

Passenger rail performance 1 April to 30 June 2022



15 September 2022

Passenger rail performance in the latest quarter (April to June 2022) was worse than the same quarter one year ago for the main measures of punctuality and reliability. However, **On Time** was better than the same quarter before the pandemic (April to June 2019).

Figure 1 Passenger rail performance worsened in the latest quarter compared with one year ago

On Time, PPM, Cancellations, Great Britain, April to June 2022 and change from same quarter of 2021 and 2019.

Measure	Apr to Jun 2022	Compared with Apr to Jun 2021 (one year ago)		Compared with Apr to Jun 2019 (before pandemic)	
On Time	72.6%	•	-5.5pp	•	3.1pp
PPM	89.6%	•	-3.1pp	•	-0.4pp
Cancellations score	3.1%	•	0.8pp	•	0.7pp

In the latest quarter, there were **1.67** million **trains planned** in Great Britain. This was up 2.6% compared with the same quarter one year ago, but down 15.2% compared with the same quarter in 2019.

For the **On Time** punctuality measure, the percentage of recorded station stops arrived at 'on time' in Great Britain was **72.6%** in the latest quarter. Using **PPM**, **89.6%** of trains were punctual at their final destination in the latest quarter.

The **Cancellations score** in the latest quarter was **3.1%**. The cancellation measure is a weighted score which counts full cancellations as one and part cancellations as half. Strike action by the RMT union took place on 21, 23 and 25 June. In response a reduced timetable was put in place on the strike days and the days between. The Cancellations score only takes account of trains cancelled from the planned reduced service.

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. Key definitions are in annex 1 of this release.

Background:

This quarterly statistical release contains information on passenger rail performance measures of punctuality and reliability for Great Britain.

These include: On Time at every recorded station stop, train delays, PPM, Cancellations and Severely disrupted days.

It also contains detailed information by train operator.

Source: Network Rail

Latest quarter: 1 April to 30 June 2022

Contents:

Background – p2 Train punctuality – p4 Train reliability – p8 Train operator analysis – p11

Annexes - p14

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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. To monitor how the recovery of the railway network impacts train performance we focused the presentation of the latest quarterly statistics in this release compared with the same quarter (1 April to 30 June) of both the previous year (2021) and three years ago (2019, before the pandemic).

Trains planned

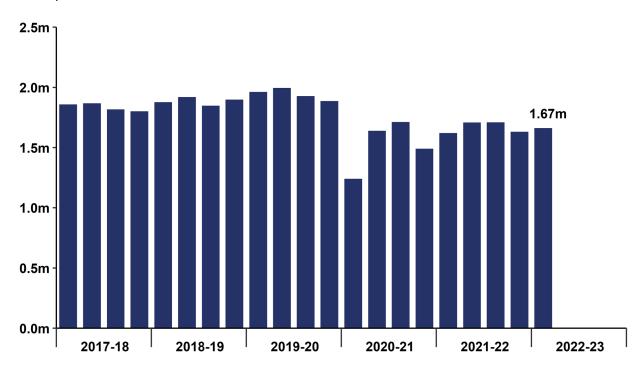
A train planned in this statistical release refers to a train service confirmed to run by the operator and Network Rail at 22:00 on the previous evening. Planned train services removed from the railway systems before this cut-off time are not included.

In the latest quarter, **strike action** by the RMT union took place on 21, 23 and 25 June. In response a reduced timetable was put in place on the strike days and the days between (22 and 24 June). Compared with the equivalent days in the week before and the week after the strikes, the trains planned in Great Britain were down by around 80% on the strike days and down by around 25% on the days between the strike days. Information about train cancellations from the planned reduced service during the strike period can be found in section 3 (Severe disruption) of this release.

In the **latest quarter**, there were **1.67 million** trains planned in Great Britain. This was up 2.6% compared with the same quarter the previous year (1 April to 30 June 2021) but was down 15.2% compared with the same quarter in 2019 (1 April to 30 June 2019).

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

Trains planned (millions), Great Britain, quarterly data, April 2017 to June 2022 (Table 3123)



For the **year** up to June 2022 (1 July 2021 to 30 June 2022), there were **6.73 million** trains planned in Great Britain. This was up 3.8% compared with the previous year ending June 2021 and down 12.0% compared with the year ending June 2019.

Passenger usage

The Department for Transport publishes <u>daily statistics on transport use by mode</u> compared with the equivalent week in 2019. According to these estimates, between April and May 2020 (during the pandemic) passenger usage reached as low as 4% of the equivalent weekly levels in 2019. Since then, passenger usage has recovered. At the start of the **latest quarter** (1 April 2022) passenger usage was at 72% of equivalent weekly levels in 2019 and in the week starting 13 June 2022 reached a high of 93%. During the week of the rail strikes (20 June to 26 June 2022) passenger usage declined to 48% of the equivalent weekly levels in 2019. However, there was a rise in passenger usage after the strikes, reaching 72% at the end of the latest quarter (30 June 2022).

The Office of Rail and Road (ORR) publishes <u>quarterly passenger rail usage statistics</u>. Statistics covering the latest quarter (1 April to 30 June 2022) will be published on 6 October 2022.

2. Train punctuality

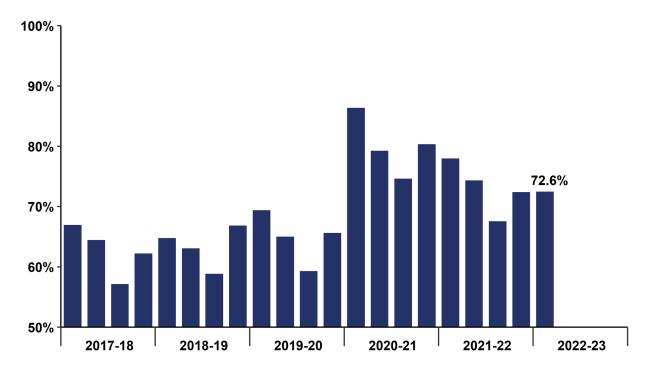
Punctuality at each recorded station stop

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

In the **latest quarter**, **72.6%** of recorded station stops in Great Britain (13.2 million out of 18.2 million) were arrived at On Time. This was 5.5 percentage points (pp) lower (i.e. worse) than the same quarter the previous year. The latest quarter was 3.1pp higher than the same quarter in 2019 (1 April to 30 June 2019).

Figure 2.1 On Time percentages are higher than before the pandemic

On Time, Great Britain, quarterly data, April 2017 to June 2022 (Table 3133)



For the **year** up to June 2022 (1 July 2021 to 30 June 2022), **71.8%** of recorded station stops in Great Britain (52.8 million out of 73.5 million) were arrived at On Time. This was down 6.3pp compared with the previous year ending June 2021 and up 7.0pp compared with the year ending June 2019.

Further train punctuality data is available in Table 3133. This includes 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.

Revisions: Historical **On Time** data (including Time to 3 and Time to 15) from 1 April 2015 presented in this release, Table 3133 and Table 3138 were revised. On Time is the punctuality measure for the recorded station stops and should not include the planned stops of cancelled trains (**failure to stop** station stops). It was found in some cases, failure to stops were included. To address this Network Rail have made improvements to their methodology and removed failure to stops before calculating the On Time percentages. Comparison of the periodic On Time data before and after the revisions showed the changes in the majority of cases (97%) were around 0.5 percentage points (pp) or less.

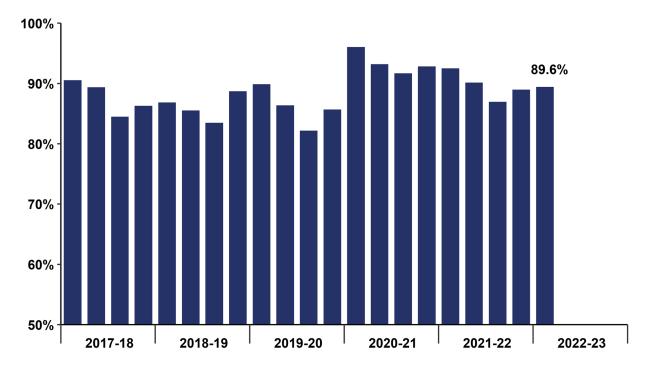
Public Performance Measure (PPM)

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 **89.6%**. This was 3.1pp lower (i.e. worse) than the same quarter the previous year. PPM in the latest quarter was 0.4pp lower than the same quarter in 2019 (1 April to 30 June 2019).

Figure 2.2 PPM percentage similar to levels seen before the pandemic in the latest quarter





PPM for the **year** up to June 2022 (1 July 2021 to 30 June 2022), was **89.0%**. This was down 3.7pp (i.e. worse) compared with the previous year ending June 2021 and up 1.9pp compared with the year ending June 2019.

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 27.0% compared with the same quarter the previous year. Delay minutes attributed to operators increased by 56.9% compared with a year earlier.

For detailed information on Network Rail and operator performance this quarter, please see our interactive performance dashboard on the data portal.

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 <u>Network Rail region</u>, per 100 train kilometres.

CRM-P is one of the key measures used by ORR for routine <u>monitoring and assessment</u> of Network Rail's <u>passenger rail performance</u>. ORR monitors delivery against annual CRM-P targets and regulatory floors set for each of the five Network Rail regions. Data for CRM-P can be found in Table 3174.

Average Passenger Lateness

Average Passenger Lateness (APL) measures the average lateness of a passenger as they alight from their train. Data for APL can be found in Table 3144.

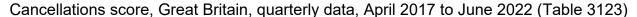
3. Train reliability

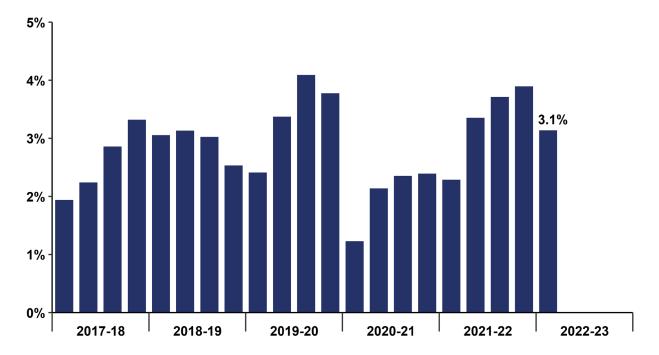
Cancellations

In the **latest quarter**, of the 1.67 million trains planned, 0.04 million were full cancellations and 0.03 million 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. Strike action by the RMT union took place on 21, 23 and 25 June. In response a reduced timetable was put in place on the strike days and the days between. The Cancellations score only takes account of trains cancelled from the planned reduced service.

In the **latest quarter**, the Cancellations score was **3.1%** which was 0.8pp higher (i.e. worse) than the same quarter the previous year. The latest quarter was 0.7pp higher than the same quarter in 2019 (1 April to 30 June 2019).

Figure 3.1 Cancellations increased over the last financial year and remained high in the latest quarter





The Cancellations score for the **year** up to June 2022 (1 July 2021 to 30 June 2022) was 3.5%. This was up 1.2pp (i.e. worse) compared with the previous year ending June 2021 and up 0.8pp (i.e. worse) compared with the year ending June 2019.

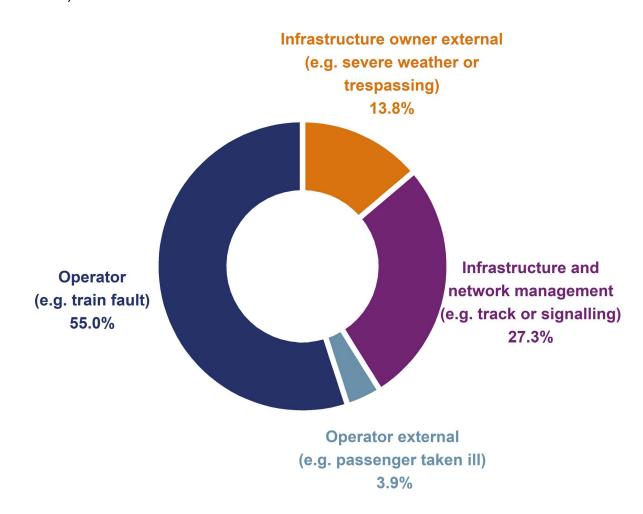
Train cancellations Table 3123 (quarterly) and Table 3124 (periodic) include data on the number of full and part cancellations by operator.

Responsibility for cancellations

In the **latest quarter**, of all attributed cancellations, operators were attributed with responsibility for 58.9% of cancellations that occurred. Infrastructure owners were attributed with responsibility for 27.3% of cancellations for infrastructure and network management issues, with another 13.8% 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 Over half of cancellations were attributed to operators in the latest quarter

Proportion of cancellations by responsibility category, Great Britain, April to June 2022 (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 **5** severely disrupted days in the latest quarter. The same quarter the previous year had **0** severely disrupted days.



The 5 severely disrupted days in the latest quarter were on 11 April, 17, 19, 21, 22 June.

On 11 April (5.5% of trains planned were cancelled) a large number of cancellations were attributed to an incident involving a fatality near Wimbledon.

On 17 June (6.9%) a large number of cancellations were attributed to a section trip at Ledburn Junction to Bletchley.

On 19 June (5.1%) the cancellations were mainly attributed to traincrew issues.

During the rail strike period (21 to 25 June) a reduced timetable was in place (see Trains planned in section 1), therefore any train cancelled was from the planned reduced service. On 21 June (7.5% of trains planned were cancelled) most cancellations were attributed to the strike action. On 22 June (5.3%) cancellations were mainly attributed to fleet incidents and an incident involving a fatality near Wimbledon.

Please note the other days during the strike action period, 23 June (2.2%), 24 June (3.6%) and 25 June (3.1%), were not classed as severely disrupted days as cancellations did not meet the 5% threshold.

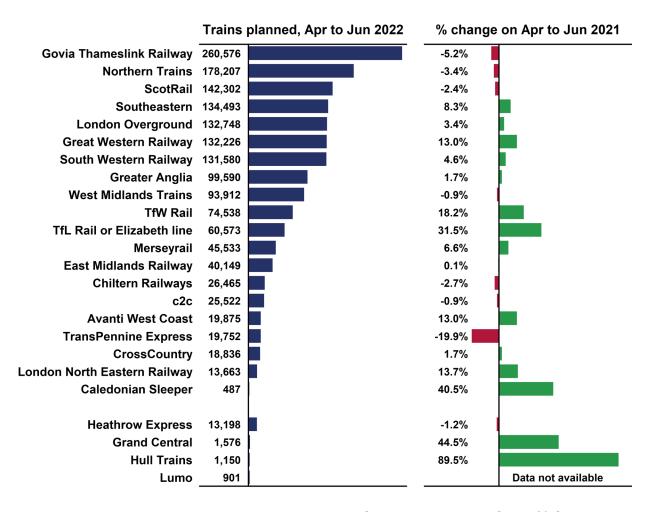
Periodic (four-weekly) data on severe disruption at a national and sub-operator level can be found in Table 3157.

4. Train operator analysis

Trains planned

Figure 4.1 Trains planned increased for 15 out of 23 operators compared with the same quarter the previous year

Trains planned by operator, April to June 2022, and percentage change compared with April to June 2021 (Table 3123)

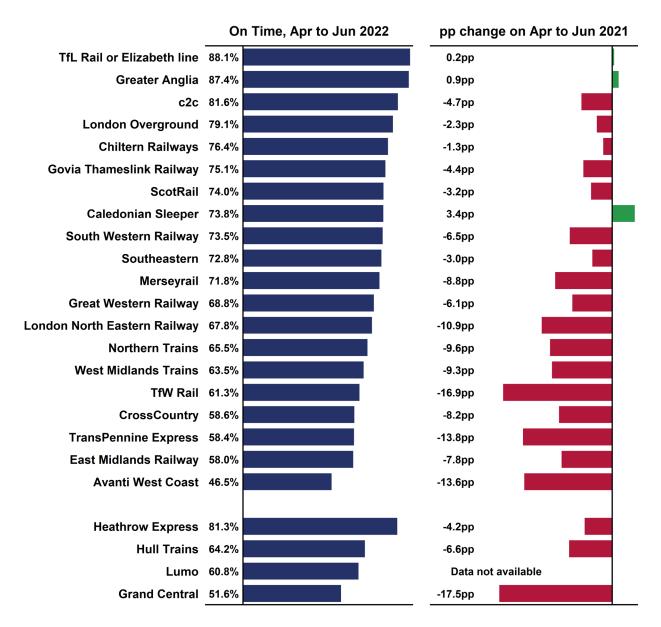


The changes in trains planned varied by operator from an increase of 89.5% for Hull Trains to a decrease of 19.9% for TransPennine Express. Lumo began running services on 25 October 2021, therefore there are no data for April to June 2021 available for comparison. For some operators, trains planned substantially changed this quarter compared with the same quarter the previous year. This should be taken into account when reviewing the punctuality and reliability data and charts in the sections below. Both Hull Trains and Grand Central (up 89.5% and 44.5% respectively) were running reduced services in the same quarter the previous year compared with before the pandemic (607 and 1,090 trains planned receptively). With the opening of the Elizabeth line (up 31.5%) on 24 May 2022, all previous TfL Rail services were rebranded as the Elizabeth line.

Punctuality

Figure 4.2 Punctuality improved for only three operators in the latest quarter

On Time by operator, April to June 2022 and percentage point (pp) change compared with April to June 2021 (Table 3133)

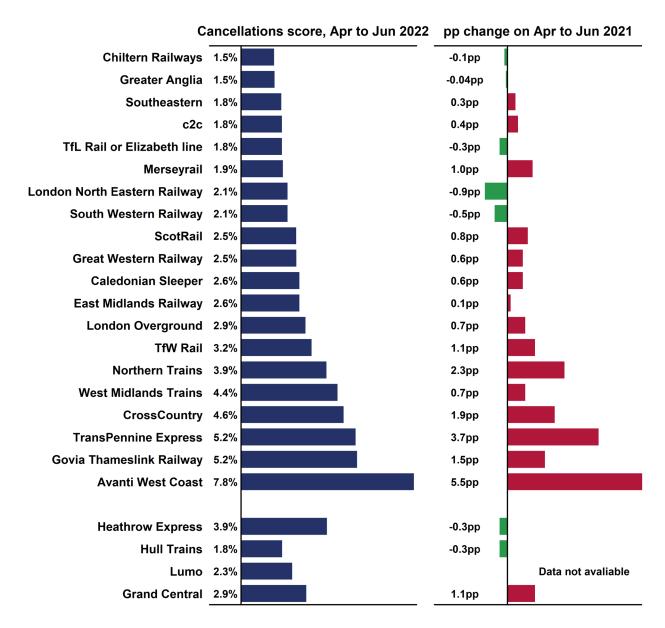


Punctuality improved for three operators that had higher On Time percentages in the latest quarter compared with the same quarter last year (April to June 2021). Of these, Caledonian Sleeper had the largest pp increase in On Time percentage. Grand Central had the largest decrease in On Time percentage (down 17.5pp).

Reliability

Figure 4.3 Reliability of most operators worsened in the latest quarter

Cancellations score by operator, April to June 2022 and percentage point (pp) change compared with April to June 2021 (Table 3123)



Reliability improved for seven operators, with lower Cancellations scores compared with the same quarter the previous year (April to June 2021). Of these, London North Eastern Railway (down 0.9pp) showed the most improvement. Avanti West Coast (up 5.5pp) had the largest pp increase in cancellations and had the highest Cancellations score (7.8%) of all operators in the latest quarter.

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. A lower cancellations score
 indicates better reliability.
- 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 <u>Passenger rail performance page</u> 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 suboperator data can provide slightly different figures to those published at the operator level.

All of 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

Lumo is a new open access operator which began running services on 25 October 2021 between end stations London King's Cross and Edinburgh Waverley on the East Coast Main Line.

On 1 April 2022 the ScotRail franchise transferred to the publicly owned ScotRail Trains Limited company.

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

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

Revisions

There have been revisions to previously published data:

Tables 3133 (quarterly) and 3138 (periodic) – Data from April 2015 have been revised due to Network Rail making improvements to their methodology by removing failure to stops before calculating the On Time percentages. The magnitude of these revisions in the majority of cases (97%) were around 0.5 percentage points (pp) or less.

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

How these statistics can and cannot 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



- Monitoring passenger rail usage (refer to <u>Passenger rail usage</u> statistics)
- Monitoring freight rail performance (refer to <u>Freight rail usage and</u> <u>performance statistics</u>)
- 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 <u>data portal</u> 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

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

Freight rail performance data tables are published on the <u>Freight rail usage and</u> performance page on the data portal.

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

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 Tenth Annual Market Monitoring Report.

<u>Historic comparisons with railways in the rest of Europe</u> are available for 2014 to 2016. For trains in Scotland and the Regional and London and South East sectors, 87.8% of services in 2016 arrived less than five minutes after their scheduled arrival time at their final destination. This ranks Britain 19th out of 25 countries. For long distance services, 77.5% arrived less than five minutes after their scheduled arrival time at their final destination. This ranks Britain 15th out of 23 countries.

Annex 4 – ORR's statistical publications

Statistical Releases

This publication is part of ORR's <u>National Statistics</u> 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 three annual publications: **Train operating company key statistics**; **Rail statistics compendium**; **Occupational health**; 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 <u>data portal</u> along with a list of <u>publication</u> <u>dates</u> 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 <u>statistical releases were assessed in 2012</u> 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 <u>Office for Statistics Regulation</u> (OSR) to conduct a compliance check to ensure we are still meeting the standards of the Code. On 4 November 2019, <u>OSR published a letter</u> 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. <u>Estimates of Station Usage statistics were assessed in 2020</u>.

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



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