

Sample re-design of short-term surveys at the UK Office for National Statistics

Myrto Miltiadou, UK Office for National Statistics

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Along with all other EU member states, the UK is implementing a new revised Standard Industrial Classification (SIC). The SIC is derived for the EU-wide industrial classification, NACE. The short-term surveys used to collect turnover and employment data will be selected under the new SIC, for the first time in January 2010.

In this paper we describe how four separate surveys that cover different parts of the economy were re-designed under the new classification. These surveys collect turnover monthly and employment information quarterly. The office took the opportunity that the change in SIC has created, of having a complete re-design of the sample. Together with introducing new SIC groups, new employment thresholds were defined to form the new sample strata. In the paper we also describe the reasons for re-designing the sample which aim at improving efficiency of the sample increasing coherence of methods between surveys and promoting use of best practice.

Methodology Directorate have worked closely with the survey areas to ensure that the re-designed surveys would meet customer requirements. This included lengthy consultation to agree output groups, and define quality requirements in terms of coefficients of variation. Customers had to prioritise their needs in order to achieve acceptable quality with feasible sample sizes. This was a lengthy process that involved analysing and re-running results several times. Optimal sample allocation techniques were used, subject to various constraints. As a principle, the redesign of the four surveys was considered as a single project. This ensured that an appropriate balance between Manufacturing and Services could be achieved and burden on respondents minimised.

The paper also describes methods being used to produce estimates on both old and new SICs. Estimates are needed in 2009 for historical data and this involved back-casting on the new SIC. Estimates on the old SIC are also still needed from 2010 into 2011 to maintain National Accounts outputs. The office will be using both macro methods (conversion matrices) and micro methods (domain estimation) to produce estimates on both SIC bases during this time.