

London and South East ‘top ten’ overcrowded train services: spring 2011

Department for
Transport

Based on services arriving at or departing from London during the morning and afternoon peaks

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 tables included in this paper show the ten most overcrowded London and South East peak services in spring 2011.

The ‘top ten’ services in spring 2011 were between 47 and 66 per cent over their capacity limit.

Methodology

These figures are taken from internal management information used for monitoring purposes. DfT is making this list public because of the demand for this kind of information. 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, and detailed notes follow the table.

The ‘top ten’ list is generated from arrivals into London during the morning peak (07:00-09:59) and departures from London during the evening peak (16:00-18:59) on a ‘typical’ weekday, for London and South East commuter services only. The passenger load figure is the count at the busiest point on the particular service. This can be an interchange point outside London on the route concerned (e.g. Stratford or Ealing Broadway) and does not always correspond to the terminal point.

In all cases, the spring data were collected prior to the May 2011 timetable change. Most 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 spring 2011 only and do not provide a guide to current overcrowding.

The ‘top ten’ 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 (per the operator’s franchise agreement with DfT). For example, a train which has the same passenger load as the passenger capacity has a load factor of 100 per cent.

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 determined 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 ten most overcrowded London and South East train services arriving at or departing from London during the morning and afternoon peaks; spring 2011

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

Rank	Train Operating Company	Departure time	Origin station	Destination station	Arrival time	Number of cars	Standard class passenger capacity ⁽¹⁾	Standard class passenger load ⁽²⁾	Count point ⁽³⁾	Number of standard class passengers in excess of capacity ⁽⁴⁾	Standard class load factor ⁽⁵⁾
1	First Great Western	07:44	Henley on Thames	London Paddington	08:29	3	225	373	London Paddington	148	166%
2	First Great Western	07:28	Bourne End	London Paddington	08:19	5	395	631	London Paddington	236	160%
3	First Great Western	07:31	Oxford	London Paddington	08:30	7	381	591	London Paddington	210	155%
4	London Midland	18:13	London Euston	Birmingham New Street	20:16	12	738	1,132	London Euston	394	153%
5	First Great Western	18:45	London Paddington	Reading	19:46	3	367	555	Ealing Broadway	188	151%
6	National Express East Anglia	07:44	Shenfield	London Liverpool Street	08:25	8	864	1,299	Stratford	435	150%
7	First Great Western	18:57	London Paddington	Reading	20:00	5	533	793	Ealing Broadway	260	149%
8	South West Trains	07:32	Woking	London Waterloo	08:19	12	738	1,096	London Waterloo	358	149%
9	First Capital Connect	07:37	Sutton (Surrey)	St Albans City	08:58	4	412	611	Elephant & Castle	199	148%
10	National Express East Anglia	07:18	Southend Victoria	London Liverpool Street	08:41	8	864	1,273	Stratford	409	147%

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 per cent 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 London.
- (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%.

The 'top ten' services in spring 2011

1. **07:44 service from Henley on Thames to London Paddington (load factor 166 per cent, 148 passengers in excess of its capacity of 225)**

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

First Great Western plans to increase the capacity on this service by lengthening it from 3 cars to 4 cars when additional rolling stock becomes available in September 2012.

2. **07:28 service from Bourne End to London Paddington (load factor 160 per cent, 236 passengers in excess of its capacity of 395)**

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

Although still crowded, more recent figures suggest lower train load figures for this service.

3. **07:31 service from Oxford to London Paddington (load factor 155 per cent, 210 passengers in excess of its capacity of 381)**

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

This service now forms the 07:15 Charlbury to Paddington service, which First Great Western plans to strengthen to an 8-car service when additional rolling stock is available.

4. **18:13 service from London Euston to Birmingham New Street (load factor 153 per cent, 394 passengers in excess of its capacity of 738)**

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

5. **18:45 service from London Paddington to Reading (load factor 151 per cent, 188 passengers in excess of its capacity of 367)**

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

First Great Western altered this service in February 2012 from a 3-car to a 5-car train to provide additional capacity.

6. **07:44 service from Shenfield to London Liverpool Street (load factor 150 per cent, 435 passengers in excess of its capacity of 864)**

Capacity includes seats and a standing allowance. Train is at maximum length.

National Express East Anglia introduced an additional service on this route in May 2011 to provide additional capacity in the morning peak.

7. 18:57 service from London Paddington to Reading (load factor 149 per cent, 260 passengers in excess of its capacity of 533)

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

Although still crowded, more recent figures suggest lower train load figures for this service.

8. 07:32 service from Woking to London Waterloo (load factor 149 per cent, 358 passengers in excess of its capacity of 738)

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

9. 07:37 service from Sutton to St Albans City (load factor 148 per cent, 199 passengers in excess of its capacity of 412)

Capacity includes seats and a standing allowance.

First Capital Connect altered this service in December 2011 from a 4-car to an 8-car train to provide additional capacity.

10. 07:18 service from Southend Victoria to London Liverpool Street (load factor 147 per cent, 409 passengers in excess of its capacity of 864)

Capacity includes seats and a standing allowance. Train is at maximum length.

National Express East Anglia introduced an additional service on this route in May 2011 to provide additional capacity in the morning peak.

Passenger counts data issues

- Though a great deal of work is being undertaken in the Department to improve the quality of the passenger count data received from train operators, and the outputs derived from these data, this is work in progress. Whilst we believe that aggregate statistics are of reasonable quality, statistics on individual services are not robust.
- The overcrowding figures for the 'top ten' services are often derived from one-off measurements of the passengers on each train on a particular weekday. They are not an average representation of overcrowding on the service over a period of time. Furthermore, the majority 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 extreme caution**.
- As the figures included in this release are a one-off snap-shot from spring 2011 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 ten' list are atypical, in as much as they are services/routes on which additional capacity cannot be provided without unrealistic changes to infrastructure.
- Although we are increasing the quantity of passenger counts collected by DfT, both in terms of the number of counts received from train operating companies and the geographic coverage of the data, at present we have insufficient data to cover off-peak and regional services. Therefore each 'top ten' list is generated from arrivals into London during the morning peak (07:00-09:59) and departures from London during the evening peak (16:00-18:59) for London and South East commuter services only. 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 is currently expanding its capacity to monitor crowding in key regional cities; however, the data quality is variable at present.

Contact Information

Comments and requests for further information should be addressed to:

Department for Transport
Rail Statistics
Zone 3/15 Great Minster House
33 Horseferry Road
London SW1P 4DR
rail.stats@dft.qsi.gov.uk
Internet: www.dft.gov.uk
Tel: 020 7944 2419