

# Comparison of Energy Resource Survey Results

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## Abstract

Annual enterprise survey of the energy resource acquisition and consumption is carried out by the Central Statistical Bureau of Latvia. The aim of the study is comparison of survey results of 2010 and 2011.

In the survey more than 600 variables are collected, but main variables of interest are:

- amount of received heat,
- consumption of electricity,
- consumption of petrol,
- consumption of diesel fuel,
- consumption of natural gas.

Sampling design used for this survey is stratified simple random sample.

The sampling frame is made from Statistical Business Register on November of the reference year. Sampling frame includes economically active merchants, state and municipal budget authorities and agricultural and fish farms with 10 or more employees. Sampling frame for 2010 consists of 60321 statistical units and for 2011 of 63565 statistical units.

The stratification of the sampling frame is based on economic activity (NACE Rev. 2) and on turnover or number of employees.

Sample sizes for 2010 and for 2011 are computed differently. For 2010 sample sizes are calculated using optimized Neyman allocation based on turnover of enterprises (or on number of employees in some stratas, where turnover is missing).

For 2011 the survey data of 2010 are used for calculation of sample size. For each strata five different sample sizes are calculated based on five main variables of interest and the final sample size in each strata is calculated as an average of these five.

Also different weighting procedures are used for 2010 and 2011.

For 2010 several weights are computed:

- weights for variable "amount of received heat";
- weights for variable "consumption of natural gas";
- weights for variables "consumption of petrol" and "consumption of diesel fuel";
- weights for variable "consumption of electricity" (weights for this variable are calibrated using auxiliary information, that is available only in aggregated level (not available for each unit (enterprise) separately);

- weights for many variables associated with consumption of wooden fuel;
- weights for other survey variables.

For 2011 only one kind of weights is computed for all survey variables. Weights are calibrated using auxiliary information about delivered electricity and natural gas, that also is available only in aggregated level (not available for each unit (enterprise) separately).

The results of the study - variances and coefficients of variation of main survey variables will be presented in poster session during the workshop.