



## Using Open Source Statistical Software in Official Statistics - the Example of Hungary

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The goal of the paper is threefold. First we explore the different types of usage of open source statistical software in official statistics in different countries of the world. The main focus is on R and other software related to R (RStudio, R Markdown etc.). Nowadays R is one of the fastest developing open source solution for data analysis. There is a growing number of applications also in processing data, displaying and publishing results in dynamic documents using R. However, because of the steep learning curve, the spread of R into the official statisticians' everyday use seems to take a longer time. In most of the cases methodological departments start to work with R especially with R&D focus (calibration, estimation, sampling error assessment, handling of missing values and outliers, etc.). Fortunately there are several promising projects that prove successful implementation of this open source software (e.g.: Italy, Sweden). Second we identify the similarities and differences in the needs of a user from the field of official statistics and a data analyst from the industrial and/or from the higher education sector, since the main focus of the work might be very different. We also collect and shortly introduce the most useful packages and procedures for official statistics. Third we show a particular problem (graphical display of processed data) where R can be used in case of the Hungarian Statistical Office. We highlight possible difficulties of the introduction of R from a management point of view. Finally we conclude with some proposals on the future research opportunities and other potential analysis procedures of R in the field of official statistics, together with some ideas on the implementation process.

**Keywords:** R, graphical display.