Bookmarks

- Important Pre-Course Survey
- Contact Us
- How To Navigate the Course
- Discussion Board
- Office Hours
- Week 0: Introduction to Data (Optional Review)
- **Week 1: Sampling**

Readings
Reading Check due May 03, 2016 at 18:00 UTC

Lecture Videos
Comprehension Check due May 03, 2016 at 18:00 UTC

R Tutorial Videos

Pre-Lab
Pre-Lab due May 03, 2016 at 18:00 UTC

Lab
Lab due May 03, 2016 at 18:00 UTC

Problem Set
Problem Set due May 03, 2016 at 18:00 UTC

Week 1: Sampling > Pre-Lab > Conduct the Analysis

Bookmark

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?

Conduct the Analysis in R

1. Type or copy the script from the the Prepare for the Analysis section into the Script window of R.
2. Select the portion of the code you wish to run, then press "ctrl+ enter."
3. Output can be found in the Console window.

(1/2 points)

Population Parameters

1a) What is the average name length, in number of letters, for all of the students in the population? (Round to 2 decimal places.)

5.97 ✔ **Answer:** 5.97

5.97

1b) By how many letters, on average, do names vary from the mean? (Round to 2 decimal places.)

0 ✖ **Answer:** 1.50

0

Click here for a video explanation of how to answer this question.

You have used 1 of 1 submissions

(2/2 points)

2) In this lab, each time we sampled from our population we kept the _____ the same at 1,000, but we increased the _____ from 5 to 25.

number of samples ✔ **Answer:** number of samples

sample size ✔ **Answer:** sample size

Click here for a video explanation of how to answer this question.

You have used 1 of 1 submissions

(3/3 points)

Observing the Sampling Distributions

3a) The mean was _____ for all three sampling distributions.

about the same ✔ **Answer:** about the same

3b) The size of the standard error _____ as the sample size increased from 5 to 25.

decreased ✔ **Answer:** decreased

3c) The distributions became more and more _____ as the sample size increased.

normal ✔ **Answer:** normal

Click here for a video explanation of how to answer this question.

You have used 1 of 1 submissions

(4/4 points)
According to the **Central Limit Theorem:**

4a) What is the **mean** of the sampling distribution (for n=5, 15, or 25)? (Round to 2 decimal places)

5.98 ✔ **Answer:** 5.97

5.98

4b) What is the **standard error** of the sampling distribution for n=5?

.669 ▾ ✔ **Answer:** .669

4c) What is the **standard error** of the sampling distribution for n=15?

.386 ▾ ✔ **Answer:** .386

4d) What is the **standard error** of the sampling distribution for n=25?

.299 ▾ ✔ **Answer:** .299

Click here for a video explanation of how to answer this question.

You have used 1 of 1 submissions

(1/1 point)
5) Were the results of the simulations **consistent** with what the CLT predicted?

- No
- Yes ✔

Click here for a video explanation of how to answer this question.

You have used 1 of 1 submissions