

TSUG

Transport Statistics Users Group

Monthly Review: June 2017

This month's review has shown that car traffic in UK has increased by 2% to 252.6 billion vehicle miles (bvm), the highest figure ever. Public transport in Germany grew by 1.5% to reach a new record of 11.38b journeys. VIA Rail Canada also reached a 4.1% increase. But easyJet had its worst half years for six years. We've also got Kit Mitchel's Statistics Digest. Letter to the Editor is continued. IEA discussion paper 50 chapter 10 is also included.

Dr Shanta Bir Singh Tuladhar, Calum Leslie and Andrew Sharp

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Dates of the next TSUG seminars

Date	Venue	Topic
Wed-21-June	TfL	Congestion
Wed-19-July	TfL	Ground Access to Airports

The seminars can be booked through the TSUG website at www.tsug.org.uk/seminars.php

Statistics Digest

Statistics Digest June 2017

This digest lists major sets of statistics that have been released recently or which are due to be released. Regular monthly and quarterly releases are not included. The web links given allow free downloads of the documents cited.

Recent releases from Department for Transport

Recent releases from Department for Transport	
4 May	Renewable Transport Fuel Obligation: Year 9 (2016 to 2017) report 3 (15 April 2016 to 14 April 2017 supply) https://www.gov.uk/government/collections/biofuels-statistics
18 May	Travel time measures for local 'A' roads, England: April 2016 to March 2017 https://www.gov.uk/government/collections/road-congestion-and-reliability-statistics
18 May	Travel time measures for the Strategic Road Network: April 2016 to March 2017 https://www.gov.uk/government/collections/road-congestion-and-reliability-statistics
18 May	Provisional road traffic estimates, Great Britain: April 2016 to March 2017 https://www.gov.uk/government/statistics/provisional-road-traffic-estimates-great-britain-april-2016-to-march-2017

Forthcoming releases from Department for Transport	
14 June	Search and rescue helicopter statistics: year ending March 2017 https://www.gov.uk/government/collections/search-and-rescue-helicopter-statistics
29 June	Vehicle speed compliance statistics for Great Britain: 2016 https://www.gov.uk/government/collections/speeds-statistics
29 June	Reported road casualties in Great Britain, main results: 2016 https://www.gov.uk/government/collections/road-accidents-and-safety-statistics
29 June	Light rail and tram statistics: year ending March 2017 https://www.gov.uk/government/collections/light-rail-and-tram-statistics
13 July	Road freight statistics: 2016 https://www.gov.uk/government/collections/road-freight-domestic-and-international-statistics
July	Air passenger experience of security screening: 2016 https://www.gov.uk/government/collections/aviation-statistics
July	Rail passenger numbers and crowding on weekdays in major cities in England and Wales: 2016 https://www.gov.uk/government/collections/rail-statistics
July	British social attitudes survey: 2016

Forthcoming releases from Department for Transport	
https://www.gov.uk/government/collections/statistics-on-public-attitudes-to-transport	
3 August	Renewable Transport Fuel Obligation: Year 9 (2016 to 2017) report 4 (provisional) (15 April 2016 to 14 April 2017 supply)
https://www.gov.uk/government/collections/biofuels-statistics	
August	Reported Road Casualties in Great Britain: 2016 provisional estimates for accidents involving illegal alcohol levels
https://www.gov.uk/government/collections/road-accidents-and-safety-statistics	
August	Provisional road traffic estimates, Great Britain: July 2016 to June 2017
https://www.gov.uk/government/collections/road-traffic-statistics	
August	Travel time measures for local 'A' roads, England: July 2016 to June 2017
https://www.gov.uk/government/collections/road-congestion-and-reliability-statistics	
August	Travel time measures for the strategic road network: July 2016 to June 2017
https://www.gov.uk/government/collections/road-congestion-and-reliability-statistics	
August	Taxi and private hire vehicles statistics, England: 2017
https://www.gov.uk/government/collections/taxi-statistics	
Sept	Port freight statistics: 2016 final figures
https://www.gov.uk/government/collections/maritime-and-shipping-statistics	
Sept	National Travel Survey: 2016
https://www.gov.uk/government/collections/national-travel-survey-statistics	
Sept	Reported road casualties Great Britain, annual report: 2016
https://www.gov.uk/government/collections/road-accidents-and-safety-statistics	
Sept	Local area walking and cycling in England: 2015 to 2016
https://www.gov.uk/government/collections/walking-and-cycling-statistics	

Recent national releases	
Feb 2017	Scottish Transport Statistics No 35: 2016 Edition
https://www.transport.gov.scot/media/33814/sct01171871341.pdf	
May 2017	Accident cluster sites and fatal road accidents on the Welsh Trans-European Network - Transport
http://gov.wales/statistics-and-research/accident-cluster-sites-fatal-road-accidents/?lang=en	
May 2017	Vehicle speeds on Welsh motorways
http://gov.wales/statistics-and-research/vehicle-speeds-welsh-motorways/?lang=en	
April 2017	Pedestrian road casualties (Wales)
http://gov.wales/statistics-and-research/pedestrian-road-casualties/?lang=en	
April 2017	Young people road casualties (Wales)
http://gov.wales/statistics-and-research/young-people-road-casualties/?lang=en	
April 2017	Motorcycle user casualties (Wales)
http://gov.wales/statistics-and-research/motor-cycle-user-casualties/?lang=en	

2016	Northern Ireland Transport Statistics 2015-2016
https://www.infrastructure-ni.gov.uk/system/files/publications/infrastructure/Northern-Ireland-transport-statistics-2015-16.pdf	
2016	Northern Ireland Transport Statistics 2015-2016 Excel tables
https://www.infrastructure-ni.gov.uk/publications/northern-ireland-transport-statistics-2015-2016	

Seminar Write-up

Members can find past seminar slides here: http://www.tsug.org.uk/past_seminars.php

TSUG 17 May 2017 – Werner Brog

Mr. Brog made two presentations, each followed by a Q&A session. The questions and answers are noted below: it was unfortunately not possible to capture who asked what.

First session

When non-respondents were asked a second time and actually completed the questionnaire, could the time delay between travel and response be a factor?

No – people are asked for information about a specific day (for example Monday 6 March). If they do not reply by 12 March, they are asked for information about trips made on Monday 13 March – the same day but a week later.

What kind of survey was done?

Household travel survey.

What is the 'significance' figure telling us?

It allows comparisons of mode shares to be made between German cities. The differences may be purely statistical differences (because of response rates) rather than real differences.

Are the figures checked manually?

Yes, but it doesn't help!

Would more surveys help?

No – you need a higher response rate.

In London, the comparable survey achieves a 50% response rate on face-to-face interviews.

Good – especially if it's a true random sample.

Is a seven day survey better than a one-day survey?

Yes, but not seven times better! And the response rate drops. However, response rates can be increased by repeated surveys – respondents learn to trust the interviewers.

Are incentives worthwhile?

No – we want people to respond because they see value in it.

What do you do about unreported trips?

Manual check in diaries for obvious omissions and suspect data.

What is the sample frame?

German households. The register of households (addresses, not names) is good but not perfect.

Are response rates in different groups different? Do you need to 'market' the survey differently to different types of people?

There is a tendency to blame respondents for non-response, but Mr. Brog believes this is wrong – the problem is more likely to be with the survey, the survey design

and the motivation to answer. Clients are not sufficiently interested in the problem, unfortunately.

Some clients incentivise surveyors to get a high response – do you think this is worthwhile?

Depends on the attitude of the client – and the surveyors.

The response rate has a cost – what is the trade-off between cost and response rate?

Don't agree that cost is an issue: people need to be motivated to answer by the survey management and administration.

Do you get different response rates according to age, type or gender?

No – you need to persuade each individual individually to respond.

Is there survey fatigue?

Only to bad surveys! People nowadays are very open to giving their views, to talking about their experiences.

Paper or computer surveys?

Mr Brog had had little experience with online surveys. These gave more opportunities to motivate people to respond.

Use of mobile devices for responses?

Not used them himself, but has seen audits of some. They are often very weak. We need to enthuse respondents.

Second session – difference between behaviour and attitudes

Did you always use the same respondents, and were they all users?

Yes, and not necessarily.

Did the type of city affect the response? For example some cities depend on car manufacture for employment.

Not really – and this work aggregated the results from many cities.

Was there a difference between scales (for example 5 point scale or 10 point scale)?

There is a famous paper on this from the 1970s, where 25 different methods and scales were used with 25 different results. Methodology is very important: the scales used have a relatively weak influence.

Is there a halo effect – do you get more positive attitudes when everything is running on time?

Yes – hence the importance of comparing stated and revealed preference.

This was followed by a debate on terminology: 'revealed' was normally 'observed', but Mr Brog was using it to mean 'after having experienced the service'. He commented that 'stated' did not always mean 'before the event', but 'revealed' was always afterwards, in the light of experience.

The WebTAG suite value of time is based on stated preference: should we be sceptical?

It is very difficult to find clear and unambiguous trade-offs between money and time.

Actual or generalised time?

Door to door.

Are there problems with questionnaire design?

Always, so open-ended questions are necessary (although this means more work in analysing the results).

Letter to the Editor

Dear Editor

John Cartledge in his May letter asks the question of why, in spite of increasing flexibility in working hours, many commuters appear to choose to travel in crushed peak period conditions. As John observes, this behavioural trait obliges authorities to provide additional capacity (in both infrastructure and rolling stock), much of which is unused during the rest of the day thus leading to the inefficient use of resources.

While we wait for insightful answers to the question that John poses, can I, nevertheless, offer a suggestion of how we might reduce the resulting inefficiencies. It is to set aside on commuter trains one or two designated high-density coaches for those passengers willing to accept a discounted (economy) fare in return for having to stand. (The intention is that other commuters will be seated in the rest of the train in relatively comfort). This proposal is set out in greater detail in the following extract from IEA Discussion Paper No 50.

Regards
David Starkie

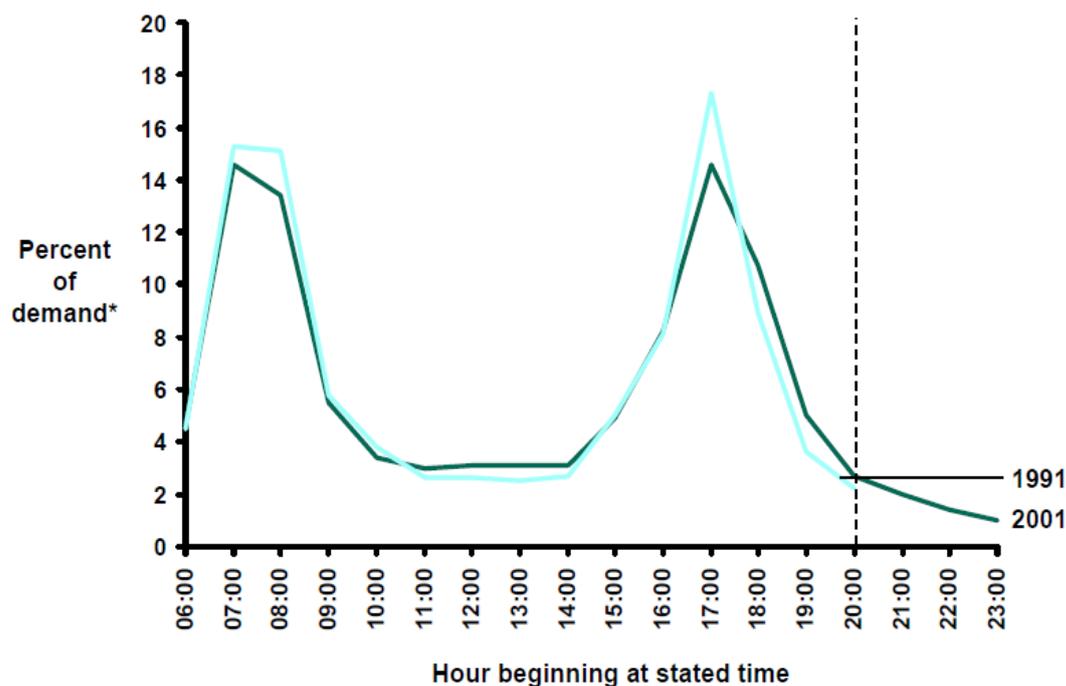
IEA Discussion Paper 50 Chapter 10

10. Rail congestion and investment

The railways are a good example of where the price/investment/quality nexus is mute. An aspect of rail concentrating minds at the current time is how to increase network capacity, especially into London.¹ London dominates UK rail travel with three-quarters of all the country's rail journeys starting or ending there. Pressures on available capacity on lines into London are especially severe during the peak which is of limited duration (see Figure 5).

¹ High Speed 2 is part of the broader strategy for increasing rail commuter capacity into London.

Figure 5: Distribution of London and South East demand for rail across the day



To the economist the obvious remedy is to introduce marginal cost based pricing so that fares reflect the high costs of providing peak capacity thus leading to an attenuation of peak demands. But, as with roads, political constraints preclude any serious move towards the adoption of such a policy. Instead, a programme of, largely geographically-based, Route Utilisation Studies (and Strategies) (RUSs) has been attempting to address the peak period capacity shortfall.² The result is an expensive programme of works, which focuses on squeezing in more train paths and lengthening trains, basically to form 10- and 12-car formations on suburban lines. This seemingly simple investment ‘solution’ does however have other implications; many station platforms need to be lengthened, generally through-out the route, (sometimes with re-positioned signalling), the power supply for electric traction needs to be upgraded and depots re-jigged or rebuilt to accommodate additional rolling stock. And then, of course, there are major reconstructions of bottlenecks at approaches to London termini, of which the complicated track widening at London Bridge is a good example.

The cost of this programme is difficult to determine. Data on investment costs is at a disaggregated level and it would need much analysis to come up with a definite amount although a sum well in excess of £1 billion is involved.³ But, is such investment expenditure really needed in the short and medium term when the problem can be approached in a rather different and less expensive manner using

² As London First has pointed out in its recent submission to the Transport Select Committee inquiry, *Reform of the Railways*, data on overcrowding is not systematically collected but available data suggests that half of rail passengers travelling to London in the rush-hour do so in conditions that are classed as overcrowded, although the definition of over-crowded is somewhat arbitrary. See: [http://www.londonfirst.co.uk/documents/Transport_Committee_Inquiry_-_Reform_of_the_Railways_London_First_submission_\(18_April_2012\).pdf](http://www.londonfirst.co.uk/documents/Transport_Committee_Inquiry_-_Reform_of_the_Railways_London_First_submission_(18_April_2012).pdf)

³ This figure is based on analysis of some of the RUSs by the RAC Foundation. See Dodgson (2009).

market segmentation? More than a decade ago Peter Kain and I suggested an approach to this congestion problem that exemplifies the argument that first one should study the heterogeneity of travel preferences and then offer a choice of quality/price options reflecting those preferences (Kain and Starkie, 1998).

The idea is to introduce more quality/price trade-offs for the rail commuter by introducing an additional high-density section to commuter trains, let us say of three carriages, access to which would be priced during the peak at a *discount* to current fares of, let us say, 20 percent, (perhaps less of a discount for shorter distances but more for longer commutes). The interior layout of the high-density section of the train could be modelled on that of the new rolling stock (see Figure 6) used for the London Overground service (although the lateral seating would be replaced by flip seats)⁴, and is probably best located at the front end of the train.⁵

Figure 6: The interior of Class 378 rolling-stock



It is the currently the norm for the front carriages of a peak hour train as it approaches its final stop, to have many standing as well as seated passengers, sometimes in spite of the rear carriages having seats to spare (even though the train might be classed as overcrowded on the basis of passenger/available seat criterion). This is because of an incentive for some passengers to get through the ticket barrier first; it does illustrate the willingness of some to sacrifice comfort for ease of exit on arrival. One can also observe that the pattern of loading on peak

⁴ The flip seats would be available during the off-peak. During the peak they could be locked-out, possibly using a magnetic lock device controlled by the driver/guard.

⁵ This rolling stock, Class 378, is based on the Electrostar family of trains, used extensively on Kent services. A new carriage costs about £1 million.

period trains evolves as they progress towards London and that, as one might expect, standing at the front of the train generally occurs from stops closer to London, so that standing time in such cases is relatively short. Consequently, on the longer distance commuter trains - those starting from the Sussex and Kent coasts for example - we would expect the proposed high-density lower-fare carriages to be less used, although even at these longer distances some might choose to trade-off the discomfort for a cheaper fare; the opportunity to do so would at least exist. The loading pattern could be expected to change at intermediate stops closer to London, especially at places like Bromley South, Croydon, Watford and Woking with proportionately more of the commuters choosing the high density section. Middle distance or outer suburban services, for example trains starting at places like Gillingham and Dartford, might be expected to have the high-density coaches well used from the start of the journey.

So, what are the gains compared with the existing proposal to lengthen trains? From the resource cost point of view, there would be more passengers on a standard-length train without the recourse to high levels of investment in additional rolling stock, station lengthening etc., although there would be some costs involved in modifying existing rolling-stock. There might be some savings in traction costs. Stripped of seat furniture train carriages would be lighter. Although there could be more passengers per train during the peaks, adding to the weight and offsetting the absence of seat furniture, this would be for a relatively short period of the day. It is also probable that boarding/alighting times would be cut (substantially) so that it might be possible to speed-up services and/or add to their resilience and thus service reliability. In the shorter term until traffic expands further, it might be possible to remove one or two trains from the crowded timetable also adding resilience and increasing punctuality, although if this were done there would be the disbenefits to the passenger of a slightly reduced frequency.

From the consumer surplus viewpoint there would be an increase in benefits to passengers because the introduction of an additional level of service would lead to the better matching of preferences, not only for those choosing the new (economy) class but also for those seated passengers who will enjoy higher service quality not having to share their space with standing passengers. It might also be possible on the longer distance services to have the trolley catering service in standard class during peak times; at the moment these are restricted to the off-peak. The new choice package might itself generate new traffic (and thus consumer benefits) or divert existing users of car and commuter coach, the latter mode being important for those currently commuting from north Kent for example (in which case there would be a small loss of producer and consumer surplus if coach frequencies are trimmed). There are also some potential gains in the off-peak because disabled passengers and cyclists will be more easily accommodated in coaches with uninterrupted floor space.

From a cash-flow/revenue standpoint, in spite of the discounted ticket price for use of high density carriages during the peak, the revenue effect could be limited: slightly negative or even neutral. There might be some revenue dilution as a result of first class passengers diverting to what would now be a more pleasant standard class but, on the other hand, the traffic generative effect of more rail travel options will bring-in more revenues. And one might expect better revenue protection because the guard/conductor would be able to move more freely through the seated passenger areas; discount passengers holding the cheapest tickets would be self-regulating in-

so-far as they had a ticket at all, but the latter issue, of ticket avoidance, arises in any case in existing crowded conditions affecting *all* sections of the train⁶.

The forgoing is, of course, based partly on conjecture without access to data: on overcrowding patterns, investment costs and much else, but the speculation does seem to accord with observed commuter behaviour.⁷ The next steps would be to obtain more transparency on the costs of the existing process of lengthening platforms etc. and on train loading patterns, to be followed by a formal analysis comparing the two approaches importantly supported by experimentation on one of the commuter lines.⁸ There would be a particular requirement to examine the extent of the 'economy class' price differential needed in order to manage and balance demand across the different train sections (that is, to obtain more information on the cross-elasticities with respect to comfort) but discussion with commuters from the Medway Towns in Kent suggests that my starting assumption of a 20 per cent discount on the standard class fare looks reasonable⁹. A discount of this amount would place the price of 'economy class' about mid-way between the standard class rail fare and the fare for commuter coaches.

What would be inexcusable would be for *some* elements of the approach to occur by default if planned infrastructure spending did not materialise; for quality to be degraded generally so that standard class passengers are faced with a still uniform but an even lower quality of service at the standard price. There has been a tendency for this to happen since the 'economy-class' idea was first put forward more than a decade ago. For example, in standard class, one can pay for a particular journey exactly the same fare for five-across as opposed to four-across seating (with the different seat configurations sometimes to be found on the same train).

⁶ Bear in mind that the discount will apply only in peak periods. With, say, three economy class carriages, much less than half the train load would be on discounted tickets and with a discounted price of, say, 20 per cent, compared with the current situation, the gross revenue loss per train would be less than 10 per cent. Gains from generated traffic or better revenue protection might offset much of this loss.

⁷ Note also that it can be trains immediately outside the peak that are the most crowded as passengers seek cheaper off-peak fares at the expense of a higher probability of standing. This behaviour is particularly noticeable on long distance trains out of King's Cross and Euston after the evening peak-fare restriction.

⁸ The Dartford - Charing Cross service might be a suitable candidate. It was subject to an experiment with quasi-double-decked carriages from 1949 until 1971. It was found that station dwell times were much increased because of the difficulties of boarding and alighting. See: [http://www.bulleidlocos.org.uk/\(S\(150q2a3pumudrtcaehuwm1\)\)/_oth/4_dd.aspx](http://www.bulleidlocos.org.uk/(S(150q2a3pumudrtcaehuwm1))/_oth/4_dd.aspx)

⁹ A point made by one commuter was that the potential saving in infrastructure investment from having economy class would give him some confidence that commuter fares would increase more slowly than they would otherwise do.

Peak Loads

In last month's issue, John Cartledge wrote, "It is hard to believe that many people would freely choose to endure the travel conditions experienced on congested urban networks at the busiest times. So why do they still travel then? It can only be because the discomfort of peak travel conditions is outweighed in travellers' eyes by the perceived personal benefits of everyone being able to leave (and return) home at the same time(s).

What are these benefits? What constraints in people's out-of-work lives condemn so many of them to commute simultaneously in a manner that appears irrational? I am sure that in the ranks of TSUG there must be those who have researched the question and can offer some insight into the sociological or psychological factors underlying this enduring problem."

I can't help with research, but with two anecdotes from many years of commuting and working for British Railways which show aspects of consumer values.

After the Clapham Junction crash in 1988, detailed on-train counts were made because there was a suspicion that crowding was a factor in the toll of deaths and injuries. On one of the trains, originating in Basingstoke and stopping at stations to Woking, it was found that over 200 people were standing – but there were more seats than passengers. This may be because passengers place a higher value in a quick exit at Waterloo (where the only platform exits were at the front of the train) than a seat. It could also be another manifestation of the 'boiling frog syndrome'. Long-term commuters could have become habituated to standing at a specific point on the platform of their home station: originally they always got a seat, then sometimes they got a seat, then after several years they never got a seat – but never bothered to change the carriage in which they travelled.

Once, after the first phase of Thameslink was operational, there was a major problem in the Thameslink tunnel. Since this was before Eurostar was using St. Pancras, Thameslink trains could run from what are now their platforms. The temporary service put in place was for trains to run every 15 minutes non-stop to St Albans then all stations to Bedford. I arrived at around 17:00 to find the 17:05 departure absolutely packed – over-full and standing, with passengers running up and down trying to find a tiny space to cram into. In the opposite platform was the 17:20 departure, making exactly the same stops, with about three people on board. I joined them. 15 minutes later, I could see exactly the same situation. The 17:20 was rammed full, with people desperately trying to find a toe-hold by a door somewhere: on the opposite platform was the 17:35 departure with 3-4 people on board. So the value of a seat for an extra 20 minutes is less than the cost of standing in hideously crowded conditions for at least 20 minutes and getting home 20 minutes earlier!

Both of these anecdotes demonstrate that we need to be very careful in the assumptions we make about consumer values. And, as I was told when working for the Southern Region of BR, heavily dominated by commuter traffic, "There's no point in running 12-carriage trains, unless they have 12 front carriages".

Andrew Sharp

Tech Support !

In the May issue of TSUG Review, I commented that the number of trains operated by DB (24,234) sounded very like the number running in Great Britain – but I couldn't find out a Great Britain number and asked for help.

Help came! The answer is 19,700 and a breakdown by TOC can be found at <https://dataportal.orr.gov.uk/displayreport/html/html/cc1348a8-e646-4088-aafa-564928d8589b> (and there is more in a separate article).

The next area I need help is in China. Can anyone point me to a source of data on passengers transferring (changing planes) at major Chinese airports, please?

And if you have any data questions which can't be answered by the list of resources on <http://www.tsug.org.uk/library.php>, do feel free to submit them to the editors: we'll try to find someone who can help.

Antarctic Tourism

Lightly edited from Travel and Tour World

The International Association of Antarctica Tour Operators (IAATO) announced its tourism figures for the 2016-2017 Antarctic season at the start of its recent annual meeting in Edinburgh. Members gathered to discuss safe, environmentally responsible Antarctic tourism, including a multi-dimensional approach to managing for growth that will keep activities both safe and sustainable.

The total number of visitors travelling to Antarctica with IAATO members was 44,367, an increase of 15% compared to the previous season. Overall, visitor numbers, particularly in the cruise sector of the industry, has been increasing steadily since 2011-2012. IAATO's estimate for next season, 2017-2018, shows continued growth in line with global trends with 46,385 visitors expected, an increase of 5% that would see numbers reaching the peak of 46,265 reported by IAATO in 2007-08.

By tourism sector, most (98%) travellers depart from South America. The majority of these travelled the traditional route from Chile or Argentina on vessels that carry fewer than 500 passengers and offer excursions ashore. This sector grew by 20% compared to the previous season, principally due to the entering into the market of two vessels with a carrying capacity of 390 and just under 500 passengers respectively. Of the remainder, 3202 (7%) visitors flew to the Peninsula where they immediately joined a vessel for onward cruising. This 'air-cruise' sector of tourism continued to show the most growth at 36%. 'Cruise only' tourism, vessels carrying more than 500 passengers that do not make landings, declined by 8%.

Deep field tourism, when visitors fly to Antarctica's interior from South America or South Africa, accounts for only 1% of overall Antarctic tourism. It grew by 10% compared to the previous season.

American visitors remained the most numerous, increasing by 7% in 2016-2017 and accounting for 33% of the total number. The number of Chinese visitors increased by

25% compared to the previous year, moving them up to second place behind the USA. Australian, German and British visitors were the next most abundant nationalities, increasing by 5%, 45% and 19% respectively.

Rail

Metro-North Ridership Record

The final numbers for 2016 are now in and Metro-North, the suburban rail network serving the north and north east of the New York conurbation, has set another ridership record. The 86.5m ride figure presented to the board in January has now been confirmed.

That number was the highest in Metro-North history, and the third consecutive year with record-breaking ridership.

Growth was driven entirely by riders on the railroad's three East of Hudson lines — the Hudson, Harlem and New Haven lines — with 84.8m trips, an increase of 0.3%. The growth came primarily in off-peak travel, reverse commutation (contra-peak journeys) and intermediate service – and not from ordinary commuting into New York City. Just 1.7m trips were made on the Pascack Valley and Port Jervis lines in Rockland and Orange counties, a drop of 3.5%.

That drop can be attributed to the Hoboken train crash in September, which significantly disrupted service on NJ Transit, which provides service through Rockland with an operating agreement with Metro-North.

Trains in Great Britain

How many passenger trains run on the GB rail network? Below is a list of train operators and the number of trains they run.

Data in the second column are for period 13, 2016/7 – the last 28 days of the financial year. The third column is the daily average – column 2 divided by 28.

Train operating company	Trains/period	Trains/day
Arriva Trains Wales	24279	867
C2c	9580	342
Caledonian Sleeper	166	6
Chiltern	10681	381
Cross Country	7642	273
East Midlands Trains	11796	421
GTR	86896	3103
Grand Central	473	17
Greater Anglia	32217	1151
GWR	40744	1455
Heathrow Express	3936	141
Hull Trains	356	13
London Midland	31659	1131
LOROL	38187	1364
Merseyrail	17837	637

Train operating company	Trains/period	Trains/day
Northern	62512	2233
Scotrail	57011	2036
South West Trains	43841	1566
Southeastern	48239	1723
TfL Rail	5338	191
FTPE	6258	224
Virgin East Coast	3922	140
Virgin West Coast	7687	275
Total	551257	19688

VIA Rail in 2016

Lightly edited from Progressive Railroading



VIA Rail Canada train at Toronto Union Station

[VIA Rail Canada Inc.](#), Canada's national passenger rail operator, last year moved 3,974,004 passengers, marking a 4.1% increase compared with 2015.

Passenger revenue rose 9.5% to C\$301m, [according to the railroad's 2016 annual report](#). VIA Rail reported total revenue of C\$324.3m compared with C\$275m in 2015.

The railroad logged record-high ridership last summer, when it transported more than 926,000 riders, a 4.8% increase compared to summer 2015.

To grow ridership, VIA Rail added capacity on several trains on the Quebec City-Windsor corridor and adjusted its schedule to offer more flexibility.

Air

easyJet



easyJet's 250th Aircraft at the Hamburg Factory

easyJet had its worst half year for six years – partly because of the weakness of sterling (which cost it £82m) and partly because of the timing of Easter (£45m).

The airline made a loss of £236m, compared with £18m in the first half of 2016.

Looking ahead, 77% of the seats to be flown in Q3 have already been sold, as have 55% of those in Q4

Revenue/seat was 10% down at £48.80 on the same period last year, although revenue in total was up 3.2% at £1.83bn. They carried 33.8m passengers, 9% up on last year. The average load factor was 90.2%.

IAG Revenue Down Again

IAG, owner of British Airways, Aer Lingus, Vueling and Iberia, recently reported its first quarter figures.

Looking at the 4-quarter moving average, passenger revenue continues the downturn from the peak seen in the four quarters to Q2, 2016 – it is now €1bn below this, at €19.7bn.

Revenue passenger kilometres, available seat kilometres and passenger numbers were all up on previous figures, although it should be noted that Aer Lingus has been included in the data since August 2015. For the second consecutive 4-quarter period, passenger numbers were above 100m.

JetBlue Data



Jet Blue A320 aircraft at New York JFK airport

In the four quarters to Q1, 2017, the American low-cost airline JetBlue saw lower revenue but higher revenue passenger miles, available seat miles and passenger numbers.

Revenue for the four quarters was \$5986m, down on the previous figure of \$6013m (to Q4, 2016) but higher than totals for previous four-quarter totals. Revenue passenger miles were \$46bn, and available seat miles 54bn, both higher than previous 4-quarter figures. They carried 38.9m passengers, again higher than

previous figures.

Public Transport in Germany

Lightly edited from <http://www.railjournal.com/index.php/europe/german-public-transport-sets-new-record.html?channel=537>



Tram in Köln (Cologne)

Use of both local and long-distance public transport services in Germany grew by 1.5% in 2016 to reach a new record of 11.38 billion journeys, according to provisional results published by the German Federal Statistics Office Destatis, which attributes the growth to an increase in population, employment and students.

Local public transport accounted for the majority of the traffic with 11.2 billion passengers, a 1.4% increase. LRT saw an increase of 2.2% to 3.97 billion passengers; while rail, including suburban S-Bahn services, also recorded a rise of 2.2% to 2.63 billion journeys. Bus transport was almost stagnant with only a 0.5% increase to 5.3 billion journeys.

“The number of passengers using local services has steadily increased since 2004, the first year for which comparable data are available,” Destatis says. “In 2016, passenger volume was almost 1.3 billion higher (+12.7%) than 12 years earlier. Particularly strong growth was recorded in rail traffic (+34.6%) and in tram transport (+18.1%). On the other hand, local bus services recorded a slight increase of 0.9%.”

Long-distance rail transport saw a 5.3% increase to 138 million passengers, which Destatis says is due to an expansion of services and special offers.

The boom in long-distance bus transport, created by the opening up of the market, appears to have come to an abrupt end, with only moderate growth of 4.3% in 2016 to 24 million passengers.

Road Traffic Estimates Great Britain 2016

These were published by DfT at the end of April



In the calendar year 2016, car traffic grew by 2% to 252.6 billion vehicle miles (bvm) – the highest figure ever. Van traffic grew fastest of all, by 4.7% to 49.1 bvm, while lorry traffic remained virtually unchanged. Pedal cycle traffic was estimated at 3.5 bvm, 23% above the figure ten years ago.

Motorways carried 67.8 bvm, 2% more than in 2015, while a third of motorised traffic in England used the Strategic Road Network.

Buses in St Albans

Traffic was up 2.6% on rural roads and 1.8% on urban roads. The volume of lorry traffic on motorways (7.7 bvm) was a new record.

Looking at very long term trends, in 1949, car traffic was 43% of the total: it is now 78%. HGV traffic has fallen from 27% to 5% over the same period. Bus and coach traffic dropped 1.2%: motorbike traffic was up 49% and HGV traffic up 113%. Van traffic was up 1098% and car and taxi traffic up 1905%.

Motorcycle and scooter traffic has fluctuated recently: bvms are down 11% from 2009, but up 2% from 2015. They represent 0.9% of motor vehicle traffic. Fewer households have access to a motorbike: those who ride, ride much the same distance as in 2002 but fewer people are actually riding. Pedal cycle traffic, 1% of all traffic on roads (and note that off-road use is not counted), rose 6% between 2015 and 2016 and 23% between 2006 and 2016. The lowest cycle mileage (2.3 bvm) was seen in 1973.

Bus and coach traffic was 7.7% down between 2015 and 2016 – the largest decrease of any vehicle type. This continues a trend: traffic is down 25% over the last decade. It represents 0.8% of motor traffic. Local bus mileage dropped by around 8% between 1999/2000 and 2015/6, but passenger miles rose by nearly 25%, from 13.9bn to 17.3bn.

0.4% of all traffic on Britain's roads and 4.8% of HGV traffic was by foreign registered vehicles.

People living in rural areas travel 90% farther than those in urban conurbations. Annual vehicle mileage driven in each car appears to have dropped from 9500 (2002) to 8300 (2013).

Road traffic accounted for 22% of the UK's CO₂ emissions in 2015. While road traffic increased 7.6% between 2000 and 2014, CO₂ emissions from road traffic in the UK dropped by 6.3%. PM₁₀ emissions in the UK dropped by 39%, and NO_x by 58.5%. Fuel efficiency has improved, and ultra-low emission vehicle numbers have increased rapidly in recent years (from 4313 in 2013 to 41,819 in 2016).

The South East had the highest traffic levels (55 bvm, 17% of all traffic on 12% of all roads). Of the five local authorities with the highest levels of traffic, three (Hampshire, Kent and Surrey) are in the South East and two (Essex and Hertfordshire) in the East.

Busiest motorway sections were mostly on the M25 – between J14 and J15 (214,000 vehicles/day in 2016), J13 and J14 (205,000), J15 and J16 (197,000) and J12 and

J13 (195,000). The M1, between J7 and J8, saw 196,000, making it the fourth highest section.

On average, August is the busiest month, Friday is the busiest day and 16:00 – 18:00 are the busiest hours on weekdays (it's 11:00 – 13:00 at weekends).