Sampling in Absence of Adequate Sampling Frame

Abstract

Last population census in Bosnia and Herzegovina (BiH) was in 1991, exactly one year before the war. In the post-war period, statistical institutes of BiH faced sampling frame problems at the very beginning of survey preparation activities, because there was neither population nor the households’ registers in Bosnia and Herzegovina. Postal address registers and the elections lists, if available, were incomplete. The available population census data were completely out-of-date in a country where population movements during and after the war, as well as new housing construction were considerable and significant.

Bosnia and Herzegovina was in a situation which required immediate solutions in order to be able to carry out sample based household surveys. Advisers from Statistics Sweden developed the sample design whose basic approach was to carry out a complete enumeration of households in a set of areas and then to treat resulting list as a “master sample” from which a sample of households for sample surveys could be selected.

This article illustrates characteristics of the sampling frames and sample designs in Bosnia and Herzegovina as well as the problems in sample selection and the procedures applied in the last fifteen years. It describes sampling approaches based on relevant sampling frames, from the first sampling frame created with the technical assistance of Statistics Sweden and The World Bank in 2000, for the purpose of the Living Standards Measurement Survey 2001, until the last Master Sample, which was made in June 2009.

The paper focuses on gradual improvements in creating sampling frames for household based surveys in BiH, it deals with constraints and advantages of the frames and different sampling designs for household based surveys and discusses their impacts to the survey weights, estimates and variance calculation.

Key words: sample frame, master sample, sample design, weights, variance.
References


1. Federal Institute of Statistics, Bosnia and Herzegovina, arijana.muhic@frs.ba
2. Agency for Statistics of BiH, Bosnia and Herzegovina, jasna.hadzic@bhas.ba
3. Agency for Statistics of BiH, Bosnia and Herzegovina, edin.sabanovic@bhas.ba
4. Republika Srpska Institute of Statistics, Bosnia and Herzegovina, darko.marinkovic@rzs.rs.ba