

# How Statistics is Used in Real Life?

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Statistics plays a crucial role in various fields including marketing, finance, healthcare, education, politics, sports, quality control, and sociology. In marketing, statistics is used to analyze consumer behavior, identify target markets, and track the success of marketing campaigns. Similarly, in finance, it is used to analyze stock market trends, make investment decisions, and assess the risk of financial products. In healthcare, statistics is used to evaluate the effectiveness of treatments, track disease outbreaks, and predict healthcare needs. In education, it is used to measure student performance, identify areas of improvement, and evaluate the effectiveness of teaching methods. In politics, statistics is used to predict election outcomes, analyze voter demographics, and assess public opinion on various issues. In sports, it is used to analyze player and team performance, identify strengths and weaknesses, and make strategic decisions. In quality control, statistics is used to monitor and improve product quality, identify defects, and ensure compliance with industry standards. Lastly, in sociology, statistics is used to study social trends, analyze survey data, and understand human behavior and attitudes towards various issues. Through the use of statistics, these fields are able to make informed decisions, improve processes, and achieve their goals.

## 8 Examples of How Statistics is Used in Real Life

The field of **statistics** is concerned with collecting, analyzing, interpreting, and presenting data.

When learning about statistics, students often ask:

### ***When is statistics actually used in real life?***

It turns out that it's used in many different fields for a variety of applications.

In this article we share 8 examples of how statistics is used in real life.

**Related:**

### **Example 1: Weather Forecasting**

Statistics is used heavily in the field of weather forecasting.

In particular, probability is used by weather forecasters to assess how likely it is that there will be rain, snow, clouds, etc. on a given day in a certain area.

Forecasters will regularly say things like "there is a 90% chance of rain today between after 5PM" to indicate that there's a high likelihood of rain during certain hours.

### **Example 2: Sales Tracking**

Retail companies often use like the mean, median, mode, standard deviation, and interquartile

range to track the sales behavior of certain products.

This gives companies an idea of how many products they can expect to sell during different time periods and allows them to know how much they should keep in inventory.

### **Example 3: Health Insurance**

Health insurance companies often use statistics and probability to determine how likely it is that certain individuals will spend a certain amount on healthcare each year.

For example, an actuary at a health insurance company might use factors like age, existing medical conditions, current health status, etc. to determine that there's a 80% probability that a certain individual will spend \$10,000 or more on healthcare in a given year.

### **Example 4: Traffic**

Also, traffic engineers often use to monitor how traffic changes throughout the day so they can optimize the behavior of traffic lights.

### **Example 5: Investing**

Investors use statistics and probability to assess how likely it is that a certain investment will pay off.

For example, a given investor might determine that there is a 5% chance that the stock of company A will increase 100x during the upcoming year. Based on this probability, they'll decide how much of their portfolio to invest in the stock.

### **Example 6: Medical Studies**

Statistics is regularly used in medical studies to understand how different factors are related.

For example, medical professions often use to analyze how factors like weight, height, smoking habits, exercise habits, and diet are related.

If a certain diet and overall weight is found to be negatively correlated, a medical professional may recommend the diet to an individual who needs to lose weight.

### **Example 7: Manufacturing**

Statistics is often used in manufacturing to monitor the efficiency of different processes.

For example, manufacturing engineers may collect a of widgets from a certain assembly line and track how many of the widgets are defective.

They may then perform a to determine if the proportion of widgets that are defective is lower than a certain value that is considered acceptable.

### **Example 8: Urban Planning**

Statistics is regularly used by urban planners to decide how many apartments, shops, stores, etc. should be built in a certain area based on population growth patterns.

For example, if an urban planner sees that population growth in a certain part of the city is increasing at an exponential rate compared to other parts of the city then they may decide to prioritize building new apartment complexes in that part of town compared to another area.