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Authors(s)	Layte, Richard, Maitre, Bertrand, Nolan, Brian, Watson, Dorothy
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**Monitoring Poverty Trends: Results from the
1998 Living in Ireland Survey**

**Richard Layte, Bertrand Maitre, Brian Nolan, Dorothy Watson,
James Williams and Barra Casey**

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Chapter 1

Introduction

Monitoring the evolution of poverty and assessing progress towards achieving the stated targets is of central importance to the National Anti Poverty Strategy (NAPS). Last year, the ESRI carried out a study for the NAPS Inter-Departmental Policy Committee (Callan *et al.* 1999) based on results from the 1997 round of the Living in Ireland household survey. The present report for the Inter-Departmental Policy Committee now provides an updated picture using results from the 1998 round of that survey. The primary aim is to use this 1998 data to assess how the overall extent of poverty and the profile of those in poverty has changed *vis-à-vis* the picture presented for 1997 in Callan *et al.* (1999). This analysis of 1998 forms part of a broader study which will also take advantage of the panel nature of the data to look at transitions into and out of poverty from one year to the next over the period from 1994 to 1998.

The report is structured as follows. Chapter 2 describes the database on which the subsequent analysis relies. Chapter 3 focuses on overall trends in numbers falling below income poverty lines, derived in a variety of ways. Chapter 4 looks at the profile of risk and incidence when those income poverty thresholds are employed. Chapter 5 turns to non-monetary deprivation indicators, which in combination with income help to identify those experiencing generalised deprivation due to lack of resources. Trends in the numbers both falling below relative income lines and experiencing basic deprivation, and the types of households affected, are examined. Finally, Chapter 6 brings together the main findings and discusses their implications for targeting in the anti poverty strategy.

Chapter 2

The Living In Ireland Panel Survey

2.1 Introduction

In this chapter we describe the Living in Ireland Surveys on which this report is based. These surveys are unusual in the Irish context in being longitudinal in nature – following the same people from year to year – rather than repeated cross-sectional surveys. Here we bring out the rationale behind the design of the survey and the implications for the way the data was collected and for the nature of the sample. We begin with a brief description of the 1994 Living in Ireland Survey, the first in the series, and then describe in more detail the 1998 survey and the data available from it on which this study primarily relies.

2.2 The 1994 Living in Ireland Survey

The first wave of the Living in Ireland Survey (LII) carried out in 1994 has been described in detail in Callan *et al.* (1996, Chapter 3), so here we will only give a broad outline. The Living in Ireland Survey is the Irish component of the European Community Household Panel, conducted by the ESRI for Eurostat, the Statistical Office of the European Communities. The aim of the European Community Household Panel (ECHP) is to produce fully harmonised data on the social and financial situation and living standards of a panel of households in the different member states followed over a number of years. The fact that the same set of households is interviewed each year means that it is possible to study changes in their characteristics and circumstances over time. The ECHP in effect provides a harmonised cross-sectional picture for each year in which the survey is conducted, as well as longitudinal data that permits dynamic analysis of changes over time. In the present report, the Irish data are used for cross-sectional purposes only, but the dynamic potential of the data will be exploited in the next stage of this study to examine transitions into and out of poverty from one year to the next.

Eurostat has sought harmonisation of the questionnaires used in the different member states in terms of their content, structure and interpretation. The Living in Ireland Surveys are built around this core harmonised questionnaire, but with additional modules of questions. For instance, the Irish questionnaire collects full

details on current income, as well as the previous-year annualised income on which Eurostat focuses.

The objective of the sample design was to obtain a representative sample of private households in Ireland. Those living in institutions such as hospitals, nursing homes, convents, monasteries and prisons, are excluded from the target population, in line with the harmonised guidelines set down by Eurostat and standard practice adopted in surveys of this kind (such as the Household Budget Survey conducted by the Central Statistics Office). 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*. Doing justice to the particular circumstances of these groups would require research methodologies different from a general household survey, specially designed for the group in question. Discussions on the nature of such research, which would complement the picture of the population living in households provided by studies like the present one, have already been initiated between *inter alia* the Department of Social Community and Family Affairs and the ESRI.

The sampling 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. 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 reweighting the sample for analysis.

The organisation of the 1994 survey itself and details of the information sought were described in Callan *et al.* (1996). 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, comparable to those achieved in for example 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 1997 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.

To ensure the representativeness of the sample, it was reweighted for analysis in terms of a number of key classificatory variables on which information was available from the Census of Population, the labour force survey, and administrative statistics on the number of recipients of different social welfare payments. The main elements in the reweighting scheme adopted for the 1994 data are described in Callan *et al.* (1996). The representativeness of the 1994 data after reweighting was assessed by comparison with independent external sources on a variety of dimensions. The results of this validation, again described in detail in Callan *et al.* (1996), have for the most part been highly satisfactory.

2.3 The 1998 Wave of the Living in Ireland Survey

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 collective¹ household within the EU. Table 2.1 summarises the wave-on-wave response rates, from Wave 2 to Wave 5.

As we have seen, 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 4476, which included newly-generated households,² and of these 3,584 household interviews were completed, 794 did not respond, and 98 were non-sample households.³ The household response rate (when non-sample households are excluded) was 82 per cent.

¹ 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.

² These include households generated when someone from a Wave 1 household moves out to set up a new household, or pre-existing households that a mover from a wave 1 household had joined by 1995.

³ 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.

Table 2.1: Number of Completed Households in Each Wave, Number of Sample Persons in Completed Households and Number Interviewed, Living in Ireland Surveys 1994-1998.

	1994	1995	1996	1997	1998
<i>Households</i>					
Completed Households	4048	3584	3174	2945	2729
Non-Response	3038	794	624	390	391
Non-Sample	166	98	125	119	96
Total Households	7252	4476	3923	3454	3216
Household Response Rate	57%	82%	84%	88%	87%
<i>Individuals</i>					
N. in Completed Households	14585	12649	10939	10006	9045
(% in completed households)		(84%)	(85%)	(89%)	(89%)
N in NR Households	n.a.	2286	1819	1068	1048
N in Non-sample Households	n.a.	117	181	169	116
Total Individuals		15052	12939	11243	10209
Eligible for Individual Interview (*)	10418	9048	7902	7255	6620
Interviewed	9904	8531	7488	6868	6324
%t Individual Interviews Completed	95%	94%	95%	95%	96%

Note: * In completed Households

The completed households contained 12649 persons (12190 from wave 1 and 459 new individuals), of whom 9048 were eligible for individual interview (born in 1978 or earlier) and 8531, or 94 per cent, were actually interviewed.

The household response rate in Wave 3 was 84 per cent. Interviews were conducted in 3174 households containing 10939 individuals. Of these, 7902 were eligible for individual interview (born in 1979 or earlier) and 95 per cent, 7488, were successfully interviewed.

By Wave 4, the household response rate had increased to 88 per cent, resulting in a completed sample of 2945 households, containing 10006 individuals. Of the eligible individual sample (born in 1980 or earlier) 95 per cent were interviewed, giving a completed individual sample of 6,868 persons. In 1998 the household response rate was 87 per cent, with 2729 household interviews and 6324 individual interviews completed (96 per cent of eligible individuals).

Despite the improving response rates, there has clearly been a sizeable attrition between Waves 1 and 5. Of the original 14585 sample individuals, only 56 per cent (8182) were still in completed Wave 5 households, with another 863 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 5 per cent in Wave 5). Among the newly generated households, difficulties in obtaining forwarding addresses for those who moved also contributed to the non-response rate.

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 5, using information on the households and individuals from the previous wave's interviews. Table 2.2 provides a summary of these results. The data in the tables are weighted by carrying forward the household weight from the previous wave.⁴ The table also shows the average weight that would be needed in each cell to correct for attrition.

In general, the results are encouraging. Although as noted earlier 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. Apart from the loss of roughly half 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. In particular, 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.

⁴ Note that 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. Newly generated households, for this purpose, get the same household weight as the household from which they were generated. For weighting purposes, non-sample households which had moved abroad outside the EU or where the members had died between waves are included in 'All households'.

Table 2.2: Previous Wave Characteristics of All Households and Responding Households in Waves 2-5 and Average Attrition Weight Needed in Each Cell

Characteristics of Individuals		Wave 2			Wave 3			Wave 4			Wave5		
		All %	Res %	Wgt	All %	Res %	Wgt	All %	Res %	Wgt	All %	Res %	Wgt
Females	Under 15	14	14	0.95	12	13	0.97	12	13	0.94	12	12	0.98
By age	16-19	4	4	1.10	4	4	1.07	4	4	0.99	4	4	1.02
(% individuals)	20-24	4	4	1.15	5	4	1.14	5	4	1.13	5	4	1.12
	25-34	7	7	1.01	7	7	1.00	8	7	1.07	7	7	0.99
	35-44	6	7	0.96	7	7	0.96	7	7	0.95	7	7	0.95
	45-54	6	5	1.06	6	6	1.05	6	6	1.04	7	6	1.03
	55-59	2	2	1.02	2	2	0.99	2	2	0.99	2	2	1.02
	60-64	2	2	1.04	2	2	0.97	2	2	0.94	2	2	0.95
	65-69	2	2	0.93	2	2	0.92	2	2	0.99	2	2	0.93
	70-74	2	2	0.95	2	2	0.96	1	2	0.89	1	2	0.92
	75+	2	2	1.00	2	2	1.00	2	2	1.06	2	3	0.92
Males	Under 15	14	15	0.95	13	14	0.97	13	13	0.96	12	13	0.96
By age	16-19	4	4	1.04	4	4	1.00	4	4	1.08	4	4	1.01
(% individuals)	20-24	4	4	1.09	5	4	1.08	5	4	1.13	5	4	1.24
	25-34	7	7	1.03	7	7	1.05	7	7	1.05	7	7	1.06
	35-44	6	6	0.94	6	7	0.97	7	7	0.95	6	7	0.95
	45-54	5	5	1.03	6	6	1.00	6	6	1.01	7	6	1.05
	55-59	2	2	1.03	2	2	1.07	2	2	0.97	2	2	0.96
	60-64	2	2	1.05	2	2	1.01	2	2	1.00	2	2	0.95
	65-69	2	2	1.01	2	2	0.92	2	2	0.96	2	2	0.99
	70-74	1	1	0.95	1	1	0.92	1	1	0.93	1	1	0.95
	75+	2	2	0.95	2	2	0.94	2	2	0.95	2	2	0.94
Females 15+	No exams	18	18	0.99	17	17	0.98	15	16	0.97	15	16	0.96
by education	Jnr. Cycle	12	12	1.00	12	12	0.99	14	14	0.99	13	13	1.00
(% age 15+)	Snr. Cycle	15	15	1.01	15	15	1.00	15	15	1.02	15	15	1.01
	Third Level	6	5	1.05	7	6	1.09	7	7	1.06	8	9	0.99
Males 15+	No exams	18	17	1.01	16	17	0.97	16	17	0.96	15	15	0.97
by education	Jnr. Cycle	14	14	0.98	15	14	1.02	15	15	1.04	14	14	0.98
(% age 15+)	Snr. Cycle	11	11	0.98	11	11	1.00	11	11	1.03	12	11	1.07
	Third Level	6	6	1.02	7	7	1.02	7	7	1.00	9	8	1.06
Social Welfare	U.A. etc.	8	8	1.05	8	8	1.02	7	7	0.99	6	6	1.00
Recipients	U.B.	2	2	1.02	2	2	1.02	2	2	0.97	2	2	1.02
(% age 15+)	OAP_C/ Ret.	4	4	0.95	5	5	0.94	5	5	0.94	5	5	0.94
	Pen.												
	OAPNC	4	5	0.94	4	4	0.91	3	4	0.95	3	4	0.94
	WID_C	2	3	0.95	3	4	0.93	3	3	0.97	3	4	0.93
	WID_NC	1	1	1.04	1	1	1.32	1	1	0.91	1	1	0.86
	LPA	2	2	1.05	2	2	0.93	2	2	0.99	2	2	0.97
	D.B.	1	1	0.89	2	2	1.00	2	2	1.01	2	2	1.01
	Inv.P.	1	1	0.95	2	1	1.09	2	2	1.00	2	2	0.94
	DPMA	1	1	1.00	1	1	0.93	1	2	0.88	2	2	0.99

Table 2.2 (continued)

Characteristics of Households		Wave 2			Wave 3			Wave 4			Wave 5		
		All %	Res %	Wgt	All %	Res %	Wgt	All %	Res %	Wgt	All %	Res %	Wgt
Head-Sex (Households)	Male	76	76	0.99	78	78	1.00	78	79	0.99	78	77	1.01
	Female	24	24	1.02	22	22	1.00	22	21	1.03	22	23	0.95
Head-Age Group (Households)	Under 25	2	2	1.08	2	1	1.31	1	1	1.30	2	1	1.46
	25-34	16	16	1.00	18	18	1.01	19	18	1.05	18	18	1.01
	35-44	21	22	0.95	22	22	0.98	22	23	0.96	21	21	0.96
	45-54	20	19	1.04	22	22	1.02	22	21	1.02	23	21	1.06
	55-64	16	16	1.05	14	14	1.03	15	15	0.97	14	15	0.98
	65+	24	25	0.98	22	23	0.95	22	22	0.99	23	24	0.96
Hsd. Size (Households)	One	21	21	0.99	21	21	1.01	21	21	1.00	21	23	0.93
	2	21	21	0.98	22	23	0.97	23	24	0.96	23	24	0.98
	3	15	14	1.03	16	17	0.97	17	16	1.06	16	16	1.03
	4	16	17	0.98	18	17	1.03	17	17	1.01	17	17	0.99
	5	14	14	1.00	12	12	1.03	13	13	0.97	13	12	1.07
	6+	13	13	1.03	11	11	1.01	10	9	1.03	10	9	1.09
N at Work (Households)	0	35	36	0.98	32	33	0.97	30	32	0.95	30	32	0.95
	1	36	37	0.98	36	36	0.99	35	36	0.99	35	35	1.00
	2	21	21	1.01	27	26	1.01	29	28	1.04	28	27	1.04
	3+	8	7	1.16	6	5	1.24	6	5	1.25	6	6	1.11
Head Economic Status (Households)	Employee	39	38	1.02	43	42	1.03	43	43	1.01	44	43	1.02
	Self-emp.	9	9	0.99	8	8	1.03	9	8	1.10	9	9	1.00
	Farming	8	8	0.97	9	9	0.96	8	8	0.98	7	7	0.98
	Unemployed	9	9	1.00	8	8	0.96	8	9	0.97	7	7	1.03
	Disabled	3	3	1.00	3	3	1.07	3	3	0.90	3	3	0.99
	Retired	18	18	0.97	16	17	0.97	17	17	0.97	17	17	0.97
Home Duties	14	13	1.02	13	13	0.95	11	11	1.01	12	13	0.95	
Urban/Rural (Households)	Dublin	30	29	1.02	31	31	1.00	30	30	1.03	31	31	1.03
	Other Urban	18	18	1.03	20	19	1.04	19	18	1.05	20	19	1.02
	Rural	52	53	0.98	49	50	0.99	51	52	0.97	49	50	0.97
Hsd Moved? (Households)	Same Add.	88	94	0.93	87	94	0.93	89	95	0.93	89	95	0.94
	New Address	12	6	2.24	13	6	2.17	11	5	2.25	11	5	2.19
Hsd Split? (Households)	Original Hsd	93	97	0.96	94	98	0.96	94	98	0.96	94	98	0.95
	Split Hsd	7	3	2.41	6	2	2.67	6	2	3.16	6	2	3.70
Poverty W1 (Households)	Not Poor	83	82	1.01	85	84	1.01	85	85	1.01	83	83	1.00
	Poor	17	18	0.96	15	16	0.96	15	15	0.96	17	17	1.00
Equiv Inc. Decile W1 (Households)	1	11	12	0.96	10	10	1.01	9	9	0.99	9	9	1.06
	2	14	14	1.00	13	14	0.92	13	13	0.99	9	10	0.94
	3	10	10	1.03	10	9	1.01	10	10	0.94	9	9	0.98
	4	10	11	0.98	10	10	1.04	10	10	1.00	10	10	0.97
	5	9	9	0.99	9	9	0.99	8	8	0.98	8	9	0.97
	6	8	8	1.00	9	9	1.00	9	9	0.98	11	11	1.04
	7	9	9	1.02	9	10	0.98	10	10	1.01	11	12	1.00
	8	9	9	0.99	9	9	1.00	10	9	1.09	11	11	1.04
	9	9	9	1.00	10	9	1.05	10	10	1.01	10	10	0.96
	10	10	9	1.03	12	11	1.03	12	12	1.01	12	11	1.04

As in previous years, a set of weights is applied to the sample actually used for analysis, to compensate for any known biases in the distribution of characteristics in the completed survey sample. Such biases can arise due to sampling error, to the nature of the sampling frame used or to differential response rates. 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 figures from external sources. In waves following the first wave of a panel or longitudinal 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 Waves 2 and subsequently, both of these methods were used. The details of the weighting process are set out in the Appendix and involved a number of steps. 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. This involved adjusting the Wave 4 household weights so that the distribution of each of the characteristics for the responding Wave 5 households was equal to the distribution of these characteristics for the total sample. The next step was to apply external checks to the household weights using data from the fourth quarter of the 1998 Quarterly National Household Survey and other sources, such as the Department of Social Community and Family Affairs published statistics on social welfare reciprocity levels.

2.4 Conclusions

This chapter has described the 1994 and 1998 Living in Ireland survey data on which the study relies. Particular attention was devoted to the representativeness of these samples, and any possible biases which could be associated with the fact that 1998 is the fifth wave in a panel survey, following up those originally interviewed in 1994. While we return to these issues later in the study, the evidence at this point does not suggest that households with specific characteristics related to the measurement of poverty and income distribution are being selectively lost from the sample. Nonetheless, given the scale of attrition and the shrinking size of the sample, the results presented have to be seen in the light of the possibility that an unmeasured bias has been introduced. For this reason the sample in the 2000 wave of interviewing, currently under way, is being supplemented with the support of the Department of Social, Community and Family Affairs, as discussed below in our concluding chapter.

Chapter 3

Relative Income Poverty in 1998

3.1 Introduction

We have emphasised in previous work the importance of acknowledging uncertainty about how best to measure poverty: no one method or set of results can provide all the answers. By applying a range of approaches, and variants of these approaches, a more rounded and comprehensive – if necessarily more complex – picture can be seen. Relative income poverty lines offer one perspective, and within that broad approach the application of a range of relative income lines allows the sensitivity of the results to the precise location of the poverty line to be assessed. A relative conception of poverty has been explicitly adopted and enshrined in the National Anti Poverty Strategy. However, particularly in a situation of very rapid growth in average incomes, purely relative income lines miss an important part of the picture and give a misleading impression when taken alone. We therefore emphasise in this report, as in previous work, the need to complement them with other approaches.

This is done first by supplementing relative income lines with ones based on income thresholds held constant in real terms. This allows the complete picture from an income perspective to be seen. Secondly, we have demonstrated in previous work that non-monetary indicators can be usefully employed in poverty measurement, to focus more firmly than income lines on those experiencing generalised deprivation due to lack of resources. This is the subject of Chapter 5, which includes a discussion of the poverty measure adopted by the National Anti Poverty Strategy in framing its global poverty reduction target. The results we present on relative income poverty need to be taken together with that material to be interpreted correctly. First, though, we concentrate on income poverty lines, with this chapter presenting an overview of trends to 1998 and Chapter 4 focusing on the types of household falling below those income lines.

3.2 Relative Income Poverty Lines

As in previous work, we follow conventional poverty measurement practice in adopting the household as the income-sharing unit throughout this study, treating all

members of a particular household as having the same standard of living. Some analysis of the situation of individuals within households has been undertaken using ESRI survey data by Callan (1994), Rottman (1994), and Cantillon and Nolan (1998, 2000), and these issues are being pursued in a project currently under way for the Combat Poverty Agency, but we do not explore them here.

A particular income level will mean a different standard of living for different households, depending on the number and ages of the people in the household. Again following previous work and conventional practice, *equivalence scales* are used to adjust household income for the differences in “needs” associated with differing size and composition. A detailed description of the particular scales we have employed in previous work is given in Callan *et al.* (1996, Chapter 4). The first adult in a household is given the value 1, and our Scale A then gives each additional adult a value of 0.66 and each child a value of 0.33 in calculating the total number of “equivalent adults” in the household. Scale B gives each additional adult a value 0.6 and each child 0.4. Scale C gives each additional adult a value of 0.7 and each child 0.5. In each case, equivalent or equivalised household income is then calculated by dividing total income by the number of equivalent adults in the household. These scales have the advantage of covering quite a broad range, and in order to produce comparable results we use the same ones here, and continue to define children for this purpose as those aged under 14 years of age.

In constructing relative income poverty lines, a number of other choices have to be made as we have discussed in depth elsewhere, notably in Callan *et al.* (1996) Chapter 4. One is whether the mean or the median income is to be used in deriving those lines. The mean can be seen as preferable in being easily understood, but it may be highly sensitive to a small number of very high incomes, unlike the median. Here we examine trends with both mean and median income-based poverty lines to examine the possible sensitivity of the results to this choice. Mean income per equivalent adult can then be calculated either by taking the average over households, or by attributing the equivalised income of the household to each individual in it and taking the average over individuals. Once again we look at results for both. In order to test the sensitivity of conclusions to the precise location of the poverty line we continue to use three separate cut-offs - 40, 50 and 60 per cent of mean income, 50, 60 and 70 per cent of median income.

The income concept employed throughout is disposable household income (income of all household members from all sources, after income tax and PRSI contributions are deducted). Mean disposable income per week simply averaged over all households in the 1998 Living in Ireland Survey, without equivalisation, was £395. This represents an increase of 15 per cent on the mean in the 1997 ESRI survey. Adjusting for household size and composition by equivalising household income using the 3 alternative equivalence scales described earlier, and averaging over households, produces the figures for average equivalent household income set out in Table 3.1. Mean equivalent disposable household income rose by about 14 per cent between 1997 and 1998. This means it has risen since 1994 by 44-45 per cent, depending on the equivalence scale used.

Table 3.1: *Average Weekly Household Equivalent Income, Living in Ireland Surveys 1994, 1997 and 1998*

Equivalence scale	Income per adult equivalent averaged over households		
	1994	1997	1998
		£ per week	
A (1/0.66/0.33)	129.39	164.75	187.23
B (1/0.6/0.4)	131.33	167.54	190.93
C (1/0.7/0.5)	121.96	155.84	177.23

If one then constructs a relative income poverty line based on equivalent income averaged over households in 1998, the 50 per cent line for a single person household will vary between about £88 and £95, depending on the equivalence scale used. The corresponding line for a couple with two children ranges from £216 to £239, again depending the equivalence scale employed. A relative income line for a single adult constructed as 40 per cent of mean equivalised household income in 1998 is in the range £70-76, while the 60 per cent relative income line for that household type lies in the range £106-114 per week.

3.3 Poverty Rates Using Relative Income Poverty Lines, 1994 and 1997

We now look in Table 3.2 at the percentage of households below these relative income poverty lines in 1994, 1997 and 1998.⁵ In 1998, we see that about 10-11per

⁵ Note that due to on-going revisions to data and weights the figures for 1997 differ from those published in Callan et al (1999); there have also been slight changes to the 1994 figures presented there and in earlier publications.

cent of households fall below the 40 per cent line, 24-25 per cent are below the 50 per cent line, and 33-34 per cent are below the 60 per cent income line. Compared with 1997, the percentage of households below the 40 per cent and 50 per cent relative income line has risen. With the 60 per cent line, however, there has been a marginal decline.

Table 3.2: *Percentage of Households Below Mean Relative Income Poverty Lines (Based on Income Averaged Across Households), Living in Ireland Surveys 1994, 1997 and 1998*

Equivalence scale/ Poverty line	Percentage of households below line		
	1994	1997	1998
<i>Scale A (1/0.66/0.33):</i>			
40% relative income line	4.9	6.3	10.5
50% relative income line	18.6	22.4	24.6
60% relative income line	34.2	34.3	33.4
<i>Scale B (1/0.6/0.4):</i>			
40% relative income line	5.2	7.1	11.0
50% relative income line	19.4	22.0	25.0
60% relative income line	34.1	34.0	33.0
<i>Scale C (1/0.7/0.5):</i>			
40% relative income line	7.0	7.0	10.0
50% relative income line	16.5	19.8	24.2
60% relative income line	32.9	34.2	33.5

We now look at the percentage of individuals living in these households, in Table 3.3. In 1994, the percentage of persons in households below the lines was consistently higher than the percentage of households below the corresponding line, reflecting the fact that these households were larger than average. By 1998, by contrast, more often than not the opposite is found, with lower poverty rates for persons than households. As a result the increase in poverty rates between 1997 and 1998 with the 40 per cent and 50 per cent lines is more muted for persons than it was for households – indeed with Scale A there is a decrease with the 50 per cent line. Similarly with the 60 per cent line the percentage of persons in households below the line falls more than the percentage of households itself.

We mentioned in Section 3.2 that rather than averaging equivalent income over households, an alternative approach to constructing relative income lines is to attribute the equivalised income of the household to each member and then average over individuals. (This is the practice followed in for example the UK's official Households Below Average Income publication).

Table 3.3: *Percentage of Persons in Households Below Mean Relative Income Poverty Lines (Based on Income Averaged Across Households), Living in Ireland Surveys 1994, 1997 and 1998*

Equivalence scale/ Poverty line	Percentage of Persons below line		
	1994	1997	1998
<i>Scale A (1/0.66/0.33):</i>			
40% relative income line	6.8	8.1	9.6
50% relative income line	20.7	21.0	20.5
60% relative income line	33.7	32.6	30.0
<i>Scale B (1/0.6/0.4):</i>			
40% relative income line	7.5	8.9	9.8
50% relative income line	21.5	20.6	21.1
60% relative income line	33.7	32.0	29.7
<i>Scale C (1/0.7/0.5):</i>			
40% relative income line	10.7	9.7	10.7
50% relative income line	22.3	21.1	21.5
60% relative income line	34.7	33.6	31.3

The difference this makes in 1994 and 1997 was examined in Callan *et al.* (1996, 1999) respectively, and showed that it produced lower poverty lines and rates than averaging across households. We now pursue this comparison for 1998. Table 3.4 shows the percentage of persons below relative income lines using equivalent income averaged over individuals as the benchmark. We see, compared with Table 3.3, that the difference is much less than it was in 1994 or 1997, though it is mostly in the same direction with slightly lower poverty rates when the average is computed across individuals.

Table 3.4: *Percentage of Persons Below Mean Relative Income Poverty Lines (Based on Income Averaged Across Individuals), Living in Ireland Surveys 1994, 1997 and 1998*

Equivalence scale/ Poverty line	Percentage of Persons below line		
	1994	1997	1998
<i>Scale A (1/0.66/0.33):</i>			
40% relative income line	5.3	6.3	9.1
50% relative income line	17.4	18.1	20.0
60% relative income line	30.4	30.1	28.6
<i>Scale B (1/0.6/0.4):</i>			
40% relative income line	5.4	7.9	9.4
50% relative income line	18.9	18.6	19.4
60% relative income line	30.1	30.6	28.8
<i>Scale C (1/0.7/0.5):</i>			
40% relative income line	6.8	8.1	8.8
50% relative income line	18.8	18.2	19.5
60% relative income line	29.4	30.7	29.1

The “head count” of households or persons falling below a given poverty line can usefully be supplemented with more sophisticated summary poverty measures based on income poverty lines, which take into account the depth of income poverty and the distribution of income among the poor. As in previous studies we again employ two widely used summary measures based on the gap between the poverty line and the incomes of those below the line, drawing on Foster *et al.* (1984). The first is the per capita income gap, which in effect combines information on the proportion of the sample falling below the poverty line and the average depth of their poverty. The second measure is sensitive not only to the depth of poverty but also to its distribution: it involves squaring the proportionate income gaps and taking the mean of that variable, which has the effect of giving most weight to those whose income gaps are greatest, i.e., those with the lowest incomes.

Results for the per capita income gap measure for 1994, 1997 and 1998 with the 40 per cent, 50 per cent and 60 per cent lines and the three equivalence scales are shown in Table 3.5.⁶ The corresponding results for the “distribution-sensitive” measure are shown in Table 3.6. In each case the aggregate poverty measure rose between 1997 and 1998, having also risen consistently between 1994 and 1997.

Table 3.5: *Per Person Income Gaps Using Relative Poverty Lines and Different Equivalence Scales, 1994, 1997 and 1998 Living in Ireland Surveys*

Equivalence Scale	Relative Poverty Line								
	40%			50%			60%		
	94	97	98	94	97	98	94	97	98
A	.0104	.0137	.0161	.0340	.0390	.0427	.0737	.0775	.0775
B	.0110	.0159	.0181	.0385	.0417	.0445	.0779	.0791	.0793
C	.0152	.0193	.0203	.0458	.0462	.0472	.0860	.0852	.0838

Table 3.6: *Distribution-sensitive Weighted Poverty Gap Measure Using Relative Poverty Lines and Different Equivalence Scales, 1994, 1997 and 1998 Living in Ireland Surveys*

Equivalence Scale	Relative Poverty Line								
	40%			50%			60%		
	94	97	98	94	97	98	94	97	98
A	.0031	.0046	.0056	.0095	.0121	.0139	.0229	.0263	.0281
B	.0033	.0050	.0062	.0106	.0133	.0150	.0251	.0278	.0294
C	.0042	.0071	.0073	.0136	.0155	.0164	.0295	.0308	.0315

⁶ We now revert to calculating the mean across households in deriving the poverty line.

3.4 Median-Based Relative Income Poverty Lines

The relative poverty lines used so far have all been derived as proportions of average equivalent household income. As mentioned earlier, the mean may be quite sensitive to a small number of very high incomes reported at the top of the distribution. The median – that is, the mid-point of the distribution - is not affected by such outliers in the same way. As in Callan *et al.* (1996, 1999) it is therefore also useful to examine poverty lines derived as proportions of median incomes. Because income distributions are skewed the median invariably lies below the mean, so we construct poverty lines as 50, 60 and 70 per cent of the median among individuals (equivalising and attributing the equivalised income of the household to each member). Table 3.7 shows the percentage of persons falling below these relative income lines in 1994, 1997 and 1998. We see that the poverty levels and trends are in fact quite similar to Table 3.4. Once again, they suggest that a higher proportion of persons were below the lower and middle lines in 1998 than 1997, but as in Table 3.4 we see decreases over time using the highest line, except using equivalence scale C which remains stable.

Table 3.7: *Percentage of Persons Below Median Relative Income Poverty Lines (Based on Income Averaged Across Individuals), Living in Ireland Surveys 1994, 1997 and 1998*

Equivalence scale/ Poverty line	Percentage of Persons below line		
	1994	1997	1998
<i>Scale A (1/0.66/0.33):</i>			
50% relative income line	6.0	8.6	10.4
60% relative income line	15.5	18.2	20.0
70% relative income line	26.6	29.0	27.4
<i>Scale B (1/0.6/0.4):</i>			
50% relative income line	6.4	9.6	11.5
60% relative income line	17.1	19.0	21.0
70% relative income line	27.0	28.9	27.9
<i>Scale C (1/0.7/0.5):</i>			
50% relative income line	7.0	8.9	11.0
60% relative income line	17.1	17.7	19.9
70% relative income line	25.4	27.8	28.1

3.5 Income Poverty Lines Held Constant in Real Terms

Over any prolonged period when general living standards are changing, perceptions and expectations as to what is acceptable will also change, and this

provides the essential rationale for the relative conception of poverty incorporated in the NAPS. However, as we have argued in previous work, it is also important to know what has been happening to real incomes, that is incomes adjusted for inflation. At a minimum, one would certainly want to be able to distinguish between a situation where the incomes of the poor are rising in real terms but lagging behind the average in the society, and one where real incomes of the poor are falling while the average is stable. Thus, while we have consistently argued that a poverty standard which is fixed in real income terms will lose relevance over a lengthy period of growth, in Callan *et al.* (1996, 1999) we also looked at how household incomes evolved *vis-a-vis* such a fixed real standard over the relatively short time period since 1987. Specifically, we looked at how many persons in 1997 fell below income standards corresponding in real terms to relative income poverty line cut-offs set at 40, 50 and 60 per cent of mean equivalised income in 1987. We now repeat that exercise for 1998.

We saw in Callan *et al.* (1999) that the proportions of persons falling below these fixed real income standards fell sharply between 1987 and 1994, and again to 1997. We now see in Table 3. 8 that there has been a further decline between 1997 and 1998 in the percentage of persons falling below these lines. By 1998 only about 6-8 per cent of persons are below the 60% line, compared with about 20 per cent in 1994 (and 30 per cent or more in 1987). There was only a marginal decline with the middle line and lowest of these lines, but by 1997 the numbers below them were already very low.

Table 3.8: *Proportions of Persons Below 1987 Real Income Standards, 1994 and 1997 Living in Ireland Surveys*

<i>Real income standard 1987</i>	<i>Percentage of persons below line: Equivalence Scale</i>								
	<i>A</i>			<i>B</i>			<i>C</i>		
	1994	1997	1998	1994	1997	1998	1994	1997	1998
40 per cent line	1.9	1.3	0.6	1.8	1.0	0.6	3.4	1.7	0.7
50 per cent line	7.0	2.9	1.6	7.1	3.1	1.7	14.1	6.6	4.1
60 per cent line	17.7	8.0	5.7	18.3	8.4	6.1	23.9	11.9	8.3

3.6 Conclusions

Relative income poverty lines offer one perspective on poverty, and within that broad approach the application of a range of relative income lines allows the sensitivity of the results to the precise location of the poverty line to be assessed. However, particularly in a situation of very rapid growth in average incomes, purely relative income lines miss an important part of the picture and give a misleading impression when taken alone. We therefore emphasise in this report, as in previous work, the need to complement them with other approaches.

The application of income poverty lines to the data from the 1998 Living in Ireland Survey showed that the percentage of persons or households below half average income was generally higher than in 1997. The proportion below a lower line, set at 40 per cent of mean income, also rose whereas with a line set at 60 per cent of mean income, a decline was generally seen. Relative income lines derived as proportions of the median rather than the mean showed a generally similar pattern. Distribution-sensitive summary poverty measures, taking into account not only numbers below the lines but how far their incomes are below the line, rose between 1997 and 1998 with all the relative income lines. There has however been a further decline in the percentage of persons falling below a “real income” line set at 60 per cent of average equivalent income in 1987 and up-rated in line only with increases in prices since that date. Whereas about 30 per cent were below that income threshold in 1987, by 1998 this was down to about 8 per cent, a dramatic decline over a relatively short period.

With about one in five persons falling below half average equivalised income, and the same number falling below 60 per cent of median equivalised income, Ireland has a high rate of relative income poverty compared with other EU member states (Nolan and Maitre 1999). This is not in our view the best way to measure poverty, particularly in our current circumstances, and we would not conclude from these figures that one-fifth of Irish people in 1998 were living in what was then regarded as generalised exclusion due to lack of resources – which is how poverty is defined in the NAPS. We would however see this high rate of relative income poverty as a serious structural problem which needs to be tackled while the resources are available to do so, for reasons on which we elaborate in Chapter 6. First, though, we look in Chapter 4 at the profile of those falling below relative income lines, before going on

in Chapter 5 to trends in poverty measured using both income and non-monetary indicators of deprivation.

Chapter 4

Households Below Relative Income Poverty Lines

4.1 Introduction

Having seen in the previous chapter how the numbers falling below relative income poverty lines have evolved to 1998, we now proceed to a detailed analysis of the types of households involved. We focus on household composition and on the labour force status and age of the household reference person. We first look at households falling below income poverty lines derived as proportions of the mean, and then at persons falling below income poverty lines derived as proportions of the median.

4.2 Households Below Mean-Based Relative Income Lines

Household Composition

In looking at which households fall below income poverty lines derived as proportions of mean equivalised income, we focus first on the number of adults and children they contain. Table 4.1 presents the risk for households of falling below the 50 per cent relative income line in 1994, 1997 and 1998 by household composition type, using equivalence scale A and with those aged under 14 again being counted as children. For households without children we see from 1997 to 1998 for the most part a continuation of the pattern of change from 1994 to 1997. The risk of being below the 50 per cent line increased sharply for households comprising one adult, and that risk also rose for households comprising two adults without children, and marginally decreased for three or more adults without children. For couples with children that risk fell between 1997 and 1998 or remained stable, however, except for the “others with children” group (comprising either one adult or more commonly 3 or more adults living with children).⁷ This fall was particularly marked for couples with three or four or more children. Since these had been particularly high-risk groups in 1997, this meant that there was a marked shift in the ranking of composition types by poverty risk. Single adult households had by 1998 become the highest risk group, with a poverty rate almost twice that of the next-highest group.

⁷ Since all those aged over 14 are counted as adults here, households with a married couple and older teenage offspring would be “3 or more adults”, with or without children.

Table 4.1: *Percentage of Households Below 50% Relative Income Poverty Line by Household Composition Type, Living in Ireland Surveys, 1994, 1997 and 1998*

	1994	1997	1998
1 adult	22.5	40.1	50.8
2 adults	9.3	14.1	17.3
3 or more adults	10.0	12.1	12.0
2 adults, 1 child	14.0	17.0	14.8
2 adults, 2 children	12.7	12.8	13.1
2 adults, 3 children	22.5	28.2	9.8
2 adults, 4 or more children	36.7	39.5	24.9
Others with children	32.7	26.2	28.6
All	18.6	22.4	24.6

Turning to the corresponding incidence results – the breakdown of the households below the 50 per cent poverty line by household composition type – these are presented in Table 4.2. One-adult households accounted for about 45 per cent of these households, up from 27 per cent in 1994, and households with two or three or more adults without children also increased in importance among those below the poverty line. This was balanced by a decline in the proportion coming from households comprising a couple with children. As a result, the shift in the composition of poor households away from households with children towards those without children, already marked between 1994 and 1997, continued apace. In 1994, households with children accounted for more than half all those below the 50 per cent relative income line. By 1998, this had fallen to only 28 per cent.

Table 4.2: *Breakdown of Households Below 50% Relative Income Poverty Line by Household Composition Type, Living in Ireland Surveys, 1994, 1997 and 1998*

	1994	1997	1998
1 adult	27.4	40.5	45.3
2 adults	10.2	14.1	15.8
3 or more adults	9.7	10.9	10.8
2 adults, 1 child	4.0	4.8	3.4
2 adults, 2 children	5.1	4.3	3.7
2 adults, 3 children	6.0	5.3	1.5
2 adults, 4 or more children	4.5	2.2	1.5
Others with children	33.2	17.9	17.9
All	100	100	100

Turning to the poverty risk when the relative income poverty line is constructed as 40 per cent of the mean, Table 4.3 shows that there is once again a sharp increase in risk for single-adult households at this line. The risk for couples with children generally falls (though there is an increase for those with 1 or 2 children), and there is a marked increase for “others with children”.

Table 4.3: *Percentage of Households Below 40% Relative Income Poverty Line by Household Composition Type, Living in Ireland Surveys, 1994, 1997 and 1998*

	1994	1997	1998
1 adult	2.2	3.4	18.6
2 adults	3.4	5.4	5.2
3 or more adults	5.7	5.2	3.8
2 adults, 1 child	3.0	3.0	12.8
2 adults, 2 children	1.2	6.1	6.9
2 adults, 3 children	3.7	21.1	7.1
2 adults, 4 or more children	5.4	31.2	14.6
Others with children	11.3	8.8	17.5
All	4.9	6.3	10.5

In terms of composition, Table 4.4 shows that single-adult households again become more important among those below the 40 per cent line, though there is a less consistent shift away from households with children than we saw with the 50 per cent line.

Table 4.4: *Breakdown of Households Below 40% Relative Income Poverty Line by Household Composition Type, Living in Ireland Surveys, 1994, 1997 and 1998*

	1994	1997	1998
1 adult	10.1	12.2	38.9
2 adults	14.2	19.1	11.1
3 or more adults	21.0	16.7	8.1
2 adults, 1 child	3.2	3.1	6.9
2 adults, 2 children	1.8	7.2	4.6
2 adults, 3 children	3.7	14.0	2.5
2 adults, 4 or more children	2.5	6.1	2.0
Others with children	43.5	21.5	25.8
All	100	100	100

Focusing now on the highest, 60 per cent relative line, we see from Table 4.5 that the pattern of poverty risk across composition types is much more stable from 1997 to 1998 than it was with the two lower lines. There is only a marginal increase in

the risk for single-adult households – though a very high proportion of these households are below the line in 1994, 1997 and 1998.

Table 4.5: *Percentage of Households Below 60% Relative Income Poverty Line by Household Composition Type, Living in Ireland Surveys, 1994, 1997 and 1998*

	1994	1997	1998
1 adult	50.4	51.7	56.3
2 adults	26.1	31.6	30.6
3 or more adults	18.3	23.6	20.3
2 adults, 1 child	23.5	20.9	16.6
2 adults, 2 children	17.6	15.7	18.8
2 adults, 3 children	33.2	32.4	18.5
2 adults, 4 or more children	47.8	45.7	43.9
Others with children	46.7	40.8	39.4
All	34.2	34.3	33.4

The composition of households below the 60 per cent line is shown in Table 4.6. Once again the pattern is much more stable than with the other two relative lines. Almost two-fifths of the households below this line are single adults, and only 29 per cent contain a child.

Table 4.6: *Breakdown of Households Below 60% Relative Income Poverty Line by Household Composition Type, Living in Ireland Surveys, 1994, 1997 and 1998*

	1994	1997	1998
1 adult	33.4	34.1	36.9
2 adults	15.6	20.7	20.7
3 or more adults	9.7	14.0	13.5
2 adults, 1 child	3.6	3.9	2.8
2 adults, 2 children	3.9	3.4	3.9
2 adults, 3 children	4.8	4.0	2.0
2 adults, 4 or more children	3.2	1.7	1.9
Others with children	25.8	18.2	18.2
All	100	100	100

Labour Force Status

We now turn from household composition to the pattern of relative income poverty by labour force status. We categorise households by the labour force status of the household reference person, who is defined by Eurostat for the purposes of the ECHP as the owner or tenant of the accommodation or, if a couple are jointly

responsible, the older of the two. Table 4.7 shows the risk of being below the 50 per cent relative income line on this basis. We see that this risk remained very high for households where the reference person was unemployed, at about 56 per cent. For households where the reference person was ill or disabled or “in home duties”, that risk rose from 1997 to 1998 to even higher levels than for the unemployed. Households headed by a retired person also saw an increase but from a much lower base, from 23 per cent to 29 per cent. For households headed by an employee the risk remained very low, at about 2 per cent.

Table 4.7: *Risk of Household Falling Below 50% Relative Income Poverty Line by Labour Force Status of Household Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	2.8	4.0	2.3
Self-employed	15.1	17.1	15.8
Farmer	21.5	16.3	22.0
Unemployed	57.3	54.9	56.2
Ill/disabled	50.7	60.4	72.6
Retired	10.2	23.3	28.7
Home duties	33.2	48.6	58.4
All	18.6	22.3	24.3

The implications of this risk pattern for the incidence of relative income poverty with the 50 per cent line is shown in Table 4.8. We see that fully 39 per cent of the households below this income threshold had a reference person working full-time in the home. Only 15 per cent had an unemployed reference person, down from twice that figure in 1994, while the percentage with a retired reference person had doubled over the same period to 21 per cent.

Table 4.8: *Breakdown of Households Below 50% Relative Income Poverty Line by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	5.3	7.3	4.0
Self-employed	6.6	6.2	5.2
Farmer	8.1	5.0	6.2
Unemployed	30.2	18.9	15.4
Ill/disabled	9.7	9.1	8.8
Retired	10.1	17.9	21.2
Home duties	30.1	35.7	39.2
All	100	100	100

The pattern of risk with the 40 per cent relative line is shown in Table 4.9. there is now a sharp increase in risk for households where the reference person is unemployed, ill/disabled, retired or in home duties. This presumably reflects the fact this lower threshold has increasingly caught up with the safety-net levels of income support offered by the social welfare system as the scale of increases in average incomes across all households outpace increases in social welfare rates.

Table 4.9: *Risk of Household Falling Below 40% Relative Income Poverty Line by Labour Force Status of Household Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	0.5	1.0	0.4
Self-employed	8.5	8.3	12.5
Farmer	12.0	6.7	4.2
Unemployed	14.6	30.1	41.3
Ill/disabled	9.3	17.9	56.9
Retired	3.0	2.0	7.6
Home duties	5.3	7.0	19.1
All	4.9	6.2	10.4

Table 4.10 shows that this has served to increase the importance of households where the reference person is ill/disabled, retired or in home duties among those below the 40 per cent line. Households where the head is unemployed have declined in importance despite increasing risk, however, because of falling numbers unemployed.

Table 4.10: *Breakdown of Households Below 40% Relative Income Poverty Line by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	3.7	7.0	1.5
Self-employed	14.0	11.3	9.7
Farmer	17.1	7.7	2.8
Unemployed	29.2	38.9	26.6
Ill/disabled	6.7	10.1	16.2
Retired	11.1	5.7	13.2
Home duties	18.2	19.3	30.0
All	100	100	100

With the 60 per cent line, Table 4.11 shows that the pattern of risk is very much more stable between 1997 and 1998, as it was for household composition. Households where the reference person is unemployed, ill/disabled or in home duties are consistently at much higher risk of falling below this threshold than other households.

Table 4.11: *Risk of Household Falling Below 60% Relative Income Poverty Line by Labour Force Status of Household Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	6.6	8.3	6.7
Self-employed	20.6	23.4	23.3
Farmer	31.9	31.6	35.1
Unemployed	75.1	71.0	72.1
Ill/disabled	76.4	79.0	80.4
Retired	37.0	45.4	42.7
Home duties	64.5	67.2	69.3
All	34.2	34.2	33.2

Table 4.12 shows that about one-third of the households below this highest relative line have a reference person engaged in home duties. About 23 per cent have a retired reference person, and the next-largest group is the 15 per cent with an unemployed reference person, down from 22 per cent in 1994.

Table 4.12: *Breakdown of Households Below 60% Relative Income Poverty Line by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	7.0	10.0	8.4
Self-employed	4.9	5.5	5.7
Farmer	6.6	6.3	7.2
Unemployed	21.6	15.9	14.5
Ill/disabled	8.0	7.7	7.1
Retired	19.9	22.6	23.1
Home duties	32.0	32.1	34.1
All	100	100	100

Age

We have seen that the risk of being below the 50 per cent line increased particularly sharply between 1997 and 1998 for single person households and for those with a reference person who is retired or in home duties. Many of these are aged 65 or over, so to explore the underlying patterns further Table 4.13 shows the risk of being below the 50 per cent relative income line for households where the reference person is aged 65 or over (very few of which contain children), versus households where the reference person is under that age cut-off and there are/are not children. We see a sharp rise in the risk of being below the 50 per cent line from 1994 to 1997 and again from there to 1998 for households where the reference person is aged 65 or over, with over 42 per cent below that line by 1998. The poverty risk for the other two groups is much more stable, and by 1998 is about half the risk for the elderly. Tables 4.14 and 4.15 show the corresponding results with the 40 per cent and 60 per cent relative lines respectively. These show rather different patterns. With the 40 per cent line there is an increase in poverty risk for all three groups from 1997 to 1998. With the 60 per cent line, there is once again little change in the pattern of risk from 1997 to 1998.

Table 4.13: *Risk of Household Falling Below 50% Relative Income Poverty Line by Presence of Children and Age of Household Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Aged < 65 No Children	16.2	15.5	17.3
Aged <65 with Children	25.6	22.4	20.5
Aged 65+	11.8	34.8	41.9
All	18.7	22.4	24.6

Table 4.14: *Risk of Household Falling Below 40% Relative Income Poverty Line by Presence of Children and Age of Household Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Aged < 65 No Children	3.7	5.6	10.4
Aged <65 with Children	7.0	9.6	13.4
Aged 65+	3.6	2.9	6.9
All	4.9	6.3	10.5

Table 4.15: *Risk of Household Falling Below 60% Relative Income Poverty Line by Presence of Children and Age of Household Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Aged < 65 No Children	23.8	24.5	23.4
Aged <65 with Children	36.3	30.7	28.7
Aged 65+	47.0	57.1	56.0
All	34.3	34.3	33.4

4.3 Persons Falling Below Median-Based Relative Income Poverty Lines

So far we have looked in this chapter at the risk and incidence of relative income poverty for households, using lines derived as proportions of mean equivalised income. However, as discussed in detail in Chapter 3, an alternative procedure for deriving such relative lines is to take proportions of the median, the income level which splits the distribution in two. A further choice we discussed there was whether one focuses on households or on persons – having attributed the equivalised income of the household to each person in it. To provide a comprehensive picture of the pattern of risk and incidence, we now look at persons falling below median-based relative income lines. The median-based lines with the proportions chosen – 50 per cent, 60 per cent and 70 per cent - turn out to be at similar levels in 1997 and 1998 to the lower proportions of the mean conventionally used – namely 40 per cent, 50 per cent and 60 per cent respectively. Thus the main difference between the pattern described in the previous section and the one to which we now turn arises from the shift in focus from households to persons.

Household Composition

Table 4.16 shows the risk of falling below 60 per cent of median equivalised income, categorising persons by the size and composition of the household in which they live. The pattern is very similar to the risk for households of falling below half average income, shown in Table 4.1.

When we come to the composition of those falling below 60 per cent of the median, however, we see from Table 4.17 that the focus on persons rather than households does now make a difference. Compared with Table 4.2, the 1-adult household type is now much less important and the “others with children” type much

more important. We now see that only 31 per cent of persons below 60 per cent of the median are in households comprising one or two adult, whereas Table 4.2 showed that these household types accounted for 61 per cent of all households below half the mean.

Table 4.16: *Percentage of Persons Below 60% Median Income Poverty Line by Household Composition Type, Living in Ireland Surveys, 1994, 1997 and 1998*

	1994	1997	1998
1 adult	7.3	35.7	50.4
2 adults	7.2	11.1	16.3
3 or more adults	7.8	11.2	12.0
2 adults, 1 child	12.9	15.7	13.1
2 adults, 2 children	10.1	12.4	13.1
2 adults, 3 children	20.8	24.1	9.8
2 adults, 4 or more children	33.9	41.1	25.0
Others with children	24.0	23.4	28.3
All	15.5	18.2	20.3

This arises simply because these households have only one or two persons living in them, whereas the average size of “others with children” is much larger. So the focus on persons provides a valuable complement to the comparison of the situation of different household types. In terms of trends over time, though, we see a rather similar picture, with an increase over time in the importance of the household types without children.

Table 4.17: *Breakdown of Persons Below 60% Median Income Poverty Line by Household Composition Type, Living in Ireland Surveys, 1994, 1997 and 1998*

	1994	1997	1998
1 adult	3.3	14.6	18.3
2 adults	5.9	9.1	12.2
3 or more adults	11.0	16.1	16.9
2 adults, 1 child	4.1	5.4	3.7
2 adults, 2 children	6.1	6.8	6.1
2 adults, 3 children	10.3	9.2	3.0
2 adults, 4 or more children	9.8	5.9	3.7
Others with children	49.5	33.0	36.1
All	100	100	100

Tables 4.18 and 4.19 show the pattern of risk and then incidence in terms of persons falling below 50 per cent of the median. A comparison with the pattern for households below 40 per cent of the mean in Tables 4.3 and 4.4 brings out very much

the same contrast: the risk pattern is very similar, but the concentration in small households without children is very much less. Thus, whereas we saw in Table 4.4 that almost half the households below 40 per cent of the mean were 1 or 2 adults only, we see from Table 4.19 that only 23 per cent of the persons below 50 per cent of the median live in such households.

Table 4.18: *Percentage of Persons Below 50% Median Income Poverty Line by Household Composition Type, Living in Ireland Surveys, 1994, 1997 and 1998*

	1994	1997	1998
1 adult	1.7	3.6	21.1
2 adults	3.2	5.5	6.1
3 or more adults	4.8	5.8	4.3
2 adults, 1 child	2.2	3.0	12.8
2 adults, 2 children	0.9	6.1	8.9
2 adults, 3 children	3.7	21.1	7.4
2 adults, 4 or more children	6.0	33.7	16.4
Others with children	11.5	11.1	16.7
All	6.0	8.6	10.4

Table 4.19: *Breakdown of Persons Below 50% Median Income Poverty Line by Household Composition Type, Living in Ireland Surveys, 1994, 1997 and 1998*

	1994	1997	1998
1 adult	2.0	3.2	14.7
2 adults	6.8	9.5	8.6
3 or more adults	17.4	17.5	11.7
2 adults, 1 child	1.8	2.2	6.9
2 adults, 2 children	1.5	7.0	7.9
2 adults, 3 children	4.7	17.1	4.3
2 adults, 4 or more children	4.4	10.2	4.7
Others with children	61.3	33.3	40.9
All	100	100	100

Tables 4.20 and 4.21 show the pattern of risk and incidence for persons when the poverty line is derived as 70 per cent of the median. The risk pattern is again similar to that for households with 60 per cent of the mean, shown in Table 4.5. Once again, though, the focus on persons means that the larger household types – 3 or more adults without children, and “others with children” – are a good deal more important in Table 4. 21 than they were when the focus was on households in Table 4.6.

Table 4.20: *Percentage of Persons Below 70% Median Income Poverty Line by Household Composition Type, Living in Ireland Surveys, 1994, 1997 and 1998*

	1994	1997	1998
1 adult	40.0	49.5	54.8
2 adults	13.7	29.3	26.9
3 or more adults	14.1	19.3	19.3
2 adults, 1 child	20.2	20.3	16.5
2 adults, 2 children	14.9	14.7	17.0
2 adults, 3 children	27.5	30.4	14.4
2 adults, 4 or more children	43.5	45.9	42.9
Others with children	39.1	38.1	36.2
All	26.6	29.0	27.4

Table 4.21: *Breakdown of Persons Below 70% Median Income Poverty Line by Household Composition Type, Living in Ireland Surveys, 1994, 1997 and 1998*

	1994	1997	1998
1 adult	10.6	12.8	14.6
2 adults	6.5	15.1	14.7
3 or more adults	11.6	17.5	19.9
2 adults, 1 child	3.7	4.4	3.4
2 adults, 2 children	5.2	5.0	5.7
2 adults, 3 children	7.9	7.3	3.2
2 adults, 4 or more children	7.3	4.1	4.7
Others with children	47.1	33.8	33.8
All	100	100	100

Labour Force Status

Still focusing on persons below median-based relative income lines, we now look at risk and incidence when they are categorised by the labour force status of the reference person for the household in which they live. Tables 4.22 and 4.23 show the pattern of risk and incidence when the poverty line is derived as 60 per cent of the median. Once again the variation in risk across these categories is generally similar to that seen for households with the half average income threshold, with those living in households where the reference person is unemployed, ill/disabled or in home duties facing a substantially higher risk than others.

Table 4.22: *Risk of Person Falling Below 60% Median Income Poverty Line by Labour Force Status of Household Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	3.1	4.7	2.8
Self-employed	16.2	14.8	17.2
Farmer	19.1	16.9	24.4
Unemployed	49.9	55.0	57.3
Ill/disabled	30.0	52.5	54.5
Retired	8.1	13.3	18.7
Home duties	19.4	31.7	44.5
All	15.5	18.0	19.6

Table 4.23 shows the types of household in which persons below this median-based line were living. While the differences are less pronounced than in the case of household composition, there are still some noteworthy changes compared with the profile of households below half the mean, seen in Table 4.8. Because there are differences across the categories in household size, we see that households where the reference person is retired or in home duties are now somewhat less important, and those where he or she is unemployed or in work are more important, than in Table 4.8.

Table 4.23: *Breakdown of Persons Below 60% Median Income Poverty Line by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	7.9	11.5	6.5
Self-employed	10.1	7.8	8.5
Farmer	10.0	8.0	10.4
Unemployed	42.0	29.6	22.7
Ill/disabled	6.3	10.4	9.0
Retired	6.3	9.1	12.5
Home duties	17.4	23.6	30.3
All	100	100	100

Tables 4.24 and 4.25 show the pattern of risk and incidence for persons when the poverty line is derived as 50 per cent of the median. Once again the variation in risk is similar to that seen for households with 40 per cent of the mean, but in terms of composition households where the reference person is unemployed become more important and those where he or she is retired become somewhat less important.

Table 4.24: *Risk of Person Falling Below 50% Median Income Poverty Line by Labour Force Status of Household Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	0.6	1.2	0.5
Self-employed	9.6	11.2	13.9
Farmer	11.5	6.2	6.3
Unemployed	18.2	38.0	40.6
Ill/disabled	10.6	27.5	43.6
Retired	3.8	2.3	6.0
Home duties	5.4	8.6	21.8
All	6.0	8.4	10.4

Table 4.25: *Breakdown of Persons Below 50% Median Income Poverty Line by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	3.8	6.4	2.1
Self-employed	15.5	13.0	13.0
Farmer	15.5	6.4	5.1
Unemployed	39.5	44.8	30.5
Ill/disabled	5.7	12.0	13.7
Retired	7.6	3.4	7.6
Home duties	12.5	14.1	28.1
All	100	100	100

Finally, Tables 4.26 and 4.27 show the pattern of risk and incidence for persons when the poverty line is derived as 70 per cent of the median. Once again the variation in risk is similar to that seen for households with 60 per cent of the mean. The composition results in Table 4.27 show however that households where the reference person is unemployed are more important and those where he or she is retired or in home duties less important than in the corresponding results for households below 60 per cent of the mean in Table 4. 12 above.

Table 4.26: *Risk of Person Falling Below 70% Median Income Poverty Line by Labour Force Status of Household Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	6.7	9.7	6.8
Self-employed	20.1	21.7	23.4
Farmer	28.1	25.1	33.1
Unemployed	69.1	68.8	66.7
Ill/disabled	61.3	67.0	65.2
Retired	17.1	31.5	30.1
Home duties	47.1	55.6	57.6
All	26.6	28.7	27.0

Table 4.27: *Breakdown of Persons Below 70% Median Income Poverty Line by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	10.0	14.8	11.2
Self-employed	7.3	7.1	8.4
Farmer	8.6	7.4	10.2
Unemployed	34.0	23.1	19.2
Ill/disabled	7.5	8.3	7.8
Retired	7.7	13.5	14.6
Home duties	24.7	25.8	28.5
All	100	100	100

4.4 Conclusions

This chapter has analysed the types of household falling below relative income poverty lines in 1998, and how this changed compared with 1997 and 1994. Focusing first on household composition, the most notable change was the continuing rapid increase in the risk of being below half average income for single person households. On the other hand that risk fell for most households with children. The result was that whereas households containing children accounted for more than half all those below the 50 per cent relative income line in 1994, by 1998 this had fallen to only 28 per cent. The risk of being below half average income for the elderly increased, as it had between 1994 and 1997. When one focuses on persons rather than households, however, households comprising one or two adults are smaller in size than other household types and so they account for a smaller proportion of persons than of households below such (mean or median-based) income lines.

Turning to labour force participation, the risk of relative income poverty remained very high for households where the reference person was unemployed but the numbers in that situation continued to decline between 1997 and 1998. For households where the reference person was ill or disabled or “in home duties”, the risk of being below half average income rose from 1997 to 1998 to even higher levels than for the unemployed. Households headed by a retired person also saw an increase but from a much lower base. For households headed by an employee the risk of being below this threshold remained very low, at about 2 per cent. By 1998, fully 39 per cent of the households below half average income threshold had a reference person working full-time in the home. Only 15 per cent had an unemployed reference person, down from twice that figure in 1994, while the percentage with a retired reference person had doubled over the same period to 21 per cent.

With the 40 per cent relative line there was a sharp increase in risk between 1997 and 1998 for households where the reference person was unemployed, ill/disabled, retired or in home duties, as this lower relative income threshold caught up with the safety-net levels of income support offered by the social welfare system. The pattern of risk and incidence with the 60 per cent relative income line was much more stable. Once again, however, households where the reference person is unemployed are relatively large and those where he or she is retired or in home duties relatively small, and so they account for a smaller proportion of persons than of households below such (mean or median-based) income lines.

Chapter 5

Poverty Measures Incorporating Non-Monetary Deprivation indicators

5.1 Introduction

There has been general agreement in recent years that poverty should be conceptualized in terms of exclusion from the life of a society because of a lack of resources, and thus the experience of what that particular society would regard as serious deprivation (Townsend 1979). A definition of poverty in very much these terms has been enshrined in the Irish National Anti Poverty Strategy (NAPS 1997). It is common practice in many studies to measure such exclusion indirectly via the income of the household. However, as we have argued in previous work income on its own has limitations for this purpose, and - particularly in a situation of very rapid growth in average incomes - purely relative income lines miss an important part of the picture and give a misleading impression when taken alone.

Direct measures of deprivation can provide a valuable and complementary source of information in measuring poverty and assessing poverty trends. A measure of poverty combining both low income and manifest deprivation was developed initially using the 1987 ESRI survey results. Callan, Nolan and Whelan (1993) and Nolan and Whelan (1996) used a range of deprivation indicators to produce different indices of deprivation, and those both below relative income poverty lines and experiencing what was termed basic deprivation were regarded as experiencing generalized deprivation due to lack of resources. The global poverty reduction target originally set out in the National Anti Poverty Strategy in 1997, and revised in 1999, is framed in terms of this measure of poverty.

The construction of these deprivation indices is described in the first section of this chapter. We then examine the changes in deprivation levels between the 1994 wave of the Living in Ireland Survey and those observed in 1997 and 1998. In the third section we discuss how these indicators can be combined with low income into the single measure that has been termed 'consistent poverty', and how overall scores and those for various sub-groups have changed between 1994 and 1998.

5.2 The Deprivation Items and Indices

The 1994, 1997 and 1998 Living in Ireland surveys obtained information on the 23 non-monetary indicators shown in Table 5.1. For all but four of these items, respondents were asked not only which items or activities they did not themselves have/avail of, but also which of these they would like to have but had to do without because of lack of money. We then take deprivation to be “enforced” when respondents attribute doing without to being unable to afford the item or activity in question. (In all three years these questions were on the household rather than individual questionnaire and thus responses were from the person completing that questionnaire). For the last four items in the table, it is presence rather than absence that constitutes deprivation.

Table 5.1: *Indicators of Style of Living and Deprivation in Living in Ireland Surveys*

New Not Second-hand Clothes*
A Meal with Meat, Fish or Chicken Every Second Day*
A Warm Waterproof Overcoat*
Two Pairs of Strong Shoes*
A Roast or its Equivalent Once a Week*
A Week's Annual Holiday Away From Home
To be able to Save Some of One's Income Regularly
A Daily Newspaper
Telephone
A Hobby or Leisure Activity
Central Heating
Presents For Family and Friends Once a Year
Car
Bath or Shower
Indoor Toilet
Washing Machine
Refrigerator
Colour Television
A Dry – Damp Free Dwelling
Had day in the last 2 weeks without a substantial meal*
Had to go without heating during the last year through lack of money*
Was not able to afford an afternoon or evening out in the previous 2 weeks
Experienced debt problems arising from ordinary living expenses or availed of charity*

* “Basic” deprivation items.

There are a number of different ways in which we could combine the items shown in Table 5.1 into overall measures of deprivation. We could for instance combine them into a single aggregate index running from 0 to 23, where 1 is added to the score for each item missing due to a lack of resources. However this takes no account of the nature of the items or the relationships among them. Different items may relate to rather different aspects or dimensions of deprivation, and simply adding them in a single index without taking that into account may not be the most appropriate procedure. To investigate whether there were indeed different dimensions of deprivation, Callan, Nolan and Whelan (1993) and Nolan and Whelan (1996) used factor analysis to systematically examine the manner in which items cluster into distinct groups, in order to identify dimensions of deprivation. Each factor or dimension comprises those items that are more highly correlated with each other than with the other items. This analysis identified three dimensions of deprivation:

1. basic life-style deprivation - consisting of basic items such as food and clothes;
2. secondary life-style deprivation - consisting of items such as a car, telephone and leisure activities;
3. housing deprivation - consisting of items related to housing quality and facilities.

This structuring of the dimension of deprivation remained unchanged between 1987 and 1994 (Callan *et al.* 1996), and again to 1997 (Callan *et al.* 1999, Chapter 5).

The separate indices for enforced lack of basic, housing and secondary deprivation are of substantive interest in themselves, but in seeking to identify those excluded due to a lack of resources, we have concentrated on the basic deprivation index. The items in the basic deprivation index (marked with an asterisk in Table 5.1) clearly represented socially perceived necessities in the 1987 survey: "things that every household should be able to have and that nobody should have to do without". They cluster together in 1987, 1994 and 1997, they were possessed by most people, and reflect rather basic aspects of current material deprivation. This all lends support to the notion that they are useful as indicators of the underlying generalised deprivation we are trying to measure. Most of the items in the secondary dimension, on the other hand, were not overwhelmingly regarded as necessities in 1997. The third dimension, the housing and related durables, appears to be a product of very specific factors, and so - while providing valuable information about one important aspect of

living standards - are not satisfactory as indicators of current generalised exclusion (Nolan and Whelan, 1996).

Table 5.2 now shows how households scored on the 8-item index of enforced basic deprivation in 1994, 1997 and 1998. Looking first at the mean basic deprivation score in the three years, there has been a steady decline in the level of deprivation from 0.58 in 1994 to 0.24 in 1998. Confirmation that there has been a steady decline comes from the full distribution of scores, which shows a very marked decline in basic deprivation throughout the range of scores. The percentage of households registering a score of one or more has fallen from 25 per cent to less than 13 per cent, while the percentage scoring two or more has fallen from 12 per cent to 6 per cent.

Table 5.2: *Distribution of Scores on 8 Item Basic Deprivation Index, 1994, 1997 and 1998 Living in Ireland Surveys*

Score	% of Households		
	1994	1997	1998
0	74.6	84.1	87.2
1	13.2	8.9	7.2
2+	12.2	7.0	5.5
All	100	100	100
Mean	0.58	0.30	0.24

Have these large falls in basic deprivation occurred across all social groups, or have some groups benefited more than others have? Table 5.3 shows the proportion experiencing the enforced absence of one or more items in the basic index by household composition. We see that deprivation has fallen irrespective of household composition between 1994 and 1998 with households, although some types of households have experienced larger falls, mostly those that had lower levels of deprivation in 1994. For instance, households of 3 or more adults or those with 2 adults and a child have experienced falls of over 60 per cent. On the other hand those households with more children have seen deprivation decrease by just under 40 per cent. Categorising households by age and presence of children in Table 5.4, we find once again that deprivation has decreased across the board, although it has decreased more among those households where the reference person is over 65.

Table 5.3: *Risk of Scoring 1 or More on Basic Deprivation Index by Household Criteria Composition Type, Living in Ireland Surveys, 1994, 1997 and 1998*

	1994	1997	1998
1 adult	23.4	15.4	13.4
2 adults	16.0	11.8	10.8
3 or more adults	21.6	12.4	8.2
2 adults, 1 child	24.8	10.1	8.7
2 adults, 2 children	18.2	12.0	8.6
2 adults, 3 children	30.7	24.8	18.8
2 adults, 4 or more children	40.5	34.4	24.7
Others with children	41.4	27.3	22.3
All	25.4	15.9	12.8

Table 5.4: *Risk of Scoring 1 or More on Basic Deprivation Index by Presence of Children and Age of Household Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Aged < 65 No Children	21.4	14.4	11.7
Aged <65 with Children	33.3	20.5	17.2
Aged 65+	19.7	11.5	8.7
All	25.6	15.8	12.7

Finally we examine in Table 5.5 the risk of basic deprivation by the economic status of the household reference person. Here we once again find falls among all groups between 1994 and 1998, although the decrease is not even across the period for some groups. Among the self-employed and farmers we find increasing deprivation between 1997 and 1998, although the increase is of a small magnitude. We now go on to bring out the implications of this decline for the poverty measure we have developed which takes both basic deprivation and low income into account.

Table 5.5: *Risk of Scoring 1 or More on Basic Deprivation Index by Labour Force Status of Head, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	16.1	11.2	7.9
Self-employed	11.2	5.8	6.5
Farmer	16.7	6.9	7.5
Unemployed	62.3	43.1	38.1
Ill/disabled	50.2	37.3	31.0
Retired	18.3	10.0	8.3
Home duties	37.8	23.7	19.1
All	25.5	15.6	12.4

5.3 The Combined Income and Deprivation Poverty Measure

We have seen that a coherent set of deprivation measures emerge from the 23 items outlined in Table 5.1, and that there have been significant reductions in the ‘basic’ index of deprivation which is the measure we have used to identify generalised deprivation. As in earlier work, this is now combined with the relative income poverty lines to construct a ‘consistent’ poverty measure in which households have both a limited income and are experiencing basic deprivation. The use of a range of income lines allows us to see the consequences of varying the income criterion for the numbers and types of households identified as poor, so we again employ relative income lines derived as 40th, 50th and 60th per cent of mean equivalised disposable income.

Table 5.6 shows the proportion of households deprived of one or more items on the basic index because of a lack of resources and falling under different relative income lines (using equivalence scale A). Callan *et al.* (1999) showed that there were substantial falls in this poverty measure between 1994 and 1997, from 15 per cent to under 10 per cent with the 60 per cent relative income line. We now see that there was a further fall to 8.2 per cent between 1997 and 1998. The measure also declined with the 50 per cent relative income line, although here the drop was less pronounced from 9 per cent in 1994 to 6.7 per cent in 1997 and 6.2 per cent in 1998. On the other hand, with the 40 per cent line the poverty measure rose slightly, from 2.4 per cent in 1994 to 3.1 per cent in 1997 and 3.5 per cent in 1998. This reflects the increase in numbers falling below that lowest relative income line already discussed in Chapters 3 and 4.

Table 5.6: *Percentage of Households Below Relative Income Thresholds and Experiencing Basic Deprivation in 1994, 1997 and 1998 Living in Ireland Surveys*

Relative Income Line (Eq. Scale A)	% of households below Line and Experiencing Enforced Basic Deprivation		
	1994	1997	1998
40% line	2.4	3.1	3.5
50% line	9.0	6.7	6.2
60% line	15.1	9.7	8.2

The non-monetary indicators included in the basic deprivation measure on which these results are based are identical in 1994, 1997 and 1998. Indeed, the same set was previously used in examining 1987. The notion that expectations and

perceptions of needs will change over time as general living standards rise is central to a relative conception of poverty. Against the background of the very rapid increases in average incomes and living standards that have taken place over the period, are these indicators still capturing what would now be regarded as generalised deprivation?

Our previous NAPS monitoring report (Callan *et al.* 1999) investigated in some depth the possibility that in such circumstances the basic deprivation measure itself needed to be adapted and expanded. It was shown that expectations in fact adjusted rapidly to the extent of possession of items, with five items in particular becoming available to a substantial majority of households between 1987 and 1997, and also coming to be perceived as necessities by comparable numbers - central heating, a telephone, a car, a colour TV and being able to buy “presents for friends and families once a year”. However, factor analysis showed a striking consistency over time in the relationships between deprivation indicators, with distinct basic, secondary and housing dimensions, suggesting that in the combined income and deprivation poverty measure we should restrict ourselves to the original basic deprivation items. We also looked at the households who would come to be included among the poor if the basic deprivation index was broadened to include those items. In terms of level of (self-assessed) economic strain, psychological distress and fatalism, they were found to be little different from the households who would still not be counted as poor. The households categorised as poor by the original basic deprivation and income poverty criteria, on the other hand, had distinctively high levels of economic strain, psychological distress and fatalism. This provided some reassurance that the original set of basic items was more successful in capturing generalised deprivation than an expanded set would be at that point.

This issue has particular salience for policy since the government chose to frame the NAPS global poverty target in terms of the combined income and basic deprivation measure. The original target was set when 1994 was the latest year for which data was available, and has been re-set in the light of the 1997 results. It is now to bring the percentage below the 60 per cent line and experiencing basic deprivation to below 5 per cent by 2004. We discuss in the concluding chapter the broader issue of whether this on its own is a satisfactory overall poverty reduction target in our current circumstances. More narrowly, though, the issue of when and how to adapt the set of items included in the measure to best capture what is regarded in the society as

basic deprivation is still a critical one for poverty measurement. While the in-depth investigation of this issue with 1997 data served to clarify the position and still has direct relevance, we will be pursuing it further on the basis of the 1998 data in the full study of which this report represents a first output.

5.4 Poverty Risk and Incidence

Having outlined overall trends in deprivation and in the combined income/deprivation poverty measures, we now look at the pattern of poverty risk and incidence with these measures and how that has been changing for different types of household. We concentrate on the categorisation by labour force status of the household reference person, and Table 5.7 shows the percentage in each category falling below the 60 per cent relative income line and experiencing basic deprivation. Declining poverty rates over the 1994-98 period are seen for all these groups. Households where the reference person is unemployed or ill/disabled are consistently at highest risk throughout the period, and in 1998 still face poverty rates of about 30 per cent with this measure.

Table 5.7: Risk of Household Falling Below Combined 60% Relative Income Line/Deprivation Criteria by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997 and 1998

Below 60% income line and experiencing basic deprivation	1994 %	1997 %	1998 %
Employee	2.3	2.6	1.4
Self-employed	4.7	3.4	2.5
Farmer	4.8	2.3	5.3
Unemployed	52.7	35.7	29.7
Ill/disabled	43.3	32.6	28.1
Retired	10.5	7.7	7.5
Home duties	29.4	17.2	15.3

In Table 5.8 we then look at the composition of the households meeting this combined poverty criterion. We see that the proportion with an unemployed reference person has fallen over the period, but only from about one-third in 1994 to about one-quarter by 1998. About one-third have their reference person engaged in home duties. The proportion where the reference person is retired has increased from 13 per cent to 17 per cent over the period.

Table 5.8: *Breakdown of Households Below Combined 60% Relative Income/Deprivation Criteria by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	5.5	11.8	7.4
Self-employed	2.6	2.9	2.6
Farmer	2.1	1.6	4.7
Unemployed	33.8	28.9	25.6
Ill/disabled	10.4	10.5	10.8
Retired	12.7	14.1	17.4
Home duties	32.9	30.3	31.5

It is also of interest to look at the pattern of risk when the two lower relative income lines are combined with basic deprivation. Table 5.9 looks at risk of being under the 50 per cent line and experiencing basic deprivation. It shows that there have been general decreases in the risk for most groups, but the retired are an exception with their risk increasing from 3.5 per cent in 1994 to 6 per cent in 1998. We saw earlier that levels of deprivation have been decreasing faster among the elderly than among younger age groups in the period between 1994 and 1998, but the increases in relative income poverty among the elderly at the 50 per cent line – seen in Chapter 4 – are dominating this combined poverty measure.

Table 5.9: *Risk of Household Falling Below Combined 50% Relative Income Line/Deprivation Criteria by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	0.9	1.5	0.5
Self-employed	3.6	2.0	2.5
Farmer	2.7	0.6	2.8
Unemployed	40.3	28.9	23.8
Ill/disabled	25.4	30.3	26.6
Retired	3.5	3.4	5.7
Home duties	16.4	11.6	10.6

In Table 5.10 we examine the risk of falling below the 40 per cent relative income line and experiencing basic deprivation. It is important to emphasise that the number of households under the 40 per cent line is relatively small (less than 100 in the 1994 sample) and thus these sub-categories could contain only a handful of households. Bearing this in mind, we can see that the overall increase in the risk of being under the 40 per cent line and experiencing basic deprivation hides differences

between those households. The risk for the unemployed increased sharply from 1994 to 1997, but decreased marginally by 1998. Among the ill/disabled on the other hand, the risk increased continuously between 1994 and 1998, going from 3 per cent in 1994 to over 24 per cent by 1998: this was the most pronounced change between 1997 and 1998.

Table 5.10: *Risk of Household Falling Below Combined 40% Relative Income Line/Deprivation Criteria by Labour Force Status of Reference Person, Living in Ireland Surveys 1994, 1997 and 1998*

	1994	1997	1998
Employee	0.2	0.6	0.1
Self-employed	2.3	1.5	2.4
Farmer	1.8	0.5	0.4
Unemployed	12.2	21.4	17.8
Ill/disabled	3.0	9.2	24.2
Retired	1.1	0.2	2.6
Home duties	3.0	2.4	4.4

5.4 Conclusions

We have seen in this chapter that the extent of basic deprivation, which fell markedly between 1994 and 1997, continued to fall between 1997 and 1998. As a result, the percentage of households falling below 60 per cent of average income and experiencing basic deprivation also fell from 1997 to 1998, by which date it was just above 8 per cent. The government chose to frame the NAPS global poverty target in terms of this combined income and basic deprivation measure, the target now being to bring the percentage below the 60 per cent line and experiencing basic deprivation to below 5 per cent by 2004.

The pattern of poverty risk and incidence with this measure was also examined, categorising households by the labour force status of their reference person. Declining poverty rates over the 1994-98 period were seen for all these categories, though there was little or no change between 1997 and 1998 in the risk for households where the reference person is ill/disabled or retired. Households where the reference person is unemployed or ill/disabled were consistently at highest risk throughout the period, and in 1998 still faced poverty rates of about 30 per cent with this measure. However the proportion of all poor households with an unemployed reference person fell over the period, from about one-third in 1994 to about one-

quarter by 1998, reflecting the decline in the numbers unemployed. About one-third of poor households on this measure had their reference person engaged in home duties, and for 18 per cent he or she was retired.

The non-monetary indicators included in the basic deprivation measure on which these results are based are identical in 1994, 1997 and 1998. Against the background of very rapid increases in average incomes and living standards, are these indicators still capturing what would now be regarded as generalised deprivation? Our previous NAPS monitoring report based on 1997 data showed that expectations in fact adjusted rapidly to the extent of possession of items, with items such as central heating, a telephone, a car, a colour TV and being able to buy “presents for friends and families once a year” coming to be perceived as necessities by a majority. However, there was a striking consistency over time in the relationships between deprivation indicators, with distinct basic, secondary and housing dimensions remaining. Further, the additional households who would be included among the poor if the basic deprivation index was broadened to include those items were found to be little different from non-poor in terms of level of (self-assessed) economic strain, psychological distress and fatalism. This provided some reassurance that the original set of basic items was more successful in capturing generalised deprivation than an expanded set would be at that point. The issue of when and how to expand the set of items included in the measure to best capture what is regarded in the society as basic deprivation is still a critical one, however, and we will be pursuing it further on the basis of the 1998 data in the full study of which this report represents a first output. We discuss in the next chapter the broader issue of whether this on its own is likely to be satisfactory as an overall poverty reduction target in our present circumstances.

Chapter 6

Conclusions and Implications

6.1 Introduction

In 1999, the ESRI carried out a study for the NAPS Inter-Departmental Policy Committee based on results from the 1997 round of the Living in Ireland household survey (Callan *et al.* 1999). The present report has provided an updated picture using results from the 1998 round of that survey to re-assess the overall extent of poverty and the profile of those in poverty. This forms part of a broader study that will in addition take advantage of the panel nature of the Living in Ireland Survey data to look at transitions into and out of poverty from one year to the next over the whole period from 1994 to 1998. In this concluding chapter we summarise the main findings and discuss their implications at this stage in the project, while also pointing to some issues to be pursued as the study is brought to completion.

6.2 The Data

The 1998 Living in Ireland survey, on which this study relies, is the fifth wave of a panel survey which re-visits the same sample each year, following up those first interviewed in 1994. Significant numbers have dropped out of the sample over time, as is generally the case with such longitudinal surveys. Despite improving response rates from year to year, there has been sizeable attrition between Waves 1 and 5. Of the original 14585 sample individuals, only 56 per cent completed Wave 5 (with another 863 individuals having joined the sample at some point in the intervening years). The evidence at this point does not suggest that households with specific characteristics related to poverty and deprivation have been selectively lost from the sample. Nonetheless, given the scale of the attrition which has occurred and the shrinking size of the sample from year to year, the results presented have to be seen in the light of the possibility that an unmeasured bias has been introduced.

For this reason steps have been taken to supplement the sample in the 2000 wave of interviewing, which is currently under way. With the support of the Department of Social, Community and Family Affairs, the Living in Ireland survey is not only seeking to follow and re-interview those in the 1999 survey, it is also

interviewing for the first time a randomly-selected supplementary sample sufficient to bring the achieved total of respondents back up to (slightly above) the level in the original 1994 survey. This will greatly assist in allowing a reliable picture of the situation in 2000 to be captured, which would have been highly problematic in the absence of such supplementation.

6.3 Relative Income Poverty Lines

We have emphasised in previous work the importance of acknowledging uncertainty about how best to measure poverty: no one method or set of results can provide all the answers. By applying a range of approaches, and variants of these approaches, a more rounded and comprehensive – if necessarily more complex – picture can be seen.

Relative income poverty lines offer one perspective on poverty, and within that broad approach the application of a range of relative income lines allows the sensitivity of the results to the precise location of the poverty line to be assessed. However, particularly in a situation of very rapid growth in average incomes, purely relative income lines miss an important part of the picture and give a misleading impression when taken alone. We therefore emphasise in this report, as in previous work, the need to complement them with other approaches.

The application of income poverty lines to the data from the 1998 Living in Ireland Survey showed that the percentage of persons or households below half average income was generally higher than in 1997. The proportion below a lower line, set at 40 per cent of mean income, also rose whereas with a line set at 60 per cent of mean income, a decline was generally seen. Relative income lines derived as proportions of the median rather than the mean showed a generally similar pattern. Distribution-sensitive summary poverty measures, taking into account not only numbers below the lines but how far their incomes are below the line, rose between 1997 and 1998 with all the relative income lines. There has however been a further sharp decline in the percentage of persons falling below a “real income” line, set at 60 per cent of average equivalent income in 1987 and up-rated in line only with increases in prices since that date.

Looking at the types of household falling below relative income poverty lines in 1998, the most notable change was the continuing rapid increase in the risk of being below half average income for single person households. On the other hand that

risk fell for most households with children. The result was that whereas households containing children accounted for more than half all those below the 50 per cent relative income line in 1994, by 1998 this had fallen to only 28 per cent. The risk of being below half average income for the elderly increased, as it had between 1994 and 1997. In terms of labour force participation, the risk of relative income poverty remained very high for households where the reference person was unemployed but the numbers in that situation continued to decline between 1997 and 1998. For households where the reference person was ill or disabled or “in home duties”, the risk of being below half average income rose from 1997 to 1998 to even higher levels than for the unemployed. Households headed by a retired person also saw an increase but from a much lower base. For households headed by an employee the risk of being below this threshold remained very low, at about 3 per cent. By 1997, fully 40 per cent of the households below half average income threshold had a reference person working full-time in the home. Only 30 per cent had an unemployed reference person, down from twice that figure in 1994, while the percentage with a retired reference person had doubled over the same period to 20 per cent.

6.4 Poverty Measures Incorporating Non-Monetary Deprivation

Indicators

Poverty is defined in the NAPS in terms of exclusion from the life of a society because of a lack of resources, and income on its own has limitations when used to capture this concept. This is particularly the case in trying to capture trends in poverty in a situation of very rapid growth in average incomes. Direct measures of deprivation provide a valuable and complementary source of information in measuring poverty and assessing poverty trends. A measure of poverty developed in previous ESRI research focuses on those both below relative income poverty lines and experiencing what was termed basic deprivation: these were taken to be experiencing generalized deprivation due to lack of resources. The global poverty reduction target originally set out in the National Anti Poverty Strategy in 1997, and revised in 1999, is framed in terms of this measure of poverty. Here we found that the extent of basic deprivation, which fell markedly between 1994 and 1997, continued to fall between 1997 and 1998. As a result, the percentage of households falling below 60 per cent of average income and experiencing basic deprivation also fell from 1997 to 1998, by which date

it was just above 8 per cent. The NAPS target is now to bring the percentage below the 60 per cent line and experiencing basic deprivation to below 5 per cent by 2004.

The pattern of poverty risk and incidence with this measure was also examined, categorising households by the labour force status of their reference person. Declining poverty rates over the 1994-98 period were seen for all these categories, though there was little or no change between 1997 and 1998 in the risk for households where the reference person is ill/disabled or retired. Households where the reference person is unemployed or ill/disabled were consistently at highest risk throughout the period, and in 1998 still faced poverty rates of about 30 per cent with this measure. However the proportion of all poor households with an unemployed reference person fell over the period, from about one-third in 1994 to about one-quarter by 1998, reflecting the decline in the numbers unemployed. About one-third of poor households on this measure had their reference person engaged in home duties, and in about one-fifth he or she was retired.

The non-monetary indicators included in the basic deprivation measure on which these results are based were identical in 1994, 1997 and 1998, while average incomes and living standards are rising rapidly. Based on 1997 data, Callan *et al.* (1999) showed that items such as central heating, a telephone, a car, a colour TV and being able to buy “presents for friends and families once a year” had by then come to be perceived as necessities by a majority of the sample. However, there was a striking consistency over time in the relationships between deprivation indicators, with distinct basic, secondary and housing dimensions remaining. Further, the additional households who would be included among the poor if the basic deprivation index was broadened to include those items were found to be little different from non-poor in terms of level of (self-assessed) economic strain, psychological distress and fatalism. This provided some reassurance that the original set of basic items was more successful in capturing generalised deprivation than an expanded set would be at that point.

The issue of when and how to expand the set of items included in the measure to best capture what is regarded in the society as basic deprivation is still a critical one. It is among the topics we will be pursuing on the basis of the 1998 data in the full study of which this report represents a first output. In concluding this report, though, we focus on the related but distinct issue of whether this poverty measure on its own

is likely to be satisfactory as an overall poverty reduction target – rather than measure - in our present circumstances.

6.5 Targeting Poverty

In formulating a medium-term poverty reduction target one faces issues that encompass but are broader than those involved in measuring poverty at a point in time. The government, by setting a target, acknowledges its responsibility for reducing the overall extent of poverty and sets out an overall standard against which success or failure of the national effort to combat poverty can be assessed. However, the way this is done needs to take into account the particular circumstances in which the strategy is operating, and the need to ensure that the strategy does in fact succeed in putting in place the structures required to eliminate poverty in the long term. In the present very unusual situation of very rapid economic growth, there is the danger that success, while real, could be transient.

As we have seen, the NAPS global poverty reduction target is currently framed in terms of the measure of poverty incorporating both low income and deprivation, described in detail in Chapter 5. The Strategy did not set out an explicit justification for this choice of poverty reduction target. Under the Programme for Prosperity and Fairness, both the global target and the sub-targets included in the NAPS are to be reviewed. Here we conclude by pointing to some relevant issues in considering the current target, and reiterate what we believe would be a more effective approach.

As we have seen in Chapter 5, the deprivation element of the combined income and deprivation poverty measure is intended to adapt over time as living patterns alter. An element of judgement is necessarily involved in making such adjustments, which may affect the precise level of the poverty measure at a particular point in time. While less serious in a measure aiming to capture broad directions and trends in poverty, this may be seen as a problem in a poverty target. It would also be undesirable in the latter context for changes in the key poverty number to be perceived as emerging from a “black box”, given the importance of public acceptance of and identification with the poverty target. The fact that basic deprivation is measured in terms of items with which people can readily identify – such as not being able to heat one’s house or have adequate clothing – we regard as a key argument for using deprivation indicators in the first place. In the same vein it is essential to ensure

maximum transparency in the process of adapting the items over time as that becomes necessary, which it undoubtedly will at some point.

The more serious difficulty with the combined income and deprivation measure as the sole poverty target is specific to Ireland's current situation. When average incomes are growing exceptionally rapidly, when those on low incomes share in that growth and see their real living standards rise significantly, but when they lag somewhat behind the mean, deprivation levels can be falling while relative income poverty is stable or even rising. Even augmenting the set of deprivation measures to take into account changing expectations may not then be enough to alter this picture, since expectations themselves probably lag behind such rapid income growth.

This is not simply a problem with the measure: the measure is indeed capturing an important aspect of what is actually happening, which a purely relative income poverty standard such as half-average income misses. However, over a lengthy period when living standards stabilise, societal expectations may indeed catch up and adjust fully to higher average incomes. Higher real incomes and lower deprivation levels, however welcome, would not then mean that everyone was able to participate fully in society: they would not represent a sustained reduction in poverty. The key challenge in setting and monitoring poverty targets is to capture the reality of rising living standards and falling deprivation, but also take into account the long-term consequences of lower incomes, and social security rates in particular, lagging behind the average.

We have suggested that what is required is a broadening in the scope of NAPS poverty targets (see Nolan 1999, 2000, Callan *et al.* 1999). As well as the combined income/deprivation measure, there could be distinct targets for the key elements underpinning it. Such a set of tiered and inter-related poverty reduction targets would be to ensure that:

A/ Priority is given to ensuring that those on low incomes see their real incomes rise, and their deprivation levels using a fixed set of indicators decline;

B/ Next, relative incomes and deprivation levels using a set of deprivation indicators which changes as far as possible in line with expectations should produce a decline in the combined income/deprivation measure;

C/ Finally, the proportion of the population falling below relative income poverty lines should be declining.

Each of these tiers can be regarded as encapsulating a necessary but not sufficient condition for a sustainable reduction in poverty:

A/ reflects the assumption that if real incomes of the poor are falling and their deprivation levels rising, then even if their relative positions were improving most people would see poverty as increasing.

B/ reflects the assumption that the combined effect of changes in relative incomes and deprivation should be to reduce the extent of what is regarded as exclusion at a point in time.

C/ reflects the assumption that in the long term, people will not be able to participate in what comes to be regarded as ordinary living standards if their incomes fall too far below the average: a sustained reduction in poverty can then be achieved only by bringing them closer to average incomes.

There is a real dilemma here, as highlighted in Callan *et al.* (1999). From an analytical point of view, and in order to inform both the policy-makers and the public as fully as possible, it makes sense to look at a range of information and avoid focusing attention on a single number. From a political perspective, however, a key element in the exercise is to have a national commitment to attaining a clearly-articulated target, with regular monitoring of performance crucial to the credibility of that commitment and of the government's anti-poverty strategy. This means that there has to be a very limited set of numbers, against which success or failure will be judged. There is every chance however that the current global poverty reduction target could be reached by 2004, but that in time poverty would be "rediscovered" as a more usual growth path emerges and societal expectations converge with higher living standards. The only way to avoid this is to frame targets in a way which focuses attention on the long-term structural measures required to ensure that no-one falls too far below what will in time come to be taken for granted as ordinary living standards.

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Appendix 1

Sample Weights for the 1998 Living in Ireland Survey

As noted in Chapter 2, 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 or to differential response rates. Whatever the source of the discrepancy between the sample and population distributions, one 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 or longitudinal 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 Waves 2 and subsequently, both of these methods were used. The details of the weighting process are summarised here. The same procedure was used in developing the weights for Waves 2, 3, 4 and 5, but in the discussion below we will focus on the Wave 5 (1998) weights. The household weights were developed in a number of steps, which are described in this appendix.

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 5 weights, for instance, the Wave 4 household weight was carried forward to the Wave 5 sample. The characteristics of all Wave 5 households (including the newly-generated households)⁸ were compared to those of all completed Wave 5 households.

⁸ 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

Since no information was available on the Wave 5 characteristics of non-completed households, the Wave 4 characteristics were used⁹) 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 household¹⁰ 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 4 (Dublin, other urban and rural), the poverty status and equivalised income decile in Wave 1, whether the household had moved since the previous wave, and whether the household was a split household in Wave 5.

In general, as we saw in Chapter 2, the distribution of the characteristics examined was very similar for the responding and non-responding Wave 5 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 4 household weights so that the distribution of each of the characteristics for the responding Wave 5 households was equal to the distribution of these characteristics for the total sample. The Gross program written by Johanna Gomulka was used for this purpose. This program 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 present case, the initial weight was the household weight from Wave 4 and the totals

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 5 – either because the household members died, moved to an institution or moved outside the EU.

⁹ In the case of newly generated households, the Wave 4 characteristics of the household the individual(s) moved from were used.

¹⁰ 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.

for all households (responding and non-responding, with the Wave 4 weight applied) were used as the control totals.

The next step was to apply external checks to the household weights using data from the fourth quarter of the 1998 Quarterly National Household Survey (QNHS) and other sources, such as the statistics published by the Department of Social, Community and Family Affairs (DSCFA) on social welfare reciprocity levels. At this stage we compared the current characteristics of the completed Wave 5 sample 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 1998 QNHS 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 5 household weights, and further adjustments were made according to the marginal distributions on each of these variables.

The next stage in constructing the Wave 5 household weights was to adjust the weights from the previous stage to control for characteristics of individuals obtained from a special tabulation of the 1998 QNHS and from the DSCFA published report on Social Welfare Statistics for 1998. 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 QNHS and the DSCFA 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 5 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 2-5 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.