

STA101 Problem Set 5

Summer I, 2021, Duke University

Exercises from the OpenIntro book

Chapter 5 exercises 5.4, 5.16, 5.26, 5.30.

Additional problems

Problem 5

(Adapted from Exercise 5.8.)

A poll conducted in 2013 found that 52% of U.S. adult Twitter users get at least some news on Twitter. The standard error for this estimate was 2.4%, and a normal distribution may be used to model the sample proportion. Construct a 90% confidence interval for the fraction of U.S. adult Twitter users who get some news on Twitter, and interpret the confidence interval in context.

Moreover, if you construct a 99% confidence interval for this fraction, would it be wider or narrower than the 95% confidence interval?