

Preparation of reproducible statistical reports

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Abstract Preparation of various reports for communication of statistical information is a very common task. Reports are the final product of the sequence of steps consisting problem definition, data gathering and analysis, table and figures organization and, finally typesetting of the report itself. In the usual framework, the steps are not connected and traces to origin of parts is lost. If some data change, become more complete or revised, it is necessary to prepare a new version of the report which tends to be tedious. In some fields of research, tools and systems to support preparation of reproducible statistical reports are used. Reproducible report consists of documents, which are a combination of text, meant for human readers, and computer code that is executed by computers. This enables easy reproduction and traceability of analyses, tables, and figures. We will present reproducible reporting based on Sweave and knitr, which combines R and LaTeX or markdown.

Key words: Reproducible report, Sweave, knitr, markdown, R