Preparation guide

Mason Deja

6/11/17

Why statistics is important

1. Statistics as a field of study is defined as the science of collecting, organizing and interpreting numerical information or data.
2. The two major goals of statistics are to provide methods to summarize large quantities of data into concise and information numerical or graphical summaries and to allow inferences to be made about all individuals (population) from a select few individuals (sample).
3. The two types of variability are natural and sampling. Natural variability is needed because no two individuals are exactly the same. Sampling variability is the fact that the results from different samples are different.
4. If two pencils have two different lengths it is considered natural variability because no two individuals are exactly alike.
5. If the average number of pencils per student differs between two samples of ten students it would be considered sampling variability.
6. Statistics exists because of natural and sampling variability.
7. Statistics takes things that are too big to study effectively and puts them into a more manageable size. When comparing a statistics to a microscope, statistics would be a macroscope which would looks at a chunk of the bigger picture.
8. The three main activities in statistics are to understand the statistical studies performed in their field, to conduct research and to be better consumers of statistical information.
9. The hottest skill in 2014 and 2015 was statistical analysis.