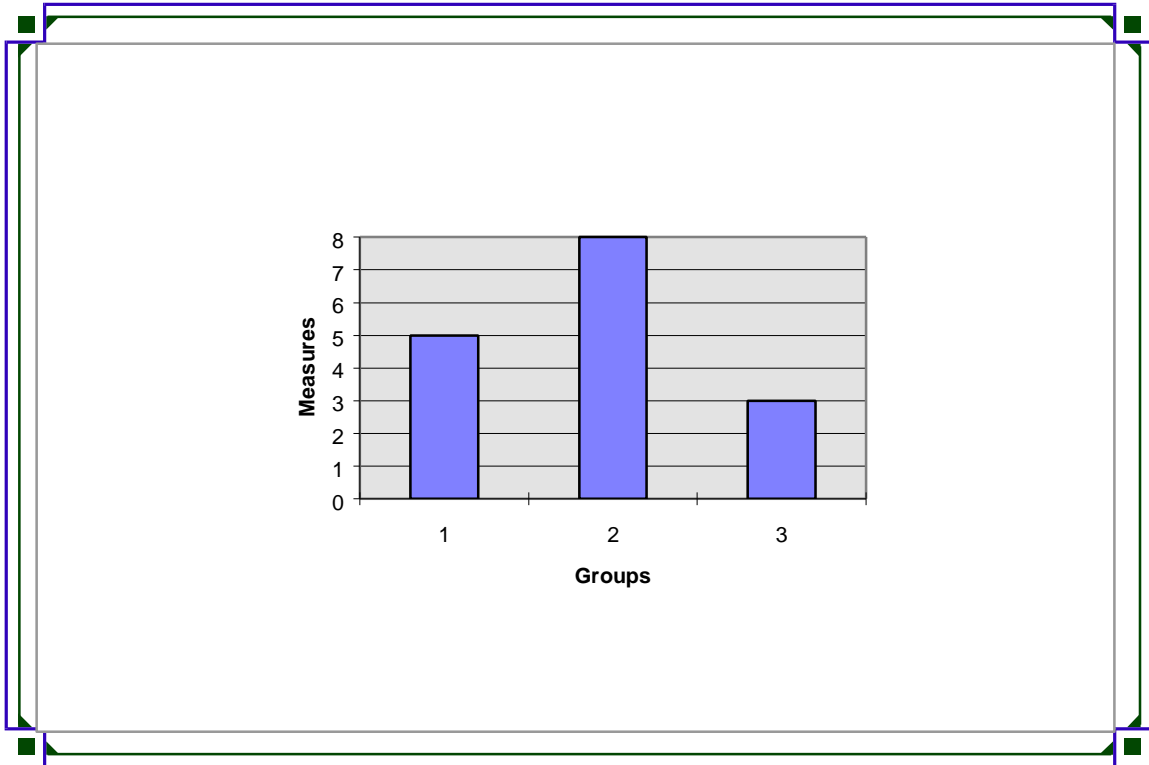


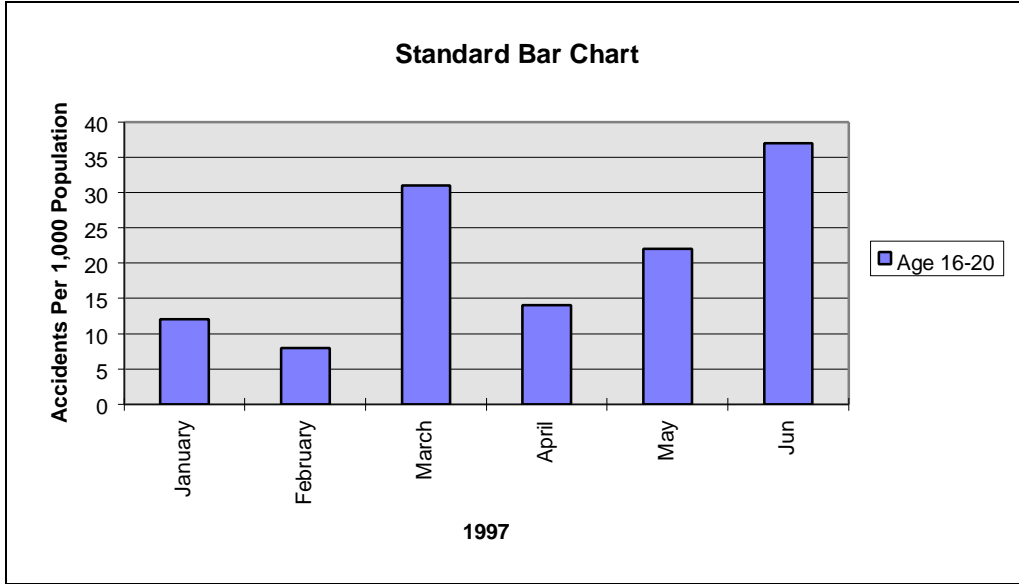
BAR CHART



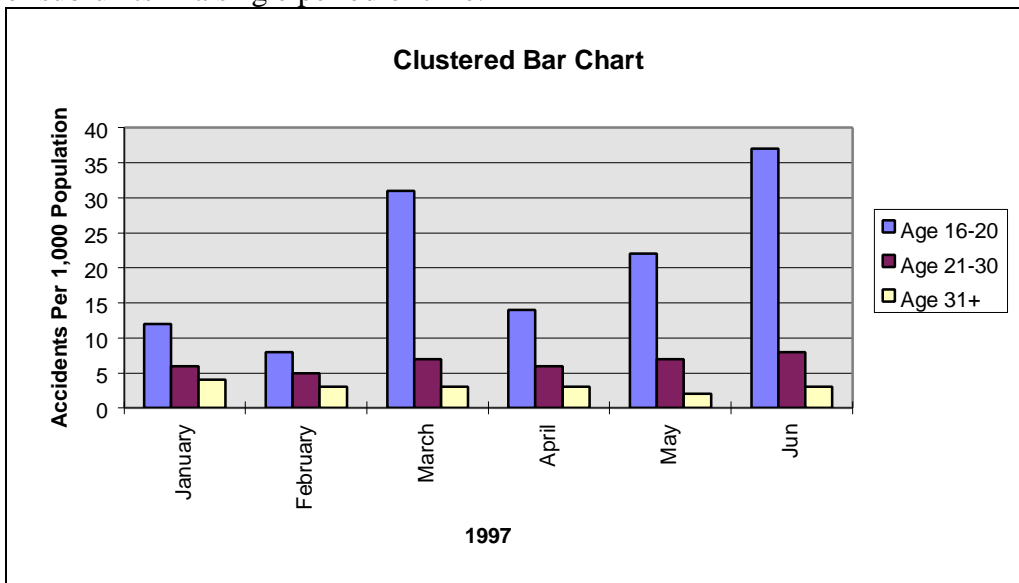
Purpose

A **bar chart** is a graphic representation useful in comparing quantities. It is made up of a series of bars of uniform width but of heights proportional to the sizes of the different but related data. A **bar chart** is used to visually compare categories of data to one another. It is also valuable for displaying the breakdown of data into its component parts.

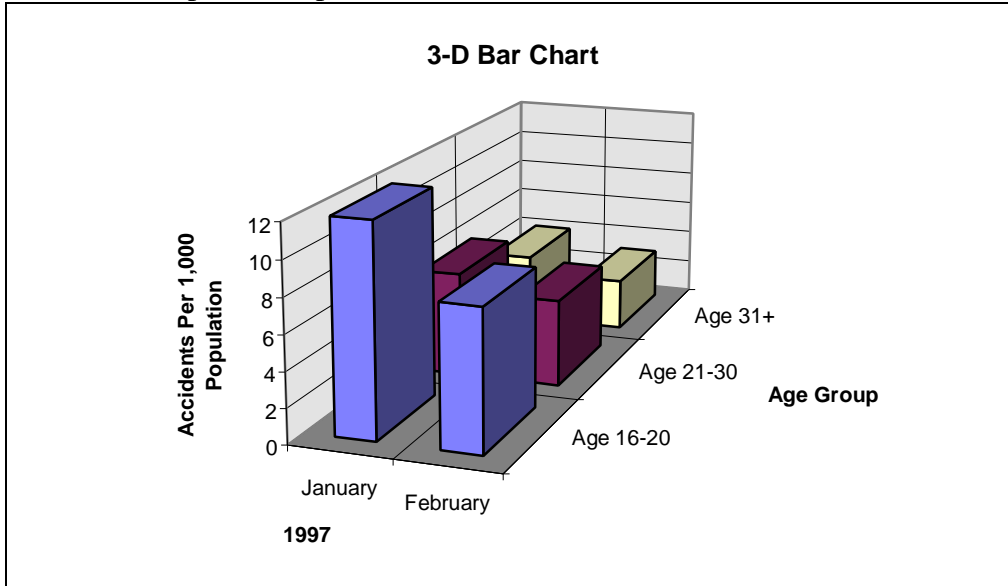
Standard Bar Chart- This chart, the basic building block of **bar charts**, is used to portray a single type of data spread over some defined period or divisible units. The most common uses would be to display units of data over time. It lends itself to quick snapshots of data that are easy to understand and support other descriptions of data.



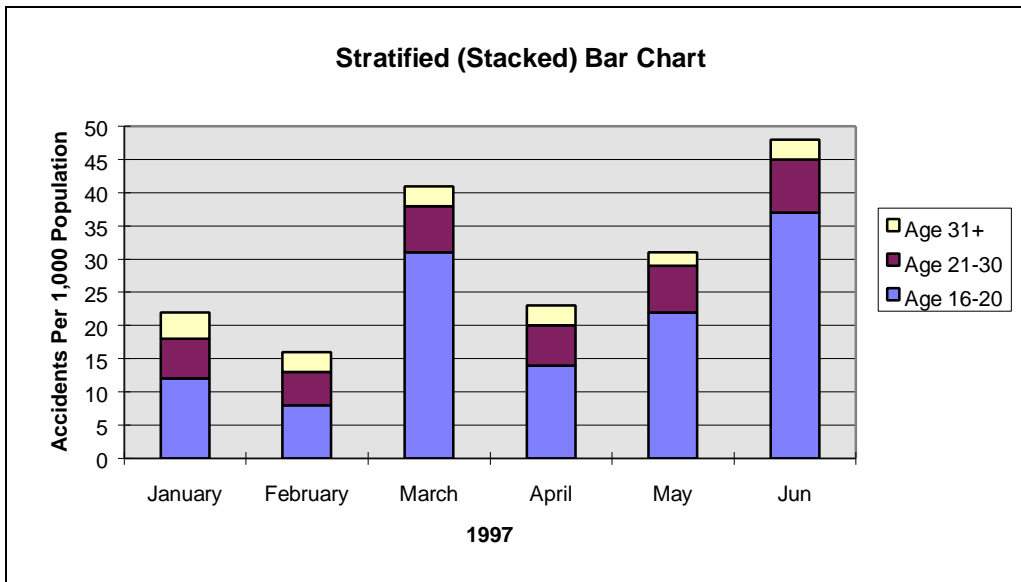
Clustered Bar Chart- The clustered **bar chart** is used to show the impact of sub-components on the item being displayed. In this chart, the sub-components of each bar are displayed as smaller bars bunched together into small groups or clusters. These smaller bars are usually distinguished by color differences or by shading but are grouped together without spaces between them. The only spaces in the chart are between the total bar categories. The clustered **bar charts** can be used to compare the relative contribution of sub-units in a single period of time.

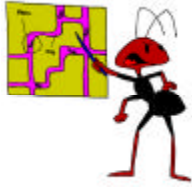


3-D Bar Chart- Like the clustered **bar chart**, the 3-D bar chart is used to show the impact of sub-components on the item being displayed. The sub-components of each bar are displayed behind each other in a staggered manner giving the 3-D appearance. They are usually distinguished by color differences or by shading changes. The 3-D **bar chart** is used to compare multiple sub-units over time.



Stratified (Stacked) Bar Chart- The stratified **bar chart** is used to show how each bar or item varies in composition. The sub-components of each bar are stacked on top of each other in order to create the total bar. The various components are displayed in proportion to the unit that they represent. Stratified bar charts are used to compare the relative contribution of units across time.





Process

1. Select the item or items you wish to track over time or compare in different areas.
2. Decide which type of **bar chart** to use. In addition to the simple **bar chart**, are the clustered, 3-D , and stratified **bar charts**.
3. Decide how many categories you want to show on the horizontal line (X axis) of the **bar chart**.
4. Choose a scale for the vertical line (Y axis) that makes it at least one-third taller than the tallest bar. Since the top of the chart may not indicate any significance, do not give the impression that the data is filling a required space or achieving some goal (unless that is the intention of the chart).
5. Draw bars of equal width for each category. The height of each bar should correspond with the frequency of that item on the vertical (Y axis). Make sure to leave equal spaces between bars or clusters of bars.
6. Clearly label each bar, cluster, category, or sub-component. You should also label each axis clearly, include a descriptive title of the chart, include time periods of the measurements, and any other helpful information for the person trying to understand the chart.



Key Points

- The use of spreadsheet software will greatly simplify use of these charts. Scaling is automatic and most software will systematically carry the user through development of the chart.
- Construct the chart carefully and clearly. It is easy to distort or conceal data through the selection of the categories or the range of the intervals on the vertical (Y) axis.