Rail Executive

England and Wales 'top 10' overcrowded train services: autumn 2014

Based on services arriving at or departing from major cities in England and Wales during the morning and afternoon peaks

Introduction

The Department for Transport (DfT) collects rail passenger counts from train operating companies to monitor train crowding levels. All franchises let by DfT require the train operator to address crowding and to plan their timetables in such a way as to ensure, as far as possible, that crowding is not unduly concentrated on any particular route or individual service. The table included in this paper shows the 10 most overcrowded peak services in the autumn 2014 passenger count data.

The 'top 10' services in autumn 2014 were between 58% and 86% over their capacity.

Methodology

These figures are taken from internal management information used for monitoring purposes. Recognising that there is a demand for this type of data, DfT periodically makes these lists public. It should be noted that there are a number of data issues associated with passenger counts which must be considered when referring to the table below. In addition to the notes that follow the table, more detailed information is available in the notes and definitions document that accompanies DfT's annual statistical publication covering passenger demand and rail crowding. It can be found at: https://www.gov.uk/transport-statistics-notes-and-guidance-rail-statistics.

The 'top 10' list covers arrivals into eleven major cities during the morning peak (07:00-09:59) and departures from these cities during the evening peak (16:00-18:59) on a 'typical' weekday, for franchised operators only. The passenger load figure is the count at the busiest point on the particular service. This can be an interchange point outside the city on the route concerned (e.g. Stratford or Ealing Broadway on approach to London) and does not always correspond to the terminal or city centre station.

In all cases, the autumn data were collected prior to the December 2014 timetable change. Some of these overcrowding figures are derived from one-off measurements of the passengers on a particular weekday and are not an average representation of overcrowding on the service over a period of time; so the figures represent a one-off snap-shot from autumn 2014 only and do not provide a guide to current overcrowding.

The 'top 10' list is determined based on 'load factor', which is the number of standard class passengers on a service expressed as a percentage of the maximum stated standard class passenger capacity for that service. For example, a train which has the same passenger load as the passenger capacity has a load factor of 100%.

For shorter journeys, where the journey time between stations at the most crowded point is 20 minutes or less, the capacity figures given in the table take account of the number of standard seats plus a standing allowance, which is based on the type of rolling stock. For longer-distance services, where there is a gap longer than 20 minutes between stations, capacity is calculated as the number of standard seats only. A number of services included in the table have their capacity calculated as "seats plus standing" in line with the definition above.

The 10 most overcrowded peak train services in major cities in England and Wales; autumn 2014

Warning - Figures should be treated with caution - please see notes on data issues.

Rank	Departure time	Origin station	Destination station	Arrival time	City	Train Operating Company	Number of cars	Standard class passenger capacity [1]	Standard class passenger load [2]	Count point [3]	Passengers in excess of capacity [4]	Standard class load factor [5]
1	04:22	Glasgow Central	Manchester Airport	08:47	Manchester	TransPennine Express	4	191	355	Manchester Oxford Road	164	186%
2	16:00	Manchester Airport	Edinburgh	19:40	Manchester	TransPennine Express	4	191	353	Manchester Oxford Road	162	185%
3	06:31	Reading	London Paddington	07:32	London	First Great Western	3	367	646	Ealing Broadway	279	176%
4	07:57	London Heathrow	London Paddington	08:24	London	Heathrow Connect	5	476	814	Ealing Broadway	338	171%
5	07:02	Reading	London Paddington	08:04	London	First Great Western	5	596	977	Ealing Broadway	381	164%
6	06:35	Caterham	London Victoria	07:15	London	Southern	4	430	704	Clapham Junction	274	164%
7	07:24	Brighton	Bedford	10:07	London	Govia Thameslink Railway	8	716	1,150	London Blackfriars	434	161%
8	18:00	Manchester Airport	Edinburgh	21:38	Manchester	TransPennine Express	4	191	307	Manchester Oxford Road	116	161%
9	07:32	Woking	London Waterloo	08:19	London	South West Trains	12	738	1,180	London Waterloo	442	160%
10	07:02	Woking	London Waterloo	07:49	London	South West Trains	12	738	1,169	London Waterloo	431	158%

Notes

(1) Includes the number of standard class seats on the train and may also include a standing allowance. No standing allowance is made for journeys of more than 20 minutes between the stations at the most crowded point. For journeys of 20 minutes or less, an allowance for standing room is also made. The allowance for standing varies with the type of rolling stock but, for modern sliding door stock, it is typically approximately 35% of the number of seats.

(2) The number of standard class passengers on the service at its most crowded point on the journey into or out of the city.

(3) The point where the passenger load was recorded. For morning peak arrivals this is the station that the load was recorded on arrival at, and for afternoon peak departures this is the station that the load was recorded on departure from.

(4) The difference between the standard class passenger load and the standard class passenger capacity.

(5) The number of standard class passengers expressed as a percentage of the maximum allowable standard class passenger capacity for that service. For example, a train which has the same passenger load as the passenger capacity would have a load factor of 100%.

This list is based on peak trains in Birmingham, Bristol, Cardiff, Leeds, Leicester, Liverpool, London, Manchester, Newcastle, Nottingham and Sheffield. These are the same cities that are included in the Department's *Rail passenger numbers and crowding statistics*, which are based on the same data. The latest publication can be found via the DfT rail statistics webpage:
https://www.gov.uk/government/organisations/department-for-transport/series/rail-statistics

🚊 The 'top 10' services in autumn 2014

1. 04:22 service from Glasgow Central to Manchester Airport
(load factor 186%, 164 passengers in excess of its capacity of 191)

Capacity is based on seats only. Service has first class.

The three TransPennine Express (TPE) services appearing in the current 'top 10' list are now routing via Wigan rather than Bolton. Previously the most crowded part of the journey took only 13 minutes from Manchester Oxford Road and was therefore out of scope for inclusion in the list as a standing allowance was included.

Overall, TPE has seen significant growth on the Anglo-Scottish route which offers key long distance leisure trips from Manchester to Edinburgh/Glasgow, alongside a large take up of customers travelling to/from Manchester for commuting purposes. Contributing to this increase has been the introduction of new electric rolling stock on all Anglo-Scottish services route via Wigan which has brought about significant journey time reductions. Low-priced Transport for Greater Manchester (TfGM) tickets for 20 mile journeys have also contributed to the increase. TPE has now amended Advance Purchase prices in an attempt to move longer distance customers on to services which do not operate in the peak.

2. 16:00 service from Manchester Airport to Edinburgh
(load factor 185%, 162 passengers in excess of its capacity of 191)

Capacity is based on seats only. Service has first class.

See note at 1 above.

3. 06:31 service from Reading to London Paddington
(load factor 176%, 279 passengers in excess of its capacity of 367)

Capacity includes seats and a standing allowance. Service has first class.

First Great Western recognises this service is crowded and has enhanced the capacity by declassifying First Class on the Class 165. This will add an extra 16 Standard Class seats on this service.

4. 07:57 service from London Heathrow to London Paddington
(load factor 171%, 338 passengers in excess of its capacity of 476)

Capacity includes seats and a standing allowance. Service has no first class seats and the train is at maximum length.

This service is currently running with the maximum number of carriages. Options are currently being explored to enhance the infrastructure between Hayes & Harlington and London Paddington, to enable First Great Western to provide additional capacity to alleviate crowding on this route between these stations.

5. 07:02 service from Reading to London Paddington
(load factor 164%, 381 passengers in excess of its capacity of 596)

Capacity includes seats and a standing allowance. Service has first class.

As part of the "Turbo First" programme, First Great Western has added 16 extra standard class seats to all its Class 165 turbo trains by declassifying First Class. This will add an extra 32 seats to this particular service to alleviate crowding. First Great Western is also adding another carriage to the 0709 service between Reading and London Paddington to further enhance capacity from December 2015.

6. 06:35 service from Caterham to Victoria Central
(load factor 164%, 274 passengers in excess of its capacity of 430)

Capacity includes seats and a standing allowance. Service has no first class seats.

Southern introduced this train at the December 2011 timetable change in addition to the trains that were contracted to run. This was part of an initiative to using their trains more efficiently to get an extra trip and to plug what was previously a half hour interval between fast East Croydon to Victoria trains. This train primarily serves the fast East Croydon to Clapham Junction and London Victoria market. Currently there are no more carriages available to lengthen this train or to run any additional trains between East Croydon and London Victoria unless they were taken from other trains, but that would cause crowding elsewhere.

7. 07:24 service from Brighton to Bedford
(load factor 161%, 434 passengers in excess of its capacity of 716)

Capacity includes seats and a standing allowance. Service has first class and the train is at maximum length.

To facilitate the introduction of longer 12 coach trains in the near future, the calling pattern on this train has been amended and it no longer calls at Herne Hill or Elephant & Castle. This has caused overcrowding on this particular service. GTR is using all available rolling stock prior to delivery of new longer trains. In the longer term the Thameslink route is being transformed by the Thameslink Programme that will increase the number of trains significantly that run between East Croydon, Blackfriars and other London Thameslink stations. Currently only 16 coaches in 2 trains arrive at London Blackfriars from Brighton via East Croydon between 0800 and 0849. Once the Thameslink Programme is completed from December 2018, this will be increased to 48 coaches in 4 trains from Brighton with many more coaches from East Croydon in trains from other routes.

8. 18:00 service from Manchester Airport to Edinburgh
(load factor 161%, 116 passengers in excess of its capacity of 191)

Capacity is based on seats only. Service has first class.

See note at 1 above.

9. 07:32 service from Woking to London Waterloo
(load factor 160%, 442 passengers in excess of its capacity of 738)

Capacity is based on seats only. Service has first class and the train is at maximum length.

These services are already formed of 12 cars - the longest possible train on this route - as are the services immediately before and after. Further increases in capacity would require infrastructure upgrades and investment. South West Trains is continuing to increase capacity across the network where possible, including introducing new carriages on the suburban network.

10. 07:02 service from Woking to London Waterloo
(load factor 158%, 431 passengers in excess of its capacity of 738)

Capacity is based on seats only. Service has first class and the train is at maximum length.

See note at 9 above.

Passenger counts data issues

• Though a great deal of work is being undertaken to improve the quality and quantity of passenger count data collected and the outputs derived from these data, this work is ongoing. While we believe that aggregate statistics are of reasonable quality, due to the nature of the data, statistics on individual services are not always robust.

• The overcrowding figures for the 'top 10' services are often derived from one-off measurements of the passengers on each train on a particular weekday. They may not be an average representation of overcrowding on the service over a period of time. Furthermore, some of the passenger load numbers are obtained by manual counting and so there is a significant risk of human error. **Hence the figures should be treated with caution**.

• As the figures included in this release are one-off snapshots from autumn 2014 they do not provide a reliable, accurate guide to current overcrowding. For example, extra capacity has already been introduced on some routes.

• It should be noted that some of the services in the 'top 10' list are atypical, inasmuch as they are services/routes on which additional capacity cannot be provided without unrealistic changes to infrastructure.

• The data collected are intended to represent a 'typical' weekday (usually Tuesday to Thursday). Historically, the Department has only monitored crowding levels for London and South East operators. In co-operation with train operators, the Department has been expanding its capacity to monitor crowding in key regional cities, and has published new statistics since 2012 showing weekday passenger numbers and crowding in a number of major cities in England and Wales.

Further information about passenger counts can be found in the *Rail passenger numbers and crowding statistics: notes and definitions*, which can be found at the following link: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/352512/rail-notes-definitions.pdf

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