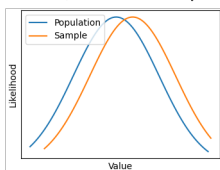


One Sample v.s. Two Sample

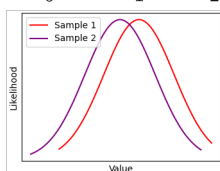
Tests for differences in sample against population

$$H_0 : \bar{X} = \mu$$



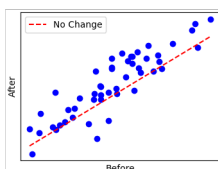
Tests for differences between samples

$$H_0 : \bar{X}_1 = \bar{X}_2$$



Paired samples test for differences before and after a treatment

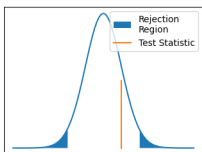
$$H_0 : \bar{X}_B = \bar{X}_A$$



We test for a difference in distributions and calculate probability of observing data

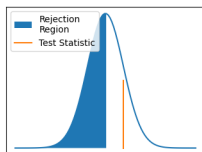
Two tailed test

$$H_0 : \mu_1 = \mu_2$$

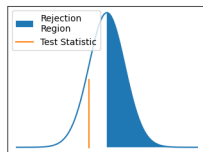


One tailed tests

$$H_0 : \mu_1 \geq \mu_2$$

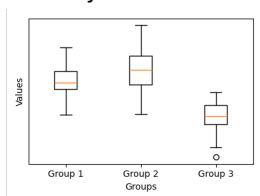


$$H_0 : \mu_1 \leq \mu_2$$



ANOVA

One-Way compares the means of 3 or more groups to determine if any are significantly different.



Two Factor considers data across multiple variables

