May 20th, 1942

Dear Travers,

Thanks for your letter. I am especially glad to hear the news of your family, and would like to congratulate you.

With regard to the Air Corps problem I should suggest the following approach: if \( x \) is the total weighted score of any candidate, you might suppose that the fraction with this score who ultimately fail is \( e^{-kx} \), where \( k \) has to be determined from your data of the number of successes and failures at different score levels above that required from time to time for acceptance.

Having found the value of \( k \) which represents satisfactorily your experience at the higher levels of \( x \), it would be natural to suppose the same formula would apply to lower values, especially in the upper part of the unexplored region where most of your rejected potential successes would presumably be found. The form I suggest for the fraction of failures is easily integrated when multiplied by a normally distributed frequency of applicants, so that the total number of rejected potential failures can be estimated, using only the normal probability integral table. This should give a tolerable estimate of the potential successes which are in fact rejected.

Yours sincerely,