

## PERSONAL INFORMATION



## Gianni Betti

 Department of Economics and Statistics, P.zza San Francesco, 8 – 53100 Siena, Italy

 +39-0577-235084  +39-3470974524

 [gianni.betti@unisi.it](mailto:gianni.betti@unisi.it)

 <http://www.econ-pol.unisi.it/betti/>

**Sex** Male | **Date of birth** 21/07/1970 | **Nationality** Italian

## WORK EXPERIENCE

01/06/05 – to date

**Associate Professor**

University of Siena , Piazza San Francesco 8, 53100 Siena (Italy)

- Teaching Sampling Techniques, Advanced Economic Statistics and Elementary Statistics at undergraduate level; tutoring several students

**Business or sector** University

01/06/00 – 01/04/05

**Permanent Lecturer**

University of Siena , Piazza San Francesco 8, 53100 Siena (Italy)

- Teaching Sampling Techniques, Advanced Economic Statistics and Elementary Statistics at undergraduate level; tutoring several students

**Business or sector** University

01/09/98 – 01/09/99

**Temporary Lecturer in Statistics**

London School of Economics

- Teaching Elementary Statistical Theory and Quantitative Methods for Social Research at undergraduate level; teaching Sampling Theory at the Master in Statistics, teaching Statistics for Economist at the Summer School in Economics; tutoring several students.

**Business or sector** University

01/11/97 – 31/08/98

**Visiting Researcher**

University of Essex, ESRC Research Centre on Micro-social Change

- Working on the Project “Intertemporal equivalence scales and cost of children using BHPS

**Business or sector** Research centre

01/11/95 – 31/10/97

**Teaching assistant**

University of Siena , Piazza San Francesco 8, 53100 Siena (Italy)

- Class teacher of Economic Statistics I and II; tutoring several undergraduate students

**Business or sector** University

## EDUCATION AND TRAINING

1995 - 1998

**Ph.D**

Obtained

University of Florence, Viale Morgagni, 59, Florence, Italy

Ph.D. in Applied Statistics

1990 - 1994

**Degree in Statistics and Economics**

110/110 cum laude

University of Siena, Piazza San Francesco 8, 53100 Siena (Italy)

- Economic and statistical sciences

## PERSONAL SKILLS

Mother tongue(s) **Italian**

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2

Replace with name of language certificate. Enter level if known.

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
Common European Framework of Reference for Languages

Communication skills 

- good communication skills gained through my experience as university professor

Technical skills and competences 

- Statistical methods for longitudinal (panel) analyses; non-response, interviewer effect, panel attrition and weighting problems; sampling theory with particular reference to small areas.

Computer skills 

- Microsoft Office, SAS, GAUSS, R, STATA

Driving licence 

- B

## ADDITIONAL INFORMATION

Publications

**Edited books**

1. Betti G., Lemmi A. (2013, eds.), *Poverty and Social Exclusion: New Methods of Analysis*. London and New York: Routledge. <http://www.routledge.com/books/details/9780415636346/>
2. Betti G., Lemmi A. (2008, eds.), *Advances on income inequality and concentration measures*. London and New York: Routledge.
3. Lemmi A., Betti G. (2006, eds.), *Fuzzy Set Approach to Multidimensional Poverty Measurement*. New York: Springer.

**Articles on international journals**

4. Betti G., Lundgren L. (2012), The impact of remittances and equivalence scales on poverty in Tajikistan, *Central Asian Survey*, **31(4)**, pp. 395–408.
5. Zanolli R., Buoni S., Betti G., Salvucci S., Plebani A., Soresina A., Pietrogrande M.C., Martino S., Leuzzi V., Finocchi A., Micheli R., Rossi L.N., Brusco A., Misiani F., Fois A., Hayek J., Kelly C., Chessa L. (2012), A Randomized Trial of Oral betamethasone to reduce ataxia symptoms in ataxia telangiectasia, *Movement Disorders*, **27(10)**, pp. 1312-1316.
6. Betti G., Gagliardi F., Lemmi A., Verma V. (2012), Sub-national indicators of poverty and deprivation in Europe: methodology and applications, *Cambridge Journal of Regions, Economy and Society*, **5(1)**, pp. 149-162.
7. Betti G., D'Agostino A., Neri L. (2011), Educational Mismatch of Graduates: a Multidimensional and Fuzzy Indicator, *Social Indicators Research*, **103(3)**, pp. 465-480.

8. Verma V., Betti G. (2011), Taylor linearization sampling errors and design effects for poverty measures and other complex statistics, *Journal of Applied Statistics*, **38(8)**, pp. 1549-1576.
9. Betti G., Donatiello G., Verma V. (2011), The Siena Micro Simulation Model (SM2) for net-gross conversion of EU-SILC income variables, *International Journal of Microsimulation*, **4(1)**, pp. 35-53.
10. Zannoli R., Buoni S., Tassini M., De Nicola A., Betti G., De Felice C., Orsi A., Varetti M.C., Ferrara F., Messina M., Giannini C., Mohn A., Chiarelli F., Liberati M., Strambi M., Funghini S., Vivi A., Wevers R.A., Hayek J. (2010), Silent increase of urinary ethylmalonic acid is an indicator of nonspecific brain dysfunction, *NMR in Biomedicine*, **23**, pp. 353-358.
11. 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.
12. Ballini F., Betti G., Carrette S., Neri L. (2009), Poverty and Inequality mapping in the Commonwealth of Dominica, *Estudios Economicos*, **24**, pp. 123-162.
13. Aassve A., Betti G., Mazzuco S., Mencarini L. (2008), Marital disruption and economic wellbeing, *Significance, The Royal Statistical Society*, **5(3)**, pp. 108-111.
14. Betti G., Ballini F. (2008), Variance estimates of poverty and inequality measures in Albania, *Eastern European Economics*, **46(6)**, pp. 87-101.
15. Betti G., Verma V. (2008), Fuzzy measures of the incidence of relative poverty and deprivation: a multi-dimensional perspective, *Statistical Methods and Applications*, **17(2)**, pp. 225-250.
16. Aassve A., Betti G., Mazzuco S., Mencarini L. (2007), Marital Disruption and Economic Well-being; A Comparative Analysis, *Journal of the Royal Statistical Society, Series A*, **170(3)**, pp. 781-799.
17. Betti G., Dourmashkin N., Rossi M.C., Yin Y.P. (2007), Measuring and Characterising Consumer Over-Indebtedness in the European Union Member Countries, *Journal of Economic Studies*, **34(2)**, pp. 136-156.
18. 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.
19. 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.
20. 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.
21. Neri L., Ballini F., Betti G. (2005), Poverty and inequality mapping in transition countries, *Statistics in Transition*, **7(1)**, pp. 135-157.
22. Betti G., Cheli B., Cambini R. (2004), A statistical model for the dynamics between two fuzzy states: theory and application to poverty analysis, *Metron*, **62(3)**, pp. 391-411.
23. Molnar M., Betti G., Panduru F. (2003), Consumption pattern and equivalence scales in Romania, *Romanian Economic Review*, **12(2)**, pp. 207-221.
24. Betti G., D'Agostino A., Neri L., (2002), Panel Regression Models for Measuring Multidimensional Poverty Dynamics, *Statistical Methods and Applications*, **11(3)**, pp. 359-369.
25. Betti G. (1999), A Non-parametric approach to equivalence scales, *Statistics in Transition*, **4(2)**, pp. 181-194.
26. Cheli B., Betti G. (1999), Totally Fuzzy and Relative Measures of Poverty Dynamics in an Italian Pseudo Panel, 1985-1994, *Metron*, **57(1-2)**, pp. 83-104.

**Articles on national journals**

27. Betti G., Maitino M.L., Sciclone N. (2012), A cosa servono i modelli di micro simulazione? Tre applicazioni usando MICROREG, *Scienze Regionali, Italian Journal of Regional Science*, **11(1)**, pp. 101-120.
28. Lemmi A., Betti G., Tarditi G., Verma V. (2011), New poverty measures to meet local policy needs: the cumulation method, *Rivista Italiana di Economia, Demografia e Statistica*, **65(2)**, pp. 83-100.
29. Betti G., D'Agostino A., Lemmi A., Quintano C. (2009), A parametric model for estimating fuzzy poverty measures and relative standard errors, *Politica Economica*, **25(3)**, pp. 279-299.
30. 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*, **63(1/2)**, p. 27-47.
31. 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.
32. Betti G., Verma V., Ballini F., Natilli M., 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.
33. Betti G. (2001), Intertemporal equivalence scales and cost of children using panel data, *Statistica Applicata*, **13(3)**, pp. 197-210.
34. Betti G. (2000), Intertemporal Equivalence Scales, *Rivista Internazionale di Scienze Sociali*, **25(2)**, pp. 21-36.
35. Betti G. (2000), Le scale di equivalenza nella misura della povertà, *Rivista Italiana di Economia, Demografia e Statistica*, **54(1)**, pp. 67-83.
36. Betti G., Cheli B. (1998), Panel and pseudo panel techniques for living condition analysis, *Statistica Applicata*, **10(4)**, pp. 557-570.
37. Betti G. (1996), A longitudinal approach to poverty analysis: the latent class Markov model, *Statistica*, **56(3)**, pp. 345-359.

**Book chapters**

38. Betti G., Lemmi A. (2013), Poverty and Social Exclusion in 3D: Multidimensional, Longitudinal and Small Area Estimation, in Betti G., Lemmi A. (eds.), *Poverty and Social Exclusion: New Methods of Analysis*. London and New York: Routledge.
39. Betti G., Gagliardi F., Salvucci V. (2013), Multidimensional and Fuzzy Measures of Poverty and Inequality at National and Regional Level in Mozambique, in Betti G., Lemmi A. (eds.), *Poverty and Social Exclusion: New Methods of Analysis*. London and New York: Routledge.
40. Betti G., Dabalen A., Ferré C., Neri L. (2013), Updating Poverty Maps Between Censuses: A Case Study of Albania, in Laderchi C.R., Savastano S. (eds.), *Poverty and Exclusion in the Western Balkans*, Economic Studies in Inequality, Social Exclusion and Well-Being 8, Springer Science+Business Media, New York.
41. Betti, G., Çalik G., Karakas M. (2013), Multidimensional and Fuzzy Measures of Poverty and Inequality in Turkey at National and Regional Level, in Bérenger V., Bresson F. (eds.), *Poverty and Social Exclusion Around the Mediterranean Sea*, Economic Studies in Inequality, Social Exclusion and Well-Being 9, Springer Science+Business Media, New York, pp. 89-108.

42. Betti G., Verma V., Donatiello G. (2011), Il modello di microsimulazione dell'Università di Siena (SM2) per la conversione dei redditi dell'Indagine Eu-Silc, in Istat (2011), *La metodologia di stima dei redditi lordi nell'indagine Eu-Silc. Indagine europea sui redditi e le condizioni di vita delle famiglie. Metodi e Norme n. 49 – 2011*, pp. 19-32.
43. Verma V., Betti G. (2010), Data accuracy in EU-SILC, in Atkinson A.B., Marlier E. (eds.), *Income and living conditions in Europe*, Eurostat Statistical books, Luxembourg: Publications Office of the European Union, pp. 57-77.
44. 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. 85-106.
45. Aassve A., Betti G., Mazzuco S., Mencarini L. (2009), Marital Disruption and Economic Well-being: Poverty, Income and Lifestyle Deprivation, in Andreß H. J., Hummelsheim D. (eds.), *When Marriage Ends*, Edward Elgar Publishing Ltd, pp. 330-360.
46. Ballini F., Betti G., Neri L., (2009), Poverty and Inequality Mapping in Developing Countries, in Ahmad M., Lodhi S.A. (eds.), *Poverty Reduction, Policies & Global Integration*, Islamic Countries Society of Statistical Sciences, Lahore (Pakistan), pp. 37-64.
47. Betti G., D'Agostino A., Lemmi A. (2008), Fuzzy monetary poverty measures under a Dagum income distributive hypothesis, in Chotikapanich D. (ed.), *Modeling Income Distributions and Lorenz Curves*, New York: Springer, pp. 225-240.
48. Betti G., Cheli B., Lemmi A., Verma V. (2008), The Fuzzy Approach to Multidimensional Poverty: the Case of Italy in the 1990s, in Kakwani N., Silber J. (eds.), *Quantitative Approaches to Multidimensional Poverty Measurement*, Palgrave Macmillan, pp. 30-48.
49. Lemmi A., Pannuzi N., Valentini P., Cheli B., Betti G. (2007), Estimating Multidimensional Poverty: a Comparison of Three Diffused Methods, in Quintano C. (ed.). *Scritti di Statistica Economica* **14**, Istituto di Statistica e Matematica, Istituto Universitario Navale di Napoli, Quaderni di Discussione, n. 30, Liguori, Napoli, pp. 25-48.
50. Ballini F., Betti G., Lemmi A., Marzadro S., Morciano M., Neri L. e Salvati N. (2007), Stima della povertà a livello locale: i casi della Regione Toscana e delle province di Modena e Trento, in Brandolini A., Saraceno C. (eds.), *Povertà e benessere. Una geografia delle disuguaglianze in Italia*, Il Mulino, pp. 89-121.
51. Betti G., Lemmi A., Lewandowski P., Neri L., Salvati N., Zieba A. (2006), Application of Small Area Estimation to analysis of social exclusion and inclusion indicators at NUTS4 level in Poland, in Ivanov A., Muras M. (eds.), *Social Exclusion and Integration in Poland, An Indicators-based Approach*, Ministry of Labour and Social Policy, UNDP, pp. 151-193.
52. 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., Dierkx D. (eds.), *Armoede en Sociale Uitsluiting*. Jaarboek 2006. Leuven / Voorburg: ACCO, pp. 355-374.
53. Betti G., Cheli B., Lemmi A., Verma V. (2006), Multidimensional and Longitudinal Poverty: an Integrated Fuzzy Approach, in Lemmi A., Betti G. (eds.), *Fuzzy Set Approach to Multidimensional Poverty Measurement*. New York: Springer, pp. 111-137.
54. Betti G., D'Agostino A., Neri L. (2006), Modelling Fuzzy and Multidimensional Poverty Measures in the United Kingdom with Variance Components Panel Regression, in Lemmi A., Betti G. (eds.), *Fuzzy Set Approach to Multidimensional Poverty Measurement*. New York: Springer, pp. 257-275.

55. Betti G., Cheli B., Lemmi A. (2005), Misure non convenzionali di povertà, in Baldi P., Lemmi A., Scidone N. (eds.), *Ricchezza e povertà. Condizioni di vita e politiche pubbliche in Toscana*. Milano: Franco Angeli, pp. 95-110.
56. Betti G., Neri L., Salvati N., Verma V. (2005), Una stima per piccole aree, in Baldi P., Lemmi A., Scidone N. (eds.), *Ricchezza e povertà. Condizioni di vita e politiche pubbliche in Toscana*. Milano: Franco Angeli, pp. 111-124.
57. Betti G. (2003), La qualità dei dati raccolti, in Catturi G., Di Pietra R. (a cura di) "Nuovi" organismi aziendali ed imprenditoria femminile, vol. II, CEDAM, Padova, pp. 82-85.
58. Betti G., Verma V. (2002), Non-monetary or Lifestyle Deprivation, in Eurostat (2002), *Income, poverty and social exclusion: second report, European social statistics*, Luxembourg, pp. 76-92.
59. Betti G., Verma V. (2002), Analisi comparativa delle condizioni di vita nell'Unione Europea: un approccio dinamico, in G. Carbonaro (a cura di) *Studi sulla povertà - Problemi di misura e analisi comparative*, Franco Angeli, Milano, pp. 181-196.
60. Betti G., Cheli B., Lemmi A. (2002), Disoccupazione e condizioni di vita: dinamiche e relazioni nella realtà degli anni novanta, in G. Carbonaro (a cura di) *Studi sulla povertà - Problemi di misura e analisi comparative*, Franco Angeli, Milano, pp. 154-180.
61. Betti G. (2001), Definizione e selezione del campione, in Di Pietra R., Riccaboni A. (a cura di) *EUROCOMMERCIO, le aziende del terziario si preparano alla moneta unica*, CEDAM, Padova, pp. 45-62.
62. Lemmi A., Pannuzzi N., Mazzolli B., Cheli B., Betti G. (1997), Misure di povertà multidimensionali e relative: il caso dell'Italia nella prima metà degli anni '90, in Quintano C. (ed.). *Scritti di Statistica Economica 3*, Istituto di Statistica e Matematica, Istituto Universitario Navale di Napoli, Quaderni di Discussione, n. 13, Curto, Napoli, pp. 263-319.

### Introductions

63. Betti G., Lemmi A. (2013), Introduction, in Betti G., Lemmi A. (eds.), *Poverty and Social Exclusion: New Methods of Analysis*. London and New York: Routledge.
64. Betti G., Lemmi A. (2008), Introduction, in Betti G., Lemmi A. (eds.), *Advances on income inequality and concentration measures*, Routledge, pp. 3-11.
65. Betti G., Lemmi A. (2007), Guest Editors' Introduction, *Journal of Economic Inequality*, 5(3), pp. 259-262.
66. Lemmi A., Betti G. (2006), Introduction, in Lemmi A., Betti G. (eds.), *Fuzzy Set Approach to Multidimensional Poverty Measurement*. New York: Springer, pp. 1-7.

### Conference proceedings

67. Kreter, A.C., Betti, G., Del-Vecchio, R., Staduto, J.A.R., (2012), *Como reduzir os níveis de informalidade na agricultura? Um modelo de micro-simulação para o Brasil*. In: 50. Congresso de Economia, Administração e Sociologia Rural, 2012, Vitória. Agricultura e Desenvolvimento Rural com Sustentabilidade.
68. Betti G., Verma V. (2007), *Rotational panel designs for surveys of income and living conditions in Europe*, Invited paper for the Session on "Designing and updating longitudinal samples, Bulletin of the International Statistical Institute, 56<sup>th</sup> Session, Lisbon 22-29 August 2007.

69. 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.
70. Betti G., Ballini F., Neri L. (2006), Hotspot Detection and Mapping of Poverty, Proceedings of the 7th Annual International Conference on Digital Government Research, San Diego, California, May 21, 2006, pp. 15-16.
71. Verma V., Betti G. (2005), Sampling Errors for Measures of Inequality and Poverty. Invited paper in Classification and Data Analysis 2005 - Book of Short Papers, pp. 175-179, CLADAG, Parma, 6-8 June 2005.
72. Betti G., Verma V. (2004), A methodology for the study of multi-dimensional and longitudinal aspects of poverty and deprivation, Proceedings of the IAOS-IASS Joint Conference, Invited Paper section, November 29-December 1st, 2004, Amman-Jordan.
73. Neri L., Ballini F., Betti G. (2004), Poverty and Inequality Mapping in Albania using Census Data, Proceedings of the IAOS-IASS Joint Conference, Invited Paper section, November 29-December 1st, 2004, Amman-Jordan.
74. Betti G., Cheli B., Lemmi A., Scicione N. (2003), Misure convenzionali e non convenzionali della povertà. Il caso della Toscana. Atti della XV Riunione scientifica della Società Italiana di Economia Pubblica, Diritti, Regole, Mercato. Economia pubblica ed analisi economica del diritto, pp. 1175-1198, Pavia, 3-4 Ottobre 2003.
75. Verma V., 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, 54<sup>th</sup> Session, Proceedings Volume LX, Book 3 (Post Session), pp. 135-138, Berlin 13-20 August 2003.
76. Maccherini S., Betti G., Cozzi A., Ferretti M., Grohmann F., Savini P. (2002), Unaccounted spatial variability may bias site-related estimates of ozone-like foliar symptoms. Long-term air pollution effects on forest ecosystems-20th International meeting for specialist of air pollution effects on forests, Zvolen, Slovak Republic, August 30-September 1, 2002, Book of Abstracts: 123.
77. Betti G., Ghellini G. (2002), Alcuni indicatori sui percorsi degli studenti e sulla produttività universitaria, Atti della Giornata di studio su *Valutazioni statistiche di performance per il sistema universitario: teorie, modelli, misure*, Siena 24 Novembre 2000, Quaderno 7/2002 del Nucleo di Valutazione dell'Università di Siena, pp. 107-121.
78. Betti G., Cheli B. (2000), A model for the dynamics between two fuzzy states: theoretic advances, in J. Blasius, J. Hox, E. de Leeuw, P. Schmidt (eds.), Proceeding of the Fifth International Conference on Logic and Methodology, October 3-6 2000, Cologne, Germany.
79. Betti G., Cheli B. (2000), Analisi sfocata delle dinamiche di povertà su uno pseudo panel Italiano: nuove proposte metodologiche, Atti della XL Riunione Scientifica della Società Italiana di Statistica, pp. 203-206, Firenze, 26-28 Aprile 2000.
80. Betti G., Verma V. (1999), Measuring the degree of poverty in a dynamic and comparative context: a multi-dimensional approach using fuzzy set theory, Proceedings of the ICCS-VI, Vol. 11, pp. 289-301, Lahore, Pakistan, August 27-31, 1999.
81. Betti G., Cheli B. (1998), Analisi sfocata delle dinamiche di povertà su uno pseudo panel Italiano, 1985-1994, Sintesi delle Relazioni p. 193-194, XXXIX Riunione Scientifica della Società Italiana di Statistica, Sorrento, 14-17 Aprile 1998.

## Working papers

82. Donatiello G., Betti, G., Consolini, P. (2012), The Construction of Gross Income Variables of Eusilc (Eu Statistics on Income and Living Conditions) in Italy: A Mixed Strategy Using Microsimulation and Administrative Data, Working Paper N. 652, Department of Economics and Statistics, University of Siena.
83. Betti, G., Gagliardi, F., Salvucci V., (2012), Multidimensional and Fuzzy Measures of Poverty and Inequality at National and Regional Level in Mozambique, Working Paper N. 649, Department of Economics and Statistics, University of Siena.
84. Verma V., Betti G., Gagliardi F. (2010), An assessment of survey errors in EU-SILC, Eurostat Methodologies and Working papers, Luxembourg: Publications Office of the European Union.
85. Verma V., Betti G., Gagliardi F. (2010), Robustness of some EU-SILC based indicators at regional level, Eurostat Methodologies and Working papers, Luxembourg: Publications Office of the European Union.
86. Neri L., Gagliardi F., Ciampalini G., Verma V., Betti G. (2009), Outliers at upper end of income distribution (EU-SILC 2007), Working Paper n. 86, Dipartimento di Metodi Quantitativi, Università di Siena.
87. Betti G., Buttigieg S., Caruana E., Neri L. (2009), Child poverty and inequality mapping in Malta, Working Paper n. 85, Dipartimento di Metodi Quantitativi, Università di Siena.
88. Betti G., Ferretti C., Gagliardi F., Lemmi A., Verma V. (2009), Proposal for new multidimensional and fuzzy measures of poverty and inequality at national and regional level, Working Paper n. 83, Dipartimento di Metodi Quantitativi, Università di Siena.
89. Ciampalini G., Betti G., Verma V. (2009), Comparability in self-employment income (EU-SILC 2004-2007), Working Paper n. 82, Dipartimento di Metodi Quantitativi, Università di Siena.
90. Ballini F., Betti G., Çalık G., Daşkiran Z., Karakaş M. (2009), The Siena Micro-Simulation Model (SM2) for the tax-benefit system in Turkey, Working Paper n. 81, Dipartimento di Metodi Quantitativi, Università di Siena.
91. Betti G., D'Agostino A., Neri L. (2007), Educational Mismatch of Graduates: a Multidimensional and Fuzzy Approach, Working Paper n. 71, Dipartimento di Metodi Quantitativi, Università di Siena.
92. Neri L., Ballini F., Betti G., Lemmi A. (2007), Poverty and Inequality Mapping in Tuscany, Working Paper n. 69, Dipartimento di Metodi Quantitativi, Università di Siena.
93. Betti G., Gagliardi F., Nandi T. (2007), Jack-knife variance estimation of differences and averages of poverty measures, Working Paper n. 68, Dipartimento di Metodi Quantitativi, Università di Siena.
94. Verma V., Betti G., Ghellini G. (2006), An integrated cross-sectional and longitudinal weighting procedure for EU-SILC, Working Paper n. 67, Dipartimento di Metodi Quantitativi, Università di Siena.
95. Ballini F., Betti G., Neri L. (2006), Poverty and Inequality Mapping in the Commonwealth of Dominica, Working Paper n. 66, Dipartimento di Metodi Quantitativi, Università di Siena.
96. Betti G., Ballini F., Neri L. (2006), The Survey of Living Conditions in the Commonwealth of Dominica: a revision, Working Paper n. 65, Dipartimento di Metodi Quantitativi, Università di Siena.
97. Aassve A., Betti G., Mazzuco S., Mencarini L. (2006), Marital Disruption and Economic Well-being; A Comparative Analysis, Working Paper of Institute for Social and Economic Research, paper 2006-07. Colchester: University of Essex.
98. 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.

99. Betti G., Lemmi A., Natilli M., Verma V. (2006), Indicators of social exclusion and poverty in Europe's regions, Working Paper n. 59, Dipartimento di Metodi Quantitativi, Università di Siena.
100. Betti G., Verma V. (2006), Approximate variance estimates of poverty measures for the application of EBLUP for small-area estimation, Working Paper n. 57, Dipartimento di Metodi Quantitativi, Università di Siena.
101. Verma V., Betti G. (2005), Sampling errors and design effects, Working Paper n. 53, Dipartimento di Metodi Quantitativi, Università di Siena.
102. Neri L., Ballini F., Betti G. (2005), Poverty and inequality mapping in transition countries, Working Paper n. 52, Dipartimento di Metodi Quantitativi, Università di Siena.
103. Betti G., Verma V. (2004), A methodology for the study of multi-dimensional and longitudinal aspects of poverty and deprivation, Working Paper n. 49, Dipartimento di Metodi Quantitativi, Università di Siena.
104. Betti G., Lemmi A., Verma V. (2004), School-to-work transitions in the European Union: evidence from the ECHP, Working Paper n. 48, Dipartimento di Metodi Quantitativi, Università di Siena.
105. Lemmi A., Pannuzzi N., Valentini P., Cheli B., Betti G. (2004), Estimating Multidimensional Poverty: A Comparison of Three Diffused Methods, Report n. 259, Dipartimento di Statistica e Matematica Applicata all'Economia, Università di Pisa.
106. Verma V., Betti G. (2004), Sampling issues in Eu-Silc surveys, Working Paper n. 45, Dipartimento di Metodi Quantitativi, Università di Siena.
107. Betti G., Dourmashkin N., Rossi M.C., Yin Y.P. (2003), Consumer over-indebtedness and income distribution in the EU, *Working Paper UHBS 2003-7*, Business School, University of Hertfordshire.
108. Betti G., Verma V., Natilli M., Ballini F. (2003), *Statistical imputation in conjunction with micro-simulation of income data*. Working Paper n. 55 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, Settembre 2003.
109. Verma V., Betti G., Ballini F., Natilli M., Galgani S. (2003), *Personal income in the gross and net forms: Applications of the Siena Micro-Simulation Model (SM2)*. Working Paper n. 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, Settembre 2003.
110. Verma V., Betti G. (2003), *Longitudinal measures of income poverty and life-style deprivation*, Working Paper n. 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, Aprile 2003.
111. Betti G., Molnar M., Panduru F. (2002), New equivalence scales for Romania, Working Paper n. 39, Dipartimento di Metodi Quantitativi, Università di Siena.
112. Ballini F., Betti G., Brogi F., Natilli M. (2001), Equivalence Scales in the European Integrated System for Poverty Analysis (EURO-SIAP), Working Paper n. 33, Dipartimento di Metodi Quantitativi, Università di Siena.
113. Betti G., D'Agostino A., Neri L. (2000), Panel Regression Models for Measuring Poverty Dynamics in Great Britain, *ISER Working Papers*. Paper 42/2000, Colchester: University of Essex.
114. Betti G., Cheli B., Lemmi A. (2000), Analisi delle dinamiche di povertà e disoccupazione su uno pseudo panel Italiano, Working Paper n. 21 della serie *Lavoro e disoccupazione: questioni di misura e di analisi*, Dipartimento di Scienze Statistiche, Università di Padova.

115. Betti G. (1999), Intertemporal equivalence scales and cost of children, *Statistics Research Report LSERR51*, London School of Economics.
116. Betti G. (1999), Quadratic Engel curves and household equivalence scales: the case of Italy 1985-1994, *Statistics Research Report LSERR50*, London School of Economics.
117. Betti G., (1999), Nonparametric equivalence scales with application to Poland, *Statistics Research Report LSERR49*, London School of Economics.
118. Betti G. (1998), Intertemporal equivalence scales and cost of children using BHPS, *ERSC Research Centre on Micro-social Change Working Papers*. Paper 11/98, Colchester: University of Essex.
119. Betti G., Verma V. (1998), Measuring the degree of poverty in a dynamic and comparative context: a multi-dimensional approach using fuzzy set theory, Working Paper n. 22, Dipartimento di Metodi Quantitativi, Università di Siena.

### Research reports

120. Bettio F., Tinios P., Betti G. (2012), *The gender Gap in Pension in the EU*, ENEGE Report to the European Commission, Directorate-General for Justice; Unit D2 'Equality between men and women', July 2012.
121. Betti, G. (2010), *Proposal for new equivalence scales for Tajikistan*, Report to the State Statistical Office of Tajikistan, Dushanbe, December 2010.
122. Betti G., Neri L. (2010), *Further updating poverty mapping in Albania*, Final Report to the World Bank, December 2010.
123. Betti, G. (2009), *Effects of equivalence scales on inequality and poverty in Ukraine*, Report to the State Statistics Committee of Ukraine, Kiev, December 2009.
124. Betti G., Ballini F., Neri L. (2006), *Poverty and Inequality Mapping in the Commonwealth of Dominica*, Final Report to the Caribbean Development Bank, July 2006.
125. European Commission (2005), *Regional Indicators to reflect social exclusion and poverty*. Report prepared for Employment and Social Affairs DG - with contribution of Gianni Betti, Achille Lemmi, Anna Mulas, Michela Natilli, Laura Neri, Nicola Salvati, and Vijay Verma.
126. Verma V., Betti G., Ballini F., Natilli M., Galgani S. (2004), Income in EU-SILC: Net/Gross/Net conversion. Report on common structure of the model; model description and application to the ECHP data for France, Italy and Spain, *EU-SILC 133/04*, Eurostat, Luxembourg.
127. Betti G. (2003), Poverty and Inequality Mapping in Albania, Final Report to the World Bank, July 2003.
128. Betti G., Natilli M., Ballini F., Verma V. (2003), Income in EU-SILC: Net/Gross/Net Conversion Draft Report on Common Structure of The Model; Model Description and Application to the ECHP data for Spain, *EU-SILC 122/03*, Eurostat, Luxembourg.
129. Betti G., Dourmashkin N., Rossi M.C., Verma V., Yin Y.P. (2001), Study of the problem of Consumer Indebtedness: Statistical Aspects, Final Report Submitted to Commission of the European Communities, Directorate-General for Health & Consumer protection.

