ASQ CRE Prep course

Lesson IV. B. 2. c.

Reliability Prediction Methods

Tolerance Intervals


Not the same as confidence intervals – similar, not the same
TOLERANCE INTERVALS

Not the same as confidence intervals

The limits within which a stated proportion of the population is expected, at a given confidence level.

Applies to individual values, while

Confidence intervals apply to means

Two-sided Tolerance Interval

At a given tolerance, what interval will contain at least a fraction p of the population?

$$X_{UL} = \bar{X} \pm k_2 s$$

Lower side

At a given confidence, what is the limit such that at least fraction p of the population lies below the limit?

$$X_L = \bar{X} - k_1 s$$

Upper side

At a given confidence, what is the limit such that at least fraction p of the population lies below the limit?

$$X_L = \overline{X} + k_1 s$$

These only apply using a normal distributions.

When to use tolerance vs confidence?

Work the Examples, too

Take another Sample Exam

Send over your questions

fms@accendoreliability.com

ASQ CRE Prep course

Module 6

V. Reliability Testing