

THE APPLICATION OF NIM FOR HOUSEHOLD AND BUILDING DATA IN THE SWISS CENSUS 2000

Submitted by SFSO, Switzerland
Daniel Kilchmann, Statistical Methods Unit.

Contents

- Tests using the population census 1990: comparison with deterministic imputation method
- Imputation for the Swiss population census 2000 (demographic and household data)
- Imputation for the Swiss building census 2000 (building characteristics, deterministic error localisation sometimes, restricted neighbour search, slightly biased selection of the imputation action)
- Tests for the Swiss dwelling census 2000 (2 building and 6 dwelling characteristics, buildings with a lot of dwellings)

Conclusions

- Preliminary tests and extensive analyses (also by subject matter specialists) are necessary
- Difficult to judge the quality of the output: research on objective evaluation criteria is necessary
- NIM is preferable to deterministic imputations whenever
 - correction rules do not exist or are very complex
 - the error localisation is not obvious
- NIM does not guarantee for the correctness of distributions on geographical small regions

- Do not expect NIM to compensate for
 - Problems of the questionnaire design
 - Problems of the production process (e.g. unfortunate definition of households)NIM can increase the existing problems
- Too many variables or too large households require reprogramming of some structures in NIM
- **NIM works very well under “normal” circumstances**