

Recommendations (Templ et al)

In general, the following recommendations hold:

Recommendation 1: Carefully choose the set of key variables using knowledge of both subject matter experts and disclosure control experts.

As already mentioned, the key variables are those variables for which an intruder may possibly have data/ information, e.g. age and region from persons or turnover of enterprises.

Which external data are available containing information on key variables is usually known by subject matter specialist?

Recommendations (Templ et al)

Recommendation 2: Always perform a frequency and risk estimation to evaluate how many observations have a high risk of disclosure given the selection of key variables.

Recommendations (Templ et al)

Recommendation 3: Apply recoding to reduce uniqueness given the set of categorical key variables.

This approach should be done in an exploratory manner. Recoding on a variable, however, should also be based on expert knowledge to combine appropriate categories.

Alternatively, swapping procedures may be applied on categorical key variables so that data intruders cannot be certain if an observation has or has not been perturbed.

Recommendations (Templ et al)

- Recommendation 4:** If recoding is applied, apply local suppression to achieve k -anonymity. In practice, parameter k is often set to 3.
- Recommendation 5:** Apply micro-aggregation to continuously scaled key variables. This automatically provides k -anonymity for these variables.
- Recommendation 6:** Quantify the data utility not only by using typical estimates such as quantiles or correlations, but also by using the most important data-specific benchmarking indicators