Symposium Issue on Methods for Probability-Based Online and Mixed-Mode Panels

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Methods for probability-based online and mixed-mode panels: Selected recent trends and future perspectives / Michael Bosnjak, Marcel Das and Peter Lynn

Abstract: This special issue is devoted to discussion of probability-based survey panels that collect data either solely or partly through online questionnaires. Panels of this kind have been around for a long time, though they have been few in number, but recent years have seen several new panels start up in Europe. This has led to renewed interest in the methodology of such panels, and also to deeper questioning of the role of these panels. On the one hand, the probability-based panels are to some extent competing against cheaper non-probability access panels. On the other hand, the probability-based panels are increasingly being seen as possible alternatives to more expensive probability-based survey methods. In both cases, clients and data users want to better understand the relative advantages and disadvantages of the probability-based panels.

A Comparison of Four Probability-Based Online and Mixed-Mode Panels in Europe / Annelies G. Blom, Michael Bosnjak, Anne Cornilleau, Anne-Sophie Cousteaux, Marcel Das, Salima Douhou, Ulrich Krieger

Abstract: Inferential statistics teach us that we need a random probability sample to infer from a sample to the general population. In online survey research, however, volunteer access panels, in which respondents self-select themselves into the sample, dominate the landscape. Such panels are attractive, due to their low costs. Nevertheless, recent years have seen increasing numbers of debates about the quality, in particular about errors in the representativeness and measurement, of such panels (Baker et al., 2010).

       In this paper, we describe four probability-based online and mixed-mode panels for the general population: the LISS Panel in the Netherlands, the German Internet Panel

and the GESIS Panel in Germany, and the ELIPSS Panel in France. We compare them in terms of sampling strategies, off-line recruitment procedures, and panel characteristics. Our aim is to provide an overview to the scientific community of the availability of such data sources, to demonstrate to practitioners potential strategies for recruiting and maintaining probability-based online panels, and to direct analysts of the comparative data collected across these panels to methodological differences that may affect comparative estimates.

Metrics and design tool for building and evaluating probability-based online panels / Charles DiSogra & Mario Callegaro

Abstract: Probability-based online panels are beginning to replace traditional survey modes for existing established surveys in Europe and the United States. In light of this, current standards for panel response rate calculations are herein reviewed. To populate these panels cost-effectively, more diverse recruitment methods, such as, mail, telephone and recruitment modules added to existing surveys are being used, either alone or in combinations. This results in panel member cohorts from different modes complicating panel response rate calculations. Also, as a panel ages with inevitable attrition, multiple cohorts result from panel refreshment and growth strategies. Formulas are presented to illustrate how to handle multiple cohorts for panel metrics. Additionally, drawing on relevant metrics used for a panel response rate, we further demonstrate a computational tool to assist planners in building a probability-based panel. This provides a means to es-timate the recruitment effort required to build a panel of a predetermined size.

Does the Inclusion of Non-Internet Households in a Web Panel Reduce Coverage Bias? / Stephanie Eckman

Abstract: The LISS online panel has made extra efforts to recruit and retain households that were not regular users of the internet into the study. Households were provided with computers and/or internet when necessary. Including these cases made the panel more representative of the Dutch population, by bringing in respondents who were more likely to be older, to live in single-person homes and to have migration backgrounds. This paper replicates five published papers which used LISS data and explores how the conclusions in these papers would have been different had the LISS panel not included the non-internet households. There are strong demographic differences between the internet and non-internet households, and estimates of means would in many cases be biased if these households had not been included. However, across the five replicated studies, few of the published model estimates are substantively affected by the inclusion of these households in the LISS sample.

Solving the nonresponse problem with sample matching? / Jelke Bethlehem

Abstract: Over the years it has become clear that probability sampling is a scientifically sound way to select a sample for a survey. With decreasing response rates, one may wonder, however, to what extent this paradigm still holds. Indeed, due to nonresponse, probability sampling surveys more and more resemble self-selection surveys. Rivers

(2007) has proposed a different way of data collection based on sample matching. The idea is to select a probability sample from a sampling frame. Selected persons are not asked to complete a questionnaire form, as this would lead to high nonresponse rates. Instead, resembling persons are located in a large (possibly not representative) web panel. These panel members are invited to complete the questionnaire. Their response rate will be high as they agreed to complete survey questionnaires regularly. This paper investigates the properties of sample matching in some more detail. Using simulated data, it is explored under which conditions sample matching may work.

The use of Pcs, smartphones and tablets in a probability based panel survey: Effects on survey measurement error / Peter Lugtig & Vera Toepoel

Abstract: Respondents in an Internet panel survey can often choose which device they use to complete questionnaires: a traditional PC, laptop, tablet computer or a smartphone. Because all these devices have different screen sizes and modes of data-entry, measurement errors may differ between devices.

Using data from the Dutch LISS panel, we evaluate which devices respondents use over time. We study the measurement error associated with each device, and show that measurement errors are larger on tablets and smartphone than on PCs. To gain insight into the causes of these differences, we study changes in measurement error over time, associated with a switch of devices over two consecutive waves of the panel. We show that within individuals, measurement errors do not change with a switch in device. Therefore, we conclude that the higher measurement error in tablets and smartphones is associated with self-selection of the sample into using a particular device.

Respondent conditioning in online panel surveys: Results of two field experiments
Bella Struminskaya

Abstract: In this paper, we investigate changes in survey reporting due to prior interviewing. Two field experiments were implemented in a probability-based online panel in which the order of the questionnaires was switched. Although experimental methods for studying panel conditioning are favorable, experiments in longitudinal studies are rare. Studies on conditioning demand additional resources and might influence respondents' answers. Panel conditioning is mostly associated with measurement errors. However, the discussion that sees it exclusively as a negative phenomenon is not comprehensive. Learning the rules of the interview may lead to increases or decreases in data quality (advantageous vs. disadvantageous conditioning). Overall, little evidence of advantageous conditioning and no disadvantageous conditioning is found. Apart from this reassuring finding, this paper advances the field by using propensity score weighting to account for attrition and other confounding factors and by using paradata to evaluate the plausibility of alternative explanations of panel conditioning.

Handling Do-Not-Know Answers: Exploring New Approaches in Online and Mixed-Mode Surveys / Edith D. de Leeuw, Joop J. Hox, & Anja Boevé

Abstract: An important decision in online and mixed-mode questionnaire design is if and how to include a do-not-know option. Mandatory response is often a default option, but methodologists have advised against this. Several solutions for the 'do-not-know' category are suggested. These include (1) not explicitly offering a do-not-know, but skipping questions is allowed, (2) explicitly offering a do-not-know option with visual separation from the substantive responses, and (3) using the interactivity of the web to emulate interviewer probing after a do-not-know answer. To test these solutions, experimental data were collected in a probability based online panel. Not offering do-not-know, but allowing respondents to skip questions, followed by a polite probe when skips occurred, resulted in the lowest amount of missing information. To assess the effect of probing across different modes, a second experiment was carried out that compared explicitly and implicitly offering the do-not-know option for web and telephone surveys.