

# TSUG

Transport Statistics Users Group

## Monthly Review: March 2017

This month's review has a fascinating piece on getting people to switch off their engines at junctions. A couple of articles highlight recent trends in rail travel and we've also got Kit Mitchel's statistics digest and the write-up of the discussions from January's seminar on The National Travel Survey. The next seminar 'Maritime Statistics – Challenges and Opportunities' will be held on Monday 27<sup>th</sup> March 2017 at DfT.

Calum Leslie, Andrew Sharp and Dr Shanta Bir Singh Tuladhar

## Contents

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Dates of the next TSUG seminars .....	2
Statistics Digest.....	2
Seminar Write-up .....	3
The National Travel Survey, January 2017 .....	3
General News .....	5
And you think your rates are high? .....	5
Eurotunnel 2016 .....	6
Translink ridership record .....	6
Rail.....	6
Ten years since a fatality in a train accident .....	6
Frequency of train travel .....	7
New York local rail transport in 2016 .....	7
Rail passenger numbers and crowding on weekdays in major cities in England and Wales 2015.....	8
Rail passenger usage 2016/17 Q2.....	8
Air .....	9
Flight cancellations and mishandled bags 2016.....	9
Southwest and Jet Blue .....	9
Guns on planes (nearly!) .....	10
Road .....	10
Stop idling!.....	10
Drink-driving – good news .....	11
New bus and coach market grows .....	12
New record for vehicle kilometres in Great Britain .....	12

## Dates of the next TSUG seminars

Date	Venue	Topic
Mon-27-Mar	DfT	Maritime Statistics: Challenges and Opportunities

The seminars can be booked through the TSUG website at [www.tsug.org.uk/seminars.php](http://www.tsug.org.uk/seminars.php)

## Statistics Digest

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

2 Feb	Reported road casualties in Great Britain estimates, involving illegal alcohol levels: 2015 <a href="https://www.gov.uk/government/statistics/reported-road-casualties-in-great-britain-accidents-involving-illegal-alcohol-levels-2015-second-provisional">https://www.gov.uk/government/statistics/reported-road-casualties-in-great-britain-accidents-involving-illegal-alcohol-levels-2015-second-provisional</a>
2 Feb	Renewable Transport Fuel Obligation: Year 8 (2015 to 2016) report 6 (15 April 2015 to 14 April 2016 supply) <a href="https://www.gov.uk/government/statistics/biofuel-statistics-year-8-2015-to-2016-report-6">https://www.gov.uk/government/statistics/biofuel-statistics-year-8-2015-to-2016-report-6</a>
2 Feb	Renewable Transport Fuel Obligation: Year 9 (2016 to 2017) report 2 (15 April 2016 to 14 April 2017 supply) <a href="https://www.gov.uk/government/statistics/biofuel-statistics-year-9-2016-to-2017-report-2">https://www.gov.uk/government/statistics/biofuel-statistics-year-9-2016-to-2017-report-2</a>
9 Feb	Provisional road traffic estimates, Great Britain: January 2016 to December 2016 <a href="https://www.gov.uk/government/statistics/provisional-road-traffic-estimates-great-britain-january-2016-to-december-2016">https://www.gov.uk/government/statistics/provisional-road-traffic-estimates-great-britain-january-2016-to-december-2016</a>
9 Feb	Rail passenger numbers and crowding on weekdays in major cities in England and Wales: 2015 (revised) <a href="https://www.gov.uk/government/statistics/rail-passenger-numbers-and-crowding-on-weekdays-in-major-cities-in-england-and-wales-2015">https://www.gov.uk/government/statistics/rail-passenger-numbers-and-crowding-on-weekdays-in-major-cities-in-england-and-wales-2015</a>
9 Feb	Rail factsheets: 2016 (revised) <a href="https://www.gov.uk/government/statistics/rail-factsheets-2016">https://www.gov.uk/government/statistics/rail-factsheets-2016</a>
22 Feb	Provisional sea passenger statistics: 2016 <a href="https://www.gov.uk/government/statistics/provisional-sea-passenger-statistics-2016">https://www.gov.uk/government/statistics/provisional-sea-passenger-statistics-2016</a>
23 Feb	Travel time measures for local 'A' roads, England: January 2016 to December 2016 <a href="https://www.gov.uk/government/statistics/travel-time-measures-for-local-a-roads-england-january-2016-to-december-2016">https://www.gov.uk/government/statistics/travel-time-measures-for-local-a-roads-england-january-2016-to-december-2016</a>
23 Feb	Travel time measures for the strategic road network: January 2016 to December 2016 <a href="https://www.gov.uk/government/statistics/travel-time-measures-for-the-strategic-road-network-january-2016-to-december-2016">https://www.gov.uk/government/statistics/travel-time-measures-for-the-strategic-road-network-january-2016-to-december-2016</a>

### Forthcoming releases from Department for Transport

23 Feb	Road conditions in England: 2016 <a href="https://www.gov.uk/government/collections/road-network-size-and-condition">https://www.gov.uk/government/collections/road-network-size-and-condition</a>
29 Mar	Shipping fleet statistics: 2016 <a href="https://www.gov.uk/government/collections/maritime-and-shipping-statistics">https://www.gov.uk/government/collections/maritime-and-shipping-statistics</a>
13 Apr	Vehicle licensing statistics: 2016 <a href="https://www.gov.uk/government/collections/vehicles-statistics">https://www.gov.uk/government/collections/vehicles-statistics</a>
27 Apr	Road traffic estimates in Great Britain: 2016 <a href="https://www.gov.uk/government/collections/road-traffic-statistics">https://www.gov.uk/government/collections/road-traffic-statistics</a>
27 Apr	Road lengths in Great Britain: 2016 <a href="https://www.gov.uk/government/collections/road-network-size-and-condition">https://www.gov.uk/government/collections/road-network-size-and-condition</a>
Apr	Journey time statistics: 2015

## Forthcoming releases from Department for Transport

<https://www.gov.uk/government/collections/journey-time-statistics>

Apr Vehicle licensing statistics: 2016

<https://www.gov.uk/government/collections/vehicles-statistics>

## Other ONS statistics

Family spending in the UK: financial year ending March 2016

<https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/expenditure/bulletins/familyspendingintheuk/financialyearendingmarch2016>

## Seminar Write-up

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Members can find past seminar slides here: [http://www.tsug.org.uk/past\\_seminars.php](http://www.tsug.org.uk/past_seminars.php)

### The National Travel Survey, January 2017

**First discussion after “On the Move 2” by Peter Headicar (Oxford Brookes University), Gordon Stokes (University of Oxford) and Nick Jones (DfT)**

Kit Mitchell (TSUG) pointed out that the decline in licence holding by younger people was happening in larger urban areas. In small towns and rural areas, licence holding was growing as it has done in the past.

Margherita Rendel (Torbay Line Users Group) suggested that studies should look at what the 60% of people without use of a car do, particularly with diminishing provision of public transport.

Gordon Stokes commented that On the Move 2 was looking at younger people, but that the focus of the literature survey was on car users. He could not help on the issue of problems of people without car access. Peter Headicar felt that 60% could be a bit high, though he recognised that during the day the household car might well not be available.

Dr Kaveh Jahanshahi (RAND Europe CIC) has done a study like On the Move 2. The influence of land use is large. In medium sized urban areas there are large differences in travel behaviour between car owners and non-owners. Peter Headicar added that variation was not only by area type but also by population density.

Peter White (University of Westminster) noted that Gordon Stokes showed a small effect of the concessionary pass for bus services. Professor White suspected this would vary by type of area. Gordon replied that he had carried out analysis for 400 different groups, including differences in type of area. There were big differences between London and all other areas.

John Cartledge said that there is a danger of losing local effects in averaged national figures. Peter Headicar said that he had shown trips to escort education trips growing. These may be few in aggregate, but near schools they have a big effect on local roads.

**Enhancements to the National Travel Survey by Darren Stillwell and Claire Pini (DfT)**

This discussion was in response to a request for suggestions of ways to improve the survey after the next re-tendering.

Peter Gordon (TSUG) said that the NTS used to include four weeks' worth of data on long trips, might that be re-introduced? Darren responded that since 2006 the four-week diary for long distance trips has been reduced to a two-week diary to reduce load on the respondents.

David Metz (UCL) suggested that information be gathered on the use of mobile devices and other sources of information about travel which aid travel e.g. journey planner apps. Darren Stillwell responded that they are interested in various factors that could affect travel including information which aids travel, but also flexible working patterns and on-line shopping for example, where reduced travel by the shopper was made possible by other people (delivery drivers) traveling for them.

Peter Headicar said that he had done work on people's perceptions of commuting and wondered if something needed to be done to better define what work trips were actually commuting.

Gordon Stokes wondered if there was any way to get responses from tourists, who are not currently sampled. Would there be scope for cluster sampling in areas where there were large numbers of visitors and tourists?

Peter White noted that each boarding of a bus counts as a bus journey in national statistics. Multi-stage bus journeys probably appear in NTS as a single journey, which is inconsistent. A boarding in the NTS is when someone changes from one vehicle to another of the same type, using the same ticket – if a new ticket is required this would be a new stage of the trip. If a person makes two consecutive bus boardings this will be one stage of their journey. Also, in some other surveys, weather conditions are recorded. Without asking respondents to do this, could the Met Office provide information on weather conditions near each respondent's residence?

Gordon Stokes said that GPS tells us where but not why. He would like to know if a traveller was going to the central area of a town or to an outlying area so we know more about the specific areas people are visiting.

Dr Kaveh Jahanshahi said that he would like more geographical detail about destinations. He would also like to know what alternative means of travel were perceived as available, to better understand mode choice. As a second point, he would like more details of shared vehicles such as Uber or Zipcar in the list of modes.

Darren Stillwell said that some local authorities carry out surveys similar to NTS in their areas. He would like to explore the possibility of merging these with the national clustered sample to increase overall sample size.

John Cartledge said that tracking technologies can capture where and when, but personal information will need to be collected in some other way. It is difficult to establish purpose. Definitions such as "other leisure" include a big range of activities. Darren replied that any new technology will need much testing. Information gathered has to balance the detail desired and the burden on the respondent.

George Ursachi (Road Safety Analysis Ltd) said that responses to surveys are affected by campaigns on, for example, sustainable travel. We cannot assume results are accurate. Software could be used to prompt answers on purpose and other details.

There is already a lot of software and technology for cycling and running, which can track even without GPS or mobile coverage. Could the value of this be explored?

Peter Headicar emphasised the importance of maintaining a consistent long term time series.

Emma Hooper (Surrey CC) commented that travel time can be affected by unexpected delays. When this happens, could information be collected on whether alternative routes or modes were used.

Peter Gordon said that he would like information on trip chaining. Darren Stillwell informed group that DfT have published a factsheet on trip chaining: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/50944/7/nts-trip-chaining.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/50944/7/nts-trip-chaining.pdf)

David Metz said that smartphones offer the option to find how peoples travel behaviour really changes when the system is changed. This could provide data to better evaluate transport investments based on what really happens.

John Cartledge asked if the DfT have talked to other organisations conducting surveys to see if some of the information required for the NTS already exists and could be patched in without burdening the respondents. Examples could be generating trip length from OD details. John Carr noted that a survey in Cardiff got O&D data from mobile phone data.

Could telephone be used for questions on preferences? What would influence travel behaviour, what factors are important?

John Cartledge also noted that new technology might get better responses from some groups of respondents, poorer from others. How would a move to new technology affect the representativeness of the sample?

Kaveh Jahanshahi suggested that there might there be a place for a parallel survey using a panel (perhaps 5% of the NTS sample) who were tracked over a long period to observe variability in travel and longer term trends.

## General News

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### And you think your rates are high?

The draft Central Rating List for England was published last October on [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/58182/5/Draft\\_Central\\_Rating\\_List\\_for\\_England\\_2017.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/58182/5/Draft_Central_Rating_List_for_England_2017.pdf).

Rateable values from 1<sup>st</sup> April for some of our major transport companies are as follows:

Company	Rateable Value
Network Rail	£384m
London Underground Ltd.	£80m
DLR	£13.8m
Tyne and Wear PTE	£3.25m
Heathrow Airport	£118m
Gatwick Airport	£30m
Channel Tunnel	£16.4m

## Eurotunnel 2016

On 24 January, Eurotunnel announced annual results for the year 2016.

They carried 1.64m trucks and 2.61m cars – both probably the highest ever in a year. Coach numbers were down 8% on 2015 at 53,623. There has been a steady drop since 2013 (64,500). In 1999 they carried 82,000.

Eurostar passenger numbers were down 4% on 2015 at 10m. 2014 and 2015 both saw 10.4m. Apparently the trend turned up towards the end of the year, with a record month in December, 9% higher than December 2015.

Finally, freight train numbers and tonnage carried were both down at 1797 (2421 in 2015) and 1.041m, respectively (1.42m, 2015).

## Translink ridership record



Articulated trolleybus, Vancouver

In 2016, TransLink logged 385m boardings, marking a new record for the agency, which serves Vancouver, British Columbia. The 2016 ridership represents a 4.5% increase on 2015's record ridership of 363m boardings.

The growth was attributed in part to Vancouver's economic growth. The area had Canada's fastest-growing metropolitan economy in 2016 and is experiencing its lowest unemployment rates since the 2007-08 economic downturn.

TransLink operates four main modes of transportation: the Skytrain rail system, West Coast Express commuter rail, Seabus and Coast Mountain Bus Co. services. Ridership figures are one of 30 performance measures that appear on TransLink's new "accountability center" site, which launched late last week (<http://www.translink.ca/accountabilitycentre>). The site also features TransLink's on-time performance, as well as metrics on customer satisfaction, safety and fiscal management.

## Rail

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### Ten years since a fatality in a train accident

*From Railway Gazette International*

February 23rd 2017 marked 10 years since the last passenger or staff fatality in a train accident on Great Britain's national rail network.

While there have been far too many fatalities from other causes (including trespassing and suicides and at level crossings), the last occasion when a passenger died in a derailment or collision was at Grayrigg on February 23 2007.

RSSB's Safety Risk Model shows that the fatality risk to passengers from train accidents has fallen by 87% since 2000, from 2.45 to 0.33 fatalities per 10 billion passenger-km. The number of incidents which have the most potential to lead to serious accidents, including trains striking objects and derailments, fell from 45 in 2007 to 17 in 2016.

## Frequency of train travel

DfT has recently published tables relating to the British Social Attitudes Survey (<https://www.gov.uk/government/statistical-data-sets/att03-attitudes-and-behaviour-towards-roads-and-road-travel>).



Oxford Parkway Station

I looked at ATT0304, looking at frequency of travel by train from 2005 (after a change in methodology introducing a discontinuity) to 2015.

In most years, 2% of respondents travel by train every day or nearly every day; this increased to 3% in 2015. 3%-4% travel 2-5 days a week, and the same percentages at least once a week.

In 2005, 15% travelled less than that but more than once a month. This increased to 18% in 2014 and 17% in 2015. Percentages travelling less often than that increased from 35% in 2005 to 40% in 2015. Those never travelling by train decreased from 41% to 33% over the same time period.

## New York local rail transport in 2016

*Lightly edited from an article in Railway Age*



Jamaica Station, a hub of the LIRR

The [New York Metropolitan Transportation Authority](#) (MTA) has reported record ridership numbers on its two suburban rail networks, the [Long Island Rail Road \(LIRR\)](#) and [Metro-North Railroad](#). The LIRR, which serves Long Island, to the east of the city, transported 89.3m passengers in 2016, a 1.9% increase compared to the previous year and the highest since 1949.

Metro-North Railroad (running north from the city) has carried approximately 86.5m customers in 2016, the highest ridership in its history surpassing those of last year's record of 86.3m. Metro-North's total ridership has more than doubled since the railroad's founding in 1983.

The LIRR has had an average annual growth of 1.97% over the past five years. Ridership has grown 10.2% in five years, from 81.0m in 2011. MTA said the ridership figures underscore the proposal for significant capacity increases on the LIRR to widen the Main Line from two tracks to three between Floral Park and Hicksville. The LIRR is currently constructing a second track between Farmingdale and Ronkonkoma.

The MTA reported that a demographic and travel analysis of LIRR users reveals an increasing reliance on the railroad by younger customers and "the beginnings of a reverse-travel market segment," which the MTA predicts would be further developed if the Main Line Expansion project proposal is built as expected. There is an intrinsic demand for reverse-peak travel to the Island that today is very difficult for the LIRR to accommodate as a two-track railroad. When the Main Line is expanded to a third track, the reverse-commute service would fill an immediate unmet need.

Reverse commuting – commuting out of the city – is relatively unusual in the US – and impossible in some places because of the train service provided.

## **Rail passenger numbers and crowding on weekdays in major cities in England and Wales 2015**

This DfT statistical release was published on 28 July. I'm not quite sure why I've only now picked it up.

It reports on the number of passengers travelling into and out of major city centres by rail, and the level of overcrowding.

On a typical weekday, 581,400 passengers arrived in London in the peak three hours. This was 3.2% up on the previous year. It's easy to read that number (and the whole day number – 1.05m passengers arrive in London by rail during an average autumn day) and just pass on.

But stop and think what that means. In the three-hour morning peak, that's an increase of nearly 19,000 people. Crudely, you can get 1000 passengers in a 12-car train so that's 19 extra train-fulls! Where do you get 19 extra trains (costing crudely £2m/vehicle, or £24m a train)? Where do you put them? How do you staff them – it takes time to train a driver?

London dominates the market, with over half a million entering by rail in the morning peak. Second is Birmingham with 43,000; Manchester is third with 31,000. London Bridge, Waterloo, Liverpool St and Victoria dominate among London terminals (am and pm peaks). London Bridge had the highest numbers in the peak (24% of all peak arrivals) and Waterloo the highest all-day figure.

The trends in morning peak arrivals over the last few years have been consistently up – 521,000 in 2010, 533,000 in 2011, 536,000 in 2012, 545,000 in 2013, 563,000 in 2014 and 581,000 in 2015.

Overall, there were more passengers than seats in two one-hour periods of the morning peak (7:00 – 7:59, 8:00 – 8:59) and in one one-hour period in the evening peak (18:00 – 18:59).

The body of the report is followed by a section on each major London terminus, followed by figures for other cities in England & Wales.

### **Rail passenger usage 2016/17 Q2**

*This report was issued by DfT at the beginning of December.*

In Q2 2016/17, passenger journeys were up 0.7% on the same quarter the previous year at 425.1m. Passenger kilometres were up 1.7% at 16.6bn, passenger revenue was up 1.4% at £2.4bn and passenger train kilometres were down 0.4% at 132.4m.

Passenger revenue/passenger journey on franchised operators was a record £5.52: revenue/passenger-kilometre was down at 14.22p.

Franchised L&SE operators saw 294.5m passenger journeys in the quarter, 0.5% down on the same quarter the previous year. Season ticket journeys fell by 2.7%. Long distance and regional both saw increases of 3.5%. Journeys on long-distance sector operators were at a record high of 35.9m.

In calendar year 2015 there were 1.7bn passenger journeys by rail in the UK (including Northern Ireland Railways and Eurostar). Germany, normally 60% higher than the UK, has not yet reported 2015 figures to Eurostat. Of the countries that have reported, the UK is the highest. Since 2006 the number of passenger journeys on the UK network has increased by 48.9%, an increase second only to Luxembourg (52.1%).

Passenger kilometres on all three types of service increased compared with the same quarter the previous year. Of the countries reporting to Eurostat (and again Germany, normally 50% above the UK, has not), only France had more passenger kilometres (91.7bn compared with 66.4bn).

## Air

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### Flight cancellations and mishandled bags 2016

*Lightly edited from a US DoT press release*

In 2016, the reporting carriers (US major airlines) cancelled 1.17% of their scheduled domestic flights, an improvement over the 1.5% cancellation rate in 2015 and the lowest in the 22 years with comparable numbers, according to the Air Travel Consumer Report (ATCR) released on 14 February. The previous low was 1.24% in 2002.



United Airlines A321 at Newark Liberty International Airport

In 2016, the carriers posted a mishandled baggage rate of 2.70/1,000 passengers, down from 2015's rate of 3.13 and the lowest annual rate since DoT started collecting mishandled baggage report data in September 1987. The previous low was 3.09 in 2012. The US carriers reporting mishandled baggage data had a mishandled baggage rate of 3.58 reports/1,000 passengers in December, down from December 2015's rate of 3.97, but up from November 2016's rate of 2.02.

The carriers posted a bumping rate of 0.62/10,000 passengers in 2016, an improvement over the 0.73 rate posted in 2015 and the lowest annual rate based on historical data dating back to 1995. The previous low was 0.72 in 2002. These carriers posted a bumping rate of 0.54/10,000 passengers for the quarter, down from the 0.69 rate for the fourth quarter of 2015.

The consumer report also includes data on on-time performance, tarmac delays, chronically delayed flights and the causes of flight delays filed with the Department's Bureau of Transportation Statistics (BTS) by the reporting carriers. In addition, the consumer report contains a tally of aviation service complaints filed with DoT's Aviation Consumer Protection Division by consumers regarding a range of issues such as flight problems, baggage, reservation and ticketing, refunds, customer service, disability and discrimination. The report also includes information about the total number of animals that died, were injured or were lost during air transport in December 2016 and calendar year 2016, as filed by the air carriers with the Aviation Consumer Protection Division. In addition, the report introduces data about the total number of animals transported by airlines during the calendar year.

### Southwest and Jet Blue

These are two of the US's leading new entrant carriers. Analysing their results for 2016 shows interesting differences.

Data are the four-quarter moving averages I compile of revenue, revenue passenger miles (RPMs), available seat miles (ASM) and passenger numbers.

Jet Blue's revenue topped \$6,000m in the four quarters to Q4, 2016. This has steadily grown from the \$5,893m recorded in the four quarters to Q4, 2015. Revenue

passenger miles grew 9% from 41,711m to 45,619m over the same time. Capacity (ASM) grew 8.9% from 49,258m to 53,620m. Finally, passenger numbers grew 9% from 35.101m to 38.264m.

Southwest saw revenue growth from \$18,299m to \$18,595m. RPMs grew 6.2% from 117,499m to 124,798m. ASMs grew 5.7% from 140,501m to 148,522m. Passenger numbers grew 5% from 144.575m to 151.74m.

Southwest is clearly a much larger operation than Jet Blue; it is also a lot older, being the original low cost carrier. Presumably it finds it more difficult to enter new markets. It is also notable that all of Jet Blue's statistics grew by around 9%. Southwest got 6.2% more miles from 5% more passengers.

A few weeks ago, it was announced that Southwest would have a new President. The present incumbent is also Chairman and CEO, two posts which he retains. The two reports may be coincidental.

## **Guns on planes (nearly!)**

*Lightly edited from Aerotime*

Every day, the US Transportation Security Administration (TSA) officers interact with nearly two million travellers across the US to ensure the safety of the travelling public. TSA had a busy year in 2016, screening more than 738m passengers, 43m more passengers than in 2015. In total, 3,391 firearms were discovered in carry-on bags at checkpoints across the country, averaging nine firearms a day, 28% more than the total of 2,653 in 2015. 83% of the guns caught in 2016 were loaded.

In the New York metropolitan region, the number of firearms detected by TSA officers decreased. The New York City/New Jersey region saw a drop in the number of firearms detected by TSA officers at checkpoints in 2016 from 24 to 15.

The top five airports where TSA officers detected guns at checkpoints in 2016 were: Hartsfield-Jackson Atlanta International with 198; Dallas/Fort Worth International with 192; George Bush Intercontinental at Houston with 128; Phoenix Sky Harbor International with 101; and Denver International with 98. These same airports were in the top five for guns at checkpoints in 2014 and 2015.

Weapons, including firearms, firearm parts and ammunition, are never permitted in carry-on bags, but they can be transported in checked bags if they are properly packed and declared to the airline.

## **Road**

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### **Stop idling!**

*Lightly edited from an article in CityLab*

Idling your car unnecessarily pollutes the environment, wastes fuel and offends others' ears. It's particularly reprehensible in foul-aired places like London, where cars helped push the city past its yearly pollution quota in [just one week](#) last January. Can anything be done to curb this wasteful, boorish behaviour?

Some researchers believe so, and their weird solution boils down to a couple of tweaks to road signs: adding "watching eyes" and appealing to the "private self." Based on principles of behavioural psychology, the researchers believe images of TSUG Review

eyeballs and requests for drivers to think about themselves are effective at getting drivers to cut their engines, as described in the latest issue of [Environment and Behaviour](#).

Rose Meleady, a psychologist at the University of East Anglia, and other U.K. researchers are the latest to explore the influencing power of eyeballs, something that's long fascinated the region's research community. Previous studies have suggested that signs with pictures of "watching eyes" are effective at [decreasing littering](#), [increasing charitable donations](#) and [preventing bike theft](#). The reigning theory is that these images make people feel like they're under scrutiny (perhaps by Big Brother?) and thus they behave in ways more beneficial to society.

Meleady's group might well be the first to probe the eyes' effect on motorists. They chose for their experiment a busy level crossing in Canterbury, where pollution levels at the time barely met the E.U.'s target. Motorists here faced with passing trains wait an average of two minutes to cross. Nearby is posted a sign from the city council stating "Please switch off your engine when barriers are down to help improve air quality."

Few actually follow this directive, so the researchers devised some more unusual signs. One was a textless placard containing just an image of menacing eyes. That didn't have a positive effect. A second sign paired the eyes with the instruction, "When the barriers are down switch off your engine." This design *did* score a slight but measurable difference, raising the percentage of drivers who stopped idling from roughly 20% to 30%.

But things got really interesting with the third sign, which increased the amount of engine-killing to 50%. This version simply read, "Think of yourself: When barriers are down switch off your engine." What could account for the message's effectiveness? Again, things get quite theoretical, but the researchers believe it comes down to the words pushing motorists into a state of "private self-focus."

Here's the argument in a nutshell – the eyes weren't having much of an effect because they were making people anxious of being evaluated, a feeling that "disrupts the regulation of behaviour." But by asking them to "think of yourself," the signs triggered their sense of *internal* surveillance. The apprehension of external eyeball-derived judgment was gone and drivers were free to (as the researchers write) "implicitly ask themselves, 'am I doing the right thing?'" and to verify this check against the available rules or standards in the situation."

So, there's that. Obviously much work still needs to be done to figure out when an unending gaze is the best solution. Meleady [sums it up](#): "These findings reinforce the importance of directing attention towards the individual when trying to encourage behaviour change, and beyond that, suggest it may sometimes be more effective to encourage self-surveillance rather than using cues suggesting public surveillance."

### **Drink-driving – good news**

According to provisional figures released by the Office of National Statistics, 2015 saw a record low number of drink-drive fatalities in Great Britain – 220, in 180 fatal accidents.

In 2005, the number was 550 in 470 accidents; in 1985, 1040 people were killed in 900 drink-drive accidents.

If I am correctly interpreting the data, in 2014 only 10 of the fatalities were pedestrians.

See <https://www.gov.uk/government/statistical-data-sets/ras51-reported-drinking-and-driving> for much more information.

## New bus and coach market grows

*Lightly edited from an article in Eurotransport*



Luton Airport Bus Station

New figures published by the [Society of Motor Manufacturers and Traders \(SMMT\)](#) reveal the new bus and coach market grew by 8% in the UK during 2016. The UK bus and coach market witnessed a second consecutive year of growth, increasing by 8% in 2016 compared to the previous year. Figures published by the SMMT reveal that 8,779 new buses and coaches were registered last year. Furthermore, more than 2,000 registrations were made in the last quarter, equating to a 4.6% uplift on Q4 2015.

According to the figures, double-deckers continued to drive growth in 2016, with full year demand rising by more than a quarter (27.9%) to 1,927 units. Minibuses, which account for more than half of the market, also made strong gains, with registrations increasing 9.7% to 4,418, counteracting a 6.2% decline in single-deck vehicles.

## New record for vehicle kilometres in Great Britain

Provisional annual vehicle kilometre figures for Great Britain were released recently. They show that for the first time the number of vehicle kilometres by cars and taxis exceeded 400bn – the provisional figure is 401.6bn.

Previous 'highs' are 398.6bn (2015) and 397.9bn (2007).

Other recently updated datasets are at <https://www.gov.uk/government/statistical-data-sets/tra02-traffic-by-road-class-and-region-kms>.

The associated report ([https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/590516/prov-road-traffic-estimates-jan-2016-to-dec-2016.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/590516/prov-road-traffic-estimates-jan-2016-to-dec-2016.pdf)) is initially confusing because it reports in vehicle **miles**.