Strategic Data Communications for Climate Action

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Outline

Communicating data for impact

Identifying issues that matter

Defining the target audience

Developing a communication product from data

Review and feedback

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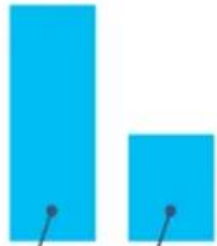# Why communicate data for impact?

The Mental Health of Canadian Farmers

Anxiety

57% of farmers had possible cases of **anxiety** (according to a 2016 research survey)

Stress

High levels of perceived **stress** affect:

45% of farmers (2016)

20.4% of the general population (2020)

Depression

Possible cases of **depression** affect:

34% of farmers (2016)

83.9% of Canadian farm operators live in rural areas (2016 Census of Agriculture)

There is **1** psychologist for every **28,500** people in rural areas

Compared to **1** psychologist for every **3,848** people in urban areas (2015)

53.4% of households in rural areas have access to high-speed broadband Internet

Compared to **89.5%** of households in Canada as a whole (2022)

Rural Areas

Communication for data use

"We can improve the value of statistics by putting users of statistics truly at the center.

However expertly and professionally produced, official statistical products are of no use unless they meet someone's needs."

- UN Economic Commission for Europe 2018

Importance of data use for development

Data is crucial to achieving:

1. **Impactful policy making**

- Data underpins all development plans and planning processes
- Without data, policies cannot be monitored to evaluate their efficiency and policy areas that need support cannot be easily identified

Importance of data use for development

Data is crucial to achieving:

2. **Effective mobilization and use of resources**

- Data serves to scrutinize government's spending during the review and approval of budgets
- Inform resource mobilization to support development programs

3. **Efficient public service delivery**

- Data helps ensure that plans are being implemented and allocated funds are being used for the right purposes
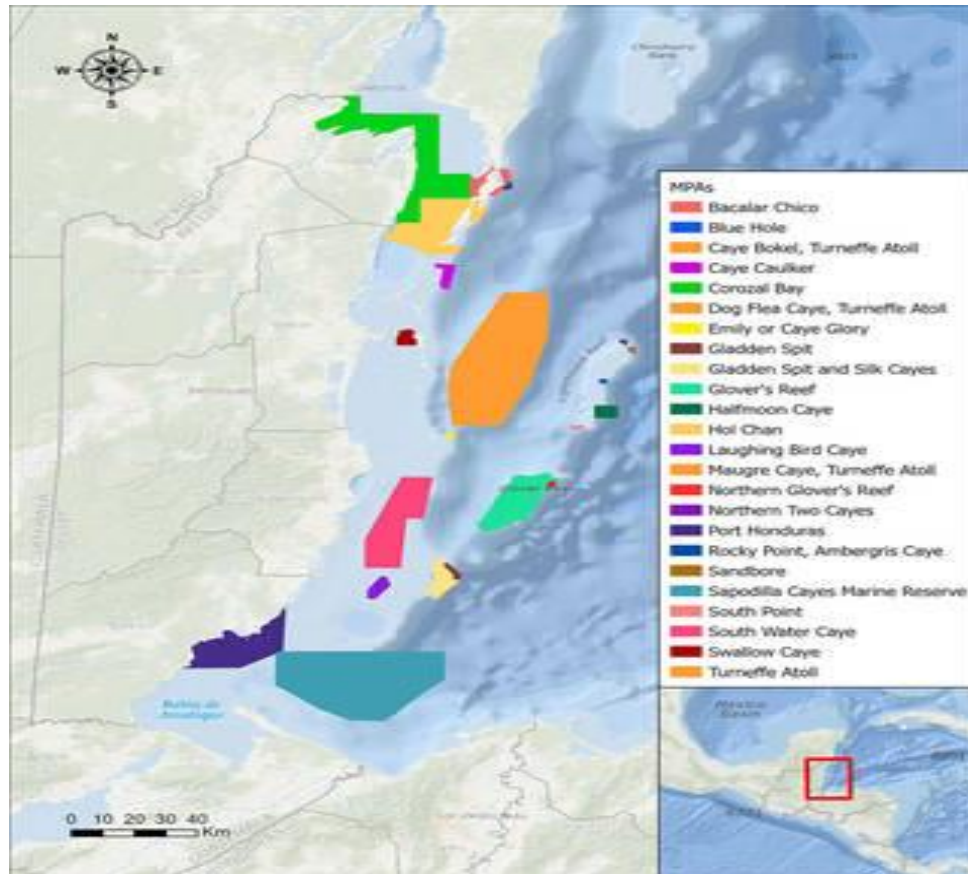
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Data in national development planning process

PROBLEM IDENTIFICATION

POLICY DESIGN

DATA

POLICY IMPLEMENTATION AND OVERSIGHT

POLICY ADOPTION
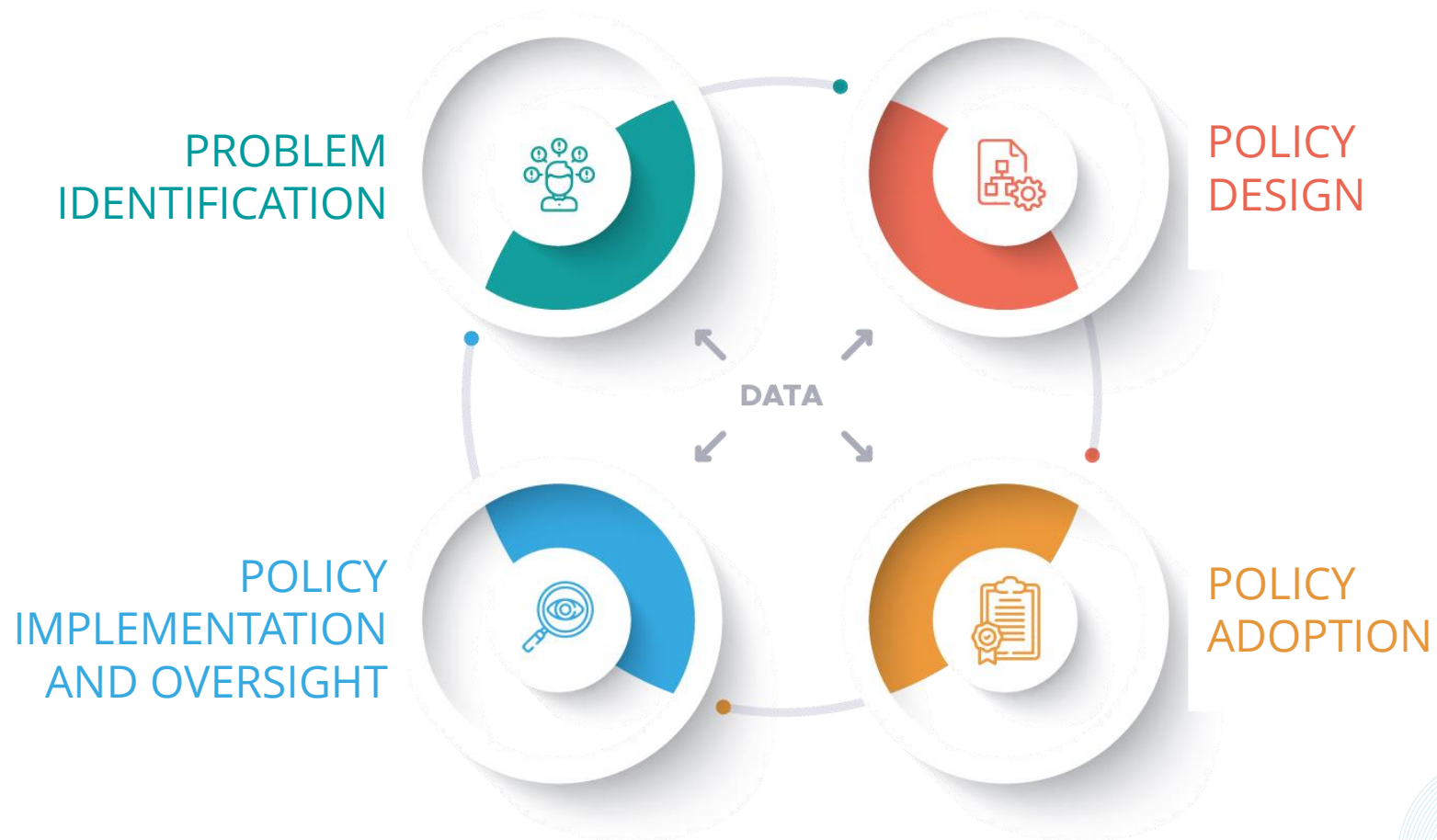
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Example: Data for impact
Coral reef risk in Belize

NASA Satellite data used to determine the risks to coral reefs, such as development, overfishing, pollution, and climate change.
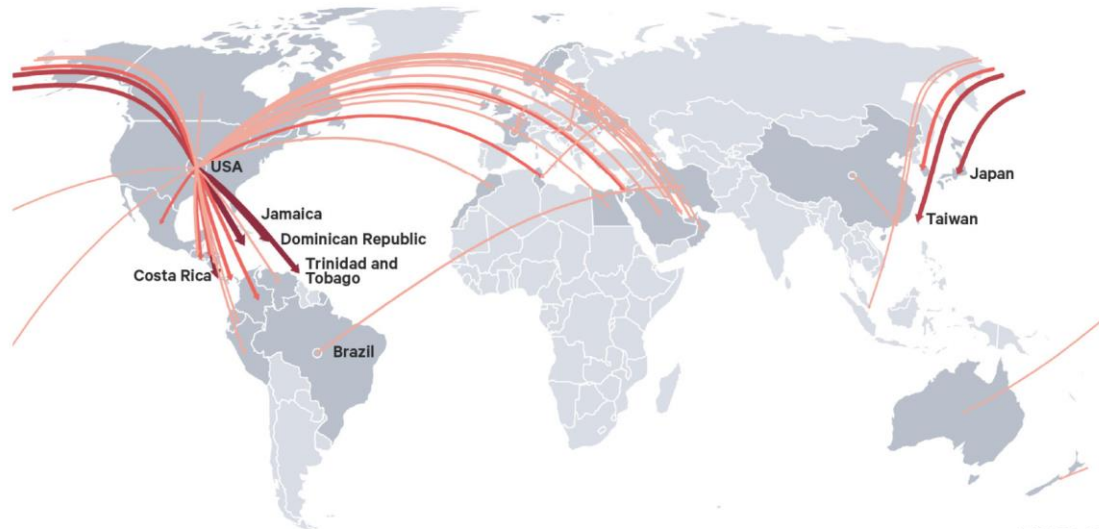
Creation of a vulnerability index

Used to inform Belize's Coastal Zone Management Plan

Example: Data for impact
Jamaica food supply and US drought

Top 5 High Risk Bilateral Trade Relationships for Maize
Visualising the top exporters and importers of climate change risk for global maize trade.

#	EXPORTER	IMPORTER	RISK TO BILATERAL TRADE	EMBEDDED TRADE FLOW (TONNES)	IMPORTER'S TOTAL STOCK	IMPACT OF CLIMATE CHANGE ON PRODUCTION
1	USA	Jamaica		0.28mn	0.32mn	-45.5%
2	USA	Costa Rica		0.42mn	0.53mn	-45.5%
3	USA	Dominican Republic		0.83mn	1.13mn	-45.5%
4	USA	Trinidad and Tobago		0.09mn	0.13mn	-45.5%
5	USA	Taiwan		2.85mn	4.62mn	-45.5%

Source: Adams et al. 2020.

SEI

Supply chain and trade data can highlight potential vulnerabilities to climate change impacts

Jamaica is highly dependent on US for maize imports.

A drought in the maize-producing US Midwest can pose food risks to food security in Jamaica and other import-dependent countries

This data can shape trade policies, provide insights into the most vulnerable communities, and support adaptation measures

Group Activity: at the end of this session, you will have a note for a policy-maker in your country

Defining the audience of
your data/information

Strategic communications: a first step

The first step is to identify the purpose of your communications product.

Consider, for example:

Answering a request:

- Do you know why your audience needs this evidence/data?
- How will they use it?
- Which of audience's key functions does it relate to?
- Do they have a preferred format to receive the information?

Proactively developing a product:

- Are you raising awareness about the importance of an issue-'putting it on the radar'?
- Are you aiming to increase knowledge about an issue?
- Are you showing the implications of different possible courses of action?

Understanding your audience's data needs

Figure 1.
Users of official statistics and their data needs

Increasing need for processing and aggregation of raw data

Media, general public

Increasing complexity and detail of data needs

International policies, international organizations

Decision makers, analysts, NGOs and civil society

Producers of statistics or information services

Scientific community and researchers

Example: Climate Change

Video: NYC Climate data dashboard

Group Activity: Strategic communication planning

AUDIENCE	MESSAGE	CHANNEL
What role do they play?	What is the most important thing the audience needs to know?	How and where can you reach your audience?
Are they specialists in the topic or are they non-technical?	Why is this issue or information important/urgent right now?	How does this audience best receive information?
What might they need to know? What are they currently working on?	How does this issue affect your target audience? Why should they care?	Do you know how they tend to prefer communications?
How can they use your information?	'So what'?: what are the implications for your audience and/or what action can they take based on the situation?	What has worked well in the past, and what has not? For example, is it better to approach them for a meeting or develop a written summary?
Did they ask for the information?	What background/contextual information is needed to support the messages?	

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Identifying an issue that matters and finding its data

Explaining issues through causes and consequences: Youth marriage

Underlying causes	Issue	Consequences/effects
Poverty		**Health risks at childbirth**
Tradition and attitudes	**Girls getting married at a young age**	**Lack of education**
Protection		**Domestic violence**

Without doing complicated statistical analysis, you can provide a holistic picture!

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Example: Mozambique

Source: UN Photo/ASCHA/Diolene Gimo

48% poverty rate

Cultural acceptance

48% of girls married before 18

46% of girls aged 15-19 were pregnant or already mothers

49% of girls completed primary education

Sources: Ministry of Health Mozambique 2015, Household Budget Survey 2015, UNESCO 2018

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Explaining issues through causes and consequences: Food insecurity

Underlying causes	Issue	Consequences/effects
Poverty		**Hunger / malnutrition**
Import dependence	**People not having access to food (food insecurity)**	**Conflict**
Climate change		**Migration**

Without doing complicated statistical analysis, you can provide a holistic picture!

Example: Jamaica

19% poverty rate

20% food imported

41% of population is food insecure

40% of children are malnourished

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Group Activity

1. Choose your topic
2. Identify causes and consequences
3. Start looking for data on what you identified

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When to use proxy indicators

1. When data on the required indicator is not available

2. When data relevant to the required indicator is available but incomplete (e.g. different classification or coverage)

3. When you are seeking a quantitative measurement of a contextual issue such as socioeconomic wellbeing

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Proxy indicators: Examples

Socio-economic wellbeing

- The possession of household assets (e.g. a television, computer etc.,) can be good proxy indicators for household income than just earnings from a job.

- The replacement of thatched roofs with corrugated iron roofs may be an indication that the economic situation of a household has improved.

- The payback rate in a micro-credit programme gives some indication of the quality of the project management (preliminary clarifications with the borrowers, customer care, etc.)

Governance

- A proxy measure of improved governance could be, in some cases, the number of political parties and voter turnout.

- The number of female members of a chamber of commerce, for example, is a proxy indicator of the percentage of female business owners or executives.

Anti-Corruption

- Complicated bureaucratic processes such as 254 steps and two years to get a building permit may be a key proxy indicator for corruption.

- A proxy indicator for payroll fraud in the civil service could be the number of ghost workers.

- An indicator of patronage in some countries could be how many senior civil servants change jobs after a change in government.

Developing a communication data product that matters to the audience

Reflections

1. Are there other things you would be interested to know and from whom?
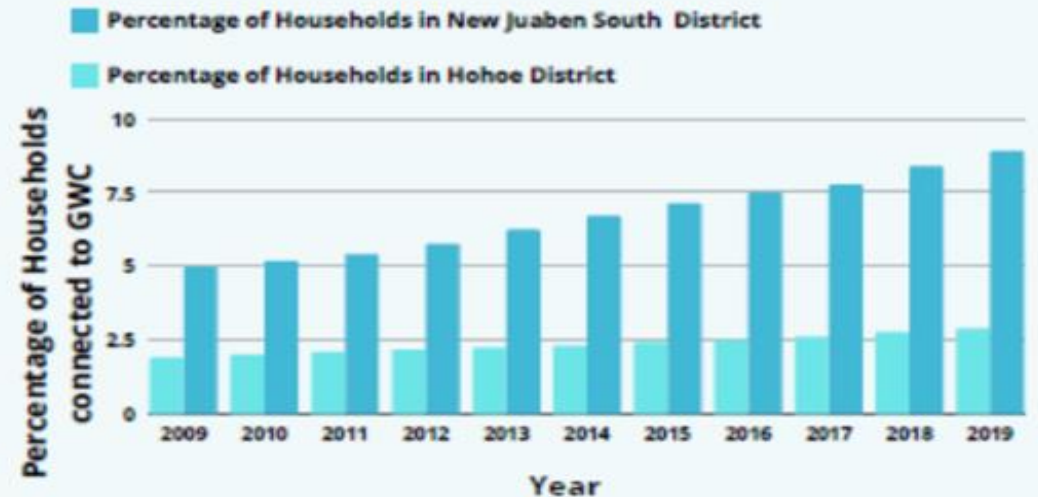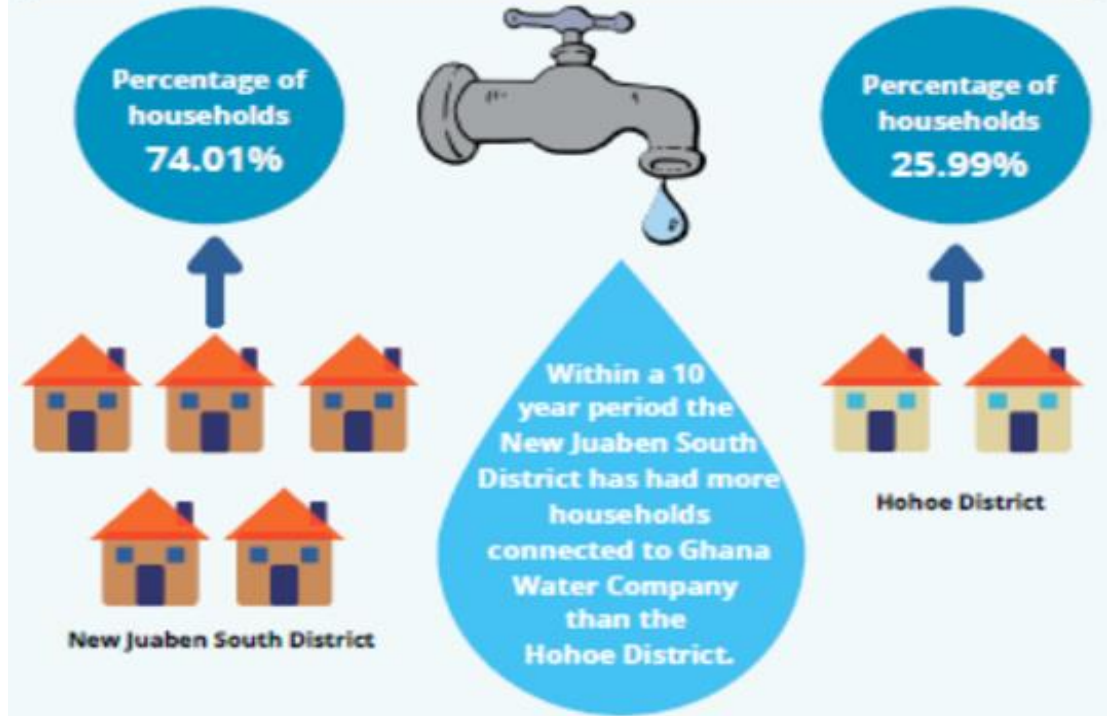
2. What would you want to communicate to the planning unit at the municipal assembly, of which you are an ex officio member?

3. What would you be communicating to the minister for water and sanitation/minister of finance?

Ghana Water Company connection in two districts from 2009 to 2019

Percentage of households **74.01%**

Percentage of households **25.99%**

Within a 10 year period the New Juaben South District has had more households connected to Ghana Water Company than the Hohoe District.

New Juaben South District

Hohoe District

■ Percentage of Households in New Juaben South District

■ Percentage of Households in Hohoe District

Percentage of Households connected to GWC

10
7.5
5
2.5
0

2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

Year

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Tips for effective messaging

- Responds to the purpose
  - Meets audience needs
  - Appropriately timed

- Contextually relevant
  - Frame within and respond to development context
  - Links to actions or real-life implications

- Clear and concise

Writing about data: Dos and Don'ts

POOR	BETTER	TIP
"The largest contributor to the monthly increase in the CPI was a 0.5% rise in the transportation index."	"Higher auto insurance premiums and air fares helped push up consumer prices this month."	**Get straight to the point**
"Working seniors were also somewhat more likely than younger people to report unpaid family work in 2004 (12% versus 4%)."	"About 12% of working seniors reported unpaid family work in 2004, compared with 4% for younger people."	**Avoid using proportions in brackets**
"The proportion of seniors who were in the labour force rose 5% from 15% in 2003 to 20% in 2004."	"The proportion of seniors who were in the labour force rose five percentage points from 15% in 2003 to 20% in 2004."	**Don't confuse percentage changes with percentage point changes.**
"Two out of every five Canadians reported that they provided care for a senior in 2001, compared with one in seven in 1996, according to the census."	"About 40% of Canadians reported that they provided care for a senior in 2001, up from 14% in 1996, according to the census."	**Avoid changing denominators**
"Of the $246.8 billion in retail spending last year consumers spent $86.4 billion on cars and parts, and $59.3 billion on food and beverages."	"Of every $100 spent in retail stores last year, consumers spent $31 on cars and parts, compared with only $23 on food and beverages."	**Reduce big numbers to understandable levels**

Source: UNECE Making Data Meaningful

Some key tips: readability

- **Titles matter:** short, concrete, to the point

- **Summary of key messages** in bullet points/pop-out box at the beginning

- **'Stand first':** 1-2 sentences to explain what the document is about

- **Headings**: clear and concrete, enabling quick scanning

- **'So what?'** : recommendations or implications are clear, ideally no more than 3, and linked to the mandate/actions of the audience

Reflections on communicating data: Oxfam and 'killer facts'

This guide from Oxfam's policy and practice section focuses on how to use 'killer facts': 'punchy, memorable, headline-grabbing statistics' that can be used in reports and visualisations.

Tips include:

- Big numbers: a single statistic that shows the scale of the issue

- Juxtaposition to highlight injustices and double standards

- Absurdity and surprise to make a juxtaposition more memorable

- Humanising abstract issues and showing human scale

Activity

AUDIENCE	MESSAGE
What role do they play?	What is the most important thing the audience needs to know?
Are they specialists in the topic or are they non-technical?	Why is this issue or information important/urgent right now?
What might they need to know? What are they currently working on?	How does this issue affect your target audience? Why should they care?
How can they use your information?	'So what'?: what are the implications for your audience and/or what action can they take based on the situation?
Did they ask for the information?	Does the audience need any background information to support the messages?

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Data Visualization

- What types of visuals do you use when communicating in an official setting?

- How comfortable are you producing visuals to communicate evidence?

- In what situations or for what purposes do you use visual communication approaches?

- Are there any situations in which you wouldn't use a visual communication approach?

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Data visualisation as a tool

The tool has two uses:

Exploratory

It can help you find the story in data

Explanatory

It can help you present your findings effectively

Use of data visualisation: Example

The female unemployment rate in Belgium has gone down since 1990.

In 1990, the female unemployment rate was 12%, more than twice that of men.

Since 2011, female unemployment has been lower than or at the same level as male unemployment.

Unemployment rate in Belgium

Percentage of the labour force that is unemployed

15%	
10%	Female
5%	Male
0%	

1990   2011   2017

Year
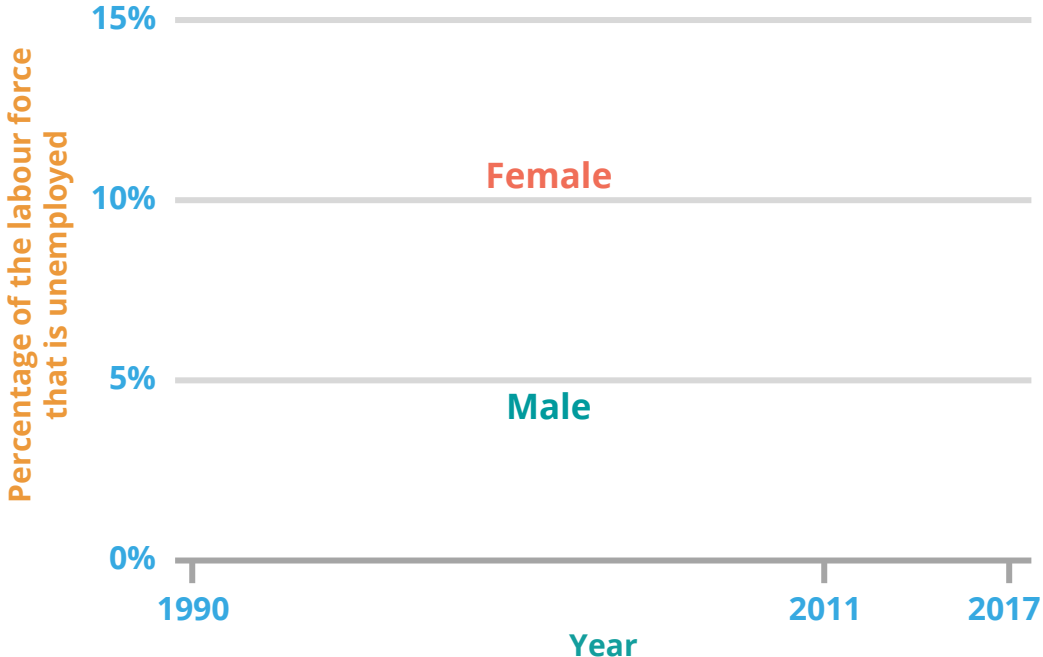
Source: OECD

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What is data visualisation?

Visual representation of **properties** of data

Visual	properties
Bars	Volume
Lines	Size
Circles	Duration
Squares	Quantity
Colour	Frequency

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Visual cues for data visualisation
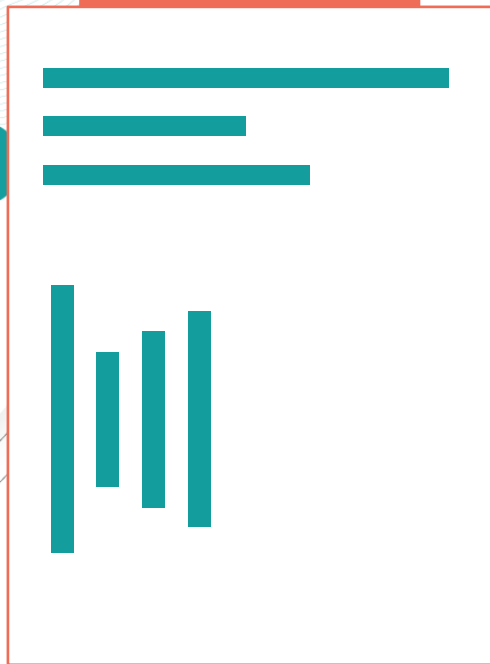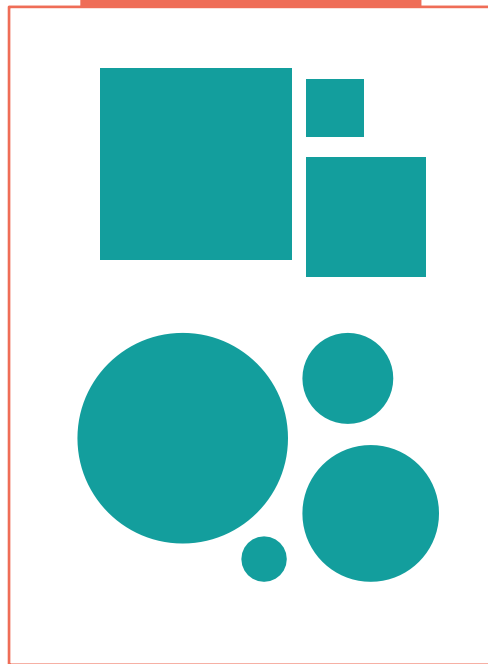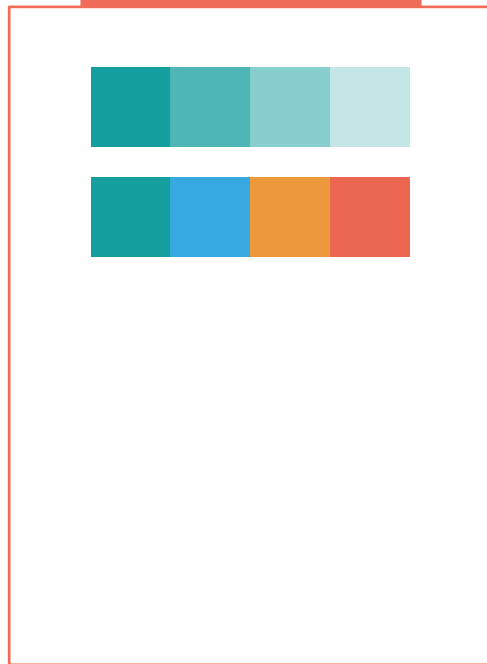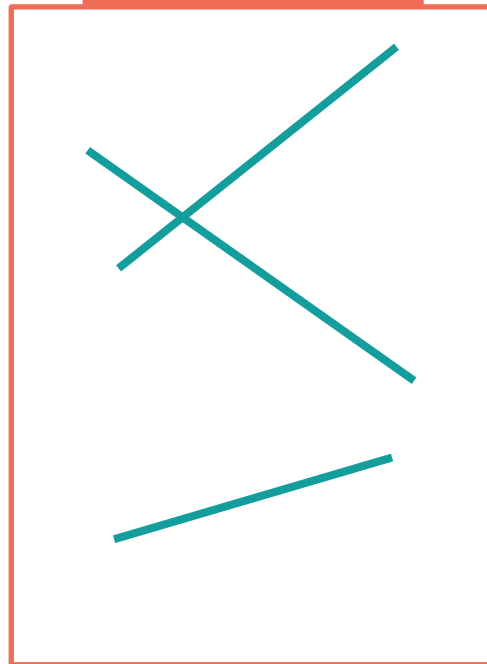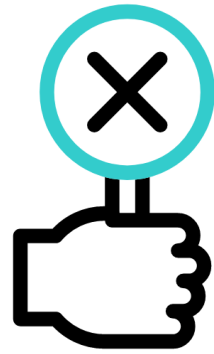
Common mistakes

1. Numbers do not add up

2012 presidential run
GOP candidates

BACK PALIN
70%
BACK ROMNEY
60%
BACK HUCKABEE
63%
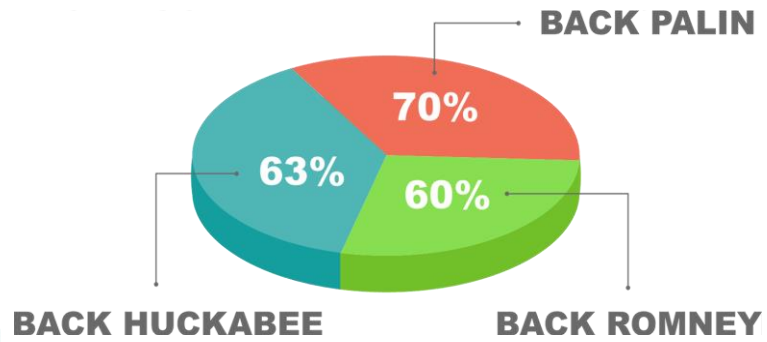
Source: Fox News

Add up to 193%

The World Cup's big guns
% of team's runs scored by top scorer

RAHMAT SHAH 14.8
KUSAL PERERA 18.16
ROOT 19.07
POORAN 20.01
DU PLESSIS 21.06
BABAR 24.51
WARNER 25.02
SHAKIB 28.25
ROHIT 29.05
WILLIAMSON 30.23
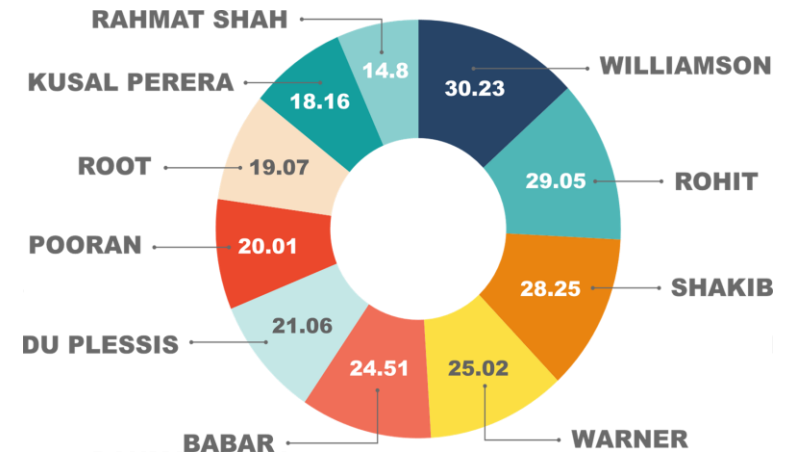
Source: ESPN

Add up to 230.16%

Income in China and the US

Monthly income in China

Annual income in the US

x,000 yuan
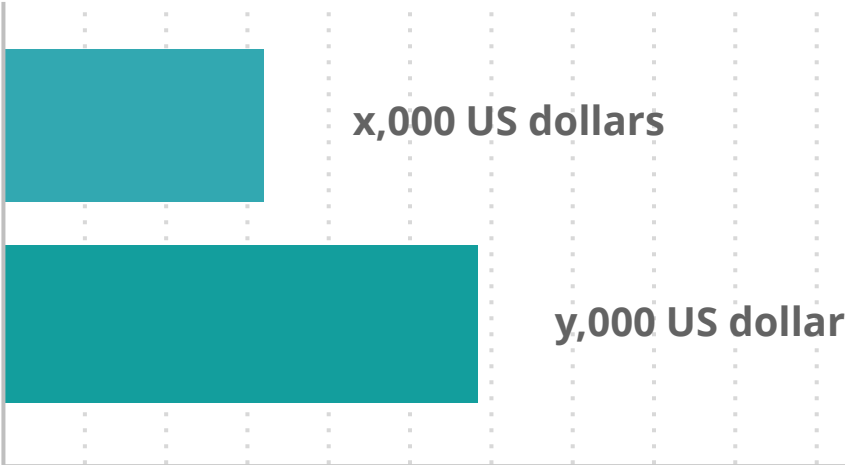
y,000 US dollars

Average annual economic growth

3.5%

1.4%

4.0%
3.5%
3.0%
2.5%
2.0%
1.5%
1.0%
0.5%
0

1950 - 2008

2009 – 2016*
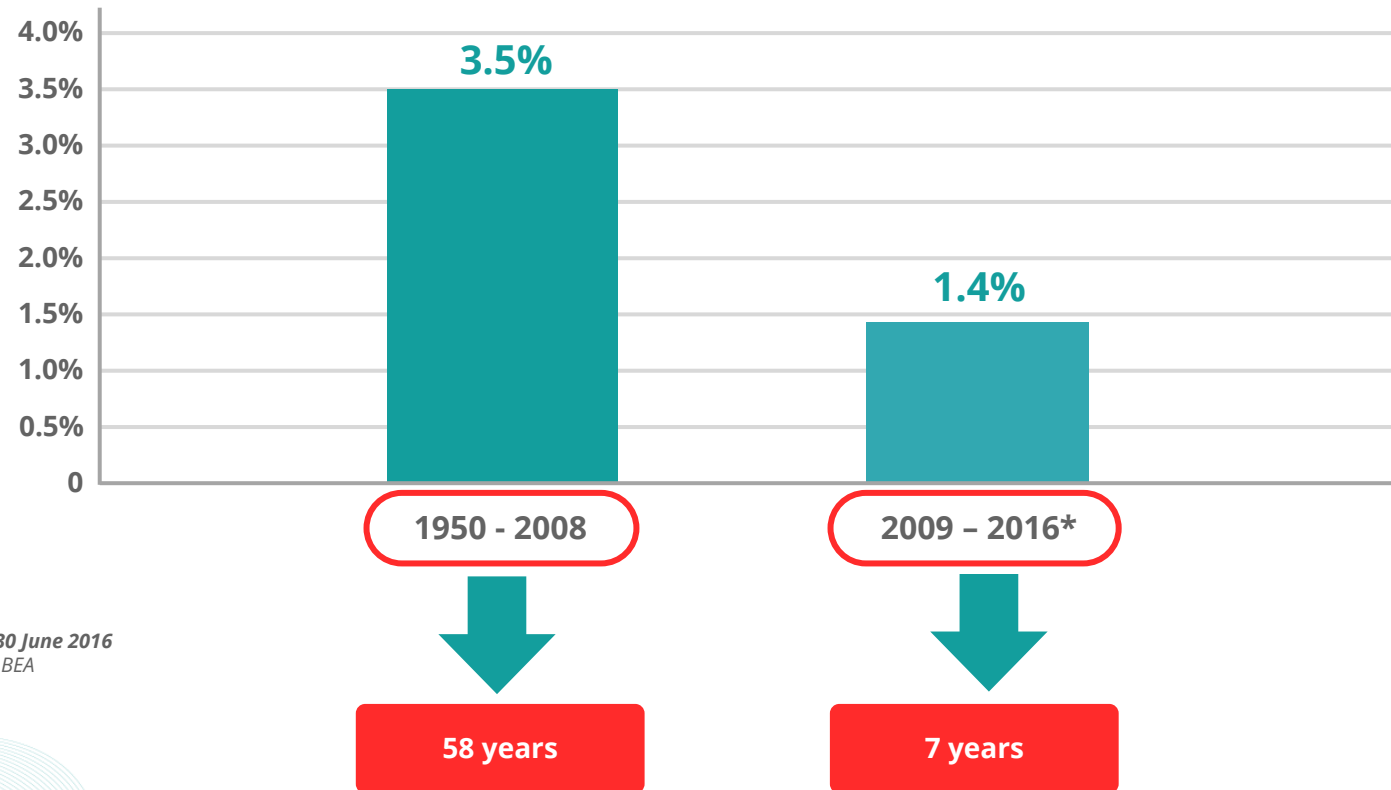
*Up to 30 June 2016
Source: BEA

58 years

7 years

Improved chart

NBC2 viewer note
Nbc-2.com

How concerned are you about ZIKA virus?

34%   28%   25%   13%

Very   Somewhat   Not very   Not at all
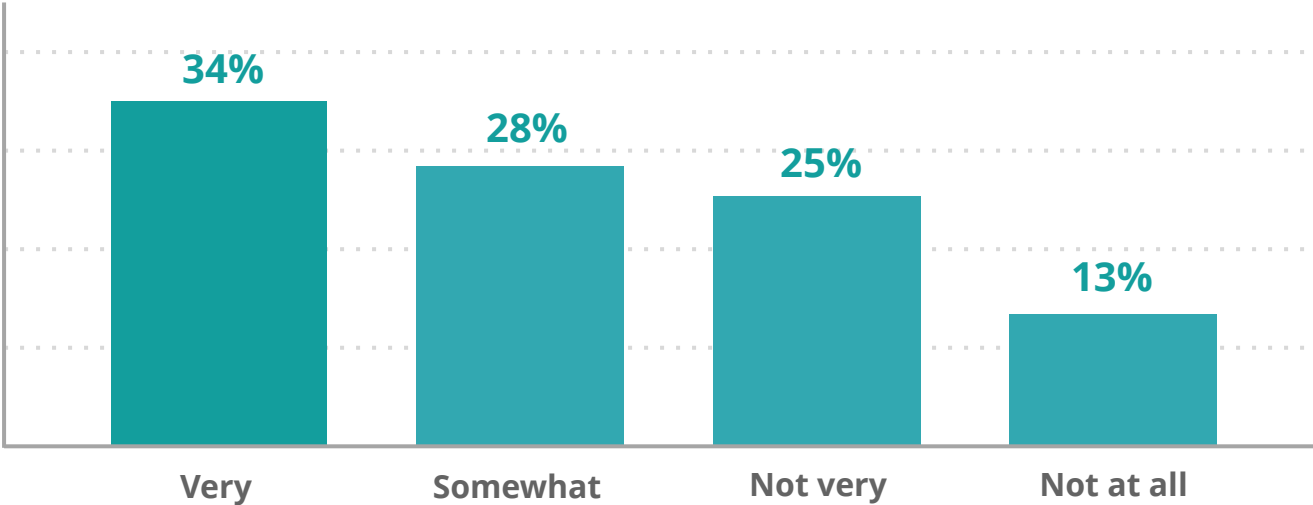
Source: NBC

Good practices

Order matters

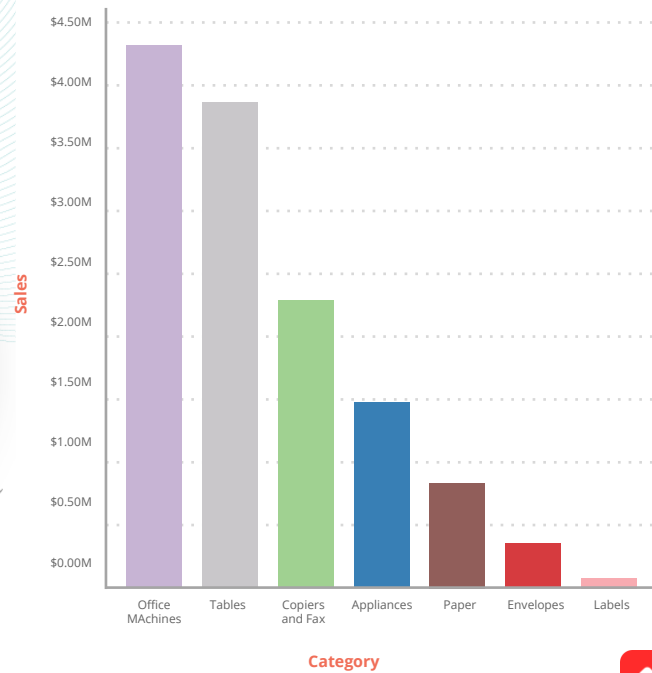**Types of debt**

The total owed by the average US household

(Chart 1 — categories top to bottom: Credit cards, Mortage, Auto loans, Student loans, Others) ❌

Types of debt

The total owed by the average US household

(Chart 2 — categories top to bottom: Mortage, Others, Student loans, Auto loans, Credit cards) ✅
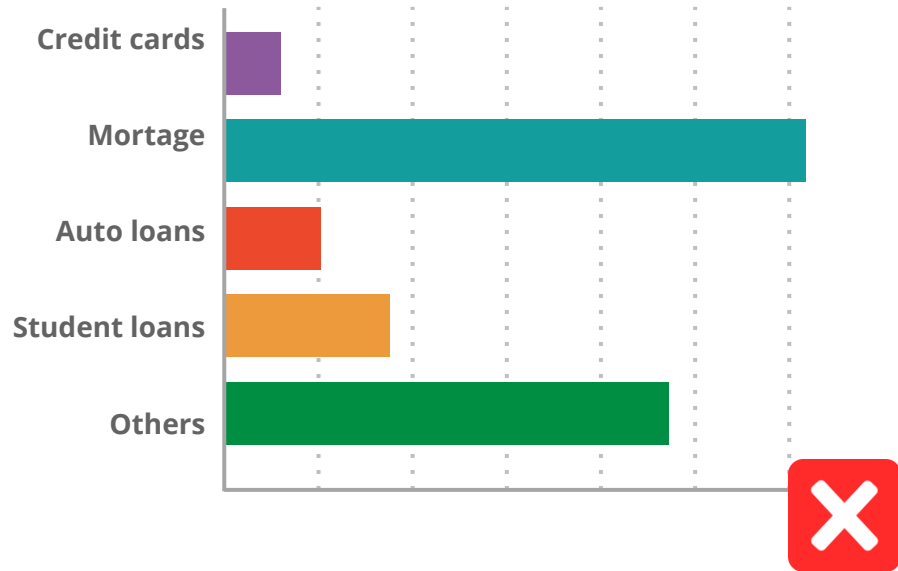
Source: 2019 American Household Credit Card Debt Study
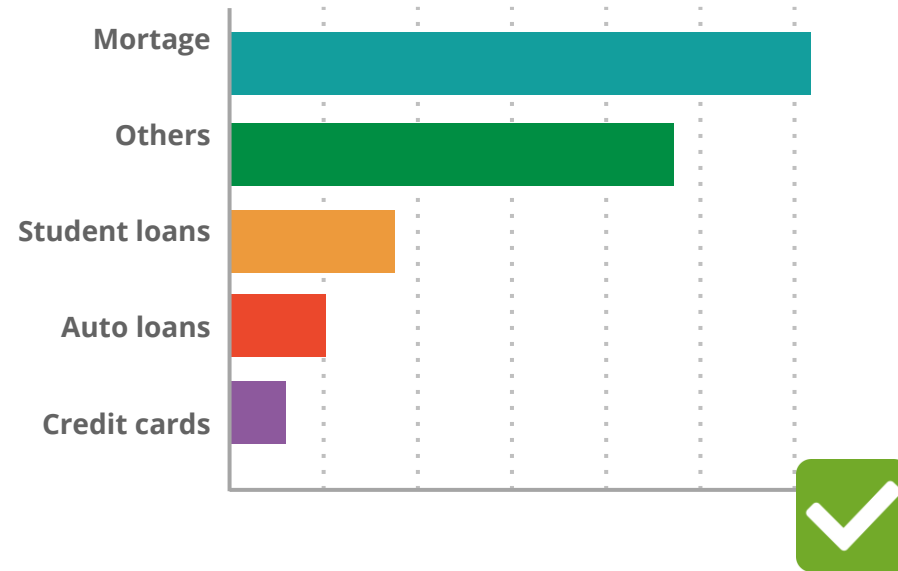
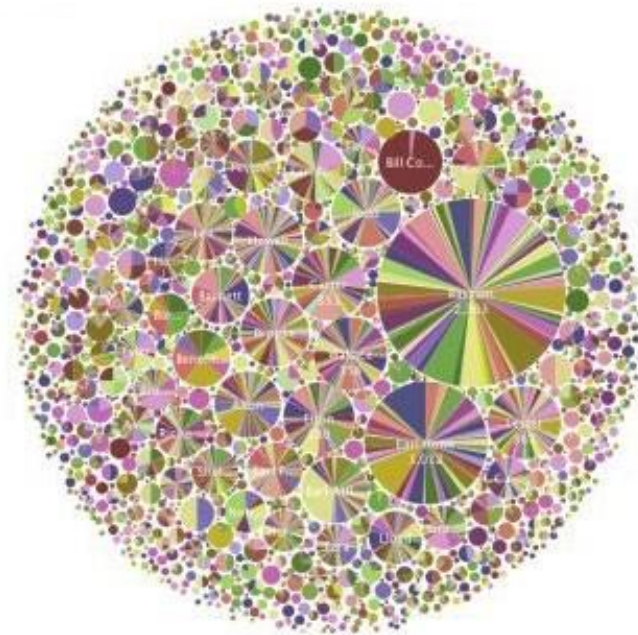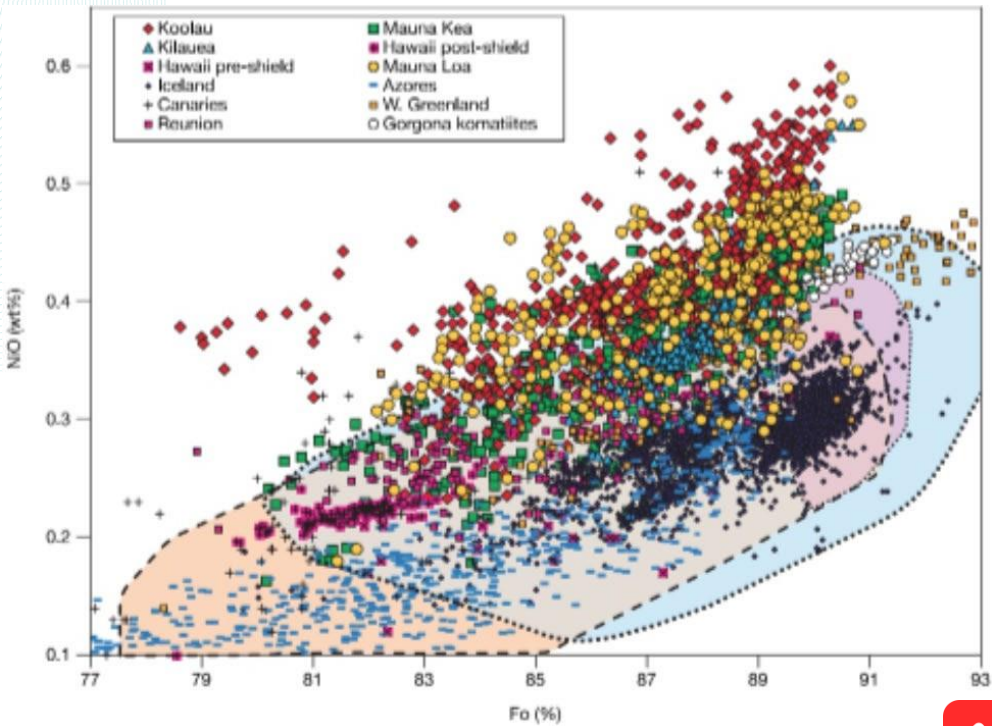# Colours should be used purposefully
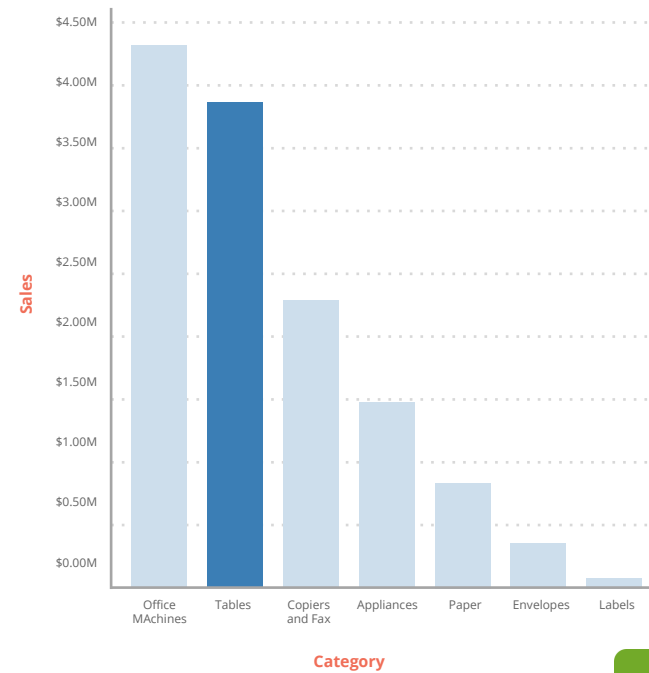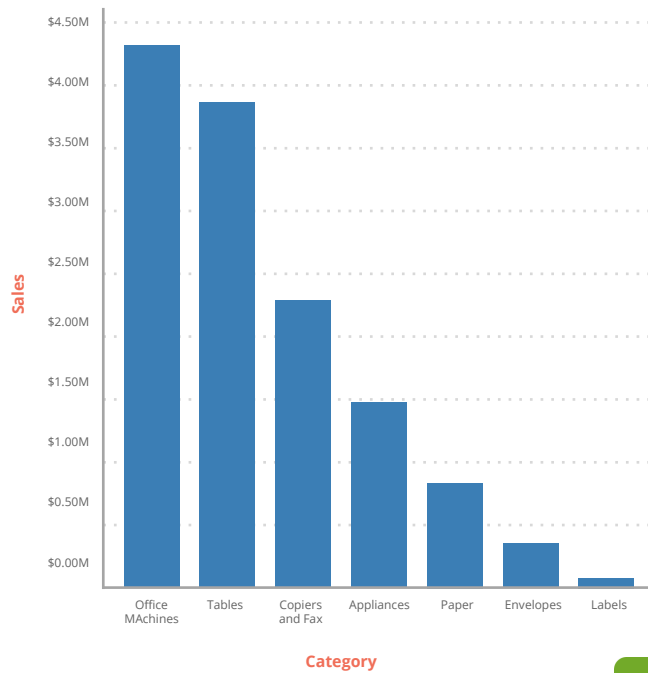
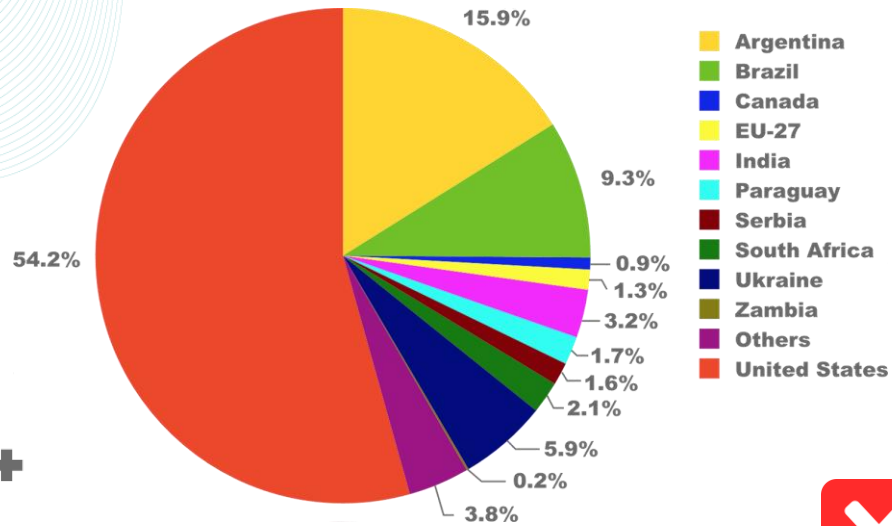Source: Karina Korpela

Keep your charts concise

Keeping your charts concise
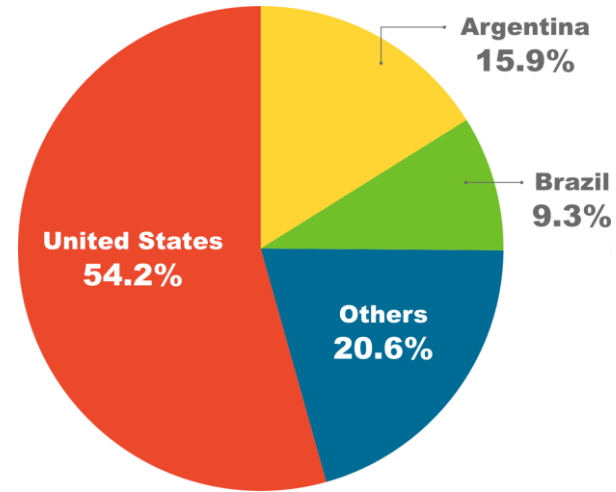

Global corn exports

Per cent share by nation

Source: Steve Smith (2016)

Global corn exports

Per cent share by nation

Reviewing your visualisation draft: a checklist

- Have you double-checked the data in your visual is correct? Does it make sense?

- Is it showing ONE clear message? Would additional or less data help improve the story?

- Is the design easy to follow? Does the title frame the content correctly? Are colors used purposefully? Is data in the right order?

- Is the story presented self-contained? Does someone else understand the visualization without prior explanation?

Could you also produce an infographic?

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Review your data

When reviewing data, consider:

1. Where it came from

2. What it shows

3. What it doesn't show

...and when you have reached your decision, be transparent about what data you drew on

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Review and feedback by groups

Peer-review feedback:

1. Is a main message clear from the product?

2. Does the main message match the needs of the specific audience?

3. Is data used purposefully and does it provide a holistic view of the issue?

Plenary Recap:

1. What were your main takeaways from this activity?

2. What will you take home?

Thank you