

CONTENTS

Acknowledgements	<i>page</i> 3
Explanation of statistical terms and procedures	6
Factorials	10
Binomial coefficients	13
Binomial distributions: tail probabilities	14
Negative binomial distribution	20
Inverse sine transformation	23
Sign tests: quantiles of $Bi(n, \frac{1}{2})$	24
description of tests	25
McNemar test	25
Cox & Stuart test for trend	25
Poisson distributions: tail probabilities	26
Normal distribution: probability density	30
quantiles	30
tail probabilities	31
Normal scores	32
Standardised range	34
Negative exponential distributions	35
Studentised range: quantiles and definition	36
Chi-square distributions: quantiles and definition	38
t -distributions: quantiles and definition	39
F -distributions	40
Duncan's multiple range: factors	44
example	45
Tests based on t -, chi-square, F - and hypergeometric distributions:	
estimation of means and differences between means	46
confidence intervals for variance	46
variance ratio test	47
tests of goodness of fit	47
tests of independence in contingency tables	48
Fisher exact test	49
tests of association	50
Cochran Q test	51
Fisher's exact test: critical values	52
Natural logarithms	58
$f \ln f$	60
Wilcoxon signed-rank test: quantiles	63
description of test	63
signed-rank median test	63
Mann-Whitney rank-sum test: quantiles	64
description of test	66
Kolmogorov tests: quantiles	67
description of tests	67
Smirnov tests: quantiles	68
description of tests	69
Kruskal-Wallis test: tail probabilities	70
description of test	71
Terry-Hoeffding normal scores test: tail probabilities	72
description of test	73
Friedman test/Kendall coefficient of concordance: tail probabilities	74
description of test/definition	75

Cambridge University Press

978-0-521-28473-8 - Statistical Tables for the Social, Biological and Physical Sciences

F. C. Powell

Table of Contents

[More information](#)

Number-of-runs tests: quantiles	76
one-sample test for randomness	77
runs above and below median	77
Wald–Wolfowitz test	77
Pearson correlation coefficient: quantiles	78
definition and tests for correlation	78
Z- (\tanh^{-1}) transformation	79
Spearman correlation coefficient/Hotelling–Pabst test: quantiles	80
definition and tests for correlation	80
Daniels test for trend	80
Kendall correlation coefficient: quantiles	81
definitions and tests for correlation	81
Mann–Kendall test for trend	81
Normal scores correlation coefficient: tail probabilities	82
definition and tests for correlation	82
Quadrant-sum test (Olmstead–Tukey): quantiles	82
definition and test for association	82
Multiple correlation coefficient: quantiles	84
definition and test	84
von Neumann ratio: quantiles	85
definition and tests of serial correlation	85
Durbin–Watson d -statistic: definition and tests	85
quantiles	86
Random standardised normal deviates	88
Random digits	92
Guide to tests	96