



IPS Paper

Improving The Quality Of Survey Estimates From Longitudinal Studies

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Brief Description

Longitudinal studies, based on repeated observations of the same statistical units over time, represent an invaluable source for analysing the current state and the changes in human populations over time.

Longitudinal studies traditionally comprehend panel studies, planned according to specific periodicity and time length, cohort studies based on people with shared experience (e.g.

master's degree or first maternity) or characteristics at a particular time point (year of birth), retrospective studies based on different sources regarding past times.

Victorian Britain used panel opinions to make better decisions in the nineteenth century (xxx).

In the 1950s, we saw a lot of progress with panel studies, which were used to track client satisfaction with enterprises.

Panel studies include a wide range of topics, including health, psychology, sociology, education, income, housing, and work experiences.

In the 19th century, Victorian Britain collected panel opinions for better decisions.

In 1950th, we had a significant development with panel studies for monitoring the customers' satisfaction with businesses.

The main fields of panel studies vary from health, psychology, sociology and education to income, housing and job experiences.

Also, the relevant price index survey can be considered a panel survey where the observational units are goods and services over time.

Relevant examples at the EU and North-American levels are the National panel survey (ONS), the European labour force quarterly survey the American SIPP's survey.

We cite the Living Standard Measurement Study (LSMS) (World Bank, 2021).

This survey provides information on health, access to essential services (water, etc.), risk of malnutrition, poverty status, etc., for over 50 developing countries.

The LSMS Integrated Surveys on Agriculture (LSMS-ISA) is another example of a panel-based survey in several Sub-Saharan African countries which disseminates household panel data with a strong focus on agriculture.

In this work, we focus on the case of panels with a rotating sample design.

This case represents a powerful hybrid solution for facing the sample erosion for deaths and movers and the impact of lack of sample representativeness for new births, migration flows.

Moreover, the sample fatigue introduces an increasing measurement error.

Strengths and weaknesses of panel surveys as the comparisons between longitudinal and cross-sectional studies have been well deepened in the theoretical literature on observational studies.

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As the length of the panel surveys increases, there is an increasing interest, but also increasing challenges in preserving the quality of the panel sample estimates.

In panel surveys, the accuracy of the estimates depends on several factors common to survey sampling. The effect is particularly evident in long run panels.

A correct design, implementation, and use of a panel survey shall consider a set of methods to deal with these problems at different stages of the statistical process: The sampling design, the data collection, and the estimation.

Abstract

Longitudinal studies, based on repeated observations of the same statistical units over time, represent an invaluable source for analysing the current state and the changes in human populations over time.

Longitudinal studies traditionally comprehend panel studies, planned according to specific periodicity and time length, cohort studies based on people with shared experience (e.g. master's degree or first maternity) or characteristics at a particular time point (year of birth), retrospective studies based on different sources regarding past times. Victorian Britain used panel opinions to make better decisions in the nineteenth century (xxx). In the 1950s, we saw a lot of progress with panel studies, which were used to track client satisfaction with enterprises. Panel studies include a wide range of topics, including health, psychology, sociology, education, income, housing, and work experiences. In the 19th century, Victorian Britain collected panel opinions for better decisions. In 1950th, we had a significant development with panel studies for monitoring the customers' satisfaction with businesses. The main fields of panel studies vary from health, psychology, sociology and education to income, housing and job experiences. Also, the relevant price index survey can be considered a panel survey where the observational units are goods and services over time.

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In this work, we focus on the case of panels with a rotating sample design. This case represents a powerful hybrid solution for facing the sample erosion for deaths and movers and the impact of lack of sample representativeness for new births, migration flows. Moreover, the sample fatigue introduces an increasing measurement error. Strengths and weaknesses of panel surveys as the comparisons between longitudinal and cross-sectional studies have been well deepened in the theoretical literature on observational studies.

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