THE MEASUREMENT OF SUBJECTIVE WELL-BEING IN SURVEY RESEARCH

About a year ago, in recognition of the importance of measuring subjective well-being in surveys and the challenges it presents, *Statistics in Transition* new series (*SiT*) announced a plan to publish an issue containing a collection of papers on statistically relevant aspects of research on subjective well-being. This thematic issue of *SiT* is the result of that plan. It contains a set of original papers especially produced for this occasion that present some recent advances in survey-based research on subjective well-being. The main objective of this issue is to provide readers with an understanding of the conceptual and methodological, as well as practical and institutional, matters involved in collecting and analysing data in nation-wide studies of subjective well-being, in multi-national contexts. The papers collected in this issue examine the key problems in measuring subjective well-being in the survey context, with an emphasis on strategies for developing effective measures of subjective well-being, including for cross-cultural comparisons.

Some of the submissions in this volume arrived in direct response to the call for paper from the authors who were generous enough to share their results with the research community at large. Others originated from personal requests from the editors of this issue. As the Editor coordinating of this process on behalf of the Editorial Office, I feel indebted to Graham Kalton and Chris Mackie – who kindly accepted a request to serve as Guest Editors of this issue – for taking up the task of arranging for several papers from already overburdened leading experts in the field. Let me take this opportunity to express my gratitude to Chris and Graham for the invaluable contribution they made in the development of this issue.

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This topical issue presents a collection of seven papers. Each of them makes some novel contributions, even those which are aimed at codifying a seemingly established knowledge base or an emerging research paradigm in a broadly defined topic area. In order to facilitate an overview of the papers, they are briefly summarized below.

The collection begins with a paper on *Conceptualizing Subjective Well-Being and its Many Dimensions – Implications for Data Collection in Official Statistics and for Policy Relevance*, by Christopher Mackie and Conal Smith. Noting that subjective well-being encompasses several distinct but interacting aspects of people’s feelings, attitudes, and experiences, the authors discuss recent
developments in measuring these dimensions on the basis of self-reports of subjective well-being collected in survey instruments. After considering the multidimensional nature of subjective well-being, the role of national statistics offices in measuring subjective well-being and deriving official statistics is discussed. They conclude by indicating consequences that the selection of a given type of construct (a set of characteristics of well-being) may have for their use for policy purposes. The overarching conclusion of this paper is that, despite well documented limitations (methodological and conceptual), a growing consensus is emerging on how to collect and interpret data on subjective well-being that have the potential to positively contribute to better informed policies in a number of areas.

In the paper *The Office for National Statistics Experience of Collecting and Measuring Subjective Well-Being*, Lucy Tinkler presents a detailed description of the UK Office for National Statistics' experience with measuring subjective well-being. She recounts the commencement of the project (in 2011) within the ONS Measuring National Well-being programme that was established to monitor the quality of life and progress for populations in the UK. The paper discusses the development of the ONS subjective well-being measures, and provides information on data collection methods and data presentation considerations, along with an overview of findings and recent developments. In conclusion, the author points to the way in which user engagement has been key to the development of the ONS subjective well-being statistics, and suggests ways to engage a wide range of stakeholders, including international organisations and policy makers (as well as citizen users), in order to ensure that ONS subjective well-being analysis is relevant.

Paul Allin's paper *Official Statistics on Personal Well-Being: Some Reflections on the Development and Use of Subjective Well-Being Measures in the UK* also draws on experiences of the UK Office for National Statistics (ONS) programme to measure national well-being. The author focuses on the high-profile element of the programme in which subjective well-being measures have been collected and published (since April 2011). Although Allin touches briefly on measurement and analysis, most of the discussion covers issues related to user requirements, the international context, and political, policy, public and business uses of well-being data. He describes the main drivers of the ONS work and how these have given rise to interest both in national well-being (the "beyond GDP" agenda) and in the use of different measures (self-reported, personal well-being) in public policy. The paper concludes by noting that well-being can give a very different picture from the one constructed only with economic and largely market-based considerations in mind.

Marco Fattore, Filomena Maggino and Alberto Arcagni, in the paper *Exploiting Ordinal Data for Subjective Well-Being Evaluation*, present an original approach to measuring subjective well-being that is envisaged as an
alternative to composite indicators or counting procedures which dominate the literature to date. Using the theory of partially ordered sets, the authors demonstrate how the evaluation of multidimensional ordinal well-being can be addressed in an effective and consistent way. The proposed approach avoids the risk of inconsistencies and inefficiency in the treatment of ordinal data that may affect the quality of information provided to researchers and policy makers. First, they show that the proper evaluation space of well-being is the partially ordered set of achievement profiles, the structures of which depend on the importance assigned to various attributes. Next, they describe how evaluations can be performed by extracting information out of the evaluation space (respecting the ordinal nature of data) and producing synthetic indicators without attribute aggregation. The paper concludes with an application of their approach to subjective well-being in Italy.

The paper by Dylan M. Smith, *Using the Day Reconstruction Method to Quantify Time Spent Suffering among Older Adults with Chronic Pain*, explores the methodological potential of the Day Reconstruction Method (DRM) showing its suitability in the context of measuring selected (negative) aspects of experienced well-being. The DRM aims to measure time use in a manner that is more valid than traditional written summary measures, but less burdensome than real-time electronic diary methods. The lower respondent burden and administration costs of the method may create opportunities to exploit it in national survey contexts. In contrast to past studies – employing the DRM for characterizing subjective mood states during different types of activities – Smith uses the DRM to measure suffering associated with negative symptoms such as pain and fatigue in 122 older adults, most of whom suffer from chronic pain. The results indicated that the method could be administered effectively with this population, with over 98% of the sample providing interpretable responses. Time spent suffering was associated with lower income, negative mood, and lower life satisfaction and quality of life. In summarizing his findings, Smith emphasizes the adaptability of the DRM for surveying well-being, especially for capturing suffering, in addition to emotional well-being.

Zhanjun Xing and Xiaxia Qu present the results of *An Initial Research on Output Well-Being Index Applied to Residents in Wealthy Counties from China*. Using a sample of 855 residents from three wealthy counties in Shandong province, data on several characteristics were gathered in order to construct a well-being index. After reviewing the index’s internal consistency, reliability and construct validity, it was adopted to serve as an instrument to evaluate the quality of life of Chinese citizens. When the index was applied to measuring the quality of life in the three counties, it was found that the quality of life levels of rural residents were generally higher than those of urban residents. However, the level of some indicators was not stable and the levels of subjective and objective indicators tracked somewhat consistently with one another. The well-being characteristics of the rural residents were shown to be closely related to the local
economic performance and social development of the areas in which they lived. The authors conclude that it could prove informative to use the output of well-being indexes to evaluate the degree to which the citizens' needs have been met and to which overall development has been achieved. Such measures could also be used as evaluative instruments for policy makers and planners at the local level.

The last paper, by Andrzej K. Koźmiński, Adam Noga, Katarzyna Piotrowska, and Krzysztof Zagórski on Operationalization and Estimation of Balanced Development Index for Poland 1999-2016 addresses macro-level aspects of well-being and their relation to the economy, in a historical perspective. Developing from a perspective that Gross Domestic Product oversimplifies economic development and socio-economic progress, the authors propose a new conceptual and methodological approach that motivates estimation of a Balanced Development Index (BDI) assumed to capture both economic and social development in Poland. Calculations of this composite index, as well as of its four components (middle-level indexes), were made for the period from 1999 to 2013. The estimated trends in BDI suggest that socio-economic changes were less positive than those suggested by the GDP growth only, and that public expectations fluctuate to a much greater extent than does the actual situation as measured jointly by objective and subjective indicators.

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