Deviation

Emphasise variations (+/-) from a fixed reference point. Typically the reference point is zero but it can also be a target or a long-term average. Can also be used to show sentiment (positive/neutral/negative).

Diverging bar

Diverging stacked bar

Example FT uses

Trade surplus/deficit, climate change

Example FT uses

causes the other).

Inflation & unemployment, income &

life expectancy

Correlation

Show the relationship between two or

more variables. Be mindful that, unless

you tell them otherwise, many readers

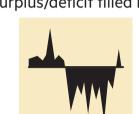
will assume the relationships you

show them to be causal (i.e. one

Line + Column

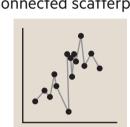
Scatterplot

Surplus/deficit filled line

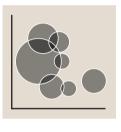




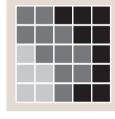
Connected scatterplot



Bubble



XY heatmap

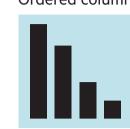


Ranking

Use where an item's position in an ordered list is more important than its absolute or relative value. Don't be afraid to highlight the points of interest.

Example FT uses Wealth, deprivation, league tables, constituency election results

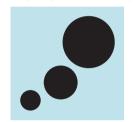
Ordered column



Ordered bar



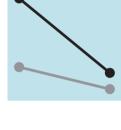
Ordered proportional symbol



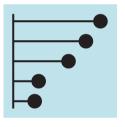
Dot strip plot



Slope

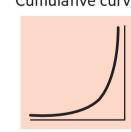


Lollipop chart





Cumulative curve

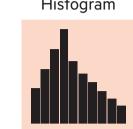


Distribution

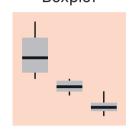
Show values in a dataset and how often they occur. The shape (or 'skew') of a distribution can be a memorable way of highlighting the lack of uniformity or equality in the data.

Example FT uses Income distribution, population (age/sex) distribution

Histogram



Boxplot



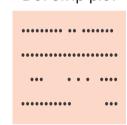
Violin plot



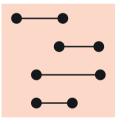
Population pyramid



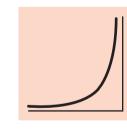
Dot strip plot



Dot plot







Change over Time

Give emphasis to changing trends. These can be short (intra-day) movements or extended series traversing decades or centuries: Choosing the correct time period is important to provide suitable context

for the reader.

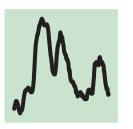
Example FT uses Share price movements, economic time series



Line + column



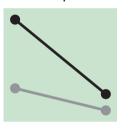
Line



Stock price



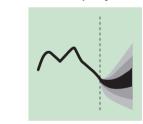
Slope



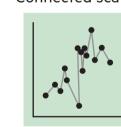
Area chart



Fan chart (projections)



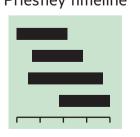
Connected scatter



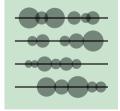
Calendar heatmap



Priestley timeline



Circle timeline



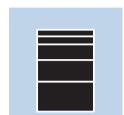
Magnitude Part-to-whole

Show how a single entity can be broken down into its component elements. If the reader's interest is solely in the size of the components, consider a magnitude-type chart instead.

Example FT uses

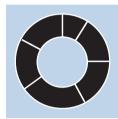
Fiscal budgets, company structures, national election results

Stacked column





Donut



Treemap



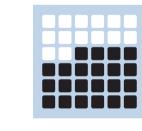
Voronoi



Sunburst









Used only when precise locations or geographical patterns in data are more important to the reader than anything else. show a 'counted' number (for example,

Example FT uses

Locator maps, population density, natural resource locations, natural disaster risk/impact, catchment areas, variation in election results

Spatial

Basic choropleth (rate/ratio)



Proportional symbol (count/magnitde)



Flow map

Contour map

Equalised cartogram

Scaled cartogram (value)



Paired bar



Paired column

Show size comparisons. These can be

larger/bigger) or absolute (need to

see fine differences). Usually these

barrels, dollars or people) rather than

Column

relative (just being able to see

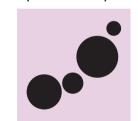
a calculated rate or per cent.

Commodity production, market

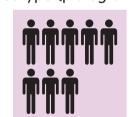
Example FT uses

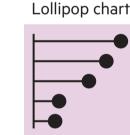
capitalisation

Proportional symbol



Isotype (pictogram)

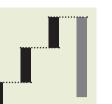




Radar chart



Waterfall



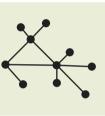
Sankey



Chord



Network



Visual vocabulary

Designing with data

There are so many ways to visualise data - how do we know which one to pick? Use the categories across the top to decide which data relationship is most important in your story, then look at the different types of chart within the category to form some initial ideas about what might work best. This list is not meant to be exhaustive, nor a wizard, but is a useful starting point for making informative and meaningful data visualisations.

Flow

Show the reader volumes or intensity of movement between two or more states or conditions. These might be logical sequences or geographical locations.

Example FT uses

Movement of funds, trade, migrants, lawsuits, information; relationship graphs.

