

METHODS FOR
TESTING AND
EVALUATING
SURVEY
QUESTIONNAIRES

STANLEY PRESSER
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Methods for Testing and Evaluating Survey Questionnaires

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To the memory of
Charles Cannell and Seymour Sudman,
two pretesting pioneers whose contributions shaped the field
of survey research

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Preface

During the past 20 years, methods for testing and evaluating survey questionnaires have changed dramatically. New methods have been developed and are being applied and refined, and old methods have been adapted from other uses. Some of these changes were due to the application of theory and methods from cognitive science and others to an increasing appreciation of the benefits offered by more rigorous testing. Research has begun to evaluate the strengths and weaknesses of the various testing and evaluation methods and to examine the reliability and validity of the methods' results. Although these developments have been the focus of many conference sessions and the subject of several book chapters, until the 2002 International Conference on Questionnaire Development, Evaluation and Testing Methods, and the publication of this monograph, there was no conference or book dedicated exclusively to question testing and evaluation.

Jennifer Rothgeb initially proposed the conference at the spring 1999 Questionnaire Evaluation Standards International Work Group meeting in London. The Work Group members responded enthusiastically and encouraged the submission of a formal proposal to the organizations that had sponsored prior international conferences on survey methodology. One member, Seymour Sudman, provided invaluable help in turning the idea into a reality and agreed to join the organizing committee, on which he served until his death in May 2000. Shortly after the London meeting, Rothgeb enlisted Stanley Presser for the organizing committee, as they flew home from that year's annual meetings of the American Association for Public Opinion Research (and, later, persuaded him to chair the monograph committee). The members of the final organizing committee, chaired by Rothgeb, were Mick P. Couper, Judith T. Lessler, Elizabeth Martin, Jean Martin, Stanley Presser, Eleanor Singer, and Gordon B. Willis.

The conference was sponsored by four organizations: the American Statistical Association (Survey Research Methods Section), the American Association for Public Opinion Research, the Council of American Survey Research Organizations, and the International Association of Survey Statisticians. These organizations provided funds to support the development of both the conference and the monograph. Additional financial support was provided by:

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Without the support of these organizations, neither the conference nor the monograph would have been possible.

In 2000, the monograph committee, composed of the editors of this volume, issued a call for abstracts. Fifty-three were received. Authors of 23 of the abstracts were asked to provide detailed chapter outlines that met specified goals. After receiving feedback on the outlines, authors were then asked to submit first drafts. Second drafts, taking into account the editors' comments on the initial drafts, were due shortly before the conference in November 2002. Final revisions were discussed with authors at the conference, and additional editorial work took place after the conference.

A contributed papers subcommittee, chaired by Gordon Willis and including Luigi Fabbris, Eleanor Gerber, Karen Goldenberg, Jaki McCarthy, and Johannes van der Zouwen, issued a call for submissions in 2001. One hundred five were received and 66 chosen. Two of the contributed papers later became monograph chapters.

The International Conference on Questionnaire Development, Evaluation and Testing Methods—dedicated to the memory of Seymour Sudman—was held in Charleston, South Carolina, November 14–17, 2002. There were 338 attendees, with more than one-fifth from outside the United States, representing 23 countries on six continents. The Survey Research Methods Section of the American Statistical Association funded 12 conference fellows from South Africa, Kenya, the Philippines, Slovenia, Italy, and Korea, and a National Science Foundation grant funded 10 conference fellows, most of whom were U.S. graduate students.

Over half of the conference participants attended at least one of the four short courses that were offered: Methods for Questionnaire Appraisal and Expert Review by Barbara Forsyth and Gordon Willis; Cognitive Interviewing by Eleanor Gerber; Question Testing for Establishment Surveys by Kristin Stettler and Fran Featherston; and Behavior Coding: Tool for Questionnaire Evaluation by Nancy Mathiowetz. Norman Bradburn gave the keynote address, "The Future of Questionnaire Research," which was organized around three themes: the importance of exploiting technological advances, the increasing challenges posed by multicultural, multilanguage populations, and the relevance of recent research in sociolinguistics. The main conference program included 32 sessions with 76 papers and 15 poster presentations.

Conference planning and on-site activities were assisted by Linda Minor, of the American Statistical Association (ASA), and Carol McDaniel, Shelley Moody, and Safiya Hamid, of the U.S. Bureau of the Census. Adam Kelley and Pamela Ricks, of the Joint Program in Survey Methodology, developed and maintained the conference Web site, and Robert Groves, Brenda Cox, Daniel Kasprzyk and Lars Lyberg, successive chairs of the Survey Research Methods Section of the ASA, helped to promote the conference. We thank all these people for their support.

The goal of this monograph is a state-of-the-field review of question evaluation and testing methods. The publication marks a waypoint rather than an ending. Although the chapters show great strides have been made in the development of methods for improving survey instruments, much more work needs to be done. Our aim is for the volume to serve both as a record of the many accomplishments in this area, and as a pointer to the many challenges that remain.

We hope the book will be valuable to students training to become the next generation of survey professionals, to survey researchers seeking guidance on current best practices in questionnaire evaluation and testing, and to survey methodologists designing research to advance the field and render the current chapters out of date.

After an overview in Chapter 1 of both the field and of the chapters that follow, the volume is divided into seven parts

- I. Cognitive Interviews: Chapters 2 to 5
- II. Supplements to Conventional Pretests: Chapters 6 to 8
- III. Experiments: Chapters 9 to 11
- IV. Statistical Modeling: Chapters 12 to 14
- V. Mode of Administration: Chapters 15 to 18
- VI. Special Populations: Chapters 19 to 22
- VII. Multimethod Applications: Chapters 23 to 25

Each of the coeditors served as a primary editor for several chapters: Rothgeb for 3 to 5; Singer for 6 to 8; Couper for 9, 10, 15, 16, and 18; Lessler for 11, 12, 14, and 17; E. Martin for 2, 13, and 19 to 22; and J. Martin for 23 to 25. In

addition, each coeditor served as a secondary editor for several other chapters. We are grateful to the chapter authors for their patience during the lengthy process of review and revision, and for the diligence with which they pursued the task.

We are also indebted to Rupa Jethwa, of the Joint Program in Survey Methodology (JPSM), for indefatigable assistance in creating a final manuscript from materials provided by dozens of different authors, and to Robin Gentry, also of JPSM, for expert help in checking references and preparing the index.

Finally, for supporting our work during the more than four years it took to produce the conference and book, we thank our employing organizations: the University of Maryland, U.S. Bureau of the Census, University of Michigan, Research Triangle Institute, and U.K. Office for National Statistics.

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CHAPTER 1

Methods for Testing and Evaluating Survey Questions

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1.1 INTRODUCTION

An examination of survey pretesting reveals a paradox. On the one hand, pretesting is the only way to evaluate in advance whether a questionnaire causes problems for interviewers or respondents. Consequently, both elementary textbooks

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