



# Visualising your data with Flourish

David Kane for Datawise London, 22nd June 2021

# Plan for the day

- 10:00 - 10:15 Getting started
- 10:15 - 10:30 A guide to Flourish
- 10:30 - 10:45 Flourish in action
- 10:45 - 11:00 Break
- 11:00 - 12:00 Let's make a visualisation: 2 practical examples
- 12:00 - 12:30 Any questions/try your own data

# A bit about me

I'm a freelance researcher and data scientist working mainly with charities.

I work a lot with 360Giving, a project which helps grantmakers share data about who they fund.

<https://dkane.net/pages/about-me/>

# What else have you used?

From your booking forms:

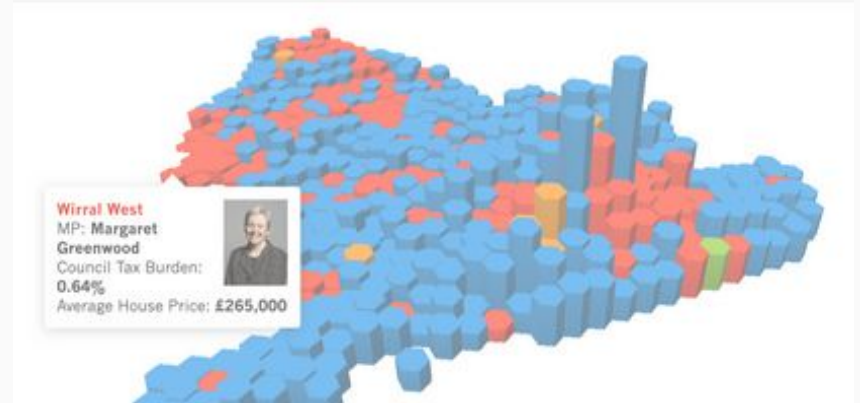


Introduce yourself, and tell us what's the one piece of data you'd like to visualise?

What is Flourish?

# About Flourish

- Makes it easy to create charts, maps and other interactive visualisations
- Designed for journalists
- Free for most use cases
- UK Company



NB: I'm not affiliated with Flourish, just a fan (and user)!

# Practicalities

- You need to sign up for an account
  - You can use a Google account
- Free if the data is made public
  - Make sure you're not sharing sensitive data
- You need to have prepared data beforehand
  - You can copy and paste from Excel, or import a CSV file

# Some alternative tools

Flourish isn't the only tool to help visualise data

**Datawrapper**

<https://www.datawrapper.de/>

<https://plotly.com/chart-studio/>



**Chart Studio**

**RAW**Graphs

<https://rawgraphs.io/>



# Some alternative tools II

Flourish isn't the only tool to help visualise data



<https://datastudio.google.com>

<https://powerbi.microsoft.com/>



<https://www.tableau.com>

# Why Flourish?

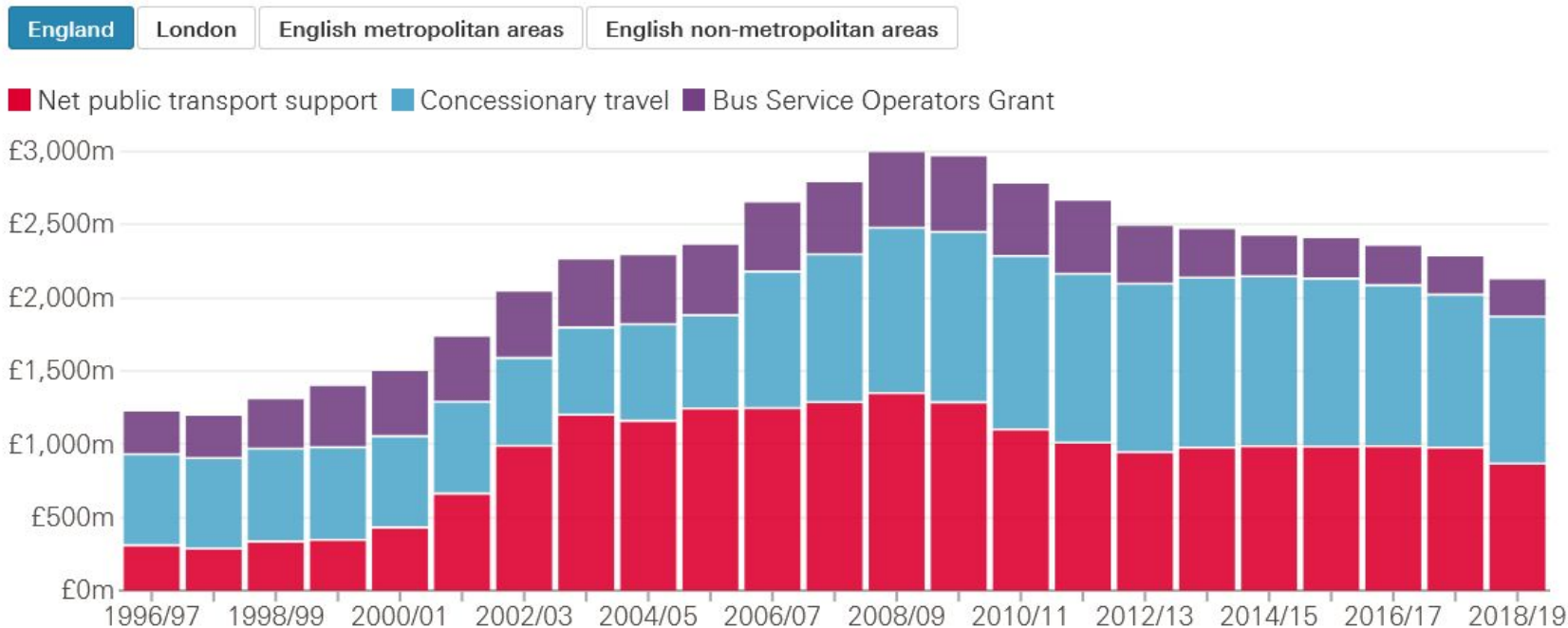
- Easy to use
- Professional-looking visualisations
- Wide range of visualisation types
- Flexible
- Shareable
- Can embed on websites

Examples

# Simple charts

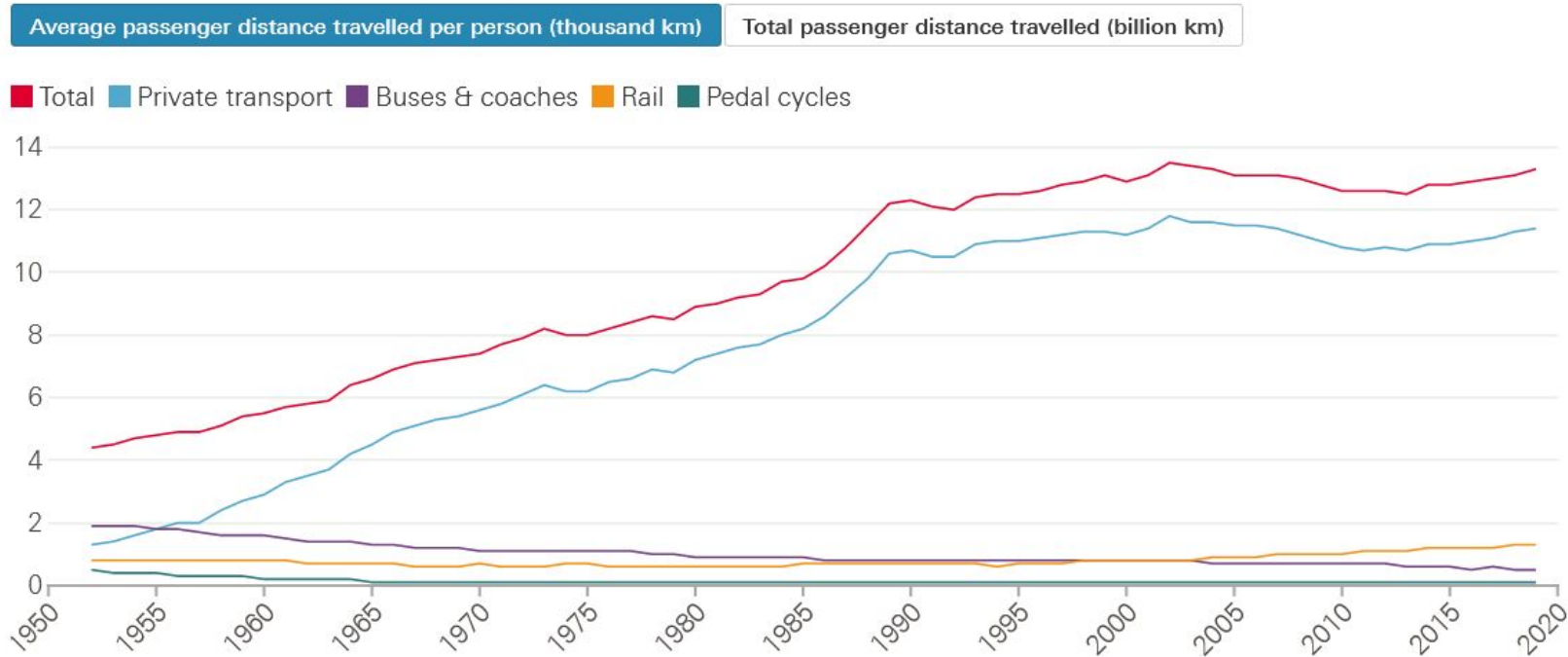
# Central government funding for bus services has fallen over the past decade

Total estimated net support paid by central and local government for local bus services: England, 1996/97–2018/19



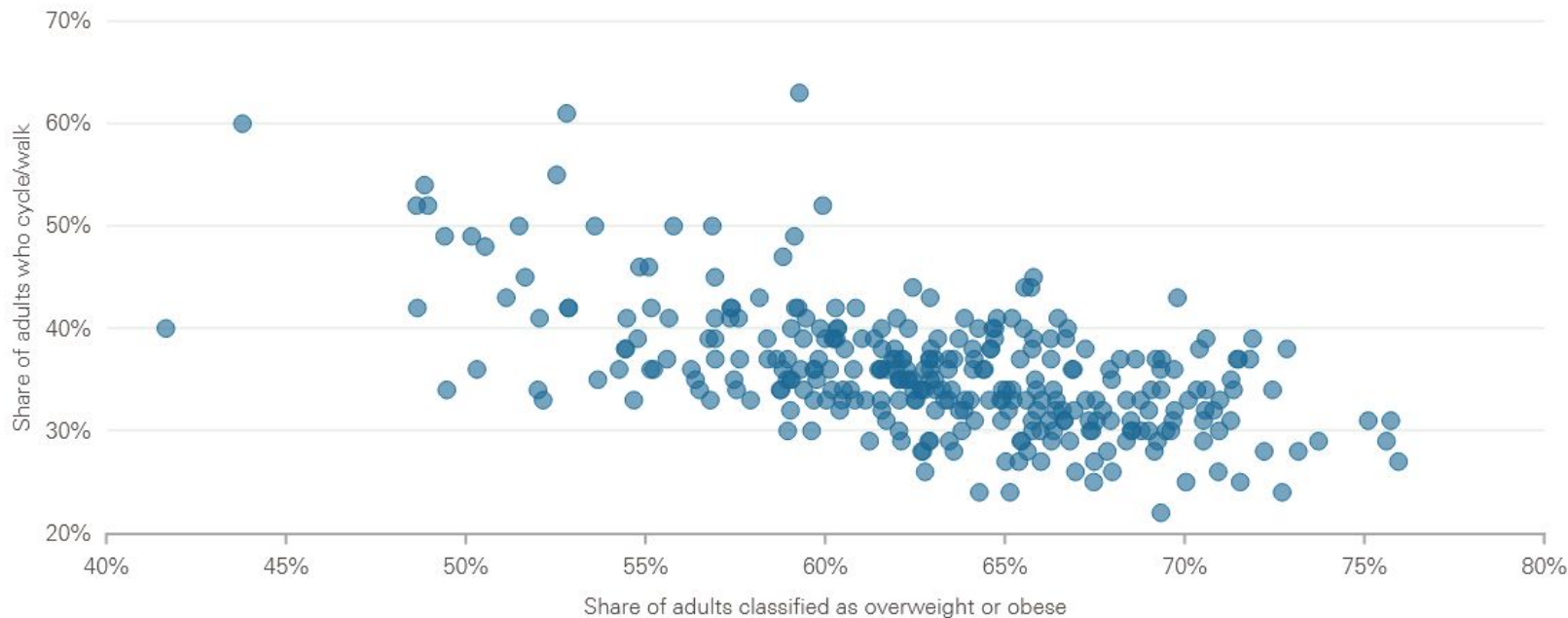
# The vast majority of distance travelled is by private transport modes

Passenger kilometres travelled per person by each transport mode: Great Britain 1952–2019



## The relationship between physical activity and health

Share of adults who walk or cycle at least five times per week and share of adults classified as overweight or obese, by local authority: England, 2018/19



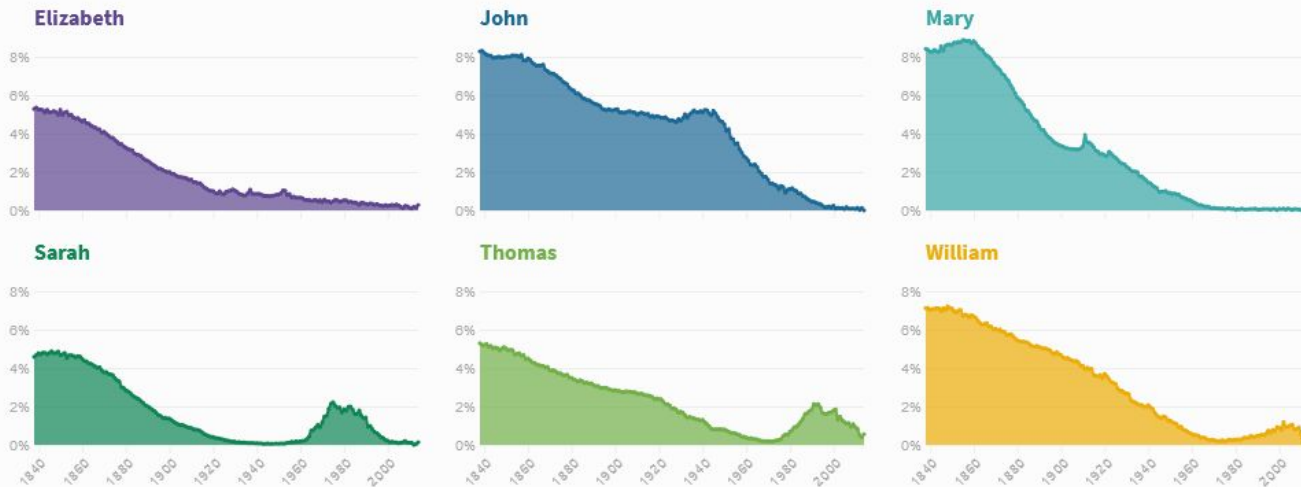
# How popular was your name?

Search 22 million English birth records since the 1840s.  
Compare your friends or family, or [see some interesting examples.](#)

Mary × John × William × Elizabeth × Thomas × Sarah × Add names!

× **The most popular Victorian names are now rare**  
More than 16% of all babies were called Mary or John

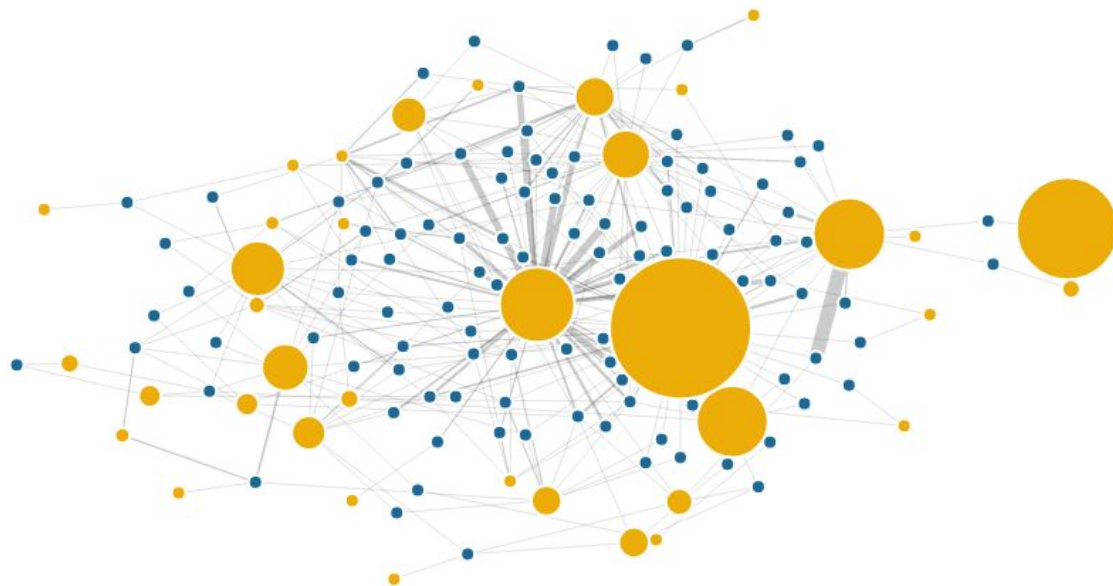
Next example →





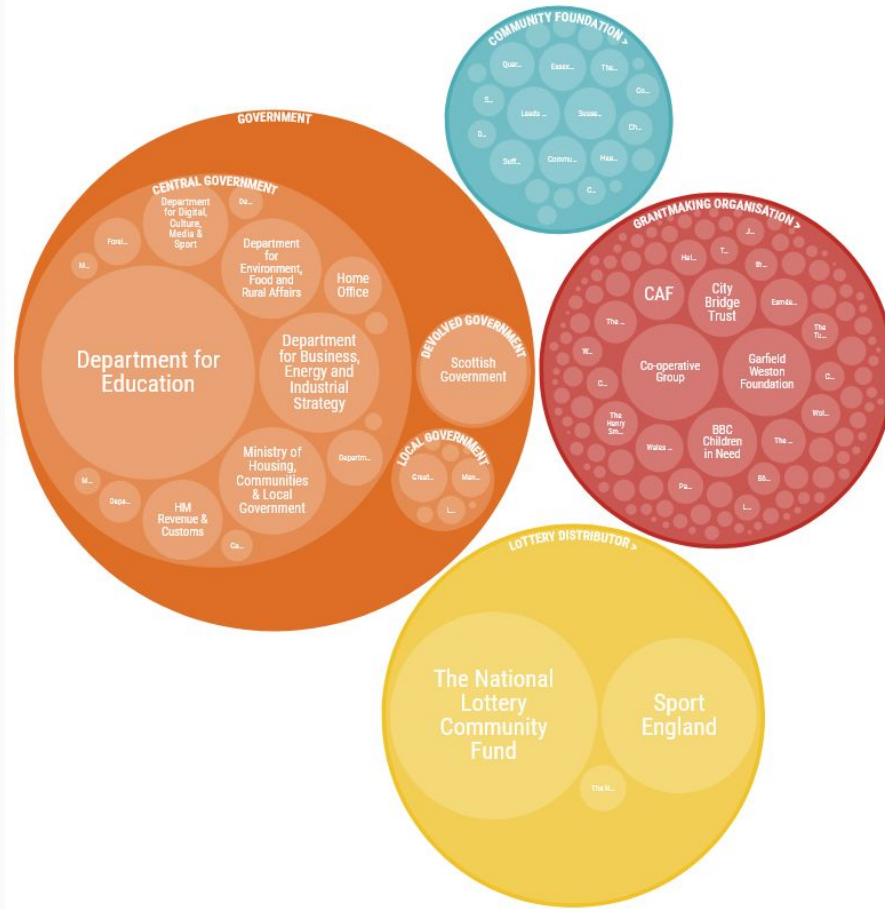
# Networks and relationships





■ Recipient ■ Funder

Source: 360Giving publishers



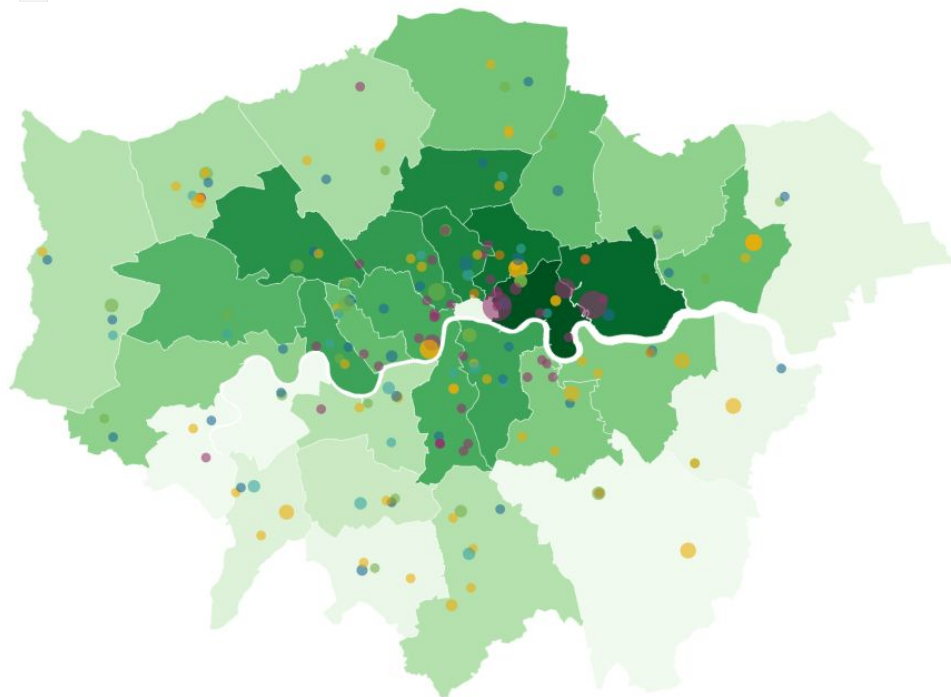
Maps

## London advice provision vs need

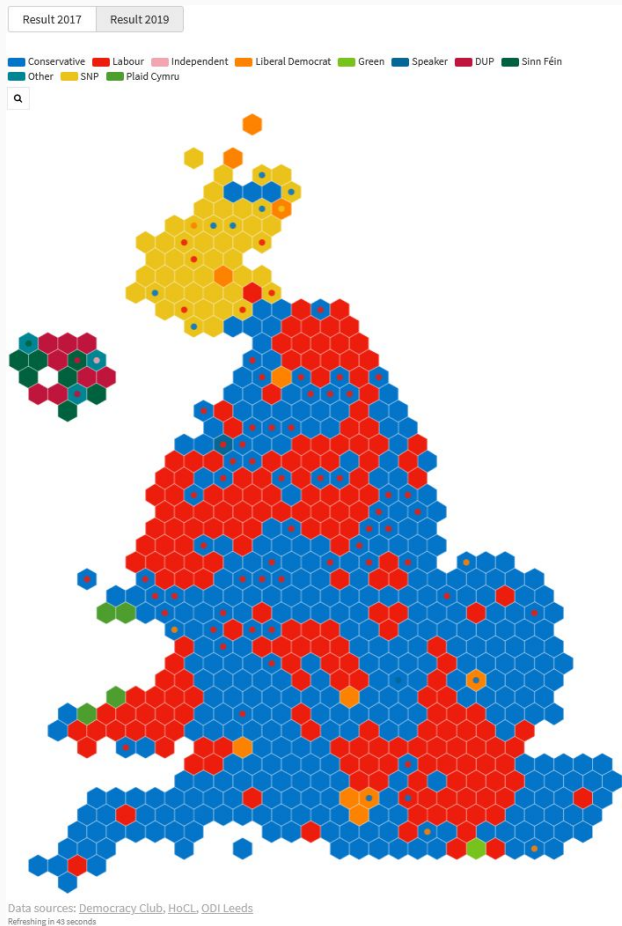
Poverty rate (from London Poverty Profile)

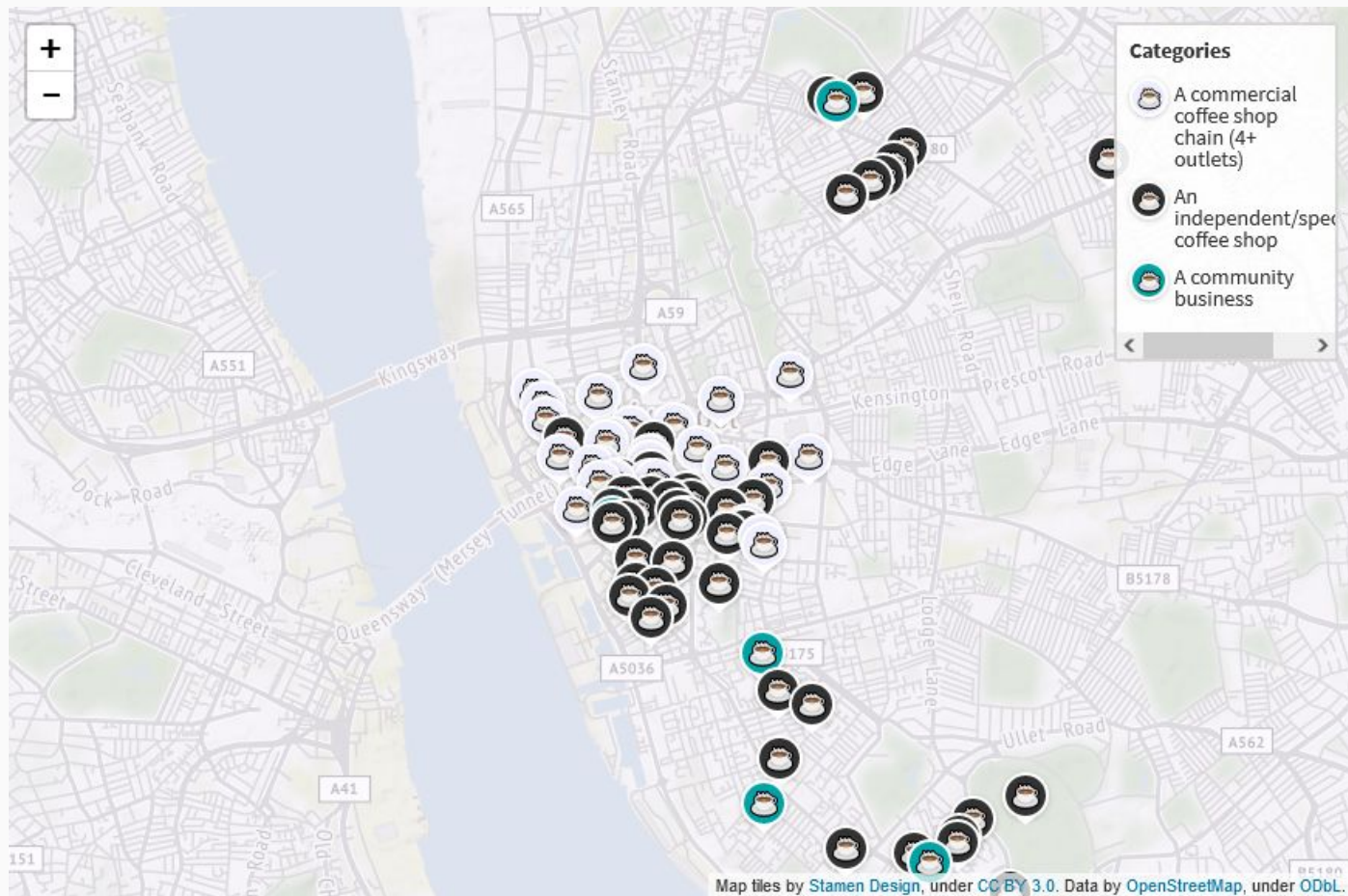
4,500,000 9,500,000 ● Citizens advice ● Disability or carer org ● Older persons org ● Other NFP org ● Law centre ● Housing org

14% 40%



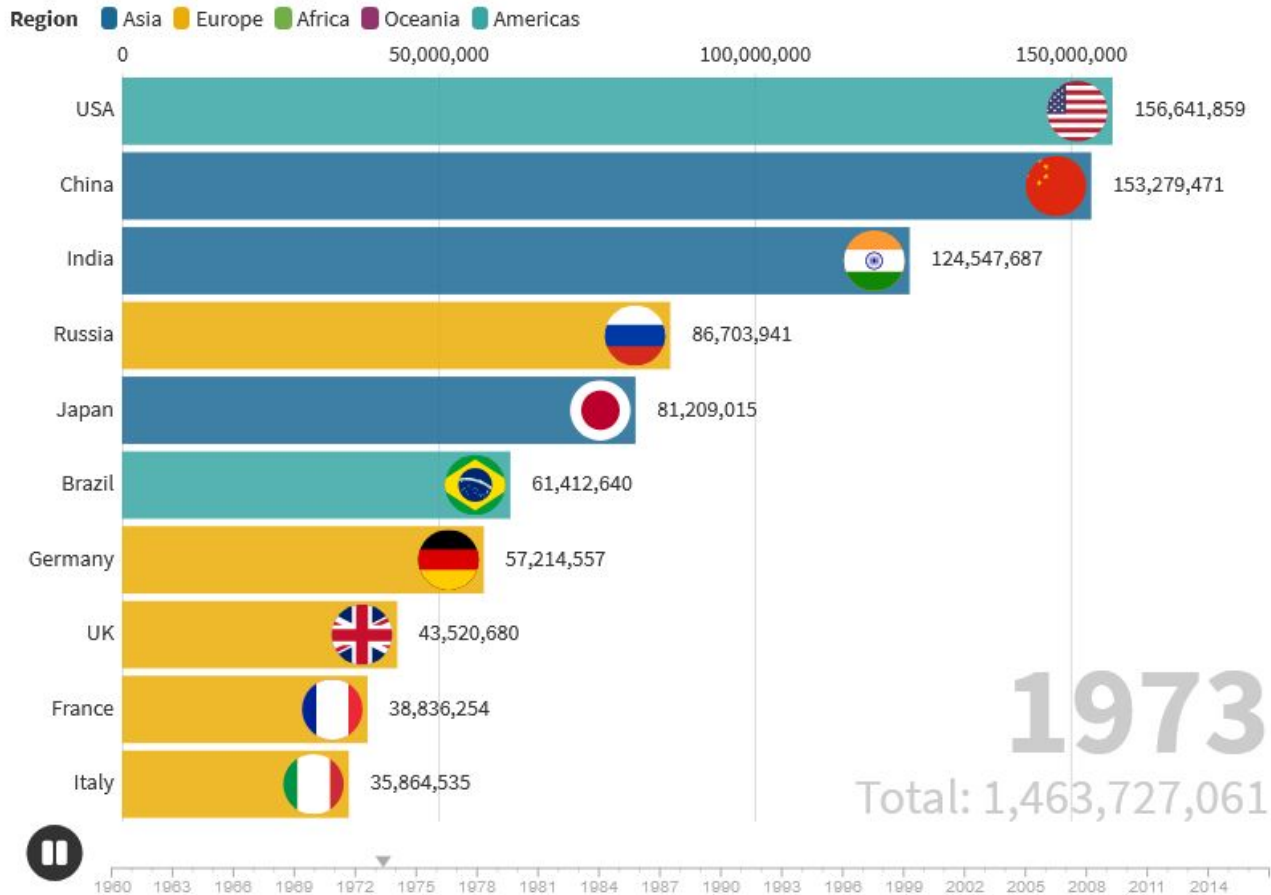
Source: [Advice Local](#), [Charity Commission](#), [Money Advice Service](#), [DWP](#), [London Poverty Profile](#) • Law clinics and local authority provision excluded



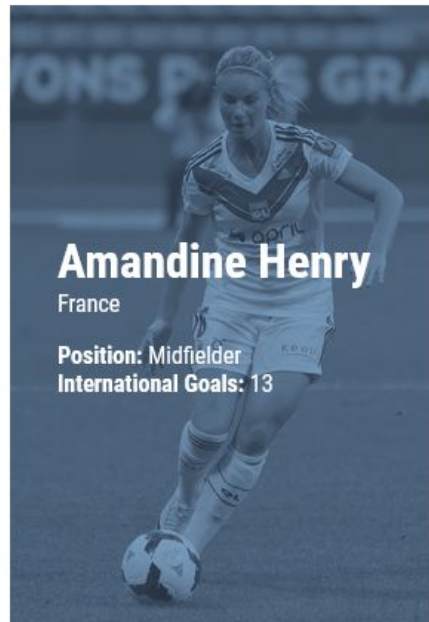




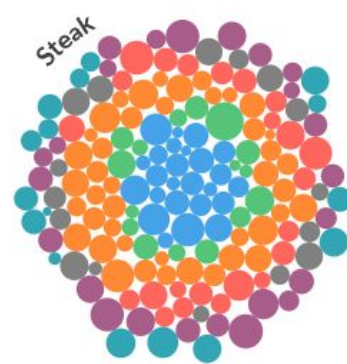
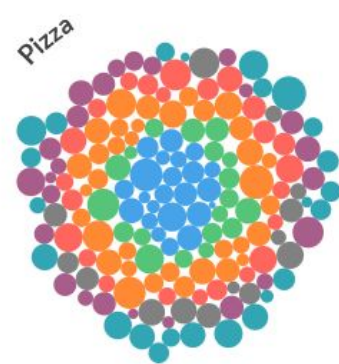
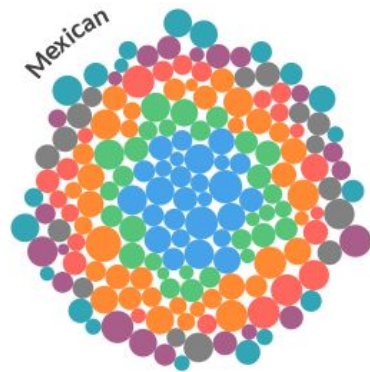
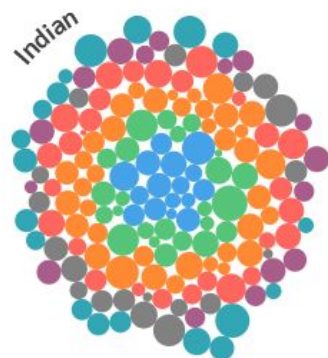
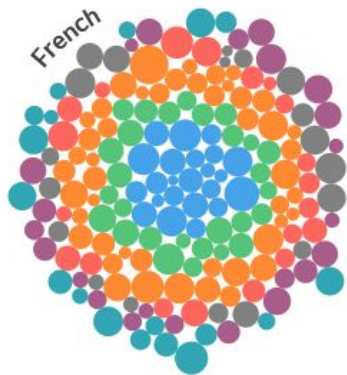
Others



● Defender ● Midfielder ● Forward ● Winger ● Goalkeeper



Favourite animal   Cat   Dog   Elephant   Meerkat   Monkey   Otter   Rabbit



✕

🌐 📊

Group by  
Favourite food ▾

Shade by  
Favourite animal ▾

Size by  
Weight (kg) ▾

Compare

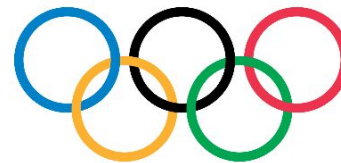
💬

Search...

State	Official State Bird	Capital	Official State Nickname	Vote share	Population
Alabama	Yellowhammer	Montgomery	Heart of Dixie		
Alaska	Willow ptarmigan	Juneau	The Last Frontier		
Arizona	Cactus wren	Phoenix	Grand Canyon State		
Arkansas	Northern mockingbird	Little Rock	Natural State		
California	California quail	Sacramento	Golden State		
Colorado	Lark bunting	Denver	Centennial State		
Connecticut	American robin	Hartford	Constitution State		
Delaware	Delaware blue hen	Dover	First State		
Washington D.C.	Wood thrush	n/a	n/a		
Florida	Northern mockingbird	Tallahassee	Sunshine State		
Georgia	Brown thrasher	Atlanta	Peach State		
Hawaii	Hawaiian goose	Honolulu	Aloha State		
Idaho	Mountain bluebird	Boise	Gem State		
Illinois	Northern cardinal	Springfield	Prairie State		
Indiana	Northern cardinal	Indianapolis	Crossroads of America		

1 / 4

34d 5h 23m 34s



# Part 2: Let's visualise some data

# Preparing your data

# What makes a good dataset?

<http://www.clean-sheet.org/>

- One row for headers
- One row for each piece of data
- Don't use:
  - Merged cells
  - Borders/blank cells as dividers
  - Colours to show information
- Don't include totals at the bottom of the data (use a separate sheet instead)



# Dataset we're going to use

London Datastore:

- Employees earning below the London Living Wage (LLW)

<https://data.london.gov.uk/dataset/earning-below-llw>

Part of a series of measures looking at Economic Fairness:

<https://data.london.gov.uk/economic-fairness/labour-market/>

# Dataset before cleaning

	The estimated number of employ								
	All employees			Male employees			Female employees		
	Number	%	CV	Number	%	CV	Number	%	CV
2005	446	13.3	1.7	188	10.8	2.6	258	16.1	2.2
2006	406	12.0	1.3	182	10.3	1.9	224	13.8	1.7
2007	446	12.7	1.8	200	10.7	2.7	246	14.9	2.4
2008	469	12.8	1.8	210	10.9	2.7	259	15.1	2.3
2009	454	12.8	1.6	204	10.7	2.4	250	15.2	2.1
2010	471	13.0	1.5	214	11.1	2.3	256	15.3	2
2011	542	14.8	1.4	251	12.6	2	291	17.3	1.8
2012	611	16.7	1.3	285	14.5	1.9	327	19.1	1.7
2013	669	17.4	1.2	294	14.5	1.9	375	20.6	1.6
2014	755	19.1	1.1	340	16.5	1.7	415	22.1	1.5
2015	798	20.0	1.1	348	16.6	1.8	450	23.8	1.5
2016	802	19.5	1.1	359	16.7	1.8	443	22.5	1.5
2017	814	19.4	1.2	362	16.4	1.8	452	22.6	1.5
2018	871	20.5	1.1	394	17.2	1.8	487	24.1	1.4
2019	838	19.7	1.1	354	16.3	1.9	483	23.3	1.4
2020 (provisional)	780	19.5	1.5	314	15.5	2.5	466	23.7	1.9

# Dataset after cleaning

Year	All employees - Number	All employees - %	All employees - CV	Male employees - Number	Male employees - %	Male employees - CV	Female employees - Number	Female employees - %	Female employees - CV
2005	446	13.3	1.7	188	10.8	2.6	258	16.1	2.2
2006	406	12	1.3	182	10.3	1.9	224	13.8	1.7
2007	446	12.7	1.8	200	10.7	2.7	246	14.9	2.4
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2014	755	19.1	1.1	340	16.5	1.7	415	22.1	1.5
2015	798	20	1.1	348	16.6	1.8	450	23.8	1.5
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2020	780	19.5	1.5	314	15.5	2.5	466	23.7	1.9

# Here's one I made earlier

<https://www.dropbox.com/s/h15aboeqlioj8s2/employees-earning-below-llw-clean.csv?dl=1>

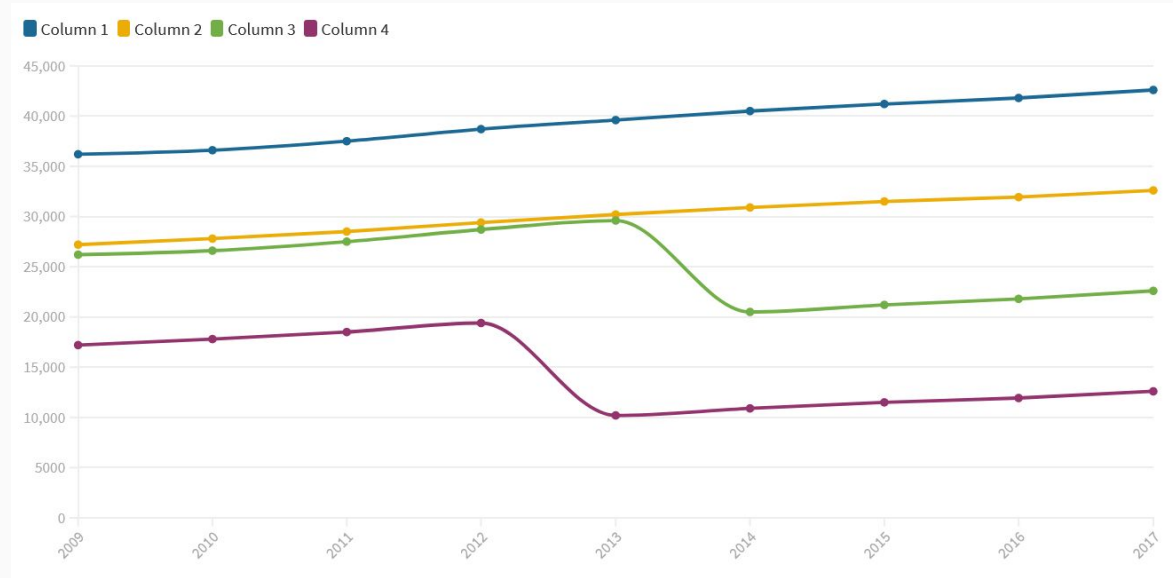
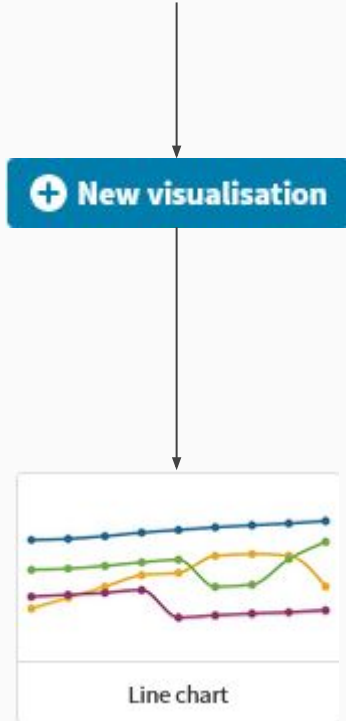
Download this file and open in Excel

You can also copy the data straight from the web page:

<https://www.dropbox.com/s/h15aboeqlioj8s2/employees-earning-below-llw-clean.csv?dl=0>

Exercise 1: Let's make a simple chart

<https://app.flourish.studio/projects>




**Preview** Data

Upload data

**Upload "employees-earning-below-llw-clean"**

This will completely replace the current sheet with new data.

---

 Your data will be publicly visible. To keep it private, upgrade your account.

**Import publicly** Go private [Cancel](#)

17 rows were uploaded!

Next, select the columns 

## Data

### SELECT COLUMNS TO VISUALISE

Labels/time  REQUIRED

A

Values 

B-C

Charts grid 

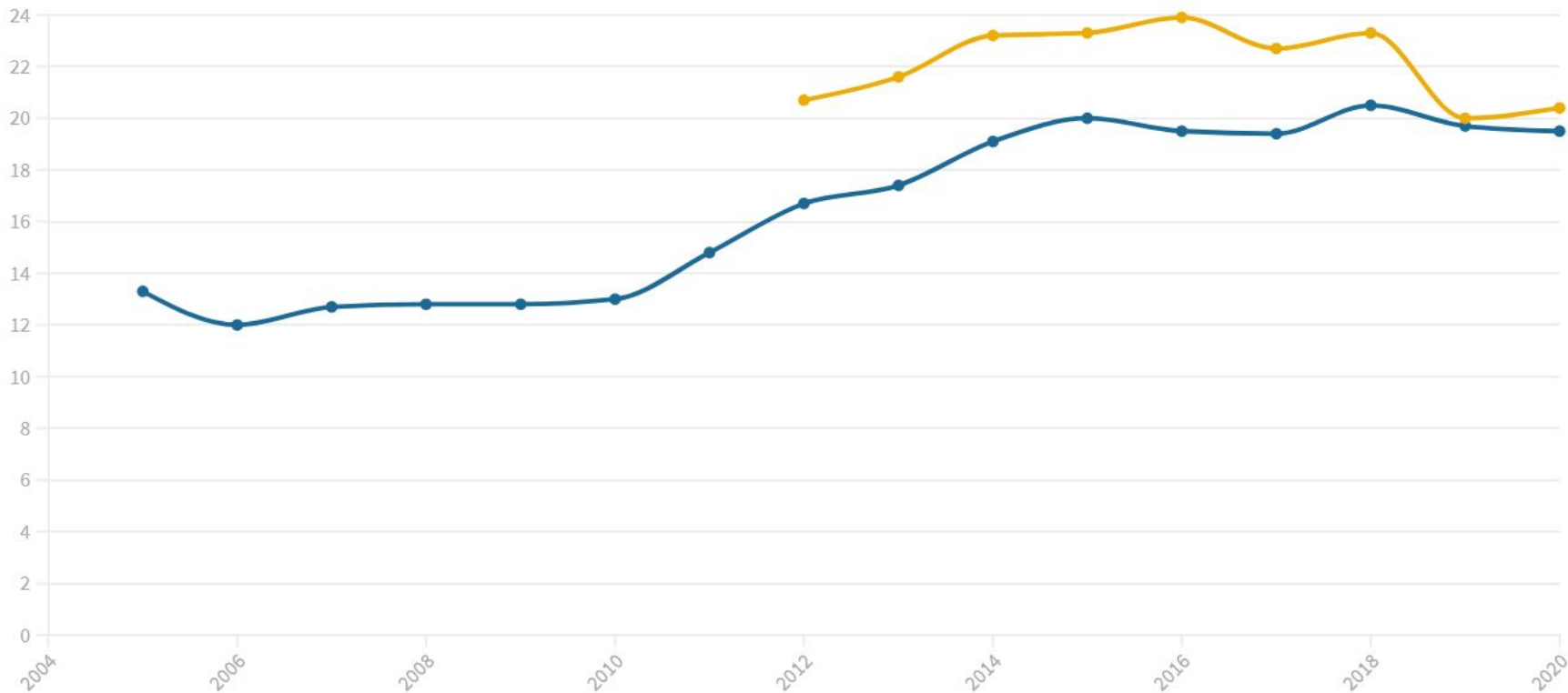
If specified and "Grid of charts" view is on, creates a separate mini chart for each value found in the column.

Row filter 

Info for custom popups 

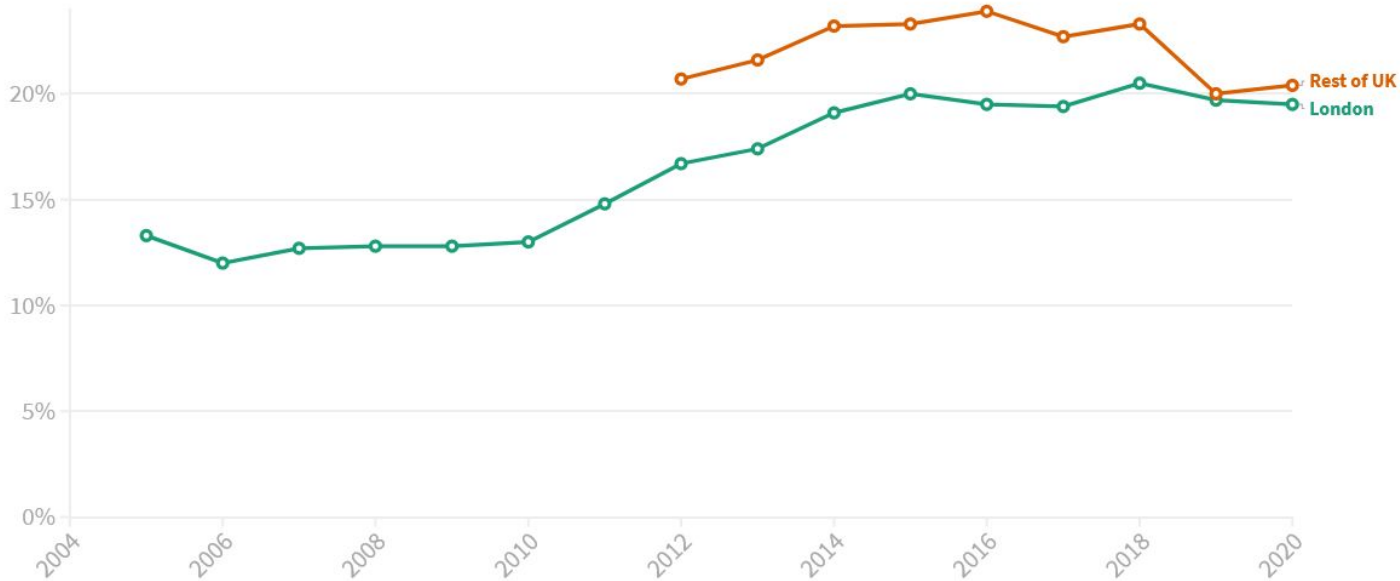


London Rest of UK



## Employees earning below Living Wage

London vs Rest of UK



Source: [London Datastore](#) • Figures for 2020 are provisional  
London figures relate to the London Living Wage, Figures for rest of UK relate to UK Living Wage.

Selected template  
Line, bar and pie charts 20.5.0

Chart type

Controls & filters

Colors

Palette

Custom overrides

Lines, dots and areas

Labels

X axis

Y axis

Plot background

Number and date formatting

Legend

Popups

Annotations

Animations

Layout

Header

Footer

Accessibility

Create a story Export & publish

**Not published**

Publish to share and embed

**Download**

Download HTML Download image

**Publish this visualisation?**

This project will be published to its own page where you and others can see, share and embed it

Require password to open

Cancel Publish

**Published** Republish

<https://public.flourish.studio/visualisation/648>

Embed on your website

```
<div class="flourish-embed flourish-chart" da
```

More options ▾

[Unpublish this project](#)

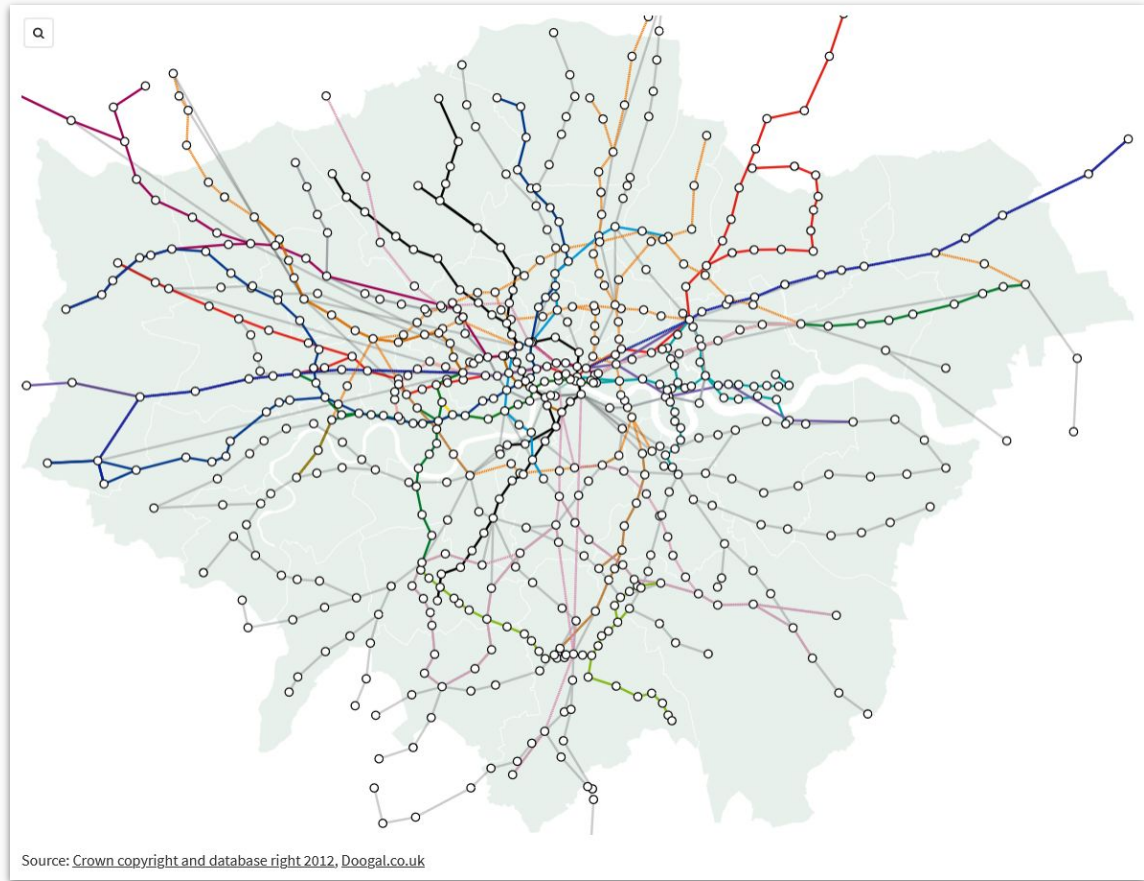
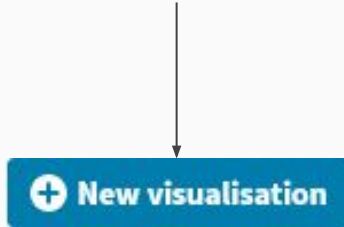
**Download**

Download HTML Download image

<https://public.flourish.studio/visualisation/6488473/>

# Exercise 2: Making a map

<https://app.flourish.studio/projects>



▼ **Points layer**

Enabled Disabled

Radius: 3.5  
Fill opacity: 1  
Default fill:   
Stroke width: 1

Stroke opacity: 1  
 Custom stroke

Stroke color:



Change to "0"



▼ **Lines layer**

Layer position  
Below region highlights Above region highlights

COLOR

Overrides  
Default: Bakerloo:#B36305, Central:#E32017, Circle:#FFD300

WIDTH

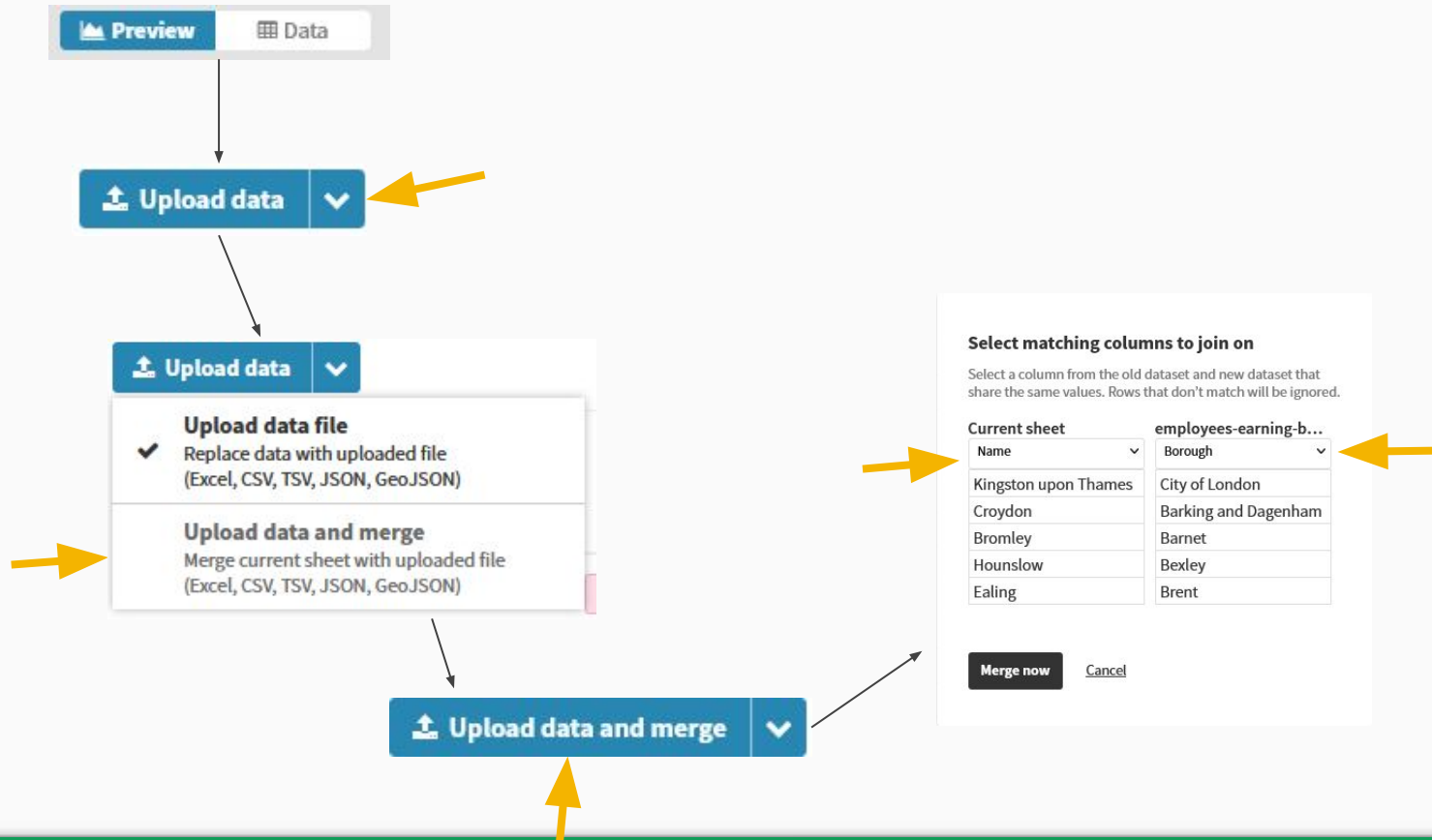
Default: 2

OPACITY

Overrides  
Default: 1, C2C:0.2, Chiltern Railways:0.2, Great Northern:0.2


LINE-DASH STYLE

Default: Solid  
Overrides: Thameslink:Long, TfL Rail:Long, Overground:Long



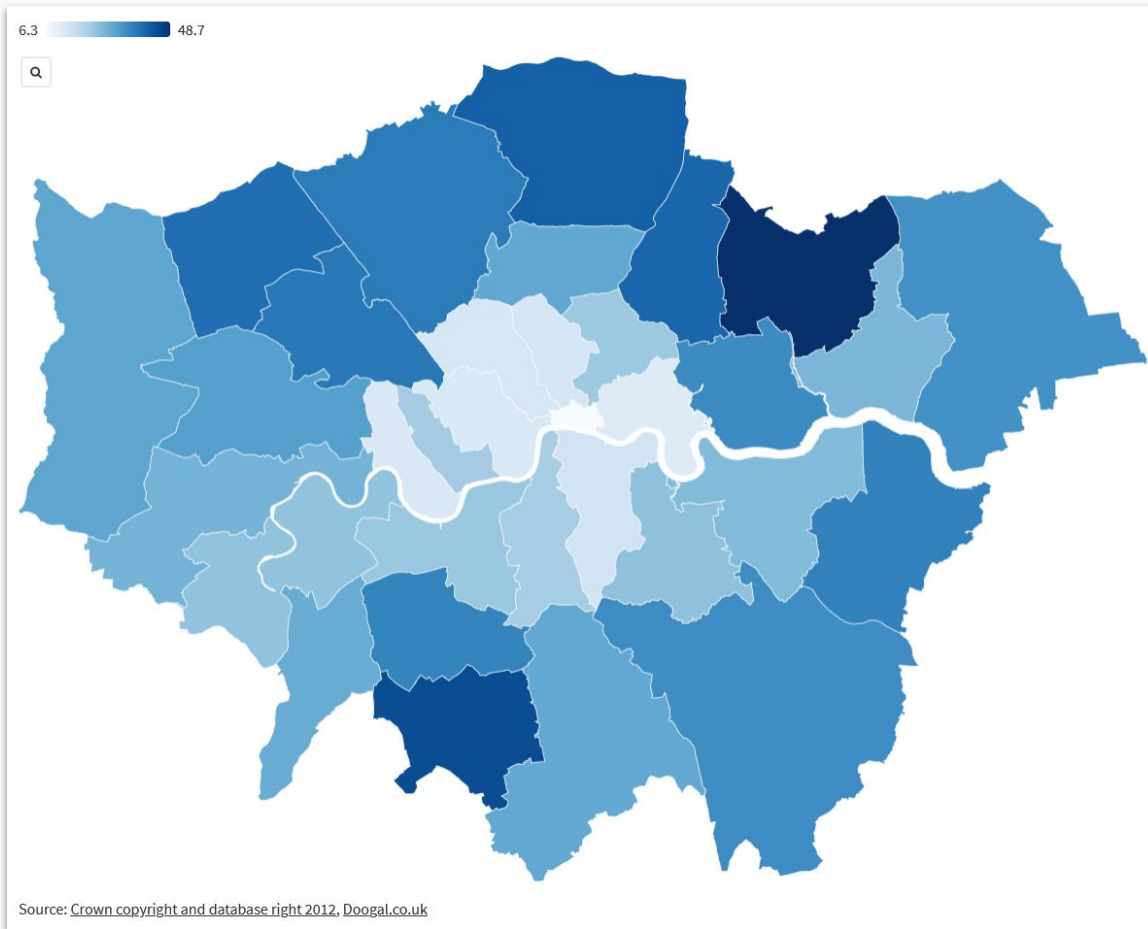
### Regions

SELECT COLUMNS TO VISUALISE

Geometry	<input checked="" type="checkbox"/> A
Name	<input checked="" type="checkbox"/> B
Value	<input checked="" type="checkbox"/> E
Group (experimental) 	<input type="checkbox"/>
<p>Draw borders around groups of regions, e.g. state borders around counties. May produce odd results if the points of regions with shared boundaries do not match precisely.</p>	
Metadata for popups	<input type="checkbox"/>







Published [Republish](#)

<https://public.flourish.studio/visualisation/649>

Embed on your website

```
<div class="flourish-embed flourish-map" dat
```

More options ▾

[Unpublish this project](#)

Download

Download HTML

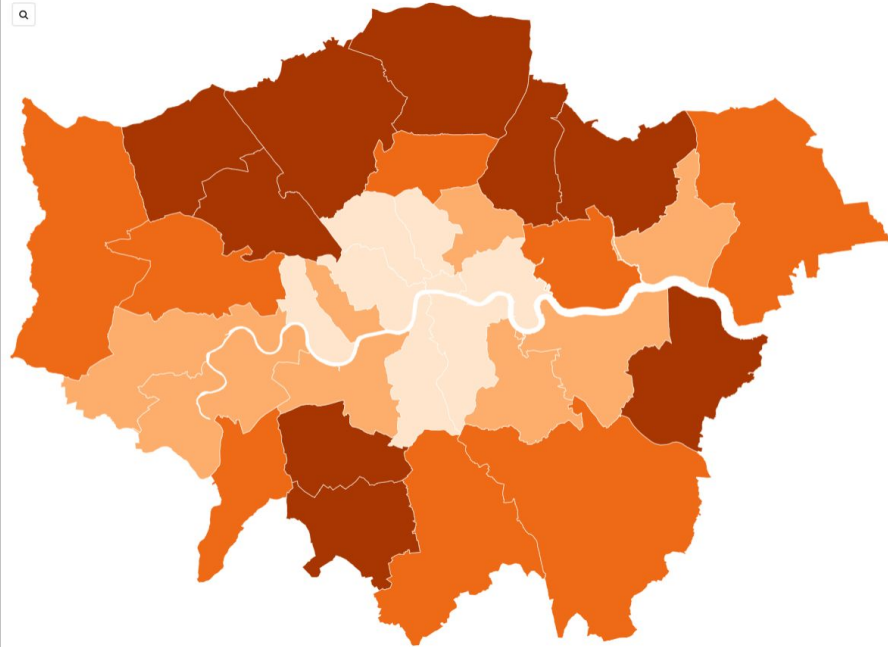
Download image

## Employees earning less than London Living Wage

By London Borough, 2018

6% 21% 35% 49%

Q



Source: [Crown copyright and database right 2012, London Datastore](#)  
Uses London Living Wage from 2017 which was £10.20 per hour

<https://public.flourish.studio/visualisation/6490939/>

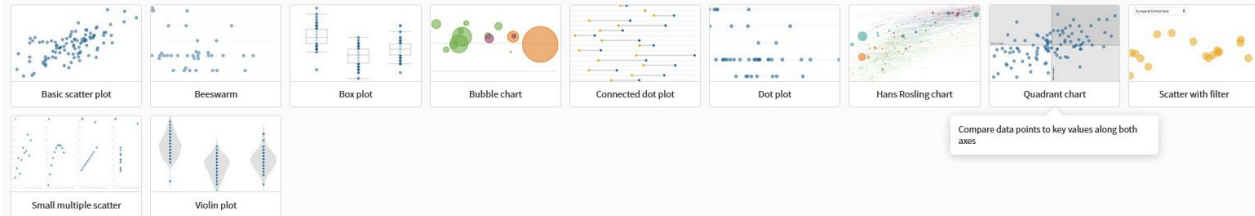
Step 6: Share the map

Taking it further

# What we've done today

1. Make sure data is in the right format
2. Use a chart/map template
3. Add data to the right sheet
4. Use settings to get it looking right
5. Share the results

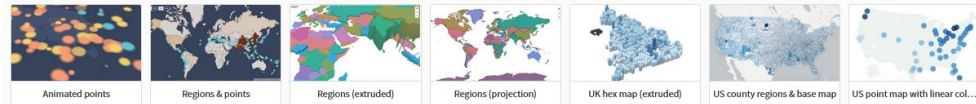
STARTING POINTS



3D map

Map for displaying points, with optional time slider

STARTING POINTS



Hierarchy

A template for grouping data and visualising it hierarchically

STARTING POINTS



Cards

Ideal for displaying blocks of content in a grid or carousel

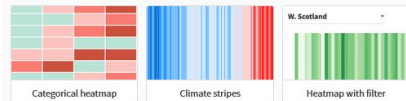
STARTING POINTS



Heatmap

Reveal patterns across one or two dimensions

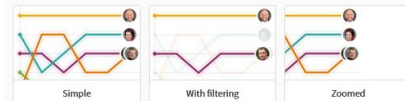
STARTING POINTS



Line chart race

An animated line or "bump" chart to show changing rank over time

STARTING POINTS



Marker map

Marker or locator map with emoji, icons or images for places and an inset map for context

STARTING POINTS



Photo slider

A simple interactive template to compare two pictures.

STARTING POINTS

Radar chart

Compare entities across multiple metrics with radar/spider charts, star charts and radial bar charts

STARTING POINTS

Sankey diagram

Sankey visualisation

STARTING POINTS

What's next?

Lots of other templates to explore