

Chapter 25

Panel Surveys

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This chapter starts with explaining why panel research is 'hot' and gives an overview of reasons to advocate the use of panels. A first set of reasons refers to the more traditional methodological motives to use panel surveys: panels do an excellent job in measuring trends, they are indispensable if you want to measure gross change, and are the only option you have if you want to work with concepts in which behavior over time is central. A second set of reasons concerns the practical motives that explain the success of Internet Access Panels: such panels allow rapid data collection, are efficient in the sense that you can use previously collected data for targeted sampling and efficient routing and you don't have to bother about background data, since usually a large list of background information of all panel participants is routinely available. In addition an extensive typology is given of the different existing panels. We discuss methodological issues in some depth. First *the* most important success factor of panel research is discussed: the practical recruitment and maintenance of a panel. A section dealing with bias issues follows this, as the sources of bias in panel research are more varied than in other types of surveys. Finally, we discuss the most important mathematical reason for panels: the measurement of change; it is the only section that gradually builds up to some tough mathematics but it also shows why real good panel design is complicated and may give you some insight into when to solve design issues by yourself and when to leave it to a specialist.

GLOSSARY OF KEY CONCEPTS

Attrition. Loss of respondents from a panel. Panel participants may either drop out voluntarily or may be asked to leave.

Cohort study. A study in which a group of individuals are followed over time. These individuals usually share a certain condition (e.g., birth year, year of retirement).

Cross-sectional study. A study in which a single measurement is made on a sample of individuals at a single time point.

Gross change. The change at the individual level. Examples are changes in the status of economic activity, marital status etc. of individual persons. Measurement of gross change requires longitudinal studies.

Longitudinal study. A study in which the same group of individuals is interviewed at intervals over a period of time, such as Panel Study or Cohort Study.

Net change. The change at the aggregate level, with individual level changes in opposite directions cancelled out. Examples are month-to-month changes in rates of unemployment and other economic indicators. Net changes can be derived from cross-sectional studies and does not require panel designs, although the precision of the estimates in a panel study is usually higher.

Panel conditioning. The systematic error that occurs when panel participants change their (observed) behaviour as a result of being part of the panel.

Panel effect. See Time-In-Sample effect.

Panel maintenance. The process of maintaining contact with respondents, including administrative actions (e.g. address changes) and actions to stimulate cooperation.

Panel study. A study in which similar measurements are made on the same sample of individuals at different points in time (waves). The sample may change between waves in order to correct for changes in the population.

Response burden. The effort required to respond to a survey, usually quantified in terms of how long the survey takes. Other aspects of response burden are how difficult it is to provide the information, and how sensitive the respondent is about providing the information.

Time-in-sample bias. The effects from ongoing participation of panel participants. Given the experience with the survey over time, the responses of panel participants may increasingly begin to differ from the responses given by panel participants answering the same survey for the first time.

Wave. A distinct time point where data are collected in a panel survey.

Wave nonresponse. The type of nonresponse that occurs when one or more waves of panel data are missing for an individual that has provided data for at least one wave.