

## Ireland 1996: Survey Information

### Summary table

	Initial sample	IE96
<b>Generic</b>		
Name of survey	Living in Ireland Survey / European Community Household Panel (ECHP)	
Institution responsible	National level: Economic and Social Research Institute (Community level: Eurostat)	
Frequency	Annual	
Survey year / Wave	Wave 1 (1994)	Wave 4 (1997)
Collection period	June-December 1994	June-December 1997
Survey structure	Panel	
Coverage	All private households in all the national territory (incl. collective households but excl. institutional ones)	
Geographic information	NUTS3	
Files delivered	5 cross-sectional files: the households' register file, the households' questionnaire file, the personal register file, the individual questionnaire file and the Sample weights file.	
<b>Sample size</b>		
Households	4,048 (completed)	2,945
Individuals	9,905 (completed personal interviews to 16+)	6,868
<b>Sampling</b>		
Sampling design	Two-stage sampling with District Electoral Divisions (DED) selected systematically within each stratum and households of the electors selected within each DED	In successive waves, the sample includes: <ul style="list-style-type: none"> <li>- <i>old households</i> (unless all members are deceased, moved to an institution or outside the EU, or not containing any 'initial sample person')</li> <li>- <i>newly generated households</i>, i.e. new/pre-existing hhd created/joined when someone from a previous wave hhd moves out</li> </ul>
Sampling frame	Register of Electors	
<b>Questionnaires</b>	Household Register, Household Questionnaire and Individual Questionnaire	
<b>Standard classifications</b>		
Education	1-digit ISCED-97	
Occupation	4-digit ISCO-88	
Industry	3-digit NACE/ISIC	
<b>Income</b>		
Reference period	1993 (whole year)	1996 (whole year)
Unit of collection	Mostly individual, excl. housing allowances, social assistance, rental income and inheritance/lottery winning.	
Period of collection	Mostly monthly income together with number of months received during reference year; some yearly income.	
Gross/net	Most variables are collected net of taxes and contributions (with the exception of self-employment earnings, and wages which are collected also gross).	
<b>Data editing / processing</b>		
Consistency checks	Computer checking programs to verify questionnaire routing and to carry out a limited range of plausibility checks.	
Weighting	Household level weights that take into account: <ul style="list-style-type: none"> <li>- adjustment for sample attrition (from Wave 2 onwards)</li> <li>- external checks on population structure (demographic/socio-economic/social welfare)</li> <li>- grossing-up to population size</li> </ul>	
Imputation	None.	

This document is based upon “The European Community Household Panel (ECHP): Survey methodology and implementation”, 1996 and “Monitoring Poverty Trends: Data from the 1997 Living in Ireland Survey”, by T. Callan, R. Layte, B. Nolan, D. Watson, C.T. Whelan, J. Williams and B. Maitre, Dublin, Stationery Office/Combat Poverty Agency, 1999.

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### **A. General characteristics**

#### Official name of the survey/data source:

Living in Ireland Survey / European Community Household Panel (ECHP)

#### Administrative Unit responsible for the survey:

Economic and Social Research Institute (ESRI) 4 Burlington Road, Dublin 4 Tel: (353-1) 667 1525; Fax: (353-1) 668 6231 Email: <a href="mailto:admin@esri.ie">admin@esri.ie</a> Web site: <a href="http://www.esri.ie">www.esri.ie</a>
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The Living in Ireland Survey is the Irish component of the European Household Panel Survey (ECHP), a standardised survey conducted in Member States of the European Union under auspices of the Statistical Office of the European Communities (Eurostat). The survey involves annual interviewing of a representative panel of households and individuals in each country, covering a wide range of topics on living conditions. It was launched in response to the increasing demand in the EU for comparable information across the Member States on income, work and employment, poverty and social exclusion, housing, health and many other diverse social indicators concerning living conditions of private households and persons.

A major aim of the survey is to provide an up-to-date and comparable data source on personal incomes. The survey provides detailed information at the individual and household levels on a variety of income sources: wage income, rent subsidies, unemployment and sickness benefits, social assistance benefits, occupational and private pensions, and so on.

Following a two-wave pilot during 1993 in all 12 Member States at the time, the full-scale survey began with Wave 1 in 1994 and ended with Wave 7 in 2000, when it was decided to drop the input-harmonised ECHP for the output-harmonised SILC (Survey of Income and Living Conditions). Although the ECHP is a household survey with a high degree of co-ordination, the collection of data takes place in each country, and consequently a degree of flexibility has been allowed so as to permit each country to adapt common procedures to its national situation. In Ireland, the Economic and Social Research Institute (ESRI) is responsible for selecting the national sample, adapting the questionnaire to national standards and carrying out the field work, basic data processing and editing at the national level.

## **B. Population, sampling size and sampling methods**

### Population

Total population, population above 16 and household population, information at the end of the year.

	1994	1995	1996	1997
Total population	3,520,000	3,582,000	3,652,000	3,694,000
Population above 16	2,581,900	2,634,462		
Household population	1,127,000	1,145,700		

*Source:* Eurostat

### Sample size

The sample size for each Member State was determined on the basis of various theoretical and practical considerations and the available budget. In Ireland, the initial sample comprised 7,252, of which 4,048 were interviewed; additionally, 9,905 personal interviews were carried out. The sample was normally distributed proportionately across geographical region, so as to maximise the precision of estimates at the national level, and all part of the population were sampled at the same rate, i.e. there was no oversampling of any particular groups.

	Wave 1	Wave 2	Wave 3	Wave 4
<b>Households</b>				
Completed households	4048	3584	3174	2945
<b>Individuals</b>				
N. in completed households	14585	12649	10939	10013
Eligible for interview	10418	9049	7935	8482
Interviewed	9904	8535	7517	6868

### Coverage and sampling frame

*Coverage* – The objective of the sample design was to obtain a representative sample of private households in the whole territory of Ireland, including collective households (private households containing numerous ‘sub-households’, such as boarding or lodging

houses and army barracks); institutions such as hospitals, nursing homes, convents, monasteries or prisons are not included). Among those effectively excluded from the target population are a number of small groups known to face a high risk of poverty – such as the homeless and travellers not living in private households – as well as those living in institutions, whose poverty risk is harder to assess a priori.

*Sampling frame* – The frame used for the Living in Ireland Survey was the Register of Electors. This provides a listing of all adults age 18 and over who are registered to vote in the Dáil, Local Government or European Parliament elections (only names and addresses). This means that the target sample selected using the ESRI's RANSAM procedure was a sample of persons, not of households. Since the probability of selection is greater for households with a larger number of registered voters, this means that the resulting sample will tend to over-represent larger households. This was taken into account in re-weighting the sample for analysis.

### Initial sample design and selection

The survey is based on two stage sampling with 2 or more PSUs selected systematically within each stratum:

- the selection of Irish District Electoral Divisions (PSU) in the first stage;
- the selection of a small number of households at the second stage within each selected PSU; the selection of the ultimate sampling units was made in Ireland in a slightly different manner than in other ECHP countries: first, a sample of electors was selected, and then the household of each elector selected taken into the sample; this meant that the selection probability of any household varied in direct proportion to the number of electors in it .

The criteria for explicit stratification comprised the unemployment rate, urban/rural environment and the region.

### Longitudinal sample

The initial sample comprised all usual residents of the households selected as above. At any subsequent wave, the eligible population consists of :

- sample persons, i.e. all initial Wave 1 usual residents who are still alive and eligible for the ECHP, and children born subsequent to Wave 1 to sample persons; members as they become aged 16+ become eligible for the personal interview; in this way the survey population is kept up-to-date for demographic changes except for immigrants into the original population;
- non-sample persons: such persons are covered using the same procedures; these are persons who reside in the same household with one or more sample persons; however, the survey does not follow up non-sample persons who move into households not containing any sample person.

The following table identifies the households which are eligible (E) for any wave N. This depends on the outcome of the household interview at waves (N-1) and (N-2). The remaining households are dropped from the survey (D).

		Wave (N-1) household interview status		
		Completed	Not completed: 1. physical incapacity 2. non-contact 3. 'initial refusal'	Not completed: 4. definite refusal 5. ineligibility
Wave (N-2) household interview status	Completed wave (N-2) household	E	E	D
	New household in wave N-1	E	E	D
	Not completed wave N-2 household	E	D	D

To this will be added newly formed households resulting from the movement of sample members since the last wave. Additional sample households may be added to augment the ECHP. Also, persons moving to collective household are each treated as a new one-person household in its own right. Deducted will be the very few households, which at the time of wave N no longer contain a sample member (i.e. have become non-existent or contain only non-sample members).

The individual members of sample households are eligible for an interview unless they have moved outside the EU or to an institution. Apart from members of a private household comprising one or more panel members, panel members who have moved into a collective household (non-institutional collective accommodation, e.g., boarding house, residential educational establishment, or other accommodation shared by 5 or more unrelated people, with individual responsibility for the running of the household) and outside the country of origin but within EU are also to be interviewed.

### **C. Data collection and acquisition**

#### Field work

Field work was carried out by experienced interviewers working for CSO and ESRI. Interviewers are very stable across waves (93% common to the first 3 waves). Face-to-face personal interviewing was the main mode of data collection; the reference person provided information on the household questionnaire and then the person concerned for the individual questionnaire; however, proxy for the individual interview was permitted (9.5% in Ireland for Wave 1). In situations where the individual could not be personally contacted, the provision of 'self-completion' was allowed, i.e. the interviewer leaving a questionnaire to be completed by the respondent him/herself; where possible, an attempt was made to verify the information with the respondent subsequently. Conventional 'paper and pencil' interviewing was used together with computer-assisted data entry (CADI). Respondents received a gift in appreciation of their participation (1 Lottery ticket per respondent).

### Data collection period

Much of the information, especially on household and personal income, is collected in the ECHP for the calendar year preceding the interview. Therefore it is desirable to collect the information as soon after the end of the reference year as possible. There are also some substantive advantages in making the field work duration short, though operationally it may be necessary or even desirable to prolong this duration. However, data collection in most cases began 4-8 months after the end of the reference year, and in a number of countries extended to the very end of the following year. This applies to all waves in so far as countries try to retain their successive waves to be exactly one year apart. The duration of field work has also varied, though mostly it is in the range 3-6 months. A number of practical reasons have contributed to the delay in starting field work following the reference year. In most countries there are competing requirements from other surveys and regular operations. The second main reason has been the difficulty in completing budgetary and organisational arrangements for starting fieldwork each year.

### Data collection in Ireland

	Wave 1	Wave2	Wave3	Wave4
Field work	June-December 1994	June-December 1995	June-December 1996	June-December 1997

### Questionnaire

Eurostat has sought harmonisation of the questionnaires employed in each country in terms of their structure, content and interpretation. The Community ECHP questionnaire is composed of three parts:

- *Household Register*: it has the functions of: controlling and tracing evolution of the sample over time, collecting information on non-responding cases, maintaining records of interviewers' performance, providing critical information for the linkage of households and persons over time and also collecting a few basic items of substantive information; definition and control of the sample is the basic function of the Household Register; it keeps a record of all addresses, households and individuals in the sample for each wave, and as they are carried over from one wave to the next and linked across waves; records are kept of changes in household addresses, of the outcome of all interviewing, and of reasons for non-response where the interviewing has not been completed; in the manner the HR is a basic instrument of operational control in the ECHP.
- *Household Questionnaire*: it collects information on: changes in household location, housing conditions, amenities, problems and possession of durable, housing tenure, mortgage and rent amounts paid, financial situation of the household (debt burden, etc.), sources of household income and the approximate total net monthly amount, and housing allowance, social assistance, and rental, property and other income received by the household as a whole.
- *Personal Questionnaire*: through personal interview with each member aged 16 or over the 31<sup>st</sup> December of the preceding year, it collects detailed information on each person's economic activity and income, and on a large number of other variables.

The ESRI adapted the Community ECHP questionnaire to the national conditions; moreover, a substantial part of the questionnaire was devoted to supplementary questions of national interest: the principal domains covered by the extended questionnaire relate to income from agriculture, housing, the link between health and employment, biographic information on the work and level of education of the respondent's parents, and some additional information on the general situation of the household.

#### **D. Definition of the survey units**

##### Household

*Community definition:* for the purposes of the ECHP, a household is defined at the Community level in terms of two criteria: the sharing of the same dwelling and the common living arrangements. All the individuals considered by the household to form part of the household are taken into account, even if they are temporarily absent for reasons of work, study or sickness.

*National definition:* Ireland followed the proposed definition of household in terms of both common accommodation and common arrangements. Unrelated persons normally residing in the household such as boarders and domestic staff are considered to be part of the household; tenants/subtenants and lodgers are also included, while persons temporarily with the household such as guests or visitors are excluded. Persons temporarily away or absent from the household, such as institutionalised persons (hospital/nursing home, full-time education, military service, other) and persons working out of town, on travel or other, are included if absence is temporary and there is an expectation of coming back.

##### Head of household (HoH) and reference person (RP)

*Community definition:* for Wave 1, both concepts were used according to the following definition: a HoH/RP must be defined at the point of data collection in order to meet 3 principal objectives:

- as a reference point for establishing the relationship of all members of the households;
- to select a respondent for the household questionnaire;
- to determine to whom certain components of household income should be attributed in the individual questionnaire.

From Wave 2 onwards, the concept of HoH was dropped, relationships between household members are recorded using a matrix in the household register and the RP has been defined for the sake of simplicity and comparability as the member who owns or is responsible for the accommodation. The respondent to the household questionnaire is chosen according to the following list of priorities:

- the first preference is for the person who responded to the household interview of the preceding round;
- otherwise, an eligible 'panel' member, with priority in the following order: the RP; the RP's spouse or partner, another eligible 'panel' member (member of the initial sample);

- at the last resort, any eligible interviewee even though not a panel member.

*National definition:* The HoH for Wave 1 was defined as the owner or tenant of the dwelling, and he/she was automatically considered as the reference person; as a result, the RP may be not economically active while the household is effectively run by an economically active younger member.

## **E. Contents**

### Labour market information

The ECHP encompasses two related measures of the individual's economic activity:

*Current activity status:* status during the reference week, i.e the 7 (full) days preceding the interview (a moving reference period rather than a fixed period in terms of specific calendar dates is used because of the extended data collection period of the ECHP).

The categories of classification of the total population are presented below:

Total population

    Working age population (16+)

        Employed (at work or with job but temporarily not at work)

            Normally working for 15+ hours per week

            Normally working for <15 hours per week

        Unemployed (not working and seeking and available for work)

        Not economically active (not seeking and/or not available for work)

    Population below the working age (<16)

Labour force (economically active population) = Employed + Unemployed

Population not economically active = Not economically active + Population below the working age

Labour force participation rate = Labour force / Working age population

Unemployment rate = Unemployed / Labour force

*Main activity status:* according to the main activity concept, persons are classified as being in job or self-employment if they presently work for at least 15 hours per week; for the remaining, the main status (including the status of being unemployed) is determined according to self-declaration, in principle on the basis of the most time spent.

### Income

Eurostat's main concern was with disposable income (i.e. gross income minus compulsory deductions for tax and Social Insurance contributions) in the calendar year before the interview; however, details on both current income receipts from these sources and receipts in the previous year were collected in the Irish version of the questionnaire,



allowing both current and annual income to be measured. Information on household income is obtained in two forms:

- a simple, approximate indicator of the household current total net monthly income (obtained from one single item in the household questionnaire),
- a detailed enumeration of individual components of income at the household and individual levels over the preceding year.

Individual level income comprises:

- *Income from employment (including training and apprenticeship)*: this is obtained for persons normally aged 16 and over at the 31<sup>st</sup> of December of the preceding year, who at any time during the preceding year receive a wage, salary or other form of pay for work as an employee or an apprentice; normal gross as well as net earnings (including additional payment such as from overtime, bonus, etc.) per month are asked for, along with the normal hours worked as to permit the computation of wage rates; if a person had different jobs during the reference year, not at the same time, this person had to answer on the job with the longest duration.
- *Income from self-employment*: in this case gross amount after deduction of expenses is sought; the reference period is the most recent year or similar duration for which the respondent can provide the information; in the case of partnership with persons outside the household, the respondents' own share only is recorded; in the case of partnership involving household members, the total amount is recorded in the questionnaire of the main persons responsible for the business; when actual amounts cannot be specified, approximate information in the form of a range is sought.
- *Income from casual/secondary work*: only the total net amount received during the reference year is recorded.
- *Income from private transfers and from financial assets*: only the total net amount received during the reference year is recorded; a range is asked for when the actual amounts cannot be specified.
- *Income from social and social insurance transfers*: individual components are specified in detail following the ESSPROS classification; when the normal net amounts per month and the number of months received cannot be given separately, the total net amount for the reference year is recorded.

Household level income comprises components of income which are normally received by the household as a whole, rather than by members individually; this includes:

- housing allowance received by owners or tenants (in the interest of simplifying the question sequence, the current monthly amount and number of months received during reference year is asked for households who report receiving such an allowance at the time of the interview)
- social assistance: for both cash and non-cash assistance, the specific months of receipt are recorded (rather than simply the total number of months during the reference year), along with the normal monthly amount in the case of cash assistance
- rental income: total for the reference year; a range is sought if the actual amount cannot be specified.
- lump sum receipts: approximate ranges.

Gross versus net distinction: for certain components, the questionnaire does not attempt to make a sharp distinction between gross and net amounts in order to limit response burden; in the main, however, the overall amount obtained can be taken to approximate the concept of net income, i.e. net of income tax and social insurance deductions at source; note that this is not always the same as disposable income, normally defined as net of final tax settlement (direct additional payment or refund) on the income; such information on tax is not included in the ECHP questionnaire.

In addition to the detailed enumeration of the income components for the preceding year, some information collected is relating to the current situation:

- current gross and net monthly income from employment (including training and apprenticeship) for persons normally working 15 hours or more a week;
- current gross and net monthly income for persons normally working less than 15 hours a week but having worked for at least one hour during the seven days preceding the interview.

## F. Quality of data

### Response rates

The sample from the Wave 1 (1994) Living in Ireland survey was followed in subsequent years and re-interviewed. The follow-up rules for the survey meant that new households might be included in each wave where a sample person from Wave 1 moved to another household. All individuals in the Wave 1 sample were to be followed in Wave 2 and household and individual interviews were to be conducted, as long as the person still lived in a private or collective<sup>1</sup> household within the EU. The table below summarises the wave-on-wave response rates, from Wave 2 to Wave 4.

*Number of Completed Households Each Wave and Household response rates*

	Wave 1	Wave 2		Wave 3		Wave 4	
Households		% Hsds		% Hsds		% Hsds	
Completed Households	4048	3584	80%	3174	82%	2945	87%
Non-response (NR)	3038	794	18%	624	16%	388	11%
Non-sample	166	97	2%	77	2%	54	2%
Total Hsds	7252	4475	100%	3875	100%	3387	100%
Household response rate (excluding non-sample)			82%		84%		88%

<sup>1</sup> Collective households are private households containing numerous 'sub-households' and include boarding or lodging houses and army barracks. They do not include institutions such as hospitals, nursing homes, convents or prisons. If an individual moved to a collective household, they were followed and interviewed, and information on their 'sub-household' was collected using the household questionnaire and the household register.

*Number Sample Persons in Completed Households and N Interviewed.*

	Wave 1	Wave 2		Wave 3		Wave 4	
Individuals			% Ind		% Ind		% Ind
N. in Completed Hsds	14585	12649	84%	10939	85%	10013	89%
N in NR Hsds	-----	2286	15%	1781	14%	1066	9%
N in Non-Sample Hsds	-----	117	1%	219	2%	215	2%
Total Individuals		15052	100%	12939	100%	11294	100%
Eligible for individual Interview	10418	9049		7935		8482	
Interviewed	9904	8532	94%	7517	95%	6868	95%

In Wave 1, there were 4048 completed sample households containing 14,585 individuals. Of these, 10,418 were eligible for individual interview and 9904 (95 per cent) were interviewed individually. The total number of households eligible for inclusion in Wave 2 was 4475, which included newly-generated households<sup>2</sup>. In Wave 2, 3584 households were completed, 794 did not respond, and 97 were non-sample households<sup>3</sup>. The household response rate (when non-sample households are excluded) was 82 per cent. The 3584 completed households contained 12190 sample persons, of whom 8760 were eligible for individual interview (born in 1978 or earlier) and 8314, or 96 per cent, were actually interviewed.

The household response rate in Wave 3 was 84 per cent. Interviews were conducted in 3174 households containing 12939 individuals. Of these, 7935 were eligible for individual interview (born in 1979 or earlier) and 95 per cent, 7517, were successfully interviewed.

By Wave 4, the household response rate had increased to 88.7 per cent, resulting in a completed sample of 2945 households, containing 10013 individuals. Ninety five percent of the eligible individual sample (born in 1980 or earlier) were interviewed, giving a completed individual sample of 6868 persons.

Despite the improving response rates, there has clearly been a sizeable attrition between Waves 1 and 4. Of the original 14585 sample individuals, only 63 per cent (9208) were still in completed Wave 4 households, with another 805 individuals having joined the sample at some point in the intervening years.

The main reason for household non-response was refusal (ranging from 9 per cent of the eligible sample in Wave 2 to 6 per cent in Wave 4). Among the newly-generated households, difficulties in obtaining forwarding addresses for those who moved also contributed to the non-response rate.

<sup>2</sup> These include (a) households generated when someone from a Wave 1 household moves out to set up a new household or (b) pre-existing households that a mover from a wave 1 household had joined by 1995.

<sup>3</sup> Non-sample households are those where all members are deceased, moved to an institution or outside the EU, or households not containing a 'sample person' – someone who was in one of the original households in wave 1.

Given the relatively high sample attrition rate, it was important to carefully check for any biases that may be introduced if attrition is related to characteristics of households, such as size, location, economic status and income. These checks were conducted in the course of devising sample weights for the data in Waves 2 to 4, using information on the households and individuals from the previous wave's interviews. The table below provides a summary of these results. The data in the tables are weighted by carrying forward the household weight from the previous wave.<sup>4</sup> These weights do not provide an accurate match to the population, so the distributions should only be used to compare the characteristics of responding and non-responding households. For weighting purposes, non-sample households are included; that is, households which had moved abroad outside the EU or where the members had died between waves are included in 'All households'.

*Previous Wave Characteristics of All Households and Responding Households in Waves 2-4*

		Wave 2			Wave 3			Wave 4		
		All Hsds	Respondent Hsds		All Hsds	Respondent Hsds		All Hsds	Respondent Hsds	
		Per cent	Per cent	Diff.	Per cent	Per cent	Diff.	Per cent	Per cent	Diff.
Head-Sex (% Households)	Male	76%	76%	0.5%	78%	78%	0.1%	78%	79%	0.7%
	Female	24%	24%	-0.5%	22%	22%	-0.1%	22%	21%	-0.7%
Head-Age Group (% Households)	Under 25	2%	2%	-0.2%	2%	1%	-0.4%	1%	1%	-0.3%
	25-34	16%	16%	-0.1%	18%	18%	-0.2%	19%	18%	-0.9%
	35-44	21%	22%	1.2%	22%	22%	0.3%	22%	23%	1.0%
	45-54	20%	19%	-0.7%	22%	22%	-0.5%	22%	21%	-0.3%
	55-64	16%	16%	-0.8%	14%	14%	-0.4%	15%	15%	0.4%
	65+	24%	25%	0.6%	22%	23%	1.2%	22%	22%	0.2%
Head-Marital Status (% Households)	Married	59%	60%	0.8%	60%	61%	0.4%	60%	61%	0.9%
	Separated/Div.	6%	6%	-0.3%	5%	5%	0.0%	6%	5%	-0.1%
	Widowed	14%	14%	0.3%	14%	14%	0.4%	13%	13%	0.2%
	Never Married	21%	20%	-0.7%	21%	20%	-0.8%	22%	21%	-1.0%
Hsd. Size (% Households)	One	21%	21%	0.2%	21%	21%	-0.2%	21%	21%	0.0%
	2	21%	21%	0.4%	22%	23%	0.6%	23%	24%	1.0%
	3	15%	14%	-0.5%	16%	17%	0.6%	17%	16%	-1.0%
	4	16%	17%	0.3%	18%	17%	-0.5%	17%	17%	-0.1%
	5	14%	14%	0.0%	12%	12%	-0.3%	13%	13%	0.3%
	6+	13%	13%	-0.4%	11%	11%	-0.1%	10%	9%	-0.3%
N At Work (% Households)	0	35%	36%	0.6%	32%	33%	1.1%	30%	32%	1.7%
	1	36%	37%	0.6%	36%	36%	0.2%	35%	36%	0.4%
	2	21%	21%	-0.2%	27%	26%	-0.2%	29%	28%	-1.0%
	3+	8%	7%	-1.1%	6%	5%	-1.2%	6%	5%	-1.1%
Head- Economic Status (% Households)	Employee	39%	38%	-0.6%	43%	42%	-1.2%	43%	43%	-0.4%
	Self-employed	9%	9%	0.1%	8%	8%	-0.2%	9%	8%	-0.8%
	Farming	8%	8%	0.2%	9%	9%	0.4%	8%	8%	0.2%
	Educ/training	0%	0%	0.0%	0%	0%	-0.1%	0%	0%	0.0%
	Unemployed	9%	9%	0.0%	8%	8%	0.3%	8%	9%	0.3%
	Disabled	3%	3%	0.0%	3%	3%	-0.2%	3%	3%	0.3%
	Retired	18%	18%	0.5%	16%	17%	0.4%	17%	17%	0.5%
	Home Duties	14%	13%	-0.2%	13%	13%	0.6%	11%	11%	-0.1%
Urban/Rural	Dublin	30%	29%	-0.6%	31%	31%	0.1%	30%	30%	-0.8%

<sup>4</sup> Newly-generated households, for this purpose, get same household weight as the household from which they were generated.

(% Households)	Other Urban	18%	18%	-0.5%	20%	19%	-0.8%	19%	18%	-0.9%
	Rural	52%	53%	1.1%	49%	50%	0.7%	51%	52%	1.7%
Hsd Moved?	Same Address	88%	94%	6.8%	87%	94%	6.8%	89%	95%	6.2%
(% Households)	New Address	12%	6%	-6.8%	13%	6%	-6.8%	11%	5%	-6.2%
Split/Original Hsd	Original Hsd	93%	97%	4.3%	94%	98%	3.9%	94%	98%	4.4%
(% Households)	Split Hsd	7%	3%	-4.3%	6%	2%	-3.9%	6%	2%	-4.4%
Poverty Status in W1	Not Poor	83%	82%	-0.7%	85%	84%	-0.6%	85%	85%	-0.6%
(% Households)	Poor	17%	18%	0.7%	15%	16%	0.6%	15%	15%	0.6%
N. Social Welfare	U.A. etc.	8%	8%	-0.4%	8%	8%	-0.2%	7%	7%	0.1%
Recipients in Hsd.	U.B.	2%	2%	0.0%	2%	2%	0.0%	2%	2%	0.1%
(% age 15+)	OAPC/Ret. Pen.	4%	4%	0.2%	5%	5%	0.3%	5%	5%	0.3%
	OAPNC	4%	5%	0.3%	4%	4%	0.4%	3%	4%	0.2%
	WID_C	2%	3%	0.1%	3%	4%	0.3%	3%	3%	0.1%
	WID_NC	1%	1%	0.0%	1%	1%	-0.2%	1%	1%	0.1%
	LPA	2%	2%	-0.1%	2%	2%	0.1%	2%	2%	0.0%
	D.B.	1%	1%	0.1%	2%	2%	0.0%	2%	2%	0.0%
	I.P.	1%	1%	0.1%	2%	1%	-0.1%	2%	2%	0.0%
	DPMA	1%	1%	0.0%	1%	1%	0.1%	1%	2%	0.2%

In general, the results of the table are encouraging. Although, as we have noted, there is an association between non-response and changing address (which particularly affects young, single householders) the overall impact on the sample structure is slight.

In Wave 2, for instance, 2.4 per cent of all households had a head who (in Wave 1) was under age 25; while the proportion for completed Wave 2 households had dropped only 0.2 percentage points to 2.2 per cent.

Apart from the loss of roughly half of the households, which had changed address between waves (including the newly-generated households), the impact on the sample distribution of previous-wave characteristics amounted to, at most, 1 or 2 percentage points. In particular, the differences between the completed and total sample in terms of economic status of the head, numbers at work in the household, total numbers receiving the major social welfare payments, and Wave 1 poverty status of the household were very small.

Overall then, although the attrition rate is relatively high, it has only a minor impact on the sample distribution of household characteristics. There is no evidence that households with specific characteristics related to the measurement of poverty and income distribution are being selectively lost from the sample.

### Data checking

Each wave the data are checked as thoroughly as possible, both at the micro and the aggregate level, and longitudinally against the previous (and where possible, the following) wave. The checks are carried out at the national level in the first instance, then centrally by Eurostat. The checks comprise range and routine checks, followed by structural, cross-sectional and longitudinal consistency and plausibility checks.

## Imputation

Imputations are confined to missing income components and are done centrally by Eurostat, hence are not included in this survey.

## Sample weights

The household weights were developed in a number of steps:

1. The first step was to derive weights to control for any bias due to sample attrition at the household level between waves of the survey. In constructing the Wave 4 weights, for instance, the Wave 3 household weight was carried forward to the Wave 4 sample. The characteristics of all Wave 4 households (including the newly-generated households)<sup>5</sup> were compared to those of all completed Wave 4 households. Since no information was available on the Wave 4 characteristics of non-completed households, the Wave 3 characteristics were used<sup>6</sup>) in comparing the two groups. The household characteristics examined were household size, number of adults over 18 years; number over age 65; number at work; number unemployed; number of males and females in each of 11 age groups; number of males and females in each of (a) 11 age/marital status categories, (b) 9 economic status categories, (c) 5 socio-economic groups, and (d) 4 broad levels of education; and number of recipients of 12 different social welfare payments. In addition, the corresponding characteristics of the 'head' of household<sup>7</sup> were examined: age group, sex, level of education, socio-economic status, socio-economic group and marital status. Also included were the urban/rural location of the household in Wave 3 (Dublin, other urban and rural), the poverty status and equivalised income decile in Wave 1 (this information had not yet been computed for Wave 3) household, whether the household had moved since the previous wave, and whether the household was a split household in Wave 4.

In general, the distribution of the characteristics examined was very similar for the responding and non-responding Wave 4 households. Although the sample attrition rate between Waves 1 and 2 is pretty high, there is certainly no indication any selectivity in the attrition is having a notable impact on the distribution of the major correlates of household income and poverty status.

The adjustment for sample attrition involved adjusting the Wave 3 household weights so that the distribution of each of the characteristics for the responding Wave 4 households was equal to the distribution of these characteristics for the total sample. The Gross program written by Johanna Gomulka was used. This program uses a minimum distance algorithm to adjust an initial weight so that the distribution of

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<sup>5</sup> Newly-generated households are households formed when a sample person from the previous wave moves out and either sets up a new household or joins a non-sample household. In either case, the individual is followed and interviews are conducted in the 'newly-generated' household. Note that in checking for sample attrition effects we included households that would not have been eligible for inclusion in Wave 4 – either because the household members died, moved to an institution or moved outside the EU.

<sup>6</sup> In the case of newly-generated households, the Wave 3 characteristics of the household the individual(s) moved from were used.

<sup>7</sup> The 'head' was taken as the household reference person (the person responsible for the accommodation). If a couple was responsible for the accommodation, the characteristics of the male partner were used.

characteristics in a sample matches that of a set of control totals. In the present case, the initial weight was the household weight from Wave 3 and the totals for all households (responding and non-responding, with the Wave 3 weight applied) were used as the control totals.

2. The next step was to apply external checks to the household weights using data from the 1997 Labour Force Survey and other sources, such as the Department of Social Welfare Published statistics on social welfare reciprocity levels. At this stage, the current characteristics of the completed Wave 4 sample were compared to those of external sources. Even if there was no sample attrition between waves, some adjustment to the household weights would be needed at this point because the inclusion of newly-generated households and their members has an impact on the structure of the sample, principally by adding more newly-formed households which tend to have an over-representation of young, single adults. The first stage in this external comparison involved using a special tabulation of the 1995 LFS which was obtained from the Central Statistics Office. This classified households along six dimensions: Number of adults in household (6 categories), location (Dublin, other urban and rural), number of individuals at work (0, 1 and 2 or more), socio-economic group of household head (agriculture/fishing; professional/managerial; other non-manual; manual; and 'not stated'); whether the household contains any persons age 65 or over; and whether the head is under age 25. The cells of the table were used to adjust the Wave 4 household weights, and further adjustments were made according to the marginal distributions on each of these variables.

The second stage in constructing the Wave 4 household weights was to adjust the weights from the previous stage to control for characteristics of individuals obtained from the Labour Force Survey microdata for 1997 and from the Department of Social Welfare's published report on Social Welfare Statistics for 1997. The external population characteristics used were household size, number of adults in the household, urban-rural location, socio-economic group of the household head, presence of individuals age 65 or over, whether the head is under age 25; number of males and females in each of 10 age groups, in each of 11 age/marital status groups, and in each of 8 principal economic status categories; number of recipients of each of 12 major types of social welfare payment; and size of farm for farm households. (Again, the Gross programme was used, with the initial weight being the household weight from the previous step and the control totals derived from the LFS and the Department of Social Welfare Statistics.

Apart from incorporating weights to control for attrition from previous waves, and the availability of new technology in the form of the Gross programme, the logic and general strategy in developing the weights for Waves 2 to 4 was very similar to that used in Wave 1. Carrying forward the weights from the previous waves meant that little further adjustment was needed in Waves 2-4 for the distribution of characteristics such as household size or farm size, except insofar as these were associated with attrition or the effects of including newly-generated households in the sample.

The table below shows selected characteristics of all households in 1997 as estimated from the LFS data and with figures on social welfare reciprocity from the Department of Social Welfare's published statistics, and the characteristics of the sample households from Wave 4 of the Living in Ireland Survey with the sample attrition weights applied, and with the final household weights applied. As can be seen from the table, the weighting procedure resulted in a very close match in terms of the controls used.

*Adjustment to Wave 4 Household Weights using External Population Data (from Labour Force Survey 1997, and Department of Social Welfare Statistics).*

		A.Population	B. Pct	C. Weighted Survey Data	D. Pct	E. Diff (D-B)	F. Diff2 (C-A)/A
Total Hsds		1,191,927	100.0%	1,191,927	100.0%	0.0%	0.0%
Household Size	One person	269,706	22.6%	269,705	22.6%	0.0%	0.0%
	2-person	288,507	24.2%	288,532	24.2%	0.0%	0.0%
	3-person	189,404	15.9%	189,404	15.9%	0.0%	0.0%
	4-person	204,805	17.2%	204,790	17.2%	0.0%	0.0%
	5+ persons	239,505	20.1%	239,495	20.1%	0.0%	0.0%
Location	Dublin	368,929	31.0%	368,874	30.9%	0.0%	0.0%
	Other Urban	377,552	31.7%	377,529	31.7%	0.0%	0.0%
	Rural	445,446	37.4%	445,525	37.4%	0.0%	0.0%
N At work	None	374,981	31.5%	374,901	31.5%	0.0%	0.0%
	One at work	425,116	35.7%	425,184	35.7%	0.0%	0.0%
	2+ at Work	391,830	32.9%	391,843	32.9%	0.0%	0.0%
Number over age 65	One or more	298,927	25.1%	298,921	25.1%	0.0%	0.0%
	None	893,000	74.9%	893,006	74.9%	0.0%	0.0%
Head Age	Under 25	19,543	1.6%	19,553	1.6%	0.0%	0.1%
	Over 25	1,172,384	98.4%	1,172,374	98.4%	0.0%	0.0%
<b>Individuals: Total</b>		<b>3,604,957</b>	<b>100.0%</b>	<b>3,604,957</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.0%</b>
N Females by Age	Under 15	444,623	12.3%	444,623	12.3%	0.0%	0.0%
	16-19	133,111	3.7%	133,111	3.7%	0.0%	0.0%
	20-24	145,766	4.0%	145,766	4.0%	0.0%	0.0%
	25-34	266,646	7.4%	266,646	7.4%	0.0%	0.0%
	35-44	252,797	7.0%	252,797	7.0%	0.0%	0.0%
	45-54	223,357	6.2%	223,357	6.2%	0.0%	0.0%
	55-59	60,538	1.7%	60,538	1.7%	0.0%	0.0%
	60-64	69,144	1.9%	69,144	1.9%	0.0%	0.0%
	65-70	63,714	1.8%	63,714	1.8%	0.0%	0.0%
	70+	148,370	4.1%	148,370	4.1%	0.0%	0.0%
N males by age	Under 15	469,006	13.0%	469,006	13.0%	0.0%	0.0%
	16-19	139,958	3.9%	139,958	3.9%	0.0%	0.0%
	20-24	151,322	4.2%	151,322	4.2%	0.0%	0.0%
	25-34	260,969	7.2%	260,969	7.2%	0.0%	0.0%
	35-44	248,278	6.9%	248,278	6.9%	0.0%	0.0%
	45-54	228,640	6.3%	228,640	6.3%	0.0%	0.0%
	55-59	62,230	1.7%	62,230	1.7%	0.0%	0.0%
	60-64	68,581	1.9%	68,581	1.9%	0.0%	0.0%
	65-70	59,368	1.6%	59,368	1.6%	0.0%	0.0%
	70+	108,539	3.0%	108,539	3.0%	0.0%	0.0%



Females, Age	< 30, Married	61,765	2.2%	61,758	2.2%	0.0%	0.0%
and Marital Status	<30, Single	380,845	13.8%	380,900	13.8%	0.0%	0.0%
	30-44, Mar.	288,401	10.5%	288,374	10.4%	0.0%	0.0%
	30-44, Single	68,828	2.5%	68,834	2.5%	0.0%	0.0%
	45-64, Mar.	267,938	9.7%	267,907	9.7%	0.0%	0.0%
	45-64, Single	32,051	1.2%	32,050	1.2%	0.0%	0.0%
	<65, Widow	36,181	1.3%	36,205	1.3%	0.0%	0.1%
	65+, Married	75,472	2.7%	75,479	2.7%	0.0%	0.0%
	65+, Single	29,941	1.1%	29,932	1.1%	0.0%	0.0%
	65+, Widow	103,928	3.8%	103,931	3.8%	0.0%	0.0%
	All, Div./Sep.	51,370	1.9%	51,391	1.9%	0.0%	0.0%
Males, Age	< 30, Married	39,113	1.4%	39,106	1.4%	0.0%	0.0%
and Marital Status	<30, Single	418,865	15.2%	418,858	15.2%	0.0%	0.0%
	30-44, Mar.	271,882	9.9%	271,864	9.9%	0.0%	0.0%
	30-44, Single	90,873	3.3%	90,893	3.3%	0.0%	0.0%
	45-64, Mar.	279,808	10.1%	279,785	10.1%	0.0%	0.0%
	45-64, Single	54,863	2.0%	54,884	2.0%	0.0%	0.0%
	<65, Widow	11,410	0.4%	11,410	0.4%	0.0%	0.0%
	65+, Married	103,948	3.8%	103,940	3.8%	0.0%	0.0%
	65+, Single	33,205	1.2%	33,214	1.2%	0.0%	0.0%
	65+, Widow	28,130	1.0%	28,128	1.0%	0.0%	0.0%
	All, Div./Sep.	30,778	1.1%	30,780	1.1%	0.0%	0.0%
Social Welfare (as Pct of pop15+)	Unemp. Assi.	167,735	6.1%	167,676	6.1%	0.0%	0.0%
	Unemp Ben.	63,914	2.3%	63,915	2.3%	0.0%	0.0%
	OAP-Con./RP	141,815	5.1%	141,795	5.1%	0.0%	0.0%
	OAP-Non-con	98,835	3.6%	98,815	3.6%	0.0%	0.0%
	Pre-Retir All.	13,647	0.5%	13,641	0.5%	0.0%	0.0%
	Widow-Con.	97,340	3.5%	97,311	3.5%	0.0%	0.0%
	Widow Non-c	18,786	0.7%	18,786	0.7%	0.0%	0.0%
	Lone Parent	58,960	2.1%	58,956	2.1%	0.0%	0.0%
	Carer's Allow	10,196	0.4%	10,201	0.4%	0.0%	0.0%
	Disability Ben	43,957	1.6%	43,949	1.6%	0.0%	0.0%
	Invalidity Pen	43,633	1.6%	43,634	1.6%	0.0%	0.0%
	DPMA	43,192	1.6%	43,193	1.6%	0.0%	0.0%
N Females by PES	At work	511,567	18.5%	511,692	18.5%	0.0%	0.0%
	Unemployed	37,883	1.4%	37,901	1.4%	0.0%	0.0%
	Seeki 1st job	10,690	0.4%	10,678	0.4%	0.0%	-0.1%
	Educ/Train	181,847	6.6%	181,822	6.6%	0.0%	0.0%
	Home Duties	585,844	21.2%	585,756	21.2%	0.0%	0.0%
	Retired	53,058	1.9%	53,078	1.9%	0.0%	0.0%
	Disabled	15,831	0.6%	15,834	0.6%	0.0%	0.0%
	Other		0.0%	0	0.0%	0.0%	
N Males by PES	At work	829,724	30.1%	829,749	30.1%	0.0%	0.0%
	Unemployed	111,191	4.0%	111,154	4.0%	0.0%	0.0%
	Seeki 1st job	20,296	0.7%	20,283	0.7%	0.0%	-0.1%
	Educ/Train	175,967	6.4%	175,954	6.4%	0.0%	0.0%
	Home Duties	9,236	0.3%	9,237	0.3%	0.0%	0.0%
	Retired	172,607	6.3%	172,626	6.3%	0.0%	0.0%
	Disabled	43,853	1.6%	43,859	1.6%	0.0%	0.0%
	Other		0.0%	0	0.0%	0.0%	

## **G. Uses of survey**

The data from the Living in Ireland Survey has been used extensively for research in a number of policy areas including poverty and anti-poverty strategies, pension provision for the elderly, the training and education systems, the tax and Social Welfare systems; health policy; pension coverage and the circumstances of people with disabilities.

Once integrated into the ECHP, the entire dataset becomes a unique source of information on household income and living conditions in the European Union because of the comparability of the data generated as well as the multi-dimensional coverage and the longitudinal design of the instrument which allows the study of changes over time at the micro level. These specific features made it possible to respond to the increasing demand for comparable information on income, labour, and various social indicators. Numerous ECHP data requests originating from the Commission (DGII, DGV, DGXXII) and the OECD have been answered. Various National Data Collection Units (NDUs) have also extensively used ECHP data. Eurostat publications drawing on ECHP results include to date 7 “Statistics in Focus”, 5 “horizontal” publications, 2 methodological volumes, and over 100 technical and methodological documents. Wide use of ECHP data has been made in the context of two major Commission reports: the annual *Employment in Europe* report and the biennial *Social Protection in Europe* report.

### Poverty

The Department of Social, Community and Family Affairs and the Combat Poverty Agency commissioned research on poverty for the National Anti-Poverty Strategy (NAPS) Inter-Departmental Policy Committee. The ESRI carried out the research on the basis of data from the 1997 Living in Ireland Survey; the main results are published in “Monitoring poverty trends: Data from the 1997 Living in Ireland Survey”, by T. Callan, R. Layte, B. Nolan, D. Watson, C.T. Whelan, J. Williams and B. Maitre, Dublin, Stationery Office/Combat Poverty Agency, 1999.

The above-mentioned publication reports that 11.1% of persons are below 40% of mean income (averaged across individuals), 19.8% below 50% of mean income and 32.1% below 60% of mean income. These figures are calculated with the OCED equivalence scale (1 for the head of household, 0.7 for each other adult and 0.5 for each child).