Passenger rail performance
1 October to 31 December 2023

7 March 2024

Passenger rail performance in the latest quarter (1 October to 31 December 2023) was worse than the same quarter one year ago for the main measures of punctuality and reliability. In the latest quarter, there were **1.8 million trains planned** in Great Britain. This was up 14% compared with the same quarter one year ago.

**Table 1 Passenger rail performance was worse than one year ago**

Measure	Oct to Dec 2023	Compared with Oct to Dec 2022 (one year ago)	
On Time	62.2%	⬇	0.1pp
PPM	81.4%	⬇	1.4pp
Cancellations score	4.9%	⬆	0.4pp

For the **On Time** punctuality measure, the percentage of recorded station stops arrived at 'on time' in Great Britain was **62.2%** in the latest quarter. Using **PPM**, **81.4%** of trains were punctual at their final destination in the latest quarter.

The **Cancellations score** in the latest quarter was **4.9%**. The cancellation measure is a weighted score which counts full cancellations as one and part cancellations as half. This industry measure is an indicator of disruption against the timetable operating on the day. The timetable is finalised at 22:00 the previous evening, and trains removed from the timetable before then will not be included. For example, "P*-coded" pre-cancelled trains are not included, and on days with strike action the Cancellations score only reflects trains cancelled from the reduced timetable.

There were **25 severely disrupted days**, when the daily Cancellations score was 5% or higher, in the latest quarter. This was an increase of two days on the same quarter in the previous year.

All data tables, a quality and methodology report and an interactive dashboard associated with this release are published on the Passenger rail performance page of the data portal.
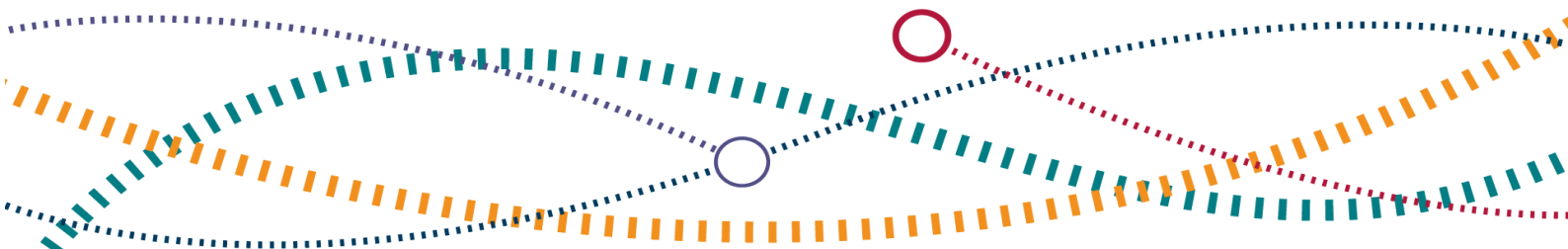
1. Background

From April 2020 there were reductions in both trains planned and passengers on the railway network due to the coronavirus (COVID-19) pandemic. This led to improvements in punctuality and reliability compared with before the pandemic. However, as passengers returned and more trains ran, both reliability and punctuality deteriorated. Whilst the main focus of this publication is the presentation of the latest quarterly statistics compared with the same quarter of the previous year (1 October to 31 December 2022), there are also a number of comparisons to four years ago (2019, before the pandemic) to monitor how the recovery of the railway network impacts train performance.

Trains planned

A train planned in this statistical release refers to a train service confirmed to run by the operator and Network Rail at 22:00 on the previous evening. Planned train services removed from railway systems before this cut-off time are not included.

In the **latest quarter**, there were **1.8 million** trains planned in Great Britain. The latest quarter had 215,000 more planned trains (up 14%) compared with the same quarter the previous year (1 October to 31 December 2022). The latest quarter had 156,000 fewer trains planned (down 8%) compared with the same quarter four years ago (1 October to 31 December 2019) that had 1.9 million trains planned.

Figure 1.1   Trains planned remain at lower levels than before the pandemic

Trains planned (millions), Great Britain, quarterly data, April 2018 to December 2023 (Table 3123)
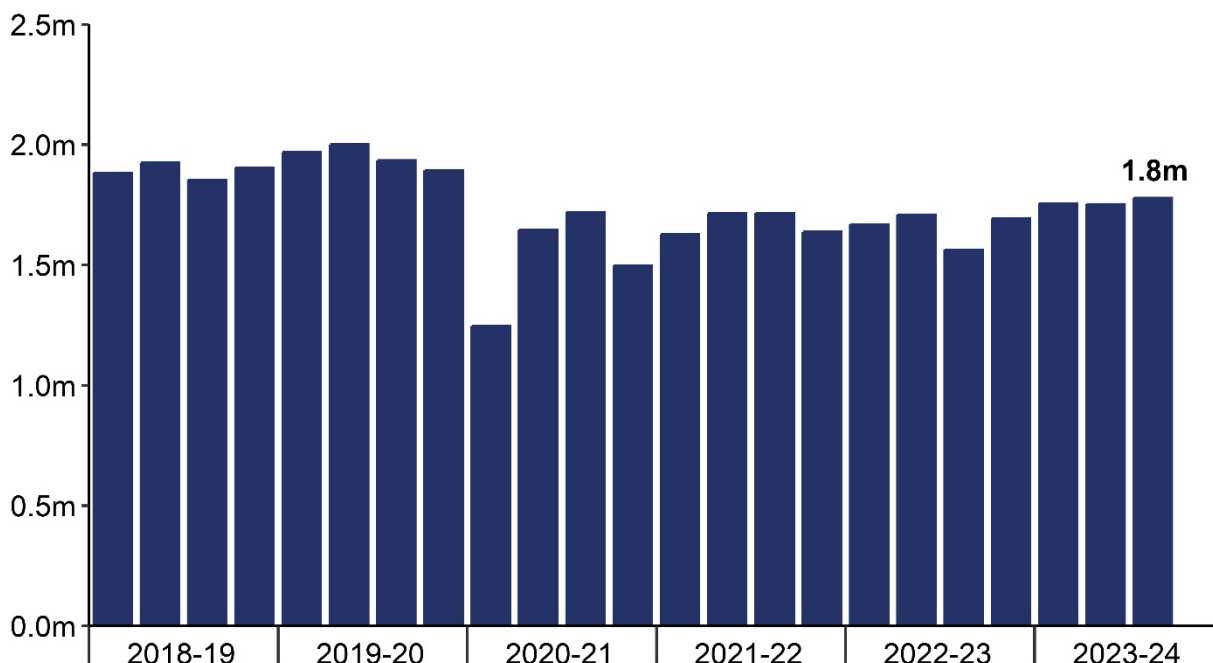
For the **12 months** up to December 2023 (1 January 2023 to 31 December 2023), there were **7.0 million** trains planned in Great Britain. This was up 6% compared with the previous 12 months ending December 2022 and down 11% compared with the 12 months ending December 2019.

In the **latest quarter**, seven strike action days took place (4 October and 2, 3, 5, 6, 7, and 8 December). One of these (4 October) was linked to action by both the RMT and ASLEF unions, with the remaining six (2, 3, 5, 6, 7, and 8 December) linked to action by the ASLEF union. Previously, ASLEF industrial action had involved all members on the same day, however these six days saw different operators impacted on each day. Further details are provided in Table 1.1 below.

Table 1.1   Reduction of trains planned on strike days, Great Britain, October to December 2023

The estimated reductions were calculated by comparing the number of trains planned on the day with the same day the week before. In cases when the same day the week before also had a significant reduction in trains planned, the same day the week after was used.

Date	Event	Estimated daily reduction of trains planned
4 October 2023	Strike action by the ASLEF and RMT unions	-68%
2 December 2023	Strike action by the ASLEF union affecting East Midlands Railway and London North Eastern Railway services	-13%
3 December 2023	Strike action by the ASLEF union affecting Avanti West Coast, Chiltern Railways, Govia Thameslink Rail (Great Northern and Thameslink services), West Midlands Trains (London Northwestern Railway and West Midlands Railway services)	-17%
5 December 2023	Strike action by the ASLEF union affecting c2c and Greater Anglia services	-13%
6 December 2023	Strike action by the ASLEF union affecting Govia Thameslink Railway (Gatwick Express and Southern), South Western Railway and Southeastern services	-28%
7 December 2023	Strike action by the ASLEF union affecting CrossCountry, Great Western Railway and Heathrow Express services	-17%
8 December 2023	Strike action by the ASLEF union affecting Northern Trains and TransPennine Express services	-14%

Further trains planned data are available in Table 3123 (quarterly) and Table 3124 (periodic). Periodic (4-weekly) operational data in Table 3124 are made available on the ORR data portal as soon as the data are loaded and validated into our systems. At the date of this release's publication (7 March 2024), the latest periodic data available is up to 3 February 2024.

2. Train punctuality

Punctuality at each recorded station stop

On Time is the percentage of recorded station stops that were arrived at early or less than one minute after the scheduled time.

In the **latest quarter**, **62.2%** of recorded station stops in Great Britain (12.1 million out of 19.5 million) were arrived at On Time. This was 0.1 percentage points (pp) lower (i.e. worse) than the same quarter the previous year, but was 2.8 percentage points (pp) higher than the same quarter four years ago.

Figure 2.1   On Time percentages remain slightly above pre-pandemic levels

On Time, Great Britain, quarterly data, April 2018 to December 2023 (Table 3133)
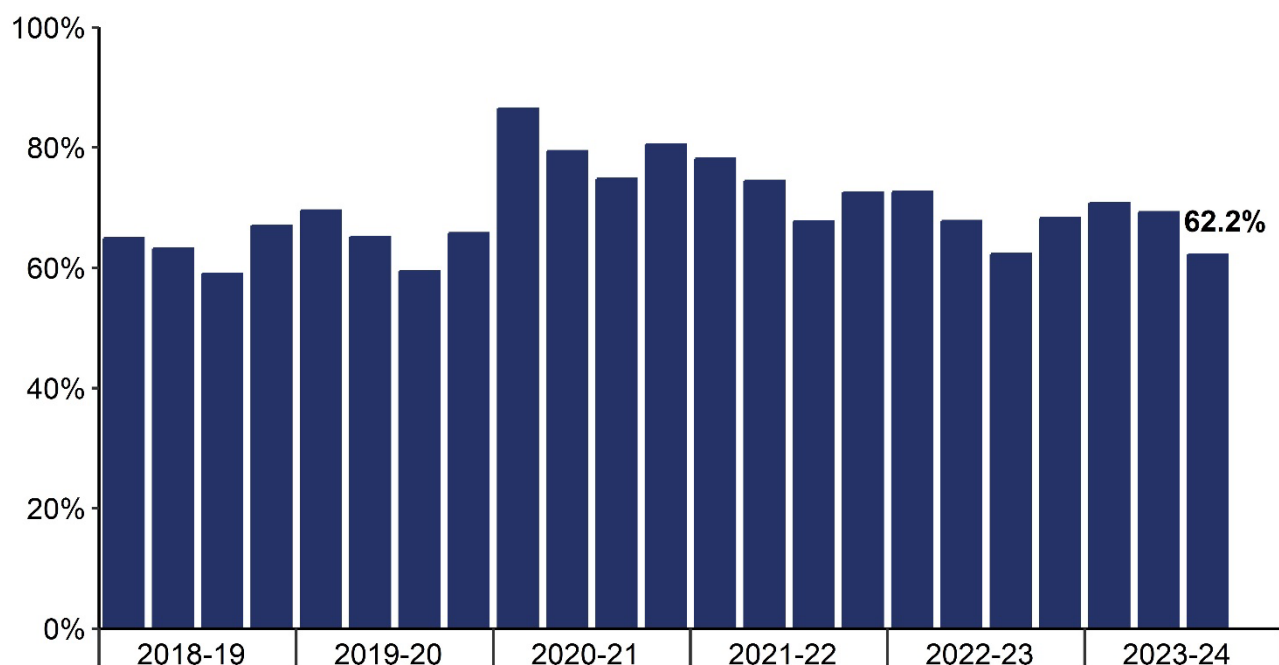
For the **12 months** up to December 2023 (1 January 2023 to 31 December 2023), **67.6%** of recorded station stops in Great Britain (51.9 million out of 76.8 million) were arrived at On Time. This was down 1.3pp compared with the previous 12 months ending December 2022, but up 2.3pp compared with the 12 months ending December 2019.

Further train punctuality data are available in Table 3133 (quarterly) and Table 3138 (periodic). These include the percentage of recorded station stops arrived at within 3 minutes (Time to 3) and within 15 minutes (Time to 15) after the scheduled arrival time. Periodic (4-weekly) operational data in Table 3138 are made available on the ORR data portal as soon as the data are loaded and validated into our systems. At the date of this release's publication (7 March 2024), the latest periodic data available is up to 3 February 2024.

Public Performance Measure (PPM)

The **Public Performance Measure (PPM)** is the percentage of trains arriving at their final destination within either 5 or 10 minutes of the scheduled arrival time depending on the type of train operator providing the service.

In the **latest quarter**, PPM for Great Britain was **81.4%**. This was 1.4pp lower (i.e. worse) than the same quarter the previous year, and a fall of 0.9pp on the same quarter four years ago (October to December 2019).

Figure 2.2   PPM was similar to pre-pandemic levels in the latest quarter

PPM, Great Britain, quarterly data, April 2018 to December 2023 (Table 3113)
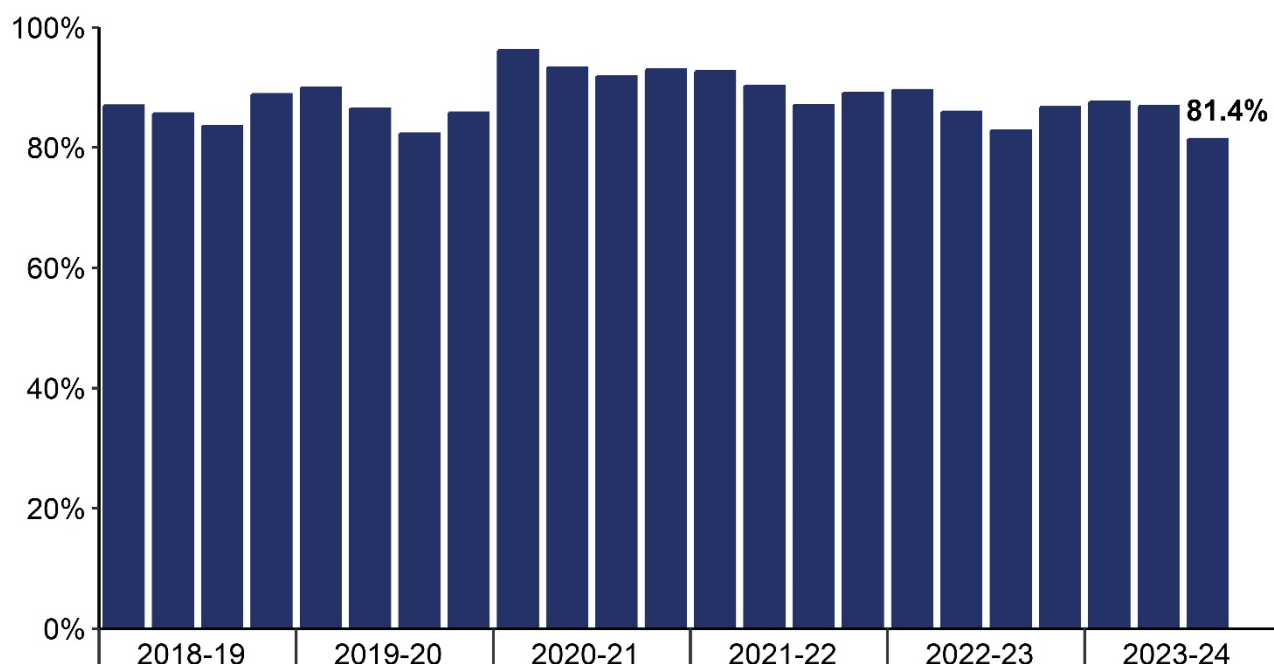
PPM for the **12 months** up to December 2023 (1 January 2023 to 31 December 2023), was **85.6%**. This was down 1.3pp (i.e. worse) compared with the previous 12 months ending December 2022, and down 1.3pp compared with the 12 months ending December 2019.

Further PPM train punctuality data are available in Table 3113 (quarterly) and Table 3114 (periodic). Periodic (4-weekly) operational data in Table 3114 are made available on the ORR data portal as soon as the data are loaded and validated into our systems. At the date of this release's publication (7 March 2024), the latest periodic data available is up to 3 February 2024.

Other punctuality measures

Delay minutes

Delay minutes measure the time lost between consecutive timing points on the rail network.

In the **latest quarter**, national (GB) passenger train delay minutes attributed to Network Rail increased by 29% compared with the same quarter the previous year. Delay minutes attributed to operators increased by 22% compared with a year earlier.

For detailed information on Network Rail and operator performance in the latest quarter, please see our interactive performance dashboard on the data portal. Periodic (4-weekly) operational data in Table 3184 are made available on the ORR data portal as soon as the data are loaded and validated into our systems. At the date of this release's publication (7 March 2024), the latest periodic data available is up to 3 February 2024.

Consistent Region Measure – (Passenger) Performance

The **Consistent Region Measure – (Passenger) Performance** (CRM-P) measures passenger train delay attributed to Network Rail from incidents occurring in each Network Rail region, per 100 train kilometres.

CRM-P is one of the key measures used by ORR for routine monitoring and assessment of Network Rail's passenger rail performance. ORR monitors delivery against annual CRM-P targets and regulatory floors set for each of the five Network Rail regions.

Periodic (4-weekly) CRM-P data can be found on the ORR data portal (Table 3174). At the date of this release's publication (7 March 2024), the latest periodic data available is up to 3 February 2024.

Average Passenger Lateness

Average Passenger Lateness (APL) measures the average lateness of a passenger as they alight from their train.

Periodic (4-weekly) operational data in Table 3144 are made available on the ORR data portal as soon as the data are loaded and validated into our systems. At the date of this release's publication (7 March 2024), the latest periodic data available is up to 3 February 2024.

3. Train reliability

Cancellations

In the **latest quarter**, of the 1.8 million trains planned, 64,000 were full cancellations and 45,200 were part cancellations.

The **Cancellations score** is the percentage of trains planned that were cancelled, whereby full cancellations are counted as one and part cancellations as half. This industry measure is an indicator of disruption against the timetable operating on the day. The timetable is finalised at 22:00 the previous evening, and trains removed from the timetable before then will not be included. Strike action by the railway unions took place on seven days in the latest quarter. In response a reduced timetable was put in place on the strike days and on the some of the days after. The Cancellations score only takes account of trains cancelled from the planned reduced service.

Some operators have reported they use the practice of **"P*-coding"** for resource availability shortage pre-cancellations, i.e. changes to train services caused by non-availability of staff or rolling stock that are included in a revised timetable, and therefore may not be appearing in operators' Cancellations scores. Operators who use "P*-coding" may therefore have a lower Cancellations score reported in this release than that which a passenger may experience. ORR has collected and published the number of trains that each operator removed from the timetable due resource availability shortages and an 'adjusted' Cancellations score for each period from 8 January 2023 (rail period 11). For more information about "P-coding" see Section 4 below (Train operator analysis – Reliability).

In the **latest quarter**, the Cancellations score was **4.9%** which was 0.4pp higher (i.e. worse) than the same quarter the previous year, and 0.8pp higher (i.e. worse) than the same quarter four years ago.

Figure 3.1   Cancellations in the latest quarter were worse compared to one year ago

Cancellations score, Great Britain, quarterly data, April 2018 to December 2023 (Table 3123)
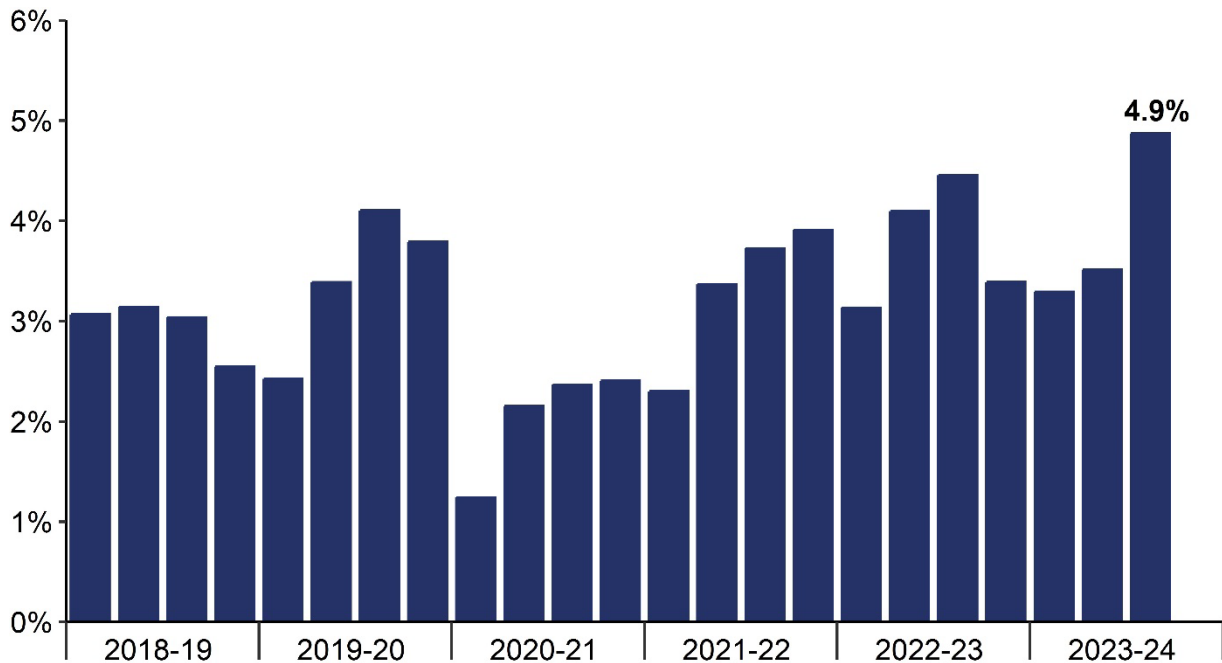
The Cancellations score for the **12 months** up to December 2023 (1 January 2023 to 31 December 2023) was 3.8%. This was down 0.1pp (i.e. better) compared with the previous 12 months ending December 2022, and 0.7pp higher (i.e. worse) compared with the 12 months ending December 2019.

Train cancellations Table 3123 (quarterly) and Table 3124 (periodic) include data on the number of full and part cancellations by operator. Periodic (4-weekly) operational data in Table 3124 are made available on the ORR data portal as soon as the data are loaded and validated into our systems. At the date of this release's publication (7 March 2024), the latest periodic data available is up to 3 February 2024.

Responsibility for cancellations

In the **latest quarter**, of all attributed cancellations, operators were attributed with responsibility for 50% of cancellations, with another 3% attributed to external incidents such as a passenger falling ill on a train. Infrastructure owners were attributed with responsibility for 24% of cancellations for infrastructure and network management issues, with another 23% attributed to external incidents such as severe weather or trespassing. External incidents are attributed to the party considered best placed to mitigate their effects.

Figure 3.2   Half of cancellations were attributed to operators in the latest quarter

Proportion of cancellations by responsibility category, Great Britain, quarterly data, April 2018 to December 2023 (Table 3123)
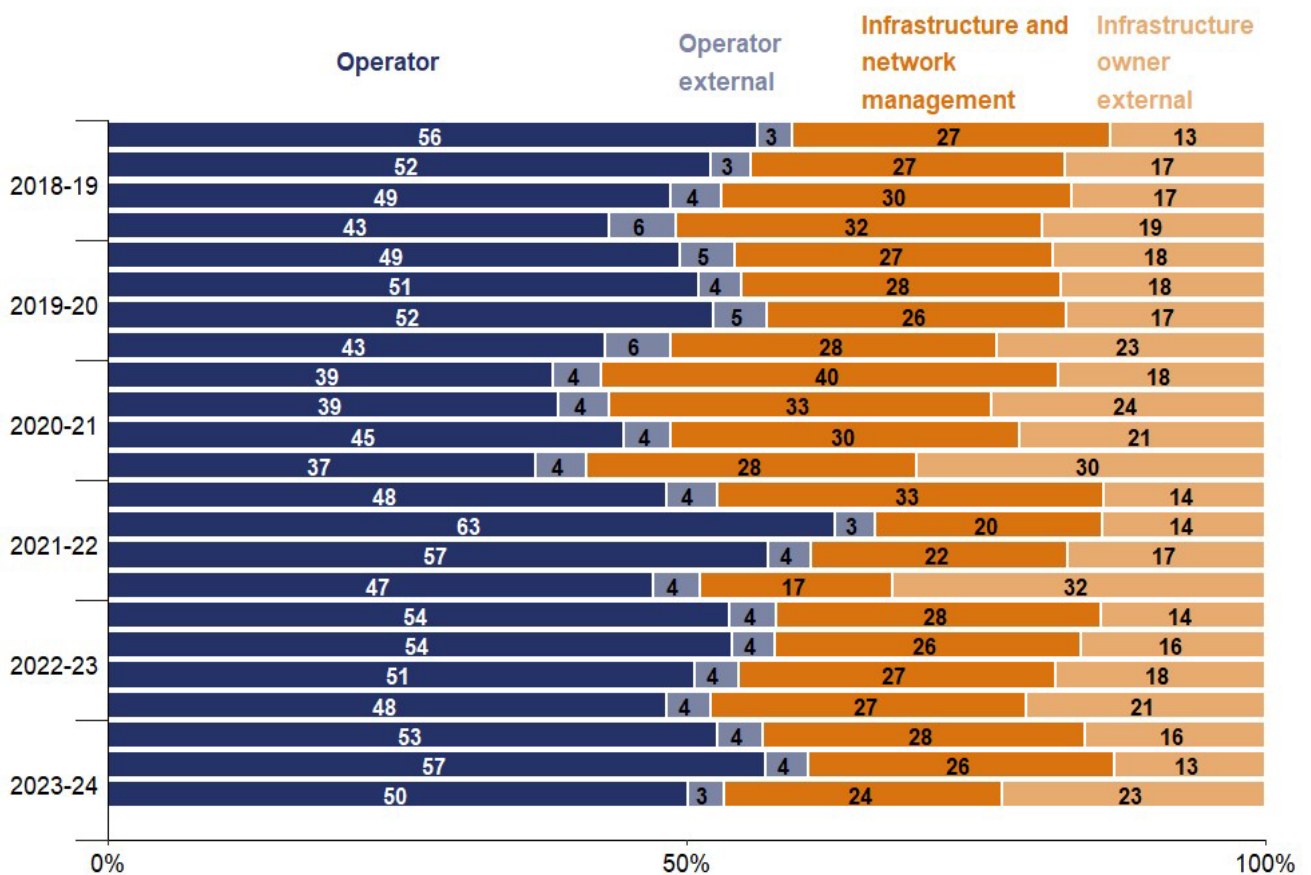
Severe disruption

A **Severely disrupted day** at a national (GB) level occurs when the Cancellations score is 5% or more. Nationally, there were 25 severely disrupted days in the latest quarter, two more days than the same quarter last year.

Table 3.1   Severely disrupted days within October to December 2023 with daily Cancellation scores and major incidents or issues that contributed to the cancellations that day

Date	Cancellations score	Major incidents and issues contributing to cancellations
7 October 2023	7.6%	Flooding events across Scotland was the main contributor. Overhead line issues at Manchester Piccadilly were also seen
19 October 2023	5.9%	Asset incidents and a fatality at Leighton Buzzard
20 October 2023	11.8%	Storm Babet impacts
21 October 2023	9.9%	Continuing impacts of Storm Babet
25 October 2023	5.8%	High proportion of traincrew-related cancellations
2 November 2023	10.3%	Disruption from Storm Ciarán and a power failure incident at Edinburgh
3 November 2023	6.5%	Axle counter failure at Stockley Bridge
13 November 2023	6.6%	Disruption from Storm Debi alongside a high proportion of network management issues
30 November 2023	6.0%	High proportion of traincrew-caused cancellations
1 December 2023	6.0%	High proportion of traincrew-caused cancellations, first day of ASLEF overtime ban
2 December 2023	8.1%	High proportion of traincrew-caused cancellations amid ASLEF strike action and overtime ban
3 December 2023	7.8%	High proportion of traincrew-caused cancellations amid ASLEF strike action and overtime ban
4 December 2023	6.7%	High proportion of traincrew-caused cancellations amid ASLEF strike action and overtime ban
5 December 2023	6.0%	High proportion of traincrew-caused cancellations amid ASLEF strike action and overtime ban
6 December 2023	6.7%	High proportion of traincrew-caused cancellations amid ASLEF strike action and overtime ban

Date	Cancellations score	Major incidents and issues contributing to cancellations
7 December 2023	6.3%	High proportion of traincrew-caused cancellations amid ASLEF strike action and overtime ban
8 December 2023	9.6%	High proportion of traincrew-caused cancellations amid ASLEF strike action and overtime ban
9 December 2023	8.2%	High proportion of traincrew-caused cancellations, final day of ASLEF overtime ban
10 December 2023	7.4%	Storm Fergus impacts and an overhead line issue at Paddington
11 December 2023	5.2%	Storm Fergus impacts and overhead line issues at Sandy
14 December 2023	5.5%	Axle counter failure at Heathrow Airport Junction and high crew cancellations
15 December 2023	7.4%	Continuing incident at Heathrow and fatalities at Bourne End and Plumstead
21 December 2023	8.5%	Storm Pia impacts and overhead line issue at Bourne End
27 December 2023	13.6%	Storm Gerrit impacts and possession problems at West Hampstead and Sevenoaks
28 December 2023	6.7%	Continuing Storm Gerrit impacts and fatalities at Wealdstone and Heathrow Airport

Periodic (four-weekly) data on severe disruption at a national and sub-operator level can be found in Table 3157.

4. Train operator analysis

Trains planned

Figure 4.1 Trains planned increased for 23 out of 24 operators

Trains planned by operator, October to December 2023, and percentage change compared with October to December 2022 (Table 3123)

	Trains planned, Oct to Dec 2023		pp change on Oct to Dec 2022	
Govia Thameslink Railway	260,000		5.7%	
Northern Trains	203,000		34.0%	
ScotRail	174,000		11.8%	
South Western Railway	137,000		18.4%	
Great Western Railway	137,000		15.9%	
Southeastern	135,000		11.8%	
London Overground	134,000		10.4%	
Greater Anglia	103,000		14.2%	
West Midlands Trains	93,500		9.4%	
Elizabeth line	87,900		18.1%	
TfW Rail	77,900		3.9%	
Merseyrail	46,400		-1.3%	
East Midlands Railway	40,500		15.7%	
c2c	25,800		6.4%	
TransPennine Express	25,500		40.0%	
Chiltern Railways	25,500		13.0%	
Avanti West Coast	21,100		42.3%	
CrossCountry	19,900		9.3%	
London North Eastern Railway	13,300		9.8%	
Caledonian Sleeper	516		7.2%	
Heathrow Express	13,100		6.9%	
Grand Central	1,670		10.2%	
Hull Trains	1,190		6.7%	
Lumo	903		10.4%	

The change in trains planned in the latest quarter compared to the same quarter in the previous year (October to December 2022) varied by operator, from an increase of 42.3% for Avanti West Coast to a decrease of 1.3% for Merseyrail. This should be considered when reviewing the punctuality and reliability data and charts in the sections below.

The significant increases in trains planned on the same quarter the previous year reflect a reduction in the number of strike days recorded in the latest quarter. The 'spread-out' pattern of strikes across between operators in the first week of December (i.e. different operators striking on different days) has resulted in smaller reductions in trains planned than would usually be seen on strike days. The large increases observed for Avanti West Coast, TransPennine Express and Northern Trains reflect that they were each running reduced timetables in 2022.

Seventeen operators have reported they use the practice of resource availability shortage "P-coded" pre-cancellations. Pre-cancelled trains are removed from the timetable before the 22:00 the previous evening and are not included in trains planned statistics.

Periodic (4-weekly) operational data in Table 3124 are made available on the ORR data portal as soon as the data are loaded and validated into our systems. At the date of this release's publication (7 March 2024), the latest periodic data available is up to 3 February 2024.

Punctuality

Figure 4.2   Punctuality was worse for 14 out of 24 operators

On Time by operator, October to December 2023 and percentage point (pp) change compared with October to December 2022 (Table 3133)

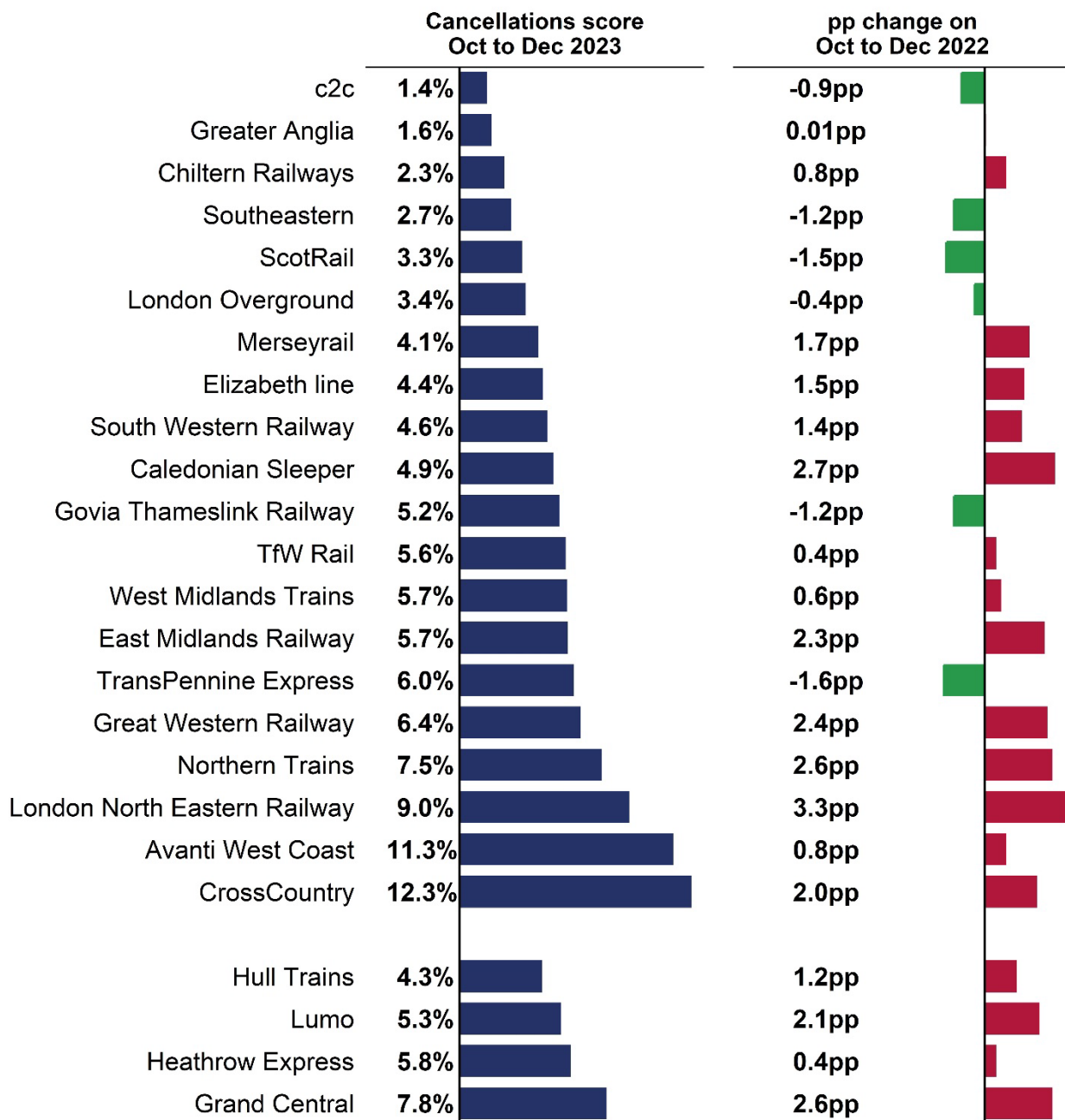|	On Time, Oct to Dec 2023		pp change on Oct to Dec 2022	
Greater Anglia	84.2%		9.5pp	
Elizabeth line	76.5%		-7.4pp	
Chiltern Railways	76.4%		8.5pp	
c2c	76.3%		2.2pp	
London Overground	69.8%		-1.1pp	
Merseyrail	68.7%		-6.4pp	
Govia Thameslink Railway	64.5%		1.8pp	
ScotRail	62.9%		0.5pp	
Southeastern	62.3%		4.9pp	
Caledonian Sleeper	59.3%		-1.3pp	
South Western Railway	57.8%		-2.3pp	
West Midlands Trains	57.1%		5.3pp	
Great Western Railway	56.4%		-2.7pp	
TfW Rail	56.2%		-0.4pp	
Northern Trains	50.2%		-0.6pp	
London North Eastern Railway	48.3%		0.05pp	
East Midlands Railway	44.8%		-3.1pp	
CrossCountry	40.3%		-3pp	
TransPennine Express	40.0%		-6.5pp	
Avanti West Coast	37.2%		3.2pp	
Heathrow Express	66.6%		-12.2pp	
Lumo	44.4%		-6pp	
Hull Trains	42.9%		2.2pp	
Grand Central	37.5%		-2.4pp	

Greater Anglia recorded the highest increase in On Time percentage compared with the same quarter the previous year (October to December 2022, up 9.5pp), while Heathrow Express had the largest decrease (down 12.2pp).

Periodic (4-weekly) operational data in Table 3138 are made available on the ORR data portal as soon as the data are loaded and validated into our systems. At the date of this release's publication (7 March 2024), the latest periodic data available is up to 3 February 2024.

Reliability

Figure 4.3   Most operators saw an increase in their Cancellations score

Cancellations score by operator, October to December 2023 and percentage point (pp) change compared with October to December 2022 (Table 3123)

	Cancellations score Oct to Dec 2023	pp change on Oct to Dec 2022
c2c	1.4%	-0.9pp
Greater Anglia	1.6%	0.01pp
Chiltern Railways	2.3%	0.8pp
Southeastern	2.7%	-1.2pp
ScotRail	3.3%	-1.5pp
London Overground	3.4%	-0.4pp
Merseyrail	4.1%	1.7pp
Elizabeth line	4.4%	1.5pp
South Western Railway	4.6%	1.4pp
Caledonian Sleeper	4.9%	2.7pp
Govia Thameslink Railway	5.2%	-1.2pp
TfW Rail	5.6%	0.4pp
West Midlands Trains	5.7%	0.6pp
East Midlands Railway	5.7%	2.3pp
TransPennine Express	6.0%	-1.6pp
Great Western Railway	6.4%	2.4pp
Northern Trains	7.5%	2.6pp
London North Eastern Railway	9.0%	3.3pp
Avanti West Coast	11.3%	0.8pp
CrossCountry	12.3%	2.0pp
Hull Trains	4.3%	1.2pp
Lumo	5.3%	2.1pp
Heathrow Express	5.8%	0.4pp
Grand Central	7.8%	2.6pp

Reliability improved for six operators, with lower Cancellations scores compared with the same quarter the previous year (October to December 2022). Of these, TransPennine Express (down 1.6pp) showed the most improvement. London North Eastern Railway (up 3.3pp) had the largest percentage point increase (i.e. worsened).

Periodic (4-weekly) operational data in Table 3124 are made available on the ORR data portal as soon as the data are loaded and validated into our systems. At the date of this release's publication (7 March 2024), the latest periodic data available is up to 3 February 2024.

P*-coded pre-cancellations

Some operators have reported they use the practice of "P*-coding" for resource availability shortage pre-cancellations. Pre-cancelled trains are removed from the timetable before it is finalised at 22:00 the previous evening and therefore may not be appearing in operators' Cancellations scores. Operators who use "P*-coding" may therefore have a lower Cancellations score reported in this release than that which a passenger may experience. From the start of 2023 ORR has collected and published the number of trains that each operator removed from the timetable due resource availability shortages every rail period.

These data are published with an 'adjusted Cancellations score' to include the trains removed from the timetable due resource availability shortages. The 'adjusted Cancellations score' was calculated by combining the official Cancellations score data with the resource availability shortage pre-cancellations data. More information about how the adjusted Cancellations scores are calculated and the limitations of the measure can be found in the Passenger rail performance: cancellations data factsheet on the ORR data portal.

Based on the data we collected, the adjusted Cancellations score for the latest quarter was 5.4% (Figure 4.4). This was 0.5pp higher than the official Cancellations score. In the latest quarter, 17 operators reported the use of "P*- coding" for resource availability shortage pre-cancellations, and of these, London North Eastern Railway had the highest adjusted Cancellations score at 11.6%.

Figure 4.4 Seventeen operators reported the use of "P*- coded" pre-cancellations in the latest quarter

Official Cancellations score and "P*- coded" adjusted Cancellations score, Great Britain and by operator, October to December 2023 (Table 3128 – periodic data)
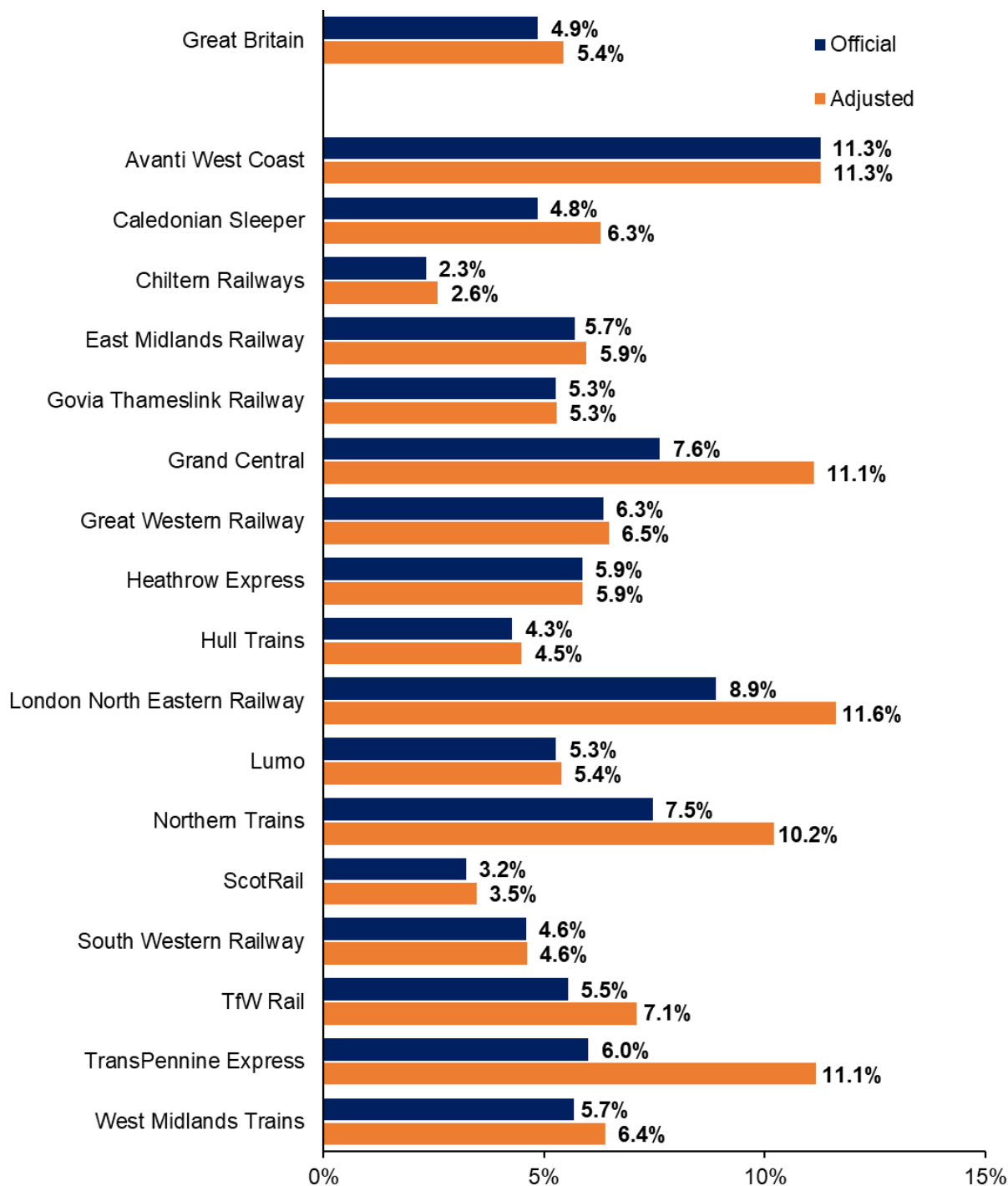
More information and data about resource availability shortage "P*- coded" pre-cancellations can be found in the Passenger rail performance: cancellations data factsheet and Table 3128 on the ORR data portal. At the date of this release's publication (7 March 2024), the latest periodic data available is up to 3 February 2024.

5. Annexes

Annex 1 – Definitions

- **On Time** measures the percentage of recorded station stops arrived at early or less than one minute after the scheduled time (as per timetable). Early trains are classified as 'on time'. *A higher On Time score indicates better punctuality.*

- **Time to 3 and Time to 15** measure the percentage of recorded station stops arrived at early or less than three and 15 minutes respectively after the scheduled time. The percentages are cumulative.

- **A recorded station stop** is defined as a location with both a planned timetable time and an actual recorded time where a train has stopped. Up to around 90% of all station stops are currently recorded. No estimates have been made for punctuality at the c.10% of station stops not recorded.

- The **moving annual average (MAA)** reflects the proportion of trains On Time (or cancelled if referring to cancellations measure) in the past 12 months.

- **Public Performance Measure (PPM)** is the proportion of trains arriving at their final destination early or less than five minutes after the scheduled time for London and South East, Regional and Scotland operators, or less than ten minutes for Long Distance operators. For three of the open access operators (Hull Trains, Grand Central and Lumo), it is less than ten minutes, while Heathrow Express services it is less than five minutes. Where a train fails to stop at one or more booked calling points on the journey, the train is considered to have failed PPM. *A higher score indicates better punctuality.*

- **Delay minutes** are defined as the time lost between consecutive timing points on the rail network. Delay incidents producing three or more minutes of delay on Britain's railways are attributed to either Network Rail or a train operator. As well as infrastructure and operational delays such as signal failures and overrunning engineering works, delays caused by external factors such as severe weather, vandalism, cable theft and trespass are also attributed to Network Rail. This is because they are considered best placed to mitigate for such incidents.

- **Consistent Region Measure – (Passenger) Performance (CRM-P)** is defined as the delay attributed to Network Rail from incidents occurring in each Network Rail Region, per 100 train kilometres. *A lower score reflects better performance.*

- **Average Passenger Lateness (APL)** measures the average lateness of a passenger as they alight from their train. It is estimated for each train by multiplying the number of passengers expected to alight at main stations by the punctuality to the nearest minute at those stops. The measure also takes into account passenger lateness resulting from cancelled trains.

- **Cancellations score** measures the amount of trains that are cancelled as a percentage of trains planned. This would include trains missing stations and/or not reaching their destination. The cancellations measure is a score which weights full cancellations as one and part cancellations as half. This industry measure is an indicator of disruption against the timetable operating on the day. The timetable is finalised at 22:00 the previous evening, and trains removed from the timetable before then will not be included. *A lower cancellations score indicates better reliability.*

- **P*-coded pre-cancellations** are trains removed from the timetable before it is finalised at 22:00 the previous evening. The data ORR collects and publishes is for resource availability shortage pre-cancellations only.

- **Responsibility for cancellations**: A delay attribution process is used to apportion responsibility for cancellations and any one cancellation can be split between multiple causes of delay. **External incidents** are attributed to the party considered best placed to mitigate their effects.

- A **severely disrupted day** at a national (GB) level is defined when the cancellations score is 5% or more. At a sub-operator level, a severely disrupted day is defined when the cancellations score for any sub-operator is 20% or more.

Further information on each of these measures and other definitions can be found in the quality and methodology report on the Passenger rail performance page of the data portal.

Annex 2 – Quality and methodology

Data source

Most of the data contained within this statistical release are collected automatically from Network Rail's TRUST System (Train Running System on TOPs (Total Operation Processing System)). The latest data should be treated as provisional, as train operators provide Network Rail with information e.g. on cancellations, which can be updated over time. These updates are only provided at operator level. As such, aggregations of sub-operator data can provide slightly different figures to those published at the operator level.

These measures are judged against what is known as the plan of the day. The train operator and Network Rail confirm this at 22:00 on the previous evening. Trains removed from the railway systems before this time are excluded from the measures presented in this statistical release and associated data tables.

Network Rail provides data to ORR within 21 days of the end of each of the 13 railway reporting periods (each period lasts four weeks). Where possible, Network Rail remaps historical data to match the railway franchises that exist today. The quarterly data in this release are derived by splitting the periodic data according to the number of days of the period that falls within each quarter.

Punctuality and reliability by operator

The data provided in Table 3133 (Train punctuality at recorded station stops) and Table 3123 (Train cancellations) show the railway as it exists today. Historical data are shown for the existing operators as far back as data are available. For some operators, data are available quarterly as far back as April 1997. While comparisons can be made with historical data, it should be noted that the service provided by many operators has changed substantially.

As an example, during the year April 1997 to March 1998 Virgin Trains West Coast (VTWC) planned to run 55,600 trains. During the year April 2012 to March 2013 this figure had almost doubled to reach 110,400. In December 2013, however, the operator reconfigured their timetable to extend Scotland to Birmingham services to London in place of some Birmingham to London services. A change in service composition such as this would have had an effect on the overall level of performance of the operator.

Trains planned, PPM and CaSL performance of the operators that existed at the time is available in Table 3103.

Sub-operator level data

Train punctuality and reliability performance data by sub-operator can be found in Table 3167 (Disaggregated train punctuality and reliability performance on the rail network).

In some cases, individual operators are broken down into different sub-operators under different brand names e.g. Govia Thameslink Railway operates as Gatwick Express, Great Northern, Southern, and Thameslink.

Four operators provide services in more than one sector: East Midlands Trains, Great Western Railway, Greater Anglia, and West Midlands Trains. Each of these operators is broken down into different sub-operators corresponding to each sectoral component.

Recent changes to train operators

On 24 May 2022, the Elizabeth line opened to passengers. Also, on this date the services running under TfL Rail were rebranded as the Elizabeth line.

On 28 May 2023, TransPennine Express was moved to public ownership under the Department for Transport Operator of Last Resort (OLR).

On 25 June 2023, Caledonian Sleeper was moved to public ownership under the Scottish Government.

Further information on individual operators, including route maps, can be found via the Rail Delivery Group website.

Revisions

There have been no revisions to previously published data.

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

How these statistics can be used

- Monitoring the punctuality and reliability performance of passenger rail services in Great Britain
- Supporting high level understanding of why performance has changed on the rail network
- Comparing rail performance by passenger operator (noting that performance across the rail network will have different challenges e.g. busier sections)
- Monitoring performance over time, broadly based on the railway as it exists today

How these statistics cannot be used

- Monitoring passenger rail usage (refer to Passenger rail usage statistics)
- Monitoring freight rail performance (refer to Freight rail usage and performance statistics)
- Monitoring the impact of franchise changes on performance (historical data is generally presented based on the railway as it exists today)

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 performance page](#).

Train punctuality

- Train punctuality at recorded station stops by operator – Table 3133
- Train punctuality at recorded station stops by operator (periodic) – Table 3138
- Public Performance Measure by operator and sector – Table 3113
- Public Performance Measure by operator and sector (periodic) – Table 3114

Train reliability

- Trains planned and cancellations by operator and cause – Table 3123
- Trains planned and cancellations by operator and cause (periodic) – Table 3124
- Days of severe disruption by sub-operator (periodic) – Table 3157
- Cancelled and Significantly Late by operator and sector (periodic) – Table 3194
- Pre-cancellations and adjusted cancellations score by operator (periodic) – Table 3128

Other tables

- Disaggregated train punctuality and reliability performance by sub-operator (periodic) – Table 3167
- Average passenger lateness by operator and sector (periodic) – Table 3144
- Delay minutes by operator and cause (periodic) – Table 3184
- Historic passenger trains planned, PPM, and CaSL - quarterly by operator – Table 3103
- Consistent Region Measure (Passenger) Performance by Region (periodic) – Table 3174

Other related statistics

The [Passenger rail Performance: P-coded cancellations](#) data is published on the Passenger rail performance page of the data portal.

Freight rail performance data tables are published on the [Freight rail usage and performance page](#) on the data portal.

ORR publishes [quarterly passenger rail usage statistics](#). Statistics covering the latest quarter (1 October to 31 December 2023) will be published on 21 March 2024.

The Department for Transport (DfT) publishes [rail statistics](#). For example, Rail passenger numbers and overcrowding on weekdays in major cities.

DfT has also published statistics on the estimated reduction in services during the strike action, for each train operator, as part of a consultation on [implementing minimum service levels for passenger rail](#).

European comparisons

Due to differences in how passenger rail performance is measured in other countries, opportunities to make direct comparisons with statistics in this release are limited. Data from other European countries is published in the [IRG-Rail Eleventh Annual Market Monitoring Report](#).

Annex 4 – ORR's statistical publications

Our statistical practice is regulated by the Office for Statistics Regulation (OSR). OSR sets the standards of trustworthiness, quality and value in the Code of Practice for Statistics that all producers of official statistics should adhere to. You are welcome to contact us directly with any comments about how we meet these standards by emailing rail.stats@orr.gov.uk. Alternatively, you can contact OSR by emailing regulation@statistics.gov.uk or via the OSR website.

Statistical Releases

This publication is part of ORR's 'accredited official statistics', 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.**

ORR also publishes a number of other 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.

Accredited official statistics

Accredited official statistics are called National Statistics in the Statistics and Registration Service Act 2007. They are official statistics that have been independently reviewed by the Office for Statistics Regulation and found to comply with the standards of trustworthiness, quality and value in the Code of Practice for Statistics.

The majority of our statistical releases were independently reviewed by the OSR in June 2012. They comply with the standards of trustworthiness, quality and value in the Code of Practice for Statistics and are labelled accredited official statistics.

Since our review 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 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 accredited official 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 independently reviewed by OSR in November 2020 and their accreditation was confirmed on 1 December 2020.

For more information on how we adhere to the Code please see our compliance statements.

If you have any feedback or questions please email rail.stats@orr.gov.uk.