

Relationship between education and crime essay

[Business](#), [Company](#)



Question 10

- With the help of the Statistical software we may build a histograms with following classes: 23. 5, 69. 5, 115. 5, 161. 5, 207. 5, 253. 5:
- Clearly, that the last value of 250 greatly differs from other values in the sample, and is far beyond 3 standard deviations from the mean. This value may be considered as an outlier and it is highly likely that this is the salary of the owner of the company.
- If we delete an outlier and form new boundaries for our classes, the new histogram will be as follows:

We may claim that the abovementioned histogram depicts the distribution of employees' salaries much better, than histogram discussed in a), as after removing the outliers, the histogram became more symmetric and informative.

Question 11

Question 12

After grouping the data into 6 classes we may clearly see that the distribution of glucose levels may be approximated by the normal distribution. Most of the women (48) have glucose levels between 66 and 87 mg/100 ml.

Section 2. 2, p. 60

Question 3

In my opinion, the Pareto Chart would be the most useful type of graph in this case. It will easily describe employees' preferences regarding the problem, as the most critical issues will be listed in a descending order. One

vertical axis will let us know how many employees voted for a certain issue, while another vertical axis will describe the relative percentage of the voters. As a result, company's management will have no difficulties while interpreting the results of the survey.

Question 4

The Time Series Graph will fit best in this case. The horizontal axis of the graph describes the time range during which the observations were performed. The vertical axis describes the amount of price fluctuation during this time period. Consequently, we will be able to analyze price fluctuations during certain time period, which will help us to make valuable conclusions about a particular stock.

Question 5

According to the graph, we may clearly state that annual income increases, as the level of education increases. Thus, college seems to be paying off. For instance, if annual educational expense for the 4-year Bachelor's degree is \$15,000, that is $15 \times 4 = \$60,000$ for 4 years of education. If an average graduate with a Bachelor's degree earns \$62,100 per year, it means that he will be able to recover all his educational expenses within a year after graduation. We may also infer that a graduate with a Bachelor's degree earns almost as twice as much as the high-school graduate. Clearly, it is reasonable to invest into one's education.

References

Brace, C. H. 2012. Understandable Statistics: Concepts and Methods.