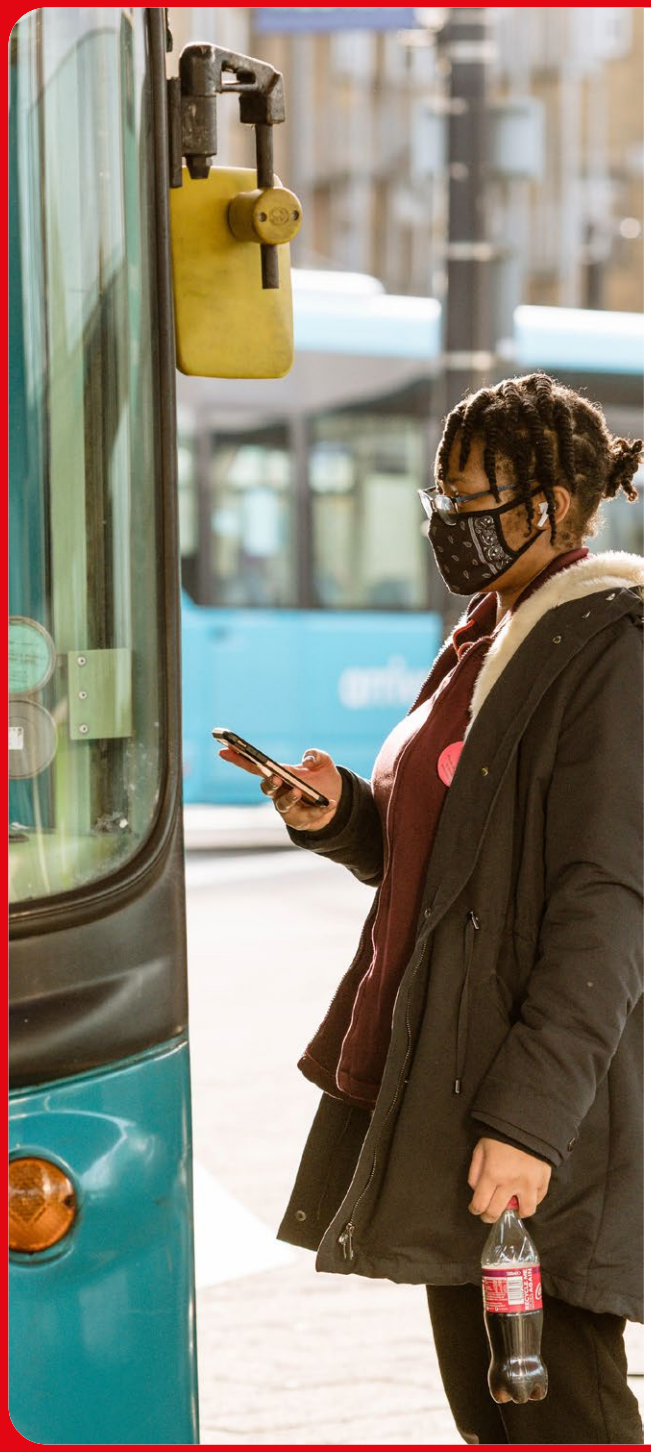
Will there be space on board?

April 2021

transportfocus



Summary

Passengers have told us clearly that space to maintain social distancing has been vital in helping them feel safe in relation to Covid-19. As restrictions ease and more people return to public transport in the coming weeks, there will be less room on board services, making it harder for passengers to maintain social distancing at busier times.

At some point, social distancing may come to an end. Until then it remains a key part of the overall travel experience. Reliable information about how much space there is right now or is expected to be in the future can help passengers plan, avoid busier services and make social distancing easier. It can also play a key role, when the time is right, in giving more passengers the confidence to return to public transport.

Many operators now provide information about space on board their services. The results of our survey with more than 5000 transport users, alongside the examples of operator best practice included in this report, demonstrate the value that passengers place on this information.

As more people start travelling, reliable information about space on board will help them make informed decisions, provide reassurance and rebuild confidence.

Recommendations

Our four recommendations are:

1.

Accelerate efforts to provide information about space on board services where it is not already available.

2.

Ensure information about space on board is as accurate and reliable as possible and is promoted to encourage usage.

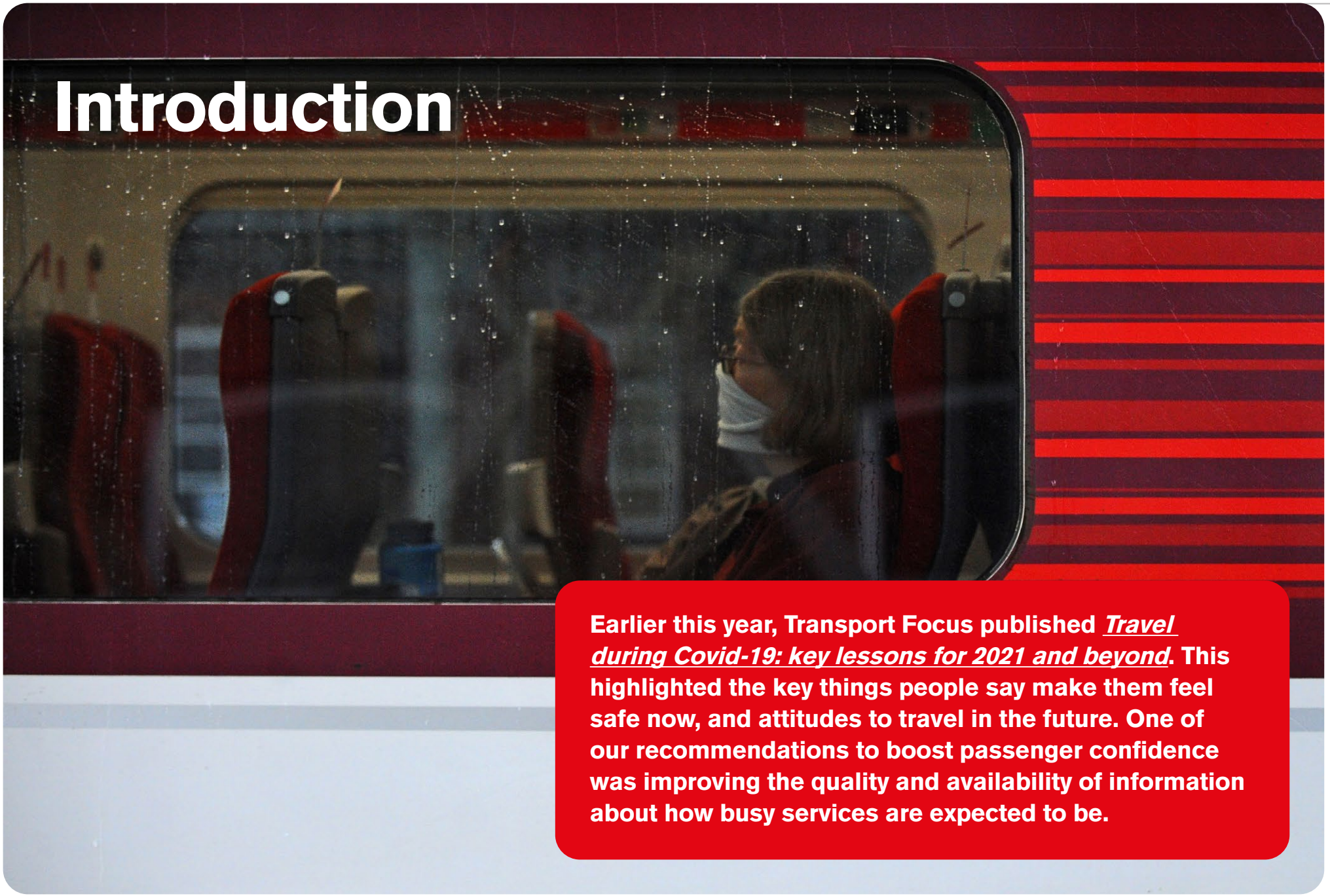
3.

Learn from best practice to ensure the information about space on board is easy to understand, transparent, trusted and accessible.

4.

Provide information about space on board in journey planners to ensure information is easy to find.

Introduction



Earlier this year, Transport Focus published *Travel during Covid-19: key lessons for 2021 and beyond*. This highlighted the key things people say make them feel safe now, and attitudes to travel in the future. One of our recommendations to boost passenger confidence was improving the quality and availability of information about how busy services are expected to be.

Some operators have restricted capacity in order to maintain social distancing. Some train operators did this by making services 'reservation only', or for buses, drivers put up signs that the bus is 'full'. But this is not always appropriate or possible and such limits on capacity are unlikely to be sustainable in the future. Passenger numbers are likely to keep growing as restrictions ease, potentially exceeding transport operators' ability to meet demand as long as social distancing remains.

In the last year, we have seen many operators start to provide information about space on board. This report builds on our previous recommendation by:

- updating our evidence base with new research and feedback from passengers on the information available now
- sharing examples of best practice and the challenges highlighted by operators we have met
- making new recommendations for how transport operators can meet passengers' needs.

We hope this work can support transport operators to make improvements in the coming weeks and months.

Travel during Covid-19 insight

Our *Travel during Covid-19 survey* has consistently shown:

- **more than eight in 10 rail and bus passengers say they felt safe in relation to Covid-19 when they travelled**
- **more than seven in 10 say they were satisfied with the ability to keep a safe distance from other passengers.**

Transport operators deserve credit for ensuring that so many people travelling have felt safe. Our *Perceptions of safety on public transport – key drivers analysis* report identified that the ability to keep a safe distance from other passengers was the most important driver of passengers' perceptions of safety in relation to Covid-19. Feelings of safety have been underpinned by ensuring there has been enough space on board.

While the majority of passengers travelling now feel safe, our Travel during Covid-19 survey has also reinforced the scale of the challenge facing public transport in attracting other people to return:

- three in 10 say that they will never again feel completely comfortable on public transport
- around half of those who have not used a train or bus in the last two weeks say they would feel safe.

It remains unclear how long social distancing rules will remain in place. Still, this research and the *evidence from our Transport User Community* suggests some passengers will have heightened concerns about maintaining a distance from other passengers on public transport for some time to come. It should also be remembered that even before the pandemic, our *National Rail Passenger Survey* showed crowding was a driver of dissatisfaction for rail passengers.

Our *Transport User Community* members told us about their strong desire for more widely available, specific and up-to-date information on how busy trains are and how easy it will be to social distance. While many transport operators have stepped up and provided this information, there are still gaps and a need for improvement. Our Travel during Covid-19 survey shows around three in five rail passengers, and only around a half of bus passengers, travelling now are satisfied with the ease of finding information about how busy services are expected to be.

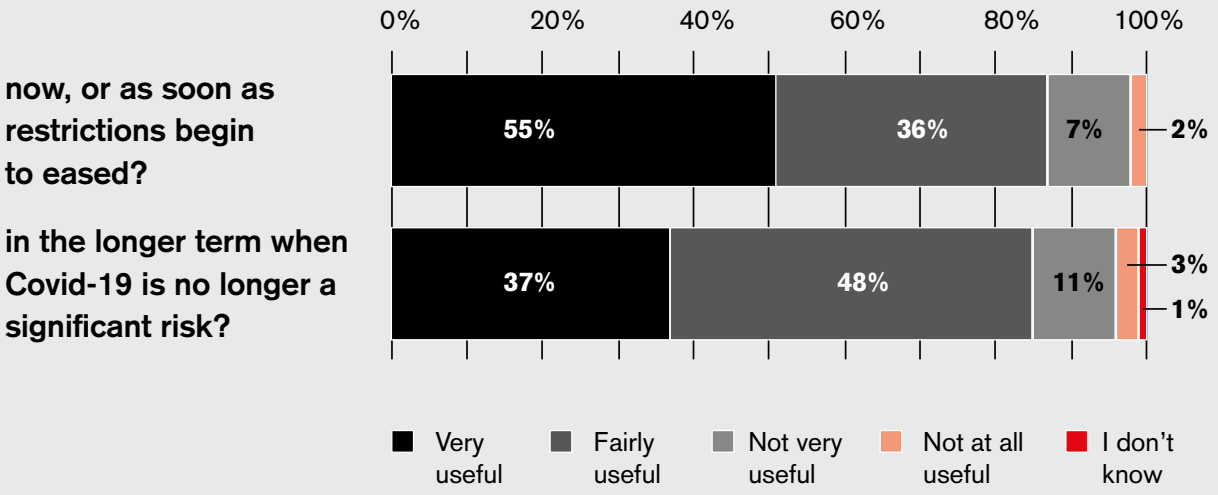
New research

In March, we asked our Transport User Panel to provide detailed feedback on information about space on board public transport. We wanted to better understand how useful this information is and how it could be improved, to share with operators and inform what the industry does next. More than 5000 panel members responded to the survey.

We found the vast majority of passengers say it will be useful to have information on how busy services are. Nine in 10 say they would find it useful to have information on how busy services are as soon as restrictions begin to be eased, with more than half saying this is 'very useful'.

Tellingly, even when Covid-19 is no longer a risk more than eight in 10 say they would find information about how busy public transport services are useful. More than one in three say this will be 'very useful'.

To what extent do you think you will find it useful to have information on how busy public transport services are if you were planning a journey...



This confirms that passengers find this information useful now, as people consider returning to public transport for non-essential journeys. It also reinforces the value of this information in the longer term, as some passengers may continue to avoid busy services – whether just for comfort or due to heightened concerns from the pandemic.

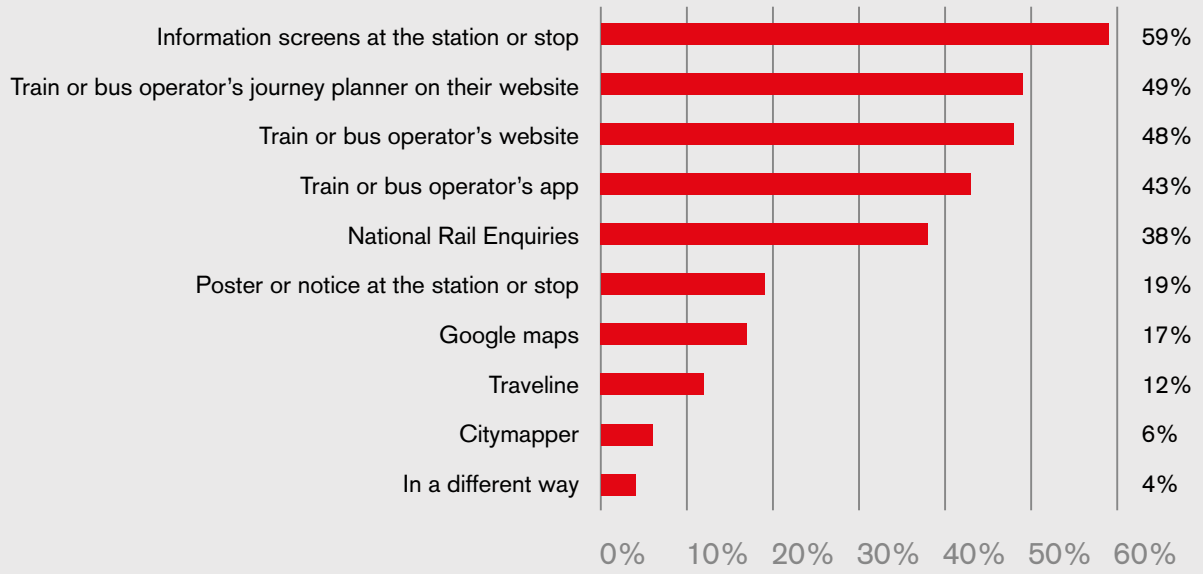
> "Think this is a great idea. I hate busy buses even when there is no Covid and would probably choose an alternative if I knew in advance."

Information about space on board is most useful when people have flexibility and can adjust their plans to avoid busy services. We asked about the primary reason people expected to travel, when restrictions allowed, and about the amount of flexibility they expected to have. We found:

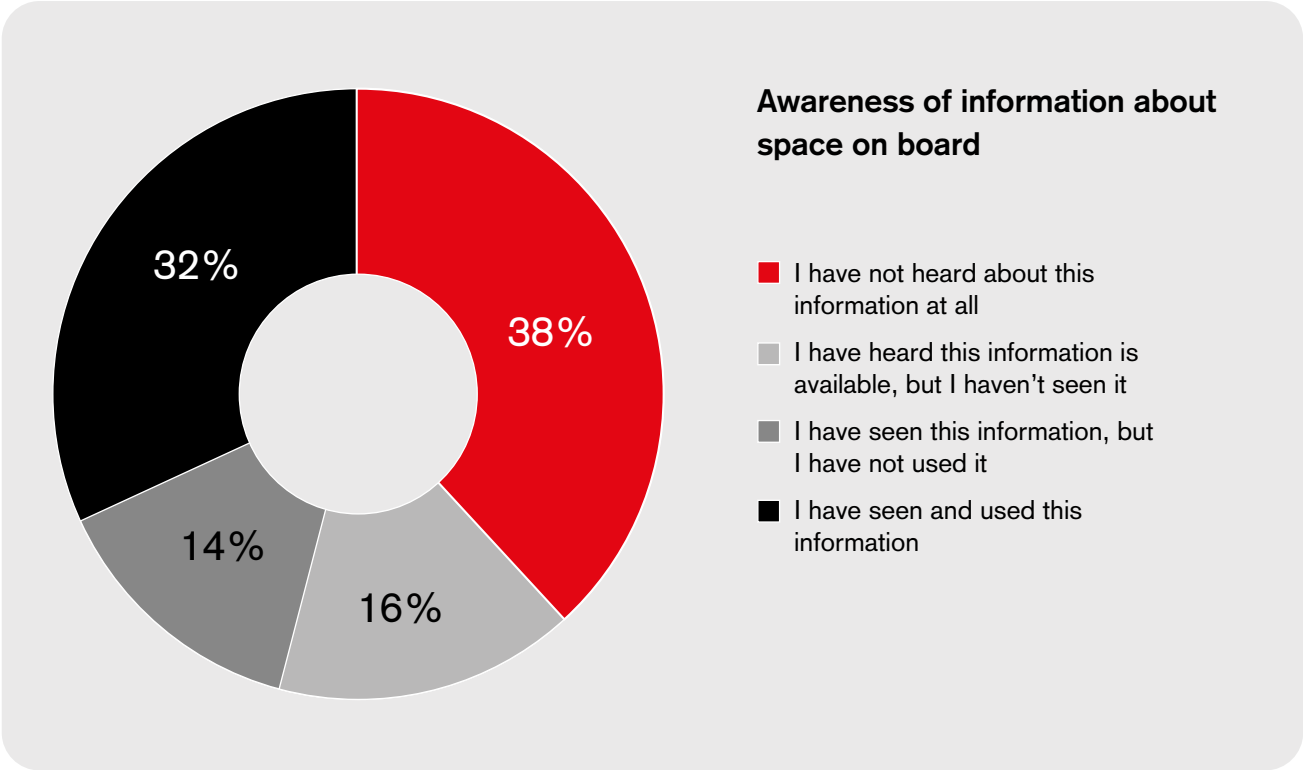
- one in four expected to travel to work or education, more than half expected to travel for leisure and less than one in 10 for business
- eight in 10 expected to have at least some flexibility about when they travel, or exactly which services they used, with three in 10 expecting to have a great deal of flexibility.

We also asked passengers about their preferred ways to access this information. While 'information screens at the station or stop' was the most frequently chosen option, the various online sources also had strong appeal. In the longer term, adding this to information screens could be valuable. Still, as passengers return to travel in the coming weeks, journey planners, websites and apps are likely to be the most realistic and flexible means for most operators to provide this information to passengers.

...And in which of the following ways would you most prefer to access information regarding how busy public transport services are?



Finally, we asked passengers whether they had seen or used the information about busy services provided by operators they use regularly. One in three said they had used this information, but more than one in three said they had not heard about this information at all. As people consider making more journeys in the coming weeks and months, it is important for operators to promote the tools they have created so as many people as possible benefit from them.



Passenger feedback on information

We asked passengers which operators they used regularly, then provided a link to the information about space on board available on their website. We asked passengers if they trusted the information and for detailed feedback on what they liked and what could be improved.

We found:

- eight in 10 trusted the information at least to some extent, with one in three saying they trusted it 'very much'
- seven in 10 said they would use the information when planning journeys.

Many passengers were positive about the information provided, finding it trustworthy and saying they would use it when they planned a journey. However, passengers' feedback did vary between operators, enabling us to pick out some examples of best practice and key learnings.

Key learnings

Live or historic information

Information about space on board is usually based on either live or historic data. However, some use crowdsourcing, which asks other passengers to report on available space in real time.

Many of our panel members expressed a desire for live information. To provide this, operators require technology such as automatic passenger counting equipment that feeds the data through to websites, apps or information screens. Live information is helpful for those who are close to or already travelling. If a service is especially busy, passengers may choose to travel on another route or service if they have some flexibility and the service is relatively frequent.

Passengers also appreciate how live data can respond to unforeseen situations such as disruption. Nevertheless, live data does also have the potential to mislead less-regular passengers. A service may appear to be busy now, but space might become available before it reaches your stop.

> "Live data will be useful in the future, as on occasion you can turn up to the station and not get on a train due to crowding – sometimes due to earlier problems with the trains or current delays."

On the other hand, presenting historic information can help those planning in advance.

It gives passengers an idea of how much space there is likely to be on board in future. Operators take historic data, whether it is from the previous day, week or month, to inform their advice to passengers. While recognising the benefits, some passengers raise concerns about using historic data because they are unsure if it can account for other factors, such as weather or sporting events, that impact passenger numbers. Operators, however, should be able to use their knowledge to manually override or place warnings on such days.

"Great to know in advance how busy the bus is and might influence my preferred time."

"It only gives information about bus journeys actually under way at the time of the enquiry, so it would be useless if I was planning a journey later."

Crowdsourcing was the least popular option amongst our panel. We found users were sceptical about the data being sourced from other passengers and had concerns about its reliability.

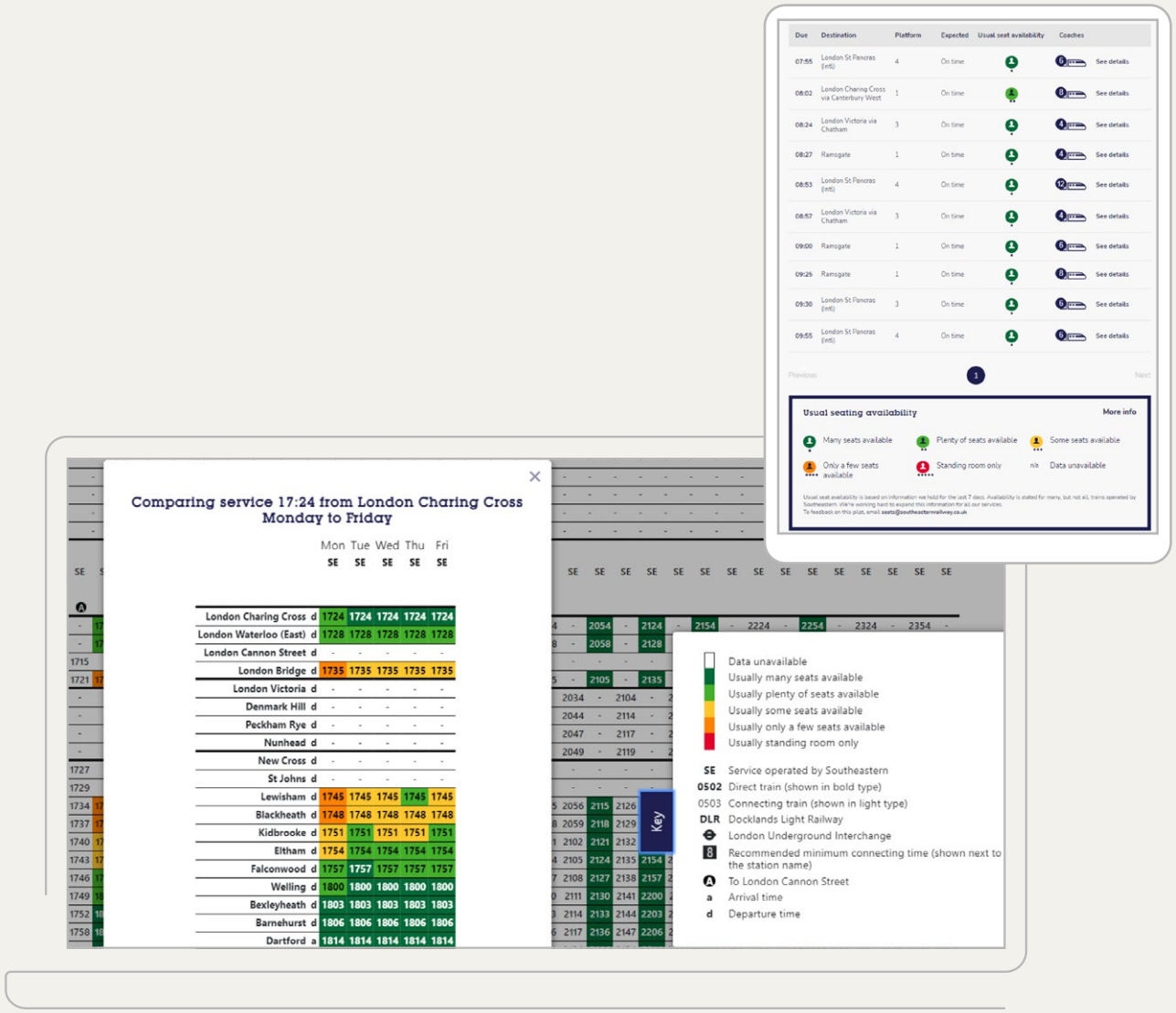
"... unfortunately relies only on passenger information. As no passenger submits them for my line, there is no information available."

"Like: potential for real time information from bus passengers. Dislike: reliant on passengers logging data. It would be better if data was based on tickets sold on board, apps scanned on boarding."

Southeastern

Southeastern's SeatFinder tool enables passengers to view usual seat availability for specific services to help plan journeys. The data is taken from passenger loadings for the same service the previous week, and this is communicated through various channels, including the website live departure boards and online timetables, Southeastern app, information screens at stations and announcements.

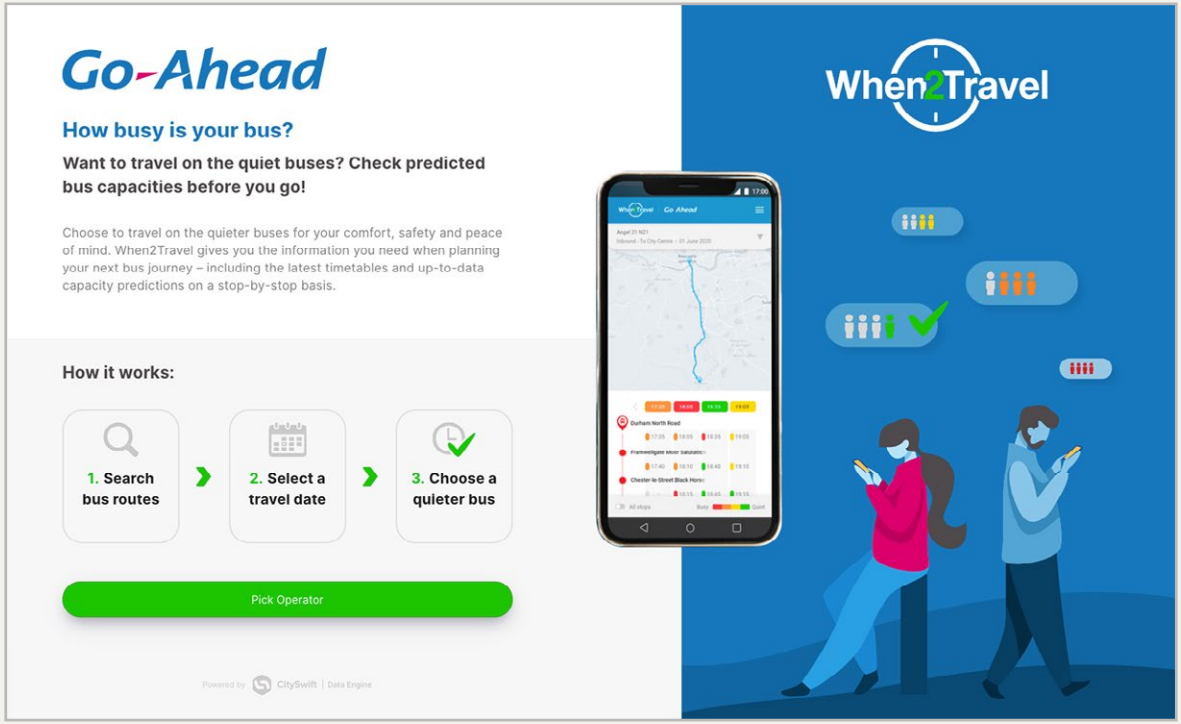
Southeastern is in the process of further improving the data to forecast seat availability and introduce disruption messaging so that passengers are notified in real time.



Go-Ahead Bus

Go-Ahead has a live bus tracking tool on the website which allows passengers to see how much space is available on board, whether it is a single or double-decker bus, and what features it has such as Wi-Fi and charging points. In addition to real-time information, it also uses historic data to predict how busy or quiet a service is likely to be.

The 'When2Travel' tool enables passengers to check up to two weeks in advance. Go North East was also the first operator to publish its data on the Bus Open Data service.



Accuracy and transparency

Passengers want to understand what the information is based on as this helps build their trust in its accuracy. What data does it use? How often is it updated? How reliable is it?

"Like how they explain that their information is based on data from last week. And that National Rail Enquiries will have more up to date information taking weather etc into account. Like the graphic explaining which trains and stations are busy."

"Lack of detail, gives you no confidence in the accuracy of the data. What is sample size? Time period? Revision frequency? Anticipated demand algorithm? How frequently is it updated?"

Many of our Transport User Panel members had only travelled on public transport occasionally, or not at all, since the start of the pandemic. At the same time lockdown restrictions meant few services were busy. This means there was limited scope for passengers to provide detailed feedback on the accuracy and sensitivity of the information in practice. As restrictions ease and services get busier in the coming weeks and months it will become increasingly important that the information is regularly updated and refined to ensure it is as accurate and reliable as possible.

A clear and informative key

Passengers want a key that explains the level of space on board in a simple way that enables them to understand or visualise what it will be like on board.

This enables passengers to make an informed decision about what feels safe for them. Some of the terms used by operators are subjective, and passengers will have different tolerance levels. Right now, the key question is 'Will there be space to socially distance?'. However, perceptions of 'enough' space are likely to continue to change and become more varied in future.

"No indication of what is meant by 'busy'. For example, does this mean 'most seats occupied and some standing passengers?'

"As there is no pre-booking and no definition as to what is meant by 'quiet' ... it was difficult to decide about whether I personally would feel safe..."

Accessibility

Operators should make efforts to ensure these new tools are accessible.

In some cases, it appears this issue may have been overlooked. Is it provided in an accessible format? Can screen readers interpret the data? Can a passenger phone customer services or speak to staff and get this information? Operators should try to ensure all parts of the website, including these tools, comply with Web Content Accessibility Guidelines standards. It would also be useful to seek feedback from a range of users to ensure the information is easy to interpret.

We received several comments from our panel members concerning difficulties differentiating between key colours. Operators should use more than one visual cue to assist those with colour vision deficiencies.

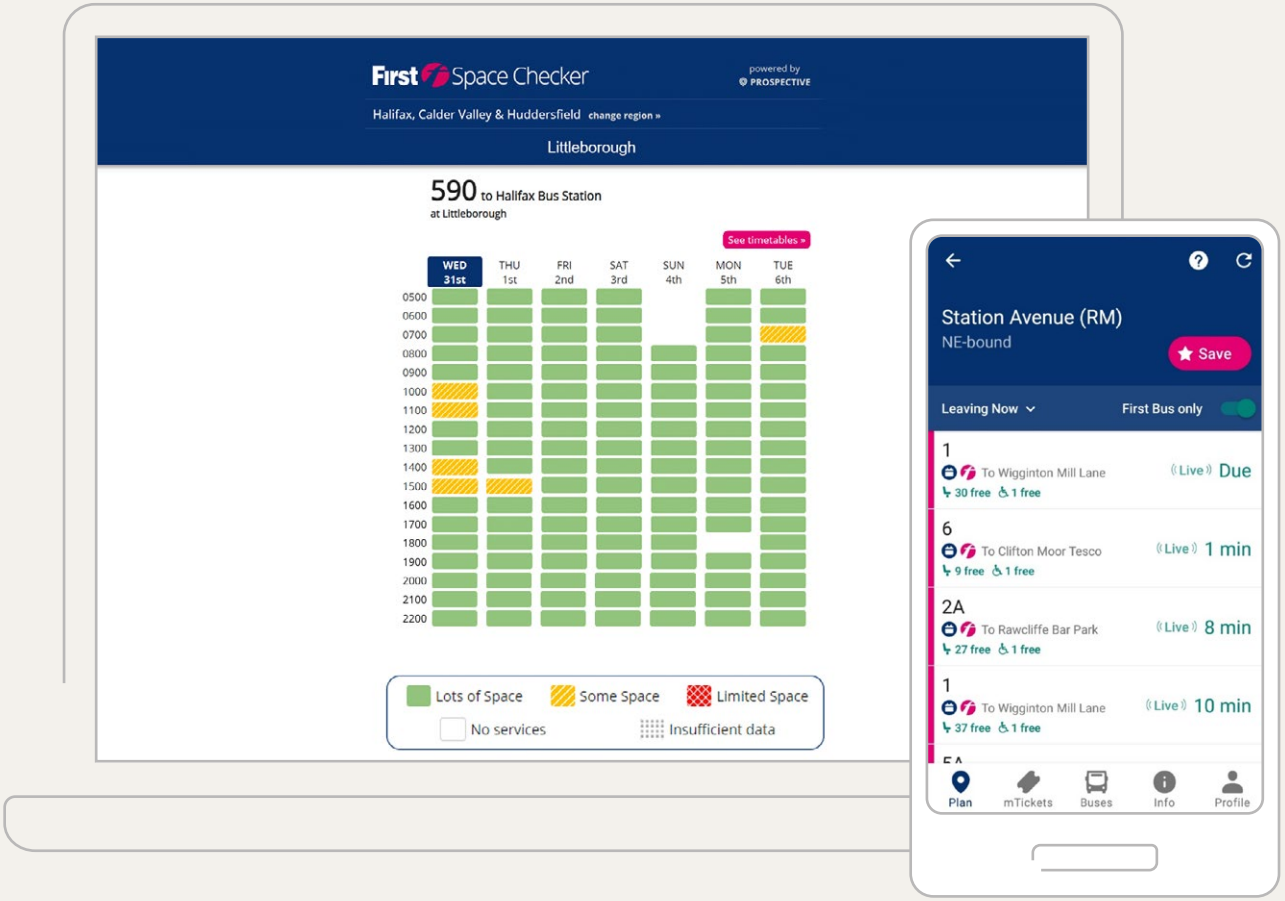
> "Clear, visual and with hashing as well as colours to allow for colour vision issues."

> "I liked that the icons had different shapes and colours to represent different levels of occupancy, and it's clear what they mean."

First Bus

First Bus uses ticket machine data to display live capacity in its app. This is based on drivers counting passengers on and off the bus and allows an indication of the number of (socially distanced) seats available as well as whether the wheelchair space is occupied.

In some cases, this data has also been provided to local authorities and displayed on bus stop screens. First has also created a 'Space Checker' tool on its website which allows passengers planning in advance to find buses that are likely to be quiet.



User-friendly interface

Passengers want to access the information they are looking for quickly and easily.

They want the ability to check and compare journeys without having to sift through lots of information. Passengers find simple, visual summaries intuitive and helpful. Information should be made as easy to understand and user friendly as possible.

"I liked the occupancy diagrams because they are easy to read at a glance. I also like that the user interface was simple and clear."

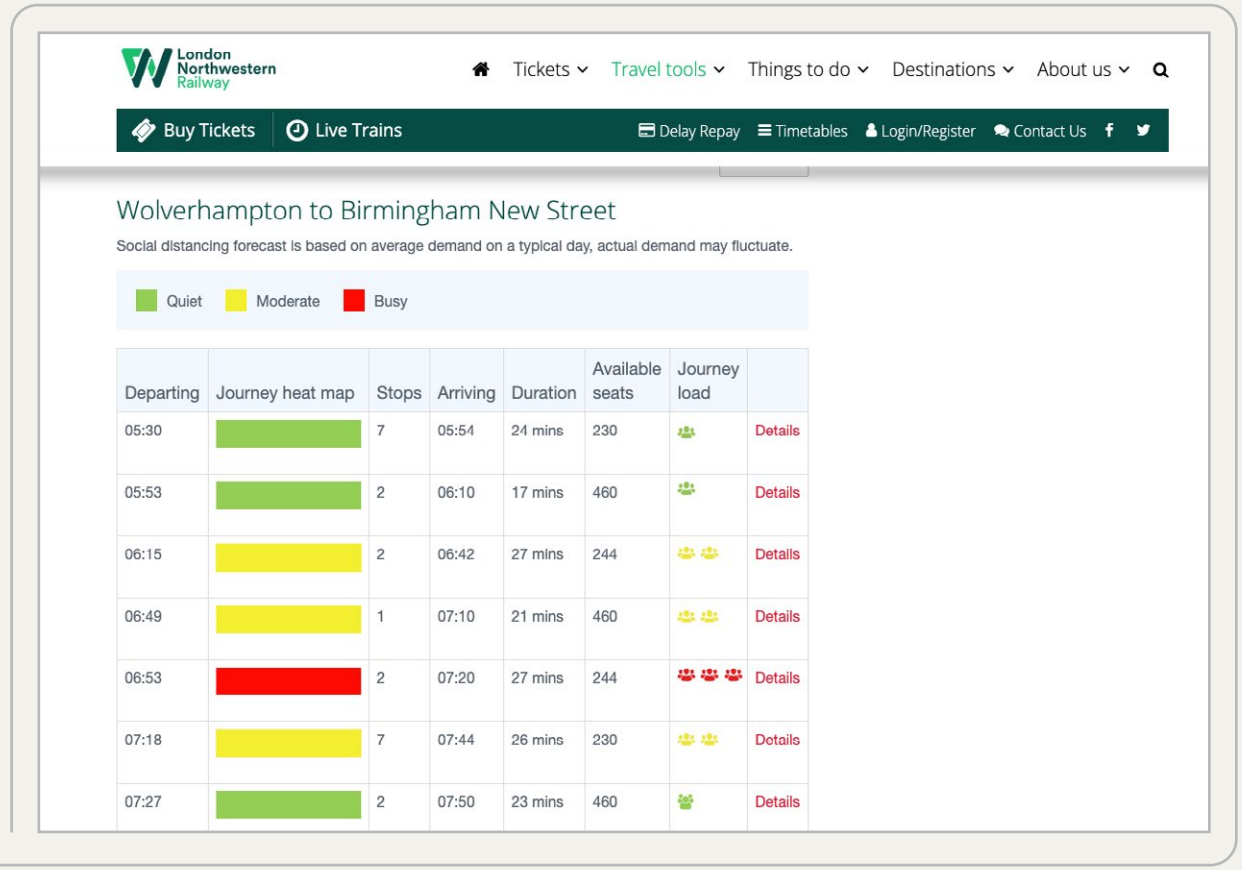
"Very wordy, too much to read."

"Too much information. Too much to assimilate/interpret. Needs simplifying."

London Northwestern Railway and West Midlands Railway

The 'How busy is my train' tool allows passengers to search by origin, destination and day of the week. It shows how busy individual services will typically be. Not all of its trains have automatic passenger counting technology, so passengers are counted by conductors and other staff using an app to enter the data.

The tool can show how space on board the train may change at intermediate stops. Social media is also used to let passengers know about any social distancing 'pinch points' on board or at stations.



Departing	Journey heat map	Stops	Arriving	Duration	Available seats	Journey load	
05:30		7	05:54	24 mins	230		Details
05:53		2	06:10	17 mins	460		Details
06:15		2	06:42	27 mins	244		Details
06:49		1	07:10	21 mins	460		Details
06:53		2	07:20	27 mins	244		Details
07:18		7	07:44	26 mins	230		Details
07:27		2	07:50	23 mins	460		Details

My journey

Passengers want information for their journey not 'high-level' or generic information that may or may not apply to them.

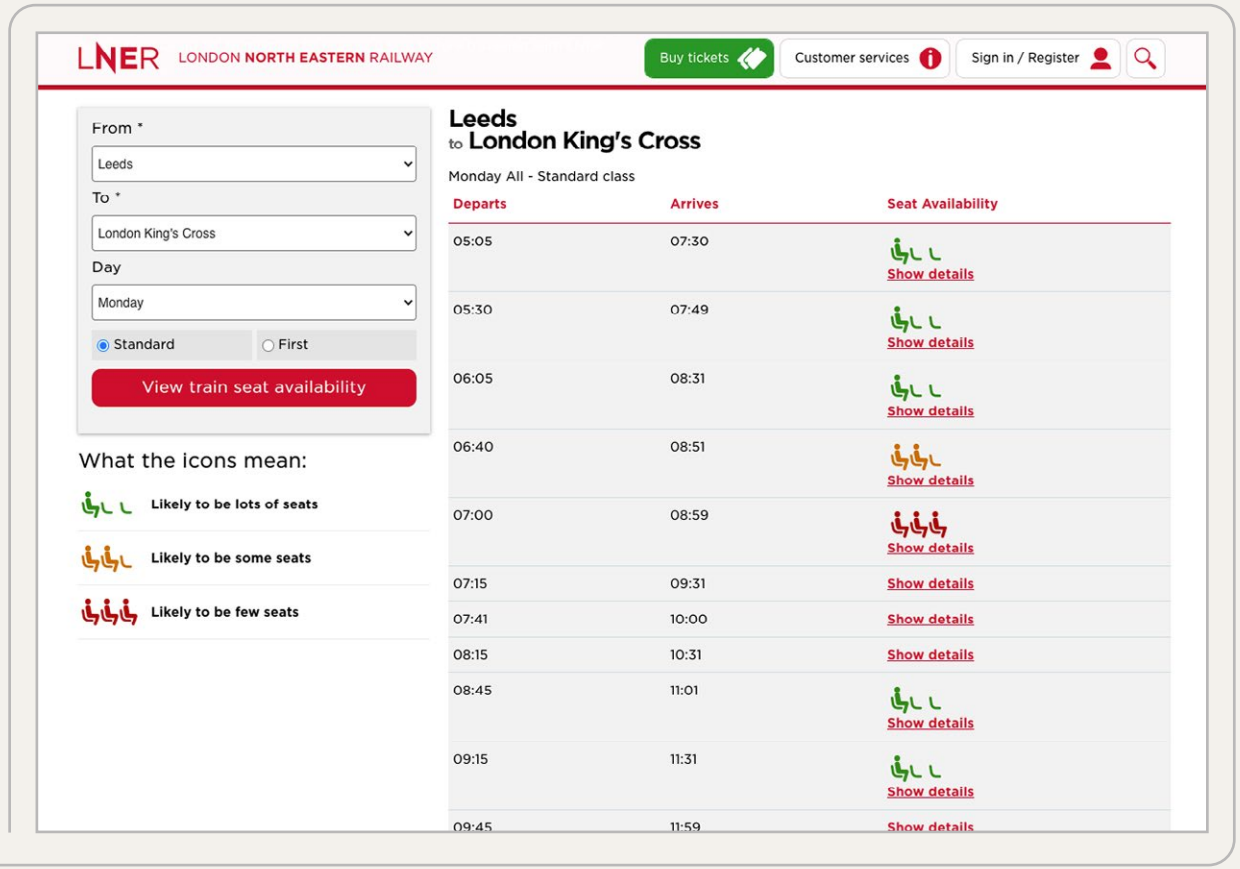
The ability to see how busy a service is on a particular day better enables passengers to plan ahead. For most services, the level of crowding changes throughout the journey. For example, a service may get very busy between the last three stops but have plenty of space for those alighting beforehand.

"The day-of-week selector gives a choice of weekday, Saturday or Sunday. There ought to be seven days to choose from, Monday to Sunday. In my experience Fridays are busier than other weekdays."

"Too much information to be of use as would get bored working out which train to avoid especially if not using one of the main stations quoted but some intermediate point."

LNER

LNER provides lots of detailed information. Passengers can see how space on board changes depending on the day, class of travel and between each stop. LNER currently provides a 'reservation only' service, which makes this information much easier to obtain. The icon graphics are also clear as they provide more than one visual cue.



Multi-leg journeys

One limitation of the information currently available is that it generally works best for a direct journey.

If a journey has multiple legs, you must check each leg individually, even if it is with the same operator. Having to check each leg separately, especially when this involves more than one website, could discourage passengers from using these tools.

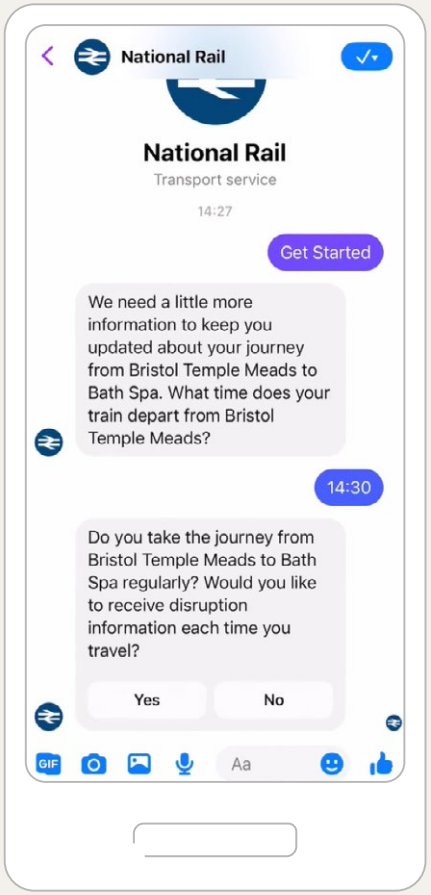
"I like the fact that a specific journey can be entered, although it only shows direct trains, not journeys for where there needs to be a change of train en-route."

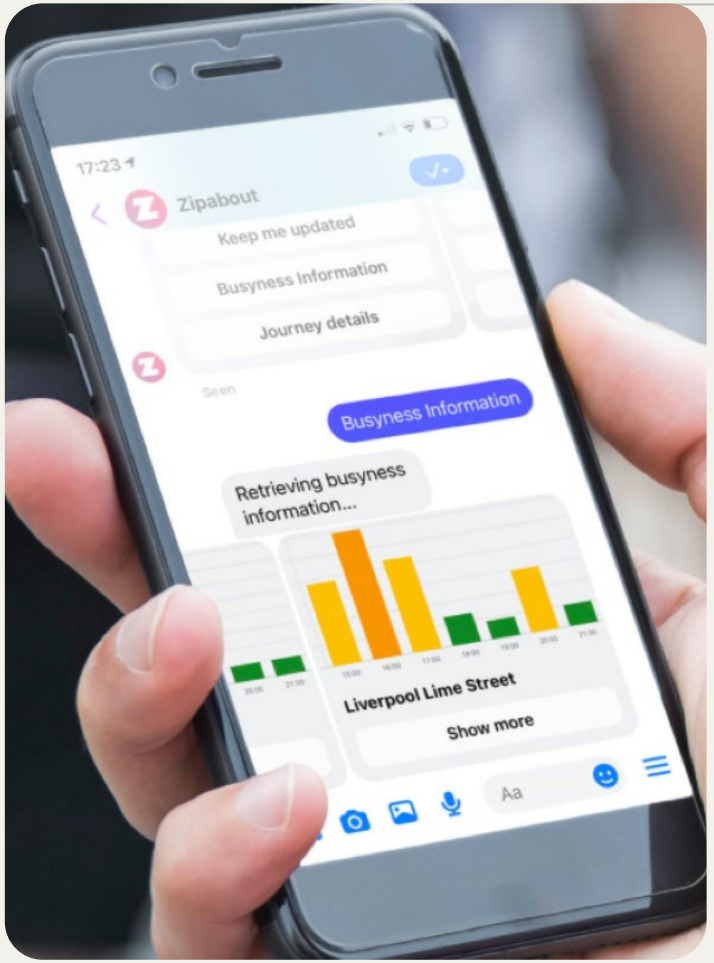
"The weakness here and no doubt with other websites is that they only show their trains. When I use LNER it is typically part of a longer journey with other operators also being used. To have to use multiple websites to check individual segments becomes tedious. Information that was displayed was readable."

National Rail personalised messages

National Rail's alerts provide passengers with personalised messages about disruption to services they intend to travel on. In addition to warning when services are cancelled or delayed, they now also provide predictions about how busy a service is expected to be.

We recently tested this concept with our *Transport User Community* and it was unanimously well received. It was seen as very simple and easy to use. A key benefit of the service was its perceived ability to reduce crowding by allowing passengers to adjust their plans in response to disruption.





Challenges

We met over 20 bus and train operators to discuss how they were providing information about space on board, learn about best practice and understand any challenges. The main challenges were:

Technology

One of the key challenges for many operators is overcoming technological barriers.

Bus operators are using a variety of methods for calculating the number of passengers on board. Some have ticketing systems that track boarding, while others use the driver to count passengers manually. Other approaches include CCTV, lasers and crowdsourcing. One of the biggest concerns is accuracy. Drivers have several other duties, and counting can be difficult as services get busier.

Trains vary between operators, and some do not have the technology others do, such as automatic passenger counting equipment. Despite this, some operators are making great efforts to obtain crowding information, such as staff reporting during the journey and counting passengers at key stations. This may not be practical in the long term as passenger numbers rise.

Cost

Some operators raised concerns about the cost involved in capturing robust data on space on board and then creating tools to provide this information to passengers. Uncertainty about future funding was a particular concern for bus operators.

Fear of discouraging passengers

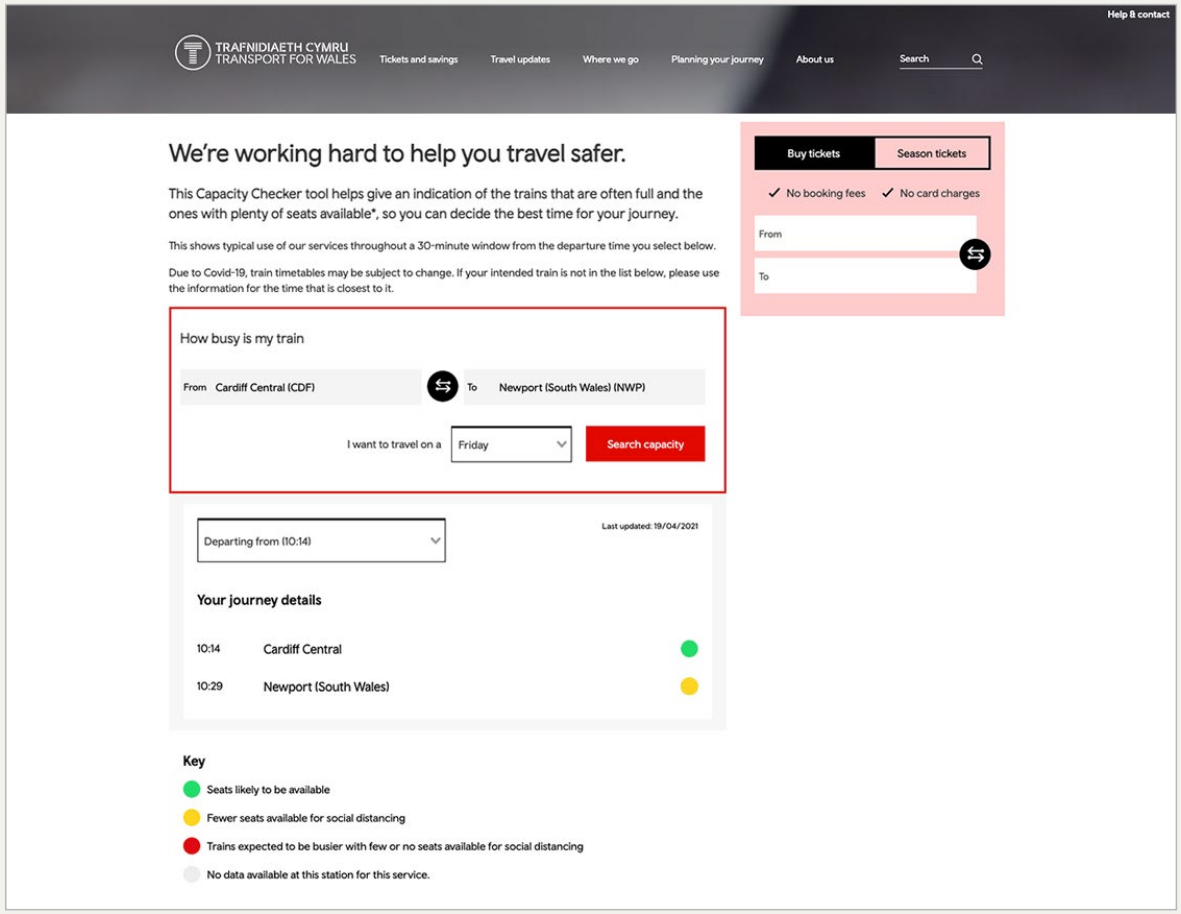
Some operators raised concerns that information about how busy a bus or train service is could deter travel. However, we know that passengers find this information useful and that it can provide reassurance before travelling.

Concerns from operators cannot simply be dismissed, but our insight from passengers and the efforts of many operators prove that they can be overcome.

Transport for Wales Rail

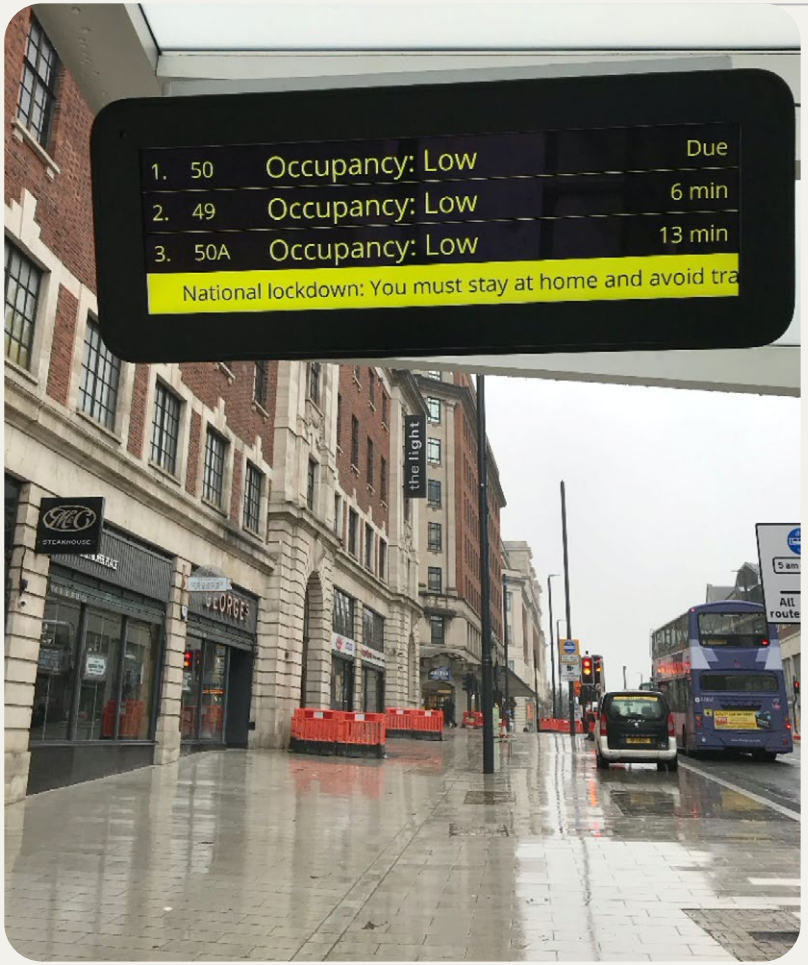
The capacity checker tool allows you to search according to origin, destination, and day of the week. The data has been provided by staff passenger counts, but is now supplemented by analysis using train and station Wi-Fi to estimate the number of passengers on board.

The website explains the data is not 'live', but is designed to give an indication of how much space there will be on board.



West Yorkshire Combined Authority

WYCA has worked with its partner operators in the West Yorkshire Bus Alliance to upgrade hundreds of real-time displays at bus stops to allow passengers to see how busy their bus is. Data is collected from each operator and displayed as one, two or three seat icons. WYCA started developing the capability over the summer and it was fully launched in November 2020.



Recommendations

Our passenger research, discussions with operators, and best practice examples have informed four main recommendations.

Transport Focus's recommendations to help passengers make informed decisions, provide reassurance and rebuild confidence:

1. Accelerate efforts to provide information about space on board services where it is not already available.

a) Not all operators currently provide detailed information about space on board. Every operator should strive to provide the most relevant and reliable information it can to help passengers make informed choices.

2. Ensure information about space on board is as accurate and reliable as possible and is promoted to encourage usage.

a) As services get busier in the coming weeks and months, information should be updated and refined frequently, to ensure it is as accurate and reliable as possible and can be trusted by passengers.

b) Our insight shows information about busy services and many existing information tools are valued by passengers. As people return to travel operators should work to raise awareness among current and lapsed passengers.

3. Learn from best practice to ensure the information about space on board is easy to understand, transparent, trusted and accessible.

a) Many passengers want information about how much space on board there will be in future – to help them plan journeys – and 'live' information about how much space there is 'right now'. Both can play a role in reassuring passengers. The most appropriate type of information will vary. What works for a long-distance rail service may not work for a high-frequency cross-city bus service.

Information should be presented transparently so passengers can understand and trust it. It should be clear what type of information is being provided, how often it is updated and how reliable it is.

b) Passengers find simple, visual summaries intuitive and helpful. Information should be made as easy to understand and user friendly as possible. Information must be accessible and alternatives signposted for passengers who need them.

4. Provide information about space on board in journey planners to ensure information is easy to find.

a) Information about space on board is now a key requirement for many passengers and should be made as easy to access as possible. Operators should make it available in journey planners on their website, app and other places like National Rail Enquiries and Traveline.

b) As more passengers return to travel many will learn when services are busy and when there is more space on board. Operators should continue to improve information by offering greater personalisation, including proactive alerts to passengers if their services are disrupted or likely to be busier than normal.

Appendix

Information provided by selected rail and bus operators on websites or apps

		Information for individual services	Type of information	
			Historic	Live
Rail	Avanti West Coast		✓	
	c2c	✓	✓	
	Chiltern Railways	✓	✓	
	CrossCountry		✓	
	East Midlands Railway	✓	✓	
	Great Western Railway	✓	✓	
	Greater Anglia	✓	✓	
	GTR (Thameslink, Southern & Great Northern)	✓	✓	
	LNER	✓	✓	
	London Northwestern Railway / West Midlands Railway	✓	✓	
	Merseyrail			
	Northern			
	ScotRail	✓	✓	
	South Western Railway	✓	✓	
	Southeastern	✓	✓	
	TransPennine Express	✓		✓
	Transport for Wales Rail	✓	✓	
Bus	Arriva		✓	
	First Group	✓	✓	✓
	Go Ahead	✓	✓	✓
	National Express	✓	✓	
	Stagecoach	✓	✓	

Contact Transport Focus

Any enquiries about this report should be addressed to:
Jordan Sargeant
Senior policy advisor
Jordan.sargeant@transportfocus.org.uk

Transport Focus
Albany House
86 Petty France
London
SW1H 9EA
www.transportfocus.org.uk

Transport Focus is the operating name of the Passengers' Council

Transport Focus is the independent consumer organisation representing the interests of:

- bus, coach and tram users across England outside London
- rail passengers in Great Britain
- all users of England's motorways and major 'A' roads (the Strategic Road Network).

We work to make a difference for all transport users.

© 2021 Transport Focus
Design by WillBaxter.com

transportfocus