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Reflect on the Question

Analyze the Data

Draw Conclusions

Primary Research Question

How many letters long is the typical UT student's name? How does our estimate change as we increase the size of our sample?

(11/11 points)

Write Your Conclusion

Answer the question and support your answer with statistics:

In this lab, we knew the average name length for our population of college students. The population mean was 5.97 letters and the standard deviation was 1.49. The name lengths were Normally distributed.

We drew samples of different sizes from our population to simulate the Central Limit Theorem. In short, the CLT says three things:

1. As sample size increases, sampling distributions become more Normal .
2. The mean of the sampling distribution will be the population mean .
3. The variability of the sample means can be predicted by dividing the population standard deviation by the square root of the sample size .

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Our simulation results were consistent with this theory. As we increased the size of our sample from 5 to 25, the sample means become less variable and tended to cluster more tightly around the true mean . In other words, our sample means became better estimators of the true population mean.

Final Check

Save

Hide Answer



You have used 1 of 2 submissions

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