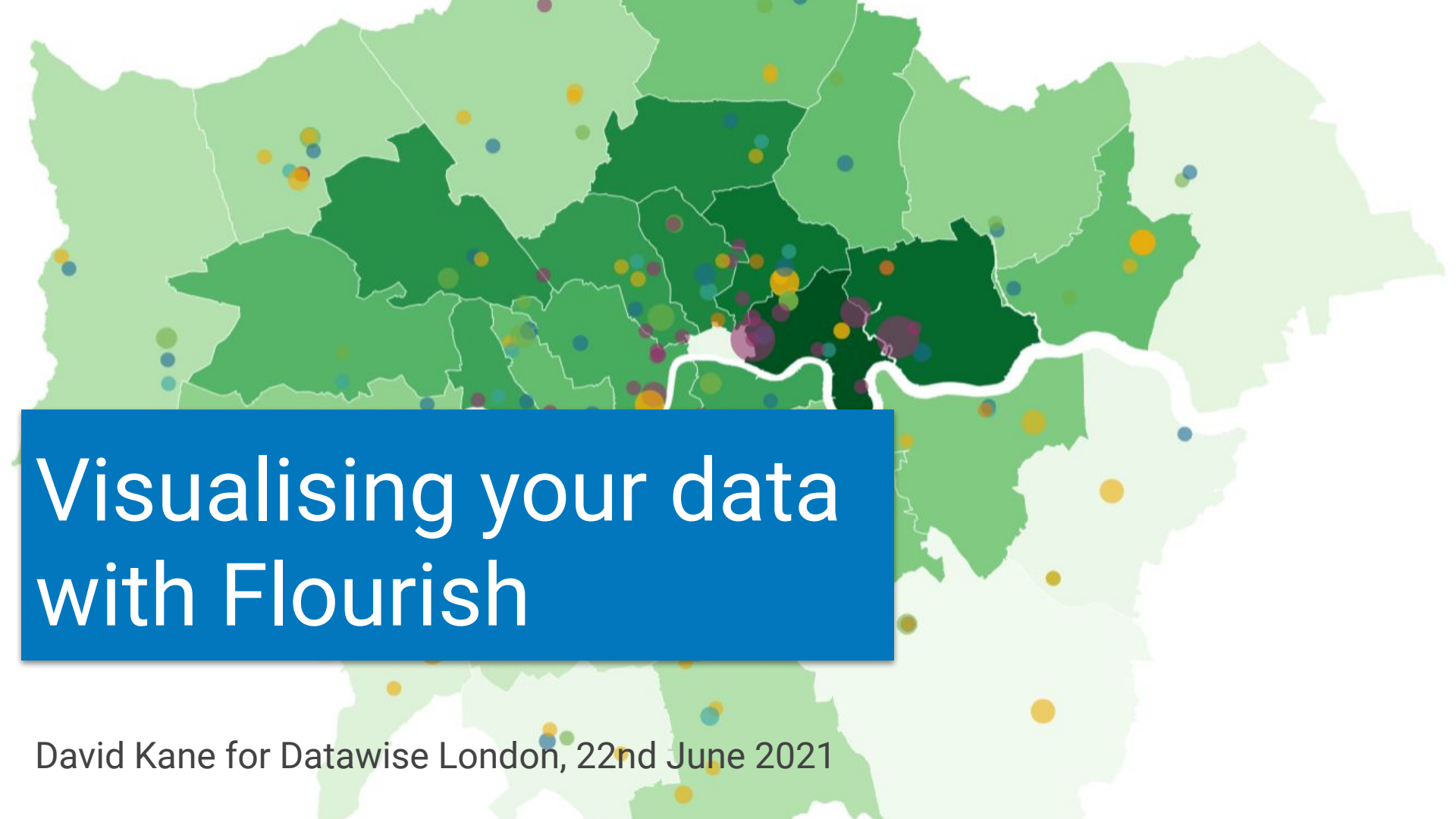


Visualising your data with Flourish

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?

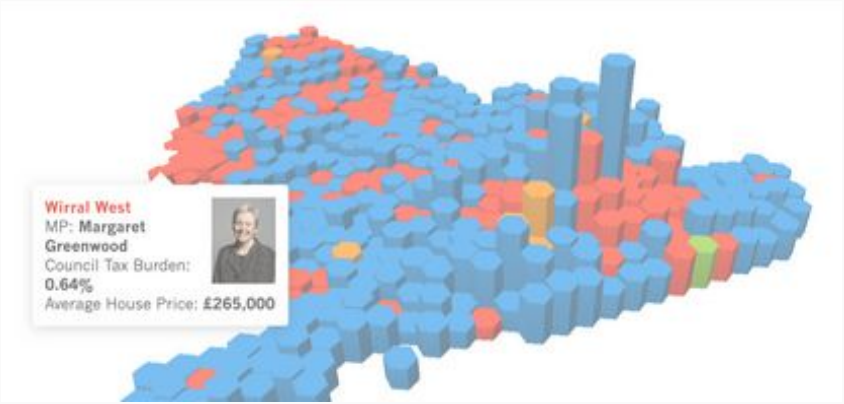
From your booking forms:

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/

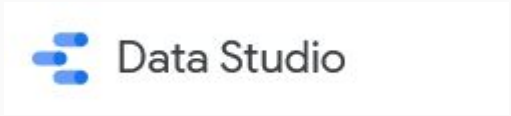
plotly Chart Studio

RAWGraphs

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

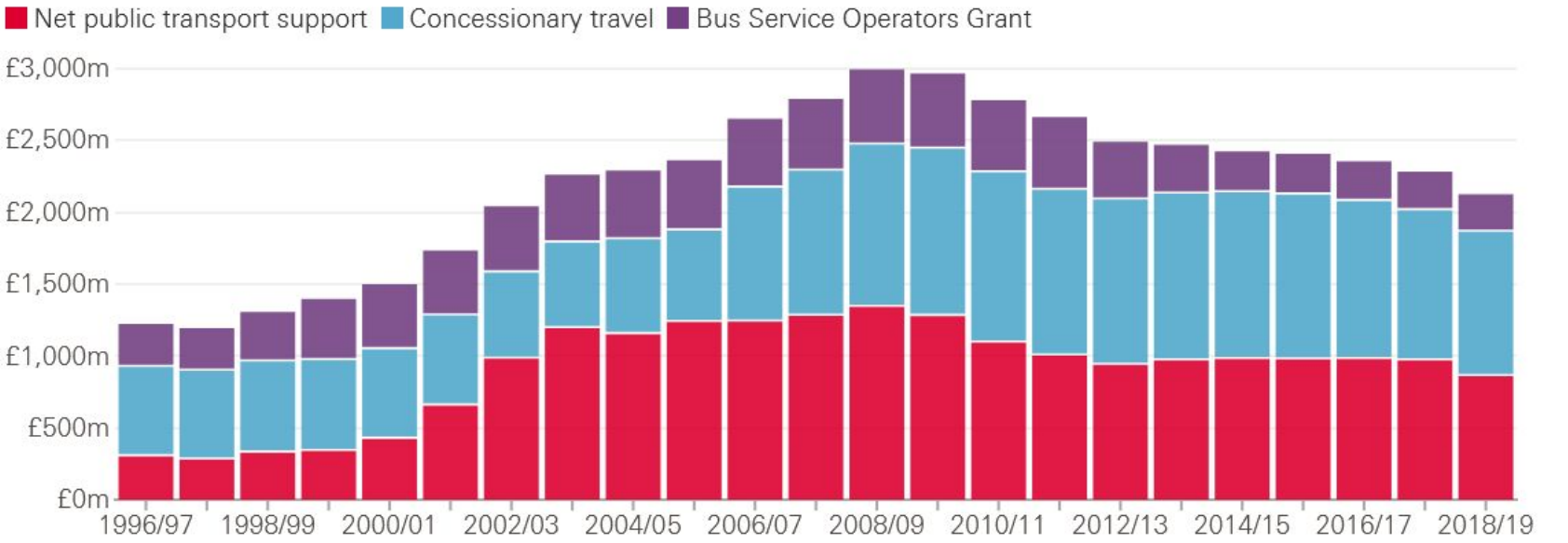
Examples

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

England | London | English metropolitan areas | English non-metropolitan areas



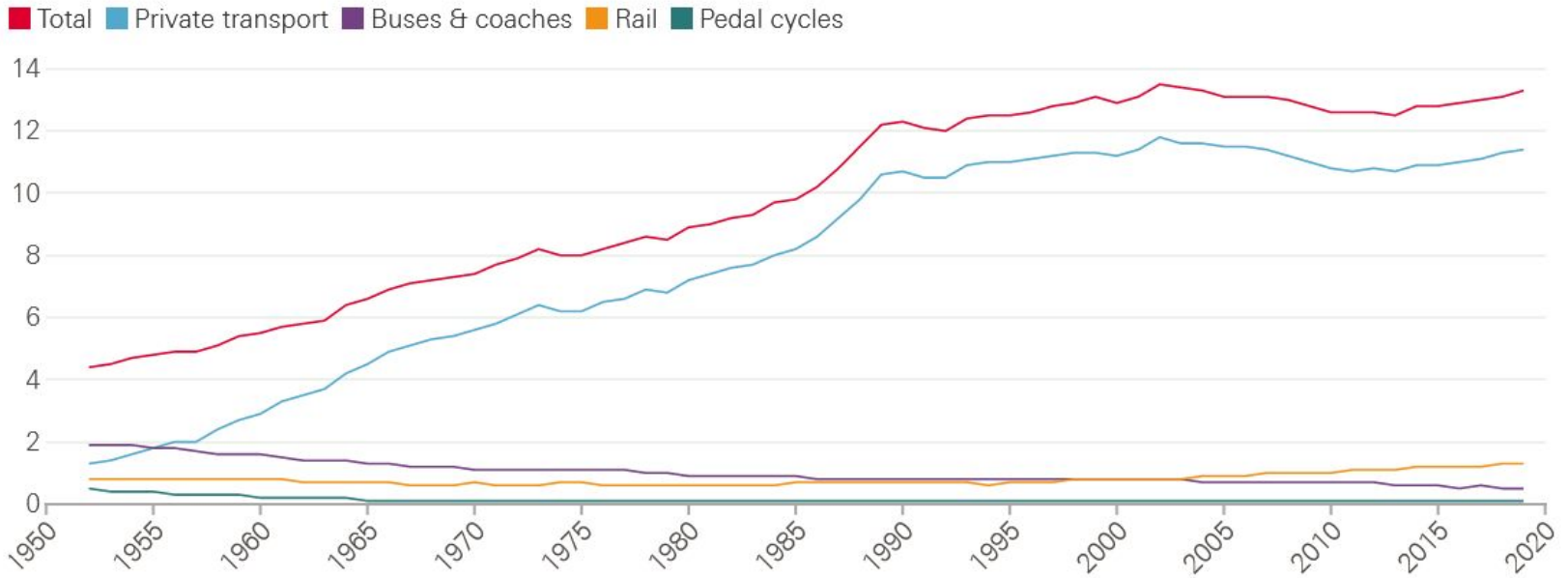
Source: Health Foundation analysis using Department of Transport, Table BUS0502b

https://health.org.uk/evidence-hub/transport/transport-trends/trends-in-financial-support-for-local-bus-services

The vast majority of distance travelled is by private transport modes

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

Average passenger distance travelled per person (thousand km) | Total passenger distance travelled (billion km)



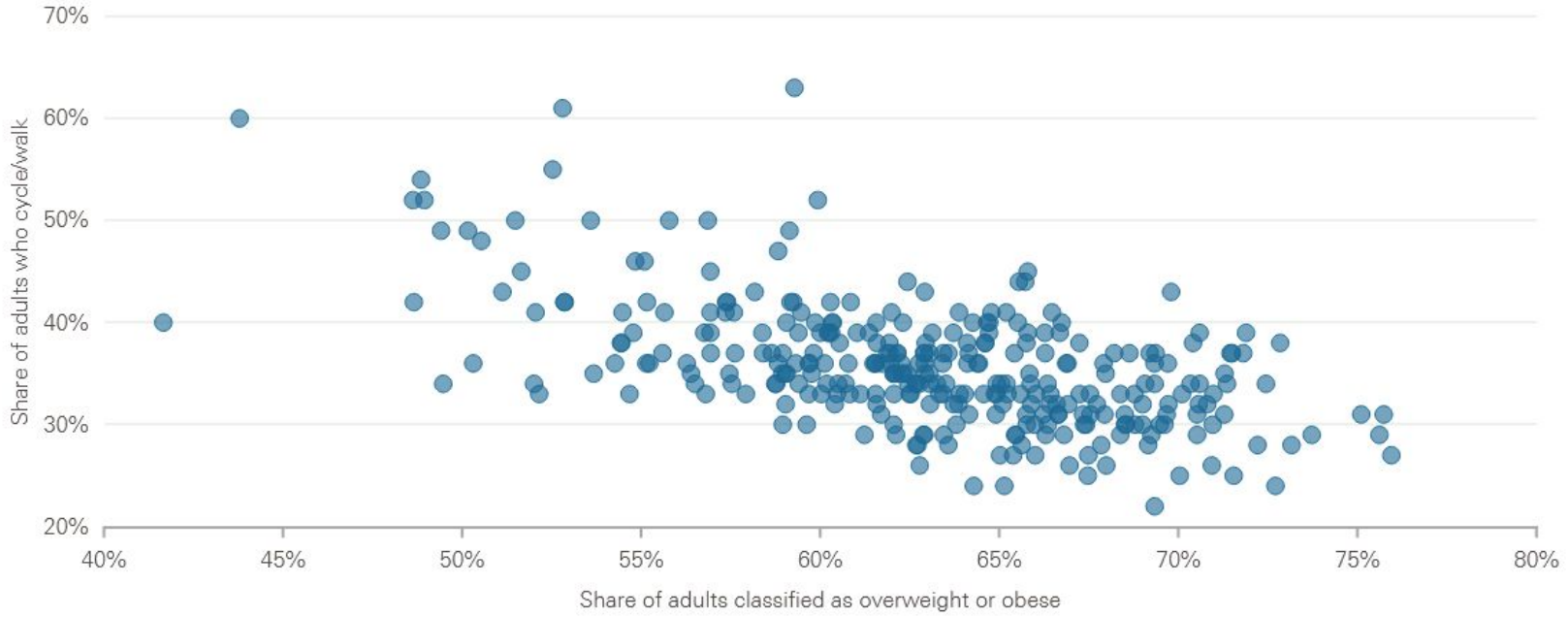
The Health Foundation
© 2021

Source: Health Foundation analysis using Department of Transport, National Travel Survey (NTS), Table TSGB0101, ONS, UK population estimates, 1838 to 2018 • Note: Private transport includes: cars, vans, taxis and motor cycles; Rail includes: national rail, metros, trams

https://health.org.uk/evidence-hub/transport/transport-trends/trends-in-distance-travelled-by-transport-mode

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



Source: Health Foundation analysis using Department for Transport, Active Lives Survey, Table CW0301, 2018-19, Public Health England: Percentage of adults (aged (18+) classified as overweight or obese , 2018-19

https://health.org.uk/evidence-hub/transport/active-travel/relationship-between-physical-activity-and-health

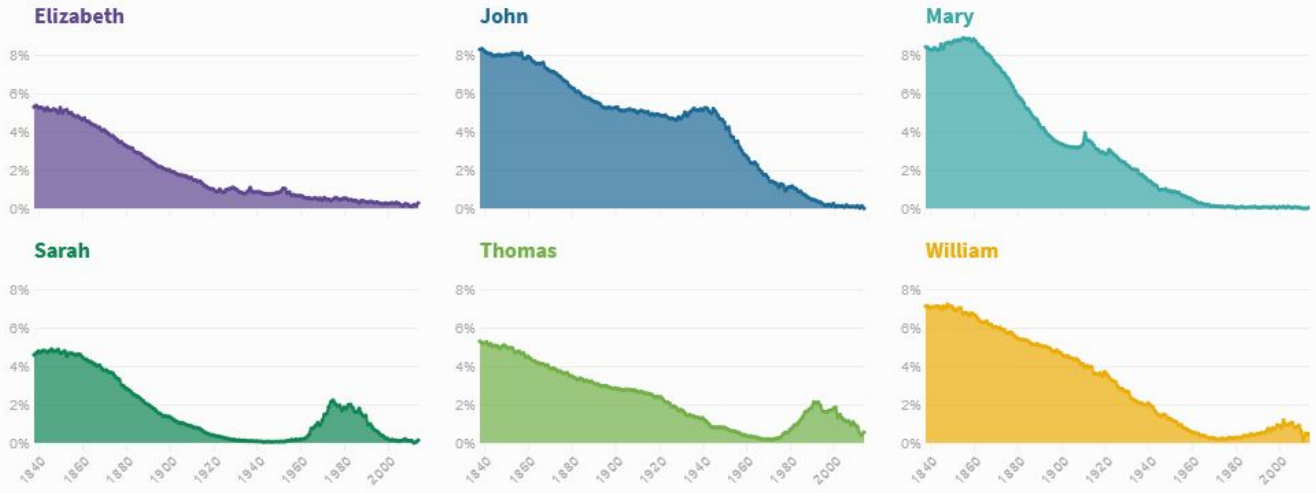
How popular was your name?

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!

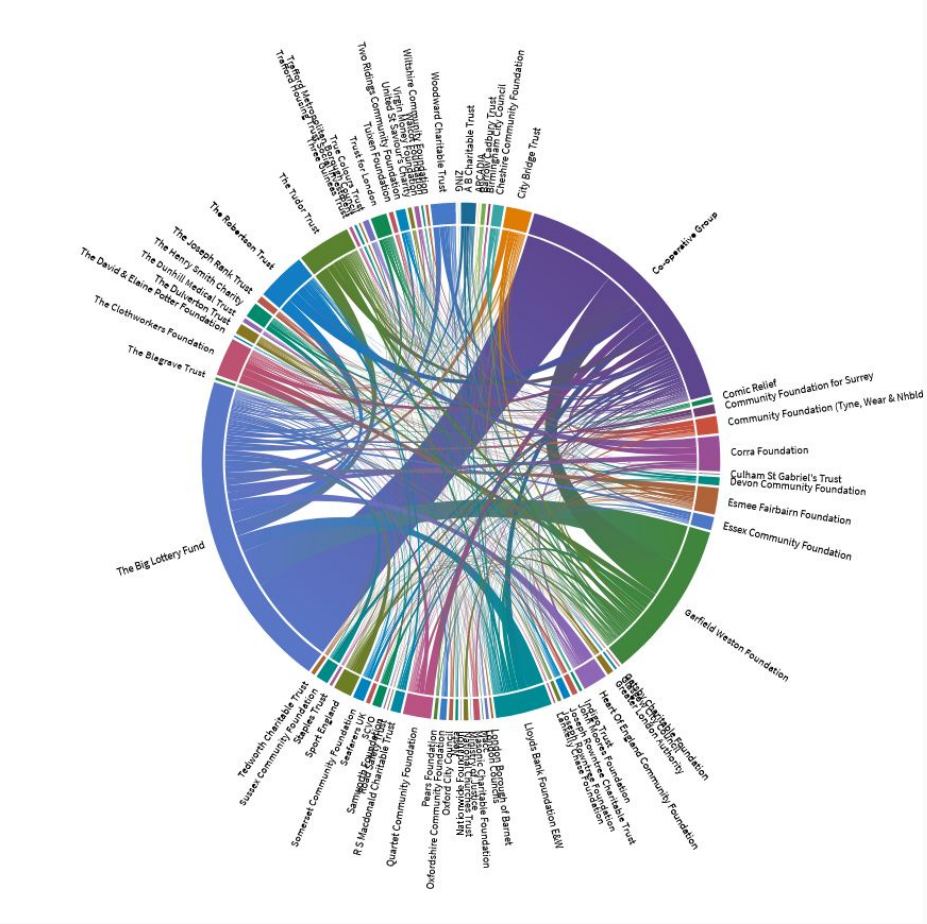
× **The most popular Victorian names are now rare**
More than 16% of all babies were called Mary or John

Next example →



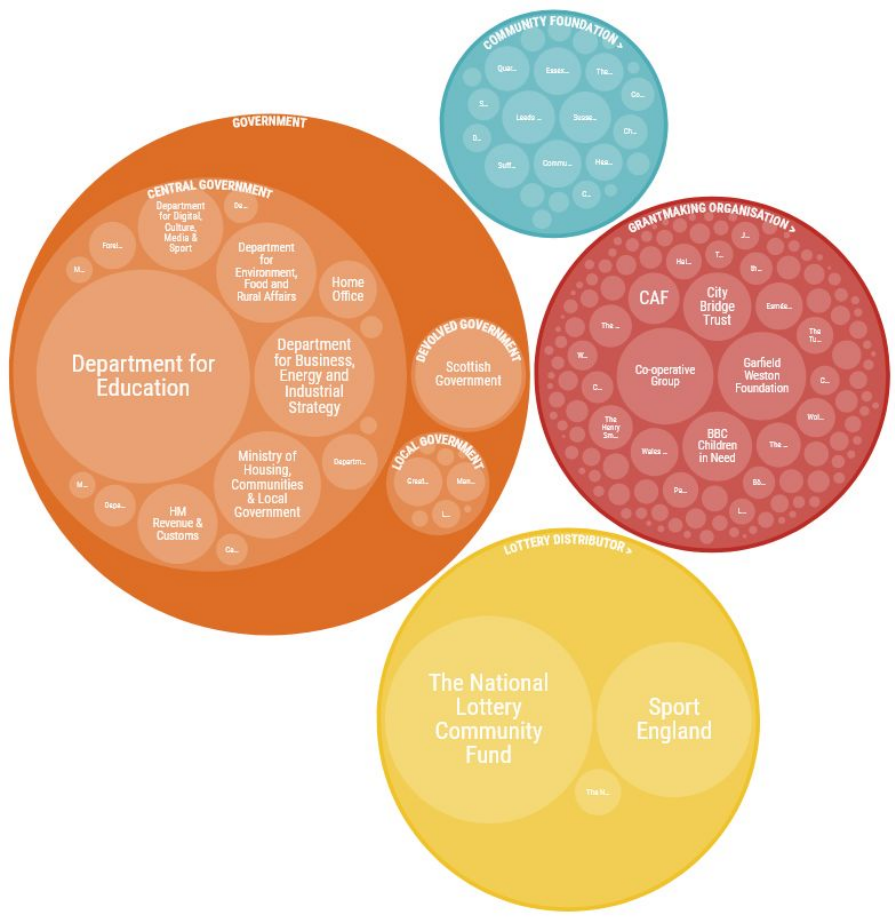
https://demos.flourish.studio/namehistory/?names=Mary,John,William,Elizabeth,Thomas,Sarah

Networks and relationships



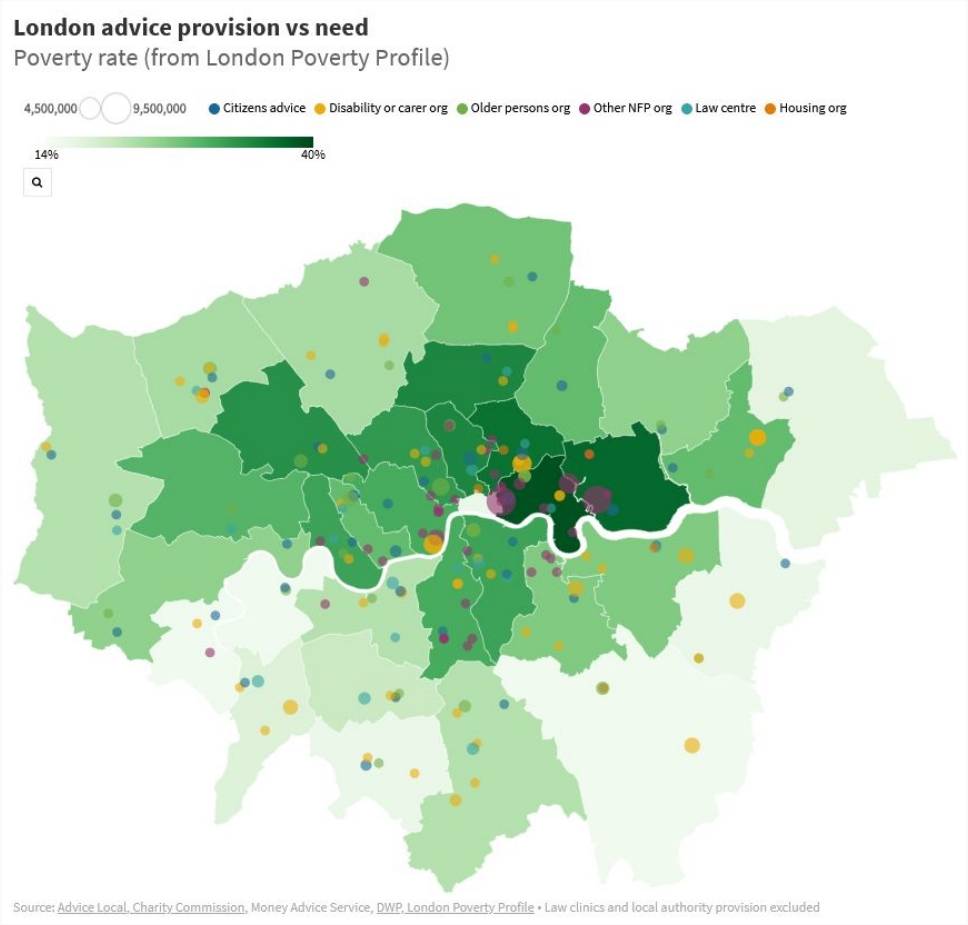
https://public.flourish.studio/visualisation/155633/

https://public.flourish.studio/visualisation/989471/



https://public.flourish.studio/visualisation/6435206/

Maps



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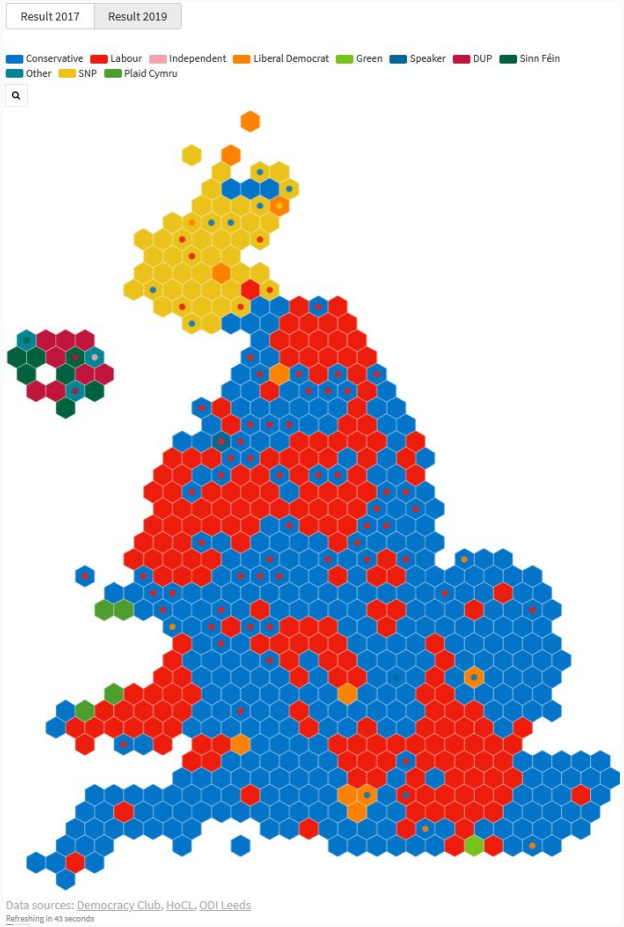

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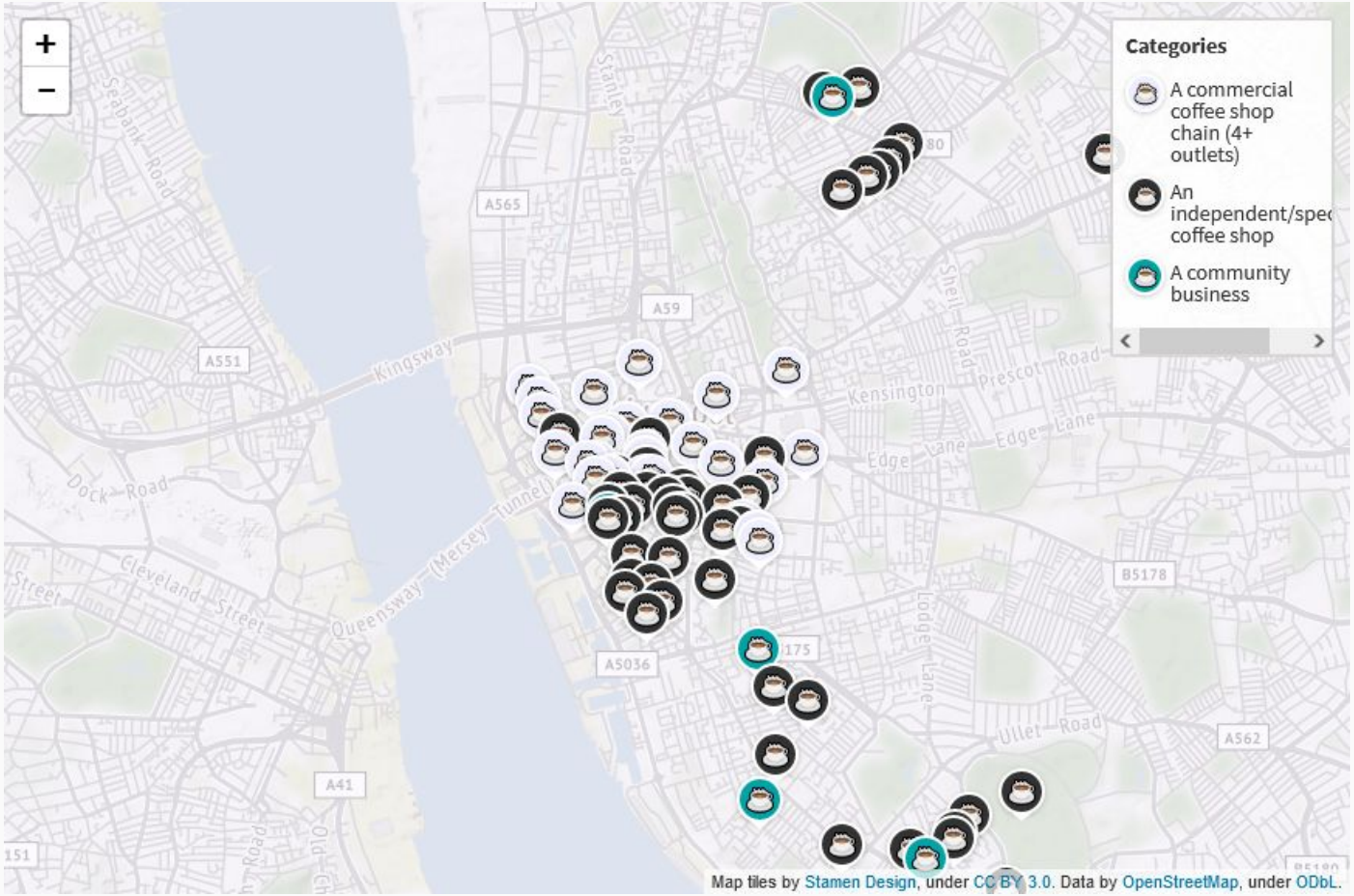
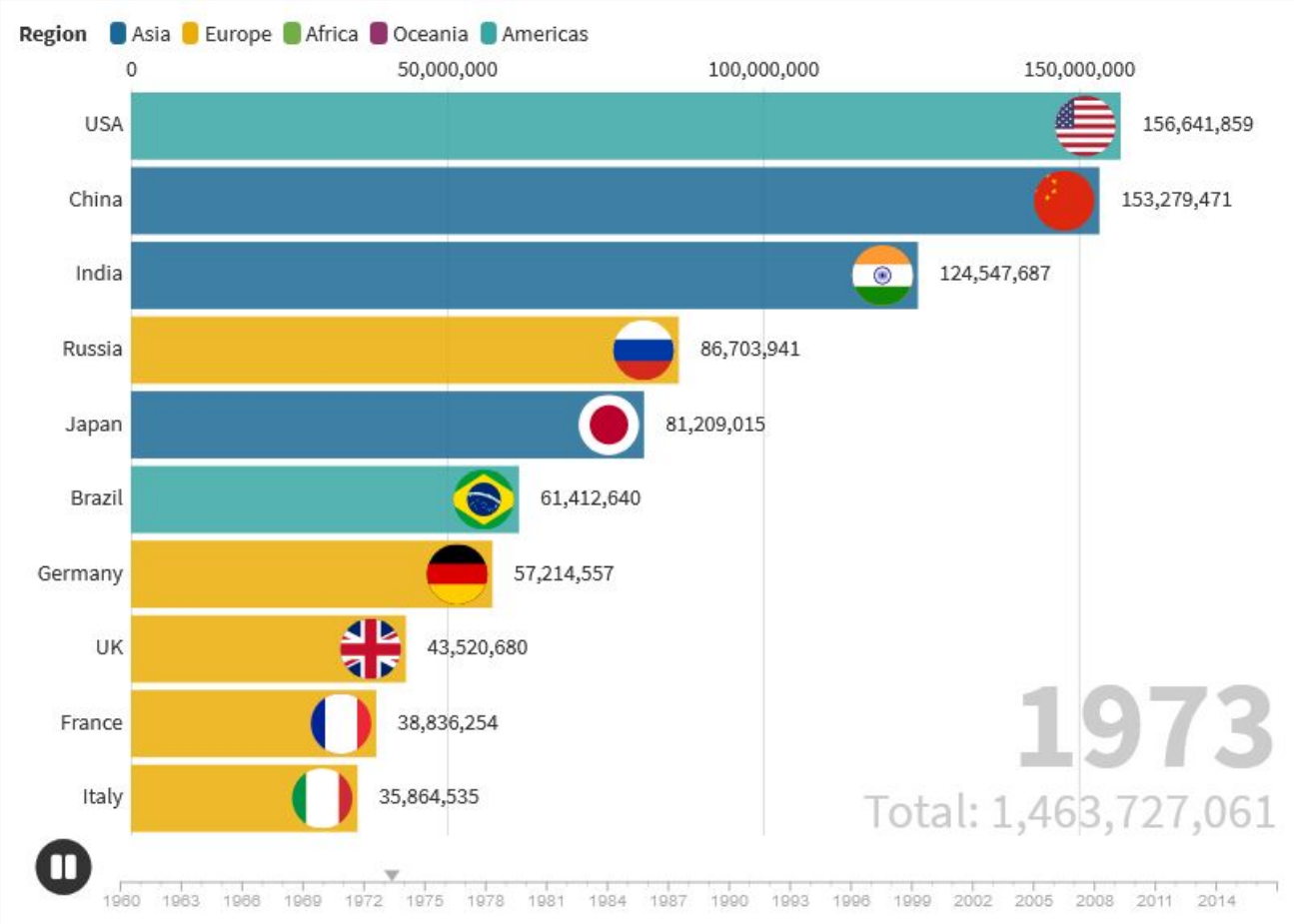
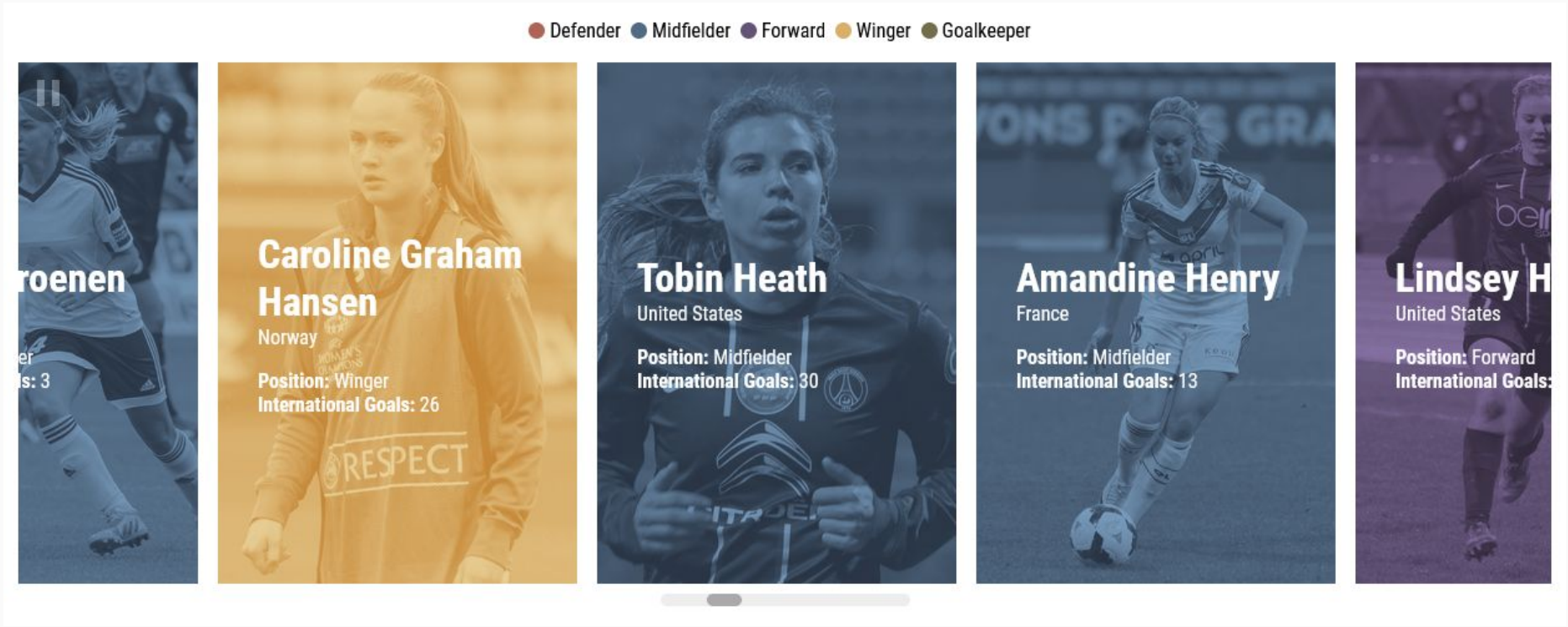


https://public.flourish.studio/visualisation/409307/

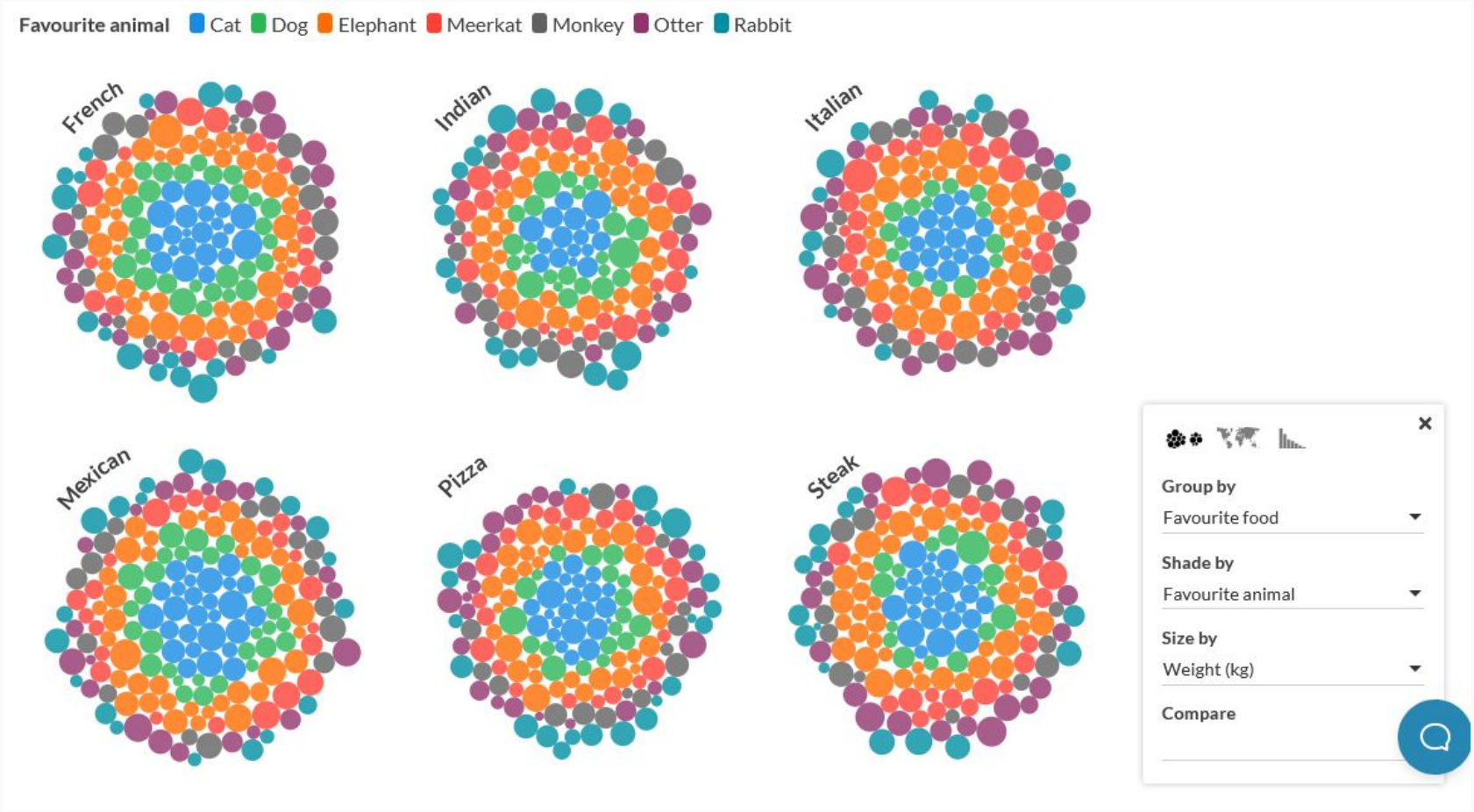
Others



https://app.flourish.studio/@flourish/bar-chart-race



https://flourish.studio/2019/10/17/cards-template/



https://flourish.studio/visualisations/survey-data/

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 emplo								
	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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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

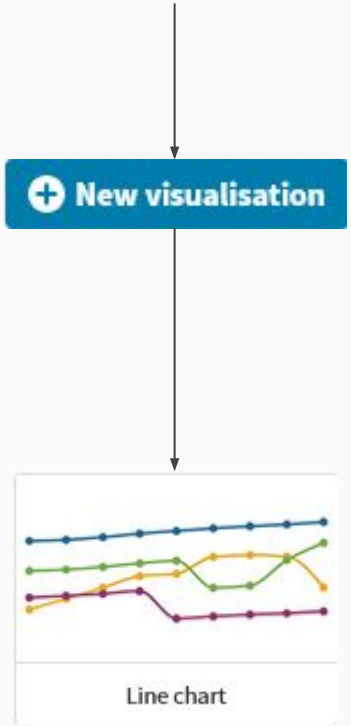
Download this file and open in Excel

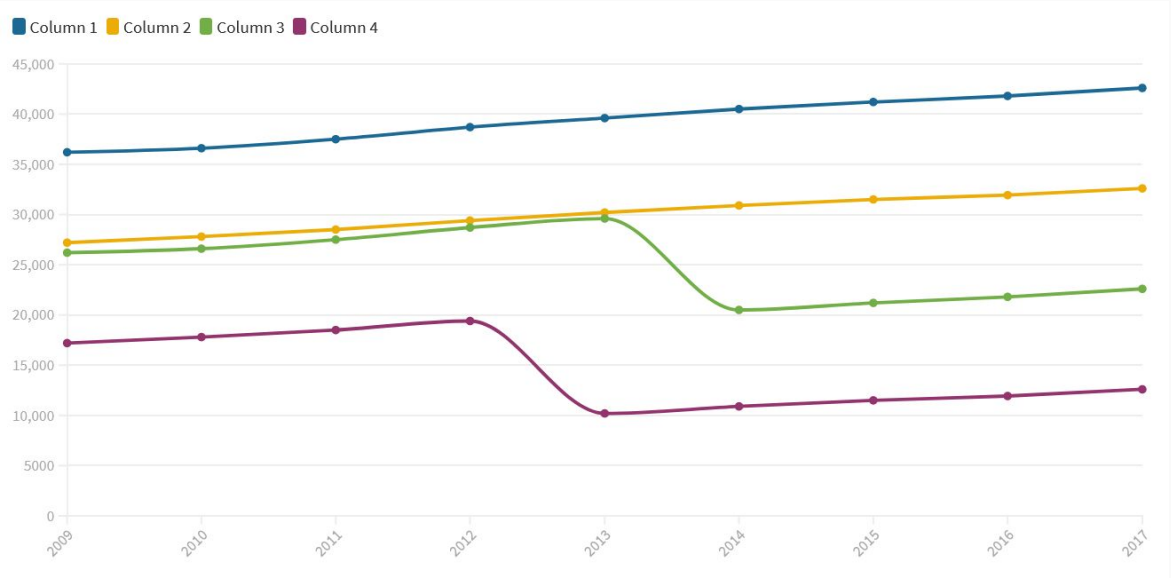
You can also copy the data straight from the web page:

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

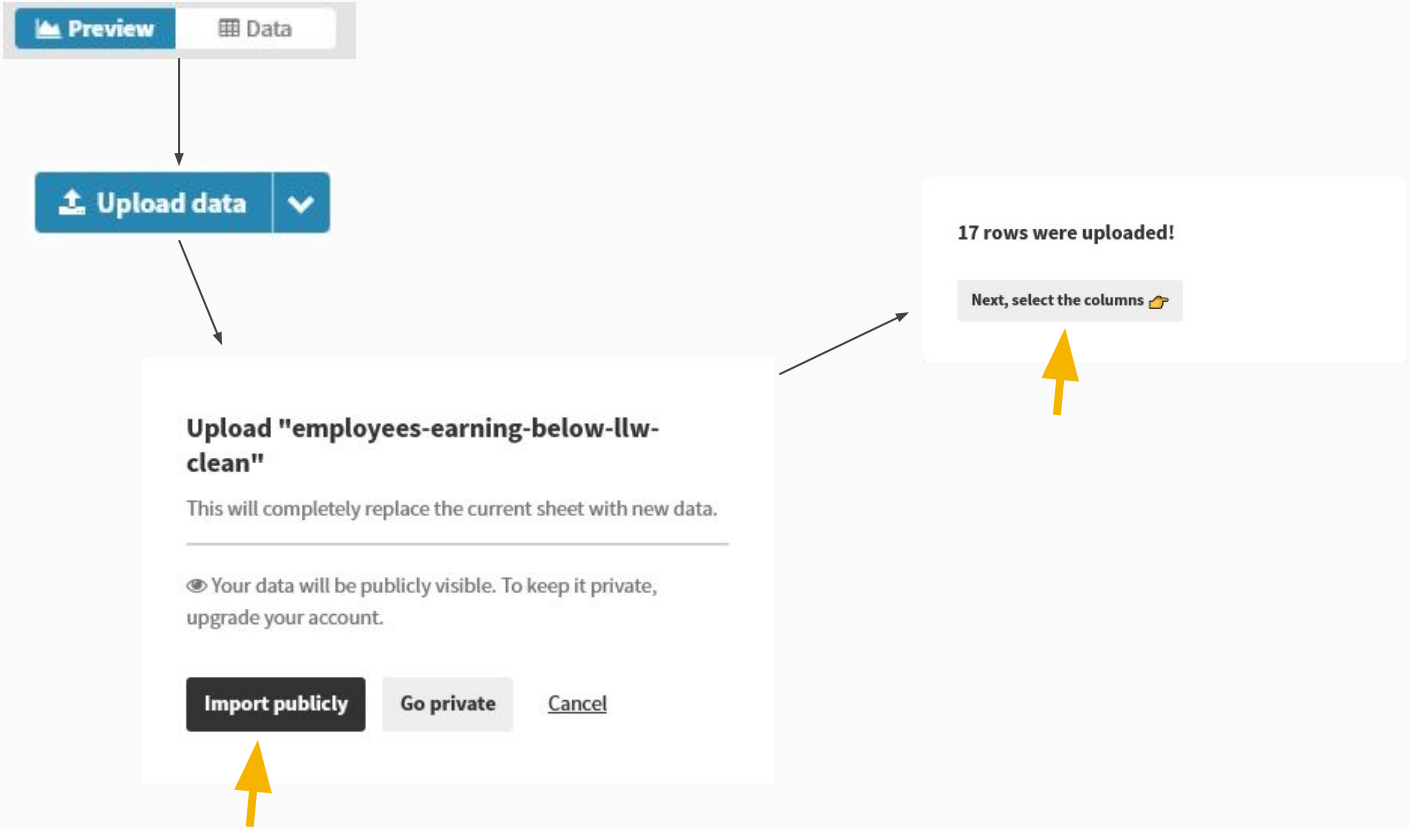
Exercise 1: Let’s make a simple chart

https://app.flourish.studio/projects

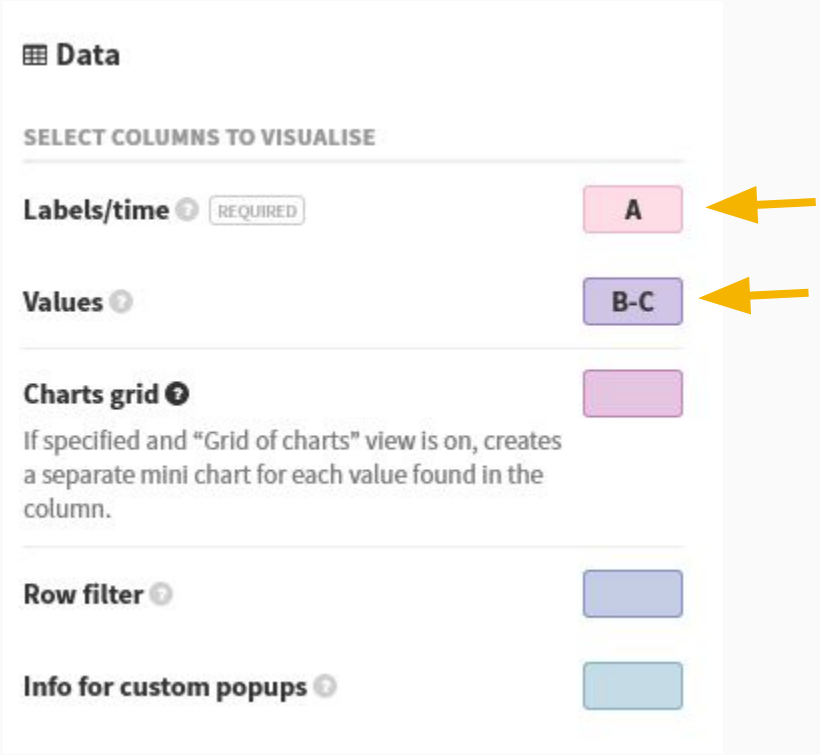




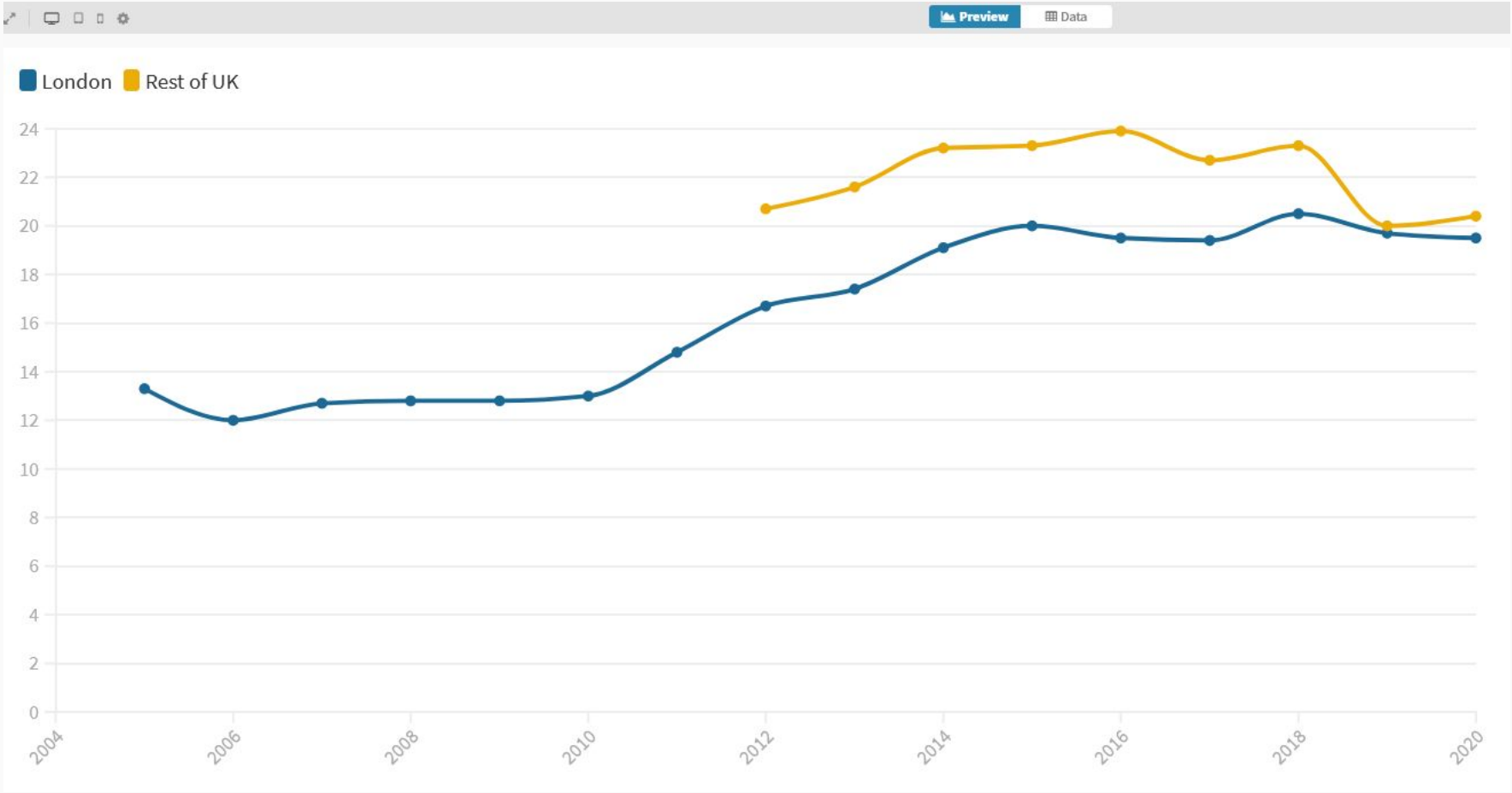
Step 1: Creating the chart



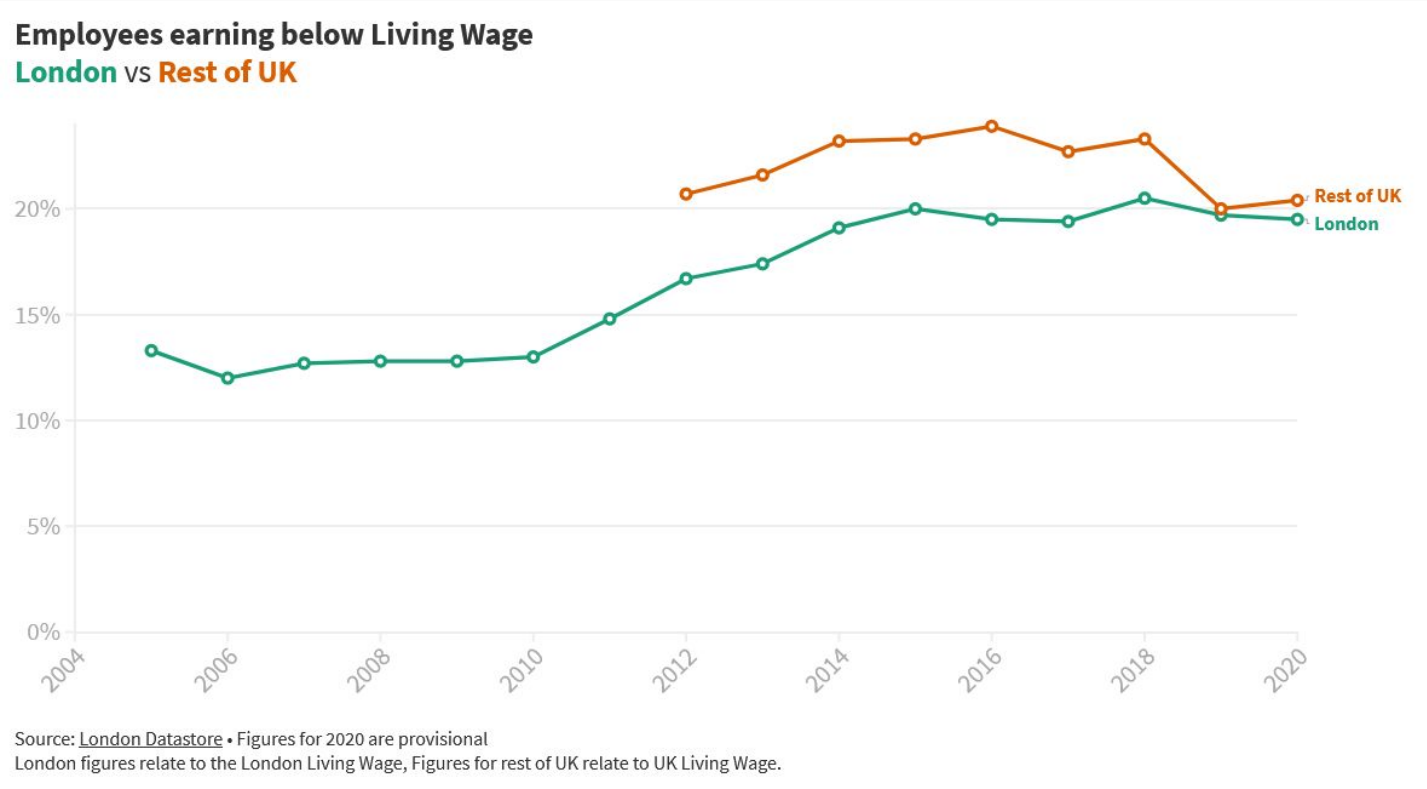
Step 2: Add our data

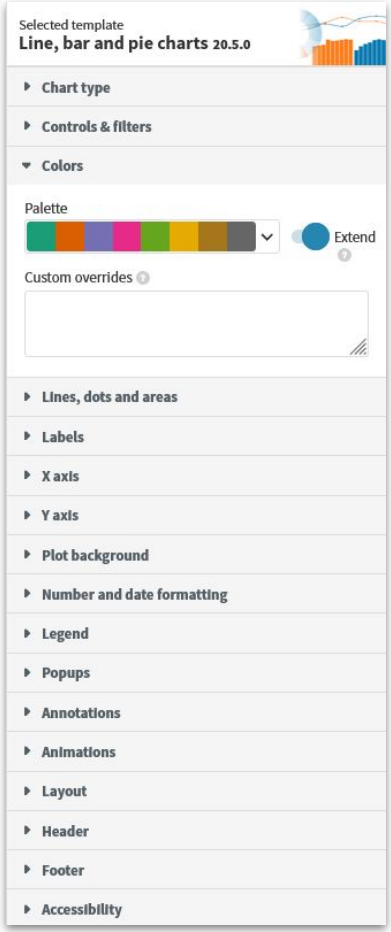


Step 3: Select columns to use

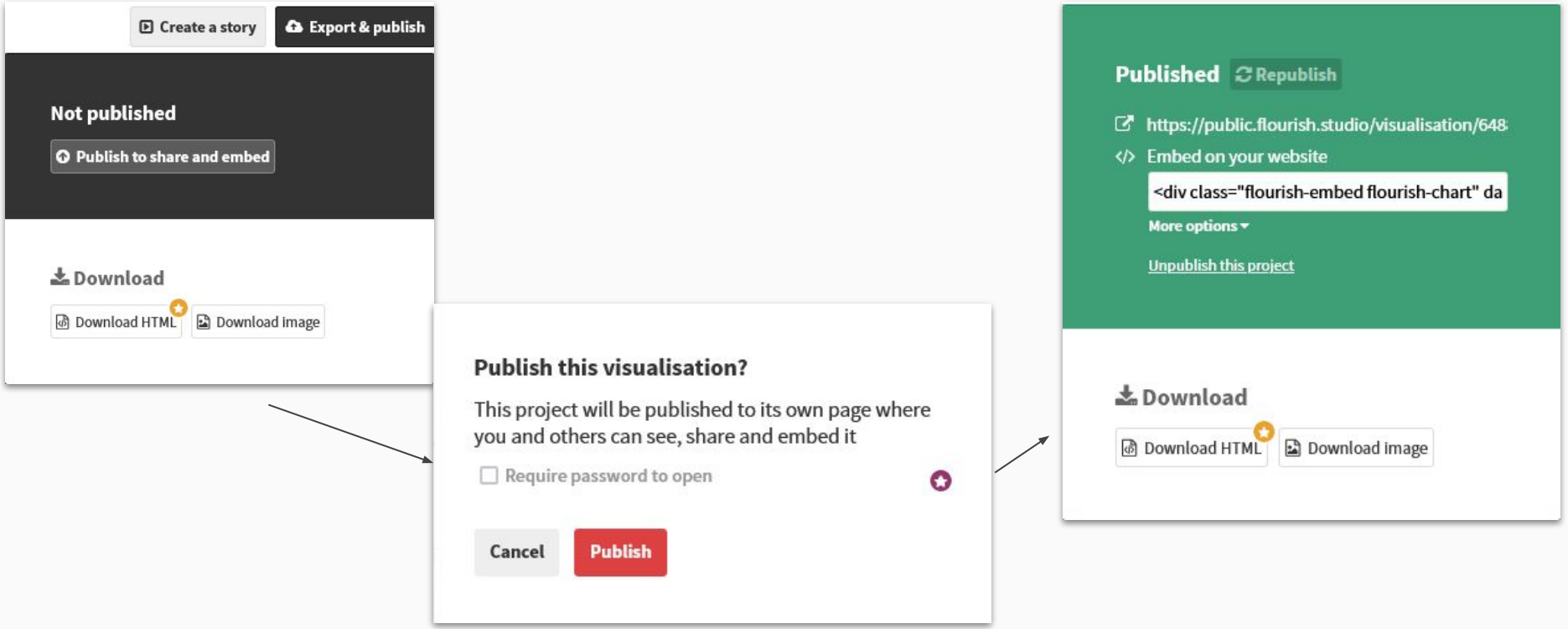


Step 4: Preview the chart





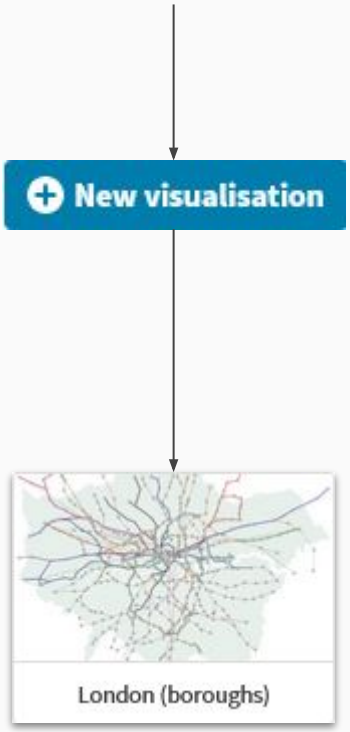
Step 5: Clean up the chart

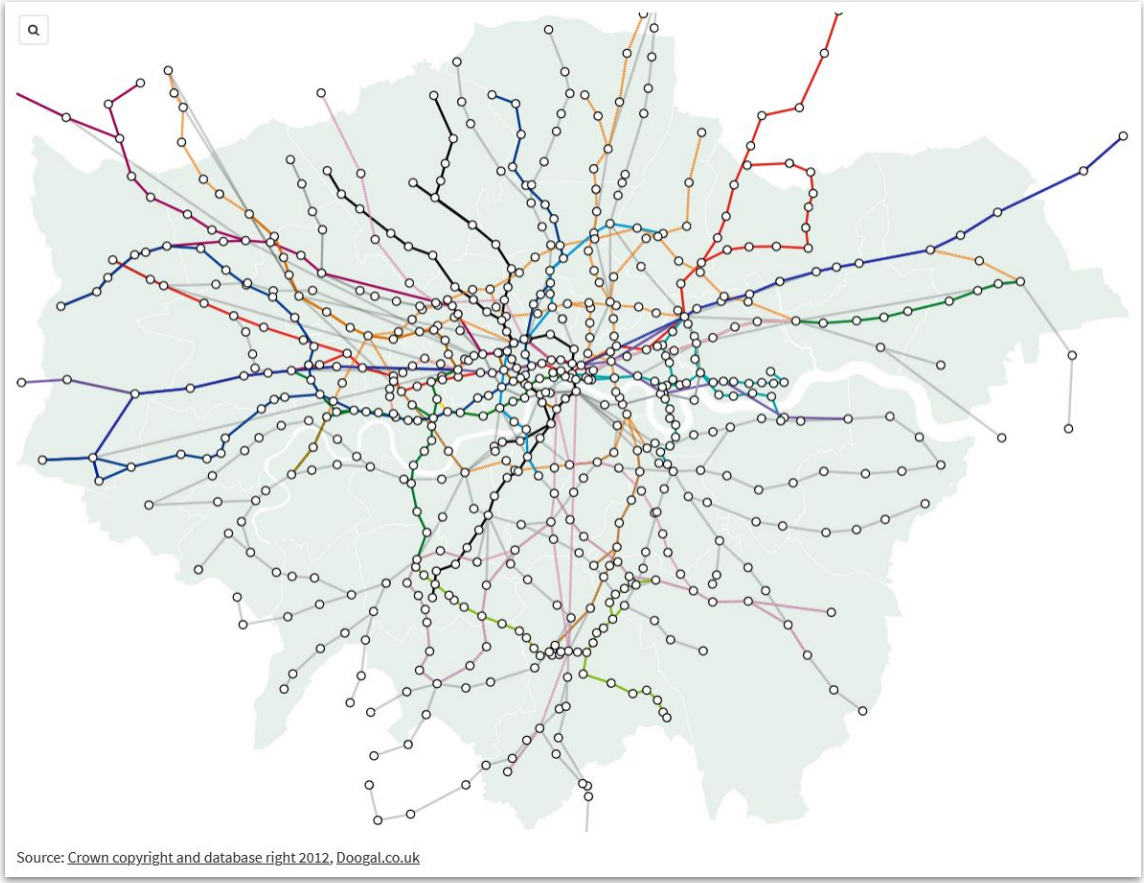


https://public.flourish.studio/visualisation/6488473/

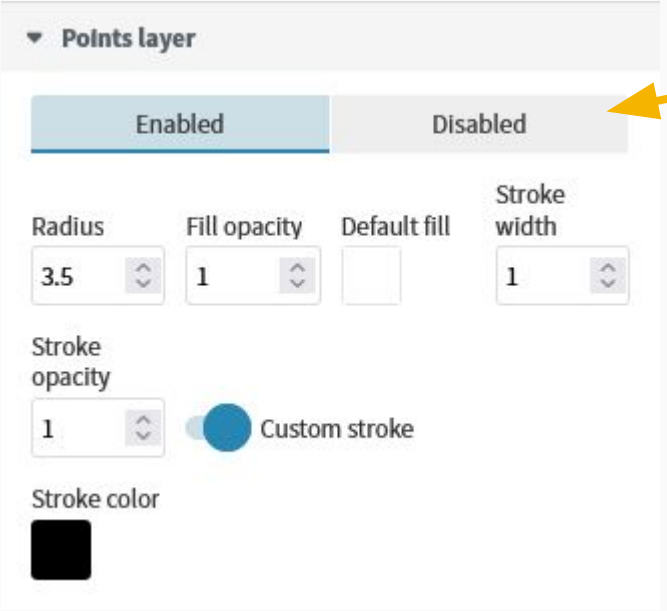
Exercise 2: Making a map

https://app.flourish.studio/projects

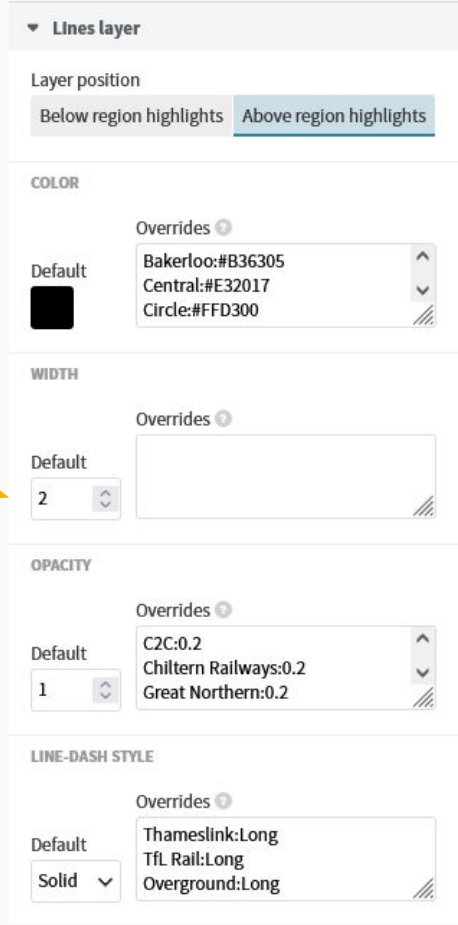




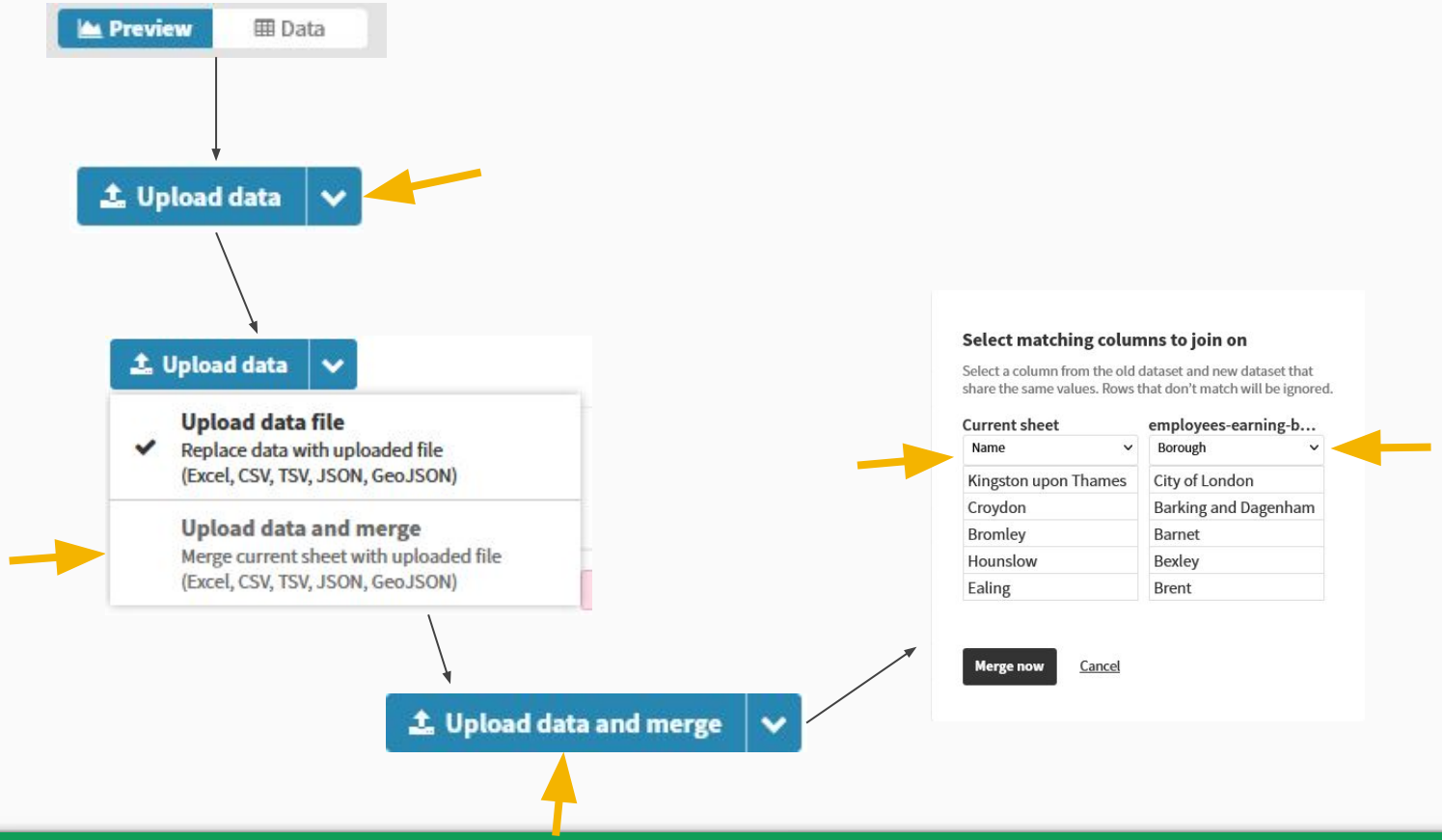
Step 1: Creating the map



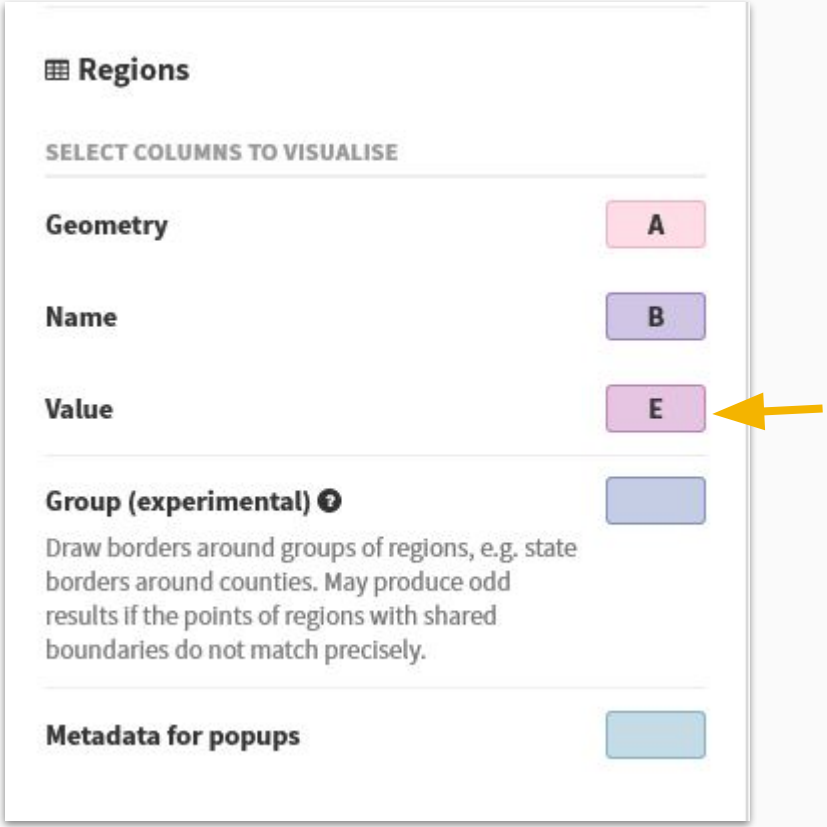
Change to “0”



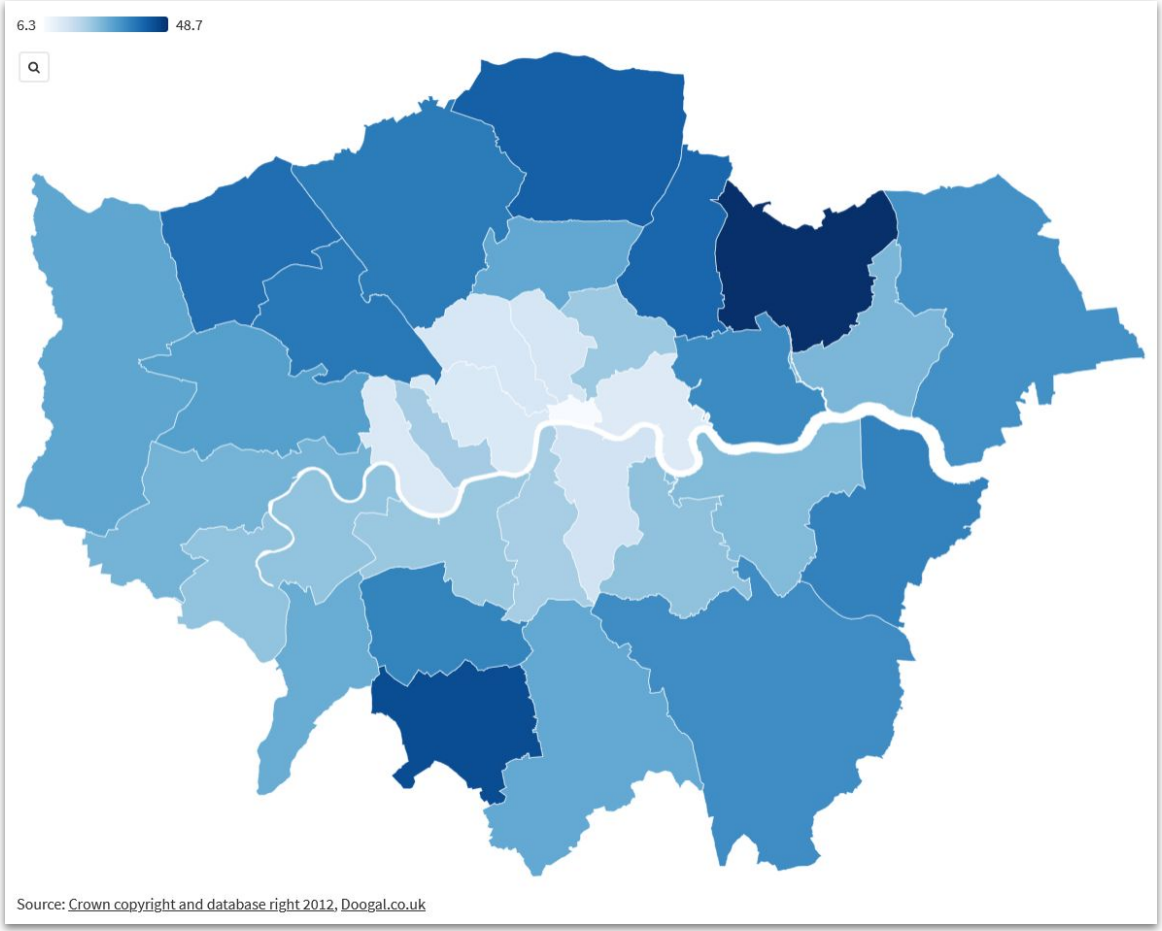
Step 2: Remove the lines and dots



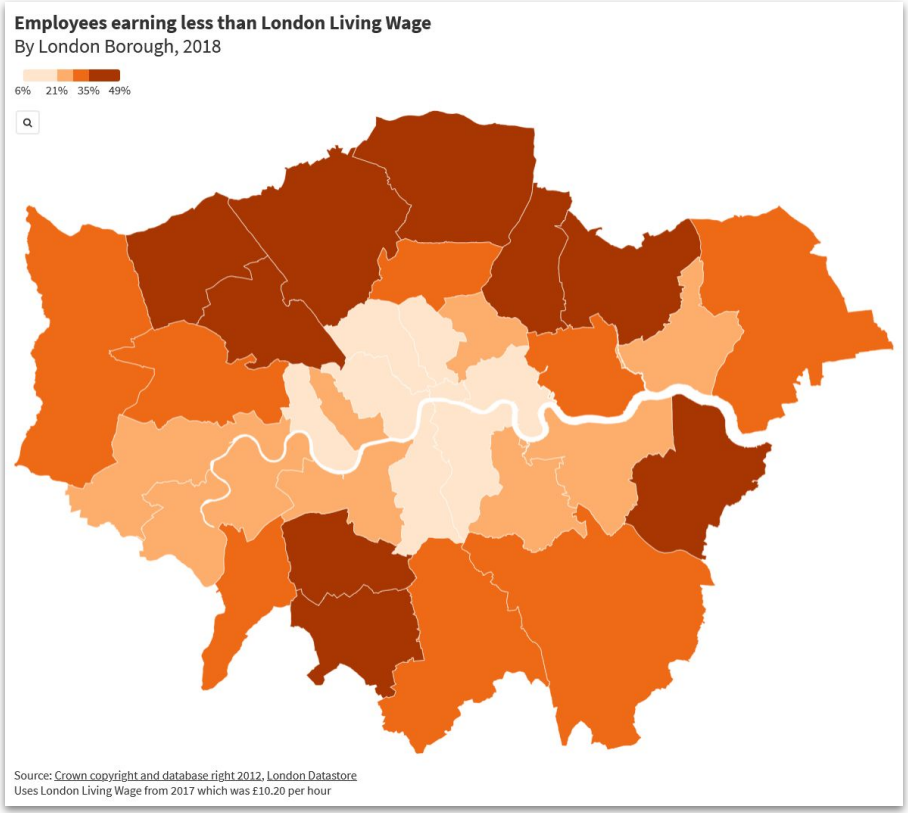
Step 3: Add our data



Step 4: Select columns to use



Step 5: Preview the map



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

What's next?

Lots of other templates to explore