to Friday averages for some journey times.

**Case Study: Service 110 Leeds – Wakefield**

A Transport Focus report from 2014 illustrated some of the key issues with journey time variability with a case study for one trip in West Yorkshire: the 110 service that operates between Leeds and Wakefield. The case study found that over 30% of the journey was spent stationary, with boarding and alighting accounting for the largest amount of stationary time. The driver on the route on that day stated that it regularly took four minutes to exit the bus station. The report’s authors suggested that in light of the relatively expensive nature of bus infrastructure schemes, measures to speed buses through traffic signals and reduce boarding times would have a more significant impact.

Comparisons with the car

Evidence suggests that what customers want is a product which offers the convenience of the car. When respondents with limited usage of bus and/or rail were asked why they didn’t use public transport this factor accounted for over half of responses (West Yorkshire Tracker Survey 2014). The convenience of the car can be encapsulated in the ability to make direct journeys and its ‘turn up and go’ advantage. Thus the punctuality, reliability and journey times of buses are pivotal to attracting potential new users. Flexibility, convenience and the quickest possible journey time are fundamental aspects of the product.

Whilst the convenience of the car is important, the scale of convenience varies across the West Yorkshire region and by different time periods/demographic groups. Of the five West Yorkshire Districts, it is less likely to be cited as an important issue in Leeds, which has the most extensive public transport network, but more likely to be cited by those aged below 45 which will include those within the working age bracket, typically commuters. However, regardless of whether the traveller is a commuter or not, According to Transport Focus (2014) Passengers commuting and not commuting have similar levels of dissatisfaction. (Transport Focus 2014).

Delays and congestion adversely affect the punctuality and reliability of the service which in turn can lead to passenger frustration and dissatisfaction. This is fundamental to the comparison with the convenience of the car.

**Better use of data to tackle reliability**

The use of real time data to inform strategic planning is regarded by stakeholders as being of importance in managing the reliability of bus services. For instance, where timetables do not adequately reflect the actual network conditions bus journey times can become slow and unreliable. Small schedule deviations can easily become multiplied and lead to buses bunching, often due to the accumulation of passengers at bus stops, and exacerbated by the prevalence of on-board ticketing. More generally, stakeholders felt that intelligence gathering is one of the key components to delivering a better bus strategy (see Appendix H). They felt that more research should be conducted into customer needs as the basis for the strategy.
THE BUS NETWORK IS COMPLICATED AND DIFFICULT TO UNDERSTAND, MEANING THAT IT CAN BE HARD FOR NEW OR INFREQUENT USERS TO WORK OUT WHICH BUS TO CATCH

2.28 During the initial consultation on the strategy, both operators and officers from WYCA recognised that the bus network is asked to deliver a wide range of outcomes, and meet the needs of a disparate range of users and potential users. There are expectations that the bus network needs to respond to the broader economic, social, and cultural needs of the communities that it serves, as a public service and as part of a wider network of bus-to-bus and multi-modal journeys. At the same time, many operators see the market in terms of single, point-to-point journeys on busy corridors. It is acknowledged that sometimes the bus is being asked to do too many things at once (see Appendix A). It is therefore perhaps unsurprising that some potential users find the network difficult to understand.

2.29 The idea of a network able to meet multiple demands has been supported by stakeholder feedback from across West Yorkshire (see Appendix H) emphasising the importance of the bus network in terms of its social and community function. Stakeholders identified improvement of the existing provision of local routes, particularly in rural areas, as something that should be encompassed in the strategy, and there was a call from some for the retention of services regardless of patronage. A broad level of coverage (incorporating rural areas and services for specific groups in society) is a key factor in the delivery of a service that is inclusive enough to be fit for purpose.

2.30 At the same time there is also a desire from stakeholders to increase integration between modes, and for improvements to be made to provide better connections between services, so some level of complexity is perhaps necessary to achieve these aims. However, stakeholders also highlighted the need for a greater focus on the customer; first to ensure that services respond to customer needs, and secondly that they can be altered to meet fluctuations in demand. This does speak of the need for services to be planned in a way that is more understandable to customers.

The need for a network

2.31 New and potential users may be unfamiliar with the network. Even regular users may only be familiar with their normal journey but not fully aware of the potential offered by the wider network. The ability to link together trips and make trips other than those directly into the urban centre can be missed or dismissed as being unfeasible due to a lack of understanding. This perception is confirmed by the findings from consultation undertaken as part of the West Yorkshire Local Transport Plan 3 development, where a lack of interchange between modes and services was identified as an issue\(^9\). The presentation and perception of the network to new and existing users is therefore vital to overcome this and to maximise its full potential.

2.32 There are parts of the network where bus services are not integrated with other services. In some cases this can be as a result of duplication between operators, where operators run near identical services on a corridor vying for the same market. While this approach can result in competitive pricing and frequencies for passengers within a corridor, it can undermine the network as a whole as resources are channelled away from other areas. The action of the parties involved can be quite rational, but the system by which on-the-road competition is encouraged serves the passenger poorly in the long term.

\(^9\) West Yorkshire Local Transport Plan 2011 – 2026 Appendices
Case study: Service X52/762 Ilkley – Harrogate

In recent years, services between Ilkley and Harrogate have been subject to change and subject to duplication/competition between operators, rather than integration. Two operators, Connexions Buses and Transdev Keighley and District have both operated hourly services between Ilkley and Harrogate, with services from one operator registered to operate a few minutes in advance of the other. Each operator provides their own commercial fares for the service which could not be used on the other operators’ services.

Rather than provide a 30 minute service frequency between Ilkley and Harrogate, passengers have had to choose between two operators each offering individual tickets on an hourly service.

This is a recent example of the type of competition on price and service that promotes directly competing services, rather than co-ordination between operators to grow and share the market. This sort of approach was prevalent in the immediate post-deregulation era, but demonstrates that 30 years later this behaviour still continues to fail the passenger, in missing opportunities to developing the market incrementally.

2.33 More could be done to improve the operation of the bus network itself and its integration with other networks including highway and rail. Nationally, some 12% of rail trips currently involve bus for part of the journey\(^{10}\). Better integration with bus could provide a way of strengthening the West Yorkshire rail network through improved permeability into communities beyond the walk and cycle catchment of stations as well as reducing traffic congestion around stations and the demand for station car parking.

2.34 However, the role of interchange can be unclear. Creating well-designed interchange nodes can be a critical element of the passenger experience and is fundamental to the effective operation of the network. A seamless transfer between services is essential if passengers and potential passengers are to view the network as offering more than simple one leg bus trips. Wherever interchange creates significant new travel opportunities, interchange must be facilitated by providing attractive service frequencies which minimise waiting times, and clear way-finding signals to direct passengers to their onward journey.

2.35 Nevertheless there is a sense amongst some stakeholders that a ‘comprehensive’ network that tries to do too much in terms of serving ‘all’ markets is an aspect of the bus provision that deflects from investment that could deliver growth on simplified core routes.

The need for off-peak services

2.36 The bus market in West Yorkshire is characterised by the concentration of passengers employed in lower paid occupations including caring, leisure and other service occupations. These jobs often involve shift work or irregular working hours that are not adequately catered for by typical service provision, for example limited evening or early morning services.

2.37 Evening services are in decline everywhere in West Yorkshire except Leeds. The interface between the commercial and subsidised network is crucial with the point at which service frequency drops from its core daytime levels being important. Operators acknowledge that buses finish a little early in places and that extending the services would help to provide flexibility to customers.

2.38 With changing retail and leisure patterns at weekends there is now a strong demand for services on Sundays between 1000 and 1600 and demand is equivalent to Saturday levels in some places. However in many places there is a gap in provision that if addressed would facilitate Sunday workers, particularly those working in the retail sector, to get to and from work.

\(^{10}\) Door to Door Journeys, The Campaign for Better Transport, June 2011
Changing spatial and employment demands

2.39 More generally, the network needs to be able to respond to changing passenger needs as employment patterns and demands change as people’s lifestyles change and adapt over time. The market analysis presented in Appendix C has identified young people in education as an important element of bus patronage, and a key challenge for the bus network is to remain the mode of choice for these people as they move from education into work.

2.40 As individual requirements evolve over time, so does the spatial distribution of the places that people seek to travel to and from. Accessibility maps for West Yorkshire (figure D2.3 for example) indicate that urban centres are generally well served by bus, however land use changes create new demand for bus journeys which are outside of the urban centres.

2.41 The access to employment indicator in the West Yorkshire Local Transport Plan Annual Monitoring Report calculates the percentage of the working population who are able to access key employment centres within 30 minutes using the core public transport network across West Yorkshire. The latest edition of the Monitoring Report (2014) indicates that this figure is currently 76%. This is a relatively new indicator which has only been monitored since 2011 and is demonstrating marginal increase year on year.

Figure D2.3 Accessibility to District Centres by Bus within 60 mins

2.42 Stakeholders noted that as new housing and employment growth points emerge, it is important that a bus service is provided at the outset in order to encourage more sustainable travel behaviour from day one. This is emphasised in research by undertaken by DfT which concluded that non bus users are less likely to change their travel behaviours than users.

2.43 Stakeholder consultation also highlighted that providing a network that effectively services out of town development, whether employment or retail, has proved challenging in the past in West Yorkshire. There
is little evidence of this working well, except where the out of town development lies on existing routes and forms part of the network. They suggested that there needs to be closer links between those responsible for planning and designing such developments and those responsible for planning bus services.
3  Fares and Ticketing

IT CAN BE DIFFICULT TO WORK OUT WHICH BUS TICKET OFFERS THE BEST VALUE FOR MONEY

3.1 Early engagement with both operators and officers from within WYCA, while exposing differences in perspective and potential approaches to fares and ticket products, did conclude with broad agreement that there needs to be simplicity around fares and ticketing (see Appendix A). Following this early engagement, focus groups with the public across West Yorkshire examined this issue further (see Appendix H), and found that simple, smart and integrated ticketing emerged as the top priority for improvement, with participants highlighting frustrations associated with non-transferrable tickets. Conclusions from the focus groups included that “there is evidence from the research to suggest this is currently a major driver of dissatisfaction. Tickets that are not transferrable between different operators cause confusion and are considered to be unfair and punitive.” Value for money was also identified as a key theme in stakeholder responses.

3.2 Therefore, understanding the evidence and views on fares and ticketing has focused on matters of complexity and simplicity, and how this affects the affordability and value for money of the tickets offered. Other aspects of ticketing that have been reviewed include the implications of cash fares on boarding and consequent delays to journeys (described earlier in Chapter 2).

Ticket complexity

3.3 Analysis of the different fare options that are available within West Yorkshire indicates that over 400 different ticket and fare possibilities are potentially available and valid across the county, dependent upon the operator providing the journey, the route and time of the journey being undertaken, the demographics of the person travelling, their educational status, and so forth. A summary breakdown of these fares is provided in Table D3.1:
Table D3.1 Summary of West Yorkshire Fares available for largest operators only

<table>
<thead>
<tr>
<th></th>
<th>Arriva</th>
<th>First</th>
<th>Yorkshire Tiger*</th>
<th>Transdev</th>
<th>Metrocard/MCard 2</th>
<th>Plusbus</th>
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<td>-</td>
<td>-</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>404</td>
</tr>
</tbody>
</table>

3.4 Clearly not all possibilities apply on any given route but as the A65 Kirkstall Road Quality Bus Corridor case study below does illustrate that potential passengers can be faced with a multitude of potential fare and ticket options, not all of which may be immediately apparent to them.

3.5 There are routes within West Yorkshire where agreement has been reached and single operator tickets can be used on alternative operator services. The A65 Kirkstall Road case study is a good example of this, where passengers travelling between Leeds city centre and Kirkstall can use any valid First, Transdev or Yorkshire Tiger ticket on any service along the route. However, this arrangement is only available on a limited localised basis, and there have also been issues in the operation of the system with both drivers and passengers not being widely aware of the agreement.

3.6 Given the number of fare options available, it is unsurprising that a quarter of respondents to the West Yorkshire Tracker Survey (2014) were ‘not very confident’ or ‘not at all confident’ in terms of their local bus ticket purchase. Lack of fare information is a key issue with consequences which affect the attractiveness of bus and the efficiency of the network. Naturally, non-users were less confident about fares than bus users, with 41.6% of non-users being ‘not very confident’ or ‘not at all confident’ in terms of their local ticket purchase, compared with almost one fifth (18.2%) of bus users (West Yorkshire Tracker Survey 2014).

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11 Analysis undertaken by WYCA
12 All MetroCard/MCard options have been counted separately, depending on the period of time and zones that they cover. MetroCard/MCard options that cover bus only or bus+rail have been counted separately: these are two different ticket options for the customer with two different prices. There are no MetroCard/MCard options for single journeys; a Half Metro Day is the cheapest option and has been included in the Day tickets. Family Day Rover and Metro Weekender are unusual tickets that have been included in the Day ticket group. Week, Month and Annual tickets are available at different prices depending on the zones they cover. These have all been treated separately. Metro tickets are available as a paper MetroCard or an electronic ‘smart’ MCard. These have been treated as different ticket options.
13 The singles represent every possible fare price on all corridors/routes. Variations in single price represent distance, but not all fares are available on all routes. For example, Yorkshire Tiger offer 24 different singles fares on all their routes, but only four are available on the A65 Kirkstall Road Corridor. First and Transdev have so many singles because they operate in multiple areas (Leeds, Bradford, Halifax, Huddersfield for First; Keighley, Harrogate, Coastliner to York for Transdev). The fare options have been divided by area: First offer £1 fare options in all four areas they operate in, which have been counted as four different singles in the table above.
Case Study: A65 Kirkstall Road corridor

Analysis of fare information for operators along the A65 Kirkstall Road corridor has found between 103 - 114 different fare options are available along the corridor, dependent upon the journey being undertaken, the demographic of the person travelling, their educational status, and so forth. The range of available tickets is illustrated in the table below.

<table>
<thead>
<tr>
<th></th>
<th>First</th>
<th>Yorkshire Tiger</th>
<th>Transdev</th>
<th>Metro</th>
<th>Plusbus</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>8</td>
<td>4</td>
<td>1 - 12</td>
<td></td>
<td></td>
<td>11 - 23</td>
</tr>
<tr>
<td>Return</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Day</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Week</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>8</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>Month</td>
<td>3</td>
<td></td>
<td>4</td>
<td>9</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Quarter</td>
<td>1</td>
<td></td>
<td></td>
<td>4</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Annual</td>
<td>2</td>
<td></td>
<td></td>
<td>8</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Misc</td>
<td>2</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

This level of complexity indicates that there is a need for a simple, clear, transparent, convenient ticketing system that customers can use for bus journeys regardless of who operates the service.

Consultation with stakeholders across West Yorkshire and the Leeds City Region has yielded a number of viewpoints on fare structures, with stakeholders advocating fare structures to be simplified, including the development of a zonal fare structure (see Appendices A and H).

Value for money

Transport Focus surveys identified a reduction in passenger satisfaction with value for money of bus fares in West Yorkshire between 2014 and 2015, with satisfaction falling from 63% to 61% for all fare paying passengers. The fall in satisfaction was particularly evident for 16 - 34 year olds, among who, it fell from 59% to 52%. Satisfaction among commuting passengers also dropped from 64% to 59%. Satisfaction levels on value for money are amongst the lowest across all aspects of service provision on which passenger views have been gathered. This is reinforced by stakeholder views, including perspectives that there is insufficient market intelligence and research undertaken to develop fare structures to meet customer expectations (see Appendix H), and that more analysis of customer needs with regards to the cost of travel is required in developing this strategy. The dissatisfaction with fares can also be seen through the case study on comparative economic costs by modes of travelling into Leeds.

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14 The singles ticket total includes adult and child fares, and fares specific to routes/corridors. Only the fares available on Kirkstall Road have been included.

15 No detailed fares information for the 760 service. The 12 fares represent all single fares available on Transdev Keighley services. The reality is that the number of singles available on the 760 will likely be fewer than 12.

16 Miscellaneous tickets include tickets that don’t fit into any other category, including:
- Student Term and Student All Term tickets from First
- 12 trip and student term ticket options from Transdev, available in Keighley, Harrogate and Coastliner. As the Keighley options could theoretically be used on the Kirkstall Road corridor, these were included.
**Case Study: The Total Economic Cost of Commuting into Leeds City Centre**

An illustrative analysis of different ways of travelling to Leeds city centre has been undertaken by Leeds City Council. The analysis illustrates the comparative costs for a typical journey into Leeds City Centre by various modes. The analysis uses standard national values of time to compare the relative costs of using different modes of travel, as well as local information on parking costs, fares, fuel and travel times. In line with national guidance, the analysis also factors in that time spent walking and waiting for public transport is valued more highly than in-vehicle time.

Taking all these factors into account for this typical journey, the overall cost of travelling into Leeds is considerably higher by bus than by car or train.

- A commuter with their own free parking space at the office has a significant advantage over the other alternatives, with the daily cost of commuting being estimated at around half that for someone using the bus.
- Rail users benefit from the fastest journey time, but when longer walk times to and from the stations are included, this increases the cost to around 50% more than the person with free parking. The relatively expensive cost of city centre parking and the walk to the office makes the user of public car parking slightly more expensive still, however, this is still well below the cost of using the bus.
- Bus users experience by far the longest overall journey time, as well as significant periods walking and waiting, adding up to an estimated 47 minutes each way compared with between 23 and 34 minutes for the other modes.

**Cost and validity of network or multi-operator tickets**

3.10 Fares are currently provided based on where an operator operates services, rather than where customers need to travel. Multi-modal or multi-operator fares are offered only at a premium, often a very significant premium. Within West Yorkshire, passengers can choose from a MCard (or a MetroCard, which is the paper alternative), and can purchase bus-only travel or bus and rail. Neither the MCard nor the MetroCard currently appear to offer value for money for bus users who don’t use trains and use the buses in only one area.

3.11 The table below highlights the variations in ticket prices across West Yorkshire. For example, for bus-only travel in Leeds a FirstWeek ticket is £14.50, and an Arriva weekly ticket £14.00. In comparison, a bus-only MCard/MetroCard is £22.50 (although it offers travel across all of West Yorkshire and all operators).
FirstGroup prices its operator-only product, the FirstWeek West Yorkshire slightly cheaper, at £20. Bus companies effectively price both products, and it is in their commercial interest to secure the whole of price of their own ticket rather than share the price of a multi-operator ticket.

Table D3. Operator vs M-Card Weekly Ticket Price variation for selected areas/operators

<table>
<thead>
<tr>
<th>Weekly Ticketing prices</th>
<th>Leeds only</th>
<th>Bradford only</th>
<th>Halifax only</th>
<th>West Yorkshire Wide</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-Card Weekly Bus &amp; Train</td>
<td>£28.20 (Rail zones 1-3) / £40.00 (Rail zones 1-5)</td>
<td>£22.20</td>
<td>£14.50</td>
<td>£14.50</td>
</tr>
<tr>
<td>M-Card Weekly Bus</td>
<td>£14.00</td>
<td>£14.00</td>
<td>-</td>
<td>£17.50</td>
</tr>
</tbody>
</table>

3.12 The price of equivalent tickets in metropolitan areas varies considerably. The most expensive is the Merseytravel Walrus solo ticket providing weekly travel on any bus in the Merseytravel area for £26.20. South Yorkshire, Centro and Greater Manchester all have cheaper tickets, with the Manchester “get me there” smartcard providing seven days of travel on any bus in Greater Manchester for £16.

3.13 Multi-operator tickets have the advantage of allowing passengers to use a wider selection of services and therefore have greater flexibility. However in reality passengers whose journey involves multiple operators (for example their route has multiple operators) are forced into a choice between a cheaper single operator ticket or a multiple operator ticket, when they may not be aware of their needs later in the day or week, or that services on the same part of the network route are operated by different companies. If the bus network is to retain existing users and attract new users it needs to provide both value for money and minimise confusion by offering a simple range of choices.

3.14 The Metro Bus Fares Ticketing Strategy (2013) identifies that operators’ own products are often only available for ‘zones’ delimited by the operating boundaries of each operator, rather than defined urban or travel to work geographies that are more readily identifiable as discrete parts of the transport network. This comparatively crude approach to product development often results in passengers being required to purchase tickets which over-provide for their travel needs, particularly when undertaking shorter distance journeys. In effect, this introduces a penalty for regular shorter distance travellers by reducing the availability of products tailored more specifically to their travel requirements, enabling greater revenues to be derived from the largest demand markets.

Other Multi-modal tickets

3.15 Integration between modes hasn’t been particularly effective. In 2015 Transport Focus carried out a PLUSBUS survey (the bus add-on ticket available to rail users) and found that only 9% of rail passengers in Yorkshire and Humberside had used PLUSBUS and 57% of people in the UK had never heard of it. Research has indicated that PLUSBUS has greatest success on outward journeys which start with rail and end with bus. This reflects the fact that the ticket is only available as part of a train ticket and cannot be purchased on-bus.

Information on fares

3.16 Customers may not be aware of the fare they need to pay before they board the bus. Access to information on fares is limited. A stakeholder has noted that “ticketing can be a barrier to entry. There is often no

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17 Door to Door Journeys, Campaign for Better Transport, June 2011
obvious way of finding out about the ticket or fare that is the right, or best one for customers”. Information about the fare you will pay for your journey is not available on the West Yorkshire Journey Planner, and there is no compulsion for the operators to publicise fares in advance. Many do not.

**Payment options**

3.17 This issue is compounded by the fact that ticketing purchase options are limited, with the majority of passengers paying the driver upon boarding by cash.

3.18 The issues created by on-board ticketing are as we noted in Chapter 2 particularly acute on Mondays when a large amount of passengers purchase a weekly ticket. As was also noted in chapter 2 research on the 110 service, which runs from Leeds to Hall Green via Wakefield, demonstrated that on average 30% of the full trip length is spent stationary with the main cause of delay being identified as boarding and alighting, with 57% of the stationary time over a four day period being at stops.

3.19 Looking forward, in seeking to address these issues, a number of operators are developing innovative ticketing options including ticketing apps which allow passengers to buy their ticket on their phone. However, these are not yet widely used and generally, the pricing for on-line products is not discounted against the on-bus version.

**Best practice**

3.20 The reality of bus ticketing in West Yorkshire is a far cry from a single brand across a smart-enabled product (such as Oyster in London). Such an approach would increase recognition and improve confidence in the accuracy of fare collection. Research undertaken on behalf of Transport for London (TfL) has shown that 9% of all Oyster ‘pay-as-you-go’ journeys on the Underground are generated by the ease of Oystercard.18 The development of such a tangible identity offers the greatest potential to generate demand and attract new users into the market. This is further supported by DfT research19, which notes that ‘Travelcards’ demonstrate the strongest evidence for patronage increases attributable to ‘softer’ measures, albeit that they noted that separating the benefits derived from a Travelcard’s ‘brand’ from those attributable to the fare effects and the general appeal of smartcards is often problematic.

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18 Bus fare Ticketing Strategy, Metro, 2013

19 *The role of soft measures in influencing patronage growth and modal split in the bus market in England*, DfT, October 2009
4 The Customer Experience

4.1 The quality of customer experience is at the heart of the concerns of a number of contributors to early engagement in developing the strategy (see Appendix A). One contributor noted that "basic standards of customer care need to be in place: helpful and human". There are a range of views within the industry on what customer expectations are, and what actions may be necessary to meet those expectations. All stakeholders broadly sign up to the importance of the customer, and that bus services should put customers first, and it is acknowledged that customers want both basic aspects to the service to be right, but also want ever improving standards of service, with provision of Wi-Fi and other improvements reflective of modern living being high amongst expectations.

4.2 Furthermore, wider stakeholder consultation on the principles that should shape the strategy (see Appendix H) identified that a focus on customer service, a greater responsiveness to the needs of customers, and improved customer service training should all be points of emphasis within the strategy. Stakeholder feedback also emphasises the need to improve the look, feel, comfort and style of buses, and cleanliness.

4.3 Therefore, examination of the evidence and views on the customer experience on buses in West Yorkshire has not only focused on overall impressions and satisfaction of customers, but also has looked at specific issues around the behaviour of drivers and its impact on customer experiences, and on other aspects of service provision that help to make bus travel a safe, secure, and high quality experience.

Customer satisfaction

4.4 In autumn 2015 Transport Focus published its annual report about the levels of satisfaction of bus users; this collected data on a range of factors including on-board information, punctuality and value for money. The data for West Yorkshire shows that 87% of passengers are satisfied overall with bus services. This is similar to other former metropolitan areas including Greater Manchester (82%) South Yorkshire (85%) and West Midlands (85%). Looking at local transport authorities, City of York had the highest level of satisfaction (93%). It is worth noting that the Transport Focus survey only includes the views of passengers and does not include any analysis of non bus users or former passengers.

4.5 The West Yorkshire Tracker Survey (2014) indicated that satisfaction with public transport was very slightly lower than previous years, with local bus services receiving an average rating of 6.7 (with 10 equating to very satisfied) and there was a significant drop in satisfaction with affordability of public transport from 6.7 in previous surveys to 6.0 in the 2014 survey.

4.6 Comparing the views of users and non users, the West Yorkshire Tracker Survey (2014) identifies that non users consistently rate elements of the bus service with lower levels of satisfaction than users (see table D4.1). Non user satisfaction was lowest for frequency of service and helpfulness of the driver/conductor. User satisfaction was also lowest with frequency of service along with whether services arrive on time.
Table D4.1 Bus service satisfaction by user and non user

<table>
<thead>
<tr>
<th></th>
<th>User</th>
<th>Non User</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of service</td>
<td>7.0</td>
<td>6.2</td>
</tr>
<tr>
<td>Whether the service arrives on time</td>
<td>7.0</td>
<td>6.7</td>
</tr>
<tr>
<td>Quality and cleanliness</td>
<td>7.2</td>
<td>6.7</td>
</tr>
<tr>
<td>Amount of overcrowding</td>
<td>7.1</td>
<td>6.6</td>
</tr>
<tr>
<td>Helpfulness of driver/conductor</td>
<td>7.2</td>
<td>6.5</td>
</tr>
<tr>
<td>Personal safety while travelling</td>
<td>7.9</td>
<td>7.1</td>
</tr>
<tr>
<td>Personal safety while waiting at a stop</td>
<td>7.7</td>
<td>6.9</td>
</tr>
<tr>
<td>How easy to get on/off</td>
<td>8.4</td>
<td>8.0</td>
</tr>
<tr>
<td>State of the bus stop/station</td>
<td>7.5</td>
<td>7.1</td>
</tr>
</tbody>
</table>

*West Yorkshire Tracker 2014*

**Driver behaviour**

4.7 The driver is a critical factor in the customer experience, with right training and support drivers can act as ambassadors and salespeople for their services. Feedback from passengers in West Yorkshire through 2015 identifies the need to focus on customer service from drivers. Headlines from passenger complaints data indicate that 13% of customer complaints relate to the driver, the second most frequent source of complaint. When examining complaints with respect to drivers, 80% of ‘specific’ complaints concerned driver behaviour towards passengers.

4.8 The Transport Focus Bus Passenger Survey (2015) examined a number of elements of driver behaviour with ‘how near to the kerb the driver stopped’ and ‘the driver’s appearance’ receiving high levels of satisfaction (90% and 89% respectively). The lowest level of satisfaction with the driver was for ‘the greeting/welcome you got from the driver’ and ‘the helpfulness and attitude of the driver’ (69% and 71% respectively). The ‘helpfulness of the driver/conductor’ was one of the elements with lower levels of satisfaction in the West Yorkshire Tracker Survey (see table D4.1). Research\(^\text{20}\) has indicated that young people are particularly negative about driver attitudes.

4.9 The role of the driver has also been identified as an issue through engagement with stakeholders, and there are suggestions that drivers have a role which is unclear, or asks them to do too much. This is highlighted by one respondent to consultation who noted that “someone needs to tell bus drivers that they are customer service staff as much as they are drivers” (see Appendix H).

**Safety and security**

4.10 Safety is a key issue for passengers, but is a multi-faceted issue with concerns relating to a number of aspects of bus travel, including: driver behaviour, other passengers, the physical condition of buses, bus stops and routes. There is only limited CCTV coverage at bus stops in West Yorkshire although on board coverage is increasing. The Transport Focus Bus Passenger Survey 2015 showed a decrease in satisfaction with both ‘your personal safety whilst at the stop’ (78%, down from 80%) and ‘your personal security whilst on the bus’ (83%, down from 84%). Research\(^\text{21}\) suggests that although there is considerable similarity in the public transport concerns raised by men and women, safety issues were of much greater

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\(^{20}\) Understanding why some people do not use buses, Scottish Government, 2010

\(^{21}\) ibid
concern to women. Given that women make up significantly more than half the bus market, the issue of safety is particularly pertinent.

**Vehicle quality**

4.11 The physical condition of buses is an important issue. Research\(^22\) has shown that newer buses are viewed more positively by passengers because they look modern and are easier to get on and off; whereas older buses are viewed as unsafe, unreliable and not user-friendly. This view is reinforced by local stakeholders in West Yorkshire (see Appendix H) with ‘modern buses with Wi-Fi and a reliable fleet’ being amongst aspects identified as of importance to supporting growth.

4.12 The lack of space on buses for wheelchairs, pushchairs and cycles presents a barrier to key market segments. This was highlighted by a legal case which remains unresolved following a ruling in December 2014 in which Appeal Court judges ruled that bus companies are not required by law to require parents with buggies to make way for wheelchair users in designated bays on vehicles\(^23\). The matter was referred to the Court of Appeal as two previous County Court cases of wheelchair users challenging bus companies over priority rights had resulted in conflicting rulings: in one case the court ruled in favour (vs. First Group in Leeds), in another against (vs. Arriva Darlington in Middlesbrough) the wheelchair users’ right to priority\(^24\). Many bus companies currently operate a “first-come, first-served” policy, allowing passengers who board first to place push-chairs, large luggage or shopping trolleys in the wheelchair space. Wheelchair users are turned away if the space is full. Other bus bodies (e.g. Stagecoach subsidiaries and Transport for London) have a policy whereby wheelchair spaces must be vacated for wheelchair users\(^25\).

Regardless of the rights and wrongs of these cases, it serves to highlight the lack of space that can lead to some people being unable to travel in comfort, or at all.

4.13 More broadly, the Transport Focus Bus Passenger Survey (2015) indicates that various characteristics of the vehicles had relatively low levels of satisfaction compared with other factors, indicating passengers perceived vehicles to be relatively uncomfortable. Although all these characteristics have seen increased levels of satisfaction since 2011, they attracted the lowest scores in metropolitan areas. Satisfaction levels with vehicle characteristics in West Yorkshire\(^26\) are summarised below:

- The comfort of the seats (75% satisfied)
- The amount of personal space you had around you (74% satisfied)
- The temperature inside the bus (78% satisfied)
- The cleanliness and condition inside the bus (78% satisfied)

**Wi-Fi and technological improvements**

4.14 The provision of on-board and at-stop facilities such as Wi-Fi could have a significant role to play in changing perceptions of travel by bus for non-users. Passengers can increasingly be observed using smartphones on-board buses rather than the traditional image of reading. The ability to get online while travelling is increasingly attractive in a digital world. It can even have productivity benefits by enabling passenger to work or check their e-mails on their commute.

\(^22\) ibid  
\(^23\) http://www.disabilityrightsuk.org/firstgroup-plc-v-paulley  
\(^25\) ibid  
\(^26\) West Yorkshire Tracker Survey
Stakeholders value Wi-Fi. The importance of Wi-Fi on buses is identified (see Appendices A and H) alongside aspects such as comfortable seating and driver training as important factors in respect of customer experience. Wi-Fi is an aspect that is highlighted as being popular on buses. One operator noted that “investment in Wi-Fi has had a huge (positive) customer response”. Another identified that “Wi-Fi and USB ports are important, and we have specified these on new buses to appeal to the younger generation”. Another stakeholder suggested that bus stations would benefit from having Wi-Fi too “to catch up with the times”.

Transport Focus data has shown that 80% of customers feel their bus journey is productive. This is simply not possible for those travelling by car. Wi-Fi provision on-vehicle and at stop is currently limited within West Yorkshire.
5 Information and Brand

BUS TRAVEL INFORMATION CAN BE INCONSISTENT AND / OR NOT ALWAYS EASILY AVAILABLE

5.1 There are contrasting views on the quality of information about buses in West Yorkshire. While there is recognition that high quality information is vital, industry contributors to the initial consultation who set the context for the strategy were divided over the quality and usefulness of some of the information that is currently provided (see Appendix A). Stakeholders reinforced this (see Appendix H), by identifying that there is room for improvement in information provision, both in terms of awareness and functionality. Stakeholders had particular views on real-time information systems where there was an identified need to ensure better reliability and accuracy, and availability of real time information; and a call for more and better on-board information for passengers.

Sources and use of information

5.2 There are numerous sources of bus information in West Yorkshire including:

- At-stop information including paper timetables, yournextbus and real time;
- Paper timetables available at interchanges and travel centres;
- Website-based journey planners including ‘Plan a Journey’ on the Metro website and journey planners on individual operator websites;
- Apps for smart phone including national apps and operator apps, though there is currently no West Yorkshire specific app. Separately there are a number of ticketing apps also available;
- On board static route information may be provided on vehicles;
- Next step information is provided on some buses.

5.3 This mix provides information both before and during a journey in a range of formats.

5.4 The West Yorkshire Tracker Survey identifies customer perspectives on the usage of information in terms of comparisons between occasional users and frequent bus users. Across all users, real-time displays at bus stops were found to be the most popular source of information, followed by timetable displays at bus stops. While real-time information is more popular with occasional users, timetable displays are favoured by frequent users, illustrating that regular passengers use information differently to occasional and new passengers.

5.5 The West Yorkshire Tracker reveals greater use of technology and static sources over interaction with other people as both the helpline and travel centres have much lower percentages of use. More traditional information sources, such as printed media are still used by a significant proportion of users. This reflects a stakeholder view that there is an increasing expectation driven by customer practice that self-serve information is acceptable.

5.6 There remains significant potential to develop the use of technology to improve passenger information. Currently bus users are less likely to use technology than rail users27. However in terms of trends in the level of usage of each information medium, the West Yorkshire Tracker indicates that the most significant increase in usage has been in terms of Yournextbus (23.2% in 2014 up from 10% in previous surveys). The Metro website and journey planner has seen a slight increase in usage since 2007.

27 West Yorkshire Tracker 2014
5.7 The West Yorkshire Tracker Survey shows that 28.4% of people accessed information whilst on a journey on their smartphone, whilst 40.7% used non-electronic means. However, information delivered through mobile devices such as apps may not be suitable for all elements of the bus market. The prominence of 65+ age category in the bus user market has been noted earlier, and Table D5.1 below illustrates the users of mobile phones by age group and highlights 65+ as the lowest users of mobile phones or smart phones.

Table D5.1 Users of mobile phones or smart phones, in the last 3 months by age group, 2012

<table>
<thead>
<tr>
<th>Age Group</th>
<th>% of population</th>
<th>Total population (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-24</td>
<td>99.0</td>
<td>6.8</td>
</tr>
<tr>
<td>25-34</td>
<td>96.8</td>
<td>8.3</td>
</tr>
<tr>
<td>35-44</td>
<td>98.6</td>
<td>8.2</td>
</tr>
<tr>
<td>45-54</td>
<td>94.4</td>
<td>8.6</td>
</tr>
<tr>
<td>55-64</td>
<td>92.3</td>
<td>7.0</td>
</tr>
<tr>
<td>65+</td>
<td>71.7</td>
<td>10.1</td>
</tr>
</tbody>
</table>

*Opinions and Lifestyle Survey, Office for National Statistics*

5.8 This may be expected to change over time as older age groups become more technology savvy, and it is also important to note that other important age groups for the bus market display some of the highest mobile phone and smart phone usage.
The larger bus companies including FirstGroup, Arriva and TransDev have apps, although the plethora of available apps may in itself lead users to confusion. For example, some operators have two apps - one for providing information and one for purchasing tickets. At least one stakeholder felt that an app which covers all operators for the whole of West Yorkshire would be useful.

### Satisfaction with information sources

Aside from ‘value for money’ and some ‘on-bus’ factors, the satisfaction with information provided at the bus stop is the lowest individually rated criterion (at 76%) in Transport Focus survey findings (2014). This indicates that there is significant scope for future improvement. It is difficult to get a clear idea of the whole network as much of the information is operator-specific rather than providing the whole network picture. Information provision has rarely developed in line with industry best practice.

This is reinforced by stakeholders, with inconsistencies in information provision being identified. For instance, one operator found that information before the journey, such as web-based information, was generally very good. Conversely, another operator found that city centre information provision was weak in aspects such as destination and connection information. Moreover, some stakeholders identified that parts of the current information provision has become outdated in technological terms, particularly in regard to the online journey planner.

### Real-time information

‘Real-time’ or ‘live’ information is an increasingly important part of all aspects of information provision. Over the last decade, WYCA and its predecessors have invested in live bus departure information displays at around 900 bus stops. Real-time bus information is available at all bus stops through text message/online. The majority of stops are fitted with QR (‘Quick Response’) code / NFC (‘Near Field Communication’) tag to enable passengers to obtain stop specific information on a mobile device. There is a desire for more real-time displays at bus stops, real time. Almost all buses in West Yorkshire can provide live real time tracking data, however, from a customer perspective the real-time system can be unreliable, with it only working successfully around 85% of bus services. Different operators achieve different success rates in delivering the real-time system, but overall one of the most common complaints is that buses often appear ‘due’ on real time screens, but then fail to turn up at the stop.

Only 67% of people are satisfied with on-board information provision. New and infrequent users may be anxious about getting off the bus in the right place. Customer expectations around Real Time information have also risen in recent years. In comparison, trains and trams generally provide next stop information so passengers are aware of when their stop is approaching.

Where information is available passengers are generally happier to wait for longer as they have an arrival time to focus on and are able to manage the delay. For example, systems notify anyone expecting a bus of new arrival times and any delays, enabling customers to organise alternative travel or wait elsewhere rather than standing at the bus stop.

Whilst there is a universal West Yorkshire-wide “back office” system for real-time information, the quality of information which goes into the system is variable by operator. The increasing availability of other systems and information in other aspects of people’s lives that does give ‘live’ information raises expectations of public transport, and specifically bus, systems. This is particularly the case in terms of the

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28 WYLP3 Consultation Feedback Report, Metro, 2011
29 Bus Passenger Survey, Transport Focus, 2014
30 Door to Door Journeys, campaign for Better Transport, June 2011
impact of disruption, such as from road-works. Information on disruption is an important aspect to get right, especially in the context of the rise in social media use and rising levels of expectation with respect to instant information. In these situations, the value of real-time information is highest, but the quality of the predictive information is at its poorest. This is because there is no overall coordination (across WYCA, Operators and the Highways Authorities) or formal data sharing at times of disruption.

5.16 Real-time information is seen as very useful for punctuality planning, although some passengers lack confidence in the information. Stakeholders acknowledged that it is not 100% accurate. This leads to a wider issue that the current fragmented approach to data collection and dissemination may result in passengers distrusting transport information and making poor travel decisions. If data can be joined up properly this may unlock a change in traveller behaviour as travel choices become more informed.

**Fares information**

5.17 The previous section highlighted issue in terms of awareness of fare information and it is worth reiterating here that access to information on fares is limited. Of the sources outlined above only operator websites and apps provide fare information. A significant number of bus users and non-users lack confidence in buying the best value bus or rail ticket (West Yorkshire Tracker 2014).

**Information on service disruption**

5.18 A current gap in information is the dissemination of information on service disruption. Although real time information is able to provide the estimated arrival time of a service, it currently doesn’t provide any context around delays. Stakeholders highlighted the importance of providing better information on service disruption in real time. This information is important in terms of passengers making decisions about their journey. For shorter journeys where delays are likely to be significant passengers may decide to walk or where passengers are delayed on a service they may decide to alight the service early and complete their journey on foot. Operators indicated that they often now use social media such as Twitter to disseminate information on service disruptions to customers.

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31 Ibid
IT IS DIFFICULT FOR CUSTOMERS TO UNDERSTAND WHO OPERATES THEIR BUS SERVICE, WHAT WYCA DOES, WHO TO CONTACT IF THINGS GO WRONG, AND WHERE TO FIND OUT INFORMATION OR TO PROVIDE FEEDBACK

5.19 One aspect where there is a divergence of views between operators and public sector contributors is around brand and identity. Some contributors within the industry to the early engagement indicate that this starts with confusion over branding, with stakeholders noting that brand recognition is mixed: quite good for some brands; poor for others. There are lots of brands in the market place, and there is often confusion over who does what (see Appendix A). Stakeholder perspectives played down the importance of brand, and the need for a clear identity was identified as the least important aspect of bus service within West Yorkshire from a series of core principles (see Appendix H).

5.20 This issue does however have implications in terms of organisational responsibility, including that knowing who can help when things go wrong is not well understood by customers. It is not clear who is responsible, or where complaints should go when things do go wrong, and can have fundamental practical implications too on matters such as lost property. This illustrates the need for a clear, simple, transparent and fair process across West Yorkshire.

Understanding bus services

5.21 There is evidence that incomplete or poor understanding of bus services, and how to use them, is contributory to dissatisfaction with bus services. For instance, evidence from the West Yorkshire Tracker Survey of 2014 illustrates that non-users have a poorer view of bus services than those who use the bus in all categories.

Table D5.2 Customer satisfaction with bus services: West Yorkshire

<table>
<thead>
<tr>
<th></th>
<th>User</th>
<th>Non user</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of the service</td>
<td>7.0</td>
<td>6.2</td>
</tr>
<tr>
<td>Whether the service arrives on time</td>
<td>7.0</td>
<td>6.7</td>
</tr>
<tr>
<td>Quality and cleanliness</td>
<td>7.2</td>
<td>6.7</td>
</tr>
<tr>
<td>Amount of over-crowding</td>
<td>7.1</td>
<td>6.6</td>
</tr>
<tr>
<td>Helpfulness of driver/conductor</td>
<td>7.2</td>
<td>6.5</td>
</tr>
<tr>
<td>Personal safety while travelling</td>
<td>7.9</td>
<td>7.1</td>
</tr>
<tr>
<td>Personal safety while waiting at the stop</td>
<td>7.7</td>
<td>6.9</td>
</tr>
<tr>
<td>How easy it is to get on/off</td>
<td>8.4</td>
<td>8.0</td>
</tr>
<tr>
<td>State of the bus stop/station</td>
<td>7.5</td>
<td>7.1</td>
</tr>
</tbody>
</table>

West Yorkshire Tracker Survey 2014

5.22 In terms of information and promotion of services, information on some individual services is provided by operators for their services, in addition to Metro-branded materials at stops and online. Operators provide information specifically focused on their own customers and services, both on and off-vehicle. A common belief held by some members of the public as identified through previous consultation is that they believe that bus services are all run by Metro, even though it is 30 years since this was the case. Information and promotion of services and the bus system varies across the region in terms of consistency, quality, duplication, and in frequency of change and across the many media platforms. This has created confusion amongst the travelling public regarding who is responsible/accountable for the bus system.

5.23 The transport network is currently branded as ‘Metro’, WYCA oversees the provision of travel services (working with bus and rail operators) and is responsible for facilities such as bus stations and travel centres. It also subsidises travel for young, disabled and senior people, through the funding of
concessionary fares. However, focus group research\textsuperscript{32} indicates that while the Metro brand is universally recognised its role is not well understood.

\textsuperscript{32} Aecom (2015) for WYCA
6 Environment

SOME BUSES ARE OLD AND THE EXHAUST EMISSIONS CAN BE HARMFUL

6.1 Modern, clean vehicles are important, and the public authority contributors within early stage engagement particularly emphasised this with respect to addressing air quality issues in West Yorkshire towns and cities. Air quality is increasingly a high priority for local authorities, and there are both public health and climate change elements to be considered.

Legislation and practice

6.2 The application of increasingly stringent EU standards has resulted in reduced emissions from newer buses. For instance, NOx emissions from Euro VI buses are only 5% of those from Euro I buses\(^{33}\).

6.3 However, it is very normal for buses to be operated twenty years or more, and even if the larger operator groups generally write off large buses over a 15 year life, it is common that smaller companies pick up these buses after they have been sold on by the larger groups. Neither WYCA nor the Districts have any powers over the use of older, more highly polluting buses at present, although this may change through the creation of Clean Air Zones (which is described further in the main Bus Strategy report). This applies in town and city centres as well. The West Yorkshire bus fleet as a whole is older than the national average (excluding London)\(^{34}\).

6.4 The current West Yorkshire bus fleet profile by Euro Standard\(^{35}\) and indicates that a significant proportion of the bus fleet is operating to emission standards which came into effect more than ten years ago.

Investment in ‘greener’ technology

6.5 Recent developments to improve the emissions standards of the fleet include a successful West Yorkshire-based bid to the Government’s Green Bus Fund. First West Yorkshire in Leeds was successful in its bid for low carbon buses part-funded through the Green Bus Fund, with a bid for 22 new double-decker hybrid buses. Grants from the Department for Transport totalled over £1.7m to help bring these new hybrid buses to West Yorkshire.

6.6 Commercial developments to bring greener buses to West Yorkshire through investment in improved engine technology include First Group’s New Bus for West Yorkshire (see panel below) which is intended for introduction on the busiest routes in Leeds initially, and then extended to Bradford, Huddersfield and Halifax. It could start to be introduced from 2017.

Case Study: The New Bus for West Yorkshire\(^{36}\)

The New Bus for West Yorkshire is a hybrid, propelled either by its on board batteries or its own generator powered by a diesel engine. This electric drive-train ensures a smooth ride whilst reducing fuel consumption, CO\(_2\) emissions, Nitrogen Oxide, Hydrocarbons and Particulate Matter. Fully electric single decker buses – powered by batteries – are already in service on York park and ride services. First is confident that this technology will continue to advance and allow the

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\(^{34}\) Ibid

\(^{35}\) Ibid

\(^{36}\) Source: First Group promotion material, 2014
company to dispense with the diesel engine and run entirely on battery power. This advance will be incorporated into future New Bus for West Yorkshire developments.
7 Summary

7.1 The table below provides a summary of the main problems and issues identified through this evidence review from a customer perspective. These summary points feed into the full Bus Strategy report.

<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Headline problem</th>
<th>Issues identified through evidence review</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bus Service &amp; Infrastructure</td>
<td>Buses are not always on time, and occasionally fail to turn up at all. Buses can take a long time to reach their destination, and the journey time can vary from day to day.</td>
<td>Buses fail to turn up. Buses not co-ordinated or integrated with the operation of the broader highways (UTMC) / rail network. Limited bus priority. Limited existing bus lane enforcement. Insufficient strategic network planning. On-bus crowding, particularly in the peak periods. Empty buses operating across the network. Insufficient use of data to develop services.</td>
</tr>
<tr>
<td>2. Fares and Ticketing</td>
<td>It can be difficult to work out which bus ticket offers the best value for money.</td>
<td>Fares are too complicated and not integrated. Multi-operator fares are only available at a premium. Complicated and multiple single operator fares options (eg over 100+ on a single corridor in Leeds). Tickets relate to operators, not geography. Fares are not perceived to offer value for money to the passenger. Limited payment options with focus still on cash payment on bus vehicles, delaying bus services particularly on Monday, when weekly tickets are more frequently issued. Limited and complicated information on fares. Insufficient data available to develop fares structures which meet customer expectations.</td>
</tr>
<tr>
<td>3. Customer Experience</td>
<td>Travelling on a bus is not perceived to be a satisfactory experience.</td>
<td>Driver behaviour can lead to a poor customer experience, especially for young people. Perception of bus travel to non-users is poor. Perception of safety concerns at stop and on vehicle, particularly in the evenings. Vehicles are uncomfortable, noisy and misted up. Insufficient pram, wheelchair and cycle storage. Limited CCTV. Role of the driver too complicated – dealing with fares, customer service and driving vehicle. Limited Wi-Fi provision on vehicles and at stops.</td>
</tr>
<tr>
<td>4. Information &amp; Brand</td>
<td>Bus travel information can be inconsistent and / or not always easily available.</td>
<td>Inconsistent passenger information. Not all services using the real time system. Insufficient real time information provided to the customer. Poor quality on line journey planner and lack of journey planner app encompassing all operators. No dynamic in vehicle information. Disruption information strategy to passengers does not exist.</td>
</tr>
</tbody>
</table>

Table D7.1 Problems and Issues
<table>
<thead>
<tr>
<th>Thematic Area</th>
<th>Headline problem</th>
<th>Issues identified through evidence review</th>
</tr>
</thead>
</table>
| 5. Environment | Some buses are old and the exhaust emissions can be harmful | Diesel buses contribute significantly to harmful emissions in urban areas as set out in WYLES
A significant proportion of the bus fleet is operating to emission standards which came into effect more than ten years ago
Limited investment in hybrid and electric buses in West Yorkshire to date
School services often use oldest vehicles which produce the worst emissions. |