



## Regional Rail Usage (Passenger Journeys) 2016-17 Annual Statistical Release

Publication date: 01 February 2018 Next release: January 2019

#### Background

This release contains information on regional passenger journeys by rail in Great Britain during the period 1995-96 to 2016-17 with the latest data referring to 1 April 2016 to 31 March 2017.

The journeys presented are based on the origin and destination named on a ticket and do not take into account any changes of train. It therefore produces lower estimates than the total journeys published each quarter in the <u>Passenger</u> Rail Usage statistical release.

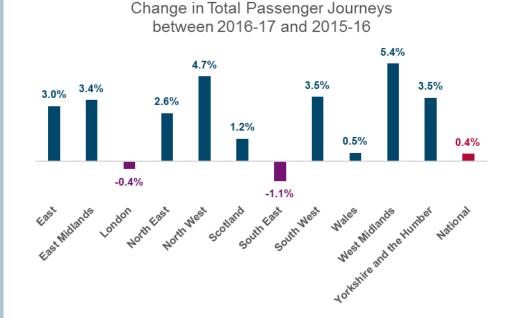
The Origin Destination Matrix (ODM) is the source of data for this release. For a brief overview please see Annex 3.

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The number of **rail passenger journeys** in Great Britain has increased by 0.4% compared to 2015-16. This was the smallest increase in passenger journeys in seven years.

**Journeys to/from other regions** increased by 2.1%. The number of journeys increased for all regions, except for Wales. The highest growth was for journeys to/from Scotland, with an increase of 7.6%.

**Journeys within regions** decreased by 0.4%. Passenger journeys in London and the South East, which together account for more than 60% of all journeys within regions, had decreased by 2.1% and 5.3% respectively.

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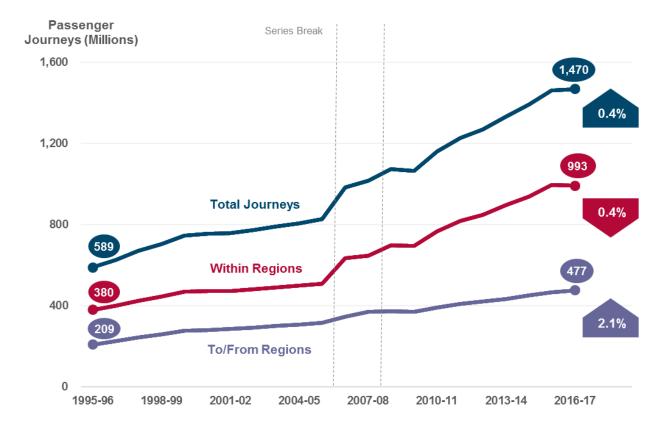
 Media Enquiries: Tel: 020 7282 2094

 Website: http://orr.gov.uk/statistics/published-stats/statistical-releases

## **1. Passenger journeys in Great Britain**

## 1.1 Great Britain passenger journeys 2016-17

Figure 1.1: Passenger journeys (millions) to/from and within regions, Great Britain,1995-96 to 2016-17; change shown is 2016-17 on 2015-16



There were 1,470 million passenger journeys<sup>1</sup> made in Great Britain in 2016-17. Compared to 2015-16, the number of passenger journeys increased by 0.4%. This was the smallest increase since 2009-10, and is largely a result of the decrease in the number of passenger journeys in London and the South East. Contributions to this decrease are the reduction in season ticket journeys and the decrease in passenger journeys for GTR (Govia Thameslink Railway), both of which are main drivers of change in London and the South East.

The number of passenger rail journeys in 2016-17 has more than doubled since 1995-96. It has risen every year with the exception of 2009-10, which saw a small dip coinciding with the economic downturn.

<sup>&</sup>lt;sup>1</sup> This is lower than the passenger journeys published in <u>Passenger Rail Usage</u> (1,731 million) which takes into account the number of legs in a journey. Please see <u>Passenger journeys in Great Britain</u> which explains the differences in more detail.

The highest annual growth was in 2006-07, although this was driven by an improvement to the methodology which saw estimates of travel on Transport for London (TfL) sold travelcards included in the dataset for the first time. This affected the number of journeys within London, and between London, the East of England and the South East. A further significant methodological change was implemented for 2008-09. This affected Passenger Transport Executive areas in a number of regions, most noticeably Yorkshire & the Humber, the North West, Scotland, and the West Midlands.

Where Regions have series breaks caused by the above methodology changes, these are indicated on the charts for each region.

The sub-regions used in this release and in the regional data tables have been updated to the 2015 NUTS2 boundary definitions as was previously done in the 2015-16 estimates of station usage dataset. For further information on the local authority boundaries as they existed prior to the 2009 reorganisation, please refer to the <u>ONS Website</u>.

The **Origin Destination Matrix (ODM)** is the source of journey<sup>2</sup> data for this release. The ODM is mainly derived from the rail industry's ticketing and revenue database, LENNON. There are additional estimates of rail journeys made for TfL sold travelcards, airport flows, and in Passenger Transport Executive (PTE)<sup>3</sup> areas. For a brief overview of the limitations of the data please see Annex 3.

For more detail on the data sources and the methodology used to calculate the statistics within this release please view the <u>Quality Report</u> and the <u>ODM technical report</u>.

<sup>&</sup>lt;sup>2</sup> A journey is based on travel from an origin station to a destination station. Regional passenger journeys are calculated based on the origin and destination named on a ticket and does not take into account any changes of train.

<sup>&</sup>lt;sup>3</sup> Passenger Transport Executives (PTEs) are local government bodies which are responsible for public transport within large urban areas. There are five PTEs in England, for each of the metropolitan counties (Merseyside, South Yorkshire, Tyne and Wear, West Midlands and West Yorkshire) with the former Greater Manchester Passenger Transport Executive being replaced by Transport for Greater Manchester from April 2011. In Scotland the Strathclyde Partnership for Transport is the equivalent body covering the region of Strathclyde. For convenience in this release we refer to all these areas as PTEs.

# 1.2 England, Scotland and Wales passenger journeys 2016-17

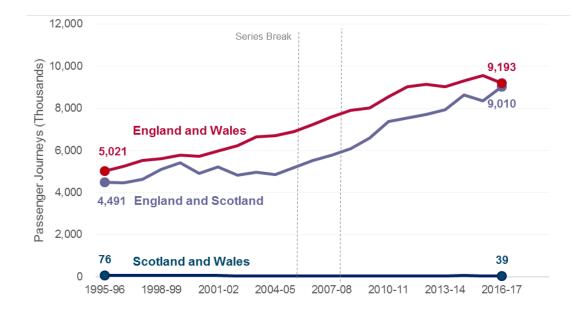
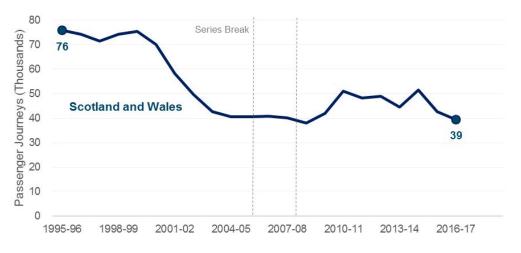


Figure 1.2: Passenger journeys (thousands) to/from England, Scotland, and Wales, 1995-96 to 2016-17

The number of rail journeys between England and Wales decreased by 3.9% to 9.2 million compared to 2015-16.

The number of rail journeys between England and Scotland has returned to the same trend seen before 2015-16, and increased by 7.7% to 9.0 million in 2016-17.

The number of journeys made between Scotland and Wales is small when compared to those between England and Scotland, or between England and Wales. There were 39 thousand journeys made between Scotland and Wales in 2016-17, representing a 7.6% decrease from the previous year.





# 2. Regional rail usage profiles 2016-17

**Regional rail usage profiles** present the number of rail passenger journeys made on the network between each Region of Great Britain and within each region. A more detailed breakdown by sub-region is also available on the <u>ORR Data Portal</u>.

### Summary

London had the highest number of total journeys of all the regions. There were 930.5 million passenger journeys in 2016-17, a decrease of 0.4%. Of these 404.4 million were to/from other regions and 526.1 million were made within London.

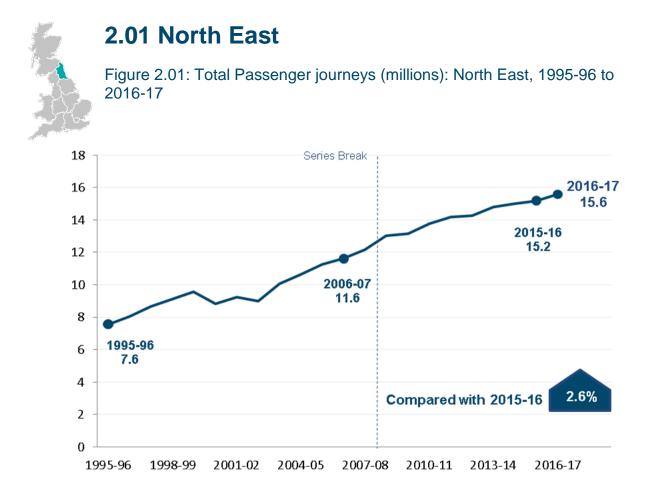
The North East had the lowest number of total journeys. There were 15.6 million in 2016-17, an increase of 2.6%. Of these 9.8 million were to/from other regions and 5.8 million were made within the North East.

There was an increase in total journeys for nine regions in 2016-17. The highest annual growth was in the West Midlands, up 5.4%, reaching a total number of journeys of 91.5 million. There was a decrease in the number of journeys in London, down 0.4%, and the South East, down 1.1%.

In 2016-17, there were four regions whose total number of journeys to/from other regions was greater than the journeys within that region – North East, East Midlands, East of England and the South East. The region which showed the largest difference between to/from and within journeys was the South East with 220.8 million and 79.5 million respectively.

All regions, except for Wales, saw an annual increase in journeys to/from other regions, with a national increase of 2.1%. The largest contribution to the overall change was journeys to/from London, with over 7 million more journeys made in 2016-17 than in 2015-16. The highest growth was for journeys to/from Scotland, with an increase of 7.6%.

Journeys within regions decreased by 0.4% to 993 million in 2016-17. This is the first decrease in the number of journeys within regions since 2009-10. This decrease was driven by a decrease in the number of journeys made within London and the South East. As these two regions account for 61% of all passenger journeys made within regions, this decrease outweighed the increase within all other regions.



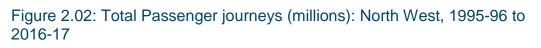
The total number of journeys for the North East was 15.6 million in 2016-17, an increase of 2.6% compared to the previous year. The total number of journeys for the North East has increased every year since 2002-03.

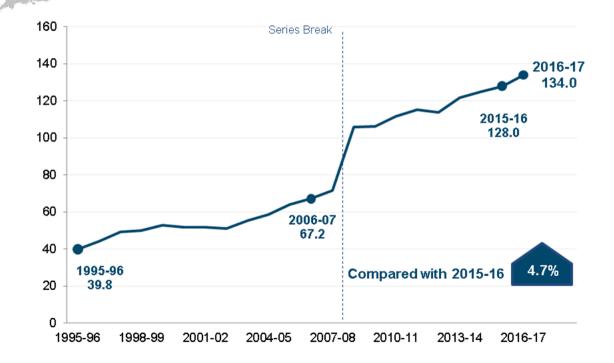
Passenger journeys for the North East fell between 1999-00 and 2002-03. This fall was driven by a decrease in journeys within the region over that period, largely due to significant engineering work between Newcastle and Sunderland as the line was upgraded for the Tyne & Wear Metro extension to Sunderland, which was completed in 2002-03.

Journeys between the North East and other regions rose by 3.1% in 2016-17, to 9.8 million. Journeys to/from Yorkshire and the Humber, which accounted for 30% of all journeys to/from the North East, increased by 5.8%.

Journeys within the North East rose by 1.9% in 2016-17, to 5.8 million. The largest contributions to this change came from Northumberland and Tyne and Wear, which accounted for 47% of journeys within the North East, and had an increase in the number of journeys of 2.0% in 2016-17.

## 2.02 North West





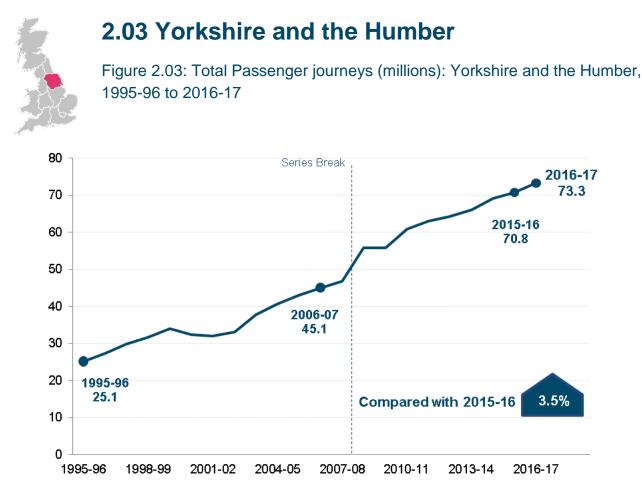
The total number of journeys for the North West was 134.0 million in 2016-17, an increase of 4.7% compared to the previous year.

The total number of journeys for the North West increased from 1995-96 before falling between 2000-01 and 2002-03. It then rose gradually before the inclusion of new estimates for rail travel in PTE areas in 2008-09, which resulted in a sharp increase. These new estimates impacted on both Merseyside and Greater Manchester journey numbers.

Journeys between the North West and other regions rose by 6.1% in 2016-17, to 38.1 million. Journeys to/from the West Midlands and to/from Yorkshire and the Humber, which together accounted for 39% of all journeys to/from the West Midlands, increased by 9.5% and 6.8% respectively.

56% of journeys between the North West and other regions start or end in Greater Manchester. Journeys between Greater Manchester and other regions increased for the twelfth year in succession, rising 6.7% in 2016-17.

Journeys within the North West rose by 4.1% in 2016-17, to 95.8 million. Greater Manchester accounted for 67% of the increase, with the number of journeys rising by 9.3%.

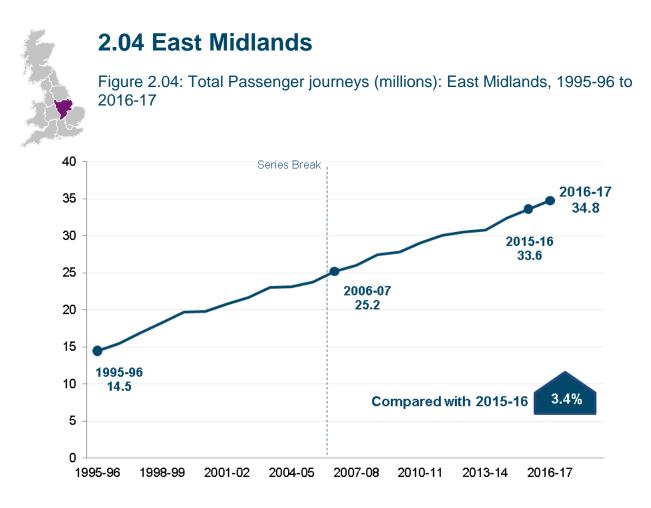


The total number of journeys for Yorkshire and the Humber was 73.3 million in 2016-17, an increase of 3.5% compared to the previous year.

Journeys between Yorkshire and the Humber and other regions rose by 4.4% in 2016-17, to 28.0 million. Journeys to/from the North West, which accounted for 34% of journeys to/from Yorkshire and the Humber, increased by 6.8%. Journeys between the North West and Yorkshire and the Humber have increased every year since 1995-96 except for 2001-02.

Journeys to/from West Yorkshire (which includes Leeds and Bradford), which accounted for 43% of journeys to/from Yorkshire and the Humber and other regions, increased by 4.2%.

Journeys within Yorkshire and the Humber rose by 2.9% in 2016-17, to 45.3 million. Journeys starting or ending in West Yorkshire, which accounted for 68% of journeys within Yorkshire and the Humber, increased by 3.4% in 2016-17.



The total number of journeys for the East Midlands was 34.8 million in 2016-17, an increase of 3.4% compared to the previous year.

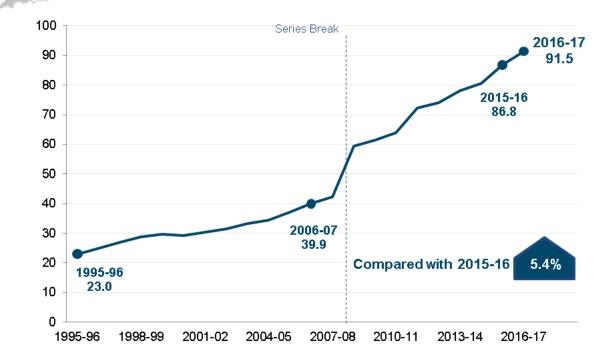
The number of journeys for the East Midlands has consistently increased in each year since 1995-96. The only other regions where this has happened are the South West and Wales.

Journeys between the East Midlands and other regions rose by 3.6% in 2016-17, to 25.4 million. The largest contributions to this change were journeys to/from the West Midlands and Yorkshire and the Humber, which together accounted for 34% of journeys, and increased by 6.6% and 5.4% respectively.

Journeys within the East Midlands rose by 2.7% in 2016-17, to 9.4 million. Journeys starting or ending in Derbyshire and Nottinghamshire accounted for 55% of journeys within the East Midlands, and increased by 3.0% in 2016-17.

## 2.05 West Midlands



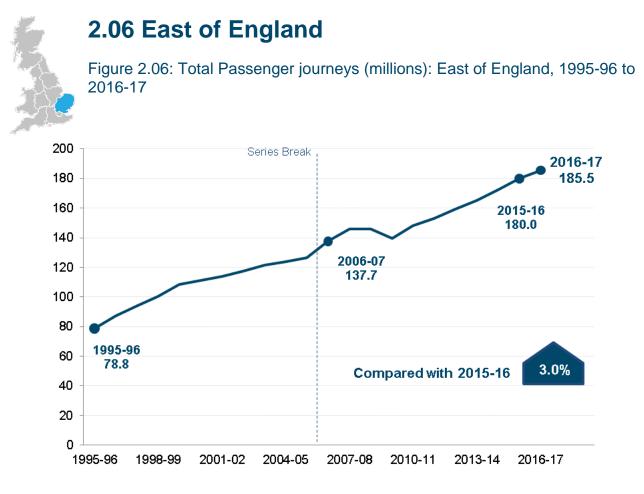


The total number of journeys for the West Midlands was 91.5 million in 2016-17, an increase of 5.4% compared to the previous year. This was the highest percentage growth of any region in 2016-17.

Journeys between the West Midlands and other regions rose by 6.2% in 2016-17, to 32.3 million. This was the highest annual growth since 2009-10. Journeys to/from London, the East Midlands, and the North West, which together account for 72% of journeys to/from the West Midlands, increased by 6.3%, 6.6%, and 9.5% respectively.

Journeys within the West Midlands rose by 4.9% in 2016-17, to 59.1 million.

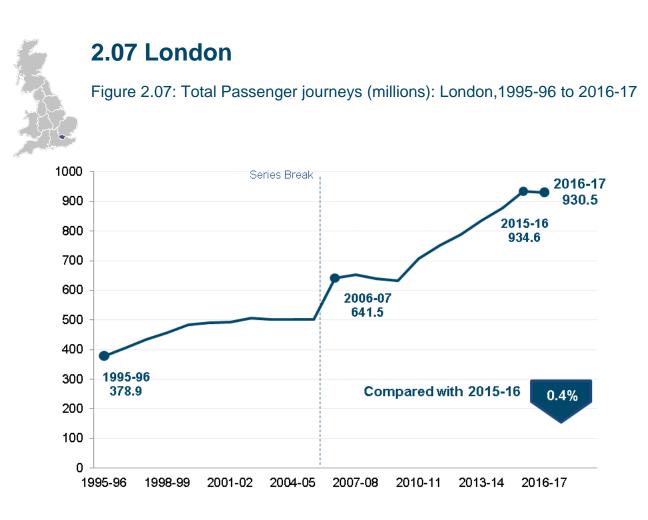
The Metropolitan area of West Midlands (which includes Birmingham and Wolverhampton) accounts for 73% of total passenger journeys for the West Midlands region. It had an increase in total journeys of 5.7%, with journeys to/from other regions increasing by 6.7%, and journeys within the West Midlands increasing by 5.3%.



The total number of journeys for the East of England was 185.5 million in 2016-17, an increase of 3.0% compared to the previous year. This is the lowest overall increase in journeys since 2009-10.

Journeys between the East of England and other regions rose by 2.8% in 2016-17, to 151.5 million. Journeys to/from London, which account for over 90% of all journeys between the East of England and other regions, increased by 3.0% in 2016-17, and are a major contributor to the increase in rail demand. The reduction in season ticket usage in 2016-17 may have had an impact on the number of passenger journeys between the London and the East of England.

Journeys within the East of England rose by 3.9% in 2016-17, to 34.0 million. Journeys starting or ending in Essex, which accounts for 39% of journeys within the East of England, increased by 4.6% in 2016-17.

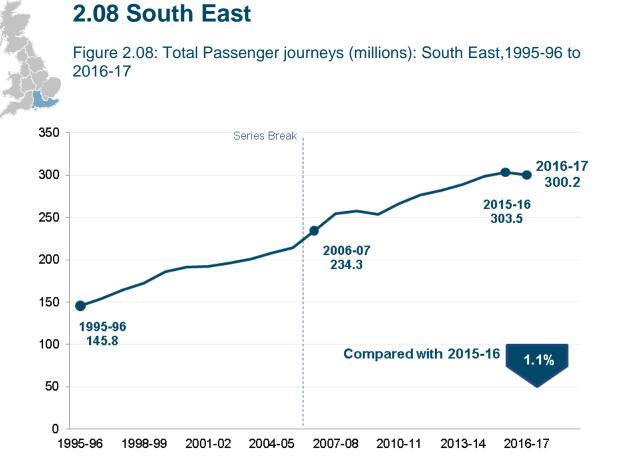


The total number of journeys for London was 930.5 million in 2016-17, a decrease of 0.4% compared to the previous year. This is the first decrease in overall journeys for London since 2009-10, which was possible as a result of the economic downturn.

The sharp rise in 2006-07 was the result of an improvement in the methodology as estimates of travel using Transport for London (TfL) sold travelcards were included in the dataset for the first time.

Journeys between London and other regions rose by 1.8% in 2016-17, to 404.4 million. The largest growth rate for journeys to/from London was for Scotland, which increased by 7.5%. Journeys to/from the South East, which accounted for 50% of total journeys, grew by 0.4% and journeys to/from East of England, which accounted for 35% of total journeys, grew by 3.0%.

Journeys within London fell by 2.1% in 2016-17, to 526.1 million. The largest contribution to this change was from Inner London – West (which includes Victoria station), which accounts for 24% of all journeys in London, and had a decrease in journeys of 4.7% in 2016-17.

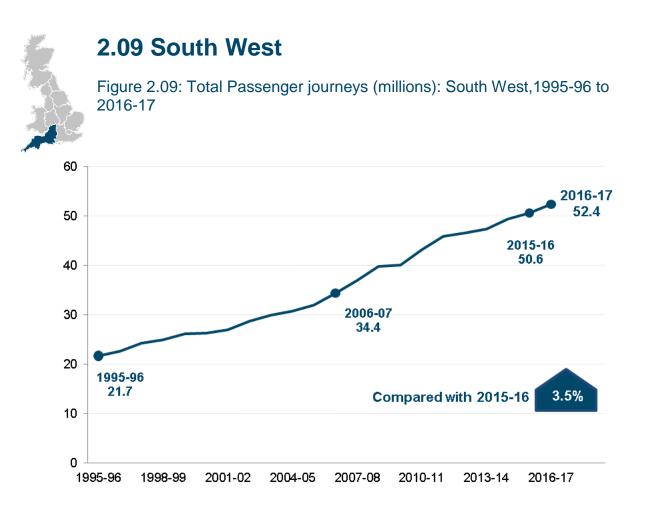


The total number of journeys for the South East was 300.2 million in 2016-17, a decrease of 1.1% compared to the previous year. This is the first decrease in passenger journeys since 2009-10.

Journeys between the South East and other regions rose by 0.5% in 2016-17, to 220.8 million. Journeys to/from London, which accounted for over 90% of all journeys between the South East and other regions, increased by 0.4%. This is the lowest growth in journeys between London and the South East since 2009-10. The reduction in season ticket usage in 2016-17, and the decrease in passenger journeys on GTR (Govia Thameslink Railway) may have had an impact on the number of passenger journeys between the London and the South East.

Journeys to/from the South East with an origin/destination in Surrey and East and West Sussex had a decrease of 2.2% in 2016-17. This was cancelled out by increases in journeys to/from Kent, up 3.9%, and Berkshire and Buckinghamshire and Oxfordshire, up 2.6%.

Journeys within the South East fell by 5.3% in 2016-17, to 79.5 million. Surrey and East and West Sussex (which includes Brighton), which accounted for 41% of journeys within the South East, had a decrease in journeys of 11.4% in 2016-17.

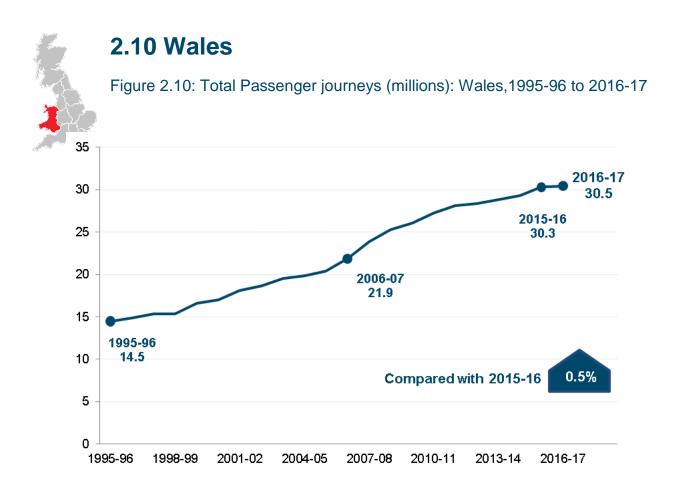


The total number of journeys for the South West was 52.4 million in 2016-17, an increase of 3.5% compared to the previous year. The total number of journeys for the South West has increased every year since 1995-96.

Journeys between the South West and other regions rose by 2.1% in 2016-17, to 25.8 million. Journeys to/from London, which accounted for 47% of all journeys between the South West and other regions, increased by 4.1%.

However, there was a decrease of 7.2% in journeys to/from Wales, which may be accounted for by the Rugby World Cup in 2015 which had several matches hosted in Wales, and this decrease is a return to the usual journey numbers.

Journeys within the South West region rose by 5.0% in 2016-17, to 26.6 million. Journeys with an origin and/or destination within Gloucestershire, Wiltshire and the Bath/Bristol area, which accounted for 52% of journeys within the South West, increased by 6.4%.

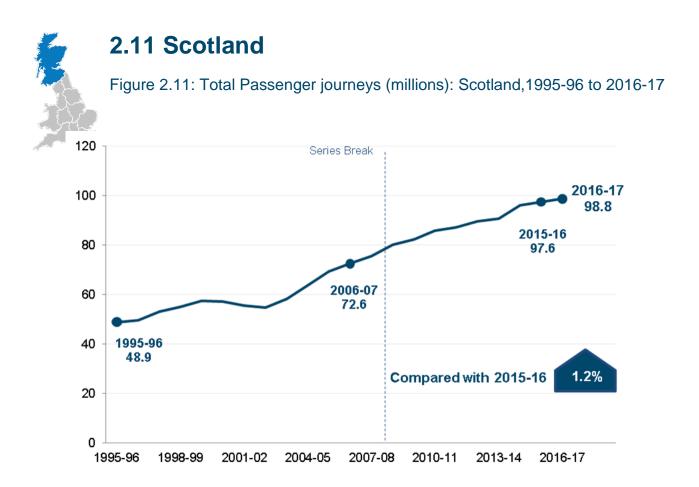


The total number of journeys for Wales was 30.5 million in 2016-17, an increase of 0.5% compared to the previous year. This is the lowest year-on-year growth since 1998-99. The total number of journeys for Wales has increased every year since 1995-96.

Journeys between Wales and other regions fell by 3.9% in 2016-17, to 9.2 million. This is the largest fall in journeys to/from Wales since the time series began in 1995-96, with journeys to/from East Wales (which includes Cardiff) falling by 5.3%.

Journeys to/from London and the South West fell by 6.0% and 7.2% respectively. This may in part be due to the Rugby World Cup in 2015 which had several matches hosted in Wales, and this decrease is a return to the trend seen before 2015-16.

Journeys within Wales rose by 2.5% in 2016-17, to 21.2 million. Journeys with an origin/destination in East Wales (which includes Cardiff), which accounted for 57% of the journeys within Wales, increased by 3.1%.



The total number of journeys for Scotland was 98.8 million in 2016-17, an increase of 1.2% compared to the previous year.

Journeys between Scotland and other regions rose by 7.6% in 2016-17, to 9.0 million. This was a return to growth after the 3.0% decrease in the number of journeys in 2015-16. Journeys between Scotland and the North West, which rose by 14.2%, accounted for 51% of the increase.

Cross-border services to/from Eastern Scotland (which includes Edinburgh) and South Western Scotland (which includes Glasgow), which account for 96% of journeys to/from Scotland, increased by 7.8% and 10.0% respectively in 2016-17.

Journeys within Scotland rose by 0.6% in 2016-17, to 89.7 million. Journeys starting or ending in North Eastern Scotland (which includes Aberdeen) fell for the second consecutive year, down 11.7%. This was offset by journeys starting or ending in South Western Scotland (which includes Glasgow), which accounted for 69% of journeys within Scotland, and increased by 1.2%

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

All data tables can be accessed on the data portal free of charge. The ORR <u>Data Portal</u> 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.

### Passenger journeys in Great Britain

Regional rail journeys - GB and England, Scotland and Wales, 1995-96 and 2016-17 – <u>Table 15.3</u>

### **Regional rail usage profiles**

Each of the tables below provides a time series from 1995-96 to 2016-17 of total rail journeys to/from and within each region or country, including a breakdown by sub-region. Charts within the tables provide a comparison between 2016-17 and 2015-16.

- Regional rail journeys East Midlands <u>Table 15.1</u>
- Regional rail journeys East of England <u>Table 15.2</u>
- Regional rail journeys London <u>Table 15.4</u>
- Regional rail journeys North East <u>Table 15.5</u>
- Regional rail journeys North West <u>Table 15.6</u>
- Regional rail journeys Scotland <u>Table 15.7</u>
- Regional rail journeys South East <u>Table 15.8</u>
- Regional rail journeys South West <u>Table 15.9</u>
- Regional rail journeys Wales <u>Table 15.10</u>
- Regional rail journeys West Midlands <u>Table 15.11</u>
- Regional rail journeys Yorkshire and the Humber <u>Table 15.12</u>

**Revisions:** There have been no revisions to the previously published dataset. Further details on historic revisions to the data set can be found at: <u>Revisions Log</u>

## Annex 2

## **Statistical Releases**

This publication is part of the statistical releases which cover the majority of reports that were previously released through the <u>Data Portal</u>. 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 <u>release</u> <u>schedule</u> 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 Abby Sneade on 020 7282 2022 or contact <u>rail.stats@orr.gsi.gov.uk</u>.

The Department for Transport (DfT) also publishes a range of rail statistics which can be found at <u>DfT Rail Statistics</u>.

## Annex 3 – Methodology and limitations

## Methodology

As Britain does not have a fully gated rail network, ORR commissions Steer Davies Gleave (SDG) to produce the annual Origin Destination Matrix (ODM), a comprehensive matrix of rail flows throughout Great Britain. It is based upon the MOIRA2 rail planning tool which itself is derived from LENNON, the rail industry's ticketing and revenue system. In addition, ODM is further augmented by a range of other data sources to provide a more complete representation of travel on the national rail network. These consist of:

- Journeys with non-geographical destinations, e.g. zonal products, Rovers;
- Tickets sold at some non-National Rail outlets, e.g. newsagents; and
- Train Operating Company (TOC) tickets on airport flows, and tickets for TOCs.

A passenger journey presented in this Regional Rail Usage statistical release is based on the origin and destination named on the ticket. For example, a journey from Cardiff to Oxford, which may involve two trains (one from Cardiff to Didcot and another from Didcot to Oxford), would be classed as one journey despite the need to change trains. This differs from the definition used in the <u>Passenger Rail Usage release</u>, which takes into account the number of legs of a journey. This release therefore produces slightly lower estimates than the total journeys published each quarter in the Passenger Rail Usage statistical release. Please see <u>Passenger journeys in Great Britain</u> which explains the differences in more detail.

#### London Stations Methodology Change

A significant change was made to the way that usage at London stations had been estimated in 2015-16.

Oyster data from TfL has been used to give a more accurate distribution of usage across stations.

This does not affect the journeys flows between London and other regions or within London. However, at a sub-regional level within London direct comparisons between 2015-16 and 2014-15 are not valid.

#### Limitations

The ODM data is derived from the rail industry's ticketing and revenue database (LENNON). However, it is not possible to derive all passenger journeys from ticket sales data. As some train operators, primarily Eurostar and Heathrow Express, are not included

in rail industry ticketing systems travel using these operators' tickets are not included in the ODM data. The <u>Quality Report</u> details the limitations associated with the ODM data.

A number of improvements to the methodology have been implemented over recent years. These changes should be taken into account when considering year on year changes in journeys for some regions as it may not reflect an actual change in demand. These improvements, and the reasons for them, are detailed in the <u>Quality Report</u>.

## **Estimates of Station Usage**

ORR also publishes estimates of station usage for all stations in Great Britain. The latest 2016-17 estimates are available at <u>http://orr.gov.uk/statistics/published-stats/station-usage-estimates</u>

## **Regional rail usage profiles**

Regional rail usage profiles present the number of rail passenger journeys made on the network between each region of Great Britain and within each region. This is broken down by sub-regions.

The sub-regions used in all the 11 regional tables have been updated to the 2015 NUTS2 boundary definitions as was previously done in the 2015-16 estimates of station usage dataset. For further information on the local authority boundaries as they existed prior to the 2009 reorganisation, please refer to the <u>ONS Website</u>.

For London, details on which London boroughs are mapped to each sub-region are included in the <u>Quality Report</u>.



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