

The Best Stratification to Impute Missing Values of Turnover in Economic Surveys

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Along with the trends in the Japanese official statistics, the Economic Census for Business Activity was conducted February 2012, for the first time in Japanese history. This survey aims to cover the enterprises and establishments in all of the Japanese industrial fields, in order to clarify the actual economic conditions across the nation as well as in each region; furthermore, its goal is to obtain population information on businesses. However, missing values and errors are frequently produced in such accounting items as turnover. The Economic Census will be used as basic economic data, so that it is important to get hold of information about all enterprises and establishments; thus, missing values must be imputed in one way or another. Nevertheless, the problem is how to impute missing values. One aspect of this problem is to evaluate the accuracy of imputation based on stratified data. In each stratum, the evaluation method is to compare the difference between the true values and the imputation of the missing values. By way of comparing these differences across several strata, our goal is to find the stratum with the smallest difference between the true values and the imputation of the missing values.

Key Words: Economic Census, evaluation method