

Confidence Interval for Proportion

6. A CNN/ORC post-debate poll surveyed 547 voters who watched the third presidential debate on October 19, 2016. The results are at <http://www.cnn.com/2016/10/19/politics/hillary-clinton-wins-third-presidential-debate-according-to-cnn-orc-poll>. Of the respondents, 52% thought that Clinton did the best job, while 39% thought that Trump did.
- (a) What is a reasonable population to associate with this sample?

(b) There are a few population parameters of interest. Choose one.

(c) Find a 95% confidence interval for the population parameter.

(d) Under what conditions is the confidence interval valid?

7. Use the following data from the class survey to estimate the relevant population proportions. Give 95% confidence intervals for these proportions.

(a) Gender: 17 Female, 30 Male.

(b) Drinks at least one cup of coffee on a typical day: 37 Yes, 10 No.

(c) Political affiliation: 36 Democrat, 6 Republican, 5 Other. (For this problem there are three different choices for the population parameter; choose one of them.)

8. In Problem 7, what are the relevant populations?

9. In Problem 7, what assumptions do we need for the confidence intervals to be valid?