

Biostatistics

for the Biological and Health Sciences

THIRD EDITION

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Symbol Table

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

Biostatistics for the Biological and Health Sciences, Global Edition

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