



**Royal
Geographical
Society**

with IBG

www.rgs.org

Introduction

David Holmes

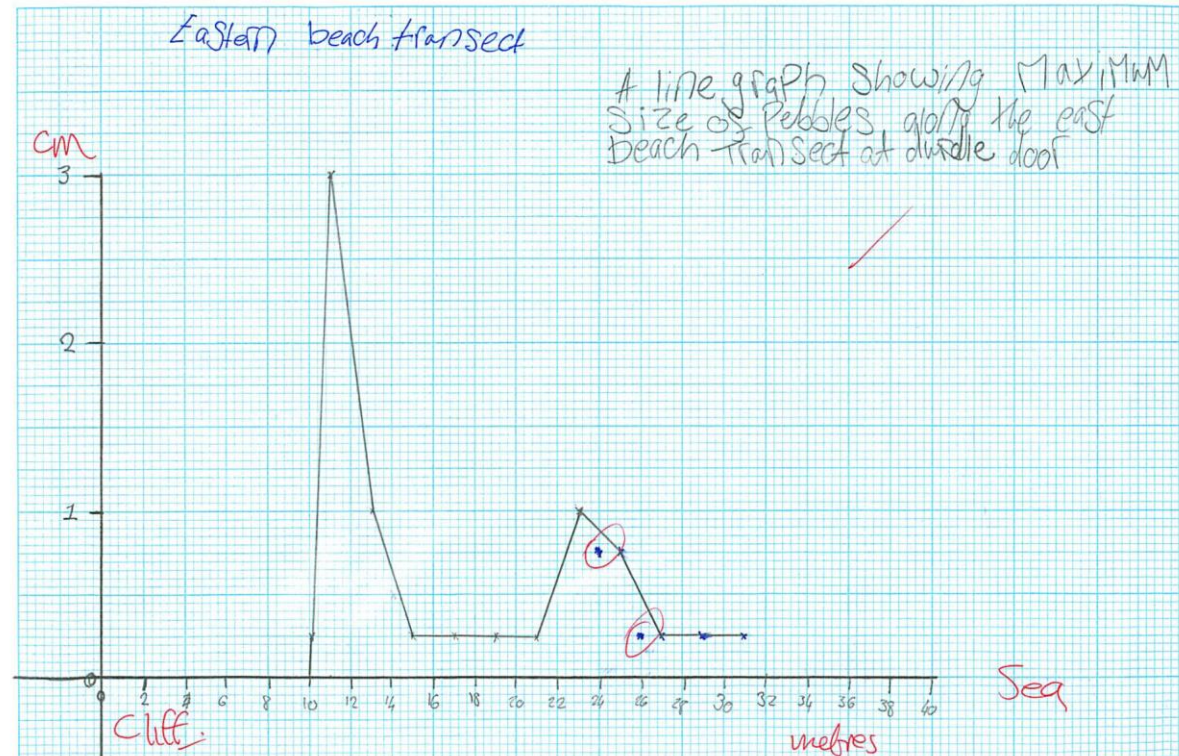
www.david-holmes-geography.co.uk



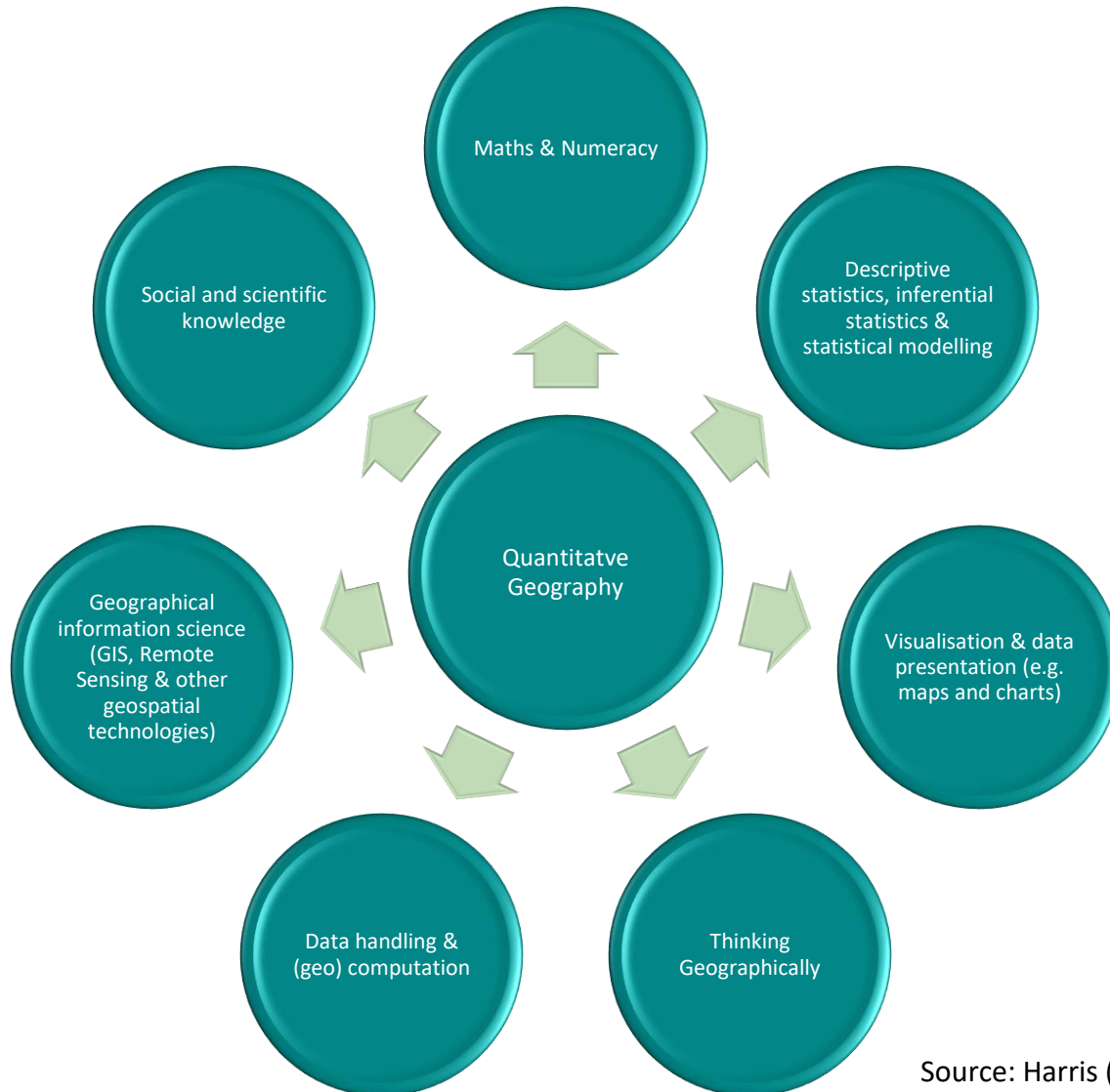
Data Summary Table

	Average Depth (m)	Width (m)	Average Velocity m/sec	Average Discharge m ³ /sec	Average Bed load Size (cm)
Site 1	0.1	1.63	0.176	0.02885	18.55
Site 2	0.056	2.90	0.34	0.035	13.65
Site 3	0.086	3.80	0.36	0.58	9.45
Site 4	0.3969	5.25	0.203	0.423	8.55
Site 5	0.286	5.60	0.483	0.774	6.99
Site 6	0.28	5.90	0.34		

Why are we here?



A range of quantitative skills



Source: Harris (2016): RGS

“Its more about the geography than the maths”

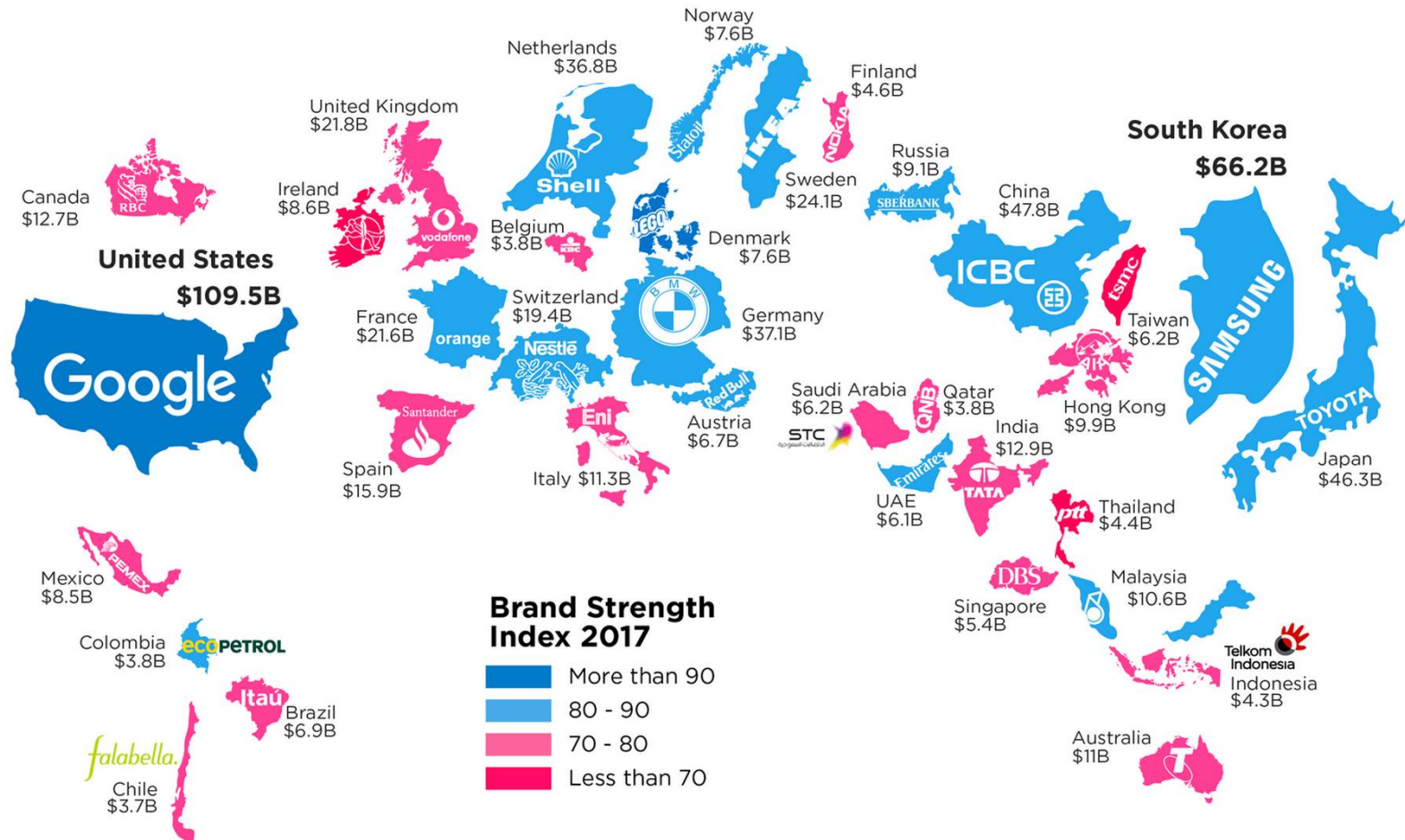
This is maths, sort of....



@chazhutton

And so is this.....

The World's Most Valuable Brands 2017 by Country



How to read: The map shows the biggest brand in selected countries. Each brand shown is the biggest company of its country. Each country is sized to reflect the global value of its major brand (bigger is more valuable, of course). The colors represent brand strength, out of a maximum of 100.

Sources:
<https://howmuch.net/articles/most-valuable-brands-2017>
<http://brandfinance.com/>

Population maths

Hans Rosling, population prophet: Five final thoughts

By Ruth Alexander and Ben Carter
BBC News

© 16 March 2017 | World

Share

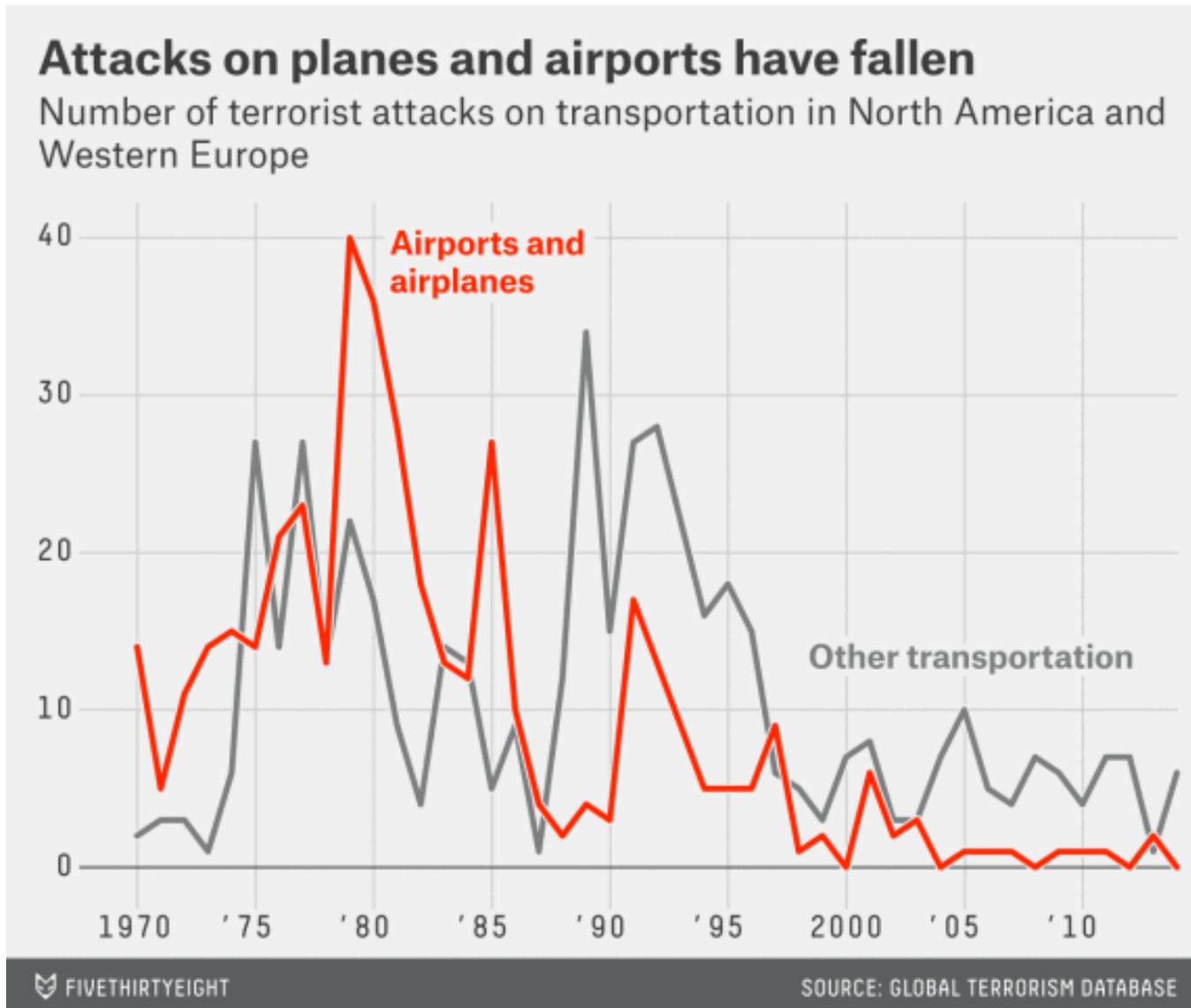
Total fertility rates (with projections)

	1917	1967	1992	2017	2040	2099
Afghanistan	7	7.7	7.7	4.1	2.2	1.8
Australia	3.1	2.8	1.9	1.9	1.9	1.9
Bangladesh	6.7	6.9	4.2	2.1	1.7	1.8
Brazil	5.9	5.5	2.6	1.8	1.7	1.8
China	5.5	5.3	2.2	1.7	1.7	1.9
Ethiopia	7.2	6.9	7.1	4.1	2.5	1.8
France	1.3	2.7	1.7	2	2	2
Germany	2.5	2.4	1.3	1.5	1.6	1.8
Ghana	6.4	7	5.4	3.6	2.7	1.9
India	5.7	5.7	3.7	2.4	2	1.8
Japan	5	2	1.5	1.5	1.7	1.8
South Africa	6.5	5.8	3.5	2.3	1.9	1.8
Sweden	2.9	2.3	2.1	1.9	2	2
Tanzania	6.7	6.8	6.1	4.9	3.6	2.2
UK	2.1	2.6	1.8	1.9	1.9	1.9
USA	3.3	2.6	2	2	2	2
Vietnam	4.7	6.5	3.3	1.7	1.6	1.8

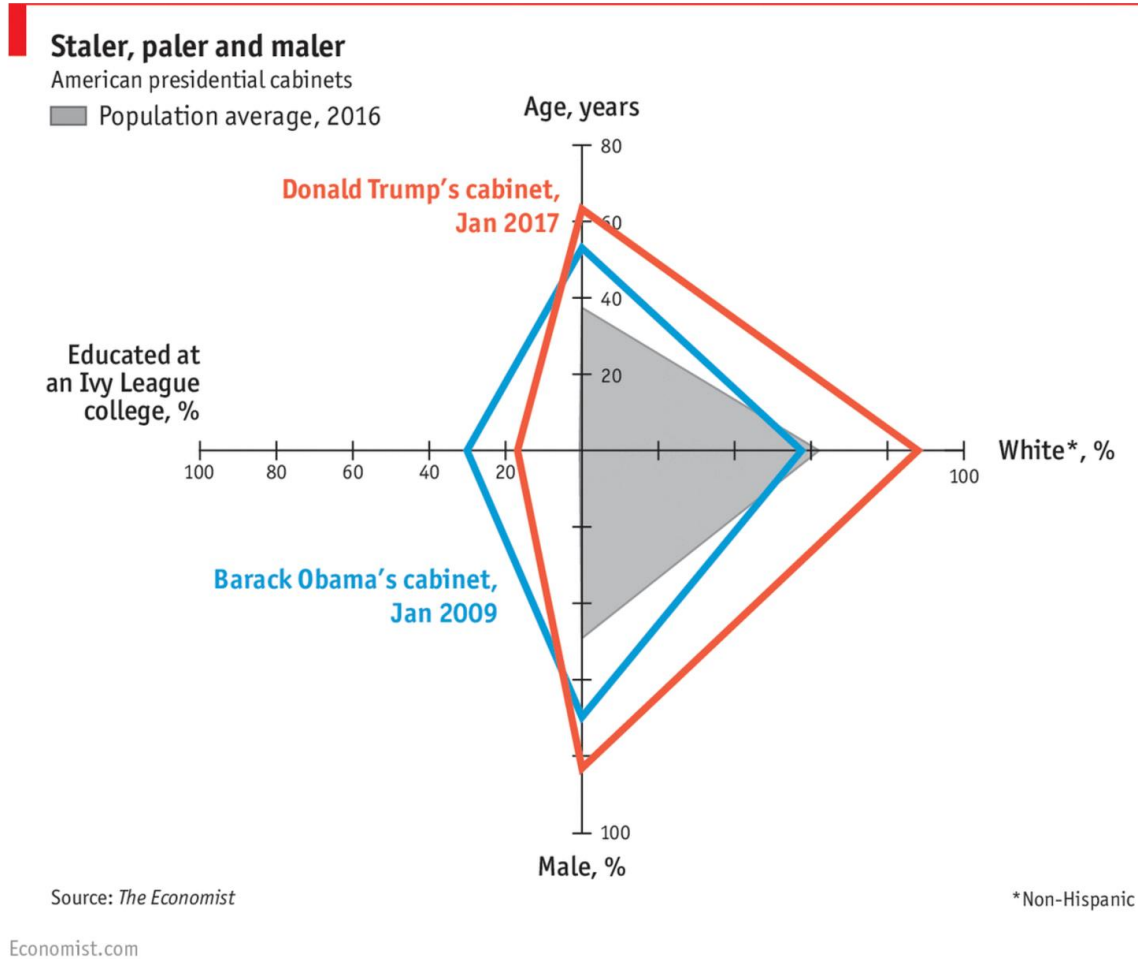


<http://www.bbc.co.uk/news/world-39211144>

A quick question. What do you make of this data?



Not just describe...analyse and evaluate



Money question

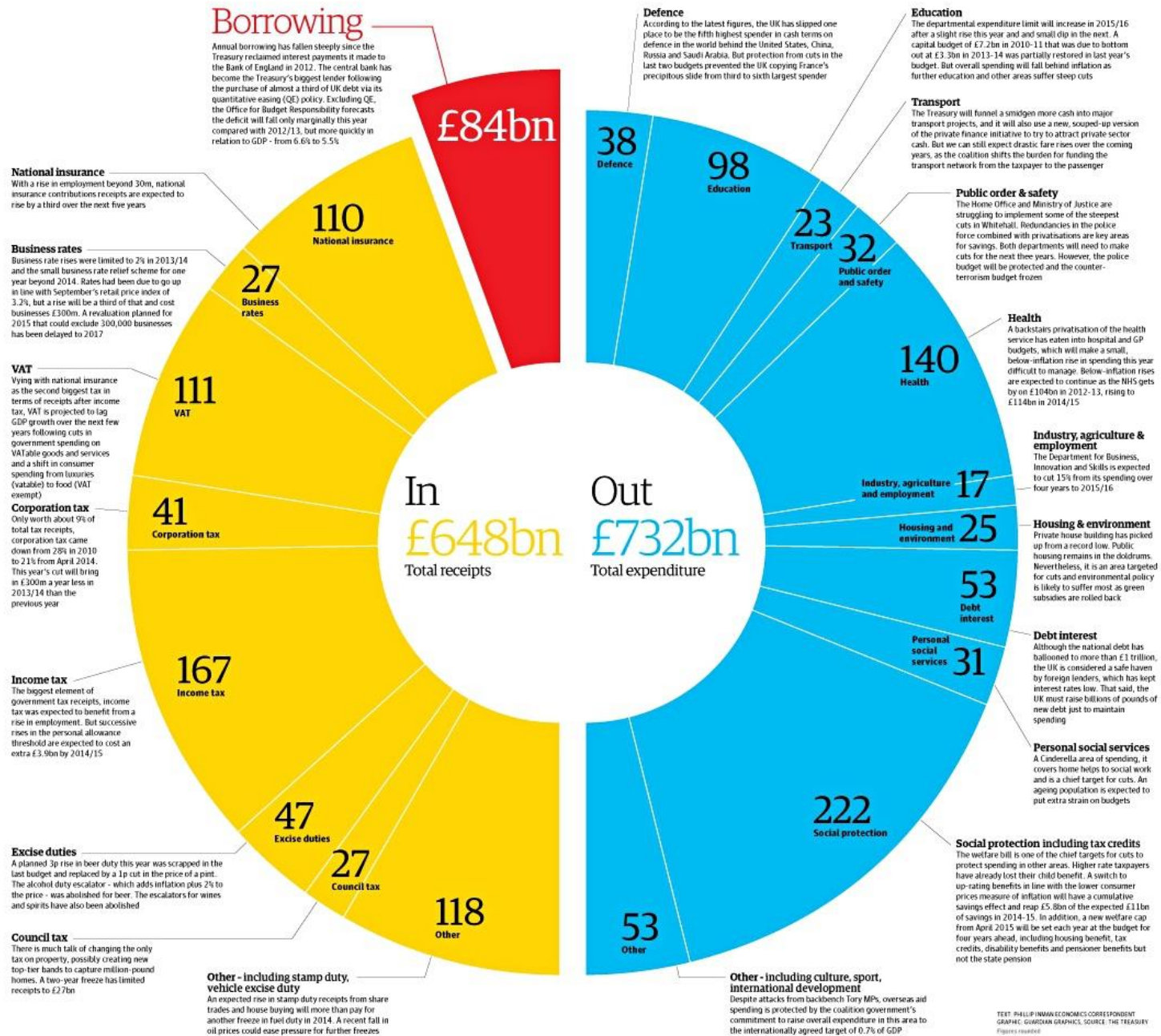
The cost of the **nuclear plant** is 18 times greater the Burj Khalifa, the world's tallest building in Dubai.

£20 billion cost
(£1 billion per year for 40 years)



**We need to
make sense
of the
numbers
and add a
context**

<http://www.theguardian.com/news/datablog/2014/mar/21/budget-2014-tax-spending-visualised>



TEXT: PHILIP INMAN/ECONOMICS CORRESPONDENT
GRAPHIC: GUARDIAN GRAPHICS. SOURCE: THE TREASURY
Figures rounded

Adding context

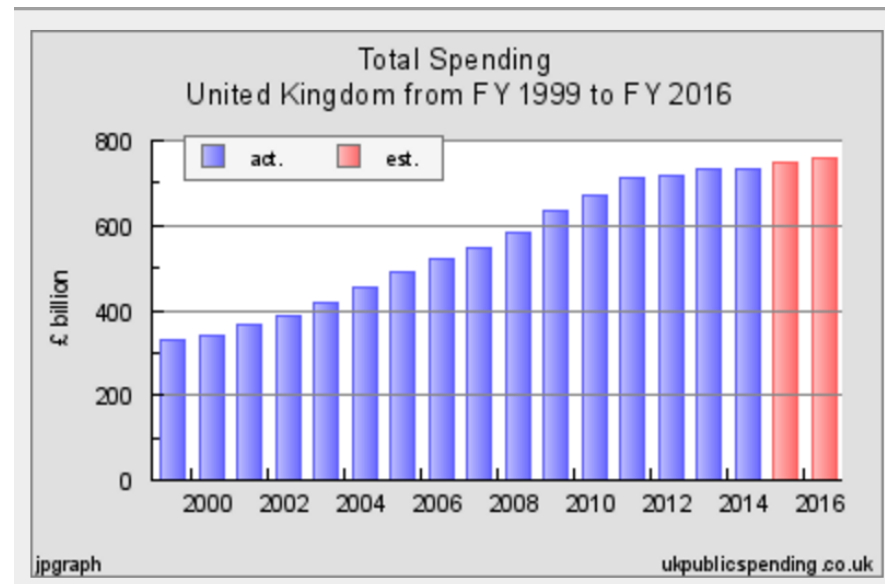
Per Capita Total Public Spending in the United Kingdom Central Government and Local Authority -5yr -1yr Fiscal Year 2014 +1yr +2yr

Public Pensions	£2,237 / person
National Health Care	+ £2,022 / person
State Education	+ £1,396 / person
Defence	+ £693 / person
Social Security	+ £1,754 / person
State Protection	+ £462 / person
Transport	+ £299 / person
General Government	+ £211 / person
Other Public Services	+ £1,648 / person
Public Sector Interest	+ £771 / person
Total Spending	= £11,495 / person

$$300/11500 = 2.5\% \text{ approx}$$

This data confirms our “maths”

<http://www.ukpublicspending.co.uk/>



Making sense

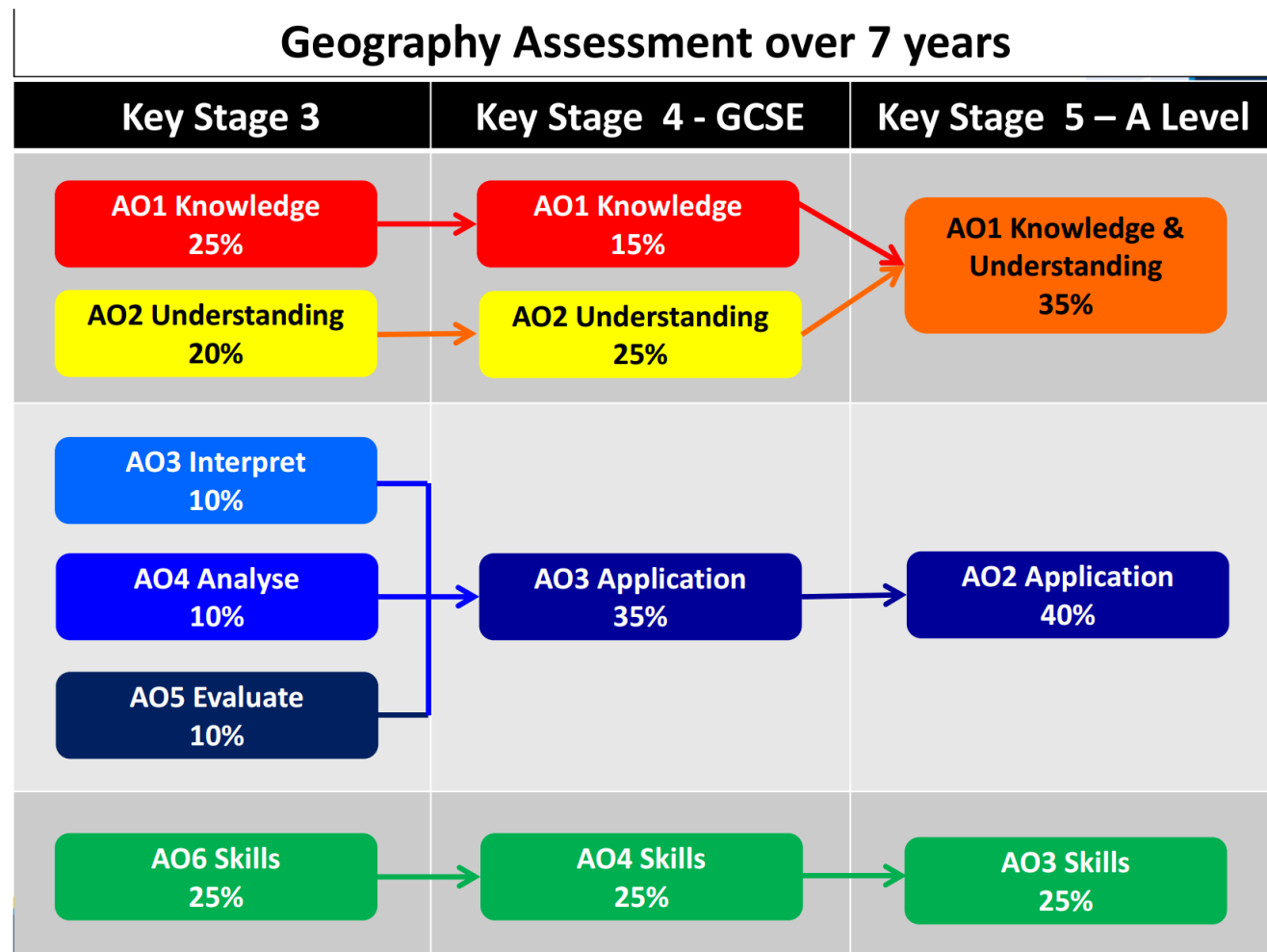
Percentages are easier

	# English LAs		# greater share Leave	% of group
Urban, major conurbation	75		33	44.0
Urban, minor conurbation	9		7	77.8
Urban with city/town	97		78	80.4
Urban with significant rural	54		46	85.2
Mainly rural	41		36	87.8
Largely rural	50		47	94.0
	326		247	

Statistical vs. non-statistical questions

1. How old are you?
2. How old are the people who live in Manchester?
3. Do dogs run faster than cats?
4. Does Cromer get less sunshine than Brighton?
5. How many “legs” are there in this room?
6. What was the difference in rainfall between Swanage and Crystal Palace in 2016?
7. Do you get paid more working as a teacher or as a fireman?

AO's Reimagined



AO1: Demonstrate **knowledge** of locations, places, processes, environments and different scales.

AO2: Demonstrate geographical **understanding** of: concepts and how they are used in relation to places, environments and processes; the interrelationships between places, environments and processes.

AO3 : To **interpret** geographical information and issues.

AO4 : To **analyse** geographical information and issues.

AO5 : To **evaluate** geographical information and issues to make judgements.

AO6 : Select, adapt and use a variety of **skills** and **enquiry** techniques to investigate questions and issues and communicate findings. (**Foundation Level**).

“Education is the movement from
darkness to light” (Alan Bloom)

