

**IMPACT OF THE EURAREA PROJECT
ON RESEARCH IN SMALL AREA ESTIMATION IN POLAND**

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ABSTRACT

The EURAREA project was preceded by two international conferences devoted to small area estimation (SAE) (the Warsaw Conference in 1992 and the Riga Conference in 1999), where Polish statisticians presented their first contributions in this field. The author starts with synthetic description of these contributions, emphasizing involvement in the EURAREA project.

The above mentioned international conferences and the EARAREA project have had significant impact on the following statistical activities in Poland: (i) attempts of application of SAE methods in several fields; (ii) yearly country statistical conferences; (iii) international conferences where Polish statisticians presented their contributions.

The author distinguishes here the following topics in which SAE methods were used:
a) estimation of some employment and unemployment characteristics by region and powiat (county) using the 2002 Population Census data; b) estimation of some characteristics of the smallest enterprises by region and powiat; c) application of Hierarchical Bayes method in estimation of unemployment by region and powiat; d) estimation of some agricultural characteristics by region and powiat using agricultural sample surveys and agricultural census data. The author also discusses some aspects of data quality of small area statistics obtained from different sources of statistical data, and the Polish experience in this field.

The author pays special attention to two of the above mentioned topics: (i) estimation of unemployment characteristics by powiat using the 2002 Population Census, and (ii) improving small area estimates by region and powiat using agricultural census data, using area-level and unit-level approaches (considering ecological effect). The author briefly outlines the methodology used and summarises some of the empirical findings.