Homework 4: Making Inferences

A. Short answer

B. Empirical exercise

Submission

Start Over

A. Short answer

✓ From earnings to wages

Question 1:

The reason we want to move from earnings to wages is that the story is really about _____ .

productivity

Correct!

Question 2:

Earnings is a measure of both _____ and _____ , which masks productivity.

wages, hours

Correct!

Question 3:

Based on Table 2 in the deck, the gender gap in average wages in our sample of 23-62 year-olds is roughly $_____ per hour (round to the nearest whole number).

7

Correct!

Continue

✓ Evaluating Estimates

Question 4:

Our framework for using data to learn about the world is gathering _____ from the _____ of interest to infer features of the _____ process.

random samples, population, data-generating

Correct!

Question 5:

In principle, any estimator can be decomposed into three parts:

$$Estimator = \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_$$

estimand, bias, sampling error

Correct!

Question 6:

If an estimator approaches the underlying estimand as sample size grows, we say the esimator has the property of _____ .

consistency

Correct!

Question 7:

If an estimator obeys the CLT, we can treat its sampling _____ as _____ for large sample sizes.

distribution, normal

Correct!

Question 8:

Consistency means that as the sample size increases, both _____ and _____ approach zero.

bias, sampling error

Correct!

Question 9:

A confidence interval tells how likely an estimate we calculate is close to its target in the _____ .

population

Correct!

Question 10:

Statistical hypothesis tests translate information contained in a confidence interval into _____ answers to particular questions.

yes/no

Correct!

Question 11:

A t test compares the _____ you obtain from the sample with the hypothesized value of the estimand divided by the _____ of the estimator.

estimate, standard error

Correct!

Question 12:

We reject the null hypothesis at the 5% level if the value of the t statistic is greater than _____ in absolute value.

1.96

Correct!

Continue

✓ Evaluating the CEF

Question 13:

Based on Figure 8 in the slide deck, it appears that the confidence intervals for average log wages overlap up to year _____ of a career.

5

Correct!

Question 14:

To test whether the gender gap in average log wages is equal to zero, you divide the _____ in average log wages between women and men by the _____ of the difference.

difference, standard error

Correct!

Question 15:

The absolute value of the t statistic for the null that there is no gender gap in log wages among 23-62 year-olds is _____ (round to two decimal places), which implies the null is _____ at the 5% level (or pretty much any other level for that matter).

40.95, rejected

Correct!

Continue

Next Topic