ESTIMATING AVERAGE WAGES IN SMALL POPULATION DOMAINS

Enrika Komarovaitė^{1,2} and Andrius Čiginas^{1,2}

 1 Vilnius University, Lithuania e-mail: enrika.komarovaite@mif.stud.vu.lt, e-mail: andrius.ciginas@mif.vu.lt

² State Data Agency, Lithuania

e-mail: enrika.komarovaite@stat.gov.lt, e-mail: andrius.ciginas@stat.gov.lt

Abstract

In the Statistical survey on the structure of earnings in Lithuania, the average wages are estimated for various domains of the population of employees working in enterprises. The survey sample is designed to ensure sufficient accuracy of estimates in all planned estimation domains. However, users of statistical information tend to ask for estimates in smaller unplanned domains, where domain sample sizes are often too small to obtain reliable results when using direct estimation methods. Therefore, we apply small area estimators based on domain-level models that use average wages derived from administrative data as covariates. Our empirical study shows that these estimators significantly improve the direct ones.

Keywords: small area estimation, auxiliary information, area-level model, composite estimation, average wages.