

Resume

Vijay K Verma, Ph.D.

Research Professor, Università di Siena, Italy
Director, International Social Research (ISR) Ltd., United Kingdom

Vijay Verma has made a significant contribution to the development of statistics internationally. In Europe, this has included providing advice and assistance to Eurostat since 1989 on major survey programmes such as the Household Budget Surveys (HBS), the European Community Household Panel (ECHP), a number of projects relating to Statistics on Income and Living Conditions (EU-SILC), business sampling, on quality evaluation and harmonisation of social statistics more generally, and participated in the Mondorf seminars on the Future of European Social Statistics. He was also research director of project “Regional indicators to reflect social exclusion and poverty” for European Commission (DG Employment and Social Affairs), and of Eurostat project on the development of European Household Survey (EHS).

On behalf of the United Nations, International Labour Office and other international agencies, Verma has provided technical assistance to nearly 45 developing and transition countries. For several years, he has been working with ILO on child labour surveys, and currently heads the IUSSP Panel on Data Needs in Developing Countries.

His research and publication have covered diverse areas of statistical methodology, applications and analysis, with focus on sampling and survey design. Apart from numerous reports and many presentations at scientific conferences, Verma has published in reputed international journals including Journal of the American Statistical Association, Journal of the Royal Statistical Society, International Statistical Review, Journal of Official Statistics, Survey Methodology, Statistics in Transition, plus around 15 invited papers in Bulletin of the International Statistical Institute. He has also served as reviewer for most of these journals, and has been an Associate Editor for *Survey Methodology* and *Statistics in Transition*. Verma has authored handbooks on *sampling for household-based surveys of child labour* (International Labour Organisation), ILO handbook on *Surveys of Economically Active, Population, Employment, Unemployment and Underemployment*, and also *Sampling Methods* (Statistical Institute for Asia and the Pacific), *Computation and Analysis of Sampling Errors* (United Nations), *Harmonisation of Household Budget Surveys* (Eurostat), *Methodological Manual on Income Statistics for EU Member States*, *Sampling Guidelines for EU-SILC*, and is an editor and contributor to *2nd European Social Report on Income Poverty and Social Exclusion*.

For a number of years already, Vijay Verma has collaborated in scientific research at Università di Siena. This has involved work on many projects undertaken on behalf of the European Commission concerning the development of EU-SILC, European social reporting, education finance, business sampling, consumer indebtedness, and most recently, the development of regional indicators of poverty and social exclusion for EU and other European countries. He has contributed to the Florence-Siena-Pisa inter-university PhD Programme in “Statistica Applicata”, and, as Professore a Contratto, to the course “Indagini campionarie” on longitudinal survey design and analysis in EU context at Siena. He has given a number of seminars and made presentations at conferences for the university.

Director, International Social Research, ORC International, London (1999-2002)

Verma established a new department concerned with international social research at ORC International Inc., London, and developed and implemented a number of projects on income and living conditions, educational finance and consumer debt in the European Union. These projects were undertaken in collaboration with the Interdisciplinary Centre for Comparative Research in Social Sciences (ICCR), Vienna, the Economic and Social Research Institute (ESRI), Dublin, and the University of Siena. In addition, projects were undertaken on economic statistics in Indonesia on behalf of US Agency for International Development, and on migration statistics in certain East European countries on behalf of the International Labour Office.

Research Professor, University of Essex (1995-1999)

At the Institute for Social and Economic Research (ISER), University of Essex, UK, Verma has conducted comparative research on income, labour and other aspects of living conditions of households and persons across countries of the European Union. He was in-charge of the Eurostat funded project *Flexible Labour and its Impact on Earnings and Poverty in Europe*, undertaken in collaboration with Economic and Social Research Institute, Dublin; Work and Organisation Research Centre, University of Tilburg; and German Institute for Economic Research, Berlin. He led the ISER *Methodological Research Programme* and taught courses on *Advanced Sampling Methods* and *Household Panel Surveys* at the Essex Summer School in Social Science Data Analysis and Collection.

Independent Statistical Consultant (1986-1999)

Verma has been an *Independent Statistical Consultant* to Statistical Office of the European Communities, the United Nations, and to diverse other international and bilateral organisations. This follows a number of years of service with the United Nations and the International Statistical Institute.

The Statistical Office of the European Communities (Eurostat) has been the major client for the last decade. Verma has been advising Eurostat since 1989 on the harmonisation of household budget and income surveys and on the development of an integrated social survey structure, for which he acted as the *Project Leader*. This work culminated the publication *Family Budget Surveys in the EC: Methodology and Recommendations for Harmonisation*, which provides the standard reference for all Member States. He was involved in the development of the European Community Household Panel (ECHP) since its inception in 1992, and is designated by Eurostat as its *Technical Leader*. The ECHP is a multi-purpose panel survey of households and individuals, designed to provide information on income, work, housing, health, education and other characteristics of the population, comparable across countries of the European Union.

Verma has been a member of Scientific Board on Research on Poverty in Europe, and participant in 'think-tank' meetings on the future of European social statistics. He has also taught at the EU-supported Training of European Statisticians (TES) Institute and provided technical assistance to East European countries through CESD-Communautaire.

Two other main clients have included projects funded by ***US Agency for International Development*** and ***International Labour Office***.

Under the USAID funded *Development Studies Project*, Verma has undertaken repeated missions to Indonesian Central Bureau of Statistics (BPS) to advise on a wide range of topics, including the design and evaluation of national censuses and surveys covering industry, agriculture, food consumption, household income and expenditure, cost of living, and population, and has also conducted a series of training courses on sampling methods. He has provided technical consultancy to the *Demographic and Health Surveys* programme of Macro International, especially on the surveys in India, and serves as Member and Chair of DHS Technical Advisory Group. Through other USAID-funded projects Verma has provided technical assistance in the Former Soviet Union (Russia and Kazakhstan).

For the ILO, Verma has co-authored the manual on *Surveys of Economically Active Population, Employment, Unemployment, and Underemployment*, which forms the standard international reference on the concepts and methods of labour force surveys. He also undertook a study on the methodology for the *measurement of economic activity in the informal sector*, and technical assistance missions to Turkey, Egypt, Palestine, Ukraine and Indonesia. The input to *State Institute of Statistics of Turkey* has been particularly extensive since 1987, covering topics such as the design and implementation of a new labour force survey, and surveys on child labour, informal sector activities, 'bazaars' and mobile traders, small-scale establishments, wages, household income and expenditure, traffic, agriculture and demographics. The work also involved advice on statistical procedures (weighting and estimation, sampling error estimation, etc), and conducting a programme of training for technical staff of the Institute.

For the **United Nations and its Specialised Agencies**, Verma has authored a detailed technical study on the procedures for the computation and analysis of *Sampling Errors in Household Surveys*, and contributed to other technical studies of UN Statistical Division, New York. He also developed a training handbook on *Sampling Methods* published by UN Statistical Institute for Asia and the Pacific, Tokyo, and a technical report to Unicef on sampling for *Multiple Indicator Surveys*. He has taught at UN Economic Commission for Europe training workshops for Eastern European and Former Soviet Union countries, and undertaken teaching and technical assistance missions including to China, Nepal, Ethiopia and Cyprus for the United Nations.

Some other consultancy assignments have included the preparation of technical reports and papers or other consultancies covering a range of subject-matter areas for the World Bank, Food and Agriculture Organisation, World Health Organisation, UN Economic and Social Commission for Asia and the Pacific, Economic Commission for Europe, International Union for the Scientific Study of Population, International Statistical Institute, the Population Council, East-West Population Institute, and the United Kingdom Department for International Development.

As to teaching and training, Verma has conducted nearly 25 short courses and workshops on sample survey methodology. This has included a regular course for post-graduate students at the Institute of Social Studies, The Hague for three years, and at Institute for Social Research at Michigan, Statistical Institute for Asia and the Pacific in Tokyo, Centre for Advanced Training in Statistics in Munich, and Summer School at Essex. Sampling workshops have been conducted in a number of developing countries including Indonesia, China, India, Cambodia, Turkey and Zimbabwe, in Italy for West European statisticians, in the Ukraine and Belarus for the Former Soviet countries, and in Slovakia, Slovenia and Northern Ireland for East European countries.

Director, ISI Research Centre (1984-86)

Verma served as the first full-time Director of the *ISI Research Centre* located in The Hague, Netherlands. Established more than one hundred years ago, the International Statistical Institute has world-wide membership, and a close working relationship with national statistical offices, various inter-governmental organisations, as well as the United Nations. The ISI Research Centre was established with the objective to assist countries in improving their statistical operations and skills, and to provide statistical services to other users. With financial assistance from USAID, and from the Nordic countries, the Research Centre implemented a major technical assistance and training programme on fertility surveys in China and established a data archive for the World Fertility Survey.

Technical Adviser, United Nations Statistical Office (1980-84)

During this period Verma served as member of the Central Co-ordinating Unit of the UN National Household Survey Capability Programme, New York. The NHSCP was a programme of the entire United Nations system, involving UN headquarters, regional commissions, and specialised agencies. Its objective was to assist national statistical agencies of developing countries

in enhancing their indigenous survey capabilities and generating policy-relevant information. As a *Technical Adviser*, Verma undertook project development and technical support missions to many developing countries. He also developed a number of technical manuals, and represented the United Nations at various conferences and consultative meetings.

World Fertility Survey (1973-80)

During 1973-1980, Verma was a member of the professional staff at the World Fertility Survey (WFS) headquarters in London, with special responsibility for methodological development from 1978 as Chief of Survey Development. The WFS was an internationally co-ordinated programme of national fertility and family planning surveys in which over 40 developing and 20 developed countries participated. Verma undertook numerous missions to assist countries in the design and execution of the survey projects. He also participated in the various international meetings, and made a major contribution to the *WFS Basic Documentation* series on survey methods and data analysis and reporting, and to the development of software for estimating sampling variances.

Education, Experience and Skills

Ph.D.	University of Cambridge, England (1970)
M.Sc. (Econ.)	London School of Economics and Political Science
Graduate	Univ. of Michigan, Sampling Program for Foreign Statisticians
B.Tech.(Hons.)	Indian Institute of Technology, Kharagpur, India

Academic Distinctions

1963-1967	First Prize for General Proficiency, each year
1962	Gold Medal for achieving first position in the university

Professional Activities

International Union for the Scientific Study of Population (IUSSP). Chair, Panel on Data Needs in Developing Countries (from 2007)

International Labour Office (ILO). Member, SIMPOC External Advisory Committee on Child Labour Statistics (SEAC). Member, Expert Group on "Measuring Forced Labour: How to Get a Global Picture?", Special Action Programme to Combat Forced Labour.

International Statistical Institute and International Association of Survey Statisticians: Member of IASS scientific programme committee (1981-83, 1997-99, 2005-07), chairman of nominations committee (1983-85), council member (1983-87 and 1993-97), and vice president (1997-99); organiser of ISI scientific sessions in New Delhi, Madrid and Tokyo; member ISI Nominations Committee (1993). *Survey Statistician* of the International Association of Survey Statisticians: Organiser and regular contributor to 'Questions-Answers' column which provided advice on technical questions raised by members.

Statistics in Transition, Journal of the Polish Statistical Association: Associate Editor.

Survey Methodology, published by Statistics Canada: Associate Editor (1995-1999).

Statistical Office of the European Community: Formerly member Scientific Board on Research on Poverty in Europe; member Development Group and Research and Methodology Group and Technical Leader of the EC Household Panel; participant in the 'think tank' meetings on future of European social statistics annually at Mondorf.

Demographic and Health Surveys Program: Member Scientific/Technical Advisory Committee from 1986; Chairperson 1994-99.

Population Council, New York. Member Peer Review Committee for the International Research Awards Programme on Determinants of Fertility (1980-86).

Seminars and special lectures from time to time, such as at Statistics Canada, Turkey, India, Denmark; invited discussant for the Third Morris Hansen Memorial Lecture at Washington.

Participation in 'expert groups', for instance for the United Nations for the revision of handbook on household surveys and population census recommendations, in seminars on household survey methodologies in Beijing, New Delhi and Bangkok, and in various other technical meetings.

Work Experience Around the World

Undertook numerous (and repeated) technical co-operation and training missions to:

Armenia	Indonesia	Oman
Belarus	Iran	Palestine
Botswana	Jamaica	Portugal
Brazil	Jordan	Russia
Cambodia	Kazakhstan	Slovakia
China	Kenya	Slovenia
Croatia	Korea, South	Sri Lanka
Cyprus	Kuwait	Syria
Democratic Yemen	Lesotho	Thailand
Dominican Republic	Macedonia	Trinidad & Tobago
Egypt	Malawi	Turkey
Ethiopia	Malaysia	Ukraine
Fiji	Moldova	Yemen Arab Republic
India	Nepal	Zambia
		Zimbabwe

The seven countries in bold in the above table represent a more intensive and prolonged work experience. Verma also has had extensive experience of survey work in European countries through consultancy with Statistical Office of the European Communities (Eurostat), DG Employment and Social Affairs, and UN Economic Commission for Europe (ECE).

Professional Membership

International Statistical Institute (ISI) and its Sections

International Union for the Scientific Study of Population (IUSSP)

European Survey Research Association (ESRA)

Società Italiana di Statistica

Languages

English, Hindi, Punjabi.

Contact address

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International Social Research Ltd
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Vijay VERMA

Books

Verma, V. (2008), *Sampling for Household-based Surveys of Child Labour*. Geneva: International Labour Office.

Giorgi L., Verma V. (2002). *European Social Statistics: Income, Poverty and Social Exclusion: 2nd Report*. Prepared for publication by Eurostat. Luxembourg: Office for Official Publications of the European Communities.

Verma V., Gabilondo L.(1993), *Family Budget Surveys in the EC: Methodology and Recommendations*. Series 3E. (ISBN 92-826-6193-8). Luxembourg: Statistical Office of the European Community.

Verma V. (1993). *Sampling Errors in Household Surveys: A Technical Study*. New York: United Nations Department for Economic and Social Information and Analysis. (Statistical Division INT-92-P80-15E).

Verma V. (1991). *Sampling Methods: Training Handbook*. Tokyo: Statistical Institute for Asia and the Pacific (SIAP).

Husmanns R., Mehran F., Verma V. (1990). *Surveys of Economically Active Population, Employment, Unemployment and Underemployment: An ILO Manual on Concepts and Methods*. Geneva: International Labour Office.

Publications and research papers SINCE 2000

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Verma V., Gagliardi, F. (forthcoming), Surveying child labour through households: sampling issues and strategies. Accepted for *Statistics in Transition*, 11(3).

Verma V., Betti G., Vannini, I. (2011), Methodological issues in surveying migration across EU countries. *Invited Paper*, International Statistical Institute 58th Session, Dublin.

Verma V., Gagliardi, F. (2011), Data cumulation in repeated surveys. *Invited Paper*, ITACOSM11 2nd Italian Conference on Survey Methodology, Pisa.

Verma V., Ghellini, G. (2011), Sampling elusive populations of labouring children. *Invited Paper*, ITACOSM11 2nd Italian Conference on Survey Methodology, Pisa.

2010

Verma V., Betti G. (2010), Taylor linearization sampling errors and design effects for poverty measures and other complex statistics, *Journal of Applied Statistics*, iFirst.

Verma V., Betti G. (2010), Data accuracy in EU-SILC, in Atkinson, T. and Marlier, E. (eds.), *Income and Living Conditions in Europe*, Statistical Books, Eurostat, Luxembourg.

Verma, V. , Betti, G. and Gagliardi, F. (2010), An assessment of survey errors in EU-SILC, *Eurostat Methodologies and Working Papers*, Eurostat, Luxembourg.

Verma, V. , Betti, G. and Gagliardi, F. (2010), Robustness of some EU-SILC based indicators at regional level, *Eurostat Methodologies and Working Papers*, Eurostat, Luxembourg.

Verma V., Ghellini G., Betti G (2010), Area Sampling for Small-Scale Economic Units, in Benedetti R., Bee M., Espa G., Piersimoni F. (eds.), *Agricultural Survey Methods*, John Wiley & Sons, Ltd, pp. 47-73.

Betti G., Donatiello G., Verma V. (2010), The Siena Micro Simulation Model (SM2) for net-gross conversion of EU-SILC income variables, *International Journal of Microsimulation*, 3(2).

Verma V., Gagliardi, F. and Ferretti, C. (2010), Cumulation of poverty measures to meet new policy needs, Paper presented at meeting of the *Italian Statistical Society*, Padua, June 2010.

Verma, V. (2010), On Comparative Measurement of Poverty in EU Countries. Invited *Plenary Lecture*, meeting of the *Germans Statistical Society*, Nuremberg, September 2010.

2009

Verma, V. and Perez, C. (2009). Meeting Data Needs in Developing Countries: Questions of Quality, Quantity and Capacity. *Policy and Research Papers* no. 21. Paris: International Union for the Scientific Study of Population

Verma V., Gagliardi, F. and Ciampalini, G. (2009), Methodology of European labour force surveys: (3) Sample rotation patterns, *Working Papers*, no. 80, Dipartimento di Metodi Quantitativi, Università di Siena.

Verma, V., Gagliardi, F. and Ferretti, C. (2009), On pooling of data and measures, *Working Papers*, no. 84, Dipartimento di Metodi Quantitativi, Università di Siena.

Betti, G., Ferretti, C., Gagliardi, F., Lemmi, A. and Verma, V. (2009), Proposal for new multidimensional and fuzzy measures of poverty and inequality at national and regional level, *Working Papers*, no. 83, Dipartimento di Metodi Quantitativi, Università di Siena.

Betti G., Lemmi A., Verma V (2009), Multidimensional aspects of poverty and living conditions: the estimation at Regional level, *Rivista Italiana di Economia, Demografia e Statistica*, vol. LXIII nn. 1-2 pp. 27-47.

Betti G., Verma V. (2009), Fuzzy measures of the incidence of relative poverty and deprivation: a longitudinal and comparative perspective, *Advances and Applications in Statistics*, 12(2), pp. 235-273.

Ciampalini, G., Betti, G. and Verma, V. (2009), Comparability in self-employment income (EU-SILC 2004-2007), *Working Papers*, no. 82, Dipartimento di Metodi Quantitativi, Università di Siena.

Gagliardi, F., Verma V. and Ciampalini, G. (2009), Methodology of European labour force surveys: (2) Sample design and implementation, *Working Papers*, no. 79, Dipartimento di Metodi Quantitativi, Università di Siena.

Neri, L., Gagliardi, F., Ciampalini, G., Verma, V. and Betti, G. (2009), Outliers at upper end of income distribution (EU-SILC 2007), *Working Papers*, no. 86, Dipartimento di Metodi Quantitativi, Università di Siena.

2008

Betti G., Cheli B., Lemmi A., Verma V. (2008). The Fuzzy Approach to Multidimensional Poverty, in Kakwani N., Silber J. (eds.), *Quantitative Approaches to Multidimensional Poverty Measurement*, Palgrave Macmillan.

Betti G., Verma V. (2008), Fuzzy measures of the incidence of relative poverty and deprivation: a multi-dimensional perspective, *Statistical Methods and Applications*, 12(2), pp. 225-250.

Ciampalini, G., Gagliardi, F. and Verma V. (2008), Methodology of European labour force surveys: (1) Scope and sample size, *Working Papers*, no. 75, Dipartimento di Metodi Quantitativi, Università di Siena.

2007

Verma V. (2007). Surveys in conflict/disaster situations: Aspects of the Lancet Study on mortality in Iraq. Paper presented at *IUSSP Meeting on Taking stock of data needs and monitoring for the Millennium Development Goals in Developing Countries*, Rabat, Morocco.

Verma V. (2007). A review of Lot Quality Assurance Surveys. Paper presented at *IUSSP Meeting on Taking stock of data needs and monitoring for the Millennium Development Goals in Developing Countries*, Rabat, Morocco.

Verma V. (2007). Adaptive Cluster Sampling for surveying rare/elusive populations. Paper presented at *IUSSP Meeting on Taking stock of data needs and monitoring for the Millennium Development Goals in Developing Countries*, Rabat, Morocco.

Verma V. (2007). Small domain estimation techniques: a brief overview. Paper presented at *IUSSP Meeting on Taking stock of data needs and monitoring for the Millennium Development Goals in Developing Countries*, Rabat, Morocco.

Verma V., Betti G. (2007). Cross-sectional and Longitudinal Measures of Poverty and Inequality: Variance Estimation using Jackknife Repeated Replication. Paper presented at *Conference 2007, Statistics under one Umbrella*, Bielefeld, Germany.

Verma V., Betti G., Ghellini G. (2007). Cross-sectional and longitudinal weighting in a rotational household panel: applications to EU-SILC, *Statistics in Transition*, 8(1), pp. 5-50.

Betti G., Cheli B., Lemmi A., Verma V. (2007), The longitudinal analysis of poverty conceptualised as fuzzy state, *Proceedings of the 2007 SIS Intermediate Conference*, Invited Session 5 – Transitions into poverty. Data sources and methods, pp.161-172.

Betti G., Cheli B., Lemmi A., Verma V. (2007). On the construction of fuzzy measures for the analysis of poverty and social exclusion, *Statistica & Applicazioni*, 4(1), pp. 77-97.

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Ghellini G., Verma V. (2007). Working statistician versus new graduates in survey statistics. Invited paper, *International Statistical Institute 56th Session*, Lisbon.

2006

Verma, V. (2006). Issues in data quality and comparability in EU-SILC. Paper presented at *Comparative EU Statistics on Income and Living Conditions: Issues and Challenges Eurostat and Statistics Finland Conference*, Helsinki, Finland.

- Verma, V. (2006), EU Statistics on Income and Living Conditions (EU-SILC): Issues in comparability and data quality. Presented at *VIII International Meeting on Quantitative Methods for Applied Sciences*, Siena, Italy.
- Verma V., Betti G. (2006), EU Statistics on Income and Living Conditions (EU-SILC): Choosing the survey structure and sample design, *Statistics in Transition*, 7(5), pp.935-970.
- Verma, V., and Betti, G. (2006). Sampling errors and design effects for poverty measures and other complex statistics. *Working Papers*, no. 48, Dipartimento di Metodi Quantitativi, Università di Siena.
- Verma V., Betti G., Ghellini G. (2006), Cross-sectional and longitudinal weighting in a rotational household panel: applications to EU-SILC, *Working Papers*, no. 67, Dipartimento di Metodi Quantitativi, Università di Siena.
- Betti G., Cheli B., Lemmi A., Verma V., (2006), On the construction of fuzzy measures for the analysis of poverty and social exclusion, *Statistica & Applicazioni*, 4(1), pp. 77-97.
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- Betti G., Cheli B., Verma V. (2006), On longitudinal analysis of poverty conceptualised as a fuzzy state, *Society for the Study of Economic Inequality*, Working Papers Series ECINEQ WP 2006 – 32.
- Betti G., Lemmi A., Mulas A., Natilli M., Neri L., Verma V. (2006), Comparatieve indicatoren van regionale armoede en deprivatie: België in de EU-15, in Vranken J., De Boyser K. and Dierckx D. (eds.), *Armoede en Sociale Uitsluiting. Jaarboek 2006*. Leuven / Voorburg: ACCO, pp. 355-374.
- Betti G., Lemmi A., Natilli M., Verma V., (2006), Indicators of social exclusion and poverty in Europe's regions, *Working Papers*, no. 59, Dipartimento di Metodi Quantitativi, Università di Siena.
- Betti G., Verma V. (2006), Approximate variance estimates of poverty measures for the application of EBLUP for small-area estimation, *Working Papers*, no. 57, Dipartimento di Metodi Quantitativi, Università di Siena.
- Galiardi, F., Nandi, T., Verma, V. (2006). Variance estimation of longitudinal measures of poverty. *Working Papers*, no. 64, Dipartimento di Metodi Quantitativi, Università di Siena.

2005

- Verma V. (2005), Introduction Section B in *Household Surveys in Developing and Transition Countries*. United Nations Department for Economic and Social Information and Analysis. (Statistical Division Series F No. 96).
- Verma V., Betti G. (2005), Sampling errors and design effects, *Working Papers*, no. 53, Dipartimento di Metodi Quantitativi, Università di Siena.
- Verma V., Betti G. (2005), Sampling Errors for Measures of Inequality and Poverty, in *Classification and Data Analysis 2005 - Book of Short Papers*, pp. 175-179, Italian Statistical Society (CLADAG, Parma, 6-8 June 2005).

Betti G., Cheli B., Verma V. (2005), On longitudinal analysis of poverty conceptualised as fuzzy state. Contributed Paper, First Meeting of the *Society for the Study of Economic Inequality* (ECINEQ, Palma de Mallorca, July, 2005).

Betti G., Cheli B., Lemmi A., Verma V. (2005), On the construction of fuzzy measures for the analysis of poverty and social exclusion. Contributed Paper, *International Conference to Honour Two Eminent Social Scientist C. Gini and M.O. Lorenz* (University of Siena, May 2005).

Betti G., Lemmi A., Verma V. (2005), School-to-work transitions in the European Union: evidence from the ECHP. *Innovation: The European Journal of Social Science Research*, 18(4) pp. 419-442.

Betti G., Neri L., Salvati N., Verma V. (2005), Una stima per piccole aree, in Baldi P., Lemmi A. and Sciclone N. (eds.), *Ricchezza e povertà. Condizioni di vita e politiche pubbliche in Toscana*. Milano: Franco Angeli, pp. 111-124.

2004

Verma V. (2004). Sample Design and Selected Sampling Issues, chapters in *Child Labour Statistics: Manual on Methodologies for Data Collection through Surveys*, Statistical Information and Monitoring Programme on Child Labour (SIMPOC), International Programme on the Elimination of Child Labour (IPEC). Geneva: International Labour Office.

Verma V. (2004). Comparability of statistics at the international level: concepts, approaches, methods. Invited Lecture at Comparabilité, harmonisation et intégration de données dans la construction de systèmes statistiques. Neuchatel (April 2004). *Swiss Statistical Society, Section of Official Statistics*.

Verma V. (2004). Sampling errors and design effects for poverty measures and other complex statistics. Invited Lecture at *Settimo Convegno Internazionale, Metodi Quantitativi per le Scienze Applicate*, University of Siena.

Verma V., Betti G. (2004), Sampling issues in EU-SILC surveys, *Working Papers*, no. 45, Dipartimento di Metodi Quantitativi, Università di Siena.

Betti G., Lemmi A. and Verma V. (2004). School-to-work transitions in the European Union: evidence from the ECHP. The *2nd Annual Research Conference* of the European Panel Users' Network (EPUNet), Berlin. Also, *Working Papers*, no. 48, Dipartimento di Metodi Quantitativi, Università di Siena.

Betti G., Verma V. (2004), A methodology for the study of multi-dimensional and longitudinal aspects of poverty and deprivation, *Proceedings*, IAOS-IASS Joint Conference Invited Paper Section (November 29-December 1st, Amman-Jordan).

Betti G., Verma V. (2004), A methodology for the study of multi-dimensional and longitudinal aspects of poverty and deprivation, *Working Papers*, no. 49, Dipartimento di Metodi Quantitativi, Università di Siena.

2003

Verma V. and Betti G. (2003), Combined design for sampling service facilities and the client population, Invited paper for the Session on Design and Analysis of Evaluation Studies, *Bulletin of the International Statistical Institute*, Volume LX, Book 3, pp. 135-138. (54th Session, Berlin 13-20 August 2003.)

Verma V., Betti G. (2003), Longitudinal measures of income poverty and life-style deprivation, *Working Papers* no. 50 della serie "Dinamiche e persistenze nel mercato del lavoro italiano ed effetti di politiche (basi di dati, misura, analisi)", Dipartimento di Scienze Statistiche, Università di Padova.

Verma V. (2003). Public expenditure on education in the EU in 1999. *Statistics in Focus: Population and Living Conditions* Theme 3 22/2003. Luxembourg: Statistical Office of the European Communities (Eurostat).

Verma V. (1999-2003). '*Questions-Answers*'. The Survey Statistician, International Association of Survey Statisticians. (Regular contributions to the column providing advice on technical questions relating to sampling raised by IASS members.)

Verma V., Betti G., Ballini F., Natilli M. and Galgani S. (2003). The Siena Micro-Simulation Model (SM2) for Income Data, presented to the *Workshop on Income and Labour Dynamics (WILD)*, University of Siena.

Verma V., Betti G., Ballini F., Natilli M. and Galgani S. (2003), Personal income in the gross and net forms: Applications of the Siena Micro-Simulation Model (SM2). *Working Papers* no. 54 della serie "Dinamiche e persistenze nel mercato del lavoro italiano ed effetti di politiche (basi di dati, misura, analisi)", Dipartimento di Scienze Statistiche, Università di Padova.

Betti G., Verma V., Ballini F., Natilli M. and Galgani, S. (2003), Statistical Imputation in Conjunction with Micro-Simulation of Income Data, *Rivista Italiana di Economia, Demografia e Statistica*, 58(3), pp. 35-43.

2002

Verma V. (2002). Comparability in Multi-country Survey Programmes. *Journal of Statistical Planning and Inference*, vol. 102(1), pp. 189-210.

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