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Advanced Methodology of European Laeken Indicators

Q2008 conference, Section 16: New Methodologies for European Indicators

AMELI

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Overview of the Project

- DG RTD in cooperation with DG ESTAT

- Project officer: Dr. Ian Perry
- EC contribution 1.089 M€
- Social Sciences and Humanities
  Area 6.2 – Developing better indicators for policy

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Research interest of AMELI

- Laeken indicators (partially as prototype)
- Investigation of EU-SILCs from selected countries
- Improving the statistical methodology
- Consideration of the entire indicator process
- Delivery of open source codes under R
- Investigation of methodology within a simulation framework
- Adequate graphical presentation of indicators

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The AMELI team

University of Trier Ralf Münnich (Co-ordinator)

German Federal Statistical Office Manfred Ehling

University of Applied Sciences Northwestern Switzerland
Beat Hulliger

Swiss Federal Statistical Office Monique Graf

Statistics Austria Thomas Burg

Statistics Finland Timo Alanko

University of Helsinki Risto Lehtonen

Vienna University of Technology Matthias Templ

Statistical Office of the Republic of Slovenia Rudi Seljak

Statistics Estonia Kaja Sõstra

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WP1: Laeken Indicators

- Compilation of recent results
  - LIS
  - ECHP and EU-SILC
- Review of methodology from FP5 and FP6 projects
- JRC-OECD studies on composite indicators
- Definition(s) of social cohesion

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WP2: Estimation

- Classical estimation procedures
  - GINI
  - At-risk-of-poverty rate
  - Quintile share ratio
- Advances in small areas estimation
- Usage of parametric income distributions
- Model- versus design-based methods
- Applications of mixture models

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WP3: Variance Estimation

- Review of recent methods
- Variance estimation for complex surveys
  DACSEIS (FP5)
- Variance estimation for Laeken indicators
  - Linearization methods
  - Resampling methods
  - Special methodology for small area methods
  - Influence on methods from peculiarities, e.g. outliers

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WP4: Robustness

- Review of recent robust estimation methods
- Robustification of
  - classical indicators
  - Laeken indicators
- Quality measures for robust methods
- Practical recommendations

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WP5: Data Quality

- Input for the simulation study
  - Survey designs of EU-SILCs
  - Data peculiarities
- Basis for generating adequate universes
- Overview of metadata and quality reports

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WP6: Simulation

- Generation of simulation basis
- Simulation of recent EU-SILCs
- Generation of point and variance estimation distributions based on
  - point estimation methods
  - variance estimation methods
  - parametric approaches
  - small area methods
  - different settings considering many practical issues
- Design-based vs. model-based simulations

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WP7: Analysis

- Elaboration of simulation results
- Synthesis of WPs 2 – 4 in connection with the simulation study
- Preparation of policy recommendations

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WP8: Visualization

- Tools
  1. for visualising indicators in order to support policy decisions,
  2. for highlighting selected/special data (e.g. outlying and influential observations, non-response, imputed values),
  3. for the visualisation of simulation results,
  4. for visualizing regional indicators in maps, as well as
  5. for visualization for a better understanding by the end user of the indicator values including their quality
- Programming of an R tool
  - Visualisation
  - Laeken indicators
  - Open source codes (packages)

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WP9: Support for Policy

- Elaboration of the policy needs (Lisbon goals) and their statistical implications
- Recommendations concerning the use of Laeken indicators

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Final Remarks

AMELI meetings

- Wiesbaden in October 2008
- Olten in Autumn 2009
- Helsinki in Spring 2011

Year of Combating Poverty 2010

Workshop Vienna in Spring 2010

Final Conference Trier in Spring 2011

Homepage `http://ameli.surveystatistics.net`

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