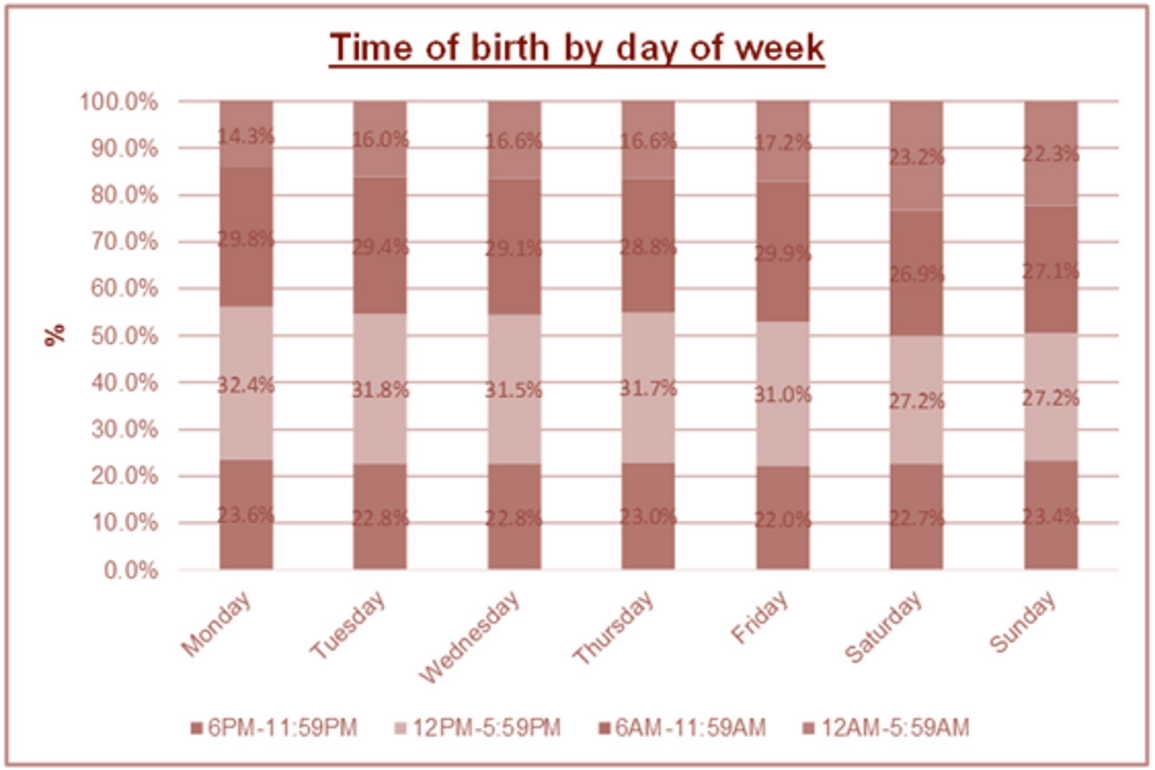
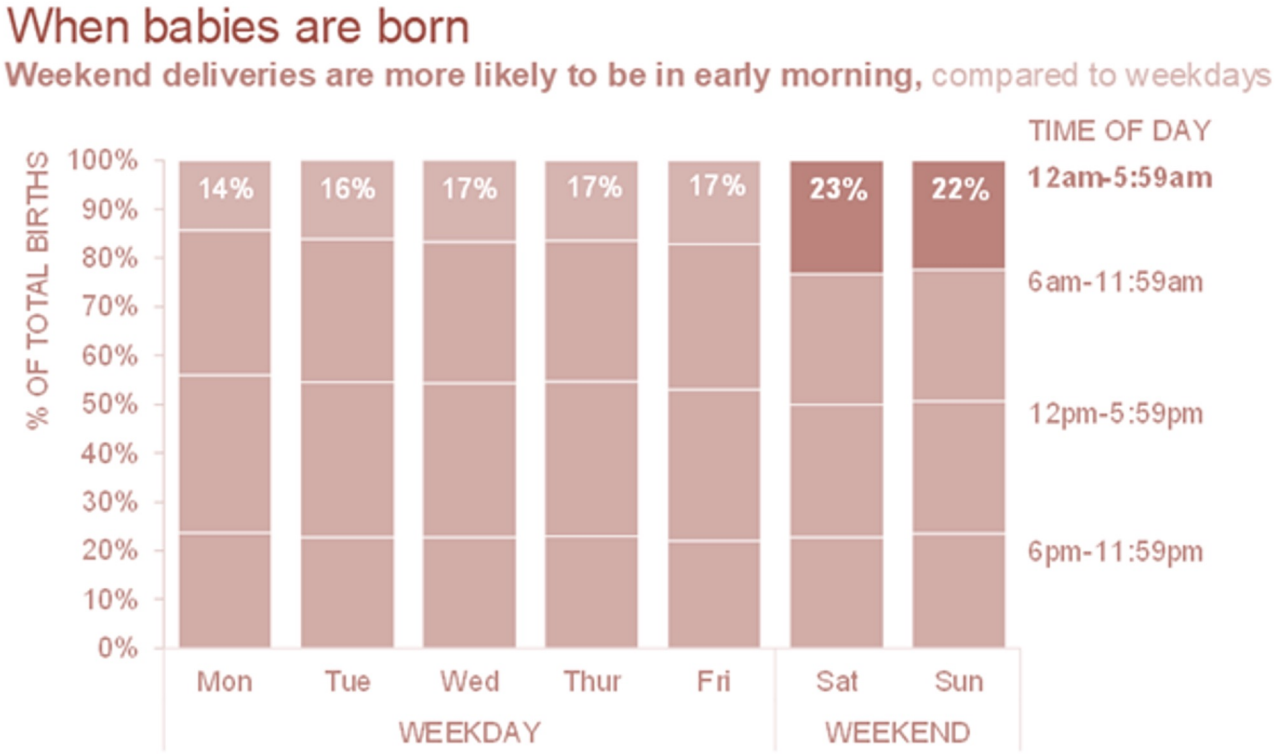
BEFORE



Data source: CDC (National Vital Statistics Reports, Vol. 67, No. 1, January 31, 2018)

AFTER

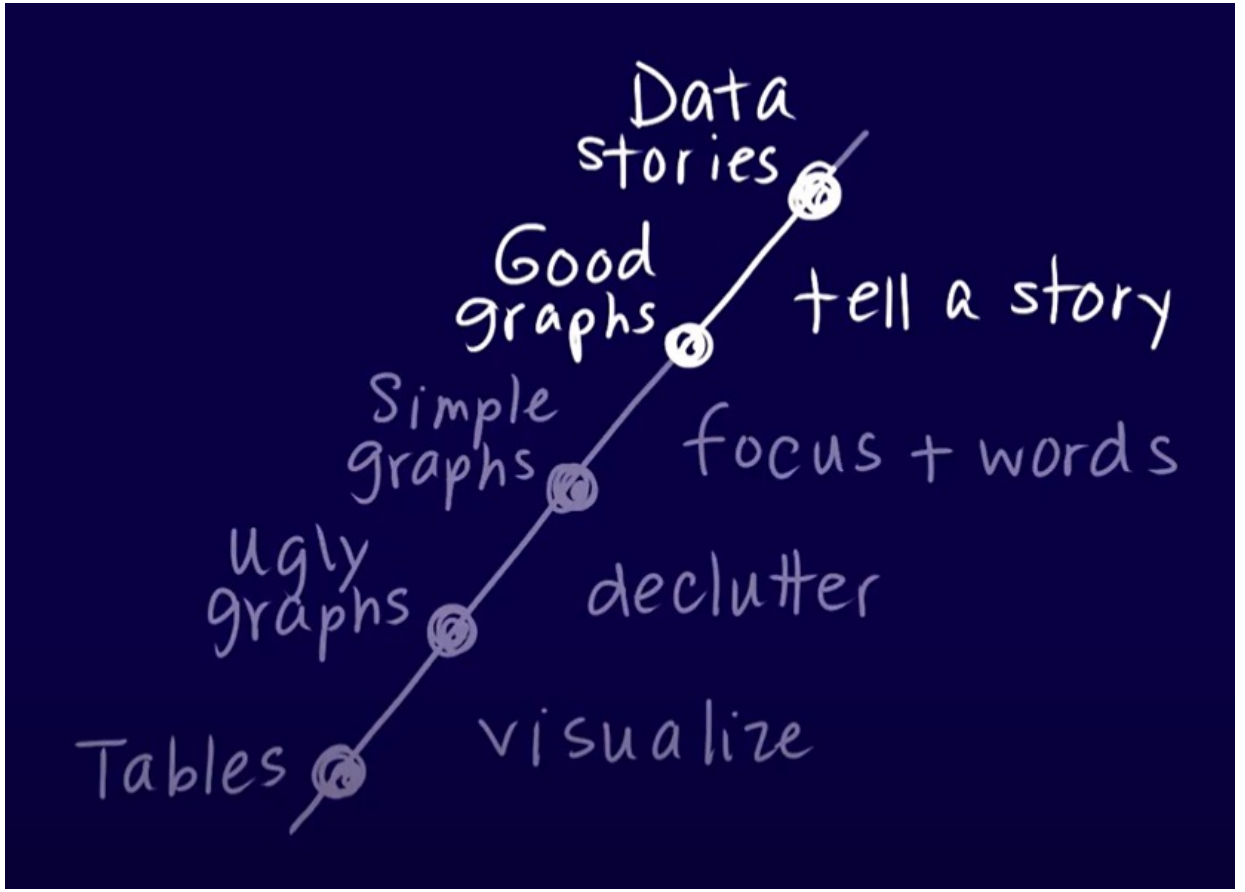


Data source: CDC (National Vital Statistics Reports, Vol. 67, No. 1, January 31, 2018)

8. Evolving a Storytelling Chart

[C. Nussbaumer Knaflic, *Storytelling with Data*]

Evolving a Visualization



[C. Nussbaumer Knaflic, *Storytelling with Data*]

Evolving a Visualization – Table

Meals served over time

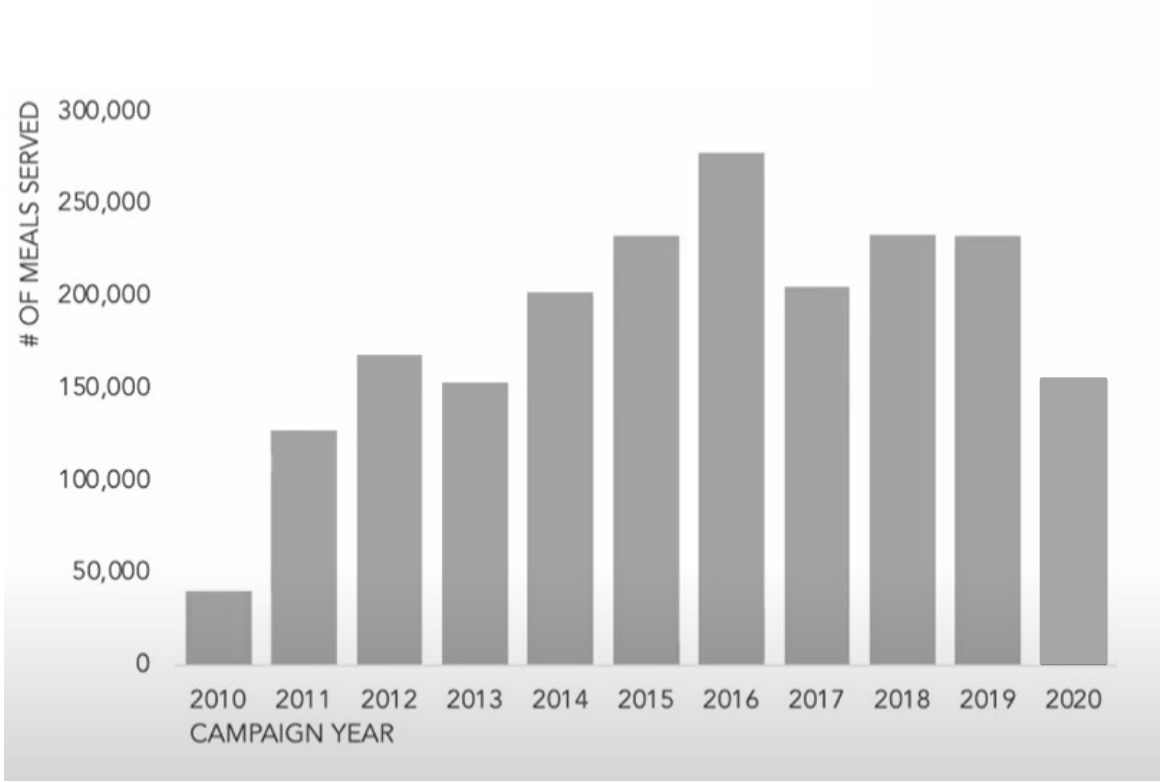
Campaign Year	Meals Served
2010	40,139
2011	127,020
2012	168,193
2013	153,115
2014	202,102
2015	232,897
2016	277,912
2017	205,350
2018	233,389
2019	232,797
2020	154,830

[C. Nussbaumer Knaflic, *Storytelling with Data*]

Evolving a Visualization – Ugly Graph

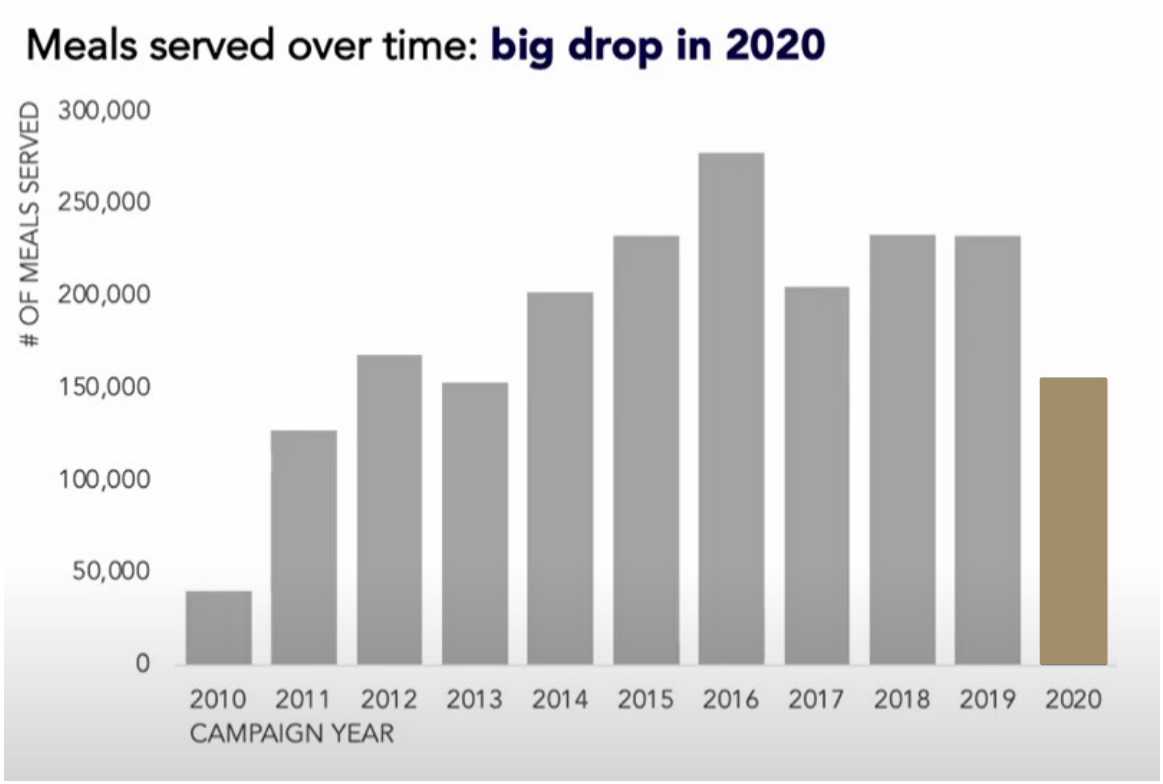
[Based on C. Nussbaumer Knaflic, *Storytelling with Data*]

Evolving a Visualization – Simple Graph



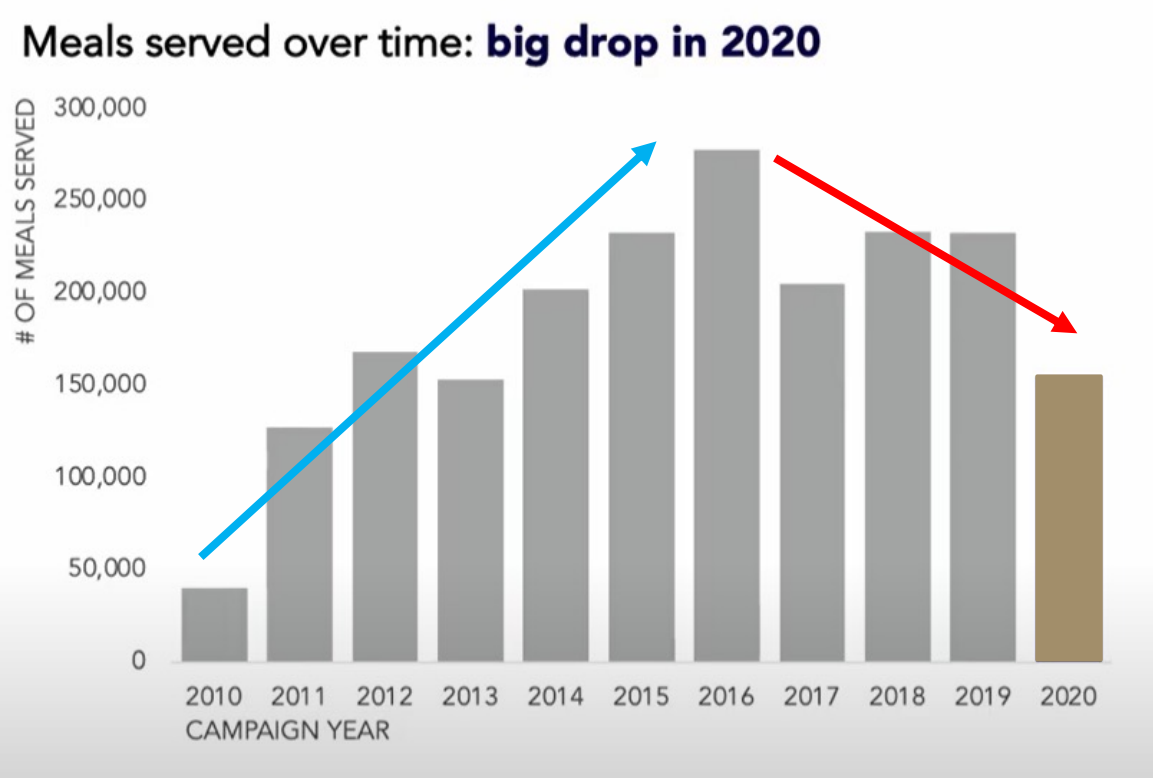
[Based on C. Nussbaumer Knaflic, *Storytelling with Data*]

Evolving a Visualization – Good Graph



[Based on C. Nussbaumer Knaflic, *Storytelling with Data*]

Evolving a Visualization – Data Story



Even though it might seem obvious that there would be a **big drop in meals served in 2020** due to the pandemic, note that the **2017-2019 numbers** were already going against the **2010-2016 trend** – we should not be planning for a return to 2016 levels without first understanding what happened in 2017-2019.

Data Storytelling Tropes

Some data visualizations patterns are so familiar they have become **tropes:**

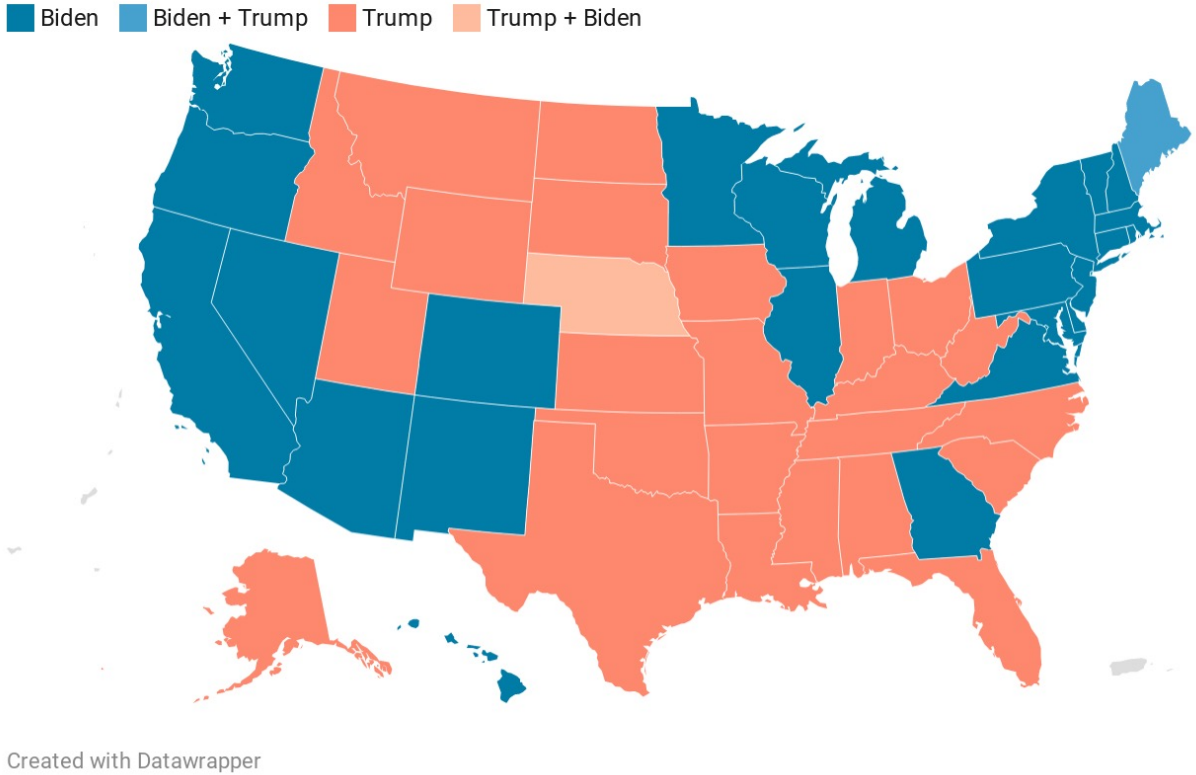
- a scatterplot with a trend line going straight up or straight down
- a cluster bar chart with two categories where one is always lower than the other
- a line chart with the two lines crossing in one place
- pie charts being used all over the place (to avoid)
- red for republican, blue for democrat (US); red for left-leaning, blue for right-leaning (ROW)
- using broken axes to exaggerate effects (can be justified… sometimes)
- etc.

[https://handsondataviz.org/spatial-bias.html]

Data Storytelling Tropes – Examples

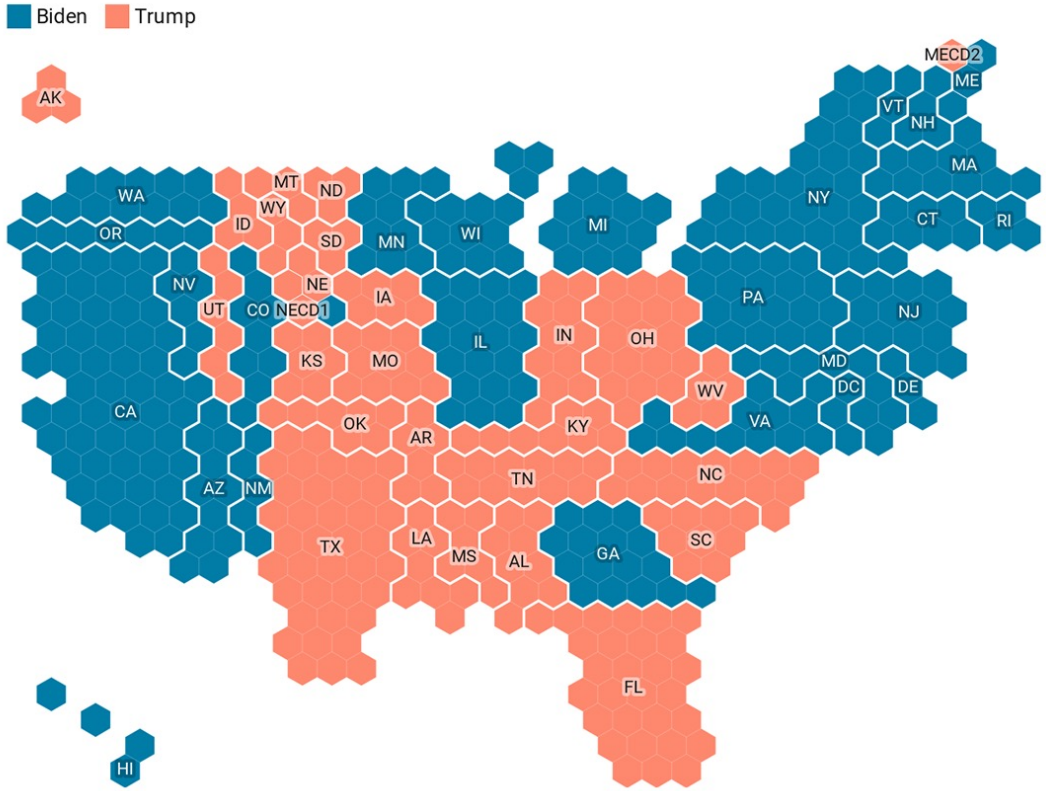
Conventional Map of 2020 US Presidential Election Results

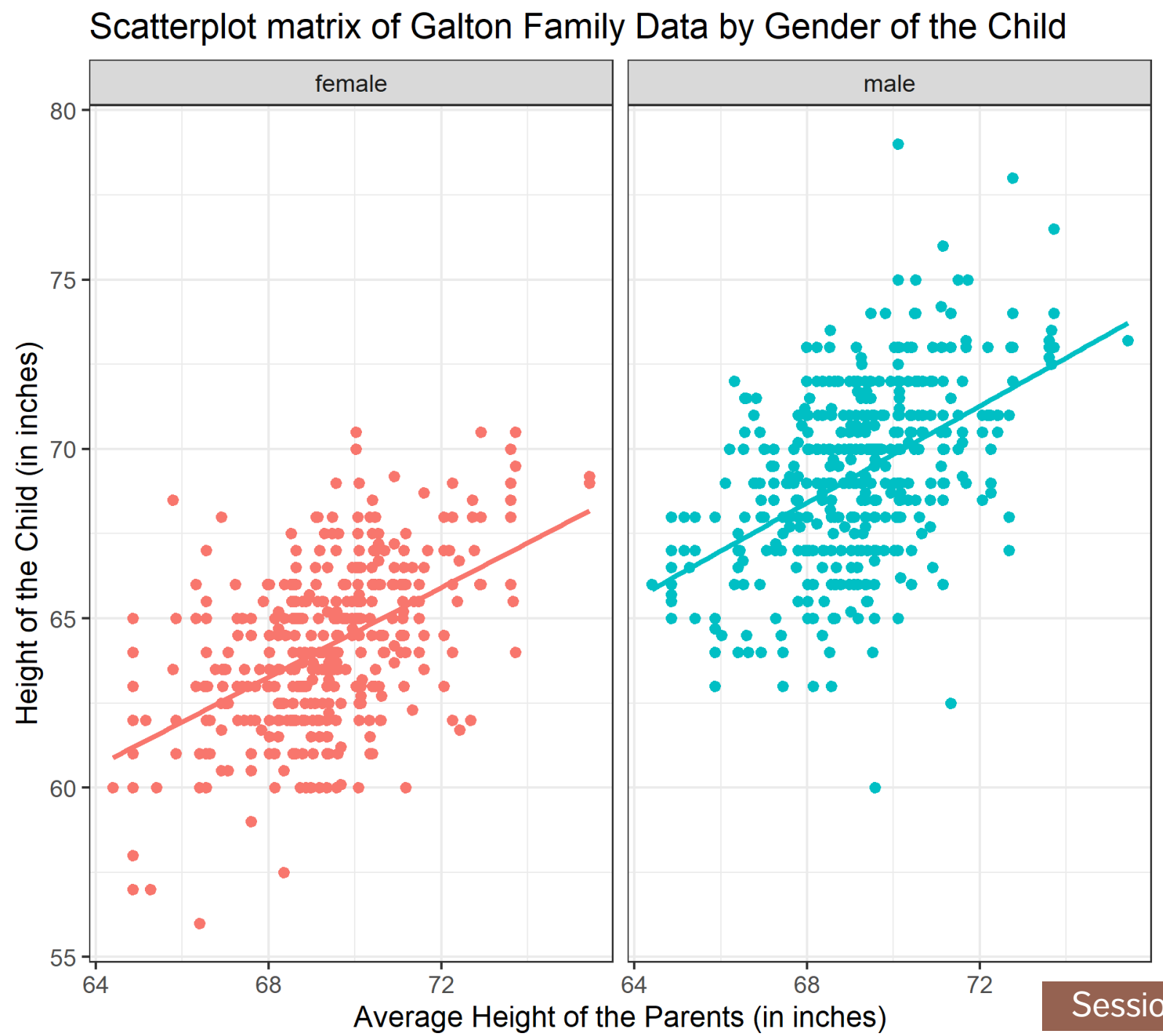
Maine and Nebraska allow some electoral votes to be split by district



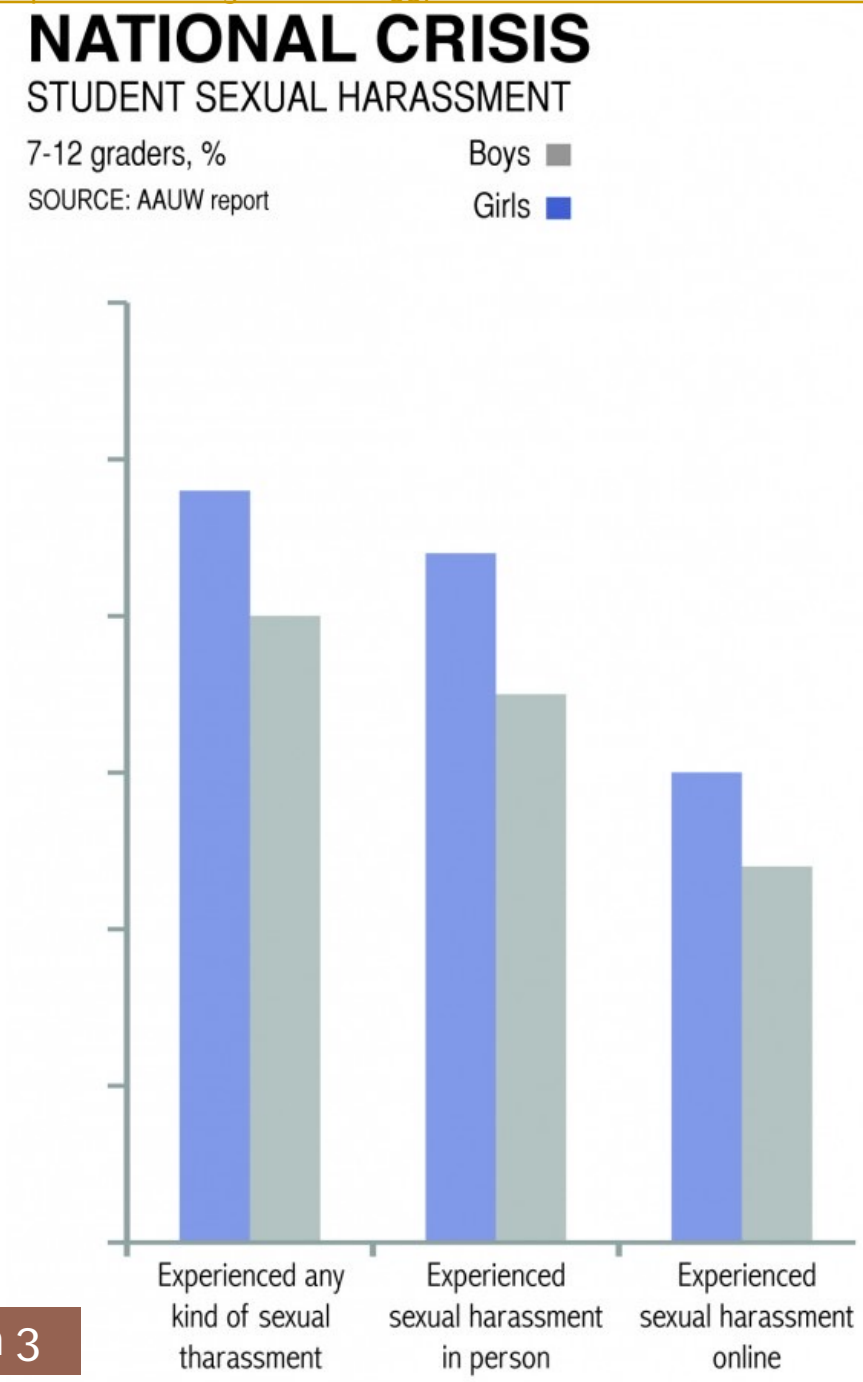
Cartogram of 2020 US Presidential Election Results

Each hexagon represents one electoral college vote





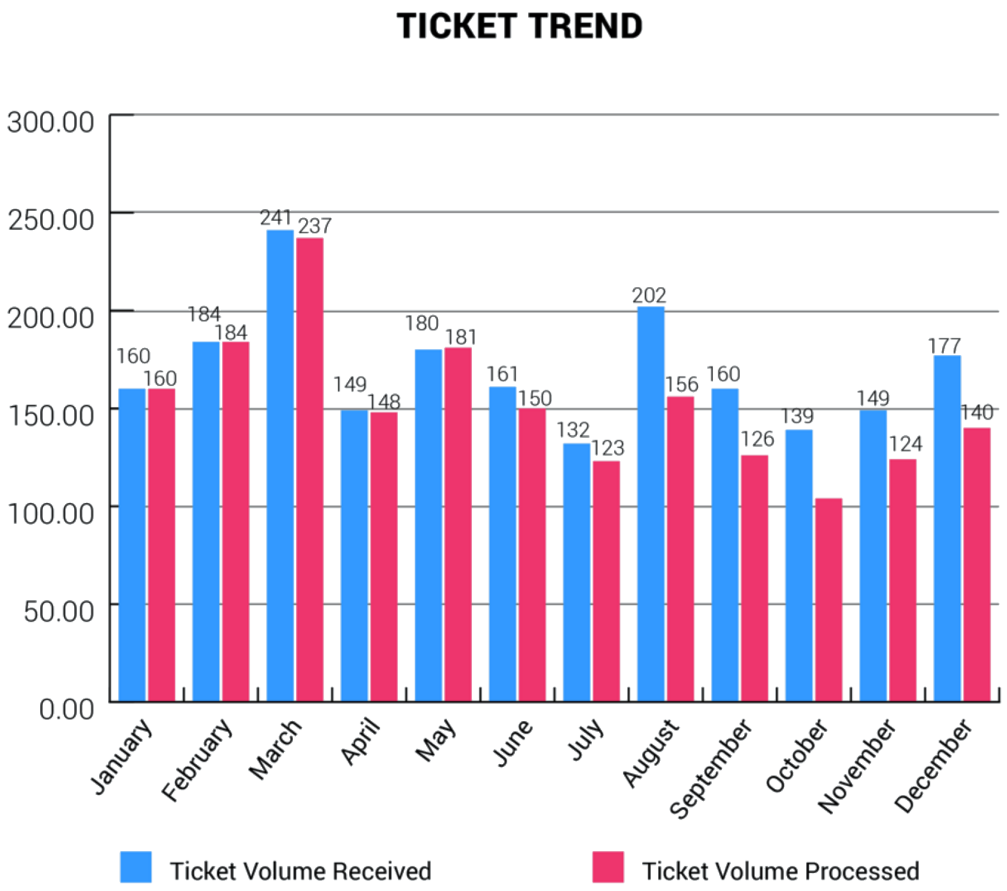
[https://www.chsglobe.com/13376/cover-stories/sexualharassment]

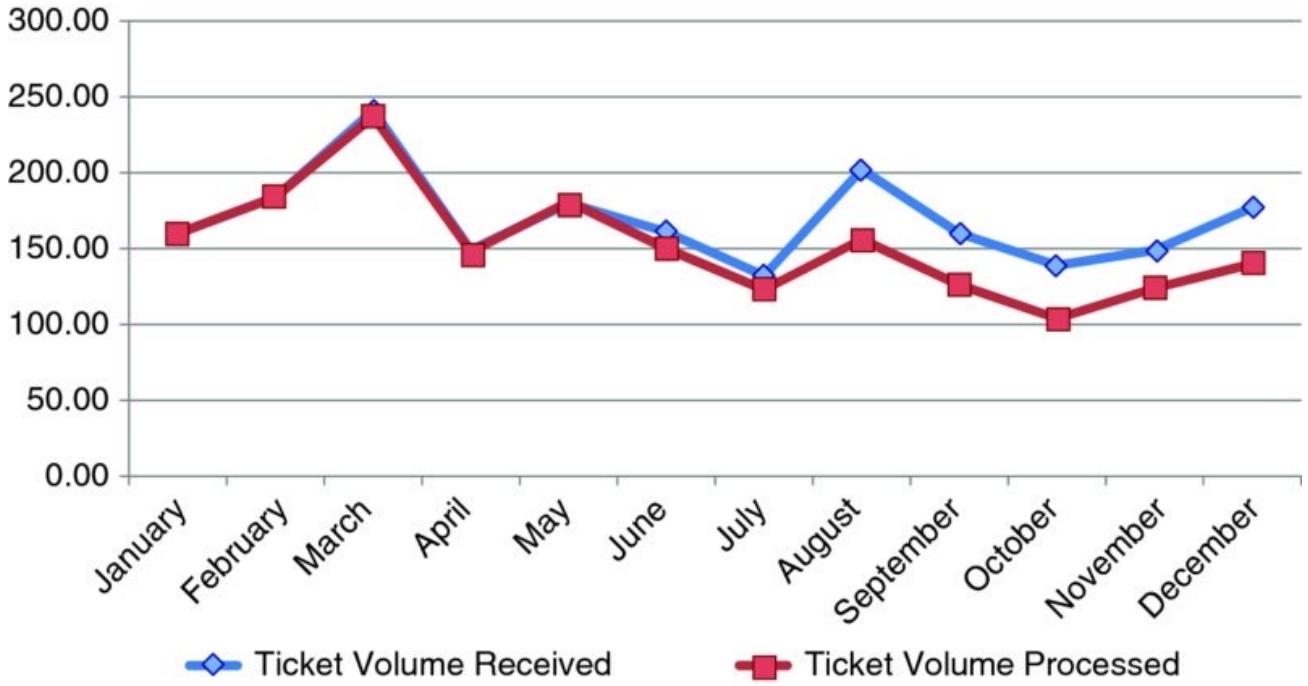


Session 3

[C. Nussbaumer Knaflic, *Storytelling with Data*]

Examples

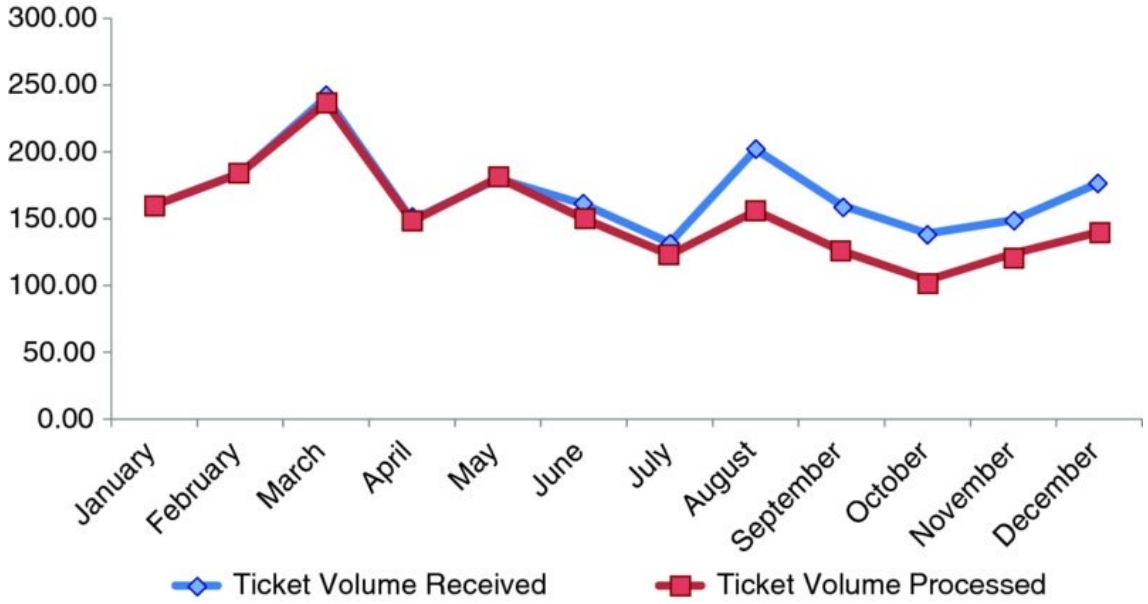




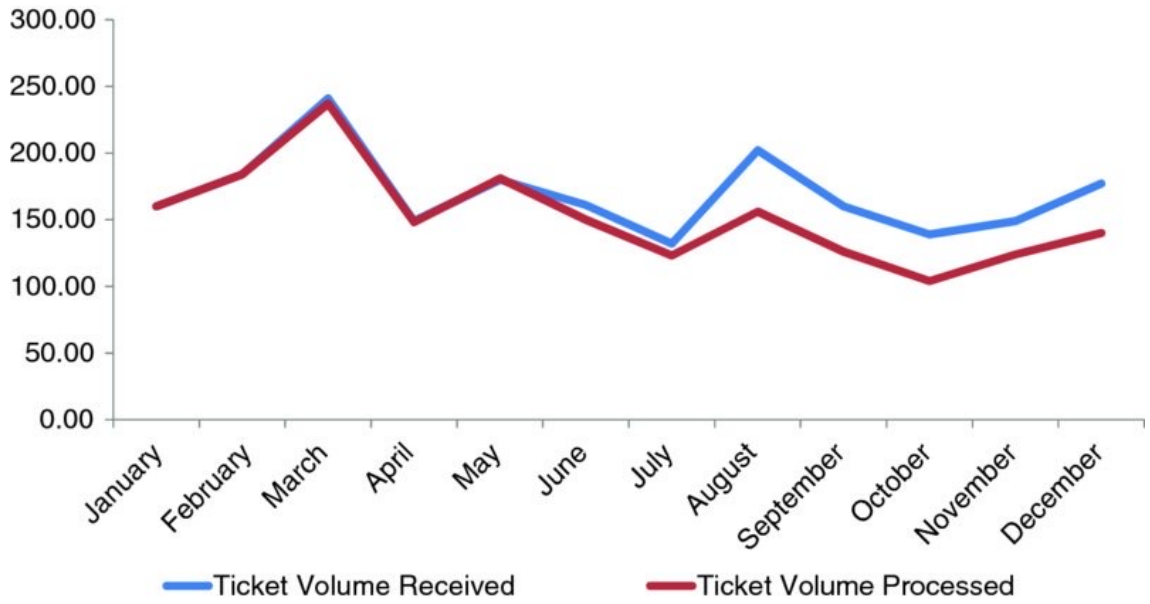
1. Change graph type (trope)

[Based on C. Nussbaumer Knaflic, *Storytelling with Data*]

Examples



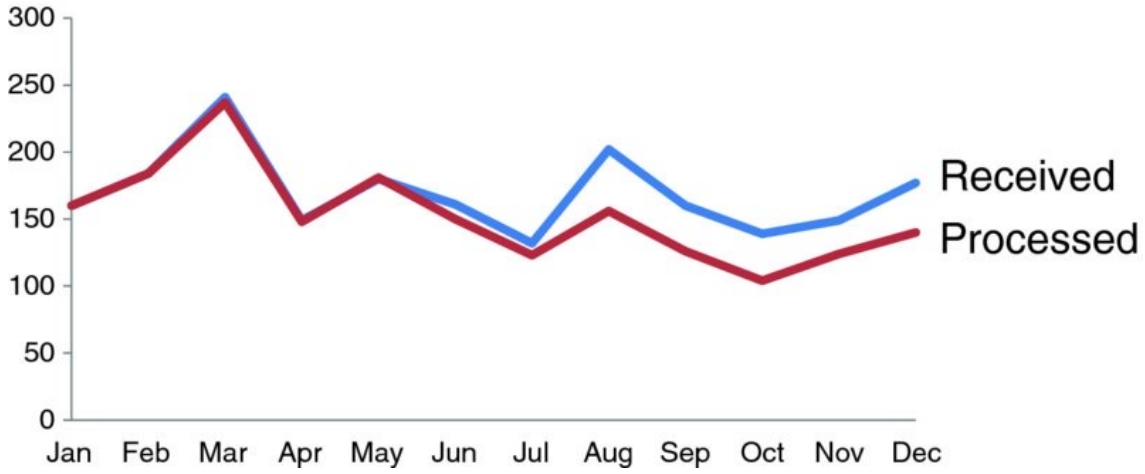
2. Remove border and gridlines



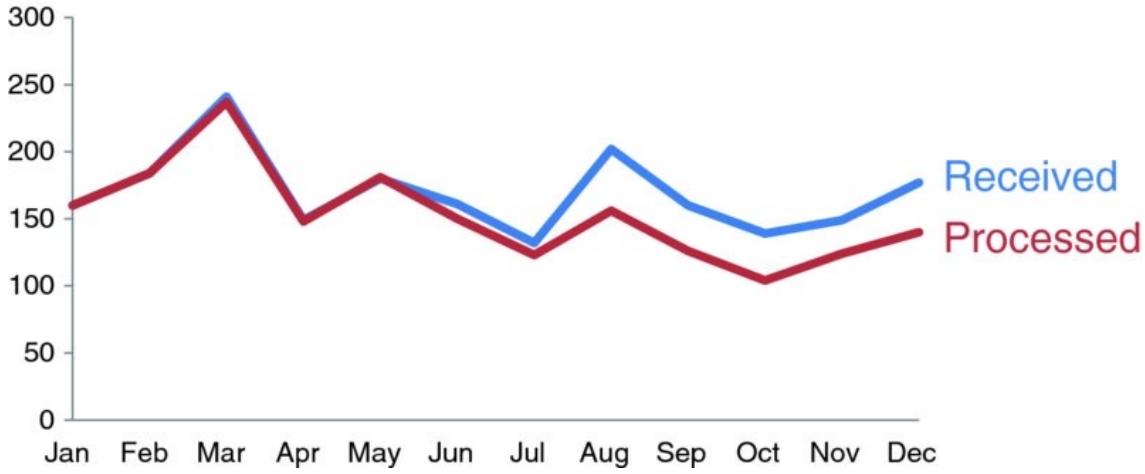
3. Remove markers

[Based on C. Nussbaumer Knaflic, *Storytelling with Data*]

Examples



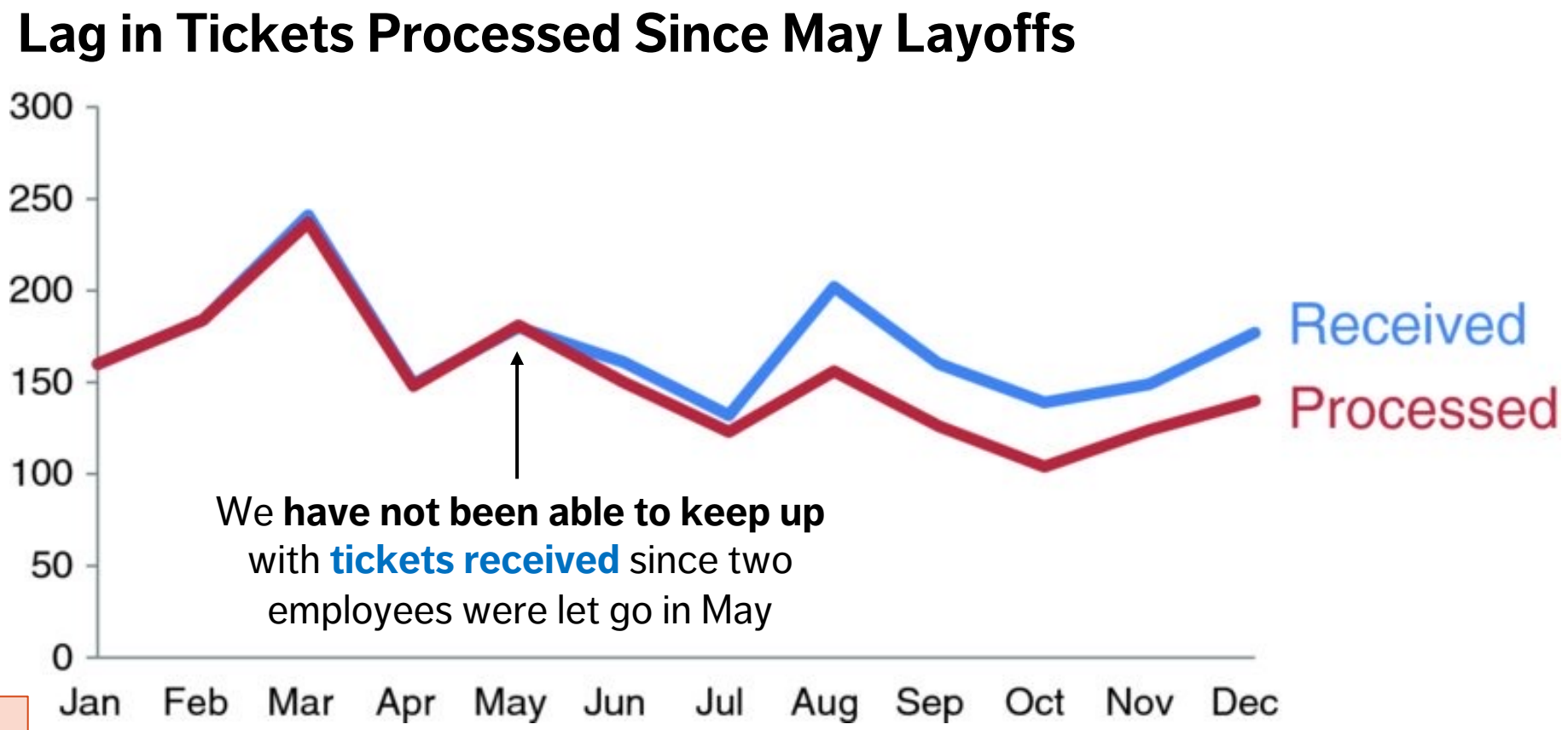
4. Clean-up axis labels and legend



5. Colour code the lines

[Based on C. Nussbaumer Knaflic, *Storytelling with Data*]

Examples

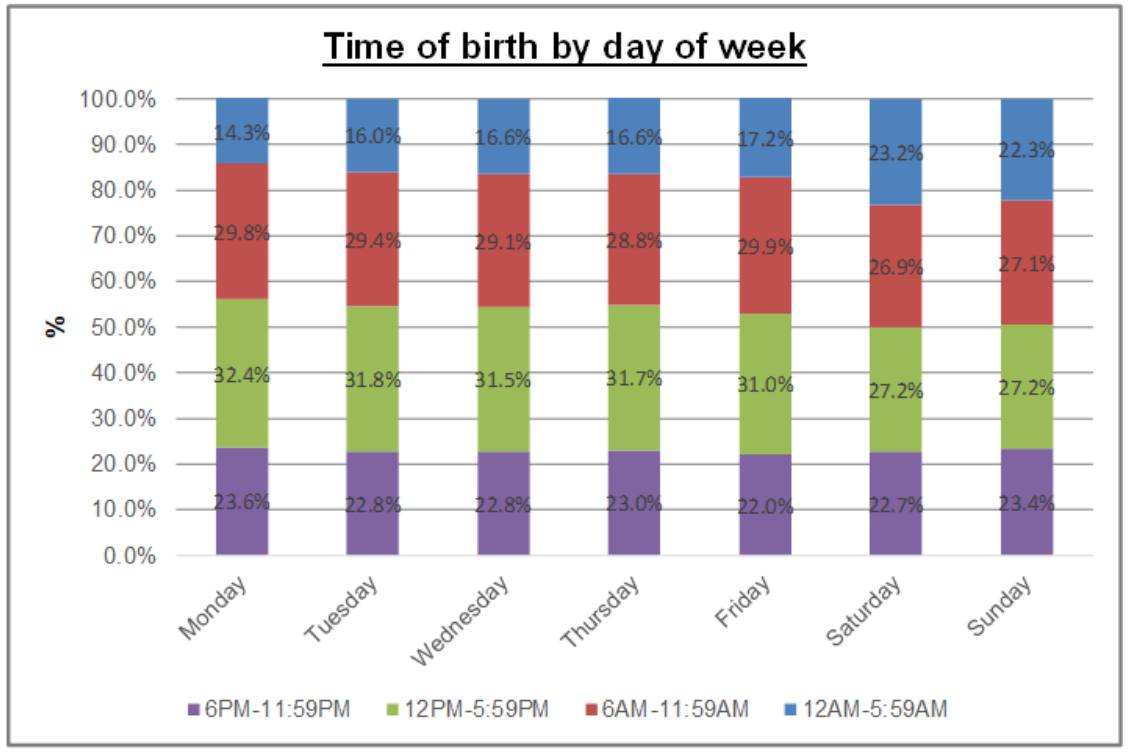


6. Tell the story

[E. Ricks, https://www.storytellingwithdata.com/blog/2019/5/13/declutter-and-question-defaults]

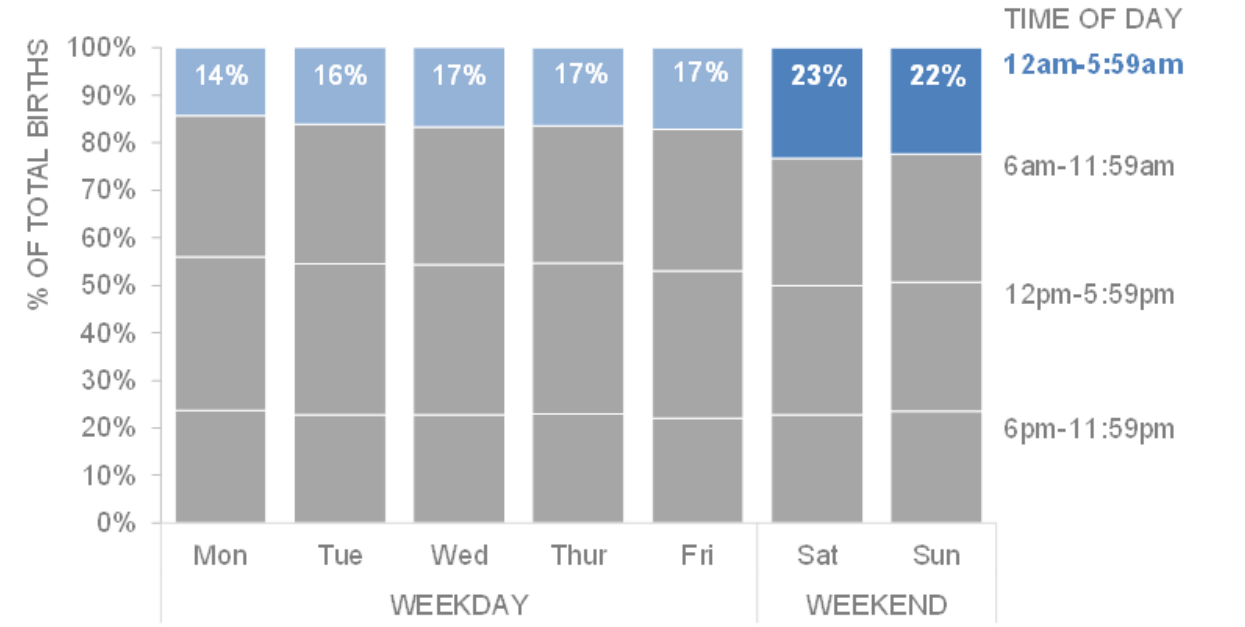
Examples

BEFORE



Data source: CDC (National Vital Statistics Reports, Vol. 67, No. 1, January 31, 2018)

AFTER

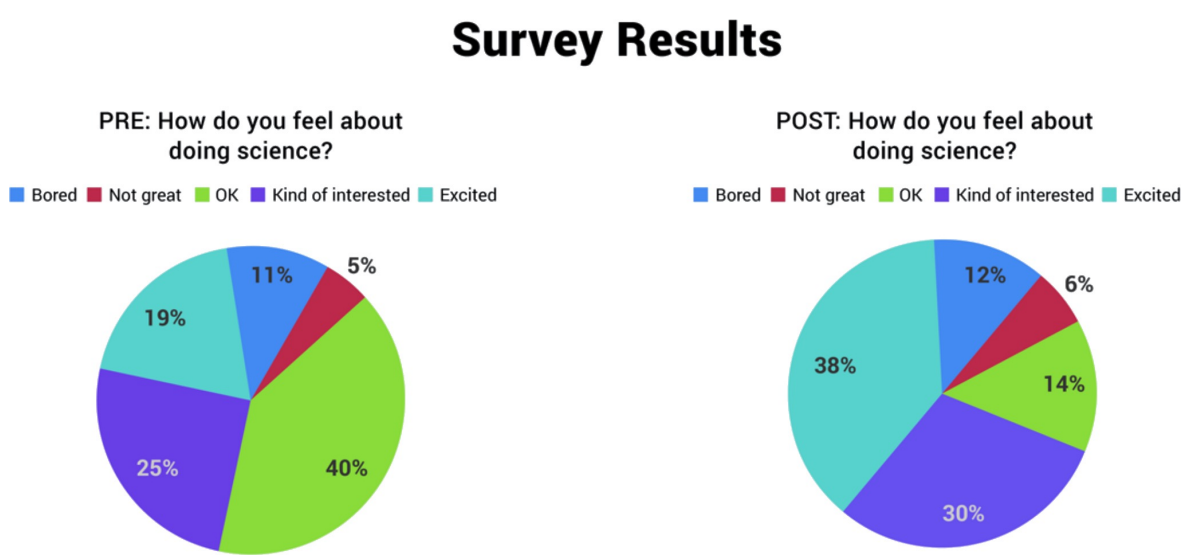


Data source: CDC (National Vital Statistics Reports, Vol. 67, No. 1, January 31, 2018)

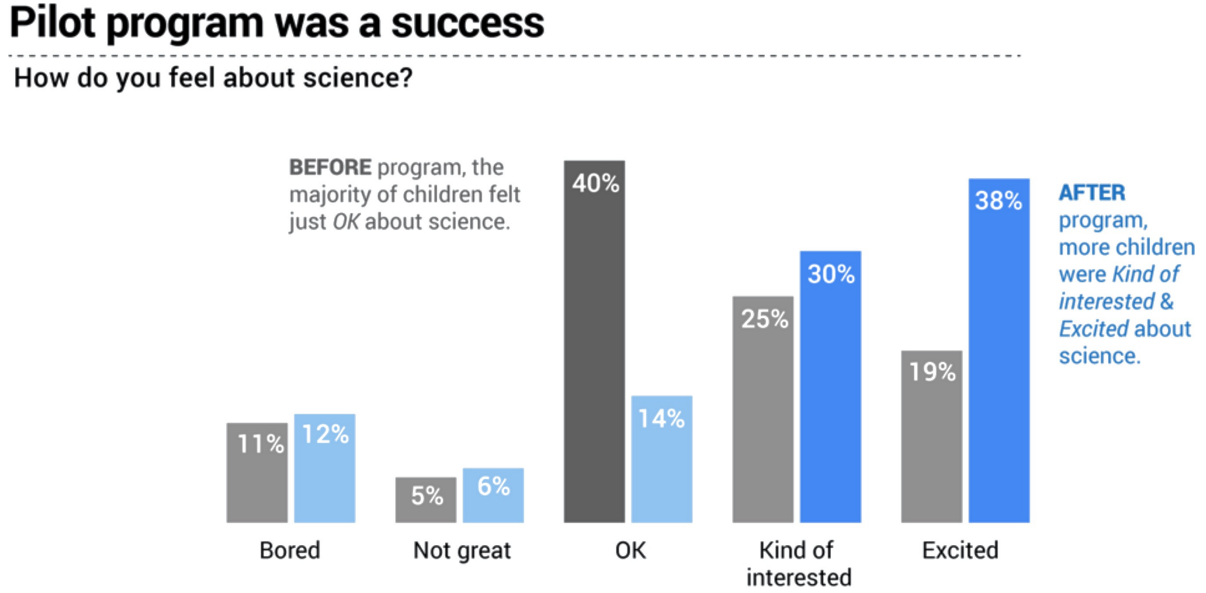
[C. Nussbaumer Knaflic, *Storytelling with Data*]

Examples

BEFORE



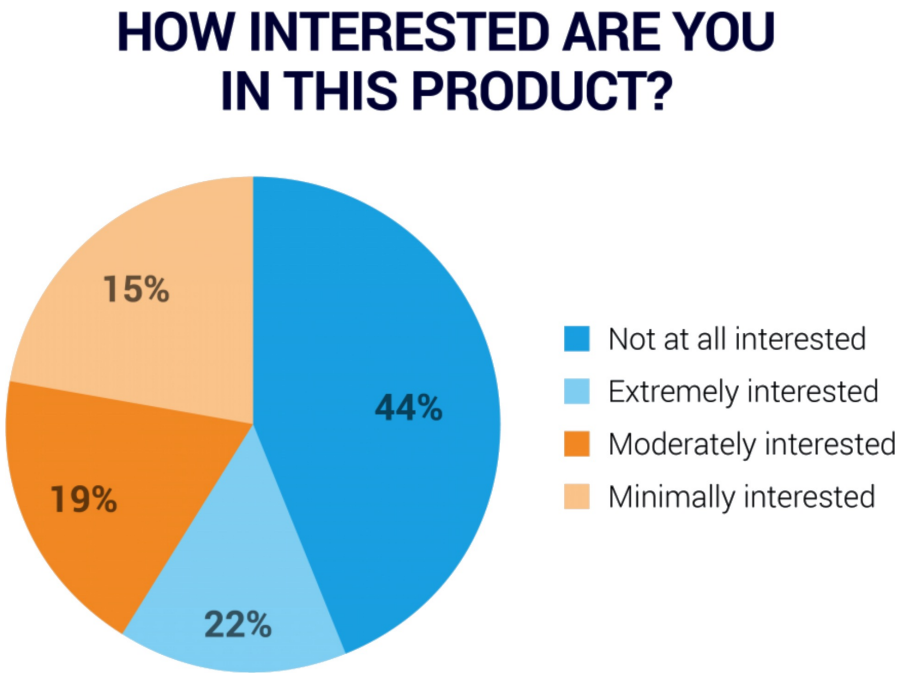
AFTER



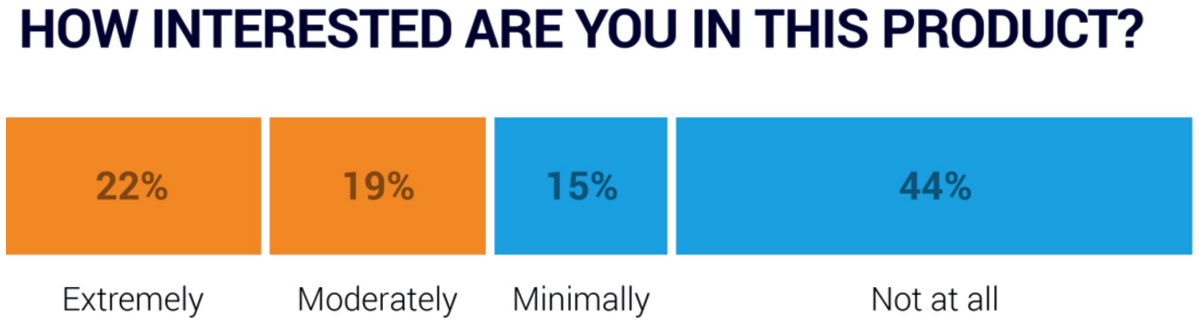
[Author unknown]

Examples

BEFORE



AFTER



Is this sufficient?

Suggested Reading

Evolving a Storytelling Chart

The Practice of Data Visualization
Visualization and Storytelling

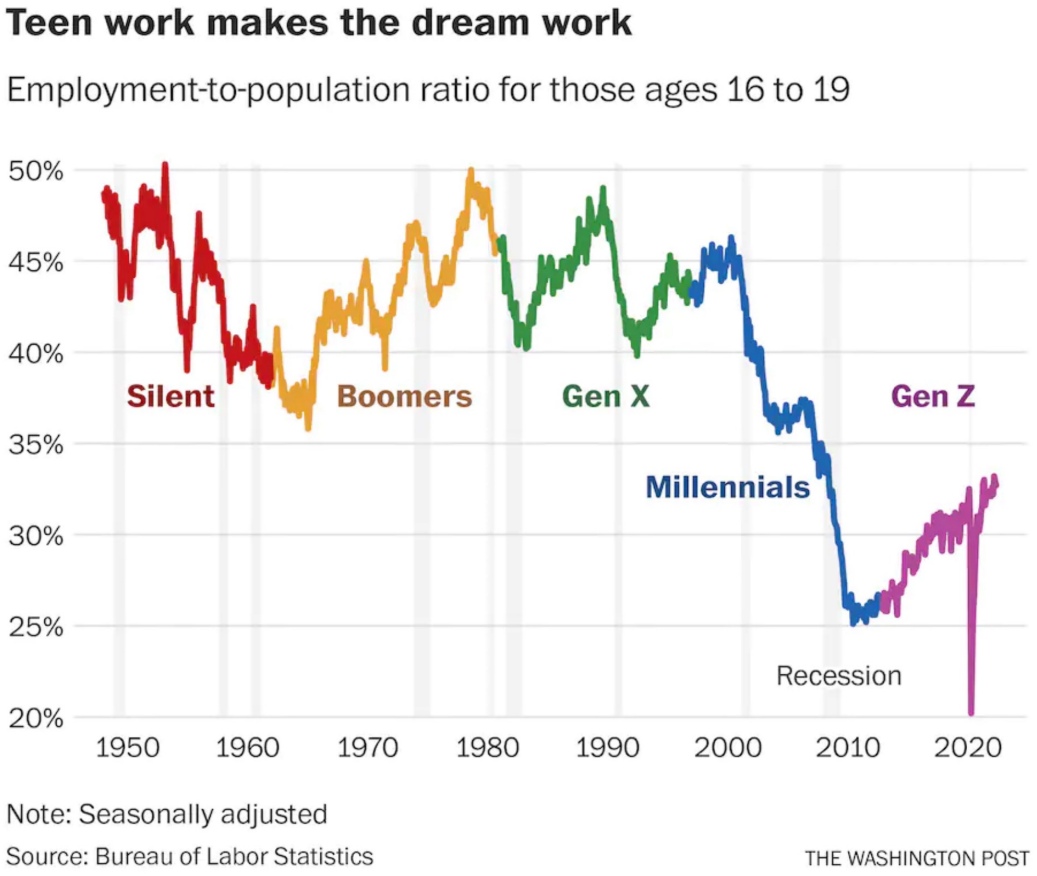
Effective Storytelling Visuals

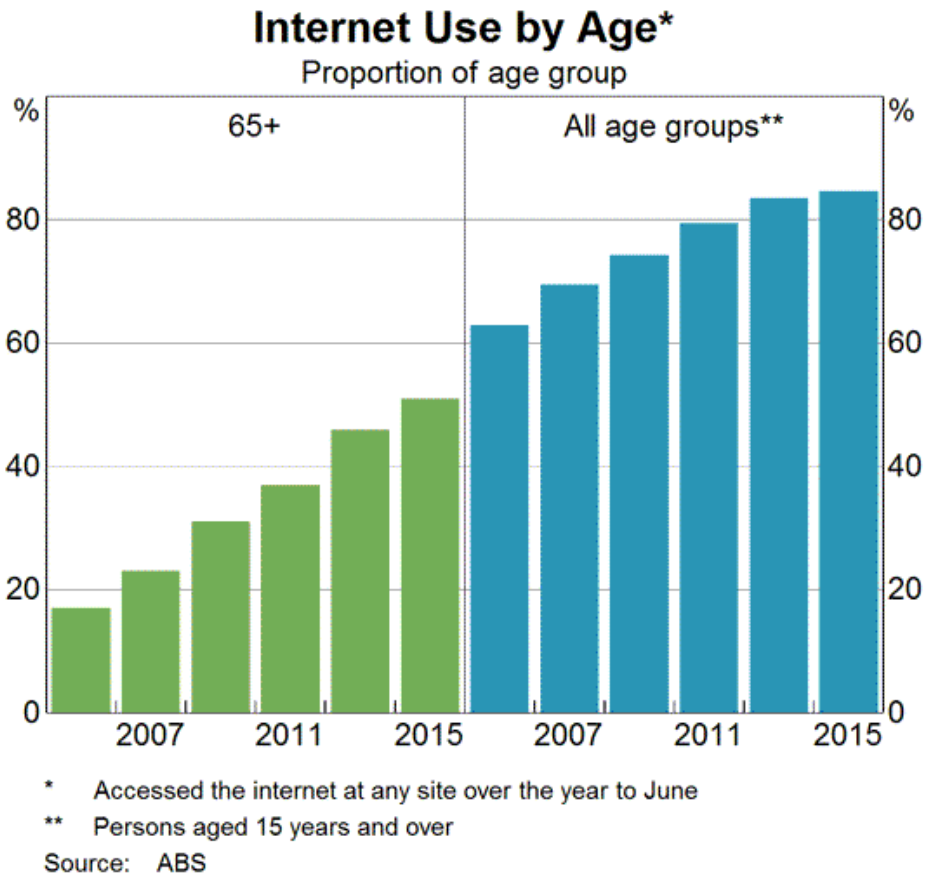
- Evolving a Storytelling Chart

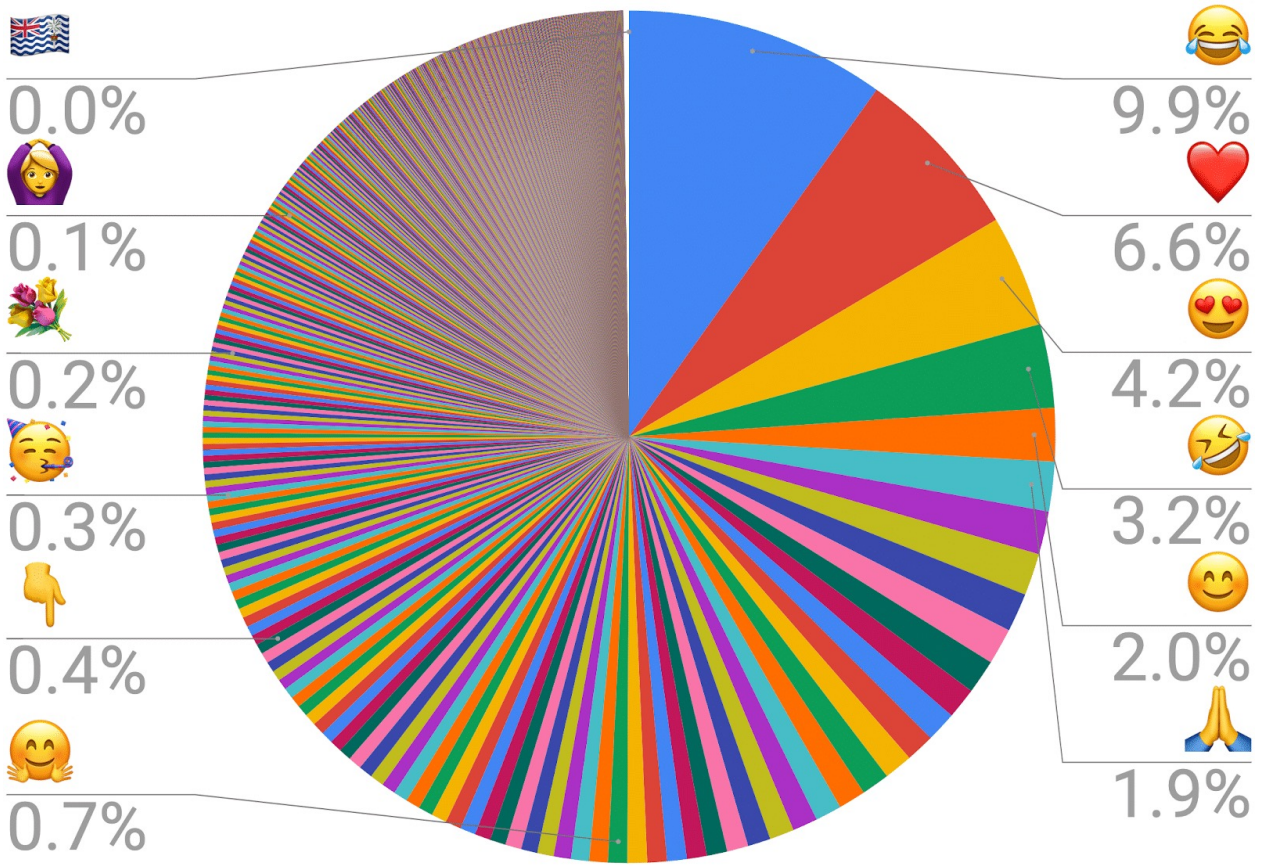
Exercises

Evolving a Storytelling Chart

Evolve the following charts into data stories. Focus on the message and how to avoid misleading the audience. Use data storytelling tropes as needed.




Internet Use by Age*
Proportion of age group
65+
All age groups**
%
80
60
40
20
0
2007
2011
2015
* Accessed the internet at any site over the year to June
** Persons aged 15 years and over
Source: ABS


0.0%
0.1%
0.2%
0.3%
0.4%
0.7%
9.9%
6.6%
4.2%
3.2%
2.0%
1.9%

Session 3

[https://www.dailywire.com/news/chart-heres-what-americans-actually-die-compared-ashe-schow]