

Explain the difference
between descriptive
and inferential
statistics using
examp...

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Visual Arts and Film Studies By [Visual Arts and Film Studies] of Statistics refers to the study that involves collection, organization, investigation, elucidation and presentation of data. This study involves all the facets of data, which include scheduling of data collection in terms of design of assessments and experiments. Either one or both of the statistics methodologies can do data analyzing. This essay seeks to examine the differences that exist between the two statistics methodologies: descriptive and inferential statistics.

As a point of departure, the descriptive methodology entails specific functions of the sample data, which are fundamentally fascinating in offering description of some characteristics of the whole data. Some of these functions include the standard deviation, median, means, kurtosis, and skew among others. This follows that for the cases of descriptive statistics the population parameters of intrinsic interest are estimated. For instance, calculation of the sample mean and standard deviation act as fundamental instruments or indicators, which are used in estimating the population mean and standard deviation respectively (SELKIRK, 2008). In most cases, these parameters have been cited to be biased in comparison with the ideal estimators; however, an element of utility in estimating the population parameters is attributed to them.

Similarly, the descriptive statistics in most cases intends to describe a big chunk of data by providing a summary charts and tables; however, it does not attempt to make any relevant conclusion about the population attributed to the samples. This forms the distinctive feature of descriptive statistics

(BLANK, 2008). For instance, a sample of 30 is selected randomly from a population of 300 and the parameters such as means and standard deviation calculated (CONWAY, 2003). These parameters will be used in approximating the population estimators and consequently used in graphs and charts to provide a summary of the data. This is uninformative.

On the other hand, from the meaning of the word inference, inferential statistics is the process of reaching a conclusion regarding a parameter. In essence, inferential statistics is characterized by use of functions of the sample data, which help in drawing an inference that concerns a hypothesis regarding a certain population parameter. Some of the classic inferential statistics include z, t, and F-ratio among others. For the case of the hypothesis, we have both the null and alternative hypothesis. In this case, the expected value is immensely influenced by the sample size (BERNSTEIN, S., & BERNSTEIN, 2009). This tells that, the size of the sample is another distinctive feature attributed to the efficiency of inferential statistics. For instance, carrying out research on the ice cream preferences of the world's population, would be difficult to question each person individually, consequently, a sample that represents the whole population would be collected and then extrapolate the results attributed to the sample in relation to the entire population. This process may not seem to be perfect; however, it provides an opportunity for the researchers to draw well lucid inferences regarding the population under investigation (BERNSTEIN, S., & BERNSTEIN, 2009).

In conclusion, the aspect of drawing conclusions brings the sharp difference

between the descriptive and inferential statistics

List of references

BERNSTEIN, S., & BERNSTEIN, R. (2009). Inferential statistics. Schaums Outline of Theory and Problems of Elements of Statistics. New York, McGraw-Hill.

BLANK, S. S. (2008). Descriptive statistics. New York, Appleton-Century-Crofts.

CONWAY, F. (2003). Descriptive statistics. Leicester, Leicester University Press.

SELKIRK, K. E. (2008). Descriptive statistics. [Nottingham] ([University Park, Nottingham NG7 2RD]), [University of Nottingham School of Education].