

# CHOOSING THE RIGHT CHART

CHART TYPE

## BAR CHART



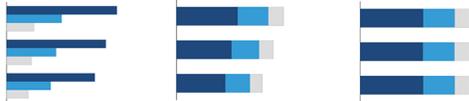
**PURPOSE**  
COMPARE CATEGORIES AGAINST EACH OTHER

**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**      **STACKED**      **100% STACKED**

Ideal for comparing subcategories against each other

Ideal for comparing totals while still showing subcategory breakdown

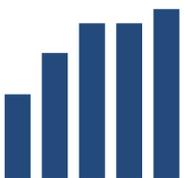
Ideal for emphasizing subcategory changes

### 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



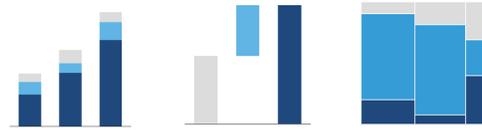
**PURPOSE**  
COMPARE CATEGORIES WITH A NATURAL ORDER

**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**      **WATERFALL**      **MEKKO**

Ideal for comparing category totals while still showing breakdown

Ideal for showing how to get from one value to another

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**      **SUNBURST**      **TREEMAP**

Ideal for showing extra data in center of chart

Ideal for showing visual breakdown of categories

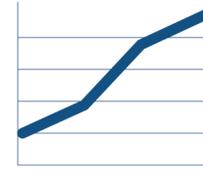
Ideal for showing many layers in a nested space

### 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**      **AREA**      **STACKED AREA**

Ideal for showing pattern of multiple categories in the same space

Ideal for emphasizing change in quantity for a single categories

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**      **HEATMAP**      **PAIRED BAR**

Ideal for showing an additional data variable

Can be used to show patterns in large datasets

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