



**URBAN
TRANSPORT
GROUP**

DATA HUB

User guide



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THE DATA HUB EXPLAINED

- Our powerful interactive data tool allows you to generate your own customised data visualisations in a range of formats (bar charts, scatter graphs, pie charts and Geomaps).
- You can then generate a unique link for that visualisation which you can insert into reports, websites and social media channels.

THE URBAN TRANSPORT GROUP'S DATA HUB

[View](#) [Edit](#) [Access control](#)

Welcome to our interactive Data Hub on a host of urban transport topics which allows you to generate your own bespoke analysis, graphics and charts. You can also instantly post the data visualisations you create to social media, or your own website.

Select the topic you are interested in

Bus	Rail	Light Rail	Economy
Society and Demographics	Access to Services	Active Travel	Private Transport
Congestion	Taxi	Freight	International
Satisfaction	Road Safety		

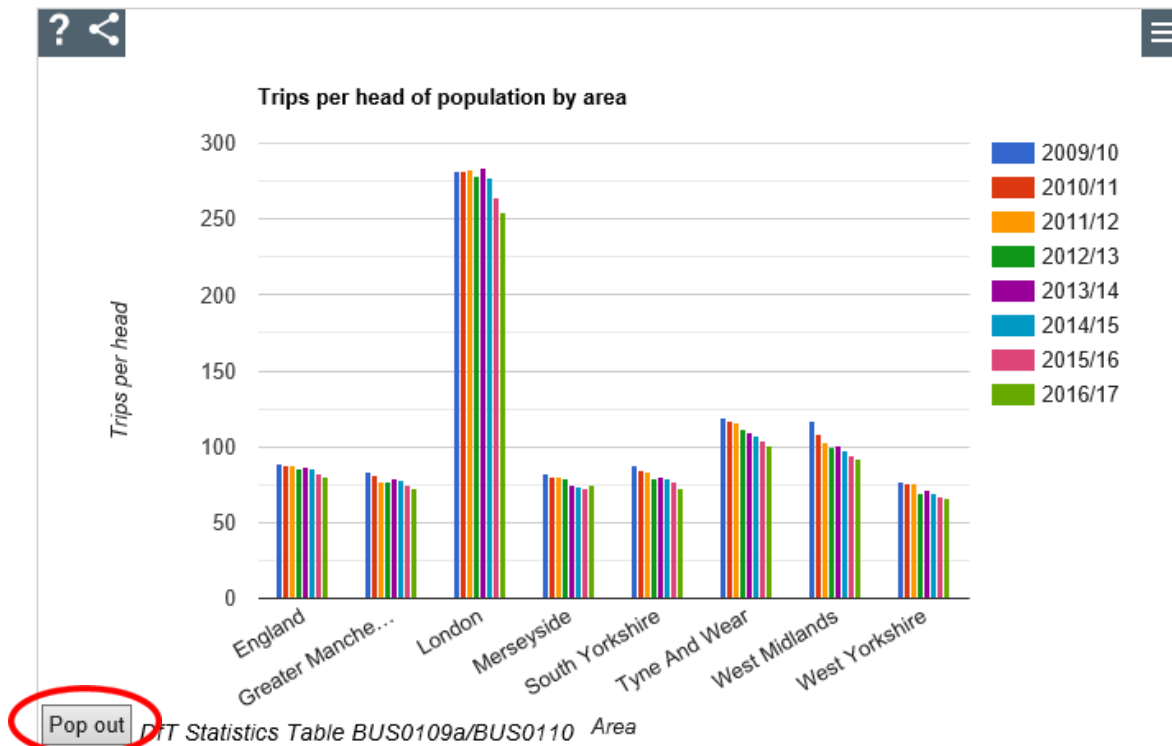
THE DATA HUB EXPLAINED




- From the home page you can choose from a wide variety of topics – such as bus, rail, active travel and freight.
 - When you open a topic you will see a series of pre-set data visualisations which illustrate key data sets.
 - Please note - you can only generate visualisations in one topic or sub topic at a time.
-
- **To create your own visualisation follow this step by step guide.**

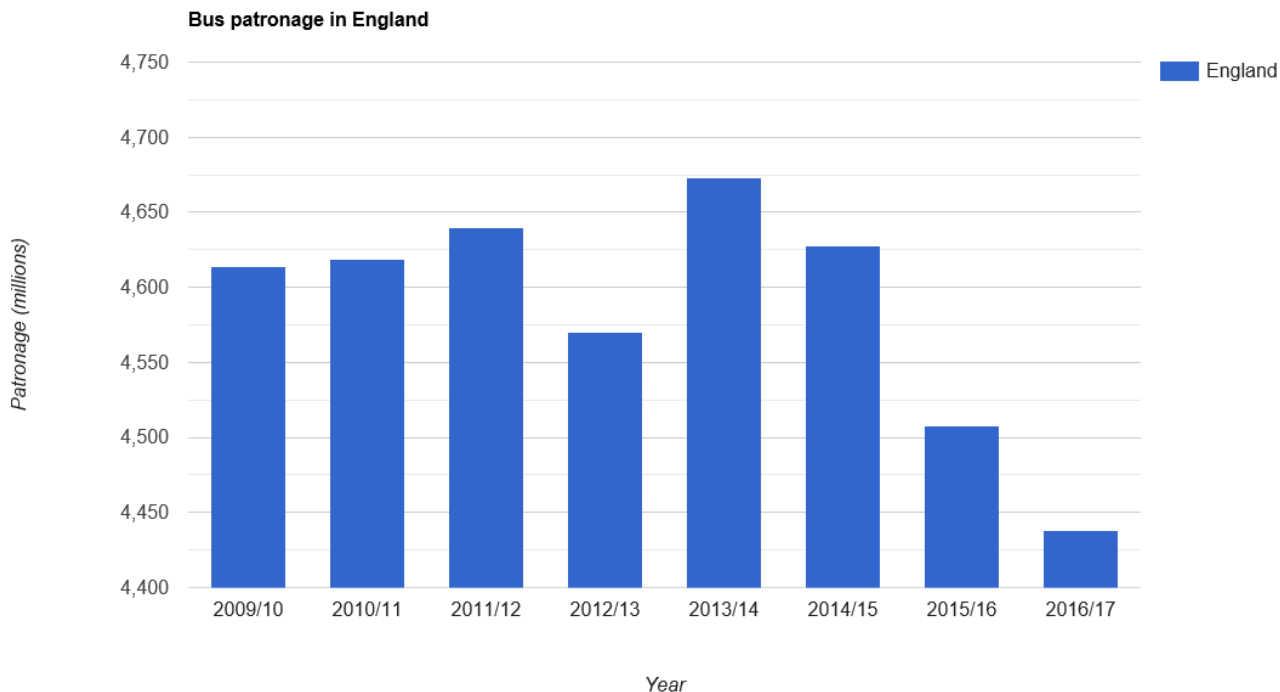
SELECTING DATA

- It is easiest to work on an enlarged version of the Data Hub, so before doing anything else, it is advised to press the 'pop out' button located at the bottom left (highlighted below) of any of the pre-set visualisations.



SELECTING DATA

- Next, click the  button at the top right of the graph to open the range of datasets available.
- The '+' button (see below) opens up the control panel for a topic, providing you access to sub topics and the data within them.



Bus	+
Rail	+
Light Rail	+
Population	+
Economic	+
Social	+
Active Travel	+
Private Transport	+
Highways	+
Freight	+
Access to Services	+
Taxi	+
Satisfaction	+

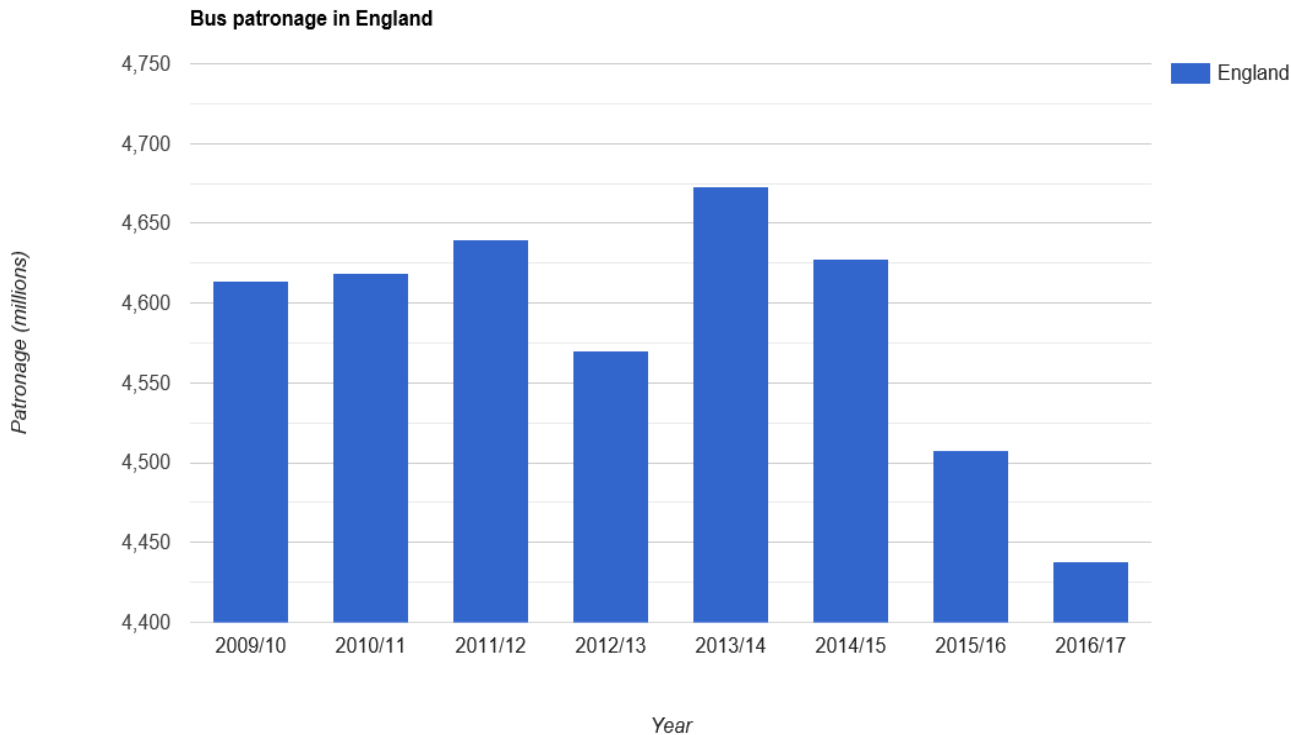
SELECTING DATA



- Datasets are broken down into categories that are shown in control panels. Control panels are made up of a series of widgets – e.g. year, area, patronage (one for each category).
- Each widget contains a rectangular box and a series of buttons and menus that allow you to change the parameters of the content of the categories.
- See image on the next page.

SELECTING DATA

- The widgets are highlighted below and this is where you are able to change the parameters of what you want to see.

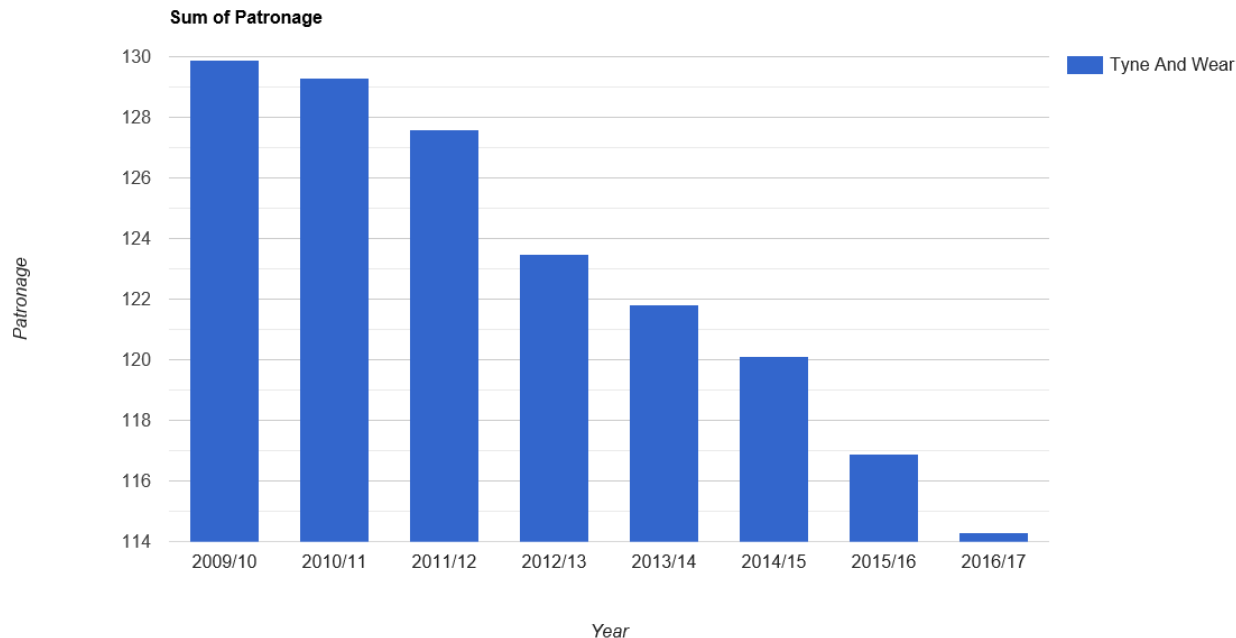


Bus

- Concessions +
- Bus Finances +
- Patronage** -
- Year = All
- Area = England
- Patronage = Sum
- Trips per head = Sum
- Pre-saved configuration: Default
- Vehicle Miles +
- Bus Fleet Data +

SELECTING DATA

- Once you have made any changes to the widgets, click the update button (which appears at the bottom of the categories). You will then see the changes you have made reflected in the visualisation. In this example, England has been removed and data for Tyne and Wear added.



Bus

- Concessions +
- Bus Finances +
- Patronage** -

Year = All

Area = Tyne And Wear

Patronage = Sum

Trips per head = Sum

Pre-saved configuration: Default

Update

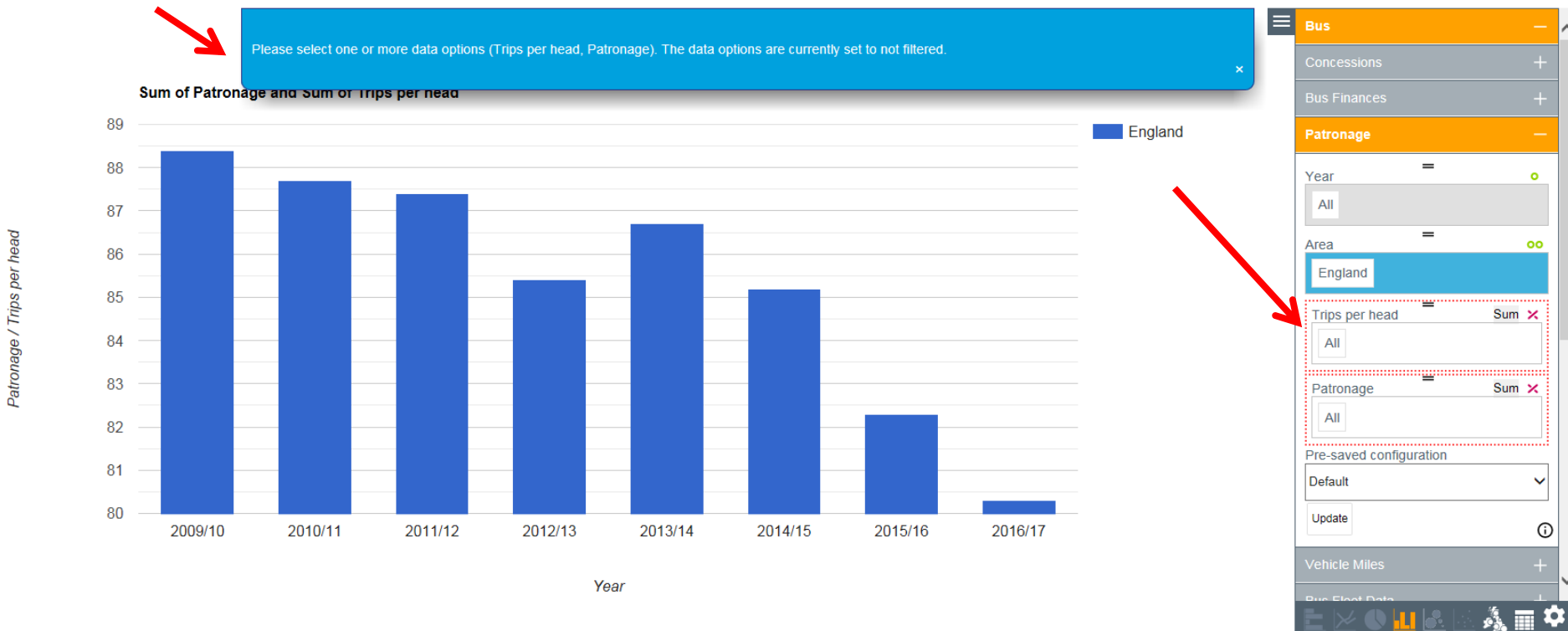
Vehicle Miles +

Bus Fleet Data +


Dashboard icons: Bar chart, Pie chart, Line chart, Map, Settings

SELECTING DATA

- If you have set the parameters in a way which cannot be displayed in the format for the visualisation that is selected, then the Hub will identify with a red highlight which widget(s) is causing the error, alongside an error message, to help you overcome the problem.



EDITING A DATASET WITHIN DATA HUB

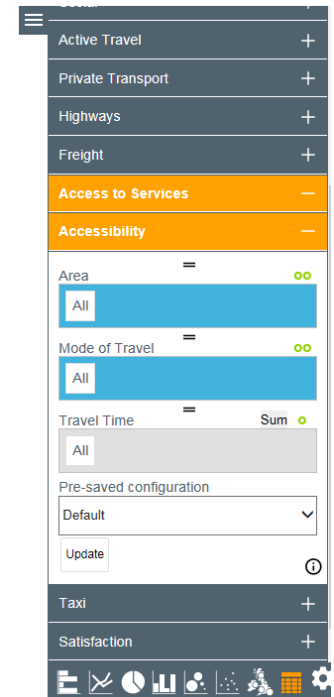
- You can now also edit datasets within the Data Hub by clicking on  in the bottom right of the screen .
- This allows you to add data which is not available in the Data Hub to a visualisation you wish to create.
- Click edit, highlighted in red, which will then allow you to ‘add row’ or ‘add col’ (column).



Average travel time to services by mode [\(Edit\)](#)

Area	Car	Cycle	Public transport / Walking
England	10.6	15.1	17.7
Greater Manchester	10	12.6	15.4
Inner London	9	11.1	10.4
Merseyside	9.5	12	14.3
Outer London	9.5	10.7	13.5
South Yorkshire	10.2	14	16.3
Tyne and Wear	9.8	12.7	14.7
West Midlands	9.7	11.9	14.7
West Yorkshire	10.1	13.6	15.9

[Add Row](#) [Add Col](#)



The screenshot shows a vertical list of categories on the right side of the interface, each with a plus sign to its right. The categories are: Active Travel, Private Transport, Highways, Freight, Access to Services (highlighted in orange), and Accessibility (highlighted in orange). Below these are filter sections for 'Area' (set to 'All'), 'Mode of Travel' (set to 'All'), and 'Travel Time' (set to 'Sum'). At the bottom, there is a 'Pre-saved configuration' dropdown set to 'Default' and an 'Update' button. The bottom navigation bar contains icons for home, search, charts, and settings.

EDITING A DATASET WITHIN DATA HUB

- Once a new row or column has been added, click on the newly generated cells to add additional data. An example is shown below, adding an additional location and mode.
- You can then generate a visualisation that includes the new data. Please note, new data will not be saved in the Data Hub.

Average travel time to services by mode [\(Edit\)](#)

Area	Car	Cycle	Public transport / Walking	Ferry
England	10.6	15.1	17.7	
Greater Manchester	10	12.6	15.4	
Inner London	9	9.1	10.4	
Merseyside	9.5	12	14.3	
Outer London	9.5	10.7	13.5	
South Yorkshire	10.2	14	16.3	
Tyne and Wear	9.8	12.7	14.7	
West Midlands	9.7	11.9	14.7	
West Yorkshire	10.1	13.6	15.9	
Edinburgh				

[Add Row](#) [Add Col](#)

Active Travel +

Private Transport +

Highways +

Freight +

Access to Services -

Accessibility -

Area = All

Mode of Travel = All

Travel Time = Sum

Pre-saved configuration: Default

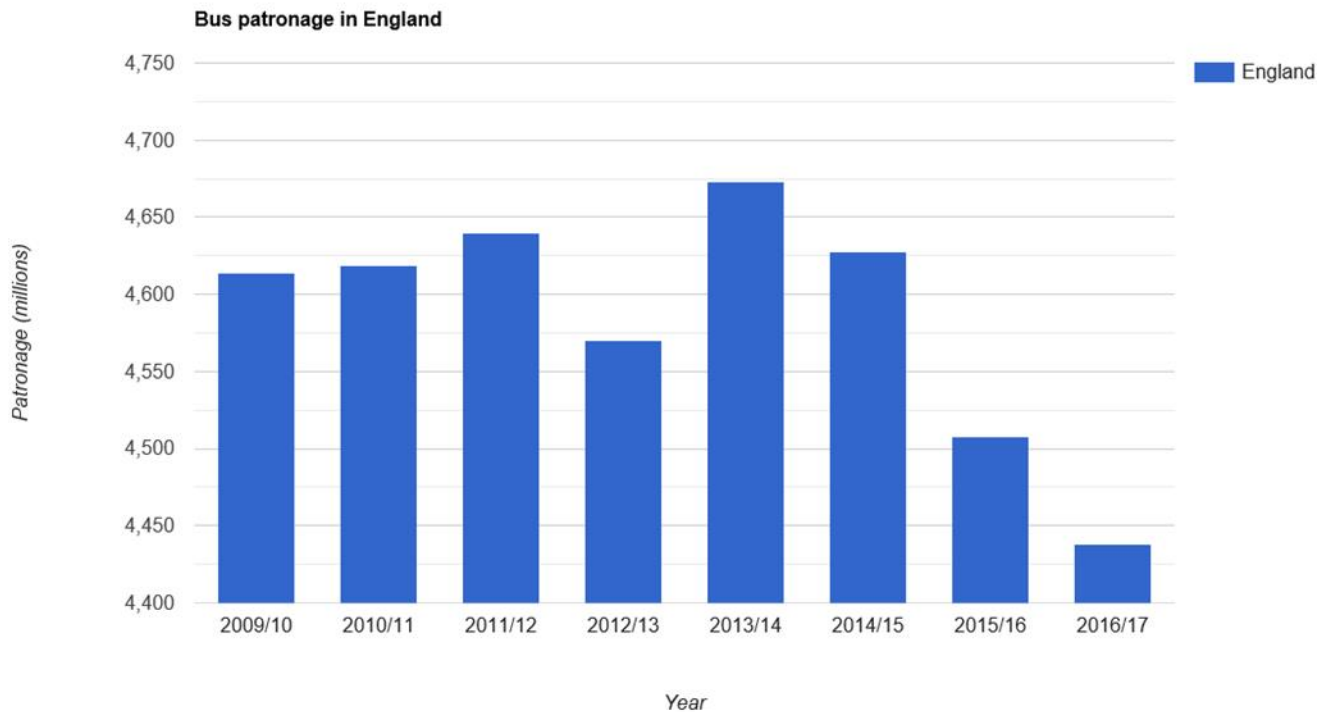
Update

Taxi +

Satisfaction +

MENU FUNCTIONS

- This section explains the functions labelled A, B and C below.



Bus

- Concessions +
- Bus Finances +
- Patronage -

Year **B** = **C** oo

Area **A** = oo

Patronage = Sum o

Trips per head = Sum x

Pre-saved configuration: Default v

Update i

Vehicle Miles +

Bus Fleet Data +

Dashboard icons: Home, Line, Pie, Bar, Map, People, Network, Calendar, Settings

MENU FUNCTIONS



A

- The rectangular boxes have a drop down menu, accessed by clicking in the box, which allows you to set key parameters for the categories.

B

- A grab handle allows you to move the different widgets up or down the control panel by clicking and dragging.
- This allows you to change which axis the different parameters will be shown on. The category positioned highest in the topic or sub-topic will be displayed on the horizontal axis of the visualisation, where the format allows it.

MENU FUNCTIONS



C

Choose how the data will be displayed in your visualisation.

- **A single or double green circle** means that a menu selection made in the rectangular box will be included in the axis of the visualisation (where the visualisation format allows for it). You need at least two of the widgets to have a green single or double circle showing in order to create a visualisation. Given most visualisations can only display two axis you may not be able to create a visualisation if you have more than two widgets with a green single or double circle showing.
- **A single green circle** means that only a single number will be displayed in the visualisation for this category (for example, in the bus patronage dataset this would allow you to show the cumulative bus patronage across a number of geographical areas that you have selected in rectangular box).

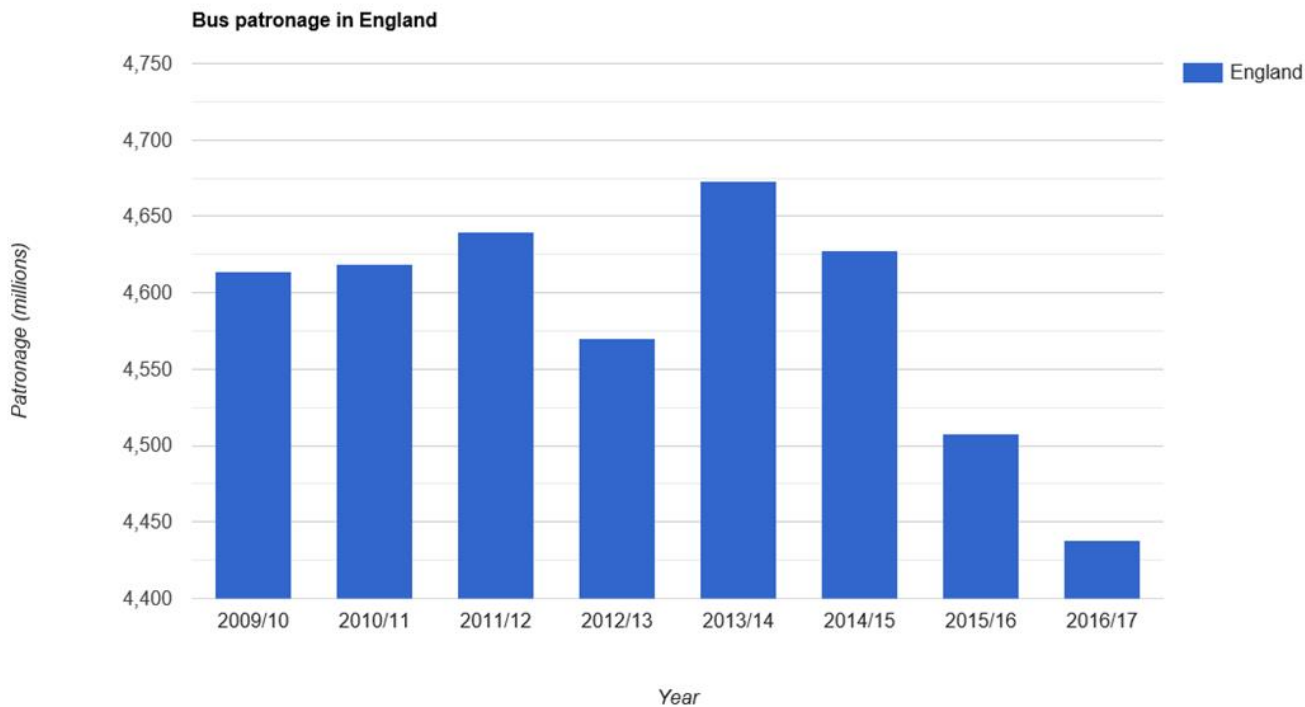
MENU FUNCTIONS



- A **double green circle** means that the data will be separated out in the visualisation (for example, in the bus patronage dataset this would allow you to show the bus patronage for each geographical area that you have selected separately).
- If the **red cross** is displayed, then the menu selection in the rectangular box will be factored into the visualisation but will not be displayed in an axis. For example, in bus patronage this would allow you to create a bar chart visualisation showing your selected time series and the total patronage for whichever areas you select.

MENU FUNCTIONS

- This section details the different ways you can present data, highlighted in red below and explained on the following page.



Bus

- Concessions +
- Bus Finances +
- Patronage** -
- Year =
- Area =
- Patronage =
- Trips per head =
- Pre-saved configuration: Default
- Vehicle Miles +
- Bus Fleet Data +

Bottom bar:

MENU FUNCTIONS

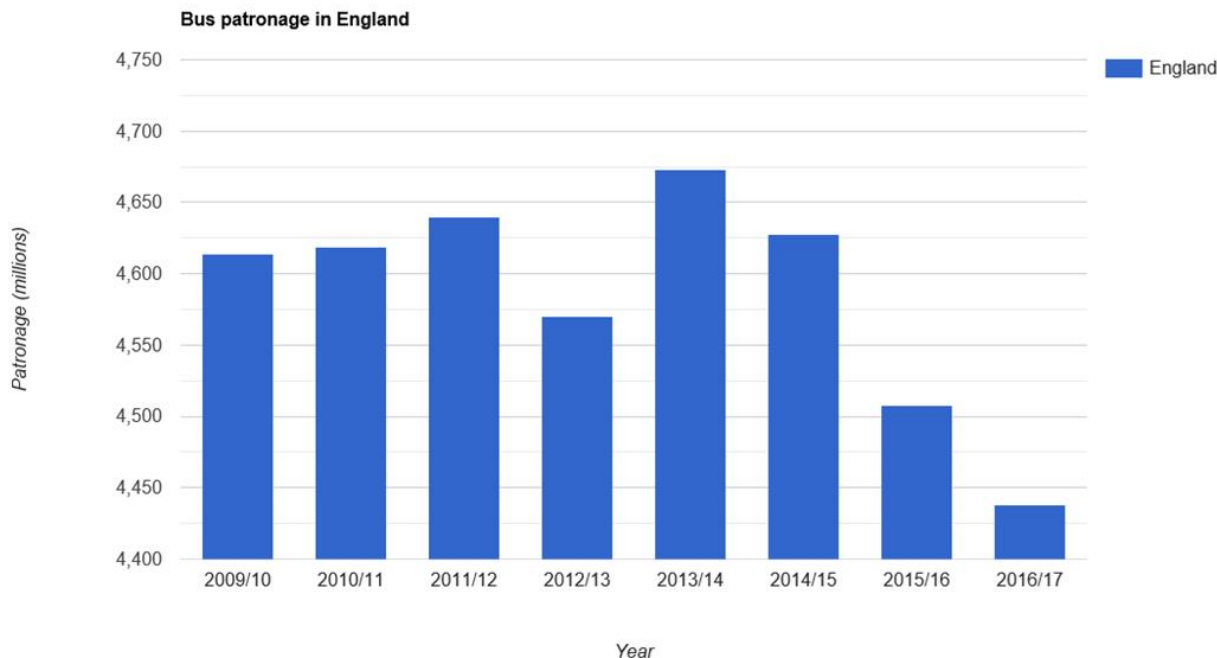


Where relevant for the kind of data contained in the category, a further option is provided to specify how the data should be presented. Toggling here allows for three further options.

- If **SUM** is displayed, then the selection in the rectangular box will appear in the visualisation as the total of all the data selected. This will usually be the most appropriate option.
- Where **AVG** is displayed, the visualisation will show the average figure for the range of data which was selected in the rectangular box. For example, in 'bus patronage' this would allow you to show the average annual patronage figures for whichever range of years that have been selected.
- Where **RAW** is selected, you will just get the numbers or text displayed from the data table. However, this will not always be possible depending on what options have been selected in developing the visualisation (such as the use of two circles).
- Where **%** is selected, the visualisation will show the % change for the data selected.

CREATING A VISUALISATION

- Once you have used the widgets to select the parameters that you want to show, you can then choose the format for the visualisation (the default setting is usually a bar chart). If a visualisation format option is greyed out, this means that it cannot be used to represent the data you have selected.



Bus

Concessions +

Bus Finances +

Patronage -

Year = All

Area = England

Patronage = Sum

Trips per head = Sum

Pre-saved configuration: Default

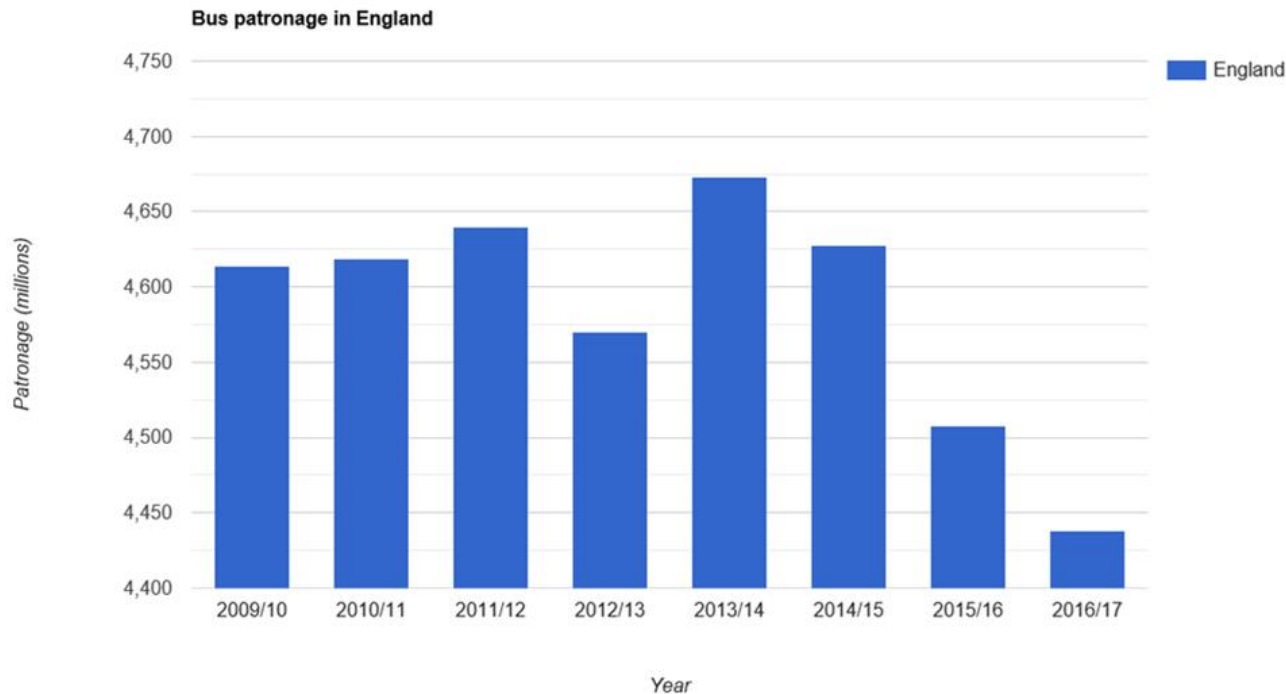
Update

Vehicle Miles +

Bus Fleet Data +

CREATING A VISUALISATION

- On the right of this section is a cog symbol, which you can use to access additional options, such as changing the title of the chart or the axes. You can also further refine data selection as well as change the scale of the axes where possible.



The screenshot shows a mobile application interface. On the left is a sidebar menu with items: Bus, Concessions, Bus Finances, Patronage, Year, Area, Patronage, Trips per head, Pre-saved configuration, Vehicle Miles, and Bus Fleet Data. The 'Patronage' item is selected. On the right is a configuration panel for the 'Patronage' chart. It shows settings for 'Year' (All), 'Area' (England), 'Patronage' (Sum), and 'Trips per head' (Sum). There is also a 'Pre-saved configuration' dropdown set to 'Default' and an 'Update' button. At the bottom right, there is a red circle around a gear icon, which is the settings cog mentioned in the text.

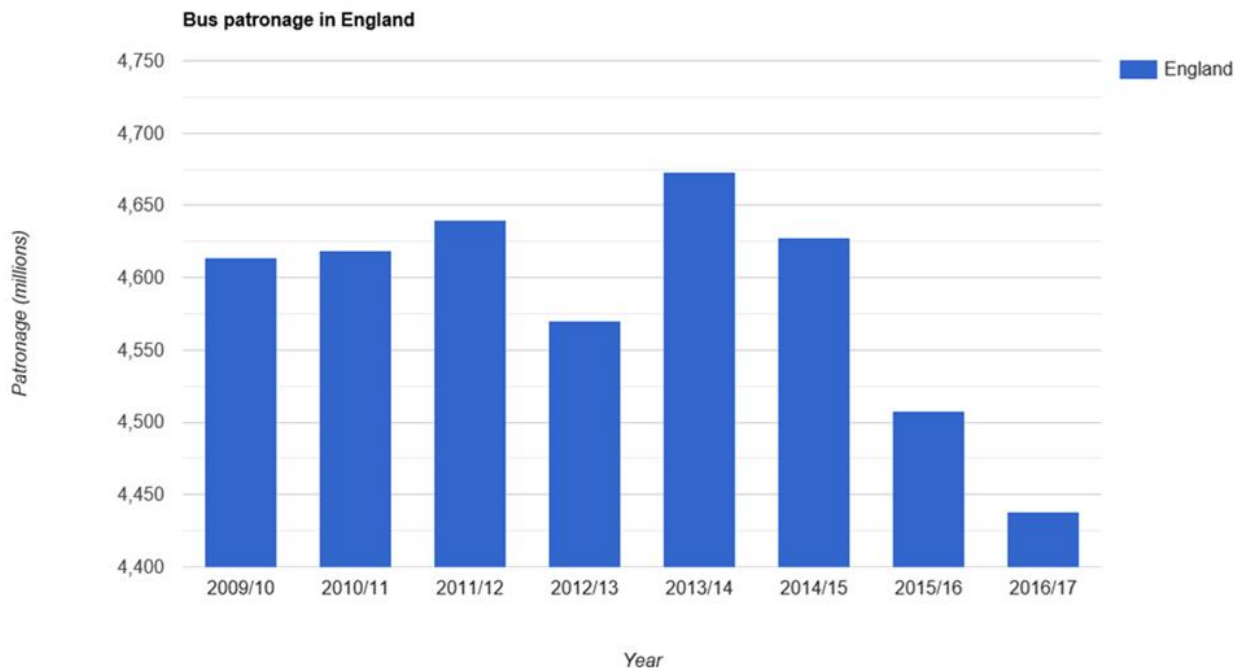
CREATING A VISUALISATION



- There are a number of visualisations available, including;
 - Bar charts
 - Line graphs
 - Pie Charts
 - Geocharts (maps)
- Geocharts visualise the data on a map and can be created with the following data;
 - Bus patronage and trips per head
 - LGV/HGV statistics
 - Rail station entries and exits data
 - Light rail patronage
 - General population statistics
 - GVA per head
 - Cycling trips
 - Vehicle numbers
 - Average speeds
 - Taxi numbers

POSTING A VISUALISATION

- Once you have finished creating your visualisation, you can generate a unique URL and then post an image of the visualisation to a range of social media channels or embed it on your website via the toolbar in the top left hand corner.



Bus

- Concessions +
- Bus Finances +
- Patronage** -

Year = All

Area = England

Patronage = Sum

Trips per head = Sum

Pre-saved configuration: Default

Update

Vehicle Miles +

Bus Fleet Data +

Bottom toolbar: Home, Back, Forward, Refresh, Print, Settings

DOWNLOADING THE DATA

- You can also download the data to Excel for the selected visualisation, with the tool acting to select the data that you are interested in so that you don't have to do this manually, or download a static image of the chart as a jpeg.

