Passenger Rail Performance: Quality and Methodology Report

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Contents

Introduction

This is a report on the quality of the passenger rail performance statistical release and data portal tables. It helps users to understand the quality of our statistics, and also ensures ORR is compliant with the three quality principles in the Code of Practice for Official Statistics[1].

The quality report covers the following areas:

- **Methodology** – detail on the various data sources, methodology used to compile the statistics and changes to data previously published;
- **Historic background** – a background to each performance statistics and details of changes throughout the time series;
- **Relevance to users** – the users of the statistics, and our engagement;
- **Assured quality** – the accuracy, reliability and coherence of the statistics;
- **Orderly release** – our timescales for the production, quality assurance and publication of the statistics;
- **Accessibility and Clarity and insight** – the format of our statistics and where they can be found;
- **Data governance** – information security and data management

All performance data are supplied by Network Rail and rail performance is measured using a range of metrics, which are covered in detail in the methodology section below.

1 Suitable data sources: Statistics should be based on the most appropriate data to meet intended uses. The impact of any data limitations for use should be assessed, minimised and explained.

Sound methods: Producers of statistics and data should use the best available methods and recognised standards, and be open about their decisions.

Assured quality: Producers of statistics and data should explain clearly how they assure themselves that statistics and data are accurate, reliable, coherent and timely. The Code of Practice can be accessed here http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html

Methodology

Quarterly and periodic data

The rail industry reports data on a periodic basis rather than the more recognised reporting cycles such as monthly or quarterly. A period is normally a 28-day, or four weekly, period for business reporting purposes (Sunday to Saturday) and there are 13 periods in a financial year. The length of a period may differ at the end of the financial year, 31 March, and the beginning of the financial year, 1 April, to ensure that a break is made at 31 March.

Some quarterly datasets, such as quarterly train punctuality, and the Cancellations measure, require apportionment of these data.

The standard method for apportionment is based on the number of days within the period that fall into the relevant quarter. For example, the dates in period 4 cover both Q1 and Q2. When the quarterly data are calculated for 2019-20, 8/28 of the data are assigned to Q1 (covering 23 June to 30 June) and 20/28 of the data are assigned to Q2 (covering 1 July to 20 July).

The breakdown of the calculations used for 2019-20 are as follows:

Quarter	Calculation
2019-20 Quarter 1	Period 1 + Period 2 + Period 3 + 8/28 of Period 4
2019-20 Quarter 2	20/28 of Period 4 + Period 5 + Period 6 + 16/28 of Period 7
2019-20 Quarter 3	12/28 of Period 7 + Period 8 + Period 9 + 24/28 of Period 10
2019-20 Quarter 4	4/28 of Period 10 + Period 11 + Period 12 + Period 13

Moving Annual Average

The moving annual average (MAA) reflects the proportion of station stops on time/trains cancelled in the last 4 quarters or 13 periods.

We use MAAs to highlight longer term trends.

New passenger rail performance measures

The rail industry has developed a new set of punctuality and reliability performance measures for Control Period 6 (April 2019 to March 2024). The passenger rail performance statistical release now contains information on the new punctuality and reliability measures for Great Britain since 2013-14, in addition to the long-standing Public Performance Measure (PPM) since 1997-98.

Train punctuality

Punctuality at each recorded station stop

The punctuality of trains is measured at departure from the origin, arrival at the final destination and arrival at each intermediate station stop where recorded. Train punctuality is currently recorded at around 90% of all station stops. This is expected to increase over time.

- **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 respectively. The percentages are cumulative, so for example, the Time to 15 measure will include all the punctual (train) recorded station stops included in the Time to 3 measure (+ arrival of all recorded station stops between 3 minutes and 14 minutes 59 secs).

A recorded station stop is defined as a location with both a planned Great Britain timetable date/ time and an actual recorded date/ time (according to Network Rail's TRUST system). Planned stops where the train fails to stop at the location i.e. because the train has been cancelled in part or in full are excluded from these measures. Any train that fails to complete its full journey as scheduled is separately classified as either a part or full cancellation depending on the proportion of the journey completed.

Recorded station stops which are pick-up only or drop-down only are included within the measure because there are planned and actual date times within the TRUST system for them. However request stops are only included when they are activated and an actual arrival time is recorded.

There was a large increase in the number of recorded station stops during 2018-19. This is the result of more trains on the network and an increase in recording at station stops. We have undertaken some initial analysis to understand the effect of the increase in recorded station stops on these punctuality measures. This analysis suggests that the increase in recording at station stops partly explains the increase in the measures presented above; therefore, the improvements in punctuality are not fully due to improved train performance. ScotRail figures are particularly affected by these changes and should be treated with caution.

We publish quarterly and periodic punctuality data at Train Operating Company (TOC) level.

Public Performance Measure (PPM)

The lead measure of punctuality up to the end of Control Period 5 (April 2014 – March 2019) was the Public Performance Measure.

- **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 non-franchised operators (Hull Trains and Grand Central), it's less than ten minutes, except for Heathrow Express services which 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.

The new On Time measure calculates the proportion of recorded station stops arrived at early or less than one minute after the scheduled time. It will, therefore, almost always be a lower percentage than PPM.

We publish PPM data quarterly at sector and Train Operating Company (TOC) level. We also publish disaggregated PPM data by train operator and sub-operator[2] for each period.

Train reliability

Cancellations

Cancellations is a new measure of reliability for Control Period 6 (CP6). It only includes trains that have been cancelled and is completely separate from the punctuality measures at recorded station stops.

- **Cancellations** measures the amount of trains that are cancelled as a percentage of trains planned as confirmed by the train operator and Network Rail at 22:00 on the previous evening. 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.

A train is classed as a **full cancellation** if it ran less than half of its planned journey length (including trains that did not run at all).

[2] Sub operator PPM provides a breakdown of each operator's performance. For example, PPM data for London North Eastern Railway is available for Anglo-Scottish services and London-Leeds and North East (including Lincoln) services.

A train is classed as a **part cancellation** if:

- It ran at least half but not all of its planned journeys length, or
- It completed its whole journey length but failed to stop at one or more of its planned stations.

The Cancellations score % is calculated by dividing the Cancellations score (number) by the number of trains planned.

We publish quarterly and periodic cancellations data at TOC level and by responsibility category.

Examples of responsibility categories are 'NR responsible – Infrastructrure and network management' - track or signalling; 'NR responsible - External event' - weather or vandalism; 'TOC responsible - Train fault' - broken down train, crew shortage; 'TOC responsible - External' - passenger taken ill on train.

Severe disruption

Severe disruption is another train reliability measure.

- **Severe disruptions** counts the number of days on which a substantial number of services were cancelled. It is measured differently at the National and sub-operator levels:
  - A day counts as severely disrupted at the National (GB) level when the Cancellations score is 5% or more.
  - At the sub-operator level, a day counts as severely disrupted when the Cancellations score is 20% or more.

We publish periodic data on severe disruption at National and sub-operator level.

Cancellations and significant lateness (CaSL)

The previous measure of reliability, used in CP5, was the Cancellations and Significant Lateness (CaSL) measure.

- **Cancellations and Significant Lateness (CaSL)** – the percentage of passenger trains cancelled or arriving at their final destination more than 30 minutes later than planned.

CaSL was developed as a supplementary measure to PPM and delay minutes to ensure trains were not ‘written off’ by controllers or signallers once they exceeded their PPM threshold. This measure

helps performance recovery by not terminating a train short of its final destination and incentivising controllers or signallers to ensure the train arrives less than 30 minutes late.

A cancellation is defined as the termination of a train prior to reaching its destination or the failure of a train to depart from its point of departure; for which it was scheduled to run in the applicable timetable. There are two types of cancellations:

- **Part** – A train is considered to be a part cancellation if it covers more than half the scheduled mileage and either failed to run the whole journey or failed to stop at any station on the way. Trains completing their scheduled journey but arriving at their final destination late by 120 minutes or more also count as part cancellations;
- **Full** – A train is considered to be a full cancellation if it covers less than half the scheduled mileage, or does not run at all.

CaSL data are calculated by taking the total number of passenger trains cancelled (part or full) and significantly late (between 30 and 119 minutes) and dividing by the number of trains planned. This figure is expressed as a percentage and a lower figure indicates fewer cancellations and significant lateness. Periodic CaSL and CaSL MAA data are available by TOC and sector.

Delay minutes

Delay minutes are a useful diagnostic measure underpinning the punctuality of passenger and freight train services.

- **Delay minutes** – delays to train journeys experienced by passenger and freight companies due to disruption.

Delay minutes data are captured on Network Rail's TRUST system (a nested acronym standing for Train Running System on TOPS (Total Operation Processing System).

Network Rail attributed delays and freight delays data are also available in the Annual Return and historical record of Network Rail stewardship on the Network Rail website at: https://www.networkrail.co.uk/who-we-are/publications-and-resources/regulatory-and-licensing/annual-return/

Delay incidents are incidents that cause delay to passenger and freight trains. Delay incidents cause delay minutes. Delay incidents producing three or more delay minutes are attributed by Network Rail.

Historical delay minutes may be refreshed due to a dispute resolution process. We publish periodic delay minutes by TOC level and by responsibility category.

Other rail passenger performance measures

Consistent Region Measure – (Passenger) Performance

The Consistent Region Measure − (Passenger) Performance (CRM-P) is one of the key measures used by ORR for the 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.

- 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. The moving annual average (MAA) reflects the average delay attributed to Network Rail per 100 train kilometres in the past 12 months.

We publish periodic data on CRM-P by Region.

Average passenger lateness

Average passenger lateness (APL) is an estimate of how late every passenger reaches their destination station.

- APL measures the average lateness of a passenger as they alight from their train. It is calculated 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.

The national APL score is calculated by the following process:

- Train operating companies are split into service groups. For each service group the APL is calculated by direction of travel, by time of day (peak and off-peak) and by day of the week. Each service group/direction of travel has been assigned monitoring points at which trains are measured against the public timetable.

- Analysis of ticket sale data and revenue modelling is used to estimate the number of people alighting trains at each station by direction of travel, time of day and service code. Each monitoring point is weighted by the proportion of passengers that alight at this station or that have alighted since the last monitoring point.

- Trains that arrive early are assumed to have arrived on time as research has shown that passengers do not value earliness over right time. Where a train fails to call at a monitoring point,

APL is assumed to be 1.5 times the service frequency. So if a service group has a half hourly frequency then the passengers expected to have alighted the train are assumed to be 45 minutes late.

- To calculate the national score, the APLs for all monitoring points are aggregated and weighted by passenger numbers. The APL is calculated for trains advertised as scheduled at 22:00 the day before.

One limitation of APL is that it is the average lateness of a train at key locations weighted by the number of passengers alighting from those trains. Whilst each leg of a journey involving connections is measured, the overall success of a journey is not. That is, the delay incurred by missing a connecting service is not accounted for by the APL.

We publish periodic data on APL by TOC level and sector.

Sector definitions

The rail network is subdivided into three sectors, long distance, London and South East and Regional. At the time of privatisation these three sectors were based on the business units of British Rail.

- **London and South East sector** – based on the British Rail Network SouthEast services which operated commuter trains in the London area and the inter-urban services in South East England, although the network reached as far west as Exeter and as far north as Worcester, Northampton and King's Lynn;
- **Long Distance sector** – based on the British Rail InterCity services which were long-distance express services. Caledonian Sleeper services are not included in the Long Distance sector. They do, however, have a 10 minute threshold for PPM purposes;
- **Regional and Scotland sector** – based on the British Rail Regional Railways services which were all other services not included in the other two sectors. In some cases, for example in the Network Rail Monitor, services in Scotland (ScotRail and Caledonian Sleeper only) and Wales (Arriva Trains Wales) are treated separately from regional services. For the statistics published in our themed statistical releases services in Scotland and Wales are defined as regional services.

Following the refranchising of some services in 2006 and 2007 a number of TOCs operate services in more than one of the sectors. The current mapping of services to within each sector is listed below.

Long Distance:

- Greater Anglia (inter city services)
- CrossCountry
- East Midlands Trains (services to and from London St Pancras)
- TransPennine Express (*performance statistics only*)
- Grand Central (Open Access Operator)
- Great Western Railway (High speed services)
- Hull Trains (Open Access Operator)
- London North Eastern Railway (formerly Virgin Trains East Coast)
- Virgin Trains West Coast

London and South East:

- Greater Anglia (all non inter city services)
- c2c
- Chiltern Railways
- Govia Thameslink Railway
- Great Western Railway (London and Thames Valley commuter services)
- Heathrow Express (Open Access Operator)
- West Midlands Trains (Euston, St Albans, and Bletchley services)
- London Overground
- South Western Railway
- Southeastern
- TfL Rail

Regional:

- Transport for Wales (TfW) Rail
- East Midlands Trains (services in the East Midlands and in Central and Northern England)
- Great Western Railway (services in the west of England)
- West Midlands Trains (other services)
- Merseyrail
- Northern

Scotland:

- Caledonian Sleeper (10 minute threshold for PPM)
- ScotRail.

Transfer of services from Long Distance to Regional

The new Northern and TransPennine Express (TPE) franchises commenced operation on the 1 April 2016. Services between Manchester Airport and Blackpool North/Barrow-in-Furness and between Oxenholme and Windermere were transferred from TPE to Northern. Having previously had ten minutes to meet the Long Distance threshold for PPM, these services now have a five minute threshold in the Regional sector.

The historic data for TPE and Northern have been remapped to allow like for like comparisons to be made for these TOCs. At the national and sector level, however, the historic data have not been remapped. Using disaggregated data it is possible to assess what the effect of these changes would have been on PPM and PPM MAA between 2010-11 and 2015-16:

- **National**: Quarterly PPM adjustments of between -0.1 pp and 0.1 pp leading to reductions of between 0.01 pp and 0.02 pp for the PPM MAA;
- **Long Distance**: Reductions of between 0.2 pp and 0.6 pp to quarterly PPM values resulting in a fall in the PPM MAA of between 0.3 pp and 0.5 pp;
- **Regional and Scotland**: Quarterly PPM adjustments of between -0.2 pp and 0.2 pp leading to changes to the PPM MAA ranging from -0.05 pp to 0.03 pp.

Rail usage data sectors

Data within the LENNON (Latest Earnings Networked Nationally Over Night) ticketing and revenue database was changed following refranchising in 2006 and 2007 as the Rail Delivery Group (RDG) wished to keep a consistent time series. However, because ORR is able to extract data at a route level the data for multi-sector TOC's can be assigned to the relevant sectors. There is a difference between the rail usage and performance data as TransPennine Express services are classed as Regional services within rail usage data as opposed to Long Distance in performance data.

Historical background

Regulatory targets

Up to the end of the Control Period 5 (April 2014 – March 2019) Network Rail had regulatory targets for:

- **PPM** for England & Wales and each franchised TOC including a separate PPM target for Scotland;
- **CaSL** for England & Wales and each franchised TOC (no CaSL target for Scotland);
- National **FDM**.

Through consultation with Network Rail and the rail industry, ORR conducts periodic reviews of Network Rail to determine the outputs they must deliver, and the levels of access charge paid by train operators for use of its infrastructure. Subsequently ORR produced a determination document for the next five year period, Control Period 6 (CP6) which covers 1 April 2019 to 31 March 2024.

The determination document provides challenges and incentivises Network Rail to work together effectively with its industry partners to:

- Ensure the ongoing safety of the rail network;
- Improve the efficiency of operating, maintaining, renewing and enhancing each of the routes;
- Improve its understanding of the capacity and performance of the network

We have finalised a revised framework to hold Network Rail to account to meet the reasonable requirements of its customers in Control Period 6 (CP6). Our 'CP6 holding Network Rail to account' policy was published in March 2019 and took effect from the beginning of April 2019.

Public Performance Measure (PPM)

PPM was introduced during June 2000 and combines figures for punctuality and reliability into a single performance measure and is calculated by dividing the number of trains on time (trains within PPM) by the number of trains planned. This figure is expressed as a percentage and a higher figure indicates a greater number of trains 'on time'.

Right time

Right time data focuses on the arrival time of a train and is a supplementary metric to PPM. It was first published on our data portal in July 2012 as part of the rail industry's commitment to improving information to customers and increasing transparency.

- **Right time** measures the percentage of trains arriving at their terminating station early or within 59 seconds of schedule.

Right time data are calculated by dividing the number of trains within 'right time' by the number of trains planned. This figure is expressed as a percentage and a higher figure indicates a greater number of 'right time' trains. The process for gathering data of this accuracy is currently not 100% reliable and the industry is working on improving the quality of this information to make right-time data more reliable.

The On Time measure differs from the Right Time measure which only records punctuality within a minute at destination.

We publish right time data periodically at sub operator level.

Relevance

The degree to which the statistical product meets the user needs in both coverage and content.

Punctuality and reliability measures, delay minutes and CRM-P are key performance measures, which we take into account in our regulation of Network Rail over CP6.

Performance data published on our data portal are used by a range of individuals for planning, analysis, decision making and data validation.

More detailed information on users of ORR statistics and meeting the needs of users is available on our user engagement webpage.

Accuracy and reliability

The proximity between an estimate and the unknown true value.

Punctuality Measures

Punctuality measures monitors the performance of individual trains against their planned timetable. These plans, technically called 'plan of the day' as agreed by the operator and Network Rail at 22:00 the night before, are usually the same as the published timetable with amendments reflecting pre-published engineering works; however, they may differ from their published timetable. Differences may exist for example when an operator and Network Rail agree to move to an emergency timetable[3] in bad weather. In this case, provided the cancelled services are removed from the railway systems before the 22:00 deadline the prior day, these trains will be excluded from the Punctuality measures recording. This also requires authorisation from the Department for Transport

Trains which complete their journey as planned are measured for punctuality at their recorded station stop. A train's performance is generally recorded by an automated monitoring system which logs performance using the signalling equipment. At termini, an allowance (known as berthing offset) is often added to the time recorded by the signalling equipment to allow for the time taken for the train to stop at the platform.

Trains that fail to stop at one or more scheduled stops on its journey are excluded from these punctuality measures as they are separately classified as either a part or full cancellation depending on the proportion of the scheduled journey completed.

Most cancellations are captured by the automated monitoring system; however, trains still need to be 'entered' as cancelled so they appear accurately on information systems. Failure to do this may require manual editing by the TOCs.

Delay minutes

Delay minutes data are subject to change after the resolution of incident disputes between train/freight operating companies and Network Rail over who is responsible for the delay and the affected operators. Based on this, delay minutes can be re-attributed between Network Rail and train/freight operating companies.

[3] An emergency timetable aims to minimise the effects of extended disruption and provide a structured return to the working timetable after the network has been restored to normal use.

Data validation, estimates, and coverage

Performance data are provided by Network Rail thirteen times a year and the only estimates made for this output are those used to convert periodic data into quarterly data. No imputed or manually edited data are required in the production of these statistics.

The latest periodic data from Network Rail should always be treated as provisional. Data can be refreshed when TOCs provide updated cancellations data as they finalise their data. Network Rail provides us with the final figures one period later, once they have received the final cancellations data from the TOCs.

The coverage of performance data can vary over time based on the TOCs operational at the time. For example, the non-franchised operator Wrexham and Shropshire ceased operations in January 2011. Figures prior to this date include this operator. Sufficient notes have been added to the relevant reports to highlight such cases.

Performance data are supplied by Network Rail and stored in a secure data warehouse maintained by ORR. The data supplied is subject to an extensive quality assurance process, including a suite of validation checks to ensure the data meets the required specification and is in line with previous trends. Any arising issues are flagged with Network Rail who must confirm the anomalies or correct the data and re-submit.

Explanations from Network Rail regarding data anomalies are included within our commentary to clarify the data and trends.

These data are then prepared for publication. The process includes quality assuring the tables and charts produced and providing supporting commentary regarding the key trends, methodology and quality measures. These reports are subject to peer review.

The final stage of the quality assurance process is a sign off by the statistics Head of Profession confirming the data and outputs meet the quality standards and are fit for publication.

Independent reporter's assessment of accuracy and reliability of data

Arup (in partnership with Winder Phillips Associates) was appointed as independent reporter by ORR and Network Rail in 2009 to review Network Rail's data and provide us with assurance of the accuracy and reliability of their information.

PPM and delay minutes data each received very high confidence grades of A1 for both 2009/10 and 2010/11. The confidence grade for CaSL improved from B2 in 2009/10 to A2 in 2010/11. The latest independent reporter review took place in 2012/13 with PPM and CaSL remaining at A1 and A2 respectively.

Arup also conducted an independent review of the new performance measures in 2017, to provide an indication of their current accuracy, reliability and general suitability for use in CP6, and how they could be improved. Punctuality measures, 'On time' scored C2 and 'Time to 15' scored C2. Reliability measures, Cancellations scored B2 and Severe disruptions scored B1.

For further details about the reliability and accuracy confidence grades or assessment, please visit our website.

Orderly release

Organisations should commit to releasing their statistics in an open and transparent manner that promotes confidence.

Periodic performance data are typically available on the ORR data portal within 20 days of the period ending. Quarterly data are, on average, published 47 days after the quarter ends.

The publication schedule available on the ORR website outlines the publication dates for National Statistics quarterly and annual statistical releases and other statistics up to 12 months in advance https://dataportal.orr.gov.uk/publication-dates-for-statistics/.

Accessibility and Clarity and insight

Statistics and data should be equally available to all, not given to some people before others. They should be published at a sufficient level of detail and remain publicly available.

Statistics and data should be presented clearly, explained meaningfully and provide authoritative insights that serve the public good.

All rail statistics data tables can be accessed free of charge on the ORR Data Portal. Charts and commentary about the statistics and trends are provided in the theme pages such as Passenger Rail Performance.

Network Rail publishes performance data on the Network Rail website.

The disaggregated PPM dataset is used for reporting at sub-operator level. This dataset supports the Government's transparency agenda for ensuring as much information as possible is provided for customers and stakeholders to be able to make informed decisions. We worked with industry stakeholders to agree to the publication of this data.

The rail performance reports currently published on the data portal are:

Train punctuality

- Train punctuality at recorded station stops - quarterly by TOC – Table 3.80 - NEW
- Train punctuality at recorded station stops - periodic by TOC – Table 3.65
- Public Performance Measure train punctuality - quarterly by TOC and sector – Table 3.42
- Public Performance Measure train punctuality - periodic by TOC and sector – Table 3.56

Train reliability

- Train cancellations - quarterly by TOC and responsibility category- Table 3.68 - NEW
- Train cancellations - periodic by TOC and responsibility category – Table 3.66
- Severely disrupted days on the rail network - periodic by sub-operator – Table 3.67
- Cancellations and Significant Lateness on the rail network - periodic by TOC and sector – Table 3.7

Other tables

- Disaggregated train punctuality and reliability performance on the rail network - periodic by sub-operator – Table 3.9
- Average passenger lateness on the rail network - periodic by TOC and sector –Table 3.70 - NEW
- Delay minutes on the rail network - periodic by TOC and responsibility category – Table 3.20
- Trains planned, PPM and CaSL – quarterly by TOC – Table 3.58
- Consistent Region Measure - (Passenger) Performance - periodic by Region - Table 3.30 - NEW

Freight rail performance data tables can be found via the Freight rail usage and performance page on the data portal.

For further information about these statistics please contact the Information & Analysis Team at rail.stats@orr.gov.uk

Data governance

Organisations should look after people's information securely and manage data in ways that are consistent with relevant legislation and serve the public good.

The performance datasets are all based on data from Network Rail's TRUST (train running system on total operations processing system (TOPS)). This system records trains running compared with the public timetable. Train cancellations data may come from either Network Rail or the TOC. These data are processed through Network Rail's systems to produce performance data.

Despite the performance datasets being captured by the same source (TRUST), they are not always comparable. This is due to the level of disaggregation published for each performance metric (for example, comparing annual right time data against periodic CaSL data).

Performance figures on the data portal may differ slightly from the numbers published by ORR in the Network Rail Monitor as the two publications cover slightly different time periods. The ORR data portal publishes quarterly data using calendar months whilst the Network Rail Monitor uses periodic data.

The main reason for this is the different audiences. The Monitor is mainly used by the industry and is therefore based on periodic data, the industry's standard reporting measure. Furthermore, the different scope of the two publications allows for different patterns and trends in the data to be identified.

The disaggregated sub-operator PPM data relies on system generated cancellations at individual train level, which are then aggregated to sub-operator level. The actual number of cancellations is supplied by TOCs at end of each period and is typically at operator level and not sub-operator level. Consequently, any aggregation of the disaggregated figures will differ slightly from the numbers published at operator level each period.

Performance data which are published every period, the latest period should always be treated as provisional. Network Rail provides ORR with the final figures one period later, once they have received the final cancellations data and further attribution from the TOCs.

Delay minutes data are also subject to change because of the potential for re-attribution of delay minutes. The initial attribution is made by Network Rail but if it is against a train or freight operator then the operator can refine the cause code and responsible manager code or dispute responsibility for the delay. The overwhelming majority of attribution details are finalised within eight days of an incident occurring.

This publication is available at orr.gov.uk

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