



European Conference on Quality in Official Statistics

Rome, 8-11 July 2008

Training course

QUALITY OF REGISTER-BASED STATISTICS

Instructors

Anders Wallgren, Statistics Sweden
Britt Wallgren, Statistics Sweden

What is quality when it comes to register-based statistics?

Within national statistical offices, three kinds of statistics are produced – statistics based on sample surveys, statistics based on censuses and statistics based on administrative registers. This last kind of statistics is called *register-based statistics* and is produced by *register-based surveys*.

For sample surveys the important quality concepts are well known, and terms like *frame errors*, *sampling errors*, *measurement errors* and *nonresponse errors*, are well-established scientific terms and methods to control them are commonly discussed. Today, it is common that ad hoc methods are used for register-based surveys instead of methods based on a generally accepted theory. As a consequence there are no common terms for quality of register-based statistics.

In a register-based survey there is no frame, no sampling, no statistical questionnaire and there can be missing values due to other causes than nonresponse. Instead of the collection of statistical data in sample surveys, administrative data from many different sources are integrated to create statistical registers. This means that the standard quality concepts for sample surveys are not suitable for register-based statistics.

Course Design

During the course, we will discuss quality concepts and quality indicators for register-based surveys. We will also discuss methods that can be used to control these errors. We will introduce theoretical issues and give practical examples based on our experience from Statistics Sweden.

Some fundamental theoretical concepts will be explained: statistical register, register system, integration of multiple sources and estimation methods used in register-based surveys. Quality concepts and indicators suitable for registers and register-based surveys will be introduced.

A number of case studies will be presented and discussed. Examples from Statistics Sweden using micro data from different administrative sources and statistical registers

will be presented. The register-based surveys based on these sources will be explained.

A number of important quality issues will be explained by the presentation of the case studies.

There will be different cases showing register statistics on persons, enterprises and labour market data. Sample survey variables and register variables will be compared.

Course Text and Materials

The course is based on parts from our book that has recently been published: Wallgren, A, Wallgren, B: *Register-based Statistics – Administrative Data for Statistical Purposes*. Wiley Series in Survey Methodology. John Wiley & Sons Ltd., 2007.