

cellent illustration of how cohort fertility tables should be used in making population projections.

Although the book is mainly concerned with cohort fertility, Whelpton includes a section giving calculations of current reproduction rates controlled for parity, marriage, and fecundity as well as age. In view of the powerful objections which can be raised against reproduction rates based on current data—objections which must for the most part be credited to Whelpton himself—I would not now attach the significance to these refined measures which I might formerly have done. The control in Whelpton's rates for marriage and fecundity is rather arbitrary and he points out that a more refined control for marriage is desirable. However I am puzzled that his refined gross reproduction rates for the years 1920–1949, are, with the exception of one year only, lower than the simple gross rates controlled for age alone. It cannot be due to bias in the allowances for marriage and fecundity, for this allowance works sometimes to increase and sometimes to decrease the refined measure. Whelpton draws attention to this characteristic of his refined measure, but does not attempt to explain it.

Professor Whelpton's book is of the first importance and its influence on the future development of demography will be very great. No one could read it without being impressed by its significance and awed by the detail of its analysis.

P. H. KARMEL

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RESEARCH METHODS IN THE BEHAVIORAL SCIENCES¹

THIS book represents the contributions of nineteen social scientists from the University of Michigan. In essence, the volume attempts to provide graduate students in the social sciences with a current picture of the level and content of methodology and research methods oriented specifically for the field of social psychology. The editors define the criterion for

¹ Festinger, Leon and Katz, Daniel (editors): *RESEARCH METHODS IN THE BEHAVIORAL SCIENCES*. The Dryden Press, New York, 1953, xi + 660 pp.

inclusion of methods to be "the degree of relevance to the problems of social psychology, and the criterion for exclusion was the availability of knowledge about a technique already standardized in another field." As this statement suggests, this is not a statistics textbook. A large proportion of the book, in fact, presupposes and requires at least an elementary knowledge of statistics and scientific method. The editors' orientation to the interests of social psychology does not, however, detract from the book's usefulness to some other social sciences, particularly sociology.

Unlike most edited collections of this type, the contributions in this volume are fairly well integrated and of consistently high quality. Following an Introduction by Theodore M. Newcomb, the first section on Research Settings is opened by Angus Campbell and George Katona with a straight-forward and nontechnical description of the sample survey. Special attention is devoted to the variety of research problems for which it is useful and to the usual problems and limitations of the technique. The second chapter by Daniel Katz is a similar treatment of field studies and contains many valuable insights into various problems of research.

The next two chapters will be of interest chiefly to readers in the fields of social psychology or psychology. John R. P. French, Jr., has contributed a discussion of "Experiments in Field Settings" and Leon Festinger has written a description of laboratory experiments in social psychology. In general, the applicability of laboratory techniques to social behavior is still unconvincing at least to this reviewer.

Part II on Procedures of Sampling, consists of one chapter by Leslie Kish. He has produced here a neat description and explanation of the basic principles of sampling and the conventional statistics utilized for estimating sampling error. Kish also includes a description of the different types of sample design and in each instance briefly reviews the practical as well as theoretical problems encountered.

Part III, Methods of Data Collection, is introduced with a chapter by Helen Peak on "Problems of Objective Observation." This chapter will be one of the highlights of the book for the graduate student. Essentially, it is a lucid discussion

of some of the basic problems of scientific observation, such as definition, quantification, validity, and reliability. Especially noteworthy, but equally true of the other chapters, is the nice balance achieved in the relationship of theory and research. The chapter also contains a clear and useful discussion of the differences in the theoretical assumptions of various attitude scaling techniques (notably the work of Thurstone, Likert, Guttman, and Loewinger). The second chapter in this section by Robert C. Angell and Ronald Freedman deals with the use of documents, records, Census materials, and published indices in social research. The usefulness of such sources of data as letters and life histories as well as official registration and enumeration records is evaluated. The section is concluded with two chapters describing two quite different research methods. One by Charles F. Cannell and Robert L. Kahn on the interview is recommended especially for its discussion of the psychology of the interview social situation. The chapter by Roger W. Heyns and Alvin F. Zander is a description of the techniques used for observing group behavior. One difficulty with this latter chapter is the lack of sufficient illustration of the hypotheses which guide this type of research. For the reader with a special interest in group dynamics this would, of course, be no problem.

The fourth section of this book relates to "The Analysis of Data" and includes three chapters that in large measure distinguish this book from similar works. The first chapter by Dorwin P. Cartwright is a good summary of the uses of content analysis (based largely on Berelson's work) and a survey of the variety of studies employing content analysis in one form or another. The primary theoretical concern of the chapter is with the problem of quantifying qualitative material. Techniques of coding a content analysis are described in detail. Clyde H. Coombs in a chapter on "Theory and Methods of Social Measurement" presents a well-organized and thoughtful discussion of the basic logic of the different types of scales and offers a logical basis of classification of methods of collecting and analyzing data. The chapter closes with a comparison of the Guttman and Lazarsfeld theories of scale measurement. The final chapter by Keith Smith, "Distribution-free Statis-

tical Methods and the Concept of Power Efficiency" presents a short survey of nonparametric statistics. Brief descriptions of the uses and procedures of the sign test, run tests, median tests, contingency tests and rank-order correlation techniques are included. Actually, too much computational illustration was attempted which because of space limitations could not be developed adequately.

The volume is concluded with a rather lengthy chapter on "The Utilization of Social Science" by Rensis Likert and Ronald Lippitt that draws heavily on the experience of the several social research organizations at the University of Michigan for examples of the practical potentialities of social science and the kinds of problems encountered in dealing with agencies and firms that solicit the aid of the social scientist.

In general, this is an excellent volume that should certainly demonstrate the possibility of a well-integrated book being written by a large number of authors. Much credit for this no doubt belongs to the editors. There is some question as to whether this book should be used as a text but there is no question that it should be required reading for advanced students in the fields of sociology and psychology.

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