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WORKSHOP ON BEST PRACTICES FOR EU-SILC REVISION

Book of Abstracts



INSTITUTO NACIONAL DE ESTATÍSTICA
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WORKSHOP ON BEST PRACTICES FOR EU-SILC REVISION

Opening Session – Welcome and Introduction

Purpose of the Workshop

- Didier Dupré and Emilio Di Meglio (Eurostat)
Planned future developments of EU-SILC



Planned future developments of EU-SILC

Didier Dupré and Emilio Di Meglio¹

(Eurostat)

Abstract

The current crisis has generated a number of challenges for social statistics. Policy makers need timely and reliable data on poverty and social exclusion in order to take informed, timely and effective policy measures. EU-SILC is the main data source for comparative analysis and indicators on income and living conditions in the EU. Given its high policy relevance, there is increasing demand for new developments. Modernization of social statistics is one of the solutions identified to meet the growing needs of users through improved statistical processes, reuse of data and synergies. The revision of EU-SILC is part of this process and is being carried out by the European Statistical System (ESS). This paper describes the planned developments in the framework of the modernization of social statistics.

1. Introduction

The current crisis has generated a number of challenges for official statistics and more in particular for social statistics. Policy makers have turned to statistics to have the necessary toolbox to timely and reliably describe the current situation and patterns in order to take informed, timely and effective policy measures.

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The "EU Statistics on Income and Living Conditions" (EU-SILC) is the main data source for comparative analysis and indicators on income and living conditions in the EU. Given the high policy relevance of EU-SILC there is increasing demand from the stakeholders for new developments in EU-SILC to insure the correct monitoring of the evolution of social exclusion phenomena.

In the meanwhile, resources available to statistical authorities are shrinking and only coordinated efforts for achieving modern and cost effective solutions are a viable way forward.

Modernization of social statistics is one of the solutions identified to meet the growing needs of users through improved statistical processes, reuse of data and synergies achieved through standardization. The revision of EU-SILC is part of this process and is being carried out by the European Statistical System (ESS).

This paper describes the planned developments of EU-SILC in the framework of the modernization of social statistics.

2. Policy context

Since the launch of the "Europe 2020" Strategy for smart, sustainable and inclusive growth, the importance of EU-SILC has grown further: one of the five Europe 2020 headline targets is based on EU-SILC data (the social inclusion EU target, which consists of lifting at least 20 million people in the EU from the risk of poverty and exclusion by 2020).

The social consequences of the economic and financial crisis have given increased importance to data on the income and social situation. In particular, the lack of timely data on the extent of poverty and social exclusion have become a burning issue especially for countries where the crisis has hit hardest. In the conclusions of the December 2010 Employment, Social Policy, Health and Consumer Affairs Council (EPSCO), ministers of social affairs recognised the importance of this issue and invited "the Commission to support, in collaboration with the Member States, the timely availability of valid indicators to monitor the social dimension of the Europe 2020 Strategy".

The "Social Investment Package" adopted in February 2013, urging countries to put more emphasis on social investment to achieve the EU2020 target, also increased the demand of timely and reliable data on the social situation in Europe.

Last but not least, the 'Beyond GDP' debate has drawn attention to the need to complement GDP measures with indicators that encompass environmental and social aspects of progress. In the specific case of social aspects, more data are needed on distributional aspects, household perspective as well as relations between income, consumption and wealth.

3. Modernisation of social statistics

In September 2011, the ESSC adopted the Wiesbaden Memorandum on a "New conceptual design for household and social statistics". This memorandum calls for progress towards an overall common architecture for European social statistics together with actions on sampling frames, administrative data sources, measurement of quality of life and of the living conditions of population subgroups, time use and household budgets. In line with these orientations, Eurostat has been working on the modernisation of social statistics. The main objectives are to increase responsiveness to user needs, quality and efficiency.

The programme includes actions pushing towards integration of data collections, with standardisation of variables and modules, wider use of administrative data sources and improved statistical frames. The programme covers social microdata collections (social surveys), population statistics (including census) and purely administratively-based statistics and accounts. The ongoing revision of EU-SILC is part of this program.

4. Planned developments for EU-SILC

4.1 Background

As mentioned above, the high priority given by the Council and the Commission to the fight against poverty and social exclusion in the European Union, even more in the context of the economic and financial crisis, requires comparable and as much as possible timely statistics to monitor this process. The demands concerning living conditions, income, poverty, inequalities and quality of life are also increasing in the context of a better measurement of the progress of societies (GDP and beyond). As a consequence, the requests for improving EU-SILC focus on:

- ✓ The need for timely data, generally and in particular in the crisis context where social impact of the policies are important, as well as in the context of MIP (Macroeconomic Imbalance Procedure where AROPE and its components are auxiliary indicators) and of the European Semester,
- ✓ The need for regional data in the context of the forthcoming monitoring and the allocation of funds on the basis of indicators derived from EU-SILC,
- ✓ The importance of dynamics of poverty, not enough covered with a 4 year longitudinal component, which has structural limitations for long term poverty measurement,
- ✓ The necessity to cover the multidimensional aspects of living conditions, poverty and social exclusion. There are several requests that cannot any longer be accommodated in the current flexibility mechanism of the ad hoc modules (like social transfers in kind, more information on children, access to services, vulnerability, wealth, structure of the households, quality of life and well-being, health, etc.). More generally, the needs will continue to evolve, and flexibility is required.

As a background element, the increased use of administrative data for the income components and the often associated problems of delays in their availability have also to be noticed. New data collection modes and sources shall be also considered (web interviews, matching).

4.2 Purpose

As a consequence, the objective is to re-design the EU-SILC so as to:

- ✓ Maintain and if possible slightly decrease the burden and the costs,
- ✓ Maintain the stability of the main indicators, with adapted frequency and keeping a cross-cutting approach,
- ✓ Increase its responsiveness to new policy needs, currently and for the future,
- ✓ Deliver data faster,
- ✓ Allow sufficient regional breakdown,

- ✓ Ensure adequate accuracy and quality of measurements,
- ✓ Adapt to multi-modes and multi-sources data collections,
- ✓ Ensure a general consistency of the different element of the tool (e.g. frequency of non-annual modules and length of the longitudinal component).

4.3 Approach

The main directions retained in a global equilibrium are the following:

1) To modularise the content of EU-SILC and better adapt the periodicity of collection of the modules to the needs. This implies the less frequent collection of data that are not absolutely needed yearly. Currently, about 135 non-technical variables are really collected from the households or the registers in the yearly EU-SILC and about 20-25 in the ad hoc modules. The project is to collect only 115 variables yearly ("nucleus" covering income, some labour data, deprivation – as part of the Europe 2020 framework - and additional variables on health, child care, education, housing costs and quality of life). The space left empty by the removal of the 40-45 other variables will be used for fixed rotating modules with a periodicity of 3 years for the variables dealing with labour, health, children and housing and with a periodicity of 6 years for the others (social participation, quality of life, access to services, wealth and debt, consumption, intergenerational transmission of disadvantages). Each module will contain about 20 variables. Some of the 6 year modules will be dedicated to new policy needs and will be changing. In the first wave, respondents will also be asked about stable variables (e.g., country of birth and education of parents, in the context of migration and intergenerational transmission).

2) To improve timeliness, by shortening the global availability of EU-SILC by 6 months (from December N+1 to June N+1), by collecting earlier material deprivation (and all other available non-income data, if possible) at the end of the reference period N, by introducing elements in the collection that would be useful to estimate the evolutions of income distribution, and by maximising the possibilities of micro-simulation for flash-estimates.

3) To extend the rotational panel from 4 to 6 years, so as to have better estimations of longer phenomenon (the persistent risk of poverty indicator will then be based on a sample size double than what is currently feasible) and study transitions and recurrences of poverty and social exclusion. However, some analysis and tests are still needed on this issue.

4) To allow for more regional breakdowns, on a country based approach. This would combine several solutions, including 3 years averaging, re-design of the sample, modelling and calibration, and in limited cases, increased sample size.

5) To increase the possibilities for linking and matching data with other data collections or estimations: harmonisation of variables including a household grid, additional information for instance for social transfer in kind estimation, short modules on wealth and if feasible on consumption, to get better data on joint distributions of income, consumption and wealth.

6) To define precision requirements in a way that facilitates compliance assessment based on the standard error to be achieved. This would have as an effect a precision of about +/- 1% for the largest Member-States and about +/- 1.5% for the smallest ones for the main indicators (in particular for AROPE) at national level and about +/- 2.5% at regional level. A requirement will also be placed on the longitudinal component.

7) To improve other elements, like the quality reports, the tracing rules, the metadata on sources of data, etc., also promoting best practices.

8) To promote an integrated approach for the use of registers and multi-mode data collection, for instance by allowing whenever possible, interview time compatible with CATI (telephone interview), when income is available in registers, and/or CAWI (web interview).

4.4 Timetable / key steps

An overall acceptance of this approach has been reached with the Directors of Social Statistics of the European Statistical System (ESS). Some work is still needed concerning the duration of the longitudinal component.

The main ongoing and next steps are, up to the end of 2015:

- ✓ To define better (80%) the nucleus and the rotational modules contents and variables; actually a tentative list for the nucleus and the every 3-year rolling modules have already been prepared with the dedicated Task Force while the development of the every 6-year rolling modules is ongoing in 2014-2015; however testing of related questionnaires will be necessary before finalising the list of rolling modules variables,
- ✓ To carry tests and pilots in 18 Member States, including improving timeliness and regional dimension (grant agreements were signed with 18 Member States in 2014 for actions ongoing up to 2017 depending on the activities carried out in each action). The call would be repeated in the next few years as a capacity-building mechanism,
- ✓ To draft the legal and technical specifications of the new instrument in the context of the draft Framework European Parliament and Council Regulation on Integrated European Social Statistic.

The objective is to discuss the first draft of packages to be included in the legal act at the WG in spring 2015, taking into account the first available results of the tests launched in 2014. Final draft texts will be ready by end 2015.

4.5 Implementation

The main re-design of EU-SILC (content side) cannot be implemented without a new legal act, whatever its level of details. Therefore, for the content and the panel length of SILC, it is foreseen to introduce the changes at the occasion of the Framework Regulation only.

Table 1: Severe material deprivation rates, 2011-13 – (2013 early data available by end May 2014) - % of population

	2011	2012	2013
EU-28	8.9	9.9	:
Euro area	6.8	7.7	:
Bulgaria	43.6	44.1	45.9p
Latvia	31.0	25.6	24.0
Romania	29.4	29.9	28.7p
Hungary	23.1	25.7	26.8
Lithuania	19.0	19.8	16.0p
Greece	15.2	19.5	:
Croatia	14.8	15.4	:
Poland	13.0	13.5	11.9p
Cyprus	11.7	15.0	16.1p
Italy	11.2	14.5	12.5p
Slovakia	10.6	10.5	:
Estonia	8.7	9.4	7.6p
Portugal	8.3	8.6	10.9p
Ireland	7.8	9.8	:
Malta	6.6	9.2	9.5p
Czech Republic	6.1	6.6	6.6
Slovenia	6.1	6.6	:
Belgium	5.7	6.5	:
Germany	5.3	4.9	:
France	5.2	5.3	5.0p
United Kingdom	5.1	7.8b	:
Spain	4.5	5.8	6.2
Austria	3.9	4.0	4.2p
Finland	3.2	2.9	2.5
Denmark	2.6	2.8	:
Netherlands	2.5	2.3	:
Sweden	1.2	1.3	:
Luxembourg	1.2	1.3	:
Norway	2.3	1.7	1.9
Iceland	2.1	2.4	1.9
Switzerland	1.0	0.8	:

'p' = provisional ; 'e' = estimated; 'b'=break in time series; '!' = not available

However, for the progresses on timeliness and regionalisation, this would be a gradual move, with national action plans over the next years starting in the context of the current EU-SILC.

For timeliness, already now, early data on material deprivation has started to be collected. In the first months of 2014 for the reference year 2013, data was collected for 16 Member States and two EFTA countries. These data were published in the Statistics Explained article "Material deprivation statistics - early results" in June 2014 (data available by end May 2014, see table 1 below; however, one should keep in mind that, in some cases, there may be discrepancies between provisional and final data)². It

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is planned to publish in March 2015, three months earlier than in 2014 the early data on material deprivation for 2014 for a higher number of Member States.

The June N+1 deadline will also already be implemented by several countries in 2014 and 2015. Actually in 2014, 7 MS were able to provide 2013 cross-sectional data before the end of June 2014 (against 4 MS in 2013 for the 2012 data). More generally, although not achieving yet the target, it should be noted that 17 MS sent the 2013 cross-sectional data before the end of August and 23 before end of September 2014 against 9 and 15 respectively the year before.

It is planned that ESS agreements on these two timeliness issues (early Material Deprivation by end of year N and provision of final data in June N+1) could be presented in 2015 for providing a stronger framework to this ongoing effort for the period before the new legal basis enters in force.

5. Conclusion

The expectations on high quality and timely data to analyse the social situation have increased among users and in particular policy makers, as a consequence of the economic crisis. EU-SILC being the main data source for comparative analysis and indicators on income and living conditions in the EU is in this context particularly solicited for answering new demands.

The modernization of social statistics and in this context the revision of EU-SILC tries to respond to these demands while securing modern and viable foundations in the governance of the instrument in the European Statistical System. This process tackles also some specific aspects of EU-SILC needing improvements. Some strands, such as timeliness, regionalization, are already being implemented in the current EU-SILC in order to duly answer current policy needs.

WORKSHOP ON BEST PRACTICES FOR EU-SILC REVISION

Session 1 – Longitudinal component

- Cédric Houdré (National Institute of Statistics and Economic Studies - INSEE)
Moving to a longer panel in EU-SILC: Insights from the 9-year panel in France
- Matthew Minifie, Richard Tonkin (Office for National Statistics, UK)
Current methods and future proposals for minimising attrition in longitudinal UK-SILC



Moving to a longer panel in EU-SILC: insights from the 9-year panel in France

Cédric Houdré

(National Institute of Statistics and Economic Studies - INSEE)

Abstract

Current discussions within Member States over moving to a 6-year panel in EU-SILC have underlined potential advantages in analysis of poverty dynamics as well as potential drawbacks regarding data quality. The ability to treat selective attrition has been particularly questioned. What can be learned from SILC in France, which has been designed as a 9-year rotating panel from the onset ? Recent analysis by Burricand and Lorgnet (2014) shows that weighting procedures, based on Ardilly and Lavallée (2008), that rely on the wide range of observables collected for initial respondents, lead to a satisfying treatment of selective attrition in following waves. Using reweighted data, poverty dynamics appear somewhat different over a 6-year rather than a 4-year observational window, in particular when confronting poverty durations of different socio-economic categories of individuals.

Current methods and future proposals for minimising attrition in longitudinal UK-SILC

Matthew Minifie, Richard Tonkin

(Office for National Statistics, UK)

Abstract

A challenge faced by the United Kingdom (UK) and all member states in producing longitudinal Statistics on Income and Living Conditions (SILC) is attrition across the four waves. Attrition reduces precision of statistical estimates and can also potentially lead to increased bias. In the 2008-2011 UK-SILC longitudinal operation, 5,417 households were initially selected to form the rotation group intended to be retained in the operation for four years. In the first wave 3,002 household interviews were successfully achieved but only 1,390 of the original households provided successful interviews in all four waves. The UK is continuously investigating ways in which to reduce its rate of attrition for SILC.

This paper will outline the current methods and approaches adopted by the UK in order to minimise attrition between waves as well as new research being conducted with the aim of further minimising attrition. Existing practices in operation in the UK to reduce attrition include: offering financial incentives for successful interviews; conducting a telephone based 'keeping in touch' exercise with sample households between annual interviews; collecting various forms of information from respondents to aid contact; and sending regular and concise explanatory documentation to both interviewers and respondents. Future research the UK is looking to conduct includes: reviewing the financial incentive and how it is administered; analysing interviewer practices; holding focus groups with interviewers achieving various response rates; reviewing methods to improve engagement with respondents; and conducting a follow-up survey with non-responders to better understand the drivers of non-response.

It is hoped that the information presented in this paper will stimulate discussion and offer the opportunity to share positive initiatives which have served to reduce attrition in the SILC operations of other member states.

WORKSHOP ON BEST PRACTICES FOR EU-SILC REVISION

Session 2 – Modes of data collection

- Jarl Quitzau (Statistics Denmark)
The Danish Cawi experience

- Cristina Freguja, M.C. Romano, Silvano Vitaletti (ISTAT)
Italian experiences in changing survey modes

- Urve Kask (Statistics Estonia)
Creation of the income variable from administrative data sources



The Danish Cawi experience

Jarl Quitzau
(Statistics Denmark)

Abstract

Denmark has been collecting data via web-interviews since 2012. In this paper/presentation I wish to present some of our experiences with this mode of data collection.

My presentation will touch briefly on the Danish data collection for the EU-silc, response rates and the results of upcoming analysis on the quality and variance of answers in the self-administered web interviews, compared to the quality of answers from our CATI interviews. The analysis will focus mainly on analyzing the correlation between actual income, which we collect from our registers and the subjective measurements of poverty collected from our interviews. The analysis will also focus on variation between the two modes of data collection on self-reported health and well-being, corrected for factors such as income, labour market status, demographics and regional weather, at the time of the interview.

Italian experiences in changing survey modes

C. Freguja, M.C. Romano, S. Vitaletti

(Statistics Italy - ISTAT)

Abstract

In 2011, for the first time in Italy, the Eu-silc survey, previously conducted as PAPI, has been realized through CAPI. The transition to the new survey mode has meant also the use of a new interviewers network. It has been a real renovation of the survey processes, in addition to a new methodological approach to the interview. In this paper we will illustrate the advantages and disadvantages resulting from these important innovations. Furthermore, from the experience of a CATI pilot survey carried out in 2014, we will illustrate the strategy that the National Institute of Statistics will adopt in future editions of the EU-SILC survey, to improve data quality and timeliness of the fieldwork, reducing the costs.

Creation of the income variable from administrative data sources

Urve Kask

(Statistics Estonia)

Abstract

An analysis done in Estonia compares income data from the survey with income data from Estonian Tax and Customs Board (EMTA). The analysis illustrates how the Estonian Social Survey could be replaced by various register data: Estonian Tax and Customs Board; Social Security Board and Health Insurance Fund

- 1) Estonian Tax and Customs Board are able to receive the following data: taxes on income; income; unemployment benefits; redundancy benefits; old age pension; parental benefit.
- 2) Social Security Board is able to receive the following data: old age pension; parental wages; disability pension; survivor's pension; child benefits.
- 3) Health Insurance Fund is able to receive the following data: sickness benefits; maternity allowance

Some analytical results will be presented. Conclusion: As a result of the analysis:

In 2013, the database of the Estonian National Social Insurance Board was implemented, since it was very compatible with the survey data. In 2014, the aim is to implement EMTA data on monetary income

WORKSHOP ON BEST PRACTICES FOR EU-SILC REVISION

Special session – Regionalization

- Pascal Ardilly (National Institute of Statistics and Economic Studies - INSEE)
Regional estimates of poverty indicators based on a calibration technique



Regional estimates of poverty indicators based on a calibration technique

Pascal Ardilly

(National Institute of Statistics and Economic Studies - INSEE)

Abstract

In the case of France, the production of regional estimates from EU-SILC must rely on auxiliary data sources. The latter include essentially the income tax data and the population census. EU-SILC allows to estimate, at the national level, the individual relationships between the various forms of poverty and some explanatory variables included in the questionnaire. If these covariates are observed in the auxiliary sources as well, we can apply the estimated relationships to the "true" regional structures built from these covariates, leading to the regional estimates (called synthetic estimates). In practice a calibration technique on regional structures was applied to EU-SILC 2009 and 2010, and resulted in a set of weights for each region. Applied to several variables related to poverty, these weights led to satisfactory synthetic regional estimates.

WORKSHOP ON BEST PRACTICES FOR EU-SILC REVISION

Session 3 – Timeliness

- Peter Elmer Lauritsen, Jarl Quitzau (Statistics Denmark)
Usage of provisional income registers in Denmark

- Marie Reijo (Statistics Finland)
Essential phases of register-based survey processing concerning timeliness

- Sarka Sustova (Czech Statistical Office)
Comparison of preliminary and final data

- Vítor Junqueira, Esperança Figueiredo, Eduarda Góis (INE) and Carlos Farinha Rodrigues (INE Consultant)
Using microsimulation in EU-SILC to compute At-Risk-of-Poverty rate early estimates



Usage of provisional income registers in Denmark

Peter Elmer Lauritsen, Jarl Quitzau

(Statistics Denmark)

Abstract

Timeliness is a focal point for most European NSI's including Denmark these years. For register countries this is often a challenge as registers are often not complete, until a long time after their reference period. This is especially true for income statistics. To mitigate this Statistics Denmark make extensive use of provisional income registers.

For the vast majority of Danes, the final tax returns for 2013, are done in march 2014. However for some groups the taxes can and is revised several years after the end of the reference year. Usually Statistics Denmark acquires the provisional register November following the end of the reference year. However based on analysis of the amount and level of updates/corrections in the administrative registers from September to November in preceding income years, we are currently considering a two month improvement of the acquiring of the register and thus improve the timeliness of our final income statistics register.

In recent years we have introduced a new E-income system which contains monthly salaries and public transfers. This register covers up to 87 pct. of the total income mass. Using assumptions on income for the self-employed and capital income, we hope to be able to provide reasonable estimates on income levels and distribution, with a delay of less than 3 months.

The contribution will also touch upon the legal act, used for acquiring provisional data from the tax authorities, as well as the Danish tax system and data infrastructure, that makes our work possible.

Essential phases of register-based survey processing concerning timeliness

Marie Reijo

(Statistics Finland)

Abstract

FI-SILC which is integrated to the national IDS survey has optimally been designed to meet timeliness among other quality criteria set for official statistics in Finland. Planning, data collection, processing and survey monitoring, concerning also quality checking and corrections implementing, are well established for this in the register-based statistics system. Flexibility of survey design has still been enhanced. The FI-SILC/IDS survey is conducted by using coherent and reliable register sources in many phases (e.g. sampling and estimation, data collection and automated editing) and efficient interview mode (CATI-interview mode with the Blaise programmed questionnaire) targeted mainly to the selected respondents. Fieldwork is dated to the beginning of the survey year. The preliminary data is compiled soon after receiving the rest of register information and publishing Total Income Distribution Statistics at the end of the survey year. The final data is available during the first months of the following year (survey year + 1). Very early preliminary estimates on interviewed information (excl. income calibration), however, are ready in August of the survey year.

The workshop presentation will focus on describing the essential and critical phases of the FI-SILC production and their management which are meaningful to good timeliness in register-based statistics system. Moreover, the presentation assess the possibility to develop and use early preliminary estimates within the current survey design.

Comparison of preliminary and final data

Sarka Sustova

(Czech Statistical Office)

Abstract

The contribution will focus on the comparison of preliminary and final data from SILC 2010, 2011, 2012 and 2013. Publishing preliminary data is the way how to improve timeliness and provide users with the data that are timely and reliable. The differences between preliminary and final data will be examined both for the whole population and different breakdowns (by gender, age, region, type of household etc.). The four years time series allow us to decide what data are reliable enough to be published as preliminary. The focus will be on income variables, poverty and material deprivation. It is connected to the whole process of collecting, checking and processing the data that will be described to bring it into context.

Using microsimulation in EU-SILC to compute At-Risk-Of-Poverty rate early estimates

Vítor Junqueira, Esperança Figueiredo, Eduarda Góis / Carlos Farinha Rodrigues

(Statistics Portugal – INE / INE Consultant)

Abstract

Over the past years, the EU-SILC Portuguese team managed to put a considerable effort on anticipating results for poverty indicators, visibly decreasing the gap between the release date and the income reference year. Although further efforts on this path may still be taken, their results will probably be less noteworthy.

However, there is still an open road for short term prediction on trends for these indicators even before the new collection hits the field every year. This paper aims to provide some insights on how to use microsimulation techniques upon information obtained both from the last EU-SILC operation available and from changes in policies rules and parameters in order to preview immediate trends in the At-Risk-Of-Poverty Rate, using the Portuguese database as an example. For instance, EU-SILC for the year n provides valuable information like employee income from both n and $n-1$, through PY010 and PY200 variables, as well as the self defined economic status, which, under certain assumptions, may allow simulating transitions in employment. On the other hand, the modifications of policy rules (mainly fiscal and social policies) also drive an impact that may be estimated at the micro level.

Through the use of these and other procedures, it could be foreseen the availability of advanced short term estimates (e.g., for the following income reference year) on the At-Risk-Of-Poverty.

WORKSHOP ON BEST PRACTICES FOR EU-SILC REVISION

Session 4 – Methodology

- Richard Heuberger, Nadja Lamei (Statistics Austria)
Disaggregation of benefits and pensions variables
- G. Donatiello, D. Frattarola, A. Rizzi, M. Spaziani (ISTAT)
Statistical matching of IT-SILC and HBS: some critical issues
- Pierre Lavallée (Statistics Canada) and Eduarda Góis (INE) co-speaker and Carlos Marcelo (INE) and Carlos Farinha Rodrigues (INE Consultant)
Comparing the outcomes of multiple imputation and MS



Disaggregation of benefits and pensions variables

Richard Heuberger, Nadja Lamei

(Statistics Austria)

Abstract

The EU-SILC regulation so far foresees variables on income on a relatively high level of aggregation. Against the background of strict output-harmonisation of variables as well as lowest possible cost to fill the necessary indicators of social inclusion this was a good approach in the beginning of SILC. But as soon as an in-depth analysis of welfare systems and their impact on the personal (micro-data) level is the topic for analysis the EU-SILC target variables are too low in information. Comprehensive models, which have been recently requested from political users, demand more detailed information. . The cost to provide this additional information could be low compared to the additional analytical benefit. So from a users' perspective to go towards more disaggregation would be favourable. But also from a producers' viewpoint this is worth considering: potential benefits on the producers' side are more insight into the data quality, into structures and interdependences between variables - and often disaggregated data are simply already there. So when building the variables according to "natural" aggregation levels, i.e. the level the income questions have to be asked to be meaningful to respondents or the level they are found in registers, the cost is low compared to the gain in benefit.

In Austria disaggregated data on income components, on social benefits and pensions, have been provided for special users for some years now. EUROMOD in Austria and

also the simulation project of the Federal Social Ministry called SORESI (Social Reform Microsimulation) have been using data from SILC on a more detailed level than the target variables in the UDB. So far these variables have been filled according to the more detailed questions that were needed to fill the target variables. From EU-SILC 2012 on the disaggregated variable level has still to be built post hoc – since this was the first year in Austria to draw income information primarily from registers. In spring 2014 the disaggregated users data will also be available for EU-SILC 2012. From then on the additional programming effort to have disaggregated user data will be very low each year.

Providing individual benefit variables can be problematic in a harmonised database like the UDB, because of being nation-specific. So harmonised variables should be provided at an intermediate level of disaggregation together with documentation detailing which individual benefits have been aggregated into the harmonised variables. Basically the Austrian strategy follows the proposal made by ISER for the revised SILC regulation to disaggregate according to the following criteria: contributory (b) non-contributory non means-tested (c) non-contributory means tested. This strategy is not only welcome as it is coherent with our national approach, but also because these criteria correspond to the ESSPROSS scheme – this allows for cross-country comparisons as well as comparisons of the micro-data from SILC with the results on the macro-level.

Our presentation discusses the selected disaggregation criteria and the importance for analysing the social security system. Additionally, we will talk about practical questions on disaggregation of income data (classification, data security) and present some applications so far. . We want to make other MS aware that this step is indeed feasible and worth doing. Additionally we are sure to get some interesting discussions about other countries' social security systems and ways of data collection.

Statistical matching of IT-SILC and HBS: some critical issues

G. Donatiello, D. Frattarola, A. Rizzi, M. Spaziani

(Statistics Italy - ISTAT)

Abstract

In recent years, there has been increasing interest in statistical matching techniques applied to consumption expenditure and income in order to provide more appropriate measures of standard of living. The purpose of this paper is to evaluate the possibility of using two different data sources to create an integrated database with detailed information on households consumption and income, using the sample of IT-SILC 2012 (income reference year 2011) and the HBS 2011 sample. In this paper different approaches were used and improvements from using auxiliary information in order to relax the CIA (Conditional Independence Assumption) are also highlighted. From this point of view, the aim is to discuss the advantages in having better harmonization of common variables of SILC and HBS (e.g. housing costs) or a more reliable monthly household income in HBS. Additionally new shared questions on consumption in SILC questionnaire and /or SILC module (e.g. variables on food expenditures) would improve the quality of the matching process. Evidence from these issues are finally presented.

Comparing the outcomes of multiple imputation and micro simulation

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Abstract

Item non response is a relevant issue for the estimation of the household and individual income distribution, with an impact on EU-SILC outcomes not to be disregarded. On one hand, the national EU-SILC questionnaire tend to include an extensive number of questions, to get detailed and exhaustive data on the various sources of income. However, this structure is burdensome and requests the interviewed to retrieve very specific data at a level usually not controlled by people in common circumstances, likely to originate missing data and reduced quality.

In Portugal, this issue is being overcome with the use of deterministic imputations applied component by component, either through policy defined external criteria or income averages for similar socio-demographic profiles.

The presentation will focus on defining and comparing alternative imputation procedures:

- compensating for the deterministic aspect through the use of multiple imputation, with the calculation of various values for one single missing data to recognise that any simple guess is uncertain;
- keeping the relations between variables through the use of a micro simulation model integrating the whole set of economic and fiscal rules and criteria as a determinant for the proposed imputed values;
- using longitudinal information with actualization procedures.