NO. AND:

St John's College
Cambridge
Jan 20

Dear Fisher,

Thanks for return of paper yesterday. It arrived with the end split open; the paper was intact but if there was a covering letter it had disappeared. However I have been trying my methods on a lot of the examples in the new edition of your Statistical Methods, & you have quite a number that are near enough to illustrate my points. p. 29/4c are just what I wanted to bring out the point about answering one question at a time. I have not found a case where my results would differ from yours except possibly the doubtful one on p. 86. The

ratio $P(\xi|0L)/P(\eta_\xi|0L)$ for the variability difference curved V flat curves at at $\frac{1}{4}$; as it stands this would mean a significant difference, but with allowance for selection it would be doubtful, the extreme departure of η_3 having been selected. If lower differences of variability have occurred often than in $\frac{1}{4}$ the cases examined, or if they are concentrated towards small values, the difference would be accepted with confidence. With this reader doubtful exception I should agree with your decision every time.

I have done a rather amusing thing about fitting a series of observed values with known standard errors. If you fit a linear function over a range there are two values of x such that the uncertainties of the corresponding y's are independent, & the calculated

y's would be unaffected by including a square term. Analysis held for higher polynomials. It happens that the conditions assumed are not all independent & are just enough to identify the summary values of $\frac{n}{2}$. The method has been useful in fitting the seismic times, as there is nothing to indicate the expected form of the function, but an effective smoothing can be got by subdividing the range, finding two summary values for each interval, & then interpolating by divided differences. There is hardly any loss of information.

Yours sincerely

Harold Jeffreys.