

Book Reviews

Books for review are to be sent to the Book Review Editor Gösta Forsman, Department of Mathematics, University of Linköping, S-581 83 Linköping, Sweden.

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Lavrakas, Paul J., *Telephone Survey Methods: Sampling, Selection and Supervision*, (Second Edition). Newbury Park, CA: Sage Publications, Inc., 1993. ISBN 0-8039-5306-2 (cloth), 0-8039-5307-0 (pbk), pp. 181, \$15.95 (pbk).

Telephone Survey Methods: Sampling, Selection, and Supervision is a volume included in the Sage series on Applied Social Research Methods, a highly regarded collection of works that focusses on practical or operational, rather than theoretical, issues associated with conducting social and behavioral research. The author asserts that the guiding theme of this text is to outline strategies of research by telephone that minimize "Total Survey Error" or bias and variation that can be attributed to sampling and nonsampling error. The ability to minimize error, in addition to cost efficiency and speedy data retrieval, is a particular advantage of telephone surveys over other modes of data gathering because quality control measures can be implemented to an extent not otherwise possible in other types of surveys.

This text concentrates on quality control measures that can be implemented in the

sampling and interviewing phases of a telephone survey. Particular attention is paid to the training and supervision of interviewers. Discussions of question wording, questionnaire construction, statistical error estimation, research ethics, and data analysis are not included. In addition, this highly readable text targets smaller survey operations that primarily conduct paper and pencil surveys (PAPI) rather than the computer assisted (CATI) version so popular today. In fact, CATI systems are briefly discussed in several chapters but the detail is insufficient to the point that the reader will need to search additional sources to learn more about the specific CATI implementation. The presentation of material is also geared to those who conduct local or regional rather than national surveys. Each chapter includes several exercises that can be completed by the reader in order to be able to gain experience dealing with the ideas presented in that chapter. A helpful glossary of terms is included at the end of the text.

Thus, *Telephone Survey Methods: Sampling, Selection, and Supervision* is a

practical text for those conducting survey research by telephone. The author describes specific techniques that can be used to generate sampling pools, draw samples, specify within-household respondents, track telephone numbers, institute call-back procedures, secure respondent cooperation, and so forth. Many of these procedures are readily adaptable to any survey operation. The author suggests that this text is even more practical and, therefore usable, than other texts on survey research in general and telephone surveys in particular. However, he draws considerably on the work of Dillman (1978), Frey (1989), and Groves (1989) in each chapter discussion. Each of these works also had some practical suggestions for conducting survey research by telephone in addition to being concerned with the reduction of error from all sources.

Lavrakas begins the discussion with a review of the advantages and disadvantages of telephone surveys including a discussion of potential problems encountered by telephone surveys as the result of recent technological innovations such as answering machines, car phones, multiple-line households, and videophones. Social factors affecting telephone use, such as fear of crime, privacy protection, rising suspicion of survey appeals, and the decline of response rates, are also reviewed but in a limited, cursory fashion.

Subsequent chapters focus on generating and processing a sampling pool, selecting respondents for inclusion in a sample, and conducting and supervising interviewing. Formulas are presented for calculating response or completion rates from a sampling pool or the "entire set of telephone numbers that will be used by interviewers to attain the desired number of completions" (p. 27). This discussion

may be the most important contribution of this text since it does bring attention to the distinct difference between completion rates and response rates. The sampling pool must be processed in a fashion that generates as representative a sample as possible or that minimizes nonresponse. The author describes a procedure that accounts for every number in a systematic fashion by calling for each number to fit a prescribed disposition code that is described in detail in the text. Strategic call-backs and refusal conversions are described as crucial components of this process. This discussion also includes a review of the techniques of Random Digit Dialing, add-a-digit sampling, and within-household selection. The text does not provide a detailed review of the various types of probability sampling that can be implemented in survey research.

The concluding chapters review quality control procedures that can be implemented in the interviewing phase including proper procedures of supervision and administration. These are not particularly enlightening, unfamiliar, or complete descriptions of these phases of the telephone survey. However, drawing attention to the administration of surveys is not always done in other texts on research methods. This is an oversight since proper administrative control is important to reducing the potential for error.

Telephone Survey Methods: Sampling, Selection, and Supervision is a useful and practical guide to conducting telephone surveys particularly for those who are seeking sampling and administrative guidelines. Other sources will have to be consulted for guidelines in questionnaire construction, question wording, and data analysis. The emphasis on quality control makes a very important point but it is possible that even with the best procedures

error-ridden surveys can be the result because of problems with nonresponse and interviewer quality. As the author concludes, respectable survey research is possible despite the many pitfalls that await the researcher. This text provides valuable practical guidelines for the implementation of quality telephone surveys.

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Brehm, John, *The Phantom Respondents: Opinion Surveys and Political Representation*. The University of Michigan Press, Ann Arbor, MI, U.S.A. ISBN 0-472-09523-4, 266pp, \$39.50.

Nonresponse is an epistemological concern for scientific research, a challenge to how well we know what we think we know.... Some social scientists are inclined to believe epistemology is a matter of taste, something to fear only if one's conscience directs one to do so. Is survey research akin to sausage making, where the squeamish don't want to know what goes into either?

pp. 19–20

John Brehm's book is not for the sausage-squeamish among us. Or, perhaps one could more accurately say that the book is written precisely for this group. If you ever thought that "nonresponse doesn't

matter," this book will persuade you otherwise. In great detail, Brehm illustrates the effects that nonresponse can have on marginal distributions and multivariate relationships in survey research. While his extensive examples are from surveys studying political participation, it would be difficult to read the book without realizing that the phenomenon it addresses affects most if not all other surveys as well. His focus on the similarity between survey participation and political participation makes this book of particular interest to political scientists. Let this not deter you, however, if you are not a political scientist. Survey methodologists and other users of survey data will find Brehm's writing of great value also.

Brehm's introductory chapter casts survey participation in the light of political process. He focuses heavily on political polls – their effects on and through the media, on political discussion, on campaign strategies and outcomes, on allocation of government funds. The point comes through loud and clear: surveys are a critical piece of the political/governmental puzzle in the U.S. The decisions made or influenced by survey data are far-reaching. Therefore, we cannot afford *not* to question the level and composition of nonresponse in our surveys, and the effects it may have on our results and, ultimately, our political and governmental processes.

After this compelling argument about the importance of nonresponse, Brehm writes a brief summary of "who is missing" in surveys. He focuses his attention on the National Election Studies (NES) conducted by the University of Michigan and the General Social Survey (GSS) conducted by the National Opinion Research Center. In addition, he presents data from three telephone surveys in this

chapter.¹ To answer the question “who is missing?” Brehm compares the demographic characteristics of sample respondents in these surveys to the characteristics of the general population, as measured in the Current Population Survey (which, he is careful to point out, is itself susceptible to the effects of nonresponse). His report is consistent with other literature on survey nonresponse: the surveys underrepresent the young and overrepresent the elderly. The face-to-face surveys overrepresent the black population and the telephone surveys underrepresent it. Both modes underrepresent men and wealthy households. The face-to-face surveys overrepresent less-educated respondents while the telephone surveys underrepresent them.

Having briefly addressed the effect of nonresponse on the demographic distributions of survey samples, Brehm turns to an exploration of why people participate in surveys. He develops a three-stage model of survey participation: contact, eligibility, and compliance. At the contact stage, the primary issue affecting ultimate response is the sample person’s accessibility. This reflects both the accessibility of the dwelling unit (security buildings, security guards, locked exterior doors, etc.) and whether the sample member is at home enough to be contacted during the times the interviewer visits the dwelling. The eligibility stage is conceptualized to include capability as well. Once the respondents have been contacted, it must be determined whether they are eligible for interview according to the survey design specifications,

as well as whether they are physically and mentally capable of completing the interview in a language included in the survey design.

Finally, the compliance stage is hypothesized to be affected by four relationships. The sample person’s *relationship to strangers* determines whether he/she is willing to speak and listen to the interviewer at all. Fear of crime and suspicion of strangers as well as privacy and confidentiality concerns may enter at this point. *Relationship to interviewer* encompasses the sample member’s reaction to the particular individual making the interview request, including his/her appearance, characteristics, and demeanor. *Relationship to the interview* refers to the sample member’s reaction to the specific task being requested of him/her. Past experience and attitudes toward surveys in general are relevant here, as well as reaction to the particular survey, when the sample member engages in a mental cost and benefit analysis to determine whether he or she will comply. Finally, the sample member’s *relationship to self-image* – whether he or she views him/herself as “the sort of person who does things like this” – may influence whether compliance results.

Brehm uses data from the NES, GSS, and the Detroit Area Study (DAS) to test his hypotheses. The data come from interviewer reports on respondents and nonrespondents to the surveys and, in the case of DAS, a short “miniquestionnaire” asked of nonrespondents about why they chose not to participate, whether they voted in the recent election, and whom they voted for. The 1989 DAS also queried respondents for the reasons that motivated them to participate. In addition to looking at pure response versus nonresponse, in some cases Brehm explores *reluctance* to respond as well – reluctance being defined as having

¹ There appears to be a typographical error on page 25 in Brehm’s claim that “Telephone surveys typically encounter response rates that are 10% higher than comparable face-to-face surveys.” Since the examples show response rates for the telephone surveys that are lower than the face-to-face surveys, I assume the statement should be that telephone surveys typically encounter response rates 10% *lower* than comparable face-to-face surveys.

an initial refusal before ultimately completing the interview. In some cases, the data to measure a particular theoretical concept are quite weak, which Brehm acknowledges. Nonetheless, he draws meaningful analyses from the data.

After exploring the three individual stages of the model in Chapter 3, he turns in Chapter 4 to a structural model predicting response or nonresponse. The basic model and variations of it are fit to the 1986 NES, 1988 NES, and 1989 DAS data sets. Here, too, while some of the indicators of the theoretical concepts are weak, Brehm finds general support of this theory. Of particular note is that not only were non-respondents' reasons for refusal useful in understanding response, but respondents' reasons for cooperation were also powerful additions to the model. This prompts Brehm to recommend that surveys routinely collect not only reasons for refusal, but reasons for cooperation. Since it is unlikely that survey researchers could influence a sample person's relationship to strangers or self-image, the relationship to the interview task is the one means through which compliance rates might be improved. The good news from Brehm's analysis is that this is the most powerful of the four relationships in predicting response or nonresponse. Thus, through modifications to the task being requested or its presentation to the sample member, researchers might affect the sample member's likelihood to cooperate. Brehm explores the effects of interest, time, and experience and argues that things like more captivating advance letters and compensation for respondents' time might pay off in higher response rates.

Having explored the issue of why nonresponse occurs, Brehm then turns to an examination of its effects on survey estimates. In Chapter 5, Brehm outlines the statistical effects of nonresponse on sample

mean bias and variance, as well as on multivariate relationships. His discussion is filled with concrete examples which make the discussion intuitively understandable. The discussion of nonresponse effects on multivariate relationships includes a Monte Carlo simulation of selection bias, selecting first on an independent variable, then on a dependent variable, and finally, on a third variable not related to the dependent variables. The results create an effective presentation of selection bias effects.

Of course, most of us are interested not only in describing nonresponse but in measures to *correct* for its effects. Brehm does not let us down. After a brief theoretical discussion of nonresponse adjustment methods (weighting, modeling) and a Monte Carlo simulation of Heckman and Achen's modeling method, he provides a full chapter of actual examples from the NES. (Brehm calls this chapter the "heart" of the book, but I find some of the other chapters equally interesting and useful.) Using the variables examined in the previous chapters in the modeling of nonresponse, Brehm illustrates use of the two-stage approach in which the results of a first model predicting response/nonresponse are used to "correct" for nonresponse in a second, substantive model. He entertains three possible models for use in the first-stage. For primary presentation purposes, he settles on a model with "administrative" predictors such as whether a persuasion letter was sent to the household, whether refusal conversion was attempted, and the log of the number of call attempts. The results using the other first-stage models are included in an appendix, however. The substantive models reflect political science theories about political participation, vote choice, candidate evaluation, and policy positions. Brehm wisely chooses some

models in which he hypothesizes that the effects of nonresponse might be large (i.e., where nonresponse is suspected to be non-random with respect to the variables in the model) and some where one might expect minimal effects (i.e., in which nonresponse might be expected to be random with respect to the model variables.)

While there are some exceptions, overall Brehm finds what he and we should expect: in models in which the dependent and/or independent variables are correlated with variables that are also related to nonresponse, the effects of the corrections on the model coefficients are significant. In general, models that show no correlation between nonresponse and the dependent variable or the predictors are unaffected by including the correction term. The details of the individual models are too extensive to be conveyed here, but one finding of special note is the effect the nonresponse correction has on predicted levels of voter turnout. Brehm's simplest model predicts voter turnout based purely on demographic characteristics. In the 1986 NES, the level of turnout that would be expected based upon the model with no correction for nonresponse would be 67%. When adding in the correction for nonresponse, this figure drops to 48%. Thus, nonresponse appears to be a significant contributor to overestimates of voter turnout based upon survey data.

While most of the models in Chapter 6 reflect political science interests (the data sets are, after all, political science data sets), in the final pages of the chapter Brehm does fit a model which is broader and more applicable to other areas. Using demographic variables such as age, education, race, and marital and work statuses, Brehm fits a model predicting family income. Given that earlier analyses indicate that nonresponse is related to income level,

it is somewhat surprising that the coefficients in this model do not change significantly when the nonresponse correction term is added to the model. Brehm infers from this that the relationship between income and nonresponse may not be a direct one, but rather, that income intervenes on other relationships that affect response.

A more appropriate title for Brehm's penultimate chapter, "What if Nonresponse Worsens?" might be "What if One Doesn't Follow Good Survey Procedures for Minimizing Nonresponse?" Here Brehm simulates what the NES data sets would look like if the sponsoring organization had not (1) used multiple "callbacks" to complete interviews with persons not available at the first visit, and (2) used persistent survey techniques to convert initial refusals – two practices often not followed by organizations conducting political polling and election surveys. By first removing refusal conversion cases and those requiring a persuasion letter, then removing cases requiring more than six calls to complete, then five, then four, etc., Brehm describes both what the resulting response rate would have been, and how the estimates generated from the data set would have differed had these procedures not been followed. The results are alarming, to say the least. Both univariate distributions and regression model coefficients change drastically as the simulated "response rate" decreases – particularly as it crosses the 50% mark. Furthermore, the lower the response rate, the less effective the correction factor. Any survey organization not following rigorous procedures to minimize nonresponse should read this chapter carefully.

In his final chapter, Brehm recapitulates the similarities between survey participation and political participation, and the importance of both to the processes of

democratic government. His final words are ones of advice and pleas to researchers, policymakers, and the public to pay attention to survey nonresponse and its actual effects. Surveys are too important and the effects of nonresponse too detrimental to be ignored. The analyses in his book should, if read by the proper persons, go a

long way toward raising concern about survey nonresponse.

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