## Abstracts

Meanings of Panel Data and its Use: Why We Need the Panel Data?

Yukinobu Kitamura (Hitotsubashi University)

This paper explains the advantages of panel data over cross section and time series data. The major estimation methods of the panel data analysis are briefly discussed. The advantages of the panel data mainly lie in its richness of information and therefore, it enables us to identify the latent variables and the dynamic adjustment process of the individual economic agents. The paper also demonstrates how the panel data helps to identify the treatment effects, say, by means of differenceindifference estimator, when we evaluate the economic policy or program.

## Utilization of Subjective Data in Labour Economics

Jun Tomioka (The Japan Institute for Labour Policy and Training)

Although traditional labour economics has theoretically considered people's perceptions, unlike the other social sciences, empirically it has not analyzed them directly. However, this tradition is beginning to change. Recently, the new literature has emerged that deals with interesting subjective variables based on survey data. This paper surveys the new research trend. First, assuming that there is no "error" in subjective data, it discusses the prediction of behaviors and identification of theoretical models using expectation data or interview survey, analysis of subjective wellbeing, and subjective data in discrete choice models. It then explains problems that arise when subjective data contains "errors" (due to strategic motivations, cognitive abilities, and research design) and possible solutions to them. Although subjective data could be interesting and useful, cautious consideration is required regarding the mechanisms generating the available data and the causality between subjective variables and objective behaviors.

## Quality of Web Survey and Access Panel Survey: Issues for Utilization of Webbased Access Panel Survey

Norie Honda (Ministry of Health, Labour and Welfare)

"Web survey", which has been spreading rapidly, has two characteristics which affect survey errors: respondents give answers via a web screen, and survey respondents are registered panels. The former constitutes a defined factor of measurement errors and the latter that of sampling biases. Comparative experiments of different survey methods have shown that regarding measurement errors, the presence of researchers affects survey results, because respondents tend to give socially desirable answers in researcher-administered survey (interview and telephone). Such errors might be avoided in self-administered survey (mail and Internet), however, some other errors can be reduced due to the presence of researchers. So, it is difficult to conclude which method is more advantageous from the viewpoint of "total survey error paradigm". Regarding sampling biases, respondents of web-based access panel survey have biased attributes such as academic background and occupation. And also, compared to results of random sample survey, that of access panel survey have biases in values and feelings such as negativity toward Japanese employment practices and inclination to the competitive principle and merit promotion system. But representativeness of random sample is not so fully secured because of decreasing response rate that we cannot affirm that only access panel survey results are considerably biased.

## <u>Analysis of Sample Attrition: Verification of Defining Factors of Attrition and</u> <u>Sample Selection Biases Using Japanese Panel Survey of Consumers</u>

Kazuyasu Sakamoto (The Institute for Research on Household Economics)

This paper seeks to identify the characteristics of sample attrition and analyzes the sample selection biases caused by sample attrition using "Japanese Panel Survey of Consumers" (1993-2003). The two main findings in this paper are the following.First, it reveals the characteristics of people who drop out from the survey, we used a probit analysis using a dropout dummy of the relevant year (t year; attrition = 1, continuous answer=0) as an dependent variable and research information of the previous year (t-1 year) as an independent variable. As a result, common characteristics seen among married and unmarried people were that people before and after life events such as getting married and newlyweds tended to dropout prominently. As economic characteristics, the higher the respondents' income or the greater the income increase, the less unmarried people tended to drop out. On the other hand, the greater the increase in income of the respondents themselves or their husbands, the more married people tended to drop out. In addition, it was confirmed that families with larger borrowings tended to drop out. Second, to confirm sample selection biases by attrition with a marriage selection function, we compared the coefficients of models adjusted via the Inverse Probability Weighting method and non-adjusted models. The Hausman Test showed a statistically significant difference between two models and confirmed that the coefficients of non-adjusted model had been underestimated.