Confidence Interval

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Confidence Interval

Situation :

- Point estimates, such as the sample mean, and sample variance depends on the particular selected sample.

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Problem :

- When we use the sample mean to estimate the population mean, can we be confident that the sample mean is close to the population mean?
- Do we have any way to determine how close the sample statistic is to the population parameter?

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Solution :

- Rather than finding the point estimate, we could find an interval of values that can be really confident contains the actual unknown population parameters.
- So, we find lower and upper values between which we can be really confident the population mean falls.
- An interval of such values is referred to as a confidence interval.

Confidence Interval

95% Confidence Level:

- We can be 95% confident that the population mean falls between lower and upper values.