

Frequency Distribution

Basic Definitions

Raw Data: Data in the original form

Frequency: Number of times a value or class of values occurs.

Frequency Distribution: It is an organization of raw data into table form with classes and frequencies.

Categorical Frequency Distribution: A Frequency Distribution in which the data is only *nominal* or *ordinal*.

Ungrouped Frequency Distribution: A Frequency Distribution of numerical data. The raw data is not grouped.

Grouped Frequency Distribution: A Frequency Distribution where several numbers are grouped into one class.

Class Limits: It separates one class in Grouped Frequency Distribution from another. The limits could actually appear in the data and have gaps between the upper limit of one class and the lower limit of the next.

Class Boundaries: It separates one class in Grouped Frequency Distribution from another. The boundaries have one more decimal place than the raw data and therefore do not appear in the data. There is no gap between the upper boundary of one class and the lower boundary of the next class.

Class Width: The difference between upper and lower boundaries of any class. It is also the difference between the lower or the upper limits of two consecutive classes.

Class Mark (Midpoint): The number in the middle of the class. It is found by adding the upper and lower limits and dividing by 2. It can also be found by adding the upper and lower boundaries and dividing by two.

Cumulative Frequency: The number of values less than the upper class boundary of the current class. This is a running total of frequencies.

Relative Frequency: The Frequency divided by the total Frequency. It gives the percent of values falling in that class.

Cumulative Relative Frequency: The running total of Relative Frequency or the cumulative frequency divided by the total frequency. It gives the percent of the values which less than the upper class boundary.

Histogram: A graph which displays the data by using vertical bars of various heights to represent frequencies of classes.