

ANOVA: Case (2)

unequal numbers of observation in columns

In experimental work, one often loses some of the desired observations. For example, an experiment might be conducted to determine if university students obtain different grades on the average for classes meeting at different times of the day. Because of dropouts during the semester, it is entirely possible to conclude the experiment with unequal numbers of students in the various sections.

The previous analysis for equal sample size will still be valid by slightly modifying the sum of squares formulas.

We now assume the k random samples to be of size n_1, n_2, \dots, n_k respectively, with

$$N = n_1 + n_2 + \dots + n_k.$$