Bookmarks

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Constructing Confidence Intervals, Case II - Quiz

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Question 1

1/1 point (graded)

Your confidence interval from a t-distribution is going to be _____ than your confidence interval from a normal distribution, because the t-distribution has _____ tails

- a. narrower , thinner
- b. wider, thinner
- c. wider, fatter ✔
- d. narrower, fatter

Explanation

As Professor Ellison explained in class, the t-distribution is similar to the normal distribution, but has fatter tails. So the confidence interval from the t-distribution is going to be wider, than your confidence interval from a normal distribution. The intuition for this is that since you don't know the population

- Module 5: Moments of a Random Variable, Applications to Auctions, & Intro to Regression
- Module 6: Special Distributions, the Sample Mean, the Central Limit Theorem, and Estimation
- **Module 7: Assessing and Deriving Estimators - Confidence Intervals, and Hypothesis Testing**

Assessing and Deriving Estimators
Finger Exercises due Nov 14, 2016 at 05:00 IST

Confidence Intervals and Hypothesis Testing
Finger Exercises due Nov 14, 2016 at 05:00 IST

Module 7: Homework
Homework due Nov 07, 2016 at 05:00 IST

variance, you will be less sure of the distribution of your estimator, so the t-distribution captures this, resulting in wider intervals. As your sample size approaches infinity, the t-distribution converges to the normal.

Submit You have used 1 of 2 attempts

✔ Correct (1/1 point)

Question 2

1/1 point (graded)

True or False: If your data are not sampled from a normal distribution, we cannot construct confidence intervals.

a. True

b. False ✔

Explanation

As Professor Ellison said, if your data are not sampled from a normal distribution, by using theorems like the central limit theorem, you can make assumptions about the large sample distribution of your estimators. In practice, we appeal to these theorems and just use the t-confidence interval with an estimated variance.

- Exit Survey

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✔ Correct (1/1 point)

Discussion
Topic: Module 7 / Constructing Confidence Intervals, Case II - Quiz

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