

Poverty. Subjective Perception of Financial Condition and Objective Indicators: Changes over Time¹

Danuta Życzyńska-Ciołek

Translated into English by Urszula Kowalczyk

ISBN 978-83-64835-35-3

Recurring debates on the achievements and losses resulting from the Polish transformation started in 1989 include the issue of “those who did not succeed,” i.e. people who did not find their way in the new economic and political reality. Poor financial condition as well as social exclusion, which often accompanies poverty, are the main indicators of “not succeeding.”

The Polish Panel Survey, POLPAN, initiated in 1988 and repeated every five years (in 1993, 1998, 2003, 2008 and 2013), has gathered abundant information on Poles’ financial condition. The information allows for investigating not only the fluctuations of so-called objective indicators of poverty but also changes in respondents’ subjective assessment of the financial condition of their households.²

Definitions and measures of poverty

Speaking very generally, poverty is a state in which the material resources owned by a person or a family are not sufficient to fulfill their needs. Detailed definitions of poverty vary depending on whether only basic needs are taken into account, such that enable biological survival (the absolute approach), or needs of a higher order as well, regarding participation in social life at a level that is acceptable in a given society (the relative approach). Besides, we can speak about the objective approach, when an individual is rated as poor on the basis of the relationship between his or his family’s financial condition and an external indicator, arbitrarily established by experts and most frequently expressed as a specific amount necessary to satisfy needs. If, however, respondents’ statements and their self-assessment of the financial condition are taken into account, we are dealing with so-called subjective approach (despite the fact that most frequently, the respondents are asked to relate their condition to categories or indicators suggested by researchers, e.g. to determine the income level that they would regard as hardly sufficient). Economists also distinguish the classic approach to poverty measurement, concentrated on financial indicators, i.e. income and

¹ I would like to thank Professor Kazimierz M. Słomczyński for his suggestions and help with developing the issue studied here.

² The analysis on which this study is based has been carried out on a set of data of 7362 people who have taken part in at least one wave of the POLPAN survey. However, this set did not include part of the information concerning an additional sub-sample of 335 young people who joined the survey in fall 2008, neither did it contain answers from those respondents of the latest, sixth panel edition whom it was impossible to contact until 2014. Additionally, it is worth noting that: (1) unlike the other waves, the 1993 sample did not include people aged 21 to 25, (2) the age of the oldest participants in the survey increases naturally with subsequent waves, (3) data weighting by age has been used in analysis for 2013; this results from adding a considerable group (497) of young people to the latest edition in order to “rejuvenate” the sample.

expenses, as well as the multidimensional approach, which takes into account additional factors such as, for example, housing conditions (Panek 2007).

This study mostly concentrates on income and expense analysis, which uses financial and non-financial indicators. Both the subjective and objective approaches have been applied.

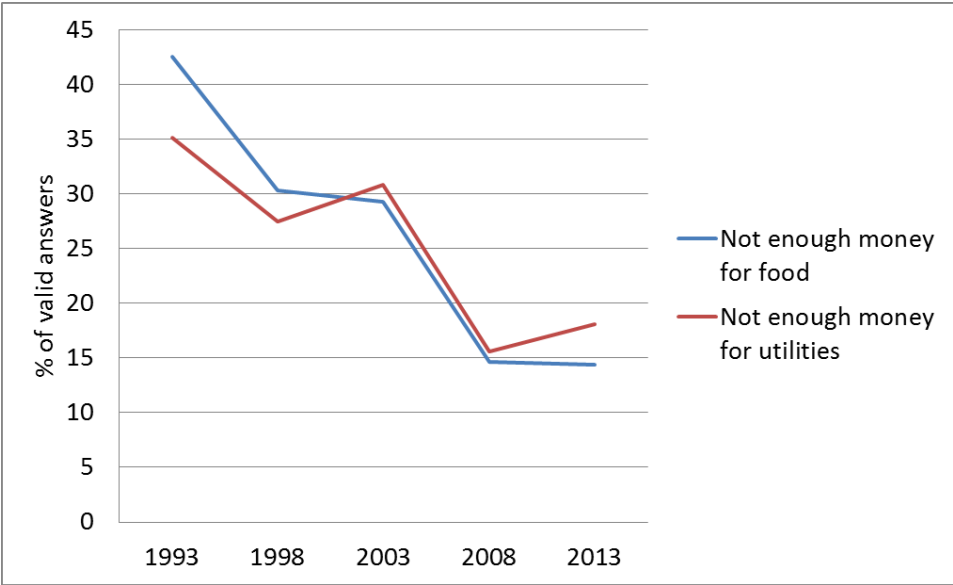
Subjective measures of poverty in the POLPAN survey in 1993–2013

Since there is no single question that would have been repeated unchanged in each of the six waves of the POLPAN survey, data will be analyzed for two periods separately: 1988–1993 and 1993–2013. I will examine the **1993–2013 period** first.

In each of the five waves of the survey, 1993–2013, the respondents were asked the following question: “In the last twelve months, were there financial problems in your household such that there was not enough money for: (1) food, (2) utilities – rent, electricity, and other?”. The question contained other items as well but those referred to less basic needs so they were excluded from this study.

Figure 1 demonstrates the proportion of respondents whose answer to the above question was “yes.”

Figure 1. Proportion of respondents who stated having financial problems consisting in shortage of money for food or utilities in the last twelve months



For 2013, sample weighted by age.
Source: Data from the POLPAN survey, 1993–2013.

Between 1993 and 2013, the proportion of respondents stating having financial problems connected with food purchase in the last year decreased from 42.5% to 14.4%, while the proportion of people stating problems with paying for utilities decreased from 35.1% to 18.1%. Individual periods determined by successive waves of the survey differ in the dynamics of the observed changes: in 1993–1998 and 2003–2008 a considerable decrease was observed in the number of people who stated having financial problems, whereas in 1998–2003 and 2008–2013 the change was rather slight. **In the last five-year period under**

analysis (2008–2013) the proportion of people who stated having problems with money for food purchase remained almost unchanged, but there was a slight increase in the proportion of respondents who stated problems with paying for utilities.

An important question is **whether the financial problems are transitory and short-term or the lack of funds is a situation lasting for many years.** To check what the circumstances are regarding the POLPAN survey respondents, I have compared statements of the same people (their answers to the above questions) for each two successive waves of the survey (since 1993). The results are presented in Tables 1 and 2. Table 1 illustrates problems with money for buying food, and Table 2 shows problems with paying for utilities. The word “yes” with a year signifies that the respondent stated having problems in that year; the word “no” implies a negative answer to the question about problems. The red fields contain information about respondents who stated having financial problems in two consecutive waves. The dark green fields contain information about respondents who stated having no problems in two consecutive waves. The light green color denotes people who “got out” of thus understood poverty zone (they had stated having problems in an earlier wave but they no longer did in the next one), and the pink color signifies those who moved to the group with problems between two consecutive stages of the survey.

Table 1. Money for food – stability of respondents’ statements

	1998- yes	1998- no	2003- yes	2003- no	2008- yes	2008- no	2013- yes	2013- no
1993- yes	52.6% N = 401	47.1% N = 359						
1993- no	15.5% N = 153	83.3% N = 820						
1998- yes			59.4% N = 262	39.7% N = 175				
1998- no			17% N = 174	82.5% N = 842				
2003- yes					32.8% N = 113	65.2% N = 225		
2003- no					8% N = 70	91.5% N = 798		
2008- yes							42.1% N = 61	57.9% N = 84
2008- no							9.9% N = 89	89.6% N = 805

For 2013, sample weighted by age. The Table excludes the “don’t know,” “not applicable,” and “difficult to say” answers, so the proportions for individual years do not add up to 100%.

Source: Data from the POLPAN survey, 1993–2013.

Table 2. Money for utilities – stability of respondents’ statements

	1998- yes	1998- no	2003- yes	2003- no	2008- yes	2008- no	2013- yes	2013- no
1993- yes	48.2% N = 301	51.3% N = 320						
1993- no	17.2% N = 191	82.5% N = 917						
1998- yes			56.1% N = 222	43.2% N = 171				
1998- no			21.5% N = 229	78.1% N = 833				
2003- yes					33.1% N = 121	64.8% N = 237		
2003- no					9% N = 77	90.5% N = 772		
2008- yes							43.6% N = 71	56.4% N = 92
2008- no							13% N = 114	86.7% N = 762

For 2013, sample weighted by age. The Table excludes the “don’t know,” “not applicable,” and “difficult to say” answers, so the proportions for individual years do not add up to 100%.

Source: Data from the POLPAN survey, 1993–2013.

For example, **about 43–47% of the respondents who stated having problems in 2008 stated difficulties again in 2013, but for 53–57%, the situation improved.** On the other hand, **about 87–90% of those who had no problems with money for food or utilities in 2008 remained in the same good financial condition in 2013, while 10–13% started having problems.**

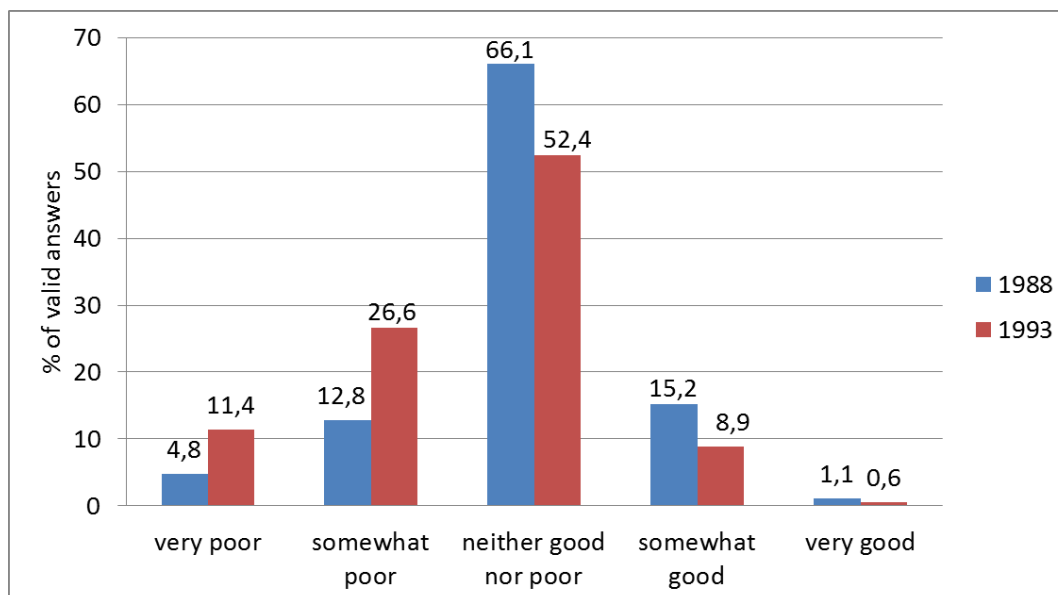
The results of the survey indicate that **for people who state no problems with money for the basic needs in a given wave, the probability of remaining in this situation in the next wave is high and stable**, and equals around 80–90%. On the other hand, **for people who state having problems in a given wave, the probability of a change of this situation in the next wave is lower and more changeable**, and varies between around 40% and 65%, depending on the wave.

Using the Phi coefficient in the analysis has shown that there is a statistically significant relationship between the answers given by the respondents in each two consecutive waves between 1993 and 2013. This relationship is moderate, with Phi varying between 0.31 and 0.43.

Subjective measures of poverty in the POLPAN survey in 1988–1993

For **1988 and 1993**, I have chosen two questions for analysis. The first one was: “How would you evaluate the financial condition of your household? Is it: (1) very good, (2) somewhat good, (3) neither good nor poor, (4) somewhat poor, (5) very poor?”. This question records subjective evaluation of financial condition, an evaluation which most probably is often relative: many respondents may have assessed their situation in comparison to that of people and families in their environment.

Figure 2. Evaluation of the financial condition of households



This graph takes into account only the answers from the 1495 people who answered this question in both waves (not all the versions of the questionnaire contained this question). For 1993, the proportions do not add up to 100% because the answers “don’t know” and “difficult to say” have been excluded (no such answers were noted in 1988).

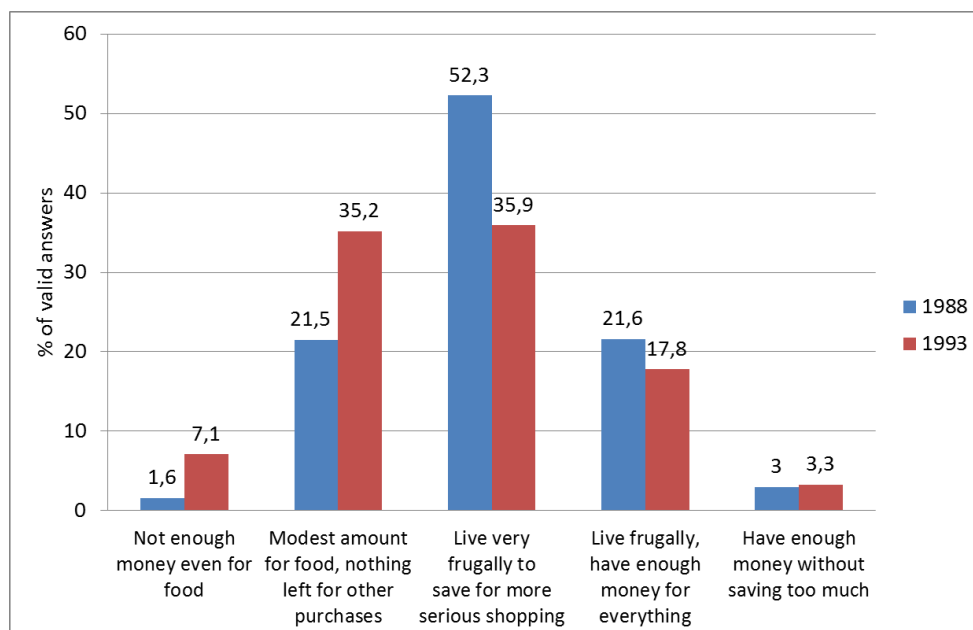
Source: Data from the POLPAN survey, 1988 and 1993.

The data indicate that between 1988 and 1993, there was a considerable increase in the proportion of respondents who evaluated the financial condition of their household as very poor (a 6.6% change) and somewhat poor (increase by almost 14%). At the same time, a decrease can be noted in the proportion of those who assessed the financial condition of their household as very good, somewhat good or “neither good nor poor.”

The second question was: “Which of the following statements describes most accurately the way money is managed in your household: (1) there is not enough money even for food alone, (2) there is a modest amount for food but nothing left for other purchases, (3) you live very frugally to save for more serious shopping, (4) you live frugally and generally have enough money for everything, (5) you have enough money for everything without saving too much?”.

Figure 3 juxtaposes the answers from two consecutive waves of the survey.

Figure 3. The evaluation of the way money is managed in households



This graph takes into account only the answers from the 1513 people who answered this question in both waves (not all the versions of the questionnaire contained this question). For 1993, the proportions do not add up to 100% because the “don’t know” and “difficult to say” answers have been excluded (no such answers were noted in 1988).

Source: Data from the POLPAN survey, 1988 and 1993.

The proportion of respondents who stated that there was not enough money in their household even for food alone increased from 1.6% to 7.1% in the period under discussion, which is a fourfold increase, whereas the number of people who chose the answer “there is a modest amount for food but nothing left for other purchases” increased 1.6 times.

These results are consistent with the distribution of answers to another question asked in 1993. The respondents were to say whether the financial condition of their households had improved (or deteriorated) during the last five years. As many as 61% people answered that the situation had deteriorated (considerably or slightly), and only 15%, which means four times less, stated an improvement. This question was later asked two more times, and never was the proportion so high of the people who stated deterioration of their financial condition as compared to those who stated an improvement in their financial condition.

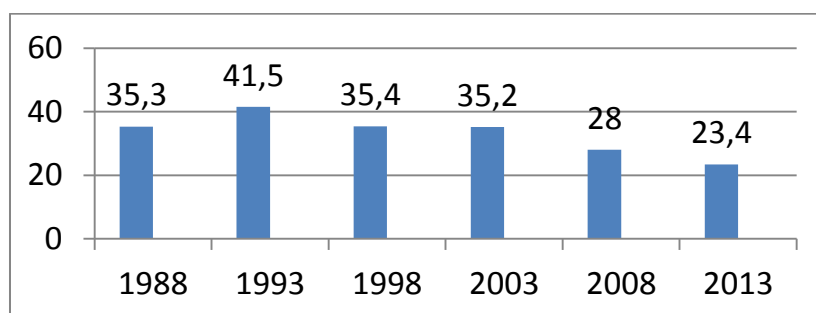
To sum up, it may be said, **according to the respondents’ opinions, that the financial condition of their households in 1993 was much worse than in 1988.** When discussing possible reasons for this change, one should take into account the high unemployment rate, which exceeded 16% at the end of 1993 (Główny Urząd Statystyczny [Central Statistical Office of Poland], 2014a). Between 1988 and 2013, two distinct moments occurred when the unemployment rate increased: the first one fell exactly on 1993, the second on the 2002–2003 period, when the unemployment rate reached 20%. The situation in 1993 may have also been influenced by delayed consequences of the deregulation of prices and hyperinflation of 1989–1990. It is also possible that the respondents’ negative evaluation of their financial condition

may have indirectly been affected by social moods connected with Poland's uncertain political situation. The survey was conducted between May and December 1993, and it was on May 29, 1993 that President Lech Wałęsa dissolved both chambers of the parliament, the Sejm and the Senate, and ordered early elections, which were held in September.

Subjective measures of poverty in the POLPAN survey: food expenditures

An indirect measure of perceived shortages may be whether, and to what degree, in respondents' opinion, the expenditure on food would grow in their households if higher incomes were available for them. In all the six waves of the POLPAN survey the participants were asked to estimate how much is spent on food in their households, and how much would be spent if the household's income suddenly grew by half.³ It should be remembered here that these are statements of participants who were not asked before to document their expenses so their estimation was *ad hoc* (or they refused to provide it, choosing the "don't know" answer). It is possible to calculate from the answers how much, according to the respondents, the expenses on food would grow, if their households' income increased by half. Figure 4 demonstrates the results of the calculation.

Figure 4. Percentage by which food expenditure would increase if the household's income grew by half (the average for each wave)



For 2013, sample weighted by age.

Source: Data from the POLPAN survey, 1988–2013.

The data indicate that **the shortage of money for food perceived subjectively** and measured in this way **was the greatest in 1993**, when the respondents stated that in a better financial condition their expenses on food would grow by 41.5% on average, as compared to the current expenses on food products. **The best situation occurred in 2013: if the household's income grew, food expenses would increase by 23.4% on average, as compared to the current expenses.**

³ In some of the waves, these questions were asked only to part of the respondents, depending on the version of the questionnaire.

Objective indicators – definitions

In this section of the present study, I will apply three different definitions of poverty and use measures related to them.

Extreme (absolute) poverty is defined as a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information (Eurostat 2010). This definition was adopted during the World Summit for Social Development in 1995. In Poland, the extreme poverty line is the value of so-called subsistence level, as calculated by the Institute of Labor and Social Studies (Instytut Pracy i Spraw Socjalnych) by evaluating the value of the basket of basic goods and services.

“Statutory” poverty refers to a difficult financial condition defined on the basis of criteria established in the law. In Poland, the “statutory” poverty line is determined by the income level that entitles people to apply for welfare payments from social welfare in accordance with the Social Welfare Law (Ustawa o pomocy społecznej).

Relative poverty is understood as such conditions in which the income and resources of individuals are insufficient for them to maintain a standard of living considered acceptable in the society. Such situation causes numerous inconveniences, exclusion from many activities, and marginalization (Eurostat 2010). For the sake of further consideration it has been assumed that the relative poverty line is set at 60% of the median of the monthly equivalent income measured in the sample of the POLPAN survey.⁴

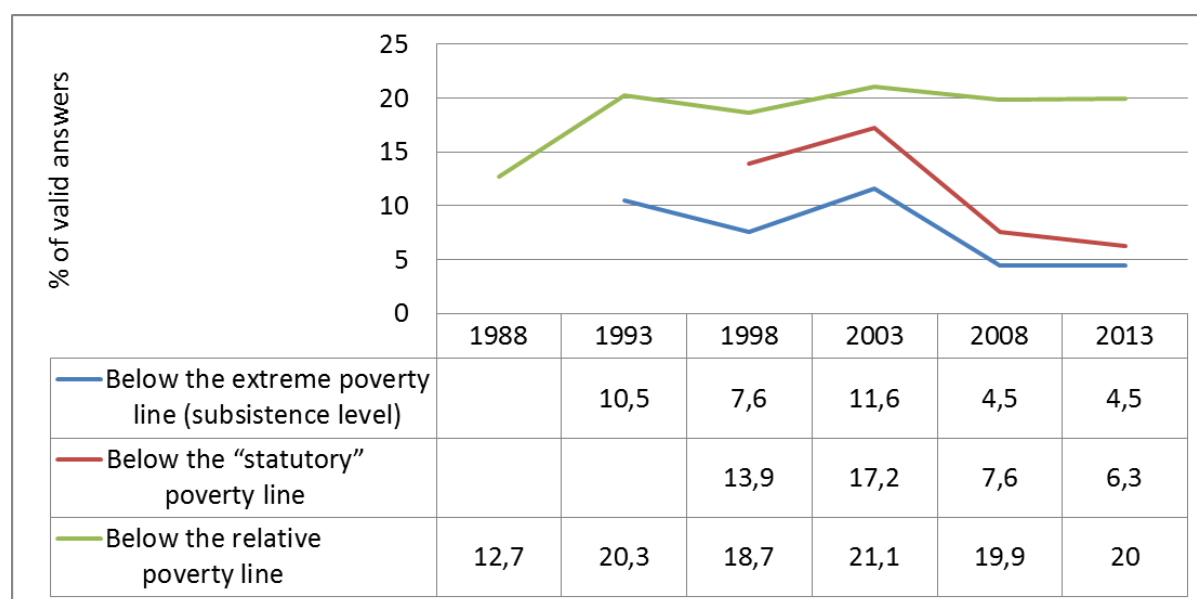
Unfortunately, it was impossible to use objective indicators for all the waves of the POLPAN survey. This results from lack of criteria for the first waves (it was only later that they were established) or from a considerable change in the way of establishing them.

Objective indicators – results

Figure 5 shows the results obtained by applying the objective indicators to POLPAN data. Excluded are cases where information about income was missing (refusal to provide the income or a “don’t know” answer).

⁴ Equivalent income means income calculated with the old OECD (Organization for Economic Co-operation and Development) equivalence scale, which assumes that, when calculating the per capita income in a family, each household member is assigned a weight: the first adult has a weight of 1, each additional member aged 14 and more has a weight of 0.7, and each child up to 13 a weight of 0.5. This scale has also been used in the present study for calculating the extreme poverty line, according to the methodology of the Central Statistical Office of Poland (Główny Urząd Statystyczny 2013). If the age of a household member (other than the respondent) was impossible to determine, a weight of 0.6 was assigned.

Figure 5. Proportion of POLPAN respondents living below the objective indicators of poverty



For 2013, sample weighted by age. The 1993 sample does not include people aged 21 to 25. 100% denotes all the households whose condition in a given year was possible to establish.

Source: Data from the POLPAN survey, 1988–2013.

According to the data presented in Figure 5, the results of the POLPAN survey indicate that **the proportion of respondents living in households below the relative poverty line** grew considerably (by nearly 8%) between 1988 and 1993, but **since 1993 has remained at approximately the same level, reaching nearly 20%.**

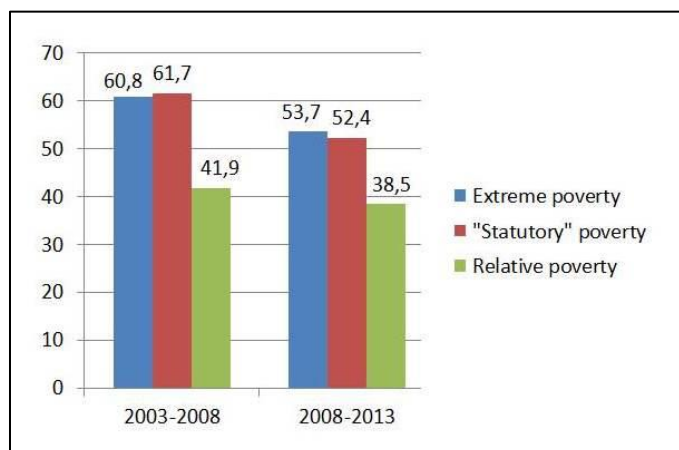
As for changes in the proportion of respondents living in households below the extreme and "statutory" poverty lines, the results are substantially consistent: following the 1998–2003 increase, a decrease was observed in the 2003–2008 period, while in the years **2008–2013 the situation was stable (for extreme poverty) or a slight decrease was observed in the proportion of people living below the line (for "statutory" poverty).**

For each of the objective indicators of poverty a table may be provided, such as Tables 1 and 2, which would show to what extent belonging to the group below or above a given poverty line is stable over time. Following the respondents' fate is made somewhat difficult by the fact that many respondents, when asked about their households' income, have answered "I don't know" or refused to answer the question, especially in recent years. This makes it impossible to establish whether they fell below or above the poverty line in a subsequent wave. The results indicate, however, that **for each objective indicator used, the most stable group is that of respondents living above the poverty line. The proportion of people staying in this group in a subsequent wave oscillates between 75 and 90%.** In 2008–2013, the proportion of respondents who stayed in the group above the poverty line was 83.3% for extreme poverty, 82.4% for "statutory" poverty, and 76.3% for relative poverty.⁵

⁵ For 2013, sample weighted by age. These proportions may be even higher since for part of the households, it was impossible to determine whether they were above or below the poverty line in 2013.

If we compare **the last two five-year periods, that is the years 2003–2008 and 2008–2013**, and take into account all the three objective indicators, we will notice coherent tendencies with regard to two situations. The first one is **“upward mobility”** (from the group below the poverty line to the one above the line), which **decreased** for each of the three types of poverty. The second situation is **“stability of those better off”** (i.e. people staying in the group above the poverty line), which also **decreased, but only slightly** (Figures 6 and 7).

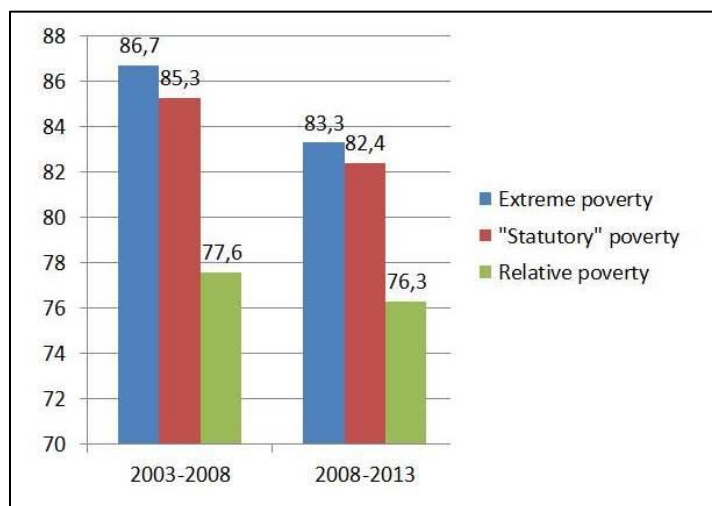
Figure 6. “Upward mobility” – the proportion of respondents who moved from the group below the line of poverty of each type to the group above the line in a given period



For 2013, sample weighted by age.

Source: Data from the POLPAN survey, 2003–2013.

Figure 7. “Stability of those better off” – the proportion of respondents who stayed in the group above the line of poverty of each type in a given period



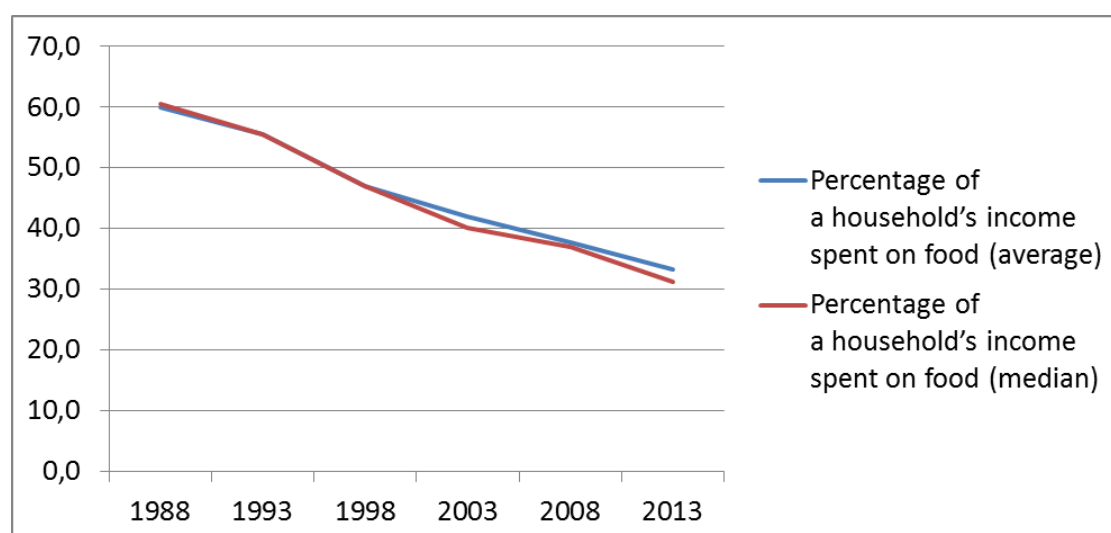
For 2013, sample weighted by age.

Source: Data from the POLPAN survey, 2003–2013.

Additional objective measure of financial condition: food expenditure as percentage of income

Research on poverty sometimes uses the Engel method, in which welfare is measured based on the share of food expenditure in overall expenditure of a household (Panek 2011). Food purchase is a necessity, thus the cost of food products makes a major part of the overall expenditure in poorer households, whose members cannot afford other expenses than the basic ones. A method similar to the one mentioned above may be employed to the POLPAN survey data, as we possess information about the sums evaluated by the respondents to be spent on food in their households, as well as the amount of monthly income in these households. Figure 8 demonstrates the percentage of households' income spent on food in individual years.

Figure 8. Percentage of household's income spent on food



For 2013, sample weighted by age.

Source: Data from the POLPAN survey, 1988–2013.

The data show that **since 1988, the percentage of households' income spent on food decreased consistently: in 1988 it averaged 60%, while in 2013 it averaged 33.4%, so it decreased almost by half.** The decrease also concerned the poorer part of the society. In those households which were below the relative poverty line in a given wave, this proportion dropped from 68.1% in 1988 to 44.8% in 2013. In households living below the subsistence level, the average percentage of income spent on food dropped from 70.4% in 1993 to 53.5% in 2013. Despite possible inaccuracies due to different dynamics of changes in food prices and incomes, this shows that the financial condition of households has improved.

Determinants of remaining in poverty

Despite the optimistic conclusions that can be drawn from the information provided above, a considerable number of Poles still experience poverty. Publications on this problem frequently list groups which are most at risk of poverty at a given time (see e.g. Główny Urząd Statystyczny, 2014b). The panel character of POLPAN's results enables us to determine **what contributes to the fact that the same people are again (or still) in a difficult financial condition after several years that divide any two waves of the survey.**

However, the following restriction should be made first. Poverty researchers tend to focus on the condition of households, whereas POLPAN is a survey which takes an individual as a unit of analysis. This means that we reach **the same people** every few years, **but not necessarily the same households**. In a five year's period between two consecutive waves of the survey, the respondents may have moved out and started living with other people or the composition of their previous household may have changed considerably: someone died, someone was born, someone moved out, an adult child got married and their spouse moved in. Comparing such situations is very difficult. What is more, the influence of a respondent's individual features (e.g. education) on the condition of the whole household varies depending on that person's position in relation to other members of the household.

For these reasons, I have chosen for the following analysis only part of the households, namely those in which it was possible to determine that the respondent was the head of the family⁶ both in 2008 and in 2013. There were 357 such households (after the data for 2013 were weighted by respondents' age).

The analysis was aimed at checking whether, and to what degree, selected factors affected the fact that a respondent's household was located below the relative poverty line both in 2008 and 2013. The following **demographic and structural factors** (independent variables) have been taken into account in statistical analysis (logistic regression):

- the respondent's gender and age,
- the respondent's education in 2008 (measured in years of studying, according to the standard number of years attributed to individual levels of education),
- the presence of an unemployed person, or persons, in the household in 2008,
- the number of children under 18 living in the respondent's household in 2008,
- living in a rural area in 2008,
- living in a household ranking below the relative poverty line also previously, i.e. in 2003.

⁶ The criterion for being the head of the family has been defined on the basis of contributing the greatest part to the household's income. Only for spouses contributing the same amount to the household's income has an additional criterion been adopted: the position of their current jobs on the scale of material remuneration (cf. Domański, Sawiński, Słomczyński 2009). This method has certain limitations: it is easier to determine on the basis of the POLPAN data who is the head of the household if the household consists of a small number of people. Households composed of more members are more frequently excluded from analysis because data were not collected about incomes of all adult household members. One needs to be careful with drawing general conclusions, then, as multi-person households are often the poorer ones.

The dependent variable refers to living in a household rating below the relative poverty line both in 2008 and in 2013 (a dichotomous variable, where 1 denotes living below the relative poverty line in both waves mentioned, and 0 denotes any other circumstances). The regression results are shown in Table 3.

Table 3. Regression analysis: remaining in an unfavorable financial condition (below the relative poverty line) both in 2008 and in 2013, depending on selected demographic and structural factors.

Independent variables	Unstandardized coefficient B	Standard error	Odds ratio Exp(B)
Gender (woman = 1, man = 0)	1,085	0,654	2,958*
Age (in 2008, expressed in years)	0,043	0,023	1,044*
Respondent's education (in 2008, in years of education)	-0,353	0,149	0,702**
Unemployed people in the household in 2008 (at least one unemployed person = 1, no unemployed people = 0)	1,24	0,72	3,454*
Number of children under 18 in the household (in 2008)	0,572	0,249	1,772**
Living in a rural area in 2008 (yes = 1, no = 0)	1,302	0,711	3,675*
Living in a household below the relative poverty line in 2003 (yes = 1, no = 0)	2,244	0,572	9,434***
Constant	-3,388	2,292	0,034
Cox and Snell R-square	0,189		

* p < 0.10, ** p < 0.05, *** p < 0.01

For 2013, sample weighted by age.

Source: Data from the POLPAN survey, 2008–2013.

The results of the analysis carried out using the above variables indicate that **remaining in poverty in the two consecutive waves was fostered to a considerable degree by the previous unfavorable financial condition: according to the above regression model, people who already lived in households rating below the relative poverty line in 2003 had over nine times higher odds of remaining in poverty in the next two waves than those people who did not experience relative poverty in 2003.**

Nevertheless, the model also indicates that if **a respondent** who is the head of the family **lived in a rural area in 2008, or lived in a household with at least one unemployed person, the risk of being in the group of relatively poor people both in 2008 and in 2013 was several times (about 3.5) higher than whenever there were no such circumstances.** The results also suggest that the higher the number of children under 18 living with the respondent in 2008, the higher the household's probability of rating in the relative poverty

range in two consecutive waves of the survey, and that the risk was increased by gender (being a woman, to be precise). These last results have not been fully confirmed in later analyses, based on other methods. **Education had a preventive character: a higher number of years of education reduced the risk of remaining in poverty.** The age of the respondent had relatively limited impact on the variable under consideration.

The POLPAN survey gathers information not only about demographic characteristics of the respondents and indicators of their position in the social structure, but also about other aspects, such as certain psychological characteristics of the interviewees. One may then search for a relationship between the tendency to remain in an unfavorable financial condition and the respondent's **psychological traits**. Presented below is **an example of such an analysis** (also based on data of people who were the head of the household, the data coming from 2008–2013).

First, a variable has been created, provisionally called here “**attributing the causes of events occurring in life to external factors,**” a variable that summarizes the respondents' answers from 2008 to the following:

- the question whether, when something goes wrong in the respondent's life, it is most often (1) mainly his own fault or (2) mainly **the fault of other people or circumstances beyond the respondent's control** (this variable was recoded so that people who chose the second option were assigned the value 1, and the others were assigned 0),
- selected items of the question: “To what extent are certain things important **for achieving success in life**” – respondents' opinions were considered as to how important **luck and knowing the right people** are (two zero-one variables were created, one for luck, the other for contacts; respondents who acknowledged that these factors are **absolutely necessary or very important** were assigned the value 1, and all others were assigned 0).

The overall indicator, “attributing the causes of events occurring in life to external factors,” is the sum of the three variables presented above. The higher its value, the higher probability we may assume that the respondent tends to seek the causes of events in his/her life on the outside: in other people's behavior, in circumstances or random factors. Undoubtedly, this feature has much in common with external locus of control, a phenomenon widely described in psychology (Rotter 1966).

Next, the newly created variable was added to the previous regression model. The results are presented in Table 4.

Table 4. Regression analysis: remaining in an unfavorable financial condition (below the relative poverty line) both in 2008 and in 2013, depending on selected demographic, structural and psychological factors.

Independent variables	Unstandardized coefficient B	Standard error	Odds ratio Exp(B)
Gender (woman = 1, man = 0)	0,341	0,791	1,406
Age (in 2008, expressed in years)	0,077	0,032	1,08**
Respondent's education (in 2008, in years of education)	-0,368	0,218	0,692*
Unemployed people in the household in 2008 (at least one unemployed person = 1, no unemployed people = 0)	1,582	0,849	4,864*
Number of children under 18 in the household (in 2008)	0,543	0,354	1,722
Living in a rural area in 2008 (yes = 1, no = 0)	1,751	0,948	5,763*
Living in a household below the relative poverty line in 2003 (yes = 1, no = 0)	1,94	0,68	6,958***
Attributing the causes of events occurring in life to external factors in 2008	0,974	0,522	2,649*
Constant	-7,165	3,529	0,001**
Cox and Snell R-square		0,228	

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

For 2013, sample weighted by age.

Source: Data from the POLPAN survey, 2008–2013.

We can observe that, after the model has been modified, most of the factors analyzed previously retained their significance; it is only the influence of gender and the number of children that turned out to be statistically non-significant. **In the model applied here, attributing the causes of events occurring in life to external factors in 2008 turned out to increase noticeably (2.6 times) the risk of remaining in the group of relatively poor people in the two consecutive waves of the survey (in 2008 and in 2013).** It should be remembered, however, that long-time poverty itself affects psychological characteristics of people who experience it, and frequently develops a sense of passivity and powerlessness. It should also be emphasized that measuring the intensity of complex psychological characteristics, such as attributing the causes of events occurring in life to external factors or external locus of control, with several survey questions is certainly a very imperfect method.

Summary

Analyses carried out using data from the POLPAN survey indicate that after the turbulent period of 1988–1993, the financial condition of households between 1993 and 2013 has improved considerably. This is testified by almost all measures used, both subjective and objective. One exception is the proportion of people living below the relative poverty line, which remained stable over that time, at an approximate level of 20%. In the period determined by the two latest waves of the survey (2008–2013), the results also show an improvement in the financial condition of households or at least no major changes for the worse.

Analyses carried out for the period 2008–2013 in a group of respondents who were the head of the family indicate that poverty has largely a chronic nature, which means that previous experience of poverty significantly increases the risk of long-lasting life in privation (or repeated episodes of poverty) in the future. Apart from this, the unemployment of members of the household and the fact of living in a rural area increase the probability of remaining in poverty or falling into poverty again. The results also suggest that the psychological tendency to attribute the causes of events in life to external factors contributes to remaining in poverty (although there may be a two-way relationship between these two). On the other hand, better education of the person who is the head of the family counteracts unfavorable tendencies.

References

Domański H., Sawiński Z., Słomczyński K.M. (2009), *Sociological Tools Measuring Occupations: New Classification and Scales*, IFiS Publishers, Warszawa.

Główny Urząd Statystyczny (2013), *Ubóstwo w Polsce w świetle badań GUS* – http://stat.gov.pl/cps/rde/xbcr/gus/WZ_ubostwo_w_polsce_2013.pdf.

Główny Urząd Statystyczny (2015a), *Stopa bezrobocia w latach 1990–2015* – (<http://stat.gov.pl/obszary-tematyczne/rynek-pracy/bezrobocie-rejestrowane/stopa-bezrobocia-w-latach-1990-2015,4,1.html>, accessed on November 9, 2015).

Główny Urząd Statystyczny (2015b), *Ubóstwo ekonomiczne w Polsce w 2014 r. (na podstawie badania budżetów gospodarstw domowych)* (http://stat.gov.pl/download/gfx/portalinformacyjny/pl/defaultaktualnosci/5487/14/2/1/ubostwo_2014.pdf, accessed on November 9, 2015).

Eurostat (2010), *Combating poverty and social exclusion. A statistical portrait of the European Union 2010*, Publications Office of the European Union, Luxembourg.

Panek T. (2007), *Ubóstwo i nierówności*, [in:] T. Panek (ed.), *Statystyka społeczna*, Polskie Wydawnictwo Ekonomiczne, Warszawa, pp. 258–298.

Panek T. (2011), *Ubóstwo, wykluczenie społeczne i nierówności. Teoria i praktyka pomiaru*, Oficyna Wydawnicza Szkoły Głównej Handlowej w Warszawie, Warszawa.

Rotter J.B. (1966), „Generalized expectancies for internal versus external control of reinforcement”, *Psychological Monographs*, vol. 80, no 1, pp. 1–28.

*

This publication has been prepared within the framework of the project
“Polish Panel Survey POLPAN 1988–2013: Social Structure and Mobility,”
financed by the [Polish] National Science Centre (Narodowe Centrum Nauki)
(grant no. 2011/02/A/HS6/00238).

Warsaw, 2015