

# *The Science of Web Surveys*

*by*

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Oxford University Press (2013)

## PREFACE

This book examines the virtues and limitations of Web surveys. It attempts to provide a comprehensive review of the literature on Web data collection. Although we have contributed many papers to this literature, this book is not just a summary of our work. For example, in Chapter 7, we report a meta-analysis of all the studies we could find that compare reports on sensitive topics in Web surveys with reports collected in other modes of data collection. Other chapters summarize work on issues, like coverage error in Web surveys, where we have not contributed much. Besides summarizing what is known, we have attempted to provide theoretical frameworks for understanding the properties of Web surveys. In addition, Chapter 8 provides our take on the issue of multimode surveys and lays out a mathematical model for understanding the errors in estimates that combine data collected in more than one mode.

The book adopts the total survey error framework and examines sampling and coverage (Chapter 2), nonresponse (Chapter 3), measurement (Chapters 4-7), and the issues involved in combining modes (Chapter 8). Chapters 2 and 8 are the most mathematical of the chapters. Chapter 2 examines statistical procedures that attempt to remove the biases from estimates derived from Web surveys, especially those based on samples of self-selected volunteers. Chapter 8 looks at the statistical properties of estimates based on data collected in multiple modes. Chapters 4 and 8 are the most practical and may be of most interest to those who are reading the book for guidance on conducting a Web survey. Chapter 4 covers basic design decisions for Web surveys, from input widgets to background colors. Chapter 8 summarizes all the recommendations presented throughout the earlier chapters. Chapters 4, 5, and 6 are the chapters that focus most on our own work on Web surveys, work that has concentrated on the special features of Web data collection, such as its visual character (Chapter 5), the ability to interact with respondents (Chapter 6), and its use of self-administration (Chapter 7).

Our work on Web surveys was made possible by a series of grants to the three of us and

to our sometime partner in crime, Reg Baker at Market Strategies International. We are extremely grateful for the support we received from the National Science Foundation (NSF) and the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD). NSF provided initial funding for our work in the form of grants to Tourangeau and Couper (SES-9910882) and subsequently to Tourangeau, Couper, Conrad, and Baker (SES-0106222). Later, NICHD provided additional support to the project (5 R01-HD041386-01A1 and 2 ROI HD041386-06A1). Needless to say, neither the National Science Foundation nor the National Institutes of Health is responsible for the conclusions we present here. Cheryl Eavey, who directs NSF's Methodology, Measurement, and Statistics (MMS) Program, has been an especially consistent supporter of our work and we are very grateful to her, but she can't be blamed for anything we say here.

Apart from his numerous intellectual contributions to the work (and his thoughtful comments on an earlier draft of this book), Reg Baker oversaw the administration of the series of Web surveys on which many of our conclusions are based. He was a full collaborator in this endeavor, in many ways our most valuable player. He did his best to keep us honest on the applied side of Web survey design and to keep us informed about what was happening in the real world. On our side, we did our very best to exceed the limits of mrInterview, the software environment in which our Web survey experiments were programmed, but never quite succeeded in bringing the program to its knees. We thank Reg and his very competent staff (including at various points Scott Crawford, Gina Hamm, Jim Iatrow, Joanne Mechling, and Duston Pope), who designed, implemented, and programmed most of our studies. Two other very helpful colleagues—Stanley Presser and Andy Peytchev—made it through an earlier draft of this book and provided excellent editorial suggestions to us. We are grateful for their help and encouragement. Rick Valliant vetted the statistical material in Chapter 2 and we greatly appreciate his able assistance. Catherine Tourangeau provided valuable help with Chapter 7 (slogging through lots of mode comparison studies) and also did the indexes for the book. We are grateful for her willingness to take on such tedious tasks and appreciate the skill with which she carried them out. And, of course, we had terrific help from a large number of excellent graduate students including Mirta Galesic, Courtney Kennedy, Becca Medway, Andy Peytchev, Cleo Redline, Hanyu Sun, Ting Yan, Cong Ye, and Chan Zhang. We never could have done this without them.