

# CHOOSING THE RIGHT CHART

## CHART TYPE BAR CHART



**PURPOSE**

COMPARE CATEGORIES AGAINST EACH OTHER

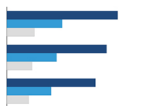
**BENEFITS**

EASY TO READ, ACCURATE, AND RELIABLE

### EXAMPLE USES

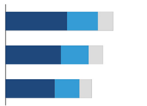
- “Region A had the highest sales”
- “Efficiency at factory B lags behind”
- “Many companies have at least \$1B cash”

### VARIATIONS



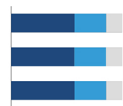
**CLUSTERED**

Ideal for comparing subcategories against each other



**STACKED**

Ideal for comparing totals while still showing subcategory breakdown



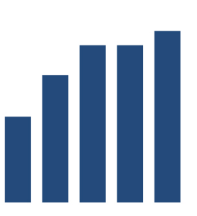
**100% STACKED**

Ideal for emphasizing subcategory changes

### TIPS

- Put bars in logical order, often from biggest to smallest
- Keep spacing between each bar minimal
- Always start the X axis at 0
- Remove gridlines or other distractions
- Avoid unconventional shapes like 3D columns
- Avoid using borders on your bars
- Keep the colors of your bar chart simple

## CHART TYPE COLUMN CHART



**PURPOSE**

COMPARE CATEGORIES WITH A NATURAL ORDER

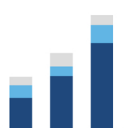
**BENEFITS**

READS FROM LEFT TO RIGHT, GOOD FOR TIME COMPARISONS

### EXAMPLE USES

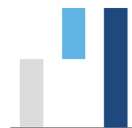
- “Sales peaked in 2022 but have since declined”
- “MRR exceeded \$1M every month last year”
- “Operating costs reached new highs in June”

### VARIATIONS



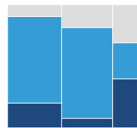
**STACKED**

Ideal for comparing category totals while still showing breakdown



**WATERFALL**

Ideal for showing how to get from one value to another




**MEKKO**

Ideal for showing an additional variable to provide context

### TIPS

- Avoid long category labels (use bar chart instead)
- Distinguish between historical and projected data
- Call out important periods of the chart
- Keep spacing between each bar minimal
- Always start the Y axis at 0
- Remove gridlines or other distractions
- Avoid unconventional shapes like 3D columns
- Avoid using borders on your columns
- Keep the colors of your columns simple

## CHART TYPE PIE CHART



**PURPOSE**

COMPARE ONE OR MULTIPLE CATEGORIES TO THE TOTAL


**BENEFITS**

EASY TO GAUGE PORTION OF TOTAL

### EXAMPLE USES


- “20% of autos on the road are trucks”
- “Materials account for a majority of costs”
- “Only one fifth of working time is productive”

### VARIATIONS



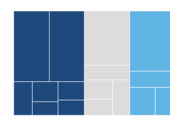
**DONUT**

Ideal for showing extra data in center of chart



**SUNBURST**

Ideal for showing visual breakdown of categories



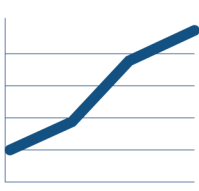
**TREEMAP**

Ideal for showing many layers in a nested space

### TIPS

- Don't use for comparing categories against each other
- Limit the number of categories used
- Color the slices you'd like to highlight
- Make sure categories add up to 100%
- List categories in logical order, starting from the 12 o'clock position
- Avoid 3D and other unconventional shapes
- Keep your labels simple and concise
- Avoid comparing Pie Charts side by side

## CHART TYPE LINE CHART



**PURPOSE**

SHOW CHANGE IN DATA OVER TIME

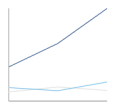
**BENEFITS**

HIGHLIGHTS TRENDS, PATTERNS, OR EXCEPTIONS IN THE DATA

### EXAMPLE USES


- “Apple stock has risen steadily for the past 10 years”
- “Sales for Company A have been volatile”
- “While the industry declines, our revenue has risen”

### VARIATIONS



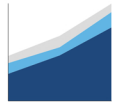
**MULTIPLE LINE**

Ideal for showing pattern of multiple categories in the same space



**AREA**

Ideal for emphasizing change in quantity for a single categories



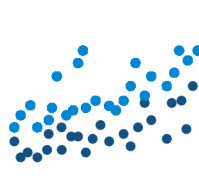
**STACKED AREA**

Ideal for emphasizing total change in quantity for multiple categories

### TIPS

- Add category labels right next to the lines themselves instead of using a legend
- Consider the measurement intervals of your data
- Call out important sections of your chart
- Use contrasting colors when you have multiple lines on your chart
- Avoid using too many categories in one chart
- Use gridlines if you need to emphasize line slope

## CHART TYPE SCATTER PLOT



**PURPOSE**

SHOW THE RELATIONSHIP BETWEEN TWO VARIABLES


**BENEFITS**

EASILY SHOW CORRELATION, PATTERNS, OR OUTLIERS

### EXAMPLE USES


- “Taller people tend to also weigh more”
- “San Francisco is both expensive and crowded”
- “Japan's safety is unlike most countries of its size”

### VARIATIONS




**BUBBLE**

Ideal for showing an additional data variable



**HEATMAP**

Can be used to show patterns in large datasets



**PAIRED BAR**

Ideal for showing relationship between small dataset

### TIPS

- Avoid overcrowding your data with too many variables
- Avoid overplotting the chart with too many dots
- Don't suggest causation where it might not exist
- Label your data points when it's appropriate
- Exercise caution when using different shapes for your data points
- When using bubbles scale based on area, not on diameter