Passenger rail usage

January to March 2023

8 June 2023

Background:

In the latest quarterly statistical release contains information on passenger rail usage in Great Britain. It covers **passenger journeys**, **passenger kilometres**, **passenger revenue**, **passenger train kilometres**, and **passenger vehicle kilometres**.

Statistics are presented by **ticket type**, **sector** and **train operator**.

Sources: LENNON ticketing and revenue system, train operators and Network Rail.

To account for **inflation**, historic quarterly revenue data have been adjusted to January to March 2023 prices using the Consumer Prices Index.

Latest quarter: 1 January to 31 March 2023

Contents:

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TBC

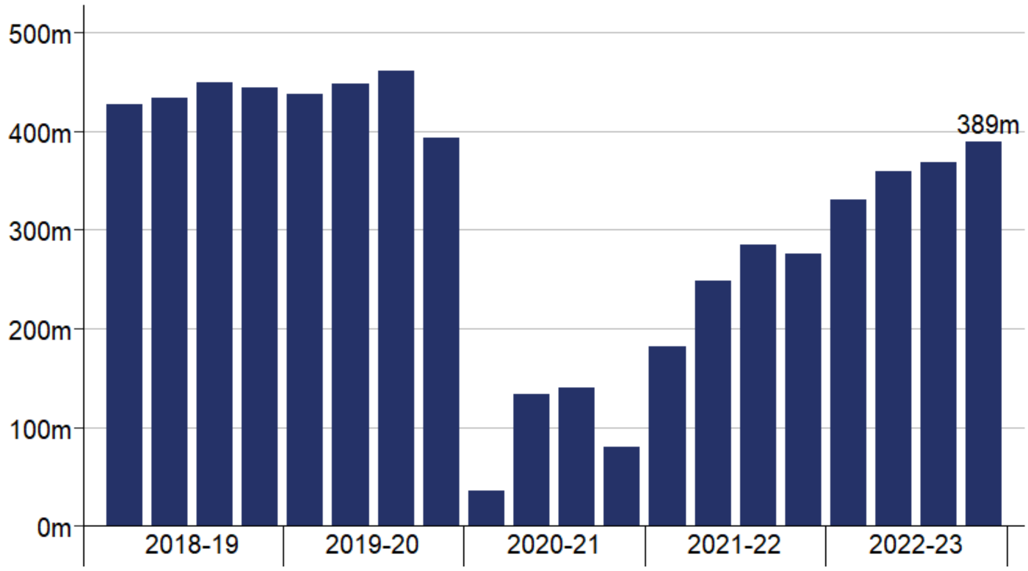
A provisional estimate of **389 million journeys** were made in Great Britain in the **latest quarter** (1 January to 31 March 2023). This is 88% of the 443 million journeys in the same quarter four years ago (pre-pandemic). Strike action affected large parts of the network during the latest quarter, see page 3 for details.

There were provisionally **1.4 billion journeys** made in the **latest year** (1 April 2022 and 31 March 2023). This is 83% of the 1.7 billion journeys made three years ago (1 April 2019 to 31 March 2020).

Please note that these journey totals are provisional due to a technical issue in LENNON (the data source) resulting in overestimates of journey numbers. See page 2 for more information.

Figure 1 Passenger journeys have increased in seven of the last eight quarters

Passenger journeys, Great Britain, quarterly data, April 2018 to March 2023 (provisional)



Total **passenger revenue** was **£2.2 billion** in the **latest quarter**. This is 70% of the £3.2 billion four years ago (when adjusted for inflation). In the **latest year** it was **£8.6 billion**. This equates to 72% of the £12.0 billion three years ago (when adjusted for inflation).

All data tables, a quality and methodology report and an interactive dashboard associated with this release are published on the passenger rail usage page of the data portal. Key definitions are in annex 1.

Context for these statistics

Recovery from the coronavirus (COVID-19) pandemic

In the final quarter (January to March) of the financial year, this quarterly publication discusses both quarterly and annual trends. The data for both can be found in the data tables on the data portal. The annual statistics presented in this release are compared to the same period **three years ago** (April 2019 to March 2020) while the quarterly data are compared to the same period **four years ago** (January to March 2019). This comparison is to provide an assessment of the level of rail usage relative to that before the pandemic started.

Elizabeth line

Since services on the core section of the Elizabeth line started running in May 2022, there has been a significant uplift in journeys counted in the LENNON database. Before May 2022, Elizabeth line services were operated under ‘TfL Rail’ branding, which ran between Paddington and Reading or Heathrow Airport, and between Liverpool Street and Shenfield. These journeys were direct replacements for previous National Rail services and were counted in LENNON. Following the opening of the core section, when Crossrail services began operating under ‘Elizabeth line’ branding, these journeys started being recorded in LENNON, replacing some journeys that would have been taken on other modes that are not recorded in LENNON, such as London Underground and Docklands Light Railway (DLR).

To illustrate the impact on historic comparability, national passenger journeys in the **latest financial year** (April 2022 to March 2023) were 83% of three years ago (pre-pandemic), however if the Elizabeth line is excluded from the comparison this reduces to 74%. Provisional analysis indicates that the impact of the Elizabeth line on overall journey recovery has increased during the year. For example, in the **latest quarter** (January to March 2023) national passenger journeys were 88% of the same quarter four years ago, however if the Elizabeth line is excluded from the comparison this reduces to 73%.

Elizabeth line and overestimate of journeys and kilometres

A technical issue in LENNON (see Annex for more information) has resulted in overestimates for Elizabeth line passenger journeys and passenger kilometres (revenue data is not affected). From initial analysis using data provided by TfL (which is unaffected), the impact of the issue has worsened over the year as more services were introduced on the Elizabeth line with an overestimate of up to 25% for the first half of the year and up to 60% for the second half. This consequently overestimates national usage by up to 4% for the whole year.

Therefore, passenger journey and passenger kilometre data for the Elizabeth line, the London and South East sector and nationally is shown as provisional and should be treated with caution. The LENNON issue also affects some other operators in the London and South East sector but the impact is minimal. We are working with RDG and TfL to adjust the data from LENNON to more accurately reflect the actual number of journeys and kilometres made and hope to make appropriate revisions to historic estimates when the next set of statistics are published.

Strike action

In the latest quarter, nine national strike action days took place. During the year there were 29 days in total, beginning on 21 June 2022. Reduced timetables were put in place on the strike days and for some of the days in between and after the strike days. A reduced timetable means fewer trains were planned. The estimated reduction in trains planned on strike days ranged from -32% to -81%.

The strike action dates and estimates of the reduction in trains planned on each of the strike days are shown in Passenger rail performance statistical release.

Split ticketing

As the number of passenger journeys are primarily based on ticket sales, there are a number of limitations that users should be aware of, see Annex 1 of this statistical release and the associated Quality and Methodology report for more information. In particular, some train operators' journeys may be overestimated due to the impact of passengers buying 'split tickets' (this is where a passenger completes a single journey using two or more tickets). Rail Delivery Group (RDG) estimate that overall, split tickets accounted for around 5% of passenger journeys between April 2022 and March 2023 (it was around 3% in the previous year). We are working with RDG to improve our published estimates of passenger journeys by incorporating an adjustment for split ticketing more accurately reflect the actual number of journeys made.

Split ticketing has become more prevalent in recent years, therefore the extent to which it affects rail usage statistics has increased. It may be that the recovery of journeys relative to before the pandemic is overstated. Split ticketing will mean that the average revenue per ticket is lower, as the passenger uses multiple cheaper tickets to complete a journey instead of a single more expensive ticket. Passenger kilometres are not affected by trends in split ticketing.

1. Passenger journeys

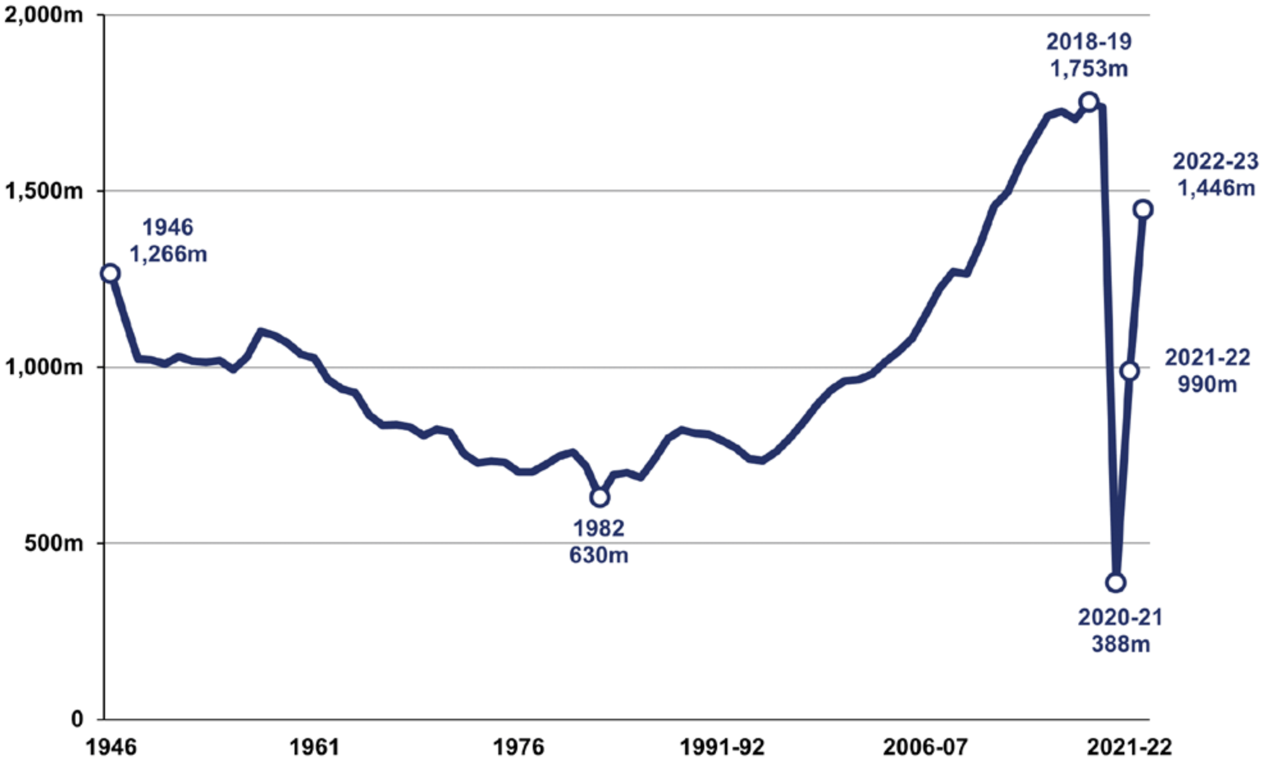
Passenger journeys in Great Britain

April 2022 to March 2023 annual

There were provisionally 1.4 billion journeys made in Great Britain in the latest year. This is 83% of the 1.7 billion journeys made three years ago (pre-pandemic) – see information on page 2 for context of impact of Elizabeth line. Excluding the previous two years, the 1.4 billion journeys made in the latest year were the lowest number recorded since April 2010 to March 2011 when 1.4 billion journeys were made. However, the journeys made in the latest year represent a large increase from those made over the previous two years.

Figure 1.1 The year April 2018 to March 2019 recorded the peak number of journeys

Rail passenger journeys, Great Britain, annual data, 1 January 1946 to 31 March 2023 (provisional) (Table 1220)



Passenger journeys by sector and operator

January to March 2023 quarter

A provisional estimate of 389 million journeys were made in Great Britain in the latest quarter (1 January to 31 March 2023). This is 88% of the 443 million journeys in the same quarter four years ago (pre-pandemic) – see information on page 2 for context of impact of Elizabeth line.

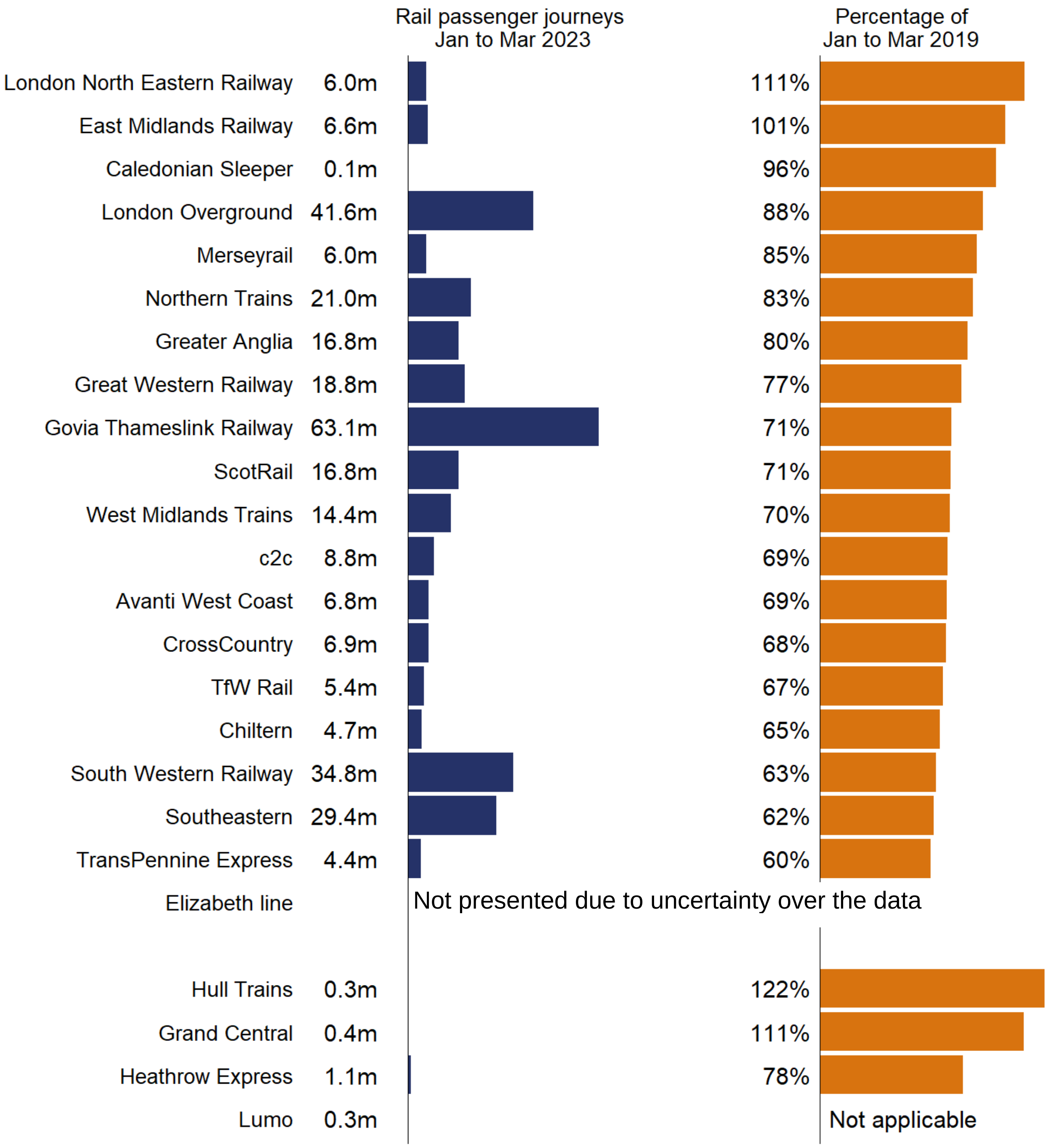
The London and South East sector provisionally recorded 283 million journeys in the latest quarter. This gives a relative usage of 92% of the 309 million journeys in the same quarter four years ago.

The Long Distance sector recorded 30 million journeys in the latest quarter, giving it a relative usage of 85% compared with the 36 million recorded in the same quarter four years ago. The Regional sector recorded 73 million journeys, which is 76% of the 97 million journeys recorded four years ago.

London North Eastern Railway, East Midlands Railway, Hull trains and Grand Central all recorded relatively more journeys than before the pandemic. At 60%, TransPennine Express was the operator with the lowest relative usage.

Figure 1.2 Relative usage was lower for all but four operators compared with four years ago

Passenger journeys by operator, January to March 2023, and as a percentage of January to March 2019 (Table 1223)



April 2022 to March 2023 annual

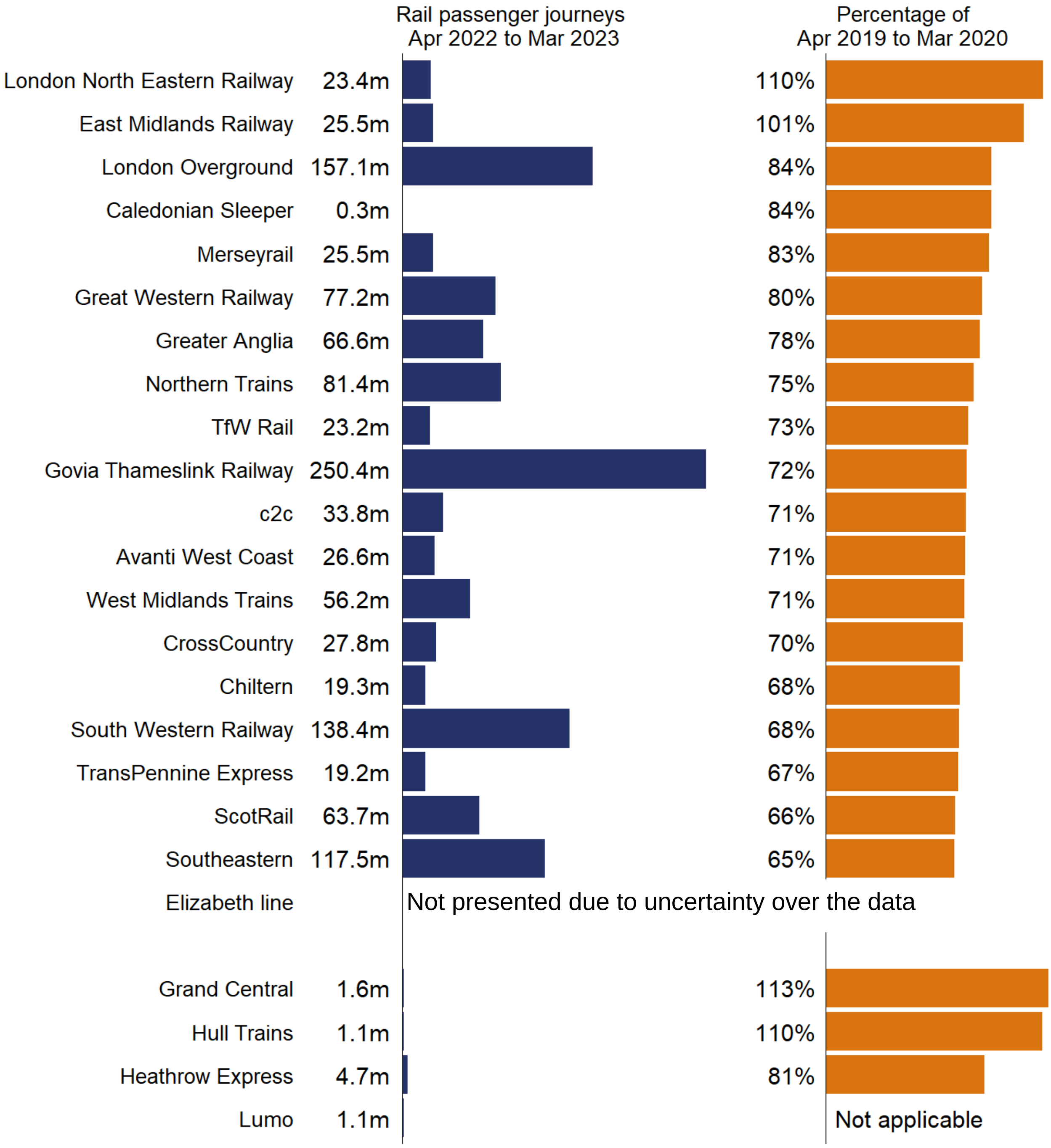
The London and South East sector provisionally recorded 1.0 billion journeys in the latest year. This gives a relative usage of 86% of the 1.2 billion journeys three years ago.

The Long Distance sector recorded 119 million journeys in the latest year, giving it a relative usage of 86% compared to the 139 million recorded three years ago. The Regional sector recorded 292 million journeys, which is 74% of the 395 million journeys recorded three years ago.

Four operators recorded relatively more journeys than before the pandemic, with Grand Central having the highest relative usage at 113%. At 65%, Southeastern was the operator with the lowest relative annual passenger journeys compared with three years ago.

Figure 1.3 Relative usage compared with three years ago ranged from 113% for Grand Central to 65% for Southeastern

Passenger journeys by operator, April 2022 to March 2023, and as a percentage of April 2019 to March 2020 (Table 1223).



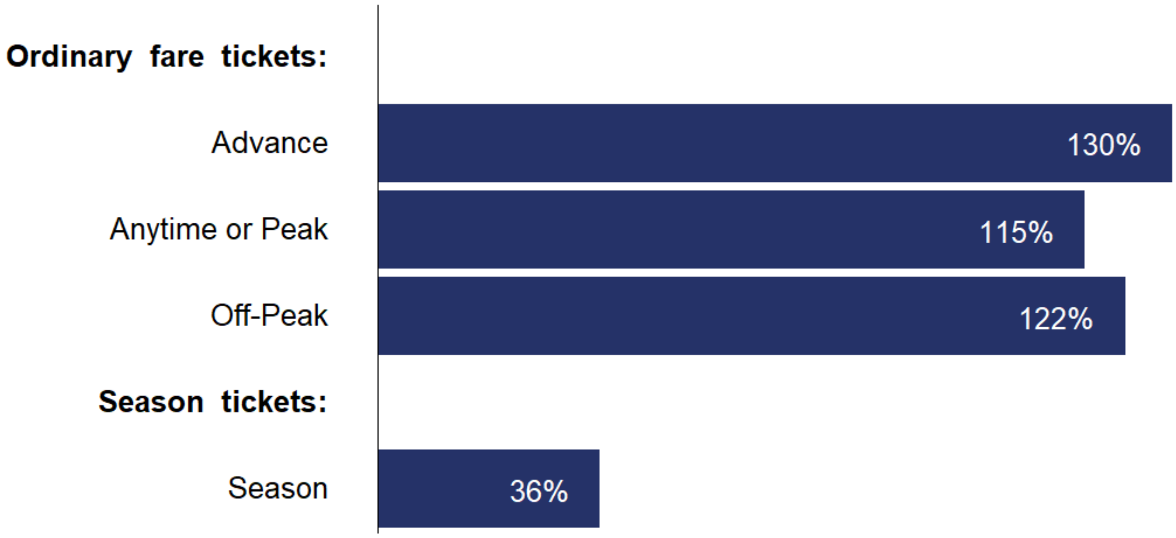
Franchised passenger journeys by ticket type

January to March 2023 quarter

There were 62 million franchised[1] passenger journeys made using Season tickets in the latest quarter. This is equivalent to around a third (36%) of the 170 million journeys made four years ago, between January and March 2019. By contrast, Advance, Anytime or Peak and Off-Peak tickets have all seen an increase in relative usage compared to the same quarter four years ago. Changing commuting patterns will have contributed to the difference in journeys by ticket type. Commuters switching to daily tickets will have aided the recovery of journeys made using ordinary fare tickets.

Figure 1.4 Relative usage was greatest for Advance ticket journeys

Passenger journeys by ticket type, January to March 2023 as a percentage of journeys between January to March 2019 (Table 1222)



Total ordinary tickets and other ticket types are excluded, as these include refunds and other miscellaneous tickets and can lead to negative values.

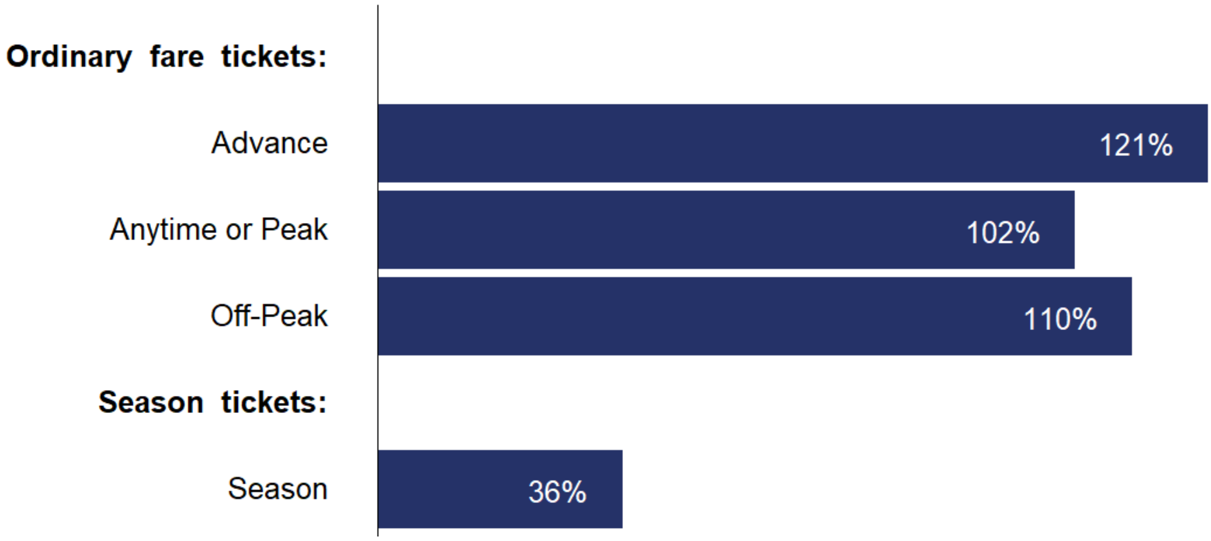
[1] Franchised operators run services as part of contracts awarded by government (although no longer franchises we have retained this term for referring to these operators for consistency and until a new term is adopted across the industry).

April 2022 to March 2023 annual

In the latest year there were 210 million franchised passenger journeys made using Season tickets. This is equivalent to around a third (36%) of the 588 million journeys made three years ago. By contrast, there was a total of 1.2 billion journeys made using ordinary fare tickets, with a relative usage of 107% compared with the 1.1 billion journeys recorded three years ago.

Figure 1.5 Relative usage was greatest for Advance ticket journeys

Franchised passenger journeys by ticket type, April 2022 to March 2023 as a percentage of journeys in April 2019 to March 2020 (Table 1222)



Total ordinary tickets and other ticket types are excluded, as these include refunds and other miscellaneous tickets and can lead to negative values.

Table 1.1 Season tickets accounted for 15% of franchised journeys made in the latest year

Share of franchised passenger journeys made between 1 April and 31 March using ordinary and Season tickets, 2019 to 2023 (Table 1222)

Ticket Type	April 2019 to March 2020	April 2020 to March 2021	April 2021 to March 2022	April 2022 to March 2023
Ordinary	66%	76%	83%	85%
Season	34%	24%	17%	15%

2. Passenger kilometres

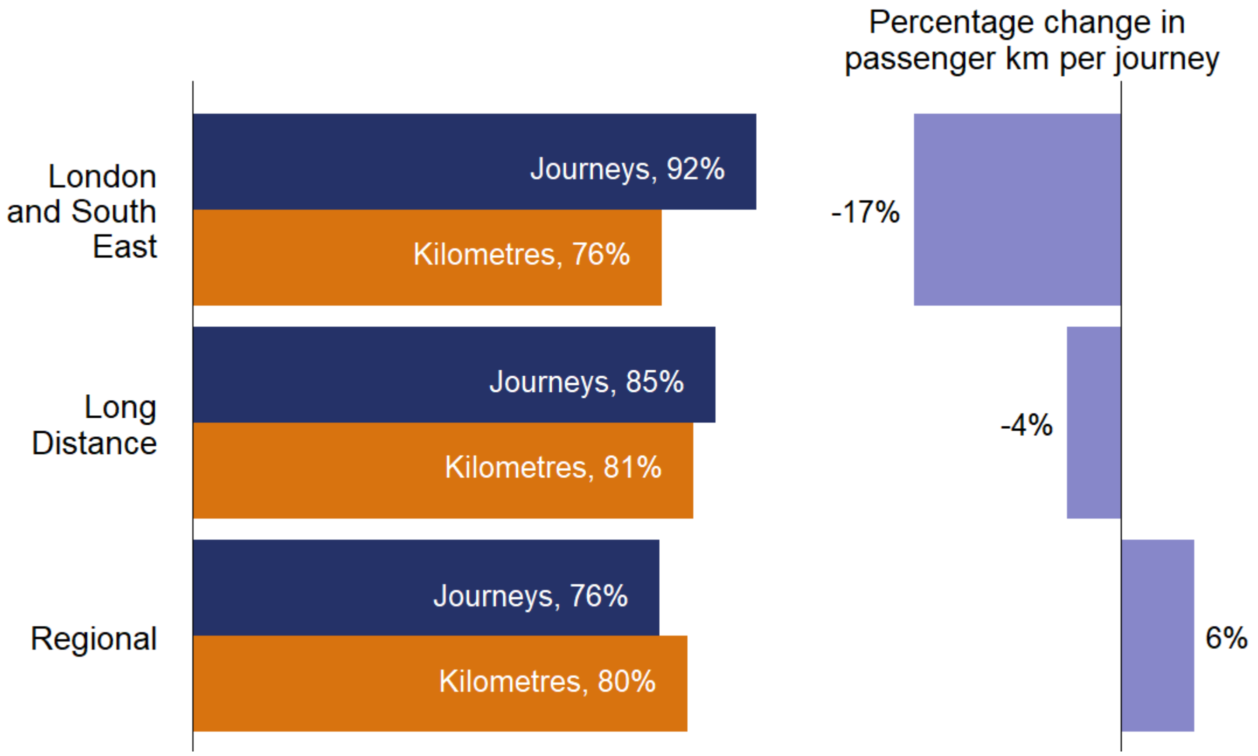
Passenger kilometres by sector and operator

January to March 2023 quarter

There were provisionally 13.4 billion passenger kilometres recorded in Great Britain in the latest quarter. This equates to 80% of the 16.7 billion kilometres in the same quarter four years ago. The average distance travelled per journey was 34.4 kilometres, a 9% decrease from the 37.7 kilometres four years ago.

Figure 2.1 Average journey lengths in the London and South East and Long Distance sectors were shorter compared with four years ago

Franchised passenger journeys and kilometres by sector, January to March 2023 as a percentage of January to March 2019, and percentage change in passenger kilometres per journey (provisional) (Tables 1221 and 1231)



The London and South East sector provisionally recorded 5.9 billion passenger kilometres in the latest quarter, which equates to 76% of the 7.7 billion kilometres recorded four years ago. The Long Distance sector had 4.5 billion kilometres in the latest quarter (81% of the 5.6 billion four years ago). The Regional sector recorded 2.6 billion passenger kilometres (80% of the 3.2 billion kilometres four years ago).

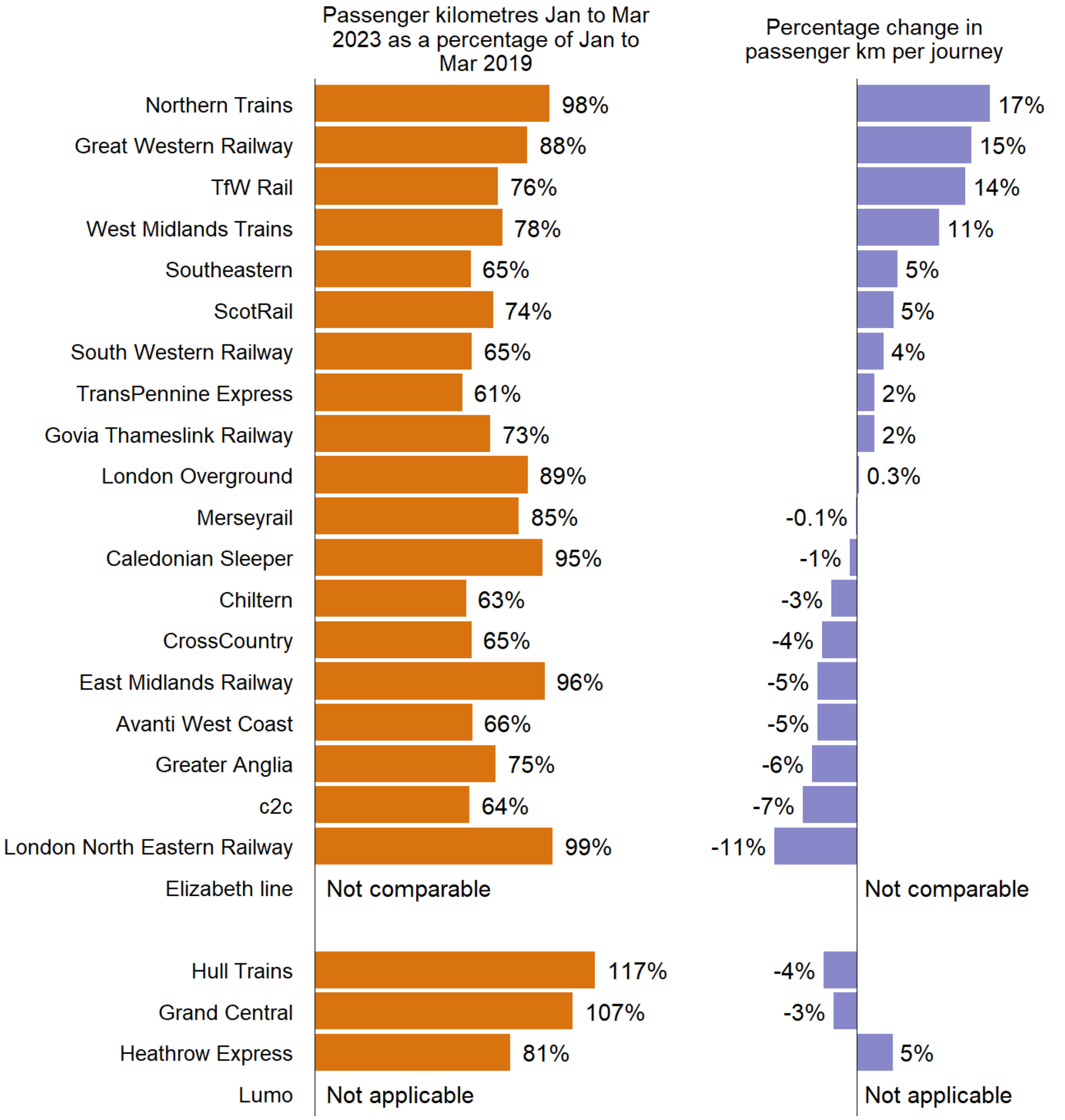
In the London and South East sector there were relatively more passenger journeys (92% of four years ago) than kilometres (76%) in the latest quarter. Consequently, passenger kilometres per journey in the sector fell by 17%. The Long Distance sector (down 4%) also recorded shorter journeys, while the Regional sector (up 6%) recorded longer average journey lengths in the latest quarter compared with four years ago.

At 99%, London North Eastern Railway recorded the highest relative passenger kilometres for franchised operators in the latest quarter compared with four years ago. However, this is 12 percentage points (pp) below their relative usage as measured by passenger journeys (see Figure 1.2 above). This may reflect in part an increase in split ticketing use with this operator. Open access operators Hull Trains and Grand Central both recorded higher relative passenger kilometres travelled than the same quarter four years ago. TransPennine Express recorded the lowest relative usage of all operators at 61% of the passenger kilometres travelled four years ago.

Eleven operators recorded relatively longer average journey lengths (kilometres per journey) in the latest quarter compared with four years ago. Northern Trains recorded the largest increase (17%). London North Eastern Railway recorded the largest reduction in journey length, with an 11% decrease compared to four years ago, however this may be in part due to the impact of split ticketing.

Figure 2.2 Average journey lengths were longer compared with four years ago for eleven operators

Passenger kilometres by operator, January to March 2023 as a percentage of January to March 2019, and percentage change in passenger kilometres per journey (Tables 1223 and 1233)



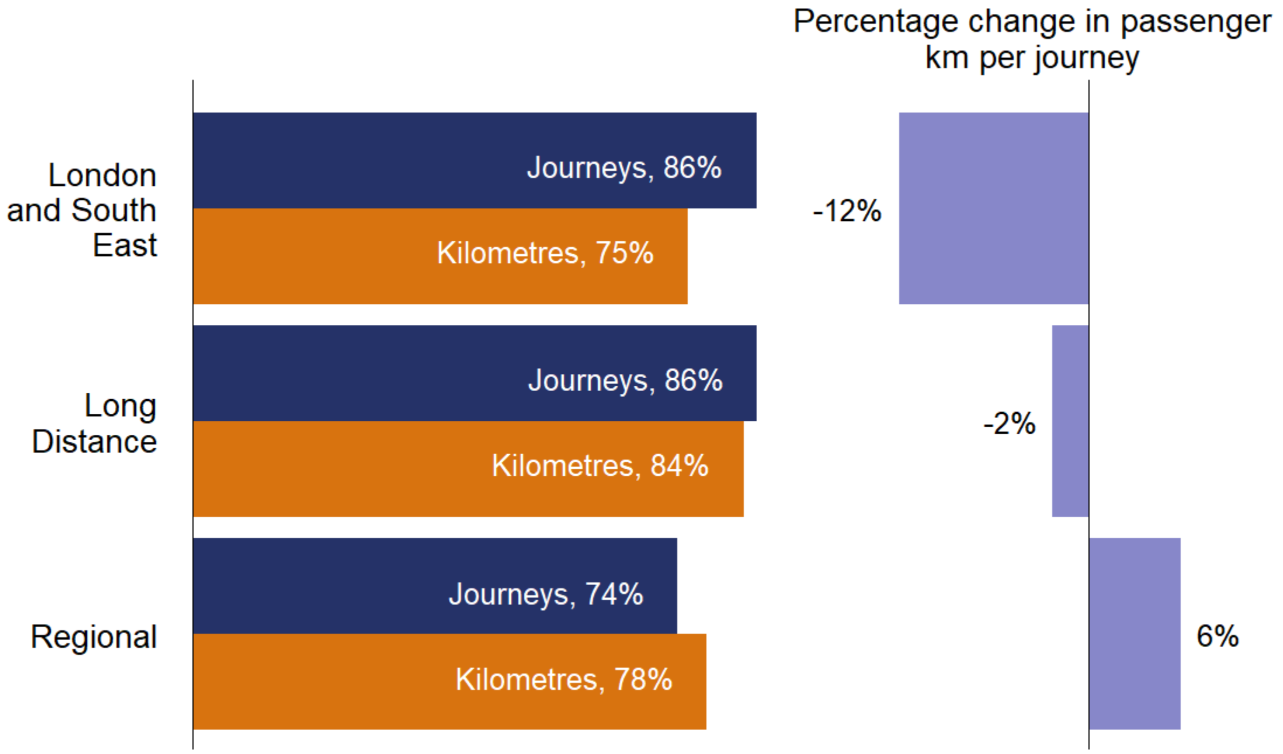
April 2022 to March 2023 annual

A provisional total of 53.3 billion passenger kilometres were recorded in Great Britain in the latest year. This equates to 80% of the 66.8 billion kilometres recorded three years ago. Passenger kilometres per journey were 36.9, a decrease from 38.4 three years ago.

The London and South East sector provisionally recorded 23.1 billion passenger kilometres in the latest year, which equates to 75% of the 30.7 billion kilometres recorded three years ago. The Long Distance sector had 18.3 billion passenger kilometres in the latest year (84% of the 21.8 billion three years ago), while the Regional sector recorded 10.6 billion passenger kilometres (78% of the 13.5 billion kilometres three years ago).

Figure 2.3 Average journey lengths in the London and South East sector were 12% shorter than three years ago

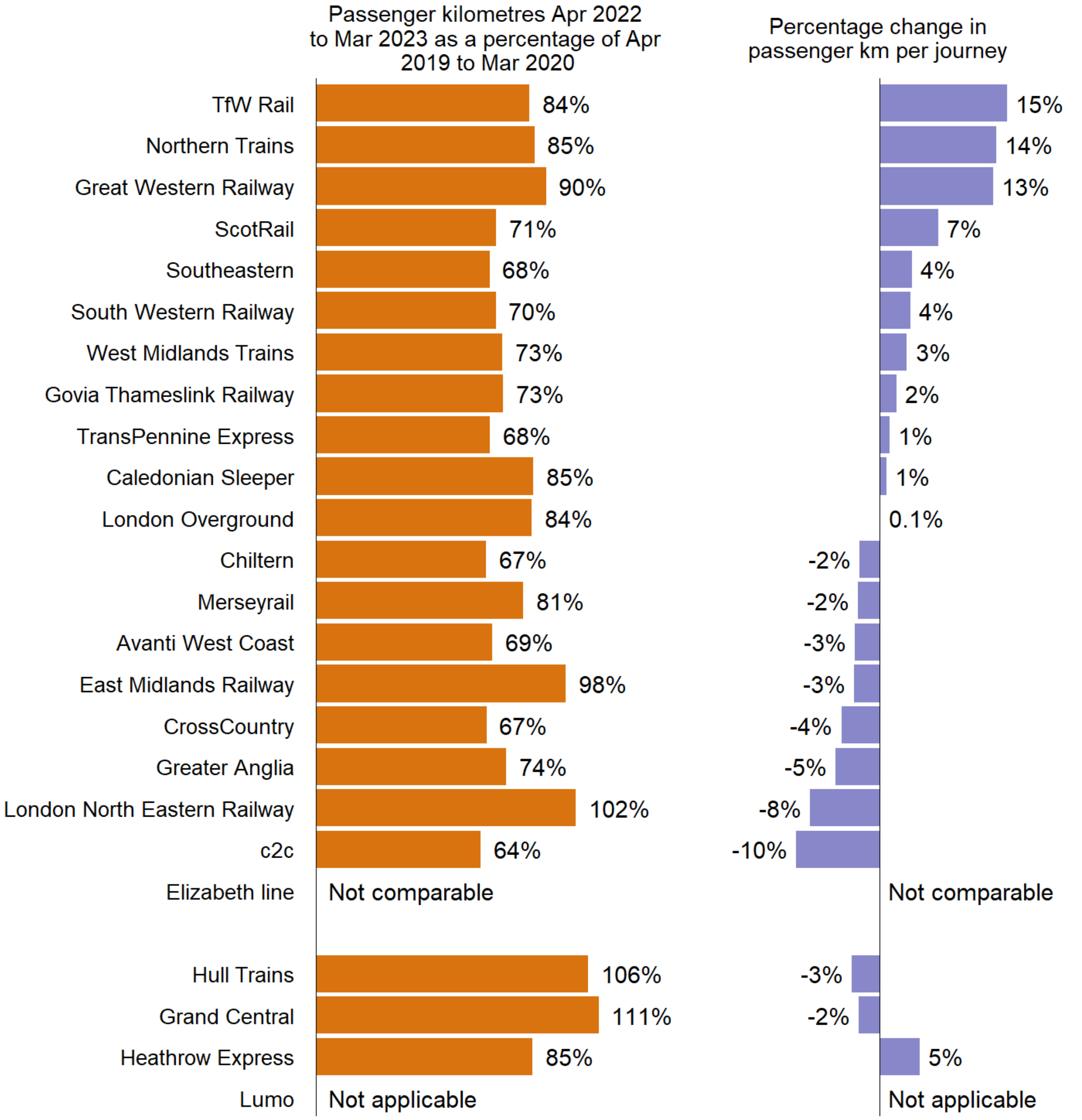
Franchised passenger journeys and kilometres by sector, April 2022 to March 2023 as a percentage of April 2019 to March 2020, and percentage change in passenger kilometres per journey (provisional) (Tables 1221 and 1231)



Twelve operators recorded a longer average journey length compared with three years ago. TfW Rail recorded the largest increase (15%). c2c recorded the largest reduction in average journey length with a 10% decrease.

Figure 2.4 Average journey lengths were longer in the latest year compared with three years ago for twelve operators

Passenger kilometres by operator, April 2022 to March 2023 as a percentage of April 2019 to March 2020, and percentage change in passenger kilometres per journey (Tables 1223 and 1233)



Passenger kilometres by ticket type

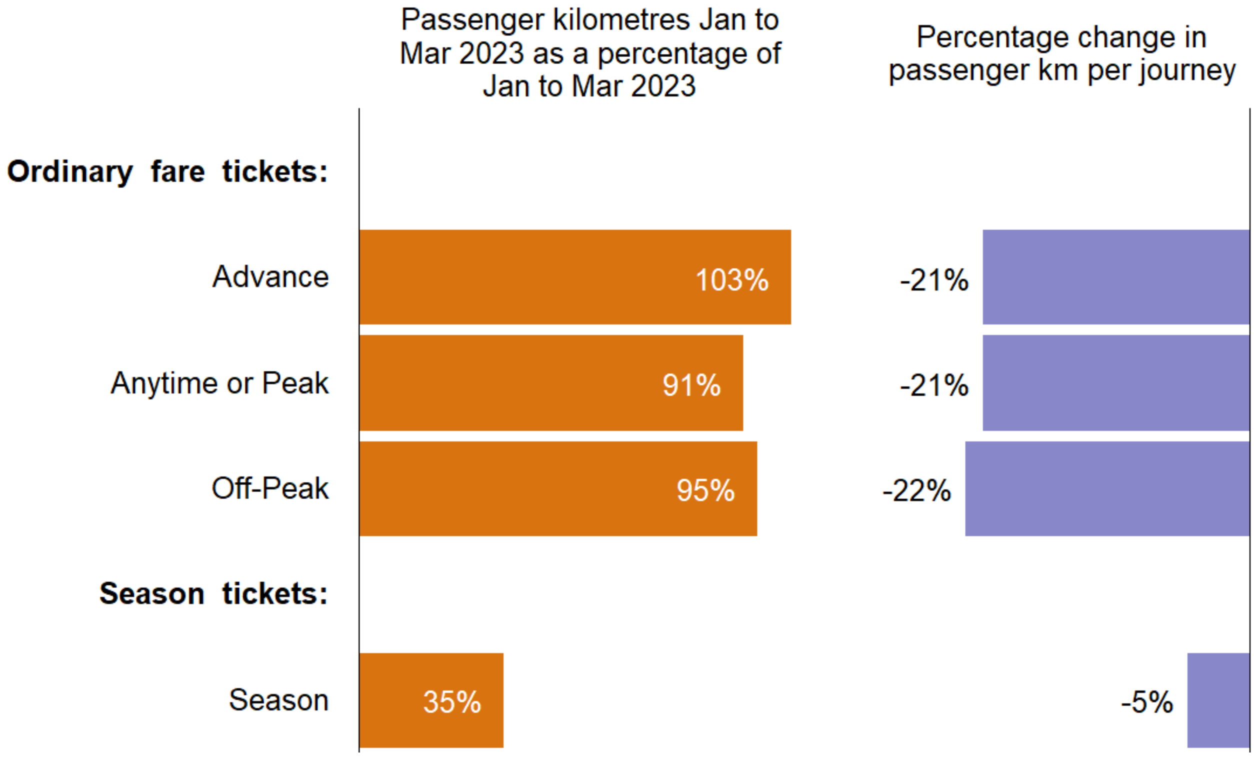
January to March 2023 quarter

Journeys made using Advance tickets (103%) recorded the highest passenger kilometres relative to four years ago. This was followed by Off-Peak tickets (95%), Anytime or Peak tickets (91%) and Season tickets (35%).

Journeys made using Off-Peak tickets recorded the largest fall in average journey length (down 22%) in the latest quarter compared with four years ago. This was followed by Anytime or Peak tickets and Advance tickets (both down 21%) and Season tickets (down 5%).

Figure 2.5 Average journey lengths were shorter in the latest quarter compared with four years ago for all ticket types

Passenger kilometres by ticket type, January and March 2023 as a percentage of January and March 2019, and percentage change in passenger kilometres per journey (Tables 1222 and 1232)



Total ordinary tickets and other ticket types are excluded, as these include refunds and other miscellaneous tickets and can lead to negative values.

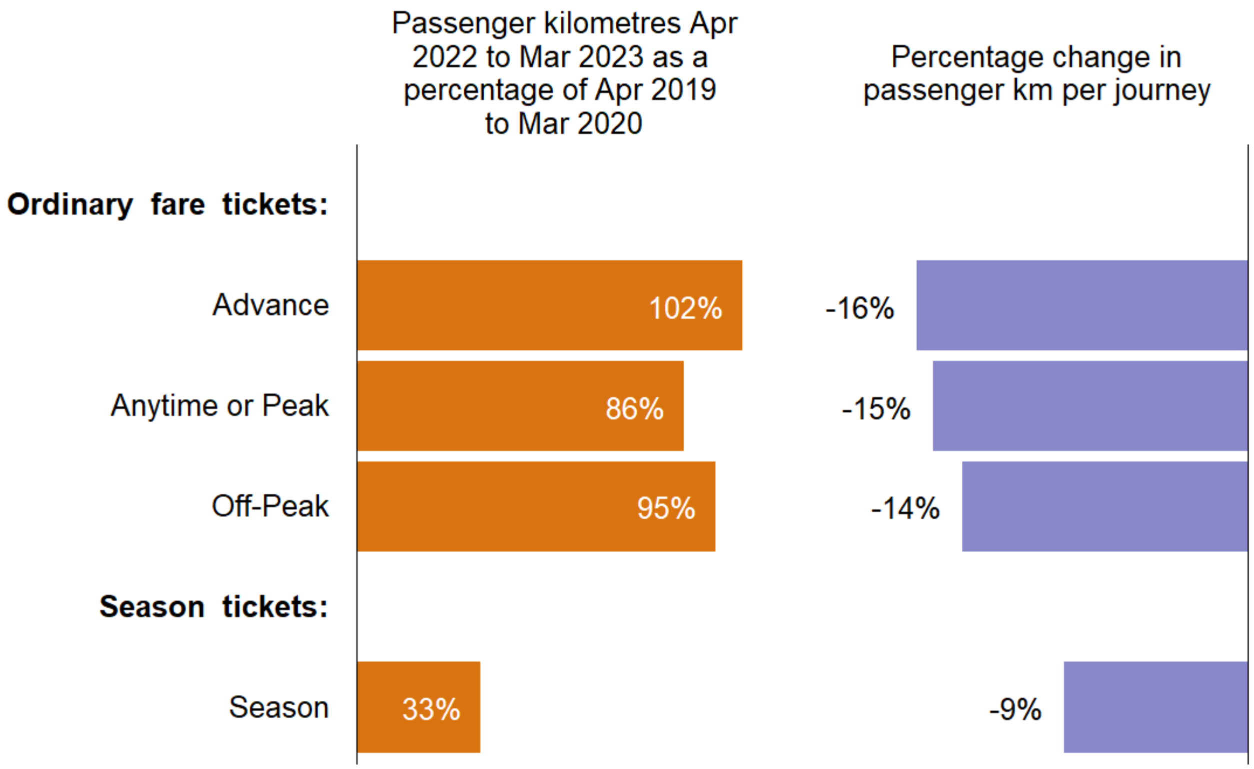
April 2022 to March 2023 annual

Journeys made using Advance tickets recorded the highest passenger kilometres (102%) relative to three years ago. This was followed by Off-Peak tickets (95%), Anytime or Peak tickets (86%) and Season tickets (33%).

Journeys made using Advance tickets recorded the largest fall in average journey length in the latest year compared with three years ago (16% shorter). This was followed by Anytime or Peak tickets (15% shorter), Off-Peak tickets (14% shorter) and Season tickets (9% shorter).

Figure 2.6 Average journey lengths were shorter in the latest year compared with three years ago for all ticket types

Passenger kilometres by ticket type, April 2022 to March 2023 as a percentage of April 2019 to March 2020, and percentage change in passenger kilometres per journey (Tables 1222 and 1232)



Total ordinary tickets and other ticket types are excluded, as these include refunds and other miscellaneous tickets and can produce negative values.

3. Passenger revenue

Passenger revenue by sector

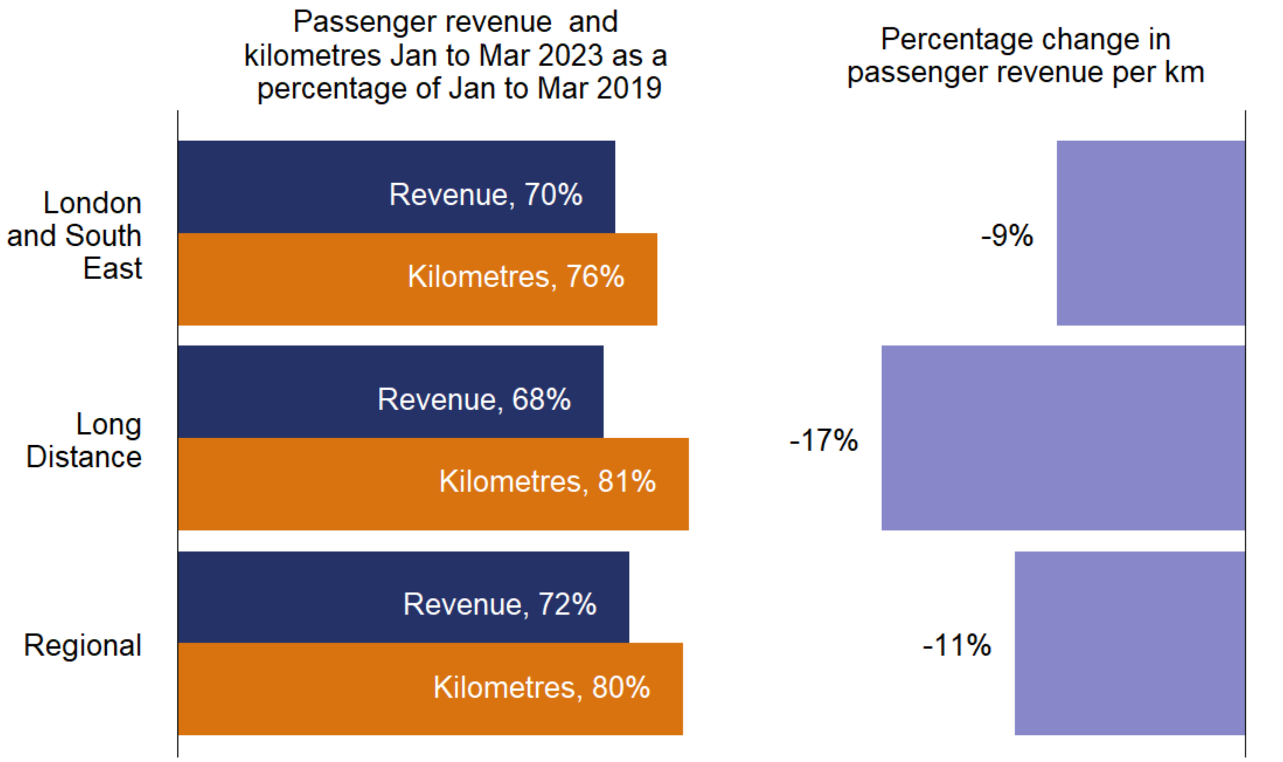
January to March 2023 quarter

To account for inflation, historic data has been adjusted to prices for the quarter, January to March 2023, using the Consumer Price Index (CPI). For further information see the quality and methodology report.

Total passenger revenue in Great Britain in the latest quarter was £2.2 billion. This equates to 70% of the £3.2 billion in the same quarter four years ago (when adjusted for inflation). Passenger revenue per journey was provisionally £5.67 in the latest quarter. This is down 20% from £7.12 four years ago. Passenger revenue per kilometre was provisionally 16.5p in the latest quarter, down 13% from the 18.9p four years ago.

Figure 3.1 Average revenue per passenger kilometre in all sectors in the latest quarter was less than it was four years ago

Franchised passenger revenue and kilometres by sector, January to March 2023 as a percentage of January to March 2019 (January to March 2023 prices), and percentage change in passenger revenue per kilometre (provisional) (Tables 1231 and 1211)



April 2022 to March 2023 annual

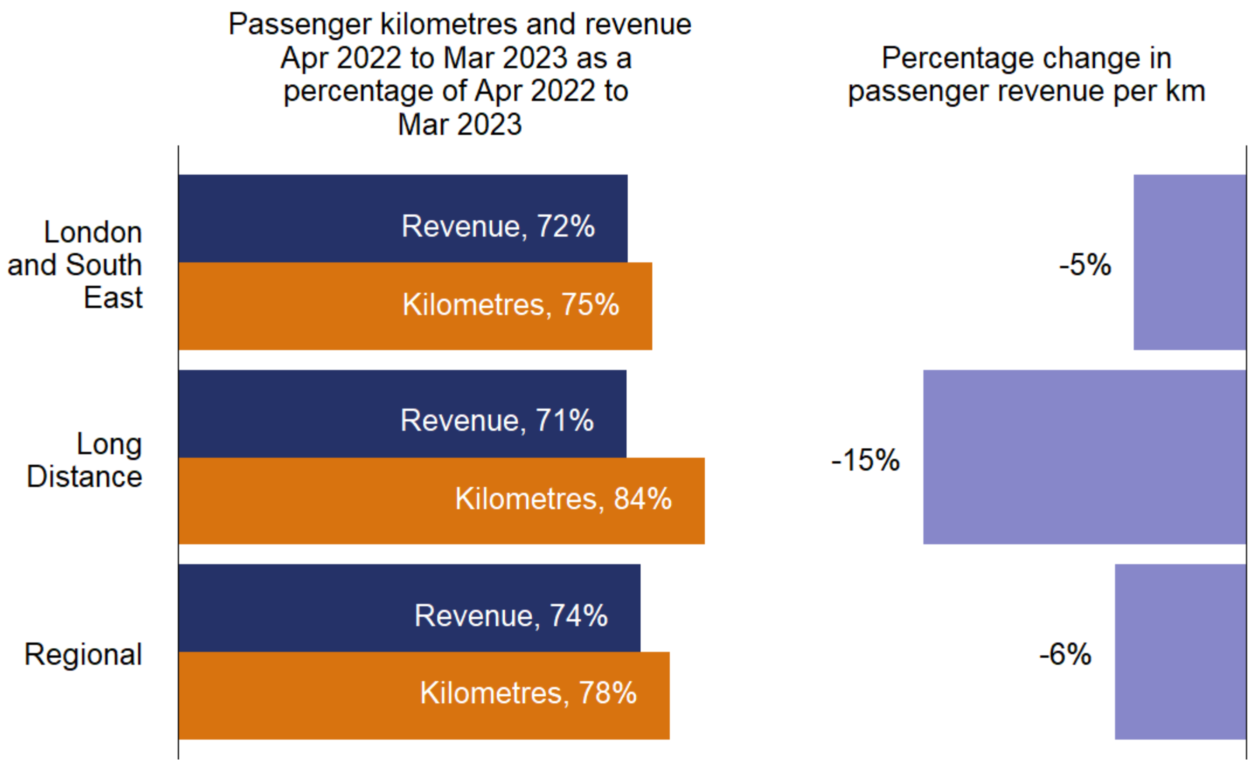
To account for inflation, historic data has been adjusted to prices for the year, April 2022 to March 2023, using the average quarter on quarter Consumer Price Index (CPI) for the year. For further information see the quality and methodology report.

Total passenger revenue in Great Britain in the latest year was £8.6 billion. This equates to 72% of the £12.0 billion three years ago (when adjusted for inflation). Total passenger revenue per journey was provisionally £5.98 in the latest year. This was down 13% compared with £6.88 from three years ago. Passenger revenue per kilometre was provisionally 16.2p in the latest year, which was down 10% from 17.9p three years ago.

The Regional sector generated 13.1p for every passenger kilometre in the latest year. This was down 6% compared with 13.9p three years ago. The London and South East sector provisionally recorded 18.3p per passenger kilometre in the latest year. This was down 5% compared with 19.2p three years ago. The Long Distance sector generated 15.5p per passenger kilometre in the latest year, down 15% compared with 18.2p three years ago.

Figure 3.2 Average revenue per passenger kilometre in all sectors in the latest year was less than it was three years ago

Franchised passenger revenue and kilometres by sector, April 2022 to March 2023 as a percentage of April 2019 to March 2020 (April 2022 to March 2023 prices), and percentage change in passenger revenue per kilometre (provisional) (Tables 1231 and 1211)



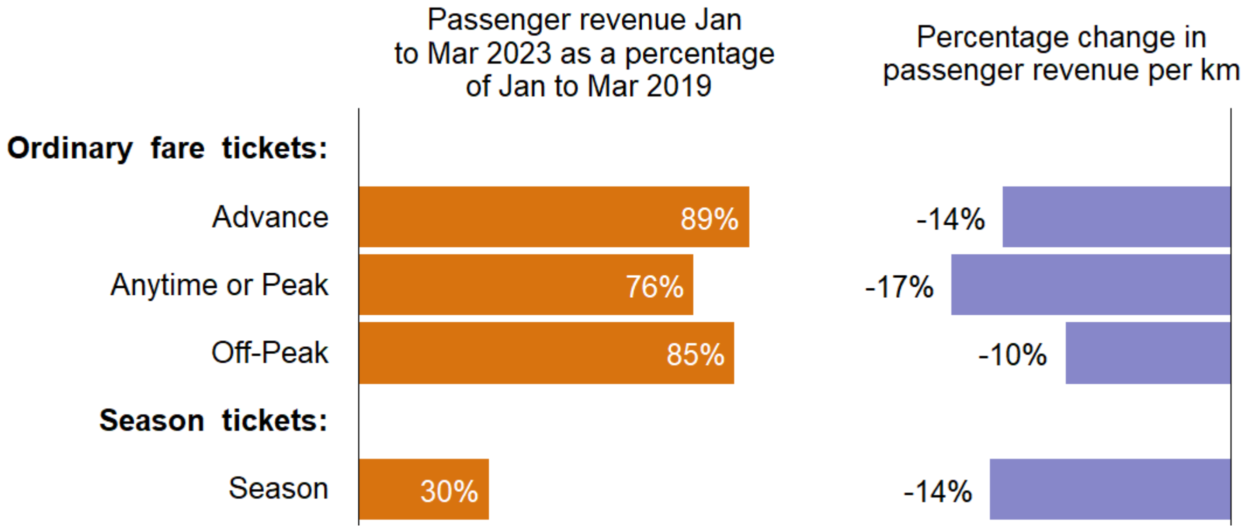
Passenger revenue by ticket type

January to March 2023 quarter

Ordinary tickets accounted for £1.9 billion of franchised passenger revenue in the latest quarter. This equates to 81% of the £2.4 billion generated by such tickets in the same quarter four years ago (when adjusted for inflation). Season tickets accounted for £207 million of franchised passenger revenue in the latest quarter. This equates to 30% of the £698 million earned in the same quarter four years ago.

Figure 3.3 Average revenue per passenger kilometre was lower in the latest quarter compared with four years ago for all ticket types

Franchised passenger revenue by ticket type, January to March 2023, as a percentage of January to April 2019 (January to March 2023 prices), and percentage change in passenger kilometres per journey (Tables 1232 and 1212)



Total ordinary tickets and other ticket types are excluded, as these include refunds and other miscellaneous tickets and can lead to negative values.

April 2022 to March 2023 annual

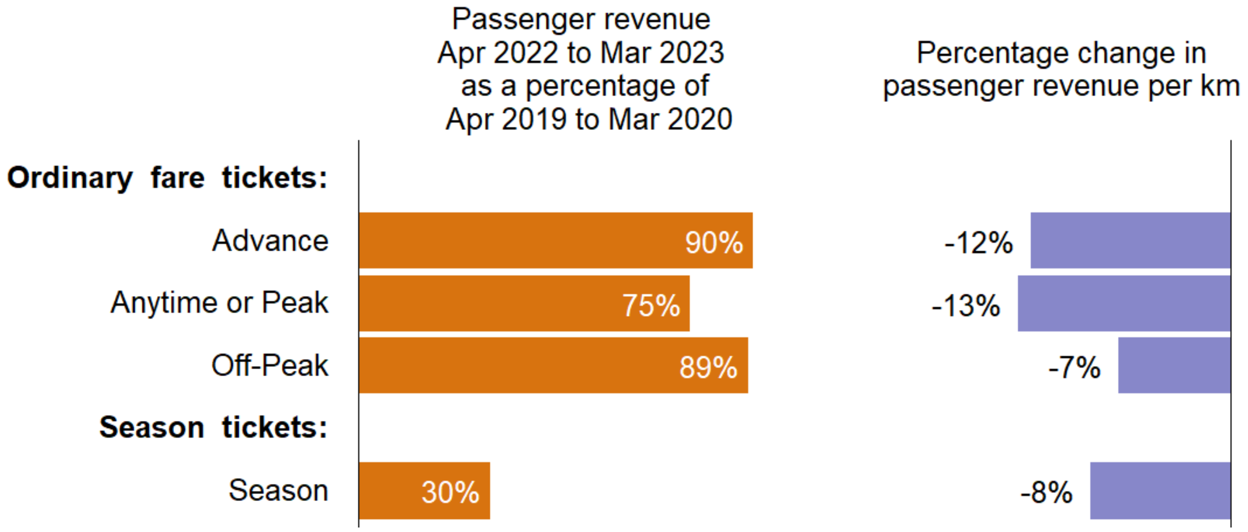
Ordinary tickets accounted for £7.7 billion of franchised passenger revenue in the latest year. This equates to 82% of the £9.4 billion generated by such tickets three years ago (when adjusted for inflation). Season tickets accounted for £714 million of franchised passenger revenue in the latest year. This equates to 30% of the £2.4 billion earned three years ago.

Season tickets generated 14.1p per passenger kilometre in the latest year, which was down 8% on the 15.4p recorded three years ago. Off-Peak tickets generated 14.9p per kilometre in the latest year, which was 7% less revenue per passenger kilometre than three years ago. This reduced revenue per kilometre travelled is a trend observed across every ticket type. The only exception to this is other tickets, which include refunds, so may reflect an increased number of refunds, rather than a change in travel patterns.

Anytime or Peak tickets and Advance tickets continue to generate substantially less revenue per franchised passenger kilometre compared with before the pandemic. Advance tickets generated 12% less revenue per passenger kilometre in the latest year compared with three years ago. This reduced income exists despite the number of kilometres travelled on Advance tickets now slightly exceeding the amount from three years ago (102% relative to three years ago).

Figure 3.4 Average revenue per passenger kilometre was lower in the latest year compared with three years ago for all ticket types

Franchised passenger revenue by ticket type, April 2022 to March 2023, as a percentage of April 2019 to March 2020 (April 2022 to March 2023 prices), and percentage change in passenger kilometres per journey (Tables 1232 and 1212)



Total ordinary tickets and other ticket types are excluded, as these include refunds and other miscellaneous tickets and can lead to negative values.

4. Passenger train kilometres

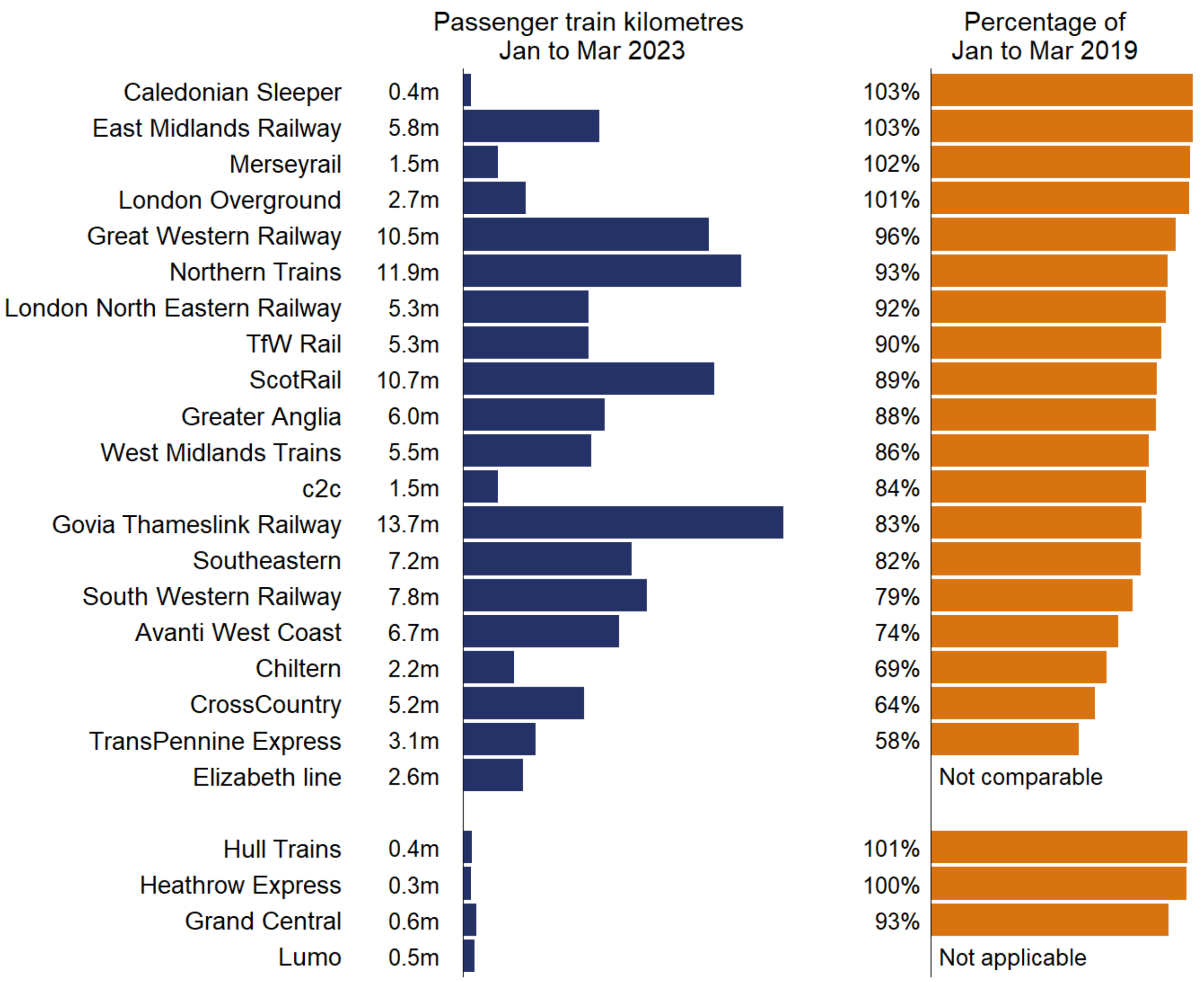
January to March 2023 quarter

The number of kilometres run by passenger trains was impacted by the nine strike days during the quarter. A total of 117 million passenger train kilometres were operated in the latest quarter. This equates to 86% of the 136 million train kilometres operated in the same quarter four years ago.

Six operators ran more train kilometres in the latest quarter than in the same quarter four years ago. TransPennine Express (58%), CrossCountry (64%) and Chiltern (69%) had the lowest rates of train kilometres operated compared with four years ago.

Figure 4.1 Five operators ran less than 80% of their train kilometres operated four years ago

Passenger train kilometres by operator, January and March 2023, and as a percentage of January to March 2019 (Table 1243)



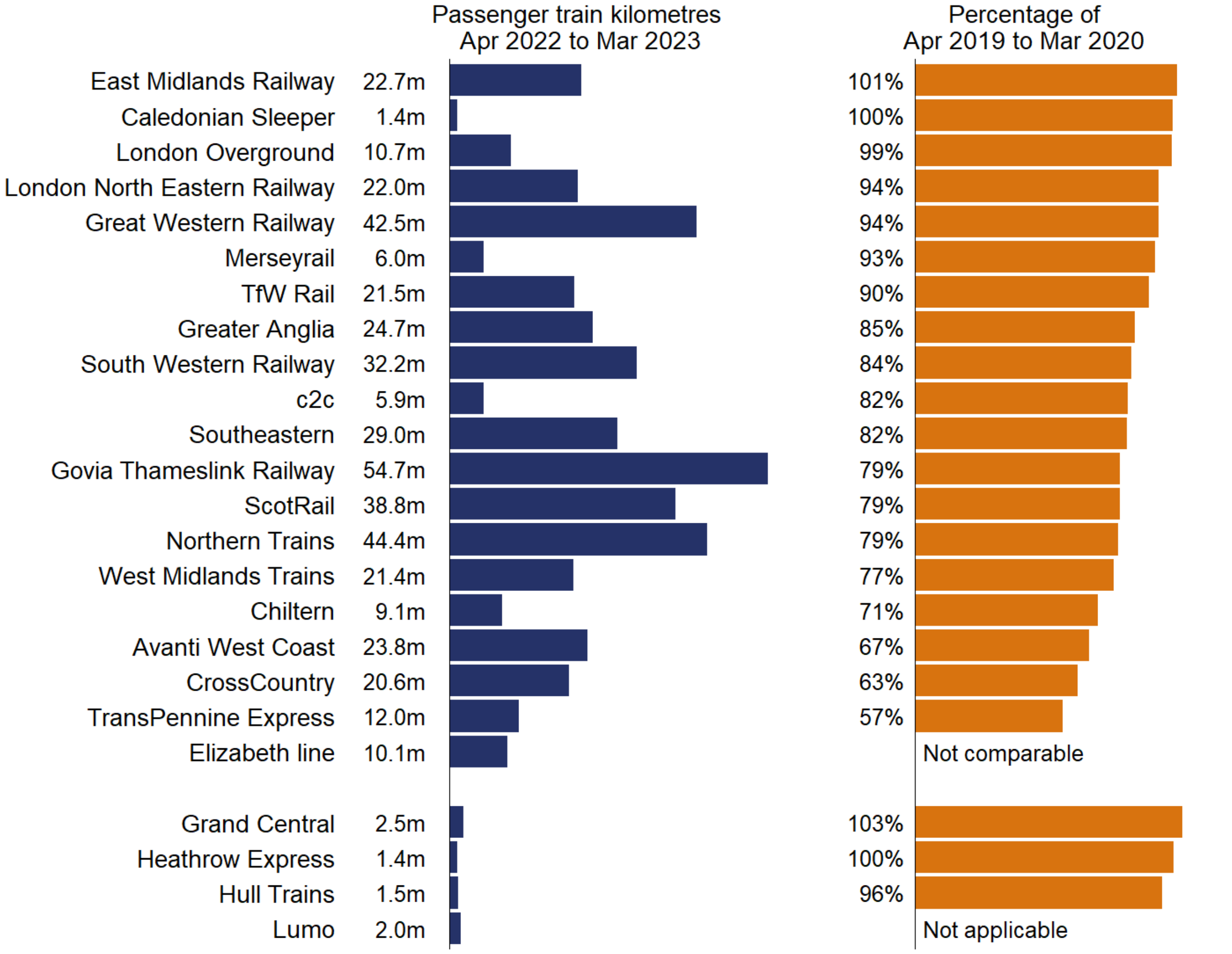
April 2022 to March 2023 annual

The number of kilometres run by passenger trains was impacted by the 29 strike days during the year. A total of 461 million passenger train kilometres were operated in the latest year. This equates to 83% of the 558 million train kilometres operated three years ago. This is 97% of the 474 million kilometres operated one year ago (April 2021 to March 2022).

Grand Central (103%) and East Midland Railway (101%) both ran more train kilometres than three years ago. TransPennine Express (57%), CrossCountry (63%) and Avanti West Coast (67%) had the lowest rates of train kilometres operated compared with three years ago.

Figure 4.2 Eight train operators ran less than 80% of their train kilometres operated three years ago

Passenger train kilometres by operator, April 2022 to March 2023, and as a percentage of April 2019 to March 2020 (Table 1243)



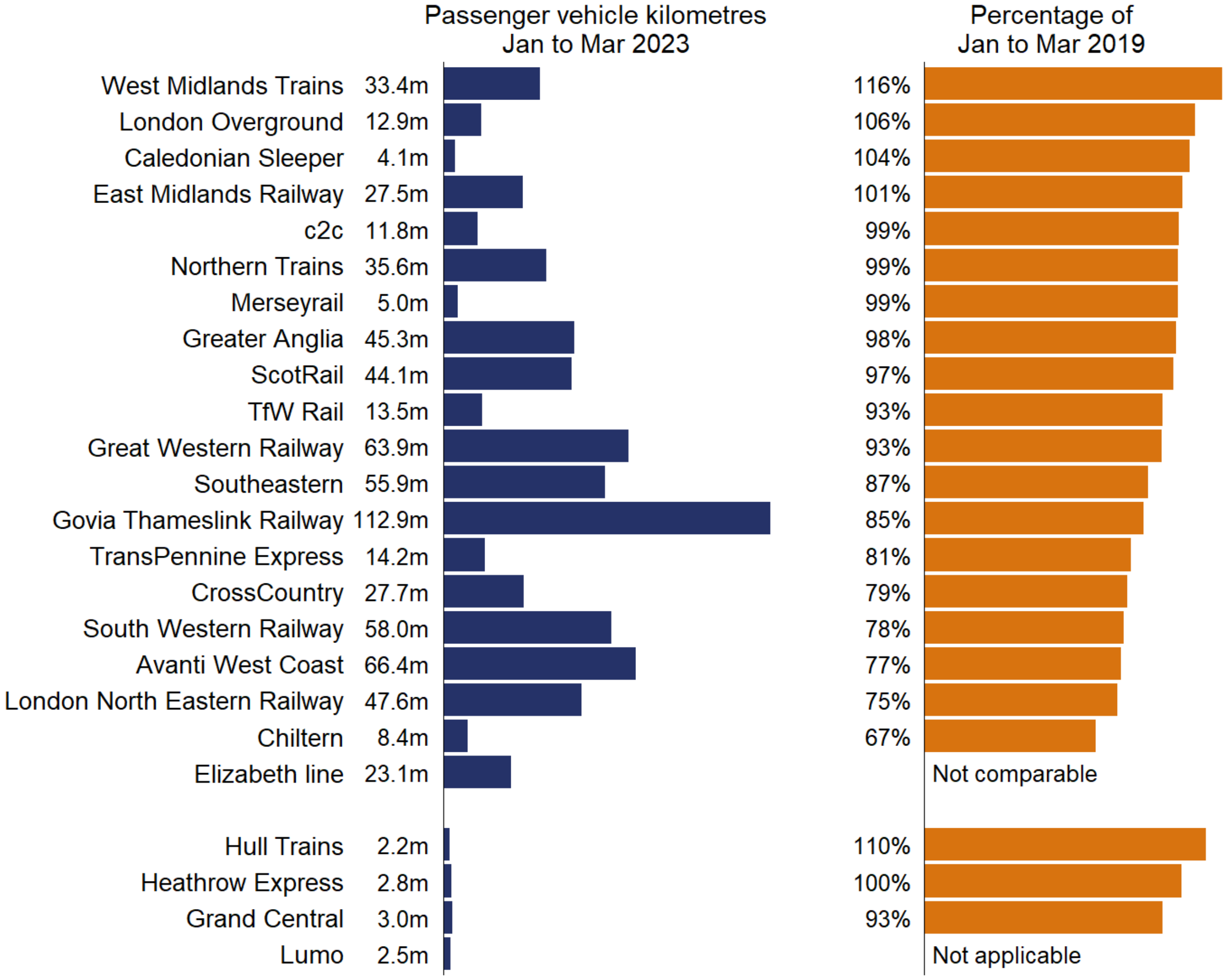
5. Passenger vehicle kilometres

January to March 2023 quarter

A total of 722 million passenger vehicle kilometres[2] were operated in the latest quarter. This equates to 90% of the 800 million vehicle kilometres operated in the same quarter four years ago and is 4pp higher than the equivalent figure for train kilometres.

Figure 5.1 Five train operators ran less than 80% of their vehicle kilometres operated four years ago

Passenger vehicle kilometres by operator, January and March 2023, and as a percentage of between January and March 2019 (Table 1253)



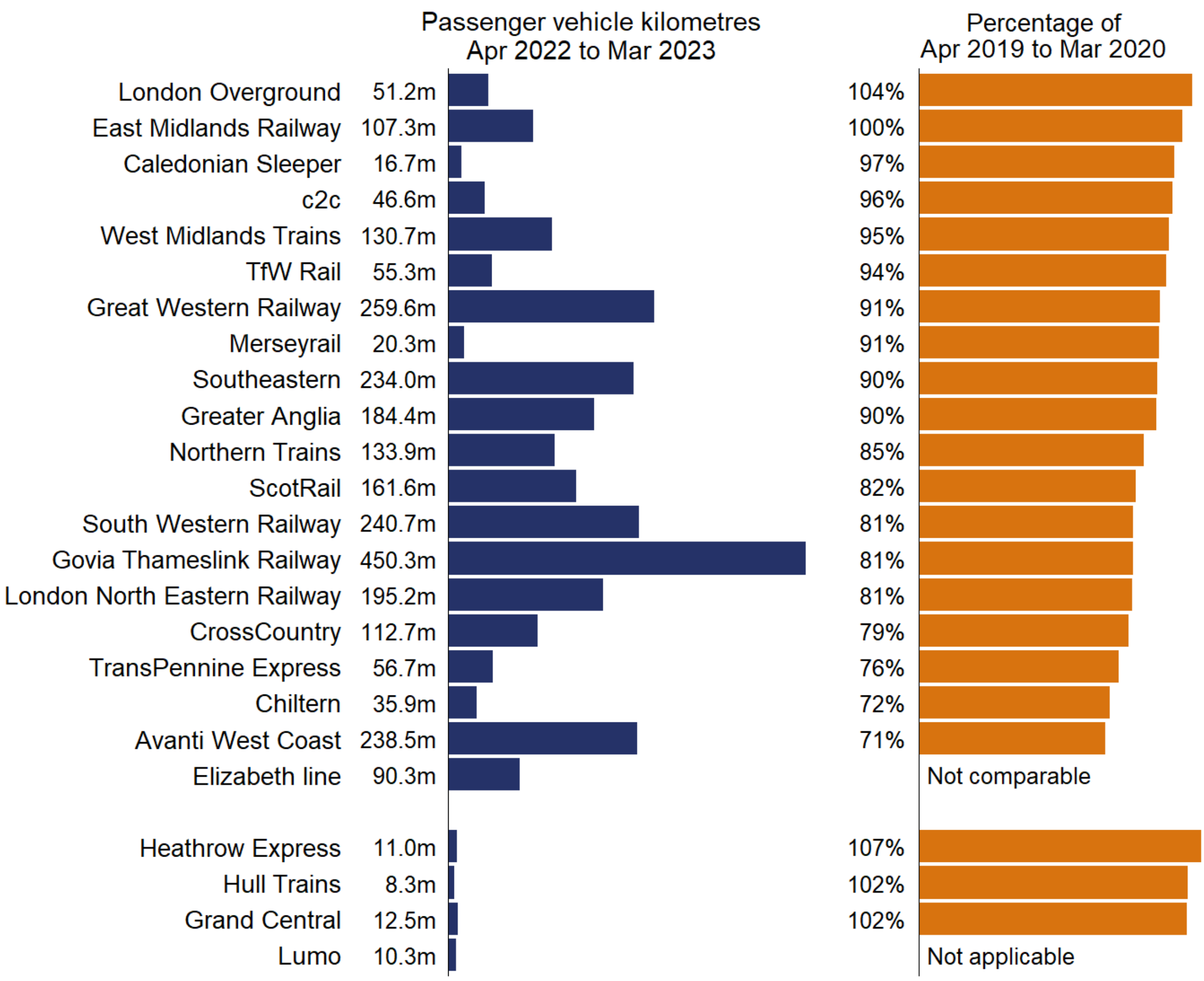
[2] A train with a locomotive and four carriages travelling one kilometre will generate one train kilometre and five vehicle kilometres.

April 2022 to March 2023 annual

A total of 2.9 billion passenger vehicle kilometres were operated in the latest year. This equates to 87% of the 3.3 billion vehicle kilometres operated three years ago and is 4pp higher than the equivalent figure for train kilometres. Some of the difference is due to the introduction of new rolling stock. For example, the Class 802s and Class 397s at TransPennine Express have resulted in longer trains and the Class 345s on the Elizabeth line being extended from 7-car to 9-car formations. However, passenger vehicle kilometres in the latest year are 3% lower than the 3.0 billion one year ago.

Figure 5.2 Four train operators ran less than 80% of their vehicle kilometres operated three years ago

Passenger vehicle kilometres by operator, April 2022 to March 2023, and as a percentage of April 2019 to March 2020 (Table 1253)



6. Annexes

Annex 1 – Definitions

- **Passenger journeys** are estimated using ticket sales data. For the purpose of these statistics, where travel requires one or more changes of train, each train used is counted as one journey. For example, a journey from Leicester to Manchester would be classed as two journeys due to the need to change trains. This differs from the definition used in the Regional rail usage statistical release, which would class this example as one journey. Furthermore, the estimates in both this publication and in Regional rail usage do not account for split ticketing. This is where two or more tickets are purchased to complete a single journey. In such cases, each ticket is counted individually in the passenger journey statistics.
- **Passenger kilometres** are calculated by multiplying the number of passenger journeys on a particular flow by the number of corresponding track kilometres between stations**.**
- **Passenger revenue** statistics include all ticket revenue and miscellaneous charges associated with passenger travel on national railways.
- **Passenger train kilometres** refers to the number of train kilometres (million) travelled by passenger trains. Empty coaching stock movements are included meaning that data for Lumo go back to May 2021 despite the operator commencing public services from 25 October 2021. Sourced from the Track Access Billing System (TABS) it includes train kilometres operated on Network Rail infrastructure and other railway networks including Core Valley Lines, HS1, and TfL infrastructure.
- **Passenger vehicle kilometres** refer to the number of vehicle kilometres (million) travelled by passenger vehicles. They are calculated on the same basis and using the same database (TABS) as passenger train kilometres. A train with a locomotive and four carriages travelling one kilometre will generate one train kilometre and five vehicle kilometres.
- The data presented in this release are for **mainline operators** in Great Britain. The data do not include Eurostar, London Underground, light rail, heritage and charter services. **Franchised operators** run services as part of contracts awarded by government (although no longer franchises we have retained this term for referring to these operators for consistency and until a new term is adopted across the industry). Data for such operators are also presented for three **sectors**:
    - **London and South East** – based on the British Rail Network South East services, this sector includes commuter trains in the London area and inter-urban

services in South East England. It extends as far west as Bristol and Exeter (both South Western Railway) and as far northwest as Kidderminster (Chiltern Railways). All Greater Anglia services are included in this sector for passenger rail usage purposes. Southeastern high speed services are included too.

  - **Long Distance** – based on the British Rail InterCity services, this sector covers Long Distance services on the East Coast, West Coast, Midland, and Great Western mainlines. Some CrossCountry services are also included.

  - **Regional** – based on the British Rail Regional Railways services, this sector covers other services. This includes both the ScotRail and TfW Rail[3] franchises. TransPennine Express and Caledonian Sleeper are included in this sector for passenger rail usage purposes. Some CrossCountry services are also included.

- **Non-franchised (open access) operators** – licenced by ORR to run services on specific routes. The data tables that accompany this publication contain data for such operators: **Grand Central**, **Heathrow Express**, **Hull Trains**, **Lumo** (began running services on 25 October 2021), and **Wrexham and Shropshire** (ceased trading 28 January 2011).

- **Ticket types:**

  - **Advance** (ordinary ticket) – single one-way tickets for a specific train. They are usually cheaper than other ticket types.

  - **Anytime or Peak** (ordinary ticket) – fully flexible tickets that can be used on most trains and at most times. They are usually more expensive.

  - **Off-Peak** (ordinary ticket) – cheaper than anytime fares, but cannot be used during busier times of day.

  - **Other** (ordinary ticket) – includes usage on regional products, rover tickets, some group tickets, and package products (e.g. includes accommodation or onward travel with other forms of transport). Non-travel income (e.g. car parking) is also included in this category for passenger revenue, as too are **refunds**, which can result in this category showing negative numbers.

  - **Season** – allow unlimited travel between two locations for a specified period (from a week up to a year). Such tickets are generally cheaper than daily return tickets for those travelling more than three times a week. The number of journeys estimated for a Season ticket varies by the length of the period. For example, 480 journeys are assumed to have been made for each annual Season ticket sold. Flexi Season tickets are also included here, these all 8 days of travel in 28 days, any time between two named stations. The pandemic necessitated the use of an

[3] Includes journeys made on TfW Rail services operated on the Core Valley Lines.

alternative methodology for estimating usage with Season tickets between 1 April 2020 and 31 March 2021, please see the Passenger rail usage quality and methodology report.

Further information on the operators in each of the three sectors as well as the journey factors for the main Season tickets can be found in the Passenger rail usage quality and methodology report.

Annex 2 – Quality and methodology

Primary data source – LENNON system

Most of the data contained within this statistical release are sourced from the rail industry's LENNON (Latest Earnings Networked Nationally Over Night) ticketing and revenue system. The statistics presented here use the post-allocation dataset within LENNON that distributes passenger journeys, kilometres and revenue to the train operators. Where travel includes one or more changes of train, each train used is counted as one journey. This is different to Regional rail usage that uses the pre-allocation dataset. For that release, journeys are based on the origin and destination named on a ticket and do not take into account any changes of train. It therefore produces slightly lower estimates than the total journeys in this Passenger rail usage statistical release.

LENNON is primarily an accounting tool, which inevitably faces limitations for estimating usage precisely. For further information on the limitations of the data and changes made to the methodology between April 2020 and March 2021 due to the pandemic, please see the Passenger rail usage quality and methodology report.

Elizabeth line and overestimate of journeys and kilometres

Contactless and Oyster Pay As You Go (PAYG) travel within the London and South East sector is submitted to LENNON at a level which considers the possible routes customers could have made on their journey. Due to system constraints in how the data is ingested into LENNON, this can result in an overstatement of journey count where multiple routes exist for a single customer journey. The launch of the Elizabeth line resulted in a particular increase in routing possibilities, most notably from the launch of Phase 5b in November 2022 and therefore increasing the level of overstatement in journey count outputted from LENNON. This overstatement is seen particularly for the Elizabeth line as an operator, however some residual impact exists for other operators in the London and South East sector particularly on flows outside of London where contactless is now available.

TfL Freedom Pass

Usage for operators in the London and South East sector includes an estimate for travel with the TfL Freedom Pass. The estimates for usage during the current financial year (April 2022 to March 2023) are affected by the lower levels of usage seen during the pandemic.

Consequently, estimates of passenger journeys and kilometres in the London and South East sector are likely to be understated by around 1%.

Other data sources

The passenger journey and kilometre data from LENNON are supplemented by data provided directly to the Office of Rail and Road from five train operators as LENNON does not contain all journeys and associated passenger kilometres. These include journeys made on tickets such as operator specific tickets and PTE multi-modal tickets. Most of the revenue associated with such journeys is captured by the LENNON system.

The estimates for London Overground passenger journeys and kilometres are adjusted to align with data captured by the operator’s train load weight system.

Actual passenger train and vehicle kilometre data are sourced from the Track Access Billing System (TABS). The data are provided by Network Rail.

Revisions

There have been revisions to previously published data:

- Table 1221: For the three quarters between Apr and Dec 2022, passenger journeys for franchised London and South East operators have been revised down by 1 million due to London Overground providing revised figures for the quarters.
- Tables 1222: For the three quarters between Apr and Dec 2022, passenger journeys for franchised ordinary and season ticket types have been revised down by 1 million due to London Overground providing revised figures for the quarter.
- Table 1223: For the three quarters between Apr and Dec 2022, passenger journeys for London Overground have been revised down by 1 million due to London Overground providing revised figures for the quarters.
- Table 1231: For the three quarters between Apr and Dec 2022, passenger kilometres for franchised London and South East operators have been revised down by 4.9 million due to London Overground providing revised figures for the quarters.
- Table 1232: For the three quarters between Apr and Dec 2022, passenger kilometres for franchised London and South East operators have been revised down by 4.9 million due to London Overground providing revised figures for the quarters.
- Table 1233: For the three quarters between Apr and Dec 2022, passenger kilometres for franchised London and South East operators have been revised down by 4.9 million due to London Overground providing revised figures for the quarters.

- Table 1210: For the three quarters between Apr and Dec 2022, passenger kilometres for franchised London and South East operators have been revised down by 4.9 million due to London Overground providing revised figures for the quarters.

Details on previous revisions can be found in the Revisions log.

How these statistics can and cannot be used

- Monitoring the number of quarterly passenger journeys and kilometres travelled by mainline rail in Great Britain
- Comparing passenger journeys and kilometres by sector, train operator, and ticket type
- Comparing passenger revenue by sector and ticket type
- Monitoring passenger train and vehicle kilometres by train operator

- Monitoring the number of annual journeys within and between Scotland, Wales and Regions of England (refer to Regional rail usage statistics)
- Monitoring the number of entries and exits or interchanges at individual stations (refer to Estimates of station usage)
- Exploring rail journey flows between origin and destination stations
- Comparing passenger revenue by train operator (refer to Rail industry finance)

Annex 3 – List of data tables associated with this release and other related statistics

Data tables

All data tables can be accessed on the data portal free of charge in OpenDocument Spreadsheet (.ods) format. We can also provide data in csv format on request.

All tables associated with this release can be found under the Data tables heading at the bottom of the Passenger rail usage page.

Passenger journeys

- Passenger journeys - annual – Table 1220
- Passenger journeys by sector - quarterly – Table 1221
- Passenger journeys by ticket type - quarterly – Table 1222
- Passenger journeys by operator - quarterly – Table 1223

Passenger kilometres

- Passenger kilometres - annual – Table 1230
- Passenger kilometres by sector - quarterly – Table 1231
- Passenger kilometres by ticket type - quarterly – Table 1232
- Passenger kilometres by operator - quarterly – Table 1233

Passenger revenue

- Passenger revenue by sector - quarterly – Table 1211
- Passenger revenue by ticket type - quarterly – Table 1212
- Revenue per passenger kilometre and per passenger journey (franchised only) - quarterly – Table 1210

Passenger train and vehicle kilometres

- Passenger train kilometres by operator - quarterly – Table 1243
- Passenger vehicle kilometres by operator - quarterly – Table 1253

Other related data

The Department for Transport (DfT) also publishes some rail statistics. For example, rail passenger numbers and overcrowding on weekdays in major cities.

DfT also publishes statistics on public transport including statistics on the usage of the Channel Tunnel.

Great British Railways Transition Team publish rail related news, including quarterly statistics on the breakdown of journey and revenue by purpose (commuting, business and leisure).

For more information on the impacts of the pandemic see:

- Transport use during the COVID-19 pandemic (Department for Transport)
- *All Change? Travel tracker (Department for Transport)*
- Coronavirus and the social impacts on Great Britain (Office for National Statistics)
- Public transport journeys by type of transport (Transport for London)

European comparisons

Comparisons with railways in the rest of Europe are available between January 2004 and September 2020 for passenger journeys. More recent data from other European countries are published in the IRG-Rail Eleventh Annual Market Monitoring Report.

Annex 4 – ORR's statistical publications

Statistical Releases

This publication is part of ORR's National Statistics accredited releases, which consist of seven annual publications: **Estimates of station usage; Rail industry finance (UK); Rail fares index; Rail safety statistics; Rail infrastructure and assets; Rail emissions; Regional rail usage**; and four quarterly publications: **Passenger rail performance; Freight rail usage and performance; Passenger rail usage; Passenger rail service complaints.**

In addition, ORR also publishes a number of Official Statistics, which consist of five annual publications: **Common Safety Indicators; Passenger satisfaction with complaints handling; Train operating company key statistics; Occupational health**; **Rail statistics compendium**; and four quarterly publications: **Signals passed at danger (SPADS); Delay compensation claims; Disabled Persons Railcards (DPRC); Passenger assistance.**

All the above publications are available on the data portal along with a list of publication dates for the next 12 months.

National Statistics

The United Kingdom Statistics Authority designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics. National Statistics status means that official statistics meet the highest standards of **trustworthiness**, **quality** and public **value**.

The majority of our statistical releases were assessed in 2012 and hold National Statistics status. Since this assessment we have improved the content, presentation and quality of our statistical releases. In addition, in July 2019 we launched our new data portal. Therefore, in late 2019 we worked with the Office for Statistics Regulation (OSR) to conduct a compliance check to ensure we are still meeting the standards of the Code. On 4 November 2019, OSR published a letter confirming that ORR's statistics should continue to be designated as National Statistics. OSR found many positive aspects in the way that we produce and present our statistics and welcomed the range of improvements made since the statistics were last assessed. Estimates of Station Usage statistics were assessed in 2020.

For more information on how we adhere to the Code please see our compliance statements. For more details or to provide feedback, please contact the Statistics Head of Profession (Lyndsey Melbourne) at rail.stats@orr.gov.uk.

This publication is available at dataportal.orr.gov.uk

Any enquiries regarding this publication should be sent to us at orr.gov.uk/contact-us