**Challenges for Data Analysis for Public Administrators**

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School of Public Administration, Republic of Latvia has organised preparation of specialised training program “Data Analysis” and provision of training to employees in institutions of public administration. For development of requirements of the trainin program there were involved participants freom different institutions: Central Statictical Bureau of Republic of Latvia, Bank of Latvia and other institutions taking into account experience in realisation of such programs in other countries.

Planned trained persons were 608 persons (31 group), including:

1) First level course 380 participants (19 groups);

2) Second level course 228 participants (12 groups). Number of participants in one training group around 20 (+/-5) persons.

Lengths for each group:

1) For first level course 24 academic hours realised during 3 days;

2) For second level course 40 academic hours realised during 5 days.

Training was realised according the training aim to ensure improvement of knowledge in data analysis (including statistical analysis) that

after the respective training in first level course participants could

1. understand aims of statistics;
2. understand differences between qualitative and quantitative data and would know possible application of those data;
3. understand conception of population and would know the advantages and dissadvantages of sampling method;
4. understand differences between census data and survey data, and would know the advantages and dissadvantages of those methods;
5. understand the advantages and dissadvantages of statistics;
6. will be familiar with different kinds of data;
7. could calculate basic indicators of central tendency or location and indicators of variability or dispersion;
8. could perfoerm basic analysis of two and more variables;
9. could select necessary indicators for analysis of problematic issues;
10. could understand principles and methods of basic data analysis;
11. could perform analysis with data bases in Latvia and international organisations;
12. will understand principles of quality of statistics;
13. will understand principles of questionnaire development;
14. will know the most important requirements for graphical presentation of data;
15. will know principles of statistical communication.

after the respective training in second level course participants could

1. will know data analysis software principles and could perform basic activities with data analysis programs (it was wonderful to introduce for most of the participants SPSS);
2. will know basic of probability theory;
3. will know statistical distributions;
4. could apply practically basic principles of sampling theory;
5. will know and could practically perform data analysis in the situation of non-response;
6. could apply basic data imputauion methods;
7. could develop basic regression models and analyse quality of those models;
8. will know basics of time series analysis;
9. will know basic methods of risk analysis.

Methods used for training: lectures, practical classes, disscussions, group work and presentations.

For realisation of the courses it was widelly used materials of Council of Statistics of Latvia available on webpage of Central Statistics Buruau of Latvia – in many situations course participants were very thankful for information availavle on CSB webpage. Materials from Readings of Association of Statisticians of Latvia was used also very often – including materials about census, quality of tatistics and about application of program R.

For practical calculations there were used results of Household Finance and Consumption Network conducted the Eurosystem's Household Finance and Consumption Survey (HFCS), which collects household-level data on households' finances and consumption; databases of Central Statistical Bureau of Latvia, data files (SPSS) of Household Surveys; SILC surveys; Employment Surveys. It was nice that participants could use real data files and make their calculations and analysis.