Testing EU-SILC minimum income question

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1. Introduction

At first sight the task of measuring poverty seems simple enough to perform. Unfortunately, this is not the case. The difficulty arises as there are a number of different definitions of poverty, several different measurement techniques and the operationalization of poverty is also problematic.

For example, the measurement of poverty can be based either on definitions of absolute poverty or relative poverty. Eurostat and many national statistical offices have measured poverty based on relative definitions. In this case, the poverty line is defined from the median income of the population. The poor are considered households with incomes below 60 % of the median income. There are, however, also researchers who think that subjective measures are better at defining the poverty line. In this case, individuals or households estimate their required minimum income level.

In this paper I will discuss the question of the EU-SILC (EU Statistics on Income and Living Conditions) survey on minimum income, and specifically the "lowest income to make ends meet" variable (Eurostat 2003). The question concerning minimum income studies subjective, or self-perceived poverty. I will describe the entire testing process of this question. The EU-SILC pilot survey was conducted in Finland in March 2002. The minimum income question was tested with cognitive interviews during the summer of 2002. I will also present the results of the behaviour coding done in the spring of 2004.

2. Problems in measuring and asking about subjective poverty

Subjective measurement of poverty has its benefits, as well as its problems. The only way of finding out what the smallest sum of money a person could live on for a month is by asking him or her directly. However, the question may be interpreted in different ways depending on the circumstances. It should also be remembered that poverty also has different meanings in different cultures. (Dean & Melrose 1999.)

Subjective poverty has been measured with slightly differing methods and questions. However, all the methods endeavouring to define subjective poverty, in one way or another, utilize a minimum income question (MIQ). MIQ is designed to measure the smallest income required to live 'decently' or 'adequately' or to 'get along' or 'make ends meet'. The exact wording of MIQ varies considerably in different studies. Townsend et al. (1997, 19) were critical of different euphemisms used in subjective poverty inquiries. In their opinion one should ask the public directly how much money is needed to avoid *poverty* if one wants to construct subjective poverty lines. Also, at the international level we do not actually know how respondents understand the different euphemisms and how those euphemisms relate to the concept of poverty in people's minds. Different people might understand the concepts of 'needs', 'poverty' and 'making ends meet' in different ways. (Townsend et al. 1997, 19.)

3. From Eurostat's definitions to the Finnish pilot question

The EU-SILC survey is 'output harmonised', meaning that its variables and concepts are harmonised, but the question wordings with which data on those variables are produced have not been predetermined. Each country may formulate the wording of the questions itself. Register data may also be used, if available.

In order to obtain reliable data concerning the MIQ in the EU-SILC survey, one must first ascertain what the question is trying to establish and how the variables are defined. One should also think about what the question should be like so that it would produce the variable of "lowest monthly income to make ends meet".

The questions of the EU-SILC survey, and those of the ECHP survey before it, on subjective poverty also use the euphemism 'make ends meet'. Eurostat's *Concepts* (Eurostat 2001a) states that the results will be used as an indicator of subjective poverty, although no direct reference to subjective poverty is then made in subsequent descriptions of the variable. *The Concepts* defines the variable as follows (Eurostat 2001a, 54):

The household respondent's perception of the lowest net monthly income the household would need to 'make ends meet'.

'Net' income refers to income after the deduction of tax and social insurance.

The household respondent's own perception of 'making ends meet' should be used.

The question should be answered in relation to the household's present composition and expenses.

About the concept the same paper states:

"This… item can be used to construct a 'subjective poverty' indicator whereby a household is considered poor if its total income is below what it considers to the lowest monthly income to 'make ends meet'. It can also be used to assess the level of welfare provision for different groups (e.g. households of different sizes, older adults, families with children) relative to their own perceived needs."

Eurostat formulated the draft questionnaire for the pilot survey. A model for this question was only formulated in English for the pilot testing, and each country could formulate their own translations of it. The draft question read as follows (2001b):

"In your opinion, what is the very lowest net monthly income your household would have to have in order to make ends meet? Please answer in relation to the present circumstances of your household, and what you consider as 'making ends meet'."

In the EU-SILC Description of Target Variables from January 2002 (Eurostat 2002), the variable is described as follows:

HS130: Lowest monthly income to make ends meet

SOCIAL EXCLUSION: (Non-monetary household deprivation indicators)

Cross-sectional and longitudinal

Reference period: current

Unit: household

Mode of collection: household respondent

The household respondent's perception of the lowest net monthly income the household would need to 'make ends meet',

'Net' income refers to income after the deduction of tax and social insurance.

The household respondent's own perception of 'making ends meet' should be used.

The question should be answered in relation to the household's present composition and expenses.

The definition of the variable implies that the respondent could be any member of the household and that the respondent must answer according to his or her own perception, taking into account the household's present composition and expenses. The formulation of the question in Finnish is difficult because there is no precise equivalent to the expression of 'making ends meet' in the Finnish language.

4. Cognitive pretesting

The pilot data for the Finnish EU-SILC survey was collected in March 2002. The interviewers were instructed to try and carry out half of their interviews by phone and the other half in face-to-face interviews at the persons' homes. The interviewers were free to choose which households they telephoned and which ones they visited. There were 110 CATI- and 112 CAPI-interviews. In the interviews, the minimum income question was presented as follows:

S45 (O)

Now think about how much money is needed per month to satisfy your whole household's present needs. In your opinion, what is the very lowest net monthly income your household would have to have in order to make ends meet?

The question is marked with the letter code (O). The interviewing method of Statistics Finland divides questions into two categories: factual (F) questions and other (O) questions. Questions coded with (O) concern the respondent's opinions, knowledge and estimations. O-questions must be asked exactly as they are worded on the questionnaire, without making any changes to them at any time. If the respondent does not understand the question, it must be repeated precisely as written down on the questionnaire. Slightly more freedom is allowed in asking factual questions. Factual questions are first read exactly as they are on the questionnaire but if the respondent does not understand them the interviewer may present them again in his or her own words using the definitions from the working instructions. (Interviewer's Guide 2004.)

The interviewers of the pilot survey reported a lot of problems with the MIQ. Understanding of the question fluctuated widely with respondents giving very high or very low sums. Some interviewees also had serious difficulty in coming up with a sum. For this reason it was decided that the question should be tested at the SurveyLaboratory of Statistics Finland in the summer of 2002.

Fifteen face-to-face cognitive interviews were conducted in the summer of 2002. The main concern was with the "lowest monthly income to make ends meet" but some other questions from the EU-SILC survey were also included in the interview protocol to make the context more appropriate. Probes and a retrospective think-aloud method were used in the interviews.

The understanding of the MIQ varied considerably. The perspective from which the question should be approached was not clear to the respondents. Their perceptions of what should be regarded as present needs varied considerably. Some thought of just food and housing (or food and clothing, but forgetting housing), some included all present costs of living, leisure activities, travelling, hobbies and communications (telephones, newspapers, TV, etc.). Others with a loan also included its repayments in present needs, but others did not. Answering was particularly

difficult for the respondents who were relatively well-off and consequently did not have to think about their everyday use of money. The respondents said that they understood the reference time period of the question, i.e. they said they answered according to their present situation.

The study of Forma et al. (1999) focuses on defining the standards of living of "just about getting by", "reasonable" and "luxurious". We utilised these concepts in our testing and at the end of each the interview asked the respondent directly what kind of standard of living he or she had thought about when answering the minimum income question. More than a third of the respondents said they had thought about a "reasonable" standard of living while the rest said they had thought about "just about getting by". Indeed, some had thought about all their "present needs" and some about "the minimum to make ends meet", and thus excluding certain present needs.

5. The MIQ in the data collection phase of the EU-SILC survey in spring 2004

In a later variable list of the EU-SILC survey (Eurostat 2003) the question is defined precisely the same way as in the variable definition HS130 described on page 2 of this paper. And even despite the fact that several countries criticised the question, it remained unchanged. The countries were also free to select the data collection method themselves. In Finland the data was collected with telephone interviews.

Although the definition had not changed, the Finnish project group on the EU-SILC survey slightly altered the formulation of the question on the fieldwork questionnaire. The "new" question read as follows:

EL8 (O) What is the smallest amount of net income per month with which your household can make ends meet continuously?

For quality analyses of the EU-SILC survey, a decision was made to complete extensive testing and at the same time do the very first trials with a behaviour coding method at the SurveyLaboratory of Statistics Finland. Below is a report of the results obtained with behaviour coding concerning the minimum income question.

6. Behaviour coding

In spring 2004, nine interviewers recorded a total of 41 interviews around Finland in connection with the EU-SILC data collection. The behaviour codes selected for use at the SurveyLaboratory are based on international literature (Mathiowetz 2002; Fowler & Cannell 1996, 28-30; Dijkstra 2002). The codes were revised to suit the interviewing method of Statistics Finland. I listened to and coded the interviews, after which our graduate trainee coded the tapes for the second time. Reliability comparison of the two codings is still unfinished. The coding focused on individual speech acts, in other words, the speech acts of the interviewer and the respondent were assigned different codes. Prompting questions were also assigned their own codes.

The coding proved that there are still some serious problems with the MIQ. Behaviour coding has been viewed as problematic because it locates the problems but not the real reasons behind them (Snijkers 2002). However, as I had previous experience from earlier testing and listened to the audiotapes myself, I was to some extent able to interpret problems with this newer formulation of the question.

There was a significant response delay in answering this question in all 41 interviews, which proves that answering was not easy. In 65% of the interviews the question received respondent

codes indicating problems. The following table shows the behaviour codes recorded for the respondents in the minimum income question.

Table 1. Behaviour codes recorded for respondents in the minimum income question

Code	%
missing*	3
v1	32
v3	24
v4	3
v5	5
v7	27
v8	3
v9	3
Total %	100

Code explanations:
v1 – appropriate answer without significant communication,
v3 – requests clarification/repetition,
v4 – uncertainty about meaning,
v5 – uncertain/conditional answer,
v7 – problems in answering, ambiguity of set task,
v8 – don't know,
v9 – inappropriate answer, does not correspond with the objectives of the question

* Code missing due to technical problems in audio tape recording

A clear problem concerning wording was observed in the question. The end of the question reads: "…your household *can make ends meet* continuously". This made some respondents report clearly their present factual net income, and not the income with which they *could* make ends meet. A further problem concerned the expression 'continuously'. According to the definition of the variable the measurement should concern the present situation. However, 'continuously' refers to a longer-term situation. A question then arises: Over what time span can the income level required to 'continuously make ends meet' remain unchanged? The respondents did not express problems with the wording 'continuously' audibly, even though it does contain the aforementioned inherent problem.

In the EU-SILC survey, the respondent can be any member of the household. The household respondent should be the person responsible for the accommodation or a 'household member aged 16 and over who is the best placed to give the information' (Eurostat 2003). The problem is that all households may not necessarily have just one person who is responsible for its finances. All household members simply *cannot* answer the question. This creates problems in a telephone interview, when another member of the household is summoned to the telephone, or the interviewer has to telephone the household later.

Comparability of the O-questions is problematic for the same reason. If any household member can answer this question, the comparability of the O-questions loses its foundation. Whose opinions should be compared? Can a household have one opinion? Does every respondent know the opinions of all other household members? As a result the problem actually becomes a sampling problem.

It could be clearly heard from the audiotapes that some respondents added up all their expenditure items: car, petrol, insurance, loans, food, newspapers, telephones, TV licence… Others tried to ask the interviewer for help: *"If loan repayments are not included, then €1,200…"* Thus, respondents answer differently irrespective of their life situation. Respondents in similar life situations or living conditions may include different expenses when summing up.

Answering was especially difficult for self-employed farmers. Some respondents included farm expenditure while others did not. The interviewer's work instructions did not state separately whether the respondent should be advised to include or exclude farm expenditure nor did it state this in Eurostat's variable description. Self-employed farmers frequently asked for clarifications to the question: *"Does this mean just the household or also the farm?", "Should farm expenditure be included?", "Should only this private household be included or…?"*. The idea of the O-questions is that the interviewer must not help the respondent even in this kind of a

situation. However, the interviewers answered in some way at least to the questions of the respondents: *"It means the household, but when everything is interrelated...", "Well, it is that sort of a marriage with farming that when things go poorly for the farm they also go poorly for the household...", "Private household, but it is very difficult to distinguish in farming...".* These assisting comments of the interviewers may lead the respondent in one direction or another, which may consequently produce quite haphazard answers.

7. Discussion

The problems with the MIQ can be divided into three groups. The first problem concerns (1) the language and translation: We do not have the exact same expression for 'making ends meet' in Finnish. The international comparability maybe disturbed because of this. Secondly, there is (2) a problem concerning the respondent and sampling. Because any household member is allowed to answer the question of comparability of the O-questions loses its foundation and the problem becomes a sampling problem.

The third problem concerns (3) the definitions of the terms and concepts used in the MIQ and the understanding of these concepts by the respondents. Eurostat's definition of the variable is somewhat unclear and ambivalent. It is unclear whether the respondent is asked to estimate what amount is needed to maintain the household's present living standard or what amount is needed to keep the household above some poverty line.

The question itself and its instruction carry both ideas. In the instructions the respondent is asked to think about his present needs and present structure of consumption, but the question itself seems to be limited to the resources needed to fulfil the necessities. As a result it is not clear what the objective is. This ambiguity should be removed by clarifying the instructions. The respondent should also be instructed how the question should be approached. If the aim is to survey subjective poverty lines, the word poverty should not be avoided. Respondents could be asked to estimate a minimum amount of money they would need to not consider themselves poor.

The test data makes it clear that there are problems and that there are differences in the subjective meanings attached to 'present needs', making ends meet, and poverty. Matters associated with subsistence means different things to different people within the limits of cultural discourse. For some, mere fulfilment of necessary minimum needs may represent "reasonable standard of living"; while for others "just about getting by" may include leisure activities and hobbies. Also respondents approximately in the same living situation may answer very differently to the MIQ.

In the United States, subjective poverty has been studied with Gallup surveys since 1947 (Townsend et al. 1997). In Europe, subjective poverty lines have been elaborated upon and tried out in diverse studies since the 1970's. The subjective method is problematic in many ways. Even minor changes to the question setting can alter the respondents' interpretations. (Lindqvist 2003, 4) Literature makes references to the measurement of subjective poverty with a minimum income question. However, caution should be exercised when interpreting answers to such questions, as people may interpret them in a variety of ways. Even conceptual discussing of subjective poverty is inadequate in certain respects. Where is the line between minimum and reasonable income and who has the right to define it?

Eurostat's definition does not make it clear whether the measuring should concern reasonable or minimum level of income. To make the question of the EU-SILC survey more functional, there should be an unambiguous definition of the information that is sought with it. Experiences from earlier surveys could be utilised in the formulation of the question; for example Forma (et al.

1999) made a distinction between minimum and reasonable by separating them into different questions. The test data can provide an answer to the question of what precisely is studied with the MIQ. As such, the question does not capture the subjective "poverty line" of all respondents.

My final remarks concern the objective of the question: what kind of information should it produce? Eurostat (2002a) and Watson (2002) have noted that the question on minimum income is intended to capture the person's subjective poverty line, i.e. the level of income below which they would regard themselves as poor. There is still some confusion because in the variable definition it asks one to think about 'present needs'. This raises the question: why can the word 'poverty' not be used in the MIQ? Validity means that questions measure what they are supposed to measure. For a question to be reliable all the respondents have to understand the questions in a similar way. From the testing, it has been revealed that this is not the case in answering the MIQ. If the respondents are allowed to define the question themselves, deciding what are the needs they have to consider and or what kind of living standards they have to think of, we are getting very haphazard answers. In order to minimise this variation, we think it would be better to guide respondents to thinking about certain living standard when answering the MIQ. But even in this case the problem of what living standards interviewees should think of remains. The answer to this question is not made explicit in Eurostat's variable definition.

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