

THIRD EDITION

METHODS OF SOCIAL RESEARCH

Kenneth D. Bailey

Methods of Social Research

THIRD EDITION

Kenneth D.





THE FREE PRESS
A Division of Macmillan, Inc.
NEW YORK

Collier Macmillan Publishers London

Copyright © 1987 by The Free Press A Division of Macmillan, Inc. Copyright © 1978, 1982 by The Free Press A Division of Macmillan Publishing Co., Inc.

All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the Publisher.

> The Free Press A Division of Macmillan, Inc. 866 Third Avenue, New York, N.Y. 10022

Collier Macmillan Canada, Inc.

Printed in the United States of America

printing number

45678910

Bailey, Kenneth D. Methods of social research.

Bibliography: p. Includes index.

1. Sociology-Methodology. I. Title. HM24.B295 1987

ISBN 0-02-901450-6

301'.07'2

86-22949

Methods of Social Research

To JNB and SJB

PREFACE TO THIRD EDITION

The response from readers of the first two editions has been most gratifying, and I wish to thank all of you. The chief task of this edition was updating. Chapter 14 required the most revision, as the interval between the second and third editions witnessed the demise of the computer card. The revamped chapter 14 discusses the current practice of entering data onto discs through computer terminals instead of punching it onto cards, as previously done.

Technological changes in computerization have also necessitated revision and updating in other chapters, such as the analysis of computer-assisted telephone interviewing (CATI) in chapter 8. For the most part, this edition reflects, however, no dramatic changes since the second edition, but rather the slow and steady progress of a maturing discipline. The result is a volume that I hope displays the state of the art in social research methods during the latter part of the 1980s and will carry us into the 1990s.

The people who have aided in writing the three editions are too numerous for me to mention individually. I wish to take this opportunity to thank all of you, including the anonymous ones. Special thanks go to Mr. Charles O'Connell, who helped with the chores of revision, and to Ms. Joyce Seltzer, Senior Editor at The Free Press, for her excellent support at all stages of the project.

PREFACE TO SECOND EDITION

In preparing this second edition I have had two major goals in mind. One was to move *Methods of Social Research* into the 1980s. The other was to remedy omissions from and errors in the earlier edition, a task that was greatly facilitated by the comments of a number of reviewers, readers, and friends.

Perhaps the most revolutionary development since the first edition is the amazingly rapid development of telephone interviewing. Telephone interviewing was a minor survey method in the mid- to late 1970s. As late as 1978 it was characterized by Dillman as a "stepchild" to the face-to-face interview, and was discussed as a relatively minor method (but with distinct advantages) in the first edition of this volume. By the early 1980s telephone interviewing had clearly become a major survey method. Thus it is discussed at length in chapter 8. An important related development is Dillman's (1978) "Total Design Method" (TDM), which is utilized for both mailed questionnaires and telephone interviewing, and is discussed in chapter 7. Among the other areas which have seen rapid recent growth and thus received enlarged discussion in this edition are ethics (chapter 17) and applications—particularly evaluation research and social indicators (chapter 18).

In addition to these recent developments, a number of other topics have received extended coverage or revision, in some cases in response to reviewers' or readers' suggestions. Notable among the extended discussions are the discussion of social science as science (chapter 1), and the discussion of causality (chapter 3). As for revisions, chapter 9 (experiments) received the most extensive treatment. Following reviewers' comments, chapter 9 now emphasizes random assignment to groups and factorial experimental designs more than did the first edition. Further, the discussion of semi-experimental designs has been greatly revised and updated. Scaling (formerly chapter 16) and statistics

Preface to Second Edition

(formerly chapter 15) were transposed at the request of several readers so that scaling is now discussed before statistics, and the statistics chapter has undergone substantial revision, including extended explanation and interpretation. Virtually all of the other chapters have received some degree of revision and extended discussion, and all of them have been updated as thoroughly as possible. As in the other chapters mentioned, this task was greatly facilitated by reader and reviewer comments.

I have benefited greatly from four very detailed reviews. Three of these were anonymous and were secured by The Free Press. The fourth was graciously supplied by Dr. Maureen McConaghy of the University of Maryland, Baltimore County. I also owe special debts to Carollois Sturman and Ronald Watts, and particularly to K. Jill Kiecolt, who aided in the revision of several chapters. Also, a blanket debt is acknowledged to the many other colleagues, researchers, and students who provided suggestions or encouragement. Finally, special thanks go to Charles Smith and Kitty Moore of The Free Press for their excellent support at all stages of the project, and to Michael Sander of The Free Press for an excellent editorial job.

PREFACE TO FIRST EDITION

It seems customary to preface a book on social research methods by stating that the book focuses on the interrelationship between theory and research. The implication seems to be that this will make it clear and easy to read. Unfortunately, things are not so simple. While not de-emphasizing the need to integrate theory and research, I have made it my major objective to write a book that is comprehensive and detailed enough to be useful while plainly written enough to be readable. Students are too often faced either with a book too simple to prepare them for the complexities of the real world of social research, with all its myriad problems, or too complex and abstract to be understood.

I have attempted to integrate the various data collection techniques by discussing the advantages and disadvantages and assessing the reliability and validity of each. I hope that this common framework will allow the student to compare methods more easily and will illuminate the compatibility of otherwise apparently diverse methods, thus dispelling the all too common but erroneous tendency to view the presentation of several methods in a single volume as a "cafeteria" approach having little continuity or depth.

Chapter 1 presents an overview of the research process and some examples to illustrate alternative approaches to the same research problem. Chapter 2 deals with the selection of the research problem, including such issues as differing paradigms and the role of values in social research. Chapter 3 discusses social explanation and hypothesis construction. Chapter 4 is a limited discussion of measurement, necessary at this point because I wished to introduce the notions of reliability and validity of the various data-collection methods to follow. A more comprehensive treatment of measurement, including methods of attitude-scale construction, appears in chapter 16.

Preface to First Edition

Chapters 5 through 8 all deal directly or indirectly with survey research. Too many books provide only one chapter on surveys even though the bulk of sociological studies analyze data gathered by this method. Thus, to provide adequate coverage of this important method, I have devoted separate chapters to survey sampling (chapter 5), questionnaire construction (chapter 6), mailed questionnaires (chapter 7), and interview studies (chapter 8).

Chapters 9 through 13 deal with data-collection methods that serve as alternatives to survey research. The respective strengths and weaknesses of these techniques, including the survey, make them more suitable for certain types of research than for others. Chapter 9 discusses experiments, chapter 10 observational methods, chapter 11 ethnomethodology, chapter 12 document study, and chapter 13 simulation and games. The inclusion of chapter 11 makes this volume unique among social research texts, for ethnomethodology is a relatively new approach that is not so well understood by researchers as some of the other methods. I hope this volume will help readers to understand the relationship of ethnomethodology to the more familiar methods.

Chapters 14, 15, and 16 deal with the processing and analysis of data after they have been collected. Topics discussed include coding and reduction of data to ready them for punching on computer cards (chapter 14); analysis, presentation, and interpretation of data, including such topics as statistical analysis and presentation of data in tabular form (chapter 15); and a discussion of various methods of attitude-scale construction (chapter 16).

Chapters 17, 18, and 19 deal with nonmethodological topics of interest to researchers. Chapter 17 discusses ethics in social research. A subject once largely confined to medical experimentation, in recent years ethics has been increasingly emphasized in all social research including survey research, with the result that most studies, especially if funded through a university, must pass the review of an ethics or human subjects committee that frequently requires informed consent on the part of the subject. Chapter 18 discusses the application of social research in various social programs and court cases, notably the ones dealing with integration and busing. This too is a subject that is neglected in many social research books. Chapter 19 ends the book by returning full circle to the topic of theory construction, evaluation, and testing, presenting a discussion considerably more technical than the discussion in chapter 3.

I wish to thank Melvin Pollner for his careful reading of the chapter on ethnomethodology. His comments were very helpful. I also wish to thank Jill Kiecolt, who read the entire text and wrote the teacher's manual, and Linda Nilson and Susan Kataoka for advice on various chapters. The reactions of several students in my introductory social research methods classes, who received the bulk of the material in the form of lectures, were also very helpful. George Magee deserves much thanks for an excellent editorial job under great pressure. Finally, Charles Smith and Gladys Topkis, Free Press editors, were very helpful in all stages of the project.

ACKNOWLEDGMENTS

We wish to thank the following for the use of their materials in the production of this book:

- Patricia Breyer Wild for various questionnaire items, questionnaire portions, cover-letter portions, and descriptions of survey procedure from Child Health Care Survey (Los Angeles: University of California, 1973) and from Sociological Determinants of Utilization of a Prepaid Pediatric Health Care Plan (Ph.D. dissertation, University of California at Los Angeles, © 1974 Patricia Breyer Wild). Reprinted by the permission of the author.
- Gene N. Levine and Robert C. Rhodes for questionnaire items and introductory questionnaire statement from the *Nisei Male Questionnaire Mailed Instrument* (University of California at Los Angeles, Japanese-American Research Project [JARP] by Gene N. Levine and John Modell, 1967), which will be appearing in their forthcoming book, *The Japanese-American Community*. Reprinted by permission.
- Leo G. Reeder for questionnaire items, opening statement, and face sheet from Student Survey: Questionnaire 1969a; The UCLA Student Poll 1969b; Los Angeles Metropolitan Area Survey: III (LAMAS III): Questionnaire 1971; and Los Angeles Metropolitan Area Survey: IV (LAMAS IV): Questionnaire 1972 by The Survey Research Center (SRC) of the University of California at Los Angeles. Reprinted by permission.
- Marjorie N. Donald for material from "Implications of Nonresponse for the Interpretation of Mail Questionnaire Data" in *Public Opinion Quarterly* 24 (Spring): 102.

Acknowledgments

- Reprinted by the permission of the author and the publisher, © 1960 American Association for Public Opinion Research.
- John R. Raser for material from *Simulation and Society: An Exploration of Scientific Gaming* (Boston: Allyn and Bacon). Reprinted by the permission of the author, © 1969 John R. Raser.
- Otis Dudley Duncan for material from "Path Analysis: Sociological Examples" in *The American Journal of Sociology* 72 (July). Reprinted by the permission of the author and the publisher, © 1966 the University of Chicago. All rights reserved.
- Robert Brown for material from *Explanation in Social Science* (Chicago: Aldine). Reprinted by the permission of Routledge and Kegan Paul, Ltd. and Aldine Publishing Co., © 1963 Routledge and Kegan Paul, Ltd.

CONTENTS

Preface to Third Edition Preface to Second Edition Preface to First Edition Acknowledgments	
PART ONE Principles of Social Research	
1 The Research Process Social Science as Science 6 Stages of Social Research 10 Circularity • Replication Examples: Density Research 13 Stage 1: Choosing the Problem and Stating the Hypothesis • Stage 2: Research Design • Stage 3: Gathering the Data • Stage 4: Coding and Analyzing the Data • Stage 5: Interpreting the Results and Testing the Hypothesis Summary 18	3
2 Choosing the Research Problem Factors Affecting Problem Selection 20 Examples of Current Research 21	19

Applied Versus Pure Research 22 Applied Research • Pure Research • Pure and Applied Research	
Research Paradigms 24 Values 26 Value-free Sociology • The Myth of Value-free Sociology •	
Effects of Values in Social Research • Values and Perception	
Reactivity 31	
Methodology Versus Method 32 The Unit of Analysis 34	
Cross-sectional Versus Longitudinal Studies 34	
Summary 35	
Summary 55	
Constructing Social Explanations	37
Descriptive Studies 38	
Explanatory Studies 38	
Explanation • Prediction	
Theory 39	
Concepts and Variables • Propositions Defined • Relationships	
Between Variables	
Types of Propositions 41	
Hypotheses • Empirical Generalizations • Components of	
Axiomatic Theory: Postulates, Axioms, Theorems	
Bivariate Relationships 44	
Positive Versus Negative Relationships • Strength of the	
Relationship • Symmetrical Versus Asymmetrical	
Relationships • Independent and Dependent Variables •	
Distinguishing Independent from Dependent Variables • Causal	
Relationships • Linear Versus Nonlinear (Curvilinear)	
Relationships • Spurious and Intervening Relationships •	
Suppressor and Distorter Variables Alternate Strategies for Hypothesis Formulation and	
Verification 51	
The Classical Approach • Grounded Theory • Classical Versus	
Grounded-Theory Approach • Operationalism • A Critique of	
Operationalism • Classical, Grounded-Theory, and Operational	
Approaches Compared	
Summary 58	
Measurement	59
The Quantitative/Qualitative Distinction 60	
Level of Measurement 61	
Nominal • Ordinal • Interval • Ratio • Discrete Versus	
Continuous	

3

4

Measuring the Validity and Reliability of Measurement 66

	Assessing Validity 67 Face Validity • Criterion Validity • Construct Validity • Internal and External Validity Assessing Reliability 70 Alternate or Parallel Methods • Test/Retest Reliability Error 73 Summary 75	
PART	TWO Survey Research Methods	
5	Survey Sampling Technical Terms 81 Sample Versus Population 81 Sampling Efficiency 82 Notorious Sampling Failures • Sampling Successes • Advantages of Sampling	79
	Constructing the Sampling Frame 84 Probability Sampling 87 Random Sampling • Systematic Sampling • Stratified Random Sampling • Cluster Sampling Nonprobability Sampling 92 Convenience Sampling • Quota Sampling • Dimensional Sampling • Purposive Sampling • Snowball Sampling Sample Size 95 Statistical Considerations of Sample Size • Sample Size Versus Sampling Proportion • Sample Size for Stratified Sampling • Weighted Samples • Examples of Weighted Samples • Sample Size for Cluster Sampling Summary 102	
6	Questionnaire Construction Constructing Questionnaires 106 Questionnaire Relevance 107 Relevance of the Study • Relevance of Questions to the Study • Relevance of Questions to Respondents Pitfalls in Questionnaire Construction: Wording the Questions 110 Double-barreled Questions • Ambiguous Questions • Level of Wording • Abstract Versus Factual Questions • Leading Questions • Sensitive or Threatening Questions Open and Closed Response Categories 117 Closed-ended Questions • Open-ended Questions • Open and Closed Questions Compared	104

	Response-category Format 122 Number of Categories • Ordinal Variables • Interval Scales Question Order 131 Contingency Questions 135 Cover Letter or Introductory Statement 137 Instructions for Interviewers or Respondents 140 Pretesting 141 Summary 145	
7	Mailed Questionnaires Advantages of Mailed Questionnaires 148 Disadvantages of Mailed Questionnaires 149 The Total Design Method 152 Factors Affecting Mail Surveys 153 Sponsorship • Questionnaire Format and Color • Questionnaire Length • Cover Letter • Ease of Completing and Returning Questionnaire • Inducements to Reply • The Nature of Respondents • Type of Mailing • Day, Week, or Month of Mailing • Follow-up Letters and Telephone Calls • Number and Timing of Follow-ups or Reminders Adequate Response Rate 168 Validity and Reliability 170 Validity • Reliability Summary 171	147
8	Interview Studies Advantages of Interview Studies 174 Disadvantages of Interview Studies 175 The Interview as Social Interaction 176 The Interview as a Secondary Relationship 178 Effects of Interviewer Characteristics 180 Race and Ethnicity • Sex • Social Status • Age • Clothing and Grooming The Interview 185 Approaching the Respondent • Dealing with Refusals • Conducting the Interview Less Structured Interviews 188 Open-ended Questions • Probes • Semistructured Interview • The Clinical Interview • The Unstructured Interview • Reliability and Validity of Unstructured Interview Interviewing Children 193 Language Skills • The Child-Adult Relationship • The Interview Situation Projective Methods 196	173

The Revolution in Telephone Interviewing • Random Digit Dialing • Computer Assisted Telephone Interviewing (CATI) •

The Telephone Interview 197

	Telephone Versus Face-to-Face	
	Interviewer Training 204	
	Entering the Field 205	
	The Panel Study 206	
	Validity and Reliability 207	
	Summary 208	
PART	THREE Nonsurvey Data Collection Techniques	
	Times Tronsurvey Sata Concention Teeningues	
9	Experiments	213
	Advantages of Experiments 215	213
	Disadvantages of Experiments 216	
	Closure 217	
	The Logic of Experimentation 219	
	One- and Two-Group Experimental Designs 220	
	Before and After Experiment with No Control Group •	
	Two-Group Design	
	Assignment of Subjects to Control Groups 222	
	Randomization • Simple Matching (Precision Control) •	
	Frequency Distribution Control	
	Multiple-group Designs 225	
	Two Experimental Groups with One Control Group • Factorial	
	Designs • Latin Square Design • Interaction Effect • Solomon	
	Two/Control/Group Design • Solomon Three/Control/Group	
	Design	
	Further Examples of Laboratory Experiments 231	
	Field Experiments • Quasi-experimentation	
	Validity and Reliability 235	
	Summary 237	
10	Observation	238
10	Advantages of Observation 240	230
	Disadvantages of Observation 241	
	Types of Observation 243	
	Field Studies 245	
	Gaining Entry • Gaining Rapport • Observing and	
	Recording • Dealing with Crises • Data Analysis	
	Completely Structured Observation 255	
	Semistructured Study • Unstructured Laboratory Study	