

REPORTS

European Survey Research Association, ESRA 2009, Conference in Warsaw, 29.06–3.07.2009

The third Conference of the European Survey Research Association was held in Warsaw from the 29th of June until the 3rd of July 2009. It was organized in cooperation with the Institute of Philosophy and Sociology of the Polish Academy of Sciences and The Department of Law of the University of Warsaw. Nearly 600 conference participants, representing universities, research institutes, statistical agencies and opinion poll companies, came from 36 countries to give 369 talks. These talks were classified into 12 main conference topics including:

- Substantive Applications of Survey Methodology
- Sampling and Nonresponse
- Data Archive Teaching
- Design and Quality of Survey Questions
- Adding Data to Surveys
- Mode of Data Collection and Data Enhancement
- Social Indicators
- Data Analysis
- Qualitative Methods
- Comparative Research
- Fieldwork Monitoring
- Special Issues related to Survey Research

and were then further divided into specific subjects corresponding to 88 conference sessions. The huge range of themes and talks exceeds the scope of this report. Consequently, further relation would be limited out of necessity to “*Sampling and Nonresponse*” topics, which are the closest ones to the *Statistics in Transition* focus. This topic was divided into five specific subjects.

The first subject named “*New Challenges in Sampling*” incorporated sixteen talks.

- **Seppo Laaksonen** gave an introductory talk on the subject with the overview of challenges and nuisances in contemporary and future survey research from the sampling point of view, in relation to data collection modes, frame construction issues and nonresponse.
- **Jan Kordos** presented in a synthetic way the contribution of J. Neyman to the theory and practice of sampling, including his early works in the

1920's as well as his crucial paper of 1934. He stressed that in 1924, Neyman obtained his doctor's degree from the University of Warsaw, i.e. 85 years ago. Personal reflections of this cooperation were also mentioned. Next the impact of W. E. Deming's approach to the survey design on sample survey practice in Poland was discussed, with special emphasis on survey error decomposition.

- **Siegfried Gabler** and **Horst Stenger** discussed the role of systematic sampling in the context of two-stage sampling designs. They proposed to randomize the order of primary units to be selected systematically with subsequent drawing of secondary units via simple random sampling without replacement. The computation of design effect for the proposed sampling procedure was considered.
- **Matthias Ganninger** and **Siegfried Gabler** considered the estimation of the design effect in a cluster sampling scheme. They compared merits and drawbacks of design-based and model-based estimators for the design effect to finally provide recommendations that can guide the researcher's choice of an estimator.
- Another talk devoted to cluster sampling was given by **Artur Pokropek**, who considered the use of this sampling design in the context of large-scale educational research with application of multilevel modelling. Practical applications of this methodology were presented.
- **Janusz Wywiał** considered the estimation of a population mean using the sampling design dependent on the observed auxiliary variable. He proposed a sampling design that provides the selection probability of any particular sample proportionate to the order statistic of an auxiliary variable. The inclusion probabilities of the first and second order were evaluated. Then three quantile-based sampling strategies were compared with classical ones via computer simulation.
- **Paola Madalena Chiodini**, **Donata Marasini** and **Piero Quatto** presented a talk devoted to the use of so-called control sample known from epidemiological studies in the field of finite population sampling. They discussed a sampling plan to identify "effect" and "control" samples on which the computation of appropriate association measures may then be based. Finally, the choice of a proper association was discussed.
- The next talk by **Zerrin Aysan** and **Öztaş Ayhan** was aimed at the study, definition and comparison of alternative sampling frames as potential bases for sample selection in internet surveys. A methodology for domain adjustment procedures eliminating the sample selection bias through appropriate corrections was debated.
- **Efi Markou**, **Nicolas Razafindratsima**, **Bernard the Cledat**, **Pernelle Issenhuth** and **Raphael Laurent** addressed another important problem of analysing results of the survey which is not based on probabilistic sampling. They discussed a practical example of the ELVIRE survey

conducted in 2006–2008 by the French National Demographic Institute, in order to investigate the languages used by the researchers working in the French public research Institutes and Universities. They discussed strategies implemented to obtain a database of sampling units as well as the execution of the survey itself and its results.

- **Giovanna Nicolini** and **Luciana Dalla Valle** dealt with related problem of self-selected sample resulting from voluntary participation of population units in the survey while the sampling frame is unavailable. They presented the application of Heckman's estimation method using the consumer satisfaction survey as an example.
- **Marc Christine** and **Sebastien Faivre** continued the discussion with their talk concerning the construction of annual sampling frames for national household surveys carried out by INSEE based on the lists of dwellings established by the new rotative Census that has been taking place in France since January 2004 and consists of five rotation groups surveyed in a five year cycle. The use of balancing technique by Deville and Tille to draw the sample was then discussed. A calibration procedure was then proposed to improve the sample so that the extent of underrepresentation and overrepresentation of some population subgroups is reduced.
- **Öztas Ayhan** and **Turgay Ünalán** discussed the methodology for the population projections permitting to update information for the future population representation. They used various mathematical models and cohort component projection models to make population projections. Various techniques of extrapolating existing information involving census data to the future were discussed. The problem of balancing domain estimates with the population estimate was also addressed.
- **Mónica Martí** and **Carmen Ródenas** dealt with the migration estimation based on the European Union Labour Force Survey. The problems associated with estimating migration flows were emphasized and their possible sources highlighted.
- **Andrey Veykher** considered the application of "independent" statistical indices to assess the quality of estimates of population characteristics obtained by sampling the adult population of St Petersburg. He discussed the application of various administrative data sources to measure the discrepancies between survey respondent and nonrespondent groups and to test the of hypotheses stating randomness of nonresponse, shedding light on the validity of survey estimates.
- The talk of **Volker Hüfken** was aimed at determination whether the exclusion of adults without mobile telephone access may bias estimates derived from political behaviour-related telephone surveys. This was verified using the data from the European Social Survey (ESS) 2006/07 with the use of logistic regression to compare the odds of political related behaviour for adults with fixed phone access to those for adults with

mobile telephone access and those without telephone access. The results of investigations were presented.

- The session ended with the presentation of the WEBSURVNET initiative carried out by **Pablo de Pedraza, Stephanie Steinmetz and Kea Tijdens**. This network aims to bring together survey methodologist, web surveys experts, social scientists and official survey institutes, synergize the knowledge of survey methodologists and web survey experts, develop guidelines for official bodies and statistical institutes, provide tools to take advance of technological changes, and foster the development of new cross-national research proposals.

The second main subject named “*Nonresponse*” incorporated five talks.

- **Elena von der Lippe, Patrick Schmich and Cornelia Lange** presented a methodological study on the use of advance letters sent to survey participants in order to reduce non-response rates. The report was based on an ongoing Health Interview Survey GEDA. The effect of advance letters was assessed by comparing groups of survey participants that were approached with or without advance letter.
- Another presentation authored by **Stefaan Demarest, Jean Tafforeau, Johan Van der Heyden, Lydia Gisle and Sabine Drieskens** was devoted to assessment of dependency of health interview survey response rates and the health status of the participants, which determines the scale of nonresponse error. The investigation was based on Belgian Health Interview Survey carried out in 2001. Their results indicate that only the presence of longstanding health problems positively affects the refusal rate but it does not affect the probability to be able to contact the household.
- **Margaret Ely and Richie Poulton** discussed the execution of the Dunedin Cohort Study and the use of the information on contact difficulty to assess the likely impact of attrition on the estimation of the prevalence of risk factors and associations of these risk factors with poor health outcomes. They have shown that efforts in retention can represent greater value for money than increases in sample size.
- **Michael Blohm, Achim Koch and Hanna Kaspar** present a study evaluating the impact of special interviewing techniques such as the deployment of a special group of interviewers, the personal briefing of interviewers, better payment of interviewers, and the use of respondent incentives and decreases in the respondent burden on response rates, with respect to the German General Social Survey (ALLBUS). They provided an overview on the comparison of distributions between the regular ALLBUS sample and an experimental intensive fieldwork sample.
- **Frode Berglund, Øyvind Kleven and Kristen Ringdal** examined the efficiency of follow-up efforts in the case European Social Survey. They compared estimates on selected variables from the response group and the

non-respondent group in order to elaborate on nonresponse errors in the main survey. On the background of empirical results, the value of follow-ups was discussed.

The third main subject named “*Selection Bias in Panel Research*” included seven talks.

- **Gerty Lensvelt-Mulders** provided introductory talk on the general problem of non-feasibility of probability sampling surveys due to non-availability of valid sampling frames, resulting in execution of most access panels on the basis of volunteer-opt-in samples. An overview of current streams of thinking on this problem was provided.
- **Rene Bekkers** analysed the civic duty weight factor. A procedure designed to correct self-selection of individuals with a higher sense of civic duty into survey respondent pools was presented. The procedure weighs observations from survey respondents based on self-reported behaviours for which population values are known. Weighted and unweighted estimates were then compared.
- **Stephanie Steinmetz, Kea Tijdens and Pablo de Pedraza** attempted to explore various statistical weighting procedures for volunteer web surveys and evaluate their effectiveness in adjusting biases arising from non-randomised sample selection. Poststratification and propensity score adjustment were compared. The efficiency of different weights was tested by comparing unweighted and weighted results from four different surveys. The sensitivity of the results to changes in the specification of the propensity score was also addressed.
- **Viviane Le Hay** analyzed the process of attrition of panel data by comparing four French electoral surveys between 1958 and 2007, conducted by phone and face to face over national (presidential and parliamentary) elections in France. She assessed the impact of elections types and survey design as well as the impact of the transformation of the general public in terms of level of education and generational renewal on panel attrition. Solutions for lessening attrition were proposed.
- **Elżbieta Getka-Wilczyńska** suggested to apply Poisson processes and basic methods of the reliability theory as a tool for interpretation, definition and analysis for some stochastic properties of Internet data collection process. The random size of uncontrolled sample is defined as an outcome of a counting process. The process of Internet data collection is considered a life test of the population surveyed. Internet survey events are interpreted as a lifetime, arrival, death of the element of the population. The basic characteristics of reliability of the length of the population lifetime are described, calculated and estimated by using the notions and methods of the reliability theory.
- **Marcel Das** discussed optimization in recruitment strategy for a newly established panel survey involving a probability sample of households

drawn from a population register by Statistics Netherlands and conducted via various data collection methods including the Internet. Experimental results aimed at finding the optimal combination of the contact mode, incentive amount, timing of the incentive, content of the information letter, and timing of the panel participation request were presented. The panel design was evaluated by comparing the composition of the recruited panel to population statistics, traditional face-to-face scientific studies and commercial access panels.

- **Miquelle Marchand** discussed the CentERdata LISS-panel, consisting of approximately 5000 households representative of the Dutch speaking population and combining a probability sample and traditional recruitment procedure with online interviewing. Reasons for not joining the panel were explored.

The fourth subject “*Strategies for Nonresponse Adjustments*” included six talks.

- **Joachim R. Frick, Markus M. Grabka and Olaf Groh-Samberg** discussed the problem of partial unit nonresponse. Using data on 24 waves of the German Socio-Economic Panel Study they evaluated four different strategies to deal with this phenomenon, described its incidence and time trends, analysed its selectivity, carried out a three-stage longitudinal imputation of missing income components at the individual level, and provided sensitivity analyses showing the variation in the results for income inequality and poverty using alternative imputation strategies.
- **Wojciech Gamrot** explored the phenomenon of respondent interaction and non-independent data missingness. Some simulation results concerning the properties of parameter estimates computed in such a situation were presented.
- **Oscar Breugelmans** investigated the influence of selective unit nonresponse on the analysis of annoyance levels and sleep disturbance due to aircraft noise exposure in the vicinity of Amsterdam Schiphol Airport. The nonresponse effects were assessed by comparing the results of three surveys carried out since 1996. Nonresponse correction methods were also discussed.
- Efi Markou, Bernard the Cledat, Nicolas Razafindratsima, Raphael Laurent and Pernelle Issenhuth **continued with the discussion of strategies for nonresponse bias reduction with special emphasis on follow-ups** and of its measurement.
- **Barbara Kowalczyk and Emilia Tomczyk** proposed analysis of selected properties of expectations expressed in business tendency surveys taking into account various nonresponse mechanisms. The empirical part of the presentation was based on business tendency surveys conducted by the Research Institute for Economic Development (RIED) of the Warsaw School of Economics.

- The presentation of **Michael Ruland** and **Britta Matthes** attempted to formulate general statements concerning selectivity by using nonresponse questionnaires regarding the non-attendance of foreigners, immigrants and persons with migration background, on the basis of the ALWA survey. It also attempted to explain which of the strategies used in the ALWA study have influenced the foreigners, immigrants and persons with migration background readiness to participate the most.
- **Bryce Weaver** examined the ways to get rid of normality assumption often made when the multiple imputation is used. He developed a technique of multiple imputation making no a priori assumptions on the form of the distribution, useful for the imputation of data when values are missing at random and designed to reproduce the cumulative distribution of any variable — continuous or dichotomous. A SAS implementation of the procedure was presented. An empirical comparison of the SAS PROC MI and the proposed procedure based on the Swiss Household Panel wave 8 (2007) was also provided.

The fifth subject “*Understanding Nonresponse and Attrition : Research from the UK Survey Design and Measurement Initiative*” included five talks.

- **Ian Plewis, Lisa Calderwood, Rebecca Taylor** and **Sosthenes Ketende** reported results from a randomised experiment that tested the efficacy of two different kinds of intervention aimed at converting refusals into productive cases in ongoing longitudinal studies. The intervention was applied in wave four of the Millennium Cohort Study, the fourth in the renowned series of UK birth cohort studies.
- **John Bynner, Harvey Goldstein** and **Gabriele Beissel-Durrant** reported work conducted in the project directed at reducing attrition in longitudinal surveys. It comprised an investigation of the correlates of nonresponse in longitudinal surveys through statistical modelling of attrition processes using data relating to attrition in established UK longitudinal surveys: British Household Panel Study (BHPS) 1958 and 1970 British birth cohort studies, Family and Children’s Survey (FACS). The second stage was to formulate optimum strategy for encouraging continued participation as a basis for improved field strategy to reduce attrition. The third stage was to design and implement an exemplar field experiment to test the new strategy using a survey from a series of repeated cross-sectional (‘Omnibus’) surveys.
- **Gabriele Beissel-Durrant, Robert M. Groves, Laura Staetsky** and **Fiona Steele** investigated the influence of interviewers on unit-nonresponse across a number of UK government surveys. They focused on the effects of socio-demographic characteristics of the interviewer, interviewer experience, interviewing strategies and interviewer behaviours and attitudes. The interaction between household and interviewer characteristics was examined. Survey specific and survey independent

interviewer effects were investigated. The use of multilevel cross-classified models to analyse the effects of interviewers taking account of household level and area level characteristics was explored. Implications for survey practice were discussed.

- **Peter Lynn** and **Laura Fumagalli** reported on large-scale randomized experiments carried out to study possible methods of reducing panel attrition. The experiments addressed issues associated with ability to locate sample members and willingness of sample members to continue to participate. The experiments were carried out in 2008 between waves 17 and 18 of the British Household Panel Survey, involving a sample of around 12,500 persons. Relative costs of alternative procedures for tracking sample members and their impacts on nonresponse bias were considered.
- **Andrew Leicester** and **Zoë Oldfield**, considered the use of barcode scanners as a data acquisition tool in the expenditure surveys. Using data from market research company TNS on the food and grocery purchases of tens of thousands of households over 6 years, they explored implications of this mode of data collection in terms of response, attrition and representativeness by comparing the expenditure and demographic details of these data to existing data sources more traditionally used in social science research, including the EFS, the Census and the British Household Panel Survey.

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