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Statistical Mean

In Statistics, the statistical mean, or statistical average, gives a very good idea about the central tendency of the data being collected.

Statistical mean gives important information about the data set at hand, and as a single number, can provide a lot of insights into the experiment and nature of the data.

Examples

The [concept of statistical mean](#) [1] has a very wide range of applicability in statistics for a number of different types of experimentation.

For example, if a simple pendulum is being used to measure the acceleration due to gravity, it makes sense to take a set of values, and then average the final result. This eliminates the [random errors](#) [2] in the experiment and usually gives a more accurate value than a single experiment carried out.

The statistical mean also gives a good idea about interpreting the statistical data.

For example, the mean life expectancy in Japan is higher than that of Brazil, which suggests that on an average, the people in Japan are likely to live longer. There may be many viable conclusions about this, such as that it is due to better healthcare facilities in Japan, but the truth is that we do not know this unless we measure it.

Similarly, the mean height of people in Russia is higher than that of China, which means that on an average, you will find Russians to be taller than Chinese.

Statistical mean is a [measure of central tendency](#) [3] and gives us an idea about where the data seems to cluster around.

For example, the mean marks obtained by students in a test is required to correctly gauge the performance of a student in that test. If the student scores a low percentage, but is well ahead of the mean, then it means the test is difficult and therefore his performance is good, something that simply a percentage will not be able to tell.

Different Statistical Means

There are different kinds of statistical means or measures of central tendency for the data points. Each one has its own utility. The [arithmetic mean](#) [4], [geometric mean](#) [5], [median](#) [6] and [mode](#) [7] are some of the most commonly used measures of statistical mean. They make sense in different situations, and should be used according to the distribution and nature of the data.

For example, the arithmetic mean is frequently used in [scientific experimentation](#) [8], the geometric mean is used in finance to calculate compounding quantities, the median is used as a robust mean in case of skewed data with many [outliers](#) [9] and the mode is frequently used in determining the most frequently occurring data, like during an election.

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Links
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