

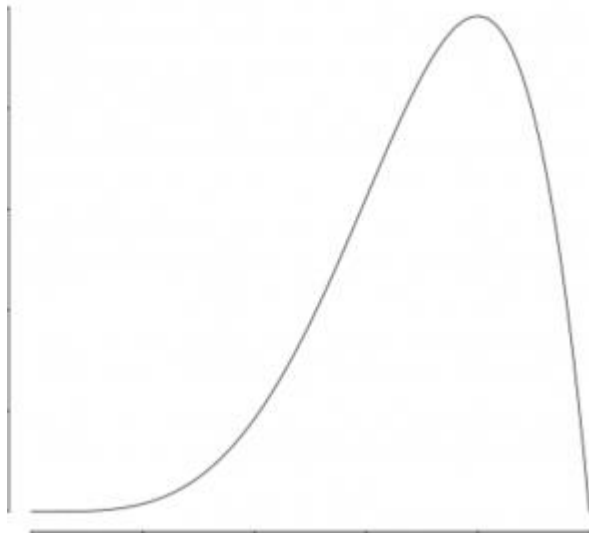
# Relationship between the Mean, Median and Mode in Left Skewed and Right Skewed Distribution?

## Left Skewed vs. Right Skewed Distributions

**Skewness** is a way to describe the symmetry of a distribution.

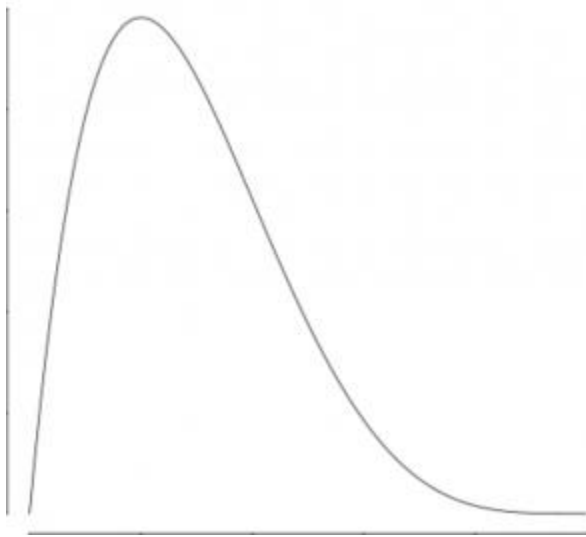
A distribution is **left skewed** if it has a “tail” on the left side of the distribution:

Left Skewed Distribution

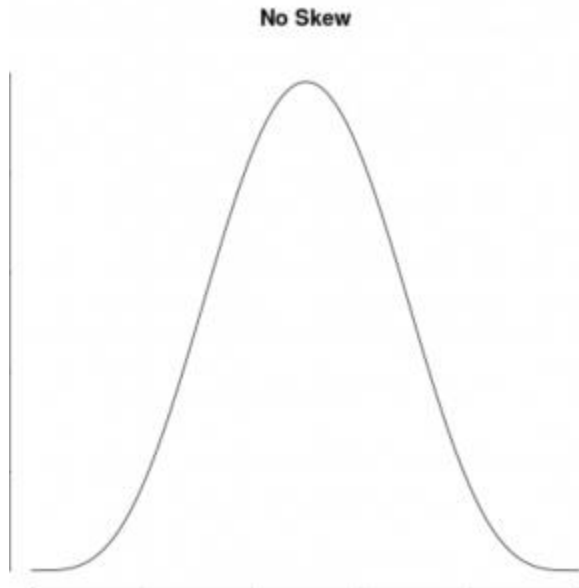


A distribution is **right skewed** if it has a “tail” on the right side of the distribution:

Right Skewed Distribution



And a distribution has **no skew** if it's symmetrical on both sides:

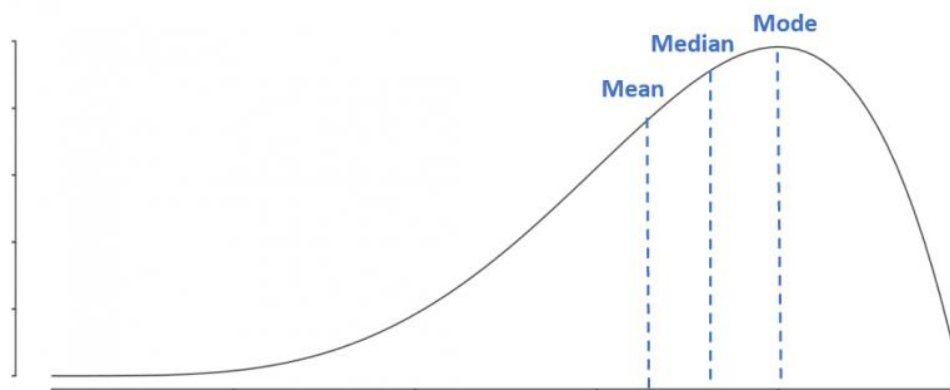


Note that left skewed distributions are sometimes called “negatively-skewed” distributions and right skewed distributions are sometimes called “positively-skewed” distributions.

## Properties of Skewed Distributions

The following diagrams show where the mean, median and mode are typically located in different distributions.

**Left Skewed Distribution:**  $\text{Mean} < \text{Median} < \text{Mode}$



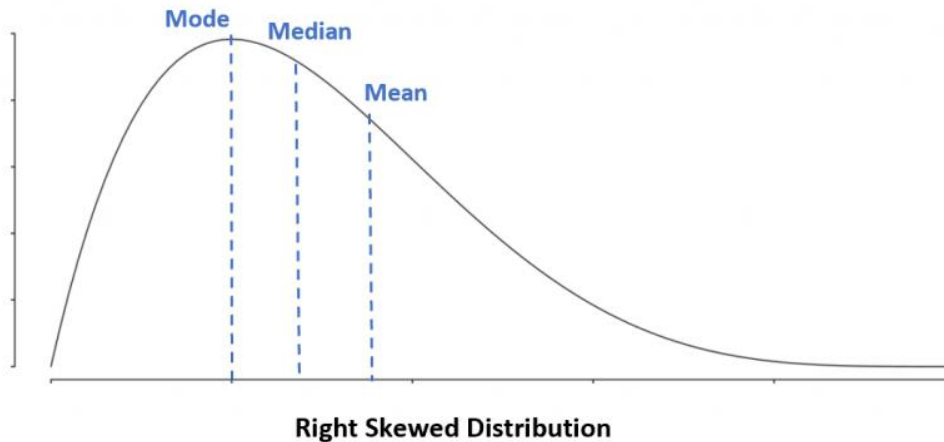
**Left Skewed Distribution**

In this type of distribution more data falls on the right-hand side and the distribution becomes asymmetrical. In this type of distribution, the frequency of the data is higher on

the right side. Hence, Mode will be more on the right-side of distribution as compared to median and mean. It is also known as negative skewed.

In a left skewed distribution, the mean is less than the median.

**Right Skewed Distribution:**  $\text{Mode} < \text{Median} < \text{Mean}$



In this type of distribution more data falls on the left-hand side of the distribution and the distribution becomes asymmetrical. In this type of distribution, the frequency of the data is higher on the Left side. Hence, Mode will be less as compared to median and mean.

In a right skewed distribution, the mean is greater than the median.

**No Skew:**  $\text{Mean} = \text{Median} = \text{Mode}$

