



Passenger and Freight Rail Performance 2016-17 Q2 Statistical Release

Publication date: 17 November 2016 (**Revised 22 November 2016**)

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Background

This release contains information on passenger and freight rail performance in Great Britain with the latest quarterly data referring to July, August and September of 2016.

All data in this release are sourced from Network Rail.

Passenger performance is assessed using two measures: **Public Performance Measure (PPM)** and **Cancellations and Significant Lateness (CaSL)**.

Additionally, [delay minute data](#) (quarterly) and [Right Time data](#) (periodic) are published on the [Data Portal](#).

The **Freight Delivery Metric (FDM)** is the primary measure of freight performance in Great Britain.

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National PPM in 2016-17 Q2 was 88.0%. This was 2.3 percentage points (pp) worse than the same quarter last year. The moving annual average (**MAA**) was down 1.6 pp compared with the previous year and ended Q2 at 87.9%.

At 86.0%, the **PPM MAA** for the **London and South East sector** ended Q2 lower than that of the Long Distance sector. Govia Thameslink Railway services accounted for 1.7 pp of the overall 2.4 pp fall in the London and South East MAA.

PPM MAA by Sector - 2016-17 Q2

National (GB)	87.9%	↓	-1.6 pp
Regional and Scotland	90.9%	↓	-0.6 pp
London and South East	86.0%	↓	-2.4 pp
Long Distance	87.1%	↓	-0.7 pp

Compared with 2015-16 Q2

National CaSL in 2016-17 Q2 was 3.8%, up 1.0 pp compared with 2015-16 Q2. The **MAA** worsened by 0.6 pp during the last year to end Q2 at 3.6%.

CaSL MAA by Sector - 2016-17 Q2

National (GB)	3.6%	↑	0.6 pp
Regional and Scotland	2.3%	↑	0.1 pp
London and South East	4.3%	↑	1.0 pp
Long Distance	4.9%	↑	0.6 pp

Compared with 2015-16 Q2

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1. Introduction

This release contains information on passenger and freight rail performance in Great Britain since 1997-98. The latest data in this release refer to Q2 of 2016-17 (1st July to 30th September 2016). The data covered within the release are:

Public Performance Measure (PPM): This is the percentage of trains that arrived at their final destination within five minutes of their scheduled arrival time (within ten minutes for Long Distance services). A higher score is better.

PPM moving annual average (PPM MAA): This is the percentage of trains that met PPM in the last 12 months.

Cancellations and Significant Lateness (CaSL): This is the percentage of trains that have been cancelled (in part or in full) and/or arrived at their final destination late by more than 30 minutes. Trains that fail CaSL also fail PPM. A lower score is better.

CaSL moving annual average (CaSL MAA): This is the percentage of trains that failed CaSL in the last 12 months.

Freight Delivery Metric (FDM): This is the percentage of freight trains that arrived at their destination within 15 minutes of their scheduled arrival time. Freight trains are only considered to have failed FDM where the delay was caused by Network Rail. A higher score is better.

FDM moving annual average (FDM MAA): This is the percentage of trains that met FDM in the last 12 months.

PPM and CaSL are judged against what is known as the plan of the day. This is confirmed by the operator and Network Rail at 22:00 on the previous evening. Trains removed from the railway systems before this time are excluded from the PPM and CaSL calculations.

Data Quality

Most of the data contained within this release are collected automatically from Network Rail's TRUST System¹. The latest data for PPM, CaSL and FDM should be treated as provisional, as train operators provide Network Rail with details of cancellations which can be updated over time. These updates are only provided at the TOC level. As such, aggregations of sub-operator data can provide slightly different figures to those published at the operator level.

Where possible, Network Rail remaps historical data to match the railway franchises that exist today. Nevertheless, the number of passenger trains planned increased by 29%² between 1997-98 and 2015-16. In the same time, the length of route open for passenger

¹ Train Running System on TOPs (Total Operation Processing System)

² [ORR Website – Historic PPM and CaSL](#)

traffic has not increased by a significant amount³. So the density of trains running on the network is higher now than at the end of the last century. Furthermore, twice as many passenger journeys were made in 2015-16 than in 1997-98⁴. This will have affected station dwell times. Therefore, the potential for disruption to spread around network has increased, while the ability for services to be recovered has been diminished.

(This text was revised on 22 November 2016 to reflect the fact that the methodology used by Network Rail to determine the length of route open to traffic changed in 2004-05 and 2007-08. It is more accurate, therefore, to say that the length of route open for passenger traffic has increased by less than 1% since 2007-08.)

Network Rail provides data within 21 days of the end of each of the 13 railway reporting periods. The production of the quarterly results discussed in this report requires the periodic data to be split according to the number of days of the period that falls within each quarter. For example, the dates in period 4 cover both Q1 and Q2. When the quarterly data are calculated for 2016-17, 5/28 of the data are assigned to Q1 (covering 26 June to 30 June) and 23/28 of the data are assigned to Q2 (covering 1 July to 23 July).

Further details on railway reporting periods, data collection, the methodology used to calculate the data within this release, and details of which services are included in each sector, please see the accompanying [passenger and freight rail performance quality report](#).

Right Time and Delay Minutes

Right Time performance measures the percentage of trains that arrived at their final destination within one minute of the scheduled arrival time. Unlike PPM, the threshold for Right Time performance is the same for all operators. ORR publishes periodic Right Time data on the [Data Portal](#) by TOC and sub-operator. The national Right Time score for 2015-16 was 64.4%. This was compared with a national PPM score of 89.1%.

We currently publish limited Network Rail caused delay minute data on the [Data Portal](#). Network Rail attributed delays are also available in the Annual Return which reports Network Rail achievements, developments and challenges for each financial year and the historical record of Network Rail stewardship on the [Network Rail website](#).

³ Overall track length has increased by 1.1% since 1999-2000 and the length of route open to passenger traffic has increased by less than 1% since 2007-08 ([Data Portal - Table 2.52: Infrastructure on the railways](#))

⁴ [Data Portal - Table 12.5: Passenger journeys by year](#)

Targets

As a regulator we assess Network Rail's success, through regulatory targets, on whether it achieves the outputs, as set out in the determination, and does so whilst meeting all its licence and statutory obligations. Network Rail has regulatory targets for PPM, CaSL and FDM. Further information regarding the performance targets can be accessed on the [Network Rail website](#).

The ORR publicly reports on Network Rail's outputs with respect to the regulated targets via the bi-annual [Network Rail Monitor](#). The time frame of quarterly data in this statistical release differs from the time frame of the railway period data in the Monitor, and therefore figures may differ slightly. The next Monitor covering periods 1 to 7 of 2016-17 is due to be published in November 2016.

2. Public Performance Measure (PPM)



Public Performance Measure (PPM) is the proportion of trains that arrive at their final destination on time. On time is defined as arriving at the destination within five minutes of the planned timetable for London and South East, Regional and Scotland operators, or within ten minutes for the Long Distance operators. The **moving annual average (MAA)** reflects the proportion of trains on time in the past 12 months. A higher score is better.

PPM by sector

Changes to Sector Composition

Some services in North West England transferred from the Long Distance sector to the Regional sector at the start of 2016-17. As a consequence they now have a five minute threshold for PPM, having previously been timed to ten minutes. To avoid different versions of PPM scores, the historic data for these sectors and the overall national score have not been adjusted to reflect these changes. The year-on-year changes described in this report have also been calculated using the unadjusted historical data. Nevertheless, using disaggregated data it is possible to assess what the effect of these changes would have been on PPM and PPM MAA in 2015-16:

- **National:** Almost no affect with PPM falling marginally from 89.05% to 89.03%.
- **Long Distance:** PPM reduced from 87.64% to 87.35%.
- **Regional and Scotland:** Almost no affect with PPM falling marginally from 91.21% to 91.17%.

2016-17 Quarter 2 Results

National PPM in 2016-17 Q2 was 88.0%. Down 2.3 pp compared with 2015-16 Q2, this is the worst Q2 score recorded since 2005-06 (86.9%). The London and South East (LSE) sector recorded a PPM score of 85.5% in Q2. This was down 3.7 pp compared with the same quarter the previous year and is the lowest Q2 score recorded since 2004-05 (84.4%). In Q2 of 2016-17, Govia Thameslink Railway (GTR) operated 27% of services in the LSE sector. PPM failures by GTR services, however, were responsible for 76%⁵ of the

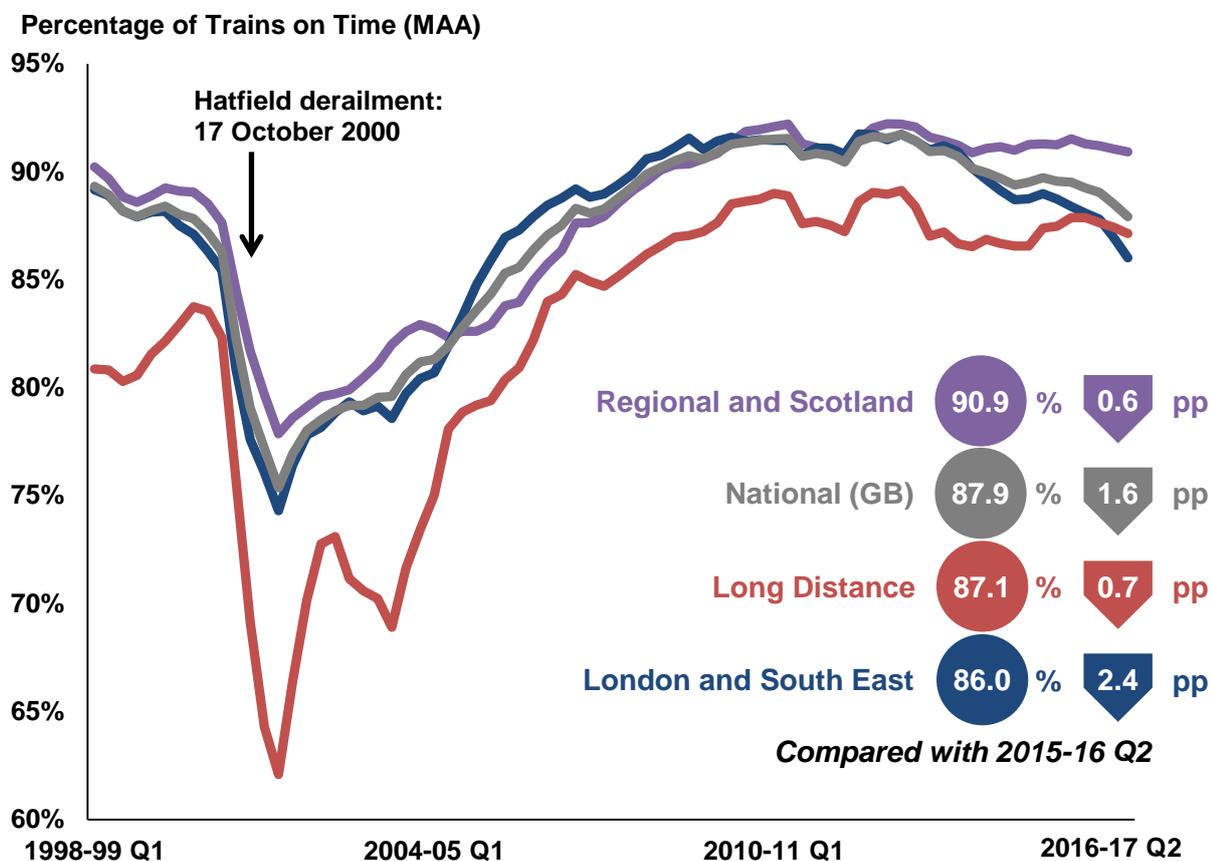
⁵ For more information on estimating this figure, please see the [methodology annex](#).

decline in LSE PPM in Q2. That is, GTR services that failed PPM accounted for 2.8 pp of the overall 3.7 pp fall in the LSE quarterly PPM for Q2.

Services in the Regional and Scotland sector recorded a PPM of 91.8% in Q2 of 2016-17. This was down 0.5 pp compared with same quarter the previous year. The Long Distance sector recorded a PPM of 87.8% in Q2. Down 1.1 pp compared with 2015-16 Q2, this is the second worst Q2 score recorded in the last eight years (the worst being 87.4% in 2014-15).

■ Annual and quarterly PPM by sector data are available on the Data Portal in [Table 3.43](#)

PPM MAA by sector, Great Britain, 1998-99 Q1 to 2016-17 Q2 ([Table 3.42](#))



2016-17 Quarter 2 MAA Results

While the overall performance is still better than that recorded in the early 2000s, the National PPM MAA has declined steadily since the start of 2013-14. The National MAA of 87.9% is the lowest it has been since Q2 of 2006-07 (87.5%).

Notwithstanding the extra five minutes afforded to Long Distance services for meeting PPM, this sector has historically had the lowest PPM scores. However, the Long Distance sector ended Q2 with a PPM MAA of 87.1% and continues to have a higher MAA than the LSE sector (86.0%).

The LSE PPM MAA was down 2.4 pp compared with the end of 2015-16 Q2. In the 12 months to the end of 2016-17 Q2, GTR operated 28% of services in the LSE sector. PPM failures by GTR services, however, were responsible for 71%⁶ of the year-on-year decline in the LSE PPM MAA. That is, GTR services that failed PPM were responsible for 1.7 pp of the overall 2.4 pp fall in the LSE PPM MAA.

All delay minutes 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. Delays caused by issues with trains or traincrew are attributed to train operators. In 2016-17 Q2, 59.2% of delays to passenger trains were attributed to Network Rail with external factors accounting for just under 15% of the overall total. Further information on the causes of delay can be found on the [Data Portal](#).

The decline in performance in the LSE sector can be attributed to a number of causes. Infrastructure failures associated with signalling systems⁷ accounted for 16,200 PPM failures⁸ in 2016-17 Q2. This was up 47% compared with the same quarter the previous year. Delays relating to track faults (8,900 PPM failures) increased by 40% and delays due to issues with traincrew (28,800 PPM failures) were up 89% compared with 2015-16 Q2.

- Quarterly PPM MAA by sector data are available on the Data Portal in [Table 3.42](#)

⁶ For more information on estimating this figure, please see the [methodology annex](#).

⁷ This includes signal failures, signalling system and power supply failures, track circuit failures, axle counter failures and other signal equipment failures.

⁸ A PPM failure is when a passenger train does not arrive at its final destination within five minutes of its scheduled arrival time (within ten minutes for Long Distance services). Delay minutes are used to apportion responsibility for PPM failures and can be split between multiple causes of delay.

PPM by Train Operating Company (TOC)

The data provided in [Table 3.44](#) (PPM by TOC) and [Table 3.7](#) (CaSL by TOC) show the railway as it exists today. That is, historical data are shown for the existing TOCs as far back as data are available. For some TOCs data are available as far back as 1997-98. 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, Virgin Trains West Coast (VTWC) planned to run 55,600 trains in 1997-98. By 2012-13 this figure had almost doubled to reach 110,400. In December 2013, however, Virgin 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 TOC.

A [time-series](#) for trains planned, PPM and CaSL is available on the [ORR Website](#) that shows the performance of the TOCs that existed at the time.

Changes to Train Operating Companies

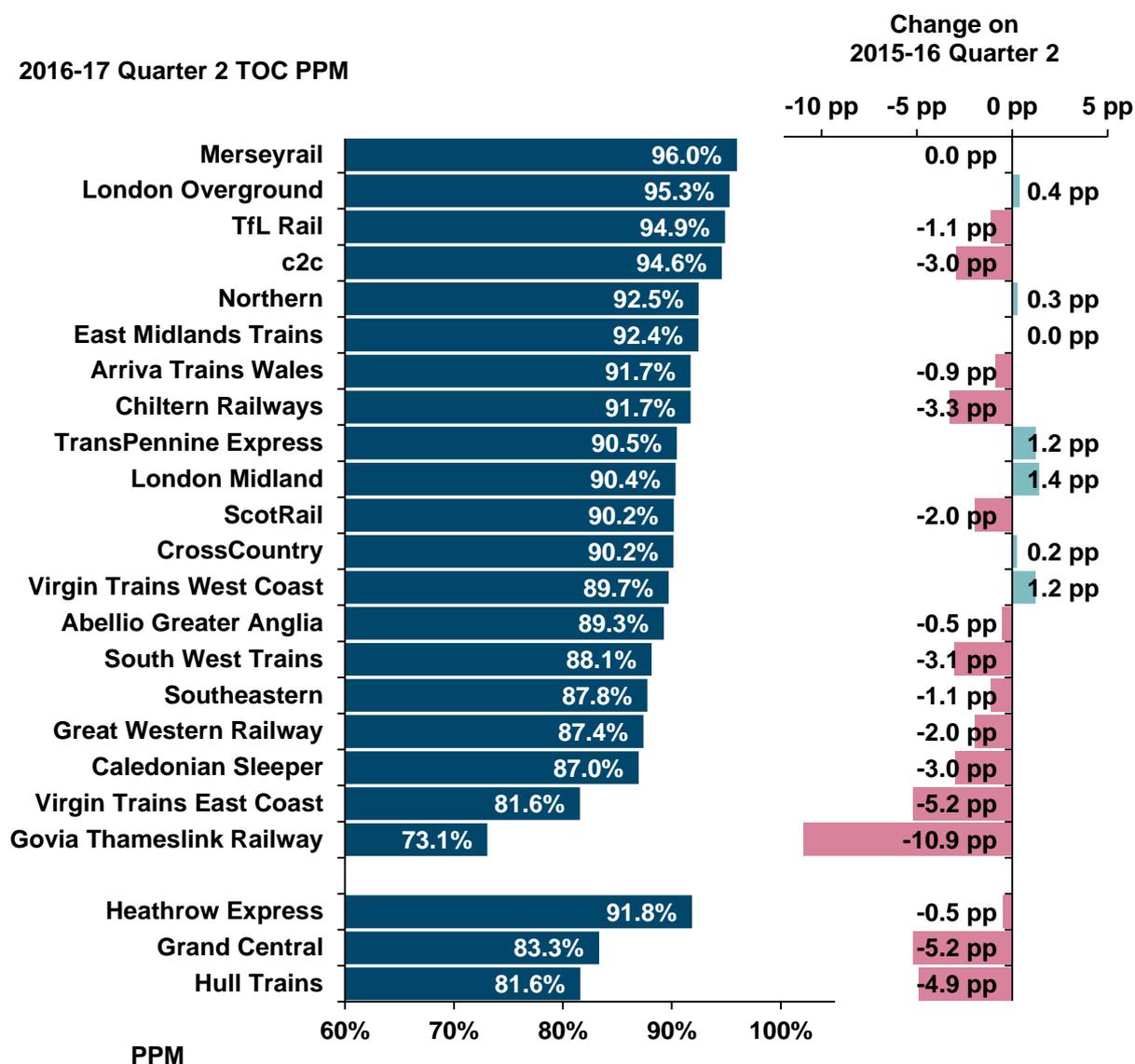
On 26 July 2015, Southern became part of Govia Thameslink Railway (GTR) and they are treated as a single TOC in this report. Disaggregated PPM and CaSL data for the sub-operators within GTR are, however, still published on the [Data Portal](#). Prior to the merger GTR consisted of the Great Northern and Thameslink, while Southern was made up of Southern Mainline and Coast, Southern Metro and Gatwick Express.

The new Northern and TransPennine Express (TPE) franchises commenced operation on the 1 April 2016. Having previously been operated by Serco-Abellio, the former is now operated by Arriva. The TPE franchise is now solely operated by FirstGroup having previously been run as a joint venture between FirstGroup and Keolis.

Furthermore, services between Manchester Airport and Blackpool North/Barrow-in-Furness and between Oxenholme and Windermere were transferred from TPE to Northern. As described [previously in this report](#), this has affected the historical PPM scores at the national and sector level. The historic data for Northern and TPE have been remapped to allow like for like comparisons to be made for these TOCs.

2016-17 Quarter 2 PPM Results

PPM by TOC, Great Britain, 2015-16 Q2 and 2016-17 Q2 ([Table 3.44](#))



Matching their performance from Q2 of 2015-16, Merseyrail had the highest proportion of trains on time this quarter at 96.0%. Up 0.4 pp compared with the previous year, the TOC with second best PPM score for Q2 was London Overground at 95.3%.

Twelve of the 20 franchised train operators had a PPM of more than 90% in 2016-17 Q2. GTR, with a PPM of 73.1%, had the lowest score, which was the lowest Q2 PPM recorded by GTR since the time series began in 2004-05.

GTR has recorded the worst PPM score in the last eight quarters. Some of this sustained poor performance can be attributed to the on-going engineering works at London Bridge. Performance was also adversely affected by ongoing staffing issues at GTR and a number

of other incidents including an emergency speed restriction near Haywards Heath and a signal failure near Streatham.

Of the 20 franchised train operators, seven had a higher percentage of trains on time when compared with the same quarter the previous year. With fewer delays caused by the overhead line equipment failures, London Midland (up 1.4 pp) and VTWC (1.2 pp) recorded higher Q2 PPM scores this year compared with 2015-16 Q2. London Midland's score of 90.4% was their best Q2 score since 2011-12 (91.6%), while VTWC's score of 89.7% was their best Q2 score since 2010-11 (91.3%).

Aside from the substantial fall in Q2 PPM at GTR (down 10.9 pp), Virgin Trains East Coast (VTEC) recorded a fall of 5.2 pp compared with 2015-16 Q2. The 81.6% was the TOC's lowest Q2 PPM score since 2007-08 (80.6%). This was driven, in part, by a number of major delay incidents on the East Coast Main Line including the evacuation of the Kings Cross Signal Box due to a fire alarm, a fatality at Newark and dewirement at Retford.

South West Trains scored 88.1% in 2016-17 Q2. Down 3.1 pp compared with the previous year, this was their lowest Q2 since 2004-05 (80.9%). Signalling system failures at Poole, Haslemere, Basingstoke, Wimbledon, Clapham Junction and London Waterloo caused more than 36,300 delay minutes in Q2.

Another TOC which had a relatively poor Q2 was c2c which recorded a PPM of 94.6%. This was their lowest Q2 score since 2005-06 (94.1%) and was partly due to an increase in track faults on the route. There has, however, also been an increase in the number of technical faults with the fleet of trains operated by c2c. Around 640 c2c PPM failures were attributed to such causes in Q2. This represents an increase of over 300% on the 150 that were recorded in Q2 of 2015-16.

Peak services:

Train services arriving into London termini between 07:00 and 09:59 in the morning and departing London termini between 16:00 and 18:59 in the evening are classified as peak services. For the LSE sector as a whole, peak PPM in 2016-17 Q2 was 82.1%. This was down 3.5 pp compared with 2015-16 Q2. Up 2.7 pp compared with the previous year, London Overground recorded the highest peak PPM in the quarter at 94.4%. By scoring 83.8%, London Midland (up 3.7 pp) was the only other TOC to have increased its peak PPM compared with the year before.

GTR had the lowest peak PPM in Q2 at 70.3% which was down 9.4 pp compared with the previous year. Down 3.8 pp on Q2 last year, c2c's 93.5% was their worst Q2 peak PPM score since 2004-05 (92.3%). Similarly, South West Trains (84.5%) experienced a fall of 3.7 pp compared with the previous year giving them their worst Q2 score since 2004-05

(79.3%). Chiltern also experienced a large year-on-year fall in Q2 with their 2016-17 score of 88.8% being 5.0 pp lower than in 2015-16

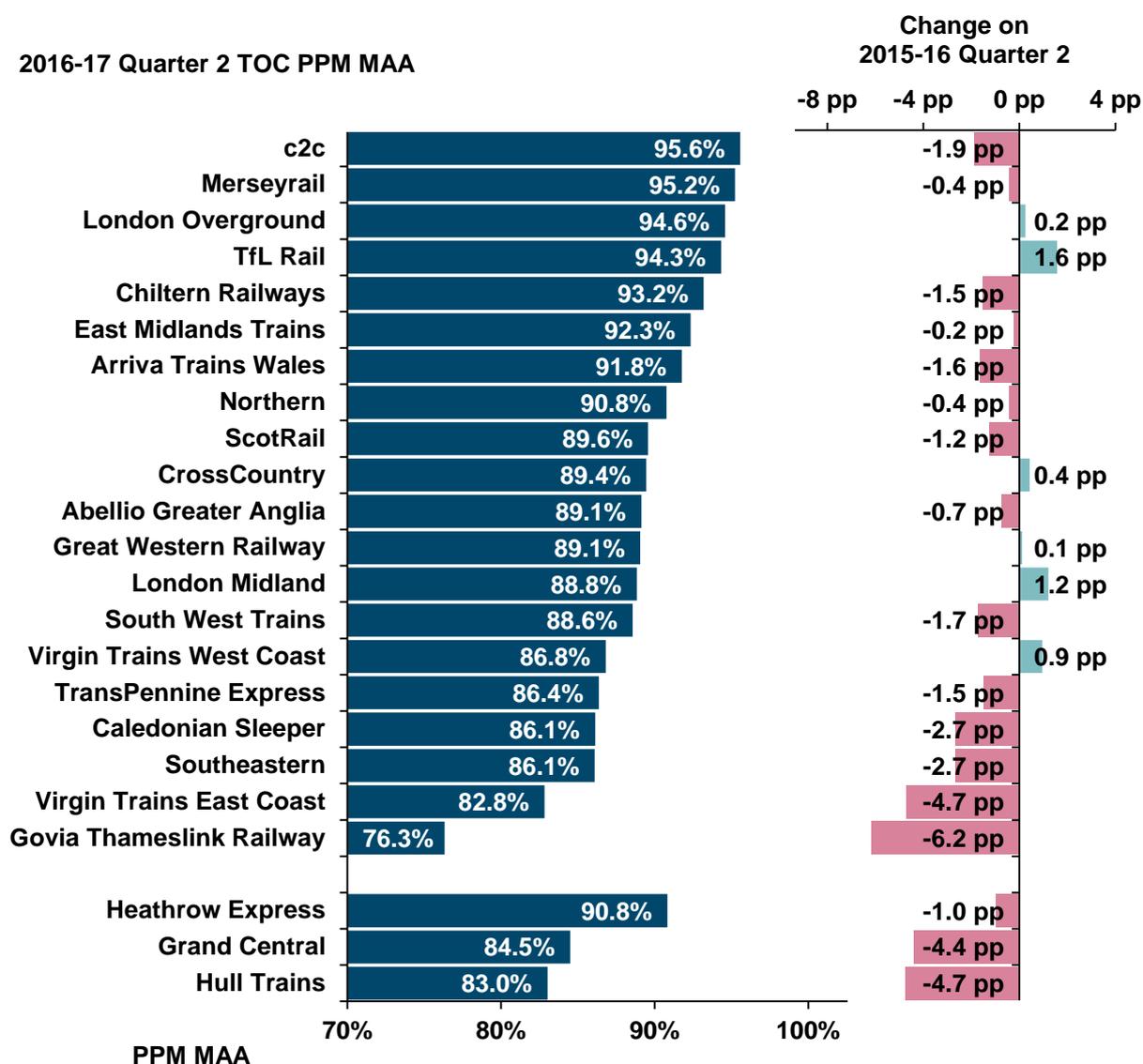
Non-franchised operators:

With 91.8% of trains on time, Heathrow Express recorded its worst Q2 score since 2006-07 (90.1%). A number of incidents in West London – including signal failures at Paddington and Southall – caused significant disruption during the quarter. Grand Central and Hull Trains, which operate long distance services, suffered as a result of disruption on the East Coast Main Line. Grand Central's PPM of 83.3% in Q2 was down 5.2 pp compared with the previous year while Hull Trains scored 81.6% which was a fall of 4.9 pp.

- Quarterly PPM by TOC data are available on the Data Portal in [Table 3.44](#)

2016-17 Quarter 2 PPM MAA Results

PPM MAA by TOC, Great Britain, 2015-16 Q2 and 2016-17 Q2 ([Table 3.44](#))



For the 20th consecutive quarter, c2c recorded the highest PPM MAA of the franchised operators. However, the 95.6% recorded in 2016-17 Q2 was down 1.9 pp compared with the previous year. In second place was Merseyrail at 95.2% and in third was London Overground at 94.6%.

TfL Rail (up 1.6 pp) and London Midland (up 1.2 pp) experienced the largest year-on-year MAA increases to end 2016-17 Q2 at 94.3% and 88.8% respectively. VTWC (up 0.9 pp), CrossCountry (0.4 pp), London Overground (0.2 pp) and Great Western Railway (0.1 pp) also recorded year-on-year increases to their MAAs.

At 76.3%, GTR had the lowest MAA at the end of Q2. Down 6.2 pp compared with the previous year, this was the lowest MAA recorded by GTR since the time series began in 2004-05. VTEC (82.8%) recorded the second lowest MAA in Q2 which is 4.7 pp lower than at the same time the previous year.

The PPM MAAs of Southeastern (86.1%) and South West Trains (88.6%) continue to fall. Respectively, these are the lowest they have been since the end of 2005-06 Q3 (85.4%) and the end of 2005-06 Q2 (87.6%).

Peak services:

The combined peak PPM MAA for the LSE sector in 2016-17 Q2 was 80.7%. Down 2.0 pp compared with the previous year, this is the lowest it has been since the time series began in 2010-11. At 95.1%, c2c ended Q2 with the best peak MAA with London Overground (92.0%) and TfL Rail (91.6%) also recording scores above 90%.

Down 4.1 pp compared with the previous year, the 70.7% recorded by GTR was the lowest peak MAA in 2016-17 Q2. Southeastern's peak PPM fell 3.8 pp in 2016-17 Q2 to 80.2%; the lowest it has been since the end of 2004-05 (80.1%).

Non-franchised operators:

Heathrow Express ended 2016-17 Q2 with an MAA of 90.8%. Down 1.0 pp from the previous year, this is the lowest it has been since Q2 of 2008-09 (90.5%). Grand Central ended Q2 with an MAA of 84.5%, which was down 4.4 pp compared with the same time the previous year. Similarly, the MAA for Hull Trains fell by 4.7 pp to end Q2 at 83.0%.

- Quarterly PPM MAA by TOC data are available on the Data Portal in [Table 3.44](#)

European Comparisons

Comparisons with railways in the rest of Europe are available for the 2014 calendar year. For trains in the Regional and Scotland sector and LSE sector combined, 89.8% of services arrived within five minutes of their scheduled arrival time at their final destination. This ranks Britain 18th best out of 23 countries⁹.

With 91.0% of long distance services arriving at their final destination within 15 minutes of their scheduled arrival time, Britain ranks 9th best out of 22 countries.

⁹ [European Commission \(2016\)](#), pages 130-132

3. Cancellations and significant lateness (CaSL)



Cancellations and significant lateness (CaSL) captures the percentage of trains that have caused significant disruption to at least some passengers. The **moving annual average (MAA)** reflects the proportion of trains cancelled or significantly late in the past 12 months. A lower score is better.

A train is considered to be **significantly late** if it calls at all booked stations, completes its entire booked journey and arrives between 30 and 119 minutes after the scheduled arrival time at the final destination.

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.

A train is considered to be a **full cancellation** if it covers less than half the scheduled mileage, or does not run at all.

A train that fails CaSL also fails PPM.

CaSL by Sector

2016-17 Quarter 2 Results

During 2016-17 Q2 the proportion of train services classified as cancelled or experiencing significant lateness was 3.8%. This was 1.0 pp worse than 2015-16 Q2 (2.8%) and was the worst Q2 score since 2003-04 (4.0%).

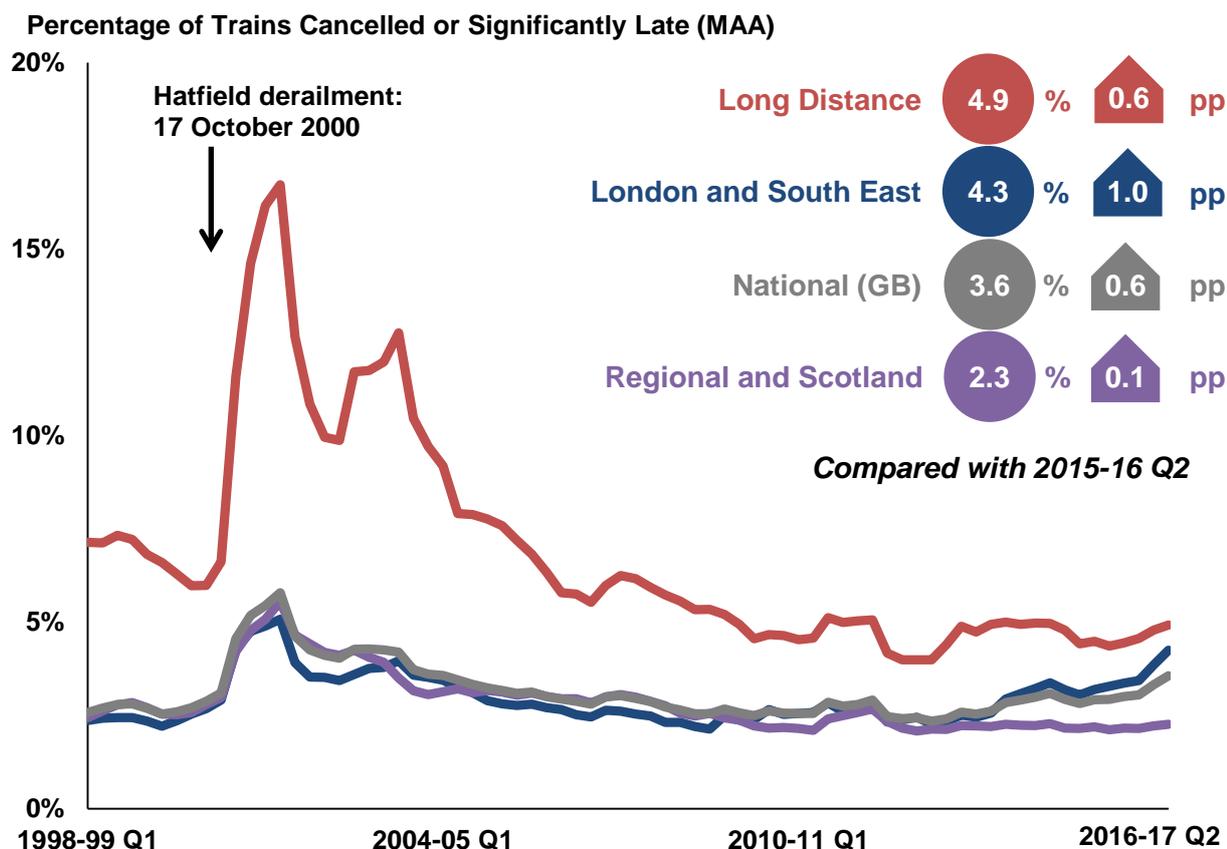
Up 1.5 pp compared with 2015-16 Q2, the LSE sector recorded a CaSL score of 4.8% in 2016-17 Q2. This was the highest Q2 score recorded by this sector and the second consecutive quarter that the LSE sector has recorded a worse CaSL score than the Long Distance sector. GTR contributed 84%¹⁰ (or 1.3 pp) of the overall 1.5 pp increase.

The 4.7% recorded in the Long Distance sector was up 0.5 pp compared with 2015-16 Q2. The Regional and Scotland sector had a CaSL score of 2.1% during 2016-17 Q2 which was up 0.2 pp compared with Q2 the previous year.

- Annual and quarterly CaSL by sector data are available on the Data Portal in [Table 3.6](#)

¹⁰ For more information on estimating this figure, please see the [methodology annex](#).

CaSL MAA by sector, Great Britain, 1998-99 Q1 to 2016-17 Q2 ([Table 3.5](#))



2016-17 Quarter 2 MAA Results

The National CaSL MAA in 2016-17 Q2 was 3.6%. Up 0.6 pp compared with 2015-16 Q2, this is the worst National MAA score recorded since Q1 of 2004-05 (3.6%). The National MAA peaked in Q2 of 2001-02 at 5.8%. It then decreased steadily to reach a best/low of 2.4% in Q2 of 2012-13. During 2013-14 the MAA deteriorated due to causes such as storms and flooding in the winter of 2013-14. The current MAA of 3.6% is 1.0 pp higher than the MAA recorded in Q2 of 2013-14 which was before the bad weather occurred.

The LSE sector Q2 MAA of 4.3% was up 1.0 pp compared with the previous year and is the highest MAA recorded since Q2 of 2001-02 (5.1%). GTR contributed 73%¹¹ (or 0.7 pp) of the overall 1.0 pp increase in the LSE sector. Services in the Regional and Scotland sector recorded a CaSL MAA of 2.3% in 2016-17 Q2. The MAA has remained between 2.1% and 2.3% since Q2 of 2011-12 (2.7%). The Long Distance sector ended Q2 with an MAA of 4.9%. This was up 0.6 pp compared with 2015-16 Q2.

■ Quarterly CaSL MAA by sector data are available on the Data Portal in [Table 3.5](#)

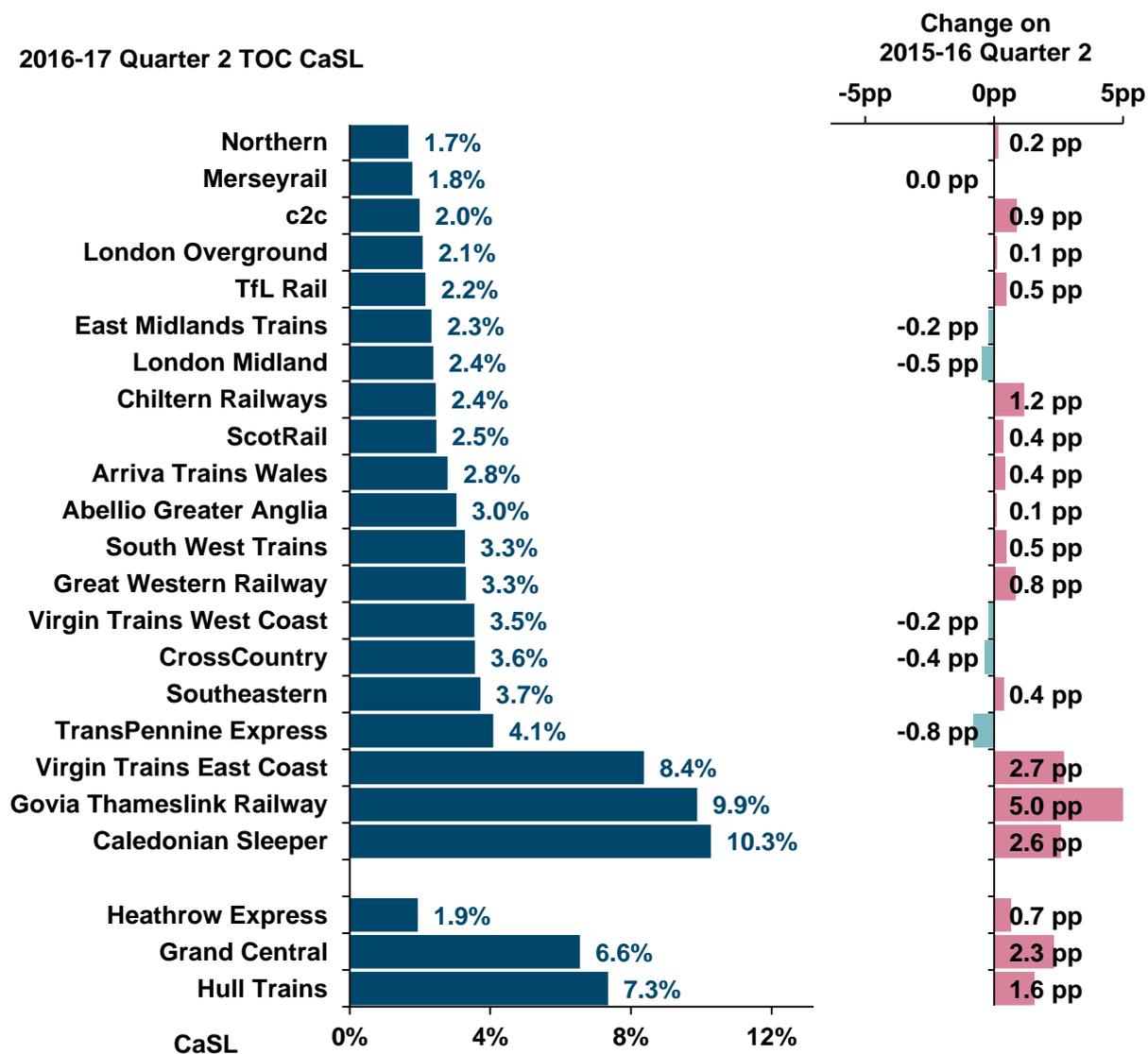
¹¹ For more information on estimating this figure, please see the [methodology annex](#).

CaSL by TOC

Please refer to the [PPM section](#) above for details of changes to train operating companies.

2016-17 Quarter 2 CaSL Results

CaSL by TOC, Great Britain, 2015-16 Q2 and 2016-17 Q2 ([Table 3.7](#))



Northern achieved the best/lowest CaSL score in 2016-17 Q2 at 1.7%, though this was worse by 0.2 pp compared with the previous year. Merseyrail matched last year's Q2 score of 1.8% to record the second lowest CaSL score this quarter. Despite an increase of 0.9 pp compared with the previous year, c2c still recorded the third lowest CaSL score in Q2 with a score of 2.0%. This was their worst Q2 score since 2007-08 (2.0%).

At 10.3%, Caledonian Sleeper recorded the worst CaSL score in 2016-17 Q2. This TOC continues to suffer from overhead line equipment and technical fleet failures. The Q2 CaSL was up 2.6 pp compared with 2015-16 Q2.

GTR (9.9%) recorded the second worst CaSL score in 2016-17 Q2. This was more than double the score of 2015-16 Q2 (4.9%) and was the highest CaSL score recorded by this TOC in any quarter since the time series began in 2004-05. Full cancellations accounted for 3.1 pp of the increase, with 46% of GTR CaSL failures¹² in Q2 resulting from traincrew problems. By contrast, traincrew problems accounted for around a quarter of all CaSL failures in Q2 of 2015-16. It should also be noted that GTR planned to run nearly 22,000 fewer trains in Q2 of 2016-17 compared with the same quarter the previous year¹³. This represents a reduction of 7.3%.

VTEC (8.4%) recorded the third worst CaSL Score of the quarter. This is their worst Q2 CaSL score since 2007-08 (8.8%). Nearly 250 trains were cancelled as a result of the fire alarm at the Kings Cross Signal Box, a trespasser on the line at Alexandra Palace and a signal failure near York.

TPE (down 0.8 pp), London Midland (0.5 pp), CrossCountry (0.4 pp), East Midlands Trains (0.2 pp) and VTWC (0.2 pp) all recorded lower CaSL scores in 2016-17 Q2 compared with the same time the previous year. TPE benefitted from 62% fewer CaSL failures resulting from trespass and fatality incidents, while they also reduced their own traincrew caused CaSL failures by 60%.

Non-franchised operators:

Of the non-franchised operators Grand Central recorded a CaSL score of 6.6% in 2016-17 Q2. This was 2.3 pp higher than the same quarter the previous year. Hull Trains recorded a CaSL of 7.3% which was up 1.6 pp on the previous year.

Heathrow Express recorded a CaSL score of 1.9% in Q2 which was up 0.7 pp compared with the same quarter the previous year. This was the worst Q2 score recorded by the operator since 2005-06 (2.8%). Network management delays were responsible for 20% of Heathrow Express CaSL failures in Q2 of this year. In Q2 of 2015-16, this figure was just 1.3%.

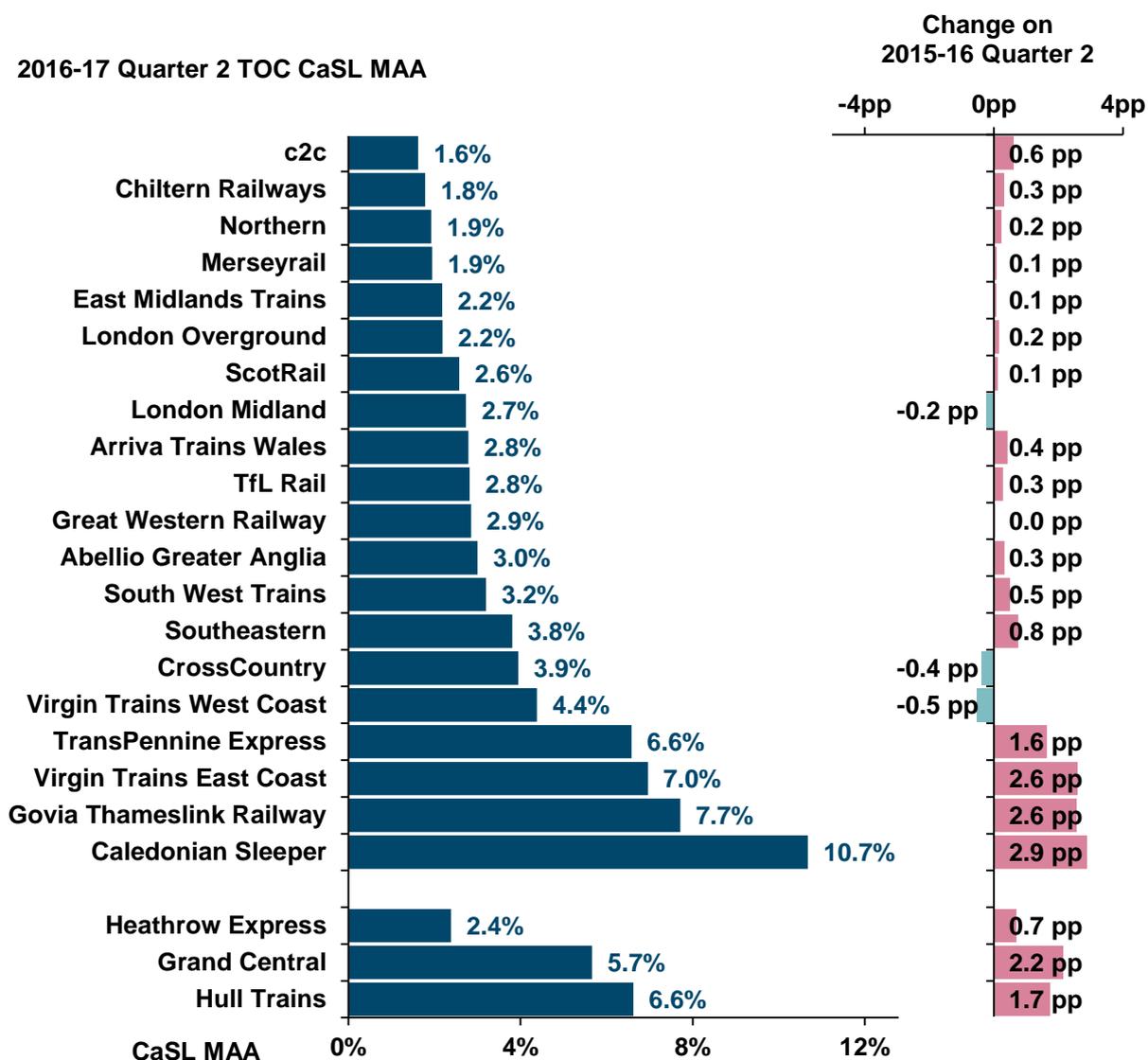
- Quarterly CaSL by TOC data are available on the Data Portal in [Table 3.7](#)

¹² A CaSL failure is when a passenger train does not arrive at its final destination within 30 minutes of its scheduled arrival time and/or is cancelled either in full or in part. Delay minutes and other intelligence are used to apportion responsibility for CaSL failures and can be split between multiple causes of delay.

¹³ [Data Portal – disaggregated GTR data](#)

2016-17 Quarter 2 CaSL MAA Results

CaSL MAA by TOC, Great Britain, 2015-16 Q2 and 2016-17 Q2 ([Table 3.7](#))



At 1.6% at the end of 2016-17 Q2, c2c continues to have the best CaSL MAA of the franchised operators, a position it has held since Q3 of 2011-12. Nevertheless, c2c's MAA has increased 0.6 pp since 2015-16 Q2 and the current score of 1.6% is the worst it has been since 2011-12 Q2 (2.2%). Chiltern ended Q2 with the second best MAA at 1.8% with Northern and Merseyrail both ending the quarter at 1.9%.

At 10.7%, Caledonian Sleeper had the worst CaSL MAA at the end of 2016-17 Q2. GTR (7.7%), VTEC (7.0%) and TPE (6.6%) also recorded CaSL MAAs above 6% at the end of Q2. For GTR this is a record high CaSL MAA. Each of the four operators with the highest CaSL MAAs experienced an increase of more than 1 pp compared with the same quarter

the previous year: Caledonian Sleeper (up 2.9 pp), GTR (2.6 pp), VTEC (2.6 pp) and TPE (1.6 pp).

VTWC ended Q2 with an MAA of 4.4%. Down 0.5 pp compared with the 2015-16 Q2, this is now only 0.1 pp above the record low of 4.3% recorded in Q3 of 2012-13. There were also year-on-year falls in the CaSL MAAs of CrossCountry (down 0.4 pp) and London Midland (0.2 pp).

Non-franchised operators:

All the non-franchised operators recorded worse CaSL MAAs in 2016-17 Q2 than the same quarter the previous year. Up 1.7 pp, Hull Trains had the highest MAA in Q2 at 6.6%. This was followed by Grand Central which recorded an MAA of 5.7% - an increase of 2.2 pp. The MAA of 2.4% for Heathrow Express was up 0.7 and is the highest it has been since the time series began in 2004-05.

- Quarterly CaSL MAA by TOC data are available on the Data Portal in [Table 3.7](#)

European Comparisons

Comparisons with railways in the rest of Europe are available for the 2014 calendar year. For trains in the Regional and Scotland sector and LSE sector combined, 2.6% of services were cancelled (including part cancellations). This ranks Britain 17th best out of 20 countries¹⁴. With 3.1% of long distance services cancelled, Britain ranks 16th best out of 19 countries.

¹⁴ [European Commission \(2016\)](#), pages 132-133



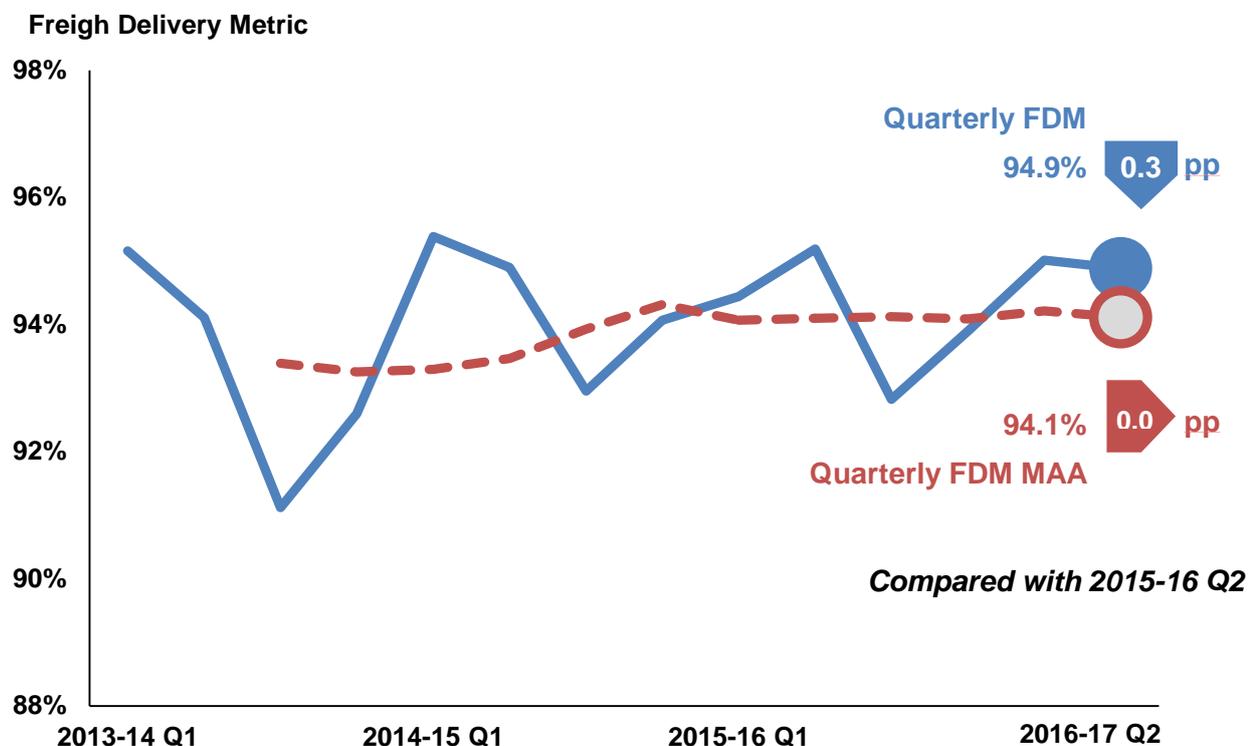
4. Freight Delivery Metric

Freight Delivery Metric (FDM) is the percentage of freight trains that arrived at their destination within 15 minutes of their scheduled arrival time. Freight trains are only considered to have failed FDM where the delay was caused by Network Rail. A higher score is better.

FDM was introduced for CP5 (Control Period 5: 2014-15 – 2018-19), although it has been recorded since the end of the 2012-13. It replaced the **Freight Performance Measure (FPM)** which previously was used to provide an indication of the punctuality of freight journeys.

2016-17 Quarter 2 Results

FDM, Great Britain, 2013-14 Q1 to 2016-17 Q2 ([Table 3.41](#))



At 94.9%, FDM was 0.3 pp lower in 2016-17 Q2 than the same quarter the previous year. The FDM MAA ended Q2 at 94.1%, which was the same as 2015-16 Q2.

- Quarterly FDM data are available on the Data Portal in [Table 3.41](#).
- Quarterly FPM data up to 2014-15 are available on the Data Portal in [Table 3.50](#).

Annex 1 – List of pre-created reports available on the Data Portal

All data tables can be accessed on the [Data Portal](#) free of charge. The data portal provides on screen data reports, as well as the facility to download data in Excel format and print the report. We can provide data in csv format on request.

PPM

- PPM by sector, 1997-98 to 2015-16 (annual) and 1997-98 Q1 to 2016-17 Q2 (quarterly) – [Table 3.43](#);
- PPM (MAA) by sector, 1997-98 Q4 to 2016-17 Q2 (quarterly) – [Table 3.42](#);
- PPM by TOC, 1997-98 Q1 to 2016-17 Q2 (quarterly) – [Table 3.44](#); and
- Disaggregated PPM at sub-operator level, 2010-11 Period 1 to 2016-17 Period 7 (periodic) – [Data Portal](#) ([Table 3.9](#) (All TOCs) to [Table 3.29](#) (Caledonian Sleeper)

CaSL

- CaSL by sector, 1997-98 to 2015-16 (annual) and 1997-98 Q1 to 2016-17 Q2 (quarterly) – [Table 3.6](#);
- CaSL (MAA) by sector, 1997-98 Q4 to 2016-17 Q2 (quarterly) – [Table 3.5](#); and
- CaSL by TOC, 1997-98 Q1 to 2016-17 Q2 (quarterly) – [Table 3.7](#)
- Disaggregated PPM at sub-operator level, 2010-11 Period 1 to 2016-17 Period 7 (periodic) – [Data Portal](#) ([Table 3.9](#) (All TOCs) to [Table 3.29](#) (Caledonian Sleeper)

FDM

- FDM, 2013-14 Q1 to 2016-17 Q2 (quarterly) – [Table 3.41](#)

Revisions: Two revisions have been made since the 2016-17 Q1 publication. The first corrected an error in the PPM and CaSL figures for non-franchised operators ([Table 3.43](#) and [Table 3.6](#)). The second corrected a figure quoted on page 17 of the [Statistical Release](#). Further details on these and historic revisions to the data set can be found in the [Revisions Log](#).

Annex 2 – Statistical Releases

This publication is part of the statistical releases which cover the majority of reports that were previously released through the [Data Portal](#). The statistical releases consist of four annual and four quarterly themed releases:

Annual

- Rail Finance & Rail Fares Index;
- Key Safety Statistics;
- Rail Infrastructure, Assets and Environmental;
- Regional Rail Usage.

Quarterly

- Passenger and Freight Rail Performance;
- Freight Rail Usage;
- Passenger Rail Usage;
- Passenger Rail Service Complaints.

A full list of publication dates for the next twelve months can be found in the [release schedule](#) on the ORR website.

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.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is ORR's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

For more details please contact the Statistics Head of Profession Lyndsey Melbourne on 020 7282 3978 or contact rail.stats@orr.gsi.gov.uk.

The Department for Transport (DfT) also publishes a range of rail statistics which can be found at [DfT Rail Statistics](#).

Annex 3 – Methodology: Impact of GTR Services

Performance in the LSE sector has declined in the last year. As an example, the extent to which performance of GTR services contributed to the decline in Q2 PPM was estimated using the calculations set out below and in the table A. Table B shows the results of these calculations for PPM, CaSL and the MAAs in 2016-17 Q2.

GTR services were separated from the rest of the LSE sector and for both groups a “stand still” number of trains meeting PPM was calculated by multiplying the PPM for last year with the trains planned for this year. This is to account for the changes in trains planned by GTR and the rest of the LSE sector. The difference between the stand still figure and the actual number of trains that met PPM provides the contribution of each part to the sector’s overall change in performance. For the quarterly PPM, the 30,037 extra GTR PPM failures represent 76% of the extra LSE failures in total. In percentage point terms this is equal to 2.8 pp of the overall 3.7 pp fall in PPM recorded in Q2 of 2016-17.

Table A: Q2 PPM, LSE (excluding GTR) and GTR, 2015-16 and 2016-17

PPM	LSE excluding GTR			GTR		
	Trains Planned	Met PPM	PPM	Trains Planned	Met PPM	PPM
2015-16 Q2	732,390	668,775	91.3%	301,313	253,170	84.0%
2016-17 Q2	746,248	672,090	90.1%	274,424	200,540	73.1%
Change	13,858	3,315	-1.3 pp	-26,889	-52,630	-10.9 pp
To stand still		681,429			230,577	
Extra Failures		9,339			30,037	
Extra Failures (share)		23.7%			76.3%	
PPM Change (pp)		-0.9			-2.8	

Table B: Contributions to Q2 PPM and CaSL Changes, LSE, 2015-16 and 2016-17

Type	Metric	LSE excluding GTR		GTR	
		% Share	PP Change	% Share	PP Change
Quarterly	Trains Planned (16-17)	73.1%	-	26.9%	-
	PPM	23.7%	-0.9 pp	76.3%	-2.8 pp
	CaSL	16.2%	0.3 pp	83.8%	1.3 pp
MAA	Trains Planned (16-17)	71.9%	-	28.1%	-
	PPM	29.2%	-0.7 pp	70.8%	-1.7 pp
	CaSL	26.7%	0.3 pp	73.3%	0.7 pp



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