

Section 6.2: One-sided Confidence

Thursday, March 1, 2018 1:11 PM

Bounds

What if you're only interested in one side of the confidence interval?

Suppose p = proportion of defective items manufactured

→ if you get fewer defective parts than normal, then you are happy!

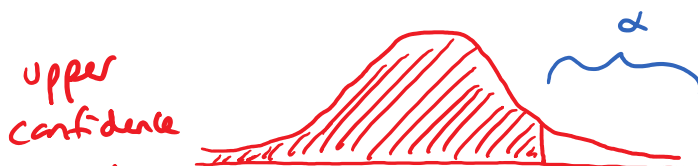
it's only if you have more than normal that you have to worry

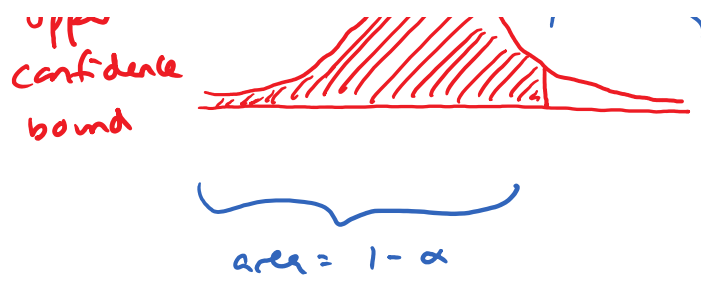
one-sided confidence bound (sometimes called upper/lower limit)

$$\text{lower confidence bound} = \text{estimator} - Z_{\alpha} SE$$

↑
note: not $Z_{\alpha/2}$ any more because one-tailed

$$\text{upper confidence bound} = \text{estimator} + Z_{\alpha} SE$$





note: α for one-sided
 $\alpha/2$ for two-sided