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**ROUNDING AS A CONFIDENTIALITY MEASURE FOR FREQUENCY TABLES
IN STATBANK NORWAY**

Contributed Paper

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Rounding as a confidentiality measure for frequency tables in StatBank Norway

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Statistics Norway (SN) has since July 1 2002 offered statistical tables on the Internet through StatBank Norway (SBN) and from March 1 2003 virtually every official statistic published by SN is disseminated through SBN.

The idea of SBN is to publish a large number of high-dimensional table matrices on a detailed geographical level, allowing users to aggregate numbers from them according to their own needs. However, such detail raises confidentiality problems. It is considered undesirable that frequency table matrices reveal combinations of discrete variables that are (almost) population unique or situations where knowledge of some variable values associated to a statistical unit in a table makes it possible to derive its values on other variables. More specifically this means that counts like 1 and 2 should be avoided in the tables and uncertainty about whether a zero is actually a zero should be introduced. This problem, which has been encountered by many national statistical offices (NSO), has been handled in different ways in different countries, rounding being one of them. However, the methods and software available for such tables are insufficient or have features that are undesirable in the context of SBN. SN has therefore experimented with alternative rounding methods trying to meet our requirements. These methods have proven successfully enough to be applied in the publication of the Norwegian 2001 Census at SBN.

The present paper tells what requirements were needed for methods used with SBN and how they were met through rounding. Work on improvement on the methods goes on. It's our goal to integrate the methods in the chosen standard package for future tabulations at SN, SuperCross.