

Application of Statistics

Do you know all the data we produce can be used to derive a pattern? And this pattern can later help Business houses to plan their services or Governments to plan their upcoming policies! Studying data in a systematic order can help organizations scale their outputs. But how can a person do that? This can be done with good knowledge in the field of Statistics. It is widely used all across the world by the private as well as government sectors. Let us understand the different application of Statistics in this blog!

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Importance of Statistics

Statistics is the branch of Mathematics which deals with processing, collecting, evaluating, planning and presentation of data. A statistician is the professionals who have the core knowledge of the key concepts

of Statistics and is well versed with account handling, planning, drawing pattern organising and interpreting the data. At rudimentary level, the main aim is to draw conclusions based on meaningful analysis of information. The application of statistics is measured by grater scale and may take months or even years to conduct the epidemiological and statistical analysis which are based on laws, schemes, and plans, strategies and simple mathematical principles.

Stages Involved in Statistical Process

When it comes to the application of statistics a proper process is followed by statisticians to enhance and optimize the results of information analysis using adaptive methodologies. Enlisted are major stages and methodologies involved in completing the statistical process

Organizing the data: Considered as one of the benchmark steps in Statistics it primarily deals with the organising the information and arranging the data patterns systematically. The main aim is to make statistical analysis more efficient. The data can be organized by using tools example, Nero.

Planning a study module: The information gathered or collected from multiple sources requires planning which entails the activities of inquiry, interviews and surveys. Furthermore, it controls the variables like whom to speak with, and how to analyze findings and even can be beneficial research planning.

Presenting the data: The set of arrangements or combinations used to present the data outlook and data characteristics. Presentations can make findings more compelling and persuasive in the form of diagrams, charts, and various illustrations to show relationships between data.

Interpreting the data: One of the most important stages in statistics. Interpretation deal with data rendering and data evaluation whose

outcome is supported by mathematical reasoning and pre-planned standard of procedures.

Before we move ahead to the application of Statistics, let us have a look at famous Indian Mathematicians of all times!

Applications of Statistics

- Research Interpretations and Conclusions
- A meta-Analysis of Literature Reviews
- Clinical Trial Design
- Designing Surveys
- Epidemiological Studies
- Statistical Modeling
- Government Agencies
- Science and Medicine
- Psychology
- Education
- Corporate Sectors
- Health Sector
- Public Surveying
- E-commerce and trade
- Weather Forecast
- Financial Markets
- Predicting Diseases
- Political Campaigns
- Robotics
- Aerospace
- Data Mining
- Deep Learning
- Machine Learning
- Business Statistics
- Sports

Career in Mathematics and Computing

Applied Mathematics and Computation

Application of Statistics in Statistical Modeling

Statistical modelling involves developing predictive models based on design, pattern perception and data development. Modelling is widely used in prediction of election results, survival analysis of populations and scientific surveys. These tools are used by Meteorologists to predict the weather and to the study different environmental and geographical disturbances in the earth

Application of Statistics in Government Sectors

As a regulatory body government decisions are mostly outcomes of well-researched statistics and figures on which decisions are made related to health, populations, education, and development. It may administer research on education to monitor the improvement of college students.

Find out how to make a career in Big Data Analytics with the help of our blog!

Application of Statistics in Clinical Trial and Design

The medical field also relies heavily on statistical data in order to run their operations. When a new drug or treatment is discovered, it has to first be tested on a group of people to know its efficacy and safety. The process includes an analysis called trial where medications or interventions are tested to know how human bodies react to a particular treatment. Medical professionals also perform studies by race, age, or nationality to see the effect of these characteristics on health.

Application of Statistics in Psychology

Psychology is the study of the brain and is a blend of both the science and medical field, Statistics can be used to study human behaviour and prediction of thoughts and actions that may take place in future.

Here is a detailed study guide on [MBA in Data Analytics!](#)

Application of Statistics in Corporate Sectors

Almost every small and large business employs a dedicated statistical research division that aims to predict and analyze the companies current and predicted growth. Research issues related to products, customer service, employees and sales. Business success relies on identifying what is important and what is vague

Application of Statistics in Weather Forecasting

Have you ever looked at a weather forecast? Do you know how the government, as well as several international and national news channels, forecast the weather? Weather forecasting relies heavily on statistics. Weather forecasting on computers is based on a set of statistical functions. All of these statistics are used to compare the current weather to previously recorded seasons and conditions.

Application of Statistics in Political Campaigns

In a political campaign, the application of statistics is critical and crucial. No one can run a perfect political campaign without statistics. It aids politicians, or rather, the country's predicted future leaders, in determining how many chances they have to win an election in a specific location. Statistics also assist the news station in predicting the election winner. It also aids political parties in determining how many candidates they have in a certain voting zone. It, on the other hand, aids the country in predicting future government.

Application of Statistics in Sports

There are numerous applications of statistics in sports as well. Any sport, such as football, cricket, basketball, tennis, badminton, chess, volleyball, and so on, uses statistics in some way. Every sport necessitates statistics in order to improve its effectiveness. Statistics assist a sportsperson in gaining an understanding of his or her performance in a particular sport. In today's sports, statistics data are being used to take things to the next level. The reason for this is that sports are becoming more popular, and there are numerous sorts of equipment used in sports to collect data on numerous factors.

Application of Statistics in Predicting Diseases

Even in the medical area, statistics plays a role. Statistics allow us to determine how many people are affected by the condition. It also allows us to see how many people have died as a result of the same ailment. However, the nicest part about statistics is that it also allows you to determine how much you were impacted by the deceased. According to one study, more than 75 per cent of the world's population has been infected with COVID-19, which is a virus. In that scenario, you should try to avoid coming into contact with this virus or sickness.

Application of Statistics in Financial Markets

The financial market is completely reliant on statistical analysis. Statistics are used to compute all of the stock prices. It also assists the investor in deciding whether or not to invest in a certain stock. It also aids corporations in managing their finances in order to conduct long-term operations.

Career Scope in Statistics

So far, we've learned that statistics can be used or applied in a variety of domains, including business, industry, agricultural, government, private, computer science, sciences, health sciences, and other

disciplines. You can also apply for the Civil Services, Indian Statistical Services, and Indian Economic Services exams after completing your statistics studies. After completing the degree, students can pursue careers in finance, analytics, software development, actuarial science, and a variety of other fields.

Job Titles:

- Statisticians
- Mathematician
- Business Analyst
- Data Analyst
- Risk Analyst
- Content Analyst
- Research Analyst
- Professor
- Data Scientist
- Consultant
- Biostatistician
- Econometrician
- Market Research Analyst.
- Operations Research Analyst.
- Financial Analyst
- Atmospheric Scientist/Meteorologist

Credits: TED

Top Recruiters

- Blue Ocean Marketing
- BNP Paribas India
- Accenture
- HDFC

- RBI
- Deloitte Consulting
- TCS Innovations Labs
- HP
- ICICI
- HSBC
- American Express
- Genpact
- Indian Market Research Bureau
- GE Capital
- Neilson Company
- BNP Paribas India

We hope this blog helped you to get all the necessary information regarding the application of Statistics. If you are want to be a statistician and are confused about how to proceed with your career get in touch with experts at [Leverage Edu](#) who will not only help you to find the right courses for you but also make sure that you reach your dream University!
