

CURRICULUM VITAE Professor Risto Lehtonen (March 2021)

1. PERSONAL INFORMATION

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| Family name | Lehtonen |
| First names | <u>Risto</u> Tapio |
| Nationality | Finnish |
| Family status | Married |

2. CONTACT INFORMATION

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| Office address | University of Helsinki P.O.Box 18 (Unioninkatu 35), FI-00014 University of Helsinki, Finland |
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3. EDUCATION

Master of Philosophy (Statistics, University of Jyväskylä, 1976), Licentiate of Philosophy (Statistics, University of Jyväskylä, 1982), Doctor of Philosophy (Statistics, University of Jyväskylä, 1991), Docent in Statistics (University of Jyväskylä, 1994), Docent in Social Policy (University of Helsinki, 1994).

4. PRESENT POSITION

Professor Emeritus of Social Statistics at the Centre for Social Data Science (CSDS) of the University of Helsinki, 2016-present.

<https://www.helsinki.fi/en/faculty-of-social-sciences/centre-for-social-data-science-csds>

5. PROFESSIONAL EXPERIENCE RECORD (1977–2015)

Professor of Statistics, University of Helsinki (2006–2015), Vice Director, Department of Social Research, University of Helsinki (2010–2014), Professor of Statistics, University of Jyväskylä (2001–2005), Director of Social Statistics, Statistics Finland (1997–2001), Director of Research, Statistics Finland (1996–2001; part-time 1997–2001), Senior Researcher, the Social Insurance Institution of Finland (1981–1995), Assistant Teacher in Statistics/Mathematics, Lecturer in Statistics, University of Jyväskylä (1977–1981).

6. DISSERTATION

Lehtonen R. (1990). On Modified Wald Statistics. Their Application to a Goodness of Fit Test of Logit Models Under Complex Sampling Involving Ill-conditioning. Helsinki: Publications of the Social Insurance Institution, M: 74 (207 p.).

7. MAIN SCIENTIFIC RESEARCH

Survey statistics; Survey sampling and methodology; Design-based methods; Small area estimation; Analysis of complex survey data. Application of survey statistics in official statistics and social, health and biological sciences.

List of publications is in Annex.

8. INVOLVEMENT IN INTERNATIONAL RESEARCH AND EDUCATIONAL PROJECTS

Main Projects under EU Framework Programmes (FPs) for Research and Innovation

Research project AMELI (Advanced Methodology for European Laeken Indicators, 2008–2011). Member of research team and leader of the sub-project on estimation. The project was funded under the Seventh Framework (FP7) Programme of the European Union. Consortium: University of Trier (coordinator), University of Applied Sciences Northwestern Switzerland, University of Helsinki, Vienna University of Technology, Federal Statistical Office of Germany, Statistical Office of the Republic of Slovenia, Statistics Austria, Statistics Estonia, Statistics Finland, Swiss Federal Statistical Office.

Documentation at <https://cordis.europa.eu/project/id/217322>

Research project EURAREA (Enhancing small area estimation techniques to meet European needs; 2001–2004). Leader of the Finnish research group at the University of Jyväskylä and Statistics Finland and main organizer of the project final conference *SAE2005 - Challenges in Statistics Production for Domains and Small Areas* in Jyväskylä. The project was funded under the Fifth Framework (FP5) Programme of the European Union. Consortium: Office for National Statistics (ONS, UK; coordinator), University of Jyväskylä, University of Southampton, University Miguel Hernandez de Elche, Università Degli Studi di Roma Tre, Poznan University of Economics, Statistics Finland, Instituto Nacional de Estadística (INE, Spain), Statistics Norway, Statistics Sweden, Istituto Nazionale di Statistica (ISTAT, Italy).

Documentation at <https://cordis.europa.eu/project/id/IST-2000-26290>.

Research project CHINTEX (The Change from Input Harmonisation to Ex-post Harmonisation in National Samples of the European Community Household Panel; 2000–2003). Leader of the Finnish research group at Statistics Finland. The project was funded under the Fifth Framework (FP5) Programme of the European Union. Consortium: Federal Statistical Office of Germany (coordinator) with Statistics Finland, JWG Universität Frankfurt/Main, Deutsches Institut für Wirtschaftsforschung, Institute for Social and Economic Research, University of Essex, and Centre d'Etudes de Populations, de Pauvrete et de Politique socio-Economiques (Luxembourg).

Documentation at <https://cordis.europa.eu/project/id/IST-1999-11101>.

Selected Research Projects funded by the European Commission

Eurostat Project *Analysis of the Future Research Needs in Official Statistics* (2010–2012). Member of international research team. Consortium: University of Applied Sciences Northwestern Switzerland, University of Helsinki and University of Trier.

Documentation: <https://op.europa.eu/en/publication-detail/-/publication/88accf8d-7e9a-4400-ac06-a8abc7a1d2d2/language-en>

Eurostat Project *Evaluation of the ESSnet Programme* (2010–2012). Member of international research team. Consortium: University of Applied Sciences Northwestern Switzerland and University of Helsinki.

Documentation at <https://ec.europa.eu/eurostat/documents/3888793/5852905/KS-RA-12-017-EN.PDF/8b9e30fa-e7fc-4191-bc4e-5a3eb57c53f0?version=1.0>

Urban Audit 2 Project (2002–2003). Member of international research team. Project organized by European Commission (Directorate-General for Regional Policy and Eurostat). Documentation at <https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/ks-bd-04-002>

Research project *Development and Evaluation of Practical System of Model-Based Small Area Estimation* (1998–1999). Leader of the Finnish research team. The project was funded under the SUP-COM Programme of the European Commission. Consortium: Office for National Statistics (ONS, UK), Statistics Finland, University of Jyväskylä, University of London and University of Southampton.

European Master's Program EMOS

European Master in Official Statistics (EMOS) Program is an EU coordinated activity for university education of certificated experts in official statistics at Master's level, started in 2015 and implemented by eligible universities in cooperation with national statistical institutes, including the University of Helsinki and Statistics Finland. Member of the Group of Experts (GExp) established by European Commission for 2012-2014 with mandate to plan the EMOS program and organize of the 2nd International EMOS Workshop. Main organizer of the workshop in 2014 at the University of Helsinki. Documentation: https://ec.europa.eu/eurostat/cros/content/group-experts-2014_en.

International Cooperation in the Framework of the Baltic-Nordic-Ukrainian Network on Survey Statistics

Baltic-Nordic-Ukrainian Network on Survey Statistics (BNU Network). Positions held: Membership of the Steering Committee since 2002, Chair in 2014–2015, Vice Chair since 2015. The consortium includes Belarus State Economic University, Belarus, National Taras Shevchenko University of Kyiv, Ukraine, Poznan University of Economics and Business, Poland, University of Helsinki, Finland (coordinating unit), University of Tartu, Estonia, University of Latvia, Latvia, Vilnius University, Lithuania, Vilnius Gediminas Technical University, Lithuania, Örebro University, Sweden.

The BNU network was established by Gunnar Kulldorff (a former ISI President) in early 90's. It was emphasized that the creation and development of teaching and research capacity in survey sampling and methodology is crucial for the establishment of good survey practice in government agencies and other sectors of the society. Since the first Workshop in 1997 in Tartu, Estonia, the main instruments have been the organization of annual scientific and educational events (conferences, workshops and summer schools) in the participating countries (Belarus, Estonia, Finland, Latvia, Lithuania, Poland, Sweden, Ukraine). This far, we have organized a total of 23 such events, with over 1100 participants altogether. The Network also tries to promote interest among students and to motivate them to choose their professional career as survey statistician. Website:

<https://wiki.helsinki.fi/display/BNU/Home>

9. SERVICE FOR PROFESSIONAL SOCIETIES AND RELATED ACTIVITIES

Service for Professional Societies

Elected Member of the International Statistical Institute (ISI), Member of the ISI Membership Elections Committee (2018–2020), ISI Representative of the United Nations Statistical Commission GIST (Global Network of Institutions for Statistical Training) (2018–2020). Council Member of the International Association of Survey Statisticians (IASS, 2013–2017), Vice President (Scientific Secretary) (2017–2019), Section Editor of *Survey Statistician* (2017–2019), Chair of the IASS Cochran-Hansen Award Committee (2014–2015). Member of the Steering Committee of Baltic-Nordic-Ukrainian Network on Survey Statistics (2002–present), Chair (2014–2015), Vice Chair (2016–present). President-Elect of the Finnish Statistical Society (1993–1994) and President (1994–1995). Member of the American Statistical Association (ASA) and the American Association for Public Opinion Research (AAPOR).

Selected Editorial and Referee Service

Editor-in-chief, *Research Reports Series of Statistics Finland* (1996–2001), publishing doctoral dissertations in statistics, econometrics and social sciences as well as conference proceedings. Editorial service for journals and book publishers include work as Associate Editor for *Scandinavian Journal of Statistics* (2011–2015), *AStA - Advances in Statistical Analysis* (2007–2015) and Associate Editor for *Statistics in Transition (new series)* (2005–present), as well as Guest Editor of *Joint Issue of Statistics in Transition and Survey Methodology* (2015–2016). A Wiley book proposal (2011) and a book proposal for Chapman and Hall (2013–2014) represent examples of review work for book proposals.

Referee for manuscripts submitted to scientific journals comprise, among others, Journal of the American Statistical Association, International Statistical Review, Journal of Official Statistics, Journal of the Royal Statistical Society, Journal of Survey Statistics and Methodology, Applied Statistics, Biometrics, and Computational Statistics and Data Analysis.

Service for National Statistical Institutes

Member of Zensuskommission (Census Commission) of Statistisches Bundesamt (DESTATIS), Germany (2007–2015). Member of the Board of Directors of Statistics Finland (1997–2001) and Member of the Scientific Advisory Board of Statistics Finland (1996–2000).

Service as Scientific Evaluator Funding Bodies Abroad

Service for evaluating research proposals for funding organizations involve for example a review of US National Science Foundation (NSF) research proposal (2015) and a review of research project proposal for Deutsche Forschungsgemeinschaft (2012).

Service to European Statistical Governance Advisory Board (ESGAB) for peer review of Eurostat (Directorate of the European Commission) (2014) represents a good example of an evaluation of the functioning and quality of a large multinational statistical agency.

The assessment of research proposals for the European Commission include service as Evaluation Panel member for research proposals under the European Union Horizon 2020 Framework Programme H2020-Europe in a changing world – inclusive, innovative and reflective Societies (2017). Another example is service as Mid-Term Evaluator of a research project under the European Union Horizon 2020 Framework Programme H2020-EU.3.6.1.1. - The mechanisms to promote smart, sustainable and inclusive growth and H2020-EU.3.6.2. - Innovative societies.

10. CONFERENCE PRESENTATIONS

Keynote and invited papers in international scientific conferences, including World Statistics Conferences of the International Statistical Institute (ISI), ITACOSM conferences, Quality in Official Statistics Conferences, NTTS Conferences, Small Area Estimation (SAE) Conferences, and Conferences organized by the Baltic-Nordic-Ukrainian Network on Survey Statistics.

Latest invited presentations: *On balanced sampling and calibration estimation in survey sampling* (5th Baltic-Nordic Conference on Survey Statistics, Örebro, June 2019), *Small domain estimation with calibration methods* (Italian Conference on Survey Statistics, ITACOSM2019, Florence, June 2019), *Small area estimation with calibration methods* (10ème Colloque Francophone sur les sondages, Lyon, October 2018), *A two-level hybrid calibration technique for small area estimation* (Small Area Estimation Conference SAE2017, Paris, June 2017), *Calibration methods for domain and small area estimation* (Summer School of the Baltic-Nordic-Ukrainian Network on Survey Statistics, Kyiv, August 2016), *Small area estimation by calibration methods* (World Statistics Congress of the ISI, Rio de Janeiro, August 2015).

11. REPORT ON TEACHING EXPERIENCE

International Teaching Experience (invited lecturer)

Mini course "Small area estimation with a design-based perspective" (January 2017, Poznan University of Economics and Business, Poland), Mini course "Small area estimation by calibration and model-assisted methods with applications" (May 2017/2018/2019, University of Pisa, Italy), EC sponsored European Statistical Training Programme (ESTP) course "Small Area Estimation" (Statistics Finland, September-October 2014), Summer School course "Analysis of Survey Data" (University of Örebro, Sweden, August 2014), Summer School course "Small Area Estimation" (Kyiv, Ukraine, August 2009), Summer School course "Analysis of Complex Surveys" (Minsk, Belarus, June 2011), Intensive Course "Advanced Survey Sampling" (Freie Universität Berlin, Germany,

May 2005), Intensive course “Estimation for Domains and Small Areas” (University of Pamplona, Spain, May 2004). IASS international course “Short Course on Survey Analysis” (University of Riga, August 1999), Intensive course on “Analysis of Complex Surveys” (Skopje, Macedonia, February 1999), International Training of European Statisticians course “Variance Estimation and Discrete Data Analysis for Complex Surveys” (Statistics Finland, May 1998 and May 1999), Intensive Course on “Analysis of Complex Surveys” (University of Tartu, June-July 1997).

European Commission sponsored international training courses: “Small Area Estimation” (Vilnius, Lithuania, October 2005), “Dealing with Nonresponse” (Skopje, Macedonia, November 2004), “Advanced Survey Sampling: Reweighting estimates” (Sofia, Bulgaria, October 2004), “Basic Survey Sampling” (Köln, Germany, August 2004), “Basic Survey Sampling: Census-Based Samples” (Sofia, Bulgaria, June 2004), “Small Area Estimation” (Bucharest, Romania, September 2003).

Domestic Teaching Experience

Several courses on survey sampling, survey methodology, small area estimation, survey analysis and general statistics given in Finnish and English at the University of Helsinki and University of Jyväskylä and a number of other universities in Finland.

Textbook (in Finnish): Pahkinen, Erkki & Lehtonen, Risto (1989). *Otanta-asetelmat ja tilastollinen analyysi*. Helsinki: Gaudeamus. (Sampling Design and Statistical Analysis) 286 p.

Development and implementation of the structure and curriculum for the *European Master in Official Statistics* (EMOS) track and coordination of the EMOS Master’s Thesis programme at the University of Helsinki, in cooperation with Statistics Finland.

Leader of the *Master’s Program in Statistical Systems* at the Department of Mathematics and Statistics of the University of Jyväskylä (2001-2005).

Documentation:

Pahkinen E. and Lehtonen R. (2001) Master’s Program in Statistics as platform for co-operation between university and official statistics. Bulletin of the International Statistical Institute, 53rd Session, Vol. 59, 207–210. <https://2001.isiproceedings.org/pdf/619.PDF>

12. SOFTWARE DEVELOPMENT

E-Learning Technology

Development of the Web application “VLISS-Virtual Laboratory in Survey Sampling”, 2002–2011 (<http://vliss.helsinki.fi/>)

Reference: Kiviniemi V. and Lehtonen R. (2002) Web tools in teaching and learning of survey sampling: the VLISS application. *Statistics in Transition*, 5, 995–1011.

Statistical Software

Veijanen A. and Lehtonen R. (2011)

https://www.uni-trier.de/fileadmin/fb4/projekte/SurveyStatisticsNet/Ameli_Delivrables/AMELI-WP2-D2.2-supplement-20110402.pdf

Veijanen A. and Lehtonen R. (2010). Program DOMEST for Estimation for Domains and Small Areas. Part 1: Technical documentation. Version 1.0. August 2010. Unpublished manual.

Veijanen A. and Lehtonen R. (2010). Program DOMEST for Estimation for Domains and Small Areas. Part 2: Worked examples. August 2010. Unpublished manual.

13. RESEARCH AWARDS, HONOURS AND MAJOR GRANTS

Research Awards

Gunnar Modeen Award (2019), published at the Nordic Statistical Meeting 2019.

Major Grants

Grants for promoting Baltic-Nordic-Ukrainian (BNU) Network co-operation on education and research in survey statistics in 2007–2019 include grants of the Nordic Council of Ministers (Nordplus Higher Education Programme) (2008–2019), the International Association of Survey Statisticians (IASS) (2012–2019), The Academy of Finland (2007), Federation of Finnish Learned Societies (2015), the Visby Programme of the Swedish Institute (2010–2011), and Norges forskningsråd (Nordplus Nabo Programme) (2007).

Grant by EU FP7/IST RTD Programme for research project AMELI (University of Trier and University of Jyväskylä, with eight additional partners), 2004–2011.

Grant by the Virtual University Project of the University of Jyväskylä for the development of the Web application “VLISS-Virtual Laboratory in Survey Sampling”, 2002–2005.

Grant by EU FP5/IST RTD Programme for research project EURAREA (Office for National Statistics, University of Southampton, Statistics Finland, University of Jyväskylä, with seven additional partners), 2001–2004.

Grant by EU FP5/IST RTD Programme for research project CHINTEX (Statistisches Bundesamt, Germany, and Statistics Finland, with four additional partners), 2000–2002.

Grant by EU SUP-COM Programme for research project “Development and Evaluation of Practical System of Model-Based Small Area Estimation” (ONS, Statistics Finland and University of Southampton), 1999.

14. OTHER ACADEMIC AND PROFESSIONAL MERITS AND ACTIVITIES

Other academic and professional merits include involvement in organizing bodies of international scientific conferences as chair or member of scientific and organizing committees, comprising BNU Network conferences, workshops and summer schools, Small Area Estimation (SAE) Conferences, New Techniques and Technologies for Statistics NTTS Conferences, Quality in Official Statistics Conferences, and Sessions of the International Statistical Association (ISI).

Essential contributions include the main organizing responsibility of the *Small Area Estimation Conference* (SAE 2005) in Jyväskylä, Finland, and the *Second Baltic-Nordic Conference on Survey Statistics* (Kuusamo, Finland, 2007) and the *Fourth Baltic-Nordic Conference on Survey Statistics* (Helsinki, Finland, 2015) of the Baltic-Nordic-Ukrainian Network on Survey Statistics.

Additional activities: Supervision of doctoral dissertations (University of Helsinki, University of Jyväskylä), service as Faculty Opponent for doctoral dissertations (Poznan University of Economics and Business 2016, University of Tartu 2007, 2011, University of Örebro 2008, 2016, University of Linköping 2003, University of Uppsala 2000), and service as Faculty evaluator of professorships (University of Örebro 2004, University of Stockholm 2003), as well as related conventional academic activities.

ANNEX List of publications

My publication list comprises over 150 publications (refereed methodological and applied articles in international journals and chapters in edited books, textbooks, research reports and papers in conference proceedings). A selection of essential publications is listed below.

Textbooks

Lehtonen R. and Pahkinen E. (2004) *Practical Methods for Design and Analysis of Complex Surveys. Second Edition*. Chichester: Wiley. (First edition in 1996.) Associated Web extension “VLISS-Virtual Laboratory in Survey Sampling” <http://vliss.helsinki.fi/>

Refereed Methodological Articles and Book Chapters

Lehtonen R. and Veijanen A. (2019) Hybrid calibration methods for small domain estimation. *Statistica & Applicazioni* (Statistics and Applications), XVII, 2, 201–235.

Beresewicz M., Lehtonen R.T., Reis F., Di Consiglio L. and Karlberg M. (2018) *An overview of methods for treating selectivity in big data sources*. Luxembourg: European Commission, Statistical working papers KS-TC-18-004-EN-N. (111 p.)

Lehtonen R. and Veijanen A. (2016) Estimation of poverty rate and quintile share ratio for domains and small areas. In: Alleva G. and Giommi A. (Eds.) *Topics in Theoretical and Applied Statistics*. New York: Springer, 153–165.

Lehtonen R. and Veijanen A. (2016) Model-assisted methods to small area estimation of poverty indicators. In: Pratesi M. (Ed.) *Analysis of Poverty Data by Small Area Estimation*. Chichester: Wiley, 109–127.

Lehtonen R. and Veijanen A. (2012) Small area poverty estimation by model calibration. *Journal of the Indian Society of Agricultural Statistics*, 66, 125–133.

Veijanen A. and Lehtonen R. (2011) Percentile-adjusted estimation of poverty indicators for domains under outlier contamination. *Statistics in Transition*, 12, 345–356.

Lehtonen R. (2010) A Short Note on extended GREG family estimators for domains. In Carlson M., Nyquist H. and Villani M. (eds.) *Official Statistics – Methodology and Applications in Honour of Daniel Thorburn*. Department of Statistics, Stockholm University, 107–116.

Lehtonen R. and Veijanen A. (2009) Design-based methods of estimation for domains and small areas. Chapter 31 in Rao C.R. and Pfeiffermann D. (Eds.) *Handbook of Statistics Vol. 29B. Sample Surveys. Inference and Analysis*. Amsterdam: Elsevier, 219–249.

Lehtonen R., Särndal C.-E. and Veijanen A. (2005) Does the model matter? Comparing model-assisted and model-dependent estimators of class frequencies for domains. *Statistics in Transition*, 7, 649–673.

Lehtonen R., Särndal C.-E. and Veijanen A. (2003) The effect of model choice in estimation for domains, including small domains. *Survey Methodology*, 29, 33–44.

Lehtonen R. and Veijanen A. (1998) Logistic generalized regression estimators. *Survey Methodology*, 24, 51–55.

Applications (refereed articles and book chapters)

Härkänen T., Karvanen J., Tolonen H., Lehtonen R., Djerf K., Juntunen T. and Koskinen S. (2016) Systematic handling of missing data in complex study designs - experiences from the Health 2000 and 2011 Surveys. *Journal of Applied Statistics* 43, 15, 2772–2790.

- Mikkonen S., Rahikainen M., Virtanen J., Lehtonen R., Kuikka S. and Ahvonen A. (2008) A linear mixed model with temporal covariance structures in modelling catch per unit effort of Baltic herring. *ICES Journal of Marine Science* 65, 9, 1645–1654.
- Lehtonen R., Djerf K., Härkänen T. and Laiho J. (2003) Modelling complex health survey data: a case study. In: Höglund R., Jäntti M. and Rosenqvist G. (Eds). *Statistics, Econometrics and Society*. Helsinki: Statistics Finland, *Research Reports* 238, 91–114.
- Hox J. and De Leeuw E. in collaboration with Couper M., Groves B., De Heer W., Kuusela V., Lehtonen R., Loosveldt G., Lundqvist P., Japac L., Martin J., Beertens R., Michaud S., Knighton T., Mohler P., Sturgis P., Campanelli P., Vehovar V., Zaletel M. and Belak E. (2002) The influence of interviewers' attitude and behavior on household survey nonresponse: An international comparison. In: R.M. Groves et al. (Eds). *Survey Nonresponse*. New York: Wiley, 103–120.
- Kaitala A., Espadaler X. and Lehtonen R. (2000) Ant predation and the cost of egg carrying in the golden egg bug: experiments in the field. *Oikos*, 89, 254–258.
- Kalimo E., Klaukka T., Lehtonen R., Nyman K. and Raitasalo R. (1992) Health care development in Finland, 1960 to 2010. *World Health Forum*, 13, 336-342.
- Seppälä H., Klaukka T., Lehtonen R., Nenonen E. and Huovinen P. (1997) Erythromycin resistance of group A streptococci from throat samples is related to age. *Pediatric Infectious Disease Journal*, 16, 651–656.
- Lehtonen R. (1996) Interviewer attitudes and unit nonresponse in two different interviewing schemes. In: Laaksonen S., (Ed.). *International Perspectives on Nonresponse. Proceedings of the Sixth International Workshop on Household Survey Non-Response*. Helsinki: Statistics Finland, *Research Reports*, 219, 130–140.
- Seppälä H., Klaukka T., Lehtonen R., Nenonen E. and Huovinen P. (1995) Outpatient erythromycin use - link to increased erythromycin resistance in group A streptococci. *Clinical Infectious Diseases*, 21, 1378–1385.
- Official Statistics Related Papers (refereed articles)*
- Lehtonen R. and Särndal C.-E. (2009) Research and Development in Official Statistics and Scientific Co-operation with Universities: A Follow-Up Study. *Journal of Official Statistics*, Vol.25, 467–482.
- Lehtonen R., Pahkinen E. and Särndal C.-E. (2002) Research and development in official statistics and scientific co-operation with universities: an empirical investigation. *Journal of Official Statistics*, 18, 87–110.
- Short Notes and Discussion Papers*
- Goldstein H., Lynn P., Muniz-Terrera G., Hardy R., O’Muircheartaigh C., Skinner C. and Lehtonen R. (2015) *Population sampling in longitudinal surveys debate*. *Longitudinal and Life Course Studies*, 6, 447–475.
- Lehtonen R. (2012) Calibrated Bayes, an alternative inferential paradigm for Official statistics: Discussion. *Journal of Official Statistics*, 28, 3, 353–357.
- Chambers R., van den Brakel J., Hedlin D., Lehtonen R. and Zhang L-C. (2006) Future challenges of small area estimation. *Statistics in Transition*, 7, 759–769.
- Lehtonen R. and Veijanen A. (1999a) Multilevel-model assisted generalized regression estimators for domain estimation. *Proceedings of the 52nd Session of the International Statistical Institute*, Helsinki, August 1999.
- <https://www.stat.fi/isi99/proceedings.html>
[Multilevel-model assisted generalized regression estimators for domain estimation \(stat.fi\)](#)

Lehtonen R. and Veijanen A. (1999b) Domain estimation with logistic generalized regression and related estimators. *Proceedings, IASS Satellite Conference on Small Area Estimation*, Riga, August 1999. Riga: Latvian Council of Science, 121–128.

Research Reports from International Research projects

Hulliger B., Lehtonen R and Muennich R. (2012) *Analysis of the future research needs for Official Statistics*. Jacques, P. (ed.). Luxembourg: European Union. 76 p. (Methodologies & Working papers). (Refereed) Publication:

<https://ec.europa.eu/eurostat/documents/3888793/5853297/KS-RA-12-026-EN.PDF>

Hulliger B. and Lehtonen R. (2012) *ESSnet Annual evaluation report 2012*. Karlberg, M. (ed.). Luxembourg: European Union. 72 p. (Methodologies & Working papers). Publication:

<https://ec.europa.eu/eurostat/documents/3888793/5852905/KS-RA-12-017-EN.PDF>

Graf M., Alfons A., Bruch C., Filzmoser P., Hulliger B., Lehtonen R., Meindl B., Mueunnich R., Schoch T., Templ M., Valaste M., Wenger A. and Zins S. (2011) *State-of-the-art of Laeken Indicators*. Research Project Report WP1 (D1.1, FP7-SSH-2007-217322 AMELI).

Hulliger B., Alfons A., Bruch C., Filzmoser P., Graf M., Kolb J.-P., Lehtonen R., Lussmann D., Meraner A., Muennich R., Nedyalkova D., Schoch T., Templ M., Valaste M., Veijanen A. and Zins S. (2011) *Report on the Simulation Results*. Research Project Report WP7 (D7.1, FP7-SSH-2007-217322 AMELI).

Hulliger B., Alfons A., Bruch C., Filzmoser P., Graf M., Kolb J.-P., Lehtonen R., Lussmann D., Meraner A., Muennich R., Nedyalkova D., Schoch T., Templ M., Valaste M., Veijanen A. and Zins S. (2011) *Report on the Simulation Results: Appendix*. Research Project Report WP7 (D7.1 A, FP7-SSH-2007-217322 AMELI).

Lehtonen R., Veijanen A., Myrskylä M. and Valaste M. (2011) *Small Area Estimation of Indicators on Poverty and Social Exclusion*. Research Project Report WP2 (D2.2, FP7-SSH-2007-217322 AMELI).

https://www.uni-trier.de/fileadmin/fb4/projekte/SurveyStatisticsNet/Ameli_Delivrables/AMELI-WP2-D2.2-20110402.pdf

Veijanen A. and Lehtonen R. (2011) *Small Area Estimation of Indicators on Poverty and Social Exclusion. Manual of R codes. Supplement to Deliverable D2.2*. Research Project Report WP2 (D2.2, FP7-SSH-2007-217322 AMELI).

https://www.uni-trier.de/fileadmin/fb4/projekte/SurveyStatisticsNet/Ameli_Delivrables/AMELI-WP2-D2.2-supplement-20110402.pdf

Muennich R., Zins S., Alfons A., Bruch C., Filzmoser P., Graf M., Hulliger B., Kolb J.-P., Lehtonen R., Lussmann D., Meraner A., Myrskylä M., Nedyalkova D., Schoch T., Templ M., Valaste M. and Veijanen A. (2011) *Policy Recommendations and Methodological Report*. Research Project Report WP10 (D10.1/D10.2, FP7-SSH-2007-217322 AMELI).

Templ M., Alfons A., Filzmoser P., Graf M., Holzer J., Hulliger B., Kowarik A., Kraft S., Lehtonen R., Nedyalkova D., Schoch T., Veijanen A. and Zins S. (2011) *R Packages plus Manual*. Research Project Report WP10 (D10.3, FP7-SSH-2007-217322 AMELI).