

## How to Write a Confidence Interval Conclusion

A confidence interval is a range of values that is likely to contain a population parameter with a certain level of confidence. It is written as:

**Confidence Interval = [lower bound, upper bound]**

We can use the following sentence structure to write a conclusion about a confidence interval:

We are [**% level of confidence**] confident that [**population parameter**] is between [**lower bound, upper bound**].

### Confidence Interval Conclusion for a Difference in Proportions

Suppose a researcher wants to estimate the difference in the proportion of citizens between city A and city B who support a certain law. He sends out a survey to 500 citizens in each city and constructs the following 95% confidence interval for the difference in proportions of citizens who support the law:

95% confidence interval = [0.02, 0.08]

Here's how to write a conclusion for this confidence interval:

The researcher is 95% confident that the difference in the proportion of citizens who support a certain law between city A and city B is between 0.02 and 0.08.