Working with *R* and *SAS*: Some initial experiences from Statistics Norway

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Statistics Norway relies heavily on the statistical software SAS in its statistical production. While this is an excellent piece of software, R provides additional functionally and flexibility which is not always available in SAS. Recently, we have been exploring ways of incorporating and expanding the use of R within Statistics Norway. It is not currently viable to transfer all our statistical production over to R, however, R may be used in some steps of the process. One option is to utilize both of the software through calling R functions or scripts from within SAS. This way, we can add some of the best functionality of R, without the cost of re-writing all existing SAS programs.

In particular, I show examples of using R within our unified sampling system and creating R figures within data editing procedures. We explore a starting point of using R CMD BATCH as a step in a process that also includes SAS programs. We look at the SAS Interactive Matrix Language (IML) using Proc IML to call R functions from within the SAS environment. Some alternative SAS macros are also investigated. SAS Enterprise Guide is a relatively new tool within Statistics Norway, but provides a visual approach to statistical production with a lower programming threshold. It also provides an opportunity to incorporate discrete steps which call on R programs. Not only does this provide opportunities to utilize some of R's best functions but is a way of softly introducing the program to new users.