

Tableau during the Day

Leicestershire County Council

Robert Radburn

Tableau during the Night



But, where the hell is
Leicestershire?



100 miles

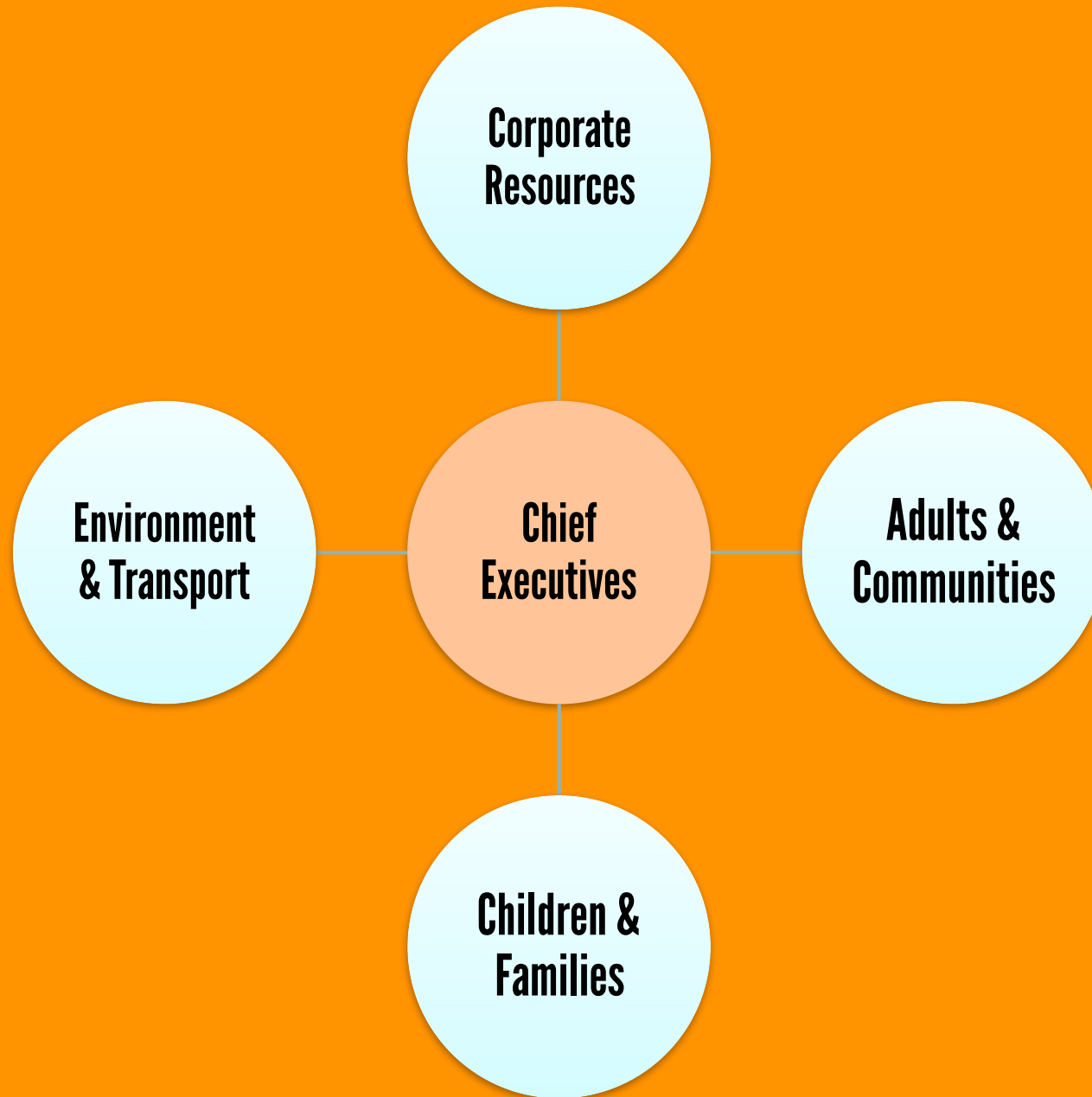
London

Tableau during the Day



Me

One Council, 5 Departments.



Business Intelligence Group

Operational BI

Strategic BI

BI Development

Education
Performance

Children's
Performance

Insight

Development

Adults
Performance

Corporate
Performance

Public Health

£150 million

Last 4 years.

£50 million_(ish)

Next 4 years.

So there is a need to use

Our Service Data

to redesign what we deliver

Two Major Issues

1

Data Access

2

Data Literacy



Adults Performance



Education Performance

Insight



35(ish) people

Children's Performance

Public Health



Corporate Performance



Running a BI team means...

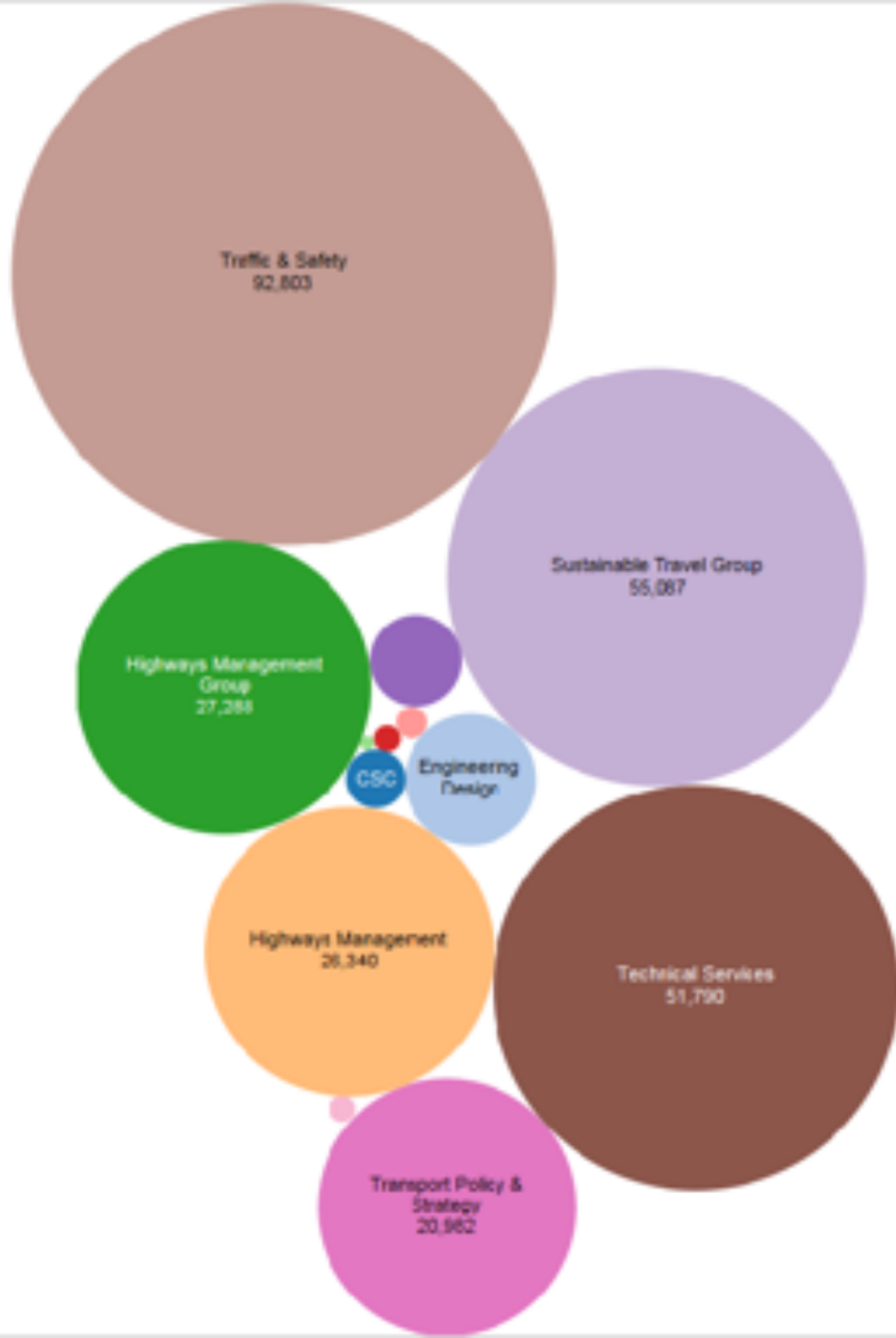
- Automation, Automation, Automation for BI.
- Only Enterprise Tools : Not a bunch of hobbyists - bit of d3, bit of python, bit of Excel/VBA/macros. Not looking for a BI unicorns.
- One Team to get the data, One Team to analyse it.
- Build it and they will come.

Now - "BI Stack"



2

	Customer Segment	Central	East	International				South	West		
		North America	North America	Africa	Asia	Australasia	Europe	North America	South America	North America	North America
Profit	Consumer	\$64,281	\$61,174	\$50,236	\$478,595	\$20,318	\$153,657	\$35,129	\$130,994	\$26,558	\$64,547
	Corporate	\$210,126	\$144,866	\$171,766	\$1,097,258	\$9,611	\$183,048	\$257,901	\$364,932	\$23,243	\$127,303
	Home Office	\$136,231	\$78,402	\$204,673	\$684,983	\$18,134	\$195,124	\$25,483	\$129,098	\$40,036	\$29,201
	Small Business	\$109,187	\$93,124	\$170,500	\$614,273	\$40,976	\$110,923	\$87,600	\$371,839	\$14,364	\$99,799
Sales	Consumer	\$404,292	\$480,805	\$183,684	\$2,368,746	\$119,382	\$542,406	\$81,378	\$779,568	\$329,780	\$620,338
	Corporate	\$1,042,463	\$818,102	\$715,689	\$4,333,195	\$120,967	\$761,844	\$733,049	\$1,370,751	\$569,904	\$638,901
	Home Office	\$709,259	\$506,332	\$633,878	\$2,639,127	\$115,135	\$818,546	\$136,963	\$743,547	\$427,010	\$526,351
	Small Business	\$384,308	\$617,565	\$537,797	\$1,962,554	\$59,627	\$481,741	\$327,993	\$914,788	\$270,652	\$405,849
Shipping Cost	Consumer	\$6,148	\$6,766	\$904	\$11,148	\$207	\$2,360	\$423	\$3,344	\$4,932	\$6,634
	Corporate	\$15,939	\$8,936	\$3,441	\$18,940	\$358	\$3,539	\$2,577	\$6,540	\$8,102	\$9,751
	Home Office	\$9,435	\$6,779	\$2,710	\$11,861	\$562	\$3,108	\$843	\$3,432	\$6,049	\$7,134
	Small Business	\$5,952	\$7,912	\$1,656	\$9,212	\$102	\$2,792	\$1,319	\$3,596	\$4,247	\$5,889
Profit	Total	\$619,826	\$377,665	\$697,165	\$2,673,108	\$89,040	\$642,751	\$406,113	\$996,863	\$104,201	\$310,849
Sales	Total	\$2,540,342	\$2,422,805	\$2,071,228	\$11,303,623	\$415,111	\$2,604,536	\$1,279,362	\$3,808,645	\$1,597,346	\$2,361,439
Shipping Cost	Total	\$37,475	\$30,394	\$8,712	\$51,161	\$1,310	\$11,798	\$5,162	\$16,912	\$23,331	\$29,408



Select Dimension 1

Region

Superstore's Super Sankey

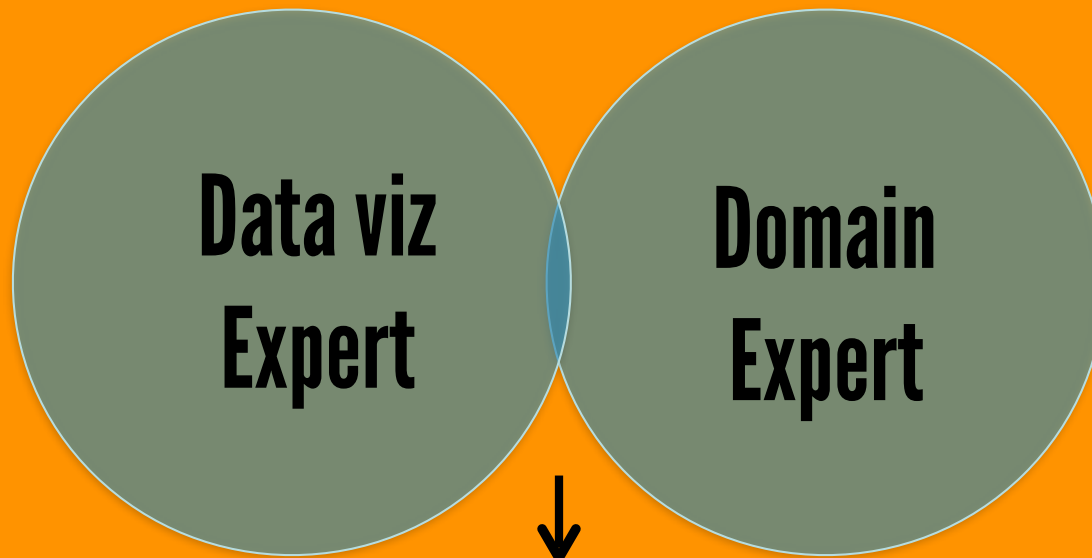
Select Dimension 2

Category

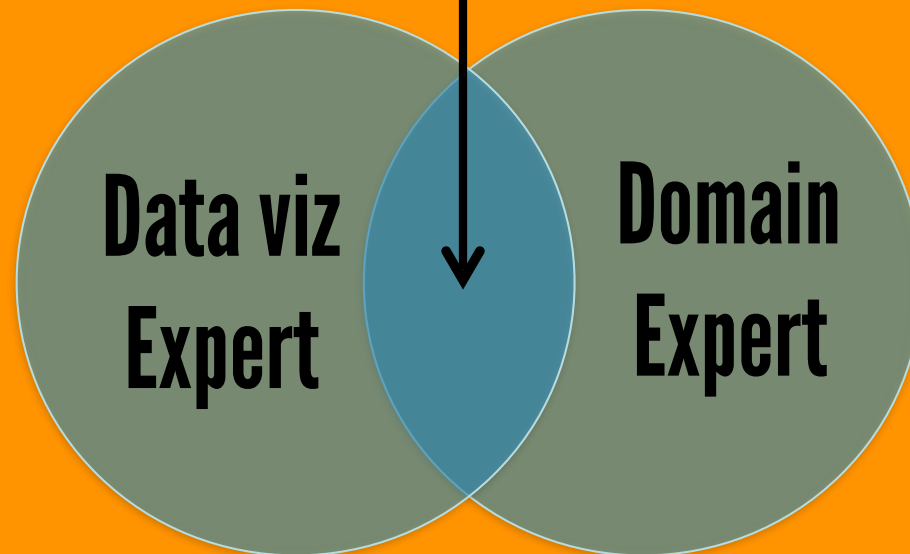




Low **Chance of success**



Knowledge transfer



High **Chance of success**

Initiation

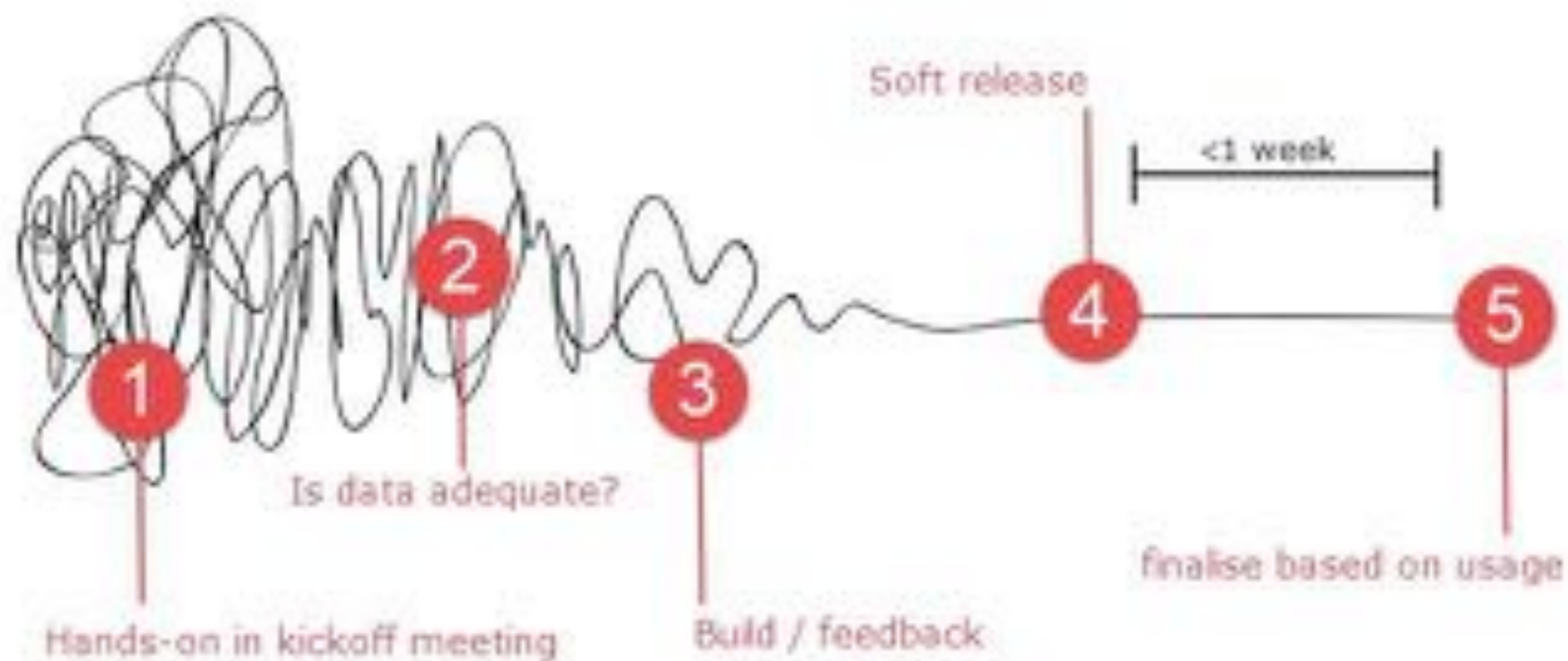
(3hr kickoff with user)

Development

(2.5 days w/ frequent feedback)

Polish

(<1 day minor adjustments)



DASHBOARDS!!!!!!

Exploring

Indicator
Deprivation - IMD

Authority Type
All

Outliers
○ Include
● Exclude

Labels
● Show
○ Hide

Definition
Rank of average rank for all neighbourhoods for E0215 Multiple Deprivation (Source: DCLG, 2015)

Authority Type

- Leicestershire
- Borough Unitary Authority
- City Unitary Authority
- County Unitary Authority
- Metropolitan District
- County Council
- Inner London Borough
- Outer London Borough





Tableau during the Night



Rob Radburn [Edit](#)

Exeter, United Kingdom | rob@tableau.com

200 Vizzes 318 Followers 1 Following

[More About Me](#)

View profile as

Me

Others

Vizzes **200**

Followers **318**

Following **1**

Favorites **7**

FEATURED

The Words Authors Write About When They Write About **Joy**

How words authors write gender influence their joy



The Words Authors Write About Gender

How much do Teachers Earn in 2017?

\$5,306



School workforce in England: November 2017

Dying Homeless in the UK

504

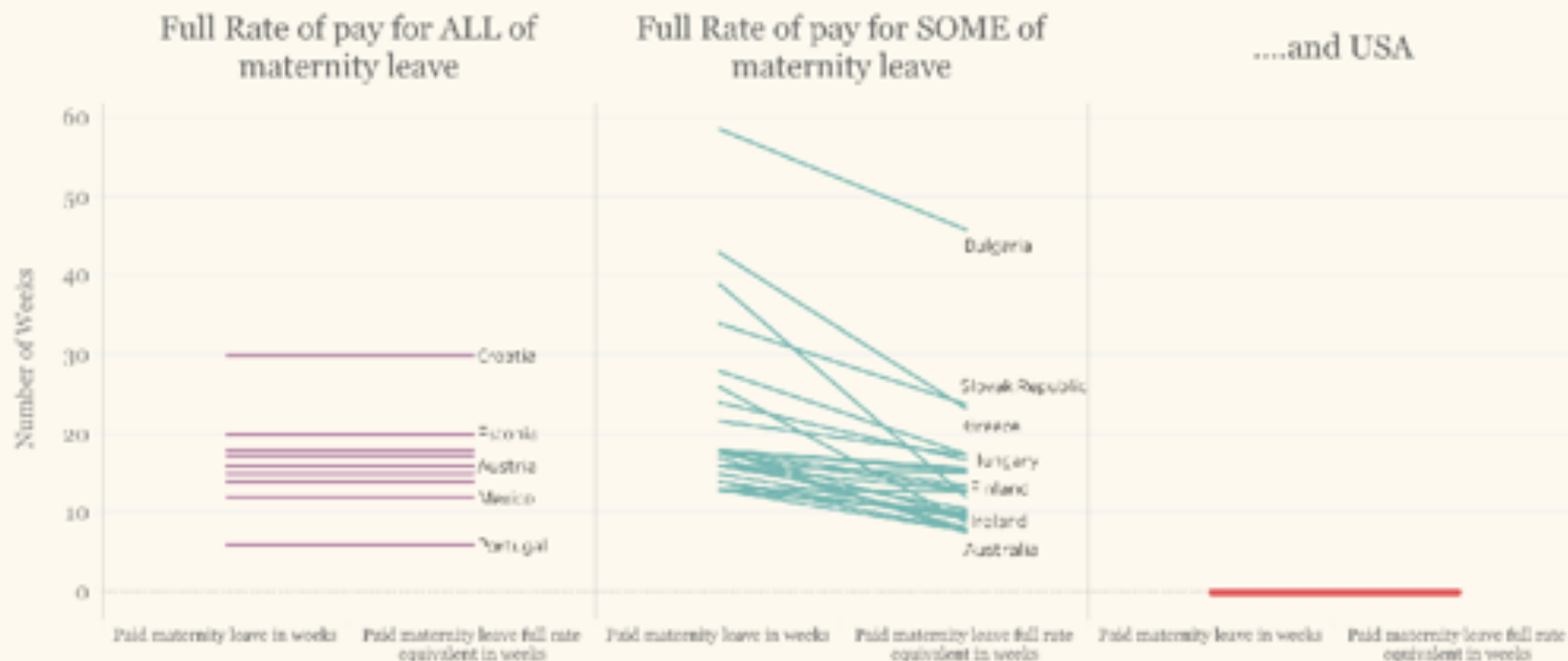


Dying Homeless

source: OECD

The USA stands alone when it comes to Maternity Pay

No items highlighted



Understanding London Crime

Separating the signal from the noise

The task for crime analysts is to find changes in crime that are so different from an expectation they require action. One problem is the normal variance in crime activity. Statistical Process Control is a method for pursuing this, increasing the number of false alarms to a tolerable pattern. SPC charts allow us to observe data values that lie within an expected range of variance from the mean and represent a more systematic departure from expectation or a 'signal'.

Each chart is a London borough. The angle of the 'gauge line' in each box shows the difference between the value of the latest data point and the current mean for two years. Only **red** lines represent a 'signal' for a significant increase in crime. Only **blue** lines represent a significant decrease. All other lines are grey. The angle of the gauge line is calculated with necessary information. There are no scales shown. All values are identified as 'signals' and (perhaps) patterns. For **Monday** over a **gauge line** gives a full interpretation that is a two-year period.

Overview
06/12/2017

Systems signified



Increased value or
a significant increase



No signal. This chart
only shows the status for
a single observation



Below the value of an
L2 or L3 or L4 or L5 or L6 or L7 or L8 or L9 or L10 or L11 or L12 or L13 or L14 or L15 or L16 or L17 or L18 or L19 or L20 or L21 or L22 or L23 or L24 or L25 or L26 or L27 or L28 or L29 or L30 or L31 or L32 or L33 or L34 or L35 or L36 or L37 or L38 or L39 or L40 or L41 or L42 or L43 or L44 or L45 or L46 or L47 or L48 or L49 or L50 or L51 or L52 or L53 or L54 or L55 or L56 or L57 or L58 or L59 or L60 or L61 or L62 or L63 or L64 or L65 or L66 or L67 or L68 or L69 or L70 or L71 or L72 or L73 or L74 or L75 or L76 or L77 or L78 or L79 or L80 or L81 or L82 or L83 or L84 or L85 or L86 or L87 or L88 or L89 or L90 or L91 or L92 or L93 or L94 or L95 or L96 or L97 or L98 or L99 or L100

October 2017

Theft and Handling



Violence Against the Person



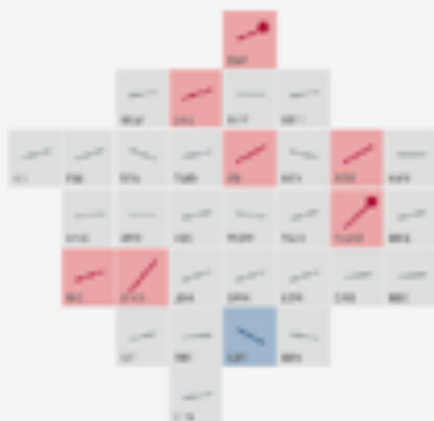
Burglary



Criminal Damage



Drugs



Robbery



The Counted

Explore the data:
All Deaths

1,201 deaths

Police Killings in the US in 2015



Tour De France 2018

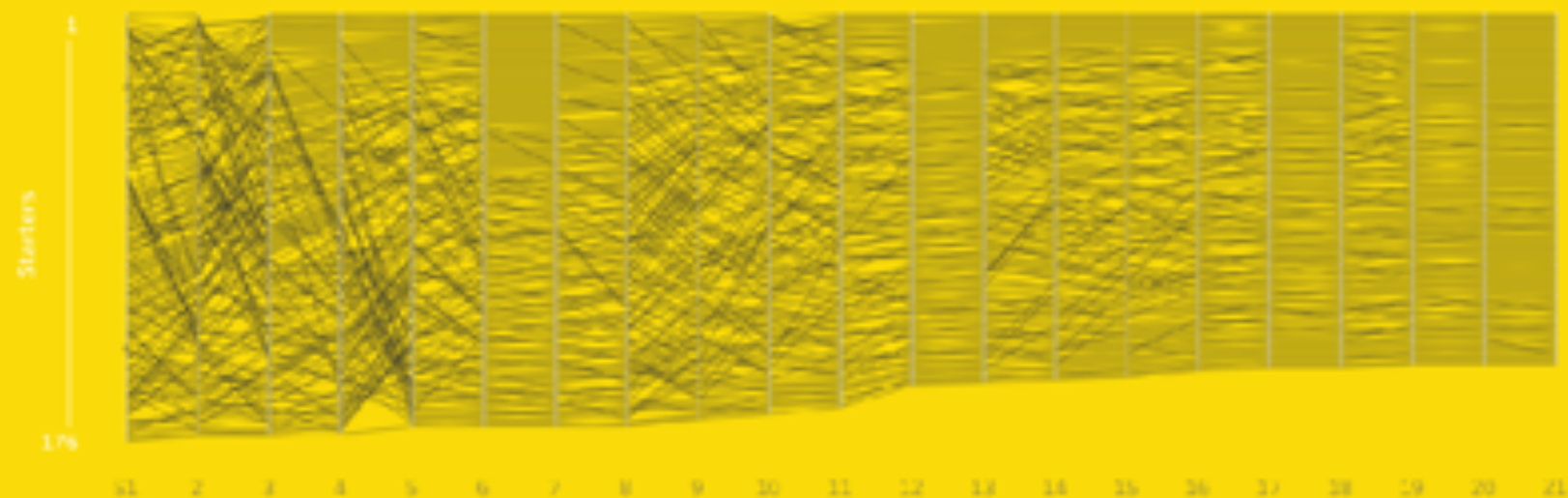
each line corresponds to a rider
*stage results & cumulative times are aligned at the median, which corresponds to the position of
the top line to highlight position in other charts
Graphic design by Martin Thoen. Bike set up by

No items highlighted

No items highlighted

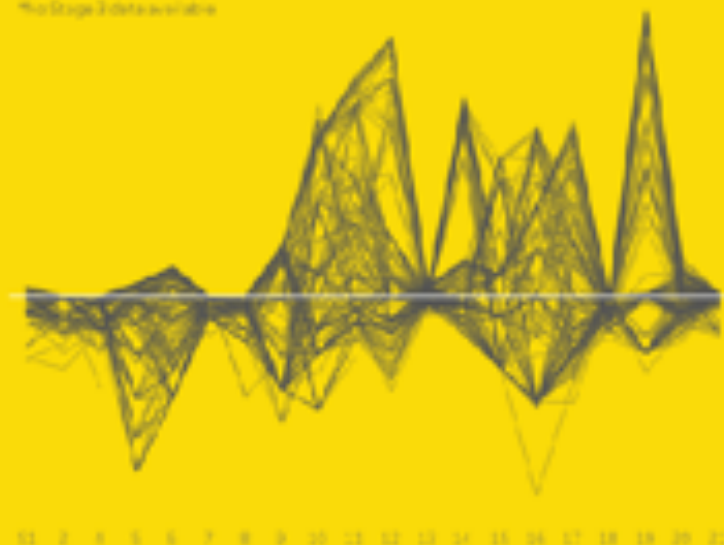
Winner of Yellow Jersey: GERNOT THOMAS

Overall Rank by Stage



Stage Results - aligned to median stage time

No Stage 2 data available

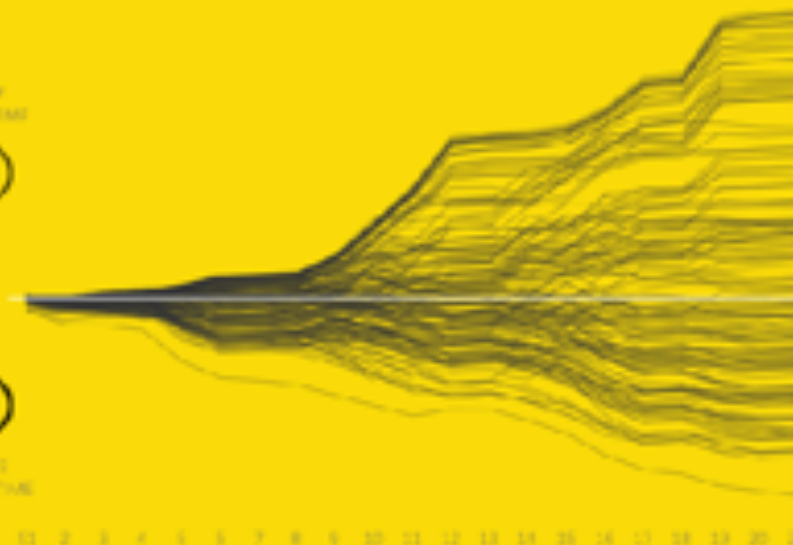


Cumulative Time - aligned to median race time

SELECT
ACTUAL TIME



↑
ABOVE
MEDIAN TIME



Tour De France 2018

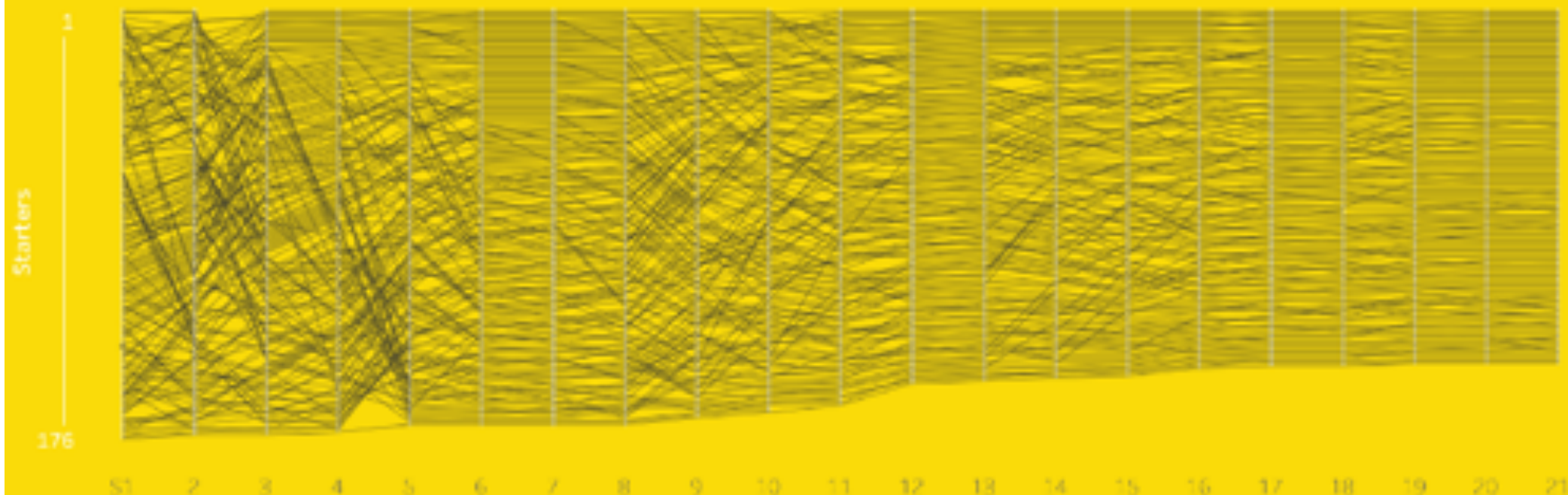
* each line corresponds to a rider*
* stage results & cumulative times are aligned at the median, which corresponds to the peloton*
click any line to highlight position in other charts
Graphic design by: Martin Theus Data: lecou.fr

No items highlighted

No items highlighted

Winner of Yellow Jersey: GERAINT THOMAS

Overall Rank by Stage



Stage Results - aligned to median stage time

No Stage 3 data available

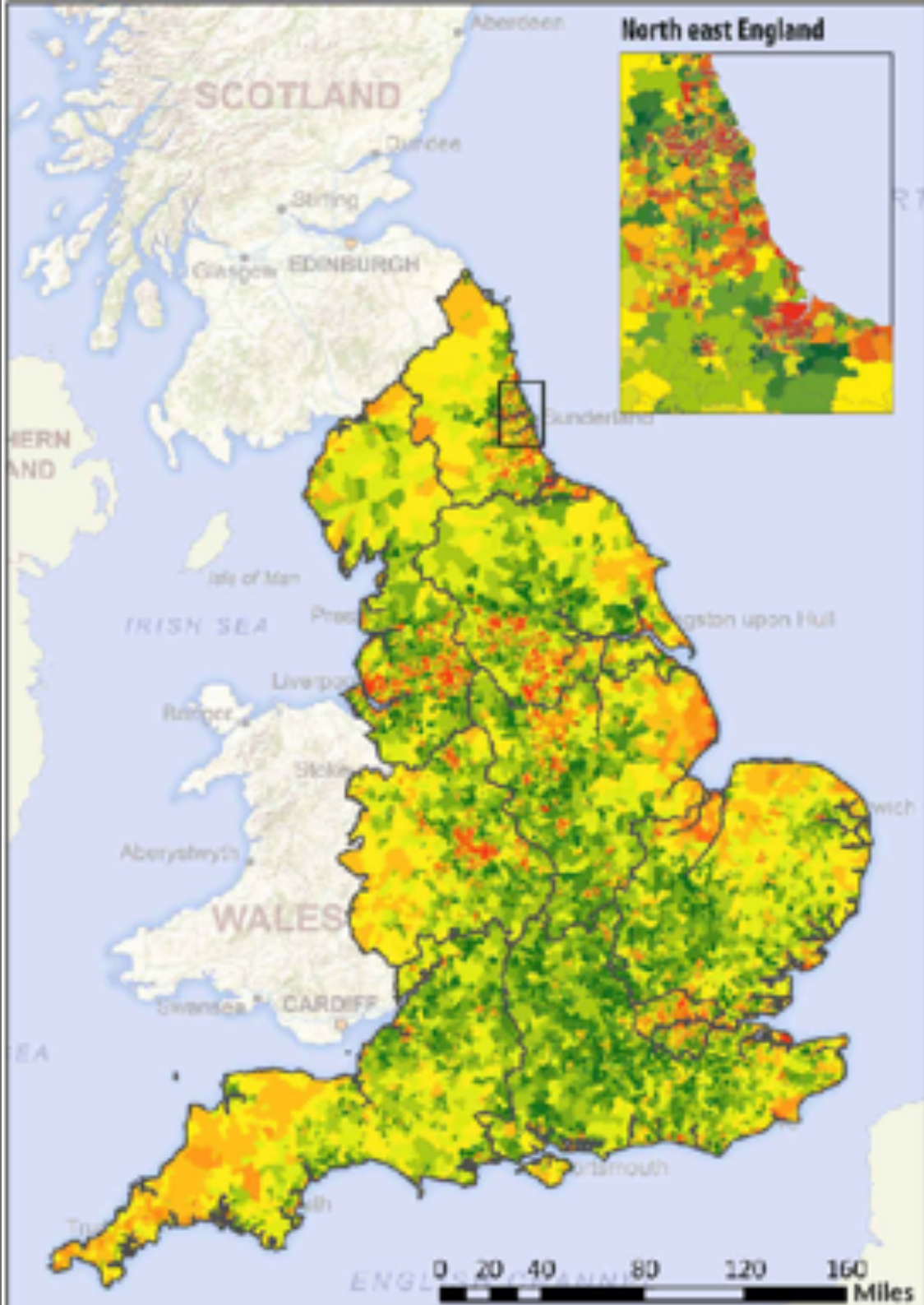


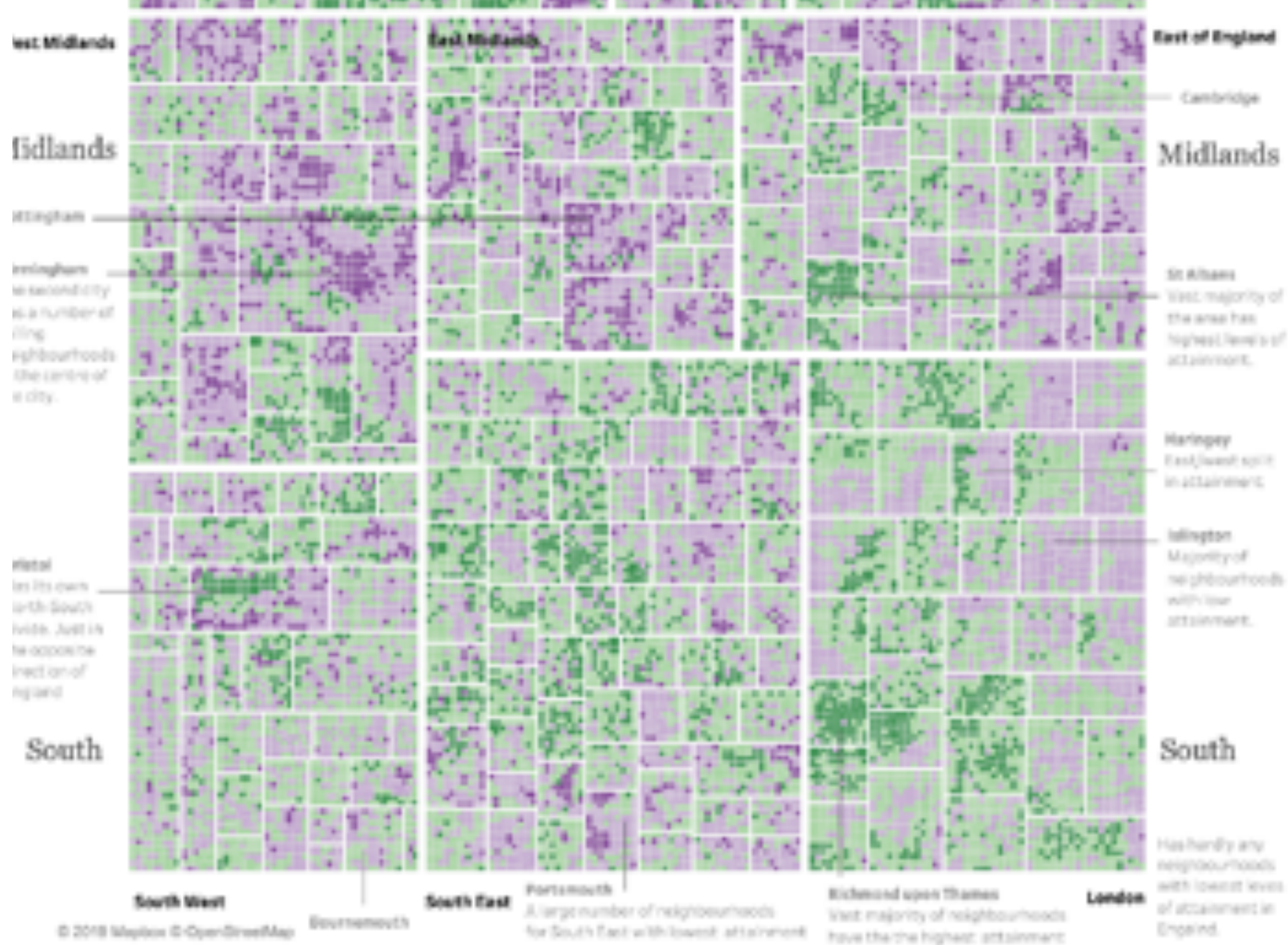
Time
MEDIAN TIME



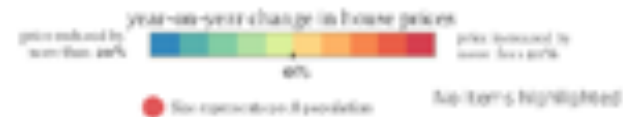
Cumulative Time - aligned to median race time







The Change in Local Authority House Prices for England & Wales



The Local Authorities of England & Wales in the 22 maps are represented by a Dorling Cartogram, circles sized by population and placed in their approximate geographical position. They show the geography of how the housing market moved from boom to slump and its recovery. In the South East prices were increasing strongly at the end of the 1990s and early 2000s. Price increases rippled out of the South East and rapid inflation began to occur across both counties in 2003 and remained in the North of England in 2004/05. However, by the summer of 2008, the banking crisis led to prices falling sharply across the whole of England & Wales. It took until 2014 until both counties started experiencing growth again, although not at the same rate as the early 2000s, and by 2017 prices had cooled again because of uncertainty about Brexit.

Statistical Atlas of the UNITED STATES Census of Agriculture

Based on results from 2002

The United States is a vast and diverse country, and the Census of Agriculture provides a unique view of the nation's agricultural resources. This atlas provides a comprehensive overview of the nation's agricultural resources, including the number of farms, the number of acres, and the value of production. The atlas is organized into four main sections: Crops and Plants, Livestock, Farms, and Operations. Each section contains a grid of maps and pie charts showing the distribution of agricultural resources across the United States. The maps use a color scale from yellow (low density) to dark purple (high density) to represent the density of agricultural resources. The pie charts show the percentage of agricultural resources in each of the four main sections.

The Census of Agriculture is a unique source of information about the nation's agricultural resources. It provides a comprehensive overview of the nation's agricultural resources, including the number of farms, the number of acres, and the value of production. The atlas is organized into four main sections: Crops and Plants, Livestock, Farms, and Operations. Each section contains a grid of maps and pie charts showing the distribution of agricultural resources across the United States. The maps use a color scale from yellow (low density) to dark purple (high density) to represent the density of agricultural resources. The pie charts show the percentage of agricultural resources in each of the four main sections.





Desperate Journeys

Mapping African-American Refugee Migration

The United States has long accepted refugees fleeing persecution at war. (Though, the country's official federal effort to accept refugees, the **U.S. Refugee Admissions Program (USRAP)**, was not created until 1980. This is the first comprehensive list of African refugees since 2009.)

In 2010, refugees and those seeking entry from conflict-ridden areas have been persecuted, at least in part, for their convictions, on the basis of one of five "protected grounds": race, religion, nationality, political opinion, or membership in a social group.

The number of refugees admitted into the United States from all countries has generally declined since the start of the program in approximately 1980. (Work with your state gov't from Africa, as of 2011, and refugees from Liberia, Chad, Somalia, Sudan were prohibited from entering the USA.)

African refugees since 2009



159,660

African refugees since 2009

The African Country of Origin



The U.S. State Distribution



The Refugee Journey From Africa to the USA (2009 to 2011)

Refugees are awarded to one of approximately 100 immigration service centers. Each large grid square represents a state in America and arranged in their approximate geographic position, overlaid within the space is a spatial

average grid of 24 African countries recognized by the UN. The colors show the number of refugees on the basis of color where that 20-point has had one refugee and 1000 has received no refugees since 2009.



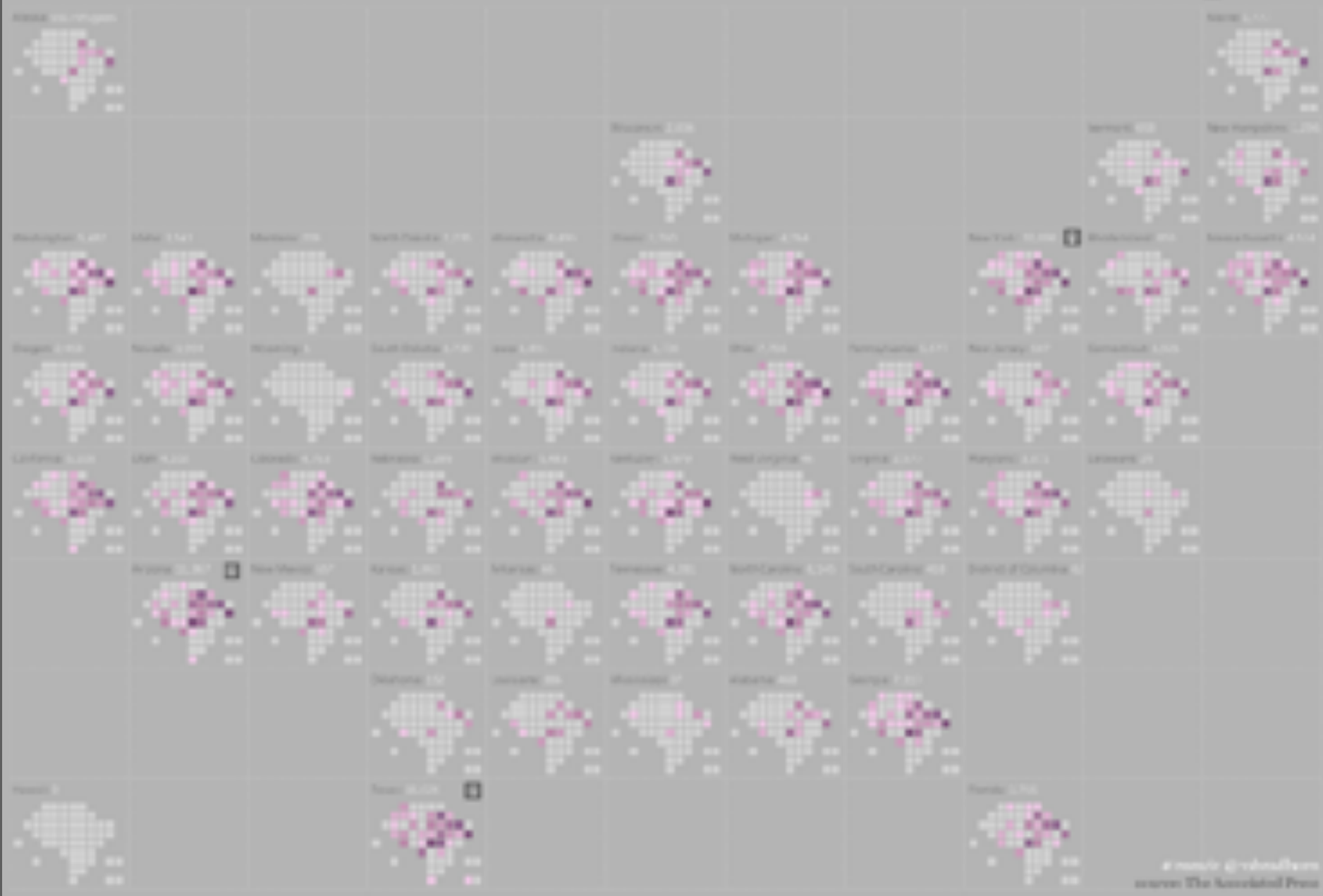
The Refugee Journey from Africa to the USA : 2009 to 2018

Refugees are resettled in one of approximately 100 communities across America. Each large grid square represents a state in America and arranged in their approximate geographic position. Embedded within the square is a spatially

arranged grid of all 54 African countries recognized by the U.N. The colour shows the number of refugees, or the lack of colour shows that Wyoming has had one refugee and Hawaii has received no refugees since 2009.



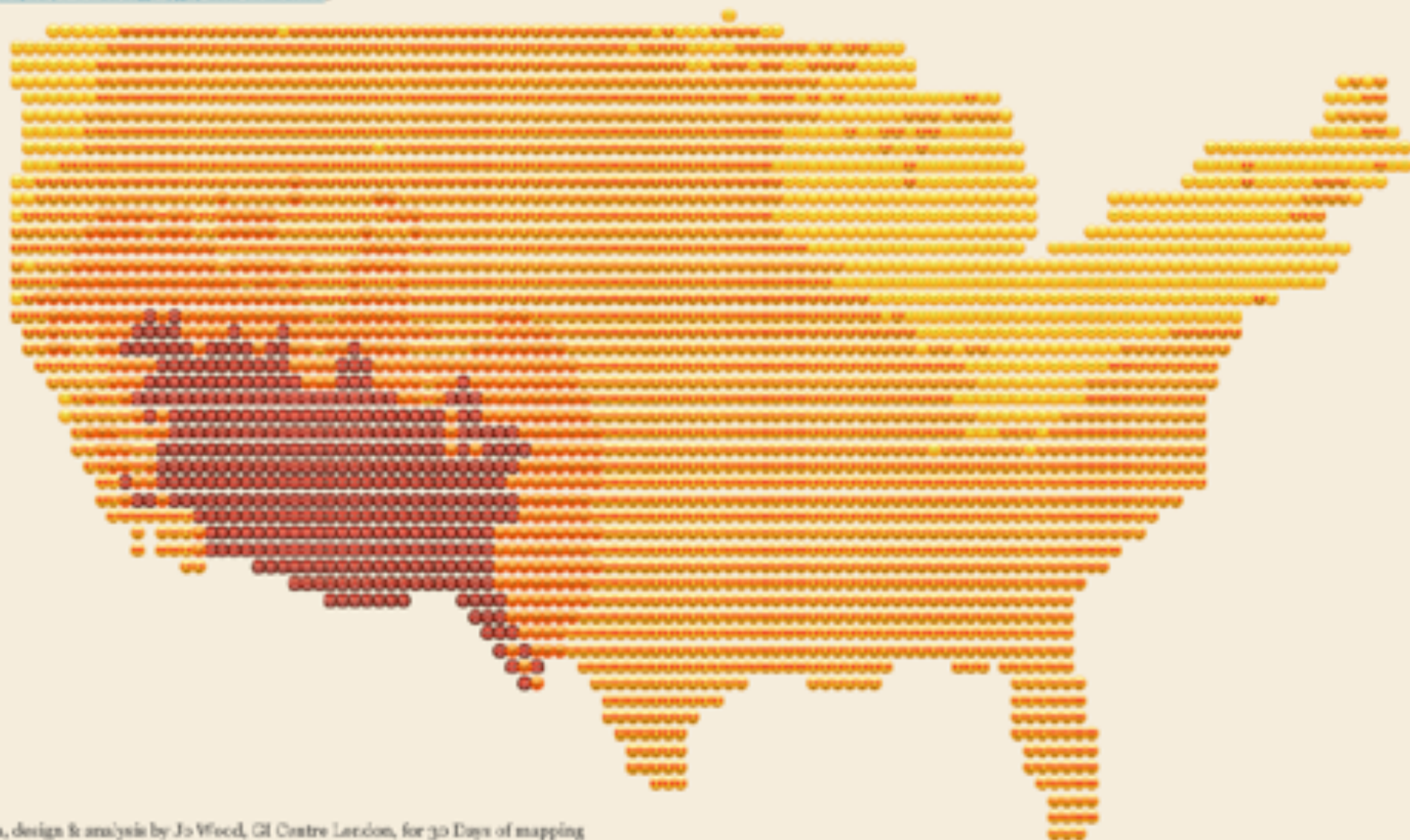
Some may wish to see the more details or click the for more info



Hello Sunshine

The map details the solar resource available in the United States from sampled NREL solar data
(see <https://www.nrel.gov/gis/data-solar.html>)

Annual average daily total solar resource 1998-2016 (DNI)



Map, design & analysis by Jo Wood, CI Centre London, for 30 Days of mapping
© 2017 CI Centre London

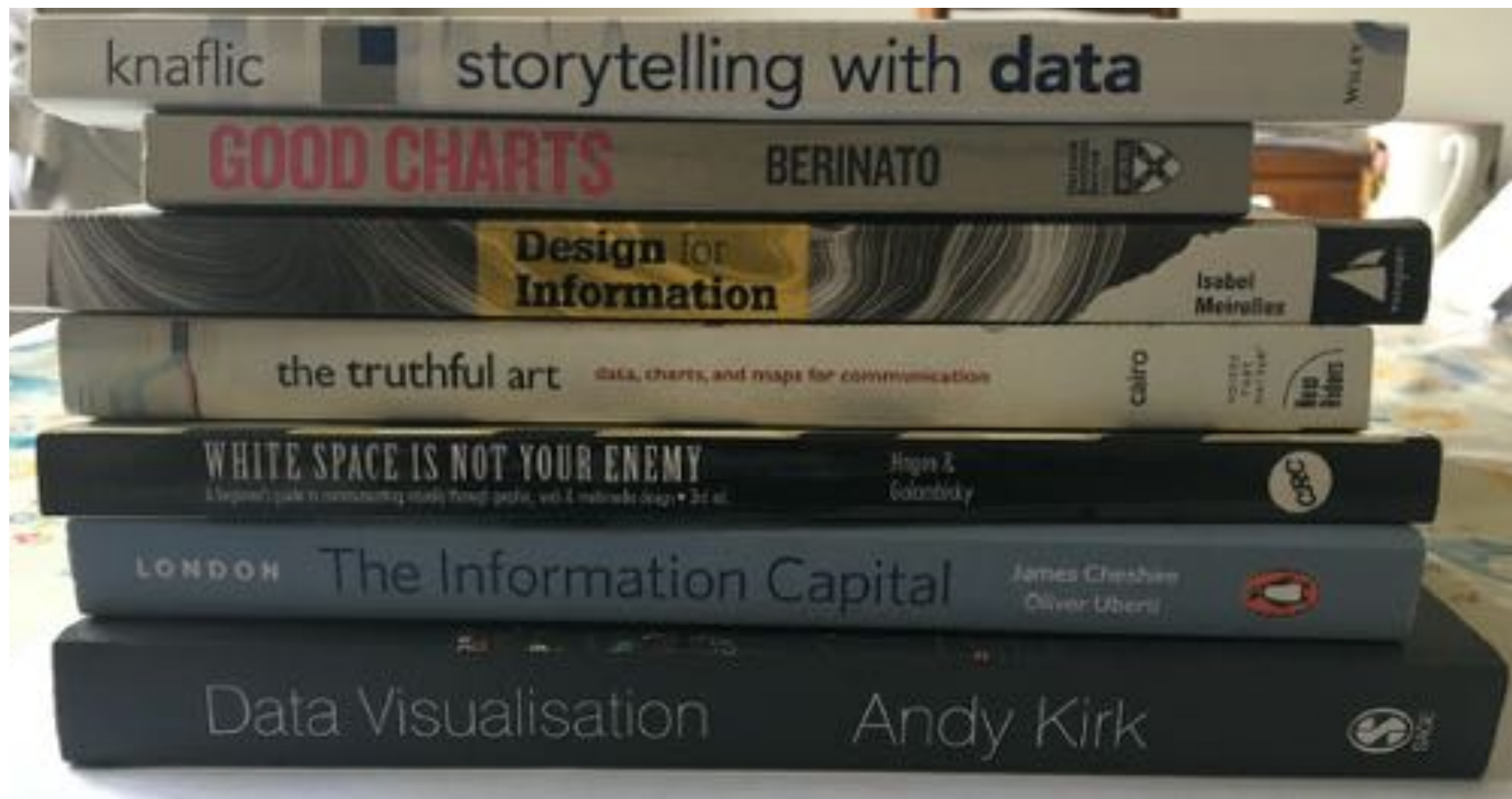


Final Thoughts

How much

data viz do you

need to know?





Joe Radburn

38 vizzes 121 followers 2 following

✓ Following

More About Me

Vizzes 38

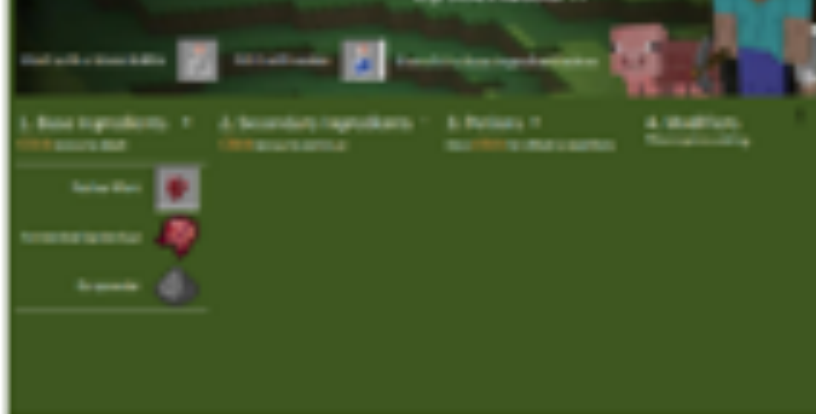
Followers 121

Following 2

FEATURED

Minecraft Potion Calculator

by Joe Radburn



Minecraft Potions Calculator

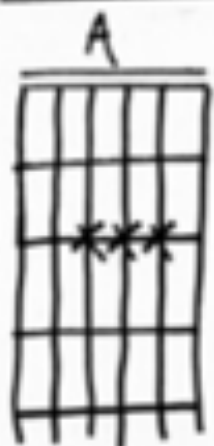
1138 views

What are households earning in America 2016?



What are households earning in 2016?

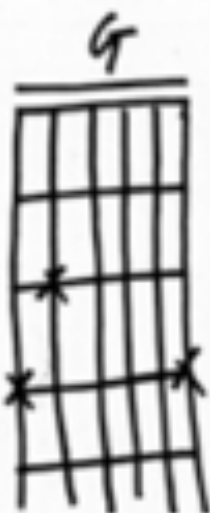
65 views



THIS IS A CHORD



THIS IS ANOTHER

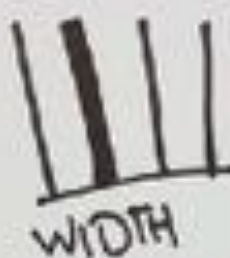


THIS IS A THIRD

NOW FORM A BAND



THIS IS A
PREATTENTIVE
ATTRIBUTE



THIS IS
ANOTHER

THIS IS A
THIRD



NOW MAKE SENSE OF DATA

Practice,

Practice,

Practice.....

#MakeoverMonday

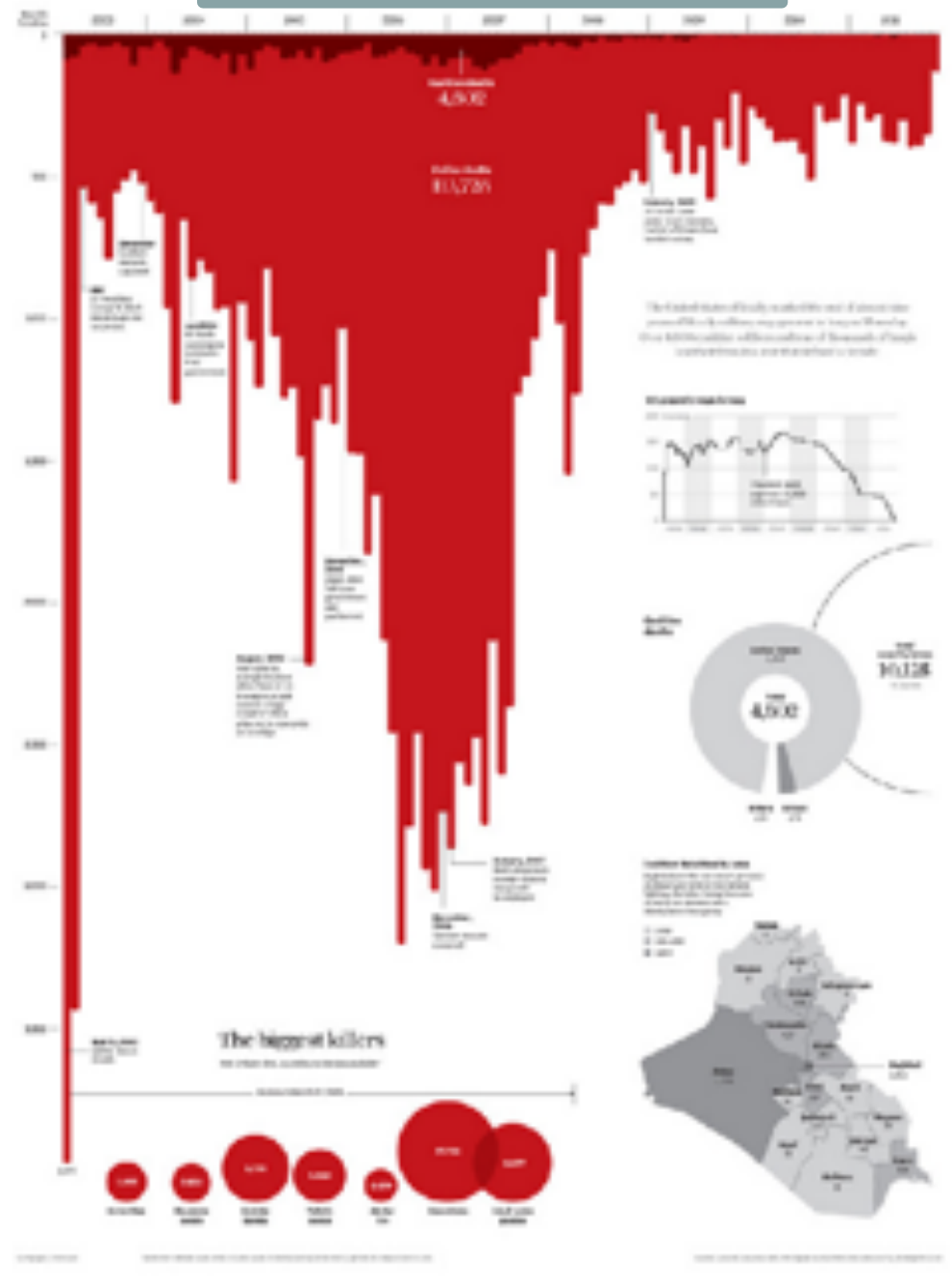
A weekly social data project



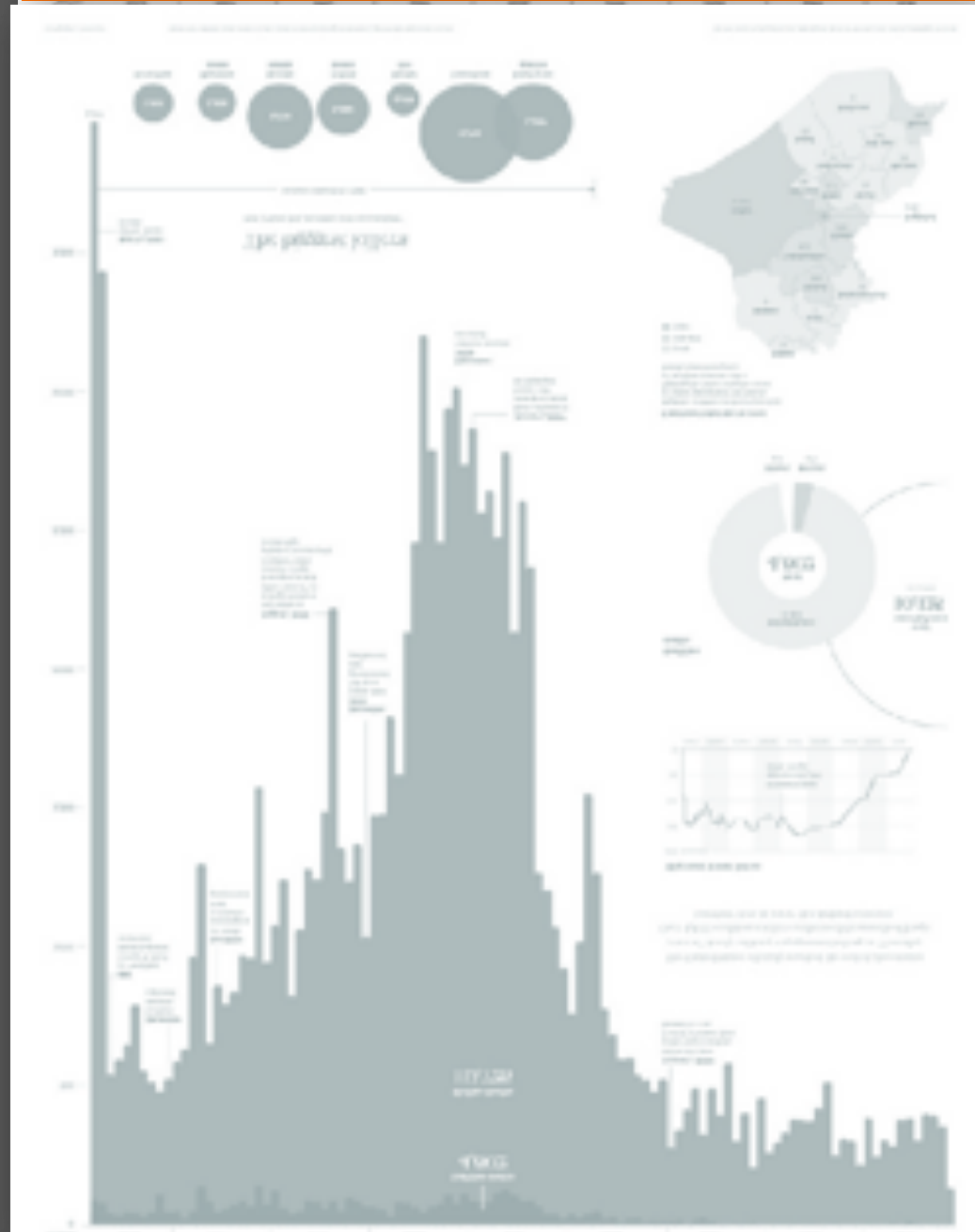
the weekly #MakeoverMonday series. Each week we post a link to a chart, and its data, and then you rework the chart. Maybe you re-interpret it, or find a new story in the data. We're curious to see the different approaches you all take. Whether it's a simple bar chart or a complex network graph, we encourage everyone of all skills to partake. Together we can have broader conversations about and with data.

Each topic will be posted on the [data sets page](#) on Sunday. It will include the link to the original article (for context) and to the data set. We encourage everyone to participate, but be mindful of a few things:

Iraq's bloody toll



Iraq: Deaths on the decline



Thanks for Listening