

Skewness and Kurtosis

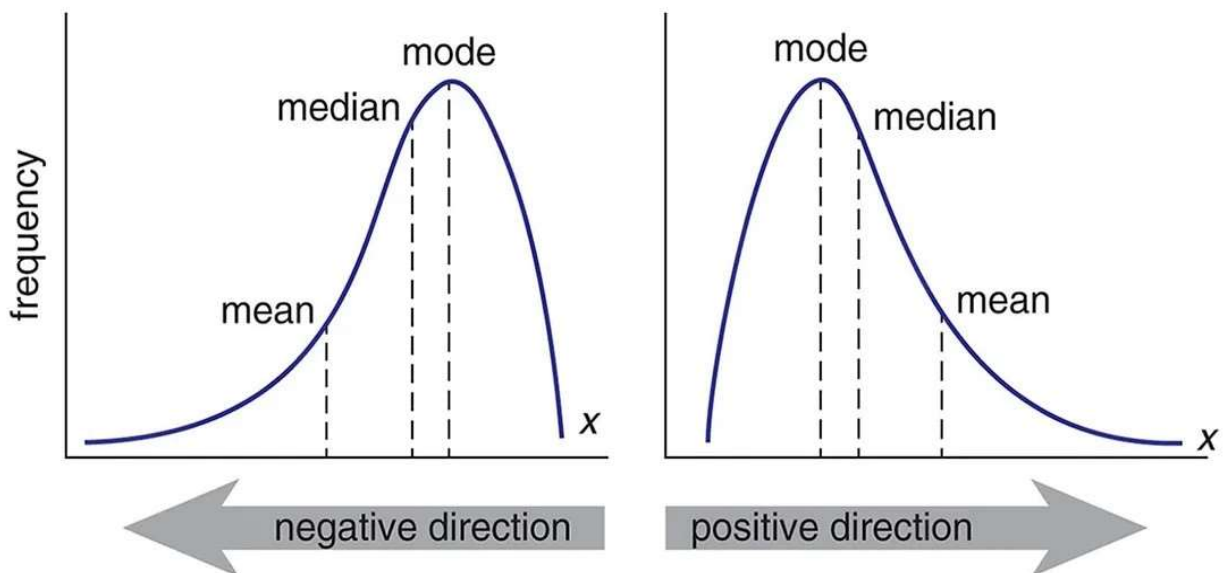
Skewness is a critical statistical concept that gives us an understanding of the symmetry, or the lack thereof, in a given data set. It provides an insight into the direction and extent of the 'skew' or departure from the symmetrical bell curve in a probability distribution.

There is two type of Skewness

Positive Skewness: When the right side of the tail is longer or fatter, the data set is said to have positive skewness. The $\text{mean} > \text{median} > \text{mode}$ in this case are higher the mode.

Negative Skewness: In this case, the left side of the tail is longer or fatter. The $\text{mean} > \text{median} > \text{mode}$ are less than the mode.

Normal Skewness: in this data set follows a perfect symmetrical distribution, it has zero skewness. The $\text{mean} = \text{median} = \text{mode}$ are all equal.



In our dataset

Ssc_p mark value is -0.132 so it is Negative skewneess . Then others are equal to zero. So it is called to normal distribution.

Kurtosis is a statistical measure used to describe the "tailedness" of a distribution. Convexity of curve

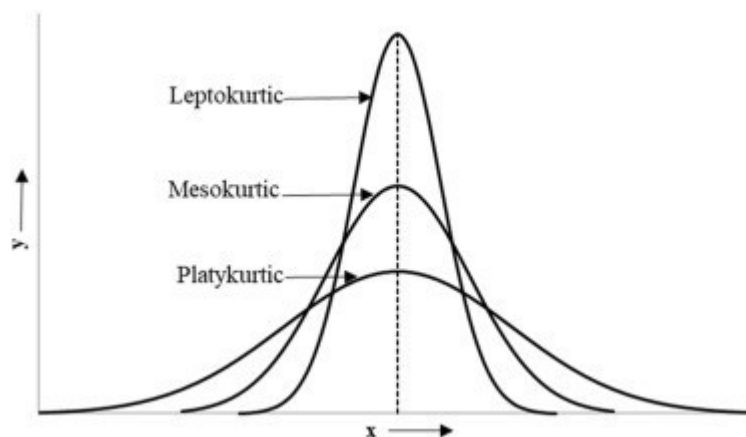
Kurtosis is a measure of the peak or convexity of a curve is known as kurtosis. The higher the value of kurtosis.

There are 3 types of Kurtosis

Leptokurtic: This refers to distributions with kurtosis greater than 3. They have heavier tails, meaning more outliers, and a sharper peak than the normal distribution.

Mesokurtic: This is the similar to normal distribution and the kurtosis is equal to 3.

Platykurtic: kurtosis is less than 3. The peak lesser than the normal distribution which means lack of outliers present in the data



In our dataset

Ssc _p to salary every column get < 3 so it is called to platykutic