

NOTES

A COEFFICIENT OF CORRELATION BETWEEN SCHOLARSHIP AND SALARIES

INTRODUCTION

Some might doubt that it is correct to apply a coefficient of correlation to show the relationship between scholarship and salaries. This coefficient can be trusted to give at least a rough approximation, which is all that is necessary in the inexact science of vocation. It is fictitious accuracy to be too finical in the application of formulas. Therefore, a coefficient of correlation between scholarship and salaries is a valuable part of human knowledge.

Would it be worth while to find this coefficient if it is based upon the experience of the American Telegraph and Telephone Company? Since the employment practices of this company are not representative of the employment practices of business at large, one might doubt the validity of drawing general conclusions from such specialized data. The coefficient for business at large is probably less than the coefficient for the Bell System; the value of this knowledge is enhanced if we know the latter coefficient. Since this company is very large, a coefficient between scholarship and salaries would be valuable, even if this coefficient applies only to the Bell System and to other companies having approximately the same employment practices.

An article¹ by Mr. Walter S. Gifford, President of the Bell System, contains a discussion of some of the relationships between scholarship and salaries. President Gifford, however, did not determine in the case of the Bell System a coefficient of correlation between scholarship and salaries.

The purpose of this article is not a new contribution to statistical method, but is an application of the method² of finding the coefficient of correlation when the two variables have not been quantitatively measured. This method will be applied to the chart on page 672 of President Gifford's article, in order to determine for the Bell System the coefficient of correlation between scholarship and salaries.

FINDING THE COEFFICIENT OF CORRELATION

An explanation of the chart. It is based on the experience of 2,144 Bell System employees over five years out of college. First, assume these employees

¹ It is entitled "Does Business Want Scholars?" and was printed in the May 1928 issue of Harper's Magazine.

² It can be found in Elderton's "Frequency Curves and Correlation."