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January 12, 1940

Dr. R. A. Fisher  
Galton Laboratory  
University of London  
London, England

Dear Dr. Fisher:

Mr. W. Allan Wallis and I recently discovered what seems an error in the formula given on the bottom of page 28 of your and Yates' Statistical Tables.

The formula for 20% values of  $z$  for high values of  $n_1$  and  $n_2$  has a factor 1.2816 in its first term. This is the .20 value of the normal deviate, whereas it would seem that the .40 value, .8416, should have been employed. By making this change, the formula not only yields close approximations to the tabled values of  $z$  for  $n_1 = 24$ ,  $n_2 = \infty$ , and  $n_1 = \infty$ ,  $n_2 = 120$ , but also is made consistent with the formulae for the 5, one and .1 per cent points.

Incidentally I wonder if you could refer me to any published description of the basis for these approximation formulae. The meaning of the first term seems clear, but I find it hard to understand why the numerical coefficient of the second term should vary from one per cent point to another.

Sincerely yours,

*Milton Friedman*

Milton Friedman

MF:VF