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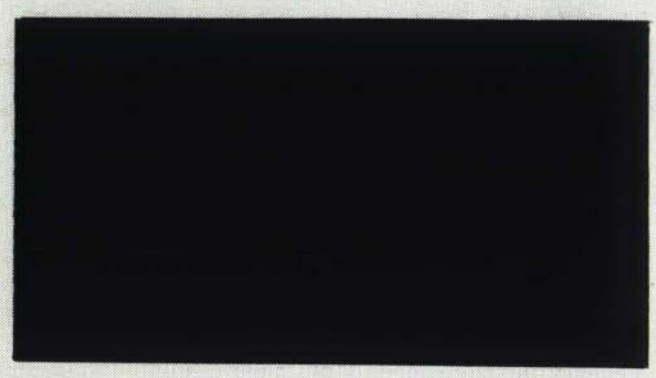

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A comparison of poverty in seven European countries and regions using subjective and relative measures

Karel Van den Bosch[1], Tim Callan[2], Jordi Estivill[3], Pierre Hausman[4], Bruno Jeandidier[5], Ruud Muffels[6], and John Yfantopoulos[7]

[1] Centre for Social Policy (CSP) University of Antwerp, Prinsstraat 13, B-2000 Antwerp, Belgium
[2] Economic and Social Research Institute (ESRI) Dublin 4, Republic of Ireland
[3] Gabinet d'Estudis Socials (GES), E-08009 Barcelona, Spain
[4] Centre d'Etude de Populations, de Pauvreté et de Politiques Socio-Economiques (CEPS), L-7201 Walferdange, Luxembourg
[5] Equipe de Recherche pour l'Analyse Dynamique des Effets des Politiques Sociales (ADEPS), Université de Nancy II, F-54035 Nancy, France
[6] Tilburg University, Department of Social Security Studies (IVA), P.O. Box 90153, 5000 LE Tilburg, The Netherlands
[7] National Center for Social Research (NCSR), GR-10559 Athens, Greece

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Abstract. This paper presents comparative results on poverty in seven countries and regions of the European Community: Belgium, The Netherlands, Luxembourg, Lorraine, Ireland, Catalonia and Greece. The data are obtained from comparable socio-economic surveys in each country. Subjective as well as relative poverty lines are used. The results indicate that the subjective poverty lines are plausible in a comparative context, although the levels of the subjective standards are rather generous. The estimated equivalence scales are much flatter than the one recommended by the OECD. The extent of poverty is much greater in the "peripheral" EC-countries than in the "central" ones. Though similar factors are found to be associated with poverty in all countries, there are also important differences in the characteristics of the poor across countries. The impact of social security transfers on poverty appears to be much smaller in the southern countries Greece and Catalonia, than in the Benelux and Lorraine.

Introduction

International comparative research into poverty, the distribution of income, and social security transfers is usually hampered by lack of, or at least uncertainty about, the comparability of the data that are used. Often, data are brought together that have been collected for different purposes and using different procedures. Standardization a posteriori is in many cases difficult or impossible.

This paper presents comparative results on poverty in seven countries and regions of the European Community (E.C.)[2]. The data are obtained from comparable socio-economic surveys in each country. Much time and effort has been spent to ensure that key concepts, such as income, household and labor market status, were defined in the same way in all countries, and that the same methods have been applied. The study uses subjective as well as relative poverty lines. Sub-

[2] See footnote page 2

jective poverty lines are based on judgments of the population about minimum income levels, as expressed in sample surveys. Two specific subjective standards have been applied here, namely the Subjective Poverty Line (SPL) and the Centre for Social Policy (CSP) standard. The relative poverty line used here is defined as 50% of average equivalent household income in each country. The use of several poverty lines enables us to draw more robust conclusions regarding the distribution of poverty between and within countries. The countries and regions are Belgium, The Netherlands, Luxembourg, Lorraine (region of France), Ireland, Catalonia (region of Spain) and Greece.

The plan of the paper is as follows. After a brief discussion of the data and some important concepts (Sect. 1), we introduce the poverty line definitions (Sect. 2). The resulting income thresholds are presented in Sect. 3. In Sect. 4, we compare the incidence of poverty across countries and across standards. We also investigate which characteristics of a household put it at a high risk of poverty, looking at family composition, age, and employment status of the head of household, among other variables. The characteristics of the poor, i.e. their social composition, are also compared across countries. In Sect. 5, indicators are given of the impact of social security money transfers on poverty. Sect. 6 concludes with some remarks regarding the usefulness of the poverty definitions applied here for comparative research, and a brief summary of the important empirical results.

1. Data and the concepts of household and income

The data come from socio-economic household surveys in the several countries and regions. The major topics of the questionnaires were income, labor market participation and demographic characteristics, while questions were also asked about subjective income evaluation and about the presence of some goods and conveniences in the household. Though sampling procedures varied across countries, all resulted in random samples of households. Appendix 1 provides some key information about methods used and characteristics of the samples.

In Belgium, The Netherlands, Luxembourg and Lorraine these surveys are part of ongoing household panels, but the panel aspect is not relevant for the present paper. In most of the paper we use only data for a single year for each country, as the time between waves was too short to produce any interesting developments. However, in Sect. 3 we present poverty thresholds for two different years, for the countries where this is possible, in order to show how stable these thresholds are across time.

Though the exact definitions of the concept of household are not the same in all countries (cf. Deleeck et al. 1992, Appendix C), they all boil down to the

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[2] These results were collected in a project called EUROPASS (European Research On Poverty And Social Security), which was conducted by the seven research groups to which the authors are affiliated.

The project leaders in the respective countries were: Prof. Dr. H. Deleeck (Belgium), Dr. R. Muffels, Prof. Dr. J. Berghman, Prof. Dr. A. Kapteyn (The Netherlands), Prof. Dr. G. Schaber (Luxembourg), Prof. Dr. J.-C. Ray (Lorraine), Prof. Dr. B. Whelan (Ireland), Prof. Dr. J. Estivill (Catalonia) and Prof. Dr. J. Yfantopoulos (Greece).

The Centre of Social Policy at the University of Antwerp coordinated the project. Funding was provided by the Commission of the EC, within the framework of the Second Community Action Programme to Combat Poverty, and by national funding. A full report of the study is contained in Deleeck, Van den Bosch, De Lathouwer (1992).

following: a group of related or unrelated persons who live in the same dwelling and share meals and/or a common budget. Probably the greatest difference occurs in the treatment of students who live in rooms, but come home regularly. In The Netherlands and Lorraine they are regarded as separate households; in the other countries they are treated as members of their parents' household.

The income concept in this paper is disposable household cash income, i.e. it includes social security transfers, and is net of taxes and social security contributions. Income in-kind is not included. For Lorraine, however, the income measure is household income before government taxes, but excluding social security contributions[3]. The household income variable has been built up from the answer to detailed questions about all possible sources of income of all persons in the household.

All income amounts in this paper are monthly amounts. The original income questions asked for weekly, monthly or yearly amounts, as seemed most appropriate in each country and for the kind of income concerned (e.g. yearly for interests, monthly for salaries). In many instances, the respondent could choose between several reference periods. All amounts have been recalculated to a monthly base, as this seemed to be the most common denominator. For more details on the income variables, we refer to Deleeck et al. (1992, Appendix C).

Monthly income is more subject to temporary fluctuations than yearly income. It is therefore to be expected that more households will be counted as poor on a monthly basis, but the magnitude of this effect is hard to assess. Which time period is the most appropriate is a difficult matter. Atkinson (1974, p. 45) is of the opinion that in poverty research a short period is suitable, because for households at the lower end of the income distribution the scope for averaging income over time may be rather limited (cf. Ruggles 1990, p. 89f).

As in most poverty studies, we assume that the distribution of goods and services within households is such, that either all household members are poor, or none of them. In a separate study, the Luxembourg and Lorraine teams have tried to address the issue of intra-household distribution by distinguishing different income groups within one household. An income group is a subgroup within a household that has its own sources of income, and that does not fully share its income with the rest of the household (Jeandidier et al. 1988). In this article, however, we do not pursue this line of research.

2. Poverty line definitions

One of the most difficult problems in international comparative poverty research is how to set comparable poverty lines in the various countries. There are a number of different methods, which correspond to different concepts of poverty, and which imply different ways to translate a poverty line from one country to another.

For instance, one might convert a given poverty line from one country to another on the basis of purchasing power parities (e.g. Eurostat 1991; Duncan et al. 1991). In that case, the poverty line corresponds to the same basket of goods

[3] The French tax system is so complex, that it does not make sense to ask people for their after-tax incomes, nor is it regarded as feasible to estimate after-tax incomes through micro-simulation.

and services in each country. In this sense, it implies an absolute conception of poverty.

In most comparative studies some form of a relative poverty standard is used, where the poverty line is set at a certain percentage of average or median disposable or equivalent income in each country (e.g. OECD 1976; O'Higgins and Jenkins 1990; Smeeding et al. 1990). This method is based on the now widely accepted view that poverty has to be seen in terms of the standard of living in the various societies. But one might question whether poverty is as relative as is implied by the relative poverty standard (cf. Sen 1983).

Absolute poverty lines have an elasticity of zero with respect to average real income, while for relative poverty lines this elasticity is by definition equal to one. In the subjective method, on the other hand, this elasticity, or the degree of relativity, is endogenously determined, so that subjective standards are a priori neither relative nor absolute (cf. Hagenaars and Van Praag 1985). Subjective standards are based on the views of respondents in a sample survey on minimum income needs.

A fourth possibility is to use the official or legal approach, where the poverty lines is set at the level of guaranteed minimum incomes, as provided in income support schemes. The use of levels of income support as poverty lines within a single country already suffers form several conceptual problems (Callan and Nolan 1991, p. 250). In comparative work, the official poverty line method does not seem to work, as shown in Deleeck et al. (1992). In some countries, no nationwide guaranteed minimum income exists, while in countries where there is such a minimum, its function within the social welfare system apparently varies considerably.

At the present moment, it seems premature to make a choice between the various methods. Callan and Nolan (1991, p. 258), in a review of poverty line methods, conclude that "each faces formidable problems and objections, at both conceptual and empirical levels", and that "nothing approaching consensus on the measurement of poverty appears to be emerging". Given this situation, the best strategy appears to be to use several methods, so that any conclusions do not depend on a single approach. If several methods are in agreement, however, reasonably robust conclusions may still be drawn.

In this study two subjective standards, in addition to a relative poverty line, are applied. Subjective standards are based on the views of respondents in a sample survey on minimum income needs. The method therefore takes account of the fact that poverty is a socially constructed category, and is not something that can be determined by an outside observer without regard to the circumstances and values in the surrounding society. There are a number of different variants of this method. In some, respondent's views about what income hypothetical families would require to reach various levels of living are obtained (e.g. Rainwater 1974). This has the disadvantage that people have to make statements about situations with which they may not be familiar. In this study respondents are asked to evaluate their own situation, on which they may be considered the best experts.

Two specific subjective methods are applied. The first method is the one introduced by Goedhart et al. (1977), which we will call the SPL (Subjective Poverty Line), following Kapteyn et al. (1985). The other method has been developed independently around 1976 by the Centre for Social Policy at Antwerp University (Deleeck et al. 1980; cf. Deleeck 1989). Below, it will be referred to as the "CSP-method". The related but more complex Leyden Poverty Line (Van Praag 1971,

1991; Hagenaars 1986) is not used in this study. (For a methodological comparison of the SPL, the CSP-method and the LPL, see Flik and Van Praag 1991.)

The SPL is based on survey responses to the Minimum Income Question (MIQ), which reads: "What is the minimum amount of income that your family, in your circumstances, needs to be able to make ends meet?" The answer to this question, $y_{\min}$, depends on a number of characteristics of the household, of which current household income (y) and household size (fs) are the ones considered most relevant in the present context. Also, these variables have been used most often in previous research (e.g. Goedhart et al. 1977; Van Praag et al. 1980), though in particular Hagenaars (1986) and De Vos and Garner (1991) have shown that other factors may be important as well. We also follow the literature in specifying a loglinear relationship:

$$\log(y_{\min}) = a + b_1 \log(y) + b_2 \log(fs) \quad . \tag{1}$$

This equation can be estimated with ordinary least-squares regression analysis. To derive national poverty lines, income levels $y^*(fs)$, depending on household size, have to be found where the curve defined by Eq. (1) intersects with the line $y = y_{\min}$. Given estimates of a, b_1 and b_2 these levels are calculated by:

$$\log(y^*(fs)) = (a + b_2 \log(fs))/(1 - b_1) \quad . \tag{2}$$

The rationale behind this procedure is as follows. At low incomes, $y_{\min}$ will be below y, indicating that households feel they are not able to make ends meet, while at high incomes the reverse is true. At the points where $y = y_{\min}$, households are just able to make ends meet. The corresponding income thresholds are then used as poverty lines (cf. Goedhart et al. 1977; Van Praag et al. 1980; De Vos and Garner 1991, however, prefer to call them "income sufficiency thresholds").

The version of the SPL applied here is the most basic one. More advanced models take into account the effects of social reference groups, the ages of children, underestimation of income by the respondent and sample selection bias due to item non-response (cf. Kapteyn et al. 1988; Muffels et al. 1990; De Vos and Garner 1991).

The CSP-standard also uses the minimum income question (MIQ), and in addition the following question: "With your current income, can you get by:

with great difficulty,
with difficulty,
with some difficulty,
fairly easily,
easily,
very easily."

Only the data of households where the respondent answered "with some difficulty" are used in deriving the poverty line. These households are assumed to be living on the margin of poverty, so that both their actual incomes as well as their answers to the MIQ can be regarded as indicators of the poverty line. For each of these households the answer to the MIQ and actual household income are compared, and the lower of the two amounts (y_{low}) is determined. For each household type (differentiated by size and by age of the household members; see

Table 1. Three poverty standards and the guaranteed minimum income (G.M.I.) in seven European countries and regions: monthly amounts in constant ECU (Jan. 1988)[a] by type of household, geometric means, and elasticities with respect to household size

	CSP		SPL		EC		G.M.I.	
Belgium	1985	1988	1985	1988	1985	1988	1985	1988
Single aged person	509	540	639	549	313	333	336	364
Single nonaged adult	560	581	639	549	313	333	336	364
Two aged persons	662	727	797	757	530	567	465	484
One aged, one nonaged person	769	769	797	757	530	567	465	484
Two nonaged adults	806	810	797	757	530	567	465	484
Two nonaged adults, one child	933	982	875	875	683	734	491	512
Two nonaged adults, two children	1023	1081	935	989	838	903	588	602
Two nonaged adults, three children	1051	1151	991	1091	996	1070	722	743
One nonaged adult, one child	736	753	762	734	465	500	364	396
One nonaged adult, two children	817	852	850	873	620	669	465	484
Geometric mean – in ECU	767	803	801	776	547	586	457	481
– as % of median income	65	63	68	61	46	46	39	38
Household size elasticity	0.40	0.43	0.27	0.42	0.71	0.71	0.42	0.39
The Netherlands	1985	1986	1985	1986	1985	1986	1985	1986
Single aged person	513	528	521	616	350	367	490	482
Single nonaged adult	583	570	521	616	350	367	479	478
Two aged persons	652	706	632	743	594	624	699	688
One aged, one nonaged person	792	747	632	743	594	624	721	722
Two nonaged adults	723	789	632	743	594	624	703	694
Two nonaged adults, one child	825	836	708	830	769	808	753	745
Two nonaged adults, two children	844	863	768	897	943	991	823	805
Two nonaged adults, three children	858	882	817	953	1118	1174	904	874
One nonaged adult, one child	616	617	632	743	524	551	707	684
One nonaged adult, two children	635	644	708	830	699	734	767	755
Geometric mean – in ECU	694	708	651	764	614	645	692	681
– as % of median income	53	57	50	62	47	52	53	55
Household size elasticity	0.27	0.29	0.28	0.27	0.71	0.71	0.37	0.36

Luxembourg[c]	1985	1986	1985	1986	1985	1986	1985	1986
Single aged person	573	637	828	747	445	474	520	519
Single nonaged adult	681	771	828	747	445	474	520	519
Two aged persons	870	845	1016	902	757	805	711	710
One aged, one nonaged person	977	978	1016	902	757	805	711	710
Two nonaged adults	1085	1112	1016	902	757	805	711	710
Two nonaged adults, one child	1173	1249	1204	1007	981	1049	791	789
Two nonaged adults, two children	1225	1330	1406	1089	1203	1281	871	869
Two nonaged adults, three children	1262	1395	1632	1168	1427	1519	950	948
One nonaged adult, one child	769	908	1016	902	682	745	600	599
One nonaged adult, two children	821	1016	1204	1047	906	1088	680	678
Geometric mean – in ECU	915	996	1093	932	785	849	694	693
– as % of median income	56	58	66	55	48	50	42	41
Household size elasticity	0.41	0.38	0.40	0.28	0.71	0.71	0.36	0.36
Lorraine[b]	1985	1986	1985	1986	1985	1986	1985	1986
Single aged person	432	478	737	685	326	341	288	275
Single nonaged adult	628	587	737	685	326	341	284	280
Two aged persons	560	723	821	816	555	579	415	401
One aged, one nonaged person	756	832	821	816	555	579	414	406
Two nonaged adults	952	840	821	816	555	579	422	409
Two nonaged adults, one child	1093	1100	910	928	718	750	517	497
Two nonaged adults, two children	1175	1195	1012	1033	881	920	588	577
Two nonaged adults, three children	1234	1262	1138	1134	1044	1091	687	673
One nonaged adult, one child	769	746	821	816	489	511	422	416
One nonaged adult, two children	851	841	910	928	652	682	503	519
Geometric mean – in ECU	804	835	865	855	573	599	439	430
– as % of median income	67	68	72	69	48	48	37	35
Household size elasticity	0.42	0.49	0.25	0.30	0.71	0.71	0.53	0.54

Table 1 (continued)

	CSP		SPL		EC		G.M.I.	
Ireland	1987	1989	1987	1989	1987	1989	1987	1989
Single aged person	296	312	402	428	238	248	211	213
Single nonaged adult	322	341	402	428	238	248	220	213
Two aged persons	510	539	544	576	405	421	351	358
One aged, one nonaged person	489	517	544	576	405	421	400	358
Two nonaged adults	649	687	544	576	405	421	428	358
Two nonaged adults, one child	835	884	650	717	524	546	505	413
Two nonaged adults, two children	858	889	738	783	643	670	581	466
Two nonaged adults, three children	885	936	814	863	763	794	635	520
One nonaged adult, one child	509	538	544	576	357	372	290	269
One nonaged adult, two children	532	562	650	688	477	496	376	323
Geometric mean – in ECU	552	583	570	606	418	436	376	336
– as % of median income	59	70	61	73	45	52	40	40
Household size elasticity	0.64	0.64	0.44	0.44	0.71	0.71	0.67	0.53
Catalonia	1988		1988		1988		1988	
Single aged person	361		706		314		–	
Single nonaged adult	556		706		314		–	
Two aged persons	624		925		534		–	
One aged, one nonaged person	794		925		534		–	
Two nonaged adults	798		925		534		–	
Two nonaged adults, one child	973		1084		690		–	
Two nonaged adults, two children	1094		1213		847		–	
Two nonaged adults, three children	1216		1223		1004		–	
One nonaged adult, one child	731		925		471		–	
One nonaged adult, two children	852		1084		628		–	
Geometric mean – in ECU	764		956		552			
– as % of median income	57		71		41			
Household size elasticity	0.55		0.36		0.71			

Greece[d]	1988	1988	1988	1988
Single aged person	368	378	194	–
Single nonaged adult	549	607	194	–
Two aged persons	416	495	330	–
One aged, one nonaged person	534	584	330	–
Two nonaged adults	666	707	330	–
Two nonaged adults, one child	796	863	466	–
Two nonaged adults, two children	890	871	601	–
Two nonaged adults, three children	829	942	738	–
One nonaged adult, one child	549	762	330	–
One nonaged adult, two children	653	715	466	–
Geometric mean – in ECU	607	669	366	
– as % of median income	76	83	46	
Household size elasticity	0.29	0.44	0.82	

[a] Amounts converted using purchasing power parities for household consumption, and national indices of consumer prices. One ECU (European Currency Unit) is about 1.2 US$.
[b] In Lorraine, the guaranteed minimum income (Revenu Minimum d'Insertion) was instituted on 1-1-'89. The amounts have been deflated to 1986 and 1985.
[c] In Luxembourg, the guaranteed minimum income (Revenu Minimum Garanti) went into effect on 27-7-'86. The 1985 amounts have been adjusted by the consumption price index.
[d] EC-standard in Greece has equivalence factor for children equal to 0.7, instead of 0.5.
Note: the list of household types is not exhaustive.

Table 1 for a list of frequently occurring household types), the average of y_{low} is calculated. After eliminating outliers for which y_{low} differs by more than two standard deviations from the average, a new average is computed. If the number of households on which this average is based is sufficiently high (at least 30 per household type), this amount is used as the poverty line for that particular household type. For other household types, the poverty line is calculated by extrapolating from those amounts (see Deleeck et al. (1992) for a more detailed description).

The description of the methods shows that the SPL and CSP-methods are different in technique, but share the same theoretical background (though the theory has been made more explicit for the SPL than for the CSP model). This implies that they are also subject to the same kinds of problems and objections. The most crucial assumption is that words and phrases like "minimum income", "making ends meet" and "with some difficulty" have the same meaning for all respondents. Unfortunately, this assumption would be hard to test. In comparative research there is the further complication that the questions have to be translated into several different languages. In the present project, care has been taken to phrase the income evaluation questions as much as possible in the same way in all surveys.

Another basic assumption is that there is no disagreement in the household regarding its standard of living. The answer of the respondent must correctly reflect the views of all members of the household. The method could, at least in principle, be adjusted to examine to what extent this in fact the case. (For estimates of the effect of the presence of more than one income group within the household on measures of subjective well-being, see Dickes 1988).

Sometimes the subjective poverty lines are claimed to represent a social consensus on the definition of poverty. This, as Callan and Nolan (1991, p. 252) point out, may be somewhat misleading if taken too literally. This is most obvious in the case of the CSP-method, which is based on the answers of only a subgroup in the sample. But in the SPL method as well, the answers of people with incomes well above or well below the poverty lines are treated as if they are in some way biased. One must keep in mind that the answers to the income evaluation questions (the MIQ and the "getting by" question) are used not so much as if they represent views on a certain social issue, but rather as verbal reactions of households to their own level of economic well-being. At the point in the income scale where the reaction of the average household starts to show that it experiences difficulties, researchers put the poverty line. Therefore, the subjective poverty lines can be regarded as being rooted in the everyday experiences of households trying to make ends meet, without necessarily representing a social or political consensus on the poverty line (which, anyway, may not exist).

On the other hand, the label "subjective" should not be interpreted in the sense that its own evaluation decides whether a household is regarded as poor or not. The incomes of households are compared with national poverty lines, which are the result of an averaging process. Therefore, "intersubjective standards" might be a more appropriate description. For further criticisms on the subjective methods we refer to Walker (1987) and to Callan and Nolan (1991) and references given there.

In addition to the subjective poverty lines, we also use a relative poverty line definition. The relative standard is defined, following O'Higgins and Jenkins (1990), as 50% of average equivalent income. This is the poverty line for a single

person; the amounts for other household types are calculated on the basis of the following equivalence factors recommended by the OECD (1982): 1.0 for the first adult, 0.7 for each additional adult and 0.5 for each child (i.e. each person below 18 years *or* in full-time education); in Greece however, the factor of 0.7 was also used for children. Because this standard is an elaboration of the one used in the first Programme to Combat Poverty of the European Community, we call it the EC-standard, without implying that it is any way an official standard of the EC.

3. Levels of the poverty lines

The results from applying the three poverty line definitions are presented and discussed in this section. Included in Table 1 are the levels of the poverty lines in the seven countries, expressed in constant European Currency Units (ECUS) of January 1988. Adjustment for differences in price levels between countries have been made using unpublished purchasing power parities for household consumption estimated by Eurostat (for further details see Deleeck et al. 1992, Appendix B).

For reference, we also show the levels of income guaranteed in social security or social assistance to all or almost all citizens in each country. In Greece and Catalonia, such a guaranteed minimum income does not exist. For further details on the definition of the guaranteed income minima in the various countries, we refer to Deleeck et al. (1992), Appendix D.

To compare the results in Table 1, we first consider the levels of the poverty lines, and then the equivalence scales implicit in the CSP and SPL poverty lines, and in the guaranteed income minima.

To represent the overall *level* of a poverty line, we have used the geometric mean of the amounts[4]. In all countries, the subjective standards are the most generous ones. The relative EC-standard is much lower, though higher than the official guaranteed minimum incomes, except in The Netherlands.

Comparing across countries, the EC-standard indicates that there are three groups of countries: Greece and Ireland, where this standard is rather low, the Benelux countries, Catalonia and Lorraine, where it is at an intermediate level, and Luxembourg where it is highest. These positions are of course to a great extent determined by the levels of average household income, but also by average household size.

The average levels of the subjective poverty lines follow a roughly similar pattern across countries. Nevertheless, the difference between the highest and lowest values is smaller than with the EC-standard, suggesting that the subjective poverty lines are only partly relative. There are some deviations from this general trend.

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[4] The geometric mean is used, because the proportional difference between two geometric means can be interpreted as the average of proportional differences between the amounts (pairwise) over which the geometric means are compared. Thus, if the poverty line for families with three children is 10% higher in country B than in country A, this has the same effect on the differences between the geometric means of A and B as when the single person poverty line is 10% higher. There seems to be no reason to give more weight to differences in the poverty lines for large households, as the arithmetic mean does implicitly. An average measure seems preferable to comparing poverty lines for one particular type of household, as the conclusions may depend on the choice of the reference type of household.

First, the SPL makes a peculiar "jump" in Catalonia. Secondly, the subjective standards are much lower in The Netherlands than in Lorraine and Belgium. The large difference between Belgium and The Netherlands is surprising, given that average household income is about the same in both countries, price differences are small, and there are no indications that the level and kind of government services and non-cash benefits (education, health care) is very different. Language differences do not seem to play role, as separate results for the Dutch-speaking part of Belgium were not closer to The Netherlands' results. The income thresholds for Lorraine may have been inflated somewhat because of the fact that household income is measured before taxes; it is not clear whether this factor accounts for all of the difference.

More surprising, perhaps, than the fluctuations across countries, are the different levels of the SPL and CSP-standards *within* countries. In most countries they are fairly close together, the SPL being generally somewhat higher (except in Luxembourg), but in Catalonia the SPL is much higher than the CSP-standard. Because the CSP and SPL-standards share the same theoretical background, and use the same empirical material, the differences must be due to the more technical details. A host of factors may be involved, (language differences, varying reliability), but at present we are unable to shed any more light on this problem.

As an indicator of the steepness of the *equivalence scales* we use the elasticities of the poverty lines with respect to household size[5]. The equivalence scales of the subjective standards are much flatter than the scale build into the EC-standard, which has an elasticity of 0.71. The equivalence scale implicit in the guaranteed minimum incomes also tends to be steeper. This is typical of scales based on subjective income evaluations, as Buhmann et al. (1988) show in a review of a large number of equivalence scales. However, while they find that the family size elasticities of subjective scales range from 0.12 to 0.36, with a median value of 0.24, in our study the elasticities range from 0.25 to 0.64. The median elasticity for the SPL and CSP poverty lines together is 0.40, which is equal to the median value of the family size elasticities of equivalence scales that have been estimated using consumption expenditure data (Buhmann et al. 1988, p. 120).

Although there is some variation across countries and across years, the SPL equivalence scale elasticities seem to converge in a reasonable narrow range (0.25 to 0.44). The CSP-method produces scales that are wider apart across countries. In addition, they show some implausibilities in some countries, notably the low factor for single persons in Ireland (51% relative to two-adult households), and the relatively low amounts needed by households with children in The Netherlands, for which there is no substantive explanation.

Another important aspect of the poverty lines is their *behavior across time.* Table 1 also shows the changes in the levels of the poverty lines (in real terms) from the first to the second wave for the five countries for which we have two wave data. The EC-standard rises in all countries, and, by definition, a constant percentage applies to all household types. The subjective standards often show more substantial changes. The SPL rises strongly in The Netherlands, while it falls con-

[5] These are estimated using the equation: $\log(\text{poverty line}_i) = a + e \log(\text{household size}_i) + u_i$, where e is the elasticity of the poverty line with respect to household size, u_i is the error term, and i is a subscript that runs across the household types listed in Table 1. For the CSP poverty lines, which are differentiated by age of the head of household, a dummy variable, indicating whether the head of household is elderly, was added to the equation (results for this term not shown).

siderably in Luxembourg. The CSP-standard has more overall stability, as shown by the geometric means, but it produces sometimes large fluctuations in the poverty lines for certain household types.

These drastic changes in the subjective standards across only one, two or three years appear implausible. It seems unlikely that they reflect any real social changes, especially because the CSP and SPL-standards do not move in tandem, but more often in opposite directions. Since the data are from panels, sample fluctuations cannot be very important. The instability in the lines may be due to the rather simple models applied here. Muffels et al. (1990, p. 137–175) report that more refined models, that take the ages of children, reference group effects and selectivity bias into account, produce more stable results in The Netherlands.

4. Incidence and characteristics of poor households

In this section we present results on the incidence of poverty, as defined by the SPL, CSP and EC-standards, for the countries and regions as a whole, and disaggregated by a number of variables. We also investigate the characteristics of the poor, i.e. the social composition of the group of households below the poverty line. The disadvantages of the "headcount" measure of poverty are recognized (it does not take into account how far people are below the poverty line, cf. Sen 1976), but it seems unlikely that the results would be very different if a more sophisticated measure of poverty had been used. Perhaps a more serious shortcoming is that households are counted, instead of individuals. There seems to be no good reason why the poverty measure should increase more when two poor single persons enter poverty, than when a couple with two children does so.

On the basis of the 'EC'-standard, the countries and regions can be divided into two groups: on the one hand the Benelux countries, with a relatively low poverty rate, and on the other hand Catalonia, Ireland and Greece, where the poverty incidence is at least twice as high. Lorraine is situated between these groups[6]. These results are broadly in agreement with studies by Eurostat (1990) and by O'Higgins and Jenkins (1990), who present estimates for all EC-countries. It is noteworthy that, although only half of all EC-countries are represented in this study, these include some of the 'richest' as well as some of the poorest ones.

The estimates based on the SPL and CSP standards are much, often very much, higher than those obtained with the EC-standard. Roughly, they follow the same pattern: the southern countries (Greece and Catalonia) and Ireland have the highest rates of poor households, while the Benelux countries have the lowest ones. But within the Benelux countries, the subjective poverty rates are much higher in Belgium than in The Netherlands and Luxembourg, while the poverty rates based on the EC-standard are virtually the same for all Benelux countries.

The changes across years in the poverty rates are also shown in Table 2. The poverty rates based on the EC-standard do not change significantly. There is more change in the subjective poverty rates, in particular those based on the SPL. This

[6] The poverty rate in Lorraine, relative to those of the other countries, is probably biased upwards because household incomes in Lorraine include government taxes. Assuming that the tax system is progressive, income inequality before taxes is higher than after taxes, so that the number of households below any relative standard would also be higher.

Table 2. Percentage of households in poverty by three standards in a number of European countries and regions

		CSP-standard	SPL-standard	EC-standard
Belgium	1985	21.4	24.9	6.1
	1988	22.4	20.7***	5.7
Netherlands	1985	12.4	8.6	7.1
	1986	10.9*	15.9***	7.2
Luxembourg	1985	14.7	23.2	7.6
	1986	14.5	12.5***	7.6
Lorraine	1985	26.6	29.1	11.2
	1986	30.8*	26.5	10.8
Ireland	1987	29.6	31.6	17.2
	1989	32.0	39.6***	17.3
Catalonia	1988	31.3	37.3	15.1
Greece	1988	42.6	42.0	19.9

Significance of the difference between two years (two-tailed test, assuming independent samples[a]: *$p<0.05$; **$p<0.01$; ***$p<0.001$.

[a] All of these cross-year comparisons are based on panels, but in most countries the samples are not identical across years, because of reductions or extensions of the sample. Without more detailed information, the panel aspect could not be used in the computation of the significance levels. This implies that the tests are rather conservative

Table 3. The incidence of poverty in a number of social categories by the CSP-standard

	Belgium 1985	Netherlands 1986	Luxembourg 1986	Lorraine 1986	Ireland 1987	Catalonia 1988	Greece 1988
All households	21.4	10.9	14.5	30.8	29.6	31.3	42.6
Head of household							
Employed	11.6	3.4	9.5	26.1	20.0	23.7	39.7
Unemployed	61.4	42.9	61.9	64.3	74.7	63.4	72.7
Sick/disabled	38.0	28.6	40.0	46.9	61.1	63.4	–
Retired	29.8	16.4	15.0	29.1	18.1	40.3	46.5
Farmer	21.3	25.4	16.4	47.6	42.6	36.5	56.6
16 – 24 years	32.4	20.3	32.3	45.3	42.5	27.2	46.5
65 – 74 years	25.9	14.4	18.0	21.2	20.7	33.2	47.7
75+ years	38.0	16.7	16.3	39.3	13.9	51.9	48.4
Widow/widower	33.0	23.4	19.1	42.0	23.5	47.0	57.1
Divorced or separated	30.3	16.9	13.9	25.4	53.4	33.6	51.4
Female	33.7	20.6	24.1	44.3	26.5	40.6	54.5
Type of household							
Single aged person	36.7	22.8	25.7	41.9	27.0	46.2	55.9
Two aged persons	27.3	8.1	13.3	23.3	14.7	38.4	51.0
Single non-aged adult	29.9	23.0	20.8	29.7	44.4	27.9	45.1
Single non-aged adult and one child	51.7	3.3	47.0	38.1	45.6	42.9	45.5
Single non-aged adult and two children	24.6	8.0	28.2	41.2	59.6	36.4	33.3
Two non-aged adults and three children	12.5	4.3	5.5	32.2	39.0	40.5	42.6
Only one income provider	33.3	14.9	20.7	40.5	39.5	48.1	47.5
No persons at work	40.7	27.1	26.4	42.1	51.7	57.8	53.1

is probably mainly an effect of the fluctuations in the poverty lines, which, as indicated above, probably do not reflect any real social or economic changes.

We now turn to the question, which are the groups at high risk of poverty? There is unfortunately no simple answer to this question, not only because the characteristics of the poor vary considerably across countries, but also because there are important differences according to the poverty standard used. These differences depend in particular on the equivalence scale of the standard. The equivalence scale of the EC-standard is rather steep, in comparison to most equivalence scales in the literature. The implied equivalence scales of the subjective standards are much flatter, but the differences across countries are mostly not very large. On the other hand, in general the *level* of the poverty lines does not have a great effect on the relative poverty risks of social groups (i.e. the poverty-rate within a group in comparison to the overall poverty rate). The relative poverty risks of groups in the various countries, as measured by the subjective standards, can therefore be assumed to be roughly comparable, even if the overall poverty rate itself is not. For this reason, we will look at the relative poverty risks of social groups by the subjective standards, as well as by the EC-standards (Tables 3–5).

A consistent finding by all standards and for all countries is that households where the head is *unemployed* face a very high risk of poverty. When the head is *sick or disabled*, the risk is lower, though still considerably above average. The

Table 4. The incidence of poverty in a number of social categories by the SPL-standard

% in poverty	Belgium	Nether-lands	Luxem-bourg	Lorraine	Ireland	Catalonia	Greece
	1985	1986	1986	1986	1987	1988	1988
All households	24.9	15.9	12.5	26.5	31.6	37.3	42.0
Head of household							
Employed	9.4	4.3	3.8	16.5	15.8	26.8	35.6
Unemployed	59.2	51.0	52.4	58.9	67.3	64.9	75.8
Sick/disabled	34.6	28.4	25.1	31.2	57.0	61.0	–
Retired	47.2	29.0	16.5	35.9	35.2	58.6	54.2
Farmer	21.3	23.7	6.3	37.5	38.5	38.9	53.4
16–24 years	40.1	40.9	26.7	42.8	38.6	33.3	50.0
65–74 years	46.1	25.6	30.4	36.4	40.3	53.6	39.5
75+ years	65.1	34.7	29.3	52.4	43.8	75.6	63.7
Widow/widower	55.2	42.6	31.7	54.4	52.0	64.0	59.7
Divorced or separated	34.4	32.8	12.4	34.5	58.6	44.3	49.1
Female	51.9	39.2	33.2	57.4	50.0	56.2	56.9
Type of household							
Single aged person	67.7	47.8	46.0	72.6	70.2	85.9	70.5
Two aged persons	50.3	14.2	17.8	32.5	28.4	78.6	70.7
Single non-aged adult	40.6	38.6	19.2	43.7	52.5	39.9	35.8
Single non-aged adult and one child	54.0	33.9	47.0	52.4	67.6	52.4	44.1
Single non-aged adult and two children	26.1	30.0	28.2	41.2	68.1	72.7	36.4
Two non-aged adults and three children	6.2	5.9	0.9	18.2	36.1	50.6	47.5
Only one income provider	40.7	23.5	19.5	39.1	45.1	60.5	48.3
No persons at work	55.8	41.7	33.6	50.6	68.2	77.0	62.8

Table 5. The incidence of poverty in a number of social categories by the EC-standard

% in poverty	Belgium	Nether-lands	Luxem-bourg	Lorraine	Ireland	Catalonia	Greece
	1985	1986	1986	1986	1987	1988	1988
All households	6.1	7.2	7.6	10.8	17.2	15.1	19.9
Head of household							
Employed	2.9	5.2	5.5	6.8	11.9	9.0	19.1
Unemployed	26.2	19.4	40.9	41.0	58.9	43.5	36.4
Sick/disabled	10.7	10.0	19.6	22.9	24.4	40.7	–
Retired	6.6	2.4	7.4	9.3	7.9	22.1	21.7
Farmer	17.0	23.7	7.7	19.7	32.0	20.0	36.5
16 – 24 years	11.6	19.5	17.6	14.7	31.4	7.9	10.9
65 – 74 years	6.9	2.4	7.6	6.3	8.4	18.2	18.1
75 + years	9.2	2.5	7.8	18.6	4.1	36.9	29.0
Widow/widower	4.6	2.3	5.3	15.4	6.6	27.3	22.0
Divorced or separated	9.1	8.5	11.6	11.7	33.1	21.2	27.0
Female	6.3	6.9	9.0	19.1	10.1	23.4	21.1
Type of household							
Single aged person	5.0	1.6	7.1	19.3	3.0	29.3	24.1
Two aged persons	11.3	3.2	11.5	9.2	8.4	30.2	33.7
Single non-aged adult	5.8	8.5	7.0	12.5	20.3	10.1	7.4
Single non-aged adult and one child	7.5	3.3	25.6	9.5	19.3	23.8	30.3
Single non-aged adult and two children	13.0	14.0	32.9	23.5	61.0	18.2	24.2
Two non-aged adults and three children	8.5	19.1	17.4	13.1	34.3	17.7	37.6
Only one income provider	8.9	9.2	9.5	13.9	22.7	24.7	18.9
No persons at work	11.8	11.6	12.7	19.7	30.2	35.2	23.9

results for households where the head is *retired* are rather mixed: using the EC-standard, these households are at relatively high risk of poverty only in Catalonia, while their risk is considerably below average in Ireland and The Netherlands. By the subjective standards, especially the SPL, their relative risk of poverty is much higher, and only in Ireland does it not exceed the average risk.

Similarly inconsistent results are found in general for households where the head is *elderly* (65+) and/or *widowed*. Nevertheless, it appears that in Ireland the elderly are at no more than average risk, while in Catalonia, and also in Belgium, a large proportion of these households is in poverty, relative to the overall poverty rate. The discrepancy in the results of the different standards is particularly striking for The Netherlands. Similar patterns are found for *female-headed* households, probably because many of these females are in fact widows.

Looking at the non-elderly, we find that in Belgium, The Netherlands, Luxembourg and Ireland, *single persons* are at relatively high risk of poverty by the subjective standards, but not by the EC-standard. In the northern countries the poverty rate among *very young householders* (16 – 24 years) is relatively high by all standards. *Divorced or separated* heads of household are in most countries at relatively high risk of poverty, except in Lorraine and in Luxembourg by the subjective standards. Very high relative poverty rates are also found for *one-parent families* (one nonaged adult and one or two children), though there are several

Table 6. The characteristics of the poor: percentage of poor households having selected characteristics, using the CSP standard

	Belgium 85	Nether-lands 86	Luxem-bourg 86	Lorraine 86	Ireland 87	Catalonia 88	Greece 88
Head of household							
At work	32.7	20.0	41.0	52.1	39.1	51.6	65.4
(farmer)	0.7	3.0	1.8	2.9	17.3	3.3	26.0
Retired	40.5	28.9	18.2	25.2	8.9	24.0	25.8
Unemployed	15.8	18.1	3.0	8.5	26.8	8.9	1.9
65 years or older	29.5	22.1	26.2	18.8	14.5	21.6	22.7
Type of household							
One parent households[a]	4.4	1.2	6.0	3.6	4.3	1.4	2.0
Two nonaged adults and two children	10.4	6.8	8.6	13.2	14.0	12.0	11.9
Two nonaged adults and three children	3.2	2.9	1.7	6.2	24.2	3.4	4.8
Number of income providers: 0 or 1	78.6	77.6	82.7	72.3	82.2	59.8	52.0

[a] One parent households: one nonaged adult and one or two children.

exceptions, notably in The Netherlands. In Ireland *families consisting of two nonaged adults and three or more children* are at high relative risk of poverty by all standards, while for The Netherlands, Luxembourg and Greece this is only true by the EC-standards[7].

A somewhat different perspective on poverty is provided when we look at the composition of the poor. Some social categories are important among the poor, even though their risk of poverty is relatively low, simply because they form a large part of the population. Other groups with a high incidence of poverty, but which are few in numbers, may form only a small minority among the poor.

Of course, the circumstances and characteristics mentioned in many cases only result in poverty if they occur in combination with each other. For a particular poor household, several of its characteristics could be designated as the cause of its poverty. Which factor is singled out then depends on the perspective taken. Nevertheless, these univariate results already provide some clues as to what might be the most important proximate causes of poverty in EC-countries (Tables 6–8).

The divergences between the standards used again make it difficult to obtain a clear picture of the characteristics of the poor. Nevertheless, the following observations seem to be warranted.

In very many poor households the *head is working*. By the strict EC-standard this is the case for around 40% of all poor households, except in Belgium where the proportion of working poor heads of household seems to be somewhat lower, and in Greece where it is considerably higher. By the subjective standards fewer among the poor households in Belgium, The Netherlands and Luxembourg have

[7] These percentages differ somewhat from those reported by Duncan et al. (1991, Table 1) for all families with children, even though for The Netherlands, Luxembourg, Lorraine and Ireland the estimates are based on the same data. The main reason is that their poverty standard is defined as 50% of median (instead of average) equivalent income.

Table 7. The characteristics of the poor: percentage of poor households having selected characteristics, using the SPL-standard

	Belgium	Nether-lands	Luxem-bourg	Lorraine	Ireland	Catalonia	Greece
	85	86	86	86	87	88	88
Head of household							
At work	22.8	17.3	19.0	38.3	28.9	49.6	59.5
(farmer)	0.6	1.9	0.8	2.7	14.6	2.9	24.9
Retired	55.2	35.0	23.2	36.2	16.2	29.2	30.5
Unemployed	13.1	14.8	2.9	8.9	22.6	7.7	2.0
65 years or older	44.4	5.4	22.1	32.4	9.5	28.1	29.2
Type of household							
One parent households[a]	4.0	4.9	6.9	4.0	5.0	1.8	2.1
Two nonaged adults and two children	6.4	6.4	1.9	7.9	9.4	12.5	8.9
Two nonaged adults and three children	1.5	2.7	0.3	4.1	21.0	3.5	5.4
Number of income providers: 0 or 1	82.5	82.1	80.6	83.3	86.3	63.0	54.0

[a] One parent households: one nonaged adult and one or two children.

Table 8. The characteristics of the poor: percentage of poor households having selected characteristics, using the EC-standard

	Belgium	Nether-lands	Luxem-bourg	Lorraine	Ireland	Catalonia	Greece
	85	86	86	86	87	88	88
Head of household							
At work	28.7	46.2	45.3	38.7	40.0	40.7	67.4
(farmer)	2.0	4.3	1.6	3.5	22.3	3.7	36.0
Retired	31.5	6.4	17.1	23.1	6.7	27.2	25.7
Unemployed	23.6	12.5	3.8	15.3	36.3	12.7	2.0
65 years or older	26.4	5.4	22.1	22.0	9.5	27.6	29.2
Type of household							
One parent households[a]	3.9	2.7	9.4	6.1	6.4	1.6	3.0
Two nonaged adults and two children	13.0	27.9	10.9	9.9	12.6	9.7	9.8
Two nonaged adults and three children	8.4	19.4	10.3	7.2	36.7	3.1	9.1
Number of income providers: 0 or 1	73.7	74.5	74.4	78.2	86.8	64.0	44.3

[a] One parent households: one nonaged adult and one or two children.

working heads. At this point it is unclear why so many households with working heads are in poverty. A large number of causes may be involved, and these need not be the same in all countries. We can identify two factors, however. First, because in the northern countries three-quarters or more of all poor households by any standard have only one, or no, income provider, it seems reasonable to assume that in the majority of working poor households the head is the only

breadwinner. Cantillon (1991) has pointed out the problematic situation of one-earner families when double incomes are becoming the norm. Secondly, it is important to note that in countries where a large part of the population is employed in agriculture (here Greece and Ireland), many of the poor are in *farmers'* households.

In several countries, *unemployed* heads of household are an important group among the poor. This is true in particular for Ireland, to a lesser extent for Belgium, and also for The Netherlands, Lorraine and Catalonia. In all countries unemployment benefits seem to be inadequate for many, if not most unemployed heads of households. The variation across countries is mainly related to the proportion of these households in the entire population.

Households where the head is *retired* and/or elderly are in most countries an important group among the poor, though by no means a majority. Inadequate retirement and survivors pensions for *some* elderly are still a contributing factor to poverty. In Ireland, however, the retired and elderly seem to form only a small minority among the poor. Using the EC-standard, this is also true for The Netherlands. In Belgium these households form a larger proportion of all poor than in other countries.

Even though the poverty rate among *one-parent families* (one nonaged adult and one or two children) is generally very high, they are few in number. Therefore, only a small proportion of all poor households are one-parent households. This is rather in contrast to the situation in the USA (Sawhill 1988, p. 1084).

In Ireland, more than one in three of all poor households by the EC-standard, and about one in four by the subjective standards, are *two-adult families with three or more children*. By the EC-standard, but not by the subjective standards, almost half of all poor Dutch households are two-adult families with two or more children. In the other countries, these households are much less represented among the poor by all standards.

In the northern countries, around three-quarters or more of all poor households have only *one, or no, income provider* (i.e. a person with an income from earnings or social security). On the other hand, in Greece, and to a lesser extent in Catalonia, many poor households have two or even more income providers.

5. Social security transfers and poverty

In this section the role of social security cash transfers in reducing the incidence of poverty is examined. Social security transfers include social assistance payments and other means-tested benefits, as well as social insurance benefits. For a precise definition of social security transfers in the several countries, we refer to Deleeck et al. (1992, Appendix C). The method used is that of calculating the number of poor households on the basis of pre-transfer and post-transfer incomes. Pre-transfer income is defined as actual disposable income less actual social security transfers received. Post-transfer income is equal to disposable income. Pre-transfer income cannot be equalled to a hypothetical income in the absence of social security: social security contributions and taxes are not included in it, and behavioral changes are not taken into account. However, this relatively simple numerical exercise can serve as a first indication of the impact of social security transfers on poverty.

Table 9. The incidence of pre-transfer poverty, and the impact of social security transfers, using three poverty standards

	(A) Percentage of all households with pre-transfer incomes below the poverty line			(B) Percentage of households in (A), that are non-poor after social security transfers		
	CSP	SPL	EC	CSP	SPL	EC
Belgium, 1985	51.5	49.6	41.0	58.4	49.6	85.1
The Netherlands, 1986	37.1	38.7	39.8	70.1	58.9	82.0
Luxembourg, 1986	43.3	36.0	38.9	66.4	65.6	80.1
Lorraine, 1986	56.7	49.7	39.4	45.7	46.7	72.5
Ireland, 1987	52.9	50.1	46.2	44.2	36.9	62.8
Catalonia, 1988	44.7	47.8	30.8	30.0	22.0	51.0
Greece, 1988	57.1	44.2	38.1	25.4	22.5	47.8

In the first place there are considerable differences in the proportion of households that would be non-poor on the basis of their pre-transfer-income alone (Table 9). Catalan households are the least dependent on social security transfers. Using the EC-standard, almost 70% of all households in Catalonia would not be in poverty without social security. In Ireland, on the other hand, almost half of all households would be in poverty without social security transfers. In the other countries, this percentage is around 40%. Using the more generous CSP and SPL-standards, the proportions of households with incomes below the poverty line before social security transfers are generally higher. This is not true for The Netherlands, which, together with Luxembourg, has the highest proportion of households with pre-transfer incomes equal to or above the subjective poverty lines. By contrast, in Greece about 55% of all households have pre-transfer incomes below the subjective poverty lines.

The effect of social security transfers on the extent of poverty is measured here by the number of households non-poor due to social transfers, as a proportion of all households with pre-transfer incomes below the poverty line.

By all standards the effectiveness of social security, defined in this way, is highest in the Benelux-countries. Using the EC-standard more than 80% of the poor before social security are not poor after it; using the subjective standards the percentages vary between 50% and 70%. In Lorraine the proportions are somewhat lower. In Greece and Catalonia the effectiveness is much lower; it is indeed very low. By the EC-standard only half of all households that would be poor without social security are non-poor thanks to it; only one-quarter of these households are lifted to the level of the subjective standards. Ireland occupies a position in between the Benelux countries and the southern countries.

Concluding remarks

Subjective methods, which are based on the stated views of people concerning their minimum income requirements, may provide a way to estimate poverty lines that are *a priori* neither relative nor absolute, and where the level and equivalence scale do not have to be arbitrarily chosen. Despite some anomalies, the results in

this study indicate that the subjective poverty lines are plausible in a comparative context, although more refined models may have to be applied.

The levels of the subjective standards are rather generous, so that some might consider it inappropriate to regard all households below these lines as being in poverty. The term "insecurity of subsistence" would perhaps be more suitable, but it is rather awkward (cf. De Vos and Garner (1991), who refer to these thresholds as "income sufficiency levels").

Although the equivalence scales of the subjective standards vary across countries and across years, they are in all cases considerably less steep than the scale built into the EC-standard, which is the one recommended by the OECD (1982). This difference in equivalence scales is found to have an important effect on the measured characteristics of the poor. Given these findings, and the fact that the OECD-scale is rather steep compared to most other scales in the literature (Buhmann et al. 1988), one might question whether the OECD-scale (1.0−0.7−0.5) is not in need of revision, for use within EC-countries (cf. Haveman 1990).

As has been found in other studies, the extent of poverty is much greater in the "peripheral" EC-countries Ireland, Greece and Catalonia, than in the "central" ones Belgium, The Netherlands, Luxembourg and Lorraine. In the former countries the number of households below the relative EC-standard exceeds 15%, while the poverty rate is only 6 to 7% in the latter countries (except in Lorraine, where it is around 10%).

Looking at the characteristics of the poor, a number of factors are found to be associated with poverty in all countries. In general, households with no, or a weak attachment to the labor market (as indicated by the labor-market status of the head of household, and the number of earners in the household) are at a higher than average risk of poverty. In particular, households where the head is unemployed have a very high risk of being in poverty. Furthermore, households other than the traditional family (couple with or without children) are also relatively likely to be in poverty. If the head is divorced or separated, the risk of poverty is generally considerably higher than average. Single parents are also relatively likely to live in poverty.

However, there are also important differences in the characteristics of the poor across countries. Very young householders are at high risk of poverty in the northern countries, but not in the southern. In Greece, poverty is much more prevalent among households with one or even several persons at work than in the other countries. In Ireland, poverty seems to be concentrated among two-parent families with many dependent children, while the elderly appear at comparatively low risk of poverty.

An interesting finding is that a large minority among the poor in all countries consists of households where the head is working, even though the poverty incidence in this category of households is not particularly high. In most of these cases, the head is probably the sole breadwinner.

The impact of social security transfers on poverty appears to be much smaller in the southern countries Greece and Catalonia, than in the Benelux and Lorraine. This might be among the causes of the higher incidence of poverty in these countries. In Ireland, on the other hand, one of the reasons for the high number of households in poverty appears to be that the pre-transfer poverty rate is relatively high.

Appendix

Survey procedures and sample characteristics

Table 10. Description of survey procedures

	Belgium, 1985	The Netherlands, 1986	Luxembourg, 1986	Lorraine, 1986	Ireland, 1987	Catalonia, 1988	Greece, 1988
Population of survey	Private households in Belgium	Private households in The Netherlands, except those without an address	Private households, except those with no link at all to the Luxembourg social security system	Private households in Lorraine	Private households in Ireland	Private households in Catalonia	Private households in Greece
Coverage of total population	98%	90%	97%	98%	97%	99%	N.A.
Sampling unit	'Reference person' of household	Address of home	Main breadwinner according to social security register	Individual	Individual elector	household (home)	head of household
Who are respondents in the household	Head of household	All persons aged 16 or older	Head of household or spouse, income group head	Head of household or spouse, income group head	All individuals aged 15 or over	Head of household	Head of household
Realised sample size	6471	5165	1793	2092	3294	2997	2958
Imputation of missing income information	Yes, for 417 cases (6%)	Yes, for few cases	Yes, N of cases NA	Yes, for 250 cases (12%)	Yes, N of cases NA	No	No
Weighting of cases	No	No	Yes, to correct for bias due to choice of sampling unit and for selective non-respons	Yes, to correct for bias due to choice of sampling unit	Yes, to correct for bias due to choice of sampling unit, and to adjust to independent statistics from Labor Force Survey	No	No

Table 11. Some characteristics of the samples

	Belgium 1985	Netherlands 1986	Luxembourg 1986	Lorraine 1986	Ireland 1987	Catalonia 1988	Greece 1988
Average household size	2.83	2.70	2.73	2.88	3.58	3.45	3.08
Percentage of households with characteristic in sample:							
single persons	17.0	21.8	21.8	17.3	16.6	8.8	11.4
single nonaged adult + children	2.4	2.4	2.4	2.2	2.3	1.1[a]	2.2
two nonaged adults + one or two children	28.7	28.6	22.1	30.5	19.0	19.2[a]	21.7
two nonaged adults + three or more children	6.0	7.3	4.5	5.9	18.4	2.6[a]	4.8
head of household aged	20.7	15.9	21.9	19.5	14.5	17.4	19.9
head of household female	16.1	19.3	23.3	17.2	18.6	15.4	16.6
head of household widowed	12.2	9.6	17.1	11.8	14.7	8.8	9.2
head of household divorced or separated	5.6	6.1	5.5	6.5	3.0	3.8	3.8
head of household at work	60.4	64.0	62.6	61.5	57.8	68.2	70.2
head of household retired	29.1	19.2	17.6	26.7	14.5	18.6	23.6
head of household unemployed	5.5	4.6	0.7	4.0	10.6	4.4	1.1
receiving social security transfer	81.6	73.3	77.9	70.2	86.1	45.8	47.5
receiving replacement incomes[c]	46.4	39.7	45.4	42.8	58.9	40.3	44.8
Average household income (monthly, in ECU)	1299	1319	1853	1331[b]	1058	1619	1013
Income Inequality (Gini-coeff.)	0.277	0.292	0.284	0.319[b]	0.379	0.339	0.409
Average social security transfer of receiving households (monthly, in ECU)	449	462	618	526	332	449	372
Average replacement income[c] of receiving households (monthly, in ECU)	632	744	925	705	463	504	391

[a] In Catalonia, only persons aged 16 or younger are regarded as children.
[b] In Lorraine, household income including taxes.
[c] Replacement incomes are virtually identical to social security transfers less family allowances

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Work and Organization Research Centre
Warandelaan 2, P.O. Box 90153, 5000 LE Tilburg, The Netherlands