

Developing small area statistics for business surveys

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Abstract

The Office of National Statistics (ONS) has a well-developed programme for estimating for small areas from household surveys. This programme has evolved during the last few years. This is not the case for business surveys, where the majority of statistics are produced at fairly detailed industrial levels within the United Kingdom and its four countries and but not for lower geographical levels. However a recent review of the statistics required for economic policy making in the UK, Allsopp (2004), has identified the need to develop regional economic statistics. In particular, an important aim is to provide good quality Gross Value Added estimates for Government Office Regions (NUTS 1) - London, South East, South West etc - and improved detail at lower levels, as part of an integrated system producing both National and Regional Accounts.

The first step in meeting the requirements of the Allsopp review requires the re-engineering of a large number business surveys as well as the register of businesses that forms the sampling frame for the surveys and provides auxiliary information for estimation. However estimating for small areas will be hampered by known problems with the business surveys (i.e. the impact of outliers; classification in terms of industry, geography and size; and coverage and datedness of the frame). Furthermore, the small area problem needs to be differentiated between the larger and smaller businesses. In business surveys a few large businesses can contribute a large proportion of the variable of interest and these are selected with certainty. However, many will not be able to report at the lower required levels. The problem is how to disaggregate these reported data to these levels, using lower level auxiliary data. For the smaller businesses, the problem will be one of sample allocation and estimation. In terms of allocation, the sample will be allocated to predetermined main domains, bearing in mind that several variables are of interest. In this case the estimation will most likely draw on the methodology for estimating for small areas that has been developed for the household surveys, while for larger businesses this methodology may have applications in the disaggregation problem.

This paper will identify and discuss the problems in developing small area statistics for business surveys.

References

Allsopp, C. (2004) Review of Statistics for Economic Policymaking: Final Report to the Chancellor of the Exchequer, the Governor of the Bank of England and the National Statistician, HMSO: London.