

# Communicating with data

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@jargonautical

## Schedule

- 10:00 start
  - Why data presentation matters
  - Examples of bad data visualisation
  - Types and categories of data visualisation
- 11:15 - 11:30 Tea break
  - Data presentation and visualisation tools
  - Hands-on exercises
  - Questions
- 13:00 Close

By the end of this workshop, you will be able to:

1. Identify the elements of a data visualisation that convey information
2. Construct an effective data visualisation
3. Describe the process of designing an effective data visualisation

Why does it matter?

Not everybody  
is a 'data  
person'



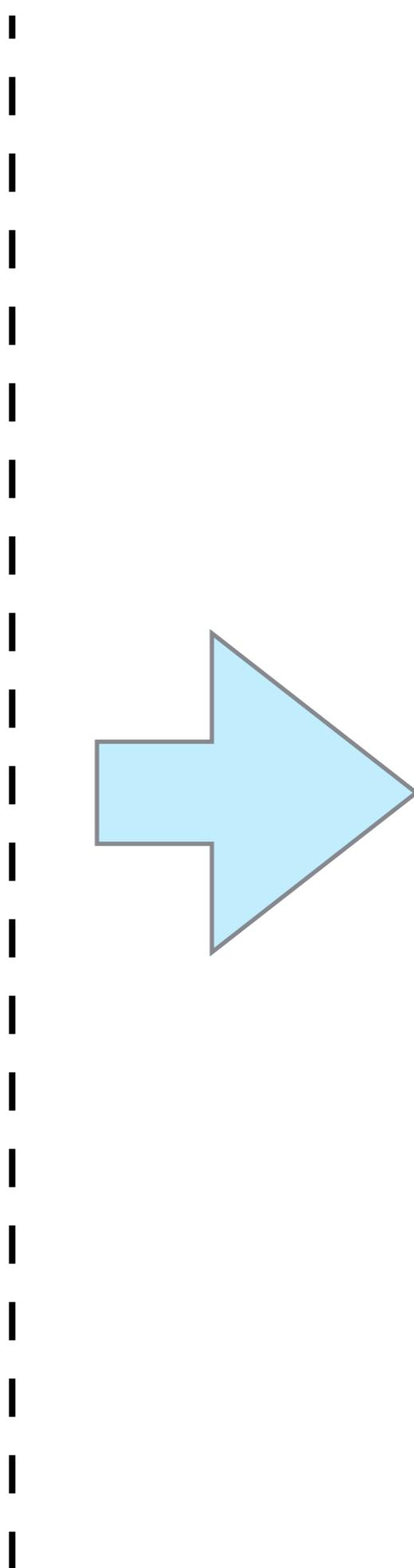
Anecdote

Context

Ideology

Emotion

Data



**DECISION**

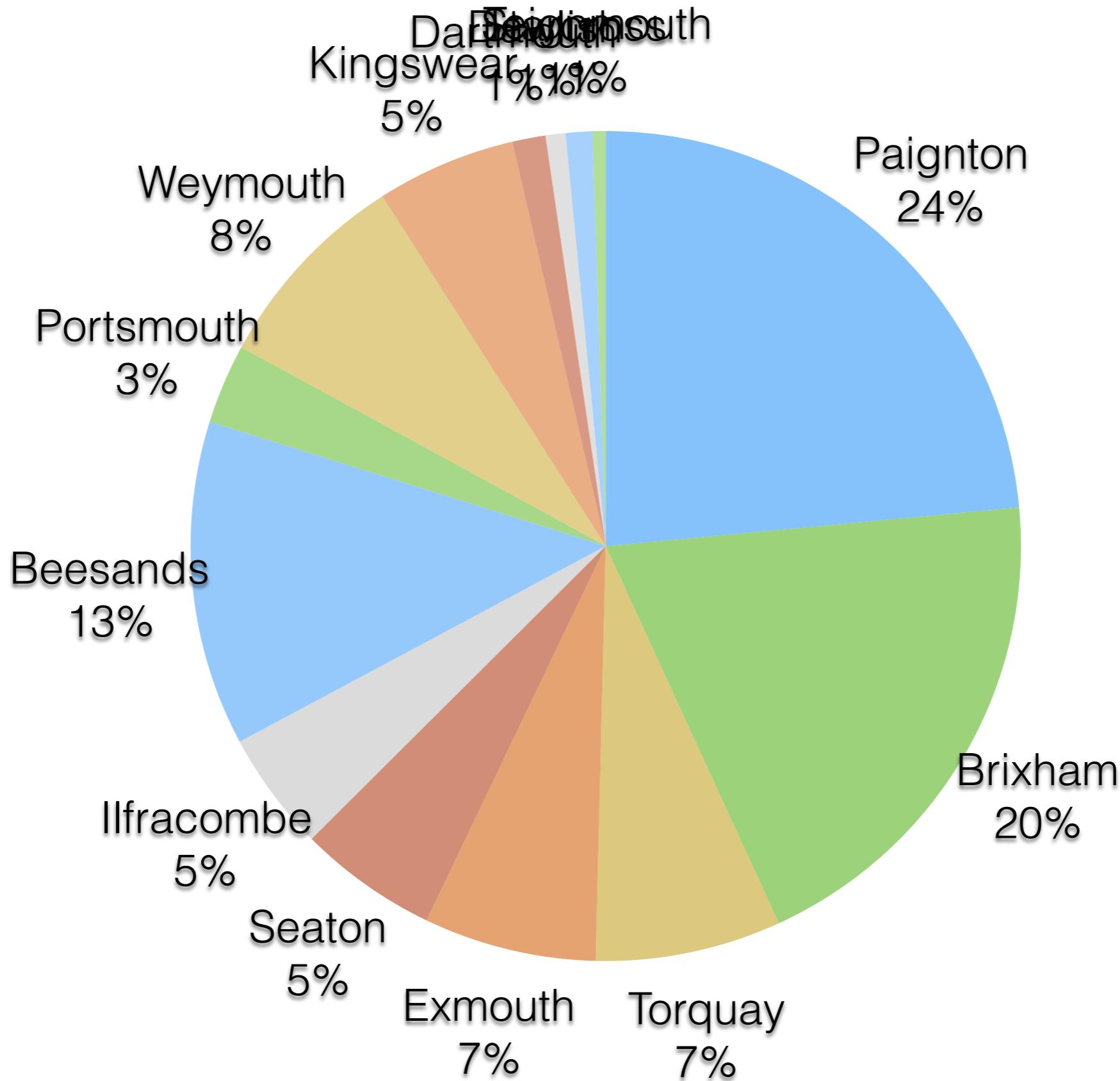
# Exercise

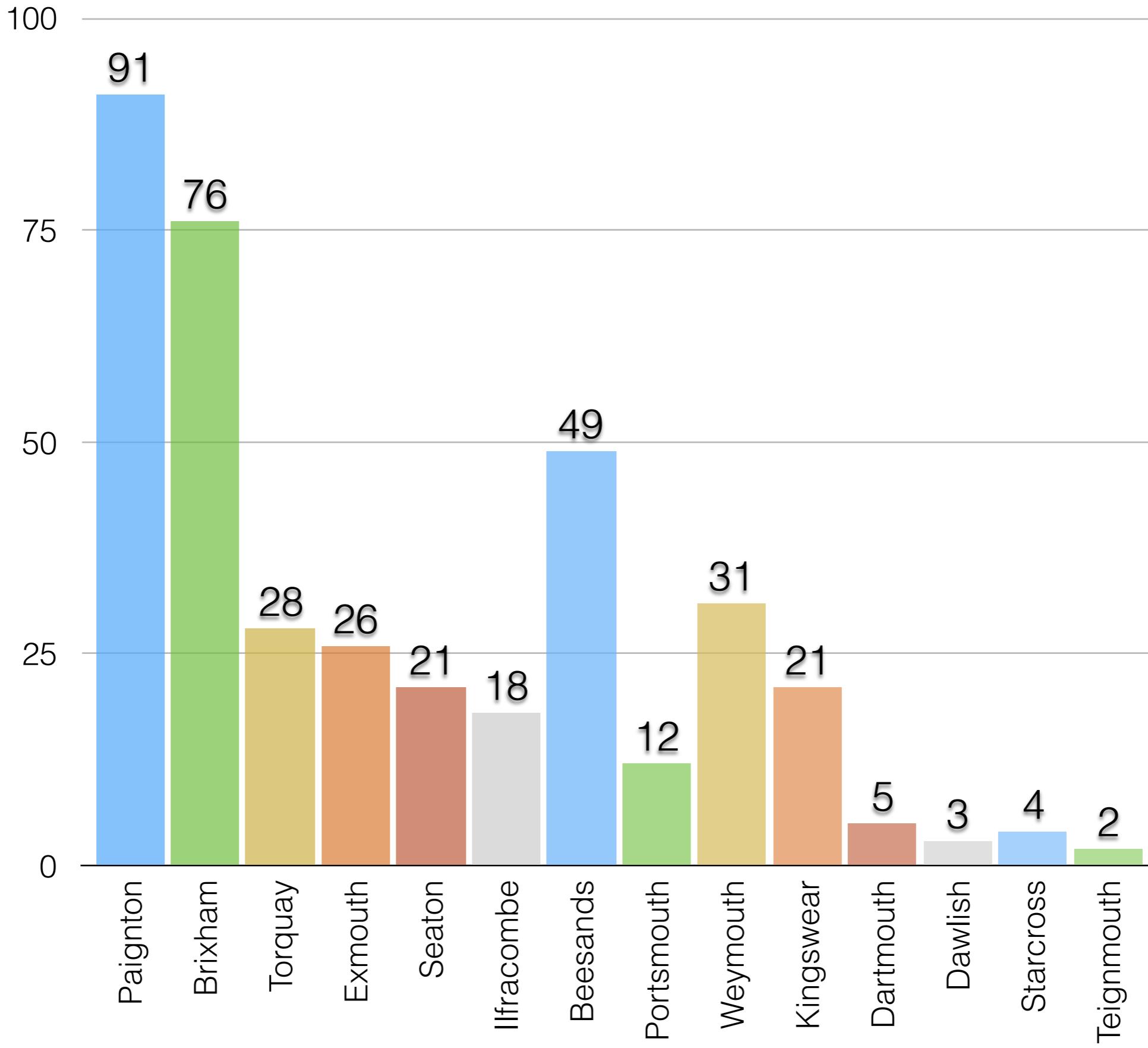
What does bad data  
visualisation look like?

# Domains of FAIL

# Domains of FAIL

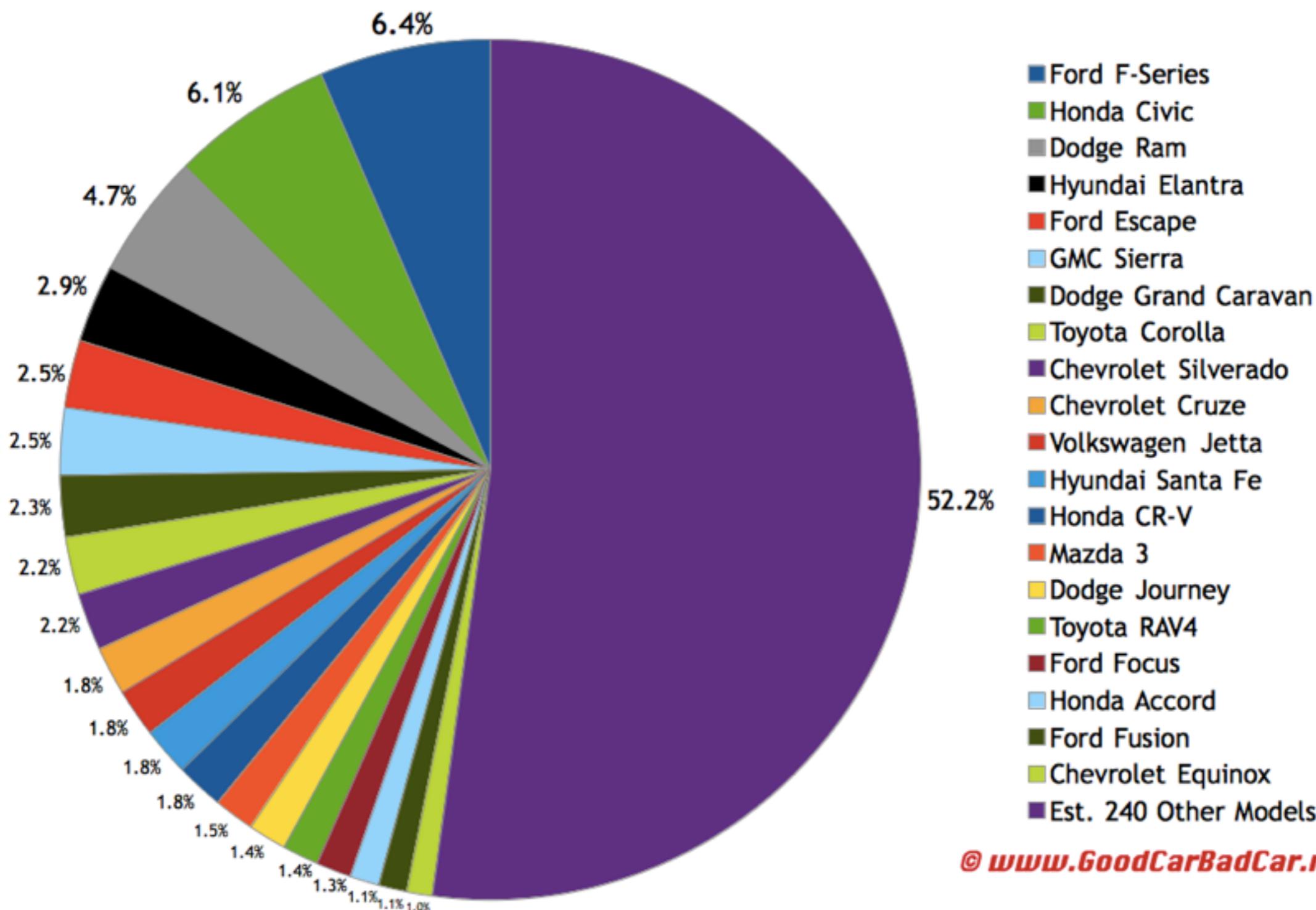
- Chart type
- Colour
- Axis
- Dimensions
- Chart junk
- Bias



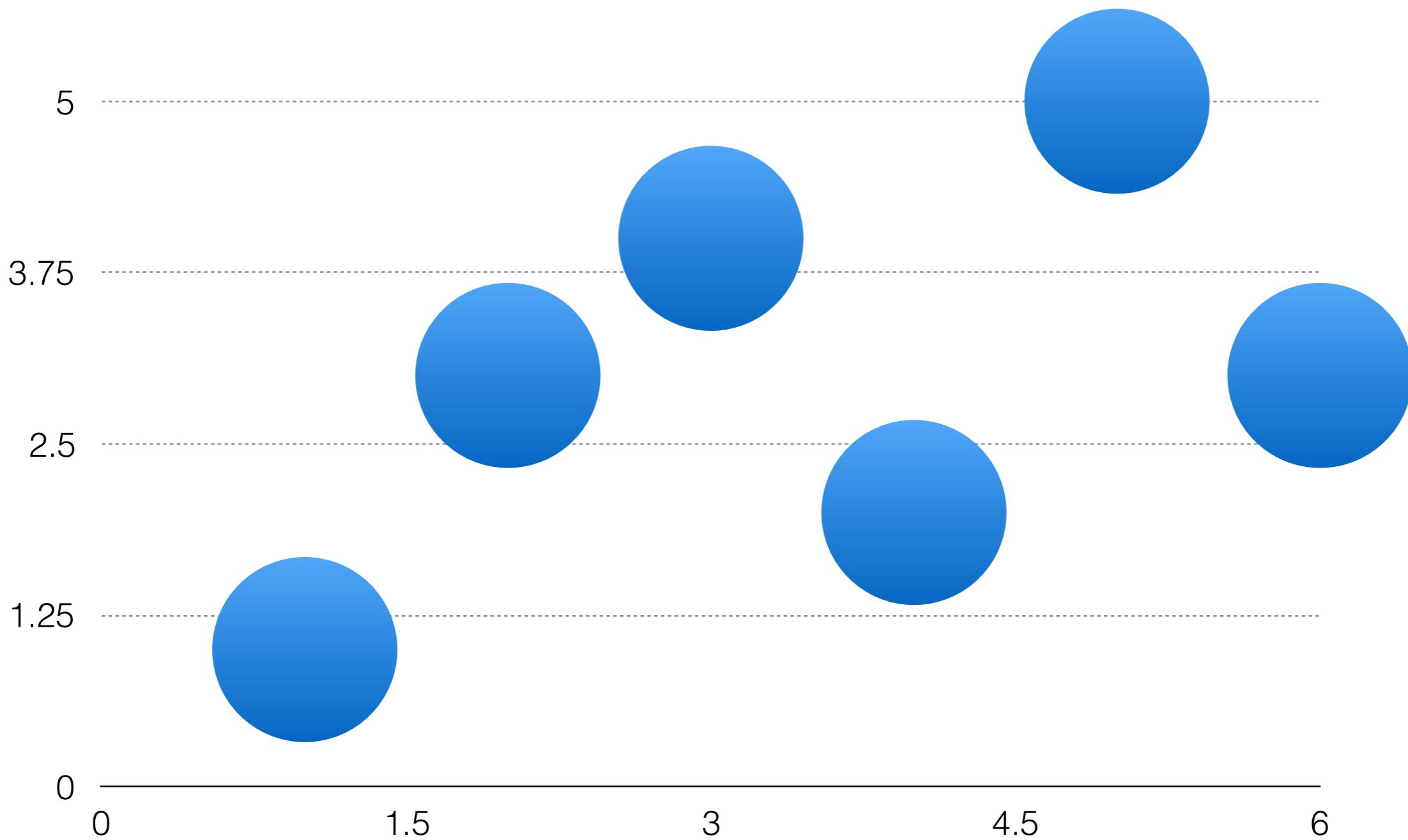


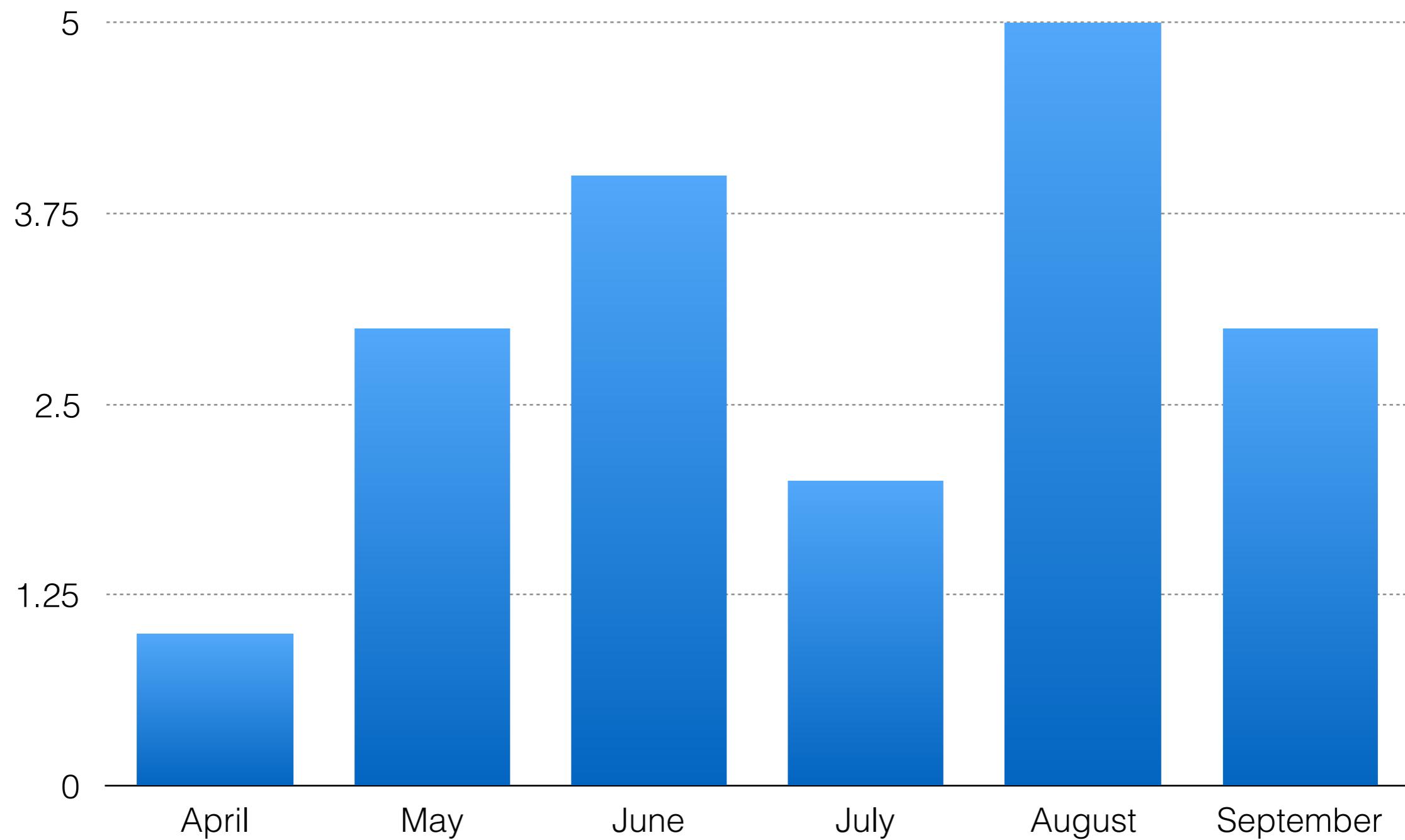
# Market Share Of Canada's 20 Best-Selling Vehicles

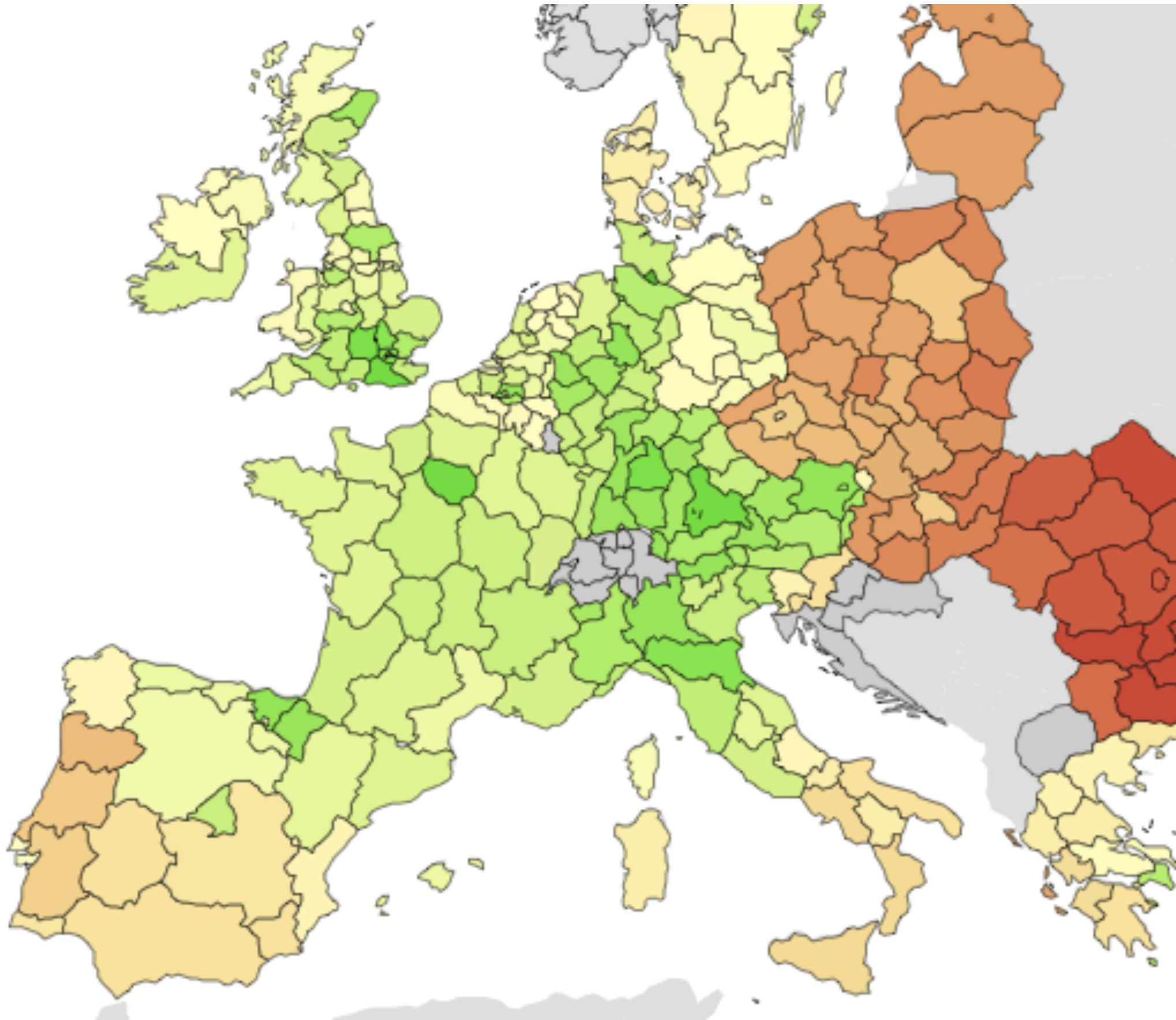
## December 2012



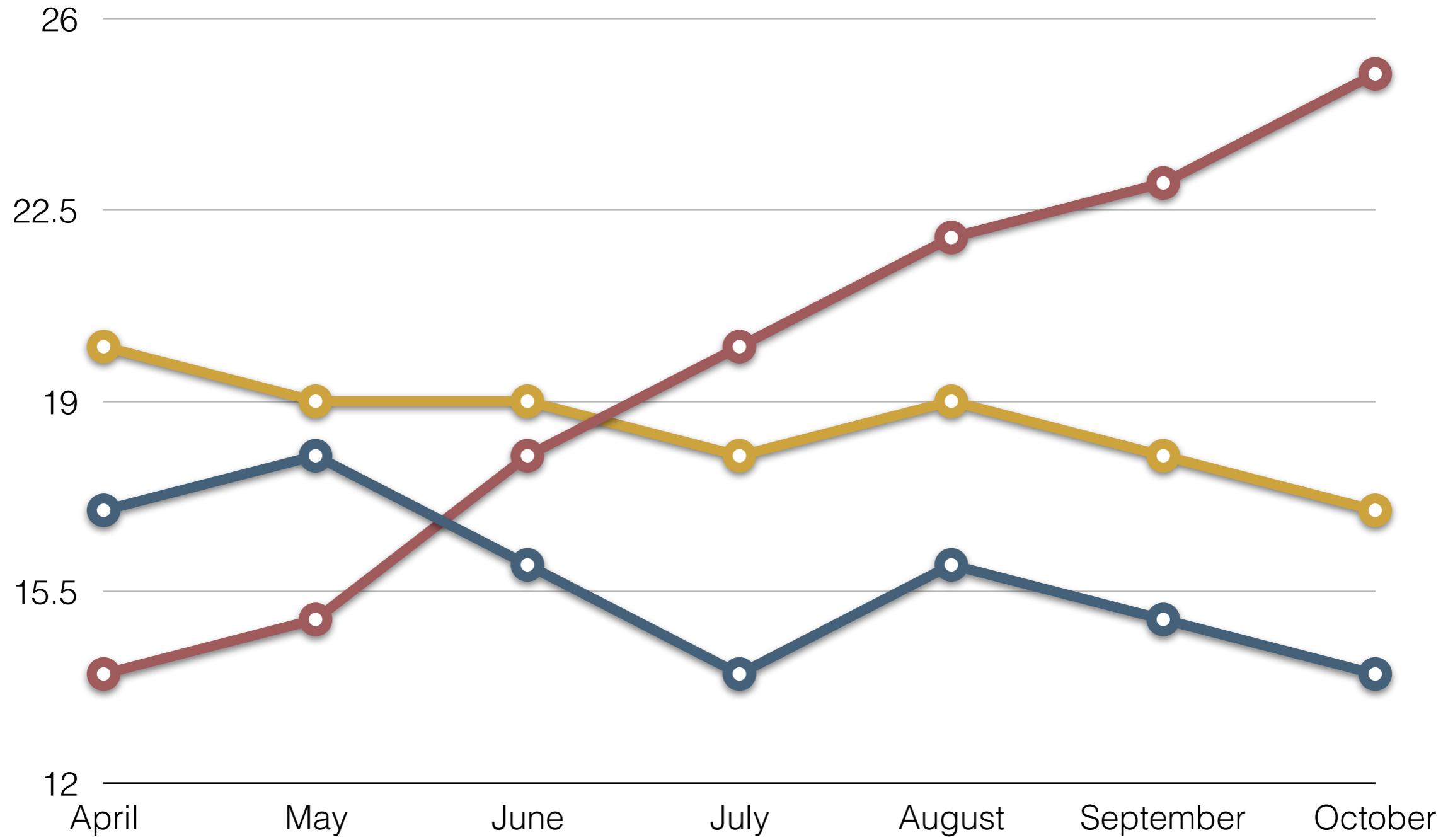
© www.GoodCarBadCar.net

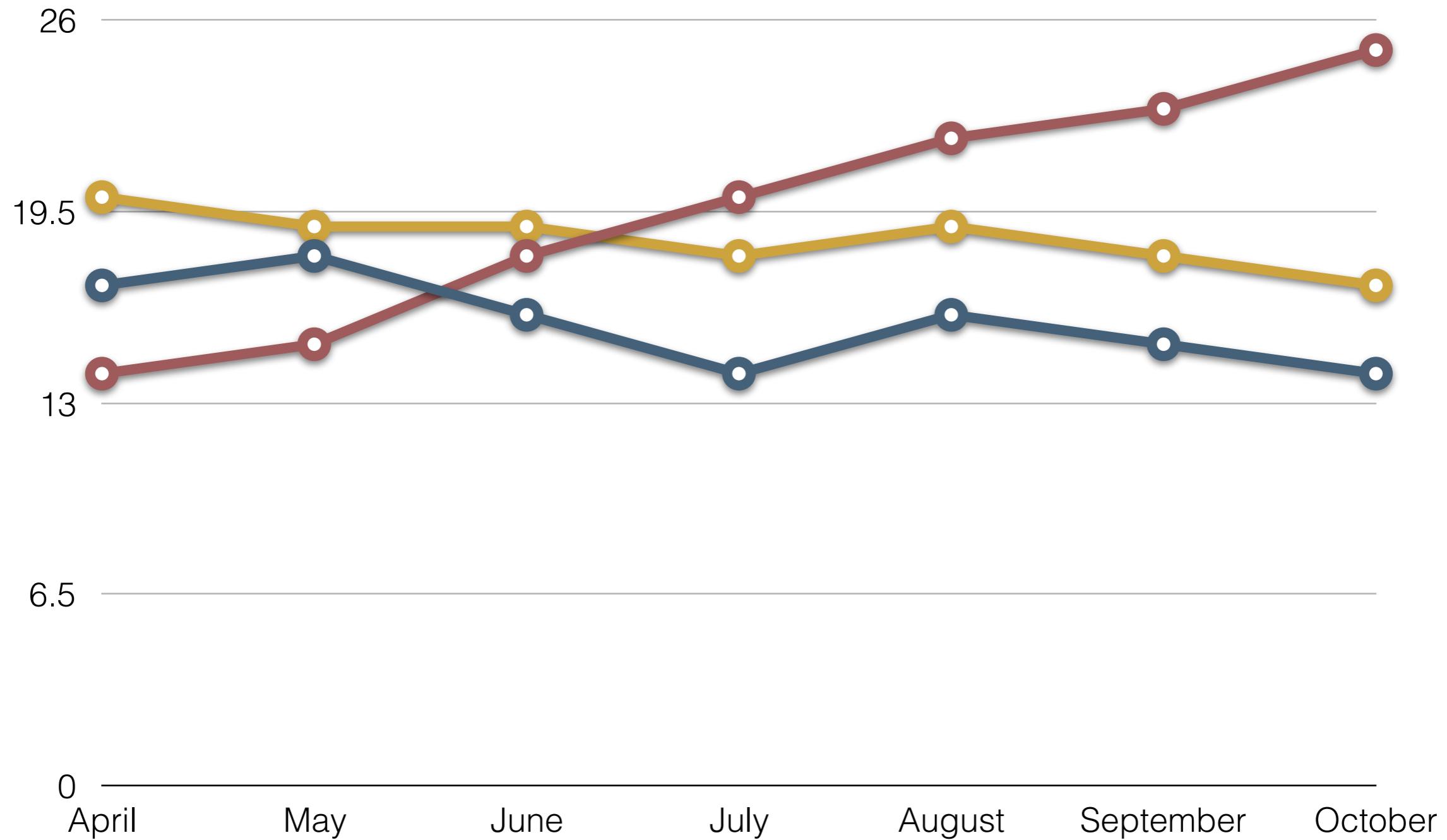




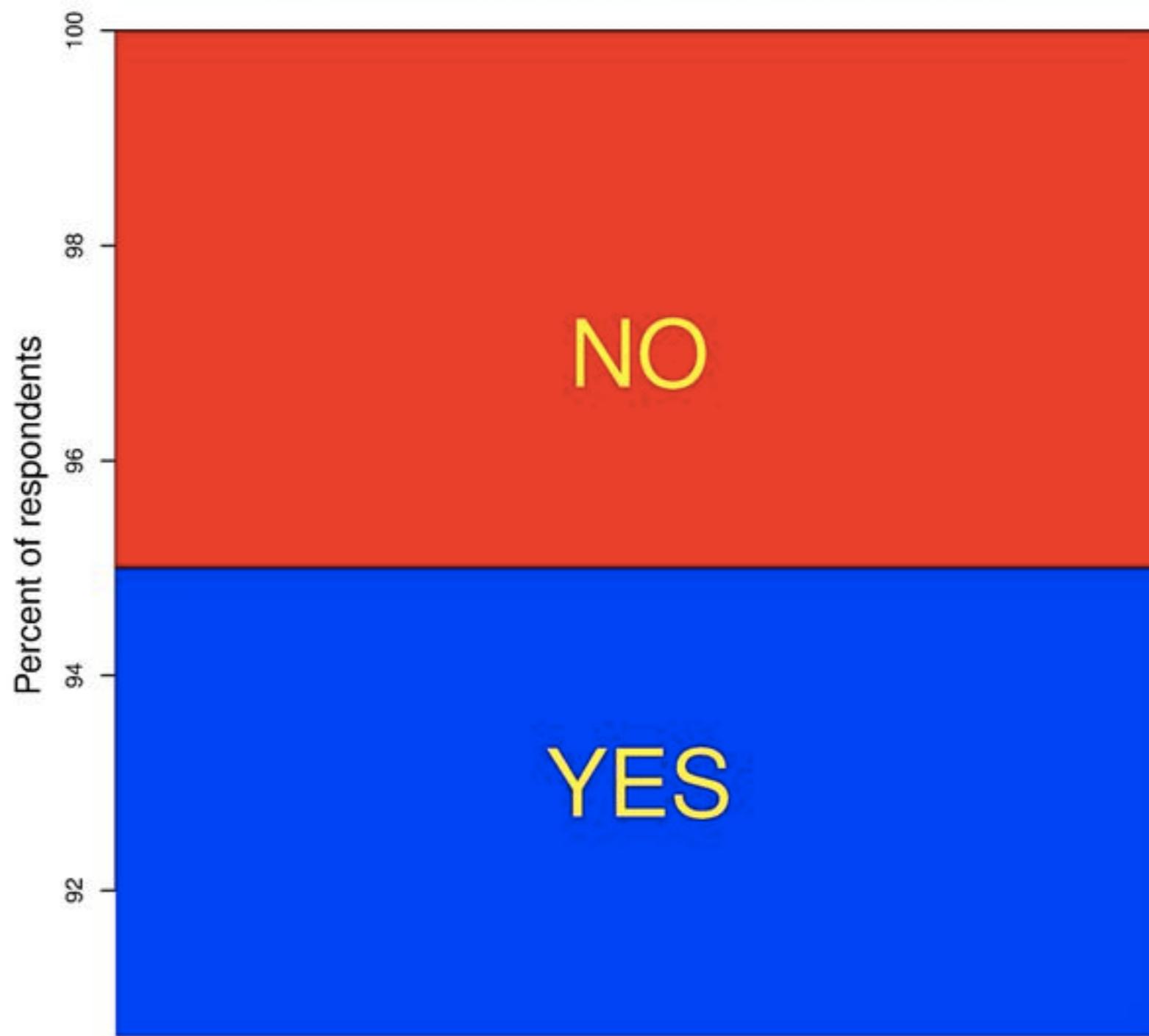


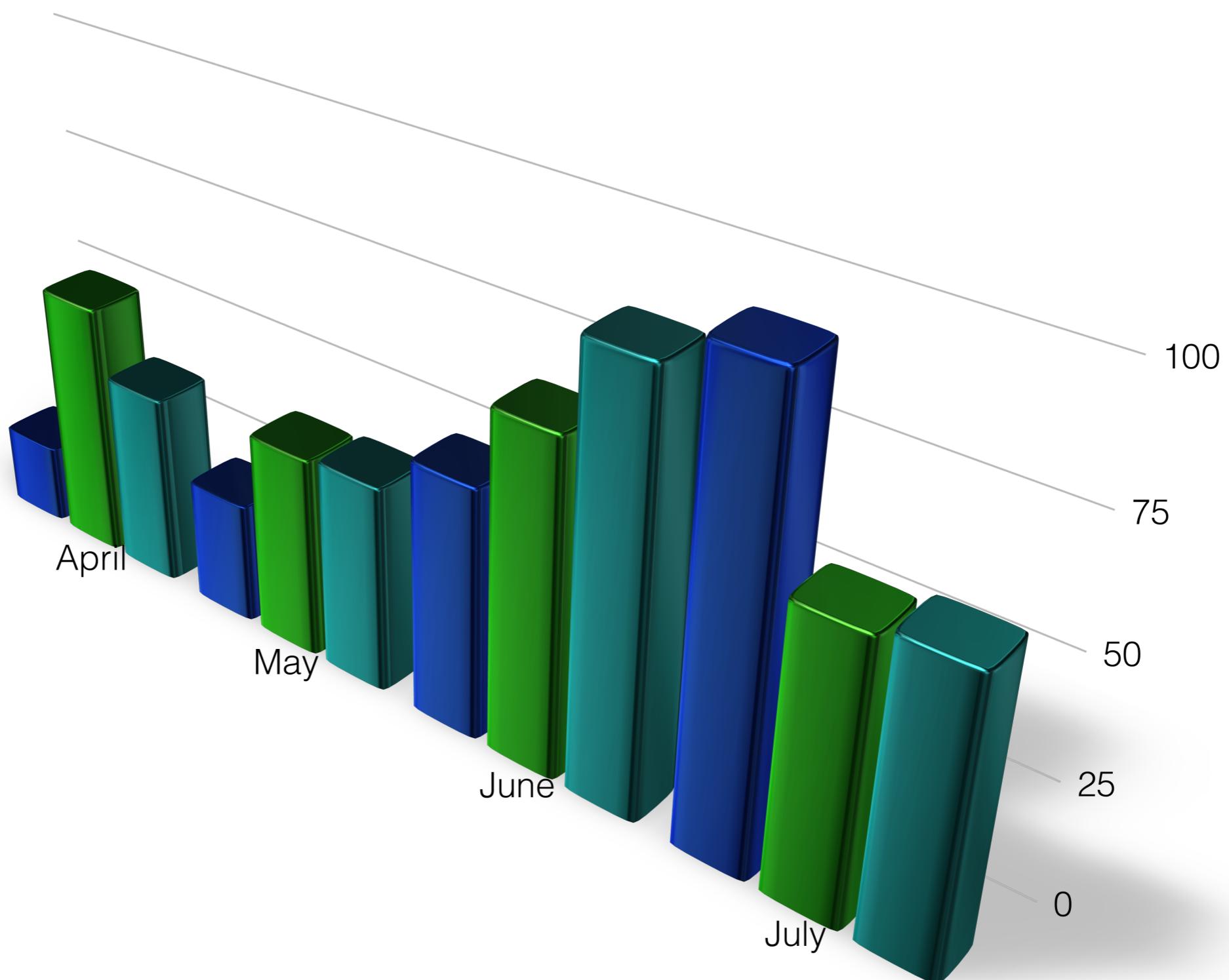
<http://vis4.net/blog/posts/goodbye-redgreen-scales/>

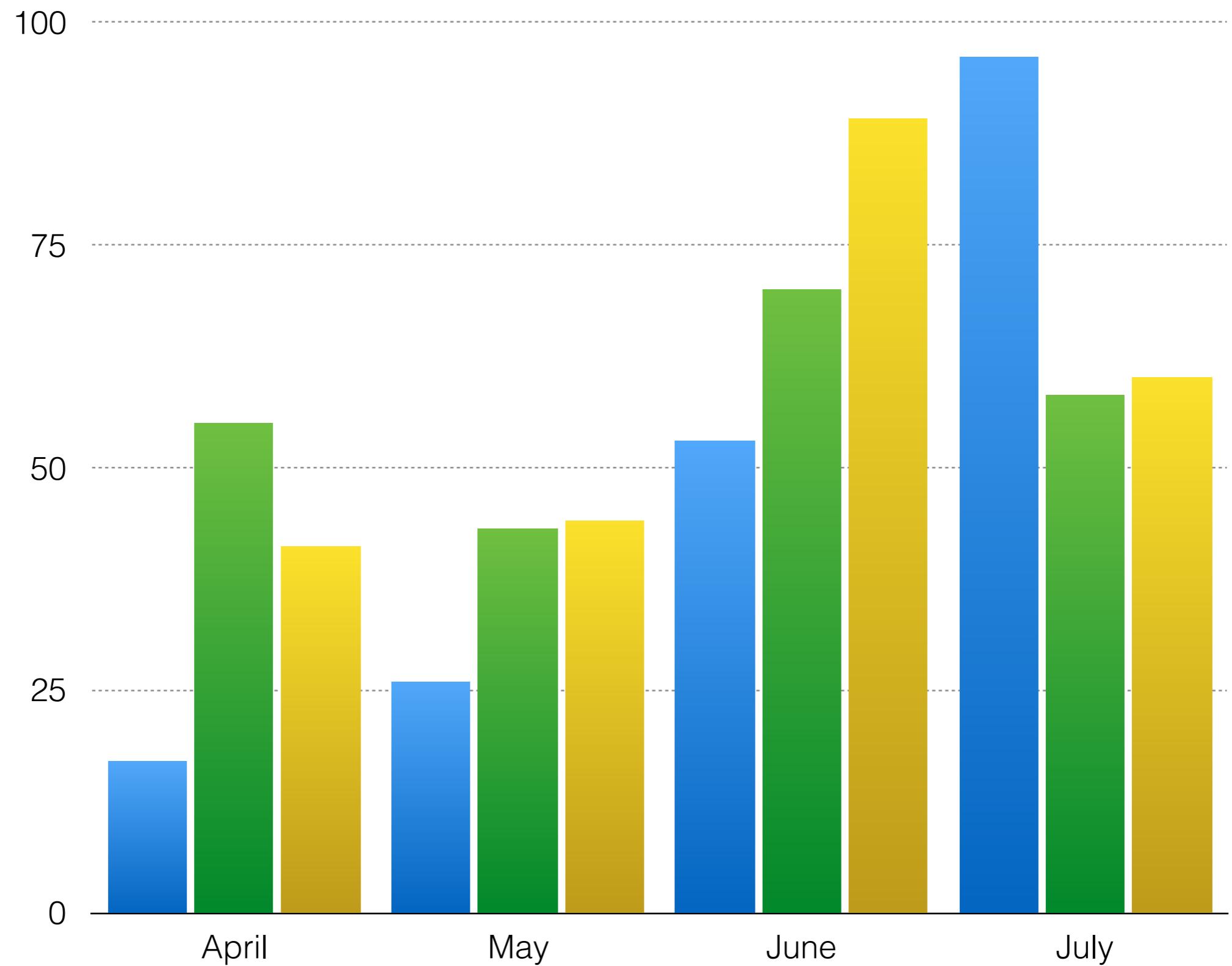




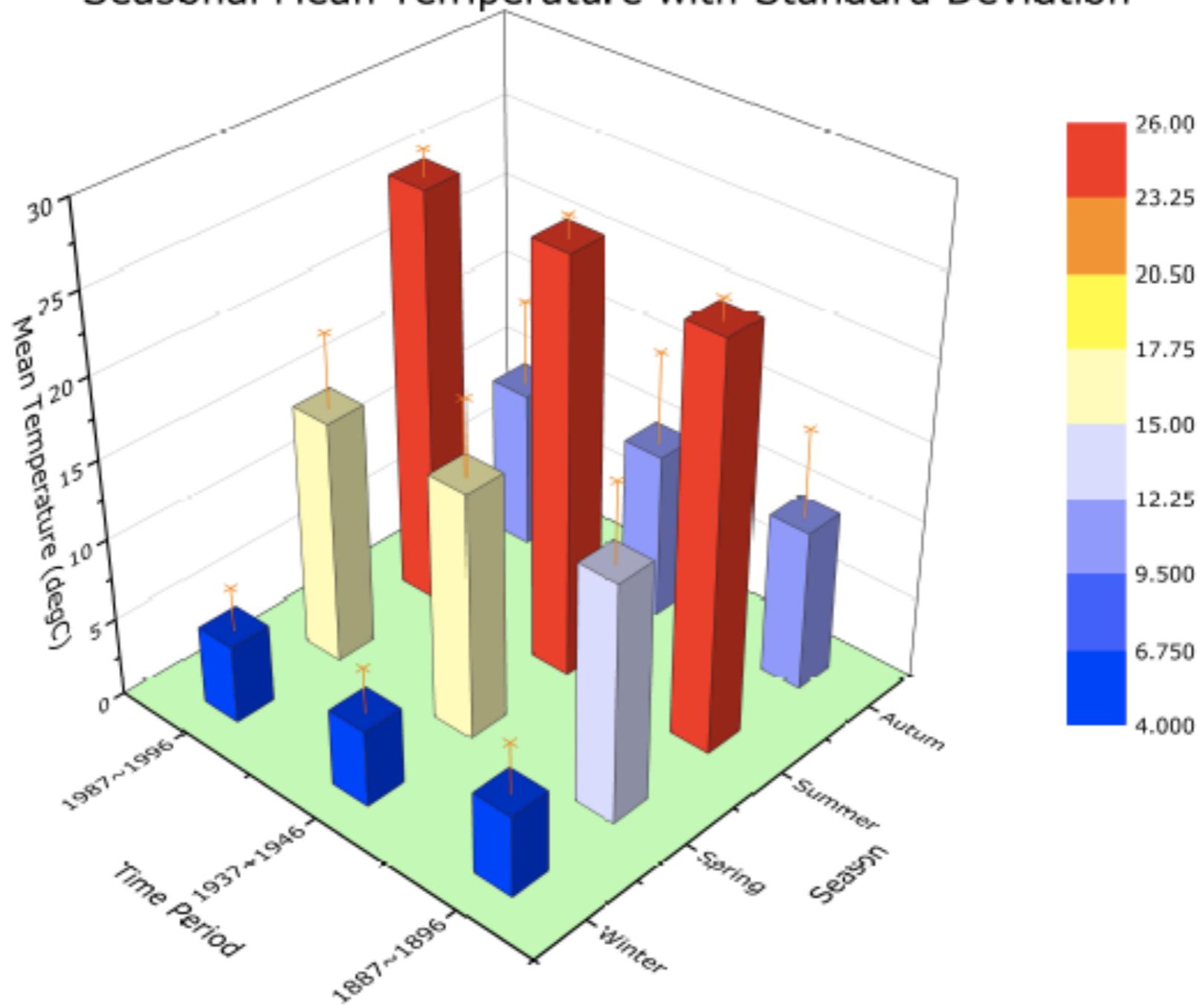
## Is truncating the Y-axis dishonest?



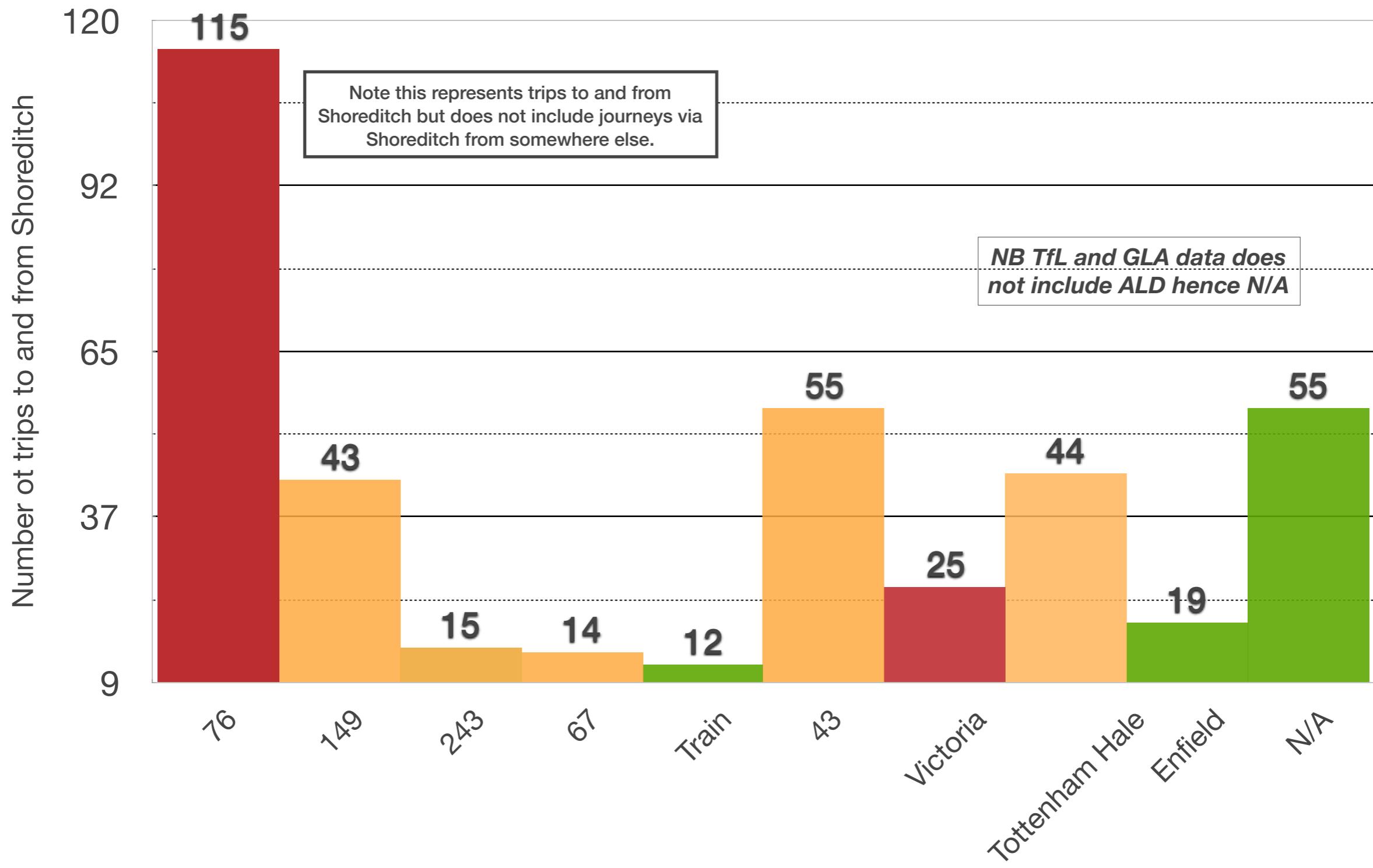


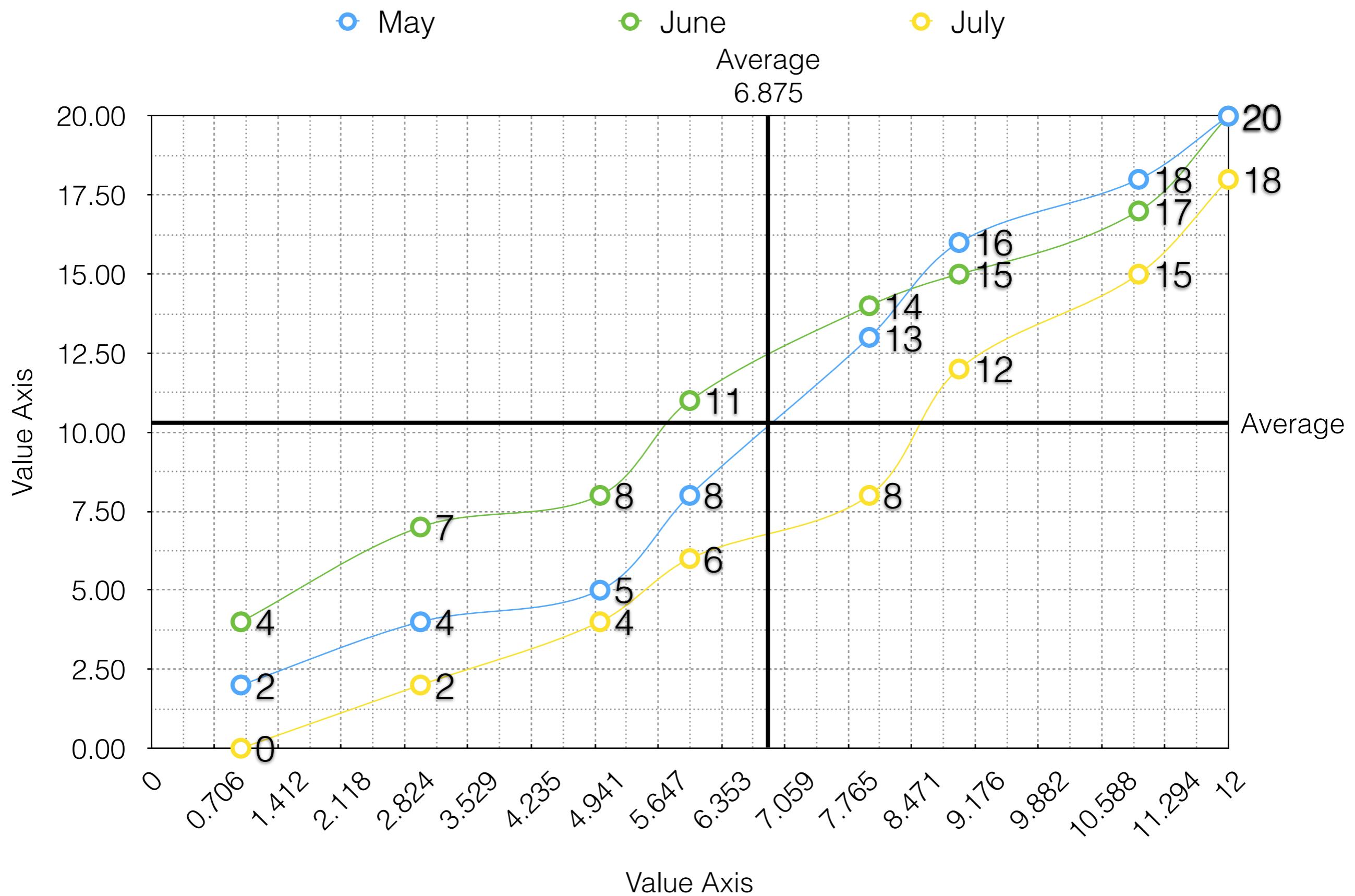


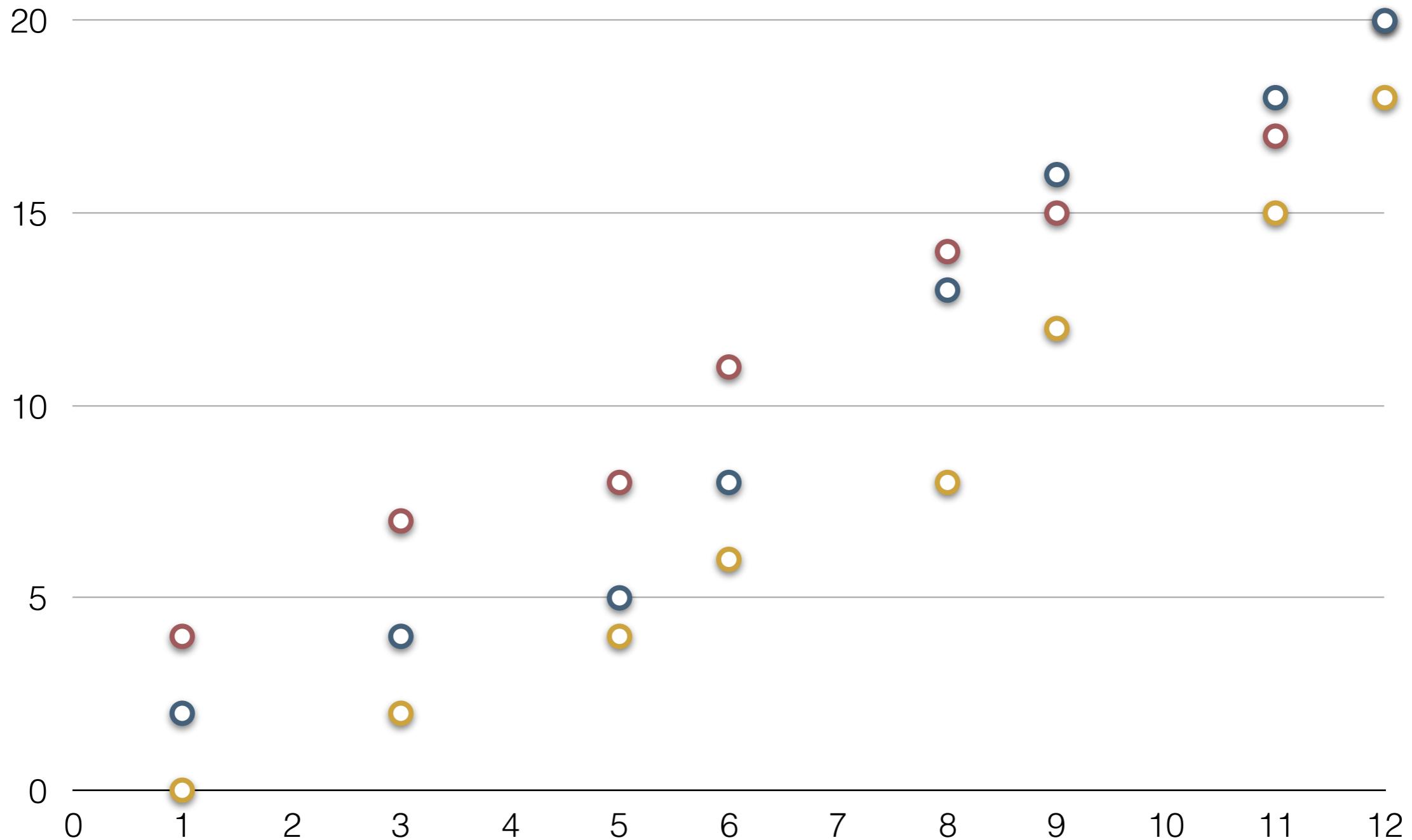
### Seasonal Mean Temperature with Standard Deviation

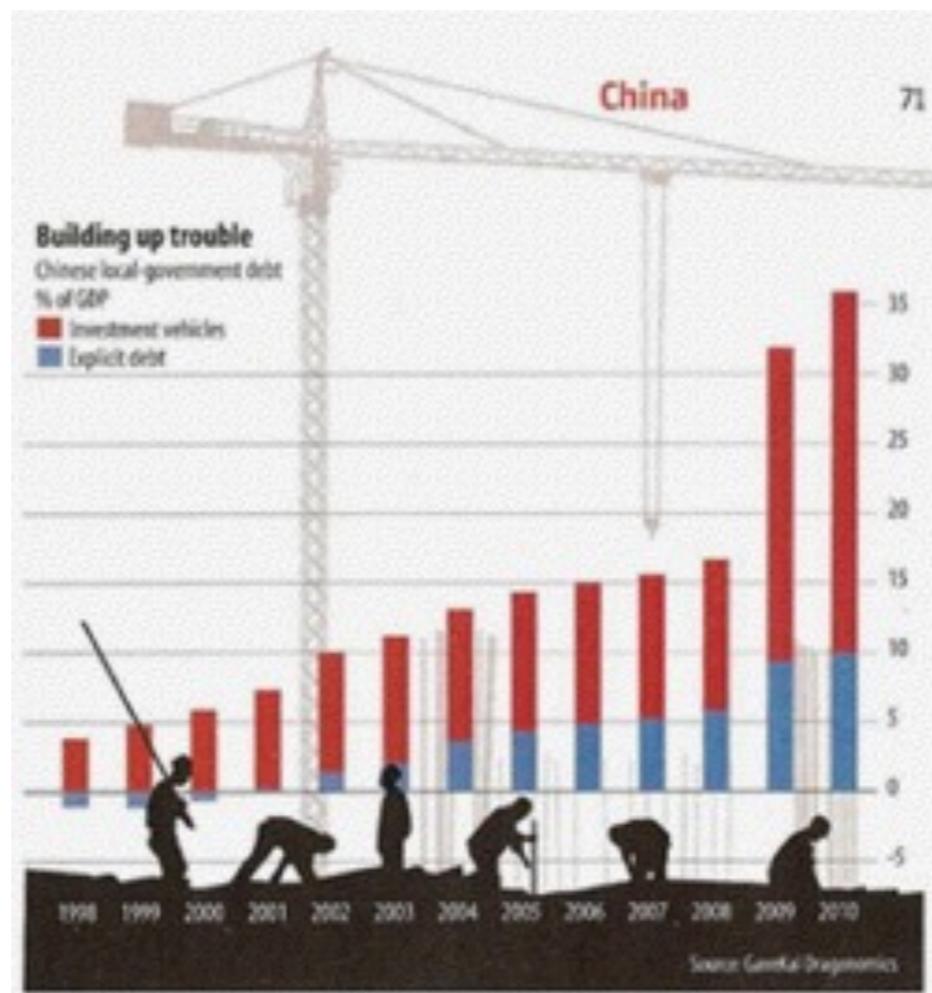


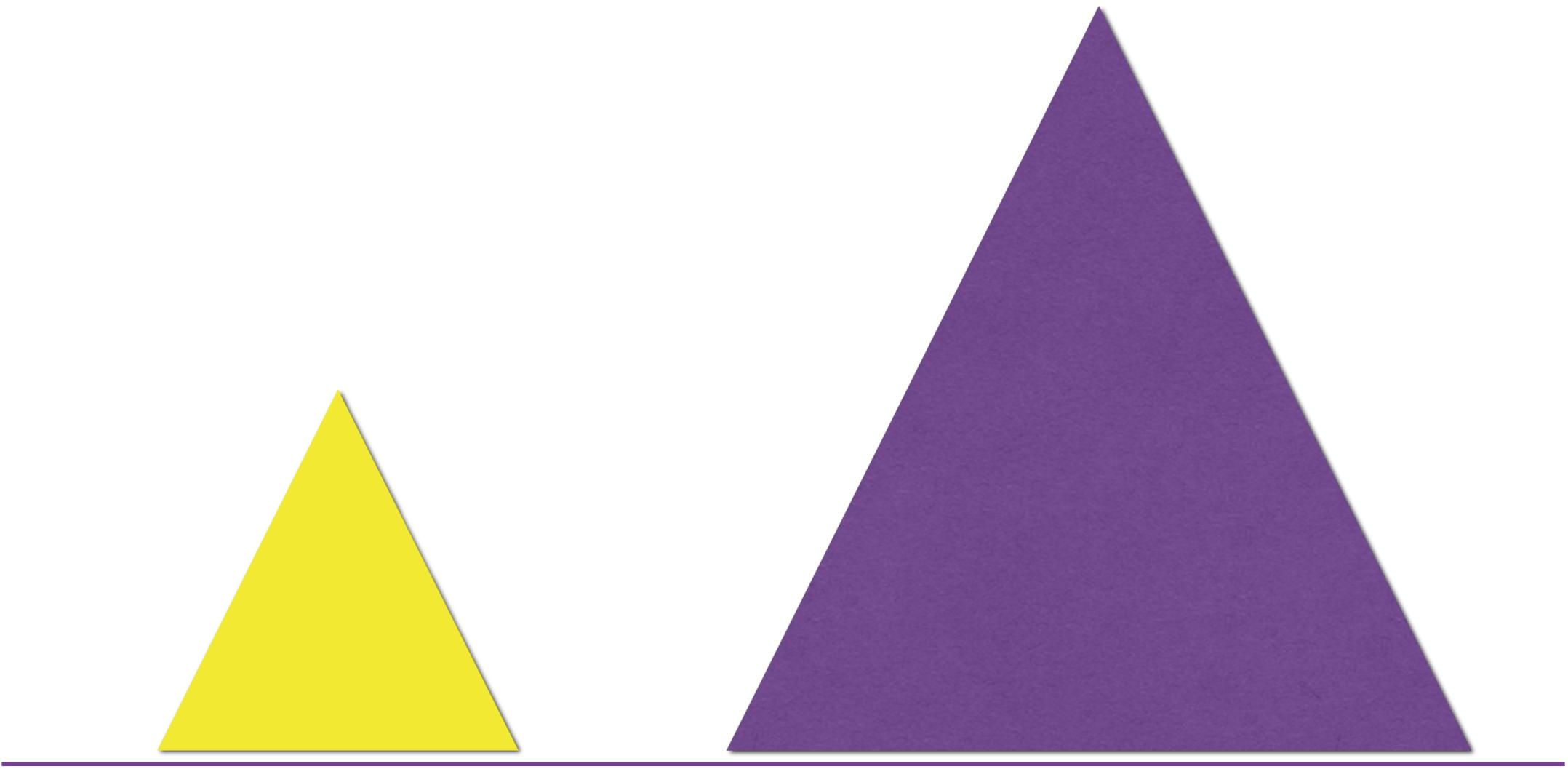
## Number of trips to and from Shoreditch by route

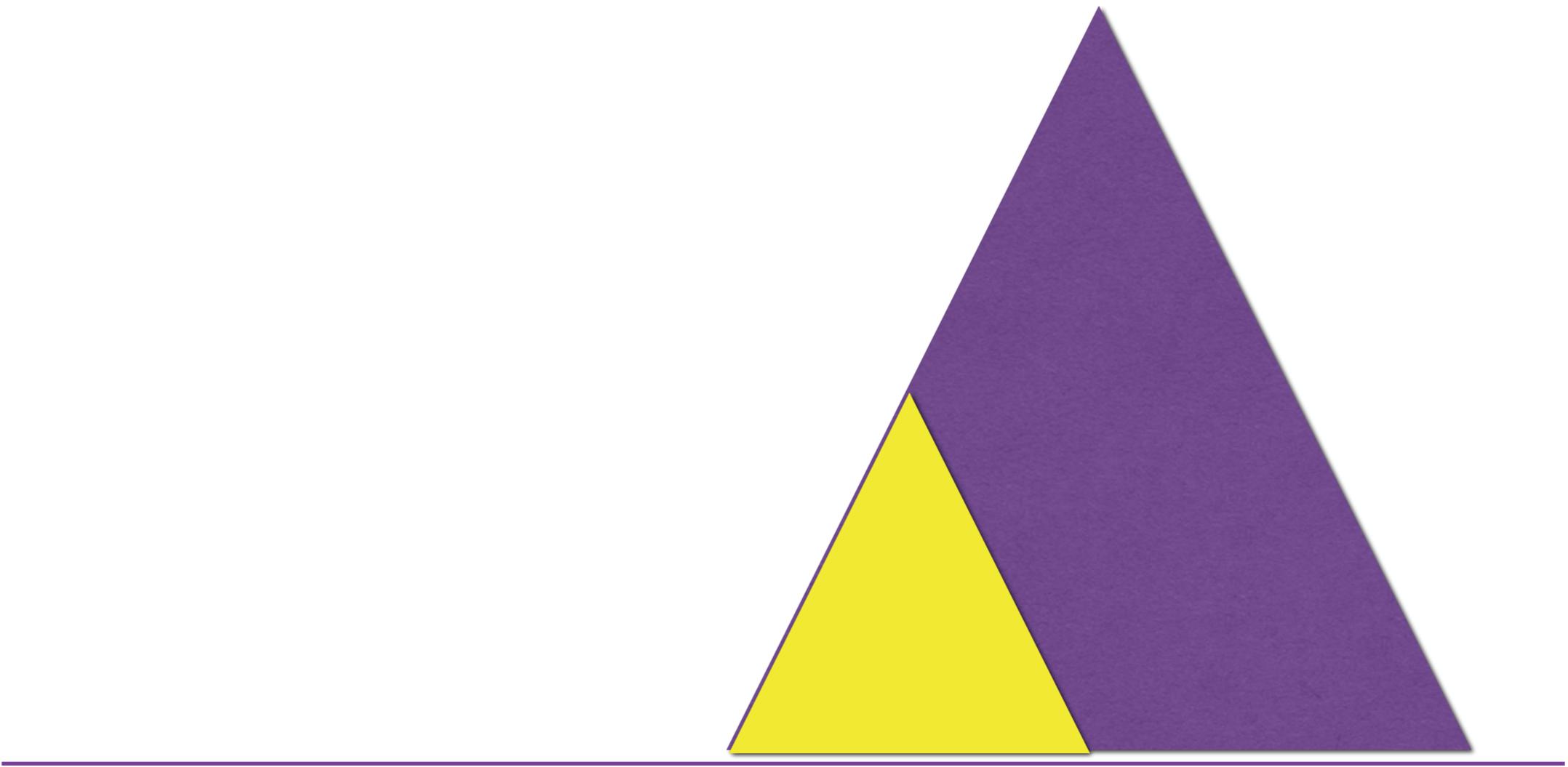








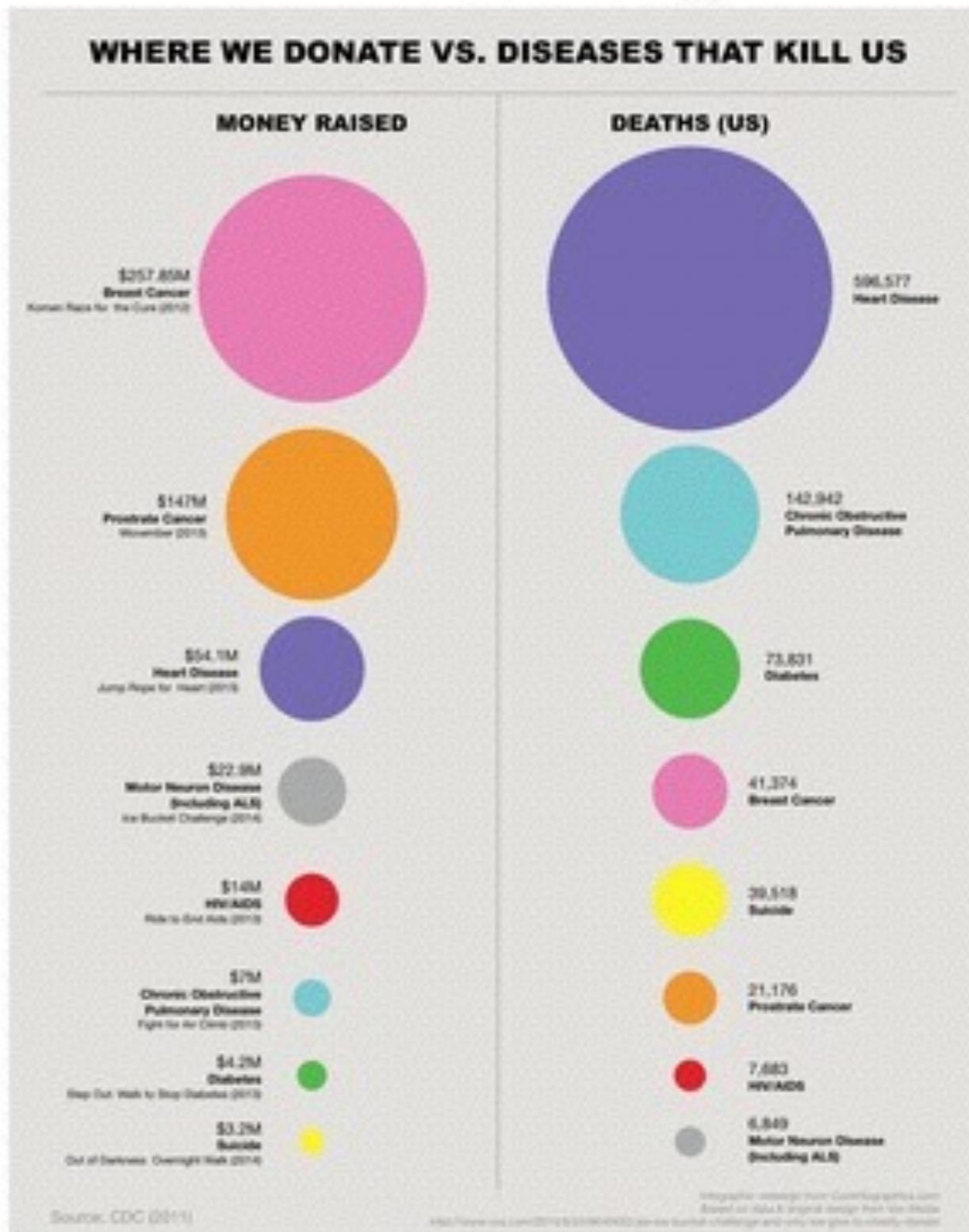




# Original Design

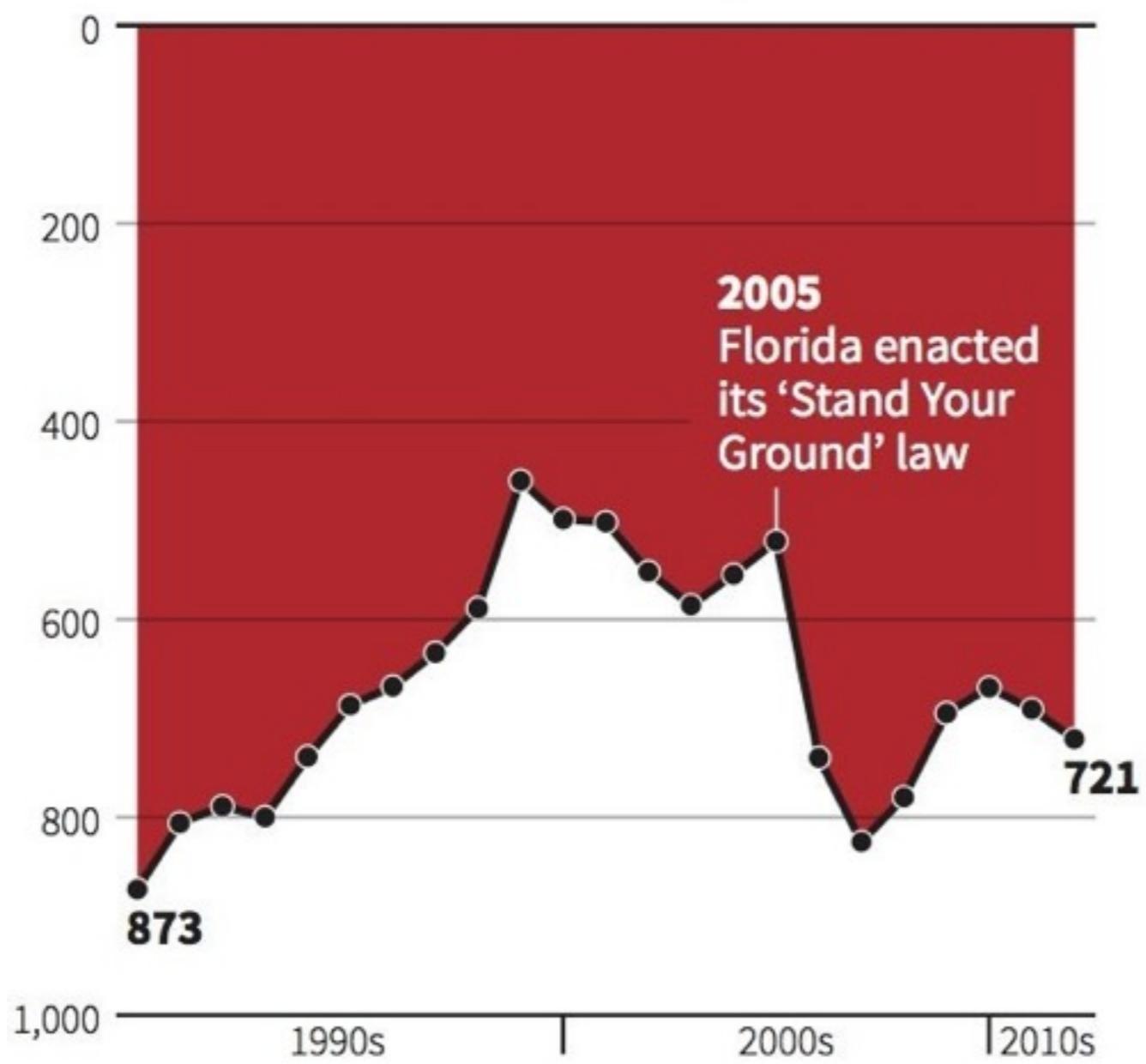


# Corrected Design



# Gun deaths in Florida

Number of murders committed using firearms



Source: Florida Department of Law Enforcement

C. Chan 16/02/2014

REUTERS

# Principles

A B C

Accuracy

Brevity

Clarity

# Edward Tufte

- Above all else show the data.
- Maximize the data-ink ratio.
- Erase non-data-ink.
- Erase redundant data-ink.
- Revise and edit.

The Visual Display of Quantitative Information, Edward Tufte

# Conveying information

Different aspects of mapping are stronger at conveying certain types of information

1. Position
2. Length
3. Slope/angle
4. Area
5. Volume
6. Colour/density

# Exercise

Design a data visualisation - the old fashioned way ...

# Break

# Tools

- Excel
- Fusion tables
- Tableau
- Plotly
- CartoDB
- d3.js

# Exercise

Pick a software tool and use it to produce the visualisation you designed in the last exercise

# Review:

1. Identify the elements of a data visualisation that convey information
2. Construct an effective data visualisation
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Any questions?

# Thank you

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