Data Presentation

The two main ways of summarising data are using tables and charts or graphs. The simplest way of summarising a set of observations is through a table. Visual presentation of data is best accomplished using charts and graphs and designed well, and they convey general patterns of the data. Most tables show a frequency distribution, a set of categories with numerical counts. Another common way to summarise data is with relative frequency – which is the percentage of the total number of observations that appear in that interval.

Charts and graphs are used to portray trends, relationships, and comparisons. They are the most informative and are simple. Although they are simpler to read than tables, charts provide minor detail. Bar charts are used to compare data across categories, and line graphs display trends over time. At the same time, pie charts show percentages or the contribution of each value to a total. A stacked bar chart is often used to represent components of a whole and compare the wholes(or multiple values). It is best to use a line graph to display trends over time. It can also be helpful to use bar charts to show time trends; however, line graphs are handy when there are many data points.

Once we have transformed data into information by summarising them with tables, graphs, or narratives, we need to interpret the data. Interpretation of the data is the process of making sense of data. Analysing data adds meaning to information by making connections and comparisons and exploring causes and consequences.