

Leah lopez american inter

[Science](#), [Statistics](#)



This information can help you to understand how satisfied your workers are with their jobs. This will also help you to understand whether or not you should hire more women and men to even out the gender amongst certain departments. Overview of the Data Set The current data set is comprised of 64 individuals who were surveyed, and this is a part of the sample of the population at American Intellectual Union, and these individuals were identified by 5 characteristics: gender, age, position (hourly or salaried), tenure, and how they felt about job satisfaction on a scale of one to seven.

The qualitative variables include: gender, department, and position. The quantitative variables include: age, tenure, and job satisfaction. Use of Statistics and Probability in the Real World There are several different ways that statistics and probability could be used in the real world. You could see this used in the horse races, the lottery, certain things in the stock market, also in marketing in a corporation. The Value of Statistics Every corporation that is successful exhausts statistics.

It does not matter if they are operating a small fish store or they are a member of a board for a huge business, almost every decision made by a corporation is based on statistics. Averages, means and medians are a part of a business's everyday life. Whether it is a chart, a data set, a correlation, or a bias, there is some sort of tool that will make sure your company is successful (Ayres, 2009). Data sets are one of the easiest statistical devices for businesses and one that you will probably exhaust daily without realizing it.

When a person is reading over his/her bank statements, and taking care of daily business, they are more than likely going over a data set. When you

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pick up the morning paper and look at how your company's stock is performing, you are looking at figures gleaned from a data set. When using the words average, mean or deviation, you're describing statistical tools that are currently being exhausted in your business (Ayres, 2009). Charts aren't just a pretty picture of an aspect of your business they are a visual representation of a data set.

Whether you are looking at a bar chart of sales or a pie chart of company profits, these snapshots can tell you where your business is performing well and where it is performing poorly. From bank balances to employee compensation, charts and graphs can give you a visual picture of any part of your company which deals with data (Ayres, 2009). Correlations are where one event causes another. For example, you may notice that customers who buy a certain type of product are more likely to purchase another type of product.

However, just because you think one event is causing another doesn't necessarily make it true; it could be a coincidence. Correlation analysis allows you to figure out whether one event is causative or not. A knowledge of correlations can be invaluable in planning sales and marketing campaigns (Ayres, 2009). Every business uses or produces some kind of statement or resolution; however, these may not always come out to be reliable. Errors may be present in the data collection, different sources do not always have the same information and there also could be mistakes in the calculations. Bias is when statistical results are different from the real -- or true -- value. A knowledge of bias will help you to understand which results are worth using for your business (Ayres, 2009). Distributions A distribution table can keep all

of this information (numbers, row data) handy. A person can look, and say, oh, the participants in this survey were 75% male, or 25 % female. The managers can “ see” the information and not just the raw data.

Then complete the following distribution tables. Please pay attention to whether you should present the results in terms of percentages or simple counts.

Distribution of Individuals by Gender

Gender	Percentage
Females	50%
Males	50%

Tenure with Company Distribution by Gender

Tenure	Male	Female
Under 2 years	8	10
2-5 Years	11	3
Over 5 years	13	19

Please note that you do NOT have to convert these into percentages. You may leave them in a count format.

Percentage of the Survey Participants in Each Department

Department	Percentage
InformationTechnology	34%
Human Resources	25%
Administration	41%

Sample Mean for Extrinsic Value by Gender

Gender	Mean Extrinsic Value
Male	5.32
Female	5.36

Probabilities The probabilities that will be calculated here are that an individual will be between the ages of 16-21; that an individual’s overall job satisfaction will be 5.2 or higher; females working in human resources; and an individual’s intrinsic satisfaction is 5 or more.

This information will be useful to AIU because they can look at these probabilities and find out what they need to change to increase job satisfaction, and they can also see whether or not they have an equal amount of females and males working in each department.

Classification

Count	Probability
Probability that an individual will be between 18-21 years of age	28%
Probability that an individual’s overall job satisfaction is 5.2 or higher	35%
Probability that an individual will be a female working in human resources	55%

female | 5 | 8% | | in the human resources department | | | Probability that an individual will be a | 12 | 19% | | salaried employee whose intrinsic satisfaction | | | value is 5 or more | | | Probabilities in the Business World

The theory of probability is actually the study of non-planned happenings. This type of study, of course, is math-related, and started when people would try to win card and dice games for money. Each and every decision that is made in a business setting has some sort of risk involved with it. With this being said, it seems that in the business setting, probability would be used to handle a business's financial risks.

Even the choices that are made by management have a probability of succeeding or (S. , 2010). Conclusion I hope that you have found all of the information within this survey of use. Using the information within this email can help you to improve working conditions for your employees. Sincerely,
Leah A. Lopez Senior Board Member

References

1. Ayres, I. (2009, August 13). The Value of Statistics. Retrieved from Freakonomics: <http://www.freakonomics.com/2009/08/13/the-value-of-statistics/>
2. S. , E. (2010). How Probability is Used in Business. Retrieved from Reference. com: <http://www.reference.com/motif/science/how-probability-is-used-in-business>