

Small Area Methods for Poverty and Living Condition Estimates (SAMPLE)

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Web Page: <http://www.sample-project.eu/>

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Background: The Lisbon European Council (March 2000), assisted by the indications of the Nice European Council (December 2000) and of the Gothenburg Council (June 2001), agreed to put in place an EU strategy aiming at making a decisive impact on the eradication of poverty in the European Union (EU) member states by the year 2010 and also declared year 2010 as the year of struggle against poverty. In the light of these decisions, a topic of high interest is the estimation of poverty, inequality and life condition indicators. Such indicators can greatly assist in monitoring living conditions and in guiding the implementation of policies that aim at improving the living conditions in the EU member states. Given the growing social, demographic and economic problems, the research community, policy makers and practitioners place great emphasis on the development of procedures for producing efficient, effective and reliable indicators not only at national level but also at regional and at lower geographical levels (small areas).

Objectives: The two main research targets of the SAMPLE project are (a) to conduct research for defining new indicators of poverty and inequality and (b) to develop small area statistical models for estimating such indicators and their corresponding accuracy measures at finer geographical levels. This will be achieved via the integration of data from the Survey of Living Conditions in the EU (EU-SILC) with administrative data from local government agencies.

CCSR's Methodological Contribution: Given the growing expertise on small area estimation techniques within the Centre for Census and Survey Research, the Centre will play a leading role in research activities within SAMPLE's Work Package (WP) 2 entitled "*Small area estimation of poverty and inequality indicators*". The key aims of this WP are: 1) to develop and test small area models for estimating not only the average but the entire distribution function of income at the small area level. A major component of this research task will be based on recent methodological developments in small area estimation (see Chambers and Tzavidis 2006; Tzavidis, Marchetti and Chambers 2008) and 2) to develop novel approaches for borrowing strength over space in the small area estimation of poverty and inequality using spatial statistical models. Parallel to the SAMPLE project, a project funded by the UK Office for National Statistics will be looking into the application of small area methods for estimating the incidence of poverty and the distribution of income for UK Local Authority Districts.

Selected Publications and Working Papers

Chambers, R. and Tzavidis, N. (2006). M-quantile Models for Small Area Estimation, *Biometrika*, **93**, 255-268.

Tzavidis, N., Marchetti, S. and Chambers, R. (2008). Robust Estimation of Small Area Means and Quantiles. [*Paper submitted for publication*]

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