STATISTICS IN TRANSITION-new series, December 2010
Vol. 11, No. 3, pp. 427—430

EDITOR'S NOTE AND ACKNOWLEDGEMENTS

This volume, the last issue of the *Statistics in Transition* for year 2010, provides us with occasion to express our sincere gratitude to all the journal's collaborators during the past year. We especially warmly thanks to 57 authors of 36 original articles published in the journal, and to 34 internationally recognized experts who served as peer-reviewers – their names are listed below in the 'acknowledgement' section.

The issue starts with new section, devoted to different aspects of surveys conducted on several populations, entitled simply 'Comparative Surveys'. It is comprised of two articles. First paper, *Surveying Child Labour Through Households: Sampling Issues and Strategies,* written by **Vijay Verma, Francesca Gagliardi**, addresses sampling issues arising in the context of household-based child labour surveys. It presents some of the sampling strategies elaborated in the ILO book *Sampling for Household-based Surveys of Child Labour* (Verma, 2008) and offers a typology of surveys of child labour. The fundamental distinction between two types with very different objectives – termed 'child labour surveys' and 'labouring children surveys', respectively – is clarified and emphasised. And linkages between different types of surveys, as well as some specific sampling techniques are being explained, based on a broad survey of national practices in conducting surveys of child labour.

The second paper, by **Bernhard von Rosenbladt,** *Adult education and training in comparative perspective – indicators of participation and country profiles,* while recognizing insufficiency of data for comparative research on adult learning until recently, explores new opportunities based on the European Adult Education Survey (AES). It argues that general indicators of participation in adult education and training must be complemented by more specific indicators revealing sectoral structures and behavioural patterns within the adult learning system. Country variations are explored across a set of 16 European countries.

The nesxt section, on sampling and estimation methods, begins with paper by **Hukum Chandra, HVL Bathla and U C Sud***, Small Area Estimation Under a Mixture Model.* Since such models (SAE) may not be efficient when data contain substantial proportion of zeros, the SAE for zero-inflated data under a mixture model are specified that account for excess zeros in the data (Fletcher *et al*., 2005 and Karlberg, 2000). Results from simulation studies show that mixture model based approach for SAE works well and produces an efficient set of small area estimates. Also, an application to real survey data from the National Sample Survey Organisation of India demonstrates the satisfactory performance of the approach.

In paper *Fitting General Linear Model for Longitudinal Survey Data under Informative Sampling* **Abdulhakeem A.H. Eideh** discusses the problem of fitting superpopulation model for multivariate observations – in particular, multivariate normal distribution for longitudinal survey data. The proposed approach aims to extract the model holding for the sample data as a function of the model in the population and the first order inclusion probabilities; and then fit the sample model using maximum likelihood, pseudo maximum likelihood and estimating equations methods. An application of the results is illustrated by the general linear model for longitudinal survey data under informative sampling using different covariance structures: the exponential correlation model, the uniform correlation model, and the random effect model, and using different conditional expectations of first order inclusion probabilities given the study variable.

Carl-Erik Särndal's article, *Models in Survey Sampling,* focuses on the two types of approaches in modeling relationships between study variables and auxiliary variables that have influenced survey sampling theory and practice over the last four decades: the design-based and the model-based. Since, in their pure forms, these models offer two fundamentally different outlooks and approaches to inference in sample surveys, a complete reconciliation and agreement cannot be achieved. But the tendency today is that each of the two approaches recognizes and profits from important elements in the other. We see an often fruitful interaction, as discussed in this article.

In paper *On Efficient Difference Type Estimators* **A.K.P.C. Swain** search for a more efficient difference type estimator in a finite population set-up in the presence of auxiliary information. Ratio type and regression type estimators are derived as special cases. Further efficiencies of these estimators are compared with classical ratio and regression estimators and numerical illustrations are provided to compare efficiencies of different competitive estimators.

The section containing 'other articles' is opened with paper by **Sabina Denkowska and Monika Papież** *The Analysis of Mortality Changes In Selected European Countries in the Period 1960–2006,* which discusses some consequences of demographic changes that took place during the 20th century – such as the progressive ageing of European societies – for calculation of risk by insurance companies and pension funds. Since mortality is considered one of the most important factors in such calculations, the changes in male and female populations in selected countries of Central Europe (the Czech Republic, Hungary, Poland and Slovakia) and of Western Europe (France, Italy, Spain and Sweden), are of object of the analysis of data for the period 1960–2006. The analysis of the mortality changes has been carried out with the use of variables proposed J. P. Morgan (2007), using data available from www.mortality.org and employing the van Broekhoven algorithm for smoothing crude mortality rates across different ages.

A very important for economic policy issue of identifying change points in economic and financial series is discussed in **Reza Habibi's** paper *Distribution Approximations for Cusum and Cusumsq Statistics.* Using the cumulative sum

(cusum) as statistic in testing for a change point, this paper considers the distribution approximations to the cusum statistic under the null and alternative hypotheses. Also, distribution approximations for the cumulative sum of squares (cusumsq) test statistic are under considerations, and some comparisons are made in a discussion section.

Some alternative approaches to decomposition of inequality are discussed by **Maurro Mussini** in paper *On the Link between Silber and Dagum Decomposition of the Gini Index.* The presented, combined decomposition can be used for overlapping as well as for no overlapping population subgroups, taking into account within-group and between-group, and overlapping inequalities. For this, all the information on income distribution contained in one matrix are being exploited, accounting for pairwise disparities between per capita income shares. The proposed matrix approach provides also insight into a more complex analysis of overlapping. Application of the new methodology to data from Italian employee income in 2000 and 2008 illustrates its usefulness.

In paper *A Typology of Polish Farms Using Probabilistic d–clustering,* **Andrzej Młodak** and **Jan Kubacki** search for an effective typology of Polish farms based on data collected from administrative sources during the preliminary agricultural census conducted in autumn 2009. A universal form of typology is proposed using fuzzy clustering method (that has been developed to this aim), with probabilistic d–clustering for interval data. The relevant criteria are arbitrarily established, but also, as an alternative way, are generated endogenically using an original optimization algorithm. For a comparison, relevant classification for data collected "from nature" is also provided.

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Editor-in-Chief

ACKNOWLEDGMENT OF REVIEWERS

The Editor and Editorial Board wish to thank the following persons who served since 31 December 2009 as reviewers of manuscripts for the ***Statistics in Transition new series*** – **Volume 11, Numbers 1–3;** the authors' work has benefited from their feedback.

(Note: In some cases reviewers' institutional affiliations may have changed).

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