April 27, 1942

Dear Taylor,

I think the fraction you want is

$$\frac{13!\ 5!}{18!} \quad \text{or} \quad \frac{1}{8568}$$

One way of getting this is to treat it as a four-fold table, with columns for red and white balls and rows for red and white cubes.

I should like to assure you that I entirely accepted your view when you found that some of the cases of bodies of data deficient in AB - such as Janet Voughan's - were due to AB's being classified as B's. What influences me is that, as there is only one degree of freedom for the Bernstein criterion, every sort of disturbance, either in grouping any of the four wrongly, or due to race mixture, etc, will either increase or decrease the deficiency of AB, and all we have to observe is the balance of ~~the~~ a number of slight disturbing influences. The fact that with your 15000 airmen, grouped probably correctly to the last man, the balance is nearly exact does not therefore weigh with me greatly on the possibility that the elimination, either at birth, or by infantile mortality, or by normal mortality in middle life, is not unequal between the different groups.

To give you an idea of how large are the disturbances

obviously due to other causes than misclassification of A_2B in the data that come along, I may quote a fairly extensive series from Hull:

	♀♀	○○
O	2463	1580
A	2138	1300
B	481	256
AB	272	131

I have other lots also based on large numbers showing the same high ratio of AB:B. These also, I imagine, are due to grouping errors of a different kind from those which you mention, for they only affect certain towns in the area I am chiefly drawing from. Since, however, the one comparison afforded by Bernstein's tests is obviously affected by a multiplicity of causes, there is nothing to prevent many   errors   existing, though balancing out, even in very extensive material. You found something of the same kind, I think, on pooling MN material from different sources which, individually, gave quite large discrepancies.

So far as I know, Ford has not got at any data of Friedenreich's. I went through with him the data from the Annals in Wiener's paper, and he has had some further data from Race. As it is really possible that secreting is more frequent in O's than in A's and B's, we must, I think, at present leave it doubtful whether the higher proportion obtained from O's is due to failure of technique or not. I have never known what anti-O serum Race was using.

In view of the probably great importance of these pregnancy reactions, it would be most valuable if you would consider with Race what difficulties and what possibilities there are of classifying the children from maternity hospital data as secretors or non-secretors. I hope, but I do not know, that the blood clot could be used for absorption, perhaps even in the case of O's.

Yours sincerely,