

# Attrition Bias in Longitudinal Survey: A Validation Study with Interviewer's Record of Respondent Mobility\*

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## Abstract

This paper aims to examine respondent's mobility-related non-response in the longitudinal survey. We use the interviewer's record of respondent mobility, which can be observed even if the respondent does not participate in the respective wave, as a source of validation data. Using the Keio Household Panel Survey (KHPS) 2004–2007 as a primary dataset, household mobility equations are estimated for selected subsample of non-attritors by two competing methods — an inverse probability weighted (IPW) estimator and a sample selection (SS) estimator. These two estimators are compared with a probit estimates using complete sample including both attritor and non-attritor. It is found that SS generally outperforms IPW in terms of coefficient estimates, suggesting that the mobility-related non-response in the KHPS is non-ignorable. However, the results of Hausman test cannot find any significant bias for either IPW or SS estimator.

*Key words:* Attrition Bias, Validation Study, Respondent Mobility, Non-ignorable non-response.

*JEL classification:* C33, C81, R23.

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