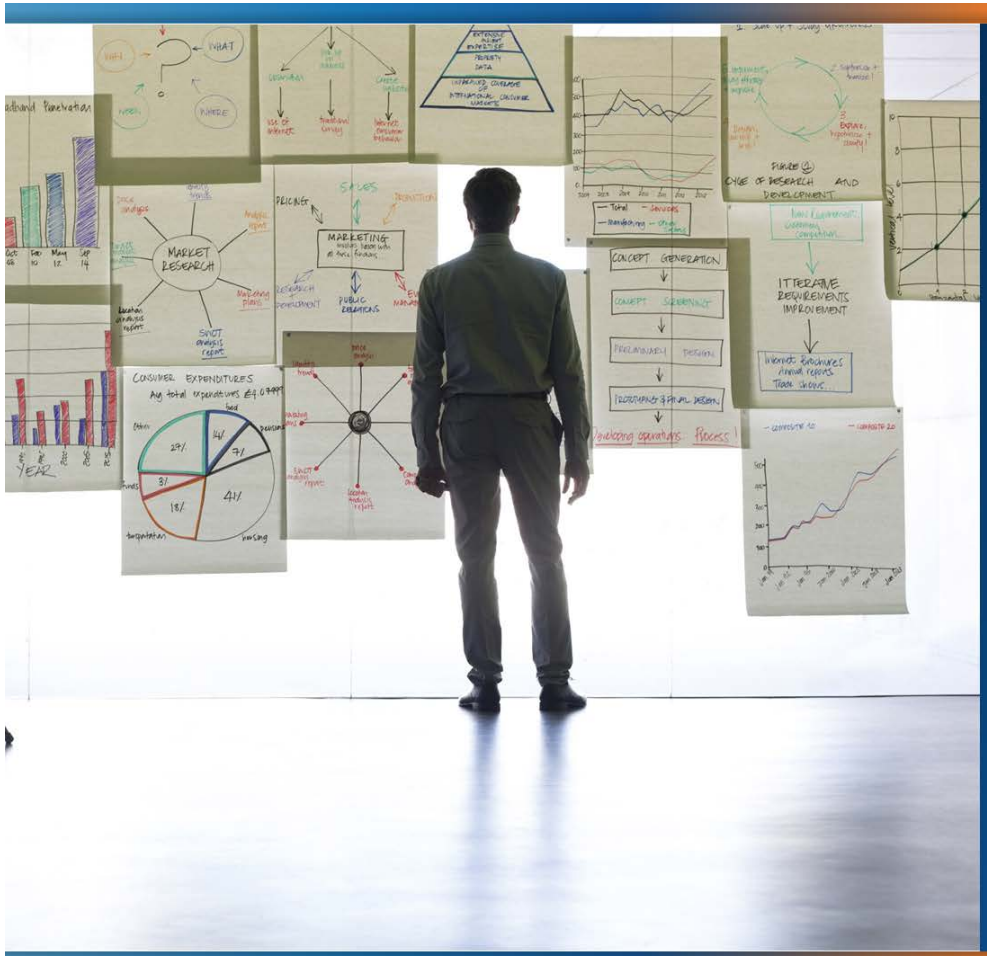
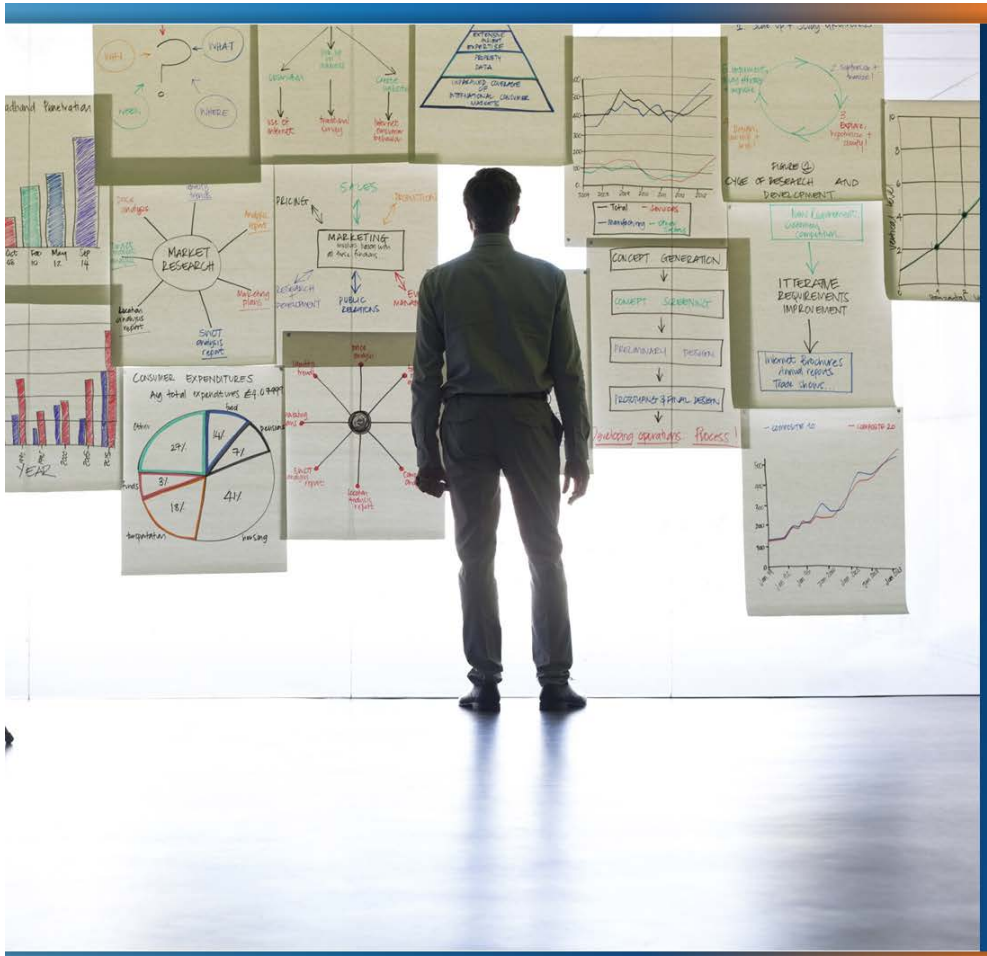
Essential Design Principles for Tableau

Data, Relationships, and Design



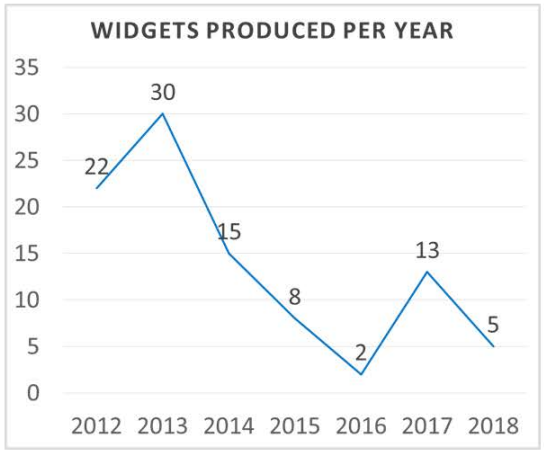
Consider context and uses of data for your audiences

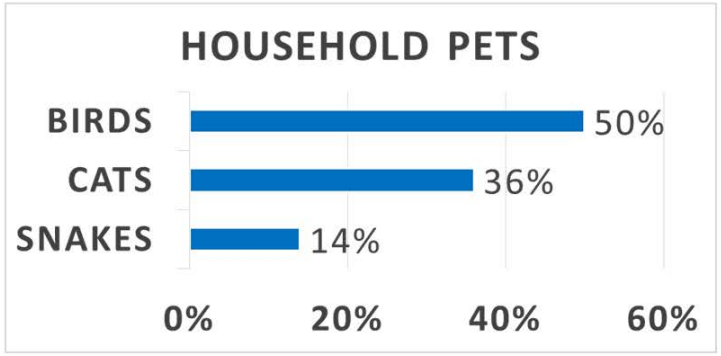
Ways to display data relationships using specific chart types



Know what type of visualization to use and when to use it

Visualizations reveal relationships between dimensions of data



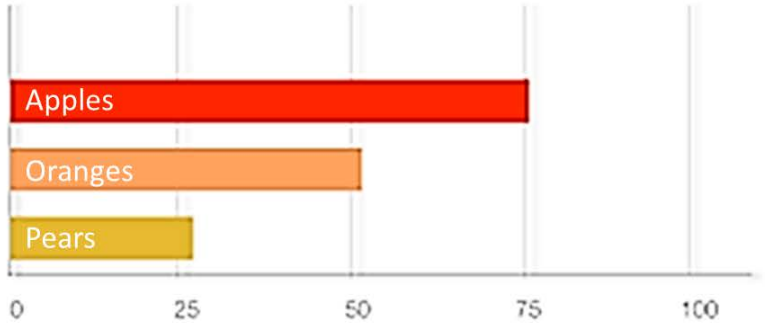


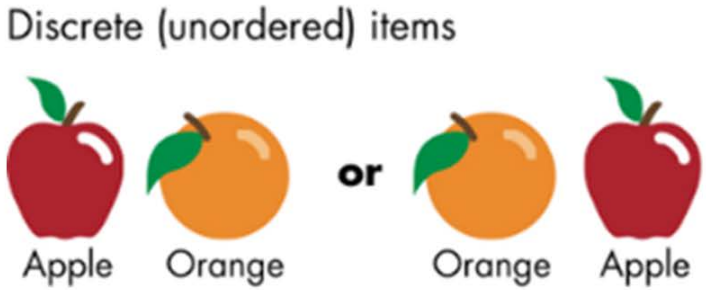
Line charts show change over time

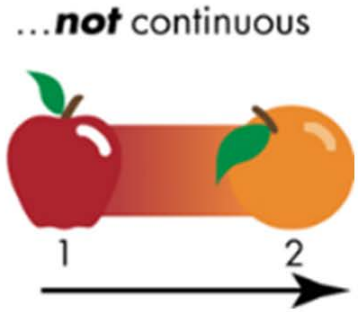
Bar charts show categorical comparisons

One chart type cannot fit all needs

What is the proportion of apples vs. oranges sold at Francesca's Fruit Stand?







Apples and oranges are distinct items and represent discrete data

Coin toss is another discrete data set

Cannot be a little bit heads or tails

Opposite of
discrete data

Continuous data
represents a connected
range of values

Continuous…

Can be safely consumed until?

Date of manufacture

Heat death of the Universe

Time is a linear, and therefore continuous, data value

What types of data relationships do you want to display?

Which type of graphic best showcases those relationships?

There may be more than one option available

Primary Types of Data Relationships and Commonly Associated Charts

Data Relationship	Chart
Comparison	• Column chart
Composition (Part-to-whole Relationships)	• Stacked column • Tree map
Correlation	• Scatter plots
Trend	• Line charts
Ranking	• Bar charts
Distributions	• Histograms • Box plots
Geospatial	• Maps

Make visualization decisions based on:

Data type

Relationships within the data

The needs of your intended audience