



# STATISTICS IN FOCUS

## Population and social conditions

1997  6

ISSN 1024-4352

### INCOME DISTRIBUTION AND POVERTY IN EU12 - 1993

*This "Statistics in Focus" outlines the findings of the European Community Household Panel in the area of income distribution and poverty in the European Union of 12 countries (EU12) in 1993.*

*Just over a quarter of the income in the EU12 in 1993 was shared among the top 10% of households, while income for the bottom 10% amounted to 2% of the total. According to Eurostat working definitions and concepts, 57 million individuals lived in poor households in the EU12 in 1993. Among them, children (less than 16 years old) accounted for 13 million, i.e. one out of every 5 children in the Union.*

*Denmark had the lowest proportion of poor households and Portugal the highest in the reference year.*

*The risk of poverty is greater in some household types than in others. This is particularly so for those households which comprise a single parent and where all children are aged under 16. Households where the reference person is unemployed are also more likely to be poor than others.*

The objective of this report is to give an initial general outline of income distribution and poverty in the European Union as revealed by the European Community Household Panel (ECHP).

Given the critical role of conventions and concepts in interpreting income distribution, the findings and conclusions of extensive research commissioned by Eurostat since the 1980s have been chosen as a starting point<sup>1</sup>. In particular the definitions already agreed by the European Council of Ministers (19/12/1984), have been used.

Consequently, the figures that are presented here may differ from national estimates for two main reasons, i) data sources and ii) conventions and concepts (see Technical Box p. 7-8).

#### Income distribution in EU12

Income distribution data are usually expressed in terms of the percentage of total income received by given tranches of the population; in table 1, we consider the population of households arranged in groups of 10% or "deciles". The income concept used throughout this paper is total net monetary income for calendar year 1993; roughly, it includes all sources of monetary incomes received by the household (wages, dividends, ...) net of income taxes, and monetary social transfers such as pensions and private transfers received. As is usual, the varying size and composition of households has been taken into account using an equivalence scale. (For these conventions and concepts refer to Technical Box p. 7-8)

<sup>1</sup> Eurostat (1990), "Poverty in Figures - Europe in the early 1980s", Theme 3, Series C  
Eurostat (1994), "Poverty Statistics in the late 1980s - Research based on Micro-data", Theme 3, Series C  
(OPOCE, Luxembourg)

Manuscript completed on = 21.04.1997

For further information please contact: W. Wolf - E. Marlier  
Eurostat, L-2920 Luxembourg, tel. 4301-35254/34521 Fax: 4301-34415

Price (excl. VAT) in Luxembourg: Subscription 'Statistics in focus' of all themes: ECU 310  
Subscription 'Statistics in focus' of Theme 2 'Population and social conditions': ECU 85  
Single copy: ECU 6

Catalogue number: CA-NK-97-006-EN-C

Having regard to these conventions, it transpires that in none of the then 12 Member states were income shares proportionately distributed across all households in 1993:

- the 20% poorest households received between 6% (Greece, Spain, Italy and Portugal) and 9% (Belgium, Denmark and Ireland) of total household net monetary income ; whereas
- the 20% richest households, received between 33% (Denmark) and 46% (Portugal) (Table 1).

For EU 12 as a whole, figures were respectively 6% and 41%.

The Gini coefficients are useful summary tools for imparting a quick impression of the spread of incomes. They vary from 0 (no inequality) to 1 (total inequality). As measured by the Gini coefficient, Portugal appeared to have the highest degree of inequality in the EU as a whole : 0,42 versus 0,35 for the EU average. Greece (0,38), United Kingdom and Italy (both 0,37) came next. Denmark was well under the EU average with 0,25 (table 1).

**Table 1:**  
**Household<sup>1</sup> net income distribution in EU 12, 1993**



	EU12	B	DK	D	EL	E	F	IRL	I	L	NL	P	UK
Decile shares (%) of total household net monetary income													
<b>Bottom 1</b>	2	3	5	3	2	2	3	3	2	3	3	2	3
<b>2</b>	4	6	7	6	4	4	5	6	4	5	5	4	5
<b>3</b>	6	7	8	6	5	6	6	6	6	6	6	5	6
<b>4</b>	7	8	8	7	7	7	7	7	7	7	7	6	7
<b>5</b>	8	9	8	8	7	7	8	7	8	7	7	7	7
<b>6</b>	9	9	9	9	9	8	9	8	9	9	9	8	9
<b>7</b>	10	10	10	10	10	10	10	10	11	10	10	10	10
<b>8</b>	12	12	11	12	13	12	12	12	12	12	13	12	12
<b>9</b>	15	14	13	15	15	15	15	16	16	14	15	16	15
<b>Top 10</b>	26	22	20	23	27	27	25	27	26	27	25	30	28
Gini coefficients													
	0.35	0.31	0.25	0.30	0.38	0.35	0.33	0.34	0.37	0.32	0.34	0.42	0.37

<sup>1</sup> Equivalised net monetary income has been used for ranking the households - for "equivalisation" see Technical box, p. 7-8

Source: Eurostat - ECHP, First wave, 1994

### Poverty line : a matter of definition

Ensuring continuity with previous Eurostat works is one of the reasons for using the poverty line at "50% of the national average". Also in its first Cohesion Report (8/11/1996), the European Commission uses "50% of the national average".

National practices in this domain are varied, for example,

- Luxembourg and the United Kingdom : 50% of the mean
- France : 50% of the median
- Italy : the mean per-capita expenditure for a two-person household
- Netherlands : the minimum income according to the General Assistance Act

Eurostat has tested the "50% of the national median" method. The level of the poverty line was reduced (425 PPPs versus 489 PPPs), resulting in i) lower poverty rates and ii) a slightly different ranking of the countries.

## Working definition of poverty and poverty lines

The broad definition of poverty used in this report is taken from the EU Third Poverty Programme, European Council Declaration of 19 December 1984 :

*"The poor shall be taken to mean persons, families and groups of persons where resources (material, cultural and social) are so limited as to exclude them from the minimum acceptable way of life in the Member States in which they live."*

This is a relative notion which cannot be implemented in its entirety. It has to be translated into a 'working definition', however arbitrary, in terms of consumption, expenditure or income. Based on the above-mentioned Eurostat research the following pragmatic choice of the poverty line is made :

*"The poverty line is 50% of the arithmetic mean of equivalised net expenditure/income."*

A poverty line is a benchmark income which is used to determine which household is poor or not. A household with an income lower than the poverty line is defined as "poor". The poverty lines used here are country-specific since they are defined as half (50%) of the average equivalised annual net monetary income of the households in a country (see Technical Box p. 7-8). The 50% threshold provides a certain continuity with estimates of poverty made by the Commission in the past<sup>1</sup>.

Although low income does not in itself reflect cultural and social aspects, it should generally be a reasonable surrogate for poverty.

According to these conventions, in 1993 average equivalised net monthly income was 489 Purchasing Power Parities (PPPs) in EU12 as a whole. With the exception of Luxembourg which is well above this figure (990 PPPs), the poverty line ranged from 311 (Portugal) to 562 PPPs (Germany) in 1993 (table 2).

**Table 2:**  
**Poverty lines in 1993**  
50% of average equivalised net monthly income<sup>1</sup>

Country	National currencies	Purchasing Power Parities (PPPs) <sup>2</sup>
Belgium	22 330	540
Denmark	5 328	527
Germany	1 248	562
Greece	67 940	325
Spain	48 090	377
France	3 716	516
Ireland	294	403
Italy	667 600	411
Luxembourg	38 750	990
Netherlands	1 175	516
Portugal	42 580	311
United-Kingdom	378	541
EU 12		489

<sup>1</sup> See Technical box p. 7-8

<sup>2</sup> Purchasing Power Parities (PPPs) convert national currencies into units of currency with identical purchasing power in all countries enabling international comparisons to be made (see technical box p.7-8).

Source: Eurostat - ECHP, First wave, 1994

## The extent of poverty

Having regard to the above mentioned conventions, there were about 57 million individuals in the EU12 living in nearly 23 million poor households in 1993 (table 3). Of course, not all persons in a poor

**Table 3:**  
**The extent of poverty in 1993 (in thousands)**

Country	Households below poverty line	Individuals living in households below poverty line	Children <sup>1</sup> living in households below poverty line
Belgium	508	1 289	302
Denmark	216	318	42
Germany	4 515	9 099	1 888
Greece	872	2 258	380
Spain	2 272	7 631	1 730
France	3 523	7 591	1 487
Ireland	238	759	322
Italy	3 429	10 895	2 245
Luxembourg	22	60	18
Netherlands	842	1 919	443
Portugal	915	2 537	577
United-Kingdom	5 474	12 805	3 859
EU 12	22 825	57 162	13 292

<sup>1</sup> Children: less than 16 years



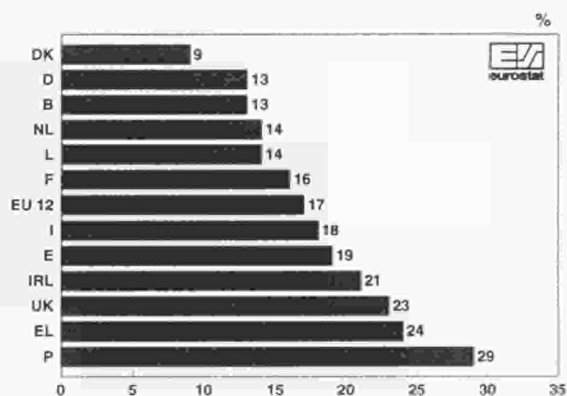
Source: Eurostat - ECHP, First wave, 1994

<sup>1</sup> Earlier Eurostat research used the expenditure yardstick for measuring poverty because it was generally more reliable than the income data derived from the national household budget surveys, which was the only available source that could be used in the research on "Inequality and Poverty in Europe 1980-1985", Eurostat "Rapid Reports" 1990/7. That restriction now vanishes with the ECHP.

household might be poor because the resources at its disposal might be very unequally distributed. For the same reason, some individuals who are resident in households above the poverty line may actually be living in poverty. There is no way, at present, of measuring such issues relating to intra-household distribution of resources.

The proportion of households below the poverty line reached 17% in the EU 12 as a whole. Portugal was well above the EU average with 29%, then came Greece (24%) and the United Kingdom (23%). At the other extreme, Denmark had the lowest poverty rate (9% of Danish households). In the remaining countries, the rates ranged from 13% in both Germany and Belgium to 21% in Ireland. The poverty rate for Luxembourg is comparatively high (14%) because its average income, and hence its (relative) poverty line, is high (Figure 1).

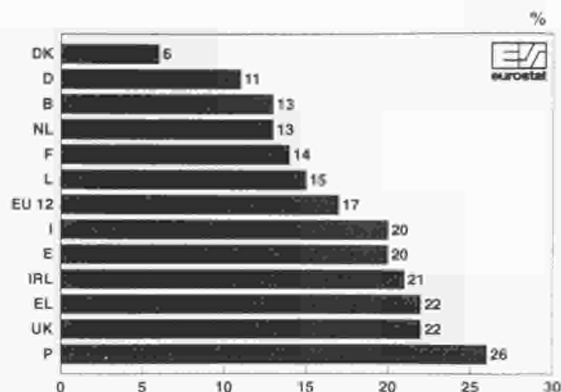
**Figure 1:**  
Proportion of poor households - 1993



Source: Eurostat - ECHP, First wave, 1994

If we consider individuals living in households below the poverty line, the ranking was comparable and the percentages varied from 6% in Denmark to 26% in Portugal (Figure 2).

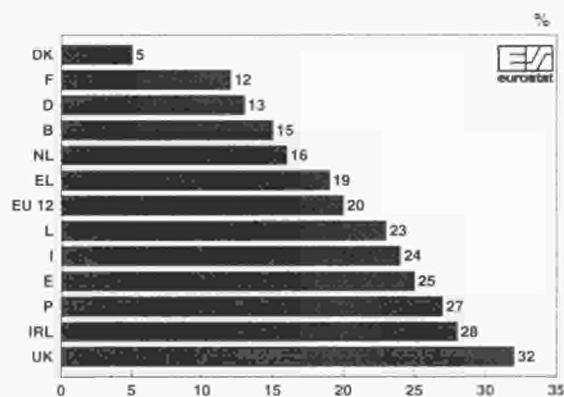
**Figure 2:**  
Proportion of individuals living in poor households - 1993



Source: Eurostat - ECHP, First wave, 1994

The number of children living in poor households was over 13 millions in the then 12 Member states, i.e. 20% of all the Union's children. These proportions were higher for United Kingdom (32%), Ireland (28%), Portugal (27%), Spain (25%), Italy (24%) and Luxembourg (23%). The lowest percentage was in Denmark (5%) (Figure 3).

**Figure 3:**  
Proportion of children living in poor households - 1993



Source: Eurostat - ECHP, First wave, 1994

### Characteristics of poor households

Who are the poor? Answering this question requires an analysis of the composition of poor households by social groups.

In 1993, representing 19% of the total, the most common profile of poor households was that of a person living alone and aged over 65 years. Couples without children also formed a significant portion at 18%, while couples with at least one child aged 16 or over comprised 13% of this category (table 4).

It should be noted that these figures encompass two phenomena : on the one hand the relative share of each group in total population and on the other hand the risk to each group of falling into the poverty trap.

Some types of households are more likely to be "poor" than others. As measured by the poverty rate, it is evident that at the EU 12 level, the poverty risk was much higher for "single parents with all children under 16" than for "couples with one child under 16", 36% versus 11% in 1993 (table 4).

Some of the more noticeable features of risk at national level are given below, though it should be remembered that national estimates are subject to larger sampling errors.

**Single parent with all children under 16:** In 1993, respectively 65% and 53% of those households were poor in Ireland and the United Kingdom ; this household type accounted for between 3% and 4% of all households in these countries. The EU12 average was 36%, and the Danish percentage was 8%.

**Young one-person households (person aged under 30) :** It was in the Netherlands and in France (42% each) that the poverty risk was highest, and in Ireland and Spain that it was lowest (13% each), though such young "households" might, because of their poverty, be concealed in large households containing parents. At the EU level, the percentage was 31%.

**One-person elderly households (65 or over) :** 55% of such households were below the poverty line in Portugal, the highest in the EU. Then came Greece (46%), Ireland and the United Kingdom (42% each). The EU12 average was 27%. The lowest figures were to be found in Belgium and The Netherlands (16% both).

**Large families (couples with 3 children or more) :** It was in Portugal (43%) and the United Kingdom (40%) that these households ran the highest risk of poverty. The EU average was 23%. In France and Denmark, 10% of such households were poor.

**Table 4:**  
**The poor in 1993 by household type<sup>1</sup>, EU 12**



Household type	Distribution of poor households	Poverty rate
	%	%
One person aged 65 or over	19	27
One person aged 30 - 64	10	15
One person aged under 30	7	31
Single parent with all children < 16	5	36
Single parent with at least 1 child ≥ 16	4	17
Couple without children	18	13
Couple with one child < 16	5	11
Couple with two children < 16	8	14
Couple with three children or more < 16	5	23
Couple with at least one child ≥ 16	13	15
Other Households	6	17
<b>Total</b>	100	-

<sup>1</sup> As demonstrated in the aforementioned research the precise composition of the poor can be affected by the equivalence scales used.

Source: Eurostat - ECHP, First wave, 1994

Table 5 shows that households whose reference person was classified as unemployed accounted for 13% of all poor households in 1993. However, 46% of all households whose reference person was unemployed fell under the poverty line. High risks were also attached to the "other economically inactive" reference persons. It should be remembered that the poverty definition in this report is based on net monetary income, that is including all monetary social transfers.

### Non-monetary poverty

As already stated, poverty defined in terms of a shortage of monetary resources is generally regarded as an economic notion. A more global concept would encompass enforced deprivations in the form of associated shortages of physical goods and services. The qualification is that the shortages taken into account should be only those

where a felt need exists and remains unsatisfied because of lack of resources. The ECHP was deliberately designed to shed light also on this non-monetary aspect of poverty. Strict comparability in interpretation might be hindered by some items which are somewhat country- or culture-specific, for example, the absence of heating might be considered more serious in Northern Europe than in the South.

The first column of table 6 shows the percentage of poor households which experience specified shortages. The second column presents the percentages of all EU households experiencing this shortage. For example, 58% of poor households, as opposed to 31% of all households, said, in 1993, that they could not afford a week's annual holiday away from home. However, mortgage costs are a burden for 13% of households whether categorised as poor or not.

**Table 5:**  
**The poor households by labour market status in 1993, EU 12**

Labour market status of household reference person <sup>1</sup>	Distribution of poor households	Poverty rate
	%	%
<b>The working poor:</b> Employer + self employed + family worker + employee	35	10
<b>Unemployed</b>	13	46
<b>Retired</b>	33	22
<b>Other economically inactive:</b> In education, training or apprenticeship/doing housework, looking after children/etc.	19	43
<b>Total</b>	100	-

<sup>1</sup> See Technical Box p.7-8



**Table 6:**  
**Non monetary poverty indicators in 1993, EU 12**

Indicators	Percentage of EU12	
	poor households	all EU12 households
Damp walls, floors, foundation	21	14
Receives housing benefit	18	9
Mortgage costs are a burden	13	13
Not able to make ends meet	37	18
Cannot keep the home adequately warm	28	15
Cannot afford a week's annual holiday away from home	58	31
Cannot afford new clothes	30	15
Cannot afford eating meat, fish, etc. every second day	17	7
Cannot afford to have friends or family for a drink or meal, at least once a month	33	17

Source: Eurostat - ECHP, First wave, 1994

## TECHNICAL BOX

**The European Community Household Panel (ECHP)** is a multidimensional household survey that covers various topics: income, health, education, housing, migration, demographic and employment characteristics, etc. The first wave was conducted in 1994, in the then 12 EU Member states, i.e. excluding Austria, Finland and Sweden. The sample totalled some 60,500 households selected randomly.

Based on a harmonised questionnaire, the ECHP yields a centralised comparable micro data base in Eurostat that can be used flexibly to shed light on policy issues. As the ECHP is a panel, i.e. an attempt is made to interview the same individuals every year, it will in due course provide information on social dynamics. For a detailed description of the ECHP methodology ref. *"The European Community Household Panel (ECHP): Volume 1 - Survey methodology and implementation", Theme 3, Series E, Eurostat, OPOCE, Luxembourg, 1996.*

### **Decile group**

The main method of analysing income distribution is to rank units (households, individuals,...) by a given income measure and then to divide the ranked units into groups of equal size. Groups comprising 10% of units are known as "decile groups". Thus the "bottom decile group" is the 10% of units with the lowest incomes.

### **Total net monetary income**

This concept covers all market incomes (wages, self-employment income, investment income, rent received) plus social transfers received, including all types of pensions plus private transfers received, minus income taxes and social insurance contributions. Some of the components were missing for a number of households and these had to be imputed. Those 2% of households for which imputation was not possible and no income information was available, were excluded from the analysis. Imputed rent (i.e. the rent owner-occupiers would have to pay if they did not own the dwelling they live in) as well as personal income taxes are not included.

### **Equivalence scales**

The aim of equivalence scales is to adjust incomes for the varying size and composition of households. Clearly a 2-person household with 10,000 ECUs cannot generally be said to have the same standard of living as a 5-person household with the same amount of income. Dividing the income by the number of persons in the household would assume that a child costs as much as an adult to live and/or that 2 adults living together cost twice as much as one adult living alone. The equivalence scale used in this report is the modified OECD scale, i.e. 1.0 for the first adult, 0.5 for every other adult in the household and 0.3 for every child younger than 14. These modifications emerged from the research commissioned by Eurostat, *"Poverty statistics in the late 1980s - Research based on micro data"*, particularly from sensitivity analyses of a variety of scales and their impact on rates and composition of poverty.

**Equivalised net monetary income** is derived by dividing the total net monetary income of the household by the number of 'adult equivalents'. Thus, a household with 2,100 ECUs per month and comprising 2 adults and 2 children will have an income of 1,000 ECUs per adult equivalised or, put another way, an equivalised income of 1,000 ECUs.



### **Poverty line and poor households**

Average equivalised net monetary income is obtained by dividing the total net monetary income by the number of 'adult equivalents' in the population. 50% of that average, the arithmetic mean, is taken as a working definition of the poverty line. All households below this line are regarded as "poor".

### **Purchasing Power Parity (PPP)**

Money incomes in national currencies across countries cannot be compared. Conversion could be done by the use of foreign exchange rates but exchange rates are affected by many factors and so they do not reflect relative purchasing power between countries. Studies are done in countries to see what a particular basket of goods and services, i.e. the same basket as far as possible, would cost. These studies give rise to PPPs, which convert every national monetary unit into a common reference currency of which every unit can buy the same amount of goods and services across the countries in a specific year.

**The reference person in the household** is usually the head of the household but not in all cases. The reference person was decided on the following order of criteria: the head if economically active; otherwise the head's spouse or partner, if economically active; otherwise the oldest economically active person. In a household without any economically active person, the head was automatically selected as the reference person.

### **Labour market status**

The status chosen for the reference person is that which corresponded to the modal number of months in 1993. Thus, for example, if the person concerned was unemployed for 5 months in 1993, in training for 4 months and employed for 3 months, he or she would be classified as unemployed.

### **Eurostat**

**Directorate E: "Social and Regional Statistics and geographical information system"**

**For further information :  
Eric Marlier, Walter Wolf,  
Tel. : (352) 4301-35254  
Fax : (352) 4301-34415**

**This report was prepared in the context of a study on Poverty  
carried out by Mr. Deo Ramprakash for Eurostat**