Ireland 2000: Survey Information

Summary table

	Initial sample	IE00
Generic		
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 8 (2001)
Collection period	June-December 1994	June-December 2001
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.	
Sample size		
Households	4,048 completed interviews out of 7,086 initial sample	2,865 completed interviews out of 3,662 initial sample
Individuals	14,585 individuals in completed households, of which 9,904 16+ interviewed	9,131 individuals in completed households, of which 6,521 16+ interviewed
Sampling		
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: - *old households* (unless all members are deceased, moved to an institution or outside EU, or not contain 'initial sample person') - *newly generated households*, i.e. new/pre-existing hhds created/joined when someone from a previous wave hhd moves out
Sampling frame	Register of Electors	- *2000 Sample Supplementation:* addition of 1,500 new households
Questionnaires	Household Register, Household Questionnaire and Individual Questionnaire	
Standard classifications		
Education	1-digit ISCED-97	
Occupation	4-digit ISCO-88	
Industry	3-digit NACE/ISIC	
Income		
Reference period	1993 (whole year)	2000 (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).	
Data editing / processing		
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: - adjustment for sample attrition (from Wave 2 onwards) - external checks on population structure (demographic/socio-economic/social welfare) - grossing-up to population size	
Imputation	None.	

This document is based upon "The European Community Household Panel (ECHP): Survey methodology and implementation", 1996 and "Monitoring Poverty Trends in Ireland: Results from the 2001 Living in Ireland Survey", by C.T. Whelan, R. Layte, B. Maître, B. Gannon, B. Nolan, D. Watson and J. Williams, Policy Research Series No. 51, The Economic and Social Research Institute, Dublin, December 2003.

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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)
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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 8 in 2001, 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 filed work, basic data processing and editing at the national level.

B. Population, sampling size and sampling methods

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 7,086, of which 4,048 were interviewed; additionally, 9,904 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	Wave 8
Households					
Total households	7,086	4,378	3,980	3,335	3,662
Completed households	4,048	3,584	3,174	2,945	2,865
Individuals					
N. in completed households	14,585	12,576	10,889	9,952	9,131
Eligible for interview	10,418	9,048	7,902	7,255	6,996
Interviewed	9,904	8,531	7,488	6,868	6,521

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)	Completed wave (N-2) household	E	E	D

| household interview status | 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.

2000 Supplementation Sample - In 2000, the Irish sample of individuals and households followed from Wave 1 was supplemented by the addition of 1,500 new households to the total. This was done in order to increase the overall sample size, which had declined due to attrition since 1994. A larger sample size ensures that the precision of estimates of key figures, such as the poverty rate and average equivalised household income, remained at a high level. It also allows a greater disaggregation of the data so that the situation of policy-relevant sub-groups, such as the unemployed or older adults, can be examined. These additional households, as well as the original sample, were followed in 2001.

The new sample was selected using the same procedure as for the first wave of the survey in 1994, using the ESRI's RANSAM programme, based on the Electoral Register. The household response rate reached 57 per cent for the 2,661 new sample households contacted by interviewers. This is the same as the rate achieved in Wave 1 and is in line with the typical response rate in other surveys of a demanding nature, such as the Household Budget Survey.

A new sample of just over 1,500 completed households was added to the sample continuing from previous waves of the survey. Of the households followed from the previous year (the 'continuing sample'), 2,443 were issued to interviewers and interviews were completed in 1,952 of these (83 per cent) and with 4,745 individuals (95 per cent of those eligible). The improved economic situation in 2000 made it more difficult to establish contact with, and secure participation of, the households followed from earlier waves, since a higher proportion of the household members were working outside the home. This increased the number of call-backs required to make the initial contact and, since respondents had less free time, made refusals more likely. In addition, it created a challenge in that several of the experienced interviewers moved to alternative employment. A total of 290 households that had completed the Wave 6 interview could

not be issued to interviewers because of these difficulties. The sample supplementation exercise, together with the follow-up of continuing households, resulted in a completed sample in 2000 of 11,450 individuals in 3,467 households. Individual interviews were conducted with 8,056 respondents, representing 93 per cent of those who were eligible (born in 1983 or earlier).

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 stating fieldwork each year.

Data collection in Ireland

	Wave 1	Wave2	Wave3	Wave4	Wave 8
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 31st December of the preceding year (household members born in 1984 or earlier for the 2001 survey), 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 o the household.

The topics covered in the Household and Individual Questionnaires of the Living in Ireland Surveys are listed below:

Household Questionnaire Topics
- Household size and composition
- Housing and physical environment
- Housing tenure
- Rent and mortgage payments
- Standard of living (things the household can afford to have or to do)
- Debts and arrears
- Sources of household income
- Non-cash and secondary benefits

Individual Questionnaire Topics
- Current activity status (self-defined)

- Detailed information on the current job, for those working 15 or more hours per week in a job or business
- More limited information on work for those working less than 15 hours per week
- Some information on previous job, for those not currently working 15+ hours per week
- Job search activity, for those seeking work
- Other daily activities, such as caring responsibilities, social and political participation
- Recent involvement in education and training
- Activity in each month since the beginning of the previous calendar year
- Detailed information on income in the previous calendar year from employment, self-employment, personal and occupational pensions, social welfare, education and training-related allowances and grants, property (interests, dividends, rental income), and other sources.
- Health status, health service usage, and health care coverage
- General outlook on life

Eurostat has sought harmonisation of content, structure and interpretation of the questionnaires across participating member states. The Living in Ireland Surveys are built around this core harmonised questionnaire, but with additional modules of questions to meet national data needs. For instance, the Irish questionnaire collects full details on current income, as well as on previous year annualised income, as specified in the core Eurostat set of items.

The questionnaires were administered in a face-to-face interview by the ESRI's team of interviewers. On average, the household questionnaire took 12 minutes to complete, while the individual questionnaire took 30-35 minutes to complete. The average number of individual interviews per household in 1994 was 2.4. In farm households, a farm questionnaire was also completed to collect information on the acreage farmed, and the profile of the farm in terms of crops grown, other land use, livestock held, and labour input. This information, together with data on the soil type, was used in conjunction with Teagasc's National Farm Survey to estimate the income flow (family farm income) of farm households. This approach was necessary because the nature of farm income – being a combination of market profit or loss, grants and subsidies – makes it difficult for respondents to provide the figure directly.

The core ECHP questionnaire has remained substantially the same since 1994. Modifications of the Irish Questionnaire have been kept to a minimum, but with some modules added to meet national needs, such as a module on pensions in 1995 and in 2000, and on the intra-household distribution of resources in 1999.

D. Definition of the survey units

<u>Household</u>

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, full0time 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 theextended 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 31st 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 total number of households successfully interviewed in 1994 was 4,048, representing 57 per cent of the valid sample. This response rate is, as one would expect in an intensive and demanding survey of this nature, and is comparable to the response rates achieved in the Household Budget Surveys.

A total of 14,585 persons were members of the completed households. Of these, 10,418 were eligible for personal interview (i.e. born in 1978 or earlier), and 9,904 eligible respondents completed the full individual questionnaire (964 on a proxy basis). Summary details were collected on the household questionnaire on the 514 eligible individuals for whom no individual interview was obtained.

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 household within the EU. The following tables summarise the wave-on-wave response rates, from Wave 1 to Wave 8.

Number of Completed Households Each Wave and Household response rates

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7	Wave 8
	1994	1995	1996	1997	1998	1999	2000	2001
Households Completed	4,048	3,584	3,174	2,945	2,729	2,378	3,467	2,865
Households Non-response (NR)	3,038	794	624	390	394	464	1,560	797
Non-sample	166	98	125	119	94	83	236	78
Total Hsds	7252	4475	3875	3387				
Household response rate (excluding non-sample)	57%	82%	84%	88%	87%	84%	69%	78%

Number Sample Persons in Completed Households and N Interviewed.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6	Wave 7	Wave 8

	1994	1995	1996	1997	1998	1999	2000	2001
Individuals								
N. in Completed Hsds	14,585	12,576	10,889	9,952	9,000	7,721	11,450	9,131
Eligible for individual Interview	10,418	9,048	7,902	7,255	6,620	5,719	8,697	6,996
Interviewed	9,904	8,531	7,488	6,868	6,324	5,451	8,056	6,521
Response rate	95%	94%	95%	95%	96%	95%	93%	93%

Checking for patterns of attrition
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 8, using information on the
households and individuals from the previous wave's interviews.

As a result, although the attrition rate is relatively high, it has only a minor impact on the
sample distribution of individual and household characteristics. Although 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.
Nevertheless, as described in the next section, attrition was taken into account in re-
weighting the sample for analysis.

Sample Weights for the 2001 Sample
The purpose of sample weighting is to compensate for any biases in the distribution of
characteristics in the completed survey sample compared to the population of interest,
whether such biases occur because of sampling error, from the nature of the sampling
frame used, differential response rates or attrition. Whatever the source of the
discrepancy between the sample and population distributions, we would like to adjust the
distributional characteristics of the sample in terms of factors such as age, sex, economic
status and so on to match that of the population. In a cross-sectional survey, or in the first
wave of a panel survey, the only way to check the distributional characteristics of the
sample is to compare sample characteristics to external population figures from sources
such as the Census, the Labour Force Survey, official statistics on number of social
welfare recipients from the Department of Social Welfare, and so on. In waves following
the first wave of a panel survey, we can also compare the characteristics of the
individuals and households successfully followed to those of the individuals and
households in a previous wave of the survey. In constructing the weights for the Living in
Ireland Survey in Wave 2 and subsequently, both of these methods were used.

The household weights were developed in a number of steps, which are now fully
described.
- The first step involved adjusting the continuing sample for attrition.
- The second step was to calibrate the sample totals against population totals from
  external sources.

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. The household weights from the previous wave were carried forward for the continuing sample, and then adjusted for any pattern of attrition in that wave. In constructing the Wave 8 weights, for instance, the Wave 7 household weight was carried forward to the Wave 8 sample. The characteristics of all Wave 7 households (including the newly-generated households)[1] were compared to those of all completed Wave 8 households.[2] The household characteristics examined were:

- Household size (total number of persons, number over 18 and number over 65).
- Number of persons at work.
- Urban/Rural Location (3 categories).
- Whether household moved since last wave.
- Whether household is newly generated.
- Wave 1 Poverty Status of the household.
- Number of males and females by 11 age groups.
- Number of males and females age 15 and over by 11 age/marital status categories.
- Number of males and females age 15 and over by 9 principal economic status categories.
- Number of males and females age 15 and over by 5 socio-economic groups.
- Number of males and females age 15 and over by 4 levels of education.
- Number of recipients of the 12 main social welfare benefits.

The following are characteristics of the household head were also used:[3]

- Sex
- Age group (6 categories)
- Marital status (4 categories)
- Principal economic status (8 categories)
- Socio-economic group (13 categories)

In general, as seen above in the discussion of attrition, the distribution of the characteristics examined was very similar for the responding and non-responding Wave 8 households. Although the sample attrition rate is higher than we would like, 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 7 household weights so that the distribution of each of the characteristics for the responding Wave 8 households was equal to the distribution of these characteristics for the total sample (responding and non-responding households). The Gross programme written by Johanna Gomulka was used. This programme uses a minimum distance algorithm to adjust an initial weight so that the distribution of characteristics in a sample matches that of a set of control totals. In the

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[1] 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. Note that for re-weighting purposes we included households that would not have been eligible for inclusion in Wave 8 – either because the household members died, moved to an institution or moved outside the EU.

[2] Since no information was available on the Wave 8 characteristics of non-completed households, the Wave 7 characteristics were used. In the case of newly-generated households, the Wave 7 characteristics of the household the individual(s) moved from were used.

[3] The 'household head' is the person responsible for the accommodation, or the male partner in households where the couple is jointly responsible.

present case, the initial weight was the household weight from Wave 7 and the totals for all households (responding and non-responding, with the Wave 7 weight applied) were used as the control totals.

The second step in constructing the household weights for the 2001 data involved combining the continuing and new samples and adjusting the weight so as to reflect the population distribution of a number of key characteristics. The initial weight at this stage was taken as the attrition weight from the first step for the continuing sample households; and as the design weight from the second step for the new sample households. The external population figures were taken from the second quarter of the 2001 Quarterly National Household Survey (QNHS), the Department of Social Community and Family Affairs (DSCFA) published statistics on social welfare recipiency levels, and figures from Teagasc on the total number of farms in each size category. At this stage we compared the current characteristics of the completed Wave 8 sample to those of the population in private households, as shown in external sources. The external controls were as follows:

Household characteristics:
- Household size (total size, number over 18 and number over 65).
- Location (Dublin, other county borough, rural).
- Number of persons at work (0, 1 and 2 or more).
- Head Age (under 25, age 25 and over).
- Number of farms in each of six size categories.

Individual characteristics:
- Number of males and females by 10 age categories.
- Number of males and females age 15+ by 11 age/marital status categories.
- Number of recipients of 12 major social welfare payments.
- Number of males and females by 7 economic status categories (at work (ILO), unemployed (ILO), Unemployed (not ILO), Student, home duties, retired, other).
- Number of males and females age 20-64 years by level of education (4 categories).

The initial weight (the attrition weight) was adjusted to these external population totals using the Gross programme. The weights were constrained to the range from 0.125 of the average weight to 8 times the average weight, in order to avoid placing too much reliance on the representativeness of a small number of observations. Nevertheless, the resulting match between the weighted sample characteristics and the population characteristics used as controls was highly satisfactory, indicating that extreme weights were not required to achieve this adjustment.

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 8 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 2-8 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.

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.

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 2001 Living in Ireland Survey; the main results are published in "Monitoring Poverty Trends in Ireland: Results from the 2001 Living in Ireland Survey", by C.T. Whelan, R. Layte, B. Maître, B. Gannon, B. Nolan, D. Watson and J. Williams,

Policy Research Series No. 51, The Economic and Social Research Institute, Dublin, December 2003.

The above-mentioned publication reports the following poverty rates:

Percentage of persons below median relative income poverty lines (based on income averaged across individuals)					
	1994	1997	1998	2000	2001
Equivalence Scale A					
50% median income line	6.0	8.6	9.9	12.0	12.9
60% median income line	15.6	18.2	19.8	20.9	21.9
70% median income line	26.7	29.0	26.9	28.1	29.3
Equivalence Scale B					
50% median income line	6.3	9.6	10.3	12.4	14.6
60% median income line	17.1	18.9	19.3	21.1	21.9
70% median income line	26.9	28.8	27.4	28.4	30.0
Equivalence Scale C					
50% median income line	7.0	8.9	9.8	11.2	12.9
60% median income line	17.0	17.7	18.8	20.9	21.5
70% median income line	25.4	27.8	27.0	28.4	30.1

These figures are calculated with 3 different equivalence scales:
- Equivalence Scale A: 1 for the head of household, 0.66 for each other adult and 0.33 for each child;
- Equivalence Scale B: 1 for the head of household, 0.6 for each other adult and 0.4 for each child)
- Equivalence Scale C (OECD): 1 for the head of household, 0.7 for each other adult and 0.5 for each child.