

**Svein Nordbotten, Leopold Granquist**

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## ***Issues on topic (v): Quality indicators and quality reporting***

During the Work Session on Statistical Editing in October 2003 in Madrid, the general topic of quality indicators in editing was discussed. It was concluded that “the indicators should be useful not only for producers but also for the users of data”. This implies that the main issues for discussion are as indicated by the title of this section.

### **REVIEW OF PAPERS**

The papers contributed to this topic vary in focus and form and illustrate the multitude dimensions of the topic. As the background for the discussion, we present a brief summary of the papers and point out their relevance to the topic to be further discussed.

*The contribution of different ways of dealing with non-responses in French business surveys (France)*

Philippe Brion discusses French business surveys and the impacts alternative ways of dealing with non-response have on the quality of the final results. Even though the discussion by no means is limited to imputation, the question of imputation effect on the quality of the final results compared with other approaches for handling non-responses is important for a strategy for treating the non-response problem.

*Evaluating the quality of editing and imputation: the simulation approach (Italy)*

This paper by Marco Di Zio, Ugo Guarnera, Orietta Luzi, Antonia Manzari discusses the simulation approach to evaluating the quality of editing and imputation. It is particularly important in our context because it explicitly assumes that evaluation of quality requires a set of true values, which can be manipulated for investigating the effect of this set on the quality.

*Overview of the collection and post-collection processes (Canada)*

This paper authored by Jean-Sébastien Provençal is by topic related to the French paper and discusses recent progress in the Collection and Post-Collection processes of the Unified Enterprise Survey. The strategy has been to optimize the use of resources with respect to overall quality. By access to tax data, significant reduction in use of human editing resources has for example been obtained.

*Modelling and analysis with data (United States)*

Maria Garzía and Bill Winkler discuss the use of data for building mathematical models from a quality point and their relation to editing. The paper concludes that model analysis in some cases can delineate sets of data and be used in edit/imputation of the data.

In addition to the above, the following 4 papers were tabled:

*IT tools for an integrated data editing concept – revision (Germany)*

*Quality indicators for evaluating and documenting editing and imputation (Italy)*

*Evaluating the editing and imputation process: The Italian experience (Italy)*

*The data editing process withing the New Statistical Infrastructure of the Office for National Statistics (United Kingdom)*

## **ISSUES FOR DISCUSSION**

### **Useful quality indicators**

Quality indicators for statistical products have 2 objectives.

The first objective is that the indicators shall inform producers (statistical managers, planners) about the efficiency of resources spent in different areas and on different processes to attain optimal resource allocation.

The second objective is that the indicators shall inform users about the risk (an inverted quality measure) involved in taking decisions based on the different statistical products, and, if special statistical processing implies a cost, does quality gained justify this cost.

It is not certain that one set of indicators can satisfy both objectives.

#### *Useful indicators for the producers*

In spite of the many valuable points made in the papers of topic (v), we still have no clear vision about which indicators can send appropriate signals to the producers from the editing and imputation processes about where potentials for improvements are, and how to scale the efforts/reassign resources to take advantage of these potentials in future versions of the respective surveys.

How to make progress in identifying and constructing useful quality indicators?

Do we need some standard guidelines for how to prepare useful indicators?

Must special guidelines be elaborated for each type of survey?

Have the producers a need for guidelines in order to interpreting and using indicators?

#### *Useful indicators for the users*

If little progress has been made in preparing improved quality indicators for producers, even less progress seems to have been made in the area of quality

indicators for the users. So far, users of statistical products have in many areas few, if any, options to using the published official statistics. Users may seem satisfied by the assurance that the statistics are as good as possible the available resources taken into account.

Are more advanced quality indicators for users needed?

How can work on such indicators be justified in a regime optimizing the use of available and restricted resources?

Is there any reason for distinguish between producers' and users' needs for indicators?

## **Quality reporting**

### *Effective report format for producers*

We believe that only half of the job has been completed when useful quality indicators have been developed and implemented. The second part consists of presenting the content of the indicators to the producers in such a way that they can easily be understood and correctly interpreted.

How should quality report be made available within the NSI?

Should the quality indicators be part of a meta-data system for easy access?

### *Effective report format for users*

The most difficult aspect of reporting quality of statistics is to present it in an effective way for the users. As soon as more sources of statistics become accessible, the users may start asking for where are the 'best quality statistics'. In a time of communication and globalization, the number of available statistical sources will increase, and a competitive statistical market appear.

Which are the most userfriendly presentation of useful quality indicators?

Should statistical institutes aim at standard presentation format for easy comparison?

Who should be responsible for development of such standard quality indices?