

The Importance of Statistics to Society

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Introduction to Statistics

Statistics is the subject that deals with the information gained by the data. Studying statistics helps us to apply appropriate and different techniques for the collection of data, analyzing and examining it, and concluding the results. Statistics can also be defined as a complex but useful process with the help of which we are able to make scientific discoveries, make choices on the basis of data, and predict things. Rumsey defines the knowledge of statistics as “People’s ability to interpret and critically evaluate statistical information and data-based arguments appearing in diverse media channels, and their ability to discuss their opinions regarding such statistical information” (Rumsey 2002, p.2). Its applications are wide-ranging and extensive.

Importance of statistics to society

The field of statistics has a major contribution to the development of all the other fields and subjects, thus adding to the development of society. All the aspects of life come under the umbrella of statistical knowledge; economics, housing, medical, education, industrial, mathematics, business, psychology, and natural sciences such as physics, biology, and physics, etc. Thus, the [applications of statistics](#) are wide-ranging. Following are the implications of statistical knowledge in different grounds and fields.

- Statistics help businessmen in making quick and appropriate decisions. He becomes aware of his customers’ demands and then produces and sells accordingly. He also keeps a balance of the quantities. Proper planning of production is performed by the businessmen with the help of statistics. After the production of resources, the quality is checked and assured with the aid of statistical methods. Thus, statistics play a vital role in the establishment of businesses and in making correct decisions regarding all aspects of the business. Using correct knowledge of statistics, businessmen make their businesses successful. “Statistics can help us to assess risk and to stay on the right side of foolishness” (Pullinger, 2013, p.820).
- The economic conditions are also impacted by the knowledge of statistics. The statistical methods prepare national income accounts which are the multipurpose indicators for administrators and economists. These methods are also utilized for the collection, analysis of the data, and testing of the hypotheses in economic research. Imports and exports, supply and demand, per capita income, and inflation rates all are studied and examined under statistical knowledge. In all the social and natural sciences, statistics majorly contributes.
- In mathematics, statistics make and describe the measurements in the most precise way.

Dispersions, probability averages, estimations etc., are applied in mathematics. The relationship of mathematics and statistics is deep. Where the statistical methods are applied in mathematics, mathematical methods are applied in statistics, such as algebra, differentiation, and integration.

- Banks also make use of the statistical knowledge. The notion of depositing the money and gaining profits and losses all use statistical methods and approaches on the basis of probability in order to estimate and make an estimation of the number of deposits and also their statements for a particular day.
- Statistics is the fundamental ground of all governmental policies. All administrative decisions are now being made using the statistical data. The methods are used in the determination of an increase in the cost of living in an instance where the government wishes to revise the employees' pay scales in order to determine the standard of living. Statistics is also helpful in the preparation of the budgets of the provincial and federal governments. It estimates or predicts the revenues and expenditures from various sources.
- In the fields of meteorology, biology, chemistry, physics, commerce, communications, etc., statistics has its significance in analyzing and examining the experiments and deducing the results. Astronomy which is the study of stars and space, also utilizes statistical knowledge. With the help of statistics, different properties and characteristics of the heavenly bodies are measured such as the densities, masses, sizes, and distances.
- Statistics have also made transformations in the ideology of the state. The choices and the decisions we make all depend on the statistics.

Pullinger (2013) admits that statistical knowledge is all regarding the subjects of high value and importance in human activities (p.819). Apart from all these applications, we see statistics benefitting us with different methods which are applied in making predictions about the weather forecast, spread of any disease, mortality rate, occurrence of any natural disaster such as earthquake, or floods etc., the effectiveness of any medicine or drug, examining and studying genes and their impacts, predicting the results of elections, keeping track of buying and selling, rates of insurance company, etc. People in weather make predictions about the coming weather and make everyone aware of that.

Scientists do research about how any particular disease is spreading and how much it has affected people using statistical methods. Similarly, they also make people aware of any disaster that's going to happen in the near future. Different methods of statistics deal with different kinds of data. Not every method is applicable to all kinds of data. Hand says, "There is no aspect of modern life upon which statistics do not impinge" (Hand, 2009, p.287). Hence, we observed how the knowledge and learning of statistics take control of all the aspects of our life and society, whether it be educational, medical, jobs and employment, governmental, administrative, astronomic etc. Though all the calculations and conclusions cannot be made on the basis of a probabilistic perspective, statistics provide the stepping stone for reaching the right conclusions and results.

References

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