

authors for $A = 21(1)25$. (See Review 9, *Math. Comp.*, v. 15, 1961, p. 88–89.) The format and precision of those tables (four decimal places) is retained in this addendum.

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21 [K].—COLIN R. BLYTH & DAVID W. HUTCHINSON, *Tables of Neyman Shortest Unbiased Confidence Intervals (a) for the Binomial Parameter (b) for the Poisson Parameter*, (reproduced from *Biometrika*, v. 47, p. 381–391, v. 48, p. 191–194, respectively) University Press, London, 1960, 16 p., 28 cm. Price 2s. 6d.

Anscombe [1] observed that exact confidence intervals for a parameter in the distribution function of a discrete random variable could be obtained by adding to the sample value, X , of the discrete variable a randomly drawn value, Y , from the rectangular distribution on $(0, 1)$. Eudey [2] has applied this idea in the case of the binomial parameter, p , to find the Neyman shortest unbiased confidence set. The present authors use Eudey's equations for a uniformly most powerful level $1-\alpha$ test of $p = p^*$ vs $p \neq p^*$ based on an X in a sample of n , which give the acceptance interval $a(p^*)$ determined by a value of Y in the form $n_0 + \gamma_0 \leq X + Y \leq n_1 + \gamma_1$ in which n_0 and n_1 are integers and $0 \leq \gamma_0 \leq 1$, $0 \leq \gamma_1 \leq 1$. These are solved for γ_0 and γ_1 in terms of n_0 and n_1 and the given X, n , and α . Then trial values of n_0 and n_1 are used until the resulting γ_0 and γ_1 are both on $(0, 1)$. The computation was carried out on the University of Illinois Digital Computer Laboratory's ILLIAC. The program used for arbitrary n, α prints out $n_0 + \gamma_0, n_1 + \gamma_1$ for any equally spaced set of p^* values. From these the Neyman shortest unbiased α -confidence set for $p, X + Y \in \alpha(p^*)$ can be read off to 2D. The tables give such 95% and 99% confidence intervals for p to 2D for $n = 2(1)24(2)50$ and $X + Y = 0(.1)5.5$ for $n \leq 10$, $0(.1)1(.2)10$ for $11 \leq n \leq 19$, $0(.1)1(.2)6(.5)15(1)17$ for $20 \leq n \leq 32$, and $0(.2)2(.5)23(1)26$ for $34 \leq n \leq 50$. For $n, X + Y$ not tabled, one enters the table at $n, n + 1 - (X + Y)$ and takes the reflection about $p = \frac{1}{2}$ of the interval given.

Similar confidence intervals for the Poisson parameter, λ , were found by the same method. The table gives Neyman shortest unbiased 95% confidence intervals for λ to 1D for $X + Y = .01(.01).1(.02).2(.05)1(.1)10(.2)40(.5)55(1)59$ and to the nearest integer for $X + Y = 60(1)250$. For the same values of $X + Y$, 99% confidence intervals are given to 1D for $X + Y \leq 54$ and to the nearest integer for $X + Y > 54$.

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1. F. J. ANSCOMBE, "The validity of comparative experiments," *J. Roy Statist. Soc. Ser. A*, v. 111, 1948, p. 181–211.

2. M. W. EUDEY, *On the Treatment of a Discontinuous Random Variable*, Technical Report No. 13 (1949), Statistical Laboratory, University of California, Berkeley.

22 [L].—M. I. ZHURINA & L. N. KARMAZINA, *Tablitsy funktsii Lezhandra $P_{-1/2+ir}(x)$* , Tom I (Tables of the Legendre functions $P_{-1/2+ir}(x)$, Vol. I), Izdatel'stov Akad. Nauk SSSR, Moscow, 1960, 320 p., 27 cm., 2700 copies. Price 34.50 (now 37.95) rubles.

This important volume belongs to the well-known series of Mathematical Tables of the Academy of Sciences of the USSR, and the tables were computed on the