# Vehicle Licensing Statistics: Annual 2016 

## About this release

This release presents the latest statistics on licensed motor vehicles. It is part of the Vehicle Statistics series. Detailed data tables are available from the web site.

It is based on administrative data held by the Driver and Vehicle Licensing Agency (DVLA).

Except where otherwise stated, the statistics all refer to Great Britain. However, UK data is available from July 2014.

For further details please refer to the Background Information section below and the separate Technical Notes.

In this publication
General context .................. p2
Vehicles licensed ............... p2
New registrations ................ p4
Cars \& the environment ...... p6
Cars and their owners ........ p8
Makes \& models of cars ..... p9
Other vehicle types .......... p10
Vehicle age profiles ........... p11
United Kingdom data......... p12
Background information .... p13
Next Published:
June 2017

3.3 million vehicles were registered for the first time in Great Britain during 2016, the highest annual total ever recorded.

This was $2.0 \%$ higher than the previous peak in 2003.


During 2016, nearly 42,000 new ultra low emission vehicles (ULEVs) were registered in the United Kingdom, an increase of $40 \%$ on 2015.

 The most popular new car model in Great Britain in 2016 was the Ford Fiesta $(119,000)$, followed by the Vauxhall Corsa $(76,000)$, the Volkswagen Golf $(71,000)$ and the Ford Focus $(70,000)$.


## During Jan

 to Dec 2016
3.3 million

Vehicles
registered for the first time

## At end of

 Dec 2016

## 37.3 million

Vehicles licensed for use on roads in Great Britain

The number of licensed vehicles and number of vehicles registered for the first time are influenced by the general economic climate in Britain and further afield. New registrations reduced for some time after the 2008-9 recession began, and have only recently returned to pre-recession levels. During the recession the licensed vehicle stock, continued to grow, but more slowly than before or since.

New car registrations across the European Union as a whole increased by $6.8 \%$ in 2016 according to the European Automobile Manufacturers' Association. The UK was the second largest new car market in Europe in 2016, after Germany. The UK accounted for $19 \%$ of new cars registered in the EU in 2016, compared with $14 \%$ in 2009.

Vehicles licensed for use on the road

## At the end of $\mathbf{2 0 1 6}$ there were $\mathbf{3 7 . 3}$ million vehicles licensed for use on the roads in Great Britain, of which 30.9 million were cars.

The total number of licensed vehicles has increased in every year since the end of the Second World War except 1991.

From 1995 to 2007, the annual growth in licensed vehicles averaged 690,000 per year, although from the mid-2000s it had already begun to slow somewhat.

Following the recession of 2008-9 it slowed further, but did not stop, averaging 170,000 a year between 2007 and 2012. Since 2012, the average growth has been 680,000 per year.

Figure 1: Licensed vehicles in GB: Q4 1994-Q4 2016


In the year to December 2016 the stock of licensed vehicles increased by $2.2 \%$. This is the fifth consecutive quarter that year-on-year increases have exceeded $2 \%$. This also occured in two quarters of 2014 but had not previously been seen since 2005.

The largest percentage increase was for vans (light goods) at 4.1\% followed by HGVs at $2.1 \%$ and cars at $2.0 \%$. Motorcycles increased only by $1.4 \%$ over the same period while buses \& coaches fell by $0.7 \%$.

Over the last twenty years, vehicle stock has increased by 42\%. The largest increase was for vans at 74\%, followed by motorcycles at 69\%. Growth in HGVs was 15\% and buses \& coaches only $2 \%$.

## Tables

Detailed vehicle stock data tables:
All vehicles types: VEH0101 to 0131
Cars: VEH0202 to 0221
Motorcycles: VEH0301, 0303, 0306 to 0311 and 0341

Light Vans: VEH0402 to 0411
HGVs: VEH0504 to 0525
Buses \& Coaches: VEH0601 to 0611

In December 2016, the numbers of licensed cars and vans were at their highest ever levels. The numbers of motorbikes, HGVs and buses \& coaches, on the other hand, remained below their peak levels, which they reached between 2004 and 2007.

Figure 2: Change in licensed vehicles in GB, up to Dec 2016:

over last 20 years


Figure 3: Licensed vehicles by type, GB: Q4 1996-Q4 2016


During 2016, 3.30 million vehicles were registered for the first time in Great Britain.

This was the highest number of new registrations ever recorded in a single year.

It was 2.6\% up on the previous year, and 2.0\% higher than the previous peak in 2003, when 3.23 million were recorded.

Figure 4: Vehicles registered for the first time, GB: 1980-2016


The economic downturn during the recession of 2008/9 affected the new registration figures which fell to 2.37 million in 2009. The number of new registrations was also effected during the recessions of the early 1980s and 90s.

In each year since 2011, there has been a year-on-year increase in the number of new registrations during the year.
$81 \%$ of new registrations during 2016 were cars, $11 \%$ were vans and $8 \%$ were motorcycles, HGVs, buses \& coaches or other vehicles.

Figure 5: Vehicles registered for the first time, GB: 2016; by vehicle type


## Tables

Detailed new registrations data tables:

All vehicles types: VEH0150 to 0170
Cars: VEH0252 to 0261
Motorcycles: VEH0323 and 0324
Light Vans: VEH0452 to 0454
HGVs: VEH0554 and 0556
Buses \& Coaches: VEH0651 and 0654
compared
with last
compared
with 2003
(previous
peak)

The charts to the right show indexed trends in new registrations for each major vehicle type, on the same scale. The impact of the recession in late 2008 and 2009 can be seen.

The number of cars registered for the first time in 2016 was $2.4 \%$ up on 2015 . This was the fifth consecutive year that the number of cars newly registered has exceeded the previous year.

The number of vans registered for the first time in 2016 was $1.0 \%$ up on 2015. The number of newly registered vans has stabilised following increases of over $10 \%$ in each of the previous three years. The recession had a bigger impact on van registrations than those of other vehicles (except HGVs).

The number of HGVs registered for the first time in 2016 was up $4.6 \%$ on 2015. The number of HGVs newly registered has increased in five of the last six years. However, the number of HGVs newly registered is $10 \%$ below the record number recorded in 2005.

New bus and coach registrations increased relatively rapidly up to 2003. While they dropped off less sharply than those of vans or HGVs at the the onset of the recession, they have only begun to increase in the last two years. The number newly registered in 2016 was up $5 \%$ on 2015 . However, this was $27 \%$ below the record number recorded in 2003.

New registrations of motorcycles fell relatively rapidly in the first few years of the last decade, before levelling off. The onset of the recession saw a further decrease, followed by a period of relative stability. The number newly registered in 2016 was up $12.0 \%$ on 2015. This is the third year of growth exceeding 10\% per year but is still $23 \%$ lower than the record number in 2001.

Figure 6: Vehicles registered for first time, by vehicle type: GB, 2001-Dec 2016.

12-month rolling averages (index Dec 2001=100)





A range of factors have been driving changes in the fuel type, efficiency and emissions of the vehicle fleet. Cars with smaller engines or which use diesel rather than petrol tend to have better fuel efficiency, so are cheaper to run. Cars with lower carbon dioxide $\left(\mathrm{CO}_{2}\right)$ emissions fall in cheaper Vehicle Excise Duty (car tax) bands. In addition, legally binding EU-wide $\mathrm{CO}_{2}$ emission targets for manufacturers give them added incentives to bring lower emission vehicles to the market.

The proportion of the licensed car fleet that is made up of diesel and alternative fuel vehicles has continued to grow.

By December 2016 there were 12.1 million diesel cars, accounting for $39 \%$ of the total, up from only $10 \%$ in 1996. There were only 388,000 alternative fuel cars licensed by December 2016, but this was up $25 \%$ over the year.

## What are alternative fuel vehicles?

Alternative fuel vehicles are those able to use a range of alternatives to purely petrol or diesel fuel, including gas, electricity, or a combination such as gas bi-fuel and hybrid electric.

## Tables

Detailed environment data tables:

Cars: VEH0203, 0206, 0253 and 0256

Light Vans: VEH0403 and 0453

ULEV: VEH0130, 0131 and 0170

Figure 7: Licensed cars by propulsion type, GB 1996-2016


Figure 8: New Ultra Low Emission Vehicle registrations, UK: 2011-2016


## What are Ultra Low Emission Vehicles?

Ultra low emission vehicles are those with emissions of $\mathrm{CO}_{2}$ below 75 $\mathrm{g} / \mathrm{km}$, or fully electrically powered.

During 2016, 41,819 new ultra low emission vehicles (ULEVs) were registered for the first time, up $40 \%$ from 29,965 during 2015. This amounted to $1.3 \%$ of all new vehicle registratations up from $0.9 \%$ one year previously and $0.5 \%$ two years before.

Most of this increase has been due to vehicles eligible for plug-in car and van grants. New registrations in 2016 included 36,782 cars and 1,025 vans of models that were eligible for these grants, 30\% up on 2015.

The growth in ULEVs is being influenced by new models coming into the market, and increasingly, competitive pricing. The models with the most registrations in 2016 were the Mitsubishi Outlander with 9,449 , followed by the Mercedes C350 with 5,394 and the Nissan Leaf with 4,649.

During 2016, 84\% of newly registered cars fell into one of the lowest five Vehicle Excise Duty bands (A to E, up to $140 \mathrm{~g} /$ km), including 60\% in Band C or lower and 17\% in Band A. It takes much longer for these lower emissions bands to work their way through the car stock as a whole, because of the length of time older cars remain in use, but by the end of 2016 $47 \%$ of all licensed cars fell in Band E or lower, compared with under 1\% in 2001.

## What are plug-in grants?

Plug-in car and van grants started in Jan 2011 and Feb 2012 respectively, with major changes in Mar 2016.

They provide a grant towards the cost of new qualifying models - see Plug-in car and van grants for further details.

## What are VED bands?

Vehicle Excise Duty (VED) is charged on vehicles registered in the UK.

For cars licensed after March 2001, VED is charged in bands on the basis of their $\mathrm{CO}_{2}$ emissions. From April 2017 new tax rates will apply for cars newly registered after that date - see Vehicle Tax Rate Tables for further details.

Figure 9:
New car registrations by VED band, 2004-2016


Figure 10:
Licensed cars by VED band, 2002-2016


Figure 11: New car \& van $\mathrm{CO}_{2}$ emissions, UK 2001-2016


The average $\mathrm{CO}_{2}$ emissions from cars newly registered in 2016 fell by $1 \%$ compared to 2015 to an average figure of $120 \mathrm{~g} / \mathrm{km}$. Since 2002 the average emissions of new cars has fallen by $31 \%$.

The average $\mathrm{CO}_{2}$ emissions from vans newly registered in 2016 fell by $3 \%$ compared to 2015 to an average figure of $174 \mathrm{~g} / \mathrm{km}$.

The commercial fleet and company car market is a primary driver of first registrations. In 2016, 56\% of all car first registrations were made by companies. However, the proportion of company registered cars in the whole of the licensed car stock was much lower, at only $9.0 \%$. This indicates that cars tend to move quite swiftly from the company market to the private market.

Figure 12: Proportion of cars that are company owned: 2016


## Who is a registered

 keeper?Every registered vehicle, unless it is in the process of changing hands, has a registered keeper, whose details are held by
DVLA. Aggregated, anonymised information extracted from the keeper details can provide useful pointers to how the vehicle fleet is being used, although it must be borne in mind that the registered keeper of a vehicle is not always the person who uses it, and the vehicle is not always based at the keeper's contact address. This is particularly true for company or fleet vehicles.

Figure 13: Cars by registered keeper, GB
The percentage of company registered cars in the fleet is up slightly from a low of $8.1 \%$ in 2010, having previously declined from a peak of $10.5 \%$ in 1997.

The number of female registered keepers of cars has increased by $66 \%$ since 1996, compared with an increase of only $23 \%$ in male keepers. Women now account for about 41\% of registered keepers of privately registered cars .

Figure 14: Number of changes of keeper during the year: cars, UK, 2016



It is estimated that there were roughly 7.7 million transfers of keepership of used cars during 2016. The great majority of these transfers will be second-hand vehicle sales. Over 6.0 million cars (16\%) changed hands at least once during the year and almost 0.8 million (2\%) changed hands more than once.

The top five makes (Ford, Vauxhall, Volkswagen, Peugeot and BMW) accounted for 44\% of all licensed cars at the end of December 2016 in Great Britain. Ford accounted for $14 \%$ of all cars and Vauxhall for 11\%.

## Tables

Detailed make and model data tables

VEH0120, 0121,0124 to 0129, 0160, 0161

There were twelve makes with over 1 million cars each on the road, and together these accounted for $73 \%$ of all licensed cars.

Ford, Vauxhall, Volkswagen, BMW and Audi accounted for 39\% of the new car registrations in 2016.

Figure 15: Top makes of cars, GB

New cars, January to December 2016


All licensed cars, December 2016


The Ford Fiesta was the most common new registration in 2016 with 119,000 registered for the first time. This was followed by the Vauxhall Corsa with 76,000 , the Volkswagen Golf with 71,000 and the Ford Focus with 70,000.

At the end of December 2016, there were 1.5 million Ford Fiesta cars licenced followed


All licensed cars, Dec 2016
 by the Ford Focus with 1.4 million and the Vauxhall Corsa with 1.2 million.

In 1996, there were 2.2 million vans registered in Great Britain of which 60\% were diesel. By 2016 there were 3.8 million vans, of which the vast majority ( $96 \%$ ) were diesel powered.

Figure 17: Licensed vans by propulsion type: GB, 1996-2016


## What are vans and HGVs?

In these statistics, goods vehicles with a gross vehicle weight up to 3.5 tonnes are referred to as 'vans' or light goods vehicles, and those with a gross vehicle weight over 3.5 tonnes as 'HGVs' or heavy goods vehicles.

## What is gross vehicle weight?

Gross vehicle weight is the maximum permissible weight for a vehicle, including its load.

Figure 18: Licensed HGVs by gross weight: GB, 1996-2016

1000 60-0There were 493,600 heavy goods vehicles registered in Great Britain in 2016. Their average gross vehicle weight in 2016 was 22.1 tonnes, compared with 17.7 tonnes in 1996. In 2016, 22\% had a gross vehicle weight of over 41 tonnes hardly any fell into this category prior to 2001 when the general weight limit for articulated vehicles was increased from 41 to 44 tonnes.


There were 161,500 buses and coaches registered in Great Britain in 2016. Of these, $30 \%$ were singledeck buses or coaches, 15\% double-deckers, and 55\% minibuses.

Figure 19: Licensed buses \&
coaches, GB, 2016


What is a minibus?
 minibus is a vehicle with between 9 and 16 passenger seats. More would be classified as a bus or coach, while less would be classified as a car or taxi .

Since 1996, there has been a big increase in the number of larger motorcycles.

Figure 20: Licensed motorcycles by engine size: GB, 1996 and 2016

In 1996, motorcycles over 500cc only accounted for $34 \%$ of all licensed motorcycles. In 2016 they accounted for 54\%.

Most of the 69\% increase in motorcycle numbers over the last 20 years, from 0.7 million to 1.2 million, is attributable to bikes over 500 cc , with a further contribution from bikes in the 51 to 125 cc category.

## Vehicle ages and age profile

The average age of licensed cars at the end of 2016 was 8.0 years. The averages for vans and HGVs were quite similar, while buses and coaches and motorcycles were on average somewhat older.

About 15 to $17 \%$ of cars, vans and HGVs were over 13 years old, this proportion rising to $25 \%$ for buses and coaches and $31 \%$ for motorcycles.

Figure 22: Licensed cars and vans: GB, 2016, by year of first registration


Figure 21: Licensed vehicles by age: GB, 2016
Average age


The number of diesel and petrol cars newly registered in each year since 2011 have been similar. Before then, the number of petrol cars newly registered was significantly higher than the number of diesels.

This has had an effect on the mix of older vehicles still on the road. 36\% of petrol cars licensed at the end of December 2016 were first registered in 2006 or before compared to only $18 \%$ of diesel cars.

As a result of the changes described to the right, data for the United Kingdom (Great Britain + Northern Ireland) are now included in the data tables for this series.

The total number of vehicles licensed at the end of December 2016 in the UK was 38.4 million, of which 1.1 million ( $3 \%$ ) were registered to an address in Northern Ireland.


Within Great Britain, 37.3 million vehicles were registered in England, 2.9 million in Scotland and 1.9 million in Wales.

The number of registered vehicles per 1,000 residents was markedly lower in London (356 vehicles per 1,000 people) than in any other English region or country, reflecting its highly urbanised nature. There was less variation between the other regions, with the rate being highest in the southern English regions (of which the South West was highest at 709) and lowest among the northern English regions (of which the North East was lowest at 512).

## Addition of Northern Ireland data to this series

In July 2014 vehicle and registration services for Northern Ireland were centralised at DVLA, where these services for Great Britain were already administered. This created a single vehicle register for the United Kingdom, in place of separate registers for Great Britain and Northern Ireland.

As a result of these changes, the coverage of the vehicle licensing statistics tables was expanded to cover UK as well as GB where practical. Because of the greater availability of GB time series data, this statistical release will continue to focus mainly on GB rather than UK results for the time being.

Separately from this GB/UK statistical series, DOE Northern Ireland will continue to publish statistics for vehicles registered in Northern Ireland.

Figure 23: Licensed vehicles by country or English region, UK: Q4 2016


## About these statistics

Almost all the statistics in the vehicle licensing statistics series are derived by Department for Transport statisticians from extracts of the Driver and Vehicle Licensing Agency (DVLA) vehicle database. The main purpose of the database is to administer vehicle registration and licensing records in the United Kingdom.

## What data tables go with this release?

For the full list of tables published this year, please see the Vehicles Tables Index

For further information, please see the detailed Technical Notes. There is also a Statement of Administrative Sources for the DVLA vehicles database.

## Request for Feedback

We welcome any feedback on these statistics, to ensure future releases best meet user needs. Feedback can be provided by email to vehicles.stats@dft.gsi.gov.uk.

## Strengths and weaknesses of the data

The DVLA database can be regarded as being virtually complete in terms of the number of licensed vehicles and vehicles with a SORN (Statutory Off-Road Notification). However, there will be some errors in some of the specific details of individual vehicles, mostly less important details. The Department for Transport estimates that under $2 \%$ of the vehicles records have an inaccuracy in one of the variables used for the statistics published. Other factors to consider in interpreting these statistics include: changes in legislation, revisions to the series, seasonal variation which affects some vehicle types, vehicle excise duty evasion and other types of failure to inform DVLA of relevant facts about the status of a vehicle, and the fact that foreign registered vehicles may also use UK roads without being registered with DVLA. Most of these factors will only have a marginal effect for most uses of the data. For further information, please see the detailed Technical Notes.

## Users and uses of these statistics

A separate note on this is available from the vehicles statistics guidance web page.

## National Statistics

All of the statistics published in this series are National Statistics, apart from the exceptions listed on the series page. Vehicles statistics were assessed by the UK Statistics Authority and confirmed as National Statistics in April 2012. National Statistics are produced to high professional standards set out in the Code of Practice for Official Statistics. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference.

Details of ministers and officials who receive pre-release access to these statistics up to 24 hours before release can be found in the Pre-release access list.

## Next Release

Vehicle Licensing statistical releases are published quarterly. The next is due on 8 June 2017.

The Quarter 4 release for each calendar year is accompanied by a larger set of data tables and more detailed commentary.

In addition a single table of monthly new vehicle registrations is released on the series page on the second Thursday of each month.

Any updates to these plans will be advertised via the DfT statistical publications schedule.

## Release of DfT Statistics publications

To hear more about DfT statistics publications as they are released, please follow us on Twitter via our @DfTstats account: http://www.twitter.com/DfTstats. TWITTER, TWEET, RETWEET and the Twitter logo are trademarks of Twitter, Inc. or its affiliates.

