

THE N. R. C. HANDBOOK ON STATISTICS

Handbook of Mathematical Statistics. By H. L. Rietz, editor in chief, and eight other members of the Committee on the Mathematical Analysis of Statistics of the Division of Physical Sciences of the National Research Council. Boston, Houghton Mifflin Company, 1924. viii + 221 pp.

The general purposes of this book may be inferred from statements in its preface and from its form. It deals "with the mathematical analysis of data", not with its collection or interpretation. "Special emphasis is laid on the limitations surrounding the proper applications of the various methods." It is not a treatise or a text-book. It is to be used as a reference book, probably also as a background for a course of lectures. At the same time, it provides sufficient explanation of the fundamental ideas, and especially sufficient illustration of the methods, and sufficient bibliography, to enable the reader to begin his acquaintance with statistical theory here, provided he has already a knowledge of collegiate mathematics. This last proviso is, in the mind of the reviewer, a distinct advantage that this book has over some others; it is possible to make the subject so much clearer with the use of mathematical language than without it. Apparently, also, having been written by a committee of nine authors, to each of whom a piece was allotted, the book is intended to be representative of expert knowledge in the several portions of its field.

This was an obvious and decided advantage of multiple authorship, and one cannot but recognize the appropriateness of choice of author in each case. There were also some obvious disadvantages, especially as the several authors were scattered about the country from the Atlantic seaboard to the Pacific. If the book is to serve well as a basis for lectures, it is important that there should be consistency both of notation and of language throughout. This is the more desirable because at best the notation of mathematical statistics is complicated. It was a difficult thing for a group of nine to achieve, and in fact it was not very well achieved. One is led to feel that, from a practical point of view, it would have been better to have had a smaller number, or at least a different division of labor among the nine. The chapters on multiple and simple correlation ought not to be widely different from each other in style, method of approach, notation and language. There would seem to be no good reason why the subject of frequency curves should be introduced by one writer and carried on by another, or why Bernoulli, Poisson, and Lexis distributions should be handled by a different author from the one who deals with probability. As a result