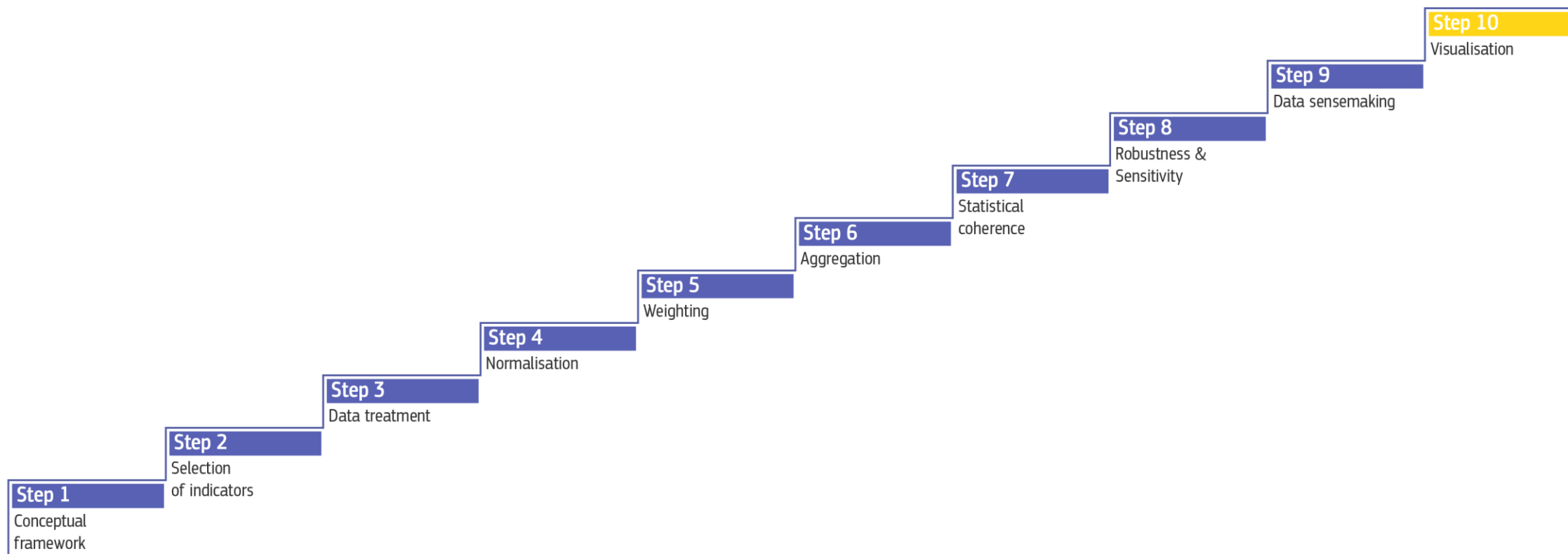


# Step 10 Visualization

19<sup>th</sup> JRC Annual training on Composite Indicators and Scoreboards

*Carlos Moura*

# 10 STEPS to build a Composite Indicator



Data has an important story to tell

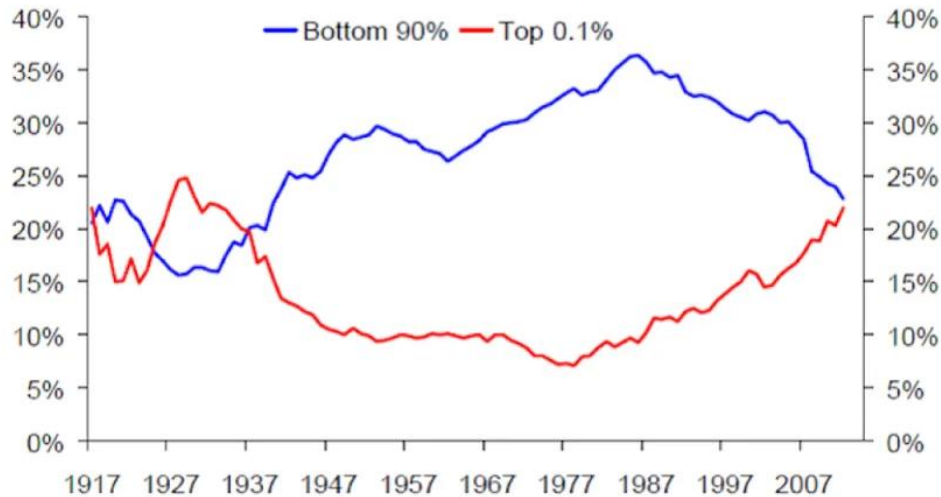
# Data Visualization is about how you want to tell that story

## Markets Chart of the Day

US wealth inequality: Top 0.1% hold the same amount of wealth as the bottom 90%



Share of US household wealth by income level

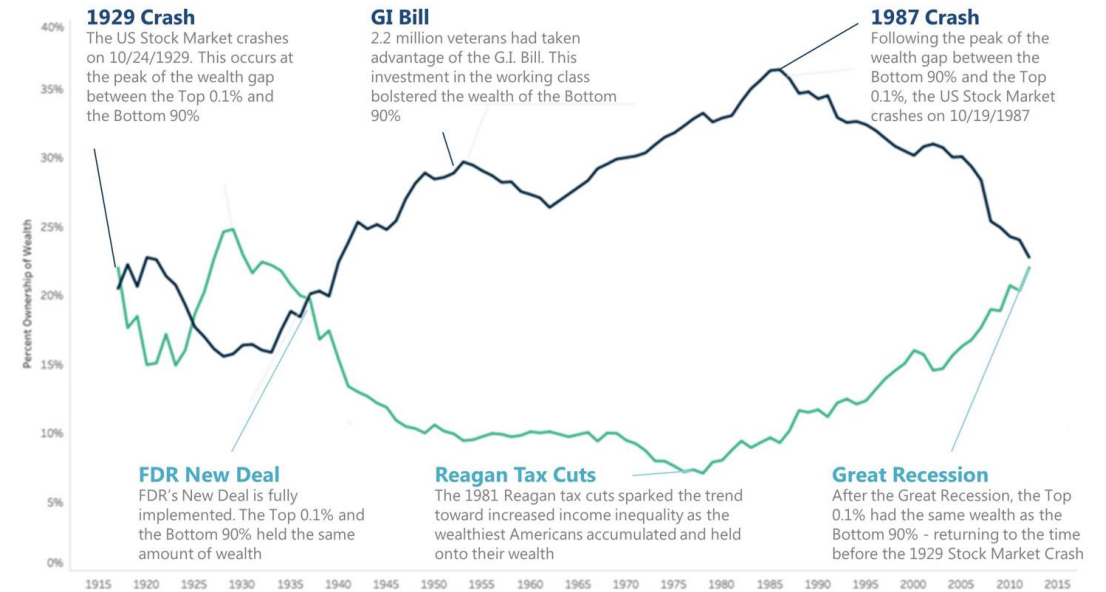


Note: Data estimated by Berkeley Professors Saez and Zucman using capitalized income tax returns, see also here: <http://gabriel-zucman.eu/uswealth/>

Source: Saez and Zucman, QJE May 2016, DB Global Markets Research

## The Wealth Gap

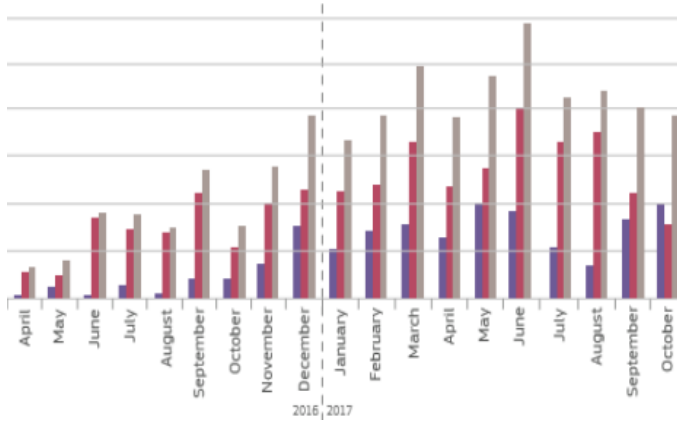
A historical view of wealth ownership within the **Top 0.1%** and the **Bottom 90%** of US households



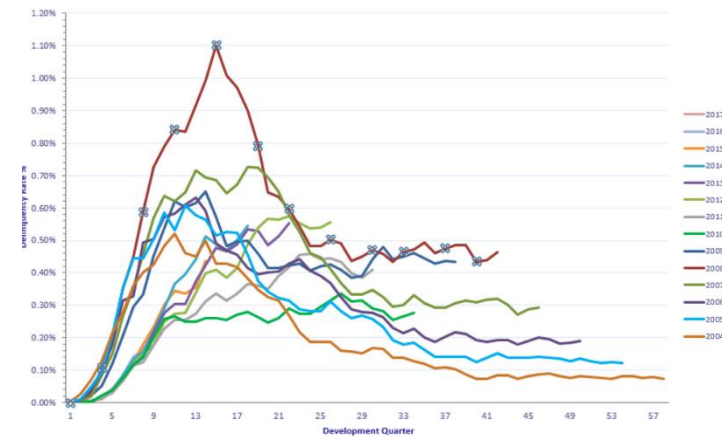
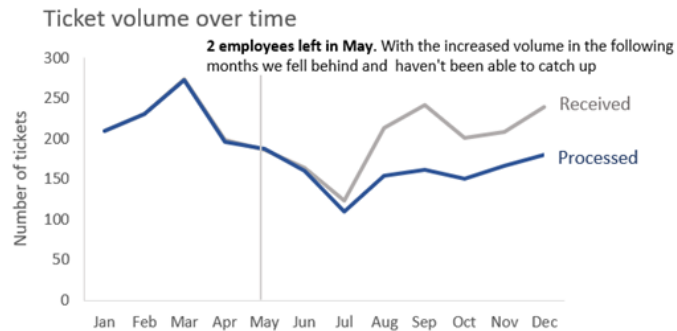
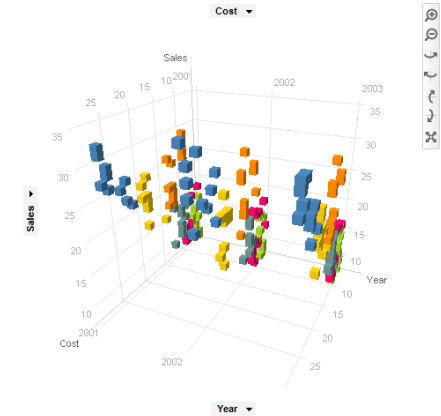
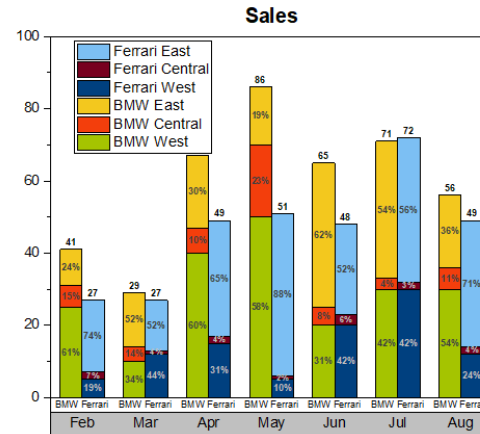
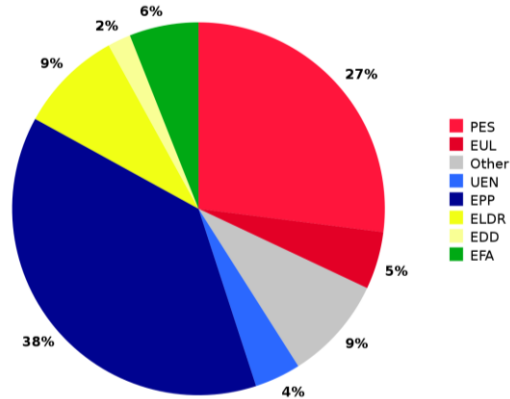
Source: <http://www.businessinsider.com/share-of-us-household-wealth-by-income-level-2016-11>

Designer: <https://twitter.com/sirvizalot>

# What makes a good chart?



European Parliament election, 2004



Visual perception



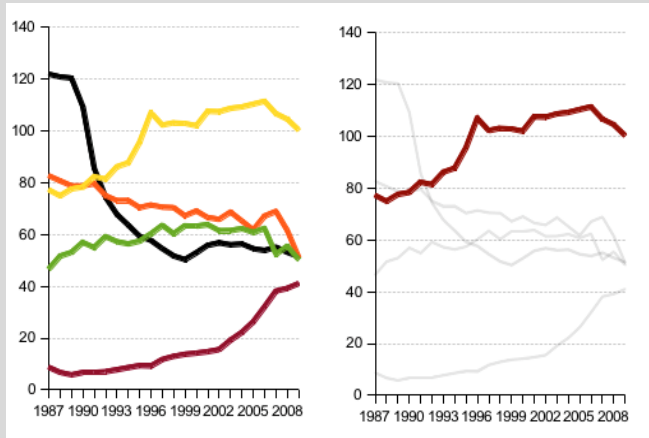
[www.wildfilmsindia.com](http://www.wildfilmsindia.com)

Visualization uses **perception** to free cognition

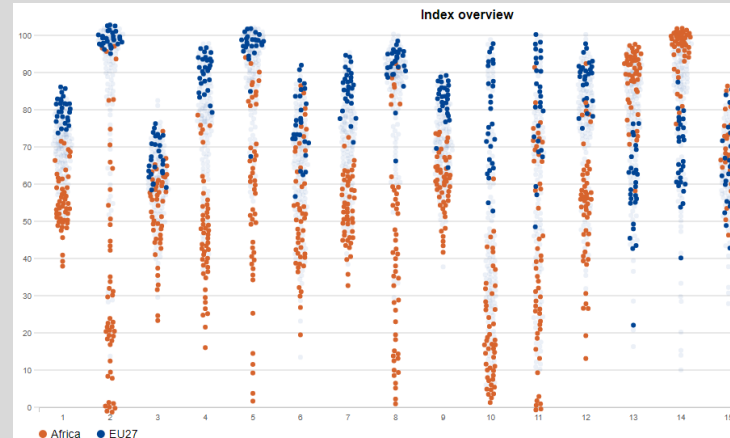


# Preattentive attributes on charts

## Colour



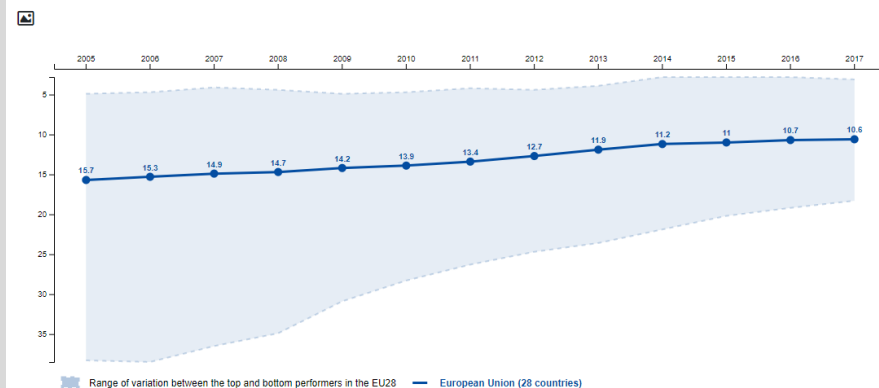
## Position



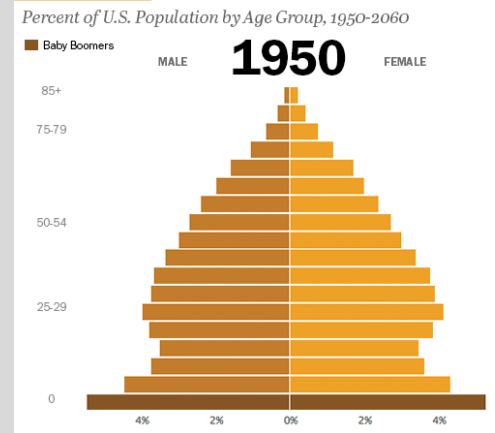
Used to quickly focus the reader on the most important pieces of information

## Form

### Early leavers from education and training

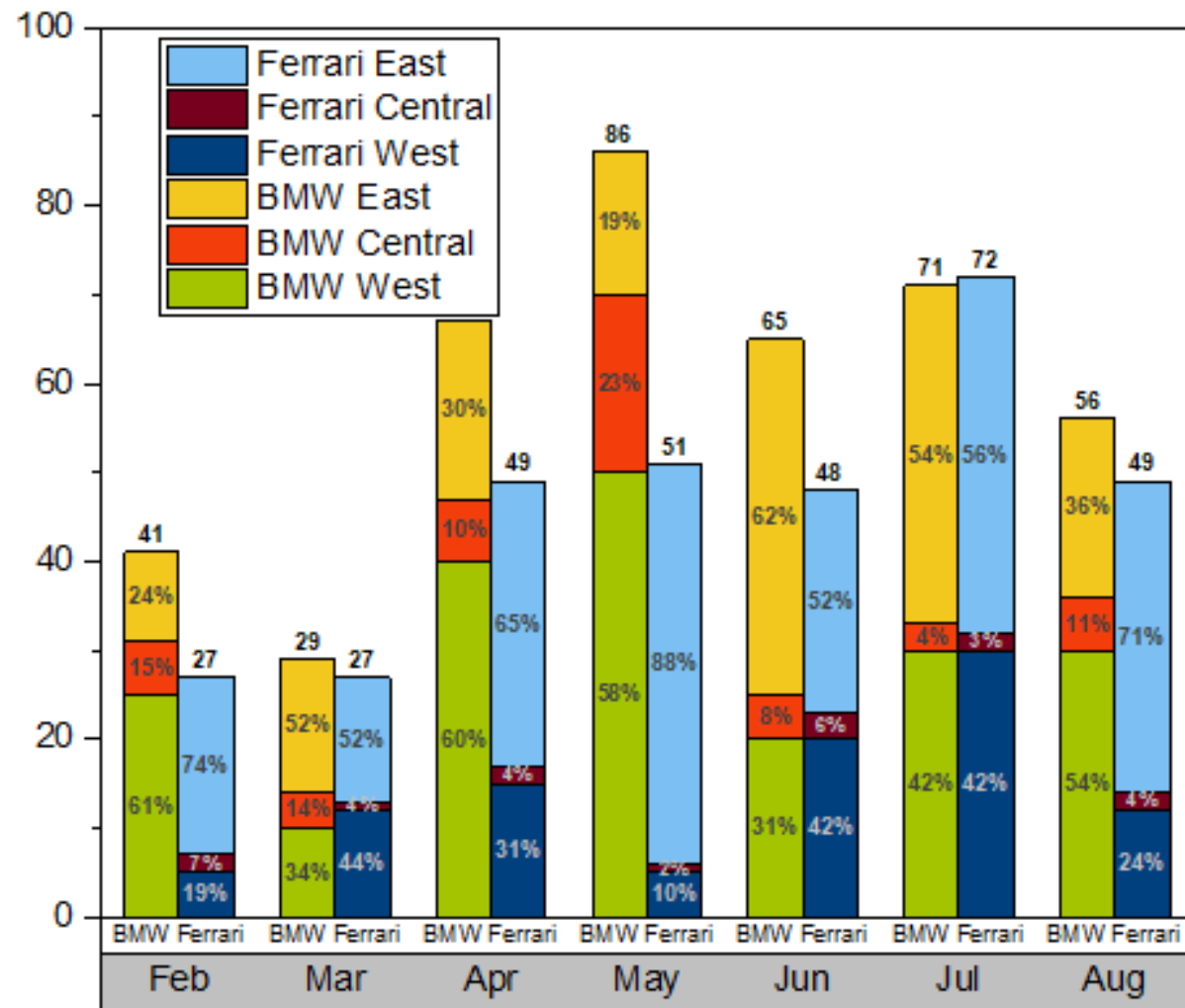


## Motion



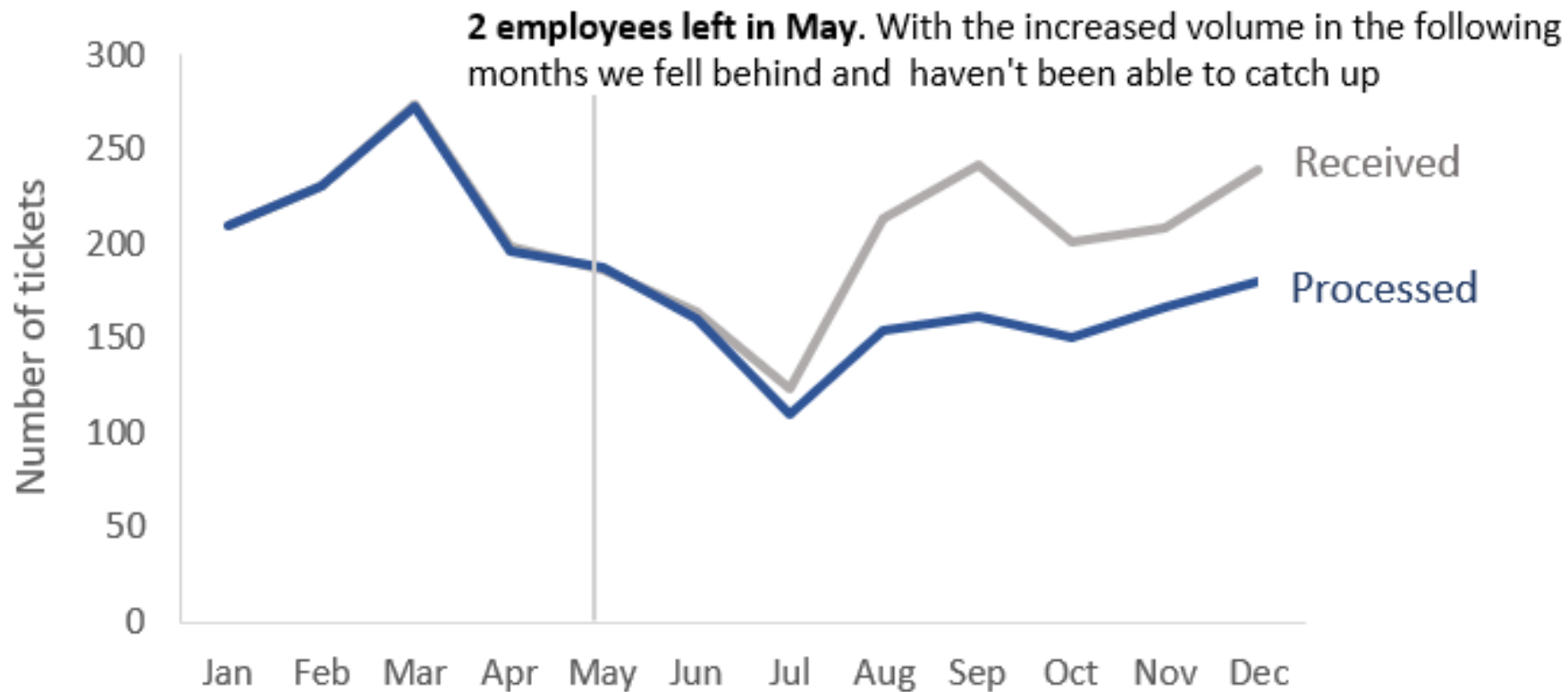
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F K F J Z F C P T H B M U G I N D I C A T O R S D H D X  
B E W Z C O M P O S I T E A E T F R J L M N O J K P B R  
L A D X O G F J E I L K S A P R P I Z Z A H M X O Q B I B

## Sales



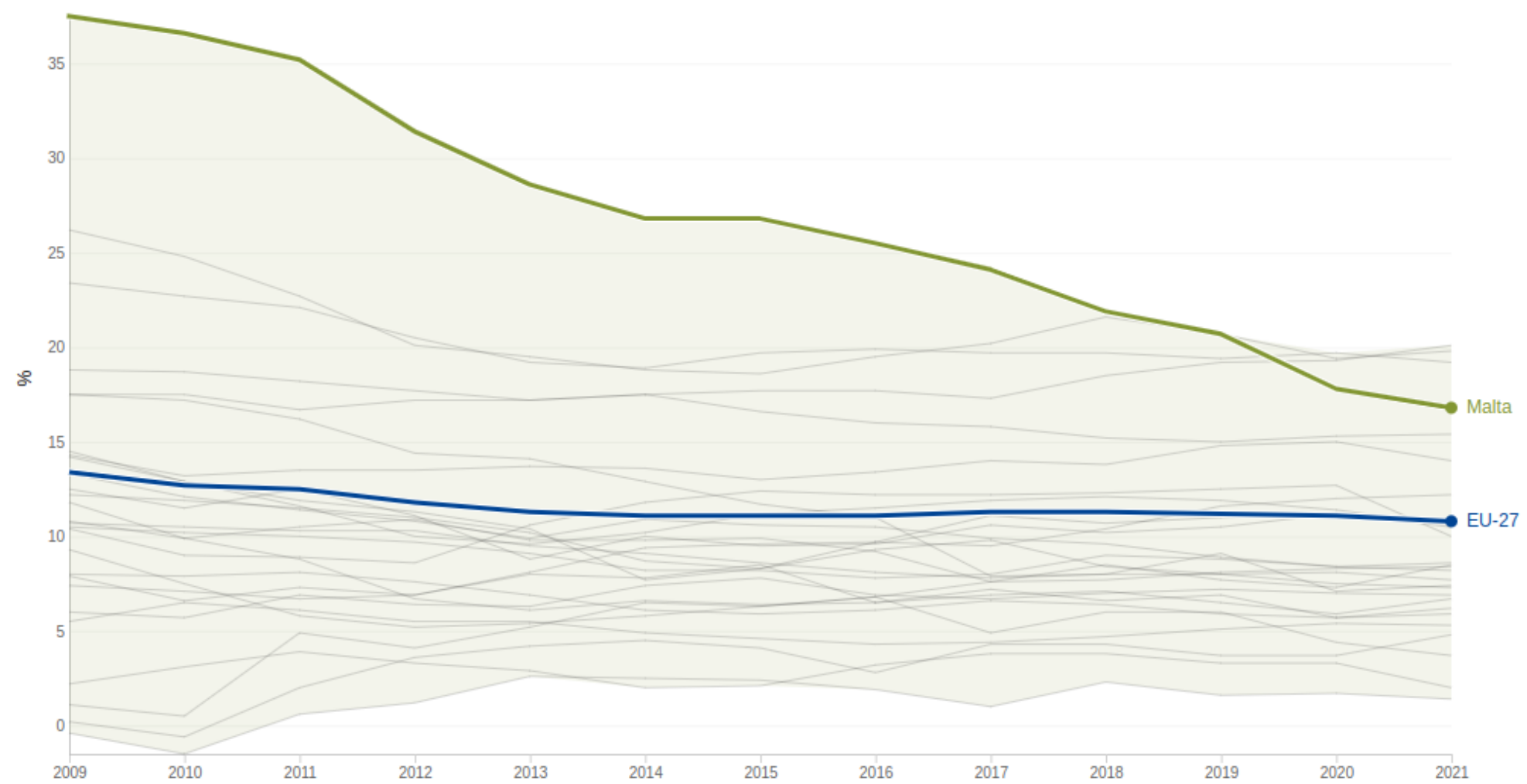
AMC D F R E E S H P O F Q H O P I U O I U L F K S D K  
F K F J Z F C P T H B M U G **I N D I C A T O R S** D H D X  
B E W Z **C O M P O S I T E** A E T F R J L M N O J K P B R  
L A D X O G F J E I L K S A P R P I Z Z A H M X O Q B I B

## Ticket volume over time



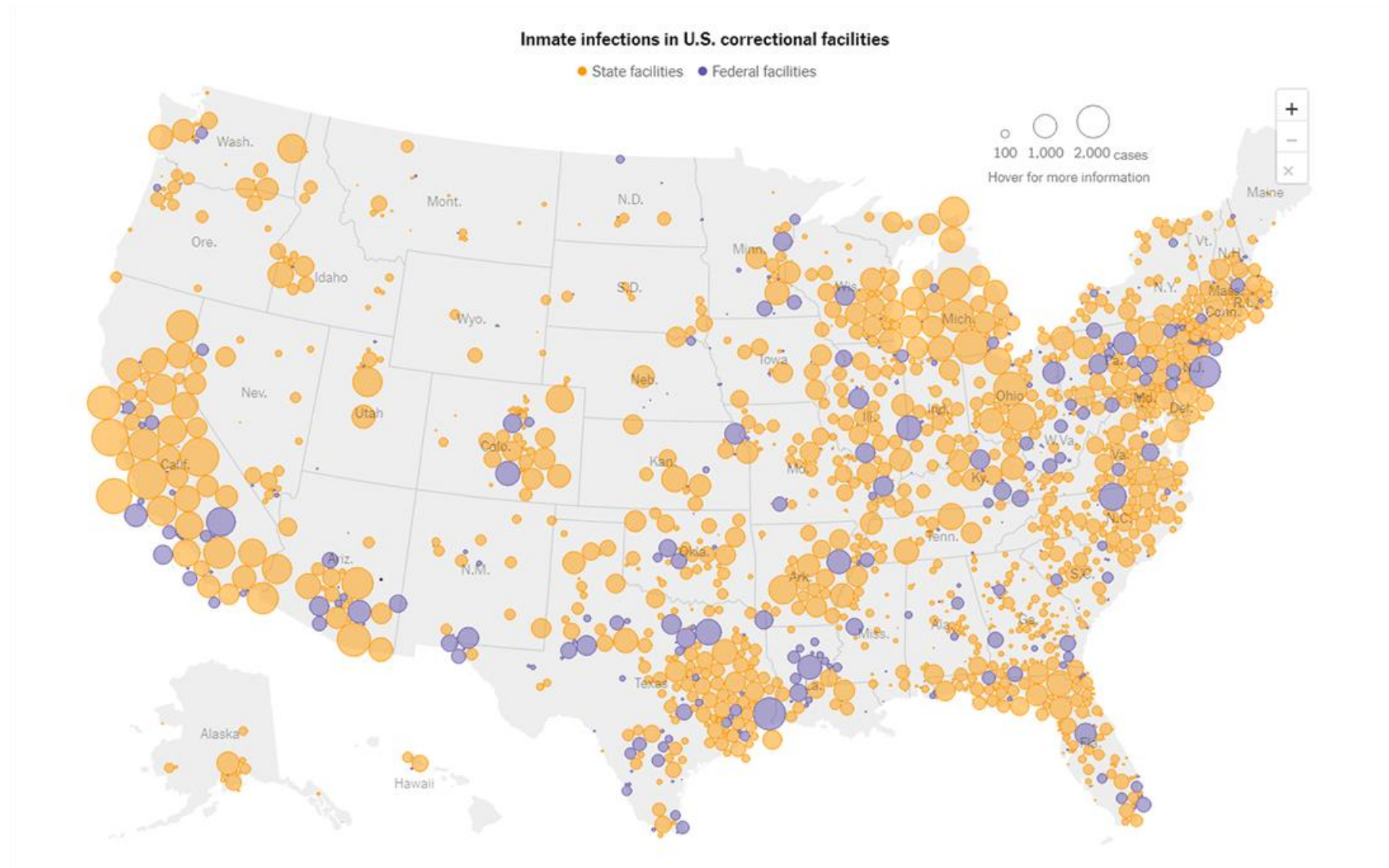
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FKFJZFCPTHBMUG**INDICATORS**DH DX  
BEWZ**COMPOSITE**AETFRJLMNOJKPBR  
LADXOGFJEILKSAPR**PIZZA**HMXOQBIB

Gender gap in employment rate (%)

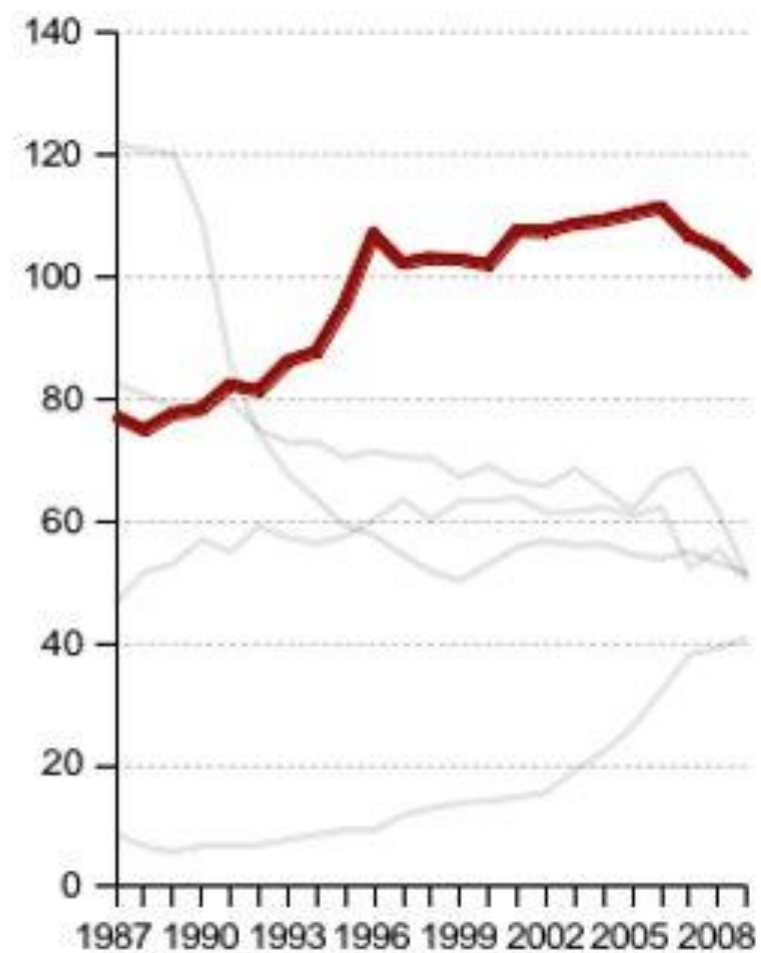
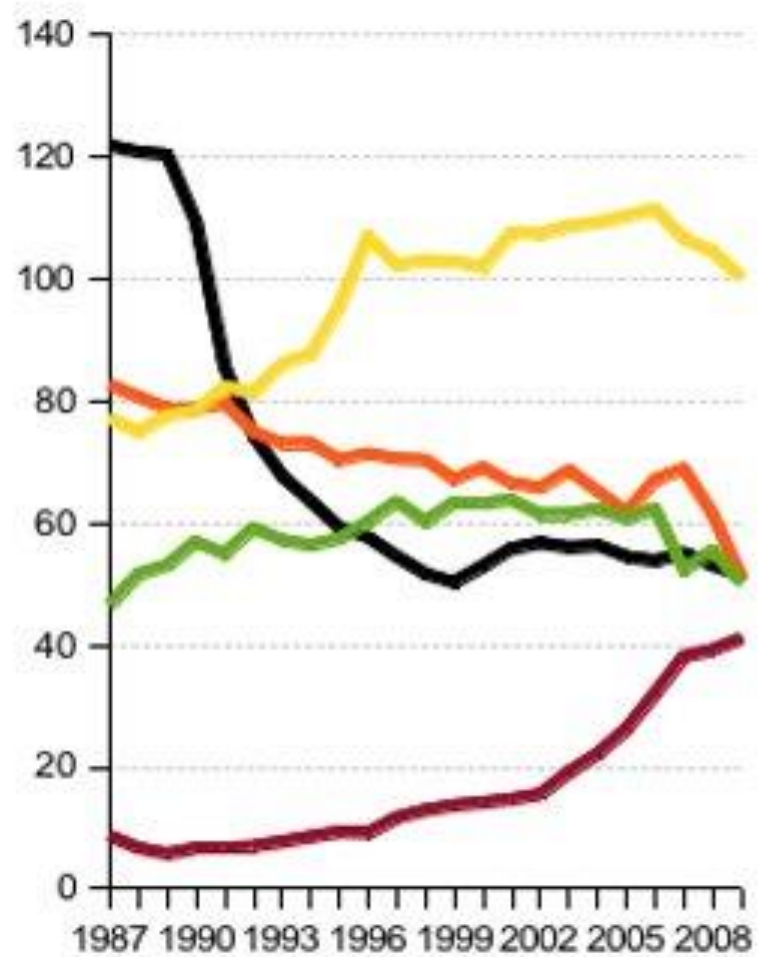


AMCD**FREE**SHPOFQHOPIUOIULFKSDK  
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BEWZ**COMPOSITE**AETFRJLMNOJKPBR  
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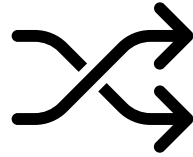
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# How to communicate effectively with data?

## It depends

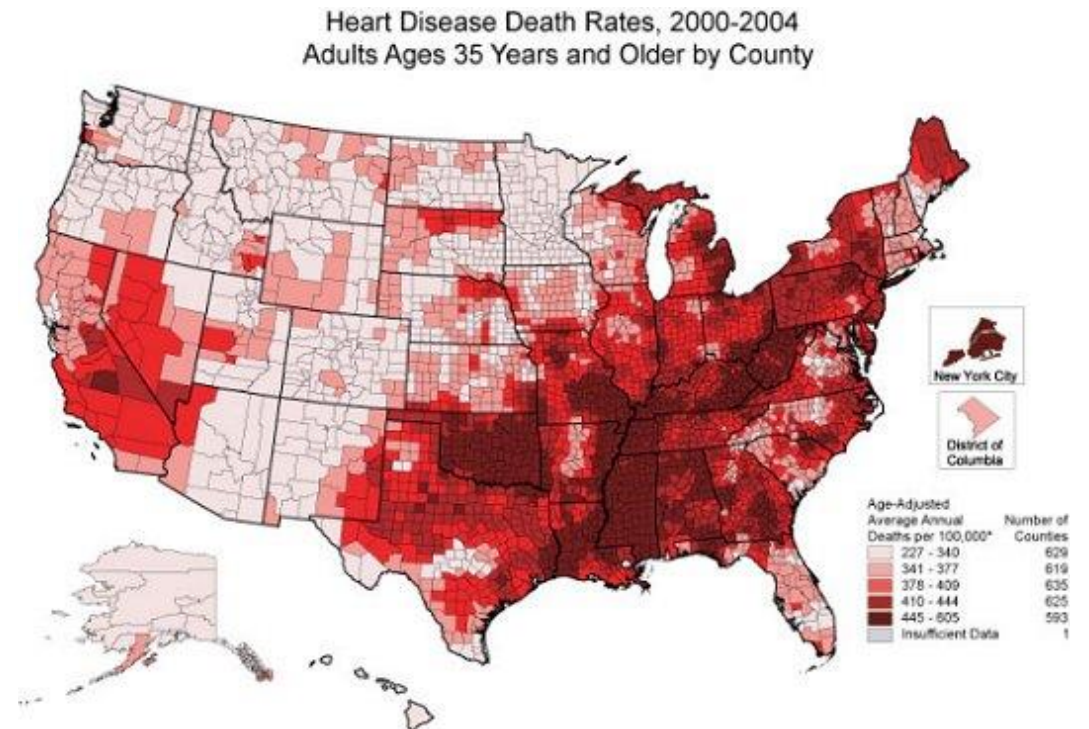
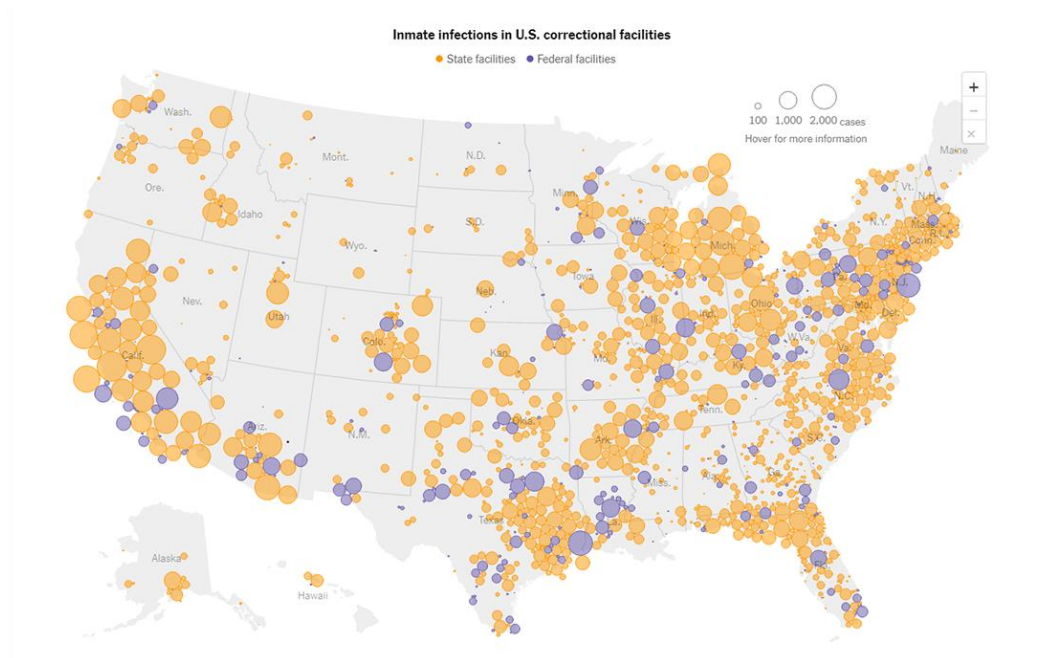
- On the data
- On the context
- On the message



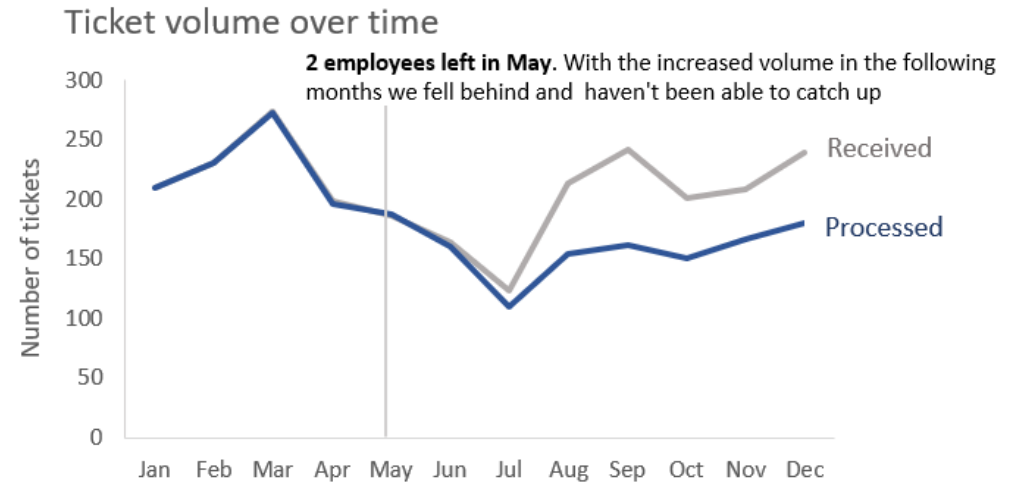
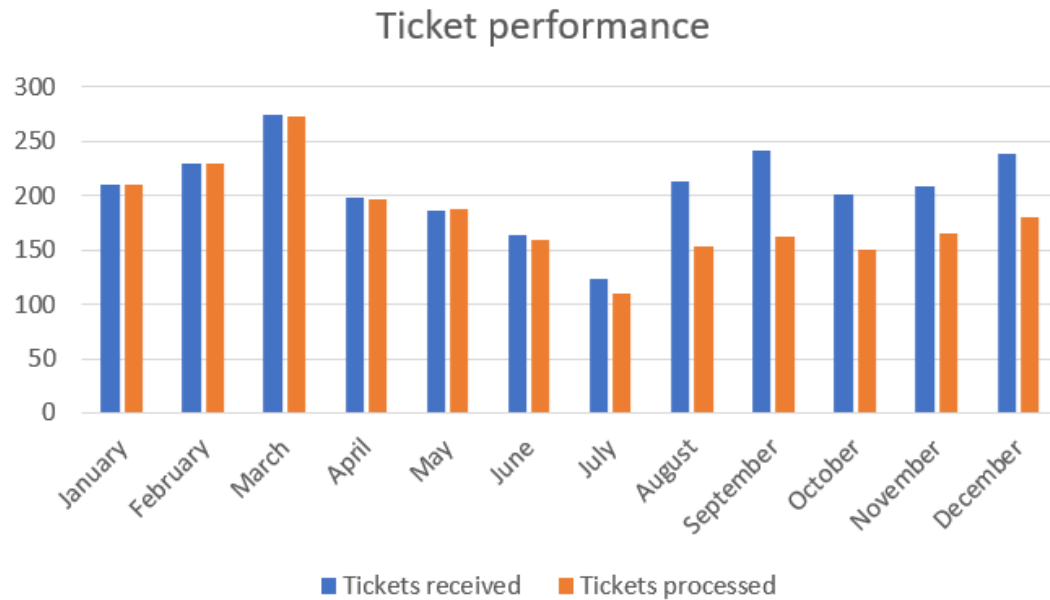
## Some vague guidelines

- Understand the context
- Choose the appropriate visual display
- Eliminate clutter (simple is better)
- Focus attention where you want it
- Tell a story

# Remember the message



# The importance of choosing the best visuals



# How to communicate effectively?

## It depends

- On the data
- On the context
- On the message



## Some vague guidelines

- Understand the context
- Choose the appropriate visual display
- Eliminate clutter (simple is better)
- Focus attention where you want it
- Tell a story

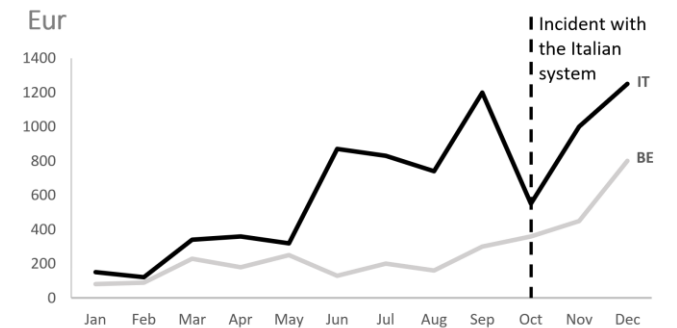
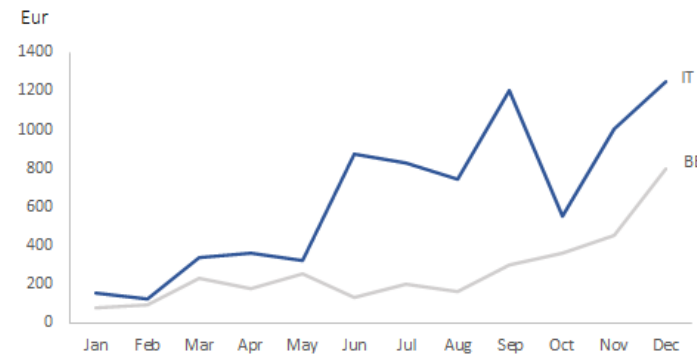
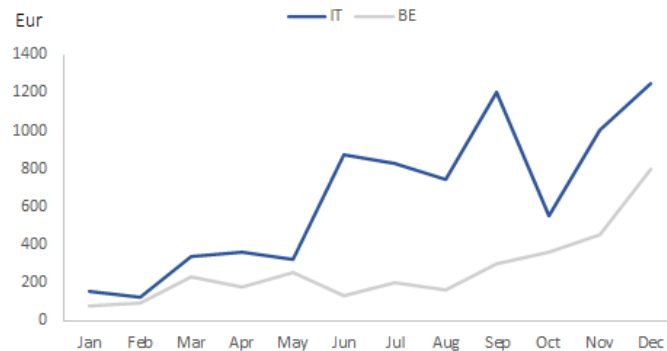
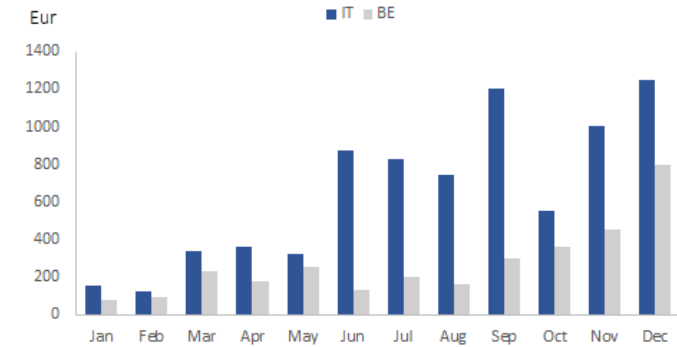
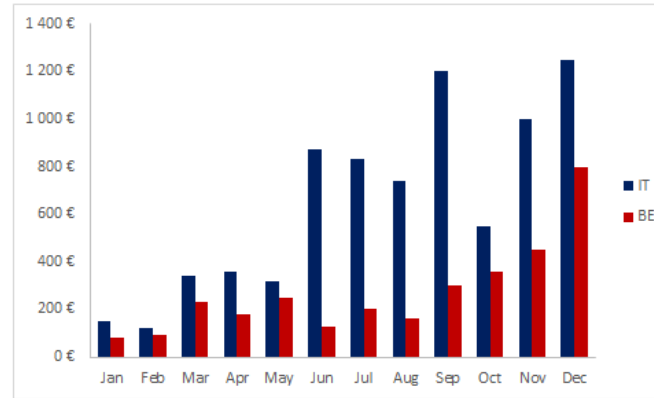
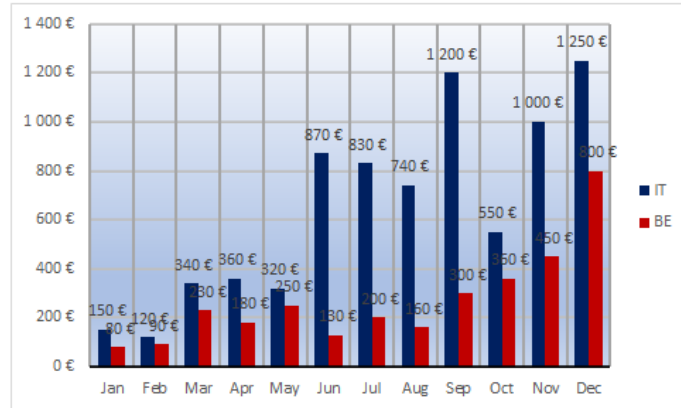


# Eliminate clutter





# Eliminate clutter and focus on the message



# Thank youS



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