GLOBAL EDITION

Biostatistics

for the Biological and Health Sciences

THIRD EDITION

Marc M. Triola • Mario F. Triola • Jason Roy

Symbol Table

f	frequency with which a value occurs
Σ	capital sigma; summation
Σx	sum of the values
Σx^2	sum of the squares of the values
$(\Sigma x)^2$	square of the sum of all values
Σxy	sum of the products of each x value multiplied by the corresponding y value
n	number of values in a sample
N	number of values in a finite population; also used as the size of all samples combined
$n!$	n factorial
k	number of samples or populations or categories
$\overline{x}$	mean of the values in a sample
$\overline{R}$	mean of the sample ranges
μ	mu; mean of all values in a population
s	standard deviation of a set of sample values
σ	lowercase sigma; standard deviation of all values in a population
s^2	variance of a set of sample values
σ^2	variance of all values in a population
z	standard score
$z_{\alpha/2}$	critical value of z
t	t distribution
$t_{\alpha/2}$	critical value of t
df	number of degrees of freedom
F	F distribution
χ^2	chi-square distribution
χ^2_R	right-tailed critical value of chi-square
χ^2_L	left-tailed critical value of chi-square
p	probability of an event or the population proportion
q	probability or proportion equal to $1 - p$
$\hat{p}$	sample proportion
$\hat{q}$	sample proportion equal to $1 - \hat{p}$
$\overline{p}$	proportion obtained by pooling two samples
$\overline{q}$	proportion or probability equal to $1 - \overline{p}$
$P(A)$	probability of event A
$P(A\|B)$	probability of event A, assuming event B has occurred
${}_nP_r$	number of permutations of n items selected r at a time
${}_nC_r$	number of combinations of n items selected r at a time
$\overline{A}$	complement of event A
H_0	null hypothesis
H_1	alternative hypothesis
α	alpha; probability of a type I error or the area of the critical region
β	beta; probability of a type II error
r	sample linear correlation coefficient
ρ	rho; population linear correlation coefficient
r^2	coefficient of determination
R^2	multiple coefficient of determination
r_s	Spearman's rank correlation coefficient
b_1	point estimate of the slope of the regression line
b_0	point estimate of the y-intercept of the regression line
$\hat{y}$	predicted value of y
d	difference between two matched values
$\overline{d}$	mean of the differences d found from matched sample data
s_d	standard deviation of the differences d found from matched sample data
s_e	standard error of estimate
T	rank sum; used in the Wilcoxon signed-ranks test

continued

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